CRYSTAL STRUCTURE OF PHOSPHODIESTERASE 5 AND USE THEREOF

Technical field

The present invention relates to the crystal structures of a phosphodiesterase 5 (PDE5) and PDE5/PDE5 ligand complex and their uses in identifying PDE5 ligands, including PDE5 inhibitor compounds. The present invention also relates to methods of identifying such PDE5 inhibitor compounds and their medical use. Also contemplated by the present invention are crystals of PDE5/PDE5 inhibitor complexes.

Background of the invention

A wide variety of biological processes, including cardiac muscle contraction, regulation of blood flow, neural transmission, glandular secretion, cell differentiation and gene expression are affected by steady state levels of the cyclic nucleotide biological second messengers cAMP and cGMP. Intracellular receptors for these molecules include cyclic nucleotide dependent protein kinases (PGK) (Lohmann *et al.* 1997), cyclic nucleotide-gated channels, and class I phosphodiesterases (PDEs) (Charbonneau 1990). PDEs are a large family of proteins, which were first reported by Sutherland and co-workers (Rall & Sutherland 1958, Butcher & Sutherland 1962). The family of cyclic nucleotide phosphodiesterases catalyse the hydrolysis of 3', 5'-cyclic nucleotides to the corresponding 5' monophosphates. Current literature shows that there are eleven related, but biochemically distinct, human phosphodiesterase gene groups and that many of these groups include more than one gene subtype giving a total of twenty genes. Some PDEs are highly specific for hydrolysis of cAMP (PDE4, PDE7, PDE8), some are highly cGMP specific (PDE5, PDE6, PDE9), and some have mixed specificity (PDE1, PDE2, PDE3, PDE10, PDE11).

All PDEs are multi-domain proteins; each PDE has a ~270 amino acid domain located towards the C-terminus, which has a high degree of amino acid sequence conservation between families (Charbonneau 1986). This domain has been extensively studied and shown to be responsible for the common catalytic function (Francis, S. H. *et al.* 1994).

Non-homologous segments in the remainder of the protein have regulatory function or confer specific binding properties. PDE2, PDE5, PDE6 and PDE10 are all reported to contain putative GAF domains within their regulatory amino terminal portion (Aravind & Ponting 1997 and Soderling & Beavo 2000). These GAF domains have been shown to bind cGMP but their function is not yet fully understood. Full length mammalian PDEs characterised to date are dimeric in solution, but the relevance of the dimeric structure is unknown. The structure of the regulatory segment of PDE2A bound to cGMP has recently been solved and reveals a parallel dimer of four GAF domains, with cGMP binding to only one of the two GAF domains on each monomer (Martinez, *et al.* 2001).

PDE5, a cGMP specific PDE, has been recognised in recent years as an important therapeutic target. It is composed of the conserved C-terminal, zinc containing, catalytic domain, which catalyses the cleavage of cGMP, and an N-terminal regulatory portion, which contains two GAF domain repeats. Each GAF domain contains a cGMP-binding site, one of high affinity and the other of lower affinity. PDE5 activity is regulated through binding of cGMP to the high and low affinity cGMP binding sites followed by phosphorylation, which occurs only when both sites are occupied (Thomas *et al.* 1990). PDE5 is found in varying concentrations in a number of tissues including platelets, vascular and visceral smooth muscle, and skeletal muscle. The protein is a key regulator of cGMP levels in the smooth muscle of the erectile corpus cavernosal tissue. The physiological mechanism of erection involves release of nitric oxide (NO) in the corpus cavernosum during sexual stimulation. NO then activates the enzyme guanylate cyclase, which results in increased levels of cGMP, producing smooth muscle relaxation in the corpus cavernosum and allowing in flow of blood. Inhibition of PDE5 inhibits the breakdown of cGMP allowing the levels of cGMP, and hence smooth muscle relaxation, to be maintained (Corbin & Francis 1999). Sildenafil (UK-092,480), the active ingredient of Viagra® and a potent inhibitor of PDE5, has attracted widespread attention for the effective treatment of male erectile dysfunction.

Structural information has recently been shown for the catalytic domain of PDE4b a cAMP-specific PDE (Xu *et al.* 2000). This structure provides information about the overall fold of the catalytic domains of the PDE family, but, to date, no structural

information is known about the way in which potential inhibitors bind to the enzyme.

The X-ray structure of a recombinant construct of PDE5 comprising the catalytic domain in complex with Sildenafil has been determined. An engineered form of this construct, which shows improved qualities for the production of crystals of PDE5/inhibitor complexes, has also been produced. This protein has also been used to solve its structure bound to Sildenafil. These complexes not only provide important structural information on this novel family of proteins but will also assist the design of more potent and specific inhibitors to treat the many diseases where PDEs play a role.

Summary of the invention

It has been found that PDE5 can be crystallised. It has also been found that manipulating the wild-type PDE5 amino acid sequence can facilitate the crystallisation of PDE5. Specifically, it has been found that manipulations of certain portions of the PDE5 amino acid sequence can facilitate the crystallisation of PDE5.

It has been shown that manipulations of the catalytic domain of PDE5, specifically the 657-682 region of PDE5 (the "loop region"), can facilitate the crystallisation of PDE5. More specifically, manipulations of the loop region amino acid sequence (HRGVNNSYIQRSEHPLAQLYCHSIME = SEQ ID NO: 1) of PDE5 can facilitate the crystallisation of PDE5. This manipulation can be achieved by deletion, addition or substitution of one or more amino acid residues of the PDE5 loop region or it can be achieved by complete replacement of the PDE5 loop region with a loop region (or other equivalent amino acid sequence, e.g. sub-domain) from another protein, preferably another PDE, more preferably PDE4, most preferably PDE4b.

Crystals of PDE5 have been found to be useful for screening for PDE5 ligands, especially PDE5 inhibitors (e.g. by co-crystallising PDE5 with the PDE5 ligand (e.g. PDE5 inhibitor) or by soaking the PDE5 ligand (e.g. PDE5 inhibitor) into the crystal of PDE5).

PDE5 ligands, especially PDE5 inhibitors, as identified by the methods of the present

invention are useful in curative, palliative or prophylactic treatments.

Thus, the present invention provides the following (numbered) aspects:

1. A crystal of phosphodiesterase 5 (PDE5).

2. The crystal of PDE5 according to aspect 1, wherein said PDE5 is from a mammal.

3. The crystal of PDE5 according to aspect 1 or aspect 2, wherein said PDE5 is from a human.

4. The crystal of PDE5 according to any one of aspects 1 to 3, wherein said PDE5 is an isoform selected from the group consisting of PDE5A1, PDE5A2, PDE5A3 and PDE5A4.

5. The crystal of PDE5 according to aspect 3 or aspect 4, wherein said PDE5 comprises SEQ ID NO: 1 or a homologue, fragment, variant, analogue or derivative thereof.

SEQ ID NO: 1 is the so-called "loop region" of PDE5. This loop region or a homologue, fragment, variant, analogue or derivative thereof includes additions, deletions or substitutions of amino acid residues comprised within the loop region.

Preferably, a variant in relation to the amino acid sequence of the crystal of the PDE5 of the present invention includes the deletion or substitution of the histidine (His/H) residue as shown emboldened and underlined in SEQ ID NO: 1 (HRGVNNSYIQRSEHPLAQLYC**H**SIME). This histidine co-ordinates a zinc atom in wild-type PDE5. Replacement of said histidine (H) residue is preferably by way of incorporating one or more amino acid residues (other than histidine), preferably wherein said amino acid residues are neutral or non-polar.

More preferably, a variant in relation to the amino acid sequence of the crystal of the PDE5 of the present invention includes the complete replacement of the loop region with

a loop region (or other amino acid sequence e.g. an equivalent sub-domain) from another protein, preferably a PDE, more preferably PDE4, most preferably PDE4b (see hereinafter).

Alternatively, a variant in relation to the amino acid sequence of the crystal of the PDE5 of the present invention includes the deletion or substitution of the amino acid residues PLAQ (proline, leucine, alanine and glutamine) as emboldened and underlined in SEQ ID NO: 1 (HRGVNNSYIQRSEH**PLAQ**LYCHSIME). The amino acid sequence PLAQ represents a proteolytic cleavage site of PDE5. By manipulating this site, e.g. by deleting and/or substituting one or more of the amino acid residues, undesired proteolytic cleavage of PDE5 can be lessened or prevented. Preferably, such substitution of amino acid residues utilises amino acids of similar charge to those substituted.

Manipulations of the "loop region" of PDE5 can be carried out in accordance with the present invention to stabilise the region. Similar manipulations may be carried out in PDE5-related proteins, other PDEs and PDE-related proteins in order to stablise such proteins.

The present invention further provides the following (numbered) aspects:

6. The crystal of PDE5 according to any one of aspects 3 to 5, wherein said PDE5 comprises SEQ ID NO: 2 or a homologue, fragment, variant, analogue or derivative thereof. Preferably, said PDE5 consists of SEQ ID NO: 2 or a homologue, fragment, variant, analogue or derivative thereof.

7. The crystal of PDE5 according to any one of aspects 3 to 6, wherein said PDE5 comprises SEQ ID NO: 3 or a homologue, fragment, variant, analogue or derivative thereof. Preferably, said PDE5 consists of SEQ ID NO: 3 or a homologue, fragment, variant, analogue or derivative thereof.

8. The crystal of PDE5 according to aspect 3 or aspect 4, wherein said PDE5 comprises SEQ ID NO: 4 or a homologue, fragment, variant, analogue or

derivative thereof.

SEQ ID NO: 4 is the so-called "loop region" (or sub-domain) of PDE4 (PDE4b). This loop region or a homologue, fragment, variant, analogue or derivative thereof includes additions, deletions or substitutions of amino acid residues comprised within the loop region.

9. The crystal of PDE5 according to any one of aspects 3, 4 or 8, wherein said PDE5 comprises SEQ ID NO: 5 or a homologue, fragment, variant, analogue or derivative thereof. Preferably, said PDE5 consists of SEQ ID NO: 5 or a homologue, fragment, variant, analogue or derivative thereof.

10. The crystal of PDE5 according to any one of aspects 3, 4, 8 or 9, wherein said PDE5 comprises SEQ ID NO: 6 or a homologue, fragment, variant, analogue or derivative thereof. Preferably, said PDE5 consists of SEQ ID NO: 6 or a homologue, fragment, variant, analogue or derivative thereof.

11. A crystal of a PDE5/PDE5 ligand complex.

12. The crystal of a PDE5/PDE5 ligand complex according to aspect 11, wherein said PDE5 ligand is a PDE5 inhibitor.

13. The crystal of a PDE5/PDE5 ligand complex according to aspect 12, wherein said PDE5 inhibitor is Sildenafil.

14. The crystal of a PDE5/PDE5 ligand complex according to any one of aspects 11 to 13, wherein said PDE5 is as defined in any one of aspects 1 to 10.

15. The crystal of a PDE5/PDE5 ligand complex according to any one of aspects 11 to 13, wherein said PDE5 is as defined in any one of aspects 5 to 7.

16. The crystal of a PDE5/PDE5 ligand complex according to any one of aspects 11 to 13, wherein said PDE5 is as defined in any one of aspects 8 to 10.

17. The crystal of PDE5 according to any one of aspects 1 to 10 or the crystal of the PDE5/PDE5 ligand complex according to any one of aspects 11 to 16, which is grown in a solution containing buffer and/or precipitant.

18. The crystal of PDE5 according to any one of aspects 5 to 7, which is grown in a solution containing buffer and/or phosphate.

19. The crystal of PDE5 according to aspect 18, wherein said phosphate buffer is sodium/potassium phosphate, sodium phosphate or ammonium phosphate. Preferably, said phosphate buffer is 1.8-2.3M sodium phosphate at pH 3.4-5.0, with or without 0.1M Hepes pH 7.0-8.0, or 1.8-2.3M sodium/potassium phosphate at pH 3.4-5.0, with or without 0.1M Hepes pH 7.0-8.0.

20. The crystal of PDE5 according to any one of aspects 8 to 10 or the crystal of the PDE5/PDE5 ligand complex according to any one of aspects 11 to 16, which is grown in a solution containing:

(i) Tris or MES buffer, ammonium phosphate and/or PEG2KMME. Preferably, said Tris or MES buffer is at pH 6.0-8.4. More preferably, said solution contains 0.1 M Tris, pH 8.0, 50 mM ammonium phosphate, pH 7.0; 16-26% w/v PEG2KMME. Alternatively, said solution contains 0.1 M MES pH 6.0-6.5, 50 mM ammonium phosphate, pH 7.5; 22-34% w/v PEG2KMME; or

(ii) 0.16M Sodium Acetate, 80mM Tris hydrochloride pH 8.5, 24% w/v Polyethylene Glycol 8000 (or PEG8KMME).

21. The crystal of PDE5 according to any one of aspects 8 to 10 or the crystal of a PDE5/PDE5 ligand complex according to aspect 16, which is grown in a solution containing:

(i) Tris buffer, sodium acetate and/or PEG4K. Preferably, said Tris buffer is at pH 6.5-8.6. Alternatively, said Tris buffer is at pH 8.2-8.6. More

preferably, said solution contains 0.1M Tris pH 8.2-8.6, 0.2M sodium acetate and 26-30% w/v PEG4K; or

(ii) 0.16M Sodium Acetate, 80mM Tris hydrochloride pH 8.5, 24% w/v Polyethylene Glycol 8000 (or PEG8KMME).

22. The crystal of PDE5 as defined in any one of the aspects 5 to 7, which has one or more of the following characteristics:

(a) a space group $P6_2$;

(b) unit cell dimensions a ~95 Å ±1%, b ~95 Å ±1%, c ~82 Å ±1%, $\alpha=\beta=90°$, $\gamma=120°$;

(c) 1 molecule per asymmetric unit;

(d) comprises a PDE5 of a molecular weight of approximately 40 kDa ± 2 kDa;

(e) a calculated solvent content of approximately 43 ± 5%; and

(f) a hexagonal crystal system.

23. The crystal of the PDE5/PDE5 ligand complex according to aspect 15, which has one or more of the following characteristics:

(a) a space group $P2_12_12_1$;

(b) unit cell dimensions a ~94 Å ±1%, b ~104 Å ±1%, c ~142 Å ±1%, $\alpha= \beta = \gamma =$ 90°;

(c) 4 molecules per asymmetric unit;

(d) comprises a PDE5 of a molecular weight of approximately 40 kDa ± 2 kDa;

(e) a calculated solvent content of approximately 43 ± 5%; and

(f) an orthorhombic crystal system.

24. The crystal of PDE5 as defined in any one of aspects 8 to 10 or the crystal of the PDE5/PDE5 ligand complex according to aspect 16, which has one or more of the following characteristics:

(a) a space group $P2_1$;

(b) unit cell dimensions a ~55 Å ±1%, b ~78 Å ±1%, c ~82 Å ±1%, $\alpha= \gamma =90$, β ~101° ±2°;

(c) 2 molecules per asymmetric unit;

(d) comprises a PDE5 of a molecular weight of approximately 38 kDa ± 2 kDa;

(e) a calculated solvent content of approximately 46 ± 5%; and

(f) a monoclinic crystal system.

25. The crystal of PDE5 according to any one of aspects 5 to 7, wherein said PDE5 has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 3** or a derivative set as expressed in any reference frame.

26. The crystal of the PDE5/PDE5 ligand complex according to aspect 15, wherein said PDE5/PDE5 ligand complex has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 4** or a derivative set as expressed in any reference frame.

27. The crystal of PDE5 according to any one of aspects 8 to 10, wherein said PDE5 has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 5** or a derivative set as expressed in any reference frame.

28. The crystal of the PDE5/PDE5 ligand complex according to aspect 16, wherein said PDE5/PDE5 ligand complex has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 6** or a derivative set as expressed in any reference frame.

29. Use of the atomic co-ordinates determined from the crystal of PDE5 according to aspect 25 or the crystal of the PDE5/PDE5 ligand complex according to aspect 26 for deriving a three-dimensional structure of (i) a full-length wild-type PDE5 or a mutant, derivative, fragment, variant, analogue or homologue thereof or (ii) a wild-type PDE5 sub-domain or a mutant, derivative, fragment, variant, analogue or homologue thereof.

30. Use according to aspect 29, wherein said PDE5 sub-domain is the catalytic domain.

31. Use of the atomic co-ordinates determined from the crystal of PDE5 according to

aspect 27 or the crystal of the PDE5/PDE5 ligand complex according to aspect 28 for deriving a three-dimensional structure of (i) a full-length wild-type PDE5 or a mutant, derivative, fragment, variant, analogue or homologue thereof or (ii) a wild-type PDE5 sub-domain or a mutant, derivative, fragment, variant, analogue or homologue thereof.

32. Use according to aspect 31, wherein the PDE5 sub-domain is the catalytic domain.

33. Use of the three-dimensional structure of (i) a full-length wild-type PDE5 or a mutant, derivative, fragment, variant, analogue or homologue thereof or (ii) a wild-type PDE5 sub-domain or a mutant, derivative, fragment, variant, analogue or homologue thereof, as derivable according to any one of aspects 29, 30, 31or 32 to computationally or otherwise evaluate the binding interactions of a PDE5 ligand with an active site on PDE5.

34. Use according to aspect 33, wherein said PDE5 ligand is a PDE5 inhibitor.

35. Use according to aspect 34, wherein said PDE5 inhibitor is Sildenafil.

36. Use according to any one of aspects 33 to 35, wherein said active site on PDE5 is within the third sub-domain of the protein and is bounded by Helices 15 (H15 813-824) and 14 (H14 772-797), the C-terminus of Helix 13 (H13 749-765), and the C-terminus of Helix 11 (H11 706-721) along with the loop region between Helices 11 and 12a (H12a 725-731) as shown in Figure 2.

37. Use according to any one of aspects 33 to 36, wherein said active site on PDE5 comprises Leu 765, Ala 767 and Ile 768 and one or more of Phe 820, Val 782, Phe 786, Tyr 612, Leu 804, Ala 779, Ala 783, Ile 813, Met 816 and Gln 817.

38. Use according to any one of aspects 33 to 37 to design a compound capable of associating with PDE5.

39. Use according to any one of aspects 33 to 38 to design a compound capable of

associating with any active site of PDE5.

40. Use according to aspect 38 or aspect 39, wherein said compound is a PDE5 ligand.

41. Use according to aspect 40, wherein said PDE5 ligand is a PDE5 inhibitor.

42. A method of identifying a compound capable of associating with PDE5, comprising co-crystallising or soaking said compound with the crystal of PDE5 according to any one of aspects 1 to 10 and determining the three-dimensional structure to ascertain whether said compound is bound to PDE5. With respect to "soaking", it should be noted that the compound can be added to the crystal, and thus the compound is soaked into the crystal. Alternatively, the crystal can be added to the compound (e.g. in solution), and again the compound is soaked into the crystal.

43. A method of identifying a compound capable of associating with any active site of PDE5, comprising co-crystallising or soaking said compound with the crystal of PDE5 according to any one of aspects 1 to 10 and determining the three-dimensional structure to ascertain whether said compound is bound to an active site of PDE5.

44. A compound designed by the use according to any one of aspects 33 to 41 or identified by the method of aspect 42 or aspect 43.

45. The compound according to aspect 44, which is a PDE5 inhibitor.

46. A method of selecting a PDE5 ligand from a group of potential PDE5 ligands, comprising the following steps:

(a) computationally creating a three-dimensional representation of the structure of PDE5 as derived from the atomic co-ordinates as defined in any one of aspects 29, 30, 31 or 32, and a three-dimensional representation of the structure of the potential PDE5 ligand;

(b) co-displaying the three-dimensional representation of the potential PDE5 ligand with the three-dimensional representation of the PDE5 structure; and

(c) assessing whether the three-dimensional representation of the potential PDE5 ligand fits the three-dimensional representation of an active site of the PDE5 structure.

47. The method according to aspect 46, further comprising the following steps:

(d) incorporating the potential PDE5 ligand in a biological PDE5 activity assay; and

(e) determining whether the potential PDE5 ligand modulates PDE5 activity in said assay.

48. The method according to aspect 46 or aspect 47 wherein said potential PDE5 ligand is a potential PDE5 inhibitor compound and said potential PDE5 inhibitor compound inhibits PDE5 activity.

49. A PDE5 ligand selected by the method of aspect 46 or aspect 47 or a PDE5 inhibitor compound selected by the method of aspect 48.

50. A pharmaceutical composition comprising one or more PDE5 ligands or PDE5 inhibitor compounds according to aspect 49 and one or more pharmaceutically acceptable excipients.

51. Use of a PDE5 ligand or PDE5 inhibitor compound according to aspect 49 as a pharmaceutical.

52. Use of a PDE5 ligand or PDE5 inhibitor compound according to aspect 49 in the manufacture of a medicament for the prophylaxis or treatment of a condition, disease, disorder or dysfunction where the inhibition of PDE5 is prophylactically or therapeutically beneficial.

53. Use according to aspect 52, wherein said disorder is a mammalian sexual disorder.

The curative, palliative or prophylactic treatments contemplated by the present invention include the curative, palliative or prophylactic treatment of mammalian sexual disorders, in particular the treatment of mammalian sexual dysfunctions such as male erectile dysfunction (MED), impotence, female sexual dysfunction (FSD), clitoral dysfunction, female hypoactive sexual desire disorder, female sexual arousal disorder (FSAD), female sexual pain disorder or female sexual orgasmic dysfunction (FSOD) as well as sexual dysfunction due to spinal cord injury or selective serotonin re-uptake inhibitor (SSRI) induced sexual dysfunction but, clearly, will also be useful for treating other medical conditions for which PDE5 inhibitor is indicated. Such conditions include premature labour, dysmenorrhoea, benign prostatic hyperplasia (BPH), bladder outlet obstruction, incontinence, stable, unstable and variant (Prinzmetal) angina, hypertension, pulmonary hypertension, chronic obstructive pulmonary disease, coronary artery disease, congestive heart failure, atherosclerosis, conditions of reduced blood vessel patency, e.g. post-percutaneous transluminal coronary angioplasty (post-PTCA), peripheral vascular disease, stroke, nitrate induced tolerance, bronchitis, allergic asthma, chronic asthma, allergic rhinitis, diseases and conditions of the eye such as glaucoma, optic neuropathy, macular degeneration, elevated intra-occular pressure, retinal or arterial occlusion and diseases characterised by disorders of gut motility, e.g. irritable bowel syndrome (IBS).

Further medical conditions for which a PDE5 inhibitor is indicated, and for which treatment with compounds of the present invention may be useful include pre-eclampsia, Kawasaki's syndrome, multiple sclerosis, diabetic nephropathy, neuropathy including autonomic and peripheral neuropathy and in particular diabetic neuropathy and symptoms thereof e.g. gastroparesis, peripheral diabetic neuropathy, Alzheimer's disease, acute respiratory failure, psoriasis, skin necrosis, cancer, metastasis, baldness, nutcracker oesophagus, anal fissure, haemorrhoids, the insulin resistance syndrome, diabetes, hypoxic vasoconstriction as well as the stabilisation of blood pressure during haemodialysis.

Particularly preferred conditions include MED and FSD (preferably FSAD).

Further (numbered) aspects of the present invention include:

54. Use of the atomic co-ordinates determined from the crystal of PDE5 as defined in aspect 25 or aspect 27 or the crystal of the PDE5/PDE5 ligand complex as defined in aspect 26 or aspect 28, to solve the crystal structure of a mutant, derivative, fragment, variant, analogue, homologue or complex of a PDE-related protein.

55. Use according to aspect 54, wherein said PDE-related protein is a PDE.

56. Use according to aspect 55, wherein said PDE is a PDE5-related protein.

57. Use according to aspect 56, wherein said PDE5-related protein is PDE5.

58. Use of the atomic co-ordinates determined from the crystal of PDE5 as defined in aspect 25 or aspect 27 or the crystal of the PDE5/PDE5 ligand complex as defined in aspect 26 or aspect 28, to produce a model of the three-dimensional structure of a PDE-related protein.

59. Use according to aspect 58, wherein said PDE-related protein is a PDE.

60. Use according to aspect 59, wherein said PDE is a PDE5-related protein.

61. Use according to aspect 60, wherein said PDE5-related protein is PDE5.

62. Use of the three-dimensional structure of PDE5 as derivable as set out in any one of aspects 29, 30, 31 or 32 to design site-directed mutants that mimic other PDE5 isoforms or variants thereof.

63. A crystal of PDE5 or a crystal of a PDE5/PDE5 ligand complex wherein the active site on PDE5 is within the third sub-domain of the protein and is bounded by Helices 15 (H15 813-824) and 14 (H14 772-797), the C-terminus of Helix 13 (H13 749-765), and the C-terminus of Helix 11 (H11 706-721) along with the loop region between Helices 11 and 12a (H12a 725-731) as shown in Figure 2.

64. A crystal of PDE5 or a crystal of a PDE5/PDE5 ligand complex wherein the active site on PDE5 comprises Leu 765, Ala 767 and Ile 768 and one or more of Phe 820, Val 782, Phe 786, Tyr 612, Leu 804, Ala 779, Ala 783, Ile 813, Met 816 and Gln 817.

65. A crystal of PDE5 wherein the crystal system of said crystal is characterised as being monoclinic, orthorhombic or hexagonal.

66. A crystal of a PDE5/PDE5 ligand complex wherein the crystal system of said crystal is characterised as being monoclinic or orthorhombic.

67. A method of producing a structurally stabilised PDE-related protein, comprising:

(a) aligning the amino acid sequence of a PDE-related protein with the amino acid sequence of (i) PDE4, (ii) the catalytic domain of PDE4 as shown in Figure 1 or (iii) SEQ ID NO: 4;

(b) identifying the structurally equivalent sub-domain of the PDE-related protein that corresponds to SEQ ID NO: 4; and

(c) genetically engineering the replacement of the structurally equivalent sub-domain of the PDE-related protein or a portion thereof with SEQ ID NO: 4 or a homologue, fragment, variant, analogue or derivative thereof.

68. The method according to aspect 67, further comprising:

(d) expressing the engineered PDE-related protein from (c) in a host cell.

69. The method according to aspect 68, further comprising:

(e) purifying the expressed engineered PDE-related protein from (d).

70. The method according to aspect 69, further comprising:

(f) crystallising the purified engineered PDE-related protein from (e).

71. The method according to any one of aspects 67 to 70, wherein said PDE-related protein is a PDE.

72. The method according to aspect 71, wherein said PDE is a PDE5-related protein.

73. The method according to aspect 72, wherein said PDE5-related protein is PDE5.

74. The method according to aspect 73, wherein said PDE5 is as defined in any one of aspects 5 to 7.

The compound of the present invention (i.e. a compound according to aspect 44 or aspect 45, or a PDE5 ligand or a PDE5 inhibitor compound according to aspect 49; hereinafter referred to as "the compound") can be administered alone but, in human therapy, will generally be administered in admixture with a suitable pharmaceutical excipient, diluent or carrier selected with regard to the intended route of administration and standard pharmaceutical practice. Thus, the pharmaceutical compositions, pharmaceuticals and medicaments contemplated by the present invention may be formulated in various ways well-known to one of skill and administered by similarly well-known methods.

For example, the compound of the invention can be administered orally, buccally or sublingually in the form of tablets, capsules (including soft gel capsules), ovules, elixirs, solutions or suspensions, which may contain flavouring or colouring agents, for immediate-, delayed-, modified-, or controlled-release such as sustained-, dual-, or pulsatile delivery applications. The compound may also be administered via intracavernosal injection. The compound may also be administered via fast dispersing or fast dissolving dosage forms or in the form of a high-energy dispersion or as coated particles. Suitable pharmaceutical formulations of the compound may be in coated or un-coated form as desired.

Such tablets may contain excipients such as microcrystalline cellulose, lactose, sodium citrate, calcium carbonate, dibasic calcium phosphate, glycine and starch (preferably corn, potato or tapioca starch), disintegrants such as sodium starch glycollate, croscarmellose sodium and certain complex silicates, and granulation binders such as polyvinylpyrrolidone, hydroxypropylmethyl cellulose (HPMC), hydroxypropylcellulose (HPC), sucrose, gelatin and acacia. Additionally, lubricating

agents such as magnesium stearate, stearic acid, glyceryl behenate and talc may be included.

Solid compositions of a similar type may also be employed as fillers in gelatin capsules. Preferred excipients in this regard include lactose, starch, a cellulose, milk sugar or high molecular weight polyethylene glycols. For aqueous suspensions and/or elixirs, the compound may be combined with various sweetening or flavouring agents, colouring matter or dyes, with emulsifying and/or suspending agents and with diluents such as water, ethanol, propylene glycol and glycerin, and combinations thereof.

Modified release and pulsatile release dosage forms may contain excipients such as those detailed for immediate release dosage forms together with additional excipients that act as release rate modifiers, these being coated on and/or included in the body of the device. Release rate modifiers include, but are not exclusively limited to, hydroxypropylmethyl cellulose, methyl cellulose, sodium carboxymethylcellulose, ethyl cellulose, cellulose acetate, polyethylene oxide, Xanthan gum, Carbomer, ammonio methacrylate copolymer, hydrogenated castor oil, carnauba wax, paraffin wax, cellulose acetate phthalate, hydroxypropylmethyl cellulose phthalate, methacrylic acid copolymer and mixtures thereof. Modified release and pulsatile release dosage forms may contain one or a combination of release rate modifying excipients. Release rate-modifying excipients maybe present both within the dosage form i.e. within the matrix, and/or on the dosage form i.e. upon the surface or coating.

Fast dispersing or dissolving dosage formulations (FDDFs) may contain the following ingredients: aspartame, acesulfame potassium, citric acid, croscarmellose sodium, crospovidone, diascorbic acid, ethyl acrylate, ethyl cellulose, gelatin, hydroxypropylmethyl cellulose, magnesium stearate, mannitol, methyl methacrylate, mint flavouring, polyethylene glycol, fumed silica, silicon dioxide, sodium starch glycolate, sodium stearyl fumarate, sorbitol, xylitol. The terms dispersing or dissolving as used herein to describe FDDFs are dependent upon the solubility of the drug substance used i.e. where the drug substance is insoluble a fast dispersing dosage form can be prepared and where the drug substance is soluble a fast dissolving dosage form can be prepared.

The compound can also be administered parenterally, for example, intracavernosally, intravenously, intra-arterially, intraperitoneally, intrathecally, intraventricularly, intraurethrally intrasternally, intracranially, intramuscularly or subcutaneously, or they may be administered by infusion or needleless injection techniques. For such parenteral administration they are best used in the form of a sterile aqueous solution which may contain other substances, for example, enough salts or glucose to make the solution isotonic with blood. The aqueous solutions should be suitably buffered (preferably to a pH of from 3 to 9), if necessary. The preparation of suitable parenteral formulations under sterile conditions is readily accomplished by standard pharmaceutical techniques well-known to those skilled in the art.

For oral and parenteral administration to human patients, the daily dosage level of the compound will usually be from 10 to 500 mg (in single or divided doses).

Thus, for example, tablets or capsules of the compound may contain from 5mg to 250mg of active compound for administration singly or two or more at a time, as appropriate. The physician in any event will determine the actual dosage which will be most suitable for any individual patient and it will vary with the age, weight and response of the particular patient. The above dosages are exemplary of the average case. There can, of course, be individual instances where higher or lower dosage ranges are merited and such are within the scope of this invention. The skilled person will also appreciate that, in the treatment of certain conditions (including MED and FSD), the compound may be taken as a single dose on an "as required" basis (i.e. as needed or desired).

The compound can also be administered intranasally or by inhalation and are conveniently delivered in the form of a dry powder inhaler or an aerosol spray presentation from a pressurised container, pump, spray or nebuliser with the use of a suitable propellant, e.g. dichlorodifluoromethane, trichlorofluoromethane, dichlorotetrafluoroethane, a hydrofluoroalkane such as 1,1,1,2-tetrafluoroethane (HFA 134A™ or 1,1,1,2,3,3,3-heptafluoropropane (HFA 227EA™), carbon dioxide or other suitable gas. In the case of a pressurised aerosol, the dosage unit may be determined

by providing a valve to deliver a metered amount. The pressurised container, pump, spray or nebuliser may contain a solution or suspension of the active compound, e.g. using a mixture of ethanol and the propellant as the solvent, which may additionally contain a lubricant, e.g. sorbitan trioleate. Capsules and cartridges (made, for example, from gelatin) for use in an inhaler or insufflator may be formulated to contain a powder mix of a compound of the invention and a suitable powder base such as lactose or starch.

Aerosol or dry powder formulations are preferably arranged so that each metered dose or "puff" contains from 1 to 50 mg of a compound of the invention for delivery to the patient. The overall daily dose with an aerosol will be in the range of from 1 to 50 mg which may be administered in a single dose or, more usually, in divided doses throughout the day.

The compound may also be formulated for delivery via an atomiser. Formulations for atomiser devices may contain the following ingredients as solubilisers, emulsifiers or suspending agents: water, ethanol, glycerol, propylene glycol, low molecular weight polyethylene glycols, sodium chloride, fluorocarbons, polyethylene glycol ethers, sorbitan trioleate, oleic acid.

Alternatively, the compound can be administered in the form of a suppository or pessary, or they may be applied topically in the form of a gel, hydrogel, lotion, solution, cream, ointment or dusting powder. The compound may also be dermally administered. The compound may also be transdermally administered, for example, by the use of a skin patch. The compound may also be administered by the ocular, pulmonary or rectal routes.

For ophthalmic use, the compound can be formulated as micronised suspensions in isotonic, pH adjusted, sterile saline, or, preferably, as solutions in isotonic, pH adjusted, sterile saline, optionally in combination with a preservative such as a benzylalkonium chloride. Alternatively, the compound may be formulated in an ointment such as petrolatum.

For application topically to the skin, the compound of the invention can be formulated as a suitable ointment containing the active compound suspended or dissolved in, for example, a mixture with one or more of the following: mineral oil, liquid petrolatum, white petrolatum, propylene glycol, polyoxyethylene polyoxypropylene compound, emulsifying wax and water. Alternatively, it can be formulated as a suitable lotion or cream, suspended or dissolved in, for example, a mixture of one or more of the following: mineral oil, sorbitan monostearate, a polyethylene glycol, liquid paraffin, polysorbate 60, cetyl esters wax, cetearyl alcohol, 2-octyldodecanol, benzyl alcohol and water.

The compound may also be used in combination with a cyclodextrin. Cyclodextrins are known to form inclusion and non-inclusion complexes with drug molecules. Formation of a drug-cyclodextrin complex may modify the solubility, dissolution rate, bioavailability and/or stability property of a drug molecule. Drug-cyclodextrin complexes are generally useful for most dosage forms and administration routes. As an alternative to direct complexation with the drug the cyclodextrin may be used as an auxiliary additive, e.g. as a carrier, diluent or solubiliser. Alpha-, beta- and gamma-cyclodextrins are most commonly used and suitable examples are described in WO-A-91/11172, WO-A-94/02518 and WO-A-98/55148.

Generally, in humans, oral administration of the compound is the preferred route, being the most convenient and, for example in MED, avoiding the well-known disadvantages associated with intracavernosal (i.c.) administration. A preferred oral dosing regimen in MED for a typical man is from 25 to 250 mg of compound when required. In circumstances where the recipient suffers from a swallowing disorder or from impairment of drug absorption after oral administration, the drug may be administered parenterally, sublingually or buccally.

For veterinary use, the compound, or a veterinarily acceptable salt thereof, or a veterinarily acceptable solvate or pro-drug thereof, is administered as a suitably acceptable formulation in accordance with normal veterinary practice and the veterinary surgeon will determine the dosing regimen and route of administration which will be most appropriate for a particular animal.

Detailed description of the invention

The term "apo" as used herein is taken to mean any protein (or named protein) that is detached from a/its ligand(s) and/or prosthetic group(s).

The term "active site" as used herein is taken to include any site (e.g. specific groups) within a molecule (and associated metal ions and/or hydration molecules) where specific activity is undergone. Such activity could include binding of a ligand to the site, catalysis of the molecule's substrates by the site, recognition of a ligand by the site, etc.

The term "buffer" as used herein is taken to include any solution containing a weak acid and a conjugate base of this acid (or, less commonly, a weak base and its conjugate acid). Thus, a "buffer" as used herein resists change in its pH level when an acid or a base is added to it, because the acid neutralises an added base (or, less commonly, the base neutralises an added acid).

The term "precipitant" as used herein is taken to include any substance that, when added to solutionm (usually of macromolecules), causes a precipitate to form or crystals to grow.

The term "complex" as used herein is taken to mean a protein with ligand(s) bound and may be formed before, during or after protein crystallisation.

The term "soaking" as used herein is taken to mean the addition of a solution containing a (usually) small molecule (e.g. inhibitor) to crystals of a protein to form a protein-ligand complex.

The term "co-crystallisation" as used herein is taken to mean crystallisation of a pre-formed protein/small molecule complex.

The terms "mutant", "variant", "homologue", "analogue", "derivative" or "fragment" in

relation to the amino acid sequence of the crystal of the PDE5 of the present invention include any substitution of, variation of, modification of, replacement of, deletion of or addition of one (or more) amino acids from (or to) the sequence providing the resultant PDE5 is capable of being crystallised.

The terms "mutant", "variant", "homologue", "analogue", "derivative" or "fragment" in relation to the nucleotide sequence coding for the PDE5 of the crystal of the present invention include any substitution of, variation of, modification of, replacement of, deletion of or addition of one (or more) nucleic acid from (or to) the sequence providing the resultant nucleotide sequence codes for or is capable of coding for a PDE5 which is capable of being crystallised.

Typically, for the "mutant", "variant", "homologue", "analogue", "derivative" or "fragment" in relation to the amino acid sequence of the crystal of the PDE5 of the present invention, the types of amino acid substitutions that could be made should maintain the hydrophobicity/hydrophilicity of the amino acid sequence. Amino acid substitutions may be made, for example from 1, 2 or 3 to 10, 20 or 30 substitutions provided that the modified PDE5 retains the ability to be crystallised in accordance with present invention. Amino acid substitutions may include the use of non-naturally occurring analogues.

In relation to amino acid sequences, the term "variant" as used herein refers to additions, deletions or substitutions of amino acid residues comprised within the wild-type amino acid sequence or fragment thereof. Preferably, a variant in relation to the amino acid sequence of the crystal of the PDE5 of the present invention could include the deletion or substitution of the histidine (His/H) residue as shown emboldened and underlined in SEQ ID NO: 1 (HRGVNNSYIQRSEHPLAQLYC**H**SIME), which sequence is comprised within the PDE5 molecule of the crystal of the PDE5 of the present invention. Replacement of said histidine (H) residue is preferably by way of incorporating one or more amino acid residues (other than histidine), preferably wherein said amino acid residues are neutral or non-polar.

More preferably, a variant in relation to the amino acid sequence of the crystal of the

PDE5 of the present invention includes the complete replacement of the loop region with a loop region (or other equivalent amino acid sequence e.g. sub-domain) from another protein, preferably a PDE, more preferably PDE4, most preferably PDE4b.

Alternatively, a variant in relation to the amino acid sequence of the crystal of the PDE5 of the present invention includes the deletion or substitution of the amino acid residues PLAQ (proline, leucine, alanine and glutamine) as emboldened and underlined in SEQ ID NO: 1 (HRGVNNSYIQRSEH**PLAQ**LYCHSIME). Preferably, such substitution of amino acid residues utilises amino acids of similar charge to those substituted.

In relation to nucleotide sequences, the term "variant" as used herein refers to additions, deletions or substitutions of nucleotides comprised within the wild-type nucleotide sequence or fragment thereof.

The term "fragment" as used herein refers to any portion of the PDE5 as defined in the present invention provided the resultant PDE5 comprising said PDE5 portion is capable of being crystallised. Thus, the term "fragment" also includes PDE5, which comprises any portion of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

For example, a specific fragment of SEQ ID NO: 3 (full-length wild-type PDE5 sequence) according to the present invention could be SEQ ID NO: 2 (wild-type PDE5 catalytic domain). An example of a specific fragment of SEQ ID NO: 2 (wild-type PDE5 catalytic domain) according to the present invention could be SEQ ID NO: 1 (PDE5 "loop region"; HRGVNNSYIQRSEHPLAQLYCHSIME).

An example of a specific fragment of SEQ ID NO: 6 (full-length "loop-swapped" PDE5 sequence) according to the present invention could be SEQ ID NO: 5 ("loop-swapped" PDE5 catalytic domain). Moreover, an example of a specific fragment of SEQ ID NO: 5 ("loop-swapped" PDE5 catalytic domain) according to the present invention could be SEQ ID NO: 4 (PDE4 "loop region"; HPGVSNQFLINTNSELALMYNDESVLE).

The term "analogue" as used herein means a sequence similar to the amino acid sequence of the crystal of the PDE5 of the present invention or of any one of SEQ ID

NOS: 1, 2, 3, 4, 5 or 6, but wherein non-detrimental (i.e. not detrimental to the PDE5's capability of being crystallised) amino acid substitutions or deletions have been made.

The term "derivative" as used herein in relation to the amino acid sequence of the crystal of the PDE5 of the present invention, or of any one of SEQ ID NOS: 1, 2, 3, 4, 5 or 6, includes chemical modification of PDE5. Illustrative of such modifications would be replacement of hydrogen by an alkyl, acyl, or amino group.

As used herein a "deletion" is defined as a change in either nucleotide or amino acid sequence in which one or more nucleotides or amino acid residues, respectively, are absent.

As used herein an "insertion" or "addition" is a change in a nucleotide or amino acid sequence, which has resulted in the addition of one or more nucleotides or amino acid residues, respectively, as compared to the naturally occurring PDE5.

As used herein "substitution" results from the replacement of one or more nucleotides or amino acids by different nucleotides or amino acids, respectively.

Conservative substitutions may be made, for example according to the Table below. Amino acids in the same block in the second column and preferably in the same line in the third column may be substituted for each other:

ALIPHATIC	Non-polar	G A P
		I L V
	Polar - uncharged	C S T M
		N Q
	Polar - charged	D E
		K R
AROMATIC		H F W Y

The term "homologue" covers homology specifically with respect to structure and covers any structural PDE5 homologue that is capable of being crystallised.

With respect to homology of the amino acid sequences detailed herein, preferably there is at least 70%, more preferably at least 75%, more preferably at least 80%, yet more preferably at least 85%, even more preferably at least 90% homology to SEQ ID NOS: 1, 2, 3, 4, 5 or 6. More preferably there is at least 95%, and most preferably at least 98%, homology to SEQ ID NOS: 1, 2, 3, 4, 5 or 6.

With respect to homology of the nucleotide sequences coding for the amino acid sequences detailed herein, preferably there is at least 70%, more preferably at least 75%, more preferably at least 80%, yet more preferably at least 85%, even more preferably at least 90% homology to the nucleotide sequences which code for SEQ ID NOS: 1, 2, 3, 4, 5 or 6. More preferably there is at least 95%, and most preferably at least 98%, homology to the nucleotide sequences which code for SEQ ID NOS: 1, 2, 3, 4, 5 or 6.

The term "homologue" with respect to the nucleotide sequence of the PDE5 as defined in the present invention and the amino acid sequence of the PDE5 as defined in the present invention may be synonymous with allelic variations of the sequences.

In particular, the term "homology" as used herein may be equated with the term "identity". Here, sequence homology with respect to, for example, the amino acid sequence of the crystal of the PDE5 of the present invention can be determined by a simple "eyeball" comparison (i.e. a strict comparison) of any one or more of the sequences with another sequence to see if that other sequence has at least 70% identity to the sequence(s). Relative sequence homology (i.e. sequence identity) can also be determined by commercially available computer programs that can calculate percentage (%) homology between two or more sequences. A typical example of such a computer program is CLUSTAL.

% homology may be calculated over contiguous sequences, i.e. one sequence is aligned with the other sequence and each amino acid in one sequence directly compared with the corresponding amino acid in the other sequence, one residue at a time. This is called an "ungapped" alignment. Typically, such ungapped alignments are performed only over a relatively short number of residues (for example less than 50 contiguous amino acids).

Although this is a very simple and consistent method, it fails to take into consideration that, for example, in an otherwise identical pair of sequences, one insertion or deletion will cause the following amino acid residues to be put out of alignment, thus potentially resulting in a large reduction in % homology when a global alignment is performed. Consequently, most sequence comparison methods are designed to produce optimal alignments that take into consideration possible insertions and deletions without penalising unduly the overall homology score. This is achieved by inserting "gaps" in the sequence alignment to try to maximise local homology.

However, these more complex methods assign "gap penalties" to each gap that occurs in the alignment so that, for the same number of identical amino acids, a sequence alignment with as few gaps as possible - reflecting higher relatedness between the two compared sequences - will achieve a higher score than one with many gaps. "Affine gap costs" are typically used that charge a relatively high cost for the existence of a gap and a smaller penalty for each subsequent residue in the gap. This is the most commonly used gap scoring system. High gap penalties will of course produce optimised alignments with fewer gaps. Most alignment programs allow the gap penalties to be modified. However, it is preferred to use the default values when using such software for sequence comparisons. For example when using the GCG Wisconsin Bestfit package (see below) the default gap penalty for amino acid sequences is -12 for a gap and -4 for each extension.

Calculation of maximum % homology therefore firstly requires the production of an optimal alignment, taking into consideration gap penalties. A suitable computer program for carrying out such an alignment is the GCG Wisconsin Bestfit package (University of Wisconsin, U.S.A.; Devereux *et al.,* 1984, Nucleic Acids Research 12:387). Examples of other software that can perform sequence comparisons include, but are not limited to, the BLAST package (see Ausubel *et al.*, 1999 *ibid* – Chapter 18), FASTA (Atschul *et al.,* 1990, J. Mol. Biol., 403-410) and the GENEWORKS suite of comparison tools. Both BLAST and FASTA are available for off-line and on-line searching (see Ausubel *et al.*, 1999 *ibid*, pages 7-58 to 7-60). However, for some applications it is preferred to use the GCG Bestfit program.

Although the final % homology can be measured in terms of identity, in some cases, the alignment process itself is typically not based on an all-or-nothing pair comparison. Instead, a scaled similarity score matrix is generally used that assigns scores to each pairwise comparison based on chemical similarity or evolutionary distance. An example of such a matrix commonly used is the BLOSUM62 matrix - the default matrix for the BLAST suite of programs. GCG Wisconsin programs generally use either the public default values or a custom symbol comparison table if supplied (see user manual for further details). It is preferred to use the public default values for the GCG package, or in the case of other software, the default matrix, such as BLOSUM62.

Once the software has produced an optimal alignment, it is possible to calculate % homology, preferably % sequence identity. The software typically does this as part of the sequence comparison and generates a numerical result.

As indicated, for some applications, sequence homology (or identity) may be determined using any suitable homology algorithm, using for example default parameters. For a discussion of basic issues in similarity searching of sequence databases, see Altschul et al (1994) Nature Genetics 6:119-129. For some applications, the BLAST algorithm is employed, with parameters set to default values. The BLAST algorithm is described in detail at http://www.ncbi.nih.gov/BLAST/blast_help.html. Advantageously, "substantial homology" when assessed by BLAST equates to sequences which match with an EXPECT value of at least about 7, preferably at least about 9 and most preferably 10 or more. The default threshold for EXPECT in BLAST searching is usually 10.

Other computer program methods to determine identify and similarity between the two sequences include but are not limited to the GCG program package (Devereux et al 1984 Nucleic Acids Research 12: 387 and FASTA (Atschul et al 1990 J. Mol. Biol. 403-410).

The amino acid sequence of the PDE5 of the present invention present invention may be produced by expression of a nucleotide sequence coding for the same in a suitable

expression system.

In addition, or in the alternative, the protein itself could be produced using chemical methods to synthesize a PDE5 amino acid sequence, in whole or in part. For example, peptides can be synthesized by solid phase techniques, cleaved from the resin, and purified by preparative high performance liquid chromatography (e.g. Creighton (1983) Proteins Structures and Molecular Principles, WH Freeman and Co., New York, NY, USA). The composition of the synthetic peptides may be confirmed by amino acid analysis or sequencing (e.g. the Edman degradation procedure).

Direct peptide synthesis can be performed using various solid-phase techniques (Roberge JY *et al*, Science, Vol 269, 1995, pp. 202-204) and automated synthesis may be achieved, for example, using the ABI 431 A Peptide Synthesizer (Perkin Elmer, Boston, MA, USA) in accordance with the instructions provided by the manufacturer. Additionally, the amino acid sequence of PDE5, or any part thereof, may be altered during direct synthesis and/or combined using chemical methods with a sequence from other subunits, or any part thereof, to produce a variant polypeptide.

The Structure of wild-type PDE5 catalytic domain complexed with Sildenafil

A recombinant construct of the catalytic domain (E534-N875) of human PDE5 was expressed and the protein crystallised in complex with Sildenafil and its structure determined by multi-wavelength anomalous dispersion (Hendrickson *et al.* 1989).

At the time of structure solution this represented a novel fold, however, subsequently the structure of the catalytic domain of PDE4b was published (Xu *et al.* 2000). A topological comparison of the PDE5 catalytic domain with the structures in the Protein Data Bank (PDB) does not reveal significant additional homology with other known protein structures except for the PDE4 structure. Comparisons between the two structures have been made (**Figure 1** shows a sequence and secondary structural alignment of the two proteins). The structure and domain arrangement is virtually identical to that of PDE4, save that the second sub-domain highlighted in PDE4 is only partially present in the PDE5 structure, as detailed below.

The structure is composed of a single domain of 15 α helices arranged in a compact fold (**Figure 2**). Within the overall domain, three sub-domains can also be defined. Helices 1 (H1 539-545) and 2 (H2 551-554) lie on the exterior of the protein and comprise the N-terminal region of the construct. These two helices do not overlay with the equivalent ones (H0, H1 and H2) in the PDE4 structure. This region is not well conserved across the PDE protein family. Helices 3 (H3 568-582), 4 (H4 584-588), 5 (H5 592-604), 6 (H6 615-631) and 7 (H7 640-652) form the first sub-domain of the protein and are contained within the core of the protein. There is no observable electron density for helices 8 and 9 based on the PDE4 nomenclature. Helix 10 (H10 684-694) is again on the exterior and forms the dimer interface within the structure. Helices 10 and 11 (H11 706-721) are the visible portion of the second sub-domain. Helices 12 (H12a 725-731, H12b 733-741), 13 (H13 749-765), 14 (H14 772-797), 15 (H15 813-824), 16 (H16 826-836) and 17 (H17 841-861) form the third sub-domain of the protein. It should be noted that in PDE5 helix H12 is not a contiguous helix as in PDE4 but is composed of two short helices with a kink in the middle and helix H15 is a contiguous helix in PDE5 but not in PDE4.

Dimer assembly for wild-type PDE5-Sildenafil complex:catalytic domain

There are four molecules present in the asymmetric unit, each molecule contains chain breaks and density is not visible for the C-terminal portion of the construct (see details below). The four molecules can be defined as two copies of a dimer. Molecule A (no electron density observed for residues: 534-536; 665-681; 863-875) is associated with molecule D (no electron density observed for residues: 534; 667-681; 865-875) and molecule B (no electron density observed for residues: 534-536; 667; 865-875) associated with molecule C (no electron density observed for residues: 534-53; 663-678; 863-875).

The molecules within the dimer are related by a two-fold rotation with the interface being formed by association of helix H10 from molecule A and D. Key to this dimer association is the presence of 2 zinc ions (one associated with each monomer). Residue His 683 from one molecule and His 684 and Asp 687 from the dimer partner

co-ordinate each zinc ion. It is believed that the metal co-ordinated dimerisation is an artefact of crystallisation. The missing regions of structure in each molecule are believed to be due to the high flexibility of this part of the structure. Further it is believed that there is significant cleavage of the protein in this region which gives rise to much of the flexibility. This region corresponds to Helices H8 and H9 within the second sub-domain of the PDE4 structure.

Wild-type PDE5-Sildenafil complex: Active site and Protein-inhibitor interactions

Each of the independently refined molecules in the structure contains one molecule of Sildenafil bound within the active site. The active site lies mainly within the third sub-domain of the protein and is bounded by helices H15, H14, the C-terminus of H13, and the C-terminus of H11 along with the loop region between H11 and H12a. The majority of the interactions between the inhibitor and the protein are hydrophobic in nature; with only two direct hydrogen bonds observed (**Figure 3**). The first is between N17 of the purine ring of the inhibitor and Oε1 of Gln 817 (2.8 Å) and the second from the adjacent oxygen atom O16 of the inhibitor to Nε2 of the same residue Gln 817 (3.1 Å).

Carbon atom C12 of the inhibitor points into a small hydrophobic pocket formed by Leu 765, Ala 767 and Ile 768. These residues together with Phe 820 form a planar face to the binding site against which the purine ring of the inhibitor stacks. The opposite side of the purine packs against Val 782. The C5 propyl substituent form good van der Waals contacts with Val 782 and Phe 786 and Tyr 612. Phe 786 and Leu 804 form additional hydrophobic interactions with the phenyl moiety of the inhibitor. The O-alkyl moiety occupies a small pocket bounded by Ala 779, Phe 786, Ala 783, Val 782, Leu 804, Ile 813, Met 816 and Gln 817. The sulphonamide group points out towards the solvent whilst the piperazine ring is bounded by the extended residues 662-665, although whether the conformation of this part of the structure is unaffected by the chain break is questionable. There is no direct interaction between the inhibitor and the zinc ion found in the active site. The structure confirms the competitive nature of the mode of inhibition of Sildenafil by binding in the active site therefore blocking access

for the cGMP substrate (which has also been modelled – data not included).

Wild type PDE5-Sildenafil Complex: Metal Ions in the Active Site

Only one zinc atom is present in the active site of this structure. This can be clearly identified as a zinc atom since the phases used to determine the structure were obtained from a three-wavelength zinc MAD experiment. The anomalous signal observed clearly indicates the presence of a zinc ion. The co-ordination of the ion within the active site is also consistent with that expected for zinc. The metal is co-ordinated by His 653 (Nε2-Zn 2.0 Å), His 617 (Nε2-Zn 2.1 Å), Asp 764 (OD2-Zn 2.2 Å) and also Asp 654 (OD2-Zn 2.2 Å). These residues are completely conserved across the PDE gene family. There is no evidence of a second metal ion in the active site. A possible reason for the absence of any second metal ion in the active site is the sequestering of the metal ion (in this case a zinc, again confirmed by the anomalous signal) to form the dimer interface. Additionally there is the possibility that the residues likely to be involved in co-ordinating a second metal ion in the active site are not in the native conformation due to the proximity to the disordered region of the protein and the dimer interface.

Protein Engineering of PDE5*

Analysis of the catalytic domain protein by mass spectrometry and SDS Page gel electrophoresis (data not shown) shows that the protein is cleaved within the region not visible in the structure (residues 664-682). High concentrations of protease inhibitors provide some stabilisation of the protein, allowing the above structure to be determined.

An engineered form of the catalytic domain of PDE5 has been produced where the 657-682 region of PDE5 has been replaced by the same region in PDE4 producing a chimeric construct, (see **Figure 1** for sequence alignment of this region). The C-terminus of this construct is also truncated (C-term 858) compared to the wild-type structure (C-term 875). Hereafter this engineered construct will be referred to as 'PDE5*'.

This engineered protein has been shown to be stable to degradation by mass spectrometry and SDS page gel electrophoresis (data not shown). The protein shows improved biophysical properties allowing an alternative purification protocol to be developed. The new protocol utilises binding to a blue sepharose column and specific elution with cGMP. The wild-type protein had been shown not to bind to this column probably due to the disorder of the structure around the protease cleavage site. This PDE5* protein was used to produce crystals with Sildenafil which diffract to higher resolution and have no disordered regions. The protein has also been used reproducibly to produce crystals with further inhibitors which routinely diffract to 1.8 Å resolution or higher, making it an improved protein for use in structure based drug design.

Structure of PDE5* catalytic domain with Sildenafil

The structure of the catalytic domain of PDE5* protein was determined by molecular replacement using the wild-type protein structure as a basis for the search model. This structure comprises 17 α helices and the overall fold is very similar to the wild-type structure with a number of important differences. The major difference in the structure is the presence of helices H8 and H9 composed of the swapped portion from PDE4, residues 657-682. These helices fold in an identical way to that observed in the PDE4 structure and complete the second sub-domain of the protein. The entire C-terminal region of this construct can also be built into the electron density leaving just three disordered residues at the N-terminus of this structure. This is likely to contribute to its enhanced properties for crystallisation. The PDE5* catalytic domain crystallises as a monomer with two molecules present in the asymmetric unit related by a translational shift. (PDE5* has also been crystallised with other inhibitors of PDE5 in space group $P2_1$ with one molecule in the asymmetric unit. The crystals have approximate unit cell dimensions a= 56 b= 77 c= 83 Å $\alpha=\gamma=90°$ $\beta = 103°$).

PDE5*: Active site and Protein-inhibitor interactions

Each of the independently refined molecules again contains one molecule of Sildenafil in the active site. Sildenafil occupies the same region of the active site as observed in

the wild-type structure forming the same mainly hydrophobic interactions with the protein (**Figure 4**). The same two direct hydrogen bonds are formed between Gln 817 of the protein and inhibitor (Oε1-N17 2.8 Å and Nε2-O16 3.1 Å). The remainder of the inhibitor makes the same contacts with the sulphonylpiperazine again pointing out towards solvent. This is close to the engineered region of the protein but the piperazine ring forms no interactions with the ordered swapped region of the catalytic domain construct. This is an important factor when considering the use of this chimeric catalytic domain for drug design.

PDE5*: Metal Ions in the Active Site

Another notable difference in the structure of PDE5* compared with that of wild-type PDE5, is the presence of two metal ions in the active site. As observed in the wild-type complex there is no direct interaction between the inhibitor and the zinc ion found in the active site. There is also no direct interaction between Sildenafil and the second metal ion observed in this complex. This second metal ion is co-ordinated to Asp 764 (OD1 2.15 Å) and to a water network that stabilises the metal environment. Due to the co-ordination geometry and the relative observed electron density, this second metal ion has been refined as a Mg^{2+} in accordance with a similar observation in the PDE4 structure solution. This structural arrangement is in accordance with the proposed mechanism, where an OH^- ion is derived from an H_2O molecule ionised by the presence of divalent metal atoms bound in the active site (Goldberg *et al.* 1980, Francis *et al.* 1994). The phosphodiester bond between the phosphorous and the oxygen atoms at the 3' position of cGMP is then hydrolysed via OH^- nucleophilic attack.

The present invention will now be described, by way of example only, with reference to the accompanying Sequence Listing and Figures, in which:-

SEQ ID NO: 1 shows the amino acid sequence of the loop region from PDE5.

SEQ ID NO: 2 shows the amino acid sequence of the wild-type PDE5 catalytic domain.

SEQ ID NO: 3 shows the amino acid sequence of the full-length wild-type PDE5 sequence.

SEQ ID NO: 4 shows the amino acid sequence of the loop region of PDE4.

SEQ ID NO: 5 shows the amino acid sequence of the loop-swapped PDE5 catalytic domain = PDE5*.

SEQ ID NO: 6 shows the amino acid sequence of full-length PDE5 sequence comprising PDE5*.

SEQ ID NOS: 7-14 are oligonucleotide primers.

Figure 1 shows an alignment of PDE5 (upper sequence) and PDE4b (lower sequence) catalytic domains. Positions and numbering of helices from the structures are marked for each. Residues in bold show a sequence alignment for the engineered region. The sequence from PDE4 has been used to replace the corresponding region in PDE5. This results in a residue insertion in this region. Underlining highlight C-terminal region absent in PDE5*.

Figure 2 shows a ribbon representation of the overall fold of proteins showing secondary structure elements. The inhibitor is shown in an all atom stick representation and the metal ions as spheres. (A) = PDE4b, (B) = wild-type PDE5 + Sildenafil, (C) = "loop-swapped" PDE5 (PDE5*) + Sildenafil. Helices are numbered using PDE4 structure as reference. Helices H0 - H7 form sub-domain 1, helices H8-H11 form sub-domain 2, and helices H12-H16 form sub-domain 3.

Figure 3 shows a view of compound Sildenafil bound to wild-type PDE5.

Figure 4 shows a view of compound Sildenafil bound to "loop-swapped" PDE5 (PDE5*).

Figure 5 shows the chemical structure of the inhibitor Sildenafil.

Experimental section

EXAMPLE 1 - Construction and expression of PDE5 wild-type catalytic domain (E534-N875)

Oligonucleotide primers were designed from the sequence of human PDE5 (Accession number = AB001635). DNA fragments were generated by PCR amplification from a full-length PDE5 clone. The following oligonucleotides were used:

PDE5 5' Untagged Oligo:
CGTGAATTCATGGAGGAAGAAACAAGAGAGCTAC
(SEQ ID NO: 7)

PDE5 3' Long Oligo:
CGTTCTAGACTATCAGTTCCGCTTGGCCTGGCCGCTTTCCCC
(SEQ ID NO: 8)

The PCR reaction was carried out for 30 cycles in a total volume of 50 µl in a solution containing 1.5 mM $MgCl_2$, 200 µM dNTPs, 50 pmol of each primer and 2.5 units of Expand DNA polymerase (Roche, East Sussex, UK). Each cycle was 94°C, 1 min, 50°C, 1 min and 72°C, 2 mins.

The final amplified DNA fragments for both constructs were separated on a 1% agarose gel and purified using a QIAquick gel extraction kit (Qiagen, West Sussex, UK). The fragment was then digested using *Eco*RI and *Xba*I, and ligated into pFastbac1 *Eco*RI/*Xba*I-digested vector (Life Technologies, Paisley, UK). The ligation was carried out at 12°C for 16 hours. The ligation mix was then electroporated into *E. coli* (TOP 10) (Invitrogen, Gronigen, The Netherlands).

Clones containing the desired insert were selected by using 2YT plates containing

100 µg/ml ampicillin and checked using endonuclease digestion for presence of correct size insert. DNA sequence analysis was carried out by Lark (Saffron Waldon, UK).

Recombinant bacmid DNA was produced by transforming *E.coli* DH10BAC™ with pFastbac1::PDE5 catalytic domain (534-875) plasmid DNA. This was carried out according to the method shown in the Bac to Bac™ baculovirus expression manual (Life Technologies, Paisley, UK). PCR analysis was used to verify successful transposition to the bacmid using pUC/M13 amplification primers (Invitrogen, Gronigen, The Netherlands).

Generation of primary baculovirus stocks was carried out by transfection using Sf-9 insect cells. Bacmid DNA containing the correct insert was mixed with CELLFECTIN™ transfection reagent (Life Technologies, Paisley, UK) and added to a monolayer of Sf-9 insect cells using SF-900II serum free medium (Invitrogen, Gronigen, The Netherlands). Following 72 hours incubation at 27°C the supernatant was harvested as the initial baculovirus stock. This stock was amplified by adding the initial virus stock into a suspension of Sf-9 insect cells at 1 $x10^6$ cells/ml in 1 litre Erlenmeyer flasks (Corning Life Sciences, New York, USA), at an agitation of 125 rpm at 27°C. After 6 days post-infection the supernatant was harvested by centrifugation and stored at 4°C as the working virus stock. The titre of this working stock was determined by conventional plaque assay analysis as in the Bac to Bac™ baculovirus expression manual (Invitrogen, Gronigen, The Netherlands).

Protein expression was optimised in Erlenmeyer flask cultures using Sf-9 and *T.ni* High5 insect cell cultures looking at different multiplicity's of infection (MOI) and harvest times, the optimal conditions found were then scaled up into fermenters.

The fermenters used were autoclavable Applikon 3 litre stirred vessels controlled using Applikon 1030 biocontrollers. Inoculum of *T.ni* High5 cells was initially prepared from shake flask cultures. The fermenter was inoculated with 5 x 10^5 cells/ml, with an initial working volume of 1.8 litres made up in Excel 405 serum free medium (JRH Biosciences, Kansas, USA). Temperature was controlled at 27°C, dissolved oxygen

concentration controlled at 60% and pH was measured but not controlled. Oxygen concentration was controlled throughout. Agitation was set at 150 rpm with a double impeller system of marine impeller within the culture and Rushton impeller at the liquid/headspace interface. Aeration was continuous to the headspace at 0.5 l/min.

When the viable cell density reached 2 x 10^6 cells/ml the culture was infected using an MOI of 1 from the titred baculovirus working stock. Harvest time for the culture was 48 hours post-infection. This was achieved by centrifugation at 2000 g for 15 mins; the insect cell pellet was then stored at -80°C prior to purification.

EXAMPLE 2 - Construction and expression of His6-tagged PDE5 wild-type catalytic domain (E534-N875)

Oligonucleotide primers were designed from the sequence of human PDE5 (= PDE5A1 isoform; Accession number = AB001635). DNA fragments were generated by PCR amplification from a full-length PDE5 clone. The following oligonucleotides were used:

PDE5 5' His6 Oligo

CGTGAATTCATGCATCATCATCATCATCATCTTCTGGTTCCGCGTGGATCTG CGCCCGAGGAAGAAACAAGAGAGCTAC

(SEQ ID NO: 9)

PDE5 3' Long Oligo

CGTTCTAGACTATCAGTTCCGCTTGGCCTGGCCGCTTTCCCC

(SEQ ID NO: 8)

The PCR reaction was carried out for 30 cycles in a total volume of 50 µl in a solution containing 1.5 mM $MgCl_2$, 200 µM dNTPs, 50 pmol of each primer and 2.5 units of Expand DNA polymerase (Roche, East Sussex, UK). Each cycle was 94°C, 1 min, 50°C, 1 min and 72°C, 2 mins.

The final amplified DNA fragments for both constructs were separated on a 1% agarose gel and purified using a QIAquick gel extraction kit (Qiagen, West Sussex, UK). The fragment was then digested using *Eco*RI and *Xba*I, and ligated into pFastbac1 *Eco*RI/*Xba*I-digested vector (Life Technologies, Paisley, UK). The ligation was carried out at 12°C for 16 hours. The ligation mix was then electroporated into *E. coli* (TOP 10) (Invitrogen, Gronigen, The Netherlands).

Clones containing the desired insert were selected by using 2YT plates containing 100 µg/ml ampicillin and checked using endonuclease digestion for presence of correct size insert. DNA sequence analysis was carried out by Lark (Saffron Waldon, UK).

Methods to generate the recombinant baculovirus were as those for wild-type PDE5 catalytic domain (see **EXAMPLE 1**).

Expression optimisation again showed *T.ni* High5 insect cells to give the best expression. Therefore baculovirus expression in fermenters was carried out using the same procedures as for the previous construct.

EXAMPLE 3 - Construction and expression of PDE5* (E534-E858) in baculovirus

The PDE5* construct was produced by using overlap extension PCR where the following oligonucleotides were used:

A: CGTGAATTCATGGAGGAAGAAACAAGAGAGCTAC
(SEQ ID NO: 7)

B:CAAAGAAAGTTCTGAATTTGTGTTGATGAGAAACTGATTGGAGACTCCA
GGATGATCCAAATCGTGGCTTAG
(SEQ ID NO: 10)

C:ATCAACACAAATTCAGAACTTGCTTTGATGTATAATGATGAATCTGTGTT
GGAACACCATCATTTTGACCAG

(SEQ ID NO: 11)

D: CGTTCTAGACTATCATTCTGCAAGGGCCTGCCATTTCTG

(SEQ ID NO: 12)

Initial DNA fragments were generated using oligonucleotides **A+B** and **C+D** with the same template DNA as for the wild-type PDE5 catalytic domain construct. The PCR reaction was carried out for 30 cycles in a total volume of 50 µl in a solution containing 1.5 mM $MgCl_2$, 200 µM dNTPs, 50 pmol of each primer and 2 units of Expand DNA polymerase (Roche, East Sussex, UK). Each cycle was 94°C, 1 min, 50°C, 2 min, and 72°C, 3 min. In the second round of PCR, DNA products from PCR **A+B** and **C+D** were used as template DNA with the oligonucleotides **A+D** used to amplify the full-length construct. The PCR conditions were the same as the initial PCR reaction. This generates a construct with the PDE4 swapped region and a C-terminal truncation (C-term 858) as compared to PDE5 catalytic domain (C-term 875).

Methods to generate the recombinant baculovirus were as those for wild-type PDE5 catalytic domain (see **EXAMPLE 1**).

Expression optimisation again showed *T.ni* High5 insect cells to give the best expression. Therefore baculovirus expression in fermenters was carried out using the same procedures as for the previous construct.

EXAMPLE 4 - Construction and expression of PDE5* (E534-E858) in *E. coli*

The PDE5* construct in *E. coli* was produced by using PCR where the following oligonucleotides were used and the template DNA being pFastbac1::PDE5* plasmid DNA (sequence verified), produced in **EXAMPLE 3**.

E: CGTCATATGGAGGAAGAAACAAGAGAGCTAC

(SEQ ID NO: 13)

F: CGTCTCGAGCTATCATTCTGCAAGGGCCTGCCATTTCTG

(SEQ ID NO: 14)

The PCR reaction was carried out for 30 cycles in a total volume of 50 µl in a solution containing 1.5 mM $MgCl_2$, 200 µM dNTPs, 50 pmol of each primer and 2.5 units of Expand DNA polymerase (Roche, East Sussex, UK). Each cycle was 94°C, 1 min, 50°C, 1 min and 72°C, 2 mins.

The final amplified DNA fragment was separated on a 1% agarose gel and purified using a QIAquick gel extraction kit (Qiagen, West Sussex, UK). The fragments were then digested using *Nde*1 and *Xho*1, and ligated into pET21C (Novagen, Nottingham, UK) *Nde*1/*Xho*1-digested vector. The ligation was carried out at 12°C for 16 hours. The ligation mix was then electroporated into *E. coli* (TOP 10) (Invitrogen, Gronigen, The Netherlands).

Clones containing the desired insert were selected by using 2YT plates containing 100 µg/ml ampicillin. Plasmid DNA was also checked using endonuclease digestion for presence of correct size insert. DNA sequence analysis was carried out by Lark (Saffron Waldon, UK).

The correctly sequenced plasmid DNA was then electroporated into *E. coli* BL21 (DE3) (Novagen, Nottingham, UK) for expression. Expression was carried out in 7 litre Applikon fermenters using 5 litre 2YT broth containing 100µg/ml carbenicillin as the medium. Agitation was set at 1000 rpm using a double rushton impeller assembly and aeration to the sparger at 2 litres/min. The fermenter was inoculated with an overnight shake flask culture grown at 37°C and 200 rpm, the inoculation density was 1% vol/vol. The fermentation was pH controlled at 7.2 using 20% vol/vol NH_4OH solution and temperature initially set to 37°C. When the OD_{600nm} reached 1.5 the temperature set-point was reduced to 25°C and then the culture was induced with IPTG at a final concentration of 1mM. The fermentation was then harvested 4 hours post-induction by batch centrifugation (8,000 rpm for 10 minutes). The final pellet was then frozen (-80°C) to await subsequent purification.

EXAMPLE 5 - Purification of wild-type PDE5 catalytic domain

Pellet from the fermentation was resuspended into 10 mls lysis buffer per gram wet cell weight and mechanically broken using a continuous cell disrupter (Constant Systems, Warwickshire, UK) at a pressure of 20 kpsi. The lysis buffer consisted of 50 mM Tris HCl (pH7.2), 100 mM NaCl, 1 mM DL-dithiothreitol (DTT) containing EDTA-free complete protease inhibitor cocktail tablets (Roche, East Sussex, UK) and 10 μM epoxysuccinyl-l-leucylamido-(4-guanidino)butane (E-64) (Sigma, Dorset, UK; Catalogue No. E-3132). The lysate was chilled and centrifuged at 14000 g for 45 min to remove cell debris. All purifications were subsequently carried out using an Äkta Explorer purification system (Amersham Pharmacia, Buckinghamshire, UK). The supernatant was applied to a 50 ml Q–sepharose fast-flow column (Amersham Pharmacia, Buckinghamshire, UK) at 5 ml/min the flow-through was directly applied to a 20 ml Nickel chelate column (Amersham Pharmacia, Buckinghamshire, UK) previously charged with 0.1 M $NiSO_4$. The Nickel chelate column was washed with 5 column volumes of lysis buffer. The column was then step-eluted with lysis buffer containing 50 mM imidazole. This elution fraction was directly applied to a 2 litre G-25 superfine desalting column (Amersham Pharmacia, Buckinghamshire, UK) equilibrated in SP-sepharose buffer A (25 mM Bis-Tris (pH 6.5), 50 mM NaCl, 1 mM DTT and 2 μM E-64). The protein was eluted in this buffer at 50 ml/min. The eluted fraction was then loaded onto a 20 ml SP-sepharose high-performance column (Amersham Pharmacia, Buckinghamshire, UK) at a flow-rate of 5 mls/min. The flow-through was collected and dialysed overnight at 4°C in Heparin buffer A (25 mM Bis-Tris (pH 6.5), 1 mM DTT and 2 μM E-64). Dialysis volume equalled 50 times the protein sample volume and the dialysis tubing used was 10 kDa Snakeskin™ (Pierce, Cheshire, UK).

The dialysed sample was then loaded onto a 20 ml Heparin sepharose column (Amersham Pharmacia, Buckinghamshire, UK), equilibrated in Heparin buffer A. The column was eluted using a 10 column volume linear gradient with Heparin buffer A containing 300 mM NaCl at a flow-rate of 3 ml/min. Fractions containing PDE5

catalytic domain (534-875) were pooled and concentrated to 2 mg/ml using centrifugal protein concentrators (Vivascience, Gloucestershire, UK) and loaded at 1.5 ml/min onto a Superdex-200 prep grade 26/60 column pre-equilibrated with 50 mM Bis-Tris (pH 6.8), 500 mM NaCl, 1 mM DTT and 2 μM E-64. The eluted fractions were analysed on Tris-glycine SDS PAGE gels.

EXAMPLE 6 - Purification of wild-type PDE5 catalytic domain (for apo crystallisation)

Pellet from the fermentation was resuspended into 5 mls lysis buffer per gram wet cell weight and mechanically broken using a continuous cell disrupter (Constant Systems, Warwickshire, UK) at a pressure of 20 kpsi. The lysis buffer consisted of 50 mM Bis-Tris (pH6.8), 10 mM imidazole, 10% glycerol, 50 mM sodium chloride and 3 mM β-mercaptoethanol (β-ME) containing EDTA-free complete protease inhibitor cocktail tablets (Roche, East Sussex, UK). The lysate was chilled and centrifuged at 13000 g for 30 min to remove cell debris then passed through a 0.2μm filter. All purifications were subsequently carried out using FPLC purification system (Amersham Pharmacia, Buckinghamshire, UK). The supernatant was applied to a 20 ml Nickel chelate column (Amersham Pharmacia, Buckinghamshire, UK) previously charged with 0.1 M $NiSO_4$. The Nickel chelate column was washed with 10 column volumes of buffer A (Lysis buffer with Complete protease inhibitor tablets omitted) followed by 10 column volumes of buffer A containing 50mM imidazole. The column was then eluted with a gradient of 100–500mM imidazole in buffer A. These eluted fractions were analysed using Tris-glycine SDS-PAGE and stored overnight at 4°C. Fractions containing PDE5 catalytic domain were concentrated to 1.5 mg/ml using Centriprep 10 kDa Molecular weight cut-off centrifugal concentrators (Amicon Bioseparations, Maine, USA) at 3,000 rpm, 4°C. Half of the concentrated fraction was then loaded onto a 320 ml Sephacryl S300HR column (Amersham Pharmacia, Buckinghamshire, UK) pre-equilibrated in 50 mM Bis-Tris pH 6.8, 10% glycerol, 50mM NaCl and 1mM DL-dithiothreitol (DTT) at a flow-rate of 2 ml/min. The eluted fractions were analysed using Tris-glycine SDS-PAGE and those containing PDE5 catalytic domain were stored at -80°C.

EXAMPLE 7 - Purification of PDE5* catalytic domain

Pellet from both the *E. coli* and baculovirus fermentation was resuspended into 10 mls lysis buffer per gram wet cell weight and mechanically broken using a continuous cell disrupter (Constant Systems, Warwickshire, UK) at a pressure of 20 kpsi. The lysis buffer consisted of 50 mM Tris HCl (pH 7.5), 100 mM NaCl, 1 mM DTT containing EDTA-free protease inhibitor cocktail tablets (Roche, East Sussex, UK) and 10 μM E-64. The lysate was chilled and centrifuged at 14000 g for 45 min to remove cell debris. All purifications were subsequently carried out using an Äkta Explorer purification system (Amersham Pharmacia, Buckinghamshire, UK). The supernatant was applied to a 50 ml Q–sepharose fast-flow column (Amersham Pharmacia, Buckinghamshire, UK) at 5 ml/min with the flow-through collected. The flow-through sample was then applied at 50 ml/min to a 2 litre G-25 superfine desalting column (Amersham Pharmacia, Buckinghamshire, UK) pre-equilibrated in Blue sepharose buffer A (50 mM Bis-Tris (pH 6.4), 50 mM NaCl, 2 mM EDTA, 2 mM EGTA and 1 mM DTT). The protein fraction was eluted in Blue sepharose buffer A.

The next column step was carried out in series, loading the sample initially onto a 20 ml SP-sepharose high performance column (Amersham Pharmacia, Buckinghamshire, UK) then flow-through from this directly onto a 10 ml Blue sepharose fast-flow column (Amersham Pharmacia, Buckinghamshire, UK) at a flow-rate of 2 ml/min. Once loading was complete, the SP-sepharose column was taken out of line and the Blue sepharose column washed with 5 column volumes of Blue sepharose buffer A. The column was washed with Blue sepharose buffer A containing 1 M NaCl until the absorbance 280 nm reached baseline and then washed with 5 column volumes of Blue sepharose buffer A. PDE5* protein was step-eluted using Blue sepharose buffer containing 20 mM cGMP (Na-salt) (Sigma, Dorset, UK). Fractions were assayed on Tris-glycine SDS gels (Invitrogen, Gronigen, The Netherlands) and pooled accordingly. These fractions were concentrated to 2.5 mg/ml using centrifugal concentrators (Vivascience, Gloucestershire, UK) and loaded at 1.5 ml/min onto a Superdex-200 prep grade 26/60 column pre-equilibrated with

50 mM Bis-Tris (pH 6.8), 500 mM NaCl, 1 mM DTT and 2 μM E-64. The eluted fractions were analysed on Tris-glycine SDS PAGE gels.

EXAMPLE 8 - Crystallisation of wild-type His6-tagged PDE5 catalytic domain (apo)

PDE5 fractions from the final gel filtration column were thawed from -80°C and protein concentration measured. The solution was concentrated to 5.8 mg/ml using a Centriprep 10 kDa Molecular weight cut-off centrifugal concentrator (Amicon Bioseparations, Maine, USA) at 3,000 rpm, 20°C then transferred to a Centricon 10 kDa Molecular weight cut-off centrifugal concentrator (Amicon Bioseparations, Maine, USA) and concentrated to 12.8mg/ml at 4,000rpm, 20°C. The protein solution was diluted to 10mg/ml using ultrafiltrate from the final stage of concentration and frozen at -80°C. Prior to crystallisation, the protein solution was thawed and centrifuged for 2 min at 14,000 rpm in an Eppendorf centrifuge.

Hanging drop vapour diffusion crystallisation trials were set up at 20°C. Drops comprised of 2 μl reservoir buffer mixed with 2μl protein solution were suspended on siliconised cover slips over 950 μl reservoir solutions containing 50mM HEPES pH 7.6, 1.1M monobasic sodium phosphate and 1.1M monobasic potassium phosphate (all from Sigma, Dorset, UK). Both crystallisation plates and reservoir solutions were chilled to 4°C before set up. Completed plates were placed in a 4°C cold room. Rod shaped crystals, up to 400 μm in largest dimension, grew from precipitate after 1-2 weeks. Crystals were transferred gradually at 4°C, via solutions of increasing glycerol concentration, to a solution containing 0.1 M HEPES pH 7.6, 2.3M monobasic sodium phosphate and 20% glycerol as a cryoprotectant. Samples were then flash-frozen prior to X-ray data collection.

EXAMPLE 9 - Crystallisation of wild-type PDE5 catalytic domain with Sildenafil

The PDE5 fractions from the final gel filtration column were pooled (total volume of 25 ml) and the protein concentration was assayed (0.2 mg/ml). The protein solution

was supplemented with 10 μM E-64 and 1 mg/ml leupeptin (Sigma, Dorset, UK). The solution was concentrated to 3 mg/ml using a Centriprep 10 kDa Molecular weight cut-off centrifugal concentrator (Amicon Bioseparations, Maine, USA) at 3,000 rpm, 4°C. A three-fold molar equivalent of Sildenafil (10 mg/ml aqueous stock solution) was added to the protein solution, which was then further concentrated to 8 mg/ml. A further one-molar equivalent of Sildenafil was added to this solution, which was concentrated to 10 mg/ml. Prior to crystallisation, the protein solution was centrifuged for 5 min at 14,000 rpm in an Eppendorf centrifuge.

Hanging drop vapour diffusion crystallisation trials were set up at 20°C. Drops comprised of 2 μl reservoir buffer mixed with 2μl protein solution were suspended on siliconised cover slips over 900 μl reservoir solutions containing 0.1 M Tris pH 8.0, 50 mM ammonium phosphate, pH 7.0, 16-26% PEG2KMME (all from Sigma, Dorset, UK). Block shaped crystals, up to 300 μm in largest dimension, grew from precipitate after 2-5 days. Crystals were transferred to a solution containing 0.1 M Tris, pH 8.0, 250 mM NaCl, 10% glycerol and 12-22% PEG2KMME as a cryoprotectant. Samples were then flash-frozen prior to X-ray data collection.

EXAMPLE 10 - Crystallisation of PDE5*

The PDE5* fractions from the final gel filtration column were pooled (total volume of 25mls) and the protein concentration was assayed (0.2mg/ml). The protein solution was supplemented with 10 μM E-64 and 1mg/ml leupeptin (Sigma, Dorset, UK). The solution was concentrated to 10mg/ml using a Centriprep 10 kDa Molecular weight cut-off centrifugal concentrator (Amicon Bioseparations, Maine, USA) at 3,000rpm, 4°C. Prior to crystallisation, the protein solution was centrifuged for 5 min at 14,000rpm in an Eppendorf centrifuge.

Hanging drop vapour diffusion crystallisation trials were set up at 4°C. Drops comprised of 2μl reservoir buffer mixed with 2μl protein solution were suspended on cover slips over 900μl-reservoir solutions containing 0.2M Sodium Acetate, 0.1M Tris hydrochloride pH 8.5, 30% w/v Polyethylene Glycol 8000 (The solution is component

number 22 in the Crystal Screen® from Hampton Research, California, USA.) Plate-shaped crystals, up to 700μm in largest dimension, grew after 1-2 days. Crystals were transferred to a solution containing 0.16M Sodium Acetate, 80mM Tris hydrochloride pH 8.5, 24% w/v Polyethylene Glycol 8000 and 10% glycerol and then frozen during X-ray data collection.

EXAMPLE 11 - Crystallisation of PDE5* with Sildenafil

Purified PDE5* protein was supplemented with 10 μM E-64 and 1 mg/ml leupeptin (Sigma, Dorset, UK).

Following the exact method described above for wild-type PDE5 catalytic domain, a complex of PDE5* with Sildenafil was made, and concentrated to a final protein concentration of 10 mg/ml.

Hanging drop vapour diffusion crystallisation trials were set up at 4°C. Drops comprised of 2 μl reservoir buffer mixed with 2 μl protein solution were suspended on siliconised cover slips over 900 μl reservoir solutions containing 0.1 M Tris pH 7.4, 50mM ammonium phosphate, pH 7.5, 30-24% PEG2KMME (Sigma, Dorset, UK). Thin plate crystals grew after 2-5 days, the largest of these, up to 600 μm in the largest dimension, from the 28% PEG2KMME conditions.

Crystals were transferred to a solution containing 0.1 M Tris pH 7.4, 250 mM NaCl, 10% glycerol and 26-20% PEG2KMME as a cryoprotectant. Samples were then flash-frozen prior to X-ray data collection.

EXAMPLE 12 - Data collection, structure determination and refinement of wild-type PDE5

The structure of recombinant human PDE5 was solved by multiple wavelength anomalous dispersion (MAD) using four wavelengths at the zinc L^{III} edge.

Native X-ray diffraction data were collected with an MAR CCD at station BM14 at the ESRF, Grenoble, France. All data were processed using the HKL package (Otwinowski & Minor, 1997). Data collection statistics are summarised in **Table 1a**.

The crystals belong to space group $P6_2$ with unit cell dimensions a =94.921 Å, b =94.921 Å, c =81.850 Å, a=β =90° γ=120°. They contain 1 molecule per asymmetric unit (M_w = 39,654.71 Da) and have a calculated solvent content of 43.23% (V_M = 2.18; Matthews, 1968).

Anomalous heavy atom sites were located using SOLVE (Terwilliger & Berendzen, 1997). Refinement of the heavy atom parameters and phase calculation was performed with SHARP (de La Fortelle & Bricogne, 1997). Phases were improved by 100 cycles of solvent flattening with SOLOMON (Abrahams & Leslie, 1996). The resulting map was of good quality and used to trace about 70% of the structure using QUANTA (Quanta98, 1998, version 98.1111; Molecular Simulations Inc., San Diego, CA 92121-3752, USA).

The model was refined against a set of native structure factors (F_P-calc) derived with SHARP from a combination of experimental native (F_P) and derivative (F_{PH}) structure factors. Refinement was carried out in the resolution range 30-2.5 Å using XPLOR (Brünger et al., 1998). Partial structure factors from a flat bulk-solvent model and anisotropic B-factor correction were supplied throughout the refinement. The R-factor for the current model is 0.260 (free R-factor, 5 % of data, 0.319) for all data in the resolution range 30-2.5 Å. The refinement statistics are summarised in **Table 2a**.

The current model contains 296 out of 342 amino acid residues calculated on the basis of the construct and is well defined in most regions of the polypeptide chain. No interpretable electron density is observed for residues: 534, 657-673 ,790-804 and 863-875.

Analysis of the structure using PROCHECK (Laskowski, et al., 1993) shows 12 residues from the four molecules in the asymmetric unit are in disallowed regions.

EXAMPLE 13 - Data collection, structure determination and refinement of wild-type PDE5 with Sildenafil

The structure of recombinant human PDE5 was solved by multiple wavelength anomalous dispersion (MAD) using three wavelengths at the zinc L^{III} edge.

Native X-ray diffraction data were collected with an MAR CCD at station BM14 at the ESRF, Grenoble, France. All data were processed using the HKL package (Otwinowski & Minor, 1997). Data collection statistics are summarised in **Table 1b.**

The crystals belong to space group $P2_12_12_1$ with unit cell dimensions a =94.179 Å, b =103.645 Å, c =141.942 Å, $\alpha=\beta=\gamma=90°$. They contain 4 molecules per asymmetric unit (M_w = 39,654.71 Da) and have a calculated solvent content of 43.23% (V_M = 2.18; Matthews, 1968).

Anomalous heavy atom sites were located using SOLVE (Terwilliger & Berendzen, 1997) and confirmed with SnB (Smith *et al.*, 1998). Refinement of the heavy atom parameters and phase calculation was performed with SHARP (de La Fortelle & Bricogne, 1997). Phases were improved by 100 cycles of solvent flattening with SOLOMON (Abrahams & Leslie, 1996). The resulting map was of good quality and used to trace about 80% of the structure using QUANTA (Quanta98, 1998, version 98.1111; Molecular Simulations Inc., San Diego, CA 92121-3752, USA).

The model was refined against a set of native structure factors (F_P-calc) derived with SHARP from a combination of experimental native (F_P) and derivative (F_{PH}) structure factors. Refinement was carried out in the resolution range 30-2.2 Å using CNX (Brünger et al., 1998) with the *"mlhl"* maximum likelihood target function. Partial structure factors from a flat bulk-solvent model and anisotropic B-factor correction were supplied throughout the refinement. The R-factor for the current model is 0.235 (free R-factor, 5% of data, 0.28) for all data in the resolution range 30-2.2 Å. The refinement statistics are summarised in **Table 2b.**

The current model contains 1261 out of 1364 amino acid residues calculated on the basis of the construct and is well defined in most regions of the polypeptide chain. No interpretable electron density is observed for residues: Molecule A 534-536, 665-681 and 863-875; molecule D 534, 667-681 and 865-875; molecule B 534-536, 667 and 865-875 and molecule C 534-536, 663-678 and 863-875.

Analysis of the structure using PROCHECK (Laskowski, et al., 1993) shows only four residues from the four molecules in the asymmetric unit are in disallowed regions.

EXAMPLE 14 - Data collection, structure determination and refinement of PDE5*

The structure of the baculovirus engineered PDE5* was solved by molecular replacement (MR) using the PDE5* coordinates obtained from the complex with Sildenafil (see **EXAMPLE 15**).

X-ray diffraction data were collected with an RaxisIV image plate detector on an in-house RU200HB rotating anode (Rigaku), with Blue Osmic mirrors (MSC). All data were processed using the HKL package (Otwinowski & Minor, 1997). Data collection statistics are summarised in **Table 1a.**

The crystals belong to the monoclinic space group $P2_1$, with unit cell dimensions a =54.983 Å, b =77.153 Å, c =80.660 Å, $\alpha=\gamma=90°$ $\beta = 101.311°$. They contain 2 molecules per asymmetric unit ($M_w = 37{,}562$ Da) and have a calculated solvent content of 45.1 % ($V_M = 2.26$; Matthews, 1968).

Molecular replacement was performed using AMORE (CCP4). The resulting map was of good quality and the structure was refitted using QUANTA. Refinement was carried out in the resolution range 30-1.6 Å using CNX (Brünger et al., 1998) with the *"mlf"* maximum likelihood target function. Partial structure factors from a flat bulk-solvent model and anisotropic B-factor correction were supplied throughout the refinement. The R-factor for the current model is 0.301 (free R-factor, 5% of data, 0.326) for all data in the resolution range 30-1.6 Å. The refinement statistics are summarised in

Table 2a.

The current model contains 323 residues per molecule, 537-858 (residue Glu 681A has been numbered to maintain PDE5 numbering scheme). No interpretable electron density is observed for residues: 534, 535 and 536 in molecules A or B. Analysis of the structure using PROCHECK (Laskowski, *et al.*, 1993) shows only two residues from the two molecules in the asymmetric unit are in disallowed regions.

EXAMPLE 15 - Data collection, structure determination and refinement PDE5* with Sildenafil

The structure of the baculovirus engineered PDE5* was solved by molecular replacement (MR) using a combined model of wild-type PDE5 with the structure for the second sub-domain from PDE4 as a search model.

X-ray diffraction data were collected with an RaxisIV image plate detector on an in-house RU200HB rotating anode (Rigaku), with Blue Osmic mirrors (MSC). All data were processed using the HKL package (Otwinowski & Minor, 1997). Data collection statistics are summarised in **Table 1b**.

The crystals belong to the monoclinic space group $P2_1$, with unit cell dimensions a =54.93 Å, b =77.77 Å, c =82.05 Å, $\alpha=\gamma=90°$ $\beta = 100.955°$. They contain 2 molecules per asymmetric unit ($M_w = 37{,}562.41$ Da) and have a calculated solvent content of 45.87 % ($V_M = 2.29$; Matthews, 1968).

Molecular replacement was performed using AMORE (CCP4). The resulting map was of good quality and the structure was refitted using QUANTA. Refinement was carried out in the resolution range 30-1.6 Å using CNX (Brünger et al., 1998) with the "*mlf*" maximum likelihood target function. Partial structure factors from a flat bulk-solvent model and anisotropic B-factor correction were supplied throughout the refinement. The R-factor for the current model is 0.286 (free R-factor, 5% of data, 0.307) for all data in the resolution range 30-1.6 Å. The refinement statistics are summarised in **Table 2b**.

The current model contains 323 residues per molecule, 537-858 (residue Glu 681A has been numbered to maintain PDE5 numbering scheme). No interpretable electron density is observed for residues: 534, 535 and 536 in molecules A or B. Analysis of the structure using PROCHECK (Laskowski, *et al.*, 1993) shows only two residues from the two molecules in the asymmetric unit are in disallowed regions.

Table 1a: Data collection and phasing statistics apo

Wavelength	λ1 1.2825 Peak	λ2 1.282273 Inflection	λ3 1.03321 Remote	λ4 1.2815 Peak2	Loop Swapped 1.54
Resolution [Å]	2.5	2.5	2.5	2.5	1.6
Unique reflections	28210	28230	27984	28215	85556
Completeness [%]	99.7	99.8	98.9	99.8	98.2
Redundancy	2.8	2.8	2.7	2.8	3.8
Refl. < 2σ [%]	89.0	88.8	88.1	88.2	81.6
R_{sym} [a]	0.028	0.028	0.027	0.028	0.052
R_{cullis} [b]	0.85	0.83		0.83	-
Number of sites	2	2	2	2	-
Phasing power [c]					
Isomorphous [d]	2.13/2/76	1.95/2.46	-/0.83	1.87/2.23	-
Anomalous [e]	1.24	0.95	0.67?	1.1	-

Table 1b: Data collection and phasing statistics (Sildenafil)

	λ1 Peak	λ2 Inflection	λ3 Remote	Loop Swapped
Resolution [Å]	2.3	2.5	2.2	1.6
Unique reflections	111678	91331	89470	85690
Completeness [%]	93.0	98.4	94.9	96.0
Redundancy	3.7	5.0	4.3	4.5
Refl. < 2σ [%]	90.9	88.8	94.9	80.1
R_{sym} [a]	0.040	0.065	0.053	0.053
R_{cullis} [b]	0.68	0.625		-
Number of sites	8	8	8	-
Phasing power [c]				
Isomorphous [d]	2.25/3.29	2.86/3.8	-/1.17	-
Anomalous [e]	1.58	1.15	0.96	-

[a] $R_{sym} = \sum_{hkl}\sum_{i}\left|I_i(hkl) - \overline{I(hkl)}\right| \Big/ \sum_{hkl}\sum_{i}\left|I_i(hkl)\right|$

[b] R_{cullis} = < phase integrated lack of closure > / $<|F_{PH}-F_P|>$ centrics only

[c] Phasing power = $<\{|FH(calc)|/$phase-integrated lack of closure$\}>$

[d] Pairs of values are given for centric and acentric reflections, respectively.

[e] For acentric reflections only

Table 2a: Refinement statistics of current apo models

	Wild type PDE5	Loop swapped PDE5
Resolution range, Å	30.0-2.5	30.0-1.6
Amino acid residues, no.	323	646
Water molecules, no.	-	-
rmsd bond length, Å	0.008	0.006
rmsd bond angles, °	1.343	1.189
[a]R-factor	0.260	0.301
Free R-factor (5 % of data)	0.319	0.326

[a] $R = \sum_{hkl} \left| |F_{obs}| - k|F_{calc}| \right| / \sum_{hkl} |F_{obs}|$

Table 2b: Refinement statistics of current models of Sildenafil complexes.

	Wild type UK-092480	Loop swapped UK-092480
Resolution range, Å	30.0-2.2	30.0-1.6
Amino acid residues, no.	1296	646
Water molecules, no.	-	252
Ligand molecules	4	2
rmsd bond length, Å	0.009	0.0053
rmsd bond angles, °	1.321	1.141
[a]R-factor	0.235	0.286
Free R-factor (5 % of data)	0.286	0.307

[a] $R = \sum_{hkl} \left| |F_{obs}| - k|F_{calc}| \right| / \sum_{hkl} |F_{obs}|$

Table 3

Atomic coordinates for wild-type PDE5 apo crystal structure

Atom Number, Atom Type, Residue Type, Residue Number Cartesian Coordinates X,Y, Z, Atom Occupancy (O) and Temperature Factor (B)

					X	Y	Z	O	B
ATOM	1	CB	GLU	535	0.767	16.260	-20.428	1.00	93.08
ATOM	2	CG	GLU	535	-0.268	17.221	-21.011	1.00	91.42
ATOM	3	CD	GLU	535	-0.764	18.240	-19.996	1.00	90.16
ATOM	4	OE1	GLU	535	-1.509	17.846	-19.076	1.00	88.83
ATOM	5	OE2	GLU	535	-0.403	19.432	-20.111	1.00	87.04
ATOM	6	C	GLU	535	2.384	16.811	-18.594	1.00	102.53
ATOM	7	O	GLU	535	3.385	16.234	-18.173	1.00	103.72
ATOM	8	N	GLU	535	3.209	16.285	-20.873	1.00	102.95
ATOM	9	CA	GLU	535	2.112	16.921	-20.091	1.00	102.87
ATOM	10	N	GLU	536	1.487	17.378	-17.797	1.00	88.10
ATOM	11	CA	GLU	536	1.620	17.348	-16.347	1.00	85.86
ATOM	12	CB	GLU	536	1.160	18.686	-15.748	1.00	96.96
ATOM	13	CG	GLU	536	-0.110	19.274	-16.367	1.00	103.52
ATOM	14	CD	GLU	536	-1.392	18.583	-15.918	1.00	103.89
ATOM	15	OE1	GLU	536	-2.447	18.823	-16.549	1.00	103.89
ATOM	16	OE2	GLU	536	-1.351	17.813	-14.933	1.00	103.89
ATOM	17	C	GLU	536	0.819	16.199	-15.755	1.00	82.77
ATOM	18	O	GLU	536	1.113	15.720	-14.660	1.00	83.32
ATOM	19	N	THR	537	-0.193	15.754	-16.491	1.00	81.54
ATOM	20	CA	THR	537	-1.037	14.661	-16.035	1.00	76.68
ATOM	21	CB	THR	537	-2.182	14.385	-17.037	1.00	88.24
ATOM	22	OG1	THR	537	-2.839	15.618	-17.359	1.00	86.91
ATOM	23	CG2	THR	537	-3.202	13.414	-16.432	1.00	81.21
ATOM	24	C	THR	537	-0.190	13.405	-15.891	1.00	74.41
ATOM	25	O	THR	537	-0.382	12.610	-14.970	1.00	72.15
ATOM	26	N	ARG	538	0.757	13.236	-16.805	1.00	71.57
ATOM	27	CA	ARG	538	1.618	12.073	-16.765	1.00	71.80
ATOM	28	CB	ARG	538	2.497	12.030	-18.013	1.00	85.92
ATOM	29	CG	ARG	538	2.397	10.709	-18.760	1.00	97.54
ATOM	30	CD	ARG	538	0.959	10.426	-19.184	1.00	103.89
ATOM	31	NE	ARG	538	0.658	8.995	-19.259	1.00	103.89
ATOM	32	CZ	ARG	538	1.216	8.141	-20.117	1.00	103.89
ATOM	33	NH1	ARG	538	2.118	8.561	-20.994	1.00	103.89
ATOM	34	NH2	ARG	538	0.868	6.859	-20.095	1.00	103.89
ATOM	35	C	ARG	538	2.471	12.073	-15.503	1.00	70.62
ATOM	36	O	ARG	538	2.619	11.037	-14.854	1.00	71.77
ATOM	37	N	GLU	539	3.019	13.233	-15.143	1.00	62.75
ATOM	38	CA	GLU	539	3.848	13.337	-13.942	1.00	60.13
ATOM	39	CB	GLU	539	4.300	14.782	-13.708	1.00	84.65
ATOM	40	CG	GLU	539	5.196	15.356	-14.794	1.00	87.55
ATOM	41	CD	GLU	539	6.004	16.554	-14.316	1.00	88.48
ATOM	42	OE1	GLU	539	6.666	17.204	-15.153	1.00	90.55
ATOM	43	OE2	GLU	539	5.987	16.839	-13.100	1.00	89.36
ATOM	44	C	GLU	539	3.113	12.830	-12.703	1.00	59.64
ATOM	45	O	GLU	539	3.719	12.175	-11.853	1.00	58.85
ATOM	46	N	LEU	540	1.816	13.134	-12.600	1.00	62.56
ATOM	47	CA	LEU	540	1.006	12.681	-11.459	1.00	62.53
ATOM	48	CB	LEU	540	-0.422	13.226	-11.531	1.00	82.76
ATOM	49	CG	LEU	540	-0.704	14.641	-11.041	1.00	83.40
ATOM	50	CD1	LEU	540	-0.076	15.644	-11.996	1.00	86.88

ATOM	51	CD2	LEU	540	-2.209	14.856	-10.952	1.00	81.40
ATOM	52	C	LEU	540	0.927	11.162	-11.389	1.00	62.62
ATOM	53	O	LEU	540	1.249	10.561	-10.363	1.00	61.04
ATOM	54	N	GLN	541	0.470	10.550	-12.478	1.00	80.01
ATOM	55	CA	GLN	541	0.358	9.100	-12.545	1.00	77.92
ATOM	56	CB	GLN	541	0.160	8.651	-13.997	1.00	100.09
ATOM	57	CG	GLN	541	-1.301	8.502	-14.410	1.00	103.89
ATOM	58	CD	GLN	541	-1.594	9.081	-15.785	1.00	103.89
ATOM	59	OE1	GLN	541	-0.796	8.943	-16.714	1.00	103.89
ATOM	60	NE2	GLN	541	-2.755	9.718	-15.925	1.00	103.89
ATOM	61	C	GLN	541	1.628	8.486	-11.980	1.00	73.66
ATOM	62	O	GLN	541	1.582	7.672	-11.061	1.00	76.27
ATOM	63	N	SER	542	2.762	8.909	-12.525	1.00	57.29
ATOM	64	CA	SER	542	4.057	8.410	-12.089	1.00	55.70
ATOM	65	CB	SER	542	5.168	9.137	-12.847	1.00	63.38
ATOM	66	OG	SER	542	4.919	9.122	-14.241	1.00	63.51
ATOM	67	C	SER	542	4.281	8.576	-10.591	1.00	54.33
ATOM	68	O	SER	542	4.481	7.600	-9.868	1.00	53.90
ATOM	69	N	LEU	543	4.247	9.823	-10.133	1.00	60.54
ATOM	70	CA	LEU	543	4.473	10.142	-8.728	1.00	59.17
ATOM	71	CB	LEU	543	4.375	11.654	-8.519	1.00	53.64
ATOM	72	CG	LEU	543	5.189	12.306	-7.399	1.00	53.23
ATOM	73	CD1	LEU	543	4.573	13.661	-7.117	1.00	53.14
ATOM	74	CD2	LEU	543	5.202	11.460	-6.144	1.00	47.94
ATOM	75	C	LEU	543	3.499	9.450	-7.784	1.00	60.22
ATOM	76	O	LEU	543	3.904	8.796	-6.826	1.00	63.45
ATOM	77	N	ALA	544	2.213	9.607	-8.053	1.00	59.93
ATOM	78	CA	ALA	544	1.179	9.024	-7.209	1.00	58.87
ATOM	79	CB	ALA	544	-0.199	9.419	-7.736	1.00	43.10
ATOM	80	C	ALA	544	1.272	7.507	-7.101	1.00	59.53
ATOM	81	O	ALA	544	1.295	6.946	-6.000	1.00	57.91
ATOM	82	N	ALA	545	1.323	6.852	-8.253	1.00	70.39
ATOM	83	CA	ALA	545	1.392	5.404	-8.316	1.00	67.10
ATOM	84	CB	ALA	545	0.699	4.921	-9.577	1.00	62.95
ATOM	85	C	ALA	545	2.827	4.921	-8.301	1.00	67.05
ATOM	86	O	ALA	545	3.239	4.205	-9.205	1.00	69.56
ATOM	87	N	ALA	546	3.584	5.307	-7.277	1.00	50.56
ATOM	88	CA	ALA	546	4.985	4.910	-7.166	1.00	49.98
ATOM	89	CB	ALA	546	5.878	6.026	-7.672	1.00	41.36
ATOM	90	C	ALA	546	5.348	4.568	-5.729	1.00	50.31
ATOM	91	O	ALA	546	4.805	5.148	-4.795	1.00	54.10
ATOM	92	N	VAL	547	6.264	3.623	-5.551	1.00	52.73
ATOM	93	CA	VAL	547	6.674	3.217	-4.208	1.00	55.29
ATOM	94	CB	VAL	547	7.495	1.902	-4.241	1.00	55.30
ATOM	95	CG1	VAL	547	7.921	1.500	-2.827	1.00	50.15
ATOM	96	CG2	VAL	547	6.665	0.800	-4.882	1.00	59.44
ATOM	97	C	VAL	547	7.497	4.309	-3.539	1.00	56.08
ATOM	98	O	VAL	547	8.356	4.925	-4.168	1.00	58.40
ATOM	99	N	VAL	548	7.222	4.549	-2.262	1.00	61.10
ATOM	100	CA	VAL	548	7.933	5.573	-1.511	1.00	59.40
ATOM	101	CB	VAL	548	6.944	6.495	-0.737	1.00	46.85
ATOM	102	CG1	VAL	548	7.707	7.569	-0.010	1.00	44.88
ATOM	103	CG2	VAL	548	5.951	7.144	-1.706	1.00	43.05
ATOM	104	C	VAL	548	8.900	4.911	-0.529	1.00	61.42
ATOM	105	O	VAL	548	8.505	4.461	0.542	1.00	64.24
ATOM	106	N	PRO	549	10.191	4.858	-0.887	1.00	51.30
ATOM	107	CD	PRO	549	10.781	5.437	-2.106	1.00	53.37
ATOM	108	CA	PRO	549	11.225	4.247	-0.045	1.00	48.49
ATOM	109	CB	PRO	549	12.513	4.577	-0.791	1.00	49.56
ATOM	110	CG	PRO	549	12.068	4.676	-2.218	1.00	51.91
ATOM	111	C	PRO	549	11.244	4.761	1.391	1.00	49.16
ATOM	112	O	PRO	549	10.952	5.922	1.650	1.00	52.57
ATOM	113	N	SER	550	11.592	3.881	2.319	1.00	44.47
ATOM	114	CA	SER	550	11.665	4.238	3.717	1.00	45.77
ATOM	115	CB	SER	550	12.172	3.058	4.532	1.00	50.43
ATOM	116	OG	SER	550	13.574	2.936	4.381	1.00	57.12

ATOM	117	C	SER	550	12.651	5.380	3.867	1.00	47.66
ATOM	118	O	SER	550	13.510	5.570	3.022	1.00	46.99
ATOM	119	N	ALA	551	12.533	6.131	4.952	1.00	49.84
ATOM	120	CA	ALA	551	13.440	7.241	5.203	1.00	53.55
ATOM	121	CB	ALA	551	13.150	7.867	6.589	1.00	32.51
ATOM	122	C	ALA	551	14.874	6.718	5.139	1.00	56.37
ATOM	123	O	ALA	551	15.732	7.329	4.506	1.00	58.65
ATOM	124	N	GLN	552	15.126	5.581	5.788	1.00	61.95
ATOM	125	CA	GLN	552	16.454	4.961	5.788	1.00	63.21
ATOM	126	CB	GLN	552	16.415	3.621	6.539	1.00	85.42
ATOM	127	CG	GLN	552	17.505	2.631	6.124	1.00	90.49
ATOM	128	CD	GLN	552	17.004	1.584	5.133	1.00	92.25
ATOM	129	OE1	GLN	552	17.786	0.991	4.386	1.00	89.58
ATOM	130	NE2	GLN	552	15.697	1.343	5.135	1.00	94.96
ATOM	131	C	GLN	552	17.018	4.740	4.381	1.00	60.62
ATOM	132	O	GLN	552	18.162	5.085	4.106	1.00	60.11
ATOM	133	N	THR	553	16.201	4.166	3.502	1.00	48.45
ATOM	134	CA	THR	553	16.602	3.875	2.131	1.00	47.27
ATOM	135	CB	THR	553	15.476	3.129	1.361	1.00	67.27
ATOM	136	OG1	THR	553	15.098	1.947	2.078	1.00	69.35
ATOM	137	CG2	THR	553	15.947	2.735	-0.028	1.00	63.20
ATOM	138	C	THR	553	16.935	5.148	1.364	1.00	47.50
ATOM	139	O	THR	553	17.782	5.142	0.459	1.00	48.70
ATOM	140	N	LEU	554	16.266	6.240	1.732	1.00	55.47
ATOM	141	CA	LEU	554	16.461	7.532	1.077	1.00	51.78
ATOM	142	CB	LEU	554	15.120	8.268	1.013	1.00	62.65
ATOM	143	CG	LEU	554	13.989	7.573	0.238	1.00	60.33
ATOM	144	CD1	LEU	554	12.673	8.276	0.515	1.00	62.65
ATOM	145	CD2	LEU	554	14.293	7.577	-1.252	1.00	59.23
ATOM	146	C	LEU	554	17.523	8.412	1.752	1.00	49.82
ATOM	147	O	LEU	554	17.972	9.397	1.177	1.00	45.23
ATOM	148	N	LYS	555	17.913	8.047	2.969	1.00	50.16
ATOM	149	CA	LYS	555	18.933	8.770	3.722	1.00	53.32
ATOM	150	CB	LYS	555	20.251	8.785	2.936	1.00	77.18
ATOM	151	CG	LYS	555	20.620	7.446	2.298	1.00	84.37
ATOM	152	CD	LYS	555	21.940	6.885	2.816	1.00	93.42
ATOM	153	CE	LYS	555	21.846	6.454	4.280	1.00	97.04
ATOM	154	NZ	LYS	555	23.098	5.804	4.775	1.00	95.99
ATOM	155	C	LYS	555	18.553	10.205	4.100	1.00	53.02
ATOM	156	O	LYS	555	19.416	10.982	4.518	1.00	52.99
ATOM	157	N	ILE	556	17.272	10.552	3.977	1.00	50.69
ATOM	158	CA	ILE	556	16.815	11.908	4.304	1.00	48.91
ATOM	159	CB	ILE	556	15.362	12.159	3.840	1.00	59.30
ATOM	160	CG2	ILE	556	15.260	11.991	2.340	1.00	63.12
ATOM	161	CG1	ILE	556	14.408	11.205	4.554	1.00	57.24
ATOM	162	CD1	ILE	556	12.963	11.595	4.405	1.00	54.59
ATOM	163	C	ILE	556	16.890	12.266	5.786	1.00	48.93
ATOM	164	O	ILE	556	16.658	13.415	6.163	1.00	50.69
ATOM	165	N	THR	557	17.214	11.289	6.624	1.00	55.49
ATOM	166	CA	THR	557	17.319	11.529	8.059	1.00	54.18
ATOM	167	CB	THR	557	17.134	10.218	8.840	1.00	68.73
ATOM	168	OG1	THR	557	15.848	9.669	8.535	1.00	66.39
ATOM	169	CG2	THR	557	17.236	10.459	10.345	1.00	62.97
ATOM	170	C	THR	557	18.666	12.136	8.449	1.00	55.45
ATOM	171	O	THR	557	18.823	12.664	9.547	1.00	54.81
ATOM	172	N	ASP	558	19.629	12.071	7.535	1.00	52.70
ATOM	173	CA	ASP	558	20.970	12.574	7.794	1.00	51.96
ATOM	174	CB	ASP	558	22.004	11.777	6.990	1.00	66.26
ATOM	175	CG	ASP	558	21.936	10.288	7.259	1.00	68.48
ATOM	176	OD1	ASP	558	22.094	9.884	8.432	1.00	74.77
ATOM	177	OD2	ASP	558	21.725	9.523	6.294	1.00	67.44
ATOM	178	C	ASP	558	21.170	14.045	7.497	1.00	52.23
ATOM	179	O	ASP	558	20.647	14.587	6.509	1.00	51.40
ATOM	180	N	PHE	559	21.940	14.686	8.370	1.00	46.66
ATOM	181	CA	PHE	559	22.260	16.087	8.199	1.00	45.44
ATOM	182	CB	PHE	559	23.021	16.615	9.414	1.00	48.23

ATOM	183	CG	PHE	559	22.144	16.939	10.590	1.00	46.62
ATOM	184	CD1	PHE	559	21.065	17.811	10.451	1.00	45.18
ATOM	185	CD2	PHE	559	22.426	16.425	11.846	1.00	45.46
ATOM	186	CE1	PHE	559	20.291	18.165	11.539	1.00	44.55
ATOM	187	CE2	PHE	559	21.648	16.781	12.946	1.00	43.18
ATOM	188	CZ	PHE	559	20.582	17.653	12.787	1.00	43.12
ATOM	189	C	PHE	559	23.140	16.115	6.966	1.00	46.90
ATOM	190	O	PHE	559	23.222	17.117	6.258	1.00	47.97
ATOM	191	N	SER	560	23.789	14.983	6.723	1.00	63.37
ATOM	192	CA	SER	560	24.659	14.809	5.574	1.00	64.97
ATOM	193	CB	SER	560	25.796	13.844	5.914	1.00	78.40
ATOM	194	OG	SER	560	25.086	12.634	6.453	1.00	87.30
ATOM	195	C	SER	560	23.783	14.223	4.479	1.00	63.63
ATOM	196	O	SER	560	23.658	13.005	4.332	1.00	68.25
ATOM	197	N	PHE	561	23.155	15.102	3.721	1.00	55.90
ATOM	198	CA	PHE	561	22.283	14.668	2.659	1.00	52.02
ATOM	199	CB	PHE	561	20.828	14.725	3.133	1.00	48.56
ATOM	200	CG	PHE	561	19.822	14.417	2.061	1.00	43.64
ATOM	201	CD1	PHE	561	19.367	13.118	1.868	1.00	43.29
ATOM	202	CD2	PHE	561	19.340	15.429	1.230	1.00	43.27
ATOM	203	CE1	PHE	561	18.439	12.823	0.854	1.00	42.66
ATOM	204	CE2	PHE	561	18.417	15.147	0.218	1.00	42.10
ATOM	205	CZ	PHE	561	17.964	13.840	0.029	1.00	39.19
ATOM	206	C	PHE	561	22.502	15.620	1.508	1.00	55.08
ATOM	207	O	PHE	561	22.632	16.821	1.713	1.00	56.61
ATOM	208	N	SER	562	22.555	15.079	0.298	1.00	65.91
ATOM	209	CA	SER	562	22.748	15.895	-0.884	1.00	65.43
ATOM	210	CB	SER	562	24.224	15.918	-1.288	1.00	67.42
ATOM	211	OG	SER	562	24.619	14.720	-1.934	1.00	65.54
ATOM	212	C	SER	562	21.907	15.331	-2.012	1.00	63.56
ATOM	213	O	SER	562	21.990	14.154	-2.333	1.00	67.23
ATOM	214	N	ASP	563	21.092	16.185	-2.611	1.00	42.69
ATOM	215	CA	ASP	563	20.216	15.778	-3.705	1.00	48.78
ATOM	216	CB	ASP	563	19.030	16.731	-3.779	1.00	55.50
ATOM	217	CG	ASP	563	19.451	18.113	-4.231	1.00	57.54
ATOM	218	OD1	ASP	563	18.618	18.830	-4.829	1.00	59.98
ATOM	219	OD2	ASP	563	20.627	18.475	-3.989	1.00	53.73
ATOM	220	C	ASP	563	20.952	15.823	-5.051	1.00	49.83
ATOM	221	O	ASP	563	20.338	15.685	-6.106	1.00	51.12
ATOM	222	N	PHE	564	22.260	16.038	-5.005	1.00	61.75
ATOM	223	CA	PHE	564	23.072	16.139	-6.216	1.00	62.99
ATOM	224	CB	PHE	564	24.548	16.003	-5.867	1.00	79.12
ATOM	225	CG	PHE	564	25.129	17.227	-5.238	1.00	79.86
ATOM	226	CD1	PHE	564	25.603	18.272	-6.023	1.00	79.41
ATOM	227	CD2	PHE	564	25.196	17.342	-3.860	1.00	79.85
ATOM	228	CE1	PHE	564	26.140	19.412	-5.440	1.00	75.34
ATOM	229	CE2	PHE	564	25.727	18.473	-3.272	1.00	81.09
ATOM	230	CZ	PHE	564	26.203	19.511	-4.063	1.00	79.91
ATOM	231	C	PHE	564	22.739	15.153	-7.312	1.00	62.85
ATOM	232	O	PHE	564	22.546	15.538	-8.464	1.00	61.95
ATOM	233	N	GLU	565	22.668	13.878	-6.963	1.00	51.44
ATOM	234	CA	GLU	565	22.390	12.883	-7.980	1.00	52.54
ATOM	235	CB	GLU	565	23.034	11.558	-7.578	1.00	69.27
ATOM	236	CG	GLU	565	24.505	11.685	-7.189	1.00	72.25
ATOM	237	CD	GLU	565	25.289	12.581	-8.137	1.00	74.25
ATOM	238	OE1	GLU	565	25.203	12.378	-9.369	1.00	76.35
ATOM	239	OE2	GLU	565	25.996	13.485	-7.642	1.00	72.95
ATOM	240	C	GLU	565	20.917	12.664	-8.295	1.00	51.78
ATOM	241	O	GLU	565	20.573	12.190	-9.385	1.00	51.65
ATOM	242	N	LEU	566	20.052	13.034	-7.355	1.00	50.83
ATOM	243	CA	LEU	566	18.614	12.827	-7.495	1.00	44.06
ATOM	244	CB	LEU	566	17.891	13.241	-6.215	1.00	44.27
ATOM	245	CG	LEU	566	18.444	12.748	-4.878	1.00	46.09
ATOM	246	CD1	LEU	566	17.394	12.978	-3.831	1.00	47.82
ATOM	247	CD2	LEU	566	18.780	11.272	-4.938	1.00	45.78
ATOM	248	C	LEU	566	17.914	13.483	-8.662	1.00	42.32

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ATOM    249  O   LEU   566      18.347  14.508  -9.177  1.00 41.56
ATOM    250  N   SER   567      16.814  12.858  -9.071  1.00 40.78
ATOM    251  CA  SER   567      15.975  13.363 -10.147  1.00 41.98
ATOM    252  CB  SER   567      15.451  12.207 -11.013  1.00 44.68
ATOM    253  OG  SER   567      14.712  11.261 -10.253  1.00 44.70
ATOM    254  C   SER   567      14.807  14.070  -9.462  1.00 43.21
ATOM    255  O   SER   567      14.641  13.946  -8.247  1.00 46.41
ATOM    256  N   ASP   568      14.012  14.811 -10.233  1.00 37.36
ATOM    257  CA  ASP   568      12.863  15.516  -9.675  1.00 34.44
ATOM    258  CB  ASP   568      12.101  16.273 -10.776  1.00 35.17
ATOM    259  CG  ASP   568      12.813  17.558 -11.218  1.00 37.80
ATOM    260  OD1 ASP   568      12.294  18.235 -12.139  1.00 40.80
ATOM    261  OD2 ASP   568      13.875  17.903 -10.652  1.00 35.04
ATOM    262  C   ASP   568      11.941  14.502  -8.988  1.00 37.33
ATOM    263  O   ASP   568      11.643  14.628  -7.793  1.00 37.11
ATOM    264  N   LEU   569      11.511  13.493  -9.746  1.00 50.35
ATOM    265  CA  LEU   569      10.648  12.440  -9.230  1.00 49.80
ATOM    266  CB  LEU   569      10.644  11.237 -10.178  1.00 49.96
ATOM    267  CG  LEU   569      10.114   9.934  -9.553  1.00 53.95
ATOM    268  CD1 LEU   569       8.591   9.957  -9.584  1.00 53.95
ATOM    269  CD2 LEU   569      10.663   8.715 -10.288  1.00 50.83
ATOM    270  C   LEU   569      11.129  11.967  -7.868  1.00 48.68
ATOM    271  O   LEU   569      10.357  11.870  -6.915  1.00 49.49
ATOM    272  N   GLU   570      12.414  11.656  -7.793  1.00 40.92
ATOM    273  CA  GLU   570      12.995  11.176  -6.549  1.00 43.29
ATOM    274  CB  GLU   570      14.467  10.784  -6.763  1.00 56.29
ATOM    275  CG  GLU   570      14.660   9.551  -7.646  1.00 56.49
ATOM    276  CD  GLU   570      16.105   9.341  -8.086  1.00 57.03
ATOM    277  OE1 GLU   570      16.671  10.258  -8.723  1.00 58.65
ATOM    278  OE2 GLU   570      16.670   8.261  -7.800  1.00 59.00
ATOM    279  C   GLU   570      12.878  12.187  -5.408  1.00 43.63
ATOM    280  O   GLU   570      12.699  11.798  -4.254  1.00 43.62
ATOM    281  N   THR   571      12.979  13.480  -5.708  1.00 37.62
ATOM    282  CA  THR   571      12.885  14.438  -4.624  1.00 36.89
ATOM    283  CB  THR   571      13.404  15.878  -5.015  1.00 37.36
ATOM    284  OG1 THR   571      12.764  16.359  -6.202  1.00 38.44
ATOM    285  CG2 THR   571      14.884  15.849  -5.223  1.00 36.66
ATOM    286  C   THR   571      11.441  14.488  -4.152  1.00 38.04
ATOM    287  O   THR   571      11.165  14.634  -2.956  1.00 40.49
ATOM    288  N   ALA   572      10.523  14.324  -5.098  1.00 47.87
ATOM    289  CA  ALA   572       9.110  14.351  -4.785  1.00 48.07
ATOM    290  CB  ALA   572       8.304  14.274  -6.060  1.00 41.27
ATOM    291  C   ALA   572       8.771  13.191  -3.839  1.00 48.32
ATOM    292  O   ALA   572       8.041  13.363  -2.857  1.00 51.79
ATOM    293  N   LEU   573       9.319  12.016  -4.121  1.00 45.89
ATOM    294  CA  LEU   573       9.070  10.866  -3.269  1.00 43.97
ATOM    295  CB  LEU   573       9.711   9.611  -3.852  1.00 55.99
ATOM    296  CG  LEU   573       9.147   9.142  -5.191  1.00 57.02
ATOM    297  CD1 LEU   573       9.847   7.857  -5.592  1.00 58.74
ATOM    298  CD2 LEU   573       7.644   8.922  -5.093  1.00 55.11
ATOM    299  C   LEU   573       9.644  11.136  -1.890  1.00 42.78
ATOM    300  O   LEU   573       9.067  10.747  -0.876  1.00 44.31
ATOM    301  N   CYS   574      10.795  11.792  -1.856  1.00 42.19
ATOM    302  CA  CYS   574      11.433  12.115  -0.593  1.00 43.07
ATOM    303  CB  CYS   574      12.780  12.810  -0.829  1.00 43.82
ATOM    304  SG  CYS   574      14.158  11.725  -1.231  1.00 47.06
ATOM    305  C   CYS   574      10.525  13.038   0.211  1.00 42.98
ATOM    306  O   CYS   574      10.392  12.883   1.425  1.00 40.34
ATOM    307  N   THR   575       9.902  13.995  -0.472  1.00 45.85
ATOM    308  CA  THR   575       9.023  14.934   0.202  1.00 44.71
ATOM    309  CB  THR   575       8.528  16.026  -0.737  1.00 40.31
ATOM    310  OG1 THR   575       9.647  16.612  -1.415  1.00 39.91
ATOM    311  CG2 THR   575       7.795  17.114   0.071  1.00 38.38
ATOM    312  C   THR   575       7.826  14.225   0.797  1.00 47.91
ATOM    313  O   THR   575       7.382  14.565   1.893  1.00 48.19
ATOM    314  N   ILE   576       7.306  13.242   0.067  1.00 48.44
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ATOM    315  CA  ILE  576       6.175  12.458   0.535  1.00 46.74
ATOM    316  CB  ILE  576       5.713  11.442  -0.543  1.00 52.06
ATOM    317  CG2 ILE  576       4.702  10.461   0.039  1.00 50.96
ATOM    318  CG1 ILE  576       5.081  12.190  -1.715  1.00 51.97
ATOM    319  CD1 ILE  576       4.479  11.285  -2.779  1.00 46.25
ATOM    320  C   ILE  576       6.599  11.726   1.809  1.00 46.73
ATOM    321  O   ILE  576       5.885  11.728   2.809  1.00 51.53
ATOM    322  N   ARG  577       7.778  11.122   1.771  1.00 46.11
ATOM    323  CA  ARG  577       8.305  10.397   2.919  1.00 45.61
ATOM    324  CB  ARG  577       9.583   9.639   2.510  1.00 59.30
ATOM    325  CG  ARG  577      10.412   9.009   3.640  1.00 59.99
ATOM    326  CD  ARG  577       9.593   8.390   4.774  1.00 66.03
ATOM    327  NE  ARG  577       9.203   6.988   4.620  1.00 64.03
ATOM    328  CZ  ARG  577       8.359   6.522   3.705  1.00 63.56
ATOM    329  NH1 ARG  577       7.805   7.339   2.826  1.00 64.13
ATOM    330  NH2 ARG  577       8.037   5.238   3.692  1.00 66.34
ATOM    331  C   ARG  577       8.575  11.345   4.088  1.00 45.31
ATOM    332  O   ARG  577       8.711  10.915   5.234  1.00 45.51
ATOM    333  N   MET  578       8.651  12.640   3.809  1.00 44.82
ATOM    334  CA  MET  578       8.885  13.586   4.892  1.00 45.67
ATOM    335  CB  MET  578       9.522  14.864   4.349  1.00 49.47
ATOM    336  CG  MET  578      10.915  14.596   3.779  1.00 51.20
ATOM    337  SD  MET  578      11.964  16.035   3.546  1.00 45.18
ATOM    338  CE  MET  578      11.511  16.478   1.941  1.00 45.01
ATOM    339  C   MET  578       7.571  13.866   5.628  1.00 45.61
ATOM    340  O   MET  578       7.526  13.842   6.848  1.00 48.86
ATOM    341  N   PHE  579       6.502  14.107   4.876  1.00 48.04
ATOM    342  CA  PHE  579       5.200  14.345   5.472  1.00 48.08
ATOM    343  CB  PHE  579       4.146  14.631   4.397  1.00 46.50
ATOM    344  CG  PHE  579       4.172  16.040   3.862  1.00 45.18
ATOM    345  CD1 PHE  579       5.090  16.417   2.888  1.00 44.68
ATOM    346  CD2 PHE  579       3.251  16.982   4.314  1.00 41.02
ATOM    347  CE1 PHE  579       5.088  17.712   2.370  1.00 42.42
ATOM    348  CE2 PHE  579       3.237  18.277   3.807  1.00 41.16
ATOM    349  CZ  PHE  579       4.156  18.646   2.832  1.00 41.98
ATOM    350  C   PHE  579       4.788  13.091   6.239  1.00 49.57
ATOM    351  O   PHE  579       4.316  13.174   7.367  1.00 50.01
ATOM    352  N   THR  580       4.988  11.930   5.618  1.00 57.96
ATOM    353  CA  THR  580       4.630  10.652   6.222  1.00 57.00
ATOM    354  CB  THR  580       4.893   9.469   5.256  1.00 51.37
ATOM    355  OG1 THR  580       4.114   9.624   4.065  1.00 45.49
ATOM    356  CG2 THR  580       4.516   8.144   5.927  1.00 51.60
ATOM    357  C   THR  580       5.330  10.337   7.539  1.00 56.69
ATOM    358  O   THR  580       4.674  10.175   8.556  1.00 56.18
ATOM    359  N   ASP  581       6.656  10.242   7.525  1.00 60.70
ATOM    360  CA  ASP  581       7.397   9.912   8.742  1.00 58.14
ATOM    361  CB  ASP  581       8.844   9.529   8.424  1.00 51.13
ATOM    362  CG  ASP  581       8.960   8.154   7.775  1.00 51.87
ATOM    363  OD1 ASP  581      10.075   7.592   7.782  1.00 55.94
ATOM    364  OD2 ASP  581       7.949   7.637   7.248  1.00 44.98
ATOM    365  C   ASP  581       7.392  10.975   9.821  1.00 57.52
ATOM    366  O   ASP  581       8.009  10.795  10.869  1.00 59.48
ATOM    367  N   LEU  582       6.727  12.095   9.569  1.00 53.34
ATOM    368  CA  LEU  582       6.627  13.133  10.589  1.00 55.82
ATOM    369  CB  LEU  582       6.830  14.525   9.994  1.00 52.11
ATOM    370  CG  LEU  582       8.283  14.974   9.911  1.00 49.50
ATOM    371  CD1 LEU  582       8.370  16.231   9.086  1.00 48.15
ATOM    372  CD2 LEU  582       8.840  15.191  11.310  1.00 43.90
ATOM    373  C   LEU  582       5.221  12.986  11.143  1.00 59.33
ATOM    374  O   LEU  582       4.821  13.687  12.077  1.00 61.24
ATOM    375  N   ASN  583       4.486  12.059  10.529  1.00 57.59
ATOM    376  CA  ASN  583       3.122  11.715  10.908  1.00 59.14
ATOM    377  CB  ASN  583       3.057  11.512  12.426  1.00 66.26
ATOM    378  CG  ASN  583       3.878  10.318  12.889  1.00 67.06
ATOM    379  OD1 ASN  583       4.260  10.227  14.052  1.00 68.86
ATOM    380  ND2 ASN  583       4.138   9.389  11.976  1.00 63.80
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ATOM	381	C	ASN	583	2.065	12.716	10.451	1.00	59.11
ATOM	382	O	ASN	583	0.884	12.582	10.775	1.00	59.20
ATOM	383	N	LEU	584	2.491	13.705	9.679	1.00	70.96
ATOM	384	CA	LEU	584	1.587	14.728	9.176	1.00	70.05
ATOM	385	CB	LEU	584	2.387	15.790	8.417	1.00	61.28
ATOM	386	CG	LEU	584	3.152	16.859	9.211	1.00	61.13
ATOM	387	CD1	LEU	584	3.654	16.310	10.527	1.00	57.04
ATOM	388	CD2	LEU	584	4.311	17.374	8.365	1.00	55.91
ATOM	389	C	LEU	584	0.489	14.177	8.277	1.00	68.50
ATOM	390	O	LEU	584	-0.635	14.663	8.291	1.00	73.38
ATOM	391	N	VAL	585	0.809	13.156	7.497	1.00	55.47
ATOM	392	CA	VAL	585	-0.165	12.588	6.578	1.00	58.51
ATOM	393	CB	VAL	585	0.459	11.483	5.708	1.00	48.12
ATOM	394	CG1	VAL	585	-0.624	10.817	4.860	1.00	47.68
ATOM	395	CG2	VAL	585	1.539	12.075	4.808	1.00	42.54
ATOM	396	C	VAL	585	-1.415	12.030	7.237	1.00	63.12
ATOM	397	O	VAL	585	-2.521	12.454	6.911	1.00	66.70
ATOM	398	N	GLN	586	-1.247	11.084	8.156	1.00	71.95
ATOM	399	CA	GLN	586	-2.391	10.472	8.828	1.00	73.90
ATOM	400	CB	GLN	586	-1.980	9.168	9.508	1.00	67.76
ATOM	401	CG	GLN	586	-1.012	9.349	10.660	1.00	71.41
ATOM	402	CD	GLN	586	-0.776	8.055	11.420	1.00	74.58
ATOM	403	OE1	GLN	586	-0.040	8.026	12.409	1.00	77.19
ATOM	404	NE2	GLN	586	-1.403	6.976	10.960	1.00	75.02
ATOM	405	C	GLN	586	-3.034	11.388	9.860	1.00	74.00
ATOM	406	O	GLN	586	-4.257	11.471	9.942	1.00	77.40
ATOM	407	N	ASN	587	-2.212	12.061	10.656	1.00	64.14
ATOM	408	CA	ASN	587	-2.725	12.971	11.672	1.00	60.84
ATOM	409	CB	ASN	587	-1.573	13.686	12.376	1.00	57.81
ATOM	410	CG	ASN	587	-0.847	12.793	13.352	1.00	55.59
ATOM	411	OD1	ASN	587	-0.908	11.564	13.251	1.00	55.45
ATOM	412	ND2	ASN	587	-0.139	13.403	14.301	1.00	56.16
ATOM	413	C	ASN	587	-3.677	14.009	11.084	1.00	60.09
ATOM	414	O	ASN	587	-4.598	14.463	11.761	1.00	64.53
ATOM	415	N	PHE	588	-3.456	14.377	9.827	1.00	43.80
ATOM	416	CA	PHE	588	-4.293	15.366	9.176	1.00	44.24
ATOM	417	CB	PHE	588	-3.456	16.588	8.791	1.00	55.71
ATOM	418	CG	PHE	588	-2.707	17.181	9.944	1.00	53.37
ATOM	419	CD1	PHE	588	-1.352	16.934	10.108	1.00	52.95
ATOM	420	CD2	PHE	588	-3.368	17.946	10.896	1.00	49.96
ATOM	421	CE1	PHE	588	-0.662	17.435	11.204	1.00	51.92
ATOM	422	CE2	PHE	588	-2.691	18.449	11.994	1.00	46.19
ATOM	423	CZ	PHE	588	-1.330	18.194	12.150	1.00	48.50
ATOM	424	C	PHE	588	-5.001	14.794	7.961	1.00	46.26
ATOM	425	O	PHE	588	-5.497	15.530	7.107	1.00	48.42
ATOM	426	N	GLN	589	-5.035	13.469	7.897	1.00	50.83
ATOM	427	CA	GLN	589	-5.708	12.755	6.827	1.00	52.14
ATOM	428	CB	GLN	589	-7.226	12.832	7.014	1.00	84.87
ATOM	429	CG	GLN	589	-7.763	12.122	8.242	1.00	92.54
ATOM	430	CD	GLN	589	-9.286	12.092	8.272	1.00	97.99
ATOM	431	OE1	GLN	589	-9.888	11.506	9.173	1.00	98.72
ATOM	432	NE2	GLN	589	-9.915	12.723	7.282	1.00	98.97
ATOM	433	C	GLN	589	-5.374	13.245	5.436	1.00	52.37
ATOM	434	O	GLN	589	-6.262	13.356	4.595	1.00	54.82
ATOM	435	N	MET	590	-4.110	13.531	5.167	1.00	71.94
ATOM	436	CA	MET	590	-3.763	13.996	3.836	1.00	71.28
ATOM	437	CB	MET	590	-2.299	14.399	3.769	1.00	63.92
ATOM	438	CG	MET	590	-1.909	15.450	4.761	1.00	57.68
ATOM	439	SD	MET	590	-0.272	16.007	4.352	1.00	57.45
ATOM	440	CE	MET	590	-0.332	17.705	4.897	1.00	55.53
ATOM	441	C	MET	590	-4.033	12.893	2.825	1.00	71.63
ATOM	442	O	MET	590	-3.449	11.810	2.895	1.00	72.95
ATOM	443	N	LYS	591	-4.935	13.162	1.893	1.00	54.51
ATOM	444	CA	LYS	591	-5.258	12.183	0.875	1.00	58.19
ATOM	445	CB	LYS	591	-6.534	12.607	0.149	1.00	72.24
ATOM	446	CG	LYS	591	-7.747	12.546	1.064	1.00	80.36

ATOM	447	CD	LYS	591	-8.958	13.267	0.502	1.00	85.75
ATOM	448	CE	LYS	591	-10.152	13.084	1.428	1.00	87.76
ATOM	449	NZ	LYS	591	-9.823	13.422	2.845	1.00	88.62
ATOM	450	C	LYS	591	-4.067	12.106	-0.071	1.00	59.20
ATOM	451	O	LYS	591	-3.753	13.073	-0.769	1.00	61.04
ATOM	452	N	HIS	592	-3.409	10.949	-0.078	1.00	73.30
ATOM	453	CA	HIS	592	-2.220	10.718	-0.893	1.00	72.54
ATOM	454	CB	HIS	592	-2.043	9.224	-1.154	1.00	54.67
ATOM	455	CG	HIS	592	-0.724	8.879	-1.770	1.00	55.32
ATOM	456	CD2	HIS	592	0.475	8.594	-1.207	1.00	53.07
ATOM	457	ND1	HIS	592	-0.522	8.852	-3.134	1.00	54.79
ATOM	458	CE1	HIS	592	0.743	8.565	-3.384	1.00	52.28
ATOM	459	NE2	HIS	592	1.370	8.404	-2.232	1.00	53.64
ATOM	460	C	HIS	592	-2.143	11.473	-2.216	1.00	70.81
ATOM	461	O	HIS	592	-1.242	12.292	-2.432	1.00	69.73
ATOM	462	N	GLU	593	-3.082	11.198	-3.102	1.00	61.67
ATOM	463	CA	GLU	593	-3.091	11.850	-4.394	1.00	62.49
ATOM	464	CB	GLU	593	-4.328	11.414	-5.162	1.00	52.88
ATOM	465	CG	GLU	593	-4.029	10.856	-6.533	1.00	52.18
ATOM	466	CD	GLU	593	-4.517	11.772	-7.613	1.00	55.46
ATOM	467	OE1	GLU	593	-5.488	12.519	-7.338	1.00	55.56
ATOM	468	OE2	GLU	593	-3.950	11.732	-8.731	1.00	54.11
ATOM	469	C	GLU	593	-3.032	13.379	-4.318	1.00	61.74
ATOM	470	O	GLU	593	-2.452	14.029	-5.191	1.00	62.16
ATOM	471	N	VAL	594	-3.632	13.957	-3.283	1.00	65.04
ATOM	472	CA	VAL	594	-3.628	15.411	-3.138	1.00	64.26
ATOM	473	CB	VAL	594	-4.663	15.859	-2.081	1.00	52.65
ATOM	474	CG1	VAL	594	-4.925	17.347	-2.202	1.00	52.85
ATOM	475	CG2	VAL	594	-5.944	15.089	-2.264	1.00	49.37
ATOM	476	C	VAL	594	-2.226	15.935	-2.770	1.00	65.53
ATOM	477	O	VAL	594	-1.816	16.999	-3.224	1.00	69.35
ATOM	478	N	LEU	595	-1.499	15.181	-1.950	1.00	56.49
ATOM	479	CA	LEU	595	-0.139	15.546	-1.560	1.00	52.27
ATOM	480	CB	LEU	595	0.380	14.541	-0.531	1.00	44.14
ATOM	481	CG	LEU	595	1.835	14.592	-0.074	1.00	39.52
ATOM	482	CD1	LEU	595	2.244	16.013	0.264	1.00	34.53
ATOM	483	CD2	LEU	595	1.990	13.694	1.139	1.00	31.67
ATOM	484	C	LEU	595	0.762	15.547	-2.805	1.00	53.19
ATOM	485	O	LEU	595	1.513	16.493	-3.039	1.00	54.84
ATOM	486	N	CYS	596	0.662	14.482	-3.601	1.00	54.06
ATOM	487	CA	CYS	596	1.436	14.339	-4.827	1.00	54.51
ATOM	488	CB	CYS	596	1.083	13.024	-5.513	1.00	46.31
ATOM	489	SG	CYS	596	1.641	11.562	-4.645	1.00	53.20
ATOM	490	C	CYS	596	1.145	15.493	-5.777	1.00	55.62
ATOM	491	O	CYS	596	2.054	16.122	-6.329	1.00	56.72
ATOM	492	N	ARG	597	-0.139	15.748	-5.981	1.00	53.84
ATOM	493	CA	ARG	597	-0.590	16.829	-6.839	1.00	53.57
ATOM	494	CB	ARG	597	-2.121	16.832	-6.865	1.00	51.58
ATOM	495	CG	ARG	597	-2.770	18.136	-7.267	1.00	53.90
ATOM	496	CD	ARG	597	-3.394	18.101	-8.665	1.00	54.64
ATOM	497	NE	ARG	597	-4.128	16.873	-9.006	1.00	53.11
ATOM	498	CZ	ARG	597	-4.998	16.229	-8.226	1.00	55.10
ATOM	499	NH1	ARG	597	-5.288	16.653	-7.002	1.00	57.20
ATOM	500	NH2	ARG	597	-5.607	15.152	-8.688	1.00	54.70
ATOM	501	C	ARG	597	-0.042	18.152	-6.291	1.00	53.22
ATOM	502	O	ARG	597	0.358	19.035	-7.052	1.00	54.38
ATOM	503	N	TRP	598	-0.008	18.273	-4.967	1.00	55.60
ATOM	504	CA	TRP	598	0.492	19.481	-4.332	1.00	54.55
ATOM	505	CB	TRP	598	0.195	19.477	-2.838	1.00	46.89
ATOM	506	CG	TRP	598	0.691	20.712	-2.165	1.00	47.35
ATOM	507	CD2	TRP	598	1.856	20.830	-1.339	1.00	48.37
ATOM	508	CE2	TRP	598	1.958	22.185	-0.956	1.00	48.02
ATOM	509	CE3	TRP	598	2.823	19.922	-0.884	1.00	47.95
ATOM	510	CD1	TRP	598	0.153	21.964	-2.250	1.00	45.88
ATOM	511	NE1	TRP	598	0.908	22.855	-1.527	1.00	47.86
ATOM	512	CZ2	TRP	598	2.991	22.654	-0.136	1.00	41.01

	ATOM	513	CZ3	TRP	598	3.849	20.389	-0.071	1.00	43.12
	ATOM	514	CH2	TRP	598	3.923	21.743	0.295	1.00	41.27
	ATOM	515	C	TRP	598	1.992	19.647	-4.528	1.00	53.12
	ATOM	516	O	TRP	598	2.449	20.666	-5.041	1.00	55.56
	ATOM	517	N	ILE	599	2.755	18.647	-4.105	1.00	44.19
	ATOM	518	CA	ILE	599	4.202	18.693	-4.244	1.00	43.27
	ATOM	519	CB	ILE	599	4.824	17.321	-3.951	1.00	38.36
	ATOM	520	CG2	ILE	599	6.266	17.299	-4.382	1.00	36.33
	ATOM	521	CG1	ILE	599	4.704	17.032	-2.459	1.00	38.13
	ATOM	522	CD1	ILE	599	5.124	15.658	-2.060	1.00	43.60
	ATOM	523	C	ILE	599	4.547	19.131	-5.655	1.00	42.12
	ATOM	524	O	ILE	599	5.434	19.961	-5.858	1.00	41.20
	ATOM	525	N	LEU	600	3.811	18.595	-6.620	1.00	46.81
	ATOM	526	CA	LEU	600	4.022	18.927	-8.021	1.00	51.69
	ATOM	527	CB	LEU	600	3.241	17.969	-8.920	1.00	53.39
	ATOM	528	CG	LEU	600	3.842	16.584	-9.157	1.00	54.30
	ATOM	529	CD1	LEU	600	3.001	15.855	-10.204	1.00	52.14
	ATOM	530	CD2	LEU	600	5.271	16.710	-9.643	1.00	50.80
	ATOM	531	C	LEU	600	3.657	20.362	-8.392	1.00	52.02
	ATOM	532	O	LEU	600	4.277	20.954	-9.271	1.00	54.67
	ATOM	533	N	SER	601	2.643	20.920	-7.741	1.00	49.17
	ATOM	534	CA	SER	601	2.242	22.289	-8.041	1.00	48.77
	ATOM	535	CB	SER	601	0.959	22.658	-7.300	1.00	65.43
	ATOM	536	OG	SER	601	-0.151	21.989	-7.854	1.00	72.11
	ATOM	537	C	SER	601	3.348	23.207	-7.597	1.00	49.10
	ATOM	538	O	SER	601	3.615	24.226	-8.223	1.00	51.68
	ATOM	539	N	VAL	602	3.984	22.827	-6.497	1.00	52.96
	ATOM	540	CA	VAL	602	5.070	23.602	-5.931	1.00	50.29
	ATOM	541	CB	VAL	602	5.410	23.097	-4.507	1.00	42.95
	ATOM	542	CG1	VAL	602	6.679	23.759	-4.001	1.00	41.42
	ATOM	543	CG2	VAL	602	4.232	23.379	-3.563	1.00	37.78
	ATOM	544	C	VAL	602	6.302	23.529	-6.826	1.00	51.11
	ATOM	545	O	VAL	602	6.951	24.541	-7.066	1.00	51.54
	ATOM	546	N	LYS	603	6.604	22.337	-7.336	1.00	49.80
	ATOM	547	CA	LYS	603	7.769	22.153	-8.200	1.00	52.54
	ATOM	548	CB	LYS	603	7.965	20.671	-8.547	1.00	47.52
	ATOM	549	CG	LYS	603	9.428	20.261	-8.702	1.00	44.18
	ATOM	550	CD	LYS	603	9.725	19.380	-9.908	1.00	42.81
	ATOM	551	CE	LYS	603	8.764	18.195	-10.057	1.00	44.67
	ATOM	552	NZ	LYS	603	7.488	18.633	-10.728	1.00	49.31
	ATOM	553	C	LYS	603	7.577	22.941	-9.486	1.00	55.47
	ATOM	554	O	LYS	603	8.497	23.584	-9.982	1.00	57.08
	ATOM	555	N	LYS	604	6.363	22.877	-10.015	1.00	54.46
	ATOM	556	CA	LYS	604	5.999	23.557	-11.252	1.00	54.84
	ATOM	557	CB	LYS	604	4.556	23.188	-11.627	1.00	52.90
	ATOM	558	CG	LYS	604	3.893	24.058	-12.699	1.00	54.65
	ATOM	559	CD	LYS	604	2.496	23.521	-13.026	1.00	59.23
	ATOM	560	CE	LYS	604	1.747	24.368	-14.059	1.00	59.71
	ATOM	561	NZ	LYS	604	1.217	25.639	-13.477	1.00	62.80
	ATOM	562	C	LYS	604	6.147	25.066	-11.152	1.00	54.70
	ATOM	563	O	LYS	604	6.580	25.713	-12.103	1.00	53.12
	ATOM	564	N	ASN	605	5.786	25.625	-10.001	1.00	48.17
	ATOM	565	CA	ASN	605	5.876	27.070	-9.812	1.00	48.33
	ATOM	566	CB	ASN	605	4.974	27.515	-8.664	1.00	65.41
	ATOM	567	CG	ASN	605	3.535	27.663	-9.096	1.00	67.11
	ATOM	568	OD1	ASN	605	2.855	26.681	-9.406	1.00	68.05
	ATOM	569	ND2	ASN	605	3.065	28.900	-9.139	1.00	64.44
	ATOM	570	C	ASN	605	7.276	27.625	-9.611	1.00	49.23
	ATOM	571	O	ASN	605	7.461	28.836	-9.659	1.00	51.63
	ATOM	572	N	TYR	606	8.249	26.744	-9.380	1.00	50.97
	ATOM	573	CA	TYR	606	9.653	27.140	-9.209	1.00	50.05
	ATOM	574	CB	TYR	606	10.377	26.138	-8.294	1.00	44.67
	ATOM	575	CG	TYR	606	10.210	26.387	-6.813	1.00	42.14
	ATOM	576	CD1	TYR	606	9.561	25.459	-5.994	1.00	41.19
	ATOM	577	CE1	TYR	606	9.406	25.682	-4.620	1.00	36.32
	ATOM	578	CD2	TYR	606	10.708	27.554	-6.222	1.00	41.02

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ATOM    579  CE2 TYR   606      10.560  27.787  -4.848  1.00 38.47
ATOM    580  CZ  TYR   606       9.905  26.845  -4.057  1.00 36.88
ATOM    581  OH  TYR   606       9.739  27.088  -2.717  1.00 37.64
ATOM    582  C   TYR   606      10.377  27.187 -10.574  1.00 50.27
ATOM    583  O   TYR   606      11.604  27.229 -10.630  1.00 50.16
ATOM    584  N   ARG   607       9.600  27.186 -11.659  1.00 57.16
ATOM    585  CA  ARG   607      10.122  27.188 -13.028  1.00 58.50
ATOM    586  CB  ARG   607       8.969  27.306 -14.040  1.00 84.92
ATOM    587  CG  ARG   607       8.484  25.965 -14.598  1.00 87.46
ATOM    588  CD  ARG   607       7.610  26.113 -15.859  1.00 92.61
ATOM    589  NE  ARG   607       6.252  26.604 -15.603  1.00 97.65
ATOM    590  CZ  ARG   607       5.891  27.886 -15.611  1.00100.65
ATOM    591  NH1 ARG   607       6.784  28.832 -15.865  1.00103.89
ATOM    592  NH2 ARG   607       4.630  28.223 -15.369  1.00102.59
ATOM    593  C   ARG   607      11.194  28.205 -13.401  1.00 57.28
ATOM    594  O   ARG   607      12.386  27.912 -13.338  1.00 59.04
ATOM    595  N   LYS   608      10.766  29.390 -13.814  1.00 51.55
ATOM    596  CA  LYS   608      11.694  30.436 -14.229  1.00 54.35
ATOM    597  CB  LYS   608      10.927  31.607 -14.854  1.00102.18
ATOM    598  CG  LYS   608      10.424  31.350 -16.274  1.00103.89
ATOM    599  CD  LYS   608       9.461  30.171 -16.340  1.00103.89
ATOM    600  CE  LYS   608       8.964  29.932 -17.759  1.00103.89
ATOM    601  NZ  LYS   608       8.165  31.082 -18.270  1.00103.89
ATOM    602  C   LYS   608      12.609  30.955 -13.130  1.00 52.37
ATOM    603  O   LYS   608      13.462  31.803 -13.380  1.00 54.02
ATOM    604  N   ASN   609      12.438  30.444 -11.917  1.00 50.92
ATOM    605  CA  ASN   609      13.268  30.863 -10.802  1.00 46.87
ATOM    606  CB  ASN   609      12.846  30.146  -9.524  1.00 48.04
ATOM    607  CG  ASN   609      11.790  30.897  -8.750  1.00 51.24
ATOM    608  OD1 ASN   609      11.547  30.601  -7.577  1.00 47.99
ATOM    609  ND2 ASN   609      11.148  31.869  -9.398  1.00 54.71
ATOM    610  C   ASN   609      14.754  30.599 -11.026  1.00 41.54
ATOM    611  O   ASN   609      15.131  29.556 -11.568  1.00 40.18
ATOM    612  N   VAL   610      15.593  31.543 -10.599  1.00 46.20
ATOM    613  CA  VAL   610      17.039  31.374 -10.724  1.00 41.23
ATOM    614  CB  VAL   610      17.806  32.617 -10.177  1.00 42.65
ATOM    615  CG1 VAL   610      17.437  32.886  -8.735  1.00 42.46
ATOM    616  CG2 VAL   610      19.298  32.418 -10.318  1.00 42.57
ATOM    617  C   VAL   610      17.377  30.123  -9.914  1.00 42.07
ATOM    618  O   VAL   610      16.637  29.764  -8.997  1.00 46.35
ATOM    619  N   ALA   611      18.472  29.453 -10.249  1.00 38.53
ATOM    620  CA  ALA   611      18.859  28.222  -9.558  1.00 39.60
ATOM    621  CB  ALA   611      20.231  27.740 -10.056  1.00 47.16
ATOM    622  C   ALA   611      18.855  28.276  -8.036  1.00 39.54
ATOM    623  O   ALA   611      18.130  27.519  -7.395  1.00 45.69
ATOM    624  N   TYR   612      19.654  29.153  -7.439  1.00 44.80
ATOM    625  CA  TYR   612      19.692  29.209  -5.986  1.00 44.50
ATOM    626  CB  TYR   612      20.845  30.122  -5.507  1.00 39.13
ATOM    627  CG  TYR   612      20.990  31.506  -6.129  1.00 36.06
ATOM    628  CD1 TYR   612      21.934  31.751  -7.125  1.00 35.76
ATOM    629  CE1 TYR   612      22.158  33.037  -7.603  1.00 38.57
ATOM    630  CD2 TYR   612      20.262  32.586  -5.641  1.00 38.30
ATOM    631  CE2 TYR   612      20.473  33.872  -6.110  1.00 38.14
ATOM    632  CZ  TYR   612      21.424  34.096  -7.081  1.00 37.76
ATOM    633  OH  TYR   612      21.683  35.387  -7.475  1.00 41.13
ATOM    634  C   TYR   612      18.369  29.540  -5.249  1.00 45.33
ATOM    635  O   TYR   612      18.343  29.655  -4.027  1.00 47.25
ATOM    636  N   HIS   613      17.272  29.673  -5.986  1.00 41.66
ATOM    637  CA  HIS   613      15.962  29.953  -5.382  1.00 39.31
ATOM    638  CB  HIS   613      15.547  31.405  -5.613  1.00 39.59
ATOM    639  CG  HIS   613      16.212  32.377  -4.695  1.00 45.10
ATOM    640  CD2 HIS   613      16.586  32.266  -3.399  1.00 44.08
ATOM    641  ND1 HIS   613      16.564  33.649  -5.090  1.00 46.86
ATOM    642  CE1 HIS   613      17.132  34.279  -4.077  1.00 47.41
ATOM    643  NE2 HIS   613      17.158  33.461  -3.039  1.00 47.57
ATOM    644  C   HIS   613      14.919  29.065  -6.025  1.00 39.32
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ATOM	645	O	HIS	613	13.753	29.437	-6.108	1.00	42.16
ATOM	646	N	ASN	614	15.348	27.899	-6.488	1.00	35.69
ATOM	647	CA	ASN	614	14.461	26.972	-7.165	1.00	40.54
ATOM	648	CB	ASN	614	15.148	26.434	-8.427	1.00	52.22
ATOM	649	CG	ASN	614	16.270	25.451	-8.116	1.00	57.90
ATOM	650	OD1	ASN	614	16.482	25.054	-6.965	1.00	57.42
ATOM	651	ND2	ASN	614	16.992	25.044	-9.157	1.00	61.39
ATOM	652	C	ASN	614	13.978	25.805	-6.293	1.00	43.71
ATOM	653	O	ASN	614	14.208	25.774	-5.080	1.00	50.42
ATOM	654	N	TRP	615	13.325	24.842	-6.935	1.00	45.12
ATOM	655	CA	TRP	615	12.768	23.681	-6.258	1.00	42.18
ATOM	656	CB	TRP	615	12.023	22.793	-7.268	1.00	44.84
ATOM	657	CG	TRP	615	11.789	21.425	-6.748	1.00	42.53
ATOM	658	CD2	TRP	615	10.925	21.056	-5.668	1.00	44.10
ATOM	659	CE2	TRP	615	11.127	19.678	-5.426	1.00	46.70
ATOM	660	CE3	TRP	615	9.999	21.754	-4.878	1.00	41.45
ATOM	661	CD1	TRP	615	12.448	20.293	-7.114	1.00	43.05
ATOM	662	NE1	TRP	615	12.062	19.240	-6.324	1.00	42.74
ATOM	663	CZ2	TRP	615	10.440	18.983	-4.427	1.00	46.29
ATOM	664	CZ3	TRP	615	9.316	21.068	-3.887	1.00	41.00
ATOM	665	CH2	TRP	615	9.540	19.693	-3.669	1.00	44.94
ATOM	666	C	TRP	615	13.750	22.841	-5.462	1.00	40.08
ATOM	667	O	TRP	615	13.444	22.399	-4.361	1.00	43.07
ATOM	668	N	ARG	616	14.930	22.608	-6.006	1.00	37.58
ATOM	669	CA	ARG	616	15.906	21.806	-5.287	1.00	39.67
ATOM	670	CB	ARG	616	17.071	21.478	-6.212	1.00	53.75
ATOM	671	CG	ARG	616	16.605	20.951	-7.570	1.00	58.90
ATOM	672	CD	ARG	616	15.871	19.609	-7.449	1.00	63.20
ATOM	673	NE	ARG	616	16.799	18.523	-7.147	1.00	65.11
ATOM	674	CZ	ARG	616	17.108	17.533	-7.982	1.00	61.78
ATOM	675	NH1	ARG	616	16.565	17.461	-9.190	1.00	60.09
ATOM	676	NH2	ARG	616	17.985	16.621	-7.606	1.00	57.57
ATOM	677	C	ARG	616	16.373	22.532	-4.022	1.00	40.12
ATOM	678	O	ARG	616	16.669	21.905	-3.004	1.00	39.34
ATOM	679	N	HIS	617	16.433	23.856	-4.072	1.00	39.84
ATOM	680	CA	HIS	617	16.844	24.581	-2.884	1.00	35.52
ATOM	681	CB	HIS	617	17.040	26.068	-3.158	1.00	31.85
ATOM	682	CG	HIS	617	17.169	26.883	-1.909	1.00	36.18
ATOM	683	CD2	HIS	617	16.359	27.822	-1.373	1.00	36.96
ATOM	684	ND1	HIS	617	18.172	26.673	-0.985	1.00	33.99
ATOM	685	CE1	HIS	617	17.969	27.441	0.068	1.00	34.46
ATOM	686	NE2	HIS	617	16.875	28.146	-0.142	1.00	35.35
ATOM	687	C	HIS	617	15.763	24.423	-1.844	1.00	35.44
ATOM	688	O	HIS	617	16.053	24.202	-0.676	1.00	34.64
ATOM	689	N	ALA	618	14.513	24.546	-2.280	1.00	38.42
ATOM	690	CA	ALA	618	13.369	24.422	-1.379	1.00	38.25
ATOM	691	CB	ALA	618	12.088	24.717	-2.130	1.00	52.39
ATOM	692	C	ALA	618	13.329	23.012	-0.800	1.00	38.59
ATOM	693	O	ALA	618	13.190	22.821	0.408	1.00	39.74
ATOM	694	N	PHE	619	13.455	22.020	-1.668	1.00	36.12
ATOM	695	CA	PHE	619	13.460	20.658	-1.204	1.00	35.14
ATOM	696	CB	PHE	619	13.660	19.705	-2.377	1.00	43.62
ATOM	697	CG	PHE	619	13.933	18.294	-1.953	1.00	45.78
ATOM	698	CD1	PHE	619	12.942	17.535	-1.359	1.00	44.71
ATOM	699	CD2	PHE	619	15.200	17.751	-2.089	1.00	46.02
ATOM	700	CE1	PHE	619	13.203	16.255	-0.896	1.00	46.84
ATOM	701	CE2	PHE	619	15.472	16.469	-1.628	1.00	50.54
ATOM	702	CZ	PHE	619	14.466	15.720	-1.027	1.00	48.35
ATOM	703	C	PHE	619	14.571	20.447	-0.162	1.00	36.11
ATOM	704	O	PHE	619	14.345	19.822	0.881	1.00	38.87
ATOM	705	N	ASN	620	15.768	20.955	-0.446	1.00	37.10
ATOM	706	CA	ASN	620	16.890	20.791	0.474	1.00	39.55
ATOM	707	CB	ASN	620	18.181	21.352	-0.131	1.00	48.55
ATOM	708	CG	ASN	620	18.957	20.314	-0.928	1.00	49.59
ATOM	709	OD1	ASN	620	19.244	19.224	-0.435	1.00	52.27
ATOM	710	ND2	ASN	620	19.312	20.655	-2.155	1.00	49.85

ATOM	711	C	ASN	620	16.623	21.470	1.812	1.00	41.09
ATOM	712	O	ASN	620	17.014	20.969	2.869	1.00	43.34
ATOM	713	N	THR	621	15.957	22.616	1.770	1.00	42.22
ATOM	714	CA	THR	621	15.652	23.320	2.999	1.00	41.10
ATOM	715	CB	THR	621	14.954	24.663	2.710	1.00	42.07
ATOM	716	OG1	THR	621	15.812	25.475	1.893	1.00	43.84
ATOM	717	CG2	THR	621	14.656	25.398	4.019	1.00	38.88
ATOM	718	C	THR	621	14.744	22.448	3.877	1.00	42.90
ATOM	719	O	THR	621	14.923	22.355	5.093	1.00	41.12
ATOM	720	N	ALA	622	13.786	21.788	3.243	1.00	38.39
ATOM	721	CA	ALA	622	12.860	20.937	3.967	1.00	39.67
ATOM	722	CB	ALA	622	11.730	20.511	3.044	1.00	23.88
ATOM	723	C	ALA	622	13.538	19.711	4.581	1.00	45.24
ATOM	724	O	ALA	622	13.209	19.322	5.704	1.00	47.33
ATOM	725	N	GLN	623	14.490	19.106	3.864	1.00	46.37
ATOM	726	CA	GLN	623	15.163	17.917	4.389	1.00	42.82
ATOM	727	CB	GLN	623	16.003	17.237	3.292	1.00	58.08
ATOM	728	CG	GLN	623	17.518	17.407	3.359	1.00	54.85
ATOM	729	CD	GLN	623	18.180	16.520	4.398	1.00	54.20
ATOM	730	OE1	GLN	623	17.763	15.384	4.619	1.00	55.07
ATOM	731	NE2	GLN	623	19.229	17.032	5.032	1.00	49.86
ATOM	732	C	GLN	623	15.998	18.244	5.623	1.00	41.52
ATOM	733	O	GLN	623	16.091	17.426	6.539	1.00	43.42
ATOM	734	N	CYS	624	16.590	19.436	5.672	1.00	33.60
ATOM	735	CA	CYS	624	17.368	19.806	6.851	1.00	29.93
ATOM	736	CB	CYS	624	18.135	21.117	6.645	1.00	33.36
ATOM	737	SG	CYS	624	19.161	21.595	8.098	1.00	39.93
ATOM	738	C	CYS	624	16.398	19.962	8.017	1.00	31.36
ATOM	739	O	CYS	624	16.732	19.642	9.158	1.00	30.78
ATOM	740	N	MET	625	15.197	20.460	7.721	1.00	39.42
ATOM	741	CA	MET	625	14.170	20.648	8.742	1.00	38.14
ATOM	742	CB	MET	625	12.935	21.291	8.122	1.00	35.69
ATOM	743	CG	MET	625	11.778	21.528	9.095	1.00	37.09
ATOM	744	SD	MET	625	12.180	22.677	10.422	1.00	41.55
ATOM	745	CE	MET	625	11.949	24.214	9.590	1.00	41.05
ATOM	746	C	MET	625	13.818	19.277	9.308	1.00	37.64
ATOM	747	O	MET	625	13.853	19.053	10.528	1.00	37.25
ATOM	748	N	PHE	626	13.485	18.363	8.398	1.00	36.28
ATOM	749	CA	PHE	626	13.142	16.990	8.743	1.00	38.38
ATOM	750	CB	PHE	626	12.909	16.179	7.461	1.00	53.99
ATOM	751	CG	PHE	626	12.552	14.740	7.700	1.00	59.05
ATOM	752	CD1	PHE	626	13.549	13.762	7.782	1.00	56.74
ATOM	753	CD2	PHE	626	11.220	14.357	7.857	1.00	57.06
ATOM	754	CE1	PHE	626	13.224	12.422	8.017	1.00	49.54
ATOM	755	CE2	PHE	626	10.884	13.022	8.093	1.00	52.97
ATOM	756	CZ	PHE	626	11.893	12.052	8.173	1.00	52.12
ATOM	757	C	PHE	626	14.270	16.384	9.569	1.00	38.31
ATOM	758	O	PHE	626	14.025	15.780	10.619	1.00	40.87
ATOM	759	N	ALA	627	15.506	16.567	9.105	1.00	39.51
ATOM	760	CA	ALA	627	16.654	16.036	9.819	1.00	41.70
ATOM	761	CB	ALA	627	17.945	16.345	9.068	1.00	33.57
ATOM	762	C	ALA	627	16.695	16.635	11.214	1.00	45.54
ATOM	763	O	ALA	627	16.827	15.911	12.200	1.00	49.64
ATOM	764	N	ALA	628	16.557	17.955	11.305	1.00	40.84
ATOM	765	CA	ALA	628	16.583	18.629	12.603	1.00	40.82
ATOM	766	CB	ALA	628	16.551	20.142	12.406	1.00	46.00
ATOM	767	C	ALA	628	15.440	18.187	13.533	1.00	41.02
ATOM	768	O	ALA	628	15.585	18.182	14.754	1.00	44.68
ATOM	769	N	LEU	629	14.303	17.815	12.967	1.00	41.23
ATOM	770	CA	LEU	629	13.202	17.384	13.805	1.00	42.95
ATOM	771	CB	LEU	629	11.882	17.438	13.033	1.00	42.90
ATOM	772	CG	LEU	629	11.401	18.848	12.661	1.00	40.66
ATOM	773	CD1	LEU	629	10.172	18.756	11.786	1.00	43.42
ATOM	774	CD2	LEU	629	11.095	19.633	13.898	1.00	38.16
ATOM	775	C	LEU	629	13.467	15.968	14.291	1.00	46.07
ATOM	776	O	LEU	629	13.293	15.663	15.469	1.00	49.38

ATOM	777	N	LYS	630	13.903	15.118	13.367	1.00	53.14
ATOM	778	CA	LYS	630	14.203	13.721	13.648	1.00	52.11
ATOM	779	CB	LYS	630	14.287	12.966	12.325	1.00	53.76
ATOM	780	CG	LYS	630	13.285	11.835	12.183	1.00	58.18
ATOM	781	CD	LYS	630	11.866	12.298	12.395	1.00	55.58
ATOM	782	CE	LYS	630	10.939	11.116	12.538	1.00	61.00
ATOM	783	NZ	LYS	630	9.556	11.550	12.854	1.00	61.79
ATOM	784	C	LYS	630	15.509	13.595	14.441	1.00	52.32
ATOM	785	O	LYS	630	15.492	13.393	15.654	1.00	51.98
ATOM	786	N	ALA	631	16.640	13.714	13.756	1.00	66.94
ATOM	787	CA	ALA	631	17.936	13.665	14.421	1.00	66.53
ATOM	788	CB	ALA	631	19.010	13.262	13.447	1.00	41.53
ATOM	789	C	ALA	631	18.160	15.092	14.900	1.00	69.66
ATOM	790	O	ALA	631	18.073	16.038	14.125	1.00	75.65
ATOM	791	N	GLY	632	18.452	15.257	16.178	1.00	70.87
ATOM	792	CA	GLY	632	18.613	16.598	16.706	1.00	70.53
ATOM	793	C	GLY	632	17.509	16.713	17.733	1.00	70.53
ATOM	794	O	GLY	632	17.622	17.412	18.734	1.00	71.66
ATOM	795	N	LYS	633	16.427	15.998	17.454	1.00	53.30
ATOM	796	CA	LYS	633	15.275	15.928	18.334	1.00	57.16
ATOM	797	CB	LYS	633	15.663	15.207	19.628	1.00	87.35
ATOM	798	CG	LYS	633	16.151	13.773	19.441	1.00	94.35
ATOM	799	CD	LYS	633	16.414	13.113	20.789	1.00	98.77
ATOM	800	CE	LYS	633	16.843	11.662	20.639	1.00	100.42
ATOM	801	NZ	LYS	633	17.077	11.030	21.970	1.00	103.10
ATOM	802	C	LYS	633	14.601	17.247	18.685	1.00	55.68
ATOM	803	O	LYS	633	14.520	17.608	19.856	1.00	57.24
ATOM	804	N	ILE	634	14.123	17.965	17.673	1.00	60.72
ATOM	805	CA	ILE	634	13.417	19.220	17.896	1.00	54.51
ATOM	806	CB	ILE	634	13.739	20.267	16.799	1.00	58.73
ATOM	807	CG2	ILE	634	13.074	21.602	17.129	1.00	57.52
ATOM	808	CG1	ILE	634	15.251	20.463	16.682	1.00	55.48
ATOM	809	CD1	ILE	634	15.873	21.112	17.872	1.00	56.53
ATOM	810	C	ILE	634	11.951	18.822	17.785	1.00	56.04
ATOM	811	O	ILE	634	11.062	19.498	18.284	1.00	56.53
ATOM	812	N	GLN	635	11.722	17.692	17.126	1.00	53.26
ATOM	813	CA	GLN	635	10.386	17.157	16.921	1.00	54.49
ATOM	814	CB	GLN	635	10.482	15.744	16.368	1.00	56.93
ATOM	815	CG	GLN	635	9.153	15.193	15.898	1.00	60.46
ATOM	816	CD	GLN	635	9.261	13.770	15.424	1.00	58.47
ATOM	817	OE1	GLN	635	8.352	13.248	14.788	1.00	57.72
ATOM	818	NE2	GLN	635	10.377	13.128	15.737	1.00	59.76
ATOM	819	C	GLN	635	9.545	17.132	18.194	1.00	58.53
ATOM	820	O	GLN	635	8.359	17.476	18.171	1.00	60.45
ATOM	821	N	ASN	636	10.150	16.705	19.300	1.00	69.44
ATOM	822	CA	ASN	636	9.438	16.634	20.572	1.00	73.57
ATOM	823	CB	ASN	636	10.246	15.842	21.596	1.00	99.87
ATOM	824	CG	ASN	636	9.880	16.211	23.030	1.00	103.89
ATOM	825	OD1	ASN	636	8.754	15.975	23.484	1.00	103.52
ATOM	826	ND2	ASN	636	10.831	16.808	23.745	1.00	103.89
ATOM	827	C	ASN	636	9.142	18.010	21.154	1.00	72.21
ATOM	828	O	ASN	636	8.095	18.224	21.762	1.00	76.04
ATOM	829	N	LYS	637	10.075	18.938	20.973	1.00	61.31
ATOM	830	CA	LYS	637	9.925	20.286	21.501	1.00	56.30
ATOM	831	CB	LYS	637	11.270	21.011	21.459	1.00	74.39
ATOM	832	CG	LYS	637	12.396	20.226	22.118	1.00	74.73
ATOM	833	CD	LYS	637	13.715	20.976	22.066	1.00	76.93
ATOM	834	CE	LYS	637	13.710	22.168	23.008	1.00	82.13
ATOM	835	NZ	LYS	637	13.714	21.760	24.442	1.00	83.98
ATOM	836	C	LYS	637	8.877	21.108	20.770	1.00	52.51
ATOM	837	O	LYS	637	8.657	22.258	21.114	1.00	52.20
ATOM	838	N	LEU	638	8.213	20.515	19.783	1.00	54.52
ATOM	839	CA	LEU	638	7.203	21.228	19.012	1.00	54.77
ATOM	840	CB	LEU	638	7.721	21.507	17.600	1.00	57.55
ATOM	841	CG	LEU	638	9.024	22.279	17.427	1.00	54.60
ATOM	842	CD1	LEU	638	9.149	22.676	15.973	1.00	52.72

ATOM	843	CD2	LEU	638	9.030	23.514	18.307	1.00	52.47
ATOM	844	C	LEU	638	5.861	20.508	18.897	1.00	57.09
ATOM	845	O	LEU	638	5.729	19.334	19.263	1.00	60.51
ATOM	846	N	THR	639	4.878	21.227	18.360	1.00	59.34
ATOM	847	CA	THR	639	3.534	20.706	18.171	1.00	58.14
ATOM	848	CB	THR	639	2.468	21.771	18.502	1.00	53.26
ATOM	849	OG1	THR	639	2.414	22.746	17.454	1.00	54.47
ATOM	850	CG2	THR	639	2.796	22.455	19.811	1.00	48.94
ATOM	851	C	THR	639	3.358	20.280	16.720	1.00	56.57
ATOM	852	O	THR	639	4.154	20.651	15.859	1.00	58.45
ATOM	853	N	ASP	640	2.310	19.507	16.456	1.00	46.73
ATOM	854	CA	ASP	640	2.031	19.018	15.110	1.00	46.39
ATOM	855	CB	ASP	640	0.867	18.025	15.116	1.00	57.91
ATOM	856	CG	ASP	640	1.151	16.789	15.942	1.00	62.37
ATOM	857	OD1	ASP	640	0.233	15.952	16.072	1.00	66.90
ATOM	858	OD2	ASP	640	2.279	16.649	16.461	1.00	64.89
ATOM	859	C	ASP	640	1.689	20.131	14.139	1.00	46.40
ATOM	860	O	ASP	640	1.970	20.015	12.948	1.00	49.23
ATOM	861	N	LEU	641	1.060	21.195	14.639	1.00	43.43
ATOM	862	CA	LEU	641	0.674	22.311	13.783	1.00	43.28
ATOM	863	CB	LEU	641	-0.345	23.214	14.486	1.00	62.57
ATOM	864	CG	LEU	641	-1.762	22.693	14.747	1.00	62.83
ATOM	865	CD1	LEU	641	-2.584	23.831	15.321	1.00	60.36
ATOM	866	CD2	LEU	641	-2.399	22.170	13.469	1.00	59.22
ATOM	867	C	LEU	641	1.892	23.134	13.393	1.00	45.38
ATOM	868	O	LEU	641	1.933	23.729	12.316	1.00	43.26
ATOM	869	N	GLU	642	2.880	23.161	14.280	1.00	53.61
ATOM	870	CA	GLU	642	4.104	23.899	14.038	1.00	53.16
ATOM	871	CB	GLU	642	4.792	24.170	15.370	1.00	60.39
ATOM	872	CG	GLU	642	3.996	25.133	16.218	1.00	65.49
ATOM	873	CD	GLU	642	4.572	25.332	17.595	1.00	66.80
ATOM	874	OE1	GLU	642	4.080	26.230	18.298	1.00	69.82
ATOM	875	OE2	GLU	642	5.500	24.596	17.984	1.00	74.35
ATOM	876	C	GLU	642	5.016	23.122	13.088	1.00	53.84
ATOM	877	O	GLU	642	5.655	23.689	12.197	1.00	54.27
ATOM	878	N	ILE	643	5.062	21.813	13.283	1.00	51.46
ATOM	879	CA	ILE	643	5.868	20.952	12.448	1.00	48.04
ATOM	880	CB	ILE	643	5.829	19.509	12.991	1.00	54.63
ATOM	881	CG2	ILE	643	6.378	18.521	11.971	1.00	57.01
ATOM	882	CG1	ILE	643	6.610	19.451	14.298	1.00	50.36
ATOM	883	CD1	ILE	643	6.366	18.213	15.062	1.00	53.09
ATOM	884	C	ILE	643	5.258	21.021	11.060	1.00	46.15
ATOM	885	O	ILE	643	5.958	21.186	10.061	1.00	48.92
ATOM	886	N	LEU	644	3.941	20.913	11.006	1.00	46.42
ATOM	887	CA	LEU	644	3.235	20.961	9.738	1.00	49.45
ATOM	888	CB	LEU	644	1.731	20.846	9.991	1.00	40.12
ATOM	889	CG	LEU	644	0.774	20.996	8.809	1.00	40.76
ATOM	890	CD1	LEU	644	1.185	20.088	7.658	1.00	42.07
ATOM	891	CD2	LEU	644	-0.630	20.665	9.270	1.00	39.13
ATOM	892	C	LEU	644	3.555	22.262	9.001	1.00	50.67
ATOM	893	O	LEU	644	3.838	22.265	7.803	1.00	51.35
ATOM	894	N	ALA	645	3.512	23.363	9.735	1.00	49.83
ATOM	895	CA	ALA	645	3.775	24.672	9.164	1.00	51.70
ATOM	896	CB	ALA	645	3.542	25.782	10.241	1.00	28.31
ATOM	897	C	ALA	645	5.194	24.754	8.602	1.00	52.45
ATOM	898	O	ALA	645	5.391	25.087	7.434	1.00	57.60
ATOM	899	N	LEU	646	6.173	24.439	9.441	1.00	46.40
ATOM	900	CA	LEU	646	7.582	24.489	9.066	1.00	42.27
ATOM	901	CB	LEU	646	8.443	23.925	10.198	1.00	46.12
ATOM	902	CG	LEU	646	8.272	24.584	11.569	1.00	43.89
ATOM	903	CD1	LEU	646	9.190	23.952	12.578	1.00	39.59
ATOM	904	CD2	LEU	646	8.553	26.061	11.448	1.00	44.79
ATOM	905	C	LEU	646	7.907	23.752	7.771	1.00	41.45
ATOM	906	O	LEU	646	8.529	24.309	6.870	1.00	40.56
ATOM	907	N	LEU	647	7.483	22.501	7.679	1.00	49.75
ATOM	908	CA	LEU	647	7.755	21.719	6.492	1.00	51.21

ATOM	909	CB	LEU	647	7.177	20.310	6.631	1.00	38.48
ATOM	910	CG	LEU	647	7.749	19.320	5.606	1.00	36.25
ATOM	911	CD1	LEU	647	9.223	19.090	5.916	1.00	33.13
ATOM	912	CD2	LEU	647	7.002	17.998	5.651	1.00	39.85
ATOM	913	C	LEU	647	7.183	22.389	5.251	1.00	53.01
ATOM	914	O	LEU	647	7.836	22.438	4.212	1.00	55.84
ATOM	915	N	ILE	648	5.964	22.907	5.360	1.00	43.20
ATOM	916	CA	ILE	648	5.327	23.559	4.225	1.00	42.75
ATOM	917	CB	ILE	648	3.832	23.848	4.512	1.00	39.33
ATOM	918	CG2	ILE	648	3.243	24.739	3.420	1.00	39.94
ATOM	919	CG1	ILE	648	3.062	22.526	4.596	1.00	40.07
ATOM	920	CD1	ILE	648	1.549	22.693	4.711	1.00	38.58
ATOM	921	C	ILE	648	6.041	24.857	3.869	1.00	42.28
ATOM	922	O	ILE	648	6.228	25.168	2.698	1.00	43.16
ATOM	923	N	ALA	649	6.438	25.605	4.893	1.00	36.70
ATOM	924	CA	ALA	649	7.133	26.869	4.713	1.00	33.45
ATOM	925	CB	ALA	649	7.362	27.520	6.069	1.00	27.49
ATOM	926	C	ALA	649	8.464	26.649	4.001	1.00	36.17
ATOM	927	O	ALA	649	8.780	27.322	3.008	1.00	34.72
ATOM	928	N	ALA	650	9.245	25.710	4.530	1.00	37.41
ATOM	929	CA	ALA	650	10.541	25.361	3.955	1.00	36.30
ATOM	930	CB	ALA	650	11.071	24.101	4.615	1.00	24.00
ATOM	931	C	ALA	650	10.385	25.133	2.452	1.00	35.31
ATOM	932	O	ALA	650	11.100	25.701	1.634	1.00	34.84
ATOM	933	N	LEU	651	9.411	24.311	2.105	1.00	38.35
ATOM	934	CA	LEU	651	9.143	23.981	0.720	1.00	36.46
ATOM	935	CB	LEU	651	8.089	22.886	0.654	1.00	35.48
ATOM	936	CG	LEU	651	8.579	21.485	0.964	1.00	38.19
ATOM	937	CD1	LEU	651	7.427	20.609	1.405	1.00	34.64
ATOM	938	CD2	LEU	651	9.257	20.940	-0.287	1.00	35.26
ATOM	939	C	LEU	651	8.671	25.140	-0.124	1.00	37.79
ATOM	940	O	LEU	651	8.911	25.168	-1.324	1.00	38.75
ATOM	941	N	SER	652	8.003	26.099	0.501	1.00	37.03
ATOM	942	CA	SER	652	7.450	27.210	-0.258	1.00	37.28
ATOM	943	CB	SER	652	5.945	27.313	0.009	1.00	41.19
ATOM	944	OG	SER	652	5.369	26.055	0.280	1.00	45.08
ATOM	945	C	SER	652	8.042	28.596	-0.053	1.00	37.52
ATOM	946	O	SER	652	7.608	29.520	-0.722	1.00	38.87
ATOM	947	N	HIS	653	9.026	28.752	0.834	1.00	37.89
ATOM	948	CA	HIS	653	9.545	30.087	1.094	1.00	37.48
ATOM	949	CB	HIS	653	10.622	30.059	2.178	1.00	49.21
ATOM	950	CG	HIS	653	11.940	29.525	1.718	1.00	49.26
ATOM	951	CD2	HIS	653	13.085	30.159	1.382	1.00	51.16
ATOM	952	ND1	HIS	653	12.192	28.178	1.576	1.00	51.98
ATOM	953	CE1	HIS	653	13.438	28.006	1.178	1.00	52.36
ATOM	954	NE2	HIS	653	14.001	29.192	1.053	1.00	54.81
ATOM	955	C	HIS	653	10.047	30.888	-0.102	1.00	42.25
ATOM	956	O	HIS	653	10.020	32.118	-0.062	1.00	47.02
ATOM	957	N	ASP	654	10.486	30.222	-1.168	1.00	31.68
ATOM	958	CA	ASP	654	10.970	30.951	-2.332	1.00	29.99
ATOM	959	CB	ASP	654	12.254	30.314	-2.891	1.00	39.52
ATOM	960	CG	ASP	654	13.518	30.754	-2.151	1.00	39.28
ATOM	961	OD1	ASP	654	13.479	31.736	-1.387	1.00	43.27
ATOM	962	OD2	ASP	654	14.570	30.124	-2.352	1.00	45.70
ATOM	963	C	ASP	654	9.974	31.105	-3.476	1.00	32.61
ATOM	964	O	ASP	654	10.386	31.420	-4.581	1.00	31.86
ATOM	965	N	LEU	655	8.679	30.904	-3.236	1.00	63.75
ATOM	966	CA	LEU	655	7.683	31.037	-4.309	1.00	71.81
ATOM	967	CB	LEU	655	6.310	30.544	-3.840	1.00	63.26
ATOM	968	CG	LEU	655	5.930	29.091	-4.146	1.00	63.87
ATOM	969	CD1	LEU	655	6.206	28.778	-5.619	1.00	65.60
ATOM	970	CD2	LEU	655	6.720	28.164	-3.273	1.00	63.07
ATOM	971	C	LEU	655	7.548	32.455	-4.888	1.00	77.81
ATOM	972	O	LEU	655	7.649	32.647	-6.102	1.00	79.19
ATOM	973	N	ASP	656	7.292	33.435	-4.024	1.00	78.91
ATOM	974	CA	ASP	656	7.177	34.840	-4.436	1.00	86.74

ATOM	975	CB	ASP	656	8.564	35.361	-4.826	1.00	101.77
ATOM	976	CG	ASP	656	8.923	36.658	-4.122	1.00	103.89
ATOM	977	OD1	ASP	656	8.552	36.823	-2.940	1.00	103.89
ATOM	978	OD2	ASP	656	9.592	37.508	-4.748	1.00	103.89
ATOM	979	C	ASP	656	6.174	35.139	-5.561	1.00	88.24
ATOM	980	O	ASP	656	6.612	35.304	-6.720	1.00	89.50
ATOM	981	OT	ASP	656	4.957	35.211	-5.277	1.00	95.81
ATOM	982	CB	GLN	674	19.374	38.039	-10.576	1.00	77.18
ATOM	983	CG	GLN	674	19.177	36.630	-10.048	1.00	86.45
ATOM	984	CD	GLN	674	17.718	36.292	-9.818	1.00	91.40
ATOM	985	OE1	GLN	674	17.067	36.857	-8.943	1.00	94.30
ATOM	986	NE2	GLN	674	17.192	35.373	-10.617	1.00	95.67
ATOM	987	C	GLN	674	19.912	39.140	-8.397	1.00	38.62
ATOM	988	O	GLN	674	21.086	38.807	-8.530	1.00	37.80
ATOM	989	N	GLN	674	18.888	40.457	-10.328	1.00	34.72
ATOM	990	CA	GLN	674	18.952	39.136	-9.601	1.00	41.51
ATOM	991	N	LEU	675	19.407	39.509	-7.224	1.00	44.56
ATOM	992	CA	LEU	675	20.225	39.578	-6.005	1.00	39.01
ATOM	993	CB	LEU	675	19.349	39.869	-4.790	1.00	46.03
ATOM	994	CG	LEU	675	18.939	41.303	-4.480	1.00	43.44
ATOM	995	CD1	LEU	675	17.943	41.299	-3.320	1.00	39.16
ATOM	996	CD2	LEU	675	20.178	42.123	-4.133	1.00	44.39
ATOM	997	C	LEU	675	21.038	38.342	-5.696	1.00	39.81
ATOM	998	O	LEU	675	20.766	37.254	-6.191	1.00	40.65
ATOM	999	N	TYR	676	22.041	38.514	-4.848	1.00	46.79
ATOM	1000	CA	TYR	676	22.858	37.392	-4.453	1.00	46.14
ATOM	1001	CB	TYR	676	24.184	37.863	-3.850	1.00	37.12
ATOM	1002	CG	TYR	676	25.250	36.791	-3.819	1.00	35.93
ATOM	1003	CD1	TYR	676	25.172	35.718	-2.935	1.00	39.29
ATOM	1004	CE1	TYR	676	26.125	34.694	-2.955	1.00	37.93
ATOM	1005	CD2	TYR	676	26.315	36.821	-4.722	1.00	36.58
ATOM	1006	CE2	TYR	676	27.275	35.811	-4.751	1.00	35.37
ATOM	1007	CZ	TYR	676	27.176	34.748	-3.870	1.00	37.95
ATOM	1008	OH	TYR	676	28.124	33.745	-3.916	1.00	38.94
ATOM	1009	C	TYR	676	22.097	36.570	-3.423	1.00	48.11
ATOM	1010	O	TYR	676	21.215	37.056	-2.719	1.00	49.90
ATOM	1011	N	CYS	677	22.463	35.304	-3.375	1.00	42.03
ATOM	1012	CA	CYS	677	21.921	34.300	-2.481	1.00	41.03
ATOM	1013	CB	CYS	677	22.767	33.042	-2.681	1.00	44.20
ATOM	1014	SG	CYS	677	22.292	31.599	-1.821	1.00	61.48
ATOM	1015	C	CYS	677	21.938	34.737	-1.000	1.00	41.68
ATOM	1016	O	CYS	677	22.991	35.047	-0.443	1.00	45.72
ATOM	1017	N	HIS	678	20.760	34.736	-0.381	1.00	44.77
ATOM	1018	CA	HIS	678	20.559	35.098	1.028	1.00	40.87
ATOM	1019	CB	HIS	678	21.473	34.269	1.952	1.00	38.88
ATOM	1020	CG	HIS	678	21.325	32.788	1.779	1.00	34.94
ATOM	1021	CD2	HIS	678	22.228	31.837	1.443	1.00	32.57
ATOM	1022	ND1	HIS	678	20.115	32.139	1.900	1.00	30.44
ATOM	1023	CE1	HIS	678	20.279	30.854	1.638	1.00	29.22
ATOM	1024	NE2	HIS	678	21.553	30.646	1.358	1.00	31.85
ATOM	1025	C	HIS	678	20.768	36.573	1.304	1.00	40.62
ATOM	1026	O	HIS	678	21.095	36.964	2.418	1.00	40.74
ATOM	1027	N	SER	679	20.567	37.393	0.284	1.00	40.18
ATOM	1028	CA	SER	679	20.748	38.827	0.419	1.00	37.70
ATOM	1029	CB	SER	679	20.471	39.518	-0.901	1.00	36.00
ATOM	1030	OG	SER	679	20.381	40.909	-0.696	1.00	38.40
ATOM	1031	C	SER	679	19.846	39.429	1.481	1.00	35.71
ATOM	1032	O	SER	679	18.703	39.035	1.645	1.00	38.08
ATOM	1033	N	ILE	680	20.373	40.403	2.197	1.00	36.02
ATOM	1034	CA	ILE	680	19.617	41.065	3.232	1.00	32.65
ATOM	1035	CB	ILE	680	20.569	41.846	4.144	1.00	47.43
ATOM	1036	CG2	ILE	680	21.195	42.983	3.374	1.00	56.37
ATOM	1037	CG1	ILE	680	19.835	42.388	5.357	1.00	50.75
ATOM	1038	CD1	ILE	680	20.749	43.172	6.287	1.00	55.98
ATOM	1039	C	ILE	680	18.578	42.000	2.621	1.00	34.05
ATOM	1040	O	ILE	680	17.810	42.623	3.337	1.00	39.86

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ATOM   1041  N   MET   681      18.550  42.109   1.296  1.00 42.84
ATOM   1042  CA  MET   681      17.569  42.962   0.628  1.00 40.31
ATOM   1043  CB  MET   681      18.188  43.719  -0.549  1.00 45.39
ATOM   1044  CG  MET   681      19.171  44.799  -0.144  1.00 42.89
ATOM   1045  SD  MET   681      18.487  45.977   1.041  1.00 47.78
ATOM   1046  CE  MET   681      19.757  47.164   1.096  1.00 53.03
ATOM   1047  C   MET   681      16.436  42.090   0.124  1.00 39.67
ATOM   1048  O   MET   681      15.476  42.576  -0.474  1.00 39.20
ATOM   1049  N   GLU   682      16.565  40.792   0.363  1.00 42.12
ATOM   1050  CA  GLU   682      15.551  39.844  -0.046  1.00 40.78
ATOM   1051  CB  GLU   682      16.091  38.431   0.003  1.00 45.85
ATOM   1052  CG  GLU   682      16.676  37.930  -1.277  1.00 50.92
ATOM   1053  CD  GLU   682      17.285  36.565  -1.094  1.00 55.70
ATOM   1054  OE1 GLU   682      16.739  35.798  -0.274  1.00 52.28
ATOM   1055  OE2 GLU   682      18.292  36.259  -1.768  1.00 61.74
ATOM   1056  C   GLU   682      14.355  39.931   0.878  1.00 41.95
ATOM   1057  O   GLU   682      14.495  40.241   2.068  1.00 42.09
ATOM   1058  N   HIS   683      13.186  39.644   0.313  1.00 42.21
ATOM   1059  CA  HIS   683      11.926  39.667   1.032  1.00 40.06
ATOM   1060  CB  HIS   683      11.316  41.070   0.995  1.00 41.41
ATOM   1061  CG  HIS   683      12.094  42.057   1.798  1.00 45.88
ATOM   1062  CD2 HIS   683      12.810  43.143   1.429  1.00 53.48
ATOM   1063  ND1 HIS   683      12.305  41.901   3.150  1.00 49.34
ATOM   1064  CE1 HIS   683      13.124  42.843   3.579  1.00 51.19
ATOM   1065  NE2 HIS   683      13.446  43.610   2.554  1.00 57.33
ATOM   1066  C   HIS   683      11.001  38.662   0.401  1.00 38.47
ATOM   1067  O   HIS   683      10.661  38.763  -0.762  1.00 43.13
ATOM   1068  N   HIS   684      10.596  37.681   1.186  1.00 35.11
ATOM   1069  CA  HIS   684       9.728  36.628   0.686  1.00 38.34
ATOM   1070  CB  HIS   684      10.128  35.311   1.341  1.00 35.55
ATOM   1071  CG  HIS   684      11.604  35.062   1.317  1.00 30.74
ATOM   1072  CD2 HIS   684      12.354  34.213   0.580  1.00 27.82
ATOM   1073  ND1 HIS   684      12.489  35.771   2.101  1.00 30.82
ATOM   1074  CE1 HIS   684      13.721  35.369   1.847  1.00 25.17
ATOM   1075  NE2 HIS   684      13.664  34.424   0.929  1.00 23.56
ATOM   1076  C   HIS   684       8.257  36.922   0.938  1.00 40.56
ATOM   1077  O   HIS   684       7.915  37.853   1.654  1.00 41.92
ATOM   1078  N   HIS   685       7.388  36.125   0.340  1.00 37.97
ATOM   1079  CA  HIS   685       5.970  36.320   0.516  1.00 39.14
ATOM   1080  CB  HIS   685       5.420  37.116  -0.672  1.00 54.54
ATOM   1081  CG  HIS   685       6.017  38.484  -0.792  1.00 58.31
ATOM   1082  CD2 HIS   685       5.683  39.654  -0.198  1.00 62.13
ATOM   1083  ND1 HIS   685       7.179  38.730  -1.492  1.00 60.48
ATOM   1084  CE1 HIS   685       7.538  39.989  -1.317  1.00 61.18
ATOM   1085  NE2 HIS   685       6.648  40.572  -0.534  1.00 60.37
ATOM   1086  C   HIS   685       5.210  35.010   0.726  1.00 39.38
ATOM   1087  O   HIS   685       5.666  33.943   0.332  1.00 42.02
ATOM   1088  N   PHE   686       4.056  35.110   1.378  1.00 45.57
ATOM   1089  CA  PHE   686       3.206  33.959   1.676  1.00 47.00
ATOM   1090  CB  PHE   686       2.572  34.142   3.055  1.00 72.43
ATOM   1091  CG  PHE   686       1.591  33.067   3.423  1.00 78.46
ATOM   1092  CD1 PHE   686       0.421  33.386   4.103  1.00 77.10
ATOM   1093  CD2 PHE   686       1.838  31.733   3.105  1.00 82.43
ATOM   1094  CE1 PHE   686      -0.491  32.392   4.459  1.00 79.95
ATOM   1095  CE2 PHE   686       0.932  30.729   3.457  1.00 80.42
ATOM   1096  CZ  PHE   686      -0.233  31.058   4.134  1.00 78.19
ATOM   1097  C   PHE   686       2.109  33.862   0.627  1.00 47.23
ATOM   1098  O   PHE   686       1.381  32.880   0.549  1.00 46.70
ATOM   1099  N   ASP   687       2.019  34.902  -0.188  1.00 55.93
ATOM   1100  CA  ASP   687       1.012  35.014  -1.230  1.00 58.99
ATOM   1101  CB  ASP   687       1.268  36.305  -1.998  1.00 83.68
ATOM   1102  CG  ASP   687       1.452  37.490  -1.069  1.00 93.37
ATOM   1103  OD1 ASP   687       0.462  37.916  -0.439  1.00100.68
ATOM   1104  OD2 ASP   687       2.592  37.982  -0.947  1.00 95.73
ATOM   1105  C   ASP   687       0.878  33.838  -2.190  1.00 55.87
ATOM   1106  O   ASP   687      -0.211  33.293  -2.356  1.00 57.90
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ATOM	1107	N	GLN	688	1.969	33.434	-2.826	1.00	64.31
ATOM	1108	CA	GLN	688	1.884	32.323	-3.766	1.00	60.91
ATOM	1109	CB	GLN	688	3.085	32.332	-4.713	1.00	58.94
ATOM	1110	CG	GLN	688	3.062	31.189	-5.698	1.00	64.34
ATOM	1111	CD	GLN	688	3.892	31.454	-6.933	1.00	69.89
ATOM	1112	OE1	GLN	688	5.063	31.820	-6.845	1.00	72.40
ATOM	1113	NE2	GLN	688	3.289	31.261	-8.096	1.00	73.71
ATOM	1114	C	GLN	688	1.737	30.955	-3.092	1.00	60.00
ATOM	1115	O	GLN	688	1.144	30.040	-3.667	1.00	57.60
ATOM	1116	N	CYS	689	2.270	30.810	-1.882	1.00	46.40
ATOM	1117	CA	CYS	689	2.141	29.549	-1.156	1.00	44.71
ATOM	1118	CB	CYS	689	2.959	29.577	0.139	1.00	43.19
ATOM	1119	SG	CYS	689	2.458	28.352	1.363	1.00	44.67
ATOM	1120	C	CYS	689	0.671	29.320	-0.813	1.00	45.52
ATOM	1121	O	CYS	689	0.138	28.224	-1.014	1.00	47.46
ATOM	1122	N	LEU	690	0.019	30.363	-0.303	1.00	44.45
ATOM	1123	CA	LEU	690	-1.377	30.269	0.083	1.00	45.40
ATOM	1124	CB	LEU	690	-1.862	31.575	0.717	1.00	53.07
ATOM	1125	CG	LEU	690	-3.295	31.514	1.273	1.00	55.70
ATOM	1126	CD1	LEU	690	-3.322	30.588	2.478	1.00	56.46
ATOM	1127	CD2	LEU	690	-3.779	32.893	1.677	1.00	52.67
ATOM	1128	C	LEU	690	-2.264	29.926	-1.098	1.00	49.31
ATOM	1129	O	LEU	690	-3.159	29.090	-0.978	1.00	52.19
ATOM	1130	N	MET	691	-2.016	30.560	-2.239	1.00	44.34
ATOM	1131	CA	MET	691	-2.825	30.300	-3.417	1.00	47.09
ATOM	1132	CB	MET	691	-2.509	31.316	-4.521	1.00	81.13
ATOM	1133	CG	MET	691	-3.682	31.573	-5.485	1.00	95.76
ATOM	1134	SD	MET	691	-5.176	32.350	-4.732	1.00	103.71
ATOM	1135	CE	MET	691	-5.228	33.950	-5.578	1.00	100.31
ATOM	1136	C	MET	691	-2.639	28.864	-3.923	1.00	47.02
ATOM	1137	O	MET	691	-3.576	28.272	-4.465	1.00	45.72
ATOM	1138	N	ILE	692	-1.443	28.297	-3.746	1.00	52.86
ATOM	1139	CA	ILE	692	-1.206	26.918	-4.178	1.00	52.17
ATOM	1140	CB	ILE	692	0.270	26.483	-4.069	1.00	56.40
ATOM	1141	CG2	ILE	692	0.405	25.066	-4.598	1.00	56.56
ATOM	1142	CG1	ILE	692	1.190	27.428	-4.846	1.00	57.55
ATOM	1143	CD1	ILE	692	1.147	27.260	-6.341	1.00	58.75
ATOM	1144	C	ILE	692	-1.993	26.011	-3.245	1.00	51.19
ATOM	1145	O	ILE	692	-2.698	25.096	-3.690	1.00	50.65
ATOM	1146	N	LEU	693	-1.860	26.277	-1.948	1.00	57.24
ATOM	1147	CA	LEU	693	-2.543	25.506	-0.913	1.00	55.01
ATOM	1148	CB	LEU	693	-2.231	26.085	0.469	1.00	44.63
ATOM	1149	CG	LEU	693	-1.014	25.491	1.160	1.00	42.69
ATOM	1150	CD1	LEU	693	-0.705	26.241	2.445	1.00	42.47
ATOM	1151	CD2	LEU	693	-1.306	24.027	1.439	1.00	41.33
ATOM	1152	C	LEU	693	-4.055	25.454	-1.094	1.00	55.92
ATOM	1153	O	LEU	693	-4.674	24.414	-0.879	1.00	57.23
ATOM	1154	N	ASN	694	-4.646	26.580	-1.481	1.00	64.50
ATOM	1155	CA	ASN	694	-6.085	26.650	-1.676	1.00	63.33
ATOM	1156	CB	ASN	694	-6.623	27.994	-1.189	1.00	62.65
ATOM	1157	CG	ASN	694	-6.502	28.153	0.308	1.00	63.65
ATOM	1158	OD1	ASN	694	-6.724	27.201	1.059	1.00	65.80
ATOM	1159	ND2	ASN	694	-6.165	29.361	0.756	1.00	60.60
ATOM	1160	C	ASN	694	-6.471	26.445	-3.128	1.00	63.08
ATOM	1161	O	ASN	694	-7.449	27.012	-3.607	1.00	63.31
ATOM	1162	N	SER	695	-5.695	25.627	-3.825	1.00	48.91
ATOM	1163	CA	SER	695	-5.955	25.342	-5.227	1.00	45.70
ATOM	1164	CB	SER	695	-4.632	25.288	-5.987	1.00	55.35
ATOM	1165	OG	SER	695	-4.831	25.544	-7.362	1.00	59.10
ATOM	1166	C	SER	695	-6.683	24.004	-5.331	1.00	45.77
ATOM	1167	O	SER	695	-6.312	23.035	-4.668	1.00	46.23
ATOM	1168	N	PRO	696	-7.739	23.936	-6.161	1.00	54.62
ATOM	1169	CD	PRO	696	-8.194	24.976	-7.101	1.00	62.91
ATOM	1170	CA	PRO	696	-8.516	22.708	-6.343	1.00	55.06
ATOM	1171	CB	PRO	696	-9.495	23.083	-7.457	1.00	63.42
ATOM	1172	CG	PRO	696	-8.764	24.150	-8.212	1.00	61.36

ATOM	1173	C	PRO	696	-7.680	21.472	-6.682	1.00	57.53
ATOM	1174	O	PRO	696	-7.078	21.382	-7.746	1.00	57.47
ATOM	1175	N	GLY	697	-7.653	20.521	-5.756	1.00	70.37
ATOM	1176	CA	GLY	697	-6.901	19.302	-5.961	1.00	68.93
ATOM	1177	C	GLY	697	-5.610	19.283	-5.173	1.00	70.88
ATOM	1178	O	GLY	697	-5.002	18.225	-5.023	1.00	72.47
ATOM	1179	N	ASN	698	-5.202	20.442	-4.652	1.00	49.15
ATOM	1180	CA	ASN	698	-3.952	20.553	-3.893	1.00	45.77
ATOM	1181	CB	ASN	698	-3.041	21.595	-4.545	1.00	54.50
ATOM	1182	CG	ASN	698	-2.709	21.264	-5.981	1.00	55.34
ATOM	1183	OD1	ASN	698	-3.532	21.424	-6.883	1.00	52.47
ATOM	1184	ND2	ASN	698	-1.498	20.785	-6.201	1.00	54.02
ATOM	1185	C	ASN	698	-4.151	20.942	-2.435	1.00	45.84
ATOM	1186	O	ASN	698	-3.180	21.192	-1.718	1.00	46.76
ATOM	1187	N	GLN	699	-5.408	20.987	-2.003	1.00	64.85
ATOM	1188	CA	GLN	699	-5.753	21.391	-0.641	1.00	63.27
ATOM	1189	CB	GLN	699	-7.251	21.674	-0.571	1.00	60.65
ATOM	1190	CG	GLN	699	-7.700	22.610	-1.686	1.00	61.81
ATOM	1191	CD	GLN	699	-9.180	22.911	-1.644	1.00	60.98
ATOM	1192	OE1	GLN	699	-9.666	23.528	-0.697	1.00	61.53
ATOM	1193	NE2	GLN	699	-9.907	22.481	-2.675	1.00	59.14
ATOM	1194	C	GLN	699	-5.349	20.398	0.434	1.00	62.18
ATOM	1195	O	GLN	699	-6.189	19.840	1.133	1.00	62.55
ATOM	1196	N	ILE	700	-4.044	20.207	0.579	1.00	45.41
ATOM	1197	CA	ILE	700	-3.512	19.278	1.558	1.00	44.77
ATOM	1198	CB	ILE	700	-1.965	19.183	1.457	1.00	67.07
ATOM	1199	CG2	ILE	700	-1.564	18.754	0.066	1.00	63.10
ATOM	1200	CG1	ILE	700	-1.331	20.537	1.781	1.00	68.21
ATOM	1201	CD1	ILE	700	0.175	20.516	1.828	1.00	65.96
ATOM	1202	C	ILE	700	-3.884	19.634	2.986	1.00	42.90
ATOM	1203	O	ILE	700	-3.603	18.878	3.901	1.00	45.41
ATOM	1204	N	LEU	701	-4.503	20.786	3.189	1.00	47.99
ATOM	1205	CA	LEU	701	-4.886	21.182	4.544	1.00	48.58
ATOM	1206	CB	LEU	701	-4.492	22.640	4.806	1.00	48.02
ATOM	1207	CG	LEU	701	-3.008	23.029	4.864	1.00	42.31
ATOM	1208	CD1	LEU	701	-2.898	24.509	5.192	1.00	37.04
ATOM	1209	CD2	LEU	701	-2.280	22.215	5.922	1.00	38.98
ATOM	1210	C	LEU	701	-6.386	21.005	4.813	1.00	49.40
ATOM	1211	O	LEU	701	-6.856	21.252	5.921	1.00	47.70
ATOM	1212	N	SER	702	-7.127	20.564	3.803	1.00	61.97
ATOM	1213	CA	SER	702	-8.568	20.382	3.930	1.00	61.36
ATOM	1214	CB	SER	702	-9.158	19.850	2.619	1.00	46.10
ATOM	1215	OG	SER	702	-8.986	18.448	2.510	1.00	44.57
ATOM	1216	C	SER	702	-8.932	19.435	5.065	1.00	61.15
ATOM	1217	O	SER	702	-10.088	19.336	5.445	1.00	64.58
ATOM	1218	N	GLY	703	-7.941	18.741	5.606	1.00	51.33
ATOM	1219	CA	GLY	703	-8.200	17.816	6.690	1.00	49.55
ATOM	1220	C	GLY	703	-8.170	18.478	8.047	1.00	54.03
ATOM	1221	O	GLY	703	-8.428	17.829	9.058	1.00	56.26
ATOM	1222	N	LEU	704	-7.857	19.767	8.092	1.00	57.38
ATOM	1223	CA	LEU	704	-7.811	20.466	9.372	1.00	59.34
ATOM	1224	CB	LEU	704	-6.770	21.581	9.362	1.00	42.66
ATOM	1225	CG	LEU	704	-5.427	21.394	8.684	1.00	44.12
ATOM	1226	CD1	LEU	704	-4.466	22.439	9.272	1.00	42.11
ATOM	1227	CD2	LEU	704	-4.908	19.993	8.899	1.00	42.36
ATOM	1228	C	LEU	704	-9.145	21.099	9.717	1.00	62.56
ATOM	1229	O	LEU	704	-10.060	21.148	8.898	1.00	67.09
ATOM	1230	N	SER	705	-9.240	21.587	10.947	1.00	53.28
ATOM	1231	CA	SER	705	-10.437	22.262	11.408	1.00	49.66
ATOM	1232	CB	SER	705	-10.687	21.963	12.884	1.00	44.43
ATOM	1233	OG	SER	705	-9.681	22.550	13.690	1.00	41.76
ATOM	1234	C	SER	705	-10.107	23.737	11.226	1.00	51.45
ATOM	1235	O	SER	705	-8.930	24.113	11.216	1.00	52.68
ATOM	1236	N	ILE	706	-11.139	24.559	11.073	1.00	50.85
ATOM	1237	CA	ILE	706	-10.975	25.997	10.890	1.00	54.17
ATOM	1238	CB	ILE	706	-12.318	26.725	11.068	1.00	82.06

ATOM	1239	CG2	ILE	706	-12.373	27.928	10.149	1.00	82.69
ATOM	1240	CG1	ILE	706	-13.479	25.784	10.728	1.00	86.60
ATOM	1241	CD1	ILE	706	-13.751	24.704	11.780	1.00	90.10
ATOM	1242	C	ILE	706	-9.969	26.554	11.900	1.00	57.00
ATOM	1243	O	ILE	706	-9.123	27.388	11.569	1.00	57.92
ATOM	1244	N	GLU	707	-10.066	26.073	13.132	1.00	50.18
ATOM	1245	CA	GLU	707	-9.178	26.492	14.213	1.00	51.85
ATOM	1246	CB	GLU	707	-9.551	25.746	15.498	1.00	82.21
ATOM	1247	CG	GLU	707	-11.050	25.545	15.691	1.00	94.53
ATOM	1248	CD	GLU	707	-11.384	24.261	16.441	1.00	99.37
ATOM	1249	OE1	GLU	707	-12.573	24.043	16.763	1.00	103.89
ATOM	1250	OE2	GLU	707	-10.458	23.463	16.701	1.00	103.51
ATOM	1251	C	GLU	707	-7.732	26.147	13.840	1.00	49.55
ATOM	1252	O	GLU	707	-6.815	26.946	14.024	1.00	52.62
ATOM	1253	N	GLU	708	-7.546	24.935	13.327	1.00	53.47
ATOM	1254	CA	GLU	708	-6.234	24.438	12.926	1.00	48.50
ATOM	1255	CB	GLU	708	-6.318	22.945	12.625	1.00	46.92
ATOM	1256	CG	GLU	708	-6.614	22.097	13.835	1.00	42.59
ATOM	1257	CD	GLU	708	-6.747	20.624	13.487	1.00	47.81
ATOM	1258	OE1	GLU	708	-6.329	19.783	14.306	1.00	52.33
ATOM	1259	OE2	GLU	708	-7.277	20.307	12.402	1.00	48.69
ATOM	1260	C	GLU	708	-5.743	25.178	11.689	1.00	46.03
ATOM	1261	O	GLU	708	-4.623	25.675	11.640	1.00	44.53
ATOM	1262	N	TYR	709	-6.602	25.247	10.690	1.00	45.36
ATOM	1263	CA	TYR	709	-6.255	25.920	9.458	1.00	43.74
ATOM	1264	CB	TYR	709	-7.486	26.005	8.572	1.00	50.54
ATOM	1265	CG	TYR	709	-7.204	26.535	7.207	1.00	50.57
ATOM	1266	CD1	TYR	709	-6.355	25.857	6.341	1.00	50.06
ATOM	1267	CE1	TYR	709	-6.137	26.315	5.054	1.00	50.53
ATOM	1268	CD2	TYR	709	-7.823	27.695	6.755	1.00	52.62
ATOM	1269	CE2	TYR	709	-7.610	28.164	5.466	1.00	52.56
ATOM	1270	CZ	TYR	709	-6.768	27.467	4.622	1.00	52.16
ATOM	1271	OH	TYR	709	-6.562	27.926	3.345	1.00	54.34
ATOM	1272	C	TYR	709	-5.721	27.313	9.771	1.00	43.92
ATOM	1273	O	TYR	709	-4.521	27.566	9.653	1.00	45.26
ATOM	1274	N	LYS	710	-6.615	28.201	10.196	1.00	58.41
ATOM	1275	CA	LYS	710	-6.249	29.573	10.528	1.00	57.99
ATOM	1276	CB	LYS	710	-7.375	30.247	11.322	1.00	53.56
ATOM	1277	CG	LYS	710	-8.618	30.564	10.496	1.00	51.98
ATOM	1278	CD	LYS	710	-9.574	31.504	11.248	1.00	55.14
ATOM	1279	CE	LYS	710	-10.701	32.001	10.340	1.00	56.42
ATOM	1280	NZ	LYS	710	-11.562	33.027	10.990	1.00	54.86
ATOM	1281	C	LYS	710	-4.936	29.698	11.295	1.00	58.55
ATOM	1282	O	LYS	710	-4.159	30.623	11.062	1.00	60.76
ATOM	1283	N	THR	711	-4.684	28.774	12.211	1.00	57.86
ATOM	1284	CA	THR	711	-3.454	28.815	12.989	1.00	57.27
ATOM	1285	CB	THR	711	-3.526	27.878	14.209	1.00	53.22
ATOM	1286	OG1	THR	711	-4.643	28.240	15.031	1.00	56.79
ATOM	1287	CG2	THR	711	-2.236	27.968	15.017	1.00	52.77
ATOM	1288	C	THR	711	-2.255	28.394	12.143	1.00	58.87
ATOM	1289	O	THR	711	-1.186	29.016	12.210	1.00	59.76
ATOM	1290	N	THR	712	-2.441	27.342	11.348	1.00	42.34
ATOM	1291	CA	THR	712	-1.370	26.823	10.503	1.00	40.54
ATOM	1292	CB	THR	712	-1.824	25.559	9.724	1.00	56.74
ATOM	1293	OG1	THR	712	-2.342	24.584	10.640	1.00	54.77
ATOM	1294	CG2	THR	712	-0.646	24.936	8.993	1.00	55.27
ATOM	1295	C	THR	712	-0.903	27.899	9.529	1.00	39.75
ATOM	1296	O	THR	712	0.254	28.303	9.556	1.00	38.82
ATOM	1297	N	LEU	713	-1.805	28.380	8.685	1.00	54.72
ATOM	1298	CA	LEU	713	-1.445	29.423	7.735	1.00	54.07
ATOM	1299	CB	LEU	713	-2.700	30.033	7.115	1.00	52.67
ATOM	1300	CG	LEU	713	-3.606	29.123	6.297	1.00	51.59
ATOM	1301	CD1	LEU	713	-4.728	29.954	5.725	1.00	53.09
ATOM	1302	CD2	LEU	713	-2.821	28.459	5.181	1.00	54.52
ATOM	1303	C	LEU	713	-0.645	30.531	8.422	1.00	54.55
ATOM	1304	O	LEU	713	0.373	30.997	7.910	1.00	54.23

ATOM	1305	N	LYS	714	-1.106	30.932	9.597	1.00	43.76
ATOM	1306	CA	LYS	714	-0.454	31.996	10.341	1.00	41.03
ATOM	1307	CB	LYS	714	-1.197	32.238	11.660	1.00	50.45
ATOM	1308	CG	LYS	714	-0.841	33.536	12.366	1.00	54.15
ATOM	1309	CD	LYS	714	0.480	33.468	13.132	1.00	56.78
ATOM	1310	CE	LYS	714	0.259	33.302	14.641	1.00	57.58
ATOM	1311	NZ	LYS	714	1.526	33.258	15.447	1.00	55.41
ATOM	1312	C	LYS	714	1.001	31.656	10.614	1.00	40.84
ATOM	1313	O	LYS	714	1.895	32.462	10.362	1.00	41.39
ATOM	1314	N	ILE	715	1.241	30.459	11.134	1.00	43.00
ATOM	1315	CA	ILE	715	2.603	30.053	11.451	1.00	43.02
ATOM	1316	CB	ILE	715	2.602	28.739	12.237	1.00	39.26
ATOM	1317	CG2	ILE	715	4.049	28.315	12.542	1.00	35.81
ATOM	1318	CG1	ILE	715	1.787	28.928	13.532	1.00	37.88
ATOM	1319	CD1	ILE	715	1.454	27.630	14.281	1.00	34.00
ATOM	1320	C	ILE	715	3.446	29.915	10.181	1.00	44.13
ATOM	1321	O	ILE	715	4.636	30.212	10.180	1.00	43.33
ATOM	1322	N	ILE	716	2.804	29.475	9.106	1.00	39.02
ATOM	1323	CA	ILE	716	3.456	29.303	7.821	1.00	38.68
ATOM	1324	CB	ILE	716	2.481	28.630	6.819	1.00	46.36
ATOM	1325	CG2	ILE	716	2.975	28.807	5.389	1.00	49.01
ATOM	1326	CG1	ILE	716	2.301	27.156	7.194	1.00	40.22
ATOM	1327	CD1	ILE	716	1.285	26.432	6.342	1.00	38.01
ATOM	1328	C	ILE	716	3.925	30.657	7.261	1.00	40.56
ATOM	1329	O	ILE	716	5.048	30.785	6.778	1.00	41.48
ATOM	1330	N	LYS	717	3.047	31.655	7.322	1.00	44.43
ATOM	1331	CA	LYS	717	3.363	32.990	6.843	1.00	42.08
ATOM	1332	CB	LYS	717	2.156	33.912	7.014	1.00	49.56
ATOM	1333	CG	LYS	717	2.295	35.287	6.343	1.00	59.15
ATOM	1334	CD	LYS	717	1.107	36.209	6.688	1.00	63.33
ATOM	1335	CE	LYS	717	1.157	37.560	5.953	1.00	61.09
ATOM	1336	NZ	LYS	717	0.855	37.451	4.488	1.00	66.34
ATOM	1337	C	LYS	717	4.532	33.511	7.667	1.00	42.28
ATOM	1338	O	LYS	717	5.467	34.102	7.137	1.00	47.20
ATOM	1339	N	GLN	718	4.486	33.283	8.971	1.00	46.81
ATOM	1340	CA	GLN	718	5.563	33.742	9.829	1.00	46.95
ATOM	1341	CB	GLN	718	5.193	33.522	11.288	1.00	56.75
ATOM	1342	CG	GLN	718	4.087	34.448	11.748	1.00	64.80
ATOM	1343	CD	GLN	718	3.621	34.172	13.163	1.00	69.18
ATOM	1344	OE1	GLN	718	2.974	35.016	13.780	1.00	70.22
ATOM	1345	NE2	GLN	718	3.935	32.983	13.681	1.00	70.51
ATOM	1346	C	GLN	718	6.859	33.021	9.495	1.00	47.22
ATOM	1347	O	GLN	718	7.935	33.625	9.507	1.00	47.95
ATOM	1348	N	ALA	719	6.754	31.734	9.180	1.00	33.80
ATOM	1349	CA	ALA	719	7.932	30.955	8.841	1.00	31.78
ATOM	1350	CB	ALA	719	7.585	29.481	8.763	1.00	42.64
ATOM	1351	C	ALA	719	8.555	31.428	7.525	1.00	31.41
ATOM	1352	O	ALA	719	9.779	31.507	7.411	1.00	31.85
ATOM	1353	N	ILE	720	7.720	31.750	6.538	1.00	37.22
ATOM	1354	CA	ILE	720	8.228	32.229	5.256	1.00	35.31
ATOM	1355	CB	ILE	720	7.096	32.362	4.228	1.00	32.97
ATOM	1356	CG2	ILE	720	7.566	33.166	3.027	1.00	30.70
ATOM	1357	CG1	ILE	720	6.647	30.962	3.794	1.00	29.45
ATOM	1358	CD1	ILE	720	5.627	30.942	2.697	1.00	31.37
ATOM	1359	C	ILE	720	8.955	33.571	5.413	1.00	37.08
ATOM	1360	O	ILE	720	10.064	33.747	4.914	1.00	36.75
ATOM	1361	N	LEU	721	8.329	34.508	6.122	1.00	43.48
ATOM	1362	CA	LEU	721	8.932	35.812	6.348	1.00	46.24
ATOM	1363	CB	LEU	721	7.940	36.731	7.070	1.00	54.25
ATOM	1364	CG	LEU	721	6.938	37.490	6.186	1.00	55.18
ATOM	1365	CD1	LEU	721	6.422	36.595	5.057	1.00	58.21
ATOM	1366	CD2	LEU	721	5.792	37.993	7.041	1.00	51.90
ATOM	1367	C	LEU	721	10.234	35.706	7.144	1.00	48.91
ATOM	1368	O	LEU	721	11.149	36.513	6.962	1.00	52.62
ATOM	1369	N	ALA	722	10.323	34.705	8.015	1.00	43.19
ATOM	1370	CA	ALA	722	11.521	34.504	8.822	1.00	40.00

ATOM	1371	CB	ALA	722	11.290	33.395	9.845	1.00	29.67
ATOM	1372	C	ALA	722	12.716	34.163	7.933	1.00	41.12
ATOM	1373	O	ALA	722	13.851	34.153	8.387	1.00	43.98
ATOM	1374	N	THR	723	12.451	33.887	6.661	1.00	32.67
ATOM	1375	CA	THR	723	13.511	33.566	5.712	1.00	32.20
ATOM	1376	CB	THR	723	12.973	32.745	4.522	1.00	49.99
ATOM	1377	OG1	THR	723	12.693	31.416	4.969	1.00	52.92
ATOM	1378	CG2	THR	723	13.992	32.646	3.428	1.00	54.89
ATOM	1379	C	THR	723	14.218	34.826	5.234	1.00	33.75
ATOM	1380	O	THR	723	15.269	34.739	4.609	1.00	34.36
ATOM	1381	N	ASP	724	13.648	35.995	5.545	1.00	43.22
ATOM	1382	CA	ASP	724	14.285	37.266	5.194	1.00	40.53
ATOM	1383	CB	ASP	724	13.350	38.459	5.413	1.00	41.06
ATOM	1384	CG	ASP	724	12.189	38.481	4.456	1.00	41.65
ATOM	1385	OD1	ASP	724	11.351	39.389	4.600	1.00	39.43
ATOM	1386	OD2	ASP	724	12.110	37.601	3.566	1.00	42.46
ATOM	1387	C	ASP	724	15.453	37.397	6.159	1.00	40.00
ATOM	1388	O	ASP	724	15.255	37.589	7.350	1.00	40.89
ATOM	1389	N	LEU	725	16.670	37.284	5.643	1.00	36.19
ATOM	1390	CA	LEU	725	17.859	37.379	6.473	1.00	34.73
ATOM	1391	CB	LEU	725	19.120	37.445	5.608	1.00	40.82
ATOM	1392	CG	LEU	725	20.365	36.886	6.303	1.00	35.51
ATOM	1393	CD1	LEU	725	20.287	35.353	6.321	1.00	34.52
ATOM	1394	CD2	LEU	725	21.610	37.333	5.578	1.00	32.19
ATOM	1395	C	LEU	725	17.796	38.619	7.345	1.00	34.61
ATOM	1396	O	LEU	725	18.345	38.634	8.442	1.00	37.29
ATOM	1397	N	ALA	726	17.136	39.660	6.850	1.00	42.73
ATOM	1398	CA	ALA	726	17.016	40.911	7.597	1.00	45.53
ATOM	1399	CB	ALA	726	16.375	41.988	6.720	1.00	33.95
ATOM	1400	C	ALA	726	16.211	40.705	8.893	1.00	45.16
ATOM	1401	O	ALA	726	16.578	41.206	9.952	1.00	45.82
ATOM	1402	N	LEU	727	15.120	39.960	8.809	1.00	43.76
ATOM	1403	CA	LEU	727	14.336	39.682	10.002	1.00	38.92
ATOM	1404	CB	LEU	727	13.096	38.867	9.656	1.00	50.23
ATOM	1405	CG	LEU	727	11.766	39.620	9.674	1.00	48.56
ATOM	1406	CD1	LEU	727	11.984	41.117	9.846	1.00	47.86
ATOM	1407	CD2	LEU	727	11.032	39.323	8.398	1.00	50.97
ATOM	1408	C	LEU	727	15.197	38.894	10.959	1.00	37.77
ATOM	1409	O	LEU	727	15.081	39.029	12.173	1.00	42.37
ATOM	1410	N	TYR	728	16.080	38.071	10.409	1.00	41.33
ATOM	1411	CA	TYR	728	16.941	37.268	11.251	1.00	40.83
ATOM	1412	CB	TYR	728	17.643	36.179	10.431	1.00	42.18
ATOM	1413	CG	TYR	728	18.853	35.584	11.119	1.00	40.83
ATOM	1414	CD1	TYR	728	20.138	35.843	10.648	1.00	34.26
ATOM	1415	CE1	TYR	728	21.266	35.352	11.315	1.00	39.91
ATOM	1416	CD2	TYR	728	18.719	34.810	12.274	1.00	42.03
ATOM	1417	CE2	TYR	728	19.843	34.311	12.949	1.00	39.83
ATOM	1418	CZ	TYR	728	21.109	34.587	12.465	1.00	40.87
ATOM	1419	OH	TYR	728	22.217	34.108	13.125	1.00	42.19
ATOM	1420	C	TYR	728	17.957	38.104	12.002	1.00	39.91
ATOM	1421	O	TYR	728	18.034	38.016	13.211	1.00	45.29
ATOM	1422	N	ILE	729	18.734	38.910	11.288	1.00	45.38
ATOM	1423	CA	ILE	729	19.750	39.747	11.915	1.00	42.68
ATOM	1424	CB	ILE	729	20.494	40.602	10.848	1.00	31.07
ATOM	1425	CG2	ILE	729	21.434	41.596	11.505	1.00	34.74
ATOM	1426	CG1	ILE	729	21.299	39.672	9.937	1.00	28.34
ATOM	1427	CD1	ILE	729	21.904	40.322	8.730	1.00	25.32
ATOM	1428	C	ILE	729	19.108	40.637	12.973	1.00	43.04
ATOM	1429	O	ILE	729	19.659	40.836	14.060	1.00	46.07
ATOM	1430	N	LYS	730	17.929	41.149	12.650	1.00	41.48
ATOM	1431	CA	LYS	730	17.174	41.999	13.543	1.00	43.46
ATOM	1432	CB	LYS	730	15.849	42.380	12.878	1.00	46.53
ATOM	1433	CG	LYS	730	15.026	43.410	13.646	1.00	44.62
ATOM	1434	CD	LYS	730	13.711	43.655	12.945	1.00	43.06
ATOM	1435	CE	LYS	730	12.847	44.670	13.677	1.00	46.97
ATOM	1436	NZ	LYS	730	11.523	44.850	12.989	1.00	50.52

ATOM	1437	C	LYS	730	16.879	41.327	14.887	1.00	47.30
ATOM	1438	O	LYS	730	17.423	41.711	15.927	1.00	51.69
ATOM	1439	N	ARG	731	16.015	40.316	14.840	1.00	47.77
ATOM	1440	CA	ARG	731	15.555	39.577	16.018	1.00	47.52
ATOM	1441	CB	ARG	731	14.202	38.945	15.716	1.00	44.23
ATOM	1442	CG	ARG	731	13.159	39.915	15.228	1.00	42.07
ATOM	1443	CD	ARG	731	11.992	39.194	14.586	1.00	41.14
ATOM	1444	NE	ARG	731	10.921	40.132	14.256	1.00	50.05
ATOM	1445	CZ	ARG	731	9.819	39.820	13.577	1.00	54.40
ATOM	1446	NH1	ARG	731	9.627	38.584	13.138	1.00	54.57
ATOM	1447	NH2	ARG	731	8.902	40.749	13.344	1.00	51.86
ATOM	1448	C	ARG	731	16.436	38.484	16.592	1.00	44.54
ATOM	1449	O	ARG	731	16.016	37.826	17.533	1.00	45.51
ATOM	1450	N	ARG	732	17.630	38.275	16.045	1.00	52.75
ATOM	1451	CA	ARG	732	18.521	37.210	16.534	1.00	51.97
ATOM	1452	CB	ARG	732	19.744	37.059	15.608	1.00	42.48
ATOM	1453	CG	ARG	732	20.840	38.060	15.884	1.00	36.00
ATOM	1454	CD	ARG	732	21.655	38.465	14.654	1.00	36.31
ATOM	1455	NE	ARG	732	22.450	37.373	14.110	1.00	32.33
ATOM	1456	CZ	ARG	732	23.662	37.516	13.582	1.00	32.70
ATOM	1457	NH1	ARG	732	24.235	38.713	13.525	1.00	33.84
ATOM	1458	NH2	ARG	732	24.304	36.451	13.100	1.00	33.62
ATOM	1459	C	ARG	732	18.999	37.454	17.965	1.00	53.99
ATOM	1460	O	ARG	732	19.103	36.522	18.758	1.00	58.18
ATOM	1461	N	GLY	733	19.276	38.716	18.280	1.00	48.40
ATOM	1462	CA	GLY	733	19.763	39.099	19.592	1.00	49.27
ATOM	1463	C	GLY	733	18.957	38.654	20.803	1.00	52.27
ATOM	1464	O	GLY	733	19.535	38.202	21.792	1.00	54.62
ATOM	1465	N	GLU	734	17.637	38.786	20.759	1.00	50.87
ATOM	1466	CA	GLU	734	16.839	38.370	21.902	1.00	51.77
ATOM	1467	CB	GLU	734	15.354	38.596	21.641	1.00	64.48
ATOM	1468	CG	GLU	734	14.462	37.979	22.700	1.00	68.75
ATOM	1469	CD	GLU	734	13.063	38.540	22.674	1.00	69.10
ATOM	1470	OE1	GLU	734	12.550	38.815	21.572	1.00	69.82
ATOM	1471	OE2	GLU	734	12.474	38.698	23.761	1.00	72.53
ATOM	1472	C	GLU	734	17.094	36.900	22.156	1.00	51.10
ATOM	1473	O	GLU	734	17.541	36.501	23.238	1.00	50.17
ATOM	1474	N	PHE	735	16.808	36.102	21.139	1.00	51.85
ATOM	1475	CA	PHE	735	17.000	34.668	21.196	1.00	53.29
ATOM	1476	CB	PHE	735	16.851	34.087	19.788	1.00	52.41
ATOM	1477	CG	PHE	735	17.161	32.627	19.693	1.00	55.64
ATOM	1478	CD1	PHE	735	16.267	31.678	20.179	1.00	54.10
ATOM	1479	CD2	PHE	735	18.348	32.196	19.105	1.00	56.59
ATOM	1480	CE1	PHE	735	16.549	30.316	20.078	1.00	49.60
ATOM	1481	CE2	PHE	735	18.638	30.840	19.000	1.00	55.62
ATOM	1482	CZ	PHE	735	17.733	29.898	19.489	1.00	54.77
ATOM	1483	C	PHE	735	18.372	34.323	21.775	1.00	52.48
ATOM	1484	O	PHE	735	18.474	33.545	22.710	1.00	55.35
ATOM	1485	N	PHE	736	19.429	34.901	21.232	1.00	50.43
ATOM	1486	CA	PHE	736	20.762	34.600	21.735	1.00	51.51
ATOM	1487	CB	PHE	736	21.832	35.377	20.954	1.00	57.61
ATOM	1488	CG	PHE	736	22.076	34.853	19.558	1.00	59.35
ATOM	1489	CD1	PHE	736	22.831	35.590	18.652	1.00	54.24
ATOM	1490	CD2	PHE	736	21.556	33.625	19.151	1.00	61.96
ATOM	1491	CE1	PHE	736	23.070	35.121	17.365	1.00	55.87
ATOM	1492	CE2	PHE	736	21.788	33.144	17.866	1.00	63.73
ATOM	1493	CZ	PHE	736	22.548	33.898	16.970	1.00	61.72
ATOM	1494	C	PHE	736	20.890	34.906	23.219	1.00	55.02
ATOM	1495	O	PHE	736	21.377	34.071	23.986	1.00	58.88
ATOM	1496	N	GLU	737	20.448	36.097	23.620	1.00	74.33
ATOM	1497	CA	GLU	737	20.519	36.510	25.019	1.00	77.80
ATOM	1498	CB	GLU	737	20.131	37.987	25.162	1.00	67.28
ATOM	1499	CG	GLU	737	21.339	38.926	25.205	1.00	74.97
ATOM	1500	CD	GLU	737	21.587	39.544	26.586	1.00	76.84
ATOM	1501	OE1	GLU	737	22.674	40.134	26.791	1.00	78.57
ATOM	1502	OE2	GLU	737	20.697	39.457	27.460	1.00	75.62

ATOM	1503	C	GLU	737	19.670	35.642	25.950	1.00	79.35
ATOM	1504	O	GLU	737	20.129	35.258	27.026	1.00	79.34
ATOM	1505	N	LEU	738	18.437	35.337	25.557	1.00	63.12
ATOM	1506	CA	LEU	738	17.609	34.481	26.394	1.00	61.50
ATOM	1507	CB	LEU	738	16.330	34.071	25.665	1.00	57.28
ATOM	1508	CG	LEU	738	15.117	34.991	25.725	1.00	53.90
ATOM	1509	CD1	LEU	738	14.111	34.607	24.647	1.00	48.69
ATOM	1510	CD2	LEU	738	14.494	34.890	27.100	1.00	57.35
ATOM	1511	C	LEU	738	18.444	33.238	26.679	1.00	64.26
ATOM	1512	O	LEU	738	18.584	32.818	27.822	1.00	65.68
ATOM	1513	N	ILE	739	19.013	32.667	25.623	1.00	71.97
ATOM	1514	CA	ILE	739	19.834	31.473	25.750	1.00	73.87
ATOM	1515	CB	ILE	739	20.524	31.113	24.404	1.00	80.63
ATOM	1516	CG2	ILE	739	21.392	29.879	24.571	1.00	79.27
ATOM	1517	CG1	ILE	739	19.473	30.870	23.315	1.00	81.51
ATOM	1518	CD1	ILE	739	18.475	29.787	23.635	1.00	77.87
ATOM	1519	C	ILE	739	20.908	31.661	26.812	1.00	75.75
ATOM	1520	O	ILE	739	21.333	30.698	27.443	1.00	76.14
ATOM	1521	N	ARG	740	21.335	32.902	27.016	1.00	83.14
ATOM	1522	CA	ARG	740	22.376	33.197	27.999	1.00	86.71
ATOM	1523	CB	ARG	740	22.697	34.690	27.999	1.00	96.92
ATOM	1524	CG	ARG	740	23.794	35.088	28.975	1.00	103.89
ATOM	1525	CD	ARG	740	25.026	34.207	28.814	1.00	103.89
ATOM	1526	NE	ARG	740	25.296	33.857	27.419	1.00	103.89
ATOM	1527	CZ	ARG	740	25.433	34.736	26.431	1.00	103.89
ATOM	1528	NH1	ARG	740	25.323	36.037	26.670	1.00	103.89
ATOM	1529	NH2	ARG	740	25.688	34.312	25.199	1.00	103.89
ATOM	1530	C	ARG	740	22.059	32.751	29.424	1.00	88.06
ATOM	1531	O	ARG	740	22.640	31.781	29.913	1.00	89.43
ATOM	1532	N	LYS	741	21.159	33.459	30.101	1.00	83.08
ATOM	1533	CA	LYS	741	20.813	33.084	31.469	1.00	86.44
ATOM	1534	CB	LYS	741	20.496	34.324	32.313	1.00	103.29
ATOM	1535	CG	LYS	741	20.947	34.200	33.777	1.00	103.89
ATOM	1536	CD	LYS	741	19.778	34.099	34.759	1.00	103.89
ATOM	1537	CE	LYS	741	19.069	35.439	34.946	1.00	103.89
ATOM	1538	NZ	LYS	741	17.977	35.360	35.958	1.00	103.89
ATOM	1539	C	LYS	741	19.634	32.116	31.481	1.00	85.06
ATOM	1540	O	LYS	741	18.708	32.237	32.281	1.00	85.08
ATOM	1541	N	ASN	742	19.689	31.164	30.560	1.00	90.11
ATOM	1542	CA	ASN	742	18.694	30.113	30.409	1.00	91.92
ATOM	1543	CB	ASN	742	19.079	28.942	31.315	1.00	99.32
ATOM	1544	CG	ASN	742	18.379	27.655	30.929	1.00	103.89
ATOM	1545	OD1	ASN	742	17.149	27.591	30.881	1.00	103.89
ATOM	1546	ND2	ASN	742	19.164	26.619	30.650	1.00	103.89
ATOM	1547	C	ASN	742	17.211	30.442	30.620	1.00	87.77
ATOM	1548	O	ASN	742	16.724	30.445	31.748	1.00	87.73
ATOM	1549	N	GLN	743	16.503	30.698	29.521	1.00	77.57
ATOM	1550	CA	GLN	743	15.059	30.981	29.526	1.00	74.13
ATOM	1551	CB	GLN	743	14.766	32.483	29.564	1.00	86.10
ATOM	1552	CG	GLN	743	14.941	33.170	30.912	1.00	85.79
ATOM	1553	CD	GLN	743	16.361	33.628	31.170	1.00	84.27
ATOM	1554	OE1	GLN	743	16.612	34.425	32.076	1.00	77.74
ATOM	1555	NE2	GLN	743	17.300	33.125	30.379	1.00	81.36
ATOM	1556	C	GLN	743	14.531	30.427	28.210	1.00	72.01
ATOM	1557	O	GLN	743	15.270	30.413	27.222	1.00	69.27
ATOM	1558	N	PHE	744	13.281	29.965	28.166	1.00	68.45
ATOM	1559	CA	PHE	744	12.794	29.453	26.894	1.00	72.19
ATOM	1560	CB	PHE	744	13.814	28.456	26.337	1.00	92.04
ATOM	1561	CG	PHE	744	14.072	28.628	24.870	1.00	94.73
ATOM	1562	CD1	PHE	744	14.505	29.850	24.374	1.00	92.03
ATOM	1563	CD2	PHE	744	13.814	27.593	23.979	1.00	93.20
ATOM	1564	CE1	PHE	744	14.670	30.042	23.015	1.00	91.29
ATOM	1565	CE2	PHE	744	13.976	27.776	22.618	1.00	93.78
ATOM	1566	CZ	PHE	744	14.404	29.003	22.133	1.00	92.99
ATOM	1567	C	PHE	744	11.389	28.864	26.707	1.00	73.75
ATOM	1568	O	PHE	744	10.500	29.013	27.541	1.00	75.51

ATOM	1569	N	ASN	745	11.252	28.209	25.551	1.00	70.60
ATOM	1570	CA	ASN	745	10.069	27.532	25.000	1.00	70.37
ATOM	1571	CB	ASN	745	10.421	26.077	24.674	1.00	89.33
ATOM	1572	CG	ASN	745	10.674	25.859	23.186	1.00	87.17
ATOM	1573	OD1	ASN	745	11.141	24.801	22.773	1.00	81.86
ATOM	1574	ND2	ASN	745	10.356	26.863	22.376	1.00	83.41
ATOM	1575	C	ASN	745	8.705	27.565	25.654	1.00	71.59
ATOM	1576	O	ASN	745	7.698	27.684	24.951	1.00	69.69
ATOM	1577	N	LEU	746	8.647	27.424	26.974	1.00	80.66
ATOM	1578	CA	LEU	746	7.361	27.467	27.657	1.00	81.30
ATOM	1579	CB	LEU	746	7.553	27.534	29.173	1.00	87.11
ATOM	1580	CG	LEU	746	8.380	26.439	29.856	1.00	86.26
ATOM	1581	CD1	LEU	746	7.932	25.064	29.366	1.00	84.45
ATOM	1582	CD2	LEU	746	9.849	26.654	29.559	1.00	82.87
ATOM	1583	C	LEU	746	6.700	28.745	27.170	1.00	83.62
ATOM	1584	O	LEU	746	5.508	28.766	26.848	1.00	82.16
ATOM	1585	N	GLU	747	7.520	29.794	27.089	1.00	80.74
ATOM	1586	CA	GLU	747	7.104	31.126	26.657	1.00	80.88
ATOM	1587	CB	GLU	747	8.320	32.035	26.478	1.00	91.28
ATOM	1588	CG	GLU	747	8.710	32.832	27.711	1.00	101.19
ATOM	1589	CD	GLU	747	9.100	31.958	28.893	1.00	103.89
ATOM	1590	OE1	GLU	747	9.895	31.009	28.702	1.00	103.89
ATOM	1591	OE2	GLU	747	8.616	32.230	30.016	1.00	103.89
ATOM	1592	C	GLU	747	6.283	31.172	25.388	1.00	77.67
ATOM	1593	O	GLU	747	6.812	31.369	24.292	1.00	74.44
ATOM	1594	N	ASP	748	4.977	31.017	25.547	1.00	97.79
ATOM	1595	CA	ASP	748	4.085	31.082	24.408	1.00	100.06
ATOM	1596	CB	ASP	748	2.628	31.025	24.848	1.00	96.84
ATOM	1597	CG	ASP	748	1.677	31.303	23.707	1.00	96.35
ATOM	1598	OD1	ASP	748	1.263	30.345	23.016	1.00	98.17
ATOM	1599	OD2	ASP	748	1.365	32.493	23.493	1.00	92.41
ATOM	1600	C	ASP	748	4.310	32.385	23.655	1.00	101.72
ATOM	1601	O	ASP	748	4.093	32.443	22.445	1.00	103.60
ATOM	1602	N	PRO	749	4.728	33.459	24.358	1.00	103.89
ATOM	1603	CD	PRO	749	5.121	33.668	25.762	1.00	103.71
ATOM	1604	CA	PRO	749	4.935	34.690	23.595	1.00	103.89
ATOM	1605	CB	PRO	749	5.600	35.628	24.614	1.00	101.95
ATOM	1606	CG	PRO	749	6.219	34.687	25.620	1.00	101.83
ATOM	1607	C	PRO	749	5.794	34.455	22.363	1.00	99.52
ATOM	1608	O	PRO	749	6.228	33.333	22.094	1.00	97.56
ATOM	1609	N	HIS	750	6.023	35.525	21.615	1.00	101.82
ATOM	1610	CA	HIS	750	6.823	35.469	20.407	1.00	98.49
ATOM	1611	CB	HIS	750	7.395	36.860	20.133	1.00	65.90
ATOM	1612	CG	HIS	750	8.445	37.263	21.111	1.00	61.87
ATOM	1613	CD2	HIS	750	9.618	37.917	20.945	1.00	60.46
ATOM	1614	ND1	HIS	750	8.381	36.914	22.443	1.00	60.92
ATOM	1615	CE1	HIS	750	9.476	37.329	23.054	1.00	63.65
ATOM	1616	NE2	HIS	750	10.243	37.940	22.168	1.00	59.97
ATOM	1617	C	HIS	750	7.949	34.439	20.576	1.00	96.30
ATOM	1618	O	HIS	750	8.372	33.820	19.605	1.00	99.76
ATOM	1619	N	GLN	751	8.411	34.255	21.814	1.00	67.69
ATOM	1620	CA	GLN	751	9.475	33.302	22.134	1.00	65.43
ATOM	1621	CB	GLN	751	9.456	32.951	23.620	1.00	72.27
ATOM	1622	CG	GLN	751	10.348	33.839	24.463	1.00	70.88
ATOM	1623	CD	GLN	751	11.281	33.047	25.357	1.00	66.06
ATOM	1624	OE1	GLN	751	11.957	32.132	24.904	1.00	68.90
ATOM	1625	NE2	GLN	751	11.331	33.406	26.626	1.00	63.45
ATOM	1626	C	GLN	751	9.408	32.015	21.326	1.00	65.74
ATOM	1627	O	GLN	751	10.374	31.629	20.667	1.00	65.34
ATOM	1628	N	LYS	752	8.277	31.332	21.394	1.00	73.34
ATOM	1629	CA	LYS	752	8.149	30.120	20.622	1.00	71.49
ATOM	1630	CB	LYS	752	6.771	29.498	20.809	1.00	59.27
ATOM	1631	CG	LYS	752	6.346	28.674	19.616	1.00	57.05
ATOM	1632	CD	LYS	752	5.834	27.316	20.003	1.00	56.46
ATOM	1633	CE	LYS	752	6.954	26.376	20.367	1.00	54.39
ATOM	1634	NZ	LYS	752	6.361	25.038	20.613	1.00	56.81

ATOM	1635	C	LYS	752	8.362	30.480	19.155	1.00	70.72
ATOM	1636	O	LYS	752	9.150	29.840	18.462	1.00	72.66
ATOM	1637	N	GLU	753	7.660	31.510	18.690	1.00	54.60
ATOM	1638	CA	GLU	753	7.779	31.948	17.307	1.00	54.83
ATOM	1639	CB	GLU	753	6.889	33.164	17.061	1.00	69.95
ATOM	1640	CG	GLU	753	5.420	32.886	17.321	1.00	81.22
ATOM	1641	CD	GLU	753	4.881	31.760	16.457	1.00	86.48
ATOM	1642	OE1	GLU	753	3.837	31.179	16.818	1.00	91.05
ATOM	1643	OE2	GLU	753	5.497	31.464	15.411	1.00	86.54
ATOM	1644	C	GLU	753	9.226	32.290	16.986	1.00	53.32
ATOM	1645	O	GLU	753	9.736	31.938	15.923	1.00	53.91
ATOM	1646	N	LEU	754	9.886	32.962	17.919	1.00	50.97
ATOM	1647	CA	LEU	754	11.274	33.356	17.738	1.00	50.30
ATOM	1648	CB	LEU	754	11.808	34.012	19.013	1.00	51.14
ATOM	1649	CG	LEU	754	13.148	34.723	18.837	1.00	50.01
ATOM	1650	CD1	LEU	754	13.020	35.751	17.705	1.00	52.87
ATOM	1651	CD2	LEU	754	13.563	35.393	20.134	1.00	48.40
ATOM	1652	C	LEU	754	12.130	32.148	17.388	1.00	49.47
ATOM	1653	O	LEU	754	12.996	32.220	16.506	1.00	51.22
ATOM	1654	N	PHE	755	11.880	31.042	18.089	1.00	44.03
ATOM	1655	CA	PHE	755	12.614	29.801	17.867	1.00	40.31
ATOM	1656	CB	PHE	755	12.258	28.739	18.915	1.00	54.54
ATOM	1657	CG	PHE	755	13.058	27.482	18.767	1.00	53.78
ATOM	1658	CD1	PHE	755	14.446	27.518	18.876	1.00	49.96
ATOM	1659	CD2	PHE	755	12.448	26.285	18.422	1.00	52.32
ATOM	1660	CE1	PHE	755	15.213	26.380	18.631	1.00	46.94
ATOM	1661	CE2	PHE	755	13.208	25.145	18.176	1.00	51.80
ATOM	1662	CZ	PHE	755	14.592	25.198	18.280	1.00	51.73
ATOM	1663	C	PHE	755	12.280	29.274	16.487	1.00	38.45
ATOM	1664	O	PHE	755	13.163	28.932	15.721	1.00	40.11
ATOM	1665	N	LEU	756	10.996	29.217	16.172	1.00	43.34
ATOM	1666	CA	LEU	756	10.575	28.755	14.869	1.00	43.35
ATOM	1667	CB	LEU	756	9.055	28.899	14.731	1.00	46.28
ATOM	1668	CG	LEU	756	8.206	27.902	15.544	1.00	45.52
ATOM	1669	CD1	LEU	756	6.730	28.193	15.355	1.00	44.41
ATOM	1670	CD2	LEU	756	8.504	26.480	15.105	1.00	43.19
ATOM	1671	C	LEU	756	11.304	29.567	13.786	1.00	44.82
ATOM	1672	O	LEU	756	11.759	29.014	12.778	1.00	48.15
ATOM	1673	N	ALA	757	11.433	30.872	14.004	1.00	33.01
ATOM	1674	CA	ALA	757	12.099	31.732	13.036	1.00	32.64
ATOM	1675	CB	ALA	757	11.973	33.211	13.455	1.00	30.19
ATOM	1676	C	ALA	757	13.565	31.340	12.893	1.00	35.75
ATOM	1677	O	ALA	757	14.023	31.050	11.798	1.00	40.71
ATOM	1678	N	MET	758	14.296	31.329	14.003	1.00	40.56
ATOM	1679	CA	MET	758	15.703	30.949	13.970	1.00	39.35
ATOM	1680	CB	MET	758	16.270	30.924	15.389	1.00	46.24
ATOM	1681	CG	MET	758	16.048	32.224	16.152	1.00	46.61
ATOM	1682	SD	MET	758	16.748	33.672	15.328	1.00	47.37
ATOM	1683	CE	MET	758	18.258	33.772	16.146	1.00	42.17
ATOM	1684	C	MET	758	15.893	29.582	13.310	1.00	37.02
ATOM	1685	O	MET	758	16.766	29.403	12.469	1.00	36.23
ATOM	1686	N	LEU	759	15.067	28.619	13.698	1.00	37.79
ATOM	1687	CA	LEU	759	15.147	27.277	13.143	1.00	39.91
ATOM	1688	CB	LEU	759	14.085	26.387	13.791	1.00	47.90
ATOM	1689	CG	LEU	759	14.027	24.975	13.213	1.00	47.58
ATOM	1690	CD1	LEU	759	15.316	24.245	13.537	1.00	46.87
ATOM	1691	CD2	LEU	759	12.826	24.239	13.776	1.00	43.27
ATOM	1692	C	LEU	759	14.951	27.300	11.616	1.00	42.06
ATOM	1693	O	LEU	759	15.583	26.550	10.876	1.00	44.69
ATOM	1694	N	MET	760	14.061	28.166	11.160	1.00	40.10
ATOM	1695	CA	MET	760	13.785	28.309	9.741	1.00	40.29
ATOM	1696	CB	MET	760	12.623	29.287	9.567	1.00	38.17
ATOM	1697	CG	MET	760	11.922	29.235	8.243	1.00	42.96
ATOM	1698	SD	MET	760	10.979	27.731	7.984	1.00	42.06
ATOM	1699	CE	MET	760	10.623	27.362	9.617	1.00	50.12
ATOM	1700	C	MET	760	15.060	28.833	9.036	1.00	42.26

ATOM	1701	O	MET	760	15.403	28.413	7.927	1.00	41.63
ATOM	1702	N	THR	761	15.764	29.751	9.689	1.00	37.27
ATOM	1703	CA	THR	761	16.980	30.287	9.118	1.00	38.68
ATOM	1704	CB	THR	761	17.504	31.472	9.956	1.00	35.63
ATOM	1705	OG1	THR	761	16.474	32.452	10.072	1.00	37.39
ATOM	1706	CG2	THR	761	18.734	32.114	9.306	1.00	27.81
ATOM	1707	C	THR	761	18.028	29.180	9.099	1.00	42.13
ATOM	1708	O	THR	761	18.745	29.004	8.120	1.00	42.42
ATOM	1709	N	ALA	762	18.100	28.427	10.189	1.00	47.15
ATOM	1710	CA	ALA	762	19.071	27.348	10.330	1.00	46.06
ATOM	1711	CB	ALA	762	18.841	26.627	11.650	1.00	35.55
ATOM	1712	C	ALA	762	19.031	26.352	9.172	1.00	44.26
ATOM	1713	O	ALA	762	20.064	25.870	8.708	1.00	43.65
ATOM	1714	N	CYS	763	17.829	26.057	8.705	1.00	38.62
ATOM	1715	CA	CYS	763	17.660	25.118	7.614	1.00	36.38
ATOM	1716	CB	CYS	763	16.266	24.476	7.704	1.00	35.65
ATOM	1717	SG	CYS	763	15.930	23.559	9.263	1.00	37.23
ATOM	1718	C	CYS	763	17.886	25.776	6.240	1.00	37.41
ATOM	1719	O	CYS	763	18.402	25.132	5.314	1.00	35.33
ATOM	1720	N	ASP	764	17.535	27.057	6.119	1.00	40.15
ATOM	1721	CA	ASP	764	17.699	27.807	4.873	1.00	36.66
ATOM	1722	CB	ASP	764	17.025	29.174	5.017	1.00	35.66
ATOM	1723	CG	ASP	764	16.788	29.858	3.692	1.00	37.90
ATOM	1724	OD1	ASP	764	16.569	31.085	3.679	1.00	41.60
ATOM	1725	OD2	ASP	764	16.797	29.179	2.654	1.00	39.97
ATOM	1726	C	ASP	764	19.183	28.007	4.486	1.00	37.16
ATOM	1727	O	ASP	764	19.517	28.129	3.305	1.00	39.75
ATOM	1728	N	LEU	765	20.073	28.035	5.472	1.00	41.26
ATOM	1729	CA	LEU	765	21.490	28.242	5.189	1.00	40.55
ATOM	1730	CB	LEU	765	22.045	29.353	6.078	1.00	41.32
ATOM	1731	CG	LEU	765	21.187	30.612	6.294	1.00	43.37
ATOM	1732	CD1	LEU	765	21.891	31.538	7.284	1.00	46.63
ATOM	1733	CD2	LEU	765	20.931	31.328	4.974	1.00	42.25
ATOM	1734	C	LEU	765	22.333	26.987	5.402	1.00	42.58
ATOM	1735	O	LEU	765	23.567	27.059	5.376	1.00	42.75
ATOM	1736	N	SER	766	21.669	25.844	5.587	1.00	42.64
ATOM	1737	CA	SER	766	22.361	24.584	5.852	1.00	41.69
ATOM	1738	CB	SER	766	21.353	23.455	6.098	1.00	45.11
ATOM	1739	OG	SER	766	20.648	23.116	4.919	1.00	54.04
ATOM	1740	C	SER	766	23.408	24.127	4.837	1.00	42.62
ATOM	1741	O	SER	766	24.223	23.260	5.156	1.00	46.43
ATOM	1742	N	ALA	767	23.397	24.681	3.628	1.00	34.57
ATOM	1743	CA	ALA	767	24.418	24.318	2.649	1.00	33.54
ATOM	1744	CB	ALA	767	24.372	25.257	1.432	1.00	17.23
ATOM	1745	C	ALA	767	25.768	24.469	3.354	1.00	35.32
ATOM	1746	O	ALA	767	26.671	23.647	3.181	1.00	38.90
ATOM	1747	N	ILE	768	25.874	25.528	4.159	1.00	30.06
ATOM	1748	CA	ILE	768	27.078	25.862	4.909	1.00	28.14
ATOM	1749	CB	ILE	768	26.891	27.258	5.586	1.00	32.13
ATOM	1750	CG2	ILE	768	26.128	27.125	6.906	1.00	29.21
ATOM	1751	CG1	ILE	768	28.244	27.905	5.847	1.00	32.98
ATOM	1752	CD1	ILE	768	28.976	28.248	4.598	1.00	36.16
ATOM	1753	C	ILE	768	27.520	24.831	5.981	1.00	34.63
ATOM	1754	O	ILE	768	28.627	24.922	6.510	1.00	35.63
ATOM	1755	N	THR	769	26.682	23.857	6.310	1.00	46.01
ATOM	1756	CA	THR	769	27.068	22.886	7.334	1.00	46.55
ATOM	1757	CB	THR	769	25.946	22.689	8.378	1.00	45.71
ATOM	1758	OG1	THR	769	24.854	21.984	7.780	1.00	44.99
ATOM	1759	CG2	THR	769	25.456	24.041	8.882	1.00	40.68
ATOM	1760	C	THR	769	27.421	21.527	6.752	1.00	50.87
ATOM	1761	O	THR	769	27.874	20.633	7.462	1.00	53.04
ATOM	1762	N	LYS	770	27.226	21.398	5.447	1.00	60.24
ATOM	1763	CA	LYS	770	27.490	20.161	4.727	1.00	57.37
ATOM	1764	CB	LYS	770	26.965	20.297	3.297	1.00	51.00
ATOM	1765	CG	LYS	770	25.492	20.612	3.203	1.00	47.25
ATOM	1766	CD	LYS	770	24.646	19.422	3.624	1.00	45.57

ATOM	1767	CE	LYS	770	23.173	19.765	3.520	1.00	42.86
ATOM	1768	NZ	LYS	770	22.276	18.589	3.714	1.00	47.75
ATOM	1769	C	LYS	770	28.964	19.750	4.686	1.00	57.75
ATOM	1770	O	LYS	770	29.857	20.550	4.972	1.00	58.86
ATOM	1771	N	PRO	771	29.232	18.480	4.330	1.00	61.87
ATOM	1772	CD	PRO	771	28.264	17.370	4.218	1.00	55.86
ATOM	1773	CA	PRO	771	30.606	17.975	4.246	1.00	58.86
ATOM	1774	CB	PRO	771	30.411	16.519	3.857	1.00	54.51
ATOM	1775	CG	PRO	771	29.122	16.168	4.534	1.00	54.82
ATOM	1776	C	PRO	771	31.343	18.762	3.180	1.00	57.60
ATOM	1777	O	PRO	771	30.796	19.007	2.100	1.00	54.92
ATOM	1778	N	TRP	772	32.580	19.151	3.487	1.00	42.72
ATOM	1779	CA	TRP	772	33.403	19.949	2.574	1.00	43.97
ATOM	1780	CB	TRP	772	34.885	19.784	2.919	1.00	46.85
ATOM	1781	CG	TRP	772	35.753	20.596	2.027	1.00	49.03
ATOM	1782	CD2	TRP	772	35.676	22.012	1.810	1.00	48.56
ATOM	1783	CE2	TRP	772	36.631	22.337	0.821	1.00	49.43
ATOM	1784	CE3	TRP	772	34.891	23.038	2.353	1.00	44.71
ATOM	1785	CD1	TRP	772	36.729	20.135	1.188	1.00	50.89
ATOM	1786	NE1	TRP	772	37.257	21.175	0.457	1.00	51.61
ATOM	1787	CZ2	TRP	772	36.821	23.645	0.365	1.00	48.96
ATOM	1788	CZ3	TRP	772	35.081	24.335	1.897	1.00	42.51
ATOM	1789	CH2	TRP	772	36.038	24.627	0.914	1.00	43.22
ATOM	1790	C	TRP	772	33.208	19.732	1.066	1.00	45.15
ATOM	1791	O	TRP	772	33.064	20.695	0.310	1.00	47.64
ATOM	1792	N	PRO	773	33.223	18.470	0.604	1.00	50.71
ATOM	1793	CD	PRO	773	33.482	17.221	1.340	1.00	65.33
ATOM	1794	CA	PRO	773	33.042	18.204	-0.831	1.00	50.35
ATOM	1795	CB	PRO	773	33.155	16.679	-0.924	1.00	63.39
ATOM	1796	CG	PRO	773	32.805	16.206	0.468	1.00	65.06
ATOM	1797	C	PRO	773	31.731	18.729	-1.402	1.00	49.27
ATOM	1798	O	PRO	773	31.697	19.277	-2.501	1.00	48.03
ATOM	1799	N	ILE	774	30.654	18.562	-0.647	1.00	48.00
ATOM	1800	CA	ILE	774	29.349	19.042	-1.076	1.00	45.86
ATOM	1801	CB	ILE	774	28.235	18.365	-0.257	1.00	52.69
ATOM	1802	CG2	ILE	774	26.916	19.068	-0.472	1.00	50.13
ATOM	1803	CG1	ILE	774	28.142	16.889	-0.655	1.00	53.66
ATOM	1804	CD1	ILE	774	27.298	16.058	0.273	1.00	56.55
ATOM	1805	C	ILE	774	29.273	20.564	-0.916	1.00	47.14
ATOM	1806	O	ILE	774	28.776	21.256	-1.807	1.00	49.16
ATOM	1807	N	GLN	775	29.791	21.073	0.208	1.00	42.38
ATOM	1808	CA	GLN	775	29.796	22.511	0.497	1.00	44.23
ATOM	1809	CB	GLN	775	30.405	22.786	1.876	1.00	57.47
ATOM	1810	CG	GLN	775	29.817	23.990	2.626	1.00	55.53
ATOM	1811	CD	GLN	775	29.755	25.280	1.811	1.00	51.79
ATOM	1812	OE1	GLN	775	30.775	25.882	1.480	1.00	52.58
ATOM	1813	NE2	GLN	775	28.541	25.711	1.494	1.00	56.17
ATOM	1814	C	GLN	775	30.577	23.313	-0.547	1.00	47.69
ATOM	1815	O	GLN	775	30.131	24.376	-0.978	1.00	49.84
ATOM	1816	N	GLN	776	31.741	22.818	-0.960	1.00	49.03
ATOM	1817	CA	GLN	776	32.512	23.559	-1.951	1.00	52.20
ATOM	1818	CB	GLN	776	33.889	22.928	-2.177	1.00	69.59
ATOM	1819	CG	GLN	776	34.820	23.849	-2.966	1.00	78.05
ATOM	1820	CD	GLN	776	36.131	23.199	-3.363	1.00	82.59
ATOM	1821	OE1	GLN	776	36.154	22.232	-4.125	1.00	88.60
ATOM	1822	NE2	GLN	776	37.234	23.731	-2.850	1.00	85.45
ATOM	1823	C	GLN	776	31.761	23.662	-3.278	1.00	51.48
ATOM	1824	O	GLN	776	31.670	24.747	-3.849	1.00	50.60
ATOM	1825	N	ARG	777	31.221	22.536	-3.752	1.00	45.69
ATOM	1826	CA	ARG	777	30.468	22.497	-5.004	1.00	46.65
ATOM	1827	CB	ARG	777	29.864	21.104	-5.236	1.00	81.98
ATOM	1828	CG	ARG	777	30.828	20.056	-5.798	1.00	94.94
ATOM	1829	CD	ARG	777	31.100	20.261	-7.298	1.00	103.54
ATOM	1830	NE	ARG	777	31.992	19.239	-7.860	1.00	103.89
ATOM	1831	CZ	ARG	777	32.342	19.159	-9.145	1.00	101.78
ATOM	1832	NH1	ARG	777	31.879	20.038	-10.027	1.00	101.09

ATOM	1833	NH2	ARG	777	33.162	18.195	-9.552	1.00	100.06
ATOM	1834	C	ARG	777	29.353	23.529	-4.992	1.00	43.55
ATOM	1835	O	ARG	777	29.223	24.326	-5.926	1.00	43.90
ATOM	1836	N	ILE	778	28.553	23.519	-3.930	1.00	48.92
ATOM	1837	CA	ILE	778	27.448	24.471	-3.807	1.00	43.52
ATOM	1838	CB	ILE	778	26.750	24.391	-2.427	1.00	49.53
ATOM	1839	CG2	ILE	778	25.586	25.369	-2.405	1.00	48.29
ATOM	1840	CG1	ILE	778	26.271	22.965	-2.133	1.00	47.26
ATOM	1841	CD1	ILE	778	25.068	22.545	-2.922	1.00	46.38
ATOM	1842	C	ILE	778	27.941	25.906	-3.964	1.00	42.10
ATOM	1843	O	ILE	778	27.449	26.650	-4.808	1.00	41.58
ATOM	1844	N	ALA	779	28.902	26.291	-3.131	1.00	44.48
ATOM	1845	CA	ALA	779	29.449	27.642	-3.171	1.00	43.49
ATOM	1846	CB	ALA	779	30.645	27.749	-2.243	1.00	49.48
ATOM	1847	C	ALA	779	29.846	28.039	-4.581	1.00	43.83
ATOM	1848	O	ALA	779	29.562	29.150	-5.019	1.00	42.56
ATOM	1849	N	GLU	780	30.494	27.122	-5.293	1.00	55.32
ATOM	1850	CA	GLU	780	30.921	27.386	-6.663	1.00	57.25
ATOM	1851	CB	GLU	780	31.775	26.234	-7.195	1.00	61.17
ATOM	1852	CG	GLU	780	33.057	26.013	-6.429	1.00	64.71
ATOM	1853	CD	GLU	780	34.006	27.182	-6.540	1.00	70.26
ATOM	1854	OE1	GLU	780	34.997	27.222	-5.778	1.00	73.25
ATOM	1855	OE2	GLU	780	33.764	28.059	-7.395	1.00	73.72
ATOM	1856	C	GLU	780	29.725	27.583	-7.574	1.00	58.68
ATOM	1857	O	GLU	780	29.698	28.530	-8.359	1.00	61.54
ATOM	1858	N	LEU	781	28.738	26.690	-7.481	1.00	43.14
ATOM	1859	CA	LEU	781	27.551	26.810	-8.324	1.00	37.37
ATOM	1860	CB	LEU	781	26.598	25.646	-8.083	1.00	60.75
ATOM	1861	CG	LEU	781	26.968	24.375	-8.836	1.00	66.25
ATOM	1862	CD1	LEU	781	25.995	23.268	-8.483	1.00	68.49
ATOM	1863	CD2	LEU	781	26.959	24.659	-10.331	1.00	68.09
ATOM	1864	C	LEU	781	26.830	28.120	-8.071	1.00	36.51
ATOM	1865	O	LEU	781	26.584	28.888	-8.998	1.00	38.51
ATOM	1866	N	VAL	782	26.489	28.356	-6.807	1.00	35.74
ATOM	1867	CA	VAL	782	25.808	29.571	-6.369	1.00	32.65
ATOM	1868	CB	VAL	782	25.626	29.557	-4.820	1.00	36.09
ATOM	1869	CG1	VAL	782	25.270	30.929	-4.299	1.00	38.54
ATOM	1870	CG2	VAL	782	24.566	28.564	-4.435	1.00	30.42
ATOM	1871	C	VAL	782	26.632	30.792	-6.770	1.00	37.24
ATOM	1872	O	VAL	782	26.080	31.823	-7.174	1.00	37.40
ATOM	1873	N	ALA	783	27.957	30.675	-6.665	1.00	35.81
ATOM	1874	CA	ALA	783	28.840	31.780	-7.017	1.00	37.58
ATOM	1875	CB	ALA	783	30.291	31.453	-6.628	1.00	25.66
ATOM	1876	C	ALA	783	28.743	32.061	-8.506	1.00	37.30
ATOM	1877	O	ALA	783	28.498	33.191	-8.922	1.00	37.13
ATOM	1878	N	THR	784	28.941	31.019	-9.305	1.00	39.04
ATOM	1879	CA	THR	784	28.871	31.124	-10.753	1.00	39.07
ATOM	1880	CB	THR	784	29.193	29.776	-11.384	1.00	41.91
ATOM	1881	OG1	THR	784	30.558	29.446	-11.097	1.00	47.14
ATOM	1882	CG2	THR	784	28.969	29.812	-12.887	1.00	40.46
ATOM	1883	C	THR	784	27.501	31.596	-11.247	1.00	41.03
ATOM	1884	O	THR	784	27.410	32.313	-12.240	1.00	43.67
ATOM	1885	N	GLU	785	26.439	31.199	-10.555	1.00	38.60
ATOM	1886	CA	GLU	785	25.090	31.597	-10.940	1.00	40.53
ATOM	1887	CB	GLU	785	24.064	30.784	-10.155	1.00	48.70
ATOM	1888	CG	GLU	785	23.943	29.340	-10.591	1.00	46.27
ATOM	1889	CD	GLU	785	23.391	28.463	-9.498	1.00	46.72
ATOM	1890	OE1	GLU	785	22.743	28.999	-8.574	1.00	50.57
ATOM	1891	OE2	GLU	785	23.596	27.235	-9.562	1.00	53.75
ATOM	1892	C	GLU	785	24.792	33.088	-10.765	1.00	40.88
ATOM	1893	O	GLU	785	24.052	33.674	-11.553	1.00	42.50
ATOM	1894	N	PHE	786	25.332	33.708	-9.723	1.00	50.07
ATOM	1895	CA	PHE	786	25.075	35.129	-9.530	1.00	46.15
ATOM	1896	CB	PHE	786	25.413	35.588	-8.108	1.00	36.86
ATOM	1897	CG	PHE	786	25.530	37.085	-7.981	1.00	40.71
ATOM	1898	CD1	PHE	786	24.392	37.883	-7.907	1.00	40.50

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ATOM   1899  CD2 PHE   786      26.784  37.709  -8.031  1.00 40.11
ATOM   1900  CE1 PHE   786      24.496  39.280  -7.888  1.00 37.55
ATOM   1901  CE2 PHE   786      26.898  39.108  -8.015  1.00 36.52
ATOM   1902  CZ  PHE   786      25.752  39.894  -7.945  1.00 33.86
ATOM   1903  C   PHE   786      25.930  35.923 -10.502  1.00 48.42
ATOM   1904  O   PHE   786      25.419  36.738 -11.264  1.00 49.11
ATOM   1905  N   PHE   787      27.238  35.666 -10.452  1.00 59.44
ATOM   1906  CA  PHE   787      28.223  36.349 -11.281  1.00 61.16
ATOM   1907  CB  PHE   787      29.639  35.914 -10.868  1.00 53.38
ATOM   1908  CG  PHE   787      30.035  36.347  -9.469  1.00 51.53
ATOM   1909  CD1 PHE   787      30.049  37.694  -9.114  1.00 50.32
ATOM   1910  CD2 PHE   787      30.392  35.405  -8.509  1.00 46.15
ATOM   1911  CE1 PHE   787      30.412  38.097  -7.818  1.00 42.86
ATOM   1912  CE2 PHE   787      30.753  35.798  -7.220  1.00 42.52
ATOM   1913  CZ  PHE   787      30.763  37.148  -6.873  1.00 35.97
ATOM   1914  C   PHE   787      28.039  36.144 -12.782  1.00 65.54
ATOM   1915  O   PHE   787      27.990  37.106 -13.544  1.00 71.93
ATOM   1916  N   ASP   788      27.937  34.893 -13.208  1.00 66.39
ATOM   1917  CA  ASP   788      27.777  34.593 -14.622  1.00 66.71
ATOM   1918  CB  ASP   788      28.396  33.228 -14.938  1.00 80.42
ATOM   1919  CG  ASP   788      29.889  33.177 -14.646  1.00 86.32
ATOM   1920  OD1 ASP   788      30.440  32.064 -14.545  1.00 89.64
ATOM   1921  OD2 ASP   788      30.517  34.247 -14.531  1.00 92.13
ATOM   1922  C   ASP   788      26.314  34.585 -15.025  1.00 65.35
ATOM   1923  O   ASP   788      25.874  33.671 -15.719  1.00 67.60
ATOM   1924  N   GLN   789      25.553  35.587 -14.594  1.00 69.60
ATOM   1925  CA  GLN   789      24.138  35.635 -14.953  1.00 70.55
ATOM   1926  CB  GLN   789      23.292  36.143 -13.776  1.00 57.28
ATOM   1927  CG  GLN   789      23.561  37.584 -13.368  1.00 57.30
ATOM   1928  CD  GLN   789      22.652  38.068 -12.236  1.00 58.84
ATOM   1929  OE1 GLN   789      21.467  38.329 -12.436  1.00 57.38
ATOM   1930  NE2 GLN   789      23.214  38.182 -11.037  1.00 59.31
ATOM   1931  C   GLN   789      23.911  36.524 -16.173  1.00 72.09
ATOM   1932  O   GLN   789      24.678  37.497 -16.338  1.00 73.01
ATOM   1933  OT  GLN   789      22.963  36.239 -16.939  1.00 59.49
ATOM   1934  CB  MET   805      37.422  37.789 -15.590  1.00103.89
ATOM   1935  CG  MET   805      37.982  38.667 -16.711  1.00103.89
ATOM   1936  SD  MET   805      38.925  40.124 -16.137  1.00103.89
ATOM   1937  CE  MET   805      38.004  41.477 -16.922  1.00103.89
ATOM   1938  C   MET   805      36.498  35.556 -14.938  1.00 82.10
ATOM   1939  O   MET   805      36.867  35.841 -13.797  1.00 80.10
ATOM   1940  N   MET   805      35.284  37.003 -16.582  1.00 82.00
ATOM   1941  CA  MET   805      36.616  36.572 -16.071  1.00 83.61
ATOM   1942  N   ASN   806      35.986  34.368 -15.253  1.00 82.22
ATOM   1943  CA  ASN   806      35.842  33.310 -14.254  1.00 84.70
ATOM   1944  CB  ASN   806      35.197  32.067 -14.881  1.00 92.41
ATOM   1945  CG  ASN   806      33.673  32.082 -14.772  1.00 95.92
ATOM   1946  OD1 ASN   806      33.041  33.138 -14.864  1.00 95.97
ATOM   1947  ND2 ASN   806      33.079  30.905 -14.588  1.00 95.66
ATOM   1948  C   ASN   806      37.218  32.978 -13.689  1.00 84.22
ATOM   1949  O   ASN   806      37.373  32.079 -12.861  1.00 83.41
ATOM   1950  N   ARG   807      38.208  33.730 -14.161  1.00103.42
ATOM   1951  CA  ARG   807      39.597  33.606 -13.738  1.00103.89
ATOM   1952  CB  ARG   807      40.481  34.435 -14.674  1.00103.01
ATOM   1953  CG  ARG   807      40.516  33.939 -16.108  1.00103.89
ATOM   1954  CD  ARG   807      41.450  32.743 -16.263  1.00103.04
ATOM   1955  NE  ARG   807      42.828  33.068 -15.892  1.00103.41
ATOM   1956  CZ  ARG   807      43.313  33.017 -14.653  1.00103.89
ATOM   1957  NH1 ARG   807      42.537  32.645 -13.642  1.00102.47
ATOM   1958  NH2 ARG   807      44.578  33.346 -14.420  1.00103.89
ATOM   1959  C   ARG   807      39.704  34.154 -12.315  1.00103.13
ATOM   1960  O   ARG   807      39.777  33.403 -11.336  1.00100.20
ATOM   1961  N   GLU   808      39.712  35.479 -12.223  1.00 93.51
ATOM   1962  CA  GLU   808      39.789  36.179 -10.949  1.00 91.58
ATOM   1963  CB  GLU   808      40.505  37.527 -11.123  1.00102.82
ATOM   1964  CG  GLU   808      41.998  37.435 -11.445  1.00103.66
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ATOM	1965	CD	GLU	808	42.824	36.852	-10.302	1.00	103.35	
ATOM	1966	OE1	GLU	808	42.737	37.378	-9.170	1.00	102.74	
ATOM	1967	OE2	GLU	808	43.570	35.875	-10.541	1.00	103.78	
ATOM	1968	C	GLU	808	38.373	36.421	-10.444	1.00	87.53	
ATOM	1969	O	GLU	808	37.809	37.496	-10.647	1.00	86.40	
ATOM	1970	N	LYS	809	37.798	35.414	-9.798	1.00	75.23	
ATOM	1971	CA	LYS	809	36.448	35.532	-9.272	1.00	73.09	
ATOM	1972	CB	LYS	809	35.444	35.631	-10.416	1.00	103.89	
ATOM	1973	CG	LYS	809	34.065	36.088	-9.983	1.00	103.89	
ATOM	1974	CD	LYS	809	33.212	36.469	-11.187	1.00	103.89	
ATOM	1975	CE	LYS	809	33.819	37.637	-11.959	1.00	103.89	
ATOM	1976	NZ	LYS	809	32.995	38.022	-13.142	1.00	103.22	
ATOM	1977	C	LYS	809	36.111	34.347	-8.382	1.00	71.49	
ATOM	1978	O	LYS	809	35.315	34.464	-7.454	1.00	71.84	
ATOM	1979	N	LYS	810	36.717	33.202	-8.662	1.00	72.96	
ATOM	1980	CA	LYS	810	36.480	32.022	-7.846	1.00	70.19	
ATOM	1981	CB	LYS	810	36.909	30.755	-8.595	1.00	85.57	
ATOM	1982	CG	LYS	810	36.012	30.419	-9.777	1.00	95.54	
ATOM	1983	CD	LYS	810	36.242	29.000	-10.285	1.00	100.88	
ATOM	1984	CE	LYS	810	35.237	28.631	-11.379	1.00	101.70	
ATOM	1985	NZ	LYS	810	33.822	28.655	-10.895	1.00	103.29	
ATOM	1986	C	LYS	810	37.252	32.147	-6.534	1.00	69.37	
ATOM	1987	O	LYS	810	37.008	31.402	-5.583	1.00	70.60	
ATOM	1988	N	ASN	811	38.184	33.097	-6.491	1.00	61.31	
ATOM	1989	CA	ASN	811	38.994	33.321	-5.298	1.00	59.58	
ATOM	1990	CB	ASN	811	40.391	33.809	-5.684	1.00	97.63	
ATOM	1991	CG	ASN	811	40.385	34.645	-6.937	1.00	101.10	
ATOM	1992	OD1	ASN	811	39.526	35.510	-7.114	1.00	103.89	
ATOM	1993	ND2	ASN	811	41.350	34.401	-7.817	1.00	99.34	
ATOM	1994	C	ASN	811	38.347	34.309	-4.337	1.00	56.86	
ATOM	1995	O	ASN	811	38.912	34.635	-3.296	1.00	57.20	
ATOM	1996	N	LYS	812	37.163	34.791	-4.691	1.00	54.39	
ATOM	1997	CA	LYS	812	36.436	35.706	-3.824	1.00	48.10	
ATOM	1998	CB	LYS	812	35.406	36.510	-4.616	1.00	55.71	
ATOM	1999	CG	LYS	812	35.909	37.643	-5.473	1.00	58.93	
ATOM	2000	CD	LYS	812	34.742	38.164	-6.320	1.00	61.46	
ATOM	2001	CE	LYS	812	34.852	39.656	-6.610	1.00	64.58	
ATOM	2002	NZ	LYS	812	36.162	40.022	-7.218	1.00	66.55	
ATOM	2003	C	LYS	812	35.667	34.864	-2.805	1.00	46.64	
ATOM	2004	O	LYS	812	35.425	35.299	-1.686	1.00	48.26	
ATOM	2005	N	ILE	813	35.308	33.650	-3.213	1.00	44.77	
ATOM	2006	CA	ILE	813	34.493	32.740	-2.415	1.00	47.02	
ATOM	2007	CB	ILE	813	34.193	31.440	-3.207	1.00	56.56	
ATOM	2008	CG2	ILE	813	32.981	30.719	-2.600	1.00	52.27	
ATOM	2009	CG1	ILE	813	33.894	31.781	-4.668	1.00	54.34	
ATOM	2010	CD1	ILE	813	33.529	30.580	-5.511	1.00	56.01	
ATOM	2011	C	ILE	813	34.970	32.353	-1.022	1.00	47.30	
ATOM	2012	O	ILE	813	34.172	32.327	-0.076	1.00	50.76	
ATOM	2013	N	PRO	814	36.262	32.033	-0.865	1.00	48.66	
ATOM	2014	CD	PRO	814	37.372	31.895	-1.818	1.00	47.40	
ATOM	2015	CA	PRO	814	36.686	31.665	0.484	1.00	49.58	
ATOM	2016	CB	PRO	814	38.170	31.377	0.306	1.00	49.54	
ATOM	2017	CG	PRO	814	38.245	30.902	-1.115	1.00	46.10	
ATOM	2018	C	PRO	814	36.411	32.794	1.477	1.00	50.23	
ATOM	2019	O	PRO	814	35.975	32.547	2.591	1.00	53.21	
ATOM	2020	N	SER	815	36.650	34.031	1.067	1.00	49.21	
ATOM	2021	CA	SER	815	36.416	35.156	1.957	1.00	51.70	
ATOM	2022	CB	SER	815	37.186	36.398	1.477	1.00	61.37	
ATOM	2023	OG	SER	815	38.545	36.332	1.864	1.00	62.87	
ATOM	2024	C	SER	815	34.936	35.493	2.140	1.00	50.87	
ATOM	2025	O	SER	815	34.520	35.880	3.231	1.00	54.57	
ATOM	2026	N	MET	816	34.138	35.369	1.088	1.00	44.65	
ATOM	2027	CA	MET	816	32.729	35.662	1.259	1.00	43.46	
ATOM	2028	CB	MET	816	31.956	35.641	-0.070	1.00	49.79	
ATOM	2029	CG	MET	816	32.778	35.484	-1.331	1.00	49.26	
ATOM	2030	SD	MET	816	31.905	35.977	-2.871	1.00	53.73	

ATOM	2031	CE	MET	816	30.389	35.071	-2.771	1.00	46.50
ATOM	2032	C	MET	816	32.182	34.591	2.187	1.00	44.09
ATOM	2033	O	MET	816	31.357	34.874	3.046	1.00	47.44
ATOM	2034	N	GLN	817	32.672	33.364	2.032	1.00	47.91
ATOM	2035	CA	GLN	817	32.203	32.260	2.857	1.00	45.26
ATOM	2036	CB	GLN	817	32.662	30.923	2.274	1.00	42.11
ATOM	2037	CG	GLN	817	31.997	30.584	0.944	1.00	44.01
ATOM	2038	CD	GLN	817	30.475	30.526	1.038	1.00	47.84
ATOM	2039	OE1	GLN	817	29.898	29.544	1.523	1.00	43.63
ATOM	2040	NE2	GLN	817	29.821	31.588	0.586	1.00	50.69
ATOM	2041	C	GLN	817	32.611	32.364	4.319	1.00	44.44
ATOM	2042	O	GLN	817	31.772	32.199	5.213	1.00	45.20
ATOM	2043	N	VAL	818	33.886	32.630	4.580	1.00	37.76
ATOM	2044	CA	VAL	818	34.324	32.770	5.961	1.00	38.72
ATOM	2045	CB	VAL	818	35.860	32.971	6.060	1.00	44.45
ATOM	2046	CG1	VAL	818	36.234	33.384	7.470	1.00	40.88
ATOM	2047	CG2	VAL	818	36.585	31.683	5.691	1.00	43.68
ATOM	2048	C	VAL	818	33.615	33.959	6.647	1.00	39.70
ATOM	2049	O	VAL	818	33.257	33.894	7.831	1.00	42.82
ATOM	2050	N	GLY	819	33.411	35.039	5.897	1.00	37.62
ATOM	2051	CA	GLY	819	32.757	36.209	6.456	1.00	33.72
ATOM	2052	C	GLY	819	31.299	35.942	6.749	1.00	33.48
ATOM	2053	O	GLY	819	30.767	36.369	7.777	1.00	30.08
ATOM	2054	N	PHE	820	30.651	35.226	5.836	1.00	40.63
ATOM	2055	CA	PHE	820	29.247	34.896	6.002	1.00	40.07
ATOM	2056	CB	PHE	820	28.738	34.174	4.743	1.00	36.73
ATOM	2057	CG	PHE	820	27.249	33.966	4.723	1.00	37.24
ATOM	2058	CD1	PHE	820	26.702	32.726	5.047	1.00	36.58
ATOM	2059	CD2	PHE	820	26.390	35.030	4.445	1.00	37.12
ATOM	2060	CE1	PHE	820	25.326	32.552	5.097	1.00	40.81
ATOM	2061	CE2	PHE	820	25.013	34.866	4.495	1.00	38.27
ATOM	2062	CZ	PHE	820	24.476	33.627	4.821	1.00	41.37
ATOM	2063	C	PHE	820	29.101	34.031	7.262	1.00	40.81
ATOM	2064	O	PHE	820	28.246	34.279	8.104	1.00	43.71
ATOM	2065	N	ILE	821	29.958	33.027	7.392	1.00	33.79
ATOM	2066	CA	ILE	821	29.949	32.146	8.552	1.00	31.10
ATOM	2067	CB	ILE	821	31.087	31.090	8.443	1.00	43.42
ATOM	2068	CG2	ILE	821	31.302	30.406	9.781	1.00	43.90
ATOM	2069	CG1	ILE	821	30.751	30.073	7.344	1.00	46.77
ATOM	2070	CD1	ILE	821	31.899	29.150	6.961	1.00	50.09
ATOM	2071	C	ILE	821	30.119	32.922	9.865	1.00	29.21
ATOM	2072	O	ILE	821	29.302	32.816	10.769	1.00	29.27
ATOM	2073	N	ASP	822	31.197	33.691	9.961	1.00	36.23
ATOM	2074	CA	ASP	822	31.485	34.471	11.154	1.00	39.11
ATOM	2075	CB	ASP	822	32.782	35.255	10.968	1.00	46.14
ATOM	2076	CG	ASP	822	34.005	34.394	11.118	1.00	51.17
ATOM	2077	OD1	ASP	822	33.862	33.253	11.614	1.00	54.50
ATOM	2078	OD2	ASP	822	35.104	34.863	10.755	1.00	51.20
ATOM	2079	C	ASP	822	30.402	35.460	11.577	1.00	40.85
ATOM	2080	O	ASP	822	30.229	35.720	12.762	1.00	45.46
ATOM	2081	N	ALA	823	29.681	36.011	10.613	1.00	33.66
ATOM	2082	CA	ALA	823	28.672	37.010	10.911	1.00	33.76
ATOM	2083	CB	ALA	823	28.776	38.146	9.891	1.00	31.92
ATOM	2084	C	ALA	823	27.233	36.525	10.980	1.00	36.95
ATOM	2085	O	ALA	823	26.400	37.142	11.665	1.00	38.13
ATOM	2086	N	ILE	824	26.940	35.427	10.291	1.00	35.91
ATOM	2087	CA	ILE	824	25.577	34.913	10.241	1.00	31.12
ATOM	2088	CB	ILE	824	25.031	35.000	8.792	1.00	37.09
ATOM	2089	CG2	ILE	824	23.608	34.485	8.743	1.00	36.57
ATOM	2090	CG1	ILE	824	25.140	36.440	8.260	1.00	32.41
ATOM	2091	CD1	ILE	824	24.299	37.475	9.022	1.00	32.88
ATOM	2092	C	ILE	824	25.321	33.483	10.715	1.00	33.59
ATOM	2093	O	ILE	824	24.300	33.206	11.361	1.00	34.28
ATOM	2094	N	CYS	825	26.238	32.570	10.411	1.00	39.85
ATOM	2095	CA	CYS	825	26.004	31.168	10.730	1.00	38.88
ATOM	2096	CB	CYS	825	26.617	30.302	9.623	1.00	40.34

ATOM	2097	SG	CYS	825	26.086	30.736	7.933	1.00	38.55
ATOM	2098	C	CYS	825	26.412	30.616	12.089	1.00	39.02
ATOM	2099	O	CYS	825	25.567	30.115	12.849	1.00	38.00
ATOM	2100	N	LEU	826	27.702	30.704	12.385	1.00	42.29
ATOM	2101	CA	LEU	826	28.258	30.167	13.619	1.00	45.93
ATOM	2102	CB	LEU	826	29.629	30.791	13.865	1.00	66.65
ATOM	2103	CG	LEU	826	30.623	29.911	14.620	1.00	66.97
ATOM	2104	CD1	LEU	826	30.740	28.547	13.940	1.00	66.02
ATOM	2105	CD2	LEU	826	31.967	30.614	14.666	1.00	66.58
ATOM	2106	C	LEU	826	27.374	30.295	14.867	1.00	48.60
ATOM	2107	O	LEU	826	27.050	29.292	15.507	1.00	51.37
ATOM	2108	N	GLN	827	26.966	31.513	15.207	1.00	51.23
ATOM	2109	CA	GLN	827	26.129	31.708	16.391	1.00	52.88
ATOM	2110	CB	GLN	827	25.886	33.192	16.650	1.00	62.64
ATOM	2111	CG	GLN	827	27.044	33.960	17.213	1.00	65.32
ATOM	2112	CD	GLN	827	26.689	35.416	17.418	1.00	67.86
ATOM	2113	OE1	GLN	827	25.791	35.741	18.195	1.00	66.18
ATOM	2114	NE2	GLN	827	27.384	36.304	16.706	1.00	70.84
ATOM	2115	C	GLN	827	24.769	31.018	16.349	1.00	52.09
ATOM	2116	O	GLN	827	24.286	30.547	17.377	1.00	56.32
ATOM	2117	N	LEU	828	24.138	30.982	15.180	1.00	40.11
ATOM	2118	CA	LEU	828	22.829	30.351	15.077	1.00	38.65
ATOM	2119	CB	LEU	828	22.260	30.498	13.666	1.00	38.94
ATOM	2120	CG	LEU	828	20.735	30.391	13.524	1.00	37.50
ATOM	2121	CD1	LEU	828	20.352	30.339	12.051	1.00	37.26
ATOM	2122	CD2	LEU	828	20.230	29.161	14.220	1.00	42.38
ATOM	2123	C	LEU	828	22.952	28.874	15.423	1.00	40.53
ATOM	2124	O	LEU	828	22.199	28.361	16.241	1.00	37.16
ATOM	2125	N	TYR	829	23.908	28.194	14.791	1.00	45.56
ATOM	2126	CA	TYR	829	24.130	26.773	15.031	1.00	42.99
ATOM	2127	CB	TYR	829	25.057	26.211	13.947	1.00	41.81
ATOM	2128	CG	TYR	829	24.426	26.239	12.571	1.00	35.96
ATOM	2129	CD1	TYR	829	23.229	25.563	12.314	1.00	35.87
ATOM	2130	CE1	TYR	829	22.613	25.621	11.064	1.00	33.09
ATOM	2131	CD2	TYR	829	24.992	26.973	11.535	1.00	39.05
ATOM	2132	CE2	TYR	829	24.373	27.043	10.277	1.00	37.28
ATOM	2133	CZ	TYR	829	23.186	26.366	10.055	1.00	34.28
ATOM	2134	OH	TYR	829	22.558	26.461	8.830	1.00	40.90
ATOM	2135	C	TYR	829	24.671	26.501	16.439	1.00	43.01
ATOM	2136	O	TYR	829	24.400	25.455	17.011	1.00	43.15
ATOM	2137	N	GLU	830	25.423	27.446	16.999	1.00	52.57
ATOM	2138	CA	GLU	830	25.945	27.306	18.358	1.00	54.63
ATOM	2139	CB	GLU	830	26.997	28.380	18.654	1.00	67.90
ATOM	2140	CG	GLU	830	28.397	28.049	18.161	1.00	76.41
ATOM	2141	CD	GLU	830	29.390	29.172	18.407	1.00	83.61
ATOM	2142	OE1	GLU	830	30.599	28.956	18.183	1.00	86.40
ATOM	2143	OE2	GLU	830	28.966	30.273	18.817	1.00	88.47
ATOM	2144	C	GLU	830	24.819	27.425	19.390	1.00	54.55
ATOM	2145	O	GLU	830	24.875	26.812	20.460	1.00	52.27
ATOM	2146	N	ALA	831	23.801	28.219	19.070	1.00	61.97
ATOM	2147	CA	ALA	831	22.674	28.410	19.978	1.00	60.82
ATOM	2148	CB	ALA	831	22.018	29.752	19.727	1.00	39.65
ATOM	2149	C	ALA	831	21.657	27.300	19.797	1.00	59.87
ATOM	2150	O	ALA	831	21.004	26.872	20.747	1.00	64.65
ATOM	2151	N	LEU	832	21.514	26.840	18.565	1.00	46.02
ATOM	2152	CA	LEU	832	20.573	25.775	18.276	1.00	47.06
ATOM	2153	CB	LEU	832	20.570	25.490	16.773	1.00	47.77
ATOM	2154	CG	LEU	832	19.656	24.393	16.232	1.00	44.37
ATOM	2155	CD1	LEU	832	18.245	24.564	16.771	1.00	40.14
ATOM	2156	CD2	LEU	832	19.678	24.445	14.705	1.00	41.59
ATOM	2157	C	LEU	832	20.983	24.528	19.066	1.00	49.89
ATOM	2158	O	LEU	832	20.136	23.776	19.545	1.00	49.91
ATOM	2159	N	THR	833	22.290	24.337	19.218	1.00	68.57
ATOM	2160	CA	THR	833	22.815	23.189	19.943	1.00	70.23
ATOM	2161	CB	THR	833	24.347	23.120	19.840	1.00	61.95
ATOM	2162	OG1	THR	833	24.718	22.912	18.471	1.00	62.34

ATOM	2163	CG2	THR	833	24.888	21.977	20.684	1.00	60.74
ATOM	2164	C	THR	833	22.415	23.204	21.407	1.00	69.37
ATOM	2165	O	THR	833	22.200	22.147	21.996	1.00	70.26
ATOM	2166	N	HIS	834	22.312	24.395	21.992	1.00	59.34
ATOM	2167	CA	HIS	834	21.918	24.521	23.395	1.00	58.27
ATOM	2168	CB	HIS	834	22.213	25.921	23.907	1.00	64.21
ATOM	2169	CG	HIS	834	23.670	26.246	23.948	1.00	71.03
ATOM	2170	CD2	HIS	834	24.426	26.843	24.900	1.00	72.84
ATOM	2171	ND1	HIS	834	24.521	25.968	22.901	1.00	75.33
ATOM	2172	CE1	HIS	834	25.739	26.381	23.205	1.00	76.38
ATOM	2173	NE2	HIS	834	25.708	26.916	24.412	1.00	75.19
ATOM	2174	C	HIS	834	20.443	24.198	23.605	1.00	56.81
ATOM	2175	O	HIS	834	20.018	23.896	24.711	1.00	59.99
ATOM	2176	N	VAL	835	19.655	24.272	22.545	1.00	56.48
ATOM	2177	CA	VAL	835	18.245	23.946	22.660	1.00	56.09
ATOM	2178	CB	VAL	835	17.393	24.721	21.624	1.00	47.83
ATOM	2179	CG1	VAL	835	15.974	24.200	21.627	1.00	40.88
ATOM	2180	CG2	VAL	835	17.409	26.215	21.941	1.00	43.59
ATOM	2181	C	VAL	835	18.124	22.445	22.404	1.00	61.43
ATOM	2182	O	VAL	835	17.201	21.789	22.891	1.00	66.24
ATOM	2183	N	SER	836	19.072	21.911	21.637	1.00	51.25
ATOM	2184	CA	SER	836	19.103	20.491	21.302	1.00	51.48
ATOM	2185	CB	SER	836	18.179	20.195	20.128	1.00	84.61
ATOM	2186	OG	SER	836	16.833	20.446	20.489	1.00	91.26
ATOM	2187	C	SER	836	20.514	20.068	20.962	1.00	52.95
ATOM	2188	O	SER	836	21.036	20.401	19.904	1.00	52.18
ATOM	2189	N	GLU	837	21.123	19.324	21.877	1.00	69.74
ATOM	2190	CA	GLU	837	22.485	18.846	21.714	1.00	70.70
ATOM	2191	CB	GLU	837	22.920	18.062	22.957	1.00	92.60
ATOM	2192	CG	GLU	837	22.916	18.863	24.262	1.00	103.72
ATOM	2193	CD	GLU	837	21.536	18.983	24.913	1.00	103.89
ATOM	2194	OE1	GLU	837	20.632	19.611	24.319	1.00	103.89
ATOM	2195	OE2	GLU	837	21.359	18.439	26.027	1.00	103.89
ATOM	2196	C	GLU	837	22.644	17.972	20.479	1.00	67.23
ATOM	2197	O	GLU	837	23.715	17.928	19.883	1.00	67.25
ATOM	2198	N	ASP	838	21.580	17.279	20.094	1.00	65.64
ATOM	2199	CA	ASP	838	21.636	16.410	18.926	1.00	68.14
ATOM	2200	CB	ASP	838	20.457	15.433	18.932	1.00	87.45
ATOM	2201	CG	ASP	838	20.616	14.333	19.969	1.00	91.03
ATOM	2202	OD1	ASP	838	21.622	13.596	19.909	1.00	86.75
ATOM	2203	OD2	ASP	838	19.737	14.205	20.845	1.00	94.47
ATOM	2204	C	ASP	838	21.685	17.174	17.602	1.00	66.58
ATOM	2205	O	ASP	838	21.606	16.576	16.526	1.00	68.08
ATOM	2206	N	CYS	839	21.820	18.494	17.688	1.00	62.09
ATOM	2207	CA	CYS	839	21.911	19.340	16.509	1.00	56.18
ATOM	2208	CB	CYS	839	21.064	20.597	16.685	1.00	43.93
ATOM	2209	SG	CYS	839	19.335	20.370	16.225	1.00	43.90
ATOM	2210	C	CYS	839	23.362	19.723	16.275	1.00	56.48
ATOM	2211	O	CYS	839	23.695	20.359	15.281	1.00	58.55
ATOM	2212	N	PHE	840	24.225	19.312	17.197	1.00	46.98
ATOM	2213	CA	PHE	840	25.652	19.598	17.115	1.00	45.07
ATOM	2214	CB	PHE	840	26.408	18.788	18.180	1.00	52.74
ATOM	2215	CG	PHE	840	27.901	18.790	17.991	1.00	54.35
ATOM	2216	CD1	PHE	840	28.665	19.883	18.391	1.00	54.06
ATOM	2217	CD2	PHE	840	28.537	17.726	17.356	1.00	57.84
ATOM	2218	CE1	PHE	840	30.039	19.922	18.162	1.00	54.86
ATOM	2219	CE2	PHE	840	29.909	17.751	17.120	1.00	59.41
ATOM	2220	CZ	PHE	840	30.665	18.854	17.523	1.00	59.97
ATOM	2221	C	PHE	840	26.286	19.326	15.745	1.00	42.70
ATOM	2222	O	PHE	840	27.188	20.039	15.323	1.00	45.76
ATOM	2223	N	PRO	841	25.848	18.272	15.046	1.00	50.56
ATOM	2224	CD	PRO	841	24.931	17.179	15.418	1.00	47.30
ATOM	2225	CA	PRO	841	26.459	18.011	13.742	1.00	48.96
ATOM	2226	CB	PRO	841	25.654	16.824	13.226	1.00	40.68
ATOM	2227	CG	PRO	841	25.359	16.079	14.478	1.00	44.87
ATOM	2228	C	PRO	841	26.435	19.214	12.796	1.00	49.68

ATOM	2229	O	PRO	841	27.342	19.383	11.976	1.00	51.22
ATOM	2230	N	LEU	842	25.403	20.046	12.914	1.00	46.76
ATOM	2231	CA	LEU	842	25.283	21.240	12.080	1.00	41.99
ATOM	2232	CB	LEU	842	23.921	21.892	12.290	1.00	38.56
ATOM	2233	CG	LEU	842	22.689	21.110	11.834	1.00	35.15
ATOM	2234	CD1	LEU	842	21.462	21.918	12.143	1.00	35.63
ATOM	2235	CD2	LEU	842	22.760	20.810	10.340	1.00	36.71
ATOM	2236	C	LEU	842	26.390	22.240	12.422	1.00	44.19
ATOM	2237	O	LEU	842	27.009	22.825	11.534	1.00	44.49
ATOM	2238	N	LEU	843	26.635	22.416	13.716	1.00	42.01
ATOM	2239	CA	LEU	843	27.663	23.326	14.214	1.00	44.50
ATOM	2240	CB	LEU	843	27.606	23.365	15.748	1.00	47.88
ATOM	2241	CG	LEU	843	28.180	24.540	16.548	1.00	48.61
ATOM	2242	CD1	LEU	843	28.879	23.989	17.789	1.00	40.77
ATOM	2243	CD2	LEU	843	29.150	25.356	15.716	1.00	43.06
ATOM	2244	C	LEU	843	29.047	22.846	13.766	1.00	45.59
ATOM	2245	O	LEU	843	29.863	23.612	13.233	1.00	46.24
ATOM	2246	N	ASP	844	29.296	21.564	14.006	1.00	43.37
ATOM	2247	CA	ASP	844	30.551	20.914	13.649	1.00	44.14
ATOM	2248	CB	ASP	844	30.482	19.439	14.071	1.00	76.12
ATOM	2249	CG	ASP	844	31.803	18.722	13.926	1.00	80.15
ATOM	2250	OD1	ASP	844	32.824	19.257	14.399	1.00	81.53
ATOM	2251	OD2	ASP	844	31.819	17.615	13.350	1.00	83.47
ATOM	2252	C	ASP	844	30.790	21.045	12.142	1.00	41.90
ATOM	2253	O	ASP	844	31.879	21.398	11.705	1.00	42.32
ATOM	2254	N	GLY	845	29.769	20.766	11.348	1.00	41.21
ATOM	2255	CA	GLY	845	29.916	20.892	9.909	1.00	41.84
ATOM	2256	C	GLY	845	30.300	22.309	9.513	1.00	44.98
ATOM	2257	O	GLY	845	31.149	22.512	8.640	1.00	47.41
ATOM	2258	N	CYS	846	29.674	23.288	10.169	1.00	45.87
ATOM	2259	CA	CYS	846	29.929	24.698	9.909	1.00	42.88
ATOM	2260	CB	CYS	846	28.928	25.563	10.692	1.00	46.54
ATOM	2261	SG	CYS	846	29.102	27.374	10.460	1.00	53.03
ATOM	2262	C	CYS	846	31.357	25.098	10.278	1.00	42.55
ATOM	2263	O	CYS	846	32.019	25.810	9.526	1.00	42.63
ATOM	2264	N	ARG	847	31.835	24.649	11.436	1.00	48.70
ATOM	2265	CA	ARG	847	33.193	24.990	11.860	1.00	50.19
ATOM	2266	CB	ARG	847	33.480	24.466	13.265	1.00	47.08
ATOM	2267	CG	ARG	847	32.374	24.662	14.269	1.00	50.29
ATOM	2268	CD	ARG	847	32.942	25.181	15.572	1.00	53.66
ATOM	2269	NE	ARG	847	32.300	24.601	16.746	1.00	55.17
ATOM	2270	CZ	ARG	847	32.278	25.183	17.941	1.00	55.66
ATOM	2271	NH1	ARG	847	32.861	26.368	18.112	1.00	50.78
ATOM	2272	NH2	ARG	847	31.685	24.581	18.966	1.00	53.13
ATOM	2273	C	ARG	847	34.203	24.372	10.902	1.00	51.85
ATOM	2274	O	ARG	847	35.200	24.996	10.534	1.00	51.96
ATOM	2275	N	LYS	848	33.916	23.137	10.506	1.00	48.02
ATOM	2276	CA	LYS	848	34.758	22.365	9.604	1.00	50.13
ATOM	2277	CB	LYS	848	34.116	20.989	9.394	1.00	65.90
ATOM	2278	CG	LYS	848	35.075	19.874	9.030	1.00	69.60
ATOM	2279	CD	LYS	848	34.420	18.491	9.161	1.00	76.79
ATOM	2280	CE	LYS	848	34.179	18.101	10.620	1.00	78.99
ATOM	2281	NZ	LYS	848	33.618	16.723	10.758	1.00	80.66
ATOM	2282	C	LYS	848	34.984	23.071	8.264	1.00	51.80
ATOM	2283	O	LYS	848	36.116	23.163	7.783	1.00	55.02
ATOM	2284	N	ASN	849	33.913	23.577	7.660	1.00	54.53
ATOM	2285	CA	ASN	849	34.039	24.266	6.378	1.00	54.69
ATOM	2286	CB	ASN	849	32.662	24.468	5.740	1.00	55.68
ATOM	2287	CG	ASN	849	32.036	23.160	5.292	1.00	55.62
ATOM	2288	OD1	ASN	849	32.682	22.343	4.635	1.00	55.68
ATOM	2289	ND2	ASN	849	30.775	22.959	5.639	1.00	52.66
ATOM	2290	C	ASN	849	34.752	25.604	6.508	1.00	52.51
ATOM	2291	O	ASN	849	35.464	26.029	5.599	1.00	53.77
ATOM	2292	N	ARG	850	34.563	26.264	7.645	1.00	50.02
ATOM	2293	CA	ARG	850	35.199	27.554	7.891	1.00	48.48
ATOM	2294	CB	ARG	850	34.729	28.113	9.237	1.00	56.74

ATOM	2295	CG	ARG	850	35.625	29.183	9.796	1.00	55.32
ATOM	2296	CD	ARG	850	34.897	30.149	10.713	1.00	51.09
ATOM	2297	NE	ARG	850	35.817	31.104	11.323	1.00	51.44
ATOM	2298	CZ	ARG	850	36.824	31.697	10.682	1.00	55.26
ATOM	2299	NH1	ARG	850	37.056	31.438	9.402	1.00	63.71
ATOM	2300	NH2	ARG	850	37.610	32.552	11.318	1.00	57.85
ATOM	2301	C	ARG	850	36.709	27.363	7.880	1.00	46.35
ATOM	2302	O	ARG	850	37.458	28.162	7.312	1.00	45.12
ATOM	2303	N	GLN	851	37.142	26.284	8.514	1.00	46.55
ATOM	2304	CA	GLN	851	38.547	25.923	8.570	1.00	49.44
ATOM	2305	CB	GLN	851	38.696	24.625	9.366	1.00	76.71
ATOM	2306	CG	GLN	851	40.116	24.177	9.632	1.00	85.23
ATOM	2307	CD	GLN	851	40.174	23.066	10.675	1.00	93.06
ATOM	2308	OE1	GLN	851	41.248	22.553	11.003	1.00	98.78
ATOM	2309	NE2	GLN	851	39.009	22.694	11.207	1.00	89.63
ATOM	2310	C	GLN	851	39.028	25.737	7.132	1.00	48.65
ATOM	2311	O	GLN	851	40.018	26.338	6.712	1.00	48.65
ATOM	2312	N	LYS	852	38.299	24.922	6.376	1.00	49.92
ATOM	2313	CA	LYS	852	38.627	24.651	4.983	1.00	49.70
ATOM	2314	CB	LYS	852	37.579	23.723	4.363	1.00	54.93
ATOM	2315	CG	LYS	852	37.425	22.403	5.100	1.00	53.81
ATOM	2316	CD	LYS	852	38.673	21.563	4.949	1.00	56.62
ATOM	2317	CE	LYS	852	38.722	20.430	5.948	1.00	59.15
ATOM	2318	NZ	LYS	852	39.966	19.628	5.741	1.00	63.70
ATOM	2319	C	LYS	852	38.710	25.933	4.166	1.00	50.33
ATOM	2320	O	LYS	852	39.683	26.156	3.439	1.00	50.84
ATOM	2321	N	TRP	853	37.685	26.775	4.275	1.00	60.56
ATOM	2322	CA	TRP	853	37.672	28.025	3.526	1.00	60.29
ATOM	2323	CB	TRP	853	36.309	28.713	3.644	1.00	49.29
ATOM	2324	CG	TRP	853	35.211	28.065	2.835	1.00	44.03
ATOM	2325	CD2	TRP	853	35.130	27.980	1.406	1.00	42.39
ATOM	2326	CE2	TRP	853	33.898	27.365	1.094	1.00	45.46
ATOM	2327	CE3	TRP	853	35.978	28.365	0.360	1.00	42.70
ATOM	2328	CD1	TRP	853	34.058	27.504	3.315	1.00	42.45
ATOM	2329	NE1	TRP	853	33.267	27.086	2.277	1.00	43.17
ATOM	2330	CZ2	TRP	853	33.490	27.128	-0.222	1.00	43.04
ATOM	2331	CZ3	TRP	853	35.573	28.131	-0.950	1.00	39.81
ATOM	2332	CH2	TRP	853	34.339	27.519	-1.228	1.00	43.42
ATOM	2333	C	TRP	853	38.767	28.978	3.987	1.00	62.80
ATOM	2334	O	TRP	853	39.225	29.819	3.219	1.00	67.06
ATOM	2335	N	GLN	854	39.182	28.854	5.241	1.00	56.99
ATOM	2336	CA	GLN	854	40.229	29.722	5.758	1.00	58.20
ATOM	2337	CB	GLN	854	40.286	29.643	7.278	1.00	61.55
ATOM	2338	CG	GLN	854	41.325	30.561	7.878	1.00	65.53
ATOM	2339	CD	GLN	854	40.998	32.029	7.668	1.00	68.85
ATOM	2340	OE1	GLN	854	40.858	32.498	6.534	1.00	72.49
ATOM	2341	NE2	GLN	854	40.878	32.767	8.768	1.00	71.13
ATOM	2342	C	GLN	854	41.590	29.339	5.184	1.00	56.71
ATOM	2343	O	GLN	854	42.346	30.190	4.716	1.00	57.09
ATOM	2344	N	ALA	855	41.897	28.050	5.227	1.00	60.95
ATOM	2345	CA	ALA	855	43.155	27.555	4.699	1.00	59.06
ATOM	2346	CB	ALA	855	43.222	26.047	4.848	1.00	54.74
ATOM	2347	C	ALA	855	43.257	27.948	3.236	1.00	58.13
ATOM	2348	O	ALA	855	44.343	28.186	2.717	1.00	60.72
ATOM	2349	N	LEU	856	42.115	28.015	2.568	1.00	47.42
ATOM	2350	CA	LEU	856	42.088	28.398	1.165	1.00	46.06
ATOM	2351	CB	LEU	856	40.764	27.988	0.539	1.00	46.85
ATOM	2352	CG	LEU	856	40.755	26.698	-0.264	1.00	44.27
ATOM	2353	CD1	LEU	856	39.330	26.420	-0.702	1.00	43.79
ATOM	2354	CD2	LEU	856	41.676	26.832	-1.474	1.00	41.44
ATOM	2355	C	LEU	856	42.281	29.904	1.015	1.00	49.26
ATOM	2356	O	LEU	856	42.825	30.369	0.022	1.00	49.18
ATOM	2357	N	ALA	857	41.829	30.671	2.002	1.00	70.22
ATOM	2358	CA	ALA	857	41.996	32.113	1.943	1.00	71.22
ATOM	2359	CB	ALA	857	41.241	32.778	3.075	1.00	57.70
ATOM	2360	C	ALA	857	43.491	32.381	2.062	1.00	74.87

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ATOM   2361  O   ALA   857      44.069  33.094   1.245  1.00 76.64
ATOM   2362  N   GLU   858      44.114  31.786   3.077  1.00 84.50
ATOM   2363  CA  GLU   858      45.547  31.946   3.296  1.00 85.79
ATOM   2364  CB  GLU   858      46.009  31.084   4.474  1.00 83.25
ATOM   2365  CG  GLU   858      46.385  31.877   5.714  1.00 87.23
ATOM   2366  CD  GLU   858      45.190  32.250   6.571  1.00 86.43
ATOM   2367  OE1 GLU   858      45.255  33.286   7.267  1.00 86.65
ATOM   2368  OE2 GLU   858      44.193  31.499   6.566  1.00 90.63
ATOM   2369  C   GLU   858      46.321  31.540   2.048  1.00 87.56
ATOM   2370  O   GLU   858      47.098  32.320   1.498  1.00 87.20
ATOM   2371  N   GLN   859      46.100  30.309   1.605  1.00 73.03
ATOM   2372  CA  GLN   859      46.773  29.797   0.423  1.00 75.55
ATOM   2373  CB  GLN   859      46.388  28.337   0.173  1.00 83.91
ATOM   2374  CG  GLN   859      47.081  27.730  -1.039  1.00 90.52
ATOM   2375  CD  GLN   859      46.674  26.295  -1.303  1.00 93.39
ATOM   2376  OE1 GLN   859      45.492  25.996  -1.466  1.00 94.45
ATOM   2377  NE2 GLN   859      47.654  25.399  -1.351  1.00 96.95
ATOM   2378  C   GLN   859      46.428  30.629  -0.803  1.00 76.23
ATOM   2379  O   GLN   859      47.084  30.515  -1.835  1.00 75.11
ATOM   2380  N   GLN   860      45.399  31.463  -0.690  1.00 91.96
ATOM   2381  CA  GLN   860      44.979  32.313  -1.801  1.00 94.21
ATOM   2382  CB  GLN   860      43.454  32.470  -1.819  1.00 93.71
ATOM   2383  CG  GLN   860      42.678  31.398  -2.587  1.00 95.05
ATOM   2384  CD  GLN   860      42.340  31.809  -4.015  1.00 94.17
ATOM   2385  OE1 GLN   860      41.392  31.295  -4.613  1.00 89.22
ATOM   2386  NE2 GLN   860      43.119  32.732  -4.570  1.00 94.46
ATOM   2387  C   GLN   860      45.608  33.693  -1.703  1.00 97.14
ATOM   2388  O   GLN   860      45.912  34.315  -2.720  1.00 99.63
ATOM   2389  N   GLU   861      45.801  34.167  -0.476  1.00102.29
ATOM   2390  CA  GLU   861      46.363  35.495  -0.238  1.00103.89
ATOM   2391  CB  GLU   861      46.078  35.926   1.202  1.00 92.35
ATOM   2392  CG  GLU   861      45.588  37.362   1.342  1.00 98.21
ATOM   2393  CD  GLU   861      46.695  38.386   1.189  1.00102.58
ATOM   2394  OE1 GLU   861      46.386  39.598   1.175  1.00103.89
ATOM   2395  OE2 GLU   861      47.873  37.982   1.090  1.00103.89
ATOM   2396  C   GLU   861      47.859  35.575  -0.510  1.00103.89
ATOM   2397  O   GLU   861      48.354  36.576  -1.034  1.00103.89
ATOM   2398  N   LYS   862      48.580  34.520  -0.158  1.00103.57
ATOM   2399  CA  LYS   862      50.017  34.497  -0.370  1.00103.89
ATOM   2400  CB  LYS   862      50.578  33.133   0.035  1.00100.87
ATOM   2401  CG  LYS   862      50.429  32.819   1.522  1.00102.54
ATOM   2402  CD  LYS   862      51.285  31.622   1.909  1.00102.89
ATOM   2403  CE  LYS   862      51.357  31.437   3.416  1.00103.89
ATOM   2404  NZ  LYS   862      52.317  30.353   3.780  1.00103.89
ATOM   2405  C   LYS   862      50.376  34.805  -1.824  1.00103.89
ATOM   2406  O   LYS   862      49.457  34.878  -2.666  1.00103.89
ATOM   2407  OT  LYS   862      51.580  34.973  -2.106  1.00103.89
ATOM   2408 ZN   ZN    863      16.564  32.450   0.257  1.00 75.09
ATOM   2409 ZN   ZN    864      16.088  29.798   0.771  1.00 53.65
END
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Table 4

Atomic coordinates for wild-type PDE5 complexed with Sildenafil

Atom Number, Atom Type, Residue Type, Residue Number Cartesian Coordinates X,Y, Z, Atom Occupancy (O) and Temperature Factor (B)

					X	Y	Z	O	B
ATOM	1	CB	THR	A 537	0.992	43.650	86.584	1.00	57.54
ATOM	2	OG1	THR	A 537	0.462	42.986	85.429	1.00	57.54
ATOM	3	CG2	THR	A 537	-0.137	43.907	87.566	1.00	57.54
ATOM	4	C	THR	A 537	2.421	45.553	87.348	1.00	67.49
ATOM	5	O	THR	A 537	2.861	46.702	87.311	1.00	67.49
ATOM	6	N	THR	A 537	2.589	44.777	85.027	1.00	67.49
ATOM	7	CA	THR	A 537	1.650	44.982	86.163	1.00	67.49
ATOM	8	N	ARG	A 538	2.577	44.743	88.393	1.00	100.00
ATOM	9	CA	ARG	A 538	3.304	45.130	89.602	1.00	100.00
ATOM	10	CB	ARG	A 538	4.727	45.596	89.219	1.00	100.00
ATOM	11	CG	ARG	A 538	5.090	47.052	89.520	1.00	100.00
ATOM	12	CD	ARG	A 538	5.331	47.294	91.008	1.00	100.00
ATOM	13	NE	ARG	A 538	5.499	48.713	91.313	1.00	100.00
ATOM	14	CZ	ARG	A 538	6.470	49.479	90.824	1.00	100.00
ATOM	15	NH1	ARG	A 538	7.374	48.967	89.999	1.00	100.00
ATOM	16	NH2	ARG	A 538	6.537	50.761	91.159	1.00	100.00
ATOM	17	C	ARG	A 538	2.585	46.169	90.474	1.00	100.00
ATOM	18	O	ARG	A 538	2.087	45.837	91.550	1.00	100.00
ATOM	19	N	GLU	A 539	2.530	47.417	90.019	1.00	82.61
ATOM	20	CA	GLU	A 539	1.877	48.479	90.778	1.00	82.61
ATOM	21	CB	GLU	A 539	2.141	49.836	90.118	1.00	76.96
ATOM	22	CG	GLU	A 539	1.346	50.994	90.704	1.00	76.96
ATOM	23	CD	GLU	A 539	1.553	52.290	89.934	1.00	76.96
ATOM	24	OE1	GLU	A 539	1.453	52.262	88.687	1.00	76.96
ATOM	25	OE2	GLU	A 539	1.808	53.336	90.574	1.00	76.96
ATOM	26	C	GLU	A 539	0.381	48.210	90.827	1.00	82.61
ATOM	27	O	GLU	A 539	-0.298	48.559	91.794	1.00	82.61
ATOM	28	N	LEU	A 540	-0.120	47.577	89.773	1.00	50.35
ATOM	29	CA	LEU	A 540	-1.533	47.250	89.671	1.00	50.35
ATOM	30	CB	LEU	A 540	-1.845	46.698	88.274	1.00	41.52
ATOM	31	CG	LEU	A 540	-3.304	46.341	87.957	1.00	41.52
ATOM	32	CD1	LEU	A 540	-3.654	44.970	88.533	1.00	41.52
ATOM	33	CD2	LEU	A 540	-4.229	47.430	88.510	1.00	41.52
ATOM	34	C	LEU	A 540	-1.929	46.235	90.732	1.00	50.35
ATOM	35	O	LEU	A 540	-3.015	46.323	91.305	1.00	50.35
ATOM	36	N	GLN	A 541	-1.042	45.276	90.987	1.00	70.04
ATOM	37	CA	GLN	A 541	-1.289	44.233	91.978	1.00	70.04
ATOM	38	CB	GLN	A 541	-0.132	43.232	91.989	1.00	100.00
ATOM	39	CG	GLN	A 541	-0.033	42.407	90.720	1.00	100.00
ATOM	40	CD	GLN	A 541	-1.360	41.768	90.350	1.00	100.00
ATOM	41	OE1	GLN	A 541	-1.971	41.068	91.158	1.00	100.00
ATOM	42	NE2	GLN	A 541	-1.813	42.007	89.126	1.00	100.00
ATOM	43	C	GLN	A 541	-1.491	44.800	93.377	1.00	70.04
ATOM	44	O	GLN	A 541	-2.432	44.423	94.075	1.00	70.04
ATOM	45	N	SER	A 542	-0.602	45.702	93.782	1.00	43.30
ATOM	46	CA	SER	A 542	-0.690	46.326	95.094	1.00	43.30
ATOM	47	CB	SER	A 542	0.470	47.306	95.305	1.00	66.17
ATOM	48	OG	SER	A 542	1.724	46.661	95.173	1.00	66.17
ATOM	49	C	SER	A 542	-2.008	47.077	95.196	1.00	43.30
ATOM	50	O	SER	A 542	-2.846	46.764	96.039	1.00	43.30
ATOM	51	N	LEU	A 543	-2.187	48.060	94.317	1.00	34.20
ATOM	52	CA	LEU	A 543	-3.396	48.877	94.294	1.00	34.20

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ATOM     53  CB  LEU A 543      -3.437  49.701  93.006  1.00 24.84
ATOM     54  CG  LEU A 543      -4.372  50.912  92.945  1.00 24.84
ATOM     55  CD1 LEU A 543      -4.343  51.507  91.549  1.00 24.84
ATOM     56  CD2 LEU A 543      -5.787  50.498  93.302  1.00 24.84
ATOM     57  C   LEU A 543      -4.674  48.048  94.394  1.00 34.20
ATOM     58  O   LEU A 543      -5.530  48.298  95.248  1.00 34.20
ATOM     59  N   ALA A 544      -4.785  47.062  93.512  1.00 30.85
ATOM     60  CA  ALA A 544      -5.952  46.194  93.433  1.00 30.85
ATOM     61  CB  ALA A 544      -5.831  45.293  92.203  1.00 58.17
ATOM     62  C   ALA A 544      -6.234  45.338  94.663  1.00 30.85
ATOM     63  O   ALA A 544      -7.396  45.117  95.011  1.00 30.85
ATOM     64  N   ALA A 545      -5.181  44.846  95.305  1.00 38.39
ATOM     65  CA  ALA A 545      -5.341  43.999  96.484  1.00 38.39
ATOM     66  CB  ALA A 545      -4.171  43.015  96.579  1.00 57.91
ATOM     67  C   ALA A 545      -5.470  44.778  97.797  1.00 38.39
ATOM     68  O   ALA A 545      -5.970  44.244  98.787  1.00 38.39
ATOM     69  N   ALA A 546      -5.029  46.035  97.798  1.00 36.82
ATOM     70  CA  ALA A 546      -5.080  46.882  98.989  1.00 36.82
ATOM     71  CB  ALA A 546      -4.317  48.168  98.729  1.00 23.29
ATOM     72  C   ALA A 546      -6.498  47.212  99.459  1.00 36.82
ATOM     73  O   ALA A 546      -7.423  47.325  98.652  1.00 36.82
ATOM     74  N   VAL A 547      -6.671  47.362 100.770  1.00 32.08
ATOM     75  CA  VAL A 547      -7.984  47.703 101.307  1.00 32.08
ATOM     76  CB  VAL A 547      -8.061  47.475 102.825  1.00 50.60
ATOM     77  CG1 VAL A 547      -9.480  47.742 103.314  1.00 50.60
ATOM     78  CG2 VAL A 547      -7.630  46.057 103.165  1.00 50.60
ATOM     79  C   VAL A 547      -8.207  49.185 101.031  1.00 32.08
ATOM     80  O   VAL A 547      -7.269  49.983 101.106  1.00 32.08
ATOM     81  N   VAL A 548      -9.437  49.558 100.702  1.00 31.19
ATOM     82  CA  VAL A 548      -9.730  50.957 100.422  1.00 31.19
ATOM     83  CB  VAL A 548     -10.724  51.104  99.249  1.00 29.12
ATOM     84  CG1 VAL A 548     -10.946  52.583  98.944  1.00 29.12
ATOM     85  CG2 VAL A 548     -10.195  50.372  98.016  1.00 29.12
ATOM     86  C   VAL A 548     -10.325  51.640 101.653  1.00 31.19
ATOM     87  O   VAL A 548     -11.481  51.393 102.014  1.00 31.19
ATOM     88  N   PRO A 549      -9.542  52.517 102.309  1.00 33.17
ATOM     89  CD  PRO A 549      -8.161  52.940 102.006  1.00 26.15
ATOM     90  CA  PRO A 549     -10.050  53.207 103.499  1.00 33.17
ATOM     91  CB  PRO A 549      -8.943  54.217 103.806  1.00 26.15
ATOM     92  CG  PRO A 549      -7.699  53.494 103.338  1.00 26.15
ATOM     93  C   PRO A 549     -11.384  53.876 103.193  1.00 33.17
ATOM     94  O   PRO A 549     -11.719  54.116 102.024  1.00 33.17
ATOM     95  N   SER A 550     -12.147  54.163 104.243  1.00 28.19
ATOM     96  CA  SER A 550     -13.447  54.810 104.093  1.00 28.19
ATOM     97  CB  SER A 550     -14.232  54.738 105.403  1.00 35.74
ATOM     98  OG  SER A 550     -13.560  55.451 106.428  1.00 35.74
ATOM     99  C   SER A 550     -13.243  56.270 103.728  1.00 28.19
ATOM    100  O   SER A 550     -12.139  56.797 103.831  1.00 28.19
ATOM    101  N   ALA A 551     -14.317  56.922 103.308  1.00 30.32
ATOM    102  CA  ALA A 551     -14.254  58.332 102.955  1.00 30.32
ATOM    103  CB  ALA A 551     -15.613  58.796 102.452  1.00 15.37
ATOM    104  C   ALA A 551     -13.829  59.150 104.183  1.00 30.32
ATOM    105  O   ALA A 551     -12.952  60.008 104.099  1.00 30.32
ATOM    106  N   GLN A 552     -14.441  58.867 105.327  1.00 34.78
ATOM    107  CA  GLN A 552     -14.112  59.580 106.554  1.00 34.78
ATOM    108  CB  GLN A 552     -14.780  58.916 107.756  1.00 69.18
ATOM    109  CG  GLN A 552     -14.763  59.773 109.011  1.00 69.18
ATOM    110  CD  GLN A 552     -15.049  58.977 110.276  1.00 69.18
ATOM    111  OE1 GLN A 552     -15.942  58.126 110.305  1.00 69.18
ATOM    112  NE2 GLN A 552     -14.294  59.261 111.336  1.00 69.18
ATOM    113  C   GLN A 552     -12.600  59.573 106.758  1.00 34.78
ATOM    114  O   GLN A 552     -11.959  60.627 106.791  1.00 34.78
ATOM    115  N   THR A 553     -12.041  58.372 106.888  1.00 36.55
ATOM    116  CA  THR A 553     -10.608  58.191 107.096  1.00 36.55
ATOM    117  CB  THR A 553     -10.244  56.693 107.053  1.00 43.53
ATOM    118  OG1 THR A 553     -10.905  56.017 108.128  1.00 43.53
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ATOM    119  CG2 THR A 553      -8.737  56.497 107.180  1.00 43.53
ATOM    120  C   THR A 553      -9.729  58.941 106.096  1.00 36.55
ATOM    121  O   THR A 553      -8.715  59.525 106.476  1.00 36.55
ATOM    122  N   LEU A 554     -10.111  58.927 104.822  1.00 26.90
ATOM    123  CA  LEU A 554      -9.329  59.615 103.797  1.00 26.90
ATOM    124  CB  LEU A 554      -9.620  59.023 102.417  1.00 26.96
ATOM    125  CG  LEU A 554      -9.348  57.536 102.228  1.00 26.96
ATOM    126  CD1 LEU A 554      -9.887  57.107 100.881  1.00 26.96
ATOM    127  CD2 LEU A 554      -7.858  57.261 102.335  1.00 26.96
ATOM    128  C   LEU A 554      -9.643  61.107 103.779  1.00 26.90
ATOM    129  O   LEU A 554      -8.897  61.900 103.198  1.00 26.90
ATOM    130  N   LYS A 555     -10.757  61.467 104.414  1.00 44.77
ATOM    131  CA  LYS A 555     -11.230  62.848 104.512  1.00 44.77
ATOM    132  CB  LYS A 555     -10.321  63.660 105.452  1.00 76.32
ATOM    133  CG  LYS A 555      -8.891  63.876 104.970  1.00 76.32
ATOM    134  CD  LYS A 555      -8.074  64.663 105.986  1.00 76.32
ATOM    135  CE  LYS A 555      -7.786  63.850 107.240  1.00 76.32
ATOM    136  NZ  LYS A 555      -6.764  62.795 106.998  1.00 76.32
ATOM    137  C   LYS A 555     -11.380  63.556 103.159  1.00 44.77
ATOM    138  O   LYS A 555     -11.182  64.767 103.045  1.00 44.77
ATOM    139  N   ILE A 556     -11.752  62.786 102.142  1.00 32.57
ATOM    140  CA  ILE A 556     -11.951  63.313 100.794  1.00 32.57
ATOM    141  CB  ILE A 556     -11.947  62.176  99.742  1.00 40.43
ATOM    142  CG2 ILE A 556     -10.576  61.526  99.690  1.00 40.43
ATOM    143  CG1 ILE A 556     -13.026  61.139 100.089  1.00 40.43
ATOM    144  CD1 ILE A 556     -13.131  59.980  99.108  1.00 40.43
ATOM    145  C   ILE A 556     -13.294  64.035 100.713  1.00 32.57
ATOM    146  O   ILE A 556     -13.692  64.507  99.648  1.00 32.57
ATOM    147  N   THR A 557     -13.992  64.116 101.842  1.00 31.97
ATOM    148  CA  THR A 557     -15.288  64.778 101.872  1.00 31.97
ATOM    149  CB  THR A 557     -16.242  64.141 102.923  1.00 42.93
ATOM    150  OG1 THR A 557     -16.284  62.720 102.744  1.00 42.93
ATOM    151  CG2 THR A 557     -17.660  64.692 102.764  1.00 42.93
ATOM    152  C   THR A 557     -15.114  66.251 102.219  1.00 31.97
ATOM    153  O   THR A 557     -15.938  67.085 101.849  1.00 31.97
ATOM    154  N   ASP A 558     -14.033  66.568 102.917  1.00 31.98
ATOM    155  CA  ASP A 558     -13.784  67.940 103.338  1.00 31.98
ATOM    156  CB  ASP A 558     -12.737  67.962 104.458  1.00 45.43
ATOM    157  CG  ASP A 558     -13.002  66.908 105.525  1.00 45.43
ATOM    158  OD1 ASP A 558     -14.187  66.622 105.793  1.00 45.43
ATOM    159  OD2 ASP A 558     -12.032  66.372 106.104  1.00 45.43
ATOM    160  C   ASP A 558     -13.332  68.855 102.205  1.00 31.98
ATOM    161  O   ASP A 558     -12.470  68.486 101.399  1.00 31.98
ATOM    162  N   PHE A 559     -13.917  70.048 102.143  1.00 26.18
ATOM    163  CA  PHE A 559     -13.532  71.009 101.125  1.00 26.18
ATOM    164  CB  PHE A 559     -14.477  72.209 101.117  1.00 25.95
ATOM    165  CG  PHE A 559     -15.767  71.971 100.379  1.00 25.95
ATOM    166  CD1 PHE A 559     -15.763  71.683  99.015  1.00 25.95
ATOM    167  CD2 PHE A 559     -16.989  72.075 101.036  1.00 25.95
ATOM    168  CE1 PHE A 559     -16.955  71.505  98.320  1.00 25.95
ATOM    169  CE2 PHE A 559     -18.186  71.900 100.348  1.00 25.95
ATOM    170  CZ  PHE A 559     -18.170  71.615  98.987  1.00 25.95
ATOM    171  C   PHE A 559     -12.108  71.476 101.430  1.00 26.18
ATOM    172  O   PHE A 559     -11.434  72.046 100.570  1.00 26.18
ATOM    173  N   SER A 560     -11.648  71.206 102.649  1.00 30.06
ATOM    174  CA  SER A 560     -10.303  71.593 103.070  1.00 30.06
ATOM    175  CB  SER A 560     -10.287  71.909 104.571  1.00 35.92
ATOM    176  OG  SER A 560     -10.565  70.748 105.342  1.00 35.92
ATOM    177  C   SER A 560      -9.261  70.511 102.780  1.00 30.06
ATOM    178  O   SER A 560      -8.081  70.685 103.076  1.00 30.06
ATOM    179  N   PHE A 561      -9.702  69.397 102.208  1.00 24.95
ATOM    180  CA  PHE A 561      -8.810  68.285 101.876  1.00 24.95
ATOM    181  CB  PHE A 561      -9.525  67.323 100.921  1.00 21.56
ATOM    182  CG  PHE A 561      -8.648  66.212 100.406  1.00 21.56
ATOM    183  CD1 PHE A 561      -7.973  66.344  99.192  1.00 21.56
ATOM    184  CD2 PHE A 561      -8.496  65.036 101.139  1.00 21.56
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ATOM    185  CE1 PHE A 561      -7.155  65.312  98.711  1.00 21.56
ATOM    186  CE2 PHE A 561      -7.686  64.001 100.674  1.00 21.56
ATOM    187  CZ  PHE A 561      -7.012  64.135  99.455  1.00 21.56
ATOM    188  C   PHE A 561      -7.460  68.664 101.275  1.00 24.95
ATOM    189  O   PHE A 561      -7.388  69.472 100.359  1.00 24.95
ATOM    190  N   SER A 562      -6.396  68.049 101.790  1.00 25.71
ATOM    191  CA  SER A 562      -5.024  68.269 101.314  1.00 25.71
ATOM    192  CB  SER A 562      -4.133  68.767 102.460  1.00 22.86
ATOM    193  OG  SER A 562      -2.766  68.707 102.088  1.00 22.86
ATOM    194  C   SER A 562      -4.433  66.955 100.765  1.00 25.71
ATOM    195  O   SER A 562      -4.551  65.907 101.400  1.00 25.71
ATOM    196  N   ASP A 563      -3.779  67.016  99.606  1.00 24.72
ATOM    197  CA  ASP A 563      -3.193  65.819  99.001  1.00 24.72
ATOM    198  CB  ASP A 563      -3.490  65.778  97.495  1.00 37.51
ATOM    199  CG  ASP A 563      -2.629  66.758  96.703  1.00 37.51
ATOM    200  OD1 ASP A 563      -2.819  67.987  96.848  1.00 37.51
ATOM    201  OD2 ASP A 563      -1.753  66.299  95.938  1.00 37.51
ATOM    202  C   ASP A 563      -1.679  65.753  99.174  1.00 24.72
ATOM    203  O   ASP A 563      -1.049  64.732  98.864  1.00 24.72
ATOM    204  N   PHE A 564      -1.101  66.843  99.664  1.00 23.85
ATOM    205  CA  PHE A 564       0.337  66.921  99.825  1.00 23.85
ATOM    206  CB  PHE A 564       0.712  68.276 100.430  1.00 68.96
ATOM    207  CG  PHE A 564       2.131  68.691 100.150  1.00 68.96
ATOM    208  CD1 PHE A 564       2.708  68.443  98.906  1.00 68.96
ATOM    209  CD2 PHE A 564       2.887  69.346 101.120  1.00 68.96
ATOM    210  CE1 PHE A 564       4.015  68.840  98.632  1.00 68.96
ATOM    211  CE2 PHE A 564       4.198  69.749 100.856  1.00 68.96
ATOM    212  CZ  PHE A 564       4.761  69.493  99.609  1.00 68.96
ATOM    213  C   PHE A 564       0.975  65.783 100.621  1.00 23.85
ATOM    214  O   PHE A 564       2.052  65.304 100.269  1.00 23.85
ATOM    215  N   GLU A 565       0.311  65.336 101.676  1.00 23.21
ATOM    216  CA  GLU A 565       0.861  64.278 102.517  1.00 23.21
ATOM    217  CB  GLU A 565       0.164  64.302 103.876  1.00 32.32
ATOM    218  CG  GLU A 565      -1.311  63.951 103.784  1.00 32.32
ATOM    219  CD  GLU A 565      -2.230  65.060 104.275  1.00 32.32
ATOM    220  OE1 GLU A 565      -2.022  66.226 103.875  1.00 32.32
ATOM    221  OE2 GLU A 565      -3.168  64.754 105.049  1.00 32.32
ATOM    222  C   GLU A 565       0.758  62.868 101.925  1.00 23.21
ATOM    223  O   GLU A 565       1.487  61.960 102.343  1.00 23.21
ATOM    224  N   LEU A 566      -0.141  62.693 100.958  1.00 21.35
ATOM    225  CA  LEU A 566      -0.386  61.389 100.334  1.00 21.35
ATOM    226  CB  LEU A 566      -1.835  61.315  99.849  1.00 25.15
ATOM    227  CG  LEU A 566      -2.949  61.746 100.806  1.00 25.15
ATOM    228  CD1 LEU A 566      -4.308  61.560 100.133  1.00 25.15
ATOM    229  CD2 LEU A 566      -2.883  60.926 102.070  1.00 25.15
ATOM    230  C   LEU A 566       0.527  61.046  99.163  1.00 21.35
ATOM    231  O   LEU A 566       0.997  61.930  98.451  1.00 21.35
ATOM    232  N   SER A 567       0.769  59.748  98.970  1.00 27.29
ATOM    233  CA  SER A 567       1.595  59.271  97.861  1.00 27.29
ATOM    234  CB  SER A 567       2.281  57.948  98.209  1.00 29.92
ATOM    235  OG  SER A 567       1.330  56.904  98.356  1.00 29.92
ATOM    236  C   SER A 567       0.666  59.035  96.682  1.00 27.29
ATOM    237  O   SER A 567      -0.562  59.041  96.837  1.00 27.29
ATOM    238  N   ASP A 568       1.243  58.815  95.509  1.00 27.78
ATOM    239  CA  ASP A 568       0.432  58.571  94.331  1.00 27.78
ATOM    240  CB  ASP A 568       1.318  58.342  93.111  1.00 39.37
ATOM    241  CG  ASP A 568       2.010  59.609  92.654  1.00 39.37
ATOM    242  OD1 ASP A 568       1.484  60.713  92.922  1.00 39.37
ATOM    243  OD2 ASP A 568       3.075  59.505  92.014  1.00 39.37
ATOM    244  C   ASP A 568      -0.545  57.404  94.508  1.00 27.78
ATOM    245  O   ASP A 568      -1.720  57.522  94.159  1.00 27.78
ATOM    246  N   LEU A 569      -0.077  56.282  95.047  1.00 24.37
ATOM    247  CA  LEU A 569      -0.964  55.136  95.262  1.00 24.37
ATOM    248  CB  LEU A 569      -0.205  53.966  95.892  1.00 30.29
ATOM    249  CG  LEU A 569       0.485  52.983  94.943  1.00 30.29
ATOM    250  CD1 LEU A 569       1.036  51.810  95.758  1.00 30.29
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ATOM	251	CD2	LEU	A	569	-0.503	52.478	93.899	1.00	30.29
ATOM	252	C	LEU	A	569	-2.146	55.496	96.155	1.00	24.37
ATOM	253	O	LEU	A	569	-3.280	55.066	95.912	1.00	24.37
ATOM	254	N	GLU	A	570	-1.868	56.273	97.200	1.00	21.79
ATOM	255	CA	GLU	A	570	-2.901	56.698	98.128	1.00	21.79
ATOM	256	CB	GLU	A	570	-2.267	57.455	99.309	1.00	27.98
ATOM	257	CG	GLU	A	570	-1.667	56.504	100.360	1.00	27.98
ATOM	258	CD	GLU	A	570	-0.707	57.166	101.353	1.00	27.98
ATOM	259	OE1	GLU	A	570	-0.667	56.718	102.516	1.00	27.98
ATOM	260	OE2	GLU	A	570	0.030	58.110	100.980	1.00	27.98
ATOM	261	C	GLU	A	570	-3.932	57.544	97.391	1.00	21.79
ATOM	262	O	GLU	A	570	-5.139	57.372	97.595	1.00	21.79
ATOM	263	N	THR	A	571	-3.474	58.435	96.510	1.00	24.52
ATOM	264	CA	THR	A	571	-4.417	59.255	95.754	1.00	24.52
ATOM	265	CB	THR	A	571	-3.704	60.341	94.893	1.00	22.07
ATOM	266	OG1	THR	A	571	-2.976	59.724	93.826	1.00	22.07
ATOM	267	CG2	THR	A	571	-2.747	61.167	95.756	1.00	22.07
ATOM	268	C	THR	A	571	-5.239	58.327	94.849	1.00	24.52
ATOM	269	O	THR	A	571	-6.374	58.639	94.491	1.00	24.52
ATOM	270	N	ALA	A	572	-4.674	57.175	94.491	1.00	22.53
ATOM	271	CA	ALA	A	572	-5.407	56.224	93.658	1.00	22.53
ATOM	272	CB	ALA	A	572	-4.465	55.165	93.093	1.00	23.35
ATOM	273	C	ALA	A	572	-6.494	55.579	94.529	1.00	22.53
ATOM	274	O	ALA	A	572	-7.646	55.472	94.120	1.00	22.53
ATOM	275	N	LEU	A	573	-6.128	55.165	95.738	1.00	23.01
ATOM	276	CA	LEU	A	573	-7.098	54.565	96.659	1.00	23.01
ATOM	277	CB	LEU	A	573	-6.412	54.156	97.967	1.00	24.31
ATOM	278	CG	LEU	A	573	-5.499	52.935	97.850	1.00	24.31
ATOM	279	CD1	LEU	A	573	-4.778	52.674	99.169	1.00	24.31
ATOM	280	CD2	LEU	A	573	-6.343	51.738	97.447	1.00	24.31
ATOM	281	C	LEU	A	573	-8.235	55.542	96.957	1.00	23.01
ATOM	282	O	LEU	A	573	-9.394	55.145	97.065	1.00	23.01
ATOM	283	N	CYS	A	574	-7.893	56.820	97.109	1.00	32.67
ATOM	284	CA	CYS	A	574	-8.894	57.848	97.366	1.00	32.67
ATOM	285	CB	CYS	A	574	-8.243	59.227	97.490	1.00	29.09
ATOM	286	SG	CYS	A	574	-7.351	59.513	99.035	1.00	29.09
ATOM	287	C	CYS	A	574	-9.872	57.872	96.205	1.00	32.67
ATOM	288	O	CYS	A	574	-11.088	57.837	96.405	1.00	32.67
ATOM	289	N	THR	A	575	-9.324	57.930	94.993	1.00	14.28
ATOM	290	CA	THR	A	575	-10.120	57.953	93.775	1.00	14.28
ATOM	291	CB	THR	A	575	-9.206	57.920	92.526	1.00	14.49
ATOM	292	OG1	THR	A	575	-8.258	59.006	92.600	1.00	14.49
ATOM	293	CG2	THR	A	575	-10.038	58.086	91.257	1.00	14.49
ATOM	294	C	THR	A	575	-11.104	56.776	93.754	1.00	14.28
ATOM	295	O	THR	A	575	-12.282	56.950	93.438	1.00	14.28
ATOM	296	N	ILE	A	576	-10.633	55.579	94.097	1.00	20.71
ATOM	297	CA	ILE	A	576	-11.532	54.428	94.131	1.00	20.71
ATOM	298	CB	ILE	A	576	-10.798	53.157	94.575	1.00	25.29
ATOM	299	CG2	ILE	A	576	-11.797	52.022	94.772	1.00	25.29
ATOM	300	CG1	ILE	A	576	-9.748	52.777	93.529	1.00	25.29
ATOM	301	CD1	ILE	A	576	-8.849	51.656	93.963	1.00	25.29
ATOM	302	C	ILE	A	576	-12.686	54.710	95.114	1.00	20.71
ATOM	303	O	ILE	A	576	-13.854	54.447	94.806	1.00	20.71
ATOM	304	N	ARG	A	577	-12.355	55.270	96.280	1.00	22.53
ATOM	305	CA	ARG	A	577	-13.361	55.590	97.296	1.00	22.53
ATOM	306	CB	ARG	A	577	-12.691	56.154	98.563	1.00	26.18
ATOM	307	CG	ARG	A	577	-13.671	56.620	99.658	1.00	26.18
ATOM	308	CD	ARG	A	577	-14.732	55.567	99.976	1.00	26.18
ATOM	309	NE	ARG	A	577	-14.171	54.321	100.498	1.00	26.18
ATOM	310	CZ	ARG	A	577	-14.858	53.185	100.614	1.00	26.18
ATOM	311	NH1	ARG	A	577	-16.132	53.138	100.245	1.00	26.18
ATOM	312	NH2	ARG	A	577	-14.275	52.094	101.092	1.00	26.18
ATOM	313	C	ARG	A	577	-14.399	56.577	96.755	1.00	22.53
ATOM	314	O	ARG	A	577	-15.582	56.486	97.092	1.00	22.53
ATOM	315	N	MET	A	578	-13.959	57.510	95.915	1.00	24.34
ATOM	316	CA	MET	A	578	-14.865	58.484	95.319	1.00	24.34

ATOM	317	CB	MET	A	578	-14.088	59.537	94.522	1.00	27.34
ATOM	318	CG	MET	A	578	-13.254	60.490	95.377	1.00	27.34
ATOM	319	SD	MET	A	578	-12.326	61.696	94.386	1.00	27.34
ATOM	320	CE	MET	A	578	-10.681	61.282	94.795	1.00	27.34
ATOM	321	C	MET	A	578	-15.848	57.764	94.401	1.00	24.34
ATOM	322	O	MET	A	578	-17.057	57.990	94.478	1.00	24.34
ATOM	323	N	PHE	A	579	-15.350	56.890	93.529	1.00	22.48
ATOM	324	CA	PHE	A	579	-16.267	56.166	92.658	1.00	22.48
ATOM	325	CB	PHE	A	579	-15.512	55.256	91.679	1.00	34.23
ATOM	326	CG	PHE	A	579	-15.016	55.963	90.440	1.00	34.23
ATOM	327	CD1	PHE	A	579	-13.801	56.643	90.442	1.00	34.23
ATOM	328	CD2	PHE	A	579	-15.762	55.934	89.263	1.00	34.23
ATOM	329	CE1	PHE	A	579	-13.334	57.277	89.292	1.00	34.23
ATOM	330	CE2	PHE	A	579	-15.304	56.565	88.109	1.00	34.23
ATOM	331	CZ	PHE	A	579	-14.089	57.237	88.121	1.00	34.23
ATOM	332	C	PHE	A	579	-17.235	55.328	93.496	1.00	22.48
ATOM	333	O	PHE	A	579	-18.445	55.345	93.273	1.00	22.48
ATOM	334	N	THR	A	580	-16.701	54.607	94.475	1.00	30.57
ATOM	335	CA	THR	A	580	-17.527	53.756	95.326	1.00	30.57
ATOM	336	CB	THR	A	580	-16.668	53.012	96.366	1.00	25.25
ATOM	337	OG1	THR	A	580	-15.621	52.307	95.695	1.00	25.25
ATOM	338	CG2	THR	A	580	-17.515	52.006	97.153	1.00	25.25
ATOM	339	C	THR	A	580	-18.628	54.497	96.075	1.00	30.57
ATOM	340	O	THR	A	580	-19.796	54.115	95.999	1.00	30.57
ATOM	341	N	ASP	A	581	-18.259	55.561	96.789	1.00	28.50
ATOM	342	CA	ASP	A	581	-19.224	56.320	97.586	1.00	28.50
ATOM	343	CB	ASP	A	581	-18.482	57.172	98.617	1.00	38.80
ATOM	344	CG	ASP	A	581	-18.004	56.348	99.809	1.00	38.80
ATOM	345	OD1	ASP	A	581	-17.690	55.148	99.618	1.00	38.80
ATOM	346	OD2	ASP	A	581	-17.935	56.895	100.934	1.00	38.80
ATOM	347	C	ASP	A	581	-20.251	57.160	96.832	1.00	28.50
ATOM	348	O	ASP	A	581	-21.235	57.611	97.421	1.00	28.50
ATOM	349	N	LEU	A	582	-20.026	57.378	95.542	1.00	23.65
ATOM	350	CA	LEU	A	582	-20.985	58.121	94.723	1.00	23.65
ATOM	351	CB	LEU	A	582	-20.268	58.978	93.662	1.00	26.67
ATOM	352	CG	LEU	A	582	-19.598	60.262	94.161	1.00	26.67
ATOM	353	CD1	LEU	A	582	-18.884	60.982	93.019	1.00	26.67
ATOM	354	CD2	LEU	A	582	-20.656	61.153	94.775	1.00	26.67
ATOM	355	C	LEU	A	582	-21.869	57.079	94.034	1.00	23.65
ATOM	356	O	LEU	A	582	-22.676	57.405	93.154	1.00	23.65
ATOM	357	N	ASN	A	583	-21.682	55.823	94.444	1.00	34.63
ATOM	358	CA	ASN	A	583	-22.420	54.673	93.931	1.00	34.63
ATOM	359	CB	ASN	A	583	-23.911	54.841	94.230	1.00	56.78
ATOM	360	CG	ASN	A	583	-24.235	54.624	95.696	1.00	56.78
ATOM	361	OD1	ASN	A	583	-23.693	55.298	96.575	1.00	56.78
ATOM	362	ND2	ASN	A	583	-25.119	53.673	95.968	1.00	56.78
ATOM	363	C	ASN	A	583	-22.219	54.346	92.454	1.00	34.63
ATOM	364	O	ASN	A	583	-23.035	53.646	91.853	1.00	34.63
ATOM	365	N	LEU	A	584	-21.126	54.830	91.873	1.00	29.05
ATOM	366	CA	LEU	A	584	-20.844	54.571	90.466	1.00	29.05
ATOM	367	CB	LEU	A	584	-19.737	55.506	89.970	1.00	22.42
ATOM	368	CG	LEU	A	584	-20.081	56.901	89.445	1.00	22.42
ATOM	369	CD1	LEU	A	584	-21.559	57.221	89.603	1.00	22.42
ATOM	370	CD2	LEU	A	584	-19.209	57.903	90.159	1.00	22.42
ATOM	371	C	LEU	A	584	-20.434	53.118	90.221	1.00	29.05
ATOM	372	O	LEU	A	584	-20.827	52.523	89.223	1.00	29.05
ATOM	373	N	VAL	A	585	-19.635	52.562	91.129	1.00	31.18
ATOM	374	CA	VAL	A	585	-19.166	51.182	91.014	1.00	31.18
ATOM	375	CB	VAL	A	585	-18.177	50.839	92.144	1.00	31.33
ATOM	376	CG1	VAL	A	585	-17.896	49.330	92.167	1.00	31.33
ATOM	377	CG2	VAL	A	585	-16.890	51.623	91.951	1.00	31.33
ATOM	378	C	VAL	A	585	-20.313	50.180	91.065	1.00	31.18
ATOM	379	O	VAL	A	585	-20.277	49.145	90.397	1.00	31.18
ATOM	380	N	GLN	A	586	-21.326	50.492	91.866	1.00	29.90
ATOM	381	CA	GLN	A	586	-22.490	49.629	92.020	1.00	29.90
ATOM	382	CB	GLN	A	586	-23.187	49.957	93.344	1.00	88.36

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ATOM    383  CG  GLN A 586     -24.388  49.088  93.669  1.00 88.36
ATOM    384  CD  GLN A 586     -25.069  49.500  94.962  1.00 88.36
ATOM    385  OE1 GLN A 586     -26.062  48.897  95.374  1.00 88.36
ATOM    386  NE2 GLN A 586     -24.538  50.532  95.609  1.00 88.36
ATOM    387  C   GLN A 586     -23.474  49.786  90.852  1.00 29.90
ATOM    388  O   GLN A 586     -23.862  48.806  90.221  1.00 29.90
ATOM    389  N   ASN A 587     -23.858  51.026  90.563  1.00 29.49
ATOM    390  CA  ASN A 587     -24.803  51.329  89.491  1.00 29.49
ATOM    391  CB  ASN A 587     -25.120  52.825  89.479  1.00 54.39
ATOM    392  CG  ASN A 587     -26.065  53.234  90.589  1.00 54.39
ATOM    393  OD1 ASN A 587     -25.834  52.941  91.761  1.00 54.39
ATOM    394  ND2 ASN A 587     -27.140  53.924  90.221  1.00 54.39
ATOM    395  C   ASN A 587     -24.369  50.924  88.086  1.00 29.49
ATOM    396  O   ASN A 587     -25.217  50.637  87.230  1.00 29.49
ATOM    397  N   PHE A 588     -23.060  50.898  87.847  1.00 42.02
ATOM    398  CA  PHE A 588     -22.541  50.566  86.526  1.00 42.02
ATOM    399  CB  PHE A 588     -21.828  51.795  85.959  1.00 36.49
ATOM    400  CG  PHE A 588     -22.672  53.037  86.004  1.00 36.49
ATOM    401  CD1 PHE A 588     -23.868  53.103  85.290  1.00 36.49
ATOM    402  CD2 PHE A 588     -22.318  54.109  86.822  1.00 36.49
ATOM    403  CE1 PHE A 588     -24.706  54.216  85.392  1.00 36.49
ATOM    404  CE2 PHE A 588     -23.145  55.227  86.934  1.00 36.49
ATOM    405  CZ  PHE A 588     -24.344  55.280  86.218  1.00 36.49
ATOM    406  C   PHE A 588     -21.637  49.341  86.486  1.00 42.02
ATOM    407  O   PHE A 588     -20.794  49.201  85.596  1.00 42.02
ATOM    408  N   GLN A 589     -21.838  48.451  87.454  1.00 37.91
ATOM    409  CA  GLN A 589     -21.079  47.208  87.560  1.00 37.91
ATOM    410  CB  GLN A 589     -21.774  46.094  86.773  1.00 64.34
ATOM    411  CG  GLN A 589     -23.260  45.953  87.057  1.00 64.34
ATOM    412  CD  GLN A 589     -24.085  47.048  86.405  1.00 64.34
ATOM    413  OE1 GLN A 589     -24.008  47.264  85.195  1.00 64.34
ATOM    414  NE2 GLN A 589     -24.885  47.741  87.205  1.00 64.34
ATOM    415  C   GLN A 589     -19.646  47.352  87.067  1.00 37.91
ATOM    416  O   GLN A 589     -19.303  46.905  85.977  1.00 37.91
ATOM    417  N   MET A 590     -18.815  47.985  87.885  1.00 41.25
ATOM    418  CA  MET A 590     -17.412  48.187  87.556  1.00 41.25
ATOM    419  CB  MET A 590     -16.964  49.585  87.982  1.00 32.42
ATOM    420  CG  MET A 590     -17.376  50.687  87.046  1.00 32.42
ATOM    421  SD  MET A 590     -16.856  52.301  87.651  1.00 32.42
ATOM    422  CE  MET A 590     -18.170  53.301  87.008  1.00 32.42
ATOM    423  C   MET A 590     -16.545  47.160  88.265  1.00 41.25
ATOM    424  O   MET A 590     -16.668  46.967  89.479  1.00 41.25
ATOM    425  N   LYS A 591     -15.675  46.497  87.505  1.00 28.34
ATOM    426  CA  LYS A 591     -14.763  45.508  88.076  1.00 28.34
ATOM    427  CB  LYS A 591     -14.149  44.635  86.978  1.00 52.38
ATOM    428  CG  LYS A 591     -15.086  43.583  86.400  1.00 52.38
ATOM    429  CD  LYS A 591     -15.250  42.375  87.328  1.00 52.38
ATOM    430  CE  LYS A 591     -13.930  41.624  87.518  1.00 52.38
ATOM    431  NZ  LYS A 591     -13.285  41.288  86.220  1.00 52.38
ATOM    432  C   LYS A 591     -13.662  46.281  88.797  1.00 28.34
ATOM    433  O   LYS A 591     -13.010  47.143  88.206  1.00 28.34
ATOM    434  N   HIS A 592     -13.465  45.969  90.072  1.00 33.12
ATOM    435  CA  HIS A 592     -12.467  46.646  90.888  1.00 33.12
ATOM    436  CB  HIS A 592     -12.366  45.961  92.255  1.00 38.18
ATOM    437  CG  HIS A 592     -11.491  46.682  93.234  1.00 38.18
ATOM    438  CD2 HIS A 592     -11.752  47.716  94.068  1.00 38.18
ATOM    439  ND1 HIS A 592     -10.165  46.361  93.429  1.00 38.18
ATOM    440  CE1 HIS A 592      -9.647  47.163  94.341  1.00 38.18
ATOM    441  NE2 HIS A 592     -10.589  47.995  94.746  1.00 38.18
ATOM    442  C   HIS A 592     -11.097  46.702  90.227  1.00 33.12
ATOM    443  O   HIS A 592     -10.361  47.673  90.396  1.00 33.12
ATOM    444  N   GLU A 593     -10.759  45.667  89.469  1.00 26.56
ATOM    445  CA  GLU A 593      -9.463  45.611  88.796  1.00 26.56
ATOM    446  CB  GLU A 593      -9.124  44.161  88.422  1.00 67.86
ATOM    447  CG  GLU A 593     -10.339  43.262  88.156  1.00 67.86
ATOM    448  CD  GLU A 593     -11.022  42.785  89.437  1.00 67.86
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ATOM    449  OE1 GLU A 593     -10.353  42.122  90.256  1.00 67.86
ATOM    450  OE2 GLU A 593     -12.225  43.069  89.625  1.00 67.86
ATOM    451  C   GLU A 593      -9.409  46.502  87.556  1.00 26.56
ATOM    452  O   GLU A 593      -8.346  46.991  87.181  1.00 26.56
ATOM    453  N   VAL A 594     -10.561  46.693  86.922  1.00 19.70
ATOM    454  CA  VAL A 594     -10.675  47.534  85.738  1.00 19.70
ATOM    455  CB  VAL A 594     -11.997  47.233  84.967  1.00 22.37
ATOM    456  CG1 VAL A 594     -12.181  48.211  83.814  1.00 22.37
ATOM    457  CG2 VAL A 594     -11.963  45.808  84.420  1.00 22.37
ATOM    458  C   VAL A 594     -10.646  48.999  86.190  1.00 19.70
ATOM    459  O   VAL A 594      -9.960  49.833  85.597  1.00 19.70
ATOM    460  N   LEU A 595     -11.393  49.318  87.239  1.00 18.24
ATOM    461  CA  LEU A 595     -11.382  50.687  87.751  1.00 18.24
ATOM    462  CB  LEU A 595     -12.306  50.815  88.963  1.00 25.73
ATOM    463  CG  LEU A 595     -12.262  52.161  89.707  1.00 25.73
ATOM    464  CD1 LEU A 595     -12.627  53.284  88.743  1.00 25.73
ATOM    465  CD2 LEU A 595     -13.219  52.139  90.886  1.00 25.73
ATOM    466  C   LEU A 595      -9.937  51.029  88.159  1.00 18.24
ATOM    467  O   LEU A 595      -9.435  52.118  87.852  1.00 18.24
ATOM    468  N   CYS A 596      -9.276  50.086  88.834  1.00 22.15
ATOM    469  CA  CYS A 596      -7.890  50.270  89.282  1.00 22.15
ATOM    470  CB  CYS A 596      -7.388  49.040  90.034  1.00 28.56
ATOM    471  SG  CYS A 596      -8.121  48.798  91.651  1.00 28.56
ATOM    472  C   CYS A 596      -6.948  50.520  88.124  1.00 22.15
ATOM    473  O   CYS A 596      -6.144  51.448  88.151  1.00 22.15
ATOM    474  N   ARG A 597      -7.040  49.666  87.113  1.00 25.00
ATOM    475  CA  ARG A 597      -6.193  49.776  85.940  1.00 25.00
ATOM    476  CB  ARG A 597      -6.498  48.614  84.984  1.00 36.55
ATOM    477  CG  ARG A 597      -5.342  48.231  84.075  1.00 36.55
ATOM    478  CD  ARG A 597      -5.685  47.036  83.176  1.00 36.55
ATOM    479  NE  ARG A 597      -5.567  45.735  83.835  1.00 36.55
ATOM    480  CZ  ARG A 597      -6.593  45.010  84.279  1.00 36.55
ATOM    481  NH1 ARG A 597      -7.837  45.447  84.151  1.00 36.55
ATOM    482  NH2 ARG A 597      -6.374  43.822  84.826  1.00 36.55
ATOM    483  C   ARG A 597      -6.438  51.124  85.263  1.00 25.00
ATOM    484  O   ARG A 597      -5.491  51.818  84.899  1.00 25.00
ATOM    485  N   TRP A 598      -7.708  51.493  85.113  1.00 25.49
ATOM    486  CA  TRP A 598      -8.083  52.763  84.488  1.00 25.49
ATOM    487  CB  TRP A 598      -9.613  52.902  84.440  1.00 22.24
ATOM    488  CG  TRP A 598     -10.085  54.183  83.806  1.00 22.24
ATOM    489  CD2 TRP A 598     -10.512  55.374  84.484  1.00 22.24
ATOM    490  CE2 TRP A 598     -10.820  56.331  83.492  1.00 22.24
ATOM    491  CE3 TRP A 598     -10.661  55.727  85.833  1.00 22.24
ATOM    492  CD1 TRP A 598     -10.153  54.460  82.469  1.00 22.24
ATOM    493  NE1 TRP A 598     -10.593  55.747  82.272  1.00 22.24
ATOM    494  CZ2 TRP A 598     -11.269  57.622  83.807  1.00 22.24
ATOM    495  CZ3 TRP A 598     -11.108  57.006  86.145  1.00 22.24
ATOM    496  CH2 TRP A 598     -11.406  57.940  85.133  1.00 22.24
ATOM    497  C   TRP A 598      -7.483  53.964  85.242  1.00 25.49
ATOM    498  O   TRP A 598      -6.889  54.865  84.633  1.00 25.49
ATOM    499  N   ILE A 599      -7.645  53.983  86.560  1.00 17.42
ATOM    500  CA  ILE A 599      -7.104  55.071  87.373  1.00 17.42
ATOM    501  CB  ILE A 599      -7.354  54.821  88.882  1.00 16.21
ATOM    502  CG2 ILE A 599      -6.453  55.740  89.724  1.00 16.21
ATOM    503  CG1 ILE A 599      -8.840  55.026  89.199  1.00 16.21
ATOM    504  CD1 ILE A 599      -9.230  54.737  90.631  1.00 16.21
ATOM    505  C   ILE A 599      -5.598  55.237  87.145  1.00 17.42
ATOM    506  O   ILE A 599      -5.109  56.359  86.968  1.00 17.42
ATOM    507  N   LEU A 600      -4.866  54.127  87.158  1.00 22.03
ATOM    508  CA  LEU A 600      -3.412  54.166  86.958  1.00 22.03
ATOM    509  CB  LEU A 600      -2.811  52.793  87.239  1.00 19.08
ATOM    510  CG  LEU A 600      -2.936  52.367  88.709  1.00 19.08
ATOM    511  CD1 LEU A 600      -2.590  50.893  88.865  1.00 19.08
ATOM    512  CD2 LEU A 600      -2.018  53.219  89.563  1.00 19.08
ATOM    513  C   LEU A 600      -3.037  54.622  85.556  1.00 22.03
ATOM    514  O   LEU A 600      -2.000  55.240  85.360  1.00 22.03
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ATOM    515  N   SER A 601      -3.884  54.303  84.582  1.00 21.25
ATOM    516  CA  SER A 601      -3.652  54.715  83.203  1.00 21.25
ATOM    517  CB  SER A 601      -4.632  54.012  82.252  1.00 18.41
ATOM    518  OG  SER A 601      -4.244  52.659  82.036  1.00 18.41
ATOM    519  C   SER A 601      -3.818  56.227  83.096  1.00 21.25
ATOM    520  O   SER A 601      -3.009  56.903  82.464  1.00 21.25
ATOM    521  N   VAL A 602      -4.882  56.743  83.707  1.00 24.25
ATOM    522  CA  VAL A 602      -5.156  58.174  83.706  1.00 24.25
ATOM    523  CB  VAL A 602      -6.397  58.507  84.572  1.00 15.96
ATOM    524  CG1 VAL A 602      -6.518  60.022  84.780  1.00 15.96
ATOM    525  CG2 VAL A 602      -7.652  57.983  83.902  1.00 15.96
ATOM    526  C   VAL A 602      -3.945  58.876  84.299  1.00 24.25
ATOM    527  O   VAL A 602      -3.317  59.726  83.657  1.00 24.25
ATOM    528  N   LYS A 603      -3.618  58.485  85.524  1.00 24.21
ATOM    529  CA  LYS A 603      -2.500  59.050  86.261  1.00 24.21
ATOM    530  CB  LYS A 603      -2.322  58.295  87.586  1.00 23.99
ATOM    531  CG  LYS A 603      -1.135  58.746  88.429  1.00 23.99
ATOM    532  CD  LYS A 603      -1.248  58.222  89.862  1.00 23.99
ATOM    533  CE  LYS A 603      -1.063  56.710  89.939  1.00 23.99
ATOM    534  NZ  LYS A 603       0.327  56.317  89.584  1.00 23.99
ATOM    535  C   LYS A 603      -1.203  59.017  85.471  1.00 24.21
ATOM    536  O   LYS A 603      -0.460  59.992  85.461  1.00 24.21
ATOM    537  N   LYS A 604      -0.930  57.892  84.821  1.00 29.55
ATOM    538  CA  LYS A 604       0.289  57.734  84.031  1.00 29.55
ATOM    539  CB  LYS A 604       0.470  56.265  83.643  1.00 45.88
ATOM    540  CG  LYS A 604       1.739  55.968  82.853  1.00 45.88
ATOM    541  CD  LYS A 604       1.911  54.467  82.646  1.00 45.88
ATOM    542  CE  LYS A 604       3.145  54.140  81.818  1.00 45.88
ATOM    543  NZ  LYS A 604       3.029  54.634  80.413  1.00 45.88
ATOM    544  C   LYS A 604       0.258  58.600  82.772  1.00 29.55
ATOM    545  O   LYS A 604       1.299  58.890  82.184  1.00 29.55
ATOM    546  N   ASN A 605      -0.932  59.029  82.364  1.00 34.30
ATOM    547  CA  ASN A 605      -1.037  59.854  81.168  1.00 34.30
ATOM    548  CB  ASN A 605      -2.344  59.572  80.435  1.00 52.31
ATOM    549  CG  ASN A 605      -2.112  58.898  79.098  1.00 52.31
ATOM    550  OD1 ASN A 605      -1.817  59.558  78.100  1.00 52.31
ATOM    551  ND2 ASN A 605      -2.217  57.574  79.077  1.00 52.31
ATOM    552  C   ASN A 605      -0.860  61.348  81.401  1.00 34.30
ATOM    553  O   ASN A 605      -1.058  62.148  80.485  1.00 34.30
ATOM    554  N   TYR A 606      -0.513  61.728  82.627  1.00 18.70
ATOM    555  CA  TYR A 606      -0.229  63.132  82.918  1.00 18.70
ATOM    556  CB  TYR A 606      -0.832  63.576  84.255  1.00 14.58
ATOM    557  CG  TYR A 606      -2.297  63.932  84.176  1.00 14.58
ATOM    558  CD1 TYR A 606      -3.290  62.982  84.453  1.00 14.58
ATOM    559  CE1 TYR A 606      -4.650  63.302  84.347  1.00 14.58
ATOM    560  CD2 TYR A 606      -2.698  65.209  83.787  1.00 14.58
ATOM    561  CE2 TYR A 606      -4.045  65.532  83.671  1.00 14.58
ATOM    562  CZ  TYR A 606      -5.016  64.577  83.956  1.00 14.58
ATOM    563  OH  TYR A 606      -6.350  64.924  83.871  1.00 14.58
ATOM    564  C   TYR A 606       1.302  63.211  82.983  1.00 18.70
ATOM    565  O   TYR A 606       1.982  62.216  83.274  1.00 18.70
ATOM    566  N   ARG A 607       1.855  64.378  82.713  1.00 28.41
ATOM    567  CA  ARG A 607       3.301  64.507  82.731  1.00 28.41
ATOM    568  CB  ARG A 607       3.739  65.449  81.611  1.00 53.91
ATOM    569  CG  ARG A 607       3.087  65.114  80.279  1.00 53.91
ATOM    570  CD  ARG A 607       3.508  66.068  79.178  1.00 53.91
ATOM    571  NE  ARG A 607       4.846  65.773  78.674  1.00 53.91
ATOM    572  CZ  ARG A 607       5.170  64.655  78.033  1.00 53.91
ATOM    573  NH1 ARG A 607       4.249  63.724  77.820  1.00 53.91
ATOM    574  NH2 ARG A 607       6.409  64.468  77.600  1.00 53.91
ATOM    575  C   ARG A 607       3.775  65.012  84.084  1.00 28.41
ATOM    576  O   ARG A 607       3.248  65.989  84.609  1.00 28.41
ATOM    577  N   LYS A 608       4.767  64.343  84.657  1.00 43.73
ATOM    578  CA  LYS A 608       5.277  64.766  85.947  1.00 43.73
ATOM    579  CB  LYS A 608       6.009  63.611  86.640  1.00 80.21
ATOM    580  CG  LYS A 608       5.079  62.717  87.454  1.00 80.21
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ATOM	581	CD	LYS	A	608	4.306	63.550	88.479	1.00	80.21
ATOM	582	CE	LYS	A	608	3.221	62.748	89.186	1.00	80.21
ATOM	583	NZ	LYS	A	608	2.343	63.625	90.018	1.00	80.21
ATOM	584	C	LYS	A	608	6.180	65.994	85.851	1.00	43.73
ATOM	585	O	LYS	A	608	6.329	66.728	86.829	1.00	43.73
ATOM	586	N	ASN	A	609	6.758	66.235	84.674	1.00	36.85
ATOM	587	CA	ASN	A	609	7.635	67.390	84.489	1.00	36.85
ATOM	588	CB	ASN	A	609	8.589	67.147	83.310	1.00	53.83
ATOM	589	CG	ASN	A	609	7.894	67.215	81.960	1.00	53.83
ATOM	590	OD1	ASN	A	609	6.928	66.499	81.702	1.00	53.83
ATOM	591	ND2	ASN	A	609	8.394	68.079	81.086	1.00	53.83
ATOM	592	C	ASN	A	609	6.886	68.725	84.306	1.00	36.85
ATOM	593	O	ASN	A	609	7.509	69.765	84.090	1.00	36.85
ATOM	594	N	VAL	A	610	5.556	68.696	84.380	1.00	29.70
ATOM	595	CA	VAL	A	610	4.751	69.917	84.261	1.00	29.70
ATOM	596	CB	VAL	A	610	3.454	69.683	83.450	1.00	23.68
ATOM	597	CG1	VAL	A	610	2.659	70.975	83.356	1.00	23.68
ATOM	598	CG2	VAL	A	610	3.792	69.168	82.058	1.00	23.68
ATOM	599	C	VAL	A	610	4.390	70.317	85.690	1.00	29.70
ATOM	600	O	VAL	A	610	3.650	69.615	86.372	1.00	29.70
ATOM	601	N	ALA	A	611	4.920	71.449	86.137	1.00	28.62
ATOM	602	CA	ALA	A	611	4.713	71.929	87.504	1.00	28.62
ATOM	603	CB	ALA	A	611	5.306	73.346	87.650	1.00	19.67
ATOM	604	C	ALA	A	611	3.310	71.903	88.115	1.00	28.62
ATOM	605	O	ALA	A	611	3.175	71.594	89.299	1.00	28.62
ATOM	606	N	TYR	A	612	2.274	72.215	87.339	1.00	24.75
ATOM	607	CA	TYR	A	612	0.917	72.257	87.892	1.00	24.75
ATOM	608	CB	TYR	A	612	0.412	73.705	87.903	1.00	28.61
ATOM	609	CG	TYR	A	612	-1.008	73.839	88.403	1.00	28.61
ATOM	610	CD1	TYR	A	612	-2.044	74.198	87.542	1.00	28.61
ATOM	611	CE1	TYR	A	612	-3.361	74.275	88.000	1.00	28.61
ATOM	612	CD2	TYR	A	612	-1.324	73.562	89.733	1.00	28.61
ATOM	613	CE2	TYR	A	612	-2.631	73.639	90.196	1.00	28.61
ATOM	614	CZ	TYR	A	612	-3.642	73.996	89.332	1.00	28.61
ATOM	615	OH	TYR	A	612	-4.933	74.101	89.813	1.00	28.61
ATOM	616	C	TYR	A	612	-0.128	71.362	87.223	1.00	24.75
ATOM	617	O	TYR	A	612	-0.812	70.581	87.893	1.00	24.75
ATOM	618	N	HIS	A	613	-0.280	71.478	85.911	1.00	21.83
ATOM	619	CA	HIS	A	613	-1.256	70.635	85.231	1.00	21.83
ATOM	620	CB	HIS	A	613	-1.584	71.193	83.842	1.00	20.91
ATOM	621	CG	HIS	A	613	-2.292	72.512	83.875	1.00	20.91
ATOM	622	CD2	HIS	A	613	-3.600	72.816	84.060	1.00	20.91
ATOM	623	ND1	HIS	A	613	-1.636	73.716	83.731	1.00	20.91
ATOM	624	CE1	HIS	A	613	-2.508	74.704	83.826	1.00	20.91
ATOM	625	NE2	HIS	A	613	-3.706	74.184	84.027	1.00	20.91
ATOM	626	C	HIS	A	613	-0.730	69.207	85.129	1.00	21.83
ATOM	627	O	HIS	A	613	-0.234	68.774	84.091	1.00	21.83
ATOM	628	N	ASN	A	614	-0.817	68.484	86.235	1.00	21.92
ATOM	629	CA	ASN	A	614	-0.368	67.095	86.284	1.00	21.92
ATOM	630	CB	ASN	A	614	0.989	67.001	86.979	1.00	24.89
ATOM	631	CG	ASN	A	614	1.020	67.755	88.295	1.00	24.89
ATOM	632	OD1	ASN	A	614	0.196	67.517	89.174	1.00	24.89
ATOM	633	ND2	ASN	A	614	1.976	68.676	88.435	1.00	24.89
ATOM	634	C	ASN	A	614	-1.413	66.288	87.056	1.00	21.92
ATOM	635	O	ASN	A	614	-2.473	66.815	87.391	1.00	21.92
ATOM	636	N	TRP	A	615	-1.110	65.026	87.347	1.00	21.78
ATOM	637	CA	TRP	A	615	-2.041	64.170	88.067	1.00	21.78
ATOM	638	CB	TRP	A	615	-1.381	62.829	88.404	1.00	17.43
ATOM	639	CG	TRP	A	615	-2.161	62.006	89.409	1.00	17.43
ATOM	640	CD2	TRP	A	615	-3.461	61.419	89.230	1.00	17.43
ATOM	641	CE2	TRP	A	615	-3.808	60.794	90.444	1.00	17.43
ATOM	642	CE3	TRP	A	615	-4.368	61.365	88.162	1.00	17.43
ATOM	643	CD1	TRP	A	615	-1.787	61.714	90.686	1.00	17.43
ATOM	644	NE1	TRP	A	615	-2.769	60.986	91.314	1.00	17.43
ATOM	645	CZ2	TRP	A	615	-5.027	60.124	90.625	1.00	17.43
ATOM	646	CZ3	TRP	A	615	-5.582	60.693	88.344	1.00	17.43

ATOM	647	CH2	TRP	A	615	-5.895	60.086	89.566	1.00	17.43
ATOM	648	C	TRP	A	615	-2.647	64.769	89.342	1.00	21.78
ATOM	649	O	TRP	A	615	-3.865	64.705	89.535	1.00	21.78
ATOM	650	N	ARG	A	616	-1.817	65.344	90.211	1.00	17.50
ATOM	651	CA	ARG	A	616	-2.351	65.908	91.447	1.00	17.50
ATOM	652	CB	ARG	A	616	-1.232	66.494	92.310	1.00	29.42
ATOM	653	CG	ARG	A	616	-0.283	65.426	92.882	1.00	29.42
ATOM	654	CD	ARG	A	616	-1.048	64.246	93.479	1.00	29.42
ATOM	655	NE	ARG	A	616	-0.158	63.190	93.970	1.00	29.42
ATOM	656	CZ	ARG	A	616	0.324	63.123	95.209	1.00	29.42
ATOM	657	NH1	ARG	A	616	0.001	64.048	96.102	1.00	29.42
ATOM	658	NH2	ARG	A	616	1.133	62.126	95.553	1.00	29.42
ATOM	659	C	ARG	A	616	-3.426	66.955	91.179	1.00	17.50
ATOM	660	O	ARG	A	616	-4.430	67.023	91.888	1.00	17.50
ATOM	661	N	HIS	A	617	-3.237	67.763	90.148	1.00	18.11
ATOM	662	CA	HIS	A	617	-4.248	68.761	89.836	1.00	18.11
ATOM	663	CB	HIS	A	617	-3.772	69.681	88.719	1.00	20.00
ATOM	664	CG	HIS	A	617	-4.878	70.472	88.095	1.00	20.00
ATOM	665	CD2	HIS	A	617	-5.295	70.564	86.811	1.00	20.00
ATOM	666	ND1	HIS	A	617	-5.726	71.273	88.832	1.00	20.00
ATOM	667	CE1	HIS	A	617	-6.615	71.827	88.028	1.00	20.00
ATOM	668	NE2	HIS	A	617	-6.375	71.415	86.796	1.00	20.00
ATOM	669	C	HIS	A	617	-5.567	68.079	89.424	1.00	18.11
ATOM	670	O	HIS	A	617	-6.649	68.457	89.891	1.00	18.11
ATOM	671	N	ALA	A	618	-5.478	67.082	88.548	1.00	19.61
ATOM	672	CA	ALA	A	618	-6.672	66.367	88.103	1.00	19.61
ATOM	673	CB	ALA	A	618	-6.300	65.339	87.046	1.00	20.60
ATOM	674	C	ALA	A	618	-7.305	65.675	89.309	1.00	19.61
ATOM	675	O	ALA	A	618	-8.531	65.701	89.496	1.00	19.61
ATOM	676	N	PHE	A	619	-6.461	65.044	90.118	1.00	18.12
ATOM	677	CA	PHE	A	619	-6.931	64.360	91.313	1.00	18.12
ATOM	678	CB	PHE	A	619	-5.755	63.754	92.085	1.00	15.81
ATOM	679	CG	PHE	A	619	-6.138	63.204	93.432	1.00	15.81
ATOM	680	CD1	PHE	A	619	-6.982	62.093	93.536	1.00	15.81
ATOM	681	CD2	PHE	A	619	-5.675	63.802	94.597	1.00	15.81
ATOM	682	CE1	PHE	A	619	-7.353	61.593	94.788	1.00	15.81
ATOM	683	CE2	PHE	A	619	-6.041	63.312	95.851	1.00	15.81
ATOM	684	CZ	PHE	A	619	-6.877	62.212	95.949	1.00	15.81
ATOM	685	C	PHE	A	619	-7.678	65.350	92.220	1.00	18.12
ATOM	686	O	PHE	A	619	-8.760	65.051	92.718	1.00	18.12
ATOM	687	N	ASN	A	620	-7.093	66.524	92.435	1.00	17.51
ATOM	688	CA	ASN	A	620	-7.731	67.527	93.280	1.00	17.51
ATOM	689	CB	ASN	A	620	-6.799	68.720	93.496	1.00	28.12
ATOM	690	CG	ASN	A	620	-5.927	68.548	94.717	1.00	28.12
ATOM	691	OD1	ASN	A	620	-6.431	68.269	95.809	1.00	28.12
ATOM	692	ND2	ASN	A	620	-4.616	68.715	94.549	1.00	28.12
ATOM	693	C	ASN	A	620	-9.057	68.009	92.709	1.00	17.51
ATOM	694	O	ASN	A	620	-9.992	68.300	93.457	1.00	17.51
ATOM	695	N	THR	A	621	-9.133	68.101	91.385	1.00	16.56
ATOM	696	CA	THR	A	621	-10.353	68.547	90.728	1.00	16.56
ATOM	697	CB	THR	A	621	-10.154	68.664	89.224	1.00	16.54
ATOM	698	OG1	THR	A	621	-9.084	69.588	88.980	1.00	16.54
ATOM	699	CG2	THR	A	621	-11.436	69.183	88.545	1.00	16.54
ATOM	700	C	THR	A	621	-11.446	67.549	91.013	1.00	16.56
ATOM	701	O	THR	A	621	-12.571	67.926	91.358	1.00	16.56
ATOM	702	N	ALA	A	622	-11.102	66.268	90.874	1.00	17.31
ATOM	703	CA	ALA	A	622	-12.038	65.191	91.142	1.00	17.31
ATOM	704	CB	ALA	A	622	-11.394	63.839	90.825	1.00	7.65
ATOM	705	C	ALA	A	622	-12.463	65.226	92.608	1.00	17.31
ATOM	706	O	ALA	A	622	-13.625	65.011	92.925	1.00	17.31
ATOM	707	N	GLN	A	623	-11.516	65.480	93.507	1.00	18.87
ATOM	708	CA	GLN	A	623	-11.835	65.514	94.928	1.00	18.87
ATOM	709	CB	GLN	A	623	-10.550	65.618	95.747	1.00	21.46
ATOM	710	CG	GLN	A	623	-10.754	65.465	97.242	1.00	21.46
ATOM	711	CD	GLN	A	623	-11.278	66.735	97.883	1.00	21.46
ATOM	712	OE1	GLN	A	623	-10.818	67.833	97.571	1.00	21.46

ATOM	713	NE2	GLN	A	623	-12.225	66.592	98.796	1.00	21.46
ATOM	714	C	GLN	A	623	-12.794	66.659	95.264	1.00	18.87
ATOM	715	O	GLN	A	623	-13.710	66.484	96.059	1.00	18.87
ATOM	716	N	CYS	A	624	-12.584	67.833	94.675	1.00	16.40
ATOM	717	CA	CYS	A	624	-13.484	68.959	94.917	1.00	16.40
ATOM	718	CB	CYS	A	624	-12.963	70.220	94.232	1.00	26.47
ATOM	719	SG	CYS	A	624	-13.973	71.681	94.535	1.00	26.47
ATOM	720	C	CYS	A	624	-14.883	68.632	94.375	1.00	16.40
ATOM	721	O	CYS	A	624	-15.892	69.049	94.947	1.00	16.40
ATOM	722	N	MET	A	625	-14.935	67.910	93.259	1.00	21.46
ATOM	723	CA	MET	A	625	-16.208	67.514	92.662	1.00	21.46
ATOM	724	CB	MET	A	625	-15.947	66.790	91.338	1.00	24.52
ATOM	725	CG	MET	A	625	-17.194	66.284	90.605	1.00	24.52
ATOM	726	SD	MET	A	625	-18.304	67.591	90.044	1.00	24.52
ATOM	727	CE	MET	A	625	-17.316	68.330	88.749	1.00	24.52
ATOM	728	C	MET	A	625	-16.909	66.576	93.667	1.00	21.46
ATOM	729	O	MET	A	625	-18.098	66.719	93.963	1.00	21.46
ATOM	730	N	PHE	A	626	-16.159	65.621	94.206	1.00	28.52
ATOM	731	CA	PHE	A	626	-16.721	64.690	95.179	1.00	28.52
ATOM	732	CB	PHE	A	626	-15.650	63.676	95.589	1.00	22.57
ATOM	733	CG	PHE	A	626	-16.090	62.708	96.651	1.00	22.57
ATOM	734	CD1	PHE	A	626	-15.929	63.010	97.990	1.00	22.57
ATOM	735	CD2	PHE	A	626	-16.636	61.471	96.302	1.00	22.57
ATOM	736	CE1	PHE	A	626	-16.294	62.099	98.976	1.00	22.57
ATOM	737	CE2	PHE	A	626	-17.006	60.554	97.274	1.00	22.57
ATOM	738	CZ	PHE	A	626	-16.835	60.865	98.618	1.00	22.57
ATOM	739	C	PHE	A	626	-17.245	65.460	96.397	1.00	28.52
ATOM	740	O	PHE	A	626	-18.377	65.244	96.852	1.00	28.52
ATOM	741	N	ALA	A	627	-16.421	66.368	96.909	1.00	20.71
ATOM	742	CA	ALA	A	627	-16.809	67.173	98.064	1.00	20.71
ATOM	743	CB	ALA	A	627	-15.672	68.057	98.486	1.00	15.24
ATOM	744	C	ALA	A	627	-18.034	68.018	97.741	1.00	20.71
ATOM	745	O	ALA	A	627	-18.968	68.091	98.541	1.00	20.71
ATOM	746	N	ALA	A	628	-18.043	68.649	96.571	1.00	23.84
ATOM	747	CA	ALA	A	628	-19.179	69.477	96.174	1.00	23.84
ATOM	748	CB	ALA	A	628	-18.909	70.148	94.841	1.00	19.73
ATOM	749	C	ALA	A	628	-20.422	68.605	96.069	1.00	23.84
ATOM	750	O	ALA	A	628	-21.518	69.026	96.432	1.00	23.84
ATOM	751	N	LEU	A	629	-20.253	67.388	95.567	1.00	26.91
ATOM	752	CA	LEU	A	629	-21.380	66.472	95.430	1.00	26.91
ATOM	753	CB	LEU	A	629	-21.011	65.310	94.499	1.00	22.60
ATOM	754	CG	LEU	A	629	-20.860	65.634	93.006	1.00	22.60
ATOM	755	CD1	LEU	A	629	-20.468	64.378	92.232	1.00	22.60
ATOM	756	CD2	LEU	A	629	-22.168	66.177	92.459	1.00	22.60
ATOM	757	C	LEU	A	629	-21.866	65.933	96.782	1.00	26.91
ATOM	758	O	LEU	A	629	-23.071	65.746	96.976	1.00	26.91
ATOM	759	N	LYS	A	630	-20.934	65.708	97.714	1.00	26.24
ATOM	760	CA	LYS	A	630	-21.253	65.190	99.046	1.00	26.24
ATOM	761	CB	LYS	A	630	-20.088	64.348	99.578	1.00	42.21
ATOM	762	CG	LYS	A	630	-19.911	63.002	98.889	1.00	42.21
ATOM	763	CD	LYS	A	630	-21.117	62.093	99.121	1.00	42.21
ATOM	764	CE	LYS	A	630	-20.946	60.760	98.404	1.00	42.21
ATOM	765	NZ	LYS	A	630	-22.190	59.945	98.440	1.00	42.21
ATOM	766	C	LYS	A	630	-21.579	66.282	100.067	1.00	26.24
ATOM	767	O	LYS	A	630	-22.746	66.553	100.351	1.00	26.24
ATOM	768	N	ALA	A	631	-20.538	66.891	100.629	1.00	35.93
ATOM	769	CA	ALA	A	631	-20.699	67.960	101.611	1.00	35.93
ATOM	770	CB	ALA	A	631	-19.346	68.399	102.124	1.00	19.27
ATOM	771	C	ALA	A	631	-21.429	69.152	101.004	1.00	35.93
ATOM	772	O	ALA	A	631	-22.177	69.849	101.690	1.00	35.93
ATOM	773	N	GLY	A	632	-21.194	69.386	99.716	1.00	25.77
ATOM	774	CA	GLY	A	632	-21.835	70.487	99.023	1.00	25.77
ATOM	775	C	GLY	A	632	-23.291	70.222	98.678	1.00	25.77
ATOM	776	O	GLY	A	632	-23.994	71.132	98.247	1.00	25.77
ATOM	777	N	LYS	A	633	-23.743	68.982	98.854	1.00	39.32
ATOM	778	CA	LYS	A	633	-25.136	68.621	98.588	1.00	39.32

ATOM	779	CB	LYS	A	633	-26.075	69.430	99.495	1.00 52.49
ATOM	780	CG	LYS	A	633	-26.506	68.735	100.776	1.00 52.49
ATOM	781	CD	LYS	A	633	-25.346	68.497	101.719	1.00 52.49
ATOM	782	CE	LYS	A	633	-25.842	67.988	103.073	1.00 52.49
ATOM	783	NZ	LYS	A	633	-24.712	67.661	103.987	1.00 52.49
ATOM	784	C	LYS	A	633	-25.608	68.790	97.147	1.00 39.32
ATOM	785	O	LYS	A	633	-26.796	68.990	96.910	1.00 39.32
ATOM	786	N	ILE	A	634	-24.700	68.704	96.185	1.00 39.57
ATOM	787	CA	ILE	A	634	-25.095	68.859	94.794	1.00 39.57
ATOM	788	CB	ILE	A	634	-23.970	69.546	93.980	1.00 25.21
ATOM	789	CG2	ILE	A	634	-24.324	69.580	92.512	1.00 25.21
ATOM	790	CG1	ILE	A	634	-23.771	70.973	94.500	1.00 25.21
ATOM	791	CD1	ILE	A	634	-22.707	71.750	93.787	1.00 25.21
ATOM	792	C	ILE	A	634	-25.479	67.517	94.170	1.00 39.57
ATOM	793	O	ILE	A	634	-26.102	67.470	93.106	1.00 39.57
ATOM	794	N	GLN	A	635	-25.137	66.426	94.849	1.00 31.57
ATOM	795	CA	GLN	A	635	-25.456	65.092	94.349	1.00 31.57
ATOM	796	CB	GLN	A	635	-25.014	64.022	95.361	1.00 41.41
ATOM	797	CG	GLN	A	635	-25.170	62.583	94.855	1.00 41.41
ATOM	798	CD	GLN	A	635	-24.525	61.546	95.769	1.00 41.41
ATOM	799	OE1	GLN	A	635	-24.443	60.364	95.426	1.00 41.41
ATOM	800	NE2	GLN	A	635	-24.067	61.985	96.936	1.00 41.41
ATOM	801	C	GLN	A	635	-26.949	64.925	94.054	1.00 31.57
ATOM	802	O	GLN	A	635	-27.328	64.317	93.058	1.00 31.57
ATOM	803	N	ASN	A	636	-27.788	65.478	94.924	1.00 48.44
ATOM	804	CA	ASN	A	636	-29.234	65.368	94.779	1.00 48.44
ATOM	805	CB	ASN	A	636	-29.926	65.867	96.046	1.00100.00
ATOM	806	CG	ASN	A	636	-29.445	65.155	97.287	1.00100.00
ATOM	807	OD1	ASN	A	636	-28.277	65.260	97.664	1.00100.00
ATOM	808	ND2	ASN	A	636	-30.343	64.418	97.930	1.00100.00
ATOM	809	C	ASN	A	636	-29.805	66.117	93.585	1.00 48.44
ATOM	810	O	ASN	A	636	-30.952	65.888	93.203	1.00 48.44
ATOM	811	N	LYS	A	637	-29.018	67.010	92.996	1.00 32.13
ATOM	812	CA	LYS	A	637	-29.495	67.793	91.857	1.00 32.13
ATOM	813	CB	LYS	A	637	-28.884	69.200	91.886	1.00 61.64
ATOM	814	CG	LYS	A	637	-28.969	69.951	93.219	1.00 61.64
ATOM	815	CD	LYS	A	637	-30.403	70.185	93.686	1.00 61.64
ATOM	816	CE	LYS	A	637	-30.492	71.424	94.582	1.00 61.64
ATOM	817	NZ	LYS	A	637	-29.457	71.452	95.664	1.00 61.64
ATOM	818	C	LYS	A	637	-29.173	67.156	90.498	1.00 32.13
ATOM	819	O	LYS	A	637	-29.658	67.624	89.467	1.00 32.13
ATOM	820	N	LEU	A	638	-28.371	66.092	90.495	1.00 38.44
ATOM	821	CA	LEU	A	638	-27.969	65.453	89.242	1.00 38.44
ATOM	822	CB	LEU	A	638	-26.457	65.620	89.068	1.00 25.35
ATOM	823	CG	LEU	A	638	-25.886	67.009	89.372	1.00 25.35
ATOM	824	CD1	LEU	A	638	-24.371	66.948	89.332	1.00 25.35
ATOM	825	CD2	LEU	A	638	-26.411	68.030	88.373	1.00 25.35
ATOM	826	C	LEU	A	638	-28.328	63.968	89.117	1.00 38.44
ATOM	827	O	LEU	A	638	-28.593	63.299	90.112	1.00 38.44
ATOM	828	N	THR	A	639	-28.329	63.457	87.887	1.00 37.86
ATOM	829	CA	THR	A	639	-28.629	62.047	87.655	1.00 37.86
ATOM	830	CB	THR	A	639	-29.127	61.799	86.227	1.00 36.72
ATOM	831	OG1	THR	A	639	-28.071	62.069	85.295	1.00 36.72
ATOM	832	CG2	THR	A	639	-30.317	62.694	85.923	1.00 36.72
ATOM	833	C	THR	A	639	-27.341	61.255	87.856	1.00 37.86
ATOM	834	O	THR	A	639	-26.273	61.844	88.022	1.00 37.86
ATOM	835	N	ASP	A	640	-27.434	59.928	87.845	1.00 38.20
ATOM	836	CA	ASP	A	640	-26.249	59.091	88.031	1.00 38.20
ATOM	837	CB	ASP	A	640	-26.643	57.620	88.226	1.00 54.36
ATOM	838	CG	ASP	A	640	-27.320	57.362	89.563	1.00 54.36
ATOM	839	OD1	ASP	A	640	-26.725	57.682	90.615	1.00 54.36
ATOM	840	OD2	ASP	A	640	-28.450	56.827	89.560	1.00 54.36
ATOM	841	C	ASP	A	640	-25.286	59.204	86.847	1.00 38.20
ATOM	842	O	ASP	A	640	-24.067	59.207	87.025	1.00 38.20
ATOM	843	N	LEU	A	641	-25.839	59.286	85.642	1.00 26.75
ATOM	844	CA	LEU	A	641	-25.024	59.407	84.439	1.00 26.75

ATOM	845	CB	LEU	A	641	-25.912	59.351	83.192	1.00 30.60
ATOM	846	CG	LEU	A	641	-26.679	58.051	82.949	1.00 30.60
ATOM	847	CD1	LEU	A	641	-27.524	58.211	81.718	1.00 30.60
ATOM	848	CD2	LEU	A	641	-25.711	56.887	82.780	1.00 30.60
ATOM	849	C	LEU	A	641	-24.236	60.719	84.459	1.00 26.75
ATOM	850	O	LEU	A	641	-23.094	60.781	84.006	1.00 26.75
ATOM	851	N	GLU	A	642	-24.852	61.768	84.989	1.00 22.06
ATOM	852	CA	GLU	A	642	-24.194	63.069	85.072	1.00 22.06
ATOM	853	CB	GLU	A	642	-25.213	64.134	85.483	1.00 33.22
ATOM	854	CG	GLU	A	642	-26.237	64.441	84.398	1.00 33.22
ATOM	855	CD	GLU	A	642	-27.353	65.358	84.878	1.00 33.22
ATOM	856	OE1	GLU	A	642	-28.116	65.868	84.036	1.00 33.22
ATOM	857	OE2	GLU	A	642	-27.474	65.560	86.101	1.00 33.22
ATOM	858	C	GLU	A	642	-23.018	63.022	86.061	1.00 22.06
ATOM	859	O	GLU	A	642	-21.935	63.552	85.784	1.00 22.06
ATOM	860	N	ILE	A	643	-23.237	62.373	87.203	1.00 25.49
ATOM	861	CA	ILE	A	643	-22.206	62.229	88.228	1.00 25.49
ATOM	862	CB	ILE	A	643	-22.783	61.590	89.501	1.00 22.83
ATOM	863	CG2	ILE	A	643	-21.656	61.198	90.456	1.00 22.83
ATOM	864	CG1	ILE	A	643	-23.762	62.565	90.155	1.00 22.83
ATOM	865	CD1	ILE	A	643	-24.461	62.002	91.373	1.00 22.83
ATOM	866	C	ILE	A	643	-21.065	61.359	87.711	1.00 25.49
ATOM	867	O	ILE	A	643	-19.897	61.626	87.981	1.00 25.49
ATOM	868	N	LEU	A	644	-21.411	60.312	86.978	1.00 22.82
ATOM	869	CA	LEU	A	644	-20.406	59.426	86.408	1.00 22.82
ATOM	870	CB	LEU	A	644	-21.086	58.264	85.675	1.00 21.61
ATOM	871	CG	LEU	A	644	-20.172	57.383	84.831	1.00 21.61
ATOM	872	CD1	LEU	A	644	-19.039	56.851	85.689	1.00 21.61
ATOM	873	CD2	LEU	A	644	-20.969	56.256	84.230	1.00 21.61
ATOM	874	C	LEU	A	644	-19.533	60.212	85.432	1.00 22.82
ATOM	875	O	LEU	A	644	-18.303	60.115	85.454	1.00 22.82
ATOM	876	N	ALA	A	645	-20.187	61.004	84.592	1.00 22.06
ATOM	877	CA	ALA	A	645	-19.514	61.811	83.587	1.00 22.06
ATOM	878	CB	ALA	A	645	-20.548	62.384	82.622	1.00 16.09
ATOM	879	C	ALA	A	645	-18.670	62.944	84.179	1.00 22.06
ATOM	880	O	ALA	A	645	-17.599	63.260	83.664	1.00 22.06
ATOM	881	N	LEU	A	646	-19.151	63.559	85.252	1.00 18.39
ATOM	882	CA	LEU	A	646	-18.422	64.652	85.873	1.00 18.39
ATOM	883	CB	LEU	A	646	-19.342	65.434	86.814	1.00 21.24
ATOM	884	CG	LEU	A	646	-20.225	66.425	86.048	1.00 21.24
ATOM	885	CD1	LEU	A	646	-21.347	66.922	86.918	1.00 21.24
ATOM	886	CD2	LEU	A	646	-19.378	67.584	85.565	1.00 21.24
ATOM	887	C	LEU	A	646	-17.161	64.188	86.607	1.00 18.39
ATOM	888	O	LEU	A	646	-16.150	64.882	86.587	1.00 18.39
ATOM	889	N	LEU	A	647	-17.219	63.023	87.244	1.00 22.18
ATOM	890	CA	LEU	A	647	-16.053	62.514	87.948	1.00 22.18
ATOM	891	CB	LEU	A	647	-16.412	61.315	88.834	1.00 19.08
ATOM	892	CG	LEU	A	647	-15.254	60.819	89.710	1.00 19.08
ATOM	893	CD1	LEU	A	647	-14.809	61.929	90.642	1.00 19.08
ATOM	894	CD2	LEU	A	647	-15.679	59.597	90.510	1.00 19.08
ATOM	895	C	LEU	A	647	-14.988	62.121	86.925	1.00 22.18
ATOM	896	O	LEU	A	647	-13.831	62.515	87.059	1.00 22.18
ATOM	897	N	ILE	A	648	-15.374	61.353	85.906	1.00 23.52
ATOM	898	CA	ILE	A	648	-14.433	60.945	84.861	1.00 23.52
ATOM	899	CB	ILE	A	648	-15.124	60.062	83.770	1.00 20.20
ATOM	900	CG2	ILE	A	648	-14.260	59.982	82.536	1.00 20.20
ATOM	901	CG1	ILE	A	648	-15.378	58.655	84.321	1.00 20.20
ATOM	902	CD1	ILE	A	648	-16.134	57.736	83.370	1.00 20.20
ATOM	903	C	ILE	A	648	-13.819	62.184	84.198	1.00 23.52
ATOM	904	O	ILE	A	648	-12.603	62.250	83.993	1.00 23.52
ATOM	905	N	ALA	A	649	-14.656	63.164	83.876	1.00 20.74
ATOM	906	CA	ALA	A	649	-14.173	64.394	83.255	1.00 20.74
ATOM	907	CB	ALA	A	649	-15.337	65.307	82.903	1.00 17.93
ATOM	908	C	ALA	A	649	-13.206	65.125	84.182	1.00 20.74
ATOM	909	O	ALA	A	649	-12.160	65.597	83.741	1.00 20.74
ATOM	910	N	ALA	A	650	-13.553	65.226	85.463	1.00 14.24

ATOM	911	CA	ALA	A	650	-12.678	65.902	86.421	1.00 14.24
ATOM	912	CB	ALA	A	650	-13.254	65.782	87.840	1.00 17.96
ATOM	913	C	ALA	A	650	-11.260	65.309	86.363	1.00 14.24
ATOM	914	O	ALA	A	650	-10.276	66.036	86.212	1.00 14.24
ATOM	915	N	LEU	A	651	-11.171	63.984	86.454	1.00 18.79
ATOM	916	CA	LEU	A	651	-9.889	63.275	86.417	1.00 18.79
ATOM	917	CB	LEU	A	651	-10.093	61.821	86.860	1.00 14.74
ATOM	918	CG	LEU	A	651	-10.592	61.517	88.283	1.00 14.74
ATOM	919	CD1	LEU	A	651	-11.160	60.098	88.331	1.00 14.74
ATOM	920	CD2	LEU	A	651	-9.441	61.676	89.299	1.00 14.74
ATOM	921	C	LEU	A	651	-9.185	63.271	85.048	1.00 18.79
ATOM	922	O	LEU	A	651	-7.961	63.163	84.982	1.00 18.79
ATOM	923	N	SER	A	652	-9.942	63.408	83.962	1.00 20.17
ATOM	924	CA	SER	A	652	-9.350	63.349	82.626	1.00 20.17
ATOM	925	CB	SER	A	652	-10.100	62.313	81.775	1.00 22.85
ATOM	926	OG	SER	A	652	-10.312	61.098	82.482	1.00 22.85
ATOM	927	C	SER	A	652	-9.280	64.635	81.812	1.00 20.17
ATOM	928	O	SER	A	652	-8.632	64.643	80.765	1.00 20.17
ATOM	929	N	HIS	A	653	-9.929	65.703	82.277	1.00 15.00
ATOM	930	CA	HIS	A	653	-9.997	66.967	81.543	1.00 15.00
ATOM	931	CB	HIS	A	653	-10.771	68.019	82.333	1.00 19.91
ATOM	932	CG	HIS	A	653	-9.949	68.718	83.364	1.00 19.91
ATOM	933	CD2	HIS	A	653	-9.213	69.850	83.297	1.00 19.91
ATOM	934	ND1	HIS	A	653	-9.797	68.235	84.644	1.00 19.91
ATOM	935	CE1	HIS	A	653	-9.002	69.041	85.324	1.00 19.91
ATOM	936	NE2	HIS	A	653	-8.635	70.029	84.529	1.00 19.91
ATOM	937	C	HIS	A	653	-8.656	67.544	81.121	1.00 15.00
ATOM	938	O	HIS	A	653	-8.572	68.310	80.169	1.00 15.00
ATOM	939	N	ASP	A	654	-7.621	67.257	81.882	1.00 39.47
ATOM	940	CA	ASP	A	654	-6.301	67.679	81.482	1.00 39.47
ATOM	941	CB	ASP	A	654	-5.544	68.363	82.625	1.00 22.30
ATOM	942	CG	ASP	A	654	-5.884	69.847	82.737	1.00 22.30
ATOM	943	OD1	ASP	A	654	-6.109	70.486	81.685	1.00 22.30
ATOM	944	OD2	ASP	A	654	-5.920	70.384	83.863	1.00 22.30
ATOM	945	C	ASP	A	654	-5.815	66.278	81.201	1.00 39.47
ATOM	946	O	ASP	A	654	-6.511	65.325	81.523	1.00 39.47
ATOM	947	N	LEU	A	655	-4.659	66.115	80.603	1.00 20.89
ATOM	948	CA	LEU	A	655	-4.202	64.765	80.288	1.00 20.89
ATOM	949	CB	LEU	A	655	-5.387	63.877	79.903	1.00 16.19
ATOM	950	CG	LEU	A	655	-5.398	62.352	80.002	1.00 16.19
ATOM	951	CD1	LEU	A	655	-4.667	61.857	81.248	1.00 16.19
ATOM	952	CD2	LEU	A	655	-6.847	61.889	80.026	1.00 16.19
ATOM	953	C	LEU	A	655	-3.332	65.030	79.089	1.00 20.89
ATOM	954	O	LEU	A	655	-3.811	65.528	78.069	1.00 20.89
ATOM	955	N	ASP	A	656	-2.048	64.737	79.243	1.00 26.53
ATOM	956	CA	ASP	A	656	-1.063	64.974	78.199	1.00 26.53
ATOM	957	CB	ASP	A	656	-1.548	64.436	76.851	1.00 27.96
ATOM	958	CG	ASP	A	656	-0.419	64.283	75.858	1.00 27.96
ATOM	959	OD1	ASP	A	656	-0.634	64.579	74.662	1.00 27.96
ATOM	960	OD2	ASP	A	656	0.680	63.858	76.289	1.00 27.96
ATOM	961	C	ASP	A	656	-0.824	66.477	78.086	1.00 26.53
ATOM	962	O	ASP	A	656	-0.362	66.959	77.059	1.00 26.53
ATOM	963	N	HIS	A	657	-1.159	67.218	79.138	1.00 18.12
ATOM	964	CA	HIS	A	657	-0.959	68.667	79.140	1.00 18.12
ATOM	965	CB	HIS	A	657	-1.611	69.277	80.386	1.00 23.92
ATOM	966	CG	HIS	A	657	-1.651	70.773	80.387	1.00 23.92
ATOM	967	CD2	HIS	A	657	-0.659	71.692	80.365	1.00 23.92
ATOM	968	ND1	HIS	A	657	-2.832	71.486	80.421	1.00 23.92
ATOM	969	CE1	HIS	A	657	-2.564	72.781	80.418	1.00 23.92
ATOM	970	NE2	HIS	A	657	-1.251	72.933	80.383	1.00 23.92
ATOM	971	C	HIS	A	657	0.559	68.879	79.178	1.00 18.12
ATOM	972	O	HIS	A	657	1.251	68.186	79.923	1.00 18.12
ATOM	973	N	ARG	A	658	1.080	69.814	78.388	1.00 33.49
ATOM	974	CA	ARG	A	658	2.523	70.046	78.371	1.00 33.49
ATOM	975	CB	ARG	A	658	3.058	70.035	76.935	1.00 56.34
ATOM	976	CG	ARG	A	658	3.411	68.656	76.415	1.00 56.34

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ATOM    977  CD  ARG A 658       2.180  67.808  76.227  1.00 56.34
ATOM    978  NE  ARG A 658       2.496  66.389  76.099  1.00 56.34
ATOM    979  CZ  ARG A 658       3.252  65.865  75.138  1.00 56.34
ATOM    980  NH1 ARG A 658       3.785  66.644  74.202  1.00 56.34
ATOM    981  NH2 ARG A 658       3.470  64.557  75.107  1.00 56.34
ATOM    982  C   ARG A 658       2.973  71.328  79.048  1.00 33.49
ATOM    983  O   ARG A 658       4.103  71.770  78.854  1.00 33.49
ATOM    984  N   GLY A 659       2.099  71.929  79.841  1.00 30.17
ATOM    985  CA  GLY A 659       2.462  73.160  80.522  1.00 30.17
ATOM    986  C   GLY A 659       2.428  74.394  79.627  1.00 30.17
ATOM    987  O   GLY A 659       3.207  75.326  79.816  1.00 30.17
ATOM    988  N   VAL A 660       1.527  74.404  78.650  1.00 29.99
ATOM    989  CA  VAL A 660       1.402  75.539  77.744  1.00 29.99
ATOM    990  CB  VAL A 660       1.317  75.073  76.272  1.00 26.95
ATOM    991  CG1 VAL A 660       1.158  76.278  75.346  1.00 26.95
ATOM    992  CG2 VAL A 660       2.567  74.276  75.904  1.00 26.95
ATOM    993  C   VAL A 660       0.136  76.311  78.101  1.00 29.99
ATOM    994  O   VAL A 660      -0.971  75.779  78.004  1.00 29.99
ATOM    995  N   ASN A 661       0.298  77.560  78.523  1.00 28.30
ATOM    996  CA  ASN A 661      -0.841  78.381  78.896  1.00 28.30
ATOM    997  CB  ASN A 661      -0.814  78.684  80.403  1.00 24.16
ATOM    998  CG  ASN A 661      -0.779  77.427  81.257  1.00 24.16
ATOM    999  OD1 ASN A 661       0.291  76.946  81.640  1.00 24.16
ATOM   1000  ND2 ASN A 661      -1.955  76.883  81.550  1.00 24.16
ATOM   1001  C   ASN A 661      -0.868  79.700  78.127  1.00 28.30
ATOM   1002  O   ASN A 661       0.179  80.226  77.740  1.00 28.30
ATOM   1003  N   ASN A 662      -2.071  80.221  77.897  1.00 38.16
ATOM   1004  CA  ASN A 662      -2.223  81.500  77.217  1.00 38.16
ATOM   1005  CB  ASN A 662      -3.670  81.722  76.770  1.00 64.92
ATOM   1006  CG  ASN A 662      -4.077  80.791  75.654  1.00 64.92
ATOM   1007  OD1 ASN A 662      -3.357  80.641  74.665  1.00 64.92
ATOM   1008  ND2 ASN A 662      -5.237  80.161  75.799  1.00 64.92
ATOM   1009  C   ASN A 662      -1.837  82.565  78.228  1.00 38.16
ATOM   1010  O   ASN A 662      -1.853  82.315  79.438  1.00 38.16
ATOM   1011  N   SER A 663      -1.498  83.752  77.736  1.00 45.96
ATOM   1012  CA  SER A 663      -1.086  84.843  78.611  1.00 45.96
ATOM   1013  CB  SER A 663       0.205  85.467  78.068  1.00 73.06
ATOM   1014  OG  SER A 663       0.780  86.363  79.000  1.00 73.06
ATOM   1015  C   SER A 663      -2.153  85.925  78.789  1.00 45.96
ATOM   1016  O   SER A 663      -2.075  86.723  79.725  1.00 45.96
ATOM   1017  N   TYR A 664      -3.150  85.947  77.905  1.00 55.85
ATOM   1018  CA  TYR A 664      -4.205  86.959  77.971  1.00 55.85
ATOM   1019  CB  TYR A 664      -4.604  87.387  76.550  1.00100.00
ATOM   1020  CG  TYR A 664      -5.626  86.495  75.867  1.00100.00
ATOM   1021  CD1 TYR A 664      -6.998  86.712  76.039  1.00100.00
ATOM   1022  CE1 TYR A 664      -7.944  85.902  75.407  1.00100.00
ATOM   1023  CD2 TYR A 664      -5.225  85.440  75.046  1.00100.00
ATOM   1024  CE2 TYR A 664      -6.164  84.623  74.410  1.00100.00
ATOM   1025  CZ  TYR A 664      -7.520  84.861  74.595  1.00100.00
ATOM   1026  OH  TYR A 664      -8.448  84.066  73.961  1.00100.00
ATOM   1027  C   TYR A 664      -5.442  86.511  78.751  1.00 55.85
ATOM   1028  O   TYR A 664      -6.067  85.496  78.434  1.00 55.85
ATOM   1029  N   GLU A 682      -9.919  70.782  76.045  1.00 35.59
ATOM   1030  CA  GLU A 682      -9.531  70.689  74.638  1.00 35.59
ATOM   1031  CB  GLU A 682      -8.005  70.782  74.506  1.00 46.75
ATOM   1032  CG  GLU A 682      -7.480  70.803  73.078  1.00 46.75
ATOM   1033  CD  GLU A 682      -7.827  72.091  72.341  1.00 46.75
ATOM   1034  OE1 GLU A 682      -8.581  72.036  71.342  1.00 46.75
ATOM   1035  OE2 GLU A 682      -7.342  73.160  72.767  1.00 46.75
ATOM   1036  C   GLU A 682     -10.010  69.378  74.011  1.00 35.59
ATOM   1037  O   GLU A 682     -10.195  68.380  74.709  1.00 35.59
ATOM   1038  N   HIS A 683     -10.208  69.388  72.693  1.00 26.12
ATOM   1039  CA  HIS A 683     -10.637  68.196  71.973  1.00 26.12
ATOM   1040  CB  HIS A 683     -10.910  68.542  70.504  1.00 35.91
ATOM   1041  CG  HIS A 683     -12.231  69.217  70.275  1.00 35.91
ATOM   1042  CD2 HIS A 683     -12.571  70.527  70.239  1.00 35.91
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ATOM	1043	ND1	HIS	A	683	-13.400	68.516	70.075	1.00 35.91
ATOM	1044	CE1	HIS	A	683	-14.404	69.363	69.926	1.00 35.91
ATOM	1045	NE2	HIS	A	683	-13.928	70.589	70.022	1.00 35.91
ATOM	1046	C	HIS	A	683	-9.540	67.142	72.100	1.00 26.12
ATOM	1047	O	HIS	A	683	-9.821	65.946	72.189	1.00 26.12
ATOM	1048	N	HIS	A	684	-8.287	67.591	72.112	1.00 23.03
ATOM	1049	CA	HIS	A	684	-7.163	66.674	72.273	1.00 23.03
ATOM	1050	CB	HIS	A	684	-5.832	67.423	72.157	1.00 22.60
ATOM	1051	CG	HIS	A	684	-4.649	66.641	72.652	1.00 22.60
ATOM	1052	CD2	HIS	A	684	-3.712	66.936	73.584	1.00 22.60
ATOM	1053	ND1	HIS	A	684	-4.334	65.384	72.182	1.00 22.60
ATOM	1054	CE1	HIS	A	684	-3.257	64.937	72.802	1.00 22.60
ATOM	1055	NE2	HIS	A	684	-2.861	65.860	73.660	1.00 22.60
ATOM	1056	C	HIS	A	684	-7.264	66.018	73.653	1.00 23.03
ATOM	1057	O	HIS	A	684	-7.071	64.806	73.792	1.00 23.03
ATOM	1058	N	HIS	A	685	-7.563	66.819	74.672	1.00 18.12
ATOM	1059	CA	HIS	A	685	-7.692	66.292	76.025	1.00 18.12
ATOM	1060	CB	HIS	A	685	-8.037	67.406	77.018	1.00 25.19
ATOM	1061	CG	HIS	A	685	-6.884	68.305	77.339	1.00 25.19
ATOM	1062	CD2	HIS	A	685	-6.766	69.655	77.302	1.00 25.19
ATOM	1063	ND1	HIS	A	685	-5.654	67.823	77.736	1.00 25.19
ATOM	1064	CE1	HIS	A	685	-4.826	68.836	77.923	1.00 25.19
ATOM	1065	NE2	HIS	A	685	-5.475	69.958	77.668	1.00 25.19
ATOM	1066	C	HIS	A	685	-8.792	65.255	75.999	1.00 18.12
ATOM	1067	O	HIS	A	685	-8.655	64.156	76.553	1.00 18.12
ATOM	1068	N	PHE	A	686	-9.886	65.600	75.333	1.00 16.14
ATOM	1069	CA	PHE	A	686	-10.993	64.668	75.212	1.00 16.14
ATOM	1070	CB	PHE	A	686	-12.151	65.293	74.427	1.00 20.39
ATOM	1071	CG	PHE	A	686	-13.276	64.327	74.132	1.00 20.39
ATOM	1072	CD1	PHE	A	686	-13.963	63.700	75.169	1.00 20.39
ATOM	1073	CD2	PHE	A	686	-13.669	64.075	72.818	1.00 20.39
ATOM	1074	CE1	PHE	A	686	-15.030	62.840	74.907	1.00 20.39
ATOM	1075	CE2	PHE	A	686	-14.737	63.217	72.549	1.00 20.39
ATOM	1076	CZ	PHE	A	686	-15.418	62.598	73.595	1.00 20.39
ATOM	1077	C	PHE	A	686	-10.553	63.379	74.522	1.00 16.14
ATOM	1078	O	PHE	A	686	-10.854	62.297	75.005	1.00 16.14
ATOM	1079	N	ASP	A	687	-9.826	63.469	73.408	1.00 23.75
ATOM	1080	CA	ASP	A	687	-9.437	62.228	72.751	1.00 23.75
ATOM	1081	CB	ASP	A	687	-8.908	62.467	71.318	1.00 16.02
ATOM	1082	CG	ASP	A	687	-7.446	62.880	71.256	1.00 16.02
ATOM	1083	OD1	ASP	A	687	-6.586	62.204	71.860	1.00 16.02
ATOM	1084	OD2	ASP	A	687	-7.164	63.882	70.554	1.00 16.02
ATOM	1085	C	ASP	A	687	-8.474	61.394	73.583	1.00 23.75
ATOM	1086	O	ASP	A	687	-8.409	60.177	73.425	1.00 23.75
ATOM	1087	N	GLN	A	688	-7.742	62.029	74.493	1.00 20.62
ATOM	1088	CA	GLN	A	688	-6.834	61.268	75.346	1.00 20.62
ATOM	1089	CB	GLN	A	688	-5.889	62.206	76.095	1.00 20.63
ATOM	1090	CG	GLN	A	688	-4.863	62.873	75.201	1.00 20.63
ATOM	1091	CD	GLN	A	688	-3.888	61.872	74.605	1.00 20.63
ATOM	1092	OE1	GLN	A	688	-2.946	61.435	75.268	1.00 20.63
ATOM	1093	NE2	GLN	A	688	-4.119	61.489	73.352	1.00 20.63
ATOM	1094	C	GLN	A	688	-7.700	60.485	76.329	1.00 20.62
ATOM	1095	O	GLN	A	688	-7.405	59.344	76.665	1.00 20.62
ATOM	1096	N	CYS	A	689	-8.783	61.103	76.780	1.00 22.57
ATOM	1097	CA	CYS	A	689	-9.695	60.455	77.713	1.00 22.57
ATOM	1098	CB	CYS	A	689	-10.817	61.419	78.115	1.00 22.37
ATOM	1099	SG	CYS	A	689	-12.039	60.684	79.208	1.00 22.37
ATOM	1100	C	CYS	A	689	-10.293	59.213	77.062	1.00 22.57
ATOM	1101	O	CYS	A	689	-10.438	58.168	77.698	1.00 22.57
ATOM	1102	N	LEU	A	690	-10.630	59.342	75.784	1.00 18.73
ATOM	1103	CA	LEU	A	690	-11.206	58.260	75.006	1.00 18.73
ATOM	1104	CB	LEU	A	690	-11.727	58.805	73.673	1.00 28.37
ATOM	1105	CG	LEU	A	690	-13.242	58.897	73.474	1.00 28.37
ATOM	1106	CD1	LEU	A	690	-13.955	59.212	74.770	1.00 28.37
ATOM	1107	CD2	LEU	A	690	-13.526	59.963	72.429	1.00 28.37
ATOM	1108	C	LEU	A	690	-10.213	57.128	74.752	1.00 18.73

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ATOM   1109  O   LEU A 690     -10.581  55.959  74.819  1.00 18.73
ATOM   1110  N   MET A 691      -8.962  57.463  74.450  1.00 26.51
ATOM   1111  CA  MET A 691      -7.971  56.418  74.222  1.00 26.51
ATOM   1112  CB  MET A 691      -6.603  57.019  73.874  1.00 51.52
ATOM   1113  CG  MET A 691      -6.411  57.303  72.383  1.00 51.52
ATOM   1114  SD  MET A 691      -4.848  58.135  71.982  1.00 51.52
ATOM   1115  CE  MET A 691      -3.690  56.779  72.191  1.00 51.52
ATOM   1116  C   MET A 691      -7.856  55.524  75.455  1.00 26.51
ATOM   1117  O   MET A 691      -7.793  54.306  75.332  1.00 26.51
ATOM   1118  N   ILE A 692      -7.846  56.129  76.640  1.00 31.59
ATOM   1119  CA  ILE A 692      -7.748  55.378  77.892  1.00 31.59
ATOM   1120  CB  ILE A 692      -7.583  56.323  79.113  1.00 38.62
ATOM   1121  CG2 ILE A 692      -7.499  55.508  80.393  1.00 38.62
ATOM   1122  CG1 ILE A 692      -6.336  57.196  78.950  1.00 38.62
ATOM   1123  CD1 ILE A 692      -5.047  56.413  78.865  1.00 38.62
ATOM   1124  C   ILE A 692      -9.013  54.552  78.124  1.00 31.59
ATOM   1125  O   ILE A 692      -8.953  53.353  78.397  1.00 31.59
ATOM   1126  N   LEU A 693     -10.152  55.225  78.012  1.00 26.56
ATOM   1127  CA  LEU A 693     -11.471  54.645  78.216  1.00 26.56
ATOM   1128  CB  LEU A 693     -12.519  55.671  77.799  1.00 31.09
ATOM   1129  CG  LEU A 693     -13.757  55.889  78.662  1.00 31.09
ATOM   1130  CD1 LEU A 693     -13.423  55.758  80.146  1.00 31.09
ATOM   1131  CD2 LEU A 693     -14.314  57.275  78.337  1.00 31.09
ATOM   1132  C   LEU A 693     -11.719  53.323  77.497  1.00 26.56
ATOM   1133  O   LEU A 693     -12.304  52.406  78.080  1.00 26.56
ATOM   1134  N   ASN A 694     -11.287  53.206  76.241  1.00 29.78
ATOM   1135  CA  ASN A 694     -11.503  51.956  75.523  1.00 29.78
ATOM   1136  CB  ASN A 694     -11.893  52.208  74.070  1.00 48.48
ATOM   1137  CG  ASN A 694     -12.567  50.996  73.432  1.00 48.48
ATOM   1138  OD1 ASN A 694     -12.378  50.716  72.243  1.00 48.48
ATOM   1139  ND2 ASN A 694     -13.369  50.278  74.220  1.00 48.48
ATOM   1140  C   ASN A 694     -10.310  51.003  75.539  1.00 29.78
ATOM   1141  O   ASN A 694     -10.349  49.959  74.891  1.00 29.78
ATOM   1142  N   SER A 695      -9.242  51.356  76.246  1.00 32.72
ATOM   1143  CA  SER A 695      -8.091  50.461  76.320  1.00 32.72
ATOM   1144  CB  SER A 695      -6.980  51.063  77.184  1.00 54.14
ATOM   1145  OG  SER A 695      -6.184  51.965  76.442  1.00 54.14
ATOM   1146  C   SER A 695      -8.559  49.149  76.948  1.00 32.72
ATOM   1147  O   SER A 695      -9.394  49.148  77.853  1.00 32.72
ATOM   1148  N   PRO A 696      -8.044  48.010  76.463  1.00 32.96
ATOM   1149  CD  PRO A 696      -7.177  47.794  75.296  1.00 30.25
ATOM   1150  CA  PRO A 696      -8.470  46.734  77.047  1.00 32.96
ATOM   1151  CB  PRO A 696      -7.753  45.695  76.172  1.00 30.25
ATOM   1152  CG  PRO A 696      -6.587  46.448  75.606  1.00 30.25
ATOM   1153  C   PRO A 696      -8.137  46.614  78.542  1.00 32.96
ATOM   1154  O   PRO A 696      -7.029  46.932  78.976  1.00 32.96
ATOM   1155  N   GLY A 697      -9.109  46.161  79.327  1.00 31.39
ATOM   1156  CA  GLY A 697      -8.899  46.029  80.756  1.00 31.39
ATOM   1157  C   GLY A 697      -9.099  47.340  81.507  1.00 31.39
ATOM   1158  O   GLY A 697      -9.053  47.356  82.733  1.00 31.39
ATOM   1159  N   ASN A 698      -9.325  48.434  80.776  1.00 18.25
ATOM   1160  CA  ASN A 698      -9.532  49.760  81.374  1.00 18.25
ATOM   1161  CB  ASN A 698      -8.528  50.768  80.800  1.00 22.54
ATOM   1162  CG  ASN A 698      -7.101  50.475  81.216  1.00 22.54
ATOM   1163  OD1 ASN A 698      -6.477  49.504  80.750  1.00 22.54
ATOM   1164  ND2 ASN A 698      -6.572  51.306  82.105  1.00 22.54
ATOM   1165  C   ASN A 698     -10.936  50.301  81.138  1.00 18.25
ATOM   1166  O   ASN A 698     -11.256  51.433  81.529  1.00 18.25
ATOM   1167  N   GLN A 699     -11.779  49.494  80.513  1.00 31.83
ATOM   1168  CA  GLN A 699     -13.134  49.924  80.183  1.00 31.83
ATOM   1169  CB  GLN A 699     -13.689  49.018  79.086  1.00 44.60
ATOM   1170  CG  GLN A 699     -12.718  48.835  77.941  1.00 44.60
ATOM   1171  CD  GLN A 699     -13.190  47.821  76.935  1.00 44.60
ATOM   1172  OE1 GLN A 699     -14.170  48.046  76.219  1.00 44.60
ATOM   1173  NE2 GLN A 699     -12.498  46.688  76.873  1.00 44.60
ATOM   1174  C   GLN A 699     -14.099  49.963  81.353  1.00 31.83
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ATOM	1175	O	GLN	A	699	-14.833	49.001	81.579	1.00 31.83
ATOM	1176	N	ILE	A	700	-14.106	51.080	82.083	1.00 20.76
ATOM	1177	CA	ILE	A	700	-14.995	51.231	83.233	1.00 20.76
ATOM	1178	CB	ILE	A	700	-14.518	52.352	84.197	1.00 20.11
ATOM	1179	CG2	ILE	A	700	-13.223	51.928	84.887	1.00 20.11
ATOM	1180	CG1	ILE	A	700	-14.341	53.668	83.432	1.00 20.11
ATOM	1181	CD1	ILE	A	700	-14.193	54.877	84.329	1.00 20.11
ATOM	1182	C	ILE	A	700	-16.429	51.540	82.810	1.00 20.76
ATOM	1183	O	ILE	A	700	-17.338	51.569	83.640	1.00 20.76
ATOM	1184	N	LEU	A	701	-16.641	51.769	81.521	1.00 29.49
ATOM	1185	CA	LEU	A	701	-17.988	52.065	81.042	1.00 29.49
ATOM	1186	CB	LEU	A	701	-17.969	53.294	80.117	1.00 25.77
ATOM	1187	CG	LEU	A	701	-17.429	54.603	80.704	1.00 25.77
ATOM	1188	CD1	LEU	A	701	-17.468	55.681	79.637	1.00 25.77
ATOM	1189	CD2	LEU	A	701	-18.250	55.015	81.924	1.00 25.77
ATOM	1190	C	LEU	A	701	-18.589	50.873	80.293	1.00 29.49
ATOM	1191	O	LEU	A	701	-19.636	51.006	79.654	1.00 29.49
ATOM	1192	N	SER	A	702	-17.931	49.715	80.385	1.00 43.88
ATOM	1193	CA	SER	A	702	-18.380	48.512	79.687	1.00 43.88
ATOM	1194	CB	SER	A	702	-17.342	47.389	79.826	1.00 29.67
ATOM	1195	OG	SER	A	702	-17.351	46.829	81.126	1.00 29.67
ATOM	1196	C	SER	A	702	-19.735	48.009	80.165	1.00 43.88
ATOM	1197	O	SER	A	702	-20.481	47.399	79.399	1.00 43.88
ATOM	1198	N	GLY	A	703	-20.052	48.271	81.427	1.00 37.99
ATOM	1199	CA	GLY	A	703	-21.318	47.827	81.977	1.00 37.99
ATOM	1200	C	GLY	A	703	-22.520	48.694	81.636	1.00 37.99
ATOM	1201	O	GLY	A	703	-23.645	48.345	82.004	1.00 37.99
ATOM	1202	N	LEU	A	704	-22.302	49.815	80.945	1.00 47.20
ATOM	1203	CA	LEU	A	704	-23.401	50.711	80.579	1.00 47.20
ATOM	1204	CB	LEU	A	704	-22.876	52.091	80.154	1.00 21.40
ATOM	1205	CG	LEU	A	704	-21.935	52.895	81.061	1.00 21.40
ATOM	1206	CD1	LEU	A	704	-22.197	54.381	80.830	1.00 21.40
ATOM	1207	CD2	LEU	A	704	-22.158	52.538	82.514	1.00 21.40
ATOM	1208	C	LEU	A	704	-24.196	50.123	79.426	1.00 47.20
ATOM	1209	O	LEU	A	704	-23.896	49.029	78.953	1.00 47.20
ATOM	1210	N	SER	A	705	-25.208	50.855	78.973	1.00 56.58
ATOM	1211	CA	SER	A	705	-26.035	50.398	77.863	1.00 56.58
ATOM	1212	CB	SER	A	705	-27.517	50.417	78.239	1.00 36.55
ATOM	1213	OG	SER	A	705	-27.995	51.746	78.355	1.00 36.55
ATOM	1214	C	SER	A	705	-25.807	51.321	76.682	1.00 56.58
ATOM	1215	O	SER	A	705	-25.169	52.366	76.819	1.00 56.58
ATOM	1216	N	ILE	A	706	-26.334	50.937	75.525	1.00 42.88
ATOM	1217	CA	ILE	A	706	-26.181	51.733	74.316	1.00 42.88
ATOM	1218	CB	ILE	A	706	-27.063	51.176	73.167	1.00 39.84
ATOM	1219	CG2	ILE	A	706	-26.938	52.065	71.938	1.00 39.84
ATOM	1220	CG1	ILE	A	706	-26.651	49.733	72.832	1.00 39.84
ATOM	1221	CD1	ILE	A	706	-26.985	48.715	73.908	1.00 39.84
ATOM	1222	C	ILE	A	706	-26.547	53.201	74.559	1.00 42.88
ATOM	1223	O	ILE	A	706	-25.794	54.104	74.191	1.00 42.88
ATOM	1224	N	GLU	A	707	-27.701	53.438	75.178	1.00 42.19
ATOM	1225	CA	GLU	A	707	-28.149	54.802	75.448	1.00 42.19
ATOM	1226	CB	GLU	A	707	-29.657	54.820	75.704	1.00 92.78
ATOM	1227	CG	GLU	A	707	-30.461	54.661	74.431	1.00 92.78
ATOM	1228	CD	GLU	A	707	-30.148	55.749	73.416	1.00 92.78
ATOM	1229	OE1	GLU	A	707	-30.431	55.550	72.216	1.00 92.78
ATOM	1230	OE2	GLU	A	707	-29.623	56.809	73.820	1.00 92.78
ATOM	1231	C	GLU	A	707	-27.407	55.465	76.606	1.00 42.19
ATOM	1232	O	GLU	A	707	-27.113	56.661	76.556	1.00 42.19
ATOM	1233	N	GLU	A	708	-27.115	54.691	77.646	1.00 48.88
ATOM	1234	CA	GLU	A	708	-26.386	55.212	78.793	1.00 48.88
ATOM	1235	CB	GLU	A	708	-26.238	54.129	79.863	1.00 56.43
ATOM	1236	CG	GLU	A	708	-27.505	53.868	80.667	1.00 56.43
ATOM	1237	CD	GLU	A	708	-27.340	52.736	81.663	1.00 56.43
ATOM	1238	OE1	GLU	A	708	-28.130	52.673	82.631	1.00 56.43
ATOM	1239	OE2	GLU	A	708	-26.428	51.902	81.475	1.00 56.43
ATOM	1240	C	GLU	A	708	-25.011	55.672	78.310	1.00 48.88

ATOM	1241	O	GLU	A	708	-24.485	56.690	78.763	1.00 48.88
ATOM	1242	N	TYR	A	709	-24.442	54.914	77.377	1.00 37.82
ATOM	1243	CA	TYR	A	709	-23.145	55.239	76.811	1.00 37.82
ATOM	1244	CB	TYR	A	709	-22.648	54.096	75.914	1.00 36.40
ATOM	1245	CG	TYR	A	709	-21.343	54.395	75.215	1.00 36.40
ATOM	1246	CD1	TYR	A	709	-20.119	54.205	75.855	1.00 36.40
ATOM	1247	CE1	TYR	A	709	-18.919	54.567	75.233	1.00 36.40
ATOM	1248	CD2	TYR	A	709	-21.337	54.944	73.934	1.00 36.40
ATOM	1249	CE2	TYR	A	709	-20.151	55.308	73.308	1.00 36.40
ATOM	1250	CZ	TYR	A	709	-18.949	55.124	73.962	1.00 36.40
ATOM	1251	OH	TYR	A	709	-17.791	55.547	73.345	1.00 36.40
ATOM	1252	C	TYR	A	709	-23.274	56.526	75.998	1.00 37.82
ATOM	1253	O	TYR	A	709	-22.419	57.410	76.077	1.00 37.82
ATOM	1254	N	LYS	A	710	-24.348	56.640	75.223	1.00 40.81
ATOM	1255	CA	LYS	A	710	-24.563	57.835	74.414	1.00 40.81
ATOM	1256	CB	LYS	A	710	-25.884	57.736	73.646	1.00 76.58
ATOM	1257	CG	LYS	A	710	-25.870	56.750	72.502	1.00 76.58
ATOM	1258	CD	LYS	A	710	-24.846	57.148	71.454	1.00 76.58
ATOM	1259	CE	LYS	A	710	-24.959	56.270	70.220	1.00 76.58
ATOM	1260	NZ	LYS	A	710	-26.316	56.375	69.608	1.00 76.58
ATOM	1261	C	LYS	A	710	-24.586	59.093	75.277	1.00 40.81
ATOM	1262	O	LYS	A	710	-23.845	60.040	75.025	1.00 40.81
ATOM	1263	N	THR	A	711	-25.449	59.089	76.290	1.00 32.01
ATOM	1264	CA	THR	A	711	-25.602	60.224	77.195	1.00 32.01
ATOM	1265	CB	THR	A	711	-26.743	59.967	78.206	1.00 38.66
ATOM	1266	OG1	THR	A	711	-27.960	59.700	77.496	1.00 38.66
ATOM	1267	CG2	THR	A	711	-26.945	61.174	79.106	1.00 38.66
ATOM	1268	C	THR	A	711	-24.321	60.542	77.965	1.00 32.01
ATOM	1269	O	THR	A	711	-23.879	61.688	78.006	1.00 32.01
ATOM	1270	N	THR	A	712	-23.726	59.523	78.575	1.00 30.51
ATOM	1271	CA	THR	A	712	-22.510	59.719	79.343	1.00 30.51
ATOM	1272	CB	THR	A	712	-21.995	58.391	79.913	1.00 23.47
ATOM	1273	OG1	THR	A	712	-22.978	57.837	80.797	1.00 23.47
ATOM	1274	CG2	THR	A	712	-20.696	58.621	80.693	1.00 23.47
ATOM	1275	C	THR	A	712	-21.384	60.390	78.552	1.00 30.51
ATOM	1276	O	THR	A	712	-20.798	61.365	79.022	1.00 30.51
ATOM	1277	N	LEU	A	713	-21.079	59.884	77.358	1.00 26.55
ATOM	1278	CA	LEU	A	713	-20.011	60.475	76.556	1.00 26.55
ATOM	1279	CB	LEU	A	713	-19.718	59.624	75.317	1.00 36.40
ATOM	1280	CG	LEU	A	713	-18.448	58.773	75.455	1.00 36.40
ATOM	1281	CD1	LEU	A	713	-17.261	59.674	75.725	1.00 36.40
ATOM	1282	CD2	LEU	A	713	-18.605	57.786	76.601	1.00 36.40
ATOM	1283	C	LEU	A	713	-20.285	61.908	76.140	1.00 26.55
ATOM	1284	O	LEU	A	713	-19.366	62.722	76.083	1.00 26.55
ATOM	1285	N	LYS	A	714	-21.543	62.214	75.836	1.00 26.88
ATOM	1286	CA	LYS	A	714	-21.931	63.567	75.442	1.00 26.88
ATOM	1287	CB	LYS	A	714	-23.435	63.605	75.156	1.00 47.82
ATOM	1288	CG	LYS	A	714	-23.995	64.961	74.759	1.00 47.82
ATOM	1289	CD	LYS	A	714	-25.521	64.897	74.693	1.00 47.82
ATOM	1290	CE	LYS	A	714	-26.151	66.251	74.390	1.00 47.82
ATOM	1291	NZ	LYS	A	714	-25.832	66.738	73.018	1.00 47.82
ATOM	1292	C	LYS	A	714	-21.588	64.513	76.601	1.00 26.88
ATOM	1293	O	LYS	A	714	-20.986	65.570	76.409	1.00 26.88
ATOM	1294	N	ILE	A	715	-21.965	64.110	77.810	1.00 20.87
ATOM	1295	CA	ILE	A	715	-21.700	64.907	78.994	1.00 20.87
ATOM	1296	CB	ILE	A	715	-22.442	64.321	80.210	1.00 30.03
ATOM	1297	CG2	ILE	A	715	-22.102	65.112	81.466	1.00 30.03
ATOM	1298	CG1	ILE	A	715	-23.952	64.369	79.951	1.00 30.03
ATOM	1299	CD1	ILE	A	715	-24.791	63.735	81.046	1.00 30.03
ATOM	1300	C	ILE	A	715	-20.189	65.001	79.285	1.00 20.87
ATOM	1301	O	ILE	A	715	-19.690	66.065	79.654	1.00 20.87
ATOM	1302	N	ILE	A	716	-19.460	63.899	79.103	1.00 21.03
ATOM	1303	CA	ILE	A	716	-18.020	63.916	79.353	1.00 21.03
ATOM	1304	CB	ILE	A	716	-17.380	62.539	79.109	1.00 18.85
ATOM	1305	CG2	ILE	A	716	-15.863	62.691	78.938	1.00 18.85
ATOM	1306	CG1	ILE	A	716	-17.692	61.613	80.284	1.00 18.85

ATOM	1307	CD1	ILE	A	716	-17.135	60.208	80.144	1.00 18.85
ATOM	1308	C	ILE	A	716	-17.323	64.945	78.474	1.00 21.03
ATOM	1309	O	ILE	A	716	-16.524	65.746	78.964	1.00 21.03
ATOM	1310	N	LYS	A	717	-17.642	64.944	77.181	1.00 13.12
ATOM	1311	CA	LYS	A	717	-17.014	65.886	76.261	1.00 13.12
ATOM	1312	CB	LYS	A	717	-17.438	65.586	74.823	1.00 26.14
ATOM	1313	CG	LYS	A	717	-16.682	66.398	73.785	1.00 26.14
ATOM	1314	CD	LYS	A	717	-16.998	65.920	72.382	1.00 26.14
ATOM	1315	CE	LYS	A	717	-15.962	66.432	71.392	1.00 26.14
ATOM	1316	NZ	LYS	A	717	-16.161	65.905	70.006	1.00 26.14
ATOM	1317	C	LYS	A	717	-17.356	67.332	76.617	1.00 13.12
ATOM	1318	O	LYS	A	717	-16.493	68.205	76.606	1.00 13.12
ATOM	1319	N	GLN	A	718	-18.623	67.584	76.925	1.00 20.26
ATOM	1320	CA	GLN	A	718	-19.052	68.929	77.288	1.00 20.26
ATOM	1321	CB	GLN	A	718	-20.574	68.959	77.483	1.00 50.56
ATOM	1322	CG	GLN	A	718	-21.355	68.749	76.185	1.00 50.56
ATOM	1323	CD	GLN	A	718	-22.871	68.735	76.375	1.00 50.56
ATOM	1324	OE1	GLN	A	718	-23.625	68.807	75.400	1.00 50.56
ATOM	1325	NE2	GLN	A	718	-23.320	68.633	77.625	1.00 50.56
ATOM	1326	C	GLN	A	718	-18.342	69.393	78.570	1.00 20.26
ATOM	1327	O	GLN	A	718	-18.003	70.572	78.716	1.00 20.26
ATOM	1328	N	ALA	A	719	-18.114	68.456	79.484	1.00 18.35
ATOM	1329	CA	ALA	A	719	-17.455	68.757	80.747	1.00 18.35
ATOM	1330	CB	ALA	A	719	-17.635	67.596	81.720	1.00 19.29
ATOM	1331	C	ALA	A	719	-15.969	69.060	80.559	1.00 18.35
ATOM	1332	O	ALA	A	719	-15.429	69.978	81.183	1.00 18.35
ATOM	1333	N	ILE	A	720	-15.306	68.292	79.701	1.00 21.97
ATOM	1334	CA	ILE	A	720	-13.893	68.516	79.457	1.00 21.97
ATOM	1335	CB	ILE	A	720	-13.278	67.327	78.691	1.00 18.61
ATOM	1336	CG2	ILE	A	720	-11.868	67.662	78.228	1.00 18.61
ATOM	1337	CG1	ILE	A	720	-13.258	66.103	79.608	1.00 18.61
ATOM	1338	CD1	ILE	A	720	-12.695	64.858	78.981	1.00 18.61
ATOM	1339	C	ILE	A	720	-13.694	69.823	78.692	1.00 21.97
ATOM	1340	O	ILE	A	720	-12.825	70.627	79.043	1.00 21.97
ATOM	1341	N	LEU	A	721	-14.514	70.055	77.671	1.00 17.93
ATOM	1342	CA	LEU	A	721	-14.398	71.279	76.888	1.00 17.93
ATOM	1343	CB	LEU	A	721	-15.336	71.248	75.679	1.00 26.23
ATOM	1344	CG	LEU	A	721	-14.971	70.247	74.578	1.00 26.23
ATOM	1345	CD1	LEU	A	721	-15.887	70.486	73.385	1.00 26.23
ATOM	1346	CD2	LEU	A	721	-13.509	70.406	74.168	1.00 26.23
ATOM	1347	C	LEU	A	721	-14.689	72.516	77.724	1.00 17.93
ATOM	1348	O	LEU	A	721	-14.147	73.587	77.454	1.00 17.93
ATOM	1349	N	ALA	A	722	-15.544	72.385	78.734	1.00 24.77
ATOM	1350	CA	ALA	A	722	-15.851	73.535	79.589	1.00 24.77
ATOM	1351	CB	ALA	A	722	-16.967	73.183	80.558	1.00 21.60
ATOM	1352	C	ALA	A	722	-14.605	74.001	80.367	1.00 24.77
ATOM	1353	O	ALA	A	722	-14.555	75.122	80.884	1.00 24.77
ATOM	1354	N	THR	A	723	-13.608	73.125	80.428	1.00 25.44
ATOM	1355	CA	THR	A	723	-12.349	73.372	81.120	1.00 25.44
ATOM	1356	CB	THR	A	723	-11.551	72.054	81.220	1.00 30.70
ATOM	1357	OG1	THR	A	723	-12.026	71.313	82.348	1.00 30.70
ATOM	1358	CG2	THR	A	723	-10.065	72.312	81.346	1.00 30.70
ATOM	1359	C	THR	A	723	-11.489	74.452	80.455	1.00 25.44
ATOM	1360	O	THR	A	723	-10.480	74.893	81.014	1.00 25.44
ATOM	1361	N	ASP	A	724	-11.880	74.859	79.254	1.00 29.11
ATOM	1362	CA	ASP	A	724	-11.170	75.910	78.536	1.00 29.11
ATOM	1363	CB	ASP	A	724	-11.478	75.794	77.036	1.00 54.34
ATOM	1364	CG	ASP	A	724	-11.028	77.006	76.240	1.00 54.34
ATOM	1365	OD1	ASP	A	724	-10.165	77.772	76.729	1.00 54.34
ATOM	1366	OD2	ASP	A	724	-11.537	77.181	75.109	1.00 54.34
ATOM	1367	C	ASP	A	724	-11.678	77.235	79.118	1.00 29.11
ATOM	1368	O	ASP	A	724	-12.832	77.612	78.911	1.00 29.11
ATOM	1369	N	LEU	A	725	-10.823	77.922	79.870	1.00 28.25
ATOM	1370	CA	LEU	A	725	-11.196	79.184	80.507	1.00 28.25
ATOM	1371	CB	LEU	A	725	-9.970	79.873	81.097	1.00 43.59
ATOM	1372	CG	LEU	A	725	-9.916	79.961	82.622	1.00 43.59

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ATOM   1373  CD1 LEU A 725      -8.791  80.907  83.008  1.00 43.59
ATOM   1374  CD2 LEU A 725     -11.240  80.458  83.176  1.00 43.59
ATOM   1375  C   LEU A 725     -11.918  80.174  79.607  1.00 28.25
ATOM   1376  O   LEU A 725     -12.784  80.917  80.067  1.00 28.25
ATOM   1377  N   ALA A 726     -11.558  80.194  78.330  1.00 33.48
ATOM   1378  CA  ALA A 726     -12.196  81.113  77.394  1.00 33.48
ATOM   1379  CB  ALA A 726     -11.499  81.055  76.029  1.00 36.22
ATOM   1380  C   ALA A 726     -13.665  80.737  77.254  1.00 33.48
ATOM   1381  O   ALA A 726     -14.541  81.601  77.222  1.00 33.48
ATOM   1382  N   LEU A 727     -13.934  79.440  77.174  1.00 29.75
ATOM   1383  CA  LEU A 727     -15.305  78.983  77.044  1.00 29.75
ATOM   1384  CB  LEU A 727     -15.347  77.469  76.828  1.00 29.30
ATOM   1385  CG  LEU A 727     -16.734  76.854  76.620  1.00 29.30
ATOM   1386  CD1 LEU A 727     -17.488  77.651  75.551  1.00 29.30
ATOM   1387  CD2 LEU A 727     -16.597  75.396  76.217  1.00 29.30
ATOM   1388  C   LEU A 727     -16.086  79.363  78.298  1.00 29.75
ATOM   1389  O   LEU A 727     -17.286  79.610  78.235  1.00 29.75
ATOM   1390  N   TYR A 728     -15.399  79.426  79.436  1.00 26.39
ATOM   1391  CA  TYR A 728     -16.054  79.779  80.691  1.00 26.39
ATOM   1392  CB  TYR A 728     -15.174  79.388  81.881  1.00 19.63
ATOM   1393  CG  TYR A 728     -15.573  80.089  83.167  1.00 19.63
ATOM   1394  CD1 TYR A 728     -14.828  81.162  83.660  1.00 19.63
ATOM   1395  CE1 TYR A 728     -15.228  81.862  84.797  1.00 19.63
ATOM   1396  CD2 TYR A 728     -16.731  79.727  83.846  1.00 19.63
ATOM   1397  CE2 TYR A 728     -17.146  80.421  84.990  1.00 19.63
ATOM   1398  CZ  TYR A 728     -16.393  81.485  85.456  1.00 19.63
ATOM   1399  OH  TYR A 728     -16.819  82.184  86.565  1.00 19.63
ATOM   1400  C   TYR A 728     -16.410  81.271  80.772  1.00 26.39
ATOM   1401  O   TYR A 728     -17.528  81.635  81.152  1.00 26.39
ATOM   1402  N   ILE A 729     -15.460  82.132  80.420  1.00 34.58
ATOM   1403  CA  ILE A 729     -15.696  83.571  80.464  1.00 34.58
ATOM   1404  CB  ILE A 729     -14.402  84.349  80.100  1.00 32.25
ATOM   1405  CG2 ILE A 729     -14.714  85.825  79.835  1.00 32.25
ATOM   1406  CG1 ILE A 729     -13.393  84.216  81.242  1.00 32.25
ATOM   1407  CD1 ILE A 729     -12.087  84.920  80.984  1.00 32.25
ATOM   1408  C   ILE A 729     -16.829  83.940  79.500  1.00 34.58
ATOM   1409  O   ILE A 729     -17.616  84.854  79.756  1.00 34.58
ATOM   1410  N   LYS A 730     -16.925  83.197  78.405  1.00 32.56
ATOM   1411  CA  LYS A 730     -17.949  83.453  77.417  1.00 32.56
ATOM   1412  CB  LYS A 730     -17.596  82.733  76.117  1.00 72.43
ATOM   1413  CG  LYS A 730     -18.425  83.171  74.925  1.00 72.43
ATOM   1414  CD  LYS A 730     -17.795  82.719  73.613  1.00 72.43
ATOM   1415  CE  LYS A 730     -17.781  81.209  73.492  1.00 72.43
ATOM   1416  NZ  LYS A 730     -19.162  80.652  73.513  1.00 72.43
ATOM   1417  C   LYS A 730     -19.351  83.049  77.872  1.00 32.56
ATOM   1418  O   LYS A 730     -20.323  83.711  77.520  1.00 32.56
ATOM   1419  N   ARG A 731     -19.460  81.989  78.672  1.00 29.67
ATOM   1420  CA  ARG A 731     -20.771  81.509  79.105  1.00 29.67
ATOM   1421  CB  ARG A 731     -20.830  79.981  79.002  1.00 48.24
ATOM   1422  CG  ARG A 731     -20.479  79.406  77.640  1.00 48.24
ATOM   1423  CD  ARG A 731     -21.191  78.084  77.427  1.00 48.24
ATOM   1424  NE  ARG A 731     -22.622  78.293  77.210  1.00 48.24
ATOM   1425  CZ  ARG A 731     -23.559  77.360  77.370  1.00 48.24
ATOM   1426  NH1 ARG A 731     -23.226  76.133  77.755  1.00 48.24
ATOM   1427  NH2 ARG A 731     -24.833  77.661  77.146  1.00 48.24
ATOM   1428  C   ARG A 731     -21.243  81.908  80.497  1.00 29.67
ATOM   1429  O   ARG A 731     -22.437  81.813  80.799  1.00 29.67
ATOM   1430  N   ARG A 732     -20.323  82.345  81.347  1.00 21.81
ATOM   1431  CA  ARG A 732     -20.686  82.713  82.706  1.00 21.81
ATOM   1432  CB  ARG A 732     -19.446  83.148  83.481  1.00 35.79
ATOM   1433  CG  ARG A 732     -18.803  84.404  82.940  1.00 35.79
ATOM   1434  CD  ARG A 732     -17.546  84.706  83.713  1.00 35.79
ATOM   1435  NE  ARG A 732     -16.989  86.004  83.366  1.00 35.79
ATOM   1436  CZ  ARG A 732     -16.038  86.606  84.073  1.00 35.79
ATOM   1437  NH1 ARG A 732     -15.554  86.014  85.155  1.00 35.79
ATOM   1438  NH2 ARG A 732     -15.578  87.795  83.704  1.00 35.79
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ATOM   1439  C   ARG A 732     -21.736  83.816  82.791  1.00 21.81
ATOM   1440  O   ARG A 732     -22.535  83.838  83.730  1.00 21.81
ATOM   1441  N   GLY A 733     -21.734  84.729  81.824  1.00 28.82
ATOM   1442  CA  GLY A 733     -22.688  85.829  81.844  1.00 28.82
ATOM   1443  C   GLY A 733     -24.123  85.351  81.898  1.00 28.82
ATOM   1444  O   GLY A 733     -24.933  85.844  82.680  1.00 28.82
ATOM   1445  N   GLU A 734     -24.428  84.370  81.057  1.00 31.97
ATOM   1446  CA  GLU A 734     -25.760  83.798  80.983  1.00 31.97
ATOM   1447  CB  GLU A 734     -25.794  82.759  79.863  1.00 48.08
ATOM   1448  CG  GLU A 734     -27.079  81.963  79.760  1.00 48.08
ATOM   1449  CD  GLU A 734     -27.078  81.046  78.556  1.00 48.08
ATOM   1450  OE1 GLU A 734     -26.000  80.515  78.214  1.00 48.08
ATOM   1451  OE2 GLU A 734     -28.155  80.848  77.958  1.00 48.08
ATOM   1452  C   GLU A 734     -26.144  83.171  82.316  1.00 31.97
ATOM   1453  O   GLU A 734     -27.249  83.379  82.815  1.00 31.97
ATOM   1454  N   PHE A 735     -25.212  82.417  82.896  1.00 25.48
ATOM   1455  CA  PHE A 735     -25.413  81.737  84.178  1.00 25.48
ATOM   1456  CB  PHE A 735     -24.167  80.906  84.513  1.00 30.05
ATOM   1457  CG  PHE A 735     -24.264  80.134  85.804  1.00 30.05
ATOM   1458  CD1 PHE A 735     -25.328  79.261  86.036  1.00 30.05
ATOM   1459  CD2 PHE A 735     -23.255  80.229  86.759  1.00 30.05
ATOM   1460  CE1 PHE A 735     -25.381  78.492  87.195  1.00 30.05
ATOM   1461  CE2 PHE A 735     -23.295  79.462  87.927  1.00 30.05
ATOM   1462  CZ  PHE A 735     -24.362  78.590  88.144  1.00 30.05
ATOM   1463  C   PHE A 735     -25.687  82.722  85.312  1.00 25.48
ATOM   1464  O   PHE A 735     -26.640  82.561  86.080  1.00 25.48
ATOM   1465  N   PHE A 736     -24.839  83.739  85.416  1.00 29.36
ATOM   1466  CA  PHE A 736     -24.978  84.745  86.462  1.00 29.36
ATOM   1467  CB  PHE A 736     -23.791  85.720  86.391  1.00 28.05
ATOM   1468  CG  PHE A 736     -22.460  85.072  86.696  1.00 28.05
ATOM   1469  CD1 PHE A 736     -21.264  85.704  86.358  1.00 28.05
ATOM   1470  CD2 PHE A 736     -22.403  83.831  87.327  1.00 28.05
ATOM   1471  CE1 PHE A 736     -20.030  85.105  86.644  1.00 28.05
ATOM   1472  CE2 PHE A 736     -21.177  83.226  87.617  1.00 28.05
ATOM   1473  CZ  PHE A 736     -19.991  83.863  87.276  1.00 28.05
ATOM   1474  C   PHE A 736     -26.317  85.490  86.386  1.00 29.36
ATOM   1475  O   PHE A 736     -26.918  85.784  87.417  1.00 29.36
ATOM   1476  N   GLU A 737     -26.780  85.779  85.172  1.00 37.36
ATOM   1477  CA  GLU A 737     -28.055  86.467  84.972  1.00 37.36
ATOM   1478  CB  GLU A 737     -28.287  86.751  83.485  1.00 87.32
ATOM   1479  CG  GLU A 737     -27.452  87.892  82.931  1.00 87.32
ATOM   1480  CD  GLU A 737     -27.728  89.206  83.637  1.00 87.32
ATOM   1481  OE1 GLU A 737     -28.905  89.626  83.669  1.00 87.32
ATOM   1482  OE2 GLU A 737     -26.773  89.819  84.159  1.00 87.32
ATOM   1483  C   GLU A 737     -29.215  85.639  85.516  1.00 37.36
ATOM   1484  O   GLU A 737     -30.014  86.131  86.318  1.00 37.36
ATOM   1485  N   LEU A 738     -29.312  84.387  85.075  1.00 32.89
ATOM   1486  CA  LEU A 738     -30.377  83.504  85.545  1.00 32.89
ATOM   1487  CB  LEU A 738     -30.150  82.084  85.040  1.00 36.09
ATOM   1488  CG  LEU A 738     -30.176  81.895  83.529  1.00 36.09
ATOM   1489  CD1 LEU A 738     -29.663  80.505  83.180  1.00 36.09
ATOM   1490  CD2 LEU A 738     -31.593  82.097  83.024  1.00 36.09
ATOM   1491  C   LEU A 738     -30.405  83.487  87.066  1.00 32.89
ATOM   1492  O   LEU A 738     -31.471  83.507  87.678  1.00 32.89
ATOM   1493  N   ILE A 739     -29.219  83.454  87.664  1.00 51.42
ATOM   1494  CA  ILE A 739     -29.068  83.434  89.113  1.00 51.42
ATOM   1495  CB  ILE A 739     -27.579  83.336  89.514  1.00 36.92
ATOM   1496  CG2 ILE A 739     -27.435  83.469  91.015  1.00 36.92
ATOM   1497  CG1 ILE A 739     -26.989  82.011  89.042  1.00 36.92
ATOM   1498  CD1 ILE A 739     -27.611  80.795  89.695  1.00 36.92
ATOM   1499  C   ILE A 739     -29.650  84.681  89.777  1.00 51.42
ATOM   1500  O   ILE A 739     -30.564  84.584  90.597  1.00 51.42
ATOM   1501  N   ARG A 740     -29.111  85.848  89.432  1.00 39.52
ATOM   1502  CA  ARG A 740     -29.576  87.101  90.015  1.00 39.52
ATOM   1503  CB  ARG A 740     -28.639  88.260  89.618  1.00 53.91
ATOM   1504  CG  ARG A 740     -28.265  88.326  88.143  1.00 53.91
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ATOM   1505  CD  ARG A 740     -27.211  89.412  87.835  1.00 53.91
ATOM   1506  NE  ARG A 740     -25.863  89.082  88.310  1.00 53.91
ATOM   1507  CZ  ARG A 740     -24.747  89.318  87.618  1.00 53.91
ATOM   1508  NH1 ARG A 740     -24.813  89.882  86.418  1.00 53.91
ATOM   1509  NH2 ARG A 740     -23.561  88.994  88.123  1.00 53.91
ATOM   1510  C   ARG A 740     -31.036  87.422  89.673  1.00 39.52
ATOM   1511  O   ARG A 740     -31.731  88.055  90.468  1.00 39.52
ATOM   1512  N   LYS A 741     -31.503  86.984  88.506  1.00 47.42
ATOM   1513  CA  LYS A 741     -32.899  87.204  88.121  1.00 47.42
ATOM   1514  CB  LYS A 741     -33.096  87.034  86.608  1.00 43.06
ATOM   1515  CG  LYS A 741     -32.870  88.291  85.774  1.00 43.06
ATOM   1516  CD  LYS A 741     -33.442  88.099  84.372  1.00 43.06
ATOM   1517  CE  LYS A 741     -33.280  89.338  83.508  1.00 43.06
ATOM   1518  NZ  LYS A 741     -31.851  89.651  83.206  1.00 43.06
ATOM   1519  C   LYS A 741     -33.773  86.184  88.855  1.00 47.42
ATOM   1520  O   LYS A 741     -35.004  86.237  88.794  1.00 47.42
ATOM   1521  N   ASN A 742     -33.117  85.254  89.546  1.00 34.78
ATOM   1522  CA  ASN A 742     -33.791  84.207  90.301  1.00 34.78
ATOM   1523  CB  ASN A 742     -34.679  84.825  91.382  1.00 55.72
ATOM   1524  CG  ASN A 742     -34.984  83.856  92.508  1.00 55.72
ATOM   1525  OD1 ASN A 742     -35.738  84.173  93.428  1.00 55.72
ATOM   1526  ND2 ASN A 742     -34.394  82.666  92.443  1.00 55.72
ATOM   1527  C   ASN A 742     -34.625  83.307  89.386  1.00 34.78
ATOM   1528  O   ASN A 742     -35.705  82.850  89.754  1.00 34.78
ATOM   1529  N   GLN A 743     -34.107  83.043  88.194  1.00 52.98
ATOM   1530  CA  GLN A 743     -34.810  82.206  87.236  1.00 52.98
ATOM   1531  CB  GLN A 743     -35.013  82.969  85.930  1.00100.00
ATOM   1532  CG  GLN A 743     -35.934  84.165  86.048  1.00100.00
ATOM   1533  CD  GLN A 743     -35.979  84.986  84.778  1.00100.00
ATOM   1534  OE1 GLN A 743     -36.807  85.886  84.634  1.00100.00
ATOM   1535  NE2 GLN A 743     -35.078  84.685  83.847  1.00100.00
ATOM   1536  C   GLN A 743     -34.062  80.914  86.950  1.00 52.98
ATOM   1537  O   GLN A 743     -34.415  80.180  86.028  1.00 52.98
ATOM   1538  N   PHE A 744     -33.034  80.627  87.740  1.00 34.02
ATOM   1539  CA  PHE A 744     -32.252  79.416  87.523  1.00 34.02
ATOM   1540  CB  PHE A 744     -30.950  79.457  88.321  1.00 45.42
ATOM   1541  CG  PHE A 744     -30.062  78.286  88.061  1.00 45.42
ATOM   1542  CD1 PHE A 744     -29.566  78.051  86.787  1.00 45.42
ATOM   1543  CD2 PHE A 744     -29.758  77.388  89.074  1.00 45.42
ATOM   1544  CE1 PHE A 744     -28.781  76.933  86.525  1.00 45.42
ATOM   1545  CE2 PHE A 744     -28.972  76.266  88.819  1.00 45.42
ATOM   1546  CZ  PHE A 744     -28.485  76.040  87.543  1.00 45.42
ATOM   1547  C   PHE A 744     -33.038  78.163  87.889  1.00 34.02
ATOM   1548  O   PHE A 744     -33.352  77.927  89.055  1.00 34.02
ATOM   1549  N   ASN A 745     -33.333  77.352  86.879  1.00 40.34
ATOM   1550  CA  ASN A 745     -34.103  76.129  87.065  1.00 40.34
ATOM   1551  CB  ASN A 745     -35.490  76.307  86.441  1.00 50.66
ATOM   1552  CG  ASN A 745     -36.317  75.046  86.495  1.00 50.66
ATOM   1553  OD1 ASN A 745     -36.448  74.419  87.548  1.00 50.66
ATOM   1554  ND2 ASN A 745     -36.888  74.669  85.358  1.00 50.66
ATOM   1555  C   ASN A 745     -33.405  74.921  86.447  1.00 40.34
ATOM   1556  O   ASN A 745     -33.335  74.789  85.223  1.00 40.34
ATOM   1557  N   LEU A 746     -32.909  74.033  87.302  1.00 35.75
ATOM   1558  CA  LEU A 746     -32.196  72.848  86.846  1.00 35.75
ATOM   1559  CB  LEU A 746     -31.593  72.109  88.036  1.00 37.37
ATOM   1560  CG  LEU A 746     -30.332  72.779  88.590  1.00 37.37
ATOM   1561  CD1 LEU A 746     -29.799  71.997  89.783  1.00 37.37
ATOM   1562  CD2 LEU A 746     -29.286  72.846  87.486  1.00 37.37
ATOM   1563  C   LEU A 746     -33.010  71.882  86.004  1.00 35.75
ATOM   1564  O   LEU A 746     -32.442  71.004  85.348  1.00 35.75
ATOM   1565  N   GLU A 747     -34.331  72.043  86.006  1.00 59.45
ATOM   1566  CA  GLU A 747     -35.192  71.164  85.218  1.00 59.45
ATOM   1567  CB  GLU A 747     -36.645  71.264  85.686  1.00 75.29
ATOM   1568  CG  GLU A 747     -36.883  70.697  87.071  1.00 75.29
ATOM   1569  CD  GLU A 747     -38.353  70.473  87.360  1.00 75.29
ATOM   1570  OE1 GLU A 747     -39.128  71.453  87.320  1.00 75.29
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ATOM   1571  OE2 GLU A 747     -38.734  69.310  87.624  1.00 75.29
ATOM   1572  C   GLU A 747     -35.103  71.464  83.724  1.00 59.45
ATOM   1573  O   GLU A 747     -35.515  70.648  82.898  1.00 59.45
ATOM   1574  N   ASP A 748     -34.573  72.636  83.381  1.00 55.11
ATOM   1575  CA  ASP A 748     -34.396  73.023  81.981  1.00 55.11
ATOM   1576  CB  ASP A 748     -34.296  74.548  81.853  1.00 62.63
ATOM   1577  CG  ASP A 748     -34.092  75.007  80.415  1.00 62.63
ATOM   1578  OD1 ASP A 748     -33.130  74.547  79.765  1.00 62.63
ATOM   1579  OD2 ASP A 748     -34.892  75.836  79.934  1.00 62.63
ATOM   1580  C   ASP A 748     -33.086  72.377  81.526  1.00 55.11
ATOM   1581  O   ASP A 748     -32.019  72.692  82.056  1.00 55.11
ATOM   1582  N   PRO A 749     -33.149  71.476  80.531  1.00 57.82
ATOM   1583  CD  PRO A 749     -34.326  71.206  79.687  1.00 51.81
ATOM   1584  CA  PRO A 749     -31.968  70.776  80.006  1.00 57.82
ATOM   1585  CB  PRO A 749     -32.541  69.944  78.858  1.00 51.81
ATOM   1586  CG  PRO A 749     -33.688  70.781  78.382  1.00 51.81
ATOM   1587  C   PRO A 749     -30.797  71.656  79.567  1.00 57.82
ATOM   1588  O   PRO A 749     -29.645  71.217  79.601  1.00 57.82
ATOM   1589  N   HIS A 750     -31.082  72.888  79.155  1.00 49.28
ATOM   1590  CA  HIS A 750     -30.026  73.799  78.719  1.00 49.28
ATOM   1591  CB  HIS A 750     -30.602  74.934  77.866  1.00 58.30
ATOM   1592  CG  HIS A 750     -29.604  76.000  77.530  1.00 58.30
ATOM   1593  CD2 HIS A 750     -29.553  77.312  77.866  1.00 58.30
ATOM   1594  ND1 HIS A 750     -28.476  75.755  76.775  1.00 58.30
ATOM   1595  CE1 HIS A 750     -27.774  76.870  76.661  1.00 58.30
ATOM   1596  NE2 HIS A 750     -28.405  77.829  77.314  1.00 58.30
ATOM   1597  C   HIS A 750     -29.291  74.397  79.913  1.00 49.28
ATOM   1598  O   HIS A 750     -28.064  74.519  79.905  1.00 49.28
ATOM   1599  N   GLU A 751     -30.050  74.777  80.933  1.00 42.45
ATOM   1600  CA  GLU A 751     -29.474  75.361  82.130  1.00 42.45
ATOM   1601  CB  GLU A 751     -30.577  76.020  82.972  1.00 41.12
ATOM   1602  CG  GLU A 751     -31.398  77.028  82.170  1.00 41.12
ATOM   1603  CD  GLU A 751     -32.431  77.759  82.998  1.00 41.12
ATOM   1604  OE1 GLU A 751     -33.385  78.311  82.405  1.00 41.12
ATOM   1605  OE2 GLU A 751     -32.289  77.797  84.235  1.00 41.12
ATOM   1606  C   GLU A 751     -28.734  74.292  82.928  1.00 42.45
ATOM   1607  O   GLU A 751     -27.707  74.575  83.547  1.00 42.45
ATOM   1608  N   LYS A 752     -29.248  73.065  82.915  1.00 31.62
ATOM   1609  CA  LYS A 752     -28.584  71.975  83.618  1.00 31.62
ATOM   1610  CB  LYS A 752     -29.360  70.663  83.460  1.00 38.73
ATOM   1611  CG  LYS A 752     -28.594  69.418  83.904  1.00 38.73
ATOM   1612  CD  LYS A 752     -28.344  69.396  85.408  1.00 38.73
ATOM   1613  CE  LYS A 752     -29.606  69.034  86.184  1.00 38.73
ATOM   1614  NZ  LYS A 752     -30.099  67.664  85.850  1.00 38.73
ATOM   1615  C   LYS A 752     -27.197  71.833  82.998  1.00 31.62
ATOM   1616  O   LYS A 752     -26.205  71.697  83.710  1.00 31.62
ATOM   1617  N   GLU A 753     -27.141  71.890  81.668  1.00 33.92
ATOM   1618  CA  GLU A 753     -25.881  71.777  80.932  1.00 33.92
ATOM   1619  CB  GLU A 753     -26.155  71.727  79.428  1.00 70.09
ATOM   1620  CG  GLU A 753     -24.912  71.808  78.561  1.00 70.09
ATOM   1621  CD  GLU A 753     -25.246  71.903  77.088  1.00 70.09
ATOM   1622  OE1 GLU A 753     -25.832  70.941  76.552  1.00 70.09
ATOM   1623  OE2 GLU A 753     -24.929  72.940  76.465  1.00 70.09
ATOM   1624  C   GLU A 753     -24.958  72.958  81.254  1.00 33.92
ATOM   1625  O   GLU A 753     -23.746  72.790  81.426  1.00 33.92
ATOM   1626  N   LEU A 754     -25.539  74.153  81.324  1.00 18.65
ATOM   1627  CA  LEU A 754     -24.781  75.349  81.643  1.00 18.65
ATOM   1628  CB  LEU A 754     -25.695  76.572  81.565  1.00 27.25
ATOM   1629  CG  LEU A 754     -25.147  77.932  81.998  1.00 27.25
ATOM   1630  CD1 LEU A 754     -23.814  78.230  81.310  1.00 27.25
ATOM   1631  CD2 LEU A 754     -26.175  79.000  81.665  1.00 27.25
ATOM   1632  C   LEU A 754     -24.196  75.201  83.051  1.00 18.65
ATOM   1633  O   LEU A 754     -23.054  75.568  83.303  1.00 18.65
ATOM   1634  N   PHE A 755     -24.989  74.646  83.960  1.00 28.34
ATOM   1635  CA  PHE A 755     -24.546  74.458  85.331  1.00 28.34
ATOM   1636  CB  PHE A 755     -25.705  73.969  86.194  1.00 21.54
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ATOM   1637  CG  PHE A 755     -25.300  73.574  87.578  1.00 21.54
ATOM   1638  CD1 PHE A 755     -24.840  74.523  88.481  1.00 21.54
ATOM   1639  CD2 PHE A 755     -25.375  72.250  87.986  1.00 21.54
ATOM   1640  CE1 PHE A 755     -24.465  74.158  89.765  1.00 21.54
ATOM   1641  CE2 PHE A 755     -24.999  71.881  89.275  1.00 21.54
ATOM   1642  CZ  PHE A 755     -24.544  72.837  90.166  1.00 21.54
ATOM   1643  C   PHE A 755     -23.391  73.462  85.416  1.00 28.34
ATOM   1644  O   PHE A 755     -22.423  73.697  86.123  1.00 28.34
ATOM   1645  N   LEU A 756     -23.511  72.349  84.702  1.00 23.60
ATOM   1646  CA  LEU A 756     -22.475  71.322  84.704  1.00 23.60
ATOM   1647  CB  LEU A 756     -22.877  70.161  83.789  1.00 21.30
ATOM   1648  CG  LEU A 756     -24.122  69.362  84.185  1.00 21.30
ATOM   1649  CD1 LEU A 756     -24.349  68.241  83.161  1.00 21.30
ATOM   1650  CD2 LEU A 756     -23.945  68.782  85.570  1.00 21.30
ATOM   1651  C   LEU A 756     -21.128  71.886  84.262  1.00 23.60
ATOM   1652  O   LEU A 756     -20.081  71.510  84.794  1.00 23.60
ATOM   1653  N   ALA A 757     -21.159  72.786  83.284  1.00 23.35
ATOM   1654  CA  ALA A 757     -19.938  73.417  82.783  1.00 23.35
ATOM   1655  CB  ALA A 757     -20.224  74.167  81.485  1.00 15.17
ATOM   1656  C   ALA A 757     -19.379  74.380  83.829  1.00 23.35
ATOM   1657  O   ALA A 757     -18.163  74.458  84.026  1.00 23.35
ATOM   1658  N   MET A 758     -20.266  75.123  84.487  1.00 19.71
ATOM   1659  CA  MET A 758     -19.847  76.069  85.523  1.00 19.71
ATOM   1660  CB  MET A 758     -21.039  76.912  86.004  1.00 25.07
ATOM   1661  CG  MET A 758     -21.665  77.802  84.947  1.00 25.07
ATOM   1662  SD  MET A 758     -20.611  79.183  84.516  1.00 25.07
ATOM   1663  CE  MET A 758     -20.010  78.682  82.888  1.00 25.07
ATOM   1664  C   MET A 758     -19.268  75.296  86.715  1.00 19.71
ATOM   1665  O   MET A 758     -18.316  75.737  87.355  1.00 19.71
ATOM   1666  N   LEU A 759     -19.860  74.145  87.011  1.00 17.86
ATOM   1667  CA  LEU A 759     -19.413  73.307  88.116  1.00 17.86
ATOM   1668  CB  LEU A 759     -20.396  72.162  88.315  1.00 14.81
ATOM   1669  CG  LEU A 759     -20.068  71.165  89.411  1.00 14.81
ATOM   1670  CD1 LEU A 759     -20.148  71.824  90.787  1.00 14.81
ATOM   1671  CD2 LEU A 759     -21.055  70.014  89.308  1.00 14.81
ATOM   1672  C   LEU A 759     -18.014  72.755  87.826  1.00 17.86
ATOM   1673  O   LEU A 759     -17.199  72.606  88.739  1.00 17.86
ATOM   1674  N   MET A 760     -17.745  72.449  86.557  1.00 20.61
ATOM   1675  CA  MET A 760     -16.432  71.939  86.159  1.00 20.61
ATOM   1676  CB  MET A 760     -16.407  71.567  84.671  1.00 18.24
ATOM   1677  CG  MET A 760     -17.025  70.213  84.346  1.00 18.24
ATOM   1678  SD  MET A 760     -16.199  68.833  85.185  1.00 18.24
ATOM   1679  CE  MET A 760     -14.605  68.796  84.348  1.00 18.24
ATOM   1680  C   MET A 760     -15.358  72.991  86.418  1.00 20.61
ATOM   1681  O   MET A 760     -14.281  72.691  86.939  1.00 20.61
ATOM   1682  N   THR A 761     -15.652  74.228  86.045  1.00 19.44
ATOM   1683  CA  THR A 761     -14.706  75.312  86.247  1.00 19.44
ATOM   1684  CB  THR A 761     -15.196  76.568  85.523  1.00 22.45
ATOM   1685  OG1 THR A 761     -15.182  76.312  84.112  1.00 22.45
ATOM   1686  CG2 THR A 761     -14.309  77.775  85.845  1.00 22.45
ATOM   1687  C   THR A 761     -14.516  75.561  87.751  1.00 19.44
ATOM   1688  O   THR A 761     -13.395  75.770  88.211  1.00 19.44
ATOM   1689  N   ALA A 762     -15.603  75.500  88.516  1.00 13.78
ATOM   1690  CA  ALA A 762     -15.518  75.692  89.963  1.00 13.78
ATOM   1691  CB  ALA A 762     -16.886  75.524  90.605  1.00 17.79
ATOM   1692  C   ALA A 762     -14.536  74.687  90.568  1.00 13.78
ATOM   1693  O   ALA A 762     -13.686  75.059  91.382  1.00 13.78
ATOM   1694  N   CYS A 763     -14.645  73.420  90.168  1.00 18.12
ATOM   1695  CA  CYS A 763     -13.743  72.397  90.682  1.00 18.12
ATOM   1696  CB  CYS A 763     -14.268  70.998  90.339  1.00 24.60
ATOM   1697  SG  CYS A 763     -15.848  70.600  91.151  1.00 24.60
ATOM   1698  C   CYS A 763     -12.323  72.581  90.130  1.00 18.12
ATOM   1699  O   CYS A 763     -11.342  72.429  90.860  1.00 18.12
ATOM   1700  N   ASP A 764     -12.227  72.918  88.847  1.00 18.33
ATOM   1701  CA  ASP A 764     -10.942  73.133  88.177  1.00 18.33
ATOM   1702  CB  ASP A 764     -11.177  73.600  86.734  1.00 23.01
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ATOM   1703  CG  ASP A 764      -9.966  73.372  85.829  1.00 23.01
ATOM   1704  OD1 ASP A 764      -9.995  73.822  84.667  1.00 23.01
ATOM   1705  OD2 ASP A 764      -8.991  72.734  86.265  1.00 23.01
ATOM   1706  C   ASP A 764     -10.084  74.183  88.892  1.00 18.33
ATOM   1707  O   ASP A 764      -8.877  74.008  89.056  1.00 18.33
ATOM   1708  N   LEU A 765     -10.723  75.277  89.297  1.00 16.13
ATOM   1709  CA  LEU A 765     -10.045  76.377  89.973  1.00 16.13
ATOM   1710  CB  LEU A 765     -10.677  77.716  89.547  1.00 14.49
ATOM   1711  CG  LEU A 765     -10.827  77.991  88.052  1.00 14.49
ATOM   1712  CD1 LEU A 765     -11.362  79.411  87.842  1.00 14.49
ATOM   1713  CD2 LEU A 765      -9.467  77.807  87.354  1.00 14.49
ATOM   1714  C   LEU A 765     -10.093  76.279  91.497  1.00 16.13
ATOM   1715  O   LEU A 765      -9.600  77.175  92.189  1.00 16.13
ATOM   1716  N   SER A 766     -10.661  75.193  92.015  1.00 21.27
ATOM   1717  CA  SER A 766     -10.813  75.008  93.458  1.00 21.27
ATOM   1718  CB  SER A 766     -11.396  73.619  93.747  1.00 19.72
ATOM   1719  OG  SER A 766     -10.483  72.597  93.399  1.00 19.72
ATOM   1720  C   SER A 766      -9.592  75.245  94.361  1.00 21.27
ATOM   1721  O   SER A 766      -9.755  75.557  95.541  1.00 21.27
ATOM   1722  N   ALA A 767      -8.380  75.094  93.834  1.00 22.31
ATOM   1723  CA  ALA A 767      -7.179  75.324  94.648  1.00 22.31
ATOM   1724  CB  ALA A 767      -5.916  75.124  93.799  1.00 15.71
ATOM   1725  C   ALA A 767      -7.204  76.741  95.223  1.00 22.31
ATOM   1726  O   ALA A 767      -6.615  77.015  96.266  1.00 22.31
ATOM   1727  N   ILE A 768      -7.908  77.632  94.534  1.00 22.92
ATOM   1728  CA  ILE A 768      -8.031  79.021  94.937  1.00 22.92
ATOM   1729  CB  ILE A 768      -8.601  79.885  93.762  1.00 15.85
ATOM   1730  CG2 ILE A 768     -10.095  79.655  93.609  1.00 15.85
ATOM   1731  CG1 ILE A 768      -8.347  81.367  94.022  1.00 15.85
ATOM   1732  CD1 ILE A 768      -6.876  81.723  94.050  1.00 15.85
ATOM   1733  C   ILE A 768      -8.934  79.186  96.159  1.00 22.92
ATOM   1734  O   ILE A 768      -9.035  80.279  96.711  1.00 22.92
ATOM   1735  N   THR A 769      -9.578  78.104  96.591  1.00 22.39
ATOM   1736  CA  THR A 769     -10.490  78.161  97.738  1.00 22.39
ATOM   1737  CB  THR A 769     -11.832  77.485  97.419  1.00 22.50
ATOM   1738  OG1 THR A 769     -11.619  76.068  97.312  1.00 22.50
ATOM   1739  CG2 THR A 769     -12.427  78.023  96.124  1.00 22.50
ATOM   1740  C   THR A 769      -9.971  77.441  98.980  1.00 22.39
ATOM   1741  O   THR A 769     -10.616  77.447 100.029  1.00 22.39
ATOM   1742  N   LYS A 770      -8.812  76.819  98.855  1.00 21.39
ATOM   1743  CA  LYS A 770      -8.249  76.034  99.938  1.00 21.39
ATOM   1744  CB  LYS A 770      -7.143  75.133  99.371  1.00 16.59
ATOM   1745  CG  LYS A 770      -7.622  74.058  98.402  1.00 16.59
ATOM   1746  CD  LYS A 770      -8.274  72.907  99.152  1.00 16.59
ATOM   1747  CE  LYS A 770      -8.512  71.729  98.230  1.00 16.59
ATOM   1748  NZ  LYS A 770      -9.219  70.642  98.958  1.00 16.59
ATOM   1749  C   LYS A 770      -7.683  76.811 101.113  1.00 21.39
ATOM   1750  O   LYS A 770      -7.442  78.011 101.026  1.00 21.39
ATOM   1751  N   PRO A 771      -7.489  76.127 102.249  1.00 21.24
ATOM   1752  CD  PRO A 771      -7.990  74.783 102.597  1.00 27.00
ATOM   1753  CA  PRO A 771      -6.921  76.794 103.423  1.00 21.24
ATOM   1754  CB  PRO A 771      -6.731  75.638 104.399  1.00 27.00
ATOM   1755  CG  PRO A 771      -7.949  74.795 104.113  1.00 27.00
ATOM   1756  C   PRO A 771      -5.592  77.380 102.937  1.00 21.24
ATOM   1757  O   PRO A 771      -4.977  76.839 102.014  1.00 21.24
ATOM   1758  N   TRP A 772      -5.154  78.480 103.540  1.00 21.48
ATOM   1759  CA  TRP A 772      -3.923  79.131 103.111  1.00 21.48
ATOM   1760  CB  TRP A 772      -3.597  80.311 104.036  1.00 25.29
ATOM   1761  CG  TRP A 772      -2.303  80.993 103.672  1.00 25.29
ATOM   1762  CD2 TRP A 772      -2.057  81.808 102.517  1.00 25.29
ATOM   1763  CE2 TRP A 772      -0.697  82.188 102.557  1.00 25.29
ATOM   1764  CE3 TRP A 772      -2.852  82.251 101.451  1.00 25.29
ATOM   1765  CD1 TRP A 772      -1.114  80.917 104.348  1.00 25.29
ATOM   1766  NE1 TRP A 772      -0.146  81.630 103.684  1.00 25.29
ATOM   1767  CZ2 TRP A 772      -0.115  82.993 101.572  1.00 25.29
ATOM   1768  CZ3 TRP A 772      -2.268  83.055 100.470  1.00 25.29
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ATOM	1769	CH2	TRP	A	772	-0.912	83.415	100.543	1.00	25.29
ATOM	1770	C	TRP	A	772	-2.672	78.259	102.938	1.00	21.48
ATOM	1771	O	TRP	A	772	-2.002	78.328	101.904	1.00	21.48
ATOM	1772	N	PRO	A	773	-2.324	77.442	103.938	1.00	31.84
ATOM	1773	CD	PRO	A	773	-2.868	77.203	105.285	1.00	27.56
ATOM	1774	CA	PRO	A	773	-1.115	76.648	103.691	1.00	31.84
ATOM	1775	CB	PRO	A	773	-1.009	75.760	104.940	1.00	27.56
ATOM	1776	CG	PRO	A	773	-2.383	75.822	105.574	1.00	27.56
ATOM	1777	C	PRO	A	773	-1.138	75.867	102.366	1.00	31.84
ATOM	1778	O	PRO	A	773	-0.102	75.710	101.716	1.00	31.84
ATOM	1779	N	ILE	A	774	-2.322	75.408	101.958	1.00	22.79
ATOM	1780	CA	ILE	A	774	-2.478	74.673	100.702	1.00	22.79
ATOM	1781	CB	ILE	A	774	-3.822	73.893	100.682	1.00	24.02
ATOM	1782	CG2	ILE	A	774	-4.057	73.252	99.308	1.00	24.02
ATOM	1783	CG1	ILE	A	774	-3.797	72.815	101.785	1.00	24.02
ATOM	1784	CD1	ILE	A	774	-5.158	72.251	102.154	1.00	24.02
ATOM	1785	C	ILE	A	774	-2.403	75.624	99.508	1.00	22.79
ATOM	1786	O	ILE	A	774	-1.646	75.382	98.570	1.00	22.79
ATOM	1787	N	GLN	A	775	-3.166	76.715	99.567	1.00	25.69
ATOM	1788	CA	GLN	A	775	-3.216	77.725	98.503	1.00	25.69
ATOM	1789	CB	GLN	A	775	-4.069	78.922	98.944	1.00	27.00
ATOM	1790	CG	GLN	A	775	-4.986	79.526	97.880	1.00	27.00
ATOM	1791	CD	GLN	A	775	-4.327	79.716	96.516	1.00	27.00
ATOM	1792	OE1	GLN	A	775	-3.647	80.715	96.255	1.00	27.00
ATOM	1793	NE2	GLN	A	775	-4.532	78.747	95.640	1.00	27.00
ATOM	1794	C	GLN	A	775	-1.826	78.243	98.156	1.00	25.69
ATOM	1795	O	GLN	A	775	-1.440	78.306	96.991	1.00	25.69
ATOM	1796	N	GLN	A	776	-1.092	78.649	99.182	1.00	25.21
ATOM	1797	CA	GLN	A	776	0.256	79.166	99.006	1.00	25.21
ATOM	1798	CB	GLN	A	776	0.876	79.437	100.378	1.00	48.93
ATOM	1799	CG	GLN	A	776	2.364	79.665	100.347	1.00	48.93
ATOM	1800	CD	GLN	A	776	3.090	78.762	101.321	1.00	48.93
ATOM	1801	OE1	GLN	A	776	2.895	77.543	101.320	1.00	48.93
ATOM	1802	NE2	GLN	A	776	3.938	79.354	102.159	1.00	48.93
ATOM	1803	C	GLN	A	776	1.128	78.190	98.209	1.00	25.21
ATOM	1804	O	GLN	A	776	1.823	78.588	97.276	1.00	25.21
ATOM	1805	N	ARG	A	777	1.093	76.911	98.574	1.00	29.45
ATOM	1806	CA	ARG	A	777	1.885	75.904	97.862	1.00	29.45
ATOM	1807	CB	ARG	A	777	1.754	74.532	98.539	1.00	37.02
ATOM	1808	CG	ARG	A	777	2.726	73.489	98.001	1.00	37.02
ATOM	1809	CD	ARG	A	777	2.591	72.137	98.712	1.00	37.02
ATOM	1810	NE	ARG	A	777	1.400	71.392	98.291	1.00	37.02
ATOM	1811	CZ	ARG	A	777	0.271	71.281	98.995	1.00	37.02
ATOM	1812	NH1	ARG	A	777	0.146	71.864	100.181	1.00	37.02
ATOM	1813	NH2	ARG	A	777	-0.740	70.572	98.509	1.00	37.02
ATOM	1814	C	ARG	A	777	1.474	75.781	96.388	1.00	29.45
ATOM	1815	O	ARG	A	777	2.327	75.787	95.494	1.00	29.45
ATOM	1816	N	ILE	A	778	0.169	75.672	96.140	1.00	24.89
ATOM	1817	CA	ILE	A	778	-0.349	75.524	94.770	1.00	24.89
ATOM	1818	CB	ILE	A	778	-1.889	75.329	94.767	1.00	32.06
ATOM	1819	CG2	ILE	A	778	-2.412	75.238	93.339	1.00	32.06
ATOM	1820	CG1	ILE	A	778	-2.252	74.049	95.517	1.00	32.06
ATOM	1821	CD1	ILE	A	778	-1.741	72.784	94.859	1.00	32.06
ATOM	1822	C	ILE	A	778	-0.010	76.717	93.891	1.00	24.89
ATOM	1823	O	ILE	A	778	0.349	76.552	92.727	1.00	24.89
ATOM	1824	N	ALA	A	779	-0.132	77.917	94.452	1.00	25.05
ATOM	1825	CA	ALA	A	779	0.167	79.151	93.733	1.00	25.05
ATOM	1826	CB	ALA	A	779	-0.028	80.341	94.647	1.00	21.37
ATOM	1827	C	ALA	A	779	1.588	79.155	93.184	1.00	25.05
ATOM	1828	O	ALA	A	779	1.824	79.586	92.056	1.00	25.05
ATOM	1829	N	GLU	A	780	2.538	78.690	93.991	1.00	30.32
ATOM	1830	CA	GLU	A	780	3.928	78.647	93.556	1.00	30.32
ATOM	1831	CB	GLU	A	780	4.845	78.240	94.709	1.00	80.80
ATOM	1832	CG	GLU	A	780	6.319	78.385	94.377	1.00	80.80
ATOM	1833	CD	GLU	A	780	7.219	77.907	95.493	1.00	80.80
ATOM	1834	OE1	GLU	A	780	7.032	78.361	96.640	1.00	80.80

ATOM	1835	OE2	GLU	A	780	8.117	77.081	95.223	1.00	80.80
ATOM	1836	C	GLU	A	780	4.058	77.642	92.419	1.00	30.32
ATOM	1837	O	GLU	A	780	4.854	77.830	91.504	1.00	30.32
ATOM	1838	N	LEU	A	781	3.275	76.568	92.480	1.00	26.77
ATOM	1839	CA	LEU	A	781	3.306	75.562	91.423	1.00	26.77
ATOM	1840	CB	LEU	A	781	2.471	74.342	91.826	1.00	26.25
ATOM	1841	CG	LEU	A	781	3.017	73.452	92.951	1.00	26.25
ATOM	1842	CD1	LEU	A	781	2.077	72.267	93.175	1.00	26.25
ATOM	1843	CD2	LEU	A	781	4.412	72.943	92.571	1.00	26.25
ATOM	1844	C	LEU	A	781	2.785	76.136	90.099	1.00	26.77
ATOM	1845	O	LEU	A	781	3.344	75.878	89.033	1.00	26.77
ATOM	1846	N	VAL	A	782	1.713	76.918	90.175	1.00	17.86
ATOM	1847	CA	VAL	A	782	1.121	77.526	88.994	1.00	17.86
ATOM	1848	CB	VAL	A	782	-0.191	78.265	89.353	1.00	20.61
ATOM	1849	CG1	VAL	A	782	-0.606	79.198	88.214	1.00	20.61
ATOM	1850	CG2	VAL	A	782	-1.290	77.250	89.619	1.00	20.61
ATOM	1851	C	VAL	A	782	2.103	78.510	88.384	1.00	17.86
ATOM	1852	O	VAL	A	782	2.293	78.543	87.162	1.00	17.86
ATOM	1853	N	ALA	A	783	2.710	79.319	89.251	1.00	29.53
ATOM	1854	CA	ALA	A	783	3.687	80.318	88.842	1.00	29.53
ATOM	1855	CB	ALA	A	783	4.115	81.151	90.045	1.00	31.96
ATOM	1856	C	ALA	A	783	4.899	79.639	88.224	1.00	29.53
ATOM	1857	O	ALA	A	783	5.427	80.102	87.214	1.00	29.53
ATOM	1858	N	THR	A	784	5.346	78.547	88.836	1.00	26.39
ATOM	1859	CA	THR	A	784	6.493	77.816	88.316	1.00	26.39
ATOM	1860	CB	THR	A	784	6.809	76.577	89.183	1.00	35.83
ATOM	1861	OG1	THR	A	784	7.243	77.001	90.479	1.00	35.83
ATOM	1862	CG2	THR	A	784	7.904	75.742	88.547	1.00	35.83
ATOM	1863	C	THR	A	784	6.218	77.372	86.873	1.00	26.39
ATOM	1864	O	THR	A	784	7.093	77.464	86.005	1.00	26.39
ATOM	1865	N	GLU	A	785	4.996	76.909	86.611	1.00	21.12
ATOM	1866	CA	GLU	A	785	4.650	76.465	85.267	1.00	21.12
ATOM	1867	CB	GLU	A	785	3.256	75.839	85.244	1.00	27.83
ATOM	1868	CG	GLU	A	785	3.048	74.905	84.053	1.00	27.83
ATOM	1869	CD	GLU	A	785	1.691	74.245	84.058	1.00	27.83
ATOM	1870	OE1	GLU	A	785	0.819	74.659	83.268	1.00	27.83
ATOM	1871	OE2	GLU	A	785	1.500	73.318	84.863	1.00	27.83
ATOM	1872	C	GLU	A	785	4.710	77.633	84.280	1.00	21.12
ATOM	1873	O	GLU	A	785	5.112	77.458	83.128	1.00	21.12
ATOM	1874	N	PHE	A	786	4.310	78.819	84.736	1.00	24.33
ATOM	1875	CA	PHE	A	786	4.331	80.019	83.902	1.00	24.33
ATOM	1876	CB	PHE	A	786	3.657	81.191	84.626	1.00	36.80
ATOM	1877	CG	PHE	A	786	2.161	81.079	84.726	1.00	36.80
ATOM	1878	CD1	PHE	A	786	1.428	80.382	83.764	1.00	36.80
ATOM	1879	CD2	PHE	A	786	1.476	81.726	85.746	1.00	36.80
ATOM	1880	CE1	PHE	A	786	0.038	80.334	83.815	1.00	36.80
ATOM	1881	CE2	PHE	A	786	0.083	81.685	85.807	1.00	36.80
ATOM	1882	CZ	PHE	A	786	-0.637	80.988	84.839	1.00	36.80
ATOM	1883	C	PHE	A	786	5.770	80.424	83.556	1.00	24.33
ATOM	1884	O	PHE	A	786	6.093	80.704	82.396	1.00	24.33
ATOM	1885	N	PHE	A	787	6.624	80.472	84.576	1.00	29.76
ATOM	1886	CA	PHE	A	787	8.012	80.847	84.382	1.00	29.76
ATOM	1887	CB	PHE	A	787	8.731	80.971	85.730	1.00	31.87
ATOM	1888	CG	PHE	A	787	8.086	81.951	86.671	1.00	31.87
ATOM	1889	CD1	PHE	A	787	7.523	83.130	86.188	1.00	31.87
ATOM	1890	CD2	PHE	A	787	8.031	81.695	88.036	1.00	31.87
ATOM	1891	CE1	PHE	A	787	6.911	84.040	87.048	1.00	31.87
ATOM	1892	CE2	PHE	A	787	7.423	82.597	88.908	1.00	31.87
ATOM	1893	CZ	PHE	A	787	6.860	83.776	88.409	1.00	31.87
ATOM	1894	C	PHE	A	787	8.694	79.814	83.514	1.00	29.76
ATOM	1895	O	PHE	A	787	9.514	80.157	82.669	1.00	29.76
ATOM	1896	N	ASP	A	788	8.349	78.545	83.715	1.00	43.14
ATOM	1897	CA	ASP	A	788	8.948	77.484	82.916	1.00	43.14
ATOM	1898	CB	ASP	A	788	8.392	76.116	83.310	1.00	56.63
ATOM	1899	CG	ASP	A	788	9.143	75.502	84.468	1.00	56.63
ATOM	1900	OD1	ASP	A	788	8.711	74.442	84.965	1.00	56.63

ATOM	1901	OD2	ASP	A	788	10.173	76.082	84.876	1.00 56.63
ATOM	1902	C	ASP	A	788	8.669	77.740	81.455	1.00 43.14
ATOM	1903	O	ASP	A	788	9.535	77.530	80.609	1.00 43.14
ATOM	1904	N	GLN	A	789	7.458	78.197	81.157	1.00 40.24
ATOM	1905	CA	GLN	A	789	7.102	78.476	79.778	1.00 40.24
ATOM	1906	CB	GLN	A	789	5.598	78.695	79.630	1.00 36.26
ATOM	1907	CG	GLN	A	789	5.126	78.508	78.204	1.00 36.26
ATOM	1908	CD	GLN	A	789	3.668	78.852	78.011	1.00 36.26
ATOM	1909	OE1	GLN	A	789	2.805	78.392	78.760	1.00 36.26
ATOM	1910	NE2	GLN	A	789	3.382	79.658	76.992	1.00 36.26
ATOM	1911	C	GLN	A	789	7.853	79.723	79.329	1.00 40.24
ATOM	1912	O	GLN	A	789	8.344	79.794	78.202	1.00 40.24
ATOM	1913	N	GLY	A	790	7.942	80.704	80.219	1.00 35.64
ATOM	1914	CA	GLY	A	790	8.658	81.926	79.896	1.00 35.64
ATOM	1915	C	GLY	A	790	10.124	81.644	79.601	1.00 35.64
ATOM	1916	O	GLY	A	790	10.705	82.222	78.684	1.00 35.64
ATOM	1917	N	ASP	A	791	10.719	80.745	80.377	1.00 65.81
ATOM	1918	CA	ASP	A	791	12.118	80.376	80.203	1.00 65.81
ATOM	1919	CB	ASP	A	791	12.592	79.542	81.395	1.00 56.49
ATOM	1920	CG	ASP	A	791	12.777	80.373	82.647	1.00 56.49
ATOM	1921	OD1	ASP	A	791	11.835	81.090	83.040	1.00 56.49
ATOM	1922	OD2	ASP	A	791	13.870	80.309	83.244	1.00 56.49
ATOM	1923	C	ASP	A	791	12.383	79.611	78.909	1.00 65.81
ATOM	1924	O	ASP	A	791	13.508	79.613	78.412	1.00 65.81
ATOM	1925	N	ARG	A	792	11.358	78.954	78.368	1.00 58.43
ATOM	1926	CA	ARG	A	792	11.516	78.198	77.124	1.00 58.43
ATOM	1927	CB	ARG	A	792	10.458	77.101	77.002	1.00 59.64
ATOM	1928	CG	ARG	A	792	10.514	76.022	78.060	1.00 59.64
ATOM	1929	CD	ARG	A	792	9.819	74.772	77.550	1.00 59.64
ATOM	1930	NE	ARG	A	792	8.492	75.064	77.010	1.00 59.64
ATOM	1931	CZ	ARG	A	792	7.402	75.250	77.751	1.00 59.64
ATOM	1932	NH1	ARG	A	792	7.469	75.171	79.076	1.00 59.64
ATOM	1933	NH2	ARG	A	792	6.242	75.521	77.165	1.00 59.64
ATOM	1934	C	ARG	A	792	11.416	79.099	75.898	1.00 58.43
ATOM	1935	O	ARG	A	792	12.194	78.966	74.952	1.00 58.43
ATOM	1936	N	GLU	A	793	10.449	80.010	75.918	1.00 67.27
ATOM	1937	CA	GLU	A	793	10.236	80.926	74.806	1.00 67.27
ATOM	1938	CB	GLU	A	793	8.823	81.511	74.878	1.00 81.05
ATOM	1939	CG	GLU	A	793	7.748	80.453	75.082	1.00 81.05
ATOM	1940	CD	GLU	A	793	6.343	81.006	74.976	1.00 81.05
ATOM	1941	OE1	GLU	A	793	6.066	82.060	75.589	1.00 81.05
ATOM	1942	OE2	GLU	A	793	5.512	80.377	74.286	1.00 81.05
ATOM	1943	C	GLU	A	793	11.274	82.046	74.808	1.00 67.27
ATOM	1944	O	GLU	A	793	11.289	82.894	73.918	1.00 67.27
ATOM	1945	N	ARG	A	794	12.137	82.048	75.818	1.00 95.41
ATOM	1946	CA	ARG	A	794	13.191	83.050	75.921	1.00 95.41
ATOM	1947	CB	ARG	A	794	13.583	83.263	77.383	1.00 67.58
ATOM	1948	CG	ARG	A	794	14.834	84.103	77.568	1.00 67.58
ATOM	1949	CD	ARG	A	794	15.380	83.976	78.981	1.00 67.58
ATOM	1950	NE	ARG	A	794	14.484	84.537	79.989	1.00 67.58
ATOM	1951	CZ	ARG	A	794	14.111	85.812	80.031	1.00 67.58
ATOM	1952	NH1	ARG	A	794	14.554	86.665	79.117	1.00 67.58
ATOM	1953	NH2	ARG	A	794	13.306	86.239	80.994	1.00 67.58
ATOM	1954	C	ARG	A	794	14.401	82.546	75.142	1.00 95.41
ATOM	1955	O	ARG	A	794	15.188	83.327	74.606	1.00 95.41
ATOM	1956	N	LYS	A	795	14.534	81.228	75.083	1.00 80.28
ATOM	1957	CA	LYS	A	795	15.640	80.604	74.383	1.00 80.28
ATOM	1958	CB	LYS	A	795	16.169	79.430	75.201	1.00 88.72
ATOM	1959	CG	LYS	A	795	16.432	79.772	76.657	1.00 88.72
ATOM	1960	CD	LYS	A	795	17.013	78.592	77.418	1.00 88.72
ATOM	1961	CE	LYS	A	795	18.444	78.293	76.988	1.00 88.72
ATOM	1962	NZ	LYS	A	795	18.553	77.923	75.547	1.00 88.72
ATOM	1963	C	LYS	A	795	15.189	80.111	73.017	1.00 80.28
ATOM	1964	O	LYS	A	795	15.662	80.588	71.986	1.00 80.28
ATOM	1965	N	GLU	A	796	14.263	79.159	73.017	1.00 69.35
ATOM	1966	CA	GLU	A	796	13.753	78.583	71.779	1.00 69.35

ATOM	1967	CB	GLU	A	796	12.705	77.510	72.099	1.00	97.09
ATOM	1968	CG	GLU	A	796	13.284	76.312	72.847	1.00	97.09
ATOM	1969	CD	GLU	A	796	12.260	75.227	73.130	1.00	97.09
ATOM	1970	OE1	GLU	A	796	11.311	75.484	73.901	1.00	97.09
ATOM	1971	OE2	GLU	A	796	12.409	74.114	72.579	1.00	97.09
ATOM	1972	C	GLU	A	796	13.181	79.604	70.794	1.00	69.35
ATOM	1973	O	GLU	A	796	13.689	79.743	69.681	1.00	69.35
ATOM	1974	N	LEU	A	797	12.135	80.319	71.198	1.00	78.17
ATOM	1975	CA	LEU	A	797	11.510	81.312	70.326	1.00	78.17
ATOM	1976	CB	LEU	A	797	10.035	81.478	70.699	1.00	81.26
ATOM	1977	CG	LEU	A	797	9.168	80.222	70.571	1.00	81.26
ATOM	1978	CD1	LEU	A	797	7.766	80.513	71.081	1.00	81.26
ATOM	1979	CD2	LEU	A	797	9.130	79.765	69.119	1.00	81.26
ATOM	1980	C	LEU	A	797	12.207	82.673	70.360	1.00	78.17
ATOM	1981	O	LEU	A	797	11.874	83.567	69.582	1.00	78.17
ATOM	1982	N	ASN	A	798	13.170	82.822	71.266	1.00	84.42
ATOM	1983	CA	ASN	A	798	13.934	84.061	71.419	1.00	84.42
ATOM	1984	CB	ASN	A	798	14.901	84.230	70.240	1.00	96.20
ATOM	1985	CG	ASN	A	798	15.841	85.409	70.420	1.00	96.20
ATOM	1986	OD1	ASN	A	798	16.622	85.455	71.372	1.00	96.20
ATOM	1987	ND2	ASN	A	798	15.769	86.369	69.504	1.00	96.20
ATOM	1988	C	ASN	A	798	13.080	85.326	71.567	1.00	84.42
ATOM	1989	O	ASN	A	798	13.008	86.152	70.656	1.00	84.42
ATOM	1990	N	ILE	A	799	12.440	85.471	72.725	1.00	89.72
ATOM	1991	CA	ILE	A	799	11.602	86.631	73.018	1.00	89.72
ATOM	1992	CB	ILE	A	799	10.125	86.402	72.635	1.00	59.03
ATOM	1993	CG2	ILE	A	799	10.011	86.020	71.168	1.00	59.03
ATOM	1994	CG1	ILE	A	799	9.527	85.317	73.534	1.00	59.03
ATOM	1995	CD1	ILE	A	799	8.013	85.233	73.482	1.00	59.03
ATOM	1996	C	ILE	A	799	11.624	86.895	74.516	1.00	89.72
ATOM	1997	O	ILE	A	799	12.040	86.043	75.300	1.00	89.72
ATOM	1998	N	GLU	A	800	11.162	88.075	74.911	1.00	57.96
ATOM	1999	CA	GLU	A	800	11.109	88.419	76.322	1.00	57.96
ATOM	2000	CB	GLU	A	800	11.426	89.904	76.523	1.00	97.99
ATOM	2001	CG	GLU	A	800	11.726	90.286	77.967	1.00	97.99
ATOM	2002	CD	GLU	A	800	12.965	89.594	78.515	1.00	97.99
ATOM	2003	OE1	GLU	A	800	13.260	89.773	79.717	1.00	97.99
ATOM	2004	OE2	GLU	A	800	13.644	88.875	77.746	1.00	97.99
ATOM	2005	C	GLU	A	800	9.692	88.099	76.808	1.00	57.96
ATOM	2006	O	GLU	A	800	8.704	88.599	76.262	1.00	57.96
ATOM	2007	N	PRO	A	801	9.575	87.249	77.839	1.00	60.29
ATOM	2008	CD	PRO	A	801	10.672	86.637	78.612	1.00	57.62
ATOM	2009	CA	PRO	A	801	8.272	86.862	78.389	1.00	60.29
ATOM	2010	CB	PRO	A	801	8.637	85.738	79.347	1.00	57.62
ATOM	2011	CG	PRO	A	801	9.967	86.203	79.880	1.00	57.62
ATOM	2012	C	PRO	A	801	7.524	87.994	79.095	1.00	60.29
ATOM	2013	O	PRO	A	801	8.140	88.872	79.707	1.00	60.29
ATOM	2014	N	THR	A	802	6.196	87.977	78.995	1.00	38.77
ATOM	2015	CA	THR	A	802	5.375	88.983	79.662	1.00	38.77
ATOM	2016	CB	THR	A	802	3.883	88.832	79.296	1.00	61.19
ATOM	2017	OG1	THR	A	802	3.472	87.472	79.484	1.00	61.19
ATOM	2018	CG2	THR	A	802	3.649	89.233	77.845	1.00	61.19
ATOM	2019	C	THR	A	802	5.567	88.752	81.156	1.00	38.77
ATOM	2020	O	THR	A	802	6.137	87.739	81.553	1.00	38.77
ATOM	2021	N	ASP	A	803	5.108	89.687	81.982	1.00	49.79
ATOM	2022	CA	ASP	A	803	5.269	89.566	83.429	1.00	49.79
ATOM	2023	CB	ASP	A	803	4.528	90.703	84.129	1.00	67.29
ATOM	2024	CG	ASP	A	803	5.151	92.052	83.853	1.00	67.29
ATOM	2025	OD1	ASP	A	803	6.301	92.269	84.290	1.00	67.29
ATOM	2026	OD2	ASP	A	803	4.497	92.892	83.196	1.00	67.29
ATOM	2027	C	ASP	A	803	4.791	88.225	83.979	1.00	49.79
ATOM	2028	O	ASP	A	803	5.514	87.538	84.707	1.00	49.79
ATOM	2029	N	LEU	A	804	3.565	87.861	83.627	1.00	43.13
ATOM	2030	CA	LEU	A	804	2.971	86.611	84.073	1.00	43.13
ATOM	2031	CB	LEU	A	804	1.755	86.289	83.207	1.00	34.80
ATOM	2032	CG	LEU	A	804	1.134	84.905	83.407	1.00	34.80

ATOM	2033	CD1	LEU	A	804	0.504	84.844	84.774	1.00 34.80
ATOM	2034	CD2	LEU	A	804	0.103	84.634	82.326	1.00 34.80
ATOM	2035	C	LEU	A	804	3.948	85.440	84.015	1.00 43.13
ATOM	2036	O	LEU	A	804	3.981	84.599	84.912	1.00 43.13
ATOM	2037	N	MET	A	805	4.746	85.391	82.959	1.00 39.63
ATOM	2038	CA	MET	A	805	5.684	84.294	82.786	1.00 39.63
ATOM	2039	CB	MET	A	805	5.491	83.688	81.394	1.00 42.38
ATOM	2040	CG	MET	A	805	4.036	83.390	81.086	1.00 42.38
ATOM	2041	SD	MET	A	805	3.738	82.724	79.451	1.00 42.38
ATOM	2042	CE	MET	A	805	2.794	81.281	79.865	1.00 42.38
ATOM	2043	C	MET	A	805	7.146	84.681	83.002	1.00 39.63
ATOM	2044	O	MET	A	805	8.049	83.897	82.706	1.00 39.63
ATOM	2045	N	ASN	A	806	7.371	85.882	83.529	1.00 59.95
ATOM	2046	CA	ASN	A	806	8.725	86.364	83.787	1.00 59.95
ATOM	2047	CB	ASN	A	806	8.806	87.869	83.508	1.00 71.49
ATOM	2048	CG	ASN	A	806	10.233	88.380	83.453	1.00 71.49
ATOM	2049	OD1	ASN	A	806	10.467	89.566	83.214	1.00 71.49
ATOM	2050	ND2	ASN	A	806	11.193	87.490	83.670	1.00 71.49
ATOM	2051	C	ASN	A	806	9.111	86.071	85.236	1.00 59.95
ATOM	2052	O	ASN	A	806	8.621	86.707	86.171	1.00 59.95
ATOM	2053	N	ARG	A	807	9.998	85.100	85.408	1.00 39.29
ATOM	2054	CA	ARG	A	807	10.458	84.678	86.725	1.00 39.29
ATOM	2055	CB	ARG	A	807	11.474	83.546	86.562	1.00 45.96
ATOM	2056	CG	ARG	A	807	11.846	82.837	87.847	1.00 45.96
ATOM	2057	CD	ARG	A	807	13.024	81.917	87.597	1.00 45.96
ATOM	2058	NE	ARG	A	807	12.732	80.918	86.572	1.00 45.96
ATOM	2059	CZ	ARG	A	807	12.064	79.789	86.795	1.00 45.96
ATOM	2060	NH1	ARG	A	807	11.617	79.509	88.013	1.00 45.96
ATOM	2061	NH2	ARG	A	807	11.844	78.939	85.801	1.00 45.96
ATOM	2062	C	ARG	A	807	11.071	85.803	87.566	1.00 39.29
ATOM	2063	O	ARG	A	807	11.206	85.673	88.787	1.00 39.29
ATOM	2064	N	GLU	A	808	11.441	86.903	86.917	1.00 44.77
ATOM	2065	CA	GLU	A	808	12.043	88.030	87.623	1.00 44.77
ATOM	2066	CB	GLU	A	808	12.900	88.859	86.660	1.00 88.69
ATOM	2067	CG	GLU	A	808	14.096	88.112	86.079	1.00 88.69
ATOM	2068	CD	GLU	A	808	15.093	87.677	87.141	1.00 88.69
ATOM	2069	OE1	GLU	A	808	15.685	88.554	87.806	1.00 88.69
ATOM	2070	OE2	GLU	A	808	15.285	86.455	87.313	1.00 88.69
ATOM	2071	C	GLU	A	808	11.000	88.929	88.287	1.00 44.77
ATOM	2072	O	GLU	A	808	11.337	89.746	89.151	1.00 44.77
ATOM	2073	N	LYS	A	809	9.737	88.771	87.891	1.00 42.85
ATOM	2074	CA	LYS	A	809	8.652	89.578	88.444	1.00 42.85
ATOM	2075	CB	LYS	A	809	7.778	90.139	87.316	1.00 73.32
ATOM	2076	CG	LYS	A	809	8.409	91.291	86.543	1.00 73.32
ATOM	2077	CD	LYS	A	809	9.630	90.844	85.751	1.00 73.32
ATOM	2078	CE	LYS	A	809	10.345	92.028	85.111	1.00 73.32
ATOM	2079	NZ	LYS	A	809	9.444	92.814	84.221	1.00 73.32
ATOM	2080	C	LYS	A	809	7.772	88.828	89.436	1.00 42.85
ATOM	2081	O	LYS	A	809	6.560	89.022	89.463	1.00 42.85
ATOM	2082	N	LYS	A	810	8.380	87.982	90.258	1.00 49.59
ATOM	2083	CA	LYS	A	810	7.631	87.214	91.249	1.00 49.59
ATOM	2084	CB	LYS	A	810	8.574	86.288	92.021	1.00 64.99
ATOM	2085	CG	LYS	A	810	9.379	85.341	91.152	1.00 64.99
ATOM	2086	CD	LYS	A	810	10.251	84.424	92.001	1.00 64.99
ATOM	2087	CE	LYS	A	810	9.404	83.519	92.886	1.00 64.99
ATOM	2088	NZ	LYS	A	810	10.234	82.654	93.774	1.00 64.99
ATOM	2089	C	LYS	A	810	6.874	88.093	92.254	1.00 49.59
ATOM	2090	O	LYS	A	810	5.863	87.669	92.822	1.00 49.59
ATOM	2091	N	ASN	A	811	7.358	89.312	92.474	1.00 39.72
ATOM	2092	CA	ASN	A	811	6.729	90.211	93.432	1.00 39.72
ATOM	2093	CB	ASN	A	811	7.662	91.393	93.733	1.00 62.65
ATOM	2094	CG	ASN	A	811	7.770	92.367	92.575	1.00 62.65
ATOM	2095	OD1	ASN	A	811	7.199	93.457	92.612	1.00 62.65
ATOM	2096	ND2	ASN	A	811	8.499	91.976	91.538	1.00 62.65
ATOM	2097	C	ASN	A	811	5.360	90.717	92.976	1.00 39.72
ATOM	2098	O	ASN	A	811	4.636	91.348	93.750	1.00 39.72

ATOM	2099	N	LYS	A	812	5.005	90.434	91.726	1.00 32.09
ATOM	2100	CA	LYS	A	812	3.710	90.860	91.183	1.00 32.09
ATOM	2101	CB	LYS	A	812	3.823	91.173	89.684	1.00 63.49
ATOM	2102	CG	LYS	A	812	4.633	92.418	89.352	1.00 63.49
ATOM	2103	CD	LYS	A	812	4.517	92.784	87.875	1.00 63.49
ATOM	2104	CE	LYS	A	812	5.325	94.035	87.546	1.00 63.49
ATOM	2105	NZ	LYS	A	812	4.890	95.226	88.335	1.00 63.49
ATOM	2106	C	LYS	A	812	2.626	89.802	91.389	1.00 32.09
ATOM	2107	O	LYS	A	812	1.444	90.074	91.199	1.00 32.09
ATOM	2108	N	ILE	A	813	3.041	88.600	91.781	1.00 33.02
ATOM	2109	CA	ILE	A	813	2.125	87.488	91.998	1.00 33.02
ATOM	2110	CB	ILE	A	813	2.885	86.245	92.526	1.00 30.64
ATOM	2111	CG2	ILE	A	813	1.900	85.171	92.956	1.00 30.64
ATOM	2112	CG1	ILE	A	813	3.821	85.715	91.432	1.00 30.64
ATOM	2113	CD1	ILE	A	813	4.713	84.577	91.873	1.00 30.64
ATOM	2114	C	ILE	A	813	0.976	87.826	92.941	1.00 33.02
ATOM	2115	O	ILE	A	813	-0.189	87.602	92.607	1.00 33.02
ATOM	2116	N	PRO	A	814	1.277	88.370	94.131	1.00 25.78
ATOM	2117	CD	PRO	A	814	2.566	88.734	94.744	1.00 34.56
ATOM	2118	CA	PRO	A	814	0.168	88.691	95.031	1.00 25.78
ATOM	2119	CB	PRO	A	814	0.855	89.444	96.166	1.00 34.56
ATOM	2120	CG	PRO	A	814	2.206	88.805	96.214	1.00 34.56
ATOM	2121	C	PRO	A	814	-0.842	89.549	94.294	1.00 25.78
ATOM	2122	O	PRO	A	814	-2.042	89.284	94.307	1.00 25.78
ATOM	2123	N	SER	A	815	-0.336	90.576	93.631	1.00 31.76
ATOM	2124	CA	SER	A	815	-1.182	91.477	92.878	1.00 31.76
ATOM	2125	CB	SER	A	815	-0.308	92.499	92.143	1.00 42.65
ATOM	2126	OG	SER	A	815	-1.080	93.317	91.289	1.00 42.65
ATOM	2127	C	SER	A	815	-2.038	90.690	91.881	1.00 31.76
ATOM	2128	O	SER	A	815	-3.255	90.860	91.824	1.00 31.76
ATOM	2129	N	MET	A	816	-1.402	89.816	91.109	1.00 26.97
ATOM	2130	CA	MET	A	816	-2.122	89.034	90.116	1.00 26.97
ATOM	2131	CB	MET	A	816	-1.136	88.344	89.182	1.00 47.35
ATOM	2132	CG	MET	A	816	-0.397	89.329	88.311	1.00 47.35
ATOM	2133	SD	MET	A	816	0.319	88.568	86.866	1.00 47.35
ATOM	2134	CE	MET	A	816	1.754	87.778	87.591	1.00 47.35
ATOM	2135	C	MET	A	816	-3.124	88.028	90.672	1.00 26.97
ATOM	2136	O	MET	A	816	-4.132	87.736	90.019	1.00 26.97
ATOM	2137	N	GLN	A	817	-2.857	87.507	91.870	1.00 24.65
ATOM	2138	CA	GLN	A	817	-3.761	86.551	92.504	1.00 24.65
ATOM	2139	CB	GLN	A	817	-3.139	85.953	93.774	1.00 23.63
ATOM	2140	CG	GLN	A	817	-2.057	84.920	93.527	1.00 23.63
ATOM	2141	CD	GLN	A	817	-2.555	83.758	92.689	1.00 23.63
ATOM	2142	OE1	GLN	A	817	-2.735	83.890	91.474	1.00 23.63
ATOM	2143	NE2	GLN	A	817	-2.799	82.620	93.332	1.00 23.63
ATOM	2144	C	GLN	A	817	-5.068	87.244	92.877	1.00 24.65
ATOM	2145	O	GLN	A	817	-6.134	86.635	92.812	1.00 24.65
ATOM	2146	N	VAL	A	818	-4.969	88.507	93.292	1.00 23.64
ATOM	2147	CA	VAL	A	818	-6.140	89.296	93.672	1.00 23.64
ATOM	2148	CB	VAL	A	818	-5.739	90.671	94.290	1.00 31.33
ATOM	2149	CG1	VAL	A	818	-6.984	91.496	94.589	1.00 31.33
ATOM	2150	CG2	VAL	A	818	-4.937	90.462	95.560	1.00 31.33
ATOM	2151	C	VAL	A	818	-7.010	89.561	92.444	1.00 23.64
ATOM	2152	O	VAL	A	818	-8.230	89.407	92.492	1.00 23.64
ATOM	2153	N	GLY	A	819	-6.378	89.969	91.348	1.00 29.84
ATOM	2154	CA	GLY	A	819	-7.133	90.234	90.136	1.00 29.84
ATOM	2155	C	GLY	A	819	-7.872	88.979	89.715	1.00 29.84
ATOM	2156	O	GLY	A	819	-9.069	89.011	89.396	1.00 29.84
ATOM	2157	N	PHE	A	820	-7.146	87.865	89.733	1.00 20.89
ATOM	2158	CA	PHE	A	820	-7.694	86.576	89.363	1.00 20.89
ATOM	2159	CB	PHE	A	820	-6.625	85.500	89.526	1.00 26.08
ATOM	2160	CG	PHE	A	820	-7.101	84.121	89.202	1.00 26.08
ATOM	2161	CD1	PHE	A	820	-7.632	83.832	87.956	1.00 26.08
ATOM	2162	CD2	PHE	A	820	-6.998	83.099	90.141	1.00 26.08
ATOM	2163	CE1	PHE	A	820	-8.053	82.542	87.643	1.00 26.08
ATOM	2164	CE2	PHE	A	820	-7.416	81.804	89.838	1.00 26.08

ATOM	2165	CZ	PHE	A	820	-7.942	81.527	88.591	1.00 26.08
ATOM	2166	C	PHE	A	820	-8.906	86.242	90.224	1.00 20.89
ATOM	2167	O	PHE	A	820	-9.956	85.865	89.702	1.00 20.89
ATOM	2168	N	ILE	A	821	-8.765	86.388	91.539	1.00 21.17
ATOM	2169	CA	ILE	A	821	-9.862	86.098	92.450	1.00 21.17
ATOM	2170	CB	ILE	A	821	-9.440	86.302	93.926	1.00 22.03
ATOM	2171	CG2	ILE	A	821	-10.664	86.239	94.839	1.00 22.03
ATOM	2172	CG1	ILE	A	821	-8.398	85.250	94.319	1.00 22.03
ATOM	2173	CD1	ILE	A	821	-8.066	85.240	95.804	1.00 22.03
ATOM	2174	C	ILE	A	821	-11.111	86.954	92.174	1.00 21.17
ATOM	2175	O	ILE	A	821	-12.233	86.442	92.172	1.00 21.17
ATOM	2176	N	ASP	A	822	-10.914	88.249	91.940	1.00 24.73
ATOM	2177	CA	ASP	A	822	-12.036	89.149	91.683	1.00 24.73
ATOM	2178	CB	ASP	A	822	-11.620	90.611	91.895	1.00 29.21
ATOM	2179	CG	ASP	A	822	-11.314	90.935	93.350	1.00 29.21
ATOM	2180	OD1	ASP	A	822	-11.759	90.179	94.242	1.00 29.21
ATOM	2181	OD2	ASP	A	822	-10.641	91.964	93.602	1.00 29.21
ATOM	2182	C	ASP	A	822	-12.650	89.009	90.296	1.00 24.73
ATOM	2183	O	ASP	A	822	-13.871	89.013	90.148	1.00 24.73
ATOM	2184	N	ALA	A	823	-11.812	88.888	89.277	1.00 22.47
ATOM	2185	CA	ALA	A	823	-12.308	88.775	87.912	1.00 22.47
ATOM	2186	CB	ALA	A	823	-11.215	89.183	86.930	1.00 17.63
ATOM	2187	C	ALA	A	823	-12.856	87.412	87.510	1.00 22.47
ATOM	2188	O	ALA	A	823	-13.775	87.338	86.689	1.00 22.47
ATOM	2189	N	ILE	A	824	-12.316	86.337	88.081	1.00 24.00
ATOM	2190	CA	ILE	A	824	-12.749	84.998	87.694	1.00 24.00
ATOM	2191	CB	ILE	A	824	-11.530	84.154	87.215	1.00 33.87
ATOM	2192	CG2	ILE	A	824	-11.988	82.769	86.786	1.00 33.87
ATOM	2193	CG1	ILE	A	824	-10.793	84.860	86.073	1.00 33.87
ATOM	2194	CD1	ILE	A	824	-11.535	84.882	84.757	1.00 33.87
ATOM	2195	C	ILE	A	824	-13.481	84.152	88.741	1.00 24.00
ATOM	2196	O	ILE	A	824	-14.596	83.691	88.525	1.00 24.00
ATOM	2197	N	CYS	A	825	-12.839	83.972	89.882	1.00 18.53
ATOM	2198	CA	CYS	A	825	-13.335	83.108	90.940	1.00 18.53
ATOM	2199	CB	CYS	A	825	-12.151	82.722	91.827	1.00 22.91
ATOM	2200	SG	CYS	A	825	-10.676	82.201	90.907	1.00 22.91
ATOM	2201	C	CYS	A	825	-14.498	83.526	91.828	1.00 18.53
ATOM	2202	O	CYS	A	825	-15.462	82.765	92.003	1.00 18.53
ATOM	2203	N	LEU	A	826	-14.399	84.720	92.399	1.00 28.11
ATOM	2204	CA	LEU	A	826	-15.399	85.206	93.328	1.00 28.11
ATOM	2205	CB	LEU	A	826	-15.103	86.670	93.662	1.00 34.70
ATOM	2206	CG	LEU	A	826	-15.030	87.007	95.160	1.00 34.70
ATOM	2207	CD1	LEU	A	826	-14.154	85.996	95.901	1.00 34.70
ATOM	2208	CD2	LEU	A	826	-14.490	88.420	95.336	1.00 34.70
ATOM	2209	C	LEU	A	826	-16.870	85.013	92.933	1.00 28.11
ATOM	2210	O	LEU	A	826	-17.627	84.396	93.684	1.00 28.11
ATOM	2211	N	GLN	A	827	-17.281	85.504	91.768	1.00 26.97
ATOM	2212	CA	GLN	A	827	-18.679	85.351	91.377	1.00 26.97
ATOM	2213	CB	GLN	A	827	-19.000	86.230	90.165	1.00 38.42
ATOM	2214	CG	GLN	A	827	-19.148	87.687	90.535	1.00 38.42
ATOM	2215	CD	GLN	A	827	-19.597	88.557	89.376	1.00 38.42
ATOM	2216	OE1	GLN	A	827	-19.996	89.705	89.575	1.00 38.42
ATOM	2217	NE2	GLN	A	827	-19.527	88.022	88.160	1.00 38.42
ATOM	2218	C	GLN	A	827	-19.103	83.916	91.103	1.00 26.97
ATOM	2219	O	GLN	A	827	-20.258	83.557	91.338	1.00 26.97
ATOM	2220	N	LEU	A	828	-18.181	83.094	90.611	1.00 34.30
ATOM	2221	CA	LEU	A	828	-18.495	81.699	90.322	1.00 34.30
ATOM	2222	CB	LEU	A	828	-17.294	80.995	89.693	1.00 26.29
ATOM	2223	CG	LEU	A	828	-17.564	79.838	88.719	1.00 26.29
ATOM	2224	CD1	LEU	A	828	-16.350	78.939	88.704	1.00 26.29
ATOM	2225	CD2	LEU	A	828	-18.789	79.055	89.103	1.00 26.29
ATOM	2226	C	LEU	A	828	-18.870	80.974	91.619	1.00 34.30
ATOM	2227	O	LEU	A	828	-19.935	80.358	91.712	1.00 34.30
ATOM	2228	N	TYR	A	829	-17.991	81.051	92.617	1.00 28.18
ATOM	2229	CA	TYR	A	829	-18.232	80.397	93.901	1.00 28.18
ATOM	2230	CB	TYR	A	829	-16.979	80.480	94.771	1.00 18.02

ATOM	2231	CG	TYR	A	829	-15.861	79.631	94.207	1.00 18.02
ATOM	2232	CD1	TYR	A	829	-16.055	78.270	93.972	1.00 18.02
ATOM	2233	CE1	TYR	A	829	-15.065	77.493	93.371	1.00 18.02
ATOM	2234	CD2	TYR	A	829	-14.642	80.200	93.835	1.00 18.02
ATOM	2235	CE2	TYR	A	829	-13.650	79.435	93.233	1.00 18.02
ATOM	2236	CZ	TYR	A	829	-13.873	78.084	93.005	1.00 18.02
ATOM	2237	OH	TYR	A	829	-12.902	77.330	92.402	1.00 18.02
ATOM	2238	C	TYR	A	829	-19.432	80.994	94.617	1.00 28.18
ATOM	2239	O	TYR	A	829	-20.111	80.314	95.384	1.00 28.18
ATOM	2240	N	GLU	A	830	-19.693	82.266	94.343	1.00 30.70
ATOM	2241	CA	GLU	A	830	-20.828	82.961	94.926	1.00 30.70
ATOM	2242	CB	GLU	A	830	-20.671	84.464	94.702	1.00 55.09
ATOM	2243	CG	GLU	A	830	-21.476	85.329	95.643	1.00 55.09
ATOM	2244	CD	GLU	A	830	-21.214	86.807	95.426	1.00 55.09
ATOM	2245	OE1	GLU	A	830	-20.030	87.203	95.382	1.00 55.09
ATOM	2246	OE2	GLU	A	830	-22.191	87.574	95.304	1.00 55.09
ATOM	2247	C	GLU	A	830	-22.096	82.439	94.232	1.00 30.70
ATOM	2248	O	GLU	A	830	-23.123	82.209	94.869	1.00 30.70
ATOM	2249	N	ALA	A	831	-22.014	82.241	92.919	1.00 27.33
ATOM	2250	CA	ALA	A	831	-23.150	81.727	92.163	1.00 27.33
ATOM	2251	CB	ALA	A	831	-22.853	81.801	90.693	1.00 18.79
ATOM	2252	C	ALA	A	831	-23.453	80.277	92.564	1.00 27.33
ATOM	2253	O	ALA	A	831	-24.617	79.863	92.603	1.00 27.33
ATOM	2254	N	LEU	A	832	-22.407	79.507	92.864	1.00 27.14
ATOM	2255	CA	LEU	A	832	-22.583	78.115	93.260	1.00 27.14
ATOM	2256	CB	LEU	A	832	-21.236	77.389	93.260	1.00 21.03
ATOM	2257	CG	LEU	A	832	-21.207	75.902	93.644	1.00 21.03
ATOM	2258	CD1	LEU	A	832	-22.165	75.115	92.771	1.00 21.03
ATOM	2259	CD2	LEU	A	832	-19.786	75.352	93.487	1.00 21.03
ATOM	2260	C	LEU	A	832	-23.229	78.025	94.639	1.00 27.14
ATOM	2261	O	LEU	A	832	-24.052	77.140	94.891	1.00 27.14
ATOM	2262	N	THR	A	833	-22.861	78.939	95.532	1.00 31.18
ATOM	2263	CA	THR	A	833	-23.432	78.941	96.871	1.00 31.18
ATOM	2264	CB	THR	A	833	-22.736	79.973	97.782	1.00 37.25
ATOM	2265	OG1	THR	A	833	-21.376	79.578	97.998	1.00 37.25
ATOM	2266	CG2	THR	A	833	-23.432	80.052	99.128	1.00 37.25
ATOM	2267	C	THR	A	833	-24.927	79.244	96.780	1.00 31.18
ATOM	2268	O	THR	A	833	-25.704	78.855	97.656	1.00 31.18
ATOM	2269	N	HIS	A	834	-25.323	79.933	95.712	1.00 38.35
ATOM	2270	CA	HIS	A	834	-26.728	80.254	95.488	1.00 38.35
ATOM	2271	CB	HIS	A	834	-26.888	81.124	94.239	1.00 73.17
ATOM	2272	CG	HIS	A	834	-28.300	81.214	93.744	1.00 73.17
ATOM	2273	CD2	HIS	A	834	-28.937	80.557	92.745	1.00 73.17
ATOM	2274	ND1	HIS	A	834	-29.247	82.028	94.330	1.00 73.17
ATOM	2275	CE1	HIS	A	834	-30.405	81.868	93.713	1.00 73.17
ATOM	2276	NE2	HIS	A	834	-30.244	80.981	92.748	1.00 73.17
ATOM	2277	C	HIS	A	834	-27.473	78.937	95.277	1.00 38.35
ATOM	2278	O	HIS	A	834	-28.422	78.622	95.998	1.00 38.35
ATOM	2279	N	VAL	A	835	-27.022	78.177	94.280	1.00 32.51
ATOM	2280	CA	VAL	A	835	-27.608	76.886	93.932	1.00 32.51
ATOM	2281	CB	VAL	A	835	-26.812	76.210	92.793	1.00 28.19
ATOM	2282	CG1	VAL	A	835	-27.362	74.816	92.522	1.00 28.19
ATOM	2283	CG2	VAL	A	835	-26.888	77.063	91.527	1.00 28.19
ATOM	2284	C	VAL	A	835	-27.656	75.930	95.119	1.00 32.51
ATOM	2285	O	VAL	A	835	-28.655	75.238	95.334	1.00 32.51
ATOM	2286	N	SER	A	836	-26.562	75.875	95.871	1.00 31.45
ATOM	2287	CA	SER	A	836	-26.482	75.011	97.038	1.00 31.45
ATOM	2288	CB	SER	A	836	-25.797	73.687	96.693	1.00 36.28
ATOM	2289	OG	SER	A	836	-25.787	72.837	97.828	1.00 36.28
ATOM	2290	C	SER	A	836	-25.718	75.698	98.151	1.00 31.45
ATOM	2291	O	SER	A	836	-24.484	75.735	98.154	1.00 31.45
ATOM	2292	N	GLU	A	837	-26.465	76.241	99.101	1.00 31.63
ATOM	2293	CA	GLU	A	837	-25.880	76.939	100.229	1.00 31.63
ATOM	2294	CB	GLU	A	837	-26.970	77.235	101.264	1.00100.00
ATOM	2295	CG	GLU	A	837	-28.004	78.244	100.770	1.00100.00
ATOM	2296	CD	GLU	A	837	-29.438	77.817	101.042	1.00100.00

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ATOM   2297  OE1 GLU A 837     -29.842  76.736 100.558  1.00100.00
ATOM   2298  OE2 GLU A 837     -30.164  78.566 101.731  1.00100.00
ATOM   2299  C   GLU A 837     -24.733  76.157 100.861  1.00 31.63
ATOM   2300  O   GLU A 837     -23.760  76.749 101.332  1.00 31.63
ATOM   2301  N   ASP A 838     -24.831  74.831 100.850  1.00 21.34
ATOM   2302  CA  ASP A 838     -23.792  73.993 101.450  1.00 21.34
ATOM   2303  CB  ASP A 838     -24.255  72.537 101.480  1.00 49.03
ATOM   2304  CG  ASP A 838     -25.450  72.329 102.390  1.00 49.03
ATOM   2305  OD1 ASP A 838     -25.266  72.326 103.625  1.00 49.03
ATOM   2306  OD2 ASP A 838     -26.576  72.182 101.869  1.00 49.03
ATOM   2307  C   ASP A 838     -22.398  74.089 100.806  1.00 21.34
ATOM   2308  O   ASP A 838     -21.439  73.512 101.318  1.00 21.34
ATOM   2309  N   CYS A 839     -22.280  74.801  99.689  1.00 35.77
ATOM   2310  CA  CYS A 839     -20.974  74.955  99.045  1.00 35.77
ATOM   2311  CB  CYS A 839     -21.110  74.994  97.519  1.00 28.83
ATOM   2312  SG  CYS A 839     -21.502  73.414  96.742  1.00 28.83
ATOM   2313  C   CYS A 839     -20.296  76.237  99.524  1.00 35.77
ATOM   2314  O   CYS A 839     -19.219  76.596  99.046  1.00 35.77
ATOM   2315  N   PHE A 840     -20.927  76.913 100.481  1.00 23.62
ATOM   2316  CA  PHE A 840     -20.397  78.156 101.032  1.00 23.62
ATOM   2317  CB  PHE A 840     -21.231  78.602 102.231  1.00 36.13
ATOM   2318  CG  PHE A 840     -20.723  79.855 102.878  1.00 36.13
ATOM   2319  CD1 PHE A 840     -20.710  81.056 102.178  1.00 36.13
ATOM   2320  CD2 PHE A 840     -20.246  79.835 104.182  1.00 36.13
ATOM   2321  CE1 PHE A 840     -20.225  82.232 102.772  1.00 36.13
ATOM   2322  CE2 PHE A 840     -19.761  80.998 104.785  1.00 36.13
ATOM   2323  CZ  PHE A 840     -19.750  82.200 104.081  1.00 36.13
ATOM   2324  C   PHE A 840     -18.926  78.100 101.445  1.00 23.62
ATOM   2325  O   PHE A 840     -18.213  79.099 101.346  1.00 23.62
ATOM   2326  N   PRO A 841     -18.447  76.941 101.927  1.00 26.25
ATOM   2327  CD  PRO A 841     -19.125  75.717 102.390  1.00 25.81
ATOM   2328  CA  PRO A 841     -17.035  76.929 102.310  1.00 26.25
ATOM   2329  CB  PRO A 841     -16.845  75.519 102.866  1.00 25.81
ATOM   2330  CG  PRO A 841     -18.184  75.222 103.476  1.00 25.81
ATOM   2331  C   PRO A 841     -16.105  77.248 101.139  1.00 26.25
ATOM   2332  O   PRO A 841     -15.014  77.781 101.338  1.00 26.25
ATOM   2333  N   LEU A 842     -16.523  76.924  99.916  1.00 25.69
ATOM   2334  CA  LEU A 842     -15.694  77.232  98.758  1.00 25.69
ATOM   2335  CB  LEU A 842     -16.286  76.614  97.478  1.00 20.08
ATOM   2336  CG  LEU A 842     -16.266  75.089  97.290  1.00 20.08
ATOM   2337  CD1 LEU A 842     -17.003  74.730  96.010  1.00 20.08
ATOM   2338  CD2 LEU A 842     -14.826  74.570  97.229  1.00 20.08
ATOM   2339  C   LEU A 842     -15.598  78.762  98.620  1.00 25.69
ATOM   2340  O   LEU A 842     -14.512  79.314  98.456  1.00 25.69
ATOM   2341  N   LEU A 843     -16.740  79.439  98.696  1.00 23.61
ATOM   2342  CA  LEU A 843     -16.781  80.900  98.582  1.00 23.61
ATOM   2343  CB  LEU A 843     -18.228  81.402  98.665  1.00 31.29
ATOM   2344  CG  LEU A 843     -18.594  82.790  98.116  1.00 31.29
ATOM   2345  CD1 LEU A 843     -19.976  83.194  98.627  1.00 31.29
ATOM   2346  CD2 LEU A 843     -17.569  83.817  98.530  1.00 31.29
ATOM   2347  C   LEU A 843     -15.987  81.516  99.724  1.00 23.61
ATOM   2348  O   LEU A 843     -15.166  82.412  99.523  1.00 23.61
ATOM   2349  N   ASP A 844     -16.250  81.022 100.926  1.00 29.45
ATOM   2350  CA  ASP A 844     -15.592  81.512 102.130  1.00 29.45
ATOM   2351  CB  ASP A 844     -16.174  80.804 103.360  1.00 67.48
ATOM   2352  CG  ASP A 844     -15.666  81.386 104.668  1.00 67.48
ATOM   2353  OD1 ASP A 844     -15.583  82.632 104.771  1.00 67.48
ATOM   2354  OD2 ASP A 844     -15.362  80.600 105.596  1.00 67.48
ATOM   2355  C   ASP A 844     -14.077  81.317 102.069  1.00 29.45
ATOM   2356  O   ASP A 844     -13.318  82.183 102.513  1.00 29.45
ATOM   2357  N   GLY A 845     -13.645  80.180 101.521  1.00 20.72
ATOM   2358  CA  GLY A 845     -12.222  79.911 101.409  1.00 20.72
ATOM   2359  C   GLY A 845     -11.585  80.828 100.378  1.00 20.72
ATOM   2360  O   GLY A 845     -10.439  81.258 100.525  1.00 20.72
ATOM   2361  N   CYS A 846     -12.337  81.141  99.326  1.00 21.89
ATOM   2362  CA  CYS A 846     -11.820  82.012  98.286  1.00 21.89
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ATOM	2363	CB	CYS	A	846	-12.789	82.072	97.112	1.00 23.92
ATOM	2364	SG	CYS	A	846	-12.141	82.982	95.722	1.00 23.92
ATOM	2365	C	CYS	A	846	-11.613	83.409	98.862	1.00 21.89
ATOM	2366	O	CYS	A	846	-10.616	84.065	98.560	1.00 21.89
ATOM	2367	N	ARG	A	847	-12.551	83.861	99.693	1.00 25.32
ATOM	2368	CA	ARG	A	847	-12.426	85.181	100.305	1.00 25.32
ATOM	2369	CB	ARG	A	847	-13.724	85.578	101.004	1.00 33.47
ATOM	2370	CG	ARG	A	847	-14.764	86.127	100.056	1.00 33.47
ATOM	2371	CD	ARG	A	847	-16.098	86.266	100.741	1.00 33.47
ATOM	2372	NE	ARG	A	847	-17.143	86.740	99.838	1.00 33.47
ATOM	2373	CZ	ARG	A	847	-18.444	86.554	100.052	1.00 33.47
ATOM	2374	NH1	ARG	A	847	-18.854	85.904	101.138	1.00 33.47
ATOM	2375	NH2	ARG	A	847	-19.338	87.010	99.179	1.00 33.47
ATOM	2376	C	ARG	A	847	-11.266	85.233	101.295	1.00 25.32
ATOM	2377	O	ARG	A	847	-10.577	86.242	101.390	1.00 25.32
ATOM	2378	N	LYS	A	848	-11.045	84.150	102.031	1.00 24.89
ATOM	2379	CA	LYS	A	848	-9.942	84.125	102.987	1.00 24.89
ATOM	2380	CB	LYS	A	848	-9.918	82.802	103.748	1.00 50.79
ATOM	2381	CG	LYS	A	848	-11.096	82.595	104.680	1.00 50.79
ATOM	2382	CD	LYS	A	848	-11.016	81.225	105.335	1.00 50.79
ATOM	2383	CE	LYS	A	848	-12.158	81.000	106.303	1.00 50.79
ATOM	2384	NZ	LYS	A	848	-12.146	82.022	107.380	1.00 50.79
ATOM	2385	C	LYS	A	848	-8.620	84.317	102.252	1.00 24.89
ATOM	2386	O	LYS	A	848	-7.752	85.050	102.710	1.00 24.89
ATOM	2387	N	ASN	A	849	-8.469	83.667	101.102	1.00 24.61
ATOM	2388	CA	ASN	A	849	-7.239	83.804	100.336	1.00 24.61
ATOM	2389	CB	ASN	A	849	-7.142	82.707	99.282	1.00 28.24
ATOM	2390	CG	ASN	A	849	-6.864	81.343	99.890	1.00 28.24
ATOM	2391	OD1	ASN	A	849	-5.984	81.196	100.734	1.00 28.24
ATOM	2392	ND2	ASN	A	849	-7.605	80.337	99.453	1.00 28.24
ATOM	2393	C	ASN	A	849	-7.077	85.178	99.679	1.00 24.61
ATOM	2394	O	ASN	A	849	-5.945	85.650	99.485	1.00 24.61
ATOM	2395	N	ARG	A	850	-8.184	85.833	99.336	1.00 22.34
ATOM	2396	CA	ARG	A	850	-8.053	87.148	98.725	1.00 22.34
ATOM	2397	CB	ARG	A	850	-9.411	87.704	98.277	1.00 30.35
ATOM	2398	CG	ARG	A	850	-9.268	88.980	97.448	1.00 30.35
ATOM	2399	CD	ARG	A	850	-10.608	89.600	97.090	1.00 30.35
ATOM	2400	NE	ARG	A	850	-10.456	90.843	96.328	1.00 30.35
ATOM	2401	CZ	ARG	A	850	-9.936	91.968	96.809	1.00 30.35
ATOM	2402	NH1	ARG	A	850	-9.511	92.027	98.063	1.00 30.35
ATOM	2403	NH2	ARG	A	850	-9.830	93.035	96.032	1.00 30.35
ATOM	2404	C	ARG	A	850	-7.408	88.102	99.740	1.00 22.34
ATOM	2405	O	ARG	A	850	-6.555	88.917	99.385	1.00 22.34
ATOM	2406	N	GLN	A	851	-7.821	87.993	101.000	1.00 31.22
ATOM	2407	CA	GLN	A	851	-7.276	88.833	102.066	1.00 31.22
ATOM	2408	CB	GLN	A	851	-8.007	88.550	103.376	1.00100.00
ATOM	2409	CG	GLN	A	851	-7.373	89.202	104.588	1.00100.00
ATOM	2410	CD	GLN	A	851	-8.046	88.790	105.882	1.00100.00
ATOM	2411	OE1	GLN	A	851	-7.608	89.167	106.969	1.00100.00
ATOM	2412	NE2	GLN	A	851	-9.122	88.012	105.771	1.00100.00
ATOM	2413	C	GLN	A	851	-5.771	88.596	102.260	1.00 31.22
ATOM	2414	O	GLN	A	851	-5.002	89.546	102.400	1.00 31.22
ATOM	2415	N	LYS	A	852	-5.366	87.328	102.283	1.00 28.76
ATOM	2416	CA	LYS	A	852	-3.961	86.964	102.446	1.00 28.76
ATOM	2417	CB	LYS	A	852	-3.802	85.440	102.453	1.00 39.10
ATOM	2418	CG	LYS	A	852	-4.458	84.746	103.639	1.00 39.10
ATOM	2419	CD	LYS	A	852	-3.596	84.830	104.889	1.00 39.10
ATOM	2420	CE	LYS	A	852	-4.382	84.413	106.122	1.00 39.10
ATOM	2421	NZ	LYS	A	852	-5.122	83.128	105.934	1.00 39.10
ATOM	2422	C	LYS	A	852	-3.116	87.553	101.324	1.00 28.76
ATOM	2423	O	LYS	A	852	-2.128	88.241	101.577	1.00 28.76
ATOM	2424	N	TRP	A	853	-3.504	87.276	100.083	1.00 35.05
ATOM	2425	CA	TRP	A	853	-2.772	87.785	98.937	1.00 35.05
ATOM	2426	CB	TRP	A	853	-3.350	87.230	97.638	1.00 23.82
ATOM	2427	CG	TRP	A	853	-3.020	85.789	97.382	1.00 23.82
ATOM	2428	CD2	TRP	A	853	-1.723	85.234	97.133	1.00 23.82

ATOM	2429	CE2	TRP	A	853	-1.899	83.858	96.880	1.00	23.82
ATOM	2430	CE3	TRP	A	853	-0.428	85.767	97.093	1.00	23.82
ATOM	2431	CD1	TRP	A	853	-3.904	84.755	97.280	1.00	23.82
ATOM	2432	NE1	TRP	A	853	-3.239	83.591	96.975	1.00	23.82
ATOM	2433	CZ2	TRP	A	853	-0.830	83.006	96.591	1.00	23.82
ATOM	2434	CZ3	TRP	A	853	0.637	84.918	96.801	1.00	23.82
ATOM	2435	CH2	TRP	A	853	0.426	83.552	96.555	1.00	23.82
ATOM	2436	C	TRP	A	853	-2.798	89.309	98.896	1.00	35.05
ATOM	2437	O	TRP	A	853	-1.781	89.941	98.618	1.00	35.05
ATOM	2438	N	GLN	A	854	-3.954	89.907	99.163	1.00	30.81
ATOM	2439	CA	GLN	A	854	-4.028	91.357	99.153	1.00	30.81
ATOM	2440	CB	GLN	A	854	-5.434	91.846	99.482	1.00	36.54
ATOM	2441	CG	GLN	A	854	-5.415	93.253	100.058	1.00	36.54
ATOM	2442	CD	GLN	A	854	-6.497	94.144	99.510	1.00	36.54
ATOM	2443	OE1	GLN	A	854	-6.490	94.492	98.325	1.00	36.54
ATOM	2444	NE2	GLN	A	854	-7.438	94.527	100.372	1.00	36.54
ATOM	2445	C	GLN	A	854	-3.048	91.956	100.154	1.00	30.81
ATOM	2446	O	GLN	A	854	-2.335	92.906	99.832	1.00	30.81
ATOM	2447	N	ALA	A	855	-3.028	91.410	101.369	1.00	37.66
ATOM	2448	CA	ALA	A	855	-2.120	91.888	102.412	1.00	37.66
ATOM	2449	CB	ALA	A	855	-2.257	91.030	103.667	1.00	38.40
ATOM	2450	C	ALA	A	855	-0.675	91.854	101.922	1.00	37.66
ATOM	2451	O	ALA	A	855	0.096	92.786	102.161	1.00	37.66
ATOM	2452	N	LEU	A	856	-0.316	90.774	101.235	1.00	43.04
ATOM	2453	CA	LEU	A	856	1.032	90.616	100.710	1.00	43.04
ATOM	2454	CB	LEU	A	856	1.246	89.188	100.209	1.00	35.50
ATOM	2455	CG	LEU	A	856	0.926	88.052	101.177	1.00	35.50
ATOM	2456	CD1	LEU	A	856	1.268	86.732	100.508	1.00	35.50
ATOM	2457	CD2	LEU	A	856	1.716	88.220	102.474	1.00	35.50
ATOM	2458	C	LEU	A	856	1.253	91.582	99.563	1.00	43.04
ATOM	2459	O	LEU	A	856	2.365	92.041	99.333	1.00	43.04
ATOM	2460	N	ALA	A	857	0.179	91.881	98.843	1.00	35.97
ATOM	2461	CA	ALA	A	857	0.239	92.786	97.703	1.00	35.97
ATOM	2462	CB	ALA	A	857	-1.096	92.783	96.963	1.00	33.33
ATOM	2463	C	ALA	A	857	0.582	94.197	98.154	1.00	35.97
ATOM	2464	O	ALA	A	857	1.550	94.791	97.675	1.00	35.97
ATOM	2465	N	GLU	A	858	-0.214	94.739	99.069	1.00	64.14
ATOM	2466	CA	GLU	A	858	0.041	96.081	99.563	1.00	64.14
ATOM	2467	CB	GLU	A	858	-1.201	96.647	100.256	1.00	63.52
ATOM	2468	CG	GLU	A	858	-1.785	95.777	101.344	1.00	63.52
ATOM	2469	CD	GLU	A	858	-3.121	96.304	101.837	1.00	63.52
ATOM	2470	OE1	GLU	A	858	-4.064	96.419	101.022	1.00	63.52
ATOM	2471	OE2	GLU	A	858	-3.227	96.604	103.042	1.00	63.52
ATOM	2472	C	GLU	A	858	1.229	96.057	100.511	1.00	64.14
ATOM	2473	O	GLU	A	858	1.446	96.981	101.288	1.00	64.14
ATOM	2474	N	GLN	A	859	1.997	94.978	100.428	1.00	69.73
ATOM	2475	CA	GLN	A	859	3.189	94.800	101.244	1.00	69.73
ATOM	2476	CB	GLN	A	859	3.160	93.432	101.934	1.00	79.22
ATOM	2477	CG	GLN	A	859	4.334	93.164	102.867	1.00	79.22
ATOM	2478	CD	GLN	A	859	4.459	91.697	103.235	1.00	79.22
ATOM	2479	OE1	GLN	A	859	4.760	90.859	102.386	1.00	79.22
ATOM	2480	NE2	GLN	A	859	4.223	91.379	104.503	1.00	79.22
ATOM	2481	C	GLN	A	859	4.370	94.865	100.281	1.00	69.73
ATOM	2482	O	GLN	A	859	5.506	95.135	100.676	1.00	69.73
ATOM	2483	N	GLN	A	860	4.079	94.624	99.007	1.00	62.88
ATOM	2484	CA	GLN	A	860	5.098	94.636	97.969	1.00	62.88
ATOM	2485	CB	GLN	A	860	4.785	93.575	96.911	1.00	71.18
ATOM	2486	CG	GLN	A	860	5.997	93.098	96.140	1.00	71.18
ATOM	2487	CD	GLN	A	860	7.059	92.518	97.056	1.00	71.18
ATOM	2488	OE1	GLN	A	860	6.768	92.121	98.188	1.00	71.18
ATOM	2489	NE2	GLN	A	860	8.293	92.451	96.568	1.00	71.18
ATOM	2490	C	GLN	A	860	5.193	95.998	97.302	1.00	62.88
ATOM	2491	O	GLN	A	860	6.276	96.414	96.892	1.00	62.88
ATOM	2492	N	GLU	A	861	4.061	96.691	97.192	1.00	71.60
ATOM	2493	CA	GLU	A	861	4.043	98.006	96.566	1.00	71.60
ATOM	2494	CB	GLU	A	861	2.610	98.411	96.202	1.00	96.43

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ATOM   2495  CG  GLU A 861       1.599  98.269  97.320  1.00 96.43
ATOM   2496  CD  GLU A 861       0.185  98.567  96.857  1.00 96.43
ATOM   2497  OE1 GLU A 861      -0.275  97.919  95.891  1.00 96.43
ATOM   2498  OE2 GLU A 861      -0.468  99.447  97.458  1.00 96.43
ATOM   2499  C   GLU A 861       4.690  99.058  97.459  1.00 71.60
ATOM   2500  O   GLU A 861       4.257 100.209  97.512  1.00 71.60
ATOM   2501  N   LYS A 862       5.739  98.640  98.160  1.00 66.78
ATOM   2502  CA  LYS A 862       6.494  99.517  99.039  1.00 66.78
ATOM   2503  CB  LYS A 862       5.755  99.714 100.367  1.00 82.76
ATOM   2504  CG  LYS A 862       5.422  98.424 101.101  1.00 82.76
ATOM   2505  CD  LYS A 862       5.163  98.677 102.582  1.00 82.76
ATOM   2506  CE  LYS A 862       3.989  99.611 102.804  1.00 82.76
ATOM   2507  NZ  LYS A 862       2.717  99.016 102.318  1.00 82.76
ATOM   2508  C   LYS A 862       7.874  98.911  99.292  1.00 66.78
ATOM   2509  O   LYS A 862       8.046  97.698  99.042  1.00 66.78
ATOM   2510  OXT LYS A 862       8.767  99.657  99.743  1.00 82.76
TER
ATOM   2512  CB  THR B 537      11.692  23.746  64.159  1.00 45.29
ATOM   2513  OG1 THR B 537      10.315  23.350  64.169  1.00 45.29
ATOM   2514  CG2 THR B 537      12.296  23.495  65.541  1.00 45.29
ATOM   2515  C   THR B 537      11.372  25.437  62.336  1.00 58.61
ATOM   2516  O   THR B 537      11.605  26.496  61.753  1.00 58.61
ATOM   2517  N   THR B 537      10.950  26.079  64.684  1.00 58.61
ATOM   2518  CA  THR B 537      11.799  25.245  63.786  1.00 58.61
ATOM   2519  N   ARG B 538      10.757  24.403  61.765  1.00 55.67
ATOM   2520  CA  ARG B 538      10.261  24.416  60.389  1.00 55.67
ATOM   2521  CB  ARG B 538       9.411  25.671  60.136  1.00100.00
ATOM   2522  CG  ARG B 538       8.806  25.755  58.733  1.00100.00
ATOM   2523  CD  ARG B 538       8.019  24.495  58.384  1.00100.00
ATOM   2524  NE  ARG B 538       6.971  24.210  59.363  1.00100.00
ATOM   2525  CZ  ARG B 538       6.244  23.096  59.382  1.00100.00
ATOM   2526  NH1 ARG B 538       6.448  22.152  58.474  1.00100.00
ATOM   2527  NH2 ARG B 538       5.315  22.925  60.312  1.00100.00
ATOM   2528  C   ARG B 538      11.354  24.317  59.332  1.00 55.67
ATOM   2529  O   ARG B 538      11.492  23.288  58.667  1.00 55.67
ATOM   2530  N   GLU B 539      12.117  25.392  59.161  1.00 46.35
ATOM   2531  CA  GLU B 539      13.193  25.391  58.182  1.00 46.35
ATOM   2532  CB  GLU B 539      13.922  26.733  58.175  1.00 71.61
ATOM   2533  CG  GLU B 539      14.985  26.825  57.095  1.00 71.61
ATOM   2534  CD  GLU B 539      15.705  28.158  57.095  1.00 71.61
ATOM   2535  OE1 GLU B 539      16.573  28.362  56.217  1.00 71.61
ATOM   2536  OE2 GLU B 539      15.405  28.997  57.971  1.00 71.61
ATOM   2537  C   GLU B 539      14.180  24.277  58.508  1.00 46.35
ATOM   2538  O   GLU B 539      14.752  23.664  57.610  1.00 46.35
ATOM   2539  N   LEU B 540      14.376  24.024  59.800  1.00 40.17
ATOM   2540  CA  LEU B 540      15.287  22.976  60.237  1.00 40.17
ATOM   2541  CB  LEU B 540      15.461  23.010  61.762  1.00 33.52
ATOM   2542  CG  LEU B 540      16.251  21.861  62.406  1.00 33.52
ATOM   2543  CD1 LEU B 540      17.656  21.772  61.824  1.00 33.52
ATOM   2544  CD2 LEU B 540      16.313  22.081  63.908  1.00 33.52
ATOM   2545  C   LEU B 540      14.742  21.619  59.812  1.00 40.17
ATOM   2546  O   LEU B 540      15.506  20.705  59.497  1.00 40.17
ATOM   2547  N   GLN B 541      13.418  21.498  59.800  1.00 38.03
ATOM   2548  CA  GLN B 541      12.769  20.252  59.411  1.00 38.03
ATOM   2549  CB  GLN B 541      11.273  20.308  59.744  1.00 89.76
ATOM   2550  CG  GLN B 541      10.981  20.637  61.207  1.00 89.76
ATOM   2551  CD  GLN B 541       9.510  20.501  61.567  1.00 89.76
ATOM   2552  OE1 GLN B 541       8.642  21.077  60.912  1.00 89.76
ATOM   2553  NE2 GLN B 541       9.227  19.740  62.620  1.00 89.76
ATOM   2554  C   GLN B 541      12.973  19.977  57.920  1.00 38.03
ATOM   2555  O   GLN B 541      13.381  18.882  57.537  1.00 38.03
ATOM   2556  N   SER B 542      12.696  20.971  57.081  1.00 47.88
ATOM   2557  CA  SER B 542      12.868  20.806  55.643  1.00 47.88
ATOM   2558  CB  SER B 542      12.590  22.120  54.905  1.00 52.75
ATOM   2559  OG  SER B 542      11.308  22.631  55.216  1.00 52.75
ATOM   2560  C   SER B 542      14.306  20.387  55.382  1.00 47.88
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ATOM	2561	O	SER	B	542	14.567	19.323	54.814	1.00 47.88
ATOM	2562	N	LEU	B	543	15.236	21.230	55.824	1.00 27.54
ATOM	2563	CA	LEU	B	543	16.658	20.979	55.635	1.00 27.54
ATOM	2564	CB	LEU	B	543	17.483	22.059	56.338	1.00 31.13
ATOM	2565	CG	LEU	B	543	19.003	21.881	56.264	1.00 31.13
ATOM	2566	CD1	LEU	B	543	19.432	21.800	54.809	1.00 31.13
ATOM	2567	CD2	LEU	B	543	19.695	23.047	56.963	1.00 31.13
ATOM	2568	C	LEU	B	543	17.124	19.617	56.124	1.00 27.54
ATOM	2569	O	LEU	B	543	17.733	18.858	55.371	1.00 27.54
ATOM	2570	N	ALA	B	544	16.834	19.317	57.386	1.00 36.60
ATOM	2571	CA	ALA	B	544	17.256	18.069	58.005	1.00 36.60
ATOM	2572	CB	ALA	B	544	16.804	18.041	59.464	1.00 22.21
ATOM	2573	C	ALA	B	544	16.813	16.788	57.308	1.00 36.60
ATOM	2574	O	ALA	B	544	17.534	15.785	57.332	1.00 36.60
ATOM	2575	N	ALA	B	545	15.640	16.808	56.688	1.00 57.89
ATOM	2576	CA	ALA	B	545	15.136	15.609	56.029	1.00 57.89
ATOM	2577	CB	ALA	B	545	13.695	15.357	56.469	1.00 70.96
ATOM	2578	C	ALA	B	545	15.225	15.592	54.499	1.00 57.89
ATOM	2579	O	ALA	B	545	14.637	14.721	53.859	1.00 57.89
ATOM	2580	N	ALA	B	546	15.956	16.537	53.912	1.00 40.87
ATOM	2581	CA	ALA	B	546	16.100	16.594	52.458	1.00 40.87
ATOM	2582	CB	ALA	B	546	16.258	18.039	52.003	1.00 32.26
ATOM	2583	C	ALA	B	546	17.303	15.781	52.003	1.00 40.87
ATOM	2584	O	ALA	B	546	18.261	15.602	52.753	1.00 40.87
ATOM	2585	N	VAL	B	547	17.254	15.284	50.772	1.00 37.96
ATOM	2586	CA	VAL	B	547	18.367	14.513	50.243	1.00 37.96
ATOM	2587	CB	VAL	B	547	17.973	13.746	48.969	1.00 50.74
ATOM	2588	CG1	VAL	B	547	19.195	13.063	48.377	1.00 50.74
ATOM	2589	CG2	VAL	B	547	16.898	12.721	49.294	1.00 50.74
ATOM	2590	C	VAL	B	547	19.488	15.481	49.905	1.00 37.96
ATOM	2591	O	VAL	B	547	19.258	16.551	49.347	1.00 37.96
ATOM	2592	N	VAL	B	548	20.705	15.107	50.258	1.00 27.34
ATOM	2593	CA	VAL	B	548	21.850	15.948	49.988	1.00 27.34
ATOM	2594	CB	VAL	B	548	22.849	15.908	51.163	1.00 37.52
ATOM	2595	CG1	VAL	B	548	23.980	16.903	50.928	1.00 37.52
ATOM	2596	CG2	VAL	B	548	22.124	16.225	52.457	1.00 37.52
ATOM	2597	C	VAL	B	548	22.518	15.428	48.724	1.00 27.34
ATOM	2598	O	VAL	B	548	23.157	14.379	48.740	1.00 27.34
ATOM	2599	N	PRO	B	549	22.354	16.152	47.603	1.00 33.71
ATOM	2600	CD	PRO	B	549	21.570	17.392	47.474	1.00 35.85
ATOM	2601	CA	PRO	B	549	22.937	15.772	46.313	1.00 33.71
ATOM	2602	CB	PRO	B	549	22.545	16.936	45.408	1.00 35.85
ATOM	2603	CG	PRO	B	549	21.252	17.400	46.006	1.00 35.85
ATOM	2604	C	PRO	B	549	24.446	15.623	46.439	1.00 33.71
ATOM	2605	O	PRO	B	549	25.056	16.255	47.301	1.00 33.71
ATOM	2606	N	SER	B	550	25.046	14.791	45.592	1.00 35.69
ATOM	2607	CA	SER	B	550	26.491	14.576	45.629	1.00 35.69
ATOM	2608	CB	SER	B	550	26.897	13.475	44.649	1.00 35.89
ATOM	2609	OG	SER	B	550	26.768	13.921	43.312	1.00 35.89
ATOM	2610	C	SER	B	550	27.219	15.867	45.255	1.00 35.69
ATOM	2611	O	SER	B	550	26.609	16.802	44.731	1.00 35.69
ATOM	2612	N	ALA	B	551	28.519	15.918	45.519	1.00 40.65
ATOM	2613	CA	ALA	B	551	29.299	17.104	45.197	1.00 40.65
ATOM	2614	CB	ALA	B	551	30.729	16.966	45.723	1.00 25.23
ATOM	2615	C	ALA	B	551	29.315	17.287	43.690	1.00 40.65
ATOM	2616	O	ALA	B	551	29.162	18.401	43.191	1.00 40.65
ATOM	2617	N	GLN	B	552	29.499	16.186	42.970	1.00 33.43
ATOM	2618	CA	GLN	B	552	29.532	16.242	41.521	1.00 33.43
ATOM	2619	CB	GLN	B	552	29.724	14.851	40.930	1.00 69.73
ATOM	2620	CG	GLN	B	552	29.713	14.857	39.418	1.00 69.73
ATOM	2621	CD	GLN	B	552	30.198	13.561	38.825	1.00 69.73
ATOM	2622	OE1	GLN	B	552	30.225	13.399	37.607	1.00 69.73
ATOM	2623	NE2	GLN	B	552	30.594	12.626	39.683	1.00 69.73
ATOM	2624	C	GLN	B	552	28.244	16.846	40.996	1.00 33.43
ATOM	2625	O	GLN	B	552	28.270	17.758	40.170	1.00 33.43
ATOM	2626	N	THR	B	553	27.117	16.335	41.477	1.00 26.25

ATOM	2627	CA	THR	B	553	25.807	16.840	41.071	1.00 26.25
ATOM	2628	CB	THR	B	553	24.678	16.148	41.863	1.00 32.45
ATOM	2629	OG1	THR	B	553	24.819	14.724	41.768	1.00 32.45
ATOM	2630	CG2	THR	B	553	23.317	16.573	41.325	1.00 32.45
ATOM	2631	C	THR	B	553	25.682	18.344	41.316	1.00 26.25
ATOM	2632	O	THR	B	553	25.249	19.093	40.438	1.00 26.25
ATOM	2633	N	LEU	B	554	26.057	18.774	42.522	1.00 37.63
ATOM	2634	CA	LEU	B	554	25.986	20.180	42.922	1.00 37.63
ATOM	2635	CB	LEU	B	554	26.170	20.304	44.438	1.00 34.33
ATOM	2636	CG	LEU	B	554	25.103	19.674	45.338	1.00 34.33
ATOM	2637	CD1	LEU	B	554	25.533	19.774	46.794	1.00 34.33
ATOM	2638	CD2	LEU	B	554	23.769	20.375	45.121	1.00 34.33
ATOM	2639	C	LEU	B	554	27.023	21.047	42.219	1.00 37.63
ATOM	2640	O	LEU	B	554	26.905	22.273	42.186	1.00 37.63
ATOM	2641	N	LYS	B	555	28.043	20.406	41.664	1.00 25.27
ATOM	2642	CA	LYS	B	555	29.099	21.116	40.955	1.00 25.27
ATOM	2643	CB	LYS	B	555	28.504	21.884	39.768	1.00 73.68
ATOM	2644	CG	LYS	B	555	28.099	20.982	38.599	1.00 73.68
ATOM	2645	CD	LYS	B	555	27.517	21.764	37.427	1.00 73.68
ATOM	2646	CE	LYS	B	555	26.022	22.012	37.590	1.00 73.68
ATOM	2647	NZ	LYS	B	555	25.688	22.783	38.815	1.00 73.68
ATOM	2648	C	LYS	B	555	29.897	22.056	41.863	1.00 25.27
ATOM	2649	O	LYS	B	555	30.562	22.983	41.397	1.00 25.27
ATOM	2650	N	ILE	B	556	29.837	21.801	43.163	1.00 25.87
ATOM	2651	CA	ILE	B	556	30.568	22.616	44.120	1.00 25.87
ATOM	2652	CB	ILE	B	556	30.115	22.324	45.567	1.00 31.96
ATOM	2653	CG2	ILE	B	556	28.678	22.765	45.747	1.00 31.96
ATOM	2654	CG1	ILE	B	556	30.260	20.829	45.879	1.00 31.96
ATOM	2655	CD1	ILE	B	556	29.914	20.459	47.331	1.00 31.96
ATOM	2656	C	ILE	B	556	32.071	22.364	44.011	1.00 25.87
ATOM	2657	O	ILE	B	556	32.856	22.956	44.738	1.00 25.87
ATOM	2658	N	THR	B	557	32.476	21.481	43.107	1.00 33.05
ATOM	2659	CA	THR	B	557	33.896	21.200	42.958	1.00 33.05
ATOM	2660	CB	THR	B	557	34.145	19.743	42.572	1.00 42.28
ATOM	2661	OG1	THR	B	557	33.577	18.883	43.564	1.00 42.28
ATOM	2662	CG2	THR	B	557	35.637	19.473	42.484	1.00 42.28
ATOM	2663	C	THR	B	557	34.557	22.087	41.914	1.00 33.05
ATOM	2664	O	THR	B	557	35.777	22.219	41.885	1.00 33.05
ATOM	2665	N	ASP	B	558	33.756	22.708	41.061	1.00 27.51
ATOM	2666	CA	ASP	B	558	34.311	23.560	40.019	1.00 27.51
ATOM	2667	CB	ASP	B	558	33.320	23.693	38.862	1.00 50.05
ATOM	2668	CG	ASP	B	558	32.769	22.358	38.415	1.00 50.05
ATOM	2669	OD1	ASP	B	558	33.553	21.388	38.353	1.00 50.05
ATOM	2670	OD2	ASP	B	558	31.557	22.278	38.117	1.00 50.05
ATOM	2671	C	ASP	B	558	34.677	24.954	40.516	1.00 27.51
ATOM	2672	O	ASP	B	558	33.866	25.630	41.150	1.00 27.51
ATOM	2673	N	PHE	B	559	35.900	25.382	40.226	1.00 19.49
ATOM	2674	CA	PHE	B	559	36.337	26.718	40.610	1.00 19.49
ATOM	2675	CB	PHE	B	559	37.776	26.967	40.150	1.00 25.83
ATOM	2676	CG	PHE	B	559	38.812	26.272	40.984	1.00 25.83
ATOM	2677	CD1	PHE	B	559	39.045	26.665	42.292	1.00 25.83
ATOM	2678	CD2	PHE	B	559	39.555	25.220	40.459	1.00 25.83
ATOM	2679	CE1	PHE	B	559	40.010	26.023	43.077	1.00 25.83
ATOM	2680	CE2	PHE	B	559	40.520	24.571	41.235	1.00 25.83
ATOM	2681	CZ	PHE	B	559	40.745	24.977	42.547	1.00 25.83
ATOM	2682	C	PHE	B	559	35.421	27.786	39.991	1.00 19.49
ATOM	2683	O	PHE	B	559	35.302	28.885	40.523	1.00 19.49
ATOM	2684	N	SER	B	560	34.767	27.469	38.878	1.00 30.17
ATOM	2685	CA	SER	B	560	33.890	28.454	38.231	1.00 30.17
ATOM	2686	CB	SER	B	560	33.931	28.288	36.702	1.00 30.71
ATOM	2687	OG	SER	B	560	33.528	26.991	36.306	1.00 30.71
ATOM	2688	C	SER	B	560	32.436	28.430	38.731	1.00 30.17
ATOM	2689	O	SER	B	560	31.558	29.084	38.168	1.00 30.17
ATOM	2690	N	PHE	B	561	32.203	27.687	39.806	1.00 26.34
ATOM	2691	CA	PHE	B	561	30.884	27.578	40.433	1.00 26.34
ATOM	2692	CB	PHE	B	561	31.028	26.842	41.763	1.00 22.81

ATOM	2693	CG	PHE	B	561	29.776	26.813	42.583	1.00	22.81
ATOM	2694	CD1	PHE	B	561	28.849	25.792	42.427	1.00	22.81
ATOM	2695	CD2	PHE	B	561	29.533	27.798	43.537	1.00	22.81
ATOM	2696	CE1	PHE	B	561	27.698	25.752	43.217	1.00	22.81
ATOM	2697	CE2	PHE	B	561	28.383	27.765	44.331	1.00	22.81
ATOM	2698	CZ	PHE	B	561	27.469	26.748	44.175	1.00	22.81
ATOM	2699	C	PHE	B	561	30.225	28.940	40.705	1.00	26.34
ATOM	2700	O	PHE	B	561	30.902	29.915	41.043	1.00	26.34
ATOM	2701	N	SER	B	562	28.899	28.985	40.574	1.00	23.82
ATOM	2702	CA	SER	B	562	28.121	30.193	40.835	1.00	23.82
ATOM	2703	CB	SER	B	562	27.712	30.871	39.527	1.00	40.48
ATOM	2704	OG	SER	B	562	26.947	32.037	39.782	1.00	40.48
ATOM	2705	C	SER	B	562	26.868	29.815	41.628	1.00	23.82
ATOM	2706	O	SER	B	562	26.218	28.801	41.349	1.00	23.82
ATOM	2707	N	ASP	B	563	26.533	30.632	42.616	1.00	24.35
ATOM	2708	CA	ASP	B	563	25.376	30.366	43.457	1.00	24.35
ATOM	2709	CB	ASP	B	563	25.657	30.843	44.877	1.00	26.22
ATOM	2710	CG	ASP	B	563	25.638	32.355	44.983	1.00	26.22
ATOM	2711	OD1	ASP	B	563	26.480	33.001	44.314	1.00	26.22
ATOM	2712	OD2	ASP	B	563	24.774	32.896	45.715	1.00	26.22
ATOM	2713	C	ASP	B	563	24.130	31.091	42.960	1.00	24.35
ATOM	2714	O	ASP	B	563	23.038	30.845	43.447	1.00	24.35
ATOM	2715	N	PHE	B	564	24.305	31.989	41.999	1.00	33.76
ATOM	2716	CA	PHE	B	564	23.202	32.782	41.463	1.00	33.76
ATOM	2717	CB	PHE	B	564	23.635	33.450	40.153	1.00	76.54
ATOM	2718	CG	PHE	B	564	22.637	34.439	39.619	1.00	76.54
ATOM	2719	CD1	PHE	B	564	22.212	35.511	40.404	1.00	76.54
ATOM	2720	CD2	PHE	B	564	22.118	34.302	38.334	1.00	76.54
ATOM	2721	CE1	PHE	B	564	21.283	36.434	39.917	1.00	76.54
ATOM	2722	CE2	PHE	B	564	21.189	35.220	37.836	1.00	76.54
ATOM	2723	CZ	PHE	B	564	20.771	36.288	38.631	1.00	76.54
ATOM	2724	C	PHE	B	564	21.870	32.052	41.251	1.00	33.76
ATOM	2725	O	PHE	B	564	20.811	32.603	41.549	1.00	33.76
ATOM	2726	N	GLU	B	565	21.914	30.821	40.752	1.00	39.05
ATOM	2727	CA	GLU	B	565	20.689	30.059	40.497	1.00	39.05
ATOM	2728	CB	GLU	B	565	20.923	29.046	39.372	1.00100.00	
ATOM	2729	CG	GLU	B	565	21.206	29.640	38.005	1.00100.00	
ATOM	2730	CD	GLU	B	565	21.229	28.578	36.909	1.00100.00	
ATOM	2731	OE1	GLU	B	565	21.424	28.943	35.729	1.00100.00	
ATOM	2732	OE2	GLU	B	565	21.051	27.379	37.225	1.00100.00	
ATOM	2733	C	GLU	B	565	20.092	29.305	41.691	1.00	39.05
ATOM	2734	O	GLU	B	565	18.921	28.918	41.650	1.00	39.05
ATOM	2735	N	LEU	B	566	20.880	29.105	42.749	1.00	35.28
ATOM	2736	CA	LEU	B	566	20.427	28.341	43.918	1.00	35.28
ATOM	2737	CB	LEU	B	566	21.634	27.759	44.663	1.00	35.94
ATOM	2738	CG	LEU	B	566	22.732	27.071	43.846	1.00	35.94
ATOM	2739	CD1	LEU	B	566	23.791	26.528	44.787	1.00	35.94
ATOM	2740	CD2	LEU	B	566	22.143	25.955	43.018	1.00	35.94
ATOM	2741	C	LEU	B	566	19.556	29.063	44.936	1.00	35.28
ATOM	2742	O	LEU	B	566	19.713	30.258	45.177	1.00	35.28
ATOM	2743	N	SER	B	567	18.638	28.311	45.538	1.00	24.25
ATOM	2744	CA	SER	B	567	17.757	28.835	46.577	1.00	24.25
ATOM	2745	CB	SER	B	567	16.508	27.955	46.739	1.00	18.46
ATOM	2746	OG	SER	B	567	16.828	26.648	47.210	1.00	18.46
ATOM	2747	C	SER	B	567	18.559	28.788	47.871	1.00	24.25
ATOM	2748	O	SER	B	567	19.607	28.138	47.930	1.00	24.25
ATOM	2749	N	ASP	B	568	18.072	29.468	48.903	1.00	32.38
ATOM	2750	CA	ASP	B	568	18.761	29.459	50.189	1.00	32.38
ATOM	2751	CB	ASP	B	568	17.981	30.266	51.230	1.00	33.94
ATOM	2752	CG	ASP	B	568	18.100	31.760	51.015	1.00	33.94
ATOM	2753	OD1	ASP	B	568	17.436	32.520	51.752	1.00	33.94
ATOM	2754	OD2	ASP	B	568	18.862	32.178	50.114	1.00	33.94
ATOM	2755	C	ASP	B	568	18.907	28.017	50.664	1.00	32.38
ATOM	2756	O	ASP	B	568	19.975	27.614	51.131	1.00	32.38
ATOM	2757	N	LEU	B	569	17.832	27.242	50.539	1.00	25.76
ATOM	2758	CA	LEU	B	569	17.859	25.844	50.959	1.00	25.76

ATOM	2759	CB	LEU	B	569	16.523	25.159	50.652	1.00	41.69
ATOM	2760	CG	LEU	B	569	16.502	23.636	50.850	1.00	41.69
ATOM	2761	CD1	LEU	B	569	16.621	23.299	52.334	1.00	41.69
ATOM	2762	CD2	LEU	B	569	15.212	23.061	50.274	1.00	41.69
ATOM	2763	C	LEU	B	569	18.989	25.083	50.265	1.00	25.76
ATOM	2764	O	LEU	B	569	19.723	24.336	50.903	1.00	25.76
ATOM	2765	N	GLU	B	570	19.125	25.278	48.959	1.00	32.76
ATOM	2766	CA	GLU	B	570	20.162	24.591	48.188	1.00	32.76
ATOM	2767	CB	GLU	B	570	19.995	24.907	46.696	1.00	53.22
ATOM	2768	CG	GLU	B	570	18.922	24.069	46.017	1.00	53.22
ATOM	2769	CD	GLU	B	570	18.536	24.585	44.639	1.00	53.22
ATOM	2770	OE1	GLU	B	570	19.418	24.734	43.770	1.00	53.22
ATOM	2771	OE2	GLU	B	570	17.334	24.838	44.423	1.00	53.22
ATOM	2772	C	GLU	B	570	21.588	24.919	48.640	1.00	32.76
ATOM	2773	O	GLU	B	570	22.459	24.046	48.652	1.00	32.76
ATOM	2774	N	THR	B	571	21.832	26.173	49.007	1.00	23.50
ATOM	2775	CA	THR	B	571	23.161	26.561	49.463	1.00	23.50
ATOM	2776	CB	THR	B	571	23.263	28.090	49.649	1.00	19.81
ATOM	2777	OG1	THR	B	571	22.403	28.505	50.715	1.00	19.81
ATOM	2778	CG2	THR	B	571	22.843	28.812	48.366	1.00	19.81
ATOM	2779	C	THR	B	571	23.423	25.849	50.798	1.00	23.50
ATOM	2780	O	THR	B	571	24.558	25.509	51.123	1.00	23.50
ATOM	2781	N	ALA	B	572	22.362	25.613	51.563	1.00	26.09
ATOM	2782	CA	ALA	B	572	22.493	24.922	52.836	1.00	26.09
ATOM	2783	CB	ALA	B	572	21.183	24.980	53.603	1.00	24.86
ATOM	2784	C	ALA	B	572	22.892	23.470	52.569	1.00	26.09
ATOM	2785	O	ALA	B	572	23.788	22.932	53.223	1.00	26.09
ATOM	2786	N	LEU	B	573	22.226	22.845	51.600	1.00	27.04
ATOM	2787	CA	LEU	B	573	22.531	21.466	51.229	1.00	27.04
ATOM	2788	CB	LEU	B	573	21.522	20.964	50.187	1.00	28.57
ATOM	2789	CG	LEU	B	573	20.109	20.724	50.734	1.00	28.57
ATOM	2790	CD1	LEU	B	573	19.094	20.629	49.603	1.00	28.57
ATOM	2791	CD2	LEU	B	573	20.118	19.452	51.559	1.00	28.57
ATOM	2792	C	LEU	B	573	23.958	21.380	50.676	1.00	27.04
ATOM	2793	O	LEU	B	573	24.676	20.410	50.924	1.00	27.04
ATOM	2794	N	CYS	B	574	24.364	22.392	49.918	1.00	20.15
ATOM	2795	CA	CYS	B	574	25.716	22.413	49.375	1.00	20.15
ATOM	2796	CB	CYS	B	574	25.927	23.628	48.466	1.00	34.28
ATOM	2797	SG	CYS	B	574	25.245	23.447	46.800	1.00	34.28
ATOM	2798	C	CYS	B	574	26.691	22.477	50.539	1.00	20.15
ATOM	2799	O	CYS	B	574	27.714	21.790	50.550	1.00	20.15
ATOM	2800	N	THR	B	575	26.361	23.299	51.531	1.00	21.90
ATOM	2801	CA	THR	B	575	27.231	23.425	52.685	1.00	21.90
ATOM	2802	CB	THR	B	575	26.709	24.492	53.653	1.00	20.57
ATOM	2803	OG1	THR	B	575	26.659	25.749	52.964	1.00	20.57
ATOM	2804	CG2	THR	B	575	27.630	24.623	54.865	1.00	20.57
ATOM	2805	C	THR	B	575	27.388	22.085	53.397	1.00	21.90
ATOM	2806	O	THR	B	575	28.501	21.690	53.711	1.00	21.90
ATOM	2807	N	ILE	B	576	26.293	21.373	53.647	1.00	19.41
ATOM	2808	CA	ILE	B	576	26.428	20.087	54.319	1.00	19.41
ATOM	2809	CB	ILE	B	576	25.055	19.448	54.639	1.00	41.99
ATOM	2810	CG2	ILE	B	576	24.074	19.723	53.542	1.00	41.99
ATOM	2811	CG1	ILE	B	576	25.234	17.951	54.875	1.00	41.99
ATOM	2812	CD1	ILE	B	576	23.938	17.185	55.042	1.00	41.99
ATOM	2813	C	ILE	B	576	27.285	19.116	53.496	1.00	19.41
ATOM	2814	O	ILE	B	576	28.071	18.355	54.051	1.00	19.41
ATOM	2815	N	ARG	B	577	27.140	19.149	52.176	1.00	21.69
ATOM	2816	CA	ARG	B	577	27.934	18.278	51.321	1.00	21.69
ATOM	2817	CB	ARG	B	577	27.543	18.437	49.848	1.00	27.86
ATOM	2818	CG	ARG	B	577	28.467	17.679	48.879	1.00	27.86
ATOM	2819	CD	ARG	B	577	28.589	16.191	49.246	1.00	27.86
ATOM	2820	NE	ARG	B	577	27.294	15.512	49.210	1.00	27.86
ATOM	2821	CZ	ARG	B	577	27.105	14.238	49.544	1.00	27.86
ATOM	2822	NH1	ARG	B	577	28.128	13.502	49.942	1.00	27.86
ATOM	2823	NH2	ARG	B	577	25.891	13.704	49.483	1.00	27.86
ATOM	2824	C	ARG	B	577	29.405	18.617	51.482	1.00	21.69

ATOM	2825	O	ARG	B	577	30.266	17.737	51.399	1.00	21.69
ATOM	2826	N	MET	B	578	29.691	19.898	51.704	1.00	23.56
ATOM	2827	CA	MET	B	578	31.067	20.330	51.889	1.00	23.56
ATOM	2828	CB	MET	B	578	31.155	21.855	51.944	1.00	28.37
ATOM	2829	CG	MET	B	578	31.177	22.522	50.573	1.00	28.37
ATOM	2830	SD	MET	B	578	31.178	24.319	50.672	1.00	28.37
ATOM	2831	CE	MET	B	578	29.748	24.719	49.655	1.00	28.37
ATOM	2832	C	MET	B	578	31.663	19.717	53.158	1.00	23.56
ATOM	2833	O	MET	B	578	32.798	19.261	53.141	1.00	23.56
ATOM	2834	N	PHE	B	579	30.907	19.706	54.255	1.00	20.98
ATOM	2835	CA	PHE	B	579	31.409	19.113	55.494	1.00	20.98
ATOM	2836	CB	PHE	B	579	30.461	19.412	56.666	1.00	25.05
ATOM	2837	CG	PHE	B	579	30.658	20.766	57.290	1.00	25.05
ATOM	2838	CD1	PHE	B	579	30.071	21.900	56.736	1.00	25.05
ATOM	2839	CD2	PHE	B	579	31.434	20.904	58.439	1.00	25.05
ATOM	2840	CE1	PHE	B	579	30.254	23.157	57.322	1.00	25.05
ATOM	2841	CE2	PHE	B	579	31.621	22.146	59.030	1.00	25.05
ATOM	2842	CZ	PHE	B	579	31.029	23.279	58.472	1.00	25.05
ATOM	2843	C	PHE	B	579	31.545	17.586	55.351	1.00	20.98
ATOM	2844	O	PHE	B	579	32.500	16.970	55.841	1.00	20.98
ATOM	2845	N	THR	B	580	30.587	16.971	54.676	1.00	25.85
ATOM	2846	CA	THR	B	580	30.621	15.526	54.528	1.00	25.85
ATOM	2847	CB	THR	B	580	29.304	14.990	53.936	1.00	26.91
ATOM	2848	OG1	THR	B	580	28.186	15.607	54.592	1.00	26.91
ATOM	2849	CG2	THR	B	580	29.220	13.478	54.148	1.00	26.91
ATOM	2850	C	THR	B	580	31.786	15.050	53.664	1.00	25.85
ATOM	2851	O	THR	B	580	32.594	14.233	54.100	1.00	25.85
ATOM	2852	N	ASP	B	581	31.879	15.565	52.444	1.00	23.21
ATOM	2853	CA	ASP	B	581	32.949	15.168	51.534	1.00	23.21
ATOM	2854	CB	ASP	B	581	32.674	15.722	50.138	1.00	53.34
ATOM	2855	CG	ASP	B	581	31.675	14.876	49.375	1.00	53.34
ATOM	2856	OD1	ASP	B	581	30.748	14.324	50.012	1.00	53.34
ATOM	2857	OD2	ASP	B	581	31.813	14.766	48.138	1.00	53.34
ATOM	2858	C	ASP	B	581	34.348	15.559	52.010	1.00	23.21
ATOM	2859	O	ASP	B	581	35.343	15.036	51.510	1.00	23.21
ATOM	2860	N	LEU	B	582	34.441	16.492	52.951	1.00	25.70
ATOM	2861	CA	LEU	B	582	35.756	16.846	53.482	1.00	25.70
ATOM	2862	CB	LEU	B	582	35.832	18.330	53.876	1.00	20.32
ATOM	2863	CG	LEU	B	582	35.954	19.342	52.729	1.00	20.32
ATOM	2864	CD1	LEU	B	582	35.836	20.753	53.277	1.00	20.32
ATOM	2865	CD2	LEU	B	582	37.288	19.155	52.014	1.00	20.32
ATOM	2866	C	LEU	B	582	35.979	15.947	54.699	1.00	25.70
ATOM	2867	O	LEU	B	582	36.904	16.147	55.482	1.00	25.70
ATOM	2868	N	ASN	B	583	35.110	14.954	54.847	1.00	24.11
ATOM	2869	CA	ASN	B	583	35.215	13.996	55.944	1.00	24.11
ATOM	2870	CB	ASN	B	583	36.561	13.272	55.855	1.00	37.89
ATOM	2871	CG	ASN	B	583	36.763	12.586	54.521	1.00	37.89
ATOM	2872	OD1	ASN	B	583	37.892	12.427	54.066	1.00	37.89
ATOM	2873	ND2	ASN	B	583	35.671	12.164	53.892	1.00	37.89
ATOM	2874	C	ASN	B	583	35.083	14.634	57.324	1.00	24.11
ATOM	2875	O	ASN	B	583	35.482	14.042	58.322	1.00	24.11
ATOM	2876	N	LEU	B	584	34.533	15.841	57.387	1.00	19.33
ATOM	2877	CA	LEU	B	584	34.377	16.520	58.676	1.00	19.33
ATOM	2878	CB	LEU	B	584	34.086	18.008	58.453	1.00	19.87
ATOM	2879	CG	LEU	B	584	35.275	18.977	58.386	1.00	19.87
ATOM	2880	CD1	LEU	B	584	36.586	18.247	58.146	1.00	19.87
ATOM	2881	CD2	LEU	B	584	35.009	19.998	57.291	1.00	19.87
ATOM	2882	C	LEU	B	584	33.282	15.888	59.530	1.00	19.33
ATOM	2883	O	LEU	B	584	33.417	15.782	60.754	1.00	19.33
ATOM	2884	N	VAL	B	585	32.202	15.461	58.884	1.00	22.63
ATOM	2885	CA	VAL	B	585	31.091	14.840	59.600	1.00	22.63
ATOM	2886	CB	VAL	B	585	29.936	14.475	58.645	1.00	31.84
ATOM	2887	CG1	VAL	B	585	28.832	13.767	59.417	1.00	31.84
ATOM	2888	CG2	VAL	B	585	29.396	15.725	57.973	1.00	31.84
ATOM	2889	C	VAL	B	585	31.561	13.564	60.294	1.00	22.63
ATOM	2890	O	VAL	B	585	31.311	13.360	61.487	1.00	22.63

ATOM	2891	N	GLN	B	586	32.258	12.727	59.532	1.00	31.19
ATOM	2892	CA	GLN	B	586	32.770	11.447	60.007	1.00	31.19
ATOM	2893	CB	GLN	B	586	33.369	10.668	58.831	1.00	73.31
ATOM	2894	CG	GLN	B	586	33.976	9.313	59.196	1.00	73.31
ATOM	2895	CD	GLN	B	586	32.931	8.266	59.567	1.00	73.31
ATOM	2896	OE1	GLN	B	586	31.985	8.019	58.815	1.00	73.31
ATOM	2897	NE2	GLN	B	586	33.107	7.639	60.726	1.00	73.31
ATOM	2898	C	GLN	B	586	33.807	11.534	61.125	1.00	31.19
ATOM	2899	O	GLN	B	586	33.608	10.981	62.201	1.00	31.19
ATOM	2900	N	ASN	B	587	34.913	12.226	60.864	1.00	41.43
ATOM	2901	CA	ASN	B	587	35.995	12.338	61.838	1.00	41.43
ATOM	2902	CB	ASN	B	587	37.215	13.001	61.192	1.00	58.20
ATOM	2903	CG	ASN	B	587	37.745	12.217	60.012	1.00	58.20
ATOM	2904	OD1	ASN	B	587	37.853	10.992	60.067	1.00	58.20
ATOM	2905	ND2	ASN	B	587	38.089	12.919	58.938	1.00	58.20
ATOM	2906	C	ASN	B	587	35.672	13.062	63.140	1.00	41.43
ATOM	2907	O	ASN	B	587	36.359	12.871	64.148	1.00	41.43
ATOM	2908	N	PHE	B	588	34.635	13.889	63.139	1.00	26.09
ATOM	2909	CA	PHE	B	588	34.303	14.620	64.348	1.00	26.09
ATOM	2910	CB	PHE	B	588	34.515	16.118	64.104	1.00	29.65
ATOM	2911	CG	PHE	B	588	35.913	16.455	63.660	1.00	29.65
ATOM	2912	CD1	PHE	B	588	36.167	16.869	62.359	1.00	29.65
ATOM	2913	CD2	PHE	B	588	36.987	16.306	64.531	1.00	29.65
ATOM	2914	CE1	PHE	B	588	37.471	17.128	61.935	1.00	29.65
ATOM	2915	CE2	PHE	B	588	38.297	16.564	64.112	1.00	29.65
ATOM	2916	CZ	PHE	B	588	38.536	16.974	62.814	1.00	29.65
ATOM	2917	C	PHE	B	588	32.904	14.324	64.881	1.00	26.09
ATOM	2918	O	PHE	B	588	32.323	15.115	65.615	1.00	26.09
ATOM	2919	N	GLN	B	589	32.389	13.154	64.524	1.00	37.80
ATOM	2920	CA	GLN	B	589	31.074	12.712	64.970	1.00	37.80
ATOM	2921	CB	GLN	B	589	31.196	12.008	66.327	1.00	43.73
ATOM	2922	CG	GLN	B	589	32.088	10.762	66.313	1.00	43.73
ATOM	2923	CD	GLN	B	589	33.549	11.072	66.003	1.00	43.73
ATOM	2924	OE1	GLN	B	589	34.223	11.778	66.755	1.00	43.73
ATOM	2925	NE2	GLN	B	589	34.042	10.539	64.889	1.00	43.73
ATOM	2926	C	GLN	B	589	30.076	13.859	65.071	1.00	37.80
ATOM	2927	O	GLN	B	589	29.630	14.218	66.160	1.00	37.80
ATOM	2928	N	MET	B	590	29.735	14.441	63.928	1.00	32.57
ATOM	2929	CA	MET	B	590	28.777	15.533	63.914	1.00	32.57
ATOM	2930	CB	MET	B	590	29.104	16.514	62.788	1.00	24.11
ATOM	2931	CG	MET	B	590	30.371	17.321	63.035	1.00	24.11
ATOM	2932	SD	MET	B	590	30.652	18.572	61.764	1.00	24.11
ATOM	2933	CE	MET	B	590	29.330	19.639	62.078	1.00	24.11
ATOM	2934	C	MET	B	590	27.368	14.979	63.742	1.00	32.57
ATOM	2935	O	MET	B	590	27.124	14.121	62.894	1.00	32.57
ATOM	2936	N	LYS	B	591	26.450	15.461	64.572	1.00	34.86
ATOM	2937	CA	LYS	B	591	25.055	15.032	64.524	1.00	34.86
ATOM	2938	CB	LYS	B	591	24.353	15.384	65.839	1.00	63.56
ATOM	2939	CG	LYS	B	591	23.463	14.283	66.394	1.00	63.56
ATOM	2940	CD	LYS	B	591	24.271	13.038	66.742	1.00	63.56
ATOM	2941	CE	LYS	B	591	25.354	13.346	67.774	1.00	63.56
ATOM	2942	NZ	LYS	B	591	26.254	12.182	68.026	1.00	63.56
ATOM	2943	C	LYS	B	591	24.407	15.777	63.367	1.00	34.86
ATOM	2944	O	LYS	B	591	24.540	16.998	63.259	1.00	34.86
ATOM	2945	N	HIS	B	592	23.710	15.050	62.500	1.00	26.30
ATOM	2946	CA	HIS	B	592	23.083	15.679	61.346	1.00	26.30
ATOM	2947	CB	HIS	B	592	22.263	14.658	60.556	1.00	31.36
ATOM	2948	CG	HIS	B	592	21.878	15.140	59.194	1.00	31.36
ATOM	2949	CD2	HIS	B	592	22.635	15.467	58.120	1.00	31.36
ATOM	2950	ND1	HIS	B	592	20.571	15.382	58.829	1.00	31.36
ATOM	2951	CE1	HIS	B	592	20.540	15.837	57.588	1.00	31.36
ATOM	2952	NE2	HIS	B	592	21.779	15.899	57.136	1.00	31.36
ATOM	2953	C	HIS	B	592	22.219	16.898	61.693	1.00	26.30
ATOM	2954	O	HIS	B	592	22.405	17.972	61.122	1.00	26.30
ATOM	2955	N	GLU	B	593	21.279	16.741	62.620	1.00	26.96
ATOM	2956	CA	GLU	B	593	20.430	17.861	63.015	1.00	26.96

ATOM	2957	CB	GLU	B	593	19.419	17.440	64.082	1.00	76.50
ATOM	2958	CG	GLU	B	593	18.250	16.633	63.564	1.00	76.50
ATOM	2959	CD	GLU	B	593	17.167	16.464	64.611	1.00	76.50
ATOM	2960	OE1	GLU	B	593	16.153	15.790	64.320	1.00	76.50
ATOM	2961	OE2	GLU	B	593	17.331	17.010	65.726	1.00	76.50
ATOM	2962	C	GLU	B	593	21.257	19.025	63.560	1.00	26.96
ATOM	2963	O	GLU	B	593	20.933	20.182	63.307	1.00	26.96
ATOM	2964	N	VAL	B	594	22.313	18.724	64.315	1.00	26.42
ATOM	2965	CA	VAL	B	594	23.159	19.769	64.889	1.00	26.42
ATOM	2966	CB	VAL	B	594	24.162	19.177	65.919	1.00	27.65
ATOM	2967	CG1	VAL	B	594	25.036	20.290	66.515	1.00	27.65
ATOM	2968	CG2	VAL	B	594	23.398	18.473	67.045	1.00	27.65
ATOM	2969	C	VAL	B	594	23.922	20.542	63.800	1.00	26.42
ATOM	2970	O	VAL	B	594	24.017	21.770	63.853	1.00	26.42
ATOM	2971	N	LEU	B	595	24.461	19.830	62.815	1.00	21.01
ATOM	2972	CA	LEU	B	595	25.173	20.504	61.741	1.00	21.01
ATOM	2973	CB	LEU	B	595	25.825	19.501	60.783	1.00	19.90
ATOM	2974	CG	LEU	B	595	26.380	20.164	59.514	1.00	19.90
ATOM	2975	CD1	LEU	B	595	27.303	21.308	59.885	1.00	19.90
ATOM	2976	CD2	LEU	B	595	27.101	19.126	58.661	1.00	19.90
ATOM	2977	C	LEU	B	595	24.190	21.374	60.977	1.00	21.01
ATOM	2978	O	LEU	B	595	24.502	22.510	60.622	1.00	21.01
ATOM	2979	N	CYS	B	596	22.997	20.834	60.738	1.00	23.91
ATOM	2980	CA	CYS	B	596	21.952	21.562	60.027	1.00	23.91
ATOM	2981	CB	CYS	B	596	20.716	20.674	59.831	1.00	30.87
ATOM	2982	SG	CYS	B	596	20.899	19.371	58.589	1.00	30.87
ATOM	2983	C	CYS	B	596	21.542	22.844	60.753	1.00	23.91
ATOM	2984	O	CYS	B	596	21.392	23.895	60.136	1.00	23.91
ATOM	2985	N	ARG	B	597	21.355	22.754	62.063	1.00	17.66
ATOM	2986	CA	ARG	B	597	20.952	23.909	62.841	1.00	17.66
ATOM	2987	CB	ARG	B	597	20.574	23.470	64.248	1.00	39.65
ATOM	2988	CG	ARG	B	597	20.099	24.588	65.159	1.00	39.65
ATOM	2989	CD	ARG	B	597	19.057	24.026	66.096	1.00	39.65
ATOM	2990	NE	ARG	B	597	19.420	22.671	66.491	1.00	39.65
ATOM	2991	CZ	ARG	B	597	18.548	21.729	66.823	1.00	39.65
ATOM	2992	NH1	ARG	B	597	17.247	21.989	66.808	1.00	39.65
ATOM	2993	NH2	ARG	B	597	18.980	20.523	67.166	1.00	39.65
ATOM	2994	C	ARG	B	597	22.073	24.949	62.881	1.00	17.66
ATOM	2995	O	ARG	B	597	21.815	26.144	62.865	1.00	17.66
ATOM	2996	N	TRP	B	598	23.318	24.491	62.917	1.00	17.53
ATOM	2997	CA	TRP	B	598	24.441	25.411	62.940	1.00	17.53
ATOM	2998	CB	TRP	B	598	25.749	24.649	63.165	1.00	20.98
ATOM	2999	CG	TRP	B	598	26.960	25.534	63.127	1.00	20.98
ATOM	3000	CD2	TRP	B	598	27.758	25.837	61.982	1.00	20.98
ATOM	3001	CE2	TRP	B	598	28.784	26.715	62.406	1.00	20.98
ATOM	3002	CE3	TRP	B	598	27.710	25.454	60.636	1.00	20.98
ATOM	3003	CD1	TRP	B	598	27.511	26.221	64.169	1.00	20.98
ATOM	3004	NE1	TRP	B	598	28.608	26.933	63.746	1.00	20.98
ATOM	3005	CZ2	TRP	B	598	29.755	27.212	61.531	1.00	20.98
ATOM	3006	CZ3	TRP	B	598	28.679	25.953	59.764	1.00	20.98
ATOM	3007	CH2	TRP	B	598	29.684	26.820	60.219	1.00	20.98
ATOM	3008	C	TRP	B	598	24.498	26.151	61.605	1.00	17.53
ATOM	3009	O	TRP	B	598	24.772	27.344	61.555	1.00	17.53
ATOM	3010	N	ILE	B	599	24.244	25.438	60.514	1.00	18.94
ATOM	3011	CA	ILE	B	599	24.277	26.058	59.195	1.00	18.94
ATOM	3012	CB	ILE	B	599	24.079	25.008	58.070	1.00	29.17
ATOM	3013	CG2	ILE	B	599	23.949	25.702	56.735	1.00	29.17
ATOM	3014	CG1	ILE	B	599	25.262	24.035	58.038	1.00	29.17
ATOM	3015	CD1	ILE	B	599	25.106	22.902	57.019	1.00	29.17
ATOM	3016	C	ILE	B	599	23.198	27.131	59.064	1.00	18.94
ATOM	3017	O	ILE	B	599	23.442	28.209	58.503	1.00	18.94
ATOM	3018	N	LEU	B	600	22.006	26.836	59.576	1.00	26.41
ATOM	3019	CA	LEU	B	600	20.912	27.796	59.500	1.00	26.41
ATOM	3020	CB	LEU	B	600	19.587	27.134	59.889	1.00	22.40
ATOM	3021	CG	LEU	B	600	19.110	26.038	58.933	1.00	22.40
ATOM	3022	CD1	LEU	B	600	17.920	25.317	59.543	1.00	22.40

ATOM	3023	CD2	LEU	B	600	18.749	26.641	57.574	1.00	22.40
ATOM	3024	C	LEU	B	600	21.202	28.989	60.410	1.00	26.41
ATOM	3025	O	LEU	B	600	20.854	30.123	60.084	1.00	26.41
ATOM	3026	N	SER	B	601	21.848	28.736	61.546	1.00	23.38
ATOM	3027	CA	SER	B	601	22.186	29.822	62.459	1.00	23.38
ATOM	3028	CB	SER	B	601	22.801	29.268	63.738	1.00	22.69
ATOM	3029	OG	SER	B	601	21.805	28.701	64.571	1.00	22.69
ATOM	3030	C	SER	B	601	23.162	30.772	61.779	1.00	23.38
ATOM	3031	O	SER	B	601	22.973	31.985	61.805	1.00	23.38
ATOM	3032	N	VAL	B	602	24.207	30.220	61.171	1.00	22.28
ATOM	3033	CA	VAL	B	602	25.189	31.042	60.475	1.00	22.28
ATOM	3034	CB	VAL	B	602	26.313	30.177	59.823	1.00	20.76
ATOM	3035	CG1	VAL	B	602	27.178	31.032	58.912	1.00	20.76
ATOM	3036	CG2	VAL	B	602	27.165	29.530	60.912	1.00	20.76
ATOM	3037	C	VAL	B	602	24.469	31.841	59.385	1.00	22.28
ATOM	3038	O	VAL	B	602	24.539	33.073	59.362	1.00	22.28
ATOM	3039	N	LYS	B	603	23.756	31.146	58.503	1.00	24.89
ATOM	3040	CA	LYS	B	603	23.032	31.824	57.433	1.00	24.89
ATOM	3041	CB	LYS	B	603	22.178	30.824	56.647	1.00	33.35
ATOM	3042	CG	LYS	B	603	21.419	31.442	55.483	1.00	33.35
ATOM	3043	CD	LYS	B	603	20.946	30.372	54.503	1.00	33.35
ATOM	3044	CE	LYS	B	603	19.971	29.408	55.153	1.00	33.35
ATOM	3045	NZ	LYS	B	603	18.724	30.111	55.532	1.00	33.35
ATOM	3046	C	LYS	B	603	22.148	32.957	57.963	1.00	24.89
ATOM	3047	O	LYS	B	603	22.072	34.027	57.355	1.00	24.89
ATOM	3048	N	LYS	B	604	21.500	32.725	59.102	1.00	30.17
ATOM	3049	CA	LYS	B	604	20.624	33.724	59.712	1.00	30.17
ATOM	3050	CB	LYS	B	604	19.786	33.078	60.822	1.00	84.93
ATOM	3051	CG	LYS	B	604	18.299	33.044	60.518	1.00	84.93
ATOM	3052	CD	LYS	B	604	17.726	34.453	60.451	1.00	84.93
ATOM	3053	CE	LYS	B	604	16.377	34.489	59.742	1.00	84.93
ATOM	3054	NZ	LYS	B	604	16.505	34.183	58.287	1.00	84.93
ATOM	3055	C	LYS	B	604	21.381	34.929	60.283	1.00	30.17
ATOM	3056	O	LYS	B	604	20.845	36.041	60.336	1.00	30.17
ATOM	3057	N	ASN	B	605	22.624	34.707	60.710	1.00	24.96
ATOM	3058	CA	ASN	B	605	23.419	35.783	61.281	1.00	24.96
ATOM	3059	CB	ASN	B	605	24.518	35.205	62.165	1.00	59.02
ATOM	3060	CG	ASN	B	605	24.524	35.822	63.540	1.00	59.02
ATOM	3061	OD1	ASN	B	605	23.500	35.845	64.225	1.00	59.02
ATOM	3062	ND2	ASN	B	605	25.678	36.328	63.958	1.00	59.02
ATOM	3063	C	ASN	B	605	24.017	36.744	60.249	1.00	24.96
ATOM	3064	O	ASN	B	605	24.805	37.615	60.597	1.00	24.96
ATOM	3065	N	TYR	B	606	23.668	36.563	58.980	1.00	22.10
ATOM	3066	CA	TYR	B	606	24.114	37.470	57.922	1.00	22.10
ATOM	3067	CB	TYR	B	606	24.636	36.710	56.698	1.00	20.30
ATOM	3068	CG	TYR	B	606	26.059	36.203	56.828	1.00	20.30
ATOM	3069	CD1	TYR	B	606	26.322	34.891	57.234	1.00	20.30
ATOM	3070	CE1	TYR	B	606	27.623	34.414	57.332	1.00	20.30
ATOM	3071	CD2	TYR	B	606	27.141	37.030	56.530	1.00	20.30
ATOM	3072	CE2	TYR	B	606	28.450	36.562	56.631	1.00	20.30
ATOM	3073	CZ	TYR	B	606	28.681	35.250	57.027	1.00	20.30
ATOM	3074	OH	TYR	B	606	29.972	34.765	57.069	1.00	20.30
ATOM	3075	C	TYR	B	606	22.865	38.258	57.522	1.00	22.10
ATOM	3076	O	TYR	B	606	21.751	37.725	57.555	1.00	22.10
ATOM	3077	N	ARG	B	607	23.039	39.516	57.142	1.00	30.47
ATOM	3078	CA	ARG	B	607	21.897	40.338	56.758	1.00	30.47
ATOM	3079	CB	ARG	B	607	21.965	41.675	57.487	1.00	45.36
ATOM	3080	CG	ARG	B	607	23.336	42.308	57.514	1.00	45.36
ATOM	3081	CD	ARG	B	607	23.707	42.622	58.947	1.00	45.36
ATOM	3082	NE	ARG	B	607	22.577	43.209	59.653	1.00	45.36
ATOM	3083	CZ	ARG	B	607	22.500	43.329	60.971	1.00	45.36
ATOM	3084	NH1	ARG	B	607	23.494	42.901	61.734	1.00	45.36
ATOM	3085	NH2	ARG	B	607	21.422	43.867	61.526	1.00	45.36
ATOM	3086	C	ARG	B	607	21.779	40.568	55.259	1.00	30.47
ATOM	3087	O	ARG	B	607	22.761	40.881	54.597	1.00	30.47
ATOM	3088	N	LYS	B	608	20.576	40.423	54.717	1.00	46.91

ATOM	3089	CA	LYS	B	608	20.406	40.628	53.284	1.00	46.91
ATOM	3090	CB	LYS	B	608	19.041	40.122	52.806	1.00	99.55
ATOM	3091	CG	LYS	B	608	18.835	40.321	51.304	1.00	99.55
ATOM	3092	CD	LYS	B	608	20.052	39.825	50.517	1.00	99.55
ATOM	3093	CE	LYS	B	608	20.081	40.375	49.098	1.00	99.55
ATOM	3094	NZ	LYS	B	608	21.368	40.055	48.414	1.00	99.55
ATOM	3095	C	LYS	B	608	20.590	42.080	52.855	1.00	46.91
ATOM	3096	O	LYS	B	608	20.986	42.342	51.725	1.00	46.91
ATOM	3097	N	ASN	B	609	20.315	43.012	53.765	1.00	31.83
ATOM	3098	CA	ASN	B	609	20.441	44.452	53.505	1.00	31.83
ATOM	3099	CB	ASN	B	609	20.245	45.255	54.796	1.00	65.71
ATOM	3100	CG	ASN	B	609	19.114	44.742	55.648	1.00	65.71
ATOM	3101	OD1	ASN	B	609	18.850	45.284	56.719	1.00	65.71
ATOM	3102	ND2	ASN	B	609	18.439	43.696	55.188	1.00	65.71
ATOM	3103	C	ASN	B	609	21.809	44.847	52.943	1.00	31.83
ATOM	3104	O	ASN	B	609	21.943	45.877	52.289	1.00	31.83
ATOM	3105	N	VAL	B	610	22.829	44.055	53.255	1.00	22.79
ATOM	3106	CA	VAL	B	610	24.190	44.324	52.793	1.00	22.79
ATOM	3107	CB	VAL	B	610	25.224	43.707	53.763	1.00	17.83
ATOM	3108	CG1	VAL	B	610	26.627	44.123	53.383	1.00	17.83
ATOM	3109	CG2	VAL	B	610	24.922	44.166	55.173	1.00	17.83
ATOM	3110	C	VAL	B	610	24.302	43.705	51.407	1.00	22.79
ATOM	3111	O	VAL	B	610	24.120	42.495	51.236	1.00	22.79
ATOM	3112	N	ALA	B	611	24.589	44.548	50.421	1.00	18.53
ATOM	3113	CA	ALA	B	611	24.673	44.112	49.036	1.00	18.53
ATOM	3114	CB	ALA	B	611	24.960	45.316	48.129	1.00	16.48
ATOM	3115	C	ALA	B	611	25.679	43.008	48.762	1.00	18.53
ATOM	3116	O	ALA	B	611	25.363	42.045	48.067	1.00	18.53
ATOM	3117	N	TYR	B	612	26.887	43.134	49.305	1.00	19.06
ATOM	3118	CA	TYR	B	612	27.916	42.126	49.055	1.00	19.06
ATOM	3119	CB	TYR	B	612	29.171	42.800	48.501	1.00	26.27
ATOM	3120	CG	TYR	B	612	30.291	41.832	48.260	1.00	26.27
ATOM	3121	CD1	TYR	B	612	31.437	41.860	49.045	1.00	26.27
ATOM	3122	CE1	TYR	B	612	32.454	40.930	48.861	1.00	26.27
ATOM	3123	CD2	TYR	B	612	30.187	40.851	47.278	1.00	26.27
ATOM	3124	CE2	TYR	B	612	31.197	39.915	47.086	1.00	26.27
ATOM	3125	CZ	TYR	B	612	32.326	39.964	47.885	1.00	26.27
ATOM	3126	OH	TYR	B	612	33.327	39.040	47.720	1.00	26.27
ATOM	3127	C	TYR	B	612	28.299	41.214	50.222	1.00	19.06
ATOM	3128	O	TYR	B	612	28.285	39.992	50.081	1.00	19.06
ATOM	3129	N	HIS	B	613	28.646	41.798	51.367	1.00	14.89
ATOM	3130	CA	HIS	B	613	29.036	41.010	52.528	1.00	14.89
ATOM	3131	CB	HIS	B	613	29.882	41.873	53.473	1.00	20.67
ATOM	3132	CG	HIS	B	613	31.263	42.165	52.961	1.00	20.67
ATOM	3133	CD2	HIS	B	613	32.296	41.341	52.659	1.00	20.67
ATOM	3134	ND1	HIS	B	613	31.719	43.447	52.729	1.00	20.67
ATOM	3135	CE1	HIS	B	613	32.970	43.401	52.307	1.00	20.67
ATOM	3136	NE2	HIS	B	613	33.345	42.135	52.256	1.00	20.67
ATOM	3137	C	HIS	B	613	27.830	40.397	53.259	1.00	14.89
ATOM	3138	O	HIS	B	613	27.460	40.818	54.354	1.00	14.89
ATOM	3139	N	ASN	B	614	27.241	39.382	52.638	1.00	21.95
ATOM	3140	CA	ASN	B	614	26.074	38.678	53.165	1.00	21.95
ATOM	3141	CB	ASN	B	614	24.857	39.010	52.300	1.00	18.93
ATOM	3142	CG	ASN	B	614	25.142	38.836	50.830	1.00	18.93
ATOM	3143	OD1	ASN	B	614	25.496	37.746	50.387	1.00	18.93
ATOM	3144	ND2	ASN	B	614	25.003	39.913	50.059	1.00	18.93
ATOM	3145	C	ASN	B	614	26.330	37.168	53.143	1.00	21.95
ATOM	3146	O	ASN	B	614	27.450	36.731	52.867	1.00	21.95
ATOM	3147	N	TRP	B	615	25.296	36.377	53.425	1.00	22.76
ATOM	3148	CA	TRP	B	615	25.425	34.919	53.439	1.00	22.76
ATOM	3149	CB	TRP	B	615	24.067	34.246	53.689	1.00	21.99
ATOM	3150	CG	TRP	B	615	24.006	32.763	53.298	1.00	21.99
ATOM	3151	CD2	TRP	B	615	24.785	31.681	53.841	1.00	21.99
ATOM	3152	CE2	TRP	B	615	24.374	30.496	53.180	1.00	21.99
ATOM	3153	CE3	TRP	B	615	25.786	31.596	54.820	1.00	21.99
ATOM	3154	CD1	TRP	B	615	23.181	32.198	52.356	1.00	21.99

ATOM	3155	NE1	TRP	B	615	23.398	30.842	52.281	1.00	21.99
ATOM	3156	CZ2	TRP	B	615	24.932	29.237	53.469	1.00	21.99
ATOM	3157	CZ3	TRP	B	615	26.344	30.343	55.108	1.00	21.99
ATOM	3158	CH2	TRP	B	615	25.912	29.181	54.431	1.00	21.99
ATOM	3159	C	TRP	B	615	26.009	34.375	52.145	1.00	22.76
ATOM	3160	O	TRP	B	615	26.884	33.497	52.172	1.00	22.76
ATOM	3161	N	ARG	B	616	25.522	34.879	51.015	1.00	19.59
ATOM	3162	CA	ARG	B	616	26.019	34.401	49.737	1.00	19.59
ATOM	3163	CB	ARG	B	616	25.293	35.100	48.580	1.00	32.17
ATOM	3164	CG	ARG	B	616	23.815	34.698	48.474	1.00	32.17
ATOM	3165	CD	ARG	B	616	23.665	33.175	48.433	1.00	32.17
ATOM	3166	NE	ARG	B	616	22.274	32.736	48.477	1.00	32.17
ATOM	3167	CZ	ARG	B	616	21.633	32.175	47.455	1.00	32.17
ATOM	3168	NH1	ARG	B	616	22.253	31.978	46.298	1.00	32.17
ATOM	3169	NH2	ARG	B	616	20.364	31.810	47.589	1.00	32.17
ATOM	3170	C	ARG	B	616	27.535	34.565	49.615	1.00	19.59
ATOM	3171	O	ARG	B	616	28.210	33.675	49.112	1.00	19.59
ATOM	3172	N	HIS	B	617	28.077	35.687	50.075	1.00	17.68
ATOM	3173	CA	HIS	B	617	29.513	35.858	49.994	1.00	17.68
ATOM	3174	CB	HIS	B	617	29.938	37.243	50.447	1.00	18.66
ATOM	3175	CG	HIS	B	617	31.409	37.346	50.691	1.00	18.66
ATOM	3176	CD2	HIS	B	617	32.110	37.582	51.823	1.00	18.66
ATOM	3177	ND1	HIS	B	617	32.344	37.133	49.698	1.00	18.66
ATOM	3178	CE1	HIS	B	617	33.556	37.237	50.209	1.00	18.66
ATOM	3179	NE2	HIS	B	617	33.441	37.509	51.496	1.00	18.66
ATOM	3180	C	HIS	B	617	30.214	34.818	50.874	1.00	17.68
ATOM	3181	O	HIS	B	617	31.234	34.256	50.488	1.00	17.68
ATOM	3182	N	ALA	B	618	29.669	34.565	52.056	1.00	15.39
ATOM	3183	CA	ALA	B	618	30.263	33.580	52.953	1.00	15.39
ATOM	3184	CB	ALA	B	618	29.496	33.545	54.251	1.00	8.93
ATOM	3185	C	ALA	B	618	30.254	32.196	52.286	1.00	15.39
ATOM	3186	O	ALA	B	618	31.270	31.485	52.260	1.00	15.39
ATOM	3187	N	PHE	B	619	29.097	31.829	51.741	1.00	13.65
ATOM	3188	CA	PHE	B	619	28.936	30.555	51.064	1.00	13.65
ATOM	3189	CB	PHE	B	619	27.502	30.436	50.529	1.00	16.97
ATOM	3190	CG	PHE	B	619	27.260	29.212	49.702	1.00	16.97
ATOM	3191	CD1	PHE	B	619	27.295	27.951	50.276	1.00	16.97
ATOM	3192	CD2	PHE	B	619	26.997	29.323	48.336	1.00	16.97
ATOM	3193	CE1	PHE	B	619	27.068	26.806	49.495	1.00	16.97
ATOM	3194	CE2	PHE	B	619	26.768	28.193	47.549	1.00	16.97
ATOM	3195	CZ	PHE	B	619	26.804	26.934	48.128	1.00	16.97
ATOM	3196	C	PHE	B	619	29.940	30.372	49.916	1.00	13.65
ATOM	3197	O	PHE	B	619	30.543	29.307	49.783	1.00	13.65
ATOM	3198	N	ASN	B	620	30.128	31.399	49.090	1.00	18.58
ATOM	3199	CA	ASN	B	620	31.075	31.284	47.975	1.00	18.58
ATOM	3200	CB	ASN	B	620	30.971	32.501	47.048	1.00	24.12
ATOM	3201	CG	ASN	B	620	29.855	32.358	46.038	1.00	24.12
ATOM	3202	OD1	ASN	B	620	29.786	31.360	45.327	1.00	24.12
ATOM	3203	ND2	ASN	B	620	28.983	33.354	45.962	1.00	24.12
ATOM	3204	C	ASN	B	620	32.519	31.135	48.455	1.00	18.58
ATOM	3205	O	ASN	B	620	33.339	30.459	47.818	1.00	18.58
ATOM	3206	N	THR	B	621	32.826	31.785	49.570	1.00	17.75
ATOM	3207	CA	THR	B	621	34.162	31.713	50.146	1.00	17.75
ATOM	3208	CB	THR	B	621	34.286	32.612	51.373	1.00	18.50
ATOM	3209	OG1	THR	B	621	33.943	33.956	51.009	1.00	18.50
ATOM	3210	CG2	THR	B	621	35.715	32.581	51.917	1.00	18.50
ATOM	3211	C	THR	B	621	34.423	30.282	50.568	1.00	17.75
ATOM	3212	O	THR	B	621	35.506	29.740	50.335	1.00	17.75
ATOM	3213	N	ALA	B	622	33.420	29.670	51.189	1.00	14.82
ATOM	3214	CA	ALA	B	622	33.547	28.291	51.636	1.00	14.82
ATOM	3215	CB	ALA	B	622	32.360	27.905	52.506	1.00	12.55
ATOM	3216	C	ALA	B	622	33.620	27.384	50.425	1.00	14.82
ATOM	3217	O	ALA	B	622	34.379	26.420	50.407	1.00	14.82
ATOM	3218	N	GLN	B	623	32.818	27.683	49.411	1.00	23.84
ATOM	3219	CA	GLN	B	623	32.816	26.876	48.203	1.00	23.84
ATOM	3220	CB	GLN	B	623	31.719	27.357	47.250	1.00	22.76

ATOM	3221	CG	GLN	B	623	31.559	26.536	45.980	1.00 22.76
ATOM	3222	CD	GLN	B	623	32.624	26.835	44.925	1.00 22.76
ATOM	3223	OE1	GLN	B	623	32.917	27.986	44.630	1.00 22.76
ATOM	3224	NE2	GLN	B	623	33.186	25.788	44.341	1.00 22.76
ATOM	3225	C	GLN	B	623	34.180	26.935	47.514	1.00 23.84
ATOM	3226	O	GLN	B	623	34.656	25.927	47.013	1.00 23.84
ATOM	3227	N	CYS	B	624	34.813	28.106	47.486	1.00 26.54
ATOM	3228	CA	CYS	B	624	36.126	28.222	46.849	1.00 26.54
ATOM	3229	CB	CYS	B	624	36.581	29.679	46.760	1.00 23.29
ATOM	3230	SG	CYS	B	624	38.129	29.887	45.853	1.00 23.29
ATOM	3231	C	CYS	B	624	37.123	27.431	47.672	1.00 26.54
ATOM	3232	O	CYS	B	624	38.061	26.848	47.135	1.00 26.54
ATOM	3233	N	MET	B	625	36.912	27.415	48.984	1.00 24.88
ATOM	3234	CA	MET	B	625	37.784	26.675	49.884	1.00 24.88
ATOM	3235	CB	MET	B	625	37.375	26.931	51.339	1.00 23.40
ATOM	3236	CG	MET	B	625	38.215	26.202	52.394	1.00 23.40
ATOM	3237	SD	MET	B	625	39.963	26.696	52.478	1.00 23.40
ATOM	3238	CE	MET	B	625	39.889	28.246	53.388	1.00 23.40
ATOM	3239	C	MET	B	625	37.641	25.187	49.545	1.00 24.88
ATOM	3240	O	MET	B	625	38.636	24.472	49.397	1.00 24.88
ATOM	3241	N	PHE	B	626	36.398	24.734	49.401	1.00 21.01
ATOM	3242	CA	PHE	B	626	36.137	23.339	49.084	1.00 21.01
ATOM	3243	CB	PHE	B	626	34.629	23.075	49.019	1.00 21.63
ATOM	3244	CG	PHE	B	626	34.276	21.662	48.620	1.00 21.63
ATOM	3245	CD1	PHE	B	626	34.078	21.327	47.287	1.00 21.63
ATOM	3246	CD2	PHE	B	626	34.148	20.666	49.582	1.00 21.63
ATOM	3247	CE1	PHE	B	626	33.755	20.023	46.915	1.00 21.63
ATOM	3248	CE2	PHE	B	626	33.824	19.351	49.221	1.00 21.63
ATOM	3249	CZ	PHE	B	626	33.628	19.033	47.884	1.00 21.63
ATOM	3250	C	PHE	B	626	36.785	22.927	47.764	1.00 21.01
ATOM	3251	O	PHE	B	626	37.383	21.854	47.669	1.00 21.01
ATOM	3252	N	ALA	B	627	36.659	23.783	46.753	1.00 21.49
ATOM	3253	CA	ALA	B	627	37.220	23.511	45.431	1.00 21.49
ATOM	3254	CB	ALA	B	627	36.725	24.553	44.428	1.00 36.88
ATOM	3255	C	ALA	B	627	38.734	23.516	45.480	1.00 21.49
ATOM	3256	O	ALA	B	627	39.395	22.714	44.820	1.00 21.49
ATOM	3257	N	ALA	B	628	39.287	24.431	46.262	1.00 22.85
ATOM	3258	CA	ALA	B	628	40.727	24.524	46.407	1.00 22.85
ATOM	3259	CB	ALA	B	628	41.078	25.760	47.209	1.00 22.05
ATOM	3260	C	ALA	B	628	41.284	23.275	47.097	1.00 22.85
ATOM	3261	O	ALA	B	628	42.366	22.806	46.754	1.00 22.85
ATOM	3262	N	LEU	B	629	40.552	22.743	48.074	1.00 29.37
ATOM	3263	CA	LEU	B	629	41.008	21.561	48.803	1.00 29.37
ATOM	3264	CB	LEU	B	629	40.208	21.376	50.096	1.00 25.46
ATOM	3265	CG	LEU	B	629	40.351	22.469	51.160	1.00 25.46
ATOM	3266	CD1	LEU	B	629	39.515	22.097	52.391	1.00 25.46
ATOM	3267	CD2	LEU	B	629	41.820	22.629	51.539	1.00 25.46
ATOM	3268	C	LEU	B	629	40.888	20.303	47.958	1.00 29.37
ATOM	3269	O	LEU	B	629	41.780	19.461	47.966	1.00 29.37
ATOM	3270	N	LYS	B	630	39.778	20.187	47.238	1.00 31.13
ATOM	3271	CA	LYS	B	630	39.519	19.043	46.377	1.00 31.13
ATOM	3272	CB	LYS	B	630	38.012	18.891	46.162	1.00 35.38
ATOM	3273	CG	LYS	B	630	37.243	18.442	47.402	1.00 35.38
ATOM	3274	CD	LYS	B	630	37.634	17.025	47.799	1.00 35.38
ATOM	3275	CE	LYS	B	630	36.696	16.464	48.849	1.00 35.38
ATOM	3276	NZ	LYS	B	630	37.086	15.086	49.235	1.00 35.38
ATOM	3277	C	LYS	B	630	40.215	19.176	45.022	1.00 31.13
ATOM	3278	O	LYS	B	630	41.339	18.713	44.849	1.00 31.13
ATOM	3279	N	ALA	B	631	39.539	19.810	44.067	1.00 32.76
ATOM	3280	CA	ALA	B	631	40.078	20.006	42.724	1.00 32.76
ATOM	3281	CB	ALA	B	631	39.156	20.915	41.919	1.00 26.21
ATOM	3282	C	ALA	B	631	41.490	20.577	42.725	1.00 32.76
ATOM	3283	O	ALA	B	631	42.260	20.335	41.802	1.00 32.76
ATOM	3284	N	GLY	B	632	41.830	21.326	43.767	1.00 31.25
ATOM	3285	CA	GLY	B	632	43.150	21.925	43.854	1.00 31.25
ATOM	3286	C	GLY	B	632	44.168	21.117	44.635	1.00 31.25

ATOM	3287	O	GLY	B	632	45.280	21.579	44.869	1.00	31.25
ATOM	3288	N	LYS	B	633	43.785	19.919	45.059	1.00	37.21
ATOM	3289	CA	LYS	B	633	44.689	19.040	45.794	1.00	37.21
ATOM	3290	CB	LYS	B	633	45.743	18.461	44.843	1.00	55.00
ATOM	3291	CG	LYS	B	633	45.275	17.287	43.987	1.00	55.00
ATOM	3292	CD	LYS	B	633	44.123	17.655	43.078	1.00	55.00
ATOM	3293	CE	LYS	B	633	43.772	16.509	42.137	1.00	55.00
ATOM	3294	NZ	LYS	B	633	44.874	16.239	41.169	1.00	55.00
ATOM	3295	C	LYS	B	633	45.400	19.678	46.985	1.00	37.21
ATOM	3296	O	LYS	B	633	46.552	19.351	47.260	1.00	37.21
ATOM	3297	N	ILE	B	634	44.729	20.587	47.687	1.00	23.52
ATOM	3298	CA	ILE	B	634	45.330	21.222	48.853	1.00	23.52
ATOM	3299	CB	ILE	B	634	44.783	22.667	49.058	1.00	35.93
ATOM	3300	CG2	ILE	B	634	45.222	23.218	50.406	1.00	35.93
ATOM	3301	CG1	ILE	B	634	45.283	23.574	47.927	1.00	35.93
ATOM	3302	CD1	ILE	B	634	44.981	25.050	48.128	1.00	35.93
ATOM	3303	C	ILE	B	634	45.018	20.365	50.091	1.00	23.52
ATOM	3304	O	ILE	B	634	45.810	20.285	51.032	1.00	23.52
ATOM	3305	N	GLN	B	635	43.860	19.716	50.059	1.00	36.18
ATOM	3306	CA	GLN	B	635	43.391	18.866	51.144	1.00	36.18
ATOM	3307	CB	GLN	B	635	42.256	17.988	50.627	1.00	43.49
ATOM	3308	CG	GLN	B	635	41.544	17.194	51.690	1.00	43.49
ATOM	3309	CD	GLN	B	635	40.440	16.329	51.108	1.00	43.49
ATOM	3310	OE1	GLN	B	635	39.544	15.880	51.825	1.00	43.49
ATOM	3311	NE2	GLN	B	635	40.506	16.082	49.798	1.00	43.49
ATOM	3312	C	GLN	B	635	44.484	17.980	51.744	1.00	36.18
ATOM	3313	O	GLN	B	635	44.702	17.976	52.961	1.00	36.18
ATOM	3314	N	ASN	B	636	45.167	17.235	50.884	1.00	39.64
ATOM	3315	CA	ASN	B	636	46.220	16.328	51.319	1.00	39.64
ATOM	3316	CB	ASN	B	636	46.683	15.476	50.135	1.00	56.82
ATOM	3317	CG	ASN	B	636	45.602	14.528	49.642	1.00	56.82
ATOM	3318	OD1	ASN	B	636	45.773	13.850	48.627	1.00	56.82
ATOM	3319	ND2	ASN	B	636	44.486	14.471	50.363	1.00	56.82
ATOM	3320	C	ASN	B	636	47.424	16.997	51.985	1.00	39.64
ATOM	3321	O	ASN	B	636	48.291	16.310	52.526	1.00	39.64
ATOM	3322	N	LYS	B	637	47.478	18.327	51.956	1.00	35.77
ATOM	3323	CA	LYS	B	637	48.586	19.057	52.576	1.00	35.77
ATOM	3324	CB	LYS	B	637	49.037	20.211	51.674	1.00	43.65
ATOM	3325	CG	LYS	B	637	49.595	19.777	50.324	1.00	43.65
ATOM	3326	CD	LYS	B	637	49.845	20.980	49.417	1.00	43.65
ATOM	3327	CE	LYS	B	637	50.489	20.568	48.097	1.00	43.65
ATOM	3328	NZ	LYS	B	637	49.682	19.541	47.377	1.00	43.65
ATOM	3329	C	LYS	B	637	48.173	19.617	53.936	1.00	35.77
ATOM	3330	O	LYS	B	637	48.962	20.290	54.611	1.00	35.77
ATOM	3331	N	LEU	B	638	46.936	19.337	54.338	1.00	24.55
ATOM	3332	CA	LEU	B	638	46.426	19.842	55.611	1.00	24.55
ATOM	3333	CB	LEU	B	638	45.328	20.875	55.362	1.00	21.34
ATOM	3334	CG	LEU	B	638	45.677	22.003	54.388	1.00	21.34
ATOM	3335	CD1	LEU	B	638	44.476	22.955	54.234	1.00	21.34
ATOM	3336	CD2	LEU	B	638	46.899	22.744	54.901	1.00	21.34
ATOM	3337	C	LEU	B	638	45.880	18.765	56.533	1.00	24.55
ATOM	3338	O	LEU	B	638	45.500	17.673	56.102	1.00	24.55
ATOM	3339	N	THR	B	639	45.825	19.098	57.815	1.00	27.19
ATOM	3340	CA	THR	B	639	45.321	18.182	58.820	1.00	27.19
ATOM	3341	CB	THR	B	639	45.904	18.516	60.197	1.00	32.19
ATOM	3342	OG1	THR	B	639	45.395	19.780	60.635	1.00	32.19
ATOM	3343	CG2	THR	B	639	47.429	18.590	60.116	1.00	32.19
ATOM	3344	C	THR	B	639	43.804	18.275	58.895	1.00	27.19
ATOM	3345	O	THR	B	639	43.196	19.161	58.293	1.00	27.19
ATOM	3346	N	ASP	B	640	43.194	17.349	59.627	1.00	29.09
ATOM	3347	CA	ASP	B	640	41.746	17.351	59.796	1.00	29.09
ATOM	3348	CB	ASP	B	640	41.305	16.155	60.651	1.00	56.18
ATOM	3349	CG	ASP	B	640	41.312	14.848	59.880	1.00	56.18
ATOM	3350	OD1	ASP	B	640	41.116	13.785	60.511	1.00	56.18
ATOM	3351	OD2	ASP	B	640	41.502	14.882	58.645	1.00	56.18
ATOM	3352	C	ASP	B	640	41.312	18.650	60.477	1.00	29.09

ATOM	3353	O	ASP	B	640	40.367	19.299	60.040	1.00 29.09
ATOM	3354	N	LEU	B	641	42.017	19.026	61.542	1.00 24.72
ATOM	3355	CA	LEU	B	641	41.701	20.238	62.296	1.00 24.72
ATOM	3356	CB	LEU	B	641	42.598	20.344	63.534	1.00 19.72
ATOM	3357	CG	LEU	B	641	42.176	19.532	64.763	1.00 19.72
ATOM	3358	CD1	LEU	B	641	41.532	18.231	64.336	1.00 19.72
ATOM	3359	CD2	LEU	B	641	43.393	19.277	65.653	1.00 19.72
ATOM	3360	C	LEU	B	641	41.828	21.503	61.465	1.00 24.72
ATOM	3361	O	LEU	B	641	41.015	22.419	61.603	1.00 24.72
ATOM	3362	N	GLU	B	642	42.848	21.559	60.612	1.00 26.07
ATOM	3363	CA	GLU	B	642	43.048	22.724	59.759	1.00 26.07
ATOM	3364	CB	GLU	B	642	44.400	22.624	59.035	1.00 27.95
ATOM	3365	CG	GLU	B	642	45.574	22.904	59.983	1.00 27.95
ATOM	3366	CD	GLU	B	642	46.952	22.560	59.409	1.00 27.95
ATOM	3367	OE1	GLU	B	642	47.955	23.021	59.993	1.00 27.95
ATOM	3368	OE2	GLU	B	642	47.040	21.829	58.397	1.00 27.95
ATOM	3369	C	GLU	B	642	41.885	22.853	58.775	1.00 26.07
ATOM	3370	O	GLU	B	642	41.332	23.935	58.605	1.00 26.07
ATOM	3371	N	ILE	B	643	41.502	21.747	58.146	1.00 16.27
ATOM	3372	CA	ILE	B	643	40.383	21.744	57.210	1.00 16.27
ATOM	3373	CB	ILE	B	643	40.232	20.363	56.572	1.00 21.38
ATOM	3374	CG2	ILE	B	643	38.948	20.300	55.733	1.00 21.38
ATOM	3375	CG1	ILE	B	643	41.472	20.064	55.729	1.00 21.38
ATOM	3376	CD1	ILE	B	643	41.624	18.599	55.376	1.00 21.38
ATOM	3377	C	ILE	B	643	39.078	22.118	57.935	1.00 16.27
ATOM	3378	O	ILE	B	643	38.280	22.909	57.433	1.00 16.27
ATOM	3379	N	LEU	B	644	38.872	21.547	59.118	1.00 23.60
ATOM	3380	CA	LEU	B	644	37.685	21.835	59.927	1.00 23.60
ATOM	3381	CB	LEU	B	644	37.758	21.093	61.261	1.00 19.03
ATOM	3382	CG	LEU	B	644	36.768	21.517	62.357	1.00 19.03
ATOM	3383	CD1	LEU	B	644	35.330	21.272	61.896	1.00 19.03
ATOM	3384	CD2	LEU	B	644	37.055	20.702	63.635	1.00 19.03
ATOM	3385	C	LEU	B	644	37.623	23.327	60.212	1.00 23.60
ATOM	3386	O	LEU	B	644	36.615	23.980	59.971	1.00 23.60
ATOM	3387	N	ALA	B	645	38.719	23.846	60.751	1.00 16.95
ATOM	3388	CA	ALA	B	645	38.842	25.254	61.095	1.00 16.95
ATOM	3389	CB	ALA	B	645	40.198	25.494	61.733	1.00 10.42
ATOM	3390	C	ALA	B	645	38.669	26.181	59.892	1.00 16.95
ATOM	3391	O	ALA	B	645	37.970	27.197	59.974	1.00 16.95
ATOM	3392	N	LEU	B	646	39.305	25.836	58.776	1.00 27.27
ATOM	3393	CA	LEU	B	646	39.229	26.667	57.578	1.00 27.27
ATOM	3394	CB	LEU	B	646	40.145	26.112	56.485	1.00 28.75
ATOM	3395	CG	LEU	B	646	41.643	26.279	56.745	1.00 28.75
ATOM	3396	CD1	LEU	B	646	42.439	25.451	55.749	1.00 28.75
ATOM	3397	CD2	LEU	B	646	42.010	27.749	56.657	1.00 28.75
ATOM	3398	C	LEU	B	646	37.818	26.824	57.030	1.00 27.27
ATOM	3399	O	LEU	B	646	37.417	27.933	56.668	1.00 27.27
ATOM	3400	N	LEU	B	647	37.068	25.725	56.974	1.00 20.61
ATOM	3401	CA	LEU	B	647	35.703	25.761	56.451	1.00 20.61
ATOM	3402	CB	LEU	B	647	35.149	24.340	56.282	1.00 17.74
ATOM	3403	CG	LEU	B	647	33.757	24.236	55.644	1.00 17.74
ATOM	3404	CD1	LEU	B	647	33.814	24.802	54.232	1.00 17.74
ATOM	3405	CD2	LEU	B	647	33.295	22.788	55.612	1.00 17.74
ATOM	3406	C	LEU	B	647	34.802	26.565	57.374	1.00 20.61
ATOM	3407	O	LEU	B	647	33.982	27.359	56.911	1.00 20.61
ATOM	3408	N	ILE	B	648	34.946	26.364	58.683	1.00 20.10
ATOM	3409	CA	ILE	B	648	34.133	27.117	59.632	1.00 20.10
ATOM	3410	CB	ILE	B	648	34.393	26.658	61.098	1.00 18.26
ATOM	3411	CG2	ILE	B	648	33.779	27.650	62.074	1.00 18.26
ATOM	3412	CG1	ILE	B	648	33.785	25.262	61.309	1.00 18.26
ATOM	3413	CD1	ILE	B	648	33.997	24.664	62.698	1.00 18.26
ATOM	3414	C	ILE	B	648	34.425	28.611	59.475	1.00 20.10
ATOM	3415	O	ILE	B	648	33.508	29.427	59.396	1.00 20.10
ATOM	3416	N	ALA	B	649	35.705	28.958	59.402	1.00 14.41
ATOM	3417	CA	ALA	B	649	36.123	30.346	59.243	1.00 14.41
ATOM	3418	CB	ALA	B	649	37.631	30.435	59.232	1.00 16.76

ATOM	3419	C	ALA	B	649	35.577	30.942	57.954	1.00	14.41
ATOM	3420	O	ALA	B	649	35.125	32.082	57.941	1.00	14.41
ATOM	3421	N	ALA	B	650	35.631	30.169	56.871	1.00	19.28
ATOM	3422	CA	ALA	B	650	35.143	30.622	55.574	1.00	19.28
ATOM	3423	CB	ALA	B	650	35.336	29.530	54.510	1.00	13.33
ATOM	3424	C	ALA	B	650	33.677	30.997	55.667	1.00	19.28
ATOM	3425	O	ALA	B	650	33.252	32.026	55.143	1.00	19.28
ATOM	3426	N	LEU	B	651	32.905	30.162	56.342	1.00	19.73
ATOM	3427	CA	LEU	B	651	31.479	30.410	56.505	1.00	19.73
ATOM	3428	CB	LEU	B	651	30.771	29.110	56.893	1.00	16.39
ATOM	3429	CG	LEU	B	651	30.801	28.044	55.796	1.00	16.39
ATOM	3430	CD1	LEU	B	651	30.346	26.687	56.327	1.00	16.39
ATOM	3431	CD2	LEU	B	651	29.918	28.519	54.646	1.00	16.39
ATOM	3432	C	LEU	B	651	31.207	31.475	57.571	1.00	19.73
ATOM	3433	O	LEU	B	651	30.153	32.107	57.569	1.00	19.73
ATOM	3434	N	SER	B	652	32.172	31.698	58.458	1.00	17.62
ATOM	3435	CA	SER	B	652	31.970	32.656	59.534	1.00	17.62
ATOM	3436	CB	SER	B	652	32.259	31.983	60.884	1.00	23.57
ATOM	3437	OG	SER	B	652	31.456	30.837	61.091	1.00	23.57
ATOM	3438	C	SER	B	652	32.740	33.974	59.519	1.00	17.62
ATOM	3439	O	SER	B	652	32.339	34.900	60.215	1.00	17.62
ATOM	3440	N	HIS	B	653	33.828	34.068	58.758	1.00	16.19
ATOM	3441	CA	HIS	B	653	34.675	35.266	58.785	1.00	16.19
ATOM	3442	CB	HIS	B	653	35.730	35.220	57.688	1.00	17.30
ATOM	3443	CG	HIS	B	653	35.186	35.470	56.328	1.00	17.30
ATOM	3444	CD2	HIS	B	653	35.308	36.536	55.505	1.00	17.30
ATOM	3445	ND1	HIS	B	653	34.417	34.547	55.655	1.00	17.30
ATOM	3446	CE1	HIS	B	653	34.090	35.031	54.470	1.00	17.30
ATOM	3447	NE2	HIS	B	653	34.617	36.237	54.354	1.00	17.30
ATOM	3448	C	HIS	B	653	33.932	36.582	58.732	1.00	16.19
ATOM	3449	O	HIS	B	653	34.309	37.537	59.396	1.00	16.19
ATOM	3450	N	ASP	B	654	32.914	36.662	57.896	1.00	58.42
ATOM	3451	CA	ASP	B	654	32.101	37.855	57.882	1.00	58.42
ATOM	3452	CB	ASP	B	654	31.679	38.239	56.462	1.00	19.54
ATOM	3453	CG	ASP	B	654	32.824	38.817	55.658	1.00	19.54
ATOM	3454	OD1	ASP	B	654	33.680	39.496	56.257	1.00	19.54
ATOM	3455	OD2	ASP	B	654	32.867	38.614	54.430	1.00	19.54
ATOM	3456	C	ASP	B	654	30.966	37.239	58.666	1.00	58.42
ATOM	3457	O	ASP	B	654	30.807	36.025	58.642	1.00	58.42
ATOM	3458	N	LEU	B	655	30.207	38.037	59.393	1.00	20.99
ATOM	3459	CA	LEU	B	655	29.116	37.504	60.198	1.00	20.99
ATOM	3460	CB	LEU	B	655	29.634	36.453	61.197	1.00	21.77
ATOM	3461	CG	LEU	B	655	28.754	35.297	61.729	1.00	21.77
ATOM	3462	CD1	LEU	B	655	27.844	34.761	60.647	1.00	21.77
ATOM	3463	CD2	LEU	B	655	29.641	34.163	62.244	1.00	21.77
ATOM	3464	C	LEU	B	655	28.689	38.761	60.906	1.00	20.99
ATOM	3465	O	LEU	B	655	29.501	39.415	61.561	1.00	20.99
ATOM	3466	N	ASP	B	656	27.425	39.108	60.731	1.00	18.34
ATOM	3467	CA	ASP	B	656	26.864	40.317	61.307	1.00	18.34
ATOM	3468	CB	ASP	B	656	27.118	40.409	62.810	1.00	27.84
ATOM	3469	CG	ASP	B	656	26.306	41.518	63.460	1.00	27.84
ATOM	3470	OD1	ASP	B	656	26.836	42.229	64.336	1.00	27.84
ATOM	3471	OD2	ASP	B	656	25.127	41.676	63.094	1.00	27.84
ATOM	3472	C	ASP	B	656	27.506	41.513	60.630	1.00	18.34
ATOM	3473	O	ASP	B	656	27.506	42.615	61.191	1.00	18.34
ATOM	3474	N	HIS	B	657	28.071	41.290	59.441	1.00	15.79
ATOM	3475	CA	HIS	B	657	28.704	42.371	58.690	1.00	15.79
ATOM	3476	CB	HIS	B	657	29.252	41.876	57.345	1.00	16.98
ATOM	3477	CG	HIS	B	657	30.243	42.817	56.726	1.00	16.98
ATOM	3478	CD2	HIS	B	657	30.098	44.076	56.246	1.00	16.98
ATOM	3479	ND1	HIS	B	657	31.589	42.528	56.637	1.00	16.98
ATOM	3480	CE1	HIS	B	657	32.229	43.570	56.133	1.00	16.98
ATOM	3481	NE2	HIS	B	657	31.347	44.522	55.889	1.00	16.98
ATOM	3482	C	HIS	B	657	27.641	43.441	58.431	1.00	15.79
ATOM	3483	O	HIS	B	657	26.513	43.116	58.031	1.00	15.79
ATOM	3484	N	ARG	B	658	28.016	44.701	58.647	1.00	17.19

ATOM	3485	CA	ARG	B	658	27.110	45.838	58.483	1.00	17.19
ATOM	3486	CB	ARG	B	658	27.293	46.807	59.653	1.00	54.54
ATOM	3487	CG	ARG	B	658	26.211	46.719	60.697	1.00	54.54
ATOM	3488	CD	ARG	B	658	26.074	45.311	61.235	1.00	54.54
ATOM	3489	NE	ARG	B	658	24.808	45.137	61.937	1.00	54.54
ATOM	3490	CZ	ARG	B	658	24.453	45.808	63.031	1.00	54.54
ATOM	3491	NH1	ARG	B	658	25.274	46.708	63.565	1.00	54.54
ATOM	3492	NH2	ARG	B	658	23.269	45.580	63.589	1.00	54.54
ATOM	3493	C	ARG	B	658	27.208	46.631	57.181	1.00	17.19
ATOM	3494	O	ARG	B	658	26.429	47.549	56.967	1.00	17.19
ATOM	3495	N	GLY	B	659	28.155	46.292	56.316	1.00	25.25
ATOM	3496	CA	GLY	B	659	28.285	47.022	55.067	1.00	25.25
ATOM	3497	C	GLY	B	659	29.301	48.142	55.178	1.00	25.25
ATOM	3498	O	GLY	B	659	29.380	49.012	54.312	1.00	25.25
ATOM	3499	N	VAL	B	660	30.080	48.134	56.256	1.00	29.96
ATOM	3500	CA	VAL	B	660	31.100	49.155	56.438	1.00	29.96
ATOM	3501	CB	VAL	B	660	31.311	49.492	57.922	1.00	25.76
ATOM	3502	CG1	VAL	B	660	32.512	50.423	58.068	1.00	25.76
ATOM	3503	CG2	VAL	B	660	30.051	50.149	58.497	1.00	25.76
ATOM	3504	C	VAL	B	660	32.433	48.694	55.854	1.00	29.96
ATOM	3505	O	VAL	B	660	32.896	47.591	56.139	1.00	29.96
ATOM	3506	N	ASN	B	661	33.037	49.543	55.028	1.00	29.67
ATOM	3507	CA	ASN	B	661	34.320	49.240	54.406	1.00	29.67
ATOM	3508	CB	ASN	B	661	34.139	48.814	52.940	1.00	18.87
ATOM	3509	CG	ASN	B	661	33.349	47.527	52.792	1.00	18.87
ATOM	3510	OD1	ASN	B	661	32.112	47.544	52.685	1.00	18.87
ATOM	3511	ND2	ASN	B	661	34.052	46.402	52.796	1.00	18.87
ATOM	3512	C	ASN	B	661	35.221	50.468	54.443	1.00	29.67
ATOM	3513	O	ASN	B	661	34.736	51.606	54.492	1.00	29.67
ATOM	3514	N	ASN	B	662	36.532	50.237	54.413	1.00	41.72
ATOM	3515	CA	ASN	B	662	37.493	51.334	54.402	1.00	41.72
ATOM	3516	CB	ASN	B	662	38.809	50.912	55.061	1.00	45.58
ATOM	3517	CG	ASN	B	662	38.623	50.456	56.492	1.00	45.58
ATOM	3518	OD1	ASN	B	662	37.973	51.133	57.292	1.00	45.58
ATOM	3519	ND2	ASN	B	662	39.200	49.305	56.828	1.00	45.58
ATOM	3520	C	ASN	B	662	37.762	51.720	52.948	1.00	41.72
ATOM	3521	O	ASN	B	662	37.635	50.893	52.046	1.00	41.72
ATOM	3522	N	SER	B	663	38.113	52.979	52.718	1.00	47.38
ATOM	3523	CA	SER	B	663	38.422	53.435	51.366	1.00	47.38
ATOM	3524	CB	SER	B	663	38.250	54.954	51.252	1.00	37.39
ATOM	3525	OG	SER	B	663	36.892	55.334	51.395	1.00	37.39
ATOM	3526	C	SER	B	663	39.874	53.058	51.085	1.00	47.38
ATOM	3527	O	SER	B	663	40.303	52.990	49.933	1.00	47.38
ATOM	3528	N	TYR	B	664	40.619	52.809	52.156	1.00	40.97
ATOM	3529	CA	TYR	B	664	42.026	52.435	52.058	1.00	40.97
ATOM	3530	CB	TYR	B	664	42.901	53.651	52.364	1.00	95.84
ATOM	3531	CG	TYR	B	664	42.708	54.784	51.384	1.00	95.84
ATOM	3532	CD1	TYR	B	664	43.010	54.616	50.032	1.00	95.84
ATOM	3533	CE1	TYR	B	664	42.828	55.651	49.119	1.00	95.84
ATOM	3534	CD2	TYR	B	664	42.217	56.020	51.804	1.00	95.84
ATOM	3535	CE2	TYR	B	664	42.031	57.065	50.900	1.00	95.84
ATOM	3536	CZ	TYR	B	664	42.339	56.873	49.558	1.00	95.84
ATOM	3537	OH	TYR	B	664	42.157	57.897	48.653	1.00	95.84
ATOM	3538	C	TYR	B	664	42.366	51.291	53.021	1.00	40.97
ATOM	3539	O	TYR	B	664	41.978	51.317	54.190	1.00	40.97
ATOM	3540	N	ILE	B	665	43.093	50.296	52.515	1.00	100.00
ATOM	3541	CA	ILE	B	665	43.498	49.124	53.298	1.00	100.00
ATOM	3542	CB	ILE	B	665	44.506	48.236	52.521	1.00	58.53
ATOM	3543	CG2	ILE	B	665	44.809	46.982	53.323	1.00	58.53
ATOM	3544	CG1	ILE	B	665	43.965	47.886	51.133	1.00	58.53
ATOM	3545	CD1	ILE	B	665	44.133	48.999	50.107	1.00	58.53
ATOM	3546	C	ILE	B	665	44.189	49.504	54.604	1.00	100.00
ATOM	3547	O	ILE	B	665	44.034	48.842	55.633	1.00	100.00
ATOM	3548	N	GLN	B	666	44.960	50.581	54.540	1.00	49.07
ATOM	3549	CA	GLN	B	666	45.737	51.064	55.666	1.00	49.07
ATOM	3550	CB	GLN	B	666	47.190	51.236	55.182	1.00	73.71

ATOM	3551	CG	GLN	B	666	47.345	51.909	53.793	1.00	73.71
ATOM	3552	CD	GLN	B	666	46.765	51.103	52.618	1.00	73.71
ATOM	3553	OE1	GLN	B	666	47.070	49.914	52.431	1.00	73.71
ATOM	3554	NE2	GLN	B	666	45.940	51.760	51.808	1.00	73.71
ATOM	3555	C	GLN	B	666	45.204	52.356	56.320	1.00	49.07
ATOM	3556	O	GLN	B	666	44.981	53.381	55.650	1.00	49.07
ATOM	3557	N	ALA	B	668	49.517	56.794	56.228	1.00	100.00
ATOM	3558	CA	ALA	B	668	49.345	58.209	56.537	1.00	100.00
ATOM	3559	CB	ALA	B	668	50.154	59.058	55.565	1.00	54.50
ATOM	3560	C	ALA	B	668	47.873	58.579	56.446	1.00	100.00
ATOM	3561	O	ALA	B	668	47.310	58.624	55.350	1.00	100.00
ATOM	3562	N	GLU	B	669	47.246	58.850	57.588	1.00	95.82
ATOM	3563	CA	GLU	B	669	45.835	59.204	57.567	1.00	95.82
ATOM	3564	CB	GLU	B	669	45.038	58.310	58.526	1.00	90.98
ATOM	3565	CG	GLU	B	669	43.601	58.033	58.050	1.00	66.94
ATOM	3566	CD	GLU	B	669	43.535	57.586	56.584	1.00	66.94
ATOM	3567	OE1	GLU	B	669	44.033	58.357	55.722	1.00	66.94
ATOM	3568	OE2	GLU	B	669	42.981	56.475	56.282	1.00	66.94
ATOM	3569	C	GLU	B	669	45.543	60.680	57.838	1.00	95.82
ATOM	3570	O	GLU	B	669	46.151	61.323	58.696	1.00	95.82
ATOM	3571	N	HIS	B	670	44.590	61.187	57.067	1.00	81.37
ATOM	3572	CA	HIS	B	670	44.131	62.567	57.091	1.00	81.37
ATOM	3573	CB	HIS	B	670	42.841	62.661	56.286	1.00	89.71
ATOM	3574	CG	HIS	B	670	42.651	63.972	55.597	1.00	49.04
ATOM	3575	CD2	HIS	B	670	42.064	65.122	56.011	1.00	49.04
ATOM	3576	ND1	HIS	B	670	43.087	64.204	54.308	1.00	49.04
ATOM	3577	CE1	HIS	B	670	42.769	65.439	53.956	1.00	49.04
ATOM	3578	NE2	HIS	B	670	42.150	66.018	54.970	1.00	49.04
ATOM	3579	C	HIS	B	670	43.888	63.195	58.460	1.00	81.37
ATOM	3580	O	HIS	B	670	43.525	62.515	59.419	1.00	81.37
ATOM	3581	N	PRO	B	671	44.098	64.519	58.559	1.00	56.64
ATOM	3582	CD	PRO	B	671	44.918	65.276	57.594	1.00	47.38
ATOM	3583	CA	PRO	B	671	43.905	65.299	59.787	1.00	56.64
ATOM	3584	CB	PRO	B	671	44.488	66.665	59.430	1.00	87.74
ATOM	3585	CG	PRO	B	671	45.561	66.334	58.476	1.00	47.38
ATOM	3586	C	PRO	B	671	42.428	65.411	60.149	1.00	56.64
ATOM	3587	O	PRO	B	671	42.088	65.884	61.232	1.00	56.64
ATOM	3588	N	LEU	B	672	41.555	64.990	59.235	1.00	69.03
ATOM	3589	CA	LEU	B	672	40.112	65.052	59.466	1.00	69.03
ATOM	3590	CB	LEU	B	672	39.418	65.793	58.318	1.00	64.45
ATOM	3591	CG	LEU	B	672	39.712	67.287	58.165	1.00	47.13
ATOM	3592	CD1	LEU	B	672	38.970	67.806	56.946	1.00	47.13
ATOM	3593	CD2	LEU	B	672	39.288	68.057	59.432	1.00	47.13
ATOM	3594	C	LEU	B	672	39.477	63.677	59.626	1.00	69.03
ATOM	3595	O	LEU	B	672	38.274	63.515	59.416	1.00	69.03
ATOM	3596	N	ALA	B	673	40.286	62.691	59.998	1.00	58.72
ATOM	3597	CA	ALA	B	673	39.796	61.331	60.191	1.00	58.72
ATOM	3598	CB	ALA	B	673	40.958	60.405	60.483	1.00	44.98
ATOM	3599	C	ALA	B	673	38.772	61.266	61.326	1.00	58.72
ATOM	3600	O	ALA	B	673	38.000	60.313	61.420	1.00	58.72
ATOM	3601	N	GLN	B	674	38.766	62.288	62.178	1.00	47.43
ATOM	3602	CA	GLN	B	674	37.840	62.362	63.308	1.00	47.43
ATOM	3603	CB	GLN	B	674	38.279	63.475	64.272	1.00	100.00
ATOM	3604	CG	GLN	B	674	37.355	63.676	65.479	1.00	77.23
ATOM	3605	CD	GLN	B	674	37.721	64.903	66.325	1.00	77.23
ATOM	3606	OE1	GLN	B	674	37.870	66.014	65.801	1.00	77.23
ATOM	3607	NE2	GLN	B	674	37.848	64.707	67.637	1.00	77.23
ATOM	3608	C	GLN	B	674	36.392	62.607	62.870	1.00	47.43
ATOM	3609	O	GLN	B	674	35.455	62.338	63.624	1.00	47.43
ATOM	3610	N	LEU	B	675	36.204	63.120	61.659	1.00	71.13
ATOM	3611	CA	LEU	B	675	34.856	63.380	61.165	1.00	71.13
ATOM	3612	CB	LEU	B	675	34.876	64.433	60.053	1.00	61.72
ATOM	3613	CG	LEU	B	675	35.204	65.866	60.478	1.00	45.05
ATOM	3614	CD1	LEU	B	675	34.912	66.821	59.306	1.00	45.05
ATOM	3615	CD2	LEU	B	675	34.346	66.253	61.681	1.00	45.05
ATOM	3616	C	LEU	B	675	34.192	62.114	60.649	1.00	71.13

ATOM	3617	O	LEU	B	675	33.089	61.769	61.064	1.00	71.13
ATOM	3618	N	TYR	B	676	34.869	61.424	59.740	1.00	67.23
ATOM	3619	CA	TYR	B	676	34.345	60.190	59.159	1.00	67.23
ATOM	3620	CB	TYR	B	676	34.845	60.049	57.720	1.00	100.00
ATOM	3621	CG	TYR	B	676	36.351	60.169	57.543	1.00	91.15
ATOM	3622	CD1	TYR	B	676	37.213	59.172	58.000	1.00	91.15
ATOM	3623	CE1	TYR	B	676	38.615	59.240	57.773	1.00	91.15
ATOM	3624	CD2	TYR	B	676	36.908	61.253	56.860	1.00	91.15
ATOM	3625	CE2	TYR	B	676	38.301	61.337	56.628	1.00	91.15
ATOM	3626	CZ	TYR	B	676	39.143	60.319	57.087	1.00	91.15
ATOM	3627	OH	TYR	B	676	40.508	60.370	56.825	1.00	91.15
ATOM	3628	C	TYR	B	676	34.747	58.965	59.978	1.00	67.23
ATOM	3629	O	TYR	B	676	34.446	57.827	59.613	1.00	67.23
ATOM	3630	N	CYS	B	677	35.427	59.223	61.089	1.00	76.10
ATOM	3631	CA	CYS	B	677	35.907	58.186	61.993	1.00	76.10
ATOM	3632	CB	CYS	B	677	36.406	58.833	63.290	1.00	100.00
ATOM	3633	SG	CYS	B	677	36.543	57.706	64.719	1.00	73.62
ATOM	3634	C	CYS	B	677	34.912	57.085	62.345	1.00	76.10
ATOM	3635	O	CYS	B	677	33.807	57.352	62.820	1.00	76.10
ATOM	3636	N	HIS	B	678	35.316	55.844	62.102	1.00	52.03
ATOM	3637	CA	HIS	B	678	34.493	54.701	62.451	1.00	52.03
ATOM	3638	CB	HIS	B	678	33.989	53.967	61.213	1.00	100.00
ATOM	3639	CG	HIS	B	678	33.091	52.824	61.553	1.00	90.69
ATOM	3640	CD2	HIS	B	678	33.161	51.505	61.250	1.00	90.69
ATOM	3641	ND1	HIS	B	678	32.024	52.961	62.418	1.00	90.69
ATOM	3642	CE1	HIS	B	678	31.482	51.776	62.643	1.00	90.69
ATOM	3643	NE2	HIS	B	678	32.154	50.874	61.947	1.00	90.69
ATOM	3644	C	HIS	B	678	35.341	53.757	63.301	1.00	52.03
ATOM	3645	O	HIS	B	678	36.348	53.225	62.829	1.00	52.03
ATOM	3646	N	SER	B	679	34.936	53.563	64.555	1.00	60.75
ATOM	3647	CA	SER	B	679	35.669	52.711	65.491	1.00	60.75
ATOM	3648	CB	SER	B	679	35.428	53.196	66.924	1.00	69.42
ATOM	3649	OG	SER	B	679	36.407	52.680	67.808	1.00	69.42
ATOM	3650	C	SER	B	679	35.292	51.232	65.370	1.00	60.75
ATOM	3651	O	SER	B	679	34.162	50.841	65.671	1.00	60.75
ATOM	3652	N	ILE	B	680	36.252	50.414	64.939	1.00	81.70
ATOM	3653	CA	ILE	B	680	36.029	48.979	64.759	1.00	81.70
ATOM	3654	CB	ILE	B	680	37.151	48.338	63.885	1.00	46.52
ATOM	3655	CG2	ILE	B	680	38.522	48.764	64.397	1.00	46.52
ATOM	3656	CG1	ILE	B	680	37.027	46.808	63.900	1.00	46.52
ATOM	3657	CD1	ILE	B	680	35.689	46.267	63.387	1.00	46.52
ATOM	3658	C	ILE	B	680	35.906	48.182	66.059	1.00	81.70
ATOM	3659	O	ILE	B	680	36.598	48.446	67.045	1.00	81.70
ATOM	3660	N	MET	B	681	35.009	47.201	66.036	1.00	46.56
ATOM	3661	CA	MET	B	681	34.757	46.325	67.174	1.00	46.56
ATOM	3662	CB	MET	B	681	33.293	45.886	67.150	1.00	42.24
ATOM	3663	CG	MET	B	681	32.312	47.055	67.039	1.00	42.24
ATOM	3664	SD	MET	B	681	30.591	46.519	66.955	1.00	42.24
ATOM	3665	CE	MET	B	681	30.469	46.052	65.205	1.00	42.24
ATOM	3666	C	MET	B	681	35.705	45.121	67.055	1.00	46.56
ATOM	3667	O	MET	B	681	35.423	44.140	66.359	1.00	46.56
ATOM	3668	N	GLU	B	682	36.833	45.216	67.750	1.00	43.49
ATOM	3669	CA	GLU	B	682	37.873	44.197	67.708	1.00	43.49
ATOM	3670	CB	GLU	B	682	38.898	44.466	68.811	1.00	90.22
ATOM	3671	CG	GLU	B	682	40.331	44.227	68.368	1.00	90.22
ATOM	3672	CD	GLU	B	682	40.689	45.020	67.120	1.00	90.22
ATOM	3673	OE1	GLU	B	682	40.657	46.270	67.170	1.00	90.22
ATOM	3674	OE2	GLU	B	682	40.998	44.391	66.084	1.00	90.22
ATOM	3675	C	GLU	B	682	37.430	42.738	67.768	1.00	43.49
ATOM	3676	O	GLU	B	682	36.930	42.269	68.791	1.00	43.49
ATOM	3677	N	HIS	B	683	37.619	42.031	66.653	1.00	22.67
ATOM	3678	CA	HIS	B	683	37.291	40.609	66.569	1.00	22.67
ATOM	3679	CB	HIS	B	683	38.068	39.842	67.649	1.00	31.47
ATOM	3680	CG	HIS	B	683	39.544	40.096	67.629	1.00	31.47
ATOM	3681	CD2	HIS	B	683	40.303	40.887	66.834	1.00	31.47
ATOM	3682	ND1	HIS	B	683	40.416	39.490	68.507	1.00	31.47

ATOM	3683	CE1	HIS	B	683	41.647	39.893	68.255	1.00	31.47
ATOM	3684	NE2	HIS	B	683	41.606	40.742	67.244	1.00	31.47
ATOM	3685	C	HIS	B	683	35.807	40.276	66.699	1.00	22.67
ATOM	3686	O	HIS	B	683	35.465	39.147	67.053	1.00	22.67
ATOM	3687	N	HIS	B	684	34.933	41.245	66.419	1.00	20.44
ATOM	3688	CA	HIS	B	684	33.490	41.024	66.518	1.00	20.44
ATOM	3689	CB	HIS	B	684	32.725	42.284	66.072	1.00	20.75
ATOM	3690	CG	HIS	B	684	31.236	42.105	65.959	1.00	20.75
ATOM	3691	CD2	HIS	B	684	30.412	42.163	64.883	1.00	20.75
ATOM	3692	ND1	HIS	B	684	30.425	41.858	67.044	1.00	20.75
ATOM	3693	CE1	HIS	B	684	29.168	41.771	66.647	1.00	20.75
ATOM	3694	NE2	HIS	B	684	29.133	41.953	65.338	1.00	20.75
ATOM	3695	C	HIS	B	684	33.066	39.823	65.676	1.00	20.44
ATOM	3696	O	HIS	B	684	32.299	38.993	66.143	1.00	20.44
ATOM	3697	N	HIS	B	685	33.565	39.723	64.448	1.00	20.46
ATOM	3698	CA	HIS	B	685	33.207	38.594	63.578	1.00	20.46
ATOM	3699	CB	HIS	B	685	33.956	38.656	62.240	1.00	25.00
ATOM	3700	CG	HIS	B	685	33.511	39.768	61.343	1.00	25.00
ATOM	3701	CD2	HIS	B	685	34.193	40.807	60.802	1.00	25.00
ATOM	3702	ND1	HIS	B	685	32.209	39.896	60.908	1.00	25.00
ATOM	3703	CE1	HIS	B	685	32.105	40.966	60.141	1.00	25.00
ATOM	3704	NE2	HIS	B	685	33.294	41.537	60.059	1.00	25.00
ATOM	3705	C	HIS	B	685	33.538	37.276	64.263	1.00	20.46
ATOM	3706	O	HIS	B	685	32.753	36.326	64.230	1.00	20.46
ATOM	3707	N	PHE	B	686	34.710	37.223	64.878	1.00	13.88
ATOM	3708	CA	PHE	B	686	35.134	36.010	65.564	1.00	13.88
ATOM	3709	CB	PHE	B	686	36.579	36.140	66.065	1.00	19.00
ATOM	3710	CG	PHE	B	686	37.038	34.977	66.902	1.00	19.00
ATOM	3711	CD1	PHE	B	686	37.090	33.691	66.370	1.00	19.00
ATOM	3712	CD2	PHE	B	686	37.413	35.163	68.222	1.00	19.00
ATOM	3713	CE1	PHE	B	686	37.510	32.613	67.151	1.00	19.00
ATOM	3714	CE2	PHE	B	686	37.836	34.086	69.010	1.00	19.00
ATOM	3715	CZ	PHE	B	686	37.884	32.818	68.477	1.00	19.00
ATOM	3716	C	PHE	B	686	34.213	35.712	66.741	1.00	13.88
ATOM	3717	O	PHE	B	686	33.854	34.552	66.965	1.00	13.88
ATOM	3718	N	ASP	B	687	33.821	36.743	67.490	1.00	18.33
ATOM	3719	CA	ASP	B	687	32.943	36.472	68.617	1.00	18.33
ATOM	3720	CB	ASP	B	687	32.922	37.648	69.620	1.00	21.37
ATOM	3721	CG	ASP	B	687	31.952	38.755	69.254	1.00	21.37
ATOM	3722	OD1	ASP	B	687	30.742	38.493	69.066	1.00	21.37
ATOM	3723	OD2	ASP	B	687	32.409	39.918	69.194	1.00	21.37
ATOM	3724	C	ASP	B	687	31.539	36.070	68.155	1.00	18.33
ATOM	3725	O	ASP	B	687	30.828	35.378	68.872	1.00	18.33
ATOM	3726	N	GLN	B	688	31.141	36.483	66.955	1.00	18.16
ATOM	3727	CA	GLN	B	688	29.827	36.093	66.453	1.00	18.16
ATOM	3728	CB	GLN	B	688	29.433	36.918	65.224	1.00	24.14
ATOM	3729	CG	GLN	B	688	29.068	38.372	65.542	1.00	24.14
ATOM	3730	CD	GLN	B	688	27.917	38.486	66.527	1.00	24.14
ATOM	3731	OE1	GLN	B	688	26.777	38.178	66.200	1.00	24.14
ATOM	3732	NE2	GLN	B	688	28.216	38.917	67.740	1.00	24.14
ATOM	3733	C	GLN	B	688	29.924	34.618	66.085	1.00	18.16
ATOM	3734	O	GLN	B	688	28.968	33.857	66.231	1.00	18.16
ATOM	3735	N	CYS	B	689	31.097	34.211	65.621	1.00	18.28
ATOM	3736	CA	CYS	B	689	31.303	32.814	65.249	1.00	18.28
ATOM	3737	CB	CYS	B	689	32.681	32.643	64.606	1.00	17.75
ATOM	3738	SG	CYS	B	689	33.132	30.940	64.263	1.00	17.75
ATOM	3739	C	CYS	B	689	31.177	31.929	66.490	1.00	18.28
ATOM	3740	O	CYS	B	689	30.489	30.910	66.466	1.00	18.28
ATOM	3741	N	LEU	B	690	31.827	32.333	67.581	1.00	20.95
ATOM	3742	CA	LEU	B	690	31.770	31.578	68.830	1.00	20.95
ATOM	3743	CB	LEU	B	690	32.734	32.169	69.854	1.00	25.53
ATOM	3744	CG	LEU	B	690	34.212	31.811	69.682	1.00	25.53
ATOM	3745	CD1	LEU	B	690	35.060	32.598	70.654	1.00	25.53
ATOM	3746	CD2	LEU	B	690	34.397	30.332	69.921	1.00	25.53
ATOM	3747	C	LEU	B	690	30.362	31.520	69.424	1.00	20.95
ATOM	3748	O	LEU	B	690	29.932	30.474	69.890	1.00	20.95

ATOM	3749	N	MET	B	691	29.640	32.635	69.418	1.00	24.53
ATOM	3750	CA	MET	B	691	28.284	32.612	69.970	1.00	24.53
ATOM	3751	CB	MET	B	691	27.570	33.943	69.753	1.00	73.52
ATOM	3752	CG	MET	B	691	28.061	35.054	70.644	1.00	73.52
ATOM	3753	SD	MET	B	691	27.082	36.539	70.417	1.00	73.52
ATOM	3754	CE	MET	B	691	25.862	36.315	71.706	1.00	73.52
ATOM	3755	C	MET	B	691	27.467	31.500	69.330	1.00	24.53
ATOM	3756	O	MET	B	691	26.713	30.812	70.009	1.00	24.53
ATOM	3757	N	ILE	B	692	27.622	31.321	68.020	1.00	19.68
ATOM	3758	CA	ILE	B	692	26.880	30.276	67.324	1.00	19.68
ATOM	3759	CB	ILE	B	692	26.896	30.489	65.795	1.00	24.43
ATOM	3760	CG2	ILE	B	692	26.175	29.346	65.109	1.00	24.43
ATOM	3761	CG1	ILE	B	692	26.208	31.814	65.455	1.00	24.43
ATOM	3762	CD1	ILE	B	692	26.279	32.201	63.988	1.00	24.43
ATOM	3763	C	ILE	B	692	27.403	28.885	67.641	1.00	19.68
ATOM	3764	O	ILE	B	692	26.614	27.979	67.881	1.00	19.68
ATOM	3765	N	LEU	B	693	28.726	28.721	67.651	1.00	17.63
ATOM	3766	CA	LEU	B	693	29.352	27.430	67.941	1.00	17.63
ATOM	3767	CB	LEU	B	693	30.886	27.545	67.898	1.00	21.20
ATOM	3768	CG	LEU	B	693	31.561	27.760	66.544	1.00	21.20
ATOM	3769	CD1	LEU	B	693	33.062	27.705	66.731	1.00	21.20
ATOM	3770	CD2	LEU	B	693	31.134	26.687	65.561	1.00	21.20
ATOM	3771	C	LEU	B	693	28.957	26.817	69.284	1.00	17.63
ATOM	3772	O	LEU	B	693	28.828	25.594	69.402	1.00	17.63
ATOM	3773	N	ASN	B	694	28.784	27.644	70.309	1.00	26.52
ATOM	3774	CA	ASN	B	694	28.409	27.085	71.599	1.00	26.52
ATOM	3775	CB	ASN	B	694	29.371	27.541	72.707	1.00	53.17
ATOM	3776	CG	ASN	B	694	29.777	28.992	72.587	1.00	53.17
ATOM	3777	OD1	ASN	B	694	28.934	29.887	72.617	1.00	53.17
ATOM	3778	ND2	ASN	B	694	31.083	29.236	72.464	1.00	53.17
ATOM	3779	C	ASN	B	694	26.973	27.297	72.051	1.00	26.52
ATOM	3780	O	ASN	B	694	26.671	27.086	73.217	1.00	26.52
ATOM	3781	N	SER	B	695	26.080	27.706	71.151	1.00	20.56
ATOM	3782	CA	SER	B	695	24.693	27.884	71.573	1.00	20.56
ATOM	3783	CB	SER	B	695	23.949	28.878	70.664	1.00	34.32
ATOM	3784	OG	SER	B	695	23.896	28.436	69.330	1.00	34.32
ATOM	3785	C	SER	B	695	24.065	26.498	71.523	1.00	20.56
ATOM	3786	O	SER	B	695	24.378	25.706	70.632	1.00	20.56
ATOM	3787	N	PRO	B	696	23.199	26.167	72.497	1.00	26.74
ATOM	3788	CD	PRO	B	696	22.639	26.990	73.582	1.00	32.73
ATOM	3789	CA	PRO	B	696	22.586	24.834	72.479	1.00	26.74
ATOM	3790	CB	PRO	B	696	21.565	24.893	73.622	1.00	32.73
ATOM	3791	CG	PRO	B	696	21.287	26.366	73.778	1.00	32.73
ATOM	3792	C	PRO	B	696	21.970	24.466	71.141	1.00	26.74
ATOM	3793	O	PRO	B	696	21.286	25.270	70.512	1.00	26.74
ATOM	3794	N	GLY	B	697	22.253	23.250	70.698	1.00	23.14
ATOM	3795	CA	GLY	B	697	21.716	22.777	69.442	1.00	23.14
ATOM	3796	C	GLY	B	697	22.578	23.025	68.216	1.00	23.14
ATOM	3797	O	GLY	B	697	22.315	22.449	67.159	1.00	23.14
ATOM	3798	N	ASN	B	698	23.596	23.875	68.349	1.00	21.14
ATOM	3799	CA	ASN	B	698	24.481	24.202	67.232	1.00	21.14
ATOM	3800	CB	ASN	B	698	24.422	25.703	66.930	1.00	26.71
ATOM	3801	CG	ASN	B	698	23.021	26.199	66.640	1.00	26.71
ATOM	3802	OD1	ASN	B	698	22.125	26.121	67.481	1.00	26.71
ATOM	3803	ND2	ASN	B	698	22.830	26.729	65.449	1.00	26.71
ATOM	3804	C	ASN	B	698	25.940	23.844	67.522	1.00	21.14
ATOM	3805	O	ASN	B	698	26.834	24.281	66.805	1.00	21.14
ATOM	3806	N	GLN	B	699	26.184	23.051	68.557	1.00	23.07
ATOM	3807	CA	GLN	B	699	27.552	22.708	68.937	1.00	23.07
ATOM	3808	CB	GLN	B	699	27.565	22.351	70.417	1.00	34.32
ATOM	3809	CG	GLN	B	699	26.884	23.436	71.222	1.00	34.32
ATOM	3810	CD	GLN	B	699	26.829	23.151	72.697	1.00	34.32
ATOM	3811	OE1	GLN	B	699	27.798	23.381	73.426	1.00	34.32
ATOM	3812	NE2	GLN	B	699	25.686	22.642	73.155	1.00	34.32
ATOM	3813	C	GLN	B	699	28.224	21.630	68.099	1.00	23.07
ATOM	3814	O	GLN	B	699	28.365	20.488	68.516	1.00	23.07

ATOM	3815	N	ILE	B	700	28.686	22.022	66.922	1.00	23.39
ATOM	3816	CA	ILE	B	700	29.317	21.080	66.008	1.00	23.39
ATOM	3817	CB	ILE	B	700	29.310	21.639	64.587	1.00	19.01
ATOM	3818	CG2	ILE	B	700	27.876	21.872	64.155	1.00	19.01
ATOM	3819	CG1	ILE	B	700	30.142	22.929	64.537	1.00	19.01
ATOM	3820	CD1	ILE	B	700	30.189	23.602	63.170	1.00	19.01
ATOM	3821	C	ILE	B	700	30.736	20.650	66.359	1.00	23.39
ATOM	3822	O	ILE	B	700	31.329	19.825	65.657	1.00	23.39
ATOM	3823	N	LEU	B	701	31.284	21.201	67.436	1.00	27.69
ATOM	3824	CA	LEU	B	701	32.630	20.831	67.853	1.00	27.69
ATOM	3825	CB	LEU	B	701	33.482	22.087	68.061	1.00	15.63
ATOM	3826	CG	LEU	B	701	33.645	23.046	66.869	1.00	15.63
ATOM	3827	CD1	LEU	B	701	34.527	24.223	67.288	1.00	15.63
ATOM	3828	CD2	LEU	B	701	34.275	22.322	65.690	1.00	15.63
ATOM	3829	C	LEU	B	701	32.576	20.013	69.148	1.00	27.69
ATOM	3830	O	LEU	B	701	33.594	19.816	69.809	1.00	27.69
ATOM	3831	N	SER	B	702	31.390	19.525	69.501	1.00	26.90
ATOM	3832	CA	SER	B	702	31.215	18.747	70.731	1.00	26.90
ATOM	3833	CB	SER	B	702	29.730	18.473	70.987	1.00	41.50
ATOM	3834	OG	SER	B	702	29.204	17.600	70.004	1.00	41.50
ATOM	3835	C	SER	B	702	31.964	17.420	70.718	1.00	26.90
ATOM	3836	O	SER	B	702	32.175	16.804	71.764	1.00	26.90
ATOM	3837	N	GLY	B	703	32.363	16.973	69.535	1.00	34.93
ATOM	3838	CA	GLY	B	703	33.086	15.719	69.451	1.00	34.93
ATOM	3839	C	GLY	B	703	34.581	15.899	69.624	1.00	34.93
ATOM	3840	O	GLY	B	703	35.318	14.917	69.725	1.00	34.93
ATOM	3841	N	LEU	B	704	35.035	17.147	69.681	1.00	26.87
ATOM	3842	CA	LEU	B	704	36.471	17.426	69.812	1.00	26.87
ATOM	3843	CB	LEU	B	704	36.782	18.859	69.365	1.00	22.56
ATOM	3844	CG	LEU	B	704	36.457	19.304	67.936	1.00	22.56
ATOM	3845	CD1	LEU	B	704	36.995	20.702	67.720	1.00	22.56
ATOM	3846	CD2	LEU	B	704	37.072	18.358	66.943	1.00	22.56
ATOM	3847	C	LEU	B	704	37.049	17.220	71.210	1.00	26.87
ATOM	3848	O	LEU	B	704	36.421	17.560	72.212	1.00	26.87
ATOM	3849	N	SER	B	705	38.264	16.679	71.262	1.00	28.52
ATOM	3850	CA	SER	B	705	38.955	16.436	72.527	1.00	28.52
ATOM	3851	CB	SER	B	705	40.174	15.543	72.305	1.00	32.02
ATOM	3852	OG	SER	B	705	41.141	16.206	71.512	1.00	32.02
ATOM	3853	C	SER	B	705	39.410	17.769	73.102	1.00	28.52
ATOM	3854	O	SER	B	705	39.160	18.816	72.510	1.00	28.52
ATOM	3855	N	ILE	B	706	40.075	17.734	74.255	1.00	35.21
ATOM	3856	CA	ILE	B	706	40.557	18.963	74.872	1.00	35.21
ATOM	3857	CB	ILE	B	706	41.276	18.697	76.208	1.00	28.17
ATOM	3858	CG2	ILE	B	706	41.857	19.998	76.753	1.00	28.17
ATOM	3859	CG1	ILE	B	706	40.301	18.109	77.232	1.00	28.17
ATOM	3860	CD1	ILE	B	706	40.956	17.734	78.536	1.00	28.17
ATOM	3861	C	ILE	B	706	41.552	19.656	73.945	1.00	35.21
ATOM	3862	O	ILE	B	706	41.471	20.866	73.730	1.00	35.21
ATOM	3863	N	GLU	B	707	42.489	18.886	73.397	1.00	30.11
ATOM	3864	CA	GLU	B	707	43.507	19.445	72.515	1.00	30.11
ATOM	3865	CB	GLU	B	707	44.691	18.482	72.388	1.00	52.64
ATOM	3866	CG	GLU	B	707	45.647	18.532	73.568	1.00	52.64
ATOM	3867	CD	GLU	B	707	46.109	19.952	73.896	1.00	52.64
ATOM	3868	OE1	GLU	B	707	45.364	20.686	74.582	1.00	52.64
ATOM	3869	OE2	GLU	B	707	47.215	20.341	73.458	1.00	52.64
ATOM	3870	C	GLU	B	707	42.984	19.811	71.133	1.00	30.11
ATOM	3871	O	GLU	B	707	43.319	20.873	70.603	1.00	30.11
ATOM	3872	N	GLU	B	708	42.170	18.936	70.552	1.00	26.46
ATOM	3873	CA	GLU	B	708	41.597	19.199	69.238	1.00	26.46
ATOM	3874	CB	GLU	B	708	40.633	18.076	68.847	1.00	44.88
ATOM	3875	CG	GLU	B	708	41.300	16.842	68.254	1.00	44.88
ATOM	3876	CD	GLU	B	708	40.317	15.709	67.998	1.00	44.88
ATOM	3877	OE1	GLU	B	708	40.672	14.764	67.258	1.00	44.88
ATOM	3878	OE2	GLU	B	708	39.191	15.754	68.543	1.00	44.88
ATOM	3879	C	GLU	B	708	40.855	20.534	69.277	1.00	26.46
ATOM	3880	O	GLU	B	708	40.898	21.316	68.324	1.00	26.46

ATOM	3881	N	TYR	B	709	40.183	20.797	70.393	1.00	32.71
ATOM	3882	CA	TYR	B	709	39.432	22.034	70.556	1.00	32.71
ATOM	3883	CB	TYR	B	709	38.546	21.968	71.800	1.00	24.80
ATOM	3884	CG	TYR	B	709	37.696	23.200	71.994	1.00	24.80
ATOM	3885	CD1	TYR	B	709	36.457	23.330	71.361	1.00	24.80
ATOM	3886	CE1	TYR	B	709	35.678	24.465	71.546	1.00	24.80
ATOM	3887	CD2	TYR	B	709	38.131	24.238	72.810	1.00	24.80
ATOM	3888	CE2	TYR	B	709	37.369	25.368	73.002	1.00	24.80
ATOM	3889	CZ	TYR	B	709	36.141	25.483	72.372	1.00	24.80
ATOM	3890	OH	TYR	B	709	35.388	26.619	72.592	1.00	24.80
ATOM	3891	C	TYR	B	709	40.359	23.235	70.685	1.00	32.71
ATOM	3892	O	TYR	B	709	40.116	24.287	70.089	1.00	32.71
ATOM	3893	N	LYS	B	710	41.412	23.087	71.480	1.00	27.97
ATOM	3894	CA	LYS	B	710	42.349	24.182	71.673	1.00	27.97
ATOM	3895	CB	LYS	B	710	43.486	23.762	72.610	1.00	99.83
ATOM	3896	CG	LYS	B	710	43.035	23.452	74.031	1.00	99.83
ATOM	3897	CD	LYS	B	710	42.306	24.638	74.652	1.00	99.83
ATOM	3898	CE	LYS	B	710	41.727	24.291	76.016	1.00	99.83
ATOM	3899	NZ	LYS	B	710	40.962	25.430	76.595	1.00	99.83
ATOM	3900	C	LYS	B	710	42.915	24.618	70.334	1.00	27.97
ATOM	3901	O	LYS	B	710	42.915	25.803	70.014	1.00	27.97
ATOM	3902	N	THR	B	711	43.380	23.648	69.553	1.00	27.41
ATOM	3903	CA	THR	B	711	43.969	23.912	68.246	1.00	27.41
ATOM	3904	CB	THR	B	711	44.553	22.640	67.641	1.00	26.89
ATOM	3905	OG1	THR	B	711	45.579	22.144	68.501	1.00	26.89
ATOM	3906	CG2	THR	B	711	45.147	22.917	66.265	1.00	26.89
ATOM	3907	C	THR	B	711	42.963	24.485	67.256	1.00	27.41
ATOM	3908	O	THR	B	711	43.193	25.549	66.688	1.00	27.41
ATOM	3909	N	THR	B	712	41.858	23.767	67.051	1.00	25.33
ATOM	3910	CA	THR	B	712	40.806	24.189	66.129	1.00	25.33
ATOM	3911	CB	THR	B	712	39.563	23.295	66.286	1.00	20.56
ATOM	3912	OG1	THR	B	712	39.869	21.979	65.817	1.00	20.56
ATOM	3913	CG2	THR	B	712	38.380	23.854	65.496	1.00	20.56
ATOM	3914	C	THR	B	712	40.402	25.647	66.314	1.00	25.33
ATOM	3915	O	THR	B	712	40.244	26.379	65.340	1.00	25.33
ATOM	3916	N	LEU	B	713	40.230	26.083	67.554	1.00	18.06
ATOM	3917	CA	LEU	B	713	39.838	27.464	67.772	1.00	18.06
ATOM	3918	CB	LEU	B	713	39.321	27.656	69.202	1.00	27.31
ATOM	3919	CG	LEU	B	713	37.792	27.551	69.334	1.00	27.31
ATOM	3920	CD1	LEU	B	713	37.153	28.625	68.477	1.00	27.31
ATOM	3921	CD2	LEU	B	713	37.295	26.181	68.899	1.00	27.31
ATOM	3922	C	LEU	B	713	40.962	28.455	67.467	1.00	18.06
ATOM	3923	O	LEU	B	713	40.707	29.605	67.099	1.00	18.06
ATOM	3924	N	LYS	B	714	42.204	28.004	67.615	1.00	28.05
ATOM	3925	CA	LYS	B	714	43.358	28.849	67.341	1.00	28.05
ATOM	3926	CB	LYS	B	714	44.651	28.144	67.770	1.00	52.44
ATOM	3927	CG	LYS	B	714	45.871	29.056	67.821	1.00	52.44
ATOM	3928	CD	LYS	B	714	47.145	28.284	68.148	1.00	52.44
ATOM	3929	CE	LYS	B	714	48.358	29.212	68.195	1.00	52.44
ATOM	3930	NZ	LYS	B	714	49.638	28.469	68.384	1.00	52.44
ATOM	3931	C	LYS	B	714	43.384	29.132	65.839	1.00	28.05
ATOM	3932	O	LYS	B	714	43.540	30.275	65.411	1.00	28.05
ATOM	3933	N	ILE	B	715	43.212	28.087	65.041	1.00	27.35
ATOM	3934	CA	ILE	B	715	43.209	28.250	63.592	1.00	27.35
ATOM	3935	CB	ILE	B	715	43.203	26.882	62.892	1.00	16.89
ATOM	3936	CG2	ILE	B	715	43.269	27.066	61.376	1.00	16.89
ATOM	3937	CG1	ILE	B	715	44.398	26.055	63.380	1.00	16.89
ATOM	3938	CD1	ILE	B	715	44.323	24.592	63.003	1.00	16.89
ATOM	3939	C	ILE	B	715	41.982	29.070	63.173	1.00	27.35
ATOM	3940	O	ILE	B	715	42.101	30.003	62.374	1.00	27.35
ATOM	3941	N	ILE	B	716	40.810	28.738	63.719	1.00	21.01
ATOM	3942	CA	ILE	B	716	39.605	29.493	63.378	1.00	21.01
ATOM	3943	CB	ILE	B	716	38.392	29.107	64.268	1.00	20.77
ATOM	3944	CG2	ILE	B	716	37.312	30.178	64.161	1.00	20.77
ATOM	3945	CG1	ILE	B	716	37.821	27.756	63.833	1.00	20.77
ATOM	3946	CD1	ILE	B	716	36.630	27.296	64.658	1.00	20.77

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ATOM   3947  C   ILE B 716      39.853  30.996  63.544  1.00 21.01
ATOM   3948  O   ILE B 716      39.556  31.783  62.649  1.00 21.01
ATOM   3949  N   LYS B 717      40.402  31.393  64.686  1.00 21.54
ATOM   3950  CA  LYS B 717      40.651  32.806  64.927  1.00 21.54
ATOM   3951  CB  LYS B 717      41.166  33.051  66.349  1.00 17.06
ATOM   3952  CG  LYS B 717      41.068  34.509  66.741  1.00 17.06
ATOM   3953  CD  LYS B 717      41.218  34.718  68.237  1.00 17.06
ATOM   3954  CE  LYS B 717      40.900  36.162  68.605  1.00 17.06
ATOM   3955  NZ  LYS B 717      41.069  36.381  70.069  1.00 17.06
ATOM   3956  C   LYS B 717      41.633  33.394  63.935  1.00 21.54
ATOM   3957  O   LYS B 717      41.429  34.500  63.449  1.00 21.54
ATOM   3958  N   GLN B 718      42.703  32.665  63.644  1.00 20.11
ATOM   3959  CA  GLN B 718      43.699  33.136  62.688  1.00 20.11
ATOM   3960  CB  GLN B 718      44.858  32.139  62.583  1.00 48.51
ATOM   3961  CG  GLN B 718      45.713  32.029  63.831  1.00 48.51
ATOM   3962  CD  GLN B 718      46.706  30.876  63.763  1.00 48.51
ATOM   3963  OE1 GLN B 718      47.464  30.644  64.705  1.00 48.51
ATOM   3964  NE2 GLN B 718      46.701  30.145  62.646  1.00 48.51
ATOM   3965  C   GLN B 718      43.082  33.316  61.302  1.00 20.11
ATOM   3966  O   GLN B 718      43.288  34.335  60.651  1.00 20.11
ATOM   3967  N   ALA B 719      42.334  32.319  60.852  1.00 20.06
ATOM   3968  CA  ALA B 719      41.714  32.379  59.537  1.00 20.06
ATOM   3969  CB  ALA B 719      41.067  31.048  59.195  1.00  8.08
ATOM   3970  C   ALA B 719      40.691  33.499  59.422  1.00 20.06
ATOM   3971  O   ALA B 719      40.573  34.123  58.362  1.00 20.06
ATOM   3972  N   ILE B 720      39.953  33.763  60.499  1.00 18.32
ATOM   3973  CA  ILE B 720      38.957  34.834  60.449  1.00 18.32
ATOM   3974  CB  ILE B 720      37.963  34.779  61.637  1.00 14.49
ATOM   3975  CG2 ILE B 720      37.236  36.119  61.789  1.00 14.49
ATOM   3976  CG1 ILE B 720      36.958  33.639  61.412  1.00 14.49
ATOM   3977  CD1 ILE B 720      35.898  33.548  62.512  1.00 14.49
ATOM   3978  C   ILE B 720      39.649  36.180  60.443  1.00 18.32
ATOM   3979  O   ILE B 720      39.327  37.042  59.625  1.00 18.32
ATOM   3980  N   LEU B 721      40.610  36.360  61.344  1.00 18.37
ATOM   3981  CA  LEU B 721      41.333  37.621  61.416  1.00 18.37
ATOM   3982  CB  LEU B 721      42.251  37.648  62.638  1.00 25.05
ATOM   3983  CG  LEU B 721      41.544  37.862  63.979  1.00 25.05
ATOM   3984  CD1 LEU B 721      42.561  37.764  65.116  1.00 25.05
ATOM   3985  CD2 LEU B 721      40.865  39.226  63.982  1.00 25.05
ATOM   3986  C   LEU B 721      42.145  37.873  60.166  1.00 18.37
ATOM   3987  O   LEU B 721      42.366  39.024  59.796  1.00 18.37
ATOM   3988  N   ALA B 722      42.599  36.805  59.516  1.00 24.49
ATOM   3989  CA  ALA B 722      43.393  36.949  58.297  1.00 24.49
ATOM   3990  CB  ALA B 722      43.999  35.589  57.888  1.00 12.17
ATOM   3991  C   ALA B 722      42.537  37.518  57.157  1.00 24.49
ATOM   3992  O   ALA B 722      43.057  37.978  56.150  1.00 24.49
ATOM   3993  N   THR B 723      41.223  37.499  57.335  1.00 25.84
ATOM   3994  CA  THR B 723      40.299  38.000  56.324  1.00 25.84
ATOM   3995  CB  THR B 723      38.871  37.487  56.647  1.00 34.35
ATOM   3996  OG1 THR B 723      38.374  36.749  55.526  1.00 34.35
ATOM   3997  CG2 THR B 723      37.932  38.622  57.000  1.00 34.35
ATOM   3998  C   THR B 723      40.349  39.539  56.227  1.00 25.84
ATOM   3999  O   THR B 723      39.694  40.160  55.382  1.00 25.84
ATOM   4000  N   ASP B 724      41.137  40.146  57.108  1.00 23.01
ATOM   4001  CA  ASP B 724      41.313  41.596  57.123  1.00 23.01
ATOM   4002  CB  ASP B 724      41.667  42.046  58.543  1.00 43.53
ATOM   4003  CG  ASP B 724      42.130  43.488  58.610  1.00 43.53
ATOM   4004  OD1 ASP B 724      41.809  44.268  57.690  1.00 43.53
ATOM   4005  OD2 ASP B 724      42.809  43.843  59.602  1.00 43.53
ATOM   4006  C   ASP B 724      42.436  41.940  56.135  1.00 23.01
ATOM   4007  O   ASP B 724      43.592  41.594  56.350  1.00 23.01
ATOM   4008  N   LEU B 725      42.086  42.610  55.045  1.00 22.62
ATOM   4009  CA  LEU B 725      43.064  42.960  54.025  1.00 22.62
ATOM   4010  CB  LEU B 725      42.432  43.842  52.953  1.00 24.45
ATOM   4011  CG  LEU B 725      41.583  43.106  51.918  1.00 24.45
ATOM   4012  CD1 LEU B 725      41.114  44.116  50.889  1.00 24.45
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ATOM	4013	CD2	LEU	B	725	42.389	41.995	51.241	1.00	24.45
ATOM	4014	C	LEU	B	725	44.308	43.639	54.561	1.00	22.62
ATOM	4015	O	LEU	B	725	45.380	43.526	53.964	1.00	22.62
ATOM	4016	N	ALA	B	726	44.172	44.355	55.672	1.00	22.33
ATOM	4017	CA	ALA	B	726	45.326	45.019	56.268	1.00	22.33
ATOM	4018	CB	ALA	B	726	44.890	45.924	57.429	1.00	16.32
ATOM	4019	C	ALA	B	726	46.312	43.965	56.767	1.00	22.33
ATOM	4020	O	ALA	B	726	47.522	44.155	56.684	1.00	22.33
ATOM	4021	N	LEU	B	727	45.793	42.849	57.272	1.00	29.90
ATOM	4022	CA	LEU	B	727	46.648	41.780	57.789	1.00	29.90
ATOM	4023	CB	LEU	B	727	45.833	40.840	58.674	1.00	43.89
ATOM	4024	CG	LEU	B	727	46.556	40.375	59.934	1.00	43.89
ATOM	4025	CD1	LEU	B	727	46.881	41.587	60.806	1.00	43.89
ATOM	4026	CD2	LEU	B	727	45.683	39.396	60.695	1.00	43.89
ATOM	4027	C	LEU	B	727	47.318	40.982	56.664	1.00	29.90
ATOM	4028	O	LEU	B	727	48.443	40.497	56.803	1.00	29.90
ATOM	4029	N	TYR	B	728	46.609	40.835	55.555	1.00	25.67
ATOM	4030	CA	TYR	B	728	47.141	40.130	54.405	1.00	25.67
ATOM	4031	CB	TYR	B	728	46.035	39.940	53.368	1.00	22.20
ATOM	4032	CG	TYR	B	728	46.538	39.704	51.967	1.00	22.20
ATOM	4033	CD1	TYR	B	728	46.635	40.752	51.059	1.00	22.20
ATOM	4034	CE1	TYR	B	728	47.119	40.541	49.761	1.00	22.20
ATOM	4035	CD2	TYR	B	728	46.937	38.434	51.551	1.00	22.20
ATOM	4036	CE2	TYR	B	728	47.420	38.218	50.263	1.00	22.20
ATOM	4037	CZ	TYR	B	728	47.505	39.274	49.373	1.00	22.20
ATOM	4038	OH	TYR	B	728	47.959	39.060	48.082	1.00	22.20
ATOM	4039	C	TYR	B	728	48.301	40.947	53.817	1.00	25.67
ATOM	4040	O	TYR	B	728	49.317	40.385	53.410	1.00	25.67
ATOM	4041	N	ILE	B	729	48.145	42.267	53.788	1.00	30.93
ATOM	4042	CA	ILE	B	729	49.174	43.165	53.254	1.00	30.93
ATOM	4043	CB	ILE	B	729	48.745	44.660	53.336	1.00	32.43
ATOM	4044	CG2	ILE	B	729	49.909	45.555	52.935	1.00	32.43
ATOM	4045	CG1	ILE	B	729	47.526	44.925	52.448	1.00	32.43
ATOM	4046	CD1	ILE	B	729	47.749	44.676	50.984	1.00	32.43
ATOM	4047	C	ILE	B	729	50.496	43.043	54.015	1.00	30.93
ATOM	4048	O	ILE	B	729	51.571	43.082	53.415	1.00	30.93
ATOM	4049	N	LYS	B	730	50.417	42.887	55.334	1.00	27.84
ATOM	4050	CA	LYS	B	730	51.629	42.808	56.132	1.00	27.84
ATOM	4051	CB	LYS	B	730	51.362	43.314	57.549	1.00	86.85
ATOM	4052	CG	LYS	B	730	50.489	42.408	58.381	1.00	86.85
ATOM	4053	CD	LYS	B	730	50.336	42.959	59.790	1.00	86.85
ATOM	4054	CE	LYS	B	730	51.679	43.071	60.499	1.00	86.85
ATOM	4055	NZ	LYS	B	730	51.524	43.614	61.878	1.00	86.85
ATOM	4056	C	LYS	B	730	52.297	41.448	56.206	1.00	27.84
ATOM	4057	O	LYS	B	730	53.452	41.353	56.611	1.00	27.84
ATOM	4058	N	ARG	B	731	51.598	40.394	55.809	1.00	31.54
ATOM	4059	CA	ARG	B	731	52.199	39.073	55.877	1.00	31.54
ATOM	4060	CB	ARG	B	731	51.284	38.117	56.642	1.00	39.21
ATOM	4061	CG	ARG	B	731	51.054	38.497	58.093	1.00	39.21
ATOM	4062	CD	ARG	B	731	50.816	37.253	58.930	1.00	39.21
ATOM	4063	NE	ARG	B	731	51.950	36.337	58.837	1.00	39.21
ATOM	4064	CZ	ARG	B	731	52.004	35.134	59.405	1.00	39.21
ATOM	4065	NH1	ARG	B	731	50.980	34.679	60.121	1.00	39.21
ATOM	4066	NH2	ARG	B	731	53.086	34.377	59.251	1.00	39.21
ATOM	4067	C	ARG	B	731	52.566	38.445	54.530	1.00	31.54
ATOM	4068	O	ARG	B	731	53.370	37.515	54.480	1.00	31.54
ATOM	4069	N	ARG	B	732	52.002	38.956	53.441	1.00	22.24
ATOM	4070	CA	ARG	B	732	52.266	38.382	52.123	1.00	22.24
ATOM	4071	CB	ARG	B	732	51.322	38.987	51.088	1.00	30.18
ATOM	4072	CG	ARG	B	732	51.554	40.465	50.860	1.00	30.18
ATOM	4073	CD	ARG	B	732	50.774	40.960	49.659	1.00	30.18
ATOM	4074	NE	ARG	B	732	50.941	42.396	49.474	1.00	30.18
ATOM	4075	CZ	ARG	B	732	50.480	43.062	48.424	1.00	30.18
ATOM	4076	NH1	ARG	B	732	49.828	42.412	47.468	1.00	30.18
ATOM	4077	NH2	ARG	B	732	50.668	44.373	48.330	1.00	30.18
ATOM	4078	C	ARG	B	732	53.699	38.524	51.608	1.00	22.24

ATOM	4079	O	ARG	B	732	54.191	37.651	50.886	1.00	22.24
ATOM	4080	N	GLY	B	733	54.350	39.630	51.959	1.00	20.81
ATOM	4081	CA	GLY	B	733	55.708	39.869	51.502	1.00	20.81
ATOM	4082	C	GLY	B	733	56.575	38.658	51.761	1.00	20.81
ATOM	4083	O	GLY	B	733	57.276	38.181	50.872	1.00	20.81
ATOM	4084	N	GLU	B	734	56.503	38.163	52.993	1.00	31.06
ATOM	4085	CA	GLU	B	734	57.265	36.999	53.428	1.00	31.06
ATOM	4086	CB	GLU	B	734	57.004	36.744	54.917	1.00	43.65
ATOM	4087	CG	GLU	B	734	57.885	35.681	55.545	1.00	43.65
ATOM	4088	CD	GLU	B	734	57.407	35.276	56.928	1.00	43.65
ATOM	4089	OE1	GLU	B	734	56.996	36.163	57.704	1.00	43.65
ATOM	4090	OE2	GLU	B	734	57.450	34.069	57.240	1.00	43.65
ATOM	4091	C	GLU	B	734	56.867	35.767	52.616	1.00	31.06
ATOM	4092	O	GLU	B	734	57.720	34.988	52.198	1.00	31.06
ATOM	4093	N	PHE	B	735	55.565	35.598	52.396	1.00	28.06
ATOM	4094	CA	PHE	B	735	55.051	34.464	51.631	1.00	28.06
ATOM	4095	CB	PHE	B	735	53.514	34.464	51.669	1.00	27.81
ATOM	4096	CG	PHE	B	735	52.881	33.313	50.932	1.00	27.81
ATOM	4097	CD1	PHE	B	735	53.148	31.997	51.298	1.00	27.81
ATOM	4098	CD2	PHE	B	735	51.996	33.548	49.883	1.00	27.81
ATOM	4099	CE1	PHE	B	735	52.532	30.931	50.623	1.00	27.81
ATOM	4100	CE2	PHE	B	735	51.378	32.496	49.205	1.00	27.81
ATOM	4101	CZ	PHE	B	735	51.644	31.189	49.573	1.00	27.81
ATOM	4102	C	PHE	B	735	55.539	34.504	50.180	1.00	28.06
ATOM	4103	O	PHE	B	735	55.945	33.480	49.629	1.00	28.06
ATOM	4104	N	PHE	B	736	55.486	35.683	49.563	1.00	31.02
ATOM	4105	CA	PHE	B	736	55.936	35.839	48.181	1.00	31.02
ATOM	4106	CB	PHE	B	736	55.544	37.220	47.635	1.00	24.65
ATOM	4107	CG	PHE	B	736	54.055	37.415	47.471	1.00	24.65
ATOM	4108	CD1	PHE	B	736	53.507	38.697	47.443	1.00	24.65
ATOM	4109	CD2	PHE	B	736	53.201	36.324	47.354	1.00	24.65
ATOM	4110	CE1	PHE	B	736	52.126	38.888	47.303	1.00	24.65
ATOM	4111	CE2	PHE	B	736	51.821	36.505	47.216	1.00	24.65
ATOM	4112	CZ	PHE	B	736	51.288	37.786	47.190	1.00	24.65
ATOM	4113	C	PHE	B	736	57.449	35.663	48.101	1.00	31.02
ATOM	4114	O	PHE	B	736	57.955	35.087	47.142	1.00	31.02
ATOM	4115	N	GLU	B	737	58.168	36.166	49.104	1.00	36.82
ATOM	4116	CA	GLU	B	737	59.628	36.043	49.150	1.00	36.82
ATOM	4117	CB	GLU	B	737	60.200	36.836	50.330	1.00	66.52
ATOM	4118	CG	GLU	B	737	60.605	38.261	49.986	1.00	66.52
ATOM	4119	CD	GLU	B	737	61.819	38.317	49.072	1.00	66.52
ATOM	4120	OE1	GLU	B	737	61.747	37.782	47.944	1.00	66.52
ATOM	4121	OE2	GLU	B	737	62.848	38.897	49.482	1.00	66.52
ATOM	4122	C	GLU	B	737	60.060	34.581	49.265	1.00	36.82
ATOM	4123	O	GLU	B	737	60.994	34.146	48.593	1.00	36.82
ATOM	4124	N	LEU	B	738	59.371	33.825	50.112	1.00	41.80
ATOM	4125	CA	LEU	B	738	59.695	32.418	50.294	1.00	41.80
ATOM	4126	CB	LEU	B	738	58.864	31.833	51.445	1.00	47.96
ATOM	4127	CG	LEU	B	738	59.445	31.913	52.866	1.00	47.96
ATOM	4128	CD1	LEU	B	738	59.945	33.310	53.175	1.00	47.96
ATOM	4129	CD2	LEU	B	738	58.372	31.502	53.861	1.00	47.96
ATOM	4130	C	LEU	B	738	59.470	31.624	49.003	1.00	41.80
ATOM	4131	O	LEU	B	738	60.219	30.702	48.694	1.00	41.80
ATOM	4132	N	ILE	B	739	58.443	31.995	48.247	1.00	35.57
ATOM	4133	CA	ILE	B	739	58.122	31.327	46.986	1.00	35.57
ATOM	4134	CB	ILE	B	739	56.737	31.806	46.457	1.00	33.13
ATOM	4135	CG2	ILE	B	739	56.443	31.199	45.099	1.00	33.13
ATOM	4136	CG1	ILE	B	739	55.637	31.423	47.450	1.00	33.13
ATOM	4137	CD1	ILE	B	739	55.448	29.942	47.616	1.00	33.13
ATOM	4138	C	ILE	B	739	59.196	31.621	45.924	1.00	35.57
ATOM	4139	O	ILE	B	739	59.736	30.706	45.294	1.00	35.57
ATOM	4140	N	ARG	B	740	59.499	32.904	45.742	1.00	40.76
ATOM	4141	CA	ARG	B	740	60.494	33.347	44.765	1.00	40.76
ATOM	4142	CB	ARG	B	740	60.689	34.868	44.857	1.00	40.86
ATOM	4143	CG	ARG	B	740	61.619	35.431	43.787	1.00	40.86
ATOM	4144	CD	ARG	B	740	61.721	36.947	43.851	1.00	40.86

ATOM	4145	NE	ARG	B	740	62.450	37.407	45.029	1.00	40.86
ATOM	4146	CZ	ARG	B	740	63.738	37.164	45.261	1.00	40.86
ATOM	4147	NH1	ARG	B	740	64.456	36.461	44.394	1.00	40.86
ATOM	4148	NH2	ARG	B	740	64.312	37.630	46.363	1.00	40.86
ATOM	4149	C	ARG	B	740	61.844	32.666	44.958	1.00	40.76
ATOM	4150	O	ARG	B	740	62.571	32.421	43.992	1.00	40.76
ATOM	4151	N	LYS	B	741	62.172	32.361	46.209	1.00	46.76
ATOM	4152	CA	LYS	B	741	63.439	31.724	46.529	1.00	46.76
ATOM	4153	CB	LYS	B	741	64.044	32.390	47.769	1.00	44.46
ATOM	4154	CG	LYS	B	741	64.306	33.874	47.577	1.00	44.46
ATOM	4155	CD	LYS	B	741	65.057	34.487	48.740	1.00	44.46
ATOM	4156	CE	LYS	B	741	64.193	34.635	49.981	1.00	44.46
ATOM	4157	NZ	LYS	B	741	64.869	35.495	51.006	1.00	44.46
ATOM	4158	C	LYS	B	741	63.329	30.215	46.735	1.00	46.76
ATOM	4159	O	LYS	B	741	64.223	29.592	47.307	1.00	46.76
ATOM	4160	N	ASN	B	742	62.235	29.630	46.265	1.00	42.46
ATOM	4161	CA	ASN	B	742	62.020	28.188	46.387	1.00	42.46
ATOM	4162	CB	ASN	B	742	62.892	27.444	45.376	1.00	77.40
ATOM	4163	CG	ASN	B	742	62.439	27.661	43.954	1.00	77.40
ATOM	4164	OD1	ASN	B	742	61.309	27.327	43.594	1.00	77.40
ATOM	4165	ND2	ASN	B	742	63.316	28.225	43.134	1.00	77.40
ATOM	4166	C	ASN	B	742	62.254	27.592	47.774	1.00	42.46
ATOM	4167	O	ASN	B	742	62.433	26.383	47.904	1.00	42.46
ATOM	4168	N	GLN	B	743	62.247	28.429	48.803	1.00	39.30
ATOM	4169	CA	GLN	B	743	62.451	27.955	50.163	1.00	39.30
ATOM	4170	CB	GLN	B	743	63.306	28.959	50.957	1.00	53.63
ATOM	4171	CG	GLN	B	743	64.618	29.381	50.288	1.00	53.63
ATOM	4172	CD	GLN	B	743	65.438	30.370	51.126	1.00	53.63
ATOM	4173	OE1	GLN	B	743	64.889	31.260	51.781	1.00	53.63
ATOM	4174	NE2	GLN	B	743	66.761	30.225	51.088	1.00	53.63
ATOM	4175	C	GLN	B	743	61.112	27.729	50.897	1.00	39.30
ATOM	4176	O	GLN	B	743	61.095	27.596	52.120	1.00	39.30
ATOM	4177	N	PHE	B	744	59.997	27.673	50.167	1.00	58.03
ATOM	4178	CA	PHE	B	744	58.688	27.475	50.808	1.00	58.03
ATOM	4179	CB	PHE	B	744	57.576	28.188	50.024	1.00	34.40
ATOM	4180	CG	PHE	B	744	56.204	28.049	50.650	1.00	34.40
ATOM	4181	CD1	PHE	B	744	55.823	28.859	51.712	1.00	34.40
ATOM	4182	CD2	PHE	B	744	55.316	27.076	50.203	1.00	34.40
ATOM	4183	CE1	PHE	B	744	54.582	28.704	52.324	1.00	34.40
ATOM	4184	CE2	PHE	B	744	54.071	26.912	50.809	1.00	34.40
ATOM	4185	CZ	PHE	B	744	53.706	27.728	51.872	1.00	34.40
ATOM	4186	C	PHE	B	744	58.290	26.008	50.976	1.00	58.03
ATOM	4187	O	PHE	B	744	58.372	25.221	50.034	1.00	58.03
ATOM	4188	N	ASN	B	745	57.832	25.651	52.175	1.00	56.51
ATOM	4189	CA	ASN	B	745	57.413	24.278	52.452	1.00	56.51
ATOM	4190	CB	ASN	B	745	58.635	23.421	52.809	1.00	90.30
ATOM	4191	CG	ASN	B	745	58.380	21.934	52.633	1.00	90.30
ATOM	4192	OD1	ASN	B	745	59.220	21.104	52.984	1.00	90.30
ATOM	4193	ND2	ASN	B	745	57.222	21.590	52.078	1.00	90.30
ATOM	4194	C	ASN	B	745	56.379	24.206	53.586	1.00	56.51
ATOM	4195	O	ASN	B	745	56.590	24.754	54.671	1.00	56.51
ATOM	4196	N	LEU	B	746	55.265	23.525	53.321	1.00	40.60
ATOM	4197	CA	LEU	B	746	54.195	23.369	54.305	1.00	40.60
ATOM	4198	CB	LEU	B	746	53.008	22.610	53.696	1.00	64.14
ATOM	4199	CG	LEU	B	746	52.265	23.189	52.485	1.00	64.14
ATOM	4200	CD1	LEU	B	746	51.866	24.628	52.773	1.00	64.14
ATOM	4201	CD2	LEU	B	746	53.144	23.111	51.246	1.00	64.14
ATOM	4202	C	LEU	B	746	54.677	22.630	55.553	1.00	40.60
ATOM	4203	O	LEU	B	746	54.103	22.777	56.633	1.00	40.60
ATOM	4204	N	GLU	B	747	55.731	21.835	55.396	1.00	59.89
ATOM	4205	CA	GLU	B	747	56.307	21.074	56.501	1.00	59.89
ATOM	4206	CB	GLU	B	747	57.587	20.371	56.040	1.00	80.89
ATOM	4207	CG	GLU	B	747	57.404	19.491	54.812	1.00	80.89
ATOM	4208	CD	GLU	B	747	56.696	18.190	55.121	1.00	80.89
ATOM	4209	OE1	GLU	B	747	55.734	18.211	55.918	1.00	80.89
ATOM	4210	OE2	GLU	B	747	57.095	17.147	54.558	1.00	80.89

ATOM	4211	C	GLU	B	747	56.625	21.998	57.669	1.00	59.89
ATOM	4212	O	GLU	B	747	56.455	21.628	58.825	1.00	59.89
ATOM	4213	N	ASP	B	748	57.090	23.203	57.363	1.00	51.51
ATOM	4214	CA	ASP	B	748	57.419	24.167	58.403	1.00	51.51
ATOM	4215	CB	ASP	B	748	58.189	25.349	57.812	1.00	52.10
ATOM	4216	CG	ASP	B	748	58.599	26.361	58.866	1.00	52.10
ATOM	4217	OD1	ASP	B	748	57.734	26.786	59.661	1.00	52.10
ATOM	4218	OD2	ASP	B	748	59.787	26.739	58.897	1.00	52.10
ATOM	4219	C	ASP	B	748	56.136	24.670	59.060	1.00	51.51
ATOM	4220	O	ASP	B	748	55.225	25.145	58.380	1.00	51.51
ATOM	4221	N	PRO	B	749	56.055	24.586	60.396	1.00	52.50
ATOM	4222	CD	PRO	B	749	57.118	24.147	61.316	1.00	53.12
ATOM	4223	CA	PRO	B	749	54.876	25.030	61.142	1.00	52.50
ATOM	4224	CB	PRO	B	749	55.242	24.699	62.592	1.00	53.12
ATOM	4225	CG	PRO	B	749	56.732	24.839	62.601	1.00	53.12
ATOM	4226	C	PRO	B	749	54.500	26.500	60.952	1.00	52.50
ATOM	4227	O	PRO	B	749	53.323	26.824	60.775	1.00	52.50
ATOM	4228	N	HIS	B	750	55.493	27.384	60.990	1.00	42.27
ATOM	4229	CA	HIS	B	750	55.247	28.815	60.829	1.00	42.27
ATOM	4230	CB	HIS	B	750	56.494	29.607	61.231	1.00	35.67
ATOM	4231	CG	HIS	B	750	56.389	31.071	60.954	1.00	35.67
ATOM	4232	CD2	HIS	B	750	55.791	32.068	61.645	1.00	35.67
ATOM	4233	ND1	HIS	B	750	56.920	31.653	59.823	1.00	35.67
ATOM	4234	CE1	HIS	B	750	56.655	32.947	59.830	1.00	35.67
ATOM	4235	NE2	HIS	B	750	55.970	33.224	60.925	1.00	35.67
ATOM	4236	C	HIS	B	750	54.829	29.176	59.403	1.00	42.27
ATOM	4237	O	HIS	B	750	54.041	30.103	59.191	1.00	42.27
ATOM	4238	N	GLU	B	751	55.370	28.442	58.434	1.00	32.09
ATOM	4239	CA	GLU	B	751	55.047	28.645	57.029	1.00	32.09
ATOM	4240	CB	GLU	B	751	56.095	27.983	56.134	1.00	46.70
ATOM	4241	CG	GLU	B	751	57.338	28.822	55.910	1.00	46.70
ATOM	4242	CD	GLU	B	751	58.318	28.162	54.961	1.00	46.70
ATOM	4243	OE1	GLU	B	751	57.915	27.800	53.832	1.00	46.70
ATOM	4244	OE2	GLU	B	751	59.494	28.006	55.347	1.00	46.70
ATOM	4245	C	GLU	B	751	53.681	28.036	56.739	1.00	32.09
ATOM	4246	O	GLU	B	751	52.950	28.501	55.862	1.00	32.09
ATOM	4247	N	LYS	B	752	53.353	26.982	57.479	1.00	39.39
ATOM	4248	CA	LYS	B	752	52.077	26.315	57.324	1.00	39.39
ATOM	4249	CB	LYS	B	752	52.008	25.067	58.215	1.00	40.23
ATOM	4250	CG	LYS	B	752	50.593	24.538	58.468	1.00	40.23
ATOM	4251	CD	LYS	B	752	49.870	24.160	57.180	1.00	40.23
ATOM	4252	CE	LYS	B	752	50.294	22.794	56.657	1.00	40.23
ATOM	4253	NZ	LYS	B	752	49.838	21.699	57.561	1.00	40.23
ATOM	4254	C	LYS	B	752	50.968	27.284	57.698	1.00	39.39
ATOM	4255	O	LYS	B	752	49.991	27.416	56.964	1.00	39.39
ATOM	4256	N	GLU	B	753	51.116	27.984	58.819	1.00	28.52
ATOM	4257	CA	GLU	B	753	50.055	28.899	59.212	1.00	28.52
ATOM	4258	CB	GLU	B	753	50.153	29.288	60.691	1.00	55.48
ATOM	4259	CG	GLU	B	753	51.292	30.198	61.069	1.00	55.48
ATOM	4260	CD	GLU	B	753	51.163	30.691	62.501	1.00	55.48
ATOM	4261	OE1	GLU	B	753	50.893	29.858	63.399	1.00	55.48
ATOM	4262	OE2	GLU	B	753	51.336	31.909	62.729	1.00	55.48
ATOM	4263	C	GLU	B	753	50.018	30.137	58.339	1.00	28.52
ATOM	4264	O	GLU	B	753	48.966	30.752	58.188	1.00	28.52
ATOM	4265	N	LEU	B	754	51.161	30.501	57.761	1.00	22.32
ATOM	4266	CA	LEU	B	754	51.207	31.654	56.869	1.00	22.32
ATOM	4267	CB	LEU	B	754	52.651	31.961	56.461	1.00	29.80
ATOM	4268	CG	LEU	B	754	52.823	33.028	55.373	1.00	29.80
ATOM	4269	CD1	LEU	B	754	52.179	34.332	55.847	1.00	29.80
ATOM	4270	CD2	LEU	B	754	54.304	33.235	55.057	1.00	29.80
ATOM	4271	C	LEU	B	754	50.372	31.274	55.636	1.00	22.32
ATOM	4272	O	LEU	B	754	49.586	32.072	55.126	1.00	22.32
ATOM	4273	N	PHE	B	755	50.518	30.039	55.179	1.00	23.39
ATOM	4274	CA	PHE	B	755	49.760	29.592	54.019	1.00	23.39
ATOM	4275	CB	PHE	B	755	50.159	28.177	53.610	1.00	21.10
ATOM	4276	CG	PHE	B	755	49.415	27.671	52.410	1.00	21.10

ATOM	4277	CD1	PHE	B	755	49.636	28.228	51.154	1.00	21.10
ATOM	4278	CD2	PHE	B	755	48.466	26.661	52.538	1.00	21.10
ATOM	4279	CE1	PHE	B	755	48.921	27.787	50.038	1.00	21.10
ATOM	4280	CE2	PHE	B	755	47.740	26.208	51.424	1.00	21.10
ATOM	4281	CZ	PHE	B	755	47.968	26.770	50.179	1.00	21.10
ATOM	4282	C	PHE	B	755	48.256	29.632	54.281	1.00	23.39
ATOM	4283	O	PHE	B	755	47.481	30.049	53.418	1.00	23.39
ATOM	4284	N	LEU	B	756	47.846	29.204	55.470	1.00	30.77
ATOM	4285	CA	LEU	B	756	46.433	29.201	55.818	1.00	30.77
ATOM	4286	CB	LEU	B	756	46.236	28.734	57.264	1.00	25.10
ATOM	4287	CG	LEU	B	756	46.697	27.307	57.543	1.00	25.10
ATOM	4288	CD1	LEU	B	756	46.516	26.982	59.023	1.00	25.10
ATOM	4289	CD2	LEU	B	756	45.914	26.340	56.666	1.00	25.10
ATOM	4290	C	LEU	B	756	45.821	30.584	55.638	1.00	30.77
ATOM	4291	O	LEU	B	756	44.761	30.723	55.033	1.00	30.77
ATOM	4292	N	ALA	B	757	46.491	31.601	56.170	1.00	24.00
ATOM	4293	CA	ALA	B	757	46.007	32.973	56.055	1.00	24.00
ATOM	4294	CB	ALA	B	757	46.909	33.918	56.828	1.00	14.27
ATOM	4295	C	ALA	B	757	45.955	33.388	54.590	1.00	24.00
ATOM	4296	O	ALA	B	757	44.990	34.010	54.154	1.00	24.00
ATOM	4297	N	MET	B	758	46.995	33.044	53.832	1.00	23.59
ATOM	4298	CA	MET	B	758	47.030	33.392	52.414	1.00	23.59
ATOM	4299	CB	MET	B	758	48.370	32.994	51.783	1.00	22.22
ATOM	4300	CG	MET	B	758	49.581	33.747	52.312	1.00	22.22
ATOM	4301	SD	MET	B	758	49.403	35.526	52.251	1.00	22.22
ATOM	4302	CE	MET	B	758	50.096	35.911	50.751	1.00	22.22
ATOM	4303	C	MET	B	758	45.900	32.695	51.661	1.00	23.59
ATOM	4304	O	MET	B	758	45.329	33.250	50.727	1.00	23.59
ATOM	4305	N	LEU	B	759	45.586	31.474	52.072	1.00	19.31
ATOM	4306	CA	LEU	B	759	44.530	30.705	51.428	1.00	19.31
ATOM	4307	CB	LEU	B	759	44.566	29.257	51.910	1.00	14.11
ATOM	4308	CG	LEU	B	759	43.561	28.307	51.273	1.00	14.11
ATOM	4309	CD1	LEU	B	759	43.825	28.253	49.765	1.00	14.11
ATOM	4310	CD2	LEU	B	759	43.692	26.924	51.897	1.00	14.11
ATOM	4311	C	LEU	B	759	43.166	31.315	51.726	1.00	19.31
ATOM	4312	O	LEU	B	759	42.275	31.309	50.875	1.00	19.31
ATOM	4313	N	MET	B	760	43.004	31.827	52.942	1.00	20.43
ATOM	4314	CA	MET	B	760	41.750	32.458	53.335	1.00	20.43
ATOM	4315	CB	MET	B	760	41.779	32.860	54.818	1.00	17.37
ATOM	4316	CG	MET	B	760	41.509	31.727	55.812	1.00	17.37
ATOM	4317	SD	MET	B	760	39.834	30.973	55.707	1.00	17.37
ATOM	4318	CE	MET	B	760	38.809	32.423	55.883	1.00	17.37
ATOM	4319	C	MET	B	760	41.530	33.696	52.454	1.00	20.43
ATOM	4320	O	MET	B	760	40.435	33.918	51.944	1.00	20.43
ATOM	4321	N	THR	B	761	42.574	34.496	52.272	1.00	16.88
ATOM	4322	CA	THR	B	761	42.454	35.674	51.434	1.00	16.88
ATOM	4323	CB	THR	B	761	43.770	36.477	51.362	1.00	18.54
ATOM	4324	OG1	THR	B	761	44.094	36.994	52.655	1.00	18.54
ATOM	4325	CG2	THR	B	761	43.623	37.648	50.397	1.00	18.54
ATOM	4326	C	THR	B	761	42.080	35.237	50.015	1.00	16.88
ATOM	4327	O	THR	B	761	41.173	35.793	49.414	1.00	16.88
ATOM	4328	N	ALA	B	762	42.765	34.219	49.503	1.00	16.68
ATOM	4329	CA	ALA	B	762	42.505	33.734	48.158	1.00	16.68
ATOM	4330	CB	ALA	B	762	43.449	32.566	47.824	1.00	15.34
ATOM	4331	C	ALA	B	762	41.051	33.314	47.966	1.00	16.68
ATOM	4332	O	ALA	B	762	40.451	33.621	46.941	1.00	16.68
ATOM	4333	N	CYS	B	763	40.479	32.611	48.939	1.00	18.11
ATOM	4334	CA	CYS	B	763	39.084	32.184	48.824	1.00	18.11
ATOM	4335	CB	CYS	B	763	38.772	31.086	49.843	1.00	24.66
ATOM	4336	SG	CYS	B	763	39.847	29.653	49.702	1.00	24.66
ATOM	4337	C	CYS	B	763	38.138	33.366	49.042	1.00	18.11
ATOM	4338	O	CYS	B	763	37.120	33.494	48.364	1.00	18.11
ATOM	4339	N	ASP	B	764	38.486	34.233	49.988	1.00	12.42
ATOM	4340	CA	ASP	B	764	37.660	35.398	50.282	1.00	12.42
ATOM	4341	CB	ASP	B	764	38.291	36.221	51.413	1.00	21.39
ATOM	4342	CG	ASP	B	764	37.316	37.224	52.023	1.00	21.39

ATOM	4343	OD1	ASP	B	764	37.758	38.178	52.693	1.00	21.39
ATOM	4344	OD2	ASP	B	764	36.097	37.037	51.838	1.00	21.39
ATOM	4345	C	ASP	B	764	37.499	36.291	49.052	1.00	12.42
ATOM	4346	O	ASP	B	764	36.427	36.841	48.813	1.00	12.42
ATOM	4347	N	LEU	B	765	38.570	36.422	48.271	1.00	17.99
ATOM	4348	CA	LEU	B	765	38.574	37.282	47.087	1.00	17.99
ATOM	4349	CB	LEU	B	765	39.948	37.962	46.953	1.00	15.72
ATOM	4350	CG	LEU	B	765	40.442	38.734	48.185	1.00	15.72
ATOM	4351	CD1	LEU	B	765	41.876	39.238	47.968	1.00	15.72
ATOM	4352	CD2	LEU	B	765	39.511	39.905	48.458	1.00	15.72
ATOM	4353	C	LEU	B	765	38.259	36.546	45.784	1.00	17.99
ATOM	4354	O	LEU	B	765	38.344	37.136	44.720	1.00	17.99
ATOM	4355	N	SER	B	766	37.873	35.276	45.873	1.00	23.57
ATOM	4356	CA	SER	B	766	37.610	34.459	44.682	1.00	23.57
ATOM	4357	CB	SER	B	766	37.125	33.065	45.102	1.00	28.43
ATOM	4358	OG	SER	B	766	35.844	33.121	45.708	1.00	28.43
ATOM	4359	C	SER	B	766	36.671	35.003	43.589	1.00	23.57
ATOM	4360	O	SER	B	766	36.754	34.568	42.434	1.00	23.57
ATOM	4361	N	ALA	B	767	35.779	35.924	43.933	1.00	18.54
ATOM	4362	CA	ALA	B	767	34.852	36.477	42.942	1.00	18.54
ATOM	4363	CB	ALA	B	767	33.993	37.588	43.561	1.00	7.41
ATOM	4364	C	ALA	B	767	35.614	37.036	41.753	1.00	18.54
ATOM	4365	O	ALA	B	767	35.127	37.012	40.627	1.00	18.54
ATOM	4366	N	ILE	B	768	36.818	37.532	42.019	1.00	21.24
ATOM	4367	CA	ILE	B	768	37.664	38.126	40.990	1.00	21.24
ATOM	4368	CB	ILE	B	768	38.848	38.884	41.638	1.00	23.09
ATOM	4369	CG2	ILE	B	768	39.956	37.907	42.009	1.00	23.09
ATOM	4370	CG1	ILE	B	768	39.358	39.971	40.691	1.00	23.09
ATOM	4371	CD1	ILE	B	768	38.380	41.127	40.505	1.00	23.09
ATOM	4372	C	ILE	B	768	38.211	37.104	39.993	1.00	21.24
ATOM	4373	O	ILE	B	768	38.842	37.482	39.011	1.00	21.24
ATOM	4374	N	THR	B	769	37.950	35.820	40.236	1.00	22.66
ATOM	4375	CA	THR	B	769	38.440	34.734	39.374	1.00	22.66
ATOM	4376	CB	THR	B	769	39.102	33.603	40.201	1.00	21.26
ATOM	4377	OG1	THR	B	769	38.083	32.831	40.859	1.00	21.26
ATOM	4378	CG2	THR	B	769	40.040	34.169	41.245	1.00	21.26
ATOM	4379	C	THR	B	769	37.342	34.065	38.551	1.00	22.66
ATOM	4380	O	THR	B	769	37.622	33.250	37.667	1.00	22.66
ATOM	4381	N	LYS	B	770	36.096	34.413	38.843	1.00	23.23
ATOM	4382	CA	LYS	B	770	34.949	33.809	38.178	1.00	23.23
ATOM	4383	CB	LYS	B	770	33.690	34.152	38.975	1.00	19.78
ATOM	4384	CG	LYS	B	770	33.707	33.661	40.407	1.00	19.78
ATOM	4385	CD	LYS	B	770	33.599	32.154	40.461	1.00	19.78
ATOM	4386	CE	LYS	B	770	33.595	31.657	41.896	1.00	19.78
ATOM	4387	NZ	LYS	B	770	33.469	30.166	41.936	1.00	19.78
ATOM	4388	C	LYS	B	770	34.734	34.200	36.716	1.00	23.23
ATOM	4389	O	LYS	B	770	35.181	35.254	36.274	1.00	23.23
ATOM	4390	N	PRO	B	771	34.046	33.339	35.943	1.00	22.51
ATOM	4391	CD	PRO	B	771	33.483	32.021	36.288	1.00	21.22
ATOM	4392	CA	PRO	B	771	33.790	33.663	34.536	1.00	22.51
ATOM	4393	CB	PRO	B	771	32.769	32.605	34.120	1.00	21.22
ATOM	4394	CG	PRO	B	771	33.197	31.411	34.925	1.00	21.22
ATOM	4395	C	PRO	B	771	33.214	35.075	34.499	1.00	22.51
ATOM	4396	O	PRO	B	771	32.476	35.470	35.403	1.00	22.51
ATOM	4397	N	TRP	B	772	33.553	35.822	33.453	1.00	28.44
ATOM	4398	CA	TRP	B	772	33.113	37.207	33.286	1.00	28.44
ATOM	4399	CB	TRP	B	772	33.363	37.664	31.845	1.00	34.31
ATOM	4400	CG	TRP	B	772	32.944	39.075	31.612	1.00	34.31
ATOM	4401	CD2	TRP	B	772	33.515	40.247	32.207	1.00	34.31
ATOM	4402	CE2	TRP	B	772	32.794	41.355	31.716	1.00	34.31
ATOM	4403	CE3	TRP	B	772	34.566	40.469	33.107	1.00	34.31
ATOM	4404	CD1	TRP	B	772	31.931	39.507	30.809	1.00	34.31
ATOM	4405	NE1	TRP	B	772	31.834	40.874	30.864	1.00	34.31
ATOM	4406	CZ2	TRP	B	772	33.091	42.671	32.097	1.00	34.31
ATOM	4407	CZ3	TRP	B	772	34.863	41.777	33.485	1.00	34.31
ATOM	4408	CH2	TRP	B	772	34.127	42.859	32.980	1.00	34.31

ATOM	4409	C	TRP	B	772	31.686	37.594	33.681	1.00	28.44
ATOM	4410	O	TRP	B	772	31.494	38.502	34.490	1.00	28.44
ATOM	4411	N	PRO	B	773	30.666	36.937	33.107	1.00	33.72
ATOM	4412	CD	PRO	B	773	30.614	35.872	32.090	1.00	29.44
ATOM	4413	CA	PRO	B	773	29.319	37.352	33.518	1.00	33.72
ATOM	4414	CB	PRO	B	773	28.393	36.457	32.686	1.00	29.44
ATOM	4415	CG	PRO	B	773	29.245	35.276	32.326	1.00	29.44
ATOM	4416	C	PRO	B	773	29.074	37.248	35.016	1.00	33.72
ATOM	4417	O	PRO	B	773	28.289	38.009	35.570	1.00	33.72
ATOM	4418	N	ILE	B	774	29.756	36.318	35.675	1.00	25.03
ATOM	4419	CA	ILE	B	774	29.591	36.160	37.118	1.00	25.03
ATOM	4420	CB	ILE	B	774	30.039	34.748	37.579	1.00	22.27
ATOM	4421	CG2	ILE	B	774	29.945	34.619	39.092	1.00	22.27
ATOM	4422	CG1	ILE	B	774	29.136	33.696	36.932	1.00	22.27
ATOM	4423	CD1	ILE	B	774	29.593	32.271	37.118	1.00	22.27
ATOM	4424	C	ILE	B	774	30.402	37.249	37.828	1.00	25.03
ATOM	4425	O	ILE	B	774	29.916	37.883	38.760	1.00	25.03
ATOM	4426	N	GLN	B	775	31.625	37.481	37.361	1.00	26.94
ATOM	4427	CA	GLN	B	775	32.485	38.506	37.954	1.00	26.94
ATOM	4428	CB	GLN	B	775	33.820	38.606	37.206	1.00	32.81
ATOM	4429	CG	GLN	B	775	35.036	38.908	38.076	1.00	32.81
ATOM	4430	CD	GLN	B	775	34.915	40.171	38.909	1.00	32.81
ATOM	4431	OE1	GLN	B	775	34.902	41.283	38.386	1.00	32.81
ATOM	4432	NE2	GLN	B	775	34.831	39.999	40.223	1.00	32.81
ATOM	4433	C	GLN	B	775	31.785	39.853	37.855	1.00	26.94
ATOM	4434	O	GLN	B	775	31.699	40.589	38.833	1.00	26.94
ATOM	4435	N	GLN	B	776	31.293	40.180	36.664	1.00	21.06
ATOM	4436	CA	GLN	B	776	30.624	41.461	36.474	1.00	21.06
ATOM	4437	CB	GLN	B	776	30.103	41.597	35.050	1.00	52.78
ATOM	4438	CG	GLN	B	776	29.890	43.041	34.655	1.00	52.78
ATOM	4439	CD	GLN	B	776	29.150	43.182	33.343	1.00	52.78
ATOM	4440	OE1	GLN	B	776	29.416	42.451	32.382	1.00	52.78
ATOM	4441	NE2	GLN	B	776	28.218	44.134	33.288	1.00	52.78
ATOM	4442	C	GLN	B	776	29.471	41.646	37.456	1.00	21.06
ATOM	4443	O	GLN	B	776	29.318	42.706	38.042	1.00	21.06
ATOM	4444	N	ARG	B	777	28.669	40.602	37.639	1.00	24.41
ATOM	4445	CA	ARG	B	777	27.541	40.668	38.550	1.00	24.41
ATOM	4446	CB	ARG	B	777	26.688	39.397	38.433	1.00	48.17
ATOM	4447	CG	ARG	B	777	25.484	39.396	39.367	1.00	48.17
ATOM	4448	CD	ARG	B	777	24.712	38.087	39.340	1.00	48.17
ATOM	4449	NE	ARG	B	777	24.584	37.530	40.686	1.00	48.17
ATOM	4450	CZ	ARG	B	777	25.467	36.709	41.246	1.00	48.17
ATOM	4451	NH1	ARG	B	777	26.549	36.334	40.577	1.00	48.17
ATOM	4452	NH2	ARG	B	777	25.278	36.273	42.479	1.00	48.17
ATOM	4453	C	ARG	B	777	27.976	40.864	40.005	1.00	24.41
ATOM	4454	O	ARG	B	777	27.362	41.631	40.746	1.00	24.41
ATOM	4455	N	ILE	B	778	29.030	40.175	40.425	1.00	15.99
ATOM	4456	CA	ILE	B	778	29.473	40.315	41.804	1.00	15.99
ATOM	4457	CB	ILE	B	778	30.363	39.132	42.228	1.00	20.14
ATOM	4458	CG2	ILE	B	778	30.931	39.382	43.609	1.00	20.14
ATOM	4459	CG1	ILE	B	778	29.536	37.842	42.213	1.00	20.14
ATOM	4460	CD1	ILE	B	778	30.331	36.578	42.537	1.00	20.14
ATOM	4461	C	ILE	B	778	30.202	41.639	42.005	1.00	15.99
ATOM	4462	O	ILE	B	778	30.148	42.228	43.079	1.00	15.99
ATOM	4463	N	ALA	B	779	30.881	42.122	40.974	1.00	20.03
ATOM	4464	CA	ALA	B	779	31.558	43.412	41.094	1.00	20.03
ATOM	4465	CB	ALA	B	779	32.332	43.721	39.839	1.00	21.48
ATOM	4466	C	ALA	B	779	30.470	44.466	41.309	1.00	20.03
ATOM	4467	O	ALA	B	779	30.631	45.406	42.104	1.00	20.03
ATOM	4468	N	GLU	B	780	29.351	44.294	40.608	1.00	19.73
ATOM	4469	CA	GLU	B	780	28.246	45.228	40.731	1.00	19.73
ATOM	4470	CB	GLU	B	780	27.131	44.876	39.741	1.00	65.78
ATOM	4471	CG	GLU	B	780	26.193	46.042	39.458	1.00	65.78
ATOM	4472	CD	GLU	B	780	25.341	45.829	38.217	1.00	65.78
ATOM	4473	OE1	GLU	B	780	25.916	45.561	37.138	1.00	65.78
ATOM	4474	OE2	GLU	B	780	24.099	45.938	38.321	1.00	65.78

ATOM	4475	C	GLU	B	780	27.710	45.236	42.164	1.00	19.73
ATOM	4476	O	GLU	B	780	27.269	46.281	42.653	1.00	19.73
ATOM	4477	N	LEU	B	781	27.737	44.078	42.831	1.00	21.20
ATOM	4478	CA	LEU	B	781	27.289	43.989	44.227	1.00	21.20
ATOM	4479	CB	LEU	B	781	27.209	42.530	44.686	1.00	19.05
ATOM	4480	CG	LEU	B	781	26.132	41.616	44.096	1.00	19.05
ATOM	4481	CD1	LEU	B	781	26.225	40.249	44.776	1.00	19.05
ATOM	4482	CD2	LEU	B	781	24.744	42.225	44.306	1.00	19.05
ATOM	4483	C	LEU	B	781	28.268	44.743	45.138	1.00	21.20
ATOM	4484	O	LEU	B	781	27.864	45.467	46.048	1.00	21.20
ATOM	4485	N	VAL	B	782	29.560	44.552	44.887	1.00	17.28
ATOM	4486	CA	VAL	B	782	30.616	45.204	45.652	1.00	17.28
ATOM	4487	CB	VAL	B	782	31.995	44.804	45.102	1.00	20.19
ATOM	4488	CG1	VAL	B	782	33.071	45.712	45.670	1.00	20.19
ATOM	4489	CG2	VAL	B	782	32.282	43.365	45.432	1.00	20.19
ATOM	4490	C	VAL	B	782	30.476	46.721	45.574	1.00	17.28
ATOM	4491	O	VAL	B	782	30.479	47.418	46.598	1.00	17.28
ATOM	4492	N	ALA	B	783	30.358	47.229	44.351	1.00	21.14
ATOM	4493	CA	ALA	B	783	30.208	48.663	44.109	1.00	21.14
ATOM	4494	CB	ALA	B	783	30.136	48.930	42.595	1.00	6.31
ATOM	4495	C	ALA	B	783	28.946	49.191	44.798	1.00	21.14
ATOM	4496	O	ALA	B	783	28.934	50.297	45.339	1.00	21.14
ATOM	4497	N	THR	B	784	27.883	48.392	44.772	1.00	28.96
ATOM	4498	CA	THR	B	784	26.622	48.782	45.394	1.00	28.96
ATOM	4499	CB	THR	B	784	25.537	47.690	45.202	1.00	25.45
ATOM	4500	OG1	THR	B	784	25.262	47.552	43.809	1.00	25.45
ATOM	4501	CG2	THR	B	784	24.240	48.052	45.935	1.00	25.45
ATOM	4502	C	THR	B	784	26.851	49.003	46.882	1.00	28.96
ATOM	4503	O	THR	B	784	26.423	50.015	47.444	1.00	28.96
ATOM	4504	N	GLU	B	785	27.543	48.064	47.517	1.00	19.14
ATOM	4505	CA	GLU	B	785	27.810	48.186	48.938	1.00	19.14
ATOM	4506	CB	GLU	B	785	28.496	46.913	49.458	1.00	21.13
ATOM	4507	CG	GLU	B	785	28.658	46.879	50.973	1.00	21.13
ATOM	4508	CD	GLU	B	785	29.145	45.530	51.491	1.00	21.13
ATOM	4509	OE1	GLU	B	785	29.975	45.528	52.416	1.00	21.13
ATOM	4510	OE2	GLU	B	785	28.699	44.470	50.995	1.00	21.13
ATOM	4511	C	GLU	B	785	28.666	49.425	49.212	1.00	19.14
ATOM	4512	O	GLU	B	785	28.470	50.115	50.220	1.00	19.14
ATOM	4513	N	PHE	B	786	29.605	49.722	48.312	1.00	16.02
ATOM	4514	CA	PHE	B	786	30.465	50.884	48.489	1.00	16.02
ATOM	4515	CB	PHE	B	786	31.624	50.890	47.474	1.00	25.39
ATOM	4516	CG	PHE	B	786	32.724	49.893	47.773	1.00	25.39
ATOM	4517	CD1	PHE	B	786	32.920	49.403	49.064	1.00	25.39
ATOM	4518	CD2	PHE	B	786	33.576	49.456	46.754	1.00	25.39
ATOM	4519	CE1	PHE	B	786	33.947	48.488	49.335	1.00	25.39
ATOM	4520	CE2	PHE	B	786	34.606	48.544	47.012	1.00	25.39
ATOM	4521	CZ	PHE	B	786	34.794	48.057	48.301	1.00	25.39
ATOM	4522	C	PHE	B	786	29.655	52.168	48.312	1.00	16.02
ATOM	4523	O	PHE	B	786	29.798	53.109	49.091	1.00	16.02
ATOM	4524	N	PHE	B	787	28.819	52.201	47.278	1.00	18.87
ATOM	4525	CA	PHE	B	787	27.997	53.375	46.992	1.00	18.87
ATOM	4526	CB	PHE	B	787	27.261	53.208	45.657	1.00	20.58
ATOM	4527	CG	PHE	B	787	28.169	53.152	44.467	1.00	20.58
ATOM	4528	CD1	PHE	B	787	29.511	53.534	44.570	1.00	20.58
ATOM	4529	CD2	PHE	B	787	27.684	52.741	43.240	1.00	20.58
ATOM	4530	CE1	PHE	B	787	30.353	53.507	43.466	1.00	20.58
ATOM	4531	CE2	PHE	B	787	28.515	52.710	42.126	1.00	20.58
ATOM	4532	CZ	PHE	B	787	29.857	53.094	42.239	1.00	20.58
ATOM	4533	C	PHE	B	787	26.985	53.647	48.097	1.00	18.87
ATOM	4534	O	PHE	B	787	26.690	54.800	48.388	1.00	18.87
ATOM	4535	N	ASP	B	788	26.462	52.583	48.704	1.00	23.45
ATOM	4536	CA	ASP	B	788	25.485	52.701	49.790	1.00	23.45
ATOM	4537	CB	ASP	B	788	24.975	51.315	50.220	1.00	40.00
ATOM	4538	CG	ASP	B	788	24.032	50.688	49.202	1.00	40.00
ATOM	4539	OD1	ASP	B	788	23.730	49.477	49.333	1.00	40.00
ATOM	4540	OD2	ASP	B	788	23.587	51.401	48.277	1.00	40.00

ATOM	4541	C	ASP	B	788	26.155	53.374	50.973	1.00	23.45
ATOM	4542	O	ASP	B	788	25.549	54.182	51.674	1.00	23.45
ATOM	4543	N	GLN	B	789	27.418	53.041	51.196	1.00	19.17
ATOM	4544	CA	GLN	B	789	28.131	53.653	52.297	1.00	19.17
ATOM	4545	CB	GLN	B	789	29.470	52.958	52.551	1.00	22.70
ATOM	4546	CG	GLN	B	789	30.245	53.617	53.680	1.00	22.70
ATOM	4547	CD	GLN	B	789	31.507	52.868	54.075	1.00	22.70
ATOM	4548	OE1	GLN	B	789	32.378	53.419	54.761	1.00	22.70
ATOM	4549	NE2	GLN	B	789	31.608	51.617	53.667	1.00	22.70
ATOM	4550	C	GLN	B	789	28.359	55.117	51.987	1.00	19.17
ATOM	4551	O	GLN	B	789	28.144	55.974	52.835	1.00	19.17
ATOM	4552	N	GLY	B	790	28.796	55.412	50.767	1.00	18.61
ATOM	4553	CA	GLY	B	790	29.029	56.801	50.401	1.00	18.61
ATOM	4554	C	GLY	B	790	27.775	57.624	50.660	1.00	18.61
ATOM	4555	O	GLY	B	790	27.834	58.688	51.287	1.00	18.61
ATOM	4556	N	ASP	B	791	26.634	57.117	50.190	1.00	26.27
ATOM	4557	CA	ASP	B	791	25.354	57.799	50.361	1.00	26.27
ATOM	4558	CB	ASP	B	791	24.212	57.003	49.707	1.00	32.88
ATOM	4559	CG	ASP	B	791	24.364	56.892	48.202	1.00	32.88
ATOM	4560	OD1	ASP	B	791	25.008	57.776	47.598	1.00	32.88
ATOM	4561	OD2	ASP	B	791	23.831	55.930	47.611	1.00	32.88
ATOM	4562	C	ASP	B	791	25.009	58.061	51.822	1.00	26.27
ATOM	4563	O	ASP	B	791	24.763	59.199	52.202	1.00	26.27
ATOM	4564	N	ARG	B	792	24.989	57.026	52.651	1.00	24.26
ATOM	4565	CA	ARG	B	792	24.645	57.254	54.042	1.00	24.26
ATOM	4566	CB	ARG	B	792	24.458	55.931	54.800	1.00	40.30
ATOM	4567	CG	ARG	B	792	25.689	55.083	54.970	1.00	40.30
ATOM	4568	CD	ARG	B	792	25.510	54.122	56.141	1.00	40.30
ATOM	4569	NE	ARG	B	792	26.617	53.173	56.218	1.00	40.30
ATOM	4570	CZ	ARG	B	792	26.722	52.085	55.457	1.00	40.30
ATOM	4571	NH1	ARG	B	792	25.778	51.800	54.568	1.00	40.30
ATOM	4572	NH2	ARG	B	792	27.782	51.292	55.570	1.00	40.30
ATOM	4573	C	ARG	B	792	25.641	58.147	54.781	1.00	24.26
ATOM	4574	O	ARG	B	792	25.242	58.927	55.635	1.00	24.26
ATOM	4575	N	GLU	B	793	26.927	58.055	54.462	1.00	24.52
ATOM	4576	CA	GLU	B	793	27.890	58.901	55.153	1.00	24.52
ATOM	4577	CB	GLU	B	793	29.329	58.458	54.862	1.00	41.05
ATOM	4578	CG	GLU	B	793	29.647	57.040	55.334	1.00	41.05
ATOM	4579	CD	GLU	B	793	31.143	56.768	55.474	1.00	41.05
ATOM	4580	OE1	GLU	B	793	31.928	57.210	54.611	1.00	41.05
ATOM	4581	OE2	GLU	B	793	31.533	56.092	56.447	1.00	41.05
ATOM	4582	C	GLU	B	793	27.719	60.385	54.815	1.00	24.52
ATOM	4583	O	GLU	B	793	28.047	61.249	55.626	1.00	24.52
ATOM	4584	N	ARG	B	794	27.183	60.690	53.637	1.00	32.04
ATOM	4585	CA	ARG	B	794	27.008	62.092	53.272	1.00	32.04
ATOM	4586	CB	ARG	B	794	26.810	62.241	51.755	1.00	43.20
ATOM	4587	CG	ARG	B	794	25.409	61.996	51.233	1.00	43.20
ATOM	4588	CD	ARG	B	794	25.460	61.406	49.822	1.00	43.20
ATOM	4589	NE	ARG	B	794	26.356	62.134	48.923	1.00	43.20
ATOM	4590	CZ	ARG	B	794	26.727	61.691	47.725	1.00	43.20
ATOM	4591	NH1	ARG	B	794	26.280	60.523	47.275	1.00	43.20
ATOM	4592	NH2	ARG	B	794	27.554	62.405	46.974	1.00	43.20
ATOM	4593	C	ARG	B	794	25.847	62.721	54.039	1.00	32.04
ATOM	4594	O	ARG	B	794	25.814	63.932	54.237	1.00	32.04
ATOM	4595	N	LYS	B	795	24.917	61.888	54.493	1.00	39.13
ATOM	4596	CA	LYS	B	795	23.764	62.370	55.236	1.00	39.13
ATOM	4597	CB	LYS	B	795	22.523	61.548	54.871	1.00	52.25
ATOM	4598	CG	LYS	B	795	21.211	62.121	55.401	1.00	52.25
ATOM	4599	CD	LYS	B	795	20.007	61.313	54.914	1.00	52.25
ATOM	4600	CE	LYS	B	795	18.678	61.969	55.300	1.00	52.25
ATOM	4601	NZ	LYS	B	795	18.476	63.312	54.661	1.00	52.25
ATOM	4602	C	LYS	B	795	24.007	62.293	56.741	1.00	39.13
ATOM	4603	O	LYS	B	795	23.444	63.066	57.510	1.00	39.13
ATOM	4604	N	GLU	B	796	24.862	61.369	57.158	1.00	41.61
ATOM	4605	CA	GLU	B	796	25.144	61.191	58.576	1.00	41.61
ATOM	4606	CB	GLU	B	796	25.234	59.695	58.901	1.00	48.63

ATOM	4607	CG	GLU	B	796	23.981	58.902	58.542	1.00 48.63
ATOM	4608	CD	GLU	B	796	24.142	57.400	58.759	1.00 48.63
ATOM	4609	OE1	GLU	B	796	23.162	56.657	58.523	1.00 48.63
ATOM	4610	OE2	GLU	B	796	25.247	56.962	59.160	1.00 48.63
ATOM	4611	C	GLU	B	796	26.413	61.886	59.062	1.00 41.61
ATOM	4612	O	GLU	B	796	26.513	62.242	60.232	1.00 41.61
ATOM	4613	N	LEU	B	797	27.380	62.080	58.174	1.00 40.30
ATOM	4614	CA	LEU	B	797	28.635	62.710	58.563	1.00 40.30
ATOM	4615	CB	LEU	B	797	29.798	61.740	58.339	1.00 40.90
ATOM	4616	CG	LEU	B	797	29.659	60.351	58.971	1.00 40.90
ATOM	4617	CD1	LEU	B	797	30.799	59.462	58.500	1.00 40.90
ATOM	4618	CD2	LEU	B	797	29.657	60.462	60.485	1.00 40.90
ATOM	4619	C	LEU	B	797	28.884	63.986	57.782	1.00 40.30
ATOM	4620	O	LEU	B	797	29.874	64.678	58.008	1.00 40.30
ATOM	4621	N	ASN	B	798	27.979	64.292	56.862	1.00 37.75
ATOM	4622	CA	ASN	B	798	28.095	65.482	56.037	1.00 37.75
ATOM	4623	CB	ASN	B	798	27.895	66.738	56.884	1.00 30.81
ATOM	4624	CG	ASN	B	798	26.579	66.728	57.624	1.00 30.81
ATOM	4625	OD1	ASN	B	798	25.527	66.465	57.041	1.00 30.81
ATOM	4626	ND2	ASN	B	798	26.628	67.019	58.914	1.00 30.81
ATOM	4627	C	ASN	B	798	29.426	65.570	55.300	1.00 37.75
ATOM	4628	O	ASN	B	798	30.056	66.626	55.263	1.00 37.75
ATOM	4629	N	ILE	B	799	29.856	64.457	54.719	1.00 31.73
ATOM	4630	CA	ILE	B	799	31.092	64.432	53.942	1.00 31.73
ATOM	4631	CB	ILE	B	799	32.218	63.639	54.661	1.00 34.22
ATOM	4632	CG2	ILE	B	799	32.426	64.185	56.071	1.00 34.22
ATOM	4633	CG1	ILE	B	799	31.869	62.150	54.714	1.00 34.22
ATOM	4634	CD1	ILE	B	799	32.959	61.284	55.331	1.00 34.22
ATOM	4635	C	ILE	B	799	30.814	63.768	52.593	1.00 31.73
ATOM	4636	O	ILE	B	799	30.043	62.810	52.516	1.00 31.73
ATOM	4637	N	GLU	B	800	31.403	64.293	51.524	1.00 32.21
ATOM	4638	CA	GLU	B	800	31.216	63.680	50.218	1.00 32.21
ATOM	4639	CB	GLU	B	800	31.554	64.667	49.108	1.00 25.91
ATOM	4640	CG	GLU	B	800	30.466	65.718	48.918	1.00 25.91
ATOM	4641	CD	GLU	B	800	29.114	65.101	48.613	1.00 25.91
ATOM	4642	OE1	GLU	B	800	28.955	64.481	47.537	1.00 25.91
ATOM	4643	OE2	GLU	B	800	28.209	65.222	49.454	1.00 25.91
ATOM	4644	C	GLU	B	800	32.130	62.459	50.191	1.00 32.21
ATOM	4645	O	GLU	B	800	33.157	62.426	50.866	1.00 32.21
ATOM	4646	N	PRO	B	801	31.781	61.446	49.393	1.00 19.77
ATOM	4647	CD	PRO	B	801	30.653	61.415	48.435	1.00 16.47
ATOM	4648	CA	PRO	B	801	32.568	60.216	49.304	1.00 19.77
ATOM	4649	CB	PRO	B	801	31.526	59.205	48.865	1.00 16.47
ATOM	4650	CG	PRO	B	801	30.783	60.021	47.794	1.00 16.47
ATOM	4651	C	PRO	B	801	33.750	60.211	48.351	1.00 19.77
ATOM	4652	O	PRO	B	801	33.837	61.017	47.427	1.00 19.77
ATOM	4653	N	THR	B	802	34.653	59.269	48.580	1.00 25.18
ATOM	4654	CA	THR	B	802	35.811	59.093	47.720	1.00 25.18
ATOM	4655	CB	THR	B	802	36.803	58.102	48.354	1.00 44.84
ATOM	4656	OG1	THR	B	802	37.835	57.778	47.414	1.00 44.84
ATOM	4657	CG2	THR	B	802	36.080	56.835	48.781	1.00 44.84
ATOM	4658	C	THR	B	802	35.252	58.509	46.423	1.00 25.18
ATOM	4659	O	THR	B	802	34.076	58.150	46.364	1.00 25.18
ATOM	4660	N	ASP	B	803	36.070	58.420	45.384	1.00 22.70
ATOM	4661	CA	ASP	B	803	35.603	57.869	44.110	1.00 22.70
ATOM	4662	CB	ASP	B	803	36.737	57.875	43.090	1.00 36.66
ATOM	4663	CG	ASP	B	803	36.946	59.236	42.469	1.00 36.66
ATOM	4664	OD1	ASP	B	803	36.489	60.237	43.057	1.00 36.66
ATOM	4665	OD2	ASP	B	803	37.574	59.305	41.396	1.00 36.66
ATOM	4666	C	ASP	B	803	35.074	56.449	44.284	1.00 22.70
ATOM	4667	O	ASP	B	803	34.137	56.029	43.604	1.00 22.70
ATOM	4668	N	LEU	B	804	35.686	55.720	45.209	1.00 18.94
ATOM	4669	CA	LEU	B	804	35.305	54.348	45.503	1.00 18.94
ATOM	4670	CB	LEU	B	804	36.197	53.796	46.616	1.00 21.38
ATOM	4671	CG	LEU	B	804	35.886	52.379	47.086	1.00 21.38
ATOM	4672	CD1	LEU	B	804	36.383	51.429	46.031	1.00 21.38

ATOM	4673	CD2	LEU	B	804	36.571	52.081	48.412	1.00	21.38
ATOM	4674	C	LEU	B	804	33.845	54.239	45.946	1.00	18.94
ATOM	4675	O	LEU	B	804	33.128	53.326	45.535	1.00	18.94
ATOM	4676	N	MET	B	805	33.414	55.170	46.790	1.00	21.49
ATOM	4677	CA	MET	B	805	32.051	55.143	47.316	1.00	21.49
ATOM	4678	CB	MET	B	805	32.105	55.280	48.833	1.00	26.63
ATOM	4679	CG	MET	B	805	33.024	54.237	49.460	1.00	26.63
ATOM	4680	SD	MET	B	805	33.033	54.199	51.248	1.00	26.63
ATOM	4681	CE	MET	B	805	34.006	55.627	51.612	1.00	26.63
ATOM	4682	C	MET	B	805	31.113	56.185	46.716	1.00	21.49
ATOM	4683	O	MET	B	805	30.071	56.504	47.294	1.00	21.49
ATOM	4684	N	ASN	B	806	31.479	56.688	45.542	1.00	19.85
ATOM	4685	CA	ASN	B	806	30.685	57.695	44.849	1.00	19.85
ATOM	4686	CB	ASN	B	806	31.571	58.873	44.427	1.00	21.92
ATOM	4687	CG	ASN	B	806	30.773	60.019	43.830	1.00	21.92
ATOM	4688	OD1	ASN	B	806	29.566	59.906	43.619	1.00	21.92
ATOM	4689	ND2	ASN	B	806	31.449	61.129	43.551	1.00	21.92
ATOM	4690	C	ASN	B	806	30.011	57.113	43.619	1.00	19.85
ATOM	4691	O	ASN	B	806	30.659	56.857	42.608	1.00	19.85
ATOM	4692	N	ARG	B	807	28.702	56.922	43.711	1.00	20.68
ATOM	4693	CA	ARG	B	807	27.912	56.366	42.624	1.00	20.68
ATOM	4694	CB	ARG	B	807	26.438	56.350	43.029	1.00	45.97
ATOM	4695	CG	ARG	B	807	25.549	55.473	42.172	1.00	45.97
ATOM	4696	CD	ARG	B	807	24.102	55.628	42.604	1.00	45.97
ATOM	4697	NE	ARG	B	807	23.918	55.318	44.020	1.00	45.97
ATOM	4698	CZ	ARG	B	807	23.997	54.094	44.526	1.00	45.97
ATOM	4699	NH1	ARG	B	807	24.253	53.069	43.728	1.00	45.97
ATOM	4700	NH2	ARG	B	807	23.819	53.893	45.824	1.00	45.97
ATOM	4701	C	ARG	B	807	28.086	57.159	41.329	1.00	20.68
ATOM	4702	O	ARG	B	807	27.888	56.634	40.234	1.00	20.68
ATOM	4703	N	GLU	B	808	28.459	58.425	41.459	1.00	27.07
ATOM	4704	CA	GLU	B	808	28.654	59.289	40.299	1.00	27.07
ATOM	4705	CB	GLU	B	808	28.715	60.752	40.743	1.00	68.63
ATOM	4706	CG	GLU	B	808	27.441	61.260	41.388	1.00	68.63
ATOM	4707	CD	GLU	B	808	26.272	61.289	40.422	1.00	68.63
ATOM	4708	OE1	GLU	B	808	25.181	61.742	40.827	1.00	68.63
ATOM	4709	OE2	GLU	B	808	26.441	60.861	39.260	1.00	68.63
ATOM	4710	C	GLU	B	808	29.926	58.954	39.524	1.00	27.07
ATOM	4711	O	GLU	B	808	30.122	59.423	38.398	1.00	27.07
ATOM	4712	N	LYS	B	809	30.793	58.152	40.132	1.00	33.57
ATOM	4713	CA	LYS	B	809	32.048	57.772	39.496	1.00	33.57
ATOM	4714	CB	LYS	B	809	33.219	58.081	40.435	1.00	40.29
ATOM	4715	CG	LYS	B	809	33.845	59.471	40.266	1.00	40.29
ATOM	4716	CD	LYS	B	809	32.897	60.596	40.624	1.00	40.29
ATOM	4717	CE	LYS	B	809	33.583	61.944	40.470	1.00	40.29
ATOM	4718	NZ	LYS	B	809	34.835	62.010	41.295	1.00	40.29
ATOM	4719	C	LYS	B	809	32.097	56.298	39.079	1.00	33.57
ATOM	4720	O	LYS	B	809	33.159	55.672	39.126	1.00	33.57
ATOM	4721	N	LYS	B	810	30.957	55.747	38.664	1.00	27.75
ATOM	4722	CA	LYS	B	810	30.914	54.347	38.246	1.00	27.75
ATOM	4723	CB	LYS	B	810	29.488	53.939	37.875	1.00	49.47
ATOM	4724	CG	LYS	B	810	28.555	53.839	39.061	1.00	49.47
ATOM	4725	CD	LYS	B	810	27.226	53.193	38.686	1.00	49.47
ATOM	4726	CE	LYS	B	810	26.451	54.041	37.690	1.00	49.47
ATOM	4727	NZ	LYS	B	810	25.061	53.538	37.484	1.00	49.47
ATOM	4728	C	LYS	B	810	31.839	54.101	37.064	1.00	27.75
ATOM	4729	O	LYS	B	810	32.407	53.019	36.917	1.00	27.75
ATOM	4730	N	ASN	B	811	31.991	55.121	36.231	1.00	21.03
ATOM	4731	CA	ASN	B	811	32.845	55.052	35.051	1.00	21.03
ATOM	4732	CB	ASN	B	811	32.816	56.397	34.320	1.00	43.51
ATOM	4733	CG	ASN	B	811	33.366	57.533	35.170	1.00	43.51
ATOM	4734	OD1	ASN	B	811	34.554	57.864	35.106	1.00	43.51
ATOM	4735	ND2	ASN	B	811	32.503	58.127	35.984	1.00	43.51
ATOM	4736	C	ASN	B	811	34.292	54.687	35.389	1.00	21.03
ATOM	4737	O	ASN	B	811	35.043	54.281	34.514	1.00	21.03
ATOM	4738	N	LYS	B	812	34.684	54.824	36.651	1.00	18.38

ATOM	4739	CA	LYS	B	812	36.060	54.505	37.041	1.00	18.38
ATOM	4740	CB	LYS	B	812	36.568	55.512	38.084	1.00	37.70
ATOM	4741	CG	LYS	B	812	36.801	56.916	37.517	1.00	37.70
ATOM	4742	CD	LYS	B	812	37.232	57.911	38.590	1.00	37.70
ATOM	4743	CE	LYS	B	812	37.317	59.344	38.028	1.00	37.70
ATOM	4744	NZ	LYS	B	812	37.579	60.403	39.069	1.00	37.70
ATOM	4745	C	LYS	B	812	36.233	53.086	37.570	1.00	18.38
ATOM	4746	O	LYS	B	812	37.349	52.649	37.844	1.00	18.38
ATOM	4747	N	ILE	B	813	35.133	52.360	37.697	1.00	19.59
ATOM	4748	CA	ILE	B	813	35.190	50.995	38.204	1.00	19.59
ATOM	4749	CB	ILE	B	813	33.784	50.370	38.205	1.00	18.62
ATOM	4750	CG2	ILE	B	813	33.867	48.851	38.289	1.00	18.62
ATOM	4751	CG1	ILE	B	813	32.976	50.970	39.366	1.00	18.62
ATOM	4752	CD1	ILE	B	813	31.543	50.437	39.482	1.00	18.62
ATOM	4753	C	ILE	B	813	36.178	50.097	37.450	1.00	19.59
ATOM	4754	O	ILE	B	813	36.908	49.318	38.065	1.00	19.59
ATOM	4755	N	PRO	B	814	36.219	50.191	36.109	1.00	22.02
ATOM	4756	CD	PRO	B	814	35.275	50.828	35.168	1.00	17.78
ATOM	4757	CA	PRO	B	814	37.168	49.332	35.400	1.00	22.02
ATOM	4758	CB	PRO	B	814	36.920	49.685	33.935	1.00	17.78
ATOM	4759	CG	PRO	B	814	35.421	49.957	33.929	1.00	17.78
ATOM	4760	C	PRO	B	814	38.613	49.556	35.841	1.00	22.02
ATOM	4761	O	PRO	B	814	39.312	48.601	36.188	1.00	22.02
ATOM	4762	N	SER	B	815	39.056	50.812	35.856	1.00	21.45
ATOM	4763	CA	SER	B	815	40.426	51.113	36.271	1.00	21.45
ATOM	4764	CB	SER	B	815	40.713	52.606	36.141	1.00	35.76
ATOM	4765	OG	SER	B	815	40.037	53.335	37.144	1.00	35.76
ATOM	4766	C	SER	B	815	40.704	50.679	37.711	1.00	21.45
ATOM	4767	O	SER	B	815	41.828	50.280	38.050	1.00	21.45
ATOM	4768	N	MET	B	816	39.688	50.757	38.564	1.00	18.28
ATOM	4769	CA	MET	B	816	39.857	50.376	39.958	1.00	18.28
ATOM	4770	CB	MET	B	816	38.685	50.881	40.793	1.00	41.53
ATOM	4771	CG	MET	B	816	38.610	52.395	40.900	1.00	41.53
ATOM	4772	SD	MET	B	816	37.251	52.923	41.965	1.00	41.53
ATOM	4773	CE	MET	B	816	38.121	53.159	43.500	1.00	41.53
ATOM	4774	C	MET	B	816	39.992	48.860	40.106	1.00	18.28
ATOM	4775	O	MET	B	816	40.750	48.378	40.955	1.00	18.28
ATOM	4776	N	GLN	B	817	39.255	48.113	39.290	1.00	24.77
ATOM	4777	CA	GLN	B	817	39.327	46.655	39.338	1.00	24.77
ATOM	4778	CB	GLN	B	817	38.264	46.027	38.439	1.00	14.87
ATOM	4779	CG	GLN	B	817	36.853	46.086	38.981	1.00	14.87
ATOM	4780	CD	GLN	B	817	36.708	45.327	40.284	1.00	14.87
ATOM	4781	OE1	GLN	B	817	37.201	45.764	41.324	1.00	14.87
ATOM	4782	NE2	GLN	B	817	36.031	44.180	40.236	1.00	14.87
ATOM	4783	C	GLN	B	817	40.716	46.201	38.873	1.00	24.77
ATOM	4784	O	GLN	B	817	41.285	45.242	39.420	1.00	24.77
ATOM	4785	N	VAL	B	818	41.251	46.884	37.859	1.00	16.10
ATOM	4786	CA	VAL	B	818	42.577	46.554	37.354	1.00	16.10
ATOM	4787	CB	VAL	B	818	42.936	47.379	36.101	1.00	22.52
ATOM	4788	CG1	VAL	B	818	44.375	47.090	35.677	1.00	22.52
ATOM	4789	CG2	VAL	B	818	41.986	47.028	34.969	1.00	22.52
ATOM	4790	C	VAL	B	818	43.592	46.838	38.459	1.00	16.10
ATOM	4791	O	VAL	B	818	44.482	46.023	38.717	1.00	16.10
ATOM	4792	N	GLY	B	819	43.447	47.986	39.117	1.00	26.12
ATOM	4793	CA	GLY	B	819	44.348	48.339	40.205	1.00	26.12
ATOM	4794	C	GLY	B	819	44.254	47.303	41.317	1.00	26.12
ATOM	4795	O	GLY	B	819	45.263	46.873	41.875	1.00	26.12
ATOM	4796	N	PHE	B	820	43.026	46.904	41.630	1.00	18.54
ATOM	4797	CA	PHE	B	820	42.765	45.897	42.659	1.00	18.54
ATOM	4798	CB	PHE	B	820	41.259	45.654	42.767	1.00	25.47
ATOM	4799	CG	PHE	B	820	40.885	44.515	43.675	1.00	25.47
ATOM	4800	CD1	PHE	B	820	41.374	44.450	44.975	1.00	25.47
ATOM	4801	CD2	PHE	B	820	39.994	43.533	43.242	1.00	25.47
ATOM	4802	CE1	PHE	B	820	40.978	43.428	45.835	1.00	25.47
ATOM	4803	CE2	PHE	B	820	39.594	42.508	44.098	1.00	25.47
ATOM	4804	CZ	PHE	B	820	40.089	42.461	45.396	1.00	25.47

ATOM	4805	C	PHE	B	820	43.486	44.589	42.324	1.00 18.54
ATOM	4806	O	PHE	B	820	44.172	44.019	43.162	1.00 18.54
ATOM	4807	N	ILE	B	821	43.334	44.131	41.085	1.00 23.76
ATOM	4808	CA	ILE	B	821	43.971	42.904	40.626	1.00 23.76
ATOM	4809	CB	ILE	B	821	43.486	42.556	39.202	1.00 22.24
ATOM	4810	CG2	ILE	B	821	44.344	41.466	38.582	1.00 22.24
ATOM	4811	CG1	ILE	B	821	42.022	42.129	39.264	1.00 22.24
ATOM	4812	CD1	ILE	B	821	41.339	42.092	37.921	1.00 22.24
ATOM	4813	C	ILE	B	821	45.497	43.018	40.641	1.00 23.76
ATOM	4814	O	ILE	B	821	46.187	42.090	41.070	1.00 23.76
ATOM	4815	N	ASP	B	822	46.018	44.152	40.184	1.00 27.02
ATOM	4816	CA	ASP	B	822	47.462	44.363	40.136	1.00 27.02
ATOM	4817	CB	ASP	B	822	47.816	45.606	39.306	1.00 28.36
ATOM	4818	CG	ASP	B	822	47.678	45.383	37.806	1.00 28.36
ATOM	4819	OD1	ASP	B	822	47.736	44.222	37.359	1.00 28.36
ATOM	4820	OD2	ASP	B	822	47.531	46.383	37.069	1.00 28.36
ATOM	4821	C	ASP	B	822	48.103	44.522	41.508	1.00 27.02
ATOM	4822	O	ASP	B	822	49.180	43.988	41.764	1.00 27.02
ATOM	4823	N	ALA	B	823	47.446	45.269	42.386	1.00 21.05
ATOM	4824	CA	ALA	B	823	47.994	45.506	43.702	1.00 21.05
ATOM	4825	CB	ALA	B	823	47.489	46.849	44.236	1.00 23.44
ATOM	4826	C	ALA	B	823	47.702	44.403	44.719	1.00 21.05
ATOM	4827	O	ALA	B	823	48.488	44.181	45.638	1.00 21.05
ATOM	4828	N	ILE	B	824	46.593	43.694	44.545	1.00 22.52
ATOM	4829	CA	ILE	B	824	46.226	42.680	45.521	1.00 22.52
ATOM	4830	CB	ILE	B	824	44.954	43.152	46.298	1.00 25.68
ATOM	4831	CG2	ILE	B	824	44.339	42.002	47.075	1.00 25.68
ATOM	4832	CG1	ILE	B	824	45.320	44.307	47.230	1.00 25.68
ATOM	4833	CD1	ILE	B	824	44.188	44.752	48.134	1.00 25.68
ATOM	4834	C	ILE	B	824	46.004	41.224	45.087	1.00 22.52
ATOM	4835	O	ILE	B	824	46.502	40.307	45.738	1.00 22.52
ATOM	4836	N	CYS	B	825	45.274	41.018	43.993	1.00 17.59
ATOM	4837	CA	CYS	B	825	44.910	39.674	43.545	1.00 17.59
ATOM	4838	CB	CYS	B	825	43.575	39.754	42.812	1.00 19.83
ATOM	4839	SG	CYS	B	825	42.288	40.487	43.802	1.00 19.83
ATOM	4840	C	CYS	B	825	45.816	38.767	42.735	1.00 17.59
ATOM	4841	O	CYS	B	825	46.084	37.630	43.139	1.00 17.59
ATOM	4842	N	LEU	B	826	46.243	39.247	41.575	1.00 21.73
ATOM	4843	CA	LEU	B	826	47.058	38.455	40.672	1.00 21.73
ATOM	4844	CB	LEU	B	826	47.592	39.341	39.546	1.00 24.52
ATOM	4845	CG	LEU	B	826	48.027	38.584	38.294	1.00 24.52
ATOM	4846	CD1	LEU	B	826	46.862	37.738	37.812	1.00 24.52
ATOM	4847	CD2	LEU	B	826	48.475	39.561	37.213	1.00 24.52
ATOM	4848	C	LEU	B	826	48.214	37.708	41.326	1.00 21.73
ATOM	4849	O	LEU	B	826	48.368	36.498	41.149	1.00 21.73
ATOM	4850	N	GLN	B	827	49.030	38.435	42.069	1.00 20.78
ATOM	4851	CA	GLN	B	827	50.181	37.847	42.730	1.00 20.78
ATOM	4852	CB	GLN	B	827	50.909	38.938	43.510	1.00 45.65
ATOM	4853	CG	GLN	B	827	52.367	38.661	43.761	1.00 45.65
ATOM	4854	CD	GLN	B	827	53.067	39.857	44.369	1.00 45.65
ATOM	4855	OE1	GLN	B	827	54.259	39.802	44.672	1.00 45.65
ATOM	4856	NE2	GLN	B	827	52.325	40.954	44.552	1.00 45.65
ATOM	4857	C	GLN	B	827	49.784	36.696	43.660	1.00 20.78
ATOM	4858	O	GLN	B	827	50.420	35.642	43.670	1.00 20.78
ATOM	4859	N	LEU	B	828	48.720	36.893	44.431	1.00 21.43
ATOM	4860	CA	LEU	B	828	48.267	35.859	45.355	1.00 21.43
ATOM	4861	CB	LEU	B	828	47.007	36.319	46.097	1.00 22.93
ATOM	4862	CG	LEU	B	828	46.698	35.785	47.501	1.00 22.93
ATOM	4863	CD1	LEU	B	828	45.188	35.610	47.614	1.00 22.93
ATOM	4864	CD2	LEU	B	828	47.407	34.470	47.783	1.00 22.93
ATOM	4865	C	LEU	B	828	47.966	34.584	44.568	1.00 21.43
ATOM	4866	O	LEU	B	828	48.486	33.520	44.877	1.00 21.43
ATOM	4867	N	TYR	B	829	47.137	34.700	43.538	1.00 21.29
ATOM	4868	CA	TYR	B	829	46.787	33.538	42.739	1.00 21.29
ATOM	4869	CB	TYR	B	829	45.644	33.892	41.795	1.00 19.84
ATOM	4870	CG	TYR	B	829	44.377	34.199	42.562	1.00 19.84

ATOM	4871	CD1	TYR	B	829	43.783	33.234	43.393	1.00	19.84
ATOM	4872	CE1	TYR	B	829	42.644	33.525	44.133	1.00	19.84
ATOM	4873	CD2	TYR	B	829	43.787	35.458	42.497	1.00	19.84
ATOM	4874	CE2	TYR	B	829	42.647	35.754	43.229	1.00	19.84
ATOM	4875	CZ	TYR	B	829	42.083	34.783	44.047	1.00	19.84
ATOM	4876	OH	TYR	B	829	40.957	35.097	44.769	1.00	19.84
ATOM	4877	C	TYR	B	829	47.981	32.933	42.000	1.00	21.29
ATOM	4878	O	TYR	B	829	48.010	31.728	41.751	1.00	21.29
ATOM	4879	N	GLU	B	830	48.975	33.749	41.664	1.00	25.20
ATOM	4880	CA	GLU	B	830	50.166	33.206	41.018	1.00	25.20
ATOM	4881	CB	GLU	B	830	51.077	34.336	40.504	1.00	33.28
ATOM	4882	CG	GLU	B	830	50.615	34.988	39.198	1.00	33.28
ATOM	4883	CD	GLU	B	830	51.523	36.134	38.727	1.00	33.28
ATOM	4884	OE1	GLU	B	830	51.315	36.620	37.591	1.00	33.28
ATOM	4885	OE2	GLU	B	830	52.433	36.552	39.482	1.00	33.28
ATOM	4886	C	GLU	B	830	50.903	32.377	42.078	1.00	25.20
ATOM	4887	O	GLU	B	830	51.306	31.246	41.829	1.00	25.20
ATOM	4888	N	ALA	B	831	51.054	32.940	43.273	1.00	27.17
ATOM	4889	CA	ALA	B	831	51.738	32.256	44.363	1.00	27.17
ATOM	4890	CB	ALA	B	831	51.849	33.186	45.568	1.00	25.69
ATOM	4891	C	ALA	B	831	51.045	30.956	44.768	1.00	27.17
ATOM	4892	O	ALA	B	831	51.701	29.941	45.023	1.00	27.17
ATOM	4893	N	LEU	B	832	49.719	30.981	44.833	1.00	22.40
ATOM	4894	CA	LEU	B	832	48.972	29.790	45.216	1.00	22.40
ATOM	4895	CB	LEU	B	832	47.467	30.080	45.255	1.00	22.37
ATOM	4896	CG	LEU	B	832	46.562	28.884	45.584	1.00	22.37
ATOM	4897	CD1	LEU	B	832	46.987	28.244	46.903	1.00	22.37
ATOM	4898	CD2	LEU	B	832	45.116	29.343	45.669	1.00	22.37
ATOM	4899	C	LEU	B	832	49.237	28.647	44.256	1.00	22.40
ATOM	4900	O	LEU	B	832	49.471	27.515	44.682	1.00	22.40
ATOM	4901	N	THR	B	833	49.188	28.949	42.962	1.00	22.21
ATOM	4902	CA	THR	B	833	49.405	27.954	41.915	1.00	22.21
ATOM	4903	CB	THR	B	833	49.143	28.578	40.515	1.00	24.32
ATOM	4904	OG1	THR	B	833	47.752	28.930	40.405	1.00	24.32
ATOM	4905	CG2	THR	B	833	49.506	27.598	39.402	1.00	24.32
ATOM	4906	C	THR	B	833	50.828	27.394	42.000	1.00	22.21
ATOM	4907	O	THR	B	833	51.098	26.259	41.589	1.00	22.21
ATOM	4908	N	HIS	B	834	51.734	28.193	42.552	1.00	32.80
ATOM	4909	CA	HIS	B	834	53.102	27.754	42.713	1.00	32.80
ATOM	4910	CB	HIS	B	834	53.991	28.927	43.122	1.00	89.64
ATOM	4911	CG	HIS	B	834	55.455	28.627	43.054	1.00	89.64
ATOM	4912	CD2	HIS	B	834	56.399	28.999	42.157	1.00	89.64
ATOM	4913	ND1	HIS	B	834	56.098	27.833	43.980	1.00	89.64
ATOM	4914	CE1	HIS	B	834	57.375	27.731	43.658	1.00	89.64
ATOM	4915	NE2	HIS	B	834	57.584	28.428	42.555	1.00	89.64
ATOM	4916	C	HIS	B	834	53.068	26.681	43.805	1.00	32.80
ATOM	4917	O	HIS	B	834	53.749	25.661	43.699	1.00	32.80
ATOM	4918	N	VAL	B	835	52.257	26.910	44.843	1.00	30.06
ATOM	4919	CA	VAL	B	835	52.118	25.945	45.941	1.00	30.06
ATOM	4920	CB	VAL	B	835	51.361	26.548	47.147	1.00	25.73
ATOM	4921	CG1	VAL	B	835	51.101	25.465	48.193	1.00	25.73
ATOM	4922	CG2	VAL	B	835	52.161	27.683	47.758	1.00	25.73
ATOM	4923	C	VAL	B	835	51.358	24.704	45.469	1.00	30.06
ATOM	4924	O	VAL	B	835	51.735	23.574	45.787	1.00	30.06
ATOM	4925	N	SER	B	836	50.283	24.917	44.714	1.00	25.49
ATOM	4926	CA	SER	B	836	49.480	23.818	44.184	1.00	25.49
ATOM	4927	CB	SER	B	836	48.261	23.569	45.075	1.00	38.51
ATOM	4928	OG	SER	B	836	47.553	22.418	44.646	1.00	38.51
ATOM	4929	C	SER	B	836	49.023	24.122	42.754	1.00	25.49
ATOM	4930	O	SER	B	836	48.115	24.930	42.532	1.00	25.49
ATOM	4931	N	GLU	B	837	49.647	23.453	41.792	1.00	26.27
ATOM	4932	CA	GLU	B	837	49.355	23.650	40.379	1.00	26.27
ATOM	4933	CB	GLU	B	837	50.150	22.645	39.551	1.00	88.80
ATOM	4934	CG	GLU	B	837	51.640	22.691	39.793	1.00	88.80
ATOM	4935	CD	GLU	B	837	52.352	21.495	39.197	1.00	88.80
ATOM	4936	OE1	GLU	B	837	52.280	21.302	37.961	1.00	88.80

ATOM	4937	OE2	GLU	B	837	52.980	20.746	39.973	1.00	88.80
ATOM	4938	C	GLU	B	837	47.885	23.536	39.995	1.00	26.27
ATOM	4939	O	GLU	B	837	47.403	24.263	39.129	1.00	26.27
ATOM	4940	N	ASP	B	838	47.171	22.628	40.641	1.00	21.63
ATOM	4941	CA	ASP	B	838	45.776	22.409	40.311	1.00	21.63
ATOM	4942	CB	ASP	B	838	45.320	21.103	40.940	1.00	44.46
ATOM	4943	CG	ASP	B	838	46.164	19.929	40.477	1.00	44.46
ATOM	4944	OD1	ASP	B	838	45.983	19.473	39.322	1.00	44.46
ATOM	4945	OD2	ASP	B	838	47.027	19.480	41.263	1.00	44.46
ATOM	4946	C	ASP	B	838	44.863	23.568	40.684	1.00	21.63
ATOM	4947	O	ASP	B	838	43.671	23.539	40.391	1.00	21.63
ATOM	4948	N	CYS	B	839	45.427	24.591	41.320	1.00	20.95
ATOM	4949	CA	CYS	B	839	44.651	25.770	41.669	1.00	20.95
ATOM	4950	CB	CYS	B	839	45.136	26.385	42.990	1.00	23.89
ATOM	4951	SG	CYS	B	839	44.647	25.450	44.467	1.00	23.89
ATOM	4952	C	CYS	B	839	44.779	26.809	40.559	1.00	20.95
ATOM	4953	O	CYS	B	839	44.247	27.911	40.677	1.00	20.95
ATOM	4954	N	PHE	B	840	45.465	26.447	39.473	1.00	23.46
ATOM	4955	CA	PHE	B	840	45.683	27.380	38.373	1.00	23.46
ATOM	4956	CB	PHE	B	840	46.563	26.737	37.278	1.00	24.84
ATOM	4957	CG	PHE	B	840	45.817	25.885	36.294	1.00	24.84
ATOM	4958	CD1	PHE	B	840	45.010	26.462	35.321	1.00	24.84
ATOM	4959	CD2	PHE	B	840	45.937	24.504	36.325	1.00	24.84
ATOM	4960	CE1	PHE	B	840	44.330	25.673	34.394	1.00	24.84
ATOM	4961	CE2	PHE	B	840	45.262	23.708	35.403	1.00	24.84
ATOM	4962	CZ	PHE	B	840	44.456	24.296	34.436	1.00	24.84
ATOM	4963	C	PHE	B	840	44.435	28.011	37.768	1.00	23.46
ATOM	4964	O	PHE	B	840	44.480	29.158	37.340	1.00	23.46
ATOM	4965	N	PRO	B	841	43.303	27.289	37.732	1.00	21.15
ATOM	4966	CD	PRO	B	841	43.014	25.900	38.126	1.00	26.36
ATOM	4967	CA	PRO	B	841	42.115	27.919	37.148	1.00	21.15
ATOM	4968	CB	PRO	B	841	41.014	26.898	37.413	1.00	26.36
ATOM	4969	CG	PRO	B	841	41.758	25.594	37.317	1.00	26.36
ATOM	4970	C	PRO	B	841	41.828	29.259	37.816	1.00	21.15
ATOM	4971	O	PRO	B	841	41.399	30.203	37.170	1.00	21.15
ATOM	4972	N	LEU	B	842	42.079	29.339	39.114	1.00	19.89
ATOM	4973	CA	LEU	B	842	41.847	30.580	39.823	1.00	19.89
ATOM	4974	CB	LEU	B	842	42.163	30.406	41.315	1.00	20.14
ATOM	4975	CG	LEU	B	842	41.294	29.427	42.123	1.00	20.14
ATOM	4976	CD1	LEU	B	842	41.901	29.247	43.496	1.00	20.14
ATOM	4977	CD2	LEU	B	842	39.844	29.940	42.245	1.00	20.14
ATOM	4978	C	LEU	B	842	42.726	31.671	39.203	1.00	19.89
ATOM	4979	O	LEU	B	842	42.249	32.771	38.921	1.00	19.89
ATOM	4980	N	LEU	B	843	43.999	31.356	38.975	1.00	23.12
ATOM	4981	CA	LEU	B	843	44.952	32.300	38.384	1.00	23.12
ATOM	4982	CB	LEU	B	843	46.343	31.661	38.296	1.00	25.08
ATOM	4983	CG	LEU	B	843	47.643	32.489	38.217	1.00	25.08
ATOM	4984	CD1	LEU	B	843	48.721	31.609	37.564	1.00	25.08
ATOM	4985	CD2	LEU	B	843	47.476	33.757	37.411	1.00	25.08
ATOM	4986	C	LEU	B	843	44.512	32.697	36.971	1.00	23.12
ATOM	4987	O	LEU	B	843	44.590	33.865	36.584	1.00	23.12
ATOM	4988	N	ASP	B	844	44.053	31.718	36.204	1.00	23.27
ATOM	4989	CA	ASP	B	844	43.627	31.967	34.834	1.00	23.27
ATOM	4990	CB	ASP	B	844	43.411	30.639	34.107	1.00	57.63
ATOM	4991	CG	ASP	B	844	43.267	30.814	32.613	1.00	57.63
ATOM	4992	OD1	ASP	B	844	44.181	31.402	31.997	1.00	57.63
ATOM	4993	OD2	ASP	B	844	42.244	30.362	32.054	1.00	57.63
ATOM	4994	C	ASP	B	844	42.350	32.795	34.806	1.00	23.27
ATOM	4995	O	ASP	B	844	42.184	33.661	33.949	1.00	23.27
ATOM	4996	N	GLY	B	845	41.441	32.517	35.737	1.00	26.26
ATOM	4997	CA	GLY	B	845	40.202	33.276	35.799	1.00	26.26
ATOM	4998	C	GLY	B	845	40.533	34.724	36.117	1.00	26.26
ATOM	4999	O	GLY	B	845	39.987	35.646	35.517	1.00	26.26
ATOM	5000	N	CYS	B	846	41.458	34.926	37.051	1.00	18.91
ATOM	5001	CA	CYS	B	846	41.861	36.270	37.439	1.00	18.91
ATOM	5002	CB	CYS	B	846	42.856	36.225	38.603	1.00	24.34

ATOM	5003	SG	CYS	B	846	43.296	37.859	39.264	1.00	24.34
ATOM	5004	C	CYS	B	846	42.482	37.020	36.259	1.00	18.91
ATOM	5005	O	CYS	B	846	42.153	38.185	36.021	1.00	18.91
ATOM	5006	N	ARG	B	847	43.368	36.354	35.518	1.00	22.03
ATOM	5007	CA	ARG	B	847	44.021	36.980	34.368	1.00	22.03
ATOM	5008	CB	ARG	B	847	45.133	36.064	33.823	1.00	25.34
ATOM	5009	CG	ARG	B	847	46.219	35.797	34.874	1.00	25.34
ATOM	5010	CD	ARG	B	847	47.573	35.402	34.300	1.00	25.34
ATOM	5011	NE	ARG	B	847	47.633	34.011	33.886	1.00	25.34
ATOM	5012	CZ	ARG	B	847	48.673	33.206	34.099	1.00	25.34
ATOM	5013	NH1	ARG	B	847	49.757	33.640	34.729	1.00	25.34
ATOM	5014	NH2	ARG	B	847	48.625	31.956	33.668	1.00	25.34
ATOM	5015	C	ARG	B	847	43.010	37.315	33.274	1.00	22.03
ATOM	5016	O	ARG	B	847	43.122	38.336	32.582	1.00	22.03
ATOM	5017	N	LYS	B	848	42.007	36.463	33.129	1.00	24.51
ATOM	5018	CA	LYS	B	848	40.986	36.686	32.120	1.00	24.51
ATOM	5019	CB	LYS	B	848	40.026	35.500	32.099	1.00	38.66
ATOM	5020	CG	LYS	B	848	39.079	35.459	30.924	1.00	38.66
ATOM	5021	CD	LYS	B	848	38.390	34.097	30.862	1.00	38.66
ATOM	5022	CE	LYS	B	848	39.414	32.973	30.702	1.00	38.66
ATOM	5023	NZ	LYS	B	848	38.810	31.601	30.703	1.00	38.66
ATOM	5024	C	LYS	B	848	40.236	37.981	32.439	1.00	24.51
ATOM	5025	O	LYS	B	848	39.967	38.788	31.556	1.00	24.51
ATOM	5026	N	ASN	B	849	39.918	38.185	33.713	1.00	21.14
ATOM	5027	CA	ASN	B	849	39.192	39.377	34.111	1.00	21.14
ATOM	5028	CB	ASN	B	849	38.591	39.190	35.504	1.00	18.83
ATOM	5029	CG	ASN	B	849	37.432	38.213	35.508	1.00	18.83
ATOM	5030	OD1	ASN	B	849	36.595	38.239	34.617	1.00	18.83
ATOM	5031	ND2	ASN	B	849	37.367	37.358	36.529	1.00	18.83
ATOM	5032	C	ASN	B	849	40.021	40.649	34.060	1.00	21.14
ATOM	5033	O	ASN	B	849	39.470	41.728	33.858	1.00	21.14
ATOM	5034	N	ARG	B	850	41.337	40.535	34.235	1.00	27.59
ATOM	5035	CA	ARG	B	850	42.189	41.719	34.197	1.00	27.59
ATOM	5036	CB	ARG	B	850	43.598	41.421	34.680	1.00	28.11
ATOM	5037	CG	ARG	B	850	44.243	42.625	35.328	1.00	28.11
ATOM	5038	CD	ARG	B	850	45.724	42.697	35.061	1.00	28.11
ATOM	5039	NE	ARG	B	850	45.939	43.317	33.767	1.00	28.11
ATOM	5040	CZ	ARG	B	850	46.564	44.466	33.575	1.00	28.11
ATOM	5041	NH1	ARG	B	850	47.068	45.149	34.583	1.00	28.11
ATOM	5042	NH2	ARG	B	850	46.652	44.943	32.360	1.00	28.11
ATOM	5043	C	ARG	B	850	42.287	42.268	32.787	1.00	27.59
ATOM	5044	O	ARG	B	850	42.541	43.452	32.601	1.00	27.59
ATOM	5045	N	GLN	B	851	42.115	41.398	31.796	1.00	32.75
ATOM	5046	CA	GLN	B	851	42.172	41.818	30.404	1.00	32.75
ATOM	5047	CB	GLN	B	851	42.391	40.615	29.485	1.00	44.97
ATOM	5048	CG	GLN	B	851	42.406	40.972	28.008	1.00	44.97
ATOM	5049	CD	GLN	B	851	42.774	39.793	27.126	1.00	44.97
ATOM	5050	OE1	GLN	B	851	43.888	39.271	27.202	1.00	44.97
ATOM	5051	NE2	GLN	B	851	41.833	39.363	26.286	1.00	44.97
ATOM	5052	C	GLN	B	851	40.848	42.496	30.068	1.00	32.75
ATOM	5053	O	GLN	B	851	40.825	43.534	29.414	1.00	32.75
ATOM	5054	N	LYS	B	852	39.750	41.897	30.523	1.00	26.18
ATOM	5055	CA	LYS	B	852	38.421	42.451	30.295	1.00	26.18
ATOM	5056	CB	LYS	B	852	37.358	41.533	30.895	1.00	41.06
ATOM	5057	CG	LYS	B	852	37.253	40.172	30.225	1.00	41.06
ATOM	5058	CD	LYS	B	852	36.522	40.246	28.887	1.00	41.06
ATOM	5059	CE	LYS	B	852	35.037	40.575	29.064	1.00	41.06
ATOM	5060	NZ	LYS	B	852	34.281	40.625	27.766	1.00	41.06
ATOM	5061	C	LYS	B	852	38.291	43.848	30.908	1.00	26.18
ATOM	5062	O	LYS	B	852	37.966	44.807	30.211	1.00	26.18
ATOM	5063	N	TRP	B	853	38.550	43.973	32.207	1.00	21.21
ATOM	5064	CA	TRP	B	853	38.426	45.273	32.860	1.00	21.21
ATOM	5065	CB	TRP	B	853	38.722	45.161	34.358	1.00	20.21
ATOM	5066	CG	TRP	B	853	37.618	44.517	35.169	1.00	20.21
ATOM	5067	CD2	TRP	B	853	36.273	44.995	35.321	1.00	20.21
ATOM	5068	CE2	TRP	B	853	35.616	44.119	36.219	1.00	20.21

ATOM	5069	CE3	TRP	B	853	35.560	46.085	34.790	1.00	20.21
ATOM	5070	CD1	TRP	B	853	37.719	43.400	35.952	1.00	20.21
ATOM	5071	NE1	TRP	B	853	36.520	43.156	36.589	1.00	20.21
ATOM	5072	CZ2	TRP	B	853	34.275	44.298	36.601	1.00	20.21
ATOM	5073	CZ3	TRP	B	853	34.223	46.267	35.171	1.00	20.21
ATOM	5074	CH2	TRP	B	853	33.598	45.372	36.071	1.00	20.21
ATOM	5075	C	TRP	B	853	39.346	46.322	32.240	1.00	21.21
ATOM	5076	O	TRP	B	853	38.958	47.478	32.090	1.00	21.21
ATOM	5077	N	GLN	B	854	40.561	45.914	31.882	1.00	17.82
ATOM	5078	CA	GLN	B	854	41.528	46.826	31.294	1.00	17.82
ATOM	5079	CB	GLN	B	854	42.863	46.125	31.083	1.00	43.11
ATOM	5080	CG	GLN	B	854	43.974	46.744	31.892	1.00	43.11
ATOM	5081	CD	GLN	B	854	44.162	48.207	31.580	1.00	43.11
ATOM	5082	OE1	GLN	B	854	44.702	48.958	32.390	1.00	43.11
ATOM	5083	NE2	GLN	B	854	43.726	48.622	30.397	1.00	43.11
ATOM	5084	C	GLN	B	854	41.032	47.387	29.972	1.00	17.82
ATOM	5085	O	GLN	B	854	41.216	48.564	29.683	1.00	17.82
ATOM	5086	N	ALA	B	855	40.411	46.543	29.162	1.00	39.58
ATOM	5087	CA	ALA	B	855	39.880	47.011	27.895	1.00	39.58
ATOM	5088	CB	ALA	B	855	39.186	45.875	27.161	1.00	19.35
ATOM	5089	C	ALA	B	855	38.877	48.108	28.235	1.00	39.58
ATOM	5090	O	ALA	B	855	38.918	49.204	27.671	1.00	39.58
ATOM	5091	N	LEU	B	856	37.987	47.807	29.180	1.00	25.37
ATOM	5092	CA	LEU	B	856	36.972	48.760	29.595	1.00	25.37
ATOM	5093	CB	LEU	B	856	36.047	48.123	30.633	1.00	35.05
ATOM	5094	CG	LEU	B	856	35.118	47.045	30.063	1.00	35.05
ATOM	5095	CD1	LEU	B	856	34.475	46.256	31.193	1.00	35.05
ATOM	5096	CD2	LEU	B	856	34.059	47.705	29.179	1.00	35.05
ATOM	5097	C	LEU	B	856	37.576	50.044	30.141	1.00	25.37
ATOM	5098	O	LEU	B	856	37.094	51.134	29.841	1.00	25.37
ATOM	5099	N	ALA	B	857	38.638	49.929	30.932	1.00	22.32
ATOM	5100	CA	ALA	B	857	39.255	51.122	31.498	1.00	22.32
ATOM	5101	CB	ALA	B	857	40.347	50.745	32.489	1.00	13.00
ATOM	5102	C	ALA	B	857	39.828	51.998	30.395	1.00	22.32
ATOM	5103	O	ALA	B	857	39.719	53.226	30.444	1.00	22.32
ATOM	5104	N	GLU	B	858	40.444	51.363	29.404	1.00	41.43
ATOM	5105	CA	GLU	B	858	41.033	52.093	28.288	1.00	41.43
ATOM	5106	CB	GLU	B	858	41.844	51.142	27.411	1.00	31.35
ATOM	5107	CG	GLU	B	858	43.148	50.702	28.065	1.00	31.35
ATOM	5108	CD	GLU	B	858	43.818	49.558	27.331	1.00	31.35
ATOM	5109	OE1	GLU	B	858	44.938	49.181	27.724	1.00	31.35
ATOM	5110	OE2	GLU	B	858	43.223	49.038	26.367	1.00	31.35
ATOM	5111	C	GLU	B	858	39.935	52.767	27.481	1.00	41.43
ATOM	5112	O	GLU	B	858	40.089	53.904	27.038	1.00	41.43
ATOM	5113	N	GLN	B	859	38.827	52.057	27.301	1.00	36.77
ATOM	5114	CA	GLN	B	859	37.682	52.589	26.581	1.00	36.77
ATOM	5115	CB	GLN	B	859	36.550	51.560	26.583	1.00	87.07
ATOM	5116	CG	GLN	B	859	35.290	52.001	25.861	1.00	87.07
ATOM	5117	CD	GLN	B	859	34.040	51.322	26.404	1.00	87.07
ATOM	5118	OE1	GLN	B	859	33.989	50.099	26.541	1.00	87.07
ATOM	5119	NE2	GLN	B	859	33.021	52.120	26.711	1.00	87.07
ATOM	5120	C	GLN	B	859	37.230	53.856	27.317	1.00	36.77
ATOM	5121	O	GLN	B	859	36.850	54.850	26.704	1.00	36.77
ATOM	5122	N	GLN	B	860	37.297	53.811	28.643	1.00	44.48
ATOM	5123	CA	GLN	B	860	36.888	54.934	29.478	1.00	44.48
ATOM	5124	CB	GLN	B	860	36.729	54.466	30.925	1.00	61.26
ATOM	5125	CG	GLN	B	860	35.775	55.305	31.722	1.00	61.26
ATOM	5126	CD	GLN	B	860	34.365	55.193	31.194	1.00	61.26
ATOM	5127	OE1	GLN	B	860	33.749	54.127	31.260	1.00	61.26
ATOM	5128	NE2	GLN	B	860	33.847	56.290	30.652	1.00	61.26
ATOM	5129	C	GLN	B	860	37.893	56.079	29.432	1.00	44.48
ATOM	5130	O	GLN	B	860	37.521	57.249	29.511	1.00	44.48
ATOM	5131	N	GLU	B	861	39.170	55.729	29.314	1.00	35.70
ATOM	5132	CA	GLU	B	861	40.244	56.711	29.264	1.00	35.70
ATOM	5133	CB	GLU	B	861	41.594	56.007	29.441	1.00	97.16
ATOM	5134	CG	GLU	B	861	42.777	56.951	29.434	1.00	97.16

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ATOM   5135  CD  GLU B 861      42.553  58.150  30.335  1.00 97.16
ATOM   5136  OE1 GLU B 861      42.353  57.950  31.552  1.00 97.16
ATOM   5137  OE2 GLU B 861      42.570  59.292  29.825  1.00 97.16
ATOM   5138  C   GLU B 861      40.252  57.543  27.974  1.00 35.70
ATOM   5139  O   GLU B 861      40.395  58.768  28.022  1.00 35.70
ATOM   5140  N   LYS B 862      40.102  56.879  26.829  1.00 99.06
ATOM   5141  CA  LYS B 862      40.098  57.561  25.535  1.00 99.06
ATOM   5142  CB  LYS B 862      40.184  56.540  24.393  1.00 67.43
ATOM   5143  CG  LYS B 862      38.905  55.741  24.193  1.00 67.43
ATOM   5144  CD  LYS B 862      39.027  54.728  23.068  1.00 67.43
ATOM   5145  CE  LYS B 862      37.741  53.920  22.921  1.00 67.43
ATOM   5146  NZ  LYS B 862      37.837  52.879  21.855  1.00 67.43
ATOM   5147  C   LYS B 862      38.834  58.402  25.363  1.00 99.06
ATOM   5148  O   LYS B 862      38.566  58.921  24.279  1.00 99.06
ATOM   5149  N   MET B 863      38.061  58.530  26.436  1.00 93.72
ATOM   5150  CA  MET B 863      36.822  59.299  26.412  1.00 93.72
ATOM   5151  CB  MET B 863      35.762  58.606  27.275  1.00 87.71
ATOM   5152  CG  MET B 863      34.326  58.842  26.833  1.00 87.71
ATOM   5153  SD  MET B 863      33.925  57.957  25.305  1.00 87.71
ATOM   5154  CE  MET B 863      34.457  59.165  24.054  1.00 87.71
ATOM   5155  C   MET B 863      37.065  60.715  26.938  1.00 93.72
ATOM   5156  O   MET B 863      36.187  61.311  27.564  1.00 93.72
ATOM   5157  N   LEU B 864      38.260  61.243  26.681  1.00100.00
ATOM   5158  CA  LEU B 864      38.632  62.586  27.125  1.00100.00
ATOM   5159  CB  LEU B 864      40.037  62.938  26.616  1.00 56.92
ATOM   5160  CG  LEU B 864      40.304  62.837  25.108  1.00 56.92
ATOM   5161  CD1 LEU B 864      39.441  63.820  24.332  1.00 56.92
ATOM   5162  CD2 LEU B 864      41.767  63.122  24.849  1.00 56.92
ATOM   5163  C   LEU B 864      37.639  63.650  26.657  1.00100.00
ATOM   5164  O   LEU B 864      36.721  63.303  25.881  1.00100.00
ATOM   5165  OXT LEU B 864      37.802  64.823  27.064  1.00 56.92
TER
ATOM   5167  CB  THR C 537      47.691  19.014  86.057  1.00 74.65
ATOM   5168  OG1 THR C 537      48.948  19.631  86.370  1.00 74.65
ATOM   5169  CG2 THR C 537      47.499  18.977  84.547  1.00 74.65
ATOM   5170  C   THR C 537      46.554  19.454  88.216  1.00 38.30
ATOM   5171  O   THR C 537      45.611  18.853  88.740  1.00 38.30
ATOM   5172  N   THR C 537      46.723  21.275  86.557  1.00 38.30
ATOM   5173  CA  THR C 537      46.549  19.800  86.735  1.00 38.30
ATOM   5174  N   ARG C 538      47.636  19.835  88.882  1.00100.00
ATOM   5175  CA  ARG C 538      47.782  19.586  90.307  1.00100.00
ATOM   5176  CB  ARG C 538      49.242  19.797  90.724  1.00100.00
ATOM   5177  CG  ARG C 538      49.565  19.399  92.160  1.00100.00
ATOM   5178  CD  ARG C 538      49.493  17.889  92.358  1.00100.00
ATOM   5179  NE  ARG C 538      48.127  17.373  92.277  1.00100.00
ATOM   5180  CZ  ARG C 538      47.818  16.079  92.261  1.00100.00
ATOM   5181  NH1 ARG C 538      48.779  15.165  92.317  1.00100.00
ATOM   5182  NH2 ARG C 538      46.550  15.699  92.190  1.00100.00
ATOM   5183  C   ARG C 538      46.883  20.571  91.044  1.00100.00
ATOM   5184  O   ARG C 538      46.361  20.279  92.121  1.00100.00
ATOM   5185  N   GLU C 539      46.703  21.739  90.435  1.00 42.06
ATOM   5186  CA  GLU C 539      45.884  22.808  90.999  1.00 42.06
ATOM   5187  CB  GLU C 539      46.121  24.109  90.215  1.00 82.25
ATOM   5188  CG  GLU C 539      45.412  25.342  90.778  1.00 82.25
ATOM   5189  CD  GLU C 539      45.646  26.594  89.938  1.00 82.25
ATOM   5190  OE1 GLU C 539      45.357  26.565  88.722  1.00 82.25
ATOM   5191  OE2 GLU C 539      46.114  27.610  90.495  1.00 82.25
ATOM   5192  C   GLU C 539      44.400  22.441  90.977  1.00 42.06
ATOM   5193  O   GLU C 539      43.686  22.658  91.956  1.00 42.06
ATOM   5194  N   LEU C 540      43.943  21.877  89.864  1.00 32.85
ATOM   5195  CA  LEU C 540      42.546  21.492  89.735  1.00 32.85
ATOM   5196  CB  LEU C 540      42.262  20.969  88.326  1.00 30.68
ATOM   5197  CG  LEU C 540      40.830  20.477  88.086  1.00 30.68
ATOM   5198  CD1 LEU C 540      39.818  21.564  88.463  1.00 30.68
ATOM   5199  CD2 LEU C 540      40.685  20.085  86.631  1.00 30.68
ATOM   5200  C   LEU C 540      42.146  20.446  90.771  1.00 32.85
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ATOM   5201  O   LEU C 540      40.991  20.411  91.215  1.00 32.85
ATOM   5202  N   GLN C 541      43.102  19.601  91.155  1.00 43.01
ATOM   5203  CA  GLN C 541      42.859  18.557  92.152  1.00 43.01
ATOM   5204  CB  GLN C 541      44.005  17.541  92.143  1.00 99.97
ATOM   5205  CG  GLN C 541      44.051  16.668  90.895  1.00 99.97
ATOM   5206  CD  GLN C 541      42.871  15.711  90.802  1.00 99.97
ATOM   5207  OE1 GLN C 541      41.715  16.132  90.732  1.00 99.97
ATOM   5208  NE2 GLN C 541      43.162  14.414  90.800  1.00 99.97
ATOM   5209  C   GLN C 541      42.715  19.170  93.545  1.00 43.01
ATOM   5210  O   GLN C 541      41.778  18.848  94.283  1.00 43.01
ATOM   5211  N   SER C 542      43.648  20.055  93.890  1.00 35.29
ATOM   5212  CA  SER C 542      43.630  20.738  95.180  1.00 35.29
ATOM   5213  CB  SER C 542      44.774  21.754  95.268  1.00 45.02
ATOM   5214  OG  SER C 542      46.040  21.149  95.066  1.00 45.02
ATOM   5215  C   SER C 542      42.310  21.479  95.343  1.00 35.29
ATOM   5216  O   SER C 542      41.663  21.397  96.381  1.00 35.29
ATOM   5217  N   LEU C 543      41.914  22.194  94.296  1.00 24.21
ATOM   5218  CA  LEU C 543      40.685  22.988  94.298  1.00 24.21
ATOM   5219  CB  LEU C 543      40.609  23.805  93.002  1.00 24.96
ATOM   5220  CG  LEU C 543      39.697  25.031  92.972  1.00 24.96
ATOM   5221  CD1 LEU C 543      39.802  25.716  91.622  1.00 24.96
ATOM   5222  CD2 LEU C 543      38.269  24.620  93.236  1.00 24.96
ATOM   5223  C   LEU C 543      39.403  22.167  94.457  1.00 24.21
ATOM   5224  O   LEU C 543      38.554  22.470  95.298  1.00 24.21
ATOM   5225  N   ALA C 544      39.256  21.142  93.629  1.00 28.54
ATOM   5226  CA  ALA C 544      38.072  20.298  93.657  1.00 28.54
ATOM   5227  CB  ALA C 544      38.137  19.274  92.530  1.00 34.51
ATOM   5228  C   ALA C 544      37.895  19.592  94.991  1.00 28.54
ATOM   5229  O   ALA C 544      36.771  19.451  95.475  1.00 28.54
ATOM   5230  N   ALA C 545      39.001  19.159  95.589  1.00 37.02
ATOM   5231  CA  ALA C 545      38.947  18.452  96.866  1.00 37.02
ATOM   5232  CB  ALA C 545      40.222  17.633  97.056  1.00 37.11
ATOM   5233  C   ALA C 545      38.727  19.366  98.081  1.00 37.02
ATOM   5234  O   ALA C 545      38.059  18.977  99.044  1.00 37.02
ATOM   5235  N   ALA C 546      39.280  20.576  98.019  1.00 39.38
ATOM   5236  CA  ALA C 546      39.190  21.553  99.105  1.00 39.38
ATOM   5237  CB  ALA C 546      39.838  22.875  98.672  1.00 17.42
ATOM   5238  C   ALA C 546      37.791  21.833  99.638  1.00 39.38
ATOM   5239  O   ALA C 546      36.797  21.764  98.913  1.00 39.38
ATOM   5240  N   VAL C 547      37.726  22.152 100.925  1.00 33.09
ATOM   5241  CA  VAL C 547      36.457  22.487 101.554  1.00 33.09
ATOM   5242  CB  VAL C 547      36.512  22.322 103.085  1.00 53.00
ATOM   5243  CG1 VAL C 547      35.138  22.593 103.683  1.00 53.00
ATOM   5244  CG2 VAL C 547      36.991  20.924 103.445  1.00 53.00
ATOM   5245  C   VAL C 547      36.218  23.961 101.236  1.00 33.09
ATOM   5246  O   VAL C 547      37.132  24.778 101.356  1.00 33.09
ATOM   5247  N   VAL C 548      34.999  24.292 100.813  1.00 24.86
ATOM   5248  CA  VAL C 548      34.650  25.668 100.492  1.00 24.86
ATOM   5249  CB  VAL C 548      33.602  25.720  99.380  1.00 15.83
ATOM   5250  CG1 VAL C 548      33.377  27.175  98.953  1.00 15.83
ATOM   5251  CG2 VAL C 548      34.046  24.857  98.207  1.00 15.83
ATOM   5252  C   VAL C 548      34.067  26.366 101.723  1.00 24.86
ATOM   5253  O   VAL C 548      32.894  26.186 102.049  1.00 24.86
ATOM   5254  N   PRO C 549      34.870  27.190 102.414  1.00 33.62
ATOM   5255  CD  PRO C 549      36.279  27.552 102.192  1.00 21.00
ATOM   5256  CA  PRO C 549      34.346  27.874 103.601  1.00 33.62
ATOM   5257  CB  PRO C 549      35.535  28.710 104.065  1.00 21.00
ATOM   5258  CG  PRO C 549      36.709  27.944 103.572  1.00 21.00
ATOM   5259  C   PRO C 549      33.116  28.732 103.304  1.00 33.62
ATOM   5260  O   PRO C 549      32.844  29.070 102.144  1.00 33.62
ATOM   5261  N   SER C 550      32.380  29.084 104.357  1.00 25.29
ATOM   5262  CA  SER C 550      31.174  29.906 104.224  1.00 25.29
ATOM   5263  CB  SER C 550      30.429  29.969 105.558  1.00 32.99
ATOM   5264  OG  SER C 550      31.179  30.696 106.518  1.00 32.99
ATOM   5265  C   SER C 550      31.540  31.327 103.787  1.00 25.29
ATOM   5266  O   SER C 550      32.688  31.754 103.930  1.00 25.29
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ATOM	5267	N	ALA	C	551	30.567	32.057	103.252	1.00	18.90
ATOM	5268	CA	ALA	C	551	30.810	33.427	102.820	1.00	18.90
ATOM	5269	CB	ALA	C	551	29.547	34.015	102.209	1.00	23.53
ATOM	5270	C	ALA	C	551	31.257	34.274	104.014	1.00	18.90
ATOM	5271	O	ALA	C	551	32.192	35.081	103.911	1.00	18.90
ATOM	5272	N	GLN	C	552	30.587	34.075	105.144	1.00	27.07
ATOM	5273	CA	GLN	C	552	30.884	34.809	106.366	1.00	27.07
ATOM	5274	CB	GLN	C	552	29.974	34.322	107.495	1.00	62.14
ATOM	5275	CG	GLN	C	552	30.069	35.123	108.781	1.00	62.14
ATOM	5276	CD	GLN	C	552	29.166	34.569	109.875	1.00	62.14
ATOM	5277	OE1	GLN	C	552	29.375	33.461	110.368	1.00	62.14
ATOM	5278	NE2	GLN	C	552	28.152	35.340	110.253	1.00	62.14
ATOM	5279	C	GLN	C	552	32.340	34.603	106.750	1.00	27.07
ATOM	5280	O	GLN	C	552	33.053	35.557	107.067	1.00	27.07
ATOM	5281	N	THR	C	553	32.780	33.352	106.707	1.00	35.79
ATOM	5282	CA	THR	C	553	34.154	33.015	107.053	1.00	35.79
ATOM	5283	CB	THR	C	553	34.351	31.485	107.080	1.00	40.28
ATOM	5284	OG1	THR	C	553	33.540	30.924	108.120	1.00	40.28
ATOM	5285	CG2	THR	C	553	35.812	31.133	107.334	1.00	40.28
ATOM	5286	C	THR	C	553	35.154	33.641	106.082	1.00	35.79
ATOM	5287	O	THR	C	553	36.178	34.177	106.504	1.00	35.79
ATOM	5288	N	LEU	C	554	34.855	33.579	104.789	1.00	21.21
ATOM	5289	CA	LEU	C	554	35.734	34.149	103.765	1.00	21.21
ATOM	5290	CB	LEU	C	554	35.376	33.588	102.380	1.00	23.94
ATOM	5291	CG	LEU	C	554	35.561	32.079	102.195	1.00	23.94
ATOM	5292	CD1	LEU	C	554	35.143	31.667	100.798	1.00	23.94
ATOM	5293	CD2	LEU	C	554	37.019	31.720	102.447	1.00	23.94
ATOM	5294	C	LEU	C	554	35.674	35.678	103.732	1.00	21.21
ATOM	5295	O	LEU	C	554	36.561	36.324	103.177	1.00	21.21
ATOM	5296	N	LYS	C	555	34.622	36.245	104.318	1.00	33.45
ATOM	5297	CA	LYS	C	555	34.446	37.698	104.380	1.00	33.45
ATOM	5298	CB	LYS	C	555	35.691	38.344	105.012	1.00	72.09
ATOM	5299	CG	LYS	C	555	35.558	39.840	105.262	1.00	72.09
ATOM	5300	CD	LYS	C	555	36.858	40.465	105.746	1.00	72.09
ATOM	5301	CE	LYS	C	555	36.735	41.984	105.837	1.00	72.09
ATOM	5302	NZ	LYS	C	555	38.009	42.616	106.281	1.00	72.09
ATOM	5303	C	LYS	C	555	34.149	38.366	103.030	1.00	33.45
ATOM	5304	O	LYS	C	555	34.310	39.578	102.876	1.00	33.45
ATOM	5305	N	ILE	C	556	33.693	37.585	102.059	1.00	20.95
ATOM	5306	CA	ILE	C	556	33.400	38.135	100.744	1.00	20.95
ATOM	5307	CB	ILE	C	556	33.261	37.014	99.708	1.00	24.65
ATOM	5308	CG2	ILE	C	556	34.598	36.315	99.539	1.00	24.65
ATOM	5309	CG1	ILE	C	556	32.193	36.017	100.159	1.00	24.65
ATOM	5310	CD1	ILE	C	556	31.816	35.006	99.092	1.00	24.65
ATOM	5311	C	ILE	C	556	32.141	39.000	100.712	1.00	20.95
ATOM	5312	O	ILE	C	556	31.816	39.599	99.682	1.00	20.95
ATOM	5313	N	THR	C	557	31.441	39.078	101.839	1.00	30.00
ATOM	5314	CA	THR	C	557	30.219	39.871	101.912	1.00	30.00
ATOM	5315	CB	THR	C	557	29.238	39.287	102.946	1.00	44.39
ATOM	5316	OG1	THR	C	557	29.026	37.894	102.673	1.00	44.39
ATOM	5317	CG2	THR	C	557	27.904	40.010	102.874	1.00	44.39
ATOM	5318	C	THR	C	557	30.499	41.331	102.285	1.00	30.00
ATOM	5319	O	THR	C	557	29.638	42.196	102.132	1.00	30.00
ATOM	5320	N	ASP	C	558	31.707	41.603	102.764	1.00	32.23
ATOM	5321	CA	ASP	C	558	32.074	42.959	103.171	1.00	32.23
ATOM	5322	CB	ASP	C	558	33.208	42.915	104.202	1.00	67.57
ATOM	5323	CG	ASP	C	558	32.849	42.107	105.438	1.00	67.57
ATOM	5324	OD1	ASP	C	558	33.752	41.868	106.267	1.00	67.57
ATOM	5325	OD2	ASP	C	558	31.671	41.714	105.586	1.00	67.57
ATOM	5326	C	ASP	C	558	32.521	43.807	101.989	1.00	32.23
ATOM	5327	O	ASP	C	558	33.208	43.321	101.087	1.00	32.23
ATOM	5328	N	PHE	C	559	32.125	45.074	101.993	1.00	31.88
ATOM	5329	CA	PHE	C	559	32.537	45.976	100.931	1.00	31.88
ATOM	5330	CB	PHE	C	559	31.681	47.242	100.941	1.00	20.98
ATOM	5331	CG	PHE	C	559	30.322	47.061	100.319	1.00	20.98
ATOM	5332	CD1	PHE	C	559	30.194	46.829	98.949	1.00	20.98

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ATOM   5333  CD2 PHE C 559      29.174  47.130 101.095  1.00 20.98
ATOM   5334  CE1 PHE C 559      28.943  46.669  98.361  1.00 20.98
ATOM   5335  CE2 PHE C 559      27.912  46.971 100.517  1.00 20.98
ATOM   5336  CZ  PHE C 559      27.799  46.740  99.142  1.00 20.98
ATOM   5337  C   PHE C 559      34.003  46.331 101.165  1.00 31.88
ATOM   5338  O   PHE C 559      34.689  46.806 100.264  1.00 31.88
ATOM   5339  N   SER C 560      34.485  46.073 102.377  1.00 38.67
ATOM   5340  CA  SER C 560      35.873  46.370 102.731  1.00 38.67
ATOM   5341  CB  SER C 560      35.956  46.818 104.188  1.00 50.19
ATOM   5342  OG  SER C 560      35.520  45.778 105.045  1.00 50.19
ATOM   5343  C   SER C 560      36.796  45.169 102.520  1.00 38.67
ATOM   5344  O   SER C 560      37.949  45.181 102.955  1.00 38.67
ATOM   5345  N   PHE C 561      36.273  44.136 101.860  1.00 22.92
ATOM   5346  CA  PHE C 561      37.026  42.916 101.551  1.00 22.92
ATOM   5347  CB  PHE C 561      36.245  42.057 100.547  1.00 24.56
ATOM   5348  CG  PHE C 561      36.998  40.839 100.063  1.00 24.56
ATOM   5349  CD1 PHE C 561      37.153  39.720 100.884  1.00 24.56
ATOM   5350  CD2 PHE C 561      37.545  40.808  98.786  1.00 24.56
ATOM   5351  CE1 PHE C 561      37.841  38.590 100.437  1.00 24.56
ATOM   5352  CE2 PHE C 561      38.239  39.680  98.327  1.00 24.56
ATOM   5353  CZ  PHE C 561      38.384  38.571  99.155  1.00 24.56
ATOM   5354  C   PHE C 561      38.398  43.210 100.956  1.00 22.92
ATOM   5355  O   PHE C 561      38.531  44.037 100.044  1.00 22.92
ATOM   5356  N   SER C 562      39.412  42.515 101.460  1.00 22.56
ATOM   5357  CA  SER C 562      40.776  42.663 100.959  1.00 22.56
ATOM   5358  CB  SER C 562      41.734  43.060 102.086  1.00 30.62
ATOM   5359  OG  SER C 562      43.065  43.090 101.595  1.00 30.62
ATOM   5360  C   SER C 562      41.238  41.335 100.366  1.00 22.56
ATOM   5361  O   SER C 562      41.062  40.281 100.974  1.00 22.56
ATOM   5362  N   ASP C 563      41.850  41.384  99.191  1.00 21.56
ATOM   5363  CA  ASP C 563      42.318  40.158  98.553  1.00 21.56
ATOM   5364  CB  ASP C 563      42.054  40.212  97.052  1.00 31.57
ATOM   5365  CG  ASP C 563      43.055  41.095  96.328  1.00 31.57
ATOM   5366  OD1 ASP C 563      42.967  42.333  96.462  1.00 31.57
ATOM   5367  OD2 ASP C 563      43.945  40.545  95.645  1.00 31.57
ATOM   5368  C   ASP C 563      43.808  39.880  98.727  1.00 21.56
ATOM   5369  O   ASP C 563      44.241  38.739  98.582  1.00 21.56
ATOM   5370  N   PHE C 564      44.593  40.910  99.029  1.00 31.09
ATOM   5371  CA  PHE C 564      46.039  40.740  99.119  1.00 31.09
ATOM   5372  CB  PHE C 564      46.715  42.030  99.595  1.00 63.06
ATOM   5373  CG  PHE C 564      48.159  42.137  99.163  1.00 63.06
ATOM   5374  CD1 PHE C 564      48.483  42.310  97.817  1.00 63.06
ATOM   5375  CD2 PHE C 564      49.195  42.016 100.087  1.00 63.06
ATOM   5376  CE1 PHE C 564      49.816  42.356  97.396  1.00 63.06
ATOM   5377  CE2 PHE C 564      50.533  42.060  99.676  1.00 63.06
ATOM   5378  CZ  PHE C 564      50.843  42.230  98.328  1.00 63.06
ATOM   5379  C   PHE C 564      46.609  39.564  99.914  1.00 31.09
ATOM   5380  O   PHE C 564      47.535  38.909  99.441  1.00 31.09
ATOM   5381  N   GLU C 565      46.079  39.287 101.102  1.00 33.14
ATOM   5382  CA  GLU C 565      46.615  38.191 101.907  1.00 33.14
ATOM   5383  CB  GLU C 565      46.335  38.430 103.397  1.00 51.43
ATOM   5384  CG  GLU C 565      44.878  38.271 103.818  1.00 51.43
ATOM   5385  CD  GLU C 565      43.996  39.428 103.372  1.00 51.43
ATOM   5386  OE1 GLU C 565      42.790  39.410 103.704  1.00 51.43
ATOM   5387  OE2 GLU C 565      44.502  40.350 102.697  1.00 51.43
ATOM   5388  C   GLU C 565      46.125  36.793 101.531  1.00 33.14
ATOM   5389  O   GLU C 565      46.374  35.836 102.264  1.00 33.14
ATOM   5390  N   LEU C 566      45.439  36.669 100.402  1.00 25.88
ATOM   5391  CA  LEU C 566      44.926  35.366  99.967  1.00 25.88
ATOM   5392  CB  LEU C 566      43.457  35.476  99.554  1.00 15.88
ATOM   5393  CG  LEU C 566      42.442  35.846 100.632  1.00 15.88
ATOM   5394  CD1 LEU C 566      41.095  36.072  99.975  1.00 15.88
ATOM   5395  CD2 LEU C 566      42.367  34.749 101.690  1.00 15.88
ATOM   5396  C   LEU C 566      45.711  34.783  98.802  1.00 25.88
ATOM   5397  O   LEU C 566      46.150  35.516  97.913  1.00 25.88
ATOM   5398  N   SER C 567      45.889  33.460  98.825  1.00 22.91
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ATOM	5399	CA	SER	C	567	46.593	32.752	97.766	1.00	22.91
ATOM	5400	CB	SER	C	567	46.922	31.316	98.209	1.00	23.15
ATOM	5401	OG	SER	C	567	45.755	30.501	98.247	1.00	23.15
ATOM	5402	C	SER	C	567	45.656	32.714	96.559	1.00	22.91
ATOM	5403	O	SER	C	567	44.460	32.993	96.685	1.00	22.91
ATOM	5404	N	ASP	C	568	46.178	32.368	95.391	1.00	20.36
ATOM	5405	CA	ASP	C	568	45.331	32.316	94.209	1.00	20.36
ATOM	5406	CB	ASP	C	568	46.168	32.052	92.957	1.00	44.58
ATOM	5407	CG	ASP	C	568	47.202	33.134	92.715	1.00	44.58
ATOM	5408	OD1	ASP	C	568	46.985	34.277	93.173	1.00	44.58
ATOM	5409	OD2	ASP	C	568	48.226	32.848	92.057	1.00	44.58
ATOM	5410	C	ASP	C	568	44.279	31.224	94.381	1.00	20.36
ATOM	5411	O	ASP	C	568	43.133	31.378	93.971	1.00	20.36
ATOM	5412	N	LEU	C	569	44.675	30.121	94.998	1.00	21.55
ATOM	5413	CA	LEU	C	569	43.765	29.014	95.232	1.00	21.55
ATOM	5414	CB	LEU	C	569	44.539	27.841	95.849	1.00	42.51
ATOM	5415	CG	LEU	C	569	43.825	26.520	96.132	1.00	42.51
ATOM	5416	CD1	LEU	C	569	43.003	26.642	97.398	1.00	42.51
ATOM	5417	CD2	LEU	C	569	42.965	26.140	94.943	1.00	42.51
ATOM	5418	C	LEU	C	569	42.629	29.477	96.150	1.00	21.55
ATOM	5419	O	LEU	C	569	41.466	29.114	95.950	1.00	21.55
ATOM	5420	N	GLU	C	570	42.969	30.291	97.148	1.00	19.60
ATOM	5421	CA	GLU	C	570	41.971	30.807	98.071	1.00	19.60
ATOM	5422	CB	GLU	C	570	42.653	31.498	99.271	1.00	27.47
ATOM	5423	CG	GLU	C	570	43.305	30.497	100.232	1.00	27.47
ATOM	5424	CD	GLU	C	570	44.089	31.135	101.377	1.00	27.47
ATOM	5425	OE1	GLU	C	570	44.897	32.055	101.125	1.00	27.47
ATOM	5426	OE2	GLU	C	570	43.907	30.697	102.536	1.00	27.47
ATOM	5427	C	GLU	C	570	40.988	31.754	97.362	1.00	19.60
ATOM	5428	O	GLU	C	570	39.799	31.754	97.680	1.00	19.60
ATOM	5429	N	THR	C	571	41.463	32.544	96.392	1.00	18.96
ATOM	5430	CA	THR	C	571	40.545	33.432	95.678	1.00	18.96
ATOM	5431	CB	THR	C	571	41.282	34.456	94.770	1.00	20.30
ATOM	5432	OG1	THR	C	571	41.945	33.779	93.698	1.00	20.30
ATOM	5433	CG2	THR	C	571	42.302	35.240	95.578	1.00	20.30
ATOM	5434	C	THR	C	571	39.591	32.573	94.838	1.00	18.96
ATOM	5435	O	THR	C	571	38.406	32.898	94.714	1.00	18.96
ATOM	5436	N	ALA	C	572	40.093	31.468	94.284	1.00	18.98
ATOM	5437	CA	ALA	C	572	39.241	30.575	93.494	1.00	18.98
ATOM	5438	CB	ALA	C	572	40.060	29.450	92.875	1.00	17.30
ATOM	5439	C	ALA	C	572	38.166	30.004	94.420	1.00	18.98
ATOM	5440	O	ALA	C	572	36.989	29.966	94.068	1.00	18.98
ATOM	5441	N	LEU	C	573	38.575	29.568	95.608	1.00	20.68
ATOM	5442	CA	LEU	C	573	37.638	29.045	96.598	1.00	20.68
ATOM	5443	CB	LEU	C	573	38.404	28.655	97.868	1.00	22.91
ATOM	5444	CG	LEU	C	573	38.422	27.188	98.316	1.00	22.91
ATOM	5445	CD1	LEU	C	573	38.341	26.223	97.149	1.00	22.91
ATOM	5446	CD2	LEU	C	573	39.696	26.959	99.109	1.00	22.91
ATOM	5447	C	LEU	C	573	36.582	30.122	96.909	1.00	20.68
ATOM	5448	O	LEU	C	573	35.401	29.820	97.102	1.00	20.68
ATOM	5449	N	CYS	C	574	37.015	31.379	96.955	1.00	21.12
ATOM	5450	CA	CYS	C	574	36.100	32.492	97.200	1.00	21.12
ATOM	5451	CB	CYS	C	574	36.871	33.814	97.328	1.00	27.73
ATOM	5452	SG	CYS	C	574	37.439	34.201	99.008	1.00	27.73
ATOM	5453	C	CYS	C	574	35.082	32.618	96.065	1.00	21.12
ATOM	5454	O	CYS	C	574	33.914	32.921	96.301	1.00	21.12
ATOM	5455	N	THR	C	575	35.530	32.372	94.835	1.00	14.70
ATOM	5456	CA	THR	C	575	34.656	32.472	93.674	1.00	14.70
ATOM	5457	CB	THR	C	575	35.472	32.387	92.385	1.00	23.95
ATOM	5458	OG1	THR	C	575	36.533	33.349	92.445	1.00	23.95
ATOM	5459	CG2	THR	C	575	34.599	32.686	91.181	1.00	23.95
ATOM	5460	C	THR	C	575	33.590	31.377	93.697	1.00	14.70
ATOM	5461	O	THR	C	575	32.418	31.630	93.412	1.00	14.70
ATOM	5462	N	ILE	C	576	34.001	30.162	94.046	1.00	14.09
ATOM	5463	CA	ILE	C	576	33.070	29.047	94.143	1.00	14.09
ATOM	5464	CB	ILE	C	576	33.734	27.779	94.693	1.00	20.27

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ATOM   5465  CG2 ILE C 576      32.664  26.755  95.039  1.00 20.27
ATOM   5466  CG1 ILE C 576      34.721  27.217  93.671  1.00 20.27
ATOM   5467  CD1 ILE C 576      35.559  26.047  94.191  1.00 20.27
ATOM   5468  C   ILE C 576      31.959  29.441  95.100  1.00 14.09
ATOM   5469  O   ILE C 576      30.789  29.237  94.807  1.00 14.09
ATOM   5470  N   ARG C 577      32.332  30.007  96.242  1.00 16.40
ATOM   5471  CA  ARG C 577      31.353  30.439  97.233  1.00 16.40
ATOM   5472  CB  ARG C 577      32.055  31.046  98.448  1.00 24.21
ATOM   5473  CG  ARG C 577      31.131  31.362  99.623  1.00 24.21
ATOM   5474  CD  ARG C 577      30.944  30.134 100.518  1.00 24.21
ATOM   5475  NE  ARG C 577      29.721  29.415 100.210  1.00 24.21
ATOM   5476  CZ  ARG C 577      29.452  28.176 100.605  1.00 24.21
ATOM   5477  NH1 ARG C 577      30.324  27.486 101.332  1.00 24.21
ATOM   5478  NH2 ARG C 577      28.296  27.623 100.265  1.00 24.21
ATOM   5479  C   ARG C 577      30.383  31.468  96.646  1.00 16.40
ATOM   5480  O   ARG C 577      29.179  31.419  96.920  1.00 16.40
ATOM   5481  N   MET C 578      30.906  32.406  95.859  1.00 21.65
ATOM   5482  CA  MET C 578      30.073  33.434  95.243  1.00 21.65
ATOM   5483  CB  MET C 578      30.923  34.385  94.387  1.00 27.26
ATOM   5484  CG  MET C 578      31.914  35.224  95.192  1.00 27.26
ATOM   5485  SD  MET C 578      32.841  36.418  94.189  1.00 27.26
ATOM   5486  CE  MET C 578      34.473  36.301  94.906  1.00 27.26
ATOM   5487  C   MET C 578      29.000  32.774  94.385  1.00 21.65
ATOM   5488  O   MET C 578      27.811  33.060  94.538  1.00 21.65
ATOM   5489  N   PHE C 579      29.411  31.885  93.487  1.00 21.72
ATOM   5490  CA  PHE C 579      28.449  31.199  92.643  1.00 21.72
ATOM   5491  CB  PHE C 579      29.140  30.203  91.701  1.00 17.33
ATOM   5492  CG  PHE C 579      29.740  30.843  90.492  1.00 17.33
ATOM   5493  CD1 PHE C 579      31.001  31.434  90.556  1.00 17.33
ATOM   5494  CD2 PHE C 579      29.032  30.878  89.291  1.00 17.33
ATOM   5495  CE1 PHE C 579      31.557  32.055  89.431  1.00 17.33
ATOM   5496  CE2 PHE C 579      29.580  31.498  88.154  1.00 17.33
ATOM   5497  CZ  PHE C 579      30.847  32.087  88.227  1.00 17.33
ATOM   5498  C   PHE C 579      27.424  30.446  93.468  1.00 21.72
ATOM   5499  O   PHE C 579      26.225  30.512  93.189  1.00 21.72
ATOM   5500  N   THR C 580      27.898  29.722  94.476  1.00 22.41
ATOM   5501  CA  THR C 580      27.008  28.935  95.320  1.00 22.41
ATOM   5502  CB  THR C 580      27.781  28.129  96.367  1.00 19.17
ATOM   5503  OG1 THR C 580      28.875  27.445  95.745  1.00 19.17
ATOM   5504  CG2 THR C 580      26.854  27.112  97.027  1.00 19.17
ATOM   5505  C   THR C 580      25.987  29.785  96.073  1.00 22.41
ATOM   5506  O   THR C 580      24.785  29.557  95.959  1.00 22.41
ATOM   5507  N   ASP C 581      26.473  30.766  96.831  1.00 21.88
ATOM   5508  CA  ASP C 581      25.605  31.618  97.627  1.00 21.88
ATOM   5509  CB  ASP C 581      26.460  32.451  98.590  1.00 33.27
ATOM   5510  CG  ASP C 581      26.876  31.654  99.824  1.00 33.27
ATOM   5511  OD1 ASP C 581      27.105  30.427  99.693  1.00 33.27
ATOM   5512  OD2 ASP C 581      26.976  32.244 100.921  1.00 33.27
ATOM   5513  C   ASP C 581      24.587  32.487  96.876  1.00 21.88
ATOM   5514  O   ASP C 581      23.652  33.010  97.489  1.00 21.88
ATOM   5515  N   LEU C 582      24.764  32.632  95.565  1.00 22.41
ATOM   5516  CA  LEU C 582      23.829  33.391  94.727  1.00 22.41
ATOM   5517  CB  LEU C 582      24.567  34.182  93.636  1.00 24.93
ATOM   5518  CG  LEU C 582      25.309  35.450  94.060  1.00 24.93
ATOM   5519  CD1 LEU C 582      26.042  36.031  92.846  1.00 24.93
ATOM   5520  CD2 LEU C 582      24.318  36.465  94.639  1.00 24.93
ATOM   5521  C   LEU C 582      22.893  32.385  94.066  1.00 22.41
ATOM   5522  O   LEU C 582      22.102  32.727  93.183  1.00 22.41
ATOM   5523  N   ASN C 583      23.020  31.135  94.501  1.00 23.47
ATOM   5524  CA  ASN C 583      22.211  30.028  94.011  1.00 23.47
ATOM   5525  CB  ASN C 583      20.729  30.295  94.278  1.00 43.35
ATOM   5526  CG  ASN C 583      20.415  30.411  95.756  1.00 43.35
ATOM   5527  OD1 ASN C 583      20.774  29.541  96.552  1.00 43.35
ATOM   5528  ND2 ASN C 583      19.734  31.485  96.131  1.00 43.35
ATOM   5529  C   ASN C 583      22.402  29.743  92.534  1.00 23.47
ATOM   5530  O   ASN C 583      21.492  29.260  91.878  1.00 23.47
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ATOM	5531	N	LEU	C	584	23.589	30.025	92.013	1.00	22.65
ATOM	5532	CA	LEU	C	584	23.869	29.793	90.598	1.00	22.65
ATOM	5533	CB	LEU	C	584	25.038	30.681	90.147	1.00	28.84
ATOM	5534	CG	LEU	C	584	24.740	32.022	89.464	1.00	28.84
ATOM	5535	CD1	LEU	C	584	23.409	32.567	89.910	1.00	28.84
ATOM	5536	CD2	LEU	C	584	25.861	33.010	89.770	1.00	28.84
ATOM	5537	C	LEU	C	584	24.184	28.324	90.329	1.00	22.65
ATOM	5538	O	LEU	C	584	23.824	27.779	89.280	1.00	22.65
ATOM	5539	N	VAL	C	585	24.857	27.683	91.279	1.00	23.78
ATOM	5540	CA	VAL	C	585	25.209	26.275	91.129	1.00	23.78
ATOM	5541	CB	VAL	C	585	26.115	25.788	92.280	1.00	34.51
ATOM	5542	CG1	VAL	C	585	26.428	24.311	92.099	1.00	34.51
ATOM	5543	CG2	VAL	C	585	27.404	26.606	92.324	1.00	34.51
ATOM	5544	C	VAL	C	585	23.917	25.472	91.169	1.00	23.78
ATOM	5545	O	VAL	C	585	23.704	24.554	90.374	1.00	23.78
ATOM	5546	N	GLN	C	586	23.052	25.857	92.097	1.00	35.08
ATOM	5547	CA	GLN	C	586	21.771	25.198	92.307	1.00	35.08
ATOM	5548	CB	GLN	C	586	21.149	25.704	93.609	1.00	49.18
ATOM	5549	CG	GLN	C	586	19.873	25.002	94.001	1.00	49.18
ATOM	5550	CD	GLN	C	586	19.241	25.631	95.215	1.00	49.18
ATOM	5551	OE1	GLN	C	586	18.575	26.663	95.122	1.00	49.18
ATOM	5552	NE2	GLN	C	586	19.466	25.025	96.375	1.00	49.18
ATOM	5553	C	GLN	C	586	20.770	25.386	91.179	1.00	35.08
ATOM	5554	O	GLN	C	586	20.317	24.419	90.574	1.00	35.08
ATOM	5555	N	ASN	C	587	20.425	26.639	90.905	1.00	37.37
ATOM	5556	CA	ASN	C	587	19.443	26.956	89.879	1.00	37.37
ATOM	5557	CB	ASN	C	587	19.077	28.443	89.965	1.00	41.78
ATOM	5558	CG	ASN	C	587	18.246	28.769	91.202	1.00	41.78
ATOM	5559	OD1	ASN	C	587	18.060	29.937	91.551	1.00	41.78
ATOM	5560	ND2	ASN	C	587	17.735	27.735	91.863	1.00	41.78
ATOM	5561	C	ASN	C	587	19.798	26.584	88.441	1.00	37.37
ATOM	5562	O	ASN	C	587	18.903	26.351	87.631	1.00	37.37
ATOM	5563	N	PHE	C	588	21.085	26.517	88.113	1.00	38.61
ATOM	5564	CA	PHE	C	588	21.471	26.171	86.746	1.00	38.61
ATOM	5565	CB	PHE	C	588	22.236	27.335	86.110	1.00	25.90
ATOM	5566	CG	PHE	C	588	21.472	28.637	86.122	1.00	25.90
ATOM	5567	CD1	PHE	C	588	21.835	29.666	86.976	1.00	25.90
ATOM	5568	CD2	PHE	C	588	20.383	28.825	85.282	1.00	25.90
ATOM	5569	CE1	PHE	C	588	21.128	30.863	86.994	1.00	25.90
ATOM	5570	CE2	PHE	C	588	19.671	30.020	85.294	1.00	25.90
ATOM	5571	CZ	PHE	C	588	20.044	31.040	86.150	1.00	25.90
ATOM	5572	C	PHE	C	588	22.272	24.874	86.642	1.00	38.61
ATOM	5573	O	PHE	C	588	23.070	24.689	85.723	1.00	38.61
ATOM	5574	N	GLN	C	589	22.038	23.979	87.597	1.00	30.52
ATOM	5575	CA	GLN	C	589	22.680	22.663	87.656	1.00	30.52
ATOM	5576	CB	GLN	C	589	21.914	21.667	86.773	1.00	47.17
ATOM	5577	CG	GLN	C	589	20.415	21.609	87.029	1.00	47.17
ATOM	5578	CD	GLN	C	589	19.668	22.778	86.416	1.00	47.17
ATOM	5579	OE1	GLN	C	589	19.667	22.958	85.198	1.00	47.17
ATOM	5580	NE2	GLN	C	589	19.025	23.576	87.258	1.00	47.17
ATOM	5581	C	GLN	C	589	24.164	22.601	87.292	1.00	30.52
ATOM	5582	O	GLN	C	589	24.587	21.754	86.511	1.00	30.52
ATOM	5583	N	MET	C	590	24.964	23.479	87.873	1.00	27.01
ATOM	5584	CA	MET	C	590	26.392	23.471	87.593	1.00	27.01
ATOM	5585	CB	MET	C	590	27.018	24.779	88.046	1.00	26.18
ATOM	5586	CG	MET	C	590	26.711	25.939	87.138	1.00	26.18
ATOM	5587	SD	MET	C	590	27.570	27.392	87.704	1.00	26.18
ATOM	5588	CE	MET	C	590	26.558	28.669	86.957	1.00	26.18
ATOM	5589	C	MET	C	590	27.125	22.312	88.254	1.00	27.01
ATOM	5590	O	MET	C	590	27.025	22.104	89.467	1.00	27.01
ATOM	5591	N	LYS	C	591	27.861	21.553	87.448	1.00	29.39
ATOM	5592	CA	LYS	C	591	28.635	20.436	87.976	1.00	29.39
ATOM	5593	CB	LYS	C	591	29.106	19.528	86.840	1.00	73.93
ATOM	5594	CG	LYS	C	591	29.228	18.051	87.202	1.00	73.93
ATOM	5595	CD	LYS	C	591	29.893	17.814	88.560	1.00	73.93
ATOM	5596	CE	LYS	C	591	28.882	17.878	89.723	1.00	73.93

ATOM	5597	NZ	LYS	C	591	29.484	17.574	91.060	1.00	73.93
ATOM	5598	C	LYS	C	591	29.846	21.065	88.673	1.00	29.39
ATOM	5599	O	LYS	C	591	30.452	21.991	88.139	1.00	29.39
ATOM	5600	N	HIS	C	592	30.206	20.555	89.846	1.00	25.95
ATOM	5601	CA	HIS	C	592	31.322	21.110	90.615	1.00	25.95
ATOM	5602	CB	HIS	C	592	31.386	20.460	92.006	1.00	24.15
ATOM	5603	CG	HIS	C	592	32.351	21.125	92.943	1.00	24.15
ATOM	5604	CD2	HIS	C	592	32.301	22.324	93.571	1.00	24.15
ATOM	5605	ND1	HIS	C	592	33.545	20.546	93.323	1.00	24.15
ATOM	5606	CE1	HIS	C	592	34.186	21.359	94.144	1.00	24.15
ATOM	5607	NE2	HIS	C	592	33.453	22.444	94.310	1.00	24.15
ATOM	5608	C	HIS	C	592	32.702	21.053	89.965	1.00	25.95
ATOM	5609	O	HIS	C	592	33.510	21.949	90.174	1.00	25.95
ATOM	5610	N	GLU	C	593	32.989	20.011	89.189	1.00	22.50
ATOM	5611	CA	GLU	C	593	34.296	19.934	88.557	1.00	22.50
ATOM	5612	CB	GLU	C	593	34.601	18.506	88.064	1.00	38.90
ATOM	5613	CG	GLU	C	593	33.474	17.478	88.207	1.00	38.90
ATOM	5614	CD	GLU	C	593	33.260	17.000	89.636	1.00	38.90
ATOM	5615	OE1	GLU	C	593	34.214	16.494	90.260	1.00	38.90
ATOM	5616	OE2	GLU	C	593	32.131	17.119	90.133	1.00	38.90
ATOM	5617	C	GLU	C	593	34.358	20.922	87.388	1.00	22.50
ATOM	5618	O	GLU	C	593	35.424	21.460	87.072	1.00	22.50
ATOM	5619	N	VAL	C	594	33.207	21.163	86.762	1.00	21.05
ATOM	5620	CA	VAL	C	594	33.121	22.082	85.640	1.00	21.05
ATOM	5621	CB	VAL	C	594	31.739	21.963	84.931	1.00	16.48
ATOM	5622	CG1	VAL	C	594	31.673	22.894	83.717	1.00	16.48
ATOM	5623	CG2	VAL	C	594	31.511	20.520	84.475	1.00	16.48
ATOM	5624	C	VAL	C	594	33.344	23.516	86.150	1.00	21.05
ATOM	5625	O	VAL	C	594	34.164	24.262	85.602	1.00	21.05
ATOM	5626	N	LEU	C	595	32.633	23.887	87.213	1.00	23.38
ATOM	5627	CA	LEU	C	595	32.772	25.218	87.783	1.00	23.38
ATOM	5628	CB	LEU	C	595	31.873	25.372	89.013	1.00	20.79
ATOM	5629	CG	LEU	C	595	32.015	26.701	89.780	1.00	20.79
ATOM	5630	CD1	LEU	C	595	31.747	27.860	88.841	1.00	20.79
ATOM	5631	CD2	LEU	C	595	31.047	26.748	90.950	1.00	20.79
ATOM	5632	C	LEU	C	595	34.227	25.476	88.173	1.00	23.38
ATOM	5633	O	LEU	C	595	34.751	26.578	87.969	1.00	23.38
ATOM	5634	N	CYS	C	596	34.870	24.458	88.741	1.00	18.76
ATOM	5635	CA	CYS	C	596	36.269	24.577	89.163	1.00	18.76
ATOM	5636	CB	CYS	C	596	36.717	23.305	89.898	1.00	21.57
ATOM	5637	SG	CYS	C	596	35.975	23.073	91.541	1.00	21.57
ATOM	5638	C	CYS	C	596	37.199	24.839	87.979	1.00	18.76
ATOM	5639	O	CYS	C	596	38.025	25.751	88.030	1.00	18.76
ATOM	5640	N	ARG	C	597	37.069	24.043	86.917	1.00	17.48
ATOM	5641	CA	ARG	C	597	37.916	24.208	85.736	1.00	17.48
ATOM	5642	CB	ARG	C	597	37.676	23.074	84.711	1.00	24.01
ATOM	5643	CG	ARG	C	597	38.214	21.716	85.151	1.00	24.01
ATOM	5644	CD	ARG	C	597	38.024	20.616	84.085	1.00	24.01
ATOM	5645	NE	ARG	C	597	36.617	20.273	83.926	1.00	24.01
ATOM	5646	CZ	ARG	C	597	36.065	19.159	84.393	1.00	24.01
ATOM	5647	NH1	ARG	C	597	36.811	18.276	85.044	1.00	24.01
ATOM	5648	NH2	ARG	C	597	34.766	18.933	84.217	1.00	24.01
ATOM	5649	C	ARG	C	597	37.660	25.566	85.089	1.00	17.48
ATOM	5650	O	ARG	C	597	38.594	26.247	84.685	1.00	17.48
ATOM	5651	N	TRP	C	598	36.392	25.959	84.999	1.00	20.08
ATOM	5652	CA	TRP	C	598	36.052	27.251	84.416	1.00	20.08
ATOM	5653	CB	TRP	C	598	34.537	27.483	84.432	1.00	13.69
ATOM	5654	CG	TRP	C	598	34.145	28.795	83.802	1.00	13.69
ATOM	5655	CD2	TRP	C	598	33.914	30.043	84.478	1.00	13.69
ATOM	5656	CE2	TRP	C	598	33.588	31.000	83.491	1.00	13.69
ATOM	5657	CE3	TRP	C	598	33.953	30.442	85.821	1.00	13.69
ATOM	5658	CD1	TRP	C	598	33.958	29.045	82.470	1.00	13.69
ATOM	5659	NE1	TRP	C	598	33.619	30.365	82.278	1.00	13.69
ATOM	5660	CZ2	TRP	C	598	33.303	32.335	83.800	1.00	13.69
ATOM	5661	CZ3	TRP	C	598	33.667	31.770	86.134	1.00	13.69
ATOM	5662	CH2	TRP	C	598	33.346	32.702	85.123	1.00	13.69

ATOM	5663	C	TRP	C	598	36.727	28.380	85.192	1.00	20.08
ATOM	5664	O	TRP	C	598	37.308	29.298	84.593	1.00	20.08
ATOM	5665	N	ILE	C	599	36.645	28.324	86.522	1.00	12.62
ATOM	5666	CA	ILE	C	599	37.260	29.369	87.341	1.00	12.62
ATOM	5667	CB	ILE	C	599	37.007	29.157	88.850	1.00	14.17
ATOM	5668	CG2	ILE	C	599	37.922	30.088	89.661	1.00	14.17
ATOM	5669	CG1	ILE	C	599	35.533	29.427	89.179	1.00	14.17
ATOM	5670	CD1	ILE	C	599	35.134	29.078	90.611	1.00	14.17
ATOM	5671	C	ILE	C	599	38.767	29.419	87.106	1.00	12.62
ATOM	5672	O	ILE	C	599	39.329	30.493	86.943	1.00	12.62
ATOM	5673	N	LEU	C	600	39.418	28.260	87.085	1.00	23.12
ATOM	5674	CA	LEU	C	600	40.861	28.216	86.861	1.00	23.12
ATOM	5675	CB	LEU	C	600	41.418	26.810	87.140	1.00	19.50
ATOM	5676	CG	LEU	C	600	41.258	26.273	88.571	1.00	19.50
ATOM	5677	CD1	LEU	C	600	41.846	24.880	88.679	1.00	19.50
ATOM	5678	CD2	LEU	C	600	41.951	27.216	89.555	1.00	19.50
ATOM	5679	C	LEU	C	600	41.200	28.641	85.430	1.00	23.12
ATOM	5680	O	LEU	C	600	42.251	29.224	85.190	1.00	23.12
ATOM	5681	N	SER	C	601	40.316	28.352	84.478	1.00	22.12
ATOM	5682	CA	SER	C	601	40.577	28.743	83.095	1.00	22.12
ATOM	5683	CB	SER	C	601	39.567	28.085	82.157	1.00	18.02
ATOM	5684	OG	SER	C	601	39.773	26.685	82.102	1.00	18.02
ATOM	5685	C	SER	C	601	40.527	30.269	82.948	1.00	22.12
ATOM	5686	O	SER	C	601	41.282	30.856	82.179	1.00	22.12
ATOM	5687	N	VAL	C	602	39.643	30.911	83.697	1.00	16.04
ATOM	5688	CA	VAL	C	602	39.532	32.359	83.642	1.00	16.04
ATOM	5689	CB	VAL	C	602	38.265	32.840	84.387	1.00	15.17
ATOM	5690	CG1	VAL	C	602	38.299	34.341	84.557	1.00	15.17
ATOM	5691	CG2	VAL	C	602	37.022	32.416	83.611	1.00	15.17
ATOM	5692	C	VAL	C	602	40.773	32.954	84.304	1.00	16.04
ATOM	5693	O	VAL	C	602	41.452	33.809	83.734	1.00	16.04
ATOM	5694	N	LYS	C	603	41.067	32.478	85.510	1.00	21.06
ATOM	5695	CA	LYS	C	603	42.219	32.950	86.263	1.00	21.06
ATOM	5696	CB	LYS	C	603	42.392	32.104	87.533	1.00	30.53
ATOM	5697	CG	LYS	C	603	43.396	32.641	88.560	1.00	30.53
ATOM	5698	CD	LYS	C	603	44.822	32.241	88.230	1.00	30.53
ATOM	5699	CE	LYS	C	603	45.419	31.356	89.326	1.00	30.53
ATOM	5700	NZ	LYS	C	603	44.567	30.170	89.619	1.00	30.53
ATOM	5701	C	LYS	C	603	43.462	32.842	85.392	1.00	21.06
ATOM	5702	O	LYS	C	603	44.250	33.779	85.287	1.00	21.06
ATOM	5703	N	LYS	C	604	43.634	31.687	84.769	1.00	24.13
ATOM	5704	CA	LYS	C	604	44.802	31.456	83.925	1.00	24.13
ATOM	5705	CB	LYS	C	604	44.813	29.997	83.445	1.00	69.74
ATOM	5706	CG	LYS	C	604	45.985	29.618	82.540	1.00	69.74
ATOM	5707	CD	LYS	C	604	47.292	29.340	83.296	1.00	69.74
ATOM	5708	CE	LYS	C	604	47.892	30.580	83.981	1.00	69.74
ATOM	5709	NZ	LYS	C	604	47.320	30.867	85.338	1.00	69.74
ATOM	5710	C	LYS	C	604	44.867	32.399	82.719	1.00	24.13
ATOM	5711	O	LYS	C	604	45.953	32.718	82.237	1.00	24.13
ATOM	5712	N	ASN	C	605	43.709	32.850	82.246	1.00	24.34
ATOM	5713	CA	ASN	C	605	43.652	33.721	81.075	1.00	24.34
ATOM	5714	CB	ASN	C	605	42.261	33.666	80.445	1.00	95.06
ATOM	5715	CG	ASN	C	605	42.273	34.050	78.977	1.00	95.06
ATOM	5716	OD1	ASN	C	605	42.757	33.296	78.130	1.00	95.06
ATOM	5717	ND2	ASN	C	605	41.752	35.233	78.669	1.00	95.06
ATOM	5718	C	ASN	C	605	44.039	35.184	81.333	1.00	24.34
ATOM	5719	O	ASN	C	605	44.021	36.002	80.410	1.00	24.34
ATOM	5720	N	TYR	C	606	44.357	35.521	82.579	1.00	21.87
ATOM	5721	CA	TYR	C	606	44.788	36.879	82.900	1.00	21.87
ATOM	5722	CB	TYR	C	606	44.189	37.354	84.233	1.00	18.46
ATOM	5723	CG	TYR	C	606	42.752	37.825	84.127	1.00	18.46
ATOM	5724	CD1	TYR	C	606	41.689	36.946	84.346	1.00	18.46
ATOM	5725	CE1	TYR	C	606	40.375	37.374	84.242	1.00	18.46
ATOM	5726	CD2	TYR	C	606	42.456	39.151	83.795	1.00	18.46
ATOM	5727	CE2	TYR	C	606	41.145	39.583	83.681	1.00	18.46
ATOM	5728	CZ	TYR	C	606	40.110	38.691	83.906	1.00	18.46

ATOM	5729	OH	TYR	C	606	38.806	39.116	83.786	1.00	18.46
ATOM	5730	C	TYR	C	606	46.313	36.863	82.993	1.00	21.87
ATOM	5731	O	TYR	C	606	46.911	35.826	83.287	1.00	21.87
ATOM	5732	N	ARG	C	607	46.945	38.006	82.756	1.00	29.80
ATOM	5733	CA	ARG	C	607	48.403	38.081	82.807	1.00	29.80
ATOM	5734	CB	ARG	C	607	48.917	38.855	81.595	1.00	45.81
ATOM	5735	CG	ARG	C	607	48.172	38.534	80.328	1.00	45.81
ATOM	5736	CD	ARG	C	607	49.102	38.478	79.146	1.00	45.81
ATOM	5737	NE	ARG	C	607	48.390	38.055	77.950	1.00	45.81
ATOM	5738	CZ	ARG	C	607	48.975	37.523	76.883	1.00	45.81
ATOM	5739	NH1	ARG	C	607	50.293	37.346	76.868	1.00	45.81
ATOM	5740	NH2	ARG	C	607	48.242	37.167	75.833	1.00	45.81
ATOM	5741	C	ARG	C	607	48.915	38.748	84.074	1.00	29.80
ATOM	5742	O	ARG	C	607	48.652	39.925	84.302	1.00	29.80
ATOM	5743	N	LYS	C	608	49.656	38.013	84.900	1.00	43.67
ATOM	5744	CA	LYS	C	608	50.186	38.609	86.123	1.00	43.67
ATOM	5745	CB	LYS	C	608	50.794	37.542	87.039	1.00	75.89
ATOM	5746	CG	LYS	C	608	49.809	36.462	87.483	1.00	75.89
ATOM	5747	CD	LYS	C	608	48.456	37.040	87.916	1.00	75.89
ATOM	5748	CE	LYS	C	608	48.576	37.992	89.102	1.00	75.89
ATOM	5749	NZ	LYS	C	608	47.242	38.504	89.534	1.00	75.89
ATOM	5750	C	LYS	C	608	51.243	39.612	85.696	1.00	43.67
ATOM	5751	O	LYS	C	608	51.749	40.392	86.495	1.00	43.67
ATOM	5752	N	ASN	C	609	51.542	39.573	84.404	1.00	48.10
ATOM	5753	CA	ASN	C	609	52.504	40.443	83.745	1.00	48.10
ATOM	5754	CB	ASN	C	609	52.698	39.923	82.316	1.00	67.98
ATOM	5755	CG	ASN	C	609	53.631	40.777	81.499	1.00	67.98
ATOM	5756	OD1	ASN	C	609	53.620	40.717	80.270	1.00	67.98
ATOM	5757	ND2	ASN	C	609	54.456	41.568	82.172	1.00	67.98
ATOM	5758	C	ASN	C	609	52.006	41.906	83.720	1.00	48.10
ATOM	5759	O	ASN	C	609	52.803	42.845	83.631	1.00	48.10
ATOM	5760	N	VAL	C	610	50.687	42.084	83.794	1.00	27.07
ATOM	5761	CA	VAL	C	610	50.060	43.403	83.773	1.00	27.07
ATOM	5762	CB	VAL	C	610	48.718	43.356	83.000	1.00	24.10
ATOM	5763	CG1	VAL	C	610	48.118	44.743	82.891	1.00	24.10
ATOM	5764	CG2	VAL	C	610	48.943	42.764	81.621	1.00	24.10
ATOM	5765	C	VAL	C	610	49.817	43.802	85.220	1.00	27.07
ATOM	5766	O	VAL	C	610	49.211	43.052	85.977	1.00	27.07
ATOM	5767	N	ALA	C	611	50.284	44.990	85.592	1.00	23.53
ATOM	5768	CA	ALA	C	611	50.185	45.477	86.967	1.00	23.53
ATOM	5769	CB	ALA	C	611	50.877	46.841	87.076	1.00	32.47
ATOM	5770	C	ALA	C	611	48.802	45.552	87.616	1.00	23.53
ATOM	5771	O	ALA	C	611	48.626	45.079	88.730	1.00	23.53
ATOM	5772	N	TYR	C	612	47.829	46.142	86.934	1.00	21.81
ATOM	5773	CA	TYR	C	612	46.501	46.276	87.509	1.00	21.81
ATOM	5774	CB	TYR	C	612	46.037	47.734	87.425	1.00	24.76
ATOM	5775	CG	TYR	C	612	44.621	47.946	87.922	1.00	24.76
ATOM	5776	CD1	TYR	C	612	43.631	48.446	87.077	1.00	24.76
ATOM	5777	CE1	TYR	C	612	42.321	48.633	87.532	1.00	24.76
ATOM	5778	CD2	TYR	C	612	44.270	47.638	89.234	1.00	24.76
ATOM	5779	CE2	TYR	C	612	42.963	47.821	89.701	1.00	24.76
ATOM	5780	CZ	TYR	C	612	41.995	48.318	88.847	1.00	24.76
ATOM	5781	OH	TYR	C	612	40.707	48.504	89.303	1.00	24.76
ATOM	5782	C	TYR	C	612	45.440	45.372	86.886	1.00	21.81
ATOM	5783	O	TYR	C	612	44.763	44.632	87.599	1.00	21.81
ATOM	5784	N	HIS	C	613	45.278	45.441	85.566	1.00	21.44
ATOM	5785	CA	HIS	C	613	44.276	44.618	84.899	1.00	21.44
ATOM	5786	CB	HIS	C	613	43.955	45.184	83.515	1.00	19.43
ATOM	5787	CG	HIS	C	613	43.204	46.482	83.549	1.00	19.43
ATOM	5788	CD2	HIS	C	613	41.892	46.748	83.766	1.00	19.43
ATOM	5789	ND1	HIS	C	613	43.807	47.700	83.316	1.00	19.43
ATOM	5790	CE1	HIS	C	613	42.900	48.658	83.383	1.00	19.43
ATOM	5791	NE2	HIS	C	613	41.729	48.107	83.654	1.00	19.43
ATOM	5792	C	HIS	C	613	44.716	43.160	84.794	1.00	21.44
ATOM	5793	O	HIS	C	613	45.196	42.707	83.753	1.00	21.44
ATOM	5794	N	ASN	C	614	44.540	42.438	85.897	1.00	19.58

ATOM	5795	CA	ASN	C	614	44.909	41.031	86.006	1.00	19.58
ATOM	5796	CB	ASN	C	614	46.238	40.907	86.753	1.00	24.15
ATOM	5797	CG	ASN	C	614	46.260	41.731	88.024	1.00	24.15
ATOM	5798	OD1	ASN	C	614	45.423	41.548	88.905	1.00	24.15
ATOM	5799	ND2	ASN	C	614	47.218	42.648	88.123	1.00	24.15
ATOM	5800	C	ASN	C	614	43.811	40.303	86.772	1.00	19.58
ATOM	5801	O	ASN	C	614	42.774	40.884	87.053	1.00	19.58
ATOM	5802	N	TRP	C	615	44.042	39.040	87.117	1.00	18.41
ATOM	5803	CA	TRP	C	615	43.045	38.240	87.835	1.00	18.41
ATOM	5804	CB	TRP	C	615	43.606	36.846	88.136	1.00	18.77
ATOM	5805	CG	TRP	C	615	42.868	36.089	89.210	1.00	18.77
ATOM	5806	CD2	TRP	C	615	41.505	35.620	89.176	1.00	18.77
ATOM	5807	CE2	TRP	C	615	41.259	34.973	90.405	1.00	18.77
ATOM	5808	CE3	TRP	C	615	40.474	35.686	88.229	1.00	18.77
ATOM	5809	CD1	TRP	C	615	43.366	35.715	90.418	1.00	18.77
ATOM	5810	NE1	TRP	C	615	42.412	35.047	91.139	1.00	18.77
ATOM	5811	CZ2	TRP	C	615	40.021	34.391	90.722	1.00	18.77
ATOM	5812	CZ3	TRP	C	615	39.236	35.104	88.541	1.00	18.77
ATOM	5813	CH2	TRP	C	615	39.026	34.465	89.783	1.00	18.77
ATOM	5814	C	TRP	C	615	42.514	38.868	89.128	1.00	18.41
ATOM	5815	O	TRP	C	615	41.312	38.897	89.352	1.00	18.41
ATOM	5816	N	ARG	C	616	43.401	39.376	89.971	1.00	22.97
ATOM	5817	CA	ARG	C	616	42.961	39.966	91.225	1.00	22.97
ATOM	5818	CB	ARG	C	616	44.179	40.440	92.031	1.00	21.57
ATOM	5819	CG	ARG	C	616	45.106	39.285	92.443	1.00	21.57
ATOM	5820	CD	ARG	C	616	44.328	38.232	93.247	1.00	21.57
ATOM	5821	NE	ARG	C	616	45.113	37.070	93.669	1.00	21.57
ATOM	5822	CZ	ARG	C	616	45.587	36.872	94.900	1.00	21.57
ATOM	5823	NH1	ARG	C	616	45.376	37.763	95.859	1.00	21.57
ATOM	5824	NH2	ARG	C	616	46.240	35.749	95.185	1.00	21.57
ATOM	5825	C	ARG	C	616	41.961	41.100	90.991	1.00	22.97
ATOM	5826	O	ARG	C	616	40.984	41.232	91.725	1.00	22.97
ATOM	5827	N	HIS	C	617	42.190	41.912	89.966	1.00	10.90
ATOM	5828	CA	HIS	C	617	41.264	42.996	89.673	1.00	10.90
ATOM	5829	CB	HIS	C	617	41.771	43.833	88.506	1.00	12.73
ATOM	5830	CG	HIS	C	617	40.705	44.677	87.884	1.00	12.73
ATOM	5831	CD2	HIS	C	617	40.168	44.666	86.640	1.00	12.73
ATOM	5832	ND1	HIS	C	617	40.047	45.669	88.576	1.00	12.73
ATOM	5833	CE1	HIS	C	617	39.152	46.236	87.789	1.00	12.73
ATOM	5834	NE2	HIS	C	617	39.208	45.647	86.607	1.00	12.73
ATOM	5835	C	HIS	C	617	39.868	42.435	89.302	1.00	10.90
ATOM	5836	O	HIS	C	617	38.839	42.927	89.786	1.00	10.90
ATOM	5837	N	ALA	C	618	39.852	41.434	88.419	1.00	19.10
ATOM	5838	CA	ALA	C	618	38.611	40.795	87.990	1.00	19.10
ATOM	5839	CB	ALA	C	618	38.908	39.701	86.969	1.00	10.84
ATOM	5840	C	ALA	C	618	37.926	40.180	89.206	1.00	19.10
ATOM	5841	O	ALA	C	618	36.711	40.320	89.391	1.00	19.10
ATOM	5842	N	PHE	C	619	38.726	39.484	90.013	1.00	18.20
ATOM	5843	CA	PHE	C	619	38.246	38.839	91.225	1.00	18.20
ATOM	5844	CB	PHE	C	619	39.398	38.073	91.902	1.00	19.79
ATOM	5845	CG	PHE	C	619	39.056	37.535	93.274	1.00	19.79
ATOM	5846	CD1	PHE	C	619	38.130	36.507	93.430	1.00	19.79
ATOM	5847	CD2	PHE	C	619	39.648	38.077	94.417	1.00	19.79
ATOM	5848	CE1	PHE	C	619	37.796	36.028	94.699	1.00	19.79
ATOM	5849	CE2	PHE	C	619	39.314	37.597	95.693	1.00	19.79
ATOM	5850	CZ	PHE	C	619	38.387	36.574	95.827	1.00	19.79
ATOM	5851	C	PHE	C	619	37.662	39.869	92.196	1.00	18.20
ATOM	5852	O	PHE	C	619	36.652	39.603	92.852	1.00	18.20
ATOM	5853	N	ASN	C	620	38.298	41.036	92.294	1.00	15.61
ATOM	5854	CA	ASN	C	620	37.822	42.083	93.195	1.00	15.61
ATOM	5855	CB	ASN	C	620	38.845	43.215	93.304	1.00	23.72
ATOM	5856	CG	ASN	C	620	39.989	42.875	94.230	1.00	23.72
ATOM	5857	OD1	ASN	C	620	41.096	43.376	94.069	1.00	23.72
ATOM	5858	ND2	ASN	C	620	39.724	42.033	95.223	1.00	23.72
ATOM	5859	C	ASN	C	620	36.506	42.641	92.665	1.00	15.61
ATOM	5860	O	ASN	C	620	35.606	42.962	93.439	1.00	15.61

ATOM	5861	N	THR	C	621	36.413	42.740	91.341	1.00	12.49
ATOM	5862	CA	THR	C	621	35.216	43.233	90.691	1.00	12.49
ATOM	5863	CB	THR	C	621	35.402	43.343	89.175	1.00	22.51
ATOM	5864	OG1	THR	C	621	36.520	44.190	88.883	1.00	22.51
ATOM	5865	CG2	THR	C	621	34.153	43.922	88.547	1.00	22.51
ATOM	5866	C	THR	C	621	34.053	42.285	90.960	1.00	12.49
ATOM	5867	O	THR	C	621	32.951	42.724	91.259	1.00	12.49
ATOM	5868	N	ALA	C	622	34.301	40.983	90.830	1.00	16.64
ATOM	5869	CA	ALA	C	622	33.264	39.998	91.096	1.00	16.64
ATOM	5870	CB	ALA	C	622	33.758	38.598	90.761	1.00	13.31
ATOM	5871	C	ALA	C	622	32.851	40.051	92.567	1.00	16.64
ATOM	5872	O	ALA	C	622	31.675	39.941	92.888	1.00	16.64
ATOM	5873	N	GLN	C	623	33.825	40.210	93.458	1.00	16.46
ATOM	5874	CA	GLN	C	623	33.541	40.249	94.883	1.00	16.46
ATOM	5875	CB	GLN	C	623	34.851	40.246	95.679	1.00	16.87
ATOM	5876	CG	GLN	C	623	34.708	40.283	97.203	1.00	16.87
ATOM	5877	CD	GLN	C	623	34.303	41.655	97.738	1.00	16.87
ATOM	5878	OE1	GLN	C	623	34.841	42.683	97.330	1.00	16.87
ATOM	5879	NE2	GLN	C	623	33.365	41.670	98.663	1.00	16.87
ATOM	5880	C	GLN	C	623	32.695	41.465	95.243	1.00	16.46
ATOM	5881	O	GLN	C	623	31.816	41.382	96.107	1.00	16.46
ATOM	5882	N	CYS	C	624	32.955	42.594	94.587	1.00	15.16
ATOM	5883	CA	CYS	C	624	32.186	43.800	94.865	1.00	15.16
ATOM	5884	CB	CYS	C	624	32.803	45.025	94.186	1.00	24.20
ATOM	5885	SG	CYS	C	624	31.845	46.544	94.476	1.00	24.20
ATOM	5886	C	CYS	C	624	30.766	43.606	94.359	1.00	15.16
ATOM	5887	O	CYS	C	624	29.812	44.138	94.929	1.00	15.16
ATOM	5888	N	MET	C	625	30.641	42.843	93.281	1.00	20.85
ATOM	5889	CA	MET	C	625	29.347	42.537	92.687	1.00	20.85
ATOM	5890	CB	MET	C	625	29.549	41.801	91.357	1.00	24.84
ATOM	5891	CG	MET	C	625	28.268	41.362	90.633	1.00	24.84
ATOM	5892	SD	MET	C	625	27.196	42.710	90.045	1.00	24.84
ATOM	5893	CE	MET	C	625	28.201	43.411	88.702	1.00	24.84
ATOM	5894	C	MET	C	625	28.598	41.651	93.686	1.00	20.85
ATOM	5895	O	MET	C	625	27.433	41.889	93.996	1.00	20.85
ATOM	5896	N	PHE	C	626	29.273	40.631	94.202	1.00	20.94
ATOM	5897	CA	PHE	C	626	28.641	39.749	95.173	1.00	20.94
ATOM	5898	CB	PHE	C	626	29.608	38.645	95.608	1.00	24.98
ATOM	5899	CG	PHE	C	626	29.060	37.741	96.685	1.00	24.98
ATOM	5900	CD1	PHE	C	626	29.397	37.941	98.018	1.00	24.98
ATOM	5901	CD2	PHE	C	626	28.198	36.692	96.360	1.00	24.98
ATOM	5902	CE1	PHE	C	626	28.884	37.111	99.020	1.00	24.98
ATOM	5903	CE2	PHE	C	626	27.677	35.853	97.352	1.00	24.98
ATOM	5904	CZ	PHE	C	626	28.020	36.062	98.685	1.00	24.98
ATOM	5905	C	PHE	C	626	28.190	40.563	96.385	1.00	20.94
ATOM	5906	O	PHE	C	626	27.045	40.450	96.821	1.00	20.94
ATOM	5907	N	ALA	C	627	29.087	41.389	96.920	1.00	22.07
ATOM	5908	CA	ALA	C	627	28.754	42.212	98.078	1.00	22.07
ATOM	5909	CB	ALA	C	627	29.969	43.041	98.524	1.00	8.46
ATOM	5910	C	ALA	C	627	27.578	43.131	97.769	1.00	22.07
ATOM	5911	O	ALA	C	627	26.675	43.279	98.594	1.00	22.07
ATOM	5912	N	ALA	C	628	27.575	43.736	96.581	1.00	21.16
ATOM	5913	CA	ALA	C	628	26.493	44.640	96.210	1.00	21.16
ATOM	5914	CB	ALA	C	628	26.798	45.324	94.886	1.00	21.34
ATOM	5915	C	ALA	C	628	25.168	43.890	96.119	1.00	21.16
ATOM	5916	O	ALA	C	628	24.113	44.421	96.495	1.00	21.16
ATOM	5917	N	LEU	C	629	25.229	42.657	95.628	1.00	25.46
ATOM	5918	CA	LEU	C	629	24.042	41.829	95.492	1.00	25.46
ATOM	5919	CB	LEU	C	629	24.339	40.623	94.599	1.00	29.08
ATOM	5920	CG	LEU	C	629	24.577	40.941	93.121	1.00	29.08
ATOM	5921	CD1	LEU	C	629	25.050	39.704	92.386	1.00	29.08
ATOM	5922	CD2	LEU	C	629	23.289	41.467	92.508	1.00	29.08
ATOM	5923	C	LEU	C	629	23.533	41.346	96.855	1.00	25.46
ATOM	5924	O	LEU	C	629	22.327	41.357	97.103	1.00	25.46
ATOM	5925	N	LYS	C	630	24.454	40.943	97.731	1.00	24.24
ATOM	5926	CA	LYS	C	630	24.098	40.447	99.055	1.00	24.24

ATOM	5927	CB	LYS	C	630	25.152	39.460	99.553	1.00	37.86
ATOM	5928	CG	LYS	C	630	25.178	38.150	98.797	1.00	37.86
ATOM	5929	CD	LYS	C	630	23.858	37.399	98.929	1.00	37.86
ATOM	5930	CE	LYS	C	630	23.964	36.010	98.320	1.00	37.86
ATOM	5931	NZ	LYS	C	630	22.636	35.330	98.205	1.00	37.86
ATOM	5932	C	LYS	C	630	23.916	41.543	100.098	1.00	24.24
ATOM	5933	O	LYS	C	630	22.793	41.846	100.487	1.00	24.24
ATOM	5934	N	ALA	C	631	25.022	42.124	100.552	1.00	36.78
ATOM	5935	CA	ALA	C	631	24.990	43.178	101.562	1.00	36.78
ATOM	5936	CB	ALA	C	631	26.411	43.544	101.977	1.00	27.83
ATOM	5937	C	ALA	C	631	24.253	44.423	101.083	1.00	36.78
ATOM	5938	O	ALA	C	631	23.611	45.117	101.876	1.00	36.78
ATOM	5939	N	GLY	C	632	24.356	44.702	99.787	1.00	28.36
ATOM	5940	CA	GLY	C	632	23.700	45.865	99.210	1.00	28.36
ATOM	5941	C	GLY	C	632	22.273	45.569	98.785	1.00	28.36
ATOM	5942	O	GLY	C	632	21.594	46.428	98.240	1.00	28.36
ATOM	5943	N	LYS	C	633	21.831	44.337	99.024	1.00	33.17
ATOM	5944	CA	LYS	C	633	20.478	43.909	98.701	1.00	33.17
ATOM	5945	CB	LYS	C	633	19.472	44.629	99.603	1.00	53.01
ATOM	5946	CG	LYS	C	633	19.270	43.996	100.974	1.00	53.01
ATOM	5947	CD	LYS	C	633	20.474	44.158	101.881	1.00	53.01
ATOM	5948	CE	LYS	C	633	20.225	43.485	103.232	1.00	53.01
ATOM	5949	NZ	LYS	C	633	18.963	43.957	103.869	1.00	53.01
ATOM	5950	C	LYS	C	633	20.029	44.056	97.253	1.00	33.17
ATOM	5951	O	LYS	C	633	18.842	43.943	96.964	1.00	33.17
ATOM	5952	N	ILE	C	634	20.959	44.289	96.338	1.00	37.60
ATOM	5953	CA	ILE	C	634	20.581	44.434	94.938	1.00	37.60
ATOM	5954	CB	ILE	C	634	21.760	44.985	94.123	1.00	20.50
ATOM	5955	CG2	ILE	C	634	21.495	44.851	92.635	1.00	20.50
ATOM	5956	CG1	ILE	C	634	21.969	46.456	94.490	1.00	20.50
ATOM	5957	CD1	ILE	C	634	23.117	47.111	93.779	1.00	20.50
ATOM	5958	C	ILE	C	634	20.074	43.124	94.327	1.00	37.60
ATOM	5959	O	ILE	C	634	19.430	43.120	93.273	1.00	37.60
ATOM	5960	N	GLN	C	635	20.343	42.017	95.010	1.00	31.37
ATOM	5961	CA	GLN	C	635	19.932	40.695	94.546	1.00	31.37
ATOM	5962	CB	GLN	C	635	20.328	39.655	95.591	1.00	46.44
ATOM	5963	CG	GLN	C	635	20.084	38.215	95.189	1.00	46.44
ATOM	5964	CD	GLN	C	635	20.442	37.246	96.305	1.00	46.44
ATOM	5965	OE1	GLN	C	635	20.584	36.046	96.078	1.00	46.44
ATOM	5966	NE2	GLN	C	635	20.579	37.767	97.522	1.00	46.44
ATOM	5967	C	GLN	C	635	18.436	40.564	94.246	1.00	31.37
ATOM	5968	O	GLN	C	635	18.039	39.930	93.265	1.00	31.37
ATOM	5969	N	ASN	C	636	17.611	41.167	95.096	1.00	48.95
ATOM	5970	CA	ASN	C	636	16.160	41.094	94.960	1.00	48.95
ATOM	5971	CB	ASN	C	636	15.504	41.583	96.256	1.00	64.89
ATOM	5972	CG	ASN	C	636	16.088	40.914	97.492	1.00	64.89
ATOM	5973	OD1	ASN	C	636	16.041	39.690	97.631	1.00	64.89
ATOM	5974	ND2	ASN	C	636	16.646	41.717	98.394	1.00	64.89
ATOM	5975	C	ASN	C	636	15.605	41.881	93.776	1.00	48.95
ATOM	5976	O	ASN	C	636	14.444	41.715	93.408	1.00	48.95
ATOM	5977	N	LYS	C	637	16.434	42.728	93.175	1.00	32.44
ATOM	5978	CA	LYS	C	637	15.999	43.548	92.051	1.00	32.44
ATOM	5979	CB	LYS	C	637	16.569	44.959	92.207	1.00	45.25
ATOM	5980	CG	LYS	C	637	16.152	45.661	93.495	1.00	45.25
ATOM	5981	CD	LYS	C	637	16.985	46.915	93.740	1.00	45.25
ATOM	5982	CE	LYS	C	637	16.542	47.668	94.994	1.00	45.25
ATOM	5983	NZ	LYS	C	637	15.257	48.398	94.785	1.00	45.25
ATOM	5984	C	LYS	C	637	16.383	42.995	90.677	1.00	32.44
ATOM	5985	O	LYS	C	637	16.134	43.642	89.661	1.00	32.44
ATOM	5986	N	LEU	C	638	16.973	41.802	90.644	1.00	32.79
ATOM	5987	CA	LEU	C	638	17.404	41.184	89.388	1.00	32.79
ATOM	5988	CB	LEU	C	638	18.935	41.221	89.293	1.00	34.67
ATOM	5989	CG	LEU	C	638	19.646	42.560	89.469	1.00	34.67
ATOM	5990	CD1	LEU	C	638	21.147	42.335	89.415	1.00	34.67
ATOM	5991	CD2	LEU	C	638	19.207	43.533	88.385	1.00	34.67
ATOM	5992	C	LEU	C	638	16.943	39.726	89.229	1.00	32.79

ATOM	5993	O	LEU	C	638	16.658	39.045	90.215	1.00	32.79
ATOM	5994	N	THR	C	639	16.885	39.255	87.982	1.00	35.48
ATOM	5995	CA	THR	C	639	16.489	37.874	87.692	1.00	35.48
ATOM	5996	CB	THR	C	639	16.008	37.704	86.231	1.00	31.82
ATOM	5997	OG1	THR	C	639	17.091	37.986	85.337	1.00	31.82
ATOM	5998	CG2	THR	C	639	14.846	38.646	85.927	1.00	31.82
ATOM	5999	C	THR	C	639	17.713	36.983	87.873	1.00	35.48
ATOM	6000	O	THR	C	639	18.846	37.449	87.752	1.00	35.48
ATOM	6001	N	ASP	C	640	17.493	35.704	88.150	1.00	30.37
ATOM	6002	CA	ASP	C	640	18.610	34.782	88.329	1.00	30.37
ATOM	6003	CB	ASP	C	640	18.104	33.349	88.538	1.00	52.94
ATOM	6004	CG	ASP	C	640	17.186	33.217	89.745	1.00	52.94
ATOM	6005	OD1	ASP	C	640	15.995	33.582	89.627	1.00	52.94
ATOM	6006	OD2	ASP	C	640	17.652	32.757	90.812	1.00	52.94
ATOM	6007	C	ASP	C	640	19.510	34.839	87.092	1.00	30.37
ATOM	6008	O	ASP	C	640	20.730	34.706	87.188	1.00	30.37
ATOM	6009	N	LEU	C	641	18.894	35.049	85.933	1.00	33.73
ATOM	6010	CA	LEU	C	641	19.618	35.123	84.671	1.00	33.73
ATOM	6011	CB	LEU	C	641	18.627	35.139	83.506	1.00	38.47
ATOM	6012	CG	LEU	C	641	18.564	33.867	82.651	1.00	38.47
ATOM	6013	CD1	LEU	C	641	18.428	32.655	83.533	1.00	38.47
ATOM	6014	CD2	LEU	C	641	17.395	33.955	81.687	1.00	38.47
ATOM	6015	C	LEU	C	641	20.517	36.352	84.610	1.00	33.73
ATOM	6016	O	LEU	C	641	21.611	36.308	84.051	1.00	33.73
ATOM	6017	N	GLU	C	642	20.058	37.451	85.192	1.00	20.99
ATOM	6018	CA	GLU	C	642	20.853	38.669	85.181	1.00	20.99
ATOM	6019	CB	GLU	C	642	19.974	39.865	85.556	1.00	38.72
ATOM	6020	CG	GLU	C	642	19.052	40.316	84.424	1.00	38.72
ATOM	6021	CD	GLU	C	642	17.973	41.285	84.881	1.00	38.72
ATOM	6022	OE1	GLU	C	642	17.289	41.863	84.008	1.00	38.72
ATOM	6023	OE2	GLU	C	642	17.802	41.457	86.109	1.00	38.72
ATOM	6024	C	GLU	C	642	22.040	38.553	86.130	1.00	20.99
ATOM	6025	O	GLU	C	642	23.132	39.062	85.851	1.00	20.99
ATOM	6026	N	ILE	C	643	21.815	37.872	87.248	1.00	18.58
ATOM	6027	CA	ILE	C	643	22.847	37.684	88.254	1.00	18.58
ATOM	6028	CB	ILE	C	643	22.229	37.157	89.558	1.00	22.04
ATOM	6029	CG2	ILE	C	643	23.319	36.660	90.500	1.00	22.04
ATOM	6030	CG1	ILE	C	643	21.389	38.267	90.205	1.00	22.04
ATOM	6031	CD1	ILE	C	643	20.488	37.779	91.328	1.00	22.04
ATOM	6032	C	ILE	C	643	23.927	36.720	87.749	1.00	18.58
ATOM	6033	O	ILE	C	643	25.114	36.929	87.993	1.00	18.58
ATOM	6034	N	LEU	C	644	23.509	35.669	87.053	1.00	20.10
ATOM	6035	CA	LEU	C	644	24.438	34.697	86.494	1.00	20.10
ATOM	6036	CB	LEU	C	644	23.676	33.593	85.760	1.00	15.44
ATOM	6037	CG	LEU	C	644	24.497	32.718	84.816	1.00	15.44
ATOM	6038	CD1	LEU	C	644	25.510	31.888	85.616	1.00	15.44
ATOM	6039	CD2	LEU	C	644	23.547	31.819	84.019	1.00	15.44
ATOM	6040	C	LEU	C	644	25.321	35.425	85.500	1.00	20.10
ATOM	6041	O	LEU	C	644	26.549	35.298	85.525	1.00	20.10
ATOM	6042	N	ALA	C	645	24.686	36.201	84.630	1.00	17.97
ATOM	6043	CA	ALA	C	645	25.412	36.955	83.626	1.00	17.97
ATOM	6044	CB	ALA	C	645	24.428	37.584	82.642	1.00	13.02
ATOM	6045	C	ALA	C	645	26.328	38.033	84.218	1.00	17.97
ATOM	6046	O	ALA	C	645	27.424	38.265	83.703	1.00	17.97
ATOM	6047	N	LEU	C	646	25.889	38.696	85.285	1.00	21.91
ATOM	6048	CA	LEU	C	646	26.704	39.749	85.884	1.00	21.91
ATOM	6049	CB	LEU	C	646	25.883	40.558	86.888	1.00	21.02
ATOM	6050	CG	LEU	C	646	24.897	41.587	86.316	1.00	21.02
ATOM	6051	CD1	LEU	C	646	24.031	42.134	87.444	1.00	21.02
ATOM	6052	CD2	LEU	C	646	25.659	42.728	85.644	1.00	21.02
ATOM	6053	C	LEU	C	646	27.969	39.232	86.565	1.00	21.91
ATOM	6054	O	LEU	C	646	29.025	39.865	86.485	1.00	21.91
ATOM	6055	N	LEU	C	647	27.863	38.095	87.244	1.00	21.06
ATOM	6056	CA	LEU	C	647	29.018	37.528	87.923	1.00	21.06
ATOM	6057	CB	LEU	C	647	28.608	36.356	88.820	1.00	20.82
ATOM	6058	CG	LEU	C	647	29.757	35.725	89.626	1.00	20.82

ATOM	6059	CD1	LEU	C	647	30.461	36.799	90.439	1.00	20.82
ATOM	6060	CD2	LEU	C	647	29.209	34.626	90.549	1.00	20.82
ATOM	6061	C	LEU	C	647	30.021	37.052	86.880	1.00	21.06
ATOM	6062	O	LEU	C	647	31.225	37.298	87.002	1.00	21.06
ATOM	6063	N	ILE	C	648	29.519	36.368	85.857	1.00	18.42
ATOM	6064	CA	ILE	C	648	30.382	35.872	84.803	1.00	18.42
ATOM	6065	CB	ILE	C	648	29.604	35.019	83.779	1.00	14.38
ATOM	6066	CG2	ILE	C	648	30.430	34.826	82.532	1.00	14.38
ATOM	6067	CG1	ILE	C	648	29.259	33.661	84.395	1.00	14.38
ATOM	6068	CD1	ILE	C	648	28.477	32.741	83.479	1.00	14.38
ATOM	6069	C	ILE	C	648	31.064	37.028	84.082	1.00	18.42
ATOM	6070	O	ILE	C	648	32.226	36.917	83.694	1.00	18.42
ATOM	6071	N	ALA	C	649	30.354	38.139	83.916	1.00	20.46
ATOM	6072	CA	ALA	C	649	30.932	39.287	83.223	1.00	20.46
ATOM	6073	CB	ALA	C	649	29.840	40.242	82.761	1.00	29.58
ATOM	6074	C	ALA	C	649	31.917	40.011	84.123	1.00	20.46
ATOM	6075	O	ALA	C	649	32.902	40.556	83.646	1.00	20.46
ATOM	6076	N	ALA	C	650	31.656	40.015	85.427	1.00	15.67
ATOM	6077	CA	ALA	C	650	32.571	40.665	86.362	1.00	15.67
ATOM	6078	CB	ALA	C	650	32.019	40.588	87.787	1.00	20.65
ATOM	6079	C	ALA	C	650	33.931	39.967	86.290	1.00	15.67
ATOM	6080	O	ALA	C	650	34.977	40.608	86.177	1.00	15.67
ATOM	6081	N	LEU	C	651	33.904	38.641	86.342	1.00	22.03
ATOM	6082	CA	LEU	C	651	35.120	37.840	86.300	1.00	22.03
ATOM	6083	CB	LEU	C	651	34.793	36.411	86.710	1.00	17.21
ATOM	6084	CG	LEU	C	651	34.310	36.158	88.133	1.00	17.21
ATOM	6085	CD1	LEU	C	651	33.676	34.773	88.204	1.00	17.21
ATOM	6086	CD2	LEU	C	651	35.481	36.282	89.097	1.00	17.21
ATOM	6087	C	LEU	C	651	35.782	37.796	84.930	1.00	22.03
ATOM	6088	O	LEU	C	651	36.994	37.605	84.826	1.00	22.03
ATOM	6089	N	SER	C	652	34.981	37.977	83.885	1.00	18.34
ATOM	6090	CA	SER	C	652	35.464	37.873	82.510	1.00	18.34
ATOM	6091	CB	SER	C	652	34.461	37.058	81.689	1.00	21.02
ATOM	6092	OG	SER	C	652	34.352	35.737	82.174	1.00	21.02
ATOM	6093	C	SER	C	652	35.787	39.108	81.694	1.00	18.34
ATOM	6094	O	SER	C	652	36.528	39.006	80.716	1.00	18.34
ATOM	6095	N	HIS	C	653	35.238	40.253	82.082	1.00	16.09
ATOM	6096	CA	HIS	C	653	35.383	41.497	81.320	1.00	16.09
ATOM	6097	CB	HIS	C	653	34.626	42.611	82.029	1.00	15.71
ATOM	6098	CG	HIS	C	653	35.282	43.057	83.288	1.00	15.71
ATOM	6099	CD2	HIS	C	653	35.451	42.422	84.467	1.00	15.71
ATOM	6100	ND1	HIS	C	653	35.881	44.288	83.424	1.00	15.71
ATOM	6101	CE1	HIS	C	653	36.387	44.392	84.638	1.00	15.71
ATOM	6102	NE2	HIS	C	653	36.141	43.272	85.290	1.00	15.71
ATOM	6103	C	HIS	C	653	36.763	42.032	80.927	1.00	16.09
ATOM	6104	O	HIS	C	653	36.852	42.835	79.999	1.00	16.09
ATOM	6105	N	ASP	C	654	37.825	41.612	81.611	1.00	21.93
ATOM	6106	CA	ASP	C	654	39.166	42.092	81.279	1.00	21.93
ATOM	6107	CB	ASP	C	654	39.794	42.817	82.473	1.00	18.15
ATOM	6108	CG	ASP	C	654	39.420	44.296	82.535	1.00	18.15
ATOM	6109	OD1	ASP	C	654	39.137	44.922	81.478	1.00	18.15
ATOM	6110	OD2	ASP	C	654	39.437	44.842	83.649	1.00	18.15
ATOM	6111	C	ASP	C	654	40.106	40.975	80.834	1.00	21.93
ATOM	6112	O	ASP	C	654	41.319	41.163	80.762	1.00	21.93
ATOM	6113	N	LEU	C	655	39.532	39.812	80.557	1.00	14.51
ATOM	6114	CA	LEU	C	655	40.278	38.635	80.112	1.00	14.51
ATOM	6115	CB	LEU	C	655	39.278	37.604	79.580	1.00	16.47
ATOM	6116	CG	LEU	C	655	39.134	36.188	80.162	1.00	16.47
ATOM	6117	CD1	LEU	C	655	39.484	36.169	81.622	1.00	16.47
ATOM	6118	CD2	LEU	C	655	37.694	35.682	79.928	1.00	16.47
ATOM	6119	C	LEU	C	655	41.304	38.987	79.014	1.00	14.51
ATOM	6120	O	LEU	C	655	40.963	39.638	78.034	1.00	14.51
ATOM	6121	N	ASP	C	656	42.551	38.558	79.199	1.00	17.77
ATOM	6122	CA	ASP	C	656	43.647	38.776	78.237	1.00	17.77
ATOM	6123	CB	ASP	C	656	43.251	38.270	76.843	1.00	24.47
ATOM	6124	CG	ASP	C	656	44.462	38.039	75.923	1.00	24.47

ATOM	6125	OD1	ASP	C	656	44.326	38.228	74.695	1.00	24.47
ATOM	6126	OD2	ASP	C	656	45.539	37.651	76.425	1.00	24.47
ATOM	6127	C	ASP	C	656	44.105	40.227	78.118	1.00	17.77
ATOM	6128	O	ASP	C	656	44.730	40.599	77.120	1.00	17.77
ATOM	6129	N	HIS	C	657	43.814	41.038	79.134	1.00	22.96
ATOM	6130	CA	HIS	C	657	44.209	42.446	79.120	1.00	22.96
ATOM	6131	CB	HIS	C	657	43.767	43.145	80.411	1.00	21.98
ATOM	6132	CG	HIS	C	657	43.577	44.624	80.254	1.00	21.98
ATOM	6133	CD2	HIS	C	657	44.437	45.597	79.873	1.00	21.98
ATOM	6134	ND1	HIS	C	657	42.356	45.243	80.438	1.00	21.98
ATOM	6135	CE1	HIS	C	657	42.472	46.533	80.173	1.00	21.98
ATOM	6136	NE2	HIS	C	657	43.724	46.773	79.826	1.00	21.98
ATOM	6137	C	HIS	C	657	45.731	42.561	78.961	1.00	22.96
ATOM	6138	O	HIS	C	657	46.489	41.858	79.633	1.00	22.96
ATOM	6139	N	ARG	C	658	46.172	43.455	78.085	1.00	36.47
ATOM	6140	CA	ARG	C	658	47.596	43.616	77.832	1.00	36.47
ATOM	6141	CB	ARG	C	658	47.839	43.672	76.319	1.00	91.27
ATOM	6142	CG	ARG	C	658	49.238	43.245	75.889	1.00	91.27
ATOM	6143	CD	ARG	C	658	49.594	41.878	76.467	1.00	91.27
ATOM	6144	NE	ARG	C	658	48.560	40.876	76.208	1.00	91.27
ATOM	6145	CZ	ARG	C	658	48.312	40.342	75.016	1.00	91.27
ATOM	6146	NH1	ARG	C	658	49.025	40.710	73.961	1.00	91.27
ATOM	6147	NH2	ARG	C	658	47.349	39.440	74.878	1.00	91.27
ATOM	6148	C	ARG	C	658	48.211	44.841	78.513	1.00	36.47
ATOM	6149	O	ARG	C	658	49.413	45.096	78.386	1.00	36.47
ATOM	6150	N	GLY	C	659	47.388	45.592	79.236	1.00	28.89
ATOM	6151	CA	GLY	C	659	47.887	46.766	79.925	1.00	28.89
ATOM	6152	C	GLY	C	659	47.828	48.039	79.096	1.00	28.89
ATOM	6153	O	GLY	C	659	48.664	48.928	79.262	1.00	28.89
ATOM	6154	N	VAL	C	660	46.842	48.127	78.206	1.00	39.54
ATOM	6155	CA	VAL	C	660	46.674	49.303	77.363	1.00	39.54
ATOM	6156	CB	VAL	C	660	46.393	48.915	75.913	1.00	24.28
ATOM	6157	CG1	VAL	C	660	46.354	50.162	75.046	1.00	24.28
ATOM	6158	CG2	VAL	C	660	47.443	47.948	75.418	1.00	24.28
ATOM	6159	C	VAL	C	660	45.500	50.156	77.836	1.00	39.54
ATOM	6160	O	VAL	C	660	44.374	49.666	77.933	1.00	39.54
ATOM	6161	N	ASN	C	661	45.764	51.430	78.118	1.00	33.51
ATOM	6162	CA	ASN	C	661	44.719	52.343	78.567	1.00	33.51
ATOM	6163	CB	ASN	C	661	44.872	52.600	80.066	1.00	27.10
ATOM	6164	CG	ASN	C	661	45.028	51.319	80.849	1.00	27.10
ATOM	6165	OD1	ASN	C	661	46.118	50.753	80.922	1.00	27.10
ATOM	6166	ND2	ASN	C	661	43.933	50.837	81.417	1.00	27.10
ATOM	6167	C	ASN	C	661	44.737	53.671	77.803	1.00	33.51
ATOM	6168	O	ASN	C	661	45.647	53.932	77.013	1.00	33.51
ATOM	6169	N	ASN	C	662	43.732	54.509	78.041	1.00	63.68
ATOM	6170	CA	ASN	C	662	43.648	55.804	77.373	1.00	63.68
ATOM	6171	CB	ASN	C	662	42.319	55.915	76.630	1.00	57.22
ATOM	6172	CG	ASN	C	662	42.233	54.962	75.456	1.00	57.22
ATOM	6173	OD1	ASN	C	662	41.204	54.869	74.793	1.00	57.22
ATOM	6174	ND2	ASN	C	662	43.323	54.250	75.189	1.00	57.22
ATOM	6175	C	ASN	C	662	43.801	56.973	78.344	1.00	63.68
ATOM	6176	O	ASN	C	662	44.553	57.921	78.084	1.00	63.68
ATOM	6177	N	SER	C	679	39.492	51.654	68.563	1.00	55.26
ATOM	6178	CA	SER	C	679	38.803	50.367	68.454	1.00	55.26
ATOM	6179	CB	SER	C	679	39.735	49.315	67.834	1.00	57.34
ATOM	6180	OG	SER	C	679	40.830	49.034	68.690	1.00	57.34
ATOM	6181	C	SER	C	679	38.306	49.868	69.815	1.00	55.26
ATOM	6182	O	SER	C	679	38.957	50.083	70.841	1.00	55.26
ATOM	6183	N	ILE	C	680	37.154	49.202	69.813	1.00	47.98
ATOM	6184	CA	ILE	C	680	36.559	48.669	71.039	1.00	47.98
ATOM	6185	CB	ILE	C	680	35.035	48.511	70.890	1.00	49.48
ATOM	6186	CG2	ILE	C	680	34.406	48.265	72.247	1.00	49.48
ATOM	6187	CG1	ILE	C	680	34.440	49.781	70.275	1.00	49.48
ATOM	6188	CD1	ILE	C	680	32.997	49.629	69.823	1.00	49.48
ATOM	6189	C	ILE	C	680	37.171	47.304	71.325	1.00	47.98
ATOM	6190	O	ILE	C	680	36.953	46.343	70.586	1.00	47.98

ATOM	6191	N	MET	C	681	37.929	47.223	72.409	1.00	27.85
ATOM	6192	CA	MET	C	681	38.602	45.987	72.782	1.00	27.85
ATOM	6193	CB	MET	C	681	39.820	46.308	73.653	1.00	91.66
ATOM	6194	CG	MET	C	681	40.894	45.233	73.639	1.00	91.66
ATOM	6195	SD	MET	C	681	41.533	44.915	71.974	1.00	91.66
ATOM	6196	CE	MET	C	681	42.674	46.279	71.773	1.00	91.66
ATOM	6197	C	MET	C	681	37.673	45.031	73.512	1.00	27.85
ATOM	6198	O	MET	C	681	37.870	43.817	73.487	1.00	27.85
ATOM	6199	N	GLU	C	682	36.649	45.583	74.150	1.00	26.35
ATOM	6200	CA	GLU	C	682	35.691	44.782	74.899	1.00	26.35
ATOM	6201	CB	GLU	C	682	34.530	45.657	75.378	1.00	46.46
ATOM	6202	CG	GLU	C	682	34.870	46.492	76.608	1.00	46.46
ATOM	6203	CD	GLU	C	682	35.956	47.533	76.357	1.00	46.46
ATOM	6204	OE1	GLU	C	682	36.601	47.960	77.340	1.00	46.46
ATOM	6205	OE2	GLU	C	682	36.156	47.936	75.190	1.00	46.46
ATOM	6206	C	GLU	C	682	35.174	43.588	74.106	1.00	26.35
ATOM	6207	O	GLU	C	682	34.839	42.566	74.687	1.00	26.35
ATOM	6208	N	HIS	C	683	35.110	43.715	72.782	1.00	24.60
ATOM	6209	CA	HIS	C	683	34.645	42.605	71.956	1.00	24.60
ATOM	6210	CB	HIS	C	683	34.443	43.062	70.504	1.00	24.58
ATOM	6211	CG	HIS	C	683	33.239	43.935	70.318	1.00	24.58
ATOM	6212	CD2	HIS	C	683	33.097	45.282	70.369	1.00	24.58
ATOM	6213	ND1	HIS	C	683	31.975	43.427	70.102	1.00	24.58
ATOM	6214	CE1	HIS	C	683	31.107	44.421	70.028	1.00	24.58
ATOM	6215	NE2	HIS	C	683	31.762	45.556	70.188	1.00	24.58
ATOM	6216	C	HIS	C	683	35.651	41.460	72.038	1.00	24.60
ATOM	6217	O	HIS	C	683	35.264	40.291	72.049	1.00	24.60
ATOM	6218	N	HIS	C	684	36.940	41.796	72.098	1.00	15.32
ATOM	6219	CA	HIS	C	684	37.980	40.773	72.217	1.00	15.32
ATOM	6220	CB	HIS	C	684	39.367	41.388	72.048	1.00	22.73
ATOM	6221	CG	HIS	C	684	40.477	40.535	72.587	1.00	22.73
ATOM	6222	CD2	HIS	C	684	41.320	40.726	73.630	1.00	22.73
ATOM	6223	ND1	HIS	C	684	40.829	39.324	72.029	1.00	22.73
ATOM	6224	CE1	HIS	C	684	41.842	38.807	72.699	1.00	22.73
ATOM	6225	NE2	HIS	C	684	42.160	39.639	73.676	1.00	22.73
ATOM	6226	C	HIS	C	684	37.871	40.139	73.602	1.00	15.32
ATOM	6227	O	HIS	C	684	38.029	38.930	73.758	1.00	15.32
ATOM	6228	N	HIS	C	685	37.611	40.966	74.612	1.00	19.53
ATOM	6229	CA	HIS	C	685	37.464	40.471	75.976	1.00	19.53
ATOM	6230	CB	HIS	C	685	37.194	41.628	76.941	1.00	22.48
ATOM	6231	CG	HIS	C	685	38.379	42.500	77.181	1.00	22.48
ATOM	6232	CD2	HIS	C	685	38.558	43.829	77.007	1.00	22.48
ATOM	6233	ND1	HIS	C	685	39.571	42.011	77.671	1.00	22.48
ATOM	6234	CE1	HIS	C	685	40.432	43.002	77.790	1.00	22.48
ATOM	6235	NE2	HIS	C	685	39.843	44.116	77.394	1.00	22.48
ATOM	6236	C	HIS	C	685	36.274	39.527	75.984	1.00	19.53
ATOM	6237	O	HIS	C	685	36.298	38.459	76.595	1.00	19.53
ATOM	6238	N	PHE	C	686	35.221	39.945	75.294	1.00	15.80
ATOM	6239	CA	PHE	C	686	34.018	39.141	75.204	1.00	15.80
ATOM	6240	CB	PHE	C	686	32.946	39.884	74.401	1.00	19.42
ATOM	6241	CG	PHE	C	686	31.727	39.062	74.116	1.00	19.42
ATOM	6242	CD1	PHE	C	686	30.928	38.606	75.151	1.00	19.42
ATOM	6243	CD2	PHE	C	686	31.378	38.744	72.805	1.00	19.42
ATOM	6244	CE1	PHE	C	686	29.807	37.852	74.892	1.00	19.42
ATOM	6245	CE2	PHE	C	686	30.255	37.989	72.535	1.00	19.42
ATOM	6246	CZ	PHE	C	686	29.465	37.539	73.574	1.00	19.42
ATOM	6247	C	PHE	C	686	34.340	37.808	74.541	1.00	15.80
ATOM	6248	O	PHE	C	686	33.936	36.755	75.034	1.00	15.80
ATOM	6249	N	ASP	C	687	35.088	37.827	73.441	1.00	21.16
ATOM	6250	CA	ASP	C	687	35.374	36.554	72.796	1.00	21.16
ATOM	6251	CB	ASP	C	687	35.883	36.737	71.353	1.00	22.86
ATOM	6252	CG	ASP	C	687	37.368	37.065	71.257	1.00	22.86
ATOM	6253	OD1	ASP	C	687	38.216	36.280	71.745	1.00	22.86
ATOM	6254	OD2	ASP	C	687	37.679	38.106	70.648	1.00	22.86
ATOM	6255	C	ASP	C	687	36.303	35.671	73.617	1.00	21.16
ATOM	6256	O	ASP	C	687	36.342	34.458	73.406	1.00	21.16

ATOM	6257	N	GLN	C	688	37.042	36.258	74.557	1.00	17.95
ATOM	6258	CA	GLN	C	688	37.893	35.437	75.411	1.00	17.95
ATOM	6259	CB	GLN	C	688	38.935	36.279	76.150	1.00	20.48
ATOM	6260	CG	GLN	C	688	40.021	36.848	75.258	1.00	20.48
ATOM	6261	CD	GLN	C	688	40.903	35.773	74.647	1.00	20.48
ATOM	6262	OE1	GLN	C	688	41.607	35.054	75.355	1.00	20.48
ATOM	6263	NE2	GLN	C	688	40.867	35.661	73.322	1.00	20.48
ATOM	6264	C	GLN	C	688	36.956	34.762	76.413	1.00	17.95
ATOM	6265	O	GLN	C	688	37.165	33.617	76.801	1.00	17.95
ATOM	6266	N	CYS	C	689	35.920	35.475	76.833	1.00	16.71
ATOM	6267	CA	CYS	C	689	34.953	34.904	77.772	1.00	16.71
ATOM	6268	CB	CYS	C	689	33.912	35.961	78.176	1.00	15.76
ATOM	6269	SG	CYS	C	689	32.551	35.363	79.223	1.00	15.76
ATOM	6270	C	CYS	C	689	34.276	33.716	77.094	1.00	16.71
ATOM	6271	O	CYS	C	689	34.082	32.673	77.709	1.00	16.71
ATOM	6272	N	LEU	C	690	33.945	33.874	75.810	1.00	17.53
ATOM	6273	CA	LEU	C	690	33.287	32.816	75.028	1.00	17.53
ATOM	6274	CB	LEU	C	690	32.832	33.368	73.675	1.00	25.21
ATOM	6275	CG	LEU	C	690	31.389	33.875	73.548	1.00	25.21
ATOM	6276	CD1	LEU	C	690	30.981	34.679	74.761	1.00	25.21
ATOM	6277	CD2	LEU	C	690	31.264	34.713	72.289	1.00	25.21
ATOM	6278	C	LEU	C	690	34.164	31.588	74.815	1.00	17.53
ATOM	6279	O	LEU	C	690	33.701	30.449	74.949	1.00	17.53
ATOM	6280	N	MET	C	691	35.432	31.809	74.487	1.00	15.69
ATOM	6281	CA	MET	C	691	36.342	30.692	74.274	1.00	15.69
ATOM	6282	CB	MET	C	691	37.757	31.192	73.943	1.00	36.75
ATOM	6283	CG	MET	C	691	37.889	31.718	72.512	1.00	36.75
ATOM	6284	SD	MET	C	691	39.571	32.199	71.997	1.00	36.75
ATOM	6285	CE	MET	C	691	40.286	30.566	71.724	1.00	36.75
ATOM	6286	C	MET	C	691	36.376	29.795	75.502	1.00	15.69
ATOM	6287	O	MET	C	691	36.403	28.570	75.379	1.00	15.69
ATOM	6288	N	ILE	C	692	36.358	30.409	76.583	1.00	22.52
ATOM	6289	CA	ILE	C	692	36.397	29.662	77.937	1.00	22.52
ATOM	6290	CB	ILE	C	692	36.684	30.598	79.140	1.00	27.48
ATOM	6291	CG2	ILE	C	692	36.928	29.787	80.394	1.00	27.48
ATOM	6292	CG1	ILE	C	692	37.901	31.475	78.838	1.00	27.48
ATOM	6293	CD1	ILE	C	692	39.031	30.730	78.170	1.00	27.48
ATOM	6294	C	ILE	C	692	35.068	28.959	78.160	1.00	22.52
ATOM	6295	O	ILE	C	692	35.016	27.749	78.364	1.00	22.52
ATOM	6296	N	LEU	C	693	33.996	29.735	78.109	1.00	19.73
ATOM	6297	CA	LEU	C	693	32.654	29.209	78.292	1.00	19.73
ATOM	6298	CB	LEU	C	693	31.640	30.285	77.893	1.00	25.45
ATOM	6299	CG	LEU	C	693	30.679	30.889	78.931	1.00	25.45
ATOM	6300	CD1	LEU	C	693	31.223	30.763	80.345	1.00	25.45
ATOM	6301	CD2	LEU	C	693	30.425	32.344	78.571	1.00	25.45
ATOM	6302	C	LEU	C	693	32.424	27.919	77.489	1.00	19.73
ATOM	6303	O	LEU	C	693	31.851	26.955	78.011	1.00	19.73
ATOM	6304	N	ASN	C	694	32.884	27.865	76.240	1.00	23.02
ATOM	6305	CA	ASN	C	694	32.660	26.647	75.461	1.00	23.02
ATOM	6306	CB	ASN	C	694	32.306	26.963	74.004	1.00	48.60
ATOM	6307	CG	ASN	C	694	31.712	25.746	73.275	1.00	48.60
ATOM	6308	OD1	ASN	C	694	32.044	25.468	72.116	1.00	48.60
ATOM	6309	ND2	ASN	C	694	30.821	25.024	73.958	1.00	48.60
ATOM	6310	C	ASN	C	694	33.800	25.640	75.463	1.00	23.02
ATOM	6311	O	ASN	C	694	33.734	24.636	74.764	1.00	23.02
ATOM	6312	N	SER	C	695	34.853	25.899	76.223	1.00	20.12
ATOM	6313	CA	SER	C	695	35.962	24.953	76.275	1.00	20.12
ATOM	6314	CB	SER	C	695	37.121	25.541	77.062	1.00	27.58
ATOM	6315	OG	SER	C	695	37.856	26.418	76.246	1.00	27.58
ATOM	6316	C	SER	C	695	35.530	23.641	76.931	1.00	20.12
ATOM	6317	O	SER	C	695	34.804	23.655	77.919	1.00	20.12
ATOM	6318	N	PRO	C	696	35.979	22.492	76.385	1.00	19.45
ATOM	6319	CD	PRO	C	696	36.801	22.393	75.163	1.00	23.02
ATOM	6320	CA	PRO	C	696	35.653	21.152	76.900	1.00	19.45
ATOM	6321	CB	PRO	C	696	36.597	20.248	76.110	1.00	23.02
ATOM	6322	CG	PRO	C	696	36.642	20.935	74.773	1.00	23.02

ATOM	6323	C	PRO	C	696	35.826	21.004	78.420	1.00	19.45
ATOM	6324	O	PRO	C	696	36.917	21.188	78.960	1.00	19.45
ATOM	6325	N	GLY	C	697	34.733	20.674	79.100	1.00	20.70
ATOM	6326	CA	GLY	C	697	34.774	20.510	80.544	1.00	20.70
ATOM	6327	C	GLY	C	697	34.665	21.812	81.326	1.00	20.70
ATOM	6328	O	GLY	C	697	34.853	21.809	82.542	1.00	20.70
ATOM	6329	N	ASN	C	698	34.374	22.921	80.641	1.00	17.80
ATOM	6330	CA	ASN	C	698	34.238	24.228	81.297	1.00	17.80
ATOM	6331	CB	ASN	C	698	35.319	25.212	80.807	1.00	21.44
ATOM	6332	CG	ASN	C	698	36.742	24.783	81.179	1.00	21.44
ATOM	6333	OD1	ASN	C	698	37.186	23.676	80.855	1.00	21.44
ATOM	6334	ND2	ASN	C	698	37.466	25.670	81.855	1.00	21.44
ATOM	6335	C	ASN	C	698	32.866	24.834	81.008	1.00	17.80
ATOM	6336	O	ASN	C	698	32.603	25.978	81.373	1.00	17.80
ATOM	6337	N	GLN	C	699	31.997	24.070	80.351	1.00	20.28
ATOM	6338	CA	GLN	C	699	30.662	24.548	79.988	1.00	20.28
ATOM	6339	CB	GLN	C	699	29.982	23.579	79.026	1.00	43.69
ATOM	6340	CG	GLN	C	699	30.679	23.420	77.694	1.00	43.69
ATOM	6341	CD	GLN	C	699	31.432	22.111	77.586	1.00	43.69
ATOM	6342	OE1	GLN	C	699	31.860	21.728	76.499	1.00	43.69
ATOM	6343	NE2	GLN	C	699	31.602	21.416	78.715	1.00	43.69
ATOM	6344	C	GLN	C	699	29.733	24.791	81.166	1.00	20.28
ATOM	6345	O	GLN	C	699	28.829	23.995	81.434	1.00	20.28
ATOM	6346	N	ILE	C	700	29.956	25.913	81.837	1.00	17.65
ATOM	6347	CA	ILE	C	700	29.178	26.334	83.000	1.00	17.65
ATOM	6348	CB	ILE	C	700	29.805	27.615	83.607	1.00	35.20
ATOM	6349	CG2	ILE	C	700	28.907	28.211	84.656	1.00	35.20
ATOM	6350	CG1	ILE	C	700	31.149	27.278	84.232	1.00	35.20
ATOM	6351	CD1	ILE	C	700	31.039	26.322	85.365	1.00	35.20
ATOM	6352	C	ILE	C	700	27.709	26.620	82.658	1.00	17.65
ATOM	6353	O	ILE	C	700	26.831	26.562	83.524	1.00	17.65
ATOM	6354	N	LEU	C	701	27.453	26.922	81.393	1.00	27.95
ATOM	6355	CA	LEU	C	701	26.109	27.242	80.944	1.00	27.95
ATOM	6356	CB	LEU	C	701	26.174	28.410	79.954	1.00	17.64
ATOM	6357	CG	LEU	C	701	26.803	29.689	80.513	1.00	17.64
ATOM	6358	CD1	LEU	C	701	26.740	30.802	79.491	1.00	17.64
ATOM	6359	CD2	LEU	C	701	26.056	30.100	81.780	1.00	17.64
ATOM	6360	C	LEU	C	701	25.378	26.069	80.297	1.00	27.95
ATOM	6361	O	LEU	C	701	24.239	26.218	79.855	1.00	27.95
ATOM	6362	N	SER	C	702	26.023	24.908	80.256	1.00	26.66
ATOM	6363	CA	SER	C	702	25.440	23.721	79.630	1.00	26.66
ATOM	6364	CB	SER	C	702	26.304	22.492	79.923	1.00	19.35
ATOM	6365	OG	SER	C	702	26.226	22.168	81.302	1.00	19.35
ATOM	6366	C	SER	C	702	24.003	23.424	80.064	1.00	26.66
ATOM	6367	O	SER	C	702	23.254	22.781	79.335	1.00	26.66
ATOM	6368	N	GLY	C	703	23.631	23.892	81.250	1.00	36.23
ATOM	6369	CA	GLY	C	703	22.298	23.647	81.760	1.00	36.23
ATOM	6370	C	GLY	C	703	21.184	24.548	81.254	1.00	36.23
ATOM	6371	O	GLY	C	703	20.012	24.212	81.430	1.00	36.23
ATOM	6372	N	LEU	C	704	21.522	25.674	80.626	1.00	33.39
ATOM	6373	CA	LEU	C	704	20.499	26.601	80.127	1.00	33.39
ATOM	6374	CB	LEU	C	704	21.102	27.982	79.812	1.00	28.00
ATOM	6375	CG	LEU	C	704	21.953	28.751	80.823	1.00	28.00
ATOM	6376	CD1	LEU	C	704	22.051	30.211	80.383	1.00	28.00
ATOM	6377	CD2	LEU	C	704	21.348	28.666	82.195	1.00	28.00
ATOM	6378	C	LEU	C	704	19.780	26.116	78.871	1.00	33.39
ATOM	6379	O	LEU	C	704	20.365	25.431	78.033	1.00	33.39
ATOM	6380	N	SER	C	705	18.515	26.499	78.739	1.00	32.76
ATOM	6381	CA	SER	C	705	17.714	26.138	77.572	1.00	32.76
ATOM	6382	CB	SER	C	705	16.220	26.176	77.904	1.00	41.23
ATOM	6383	OG	SER	C	705	15.797	27.505	78.163	1.00	41.23
ATOM	6384	C	SER	C	705	17.998	27.156	76.477	1.00	32.76
ATOM	6385	O	SER	C	705	18.644	28.173	76.720	1.00	32.76
ATOM	6386	N	ILE	C	706	17.502	26.885	75.277	1.00	39.57
ATOM	6387	CA	ILE	C	706	17.699	27.776	74.140	1.00	39.57
ATOM	6388	CB	ILE	C	706	16.731	27.414	72.979	1.00	35.53

ATOM	6389	CG2	ILE	C	706	16.909	28.379	71.820	1.00	35.53
ATOM	6390	CG1	ILE	C	706	16.991	25.978	72.504	1.00	35.53
ATOM	6391	CD1	ILE	C	706	16.521	24.901	73.476	1.00	35.53
ATOM	6392	C	ILE	C	706	17.487	29.244	74.523	1.00	39.57
ATOM	6393	O	ILE	C	706	18.369	30.078	74.326	1.00	39.57
ATOM	6394	N	GLU	C	707	16.318	29.551	75.080	1.00	36.37
ATOM	6395	CA	GLU	C	707	15.998	30.918	75.470	1.00	36.37
ATOM	6396	CB	GLU	C	707	14.495	31.053	75.711	1.00	74.89
ATOM	6397	CG	GLU	C	707	13.670	30.911	74.439	1.00	74.89
ATOM	6398	CD	GLU	C	707	14.144	31.841	73.332	1.00	74.89
ATOM	6399	OE1	GLU	C	707	14.244	33.061	73.581	1.00	74.89
ATOM	6400	OE2	GLU	C	707	14.414	31.352	72.213	1.00	74.89
ATOM	6401	C	GLU	C	707	16.773	31.441	76.683	1.00	36.37
ATOM	6402	O	GLU	C	707	17.031	32.634	76.783	1.00	36.37
ATOM	6403	N	GLU	C	708	17.136	30.560	77.604	1.00	28.78
ATOM	6404	CA	GLU	C	708	17.893	30.993	78.769	1.00	28.78
ATOM	6405	CB	GLU	C	708	17.976	29.878	79.805	1.00	43.66
ATOM	6406	CG	GLU	C	708	16.662	29.565	80.476	1.00	43.66
ATOM	6407	CD	GLU	C	708	16.836	28.616	81.638	1.00	43.66
ATOM	6408	OE1	GLU	C	708	17.337	27.490	81.420	1.00	43.66
ATOM	6409	OE2	GLU	C	708	16.480	28.998	82.773	1.00	43.66
ATOM	6410	C	GLU	C	708	19.294	31.380	78.316	1.00	28.78
ATOM	6411	O	GLU	C	708	19.820	32.419	78.708	1.00	28.78
ATOM	6412	N	TYR	C	709	19.886	30.530	77.483	1.00	26.08
ATOM	6413	CA	TYR	C	709	21.212	30.782	76.948	1.00	26.08
ATOM	6414	CB	TYR	C	709	21.631	29.648	76.017	1.00	30.48
ATOM	6415	CG	TYR	C	709	22.983	29.846	75.392	1.00	30.48
ATOM	6416	CD1	TYR	C	709	24.153	29.471	76.059	1.00	30.48
ATOM	6417	CE1	TYR	C	709	25.413	29.695	75.487	1.00	30.48
ATOM	6418	CD2	TYR	C	709	23.102	30.445	74.142	1.00	30.48
ATOM	6419	CE2	TYR	C	709	24.340	30.670	73.568	1.00	30.48
ATOM	6420	CZ	TYR	C	709	25.489	30.296	74.243	1.00	30.48
ATOM	6421	OH	TYR	C	709	26.698	30.539	73.652	1.00	30.48
ATOM	6422	C	TYR	C	709	21.152	32.089	76.170	1.00	26.08
ATOM	6423	O	TYR	C	709	22.026	32.943	76.312	1.00	26.08
ATOM	6424	N	LYS	C	710	20.111	32.242	75.356	1.00	28.42
ATOM	6425	CA	LYS	C	710	19.926	33.452	74.554	1.00	28.42
ATOM	6426	CB	LYS	C	710	18.647	33.349	73.719	1.00	82.68
ATOM	6427	CG	LYS	C	710	18.818	32.678	72.361	1.00	82.68
ATOM	6428	CD	LYS	C	710	19.598	33.560	71.378	1.00	82.68
ATOM	6429	CE	LYS	C	710	21.114	33.435	71.534	1.00	82.68
ATOM	6430	NZ	LYS	C	710	21.631	32.107	71.088	1.00	82.68
ATOM	6431	C	LYS	C	710	19.857	34.713	75.409	1.00	28.42
ATOM	6432	O	LYS	C	710	20.573	35.675	75.153	1.00	28.42
ATOM	6433	N	THR	C	711	18.985	34.704	76.415	1.00	42.04
ATOM	6434	CA	THR	C	711	18.830	35.855	77.299	1.00	42.04
ATOM	6435	CB	THR	C	711	17.788	35.574	78.397	1.00	32.84
ATOM	6436	OG1	THR	C	711	16.535	35.218	77.786	1.00	32.84
ATOM	6437	CG2	THR	C	711	17.600	36.813	79.283	1.00	32.84
ATOM	6438	C	THR	C	711	20.185	36.162	77.932	1.00	42.04
ATOM	6439	O	THR	C	711	20.649	37.304	77.915	1.00	42.04
ATOM	6440	N	THR	C	712	20.817	35.137	78.494	1.00	46.46
ATOM	6441	CA	THR	C	712	22.142	35.297	79.073	1.00	46.46
ATOM	6442	CB	THR	C	712	22.611	33.986	79.741	1.00	26.98
ATOM	6443	OG1	THR	C	712	21.575	33.495	80.603	1.00	26.98
ATOM	6444	CG2	THR	C	712	23.865	34.212	80.563	1.00	26.98
ATOM	6445	C	THR	C	712	22.961	35.564	77.814	1.00	46.46
ATOM	6446	O	THR	C	712	22.415	35.538	76.717	1.00	46.46
ATOM	6447	N	LEU	C	713	24.250	35.820	77.937	1.00	25.41
ATOM	6448	CA	LEU	C	713	25.063	36.085	76.745	1.00	25.41
ATOM	6449	CB	LEU	C	713	24.836	35.024	75.660	1.00	32.14
ATOM	6450	CG	LEU	C	713	25.882	33.915	75.481	1.00	32.14
ATOM	6451	CD1	LEU	C	713	27.262	34.538	75.413	1.00	32.14
ATOM	6452	CD2	LEU	C	713	25.813	32.932	76.631	1.00	32.14
ATOM	6453	C	LEU	C	713	24.739	37.456	76.174	1.00	25.41
ATOM	6454	O	LEU	C	713	25.635	38.220	75.830	1.00	25.41

ATOM	6455	N	LYS	C	714	23.456	37.767	76.043	1.00	24.41
ATOM	6456	CA	LYS	C	714	23.106	39.085	75.549	1.00	24.41
ATOM	6457	CB	LYS	C	714	21.610	39.172	75.240	1.00	54.62
ATOM	6458	CG	LYS	C	714	21.224	40.408	74.451	1.00	54.62
ATOM	6459	CD	LYS	C	714	19.749	40.386	74.078	1.00	54.62
ATOM	6460	CE	LYS	C	714	19.400	41.503	73.099	1.00	54.62
ATOM	6461	NZ	LYS	C	714	19.684	42.856	73.653	1.00	54.62
ATOM	6462	C	LYS	C	714	23.472	40.033	76.695	1.00	24.41
ATOM	6463	O	LYS	C	714	24.101	41.067	76.490	1.00	24.41
ATOM	6464	N	ILE	C	715	23.081	39.656	77.907	1.00	23.34
ATOM	6465	CA	ILE	C	715	23.370	40.462	79.087	1.00	23.34
ATOM	6466	CB	ILE	C	715	22.562	39.957	80.319	1.00	20.78
ATOM	6467	CG2	ILE	C	715	22.843	40.846	81.525	1.00	20.78
ATOM	6468	CG1	ILE	C	715	21.057	40.001	80.007	1.00	20.78
ATOM	6469	CD1	ILE	C	715	20.186	39.341	81.048	1.00	20.78
ATOM	6470	C	ILE	C	715	24.871	40.426	79.389	1.00	23.34
ATOM	6471	O	ILE	C	715	25.456	41.424	79.798	1.00	23.34
ATOM	6472	N	ILE	C	716	25.493	39.273	79.183	1.00	19.36
ATOM	6473	CA	ILE	C	716	26.926	39.151	79.413	1.00	19.36
ATOM	6474	CB	ILE	C	716	27.409	37.705	79.181	1.00	16.62
ATOM	6475	CG2	ILE	C	716	28.937	37.663	79.061	1.00	16.62
ATOM	6476	CG1	ILE	C	716	26.921	36.820	80.326	1.00	16.62
ATOM	6477	CD1	ILE	C	716	27.257	35.361	80.143	1.00	16.62
ATOM	6478	C	ILE	C	716	27.711	40.083	78.491	1.00	19.36
ATOM	6479	O	ILE	C	716	28.639	40.771	78.936	1.00	19.36
ATOM	6480	N	LYS	C	717	27.332	40.108	77.214	1.00	16.92
ATOM	6481	CA	LYS	C	717	28.023	40.942	76.238	1.00	16.92
ATOM	6482	CB	LYS	C	717	27.525	40.674	74.819	1.00	21.73
ATOM	6483	CG	LYS	C	717	28.379	41.412	73.787	1.00	21.73
ATOM	6484	CD	LYS	C	717	28.051	41.043	72.359	1.00	21.73
ATOM	6485	CE	LYS	C	717	29.150	41.550	71.413	1.00	21.73
ATOM	6486	NZ	LYS	C	717	28.911	41.194	69.978	1.00	21.73
ATOM	6487	C	LYS	C	717	27.879	42.422	76.569	1.00	16.92
ATOM	6488	O	LYS	C	717	28.859	43.168	76.510	1.00	16.92
ATOM	6489	N	GLN	C	718	26.664	42.835	76.929	1.00	17.68
ATOM	6490	CA	GLN	C	718	26.392	44.226	77.304	1.00	17.68
ATOM	6491	CB	GLN	C	718	24.896	44.432	77.552	1.00	41.98
ATOM	6492	CG	GLN	C	718	24.005	44.003	76.403	1.00	41.98
ATOM	6493	CD	GLN	C	718	22.539	44.320	76.653	1.00	41.98
ATOM	6494	OE1	GLN	C	718	22.011	44.069	77.741	1.00	41.98
ATOM	6495	NE2	GLN	C	718	21.870	44.868	75.640	1.00	41.98
ATOM	6496	C	GLN	C	718	27.159	44.595	78.575	1.00	17.68
ATOM	6497	O	GLN	C	718	27.703	45.687	78.684	1.00	17.68
ATOM	6498	N	ALA	C	719	27.186	43.686	79.542	1.00	17.20
ATOM	6499	CA	ALA	C	719	27.900	43.937	80.791	1.00	17.20
ATOM	6500	CB	ALA	C	719	27.699	42.774	81.760	1.00	19.56
ATOM	6501	C	ALA	C	719	29.394	44.152	80.533	1.00	17.20
ATOM	6502	O	ALA	C	719	30.007	45.051	81.111	1.00	17.20
ATOM	6503	N	ILE	C	720	29.968	43.335	79.655	1.00	25.02
ATOM	6504	CA	ILE	C	720	31.385	43.441	79.323	1.00	25.02
ATOM	6505	CB	ILE	C	720	31.872	42.182	78.557	1.00	21.71
ATOM	6506	CG2	ILE	C	720	33.311	42.373	78.106	1.00	21.71
ATOM	6507	CG1	ILE	C	720	31.754	40.943	79.463	1.00	21.71
ATOM	6508	CD1	ILE	C	720	32.259	39.651	78.835	1.00	21.71
ATOM	6509	C	ILE	C	720	31.685	44.696	78.499	1.00	25.02
ATOM	6510	O	ILE	C	720	32.725	45.336	78.684	1.00	25.02
ATOM	6511	N	LEU	C	721	30.781	45.061	77.593	1.00	21.73
ATOM	6512	CA	LEU	C	721	30.996	46.265	76.788	1.00	21.73
ATOM	6513	CB	LEU	C	721	30.008	46.322	75.615	1.00	29.70
ATOM	6514	CG	LEU	C	721	30.087	45.206	74.565	1.00	29.70
ATOM	6515	CD1	LEU	C	721	29.122	45.506	73.411	1.00	29.70
ATOM	6516	CD2	LEU	C	721	31.503	45.093	74.046	1.00	29.70
ATOM	6517	C	LEU	C	721	30.827	47.510	77.675	1.00	21.73
ATOM	6518	O	LEU	C	721	31.428	48.556	77.426	1.00	21.73
ATOM	6519	N	ALA	C	722	30.016	47.380	78.723	1.00	28.86
ATOM	6520	CA	ALA	C	722	29.776	48.490	79.631	1.00	28.86

ATOM	6521	CB	ALA	C	722	28.612	48.162	80.553	1.00	32.90
ATOM	6522	C	ALA	C	722	31.015	48.849	80.454	1.00	28.86
ATOM	6523	O	ALA	C	722	31.093	49.940	81.013	1.00	28.86
ATOM	6524	N	THR	C	723	31.986	47.944	80.527	1.00	30.76
ATOM	6525	CA	THR	C	723	33.188	48.228	81.301	1.00	30.76
ATOM	6526	CB	THR	C	723	33.949	46.936	81.676	1.00	25.04
ATOM	6527	OG1	THR	C	723	34.374	46.245	80.489	1.00	25.04
ATOM	6528	CG2	THR	C	723	33.049	46.032	82.506	1.00	25.04
ATOM	6529	C	THR	C	723	34.117	49.198	80.573	1.00	30.76
ATOM	6530	O	THR	C	723	35.251	49.425	80.989	1.00	30.76
ATOM	6531	N	ASP	C	724	33.625	49.771	79.481	1.00	28.93
ATOM	6532	CA	ASP	C	724	34.390	50.763	78.721	1.00	28.93
ATOM	6533	CB	ASP	C	724	34.039	50.683	77.235	1.00	66.52
ATOM	6534	CG	ASP	C	724	34.802	51.695	76.402	1.00	66.52
ATOM	6535	OD1	ASP	C	724	36.039	51.565	76.288	1.00	66.52
ATOM	6536	OD2	ASP	C	724	34.169	52.625	75.867	1.00	66.52
ATOM	6537	C	ASP	C	724	33.980	52.135	79.271	1.00	28.93
ATOM	6538	O	ASP	C	724	32.839	52.552	79.082	1.00	28.93
ATOM	6539	N	LEU	C	725	34.898	52.828	79.948	1.00	33.90
ATOM	6540	CA	LEU	C	725	34.603	54.138	80.536	1.00	33.90
ATOM	6541	CB	LEU	C	725	35.873	54.792	81.074	1.00	36.25
ATOM	6542	CG	LEU	C	725	36.259	54.430	82.504	1.00	36.25
ATOM	6543	CD1	LEU	C	725	37.482	55.234	82.902	1.00	36.25
ATOM	6544	CD2	LEU	C	725	35.105	54.722	83.448	1.00	36.25
ATOM	6545	C	LEU	C	725	33.893	55.146	79.645	1.00	33.90
ATOM	6546	O	LEU	C	725	33.013	55.868	80.110	1.00	33.90
ATOM	6547	N	ALA	C	726	34.279	55.221	78.377	1.00	31.09
ATOM	6548	CA	ALA	C	726	33.636	56.162	77.466	1.00	31.09
ATOM	6549	CB	ALA	C	726	34.283	56.096	76.097	1.00	28.94
ATOM	6550	C	ALA	C	726	32.149	55.845	77.345	1.00	31.09
ATOM	6551	O	ALA	C	726	31.303	56.744	77.350	1.00	31.09
ATOM	6552	N	LEU	C	727	31.834	54.560	77.246	1.00	28.93
ATOM	6553	CA	LEU	C	727	30.448	54.147	77.113	1.00	28.93
ATOM	6554	CB	LEU	C	727	30.379	52.632	76.913	1.00	30.95
ATOM	6555	CG	LEU	C	727	29.178	52.151	76.099	1.00	30.95
ATOM	6556	CD1	LEU	C	727	29.105	52.933	74.784	1.00	30.95
ATOM	6557	CD2	LEU	C	727	29.305	50.656	75.834	1.00	30.95
ATOM	6558	C	LEU	C	727	29.669	54.574	78.352	1.00	28.93
ATOM	6559	O	LEU	C	727	28.510	54.982	78.261	1.00	28.93
ATOM	6560	N	TYR	C	728	30.327	54.492	79.506	1.00	21.96
ATOM	6561	CA	TYR	C	728	29.728	54.875	80.776	1.00	21.96
ATOM	6562	CB	TYR	C	728	30.579	54.356	81.944	1.00	21.49
ATOM	6563	CG	TYR	C	728	30.398	55.147	83.220	1.00	21.49
ATOM	6564	CD1	TYR	C	728	31.296	56.158	83.569	1.00	21.49
ATOM	6565	CE1	TYR	C	728	31.098	56.938	84.715	1.00	21.49
ATOM	6566	CD2	TYR	C	728	29.303	54.929	84.044	1.00	21.49
ATOM	6567	CE2	TYR	C	728	29.097	55.699	85.188	1.00	21.49
ATOM	6568	CZ	TYR	C	728	29.992	56.700	85.518	1.00	21.49
ATOM	6569	OH	TYR	C	728	29.774	57.471	86.640	1.00	21.49
ATOM	6570	C	TYR	C	728	29.547	56.396	80.884	1.00	21.96
ATOM	6571	O	TYR	C	728	28.547	56.875	81.421	1.00	21.96
ATOM	6572	N	ILE	C	729	30.503	57.158	80.381	1.00	31.68
ATOM	6573	CA	ILE	C	729	30.375	58.603	80.441	1.00	31.68
ATOM	6574	CB	ILE	C	729	31.677	59.277	80.007	1.00	32.35
ATOM	6575	CG2	ILE	C	729	31.437	60.746	79.711	1.00	32.35
ATOM	6576	CG1	ILE	C	729	32.718	59.096	81.115	1.00	32.35
ATOM	6577	CD1	ILE	C	729	34.087	59.644	80.785	1.00	32.35
ATOM	6578	C	ILE	C	729	29.213	59.072	79.565	1.00	31.68
ATOM	6579	O	ILE	C	729	28.530	60.046	79.889	1.00	31.68
ATOM	6580	N	LYS	C	730	28.977	58.361	78.468	1.00	30.87
ATOM	6581	CA	LYS	C	730	27.899	58.703	77.554	1.00	30.87
ATOM	6582	CB	LYS	C	730	28.089	57.969	76.227	1.00	60.85
ATOM	6583	CG	LYS	C	730	28.617	58.852	75.114	1.00	60.85
ATOM	6584	CD	LYS	C	730	27.545	59.825	74.623	1.00	60.85
ATOM	6585	CE	LYS	C	730	28.161	61.008	73.888	1.00	60.85
ATOM	6586	NZ	LYS	C	730	29.066	60.585	72.787	1.00	60.85

ATOM	6587	C	LYS	C	730	26.502	58.408	78.088	1.00	30.87
ATOM	6588	O	LYS	C	730	25.582	59.209	77.914	1.00	30.87
ATOM	6589	N	ARG	C	731	26.337	57.269	78.745	1.00	29.86
ATOM	6590	CA	ARG	C	731	25.019	56.889	79.246	1.00	29.86
ATOM	6591	CB	ARG	C	731	24.821	55.369	79.097	1.00	50.07
ATOM	6592	CG	ARG	C	731	24.885	54.887	77.650	1.00	50.07
ATOM	6593	CD	ARG	C	731	24.481	53.428	77.476	1.00	50.07
ATOM	6594	NE	ARG	C	731	23.129	53.144	77.963	1.00	50.07
ATOM	6595	CZ	ARG	C	731	22.322	52.218	77.445	1.00	50.07
ATOM	6596	NH1	ARG	C	731	22.719	51.484	76.410	1.00	50.07
ATOM	6597	NH2	ARG	C	731	21.126	52.005	77.977	1.00	50.07
ATOM	6598	C	ARG	C	731	24.666	57.303	80.670	1.00	29.86
ATOM	6599	O	ARG	C	731	23.489	57.373	81.015	1.00	29.86
ATOM	6600	N	ARG	C	732	25.669	57.588	81.493	1.00	27.75
ATOM	6601	CA	ARG	C	732	25.419	57.955	82.886	1.00	27.75
ATOM	6602	CB	ARG	C	732	26.731	58.262	83.603	1.00	50.81
ATOM	6603	CG	ARG	C	732	27.388	59.525	83.125	1.00	50.81
ATOM	6604	CD	ARG	C	732	28.581	59.871	83.973	1.00	50.81
ATOM	6605	NE	ARG	C	732	29.237	61.074	83.479	1.00	50.81
ATOM	6606	CZ	ARG	C	732	30.379	61.551	83.960	1.00	50.81
ATOM	6607	NH1	ARG	C	732	30.994	60.923	84.954	1.00	50.81
ATOM	6608	NH2	ARG	C	732	30.905	62.654	83.441	1.00	50.81
ATOM	6609	C	ARG	C	732	24.482	59.141	83.048	1.00	27.75
ATOM	6610	O	ARG	C	732	23.699	59.188	83.993	1.00	27.75
ATOM	6611	N	GLY	C	733	24.575	60.104	82.138	1.00	31.78
ATOM	6612	CA	GLY	C	733	23.715	61.269	82.227	1.00	31.78
ATOM	6613	C	GLY	C	733	22.258	60.874	82.353	1.00	31.78
ATOM	6614	O	GLY	C	733	21.556	61.340	83.250	1.00	31.78
ATOM	6615	N	GLU	C	734	21.803	60.008	81.452	1.00	41.94
ATOM	6616	CA	GLU	C	734	20.420	59.542	81.453	1.00	41.94
ATOM	6617	CB	GLU	C	734	20.211	58.544	80.301	1.00	48.49
ATOM	6618	CG	GLU	C	734	18.963	57.668	80.417	1.00	48.49
ATOM	6619	CD	GLU	C	734	18.760	56.745	79.215	1.00	48.49
ATOM	6620	OE1	GLU	C	734	19.760	56.225	78.670	1.00	48.49
ATOM	6621	OE2	GLU	C	734	17.593	56.530	78.822	1.00	48.49
ATOM	6622	C	GLU	C	734	20.050	58.898	82.792	1.00	41.94
ATOM	6623	O	GLU	C	734	18.993	59.183	83.361	1.00	41.94
ATOM	6624	N	PHE	C	735	20.928	58.031	83.289	1.00	37.37
ATOM	6625	CA	PHE	C	735	20.700	57.344	84.557	1.00	37.37
ATOM	6626	CB	PHE	C	735	21.859	56.382	84.845	1.00	25.31
ATOM	6627	CG	PHE	C	735	21.729	55.627	86.138	1.00	25.31
ATOM	6628	CD1	PHE	C	735	20.565	54.953	86.451	1.00	25.31
ATOM	6629	CD2	PHE	C	735	22.811	55.532	87.007	1.00	25.31
ATOM	6630	CE1	PHE	C	735	20.476	54.187	87.604	1.00	25.31
ATOM	6631	CE2	PHE	C	735	22.735	54.770	88.162	1.00	25.31
ATOM	6632	CZ	PHE	C	735	21.565	54.092	88.463	1.00	25.31
ATOM	6633	C	PHE	C	735	20.568	58.350	85.690	1.00	37.37
ATOM	6634	O	PHE	C	735	19.641	58.264	86.497	1.00	37.37
ATOM	6635	N	PHE	C	736	21.496	59.301	85.745	1.00	41.00
ATOM	6636	CA	PHE	C	736	21.485	60.325	86.785	1.00	41.00
ATOM	6637	CB	PHE	C	736	22.732	61.213	86.661	1.00	37.29
ATOM	6638	CG	PHE	C	736	24.023	60.501	86.986	1.00	37.29
ATOM	6639	CD1	PHE	C	736	25.246	61.067	86.645	1.00	37.29
ATOM	6640	CD2	PHE	C	736	24.015	59.270	87.642	1.00	37.29
ATOM	6641	CE1	PHE	C	736	26.443	60.422	86.949	1.00	37.29
ATOM	6642	CE2	PHE	C	736	25.204	58.614	87.951	1.00	37.29
ATOM	6643	CZ	PHE	C	736	26.421	59.192	87.603	1.00	37.29
ATOM	6644	C	PHE	C	736	20.217	61.176	86.711	1.00	41.00
ATOM	6645	O	PHE	C	736	19.662	61.564	87.738	1.00	41.00
ATOM	6646	N	GLU	C	737	19.763	61.464	85.496	1.00	53.46
ATOM	6647	CA	GLU	C	737	18.555	62.257	85.315	1.00	53.46
ATOM	6648	CB	GLU	C	737	18.307	62.526	83.830	1.00	94.42
ATOM	6649	CG	GLU	C	737	18.588	63.959	83.405	1.00	94.42
ATOM	6650	CD	GLU	C	737	17.647	64.957	84.058	1.00	94.42
ATOM	6651	OE1	GLU	C	737	17.776	66.170	83.783	1.00	94.42
ATOM	6652	OE2	GLU	C	737	16.775	64.532	84.846	1.00	94.42

ATOM	6653	C	GLU	C	737	17.364	61.524	85.915	1.00	53.46
ATOM	6654	O	GLU	C	737	16.629	62.088	86.722	1.00	53.46
ATOM	6655	N	LEU	C	738	17.176	60.267	85.523	1.00	40.69
ATOM	6656	CA	LEU	C	738	16.071	59.469	86.043	1.00	40.69
ATOM	6657	CB	LEU	C	738	16.172	58.023	85.553	1.00	55.87
ATOM	6658	CG	LEU	C	738	15.595	57.692	84.176	1.00	55.87
ATOM	6659	CD1	LEU	C	738	16.206	58.591	83.119	1.00	55.87
ATOM	6660	CD2	LEU	C	738	15.862	56.229	83.863	1.00	55.87
ATOM	6661	C	LEU	C	738	16.072	59.486	87.563	1.00	40.69
ATOM	6662	O	LEU	C	738	15.025	59.622	88.196	1.00	40.69
ATOM	6663	N	ILE	C	739	17.255	59.339	88.147	1.00	48.62
ATOM	6664	CA	ILE	C	739	17.392	59.351	89.598	1.00	48.62
ATOM	6665	CB	ILE	C	739	18.868	59.122	90.017	1.00	48.58
ATOM	6666	CG2	ILE	C	739	19.000	59.173	91.535	1.00	48.58
ATOM	6667	CG1	ILE	C	739	19.366	57.779	89.474	1.00	48.58
ATOM	6668	CD1	ILE	C	739	18.596	56.572	89.992	1.00	48.58
ATOM	6669	C	ILE	C	739	16.924	60.709	90.127	1.00	48.62
ATOM	6670	O	ILE	C	739	16.003	60.788	90.945	1.00	48.62
ATOM	6671	N	ARG	C	740	17.568	61.764	89.630	1.00	75.14
ATOM	6672	CA	ARG	C	740	17.285	63.150	90.003	1.00	75.14
ATOM	6673	CB	ARG	C	740	18.102	64.095	89.109	1.00	79.29
ATOM	6674	CG	ARG	C	740	19.560	64.274	89.528	1.00	79.29
ATOM	6675	CD	ARG	C	740	20.417	64.893	88.414	1.00	79.29
ATOM	6676	NE	ARG	C	740	19.677	65.823	87.558	1.00	79.29
ATOM	6677	CZ	ARG	C	740	19.002	66.886	87.992	1.00	79.29
ATOM	6678	NH1	ARG	C	740	18.964	67.170	89.287	1.00	79.29
ATOM	6679	NH2	ARG	C	740	18.357	67.664	87.128	1.00	79.29
ATOM	6680	C	ARG	C	740	15.812	63.567	89.960	1.00	75.14
ATOM	6681	O	ARG	C	740	15.439	64.573	90.561	1.00	75.14
ATOM	6682	N	LYS	C	741	14.977	62.808	89.253	1.00	61.43
ATOM	6683	CA	LYS	C	741	13.558	63.147	89.159	1.00	61.43
ATOM	6684	CB	LYS	C	741	13.192	63.483	87.710	1.00	44.72
ATOM	6685	CG	LYS	C	741	13.984	64.653	87.152	1.00	44.72
ATOM	6686	CD	LYS	C	741	13.386	65.208	85.868	1.00	44.72
ATOM	6687	CE	LYS	C	741	13.541	64.253	84.702	1.00	44.72
ATOM	6688	NZ	LYS	C	741	12.954	64.829	83.450	1.00	44.72
ATOM	6689	C	LYS	C	741	12.636	62.050	89.682	1.00	61.43
ATOM	6690	O	LYS	C	741	11.414	62.198	89.660	1.00	61.43
ATOM	6691	N	ASN	C	742	13.227	60.957	90.156	1.00	94.90
ATOM	6692	CA	ASN	C	742	12.466	59.829	90.683	1.00	94.90
ATOM	6693	CB	ASN	C	742	11.472	60.300	91.744	1.00	65.84
ATOM	6694	CG	ASN	C	742	11.966	60.055	93.146	1.00	65.84
ATOM	6695	OD1	ASN	C	742	13.021	60.548	93.538	1.00	65.84
ATOM	6696	ND2	ASN	C	742	11.206	59.281	93.915	1.00	65.84
ATOM	6697	C	ASN	C	742	11.714	59.070	89.599	1.00	94.90
ATOM	6698	O	ASN	C	742	10.796	58.306	89.894	1.00	94.90
ATOM	6699	N	GLN	C	743	12.102	59.282	88.346	1.00	65.35
ATOM	6700	CA	GLN	C	743	11.454	58.605	87.228	1.00	65.35
ATOM	6701	CB	GLN	C	743	11.554	59.457	85.956	1.00	79.68
ATOM	6702	CG	GLN	C	743	10.914	60.839	86.066	1.00	79.68
ATOM	6703	CD	GLN	C	743	10.987	61.636	84.767	1.00	79.68
ATOM	6704	OE1	GLN	C	743	10.582	62.801	84.716	1.00	79.68
ATOM	6705	NE2	GLN	C	743	11.502	61.009	83.712	1.00	79.68
ATOM	6706	C	GLN	C	743	12.100	57.241	86.983	1.00	65.35
ATOM	6707	O	GLN	C	743	11.697	56.510	86.080	1.00	65.35
ATOM	6708	N	PHE	C	744	13.095	56.902	87.798	1.00	48.36
ATOM	6709	CA	PHE	C	744	13.802	55.633	87.652	1.00	48.36
ATOM	6710	CB	PHE	C	744	15.150	55.690	88.376	1.00	54.31
ATOM	6711	CG	PHE	C	744	15.960	54.426	88.248	1.00	54.31
ATOM	6712	CD1	PHE	C	744	16.549	54.079	87.034	1.00	54.31
ATOM	6713	CD2	PHE	C	744	16.127	53.577	89.337	1.00	54.31
ATOM	6714	CE1	PHE	C	744	17.292	52.909	86.908	1.00	54.31
ATOM	6715	CE2	PHE	C	744	16.869	52.404	89.219	1.00	54.31
ATOM	6716	CZ	PHE	C	744	17.451	52.072	88.002	1.00	54.31
ATOM	6717	C	PHE	C	744	13.016	54.432	88.168	1.00	48.36
ATOM	6718	O	PHE	C	744	12.774	54.311	89.368	1.00	48.36

ATOM	6719	N	ASN	C	745	12.636	53.540	87.256	1.00	46.77
ATOM	6720	CA	ASN	C	745	11.892	52.337	87.618	1.00	46.77
ATOM	6721	CB	ASN	C	745	10.409	52.512	87.285	1.00	80.36
ATOM	6722	CG	ASN	C	745	9.533	51.478	87.966	1.00	80.36
ATOM	6723	OD1	ASN	C	745	9.617	50.289	87.671	1.00	80.36
ATOM	6724	ND2	ASN	C	745	8.690	51.928	88.893	1.00	80.36
ATOM	6725	C	ASN	C	745	12.459	51.120	86.881	1.00	46.77
ATOM	6726	O	ASN	C	745	12.430	51.052	85.651	1.00	46.77
ATOM	6727	N	LEU	C	746	12.969	50.160	87.647	1.00	43.73
ATOM	6728	CA	LEU	C	746	13.565	48.953	87.086	1.00	43.73
ATOM	6729	CB	LEU	C	746	14.287	48.168	88.185	1.00	36.52
ATOM	6730	CG	LEU	C	746	15.609	48.806	88.625	1.00	36.52
ATOM	6731	CD1	LEU	C	746	16.191	48.054	89.810	1.00	36.52
ATOM	6732	CD2	LEU	C	746	16.584	48.797	87.457	1.00	36.52
ATOM	6733	C	LEU	C	746	12.590	48.046	86.355	1.00	43.73
ATOM	6734	O	LEU	C	746	12.991	47.028	85.787	1.00	43.73
ATOM	6735	N	GLU	C	747	11.312	48.412	86.368	1.00	60.15
ATOM	6736	CA	GLU	C	747	10.285	47.637	85.673	1.00	60.15
ATOM	6737	CB	GLU	C	747	8.884	48.110	86.070	1.00	94.20
ATOM	6738	CG	GLU	C	747	8.412	47.616	87.420	1.00	94.20
ATOM	6739	CD	GLU	C	747	8.114	46.135	87.410	1.00	94.20
ATOM	6740	OE1	GLU	C	747	7.191	45.722	86.674	1.00	94.20
ATOM	6741	OE2	GLU	C	747	8.803	45.384	88.133	1.00	94.20
ATOM	6742	C	GLU	C	747	10.473	47.839	84.178	1.00	60.15
ATOM	6743	O	GLU	C	747	10.017	47.033	83.369	1.00	60.15
ATOM	6744	N	ASP	C	748	11.145	48.933	83.826	1.00	44.71
ATOM	6745	CA	ASP	C	748	11.411	49.277	82.437	1.00	44.71
ATOM	6746	CB	ASP	C	748	11.601	50.791	82.316	1.00	63.72
ATOM	6747	CG	ASP	C	748	11.747	51.247	80.882	1.00	63.72
ATOM	6748	OD1	ASP	C	748	11.827	52.472	80.657	1.00	63.72
ATOM	6749	OD2	ASP	C	748	11.781	50.388	79.979	1.00	63.72
ATOM	6750	C	ASP	C	748	12.664	48.549	81.952	1.00	44.71
ATOM	6751	O	ASP	C	748	13.755	48.760	82.483	1.00	44.71
ATOM	6752	N	PRO	C	749	12.525	47.688	80.927	1.00	48.02
ATOM	6753	CD	PRO	C	749	11.333	47.483	80.086	1.00	42.24
ATOM	6754	CA	PRO	C	749	13.666	46.937	80.391	1.00	48.02
ATOM	6755	CB	PRO	C	749	13.050	46.143	79.244	1.00	42.24
ATOM	6756	CG	PRO	C	749	11.948	47.040	78.781	1.00	42.24
ATOM	6757	C	PRO	C	749	14.828	47.812	79.937	1.00	48.02
ATOM	6758	O	PRO	C	749	15.984	47.401	80.018	1.00	48.02
ATOM	6759	N	HIS	C	750	14.525	49.017	79.464	1.00	41.47
ATOM	6760	CA	HIS	C	750	15.575	49.924	79.014	1.00	41.47
ATOM	6761	CB	HIS	C	750	14.992	51.080	78.203	1.00	45.12
ATOM	6762	CG	HIS	C	750	16.025	52.054	77.727	1.00	45.12
ATOM	6763	CD2	HIS	C	750	16.795	52.061	76.613	1.00	45.12
ATOM	6764	ND1	HIS	C	750	16.402	53.159	78.460	1.00	45.12
ATOM	6765	CE1	HIS	C	750	17.359	53.806	77.818	1.00	45.12
ATOM	6766	NE2	HIS	C	750	17.617	53.160	76.695	1.00	45.12
ATOM	6767	C	HIS	C	750	16.351	50.470	80.205	1.00	41.47
ATOM	6768	O	HIS	C	750	17.575	50.569	80.172	1.00	41.47
ATOM	6769	N	GLU	C	751	15.630	50.830	81.256	1.00	31.39
ATOM	6770	CA	GLU	C	751	16.269	51.338	82.459	1.00	31.39
ATOM	6771	CB	GLU	C	751	15.233	51.984	83.373	1.00	47.86
ATOM	6772	CG	GLU	C	751	14.661	53.272	82.830	1.00	47.86
ATOM	6773	CD	GLU	C	751	13.554	53.816	83.706	1.00	47.86
ATOM	6774	OE1	GLU	C	751	13.811	54.079	84.901	1.00	47.86
ATOM	6775	OE2	GLU	C	751	12.426	53.978	83.197	1.00	47.86
ATOM	6776	C	GLU	C	751	16.985	50.210	83.204	1.00	31.39
ATOM	6777	O	GLU	C	751	17.974	50.451	83.887	1.00	31.39
ATOM	6778	N	LYS	C	752	16.478	48.985	83.079	1.00	32.71
ATOM	6779	CA	LYS	C	752	17.092	47.830	83.735	1.00	32.71
ATOM	6780	CB	LYS	C	752	16.209	46.585	83.564	1.00	31.85
ATOM	6781	CG	LYS	C	752	16.876	45.257	83.934	1.00	31.85
ATOM	6782	CD	LYS	C	752	17.344	45.208	85.382	1.00	31.85
ATOM	6783	CE	LYS	C	752	16.210	44.877	86.335	1.00	31.85
ATOM	6784	NZ	LYS	C	752	15.635	43.525	86.066	1.00	31.85

ATOM	6785	C	LYS	C	752	18.453	47.610	83.084	1.00	32.71
ATOM	6786	O	LYS	C	752	19.471	47.438	83.765	1.00	32.71
ATOM	6787	N	GLU	C	753	18.453	47.626	81.755	1.00	28.56
ATOM	6788	CA	GLU	C	753	19.665	47.459	80.971	1.00	28.56
ATOM	6789	CB	GLU	C	753	19.319	47.524	79.482	1.00	59.09
ATOM	6790	CG	GLU	C	753	20.514	47.491	78.547	1.00	59.09
ATOM	6791	CD	GLU	C	753	20.103	47.455	77.081	1.00	59.09
ATOM	6792	OE1	GLU	C	753	19.398	46.501	76.679	1.00	59.09
ATOM	6793	OE2	GLU	C	753	20.485	48.380	76.332	1.00	59.09
ATOM	6794	C	GLU	C	753	20.619	48.596	81.339	1.00	28.56
ATOM	6795	O	GLU	C	753	21.832	48.417	81.410	1.00	28.56
ATOM	6796	N	LEU	C	754	20.051	49.770	81.589	1.00	28.80
ATOM	6797	CA	LEU	C	754	20.850	50.928	81.946	1.00	28.80
ATOM	6798	CB	LEU	C	754	19.971	52.178	81.989	1.00	28.35
ATOM	6799	CG	LEU	C	754	20.601	53.481	81.501	1.00	28.35
ATOM	6800	CD1	LEU	C	754	19.680	54.631	81.899	1.00	28.35
ATOM	6801	CD2	LEU	C	754	22.003	53.664	82.073	1.00	28.35
ATOM	6802	C	LEU	C	754	21.497	50.718	83.311	1.00	28.80
ATOM	6803	O	LEU	C	754	22.684	50.990	83.495	1.00	28.80
ATOM	6804	N	PHE	C	755	20.705	50.237	84.265	1.00	20.13
ATOM	6805	CA	PHE	C	755	21.182	49.994	85.621	1.00	20.13
ATOM	6806	CB	PHE	C	755	20.038	49.523	86.506	1.00	22.00
ATOM	6807	CG	PHE	C	755	20.463	49.164	87.899	1.00	22.00
ATOM	6808	CD1	PHE	C	755	21.030	50.121	88.732	1.00	22.00
ATOM	6809	CD2	PHE	C	755	20.296	47.867	88.377	1.00	22.00
ATOM	6810	CE1	PHE	C	755	21.426	49.799	90.019	1.00	22.00
ATOM	6811	CE2	PHE	C	755	20.690	47.529	89.675	1.00	22.00
ATOM	6812	CZ	PHE	C	755	21.256	48.498	90.500	1.00	22.00
ATOM	6813	C	PHE	C	755	22.291	48.951	85.653	1.00	20.13
ATOM	6814	O	PHE	C	755	23.249	49.076	86.415	1.00	20.13
ATOM	6815	N	LEU	C	756	22.143	47.918	84.834	1.00	27.96
ATOM	6816	CA	LEU	C	756	23.134	46.874	84.772	1.00	27.96
ATOM	6817	CB	LEU	C	756	22.694	45.782	83.802	1.00	29.95
ATOM	6818	CG	LEU	C	756	21.534	44.935	84.316	1.00	29.95
ATOM	6819	CD1	LEU	C	756	21.181	43.910	83.271	1.00	29.95
ATOM	6820	CD2	LEU	C	756	21.908	44.263	85.632	1.00	29.95
ATOM	6821	C	LEU	C	756	24.470	47.451	84.344	1.00	27.96
ATOM	6822	O	LEU	C	756	25.503	47.124	84.936	1.00	27.96
ATOM	6823	N	ALA	C	757	24.454	48.310	83.327	1.00	25.40
ATOM	6824	CA	ALA	C	757	25.689	48.924	82.851	1.00	25.40
ATOM	6825	CB	ALA	C	757	25.413	49.774	81.603	1.00	21.64
ATOM	6826	C	ALA	C	757	26.343	49.783	83.942	1.00	25.40
ATOM	6827	O	ALA	C	757	27.569	49.758	84.114	1.00	25.40
ATOM	6828	N	MET	C	758	25.529	50.546	84.673	1.00	23.13
ATOM	6829	CA	MET	C	758	26.049	51.401	85.742	1.00	23.13
ATOM	6830	CB	MET	C	758	24.957	52.349	86.255	1.00	31.37
ATOM	6831	CG	MET	C	758	24.353	53.267	85.187	1.00	31.37
ATOM	6832	SD	MET	C	758	25.556	54.359	84.394	1.00	31.37
ATOM	6833	CE	MET	C	758	25.686	55.603	85.580	1.00	31.37
ATOM	6834	C	MET	C	758	26.577	50.546	86.897	1.00	23.13
ATOM	6835	O	MET	C	758	27.526	50.925	87.582	1.00	23.13
ATOM	6836	N	LEU	C	759	25.958	49.393	87.114	1.00	16.76
ATOM	6837	CA	LEU	C	759	26.398	48.506	88.181	1.00	16.76
ATOM	6838	CB	LEU	C	759	25.368	47.407	88.422	1.00	25.34
ATOM	6839	CG	LEU	C	759	25.656	46.408	89.545	1.00	25.34
ATOM	6840	CD1	LEU	C	759	26.020	47.120	90.845	1.00	25.34
ATOM	6841	CD2	LEU	C	759	24.417	45.541	89.740	1.00	25.34
ATOM	6842	C	LEU	C	759	27.750	47.890	87.836	1.00	16.76
ATOM	6843	O	LEU	C	759	28.585	47.716	88.711	1.00	16.76
ATOM	6844	N	MET	C	760	27.965	47.568	86.560	1.00	23.63
ATOM	6845	CA	MET	C	760	29.237	46.985	86.125	1.00	23.63
ATOM	6846	CB	MET	C	760	29.186	46.583	84.643	1.00	23.41
ATOM	6847	CG	MET	C	760	28.466	45.274	84.358	1.00	23.41
ATOM	6848	SD	MET	C	760	29.220	43.845	85.164	1.00	23.41
ATOM	6849	CE	MET	C	760	30.851	43.798	84.359	1.00	23.41
ATOM	6850	C	MET	C	760	30.369	47.983	86.342	1.00	23.63

ATOM	6851	O	MET	C	760	31.444	47.607	86.811	1.00	23.63
ATOM	6852	N	THR	C	761	30.127	49.248	85.992	1.00	19.57
ATOM	6853	CA	THR	C	761	31.121	50.306	86.172	1.00	19.57
ATOM	6854	CB	THR	C	761	30.611	51.645	85.594	1.00	19.91
ATOM	6855	OG1	THR	C	761	30.356	51.491	84.195	1.00	19.91
ATOM	6856	CG2	THR	C	761	31.638	52.743	85.791	1.00	19.91
ATOM	6857	C	THR	C	761	31.406	50.480	87.672	1.00	19.57
ATOM	6858	O	THR	C	761	32.559	50.561	88.100	1.00	19.57
ATOM	6859	N	ALA	C	762	30.343	50.531	88.469	1.00	19.00
ATOM	6860	CA	ALA	C	762	30.478	50.679	89.916	1.00	19.00
ATOM	6861	CB	ALA	C	762	29.113	50.611	90.562	1.00	21.44
ATOM	6862	C	ALA	C	762	31.392	49.600	90.515	1.00	19.00
ATOM	6863	O	ALA	C	762	32.242	49.890	91.352	1.00	19.00
ATOM	6864	N	CYS	C	763	31.216	48.356	90.087	1.00	21.49
ATOM	6865	CA	CYS	C	763	32.039	47.269	90.598	1.00	21.49
ATOM	6866	CB	CYS	C	763	31.394	45.920	90.289	1.00	21.52
ATOM	6867	SG	CYS	C	763	29.810	45.671	91.134	1.00	21.52
ATOM	6868	C	CYS	C	763	33.433	47.321	90.001	1.00	21.49
ATOM	6869	O	CYS	C	763	34.417	47.055	90.687	1.00	21.49
ATOM	6870	N	ASP	C	764	33.516	47.672	88.723	1.00	14.77
ATOM	6871	CA	ASP	C	764	34.800	47.754	88.037	1.00	14.77
ATOM	6872	CB	ASP	C	764	34.591	48.107	86.567	1.00	27.12
ATOM	6873	CG	ASP	C	764	35.860	47.936	85.746	1.00	27.12
ATOM	6874	OD1	ASP	C	764	35.908	48.419	84.594	1.00	27.12
ATOM	6875	OD2	ASP	C	764	36.810	47.306	86.261	1.00	27.12
ATOM	6876	C	ASP	C	764	35.756	48.780	88.671	1.00	14.77
ATOM	6877	O	ASP	C	764	36.974	48.599	88.649	1.00	14.77
ATOM	6878	N	LEU	C	765	35.201	49.858	89.224	1.00	16.29
ATOM	6879	CA	LEU	C	765	36.004	50.898	89.858	1.00	16.29
ATOM	6880	CB	LEU	C	765	35.448	52.285	89.509	1.00	14.88
ATOM	6881	CG	LEU	C	765	35.141	52.569	88.033	1.00	14.88
ATOM	6882	CD1	LEU	C	765	34.684	54.032	87.867	1.00	14.88
ATOM	6883	CD2	LEU	C	765	36.387	52.291	87.185	1.00	14.88
ATOM	6884	C	LEU	C	765	36.010	50.749	91.382	1.00	16.29
ATOM	6885	O	LEU	C	765	36.571	51.591	92.081	1.00	16.29
ATOM	6886	N	SER	C	766	35.402	49.681	91.890	1.00	27.87
ATOM	6887	CA	SER	C	766	35.302	49.452	93.338	1.00	27.87
ATOM	6888	CB	SER	C	766	34.809	48.025	93.620	1.00	30.07
ATOM	6889	OG	SER	C	766	35.836	47.068	93.449	1.00	30.07
ATOM	6890	C	SER	C	766	36.545	49.742	94.202	1.00	27.87
ATOM	6891	O	SER	C	766	36.411	50.060	95.386	1.00	27.87
ATOM	6892	N	ALA	C	767	37.740	49.648	93.628	1.00	20.86
ATOM	6893	CA	ALA	C	767	38.961	49.910	94.388	1.00	20.86
ATOM	6894	CB	ALA	C	767	40.192	49.725	93.496	1.00	17.34
ATOM	6895	C	ALA	C	767	38.961	51.311	94.998	1.00	20.86
ATOM	6896	O	ALA	C	767	39.481	51.519	96.101	1.00	20.86
ATOM	6897	N	ILE	C	768	38.370	52.268	94.285	1.00	23.14
ATOM	6898	CA	ILE	C	768	38.299	53.646	94.759	1.00	23.14
ATOM	6899	CB	ILE	C	768	37.723	54.585	93.663	1.00	14.28
ATOM	6900	CG2	ILE	C	768	36.198	54.501	93.618	1.00	14.28
ATOM	6901	CG1	ILE	C	768	38.169	56.017	93.933	1.00	14.28
ATOM	6902	CD1	ILE	C	768	39.642	56.234	93.663	1.00	14.28
ATOM	6903	C	ILE	C	768	37.440	53.790	96.027	1.00	23.14
ATOM	6904	O	ILE	C	768	37.413	54.861	96.647	1.00	23.14
ATOM	6905	N	THR	C	769	36.749	52.721	96.416	1.00	22.18
ATOM	6906	CA	THR	C	769	35.889	52.769	97.607	1.00	22.18
ATOM	6907	CB	THR	C	769	34.472	52.196	97.315	1.00	18.99
ATOM	6908	OG1	THR	C	769	34.541	50.768	97.199	1.00	18.99
ATOM	6909	CG2	THR	C	769	33.915	52.774	96.027	1.00	18.99
ATOM	6910	C	THR	C	769	36.466	52.009	98.807	1.00	22.18
ATOM	6911	O	THR	C	769	35.989	52.147	99.933	1.00	22.18
ATOM	6912	N	LYS	C	770	37.503	51.218	98.564	1.00	36.44
ATOM	6913	CA	LYS	C	770	38.139	50.421	99.618	1.00	36.44
ATOM	6914	CB	LYS	C	770	39.190	49.502	98.995	1.00	20.83
ATOM	6915	CG	LYS	C	770	38.633	48.465	98.028	1.00	20.83
ATOM	6916	CD	LYS	C	770	37.751	47.468	98.740	1.00	20.83

ATOM	6917	CE	LYS	C	770	37.392	46.299	97.829	1.00	20.83
ATOM	6918	NZ	LYS	C	770	36.498	45.351	98.550	1.00	20.83
ATOM	6919	C	LYS	C	770	38.800	51.233	100.736	1.00	36.44
ATOM	6920	O	LYS	C	770	39.048	52.426	100.584	1.00	36.44
ATOM	6921	N	PRO	C	771	39.080	50.587	101.886	1.00	27.76
ATOM	6922	CD	PRO	C	771	38.676	49.218	102.256	1.00	30.30
ATOM	6923	CA	PRO	C	771	39.726	51.263	103.020	1.00	27.76
ATOM	6924	CB	PRO	C	771	39.980	50.122	103.996	1.00	30.30
ATOM	6925	CG	PRO	C	771	38.793	49.242	103.770	1.00	30.30
ATOM	6926	C	PRO	C	771	41.021	51.884	102.508	1.00	27.76
ATOM	6927	O	PRO	C	771	41.645	51.341	101.596	1.00	27.76
ATOM	6928	N	TRP	C	772	41.430	53.004	103.096	1.00	30.52
ATOM	6929	CA	TRP	C	772	42.637	53.699	102.653	1.00	30.52
ATOM	6930	CB	TRP	C	772	43.054	54.758	103.677	1.00	36.81
ATOM	6931	CG	TRP	C	772	44.343	55.393	103.308	1.00	36.81
ATOM	6932	CD2	TRP	C	772	44.633	56.102	102.095	1.00	36.81
ATOM	6933	CE2	TRP	C	772	46.002	56.455	102.134	1.00	36.81
ATOM	6934	CE3	TRP	C	772	43.872	56.468	100.977	1.00	36.81
ATOM	6935	CD1	TRP	C	772	45.505	55.349	104.012	1.00	36.81
ATOM	6936	NE1	TRP	C	772	46.512	55.984	103.315	1.00	36.81
ATOM	6937	CZ2	TRP	C	772	46.626	57.160	101.099	1.00	36.81
ATOM	6938	CZ3	TRP	C	772	44.494	57.171	99.946	1.00	36.81
ATOM	6939	CH2	TRP	C	772	45.858	57.509	100.017	1.00	36.81
ATOM	6940	C	TRP	C	772	43.847	52.827	102.296	1.00	30.52
ATOM	6941	O	TRP	C	772	44.342	52.881	101.167	1.00	30.52
ATOM	6942	N	PRO	C	773	44.340	52.012	103.244	1.00	35.77
ATOM	6943	CD	PRO	C	773	43.735	51.643	104.536	1.00	53.66
ATOM	6944	CA	PRO	C	773	45.500	51.158	102.952	1.00	35.77
ATOM	6945	CB	PRO	C	773	45.568	50.235	104.171	1.00	53.66
ATOM	6946	CG	PRO	C	773	44.134	50.197	104.659	1.00	53.66
ATOM	6947	C	PRO	C	773	45.399	50.382	101.635	1.00	35.77
ATOM	6948	O	PRO	C	773	46.364	50.310	100.872	1.00	35.77
ATOM	6949	N	ILE	C	774	44.238	49.795	101.371	1.00	21.66
ATOM	6950	CA	ILE	C	774	44.065	49.049	100.135	1.00	21.66
ATOM	6951	CB	ILE	C	774	42.848	48.079	100.210	1.00	49.78
ATOM	6952	CG2	ILE	C	774	41.708	48.718	100.955	1.00	49.78
ATOM	6953	CG1	ILE	C	774	42.433	47.653	98.802	1.00	49.78
ATOM	6954	CD1	ILE	C	774	41.288	46.666	98.764	1.00	49.78
ATOM	6955	C	ILE	C	774	43.940	49.986	98.934	1.00	21.66
ATOM	6956	O	ILE	C	774	44.563	49.743	97.902	1.00	21.66
ATOM	6957	N	GLN	C	775	43.164	51.061	99.065	1.00	28.41
ATOM	6958	CA	GLN	C	775	43.003	52.017	97.960	1.00	28.41
ATOM	6959	CB	GLN	C	775	42.262	53.279	98.426	1.00	31.54
ATOM	6960	CG	GLN	C	775	41.438	54.011	97.359	1.00	31.54
ATOM	6961	CD	GLN	C	775	42.127	54.157	96.013	1.00	31.54
ATOM	6962	OE1	GLN	C	775	43.065	54.938	95.851	1.00	31.54
ATOM	6963	NE2	GLN	C	775	41.653	53.398	95.034	1.00	31.54
ATOM	6964	C	GLN	C	775	44.392	52.441	97.495	1.00	28.41
ATOM	6965	O	GLN	C	775	44.712	52.409	96.308	1.00	28.41
ATOM	6966	N	GLN	C	776	45.210	52.832	98.464	1.00	22.24
ATOM	6967	CA	GLN	C	776	46.567	53.296	98.213	1.00	22.24
ATOM	6968	CB	GLN	C	776	47.223	53.657	99.545	1.00	49.59
ATOM	6969	CG	GLN	C	776	48.584	54.313	99.435	1.00	49.59
ATOM	6970	CD	GLN	C	776	49.002	54.970	100.741	1.00	49.59
ATOM	6971	OE1	GLN	C	776	48.891	54.370	101.816	1.00	49.59
ATOM	6972	NE2	GLN	C	776	49.489	56.206	100.653	1.00	49.59
ATOM	6973	C	GLN	C	776	47.422	52.291	97.454	1.00	22.24
ATOM	6974	O	GLN	C	776	48.131	52.657	96.515	1.00	22.24
ATOM	6975	N	ARG	C	777	47.347	51.027	97.858	1.00	37.11
ATOM	6976	CA	ARG	C	777	48.125	49.964	97.225	1.00	37.11
ATOM	6977	CB	ARG	C	777	47.993	48.669	98.040	1.00	61.52
ATOM	6978	CG	ARG	C	777	48.536	47.411	97.361	1.00	61.52
ATOM	6979	CD	ARG	C	777	48.609	46.231	98.340	1.00	61.52
ATOM	6980	NE	ARG	C	777	47.332	45.913	98.987	1.00	61.52
ATOM	6981	CZ	ARG	C	777	46.317	45.275	98.403	1.00	61.52
ATOM	6982	NH1	ARG	C	777	46.410	44.875	97.139	1.00	61.52

ATOM	6983	NH2	ARG	C	777	45.209	45.019	99.091	1.00	61.52
ATOM	6984	C	ARG	C	777	47.713	49.718	95.775	1.00	37.11
ATOM	6985	O	ARG	C	777	48.563	49.576	94.899	1.00	37.11
ATOM	6986	N	ILE	C	778	46.408	49.680	95.524	1.00	22.32
ATOM	6987	CA	ILE	C	778	45.899	49.435	94.180	1.00	22.32
ATOM	6988	CB	ILE	C	778	44.393	49.057	94.224	1.00	29.90
ATOM	6989	CG2	ILE	C	778	43.804	49.045	92.824	1.00	29.90
ATOM	6990	CG1	ILE	C	778	44.241	47.677	94.868	1.00	29.90
ATOM	6991	CD1	ILE	C	778	42.816	47.166	94.935	1.00	29.90
ATOM	6992	C	ILE	C	778	46.117	50.619	93.243	1.00	22.32
ATOM	6993	O	ILE	C	778	46.443	50.434	92.073	1.00	22.32
ATOM	6994	N	ALA	C	779	45.950	51.833	93.749	1.00	24.72
ATOM	6995	CA	ALA	C	779	46.161	53.006	92.909	1.00	24.72
ATOM	6996	CB	ALA	C	779	45.872	54.274	93.694	1.00	14.92
ATOM	6997	C	ALA	C	779	47.609	53.000	92.423	1.00	24.72
ATOM	6998	O	ALA	C	779	47.910	53.478	91.329	1.00	24.72
ATOM	6999	N	GLU	C	780	48.506	52.453	93.240	1.00	32.21
ATOM	7000	CA	GLU	C	780	49.913	52.387	92.868	1.00	32.21
ATOM	7001	CB	GLU	C	780	50.764	51.950	94.061	1.00	65.69
ATOM	7002	CG	GLU	C	780	52.259	51.960	93.797	1.00	65.69
ATOM	7003	CD	GLU	C	780	53.068	51.717	95.058	1.00	65.69
ATOM	7004	OE1	GLU	C	780	53.000	52.564	95.978	1.00	65.69
ATOM	7005	OE2	GLU	C	780	53.766	50.681	95.132	1.00	65.69
ATOM	7006	C	GLU	C	780	50.042	51.387	91.722	1.00	32.21
ATOM	7007	O	GLU	C	780	50.886	51.546	90.841	1.00	32.21
ATOM	7008	N	LEU	C	781	49.200	50.355	91.743	1.00	28.49
ATOM	7009	CA	LEU	C	781	49.210	49.360	90.672	1.00	28.49
ATOM	7010	CB	LEU	C	781	48.320	48.167	91.029	1.00	35.61
ATOM	7011	CG	LEU	C	781	48.977	47.056	91.855	1.00	35.61
ATOM	7012	CD1	LEU	C	781	49.459	47.610	93.168	1.00	35.61
ATOM	7013	CD2	LEU	C	781	47.984	45.933	92.095	1.00	35.61
ATOM	7014	C	LEU	C	781	48.714	50.017	89.380	1.00	28.49
ATOM	7015	O	LEU	C	781	49.243	49.758	88.305	1.00	28.49
ATOM	7016	N	VAL	C	782	47.707	50.880	89.496	1.00	24.49
ATOM	7017	CA	VAL	C	782	47.163	51.579	88.337	1.00	24.49
ATOM	7018	CB	VAL	C	782	45.982	52.483	88.747	1.00	24.38
ATOM	7019	CG1	VAL	C	782	45.446	53.222	87.545	1.00	24.38
ATOM	7020	CG2	VAL	C	782	44.885	51.643	89.410	1.00	24.38
ATOM	7021	C	VAL	C	782	48.259	52.451	87.714	1.00	24.49
ATOM	7022	O	VAL	C	782	48.459	52.448	86.494	1.00	24.49
ATOM	7023	N	ALA	C	783	48.959	53.196	88.571	1.00	31.24
ATOM	7024	CA	ALA	C	783	50.047	54.067	88.139	1.00	31.24
ATOM	7025	CB	ALA	C	783	50.645	54.798	89.343	1.00	28.59
ATOM	7026	C	ALA	C	783	51.128	53.254	87.425	1.00	31.24
ATOM	7027	O	ALA	C	783	51.576	53.620	86.339	1.00	31.24
ATOM	7028	N	THR	C	784	51.540	52.146	88.035	1.00	31.72
ATOM	7029	CA	THR	C	784	52.563	51.301	87.436	1.00	31.72
ATOM	7030	CB	THR	C	784	52.760	50.007	88.235	1.00	24.28
ATOM	7031	OG1	THR	C	784	53.104	50.330	89.584	1.00	24.28
ATOM	7032	CG2	THR	C	784	53.864	49.155	87.621	1.00	24.28
ATOM	7033	C	THR	C	784	52.162	50.930	86.016	1.00	31.72
ATOM	7034	O	THR	C	784	52.947	51.075	85.082	1.00	31.72
ATOM	7035	N	GLU	C	785	50.932	50.453	85.854	1.00	27.90
ATOM	7036	CA	GLU	C	785	50.447	50.069	84.537	1.00	27.90
ATOM	7037	CB	GLU	C	785	49.034	49.483	84.642	1.00	26.94
ATOM	7038	CG	GLU	C	785	48.504	48.943	83.327	1.00	26.94
ATOM	7039	CD	GLU	C	785	47.249	48.086	83.500	1.00	26.94
ATOM	7040	OE1	GLU	C	785	46.309	48.251	82.690	1.00	26.94
ATOM	7041	OE2	GLU	C	785	47.213	47.250	84.430	1.00	26.94
ATOM	7042	C	GLU	C	785	50.460	51.283	83.609	1.00	27.90
ATOM	7043	O	GLU	C	785	50.817	51.174	82.433	1.00	27.90
ATOM	7044	N	PHE	C	786	50.072	52.441	84.134	1.00	32.14
ATOM	7045	CA	PHE	C	786	50.076	53.650	83.319	1.00	32.14
ATOM	7046	CB	PHE	C	786	49.507	54.843	84.087	1.00	29.58
ATOM	7047	CG	PHE	C	786	48.015	54.821	84.228	1.00	29.58
ATOM	7048	CD1	PHE	C	786	47.223	54.150	83.304	1.00	29.58

ATOM	7049	CD2	PHE	C	786	47.397	55.498	85.274	1.00	29.58
ATOM	7050	CE1	PHE	C	786	45.843	54.150	83.418	1.00	29.58
ATOM	7051	CE2	PHE	C	786	46.017	55.504	85.395	1.00	29.58
ATOM	7052	CZ	PHE	C	786	45.235	54.826	84.462	1.00	29.58
ATOM	7053	C	PHE	C	786	51.505	53.958	82.897	1.00	32.14
ATOM	7054	O	PHE	C	786	51.774	54.208	81.724	1.00	32.14
ATOM	7055	N	PHE	C	787	52.420	53.924	83.861	1.00	29.32
ATOM	7056	CA	PHE	C	787	53.819	54.204	83.587	1.00	29.32
ATOM	7057	CB	PHE	C	787	54.614	54.267	84.896	1.00	31.08
ATOM	7058	CG	PHE	C	787	54.126	55.323	85.853	1.00	31.08
ATOM	7059	CD1	PHE	C	787	53.657	56.541	85.386	1.00	31.08
ATOM	7060	CD2	PHE	C	787	54.171	55.109	87.225	1.00	31.08
ATOM	7061	CE1	PHE	C	787	53.241	57.534	86.271	1.00	31.08
ATOM	7062	CE2	PHE	C	787	53.759	56.093	88.120	1.00	31.08
ATOM	7063	CZ	PHE	C	787	53.292	57.309	87.644	1.00	31.08
ATOM	7064	C	PHE	C	787	54.437	53.170	82.651	1.00	29.32
ATOM	7065	O	PHE	C	787	55.176	53.525	81.726	1.00	29.32
ATOM	7066	N	ASP	C	788	54.148	51.892	82.889	1.00	38.43
ATOM	7067	CA	ASP	C	788	54.689	50.836	82.036	1.00	38.43
ATOM	7068	CB	ASP	C	788	54.130	49.465	82.440	1.00	41.13
ATOM	7069	CG	ASP	C	788	54.796	48.900	83.688	1.00	41.13
ATOM	7070	OD1	ASP	C	788	54.446	47.768	84.086	1.00	41.13
ATOM	7071	OD2	ASP	C	788	55.669	49.583	84.267	1.00	41.13
ATOM	7072	C	ASP	C	788	54.333	51.135	80.581	1.00	38.43
ATOM	7073	O	ASP	C	788	55.150	50.954	79.676	1.00	38.43
ATOM	7074	N	GLN	C	789	53.112	51.605	80.357	1.00	37.17
ATOM	7075	CA	GLN	C	789	52.689	51.933	79.003	1.00	37.17
ATOM	7076	CB	GLN	C	789	51.194	52.257	78.981	1.00	40.94
ATOM	7077	CG	GLN	C	789	50.648	52.620	77.621	1.00	40.94
ATOM	7078	CD	GLN	C	789	49.138	52.743	77.621	1.00	40.94
ATOM	7079	OE1	GLN	C	789	48.544	53.223	76.655	1.00	40.94
ATOM	7080	NE2	GLN	C	789	48.505	52.305	78.708	1.00	40.94
ATOM	7081	C	GLN	C	789	53.513	53.129	78.527	1.00	37.17
ATOM	7082	O	GLN	C	789	53.868	53.226	77.355	1.00	37.17
ATOM	7083	N	GLY	C	790	53.825	54.034	79.447	1.00	38.08
ATOM	7084	CA	GLY	C	790	54.620	55.194	79.089	1.00	38.08
ATOM	7085	C	GLY	C	790	55.939	54.785	78.456	1.00	38.08
ATOM	7086	O	GLY	C	790	56.211	55.124	77.306	1.00	38.08
ATOM	7087	N	ASP	C	791	56.761	54.050	79.200	1.00	33.33
ATOM	7088	CA	ASP	C	791	58.052	53.607	78.689	1.00	33.33
ATOM	7089	CB	ASP	C	791	58.762	52.717	79.712	1.00	48.19
ATOM	7090	CG	ASP	C	791	58.651	53.246	81.126	1.00	48.19
ATOM	7091	OD1	ASP	C	791	58.784	54.472	81.327	1.00	48.19
ATOM	7092	OD2	ASP	C	791	58.441	52.423	82.039	1.00	48.19
ATOM	7093	C	ASP	C	791	57.880	52.822	77.390	1.00	33.33
ATOM	7094	O	ASP	C	791	58.574	53.069	76.400	1.00	33.33
ATOM	7095	N	ARG	C	792	56.953	51.867	77.410	1.00	48.47
ATOM	7096	CA	ARG	C	792	56.670	51.032	76.250	1.00	48.47
ATOM	7097	CB	ARG	C	792	55.466	50.118	76.553	1.00	49.67
ATOM	7098	CG	ARG	C	792	55.161	49.079	75.480	1.00	49.67
ATOM	7099	CD	ARG	C	792	54.124	48.041	75.932	1.00	49.67
ATOM	7100	NE	ARG	C	792	52.788	48.606	76.141	1.00	49.67
ATOM	7101	CZ	ARG	C	792	52.234	48.812	77.334	1.00	49.67
ATOM	7102	NH1	ARG	C	792	52.894	48.501	78.442	1.00	49.67
ATOM	7103	NH2	ARG	C	792	51.013	49.325	77.418	1.00	49.67
ATOM	7104	C	ARG	C	792	56.389	51.911	75.027	1.00	48.47
ATOM	7105	O	ARG	C	792	56.900	51.656	73.934	1.00	48.47
ATOM	7106	N	GLU	C	793	55.598	52.961	75.222	1.00	45.70
ATOM	7107	CA	GLU	C	793	55.247	53.862	74.130	1.00	45.70
ATOM	7108	CB	GLU	C	793	54.017	54.696	74.516	1.00	51.26
ATOM	7109	CG	GLU	C	793	52.862	54.575	73.521	1.00	51.26
ATOM	7110	CD	GLU	C	793	51.495	54.862	74.132	1.00	51.26
ATOM	7111	OE1	GLU	C	793	51.303	55.955	74.710	1.00	51.26
ATOM	7112	OE2	GLU	C	793	50.606	53.991	74.026	1.00	51.26
ATOM	7113	C	GLU	C	793	56.409	54.770	73.735	1.00	45.70
ATOM	7114	O	GLU	C	793	56.366	55.431	72.695	1.00	45.70

ATOM	7115	N	ARG	C	794	57.447	54.795	74.566	1.00	41.23
ATOM	7116	CA	ARG	C	794	58.628	55.607	74.296	1.00	41.23
ATOM	7117	CB	ARG	C	794	59.300	56.021	75.607	1.00	49.35
ATOM	7118	CG	ARG	C	794	60.704	56.591	75.437	1.00	49.35
ATOM	7119	CD	ARG	C	794	61.316	56.940	76.780	1.00	49.35
ATOM	7120	NE	ARG	C	794	60.647	58.080	77.397	1.00	49.35
ATOM	7121	CZ	ARG	C	794	60.514	58.244	78.708	1.00	49.35
ATOM	7122	NH1	ARG	C	794	61.003	57.337	79.542	1.00	49.35
ATOM	7123	NH2	ARG	C	794	59.894	59.313	79.187	1.00	49.35
ATOM	7124	C	ARG	C	794	59.618	54.818	73.441	1.00	41.23
ATOM	7125	O	ARG	C	794	60.252	55.365	72.540	1.00	41.23
ATOM	7126	N	LYS	C	795	59.751	53.529	73.738	1.00	60.88
ATOM	7127	CA	LYS	C	795	60.659	52.664	72.997	1.00	60.88
ATOM	7128	CB	LYS	C	795	61.174	51.538	73.903	1.00	74.44
ATOM	7129	CG	LYS	C	795	62.099	50.545	73.206	1.00	74.44
ATOM	7130	CD	LYS	C	795	62.847	49.654	74.194	1.00	74.44
ATOM	7131	CE	LYS	C	795	64.002	50.392	74.888	1.00	74.44
ATOM	7132	NZ	LYS	C	795	63.573	51.532	75.755	1.00	74.44
ATOM	7133	C	LYS	C	795	59.947	52.074	71.789	1.00	60.88
ATOM	7134	O	LYS	C	795	60.535	51.308	71.026	1.00	60.88
ATOM	7135	N	GLU	C	796	58.682	52.446	71.615	1.00	58.77
ATOM	7136	CA	GLU	C	796	57.880	51.939	70.506	1.00	58.77
ATOM	7137	CB	GLU	C	796	56.572	51.337	71.030	1.00	89.89
ATOM	7138	CG	GLU	C	796	56.399	49.849	70.752	1.00	89.89
ATOM	7139	CD	GLU	C	796	57.265	48.976	71.639	1.00	89.89
ATOM	7140	OE1	GLU	C	796	57.026	48.948	72.863	1.00	89.89
ATOM	7141	OE2	GLU	C	796	58.186	48.319	71.113	1.00	89.89
ATOM	7142	C	GLU	C	796	57.553	53.011	69.477	1.00	58.77
ATOM	7143	O	GLU	C	796	57.590	52.755	68.278	1.00	58.77
ATOM	7144	N	LEU	C	797	57.225	54.208	69.947	1.00	52.05
ATOM	7145	CA	LEU	C	797	56.878	55.306	69.052	1.00	52.05
ATOM	7146	CB	LEU	C	797	55.462	55.812	69.355	1.00	57.66
ATOM	7147	CG	LEU	C	797	54.246	54.935	69.028	1.00	57.66
ATOM	7148	CD1	LEU	C	797	54.332	53.593	69.735	1.00	57.66
ATOM	7149	CD2	LEU	C	797	52.990	55.670	69.454	1.00	57.66
ATOM	7150	C	LEU	C	797	57.858	56.462	69.179	1.00	52.05
ATOM	7151	O	LEU	C	797	57.754	57.451	68.455	1.00	52.05
ATOM	7152	N	ASN	C	798	58.811	56.327	70.098	1.00	85.25
ATOM	7153	CA	ASN	C	798	59.806	57.367	70.349	1.00	85.25
ATOM	7154	CB	ASN	C	798	60.678	57.606	69.110	1.00	92.36
ATOM	7155	CG	ASN	C	798	62.017	56.895	69.195	1.00	92.36
ATOM	7156	OD1	ASN	C	798	62.081	55.666	69.241	1.00	92.36
ATOM	7157	ND2	ASN	C	798	63.097	57.671	69.225	1.00	92.36
ATOM	7158	C	ASN	C	798	59.135	58.669	70.767	1.00	85.25
ATOM	7159	O	ASN	C	798	59.708	59.751	70.626	1.00	85.25
ATOM	7160	N	ILE	C	799	57.918	58.554	71.289	1.00	82.98
ATOM	7161	CA	ILE	C	799	57.170	59.719	71.736	1.00	82.98
ATOM	7162	CB	ILE	C	799	55.673	59.605	71.374	1.00	76.02
ATOM	7163	CG2	ILE	C	799	55.519	59.298	69.892	1.00	76.02
ATOM	7164	CG1	ILE	C	799	55.013	58.505	72.207	1.00	76.02
ATOM	7165	CD1	ILE	C	799	53.513	58.429	72.039	1.00	76.02
ATOM	7166	C	ILE	C	799	57.283	59.868	73.247	1.00	82.98
ATOM	7167	O	ILE	C	799	57.269	58.879	73.982	1.00	82.98
ATOM	7168	N	GLU	C	800	57.405	61.108	73.706	1.00	47.58
ATOM	7169	CA	GLU	C	800	57.495	61.372	75.131	1.00	47.58
ATOM	7170	CB	GLU	C	800	57.959	62.808	75.371	1.00	66.86
ATOM	7171	CG	GLU	C	800	58.459	63.064	76.778	1.00	66.86
ATOM	7172	CD	GLU	C	800	59.766	62.350	77.072	1.00	66.86
ATOM	7173	OE1	GLU	C	800	59.828	61.113	76.908	1.00	66.86
ATOM	7174	OE2	GLU	C	800	60.735	63.028	77.472	1.00	66.86
ATOM	7175	C	GLU	C	800	56.085	61.166	75.692	1.00	47.58
ATOM	7176	O	GLU	C	800	55.109	61.638	75.113	1.00	47.58
ATOM	7177	N	PRO	C	801	55.961	60.456	76.825	1.00	50.27
ATOM	7178	CD	PRO	C	801	57.035	59.749	77.550	1.00	51.90
ATOM	7179	CA	PRO	C	801	54.658	60.190	77.446	1.00	50.27
ATOM	7180	CB	PRO	C	801	54.952	58.988	78.333	1.00	51.90

ATOM	7181	CG	PRO	C	801	56.331	59.297	78.819	1.00	51.90
ATOM	7182	C	PRO	C	801	54.029	61.337	78.235	1.00	50.27
ATOM	7183	O	PRO	C	801	54.708	62.269	78.667	1.00	50.27
ATOM	7184	N	THR	C	802	52.715	61.245	78.417	1.00	58.14
ATOM	7185	CA	THR	C	802	51.954	62.237	79.165	1.00	58.14
ATOM	7186	CB	THR	C	802	50.442	62.041	78.960	1.00	65.66
ATOM	7187	OG1	THR	C	802	49.724	62.858	79.893	1.00	65.66
ATOM	7188	CG2	THR	C	802	50.061	60.581	79.167	1.00	65.66
ATOM	7189	C	THR	C	802	52.268	62.103	80.654	1.00	58.14
ATOM	7190	O	THR	C	802	52.846	61.105	81.084	1.00	58.14
ATOM	7191	N	ASP	C	803	51.889	63.104	81.440	1.00	30.45
ATOM	7192	CA	ASP	C	803	52.147	63.076	82.875	1.00	30.45
ATOM	7193	CB	ASP	C	803	51.633	64.363	83.526	1.00	63.13
ATOM	7194	CG	ASP	C	803	52.452	65.577	83.138	1.00	63.13
ATOM	7195	OD1	ASP	C	803	52.634	65.811	81.925	1.00	63.13
ATOM	7196	OD2	ASP	C	803	52.913	66.297	84.048	1.00	63.13
ATOM	7197	C	ASP	C	803	51.476	61.865	83.514	1.00	30.45
ATOM	7198	O	ASP	C	803	51.996	61.277	84.464	1.00	30.45
ATOM	7199	N	LEU	C	804	50.315	61.503	82.984	1.00	29.47
ATOM	7200	CA	LEU	C	804	49.558	60.362	83.481	1.00	29.47
ATOM	7201	CB	LEU	C	804	48.257	60.223	82.695	1.00	37.98
ATOM	7202	CG	LEU	C	804	47.464	58.933	82.899	1.00	37.98
ATOM	7203	CD1	LEU	C	804	46.956	58.845	84.328	1.00	37.98
ATOM	7204	CD2	LEU	C	804	46.306	58.906	81.913	1.00	37.98
ATOM	7205	C	LEU	C	804	50.367	59.078	83.346	1.00	29.47
ATOM	7206	O	LEU	C	804	50.337	58.214	84.222	1.00	29.47
ATOM	7207	N	MET	C	805	51.097	58.964	82.244	1.00	30.10
ATOM	7208	CA	MET	C	805	51.891	57.775	81.987	1.00	30.10
ATOM	7209	CB	MET	C	805	51.530	57.209	80.611	1.00	44.36
ATOM	7210	CG	MET	C	805	50.028	57.054	80.401	1.00	44.36
ATOM	7211	SD	MET	C	805	49.592	56.143	78.913	1.00	44.36
ATOM	7212	CE	MET	C	805	49.902	57.380	77.645	1.00	44.36
ATOM	7213	C	MET	C	805	53.387	58.058	82.077	1.00	30.10
ATOM	7214	O	MET	C	805	54.196	57.363	81.466	1.00	30.10
ATOM	7215	N	ASN	C	806	53.741	59.080	82.854	1.00	30.63
ATOM	7216	CA	ASN	C	806	55.135	59.467	83.047	1.00	30.63
ATOM	7217	CB	ASN	C	806	55.311	60.957	82.749	1.00	46.12
ATOM	7218	CG	ASN	C	806	56.764	61.394	82.783	1.00	46.12
ATOM	7219	OD1	ASN	C	806	57.104	62.487	82.318	1.00	46.12
ATOM	7220	ND2	ASN	C	806	57.629	60.550	83.337	1.00	46.12
ATOM	7221	C	ASN	C	806	55.542	59.164	84.484	1.00	30.63
ATOM	7222	O	ASN	C	806	55.079	59.811	85.422	1.00	30.63
ATOM	7223	N	ARG	C	807	56.420	58.176	84.628	1.00	39.73
ATOM	7224	CA	ARG	C	807	56.924	57.705	85.917	1.00	39.73
ATOM	7225	CB	ARG	C	807	57.964	56.614	85.666	1.00	38.55
ATOM	7226	CG	ARG	C	807	58.183	55.642	86.811	1.00	38.55
ATOM	7227	CD	ARG	C	807	59.132	54.529	86.362	1.00	38.55
ATOM	7228	NE	ARG	C	807	58.619	53.757	85.226	1.00	38.55
ATOM	7229	CZ	ARG	C	807	57.734	52.766	85.331	1.00	38.55
ATOM	7230	NH1	ARG	C	807	57.257	52.414	86.522	1.00	38.55
ATOM	7231	NH2	ARG	C	807	57.321	52.125	84.246	1.00	38.55
ATOM	7232	C	ARG	C	807	57.528	58.801	86.802	1.00	39.73
ATOM	7233	O	ARG	C	807	57.527	58.685	88.033	1.00	39.73
ATOM	7234	N	GLU	C	808	58.033	59.864	86.181	1.00	52.50
ATOM	7235	CA	GLU	C	808	58.635	60.963	86.935	1.00	52.50
ATOM	7236	CB	GLU	C	808	59.628	61.738	86.056	1.00	61.14
ATOM	7237	CG	GLU	C	808	60.736	60.900	85.414	1.00	61.14
ATOM	7238	CD	GLU	C	808	61.547	60.101	86.421	1.00	61.14
ATOM	7239	OE1	GLU	C	808	61.945	60.668	87.465	1.00	61.14
ATOM	7240	OE2	GLU	C	808	61.794	58.902	86.158	1.00	61.14
ATOM	7241	C	GLU	C	808	57.602	61.943	87.510	1.00	52.50
ATOM	7242	O	GLU	C	808	57.950	62.814	88.306	1.00	52.50
ATOM	7243	N	LYS	C	809	56.341	61.800	87.109	1.00	42.62
ATOM	7244	CA	LYS	C	809	55.272	62.684	87.582	1.00	42.62
ATOM	7245	CB	LYS	C	809	54.347	63.064	86.421	1.00	72.26
ATOM	7246	CG	LYS	C	809	54.674	64.385	85.742	1.00	72.26

ATOM	7247	CD	LYS	C	809	56.049	64.385	85.097	1.00	72.26
ATOM	7248	CE	LYS	C	809	56.313	65.702	84.375	1.00	72.26
ATOM	7249	NZ	LYS	C	809	56.226	66.887	85.283	1.00	72.26
ATOM	7250	C	LYS	C	809	54.424	62.082	88.698	1.00	42.62
ATOM	7251	O	LYS	C	809	53.274	62.480	88.885	1.00	42.62
ATOM	7252	N	LYS	C	810	54.991	61.138	89.441	1.00	38.56
ATOM	7253	CA	LYS	C	810	54.263	60.480	90.518	1.00	38.56
ATOM	7254	CB	LYS	C	810	55.147	59.420	91.192	1.00	67.60
ATOM	7255	CG	LYS	C	810	55.485	58.249	90.274	1.00	67.60
ATOM	7256	CD	LYS	C	810	55.978	57.020	91.035	1.00	67.60
ATOM	7257	CE	LYS	C	810	57.350	57.231	91.643	1.00	67.60
ATOM	7258	NZ	LYS	C	810	57.818	56.013	92.366	1.00	67.60
ATOM	7259	C	LYS	C	810	53.701	61.429	91.567	1.00	38.56
ATOM	7260	O	LYS	C	810	52.859	61.038	92.375	1.00	38.56
ATOM	7261	N	ASN	C	811	54.153	62.677	91.556	1.00	38.28
ATOM	7262	CA	ASN	C	811	53.667	63.654	92.525	1.00	38.28
ATOM	7263	CB	ASN	C	811	54.708	64.767	92.719	1.00	71.33
ATOM	7264	CG	ASN	C	811	54.917	65.605	91.468	1.00	71.33
ATOM	7265	OD1	ASN	C	811	54.079	66.434	91.111	1.00	71.33
ATOM	7266	ND2	ASN	C	811	56.040	65.387	90.793	1.00	71.33
ATOM	7267	C	ASN	C	811	52.328	64.251	92.084	1.00	38.28
ATOM	7268	O	ASN	C	811	51.688	64.989	92.836	1.00	38.28
ATOM	7269	N	LYS	C	812	51.904	63.920	90.866	1.00	38.56
ATOM	7270	CA	LYS	C	812	50.646	64.425	90.322	1.00	38.56
ATOM	7271	CB	LYS	C	812	50.707	64.487	88.789	1.00	51.98
ATOM	7272	CG	LYS	C	812	51.846	65.303	88.210	1.00	51.98
ATOM	7273	CD	LYS	C	812	51.700	66.780	88.516	1.00	51.98
ATOM	7274	CE	LYS	C	812	52.858	67.572	87.923	1.00	51.98
ATOM	7275	NZ	LYS	C	812	52.750	69.033	88.207	1.00	51.98
ATOM	7276	C	LYS	C	812	49.482	63.522	90.717	1.00	38.56
ATOM	7277	O	LYS	C	812	48.323	63.935	90.657	1.00	38.56
ATOM	7278	N	ILE	C	813	49.797	62.291	91.119	1.00	30.97
ATOM	7279	CA	ILE	C	813	48.779	61.317	91.491	1.00	30.97
ATOM	7280	CB	ILE	C	813	49.422	60.032	92.070	1.00	29.98
ATOM	7281	CG2	ILE	C	813	48.364	59.148	92.698	1.00	29.98
ATOM	7282	CG1	ILE	C	813	50.147	59.273	90.951	1.00	29.98
ATOM	7283	CD1	ILE	C	813	50.735	57.937	91.388	1.00	29.98
ATOM	7284	C	ILE	C	813	47.693	61.808	92.440	1.00	30.97
ATOM	7285	O	ILE	C	813	46.513	61.780	92.091	1.00	30.97
ATOM	7286	N	PRO	C	814	48.064	62.269	93.646	1.00	30.34
ATOM	7287	CD	PRO	C	814	49.408	62.475	94.216	1.00	22.07
ATOM	7288	CA	PRO	C	814	47.026	62.740	94.569	1.00	30.34
ATOM	7289	CB	PRO	C	814	47.825	63.503	95.624	1.00	22.07
ATOM	7290	CG	PRO	C	814	49.110	62.734	95.674	1.00	22.07
ATOM	7291	C	PRO	C	814	45.953	63.607	93.905	1.00	30.34
ATOM	7292	O	PRO	C	814	44.759	63.309	93.999	1.00	30.34
ATOM	7293	N	SER	C	815	46.381	64.672	93.233	1.00	31.54
ATOM	7294	CA	SER	C	815	45.452	65.589	92.571	1.00	31.54
ATOM	7295	CB	SER	C	815	46.215	66.779	91.978	1.00	69.77
ATOM	7296	OG	SER	C	815	47.331	66.349	91.220	1.00	69.77
ATOM	7297	C	SER	C	815	44.608	64.911	91.494	1.00	31.54
ATOM	7298	O	SER	C	815	43.424	65.222	91.336	1.00	31.54
ATOM	7299	N	MET	C	816	45.214	63.991	90.750	1.00	31.00
ATOM	7300	CA	MET	C	816	44.479	63.264	89.724	1.00	31.00
ATOM	7301	CB	MET	C	816	45.417	62.369	88.913	1.00	44.68
ATOM	7302	CG	MET	C	816	46.494	63.129	88.176	1.00	44.68
ATOM	7303	SD	MET	C	816	47.449	62.096	87.063	1.00	44.68
ATOM	7304	CE	MET	C	816	46.893	62.727	85.504	1.00	44.68
ATOM	7305	C	MET	C	816	43.399	62.412	90.380	1.00	31.00
ATOM	7306	O	MET	C	816	42.256	62.412	89.931	1.00	31.00
ATOM	7307	N	GLN	C	817	43.760	61.696	91.445	1.00	28.49
ATOM	7308	CA	GLN	C	817	42.806	60.842	92.153	1.00	28.49
ATOM	7309	CB	GLN	C	817	43.483	60.130	93.329	1.00	27.99
ATOM	7310	CG	GLN	C	817	44.415	58.958	92.936	1.00	27.99
ATOM	7311	CD	GLN	C	817	43.688	57.823	92.198	1.00	27.99
ATOM	7312	OE1	GLN	C	817	43.370	57.942	91.010	1.00	27.99

ATOM	7313	NE2	GLN	C	817	43.417	56.726	92.906	1.00	27.99
ATOM	7314	C	GLN	C	817	41.613	61.648	92.649	1.00	28.49
ATOM	7315	O	GLN	C	817	40.470	61.186	92.582	1.00	28.49
ATOM	7316	N	VAL	C	818	41.875	62.853	93.152	1.00	24.48
ATOM	7317	CA	VAL	C	818	40.800	63.707	93.621	1.00	24.48
ATOM	7318	CB	VAL	C	818	41.346	65.015	94.248	1.00	28.14
ATOM	7319	CG1	VAL	C	818	40.212	66.005	94.489	1.00	28.14
ATOM	7320	CG2	VAL	C	818	42.046	64.697	95.561	1.00	28.14
ATOM	7321	C	VAL	C	818	39.929	64.053	92.415	1.00	24.48
ATOM	7322	O	VAL	C	818	38.699	64.085	92.511	1.00	24.48
ATOM	7323	N	GLY	C	819	40.580	64.309	91.282	1.00	28.33
ATOM	7324	CA	GLY	C	819	39.854	64.647	90.070	1.00	28.33
ATOM	7325	C	GLY	C	819	39.028	63.473	89.566	1.00	28.33
ATOM	7326	O	GLY	C	819	37.934	63.655	89.046	1.00	28.33
ATOM	7327	N	PHE	C	820	39.555	62.263	89.728	1.00	25.37
ATOM	7328	CA	PHE	C	820	38.855	61.064	89.289	1.00	25.37
ATOM	7329	CB	PHE	C	820	39.807	59.859	89.353	1.00	27.09
ATOM	7330	CG	PHE	C	820	39.139	58.521	89.145	1.00	27.09
ATOM	7331	CD1	PHE	C	820	38.322	58.290	88.047	1.00	27.09
ATOM	7332	CD2	PHE	C	820	39.352	57.484	90.044	1.00	27.09
ATOM	7333	CE1	PHE	C	820	37.726	57.044	87.848	1.00	27.09
ATOM	7334	CE2	PHE	C	820	38.761	56.241	89.852	1.00	27.09
ATOM	7335	CZ	PHE	C	820	37.946	56.022	88.750	1.00	27.09
ATOM	7336	C	PHE	C	820	37.634	60.847	90.174	1.00	25.37
ATOM	7337	O	PHE	C	820	36.539	60.575	89.674	1.00	25.37
ATOM	7338	N	ILE	C	821	37.825	60.979	91.487	1.00	22.10
ATOM	7339	CA	ILE	C	821	36.740	60.796	92.446	1.00	22.10
ATOM	7340	CB	ILE	C	821	37.254	61.005	93.887	1.00	26.83
ATOM	7341	CG2	ILE	C	821	36.103	60.965	94.876	1.00	26.83
ATOM	7342	CG1	ILE	C	821	38.282	59.916	94.210	1.00	26.83
ATOM	7343	CD1	ILE	C	821	38.891	60.023	95.578	1.00	26.83
ATOM	7344	C	ILE	C	821	35.596	61.763	92.126	1.00	22.10
ATOM	7345	O	ILE	C	821	34.421	61.363	92.066	1.00	22.10
ATOM	7346	N	ASP	C	822	35.937	63.034	91.938	1.00	26.16
ATOM	7347	CA	ASP	C	822	34.932	64.020	91.567	1.00	26.16
ATOM	7348	CB	ASP	C	822	35.457	65.456	91.711	1.00	40.99
ATOM	7349	CG	ASP	C	822	35.702	65.863	93.149	1.00	40.99
ATOM	7350	OD1	ASP	C	822	34.859	65.533	94.017	1.00	40.99
ATOM	7351	OD2	ASP	C	822	36.731	66.537	93.398	1.00	40.99
ATOM	7352	C	ASP	C	822	34.714	63.761	90.088	1.00	26.16
ATOM	7353	O	ASP	C	822	35.655	63.418	89.386	1.00	26.16
ATOM	7354	N	ALA	C	823	33.495	63.921	89.601	1.00	38.51
ATOM	7355	CA	ALA	C	823	33.252	63.722	88.171	1.00	38.51
ATOM	7356	CB	ALA	C	823	34.431	64.270	87.354	1.00	40.31
ATOM	7357	C	ALA	C	823	32.952	62.296	87.726	1.00	38.51
ATOM	7358	O	ALA	C	823	31.980	62.083	87.018	1.00	38.51
ATOM	7359	N	ILE	C	824	33.766	61.324	88.133	1.00	37.03
ATOM	7360	CA	ILE	C	824	33.543	59.937	87.718	1.00	37.03
ATOM	7361	CB	ILE	C	824	34.879	59.238	87.314	1.00	30.77
ATOM	7362	CG2	ILE	C	824	34.600	57.827	86.795	1.00	30.77
ATOM	7363	CG1	ILE	C	824	35.597	60.030	86.224	1.00	30.77
ATOM	7364	CD1	ILE	C	824	34.861	60.062	84.906	1.00	30.77
ATOM	7365	C	ILE	C	824	32.862	59.028	88.747	1.00	37.03
ATOM	7366	O	ILE	C	824	31.796	58.467	88.491	1.00	37.03
ATOM	7367	N	CYS	C	825	33.483	58.906	89.915	1.00	21.13
ATOM	7368	CA	CYS	C	825	33.019	58.010	90.969	1.00	21.13
ATOM	7369	CB	CYS	C	825	34.222	57.606	91.828	1.00	24.00
ATOM	7370	SG	CYS	C	825	35.676	57.062	90.865	1.00	24.00
ATOM	7371	C	CYS	C	825	31.884	58.439	91.893	1.00	21.13
ATOM	7372	O	CYS	C	825	30.873	57.736	92.017	1.00	21.13
ATOM	7373	N	LEU	C	826	32.065	59.581	92.551	1.00	25.46
ATOM	7374	CA	LEU	C	826	31.091	60.077	93.511	1.00	25.46
ATOM	7375	CB	LEU	C	826	31.461	61.505	93.918	1.00	37.66
ATOM	7376	CG	LEU	C	826	31.773	61.749	95.403	1.00	37.66
ATOM	7377	CD1	LEU	C	826	32.511	60.572	95.997	1.00	37.66
ATOM	7378	CD2	LEU	C	826	32.585	63.031	95.546	1.00	37.66

ATOM	7379	C	LEU	C	826	29.621	60.000	93.105	1.00	25.46
ATOM	7380	O	LEU	C	826	28.805	59.441	93.841	1.00	25.46
ATOM	7381	N	GLN	C	827	29.268	60.534	91.941	1.00	24.33
ATOM	7382	CA	GLN	C	827	27.869	60.500	91.538	1.00	24.33
ATOM	7383	CB	GLN	C	827	27.615	61.459	90.364	1.00	40.12
ATOM	7384	CG	GLN	C	827	27.339	62.882	90.836	1.00	40.12
ATOM	7385	CD	GLN	C	827	26.816	63.810	89.751	1.00	40.12
ATOM	7386	OE1	GLN	C	827	26.172	64.815	90.051	1.00	40.12
ATOM	7387	NE2	GLN	C	827	27.103	63.492	88.491	1.00	40.12
ATOM	7388	C	GLN	C	827	27.344	59.108	91.220	1.00	24.33
ATOM	7389	O	GLN	C	827	26.154	58.830	91.431	1.00	24.33
ATOM	7390	N	LEU	C	828	28.217	58.231	90.726	1.00	24.21
ATOM	7391	CA	LEU	C	828	27.799	56.868	90.400	1.00	24.21
ATOM	7392	CB	LEU	C	828	28.931	56.115	89.691	1.00	35.16
ATOM	7393	CG	LEU	C	828	28.578	54.812	88.953	1.00	35.16
ATOM	7394	CD1	LEU	C	828	29.858	54.150	88.485	1.00	35.16
ATOM	7395	CD2	LEU	C	828	27.810	53.865	89.852	1.00	35.16
ATOM	7396	C	LEU	C	828	27.417	56.131	91.698	1.00	24.21
ATOM	7397	O	LEU	C	828	26.303	55.631	91.834	1.00	24.21
ATOM	7398	N	TYR	C	829	28.345	56.066	92.644	1.00	29.26
ATOM	7399	CA	TYR	C	829	28.084	55.391	93.912	1.00	29.26
ATOM	7400	CB	TYR	C	829	29.370	55.344	94.751	1.00	18.72
ATOM	7401	CG	TYR	C	829	30.418	54.452	94.120	1.00	18.72
ATOM	7402	CD1	TYR	C	829	30.136	53.114	93.847	1.00	18.72
ATOM	7403	CE1	TYR	C	829	31.063	52.298	93.234	1.00	18.72
ATOM	7404	CD2	TYR	C	829	31.671	54.949	93.761	1.00	18.72
ATOM	7405	CE2	TYR	C	829	32.610	54.135	93.144	1.00	18.72
ATOM	7406	CZ	TYR	C	829	32.290	52.807	92.882	1.00	18.72
ATOM	7407	OH	TYR	C	829	33.182	51.994	92.239	1.00	18.72
ATOM	7408	C	TYR	C	829	26.944	56.050	94.689	1.00	29.26
ATOM	7409	O	TYR	C	829	26.250	55.395	95.469	1.00	29.26
ATOM	7410	N	GLU	C	830	26.752	57.345	94.458	1.00	22.07
ATOM	7411	CA	GLU	C	830	25.679	58.098	95.103	1.00	22.07
ATOM	7412	CB	GLU	C	830	25.895	59.596	94.862	1.00	49.61
ATOM	7413	CG	GLU	C	830	24.870	60.519	95.487	1.00	49.61
ATOM	7414	CD	GLU	C	830	25.155	61.984	95.177	1.00	49.61
ATOM	7415	OE1	GLU	C	830	26.120	62.543	95.740	1.00	49.61
ATOM	7416	OE2	GLU	C	830	24.421	62.573	94.354	1.00	49.61
ATOM	7417	C	GLU	C	830	24.364	57.631	94.474	1.00	22.07
ATOM	7418	O	GLU	C	830	23.380	57.394	95.162	1.00	22.07
ATOM	7419	N	ALA	C	831	24.370	57.490	93.155	1.00	30.01
ATOM	7420	CA	ALA	C	831	23.198	57.024	92.424	1.00	30.01
ATOM	7421	CB	ALA	C	831	23.481	57.045	90.925	1.00	18.75
ATOM	7422	C	ALA	C	831	22.866	55.603	92.882	1.00	30.01
ATOM	7423	O	ALA	C	831	21.720	55.289	93.173	1.00	30.01
ATOM	7424	N	LEU	C	832	23.880	54.745	92.955	1.00	35.09
ATOM	7425	CA	LEU	C	832	23.670	53.369	93.390	1.00	35.09
ATOM	7426	CB	LEU	C	832	25.001	52.613	93.439	1.00	24.95
ATOM	7427	CG	LEU	C	832	24.961	51.121	93.804	1.00	24.95
ATOM	7428	CD1	LEU	C	832	24.059	50.396	92.823	1.00	24.95
ATOM	7429	CD2	LEU	C	832	26.378	50.520	93.765	1.00	24.95
ATOM	7430	C	LEU	C	832	23.031	53.383	94.772	1.00	35.09
ATOM	7431	O	LEU	C	832	22.051	52.688	95.028	1.00	35.09
ATOM	7432	N	THR	C	833	23.583	54.192	95.664	1.00	36.06
ATOM	7433	CA	THR	C	833	23.052	54.283	97.008	1.00	36.06
ATOM	7434	CB	THR	C	833	23.863	55.289	97.844	1.00	38.17
ATOM	7435	OG1	THR	C	833	25.215	54.822	97.961	1.00	38.17
ATOM	7436	CG2	THR	C	833	23.264	55.442	99.231	1.00	38.17
ATOM	7437	C	THR	C	833	21.577	54.683	96.977	1.00	36.06
ATOM	7438	O	THR	C	833	20.810	54.311	97.865	1.00	36.06
ATOM	7439	N	HIS	C	834	21.184	55.428	95.948	1.00	41.76
ATOM	7440	CA	HIS	C	834	19.799	55.860	95.799	1.00	41.76
ATOM	7441	CB	HIS	C	834	19.674	56.877	94.663	1.00	76.75
ATOM	7442	CG	HIS	C	834	18.266	57.307	94.392	1.00	76.75
ATOM	7443	CD2	HIS	C	834	17.443	57.059	93.345	1.00	76.75
ATOM	7444	ND1	HIS	C	834	17.541	58.080	95.274	1.00	76.75

ATOM	7445	CE1	HIS	C	834	16.333	58.290	94.781	1.00	76.75
ATOM	7446	NE2	HIS	C	834	16.248	57.681	93.611	1.00	76.75
ATOM	7447	C	HIS	C	834	18.893	54.663	95.508	1.00	41.76
ATOM	7448	O	HIS	C	834	17.772	54.587	96.023	1.00	41.76
ATOM	7449	N	VAL	C	835	19.384	53.739	94.677	1.00	33.62
ATOM	7450	CA	VAL	C	835	18.638	52.537	94.311	1.00	33.62
ATOM	7451	CB	VAL	C	835	19.329	51.795	93.139	1.00	28.91
ATOM	7452	CG1	VAL	C	835	18.716	50.418	92.950	1.00	28.91
ATOM	7453	CG2	VAL	C	835	19.179	52.603	91.857	1.00	28.91
ATOM	7454	C	VAL	C	835	18.503	51.594	95.514	1.00	33.62
ATOM	7455	O	VAL	C	835	17.454	50.975	95.718	1.00	33.62
ATOM	7456	N	SER	C	836	19.569	51.493	96.303	1.00	31.78
ATOM	7457	CA	SER	C	836	19.584	50.656	97.504	1.00	31.78
ATOM	7458	CB	SER	C	836	20.047	49.239	97.165	1.00	59.92
ATOM	7459	OG	SER	C	836	20.010	48.417	98.319	1.00	59.92
ATOM	7460	C	SER	C	836	20.524	51.262	98.544	1.00	31.78
ATOM	7461	O	SER	C	836	21.743	51.169	98.418	1.00	31.78
ATOM	7462	N	GLU	C	837	19.951	51.880	99.575	1.00	43.49
ATOM	7463	CA	GLU	C	837	20.739	52.524	100.622	1.00	43.49
ATOM	7464	CB	GLU	C	837	19.817	53.106	101.698	1.00	100.00
ATOM	7465	CG	GLU	C	837	19.247	54.481	101.346	1.00	100.00
ATOM	7466	CD	GLU	C	837	18.289	54.456	100.164	1.00	100.00
ATOM	7467	OE1	GLU	C	837	17.946	55.546	99.652	1.00	100.00
ATOM	7468	OE2	GLU	C	837	17.870	53.353	99.751	1.00	100.00
ATOM	7469	C	GLU	C	837	21.789	51.635	101.272	1.00	43.49
ATOM	7470	O	GLU	C	837	22.736	52.141	101.877	1.00	43.49
ATOM	7471	N	ASP	C	838	21.628	50.319	101.146	1.00	34.91
ATOM	7472	CA	ASP	C	838	22.585	49.376	101.727	1.00	34.91
ATOM	7473	CB	ASP	C	838	21.987	47.966	101.750	1.00	50.08
ATOM	7474	CG	ASP	C	838	20.779	47.862	102.670	1.00	50.08
ATOM	7475	OD1	ASP	C	838	20.950	48.006	103.899	1.00	50.08
ATOM	7476	OD2	ASP	C	838	19.656	47.647	102.163	1.00	50.08
ATOM	7477	C	ASP	C	838	23.936	49.361	101.001	1.00	34.91
ATOM	7478	O	ASP	C	838	24.868	48.683	101.433	1.00	34.91
ATOM	7479	N	CYS	C	839	24.029	50.104	99.899	1.00	27.66
ATOM	7480	CA	CYS	C	839	25.266	50.208	99.122	1.00	27.66
ATOM	7481	CB	CYS	C	839	24.965	50.282	97.621	1.00	27.60
ATOM	7482	SG	CYS	C	839	24.533	48.699	96.832	1.00	27.60
ATOM	7483	C	CYS	C	839	26.003	51.474	99.552	1.00	27.66
ATOM	7484	O	CYS	C	839	27.044	51.833	98.999	1.00	27.66
ATOM	7485	N	PHE	C	840	25.440	52.145	100.550	1.00	27.16
ATOM	7486	CA	PHE	C	840	26.011	53.368	101.089	1.00	27.16
ATOM	7487	CB	PHE	C	840	25.249	53.776	102.352	1.00	44.47
ATOM	7488	CG	PHE	C	840	25.803	54.991	103.028	1.00	44.47
ATOM	7489	CD1	PHE	C	840	25.589	56.257	102.499	1.00	44.47
ATOM	7490	CD2	PHE	C	840	26.547	54.870	104.198	1.00	44.47
ATOM	7491	CE1	PHE	C	840	26.108	57.395	103.129	1.00	44.47
ATOM	7492	CE2	PHE	C	840	27.071	56.001	104.835	1.00	44.47
ATOM	7493	CZ	PHE	C	840	26.849	57.263	104.298	1.00	44.47
ATOM	7494	C	PHE	C	840	27.492	53.208	101.412	1.00	27.16
ATOM	7495	O	PHE	C	840	28.289	54.093	101.124	1.00	27.16
ATOM	7496	N	PRO	C	841	27.886	52.075	102.011	1.00	26.73
ATOM	7497	CD	PRO	C	841	27.079	50.935	102.486	1.00	21.26
ATOM	7498	CA	PRO	C	841	29.305	51.881	102.343	1.00	26.73
ATOM	7499	CB	PRO	C	841	29.358	50.415	102.766	1.00	21.26
ATOM	7500	CG	PRO	C	841	28.040	50.230	103.434	1.00	21.26
ATOM	7501	C	PRO	C	841	30.269	52.202	101.200	1.00	26.73
ATOM	7502	O	PRO	C	841	31.392	52.654	101.429	1.00	26.73
ATOM	7503	N	LEU	C	842	29.828	51.970	99.969	1.00	22.15
ATOM	7504	CA	LEU	C	842	30.658	52.246	98.803	1.00	22.15
ATOM	7505	CB	LEU	C	842	30.008	51.656	97.547	1.00	24.75
ATOM	7506	CG	LEU	C	842	29.983	50.126	97.447	1.00	24.75
ATOM	7507	CD1	LEU	C	842	29.073	49.686	96.313	1.00	24.75
ATOM	7508	CD2	LEU	C	842	31.400	49.621	97.222	1.00	24.75
ATOM	7509	C	LEU	C	842	30.868	53.750	98.632	1.00	22.15
ATOM	7510	O	LEU	C	842	31.975	54.208	98.330	1.00	22.15

ATOM	7511	N	LEU	C	843	29.808	54.523	98.828	1.00	25.18
ATOM	7512	CA	LEU	C	843	29.911	55.972	98.697	1.00	25.18
ATOM	7513	CB	LEU	C	843	28.526	56.618	98.788	1.00	32.57
ATOM	7514	CG	LEU	C	843	28.342	57.974	98.094	1.00	32.57
ATOM	7515	CD1	LEU	C	843	27.021	58.568	98.523	1.00	32.57
ATOM	7516	CD2	LEU	C	843	29.481	58.918	98.444	1.00	32.57
ATOM	7517	C	LEU	C	843	30.780	56.495	99.831	1.00	25.18
ATOM	7518	O	LEU	C	843	31.705	57.279	99.621	1.00	25.18
ATOM	7519	N	ASP	C	844	30.469	56.048	101.040	1.00	27.46
ATOM	7520	CA	ASP	C	844	31.195	56.468	102.230	1.00	27.46
ATOM	7521	CB	ASP	C	844	30.609	55.752	103.457	1.00	48.50
ATOM	7522	CG	ASP	C	844	31.012	56.402	104.770	1.00	48.50
ATOM	7523	OD1	ASP	C	844	30.884	57.638	104.901	1.00	48.50
ATOM	7524	OD2	ASP	C	844	31.450	55.668	105.680	1.00	48.50
ATOM	7525	C	ASP	C	844	32.703	56.206	102.106	1.00	27.46
ATOM	7526	O	ASP	C	844	33.522	57.030	102.528	1.00	27.46
ATOM	7527	N	GLY	C	845	33.063	55.069	101.512	1.00	28.32
ATOM	7528	CA	GLY	C	845	34.466	54.723	101.343	1.00	28.32
ATOM	7529	C	GLY	C	845	35.126	55.549	100.258	1.00	28.32
ATOM	7530	O	GLY	C	845	36.317	55.845	100.321	1.00	28.32
ATOM	7531	N	CYS	C	846	34.352	55.926	99.248	1.00	25.46
ATOM	7532	CA	CYS	C	846	34.885	56.740	98.165	1.00	25.46
ATOM	7533	CB	CYS	C	846	33.853	56.874	97.048	1.00	32.55
ATOM	7534	SG	CYS	C	846	34.460	57.739	95.591	1.00	32.55
ATOM	7535	C	CYS	C	846	35.203	58.108	98.749	1.00	25.46
ATOM	7536	O	CYS	C	846	36.264	58.677	98.483	1.00	25.46
ATOM	7537	N	ARG	C	847	34.285	58.626	99.564	1.00	32.70
ATOM	7538	CA	ARG	C	847	34.484	59.929	100.186	1.00	32.70
ATOM	7539	CB	ARG	C	847	33.193	60.421	100.860	1.00	34.18
ATOM	7540	CG	ARG	C	847	32.120	60.749	99.828	1.00	34.18
ATOM	7541	CD	ARG	C	847	31.009	61.646	100.332	1.00	34.18
ATOM	7542	NE	ARG	C	847	29.937	60.889	100.958	1.00	34.18
ATOM	7543	CZ	ARG	C	847	28.643	61.088	100.721	1.00	34.18
ATOM	7544	NH1	ARG	C	847	28.257	62.023	99.863	1.00	34.18
ATOM	7545	NH2	ARG	C	847	27.736	60.354	101.350	1.00	34.18
ATOM	7546	C	ARG	C	847	35.641	59.894	101.168	1.00	32.70
ATOM	7547	O	ARG	C	847	36.407	60.850	101.243	1.00	32.70
ATOM	7548	N	LYS	C	848	35.789	58.796	101.906	1.00	27.64
ATOM	7549	CA	LYS	C	848	36.905	58.697	102.841	1.00	27.64
ATOM	7550	CB	LYS	C	848	36.952	57.325	103.523	1.00	44.45
ATOM	7551	CG	LYS	C	848	35.852	57.052	104.542	1.00	44.45
ATOM	7552	CD	LYS	C	848	36.110	55.722	105.274	1.00	44.45
ATOM	7553	CE	LYS	C	848	34.908	55.256	106.098	1.00	44.45
ATOM	7554	NZ	LYS	C	848	34.494	56.231	107.155	1.00	44.45
ATOM	7555	C	LYS	C	848	38.190	58.898	102.040	1.00	27.64
ATOM	7556	O	LYS	C	848	39.039	59.720	102.391	1.00	27.64
ATOM	7557	N	ASN	C	849	38.318	58.159	100.943	1.00	29.71
ATOM	7558	CA	ASN	C	849	39.509	58.264	100.109	1.00	29.71
ATOM	7559	CB	ASN	C	849	39.518	57.157	99.045	1.00	32.19
ATOM	7560	CG	ASN	C	849	39.764	55.779	99.641	1.00	32.19
ATOM	7561	OD1	ASN	C	849	40.750	55.567	100.347	1.00	32.19
ATOM	7562	ND2	ASN	C	849	38.872	54.837	99.352	1.00	32.19
ATOM	7563	C	ASN	C	849	39.744	59.624	99.444	1.00	29.71
ATOM	7564	O	ASN	C	849	40.894	59.984	99.207	1.00	29.71
ATOM	7565	N	ARG	C	850	38.690	60.379	99.131	1.00	32.79
ATOM	7566	CA	ARG	C	850	38.904	61.696	98.517	1.00	32.79
ATOM	7567	CB	ARG	C	850	37.581	62.386	98.164	1.00	36.71
ATOM	7568	CG	ARG	C	850	37.737	63.436	97.060	1.00	36.71
ATOM	7569	CD	ARG	C	850	36.511	64.329	96.913	1.00	36.71
ATOM	7570	NE	ARG	C	850	36.593	65.488	97.794	1.00	36.71
ATOM	7571	CZ	ARG	C	850	37.177	66.646	97.479	1.00	36.71
ATOM	7572	NH1	ARG	C	850	37.733	66.834	96.287	1.00	36.71
ATOM	7573	NH2	ARG	C	850	37.232	67.613	98.379	1.00	36.71
ATOM	7574	C	ARG	C	850	39.664	62.549	99.538	1.00	32.79
ATOM	7575	O	ARG	C	850	40.633	63.224	99.207	1.00	32.79
ATOM	7576	N	GLN	C	851	39.203	62.497	100.784	1.00	33.89

ATOM	7577	CA	GLN	C	851	39.808	63.217	101.904	1.00	33.89
ATOM	7578	CB	GLN	C	851	39.056	62.843	103.180	1.00	85.33
ATOM	7579	CG	GLN	C	851	39.692	63.280	104.475	1.00	85.33
ATOM	7580	CD	GLN	C	851	38.955	62.718	105.681	1.00	85.33
ATOM	7581	OE1	GLN	C	851	39.382	62.894	106.823	1.00	85.33
ATOM	7582	NE2	GLN	C	851	37.838	62.036	105.430	1.00	85.33
ATOM	7583	C	GLN	C	851	41.295	62.859	102.033	1.00	33.89
ATOM	7584	O	GLN	C	851	42.151	63.737	102.108	1.00	33.89
ATOM	7585	N	LYS	C	852	41.596	61.564	102.052	1.00	29.72
ATOM	7586	CA	LYS	C	852	42.979	61.114	102.160	1.00	29.72
ATOM	7587	CB	LYS	C	852	43.042	59.588	102.153	1.00	57.19
ATOM	7588	CG	LYS	C	852	43.349	58.974	103.508	1.00	57.19
ATOM	7589	CD	LYS	C	852	42.297	59.318	104.537	1.00	57.19
ATOM	7590	CE	LYS	C	852	42.619	58.655	105.859	1.00	57.19
ATOM	7591	NZ	LYS	C	852	43.973	59.041	106.340	1.00	57.19
ATOM	7592	C	LYS	C	852	43.814	61.662	101.011	1.00	29.72
ATOM	7593	O	LYS	C	852	44.881	62.234	101.220	1.00	29.72
ATOM	7594	N	TRP	C	853	43.321	61.482	99.793	1.00	31.31
ATOM	7595	CA	TRP	C	853	44.027	61.968	98.616	1.00	31.31
ATOM	7596	CB	TRP	C	853	43.325	61.488	97.346	1.00	26.54
ATOM	7597	CG	TRP	C	853	43.531	60.034	97.025	1.00	26.54
ATOM	7598	CD2	TRP	C	853	44.778	59.387	96.747	1.00	26.54
ATOM	7599	CE2	TRP	C	853	44.489	58.043	96.425	1.00	26.54
ATOM	7600	CE3	TRP	C	853	46.114	59.814	96.736	1.00	26.54
ATOM	7601	CD1	TRP	C	853	42.564	59.082	96.871	1.00	26.54
ATOM	7602	NE1	TRP	C	853	43.132	57.884	96.507	1.00	26.54
ATOM	7603	CZ2	TRP	C	853	45.485	57.123	96.095	1.00	26.54
ATOM	7604	CZ3	TRP	C	853	47.102	58.901	96.407	1.00	26.54
ATOM	7605	CH2	TRP	C	853	46.782	57.569	96.092	1.00	26.54
ATOM	7606	C	TRP	C	853	44.107	63.494	98.606	1.00	31.31
ATOM	7607	O	TRP	C	853	45.092	64.064	98.150	1.00	31.31
ATOM	7608	N	GLN	C	854	43.064	64.145	99.112	1.00	36.02
ATOM	7609	CA	GLN	C	854	42.997	65.604	99.168	1.00	36.02
ATOM	7610	CB	GLN	C	854	41.628	66.039	99.696	1.00	91.40
ATOM	7611	CG	GLN	C	854	40.896	67.048	98.829	1.00	91.40
ATOM	7612	CD	GLN	C	854	41.631	68.363	98.703	1.00	91.40
ATOM	7613	OE1	GLN	C	854	42.707	68.434	98.107	1.00	91.40
ATOM	7614	NE2	GLN	C	854	41.051	69.417	99.267	1.00	91.40
ATOM	7615	C	GLN	C	854	44.089	66.164	100.080	1.00	36.02
ATOM	7616	O	GLN	C	854	44.954	66.929	99.640	1.00	36.02
ATOM	7617	N	ALA	C	855	44.039	65.779	101.353	1.00	63.82
ATOM	7618	CA	ALA	C	855	45.012	66.238	102.343	1.00	63.82
ATOM	7619	CB	ALA	C	855	44.747	65.563	103.684	1.00	28.76
ATOM	7620	C	ALA	C	855	46.427	65.932	101.881	1.00	63.82
ATOM	7621	O	ALA	C	855	47.367	66.677	102.167	1.00	63.82
ATOM	7622	N	LEU	C	856	46.568	64.830	101.156	1.00	62.70
ATOM	7623	CA	LEU	C	856	47.862	64.402	100.657	1.00	62.70
ATOM	7624	CB	LEU	C	856	47.778	62.937	100.227	1.00	40.19
ATOM	7625	CG	LEU	C	856	49.080	62.141	100.130	1.00	40.19
ATOM	7626	CD1	LEU	C	856	48.755	60.653	100.065	1.00	40.19
ATOM	7627	CD2	LEU	C	856	49.865	62.577	98.912	1.00	40.19
ATOM	7628	C	LEU	C	856	48.318	65.288	99.498	1.00	62.70
ATOM	7629	O	LEU	C	856	49.508	65.560	99.345	1.00	62.70
ATOM	7630	N	ALA	C	857	47.373	65.748	98.686	1.00	43.85
ATOM	7631	CA	ALA	C	857	47.717	66.610	97.561	1.00	43.85
ATOM	7632	CB	ALA	C	857	46.550	66.702	96.590	1.00	33.07
ATOM	7633	C	ALA	C	857	48.089	68.003	98.064	1.00	43.85
ATOM	7634	O	ALA	C	857	49.077	68.588	97.619	1.00	43.85
ATOM	7635	N	GLU	C	858	47.294	68.527	98.994	1.00	77.33
ATOM	7636	CA	GLU	C	858	47.552	69.849	99.557	1.00	77.33
ATOM	7637	CB	GLU	C	858	46.585	70.132	100.718	1.00	59.53
ATOM	7638	CG	GLU	C	858	45.146	70.367	100.244	1.00	59.53
ATOM	7639	CD	GLU	C	858	44.149	70.612	101.370	1.00	59.53
ATOM	7640	OE1	GLU	C	858	42.961	70.856	101.063	1.00	59.53
ATOM	7641	OE2	GLU	C	858	44.542	70.561	102.554	1.00	59.53
ATOM	7642	C	GLU	C	858	49.006	69.926	100.012	1.00	77.33

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ATOM   7643  O   GLU C 858      49.571  71.010 100.160  1.00 77.33
ATOM   7644  N   GLN C 859      49.609  68.762 100.221  1.00 72.81
ATOM   7645  CA  GLN C 859      51.002  68.698 100.619  1.00 72.81
ATOM   7646  CB  GLN C 859      51.269  67.437 101.437  1.00 65.83
ATOM   7647  CG  GLN C 859      50.632  67.467 102.812  1.00 65.83
ATOM   7648  CD  GLN C 859      50.989  66.254 103.637  1.00 65.83
ATOM   7649  OE1 GLN C 859      52.161  65.896 103.753  1.00 65.83
ATOM   7650  NE2 GLN C 859      49.981  65.613 104.222  1.00 65.83
ATOM   7651  C   GLN C 859      51.838  68.703  99.349  1.00 72.81
ATOM   7652  O   GLN C 859      51.894  67.716  98.612  1.00 72.81
ATOM   7653  N   GLN C 860      52.474  69.841  99.100  1.00100.00
ATOM   7654  CA  GLN C 860      53.306  70.049  97.924  1.00100.00
ATOM   7655  CB  GLN C 860      52.438  70.571  96.780  1.00 68.85
ATOM   7656  CG  GLN C 860      51.304  71.464  97.266  1.00 68.85
ATOM   7657  CD  GLN C 860      50.697  72.299  96.165  1.00 68.85
ATOM   7658  OE1 GLN C 860      49.620  72.874  96.328  1.00 68.85
ATOM   7659  NE2 GLN C 860      51.392  72.384  95.038  1.00 68.85
ATOM   7660  C   GLN C 860      54.404  71.063  98.251  1.00100.00
ATOM   7661  O   GLN C 860      55.581  70.708  98.357  1.00100.00
ATOM   7662  N   GLU C 861      54.006  72.323  98.412  1.00100.00
ATOM   7663  CA  GLU C 861      54.933  73.406  98.738  1.00100.00
ATOM   7664  CB  GLU C 861      55.452  73.243 100.175  1.00 97.51
ATOM   7665  CG  GLU C 861      54.535  73.818 101.263  1.00 97.51
ATOM   7666  CD  GLU C 861      53.160  73.166 101.309  1.00 97.51
ATOM   7667  OE1 GLU C 861      52.415  73.257 100.308  1.00 97.51
ATOM   7668  OE2 GLU C 861      52.822  72.567 102.352  1.00 97.51
ATOM   7669  C   GLU C 861      56.115  73.527  97.773  1.00100.00
ATOM   7670  O   GLU C 861      56.225  72.772  96.804  1.00100.00
ATOM   7671  N   LYS C 862      56.989  74.494  98.046  1.00100.00
ATOM   7672  CA  LYS C 862      58.168  74.739  97.217  1.00100.00
ATOM   7673  CB  LYS C 862      57.992  76.034  96.409  1.00 80.18
ATOM   7674  CG  LYS C 862      56.769  76.053  95.496  1.00 80.18
ATOM   7675  CD  LYS C 862      55.480  76.218  96.288  1.00 80.18
ATOM   7676  CE  LYS C 862      54.253  76.028  95.409  1.00 80.18
ATOM   7677  NZ  LYS C 862      54.178  74.650  94.842  1.00 80.18
ATOM   7678  C   LYS C 862      59.436  74.828  98.076  1.00100.00
ATOM   7679  O   LYS C 862      59.342  74.550  99.292  1.00100.00
ATOM   7680  OXT LYS C 862      60.511  75.164  97.526  1.00 80.18
TER
ATOM   7682  CB  GLU D 535     -34.233  52.717  66.851  1.00100.00
ATOM   7683  CG  GLU D 535     -33.151  53.154  65.878  1.00100.00
ATOM   7684  CD  GLU D 535     -33.604  54.283  64.974  1.00100.00
ATOM   7685  OE1 GLU D 535     -34.484  54.044  64.118  1.00100.00
ATOM   7686  OE2 GLU D 535     -33.083  55.409  65.121  1.00100.00
ATOM   7687  C   GLU D 535     -34.120  50.334  66.185  1.00 87.16
ATOM   7688  O   GLU D 535     -35.192  50.050  65.644  1.00 87.16
ATOM   7689  N   GLU D 535     -32.787  51.135  68.110  1.00 87.16
ATOM   7690  CA  GLU D 535     -34.074  51.284  67.369  1.00 87.16
ATOM   7691  N   GLU D 536     -32.945  49.849  65.789  1.00100.00
ATOM   7692  CA  GLU D 536     -32.815  48.946  64.652  1.00100.00
ATOM   7693  CB  GLU D 536     -33.516  47.615  64.933  1.00100.00
ATOM   7694  CG  GLU D 536     -32.561  46.489  65.269  1.00100.00
ATOM   7695  CD  GLU D 536     -31.582  46.205  64.144  1.00100.00
ATOM   7696  OE1 GLU D 536     -30.706  45.335  64.329  1.00100.00
ATOM   7697  OE2 GLU D 536     -31.687  46.849  63.076  1.00100.00
ATOM   7698  C   GLU D 536     -33.394  49.580  63.395  1.00100.00
ATOM   7699  O   GLU D 536     -34.530  49.297  63.012  1.00100.00
ATOM   7700  N   THR D 537     -32.605  50.444  62.760  1.00100.00
ATOM   7701  CA  THR D 537     -33.029  51.126  61.543  1.00100.00
ATOM   7702  CB  THR D 537     -31.927  52.073  61.015  1.00 65.46
ATOM   7703  OG1 THR D 537     -30.705  51.340  60.858  1.00 65.46
ATOM   7704  CG2 THR D 537     -31.708  53.235  61.977  1.00 65.46
ATOM   7705  C   THR D 537     -33.356  50.111  60.453  1.00100.00
ATOM   7706  O   THR D 537     -33.674  50.483  59.323  1.00100.00
ATOM   7707  N   ARG D 538     -33.278  48.829  60.804  1.00 65.61
ATOM   7708  CA  ARG D 538     -33.553  47.741  59.872  1.00 65.61
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ATOM	7709	CB	ARG	D	538	-34.963	47.860	59.277	1.00100.00
ATOM	7710	CG	ARG	D	538	-36.094	47.831	60.299	1.00100.00
ATOM	7711	CD	ARG	D	538	-36.434	49.230	60.797	1.00100.00
ATOM	7712	NE	ARG	D	538	-37.032	50.051	59.745	1.00100.00
ATOM	7713	CZ	ARG	D	538	-37.358	51.332	59.885	1.00100.00
ATOM	7714	NH1	ARG	D	538	-37.144	51.953	61.037	1.00100.00
ATOM	7715	NH2	ARG	D	538	-37.902	51.992	58.870	1.00100.00
ATOM	7716	C	ARG	D	538	-32.525	47.729	58.750	1.00 65.61
ATOM	7717	O	ARG	D	538	-32.462	46.777	57.969	1.00 65.61
ATOM	7718	N	GLU	D	539	-31.727	48.793	58.670	1.00 46.48
ATOM	7719	CA	GLU	D	539	-30.682	48.902	57.656	1.00 46.48
ATOM	7720	CB	GLU	D	539	-30.140	50.334	57.589	1.00 57.55
ATOM	7721	CG	GLU	D	539	-29.017	50.521	56.578	1.00 57.55
ATOM	7722	CD	GLU	D	539	-28.510	51.951	56.525	1.00 57.55
ATOM	7723	OE1	GLU	D	539	-28.205	52.512	57.598	1.00 57.55
ATOM	7724	OE2	GLU	D	539	-28.408	52.510	55.412	1.00 57.55
ATOM	7725	C	GLU	D	539	-29.562	47.938	58.037	1.00 46.48
ATOM	7726	O	GLU	D	539	-28.894	47.363	57.176	1.00 46.48
ATOM	7727	N	LEU	D	540	-29.379	47.763	59.344	1.00 34.16
ATOM	7728	CA	LEU	D	540	-28.363	46.864	59.869	1.00 34.16
ATOM	7729	CB	LEU	D	540	-28.218	47.081	61.380	1.00 31.25
ATOM	7730	CG	LEU	D	540	-27.163	46.271	62.143	1.00 31.25
ATOM	7731	CD1	LEU	D	540	-27.714	44.900	62.501	1.00 31.25
ATOM	7732	CD2	LEU	D	540	-25.895	46.157	61.309	1.00 31.25
ATOM	7733	C	LEU	D	540	-28.755	45.417	59.561	1.00 34.16
ATOM	7734	O	LEU	D	540	-27.911	44.592	59.191	1.00 34.16
ATOM	7735	N	GLN	D	541	-30.042	45.116	59.714	1.00 40.56
ATOM	7736	CA	GLN	D	541	-30.555	43.776	59.436	1.00 40.56
ATOM	7737	CB	GLN	D	541	-32.057	43.720	59.722	1.00100.00
ATOM	7738	CG	GLN	D	541	-32.447	44.169	61.120	1.00100.00
ATOM	7739	CD	GLN	D	541	-33.953	44.249	61.309	1.00100.00
ATOM	7740	OE1	GLN	D	541	-34.437	44.578	62.394	1.00100.00
ATOM	7741	NE2	GLN	D	541	-34.701	43.951	60.251	1.00100.00
ATOM	7742	C	GLN	D	541	-30.307	43.462	57.962	1.00 40.56
ATOM	7743	O	GLN	D	541	-29.779	42.406	57.611	1.00 40.56
ATOM	7744	N	SER	D	542	-30.689	44.402	57.107	1.00 46.87
ATOM	7745	CA	SER	D	542	-30.520	44.249	55.674	1.00 46.87
ATOM	7746	CB	SER	D	542	-31.069	45.479	54.952	1.00 85.89
ATOM	7747	OG	SER	D	542	-32.417	45.715	55.315	1.00 85.89
ATOM	7748	C	SER	D	542	-29.056	44.055	55.301	1.00 46.87
ATOM	7749	O	SER	D	542	-28.728	43.220	54.461	1.00 46.87
ATOM	7750	N	LEU	D	543	-28.172	44.822	55.927	1.00 28.08
ATOM	7751	CA	LEU	D	543	-26.751	44.723	55.619	1.00 28.08
ATOM	7752	CB	LEU	D	543	-25.990	45.887	56.251	1.00 24.22
ATOM	7753	CG	LEU	D	543	-24.475	45.762	56.049	1.00 24.22
ATOM	7754	CD1	LEU	D	543	-24.172	45.846	54.568	1.00 24.22
ATOM	7755	CD2	LEU	D	543	-23.738	46.856	56.818	1.00 24.22
ATOM	7756	C	LEU	D	543	-26.112	43.419	56.084	1.00 28.08
ATOM	7757	O	LEU	D	543	-25.386	42.773	55.334	1.00 28.08
ATOM	7758	N	ALA	D	544	-26.385	43.046	57.329	1.00 34.75
ATOM	7759	CA	ALA	D	544	-25.816	41.842	57.932	1.00 34.75
ATOM	7760	CB	ALA	D	544	-26.185	41.792	59.409	1.00 55.12
ATOM	7761	C	ALA	D	544	-26.194	40.524	57.266	1.00 34.75
ATOM	7762	O	ALA	D	544	-25.449	39.547	57.354	1.00 34.75
ATOM	7763	N	ALA	D	545	-27.346	40.490	56.607	1.00 43.89
ATOM	7764	CA	ALA	D	545	-27.809	39.272	55.949	1.00 43.89
ATOM	7765	CB	ALA	D	545	-29.303	39.108	56.167	1.00 47.90
ATOM	7766	C	ALA	D	545	-27.502	39.247	54.457	1.00 43.89
ATOM	7767	O	ALA	D	545	-27.551	38.194	53.826	1.00 43.89
ATOM	7768	N	ALA	D	546	-27.182	40.403	53.889	1.00 26.43
ATOM	7769	CA	ALA	D	546	-26.889	40.480	52.463	1.00 26.43
ATOM	7770	CB	ALA	D	546	-26.678	41.942	52.047	1.00 21.91
ATOM	7771	C	ALA	D	546	-25.664	39.656	52.088	1.00 26.43
ATOM	7772	O	ALA	D	546	-24.839	39.318	52.940	1.00 26.43
ATOM	7773	N	VAL	D	547	-25.554	39.344	50.801	1.00 40.29
ATOM	7774	CA	VAL	D	547	-24.423	38.583	50.281	1.00 40.29

ATOM	7775	CB	VAL	D	547	-24.801	37.836	48.987	1.00	54.22
ATOM	7776	CG1	VAL	D	547	-23.549	37.319	48.296	1.00	54.22
ATOM	7777	CG2	VAL	D	547	-25.741	36.686	49.315	1.00	54.22
ATOM	7778	C	VAL	D	547	-23.294	39.551	49.970	1.00	40.29
ATOM	7779	O	VAL	D	547	-23.513	40.575	49.332	1.00	40.29
ATOM	7780	N	VAL	D	548	-22.090	39.227	50.426	1.00	33.63
ATOM	7781	CA	VAL	D	548	-20.934	40.081	50.187	1.00	33.63
ATOM	7782	CB	VAL	D	548	-19.968	40.096	51.388	1.00	21.80
ATOM	7783	CG1	VAL	D	548	-18.865	41.119	51.137	1.00	21.80
ATOM	7784	CG2	VAL	D	548	-20.729	40.399	52.687	1.00	21.80
ATOM	7785	C	VAL	D	548	-20.167	39.571	48.979	1.00	33.63
ATOM	7786	O	VAL	D	548	-19.334	38.672	49.092	1.00	33.63
ATOM	7787	N	PRO	D	549	-20.433	40.150	47.803	1.00	31.67
ATOM	7788	CD	PRO	D	549	-21.406	41.219	47.518	1.00	31.86
ATOM	7789	CA	PRO	D	549	-19.746	39.723	46.584	1.00	31.67
ATOM	7790	CB	PRO	D	549	-20.284	40.688	45.528	1.00	31.86
ATOM	7791	CG	PRO	D	549	-21.668	41.016	46.040	1.00	31.86
ATOM	7792	C	PRO	D	549	-18.227	39.795	46.720	1.00	31.67
ATOM	7793	O	PRO	D	549	-17.700	40.413	47.650	1.00	31.67
ATOM	7794	N	SER	D	550	-17.538	39.156	45.783	1.00	28.69
ATOM	7795	CA	SER	D	550	-16.082	39.128	45.752	1.00	28.69
ATOM	7796	CB	SER	D	550	-15.606	38.071	44.764	1.00	32.03
ATOM	7797	OG	SER	D	550	-16.003	38.428	43.450	1.00	32.03
ATOM	7798	C	SER	D	550	-15.487	40.466	45.316	1.00	28.69
ATOM	7799	O	SER	D	550	-16.148	41.276	44.662	1.00	28.69
ATOM	7800	N	ALA	D	551	-14.218	40.665	45.662	1.00	40.41
ATOM	7801	CA	ALA	D	551	-13.491	41.873	45.307	1.00	40.41
ATOM	7802	CB	ALA	D	551	-12.051	41.773	45.784	1.00	12.29
ATOM	7803	C	ALA	D	551	-13.522	42.043	43.794	1.00	40.41
ATOM	7804	O	ALA	D	551	-13.610	43.161	43.290	1.00	40.41
ATOM	7805	N	GLN	D	552	-13.445	40.928	43.073	1.00	41.76
ATOM	7806	CA	GLN	D	552	-13.464	40.981	41.620	1.00	41.76
ATOM	7807	CB	GLN	D	552	-13.145	39.612	41.033	1.00	83.18
ATOM	7808	CG	GLN	D	552	-12.843	39.654	39.551	1.00	83.18
ATOM	7809	CD	GLN	D	552	-12.614	38.279	38.970	1.00	83.18
ATOM	7810	OE1	GLN	D	552	-13.535	37.462	38.905	1.00	83.18
ATOM	7811	NE2	GLN	D	552	-11.382	38.009	38.549	1.00	83.18
ATOM	7812	C	GLN	D	552	-14.827	41.452	41.121	1.00	41.76
ATOM	7813	O	GLN	D	552	-14.917	42.246	40.193	1.00	41.76
ATOM	7814	N	THR	D	553	-15.889	40.969	41.747	1.00	38.47
ATOM	7815	CA	THR	D	553	-17.232	41.359	41.351	1.00	38.47
ATOM	7816	CB	THR	D	553	-18.298	40.532	42.113	1.00	38.24
ATOM	7817	OG1	THR	D	553	-18.208	39.160	41.720	1.00	38.24
ATOM	7818	CG2	THR	D	553	-19.706	41.052	41.813	1.00	38.24
ATOM	7819	C	THR	D	553	-17.496	42.843	41.609	1.00	38.47
ATOM	7820	O	THR	D	553	-18.027	43.549	40.751	1.00	38.47
ATOM	7821	N	LEU	D	554	-17.123	43.305	42.799	1.00	41.56
ATOM	7822	CA	LEU	D	554	-17.334	44.692	43.198	1.00	41.56
ATOM	7823	CB	LEU	D	554	-17.089	44.836	44.701	1.00	35.88
ATOM	7824	CG	LEU	D	554	-17.841	43.857	45.604	1.00	35.88
ATOM	7825	CD1	LEU	D	554	-17.399	44.051	47.036	1.00	35.88
ATOM	7826	CD2	LEU	D	554	-19.342	44.071	45.478	1.00	35.88
ATOM	7827	C	LEU	D	554	-16.434	45.659	42.440	1.00	41.56
ATOM	7828	O	LEU	D	554	-16.772	46.828	42.286	1.00	41.56
ATOM	7829	N	LYS	D	555	-15.293	45.157	41.972	1.00	29.20
ATOM	7830	CA	LYS	D	555	-14.313	45.948	41.232	1.00	29.20
ATOM	7831	CB	LYS	D	555	-15.005	46.746	40.119	1.00	56.82
ATOM	7832	CG	LYS	D	555	-15.662	45.883	39.046	1.00	56.82
ATOM	7833	CD	LYS	D	555	-16.370	46.735	38.000	1.00	56.82
ATOM	7834	CE	LYS	D	555	-16.980	45.874	36.908	1.00	56.82
ATOM	7835	NZ	LYS	D	555	-15.947	45.052	36.213	1.00	56.82
ATOM	7836	C	LYS	D	555	-13.528	46.898	42.148	1.00	29.20
ATOM	7837	O	LYS	D	555	-12.828	47.803	41.676	1.00	29.20
ATOM	7838	N	ILE	D	556	-13.628	46.679	43.456	1.00	22.00
ATOM	7839	CA	ILE	D	556	-12.939	47.533	44.418	1.00	22.00
ATOM	7840	CB	ILE	D	556	-13.342	47.191	45.854	1.00	32.62

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ATOM   7841  CG2 ILE D 556     -14.815  47.462  46.050  1.00 32.62
ATOM   7842  CG1 ILE D 556     -13.012  45.731  46.151  1.00 32.62
ATOM   7843  CD1 ILE D 556     -13.077  45.398  47.616  1.00 32.62
ATOM   7844  C   ILE D 556     -11.421  47.442  44.309  1.00 22.00
ATOM   7845  O   ILE D 556     -10.698  48.236  44.923  1.00 22.00
ATOM   7846  N   THR D 557     -10.934  46.474  43.532  1.00 27.53
ATOM   7847  CA  THR D 557      -9.493  46.307  43.346  1.00 27.53
ATOM   7848  CB  THR D 557      -9.127  44.830  43.034  1.00 42.96
ATOM   7849  OG1 THR D 557     -10.033  44.299  42.058  1.00 42.96
ATOM   7850  CG2 THR D 557      -9.209  43.989  44.287  1.00 42.96
ATOM   7851  C   THR D 557      -8.958  47.203  42.226  1.00 27.53
ATOM   7852  O   THR D 557      -7.741  47.333  42.048  1.00 27.53
ATOM   7853  N   ASP D 558      -9.871  47.827  41.481  1.00 32.99
ATOM   7854  CA  ASP D 558      -9.500  48.714  40.378  1.00 32.99
ATOM   7855  CB  ASP D 558     -10.592  48.708  39.301  1.00 82.06
ATOM   7856  CG  ASP D 558     -10.828  47.330  38.711  1.00 82.06
ATOM   7857  OD1 ASP D 558     -11.172  46.402  39.472  1.00 82.06
ATOM   7858  OD2 ASP D 558     -10.673  47.174  37.483  1.00 82.06
ATOM   7859  C   ASP D 558      -9.277  50.154  40.837  1.00 32.99
ATOM   7860  O   ASP D 558     -10.048  50.687  41.628  1.00 32.99
ATOM   7861  N   PHE D 559      -8.224  50.785  40.334  1.00 33.04
ATOM   7862  CA  PHE D 559      -7.943  52.169  40.691  1.00 33.04
ATOM   7863  CB  PHE D 559      -6.516  52.531  40.287  1.00 30.42
ATOM   7864  CG  PHE D 559      -5.466  51.974  41.210  1.00 30.42
ATOM   7865  CD1 PHE D 559      -5.243  52.551  42.461  1.00 30.42
ATOM   7866  CD2 PHE D 559      -4.674  50.892  40.818  1.00 30.42
ATOM   7867  CE1 PHE D 559      -4.236  52.066  43.310  1.00 30.42
ATOM   7868  CE2 PHE D 559      -3.667  50.398  41.659  1.00 30.42
ATOM   7869  CZ  PHE D 559      -3.448  50.992  42.908  1.00 30.42
ATOM   7870  C   PHE D 559      -8.935  53.130  40.031  1.00 33.04
ATOM   7871  O   PHE D 559      -9.125  54.254  40.496  1.00 33.04
ATOM   7872  N   SER D 560      -9.574  52.667  38.959  1.00 36.09
ATOM   7873  CA  SER D 560     -10.552  53.456  38.207  1.00 36.09
ATOM   7874  CB  SER D 560     -10.580  52.992  36.748  1.00 42.40
ATOM   7875  OG  SER D 560      -9.285  53.032  36.177  1.00 42.40
ATOM   7876  C   SER D 560     -11.957  53.324  38.789  1.00 36.09
ATOM   7877  O   SER D 560     -12.914  53.893  38.260  1.00 36.09
ATOM   7878  N   PHE D 561     -12.067  52.568  39.876  1.00 26.03
ATOM   7879  CA  PHE D 561     -13.340  52.322  40.552  1.00 26.03
ATOM   7880  CB  PHE D 561     -13.063  51.707  41.926  1.00 25.85
ATOM   7881  CG  PHE D 561     -14.286  51.538  42.769  1.00 25.85
ATOM   7882  CD1 PHE D 561     -15.129  50.455  42.587  1.00 25.85
ATOM   7883  CD2 PHE D 561     -14.603  52.475  43.749  1.00 25.85
ATOM   7884  CE1 PHE D 561     -16.276  50.305  43.371  1.00 25.85
ATOM   7885  CE2 PHE D 561     -15.749  52.333  44.538  1.00 25.85
ATOM   7886  CZ  PHE D 561     -16.583  51.248  44.346  1.00 25.85
ATOM   7887  C   PHE D 561     -14.227  53.563  40.724  1.00 26.03
ATOM   7888  O   PHE D 561     -13.734  54.653  41.006  1.00 26.03
ATOM   7889  N   SER D 562     -15.537  53.386  40.579  1.00 25.30
ATOM   7890  CA  SER D 562     -16.470  54.496  40.745  1.00 25.30
ATOM   7891  CB  SER D 562     -17.043  54.922  39.389  1.00 64.11
ATOM   7892  OG  SER D 562     -17.779  56.129  39.501  1.00 64.11
ATOM   7893  C   SER D 562     -17.607  54.108  41.683  1.00 25.30
ATOM   7894  O   SER D 562     -18.191  53.035  41.552  1.00 25.30
ATOM   7895  N   ASP D 563     -17.926  54.988  42.627  1.00 28.78
ATOM   7896  CA  ASP D 563     -18.985  54.712  43.591  1.00 28.78
ATOM   7897  CB  ASP D 563     -18.628  55.314  44.954  1.00 27.19
ATOM   7898  CG  ASP D 563     -18.904  56.807  45.013  1.00 27.19
ATOM   7899  OD1 ASP D 563     -18.154  57.586  44.393  1.00 27.19
ATOM   7900  OD2 ASP D 563     -19.890  57.203  45.659  1.00 27.19
ATOM   7901  C   ASP D 563     -20.328  55.290  43.153  1.00 28.78
ATOM   7902  O   ASP D 563     -21.378  54.914  43.682  1.00 28.78
ATOM   7903  N   PHE D 564     -20.293  56.211  42.198  1.00 31.27
ATOM   7904  CA  PHE D 564     -21.512  56.861  41.728  1.00 31.27
ATOM   7905  CB  PHE D 564     -21.235  57.695  40.470  1.00 56.01
ATOM   7906  CG  PHE D 564     -22.408  58.531  40.041  1.00 56.01
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ATOM	7907	CD1	PHE	D	564	-23.033	59.388	40.947	1.00	56.01
ATOM	7908	CD2	PHE	D	564	-22.919	58.432	38.750	1.00	56.01
ATOM	7909	CE1	PHE	D	564	-24.156	60.130	40.578	1.00	56.01
ATOM	7910	CE2	PHE	D	564	-24.042	59.169	38.368	1.00	56.01
ATOM	7911	CZ	PHE	D	564	-24.663	60.020	39.286	1.00	56.01
ATOM	7912	C	PHE	D	564	-22.677	55.906	41.472	1.00	31.27
ATOM	7913	O	PHE	D	564	-23.795	56.154	41.928	1.00	31.27
ATOM	7914	N	GLU	D	565	-22.422	54.819	40.758	1.00	42.29
ATOM	7915	CA	GLU	D	565	-23.471	53.843	40.474	1.00	42.29
ATOM	7916	CB	GLU	D	565	-22.998	52.851	39.401	1.00	80.22
ATOM	7917	CG	GLU	D	565	-22.904	53.417	37.982	1.00	80.22
ATOM	7918	CD	GLU	D	565	-24.267	53.680	37.349	1.00	80.22
ATOM	7919	OE1	GLU	D	565	-24.981	54.595	37.815	1.00	80.22
ATOM	7920	OE2	GLU	D	565	-24.625	52.968	36.383	1.00	80.22
ATOM	7921	C	GLU	D	565	-23.913	53.075	41.732	1.00	42.29
ATOM	7922	O	GLU	D	565	-25.106	52.827	41.928	1.00	42.29
ATOM	7923	N	LEU	D	566	-22.960	52.703	42.585	1.00	34.02
ATOM	7924	CA	LEU	D	566	-23.275	51.959	43.807	1.00	34.02
ATOM	7925	CB	LEU	D	566	-21.998	51.670	44.608	1.00	35.75
ATOM	7926	CG	LEU	D	566	-21.002	50.637	44.073	1.00	35.75
ATOM	7927	CD1	LEU	D	566	-20.452	51.078	42.729	1.00	35.75
ATOM	7928	CD2	LEU	D	566	-19.871	50.473	45.066	1.00	35.75
ATOM	7929	C	LEU	D	566	-24.257	52.696	44.703	1.00	34.02
ATOM	7930	O	LEU	D	566	-24.362	53.917	44.649	1.00	34.02
ATOM	7931	N	SER	D	567	-24.978	51.943	45.526	1.00	32.23
ATOM	7932	CA	SER	D	567	-25.937	52.513	46.464	1.00	32.23
ATOM	7933	CB	SER	D	567	-27.201	51.664	46.509	1.00	34.12
ATOM	7934	OG	SER	D	567	-26.897	50.364	46.990	1.00	34.12
ATOM	7935	C	SER	D	567	-25.277	52.480	47.840	1.00	32.23
ATOM	7936	O	SER	D	567	-24.212	51.888	47.999	1.00	32.23
ATOM	7937	N	ASP	D	568	-25.914	53.096	48.833	1.00	33.01
ATOM	7938	CA	ASP	D	568	-25.364	53.120	50.187	1.00	33.01
ATOM	7939	CB	ASP	D	568	-26.329	53.818	51.157	1.00	35.94
ATOM	7940	CG	ASP	D	568	-26.269	55.331	51.056	1.00	35.94
ATOM	7941	OD1	ASP	D	568	-26.895	56.011	51.904	1.00	35.94
ATOM	7942	OD2	ASP	D	568	-25.597	55.839	50.130	1.00	35.94
ATOM	7943	C	ASP	D	568	-25.079	51.710	50.685	1.00	33.01
ATOM	7944	O	ASP	D	568	-23.961	51.395	51.097	1.00	33.01
ATOM	7945	N	LEU	D	569	-26.101	50.864	50.645	1.00	28.94
ATOM	7946	CA	LEU	D	569	-25.957	49.488	51.085	1.00	28.94
ATOM	7947	CB	LEU	D	569	-27.217	48.693	50.746	1.00	59.71
ATOM	7948	CG	LEU	D	569	-27.257	47.250	51.247	1.00	59.71
ATOM	7949	CD1	LEU	D	569	-27.469	47.243	52.762	1.00	59.71
ATOM	7950	CD2	LEU	D	569	-28.381	46.500	50.546	1.00	59.71
ATOM	7951	C	LEU	D	569	-24.753	48.872	50.380	1.00	28.94
ATOM	7952	O	LEU	D	569	-23.905	48.251	51.012	1.00	28.94
ATOM	7953	N	GLU	D	570	-24.682	49.057	49.065	1.00	28.96
ATOM	7954	CA	GLU	D	570	-23.589	48.513	48.278	1.00	28.96
ATOM	7955	CB	GLU	D	570	-23.809	48.805	46.791	1.00	53.34
ATOM	7956	CG	GLU	D	570	-24.904	47.942	46.161	1.00	53.34
ATOM	7957	CD	GLU	D	570	-25.274	48.378	44.754	1.00	53.34
ATOM	7958	OE1	GLU	D	570	-25.753	49.521	44.597	1.00	53.34
ATOM	7959	OE2	GLU	D	570	-25.088	47.582	43.807	1.00	53.34
ATOM	7960	C	GLU	D	570	-22.222	49.027	48.725	1.00	28.96
ATOM	7961	O	GLU	D	570	-21.240	48.279	48.701	1.00	28.96
ATOM	7962	N	THR	D	571	-22.136	50.292	49.127	1.00	24.98
ATOM	7963	CA	THR	D	571	-20.839	50.787	49.578	1.00	24.98
ATOM	7964	CB	THR	D	571	-20.816	52.326	49.774	1.00	20.85
ATOM	7965	OG1	THR	D	571	-21.790	52.719	50.745	1.00	20.85
ATOM	7966	CG2	THR	D	571	-21.107	53.030	48.453	1.00	20.85
ATOM	7967	C	THR	D	571	-20.498	50.071	50.890	1.00	24.98
ATOM	7968	O	THR	D	571	-19.351	49.708	51.127	1.00	24.98
ATOM	7969	N	ALA	D	572	-21.496	49.844	51.736	1.00	24.46
ATOM	7970	CA	ALA	D	572	-21.232	49.134	52.980	1.00	24.46
ATOM	7971	CB	ALA	D	572	-22.506	49.034	53.822	1.00	19.16
ATOM	7972	C	ALA	D	572	-20.692	47.740	52.651	1.00	24.46

ATOM	7973	O	ALA	D	572	-19.697	47.297	53.229	1.00	24.46
ATOM	7974	N	LEU	D	573	-21.327	47.056	51.704	1.00	26.33
ATOM	7975	CA	LEU	D	573	-20.879	45.718	51.326	1.00	26.33
ATOM	7976	CB	LEU	D	573	-21.770	45.127	50.236	1.00	34.83
ATOM	7977	CG	LEU	D	573	-23.162	44.678	50.684	1.00	34.83
ATOM	7978	CD1	LEU	D	573	-23.859	43.972	49.514	1.00	34.83
ATOM	7979	CD2	LEU	D	573	-23.044	43.739	51.890	1.00	34.83
ATOM	7980	C	LEU	D	573	-19.434	45.736	50.853	1.00	26.33
ATOM	7981	O	LEU	D	573	-18.637	44.890	51.260	1.00	26.33
ATOM	7982	N	CYS	D	574	-19.103	46.695	49.988	1.00	19.44
ATOM	7983	CA	CYS	D	574	-17.733	46.831	49.494	1.00	19.44
ATOM	7984	CB	CYS	D	574	-17.591	48.041	48.563	1.00	35.02
ATOM	7985	SG	CYS	D	574	-18.412	47.927	46.968	1.00	35.02
ATOM	7986	C	CYS	D	574	-16.778	47.017	50.660	1.00	19.44
ATOM	7987	O	CYS	D	574	-15.651	46.530	50.636	1.00	19.44
ATOM	7988	N	THR	D	575	-17.215	47.741	51.684	1.00	24.93
ATOM	7989	CA	THR	D	575	-16.353	47.954	52.837	1.00	24.93
ATOM	7990	CB	THR	D	575	-16.924	49.018	53.773	1.00	15.69
ATOM	7991	OG1	THR	D	575	-17.019	50.256	53.058	1.00	15.69
ATOM	7992	CG2	THR	D	575	-16.014	49.219	54.992	1.00	15.69
ATOM	7993	C	THR	D	575	-16.122	46.656	53.603	1.00	24.93
ATOM	7994	O	THR	D	575	-15.000	46.385	54.019	1.00	24.93
ATOM	7995	N	ILE	D	576	-17.153	45.833	53.776	1.00	19.08
ATOM	7996	CA	ILE	D	576	-16.922	44.590	54.506	1.00	19.08
ATOM	7997	CB	ILE	D	576	-18.255	43.842	54.926	1.00	30.63
ATOM	7998	CG2	ILE	D	576	-19.472	44.550	54.401	1.00	30.63
ATOM	7999	CG1	ILE	D	576	-18.220	42.380	54.486	1.00	30.63
ATOM	8000	CD1	ILE	D	576	-17.371	41.494	55.356	1.00	30.63
ATOM	8001	C	ILE	D	576	-15.999	43.705	53.671	1.00	19.08
ATOM	8002	O	ILE	D	576	-15.122	43.026	54.222	1.00	19.08
ATOM	8003	N	ARG	D	577	-16.156	43.736	52.348	1.00	27.05
ATOM	8004	CA	ARG	D	577	-15.283	42.939	51.488	1.00	27.05
ATOM	8005	CB	ARG	D	577	-15.661	43.085	50.008	1.00	20.95
ATOM	8006	CG	ARG	D	577	-14.614	42.493	49.022	1.00	20.95
ATOM	8007	CD	ARG	D	577	-14.260	41.016	49.315	1.00	20.95
ATOM	8008	NE	ARG	D	577	-15.457	40.183	49.451	1.00	20.95
ATOM	8009	CZ	ARG	D	577	-15.450	38.912	49.849	1.00	20.95
ATOM	8010	NH1	ARG	D	577	-14.308	38.307	50.151	1.00	20.95
ATOM	8011	NH2	ARG	D	577	-16.598	38.248	49.965	1.00	20.95
ATOM	8012	C	ARG	D	577	-13.836	43.385	51.685	1.00	27.05
ATOM	8013	O	ARG	D	577	-12.920	42.554	51.661	1.00	27.05
ATOM	8014	N	MET	D	578	-13.638	44.692	51.879	1.00	19.21
ATOM	8015	CA	MET	D	578	-12.300	45.252	52.088	1.00	19.21
ATOM	8016	CB	MET	D	578	-12.348	46.782	52.137	1.00	27.44
ATOM	8017	CG	MET	D	578	-12.416	47.471	50.773	1.00	27.44
ATOM	8018	SD	MET	D	578	-12.500	49.291	50.934	1.00	27.44
ATOM	8019	CE	MET	D	578	-13.947	49.642	49.972	1.00	27.44
ATOM	8020	C	MET	D	578	-11.643	44.739	53.363	1.00	19.21
ATOM	8021	O	MET	D	578	-10.474	44.373	53.348	1.00	19.21
ATOM	8022	N	PHE	D	579	-12.388	44.727	54.466	1.00	23.97
ATOM	8023	CA	PHE	D	579	-11.851	44.236	55.730	1.00	23.97
ATOM	8024	CB	PHE	D	579	-12.848	44.461	56.873	1.00	20.26
ATOM	8025	CG	PHE	D	579	-12.804	45.838	57.465	1.00	20.26
ATOM	8026	CD1	PHE	D	579	-13.485	46.895	56.867	1.00	20.26
ATOM	8027	CD2	PHE	D	579	-12.086	46.076	58.635	1.00	20.26
ATOM	8028	CE1	PHE	D	579	-13.450	48.170	57.433	1.00	20.26
ATOM	8029	CE2	PHE	D	579	-12.043	47.345	59.207	1.00	20.26
ATOM	8030	CZ	PHE	D	579	-12.725	48.395	58.609	1.00	20.26
ATOM	8031	C	PHE	D	579	-11.563	42.738	55.627	1.00	23.97
ATOM	8032	O	PHE	D	579	-10.567	42.236	56.152	1.00	23.97
ATOM	8033	N	THR	D	580	-12.451	42.032	54.940	1.00	24.49
ATOM	8034	CA	THR	D	580	-12.335	40.590	54.771	1.00	24.49
ATOM	8035	CB	THR	D	580	-13.633	40.019	54.156	1.00	21.07
ATOM	8036	OG1	THR	D	580	-14.758	40.476	54.927	1.00	21.07
ATOM	8037	CG2	THR	D	580	-13.599	38.480	54.156	1.00	21.07
ATOM	8038	C	THR	D	580	-11.135	40.164	53.923	1.00	24.49

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ATOM   8039  O   THR D 580     -10.341  39.331  54.354  1.00 24.49
ATOM   8040  N   ASP D 581     -10.987  40.740  52.732  1.00 27.00
ATOM   8041  CA  ASP D 581      -9.874  40.378  51.853  1.00 27.00
ATOM   8042  CB  ASP D 581     -10.135  40.883  50.437  1.00 27.44
ATOM   8043  CG  ASP D 581     -10.937  39.896  49.619  1.00 27.44
ATOM   8044  OD1 ASP D 581     -11.735  39.138  50.228  1.00 27.44
ATOM   8045  OD2 ASP D 581     -10.773  39.884  48.377  1.00 27.44
ATOM   8046  C   ASP D 581      -8.499  40.832  52.311  1.00 27.00
ATOM   8047  O   ASP D 581      -7.488  40.373  51.788  1.00 27.00
ATOM   8048  N   LEU D 582      -8.454  41.750  53.267  1.00 27.16
ATOM   8049  CA  LEU D 582      -7.177  42.215  53.791  1.00 27.16
ATOM   8050  CB  LEU D 582      -7.253  43.709  54.136  1.00 21.15
ATOM   8051  CG  LEU D 582      -7.152  44.628  52.913  1.00 21.15
ATOM   8052  CD1 LEU D 582      -7.375  46.075  53.304  1.00 21.15
ATOM   8053  CD2 LEU D 582      -5.766  44.470  52.291  1.00 21.15
ATOM   8054  C   LEU D 582      -6.843  41.377  55.030  1.00 27.16
ATOM   8055  O   LEU D 582      -5.899  41.670  55.762  1.00 27.16
ATOM   8056  N   ASN D 583      -7.643  40.329  55.238  1.00 19.84
ATOM   8057  CA  ASN D 583      -7.501  39.383  56.350  1.00 19.84
ATOM   8058  CB  ASN D 583      -6.169  38.635  56.251  1.00 51.64
ATOM   8059  CG  ASN D 583      -6.135  37.667  55.079  1.00 51.64
ATOM   8060  OD1 ASN D 583      -6.014  38.074  53.923  1.00 51.64
ATOM   8061  ND2 ASN D 583      -6.261  36.380  55.373  1.00 51.64
ATOM   8062  C   ASN D 583      -7.652  39.991  57.733  1.00 19.84
ATOM   8063  O   ASN D 583      -7.181  39.435  58.727  1.00 19.84
ATOM   8064  N   LEU D 584      -8.332  41.128  57.791  1.00 17.38
ATOM   8065  CA  LEU D 584      -8.567  41.831  59.044  1.00 17.38
ATOM   8066  CB  LEU D 584      -8.915  43.287  58.752  1.00 13.56
ATOM   8067  CG  LEU D 584      -7.834  44.380  58.712  1.00 13.56
ATOM   8068  CD1 LEU D 584      -6.464  43.835  58.346  1.00 13.56
ATOM   8069  CD2 LEU D 584      -8.288  45.438  57.735  1.00 13.56
ATOM   8070  C   LEU D 584      -9.688  41.183  59.868  1.00 17.38
ATOM   8071  O   LEU D 584      -9.598  41.110  61.090  1.00 17.38
ATOM   8072  N   VAL D 585     -10.747  40.735  59.197  1.00 23.10
ATOM   8073  CA  VAL D 585     -11.868  40.087  59.876  1.00 23.10
ATOM   8074  CB  VAL D 585     -12.956  39.644  58.868  1.00 27.25
ATOM   8075  CG1 VAL D 585     -14.001  38.776  59.569  1.00 27.25
ATOM   8076  CG2 VAL D 585     -13.613  40.871  58.232  1.00 27.25
ATOM   8077  C   VAL D 585     -11.365  38.842  60.609  1.00 23.10
ATOM   8078  O   VAL D 585     -11.769  38.564  61.732  1.00 23.10
ATOM   8079  N   GLN D 586     -10.477  38.100  59.955  1.00 21.73
ATOM   8080  CA  GLN D 586      -9.919  36.888  60.525  1.00 21.73
ATOM   8081  CB  GLN D 586      -9.363  35.998  59.410  1.00 24.36
ATOM   8082  CG  GLN D 586      -8.551  34.798  59.902  1.00 24.36
ATOM   8083  CD  GLN D 586      -9.363  33.837  60.760  1.00 24.36
ATOM   8084  OE1 GLN D 586     -10.591  33.907  60.800  1.00 24.36
ATOM   8085  NE2 GLN D 586      -8.677  32.921  61.436  1.00 24.36
ATOM   8086  C   GLN D 586      -8.828  37.167  61.549  1.00 21.73
ATOM   8087  O   GLN D 586      -8.932  36.753  62.695  1.00 21.73
ATOM   8088  N   ASN D 587      -7.772  37.857  61.136  1.00 24.90
ATOM   8089  CA  ASN D 587      -6.672  38.143  62.055  1.00 24.90
ATOM   8090  CB  ASN D 587      -5.593  38.955  61.338  1.00 40.57
ATOM   8091  CG  ASN D 587      -4.861  38.142  60.294  1.00 40.57
ATOM   8092  OD1 ASN D 587      -3.996  38.657  59.581  1.00 40.57
ATOM   8093  ND2 ASN D 587      -5.202  36.859  60.198  1.00 40.57
ATOM   8094  C   ASN D 587      -7.087  38.840  63.360  1.00 24.90
ATOM   8095  O   ASN D 587      -6.446  38.661  64.402  1.00 24.90
ATOM   8096  N   PHE D 588      -8.159  39.623  63.317  1.00 20.24
ATOM   8097  CA  PHE D 588      -8.591  40.297  64.524  1.00 20.24
ATOM   8098  CB  PHE D 588      -8.528  41.802  64.302  1.00 22.52
ATOM   8099  CG  PHE D 588      -7.145  42.268  63.948  1.00 22.52
ATOM   8100  CD1 PHE D 588      -6.840  42.692  62.662  1.00 22.52
ATOM   8101  CD2 PHE D 588      -6.112  42.162  64.880  1.00 22.52
ATOM   8102  CE1 PHE D 588      -5.528  42.996  62.304  1.00 22.52
ATOM   8103  CE2 PHE D 588      -4.801  42.463  64.535  1.00 22.52
ATOM   8104  CZ  PHE D 588      -4.508  42.880  63.239  1.00 22.52
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ATOM   8105  C   PHE D 588     -9.939  39.833  65.049  1.00 20.24
ATOM   8106  O   PHE D 588    -10.545  40.472  65.909  1.00 20.24
ATOM   8107  N   GLN D 589    -10.377  38.683  64.549  1.00 27.77
ATOM   8108  CA  GLN D 589    -11.627  38.068  64.989  1.00 27.77
ATOM   8109  CB  GLN D 589    -11.444  37.448  66.379  1.00 32.93
ATOM   8110  CG  GLN D 589    -10.280  36.457  66.523  1.00 32.93
ATOM   8111  CD  GLN D 589     -8.902  37.129  66.718  1.00 32.93
ATOM   8112  OE1 GLN D 589     -8.766  38.132  67.438  1.00 32.93
ATOM   8113  NE2 GLN D 589     -7.873  36.550  66.099  1.00 32.93
ATOM   8114  C   GLN D 589    -12.828  39.014  65.035  1.00 27.77
ATOM   8115  O   GLN D 589    -13.555  39.056  66.025  1.00 27.77
ATOM   8116  N   MET D 590    -13.042  39.781  63.978  1.00 20.87
ATOM   8117  CA  MET D 590    -14.186  40.678  63.964  1.00 20.87
ATOM   8118  CB  MET D 590    -14.025  41.715  62.867  1.00 19.66
ATOM   8119  CG  MET D 590    -12.818  42.610  63.048  1.00 19.66
ATOM   8120  SD  MET D 590    -12.745  43.842  61.730  1.00 19.66
ATOM   8121  CE  MET D 590    -11.019  44.434  61.958  1.00 19.66
ATOM   8122  C   MET D 590    -15.484  39.906  63.730  1.00 20.87
ATOM   8123  O   MET D 590    -15.571  39.106  62.808  1.00 20.87
ATOM   8124  N   LYS D 591    -16.480  40.137  64.577  1.00 20.97
ATOM   8125  CA  LYS D 591    -17.779  39.483  64.427  1.00 20.97
ATOM   8126  CB  LYS D 591    -18.578  39.568  65.728  1.00 46.60
ATOM   8127  CG  LYS D 591    -17.919  38.887  66.935  1.00 46.60
ATOM   8128  CD  LYS D 591    -16.553  39.505  67.302  1.00 46.60
ATOM   8129  CE  LYS D 591    -16.621  41.012  67.609  1.00 46.60
ATOM   8130  NZ  LYS D 591    -17.343  41.309  68.880  1.00 46.60
ATOM   8131  C   LYS D 591    -18.511  40.227  63.301  1.00 20.97
ATOM   8132  O   LYS D 591    -18.455  41.459  63.219  1.00 20.97
ATOM   8133  N   HIS D 592    -19.203  39.481  62.448  1.00 31.23
ATOM   8134  CA  HIS D 592    -19.891  40.076  61.315  1.00 31.23
ATOM   8135  CB  HIS D 592    -20.621  38.997  60.510  1.00 32.56
ATOM   8136  CG  HIS D 592    -21.084  39.463  59.165  1.00 32.56
ATOM   8137  CD2 HIS D 592    -20.399  39.692  58.018  1.00 32.56
ATOM   8138  ND1 HIS D 592    -22.400  39.778  58.894  1.00 32.56
ATOM   8139  CE1 HIS D 592    -22.505  40.180  57.640  1.00 32.56
ATOM   8140  NE2 HIS D 592    -21.306  40.139  57.086  1.00 32.56
ATOM   8141  C   HIS D 592    -20.855  41.207  61.654  1.00 31.23
ATOM   8142  O   HIS D 592    -20.840  42.248  60.999  1.00 31.23
ATOM   8143  N   GLU D 593    -21.688  41.022  62.671  1.00 26.86
ATOM   8144  CA  GLU D 593    -22.642  42.064  63.017  1.00 26.86
ATOM   8145  CB  GLU D 593    -23.673  41.532  64.019  1.00 66.62
ATOM   8146  CG  GLU D 593    -24.745  42.548  64.398  1.00 66.62
ATOM   8147  CD  GLU D 593    -25.964  41.918  65.055  1.00 66.62
ATOM   8148  OE1 GLU D 593    -26.760  41.272  64.334  1.00 66.62
ATOM   8149  OE2 GLU D 593    -26.123  42.066  66.289  1.00 66.62
ATOM   8150  C   GLU D 593    -21.941  43.304  63.569  1.00 26.86
ATOM   8151  O   GLU D 593    -22.358  44.432  63.312  1.00 26.86
ATOM   8152  N   VAL D 594    -20.863  43.090  64.314  1.00 28.39
ATOM   8153  CA  VAL D 594    -20.106  44.193  64.894  1.00 28.39
ATOM   8154  CB  VAL D 594    -18.998  43.658  65.817  1.00 21.81
ATOM   8155  CG1 VAL D 594    -18.138  44.799  66.328  1.00 21.81
ATOM   8156  CG2 VAL D 594    -19.638  42.914  67.000  1.00 21.81
ATOM   8157  C   VAL D 594    -19.500  45.050  63.783  1.00 28.39
ATOM   8158  O   VAL D 594    -19.574  46.279  63.817  1.00 28.39
ATOM   8159  N   LEU D 595    -18.906  44.400  62.793  1.00 21.37
ATOM   8160  CA  LEU D 595    -18.329  45.139  61.690  1.00 21.37
ATOM   8161  CB  LEU D 595    -17.621  44.177  60.735  1.00 15.18
ATOM   8162  CG  LEU D 595    -16.960  44.825  59.510  1.00 15.18
ATOM   8163  CD1 LEU D 595    -15.950  45.877  59.941  1.00 15.18
ATOM   8164  CD2 LEU D 595    -16.294  43.748  58.680  1.00 15.18
ATOM   8165  C   LEU D 595    -19.444  45.900  60.958  1.00 21.37
ATOM   8166  O   LEU D 595    -19.290  47.076  60.621  1.00 21.37
ATOM   8167  N   CYS D 596    -20.580  45.238  60.739  1.00 24.79
ATOM   8168  CA  CYS D 596    -21.700  45.866  60.036  1.00 24.79
ATOM   8169  CB  CYS D 596    -22.846  44.875  59.861  1.00 32.30
ATOM   8170  SG  CYS D 596    -22.521  43.607  58.627  1.00 32.30
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ATOM   8171  C   CYS D 596     -22.228  47.111  60.724  1.00 24.79
ATOM   8172  O   CYS D 596     -22.518  48.121  60.080  1.00 24.79
ATOM   8173  N   ARG D 597     -22.344  47.038  62.037  1.00 20.82
ATOM   8174  CA  ARG D 597     -22.853  48.152  62.812  1.00 20.82
ATOM   8175  CB  ARG D 597     -23.165  47.677  64.228  1.00 40.85
ATOM   8176  CG  ARG D 597     -24.132  48.559  64.999  1.00 40.85
ATOM   8177  CD  ARG D 597     -24.992  47.676  65.875  1.00 40.85
ATOM   8178  NE  ARG D 597     -24.193  46.557  66.352  1.00 40.85
ATOM   8179  CZ  ARG D 597     -24.690  45.436  66.854  1.00 40.85
ATOM   8180  NH1 ARG D 597     -26.003  45.273  66.955  1.00 40.85
ATOM   8181  NH2 ARG D 597     -23.865  44.473  67.235  1.00 40.85
ATOM   8182  C   ARG D 597     -21.837  49.292  62.829  1.00 20.82
ATOM   8183  O   ARG D 597     -22.201  50.459  62.717  1.00 20.82
ATOM   8184  N   TRP D 598     -20.562  48.945  62.950  1.00 24.40
ATOM   8185  CA  TRP D 598     -19.504  49.946  62.958  1.00 24.40
ATOM   8186  CB  TRP D 598     -18.137  49.279  63.109  1.00 20.05
ATOM   8187  CG  TRP D 598     -17.009  50.257  63.131  1.00 20.05
ATOM   8188  CD2 TRP D 598     -16.144  50.594  62.040  1.00 20.05
ATOM   8189  CE2 TRP D 598     -15.256  51.590  62.504  1.00 20.05
ATOM   8190  CE3 TRP D 598     -16.032  50.151  60.718  1.00 20.05
ATOM   8191  CD1 TRP D 598     -16.622  51.034  64.179  1.00 20.05
ATOM   8192  NE1 TRP D 598     -15.569  51.836  63.813  1.00 20.05
ATOM   8193  CZ2 TRP D 598     -14.266  52.154  61.689  1.00 20.05
ATOM   8194  CZ3 TRP D 598     -15.041  50.711  59.902  1.00 20.05
ATOM   8195  CH2 TRP D 598     -14.176  51.702  60.395  1.00 20.05
ATOM   8196  C   TRP D 598     -19.543  50.718  61.646  1.00 24.40
ATOM   8197  O   TRP D 598     -19.583  51.949  61.635  1.00 24.40
ATOM   8198  N   ILE D 599     -19.538  49.987  60.539  1.00 18.83
ATOM   8199  CA  ILE D 599     -19.565  50.609  59.231  1.00 18.83
ATOM   8200  CB  ILE D 599     -19.600  49.547  58.101  1.00 20.24
ATOM   8201  CG2 ILE D 599     -19.832  50.225  56.760  1.00 20.24
ATOM   8202  CG1 ILE D 599     -18.270  48.780  58.082  1.00 20.24
ATOM   8203  CD1 ILE D 599     -18.203  47.648  57.072  1.00 20.24
ATOM   8204  C   ILE D 599     -20.751  51.556  59.102  1.00 18.83
ATOM   8205  O   ILE D 599     -20.598  52.669  58.622  1.00 18.83
ATOM   8206  N   LEU D 600     -21.927  51.126  59.539  1.00 21.65
ATOM   8207  CA  LEU D 600     -23.111  51.978  59.469  1.00 21.65
ATOM   8208  CB  LEU D 600     -24.366  51.179  59.814  1.00 26.56
ATOM   8209  CG  LEU D 600     -24.697  50.053  58.832  1.00 26.56
ATOM   8210  CD1 LEU D 600     -25.960  49.327  59.291  1.00 26.56
ATOM   8211  CD2 LEU D 600     -24.884  50.634  57.427  1.00 26.56
ATOM   8212  C   LEU D 600     -22.976  53.173  60.412  1.00 21.65
ATOM   8213  O   LEU D 600     -23.505  54.246  60.140  1.00 21.65
ATOM   8214  N   SER D 601     -22.279  53.000  61.531  1.00 16.35
ATOM   8215  CA  SER D 601     -22.083  54.130  62.441  1.00 16.35
ATOM   8216  CB  SER D 601     -21.414  53.685  63.738  1.00 25.93
ATOM   8217  OG  SER D 601     -22.339  53.036  64.582  1.00 25.93
ATOM   8218  C   SER D 601     -21.200  55.163  61.745  1.00 16.35
ATOM   8219  O   SER D 601     -21.494  56.352  61.776  1.00 16.35
ATOM   8220  N   VAL D 602     -20.121  54.704  61.113  1.00 22.36
ATOM   8221  CA  VAL D 602     -19.216  55.613  60.410  1.00 22.36
ATOM   8222  CB  VAL D 602     -18.003  54.855  59.789  1.00 12.76
ATOM   8223  CG1 VAL D 602     -17.165  55.820  58.927  1.00 12.76
ATOM   8224  CG2 VAL D 602     -17.129  54.255  60.907  1.00 12.76
ATOM   8225  C   VAL D 602     -19.983  56.347  59.305  1.00 22.36
ATOM   8226  O   VAL D 602     -19.953  57.578  59.238  1.00 22.36
ATOM   8227  N   LYS D 603     -20.696  55.603  58.460  1.00 24.95
ATOM   8228  CA  LYS D 603     -21.454  56.226  57.379  1.00 24.95
ATOM   8229  CB  LYS D 603     -22.202  55.165  56.559  1.00 24.70
ATOM   8230  CG  LYS D 603     -23.063  55.748  55.430  1.00 24.70
ATOM   8231  CD  LYS D 603     -23.481  54.697  54.411  1.00 24.70
ATOM   8232  CE  LYS D 603     -24.423  53.659  54.988  1.00 24.70
ATOM   8233  NZ  LYS D 603     -25.742  54.241  55.376  1.00 24.70
ATOM   8234  C   LYS D 603     -22.440  57.282  57.893  1.00 24.95
ATOM   8235  O   LYS D 603     -22.563  58.365  57.320  1.00 24.95
ATOM   8236  N   LYS D 604     -23.127  56.972  58.982  1.00 25.78
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ATOM   8237  CA  LYS D 604     -24.096  57.900  59.551  1.00 25.78
ATOM   8238  CB  LYS D 604     -24.984  57.170  60.562  1.00 46.92
ATOM   8239  CG  LYS D 604     -25.870  58.079  61.388  1.00 46.92
ATOM   8240  CD  LYS D 604     -26.781  57.275  62.312  1.00 46.92
ATOM   8241  CE  LYS D 604     -27.556  58.184  63.257  1.00 46.92
ATOM   8242  NZ  LYS D 604     -26.639  58.962  64.145  1.00 46.92
ATOM   8243  C   LYS D 604     -23.459  59.121  60.218  1.00 25.78
ATOM   8244  O   LYS D 604     -24.115  60.154  60.382  1.00 25.78
ATOM   8245  N   ASN D 605     -22.192  59.017  60.609  1.00 30.16
ATOM   8246  CA  ASN D 605     -21.540  60.145  61.257  1.00 30.16
ATOM   8247  CB  ASN D 605     -20.451  59.663  62.203  1.00 47.65
ATOM   8248  CG  ASN D 605     -20.586  60.264  63.582  1.00 47.65
ATOM   8249  OD1 ASN D 605     -21.627  60.120  64.235  1.00 47.65
ATOM   8250  ND2 ASN D 605     -19.537  60.949  64.039  1.00 47.65
ATOM   8251  C   ASN D 605     -20.969  61.167  60.271  1.00 30.16
ATOM   8252  O   ASN D 605     -20.288  62.112  60.676  1.00 30.16
ATOM   8253  N   TYR D 606     -21.233  60.967  58.981  1.00 27.30
ATOM   8254  CA  TYR D 606     -20.787  61.905  57.951  1.00 27.30
ATOM   8255  CB  TYR D 606     -20.246  61.164  56.721  1.00 19.70
ATOM   8256  CG  TYR D 606     -18.786  60.783  56.824  1.00 19.70
ATOM   8257  CD1 TYR D 606     -18.392  59.545  57.337  1.00 19.70
ATOM   8258  CE1 TYR D 606     -17.039  59.219  57.475  1.00 19.70
ATOM   8259  CD2 TYR D 606     -17.795  61.685  56.451  1.00 19.70
ATOM   8260  CE2 TYR D 606     -16.445  61.372  56.587  1.00 19.70
ATOM   8261  CZ  TYR D 606     -16.077  60.144  57.100  1.00 19.70
ATOM   8262  OH  TYR D 606     -14.744  59.874  57.259  1.00 19.70
ATOM   8263  C   TYR D 606     -21.997  62.757  57.557  1.00 27.30
ATOM   8264  O   TYR D 606     -23.140  62.292  57.637  1.00 27.30
ATOM   8265  N   ARG D 607     -21.749  63.997  57.142  1.00 41.48
ATOM   8266  CA  ARG D 607     -22.821  64.916  56.757  1.00 41.48
ATOM   8267  CB  ARG D 607     -22.382  66.360  57.000  1.00 58.35
ATOM   8268  CG  ARG D 607     -21.925  66.659  58.407  1.00 58.35
ATOM   8269  CD  ARG D 607     -23.092  66.945  59.321  1.00 58.35
ATOM   8270  NE  ARG D 607     -22.643  67.184  60.687  1.00 58.35
ATOM   8271  CZ  ARG D 607     -23.408  67.682  61.654  1.00 58.35
ATOM   8272  NH1 ARG D 607     -24.675  68.004  61.408  1.00 58.35
ATOM   8273  NH2 ARG D 607     -22.907  67.855  62.873  1.00 58.35
ATOM   8274  C   ARG D 607     -23.225  64.785  55.290  1.00 41.48
ATOM   8275  O   ARG D 607     -22.390  64.913  54.394  1.00 41.48
ATOM   8276  N   LYS D 608     -24.508  64.548  55.038  1.00 41.06
ATOM   8277  CA  LYS D 608     -24.992  64.449  53.665  1.00 41.06
ATOM   8278  CB  LYS D 608     -26.419  63.879  53.647  1.00 93.86
ATOM   8279  CG  LYS D 608     -26.982  63.576  52.253  1.00 93.86
ATOM   8280  CD  LYS D 608     -27.325  64.846  51.475  1.00 93.86
ATOM   8281  CE  LYS D 608     -27.748  64.538  50.044  1.00 93.86
ATOM   8282  NZ  LYS D 608     -27.981  65.782  49.254  1.00 93.86
ATOM   8283  C   LYS D 608     -24.969  65.857  53.043  1.00 41.06
ATOM   8284  O   LYS D 608     -24.716  66.016  51.849  1.00 41.06
ATOM   8285  N   ASN D 609     -25.211  66.868  53.875  1.00 33.66
ATOM   8286  CA  ASN D 609     -25.238  68.278  53.466  1.00 33.66
ATOM   8287  CB  ASN D 609     -25.743  69.136  54.634  1.00 65.94
ATOM   8288  CG  ASN D 609     -27.131  68.736  55.098  1.00 65.94
ATOM   8289  OD1 ASN D 609     -27.622  69.222  56.119  1.00 65.94
ATOM   8290  ND2 ASN D 609     -27.777  67.850  54.347  1.00 65.94
ATOM   8291  C   ASN D 609     -23.904  68.863  52.974  1.00 33.66
ATOM   8292  O   ASN D 609     -23.869  69.975  52.441  1.00 33.66
ATOM   8293  N   VAL D 610     -22.811  68.138  53.193  1.00 22.22
ATOM   8294  CA  VAL D 610     -21.483  68.582  52.780  1.00 22.22
ATOM   8295  CB  VAL D 610     -20.388  68.066  53.754  1.00 29.78
ATOM   8296  CG1 VAL D 610     -19.014  68.552  53.322  1.00 29.78
ATOM   8297  CG2 VAL D 610     -20.693  68.541  55.161  1.00 29.78
ATOM   8298  C   VAL D 610     -21.268  67.983  51.406  1.00 22.22
ATOM   8299  O   VAL D 610     -21.182  66.761  51.262  1.00 22.22
ATOM   8300  N   ALA D 611     -21.182  68.850  50.403  1.00 22.31
ATOM   8301  CA  ALA D 611     -21.026  68.431  49.021  1.00 22.31
ATOM   8302  CB  ALA D 611     -20.919  69.665  48.109  1.00 30.10
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ATOM	8303	C	ALA	D	611	-19.882	67.470	48.738	1.00	22.31
ATOM	8304	O	ALA	D	611	-20.089	66.468	48.061	1.00	22.31
ATOM	8305	N	TYR	D	612	-18.682	67.748	49.247	1.00	17.44
ATOM	8306	CA	TYR	D	612	-17.549	66.854	48.989	1.00	17.44
ATOM	8307	CB	TYR	D	612	-16.338	67.635	48.466	1.00	20.60
ATOM	8308	CG	TYR	D	612	-15.125	66.760	48.225	1.00	20.60
ATOM	8309	CD1	TYR	D	612	-13.953	66.936	48.962	1.00	20.60
ATOM	8310	CE1	TYR	D	612	-12.841	66.120	48.753	1.00	20.60
ATOM	8311	CD2	TYR	D	612	-15.156	65.742	47.270	1.00	20.60
ATOM	8312	CE2	TYR	D	612	-14.045	64.915	47.053	1.00	20.60
ATOM	8313	CZ	TYR	D	612	-12.897	65.113	47.793	1.00	20.60
ATOM	8314	OH	TYR	D	612	-11.792	64.335	47.554	1.00	20.60
ATOM	8315	C	TYR	D	612	-17.095	65.984	50.153	1.00	17.44
ATOM	8316	O	TYR	D	612	-16.996	64.764	50.013	1.00	17.44
ATOM	8317	N	HIS	D	613	-16.796	66.590	51.297	1.00	23.09
ATOM	8318	CA	HIS	D	613	-16.338	65.794	52.424	1.00	23.09
ATOM	8319	CB	HIS	D	613	-15.554	66.665	53.411	1.00	19.06
ATOM	8320	CG	HIS	D	613	-14.266	67.199	52.862	1.00	19.06
ATOM	8321	CD2	HIS	D	613	-13.037	66.637	52.761	1.00	19.06
ATOM	8322	ND1	HIS	D	613	-14.137	68.484	52.382	1.00	19.06
ATOM	8323	CE1	HIS	D	613	-12.884	68.694	52.018	1.00	19.06
ATOM	8324	NE2	HIS	D	613	-12.195	67.589	52.238	1.00	19.06
ATOM	8325	C	HIS	D	613	-17.489	65.077	53.135	1.00	23.09
ATOM	8326	O	HIS	D	613	-17.970	65.526	54.173	1.00	23.09
ATOM	8327	N	ASN	D	614	-17.904	63.948	52.569	1.00	17.85
ATOM	8328	CA	ASN	D	614	-19.003	63.138	53.109	1.00	17.85
ATOM	8329	CB	ASN	D	614	-20.286	63.388	52.301	1.00	11.49
ATOM	8330	CG	ASN	D	614	-20.076	63.184	50.820	1.00	11.49
ATOM	8331	OD1	ASN	D	614	-19.678	62.103	50.379	1.00	11.49
ATOM	8332	ND2	ASN	D	614	-20.321	64.230	50.041	1.00	11.49
ATOM	8333	C	ASN	D	614	-18.636	61.652	53.063	1.00	17.85
ATOM	8334	O	ASN	D	614	-17.476	61.307	52.828	1.00	17.85
ATOM	8335	N	TRP	D	615	-19.611	60.770	53.284	1.00	18.77
ATOM	8336	CA	TRP	D	615	-19.330	59.331	53.291	1.00	18.77
ATOM	8337	CB	TRP	D	615	-20.598	58.526	53.594	1.00	22.89
ATOM	8338	CG	TRP	D	615	-20.491	57.058	53.239	1.00	22.89
ATOM	8339	CD2	TRP	D	615	-19.634	56.080	53.847	1.00	22.89
ATOM	8340	CE2	TRP	D	615	-19.844	54.859	53.169	1.00	22.89
ATOM	8341	CE3	TRP	D	615	-18.706	56.120	54.898	1.00	22.89
ATOM	8342	CD1	TRP	D	615	-21.168	56.406	52.247	1.00	22.89
ATOM	8343	NE1	TRP	D	615	-20.783	55.082	52.197	1.00	22.89
ATOM	8344	CZ2	TRP	D	615	-19.164	53.691	53.505	1.00	22.89
ATOM	8345	CZ3	TRP	D	615	-18.029	54.962	55.231	1.00	22.89
ATOM	8346	CH2	TRP	D	615	-18.261	53.759	54.535	1.00	22.89
ATOM	8347	C	TRP	D	615	-18.694	58.816	52.006	1.00	18.77
ATOM	8348	O	TRP	D	615	-17.765	57.998	52.053	1.00	18.77
ATOM	8349	N	ARG	D	616	-19.187	59.292	50.865	1.00	20.31
ATOM	8350	CA	ARG	D	616	-18.658	58.857	49.575	1.00	20.31
ATOM	8351	CB	ARG	D	616	-19.423	59.514	48.411	1.00	26.49
ATOM	8352	CG	ARG	D	616	-20.883	59.035	48.291	1.00	26.49
ATOM	8353	CD	ARG	D	616	-20.930	57.509	48.319	1.00	26.49
ATOM	8354	NE	ARG	D	616	-22.267	56.960	48.504	1.00	26.49
ATOM	8355	CZ	ARG	D	616	-22.921	56.266	47.578	1.00	26.49
ATOM	8356	NH1	ARG	D	616	-22.366	56.038	46.395	1.00	26.49
ATOM	8357	NH2	ARG	D	616	-24.125	55.783	47.844	1.00	26.49
ATOM	8358	C	ARG	D	616	-17.179	59.155	49.455	1.00	20.31
ATOM	8359	O	ARG	D	616	-16.419	58.327	48.954	1.00	20.31
ATOM	8360	N	HIS	D	617	-16.762	60.329	49.923	1.00	19.88
ATOM	8361	CA	HIS	D	617	-15.348	60.676	49.838	1.00	19.88
ATOM	8362	CB	HIS	D	617	-15.106	62.131	50.242	1.00	15.19
ATOM	8363	CG	HIS	D	617	-13.672	62.426	50.530	1.00	15.19
ATOM	8364	CD2	HIS	D	617	-13.045	62.757	51.684	1.00	15.19
ATOM	8365	ND1	HIS	D	617	-12.683	62.311	49.573	1.00	15.19
ATOM	8366	CE1	HIS	D	617	-11.508	62.557	50.129	1.00	15.19
ATOM	8367	NE2	HIS	D	617	-11.702	62.829	51.407	1.00	15.19
ATOM	8368	C	HIS	D	617	-14.523	59.759	50.740	1.00	19.88

ATOM	8369	O	HIS	D	617	-13.431	59.333	50.379	1.00	19.88
ATOM	8370	N	ALA	D	618	-15.054	59.466	51.915	1.00	14.96
ATOM	8371	CA	ALA	D	618	-14.380	58.586	52.869	1.00	14.96
ATOM	8372	CB	ALA	D	618	-15.133	58.590	54.194	1.00	2.80
ATOM	8373	C	ALA	D	618	-14.303	57.171	52.297	1.00	14.96
ATOM	8374	O	ALA	D	618	-13.274	56.503	52.384	1.00	14.96
ATOM	8375	N	PHE	D	619	-15.399	56.723	51.696	1.00	15.42
ATOM	8376	CA	PHE	D	619	-15.438	55.401	51.093	1.00	15.42
ATOM	8377	CB	PHE	D	619	-16.848	55.080	50.618	1.00	20.00
ATOM	8378	CG	PHE	D	619	-16.928	53.847	49.767	1.00	20.00
ATOM	8379	CD1	PHE	D	619	-16.704	52.592	50.320	1.00	20.00
ATOM	8380	CD2	PHE	D	619	-17.221	53.945	48.415	1.00	20.00
ATOM	8381	CE1	PHE	D	619	-16.773	51.445	49.531	1.00	20.00
ATOM	8382	CE2	PHE	D	619	-17.294	52.814	47.612	1.00	20.00
ATOM	8383	CZ	PHE	D	619	-17.070	51.558	48.172	1.00	20.00
ATOM	8384	C	PHE	D	619	-14.467	55.283	49.909	1.00	15.42
ATOM	8385	O	PHE	D	619	-13.813	54.245	49.747	1.00	15.42
ATOM	8386	N	ASN	D	620	-14.369	56.328	49.080	1.00	16.52
ATOM	8387	CA	ASN	D	620	-13.459	56.268	47.937	1.00	16.52
ATOM	8388	CB	ASN	D	620	-13.684	57.442	46.969	1.00	23.50
ATOM	8389	CG	ASN	D	620	-14.986	57.309	46.167	1.00	23.50
ATOM	8390	OD1	ASN	D	620	-15.386	56.207	45.785	1.00	23.50
ATOM	8391	ND2	ASN	D	620	-15.632	58.436	45.894	1.00	23.50
ATOM	8392	C	ASN	D	620	-12.012	56.259	48.422	1.00	16.52
ATOM	8393	O	ASN	D	620	-11.147	55.625	47.817	1.00	16.52
ATOM	8394	N	THR	D	621	-11.753	56.960	49.522	1.00	10.97
ATOM	8395	CA	THR	D	621	-10.410	56.997	50.089	1.00	10.97
ATOM	8396	CB	THR	D	621	-10.352	57.930	51.304	1.00	21.06
ATOM	8397	OG1	THR	D	621	-10.596	59.270	50.873	1.00	21.06
ATOM	8398	CG2	THR	D	621	-8.989	57.857	51.976	1.00	21.06
ATOM	8399	C	THR	D	621	-10.007	55.594	50.539	1.00	10.97
ATOM	8400	O	THR	D	621	-8.887	55.141	50.282	1.00	10.97
ATOM	8401	N	ALA	D	622	-10.925	54.920	51.225	1.00	18.34
ATOM	8402	CA	ALA	D	622	-10.684	53.567	51.700	1.00	18.34
ATOM	8403	CB	ALA	D	622	-11.831	53.107	52.605	1.00	8.83
ATOM	8404	C	ALA	D	622	-10.539	52.618	50.514	1.00	18.34
ATOM	8405	O	ALA	D	622	-9.711	51.711	50.541	1.00	18.34
ATOM	8406	N	GLN	D	623	-11.339	52.834	49.474	1.00	20.62
ATOM	8407	CA	GLN	D	623	-11.292	51.986	48.283	1.00	20.62
ATOM	8408	CB	GLN	D	623	-12.398	52.375	47.304	1.00	29.03
ATOM	8409	CG	GLN	D	623	-12.469	51.518	46.041	1.00	29.03
ATOM	8410	CD	GLN	D	623	-11.457	51.922	44.984	1.00	29.03
ATOM	8411	OE1	GLN	D	623	-11.351	53.094	44.618	1.00	29.03
ATOM	8412	NE2	GLN	D	623	-10.720	50.947	44.474	1.00	29.03
ATOM	8413	C	GLN	D	623	-9.941	52.125	47.610	1.00	20.62
ATOM	8414	O	GLN	D	623	-9.375	51.131	47.146	1.00	20.62
ATOM	8415	N	CYS	D	624	-9.419	53.352	47.562	1.00	29.40
ATOM	8416	CA	CYS	D	624	-8.115	53.588	46.958	1.00	29.40
ATOM	8417	CB	CYS	D	624	-7.847	55.090	46.822	1.00	24.53
ATOM	8418	SG	CYS	D	624	-6.244	55.470	46.068	1.00	24.53
ATOM	8419	C	CYS	D	624	-7.016	52.930	47.810	1.00	29.40
ATOM	8420	O	CYS	D	624	-6.028	52.421	47.279	1.00	29.40
ATOM	8421	N	MET	D	625	-7.191	52.949	49.128	1.00	18.64
ATOM	8422	CA	MET	D	625	-6.235	52.323	50.044	1.00	18.64
ATOM	8423	CB	MET	D	625	-6.645	52.589	51.494	1.00	23.57
ATOM	8424	CG	MET	D	625	-5.725	51.966	52.539	1.00	23.57
ATOM	8425	SD	MET	D	625	-4.083	52.703	52.502	1.00	23.57
ATOM	8426	CE	MET	D	625	-4.436	54.326	53.242	1.00	23.57
ATOM	8427	C	MET	D	625	-6.213	50.801	49.795	1.00	18.64
ATOM	8428	O	MET	D	625	-5.160	50.173	49.807	1.00	18.64
ATOM	8429	N	PHE	D	626	-7.388	50.223	49.575	1.00	23.97
ATOM	8430	CA	PHE	D	626	-7.494	48.795	49.317	1.00	23.97
ATOM	8431	CB	PHE	D	626	-8.963	48.383	49.235	1.00	24.57
ATOM	8432	CG	PHE	D	626	-9.169	46.926	48.911	1.00	24.57
ATOM	8433	CD1	PHE	D	626	-9.275	46.497	47.592	1.00	24.57
ATOM	8434	CD2	PHE	D	626	-9.236	45.978	49.928	1.00	24.57

ATOM	8435	CE1	PHE	D	626	-9.447	45.142	47.289	1.00	24.57
ATOM	8436	CE2	PHE	D	626	-9.404	44.626	49.634	1.00	24.57
ATOM	8437	CZ	PHE	D	626	-9.510	44.209	48.310	1.00	24.57
ATOM	8438	C	PHE	D	626	-6.771	48.417	48.025	1.00	23.97
ATOM	8439	O	PHE	D	626	-6.085	47.401	47.970	1.00	23.97
ATOM	8440	N	ALA	D	627	-6.913	49.249	46.996	1.00	22.57
ATOM	8441	CA	ALA	D	627	-6.283	48.989	45.715	1.00	22.57
ATOM	8442	CB	ALA	D	627	-6.837	49.926	44.659	1.00	16.13
ATOM	8443	C	ALA	D	627	-4.781	49.154	45.811	1.00	22.57
ATOM	8444	O	ALA	D	627	-4.036	48.396	45.198	1.00	22.57
ATOM	8445	N	ALA	D	628	-4.339	50.155	46.568	1.00	18.79
ATOM	8446	CA	ALA	D	628	-2.920	50.410	46.732	1.00	18.79
ATOM	8447	CB	ALA	D	628	-2.703	51.696	47.488	1.00	20.96
ATOM	8448	C	ALA	D	628	-2.245	49.258	47.469	1.00	18.79
ATOM	8449	O	ALA	D	628	-1.108	48.898	47.154	1.00	18.79
ATOM	8450	N	LEU	D	629	-2.927	48.687	48.461	1.00	28.03
ATOM	8451	CA	LEU	D	629	-2.351	47.572	49.209	1.00	28.03
ATOM	8452	CB	LEU	D	629	-3.082	47.376	50.536	1.00	20.96
ATOM	8453	CG	LEU	D	629	-2.960	48.492	51.571	1.00	20.96
ATOM	8454	CD1	LEU	D	629	-3.691	48.085	52.821	1.00	20.96
ATOM	8455	CD2	LEU	D	629	-1.505	48.755	51.873	1.00	20.96
ATOM	8456	C	LEU	D	629	-2.409	46.272	48.401	1.00	28.03
ATOM	8457	O	LEU	D	629	-1.511	45.438	48.498	1.00	28.03
ATOM	8458	N	LYS	D	630	-3.469	46.100	47.617	1.00	31.52
ATOM	8459	CA	LYS	D	630	-3.628	44.905	46.795	1.00	31.52
ATOM	8460	CB	LYS	D	630	-5.110	44.577	46.634	1.00	38.26
ATOM	8461	CG	LYS	D	630	-5.750	43.992	47.882	1.00	38.26
ATOM	8462	CD	LYS	D	630	-5.161	42.622	48.196	1.00	38.26
ATOM	8463	CE	LYS	D	630	-5.819	41.997	49.417	1.00	38.26
ATOM	8464	NZ	LYS	D	630	-5.237	40.670	49.722	1.00	38.26
ATOM	8465	C	LYS	D	630	-2.983	45.089	45.423	1.00	31.52
ATOM	8466	O	LYS	D	630	-1.786	44.854	45.253	1.00	31.52
ATOM	8467	N	ALA	D	631	-3.770	45.521	44.446	1.00	44.15
ATOM	8468	CA	ALA	D	631	-3.250	45.735	43.098	1.00	44.15
ATOM	8469	CB	ALA	D	631	-4.300	46.436	42.237	1.00	23.05
ATOM	8470	C	ALA	D	631	-1.955	46.547	43.101	1.00	44.15
ATOM	8471	O	ALA	D	631	-1.204	46.528	42.126	1.00	44.15
ATOM	8472	N	GLY	D	632	-1.695	47.248	44.203	1.00	35.44
ATOM	8473	CA	GLY	D	632	-0.497	48.065	44.307	1.00	35.44
ATOM	8474	C	GLY	D	632	0.694	47.372	44.946	1.00	35.44
ATOM	8475	O	GLY	D	632	1.776	47.956	45.031	1.00	35.44
ATOM	8476	N	LYS	D	633	0.493	46.135	45.402	1.00	55.88
ATOM	8477	CA	LYS	D	633	1.553	45.337	46.029	1.00	55.88
ATOM	8478	CB	LYS	D	633	2.677	45.055	45.021	1.00	48.59
ATOM	8479	CG	LYS	D	633	2.251	44.376	43.721	1.00	48.59
ATOM	8480	CD	LYS	D	633	1.819	42.936	43.925	1.00	48.59
ATOM	8481	CE	LYS	D	633	1.488	42.276	42.591	1.00	48.59
ATOM	8482	NZ	LYS	D	633	2.646	42.329	41.650	1.00	48.59
ATOM	8483	C	LYS	D	633	2.157	46.013	47.263	1.00	55.88
ATOM	8484	O	LYS	D	633	3.355	45.886	47.526	1.00	55.88
ATOM	8485	N	ILE	D	634	1.335	46.721	48.025	1.00	29.85
ATOM	8486	CA	ILE	D	634	1.830	47.409	49.207	1.00	29.85
ATOM	8487	CB	ILE	D	634	1.264	48.844	49.272	1.00	25.84
ATOM	8488	CG2	ILE	D	634	1.726	49.551	50.544	1.00	25.84
ATOM	8489	CG1	ILE	D	634	1.709	49.604	48.020	1.00	25.84
ATOM	8490	CD1	ILE	D	634	1.329	51.067	47.991	1.00	25.84
ATOM	8491	C	ILE	D	634	1.521	46.680	50.509	1.00	29.85
ATOM	8492	O	ILE	D	634	2.189	46.903	51.516	1.00	29.85
ATOM	8493	N	GLN	D	635	0.530	45.796	50.492	1.00	35.70
ATOM	8494	CA	GLN	D	635	0.162	45.073	51.705	1.00	35.70
ATOM	8495	CB	GLN	D	635	-1.056	44.179	51.454	1.00	56.88
ATOM	8496	CG	GLN	D	635	-0.732	42.822	50.863	1.00	56.88
ATOM	8497	CD	GLN	D	635	-1.969	41.969	50.657	1.00	56.88
ATOM	8498	OE1	GLN	D	635	-2.788	41.813	51.567	1.00	56.88
ATOM	8499	NE2	GLN	D	635	-2.108	41.404	49.460	1.00	56.88
ATOM	8500	C	GLN	D	635	1.318	44.222	52.231	1.00	35.70

ATOM	8501	O	GLN	D	635	1.385	43.911	53.426	1.00	35.70
ATOM	8502	N	ASN	D	636	2.234	43.853	51.341	1.00	32.59
ATOM	8503	CA	ASN	D	636	3.368	43.032	51.737	1.00	32.59
ATOM	8504	CB	ASN	D	636	3.926	42.294	50.520	1.00	88.45
ATOM	8505	CG	ASN	D	636	2.918	41.344	49.910	1.00	88.45
ATOM	8506	OD1	ASN	D	636	1.880	41.764	49.401	1.00	88.45
ATOM	8507	ND2	ASN	D	636	3.214	40.052	49.968	1.00	88.45
ATOM	8508	C	ASN	D	636	4.472	43.834	52.421	1.00	32.59
ATOM	8509	O	ASN	D	636	5.397	43.266	52.992	1.00	32.59
ATOM	8510	N	LYS	D	637	4.366	45.155	52.377	1.00	33.69
ATOM	8511	CA	LYS	D	637	5.369	46.007	53.003	1.00	33.69
ATOM	8512	CB	LYS	D	637	5.663	47.211	52.102	1.00	52.74
ATOM	8513	CG	LYS	D	637	6.257	46.860	50.741	1.00	52.74
ATOM	8514	CD	LYS	D	637	6.349	48.093	49.848	1.00	52.74
ATOM	8515	CE	LYS	D	637	6.906	47.753	48.471	1.00	52.74
ATOM	8516	NZ	LYS	D	637	8.311	47.252	48.541	1.00	52.74
ATOM	8517	C	LYS	D	637	4.935	46.500	54.387	1.00	33.69
ATOM	8518	O	LYS	D	637	5.691	47.199	55.062	1.00	33.69
ATOM	8519	N	LEU	D	638	3.735	46.114	54.819	1.00	21.77
ATOM	8520	CA	LEU	D	638	3.211	46.571	56.105	1.00	21.77
ATOM	8521	CB	LEU	D	638	2.007	47.492	55.874	1.00	19.69
ATOM	8522	CG	LEU	D	638	2.144	48.564	54.784	1.00	19.69
ATOM	8523	CD1	LEU	D	638	0.851	49.346	54.672	1.00	19.69
ATOM	8524	CD2	LEU	D	638	3.308	49.480	55.099	1.00	19.69
ATOM	8525	C	LEU	D	638	2.799	45.465	57.071	1.00	21.77
ATOM	8526	O	LEU	D	638	2.622	44.318	56.688	1.00	21.77
ATOM	8527	N	THR	D	639	2.640	45.832	58.335	1.00	28.97
ATOM	8528	CA	THR	D	639	2.226	44.876	59.353	1.00	28.97
ATOM	8529	CB	THR	D	639	2.658	45.321	60.766	1.00	24.23
ATOM	8530	OG1	THR	D	639	1.839	46.422	61.187	1.00	24.23
ATOM	8531	CG2	THR	D	639	4.129	45.771	60.763	1.00	24.23
ATOM	8532	C	THR	D	639	0.705	44.851	59.322	1.00	28.97
ATOM	8533	O	THR	D	639	0.078	45.749	58.748	1.00	28.97
ATOM	8534	N	ASP	D	640	0.117	43.822	59.927	1.00	23.30
ATOM	8535	CA	ASP	D	640	-1.336	43.712	59.990	1.00	23.30
ATOM	8536	CB	ASP	D	640	-1.764	42.400	60.661	1.00	54.80
ATOM	8537	CG	ASP	D	640	-1.539	41.187	59.779	1.00	54.80
ATOM	8538	OD1	ASP	D	640	-1.840	41.264	58.567	1.00	54.80
ATOM	8539	OD2	ASP	D	640	-1.076	40.150	60.303	1.00	54.80
ATOM	8540	C	ASP	D	640	-1.920	44.889	60.779	1.00	23.30
ATOM	8541	O	ASP	D	640	-2.992	45.385	60.450	1.00	23.30
ATOM	8542	N	LEU	D	641	-1.222	45.329	61.825	1.00	30.90
ATOM	8543	CA	LEU	D	641	-1.719	46.446	62.621	1.00	30.90
ATOM	8544	CB	LEU	D	641	-0.864	46.645	63.874	1.00	33.07
ATOM	8545	CG	LEU	D	641	-0.870	45.532	64.928	1.00	33.07
ATOM	8546	CD1	LEU	D	641	-2.309	45.130	65.274	1.00	33.07
ATOM	8547	CD2	LEU	D	641	-0.088	44.345	64.389	1.00	33.07
ATOM	8548	C	LEU	D	641	-1.738	47.733	61.798	1.00	30.90
ATOM	8549	O	LEU	D	641	-2.657	48.549	61.919	1.00	30.90
ATOM	8550	N	GLU	D	642	-0.727	47.906	60.954	1.00	25.94
ATOM	8551	CA	GLU	D	642	-0.634	49.097	60.122	1.00	25.94
ATOM	8552	CB	GLU	D	642	0.761	49.167	59.483	1.00	26.58
ATOM	8553	CG	GLU	D	642	1.852	49.596	60.484	1.00	26.58
ATOM	8554	CD	GLU	D	642	3.273	49.461	59.951	1.00	26.58
ATOM	8555	OE1	GLU	D	642	4.199	50.031	60.570	1.00	26.58
ATOM	8556	OE2	GLU	D	642	3.472	48.779	58.928	1.00	26.58
ATOM	8557	C	GLU	D	642	-1.749	49.094	59.078	1.00	25.94
ATOM	8558	O	GLU	D	642	-2.406	50.104	58.852	1.00	25.94
ATOM	8559	N	ILE	D	643	-1.971	47.942	58.466	1.00	16.88
ATOM	8560	CA	ILE	D	643	-3.014	47.777	57.476	1.00	16.88
ATOM	8561	CB	ILE	D	643	-2.956	46.357	56.909	1.00	16.08
ATOM	8562	CG2	ILE	D	643	-4.213	46.065	56.100	1.00	16.08
ATOM	8563	CG1	ILE	D	643	-1.681	46.218	56.072	1.00	16.08
ATOM	8564	CD1	ILE	D	643	-1.306	44.798	55.734	1.00	16.08
ATOM	8565	C	ILE	D	643	-4.379	48.038	58.110	1.00	16.88
ATOM	8566	O	ILE	D	643	-5.228	48.729	57.536	1.00	16.88

ATOM	8567	N	LEU	D	644	-4.577	47.470	59.295	1.00	16.21
ATOM	8568	CA	LEU	D	644	-5.804	47.634	60.069	1.00	16.21
ATOM	8569	CB	LEU	D	644	-5.665	46.929	61.421	1.00	19.26
ATOM	8570	CG	LEU	D	644	-6.736	47.180	62.484	1.00	19.26
ATOM	8571	CD1	LEU	D	644	-8.116	46.816	61.921	1.00	19.26
ATOM	8572	CD2	LEU	D	644	-6.418	46.358	63.741	1.00	19.26
ATOM	8573	C	LEU	D	644	-6.066	49.120	60.302	1.00	16.21
ATOM	8574	O	LEU	D	644	-7.133	49.633	59.979	1.00	16.21
ATOM	8575	N	ALA	D	645	-5.070	49.804	60.855	1.00	19.13
ATOM	8576	CA	ALA	D	645	-5.180	51.225	61.150	1.00	19.13
ATOM	8577	CB	ALA	D	645	-3.939	51.695	61.892	1.00	17.21
ATOM	8578	C	ALA	D	645	-5.407	52.099	59.922	1.00	19.13
ATOM	8579	O	ALA	D	645	-6.206	53.042	59.961	1.00	19.13
ATOM	8580	N	LEU	D	646	-4.697	51.810	58.837	1.00	19.47
ATOM	8581	CA	LEU	D	646	-4.852	52.605	57.628	1.00	19.47
ATOM	8582	CB	LEU	D	646	-3.891	52.124	56.538	1.00	19.65
ATOM	8583	CG	LEU	D	646	-2.424	52.496	56.779	1.00	19.65
ATOM	8584	CD1	LEU	D	646	-1.540	51.780	55.781	1.00	19.65
ATOM	8585	CD2	LEU	D	646	-2.258	54.011	56.668	1.00	19.65
ATOM	8586	C	LEU	D	646	-6.281	52.554	57.111	1.00	19.47
ATOM	8587	O	LEU	D	646	-6.832	53.584	56.732	1.00	19.47
ATOM	8588	N	LEU	D	647	-6.885	51.364	57.094	1.00	19.11
ATOM	8589	CA	LEU	D	647	-8.256	51.233	56.603	1.00	19.11
ATOM	8590	CB	LEU	D	647	-8.675	49.760	56.512	1.00	18.21
ATOM	8591	CG	LEU	D	647	-9.964	49.526	55.712	1.00	18.21
ATOM	8592	CD1	LEU	D	647	-9.782	50.063	54.314	1.00	18.21
ATOM	8593	CD2	LEU	D	647	-10.323	48.034	55.676	1.00	18.21
ATOM	8594	C	LEU	D	647	-9.239	52.003	57.479	1.00	19.11
ATOM	8595	O	LEU	D	647	-10.096	52.730	56.968	1.00	19.11
ATOM	8596	N	ILE	D	648	-9.108	51.849	58.793	1.00	13.26
ATOM	8597	CA	ILE	D	648	-9.971	52.543	59.744	1.00	13.26
ATOM	8598	CB	ILE	D	648	-9.602	52.144	61.186	1.00	17.23
ATOM	8599	CG2	ILE	D	648	-10.159	53.157	62.184	1.00	17.23
ATOM	8600	CG1	ILE	D	648	-10.116	50.726	61.447	1.00	17.23
ATOM	8601	CD1	ILE	D	648	-9.829	50.194	62.823	1.00	17.23
ATOM	8602	C	ILE	D	648	-9.847	54.056	59.553	1.00	13.26
ATOM	8603	O	ILE	D	648	-10.851	54.755	59.382	1.00	13.26
ATOM	8604	N	ALA	D	649	-8.610	54.546	59.552	1.00	17.50
ATOM	8605	CA	ALA	D	649	-8.335	55.959	59.358	1.00	17.50
ATOM	8606	CB	ALA	D	649	-6.838	56.209	59.425	1.00	24.41
ATOM	8607	C	ALA	D	649	-8.879	56.454	58.021	1.00	17.50
ATOM	8608	O	ALA	D	649	-9.467	57.529	57.952	1.00	17.50
ATOM	8609	N	ALA	D	650	-8.688	55.679	56.955	1.00	14.41
ATOM	8610	CA	ALA	D	650	-9.177	56.108	55.649	1.00	14.41
ATOM	8611	CB	ALA	D	650	-8.867	55.055	54.596	1.00	10.51
ATOM	8612	C	ALA	D	650	-10.684	56.372	55.699	1.00	14.41
ATOM	8613	O	ALA	D	650	-11.174	57.374	55.169	1.00	14.41
ATOM	8614	N	LEU	D	651	-11.403	55.468	56.353	1.00	12.90
ATOM	8615	CA	LEU	D	651	-12.848	55.567	56.485	1.00	12.90
ATOM	8616	CB	LEU	D	651	-13.421	54.195	56.855	1.00	18.87
ATOM	8617	CG	LEU	D	651	-13.443	53.143	55.743	1.00	18.87
ATOM	8618	CD1	LEU	D	651	-13.694	51.746	56.324	1.00	18.87
ATOM	8619	CD2	LEU	D	651	-14.512	53.539	54.740	1.00	18.87
ATOM	8620	C	LEU	D	651	-13.307	56.574	57.531	1.00	12.90
ATOM	8621	O	LEU	D	651	-14.427	57.069	57.468	1.00	12.90
ATOM	8622	N	SER	D	652	-12.433	56.877	58.483	1.00	12.23
ATOM	8623	CA	SER	D	652	-12.780	57.770	59.576	1.00	12.23
ATOM	8624	CB	SER	D	652	-12.349	57.138	60.909	1.00	22.92
ATOM	8625	OG	SER	D	652	-12.752	55.787	61.029	1.00	22.92
ATOM	8626	C	SER	D	652	-12.227	59.198	59.573	1.00	12.23
ATOM	8627	O	SER	D	652	-12.788	60.056	60.244	1.00	12.23
ATOM	8628	N	HIS	D	653	-11.138	59.442	58.848	1.00	15.74
ATOM	8629	CA	HIS	D	653	-10.453	60.738	58.863	1.00	15.74
ATOM	8630	CB	HIS	D	653	-9.281	60.732	57.875	1.00	14.30
ATOM	8631	CG	HIS	D	653	-9.694	60.962	56.457	1.00	14.30
ATOM	8632	CD2	HIS	D	653	-9.714	62.091	55.709	1.00	14.30

ATOM	8633	ND1	HIS	D	653	-10.208	59.962	55.658	1.00	14.30
ATOM	8634	CE1	HIS	D	653	-10.528	60.464	54.478	1.00	14.30
ATOM	8635	NE2	HIS	D	653	-10.239	61.753	54.484	1.00	14.30
ATOM	8636	C	HIS	D	653	-11.208	62.053	58.675	1.00	15.74
ATOM	8637	O	HIS	D	653	-10.709	63.095	59.095	1.00	15.74
ATOM	8638	N	ASP	D	654	-12.378	62.024	58.045	1.00	16.82
ATOM	8639	CA	ASP	D	654	-13.144	63.246	57.821	1.00	16.82
ATOM	8640	CB	ASP	D	654	-13.399	63.447	56.315	1.00	21.64
ATOM	8641	CG	ASP	D	654	-12.239	64.130	55.588	1.00	21.64
ATOM	8642	OD1	ASP	D	654	-12.243	64.093	54.333	1.00	21.64
ATOM	8643	OD2	ASP	D	654	-11.345	64.710	56.247	1.00	21.64
ATOM	8644	C	ASP	D	654	-14.498	63.230	58.523	1.00	16.82
ATOM	8645	O	ASP	D	654	-15.348	64.079	58.247	1.00	16.82
ATOM	8646	N	LEU	D	655	-14.720	62.298	59.434	1.00	16.93
ATOM	8647	CA	LEU	D	655	-16.029	62.252	60.048	1.00	16.93
ATOM	8648	CB	LEU	D	655	-16.184	60.985	60.908	1.00	31.68
ATOM	8649	CG	LEU	D	655	-15.496	60.773	62.242	1.00	31.68
ATOM	8650	CD1	LEU	D	655	-15.340	59.278	62.502	1.00	31.68
ATOM	8651	CD2	LEU	D	655	-14.155	61.452	62.226	1.00	31.68
ATOM	8652	C	LEU	D	655	-16.423	63.527	60.795	1.00	16.93
ATOM	8653	O	LEU	D	655	-15.617	64.179	61.473	1.00	16.93
ATOM	8654	N	ASP	D	656	-17.685	63.883	60.603	1.00	18.49
ATOM	8655	CA	ASP	D	656	-18.297	65.065	61.173	1.00	18.49
ATOM	8656	CB	ASP	D	656	-18.051	65.161	62.678	1.00	21.58
ATOM	8657	CG	ASP	D	656	-19.017	66.112	63.342	1.00	21.58
ATOM	8658	OD1	ASP	D	656	-18.612	66.881	64.222	1.00	21.58
ATOM	8659	OD2	ASP	D	656	-20.200	66.084	62.973	1.00	21.58
ATOM	8660	C	ASP	D	656	-17.781	66.334	60.494	1.00	18.49
ATOM	8661	O	ASP	D	656	-17.870	67.425	61.055	1.00	18.49
ATOM	8662	N	HIS	D	657	-17.243	66.189	59.287	1.00	24.11
ATOM	8663	CA	HIS	D	657	-16.727	67.343	58.568	1.00	24.11
ATOM	8664	CB	HIS	D	657	-16.085	66.906	57.250	1.00	15.93
ATOM	8665	CG	HIS	D	657	-15.221	67.956	56.624	1.00	15.93
ATOM	8666	CD2	HIS	D	657	-15.520	69.184	56.136	1.00	15.93
ATOM	8667	ND1	HIS	D	657	-13.864	67.786	56.426	1.00	15.93
ATOM	8668	CE1	HIS	D	657	-13.367	68.861	55.837	1.00	15.93
ATOM	8669	NE2	HIS	D	657	-14.352	69.723	55.651	1.00	15.93
ATOM	8670	C	HIS	D	657	-17.899	68.278	58.286	1.00	24.11
ATOM	8671	O	HIS	D	657	-18.964	67.826	57.863	1.00	24.11
ATOM	8672	N	ARG	D	658	-17.692	69.573	58.509	1.00	22.69
ATOM	8673	CA	ARG	D	658	-18.734	70.571	58.289	1.00	22.69
ATOM	8674	CB	ARG	D	658	-18.775	71.561	59.462	1.00	52.98
ATOM	8675	CG	ARG	D	658	-19.150	70.960	60.805	1.00	52.98
ATOM	8676	CD	ARG	D	658	-20.378	70.073	60.687	1.00	52.98
ATOM	8677	NE	ARG	D	658	-21.047	69.847	61.965	1.00	52.98
ATOM	8678	CZ	ARG	D	658	-20.432	69.498	63.092	1.00	52.98
ATOM	8679	NH1	ARG	D	658	-19.115	69.332	63.122	1.00	52.98
ATOM	8680	NH2	ARG	D	658	-21.141	69.302	64.193	1.00	52.98
ATOM	8681	C	ARG	D	658	-18.598	71.366	56.982	1.00	22.69
ATOM	8682	O	ARG	D	658	-19.301	72.354	56.774	1.00	22.69
ATOM	8683	N	GLY	D	659	-17.696	70.949	56.105	1.00	19.10
ATOM	8684	CA	GLY	D	659	-17.528	71.669	54.855	1.00	19.10
ATOM	8685	C	GLY	D	659	-16.649	72.898	54.996	1.00	19.10
ATOM	8686	O	GLY	D	659	-16.651	73.773	54.135	1.00	19.10
ATOM	8687	N	VAL	D	660	-15.890	72.988	56.080	1.00	27.48
ATOM	8688	CA	VAL	D	660	-15.019	74.144	56.233	1.00	27.48
ATOM	8689	CB	VAL	D	660	-14.920	74.581	57.700	1.00	22.34
ATOM	8690	CG1	VAL	D	660	-13.888	75.707	57.843	1.00	22.34
ATOM	8691	CG2	VAL	D	660	-16.291	75.056	58.190	1.00	22.34
ATOM	8692	C	VAL	D	660	-13.624	73.810	55.712	1.00	27.48
ATOM	8693	O	VAL	D	660	-13.036	72.802	56.106	1.00	27.48
ATOM	8694	N	ASN	D	661	-13.111	74.650	54.815	1.00	29.66
ATOM	8695	CA	ASN	D	661	-11.777	74.462	54.241	1.00	29.66
ATOM	8696	CB	ASN	D	661	-11.865	73.966	52.792	1.00	24.87
ATOM	8697	CG	ASN	D	661	-12.604	72.661	52.666	1.00	24.87
ATOM	8698	OD1	ASN	D	661	-13.818	72.635	52.463	1.00	24.87

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ATOM   8699  ND2 ASN D 661     -11.878  71.562  52.799  1.00 24.87
ATOM   8700  C   ASN D 661     -10.989  75.772  54.247  1.00 29.66
ATOM   8701  O   ASN D 661     -11.561  76.853  54.415  1.00 29.66
ATOM   8702  N   ASN D 662      -9.678  75.669  54.048  1.00 55.73
ATOM   8703  CA  ASN D 662      -8.812  76.842  53.996  1.00 55.73
ATOM   8704  CB  ASN D 662      -7.460  76.539  54.645  1.00 60.85
ATOM   8705  CG  ASN D 662      -7.580  76.235  56.128  1.00 60.85
ATOM   8706  OD1 ASN D 662      -8.178  77.004  56.887  1.00 60.85
ATOM   8707  ND2 ASN D 662      -7.002  75.113  56.551  1.00 60.85
ATOM   8708  C   ASN D 662      -8.612  77.222  52.531  1.00 55.73
ATOM   8709  O   ASN D 662      -8.924  76.434  51.638  1.00 55.73
ATOM   8710  N   SER D 663      -8.094  78.422  52.279  1.00 66.21
ATOM   8711  CA  SER D 663      -7.880  78.880  50.909  1.00 66.21
ATOM   8712  CB  SER D 663      -8.444  80.292  50.722  1.00 89.91
ATOM   8713  OG  SER D 663      -9.857  80.312  50.797  1.00 48.62
ATOM   8714  C   SER D 663      -6.422  78.882  50.460  1.00 66.21
ATOM   8715  O   SER D 663      -6.136  78.646  49.286  1.00 66.21
ATOM   8716  N   ALA D 664      -5.500  79.147  51.381  1.00100.00
ATOM   8717  CA  ALA D 664      -4.089  79.209  51.015  1.00100.00
ATOM   8718  CB  ALA D 664      -3.581  80.641  51.197  1.00 50.57
ATOM   8719  C   ALA D 664      -3.156  78.230  51.728  1.00100.00
ATOM   8720  O   ALA D 664      -1.939  78.287  51.539  1.00100.00
ATOM   8721  N   ALA D 665      -3.711  77.331  52.536  1.00 67.25
ATOM   8722  CA  ALA D 665      -2.882  76.358  53.250  1.00 67.25
ATOM   8723  CB  ALA D 665      -3.702  75.653  54.334  1.00 72.83
ATOM   8724  C   ALA D 665      -2.298  75.330  52.279  1.00 67.25
ATOM   8725  O   ALA D 665      -1.860  74.252  52.692  1.00 67.25
ATOM   8726  N   ALA D 666      -2.303  75.673  50.990  1.00 84.74
ATOM   8727  CA  ALA D 666      -1.774  74.808  49.933  1.00 84.74
ATOM   8728  CB  ALA D 666      -2.469  73.452  49.965  1.00 58.84
ATOM   8729  C   ALA D 666      -1.946  75.450  48.557  1.00 84.74
ATOM   8730  O   ALA D 666      -1.100  75.294  47.673  1.00 84.74
ATOM   8731  N   GLU D 682      -9.944  70.231  65.644  1.00 77.67
ATOM   8732  CA  GLU D 682      -8.648  70.114  66.303  1.00 77.67
ATOM   8733  CB  GLU D 682      -8.505  71.221  67.354  1.00 98.89
ATOM   8734  CG  GLU D 682      -7.095  71.418  67.901  1.00 98.89
ATOM   8735  CD  GLU D 682      -6.760  70.479  69.048  1.00 98.89
ATOM   8736  OE1 GLU D 682      -6.672  69.256  68.822  1.00 98.89
ATOM   8737  OE2 GLU D 682      -6.586  70.971  70.182  1.00 98.89
ATOM   8738  C   GLU D 682      -8.548  68.731  66.950  1.00 77.67
ATOM   8739  O   GLU D 682      -8.856  68.561  68.133  1.00 77.67
ATOM   8740  N   HIS D 683      -8.108  67.749  66.163  1.00 24.46
ATOM   8741  CA  HIS D 683      -7.996  66.370  66.623  1.00 24.46
ATOM   8742  CB  HIS D 683      -7.238  66.290  67.952  1.00 27.41
ATOM   8743  CG  HIS D 683      -5.757  66.447  67.817  1.00 27.41
ATOM   8744  CD2 HIS D 683      -5.011  67.191  66.966  1.00 27.41
ATOM   8745  ND1 HIS D 683      -4.865  65.783  68.629  1.00 27.41
ATOM   8746  CE1 HIS D 683      -3.632  66.105  68.284  1.00 27.41
ATOM   8747  NE2 HIS D 683      -3.692  66.958  67.277  1.00 27.41
ATOM   8748  C   HIS D 683      -9.406  65.830  66.809  1.00 24.46
ATOM   8749  O   HIS D 683      -9.607  64.692  67.251  1.00 24.46
ATOM   8750  N   HIS D 684     -10.378  66.667  66.467  1.00 23.49
ATOM   8751  CA  HIS D 684     -11.786  66.324  66.581  1.00 23.49
ATOM   8752  CB  HIS D 684     -12.637  67.557  66.240  1.00 21.11
ATOM   8753  CG  HIS D 684     -14.098  67.272  66.081  1.00 21.11
ATOM   8754  CD2 HIS D 684     -15.082  67.097  66.992  1.00 21.11
ATOM   8755  ND1 HIS D 684     -14.697  67.155  64.846  1.00 21.11
ATOM   8756  CE1 HIS D 684     -15.989  66.922  65.006  1.00 21.11
ATOM   8757  NE2 HIS D 684     -16.247  66.883  66.300  1.00 21.11
ATOM   8758  C   HIS D 684     -12.156  65.146  65.688  1.00 23.49
ATOM   8759  O   HIS D 684     -12.966  64.312  66.083  1.00 23.49
ATOM   8760  N   HIS D 685     -11.572  65.070  64.492  1.00 22.83
ATOM   8761  CA  HIS D 685     -11.881  63.958  63.597  1.00 22.83
ATOM   8762  CB  HIS D 685     -11.167  64.111  62.248  1.00 26.32
ATOM   8763  CG  HIS D 685     -11.790  65.138  61.356  1.00 26.32
ATOM   8764  CD2 HIS D 685     -11.258  66.202  60.708  1.00 26.32
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ATOM   8765  ND1 HIS D 685     -13.143  65.160  61.084  1.00 26.32
ATOM   8766  CE1 HIS D 685     -13.418  66.197  60.311  1.00 26.32
ATOM   8767  NE2 HIS D 685     -12.292  66.846  60.070  1.00 26.32
ATOM   8768  C   HIS D 685     -11.459  62.658  64.261  1.00 22.83
ATOM   8769  O   HIS D 685     -12.176  61.661  64.232  1.00 22.83
ATOM   8770  N   PHE D 686     -10.289  62.680  64.879  1.00 12.03
ATOM   8771  CA  PHE D 686      -9.793  61.501  65.551  1.00 12.03
ATOM   8772  CB  PHE D 686      -8.361  61.743  66.038  1.00 17.00
ATOM   8773  CG  PHE D 686      -7.804  60.620  66.846  1.00 17.00
ATOM   8774  CD1 PHE D 686      -7.715  59.337  66.308  1.00 17.00
ATOM   8775  CD2 PHE D 686      -7.355  60.836  68.137  1.00 17.00
ATOM   8776  CE1 PHE D 686      -7.186  58.294  67.047  1.00 17.00
ATOM   8777  CE2 PHE D 686      -6.818  59.789  68.892  1.00 17.00
ATOM   8778  CZ  PHE D 686      -6.734  58.516  68.344  1.00 17.00
ATOM   8779  C   PHE D 686     -10.699  61.111  66.723  1.00 12.03
ATOM   8780  O   PHE D 686     -11.013  59.922  66.890  1.00 12.03
ATOM   8781  N   ASP D 687     -11.134  62.083  67.531  1.00 21.99
ATOM   8782  CA  ASP D 687     -11.990  61.714  68.660  1.00 21.99
ATOM   8783  CB  ASP D 687     -12.157  62.868  69.695  1.00 16.71
ATOM   8784  CG  ASP D 687     -13.174  63.949  69.294  1.00 16.71
ATOM   8785  OD1 ASP D 687     -14.357  63.651  69.002  1.00 16.71
ATOM   8786  OD2 ASP D 687     -12.787  65.138  69.319  1.00 16.71
ATOM   8787  C   ASP D 687     -13.327  61.174  68.165  1.00 21.99
ATOM   8788  O   ASP D 687     -13.902  60.276  68.774  1.00 21.99
ATOM   8789  N   GLN D 688     -13.801  61.687  67.036  1.00 16.06
ATOM   8790  CA  GLN D 688     -15.050  61.197  66.476  1.00 16.06
ATOM   8791  CB  GLN D 688     -15.445  62.019  65.244  1.00 20.02
ATOM   8792  CG  GLN D 688     -15.899  63.439  65.571  1.00 20.02
ATOM   8793  CD  GLN D 688     -17.188  63.467  66.393  1.00 20.02
ATOM   8794  OE1 GLN D 688     -18.269  63.147  65.889  1.00 20.02
ATOM   8795  NE2 GLN D 688     -17.073  63.836  67.668  1.00 20.02
ATOM   8796  C   GLN D 688     -14.841  59.731  66.098  1.00 16.06
ATOM   8797  O   GLN D 688     -15.761  58.927  66.193  1.00 16.06
ATOM   8798  N   CYS D 689     -13.622  59.389  65.683  1.00 21.68
ATOM   8799  CA  CYS D 689     -13.302  58.011  65.302  1.00 21.68
ATOM   8800  CB  CYS D 689     -11.910  57.944  64.651  1.00 21.77
ATOM   8801  SG  CYS D 689     -11.208  56.273  64.372  1.00 21.77
ATOM   8802  C   CYS D 689     -13.345  57.135  66.548  1.00 21.68
ATOM   8803  O   CYS D 689     -13.921  56.041  66.537  1.00 21.68
ATOM   8804  N   LEU D 690     -12.746  57.619  67.632  1.00 18.70
ATOM   8805  CA  LEU D 690     -12.742  56.859  68.875  1.00 18.70
ATOM   8806  CB  LEU D 690     -11.864  57.534  69.925  1.00 20.12
ATOM   8807  CG  LEU D 690     -10.371  57.584  69.610  1.00 20.12
ATOM   8808  CD1 LEU D 690      -9.613  57.939  70.868  1.00 20.12
ATOM   8809  CD2 LEU D 690      -9.904  56.246  69.095  1.00 20.12
ATOM   8810  C   LEU D 690     -14.147  56.682  69.428  1.00 18.70
ATOM   8811  O   LEU D 690     -14.510  55.594  69.856  1.00 18.70
ATOM   8812  N   MET D 691     -14.944  57.745  69.423  1.00 25.80
ATOM   8813  CA  MET D 691     -16.303  57.638  69.936  1.00 25.80
ATOM   8814  CB  MET D 691     -17.048  58.953  69.744  1.00 43.22
ATOM   8815  CG  MET D 691     -16.511  60.051  70.639  1.00 43.22
ATOM   8816  SD  MET D 691     -17.507  61.544  70.626  1.00 43.22
ATOM   8817  CE  MET D 691     -18.905  60.994  71.623  1.00 43.22
ATOM   8818  C   MET D 691     -17.047  56.489  69.268  1.00 25.80
ATOM   8819  O   MET D 691     -17.801  55.766  69.922  1.00 25.80
ATOM   8820  N   ILE D 692     -16.827  56.301  67.970  1.00 18.64
ATOM   8821  CA  ILE D 692     -17.497  55.204  67.279  1.00 18.64
ATOM   8822  CB  ILE D 692     -17.478  55.400  65.741  1.00 25.78
ATOM   8823  CG2 ILE D 692     -18.086  54.186  65.039  1.00 25.78
ATOM   8824  CG1 ILE D 692     -18.293  56.647  65.382  1.00 25.78
ATOM   8825  CD1 ILE D 692     -18.367  56.930  63.892  1.00 25.78
ATOM   8826  C   ILE D 692     -16.831  53.884  67.655  1.00 18.64
ATOM   8827  O   ILE D 692     -17.519  52.922  67.990  1.00 18.64
ATOM   8828  N   LEU D 693     -15.498  53.849  67.622  1.00 23.86
ATOM   8829  CA  LEU D 693     -14.740  52.646  67.985  1.00 23.86
ATOM   8830  CB  LEU D 693     -13.230  52.892  67.856  1.00 20.61
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ATOM   8831  CG  LEU D 693     -12.570  52.901  66.479  1.00 20.61
ATOM   8832  CD1 LEU D 693     -11.079  53.117  66.667  1.00 20.61
ATOM   8833  CD2 LEU D 693     -12.820  51.581  65.756  1.00 20.61
ATOM   8834  C   LEU D 693     -15.014  52.150  69.409  1.00 23.86
ATOM   8835  O   LEU D 693     -14.932  50.953  69.674  1.00 23.86
ATOM   8836  N   ASN D 694     -15.320  53.073  70.321  1.00 34.31
ATOM   8837  CA  ASN D 694     -15.584  52.752  71.733  1.00 34.31
ATOM   8838  CB  ASN D 694     -15.283  53.979  72.611  1.00 55.70
ATOM   8839  CG  ASN D 694     -13.793  54.264  72.762  1.00 55.70
ATOM   8840  OD1 ASN D 694     -13.026  54.182  71.805  1.00 55.70
ATOM   8841  ND2 ASN D 694     -13.384  54.623  73.975  1.00 55.70
ATOM   8842  C   ASN D 694     -17.021  52.299  72.052  1.00 34.31
ATOM   8843  O   ASN D 694     -17.256  51.642  73.067  1.00 34.31
ATOM   8844  N   SER D 695     -17.975  52.662  71.198  1.00 27.07
ATOM   8845  CA  SER D 695     -19.388  52.342  71.424  1.00 27.07
ATOM   8846  CB  SER D 695     -20.250  53.115  70.423  1.00 42.16
ATOM   8847  OG  SER D 695     -20.019  52.662  69.102  1.00 42.16
ATOM   8848  C   SER D 695     -19.799  50.863  71.406  1.00 27.07
ATOM   8849  O   SER D 695     -19.410  50.105  70.524  1.00 27.07
ATOM   8850  N   PRO D 696     -20.615  50.445  72.388  1.00 24.76
ATOM   8851  CD  PRO D 696     -21.223  51.278  73.438  1.00 38.12
ATOM   8852  CA  PRO D 696     -21.087  49.066  72.492  1.00 24.76
ATOM   8853  CB  PRO D 696     -22.070  49.122  73.662  1.00 38.12
ATOM   8854  CG  PRO D 696     -22.504  50.550  73.692  1.00 38.12
ATOM   8855  C   PRO D 696     -21.726  48.572  71.201  1.00 24.76
ATOM   8856  O   PRO D 696     -22.561  49.256  70.600  1.00 24.76
ATOM   8857  N   GLY D 697     -21.308  47.387  70.773  1.00 26.01
ATOM   8858  CA  GLY D 697     -21.832  46.807  69.553  1.00 26.01
ATOM   8859  C   GLY D 697     -21.033  47.180  68.320  1.00 26.01
ATOM   8860  O   GLY D 697     -21.213  46.586  67.258  1.00 26.01
ATOM   8861  N   ASN D 698     -20.137  48.153  68.448  1.00 31.56
ATOM   8862  CA  ASN D 698     -19.340  48.585  67.300  1.00 31.56
ATOM   8863  CB  ASN D 698     -19.529  50.086  67.054  1.00 32.45
ATOM   8864  CG  ASN D 698     -20.968  50.471  66.858  1.00 32.45
ATOM   8865  OD1 ASN D 698     -21.822  50.181  67.699  1.00 32.45
ATOM   8866  ND2 ASN D 698     -21.249  51.144  65.751  1.00 32.45
ATOM   8867  C   ASN D 698     -17.858  48.350  67.505  1.00 31.56
ATOM   8868  O   ASN D 698     -17.050  48.746  66.675  1.00 31.56
ATOM   8869  N   GLN D 699     -17.494  47.713  68.603  1.00 23.34
ATOM   8870  CA  GLN D 699     -16.082  47.531  68.913  1.00 23.34
ATOM   8871  CB  GLN D 699     -15.952  47.211  70.400  1.00 37.46
ATOM   8872  CG  GLN D 699     -16.565  48.334  71.231  1.00 37.46
ATOM   8873  CD  GLN D 699     -16.862  47.947  72.659  1.00 37.46
ATOM   8874  OE1 GLN D 699     -17.512  46.927  72.920  1.00 37.46
ATOM   8875  NE2 GLN D 699     -16.402  48.769  73.601  1.00 37.46
ATOM   8876  C   GLN D 699     -15.332  46.531  68.055  1.00 23.34
ATOM   8877  O   GLN D 699     -15.143  45.380  68.433  1.00 23.34
ATOM   8878  N   ILE D 700     -14.877  46.994  66.897  1.00 21.25
ATOM   8879  CA  ILE D 700     -14.153  46.127  65.981  1.00 21.25
ATOM   8880  CB  ILE D 700     -14.190  46.667  64.538  1.00 26.11
ATOM   8881  CG2 ILE D 700     -15.611  46.635  64.017  1.00 26.11
ATOM   8882  CG1 ILE D 700     -13.600  48.080  64.498  1.00 26.11
ATOM   8883  CD1 ILE D 700     -13.264  48.552  63.102  1.00 26.11
ATOM   8884  C   ILE D 700     -12.698  45.903  66.372  1.00 21.25
ATOM   8885  O   ILE D 700     -11.990  45.169  65.684  1.00 21.25
ATOM   8886  N   LEU D 701     -12.239  46.537  67.448  1.00 26.52
ATOM   8887  CA  LEU D 701     -10.857  46.336  67.891  1.00 26.52
ATOM   8888  CB  LEU D 701     -10.135  47.676  68.080  1.00 18.24
ATOM   8889  CG  LEU D 701      -9.897  48.563  66.852  1.00 18.24
ATOM   8890  CD1 LEU D 701      -9.151  49.841  67.248  1.00 18.24
ATOM   8891  CD2 LEU D 701      -9.110  47.775  65.804  1.00 18.24
ATOM   8892  C   LEU D 701     -10.793  45.534  69.200  1.00 26.52
ATOM   8893  O   LEU D 701      -9.735  45.434  69.821  1.00 26.52
ATOM   8894  N   SER D 702     -11.917  44.953  69.611  1.00 25.32
ATOM   8895  CA  SER D 702     -11.967  44.180  70.851  1.00 25.32
ATOM   8896  CB  SER D 702     -13.399  43.686  71.114  1.00 21.63
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ATOM   8897  OG  SER D 702     -13.825  42.774  70.115  1.00 21.63
ATOM   8898  C   SER D 702     -10.989  42.991  70.907  1.00 25.32
ATOM   8899  O   SER D 702     -10.616  42.539  71.994  1.00 25.32
ATOM   8900  N   GLY D 703     -10.570  42.490  69.748  1.00 31.41
ATOM   8901  CA  GLY D 703      -9.637  41.374  69.733  1.00 31.41
ATOM   8902  C   GLY D 703      -8.213  41.772  70.098  1.00 31.41
ATOM   8903  O   GLY D 703      -7.444  40.959  70.603  1.00 31.41
ATOM   8904  N   LEU D 704      -7.860  43.031  69.854  1.00 28.24
ATOM   8905  CA  LEU D 704      -6.516  43.534  70.140  1.00 28.24
ATOM   8906  CB  LEU D 704      -6.391  44.993  69.684  1.00 29.20
ATOM   8907  CG  LEU D 704      -6.479  45.329  68.188  1.00 29.20
ATOM   8908  CD1 LEU D 704      -6.097  46.786  67.970  1.00 29.20
ATOM   8909  CD2 LEU D 704      -5.539  44.444  67.414  1.00 29.20
ATOM   8910  C   LEU D 704      -6.056  43.454  71.600  1.00 28.24
ATOM   8911  O   LEU D 704      -6.835  43.707  72.532  1.00 28.24
ATOM   8912  N   SER D 705      -4.779  43.124  71.790  1.00 34.04
ATOM   8913  CA  SER D 705      -4.192  43.055  73.130  1.00 34.04
ATOM   8914  CB  SER D 705      -2.852  42.310  73.101  1.00 36.72
ATOM   8915  OG  SER D 705      -1.870  43.050  72.387  1.00 36.72
ATOM   8916  C   SER D 705      -3.957  44.500  73.577  1.00 34.04
ATOM   8917  O   SER D 705      -4.304  45.440  72.856  1.00 34.04
ATOM   8918  N   ILE D 706      -3.377  44.686  74.759  1.00 28.73
ATOM   8919  CA  ILE D 706      -3.120  46.035  75.242  1.00 28.73
ATOM   8920  CB  ILE D 706      -2.633  46.043  76.706  1.00 53.32
ATOM   8921  CG2 ILE D 706      -2.591  47.472  77.217  1.00 53.32
ATOM   8922  CG1 ILE D 706      -3.580  45.224  77.591  1.00 53.32
ATOM   8923  CD1 ILE D 706      -3.547  43.710  77.354  1.00 53.32
ATOM   8924  C   ILE D 706      -2.045  46.677  74.356  1.00 28.73
ATOM   8925  O   ILE D 706      -2.192  47.816  73.907  1.00 28.73
ATOM   8926  N   GLU D 707      -0.964  45.942  74.108  1.00 27.63
ATOM   8927  CA  GLU D 707       0.106  46.452  73.263  1.00 27.63
ATOM   8928  CB  GLU D 707       1.287  45.479  73.252  1.00 73.23
ATOM   8929  CG  GLU D 707       2.126  45.574  74.515  1.00 73.23
ATOM   8930  CD  GLU D 707       2.746  46.956  74.696  1.00 73.23
ATOM   8931  OE1 GLU D 707       2.785  47.458  75.843  1.00 73.23
ATOM   8932  OE2 GLU D 707       3.203  47.536  73.686  1.00 73.23
ATOM   8933  C   GLU D 707      -0.392  46.712  71.838  1.00 27.63
ATOM   8934  O   GLU D 707      -0.130  47.766  71.268  1.00 27.63
ATOM   8935  N   GLU D 708      -1.113  45.749  71.274  1.00 22.32
ATOM   8936  CA  GLU D 708      -1.665  45.893  69.933  1.00 22.32
ATOM   8937  CB  GLU D 708      -2.429  44.634  69.538  1.00 42.16
ATOM   8938  CG  GLU D 708      -1.539  43.496  69.084  1.00 42.16
ATOM   8939  CD  GLU D 708      -2.328  42.251  68.746  1.00 42.16
ATOM   8940  OE1 GLU D 708      -1.824  41.430  67.951  1.00 42.16
ATOM   8941  OE2 GLU D 708      -3.447  42.090  69.280  1.00 42.16
ATOM   8942  C   GLU D 708      -2.591  47.099  69.838  1.00 22.32
ATOM   8943  O   GLU D 708      -2.466  47.911  68.923  1.00 22.32
ATOM   8944  N   TYR D 709      -3.525  47.203  70.778  1.00 24.57
ATOM   8945  CA  TYR D 709      -4.467  48.316  70.793  1.00 24.57
ATOM   8946  CB  TYR D 709      -5.417  48.197  71.988  1.00 32.11
ATOM   8947  CG  TYR D 709      -6.319  49.395  72.184  1.00 32.11
ATOM   8948  CD1 TYR D 709      -7.625  49.407  71.693  1.00 32.11
ATOM   8949  CE1 TYR D 709      -8.453  50.515  71.881  1.00 32.11
ATOM   8950  CD2 TYR D 709      -5.861  50.523  72.866  1.00 32.11
ATOM   8951  CE2 TYR D 709      -6.671  51.629  73.057  1.00 32.11
ATOM   8952  CZ  TYR D 709      -7.965  51.622  72.566  1.00 32.11
ATOM   8953  OH  TYR D 709      -8.762  52.731  72.776  1.00 32.11
ATOM   8954  C   TYR D 709      -3.700  49.632  70.880  1.00 24.57
ATOM   8955  O   TYR D 709      -3.993  50.580  70.162  1.00 24.57
ATOM   8956  N   LYS D 710      -2.710  49.668  71.763  1.00 22.31
ATOM   8957  CA  LYS D 710      -1.888  50.847  71.980  1.00 22.31
ATOM   8958  CB  LYS D 710      -0.823  50.535  73.034  1.00 77.36
ATOM   8959  CG  LYS D 710      -0.385  51.726  73.865  1.00 77.36
ATOM   8960  CD  LYS D 710      -1.411  52.057  74.942  1.00 77.36
ATOM   8961  CE  LYS D 710      -1.501  50.955  75.994  1.00 77.36
ATOM   8962  NZ  LYS D 710      -0.217  50.752  76.731  1.00 77.36
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ATOM   8963  C   LYS D 710     -1.211  51.326  70.694  1.00 22.31
ATOM   8964  O   LYS D 710     -1.310  52.505  70.334  1.00 22.31
ATOM   8965  N   THR D 711     -0.531  50.410  70.004  1.00 19.50
ATOM   8966  CA  THR D 711      0.181  50.744  68.778  1.00 19.50
ATOM   8967  CB  THR D 711      1.192  49.630  68.416  1.00 37.22
ATOM   8968  OG1 THR D 711      0.537  48.364  68.430  1.00 37.22
ATOM   8969  CG2 THR D 711      2.320  49.590  69.424  1.00 37.22
ATOM   8970  C   THR D 711     -0.718  51.029  67.576  1.00 19.50
ATOM   8971  O   THR D 711     -0.371  51.835  66.715  1.00 19.50
ATOM   8972  N   THR D 712     -1.877  50.380  67.516  1.00 23.63
ATOM   8973  CA  THR D 712     -2.808  50.602  66.413  1.00 23.63
ATOM   8974  CB  THR D 712     -3.946  49.557  66.407  1.00 21.53
ATOM   8975  OG1 THR D 712     -3.401  48.255  66.158  1.00 21.53
ATOM   8976  CG2 THR D 712     -4.960  49.883  65.319  1.00 21.53
ATOM   8977  C   THR D 712     -3.423  51.997  66.495  1.00 23.63
ATOM   8978  O   THR D 712     -3.518  52.698  65.485  1.00 23.63
ATOM   8979  N   LEU D 713     -3.860  52.390  67.691  1.00 22.02
ATOM   8980  CA  LEU D 713     -4.454  53.711  67.881  1.00 22.02
ATOM   8981  CB  LEU D 713     -4.890  53.902  69.333  1.00 29.26
ATOM   8982  CG  LEU D 713     -6.392  53.767  69.595  1.00 29.26
ATOM   8983  CD1 LEU D 713     -7.116  54.880  68.867  1.00 29.26
ATOM   8984  CD2 LEU D 713     -6.897  52.414  69.125  1.00 29.26
ATOM   8985  C   LEU D 713     -3.441  54.793  67.502  1.00 22.02
ATOM   8986  O   LEU D 713     -3.803  55.827  66.948  1.00 22.02
ATOM   8987  N   LYS D 714     -2.173  54.541  67.808  1.00 16.92
ATOM   8988  CA  LYS D 714     -1.102  55.475  67.484  1.00 16.92
ATOM   8989  CB  LYS D 714      0.224  54.956  68.048  1.00 43.11
ATOM   8990  CG  LYS D 714      1.401  55.900  67.894  1.00 43.11
ATOM   8991  CD  LYS D 714      2.546  55.442  68.779  1.00 43.11
ATOM   8992  CE  LYS D 714      3.840  55.267  67.993  1.00 43.11
ATOM   8993  NZ  LYS D 714      4.494  56.563  67.647  1.00 43.11
ATOM   8994  C   LYS D 714     -1.010  55.645  65.960  1.00 16.92
ATOM   8995  O   LYS D 714     -0.933  56.764  65.462  1.00 16.92
ATOM   8996  N   ILE D 715     -1.026  54.537  65.224  1.00 13.97
ATOM   8997  CA  ILE D 715     -0.956  54.601  63.758  1.00 13.97
ATOM   8998  CB  ILE D 715     -0.832  53.192  63.142  1.00 19.56
ATOM   8999  CG2 ILE D 715     -0.793  53.290  61.619  1.00 19.56
ATOM   9000  CG1 ILE D 715      0.438  52.515  63.666  1.00 19.56
ATOM   9001  CD1 ILE D 715      0.506  51.020  63.410  1.00 19.56
ATOM   9002  C   ILE D 715     -2.212  55.289  63.205  1.00 13.97
ATOM   9003  O   ILE D 715     -2.141  56.067  62.257  1.00 13.97
ATOM   9004  N   ILE D 716     -3.359  55.006  63.815  1.00 17.01
ATOM   9005  CA  ILE D 716     -4.616  55.619  63.390  1.00 17.01
ATOM   9006  CB  ILE D 716     -5.810  55.071  64.209  1.00 12.16
ATOM   9007  CG2 ILE D 716     -7.053  55.930  63.960  1.00 12.16
ATOM   9008  CG1 ILE D 716     -6.087  53.615  63.818  1.00 12.16
ATOM   9009  CD1 ILE D 716     -7.217  52.989  64.606  1.00 12.16
ATOM   9010  C   ILE D 716     -4.569  57.142  63.548  1.00 17.01
ATOM   9011  O   ILE D 716     -4.901  57.883  62.625  1.00 17.01
ATOM   9012  N   LYS D 717     -4.155  57.611  64.720  1.00 20.25
ATOM   9013  CA  LYS D 717     -4.091  59.044  64.952  1.00 20.25
ATOM   9014  CB  LYS D 717     -3.655  59.359  66.378  1.00 19.02
ATOM   9015  CG  LYS D 717     -3.540  60.852  66.652  1.00 19.02
ATOM   9016  CD  LYS D 717     -3.341  61.119  68.144  1.00 19.02
ATOM   9017  CE  LYS D 717     -3.759  62.533  68.512  1.00 19.02
ATOM   9018  NZ  LYS D 717     -3.721  62.730  69.999  1.00 19.02
ATOM   9019  C   LYS D 717     -3.139  59.715  63.983  1.00 20.25
ATOM   9020  O   LYS D 717     -3.473  60.745  63.400  1.00 20.25
ATOM   9021  N   GLN D 718     -1.948  59.143  63.821  1.00 17.01
ATOM   9022  CA  GLN D 718     -0.974  59.713  62.892  1.00 17.01
ATOM   9023  CB  GLN D 718      0.318  58.901  62.912  1.00 57.71
ATOM   9024  CG  GLN D 718      1.260  59.267  64.033  1.00 57.71
ATOM   9025  CD  GLN D 718      2.224  58.145  64.361  1.00 57.71
ATOM   9026  OE1 GLN D 718      2.686  57.422  63.472  1.00 57.71
ATOM   9027  NE2 GLN D 718      2.540  57.996  65.643  1.00 57.71
ATOM   9028  C   GLN D 718     -1.536  59.738  61.465  1.00 17.01
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ATOM	9029	O	GLN	D	718	-1.299	60.689	60.717	1.00	17.01
ATOM	9030	N	ALA	D	719	-2.278	58.688	61.104	1.00	19.28
ATOM	9031	CA	ALA	D	719	-2.858	58.568	59.769	1.00	19.28
ATOM	9032	CB	ALA	D	719	-3.428	57.154	59.556	1.00	16.49
ATOM	9033	C	ALA	D	719	-3.940	59.618	59.522	1.00	19.28
ATOM	9034	O	ALA	D	719	-3.992	60.218	58.448	1.00	19.28
ATOM	9035	N	ILE	D	720	-4.797	59.839	60.513	1.00	19.92
ATOM	9036	CA	ILE	D	720	-5.854	60.833	60.373	1.00	19.92
ATOM	9037	CB	ILE	D	720	-6.903	60.728	61.510	1.00	18.84
ATOM	9038	CG2	ILE	D	720	-7.830	61.946	61.473	1.00	18.84
ATOM	9039	CG1	ILE	D	720	-7.700	59.419	61.370	1.00	18.84
ATOM	9040	CD1	ILE	D	720	-8.787	59.227	62.425	1.00	18.84
ATOM	9041	C	ILE	D	720	-5.254	62.231	60.373	1.00	19.92
ATOM	9042	O	ILE	D	720	-5.710	63.101	59.642	1.00	19.92
ATOM	9043	N	LEU	D	721	-4.227	62.454	61.186	1.00	17.93
ATOM	9044	CA	LEU	D	721	-3.596	63.768	61.224	1.00	17.93
ATOM	9045	CB	LEU	D	721	-2.606	63.875	62.397	1.00	22.20
ATOM	9046	CG	LEU	D	721	-3.129	63.828	63.843	1.00	22.20
ATOM	9047	CD1	LEU	D	721	-1.995	64.239	64.793	1.00	22.20
ATOM	9048	CD2	LEU	D	721	-4.338	64.755	64.025	1.00	22.20
ATOM	9049	C	LEU	D	721	-2.866	64.046	59.906	1.00	17.93
ATOM	9050	O	LEU	D	721	-2.809	65.189	59.439	1.00	17.93
ATOM	9051	N	ALA	D	722	-2.309	63.002	59.300	1.00	21.76
ATOM	9052	CA	ALA	D	722	-1.594	63.176	58.037	1.00	21.76
ATOM	9053	CB	ALA	D	722	-1.003	61.859	57.581	1.00	15.20
ATOM	9054	C	ALA	D	722	-2.567	63.697	56.995	1.00	21.76
ATOM	9055	O	ALA	D	722	-2.171	64.242	55.968	1.00	21.76
ATOM	9056	N	THR	D	723	-3.850	63.529	57.272	1.00	24.62
ATOM	9057	CA	THR	D	723	-4.894	63.973	56.364	1.00	24.62
ATOM	9058	CB	THR	D	723	-6.233	63.374	56.825	1.00	40.30
ATOM	9059	OG1	THR	D	723	-6.452	62.154	56.109	1.00	40.30
ATOM	9060	CG2	THR	D	723	-7.386	64.333	56.623	1.00	40.30
ATOM	9061	C	THR	D	723	-4.962	65.503	56.232	1.00	24.62
ATOM	9062	O	THR	D	723	-5.603	66.032	55.321	1.00	24.62
ATOM	9063	N	ASP	D	724	-4.306	66.213	57.144	1.00	21.08
ATOM	9064	CA	ASP	D	724	-4.280	67.675	57.087	1.00	21.08
ATOM	9065	CB	ASP	D	724	-3.824	68.258	58.428	1.00	41.77
ATOM	9066	CG	ASP	D	724	-3.856	69.783	58.449	1.00	41.77
ATOM	9067	OD1	ASP	D	724	-3.581	70.413	57.407	1.00	41.77
ATOM	9068	OD2	ASP	D	724	-4.143	70.356	59.518	1.00	41.77
ATOM	9069	C	ASP	D	724	-3.256	68.023	56.013	1.00	21.08
ATOM	9070	O	ASP	D	724	-2.095	67.631	56.123	1.00	21.08
ATOM	9071	N	LEU	D	725	-3.671	68.750	54.978	1.00	21.70
ATOM	9072	CA	LEU	D	725	-2.744	69.095	53.906	1.00	21.70
ATOM	9073	CB	LEU	D	725	-3.453	69.862	52.787	1.00	29.51
ATOM	9074	CG	LEU	D	725	-3.848	68.999	51.590	1.00	29.51
ATOM	9075	CD1	LEU	D	725	-4.162	69.893	50.411	1.00	29.51
ATOM	9076	CD2	LEU	D	725	-2.706	68.075	51.220	1.00	29.51
ATOM	9077	C	LEU	D	725	-1.522	69.881	54.362	1.00	21.70
ATOM	9078	O	LEU	D	725	-0.481	69.850	53.703	1.00	21.70
ATOM	9079	N	ALA	D	726	-1.652	70.581	55.483	1.00	28.86
ATOM	9080	CA	ALA	D	726	-0.543	71.349	56.018	1.00	28.86
ATOM	9081	CB	ALA	D	726	-1.035	72.288	57.110	1.00	36.96
ATOM	9082	C	ALA	D	726	0.547	70.423	56.569	1.00	28.86
ATOM	9083	O	ALA	D	726	1.717	70.790	56.571	1.00	28.86
ATOM	9084	N	LEU	D	727	0.177	69.235	57.054	1.00	27.46
ATOM	9085	CA	LEU	D	727	1.191	68.309	57.573	1.00	27.46
ATOM	9086	CB	LEU	D	727	0.583	67.221	58.465	1.00	34.72
ATOM	9087	CG	LEU	D	727	0.057	67.602	59.846	1.00	34.72
ATOM	9088	CD1	LEU	D	727	-0.277	66.329	60.600	1.00	34.72
ATOM	9089	CD2	LEU	D	727	1.096	68.399	60.613	1.00	34.72
ATOM	9090	C	LEU	D	727	1.868	67.656	56.385	1.00	27.46
ATOM	9091	O	LEU	D	727	3.063	67.381	56.399	1.00	27.46
ATOM	9092	N	TYR	D	728	1.088	67.401	55.348	1.00	23.48
ATOM	9093	CA	TYR	D	728	1.632	66.811	54.139	1.00	23.48
ATOM	9094	CB	TYR	D	728	0.502	66.531	53.152	1.00	22.57

ATOM	9095	CG	TYR	D	728	0.998	66.257	51.764	1.00	22.57
ATOM	9096	CD1	TYR	D	728	0.850	67.205	50.756	1.00	22.57
ATOM	9097	CE1	TYR	D	728	1.367	66.992	49.488	1.00	22.57
ATOM	9098	CD2	TYR	D	728	1.677	65.079	51.467	1.00	22.57
ATOM	9099	CE2	TYR	D	728	2.204	64.856	50.194	1.00	22.57
ATOM	9100	CZ	TYR	D	728	2.045	65.822	49.214	1.00	22.57
ATOM	9101	OH	TYR	D	728	2.592	65.639	47.964	1.00	22.57
ATOM	9102	C	TYR	D	728	2.675	67.755	53.499	1.00	23.48
ATOM	9103	O	TYR	D	728	3.713	67.311	53.008	1.00	23.48
ATOM	9104	N	ILE	D	729	2.394	69.053	53.509	1.00	35.41
ATOM	9105	CA	ILE	D	729	3.310	70.039	52.927	1.00	35.41
ATOM	9106	CB	ILE	D	729	2.658	71.437	52.903	1.00	28.43
ATOM	9107	CG2	ILE	D	729	3.664	72.499	52.463	1.00	28.43
ATOM	9108	CG1	ILE	D	729	1.451	71.412	51.961	1.00	28.43
ATOM	9109	CD1	ILE	D	729	1.763	70.930	50.579	1.00	28.43
ATOM	9110	C	ILE	D	729	4.619	70.112	53.699	1.00	35.41
ATOM	9111	O	ILE	D	729	5.700	70.105	53.118	1.00	35.41
ATOM	9112	N	LYS	D	730	4.511	70.171	55.018	1.00	34.23
ATOM	9113	CA	LYS	D	730	5.678	70.246	55.878	1.00	34.23
ATOM	9114	CB	LYS	D	730	5.233	70.409	57.336	1.00	48.01
ATOM	9115	CG	LYS	D	730	6.372	70.428	58.344	1.00	48.01
ATOM	9116	CD	LYS	D	730	5.856	70.381	59.777	1.00	48.01
ATOM	9117	CE	LYS	D	730	7.003	70.405	60.782	1.00	48.01
ATOM	9118	NZ	LYS	D	730	7.794	71.668	60.700	1.00	48.01
ATOM	9119	C	LYS	D	730	6.595	69.026	55.761	1.00	34.23
ATOM	9120	O	LYS	D	730	7.816	69.167	55.731	1.00	34.23
ATOM	9121	N	ARG	D	731	6.007	67.836	55.671	1.00	25.89
ATOM	9122	CA	ARG	D	731	6.786	66.604	55.620	1.00	25.89
ATOM	9123	CB	ARG	D	731	6.118	65.551	56.514	1.00	53.58
ATOM	9124	CG	ARG	D	731	6.135	65.908	57.996	1.00	53.58
ATOM	9125	CD	ARG	D	731	5.261	64.985	58.845	1.00	53.58
ATOM	9126	NE	ARG	D	731	5.744	63.604	58.912	1.00	53.58
ATOM	9127	CZ	ARG	D	731	6.895	63.226	59.464	1.00	53.58
ATOM	9128	NH1	ARG	D	731	7.710	64.123	60.004	1.00	53.58
ATOM	9129	NH2	ARG	D	731	7.229	61.944	59.490	1.00	53.58
ATOM	9130	C	ARG	D	731	7.108	65.970	54.267	1.00	25.89
ATOM	9131	O	ARG	D	731	7.955	65.077	54.197	1.00	25.89
ATOM	9132	N	ARG	D	732	6.463	66.410	53.194	1.00	32.82
ATOM	9133	CA	ARG	D	732	6.732	65.800	51.897	1.00	32.82
ATOM	9134	CB	ARG	D	732	5.756	66.310	50.838	1.00	36.72
ATOM	9135	CG	ARG	D	732	5.818	67.793	50.578	1.00	36.72
ATOM	9136	CD	ARG	D	732	5.016	68.130	49.340	1.00	36.72
ATOM	9137	NE	ARG	D	732	4.916	69.568	49.142	1.00	36.72
ATOM	9138	CZ	ARG	D	732	4.550	70.144	48.004	1.00	36.72
ATOM	9139	NH1	ARG	D	732	4.249	69.400	46.945	1.00	36.72
ATOM	9140	NH2	ARG	D	732	4.483	71.467	47.929	1.00	36.72
ATOM	9141	C	ARG	D	732	8.157	65.988	51.394	1.00	32.82
ATOM	9142	O	ARG	D	732	8.717	65.084	50.783	1.00	32.82
ATOM	9143	N	GLY	D	733	8.740	67.156	51.644	1.00	28.23
ATOM	9144	CA	GLY	D	733	10.097	67.405	51.187	1.00	28.23
ATOM	9145	C	GLY	D	733	11.052	66.302	51.597	1.00	28.23
ATOM	9146	O	GLY	D	733	11.820	65.787	50.786	1.00	28.23
ATOM	9147	N	GLU	D	734	10.997	65.933	52.867	1.00	31.67
ATOM	9148	CA	GLU	D	734	11.852	64.881	53.391	1.00	31.67
ATOM	9149	CB	GLU	D	734	11.542	64.667	54.870	1.00	43.27
ATOM	9150	CG	GLU	D	734	12.562	63.837	55.612	1.00	43.27
ATOM	9151	CD	GLU	D	734	12.118	63.533	57.022	1.00	43.27
ATOM	9152	OE1	GLU	D	734	11.424	64.387	57.621	1.00	43.27
ATOM	9153	OE2	GLU	D	734	12.471	62.448	57.530	1.00	43.27
ATOM	9154	C	GLU	D	734	11.635	63.575	52.626	1.00	31.67
ATOM	9155	O	GLU	D	734	12.585	62.893	52.257	1.00	31.67
ATOM	9156	N	PHE	D	735	10.375	63.235	52.387	1.00	29.22
ATOM	9157	CA	PHE	D	735	10.028	62.017	51.673	1.00	29.22
ATOM	9158	CB	PHE	D	735	8.515	61.838	51.656	1.00	28.90
ATOM	9159	CG	PHE	D	735	8.059	60.631	50.904	1.00	28.90
ATOM	9160	CD1	PHE	D	735	8.501	59.364	51.270	1.00	28.90

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ATOM   9161  CD2 PHE D 735       7.161  60.754  49.850  1.00 28.90
ATOM   9162  CE1 PHE D 735       8.051  58.229  50.600  1.00 28.90
ATOM   9163  CE2 PHE D 735       6.700  59.628  49.170  1.00 28.90
ATOM   9164  CZ  PHE D 735       7.146  58.358  49.549  1.00 28.90
ATOM   9165  C   PHE D 735      10.545  62.013  50.241  1.00 29.22
ATOM   9166  O   PHE D 735      11.043  60.996  49.757  1.00 29.22
ATOM   9167  N   PHE D 736      10.412  63.143  49.556  1.00 30.67
ATOM   9168  CA  PHE D 736      10.876  63.248  48.171  1.00 30.67
ATOM   9169  CB  PHE D 736      10.365  64.544  47.541  1.00 39.54
ATOM   9170  CG  PHE D 736       8.866  64.592  47.389  1.00 39.54
ATOM   9171  CD1 PHE D 736       8.196  65.810  47.337  1.00 39.54
ATOM   9172  CD2 PHE D 736       8.123  63.416  47.295  1.00 39.54
ATOM   9173  CE1 PHE D 736       6.806  65.856  47.195  1.00 39.54
ATOM   9174  CE2 PHE D 736       6.736  63.452  47.153  1.00 39.54
ATOM   9175  CZ  PHE D 736       6.078  64.673  47.104  1.00 39.54
ATOM   9176  C   PHE D 736      12.397  63.179  48.098  1.00 30.67
ATOM   9177  O   PHE D 736      12.950  62.681  47.122  1.00 30.67
ATOM   9178  N   GLU D 737      13.074  63.677  49.127  1.00 50.85
ATOM   9179  CA  GLU D 737      14.531  63.619  49.160  1.00 50.85
ATOM   9180  CB  GLU D 737      15.068  64.308  50.420  1.00 59.16
ATOM   9181  CG  GLU D 737      16.546  64.051  50.687  1.00 59.16
ATOM   9182  CD  GLU D 737      17.457  64.730  49.682  1.00 59.16
ATOM   9183  OE1 GLU D 737      17.001  65.006  48.552  1.00 59.16
ATOM   9184  OE2 GLU D 737      18.636  64.974  50.021  1.00 59.16
ATOM   9185  C   GLU D 737      14.947  62.144  49.163  1.00 50.85
ATOM   9186  O   GLU D 737      15.589  61.663  48.225  1.00 50.85
ATOM   9187  N   LEU D 738      14.565  61.432  50.220  1.00 40.91
ATOM   9188  CA  LEU D 738      14.886  60.014  50.350  1.00 40.91
ATOM   9189  CB  LEU D 738      14.061  59.386  51.481  1.00 37.91
ATOM   9190  CG  LEU D 738      14.463  59.624  52.941  1.00 37.91
ATOM   9191  CD1 LEU D 738      15.904  59.190  53.128  1.00 37.91
ATOM   9192  CD2 LEU D 738      14.300  61.076  53.327  1.00 37.91
ATOM   9193  C   LEU D 738      14.625  59.254  49.050  1.00 40.91
ATOM   9194  O   LEU D 738      15.408  58.392  48.654  1.00 40.91
ATOM   9195  N   ILE D 739      13.516  59.581  48.394  1.00 59.25
ATOM   9196  CA  ILE D 739      13.127  58.941  47.141  1.00 59.25
ATOM   9197  CB  ILE D 739      11.700  59.364  46.717  1.00 45.87
ATOM   9198  CG2 ILE D 739      11.338  58.709  45.397  1.00 45.87
ATOM   9199  CG1 ILE D 739      10.686  59.015  47.815  1.00 45.87
ATOM   9200  CD1 ILE D 739      10.448  57.539  48.014  1.00 45.87
ATOM   9201  C   ILE D 739      14.074  59.316  46.003  1.00 59.25
ATOM   9202  O   ILE D 739      14.435  58.476  45.176  1.00 59.25
ATOM   9203  N   ARG D 740      14.459  60.587  45.963  1.00 60.77
ATOM   9204  CA  ARG D 740      15.345  61.099  44.925  1.00 60.77
ATOM   9205  CB  ARG D 740      15.331  62.630  44.951  1.00 99.77
ATOM   9206  CG  ARG D 740      15.952  63.292  43.734  1.00 99.77
ATOM   9207  CD  ARG D 740      15.694  64.794  43.737  1.00 99.77
ATOM   9208  NE  ARG D 740      16.387  65.480  44.824  1.00 99.77
ATOM   9209  CZ  ARG D 740      17.708  65.625  44.895  1.00 99.77
ATOM   9210  NH1 ARG D 740      18.488  65.132  43.941  1.00 99.77
ATOM   9211  NH2 ARG D 740      18.252  66.267  45.921  1.00 99.77
ATOM   9212  C   ARG D 740      16.770  60.583  45.111  1.00 60.77
ATOM   9213  O   ARG D 740      17.589  60.633  44.195  1.00 60.77
ATOM   9214  N   LYS D 741      17.050  60.074  46.303  1.00 47.15
ATOM   9215  CA  LYS D 741      18.369  59.555  46.626  1.00 47.15
ATOM   9216  CB  LYS D 741      18.835  60.149  47.956  1.00 54.31
ATOM   9217  CG  LYS D 741      20.284  60.580  47.972  1.00 54.31
ATOM   9218  CD  LYS D 741      20.517  61.766  47.052  1.00 54.31
ATOM   9219  CE  LYS D 741      19.767  63.001  47.529  1.00 54.31
ATOM   9220  NZ  LYS D 741      20.061  64.197  46.683  1.00 54.31
ATOM   9221  C   LYS D 741      18.363  58.024  46.719  1.00 47.15
ATOM   9222  O   LYS D 741      19.411  57.394  46.902  1.00 47.15
ATOM   9223  N   ASN D 742      17.180  57.429  46.592  1.00 58.40
ATOM   9224  CA  ASN D 742      17.041  55.979  46.674  1.00 58.40
ATOM   9225  CB  ASN D 742      17.821  55.300  45.545  1.00 93.55
ATOM   9226  CG  ASN D 742      17.213  55.557  44.181  1.00 93.55
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ATOM	9227	OD1	ASN	D	742	16.097	55.125	43.898	1.00	93.55
ATOM	9228	ND2	ASN	D	742	17.943	56.265	43.329	1.00	93.55
ATOM	9229	C	ASN	D	742	17.530	55.457	48.022	1.00	58.40
ATOM	9230	O	ASN	D	742	18.038	54.339	48.117	1.00	58.40
ATOM	9231	N	GLN	D	743	17.382	56.277	49.058	1.00	60.73
ATOM	9232	CA	GLN	D	743	17.789	55.887	50.402	1.00	60.73
ATOM	9233	CB	GLN	D	743	18.661	56.961	51.045	1.00	81.58
ATOM	9234	CG	GLN	D	743	19.813	57.447	50.209	1.00	81.58
ATOM	9235	CD	GLN	D	743	20.760	58.303	51.020	1.00	81.58
ATOM	9236	OE1	GLN	D	743	21.503	57.795	51.858	1.00	81.58
ATOM	9237	NE2	GLN	D	743	20.728	59.610	50.789	1.00	81.58
ATOM	9238	C	GLN	D	743	16.548	55.703	51.268	1.00	60.73
ATOM	9239	O	GLN	D	743	16.625	55.793	52.495	1.00	60.73
ATOM	9240	N	PHE	D	744	15.409	55.452	50.629	1.00	71.07
ATOM	9241	CA	PHE	D	744	14.157	55.283	51.354	1.00	71.07
ATOM	9242	CB	PHE	D	744	13.020	54.953	50.384	1.00	38.79
ATOM	9243	CG	PHE	D	744	11.671	54.918	51.034	1.00	38.79
ATOM	9244	CD1	PHE	D	744	11.307	55.900	51.953	1.00	38.79
ATOM	9245	CD2	PHE	D	744	10.774	53.895	50.752	1.00	38.79
ATOM	9246	CE1	PHE	D	744	10.079	55.860	52.582	1.00	38.79
ATOM	9247	CE2	PHE	D	744	9.534	53.846	51.379	1.00	38.79
ATOM	9248	CZ	PHE	D	744	9.187	54.829	52.296	1.00	38.79
ATOM	9249	C	PHE	D	744	14.250	54.226	52.455	1.00	71.07
ATOM	9250	O	PHE	D	744	14.647	54.545	53.574	1.00	71.07
ATOM	9251	N	ASN	D	745	13.880	52.982	52.155	1.00	60.12
ATOM	9252	CA	ASN	D	745	13.962	51.910	53.154	1.00	60.12
ATOM	9253	CB	ASN	D	745	15.320	51.983	53.867	1.00	70.10
ATOM	9254	CG	ASN	D	745	15.469	50.944	54.954	1.00	70.10
ATOM	9255	OD1	ASN	D	745	16.212	51.142	55.919	1.00	70.10
ATOM	9256	ND2	ASN	D	745	14.775	49.823	54.801	1.00	70.10
ATOM	9257	C	ASN	D	745	12.834	51.949	54.200	1.00	60.12
ATOM	9258	O	ASN	D	745	12.908	52.700	55.178	1.00	60.12
ATOM	9259	N	LEU	D	746	11.810	51.118	54.001	1.00	50.34
ATOM	9260	CA	LEU	D	746	10.664	51.050	54.915	1.00	50.34
ATOM	9261	CB	LEU	D	746	9.515	50.255	54.282	1.00	58.81
ATOM	9262	CG	LEU	D	746	8.931	50.742	52.950	1.00	58.81
ATOM	9263	CD1	LEU	D	746	9.917	50.481	51.814	1.00	58.81
ATOM	9264	CD2	LEU	D	746	7.629	50.012	52.677	1.00	58.81
ATOM	9265	C	LEU	D	746	11.002	50.424	56.264	1.00	50.34
ATOM	9266	O	LEU	D	746	10.164	50.393	57.169	1.00	50.34
ATOM	9267	N	GLU	D	747	12.228	49.928	56.395	1.00	62.78
ATOM	9268	CA	GLU	D	747	12.664	49.289	57.629	1.00	62.78
ATOM	9269	CB	GLU	D	747	14.023	48.614	57.429	1.00	81.76
ATOM	9270	CG	GLU	D	747	14.001	47.455	56.443	1.00	81.76
ATOM	9271	CD	GLU	D	747	13.165	46.286	56.928	1.00	81.76
ATOM	9272	OE1	GLU	D	747	12.995	45.320	56.154	1.00	81.76
ATOM	9273	OE2	GLU	D	747	12.684	46.330	58.082	1.00	81.76
ATOM	9274	C	GLU	D	747	12.749	50.265	58.786	1.00	62.78
ATOM	9275	O	GLU	D	747	12.340	49.950	59.901	1.00	62.78
ATOM	9276	N	ASP	D	748	13.284	51.451	58.529	1.00	52.61
ATOM	9277	CA	ASP	D	748	13.399	52.440	59.587	1.00	52.61
ATOM	9278	CB	ASP	D	748	14.215	53.648	59.122	1.00	76.65
ATOM	9279	CG	ASP	D	748	14.334	54.717	60.197	1.00	76.65
ATOM	9280	OD1	ASP	D	748	13.310	55.344	60.540	1.00	76.65
ATOM	9281	OD2	ASP	D	748	15.451	54.926	60.710	1.00	76.65
ATOM	9282	C	ASP	D	748	12.013	52.894	60.016	1.00	52.61
ATOM	9283	O	ASP	D	748	11.228	53.377	59.200	1.00	52.61
ATOM	9284	N	PRO	D	749	11.694	52.743	61.310	1.00	50.88
ATOM	9285	CD	PRO	D	749	12.563	52.268	62.400	1.00	35.55
ATOM	9286	CA	PRO	D	749	10.384	53.150	61.827	1.00	50.88
ATOM	9287	CB	PRO	D	749	10.521	52.931	63.335	1.00	35.55
ATOM	9288	CG	PRO	D	749	12.008	53.013	63.573	1.00	35.55
ATOM	9289	C	PRO	D	749	9.993	54.586	61.469	1.00	50.88
ATOM	9290	O	PRO	D	749	8.876	54.832	61.023	1.00	50.88
ATOM	9291	N	HIS	D	750	10.910	55.532	61.652	1.00	36.61
ATOM	9292	CA	HIS	D	750	10.608	56.924	61.339	1.00	36.61

ATOM	9293	CB	HIS	D	750	11.798	57.824	61.677	1.00	41.56
ATOM	9294	CG	HIS	D	750	11.585	59.257	61.305	1.00	41.56
ATOM	9295	CD2	HIS	D	750	11.071	60.294	62.009	1.00	41.56
ATOM	9296	ND1	HIS	D	750	11.854	59.746	60.044	1.00	41.56
ATOM	9297	CE1	HIS	D	750	11.515	61.022	59.987	1.00	41.56
ATOM	9298	NE2	HIS	D	750	11.037	61.378	61.165	1.00	41.56
ATOM	9299	C	HIS	D	750	10.211	57.123	59.877	1.00	36.61
ATOM	9300	O	HIS	D	750	9.324	57.922	59.567	1.00	36.61
ATOM	9301	N	GLU	D	751	10.864	56.393	58.981	1.00	43.61
ATOM	9302	CA	GLU	D	751	10.564	56.505	57.565	1.00	43.61
ATOM	9303	CB	GLU	D	751	11.731	55.963	56.740	1.00	48.97
ATOM	9304	CG	GLU	D	751	13.015	56.750	56.946	1.00	48.97
ATOM	9305	CD	GLU	D	751	14.103	56.380	55.954	1.00	48.97
ATOM	9306	OE1	GLU	D	751	13.831	56.429	54.740	1.00	48.97
ATOM	9307	OE2	GLU	D	751	15.230	56.053	56.387	1.00	48.97
ATOM	9308	C	GLU	D	751	9.275	55.769	57.228	1.00	43.61
ATOM	9309	O	GLU	D	751	8.593	56.105	56.259	1.00	43.61
ATOM	9310	N	LYS	D	752	8.944	54.761	58.031	1.00	25.61
ATOM	9311	CA	LYS	D	752	7.717	53.996	57.832	1.00	25.61
ATOM	9312	CB	LYS	D	752	7.688	52.784	58.777	1.00	31.82
ATOM	9313	CG	LYS	D	752	6.324	52.107	58.898	1.00	31.82
ATOM	9314	CD	LYS	D	752	5.821	51.596	57.557	1.00	31.82
ATOM	9315	CE	LYS	D	752	6.581	50.365	57.110	1.00	31.82
ATOM	9316	NZ	LYS	D	752	6.143	49.163	57.856	1.00	31.82
ATOM	9317	C	LYS	D	752	6.534	54.913	58.126	1.00	25.61
ATOM	9318	O	LYS	D	752	5.578	54.972	57.352	1.00	25.61
ATOM	9319	N	GLU	D	753	6.611	55.642	59.234	1.00	27.48
ATOM	9320	CA	GLU	D	753	5.529	56.540	59.613	1.00	27.48
ATOM	9321	CB	GLU	D	753	5.791	57.193	60.975	1.00	88.59
ATOM	9322	CG	GLU	D	753	6.752	58.366	60.948	1.00	88.59
ATOM	9323	CD	GLU	D	753	6.592	59.280	62.153	1.00	88.59
ATOM	9324	OE1	GLU	D	753	5.477	59.811	62.352	1.00	88.59
ATOM	9325	OE2	GLU	D	753	7.579	59.474	62.897	1.00	88.59
ATOM	9326	C	GLU	D	753	5.351	57.611	58.547	1.00	27.48
ATOM	9327	O	GLU	D	753	4.227	57.967	58.209	1.00	27.48
ATOM	9328	N	LEU	D	754	6.461	58.110	58.007	1.00	25.02
ATOM	9329	CA	LEU	D	754	6.405	59.144	56.974	1.00	25.02
ATOM	9330	CB	LEU	D	754	7.817	59.575	56.544	1.00	35.28
ATOM	9331	CG	LEU	D	754	8.012	60.985	55.955	1.00	35.28
ATOM	9332	CD1	LEU	D	754	9.440	61.117	55.456	1.00	35.28
ATOM	9333	CD2	LEU	D	754	7.056	61.247	54.811	1.00	35.28
ATOM	9334	C	LEU	D	754	5.662	58.593	55.767	1.00	25.02
ATOM	9335	O	LEU	D	754	4.770	59.244	55.232	1.00	25.02
ATOM	9336	N	PHE	D	755	6.032	57.383	55.354	1.00	21.99
ATOM	9337	CA	PHE	D	755	5.409	56.737	54.213	1.00	21.99
ATOM	9338	CB	PHE	D	755	6.054	55.381	53.956	1.00	22.56
ATOM	9339	CG	PHE	D	755	5.410	54.616	52.843	1.00	22.56
ATOM	9340	CD1	PHE	D	755	5.437	55.105	51.542	1.00	22.56
ATOM	9341	CD2	PHE	D	755	4.775	53.411	53.093	1.00	22.56
ATOM	9342	CE1	PHE	D	755	4.841	54.406	50.499	1.00	22.56
ATOM	9343	CE2	PHE	D	755	4.175	52.700	52.065	1.00	22.56
ATOM	9344	CZ	PHE	D	755	4.206	53.198	50.758	1.00	22.56
ATOM	9345	C	PHE	D	755	3.915	56.543	54.407	1.00	21.99
ATOM	9346	O	PHE	D	755	3.122	56.737	53.476	1.00	21.99
ATOM	9347	N	LEU	D	756	3.528	56.151	55.613	1.00	24.81
ATOM	9348	CA	LEU	D	756	2.122	55.941	55.906	1.00	24.81
ATOM	9349	CB	LEU	D	756	1.950	55.393	57.327	1.00	21.48
ATOM	9350	CG	LEU	D	756	2.639	54.049	57.582	1.00	21.48
ATOM	9351	CD1	LEU	D	756	2.294	53.556	58.982	1.00	21.48
ATOM	9352	CD2	LEU	D	756	2.195	53.034	56.535	1.00	21.48
ATOM	9353	C	LEU	D	756	1.365	57.260	55.737	1.00	24.81
ATOM	9354	O	LEU	D	756	0.259	57.272	55.213	1.00	24.81
ATOM	9355	N	ALA	D	757	1.968	58.363	56.181	1.00	20.42
ATOM	9356	CA	ALA	D	757	1.349	59.679	56.059	1.00	20.42
ATOM	9357	CB	ALA	D	757	2.206	60.751	56.783	1.00	15.39
ATOM	9358	C	ALA	D	757	1.179	60.054	54.589	1.00	20.42

ATOM	9359	O	ALA	D	757	0.114	60.516	54.176	1.00	20.42
ATOM	9360	N	MET	D	758	2.236	59.855	53.804	1.00	17.90
ATOM	9361	CA	MET	D	758	2.213	60.171	52.374	1.00	17.90
ATOM	9362	CB	MET	D	758	3.588	59.933	51.744	1.00	26.29
ATOM	9363	CG	MET	D	758	4.714	60.764	52.333	1.00	26.29
ATOM	9364	SD	MET	D	758	4.465	62.550	52.180	1.00	26.29
ATOM	9365	CE	MET	D	758	4.499	62.727	50.479	1.00	26.29
ATOM	9366	C	MET	D	758	1.180	59.294	51.671	1.00	17.90
ATOM	9367	O	MET	D	758	0.506	59.738	50.739	1.00	17.90
ATOM	9368	N	LEU	D	759	1.059	58.047	52.118	1.00	20.52
ATOM	9369	CA	LEU	D	759	0.090	57.124	51.532	1.00	20.52
ATOM	9370	CB	LEU	D	759	0.296	55.713	52.071	1.00	19.36
ATOM	9371	CG	LEU	D	759	-0.655	54.663	51.482	1.00	19.36
ATOM	9372	CD1	LEU	D	759	-0.391	54.500	49.977	1.00	19.36
ATOM	9373	CD2	LEU	D	759	-0.469	53.337	52.205	1.00	19.36
ATOM	9374	C	LEU	D	759	-1.334	57.581	51.842	1.00	20.52
ATOM	9375	O	LEU	D	759	-2.230	57.409	51.020	1.00	20.52
ATOM	9376	N	MET	D	760	-1.550	58.140	53.031	1.00	16.13
ATOM	9377	CA	MET	D	760	-2.882	58.633	53.390	1.00	16.13
ATOM	9378	CB	MET	D	760	-2.918	59.095	54.855	1.00	18.32
ATOM	9379	CG	MET	D	760	-3.051	57.963	55.860	1.00	18.32
ATOM	9380	SD	MET	D	760	-4.570	56.975	55.669	1.00	18.32
ATOM	9381	CE	MET	D	760	-5.795	58.120	56.274	1.00	18.32
ATOM	9382	C	MET	D	760	-3.266	59.802	52.471	1.00	16.13
ATOM	9383	O	MET	D	760	-4.389	59.886	51.994	1.00	16.13
ATOM	9384	N	THR	D	761	-2.319	60.697	52.217	1.00	16.14
ATOM	9385	CA	THR	D	761	-2.582	61.834	51.343	1.00	16.14
ATOM	9386	CB	THR	D	761	-1.381	62.837	51.316	1.00	17.19
ATOM	9387	OG1	THR	D	761	-1.113	63.314	52.645	1.00	17.19
ATOM	9388	CG2	THR	D	761	-1.699	64.034	50.421	1.00	17.19
ATOM	9389	C	THR	D	761	-2.831	61.325	49.923	1.00	16.14
ATOM	9390	O	THR	D	761	-3.711	61.828	49.232	1.00	16.14
ATOM	9391	N	ALA	D	762	-2.063	60.322	49.496	1.00	22.09
ATOM	9392	CA	ALA	D	762	-2.222	59.785	48.156	1.00	22.09
ATOM	9393	CB	ALA	D	762	-1.185	58.685	47.878	1.00	8.52
ATOM	9394	C	ALA	D	762	-3.632	59.246	47.968	1.00	22.09
ATOM	9395	O	ALA	D	762	-4.250	59.490	46.936	1.00	22.09
ATOM	9396	N	CYS	D	763	-4.155	58.528	48.962	1.00	16.95
ATOM	9397	CA	CYS	D	763	-5.514	57.987	48.840	1.00	16.95
ATOM	9398	CB	CYS	D	763	-5.780	56.883	49.872	1.00	22.70
ATOM	9399	SG	CYS	D	763	-4.705	55.468	49.712	1.00	22.70
ATOM	9400	C	CYS	D	763	-6.547	59.074	49.030	1.00	16.95
ATOM	9401	O	CYS	D	763	-7.548	59.109	48.330	1.00	16.95
ATOM	9402	N	ASP	D	764	-6.301	59.953	49.992	1.00	16.46
ATOM	9403	CA	ASP	D	764	-7.214	61.058	50.293	1.00	16.46
ATOM	9404	CB	ASP	D	764	-6.630	61.944	51.404	1.00	18.15
ATOM	9405	CG	ASP	D	764	-7.671	62.886	52.004	1.00	18.15
ATOM	9406	OD1	ASP	D	764	-7.307	63.836	52.739	1.00	18.15
ATOM	9407	OD2	ASP	D	764	-8.867	62.663	51.740	1.00	18.15
ATOM	9408	C	ASP	D	764	-7.510	61.928	49.066	1.00	16.46
ATOM	9409	O	ASP	D	764	-8.620	62.428	48.900	1.00	16.46
ATOM	9410	N	LEU	D	765	-6.509	62.101	48.209	1.00	19.88
ATOM	9411	CA	LEU	D	765	-6.653	62.927	47.021	1.00	19.88
ATOM	9412	CB	LEU	D	765	-5.349	63.699	46.782	1.00	20.20
ATOM	9413	CG	LEU	D	765	-4.803	64.561	47.928	1.00	20.20
ATOM	9414	CD1	LEU	D	765	-3.492	65.202	47.510	1.00	20.20
ATOM	9415	CD2	LEU	D	765	-5.812	65.635	48.307	1.00	20.20
ATOM	9416	C	LEU	D	765	-7.004	62.125	45.766	1.00	19.88
ATOM	9417	O	LEU	D	765	-7.102	62.693	44.678	1.00	19.88
ATOM	9418	N	SER	D	766	-7.211	60.818	45.925	1.00	20.90
ATOM	9419	CA	SER	D	766	-7.493	59.911	44.803	1.00	20.90
ATOM	9420	CB	SER	D	766	-7.991	58.546	45.325	1.00	29.58
ATOM	9421	OG	SER	D	766	-9.380	58.569	45.633	1.00	29.58
ATOM	9422	C	SER	D	766	-8.444	60.379	43.696	1.00	20.90
ATOM	9423	O	SER	D	766	-8.322	59.933	42.550	1.00	20.90
ATOM	9424	N	ALA	D	767	-9.401	61.243	44.006	1.00	18.54

ATOM	9425	CA	ALA	D	767	-10.323	61.694	42.959	1.00	18.54
ATOM	9426	CB	ALA	D	767	-11.301	62.740	43.516	1.00	18.66
ATOM	9427	C	ALA	D	767	-9.551	62.279	41.779	1.00	18.54
ATOM	9428	O	ALA	D	767	-9.980	62.176	40.629	1.00	18.54
ATOM	9429	N	ILE	D	768	-8.401	62.880	42.068	1.00	25.49
ATOM	9430	CA	ILE	D	768	-7.592	63.496	41.030	1.00	25.49
ATOM	9431	CB	ILE	D	768	-6.461	64.342	41.656	1.00	16.48
ATOM	9432	CG2	ILE	D	768	-5.325	63.452	42.110	1.00	16.48
ATOM	9433	CG1	ILE	D	768	-5.972	65.370	40.637	1.00	16.48
ATOM	9434	CD1	ILE	D	768	-7.062	66.315	40.194	1.00	16.48
ATOM	9435	C	ILE	D	768	-6.980	62.511	40.031	1.00	25.49
ATOM	9436	O	ILE	D	768	-6.361	62.929	39.048	1.00	25.49
ATOM	9437	N	THR	D	769	-7.154	61.211	40.267	1.00	18.90
ATOM	9438	CA	THR	D	769	-6.590	60.201	39.368	1.00	18.90
ATOM	9439	CB	THR	D	769	-5.714	59.186	40.146	1.00	22.17
ATOM	9440	OG1	THR	D	769	-6.542	58.363	40.984	1.00	22.17
ATOM	9441	CG2	THR	D	769	-4.700	59.920	41.019	1.00	22.17
ATOM	9442	C	THR	D	769	-7.649	59.425	38.584	1.00	18.90
ATOM	9443	O	THR	D	769	-7.341	58.779	37.584	1.00	18.90
ATOM	9444	N	LYS	D	770	-8.897	59.495	39.029	1.00	23.91
ATOM	9445	CA	LYS	D	770	-9.984	58.780	38.361	1.00	23.91
ATOM	9446	CB	LYS	D	770	-11.305	59.029	39.082	1.00	22.90
ATOM	9447	CG	LYS	D	770	-11.332	58.571	40.520	1.00	22.90
ATOM	9448	CD	LYS	D	770	-11.096	57.085	40.647	1.00	22.90
ATOM	9449	CE	LYS	D	770	-11.078	56.689	42.114	1.00	22.90
ATOM	9450	NZ	LYS	D	770	-11.058	55.217	42.247	1.00	22.90
ATOM	9451	C	LYS	D	770	-10.178	59.148	36.898	1.00	23.91
ATOM	9452	O	LYS	D	770	-9.743	60.205	36.449	1.00	23.91
ATOM	9453	N	PRO	D	771	-10.834	58.264	36.125	1.00	26.33
ATOM	9454	CD	PRO	D	771	-11.307	56.920	36.499	1.00	24.20
ATOM	9455	CA	PRO	D	771	-11.084	58.544	34.705	1.00	26.33
ATOM	9456	CB	PRO	D	771	-11.956	57.369	34.272	1.00	24.20
ATOM	9457	CG	PRO	D	771	-11.452	56.244	35.146	1.00	24.20
ATOM	9458	C	PRO	D	771	-11.821	59.891	34.601	1.00	26.33
ATOM	9459	O	PRO	D	771	-12.678	60.203	35.436	1.00	26.33
ATOM	9460	N	TRP	D	772	-11.494	60.677	33.576	1.00	34.94
ATOM	9461	CA	TRP	D	772	-12.085	62.006	33.382	1.00	34.94
ATOM	9462	CB	TRP	D	772	-11.873	62.483	31.935	1.00	44.53
ATOM	9463	CG	TRP	D	772	-12.528	63.804	31.676	1.00	44.53
ATOM	9464	CD2	TRP	D	772	-12.244	65.043	32.338	1.00	44.53
ATOM	9465	CE2	TRP	D	772	-13.170	65.997	31.856	1.00	44.53
ATOM	9466	CE3	TRP	D	772	-11.299	65.439	33.296	1.00	44.53
ATOM	9467	CD1	TRP	D	772	-13.578	64.050	30.836	1.00	44.53
ATOM	9468	NE1	TRP	D	772	-13.972	65.367	30.941	1.00	44.53
ATOM	9469	CZ2	TRP	D	772	-13.178	67.329	32.300	1.00	44.53
ATOM	9470	CZ3	TRP	D	772	-11.305	66.764	33.738	1.00	44.53
ATOM	9471	CH2	TRP	D	772	-12.241	67.693	33.238	1.00	44.53
ATOM	9472	C	TRP	D	772	-13.557	62.212	33.772	1.00	34.94
ATOM	9473	O	TRP	D	772	-13.868	63.074	34.598	1.00	34.94
ATOM	9474	N	PRO	D	773	-14.485	61.444	33.176	1.00	35.95
ATOM	9475	CD	PRO	D	773	-14.335	60.347	32.206	1.00	37.02
ATOM	9476	CA	PRO	D	773	-15.895	61.634	33.541	1.00	35.95
ATOM	9477	CB	PRO	D	773	-16.614	60.525	32.760	1.00	37.02
ATOM	9478	CG	PRO	D	773	-15.539	59.502	32.509	1.00	37.02
ATOM	9479	C	PRO	D	773	-16.161	61.577	35.043	1.00	35.95
ATOM	9480	O	PRO	D	773	-17.099	62.195	35.542	1.00	35.95
ATOM	9481	N	ILE	D	774	-15.324	60.840	35.759	1.00	34.80
ATOM	9482	CA	ILE	D	774	-15.461	60.717	37.202	1.00	34.80
ATOM	9483	CB	ILE	D	774	-14.828	59.396	37.706	1.00	35.44
ATOM	9484	CG2	ILE	D	774	-14.754	59.392	39.222	1.00	35.44
ATOM	9485	CG1	ILE	D	774	-15.653	58.206	37.200	1.00	35.44
ATOM	9486	CD1	ILE	D	774	-14.989	56.863	37.409	1.00	35.44
ATOM	9487	C	ILE	D	774	-14.778	61.902	37.874	1.00	34.80
ATOM	9488	O	ILE	D	774	-15.350	62.533	38.761	1.00	34.80
ATOM	9489	N	GLN	D	775	-13.556	62.205	37.442	1.00	26.18
ATOM	9490	CA	GLN	D	775	-12.795	63.321	37.996	1.00	26.18

ATOM	9491	CB	GLN	D	775	-11.510	63.543	37.199	1.00 33.55
ATOM	9492	CG	GLN	D	775	-10.348	64.135	37.993	1.00 33.55
ATOM	9493	CD	GLN	D	775	-10.733	65.307	38.895	1.00 33.55
ATOM	9494	OE1	GLN	D	775	-11.022	66.412	38.425	1.00 33.55
ATOM	9495	NE2	GLN	D	775	-10.732	65.064	40.204	1.00 33.55
ATOM	9496	C	GLN	D	775	-13.627	64.588	37.909	1.00 26.18
ATOM	9497	O	GLN	D	775	-13.758	65.328	38.883	1.00 26.18
ATOM	9498	N	GLN	D	776	-14.193	64.830	36.730	1.00 25.00
ATOM	9499	CA	GLN	D	776	-14.997	66.024	36.495	1.00 25.00
ATOM	9500	CB	GLN	D	776	-15.410	66.103	35.022	1.00 43.78
ATOM	9501	CG	GLN	D	776	-16.146	67.387	34.657	1.00 43.78
ATOM	9502	CD	GLN	D	776	-16.318	67.555	33.157	1.00 43.78
ATOM	9503	OE1	GLN	D	776	-16.855	66.678	32.477	1.00 43.78
ATOM	9504	NE2	GLN	D	776	-15.863	68.691	32.634	1.00 43.78
ATOM	9505	C	GLN	D	776	-16.236	66.140	37.379	1.00 25.00
ATOM	9506	O	GLN	D	776	-16.562	67.233	37.847	1.00 25.00
ATOM	9507	N	ARG	D	777	-16.921	65.024	37.618	1.00 25.65
ATOM	9508	CA	ARG	D	777	-18.122	65.070	38.441	1.00 25.65
ATOM	9509	CB	ARG	D	777	-18.845	63.722	38.446	1.00 41.68
ATOM	9510	CG	ARG	D	777	-20.189	63.764	39.168	1.00 41.68
ATOM	9511	CD	ARG	D	777	-20.730	62.373	39.490	1.00 41.68
ATOM	9512	NE	ARG	D	777	-19.969	61.739	40.564	1.00 41.68
ATOM	9513	CZ	ARG	D	777	-19.153	60.707	40.397	1.00 41.68
ATOM	9514	NH1	ARG	D	777	-18.985	60.173	39.192	1.00 41.68
ATOM	9515	NH2	ARG	D	777	-18.500	60.216	41.439	1.00 41.68
ATOM	9516	C	ARG	D	777	-17.773	65.430	39.869	1.00 25.65
ATOM	9517	O	ARG	D	777	-18.479	66.207	40.517	1.00 25.65
ATOM	9518	N	ILE	D	778	-16.687	64.838	40.357	1.00 26.38
ATOM	9519	CA	ILE	D	778	-16.236	65.068	41.720	1.00 26.38
ATOM	9520	CB	ILE	D	778	-15.232	63.973	42.156	1.00 29.19
ATOM	9521	CG2	ILE	D	778	-14.572	64.340	43.488	1.00 29.19
ATOM	9522	CG1	ILE	D	778	-15.972	62.635	42.295	1.00 29.19
ATOM	9523	CD1	ILE	D	778	-15.076	61.461	42.655	1.00 29.19
ATOM	9524	C	ILE	D	778	-15.629	66.462	41.868	1.00 26.38
ATOM	9525	O	ILE	D	778	-15.863	67.136	42.870	1.00 26.38
ATOM	9526	N	ALA	D	779	-14.864	66.903	40.875	1.00 25.73
ATOM	9527	CA	ALA	D	779	-14.277	68.239	40.931	1.00 25.73
ATOM	9528	CB	ALA	D	779	-13.503	68.531	39.654	1.00 46.30
ATOM	9529	C	ALA	D	779	-15.414	69.246	41.094	1.00 25.73
ATOM	9530	O	ALA	D	779	-15.225	70.320	41.654	1.00 25.73
ATOM	9531	N	GLU	D	780	-16.602	68.883	40.614	1.00 27.04
ATOM	9532	CA	GLU	D	780	-17.771	69.755	40.716	1.00 27.04
ATOM	9533	CB	GLU	D	780	-18.875	69.265	39.779	1.00 78.40
ATOM	9534	CG	GLU	D	780	-19.854	70.345	39.365	1.00 78.40
ATOM	9535	CD	GLU	D	780	-20.903	69.835	38.398	1.00 78.40
ATOM	9536	OE1	GLU	D	780	-20.521	69.201	37.390	1.00 78.40
ATOM	9537	OE2	GLU	D	780	-22.107	70.072	38.641	1.00 78.40
ATOM	9538	C	GLU	D	780	-18.281	69.792	42.166	1.00 27.04
ATOM	9539	O	GLU	D	780	-18.837	70.797	42.618	1.00 27.04
ATOM	9540	N	LEU	D	781	-18.092	68.690	42.888	1.00 23.12
ATOM	9541	CA	LEU	D	781	-18.498	68.607	44.290	1.00 23.12
ATOM	9542	CB	LEU	D	781	-18.444	67.151	44.773	1.00 23.07
ATOM	9543	CG	LEU	D	781	-19.457	66.167	44.162	1.00 23.07
ATOM	9544	CD1	LEU	D	781	-19.151	64.739	44.633	1.00 23.07
ATOM	9545	CD2	LEU	D	781	-20.876	66.568	44.571	1.00 23.07
ATOM	9546	C	LEU	D	781	-17.537	69.475	45.120	1.00 23.12
ATOM	9547	O	LEU	D	781	-17.941	70.179	46.047	1.00 23.12
ATOM	9548	N	VAL	D	782	-16.262	69.420	44.769	1.00 17.62
ATOM	9549	CA	VAL	D	782	-15.243	70.199	45.453	1.00 17.62
ATOM	9550	CB	VAL	D	782	-13.843	69.866	44.895	1.00 19.24
ATOM	9551	CG1	VAL	D	782	-12.793	70.763	45.517	1.00 19.24
ATOM	9552	CG2	VAL	D	782	-13.525	68.422	45.186	1.00 19.24
ATOM	9553	C	VAL	D	782	-15.520	71.698	45.313	1.00 17.62
ATOM	9554	O	VAL	D	782	-15.438	72.440	46.289	1.00 17.62
ATOM	9555	N	ALA	D	783	-15.849	72.140	44.102	1.00 23.62
ATOM	9556	CA	ALA	D	783	-16.148	73.548	43.873	1.00 23.62

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ATOM   9557  CB  ALA D 783     -16.306  73.816  42.372  1.00  6.82
ATOM   9558  C   ALA D 783     -17.429  73.938  44.628  1.00 23.62
ATOM   9559  O   ALA D 783     -17.491  74.988  45.258  1.00 23.62
ATOM   9560  N   THR D 784     -18.450  73.088  44.570  1.00 25.08
ATOM   9561  CA  THR D 784     -19.698  73.368  45.263  1.00 25.08
ATOM   9562  CB  THR D 784     -20.695  72.221  45.045  1.00 19.94
ATOM   9563  OG1 THR D 784     -21.070  72.197  43.664  1.00 19.94
ATOM   9564  CG2 THR D 784     -21.933  72.395  45.902  1.00 19.94
ATOM   9565  C   THR D 784     -19.472  73.585  46.763  1.00 25.08
ATOM   9566  O   THR D 784     -20.034  74.512  47.354  1.00 25.08
ATOM   9567  N   GLU D 785     -18.652  72.737  47.380  1.00 16.32
ATOM   9568  CA  GLU D 785     -18.359  72.872  48.815  1.00 16.32
ATOM   9569  CB  GLU D 785     -17.547  71.659  49.312  1.00 20.00
ATOM   9570  CG  GLU D 785     -17.129  71.724  50.796  1.00 20.00
ATOM   9571  CD  GLU D 785     -16.666  70.372  51.362  1.00 20.00
ATOM   9572  OE1 GLU D 785     -15.901  70.367  52.350  1.00 20.00
ATOM   9573  OE2 GLU D 785     -17.069  69.318  50.836  1.00 20.00
ATOM   9574  C   GLU D 785     -17.580  74.184  49.053  1.00 16.32
ATOM   9575  O   GLU D 785     -17.797  74.880  50.045  1.00 16.32
ATOM   9576  N   PHE D 786     -16.687  74.519  48.125  1.00 17.55
ATOM   9577  CA  PHE D 786     -15.906  75.745  48.235  1.00 17.55
ATOM   9578  CB  PHE D 786     -14.799  75.779  47.171  1.00 24.43
ATOM   9579  CG  PHE D 786     -13.639  74.857  47.460  1.00 24.43
ATOM   9580  CD1 PHE D 786     -13.409  74.381  48.752  1.00 24.43
ATOM   9581  CD2 PHE D 786     -12.746  74.507  46.445  1.00 24.43
ATOM   9582  CE1 PHE D 786     -12.306  73.572  49.037  1.00 24.43
ATOM   9583  CE2 PHE D 786     -11.635  73.698  46.714  1.00 24.43
ATOM   9584  CZ  PHE D 786     -11.412  73.229  48.017  1.00 24.43
ATOM   9585  C   PHE D 786     -16.799  76.980  48.086  1.00 17.55
ATOM   9586  O   PHE D 786     -16.695  77.920  48.870  1.00 17.55
ATOM   9587  N   PHE D 787     -17.673  76.970  47.084  1.00 21.52
ATOM   9588  CA  PHE D 787     -18.583  78.085  46.844  1.00 21.52
ATOM   9589  CB  PHE D 787     -19.342  77.906  45.520  1.00 17.45
ATOM   9590  CG  PHE D 787     -18.458  77.823  44.310  1.00 17.45
ATOM   9591  CD1 PHE D 787     -17.196  78.402  44.308  1.00 17.45
ATOM   9592  CD2 PHE D 787     -18.902  77.189  43.157  1.00 17.45
ATOM   9593  CE1 PHE D 787     -16.386  78.354  43.171  1.00 17.45
ATOM   9594  CE2 PHE D 787     -18.098  77.134  42.012  1.00 17.45
ATOM   9595  CZ  PHE D 787     -16.838  77.720  42.021  1.00 17.45
ATOM   9596  C   PHE D 787     -19.608  78.252  47.962  1.00 21.52
ATOM   9597  O   PHE D 787     -20.013  79.374  48.269  1.00 21.52
ATOM   9598  N   ASP D 788     -20.048  77.139  48.553  1.00 23.55
ATOM   9599  CA  ASP D 788     -21.032  77.203  49.636  1.00 23.55
ATOM   9600  CB  ASP D 788     -21.431  75.798  50.109  1.00 35.23
ATOM   9601  CG  ASP D 788     -22.355  75.075  49.126  1.00 35.23
ATOM   9602  OD1 ASP D 788     -22.659  73.888  49.371  1.00 35.23
ATOM   9603  OD2 ASP D 788     -22.786  75.681  48.116  1.00 35.23
ATOM   9604  C   ASP D 788     -20.412  77.969  50.788  1.00 23.55
ATOM   9605  O   ASP D 788     -21.060  78.808  51.411  1.00 23.55
ATOM   9606  N   GLN D 789     -19.143  77.686  51.061  1.00 23.95
ATOM   9607  CA  GLN D 789     -18.445  78.360  52.142  1.00 23.95
ATOM   9608  CB  GLN D 789     -17.043  77.786  52.339  1.00 23.90
ATOM   9609  CG  GLN D 789     -16.225  78.641  53.296  1.00 23.90
ATOM   9610  CD  GLN D 789     -15.016  77.931  53.870  1.00 23.90
ATOM   9611  OE1 GLN D 789     -14.189  78.555  54.537  1.00 23.90
ATOM   9612  NE2 GLN D 789     -14.911  76.632  53.628  1.00 23.90
ATOM   9613  C   GLN D 789     -18.337  79.846  51.855  1.00 23.95
ATOM   9614  O   GLN D 789     -18.560  80.672  52.729  1.00 23.95
ATOM   9615  N   GLY D 790     -17.976  80.186  50.626  1.00 24.84
ATOM   9616  CA  GLY D 790     -17.864  81.587  50.283  1.00 24.84
ATOM   9617  C   GLY D 790     -19.211  82.273  50.419  1.00 24.84
ATOM   9618  O   GLY D 790     -19.293  83.412  50.877  1.00 24.84
ATOM   9619  N   ASP D 791     -20.273  81.577  50.030  1.00 35.94
ATOM   9620  CA  ASP D 791     -21.603  82.155  50.104  1.00 35.94
ATOM   9621  CB  ASP D 791     -22.627  81.248  49.423  1.00 40.31
ATOM   9622  CG  ASP D 791     -22.454  81.203  47.921  1.00 40.31
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ATOM   9623  OD1 ASP D 791     -21.805  82.114  47.368  1.00 40.31
ATOM   9624  OD2 ASP D 791     -22.975  80.262  47.289  1.00 40.31
ATOM   9625  C   ASP D 791     -22.061  82.463  51.519  1.00 35.94
ATOM   9626  O   ASP D 791     -22.570  83.556  51.776  1.00 35.94
ATOM   9627  N   ARG D 792     -21.882  81.524  52.446  1.00 30.43
ATOM   9628  CA  ARG D 792     -22.325  81.782  53.814  1.00 30.43
ATOM   9629  CB  ARG D 792     -22.506  80.476  54.603  1.00 43.41
ATOM   9630  CG  ARG D 792     -21.238  79.713  54.905  1.00 43.41
ATOM   9631  CD  ARG D 792     -21.464  78.681  56.016  1.00 43.41
ATOM   9632  NE  ARG D 792     -20.238  77.945  56.323  1.00 43.41
ATOM   9633  CZ  ARG D 792     -19.712  76.999  55.546  1.00 43.41
ATOM   9634  NH1 ARG D 792     -20.304  76.656  54.404  1.00 43.41
ATOM   9635  NH2 ARG D 792     -18.584  76.397  55.905  1.00 43.41
ATOM   9636  C   ARG D 792     -21.369  82.714  54.547  1.00 30.43
ATOM   9637  O   ARG D 792     -21.787  83.480  55.415  1.00 30.43
ATOM   9638  N   GLU D 793     -20.090  82.668  54.187  1.00 30.49
ATOM   9639  CA  GLU D 793     -19.112  83.537  54.831  1.00 30.49
ATOM   9640  CB  GLU D 793     -17.700  83.093  54.475  1.00 39.28
ATOM   9641  CG  GLU D 793     -16.830  82.891  55.690  1.00 39.28
ATOM   9642  CD  GLU D 793     -15.614  82.032  55.415  1.00 39.28
ATOM   9643  OE1 GLU D 793     -14.849  82.347  54.472  1.00 39.28
ATOM   9644  OE2 GLU D 793     -15.417  81.043  56.154  1.00 39.28
ATOM   9645  C   GLU D 793     -19.347  84.990  54.407  1.00 30.49
ATOM   9646  O   GLU D 793     -18.960  85.925  55.107  1.00 30.49
ATOM   9647  N   ARG D 794     -19.990  85.170  53.258  1.00 32.33
ATOM   9648  CA  ARG D 794     -20.302  86.501  52.750  1.00 32.33
ATOM   9649  CB  ARG D 794     -20.791  86.411  51.303  1.00 42.88
ATOM   9650  CG  ARG D 794     -21.533  87.639  50.803  1.00 42.88
ATOM   9651  CD  ARG D 794     -21.946  87.441  49.352  1.00 42.88
ATOM   9652  NE  ARG D 794     -20.779  87.257  48.494  1.00 42.88
ATOM   9653  CZ  ARG D 794     -20.789  86.600  47.340  1.00 42.88
ATOM   9654  NH1 ARG D 794     -21.912  86.054  46.892  1.00 42.88
ATOM   9655  NH2 ARG D 794     -19.674  86.485  46.632  1.00 42.88
ATOM   9656  C   ARG D 794     -21.396  87.094  53.627  1.00 32.33
ATOM   9657  O   ARG D 794     -21.324  88.250  54.049  1.00 32.33
ATOM   9658  N   LYS D 795     -22.404  86.274  53.899  1.00 40.07
ATOM   9659  CA  LYS D 795     -23.542  86.662  54.713  1.00 40.07
ATOM   9660  CB  LYS D 795     -24.669  85.635  54.551  1.00 58.74
ATOM   9661  CG  LYS D 795     -25.232  85.521  53.139  1.00 58.74
ATOM   9662  CD  LYS D 795     -26.031  84.226  52.937  1.00 58.74
ATOM   9663  CE  LYS D 795     -27.166  84.082  53.940  1.00 58.74
ATOM   9664  NZ  LYS D 795     -28.163  85.184  53.841  1.00 58.74
ATOM   9665  C   LYS D 795     -23.169  86.755  56.183  1.00 40.07
ATOM   9666  O   LYS D 795     -23.393  87.773  56.829  1.00 40.07
ATOM   9667  N   GLU D 796     -22.592  85.683  56.706  1.00 41.09
ATOM   9668  CA  GLU D 796     -22.231  85.623  58.114  1.00 41.09
ATOM   9669  CB  GLU D 796     -21.805  84.200  58.489  1.00 60.61
ATOM   9670  CG  GLU D 796     -22.866  83.141  58.248  1.00 60.61
ATOM   9671  CD  GLU D 796     -22.435  81.761  58.720  1.00 60.61
ATOM   9672  OE1 GLU D 796     -23.178  80.788  58.463  1.00 60.61
ATOM   9673  OE2 GLU D 796     -21.358  81.648  59.350  1.00 60.61
ATOM   9674  C   GLU D 796     -21.159  86.593  58.575  1.00 41.09
ATOM   9675  O   GLU D 796     -21.442  87.516  59.330  1.00 41.09
ATOM   9676  N   LEU D 797     -19.927  86.375  58.130  1.00 48.64
ATOM   9677  CA  LEU D 797     -18.805  87.213  58.539  1.00 48.64
ATOM   9678  CB  LEU D 797     -17.499  86.436  58.390  1.00 48.57
ATOM   9679  CG  LEU D 797     -17.448  85.052  59.028  1.00 48.57
ATOM   9680  CD1 LEU D 797     -16.067  84.457  58.806  1.00 48.57
ATOM   9681  CD2 LEU D 797     -17.764  85.152  60.520  1.00 48.57
ATOM   9682  C   LEU D 797     -18.678  88.529  57.790  1.00 48.64
ATOM   9683  O   LEU D 797     -17.828  89.351  58.123  1.00 48.64
ATOM   9684  N   ASN D 798     -19.509  88.735  56.779  1.00 45.40
ATOM   9685  CA  ASN D 798     -19.439  89.965  56.004  1.00 45.40
ATOM   9686  CB  ASN D 798     -19.700  91.181  56.894  1.00 45.17
ATOM   9687  CG  ASN D 798     -21.141  91.294  57.306  1.00 45.17
ATOM   9688  OD1 ASN D 798     -22.032  91.400  56.460  1.00 45.17
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ATOM	9689	ND2	ASN	D	798	-21.386	91.273	58.614	1.00	45.17
ATOM	9690	C	ASN	D	798	-18.088	90.141	55.329	1.00	45.40
ATOM	9691	O	ASN	D	798	-17.340	91.063	55.658	1.00	45.40
ATOM	9692	N	ILE	D	799	-17.769	89.238	54.407	1.00	42.11
ATOM	9693	CA	ILE	D	799	-16.525	89.314	53.645	1.00	42.11
ATOM	9694	CB	ILE	D	799	-15.318	88.706	54.392	1.00	29.95
ATOM	9695	CG2	ILE	D	799	-15.191	89.326	55.773	1.00	29.95
ATOM	9696	CG1	ILE	D	799	-15.463	87.188	54.490	1.00	29.95
ATOM	9697	CD1	ILE	D	799	-14.273	86.513	55.145	1.00	29.95
ATOM	9698	C	ILE	D	799	-16.675	88.572	52.323	1.00	42.11
ATOM	9699	O	ILE	D	799	-17.271	87.494	52.267	1.00	42.11
ATOM	9700	N	GLU	D	800	-16.146	89.164	51.259	1.00	33.14
ATOM	9701	CA	GLU	D	800	-16.205	88.549	49.949	1.00	33.14
ATOM	9702	CB	GLU	D	800	-15.935	89.588	48.869	1.00	33.00
ATOM	9703	CG	GLU	D	800	-17.073	90.586	48.728	1.00	33.00
ATOM	9704	CD	GLU	D	800	-18.399	89.923	48.375	1.00	33.00
ATOM	9705	OE1	GLU	D	800	-18.511	89.349	47.266	1.00	33.00
ATOM	9706	OE2	GLU	D	800	-19.330	89.973	49.205	1.00	33.00
ATOM	9707	C	GLU	D	800	-15.177	87.430	49.924	1.00	33.14
ATOM	9708	O	GLU	D	800	-14.197	87.461	50.662	1.00	33.14
ATOM	9709	N	PRO	D	801	-15.386	86.427	49.067	1.00	23.38
ATOM	9710	CD	PRO	D	801	-16.547	86.259	48.174	1.00	23.06
ATOM	9711	CA	PRO	D	801	-14.484	85.279	48.959	1.00	23.38
ATOM	9712	CB	PRO	D	801	-15.423	84.175	48.538	1.00	23.06
ATOM	9713	CG	PRO	D	801	-16.259	84.910	47.507	1.00	23.06
ATOM	9714	C	PRO	D	801	-13.327	85.380	47.993	1.00	23.38
ATOM	9715	O	PRO	D	801	-13.347	86.159	47.049	1.00	23.38
ATOM	9716	N	THR	D	802	-12.319	84.551	48.235	1.00	23.66
ATOM	9717	CA	THR	D	802	-11.172	84.491	47.344	1.00	23.66
ATOM	9718	CB	THR	D	802	-10.028	83.682	47.981	1.00	54.74
ATOM	9719	OG1	THR	D	802	-8.932	83.607	47.063	1.00	54.74
ATOM	9720	CG2	THR	D	802	-10.496	82.285	48.339	1.00	54.74
ATOM	9721	C	THR	D	802	-11.710	83.768	46.095	1.00	23.66
ATOM	9722	O	THR	D	802	-12.768	83.153	46.153	1.00	23.66
ATOM	9723	N	ASP	D	803	-11.011	83.856	44.972	1.00	22.45
ATOM	9724	CA	ASP	D	803	-11.483	83.205	43.749	1.00	22.45
ATOM	9725	CB	ASP	D	803	-10.394	83.255	42.672	1.00	53.79
ATOM	9726	CG	ASP	D	803	-10.093	84.674	42.215	1.00	53.79
ATOM	9727	OD1	ASP	D	803	-11.050	85.395	41.876	1.00	53.79
ATOM	9728	OD2	ASP	D	803	-8.909	85.071	42.190	1.00	53.79
ATOM	9729	C	ASP	D	803	-11.887	81.758	44.031	1.00	22.45
ATOM	9730	O	ASP	D	803	-12.943	81.298	43.597	1.00	22.45
ATOM	9731	N	LEU	D	804	-11.034	81.071	44.791	1.00	28.35
ATOM	9732	CA	LEU	D	804	-11.219	79.678	45.195	1.00	28.35
ATOM	9733	CB	LEU	D	804	-10.210	79.353	46.311	1.00	27.92
ATOM	9734	CG	LEU	D	804	-9.923	77.964	46.900	1.00	27.92
ATOM	9735	CD1	LEU	D	804	-10.994	77.562	47.875	1.00	27.92
ATOM	9736	CD2	LEU	D	804	-9.806	76.954	45.789	1.00	27.92
ATOM	9737	C	LEU	D	804	-12.650	79.407	45.661	1.00	28.35
ATOM	9738	O	LEU	D	804	-13.260	78.412	45.265	1.00	28.35
ATOM	9739	N	MET	D	805	-13.197	80.311	46.467	1.00	23.76
ATOM	9740	CA	MET	D	805	-14.548	80.137	46.988	1.00	23.76
ATOM	9741	CB	MET	D	805	-14.532	80.247	48.518	1.00	35.15
ATOM	9742	CG	MET	D	805	-13.441	79.411	49.172	1.00	35.15
ATOM	9743	SD	MET	D	805	-13.299	79.590	50.964	1.00	35.15
ATOM	9744	CE	MET	D	805	-12.891	77.917	51.396	1.00	35.15
ATOM	9745	C	MET	D	805	-15.557	81.124	46.405	1.00	23.76
ATOM	9746	O	MET	D	805	-16.587	81.397	47.020	1.00	23.76
ATOM	9747	N	ASN	D	806	-15.273	81.640	45.213	1.00	26.44
ATOM	9748	CA	ASN	D	806	-16.169	82.587	44.550	1.00	26.44
ATOM	9749	CB	ASN	D	806	-15.363	83.744	43.958	1.00	23.86
ATOM	9750	CG	ASN	D	806	-16.227	84.950	43.633	1.00	23.86
ATOM	9751	OD1	ASN	D	806	-17.403	84.819	43.276	1.00	23.86
ATOM	9752	ND2	ASN	D	806	-15.641	86.132	43.744	1.00	23.86
ATOM	9753	C	ASN	D	806	-16.955	81.908	43.424	1.00	26.44
ATOM	9754	O	ASN	D	806	-16.418	81.670	42.341	1.00	26.44

ATOM	9755	N	ARG	D	807	-18.225	81.606	43.667	1.00 29.41
ATOM	9756	CA	ARG	D	807	-19.049	80.960	42.653	1.00 29.41
ATOM	9757	CB	ARG	D	807	-20.490	80.838	43.154	1.00 42.77
ATOM	9758	CG	ARG	D	807	-21.402	80.003	42.267	1.00 42.77
ATOM	9759	CD	ARG	D	807	-22.845	80.048	42.781	1.00 42.77
ATOM	9760	NE	ARG	D	807	-22.986	79.578	44.163	1.00 42.77
ATOM	9761	CZ	ARG	D	807	-22.876	78.307	44.542	1.00 42.77
ATOM	9762	NH1	ARG	D	807	-22.620	77.367	43.641	1.00 42.77
ATOM	9763	NH2	ARG	D	807	-23.029	77.973	45.819	1.00 42.77
ATOM	9764	C	ARG	D	807	-19.029	81.726	41.321	1.00 29.41
ATOM	9765	O	ARG	D	807	-19.315	81.161	40.267	1.00 29.41
ATOM	9766	N	GLU	D	808	-18.684	83.008	41.363	1.00 38.05
ATOM	9767	CA	GLU	D	808	-18.642	83.819	40.145	1.00 38.05
ATOM	9768	CB	GLU	D	808	-18.792	85.300	40.503	1.00 79.67
ATOM	9769	CG	GLU	D	808	-20.114	85.642	41.157	1.00 79.67
ATOM	9770	CD	GLU	D	808	-21.287	85.402	40.234	1.00 79.67
ATOM	9771	OE1	GLU	D	808	-21.324	86.028	39.154	1.00 79.67
ATOM	9772	OE2	GLU	D	808	-22.169	84.589	40.585	1.00 79.67
ATOM	9773	C	GLU	D	808	-17.367	83.628	39.329	1.00 38.05
ATOM	9774	O	GLU	D	808	-17.208	84.230	38.266	1.00 38.05
ATOM	9775	N	LYS	D	809	-16.456	82.802	39.835	1.00 27.48
ATOM	9776	CA	LYS	D	809	-15.192	82.535	39.156	1.00 27.48
ATOM	9777	CB	LYS	D	809	-14.014	82.903	40.061	1.00 52.51
ATOM	9778	CG	LYS	D	809	-13.497	84.325	39.885	1.00 52.51
ATOM	9779	CD	LYS	D	809	-14.526	85.375	40.258	1.00 52.51
ATOM	9780	CE	LYS	D	809	-14.034	86.780	39.903	1.00 52.51
ATOM	9781	NZ	LYS	D	809	-12.757	87.144	40.592	1.00 52.51
ATOM	9782	C	LYS	D	809	-15.066	81.074	38.731	1.00 27.48
ATOM	9783	O	LYS	D	809	-13.960	80.541	38.654	1.00 27.48
ATOM	9784	N	LYS	D	810	-16.197	80.434	38.454	1.00 35.69
ATOM	9785	CA	LYS	D	810	-16.208	79.035	38.027	1.00 35.69
ATOM	9786	CB	LYS	D	810	-17.621	78.616	37.596	1.00 50.40
ATOM	9787	CG	LYS	D	810	-18.700	78.844	38.646	1.00 50.40
ATOM	9788	CD	LYS	D	810	-20.105	78.704	38.057	1.00 50.40
ATOM	9789	CE	LYS	D	810	-20.507	77.249	37.851	1.00 50.40
ATOM	9790	NZ	LYS	D	810	-20.851	76.581	39.141	1.00 50.40
ATOM	9791	C	LYS	D	810	-15.260	78.834	36.851	1.00 35.69
ATOM	9792	O	LYS	D	810	-14.726	77.746	36.647	1.00 35.69
ATOM	9793	N	ASN	D	811	-15.057	79.906	36.094	1.00 29.86
ATOM	9794	CA	ASN	D	811	-14.217	79.915	34.897	1.00 29.86
ATOM	9795	CB	ASN	D	811	-14.465	81.216	34.134	1.00 52.66
ATOM	9796	CG	ASN	D	811	-14.233	82.444	34.997	1.00 52.66
ATOM	9797	OD1	ASN	D	811	-13.103	82.910	35.139	1.00 52.66
ATOM	9798	ND2	ASN	D	811	-15.304	82.962	35.596	1.00 52.66
ATOM	9799	C	ASN	D	811	-12.725	79.746	35.158	1.00 29.86
ATOM	9800	O	ASN	D	811	-11.953	79.491	34.242	1.00 29.86
ATOM	9801	N	LYS	D	812	-12.310	79.899	36.404	1.00 22.02
ATOM	9802	CA	LYS	D	812	-10.901	79.734	36.723	1.00 22.02
ATOM	9803	CB	LYS	D	812	-10.475	80.771	37.765	1.00 70.69
ATOM	9804	CG	LYS	D	812	-10.471	82.197	37.244	1.00 70.69
ATOM	9805	CD	LYS	D	812	-10.068	83.183	38.328	1.00 70.69
ATOM	9806	CE	LYS	D	812	-9.937	84.598	37.773	1.00 70.69
ATOM	9807	NZ	LYS	D	812	-11.184	85.076	37.102	1.00 70.69
ATOM	9808	C	LYS	D	812	-10.633	78.321	37.247	1.00 22.02
ATOM	9809	O	LYS	D	812	-9.487	77.938	37.496	1.00 22.02
ATOM	9810	N	ILE	D	813	-11.687	77.538	37.407	1.00 27.78
ATOM	9811	CA	ILE	D	813	-11.514	76.189	37.923	1.00 27.78
ATOM	9812	CB	ILE	D	813	-12.877	75.458	38.024	1.00 25.11
ATOM	9813	CG2	ILE	D	813	-12.670	73.958	38.267	1.00 25.11
ATOM	9814	CG1	ILE	D	813	-13.703	76.084	39.158	1.00 25.11
ATOM	9815	CD1	ILE	D	813	-15.078	75.477	39.334	1.00 25.11
ATOM	9816	C	ILE	D	813	-10.515	75.354	37.127	1.00 27.78
ATOM	9817	O	ILE	D	813	-9.591	74.782	37.703	1.00 27.78
ATOM	9818	N	PRO	D	814	-10.663	75.289	35.793	1.00 25.11
ATOM	9819	CD	PRO	D	814	-11.631	75.925	34.885	1.00 24.60
ATOM	9820	CA	PRO	D	814	-9.696	74.479	35.045	1.00 25.11

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ATOM   9821  CB  PRO D 814     -10.048  74.773  33.588  1.00 24.60
ATOM   9822  CG  PRO D 814     -11.538  75.045  33.653  1.00 24.60
ATOM   9823  C   PRO D 814      -8.263  74.864  35.387  1.00 25.11
ATOM   9824  O   PRO D 814      -7.423  74.006  35.684  1.00 25.11
ATOM   9825  N   SER D 815      -7.997  76.164  35.361  1.00 25.98
ATOM   9826  CA  SER D 815      -6.668  76.677  35.658  1.00 25.98
ATOM   9827  CB  SER D 815      -6.657  78.201  35.529  1.00 42.85
ATOM   9828  OG  SER D 815      -5.376  78.720  35.845  1.00 42.85
ATOM   9829  C   SER D 815      -6.189  76.276  37.050  1.00 25.98
ATOM   9830  O   SER D 815      -5.022  75.962  37.245  1.00 25.98
ATOM   9831  N   MET D 816      -7.092  76.284  38.020  1.00 25.94
ATOM   9832  CA  MET D 816      -6.718  75.923  39.377  1.00 25.94
ATOM   9833  CB  MET D 816      -7.807  76.363  40.356  1.00 51.57
ATOM   9834  CG  MET D 816      -8.050  77.862  40.339  1.00 51.57
ATOM   9835  SD  MET D 816      -9.160  78.429  41.640  1.00 51.57
ATOM   9836  CE  MET D 816      -7.966  78.742  42.954  1.00 51.57
ATOM   9837  C   MET D 816      -6.452  74.423  39.518  1.00 25.94
ATOM   9838  O   MET D 816      -5.563  74.018  40.264  1.00 25.94
ATOM   9839  N   GLN D 817      -7.216  73.606  38.797  1.00 25.56
ATOM   9840  CA  GLN D 817      -7.037  72.161  38.863  1.00 25.56
ATOM   9841  CB  GLN D 817      -8.102  71.459  38.028  1.00 20.79
ATOM   9842  CG  GLN D 817      -9.468  71.430  38.681  1.00 20.79
ATOM   9843  CD  GLN D 817      -9.449  70.696  40.009  1.00 20.79
ATOM   9844  OE1 GLN D 817      -8.986  71.228  41.015  1.00 20.79
ATOM   9845  NE2 GLN D 817      -9.944  69.465  40.013  1.00 20.79
ATOM   9846  C   GLN D 817      -5.650  71.778  38.366  1.00 25.56
ATOM   9847  O   GLN D 817      -5.052  70.811  38.833  1.00 25.56
ATOM   9848  N   VAL D 818      -5.148  72.545  37.406  1.00 26.67
ATOM   9849  CA  VAL D 818      -3.825  72.306  36.858  1.00 26.67
ATOM   9850  CB  VAL D 818      -3.611  73.113  35.553  1.00 22.69
ATOM   9851  CG1 VAL D 818      -2.154  73.073  35.136  1.00 22.69
ATOM   9852  CG2 VAL D 818      -4.479  72.534  34.448  1.00 22.69
ATOM   9853  C   VAL D 818      -2.793  72.721  37.893  1.00 26.67
ATOM   9854  O   VAL D 818      -1.783  72.047  38.069  1.00 26.67
ATOM   9855  N   GLY D 819      -3.054  73.830  38.587  1.00 22.79
ATOM   9856  CA  GLY D 819      -2.127  74.301  39.604  1.00 22.79
ATOM   9857  C   GLY D 819      -2.079  73.328  40.772  1.00 22.79
ATOM   9858  O   GLY D 819      -1.022  73.050  41.348  1.00 22.79
ATOM   9859  N   PHE D 820      -3.245  72.806  41.120  1.00 13.65
ATOM   9860  CA  PHE D 820      -3.369  71.848  42.208  1.00 13.65
ATOM   9861  CB  PHE D 820      -4.838  71.483  42.419  1.00 20.50
ATOM   9862  CG  PHE D 820      -5.055  70.380  43.417  1.00 20.50
ATOM   9863  CD1 PHE D 820      -4.547  70.478  44.707  1.00 20.50
ATOM   9864  CD2 PHE D 820      -5.794  69.253  43.077  1.00 20.50
ATOM   9865  CE1 PHE D 820      -4.773  69.472  45.648  1.00 20.50
ATOM   9866  CE2 PHE D 820      -6.027  68.236  44.013  1.00 20.50
ATOM   9867  CZ  PHE D 820      -5.515  68.350  45.300  1.00 20.50
ATOM   9868  C   PHE D 820      -2.557  70.591  41.888  1.00 13.65
ATOM   9869  O   PHE D 820      -1.818  70.094  42.719  1.00 13.65
ATOM   9870  N   ILE D 821      -2.707  70.092  40.669  1.00 27.14
ATOM   9871  CA  ILE D 821      -1.988  68.905  40.233  1.00 27.14
ATOM   9872  CB  ILE D 821      -2.426  68.503  38.811  1.00 20.42
ATOM   9873  CG2 ILE D 821      -1.440  67.506  38.219  1.00 20.42
ATOM   9874  CG1 ILE D 821      -3.859  67.957  38.853  1.00 20.42
ATOM   9875  CD1 ILE D 821      -4.473  67.670  37.481  1.00 20.42
ATOM   9876  C   ILE D 821      -0.483  69.131  40.248  1.00 27.14
ATOM   9877  O   ILE D 821       0.275  68.298  40.753  1.00 27.14
ATOM   9878  N   ASP D 822      -0.057  70.264  39.701  1.00 38.21
ATOM   9879  CA  ASP D 822       1.361  70.595  39.635  1.00 38.21
ATOM   9880  CB  ASP D 822       1.590  71.826  38.744  1.00 39.74
ATOM   9881  CG  ASP D 822       1.351  71.539  37.270  1.00 39.74
ATOM   9882  OD1 ASP D 822       1.527  70.373  36.853  1.00 39.74
ATOM   9883  OD2 ASP D 822       1.008  72.483  36.523  1.00 39.74
ATOM   9884  C   ASP D 822       2.009  70.845  40.990  1.00 38.21
ATOM   9885  O   ASP D 822       3.125  70.393  41.245  1.00 38.21
ATOM   9886  N   ALA D 823       1.308  71.553  41.865  1.00 25.29
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ATOM	9887	CA	ALA	D	823	1.857	71.890	43.175	1.00	25.29
ATOM	9888	CB	ALA	D	823	1.234	73.199	43.665	1.00	38.25
ATOM	9889	C	ALA	D	823	1.718	70.836	44.263	1.00	25.29
ATOM	9890	O	ALA	D	823	2.483	70.831	45.218	1.00	25.29
ATOM	9891	N	ILE	D	824	0.752	69.940	44.125	1.00	35.96
ATOM	9892	CA	ILE	D	824	0.523	68.951	45.172	1.00	35.96
ATOM	9893	CB	ILE	D	824	-0.838	69.228	45.877	1.00	28.48
ATOM	9894	CG2	ILE	D	824	-1.137	68.153	46.911	1.00	28.48
ATOM	9895	CG1	ILE	D	824	-0.831	70.616	46.516	1.00	28.48
ATOM	9896	CD1	ILE	D	824	0.251	70.798	47.553	1.00	28.48
ATOM	9897	C	ILE	D	824	0.509	67.498	44.728	1.00	35.96
ATOM	9898	O	ILE	D	824	1.233	66.663	45.262	1.00	35.96
ATOM	9899	N	CYS	D	825	-0.317	67.221	43.729	1.00	25.31
ATOM	9900	CA	CYS	D	825	-0.548	65.877	43.240	1.00	25.31
ATOM	9901	CB	CYS	D	825	-1.877	65.885	42.490	1.00	22.32
ATOM	9902	SG	CYS	D	825	-3.225	66.450	43.516	1.00	22.32
ATOM	9903	C	CYS	D	825	0.454	65.067	42.425	1.00	25.31
ATOM	9904	O	CYS	D	825	0.948	64.025	42.887	1.00	25.31
ATOM	9905	N	LEU	D	826	0.715	65.507	41.200	1.00	34.29
ATOM	9906	CA	LEU	D	826	1.599	64.758	40.324	1.00	34.29
ATOM	9907	CB	LEU	D	826	2.028	65.612	39.118	1.00	34.81
ATOM	9908	CG	LEU	D	826	2.432	64.781	37.888	1.00	34.81
ATOM	9909	CD1	LEU	D	826	1.324	63.789	37.565	1.00	34.81
ATOM	9910	CD2	LEU	D	826	2.713	65.685	36.690	1.00	34.81
ATOM	9911	C	LEU	D	826	2.810	64.209	41.061	1.00	34.29
ATOM	9912	O	LEU	D	826	3.018	62.996	41.090	1.00	34.29
ATOM	9913	N	GLN	D	827	3.588	65.077	41.692	1.00	36.63
ATOM	9914	CA	GLN	D	827	4.769	64.602	42.390	1.00	36.63
ATOM	9915	CB	GLN	D	827	5.461	65.747	43.125	1.00	52.83
ATOM	9916	CG	GLN	D	827	6.859	65.366	43.566	1.00	52.83
ATOM	9917	CD	GLN	D	827	7.663	66.527	44.116	1.00	52.83
ATOM	9918	OE1	GLN	D	827	8.878	66.407	44.309	1.00	52.83
ATOM	9919	NE2	GLN	D	827	6.996	67.654	44.379	1.00	52.83
ATOM	9920	C	GLN	D	827	4.482	63.453	43.367	1.00	36.63
ATOM	9921	O	GLN	D	827	5.146	62.417	43.323	1.00	36.63
ATOM	9922	N	LEU	D	828	3.494	63.627	44.240	1.00	28.32
ATOM	9923	CA	LEU	D	828	3.163	62.584	45.200	1.00	28.32
ATOM	9924	CB	LEU	D	828	1.903	62.964	45.987	1.00	27.62
ATOM	9925	CG	LEU	D	828	1.369	61.916	46.962	1.00	27.62
ATOM	9926	CD1	LEU	D	828	2.393	61.664	48.075	1.00	27.62
ATOM	9927	CD2	LEU	D	828	0.048	62.387	47.546	1.00	27.62
ATOM	9928	C	LEU	D	828	2.963	61.232	44.517	1.00	28.32
ATOM	9929	O	LEU	D	828	3.555	60.240	44.927	1.00	28.32
ATOM	9930	N	TYR	D	829	2.143	61.192	43.473	1.00	30.11
ATOM	9931	CA	TYR	D	829	1.886	59.940	42.776	1.00	30.11
ATOM	9932	CB	TYR	D	829	0.725	60.110	41.805	1.00	28.55
ATOM	9933	CG	TYR	D	829	-0.583	60.325	42.529	1.00	28.55
ATOM	9934	CD1	TYR	D	829	-1.025	59.407	43.484	1.00	28.55
ATOM	9935	CE1	TYR	D	829	-2.204	59.612	44.186	1.00	28.55
ATOM	9936	CD2	TYR	D	829	-1.362	61.460	42.293	1.00	28.55
ATOM	9937	CE2	TYR	D	829	-2.541	61.677	42.992	1.00	28.55
ATOM	9938	CZ	TYR	D	829	-2.959	60.749	43.939	1.00	28.55
ATOM	9939	OH	TYR	D	829	-4.137	60.948	44.635	1.00	28.55
ATOM	9940	C	TYR	D	829	3.114	59.388	42.058	1.00	30.11
ATOM	9941	O	TYR	D	829	3.193	58.185	41.777	1.00	30.11
ATOM	9942	N	GLU	D	830	4.066	60.268	41.763	1.00	41.53
ATOM	9943	CA	GLU	D	830	5.305	59.861	41.119	1.00	41.53
ATOM	9944	CB	GLU	D	830	6.084	61.083	40.608	1.00	44.17
ATOM	9945	CG	GLU	D	830	5.644	61.570	39.236	1.00	44.17
ATOM	9946	CD	GLU	D	830	6.255	62.911	38.850	1.00	44.17
ATOM	9947	OE1	GLU	D	830	6.107	63.318	37.672	1.00	44.17
ATOM	9948	OE2	GLU	D	830	6.872	63.565	39.722	1.00	44.17
ATOM	9949	C	GLU	D	830	6.124	59.127	42.173	1.00	41.53
ATOM	9950	O	GLU	D	830	6.661	58.047	41.921	1.00	41.53
ATOM	9951	N	ALA	D	831	6.205	59.718	43.361	1.00	35.80
ATOM	9952	CA	ALA	D	831	6.955	59.118	44.453	1.00	35.80

ATOM	9953	CB	ALA	D	831	6.961	60.052	45.663	1.00	49.64
ATOM	9954	C	ALA	D	831	6.368	57.759	44.831	1.00	35.80
ATOM	9955	O	ALA	D	831	7.109	56.816	45.098	1.00	35.80
ATOM	9956	N	LEU	D	832	5.038	57.657	44.836	1.00	26.62
ATOM	9957	CA	LEU	D	832	4.367	56.408	45.194	1.00	26.62
ATOM	9958	CB	LEU	D	832	2.850	56.613	45.287	1.00	19.51
ATOM	9959	CG	LEU	D	832	2.069	55.381	45.747	1.00	19.51
ATOM	9960	CD1	LEU	D	832	2.631	54.892	47.068	1.00	19.51
ATOM	9961	CD2	LEU	D	832	0.598	55.723	45.911	1.00	19.51
ATOM	9962	C	LEU	D	832	4.665	55.299	44.196	1.00	26.62
ATOM	9963	O	LEU	D	832	4.641	54.121	44.544	1.00	26.62
ATOM	9964	N	THR	D	833	4.929	55.687	42.953	1.00	35.81
ATOM	9965	CA	THR	D	833	5.244	54.743	41.893	1.00	35.81
ATOM	9966	CB	THR	D	833	5.116	55.409	40.496	1.00	53.32
ATOM	9967	OG1	THR	D	833	3.736	55.689	40.225	1.00	53.32
ATOM	9968	CG2	THR	D	833	5.660	54.497	39.406	1.00	53.32
ATOM	9969	C	THR	D	833	6.668	54.237	42.099	1.00	35.81
ATOM	9970	O	THR	D	833	6.971	53.081	41.828	1.00	35.81
ATOM	9971	N	HIS	D	834	7.536	55.113	42.587	1.00	37.44
ATOM	9972	CA	HIS	D	834	8.922	54.752	42.856	1.00	37.44
ATOM	9973	CB	HIS	D	834	9.677	55.954	43.426	1.00	74.74
ATOM	9974	CG	HIS	D	834	11.053	55.628	43.919	1.00	74.74
ATOM	9975	CD2	HIS	D	834	11.509	55.343	45.162	1.00	74.74
ATOM	9976	ND1	HIS	D	834	12.145	55.545	43.082	1.00	74.74
ATOM	9977	CE1	HIS	D	834	13.214	55.225	43.789	1.00	74.74
ATOM	9978	NE2	HIS	D	834	12.855	55.095	45.054	1.00	74.74
ATOM	9979	C	HIS	D	834	8.935	53.616	43.879	1.00	37.44
ATOM	9980	O	HIS	D	834	9.582	52.590	43.671	1.00	37.44
ATOM	9981	N	VAL	D	835	8.202	53.808	44.976	1.00	38.81
ATOM	9982	CA	VAL	D	835	8.124	52.822	46.050	1.00	38.81
ATOM	9983	CB	VAL	D	835	7.349	53.384	47.265	1.00	35.40
ATOM	9984	CG1	VAL	D	835	7.310	52.360	48.389	1.00	35.40
ATOM	9985	CG2	VAL	D	835	8.005	54.672	47.744	1.00	35.40
ATOM	9986	C	VAL	D	835	7.452	51.537	45.589	1.00	38.81
ATOM	9987	O	VAL	D	835	7.839	50.445	46.001	1.00	38.81
ATOM	9988	N	SER	D	836	6.441	51.662	44.737	1.00	45.36
ATOM	9989	CA	SER	D	836	5.744	50.486	44.234	1.00	45.36
ATOM	9990	CB	SER	D	836	4.575	50.118	45.146	1.00	42.40
ATOM	9991	OG	SER	D	836	3.966	48.922	44.696	1.00	42.40
ATOM	9992	C	SER	D	836	5.236	50.716	42.823	1.00	45.36
ATOM	9993	O	SER	D	836	4.293	51.482	42.601	1.00	45.36
ATOM	9994	N	GLU	D	837	5.872	50.034	41.877	1.00	31.09
ATOM	9995	CA	GLU	D	837	5.535	50.145	40.465	1.00	31.09
ATOM	9996	CB	GLU	D	837	6.319	49.128	39.638	1.00	79.82
ATOM	9997	CG	GLU	D	837	7.799	49.378	39.524	1.00	79.82
ATOM	9998	CD	GLU	D	837	8.414	48.561	38.403	1.00	79.82
ATOM	9999	OE1	GLU	D	837	8.208	47.327	38.387	1.00	79.82
ATOM	10000	OE2	GLU	D	837	9.098	49.155	37.539	1.00	79.82
ATOM	10001	C	GLU	D	837	4.071	49.928	40.169	1.00	31.09
ATOM	10002	O	GLU	D	837	3.504	50.591	39.306	1.00	31.09
ATOM	10003	N	ASP	D	838	3.457	48.992	40.876	1.00	22.65
ATOM	10004	CA	ASP	D	838	2.066	48.677	40.611	1.00	22.65
ATOM	10005	CB	ASP	D	838	1.738	47.322	41.225	1.00	52.36
ATOM	10006	CG	ASP	D	838	2.535	46.201	40.578	1.00	52.36
ATOM	10007	OD1	ASP	D	838	2.129	45.728	39.495	1.00	52.36
ATOM	10008	OD2	ASP	D	838	3.582	45.816	41.142	1.00	52.36
ATOM	10009	C	ASP	D	838	1.069	49.749	41.017	1.00	22.65
ATOM	10010	O	ASP	D	838	-0.143	49.554	40.913	1.00	22.65
ATOM	10011	N	CYS	D	839	1.584	50.884	41.475	1.00	43.11
ATOM	10012	CA	CYS	D	839	0.727	52.010	41.820	1.00	43.11
ATOM	10013	CB	CYS	D	839	1.228	52.720	43.089	1.00	27.13
ATOM	10014	SG	CYS	D	839	0.801	51.870	44.676	1.00	27.13
ATOM	10015	C	CYS	D	839	0.768	52.964	40.613	1.00	43.11
ATOM	10016	O	CYS	D	839	0.477	54.156	40.736	1.00	43.11
ATOM	10017	N	PHE	D	840	1.120	52.419	39.446	1.00	28.84
ATOM	10018	CA	PHE	D	840	1.211	53.214	38.220	1.00	28.84

ATOM	10019	CB	PHE	D	840	1.858	52.401	37.063	1.00	30.88
ATOM	10020	CG	PHE	D	840	0.980	51.299	36.479	1.00	30.88
ATOM	10021	CD1	PHE	D	840	-0.061	51.599	35.595	1.00	30.88
ATOM	10022	CD2	PHE	D	840	1.205	49.963	36.804	1.00	30.88
ATOM	10023	CE1	PHE	D	840	-0.864	50.581	35.048	1.00	30.88
ATOM	10024	CE2	PHE	D	840	0.413	48.941	36.266	1.00	30.88
ATOM	10025	CZ	PHE	D	840	-0.624	49.250	35.387	1.00	30.88
ATOM	10026	C	PHE	D	840	-0.121	53.802	37.778	1.00	28.84
ATOM	10027	O	PHE	D	840	-0.172	54.954	37.365	1.00	28.84
ATOM	10028	N	PRO	D	841	-1.221	53.035	37.887	1.00	27.50
ATOM	10029	CD	PRO	D	841	-1.369	51.681	38.448	1.00	44.90
ATOM	10030	CA	PRO	D	841	-2.528	53.558	37.469	1.00	27.50
ATOM	10031	CB	PRO	D	841	-3.494	52.450	37.887	1.00	44.90
ATOM	10032	CG	PRO	D	841	-2.648	51.216	37.802	1.00	44.90
ATOM	10033	C	PRO	D	841	-2.913	54.915	38.069	1.00	27.50
ATOM	10034	O	PRO	D	841	-3.617	55.702	37.426	1.00	27.50
ATOM	10035	N	LEU	D	842	-2.461	55.188	39.292	1.00	24.22
ATOM	10036	CA	LEU	D	842	-2.782	56.454	39.947	1.00	24.22
ATOM	10037	CB	LEU	D	842	-2.416	56.424	41.443	1.00	15.41
ATOM	10038	CG	LEU	D	842	-3.221	55.437	42.304	1.00	15.41
ATOM	10039	CD1	LEU	D	842	-2.679	55.424	43.698	1.00	15.41
ATOM	10040	CD2	LEU	D	842	-4.684	55.833	42.299	1.00	15.41
ATOM	10041	C	LEU	D	842	-2.043	57.585	39.266	1.00	24.22
ATOM	10042	O	LEU	D	842	-2.652	58.574	38.874	1.00	24.22
ATOM	10043	N	LEU	D	843	-0.730	57.440	39.129	1.00	30.68
ATOM	10044	CA	LEU	D	843	0.076	58.468	38.485	1.00	30.68
ATOM	10045	CB	LEU	D	843	1.542	58.042	38.426	1.00	31.69
ATOM	10046	CG	LEU	D	843	2.556	59.175	38.218	1.00	31.69
ATOM	10047	CD1	LEU	D	843	3.970	58.616	38.177	1.00	31.69
ATOM	10048	CD2	LEU	D	843	2.263	59.897	36.940	1.00	31.69
ATOM	10049	C	LEU	D	843	-0.432	58.718	37.067	1.00	30.68
ATOM	10050	O	LEU	D	843	-0.604	59.865	36.646	1.00	30.68
ATOM	10051	N	ASP	D	844	-0.681	57.642	36.337	1.00	40.35
ATOM	10052	CA	ASP	D	844	-1.154	57.758	34.971	1.00	40.35
ATOM	10053	CB	ASP	D	844	-1.320	56.370	34.354	1.00	63.38
ATOM	10054	CG	ASP	D	844	-1.416	56.415	32.844	1.00	63.38
ATOM	10055	OD1	ASP	D	844	-0.451	56.888	32.199	1.00	63.38
ATOM	10056	OD2	ASP	D	844	-2.455	55.976	32.304	1.00	63.38
ATOM	10057	C	ASP	D	844	-2.480	58.502	34.944	1.00	40.35
ATOM	10058	O	ASP	D	844	-2.703	59.356	34.083	1.00	40.35
ATOM	10059	N	GLY	D	845	-3.358	58.167	35.888	1.00	23.29
ATOM	10060	CA	GLY	D	845	-4.656	58.812	35.966	1.00	23.29
ATOM	10061	C	GLY	D	845	-4.493	60.305	36.191	1.00	23.29
ATOM	10062	O	GLY	D	845	-5.209	61.118	35.605	1.00	23.29
ATOM	10063	N	CYS	D	846	-3.530	60.666	37.032	1.00	22.11
ATOM	10064	CA	CYS	D	846	-3.268	62.064	37.334	1.00	22.11
ATOM	10065	CB	CYS	D	846	-2.250	62.176	38.475	1.00	28.68
ATOM	10066	SG	CYS	D	846	-2.058	63.851	39.155	1.00	28.68
ATOM	10067	C	CYS	D	846	-2.760	62.817	36.097	1.00	22.11
ATOM	10068	O	CYS	D	846	-3.033	64.006	35.944	1.00	22.11
ATOM	10069	N	ARG	D	847	-2.041	62.131	35.210	1.00	25.97
ATOM	10070	CA	ARG	D	847	-1.518	62.791	34.010	1.00	25.97
ATOM	10071	CB	ARG	D	847	-0.398	61.956	33.366	1.00	36.59
ATOM	10072	CG	ARG	D	847	0.568	61.320	34.370	1.00	36.59
ATOM	10073	CD	ARG	D	847	2.035	61.728	34.186	1.00	36.59
ATOM	10074	NE	ARG	D	847	2.919	60.559	34.138	1.00	36.59
ATOM	10075	CZ	ARG	D	847	4.212	60.558	34.470	1.00	36.59
ATOM	10076	NH1	ARG	D	847	4.809	61.671	34.890	1.00	36.59
ATOM	10077	NH2	ARG	D	847	4.914	59.436	34.382	1.00	36.59
ATOM	10078	C	ARG	D	847	-2.653	63.018	33.013	1.00	25.97
ATOM	10079	O	ARG	D	847	-2.782	64.098	32.438	1.00	25.97
ATOM	10080	N	LYS	D	848	-3.493	62.010	32.825	1.00	25.75
ATOM	10081	CA	LYS	D	848	-4.610	62.145	31.901	1.00	25.75
ATOM	10082	CB	LYS	D	848	-5.423	60.847	31.880	1.00	52.91
ATOM	10083	CG	LYS	D	848	-4.681	59.707	31.178	1.00	52.91
ATOM	10084	CD	LYS	D	848	-5.364	58.357	31.338	1.00	52.91

ATOM	10085	CE	LYS	D	848	-4.762	57.318	30.389	1.00	52.91
ATOM	10086	NZ	LYS	D	848	-3.269	57.273	30.416	1.00	52.91
ATOM	10087	C	LYS	D	848	-5.494	63.352	32.248	1.00	25.75
ATOM	10088	O	LYS	D	848	-5.901	64.108	31.359	1.00	25.75
ATOM	10089	N	ASN	D	849	-5.769	63.543	33.538	1.00	32.37
ATOM	10090	CA	ASN	D	849	-6.597	64.660	33.988	1.00	32.37
ATOM	10091	CB	ASN	D	849	-7.070	64.434	35.418	1.00	19.06
ATOM	10092	CG	ASN	D	849	-8.098	63.341	35.514	1.00	19.06
ATOM	10093	OD1	ASN	D	849	-9.070	63.323	34.752	1.00	19.06
ATOM	10094	ND2	ASN	D	849	-7.903	62.421	36.456	1.00	19.06
ATOM	10095	C	ASN	D	849	-5.866	65.993	33.920	1.00	32.37
ATOM	10096	O	ASN	D	849	-6.484	67.043	33.737	1.00	32.37
ATOM	10097	N	ARG	D	850	-4.551	65.939	34.084	1.00	30.27
ATOM	10098	CA	ARG	D	850	-3.722	67.126	34.044	1.00	30.27
ATOM	10099	CB	ARG	D	850	-2.295	66.749	34.405	1.00	25.44
ATOM	10100	CG	ARG	D	850	-1.452	67.879	34.907	1.00	25.44
ATOM	10101	CD	ARG	D	850	-0.861	68.661	33.795	1.00	25.44
ATOM	10102	NE	ARG	D	850	0.064	69.667	34.297	1.00	25.44
ATOM	10103	CZ	ARG	D	850	0.757	70.481	33.507	1.00	25.44
ATOM	10104	NH1	ARG	D	850	0.623	70.390	32.194	1.00	25.44
ATOM	10105	NH2	ARG	D	850	1.562	71.393	34.024	1.00	25.44
ATOM	10106	C	ARG	D	850	-3.779	67.726	32.642	1.00	30.27
ATOM	10107	O	ARG	D	850	-3.664	68.940	32.474	1.00	30.27
ATOM	10108	N	GLN	D	851	-3.966	66.866	31.642	1.00	28.99
ATOM	10109	CA	GLN	D	851	-4.063	67.313	30.262	1.00	28.99
ATOM	10110	CB	GLN	D	851	-3.581	66.222	29.305	1.00	85.16
ATOM	10111	CG	GLN	D	851	-3.846	66.547	27.848	1.00	85.16
ATOM	10112	CD	GLN	D	851	-3.280	65.511	26.900	1.00	85.16
ATOM	10113	OE1	GLN	D	851	-2.074	65.486	26.630	1.00	85.16
ATOM	10114	NE2	GLN	D	851	-4.150	64.639	26.393	1.00	85.16
ATOM	10115	C	GLN	D	851	-5.509	67.683	29.940	1.00	28.99
ATOM	10116	O	GLN	D	851	-5.759	68.573	29.133	1.00	28.99
ATOM	10117	N	LYS	D	852	-6.462	66.997	30.561	1.00	25.82
ATOM	10118	CA	LYS	D	852	-7.859	67.315	30.330	1.00	25.82
ATOM	10119	CB	LYS	D	852	-8.766	66.317	31.049	1.00	59.38
ATOM	10120	CG	LYS	D	852	-8.972	65.028	30.285	1.00	59.38
ATOM	10121	CD	LYS	D	852	-9.700	65.299	28.977	1.00	59.38
ATOM	10122	CE	LYS	D	852	-9.749	64.061	28.102	1.00	59.38
ATOM	10123	NZ	LYS	D	852	-8.378	63.630	27.690	1.00	59.38
ATOM	10124	C	LYS	D	852	-8.141	68.730	30.824	1.00	25.82
ATOM	10125	O	LYS	D	852	-8.727	69.545	30.101	1.00	25.82
ATOM	10126	N	TRP	D	853	-7.708	69.019	32.051	1.00	31.92
ATOM	10127	CA	TRP	D	853	-7.908	70.327	32.670	1.00	31.92
ATOM	10128	CB	TRP	D	853	-7.457	70.300	34.133	1.00	21.27
ATOM	10129	CG	TRP	D	853	-8.454	69.673	35.053	1.00	21.27
ATOM	10130	CD2	TRP	D	853	-9.833	70.047	35.211	1.00	21.27
ATOM	10131	CE2	TRP	D	853	-10.384	69.203	36.201	1.00	21.27
ATOM	10132	CE3	TRP	D	853	-10.655	71.019	34.613	1.00	21.27
ATOM	10133	CD1	TRP	D	853	-8.233	68.649	35.926	1.00	21.27
ATOM	10134	NE1	TRP	D	853	-9.388	68.361	36.622	1.00	21.27
ATOM	10135	CZ2	TRP	D	853	-11.720	69.296	36.610	1.00	21.27
ATOM	10136	CZ3	TRP	D	853	-11.988	71.113	35.020	1.00	21.27
ATOM	10137	CH2	TRP	D	853	-12.505	70.252	36.011	1.00	21.27
ATOM	10138	C	TRP	D	853	-7.182	71.439	31.938	1.00	31.92
ATOM	10139	O	TRP	D	853	-7.671	72.570	31.865	1.00	31.92
ATOM	10140	N	GLN	D	854	-6.007	71.123	31.407	1.00	35.90
ATOM	10141	CA	GLN	D	854	-5.236	72.114	30.676	1.00	35.90
ATOM	10142	CB	GLN	D	854	-3.843	71.577	30.353	1.00	52.07
ATOM	10143	CG	GLN	D	854	-2.757	72.199	31.210	1.00	52.07
ATOM	10144	CD	GLN	D	854	-2.598	73.687	30.954	1.00	52.07
ATOM	10145	OE1	GLN	D	854	-1.863	74.379	31.664	1.00	52.07
ATOM	10146	NE2	GLN	D	854	-3.279	74.186	29.929	1.00	52.07
ATOM	10147	C	GLN	D	854	-5.953	72.530	29.393	1.00	35.90
ATOM	10148	O	GLN	D	854	-5.955	73.701	29.035	1.00	35.90
ATOM	10149	N	ALA	D	855	-6.565	71.571	28.706	1.00	41.28
ATOM	10150	CA	ALA	D	855	-7.283	71.890	27.477	1.00	41.28

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ATOM  10151  CB  ALA D 855      -7.894  70.625  26.857  1.00 35.39
ATOM  10152  C   ALA D 855      -8.382  72.880  27.823  1.00 41.28
ATOM  10153  O   ALA D 855      -8.511  73.928  27.189  1.00 41.28
ATOM  10154  N   LEU D 856      -9.161  72.543  28.846  1.00 35.20
ATOM  10155  CA  LEU D 856     -10.259  73.388  29.281  1.00 35.20
ATOM  10156  CB  LEU D 856     -11.079  72.682  30.358  1.00 31.79
ATOM  10157  CG  LEU D 856     -11.868  71.455  29.902  1.00 31.79
ATOM  10158  CD1 LEU D 856     -12.657  70.892  31.076  1.00 31.79
ATOM  10159  CD2 LEU D 856     -12.806  71.840  28.779  1.00 31.79
ATOM  10160  C   LEU D 856      -9.786  74.732  29.802  1.00 35.20
ATOM  10161  O   LEU D 856     -10.562  75.690  29.833  1.00 35.20
ATOM  10162  N   ALA D 857      -8.521  74.806  30.208  1.00 38.98
ATOM  10163  CA  ALA D 857      -7.967  76.056  30.720  1.00 38.98
ATOM  10164  CB  ALA D 857      -6.729  75.782  31.570  1.00 25.11
ATOM  10165  C   ALA D 857      -7.616  77.012  29.582  1.00 38.98
ATOM  10166  O   ALA D 857      -7.794  78.226  29.703  1.00 38.98
ATOM  10167  N   GLU D 858      -7.107  76.462  28.482  1.00 38.91
ATOM  10168  CA  GLU D 858      -6.741  77.271  27.327  1.00 38.91
ATOM  10169  CB  GLU D 858      -5.981  76.422  26.310  1.00 57.79
ATOM  10170  CG  GLU D 858      -4.805  75.660  26.907  1.00 57.79
ATOM  10171  CD  GLU D 858      -4.032  74.858  25.871  1.00 57.79
ATOM  10172  OE1 GLU D 858      -3.178  74.036  26.270  1.00 57.79
ATOM  10173  OE2 GLU D 858      -4.276  75.054  24.658  1.00 57.79
ATOM  10174  C   GLU D 858      -8.019  77.817  26.701  1.00 38.91
ATOM  10175  O   GLU D 858      -8.069  78.978  26.301  1.00 38.91
ATOM  10176  N   GLN D 859      -9.056  76.981  26.632  1.00 40.87
ATOM  10177  CA  GLN D 859     -10.336  77.394  26.061  1.00 40.87
ATOM  10178  CB  GLN D 859     -11.365  76.268  26.140  1.00 66.25
ATOM  10179  CG  GLN D 859     -11.140  75.132  25.171  1.00 66.25
ATOM  10180  CD  GLN D 859     -12.341  74.209  25.103  1.00 66.25
ATOM  10181  OE1 GLN D 859     -12.885  73.807  26.134  1.00 66.25
ATOM  10182  NE2 GLN D 859     -12.759  73.864  23.889  1.00 66.25
ATOM  10183  C   GLN D 859     -10.885  78.601  26.793  1.00 40.87
ATOM  10184  O   GLN D 859     -11.422  79.525  26.181  1.00 40.87
ATOM  10185  N   GLN D 860     -10.767  78.576  28.114  1.00 39.02
ATOM  10186  CA  GLN D 860     -11.237  79.671  28.940  1.00 39.02
ATOM  10187  CB  GLN D 860     -11.217  79.256  30.408  1.00 45.70
ATOM  10188  CG  GLN D 860     -11.755  80.316  31.316  1.00 45.70
ATOM  10189  CD  GLN D 860     -13.119  80.787  30.861  1.00 45.70
ATOM  10190  OE1 GLN D 860     -14.071  80.000  30.799  1.00 45.70
ATOM  10191  NE2 GLN D 860     -13.222  82.075  30.529  1.00 45.70
ATOM  10192  C   GLN D 860     -10.303  80.856  28.716  1.00 39.02
ATOM  10193  O   GLN D 860     -10.718  82.020  28.749  1.00 39.02
ATOM  10194  N   GLU D 861      -9.034  80.544  28.487  1.00 42.77
ATOM  10195  CA  GLU D 861      -8.032  81.562  28.237  1.00 42.77
ATOM  10196  CB  GLU D 861      -6.648  80.911  28.157  1.00 85.53
ATOM  10197  CG  GLU D 861      -5.511  81.890  27.985  1.00 85.53
ATOM  10198  CD  GLU D 861      -5.524  82.964  29.048  1.00 85.53
ATOM  10199  OE1 GLU D 861      -5.451  82.613  30.244  1.00 85.53
ATOM  10200  OE2 GLU D 861      -5.613  84.159  28.687  1.00 85.53
ATOM  10201  C   GLU D 861      -8.368  82.263  26.916  1.00 42.77
ATOM  10202  O   GLU D 861      -8.308  83.486  26.820  1.00 42.77
ATOM  10203  N   LYS D 862      -8.737  81.476  25.907  1.00 58.95
ATOM  10204  CA  LYS D 862      -9.079  82.008  24.589  1.00 58.95
ATOM  10205  CB  LYS D 862      -9.684  80.909  23.707  1.00 70.44
ATOM  10206  CG  LYS D 862      -8.761  79.731  23.442  1.00 70.44
ATOM  10207  CD  LYS D 862      -9.490  78.619  22.702  1.00 70.44
ATOM  10208  CE  LYS D 862      -8.655  77.350  22.643  1.00 70.44
ATOM  10209  NZ  LYS D 862      -9.440  76.202  22.110  1.00 70.44
ATOM  10210  C   LYS D 862     -10.059  83.172  24.690  1.00 58.95
ATOM  10211  O   LYS D 862      -9.946  84.157  23.958  1.00 58.95
ATOM  10212  N   MET D 863     -11.026  83.056  25.595  1.00 69.38
ATOM  10213  CA  MET D 863     -12.005  84.115  25.779  1.00 69.38
ATOM  10214  CB  MET D 863     -13.079  83.664  26.777  1.00 62.72
ATOM  10215  CG  MET D 863     -13.841  82.417  26.319  1.00 62.72
ATOM  10216  SD  MET D 863     -15.167  81.853  27.425  1.00 62.72
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ATOM  10217  CE  MET D 863     -16.562  82.691  26.732  1.00 62.72
ATOM  10218  C   MET D 863     -11.300  85.393  26.254  1.00 69.38
ATOM  10219  O   MET D 863     -11.228  85.681  27.452  1.00 69.38
ATOM  10220  N   LEU D 864     -10.763  86.141  25.293  1.00 99.83
ATOM  10221  CA  LEU D 864     -10.059  87.390  25.564  1.00 99.83
ATOM  10222  CB  LEU D 864      -8.564  87.256  25.226  1.00 67.44
ATOM  10223  CG  LEU D 864      -8.063  87.550  23.803  1.00 67.44
ATOM  10224  CD1 LEU D 864      -7.955  89.057  23.588  1.00 67.44
ATOM  10225  CD2 LEU D 864      -6.698  86.917  23.599  1.00 67.44
ATOM  10226  C   LEU D 864     -10.684  88.489  24.711  1.00 99.83
ATOM  10227  O   LEU D 864     -11.031  89.548  25.278  1.00 99.83
ATOM  10228  OXT LEU D 864     -10.813  88.275  23.483  1.00 67.44
TER
ATOM  10230  N1  SIL E   1      -4.237  80.981  87.837  1.00 30.79
ATOM  10231  C18 SIL E   1      -3.631  81.783  88.623  1.00 30.79
ATOM  10232  C19 SIL E   1      -3.091  83.067  88.042  1.00 30.79
ATOM  10233  C43 SIL E   1      -1.818  83.582  88.404  1.00 30.79
ATOM  10234  O44 SIL E   1      -1.051  82.850  89.329  1.00 30.79
ATOM  10235  C45 SIL E   1       0.253  83.239  89.798  1.00 30.79
ATOM  10236  C47 SIL E   1       0.723  82.170  90.805  1.00 30.79
ATOM  10237  C41 SIL E   1      -1.374  84.822  87.819  1.00 30.79
ATOM  10238  C39 SIL E   1      -2.197  85.519  86.896  1.00 30.79
ATOM  10239  C22 SIL E   1      -3.475  84.988  86.538  1.00 30.79
ATOM  10240  S23 SIL E   1      -4.515  85.855  85.383  1.00 30.79
ATOM  10241  O38 SIL E   1      -3.779  87.058  85.027  1.00 30.79
ATOM  10242  O37 SIL E   1      -5.796  86.037  86.022  1.00 30.79
ATOM  10243  N24 SIL E   1      -4.742  85.062  83.930  1.00 30.79
ATOM  10244  C35 SIL E   1      -3.429  84.703  83.278  1.00 30.79
ATOM  10245  C33 SIL E   1      -3.661  83.988  81.902  1.00 30.79
ATOM  10246  N29 SIL E   1      -4.599  82.828  82.026  1.00 30.79
ATOM  10247  C31 SIL E   1      -4.813  82.172  80.709  1.00 30.79
ATOM  10248  C27 SIL E   1      -5.901  83.240  82.639  1.00 30.79
ATOM  10249  C25 SIL E   1      -5.710  83.925  84.026  1.00 30.79
ATOM  10250  C20 SIL E   1      -3.908  83.771  87.113  1.00 30.79
ATOM  10251  N17 SIL E   1      -3.489  81.492  89.961  1.00 30.79
ATOM  10252  C15 SIL E   1      -3.981  80.344  90.523  1.00 30.79
ATOM  10253  O16 SIL E   1      -3.855  80.087  91.711  1.00 30.79
ATOM  10254  C14 SIL E   1      -4.701  79.394  89.608  1.00 30.79
ATOM  10255  N11 SIL E   1      -5.296  78.235  89.773  1.00 30.79
ATOM  10256  C12 SIL E   1      -5.430  77.486  91.014  1.00 30.79
ATOM  10257  N10 SIL E   1      -5.784  77.829  88.574  1.00 30.79
ATOM  10258  C3  SIL E   1      -5.531  78.667  87.657  1.00 30.79
ATOM  10259  C4  SIL E   1      -5.920  78.562  86.192  1.00 30.79
ATOM  10260  C6  SIL E   1      -4.745  78.252  85.175  1.00 30.79
ATOM  10261  C8  SIL E   1      -3.321  78.089  85.786  1.00 30.79
ATOM  10262  C2  SIL E   1      -4.803  79.737  88.317  1.00 30.79
TER   10263      SIL E   1
ATOM  10264  N1  SIL F   1      37.217  44.972  46.057  1.00 30.79
ATOM  10265  C18 SIL F   1      37.137  45.475  44.875  1.00 30.79
ATOM  10266  C19 SIL F   1      37.610  46.894  44.663  1.00 30.79
ATOM  10267  C43 SIL F   1      36.857  47.867  43.930  1.00 30.79
ATOM  10268  O44 SIL F   1      35.605  47.481  43.383  1.00 30.79
ATOM  10269  C45 SIL F   1      34.728  48.338  42.617  1.00 30.79
ATOM  10270  C47 SIL F   1      33.481  47.512  42.202  1.00 30.79
ATOM  10271  C41 SIL F   1      37.407  49.184  43.779  1.00 30.79
ATOM  10272  C39 SIL F   1      38.678  49.516  44.356  1.00 30.79
ATOM  10273  C22 SIL F   1      39.403  48.531  45.089  1.00 30.79
ATOM  10274  S23 SIL F   1      40.984  48.884  45.852  1.00 30.79
ATOM  10275  O38 SIL F   1      41.313  50.269  45.551  1.00 30.79
ATOM  10276  O37 SIL F   1      41.911  47.865  45.386  1.00 30.79
ATOM  10277  N24 SIL F   1      40.864  48.790  47.511  1.00 30.79
ATOM  10278  C35 SIL F   1      39.729  49.645  48.015  1.00 30.79
ATOM  10279  C33 SIL F   1      39.609  49.564  49.563  1.00 30.79
ATOM  10280  N29 SIL F   1      39.508  48.148  50.033  1.00 30.79
ATOM  10281  C31 SIL F   1      39.390  48.098  51.523  1.00 30.79
ATOM  10282  C27 SIL F   1      40.682  47.338  49.557  1.00 30.79
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ATOM  10283  C25 SIL F   1      40.813  47.376  48.009  1.00 30.79
ATOM  10284  C20 SIL F   1      38.857  47.241  45.224  1.00 30.79
ATOM  10285  N17 SIL F   1      36.645  44.741  43.830  1.00 30.79
ATOM  10286  C15 SIL F   1      36.213  43.455  43.964  1.00 30.79
ATOM  10287  O16 SIL F   1      35.777  42.816  43.022  1.00 30.79
ATOM  10288  C14 SIL F   1      36.298  42.847  45.338  1.00 30.79
ATOM  10289  N11 SIL F   1      35.991  41.676  45.837  1.00 30.79
ATOM  10290  C12 SIL F   1      35.430  40.541  45.119  1.00 30.79
ATOM  10291  N10 SIL F   1      36.285  41.680  47.166  1.00 30.79
ATOM  10292  C3  SIL F   1      36.767  42.801  47.535  1.00 30.79
ATOM  10293  C4  SIL F   1      37.220  43.187  48.930  1.00 30.79
ATOM  10294  C6  SIL F   1      36.175  43.971  49.814  1.00 30.79
ATOM  10295  C8  SIL F   1      34.794  44.262  49.169  1.00 30.79
ATOM  10296  C2  SIL F   1      36.791  43.615  46.328  1.00 30.79
TER   10297      SIL F   1
ATOM  10298  N1  SIL G   1      41.874  55.401  87.350  1.00 30.79
ATOM  10299  C18 SIL G   1      42.511  56.154  88.165  1.00 30.79
ATOM  10300  C19 SIL G   1      43.132  57.404  87.587  1.00 30.79
ATOM  10301  C43 SIL G   1      44.465  57.839  87.876  1.00 30.79
ATOM  10302  O44 SIL G   1      45.268  57.059  88.756  1.00 30.79
ATOM  10303  C45 SIL G   1      46.623  57.393  89.116  1.00 30.79
ATOM  10304  C47 SIL G   1      47.153  56.315  90.079  1.00 30.79
ATOM  10305  C41 SIL G   1      44.941  59.057  87.257  1.00 30.79
ATOM  10306  C39 SIL G   1      44.099  59.805  86.374  1.00 30.79
ATOM  10307  C22 SIL G   1      42.774  59.339  86.099  1.00 30.79
ATOM  10308  S23 SIL G   1      41.677  60.204  84.991  1.00 30.79
ATOM  10309  O38 SIL G   1      42.372  61.382  84.519  1.00 30.79
ATOM  10310  O37 SIL G   1      40.420  60.426  85.684  1.00 30.79
ATOM  10311  N24 SIL G   1      41.413  59.256  83.635  1.00 30.79
ATOM  10312  C35 SIL G   1      42.712  58.871  82.965  1.00 30.79
ATOM  10313  C33 SIL G   1      42.470  57.964  81.713  1.00 30.79
ATOM  10314  N29 SIL G   1      41.624  56.774  82.068  1.00 30.79
ATOM  10315  C31 SIL G   1      41.415  55.908  80.872  1.00 30.79
ATOM  10316  C27 SIL G   1      40.302  57.225  82.621  1.00 30.79
ATOM  10317  C25 SIL G   1      40.488  58.109  83.892  1.00 30.79
ATOM  10318  C20 SIL G   1      42.321  58.153  86.712  1.00 30.79
ATOM  10319  N17 SIL G   1      42.606  55.829  89.495  1.00 30.79
ATOM  10320  C15 SIL G   1      42.036  54.697  90.020  1.00 30.79
ATOM  10321  O16 SIL G   1      42.124  54.412  91.204  1.00 30.79
ATOM  10322  C14 SIL G   1      41.286  53.805  89.059  1.00 30.79
ATOM  10323  N11 SIL G   1      40.622  52.670  89.168  1.00 30.79
ATOM  10324  C12 SIL G   1      40.408  51.878  90.373  1.00 30.79
ATOM  10325  N10 SIL G   1      40.146  52.331  87.939  1.00 30.79
ATOM  10326  C3  SIL G   1      40.472  53.188  87.061  1.00 30.79
ATOM  10327  C4  SIL G   1      40.135  53.173  85.582  1.00 30.79
ATOM  10328  C6  SIL G   1      41.255  52.559  84.646  1.00 30.79
ATOM  10329  C8  SIL G   1      42.544  52.043  85.363  1.00 30.79
ATOM  10330  C2  SIL G   1      41.236  54.190  87.778  1.00 30.79
TER
ATOM  10332  N1  SIL H   1      -8.678  70.421  45.806  1.00 30.79
ATOM  10333  C18 SIL H   1      -8.868  70.864  44.615  1.00 30.79
ATOM  10334  C19 SIL H   1      -8.547  72.308  44.347  1.00 30.79
ATOM  10335  C43 SIL H   1      -9.383  73.190  43.587  1.00 30.79
ATOM  10336  O44 SIL H   1     -10.596  72.694  43.056  1.00 30.79
ATOM  10337  C45 SIL H   1     -11.534  73.465  42.272  1.00 30.79
ATOM  10338  C47 SIL H   1     -12.705  72.533  41.885  1.00 30.79
ATOM  10339  C41 SIL H   1      -8.949  74.542  43.393  1.00 30.79
ATOM  10340  C39 SIL H   1      -7.712  74.991  43.954  1.00 30.79
ATOM  10341  C22 SIL H   1      -6.909  74.092  44.713  1.00 30.79
ATOM  10342  S23 SIL H   1      -5.366  74.588  45.460  1.00 30.79
ATOM  10343  O38 SIL H   1      -5.138  75.990  45.119  1.00 30.79
ATOM  10344  O37 SIL H   1      -4.354  73.638  45.026  1.00 30.79
ATOM  10345  N24 SIL H   1      -5.484  74.507  47.132  1.00 30.79
ATOM  10346  C35 SIL H   1      -6.571  75.412  47.660  1.00 30.79
ATOM  10347  C33 SIL H   1      -6.669  75.326  49.217  1.00 30.79
ATOM  10348  N29 SIL H   1      -6.832  73.903  49.674  1.00 30.79
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ATOM  10349  C31 SIL H   1      -6.929  73.829  51.159  1.00 30.79
ATOM  10350  C27 SIL H   1      -5.707  73.039  49.181  1.00 30.79
ATOM  10351  C25 SIL H   1      -5.573  73.087  47.637  1.00 30.79
ATOM  10352  C20 SIL H   1      -7.346  72.771  44.887  1.00 30.79
ATOM  10353  N17 SIL H   1      -9.330  70.039  43.617  1.00 30.79
ATOM  10354  C15 SIL H   1      -9.617  68.710  43.826  1.00 30.79
ATOM  10355  O16 SIL H   1     -10.029  67.981  42.937  1.00 30.79
ATOM  10356  C14 SIL H   1      -9.399  68.177  45.218  1.00 30.79
ATOM  10357  N11 SIL H   1      -9.554  67.003  45.782  1.00 30.79
ATOM  10358  C12 SIL H   1     -10.022  65.775  45.151  1.00 30.79
ATOM  10359  N10 SIL H   1      -9.198  67.107  47.084  1.00 30.79
ATOM  10360  C3  SIL H   1      -8.823  68.283  47.380  1.00 30.79
ATOM  10361  C4  SIL H   1      -8.348  68.779  48.733  1.00 30.79
ATOM  10362  C6  SIL H   1      -9.452  69.442  49.635  1.00 30.79
ATOM  10363  C8  SIL H   1     -10.887  69.497  49.022  1.00 30.79
ATOM  10364  C2  SIL H   1      -8.945  69.037  46.147  1.00 30.79
TER
ATOM  10366 ZN   ZN  X 864      -7.481  71.606  84.971  1.00 30.79
ATOM  10367 ZN   ZN  X 865      -5.035  64.423  70.293  1.00 30.79
TER   10368      ZN  X 865
ATOM  10369 ZN   ZN  Y 864      34.613  37.940  53.261  1.00 30.79
ATOM  10370 ZN   ZN  Y 865      31.014  41.609  69.156  1.00 30.79
TER   10371      ZN  Y 865
ATOM  10372 ZN   ZN  Z 864      38.011  45.984  84.794  1.00 30.79
ATOM  10373 ZN   ZN  Z 865      39.943  38.361  70.322  1.00 30.79
TER   10374      ZN  Z 865
ATOM  10375 ZN   ZN  J 864     -10.559  63.306  53.176  1.00 31.32
ATOM  10376 ZN   ZN  J 865     -14.196  66.706  69.054  1.00 31.32
END
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Table 5

Atomic coordinates for *E. coli*-expressed PDE5* apo

Atom Number, Atom Type, Residue Type, Residue Number Cartesian Coordinates X,Y, Z, Atom Occupancy (O) and Temperature Factor (B)

					X	Y	Z	O	B
ATOM	1	CB	THR	A 537	-3.573	26.340	13.826	1.00	14.30
ATOM	2	OG1	THR	A 537	-2.304	26.569	14.439	1.00	15.41
ATOM	3	CG2	THR	A 537	-3.820	27.414	12.751	1.00	13.72
ATOM	4	C	THR	A 537	-4.108	26.784	16.266	1.00	14.02
ATOM	5	O	THR	A 537	-4.682	26.463	17.312	1.00	16.05
ATOM	6	N	THR	A 537	-5.824	27.234	14.511	1.00	14.87
ATOM	7	CA	THR	A 537	-4.685	26.351	14.913	1.00	13.72
ATOM	8	N	ARG	A 538	-2.986	27.505	16.238	1.00	13.51
ATOM	9	CA	ARG	A 538	-2.307	28.000	17.430	1.00	13.49
ATOM	10	CB	ARG	A 538	-3.280	28.833	18.261	1.00	13.60
ATOM	11	CG	ARG	A 538	-2.655	30.013	18.975	1.00	14.53
ATOM	12	CD	ARG	A 538	-1.981	29.594	20.250	1.00	14.40
ATOM	13	NE	ARG	A 538	-2.848	28.721	21.032	1.00	14.44
ATOM	14	CZ	ARG	A 538	-2.679	28.457	22.324	1.00	14.27
ATOM	15	NH1	ARG	A 538	-1.675	28.997	22.999	1.00	14.54
ATOM	16	NH2	ARG	A 538	-3.521	27.643	22.939	1.00	14.88
ATOM	17	C	ARG	A 538	-1.728	26.864	18.269	1.00	13.81
ATOM	18	O	ARG	A 538	-0.629	26.981	18.824	1.00	13.89
ATOM	19	N	GLU	A 539	-2.462	25.761	18.354	1.00	13.91
ATOM	20	CA	GLU	A 539	-1.993	24.619	19.130	1.00	13.49
ATOM	21	CB	GLU	A 539	-3.104	23.574	19.271	1.00	14.01
ATOM	22	CG	GLU	A 539	-4.352	24.104	19.993	1.00	13.63
ATOM	23	CD	GLU	A 539	-5.440	23.065	20.111	1.00	13.97
ATOM	24	OE1	GLU	A 539	-5.627	22.297	19.143	1.00	15.01
ATOM	25	OE2	GLU	A 539	-6.118	23.018	21.165	1.00	15.98
ATOM	26	C	GLU	A 539	-0.755	24.020	18.467	1.00	13.55
ATOM	27	O	GLU	A 539	0.105	23.456	19.144	1.00	13.76
ATOM	28	N	LEU	A 540	-0.654	24.160	17.148	1.00	14.12
ATOM	29	CA	LEU	A 540	0.501	23.635	16.423	1.00	13.91
ATOM	30	CB	LEU	A 540	0.235	23.671	14.912	1.00	13.64
ATOM	31	CG	LEU	A 540	1.403	23.359	13.969	1.00	13.76
ATOM	32	CD1	LEU	A 540	2.075	22.047	14.351	1.00	13.26
ATOM	33	CD2	LEU	A 540	0.876	23.306	12.544	1.00	14.08
ATOM	34	C	LEU	A 540	1.763	24.432	16.745	1.00	13.64
ATOM	35	O	LEU	A 540	2.826	23.863	17.004	1.00	13.49
ATOM	36	N	GLN	A 541	1.650	25.755	16.744	1.00	13.72
ATOM	37	CA	GLN	A 541	2.814	26.579	17.031	1.00	13.71
ATOM	38	CB	GLN	A 541	2.524	28.039	16.677	1.00	13.67
ATOM	39	CG	GLN	A 541	2.283	28.193	15.186	1.00	13.38
ATOM	40	CD	GLN	A 541	1.824	29.573	14.762	1.00	13.56
ATOM	41	OE1	GLN	A 541	1.401	29.761	13.619	1.00	14.34
ATOM	42	NE2	GLN	A 541	1.906	30.541	15.663	1.00	13.42
ATOM	43	C	GLN	A 541	3.293	26.431	18.472	1.00	13.71
ATOM	44	O	GLN	A 541	4.485	26.554	18.735	1.00	14.36
ATOM	45	N	SER	A 542	2.389	26.145	19.403	1.00	14.09
ATOM	46	CA	SER	A 542	2.824	25.964	20.782	1.00	13.48
ATOM	47	CB	SER	A 542	1.662	26.153	21.765	1.00	14.38
ATOM	48	OG	SER	A 542	0.594	25.258	21.519	1.00	15.19
ATOM	49	C	SER	A 542	3.451	24.573	20.938	1.00	13.49
ATOM	50	O	SER	A 542	4.461	24.410	21.626	1.00	14.51
ATOM	51	N	LEU	A 543	2.872	23.572	20.282	1.00	14.07
ATOM	52	CA	LEU	A 543	3.428	22.224	20.370	1.00	13.24

ATOM	53	CB	LEU	A	543	2.492	21.208	19.711	1.00	13.52
ATOM	54	CG	LEU	A	543	3.062	19.795	19.543	1.00	13.21
ATOM	55	CD1	LEU	A	543	3.299	19.161	20.901	1.00	13.67
ATOM	56	CD2	LEU	A	543	2.106	18.955	18.708	1.00	13.43
ATOM	57	C	LEU	A	543	4.790	22.162	19.686	1.00	13.46
ATOM	58	O	LEU	A	543	5.747	21.605	20.223	1.00	13.80
ATOM	59	N	ALA	A	544	4.877	22.749	18.498	1.00	13.14
ATOM	60	CA	ALA	A	544	6.112	22.730	17.725	1.00	13.71
ATOM	61	CB	ALA	A	544	5.862	23.287	16.336	1.00	13.77
ATOM	62	C	ALA	A	544	7.280	23.462	18.367	1.00	13.63
ATOM	63	O	ALA	A	544	8.434	23.109	18.130	1.00	13.83
ATOM	64	N	ALA	A	545	6.986	24.475	19.177	1.00	13.80
ATOM	65	CA	ALA	A	545	8.040	25.251	19.820	1.00	13.72
ATOM	66	CB	ALA	A	545	7.628	26.718	19.892	1.00	13.71
ATOM	67	C	ALA	A	545	8.416	24.749	21.210	1.00	13.78
ATOM	68	O	ALA	A	545	9.319	25.292	21.846	1.00	14.08
ATOM	69	N	ALA	A	546	7.740	23.703	21.670	1.00	13.61
ATOM	70	CA	ALA	A	546	7.999	23.152	22.993	1.00	13.66
ATOM	71	CB	ALA	A	546	6.743	22.457	23.517	1.00	14.17
ATOM	72	C	ALA	A	546	9.174	22.186	23.031	1.00	13.70
ATOM	73	O	ALA	A	546	9.506	21.541	22.036	1.00	14.23
ATOM	74	N	VAL	A	547	9.810	22.105	24.193	1.00	13.55
ATOM	75	CA	VAL	A	547	10.924	21.195	24.380	1.00	13.89
ATOM	76	CB	VAL	A	547	11.757	21.566	25.628	1.00	13.89
ATOM	77	CG1	VAL	A	547	12.826	20.507	25.874	1.00	13.98
ATOM	78	CG2	VAL	A	547	12.415	22.924	25.441	1.00	13.84
ATOM	79	C	VAL	A	547	10.311	19.815	24.585	1.00	13.53
ATOM	80	O	VAL	A	547	9.335	19.663	25.324	1.00	13.70
ATOM	81	N	VAL	A	548	10.872	18.820	23.911	1.00	13.68
ATOM	82	CA	VAL	A	548	10.396	17.452	24.035	1.00	13.80
ATOM	83	CB	VAL	A	548	10.529	16.705	22.704	1.00	13.59
ATOM	84	CG1	VAL	A	548	9.970	15.298	22.841	1.00	13.47
ATOM	85	CG2	VAL	A	548	9.802	17.472	21.605	1.00	13.65
ATOM	86	C	VAL	A	548	11.248	16.750	25.091	1.00	13.54
ATOM	87	O	VAL	A	548	12.434	16.511	24.880	1.00	13.39
ATOM	88	N	PRO	A	549	10.654	16.422	26.249	1.00	13.90
ATOM	89	CD	PRO	A	549	9.293	16.779	26.684	1.00	13.64
ATOM	90	CA	PRO	A	549	11.384	15.746	27.329	1.00	13.50
ATOM	91	CB	PRO	A	549	10.348	15.661	28.451	1.00	14.05
ATOM	92	CG	PRO	A	549	9.452	16.835	28.181	1.00	13.77
ATOM	93	C	PRO	A	549	11.887	14.365	26.909	1.00	13.61
ATOM	94	O	PRO	A	549	11.379	13.772	25.955	1.00	13.49
ATOM	95	N	SER	A	550	12.889	13.858	27.621	1.00	13.34
ATOM	96	CA	SER	A	550	13.447	12.544	27.316	1.00	13.66
ATOM	97	CB	SER	A	550	14.715	12.296	28.138	1.00	13.77
ATOM	98	OG	SER	A	550	14.398	12.085	29.505	1.00	13.54
ATOM	99	C	SER	A	550	12.437	11.447	27.631	1.00	13.42
ATOM	100	O	SER	A	550	11.511	11.653	28.419	1.00	13.52
ATOM	101	N	ALA	A	551	12.623	10.282	27.017	1.00	13.84
ATOM	102	CA	ALA	A	551	11.734	9.143	27.251	1.00	13.42
ATOM	103	CB	ALA	A	551	12.152	7.965	26.379	1.00	13.45
ATOM	104	C	ALA	A	551	11.826	8.765	28.727	1.00	13.67
ATOM	105	O	ALA	A	551	10.840	8.363	29.348	1.00	14.00
ATOM	106	N	GLN	A	552	13.032	8.901	29.272	1.00	14.07
ATOM	107	CA	GLN	A	552	13.319	8.608	30.678	1.00	13.37
ATOM	108	CB	GLN	A	552	14.778	8.981	30.977	1.00	13.37
ATOM	109	CG	GLN	A	552	15.789	8.448	29.947	1.00	14.41
ATOM	110	CD	GLN	A	552	17.106	9.233	29.922	1.00	13.78
ATOM	111	OE1	GLN	A	552	17.307	10.133	29.086	1.00	15.07
ATOM	112	NE2	GLN	A	552	18.003	8.900	30.836	1.00	15.04
ATOM	113	C	GLN	A	552	12.388	9.446	31.554	1.00	13.95
ATOM	114	O	GLN	A	552	11.636	8.924	32.382	1.00	13.92
ATOM	115	N	THR	A	553	12.450	10.756	31.350	1.00	13.96
ATOM	116	CA	THR	A	553	11.634	11.716	32.080	1.00	13.71
ATOM	117	CB	THR	A	553	11.940	13.151	31.597	1.00	13.85
ATOM	118	OG1	THR	A	553	13.317	13.460	31.864	1.00	14.36

ATOM	119	CG2	THR	A	553	11.053	14.160	32.301	1.00 13.95
ATOM	120	C	THR	A	553	10.132	11.455	31.915	1.00 13.76
ATOM	121	O	THR	A	553	9.365	11.520	32.883	1.00 14.39
ATOM	122	N	LEU	A	554	9.720	11.158	30.687	1.00 13.83
ATOM	123	CA	LEU	A	554	8.313	10.908	30.386	1.00 13.86
ATOM	124	CB	LEU	A	554	8.062	11.084	28.885	1.00 13.44
ATOM	125	CG	LEU	A	554	8.394	12.496	28.386	1.00 13.54
ATOM	126	CD1	LEU	A	554	8.209	12.586	26.879	1.00 13.37
ATOM	127	CD2	LEU	A	554	7.512	13.499	29.104	1.00 13.89
ATOM	128	C	LEU	A	554	7.807	9.541	30.844	1.00 13.97
ATOM	129	O	LEU	A	554	6.599	9.301	30.858	1.00 14.12
ATOM	130	N	LYS	A	555	8.733	8.652	31.205	1.00 13.32
ATOM	131	CA	LYS	A	555	8.403	7.311	31.699	1.00 13.56
ATOM	132	CB	LYS	A	555	7.541	7.414	32.973	1.00 13.50
ATOM	133	CG	LYS	A	555	7.959	8.523	33.952	1.00 14.18
ATOM	134	CD	LYS	A	555	9.368	8.326	34.517	1.00 14.25
ATOM	135	CE	LYS	A	555	9.427	7.237	35.590	1.00 14.47
ATOM	136	NZ	LYS	A	555	8.725	7.602	36.862	1.00 14.75
ATOM	137	C	LYS	A	555	7.669	6.437	30.677	1.00 13.38
ATOM	138	O	LYS	A	555	7.006	5.468	31.055	1.00 13.63
ATOM	139	N	ILE	A	556	7.789	6.764	29.394	1.00 13.59
ATOM	140	CA	ILE	A	556	7.097	5.996	28.354	1.00 13.67
ATOM	141	CB	ILE	A	556	7.046	6.770	27.021	1.00 14.01
ATOM	142	CG2	ILE	A	556	6.187	8.015	27.176	1.00 13.53
ATOM	143	CG1	ILE	A	556	8.463	7.124	26.568	1.00 13.62
ATOM	144	CD1	ILE	A	556	8.548	7.559	25.117	1.00 13.54
ATOM	145	C	ILE	A	556	7.668	4.606	28.072	1.00 14.02
ATOM	146	O	ILE	A	556	7.071	3.820	27.337	1.00 13.60
ATOM	147	N	THR	A	557	8.809	4.289	28.663	1.00 13.79
ATOM	148	CA	THR	A	557	9.403	2.984	28.427	1.00 13.52
ATOM	149	CB	THR	A	557	10.929	3.034	28.624	1.00 13.41
ATOM	150	OG1	THR	A	557	11.474	4.145	27.895	1.00 13.38
ATOM	151	CG2	THR	A	557	11.562	1.753	28.107	1.00 14.04
ATOM	152	C	THR	A	557	8.802	1.941	29.368	1.00 13.47
ATOM	153	O	THR	A	557	8.936	0.734	29.142	1.00 14.72
ATOM	154	N	ASP	A	558	8.107	2.415	30.399	1.00 13.25
ATOM	155	CA	ASP	A	558	7.511	1.532	31.403	1.00 13.75
ATOM	156	CB	ASP	A	558	7.264	2.284	32.713	1.00 13.68
ATOM	157	CG	ASP	A	558	8.480	3.041	33.207	1.00 13.80
ATOM	158	OD1	ASP	A	558	9.619	2.706	32.807	1.00 14.88
ATOM	159	OD2	ASP	A	558	8.286	3.971	34.026	1.00 15.40
ATOM	160	C	ASP	A	558	6.192	0.906	30.994	1.00 13.85
ATOM	161	O	ASP	A	558	5.284	1.599	30.540	1.00 12.93
ATOM	162	N	PHE	A	559	6.080	-0.408	31.170	1.00 13.24
ATOM	163	CA	PHE	A	559	4.833	-1.096	30.856	1.00 13.49
ATOM	164	CB	PHE	A	559	4.995	-2.618	30.986	1.00 13.58
ATOM	165	CG	PHE	A	559	5.712	-3.265	29.823	1.00 13.23
ATOM	166	CD1	PHE	A	559	5.195	-3.171	28.532	1.00 14.01
ATOM	167	CD2	PHE	A	559	6.898	-3.972	30.019	1.00 14.06
ATOM	168	CE1	PHE	A	559	5.849	-3.771	27.446	1.00 13.52
ATOM	169	CE2	PHE	A	559	7.559	-4.576	28.943	1.00 13.66
ATOM	170	CZ	PHE	A	559	7.032	-4.473	27.653	1.00 13.93
ATOM	171	C	PHE	A	559	3.728	-0.614	31.805	1.00 13.32
ATOM	172	O	PHE	A	559	2.543	-0.677	31.469	1.00 14.18
ATOM	173	N	SER	A	560	4.116	-0.126	32.982	1.00 13.39
ATOM	174	CA	SER	A	560	3.156	0.361	33.979	1.00 13.73
ATOM	175	CB	SER	A	560	3.742	0.211	35.382	1.00 13.97
ATOM	176	OG	SER	A	560	4.982	0.885	35.475	1.00 14.79
ATOM	177	C	SER	A	560	2.723	1.816	33.767	1.00 13.06
ATOM	178	O	SER	A	560	2.002	2.379	34.579	1.00 13.87
ATOM	179	N	PHE	A	561	3.162	2.406	32.665	1.00 13.65
ATOM	180	CA	PHE	A	561	2.840	3.794	32.324	1.00 13.34
ATOM	181	CB	PHE	A	561	3.295	4.062	30.887	1.00 13.72
ATOM	182	CG	PHE	A	561	2.948	5.434	30.384	1.00 13.46
ATOM	183	CD1	PHE	A	561	3.807	6.506	30.600	1.00 13.58
ATOM	184	CD2	PHE	A	561	1.748	5.658	29.714	1.00 13.13

ATOM	185	CE1	PHE	A	561	3.473	7.787	30.155	1.00 13.58
ATOM	186	CE2	PHE	A	561	1.406	6.931	29.268	1.00 13.39
ATOM	187	CZ	PHE	A	561	2.267	7.996	29.489	1.00 13.43
ATOM	188	C	PHE	A	561	1.356	4.186	32.460	1.00 13.70
ATOM	189	O	PHE	A	561	0.461	3.411	32.115	1.00 13.53
ATOM	190	N	SER	A	562	1.107	5.400	32.954	1.00 13.57
ATOM	191	CA	SER	A	562	-0.255	5.921	33.090	1.00 13.80
ATOM	192	CB	SER	A	562	-0.706	5.967	34.552	1.00 13.87
ATOM	193	OG	SER	A	562	-2.029	6.488	34.633	1.00 14.73
ATOM	194	C	SER	A	562	-0.293	7.335	32.526	1.00 13.43
ATOM	195	O	SER	A	562	0.594	8.148	32.796	1.00 13.86
ATOM	196	N	ASP	A	563	-1.327	7.623	31.749	1.00 13.25
ATOM	197	CA	ASP	A	563	-1.480	8.928	31.118	1.00 13.50
ATOM	198	CB	ASP	A	563	-2.145	8.770	29.759	1.00 13.91
ATOM	199	CG	ASP	A	563	-3.636	8.498	29.881	1.00 13.68
ATOM	200	OD1	ASP	A	563	-4.014	7.384	30.302	1.00 13.53
ATOM	201	OD2	ASP	A	563	-4.437	9.406	29.579	1.00 14.16
ATOM	202	C	ASP	A	563	-2.353	9.870	31.928	1.00 13.67
ATOM	203	O	ASP	A	563	-2.431	11.059	31.622	1.00 13.97
ATOM	204	N	PHE	A	564	-3.005	9.332	32.953	1.00 13.61
ATOM	205	CA	PHE	A	564	-3.945	10.096	33.768	1.00 13.86
ATOM	206	CB	PHE	A	564	-4.400	9.262	34.964	1.00 13.47
ATOM	207	CG	PHE	A	564	-5.607	9.822	35.653	1.00 13.86
ATOM	208	CD1	PHE	A	564	-6.812	9.942	34.970	1.00 14.01
ATOM	209	CD2	PHE	A	564	-5.542	10.240	36.977	1.00 14.06
ATOM	210	CE1	PHE	A	564	-7.939	10.474	35.593	1.00 13.91
ATOM	211	CE2	PHE	A	564	-6.663	10.771	37.613	1.00 14.44
ATOM	212	CZ	PHE	A	564	-7.864	10.889	36.917	1.00 13.94
ATOM	213	C	PHE	A	564	-3.503	11.469	34.259	1.00 13.78
ATOM	214	O	PHE	A	564	-4.284	12.423	34.239	1.00 14.33
ATOM	215	N	GLU	A	565	-2.253	11.573	34.688	1.00 14.01
ATOM	216	CA	GLU	A	565	-1.733	12.827	35.210	1.00 13.76
ATOM	217	CB	GLU	A	565	-0.599	12.520	36.197	1.00 14.09
ATOM	218	CG	GLU	A	565	-0.996	11.576	37.345	1.00 14.47
ATOM	219	CD	GLU	A	565	-1.466	10.204	36.866	1.00 14.03
ATOM	220	OE1	GLU	A	565	-0.708	9.514	36.139	1.00 15.68
ATOM	221	OE2	GLU	A	565	-2.602	9.811	37.218	1.00 15.55
ATOM	222	C	GLU	A	565	-1.239	13.802	34.136	1.00 14.10
ATOM	223	O	GLU	A	565	-0.818	14.924	34.452	1.00 14.21
ATOM	224	N	LEU	A	566	-1.290	13.384	32.874	1.00 13.21
ATOM	225	CA	LEU	A	566	-0.824	14.219	31.763	1.00 13.81
ATOM	226	CB	LEU	A	566	-0.125	13.353	30.713	1.00 13.31
ATOM	227	CG	LEU	A	566	0.928	12.336	31.147	1.00 14.10
ATOM	228	CD1	LEU	A	566	1.488	11.660	29.892	1.00 13.64
ATOM	229	CD2	LEU	A	566	2.027	13.016	31.935	1.00 14.15
ATOM	230	C	LEU	A	566	-1.896	15.028	31.042	1.00 13.64
ATOM	231	O	LEU	A	566	-3.028	14.577	30.875	1.00 13.51
ATOM	232	N	SER	A	567	-1.516	16.223	30.600	1.00 13.32
ATOM	233	CA	SER	A	567	-2.408	17.087	29.839	1.00 13.53
ATOM	234	CB	SER	A	567	-1.935	18.538	29.911	1.00 13.67
ATOM	235	OG	SER	A	567	-0.651	18.678	29.318	1.00 14.09
ATOM	236	C	SER	A	567	-2.324	16.606	28.387	1.00 13.53
ATOM	237	O	SER	A	567	-1.440	15.826	28.043	1.00 13.15
ATOM	238	N	ASP	A	568	-3.229	17.077	27.538	1.00 13.82
ATOM	239	CA	ASP	A	568	-3.211	16.684	26.128	1.00 13.25
ATOM	240	CB	ASP	A	568	-4.355	17.352	25.353	1.00 14.13
ATOM	241	CG	ASP	A	568	-5.711	16.732	25.638	1.00 13.66
ATOM	242	OD1	ASP	A	568	-6.705	17.203	25.036	1.00 14.94
ATOM	243	OD2	ASP	A	568	-5.792	15.779	26.448	1.00 14.70
ATOM	244	C	ASP	A	568	-1.885	17.082	25.477	1.00 13.88
ATOM	245	O	ASP	A	568	-1.345	16.345	24.646	1.00 12.99
ATOM	246	N	LEU	A	569	-1.367	18.255	25.844	1.00 13.84
ATOM	247	CA	LEU	A	569	-0.108	18.726	25.280	1.00 13.37
ATOM	248	CB	LEU	A	569	0.216	20.150	25.764	1.00 13.67
ATOM	249	CG	LEU	A	569	1.610	20.698	25.425	1.00 13.62
ATOM	250	CD1	LEU	A	569	1.889	20.579	23.936	1.00 13.75

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ATOM    251  CD2 LEU A 569       1.700  22.143  25.873  1.00 13.88
ATOM    252  C   LEU A 569       1.007  17.764  25.669  1.00 13.53
ATOM    253  O   LEU A 569       1.833  17.400  24.840  1.00 12.93
ATOM    254  N   GLU A 570       1.021  17.338  26.926  1.00 13.34
ATOM    255  CA  GLU A 570       2.041  16.398  27.369  1.00 13.63
ATOM    256  CB  GLU A 570       1.917  16.150  28.871  1.00 13.51
ATOM    257  CG  GLU A 570       2.321  17.356  29.700  1.00 13.60
ATOM    258  CD  GLU A 570       2.191  17.122  31.192  1.00 13.83
ATOM    259  OE1 GLU A 570       1.054  16.976  31.682  1.00 13.86
ATOM    260  OE2 GLU A 570       3.239  17.092  31.870  1.00 15.72
ATOM    261  C   GLU A 570       1.949  15.078  26.602  1.00 13.47
ATOM    262  O   GLU A 570       2.972  14.492  26.257  1.00 13.69
ATOM    263  N   THR A 571       0.737  14.603  26.324  1.00 13.41
ATOM    264  CA  THR A 571       0.620  13.350  25.584  1.00 13.55
ATOM    265  CB  THR A 571      -0.849  12.836  25.488  1.00 13.45
ATOM    266  OG1 THR A 571      -1.652  13.761  24.750  1.00 12.95
ATOM    267  CG2 THR A 571      -1.442  12.640  26.874  1.00 12.97
ATOM    268  C   THR A 571       1.177  13.557  24.175  1.00 13.48
ATOM    269  O   THR A 571       1.763  12.648  23.591  1.00 13.53
ATOM    270  N   ALA A 572       1.020  14.766  23.642  1.00 13.45
ATOM    271  CA  ALA A 572       1.514  15.066  22.301  1.00 13.10
ATOM    272  CB  ALA A 572       1.050  16.446  21.864  1.00 13.90
ATOM    273  C   ALA A 572       3.032  15.010  22.302  1.00 13.35
ATOM    274  O   ALA A 572       3.649  14.508  21.364  1.00 12.69
ATOM    275  N   LEU A 573       3.634  15.546  23.359  1.00 13.02
ATOM    276  CA  LEU A 573       5.085  15.539  23.465  1.00 13.06
ATOM    277  CB  LEU A 573       5.520  16.436  24.624  1.00 13.12
ATOM    278  CG  LEU A 573       5.186  17.912  24.380  1.00 13.50
ATOM    279  CD1 LEU A 573       5.415  18.700  25.655  1.00 13.63
ATOM    280  CD2 LEU A 573       6.033  18.458  23.242  1.00 13.64
ATOM    281  C   LEU A 573       5.596  14.112  23.645  1.00 13.63
ATOM    282  O   LEU A 573       6.661  13.768  23.137  1.00 12.66
ATOM    283  N   CYS A 574       4.839  13.288  24.367  1.00 13.53
ATOM    284  CA  CYS A 574       5.212  11.888  24.568  1.00 13.39
ATOM    285  CB  CYS A 574       4.216  11.176  25.493  1.00 13.40
ATOM    286  SG  CYS A 574       4.421  11.451  27.262  1.00 12.26
ATOM    287  C   CYS A 574       5.195  11.181  23.222  1.00 13.36
ATOM    288  O   CYS A 574       6.020  10.312  22.951  1.00 12.85
ATOM    289  N   THR A 575       4.233  11.546  22.382  1.00 13.16
ATOM    290  CA  THR A 575       4.109  10.926  21.076  1.00 13.15
ATOM    291  CB  THR A 575       2.766  11.301  20.420  1.00 13.13
ATOM    292  OG1 THR A 575       1.702  10.867  21.276  1.00 13.04
ATOM    293  CG2 THR A 575       2.613  10.624  19.062  1.00 13.18
ATOM    294  C   THR A 575       5.286  11.312  20.190  1.00 13.93
ATOM    295  O   THR A 575       5.809  10.475  19.463  1.00 11.86
ATOM    296  N   ILE A 576       5.715  12.570  20.255  1.00 12.75
ATOM    297  CA  ILE A 576       6.862  12.990  19.455  1.00 13.79
ATOM    298  CB  ILE A 576       7.161  14.488  19.626  1.00 13.17
ATOM    299  CG2 ILE A 576       8.531  14.812  19.051  1.00 13.63
ATOM    300  CG1 ILE A 576       6.082  15.320  18.935  1.00 13.29
ATOM    301  CD1 ILE A 576       6.142  16.790  19.284  1.00 13.28
ATOM    302  C   ILE A 576       8.096  12.208  19.910  1.00 13.49
ATOM    303  O   ILE A 576       8.924  11.791  19.095  1.00 13.34
ATOM    304  N   ARG A 577       8.221  12.014  21.218  1.00 13.91
ATOM    305  CA  ARG A 577       9.361  11.281  21.766  1.00 13.09
ATOM    306  CB  ARG A 577       9.361  11.355  23.296  1.00 13.28
ATOM    307  CG  ARG A 577      10.457  10.532  23.961  1.00 13.31
ATOM    308  CD  ARG A 577      11.821  10.890  23.405  1.00 13.64
ATOM    309  NE  ARG A 577      12.182  12.276  23.700  1.00 13.08
ATOM    310  CZ  ARG A 577      13.253  12.887  23.204  1.00 13.75
ATOM    311  NH1 ARG A 577      14.074  12.240  22.386  1.00 13.53
ATOM    312  NH2 ARG A 577      13.509  14.144  23.530  1.00 13.67
ATOM    313  C   ARG A 577       9.353   9.825  21.317  1.00 13.27
ATOM    314  O   ARG A 577      10.411   9.212  21.149  1.00 13.74
ATOM    315  N   MET A 578       8.159   9.269  21.134  1.00 13.48
ATOM    316  CA  MET A 578       8.040   7.890  20.682  1.00 13.26
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ATOM	317	CB	MET	A	578	6.579	7.445	20.696	1.00	13.39
ATOM	318	CG	MET	A	578	6.025	7.232	22.081	1.00	13.36
ATOM	319	SD	MET	A	578	4.316	6.722	22.006	1.00	12.96
ATOM	320	CE	MET	A	578	3.782	7.200	23.648	1.00	13.59
ATOM	321	C	MET	A	578	8.612	7.752	19.270	1.00	13.20
ATOM	322	O	MET	A	578	9.367	6.827	18.995	1.00	13.19
ATOM	323	N	PHE	A	579	8.246	8.668	18.377	1.00	13.24
ATOM	324	CA	PHE	A	579	8.756	8.627	17.010	1.00	13.23
ATOM	325	CB	PHE	A	579	8.120	9.718	16.139	1.00	13.43
ATOM	326	CG	PHE	A	579	6.767	9.367	15.602	1.00	13.68
ATOM	327	CD1	PHE	A	579	5.623	9.582	16.357	1.00	13.16
ATOM	328	CD2	PHE	A	579	6.637	8.828	14.327	1.00	13.33
ATOM	329	CE1	PHE	A	579	4.364	9.269	15.852	1.00	13.69
ATOM	330	CE2	PHE	A	579	5.386	8.509	13.807	1.00	13.78
ATOM	331	CZ	PHE	A	579	4.243	8.731	14.575	1.00	13.22
ATOM	332	C	PHE	A	579	10.262	8.848	17.011	1.00	13.67
ATOM	333	O	PHE	A	579	10.999	8.209	16.266	1.00	12.68
ATOM	334	N	THR	A	580	10.711	9.768	17.855	1.00	13.25
ATOM	335	CA	THR	A	580	12.126	10.097	17.922	1.00	13.33
ATOM	336	CB	THR	A	580	12.361	11.334	18.814	1.00	13.51
ATOM	337	OG1	THR	A	580	11.529	12.412	18.364	1.00	12.44
ATOM	338	CG2	THR	A	580	13.812	11.780	18.734	1.00	13.59
ATOM	339	C	THR	A	580	13.001	8.953	18.420	1.00	13.79
ATOM	340	O	THR	A	580	13.974	8.587	17.763	1.00	13.03
ATOM	341	N	ASP	A	581	12.652	8.378	19.565	1.00	13.08
ATOM	342	CA	ASP	A	581	13.458	7.299	20.134	1.00	13.82
ATOM	343	CB	ASP	A	581	13.188	7.184	21.631	1.00	13.43
ATOM	344	CG	ASP	A	581	13.839	8.308	22.416	1.00	13.79
ATOM	345	OD1	ASP	A	581	14.199	9.334	21.793	1.00	13.68
ATOM	346	OD2	ASP	A	581	13.986	8.171	23.650	1.00	13.43
ATOM	347	C	ASP	A	581	13.349	5.938	19.460	1.00	13.60
ATOM	348	O	ASP	A	581	14.037	4.990	19.855	1.00	13.29
ATOM	349	N	LEU	A	582	12.480	5.837	18.459	1.00	13.29
ATOM	350	CA	LEU	A	582	12.329	4.611	17.680	1.00	13.18
ATOM	351	CB	LEU	A	582	10.852	4.264	17.443	1.00	13.96
ATOM	352	CG	LEU	A	582	10.106	3.601	18.604	1.00	13.38
ATOM	353	CD1	LEU	A	582	8.673	3.325	18.175	1.00	13.35
ATOM	354	CD2	LEU	A	582	10.790	2.294	19.011	1.00	13.61
ATOM	355	C	LEU	A	582	13.024	4.826	16.337	1.00	13.60
ATOM	356	O	LEU	A	582	12.907	4.013	15.422	1.00	13.18
ATOM	357	N	ASN	A	583	13.736	5.941	16.221	1.00	13.12
ATOM	358	CA	ASN	A	583	14.473	6.257	15.001	1.00	13.10
ATOM	359	CB	ASN	A	583	15.539	5.193	14.770	1.00	13.62
ATOM	360	CG	ASN	A	583	16.696	5.342	15.708	1.00	14.20
ATOM	361	OD1	ASN	A	583	17.381	6.366	15.690	1.00	15.37
ATOM	362	ND2	ASN	A	583	16.928	4.328	16.542	1.00	14.83
ATOM	363	C	ASN	A	583	13.637	6.405	13.740	1.00	13.78
ATOM	364	O	ASN	A	583	14.008	5.898	12.683	1.00	14.08
ATOM	365	N	LEU	A	584	12.526	7.124	13.844	1.00	13.06
ATOM	366	CA	LEU	A	584	11.644	7.328	12.708	1.00	13.78
ATOM	367	CB	LEU	A	584	10.208	7.005	13.122	1.00	13.02
ATOM	368	CG	LEU	A	584	9.628	5.591	12.981	1.00	14.57
ATOM	369	CD1	LEU	A	584	10.704	4.534	12.930	1.00	13.53
ATOM	370	CD2	LEU	A	584	8.653	5.365	14.126	1.00	13.52
ATOM	371	C	LEU	A	584	11.692	8.743	12.128	1.00	13.28
ATOM	372	O	LEU	A	584	11.434	8.942	10.943	1.00	13.97
ATOM	373	N	VAL	A	585	12.022	9.723	12.963	1.00	14.16
ATOM	374	CA	VAL	A	585	12.059	11.116	12.520	1.00	13.40
ATOM	375	CB	VAL	A	585	12.220	12.057	13.730	1.00	13.44
ATOM	376	CG1	VAL	A	585	12.287	13.507	13.264	1.00	14.03
ATOM	377	CG2	VAL	A	585	11.046	11.866	14.685	1.00	13.82
ATOM	378	C	VAL	A	585	13.145	11.424	11.486	1.00	13.88
ATOM	379	O	VAL	A	585	12.837	11.716	10.324	1.00	14.64
ATOM	380	N	GLN	A	586	14.405	11.364	11.904	1.00	14.22
ATOM	381	CA	GLN	A	586	15.519	11.641	11.001	1.00	14.02
ATOM	382	CB	GLN	A	586	16.840	11.684	11.787	1.00	13.86

ATOM	383	CG	GLN	A	586	16.893	12.772	12.874	1.00 14.36
ATOM	384	CD	GLN	A	586	18.124	12.673	13.770	1.00 14.11
ATOM	385	OE1	GLN	A	586	18.289	11.708	14.531	1.00 15.61
ATOM	386	NE2	GLN	A	586	19.000	13.672	13.683	1.00 14.69
ATOM	387	C	GLN	A	586	15.566	10.565	9.914	1.00 14.02
ATOM	388	O	GLN	A	586	15.701	10.876	8.728	1.00 15.13
ATOM	389	N	ASN	A	587	15.430	9.307	10.330	1.00 13.54
ATOM	390	CA	ASN	A	587	15.440	8.160	9.419	1.00 14.31
ATOM	391	CB	ASN	A	587	14.885	6.933	10.141	1.00 14.03
ATOM	392	CG	ASN	A	587	15.165	5.631	9.408	1.00 13.76
ATOM	393	OD1	ASN	A	587	15.244	5.590	8.178	1.00 13.95
ATOM	394	ND2	ASN	A	587	15.297	4.552	10.167	1.00 14.46
ATOM	395	C	ASN	A	587	14.601	8.427	8.171	1.00 13.70
ATOM	396	O	ASN	A	587	15.084	8.304	7.045	1.00 14.27
ATOM	397	N	PHE	A	588	13.336	8.789	8.375	1.00 13.44
ATOM	398	CA	PHE	A	588	12.437	9.054	7.271	1.00 14.04
ATOM	399	CB	PHE	A	588	11.104	8.344	7.530	1.00 13.45
ATOM	400	CG	PHE	A	588	11.243	6.846	7.651	1.00 13.61
ATOM	401	CD1	PHE	A	588	11.117	6.211	8.880	1.00 13.59
ATOM	402	CD2	PHE	A	588	11.528	6.072	6.526	1.00 13.45
ATOM	403	CE1	PHE	A	588	11.274	4.827	8.989	1.00 13.39
ATOM	404	CE2	PHE	A	588	11.685	4.692	6.627	1.00 13.40
ATOM	405	CZ	PHE	A	588	11.558	4.071	7.857	1.00 13.25
ATOM	406	C	PHE	A	588	12.250	10.549	6.981	1.00 13.08
ATOM	407	O	PHE	A	588	11.276	10.964	6.361	1.00 14.01
ATOM	408	N	GLN	A	589	13.214	11.344	7.432	1.00 14.64
ATOM	409	CA	GLN	A	589	13.219	12.787	7.208	1.00 13.71
ATOM	410	CB	GLN	A	589	13.723	13.067	5.785	1.00 14.08
ATOM	411	CG	GLN	A	589	15.241	12.987	5.675	1.00 14.33
ATOM	412	CD	GLN	A	589	15.739	12.048	4.583	1.00 14.14
ATOM	413	OE1	GLN	A	589	16.948	11.968	4.322	1.00 15.27
ATOM	414	NE2	GLN	A	589	14.820	11.319	3.952	1.00 14.54
ATOM	415	C	GLN	A	589	11.888	13.486	7.468	1.00 13.86
ATOM	416	O	GLN	A	589	11.301	14.124	6.589	1.00 14.12
ATOM	417	N	MET	A	590	11.425	13.365	8.704	1.00 14.36
ATOM	418	CA	MET	A	590	10.171	13.973	9.108	1.00 13.93
ATOM	419	CB	MET	A	590	9.533	13.159	10.235	1.00 13.90
ATOM	420	CG	MET	A	590	9.070	11.772	9.827	1.00 14.06
ATOM	421	SD	MET	A	590	7.957	11.101	11.075	1.00 14.16
ATOM	422	CE	MET	A	590	6.662	12.191	10.936	1.00 14.00
ATOM	423	C	MET	A	590	10.408	15.389	9.597	1.00 13.32
ATOM	424	O	MET	A	590	11.173	15.606	10.539	1.00 14.69
ATOM	425	N	LYS	A	591	9.768	16.357	8.955	1.00 13.79
ATOM	426	CA	LYS	A	591	9.913	17.734	9.385	1.00 13.60
ATOM	427	CB	LYS	A	591	9.284	18.674	8.355	1.00 13.60
ATOM	428	CG	LYS	A	591	10.091	19.934	8.110	1.00 14.23
ATOM	429	CD	LYS	A	591	11.555	19.600	7.804	1.00 14.00
ATOM	430	CE	LYS	A	591	11.728	18.919	6.459	1.00 14.19
ATOM	431	NZ	LYS	A	591	11.406	19.843	5.336	1.00 14.39
ATOM	432	C	LYS	A	591	9.172	17.812	10.724	1.00 13.81
ATOM	433	O	LYS	A	591	8.092	17.232	10.875	1.00 13.69
ATOM	434	N	HIS	A	592	9.751	18.511	11.695	1.00 14.10
ATOM	435	CA	HIS	A	592	9.139	18.621	13.016	1.00 13.18
ATOM	436	CB	HIS	A	592	9.995	19.512	13.928	1.00 13.46
ATOM	437	CG	HIS	A	592	9.581	19.483	15.369	1.00 13.43
ATOM	438	CD2	HIS	A	592	9.161	20.469	16.199	1.00 13.77
ATOM	439	ND1	HIS	A	592	9.582	18.327	16.121	1.00 13.27
ATOM	440	CE1	HIS	A	592	9.181	18.601	17.350	1.00 13.51
ATOM	441	NE2	HIS	A	592	8.919	19.894	17.424	1.00 13.57
ATOM	442	C	HIS	A	592	7.710	19.159	12.964	1.00 13.44
ATOM	443	O	HIS	A	592	6.812	18.599	13.586	1.00 13.73
ATOM	444	N	GLU	A	593	7.497	20.233	12.213	1.00 14.10
ATOM	445	CA	GLU	A	593	6.172	20.836	12.116	1.00 13.45
ATOM	446	CB	GLU	A	593	6.220	22.117	11.276	1.00 13.90
ATOM	447	CG	GLU	A	593	6.869	23.286	12.000	1.00 13.91
ATOM	448	CD	GLU	A	593	8.372	23.126	12.136	1.00 14.41

ATOM	449	OE1	GLU	A	593	8.977	23.850	12.962	1.00	15.38
ATOM	450	OE2	GLU	A	593	8.952	22.285	11.409	1.00	14.98
ATOM	451	C	GLU	A	593	5.119	19.895	11.549	1.00	13.87
ATOM	452	O	GLU	A	593	3.996	19.863	12.037	1.00	13.19
ATOM	453	N	VAL	A	594	5.485	19.133	10.525	1.00	13.25
ATOM	454	CA	VAL	A	594	4.554	18.206	9.905	1.00	13.40
ATOM	455	CB	VAL	A	594	5.148	17.611	8.612	1.00	13.72
ATOM	456	CG1	VAL	A	594	4.141	16.678	7.955	1.00	13.60
ATOM	457	CG2	VAL	A	594	5.540	18.735	7.657	1.00	13.46
ATOM	458	C	VAL	A	594	4.207	17.072	10.871	1.00	13.61
ATOM	459	O	VAL	A	594	3.055	16.645	10.949	1.00	11.92
ATOM	460	N	LEU	A	595	5.203	16.571	11.598	1.00	13.17
ATOM	461	CA	LEU	A	595	4.936	15.502	12.554	1.00	13.37
ATOM	462	CB	LEU	A	595	6.237	14.990	13.182	1.00	13.54
ATOM	463	CG	LEU	A	595	6.098	13.967	14.323	1.00	13.40
ATOM	464	CD1	LEU	A	595	5.253	12.765	13.896	1.00	13.47
ATOM	465	CD2	LEU	A	595	7.485	13.522	14.752	1.00	13.61
ATOM	466	C	LEU	A	595	4.002	16.025	13.640	1.00	13.74
ATOM	467	O	LEU	A	595	3.068	15.332	14.057	1.00	13.18
ATOM	468	N	CYS	A	596	4.246	17.254	14.092	1.00	12.95
ATOM	469	CA	CYS	A	596	3.408	17.865	15.123	1.00	13.08
ATOM	470	CB	CYS	A	596	4.000	19.209	15.569	1.00	13.43
ATOM	471	SG	CYS	A	596	5.495	19.077	16.585	1.00	12.03
ATOM	472	C	CYS	A	596	1.981	18.090	14.633	1.00	13.65
ATOM	473	O	CYS	A	596	1.015	17.894	15.375	1.00	12.76
ATOM	474	N	ARG	A	597	1.849	18.514	13.384	1.00	13.37
ATOM	475	CA	ARG	A	597	0.531	18.765	12.832	1.00	12.86
ATOM	476	CB	ARG	A	597	0.644	19.436	11.462	1.00	13.39
ATOM	477	CG	ARG	A	597	-0.673	19.956	10.925	1.00	13.82
ATOM	478	CD	ARG	A	597	-0.468	20.779	9.661	1.00	13.63
ATOM	479	NE	ARG	A	597	0.234	22.030	9.933	1.00	13.93
ATOM	480	CZ	ARG	A	597	1.459	22.321	9.501	1.00	13.56
ATOM	481	NH1	ARG	A	597	2.132	21.448	8.770	1.00	13.68
ATOM	482	NH2	ARG	A	597	2.013	23.493	9.797	1.00	14.47
ATOM	483	C	ARG	A	597	-0.224	17.446	12.717	1.00	13.51
ATOM	484	O	ARG	A	597	-1.406	17.373	13.035	1.00	13.67
ATOM	485	N	TRP	A	598	0.468	16.403	12.264	1.00	13.12
ATOM	486	CA	TRP	A	598	-0.153	15.086	12.122	1.00	12.92
ATOM	487	CB	TRP	A	598	0.851	14.096	11.515	1.00	13.03
ATOM	488	CG	TRP	A	598	0.308	12.701	11.366	1.00	13.73
ATOM	489	CD2	TRP	A	598	0.481	11.618	12.286	1.00	13.30
ATOM	490	CE2	TRP	A	598	-0.255	10.520	11.787	1.00	13.32
ATOM	491	CE3	TRP	A	598	1.187	11.471	13.489	1.00	13.43
ATOM	492	CD1	TRP	A	598	-0.499	12.231	10.368	1.00	13.10
ATOM	493	NE1	TRP	A	598	-0.844	10.918	10.614	1.00	12.97
ATOM	494	CZ2	TRP	A	598	-0.308	9.291	12.451	1.00	13.04
ATOM	495	CZ3	TRP	A	598	1.134	10.246	14.148	1.00	13.37
ATOM	496	CH2	TRP	A	598	0.389	9.172	13.623	1.00	13.31
ATOM	497	C	TRP	A	598	-0.637	14.570	13.487	1.00	13.47
ATOM	498	O	TRP	A	598	-1.740	14.043	13.619	1.00	12.65
ATOM	499	N	ILE	A	599	0.197	14.718	14.506	1.00	12.81
ATOM	500	CA	ILE	A	599	-0.181	14.271	15.838	1.00	13.22
ATOM	501	CB	ILE	A	599	0.972	14.512	16.836	1.00	13.20
ATOM	502	CG2	ILE	A	599	0.500	14.293	18.271	1.00	13.49
ATOM	503	CG1	ILE	A	599	2.134	13.576	16.485	1.00	13.40
ATOM	504	CD1	ILE	A	599	3.394	13.824	17.290	1.00	13.65
ATOM	505	C	ILE	A	599	-1.446	14.991	16.303	1.00	13.31
ATOM	506	O	ILE	A	599	-2.371	14.368	16.810	1.00	12.53
ATOM	507	N	LEU	A	600	-1.487	16.304	16.122	1.00	13.06
ATOM	508	CA	LEU	A	600	-2.653	17.068	16.532	1.00	13.10
ATOM	509	CB	LEU	A	600	-2.387	18.569	16.368	1.00	13.61
ATOM	510	CG	LEU	A	600	-1.340	19.114	17.340	1.00	13.61
ATOM	511	CD1	LEU	A	600	-1.019	20.566	17.003	1.00	13.47
ATOM	512	CD2	LEU	A	600	-1.856	18.998	18.761	1.00	13.46
ATOM	513	C	LEU	A	600	-3.888	16.655	15.734	1.00	13.50
ATOM	514	O	LEU	A	600	-4.984	16.571	16.282	1.00	13.04

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ATOM    515  N   SER A 601      -3.706  16.377  14.447  1.00 13.25
ATOM    516  CA  SER A 601      -4.822  15.968  13.600  1.00 12.73
ATOM    517  CB  SER A 601      -4.386  15.870  12.138  1.00 13.33
ATOM    518  OG  SER A 601      -4.178  17.155  11.581  1.00 12.71
ATOM    519  C   SER A 601      -5.383  14.629  14.056  1.00 13.65
ATOM    520  O   SER A 601      -6.600  14.434  14.075  1.00 12.84
ATOM    521  N   VAL A 602      -4.495  13.707  14.417  1.00 12.95
ATOM    522  CA  VAL A 602      -4.932  12.398  14.887  1.00 13.60
ATOM    523  CB  VAL A 602      -3.727  11.462  15.143  1.00 12.92
ATOM    524  CG1 VAL A 602      -4.173  10.224  15.933  1.00 13.36
ATOM    525  CG2 VAL A 602      -3.116  11.035  13.815  1.00 13.42
ATOM    526  C   VAL A 602      -5.710  12.602  16.182  1.00 13.44
ATOM    527  O   VAL A 602      -6.826  12.106  16.338  1.00 12.88
ATOM    528  N   LYS A 603      -5.125  13.352  17.110  1.00 13.56
ATOM    529  CA  LYS A 603      -5.781  13.619  18.383  1.00 13.57
ATOM    530  CB  LYS A 603      -4.887  14.524  19.253  1.00 13.21
ATOM    531  CG  LYS A 603      -5.526  14.969  20.575  1.00 13.07
ATOM    532  CD  LYS A 603      -4.480  15.313  21.658  1.00 13.33
ATOM    533  CE  LYS A 603      -3.623  16.538  21.331  1.00 13.72
ATOM    534  NZ  LYS A 603      -4.414  17.803  21.264  1.00 13.83
ATOM    535  C   LYS A 603      -7.162  14.257  18.198  1.00 13.51
ATOM    536  O   LYS A 603      -8.120  13.882  18.872  1.00 13.18
ATOM    537  N   LYS A 604      -7.263  15.205  17.269  1.00 13.37
ATOM    538  CA  LYS A 604      -8.520  15.903  17.023  1.00 13.29
ATOM    539  CB  LYS A 604      -8.288  17.132  16.128  1.00 13.52
ATOM    540  CG  LYS A 604      -9.560  17.955  15.890  1.00 14.15
ATOM    541  CD  LYS A 604      -9.285  19.302  15.226  1.00 14.09
ATOM    542  CE  LYS A 604     -10.577  20.100  15.036  1.00 14.33
ATOM    543  NZ  LYS A 604     -11.357  20.205  16.311  1.00 14.28
ATOM    544  C   LYS A 604      -9.591  15.025  16.396  1.00 13.77
ATOM    545  O   LYS A 604     -10.789  15.280  16.571  1.00 13.06
ATOM    546  N   ASN A 605      -9.175  13.986  15.682  1.00 12.77
ATOM    547  CA  ASN A 605     -10.155  13.125  15.042  1.00 13.53
ATOM    548  CB  ASN A 605      -9.655  12.664  13.673  1.00 12.90
ATOM    549  CG  ASN A 605      -9.749  13.766  12.630  1.00 13.87
ATOM    550  OD1 ASN A 605      -8.907  14.671  12.573  1.00 14.75
ATOM    551  ND2 ASN A 605     -10.794  13.713  11.813  1.00 13.81
ATOM    552  C   ASN A 605     -10.662  11.959  15.874  1.00 13.76
ATOM    553  O   ASN A 605     -11.178  10.977  15.340  1.00 13.49
ATOM    554  N   TYR A 606     -10.499  12.076  17.188  1.00 13.69
ATOM    555  CA  TYR A 606     -11.036  11.098  18.122  1.00 13.15
ATOM    556  CB  TYR A 606     -10.013  10.678  19.183  1.00 13.22
ATOM    557  CG  TYR A 606      -9.156   9.533  18.716  1.00 13.16
ATOM    558  CD1 TYR A 606      -7.891   9.755  18.183  1.00 13.25
ATOM    559  CE1 TYR A 606      -7.141   8.707  17.659  1.00 13.41
ATOM    560  CD2 TYR A 606      -9.651   8.232  18.720  1.00 13.06
ATOM    561  CE2 TYR A 606      -8.908   7.179  18.196  1.00 13.55
ATOM    562  CZ  TYR A 606      -7.657   7.424  17.669  1.00 13.53
ATOM    563  OH  TYR A 606      -6.923   6.379  17.152  1.00 13.09
ATOM    564  C   TYR A 606     -12.155  11.891  18.772  1.00 13.62
ATOM    565  O   TYR A 606     -11.995  13.085  19.021  1.00 13.98
ATOM    566  N   ARG A 607     -13.284  11.243  19.031  1.00 13.08
ATOM    567  CA  ARG A 607     -14.416  11.921  19.644  1.00 13.42
ATOM    568  CB  ARG A 607     -15.702  11.166  19.303  1.00 13.89
ATOM    569  CG  ARG A 607     -15.880  10.937  17.794  1.00 13.27
ATOM    570  CD  ARG A 607     -17.289  10.469  17.444  1.00 13.60
ATOM    571  NE  ARG A 607     -17.415  10.131  16.028  1.00 13.53
ATOM    572  CZ  ARG A 607     -18.507   9.615  15.473  1.00 13.47
ATOM    573  NH1 ARG A 607     -19.584   9.374  16.209  1.00 13.37
ATOM    574  NH2 ARG A 607     -18.518   9.322  14.180  1.00 13.45
ATOM    575  C   ARG A 607     -14.221  12.030  21.152  1.00 13.84
ATOM    576  O   ARG A 607     -14.226  11.027  21.871  1.00 14.21
ATOM    577  N   LYS A 608     -14.056  13.262  21.624  1.00 13.68
ATOM    578  CA  LYS A 608     -13.830  13.527  23.039  1.00 13.78
ATOM    579  CB  LYS A 608     -13.591  15.030  23.260  1.00 13.85
ATOM    580  CG  LYS A 608     -14.813  15.907  22.989  1.00 14.26
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ATOM    581  CD  LYS A 608     -14.600  17.346  23.467  1.00 14.11
ATOM    582  CE  LYS A 608     -15.922  18.102  23.515  1.00 13.86
ATOM    583  NZ  LYS A 608     -15.800  19.509  23.988  1.00 14.45
ATOM    584  C   LYS A 608     -14.979  13.050  23.931  1.00 13.98
ATOM    585  O   LYS A 608     -14.764  12.721  25.103  1.00 15.39
ATOM    586  N   ASN A 609     -16.183  12.992  23.364  1.00 13.82
ATOM    587  CA  ASN A 609     -17.384  12.579  24.087  1.00 14.15
ATOM    588  CB  ASN A 609     -18.615  13.134  23.366  1.00 14.36
ATOM    589  CG  ASN A 609     -18.475  14.609  23.042  1.00 13.85
ATOM    590  OD1 ASN A 609     -18.379  15.457  23.944  1.00 15.74
ATOM    591  ND2 ASN A 609     -18.452  14.929  21.748  1.00 15.23
ATOM    592  C   ASN A 609     -17.548  11.068  24.303  1.00 14.38
ATOM    593  O   ASN A 609     -18.366  10.647  25.126  1.00 15.00
ATOM    594  N   VAL A 610     -16.792  10.262  23.561  1.00 13.39
ATOM    595  CA  VAL A 610     -16.846   8.802  23.692  1.00 13.73
ATOM    596  CB  VAL A 610     -16.279   8.113  22.431  1.00 13.97
ATOM    597  CG1 VAL A 610     -16.133   6.624  22.662  1.00 13.40
ATOM    598  CG2 VAL A 610     -17.217   8.356  21.252  1.00 13.60
ATOM    599  C   VAL A 610     -16.010   8.449  24.927  1.00 13.21
ATOM    600  O   VAL A 610     -14.831   8.775  24.999  1.00 13.10
ATOM    601  N   ALA A 611     -16.638   7.779  25.887  1.00 13.89
ATOM    602  CA  ALA A 611     -16.006   7.439  27.162  1.00 13.28
ATOM    603  CB  ALA A 611     -16.985   6.625  28.015  1.00 13.26
ATOM    604  C   ALA A 611     -14.653   6.742  27.136  1.00 13.45
ATOM    605  O   ALA A 611     -13.738   7.139  27.854  1.00 13.51
ATOM    606  N   TYR A 612     -14.525   5.707  26.315  1.00 13.68
ATOM    607  CA  TYR A 612     -13.285   4.952  26.255  1.00 12.97
ATOM    608  CB  TYR A 612     -13.583   3.477  26.500  1.00 13.54
ATOM    609  CG  TYR A 612     -12.388   2.580  26.312  1.00 13.73
ATOM    610  CD1 TYR A 612     -12.327   1.689  25.241  1.00 13.84
ATOM    611  CE1 TYR A 612     -11.233   0.852  25.067  1.00 13.43
ATOM    612  CD2 TYR A 612     -11.320   2.616  27.203  1.00 13.79
ATOM    613  CE2 TYR A 612     -10.218   1.784  27.035  1.00 13.89
ATOM    614  CZ  TYR A 612     -10.184   0.903  25.973  1.00 13.36
ATOM    615  OH  TYR A 612      -9.121   0.037  25.838  1.00 13.63
ATOM    616  C   TYR A 612     -12.487   5.102  24.963  1.00 13.27
ATOM    617  O   TYR A 612     -11.296   5.420  24.999  1.00 12.88
ATOM    618  N   HIS A 613     -13.137   4.878  23.825  1.00 13.03
ATOM    619  CA  HIS A 613     -12.440   4.971  22.546  1.00 13.57
ATOM    620  CB  HIS A 613     -13.192   4.183  21.472  1.00 13.27
ATOM    621  CG  HIS A 613     -13.202   2.704  21.703  1.00 13.52
ATOM    622  CD2 HIS A 613     -12.218   1.778  21.613  1.00 13.10
ATOM    623  ND1 HIS A 613     -14.340   2.018  22.065  1.00 13.11
ATOM    624  CE1 HIS A 613     -14.060   0.733  22.186  1.00 13.11
ATOM    625  NE2 HIS A 613     -12.779   0.559  21.918  1.00 14.31
ATOM    626  C   HIS A 613     -12.208   6.398  22.082  1.00 13.49
ATOM    627  O   HIS A 613     -12.792   6.864  21.098  1.00 13.79
ATOM    628  N   ASN A 614     -11.330   7.081  22.807  1.00 13.07
ATOM    629  CA  ASN A 614     -10.972   8.458  22.520  1.00 13.18
ATOM    630  CB  ASN A 614     -11.468   9.359  23.647  1.00 13.57
ATOM    631  CG  ASN A 614     -11.125   8.807  25.015  1.00 13.81
ATOM    632  OD1 ASN A 614      -9.989   8.396  25.260  1.00 14.31
ATOM    633  ND2 ASN A 614     -12.105   8.788  25.913  1.00 13.80
ATOM    634  C   ASN A 614      -9.452   8.537  22.408  1.00 13.10
ATOM    635  O   ASN A 614      -8.767   7.521  22.480  1.00 13.43
ATOM    636  N   TRP A 615      -8.925   9.745  22.247  1.00 13.58
ATOM    637  CA  TRP A 615      -7.484   9.920  22.106  1.00 13.42
ATOM    638  CB  TRP A 615      -7.136  11.411  22.093  1.00 13.24
ATOM    639  CG  TRP A 615      -5.681  11.692  22.348  1.00 13.40
ATOM    640  CD2 TRP A 615      -4.574  11.349  21.504  1.00 13.40
ATOM    641  CE2 TRP A 615      -3.402  11.801  22.150  1.00 13.33
ATOM    642  CE3 TRP A 615      -4.458  10.702  20.266  1.00 13.70
ATOM    643  CD1 TRP A 615      -5.152  12.315  23.437  1.00 13.72
ATOM    644  NE1 TRP A 615      -3.782  12.385  23.328  1.00 13.00
ATOM    645  CZ2 TRP A 615      -2.127  11.630  21.597  1.00 13.54
ATOM    646  CZ3 TRP A 615      -3.190  10.529  19.716  1.00 13.24
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ATOM	647	CH2	TRP	A	615	-2.041	10.994	20.384	1.00	13.44
ATOM	648	C	TRP	A	615	-6.622	9.207	23.147	1.00	13.48
ATOM	649	O	TRP	A	615	-5.599	8.623	22.799	1.00	12.19
ATOM	650	N	ARG	A	616	-7.018	9.253	24.415	1.00	13.31
ATOM	651	CA	ARG	A	616	-6.223	8.606	25.453	1.00	13.44
ATOM	652	CB	ARG	A	616	-6.831	8.860	26.838	1.00	13.30
ATOM	653	CG	ARG	A	616	-6.779	10.328	27.257	1.00	13.25
ATOM	654	CD	ARG	A	616	-5.363	10.888	27.101	1.00	13.87
ATOM	655	NE	ARG	A	616	-5.275	12.317	27.400	1.00	13.68
ATOM	656	CZ	ARG	A	616	-4.697	12.824	28.485	1.00	13.87
ATOM	657	NH1	ARG	A	616	-4.152	12.024	29.388	1.00	13.26
ATOM	658	NH2	ARG	A	616	-4.655	14.142	28.661	1.00	13.42
ATOM	659	C	ARG	A	616	-6.030	7.109	25.225	1.00	13.09
ATOM	660	O	ARG	A	616	-4.964	6.564	25.523	1.00	13.24
ATOM	661	N	HIS	A	617	-7.052	6.436	24.701	1.00	12.69
ATOM	662	CA	HIS	A	617	-6.916	5.006	24.434	1.00	13.23
ATOM	663	CB	HIS	A	617	-8.258	4.377	24.063	1.00	13.66
ATOM	664	CG	HIS	A	617	-8.123	3.043	23.402	1.00	13.22
ATOM	665	CD2	HIS	A	617	-8.460	2.630	22.158	1.00	13.39
ATOM	666	ND1	HIS	A	617	-7.524	1.963	24.016	1.00	13.18
ATOM	667	CE1	HIS	A	617	-7.496	0.943	23.176	1.00	13.31
ATOM	668	NE2	HIS	A	617	-8.056	1.322	22.043	1.00	12.70
ATOM	669	C	HIS	A	617	-5.919	4.773	23.302	1.00	13.44
ATOM	670	O	HIS	A	617	-5.100	3.853	23.360	1.00	12.36
ATOM	671	N	ALA	A	618	-6.004	5.601	22.267	1.00	13.39
ATOM	672	CA	ALA	A	618	-5.093	5.494	21.126	1.00	13.47
ATOM	673	CB	ALA	A	618	-5.471	6.510	20.058	1.00	13.35
ATOM	674	C	ALA	A	618	-3.666	5.751	21.601	1.00	13.48
ATOM	675	O	ALA	A	618	-2.732	5.032	21.245	1.00	12.46
ATOM	676	N	PHE	A	619	-3.517	6.795	22.409	1.00	13.20
ATOM	677	CA	PHE	A	619	-2.223	7.189	22.951	1.00	13.35
ATOM	678	CB	PHE	A	619	-2.380	8.464	23.787	1.00	13.12
ATOM	679	CG	PHE	A	619	-1.144	8.848	24.556	1.00	13.03
ATOM	680	CD1	PHE	A	619	0.019	9.222	23.892	1.00	13.63
ATOM	681	CD2	PHE	A	619	-1.145	8.833	25.949	1.00	13.34
ATOM	682	CE1	PHE	A	619	1.164	9.575	24.603	1.00	13.46
ATOM	683	CE2	PHE	A	619	-0.007	9.184	26.671	1.00	13.26
ATOM	684	CZ	PHE	A	619	1.152	9.555	25.995	1.00	13.66
ATOM	685	C	PHE	A	619	-1.619	6.080	23.804	1.00	13.67
ATOM	686	O	PHE	A	619	-0.424	5.792	23.707	1.00	12.45
ATOM	687	N	ASN	A	620	-2.447	5.464	24.641	1.00	13.22
ATOM	688	CA	ASN	A	620	-1.983	4.385	25.500	1.00	13.61
ATOM	689	CB	ASN	A	620	-3.064	3.996	26.505	1.00	13.13
ATOM	690	CG	ASN	A	620	-3.039	4.863	27.738	1.00	13.71
ATOM	691	OD1	ASN	A	620	-1.986	5.056	28.340	1.00	13.88
ATOM	692	ND2	ASN	A	620	-4.200	5.385	28.132	1.00	13.14
ATOM	693	C	ASN	A	620	-1.598	3.174	24.681	1.00	13.23
ATOM	694	O	ASN	A	620	-0.660	2.466	25.024	1.00	13.10
ATOM	695	N	THR	A	621	-2.334	2.925	23.606	1.00	13.25
ATOM	696	CA	THR	A	621	-2.031	1.788	22.751	1.00	12.57
ATOM	697	CB	THR	A	621	-3.096	1.615	21.644	1.00	13.38
ATOM	698	OG1	THR	A	621	-4.389	1.438	22.243	1.00	12.16
ATOM	699	CG2	THR	A	621	-2.773	0.393	20.791	1.00	12.92
ATOM	700	C	THR	A	621	-0.659	1.986	22.111	1.00	13.43
ATOM	701	O	THR	A	621	0.129	1.042	22.001	1.00	11.53
ATOM	702	N	ALA	A	622	-0.377	3.215	21.689	1.00	13.01
ATOM	703	CA	ALA	A	622	0.912	3.526	21.076	1.00	13.18
ATOM	704	CB	ALA	A	622	0.879	4.920	20.475	1.00	13.29
ATOM	705	C	ALA	A	622	2.029	3.425	22.117	1.00	13.57
ATOM	706	O	ALA	A	622	3.112	2.914	21.828	1.00	12.61
ATOM	707	N	GLN	A	623	1.771	3.921	23.324	1.00	12.97
ATOM	708	CA	GLN	A	623	2.768	3.856	24.390	1.00	12.88
ATOM	709	CB	GLN	A	623	2.257	4.555	25.656	1.00	13.53
ATOM	710	CG	GLN	A	623	3.264	4.602	26.814	1.00	12.83
ATOM	711	CD	GLN	A	623	3.341	3.308	27.625	1.00	13.68
ATOM	712	OE1	GLN	A	623	2.321	2.698	27.952	1.00	12.93

ATOM	713	NE2	GLN	A	623	4.555	2.903	27.975	1.00	13.00
ATOM	714	C	GLN	A	623	3.110	2.402	24.692	1.00	13.86
ATOM	715	O	GLN	A	623	4.268	2.074	24.929	1.00	13.46
ATOM	716	N	CYS	A	624	2.108	1.527	24.683	1.00	12.91
ATOM	717	CA	CYS	A	624	2.363	0.116	24.934	1.00	13.25
ATOM	718	CB	CYS	A	624	1.046	-0.654	25.056	1.00	13.08
ATOM	719	SG	CYS	A	624	0.340	-0.511	26.709	1.00	23.54
ATOM	720	C	CYS	A	624	3.220	-0.445	23.805	1.00	13.41
ATOM	721	O	CYS	A	624	4.117	-1.253	24.035	1.00	13.00
ATOM	722	N	MET	A	625	2.947	0.000	22.585	1.00	12.89
ATOM	723	CA	MET	A	625	3.715	-0.446	21.427	1.00	13.31
ATOM	724	CB	MET	A	625	3.121	0.146	20.142	1.00	13.33
ATOM	725	CG	MET	A	625	3.821	-0.284	18.856	1.00	12.95
ATOM	726	SD	MET	A	625	3.699	-2.051	18.481	1.00	10.62
ATOM	727	CE	MET	A	625	1.963	-2.153	17.860	1.00	13.44
ATOM	728	C	MET	A	625	5.169	-0.004	21.600	1.00	13.61
ATOM	729	O	MET	A	625	6.094	-0.772	21.345	1.00	13.26
ATOM	730	N	PHE	A	626	5.363	1.237	22.037	1.00	12.95
ATOM	731	CA	PHE	A	626	6.712	1.754	22.253	1.00	12.82
ATOM	732	CB	PHE	A	626	6.668	3.231	22.666	1.00	13.30
ATOM	733	CG	PHE	A	626	8.023	3.810	22.969	1.00	13.30
ATOM	734	CD1	PHE	A	626	8.548	3.759	24.259	1.00	13.53
ATOM	735	CD2	PHE	A	626	8.789	4.376	21.956	1.00	13.74
ATOM	736	CE1	PHE	A	626	9.818	4.263	24.536	1.00	13.44
ATOM	737	CE2	PHE	A	626	10.059	4.882	22.221	1.00	13.38
ATOM	738	CZ	PHE	A	626	10.575	4.826	23.513	1.00	13.55
ATOM	739	C	PHE	A	626	7.381	0.929	23.348	1.00	13.31
ATOM	740	O	PHE	A	626	8.546	0.544	23.231	1.00	12.79
ATOM	741	N	ALA	A	627	6.639	0.651	24.412	1.00	13.00
ATOM	742	CA	ALA	A	627	7.185	-0.129	25.518	1.00	13.67
ATOM	743	CB	ALA	A	627	6.195	-0.169	26.679	1.00	13.54
ATOM	744	C	ALA	A	627	7.538	-1.543	25.079	1.00	13.52
ATOM	745	O	ALA	A	627	8.576	-2.067	25.464	1.00	13.90
ATOM	746	N	ALA	A	628	6.687	-2.154	24.259	1.00	13.14
ATOM	747	CA	ALA	A	628	6.939	-3.515	23.792	1.00	13.20
ATOM	748	CB	ALA	A	628	5.695	-4.081	23.108	1.00	13.33
ATOM	749	C	ALA	A	628	8.126	-3.557	22.836	1.00	13.47
ATOM	750	O	ALA	A	628	8.899	-4.516	22.834	1.00	13.59
ATOM	751	N	LEU	A	629	8.267	-2.517	22.025	1.00	12.87
ATOM	752	CA	LEU	A	629	9.369	-2.440	21.073	1.00	13.56
ATOM	753	CB	LEU	A	629	9.145	-1.288	20.098	1.00	13.60
ATOM	754	CG	LEU	A	629	8.058	-1.510	19.048	1.00	13.33
ATOM	755	CD1	LEU	A	629	7.769	-0.197	18.322	1.00	13.73
ATOM	756	CD2	LEU	A	629	8.516	-2.590	18.066	1.00	13.94
ATOM	757	C	LEU	A	629	10.683	-2.234	21.807	1.00	13.67
ATOM	758	O	LEU	A	629	11.675	-2.904	21.516	1.00	12.97
ATOM	759	N	LYS	A	630	10.678	-1.307	22.762	1.00	13.71
ATOM	760	CA	LYS	A	630	11.871	-0.996	23.549	1.00	13.36
ATOM	761	CB	LYS	A	630	11.748	0.403	24.169	1.00	14.02
ATOM	762	CG	LYS	A	630	11.934	1.542	23.185	1.00	14.01
ATOM	763	CD	LYS	A	630	13.258	1.401	22.457	1.00	14.30
ATOM	764	CE	LYS	A	630	13.586	2.637	21.636	1.00	14.01
ATOM	765	NZ	LYS	A	630	14.779	2.390	20.796	1.00	14.18
ATOM	766	C	LYS	A	630	12.136	-2.001	24.661	1.00	13.75
ATOM	767	O	LYS	A	630	12.960	-2.908	24.512	1.00	13.65
ATOM	768	N	ALA	A	631	11.439	-1.823	25.779	1.00	13.49
ATOM	769	CA	ALA	A	631	11.599	-2.695	26.932	1.00	13.41
ATOM	770	CB	ALA	A	631	10.677	-2.237	28.060	1.00	14.02
ATOM	771	C	ALA	A	631	11.329	-4.161	26.592	1.00	13.90
ATOM	772	O	ALA	A	631	12.035	-5.054	27.063	1.00	14.23
ATOM	773	N	GLY	A	632	10.313	-4.403	25.766	1.00	13.64
ATOM	774	CA	GLY	A	632	9.969	-5.769	25.397	1.00	13.41
ATOM	775	C	GLY	A	632	10.897	-6.365	24.356	1.00	13.25
ATOM	776	O	GLY	A	632	10.734	-7.521	23.961	1.00	13.85
ATOM	777	N	LYS	A	633	11.859	-5.567	23.900	1.00	13.83
ATOM	778	CA	LYS	A	633	12.841	-5.995	22.906	1.00	13.45

ATOM	779	CB	LYS	A	633	13.798	-7.039	23.508	1.00	14.15
ATOM	780	CG	LYS	A	633	14.616	-6.562	24.688	1.00	13.97
ATOM	781	CD	LYS	A	633	15.741	-7.546	24.974	1.00	13.94
ATOM	782	CE	LYS	A	633	16.441	-7.235	26.291	1.00	14.15
ATOM	783	NZ	LYS	A	633	16.979	-5.847	26.345	1.00	14.69
ATOM	784	C	LYS	A	633	12.280	-6.555	21.598	1.00	13.69
ATOM	785	O	LYS	A	633	12.877	-7.461	21.018	1.00	14.81
ATOM	786	N	ILE	A	634	11.146	-6.034	21.133	1.00	13.27
ATOM	787	CA	ILE	A	634	10.553	-6.498	19.878	1.00	13.59
ATOM	788	CB	ILE	A	634	9.017	-6.394	19.916	1.00	13.59
ATOM	789	CG2	ILE	A	634	8.419	-6.878	18.593	1.00	13.72
ATOM	790	CG1	ILE	A	634	8.482	-7.242	21.072	1.00	13.52
ATOM	791	CD1	ILE	A	634	6.991	-7.198	21.230	1.00	14.02
ATOM	792	C	ILE	A	634	11.082	-5.708	18.678	1.00	13.41
ATOM	793	O	ILE	A	634	11.127	-6.218	17.559	1.00	13.64
ATOM	794	N	GLN	A	635	11.475	-4.461	18.917	1.00	13.93
ATOM	795	CA	GLN	A	635	12.018	-3.607	17.865	1.00	13.05
ATOM	796	CB	GLN	A	635	12.579	-2.320	18.483	1.00	14.41
ATOM	797	CG	GLN	A	635	13.106	-1.334	17.461	1.00	14.01
ATOM	798	CD	GLN	A	635	13.812	-0.130	18.075	1.00	14.06
ATOM	799	OE1	GLN	A	635	14.241	0.768	17.353	1.00	15.40
ATOM	800	NE2	GLN	A	635	13.932	-0.104	19.403	1.00	13.81
ATOM	801	C	GLN	A	635	13.124	-4.341	17.099	1.00	13.30
ATOM	802	O	GLN	A	635	13.237	-4.230	15.877	1.00	13.17
ATOM	803	N	ASN	A	636	13.928	-5.093	17.841	1.00	13.21
ATOM	804	CA	ASN	A	636	15.038	-5.869	17.293	1.00	13.73
ATOM	805	CB	ASN	A	636	15.692	-6.686	18.410	1.00	14.34
ATOM	806	CG	ASN	A	636	16.059	-5.848	19.616	1.00	13.53
ATOM	807	OD1	ASN	A	636	17.236	-5.743	19.963	1.00	15.18
ATOM	808	ND2	ASN	A	636	15.059	-5.256	20.270	1.00	14.11
ATOM	809	C	ASN	A	636	14.624	-6.843	16.193	1.00	13.71
ATOM	810	O	ASN	A	636	15.405	-7.133	15.274	1.00	14.00
ATOM	811	N	LYS	A	637	13.403	-7.361	16.306	1.00	14.17
ATOM	812	CA	LYS	A	637	12.876	-8.347	15.370	1.00	13.63
ATOM	813	CB	LYS	A	637	11.933	-9.291	16.119	1.00	13.79
ATOM	814	CG	LYS	A	637	12.500	-9.818	17.428	1.00	13.79
ATOM	815	CD	LYS	A	637	11.436	-10.506	18.260	1.00	13.51
ATOM	816	CE	LYS	A	637	12.006	-10.988	19.589	1.00	13.96
ATOM	817	NZ	LYS	A	637	12.945	-12.126	19.406	1.00	13.92
ATOM	818	C	LYS	A	637	12.143	-7.757	14.169	1.00	13.55
ATOM	819	O	LYS	A	637	11.691	-8.494	13.294	1.00	13.65
ATOM	820	N	LEU	A	638	12.035	-6.435	14.110	1.00	12.94
ATOM	821	CA	LEU	A	638	11.306	-5.808	13.011	1.00	13.46
ATOM	822	CB	LEU	A	638	10.087	-5.061	13.561	1.00	13.24
ATOM	823	CG	LEU	A	638	9.143	-5.837	14.472	1.00	13.43
ATOM	824	CD1	LEU	A	638	8.083	-4.881	15.001	1.00	13.43
ATOM	825	CD2	LEU	A	638	8.515	-7.010	13.724	1.00	13.57
ATOM	826	C	LEU	A	638	12.107	-4.849	12.151	1.00	13.57
ATOM	827	O	LEU	A	638	13.173	-4.368	12.545	1.00	14.09
ATOM	828	N	THR	A	639	11.562	-4.558	10.971	1.00	13.53
ATOM	829	CA	THR	A	639	12.188	-3.636	10.030	1.00	13.53
ATOM	830	CB	THR	A	639	11.744	-3.920	8.587	1.00	13.76
ATOM	831	OG1	THR	A	639	10.350	-3.628	8.459	1.00	13.87
ATOM	832	CG2	THR	A	639	11.963	-5.380	8.229	1.00	13.28
ATOM	833	C	THR	A	639	11.749	-2.216	10.385	1.00	13.19
ATOM	834	O	THR	A	639	10.770	-2.031	11.106	1.00	13.31
ATOM	835	N	ASP	A	640	12.472	-1.221	9.880	1.00	13.90
ATOM	836	CA	ASP	A	640	12.132	0.175	10.144	1.00	13.19
ATOM	837	CB	ASP	A	640	13.118	1.116	9.443	1.00	13.39
ATOM	838	CG	ASP	A	640	14.470	1.165	10.122	1.00	13.70
ATOM	839	OD1	ASP	A	640	15.381	1.816	9.571	1.00	14.14
ATOM	840	OD2	ASP	A	640	14.619	0.561	11.207	1.00	14.69
ATOM	841	C	ASP	A	640	10.716	0.489	9.674	1.00	13.49
ATOM	842	O	ASP	A	640	9.966	1.172	10.365	1.00	12.96
ATOM	843	N	LEU	A	641	10.348	-0.011	8.498	1.00	13.49
ATOM	844	CA	LEU	A	641	9.014	0.238	7.966	1.00	13.49

ATOM	845	CB	LEU	A	641	8.885	-0.322	6.547	1.00	13.23
ATOM	846	CG	LEU	A	641	9.573	0.472	5.435	1.00	13.63
ATOM	847	CD1	LEU	A	641	11.031	0.727	5.768	1.00	14.61
ATOM	848	CD2	LEU	A	641	9.437	-0.294	4.128	1.00	13.64
ATOM	849	C	LEU	A	641	7.949	-0.373	8.858	1.00	13.12
ATOM	850	O	LEU	A	641	6.909	0.228	9.100	1.00	12.82
ATOM	851	N	GLU	A	642	8.211	-1.576	9.350	1.00	13.09
ATOM	852	CA	GLU	A	642	7.260	-2.247	10.219	1.00	12.92
ATOM	853	CB	GLU	A	642	7.744	-3.670	10.507	1.00	13.50
ATOM	854	CG	GLU	A	642	7.551	-4.601	9.312	1.00	13.73
ATOM	855	CD	GLU	A	642	8.274	-5.924	9.454	1.00	13.75
ATOM	856	OE1	GLU	A	642	8.096	-6.791	8.567	1.00	13.72
ATOM	857	OE2	GLU	A	642	9.020	-6.092	10.442	1.00	13.81
ATOM	858	C	GLU	A	642	7.041	-1.460	11.508	1.00	13.70
ATOM	859	O	GLU	A	642	5.914	-1.315	11.975	1.00	12.95
ATOM	860	N	ILE	A	643	8.126	-0.951	12.078	1.00	13.25
ATOM	861	CA	ILE	A	643	8.054	-0.163	13.301	1.00	13.27
ATOM	862	CB	ILE	A	643	9.476	0.163	13.794	1.00	13.23
ATOM	863	CG2	ILE	A	643	9.429	1.162	14.941	1.00	13.56
ATOM	864	CG1	ILE	A	643	10.167	-1.140	14.208	1.00	13.57
ATOM	865	CD1	ILE	A	643	11.651	-1.022	14.338	1.00	13.48
ATOM	866	C	ILE	A	643	7.271	1.125	13.031	1.00	13.43
ATOM	867	O	ILE	A	643	6.392	1.516	13.813	1.00	13.65
ATOM	868	N	LEU	A	644	7.584	1.765	11.909	1.00	13.46
ATOM	869	CA	LEU	A	644	6.918	2.999	11.484	1.00	12.91
ATOM	870	CB	LEU	A	644	7.506	3.456	10.145	1.00	13.39
ATOM	871	CG	LEU	A	644	6.881	4.672	9.449	1.00	13.41
ATOM	872	CD1	LEU	A	644	7.082	5.905	10.324	1.00	13.40
ATOM	873	CD2	LEU	A	644	7.530	4.876	8.081	1.00	13.66
ATOM	874	C	LEU	A	644	5.406	2.783	11.339	1.00	13.09
ATOM	875	O	LEU	A	644	4.593	3.546	11.872	1.00	12.47
ATOM	876	N	ALA	A	645	5.042	1.735	10.611	1.00	13.24
ATOM	877	CA	ALA	A	645	3.643	1.405	10.387	1.00	12.86
ATOM	878	CB	ALA	A	645	3.537	0.257	9.400	1.00	13.24
ATOM	879	C	ALA	A	645	2.913	1.049	11.678	1.00	13.52
ATOM	880	O	ALA	A	645	1.772	1.466	11.886	1.00	12.43
ATOM	881	N	LEU	A	646	3.564	0.277	12.543	1.00	13.09
ATOM	882	CA	LEU	A	646	2.941	-0.121	13.806	1.00	13.54
ATOM	883	CB	LEU	A	646	3.838	-1.120	14.547	1.00	13.01
ATOM	884	CG	LEU	A	646	3.882	-2.524	13.943	1.00	13.67
ATOM	885	CD1	LEU	A	646	5.064	-3.300	14.507	1.00	13.12
ATOM	886	CD2	LEU	A	646	2.570	-3.243	14.253	1.00	13.17
ATOM	887	C	LEU	A	646	2.620	1.055	14.723	1.00	13.26
ATOM	888	O	LEU	A	646	1.570	1.070	15.368	1.00	13.00
ATOM	889	N	LEU	A	647	3.522	2.031	14.798	1.00	13.51
ATOM	890	CA	LEU	A	647	3.302	3.191	15.657	1.00	13.22
ATOM	891	CB	LEU	A	647	4.586	4.012	15.799	1.00	13.21
ATOM	892	CG	LEU	A	647	4.515	5.193	16.770	1.00	13.64
ATOM	893	CD1	LEU	A	647	4.151	4.697	18.156	1.00	13.33
ATOM	894	CD2	LEU	A	647	5.851	5.913	16.791	1.00	13.61
ATOM	895	C	LEU	A	647	2.183	4.057	15.092	1.00	13.45
ATOM	896	O	LEU	A	647	1.291	4.470	15.820	1.00	12.73
ATOM	897	N	ILE	A	648	2.236	4.326	13.792	1.00	13.00
ATOM	898	CA	ILE	A	648	1.196	5.109	13.137	1.00	13.02
ATOM	899	CB	ILE	A	648	1.506	5.275	11.632	1.00	13.57
ATOM	900	CG2	ILE	A	648	0.273	5.773	10.887	1.00	13.56
ATOM	901	CG1	ILE	A	648	2.699	6.223	11.458	1.00	13.39
ATOM	902	CD1	ILE	A	648	3.207	6.317	10.036	1.00	13.07
ATOM	903	C	ILE	A	648	-0.145	4.380	13.315	1.00	13.76
ATOM	904	O	ILE	A	648	-1.158	4.996	13.629	1.00	12.56
ATOM	905	N	ALA	A	649	-0.138	3.064	13.126	1.00	13.01
ATOM	906	CA	ALA	A	649	-1.355	2.269	13.268	1.00	12.94
ATOM	907	CB	ALA	A	649	-1.098	0.833	12.809	1.00	13.27
ATOM	908	C	ALA	A	649	-1.895	2.287	14.699	1.00	13.70
ATOM	909	O	ALA	A	649	-3.095	2.461	14.916	1.00	12.31
ATOM	910	N	ALA	A	650	-1.016	2.121	15.684	1.00	12.92

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ATOM    911  CA  ALA A 650      -1.460   2.135  17.072  1.00 12.96
ATOM    912  CB  ALA A 650      -0.263   1.907  18.007  1.00 13.20
ATOM    913  C   ALA A 650      -2.154   3.463  17.409  1.00 13.21
ATOM    914  O   ALA A 650      -3.190   3.488  18.073  1.00 11.41
ATOM    915  N   LEU A 651      -1.578   4.567  16.950  1.00 12.66
ATOM    916  CA  LEU A 651      -2.149   5.886  17.210  1.00 13.44
ATOM    917  CB  LEU A 651      -1.141   6.976  16.844  1.00 13.32
ATOM    918  CG  LEU A 651       0.099   7.070  17.727  1.00 13.21
ATOM    919  CD1 LEU A 651       1.206   7.821  16.997  1.00 13.21
ATOM    920  CD2 LEU A 651      -0.276   7.740  19.035  1.00 13.40
ATOM    921  C   LEU A 651      -3.436   6.136  16.434  1.00 13.46
ATOM    922  O   LEU A 651      -4.329   6.829  16.916  1.00 12.56
ATOM    923  N   SER A 652      -3.529   5.547  15.243  1.00 13.09
ATOM    924  CA  SER A 652      -4.684   5.752  14.363  1.00 13.43
ATOM    925  CB  SER A 652      -4.207   5.922  12.919  1.00 13.50
ATOM    926  OG  SER A 652      -3.104   6.797  12.821  1.00 13.34
ATOM    927  C   SER A 652      -5.747   4.666  14.332  1.00 13.46
ATOM    928  O   SER A 652      -6.791   4.856  13.704  1.00 12.79
ATOM    929  N   HIS A 653      -5.509   3.541  15.001  1.00 13.05
ATOM    930  CA  HIS A 653      -6.440   2.415  14.907  1.00 13.23
ATOM    931  CB  HIS A 653      -5.838   1.178  15.583  1.00 12.67
ATOM    932  CG  HIS A 653      -6.110   1.103  17.051  1.00 13.08
ATOM    933  CD2 HIS A 653      -7.025   0.387  17.744  1.00 13.22
ATOM    934  ND1 HIS A 653      -5.451   1.884  17.977  1.00 12.74
ATOM    935  CE1 HIS A 653      -5.953   1.654  19.177  1.00 13.31
ATOM    936  NE2 HIS A 653      -6.909   0.751  19.063  1.00 13.19
ATOM    937  C   HIS A 653      -7.905   2.558  15.338  1.00 13.25
ATOM    938  O   HIS A 653      -8.717   1.716  14.973  1.00 12.64
ATOM    939  N   ASP A 654      -8.252   3.592  16.104  1.00 12.43
ATOM    940  CA  ASP A 654      -9.645   3.783  16.520  1.00 13.40
ATOM    941  CB  ASP A 654      -9.802   3.633  18.041  1.00 13.47
ATOM    942  CG  ASP A 654     -10.112   2.209  18.458  1.00 13.46
ATOM    943  OD1 ASP A 654     -10.860   1.537  17.721  1.00 12.07
ATOM    944  OD2 ASP A 654      -9.624   1.768  19.520  1.00 12.15
ATOM    945  C   ASP A 654     -10.182   5.155  16.090  1.00 13.21
ATOM    946  O   ASP A 654     -11.160   5.655  16.644  1.00 12.75
ATOM    947  N   LEU A 655      -9.537   5.744  15.089  1.00 13.43
ATOM    948  CA  LEU A 655      -9.913   7.052  14.563  1.00 12.97
ATOM    949  CB  LEU A 655      -9.153   7.294  13.249  1.00 13.26
ATOM    950  CG  LEU A 655      -8.162   8.455  13.059  1.00 14.25
ATOM    951  CD1 LEU A 655      -7.675   8.999  14.374  1.00 13.73
ATOM    952  CD2 LEU A 655      -6.989   7.983  12.188  1.00 13.04
ATOM    953  C   LEU A 655     -11.427   7.240  14.342  1.00 13.50
ATOM    954  O   LEU A 655     -12.085   6.427  13.688  1.00 12.26
ATOM    955  N   ASP A 656     -11.967   8.317  14.910  1.00 12.97
ATOM    956  CA  ASP A 656     -13.389   8.654  14.778  1.00 12.98
ATOM    957  CB  ASP A 656     -13.710   9.035  13.322  1.00 13.41
ATOM    958  CG  ASP A 656     -15.083   9.685  13.172  1.00 13.46
ATOM    959  OD1 ASP A 656     -15.396  10.616  13.944  1.00 12.69
ATOM    960  OD2 ASP A 656     -15.848   9.273  12.277  1.00 13.27
ATOM    961  C   ASP A 656     -14.334   7.545  15.234  1.00 13.73
ATOM    962  O   ASP A 656     -15.399   7.357  14.651  1.00 12.74
ATOM    963  N   HIS A 657     -13.951   6.818  16.282  1.00 13.39
ATOM    964  CA  HIS A 657     -14.800   5.744  16.803  1.00 13.02
ATOM    965  CB  HIS A 657     -14.092   5.010  17.946  1.00 13.27
ATOM    966  CG  HIS A 657     -14.754   3.726  18.344  1.00 13.30
ATOM    967  CD2 HIS A 657     -15.950   3.487  18.934  1.00 12.79
ATOM    968  ND1 HIS A 657     -14.182   2.489  18.126  1.00 13.66
ATOM    969  CE1 HIS A 657     -14.997   1.546  18.564  1.00 12.87
ATOM    970  NE2 HIS A 657     -16.077   2.125  19.059  1.00 13.80
ATOM    971  C   HIS A 657     -16.099   6.374  17.309  1.00 13.81
ATOM    972  O   HIS A 657     -16.073   7.348  18.060  1.00 12.61
ATOM    973  N   PRO A 658     -17.254   5.816  16.907  1.00 12.55
ATOM    974  CD  PRO A 658     -17.383   4.779  15.868  1.00 13.75
ATOM    975  CA  PRO A 658     -18.572   6.325  17.309  1.00 13.49
ATOM    976  CB  PRO A 658     -19.483   5.789  16.212  1.00 13.43
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ATOM	977	CG	PRO	A	658	-18.861	4.448	15.913	1.00 13.44
ATOM	978	C	PRO	A	658	-19.062	5.944	18.703	1.00 13.42
ATOM	979	O	PRO	A	658	-20.096	6.445	19.169	1.00 13.18
ATOM	980	N	GLY	A	659	-18.340	5.051	19.371	1.00 13.66
ATOM	981	CA	GLY	A	659	-18.756	4.656	20.704	1.00 12.96
ATOM	982	C	GLY	A	659	-19.749	3.510	20.715	1.00 13.69
ATOM	983	O	GLY	A	659	-20.345	3.210	21.757	1.00 12.57
ATOM	984	N	VAL	A	660	-19.940	2.887	19.552	1.00 12.99
ATOM	985	CA	VAL	A	660	-20.839	1.745	19.412	1.00 13.61
ATOM	986	CB	VAL	A	660	-22.163	2.139	18.723	1.00 13.64
ATOM	987	CG1	VAL	A	660	-22.966	3.047	19.652	1.00 13.78
ATOM	988	CG2	VAL	A	660	-21.881	2.850	17.407	1.00 13.18
ATOM	989	C	VAL	A	660	-20.106	0.669	18.609	1.00 13.51
ATOM	990	O	VAL	A	660	-19.261	0.978	17.762	1.00 12.92
ATOM	991	N	SER	A	661	-20.432	-0.589	18.890	1.00 13.12
ATOM	992	CA	SER	A	661	-19.785	-1.742	18.264	1.00 13.54
ATOM	993	CB	SER	A	661	-20.081	-2.997	19.089	1.00 13.63
ATOM	994	OG	SER	A	661	-19.534	-2.885	20.388	1.00 15.18
ATOM	995	C	SER	A	661	-20.126	-2.049	16.817	1.00 13.42
ATOM	996	O	SER	A	661	-21.092	-1.534	16.262	1.00 12.24
ATOM	997	N	ASN	A	662	-19.317	-2.914	16.211	1.00 12.73
ATOM	998	CA	ASN	A	662	-19.561	-3.330	14.836	1.00 13.08
ATOM	999	CB	ASN	A	662	-18.511	-4.341	14.370	1.00 13.16
ATOM	1000	CG	ASN	A	662	-17.259	-3.683	13.868	1.00 13.53
ATOM	1001	OD1	ASN	A	662	-17.310	-2.609	13.279	1.00 13.10
ATOM	1002	ND2	ASN	A	662	-16.127	-4.335	14.071	1.00 13.01
ATOM	1003	C	ASN	A	662	-20.935	-3.982	14.739	1.00 13.46
ATOM	1004	O	ASN	A	662	-21.679	-3.744	13.796	1.00 13.56
ATOM	1005	N	GLN	A	663	-21.257	-4.811	15.725	1.00 13.81
ATOM	1006	CA	GLN	A	663	-22.534	-5.501	15.755	1.00 13.01
ATOM	1007	CB	GLN	A	663	-22.611	-6.408	16.990	1.00 13.72
ATOM	1008	CG	GLN	A	663	-21.606	-7.582	16.971	1.00 13.76
ATOM	1009	CD	GLN	A	663	-20.143	-7.203	17.293	1.00 14.12
ATOM	1010	OE1	GLN	A	663	-19.244	-8.056	17.212	1.00 15.51
ATOM	1011	NE2	GLN	A	663	-19.901	-5.940	17.664	1.00 14.70
ATOM	1012	C	GLN	A	663	-23.664	-4.477	15.766	1.00 13.68
ATOM	1013	O	GLN	A	663	-24.661	-4.627	15.060	1.00 12.83
ATOM	1014	N	PHE	A	664	-23.497	-3.418	16.549	1.00 12.87
ATOM	1015	CA	PHE	A	664	-24.523	-2.385	16.619	1.00 13.07
ATOM	1016	CB	PHE	A	664	-24.144	-1.341	17.674	1.00 13.12
ATOM	1017	CG	PHE	A	664	-25.126	-0.208	17.790	1.00 13.47
ATOM	1018	CD1	PHE	A	664	-25.114	0.846	16.875	1.00 13.69
ATOM	1019	CD2	PHE	A	664	-26.086	-0.213	18.793	1.00 13.31
ATOM	1020	CE1	PHE	A	664	-26.048	1.877	16.960	1.00 13.46
ATOM	1021	CE2	PHE	A	664	-27.031	0.820	18.888	1.00 13.74
ATOM	1022	CZ	PHE	A	664	-27.012	1.862	17.969	1.00 13.49
ATOM	1023	C	PHE	A	664	-24.705	-1.714	15.256	1.00 14.00
ATOM	1024	O	PHE	A	664	-25.827	-1.523	14.791	1.00 13.44
ATOM	1025	N	LEU	A	665	-23.593	-1.356	14.621	1.00 13.16
ATOM	1026	CA	LEU	A	665	-23.642	-0.695	13.320	1.00 13.77
ATOM	1027	CB	LEU	A	665	-22.233	-0.317	12.862	1.00 13.44
ATOM	1028	CG	LEU	A	665	-21.548	0.808	13.644	1.00 13.75
ATOM	1029	CD1	LEU	A	665	-20.107	0.931	13.204	1.00 13.42
ATOM	1030	CD2	LEU	A	665	-22.281	2.115	13.416	1.00 13.37
ATOM	1031	C	LEU	A	665	-24.310	-1.579	12.276	1.00 13.28
ATOM	1032	O	LEU	A	665	-24.943	-1.083	11.347	1.00 13.89
ATOM	1033	N	ILE	A	666	-24.171	-2.890	12.433	1.00 13.43
ATOM	1034	CA	ILE	A	666	-24.780	-3.828	11.497	1.00 13.50
ATOM	1035	CB	ILE	A	666	-24.059	-5.193	11.538	1.00 13.25
ATOM	1036	CG2	ILE	A	666	-24.799	-6.213	10.683	1.00 13.69
ATOM	1037	CG1	ILE	A	666	-22.625	-5.033	11.027	1.00 13.51
ATOM	1038	CD1	ILE	A	666	-21.760	-6.264	11.230	1.00 13.22
ATOM	1039	C	ILE	A	666	-26.257	-4.030	11.815	1.00 13.69
ATOM	1040	O	ILE	A	666	-27.093	-4.034	10.911	1.00 13.24
ATOM	1041	N	ASN	A	667	-26.582	-4.190	13.094	1.00 13.59
ATOM	1042	CA	ASN	A	667	-27.974	-4.404	13.489	1.00 13.68

ATOM	1043	CB	ASN	A	667	-28.054	-4.827	14.965	1.00	14.19
ATOM	1044	CG	ASN	A	667	-27.574	-6.250	15.190	1.00	13.63
ATOM	1045	OD1	ASN	A	667	-27.851	-7.137	14.380	1.00	14.34
ATOM	1046	ND2	ASN	A	667	-26.871	-6.484	16.300	1.00	14.15
ATOM	1047	C	ASN	A	667	-28.858	-3.180	13.230	1.00	13.93
ATOM	1048	O	ASN	A	667	-30.076	-3.305	13.063	1.00	14.40
ATOM	1049	N	THR	A	668	-28.249	-1.998	13.187	1.00	13.67
ATOM	1050	CA	THR	A	668	-28.989	-0.770	12.926	1.00	13.28
ATOM	1051	CB	THR	A	668	-28.445	0.407	13.768	1.00	13.53
ATOM	1052	OG1	THR	A	668	-27.045	0.594	13.506	1.00	13.26
ATOM	1053	CG2	THR	A	668	-28.644	0.121	15.248	1.00	13.80
ATOM	1054	C	THR	A	668	-28.921	-0.401	11.446	1.00	14.08
ATOM	1055	O	THR	A	668	-29.308	0.702	11.055	1.00	13.93
ATOM	1056	N	ASN	A	669	-28.421	-1.326	10.628	1.00	13.59
ATOM	1057	CA	ASN	A	669	-28.307	-1.110	9.190	1.00	13.27
ATOM	1058	CB	ASN	A	669	-29.693	-1.189	8.544	1.00	14.06
ATOM	1059	CG	ASN	A	669	-30.180	-2.608	8.405	1.00	13.54
ATOM	1060	OD1	ASN	A	669	-29.504	-3.445	7.805	1.00	15.61
ATOM	1061	ND2	ASN	A	669	-31.360	-2.893	8.950	1.00	15.38
ATOM	1062	C	ASN	A	669	-27.660	0.229	8.853	1.00	13.83
ATOM	1063	O	ASN	A	669	-28.145	0.966	7.996	1.00	14.26
ATOM	1064	N	SER	A	670	-26.555	0.532	9.525	1.00	13.19
ATOM	1065	CA	SER	A	670	-25.852	1.788	9.319	1.00	13.63
ATOM	1066	CB	SER	A	670	-24.751	1.934	10.367	1.00	13.44
ATOM	1067	OG	SER	A	670	-23.992	3.109	10.156	1.00	15.55
ATOM	1068	C	SER	A	670	-25.245	1.940	7.928	1.00	13.07
ATOM	1069	O	SER	A	670	-25.038	0.958	7.218	1.00	13.51
ATOM	1070	N	GLU	A	671	-24.968	3.188	7.550	1.00	13.03
ATOM	1071	CA	GLU	A	671	-24.359	3.483	6.259	1.00	13.58
ATOM	1072	CB	GLU	A	671	-24.328	4.993	6.012	1.00	13.01
ATOM	1073	CG	GLU	A	671	-23.733	5.387	4.672	1.00	13.68
ATOM	1074	CD	GLU	A	671	-23.609	6.885	4.521	1.00	13.99
ATOM	1075	OE1	GLU	A	671	-22.682	7.471	5.123	1.00	15.25
ATOM	1076	OE2	GLU	A	671	-24.443	7.481	3.812	1.00	14.23
ATOM	1077	C	GLU	A	671	-22.935	2.936	6.254	1.00	13.66
ATOM	1078	O	GLU	A	671	-22.442	2.468	5.230	1.00	13.48
ATOM	1079	N	LEU	A	672	-22.279	3.001	7.407	1.00	13.02
ATOM	1080	CA	LEU	A	672	-20.915	2.497	7.547	1.00	13.73
ATOM	1081	CB	LEU	A	672	-20.411	2.781	8.965	1.00	13.51
ATOM	1082	CG	LEU	A	672	-19.080	3.498	9.211	1.00	14.25
ATOM	1083	CD1	LEU	A	672	-18.699	4.420	8.058	1.00	13.60
ATOM	1084	CD2	LEU	A	672	-19.209	4.270	10.516	1.00	13.67
ATOM	1085	C	LEU	A	672	-20.879	0.995	7.262	1.00	13.42
ATOM	1086	O	LEU	A	672	-19.972	0.512	6.585	1.00	12.80
ATOM	1087	N	ALA	A	673	-21.861	0.255	7.780	1.00	13.42
ATOM	1088	CA	ALA	A	673	-21.923	-1.190	7.562	1.00	12.96
ATOM	1089	CB	ALA	A	673	-23.035	-1.815	8.417	1.00	13.39
ATOM	1090	C	ALA	A	673	-22.152	-1.512	6.094	1.00	13.44
ATOM	1091	O	ALA	A	673	-21.618	-2.494	5.579	1.00	14.19
ATOM	1092	N	LEU	A	674	-22.959	-0.696	5.422	1.00	13.00
ATOM	1093	CA	LEU	A	674	-23.228	-0.912	4.005	1.00	13.43
ATOM	1094	CB	LEU	A	674	-24.298	0.054	3.499	1.00	13.23
ATOM	1095	CG	LEU	A	674	-24.506	0.006	1.980	1.00	14.23
ATOM	1096	CD1	LEU	A	674	-25.060	-1.351	1.565	1.00	13.53
ATOM	1097	CD2	LEU	A	674	-25.450	1.110	1.576	1.00	13.95
ATOM	1098	C	LEU	A	674	-21.952	-0.703	3.200	1.00	13.35
ATOM	1099	O	LEU	A	674	-21.610	-1.518	2.350	1.00	13.73
ATOM	1100	N	MET	A	675	-21.256	0.391	3.485	1.00	13.51
ATOM	1101	CA	MET	A	675	-20.011	0.729	2.799	1.00	13.54
ATOM	1102	CB	MET	A	675	-19.437	2.029	3.370	1.00	13.29
ATOM	1103	CG	MET	A	675	-20.225	3.285	3.022	1.00	13.92
ATOM	1104	SD	MET	A	675	-19.764	4.663	4.077	1.00	18.38
ATOM	1105	CE	MET	A	675	-18.140	5.040	3.411	1.00	13.97
ATOM	1106	C	MET	A	675	-18.955	-0.365	2.930	1.00	13.61
ATOM	1107	O	MET	A	675	-18.215	-0.641	1.987	1.00	13.91
ATOM	1108	N	TYR	A	676	-18.886	-0.996	4.099	1.00	13.57

ATOM	1109	CA	TYR	A	676	-17.882	-2.025	4.324	1.00	13.50
ATOM	1110	CB	TYR	A	676	-17.074	-1.664	5.572	1.00	13.52
ATOM	1111	CG	TYR	A	676	-16.409	-0.311	5.440	1.00	13.29
ATOM	1112	CD1	TYR	A	676	-16.683	0.717	6.338	1.00	13.44
ATOM	1113	CE1	TYR	A	676	-16.121	1.987	6.177	1.00	13.42
ATOM	1114	CD2	TYR	A	676	-15.550	-0.043	4.377	1.00	13.39
ATOM	1115	CE2	TYR	A	676	-14.983	1.215	4.207	1.00	13.41
ATOM	1116	CZ	TYR	A	676	-15.273	2.226	5.107	1.00	13.68
ATOM	1117	OH	TYR	A	676	-14.721	3.469	4.917	1.00	13.46
ATOM	1118	C	TYR	A	676	-18.441	-3.441	4.421	1.00	13.51
ATOM	1119	O	TYR	A	676	-17.788	-4.348	4.947	1.00	13.65
ATOM	1120	N	ASN	A	677	-19.645	-3.618	3.883	1.00	13.77
ATOM	1121	CA	ASN	A	677	-20.344	-4.901	3.858	1.00	13.54
ATOM	1122	CB	ASN	A	677	-19.907	-5.715	2.639	1.00	14.09
ATOM	1123	CG	ASN	A	677	-18.455	-5.531	2.310	1.00	13.65
ATOM	1124	OD1	ASN	A	677	-17.571	-5.870	3.103	1.00	16.37
ATOM	1125	ND2	ASN	A	677	-18.188	-4.983	1.128	1.00	14.80
ATOM	1126	C	ASN	A	677	-20.260	-5.760	5.115	1.00	13.93
ATOM	1127	O	ASN	A	677	-19.976	-6.960	5.052	1.00	13.81
ATOM	1128	N	ASP	A	678	-20.534	-5.125	6.250	1.00	13.34
ATOM	1129	CA	ASP	A	678	-20.547	-5.774	7.552	1.00	13.78
ATOM	1130	CB	ASP	A	678	-21.627	-6.855	7.595	1.00	13.16
ATOM	1131	CG	ASP	A	678	-22.955	-6.373	7.063	1.00	13.99
ATOM	1132	OD1	ASP	A	678	-23.283	-5.186	7.268	1.00	14.21
ATOM	1133	OD2	ASP	A	678	-23.676	-7.192	6.449	1.00	14.46
ATOM	1134	C	ASP	A	678	-19.235	-6.395	7.982	1.00	13.77
ATOM	1135	O	ASP	A	678	-19.191	-7.082	9.003	1.00	14.00
ATOM	1136	N	GLU	A	679	-18.169	-6.153	7.224	1.00	13.59
ATOM	1137	CA	GLU	A	679	-16.869	-6.726	7.552	1.00	13.62
ATOM	1138	CB	GLU	A	679	-16.241	-7.299	6.291	1.00	13.70
ATOM	1139	CG	GLU	A	679	-17.132	-8.313	5.601	1.00	14.02
ATOM	1140	CD	GLU	A	679	-16.341	-9.409	4.934	1.00	13.99
ATOM	1141	OE1	GLU	A	679	-15.703	-9.144	3.893	1.00	15.82
ATOM	1142	OE2	GLU	A	679	-16.348	-10.540	5.465	1.00	15.32
ATOM	1143	C	GLU	A	679	-15.919	-5.723	8.198	1.00	13.54
ATOM	1144	O	GLU	A	679	-15.549	-4.730	7.582	1.00	13.08
ATOM	1145	N	SER	A	680	-15.521	-6.002	9.439	1.00	13.28
ATOM	1146	CA	SER	A	680	-14.626	-5.121	10.187	1.00	13.18
ATOM	1147	CB	SER	A	680	-13.166	-5.399	9.815	1.00	13.52
ATOM	1148	OG	SER	A	680	-12.799	-6.728	10.143	1.00	12.77
ATOM	1149	C	SER	A	680	-14.989	-3.686	9.834	1.00	13.51
ATOM	1150	O	SER	A	680	-14.139	-2.888	9.440	1.00	12.97
ATOM	1151	N	VAL	A	681	-16.272	-3.382	9.978	1.00	13.59
ATOM	1152	CA	VAL	A	681	-16.822	-2.076	9.661	1.00	13.07
ATOM	1153	CB	VAL	A	681	-18.308	-2.033	10.059	1.00	13.28
ATOM	1154	CG1	VAL	A	681	-18.857	-0.637	9.896	1.00	13.77
ATOM	1155	CG2	VAL	A	681	-19.092	-3.010	9.190	1.00	13.27
ATOM	1156	C	VAL	A	681	-16.076	-0.903	10.296	1.00	13.48
ATOM	1157	O	VAL	A	681	-15.612	0.000	9.593	1.00	12.67
ATOM	1158	N	LEU	A	681A	-15.963	-0.923	11.619	1.00	13.30
ATOM	1159	CA	LEU	A	681A	-15.271	0.135	12.346	1.00	13.41
ATOM	1160	CB	LEU	A	681A	-15.311	-0.152	13.850	1.00	12.44
ATOM	1161	CG	LEU	A	681A	-16.613	0.163	14.586	1.00	13.65
ATOM	1162	CD1	LEU	A	681A	-16.666	-0.567	15.920	1.00	13.40
ATOM	1163	CD2	LEU	A	681A	-16.702	1.662	14.801	1.00	13.28
ATOM	1164	C	LEU	A	681A	-13.821	0.267	11.905	1.00	13.43
ATOM	1165	O	LEU	A	681A	-13.342	1.365	11.624	1.00	12.25
ATOM	1166	N	GLU	A	682	-13.126	-0.864	11.853	1.00	13.09
ATOM	1167	CA	GLU	A	682	-11.724	-0.877	11.469	1.00	13.49
ATOM	1168	CB	GLU	A	682	-11.173	-2.290	11.641	1.00	13.14
ATOM	1169	CG	GLU	A	682	-11.190	-2.791	13.101	1.00	13.38
ATOM	1170	CD	GLU	A	682	-12.584	-3.108	13.640	1.00	13.54
ATOM	1171	OE1	GLU	A	682	-13.459	-3.521	12.846	1.00	12.08
ATOM	1172	OE2	GLU	A	682	-12.798	-2.968	14.868	1.00	12.75
ATOM	1173	C	GLU	A	682	-11.447	-0.342	10.062	1.00	13.11
ATOM	1174	O	GLU	A	682	-10.425	0.314	9.838	1.00	13.46

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ATOM   1175  N   HIS A 683     -12.339  -0.621   9.114  1.00 13.58
ATOM   1176  CA  HIS A 683     -12.162  -0.099   7.762  1.00 12.98
ATOM   1177  CB  HIS A 683     -13.181  -0.714   6.799  1.00 13.60
ATOM   1178  CG  HIS A 683     -12.766  -2.044   6.260  1.00 13.38
ATOM   1179  CD2 HIS A 683     -13.182  -3.295   6.565  1.00 13.81
ATOM   1180  ND1 HIS A 683     -11.775  -2.188   5.312  1.00 13.56
ATOM   1181  CE1 HIS A 683     -11.600  -3.473   5.057  1.00 13.43
ATOM   1182  NE2 HIS A 683     -12.440  -4.165   5.804  1.00 14.20
ATOM   1183  C   HIS A 683     -12.338   1.415   7.827  1.00 13.60
ATOM   1184  O   HIS A 683     -11.609   2.164   7.170  1.00 12.50
ATOM   1185  N   HIS A 684     -13.304   1.862   8.626  1.00 13.13
ATOM   1186  CA  HIS A 684     -13.542   3.292   8.788  1.00 12.86
ATOM   1187  CB  HIS A 684     -14.758   3.537   9.692  1.00 13.55
ATOM   1188  CG  HIS A 684     -15.032   4.986   9.957  1.00 13.42
ATOM   1189  CD2 HIS A 684     -15.004   5.705  11.104  1.00 13.36
ATOM   1190  ND1 HIS A 684     -15.358   5.875   8.956  1.00 13.42
ATOM   1191  CE1 HIS A 684     -15.513   7.081   9.474  1.00 13.43
ATOM   1192  NE2 HIS A 684     -15.305   7.005  10.776  1.00 13.52
ATOM   1193  C   HIS A 684     -12.297   3.922   9.412  1.00 13.79
ATOM   1194  O   HIS A 684     -11.853   4.983   8.985  1.00 12.49
ATOM   1195  N   HIS A 685     -11.729   3.259  10.417  1.00 12.82
ATOM   1196  CA  HIS A 685     -10.536   3.794  11.075  1.00 13.00
ATOM   1197  CB  HIS A 685     -10.104   2.899  12.243  1.00 13.12
ATOM   1198  CG  HIS A 685     -11.167   2.690  13.278  1.00 13.28
ATOM   1199  CD2 HIS A 685     -11.514   1.589  13.986  1.00 13.56
ATOM   1200  ND1 HIS A 685     -11.985   3.705  13.726  1.00 13.24
ATOM   1201  CE1 HIS A 685     -12.789   3.238  14.666  1.00 13.26
ATOM   1202  NE2 HIS A 685     -12.522   1.957  14.842  1.00 13.58
ATOM   1203  C   HIS A 685      -9.381   3.931  10.082  1.00 13.22
ATOM   1204  O   HIS A 685      -8.647   4.923  10.098  1.00 12.27
ATOM   1205  N   PHE A 686      -9.212   2.938   9.213  1.00 13.25
ATOM   1206  CA  PHE A 686      -8.136   3.019   8.239  1.00 13.01
ATOM   1207  CB  PHE A 686      -7.971   1.708   7.467  1.00 13.22
ATOM   1208  CG  PHE A 686      -6.956   1.801   6.368  1.00 13.62
ATOM   1209  CD1 PHE A 686      -5.614   2.024   6.664  1.00 13.51
ATOM   1210  CD2 PHE A 686      -7.347   1.740   5.034  1.00 13.86
ATOM   1211  CE1 PHE A 686      -4.674   2.191   5.648  1.00 13.17
ATOM   1212  CE2 PHE A 686      -6.420   1.902   4.011  1.00 13.42
ATOM   1213  CZ  PHE A 686      -5.083   2.131   4.315  1.00 13.65
ATOM   1214  C   PHE A 686      -8.404   4.148   7.249  1.00 13.31
ATOM   1215  O   PHE A 686      -7.484   4.866   6.850  1.00 12.67
ATOM   1216  N   ASP A 687      -9.665   4.289   6.847  1.00 13.16
ATOM   1217  CA  ASP A 687     -10.052   5.334   5.906  1.00 13.36
ATOM   1218  CB  ASP A 687     -11.555   5.257   5.613  1.00 13.31
ATOM   1219  CG  ASP A 687     -12.024   6.354   4.668  1.00 13.21
ATOM   1220  OD1 ASP A 687     -11.521   6.417   3.527  1.00 14.50
ATOM   1221  OD2 ASP A 687     -12.896   7.151   5.065  1.00 14.88
ATOM   1222  C   ASP A 687      -9.710   6.684   6.521  1.00 13.55
ATOM   1223  O   ASP A 687      -9.181   7.575   5.845  1.00 13.22
ATOM   1224  N   GLN A 688     -10.002   6.829   7.812  1.00 13.23
ATOM   1225  CA  GLN A 688      -9.713   8.071   8.525  1.00 13.20
ATOM   1226  CB  GLN A 688     -10.340   8.045   9.923  1.00 13.53
ATOM   1227  CG  GLN A 688     -11.857   8.123   9.922  1.00 13.56
ATOM   1228  CD  GLN A 688     -12.372   9.477   9.459  1.00 13.79
ATOM   1229  OE1 GLN A 688     -12.109  10.505  10.093  1.00 15.21
ATOM   1230  NE2 GLN A 688     -13.108   9.485   8.353  1.00 14.46
ATOM   1231  C   GLN A 688      -8.208   8.273   8.633  1.00 13.63
ATOM   1232  O   GLN A 688      -7.715   9.391   8.498  1.00 12.90
ATOM   1233  N   CYS A 689      -7.485   7.184   8.874  1.00 12.57
ATOM   1234  CA  CYS A 689      -6.036   7.230   8.985  1.00 13.47
ATOM   1235  CB  CYS A 689      -5.493   5.834   9.319  1.00 13.42
ATOM   1236  SG  CYS A 689      -3.689   5.701   9.297  1.00 10.92
ATOM   1237  C   CYS A 689      -5.420   7.727   7.684  1.00 13.27
ATOM   1238  O   CYS A 689      -4.569   8.611   7.691  1.00 13.15
ATOM   1239  N   LEU A 690      -5.864   7.161   6.567  1.00 13.28
ATOM   1240  CA  LEU A 690      -5.336   7.559   5.271  1.00 13.56
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ATOM	1241	CB	LEU	A	690	-5.858	6.627	4.175	1.00 13.16
ATOM	1242	CG	LEU	A	690	-5.267	6.802	2.771	1.00 13.50
ATOM	1243	CD1	LEU	A	690	-3.740	6.732	2.819	1.00 13.97
ATOM	1244	CD2	LEU	A	690	-5.824	5.715	1.858	1.00 13.75
ATOM	1245	C	LEU	A	690	-5.713	9.004	4.962	1.00 13.15
ATOM	1246	O	LEU	A	690	-4.906	9.751	4.408	1.00 13.30
ATOM	1247	N	MET	A	691	-6.929	9.401	5.325	1.00 13.28
ATOM	1248	CA	MET	A	691	-7.373	10.773	5.084	1.00 13.62
ATOM	1249	CB	MET	A	691	-8.752	11.009	5.708	1.00 13.59
ATOM	1250	CG	MET	A	691	-9.328	12.399	5.473	1.00 13.62
ATOM	1251	SD	MET	A	691	-10.777	12.736	6.493	1.00 20.66
ATOM	1252	CE	MET	A	691	-9.972	13.480	7.953	1.00 14.28
ATOM	1253	C	MET	A	691	-6.368	11.752	5.691	1.00 13.78
ATOM	1254	O	MET	A	691	-5.952	12.703	5.038	1.00 12.85
ATOM	1255	N	ILE	A	692	-5.982	11.508	6.940	1.00 13.17
ATOM	1256	CA	ILE	A	692	-5.032	12.379	7.626	1.00 13.23
ATOM	1257	CB	ILE	A	692	-4.911	12.005	9.114	1.00 13.20
ATOM	1258	CG2	ILE	A	692	-3.885	12.903	9.798	1.00 13.63
ATOM	1259	CG1	ILE	A	692	-6.273	12.155	9.791	1.00 13.19
ATOM	1260	CD1	ILE	A	692	-6.769	13.578	9.856	1.00 14.23
ATOM	1261	C	ILE	A	692	-3.646	12.328	6.989	1.00 13.45
ATOM	1262	O	ILE	A	692	-2.996	13.362	6.820	1.00 12.46
ATOM	1263	N	LEU	A	693	-3.195	11.127	6.636	1.00 13.63
ATOM	1264	CA	LEU	A	693	-1.887	10.978	6.016	1.00 13.52
ATOM	1265	CB	LEU	A	693	-1.561	9.489	5.808	1.00 13.04
ATOM	1266	CG	LEU	A	693	-1.198	8.718	7.083	1.00 13.43
ATOM	1267	CD1	LEU	A	693	-1.105	7.221	6.798	1.00 12.99
ATOM	1268	CD2	LEU	A	693	0.129	9.239	7.628	1.00 13.38
ATOM	1269	C	LEU	A	693	-1.798	11.738	4.691	1.00 13.39
ATOM	1270	O	LEU	A	693	-0.723	12.221	4.330	1.00 13.30
ATOM	1271	N	ASN	A	694	-2.921	11.856	3.977	1.00 12.81
ATOM	1272	CA	ASN	A	694	-2.955	12.574	2.698	1.00 13.62
ATOM	1273	CB	ASN	A	694	-3.998	11.969	1.744	1.00 13.55
ATOM	1274	CG	ASN	A	694	-3.594	10.609	1.201	1.00 13.68
ATOM	1275	OD1	ASN	A	694	-2.424	10.361	0.890	1.00 14.14
ATOM	1276	ND2	ASN	A	694	-4.574	9.724	1.057	1.00 13.68
ATOM	1277	C	ASN	A	694	-3.274	14.061	2.838	1.00 13.35
ATOM	1278	O	ASN	A	694	-3.244	14.791	1.850	1.00 13.46
ATOM	1279	N	SER	A	695	-3.597	14.504	4.047	1.00 13.34
ATOM	1280	CA	SER	A	695	-3.936	15.909	4.277	1.00 13.36
ATOM	1281	CB	SER	A	695	-4.563	16.080	5.663	1.00 13.62
ATOM	1282	OG	SER	A	695	-5.877	15.562	5.681	1.00 14.12
ATOM	1283	C	SER	A	695	-2.742	16.845	4.159	1.00 13.46
ATOM	1284	O	SER	A	695	-1.681	16.573	4.709	1.00 13.67
ATOM	1285	N	PRO	A	696	-2.906	17.978	3.449	1.00 13.51
ATOM	1286	CD	PRO	A	696	-4.081	18.465	2.707	1.00 13.97
ATOM	1287	CA	PRO	A	696	-1.780	18.908	3.315	1.00 13.61
ATOM	1288	CB	PRO	A	696	-2.376	20.080	2.531	1.00 13.83
ATOM	1289	CG	PRO	A	696	-3.875	19.951	2.755	1.00 14.46
ATOM	1290	C	PRO	A	696	-1.213	19.339	4.662	1.00 13.63
ATOM	1291	O	PRO	A	696	-1.964	19.714	5.573	1.00 13.27
ATOM	1292	N	GLY	A	697	0.109	19.266	4.785	1.00 13.56
ATOM	1293	CA	GLY	A	697	0.762	19.663	6.019	1.00 13.28
ATOM	1294	C	GLY	A	697	0.840	18.565	7.063	1.00 13.30
ATOM	1295	O	GLY	A	697	1.439	18.755	8.118	1.00 12.65
ATOM	1296	N	ASN	A	698	0.238	17.417	6.771	1.00 13.37
ATOM	1297	CA	ASN	A	698	0.237	16.288	7.705	1.00 13.61
ATOM	1298	CB	ASN	A	698	-1.194	15.887	8.075	1.00 13.19
ATOM	1299	CG	ASN	A	698	-1.918	16.937	8.877	1.00 13.25
ATOM	1300	OD1	ASN	A	698	-2.356	17.962	8.348	1.00 13.57
ATOM	1301	ND2	ASN	A	698	-2.062	16.684	10.164	1.00 13.15
ATOM	1302	C	ASN	A	698	0.891	15.050	7.112	1.00 13.93
ATOM	1303	O	ASN	A	698	0.848	13.978	7.714	1.00 12.46
ATOM	1304	N	GLN	A	699	1.493	15.182	5.937	1.00 12.74
ATOM	1305	CA	GLN	A	699	2.075	14.016	5.283	1.00 13.69
ATOM	1306	CB	GLN	A	699	2.151	14.292	3.782	1.00 13.02

ATOM	1307	CG	GLN	A	699	0.808	14.746	3.225	1.00	13.11
ATOM	1308	CD	GLN	A	699	0.773	14.768	1.715	1.00	14.10
ATOM	1309	OE1	GLN	A	699	0.915	13.732	1.070	1.00	15.55
ATOM	1310	NE2	GLN	A	699	0.583	15.949	1.141	1.00	14.36
ATOM	1311	C	GLN	A	699	3.414	13.541	5.834	1.00	13.37
ATOM	1312	O	GLN	A	699	4.473	13.771	5.242	1.00	13.15
ATOM	1313	N	ILE	A	700	3.355	12.838	6.962	1.00	13.18
ATOM	1314	CA	ILE	A	700	4.560	12.342	7.602	1.00	13.22
ATOM	1315	CB	ILE	A	700	4.277	11.824	9.023	1.00	13.34
ATOM	1316	CG2	ILE	A	700	3.860	12.979	9.923	1.00	13.40
ATOM	1317	CG1	ILE	A	700	3.185	10.758	9.003	1.00	13.44
ATOM	1318	CD1	ILE	A	700	3.079	10.013	10.332	1.00	13.13
ATOM	1319	C	ILE	A	700	5.261	11.251	6.816	1.00	13.31
ATOM	1320	O	ILE	A	700	6.384	10.868	7.153	1.00	12.66
ATOM	1321	N	LEU	A	701	4.609	10.747	5.773	1.00	12.71
ATOM	1322	CA	LEU	A	701	5.220	9.696	4.956	1.00	13.40
ATOM	1323	CB	LEU	A	701	4.252	8.521	4.790	1.00	13.38
ATOM	1324	CG	LEU	A	701	3.813	7.805	6.069	1.00	13.28
ATOM	1325	CD1	LEU	A	701	2.852	6.672	5.710	1.00	13.02
ATOM	1326	CD2	LEU	A	701	5.040	7.260	6.797	1.00	13.42
ATOM	1327	C	LEU	A	701	5.647	10.196	3.576	1.00	13.42
ATOM	1328	O	LEU	A	701	6.017	9.401	2.705	1.00	13.76
ATOM	1329	N	SER	A	702	5.605	11.507	3.374	1.00	13.73
ATOM	1330	CA	SER	A	702	5.978	12.089	2.086	1.00	13.89
ATOM	1331	CB	SER	A	702	5.650	13.587	2.065	1.00	13.97
ATOM	1332	OG	SER	A	702	6.451	14.302	2.990	1.00	13.90
ATOM	1333	C	SER	A	702	7.452	11.887	1.752	1.00	13.58
ATOM	1334	O	SER	A	702	7.850	11.987	0.584	1.00	14.05
ATOM	1335	N	GLY	A	703	8.257	11.595	2.770	1.00	13.33
ATOM	1336	CA	GLY	A	703	9.683	11.388	2.563	1.00	13.73
ATOM	1337	C	GLY	A	703	10.087	9.976	2.172	1.00	14.28
ATOM	1338	O	GLY	A	703	11.253	9.715	1.867	1.00	14.26
ATOM	1339	N	LEU	A	704	9.130	9.058	2.186	1.00	13.31
ATOM	1340	CA	LEU	A	704	9.407	7.671	1.823	1.00	13.33
ATOM	1341	CB	LEU	A	704	8.287	6.753	2.329	1.00	13.42
ATOM	1342	CG	LEU	A	704	8.352	6.353	3.797	1.00	13.63
ATOM	1343	CD1	LEU	A	704	7.153	5.491	4.158	1.00	13.39
ATOM	1344	CD2	LEU	A	704	9.628	5.592	4.045	1.00	14.21
ATOM	1345	C	LEU	A	704	9.521	7.513	0.317	1.00	13.22
ATOM	1346	O	LEU	A	704	8.907	8.266	-0.440	1.00	13.83
ATOM	1347	N	SER	A	705	10.310	6.534	-0.117	1.00	13.88
ATOM	1348	CA	SER	A	705	10.449	6.265	-1.541	1.00	13.50
ATOM	1349	CB	SER	A	705	11.600	5.296	-1.799	1.00	13.75
ATOM	1350	OG	SER	A	705	11.347	4.044	-1.187	1.00	12.84
ATOM	1351	C	SER	A	705	9.128	5.617	-1.922	1.00	13.72
ATOM	1352	O	SER	A	705	8.332	5.276	-1.048	1.00	13.85
ATOM	1353	N	ILE	A	706	8.882	5.445	-3.214	1.00	13.51
ATOM	1354	CA	ILE	A	706	7.626	4.846	-3.646	1.00	13.53
ATOM	1355	CB	ILE	A	706	7.544	4.804	-5.181	1.00	13.71
ATOM	1356	CG2	ILE	A	706	6.286	4.069	-5.613	1.00	13.53
ATOM	1357	CG1	ILE	A	706	7.514	6.234	-5.725	1.00	13.60
ATOM	1358	CD1	ILE	A	706	7.783	6.345	-7.209	1.00	13.94
ATOM	1359	C	ILE	A	706	7.392	3.447	-3.078	1.00	13.64
ATOM	1360	O	ILE	A	706	6.283	3.131	-2.620	1.00	13.60
ATOM	1361	N	GLU	A	707	8.423	2.610	-3.087	1.00	12.90
ATOM	1362	CA	GLU	A	707	8.266	1.263	-2.562	1.00	13.29
ATOM	1363	CB	GLU	A	707	9.439	0.384	-2.986	1.00	13.91
ATOM	1364	CG	GLU	A	707	9.404	0.093	-4.467	1.00	14.06
ATOM	1365	CD	GLU	A	707	8.057	-0.449	-4.905	1.00	14.16
ATOM	1366	OE1	GLU	A	707	7.560	-0.004	-5.962	1.00	15.52
ATOM	1367	OE2	GLU	A	707	7.498	-1.315	-4.200	1.00	14.52
ATOM	1368	C	GLU	A	707	8.098	1.245	-1.053	1.00	13.72
ATOM	1369	O	GLU	A	707	7.304	0.468	-0.522	1.00	13.78
ATOM	1370	N	GLU	A	708	8.840	2.103	-0.363	1.00	12.59
ATOM	1371	CA	GLU	A	708	8.740	2.181	1.085	1.00	13.38
ATOM	1372	CB	GLU	A	708	9.705	3.227	1.644	1.00	13.26

ATOM	1373	CG	GLU	A	708	11.122	2.728	1.856	1.00	13.66
ATOM	1374	CD	GLU	A	708	12.003	3.775	2.519	1.00	13.32
ATOM	1375	OE1	GLU	A	708	12.807	3.394	3.393	1.00	14.51
ATOM	1376	OE2	GLU	A	708	11.894	4.973	2.161	1.00	14.63
ATOM	1377	C	GLU	A	708	7.316	2.567	1.454	1.00	13.39
ATOM	1378	O	GLU	A	708	6.701	1.948	2.315	1.00	13.54
ATOM	1379	N	TYR	A	709	6.799	3.594	0.788	1.00	12.79
ATOM	1380	CA	TYR	A	709	5.448	4.074	1.052	1.00	13.48
ATOM	1381	CB	TYR	A	709	5.157	5.289	0.168	1.00	13.25
ATOM	1382	CG	TYR	A	709	3.777	5.854	0.358	1.00	13.56
ATOM	1383	CD1	TYR	A	709	3.429	6.524	1.528	1.00	13.85
ATOM	1384	CE1	TYR	A	709	2.132	7.002	1.722	1.00	13.46
ATOM	1385	CD2	TYR	A	709	2.802	5.679	-0.617	1.00	13.85
ATOM	1386	CE2	TYR	A	709	1.510	6.153	-0.435	1.00	13.68
ATOM	1387	CZ	TYR	A	709	1.182	6.809	0.733	1.00	13.63
ATOM	1388	OH	TYR	A	709	-0.103	7.268	0.903	1.00	14.29
ATOM	1389	C	TYR	A	709	4.398	2.982	0.819	1.00	13.59
ATOM	1390	O	TYR	A	709	3.580	2.708	1.699	1.00	13.42
ATOM	1391	N	LYS	A	710	4.421	2.357	-0.355	1.00	13.45
ATOM	1392	CA	LYS	A	710	3.464	1.293	-0.669	1.00	13.67
ATOM	1393	CB	LYS	A	710	3.795	0.683	-2.031	1.00	14.30
ATOM	1394	CG	LYS	A	710	3.344	-0.762	-2.208	1.00	13.74
ATOM	1395	CD	LYS	A	710	4.140	-1.444	-3.309	1.00	14.45
ATOM	1396	CE	LYS	A	710	3.991	-2.956	-3.249	1.00	13.99
ATOM	1397	NZ	LYS	A	710	2.587	-3.403	-3.452	1.00	14.37
ATOM	1398	C	LYS	A	710	3.505	0.204	0.404	1.00	13.99
ATOM	1399	O	LYS	A	710	2.471	-0.244	0.907	1.00	13.83
ATOM	1400	N	THR	A	711	4.710	-0.218	0.757	1.00	13.16
ATOM	1401	CA	THR	A	711	4.891	-1.251	1.766	1.00	13.04
ATOM	1402	CB	THR	A	711	6.379	-1.611	1.891	1.00	13.91
ATOM	1403	OG1	THR	A	711	6.807	-2.221	0.670	1.00	13.81
ATOM	1404	CG2	THR	A	711	6.620	-2.566	3.057	1.00	13.45
ATOM	1405	C	THR	A	711	4.348	-0.824	3.129	1.00	13.65
ATOM	1406	O	THR	A	711	3.646	-1.587	3.793	1.00	13.95
ATOM	1407	N	THR	A	712	4.658	0.401	3.533	1.00	13.31
ATOM	1408	CA	THR	A	712	4.211	0.905	4.826	1.00	13.16
ATOM	1409	CB	THR	A	712	4.834	2.277	5.124	1.00	13.23
ATOM	1410	OG1	THR	A	712	6.257	2.185	4.998	1.00	13.48
ATOM	1411	CG2	THR	A	712	4.495	2.719	6.535	1.00	12.82
ATOM	1412	C	THR	A	712	2.694	1.021	4.924	1.00	13.42
ATOM	1413	O	THR	A	712	2.111	0.630	5.935	1.00	13.12
ATOM	1414	N	LEU	A	713	2.057	1.550	3.881	1.00	13.46
ATOM	1415	CA	LEU	A	713	0.604	1.713	3.888	1.00	13.27
ATOM	1416	CB	LEU	A	713	0.146	2.425	2.613	1.00	13.78
ATOM	1417	CG	LEU	A	713	-0.447	3.826	2.788	1.00	14.13
ATOM	1418	CD1	LEU	A	713	-1.834	3.699	3.377	1.00	14.10
ATOM	1419	CD2	LEU	A	713	0.433	4.693	3.685	1.00	14.18
ATOM	1420	C	LEU	A	713	-0.124	0.380	4.035	1.00	13.42
ATOM	1421	O	LEU	A	713	-1.134	0.291	4.732	1.00	13.70
ATOM	1422	N	LYS	A	714	0.382	-0.662	3.388	1.00	13.47
ATOM	1423	CA	LYS	A	714	-0.263	-1.963	3.510	1.00	13.30
ATOM	1424	CB	LYS	A	714	0.313	-2.947	2.490	1.00	14.06
ATOM	1425	CG	LYS	A	714	-0.443	-4.261	2.447	1.00	13.90
ATOM	1426	CD	LYS	A	714	-0.163	-5.035	1.167	1.00	14.40
ATOM	1427	CE	LYS	A	714	-0.760	-6.434	1.246	1.00	13.74
ATOM	1428	NZ	LYS	A	714	-2.198	-6.421	1.655	1.00	14.98
ATOM	1429	C	LYS	A	714	-0.113	-2.518	4.928	1.00	13.26
ATOM	1430	O	LYS	A	714	-1.050	-3.104	5.470	1.00	13.32
ATOM	1431	N	ILE	A	715	1.054	-2.334	5.541	1.00	13.22
ATOM	1432	CA	ILE	A	715	1.259	-2.828	6.902	1.00	13.36
ATOM	1433	CB	ILE	A	715	2.714	-2.597	7.385	1.00	13.39
ATOM	1434	CG2	ILE	A	715	2.861	-3.061	8.832	1.00	13.19
ATOM	1435	CG1	ILE	A	715	3.689	-3.353	6.479	1.00	13.83
ATOM	1436	CD1	ILE	A	715	5.144	-2.968	6.698	1.00	13.30
ATOM	1437	C	ILE	A	715	0.305	-2.091	7.842	1.00	13.64
ATOM	1438	O	ILE	A	715	-0.241	-2.685	8.775	1.00	12.55

ATOM	1439	N	ILE	A	716	0.112	-0.796	7.596	1.00 12.64
ATOM	1440	CA	ILE	A	716	-0.787	-0.002	8.422	1.00 13.17
ATOM	1441	CB	ILE	A	716	-0.759	1.489	8.033	1.00 12.82
ATOM	1442	CG2	ILE	A	716	-1.855	2.246	8.790	1.00 12.83
ATOM	1443	CG1	ILE	A	716	0.620	2.071	8.344	1.00 13.28
ATOM	1444	CD1	ILE	A	716	0.812	3.507	7.893	1.00 13.08
ATOM	1445	C	ILE	A	716	-2.213	-0.509	8.303	1.00 13.47
ATOM	1446	O	ILE	A	716	-2.903	-0.670	9.309	1.00 12.74
ATOM	1447	N	LYS	A	717	-2.666	-0.760	7.079	1.00 12.93
ATOM	1448	CA	LYS	A	717	-4.026	-1.254	6.911	1.00 13.24
ATOM	1449	CB	LYS	A	717	-4.371	-1.440	5.434	1.00 13.24
ATOM	1450	CG	LYS	A	717	-5.798	-1.912	5.238	1.00 12.81
ATOM	1451	CD	LYS	A	717	-6.187	-2.016	3.778	1.00 13.64
ATOM	1452	CE	LYS	A	717	-7.622	-2.497	3.660	1.00 13.16
ATOM	1453	NZ	LYS	A	717	-8.015	-2.816	2.264	1.00 14.14
ATOM	1454	C	LYS	A	717	-4.200	-2.579	7.643	1.00 13.27
ATOM	1455	O	LYS	A	717	-5.171	-2.781	8.360	1.00 12.98
ATOM	1456	N	GLN	A	718	-3.242	-3.478	7.471	1.00 13.53
ATOM	1457	CA	GLN	A	718	-3.319	-4.778	8.122	1.00 12.98
ATOM	1458	CB	GLN	A	718	-2.156	-5.659	7.656	1.00 13.28
ATOM	1459	CG	GLN	A	718	-2.344	-6.170	6.229	1.00 13.60
ATOM	1460	CD	GLN	A	718	-1.069	-6.712	5.596	1.00 13.90
ATOM	1461	OE1	GLN	A	718	-1.128	-7.395	4.576	1.00 15.44
ATOM	1462	NE2	GLN	A	718	0.085	-6.391	6.180	1.00 13.88
ATOM	1463	C	GLN	A	718	-3.311	-4.651	9.639	1.00 13.46
ATOM	1464	O	GLN	A	718	-4.026	-5.374	10.340	1.00 12.68
ATOM	1465	N	ALA	A	719	-2.509	-3.721	10.145	1.00 13.02
ATOM	1466	CA	ALA	A	719	-2.404	-3.527	11.588	1.00 13.04
ATOM	1467	CB	ALA	A	719	-1.220	-2.615	11.910	1.00 13.03
ATOM	1468	C	ALA	A	719	-3.690	-2.947	12.168	1.00 13.64
ATOM	1469	O	ALA	A	719	-4.123	-3.337	13.251	1.00 12.20
ATOM	1470	N	ILE	A	720	-4.304	-2.012	11.452	1.00 12.38
ATOM	1471	CA	ILE	A	720	-5.538	-1.419	11.944	1.00 12.70
ATOM	1472	CB	ILE	A	720	-5.909	-0.143	11.133	1.00 13.18
ATOM	1473	CG2	ILE	A	720	-7.353	0.282	11.415	1.00 12.96
ATOM	1474	CG1	ILE	A	720	-4.950	0.989	11.519	1.00 13.00
ATOM	1475	CD1	ILE	A	720	-5.145	2.283	10.734	1.00 13.10
ATOM	1476	C	ILE	A	720	-6.669	-2.442	11.902	1.00 14.01
ATOM	1477	O	ILE	A	720	-7.461	-2.537	12.836	1.00 12.31
ATOM	1478	N	LEU	A	721	-6.730	-3.230	10.834	1.00 12.77
ATOM	1479	CA	LEU	A	721	-7.781	-4.239	10.730	1.00 13.40
ATOM	1480	CB	LEU	A	721	-7.804	-4.862	9.331	1.00 13.40
ATOM	1481	CG	LEU	A	721	-8.402	-3.997	8.212	1.00 13.64
ATOM	1482	CD1	LEU	A	721	-8.243	-4.714	6.888	1.00 13.55
ATOM	1483	CD2	LEU	A	721	-9.866	-3.711	8.489	1.00 13.40
ATOM	1484	C	LEU	A	721	-7.596	-5.328	11.779	1.00 13.03
ATOM	1485	O	LEU	A	721	-8.570	-5.916	12.249	1.00 13.30
ATOM	1486	N	ALA	A	722	-6.347	-5.580	12.157	1.00 13.29
ATOM	1487	CA	ALA	A	722	-6.043	-6.606	13.153	1.00 13.07
ATOM	1488	CB	ALA	A	722	-4.530	-6.764	13.288	1.00 13.07
ATOM	1489	C	ALA	A	722	-6.656	-6.278	14.514	1.00 13.56
ATOM	1490	O	ALA	A	722	-6.869	-7.172	15.341	1.00 12.63
ATOM	1491	N	THR	A	723	-6.956	-5.002	14.745	1.00 12.82
ATOM	1492	CA	THR	A	723	-7.530	-4.610	16.021	1.00 12.99
ATOM	1493	CB	THR	A	723	-7.355	-3.102	16.291	1.00 13.51
ATOM	1494	OG1	THR	A	723	-7.981	-2.341	15.253	1.00 12.28
ATOM	1495	CG2	THR	A	723	-5.867	-2.762	16.338	1.00 12.83
ATOM	1496	C	THR	A	723	-8.997	-4.990	16.148	1.00 13.07
ATOM	1497	O	THR	A	723	-9.623	-4.726	17.175	1.00 12.36
ATOM	1498	N	ASP	A	724	-9.544	-5.595	15.094	1.00 12.73
ATOM	1499	CA	ASP	A	724	-10.921	-6.082	15.134	1.00 13.52
ATOM	1500	CB	ASP	A	724	-11.423	-6.420	13.729	1.00 13.18
ATOM	1501	CG	ASP	A	724	-12.825	-7.013	13.740	1.00 13.45
ATOM	1502	OD1	ASP	A	724	-13.354	-7.270	14.840	1.00 12.56
ATOM	1503	OD2	ASP	A	724	-13.393	-7.229	12.651	1.00 13.03
ATOM	1504	C	ASP	A	724	-10.796	-7.364	15.944	1.00 13.42

ATOM	1505	O	ASP	A	724	-10.242	-8.344	15.454	1.00 12.69
ATOM	1506	N	LEU	A	725	-11.298	-7.364	17.174	1.00 12.86
ATOM	1507	CA	LEU	A	725	-11.172	-8.540	18.025	1.00 13.03
ATOM	1508	CB	LEU	A	725	-11.906	-8.311	19.351	1.00 13.56
ATOM	1509	CG	LEU	A	725	-11.531	-9.168	20.567	1.00 14.30
ATOM	1510	CD1	LEU	A	725	-11.894	-10.592	20.300	1.00 13.87
ATOM	1511	CD2	LEU	A	725	-10.042	-9.047	20.879	1.00 13.62
ATOM	1512	C	LEU	A	725	-11.663	-9.814	17.340	1.00 13.38
ATOM	1513	O	LEU	A	725	-11.182	-10.907	17.645	1.00 13.79
ATOM	1514	N	ALA	A	726	-12.601	-9.684	16.404	1.00 13.20
ATOM	1515	CA	ALA	A	726	-13.109	-10.860	15.701	1.00 13.60
ATOM	1516	CB	ALA	A	726	-14.317	-10.486	14.850	1.00 13.31
ATOM	1517	C	ALA	A	726	-12.022	-11.509	14.839	1.00 13.42
ATOM	1518	O	ALA	A	726	-11.981	-12.733	14.706	1.00 13.58
ATOM	1519	N	LEU	A	727	-11.135	-10.699	14.264	1.00 13.61
ATOM	1520	CA	LEU	A	727	-10.052	-11.239	13.450	1.00 13.52
ATOM	1521	CB	LEU	A	727	-9.433	-10.146	12.574	1.00 13.37
ATOM	1522	CG	LEU	A	727	-10.304	-9.755	11.373	1.00 13.54
ATOM	1523	CD1	LEU	A	727	-11.672	-9.343	11.848	1.00 14.17
ATOM	1524	CD2	LEU	A	727	-9.646	-8.635	10.597	1.00 13.22
ATOM	1525	C	LEU	A	727	-8.990	-11.877	14.341	1.00 13.75
ATOM	1526	O	LEU	A	727	-8.307	-12.813	13.931	1.00 13.94
ATOM	1527	N	TYR	A	728	-8.849	-11.363	15.557	1.00 13.32
ATOM	1528	CA	TYR	A	728	-7.895	-11.929	16.504	1.00 13.45
ATOM	1529	CB	TYR	A	728	-7.808	-11.063	17.766	1.00 13.45
ATOM	1530	CG	TYR	A	728	-7.316	-11.809	18.988	1.00 13.77
ATOM	1531	CD1	TYR	A	728	-8.194	-12.143	20.022	1.00 13.40
ATOM	1532	CE1	TYR	A	728	-7.770	-12.876	21.127	1.00 13.60
ATOM	1533	CD2	TYR	A	728	-5.991	-12.228	19.092	1.00 13.65
ATOM	1534	CE2	TYR	A	728	-5.557	-12.972	20.198	1.00 13.61
ATOM	1535	CZ	TYR	A	728	-6.454	-13.290	21.210	1.00 13.82
ATOM	1536	OH	TYR	A	728	-6.048	-14.035	22.301	1.00 14.18
ATOM	1537	C	TYR	A	728	-8.398	-13.325	16.862	1.00 13.52
ATOM	1538	O	TYR	A	728	-7.660	-14.302	16.806	1.00 13.66
ATOM	1539	N	ILE	A	729	-9.674	-13.413	17.208	1.00 13.46
ATOM	1540	CA	ILE	A	729	-10.263	-14.693	17.570	1.00 13.58
ATOM	1541	CB	ILE	A	729	-11.758	-14.523	17.912	1.00 13.16
ATOM	1542	CG2	ILE	A	729	-12.410	-15.877	18.116	1.00 13.49
ATOM	1543	CG1	ILE	A	729	-11.896	-13.694	19.187	1.00 13.55
ATOM	1544	CD1	ILE	A	729	-13.313	-13.269	19.493	1.00 13.56
ATOM	1545	C	ILE	A	729	-10.107	-15.711	16.437	1.00 13.49
ATOM	1546	O	ILE	A	729	-9.817	-16.889	16.673	1.00 13.73
ATOM	1547	N	LYS	A	730	-10.293	-15.245	15.207	1.00 13.44
ATOM	1548	CA	LYS	A	730	-10.195	-16.092	14.019	1.00 13.41
ATOM	1549	CB	LYS	A	730	-10.695	-15.310	12.800	1.00 14.11
ATOM	1550	CG	LYS	A	730	-10.463	-16.009	11.467	1.00 13.68
ATOM	1551	CD	LYS	A	730	-10.847	-15.109	10.303	1.00 13.95
ATOM	1552	CE	LYS	A	730	-10.856	-15.874	8.990	1.00 14.04
ATOM	1553	NZ	LYS	A	730	-11.279	-14.989	7.877	1.00 14.56
ATOM	1554	C	LYS	A	730	-8.792	-16.628	13.709	1.00 13.76
ATOM	1555	O	LYS	A	730	-8.636	-17.788	13.303	1.00 13.57
ATOM	1556	N	ARG	A	731	-7.776	-15.791	13.900	1.00 13.52
ATOM	1557	CA	ARG	A	731	-6.403	-16.179	13.570	1.00 13.52
ATOM	1558	CB	ARG	A	731	-5.721	-15.041	12.800	1.00 13.80
ATOM	1559	CG	ARG	A	731	-6.499	-14.525	11.596	1.00 13.63
ATOM	1560	CD	ARG	A	731	-5.741	-13.389	10.913	1.00 14.16
ATOM	1561	NE	ARG	A	731	-4.498	-13.837	10.282	1.00 14.37
ATOM	1562	CZ	ARG	A	731	-3.583	-13.015	9.765	1.00 13.79
ATOM	1563	NH1	ARG	A	731	-3.765	-11.704	9.806	1.00 14.34
ATOM	1564	NH2	ARG	A	731	-2.486	-13.501	9.198	1.00 14.00
ATOM	1565	C	ARG	A	731	-5.489	-16.581	14.721	1.00 13.85
ATOM	1566	O	ARG	A	731	-4.382	-17.075	14.492	1.00 13.43
ATOM	1567	N	ARG	A	732	-5.933	-16.390	15.954	1.00 13.26
ATOM	1568	CA	ARG	A	732	-5.063	-16.717	17.068	1.00 13.35
ATOM	1569	CB	ARG	A	732	-5.671	-16.221	18.379	1.00 13.35
ATOM	1570	CG	ARG	A	732	-6.964	-16.887	18.781	1.00 13.23

ATOM	1571	CD	ARG	A	732	-7.420	-16.318	20.103	1.00	13.33
ATOM	1572	NE	ARG	A	732	-8.488	-17.102	20.705	1.00	13.42
ATOM	1573	CZ	ARG	A	732	-8.827	-17.012	21.987	1.00	13.83
ATOM	1574	NH1	ARG	A	732	-8.176	-16.173	22.786	1.00	13.87
ATOM	1575	NH2	ARG	A	732	-9.807	-17.763	22.473	1.00	14.42
ATOM	1576	C	ARG	A	732	-4.734	-18.199	17.163	1.00	13.34
ATOM	1577	O	ARG	A	732	-3.636	-18.570	17.581	1.00	12.81
ATOM	1578	N	GLY	A	733	-5.681	-19.040	16.769	1.00	13.42
ATOM	1579	CA	GLY	A	733	-5.452	-20.473	16.823	1.00	13.39
ATOM	1580	C	GLY	A	733	-4.233	-20.876	16.018	1.00	13.84
ATOM	1581	O	GLY	A	733	-3.432	-21.707	16.464	1.00	13.52
ATOM	1582	N	GLU	A	734	-4.090	-20.283	14.834	1.00	13.23
ATOM	1583	CA	GLU	A	734	-2.961	-20.583	13.956	1.00	13.60
ATOM	1584	CB	GLU	A	734	-3.082	-19.796	12.656	1.00	13.65
ATOM	1585	CG	GLU	A	734	-2.021	-20.141	11.640	1.00	13.40
ATOM	1586	CD	GLU	A	734	-2.093	-19.268	10.405	1.00	14.07
ATOM	1587	OE1	GLU	A	734	-3.155	-18.649	10.161	1.00	13.89
ATOM	1588	OE2	GLU	A	734	-1.085	-19.214	9.667	1.00	14.52
ATOM	1589	C	GLU	A	734	-1.650	-20.225	14.644	1.00	14.07
ATOM	1590	O	GLU	A	734	-0.691	-20.996	14.632	1.00	13.91
ATOM	1591	N	PHE	A	735	-1.619	-19.040	15.242	1.00	12.92
ATOM	1592	CA	PHE	A	735	-0.449	-18.553	15.962	1.00	13.88
ATOM	1593	CB	PHE	A	735	-0.744	-17.137	16.482	1.00	13.28
ATOM	1594	CG	PHE	A	735	0.379	-16.517	17.277	1.00	13.57
ATOM	1595	CD1	PHE	A	735	1.658	-16.412	16.747	1.00	13.72
ATOM	1596	CD2	PHE	A	735	0.136	-15.988	18.543	1.00	13.82
ATOM	1597	CE1	PHE	A	735	2.684	-15.785	17.463	1.00	13.27
ATOM	1598	CE2	PHE	A	735	1.150	-15.358	19.267	1.00	12.94
ATOM	1599	CZ	PHE	A	735	2.423	-15.256	18.730	1.00	13.85
ATOM	1600	C	PHE	A	735	-0.092	-19.490	17.121	1.00	13.49
ATOM	1601	O	PHE	A	735	1.056	-19.922	17.253	1.00	13.08
ATOM	1602	N	PHE	A	736	-1.085	-19.820	17.944	1.00	13.31
ATOM	1603	CA	PHE	A	736	-0.878	-20.701	19.088	1.00	13.68
ATOM	1604	CB	PHE	A	736	-2.176	-20.804	19.902	1.00	13.68
ATOM	1605	CG	PHE	A	736	-2.639	-19.492	20.495	1.00	13.37
ATOM	1606	CD1	PHE	A	736	-3.938	-19.362	20.976	1.00	13.64
ATOM	1607	CD2	PHE	A	736	-1.779	-18.402	20.592	1.00	13.47
ATOM	1608	CE1	PHE	A	736	-4.381	-18.175	21.543	1.00	13.44
ATOM	1609	CE2	PHE	A	736	-2.210	-17.202	21.159	1.00	13.58
ATOM	1610	CZ	PHE	A	736	-3.518	-17.090	21.636	1.00	13.41
ATOM	1611	C	PHE	A	736	-0.410	-22.107	18.679	1.00	13.60
ATOM	1612	O	PHE	A	736	0.445	-22.699	19.344	1.00	13.16
ATOM	1613	N	GLU	A	737	-0.971	-22.644	17.596	1.00	13.62
ATOM	1614	CA	GLU	A	737	-0.581	-23.977	17.137	1.00	13.50
ATOM	1615	CB	GLU	A	737	-1.524	-24.481	16.040	1.00	13.45
ATOM	1616	CG	GLU	A	737	-2.864	-25.019	16.533	1.00	14.17
ATOM	1617	CD	GLU	A	737	-3.424	-26.095	15.607	1.00	14.34
ATOM	1618	OE1	GLU	A	737	-3.416	-25.881	14.373	1.00	15.30
ATOM	1619	OE2	GLU	A	737	-3.868	-27.158	16.106	1.00	15.80
ATOM	1620	C	GLU	A	737	0.863	-24.014	16.631	1.00	14.09
ATOM	1621	O	GLU	A	737	1.596	-24.973	16.893	1.00	13.57
ATOM	1622	N	LEU	A	738	1.276	-22.976	15.908	1.00	13.59
ATOM	1623	CA	LEU	A	738	2.642	-22.902	15.393	1.00	13.54
ATOM	1624	CB	LEU	A	738	2.868	-21.582	14.645	1.00	13.83
ATOM	1625	CG	LEU	A	738	2.452	-21.500	13.174	1.00	13.55
ATOM	1626	CD1	LEU	A	738	1.090	-22.121	12.964	1.00	14.18
ATOM	1627	CD2	LEU	A	738	2.462	-20.046	12.744	1.00	13.73
ATOM	1628	C	LEU	A	738	3.642	-23.015	16.535	1.00	13.76
ATOM	1629	O	LEU	A	738	4.641	-23.732	16.433	1.00	13.66
ATOM	1630	N	ILE	A	739	3.373	-22.298	17.621	1.00	13.26
ATOM	1631	CA	ILE	A	739	4.246	-22.332	18.789	1.00	13.16
ATOM	1632	CB	ILE	A	739	3.798	-21.307	19.850	1.00	13.73
ATOM	1633	CG2	ILE	A	739	4.699	-21.401	21.070	1.00	13.76
ATOM	1634	CG1	ILE	A	739	3.841	-19.894	19.267	1.00	13.75
ATOM	1635	CD1	ILE	A	739	5.225	-19.390	18.959	1.00	14.10
ATOM	1636	C	ILE	A	739	4.205	-23.729	19.412	1.00	13.87

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ATOM   1637  O   ILE A 739       5.250 -24.352  19.632  1.00 13.77
ATOM   1638  N   ARG A 740       2.992 -24.211  19.670  1.00 14.01
ATOM   1639  CA  ARG A 740       2.768 -25.523  20.273  1.00 13.71
ATOM   1640  CB  ARG A 740       1.261 -25.836  20.307  1.00 13.66
ATOM   1641  CG  ARG A 740       0.912 -27.205  20.885  1.00 14.01
ATOM   1642  CD  ARG A 740      -0.571 -27.297  21.234  1.00 13.70
ATOM   1643  NE  ARG A 740      -1.449 -27.387  20.067  1.00 14.78
ATOM   1644  CZ  ARG A 740      -1.553 -28.467  19.294  1.00 14.05
ATOM   1645  NH1 ARG A 740      -0.824 -29.549  19.563  1.00 14.76
ATOM   1646  NH2 ARG A 740      -2.399 -28.480  18.270  1.00 14.98
ATOM   1647  C   ARG A 740       3.509 -26.643  19.545  1.00 13.55
ATOM   1648  O   ARG A 740       4.062 -27.540  20.182  1.00 13.89
ATOM   1649  N   LYS A 741       3.521 -26.582  18.215  1.00 13.78
ATOM   1650  CA  LYS A 741       4.171 -27.600  17.392  1.00 13.75
ATOM   1651  CB  LYS A 741       3.348 -27.836  16.128  1.00 13.98
ATOM   1652  CG  LYS A 741       1.963 -28.384  16.429  1.00 13.46
ATOM   1653  CD  LYS A 741       1.224 -28.803  15.181  1.00 13.67
ATOM   1654  CE  LYS A 741      -0.048 -29.555  15.548  1.00 13.92
ATOM   1655  NZ  LYS A 741      -0.805 -29.977  14.343  1.00 14.48
ATOM   1656  C   LYS A 741       5.607 -27.263  17.012  1.00 13.82
ATOM   1657  O   LYS A 741       6.214 -27.950  16.182  1.00 13.10
ATOM   1658  N   ASN A 742       6.149 -26.214  17.624  1.00 13.40
ATOM   1659  CA  ASN A 742       7.515 -25.794  17.339  1.00 13.43
ATOM   1660  CB  ASN A 742       8.496 -26.850  17.848  1.00 13.74
ATOM   1661  CG  ASN A 742       8.564 -26.887  19.356  1.00 13.17
ATOM   1662  OD1 ASN A 742       8.947 -25.904  19.990  1.00 14.67
ATOM   1663  ND2 ASN A 742       8.185 -28.018  19.945  1.00 13.49
ATOM   1664  C   ASN A 742       7.733 -25.535  15.852  1.00 13.49
ATOM   1665  O   ASN A 742       8.707 -25.998  15.257  1.00 13.51
ATOM   1666  N   GLN A 743       6.819 -24.780  15.255  1.00 13.05
ATOM   1667  CA  GLN A 743       6.923 -24.445  13.841  1.00 13.79
ATOM   1668  CB  GLN A 743       5.735 -25.018  13.062  1.00 13.47
ATOM   1669  CG  GLN A 743       5.444 -26.476  13.352  1.00 13.82
ATOM   1670  CD  GLN A 743       4.324 -27.018  12.495  1.00 14.08
ATOM   1671  OE1 GLN A 743       3.369 -26.303  12.182  1.00 14.64
ATOM   1672  NE2 GLN A 743       4.427 -28.296  12.115  1.00 14.03
ATOM   1673  C   GLN A 743       6.959 -22.932  13.660  1.00 13.74
ATOM   1674  O   GLN A 743       7.051 -22.442  12.537  1.00 14.51
ATOM   1675  N   PHE A 744       6.885 -22.190  14.762  1.00 14.03
ATOM   1676  CA  PHE A 744       6.901 -20.735  14.667  1.00 13.65
ATOM   1677  CB  PHE A 744       6.514 -20.086  15.992  1.00 13.91
ATOM   1678  CG  PHE A 744       6.347 -18.591  15.892  1.00 13.66
ATOM   1679  CD1 PHE A 744       5.266 -18.045  15.197  1.00 13.92
ATOM   1680  CD2 PHE A 744       7.297 -17.737  16.433  1.00 13.87
ATOM   1681  CE1 PHE A 744       5.142 -16.659  15.039  1.00 13.97
ATOM   1682  CE2 PHE A 744       7.185 -16.352  16.284  1.00 13.56
ATOM   1683  CZ  PHE A 744       6.109 -15.813  15.586  1.00 13.53
ATOM   1684  C   PHE A 744       8.269 -20.226  14.244  1.00 13.75
ATOM   1685  O   PHE A 744       9.291 -20.610  14.811  1.00 14.69
ATOM   1686  N   ASN A 745       8.281 -19.365  13.235  1.00 13.60
ATOM   1687  CA  ASN A 745       9.518 -18.806  12.711  1.00 13.97
ATOM   1688  CB  ASN A 745      10.066 -19.708  11.597  1.00 13.34
ATOM   1689  CG  ASN A 745      11.195 -19.063  10.817  1.00 13.68
ATOM   1690  OD1 ASN A 745      11.883 -18.172  11.313  1.00 14.48
ATOM   1691  ND2 ASN A 745      11.400 -19.523   9.585  1.00 14.55
ATOM   1692  C   ASN A 745       9.221 -17.414  12.173  1.00 13.78
ATOM   1693  O   ASN A 745       8.597 -17.261  11.122  1.00 14.21
ATOM   1694  N   LEU A 746       9.661 -16.401  12.911  1.00 14.01
ATOM   1695  CA  LEU A 746       9.430 -15.018  12.521  1.00 14.06
ATOM   1696  CB  LEU A 746      10.006 -14.068  13.565  1.00 13.96
ATOM   1697  CG  LEU A 746       9.112 -13.693  14.742  1.00 14.13
ATOM   1698  CD1 LEU A 746       9.822 -12.638  15.585  1.00 14.30
ATOM   1699  CD2 LEU A 746       7.787 -13.146  14.226  1.00 13.75
ATOM   1700  C   LEU A 746      10.009 -14.659  11.170  1.00 13.68
ATOM   1701  O   LEU A 746       9.639 -13.640  10.581  1.00 15.66
ATOM   1702  N   GLU A 747      10.934 -15.477  10.687  1.00 14.23
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ATOM	1703	CA	GLU	A	747	11.562	-15.215	9.404	1.00 14.03
ATOM	1704	CB	GLU	A	747	12.808	-16.094	9.253	1.00 14.11
ATOM	1705	CG	GLU	A	747	13.966	-15.630	10.130	1.00 14.25
ATOM	1706	CD	GLU	A	747	14.996	-16.711	10.376	1.00 14.04
ATOM	1707	OE1	GLU	A	747	15.607	-17.199	9.393	1.00 15.41
ATOM	1708	OE2	GLU	A	747	15.189	-17.073	11.562	1.00 15.25
ATOM	1709	C	GLU	A	747	10.601	-15.415	8.236	1.00 14.41
ATOM	1710	O	GLU	A	747	10.748	-14.771	7.186	1.00 15.20
ATOM	1711	N	ASP	A	748	9.615	-16.293	8.410	1.00 13.97
ATOM	1712	CA	ASP	A	748	8.639	-16.525	7.350	1.00 14.05
ATOM	1713	CB	ASP	A	748	7.829	-17.796	7.615	1.00 13.85
ATOM	1714	CG	ASP	A	748	6.679	-17.962	6.644	1.00 13.96
ATOM	1715	OD1	ASP	A	748	5.516	-17.847	7.081	1.00 14.84
ATOM	1716	OD2	ASP	A	748	6.933	-18.199	5.442	1.00 15.08
ATOM	1717	C	ASP	A	748	7.705	-15.324	7.296	1.00 13.42
ATOM	1718	O	ASP	A	748	7.050	-14.997	8.286	1.00 14.24
ATOM	1719	N	PRO	A	749	7.620	-14.661	6.132	1.00 13.95
ATOM	1720	CD	PRO	A	749	8.096	-15.203	4.845	1.00 14.08
ATOM	1721	CA	PRO	A	749	6.778	-13.483	5.902	1.00 13.28
ATOM	1722	CB	PRO	A	749	6.866	-13.295	4.393	1.00 13.87
ATOM	1723	CG	PRO	A	749	7.040	-14.701	3.894	1.00 14.56
ATOM	1724	C	PRO	A	749	5.342	-13.633	6.391	1.00 13.73
ATOM	1725	O	PRO	A	749	4.803	-12.732	7.035	1.00 13.95
ATOM	1726	N	HIS	A	750	4.729	-14.774	6.092	1.00 13.44
ATOM	1727	CA	HIS	A	750	3.358	-15.030	6.520	1.00 13.61
ATOM	1728	CB	HIS	A	750	2.874	-16.382	5.981	1.00 13.53
ATOM	1729	CG	HIS	A	750	1.488	-16.739	6.413	1.00 13.64
ATOM	1730	CD2	HIS	A	750	0.283	-16.413	5.891	1.00 14.16
ATOM	1731	ND1	HIS	A	750	1.228	-17.501	7.532	1.00 14.50
ATOM	1732	CE1	HIS	A	750	-0.077	-17.631	7.680	1.00 13.64
ATOM	1733	NE2	HIS	A	750	-0.674	-16.980	6.697	1.00 14.74
ATOM	1734	C	HIS	A	750	3.248	-15.010	8.043	1.00 13.37
ATOM	1735	O	HIS	A	750	2.381	-14.334	8.603	1.00 13.68
ATOM	1736	N	GLU	A	751	4.123	-15.754	8.712	1.00 13.51
ATOM	1737	CA	GLU	A	751	4.108	-15.803	10.169	1.00 13.44
ATOM	1738	CB	GLU	A	751	5.102	-16.842	10.679	1.00 13.50
ATOM	1739	CG	GLU	A	751	4.718	-18.264	10.346	1.00 14.04
ATOM	1740	CD	GLU	A	751	5.534	-19.265	11.126	1.00 13.47
ATOM	1741	OE1	GLU	A	751	5.899	-18.950	12.278	1.00 14.44
ATOM	1742	OE2	GLU	A	751	5.799	-20.368	10.598	1.00 15.21
ATOM	1743	C	GLU	A	751	4.436	-14.446	10.778	1.00 13.42
ATOM	1744	O	GLU	A	751	3.977	-14.118	11.880	1.00 13.60
ATOM	1745	N	LYS	A	752	5.240	-13.663	10.065	1.00 13.25
ATOM	1746	CA	LYS	A	752	5.612	-12.336	10.536	1.00 13.47
ATOM	1747	CB	LYS	A	752	6.658	-11.696	9.604	1.00 13.89
ATOM	1748	CG	LYS	A	752	6.880	-10.196	9.847	1.00 13.94
ATOM	1749	CD	LYS	A	752	7.442	-9.912	11.235	1.00 14.08
ATOM	1750	CE	LYS	A	752	8.949	-10.107	11.287	1.00 13.89
ATOM	1751	NZ	LYS	A	752	9.689	-9.008	10.603	1.00 14.67
ATOM	1752	C	LYS	A	752	4.353	-11.472	10.579	1.00 13.54
ATOM	1753	O	LYS	A	752	4.108	-10.776	11.562	1.00 12.81
ATOM	1754	N	GLU	A	753	3.554	-11.523	9.517	1.00 13.79
ATOM	1755	CA	GLU	A	753	2.325	-10.733	9.457	1.00 13.21
ATOM	1756	CB	GLU	A	753	1.671	-10.869	8.080	1.00 14.16
ATOM	1757	CG	GLU	A	753	2.539	-10.356	6.943	1.00 13.87
ATOM	1758	CD	GLU	A	753	1.818	-10.346	5.608	1.00 14.10
ATOM	1759	OE1	GLU	A	753	2.438	-9.909	4.613	1.00 15.62
ATOM	1760	OE2	GLU	A	753	0.641	-10.773	5.547	1.00 15.75
ATOM	1761	C	GLU	A	753	1.336	-11.169	10.537	1.00 13.40
ATOM	1762	O	GLU	A	753	0.601	-10.354	11.094	1.00 13.32
ATOM	1763	N	LEU	A	754	1.323	-12.465	10.825	1.00 13.46
ATOM	1764	CA	LEU	A	754	0.435	-13.007	11.837	1.00 13.13
ATOM	1765	CB	LEU	A	754	0.500	-14.537	11.807	1.00 13.81
ATOM	1766	CG	LEU	A	754	-0.341	-15.352	12.793	1.00 13.34
ATOM	1767	CD1	LEU	A	754	-1.836	-15.052	12.641	1.00 13.49
ATOM	1768	CD2	LEU	A	754	-0.062	-16.824	12.538	1.00 13.80

ATOM	1769	C	LEU	A	754	0.869	-12.484	13.201	1.00	13.60
ATOM	1770	O	LEU	A	754	0.039	-12.146	14.047	1.00	13.15
ATOM	1771	N	PHE	A	755	2.178	-12.401	13.410	1.00	12.74
ATOM	1772	CA	PHE	A	755	2.680	-11.905	14.681	1.00	13.19
ATOM	1773	CB	PHE	A	755	4.194	-12.113	14.788	1.00	13.49
ATOM	1774	CG	PHE	A	755	4.795	-11.455	15.995	1.00	13.85
ATOM	1775	CD1	PHE	A	755	4.493	-11.911	17.273	1.00	13.23
ATOM	1776	CD2	PHE	A	755	5.595	-10.325	15.860	1.00	13.62
ATOM	1777	CE1	PHE	A	755	4.973	-11.248	18.402	1.00	13.60
ATOM	1778	CE2	PHE	A	755	6.081	-9.651	16.986	1.00	13.80
ATOM	1779	CZ	PHE	A	755	5.770	-10.111	18.254	1.00	13.76
ATOM	1780	C	PHE	A	755	2.349	-10.418	14.852	1.00	13.84
ATOM	1781	O	PHE	A	755	1.943	-9.990	15.930	1.00	13.15
ATOM	1782	N	LEU	A	756	2.520	-9.631	13.794	1.00	13.15
ATOM	1783	CA	LEU	A	756	2.226	-8.200	13.880	1.00	13.08
ATOM	1784	CB	LEU	A	756	2.545	-7.503	12.551	1.00	13.54
ATOM	1785	CG	LEU	A	756	4.015	-7.515	12.119	1.00	13.92
ATOM	1786	CD1	LEU	A	756	4.147	-6.915	10.728	1.00	13.84
ATOM	1787	CD2	LEU	A	756	4.847	-6.744	13.114	1.00	13.71
ATOM	1788	C	LEU	A	756	0.759	-7.995	14.240	1.00	13.80
ATOM	1789	O	LEU	A	756	0.402	-7.048	14.945	1.00	12.50
ATOM	1790	N	ALA	A	757	-0.096	-8.888	13.753	1.00	13.12
ATOM	1791	CA	ALA	A	757	-1.516	-8.790	14.056	1.00	13.58
ATOM	1792	CB	ALA	A	757	-2.300	-9.800	13.233	1.00	13.43
ATOM	1793	C	ALA	A	757	-1.731	-9.046	15.541	1.00	13.10
ATOM	1794	O	ALA	A	757	-2.488	-8.335	16.200	1.00	12.84
ATOM	1795	N	MET	A	758	-1.069	-10.072	16.066	1.00	13.00
ATOM	1796	CA	MET	A	758	-1.212	-10.407	17.476	1.00	12.76
ATOM	1797	CB	MET	A	758	-0.519	-11.743	17.785	1.00	13.02
ATOM	1798	CG	MET	A	758	-1.041	-12.946	16.999	1.00	13.53
ATOM	1799	SD	MET	A	758	-2.753	-13.411	17.408	1.00	14.26
ATOM	1800	CE	MET	A	758	-3.598	-12.923	15.868	1.00	13.71
ATOM	1801	C	MET	A	758	-0.628	-9.307	18.358	1.00	13.24
ATOM	1802	O	MET	A	758	-1.125	-9.048	19.459	1.00	12.43
ATOM	1803	N	LEU	A	759	0.428	-8.658	17.871	1.00	12.98
ATOM	1804	CA	LEU	A	759	1.071	-7.589	18.625	1.00	12.77
ATOM	1805	CB	LEU	A	759	2.365	-7.149	17.924	1.00	13.37
ATOM	1806	CG	LEU	A	759	3.160	-6.017	18.585	1.00	13.25
ATOM	1807	CD1	LEU	A	759	3.463	-6.373	20.032	1.00	13.42
ATOM	1808	CD2	LEU	A	759	4.450	-5.769	17.804	1.00	13.38
ATOM	1809	C	LEU	A	759	0.122	-6.407	18.761	1.00	13.88
ATOM	1810	O	LEU	A	759	0.019	-5.803	19.828	1.00	12.46
ATOM	1811	N	MET	A	760	-0.572	-6.083	17.673	1.00	13.30
ATOM	1812	CA	MET	A	760	-1.521	-4.977	17.702	1.00	12.92
ATOM	1813	CB	MET	A	760	-2.165	-4.775	16.324	1.00	13.02
ATOM	1814	CG	MET	A	760	-1.268	-4.085	15.301	1.00	12.96
ATOM	1815	SD	MET	A	760	-0.829	-2.383	15.775	1.00	9.73
ATOM	1816	CE	MET	A	760	-2.449	-1.648	15.853	1.00	13.14
ATOM	1817	C	MET	A	760	-2.602	-5.249	18.748	1.00	13.29
ATOM	1818	O	MET	A	760	-2.967	-4.361	19.517	1.00	12.61
ATOM	1819	N	THR	A	761	-3.103	-6.482	18.784	1.00	12.53
ATOM	1820	CA	THR	A	761	-4.135	-6.846	19.749	1.00	12.71
ATOM	1821	CB	THR	A	761	-4.621	-8.282	19.532	1.00	13.75
ATOM	1822	OG1	THR	A	761	-5.110	-8.406	18.197	1.00	11.81
ATOM	1823	CG2	THR	A	761	-5.732	-8.632	20.517	1.00	12.66
ATOM	1824	C	THR	A	761	-3.580	-6.740	21.162	1.00	13.15
ATOM	1825	O	THR	A	761	-4.258	-6.290	22.075	1.00	11.97
ATOM	1826	N	ALA	A	762	-2.339	-7.177	21.328	1.00	12.62
ATOM	1827	CA	ALA	A	762	-1.680	-7.129	22.630	1.00	13.02
ATOM	1828	CB	ALA	A	762	-0.268	-7.693	22.512	1.00	13.36
ATOM	1829	C	ALA	A	762	-1.628	-5.704	23.179	1.00	13.29
ATOM	1830	O	ALA	A	762	-1.837	-5.483	24.370	1.00	12.08
ATOM	1831	N	CYS	A	763	-1.345	-4.744	22.303	1.00	13.32
ATOM	1832	CA	CYS	A	763	-1.267	-3.337	22.696	1.00	12.84
ATOM	1833	CB	CYS	A	763	-0.482	-2.539	21.653	1.00	13.02
ATOM	1834	SG	CYS	A	763	1.266	-2.986	21.509	1.00	9.47

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ATOM   1835  C   CYS A 763     -2.652  -2.718  22.869  1.00 13.51
ATOM   1836  O   CYS A 763     -2.862  -1.879  23.740  1.00 12.72
ATOM   1837  N   ASP A 764     -3.593  -3.148  22.034  1.00 12.61
ATOM   1838  CA  ASP A 764     -4.962  -2.646  22.066  1.00 13.19
ATOM   1839  CB  ASP A 764     -5.734  -3.259  20.898  1.00 13.24
ATOM   1840  CG  ASP A 764     -7.084  -2.606  20.667  1.00 13.94
ATOM   1841  OD1 ASP A 764     -7.916  -3.246  19.990  1.00 13.58
ATOM   1842  OD2 ASP A 764     -7.317  -1.471  21.140  1.00 13.02
ATOM   1843  C   ASP A 764     -5.646  -2.994  23.391  1.00 13.35
ATOM   1844  O   ASP A 764     -6.398  -2.186  23.949  1.00 12.56
ATOM   1845  N   LEU A 765     -5.372  -4.192  23.902  1.00 12.84
ATOM   1846  CA  LEU A 765     -5.984  -4.643  25.152  1.00 13.43
ATOM   1847  CB  LEU A 765     -6.269  -6.144  25.085  1.00 13.32
ATOM   1848  CG  LEU A 765     -7.077  -6.699  23.917  1.00 13.15
ATOM   1849  CD1 LEU A 765     -7.228  -8.207  24.091  1.00 13.35
ATOM   1850  CD2 LEU A 765     -8.436  -6.013  23.851  1.00 13.71
ATOM   1851  C   LEU A 765     -5.136  -4.384  26.395  1.00 13.56
ATOM   1852  O   LEU A 765     -5.528  -4.764  27.500  1.00 12.52
ATOM   1853  N   SER A 766     -3.997  -3.724  26.206  1.00 12.78
ATOM   1854  CA  SER A 766     -3.035  -3.453  27.276  1.00 13.81
ATOM   1855  CB  SER A 766     -1.913  -2.577  26.728  1.00 13.46
ATOM   1856  OG  SER A 766     -2.367  -1.262  26.508  1.00 14.53
ATOM   1857  C   SER A 766     -3.512  -2.871  28.610  1.00 13.40
ATOM   1858  O   SER A 766     -2.812  -2.996  29.614  1.00 12.24
ATOM   1859  N   ALA A 767     -4.671  -2.223  28.647  1.00 12.93
ATOM   1860  CA  ALA A 767     -5.130  -1.683  29.922  1.00 13.05
ATOM   1861  CB  ALA A 767     -6.439  -0.911  29.742  1.00 13.01
ATOM   1862  C   ALA A 767     -5.330  -2.819  30.928  1.00 13.50
ATOM   1863  O   ALA A 767     -5.227  -2.613  32.138  1.00 12.69
ATOM   1864  N   ILE A 768     -5.595  -4.017  30.416  1.00 13.18
ATOM   1865  CA  ILE A 768     -5.834  -5.191  31.253  1.00 13.50
ATOM   1866  CB  ILE A 768     -6.421  -6.354  30.415  1.00 13.41
ATOM   1867  CG2 ILE A 768     -5.318  -7.026  29.597  1.00 13.22
ATOM   1868  CG1 ILE A 768     -7.113  -7.368  31.330  1.00 13.46
ATOM   1869  CD1 ILE A 768     -8.408  -6.861  31.940  1.00 13.82
ATOM   1870  C   ILE A 768     -4.562  -5.682  31.941  1.00 13.74
ATOM   1871  O   ILE A 768     -4.611  -6.589  32.770  1.00 12.70
ATOM   1872  N   THR A 769     -3.429  -5.085  31.589  1.00 13.53
ATOM   1873  CA  THR A 769     -2.149  -5.477  32.168  1.00 13.40
ATOM   1874  CB  THR A 769     -1.066  -5.608  31.093  1.00 13.41
ATOM   1875  OG1 THR A 769     -0.665  -4.296  30.673  1.00 13.10
ATOM   1876  CG2 THR A 769     -1.585  -6.379  29.887  1.00 13.53
ATOM   1877  C   THR A 769     -1.640  -4.434  33.161  1.00 13.22
ATOM   1878  O   THR A 769     -0.667  -4.665  33.876  1.00 14.03
ATOM   1879  N   LYS A 770     -2.298  -3.287  33.201  1.00 14.21
ATOM   1880  CA  LYS A 770     -1.872  -2.199  34.071  1.00 13.30
ATOM   1881  CB  LYS A 770     -2.593  -0.915  33.669  1.00 13.74
ATOM   1882  CG  LYS A 770     -2.321  -0.456  32.253  1.00 13.16
ATOM   1883  CD  LYS A 770     -0.894   0.035  32.073  1.00 13.75
ATOM   1884  CE  LYS A 770     -0.714   0.608  30.680  1.00 13.61
ATOM   1885  NZ  LYS A 770      0.620   1.229  30.478  1.00 13.38
ATOM   1886  C   LYS A 770     -2.080  -2.417  35.564  1.00 13.31
ATOM   1887  O   LYS A 770     -2.845  -3.283  35.980  1.00 13.86
ATOM   1888  N   PRO A 771     -1.365  -1.636  36.391  1.00 13.23
ATOM   1889  CD  PRO A 771     -0.224  -0.771  36.038  1.00 14.11
ATOM   1890  CA  PRO A 771     -1.504  -1.748  37.842  1.00 13.88
ATOM   1891  CB  PRO A 771     -0.638  -0.605  38.349  1.00 13.42
ATOM   1892  CG  PRO A 771      0.498  -0.626  37.366  1.00 13.77
ATOM   1893  C   PRO A 771     -2.982  -1.565  38.174  1.00 13.88
ATOM   1894  O   PRO A 771     -3.691  -0.827  37.485  1.00 13.58
ATOM   1895  N   TRP A 772     -3.440  -2.240  39.222  1.00 13.31
ATOM   1896  CA  TRP A 772     -4.842  -2.192  39.630  1.00 13.89
ATOM   1897  CB  TRP A 772     -4.990  -2.795  41.034  1.00 13.50
ATOM   1898  CG  TRP A 772     -6.423  -2.913  41.512  1.00 13.65
ATOM   1899  CD2 TRP A 772     -7.525  -3.506  40.809  1.00 13.58
ATOM   1900  CE2 TRP A 772     -8.661  -3.399  41.643  1.00 13.63
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ATOM	1901	CE3	TRP	A	772	-7.663	-4.116	39.557	1.00	13.77
ATOM	1902	CD1	TRP	A	772	-6.924	-2.483	42.708	1.00	14.09
ATOM	1903	NE1	TRP	A	772	-8.266	-2.771	42.795	1.00	14.01
ATOM	1904	CZ2	TRP	A	772	-9.922	-3.881	41.263	1.00	13.84
ATOM	1905	CZ3	TRP	A	772	-8.917	-4.597	39.179	1.00	13.71
ATOM	1906	CH2	TRP	A	772	-10.029	-4.474	40.031	1.00	13.75
ATOM	1907	C	TRP	A	772	-5.563	-0.836	39.570	1.00	13.59
ATOM	1908	O	TRP	A	772	-6.633	-0.735	38.964	1.00	14.01
ATOM	1909	N	PRO	A	773	-5.002	0.218	40.194	1.00	13.57
ATOM	1910	CD	PRO	A	773	-3.697	0.324	40.869	1.00	13.96
ATOM	1911	CA	PRO	A	773	-5.681	1.521	40.151	1.00	14.04
ATOM	1912	CB	PRO	A	773	-4.730	2.445	40.923	1.00	13.72
ATOM	1913	CG	PRO	A	773	-3.393	1.800	40.748	1.00	14.25
ATOM	1914	C	PRO	A	773	-5.972	2.015	38.738	1.00	13.53
ATOM	1915	O	PRO	A	773	-7.038	2.587	38.468	1.00	14.20
ATOM	1916	N	ILE	A	774	-5.026	1.780	37.838	1.00	13.66
ATOM	1917	CA	ILE	A	774	-5.164	2.193	36.451	1.00	13.56
ATOM	1918	CB	ILE	A	774	-3.801	2.104	35.727	1.00	13.37
ATOM	1919	CG2	ILE	A	774	-3.971	2.393	34.246	1.00	13.46
ATOM	1920	CG1	ILE	A	774	-2.824	3.104	36.360	1.00	13.44
ATOM	1921	CD1	ILE	A	774	-1.372	2.881	35.989	1.00	13.56
ATOM	1922	C	ILE	A	774	-6.202	1.334	35.730	1.00	13.42
ATOM	1923	O	ILE	A	774	-7.056	1.856	35.015	1.00	13.32
ATOM	1924	N	GLN	A	775	-6.136	0.022	35.927	1.00	13.61
ATOM	1925	CA	GLN	A	775	-7.078	-0.886	35.283	1.00	13.32
ATOM	1926	CB	GLN	A	775	-6.722	-2.343	35.613	1.00	13.49
ATOM	1927	CG	GLN	A	775	-7.894	-3.324	35.588	1.00	13.34
ATOM	1928	CD	GLN	A	775	-8.584	-3.464	34.227	1.00	13.64
ATOM	1929	OE1	GLN	A	775	-9.680	-4.010	34.149	1.00	13.33
ATOM	1930	NE2	GLN	A	775	-7.945	-2.985	33.161	1.00	13.31
ATOM	1931	C	GLN	A	775	-8.506	-0.576	35.703	1.00	13.54
ATOM	1932	O	GLN	A	775	-9.415	-0.562	34.876	1.00	13.24
ATOM	1933	N	GLN	A	776	-8.693	-0.326	36.992	1.00	13.54
ATOM	1934	CA	GLN	A	776	-10.000	0.005	37.538	1.00	13.62
ATOM	1935	CB	GLN	A	776	-9.899	0.275	39.026	1.00	13.66
ATOM	1936	CG	GLN	A	776	-9.947	-0.937	39.882	1.00	14.21
ATOM	1937	CD	GLN	A	776	-10.120	-0.558	41.327	1.00	14.11
ATOM	1938	OE1	GLN	A	776	-9.247	0.078	41.922	1.00	15.32
ATOM	1939	NE2	GLN	A	776	-11.258	-0.926	41.899	1.00	14.20
ATOM	1940	C	GLN	A	776	-10.595	1.246	36.898	1.00	13.83
ATOM	1941	O	GLN	A	776	-11.783	1.276	36.571	1.00	13.71
ATOM	1942	N	ARG	A	777	-9.770	2.284	36.775	1.00	13.54
ATOM	1943	CA	ARG	A	777	-10.200	3.550	36.195	1.00	13.24
ATOM	1944	CB	ARG	A	777	-9.086	4.601	36.314	1.00	13.47
ATOM	1945	CG	ARG	A	777	-9.434	5.947	35.687	1.00	14.15
ATOM	1946	CD	ARG	A	777	-8.308	6.978	35.835	1.00	13.73
ATOM	1947	NE	ARG	A	777	-7.138	6.716	34.991	1.00	14.27
ATOM	1948	CZ	ARG	A	777	-7.137	6.741	33.660	1.00	13.62
ATOM	1949	NH1	ARG	A	777	-8.250	7.010	32.987	1.00	14.37
ATOM	1950	NH2	ARG	A	777	-6.012	6.510	32.996	1.00	14.35
ATOM	1951	C	ARG	A	777	-10.585	3.375	34.735	1.00	13.67
ATOM	1952	O	ARG	A	777	-11.609	3.893	34.291	1.00	13.74
ATOM	1953	N	ILE	A	778	-9.766	2.648	33.985	1.00	13.64
ATOM	1954	CA	ILE	A	778	-10.060	2.439	32.576	1.00	12.95
ATOM	1955	CB	ILE	A	778	-8.846	1.836	31.830	1.00	13.80
ATOM	1956	CG2	ILE	A	778	-9.225	1.543	30.381	1.00	13.18
ATOM	1957	CG1	ILE	A	778	-7.677	2.826	31.876	1.00	13.55
ATOM	1958	CD1	ILE	A	778	-6.482	2.439	31.061	1.00	13.98
ATOM	1959	C	ILE	A	778	-11.288	1.547	32.393	1.00	13.62
ATOM	1960	O	ILE	A	778	-12.121	1.805	31.526	1.00	13.29
ATOM	1961	N	ALA	A	779	-11.403	0.506	33.214	1.00	13.53
ATOM	1962	CA	ALA	A	779	-12.543	-0.400	33.138	1.00	13.43
ATOM	1963	CB	ALA	A	779	-12.415	-1.493	34.193	1.00	13.90
ATOM	1964	C	ALA	A	779	-13.852	0.363	33.329	1.00	13.60
ATOM	1965	O	ALA	A	779	-14.882	-0.001	32.756	1.00	13.83
ATOM	1966	N	GLU	A	780	-13.810	1.416	34.142	1.00	13.47

ATOM	1967	CA	GLU	A	780	-15.001	2.225	34.388	1.00	13.75
ATOM	1968	CB	GLU	A	780	-14.746	3.241	35.508	1.00	13.32
ATOM	1969	CG	GLU	A	780	-14.472	2.616	36.871	1.00	14.11
ATOM	1970	CD	GLU	A	780	-14.139	3.646	37.947	1.00	13.79
ATOM	1971	OE1	GLU	A	780	-13.286	4.535	37.697	1.00	15.00
ATOM	1972	OE2	GLU	A	780	-14.723	3.564	39.054	1.00	15.28
ATOM	1973	C	GLU	A	780	-15.385	2.951	33.101	1.00	13.28
ATOM	1974	O	GLU	A	780	-16.562	3.084	32.782	1.00	12.98
ATOM	1975	N	LEU	A	781	-14.382	3.407	32.357	1.00	13.26
ATOM	1976	CA	LEU	A	781	-14.617	4.107	31.100	1.00	13.42
ATOM	1977	CB	LEU	A	781	-13.303	4.678	30.565	1.00	13.38
ATOM	1978	CG	LEU	A	781	-12.626	5.684	31.493	1.00	13.31
ATOM	1979	CD1	LEU	A	781	-11.331	6.188	30.863	1.00	13.57
ATOM	1980	CD2	LEU	A	781	-13.583	6.842	31.750	1.00	13.60
ATOM	1981	C	LEU	A	781	-15.205	3.155	30.073	1.00	13.77
ATOM	1982	O	LEU	A	781	-16.132	3.502	29.341	1.00	13.48
ATOM	1983	N	VAL	A	782	-14.654	1.949	30.019	1.00	13.66
ATOM	1984	CA	VAL	A	782	-15.137	0.947	29.082	1.00	13.08
ATOM	1985	CB	VAL	A	782	-14.316	-0.352	29.191	1.00	13.43
ATOM	1986	CG1	VAL	A	782	-14.937	-1.433	28.321	1.00	13.10
ATOM	1987	CG2	VAL	A	782	-12.878	-0.093	28.769	1.00	13.50
ATOM	1988	C	VAL	A	782	-16.606	0.637	29.356	1.00	13.42
ATOM	1989	O	VAL	A	782	-17.425	0.595	28.433	1.00	13.65
ATOM	1990	N	ALA	A	783	-16.935	0.433	30.629	1.00	13.77
ATOM	1991	CA	ALA	A	783	-18.308	0.129	31.027	1.00	13.61
ATOM	1992	CB	ALA	A	783	-18.367	-0.156	32.521	1.00	13.60
ATOM	1993	C	ALA	A	783	-19.245	1.276	30.671	1.00	13.59
ATOM	1994	O	ALA	A	783	-20.361	1.053	30.191	1.00	13.26
ATOM	1995	N	THR	A	784	-18.797	2.504	30.913	1.00	13.33
ATOM	1996	CA	THR	A	784	-19.611	3.670	30.593	1.00	13.27
ATOM	1997	CB	THR	A	784	-18.872	4.973	30.929	1.00	13.66
ATOM	1998	OG1	THR	A	784	-18.735	5.084	32.349	1.00	14.28
ATOM	1999	CG2	THR	A	784	-19.645	6.183	30.397	1.00	13.49
ATOM	2000	C	THR	A	784	-19.991	3.676	29.113	1.00	13.81
ATOM	2001	O	THR	A	784	-21.159	3.865	28.759	1.00	13.09
ATOM	2002	N	GLU	A	785	-19.004	3.457	28.247	1.00	13.45
ATOM	2003	CA	GLU	A	785	-19.259	3.447	26.817	1.00	13.80
ATOM	2004	CB	GLU	A	785	-17.936	3.351	26.041	1.00	13.37
ATOM	2005	CG	GLU	A	785	-18.108	3.313	24.526	1.00	13.26
ATOM	2006	CD	GLU	A	785	-16.806	3.495	23.749	1.00	13.50
ATOM	2007	OE1	GLU	A	785	-16.732	2.986	22.614	1.00	12.78
ATOM	2008	OE2	GLU	A	785	-15.867	4.149	24.256	1.00	14.13
ATOM	2009	C	GLU	A	785	-20.194	2.297	26.437	1.00	13.34
ATOM	2010	O	GLU	A	785	-21.129	2.490	25.663	1.00	13.55
ATOM	2011	N	PHE	A	786	-19.945	1.106	26.979	1.00	13.57
ATOM	2012	CA	PHE	A	786	-20.794	-0.043	26.673	1.00	13.43
ATOM	2013	CB	PHE	A	786	-20.279	-1.319	27.357	1.00	13.46
ATOM	2014	CG	PHE	A	786	-19.060	-1.925	26.703	1.00	13.74
ATOM	2015	CD1	PHE	A	786	-18.779	-1.694	25.362	1.00	13.51
ATOM	2016	CD2	PHE	A	786	-18.212	-2.752	27.430	1.00	13.69
ATOM	2017	CE1	PHE	A	786	-17.664	-2.279	24.752	1.00	14.45
ATOM	2018	CE2	PHE	A	786	-17.100	-3.340	26.834	1.00	13.63
ATOM	2019	CZ	PHE	A	786	-16.826	-3.102	25.490	1.00	13.85
ATOM	2020	C	PHE	A	786	-22.235	0.202	27.111	1.00	13.88
ATOM	2021	O	PHE	A	786	-23.177	-0.086	26.366	1.00	12.67
ATOM	2022	N	PHE	A	787	-22.404	0.732	28.320	1.00	13.50
ATOM	2023	CA	PHE	A	787	-23.740	1.000	28.842	1.00	13.20
ATOM	2024	CB	PHE	A	787	-23.678	1.378	30.328	1.00	13.70
ATOM	2025	CG	PHE	A	787	-23.234	0.249	31.221	1.00	13.28
ATOM	2026	CD1	PHE	A	787	-23.419	-1.075	30.831	1.00	13.43
ATOM	2027	CD2	PHE	A	787	-22.641	0.506	32.452	1.00	13.49
ATOM	2028	CE1	PHE	A	787	-23.014	-2.126	31.653	1.00	13.98
ATOM	2029	CE2	PHE	A	787	-22.232	-0.542	33.285	1.00	13.31
ATOM	2030	CZ	PHE	A	787	-22.420	-1.859	32.882	1.00	13.64
ATOM	2031	C	PHE	A	787	-24.445	2.081	28.041	1.00	13.63
ATOM	2032	O	PHE	A	787	-25.675	2.071	27.922	1.00	13.23

ATOM	2033	N	ASP	A	788	-23.677	3.009	27.482	1.00 13.08
ATOM	2034	CA	ASP	A	788	-24.275	4.053	26.665	1.00 13.39
ATOM	2035	CB	ASP	A	788	-23.232	5.095	26.271	1.00 13.39
ATOM	2036	CG	ASP	A	788	-23.796	6.164	25.359	1.00 14.10
ATOM	2037	OD1	ASP	A	788	-24.682	6.930	25.810	1.00 15.70
ATOM	2038	OD2	ASP	A	788	-23.358	6.231	24.182	1.00 14.73
ATOM	2039	C	ASP	A	788	-24.845	3.395	25.409	1.00 13.61
ATOM	2040	O	ASP	A	788	-25.910	3.784	24.926	1.00 12.94
ATOM	2041	N	GLN	A	789	-24.126	2.410	24.869	1.00 13.20
ATOM	2042	CA	GLN	A	789	-24.604	1.703	23.684	1.00 13.25
ATOM	2043	CB	GLN	A	789	-23.553	0.715	23.145	1.00 13.76
ATOM	2044	CG	GLN	A	789	-24.147	-0.298	22.162	1.00 13.94
ATOM	2045	CD	GLN	A	789	-23.122	-1.160	21.446	1.00 13.64
ATOM	2046	OE1	GLN	A	789	-23.463	-2.217	20.908	1.00 13.54
ATOM	2047	NE2	GLN	A	789	-21.872	-0.711	21.414	1.00 12.65
ATOM	2048	C	GLN	A	789	-25.869	0.941	24.051	1.00 13.82
ATOM	2049	O	GLN	A	789	-26.821	0.900	23.278	1.00 13.69
ATOM	2050	N	GLY	A	790	-25.869	0.330	25.232	1.00 13.07
ATOM	2051	CA	GLY	A	790	-27.038	-0.411	25.675	1.00 13.13
ATOM	2052	C	GLY	A	790	-28.272	0.474	25.684	1.00 13.94
ATOM	2053	O	GLY	A	790	-29.363	0.044	25.290	1.00 13.42
ATOM	2054	N	ASP	A	791	-28.107	1.710	26.146	1.00 13.25
ATOM	2055	CA	ASP	A	791	-29.218	2.655	26.190	1.00 13.57
ATOM	2056	CB	ASP	A	791	-28.781	4.003	26.786	1.00 13.50
ATOM	2057	CG	ASP	A	791	-28.377	3.912	28.252	1.00 13.72
ATOM	2058	OD1	ASP	A	791	-28.772	2.947	28.938	1.00 14.38
ATOM	2059	OD2	ASP	A	791	-27.674	4.834	28.727	1.00 13.90
ATOM	2060	C	ASP	A	791	-29.742	2.890	24.771	1.00 13.48
ATOM	2061	O	ASP	A	791	-30.953	2.908	24.535	1.00 13.48
ATOM	2062	N	ARG	A	792	-28.824	3.077	23.827	1.00 13.10
ATOM	2063	CA	ARG	A	792	-29.200	3.311	22.429	1.00 13.58
ATOM	2064	CB	ARG	A	792	-27.964	3.594	21.564	1.00 13.45
ATOM	2065	CG	ARG	A	792	-26.958	4.534	22.202	1.00 14.15
ATOM	2066	CD	ARG	A	792	-26.476	5.628	21.260	1.00 14.23
ATOM	2067	NE	ARG	A	792	-26.476	5.259	19.845	1.00 14.19
ATOM	2068	CZ	ARG	A	792	-25.993	6.041	18.879	1.00 14.63
ATOM	2069	NH1	ARG	A	792	-25.474	7.228	19.182	1.00 14.91
ATOM	2070	NH2	ARG	A	792	-26.030	5.652	17.613	1.00 13.84
ATOM	2071	C	ARG	A	792	-29.924	2.105	21.860	1.00 13.74
ATOM	2072	O	ARG	A	792	-30.858	2.247	21.079	1.00 14.01
ATOM	2073	N	GLU	A	793	-29.481	0.911	22.240	1.00 13.89
ATOM	2074	CA	GLU	A	793	-30.119	-0.302	21.752	1.00 13.55
ATOM	2075	CB	GLU	A	793	-29.308	-1.534	22.160	1.00 13.49
ATOM	2076	CG	GLU	A	793	-27.882	-1.511	21.616	1.00 13.90
ATOM	2077	CD	GLU	A	793	-27.099	-2.768	21.944	1.00 13.90
ATOM	2078	OE1	GLU	A	793	-27.305	-3.335	23.035	1.00 14.16
ATOM	2079	OE2	GLU	A	793	-26.266	-3.177	21.112	1.00 14.01
ATOM	2080	C	GLU	A	793	-31.546	-0.397	22.280	1.00 13.79
ATOM	2081	O	GLU	A	793	-32.446	-0.820	21.560	1.00 13.70
ATOM	2082	N	ARG	A	794	-31.753	-0.005	23.535	1.00 13.54
ATOM	2083	CA	ARG	A	794	-33.094	-0.044	24.109	1.00 13.55
ATOM	2084	CB	ARG	A	794	-33.074	0.336	25.598	1.00 13.80
ATOM	2085	CG	ARG	A	794	-32.630	-0.770	26.561	1.00 14.01
ATOM	2086	CD	ARG	A	794	-33.511	-0.766	27.821	1.00 14.14
ATOM	2087	NE	ARG	A	794	-33.294	-1.942	28.666	1.00 14.92
ATOM	2088	CZ	ARG	A	794	-32.212	-2.134	29.413	1.00 13.75
ATOM	2089	NH1	ARG	A	794	-31.247	-1.223	29.428	1.00 15.09
ATOM	2090	NH2	ARG	A	794	-32.091	-3.239	30.139	1.00 14.33
ATOM	2091	C	ARG	A	794	-33.999	0.923	23.351	1.00 13.79
ATOM	2092	O	ARG	A	794	-35.142	0.597	23.034	1.00 14.56
ATOM	2093	N	LYS	A	795	-33.483	2.111	23.052	1.00 13.20
ATOM	2094	CA	LYS	A	795	-34.261	3.118	22.335	1.00 13.73
ATOM	2095	CB	LYS	A	795	-33.609	4.492	22.489	1.00 13.42
ATOM	2096	CG	LYS	A	795	-33.690	5.097	23.880	1.00 14.16
ATOM	2097	CD	LYS	A	795	-33.195	6.537	23.833	1.00 14.14
ATOM	2098	CE	LYS	A	795	-33.332	7.230	25.178	1.00 14.28

ATOM	2099	NZ	LYS	A	795	-34.740	7.210	25.646	1.00 14.54
ATOM	2100	C	LYS	A	795	-34.443	2.824	20.844	1.00 14.09
ATOM	2101	O	LYS	A	795	-35.567	2.795	20.346	1.00 13.96
ATOM	2102	N	GLU	A	796	-33.340	2.602	20.135	1.00 14.14
ATOM	2103	CA	GLU	A	796	-33.390	2.350	18.695	1.00 13.42
ATOM	2104	CB	GLU	A	796	-32.056	2.747	18.053	1.00 13.78
ATOM	2105	CG	GLU	A	796	-31.635	4.173	18.359	1.00 13.95
ATOM	2106	CD	GLU	A	796	-30.217	4.480	17.915	1.00 13.62
ATOM	2107	OE1	GLU	A	796	-29.564	5.335	18.561	1.00 14.95
ATOM	2108	OE2	GLU	A	796	-29.762	3.870	16.919	1.00 14.88
ATOM	2109	C	GLU	A	796	-33.753	0.933	18.252	1.00 13.85
ATOM	2110	O	GLU	A	796	-34.291	0.746	17.164	1.00 14.67
ATOM	2111	N	LEU	A	797	-33.457	-0.072	19.068	1.00 13.66
ATOM	2112	CA	LEU	A	797	-33.786	-1.438	18.682	1.00 13.59
ATOM	2113	CB	LEU	A	797	-32.527	-2.307	18.722	1.00 13.97
ATOM	2114	CG	LEU	A	797	-31.359	-1.908	17.810	1.00 13.81
ATOM	2115	CD1	LEU	A	797	-30.160	-2.785	18.145	1.00 13.94
ATOM	2116	CD2	LEU	A	797	-31.730	-2.068	16.339	1.00 13.67
ATOM	2117	C	LEU	A	797	-34.884	-2.057	19.554	1.00 13.91
ATOM	2118	O	LEU	A	797	-35.432	-3.110	19.213	1.00 14.95
ATOM	2119	N	ASN	A	798	-35.195	-1.396	20.668	1.00 14.36
ATOM	2120	CA	ASN	A	798	-36.211	-1.853	21.611	1.00 13.67
ATOM	2121	CB	ASN	A	798	-37.600	-1.677	20.990	1.00 14.39
ATOM	2122	CG	ASN	A	798	-37.958	-0.203	20.799	1.00 14.06
ATOM	2123	OD1	ASN	A	798	-38.262	0.511	21.769	1.00 15.70
ATOM	2124	ND2	ASN	A	798	-37.897	0.268	19.556	1.00 14.88
ATOM	2125	C	ASN	A	798	-35.949	-3.291	22.050	1.00 13.68
ATOM	2126	O	ASN	A	798	-36.859	-4.111	22.167	1.00 14.25
ATOM	2127	N	ILE	A	799	-34.674	-3.578	22.292	1.00 13.90
ATOM	2128	CA	ILE	A	799	-34.243	-4.897	22.731	1.00 13.87
ATOM	2129	CB	ILE	A	799	-33.199	-5.521	21.771	1.00 14.02
ATOM	2130	CG2	ILE	A	799	-33.797	-5.720	20.394	1.00 14.47
ATOM	2131	CG1	ILE	A	799	-31.966	-4.617	21.691	1.00 13.90
ATOM	2132	CD1	ILE	A	799	-30.820	-5.198	20.877	1.00 13.99
ATOM	2133	C	ILE	A	799	-33.582	-4.786	24.090	1.00 14.22
ATOM	2134	O	ILE	A	799	-33.244	-3.693	24.554	1.00 14.04
ATOM	2135	N	GLU	A	800	-33.395	-5.932	24.727	1.00 14.26
ATOM	2136	CA	GLU	A	800	-32.736	-5.954	26.012	1.00 13.83
ATOM	2137	CB	GLU	A	800	-33.279	-7.090	26.859	1.00 14.13
ATOM	2138	CG	GLU	A	800	-32.811	-7.047	28.283	1.00 14.67
ATOM	2139	CD	GLU	A	800	-33.475	-8.111	29.105	1.00 14.01
ATOM	2140	OE1	GLU	A	800	-34.722	-8.166	29.082	1.00 15.85
ATOM	2141	OE2	GLU	A	800	-32.756	-8.886	29.767	1.00 15.72
ATOM	2142	C	GLU	A	800	-31.277	-6.204	25.671	1.00 13.61
ATOM	2143	O	GLU	A	800	-30.933	-7.250	25.118	1.00 13.87
ATOM	2144	N	PRO	A	801	-30.397	-5.243	25.984	1.00 13.93
ATOM	2145	CD	PRO	A	801	-30.597	-3.964	26.689	1.00 13.73
ATOM	2146	CA	PRO	A	801	-28.984	-5.455	25.662	1.00 13.92
ATOM	2147	CB	PRO	A	801	-28.350	-4.108	26.009	1.00 13.46
ATOM	2148	CG	PRO	A	801	-29.201	-3.616	27.135	1.00 14.41
ATOM	2149	C	PRO	A	801	-28.330	-6.628	26.403	1.00 13.50
ATOM	2150	O	PRO	A	801	-28.850	-7.119	27.412	1.00 14.09
ATOM	2151	N	THR	A	802	-27.197	-7.087	25.879	1.00 14.36
ATOM	2152	CA	THR	A	802	-26.460	-8.175	26.509	1.00 13.44
ATOM	2153	CB	THR	A	802	-25.273	-8.644	25.653	1.00 13.77
ATOM	2154	OG1	THR	A	802	-24.413	-7.531	25.378	1.00 15.05
ATOM	2155	CG2	THR	A	802	-25.762	-9.251	24.347	1.00 13.86
ATOM	2156	C	THR	A	802	-25.919	-7.656	27.830	1.00 14.09
ATOM	2157	O	THR	A	802	-25.782	-6.451	28.024	1.00 13.28
ATOM	2158	N	ASP	A	803	-25.596	-8.568	28.737	1.00 13.28
ATOM	2159	CA	ASP	A	803	-25.087	-8.170	30.035	1.00 13.45
ATOM	2160	CB	ASP	A	803	-24.580	-9.397	30.801	1.00 14.04
ATOM	2161	CG	ASP	A	803	-25.712	-10.245	31.368	1.00 13.90
ATOM	2162	OD1	ASP	A	803	-26.897	-9.950	31.080	1.00 14.48
ATOM	2163	OD2	ASP	A	803	-25.411	-11.212	32.104	1.00 14.58
ATOM	2164	C	ASP	A	803	-23.983	-7.118	29.947	1.00 13.61

ATOM	2165	O	ASP	A	803	-23.993	-6.144	30.697	1.00 13.94
ATOM	2166	N	LEU	A	804	-23.037	-7.284	29.030	1.00 13.92
ATOM	2167	CA	LEU	A	804	-21.959	-6.307	28.958	1.00 13.53
ATOM	2168	CB	LEU	A	804	-20.823	-6.796	28.056	1.00 14.36
ATOM	2169	CG	LEU	A	804	-20.863	-6.646	26.541	1.00 14.39
ATOM	2170	CD1	LEU	A	804	-19.430	-6.479	26.054	1.00 13.63
ATOM	2171	CD2	LEU	A	804	-21.523	-7.856	25.889	1.00 14.39
ATOM	2172	C	LEU	A	804	-22.419	-4.922	28.515	1.00 13.39
ATOM	2173	O	LEU	A	804	-21.754	-3.930	28.797	1.00 13.87
ATOM	2174	N	MET	A	805	-23.560	-4.842	27.839	1.00 13.58
ATOM	2175	CA	MET	A	805	-24.067	-3.547	27.384	1.00 13.52
ATOM	2176	CB	MET	A	805	-24.588	-3.654	25.940	1.00 13.59
ATOM	2177	CG	MET	A	805	-23.558	-4.119	24.917	1.00 14.04
ATOM	2178	SD	MET	A	805	-22.255	-2.911	24.657	1.00 19.41
ATOM	2179	CE	MET	A	805	-21.399	-3.605	23.205	1.00 13.91
ATOM	2180	C	MET	A	805	-25.211	-3.081	28.287	1.00 13.48
ATOM	2181	O	MET	A	805	-25.737	-1.973	28.124	1.00 13.31
ATOM	2182	N	ASN	A	806	-25.570	-3.928	29.250	1.00 13.64
ATOM	2183	CA	ASN	A	806	-26.686	-3.664	30.146	1.00 13.92
ATOM	2184	CB	ASN	A	806	-27.458	-4.961	30.376	1.00 13.51
ATOM	2185	CG	ASN	A	806	-28.834	-4.727	30.956	1.00 13.90
ATOM	2186	OD1	ASN	A	806	-29.188	-3.608	31.324	1.00 13.64
ATOM	2187	ND2	ASN	A	806	-29.619	-5.792	31.044	1.00 14.04
ATOM	2188	C	ASN	A	806	-26.339	-3.036	31.488	1.00 13.65
ATOM	2189	O	ASN	A	806	-25.856	-3.696	32.405	1.00 13.50
ATOM	2190	N	ARG	A	807	-26.618	-1.745	31.585	1.00 13.32
ATOM	2191	CA	ARG	A	807	-26.380	-0.959	32.784	1.00 13.61
ATOM	2192	CB	ARG	A	807	-26.947	0.434	32.539	1.00 13.84
ATOM	2193	CG	ARG	A	807	-26.823	1.414	33.656	1.00 14.42
ATOM	2194	CD	ARG	A	807	-27.624	2.666	33.296	1.00 14.67
ATOM	2195	NE	ARG	A	807	-27.194	3.280	32.035	1.00 14.87
ATOM	2196	CZ	ARG	A	807	-25.968	3.747	31.816	1.00 13.64
ATOM	2197	NH1	ARG	A	807	-25.051	3.665	32.771	1.00 13.89
ATOM	2198	NH2	ARG	A	807	-25.664	4.305	30.650	1.00 13.99
ATOM	2199	C	ARG	A	807	-27.032	-1.592	34.024	1.00 13.58
ATOM	2200	O	ARG	A	807	-26.469	-1.560	35.117	1.00 14.04
ATOM	2201	N	GLU	A	808	-28.216	-2.170	33.854	1.00 14.14
ATOM	2202	CA	GLU	A	808	-28.914	-2.785	34.982	1.00 13.72
ATOM	2203	CB	GLU	A	808	-30.319	-3.226	34.569	1.00 13.91
ATOM	2204	CG	GLU	A	808	-31.095	-2.164	33.835	1.00 13.75
ATOM	2205	CD	GLU	A	808	-32.560	-2.508	33.670	1.00 13.82
ATOM	2206	OE1	GLU	A	808	-32.886	-3.694	33.432	1.00 15.29
ATOM	2207	OE2	GLU	A	808	-33.386	-1.577	33.764	1.00 15.39
ATOM	2208	C	GLU	A	808	-28.157	-3.983	35.556	1.00 13.62
ATOM	2209	O	GLU	A	808	-28.277	-4.277	36.743	1.00 14.43
ATOM	2210	N	LYS	A	809	-27.376	-4.657	34.713	1.00 13.97
ATOM	2211	CA	LYS	A	809	-26.604	-5.832	35.121	1.00 14.11
ATOM	2212	CB	LYS	A	809	-26.682	-6.915	34.042	1.00 13.84
ATOM	2213	CG	LYS	A	809	-28.092	-7.336	33.670	1.00 14.05
ATOM	2214	CD	LYS	A	809	-28.794	-8.061	34.806	1.00 13.85
ATOM	2215	CE	LYS	A	809	-28.221	-9.457	34.999	1.00 13.56
ATOM	2216	NZ	LYS	A	809	-28.440	-10.322	33.804	1.00 14.53
ATOM	2217	C	LYS	A	809	-25.136	-5.493	35.385	1.00 13.78
ATOM	2218	O	LYS	A	809	-24.248	-6.321	35.172	1.00 13.63
ATOM	2219	N	LYS	A	810	-24.884	-4.279	35.860	1.00 13.62
ATOM	2220	CA	LYS	A	810	-23.521	-3.846	36.144	1.00 13.65
ATOM	2221	CB	LYS	A	810	-23.522	-2.403	36.648	1.00 13.73
ATOM	2222	CG	LYS	A	810	-23.915	-2.273	38.115	1.00 13.88
ATOM	2223	CD	LYS	A	810	-23.557	-0.891	38.640	1.00 14.04
ATOM	2224	CE	LYS	A	810	-24.724	0.059	38.582	1.00 13.91
ATOM	2225	NZ	LYS	A	810	-25.727	-0.276	39.630	1.00 14.28
ATOM	2226	C	LYS	A	810	-22.839	-4.739	37.189	1.00 13.35
ATOM	2227	O	LYS	A	810	-21.611	-4.748	37.303	1.00 13.12
ATOM	2228	N	ASN	A	811	-23.635	-5.479	37.958	1.00 13.73
ATOM	2229	CA	ASN	A	811	-23.091	-6.356	38.993	1.00 13.32
ATOM	2230	CB	ASN	A	811	-24.235	-6.936	39.843	1.00 13.96

ATOM	2231	CG	ASN	A	811	-24.961	-8.084	39.156	1.00	13.69
ATOM	2232	OD1	ASN	A	811	-24.447	-9.202	39.083	1.00	14.61
ATOM	2233	ND2	ASN	A	811	-26.155	-7.815	38.655	1.00	14.02
ATOM	2234	C	ASN	A	811	-22.267	-7.489	38.373	1.00	13.18
ATOM	2235	O	ASN	A	811	-21.464	-8.145	39.053	1.00	14.02
ATOM	2236	N	LYS	A	812	-22.469	-7.705	37.075	1.00	13.70
ATOM	2237	CA	LYS	A	812	-21.773	-8.752	36.331	1.00	13.43
ATOM	2238	CB	LYS	A	812	-22.567	-9.121	35.075	1.00	13.78
ATOM	2239	CG	LYS	A	812	-23.464	-10.329	35.216	1.00	14.14
ATOM	2240	CD	LYS	A	812	-24.549	-10.126	36.246	1.00	14.13
ATOM	2241	CE	LYS	A	812	-25.398	-11.379	36.378	1.00	13.98
ATOM	2242	NZ	LYS	A	812	-24.605	-12.593	36.766	1.00	14.85
ATOM	2243	C	LYS	A	812	-20.357	-8.389	35.900	1.00	13.69
ATOM	2244	O	LYS	A	812	-19.609	-9.252	35.442	1.00	13.85
ATOM	2245	N	ILE	A	813	-19.982	-7.126	36.044	1.00	13.58
ATOM	2246	CA	ILE	A	813	-18.655	-6.696	35.609	1.00	13.57
ATOM	2247	CB	ILE	A	813	-18.431	-5.191	35.943	1.00	12.97
ATOM	2248	CG2	ILE	A	813	-16.954	-4.853	35.891	1.00	13.63
ATOM	2249	CG1	ILE	A	813	-19.213	-4.332	34.942	1.00	13.79
ATOM	2250	CD1	ILE	A	813	-19.185	-2.842	35.237	1.00	13.43
ATOM	2251	C	ILE	A	813	-17.460	-7.531	36.081	1.00	13.51
ATOM	2252	O	ILE	A	813	-16.675	-8.006	35.258	1.00	12.34
ATOM	2253	N	PRO	A	814	-17.297	-7.725	37.402	1.00	12.91
ATOM	2254	CD	PRO	A	814	-18.009	-7.114	38.541	1.00	13.73
ATOM	2255	CA	PRO	A	814	-16.157	-8.520	37.872	1.00	13.33
ATOM	2256	CB	PRO	A	814	-16.379	-8.580	39.383	1.00	13.58
ATOM	2257	CG	PRO	A	814	-16.996	-7.250	39.670	1.00	13.53
ATOM	2258	C	PRO	A	814	-16.048	-9.907	37.239	1.00	13.35
ATOM	2259	O	PRO	A	814	-14.983	-10.286	36.741	1.00	13.10
ATOM	2260	N	SER	A	815	-17.140	-10.665	37.251	1.00	13.17
ATOM	2261	CA	SER	A	815	-17.112	-12.005	36.674	1.00	13.39
ATOM	2262	CB	SER	A	815	-18.450	-12.716	36.896	1.00	13.55
ATOM	2263	OG	SER	A	815	-19.518	-12.003	36.303	1.00	14.20
ATOM	2264	C	SER	A	815	-16.789	-11.984	35.183	1.00	13.29
ATOM	2265	O	SER	A	815	-16.090	-12.870	34.684	1.00	13.21
ATOM	2266	N	MET	A	816	-17.295	-10.977	34.476	1.00	13.39
ATOM	2267	CA	MET	A	816	-17.049	-10.867	33.041	1.00	12.98
ATOM	2268	CB	MET	A	816	-18.032	-9.886	32.395	1.00	13.84
ATOM	2269	CG	MET	A	816	-19.479	-10.330	32.528	1.00	13.78
ATOM	2270	SD	MET	A	816	-20.649	-9.382	31.531	1.00	17.46
ATOM	2271	CE	MET	A	816	-20.299	-7.695	32.099	1.00	14.30
ATOM	2272	C	MET	A	816	-15.616	-10.449	32.748	1.00	13.69
ATOM	2273	O	MET	A	816	-15.049	-10.847	31.729	1.00	13.80
ATOM	2274	N	GLN	A	817	-15.028	-9.643	33.626	1.00	13.01
ATOM	2275	CA	GLN	A	817	-13.645	-9.234	33.431	1.00	13.69
ATOM	2276	CB	GLN	A	817	-13.242	-8.192	34.475	1.00	13.44
ATOM	2277	CG	GLN	A	817	-13.980	-6.871	34.333	1.00	13.67
ATOM	2278	CD	GLN	A	817	-13.590	-6.106	33.084	1.00	13.79
ATOM	2279	OE1	GLN	A	817	-13.387	-6.691	32.016	1.00	14.92
ATOM	2280	NE2	GLN	A	817	-13.511	-4.782	33.203	1.00	14.10
ATOM	2281	C	GLN	A	817	-12.768	-10.481	33.558	1.00	13.73
ATOM	2282	O	GLN	A	817	-11.824	-10.673	32.792	1.00	13.25
ATOM	2283	N	VAL	A	818	-13.089	-11.333	34.527	1.00	13.23
ATOM	2284	CA	VAL	A	818	-12.332	-12.564	34.715	1.00	13.09
ATOM	2285	CB	VAL	A	818	-12.785	-13.318	35.978	1.00	13.81
ATOM	2286	CG1	VAL	A	818	-12.110	-14.668	36.051	1.00	13.70
ATOM	2287	CG2	VAL	A	818	-12.455	-12.502	37.207	1.00	13.60
ATOM	2288	C	VAL	A	818	-12.534	-13.468	33.502	1.00	13.61
ATOM	2289	O	VAL	A	818	-11.603	-14.129	33.051	1.00	13.54
ATOM	2290	N	GLY	A	819	-13.754	-13.487	32.980	1.00	13.09
ATOM	2291	CA	GLY	A	819	-14.042	-14.311	31.818	1.00	13.40
ATOM	2292	C	GLY	A	819	-13.292	-13.827	30.591	1.00	13.75
ATOM	2293	O	GLY	A	819	-12.830	-14.631	29.779	1.00	13.61
ATOM	2294	N	PHE	A	820	-13.187	-12.509	30.457	1.00	13.57
ATOM	2295	CA	PHE	A	820	-12.487	-11.883	29.339	1.00	13.45
ATOM	2296	CB	PHE	A	820	-12.720	-10.370	29.377	1.00	13.16

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ATOM   2297  CG  PHE A 820     -12.060  -9.628  28.263  1.00 13.52
ATOM   2298  CD1 PHE A 820     -12.507  -9.777  26.955  1.00 13.40
ATOM   2299  CD2 PHE A 820     -10.988  -8.781  28.518  1.00 13.66
ATOM   2300  CE1 PHE A 820     -11.891  -9.089  25.914  1.00 14.04
ATOM   2301  CE2 PHE A 820     -10.370  -8.093  27.489  1.00 13.58
ATOM   2302  CZ  PHE A 820     -10.824  -8.249  26.183  1.00 13.75
ATOM   2303  C   PHE A 820     -10.987 -12.185  29.431  1.00 13.81
ATOM   2304  O   PHE A 820     -10.337 -12.506  28.435  1.00 12.87
ATOM   2305  N   ILE A 821     -10.437 -12.077  30.633  1.00 13.28
ATOM   2306  CA  ILE A 821      -9.025 -12.363  30.825  1.00 13.33
ATOM   2307  CB  ILE A 821      -8.596 -12.063  32.277  1.00 13.48
ATOM   2308  CG2 ILE A 821      -7.184 -12.562  32.517  1.00 13.18
ATOM   2309  CG1 ILE A 821      -8.674 -10.550  32.527  1.00 13.59
ATOM   2310  CD1 ILE A 821      -8.414 -10.142  33.965  1.00 13.39
ATOM   2311  C   ILE A 821      -8.724 -13.819  30.466  1.00 13.45
ATOM   2312  O   ILE A 821      -7.769 -14.095  29.740  1.00 13.78
ATOM   2313  N   ASP A 822      -9.551 -14.744  30.951  1.00 13.02
ATOM   2314  CA  ASP A 822      -9.364 -16.174  30.671  1.00 13.72
ATOM   2315  CB  ASP A 822     -10.348 -17.002  31.500  1.00 13.41
ATOM   2316  CG  ASP A 822      -9.992 -17.039  32.964  1.00 13.63
ATOM   2317  OD1 ASP A 822     -10.862 -17.432  33.773  1.00 14.06
ATOM   2318  OD2 ASP A 822      -8.842 -16.687  33.308  1.00 14.00
ATOM   2319  C   ASP A 822      -9.538 -16.565  29.203  1.00 13.55
ATOM   2320  O   ASP A 822      -8.734 -17.320  28.649  1.00 14.09
ATOM   2321  N   ALA A 823     -10.589 -16.052  28.571  1.00 13.67
ATOM   2322  CA  ALA A 823     -10.883 -16.393  27.182  1.00 13.58
ATOM   2323  CB  ALA A 823     -12.384 -16.250  26.933  1.00 13.44
ATOM   2324  C   ALA A 823     -10.121 -15.636  26.096  1.00 13.56
ATOM   2325  O   ALA A 823      -9.923 -16.161  24.996  1.00 14.11
ATOM   2326  N   ILE A 824      -9.684 -14.419  26.396  1.00 13.10
ATOM   2327  CA  ILE A 824      -9.009 -13.595  25.399  1.00 13.76
ATOM   2328  CB  ILE A 824      -9.858 -12.323  25.121  1.00 13.39
ATOM   2329  CG2 ILE A 824      -9.082 -11.342  24.263  1.00 13.70
ATOM   2330  CG1 ILE A 824     -11.180 -12.691  24.446  1.00 13.87
ATOM   2331  CD1 ILE A 824     -11.048 -13.025  22.978  1.00 13.56
ATOM   2332  C   ILE A 824      -7.578 -13.131  25.684  1.00 13.67
ATOM   2333  O   ILE A 824      -6.717 -13.154  24.797  1.00 14.03
ATOM   2334  N   CYS A 825      -7.329 -12.717  26.921  1.00 12.88
ATOM   2335  CA  CYS A 825      -6.039 -12.157  27.306  1.00 13.53
ATOM   2336  CB  CYS A 825      -6.270 -11.150  28.431  1.00 13.32
ATOM   2337  SG  CYS A 825      -7.493  -9.891  27.985  1.00 11.84
ATOM   2338  C   CYS A 825      -4.880 -13.071  27.681  1.00 13.37
ATOM   2339  O   CYS A 825      -3.822 -13.015  27.064  1.00 13.88
ATOM   2340  N   LEU A 826      -5.066 -13.892  28.702  1.00 12.84
ATOM   2341  CA  LEU A 826      -4.006 -14.784  29.155  1.00 14.02
ATOM   2342  CB  LEU A 826      -4.600 -15.859  30.074  1.00 13.36
ATOM   2343  CG  LEU A 826      -4.331 -15.832  31.585  1.00 14.68
ATOM   2344  CD1 LEU A 826      -3.898 -14.456  32.072  1.00 13.36
ATOM   2345  CD2 LEU A 826      -5.595 -16.289  32.295  1.00 14.04
ATOM   2346  C   LEU A 826      -3.206 -15.446  28.032  1.00 13.32
ATOM   2347  O   LEU A 826      -1.977 -15.362  27.999  1.00 12.89
ATOM   2348  N   GLN A 827      -3.901 -16.090  27.104  1.00 13.28
ATOM   2349  CA  GLN A 827      -3.233 -16.783  26.012  1.00 13.89
ATOM   2350  CB  GLN A 827      -4.256 -17.530  25.167  1.00 13.24
ATOM   2351  CG  GLN A 827      -5.049 -18.529  25.966  1.00 14.27
ATOM   2352  CD  GLN A 827      -6.076 -19.240  25.126  1.00 13.89
ATOM   2353  OE1 GLN A 827      -5.758 -20.193  24.408  1.00 15.23
ATOM   2354  NE2 GLN A 827      -7.318 -18.771  25.193  1.00 14.20
ATOM   2355  C   GLN A 827      -2.413 -15.877  25.122  1.00 13.68
ATOM   2356  O   GLN A 827      -1.350 -16.270  24.647  1.00 13.98
ATOM   2357  N   LEU A 828      -2.910 -14.666  24.888  1.00 13.18
ATOM   2358  CA  LEU A 828      -2.202 -13.730  24.039  1.00 13.42
ATOM   2359  CB  LEU A 828      -3.063 -12.497  23.762  1.00 13.45
ATOM   2360  CG  LEU A 828      -2.441 -11.450  22.836  1.00 13.63
ATOM   2361  CD1 LEU A 828      -1.988 -12.094  21.541  1.00 13.44
ATOM   2362  CD2 LEU A 828      -3.458 -10.357  22.568  1.00 13.96
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ATOM   2363  C   LEU A 828     -0.890 -13.305  24.672  1.00 13.19
ATOM   2364  O   LEU A 828      0.166 -13.419  24.053  1.00 12.81
ATOM   2365  N   TYR A 829     -0.951 -12.824  25.910  1.00 13.19
ATOM   2366  CA  TYR A 829      0.262 -12.383  26.586  1.00 13.35
ATOM   2367  CB  TYR A 829     -0.102 -11.614  27.867  1.00 13.37
ATOM   2368  CG  TYR A 829     -0.820 -10.307  27.558  1.00 13.65
ATOM   2369  CD1 TYR A 829     -0.180  -9.290  26.842  1.00 13.13
ATOM   2370  CE1 TYR A 829     -0.852  -8.111  26.493  1.00 13.60
ATOM   2371  CD2 TYR A 829     -2.149 -10.113  27.923  1.00 13.16
ATOM   2372  CE2 TYR A 829     -2.830  -8.935  27.580  1.00 13.23
ATOM   2373  CZ  TYR A 829     -2.177  -7.946  26.868  1.00 13.34
ATOM   2374  OH  TYR A 829     -2.853  -6.788  26.534  1.00 12.35
ATOM   2375  C   TYR A 829      1.241 -13.533  26.849  1.00 13.24
ATOM   2376  O   TYR A 829      2.451 -13.323  26.873  1.00 13.61
ATOM   2377  N   GLU A 830      0.735 -14.749  27.026  1.00 13.88
ATOM   2378  CA  GLU A 830      1.639 -15.880  27.224  1.00 13.48
ATOM   2379  CB  GLU A 830      0.871 -17.143  27.599  1.00 13.54
ATOM   2380  CG  GLU A 830      0.335 -17.127  29.005  1.00 13.59
ATOM   2381  CD  GLU A 830     -0.591 -18.285  29.290  1.00 13.90
ATOM   2382  OE1 GLU A 830     -1.007 -18.427  30.459  1.00 15.15
ATOM   2383  OE2 GLU A 830     -0.907 -19.045  28.349  1.00 15.18
ATOM   2384  C   GLU A 830      2.400 -16.117  25.919  1.00 13.77
ATOM   2385  O   GLU A 830      3.609 -16.374  25.925  1.00 13.45
ATOM   2386  N   ALA A 831      1.685 -16.022  24.800  1.00 13.58
ATOM   2387  CA  ALA A 831      2.287 -16.219  23.487  1.00 13.49
ATOM   2388  CB  ALA A 831      1.214 -16.194  22.409  1.00 13.64
ATOM   2389  C   ALA A 831      3.321 -15.142  23.199  1.00 13.61
ATOM   2390  O   ALA A 831      4.394 -15.425  22.669  1.00 13.78
ATOM   2391  N   LEU A 832      2.985 -13.901  23.535  1.00 13.64
ATOM   2392  CA  LEU A 832      3.894 -12.789  23.299  1.00 13.30
ATOM   2393  CB  LEU A 832      3.220 -11.461  23.661  1.00 13.71
ATOM   2394  CG  LEU A 832      4.022 -10.178  23.425  1.00 13.10
ATOM   2395  CD1 LEU A 832      4.474 -10.066  21.980  1.00 14.08
ATOM   2396  CD2 LEU A 832      3.150  -8.997  23.794  1.00 13.50
ATOM   2397  C   LEU A 832      5.165 -12.971  24.114  1.00 13.55
ATOM   2398  O   LEU A 832      6.263 -12.692  23.639  1.00 13.89
ATOM   2399  N   THR A 833      5.014 -13.450  25.343  1.00 13.46
ATOM   2400  CA  THR A 833      6.163 -13.675  26.207  1.00 13.34
ATOM   2401  CB  THR A 833      5.703 -14.039  27.631  1.00 13.47
ATOM   2402  OG1 THR A 833      5.007 -12.920  28.193  1.00 13.27
ATOM   2403  CG2 THR A 833      6.886 -14.380  28.518  1.00 13.97
ATOM   2404  C   THR A 833      7.053 -14.780  25.627  1.00 13.78
ATOM   2405  O   THR A 833      8.276 -14.748  25.780  1.00 14.06
ATOM   2406  N   HIS A 834      6.437 -15.753  24.960  1.00 13.80
ATOM   2407  CA  HIS A 834      7.194 -16.835  24.331  1.00 13.67
ATOM   2408  CB  HIS A 834      6.241 -17.866  23.716  1.00 13.74
ATOM   2409  CG  HIS A 834      6.920 -18.846  22.813  1.00 13.95
ATOM   2410  CD2 HIS A 834      7.127 -18.828  21.474  1.00 13.54
ATOM   2411  ND1 HIS A 834      7.534 -19.987  23.280  1.00 14.35
ATOM   2412  CE1 HIS A 834      8.090 -20.630  22.268  1.00 13.95
ATOM   2413  NE2 HIS A 834      7.860 -19.947  21.162  1.00 14.24
ATOM   2414  C   HIS A 834      8.079 -16.229  23.233  1.00 13.67
ATOM   2415  O   HIS A 834      9.237 -16.611  23.067  1.00 14.02
ATOM   2416  N   VAL A 835      7.529 -15.277  22.483  1.00 14.09
ATOM   2417  CA  VAL A 835      8.280 -14.626  21.408  1.00 13.51
ATOM   2418  CB  VAL A 835      7.377 -13.672  20.600  1.00 13.73
ATOM   2419  CG1 VAL A 835      8.148 -13.074  19.436  1.00 13.36
ATOM   2420  CG2 VAL A 835      6.147 -14.413  20.120  1.00 13.65
ATOM   2421  C   VAL A 835      9.436 -13.818  21.990  1.00 14.01
ATOM   2422  O   VAL A 835     10.556 -13.840  21.468  1.00 14.18
ATOM   2423  N   SER A 836      9.154 -13.098  23.069  1.00 13.79
ATOM   2424  CA  SER A 836     10.169 -12.290  23.735  1.00 13.78
ATOM   2425  CB  SER A 836     10.140 -10.854  23.208  1.00 13.71
ATOM   2426  OG  SER A 836     11.080 -10.043  23.887  1.00 14.09
ATOM   2427  C   SER A 836      9.916 -12.291  25.236  1.00 13.30
ATOM   2428  O   SER A 836      8.945 -11.702  25.712  1.00 13.88
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ATOM	2429	N	GLU	A	837	10.795	-12.957	25.979	1.00	13.82
ATOM	2430	CA	GLU	A	837	10.670	-13.057	27.433	1.00	13.75
ATOM	2431	CB	GLU	A	837	11.875	-13.810	28.010	1.00	14.05
ATOM	2432	CG	GLU	A	837	13.221	-13.177	27.651	1.00	14.23
ATOM	2433	CD	GLU	A	837	14.403	-13.897	28.283	1.00	13.96
ATOM	2434	OE1	GLU	A	837	14.172	-14.878	29.026	1.00	15.55
ATOM	2435	OE2	GLU	A	837	15.563	-13.480	28.039	1.00	15.05
ATOM	2436	C	GLU	A	837	10.562	-11.697	28.115	1.00	13.72
ATOM	2437	O	GLU	A	837	10.025	-11.586	29.214	1.00	13.82
ATOM	2438	N	ASP	A	838	11.073	-10.664	27.456	1.00	13.78
ATOM	2439	CA	ASP	A	838	11.050	-9.325	28.018	1.00	13.57
ATOM	2440	CB	ASP	A	838	12.054	-8.451	27.275	1.00	13.61
ATOM	2441	CG	ASP	A	838	13.478	-8.922	27.480	1.00	14.16
ATOM	2442	OD1	ASP	A	838	13.962	-8.825	28.625	1.00	14.67
ATOM	2443	OD2	ASP	A	838	14.097	-9.399	26.505	1.00	15.21
ATOM	2444	C	ASP	A	838	9.668	-8.672	28.026	1.00	13.65
ATOM	2445	O	ASP	A	838	9.494	-7.572	28.555	1.00	13.89
ATOM	2446	N	CYS	A	839	8.685	-9.345	27.442	1.00	13.19
ATOM	2447	CA	CYS	A	839	7.328	-8.819	27.433	1.00	13.32
ATOM	2448	CB	CYS	A	839	6.626	-9.143	26.108	1.00	13.45
ATOM	2449	SG	CYS	A	839	7.078	-8.046	24.740	1.00	14.44
ATOM	2450	C	CYS	A	839	6.535	-9.405	28.601	1.00	13.65
ATOM	2451	O	CYS	A	839	5.345	-9.146	28.741	1.00	13.57
ATOM	2452	N	PHE	A	840	7.210	-10.182	29.447	1.00	13.23
ATOM	2453	CA	PHE	A	840	6.567	-10.811	30.597	1.00	13.58
ATOM	2454	CB	PHE	A	840	7.607	-11.524	31.467	1.00	13.99
ATOM	2455	CG	PHE	A	840	7.022	-12.183	32.679	1.00	13.68
ATOM	2456	CD1	PHE	A	840	6.151	-13.261	32.549	1.00	13.87
ATOM	2457	CD2	PHE	A	840	7.303	-11.701	33.948	1.00	14.14
ATOM	2458	CE1	PHE	A	840	5.566	-13.848	33.669	1.00	13.74
ATOM	2459	CE2	PHE	A	840	6.728	-12.275	35.073	1.00	13.53
ATOM	2460	CZ	PHE	A	840	5.856	-13.351	34.934	1.00	13.74
ATOM	2461	C	PHE	A	840	5.738	-9.877	31.485	1.00	13.72
ATOM	2462	O	PHE	A	840	4.687	-10.276	31.995	1.00	12.91
ATOM	2463	N	PRO	A	841	6.203	-8.634	31.696	1.00	13.03
ATOM	2464	CD	PRO	A	841	7.508	-8.055	31.323	1.00	13.72
ATOM	2465	CA	PRO	A	841	5.448	-7.701	32.541	1.00	13.87
ATOM	2466	CB	PRO	A	841	6.223	-6.403	32.387	1.00	13.68
ATOM	2467	CG	PRO	A	841	7.638	-6.899	32.285	1.00	13.61
ATOM	2468	C	PRO	A	841	3.980	-7.553	32.156	1.00	13.62
ATOM	2469	O	PRO	A	841	3.128	-7.315	33.014	1.00	13.02
ATOM	2470	N	LEU	A	842	3.680	-7.691	30.869	1.00	13.60
ATOM	2471	CA	LEU	A	842	2.298	-7.584	30.424	1.00	13.28
ATOM	2472	CB	LEU	A	842	2.237	-7.497	28.892	1.00	13.54
ATOM	2473	CG	LEU	A	842	2.890	-6.272	28.239	1.00	13.59
ATOM	2474	CD1	LEU	A	842	2.962	-6.470	26.730	1.00	13.40
ATOM	2475	CD2	LEU	A	842	2.095	-5.007	28.575	1.00	13.53
ATOM	2476	C	LEU	A	842	1.499	-8.792	30.928	1.00	13.50
ATOM	2477	O	LEU	A	842	0.377	-8.645	31.408	1.00	12.68
ATOM	2478	N	LEU	A	843	2.082	-9.982	30.819	1.00	12.87
ATOM	2479	CA	LEU	A	843	1.424	-11.206	31.275	1.00	13.53
ATOM	2480	CB	LEU	A	843	2.282	-12.430	30.927	1.00	13.14
ATOM	2481	CG	LEU	A	843	1.643	-13.780	30.576	1.00	14.36
ATOM	2482	CD1	LEU	A	843	2.685	-14.881	30.802	1.00	13.74
ATOM	2483	CD2	LEU	A	843	0.401	-14.047	31.407	1.00	13.68
ATOM	2484	C	LEU	A	843	1.248	-11.130	32.790	1.00	13.50
ATOM	2485	O	LEU	A	843	0.162	-11.373	33.320	1.00	13.52
ATOM	2486	N	ASP	A	844	2.327	-10.783	33.483	1.00	13.56
ATOM	2487	CA	ASP	A	844	2.296	-10.684	34.938	1.00	13.19
ATOM	2488	CB	ASP	A	844	3.667	-10.271	35.462	1.00	13.85
ATOM	2489	CG	ASP	A	844	3.769	-10.384	36.966	1.00	13.87
ATOM	2490	OD1	ASP	A	844	3.357	-11.433	37.509	1.00	14.33
ATOM	2491	OD2	ASP	A	844	4.270	-9.430	37.601	1.00	15.23
ATOM	2492	C	ASP	A	844	1.239	-9.684	35.398	1.00	13.88
ATOM	2493	O	ASP	A	844	0.504	-9.939	36.351	1.00	14.01
ATOM	2494	N	GLY	A	845	1.164	-8.549	34.712	1.00	13.29

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ATOM   2495  CA  GLY A 845       0.184  -7.541  35.069  1.00 13.40
ATOM   2496  C   GLY A 845      -1.229  -8.038  34.844  1.00 13.26
ATOM   2497  O   GLY A 845      -2.133  -7.734  35.623  1.00 13.02
ATOM   2498  N   CYS A 846      -1.419  -8.809  33.775  1.00 13.44
ATOM   2499  CA  CYS A 846      -2.728  -9.350  33.438  1.00 13.08
ATOM   2500  CB  CYS A 846      -2.671 -10.010  32.060  1.00 13.54
ATOM   2501  SG  CYS A 846      -4.208 -10.743  31.524  1.00 12.24
ATOM   2502  C   CYS A 846      -3.184 -10.359  34.484  1.00 13.61
ATOM   2503  O   CYS A 846      -4.353 -10.387  34.878  1.00 13.95
ATOM   2504  N   ARG A 847      -2.255 -11.189  34.939  1.00 13.54
ATOM   2505  CA  ARG A 847      -2.582 -12.191  35.934  1.00 13.36
ATOM   2506  CB  ARG A 847      -1.427 -13.185  36.086  1.00 13.57
ATOM   2507  CG  ARG A 847      -1.231 -13.987  34.809  1.00 13.34
ATOM   2508  CD  ARG A 847      -0.427 -15.250  34.967  1.00 14.56
ATOM   2509  NE  ARG A 847       0.992 -15.003  35.162  1.00 14.13
ATOM   2510  CZ  ARG A 847       1.943 -15.822  34.723  1.00 13.81
ATOM   2511  NH1 ARG A 847       1.616 -16.921  34.064  1.00 14.59
ATOM   2512  NH2 ARG A 847       3.215 -15.553  34.958  1.00 14.31
ATOM   2513  C   ARG A 847      -2.934 -11.559  37.263  1.00 13.66
ATOM   2514  O   ARG A 847      -3.791 -12.065  37.987  1.00 13.75
ATOM   2515  N   LYS A 848      -2.283 -10.448  37.577  1.00 13.32
ATOM   2516  CA  LYS A 848      -2.547  -9.748  38.827  1.00 13.30
ATOM   2517  CB  LYS A 848      -1.553  -8.602  39.019  1.00 13.54
ATOM   2518  CG  LYS A 848      -0.127  -9.050  39.339  1.00 13.83
ATOM   2519  CD  LYS A 848       0.787  -7.842  39.487  1.00 13.94
ATOM   2520  CE  LYS A 848       2.215  -8.226  39.819  1.00 13.92
ATOM   2521  NZ  LYS A 848       2.323  -8.821  41.181  1.00 14.29
ATOM   2522  C   LYS A 848      -3.966  -9.198  38.813  1.00 13.90
ATOM   2523  O   LYS A 848      -4.685  -9.294  39.806  1.00 13.53
ATOM   2524  N   ASN A 849      -4.369  -8.614  37.689  1.00 13.61
ATOM   2525  CA  ASN A 849      -5.715  -8.067  37.596  1.00 13.23
ATOM   2526  CB  ASN A 849      -5.876  -7.238  36.323  1.00 13.42
ATOM   2527  CG  ASN A 849      -5.263  -5.866  36.452  1.00 13.76
ATOM   2528  OD1 ASN A 849      -5.381  -5.226  37.494  1.00 13.45
ATOM   2529  ND2 ASN A 849      -4.614  -5.399  35.394  1.00 13.34
ATOM   2530  C   ASN A 849      -6.761  -9.166  37.653  1.00 13.80
ATOM   2531  O   ASN A 849      -7.889  -8.929  38.087  1.00 13.13
ATOM   2532  N   ARG A 850      -6.385 -10.366  37.212  1.00 12.67
ATOM   2533  CA  ARG A 850      -7.284 -11.520  37.235  1.00 13.67
ATOM   2534  CB  ARG A 850      -6.586 -12.721  36.577  1.00 13.45
ATOM   2535  CG  ARG A 850      -7.177 -14.109  36.858  1.00 14.34
ATOM   2536  CD  ARG A 850      -8.343 -14.420  35.961  1.00 14.15
ATOM   2537  NE  ARG A 850      -8.706 -15.844  35.885  1.00 13.90
ATOM   2538  CZ  ARG A 850      -9.115 -16.593  36.910  1.00 13.59
ATOM   2539  NH1 ARG A 850      -9.205 -16.092  38.136  1.00 14.38
ATOM   2540  NH2 ARG A 850      -9.514 -17.838  36.694  1.00 15.32
ATOM   2541  C   ARG A 850      -7.646 -11.838  38.683  1.00 13.48
ATOM   2542  O   ARG A 850      -8.817 -12.040  39.012  1.00 12.78
ATOM   2543  N   GLN A 851      -6.639 -11.863  39.553  1.00 13.47
ATOM   2544  CA  GLN A 851      -6.883 -12.165  40.956  1.00 13.69
ATOM   2545  CB  GLN A 851      -5.558 -12.400  41.695  1.00 13.53
ATOM   2546  CG  GLN A 851      -4.634 -11.198  41.759  1.00 14.05
ATOM   2547  CD  GLN A 851      -3.452 -11.416  42.690  1.00 14.49
ATOM   2548  OE1 GLN A 851      -3.623 -11.534  43.912  1.00 15.33
ATOM   2549  NE2 GLN A 851      -2.243 -11.477  42.119  1.00 15.04
ATOM   2550  C   GLN A 851      -7.672 -11.038  41.615  1.00 13.93
ATOM   2551  O   GLN A 851      -8.486 -11.283  42.504  1.00 13.55
ATOM   2552  N   LYS A 852      -7.438  -9.807  41.167  1.00 13.42
ATOM   2553  CA  LYS A 852      -8.139  -8.646  41.710  1.00 13.61
ATOM   2554  CB  LYS A 852      -7.493  -7.360  41.201  1.00 13.80
ATOM   2555  CG  LYS A 852      -6.177  -7.036  41.885  1.00 13.52
ATOM   2556  CD  LYS A 852      -6.416  -6.860  43.375  1.00 13.78
ATOM   2557  CE  LYS A 852      -5.329  -6.035  44.013  1.00 14.37
ATOM   2558  NZ  LYS A 852      -5.794  -5.447  45.305  1.00 14.68
ATOM   2559  C   LYS A 852      -9.624  -8.664  41.353  1.00 13.55
ATOM   2560  O   LYS A 852     -10.486  -8.460  42.217  1.00 13.59
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ATOM   2561  N   TRP A 853      -9.929  -8.902  40.079  1.00 13.67
ATOM   2562  CA  TRP A 853     -11.319  -8.956  39.652  1.00 13.62
ATOM   2563  CB  TRP A 853     -11.414  -9.028  38.128  1.00 13.44
ATOM   2564  CG  TRP A 853     -11.199  -7.718  37.441  1.00 13.20
ATOM   2565  CD2 TRP A 853     -12.013  -6.547  37.556  1.00 13.36
ATOM   2566  CE2 TRP A 853     -11.473  -5.575  36.686  1.00 13.60
ATOM   2567  CE3 TRP A 853     -13.150  -6.226  38.305  1.00 13.31
ATOM   2568  CD1 TRP A 853     -10.219  -7.418  36.536  1.00 13.59
ATOM   2569  NE1 TRP A 853     -10.379  -6.132  36.076  1.00 13.08
ATOM   2570  CZ2 TRP A 853     -12.031  -4.301  36.544  1.00 13.31
ATOM   2571  CZ3 TRP A 853     -13.708  -4.958  38.165  1.00 13.74
ATOM   2572  CH2 TRP A 853     -13.148  -4.012  37.289  1.00 13.47
ATOM   2573  C   TRP A 853     -12.009 -10.168  40.259  1.00 13.24
ATOM   2574  O   TRP A 853     -13.172 -10.097  40.652  1.00 14.16
ATOM   2575  N   GLN A 854     -11.287 -11.281  40.336  1.00 14.03
ATOM   2576  CA  GLN A 854     -11.844 -12.503  40.900  1.00 13.19
ATOM   2577  CB  GLN A 854     -10.844 -13.651  40.776  1.00 13.73
ATOM   2578  CG  GLN A 854     -11.354 -14.963  41.353  1.00 13.77
ATOM   2579  CD  GLN A 854     -12.685 -15.380  40.758  1.00 13.99
ATOM   2580  OE1 GLN A 854     -12.878 -15.326  39.540  1.00 14.59
ATOM   2581  NE2 GLN A 854     -13.608 -15.814  41.613  1.00 14.69
ATOM   2582  C   GLN A 854     -12.183 -12.280  42.368  1.00 13.08
ATOM   2583  O   GLN A 854     -13.210 -12.748  42.853  1.00 14.32
ATOM   2584  N   ALA A 855     -11.313 -11.555  43.060  1.00 13.96
ATOM   2585  CA  ALA A 855     -11.509 -11.262  44.475  1.00 13.61
ATOM   2586  CB  ALA A 855     -10.344 -10.433  44.999  1.00 13.88
ATOM   2587  C   ALA A 855     -12.820 -10.516  44.683  1.00 13.57
ATOM   2588  O   ALA A 855     -13.461 -10.647  45.729  1.00 15.05
ATOM   2589  N   LEU A 856     -13.215  -9.725  43.689  1.00 13.58
ATOM   2590  CA  LEU A 856     -14.455  -8.965  43.773  1.00 13.81
ATOM   2591  CB  LEU A 856     -14.407  -7.754  42.841  1.00 13.60
ATOM   2592  CG  LEU A 856     -13.400  -6.660  43.178  1.00 13.65
ATOM   2593  CD1 LEU A 856     -13.611  -5.504  42.217  1.00 13.55
ATOM   2594  CD2 LEU A 856     -13.578  -6.209  44.633  1.00 13.36
ATOM   2595  C   LEU A 856     -15.669  -9.811  43.414  1.00 13.94
ATOM   2596  O   LEU A 856     -16.720  -9.703  44.047  1.00 14.68
ATOM   2597  N   ALA A 857     -15.520 -10.649  42.395  1.00 14.04
ATOM   2598  CA  ALA A 857     -16.610 -11.500  41.928  1.00 14.08
ATOM   2599  CB  ALA A 857     -16.274 -12.047  40.545  1.00 13.47
ATOM   2600  C   ALA A 857     -16.948 -12.648  42.874  1.00 14.06
ATOM   2601  O   ALA A 857     -18.040 -13.224  42.797  1.00 15.33
ATOM   2602  N   GLU A 858     -16.026 -12.970  43.775  1.00 13.89
ATOM   2603  CA  GLU A 858     -16.238 -14.076  44.703  1.00 13.68
ATOM   2604  CB  GLU A 858     -14.920 -14.824  44.953  1.00 13.79
ATOM   2605  CG  GLU A 858     -13.742 -13.994  45.437  1.00 14.44
ATOM   2606  CD  GLU A 858     -12.508 -14.856  45.680  1.00 13.89
ATOM   2607  OE1 GLU A 858     -12.608 -15.771  46.519  1.00 15.57
ATOM   2608  OE2 GLU A 858     -11.446 -14.633  45.043  1.00 15.52
ATOM   2609  C   GLU A 858     -16.908 -13.735  46.027  1.00 14.28
ATOM   2610  O   GLU A 858     -17.675 -14.608  46.497  1.00 15.10
ATOM   2611  OXT GLU A 858     -16.660 -12.635  46.585  1.00 14.37
TER
ATOM   2613  CB  THR B 537      24.056  67.032  11.424  1.00 13.82
ATOM   2614  OG1 THR B 537      22.648  66.787  11.541  1.00 15.50
ATOM   2615  CG2 THR B 537      24.421  67.270   9.968  1.00 14.28
ATOM   2616  C   THR B 537      24.985  66.008  13.488  1.00 14.25
ATOM   2617  O   THR B 537      24.140  65.543  14.261  1.00 15.25
ATOM   2618  N   THR B 537      24.219  64.531  11.616  1.00 14.78
ATOM   2619  CA  THR B 537      24.848  65.829  11.984  1.00 13.74
ATOM   2620  N   ARG B 538      26.054  66.699  13.880  1.00 14.08
ATOM   2621  CA  ARG B 538      26.381  66.960  15.278  1.00 13.66
ATOM   2622  CB  ARG B 538      25.169  67.525  16.023  1.00 13.93
ATOM   2623  CG  ARG B 538      25.300  67.583  17.549  1.00 13.99
ATOM   2624  CD  ARG B 538      26.540  68.328  18.054  1.00 14.35
ATOM   2625  NE  ARG B 538      26.402  68.688  19.469  1.00 15.08
ATOM   2626  CZ  ARG B 538      27.371  69.182  20.243  1.00 14.21
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ATOM	2627	NH1	ARG	B	538	28.592	69.386	19.762	1.00	15.19
ATOM	2628	NH2	ARG	B	538	27.113	69.482	21.517	1.00	14.44
ATOM	2629	C	ARG	B	538	26.892	65.686	15.954	1.00	13.57
ATOM	2630	O	ARG	B	538	27.951	65.696	16.583	1.00	13.81
ATOM	2631	N	GLU	B	539	26.136	64.599	15.816	1.00	13.71
ATOM	2632	CA	GLU	B	539	26.509	63.300	16.375	1.00	13.62
ATOM	2633	CB	GLU	B	539	25.419	62.271	16.064	1.00	13.69
ATOM	2634	CG	GLU	B	539	24.605	61.806	17.242	1.00	14.93
ATOM	2635	CD	GLU	B	539	23.975	62.939	17.993	1.00	13.87
ATOM	2636	OE1	GLU	B	539	24.730	63.736	18.585	1.00	15.48
ATOM	2637	OE2	GLU	B	539	22.724	63.034	17.995	1.00	15.64
ATOM	2638	C	GLU	B	539	27.821	62.828	15.759	1.00	13.42
ATOM	2639	O	GLU	B	539	28.693	62.288	16.446	1.00	13.26
ATOM	2640	N	LEU	B	540	27.944	63.026	14.452	1.00	13.90
ATOM	2641	CA	LEU	B	540	29.144	62.628	13.730	1.00	14.02
ATOM	2642	CB	LEU	B	540	28.910	62.766	12.223	1.00	13.26
ATOM	2643	CG	LEU	B	540	30.072	62.438	11.284	1.00	13.48
ATOM	2644	CD1	LEU	B	540	30.619	61.048	11.574	1.00	13.45
ATOM	2645	CD2	LEU	B	540	29.593	62.550	9.845	1.00	14.20
ATOM	2646	C	LEU	B	540	30.347	63.464	14.153	1.00	13.26
ATOM	2647	O	LEU	B	540	31.437	62.934	14.367	1.00	13.39
ATOM	2648	N	GLN	B	541	30.154	64.774	14.278	1.00	14.13
ATOM	2649	CA	GLN	B	541	31.260	65.638	14.678	1.00	13.70
ATOM	2650	CB	GLN	B	541	30.817	67.109	14.667	1.00	13.69
ATOM	2651	CG	GLN	B	541	30.615	67.668	13.263	1.00	13.90
ATOM	2652	CD	GLN	B	541	29.815	68.952	13.254	1.00	14.34
ATOM	2653	OE1	GLN	B	541	30.266	69.991	13.750	1.00	15.66
ATOM	2654	NE2	GLN	B	541	28.609	68.888	12.692	1.00	14.59
ATOM	2655	C	GLN	B	541	31.795	65.248	16.054	1.00	13.52
ATOM	2656	O	GLN	B	541	33.007	65.106	16.235	1.00	14.17
ATOM	2657	N	SER	B	542	30.897	65.053	17.013	1.00	13.11
ATOM	2658	CA	SER	B	542	31.299	64.680	18.365	1.00	13.52
ATOM	2659	CB	SER	B	542	30.073	64.551	19.276	1.00	13.83
ATOM	2660	OG	SER	B	542	29.297	65.736	19.289	1.00	14.66
ATOM	2661	C	SER	B	542	32.054	63.353	18.366	1.00	13.65
ATOM	2662	O	SER	B	542	33.095	63.216	19.011	1.00	14.34
ATOM	2663	N	LEU	B	543	31.531	62.375	17.636	1.00	13.50
ATOM	2664	CA	LEU	B	543	32.150	61.056	17.590	1.00	13.67
ATOM	2665	CB	LEU	B	543	31.226	60.068	16.866	1.00	13.34
ATOM	2666	CG	LEU	B	543	31.228	58.573	17.235	1.00	14.12
ATOM	2667	CD1	LEU	B	543	31.001	57.770	15.955	1.00	13.89
ATOM	2668	CD2	LEU	B	543	32.508	58.148	17.922	1.00	13.82
ATOM	2669	C	LEU	B	543	33.514	61.057	16.901	1.00	13.34
ATOM	2670	O	LEU	B	543	34.497	60.580	17.453	1.00	13.47
ATOM	2671	N	ALA	B	544	33.567	61.608	15.694	1.00	13.62
ATOM	2672	CA	ALA	B	544	34.801	61.635	14.923	1.00	13.64
ATOM	2673	CB	ALA	B	544	34.543	62.266	13.560	1.00	13.38
ATOM	2674	C	ALA	B	544	35.977	62.331	15.600	1.00	13.72
ATOM	2675	O	ALA	B	544	37.125	61.938	15.398	1.00	13.54
ATOM	2676	N	ALA	B	545	35.699	63.343	16.415	1.00	13.63
ATOM	2677	CA	ALA	B	545	36.776	64.093	17.062	1.00	13.92
ATOM	2678	CB	ALA	B	545	36.366	65.543	17.205	1.00	13.91
ATOM	2679	C	ALA	B	545	37.213	63.549	18.411	1.00	13.62
ATOM	2680	O	ALA	B	545	38.194	64.018	18.989	1.00	13.67
ATOM	2681	N	ALA	B	546	36.492	62.561	18.917	1.00	13.72
ATOM	2682	CA	ALA	B	546	36.824	61.992	20.215	1.00	13.76
ATOM	2683	CB	ALA	B	546	35.609	61.254	20.790	1.00	13.69
ATOM	2684	C	ALA	B	546	38.021	61.053	20.187	1.00	13.45
ATOM	2685	O	ALA	B	546	38.370	60.475	19.153	1.00	13.72
ATOM	2686	N	VAL	B	547	38.663	60.922	21.342	1.00	13.91
ATOM	2687	CA	VAL	B	547	39.789	60.014	21.474	1.00	13.25
ATOM	2688	CB	VAL	B	547	40.668	60.372	22.694	1.00	13.72
ATOM	2689	CG1	VAL	B	547	41.686	59.265	22.949	1.00	13.96
ATOM	2690	CG2	VAL	B	547	41.387	61.693	22.451	1.00	13.87
ATOM	2691	C	VAL	B	547	39.165	58.641	21.700	1.00	14.05
ATOM	2692	O	VAL	B	547	38.214	58.503	22.472	1.00	13.30

ATOM	2693	N	VAL	B	548	39.681	57.633	21.008	1.00	13.45
ATOM	2694	CA	VAL	B	548	39.161	56.278	21.172	1.00	13.46
ATOM	2695	CB	VAL	B	548	39.251	55.470	19.857	1.00	13.48
ATOM	2696	CG1	VAL	B	548	38.670	54.080	20.071	1.00	13.32
ATOM	2697	CG2	VAL	B	548	38.509	56.191	18.741	1.00	13.96
ATOM	2698	C	VAL	B	548	40.014	55.590	22.234	1.00	13.52
ATOM	2699	O	VAL	B	548	41.199	55.326	22.013	1.00	13.62
ATOM	2700	N	PRO	B	549	39.429	55.294	23.407	1.00	13.18
ATOM	2701	CD	PRO	B	549	38.074	55.638	23.867	1.00	13.08
ATOM	2702	CA	PRO	B	549	40.186	54.634	24.478	1.00	13.37
ATOM	2703	CB	PRO	B	549	39.162	54.518	25.607	1.00	13.83
ATOM	2704	CG	PRO	B	549	38.260	55.686	25.364	1.00	13.55
ATOM	2705	C	PRO	B	549	40.723	53.273	24.054	1.00	13.94
ATOM	2706	O	PRO	B	549	40.257	52.692	23.071	1.00	13.11
ATOM	2707	N	SER	B	550	41.701	52.765	24.798	1.00	13.65
ATOM	2708	CA	SER	B	550	42.289	51.463	24.487	1.00	13.25
ATOM	2709	CB	SER	B	550	43.557	51.229	25.317	1.00	13.69
ATOM	2710	OG	SER	B	550	43.237	51.042	26.690	1.00	13.25
ATOM	2711	C	SER	B	550	41.291	50.356	24.794	1.00	13.90
ATOM	2712	O	SER	B	550	40.355	50.562	25.567	1.00	12.77
ATOM	2713	N	ALA	B	551	41.486	49.190	24.175	1.00	14.00
ATOM	2714	CA	ALA	B	551	40.601	48.049	24.415	1.00	13.10
ATOM	2715	CB	ALA	B	551	41.034	46.847	23.570	1.00	13.81
ATOM	2716	C	ALA	B	551	40.680	47.697	25.897	1.00	13.52
ATOM	2717	O	ALA	B	551	39.695	47.309	26.515	1.00	13.73
ATOM	2718	N	GLN	B	552	41.873	47.849	26.456	1.00	13.21
ATOM	2719	CA	GLN	B	552	42.120	47.560	27.864	1.00	14.21
ATOM	2720	CB	GLN	B	552	43.583	47.863	28.193	1.00	13.84
ATOM	2721	CG	GLN	B	552	44.578	47.103	27.331	1.00	14.59
ATOM	2722	CD	GLN	B	552	45.917	47.823	27.196	1.00	13.97
ATOM	2723	OE1	GLN	B	552	46.089	48.713	26.343	1.00	15.35
ATOM	2724	NE2	GLN	B	552	46.872	47.450	28.042	1.00	14.87
ATOM	2725	C	GLN	B	552	41.220	48.417	28.739	1.00	13.86
ATOM	2726	O	GLN	B	552	40.525	47.918	29.623	1.00	14.31
ATOM	2727	N	THR	B	553	41.247	49.718	28.478	1.00	13.88
ATOM	2728	CA	THR	B	553	40.451	50.676	29.226	1.00	14.22
ATOM	2729	CB	THR	B	553	40.754	52.113	28.745	1.00	13.91
ATOM	2730	OG1	THR	B	553	42.151	52.382	28.925	1.00	13.97
ATOM	2731	CG2	THR	B	553	39.941	53.135	29.532	1.00	13.63
ATOM	2732	C	THR	B	553	38.961	50.392	29.094	1.00	13.40
ATOM	2733	O	THR	B	553	38.227	50.395	30.089	1.00	14.38
ATOM	2734	N	LEU	B	554	38.520	50.123	27.870	1.00	13.55
ATOM	2735	CA	LEU	B	554	37.107	49.856	27.610	1.00	13.76
ATOM	2736	CB	LEU	B	554	36.809	50.068	26.120	1.00	13.65
ATOM	2737	CG	LEU	B	554	37.163	51.467	25.596	1.00	13.48
ATOM	2738	CD1	LEU	B	554	36.968	51.531	24.090	1.00	13.64
ATOM	2739	CD2	LEU	B	554	36.298	52.510	26.289	1.00	13.83
ATOM	2740	C	LEU	B	554	36.621	48.472	28.063	1.00	13.89
ATOM	2741	O	LEU	B	554	35.414	48.228	28.122	1.00	14.26
ATOM	2742	N	LYS	B	555	37.555	47.579	28.382	1.00	13.63
ATOM	2743	CA	LYS	B	555	37.237	46.227	28.854	1.00	13.74
ATOM	2744	CB	LYS	B	555	36.406	46.293	30.141	1.00	13.49
ATOM	2745	CG	LYS	B	555	37.092	46.978	31.313	1.00	14.34
ATOM	2746	CD	LYS	B	555	36.335	46.686	32.599	1.00	14.02
ATOM	2747	CE	LYS	B	555	36.805	47.549	33.748	1.00	13.92
ATOM	2748	NZ	LYS	B	555	36.362	48.966	33.595	1.00	14.77
ATOM	2749	C	LYS	B	555	36.499	45.354	27.837	1.00	13.56
ATOM	2750	O	LYS	B	555	35.895	44.340	28.205	1.00	13.50
ATOM	2751	N	ILE	B	556	36.545	45.738	26.565	1.00	13.62
ATOM	2752	CA	ILE	B	556	35.853	44.979	25.526	1.00	13.52
ATOM	2753	CB	ILE	B	556	35.823	45.746	24.184	1.00	13.64
ATOM	2754	CG2	ILE	B	556	35.011	47.035	24.340	1.00	13.82
ATOM	2755	CG1	ILE	B	556	37.249	46.050	23.726	1.00	13.48
ATOM	2756	CD1	ILE	B	556	37.340	46.582	22.310	1.00	13.81
ATOM	2757	C	ILE	B	556	36.433	43.591	25.268	1.00	13.85
ATOM	2758	O	ILE	B	556	35.849	42.803	24.531	1.00	13.21

ATOM	2759	N	THR	B	557	37.573	43.281	25.872	1.00	13.45
ATOM	2760	CA	THR	B	557	38.171	41.967	25.667	1.00	13.72
ATOM	2761	CB	THR	B	557	39.710	42.014	25.833	1.00	13.65
ATOM	2762	OG1	THR	B	557	40.236	43.160	25.146	1.00	13.76
ATOM	2763	CG2	THR	B	557	40.343	40.760	25.242	1.00	14.00
ATOM	2764	C	THR	B	557	37.600	40.964	26.670	1.00	13.79
ATOM	2765	O	THR	B	557	37.804	39.755	26.537	1.00	13.70
ATOM	2766	N	ASP	B	558	36.865	41.470	27.657	1.00	12.71
ATOM	2767	CA	ASP	B	558	36.292	40.615	28.691	1.00	13.93
ATOM	2768	CB	ASP	B	558	36.030	41.412	29.976	1.00	13.64
ATOM	2769	CG	ASP	B	558	37.233	42.233	30.427	1.00	13.78
ATOM	2770	OD1	ASP	B	558	38.366	41.944	29.980	1.00	15.02
ATOM	2771	OD2	ASP	B	558	37.039	43.165	31.247	1.00	15.47
ATOM	2772	C	ASP	B	558	34.983	39.969	28.266	1.00	13.76
ATOM	2773	O	ASP	B	558	34.093	40.635	27.749	1.00	12.76
ATOM	2774	N	PHE	B	559	34.863	38.667	28.492	1.00	12.99
ATOM	2775	CA	PHE	B	559	33.630	37.970	28.152	1.00	13.40
ATOM	2776	CB	PHE	B	559	33.839	36.454	28.241	1.00	12.99
ATOM	2777	CG	PHE	B	559	34.525	35.860	27.037	1.00	13.71
ATOM	2778	CD1	PHE	B	559	33.881	35.824	25.805	1.00	13.72
ATOM	2779	CD2	PHE	B	559	35.814	35.338	27.134	1.00	13.63
ATOM	2780	CE1	PHE	B	559	34.512	35.275	24.679	1.00	13.49
ATOM	2781	CE2	PHE	B	559	36.453	34.789	26.015	1.00	13.55
ATOM	2782	CZ	PHE	B	559	35.802	34.758	24.790	1.00	13.94
ATOM	2783	C	PHE	B	559	32.524	38.418	29.118	1.00	13.54
ATOM	2784	O	PHE	B	559	31.332	38.277	28.824	1.00	13.74
ATOM	2785	N	SER	B	560	32.937	38.967	30.259	1.00	13.81
ATOM	2786	CA	SER	B	560	32.019	39.448	31.292	1.00	13.53
ATOM	2787	CB	SER	B	560	32.679	39.362	32.670	1.00	14.02
ATOM	2788	OG	SER	B	560	33.753	40.285	32.776	1.00	14.66
ATOM	2789	C	SER	B	560	31.596	40.893	31.055	1.00	13.38
ATOM	2790	O	SER	B	560	30.895	41.480	31.871	1.00	13.92
ATOM	2791	N	PHE	B	561	32.041	41.466	29.946	1.00	13.38
ATOM	2792	CA	PHE	B	561	31.729	42.851	29.602	1.00	13.55
ATOM	2793	CB	PHE	B	561	32.186	43.107	28.164	1.00	13.62
ATOM	2794	CG	PHE	B	561	31.786	44.444	27.627	1.00	13.64
ATOM	2795	CD1	PHE	B	561	32.587	45.563	27.825	1.00	13.64
ATOM	2796	CD2	PHE	B	561	30.592	44.589	26.928	1.00	13.25
ATOM	2797	CE1	PHE	B	561	32.202	46.804	27.335	1.00	13.79
ATOM	2798	CE2	PHE	B	561	30.200	45.813	26.439	1.00	13.34
ATOM	2799	CZ	PHE	B	561	31.003	46.932	26.639	1.00	13.37
ATOM	2800	C	PHE	B	561	30.251	43.254	29.750	1.00	13.43
ATOM	2801	O	PHE	B	561	29.348	42.486	29.424	1.00	13.46
ATOM	2802	N	SER	B	562	30.019	44.466	30.255	1.00	13.66
ATOM	2803	CA	SER	B	562	28.665	45.003	30.391	1.00	13.79
ATOM	2804	CB	SER	B	562	28.231	45.100	31.853	1.00	13.84
ATOM	2805	OG	SER	B	562	26.925	45.654	31.909	1.00	14.62
ATOM	2806	C	SER	B	562	28.621	46.397	29.782	1.00	13.49
ATOM	2807	O	SER	B	562	29.516	47.211	30.014	1.00	13.40
ATOM	2808	N	ASP	B	563	27.570	46.674	29.017	1.00	13.52
ATOM	2809	CA	ASP	B	563	27.416	47.971	28.365	1.00	13.70
ATOM	2810	CB	ASP	B	563	26.724	47.799	27.019	1.00	13.73
ATOM	2811	CG	ASP	B	563	25.256	47.455	27.177	1.00	13.61
ATOM	2812	OD1	ASP	B	563	24.946	46.360	27.694	1.00	12.72
ATOM	2813	OD2	ASP	B	563	24.409	48.288	26.807	1.00	14.31
ATOM	2814	C	ASP	B	563	26.564	48.928	29.186	1.00	13.15
ATOM	2815	O	ASP	B	563	26.501	50.118	28.885	1.00	14.04
ATOM	2816	N	PHE	B	564	25.903	48.402	30.213	1.00	13.68
ATOM	2817	CA	PHE	B	564	24.986	49.186	31.040	1.00	13.81
ATOM	2818	CB	PHE	B	564	24.507	48.347	32.221	1.00	13.47
ATOM	2819	CG	PHE	B	564	23.261	48.878	32.866	1.00	14.02
ATOM	2820	CD1	PHE	B	564	22.070	48.940	32.151	1.00	14.03
ATOM	2821	CD2	PHE	B	564	23.277	49.323	34.183	1.00	14.03
ATOM	2822	CE1	PHE	B	564	20.906	49.439	32.736	1.00	14.29
ATOM	2823	CE2	PHE	B	564	22.118	49.828	34.780	1.00	13.78
ATOM	2824	CZ	PHE	B	564	20.933	49.885	34.055	1.00	13.89

ATOM	2825	C	PHE	B	564	25.420	50.559	31.553	1.00	13.61
ATOM	2826	O	PHE	B	564	24.598	51.472	31.631	1.00	13.81
ATOM	2827	N	GLU	B	565	26.689	50.715	31.907	1.00	13.88
ATOM	2828	CA	GLU	B	565	27.166	51.999	32.415	1.00	13.17
ATOM	2829	CB	GLU	B	565	28.235	51.769	33.490	1.00	13.90
ATOM	2830	CG	GLU	B	565	27.682	51.494	34.886	1.00	14.04
ATOM	2831	CD	GLU	B	565	26.537	50.492	34.904	1.00	14.38
ATOM	2832	OE1	GLU	B	565	26.724	49.340	34.440	1.00	15.60
ATOM	2833	OE2	GLU	B	565	25.441	50.860	35.393	1.00	15.54
ATOM	2834	C	GLU	B	565	27.718	52.920	31.334	1.00	13.55
ATOM	2835	O	GLU	B	565	28.209	54.014	31.636	1.00	14.34
ATOM	2836	N	LEU	B	566	27.610	52.503	30.076	1.00	12.72
ATOM	2837	CA	LEU	B	566	28.131	53.293	28.964	1.00	13.33
ATOM	2838	CB	LEU	B	566	28.816	52.367	27.956	1.00	13.19
ATOM	2839	CG	LEU	B	566	29.847	51.349	28.455	1.00	13.83
ATOM	2840	CD1	LEU	B	566	30.359	50.574	27.260	1.00	13.44
ATOM	2841	CD2	LEU	B	566	31.001	52.039	29.173	1.00	14.11
ATOM	2842	C	LEU	B	566	27.070	54.116	28.231	1.00	13.60
ATOM	2843	O	LEU	B	566	25.924	53.685	28.077	1.00	13.44
ATOM	2844	N	SER	B	567	27.462	55.303	27.779	1.00	13.67
ATOM	2845	CA	SER	B	567	26.558	56.165	27.030	1.00	13.64
ATOM	2846	CB	SER	B	567	27.040	57.614	27.068	1.00	13.93
ATOM	2847	OG	SER	B	567	28.289	57.744	26.413	1.00	13.84
ATOM	2848	C	SER	B	567	26.572	55.670	25.584	1.00	13.45
ATOM	2849	O	SER	B	567	27.404	54.835	25.214	1.00	13.28
ATOM	2850	N	ASP	B	568	25.657	56.178	24.764	1.00	13.68
ATOM	2851	CA	ASP	B	568	25.628	55.770	23.369	1.00	13.46
ATOM	2852	CB	ASP	B	568	24.461	56.434	22.631	1.00	13.78
ATOM	2853	CG	ASP	B	568	23.132	55.747	22.895	1.00	14.21
ATOM	2854	OD1	ASP	B	568	22.134	56.124	22.238	1.00	14.10
ATOM	2855	OD2	ASP	B	568	23.073	54.833	23.753	1.00	13.61
ATOM	2856	C	ASP	B	568	26.952	56.124	22.692	1.00	13.38
ATOM	2857	O	ASP	B	568	27.479	55.331	21.913	1.00	13.08
ATOM	2858	N	LEU	B	569	27.492	57.307	23.003	1.00	13.62
ATOM	2859	CA	LEU	B	569	28.759	57.748	22.421	1.00	13.22
ATOM	2860	CB	LEU	B	569	29.116	59.155	22.901	1.00	13.35
ATOM	2861	CG	LEU	B	569	30.515	59.660	22.535	1.00	13.56
ATOM	2862	CD1	LEU	B	569	30.656	59.750	21.031	1.00	13.80
ATOM	2863	CD2	LEU	B	569	30.747	61.021	23.180	1.00	14.09
ATOM	2864	C	LEU	B	569	29.876	56.792	22.799	1.00	13.14
ATOM	2865	O	LEU	B	569	30.713	56.446	21.964	1.00	13.05
ATOM	2866	N	GLU	B	570	29.887	56.365	24.059	1.00	13.52
ATOM	2867	CA	GLU	B	570	30.905	55.436	24.538	1.00	13.51
ATOM	2868	CB	GLU	B	570	30.780	55.252	26.051	1.00	13.90
ATOM	2869	CG	GLU	B	570	31.171	56.507	26.810	1.00	13.48
ATOM	2870	CD	GLU	B	570	30.954	56.397	28.303	1.00	13.62
ATOM	2871	OE1	GLU	B	570	29.827	56.096	28.732	1.00	13.81
ATOM	2872	OE2	GLU	B	570	31.922	56.626	29.051	1.00	15.35
ATOM	2873	C	GLU	B	570	30.819	54.088	23.833	1.00	13.37
ATOM	2874	O	GLU	B	570	31.846	53.457	23.573	1.00	12.96
ATOM	2875	N	THR	B	571	29.604	53.634	23.530	1.00	13.17
ATOM	2876	CA	THR	B	571	29.467	52.360	22.821	1.00	13.35
ATOM	2877	CB	THR	B	571	27.990	51.840	22.750	1.00	13.46
ATOM	2878	OG1	THR	B	571	27.176	52.745	21.990	1.00	12.96
ATOM	2879	CG2	THR	B	571	27.415	51.666	24.157	1.00	12.92
ATOM	2880	C	THR	B	571	29.992	52.534	21.399	1.00	13.38
ATOM	2881	O	THR	B	571	30.533	51.600	20.821	1.00	12.52
ATOM	2882	N	ALA	B	572	29.834	53.731	20.835	1.00	12.98
ATOM	2883	CA	ALA	B	572	30.324	53.986	19.486	1.00	13.30
ATOM	2884	CB	ALA	B	572	29.795	55.336	18.965	1.00	13.33
ATOM	2885	C	ALA	B	572	31.850	53.983	19.497	1.00	13.52
ATOM	2886	O	ALA	B	572	32.489	53.517	18.553	1.00	12.20
ATOM	2887	N	LEU	B	573	32.439	54.497	20.571	1.00	13.02
ATOM	2888	CA	LEU	B	573	33.893	54.514	20.662	1.00	13.30
ATOM	2889	CB	LEU	B	573	34.347	55.393	21.829	1.00	13.10
ATOM	2890	CG	LEU	B	573	34.106	56.880	21.546	1.00	13.33

ATOM	2891	CD1	LEU	B	573	34.369	57.704	22.800	1.00	13.50
ATOM	2892	CD2	LEU	B	573	34.997	57.333	20.400	1.00	12.90
ATOM	2893	C	LEU	B	573	34.405	53.087	20.816	1.00	13.38
ATOM	2894	O	LEU	B	573	35.433	52.734	20.246	1.00	12.92
ATOM	2895	N	CYS	B	574	33.689	52.273	21.588	1.00	13.32
ATOM	2896	CA	CYS	B	574	34.075	50.872	21.769	1.00	13.29
ATOM	2897	CB	CYS	B	574	33.100	50.139	22.690	1.00	13.59
ATOM	2898	SG	CYS	B	574	33.269	50.436	24.450	1.00	12.97
ATOM	2899	C	CYS	B	574	34.048	50.171	20.419	1.00	13.30
ATOM	2900	O	CYS	B	574	34.903	49.339	20.117	1.00	13.18
ATOM	2901	N	THR	B	575	33.044	50.497	19.615	1.00	13.56
ATOM	2902	CA	THR	B	575	32.904	49.886	18.308	1.00	13.20
ATOM	2903	CB	THR	B	575	31.570	50.298	17.659	1.00	13.40
ATOM	2904	OG1	THR	B	575	30.496	49.937	18.534	1.00	12.75
ATOM	2905	CG2	THR	B	575	31.371	49.584	16.330	1.00	13.27
ATOM	2906	C	THR	B	575	34.078	50.257	17.414	1.00	13.65
ATOM	2907	O	THR	B	575	34.598	49.413	16.683	1.00	12.77
ATOM	2908	N	ILE	B	576	34.516	51.510	17.480	1.00	13.12
ATOM	2909	CA	ILE	B	576	35.649	51.927	16.662	1.00	13.45
ATOM	2910	CB	ILE	B	576	35.929	53.438	16.794	1.00	13.13
ATOM	2911	CG2	ILE	B	576	37.268	53.779	16.145	1.00	13.60
ATOM	2912	CG1	ILE	B	576	34.796	54.232	16.138	1.00	13.50
ATOM	2913	CD1	ILE	B	576	34.920	55.728	16.291	1.00	13.37
ATOM	2914	C	ILE	B	576	36.888	51.154	17.104	1.00	13.47
ATOM	2915	O	ILE	B	576	37.692	50.727	16.276	1.00	13.39
ATOM	2916	N	ARG	B	577	37.023	50.970	18.415	1.00	12.78
ATOM	2917	CA	ARG	B	577	38.150	50.238	18.983	1.00	13.43
ATOM	2918	CB	ARG	B	577	38.115	50.316	20.518	1.00	13.33
ATOM	2919	CG	ARG	B	577	39.211	49.513	21.217	1.00	13.41
ATOM	2920	CD	ARG	B	577	40.578	49.839	20.643	1.00	13.16
ATOM	2921	NE	ARG	B	577	40.987	51.214	20.923	1.00	13.26
ATOM	2922	CZ	ARG	B	577	42.003	51.832	20.330	1.00	13.32
ATOM	2923	NH1	ARG	B	577	42.725	51.205	19.408	1.00	13.20
ATOM	2924	NH2	ARG	B	577	42.309	53.081	20.670	1.00	13.76
ATOM	2925	C	ARG	B	577	38.151	48.781	18.515	1.00	13.18
ATOM	2926	O	ARG	B	577	39.211	48.203	18.276	1.00	13.13
ATOM	2927	N	MET	B	578	36.964	48.189	18.385	1.00	13.84
ATOM	2928	CA	MET	B	578	36.848	46.811	17.911	1.00	13.38
ATOM	2929	CB	MET	B	578	35.387	46.354	17.930	1.00	13.19
ATOM	2930	CG	MET	B	578	34.810	46.161	19.318	1.00	13.46
ATOM	2931	SD	MET	B	578	33.057	45.697	19.214	1.00	12.51
ATOM	2932	CE	MET	B	578	32.517	46.133	20.879	1.00	13.33
ATOM	2933	C	MET	B	578	37.390	46.684	16.483	1.00	13.52
ATOM	2934	O	MET	B	578	38.132	45.750	16.176	1.00	12.92
ATOM	2935	N	PHE	B	579	37.003	47.613	15.610	1.00	13.37
ATOM	2936	CA	PHE	B	579	37.469	47.590	14.221	1.00	13.09
ATOM	2937	CB	PHE	B	579	36.828	48.706	13.384	1.00	13.42
ATOM	2938	CG	PHE	B	579	35.485	48.356	12.812	1.00	13.84
ATOM	2939	CD1	PHE	B	579	34.326	48.557	13.549	1.00	13.15
ATOM	2940	CD2	PHE	B	579	35.387	47.818	11.532	1.00	13.37
ATOM	2941	CE1	PHE	B	579	33.079	48.223	13.017	1.00	13.30
ATOM	2942	CE2	PHE	B	579	34.153	47.481	10.989	1.00	13.47
ATOM	2943	CZ	PHE	B	579	32.995	47.684	11.733	1.00	13.70
ATOM	2944	C	PHE	B	579	38.971	47.787	14.177	1.00	13.57
ATOM	2945	O	PHE	B	579	39.681	47.113	13.438	1.00	13.17
ATOM	2946	N	THR	B	580	39.441	48.736	14.972	1.00	13.17
ATOM	2947	CA	THR	B	580	40.851	49.069	15.018	1.00	13.19
ATOM	2948	CB	THR	B	580	41.089	50.305	15.905	1.00	13.18
ATOM	2949	OG1	THR	B	580	40.287	51.391	15.426	1.00	12.89
ATOM	2950	CG2	THR	B	580	42.559	50.727	15.856	1.00	13.57
ATOM	2951	C	THR	B	580	41.740	47.943	15.514	1.00	13.40
ATOM	2952	O	THR	B	580	42.751	47.629	14.886	1.00	14.10
ATOM	2953	N	ASP	B	581	41.367	47.333	16.634	1.00	13.37
ATOM	2954	CA	ASP	B	581	42.179	46.266	17.202	1.00	13.45
ATOM	2955	CB	ASP	B	581	41.901	46.135	18.702	1.00	13.48
ATOM	2956	CG	ASP	B	581	42.620	47.200	19.516	1.00	13.45

ATOM	2957	OD1	ASP	B	581	43.084	48.196	18.911	1.00	13.71
ATOM	2958	OD2	ASP	B	581	42.720	47.050	20.753	1.00	13.60
ATOM	2959	C	ASP	B	581	42.068	44.920	16.506	1.00	13.29
ATOM	2960	O	ASP	B	581	42.821	44.000	16.818	1.00	13.62
ATOM	2961	N	LEU	B	582	41.127	44.790	15.579	1.00	13.18
ATOM	2962	CA	LEU	B	582	41.015	43.551	14.817	1.00	13.03
ATOM	2963	CB	LEU	B	582	39.544	43.165	14.587	1.00	13.64
ATOM	2964	CG	LEU	B	582	38.839	42.540	15.799	1.00	13.16
ATOM	2965	CD1	LEU	B	582	37.362	42.325	15.483	1.00	13.18
ATOM	2966	CD2	LEU	B	582	39.505	41.217	16.179	1.00	13.60
ATOM	2967	C	LEU	B	582	41.737	43.782	13.485	1.00	13.47
ATOM	2968	O	LEU	B	582	41.682	42.951	12.584	1.00	13.67
ATOM	2969	N	ASN	B	583	42.425	44.919	13.390	1.00	13.62
ATOM	2970	CA	ASN	B	583	43.185	45.291	12.193	1.00	13.26
ATOM	2971	CB	ASN	B	583	44.352	44.330	11.996	1.00	14.08
ATOM	2972	CG	ASN	B	583	45.383	44.455	13.088	1.00	13.70
ATOM	2973	OD1	ASN	B	583	45.159	44.029	14.226	1.00	15.90
ATOM	2974	ND2	ASN	B	583	46.521	45.057	12.757	1.00	15.25
ATOM	2975	C	ASN	B	583	42.355	45.341	10.921	1.00	14.10
ATOM	2976	O	ASN	B	583	42.683	44.694	9.920	1.00	14.16
ATOM	2977	N	LEU	B	584	41.293	46.138	10.961	1.00	13.20
ATOM	2978	CA	LEU	B	584	40.385	46.286	9.832	1.00	13.53
ATOM	2979	CB	LEU	B	584	38.953	45.974	10.293	1.00	13.33
ATOM	2980	CG	LEU	B	584	38.455	44.520	10.305	1.00	14.10
ATOM	2981	CD1	LEU	B	584	39.576	43.545	10.529	1.00	13.99
ATOM	2982	CD2	LEU	B	584	37.357	44.386	11.358	1.00	13.34
ATOM	2983	C	LEU	B	584	40.427	47.681	9.214	1.00	13.38
ATOM	2984	O	LEU	B	584	40.215	47.842	8.013	1.00	13.89
ATOM	2985	N	VAL	B	585	40.716	48.689	10.033	1.00	13.76
ATOM	2986	CA	VAL	B	585	40.733	50.069	9.558	1.00	13.29
ATOM	2987	CB	VAL	B	585	40.914	51.051	10.735	1.00	13.84
ATOM	2988	CG1	VAL	B	585	40.999	52.479	10.215	1.00	14.04
ATOM	2989	CG2	VAL	B	585	39.741	50.921	11.690	1.00	13.68
ATOM	2990	C	VAL	B	585	41.782	50.356	8.487	1.00	13.78
ATOM	2991	O	VAL	B	585	41.441	50.557	7.322	1.00	13.66
ATOM	2992	N	GLN	B	586	43.050	50.380	8.883	1.00	13.68
ATOM	2993	CA	GLN	B	586	44.141	50.639	7.953	1.00	13.81
ATOM	2994	CB	GLN	B	586	45.459	50.766	8.730	1.00	13.86
ATOM	2995	CG	GLN	B	586	45.515	51.980	9.671	1.00	14.70
ATOM	2996	CD	GLN	B	586	46.575	51.866	10.772	1.00	14.34
ATOM	2997	OE1	GLN	B	586	47.023	52.879	11.331	1.00	15.85
ATOM	2998	NE2	GLN	B	586	46.967	50.638	11.098	1.00	14.72
ATOM	2999	C	GLN	B	586	44.229	49.532	6.899	1.00	14.00
ATOM	3000	O	GLN	B	586	44.468	49.807	5.720	1.00	14.82
ATOM	3001	N	ASN	B	587	44.022	48.288	7.335	1.00	13.81
ATOM	3002	CA	ASN	B	587	44.069	47.113	6.458	1.00	13.64
ATOM	3003	CB	ASN	B	587	43.580	45.879	7.228	1.00	13.90
ATOM	3004	CG	ASN	B	587	43.825	44.566	6.489	1.00	13.37
ATOM	3005	OD1	ASN	B	587	43.973	44.529	5.270	1.00	14.20
ATOM	3006	ND2	ASN	B	587	43.843	43.472	7.240	1.00	13.99
ATOM	3007	C	ASN	B	587	43.191	47.324	5.226	1.00	13.61
ATOM	3008	O	ASN	B	587	43.640	47.171	4.095	1.00	13.64
ATOM	3009	N	PHE	B	588	41.933	47.687	5.452	1.00	13.25
ATOM	3010	CA	PHE	B	588	41.009	47.893	4.352	1.00	13.34
ATOM	3011	CB	PHE	B	588	39.694	47.191	4.686	1.00	13.40
ATOM	3012	CG	PHE	B	588	39.854	45.704	4.831	1.00	13.33
ATOM	3013	CD1	PHE	B	588	39.741	45.079	6.068	1.00	13.50
ATOM	3014	CD2	PHE	B	588	40.183	44.931	3.724	1.00	13.66
ATOM	3015	CE1	PHE	B	588	39.956	43.710	6.193	1.00	13.67
ATOM	3016	CE2	PHE	B	588	40.397	43.568	3.839	1.00	13.14
ATOM	3017	CZ	PHE	B	588	40.285	42.952	5.073	1.00	13.15
ATOM	3018	C	PHE	B	588	40.820	49.366	4.015	1.00	13.22
ATOM	3019	O	PHE	B	588	39.889	49.744	3.307	1.00	14.02
ATOM	3020	N	GLN	B	589	41.743	50.177	4.530	1.00	13.68
ATOM	3021	CA	GLN	B	589	41.783	51.618	4.312	1.00	13.66
ATOM	3022	CB	GLN	B	589	42.382	51.901	2.932	1.00	13.91

ATOM	3023	CG	GLN	B	589	43.884	51.610	2.895	1.00	14.21
ATOM	3024	CD	GLN	B	589	44.378	51.194	1.522	1.00	13.90
ATOM	3025	OE1	GLN	B	589	43.856	50.251	0.925	1.00	14.93
ATOM	3026	NE2	GLN	B	589	45.398	51.883	1.018	1.00	15.08
ATOM	3027	C	GLN	B	589	40.463	52.345	4.499	1.00	13.87
ATOM	3028	O	GLN	B	589	39.902	52.923	3.570	1.00	14.45
ATOM	3029	N	MET	B	590	39.981	52.309	5.734	1.00	14.03
ATOM	3030	CA	MET	B	590	38.734	52.970	6.084	1.00	13.30
ATOM	3031	CB	MET	B	590	38.006	52.199	7.184	1.00	13.81
ATOM	3032	CG	MET	B	590	37.505	50.820	6.791	1.00	13.62
ATOM	3033	SD	MET	B	590	36.622	50.099	8.190	1.00	12.66
ATOM	3034	CE	MET	B	590	35.335	51.215	8.340	1.00	14.23
ATOM	3035	C	MET	B	590	39.034	54.361	6.605	1.00	14.21
ATOM	3036	O	MET	B	590	39.876	54.526	7.488	1.00	14.37
ATOM	3037	N	LYS	B	591	38.360	55.359	6.043	1.00	13.38
ATOM	3038	CA	LYS	B	591	38.518	56.727	6.508	1.00	14.12
ATOM	3039	CB	LYS	B	591	37.864	57.704	5.534	1.00	14.00
ATOM	3040	CG	LYS	B	591	38.801	58.315	4.512	1.00	14.25
ATOM	3041	CD	LYS	B	591	39.605	57.275	3.755	1.00	14.01
ATOM	3042	CE	LYS	B	591	40.294	57.918	2.566	1.00	14.30
ATOM	3043	NZ	LYS	B	591	41.046	59.127	2.981	1.00	14.55
ATOM	3044	C	LYS	B	591	37.795	56.790	7.845	1.00	13.60
ATOM	3045	O	LYS	B	591	36.708	56.231	7.992	1.00	13.36
ATOM	3046	N	HIS	B	592	38.386	57.479	8.813	1.00	13.59
ATOM	3047	CA	HIS	B	592	37.797	57.592	10.141	1.00	13.25
ATOM	3048	CB	HIS	B	592	38.687	58.467	11.031	1.00	13.75
ATOM	3049	CG	HIS	B	592	38.271	58.492	12.468	1.00	13.43
ATOM	3050	CD2	HIS	B	592	37.806	59.499	13.244	1.00	13.64
ATOM	3051	ND1	HIS	B	592	38.319	57.376	13.277	1.00	13.44
ATOM	3052	CE1	HIS	B	592	37.902	57.697	14.490	1.00	13.36
ATOM	3053	NE2	HIS	B	592	37.585	58.979	14.495	1.00	13.67
ATOM	3054	C	HIS	B	592	36.381	58.165	10.115	1.00	13.54
ATOM	3055	O	HIS	B	592	35.485	57.634	10.764	1.00	13.19
ATOM	3056	N	GLU	B	593	36.177	59.244	9.367	1.00	13.65
ATOM	3057	CA	GLU	B	593	34.858	59.865	9.303	1.00	13.69
ATOM	3058	CB	GLU	B	593	34.904	61.159	8.486	1.00	13.79
ATOM	3059	CG	GLU	B	593	35.720	62.285	9.124	1.00	14.49
ATOM	3060	CD	GLU	B	593	37.183	61.920	9.327	1.00	14.23
ATOM	3061	OE1	GLU	B	593	37.832	61.460	8.357	1.00	15.30
ATOM	3062	OE2	GLU	B	593	37.689	62.104	10.459	1.00	15.47
ATOM	3063	C	GLU	B	593	33.804	58.926	8.718	1.00	13.62
ATOM	3064	O	GLU	B	593	32.660	58.923	9.164	1.00	13.31
ATOM	3065	N	VAL	B	594	34.195	58.131	7.726	1.00	13.04
ATOM	3066	CA	VAL	B	594	33.273	57.189	7.098	1.00	13.54
ATOM	3067	CB	VAL	B	594	33.902	56.543	5.852	1.00	13.42
ATOM	3068	CG1	VAL	B	594	32.906	55.584	5.204	1.00	13.26
ATOM	3069	CG2	VAL	B	594	34.340	57.623	4.868	1.00	13.92
ATOM	3070	C	VAL	B	594	32.892	56.090	8.088	1.00	13.57
ATOM	3071	O	VAL	B	594	31.715	55.757	8.239	1.00	12.33
ATOM	3072	N	LEU	B	595	33.890	55.522	8.759	1.00	13.53
ATOM	3073	CA	LEU	B	595	33.627	54.471	9.737	1.00	13.43
ATOM	3074	CB	LEU	B	595	34.940	53.946	10.330	1.00	13.16
ATOM	3075	CG	LEU	B	595	34.833	52.948	11.494	1.00	13.65
ATOM	3076	CD1	LEU	B	595	33.950	51.758	11.111	1.00	13.16
ATOM	3077	CD2	LEU	B	595	36.235	52.490	11.890	1.00	13.28
ATOM	3078	C	LEU	B	595	32.733	55.019	10.846	1.00	13.64
ATOM	3079	O	LEU	B	595	31.810	54.346	11.302	1.00	13.57
ATOM	3080	N	CYS	B	596	33.010	56.247	11.275	1.00	12.79
ATOM	3081	CA	CYS	B	596	32.217	56.880	12.317	1.00	13.85
ATOM	3082	CB	CYS	B	596	32.810	58.236	12.696	1.00	13.47
ATOM	3083	SG	CYS	B	596	34.258	58.144	13.741	1.00	13.26
ATOM	3084	C	CYS	B	596	30.779	57.080	11.860	1.00	13.39
ATOM	3085	O	CYS	B	596	29.841	56.833	12.611	1.00	12.41
ATOM	3086	N	ARG	B	597	30.603	57.535	10.626	1.00	13.17
ATOM	3087	CA	ARG	B	597	29.255	57.764	10.119	1.00	13.07
ATOM	3088	CB	ARG	B	597	29.298	58.494	8.773	1.00	13.71

ATOM	3089	CG	ARG	B	597	27.916	58.937	8.284	1.00	13.87
ATOM	3090	CD	ARG	B	597	27.984	59.728	6.980	1.00	13.80
ATOM	3091	NE	ARG	B	597	28.657	61.016	7.148	1.00	13.36
ATOM	3092	CZ	ARG	B	597	29.899	61.277	6.756	1.00	13.56
ATOM	3093	NH1	ARG	B	597	30.625	60.339	6.163	1.00	13.67
ATOM	3094	NH2	ARG	B	597	30.420	62.483	6.952	1.00	14.24
ATOM	3095	C	ARG	B	597	28.501	56.445	9.975	1.00	13.46
ATOM	3096	O	ARG	B	597	27.311	56.360	10.283	1.00	13.20
ATOM	3097	N	TRP	B	598	29.192	55.417	9.494	1.00	13.51
ATOM	3098	CA	TRP	B	598	28.573	54.109	9.326	1.00	13.18
ATOM	3099	CB	TRP	B	598	29.569	53.118	8.722	1.00	13.62
ATOM	3100	CG	TRP	B	598	29.006	51.731	8.567	1.00	13.17
ATOM	3101	CD2	TRP	B	598	29.166	50.637	9.478	1.00	13.40
ATOM	3102	CE2	TRP	B	598	28.412	49.554	8.972	1.00	13.32
ATOM	3103	CE3	TRP	B	598	29.874	50.465	10.676	1.00	13.56
ATOM	3104	CD1	TRP	B	598	28.190	51.283	7.571	1.00	13.19
ATOM	3105	NE1	TRP	B	598	27.827	49.969	7.806	1.00	12.99
ATOM	3106	CZ2	TRP	B	598	28.342	48.316	9.625	1.00	13.30
ATOM	3107	CZ3	TRP	B	598	29.805	49.233	11.321	1.00	13.26
ATOM	3108	CH2	TRP	B	598	29.042	48.176	10.792	1.00	13.47
ATOM	3109	C	TRP	B	598	28.094	53.578	10.673	1.00	13.73
ATOM	3110	O	TRP	B	598	26.994	53.045	10.785	1.00	12.76
ATOM	3111	N	ILE	B	599	28.931	53.718	11.695	1.00	13.17
ATOM	3112	CA	ILE	B	599	28.570	53.233	13.018	1.00	13.33
ATOM	3113	CB	ILE	B	599	29.740	53.417	14.015	1.00	12.92
ATOM	3114	CG2	ILE	B	599	29.260	53.208	15.451	1.00	13.68
ATOM	3115	CG1	ILE	B	599	30.858	52.434	13.664	1.00	13.34
ATOM	3116	CD1	ILE	B	599	32.152	52.652	14.442	1.00	13.35
ATOM	3117	C	ILE	B	599	27.333	53.950	13.533	1.00	13.01
ATOM	3118	O	ILE	B	599	26.444	53.328	14.112	1.00	12.85
ATOM	3119	N	LEU	B	600	27.270	55.259	13.314	1.00	13.45
ATOM	3120	CA	LEU	B	600	26.126	56.034	13.771	1.00	13.31
ATOM	3121	CB	LEU	B	600	26.424	57.532	13.666	1.00	13.47
ATOM	3122	CG	LEU	B	600	27.518	58.021	14.621	1.00	13.76
ATOM	3123	CD1	LEU	B	600	27.959	59.426	14.238	1.00	13.33
ATOM	3124	CD2	LEU	B	600	26.999	57.995	16.055	1.00	13.43
ATOM	3125	C	LEU	B	600	24.862	55.688	12.993	1.00	13.75
ATOM	3126	O	LEU	B	600	23.761	55.723	13.548	1.00	13.05
ATOM	3127	N	SER	B	601	25.019	55.359	11.713	1.00	12.94
ATOM	3128	CA	SER	B	601	23.880	54.994	10.880	1.00	13.64
ATOM	3129	CB	SER	B	601	24.281	54.896	9.405	1.00	13.40
ATOM	3130	OG	SER	B	601	24.496	56.180	8.845	1.00	13.29
ATOM	3131	C	SER	B	601	23.344	53.650	11.345	1.00	13.26
ATOM	3132	O	SER	B	601	22.137	53.449	11.429	1.00	13.42
ATOM	3133	N	VAL	B	602	24.254	52.726	11.637	1.00	13.22
ATOM	3134	CA	VAL	B	602	23.856	51.407	12.109	1.00	13.17
ATOM	3135	CB	VAL	B	602	25.091	50.497	12.314	1.00	12.83
ATOM	3136	CG1	VAL	B	602	24.712	49.257	13.107	1.00	13.35
ATOM	3137	CG2	VAL	B	602	25.658	50.090	10.962	1.00	13.41
ATOM	3138	C	VAL	B	602	23.105	51.576	13.430	1.00	13.50
ATOM	3139	O	VAL	B	602	22.014	51.039	13.617	1.00	12.28
ATOM	3140	N	LYS	B	603	23.678	52.353	14.343	1.00	13.15
ATOM	3141	CA	LYS	B	603	23.036	52.572	15.628	1.00	13.38
ATOM	3142	CB	LYS	B	603	23.932	53.430	16.528	1.00	13.09
ATOM	3143	CG	LYS	B	603	23.261	53.884	17.830	1.00	13.12
ATOM	3144	CD	LYS	B	603	24.281	54.235	18.928	1.00	13.14
ATOM	3145	CE	LYS	B	603	25.185	55.405	18.557	1.00	14.24
ATOM	3146	NZ	LYS	B	603	24.431	56.665	18.307	1.00	14.02
ATOM	3147	C	LYS	B	603	21.662	53.221	15.476	1.00	13.46
ATOM	3148	O	LYS	B	603	20.711	52.840	16.162	1.00	12.65
ATOM	3149	N	LYS	B	604	21.557	54.188	14.566	1.00	12.71
ATOM	3150	CA	LYS	B	604	20.297	54.892	14.345	1.00	13.46
ATOM	3151	CB	LYS	B	604	20.530	56.140	13.487	1.00	13.64
ATOM	3152	CG	LYS	B	604	19.268	56.958	13.249	1.00	13.57
ATOM	3153	CD	LYS	B	604	19.582	58.309	12.616	1.00	14.07
ATOM	3154	CE	LYS	B	604	18.316	58.986	12.112	1.00	13.78

ATOM	3155	NZ	LYS	B	604	17.687	58.204	11.008	1.00 14.68
ATOM	3156	C	LYS	B	604	19.215	54.037	13.701	1.00 13.60
ATOM	3157	O	LYS	B	604	18.016	54.320	13.854	1.00 12.76
ATOM	3158	N	ASN	B	605	19.623	52.991	12.989	1.00 12.97
ATOM	3159	CA	ASN	B	605	18.642	52.138	12.338	1.00 13.12
ATOM	3160	CB	ASN	B	605	19.169	51.614	11.001	1.00 13.48
ATOM	3161	CG	ASN	B	605	19.132	52.673	9.922	1.00 13.98
ATOM	3162	OD1	ASN	B	605	20.013	53.524	9.845	1.00 15.52
ATOM	3163	ND2	ASN	B	605	18.086	52.647	9.099	1.00 14.14
ATOM	3164	C	ASN	B	605	18.107	50.998	13.186	1.00 13.48
ATOM	3165	O	ASN	B	605	17.589	50.013	12.662	1.00 13.85
ATOM	3166	N	TYR	B	606	18.255	51.135	14.498	1.00 13.50
ATOM	3167	CA	TYR	B	606	17.701	50.170	15.436	1.00 13.15
ATOM	3168	CB	TYR	B	606	18.722	49.742	16.501	1.00 13.14
ATOM	3169	CG	TYR	B	606	19.585	48.590	16.048	1.00 13.25
ATOM	3170	CD1	TYR	B	606	20.843	48.810	15.491	1.00 12.91
ATOM	3171	CE1	TYR	B	606	21.598	47.755	14.984	1.00 13.14
ATOM	3172	CD2	TYR	B	606	19.107	47.282	16.096	1.00 13.34
ATOM	3173	CE2	TYR	B	606	19.855	46.224	15.593	1.00 13.42
ATOM	3174	CZ	TYR	B	606	21.097	46.466	15.036	1.00 13.51
ATOM	3175	OH	TYR	B	606	21.822	45.421	14.508	1.00 12.76
ATOM	3176	C	TYR	B	606	16.568	50.963	16.073	1.00 13.33
ATOM	3177	O	TYR	B	606	16.650	52.192	16.171	1.00 13.41
ATOM	3178	N	ARG	B	607	15.506	50.285	16.481	1.00 13.30
ATOM	3179	CA	ARG	B	607	14.378	50.979	17.084	1.00 12.89
ATOM	3180	CB	ARG	B	607	13.083	50.232	16.769	1.00 13.32
ATOM	3181	CG	ARG	B	607	12.886	50.012	15.272	1.00 13.03
ATOM	3182	CD	ARG	B	607	11.513	49.456	14.942	1.00 13.29
ATOM	3183	NE	ARG	B	607	11.428	48.991	13.559	1.00 13.87
ATOM	3184	CZ	ARG	B	607	10.300	48.630	12.957	1.00 13.51
ATOM	3185	NH1	ARG	B	607	9.148	48.694	13.612	1.00 13.16
ATOM	3186	NH2	ARG	B	607	10.324	48.173	11.709	1.00 13.90
ATOM	3187	C	ARG	B	607	14.600	51.122	18.583	1.00 13.54
ATOM	3188	O	ARG	B	607	14.482	50.161	19.341	1.00 12.94
ATOM	3189	N	LYS	B	608	14.928	52.342	18.996	1.00 13.01
ATOM	3190	CA	LYS	B	608	15.228	52.653	20.388	1.00 13.40
ATOM	3191	CB	LYS	B	608	15.397	54.170	20.557	1.00 13.19
ATOM	3192	CG	LYS	B	608	14.139	54.973	20.273	1.00 14.29
ATOM	3193	CD	LYS	B	608	14.278	56.420	20.738	1.00 14.46
ATOM	3194	CE	LYS	B	608	12.930	57.147	20.719	1.00 14.26
ATOM	3195	NZ	LYS	B	608	13.022	58.531	21.277	1.00 14.71
ATOM	3196	C	LYS	B	608	14.251	52.135	21.441	1.00 13.47
ATOM	3197	O	LYS	B	608	14.673	51.696	22.513	1.00 13.59
ATOM	3198	N	ASN	B	609	12.955	52.177	21.146	1.00 13.12
ATOM	3199	CA	ASN	B	609	11.960	51.736	22.111	1.00 13.48
ATOM	3200	CB	ASN	B	609	10.711	52.610	21.981	1.00 13.51
ATOM	3201	CG	ASN	B	609	11.004	54.063	22.292	1.00 13.75
ATOM	3202	OD1	ASN	B	609	11.419	54.396	23.404	1.00 15.66
ATOM	3203	ND2	ASN	B	609	10.810	54.933	21.311	1.00 14.35
ATOM	3204	C	ASN	B	609	11.598	50.252	22.096	1.00 13.39
ATOM	3205	O	ASN	B	609	10.745	49.815	22.866	1.00 13.74
ATOM	3206	N	VAL	B	610	12.231	49.479	21.219	1.00 13.08
ATOM	3207	CA	VAL	B	610	11.989	48.038	21.196	1.00 13.41
ATOM	3208	CB	VAL	B	610	12.490	47.416	19.889	1.00 13.44
ATOM	3209	CG1	VAL	B	610	12.507	45.898	19.995	1.00 13.00
ATOM	3210	CG2	VAL	B	610	11.582	47.849	18.753	1.00 13.16
ATOM	3211	C	VAL	B	610	12.810	47.554	22.391	1.00 13.50
ATOM	3212	O	VAL	B	610	14.009	47.776	22.445	1.00 13.16
ATOM	3213	N	ALA	B	611	12.151	46.900	23.342	1.00 13.22
ATOM	3214	CA	ALA	B	611	12.779	46.456	24.587	1.00 13.48
ATOM	3215	CB	ALA	B	611	11.809	45.559	25.348	1.00 13.57
ATOM	3216	C	ALA	B	611	14.150	45.790	24.549	1.00 13.57
ATOM	3217	O	ALA	B	611	15.056	46.187	25.288	1.00 12.43
ATOM	3218	N	TYR	B	612	14.297	44.770	23.710	1.00 13.23
ATOM	3219	CA	TYR	B	612	15.554	44.035	23.632	1.00 13.02
ATOM	3220	CB	TYR	B	612	15.284	42.551	23.915	1.00 13.28

ATOM	3221	CG	TYR	B	612	16.473	41.629	23.712	1.00	13.66
ATOM	3222	CD1	TYR	B	612	16.482	40.692	22.674	1.00	13.67
ATOM	3223	CE1	TYR	B	612	17.559	39.824	22.490	1.00	13.67
ATOM	3224	CD2	TYR	B	612	17.577	41.681	24.563	1.00	13.53
ATOM	3225	CE2	TYR	B	612	18.666	40.813	24.387	1.00	13.37
ATOM	3226	CZ	TYR	B	612	18.645	39.887	23.349	1.00	13.47
ATOM	3227	OH	TYR	B	612	19.688	39.000	23.178	1.00	13.41
ATOM	3228	C	TYR	B	612	16.306	44.191	22.319	1.00	13.24
ATOM	3229	O	TYR	B	612	17.502	44.489	22.311	1.00	12.14
ATOM	3230	N	HIS	B	613	15.611	43.992	21.206	1.00	13.53
ATOM	3231	CA	HIS	B	613	16.257	44.109	19.908	1.00	13.70
ATOM	3232	CB	HIS	B	613	15.446	43.349	18.859	1.00	13.43
ATOM	3233	CG	HIS	B	613	15.491	41.863	19.037	1.00	13.14
ATOM	3234	CD2	HIS	B	613	16.513	40.983	18.911	1.00	13.33
ATOM	3235	ND1	HIS	B	613	14.399	41.125	19.441	1.00	12.87
ATOM	3236	CE1	HIS	B	613	14.746	39.856	19.556	1.00	13.41
ATOM	3237	NE2	HIS	B	613	16.023	39.742	19.241	1.00	13.43
ATOM	3238	C	HIS	B	613	16.491	45.553	19.473	1.00	13.72
ATOM	3239	O	HIS	B	613	15.917	46.031	18.486	1.00	13.14
ATOM	3240	N	ASN	B	614	17.348	46.238	20.226	1.00	13.47
ATOM	3241	CA	ASN	B	614	17.715	47.619	19.931	1.00	13.44
ATOM	3242	CB	ASN	B	614	17.222	48.561	21.038	1.00	12.99
ATOM	3243	CG	ASN	B	614	17.688	48.144	22.414	1.00	13.48
ATOM	3244	OD1	ASN	B	614	18.878	47.951	22.638	1.00	13.76
ATOM	3245	ND2	ASN	B	614	16.750	48.002	23.345	1.00	13.21
ATOM	3246	C	ASN	B	614	19.241	47.676	19.804	1.00	13.85
ATOM	3247	O	ASN	B	614	19.903	46.646	19.876	1.00	13.13
ATOM	3248	N	TRP	B	615	19.797	48.870	19.621	1.00	13.10
ATOM	3249	CA	TRP	B	615	21.245	49.013	19.463	1.00	13.07
ATOM	3250	CB	TRP	B	615	21.636	50.489	19.485	1.00	13.39
ATOM	3251	CG	TRP	B	615	23.112	50.705	19.687	1.00	13.68
ATOM	3252	CD2	TRP	B	615	24.165	50.334	18.792	1.00	12.92
ATOM	3253	CE2	TRP	B	615	25.380	50.746	19.382	1.00	13.53
ATOM	3254	CE3	TRP	B	615	24.201	49.694	17.543	1.00	13.37
ATOM	3255	CD1	TRP	B	615	23.714	51.305	20.759	1.00	13.49
ATOM	3256	NE1	TRP	B	615	25.079	51.334	20.582	1.00	13.20
ATOM	3257	CZ2	TRP	B	615	26.619	50.540	18.765	1.00	13.52
ATOM	3258	CZ3	TRP	B	615	25.432	49.490	16.932	1.00	13.41
ATOM	3259	CH2	TRP	B	615	26.625	49.913	17.547	1.00	13.48
ATOM	3260	C	TRP	B	615	22.113	48.273	20.477	1.00	13.15
ATOM	3261	O	TRP	B	615	23.139	47.697	20.117	1.00	12.94
ATOM	3262	N	ARG	B	616	21.718	48.296	21.742	1.00	13.42
ATOM	3263	CA	ARG	B	616	22.532	47.648	22.755	1.00	13.03
ATOM	3264	CB	ARG	B	616	21.974	47.930	24.152	1.00	12.98
ATOM	3265	CG	ARG	B	616	22.043	49.408	24.543	1.00	13.46
ATOM	3266	CD	ARG	B	616	23.448	49.970	24.356	1.00	13.33
ATOM	3267	NE	ARG	B	616	23.513	51.402	24.636	1.00	13.36
ATOM	3268	CZ	ARG	B	616	24.116	51.927	25.698	1.00	13.55
ATOM	3269	NH1	ARG	B	616	24.714	51.142	26.586	1.00	13.13
ATOM	3270	NH2	ARG	B	616	24.119	53.242	25.876	1.00	13.81
ATOM	3271	C	ARG	B	616	22.708	46.155	22.536	1.00	13.21
ATOM	3272	O	ARG	B	616	23.762	45.607	22.853	1.00	12.61
ATOM	3273	N	HIS	B	617	21.689	45.490	21.996	1.00	12.90
ATOM	3274	CA	HIS	B	617	21.804	44.053	21.752	1.00	13.48
ATOM	3275	CB	HIS	B	617	20.454	43.449	21.367	1.00	13.86
ATOM	3276	CG	HIS	B	617	20.565	42.101	20.722	1.00	13.08
ATOM	3277	CD2	HIS	B	617	20.215	41.677	19.486	1.00	13.39
ATOM	3278	ND1	HIS	B	617	21.143	41.017	21.351	1.00	13.28
ATOM	3279	CE1	HIS	B	617	21.147	39.984	20.525	1.00	13.26
ATOM	3280	NE2	HIS	B	617	20.591	40.359	19.387	1.00	13.00
ATOM	3281	C	HIS	B	617	22.810	43.800	20.636	1.00	13.60
ATOM	3282	O	HIS	B	617	23.612	42.862	20.708	1.00	13.11
ATOM	3283	N	ALA	B	618	22.756	44.634	19.603	1.00	12.96
ATOM	3284	CA	ALA	B	618	23.670	44.502	18.474	1.00	13.46
ATOM	3285	CB	ALA	B	618	23.288	45.475	17.375	1.00	13.15
ATOM	3286	C	ALA	B	618	25.089	44.778	18.942	1.00	13.14

ATOM	3287	O	ALA	B	618	26.016	44.032	18.629	1.00	12.76
ATOM	3288	N	PHE	B	619	25.248	45.860	19.698	1.00	13.09
ATOM	3289	CA	PHE	B	619	26.551	46.245	20.222	1.00	13.36
ATOM	3290	CB	PHE	B	619	26.421	47.528	21.050	1.00	13.32
ATOM	3291	CG	PHE	B	619	27.668	47.895	21.800	1.00	13.40
ATOM	3292	CD1	PHE	B	619	28.830	48.234	21.115	1.00	13.15
ATOM	3293	CD2	PHE	B	619	27.682	47.893	23.194	1.00	13.10
ATOM	3294	CE1	PHE	B	619	29.993	48.562	21.808	1.00	13.38
ATOM	3295	CE2	PHE	B	619	28.834	48.221	23.899	1.00	13.01
ATOM	3296	CZ	PHE	B	619	29.996	48.555	23.205	1.00	13.29
ATOM	3297	C	PHE	B	619	27.152	45.134	21.081	1.00	13.83
ATOM	3298	O	PHE	B	619	28.350	44.859	20.999	1.00	12.31
ATOM	3299	N	ASN	B	620	26.322	44.494	21.903	1.00	13.33
ATOM	3300	CA	ASN	B	620	26.808	43.417	22.759	1.00	13.29
ATOM	3301	CB	ASN	B	620	25.755	43.035	23.799	1.00	13.13
ATOM	3302	CG	ASN	B	620	25.806	43.920	25.019	1.00	13.94
ATOM	3303	OD1	ASN	B	620	26.863	44.086	25.621	1.00	14.21
ATOM	3304	ND2	ASN	B	620	24.663	44.482	25.401	1.00	12.85
ATOM	3305	C	ASN	B	620	27.185	42.198	21.940	1.00	13.16
ATOM	3306	O	ASN	B	620	28.156	41.516	22.245	1.00	13.16
ATOM	3307	N	THR	B	621	26.415	41.922	20.896	1.00	12.86
ATOM	3308	CA	THR	B	621	26.712	40.781	20.041	1.00	12.91
ATOM	3309	CB	THR	B	621	25.647	40.626	18.943	1.00	13.15
ATOM	3310	OG1	THR	B	621	24.357	40.515	19.553	1.00	11.99
ATOM	3311	CG2	THR	B	621	25.912	39.380	18.118	1.00	12.93
ATOM	3312	C	THR	B	621	28.076	41.022	19.407	1.00	13.23
ATOM	3313	O	THR	B	621	28.890	40.111	19.292	1.00	12.39
ATOM	3314	N	ALA	B	622	28.323	42.264	19.004	1.00	12.88
ATOM	3315	CA	ALA	B	622	29.602	42.630	18.400	1.00	12.94
ATOM	3316	CB	ALA	B	622	29.525	44.048	17.856	1.00	13.45
ATOM	3317	C	ALA	B	622	30.758	42.517	19.402	1.00	13.15
ATOM	3318	O	ALA	B	622	31.842	42.050	19.054	1.00	12.77
ATOM	3319	N	GLN	B	623	30.532	42.962	20.636	1.00	12.44
ATOM	3320	CA	GLN	B	623	31.565	42.886	21.671	1.00	12.95
ATOM	3321	CB	GLN	B	623	31.085	43.582	22.951	1.00	13.11
ATOM	3322	CG	GLN	B	623	32.091	43.593	24.105	1.00	13.21
ATOM	3323	CD	GLN	B	623	32.131	42.290	24.885	1.00	13.65
ATOM	3324	OE1	GLN	B	623	31.090	41.710	25.203	1.00	12.82
ATOM	3325	NE2	GLN	B	623	33.337	41.837	25.222	1.00	13.40
ATOM	3326	C	GLN	B	623	31.917	41.425	21.951	1.00	13.63
ATOM	3327	O	GLN	B	623	33.081	41.086	22.174	1.00	13.49
ATOM	3328	N	CYS	B	624	30.910	40.559	21.946	1.00	12.73
ATOM	3329	CA	CYS	B	624	31.137	39.137	22.167	1.00	13.45
ATOM	3330	CB	CYS	B	624	29.804	38.399	22.241	1.00	13.10
ATOM	3331	SG	CYS	B	624	28.877	38.798	23.712	1.00	24.34
ATOM	3332	C	CYS	B	624	31.977	38.582	21.027	1.00	13.59
ATOM	3333	O	CYS	B	624	32.880	37.767	21.237	1.00	12.86
ATOM	3334	N	MET	B	625	31.671	39.028	19.816	1.00	13.25
ATOM	3335	CA	MET	B	625	32.411	38.599	18.637	1.00	13.17
ATOM	3336	CB	MET	B	625	31.814	39.249	17.383	1.00	13.48
ATOM	3337	CG	MET	B	625	32.444	38.796	16.078	1.00	13.17
ATOM	3338	SD	MET	B	625	32.339	37.004	15.814	1.00	8.87
ATOM	3339	CE	MET	B	625	30.637	36.858	15.221	1.00	13.41
ATOM	3340	C	MET	B	625	33.873	39.023	18.821	1.00	13.12
ATOM	3341	O	MET	B	625	34.793	38.248	18.575	1.00	12.81
ATOM	3342	N	PHE	B	626	34.082	40.258	19.269	1.00	13.31
ATOM	3343	CA	PHE	B	626	35.435	40.751	19.486	1.00	13.08
ATOM	3344	CB	PHE	B	626	35.411	42.227	19.895	1.00	13.16
ATOM	3345	CG	PHE	B	626	36.776	42.806	20.146	1.00	13.36
ATOM	3346	CD1	PHE	B	626	37.325	42.805	21.422	1.00	13.45
ATOM	3347	CD2	PHE	B	626	37.525	43.324	19.094	1.00	13.52
ATOM	3348	CE1	PHE	B	626	38.608	43.311	21.645	1.00	13.16
ATOM	3349	CE2	PHE	B	626	38.809	43.831	19.307	1.00	13.05
ATOM	3350	CZ	PHE	B	626	39.348	43.821	20.590	1.00	13.86
ATOM	3351	C	PHE	B	626	36.144	39.928	20.562	1.00	13.59
ATOM	3352	O	PHE	B	626	37.304	39.545	20.400	1.00	12.18

ATOM	3353	N	ALA	B	627	35.452	39.653	21.663	1.00	13.00
ATOM	3354	CA	ALA	B	627	36.053	38.868	22.739	1.00	13.54
ATOM	3355	CB	ALA	B	627	35.097	38.792	23.934	1.00	13.36
ATOM	3356	C	ALA	B	627	36.424	37.460	22.276	1.00	13.55
ATOM	3357	O	ALA	B	627	37.514	36.969	22.573	1.00	13.45
ATOM	3358	N	ALA	B	628	35.519	36.813	21.546	1.00	13.35
ATOM	3359	CA	ALA	B	628	35.769	35.463	21.055	1.00	13.31
ATOM	3360	CB	ALA	B	628	34.506	34.889	20.416	1.00	13.25
ATOM	3361	C	ALA	B	628	36.918	35.437	20.048	1.00	13.37
ATOM	3362	O	ALA	B	628	37.712	34.494	20.029	1.00	13.58
ATOM	3363	N	LEU	B	629	37.009	36.468	19.213	1.00	12.87
ATOM	3364	CA	LEU	B	629	38.072	36.544	18.211	1.00	13.35
ATOM	3365	CB	LEU	B	629	37.774	37.658	17.203	1.00	13.50
ATOM	3366	CG	LEU	B	629	36.626	37.422	16.220	1.00	13.24
ATOM	3367	CD1	LEU	B	629	36.280	38.723	15.510	1.00	13.09
ATOM	3368	CD2	LEU	B	629	37.025	36.358	15.210	1.00	13.67
ATOM	3369	C	LEU	B	629	39.424	36.794	18.859	1.00	13.70
ATOM	3370	O	LEU	B	629	40.425	36.179	18.490	1.00	13.06
ATOM	3371	N	LYS	B	630	39.450	37.696	19.833	1.00	12.89
ATOM	3372	CA	LYS	B	630	40.687	38.036	20.525	1.00	13.28
ATOM	3373	CB	LYS	B	630	40.595	39.458	21.075	1.00	13.81
ATOM	3374	CG	LYS	B	630	40.873	40.526	20.049	1.00	14.07
ATOM	3375	CD	LYS	B	630	42.305	41.033	20.185	1.00	14.21
ATOM	3376	CE	LYS	B	630	42.722	41.870	18.985	1.00	13.69
ATOM	3377	NZ	LYS	B	630	43.467	41.061	17.985	1.00	14.00
ATOM	3378	C	LYS	B	630	40.999	37.073	21.658	1.00	13.55
ATOM	3379	O	LYS	B	630	41.834	36.176	21.511	1.00	13.05
ATOM	3380	N	ALA	B	631	40.332	37.268	22.791	1.00	13.48
ATOM	3381	CA	ALA	B	631	40.539	36.419	23.957	1.00	12.98
ATOM	3382	CB	ALA	B	631	39.626	36.868	25.099	1.00	13.45
ATOM	3383	C	ALA	B	631	40.306	34.942	23.639	1.00	13.87
ATOM	3384	O	ALA	B	631	41.062	34.084	24.089	1.00	13.55
ATOM	3385	N	GLY	B	632	39.269	34.655	22.854	1.00	12.88
ATOM	3386	CA	GLY	B	632	38.964	33.278	22.503	1.00	13.24
ATOM	3387	C	GLY	B	632	39.861	32.699	21.427	1.00	13.67
ATOM	3388	O	GLY	B	632	39.744	31.519	21.083	1.00	13.11
ATOM	3389	N	LYS	B	633	40.755	33.532	20.898	1.00	12.61
ATOM	3390	CA	LYS	B	633	41.699	33.146	19.855	1.00	13.40
ATOM	3391	CB	LYS	B	633	42.754	32.185	20.414	1.00	13.49
ATOM	3392	CG	LYS	B	633	43.734	32.857	21.367	1.00	13.78
ATOM	3393	CD	LYS	B	633	44.991	32.022	21.548	1.00	13.48
ATOM	3394	CE	LYS	B	633	46.020	32.741	22.416	1.00	14.11
ATOM	3395	NZ	LYS	B	633	45.517	32.970	23.802	1.00	13.91
ATOM	3396	C	LYS	B	633	41.069	32.558	18.596	1.00	13.38
ATOM	3397	O	LYS	B	633	41.642	31.686	17.944	1.00	13.54
ATOM	3398	N	ILE	B	634	39.888	33.049	18.246	1.00	12.97
ATOM	3399	CA	ILE	B	634	39.231	32.572	17.044	1.00	13.45
ATOM	3400	CB	ILE	B	634	37.701	32.694	17.172	1.00	13.35
ATOM	3401	CG2	ILE	B	634	37.022	32.263	15.878	1.00	13.59
ATOM	3402	CG1	ILE	B	634	37.221	31.810	18.328	1.00	13.40
ATOM	3403	CD1	ILE	B	634	35.744	31.879	18.578	1.00	14.06
ATOM	3404	C	ILE	B	634	39.736	33.348	15.825	1.00	13.47
ATOM	3405	O	ILE	B	634	39.712	32.836	14.706	1.00	13.03
ATOM	3406	N	GLN	B	635	40.216	34.575	16.032	1.00	13.24
ATOM	3407	CA	GLN	B	635	40.730	35.353	14.904	1.00	12.94
ATOM	3408	CB	GLN	B	635	41.203	36.746	15.356	1.00	13.25
ATOM	3409	CG	GLN	B	635	42.507	36.760	16.156	1.00	14.10
ATOM	3410	CD	GLN	B	635	43.069	38.170	16.329	1.00	13.41
ATOM	3411	OE1	GLN	B	635	44.209	38.461	15.934	1.00	15.14
ATOM	3412	NE2	GLN	B	635	42.277	39.048	16.926	1.00	14.28
ATOM	3413	C	GLN	B	635	41.886	34.593	14.255	1.00	13.52
ATOM	3414	O	GLN	B	635	42.101	34.672	13.049	1.00	12.61
ATOM	3415	N	ASN	B	636	42.609	33.839	15.076	1.00	12.91
ATOM	3416	CA	ASN	B	636	43.750	33.047	14.626	1.00	13.36
ATOM	3417	CB	ASN	B	636	44.387	32.319	15.807	1.00	13.37
ATOM	3418	CG	ASN	B	636	44.863	33.255	16.889	1.00	13.58

ATOM	3419	OD1	ASN	B	636	46.064	33.346	17.162	1.00	13.42
ATOM	3420	ND2	ASN	B	636	43.929	33.951	17.517	1.00	12.72
ATOM	3421	C	ASN	B	636	43.378	31.996	13.596	1.00	13.58
ATOM	3422	O	ASN	B	636	44.242	31.513	12.861	1.00	14.18
ATOM	3423	N	LYS	B	637	42.101	31.633	13.554	1.00	13.22
ATOM	3424	CA	LYS	B	637	41.632	30.589	12.648	1.00	13.52
ATOM	3425	CB	LYS	B	637	40.695	29.644	13.407	1.00	13.61
ATOM	3426	CG	LYS	B	637	41.294	28.980	14.645	1.00	13.55
ATOM	3427	CD	LYS	B	637	40.211	28.257	15.434	1.00	13.14
ATOM	3428	CE	LYS	B	637	40.728	27.702	16.759	1.00	13.83
ATOM	3429	NZ	LYS	B	637	41.656	26.557	16.569	1.00	13.68
ATOM	3430	C	LYS	B	637	40.902	31.103	11.412	1.00	13.76
ATOM	3431	O	LYS	B	637	40.507	30.312	10.551	1.00	12.66
ATOM	3432	N	LEU	B	638	40.728	32.417	11.320	1.00	12.68
ATOM	3433	CA	LEU	B	638	39.992	33.001	10.202	1.00	13.37
ATOM	3434	CB	LEU	B	638	38.734	33.703	10.733	1.00	13.45
ATOM	3435	CG	LEU	B	638	37.798	32.931	11.663	1.00	13.44
ATOM	3436	CD1	LEU	B	638	36.701	33.858	12.151	1.00	13.13
ATOM	3437	CD2	LEU	B	638	37.199	31.744	10.937	1.00	13.40
ATOM	3438	C	LEU	B	638	40.776	33.992	9.354	1.00	13.62
ATOM	3439	O	LEU	B	638	41.829	34.492	9.759	1.00	13.16
ATOM	3440	N	THR	B	639	40.236	34.280	8.170	1.00	13.36
ATOM	3441	CA	THR	B	639	40.856	35.233	7.253	1.00	13.46
ATOM	3442	CB	THR	B	639	40.418	34.998	5.794	1.00	13.53
ATOM	3443	OG1	THR	B	639	39.024	35.301	5.658	1.00	13.34
ATOM	3444	CG2	THR	B	639	40.660	33.548	5.385	1.00	13.46
ATOM	3445	C	THR	B	639	40.417	36.636	7.648	1.00	13.58
ATOM	3446	O	THR	B	639	39.441	36.800	8.375	1.00	12.78
ATOM	3447	N	ASP	B	640	41.142	37.642	7.165	1.00	13.33
ATOM	3448	CA	ASP	B	640	40.813	39.030	7.463	1.00	13.50
ATOM	3449	CB	ASP	B	640	41.828	39.963	6.797	1.00	13.50
ATOM	3450	CG	ASP	B	640	43.195	39.910	7.458	1.00	13.45
ATOM	3451	OD1	ASP	B	640	44.147	40.490	6.895	1.00	13.58
ATOM	3452	OD2	ASP	B	640	43.319	39.294	8.545	1.00	14.11
ATOM	3453	C	ASP	B	640	39.404	39.377	6.986	1.00	13.16
ATOM	3454	O	ASP	B	640	38.658	40.053	7.686	1.00	13.72
ATOM	3455	N	LEU	B	641	39.047	38.920	5.790	1.00	13.21
ATOM	3456	CA	LEU	B	641	37.720	39.192	5.237	1.00	13.26
ATOM	3457	CB	LEU	B	641	37.597	38.638	3.813	1.00	13.46
ATOM	3458	CG	LEU	B	641	38.293	39.409	2.692	1.00	13.82
ATOM	3459	CD1	LEU	B	641	39.782	39.499	2.952	1.00	14.59
ATOM	3460	CD2	LEU	B	641	38.020	38.709	1.378	1.00	13.53
ATOM	3461	C	LEU	B	641	36.637	38.584	6.109	1.00	13.26
ATOM	3462	O	LEU	B	641	35.577	39.179	6.311	1.00	13.32
ATOM	3463	N	GLU	B	642	36.899	37.387	6.621	1.00	12.92
ATOM	3464	CA	GLU	B	642	35.943	36.717	7.483	1.00	13.40
ATOM	3465	CB	GLU	B	642	36.416	35.294	7.770	1.00	13.39
ATOM	3466	CG	GLU	B	642	36.252	34.408	6.546	1.00	13.28
ATOM	3467	CD	GLU	B	642	36.945	33.064	6.646	1.00	13.60
ATOM	3468	OE1	GLU	B	642	36.712	32.232	5.747	1.00	13.50
ATOM	3469	OE2	GLU	B	642	37.722	32.839	7.600	1.00	13.81
ATOM	3470	C	GLU	B	642	35.747	37.505	8.772	1.00	13.39
ATOM	3471	O	GLU	B	642	34.633	37.653	9.259	1.00	12.28
ATOM	3472	N	ILE	B	643	36.836	38.036	9.310	1.00	13.18
ATOM	3473	CA	ILE	B	643	36.756	38.821	10.530	1.00	12.94
ATOM	3474	CB	ILE	B	643	38.172	39.079	11.078	1.00	13.32
ATOM	3475	CG2	ILE	B	643	38.128	40.056	12.251	1.00	13.47
ATOM	3476	CG1	ILE	B	643	38.786	37.738	11.492	1.00	13.49
ATOM	3477	CD1	ILE	B	643	40.296	37.742	11.575	1.00	13.34
ATOM	3478	C	ILE	B	643	36.011	40.131	10.250	1.00	13.13
ATOM	3479	O	ILE	B	643	35.167	40.559	11.045	1.00	12.77
ATOM	3480	N	LEU	B	644	36.309	40.747	9.110	1.00	12.89
ATOM	3481	CA	LEU	B	644	35.655	41.989	8.700	1.00	13.40
ATOM	3482	CB	LEU	B	644	36.197	42.420	7.335	1.00	13.35
ATOM	3483	CG	LEU	B	644	35.560	43.616	6.626	1.00	13.17
ATOM	3484	CD1	LEU	B	644	35.792	44.873	7.443	1.00	13.50

ATOM	3485	CD2	LEU	B	644	36.171	43.770	5.237	1.00	13.40
ATOM	3486	C	LEU	B	644	34.148	41.769	8.612	1.00	13.43
ATOM	3487	O	LEU	B	644	33.353	42.512	9.195	1.00	12.01
ATOM	3488	N	ALA	B	645	33.766	40.730	7.878	1.00	13.11
ATOM	3489	CA	ALA	B	645	32.365	40.388	7.692	1.00	12.88
ATOM	3490	CB	ALA	B	645	32.249	39.238	6.691	1.00	13.25
ATOM	3491	C	ALA	B	645	31.644	40.025	8.993	1.00	13.89
ATOM	3492	O	ALA	B	645	30.487	40.402	9.188	1.00	12.52
ATOM	3493	N	LEU	B	646	32.316	39.290	9.878	1.00	12.91
ATOM	3494	CA	LEU	B	646	31.704	38.890	11.146	1.00	13.07
ATOM	3495	CB	LEU	B	646	32.636	37.961	11.926	1.00	12.76
ATOM	3496	CG	LEU	B	646	32.744	36.510	11.453	1.00	13.53
ATOM	3497	CD1	LEU	B	646	33.890	35.854	12.191	1.00	13.25
ATOM	3498	CD2	LEU	B	646	31.437	35.752	11.719	1.00	13.15
ATOM	3499	C	LEU	B	646	31.360	40.079	12.027	1.00	13.11
ATOM	3500	O	LEU	B	646	30.306	40.101	12.668	1.00	13.40
ATOM	3501	N	LEU	B	647	32.262	41.054	12.086	1.00	13.26
ATOM	3502	CA	LEU	B	647	32.025	42.230	12.915	1.00	13.16
ATOM	3503	CB	LEU	B	647	33.302	43.068	13.040	1.00	13.41
ATOM	3504	CG	LEU	B	647	33.219	44.275	13.985	1.00	13.62
ATOM	3505	CD1	LEU	B	647	32.899	43.803	15.397	1.00	13.40
ATOM	3506	CD2	LEU	B	647	34.542	45.030	13.971	1.00	13.52
ATOM	3507	C	LEU	B	647	30.894	43.073	12.335	1.00	13.14
ATOM	3508	O	LEU	B	647	29.998	43.518	13.058	1.00	12.36
ATOM	3509	N	ILE	B	648	30.932	43.291	11.026	1.00	13.15
ATOM	3510	CA	ILE	B	648	29.885	44.065	10.377	1.00	12.76
ATOM	3511	CB	ILE	B	648	30.186	44.238	8.862	1.00	13.22
ATOM	3512	CG2	ILE	B	648	28.961	44.784	8.129	1.00	13.16
ATOM	3513	CG1	ILE	B	648	31.397	45.164	8.681	1.00	13.48
ATOM	3514	CD1	ILE	B	648	31.832	45.332	7.233	1.00	13.02
ATOM	3515	C	ILE	B	648	28.550	43.349	10.579	1.00	13.89
ATOM	3516	O	ILE	B	648	27.550	43.969	10.945	1.00	12.53
ATOM	3517	N	ALA	B	649	28.541	42.037	10.372	1.00	12.78
ATOM	3518	CA	ALA	B	649	27.316	41.263	10.524	1.00	13.02
ATOM	3519	CB	ALA	B	649	27.548	39.825	10.073	1.00	13.47
ATOM	3520	C	ALA	B	649	26.794	41.292	11.954	1.00	13.87
ATOM	3521	O	ALA	B	649	25.596	41.451	12.176	1.00	12.75
ATOM	3522	N	ALA	B	650	27.686	41.151	12.930	1.00	12.18
ATOM	3523	CA	ALA	B	650	27.261	41.173	14.324	1.00	13.00
ATOM	3524	CB	ALA	B	650	28.467	40.953	15.245	1.00	13.42
ATOM	3525	C	ALA	B	650	26.571	42.503	14.660	1.00	13.52
ATOM	3526	O	ALA	B	650	25.544	42.529	15.337	1.00	12.14
ATOM	3527	N	LEU	B	651	27.135	43.601	14.170	1.00	12.91
ATOM	3528	CA	LEU	B	651	26.570	44.927	14.424	1.00	13.39
ATOM	3529	CB	LEU	B	651	27.580	46.010	14.044	1.00	13.35
ATOM	3530	CG	LEU	B	651	28.802	46.130	14.951	1.00	12.92
ATOM	3531	CD1	LEU	B	651	29.902	46.935	14.255	1.00	13.35
ATOM	3532	CD2	LEU	B	651	28.384	46.783	16.256	1.00	13.26
ATOM	3533	C	LEU	B	651	25.279	45.175	13.653	1.00	13.58
ATOM	3534	O	LEU	B	651	24.392	45.885	14.130	1.00	12.67
ATOM	3535	N	SER	B	652	25.175	44.572	12.474	1.00	12.49
ATOM	3536	CA	SER	B	652	24.012	44.773	11.604	1.00	13.14
ATOM	3537	CB	SER	B	652	24.467	44.889	10.147	1.00	13.35
ATOM	3538	OG	SER	B	652	25.509	45.825	9.977	1.00	12.72
ATOM	3539	C	SER	B	652	22.952	43.685	11.625	1.00	13.22
ATOM	3540	O	SER	B	652	21.896	43.855	11.014	1.00	12.78
ATOM	3541	N	HIS	B	653	23.208	42.587	12.326	1.00	13.08
ATOM	3542	CA	HIS	B	653	22.292	41.449	12.271	1.00	13.49
ATOM	3543	CB	HIS	B	653	22.917	40.243	12.969	1.00	12.89
ATOM	3544	CG	HIS	B	653	22.590	40.154	14.421	1.00	13.41
ATOM	3545	CD2	HIS	B	653	21.652	39.430	15.073	1.00	12.89
ATOM	3546	ND1	HIS	B	653	23.226	40.913	15.379	1.00	13.02
ATOM	3547	CE1	HIS	B	653	22.690	40.662	16.560	1.00	13.05
ATOM	3548	NE2	HIS	B	653	21.733	39.767	16.401	1.00	13.01
ATOM	3549	C	HIS	B	653	20.833	41.566	12.698	1.00	13.53
ATOM	3550	O	HIS	B	653	20.042	40.686	12.361	1.00	12.93

ATOM	3551	N	ASP	B	654	20.470	42.620	13.426	1.00	12.30
ATOM	3552	CA	ASP	B	654	19.072	42.807	13.839	1.00	13.39
ATOM	3553	CB	ASP	B	654	18.905	42.645	15.360	1.00	13.21
ATOM	3554	CG	ASP	B	654	18.665	41.205	15.783	1.00	13.45
ATOM	3555	OD1	ASP	B	654	17.926	40.479	15.085	1.00	11.51
ATOM	3556	OD2	ASP	B	654	19.204	40.804	16.836	1.00	12.02
ATOM	3557	C	ASP	B	654	18.550	44.189	13.426	1.00	13.29
ATOM	3558	O	ASP	B	654	17.609	44.712	14.026	1.00	12.41
ATOM	3559	N	LEU	B	655	19.147	44.774	12.391	1.00	13.40
ATOM	3560	CA	LEU	B	655	18.742	46.096	11.932	1.00	13.08
ATOM	3561	CB	LEU	B	655	19.515	46.473	10.664	1.00	13.50
ATOM	3562	CG	LEU	B	655	20.978	46.864	10.891	1.00	13.07
ATOM	3563	CD1	LEU	B	655	21.729	46.863	9.567	1.00	13.68
ATOM	3564	CD2	LEU	B	655	21.034	48.245	11.549	1.00	13.41
ATOM	3565	C	LEU	B	655	17.246	46.262	11.690	1.00	13.31
ATOM	3566	O	LEU	B	655	16.607	45.434	11.041	1.00	12.39
ATOM	3567	N	ASP	B	656	16.705	47.348	12.232	1.00	13.31
ATOM	3568	CA	ASP	B	656	15.295	47.690	12.087	1.00	12.94
ATOM	3569	CB	ASP	B	656	14.994	48.012	10.621	1.00	13.38
ATOM	3570	CG	ASP	B	656	13.637	48.670	10.435	1.00	13.72
ATOM	3571	OD1	ASP	B	656	13.328	49.610	11.195	1.00	12.66
ATOM	3572	OD2	ASP	B	656	12.892	48.257	9.523	1.00	12.67
ATOM	3573	C	ASP	B	656	14.345	46.613	12.597	1.00	13.53
ATOM	3574	O	ASP	B	656	13.242	46.449	12.076	1.00	12.38
ATOM	3575	N	HIS	B	657	14.768	45.892	13.630	1.00	12.88
ATOM	3576	CA	HIS	B	657	13.931	44.844	14.204	1.00	13.14
ATOM	3577	CB	HIS	B	657	14.681	44.119	15.326	1.00	13.21
ATOM	3578	CG	HIS	B	657	14.012	42.858	15.778	1.00	13.39
ATOM	3579	CD2	HIS	B	657	12.810	42.653	16.365	1.00	12.92
ATOM	3580	ND1	HIS	B	657	14.573	41.611	15.606	1.00	13.45
ATOM	3581	CE1	HIS	B	657	13.743	40.690	16.065	1.00	13.07
ATOM	3582	NE2	HIS	B	657	12.666	41.296	16.531	1.00	13.45
ATOM	3583	C	HIS	B	657	12.662	45.499	14.748	1.00	13.14
ATOM	3584	O	HIS	B	657	12.723	46.477	15.498	1.00	12.31
ATOM	3585	N	PRO	B	658	11.488	44.977	14.357	1.00	13.51
ATOM	3586	CD	PRO	B	658	11.353	43.896	13.364	1.00	13.24
ATOM	3587	CA	PRO	B	658	10.167	45.473	14.763	1.00	13.06
ATOM	3588	CB	PRO	B	658	9.248	44.875	13.705	1.00	12.99
ATOM	3589	CG	PRO	B	658	9.887	43.539	13.459	1.00	13.30
ATOM	3590	C	PRO	B	658	9.699	45.126	16.174	1.00	13.31
ATOM	3591	O	PRO	B	658	8.676	45.640	16.637	1.00	13.03
ATOM	3592	N	GLY	B	659	10.433	44.251	16.854	1.00	13.42
ATOM	3593	CA	GLY	B	659	10.039	43.868	18.196	1.00	13.07
ATOM	3594	C	GLY	B	659	9.037	42.727	18.224	1.00	13.03
ATOM	3595	O	GLY	B	659	8.415	42.469	19.253	1.00	12.71
ATOM	3596	N	VAL	B	660	8.864	42.066	17.085	1.00	13.14
ATOM	3597	CA	VAL	B	660	7.972	40.915	16.969	1.00	13.37
ATOM	3598	CB	VAL	B	660	6.611	41.285	16.308	1.00	13.29
ATOM	3599	CG1	VAL	B	660	5.842	42.230	17.214	1.00	13.34
ATOM	3600	CG2	VAL	B	660	6.830	41.936	14.948	1.00	13.58
ATOM	3601	C	VAL	B	660	8.716	39.862	16.146	1.00	13.56
ATOM	3602	O	VAL	B	660	9.547	40.204	15.299	1.00	13.08
ATOM	3603	N	SER	B	661	8.416	38.591	16.398	1.00	12.86
ATOM	3604	CA	SER	B	661	9.101	37.480	15.723	1.00	13.42
ATOM	3605	CB	SER	B	661	8.949	36.202	16.551	1.00	13.46
ATOM	3606	OG	SER	B	661	7.603	35.762	16.545	1.00	13.25
ATOM	3607	C	SER	B	661	8.693	37.157	14.290	1.00	13.50
ATOM	3608	O	SER	B	661	7.714	37.683	13.759	1.00	12.69
ATOM	3609	N	ASN	B	662	9.467	36.269	13.673	1.00	13.02
ATOM	3610	CA	ASN	B	662	9.180	35.838	12.316	1.00	12.77
ATOM	3611	CB	ASN	B	662	10.208	34.810	11.834	1.00	13.47
ATOM	3612	CG	ASN	B	662	11.498	35.444	11.352	1.00	13.71
ATOM	3613	OD1	ASN	B	662	11.494	36.546	10.807	1.00	13.76
ATOM	3614	ND2	ASN	B	662	12.609	34.732	11.524	1.00	12.73
ATOM	3615	C	ASN	B	662	7.801	35.189	12.287	1.00	13.30
ATOM	3616	O	ASN	B	662	7.020	35.418	11.372	1.00	12.86

ATOM	3617	N	GLN	B	663	7.510	34.364	13.290	1.00	12.90
ATOM	3618	CA	GLN	B	663	6.223	33.678	13.341	1.00	13.17
ATOM	3619	CB	GLN	B	663	6.134	32.774	14.574	1.00	13.59
ATOM	3620	CG	GLN	B	663	7.295	31.793	14.736	1.00	14.07
ATOM	3621	CD	GLN	B	663	8.443	32.334	15.593	1.00	14.68
ATOM	3622	OE1	GLN	B	663	9.333	33.058	15.110	1.00	13.91
ATOM	3623	NE2	GLN	B	663	8.426	31.982	16.880	1.00	14.77
ATOM	3624	C	GLN	B	663	5.095	34.693	13.373	1.00	13.39
ATOM	3625	O	GLN	B	663	4.057	34.503	12.738	1.00	12.81
ATOM	3626	N	PHE	B	664	5.301	35.781	14.106	1.00	13.26
ATOM	3627	CA	PHE	B	664	4.280	36.816	14.200	1.00	13.14
ATOM	3628	CB	PHE	B	664	4.684	37.857	15.243	1.00	13.07
ATOM	3629	CG	PHE	B	664	3.707	38.985	15.384	1.00	13.06
ATOM	3630	CD1	PHE	B	664	3.776	40.096	14.544	1.00	13.29
ATOM	3631	CD2	PHE	B	664	2.708	38.934	16.344	1.00	13.42
ATOM	3632	CE1	PHE	B	664	2.856	41.141	14.663	1.00	13.28
ATOM	3633	CE2	PHE	B	664	1.782	39.976	16.467	1.00	13.39
ATOM	3634	CZ	PHE	B	664	1.859	41.076	15.627	1.00	13.26
ATOM	3635	C	PHE	B	664	4.069	37.488	12.845	1.00	13.57
ATOM	3636	O	PHE	B	664	2.939	37.744	12.441	1.00	12.69
ATOM	3637	N	LEU	B	665	5.164	37.780	12.152	1.00	13.13
ATOM	3638	CA	LEU	B	665	5.080	38.415	10.843	1.00	13.11
ATOM	3639	CB	LEU	B	665	6.484	38.751	10.334	1.00	13.22
ATOM	3640	CG	LEU	B	665	7.187	39.838	11.146	1.00	13.62
ATOM	3641	CD1	LEU	B	665	8.622	39.982	10.692	1.00	13.35
ATOM	3642	CD2	LEU	B	665	6.434	41.151	10.977	1.00	13.43
ATOM	3643	C	LEU	B	665	4.364	37.505	9.855	1.00	13.55
ATOM	3644	O	LEU	B	665	3.673	37.974	8.950	1.00	13.00
ATOM	3645	N	ILE	B	666	4.533	36.200	10.028	1.00	12.65
ATOM	3646	CA	ILE	B	666	3.876	35.241	9.145	1.00	13.34
ATOM	3647	CB	ILE	B	666	4.508	33.835	9.284	1.00	13.32
ATOM	3648	CG2	ILE	B	666	3.643	32.801	8.582	1.00	13.67
ATOM	3649	CG1	ILE	B	666	5.920	33.849	8.697	1.00	13.36
ATOM	3650	CD1	ILE	B	666	6.694	32.562	8.898	1.00	13.28
ATOM	3651	C	ILE	B	666	2.389	35.159	9.485	1.00	13.61
ATOM	3652	O	ILE	B	666	1.532	35.190	8.593	1.00	12.81
ATOM	3653	N	ASN	B	667	2.091	35.057	10.777	1.00	12.92
ATOM	3654	CA	ASN	B	667	0.708	34.952	11.240	1.00	13.73
ATOM	3655	CB	ASN	B	667	0.657	34.752	12.760	1.00	13.61
ATOM	3656	CG	ASN	B	667	1.176	33.392	13.192	1.00	13.90
ATOM	3657	OD1	ASN	B	667	1.196	32.446	12.407	1.00	13.86
ATOM	3658	ND2	ASN	B	667	1.574	33.283	14.457	1.00	13.48
ATOM	3659	C	ASN	B	667	-0.142	36.159	10.876	1.00	13.37
ATOM	3660	O	ASN	B	667	-1.354	36.042	10.686	1.00	13.86
ATOM	3661	N	THR	B	668	0.498	37.320	10.788	1.00	13.25
ATOM	3662	CA	THR	B	668	-0.208	38.548	10.464	1.00	13.64
ATOM	3663	CB	THR	B	668	0.368	39.737	11.263	1.00	13.51
ATOM	3664	OG1	THR	B	668	1.785	39.820	11.049	1.00	13.03
ATOM	3665	CG2	THR	B	668	0.096	39.561	12.749	1.00	13.35
ATOM	3666	C	THR	B	668	-0.167	38.877	8.977	1.00	13.43
ATOM	3667	O	THR	B	668	-0.570	39.964	8.567	1.00	13.79
ATOM	3668	N	ASN	B	669	0.322	37.937	8.172	1.00	13.51
ATOM	3669	CA	ASN	B	669	0.402	38.127	6.726	1.00	13.78
ATOM	3670	CB	ASN	B	669	-1.004	38.109	6.131	1.00	13.82
ATOM	3671	CG	ASN	B	669	-1.601	36.727	6.126	1.00	13.79
ATOM	3672	OD1	ASN	B	669	-0.970	35.775	5.666	1.00	15.14
ATOM	3673	ND2	ASN	B	669	-2.827	36.604	6.626	1.00	15.31
ATOM	3674	C	ASN	B	669	1.121	39.412	6.323	1.00	13.74
ATOM	3675	O	ASN	B	669	0.712	40.105	5.385	1.00	14.46
ATOM	3676	N	SER	B	670	2.203	39.714	7.032	1.00	13.66
ATOM	3677	CA	SER	B	670	3.002	40.906	6.781	1.00	13.69
ATOM	3678	CB	SER	B	670	4.145	40.989	7.799	1.00	13.32
ATOM	3679	OG	SER	B	670	5.060	42.035	7.490	1.00	15.64
ATOM	3680	C	SER	B	670	3.573	40.918	5.372	1.00	13.56
ATOM	3681	O	SER	B	670	3.723	39.878	4.737	1.00	13.65
ATOM	3682	N	GLU	B	671	3.875	42.116	4.884	1.00	13.15

ATOM	3683	CA	GLU	B	671	4.451	42.279	3.564	1.00	13.17
ATOM	3684	CB	GLU	B	671	4.550	43.764	3.220	1.00	13.51
ATOM	3685	CG	GLU	B	671	5.091	44.019	1.831	1.00	13.41
ATOM	3686	CD	GLU	B	671	5.186	45.491	1.527	1.00	14.01
ATOM	3687	OE1	GLU	B	671	6.196	46.116	1.919	1.00	14.30
ATOM	3688	OE2	GLU	B	671	4.242	46.022	0.914	1.00	13.71
ATOM	3689	C	GLU	B	671	5.840	41.653	3.546	1.00	13.72
ATOM	3690	O	GLU	B	671	6.269	41.080	2.543	1.00	13.13
ATOM	3691	N	LEU	B	672	6.538	41.772	4.670	1.00	13.25
ATOM	3692	CA	LEU	B	672	7.879	41.225	4.814	1.00	13.55
ATOM	3693	CB	LEU	B	672	8.403	41.551	6.208	1.00	13.79
ATOM	3694	CG	LEU	B	672	9.870	41.928	6.374	1.00	13.98
ATOM	3695	CD1	LEU	B	672	10.236	43.073	5.438	1.00	13.65
ATOM	3696	CD2	LEU	B	672	10.100	42.309	7.829	1.00	14.03
ATOM	3697	C	LEU	B	672	7.854	39.713	4.604	1.00	13.47
ATOM	3698	O	LEU	B	672	8.724	39.159	3.936	1.00	12.54
ATOM	3699	N	ALA	B	673	6.854	39.050	5.180	1.00	13.07
ATOM	3700	CA	ALA	B	673	6.726	37.601	5.041	1.00	12.94
ATOM	3701	CB	ALA	B	673	5.558	37.093	5.894	1.00	13.24
ATOM	3702	C	ALA	B	673	6.519	37.210	3.582	1.00	13.70
ATOM	3703	O	ALA	B	673	7.066	36.211	3.110	1.00	13.72
ATOM	3704	N	LEU	B	674	5.704	37.983	2.873	1.00	13.31
ATOM	3705	CA	LEU	B	674	5.443	37.710	1.463	1.00	13.30
ATOM	3706	CB	LEU	B	674	4.375	38.664	0.922	1.00	13.27
ATOM	3707	CG	LEU	B	674	4.130	38.539	-0.586	1.00	13.76
ATOM	3708	CD1	LEU	B	674	3.484	37.194	-0.905	1.00	13.79
ATOM	3709	CD2	LEU	B	674	3.244	39.700	-1.047	1.00	13.81
ATOM	3710	C	LEU	B	674	6.725	37.884	0.653	1.00	13.58
ATOM	3711	O	LEU	B	674	7.074	37.043	-0.171	1.00	13.78
ATOM	3712	N	MET	B	675	7.413	38.993	0.892	1.00	13.45
ATOM	3713	CA	MET	B	675	8.651	39.305	0.191	1.00	13.81
ATOM	3714	CB	MET	B	675	9.247	40.608	0.735	1.00	13.53
ATOM	3715	CG	MET	B	675	8.508	41.869	0.313	1.00	13.89
ATOM	3716	SD	MET	B	675	8.998	43.290	1.307	1.00	17.72
ATOM	3717	CE	MET	B	675	10.648	43.509	0.734	1.00	13.87
ATOM	3718	C	MET	B	675	9.681	38.196	0.320	1.00	13.70
ATOM	3719	O	MET	B	675	10.357	37.850	-0.656	1.00	13.30
ATOM	3720	N	TYR	B	676	9.782	37.616	1.515	1.00	13.25
ATOM	3721	CA	TYR	B	676	10.771	36.577	1.768	1.00	13.39
ATOM	3722	CB	TYR	B	676	11.596	36.962	3.000	1.00	13.36
ATOM	3723	CG	TYR	B	676	12.263	38.309	2.829	1.00	13.00
ATOM	3724	CD1	TYR	B	676	12.067	39.333	3.754	1.00	13.24
ATOM	3725	CE1	TYR	B	676	12.630	40.596	3.556	1.00	13.24
ATOM	3726	CD2	TYR	B	676	13.042	38.574	1.705	1.00	13.37
ATOM	3727	CE2	TYR	B	676	13.603	39.827	1.497	1.00	13.38
ATOM	3728	CZ	TYR	B	676	13.394	40.831	2.422	1.00	13.50
ATOM	3729	OH	TYR	B	676	13.943	42.069	2.195	1.00	13.02
ATOM	3730	C	TYR	B	676	10.223	35.163	1.907	1.00	13.36
ATOM	3731	O	TYR	B	676	10.835	34.302	2.548	1.00	13.97
ATOM	3732	N	ASN	B	677	9.064	34.931	1.300	1.00	13.27
ATOM	3733	CA	ASN	B	677	8.418	33.620	1.304	1.00	13.48
ATOM	3734	CB	ASN	B	677	9.041	32.742	0.212	1.00	13.66
ATOM	3735	CG	ASN	B	677	10.552	32.661	0.316	1.00	14.20
ATOM	3736	OD1	ASN	B	677	11.093	32.220	1.333	1.00	16.02
ATOM	3737	ND2	ASN	B	677	11.249	33.093	-0.739	1.00	14.86
ATOM	3738	C	ASN	B	677	8.435	32.882	2.642	1.00	13.48
ATOM	3739	O	ASN	B	677	8.710	31.685	2.696	1.00	13.31
ATOM	3740	N	ASP	B	678	8.124	33.608	3.714	1.00	13.05
ATOM	3741	CA	ASP	B	678	8.069	33.048	5.062	1.00	13.71
ATOM	3742	CB	ASP	B	678	6.983	31.974	5.150	1.00	13.22
ATOM	3743	CG	ASP	B	678	5.611	32.497	4.799	1.00	13.75
ATOM	3744	OD1	ASP	B	678	5.391	33.728	4.893	1.00	13.31
ATOM	3745	OD2	ASP	B	678	4.742	31.664	4.447	1.00	14.27
ATOM	3746	C	ASP	B	678	9.371	32.438	5.572	1.00	13.21
ATOM	3747	O	ASP	B	678	9.378	31.813	6.629	1.00	13.08
ATOM	3748	N	GLU	B	679	10.464	32.607	4.835	1.00	13.05

ATOM	3749	CA	GLU	B	679	11.745	32.039	5.259	1.00	13.43
ATOM	3750	CB	GLU	B	679	12.392	31.280	4.100	1.00	13.43
ATOM	3751	CG	GLU	B	679	11.610	30.060	3.664	1.00	14.30
ATOM	3752	CD	GLU	B	679	12.450	29.100	2.842	1.00	13.96
ATOM	3753	OE1	GLU	B	679	11.996	27.962	2.609	1.00	15.56
ATOM	3754	OE2	GLU	B	679	13.566	29.483	2.430	1.00	15.41
ATOM	3755	C	GLU	B	679	12.727	33.072	5.789	1.00	12.95
ATOM	3756	O	GLU	B	679	13.096	34.003	5.074	1.00	13.66
ATOM	3757	N	SER	B	680	13.149	32.901	7.044	1.00	13.68
ATOM	3758	CA	SER	B	680	14.097	33.822	7.678	1.00	12.96
ATOM	3759	CB	SER	B	680	15.520	33.546	7.181	1.00	13.75
ATOM	3760	OG	SER	B	680	15.921	32.215	7.455	1.00	12.27
ATOM	3761	C	SER	B	680	13.707	35.245	7.317	1.00	13.44
ATOM	3762	O	SER	B	680	14.543	36.041	6.901	1.00	12.38
ATOM	3763	N	VAL	B	681	12.428	35.553	7.492	1.00	13.16
ATOM	3764	CA	VAL	B	681	11.885	36.855	7.140	1.00	13.39
ATOM	3765	CB	VAL	B	681	10.407	36.966	7.575	1.00	13.28
ATOM	3766	CG1	VAL	B	681	9.873	38.343	7.242	1.00	13.65
ATOM	3767	CG2	VAL	B	681	9.575	35.897	6.867	1.00	13.37
ATOM	3768	C	VAL	B	681	12.654	38.041	7.699	1.00	13.53
ATOM	3769	O	VAL	B	681	13.127	38.890	6.945	1.00	12.74
ATOM	3770	N	LEU	B	681A	12.783	38.095	9.020	1.00	13.17
ATOM	3771	CA	LEU	B	681A	13.490	39.192	9.668	1.00	13.27
ATOM	3772	CB	LEU	B	681A	13.459	39.015	11.188	1.00	13.08
ATOM	3773	CG	LEU	B	681A	12.136	39.335	11.884	1.00	13.28
ATOM	3774	CD1	LEU	B	681A	12.089	38.673	13.248	1.00	13.52
ATOM	3775	CD2	LEU	B	681A	11.986	40.839	11.999	1.00	13.33
ATOM	3776	C	LEU	B	681A	14.936	39.299	9.218	1.00	13.32
ATOM	3777	O	LEU	B	681A	15.418	40.384	8.902	1.00	12.74
ATOM	3778	N	GLU	B	682	15.626	38.162	9.209	1.00	12.77
ATOM	3779	CA	GLU	B	682	17.026	38.127	8.824	1.00	13.52
ATOM	3780	CB	GLU	B	682	17.555	36.703	8.986	1.00	13.64
ATOM	3781	CG	GLU	B	682	17.526	36.185	10.435	1.00	13.52
ATOM	3782	CD	GLU	B	682	16.121	35.880	10.974	1.00	13.81
ATOM	3783	OE1	GLU	B	682	15.232	35.499	10.181	1.00	12.41
ATOM	3784	OE2	GLU	B	682	15.915	35.996	12.202	1.00	12.56
ATOM	3785	C	GLU	B	682	17.282	38.653	7.413	1.00	13.24
ATOM	3786	O	GLU	B	682	18.287	39.327	7.165	1.00	13.06
ATOM	3787	N	HIS	B	683	16.388	38.347	6.480	1.00	13.03
ATOM	3788	CA	HIS	B	683	16.556	38.859	5.123	1.00	12.96
ATOM	3789	CB	HIS	B	683	15.522	38.249	4.171	1.00	13.67
ATOM	3790	CG	HIS	B	683	15.891	36.890	3.670	1.00	13.20
ATOM	3791	CD2	HIS	B	683	15.423	35.663	3.999	1.00	13.48
ATOM	3792	ND1	HIS	B	683	16.884	36.684	2.734	1.00	13.18
ATOM	3793	CE1	HIS	B	683	17.011	35.388	2.511	1.00	13.47
ATOM	3794	NE2	HIS	B	683	16.137	34.747	3.266	1.00	13.63
ATOM	3795	C	HIS	B	683	16.391	40.371	5.167	1.00	13.66
ATOM	3796	O	HIS	B	683	17.105	41.100	4.484	1.00	12.73
ATOM	3797	N	HIS	B	684	15.444	40.835	5.978	1.00	12.59
ATOM	3798	CA	HIS	B	684	15.199	42.267	6.112	1.00	12.82
ATOM	3799	CB	HIS	B	684	13.988	42.523	7.014	1.00	13.47
ATOM	3800	CG	HIS	B	684	13.670	43.973	7.198	1.00	13.84
ATOM	3801	CD2	HIS	B	684	13.685	44.757	8.302	1.00	13.29
ATOM	3802	ND1	HIS	B	684	13.293	44.789	6.154	1.00	13.53
ATOM	3803	CE1	HIS	B	684	13.091	46.013	6.607	1.00	13.30
ATOM	3804	NE2	HIS	B	684	13.321	46.021	7.907	1.00	13.23
ATOM	3805	C	HIS	B	684	16.436	42.933	6.711	1.00	13.45
ATOM	3806	O	HIS	B	684	16.857	43.995	6.254	1.00	12.41
ATOM	3807	N	HIS	B	685	17.015	42.301	7.729	1.00	12.30
ATOM	3808	CA	HIS	B	685	18.198	42.847	8.392	1.00	13.22
ATOM	3809	CB	HIS	B	685	18.640	41.971	9.576	1.00	13.27
ATOM	3810	CG	HIS	B	685	17.569	41.719	10.594	1.00	13.34
ATOM	3811	CD2	HIS	B	685	17.195	40.578	11.225	1.00	13.17
ATOM	3812	ND1	HIS	B	685	16.771	42.717	11.109	1.00	13.08
ATOM	3813	CE1	HIS	B	685	15.952	42.204	12.011	1.00	13.19
ATOM	3814	NE2	HIS	B	685	16.190	40.908	12.100	1.00	13.34

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ATOM   3815  C   HIS B 685      19.351  42.969   7.399  1.00 13.45
ATOM   3816  O   HIS B 685      20.066  43.967   7.397  1.00 12.62
ATOM   3817  N   PHE B 686      19.542  41.948   6.565  1.00 13.29
ATOM   3818  CA  PHE B 686      20.607  42.017   5.577  1.00 12.89
ATOM   3819  CB  PHE B 686      20.783  40.695   4.834  1.00 13.27
ATOM   3820  CG  PHE B 686      21.772  40.785   3.716  1.00 13.46
ATOM   3821  CD1 PHE B 686      23.123  40.992   3.984  1.00 13.37
ATOM   3822  CD2 PHE B 686      21.351  40.735   2.393  1.00 13.60
ATOM   3823  CE1 PHE B 686      24.040  41.153   2.949  1.00 13.25
ATOM   3824  CE2 PHE B 686      22.258  40.892   1.352  1.00 13.84
ATOM   3825  CZ  PHE B 686      23.604  41.103   1.628  1.00 13.36
ATOM   3826  C   PHE B 686      20.305  43.116   4.562  1.00 13.40
ATOM   3827  O   PHE B 686      21.207  43.833   4.135  1.00 13.09
ATOM   3828  N   ASP B 687      19.038  43.231   4.173  1.00 13.42
ATOM   3829  CA  ASP B 687      18.618  44.256   3.226  1.00 13.23
ATOM   3830  CB  ASP B 687      17.103  44.165   2.998  1.00 13.01
ATOM   3831  CG  ASP B 687      16.586  45.213   2.026  1.00 13.18
ATOM   3832  OD1 ASP B 687      17.025  45.210   0.864  1.00 14.23
ATOM   3833  OD2 ASP B 687      15.733  46.035   2.430  1.00 15.35
ATOM   3834  C   ASP B 687      18.986  45.615   3.811  1.00 13.37
ATOM   3835  O   ASP B 687      19.507  46.482   3.103  1.00 13.06
ATOM   3836  N   GLN B 688      18.725  45.790   5.107  1.00 12.82
ATOM   3837  CA  GLN B 688      19.034  47.049   5.795  1.00 13.32
ATOM   3838  CB  GLN B 688      18.424  47.063   7.199  1.00 13.46
ATOM   3839  CG  GLN B 688      16.906  47.109   7.211  1.00 13.57
ATOM   3840  CD  GLN B 688      16.367  48.417   6.668  1.00 13.73
ATOM   3841  OE1 GLN B 688      16.546  49.479   7.274  1.00 14.90
ATOM   3842  NE2 GLN B 688      15.709  48.351   5.520  1.00 14.61
ATOM   3843  C   GLN B 688      20.532  47.249   5.894  1.00 13.48
ATOM   3844  O   GLN B 688      21.030  48.365   5.765  1.00 12.95
ATOM   3845  N   CYS B 689      21.247  46.154   6.115  1.00 13.15
ATOM   3846  CA  CYS B 689      22.698  46.189   6.224  1.00 13.52
ATOM   3847  CB  CYS B 689      23.221  44.781   6.527  1.00 13.26
ATOM   3848  SG  CYS B 689      25.019  44.645   6.590  1.00  9.76
ATOM   3849  C   CYS B 689      23.294  46.698   4.916  1.00 13.53
ATOM   3850  O   CYS B 689      24.096  47.635   4.902  1.00 13.24
ATOM   3851  N   LEU B 690      22.886  46.079   3.817  1.00 12.93
ATOM   3852  CA  LEU B 690      23.381  46.458   2.502  1.00 13.13
ATOM   3853  CB  LEU B 690      22.783  45.537   1.438  1.00 13.34
ATOM   3854  CG  LEU B 690      23.333  45.670   0.012  1.00 13.87
ATOM   3855  CD1 LEU B 690      24.836  45.429  -0.007  1.00 14.25
ATOM   3856  CD2 LEU B 690      22.619  44.674  -0.891  1.00 13.84
ATOM   3857  C   LEU B 690      23.026  47.907   2.195  1.00 13.36
ATOM   3858  O   LEU B 690      23.837  48.658   1.643  1.00 13.30
ATOM   3859  N   MET B 691      21.813  48.303   2.561  1.00 12.28
ATOM   3860  CA  MET B 691      21.373  49.670   2.329  1.00 13.60
ATOM   3861  CB  MET B 691      19.985  49.887   2.930  1.00 13.68
ATOM   3862  CG  MET B 691      19.468  51.298   2.758  1.00 13.16
ATOM   3863  SD  MET B 691      17.928  51.570   3.656  1.00 20.23
ATOM   3864  CE  MET B 691      18.549  51.750   5.336  1.00 14.01
ATOM   3865  C   MET B 691      22.350  50.681   2.936  1.00 13.59
ATOM   3866  O   MET B 691      22.712  51.667   2.292  1.00 13.32
ATOM   3867  N   ILE B 692      22.761  50.442   4.178  1.00 13.28
ATOM   3868  CA  ILE B 692      23.685  51.350   4.858  1.00 13.15
ATOM   3869  CB  ILE B 692      23.806  51.015   6.362  1.00 13.40
ATOM   3870  CG2 ILE B 692      24.796  51.965   7.020  1.00 13.74
ATOM   3871  CG1 ILE B 692      22.441  51.128   7.041  1.00 13.27
ATOM   3872  CD1 ILE B 692      21.900  52.523   7.105  1.00 14.34
ATOM   3873  C   ILE B 692      25.076  51.303   4.228  1.00 13.31
ATOM   3874  O   ILE B 692      25.724  52.342   4.063  1.00 13.06
ATOM   3875  N   LEU B 693      25.533  50.098   3.887  1.00 13.64
ATOM   3876  CA  LEU B 693      26.839  49.922   3.260  1.00 13.16
ATOM   3877  CB  LEU B 693      27.165  48.425   3.096  1.00 13.16
ATOM   3878  CG  LEU B 693      27.579  47.641   4.351  1.00 13.36
ATOM   3879  CD1 LEU B 693      27.672  46.148   4.023  1.00 13.60
ATOM   3880  CD2 LEU B 693      28.919  48.152   4.873  1.00 13.12
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ATOM	3881	C	LEU	B	693	26.911	50.623	1.899	1.00	13.34
ATOM	3882	O	LEU	B	693	27.986	51.042	1.483	1.00	14.29
ATOM	3883	N	ASN	B	694	25.776	50.742	1.210	1.00	13.47
ATOM	3884	CA	ASN	B	694	25.728	51.413	-0.093	1.00	13.33
ATOM	3885	CB	ASN	B	694	24.628	50.817	-0.992	1.00	13.27
ATOM	3886	CG	ASN	B	694	25.025	49.493	-1.630	1.00	13.35
ATOM	3887	OD1	ASN	B	694	26.185	49.272	-1.969	1.00	14.79
ATOM	3888	ND2	ASN	B	694	24.046	48.612	-1.821	1.00	13.83
ATOM	3889	C	ASN	B	694	25.456	52.914	0.036	1.00	13.34
ATOM	3890	O	ASN	B	694	25.552	53.648	-0.944	1.00	13.48
ATOM	3891	N	SER	B	695	25.112	53.370	1.234	1.00	13.68
ATOM	3892	CA	SER	B	695	24.797	54.784	1.438	1.00	13.52
ATOM	3893	CB	SER	B	695	24.129	54.976	2.801	1.00	13.57
ATOM	3894	OG	SER	B	695	22.877	54.324	2.834	1.00	14.50
ATOM	3895	C	SER	B	695	25.998	55.714	1.332	1.00	13.25
ATOM	3896	O	SER	B	695	27.031	55.466	1.935	1.00	13.50
ATOM	3897	N	PRO	B	696	25.873	56.812	0.566	1.00	13.74
ATOM	3898	CD	PRO	B	696	24.688	57.341	-0.132	1.00	13.95
ATOM	3899	CA	PRO	B	696	27.011	57.730	0.447	1.00	13.42
ATOM	3900	CB	PRO	B	696	26.450	58.879	-0.397	1.00	13.97
ATOM	3901	CG	PRO	B	696	24.968	58.830	-0.140	1.00	14.11
ATOM	3902	C	PRO	B	696	27.558	58.202	1.801	1.00	13.94
ATOM	3903	O	PRO	B	696	26.789	58.546	2.710	1.00	13.23
ATOM	3904	N	GLY	B	697	28.886	58.199	1.930	1.00	13.22
ATOM	3905	CA	GLY	B	697	29.516	58.635	3.165	1.00	13.77
ATOM	3906	C	GLY	B	697	29.573	57.566	4.243	1.00	13.17
ATOM	3907	O	GLY	B	697	30.136	57.790	5.313	1.00	12.96
ATOM	3908	N	ASN	B	698	29.001	56.398	3.957	1.00	13.20
ATOM	3909	CA	ASN	B	698	28.974	55.288	4.917	1.00	13.49
ATOM	3910	CB	ASN	B	698	27.532	54.927	5.290	1.00	13.47
ATOM	3911	CG	ASN	B	698	26.813	56.033	6.011	1.00	13.35
ATOM	3912	OD1	ASN	B	698	26.340	57.002	5.402	1.00	14.28
ATOM	3913	ND2	ASN	B	698	26.723	55.903	7.323	1.00	13.18
ATOM	3914	C	ASN	B	698	29.603	54.022	4.356	1.00	13.74
ATOM	3915	O	ASN	B	698	29.549	52.967	4.992	1.00	13.11
ATOM	3916	N	GLN	B	699	30.191	54.123	3.168	1.00	13.54
ATOM	3917	CA	GLN	B	699	30.769	52.961	2.499	1.00	13.11
ATOM	3918	CB	GLN	B	699	30.845	53.251	0.993	1.00	13.25
ATOM	3919	CG	GLN	B	699	29.488	53.668	0.421	1.00	13.09
ATOM	3920	CD	GLN	B	699	29.442	53.641	-1.090	1.00	13.88
ATOM	3921	OE1	GLN	B	699	29.621	52.592	-1.709	1.00	15.48
ATOM	3922	NE2	GLN	B	699	29.196	54.795	-1.696	1.00	14.07
ATOM	3923	C	GLN	B	699	32.118	52.481	3.029	1.00	13.89
ATOM	3924	O	GLN	B	699	33.161	52.718	2.417	1.00	13.77
ATOM	3925	N	ILE	B	700	32.075	51.767	4.152	1.00	13.31
ATOM	3926	CA	ILE	B	700	33.280	51.256	4.795	1.00	13.03
ATOM	3927	CB	ILE	B	700	32.985	50.777	6.238	1.00	13.37
ATOM	3928	CG2	ILE	B	700	32.562	51.966	7.101	1.00	13.26
ATOM	3929	CG1	ILE	B	700	31.906	49.696	6.231	1.00	13.29
ATOM	3930	CD1	ILE	B	700	31.804	48.949	7.547	1.00	13.53
ATOM	3931	C	ILE	B	700	33.960	50.126	4.033	1.00	13.76
ATOM	3932	O	ILE	B	700	35.060	49.703	4.395	1.00	13.57
ATOM	3933	N	LEU	B	701	33.310	49.630	2.986	1.00	12.82
ATOM	3934	CA	LEU	B	701	33.895	48.557	2.187	1.00	13.43
ATOM	3935	CB	LEU	B	701	32.885	47.420	2.011	1.00	13.97
ATOM	3936	CG	LEU	B	701	32.437	46.708	3.289	1.00	13.27
ATOM	3937	CD1	LEU	B	701	31.424	45.616	2.951	1.00	13.53
ATOM	3938	CD2	LEU	B	701	33.653	46.108	3.991	1.00	13.04
ATOM	3939	C	LEU	B	701	34.330	49.076	0.816	1.00	13.12
ATOM	3940	O	LEU	B	701	34.771	48.305	-0.035	1.00	13.35
ATOM	3941	N	SER	B	702	34.221	50.384	0.612	1.00	13.50
ATOM	3942	CA	SER	B	702	34.588	50.991	-0.669	1.00	13.39
ATOM	3943	CB	SER	B	702	34.272	52.488	-0.662	1.00	13.58
ATOM	3944	OG	SER	B	702	35.130	53.182	0.228	1.00	13.78
ATOM	3945	C	SER	B	702	36.054	50.812	-1.038	1.00	13.57
ATOM	3946	O	SER	B	702	36.422	50.957	-2.206	1.00	13.84

ATOM	3947	N	GLY	B	703	36.886	50.509	-0.043	1.00	13.44
ATOM	3948	CA	GLY	B	703	38.307	50.334	-0.291	1.00	13.83
ATOM	3949	C	GLY	B	703	38.729	48.940	-0.713	1.00	14.07
ATOM	3950	O	GLY	B	703	39.888	48.720	-1.075	1.00	13.65
ATOM	3951	N	LEU	B	704	37.798	47.995	-0.658	1.00	13.16
ATOM	3952	CA	LEU	B	704	38.083	46.613	-1.039	1.00	13.27
ATOM	3953	CB	LEU	B	704	37.016	45.672	-0.477	1.00	13.31
ATOM	3954	CG	LEU	B	704	37.150	45.241	0.976	1.00	13.39
ATOM	3955	CD1	LEU	B	704	36.074	44.229	1.314	1.00	13.20
ATOM	3956	CD2	LEU	B	704	38.508	44.639	1.180	1.00	14.20
ATOM	3957	C	LEU	B	704	38.165	46.386	-2.543	1.00	13.30
ATOM	3958	O	LEU	B	704	37.492	47.057	-3.324	1.00	13.43
ATOM	3959	N	SER	B	705	38.989	45.424	-2.945	1.00	13.60
ATOM	3960	CA	SER	B	705	39.117	45.093	-4.360	1.00	13.92
ATOM	3961	CB	SER	B	705	40.251	44.097	-4.576	1.00	13.44
ATOM	3962	OG	SER	B	705	39.954	42.874	-3.928	1.00	13.35
ATOM	3963	C	SER	B	705	37.800	44.440	-4.739	1.00	13.86
ATOM	3964	O	SER	B	705	37.042	44.028	-3.860	1.00	13.78
ATOM	3965	N	ILE	B	706	37.529	44.342	-6.036	1.00	13.13
ATOM	3966	CA	ILE	B	706	36.283	43.737	-6.490	1.00	13.37
ATOM	3967	CB	ILE	B	706	36.260	43.589	-8.015	1.00	13.68
ATOM	3968	CG2	ILE	B	706	34.962	42.927	-8.445	1.00	13.64
ATOM	3969	CG1	ILE	B	706	36.420	44.964	-8.661	1.00	14.20
ATOM	3970	CD1	ILE	B	706	36.547	44.938	-10.168	1.00	13.73
ATOM	3971	C	ILE	B	706	36.031	42.370	-5.874	1.00	13.55
ATOM	3972	O	ILE	B	706	34.944	42.105	-5.346	1.00	13.58
ATOM	3973	N	GLU	B	707	37.030	41.499	-5.932	1.00	13.84
ATOM	3974	CA	GLU	B	707	36.862	40.161	-5.387	1.00	13.51
ATOM	3975	CB	GLU	B	707	38.016	39.266	-5.824	1.00	14.01
ATOM	3976	CG	GLU	B	707	37.839	38.752	-7.246	1.00	14.14
ATOM	3977	CD	GLU	B	707	36.480	38.093	-7.444	1.00	13.83
ATOM	3978	OE1	GLU	B	707	35.602	38.688	-8.114	1.00	16.02
ATOM	3979	OE2	GLU	B	707	36.282	36.981	-6.909	1.00	15.05
ATOM	3980	C	GLU	B	707	36.685	40.113	-3.873	1.00	13.56
ATOM	3981	O	GLU	B	707	35.841	39.377	-3.376	1.00	14.13
ATOM	3982	N	GLU	B	708	37.467	40.884	-3.134	1.00	13.63
ATOM	3983	CA	GLU	B	708	37.312	40.878	-1.689	1.00	13.49
ATOM	3984	CB	GLU	B	708	38.429	41.690	-1.019	1.00	13.41
ATOM	3985	CG	GLU	B	708	39.786	41.013	-1.155	1.00	13.73
ATOM	3986	CD	GLU	B	708	40.786	41.446	-0.098	1.00	13.75
ATOM	3987	OE1	GLU	B	708	41.529	40.581	0.413	1.00	14.84
ATOM	3988	OE2	GLU	B	708	40.842	42.641	0.223	1.00	14.17
ATOM	3989	C	GLU	B	708	35.937	41.423	-1.315	1.00	13.38
ATOM	3990	O	GLU	B	708	35.301	40.936	-0.383	1.00	13.57
ATOM	3991	N	TYR	B	709	35.466	42.420	-2.056	1.00	13.72
ATOM	3992	CA	TYR	B	709	34.152	43.000	-1.786	1.00	13.45
ATOM	3993	CB	TYR	B	709	33.919	44.206	-2.695	1.00	13.31
ATOM	3994	CG	TYR	B	709	32.559	44.835	-2.539	1.00	13.87
ATOM	3995	CD1	TYR	B	709	32.296	45.730	-1.502	1.00	13.65
ATOM	3996	CE1	TYR	B	709	31.025	46.288	-1.336	1.00	13.66
ATOM	3997	CD2	TYR	B	709	31.521	44.509	-3.410	1.00	13.85
ATOM	3998	CE2	TYR	B	709	30.249	45.058	-3.254	1.00	13.81
ATOM	3999	CZ	TYR	B	709	30.009	45.946	-2.217	1.00	14.14
ATOM	4000	OH	TYR	B	709	28.754	46.495	-2.070	1.00	15.01
ATOM	4001	C	TYR	B	709	33.043	41.963	-1.997	1.00	13.64
ATOM	4002	O	TYR	B	709	32.172	41.787	-1.138	1.00	13.74
ATOM	4003	N	LYS	B	710	33.075	41.280	-3.139	1.00	13.24
ATOM	4004	CA	LYS	B	710	32.073	40.258	-3.446	1.00	13.64
ATOM	4005	CB	LYS	B	710	32.345	39.633	-4.818	1.00	13.48
ATOM	4006	CG	LYS	B	710	31.441	38.440	-5.130	1.00	14.60
ATOM	4007	CD	LYS	B	710	32.064	37.455	-6.116	1.00	14.80
ATOM	4008	CE	LYS	B	710	33.199	36.651	-5.481	1.00	14.22
ATOM	4009	NZ	LYS	B	710	32.736	35.851	-4.306	1.00	14.69
ATOM	4010	C	LYS	B	710	32.093	39.155	-2.395	1.00	13.41
ATOM	4011	O	LYS	B	710	31.046	38.712	-1.920	1.00	13.76
ATOM	4012	N	THR	B	711	33.294	38.704	-2.053	1.00	13.58

ATOM	4013	CA	THR	B	711	33.476	37.646	-1.066	1.00	13.49
ATOM	4014	CB	THR	B	711	34.961	37.273	-0.947	1.00	13.64
ATOM	4015	OG1	THR	B	711	35.397	36.682	-2.174	1.00	13.19
ATOM	4016	CG2	THR	B	711	35.186	36.291	0.200	1.00	13.47
ATOM	4017	C	THR	B	711	32.957	38.065	0.309	1.00	13.26
ATOM	4018	O	THR	B	711	32.289	37.288	0.991	1.00	13.47
ATOM	4019	N	THR	B	712	33.259	39.295	0.708	1.00	13.73
ATOM	4020	CA	THR	B	712	32.839	39.801	2.011	1.00	13.31
ATOM	4021	CB	THR	B	712	33.512	41.156	2.312	1.00	13.54
ATOM	4022	OG1	THR	B	712	34.935	41.003	2.238	1.00	12.73
ATOM	4023	CG2	THR	B	712	33.146	41.635	3.706	1.00	12.96
ATOM	4024	C	THR	B	712	31.323	39.952	2.115	1.00	13.27
ATOM	4025	O	THR	B	712	30.725	39.572	3.115	1.00	13.40
ATOM	4026	N	LEU	B	713	30.698	40.500	1.079	1.00	13.47
ATOM	4027	CA	LEU	B	713	29.258	40.683	1.092	1.00	13.13
ATOM	4028	CB	LEU	B	713	28.805	41.336	-0.217	1.00	13.45
ATOM	4029	CG	LEU	B	713	27.908	42.559	-0.067	1.00	14.66
ATOM	4030	CD1	LEU	B	713	26.630	42.155	0.626	1.00	14.34
ATOM	4031	CD2	LEU	B	713	28.629	43.637	0.728	1.00	13.79
ATOM	4032	C	LEU	B	713	28.541	39.345	1.278	1.00	13.11
ATOM	4033	O	LEU	B	713	27.553	39.256	2.007	1.00	13.12
ATOM	4034	N	LYS	B	714	29.046	38.304	0.624	1.00	13.59
ATOM	4035	CA	LYS	B	714	28.443	36.980	0.725	1.00	12.99
ATOM	4036	CB	LYS	B	714	29.136	36.016	-0.240	1.00	13.48
ATOM	4037	CG	LYS	B	714	28.594	34.607	-0.222	1.00	13.84
ATOM	4038	CD	LYS	B	714	29.500	33.680	-1.033	1.00	14.32
ATOM	4039	CE	LYS	B	714	30.795	33.295	-0.282	1.00	14.58
ATOM	4040	NZ	LYS	B	714	31.690	34.411	0.198	1.00	13.66
ATOM	4041	C	LYS	B	714	28.560	36.455	2.151	1.00	13.94
ATOM	4042	O	LYS	B	714	27.606	35.895	2.705	1.00	12.69
ATOM	4043	N	ILE	B	715	29.727	36.647	2.753	1.00	12.71
ATOM	4044	CA	ILE	B	715	29.934	36.186	4.118	1.00	13.31
ATOM	4045	CB	ILE	B	715	31.370	36.453	4.604	1.00	12.98
ATOM	4046	CG2	ILE	B	715	31.518	35.973	6.048	1.00	13.82
ATOM	4047	CG1	ILE	B	715	32.371	35.739	3.693	1.00	13.70
ATOM	4048	CD1	ILE	B	715	33.820	36.050	4.003	1.00	13.30
ATOM	4049	C	ILE	B	715	28.965	36.911	5.045	1.00	13.06
ATOM	4050	O	ILE	B	715	28.371	36.299	5.929	1.00	12.90
ATOM	4051	N	ILE	B	716	28.814	38.218	4.844	1.00	12.94
ATOM	4052	CA	ILE	B	716	27.914	39.005	5.674	1.00	12.84
ATOM	4053	CB	ILE	B	716	27.942	40.496	5.269	1.00	13.36
ATOM	4054	CG2	ILE	B	716	26.794	41.256	5.943	1.00	12.93
ATOM	4055	CG1	ILE	B	716	29.302	41.094	5.641	1.00	12.97
ATOM	4056	CD1	ILE	B	716	29.540	42.479	5.076	1.00	13.09
ATOM	4057	C	ILE	B	716	26.486	38.481	5.582	1.00	13.32
ATOM	4058	O	ILE	B	716	25.830	38.282	6.604	1.00	12.88
ATOM	4059	N	LYS	B	717	26.003	38.252	4.365	1.00	12.74
ATOM	4060	CA	LYS	B	717	24.641	37.760	4.214	1.00	13.40
ATOM	4061	CB	LYS	B	717	24.259	37.613	2.742	1.00	13.13
ATOM	4062	CG	LYS	B	717	22.864	37.036	2.576	1.00	12.96
ATOM	4063	CD	LYS	B	717	22.383	37.030	1.131	1.00	13.26
ATOM	4064	CE	LYS	B	717	20.959	36.502	1.068	1.00	13.47
ATOM	4065	NZ	LYS	B	717	20.314	36.678	-0.259	1.00	14.65
ATOM	4066	C	LYS	B	717	24.450	36.423	4.918	1.00	13.80
ATOM	4067	O	LYS	B	717	23.489	36.238	5.667	1.00	13.19
ATOM	4068	N	GLN	B	718	25.359	35.488	4.678	1.00	13.44
ATOM	4069	CA	GLN	B	718	25.253	34.172	5.306	1.00	12.59
ATOM	4070	CB	GLN	B	718	26.371	33.265	4.789	1.00	13.49
ATOM	4071	CG	GLN	B	718	26.183	32.845	3.336	1.00	13.24
ATOM	4072	CD	GLN	B	718	27.433	32.225	2.724	1.00	13.75
ATOM	4073	OE1	GLN	B	718	27.351	31.493	1.736	1.00	15.65
ATOM	4074	NE2	GLN	B	718	28.595	32.525	3.300	1.00	14.55
ATOM	4075	C	GLN	B	718	25.320	34.282	6.827	1.00	13.43
ATOM	4076	O	GLN	B	718	24.623	33.567	7.555	1.00	12.90
ATOM	4077	N	ALA	B	719	26.150	35.201	7.301	1.00	13.21
ATOM	4078	CA	ALA	B	719	26.329	35.404	8.731	1.00	13.02

ATOM	4079	CB	ALA	B	719	27.503	36.346	8.964	1.00	13.28
ATOM	4080	C	ALA	B	719	25.066	35.950	9.395	1.00	13.55
ATOM	4081	O	ALA	B	719	24.681	35.507	10.481	1.00	12.26
ATOM	4082	N	ILE	B	720	24.413	36.902	8.734	1.00	12.75
ATOM	4083	CA	ILE	B	720	23.195	37.487	9.284	1.00	12.97
ATOM	4084	CB	ILE	B	720	22.808	38.783	8.518	1.00	13.30
ATOM	4085	CG2	ILE	B	720	21.420	39.265	8.949	1.00	13.21
ATOM	4086	CG1	ILE	B	720	23.852	39.865	8.803	1.00	12.94
ATOM	4087	CD1	ILE	B	720	23.631	41.175	8.063	1.00	13.15
ATOM	4088	C	ILE	B	720	22.054	36.466	9.242	1.00	13.69
ATOM	4089	O	ILE	B	720	21.285	36.351	10.199	1.00	11.86
ATOM	4090	N	LEU	B	721	21.951	35.710	8.149	1.00	12.58
ATOM	4091	CA	LEU	B	721	20.895	34.700	8.042	1.00	13.12
ATOM	4092	CB	LEU	B	721	20.918	34.015	6.671	1.00	13.14
ATOM	4093	CG	LEU	B	721	20.392	34.820	5.475	1.00	13.44
ATOM	4094	CD1	LEU	B	721	20.375	33.937	4.232	1.00	13.76
ATOM	4095	CD2	LEU	B	721	18.997	35.338	5.780	1.00	13.37
ATOM	4096	C	LEU	B	721	21.066	33.648	9.133	1.00	13.16
ATOM	4097	O	LEU	B	721	20.089	33.141	9.685	1.00	12.98
ATOM	4098	N	ALA	B	722	22.318	33.340	9.440	1.00	12.64
ATOM	4099	CA	ALA	B	722	22.654	32.353	10.460	1.00	12.92
ATOM	4100	CB	ALA	B	722	24.171	32.240	10.575	1.00	13.38
ATOM	4101	C	ALA	B	722	22.055	32.670	11.835	1.00	13.68
ATOM	4102	O	ALA	B	722	21.928	31.777	12.684	1.00	12.27
ATOM	4103	N	THR	B	723	21.707	33.935	12.063	1.00	13.25
ATOM	4104	CA	THR	B	723	21.136	34.337	13.344	1.00	13.02
ATOM	4105	CB	THR	B	723	21.313	35.854	13.621	1.00	13.77
ATOM	4106	OG1	THR	B	723	20.696	36.624	12.584	1.00	11.75
ATOM	4107	CG2	THR	B	723	22.793	36.198	13.689	1.00	13.21
ATOM	4108	C	THR	B	723	19.669	33.950	13.484	1.00	13.59
ATOM	4109	O	THR	B	723	19.046	34.210	14.514	1.00	12.71
ATOM	4110	N	ASP	B	724	19.116	33.334	12.442	1.00	12.63
ATOM	4111	CA	ASP	B	724	17.746	32.838	12.508	1.00	13.34
ATOM	4112	CB	ASP	B	724	17.212	32.551	11.106	1.00	13.09
ATOM	4113	CG	ASP	B	724	15.847	31.890	11.124	1.00	13.35
ATOM	4114	OD1	ASP	B	724	15.304	31.661	12.223	1.00	12.38
ATOM	4115	OD2	ASP	B	724	15.321	31.596	10.036	1.00	12.60
ATOM	4116	C	ASP	B	724	17.901	31.521	13.272	1.00	13.38
ATOM	4117	O	ASP	B	724	18.506	30.585	12.761	1.00	12.46
ATOM	4118	N	LEU	B	725	17.380	31.447	14.493	1.00	12.89
ATOM	4119	CA	LEU	B	725	17.528	30.226	15.276	1.00	12.70
ATOM	4120	CB	LEU	B	725	16.807	30.351	16.617	1.00	13.35
ATOM	4121	CG	LEU	B	725	17.664	30.962	17.730	1.00	14.12
ATOM	4122	CD1	LEU	B	725	16.816	31.200	18.976	1.00	13.94
ATOM	4123	CD2	LEU	B	725	18.824	30.006	18.042	1.00	13.56
ATOM	4124	C	LEU	B	725	17.070	28.963	14.562	1.00	13.47
ATOM	4125	O	LEU	B	725	17.549	27.874	14.866	1.00	12.95
ATOM	4126	N	ALA	B	726	16.151	29.103	13.611	1.00	13.36
ATOM	4127	CA	ALA	B	726	15.673	27.943	12.869	1.00	12.85
ATOM	4128	CB	ALA	B	726	14.509	28.330	11.983	1.00	13.66
ATOM	4129	C	ALA	B	726	16.793	27.342	12.027	1.00	13.77
ATOM	4130	O	ALA	B	726	16.843	26.128	11.831	1.00	12.87
ATOM	4131	N	LEU	B	727	17.685	28.195	11.528	1.00	13.04
ATOM	4132	CA	LEU	B	727	18.815	27.739	10.727	1.00	13.21
ATOM	4133	CB	LEU	B	727	19.392	28.917	9.935	1.00	13.72
ATOM	4134	CG	LEU	B	727	19.002	28.998	8.452	1.00	14.13
ATOM	4135	CD1	LEU	B	727	17.602	28.486	8.227	1.00	13.58
ATOM	4136	CD2	LEU	B	727	19.160	30.420	7.949	1.00	13.13
ATOM	4137	C	LEU	B	727	19.883	27.116	11.631	1.00	13.90
ATOM	4138	O	LEU	B	727	20.600	26.204	11.225	1.00	13.32
ATOM	4139	N	TYR	B	728	20.000	27.622	12.854	1.00	13.00
ATOM	4140	CA	TYR	B	728	20.968	27.064	13.790	1.00	13.38
ATOM	4141	CB	TYR	B	728	21.029	27.907	15.065	1.00	13.58
ATOM	4142	CG	TYR	B	728	21.601	27.179	16.264	1.00	13.51
ATOM	4143	CD1	TYR	B	728	20.765	26.714	17.280	1.00	13.41
ATOM	4144	CE1	TYR	B	728	21.273	26.038	18.388	1.00	13.76

ATOM	4145	CD2	TYR	B	728	22.973	26.947	16.385	1.00	13.53
ATOM	4146	CE2	TYR	B	728	23.493	26.265	17.497	1.00	13.50
ATOM	4147	CZ	TYR	B	728	22.630	25.817	18.494	1.00	14.01
ATOM	4148	OH	TYR	B	728	23.097	25.160	19.620	1.00	13.69
ATOM	4149	C	TYR	B	728	20.530	25.643	14.124	1.00	13.41
ATOM	4150	O	TYR	B	728	21.335	24.716	14.124	1.00	13.36
ATOM	4151	N	ILE	B	729	19.238	25.483	14.384	1.00	13.40
ATOM	4152	CA	ILE	B	729	18.678	24.183	14.726	1.00	13.71
ATOM	4153	CB	ILE	B	729	17.190	24.320	15.113	1.00	13.55
ATOM	4154	CG2	ILE	B	729	16.488	22.961	15.044	1.00	13.63
ATOM	4155	CG1	ILE	B	729	17.093	24.913	16.521	1.00	13.08
ATOM	4156	CD1	ILE	B	729	15.713	25.396	16.887	1.00	14.19
ATOM	4157	C	ILE	B	729	18.830	23.200	13.568	1.00	13.34
ATOM	4158	O	ILE	B	729	19.141	22.026	13.775	1.00	13.90
ATOM	4159	N	LYS	B	730	18.624	23.691	12.353	1.00	13.29
ATOM	4160	CA	LYS	B	730	18.734	22.855	11.165	1.00	13.31
ATOM	4161	CB	LYS	B	730	18.249	23.635	9.938	1.00	13.53
ATOM	4162	CG	LYS	B	730	18.406	22.889	8.620	1.00	13.61
ATOM	4163	CD	LYS	B	730	18.116	23.800	7.436	1.00	14.33
ATOM	4164	CE	LYS	B	730	18.443	23.116	6.117	1.00	14.07
ATOM	4165	NZ	LYS	B	730	18.049	23.954	4.959	1.00	14.93
ATOM	4166	C	LYS	B	730	20.144	22.317	10.890	1.00	13.68
ATOM	4167	O	LYS	B	730	20.298	21.184	10.426	1.00	13.95
ATOM	4168	N	ARG	B	731	21.166	23.111	11.199	1.00	13.24
ATOM	4169	CA	ARG	B	731	22.542	22.708	10.912	1.00	13.48
ATOM	4170	CB	ARG	B	731	23.210	23.807	10.092	1.00	13.75
ATOM	4171	CG	ARG	B	731	22.410	24.214	8.873	1.00	13.71
ATOM	4172	CD	ARG	B	731	23.135	25.278	8.099	1.00	13.72
ATOM	4173	NE	ARG	B	731	24.336	24.760	7.457	1.00	14.51
ATOM	4174	CZ	ARG	B	731	25.287	25.530	6.944	1.00	13.89
ATOM	4175	NH1	ARG	B	731	25.175	26.852	7.007	1.00	14.13
ATOM	4176	NH2	ARG	B	731	26.336	24.983	6.354	1.00	14.43
ATOM	4177	C	ARG	B	731	23.461	22.335	12.069	1.00	13.25
ATOM	4178	O	ARG	B	731	24.565	21.823	11.847	1.00	13.58
ATOM	4179	N	ARG	B	732	23.032	22.581	13.300	1.00	13.68
ATOM	4180	CA	ARG	B	732	23.881	22.277	14.441	1.00	13.55
ATOM	4181	CB	ARG	B	732	23.204	22.718	15.740	1.00	13.09
ATOM	4182	CG	ARG	B	732	21.909	21.998	16.071	1.00	13.77
ATOM	4183	CD	ARG	B	732	21.443	22.482	17.426	1.00	13.49
ATOM	4184	NE	ARG	B	732	20.243	21.832	17.941	1.00	14.31
ATOM	4185	CZ	ARG	B	732	19.847	21.962	19.206	1.00	14.02
ATOM	4186	NH1	ARG	B	732	20.565	22.703	20.040	1.00	14.57
ATOM	4187	NH2	ARG	B	732	18.748	21.367	19.640	1.00	14.95
ATOM	4188	C	ARG	B	732	24.305	20.814	14.551	1.00	13.44
ATOM	4189	O	ARG	B	732	25.428	20.529	14.964	1.00	13.45
ATOM	4190	N	GLY	B	733	23.419	19.892	14.185	1.00	13.34
ATOM	4191	CA	GLY	B	733	23.764	18.483	14.273	1.00	13.83
ATOM	4192	C	GLY	B	733	25.018	18.167	13.480	1.00	13.89
ATOM	4193	O	GLY	B	733	25.916	17.459	13.950	1.00	13.26
ATOM	4194	N	GLU	B	734	25.079	18.695	12.266	1.00	13.22
ATOM	4195	CA	GLU	B	734	26.227	18.477	11.397	1.00	13.75
ATOM	4196	CB	GLU	B	734	26.012	19.210	10.074	1.00	13.57
ATOM	4197	CG	GLU	B	734	26.991	18.828	8.986	1.00	13.89
ATOM	4198	CD	GLU	B	734	26.855	19.701	7.752	1.00	13.61
ATOM	4199	OE1	GLU	B	734	25.712	20.007	7.351	1.00	14.18
ATOM	4200	OE2	GLU	B	734	27.896	20.069	7.177	1.00	14.26
ATOM	4201	C	GLU	B	734	27.508	18.980	12.062	1.00	13.34
ATOM	4202	O	GLU	B	734	28.537	18.301	12.054	1.00	14.37
ATOM	4203	N	PHE	B	735	27.438	20.180	12.629	1.00	13.79
ATOM	4204	CA	PHE	B	735	28.583	20.794	13.298	1.00	13.54
ATOM	4205	CB	PHE	B	735	28.197	22.198	13.785	1.00	13.25
ATOM	4206	CG	PHE	B	735	29.300	22.930	14.502	1.00	14.04
ATOM	4207	CD1	PHE	B	735	30.510	23.194	13.871	1.00	13.45
ATOM	4208	CD2	PHE	B	735	29.116	23.379	15.810	1.00	13.42
ATOM	4209	CE1	PHE	B	735	31.523	23.896	14.530	1.00	13.94
ATOM	4210	CE2	PHE	B	735	30.119	24.081	16.477	1.00	13.56

ATOM	4211	CZ	PHE	B	735	31.326	24.340	15.837	1.00	13.77
ATOM	4212	C	PHE	B	735	29.050	19.941	14.478	1.00	13.54
ATOM	4213	O	PHE	B	735	30.224	19.606	14.587	1.00	12.36
ATOM	4214	N	PHE	B	736	28.116	19.589	15.353	1.00	13.33
ATOM	4215	CA	PHE	B	736	28.424	18.787	16.525	1.00	13.65
ATOM	4216	CB	PHE	B	736	27.148	18.542	17.333	1.00	13.52
ATOM	4217	CG	PHE	B	736	26.546	19.794	17.916	1.00	13.44
ATOM	4218	CD1	PHE	B	736	25.235	19.794	18.369	1.00	14.11
ATOM	4219	CD2	PHE	B	736	27.295	20.963	18.028	1.00	13.60
ATOM	4220	CE1	PHE	B	736	24.668	20.937	18.927	1.00	13.49
ATOM	4221	CE2	PHE	B	736	26.741	22.118	18.585	1.00	13.72
ATOM	4222	CZ	PHE	B	736	25.421	22.103	19.036	1.00	13.34
ATOM	4223	C	PHE	B	736	29.085	17.456	16.169	1.00	13.72
ATOM	4224	O	PHE	B	736	30.023	17.031	16.841	1.00	14.16
ATOM	4225	N	GLU	B	737	28.608	16.810	15.107	1.00	13.50
ATOM	4226	CA	GLU	B	737	29.173	15.529	14.677	1.00	13.89
ATOM	4227	CB	GLU	B	737	28.285	14.889	13.605	1.00	13.68
ATOM	4228	CG	GLU	B	737	26.871	14.587	14.067	1.00	14.68
ATOM	4229	CD	GLU	B	737	26.809	13.543	15.165	1.00	13.97
ATOM	4230	OE1	GLU	B	737	25.729	13.408	15.784	1.00	15.48
ATOM	4231	OE2	GLU	B	737	27.827	12.847	15.405	1.00	15.54
ATOM	4232	C	GLU	B	737	30.600	15.662	14.150	1.00	14.23
ATOM	4233	O	GLU	B	737	31.468	14.840	14.472	1.00	14.53
ATOM	4234	N	LEU	B	738	30.852	16.688	13.339	1.00	13.70
ATOM	4235	CA	LEU	B	738	32.188	16.916	12.795	1.00	13.56
ATOM	4236	CB	LEU	B	738	32.204	18.182	11.936	1.00	13.76
ATOM	4237	CG	LEU	B	738	31.742	18.097	10.479	1.00	13.84
ATOM	4238	CD1	LEU	B	738	30.473	17.265	10.353	1.00	14.10
ATOM	4239	CD2	LEU	B	738	31.539	19.518	9.958	1.00	13.46
ATOM	4240	C	LEU	B	738	33.163	17.082	13.950	1.00	14.06
ATOM	4241	O	LEU	B	738	34.316	16.650	13.878	1.00	14.16
ATOM	4242	N	ILE	B	739	32.679	17.721	15.010	1.00	13.44
ATOM	4243	CA	ILE	B	739	33.456	17.985	16.212	1.00	14.03
ATOM	4244	CB	ILE	B	739	32.709	18.998	17.109	1.00	14.08
ATOM	4245	CG2	ILE	B	739	33.365	19.093	18.476	1.00	13.73
ATOM	4246	CG1	ILE	B	739	32.662	20.359	16.418	1.00	14.04
ATOM	4247	CD1	ILE	B	739	34.016	20.961	16.165	1.00	14.03
ATOM	4248	C	ILE	B	739	33.730	16.713	17.014	1.00	13.82
ATOM	4249	O	ILE	B	739	34.866	16.458	17.437	1.00	14.46
ATOM	4250	N	ARG	B	740	32.686	15.928	17.227	1.00	14.00
ATOM	4251	CA	ARG	B	740	32.799	14.682	17.982	1.00	13.71
ATOM	4252	CB	ARG	B	740	31.436	13.992	18.035	1.00	14.28
ATOM	4253	CG	ARG	B	740	31.387	12.784	18.953	1.00	13.89
ATOM	4254	CD	ARG	B	740	29.959	12.270	19.081	1.00	13.73
ATOM	4255	NE	ARG	B	740	29.437	11.782	17.807	1.00	14.23
ATOM	4256	CZ	ARG	B	740	29.842	10.663	17.214	1.00	14.03
ATOM	4257	NH1	ARG	B	740	30.773	9.917	17.785	1.00	14.73
ATOM	4258	NH2	ARG	B	740	29.318	10.290	16.049	1.00	14.80
ATOM	4259	C	ARG	B	740	33.833	13.749	17.358	1.00	13.99
ATOM	4260	O	ARG	B	740	34.650	13.141	18.066	1.00	14.20
ATOM	4261	N	LYS	B	741	33.809	13.630	16.036	1.00	13.89
ATOM	4262	CA	LYS	B	741	34.760	12.756	15.365	1.00	14.02
ATOM	4263	CB	LYS	B	741	34.143	12.174	14.090	1.00	13.73
ATOM	4264	CG	LYS	B	741	33.402	13.171	13.233	1.00	14.54
ATOM	4265	CD	LYS	B	741	32.368	12.459	12.368	1.00	14.39
ATOM	4266	CE	LYS	B	741	31.305	11.772	13.216	1.00	14.40
ATOM	4267	NZ	LYS	B	741	30.217	11.147	12.397	1.00	14.83
ATOM	4268	C	LYS	B	741	36.105	13.410	15.071	1.00	13.88
ATOM	4269	O	LYS	B	741	36.947	12.835	14.379	1.00	15.31
ATOM	4270	N	ASN	B	742	36.316	14.607	15.608	1.00	13.91
ATOM	4271	CA	ASN	B	742	37.589	15.295	15.419	1.00	13.43
ATOM	4272	CB	ASN	B	742	38.674	14.497	16.165	1.00	13.67
ATOM	4273	CG	ASN	B	742	40.017	15.197	16.200	1.00	13.56
ATOM	4274	OD1	ASN	B	742	40.112	16.373	16.562	1.00	15.50
ATOM	4275	ND2	ASN	B	742	41.075	14.466	15.845	1.00	14.84
ATOM	4276	C	ASN	B	742	37.940	15.450	13.932	1.00	13.87

ATOM	4277	O	ASN	B	742	39.116	15.400	13.556	1.00	14.39
ATOM	4278	N	GLN	B	743	36.919	15.662	13.097	1.00	14.47
ATOM	4279	CA	GLN	B	743	37.094	15.832	11.650	1.00	13.86
ATOM	4280	CB	GLN	B	743	36.183	14.880	10.874	1.00	14.21
ATOM	4281	CG	GLN	B	743	34.697	15.192	10.968	1.00	14.42
ATOM	4282	CD	GLN	B	743	33.859	14.224	10.153	1.00	14.03
ATOM	4283	OE1	GLN	B	743	34.300	13.117	9.853	1.00	15.73
ATOM	4284	NE2	GLN	B	743	32.641	14.629	9.809	1.00	14.94
ATOM	4285	C	GLN	B	743	36.788	17.259	11.211	1.00	13.70
ATOM	4286	O	GLN	B	743	36.678	17.550	10.017	1.00	14.63
ATOM	4287	N	PHE	B	744	36.636	18.141	12.185	1.00	14.37
ATOM	4288	CA	PHE	B	744	36.349	19.538	11.908	1.00	13.98
ATOM	4289	CB	PHE	B	744	35.997	20.263	13.207	1.00	13.86
ATOM	4290	CG	PHE	B	744	35.691	21.716	13.018	1.00	13.94
ATOM	4291	CD1	PHE	B	744	34.687	22.119	12.143	1.00	13.71
ATOM	4292	CD2	PHE	B	744	36.411	22.685	13.708	1.00	14.18
ATOM	4293	CE1	PHE	B	744	34.407	23.468	11.957	1.00	14.33
ATOM	4294	CE2	PHE	B	744	36.133	24.037	13.528	1.00	13.98
ATOM	4295	CZ	PHE	B	744	35.133	24.426	12.653	1.00	13.79
ATOM	4296	C	PHE	B	744	37.572	20.164	11.251	1.00	13.87
ATOM	4297	O	PHE	B	744	38.663	20.202	11.836	1.00	14.82
ATOM	4298	N	ASN	B	745	37.385	20.653	10.028	1.00	13.92
ATOM	4299	CA	ASN	B	745	38.479	21.257	9.276	1.00	13.62
ATOM	4300	CB	ASN	B	745	38.962	20.271	8.209	1.00	14.10
ATOM	4301	CG	ASN	B	745	39.937	20.896	7.237	1.00	13.65
ATOM	4302	OD1	ASN	B	745	40.695	21.802	7.597	1.00	14.87
ATOM	4303	ND2	ASN	B	745	39.934	20.408	5.999	1.00	14.55
ATOM	4304	C	ASN	B	745	38.081	22.578	8.630	1.00	13.74
ATOM	4305	O	ASN	B	745	37.365	22.607	7.623	1.00	13.53
ATOM	4306	N	LEU	B	746	38.551	23.674	9.219	1.00	13.71
ATOM	4307	CA	LEU	B	746	38.234	25.000	8.705	1.00	13.76
ATOM	4308	CB	LEU	B	746	38.689	26.078	9.697	1.00	13.78
ATOM	4309	CG	LEU	B	746	37.834	26.212	10.965	1.00	13.66
ATOM	4310	CD1	LEU	B	746	38.490	27.198	11.925	1.00	13.73
ATOM	4311	CD2	LEU	B	746	36.423	26.680	10.589	1.00	13.26
ATOM	4312	C	LEU	B	746	38.817	25.277	7.325	1.00	13.83
ATOM	4313	O	LEU	B	746	38.511	26.299	6.715	1.00	14.47
ATOM	4314	N	GLU	B	747	39.645	24.367	6.822	1.00	13.87
ATOM	4315	CA	GLU	B	747	40.229	24.557	5.501	1.00	14.01
ATOM	4316	CB	GLU	B	747	41.409	23.618	5.308	1.00	13.78
ATOM	4317	CG	GLU	B	747	42.573	23.926	6.215	1.00	13.92
ATOM	4318	CD	GLU	B	747	43.759	23.060	5.905	1.00	13.97
ATOM	4319	OE1	GLU	B	747	44.123	22.993	4.714	1.00	15.61
ATOM	4320	OE2	GLU	B	747	44.321	22.451	6.842	1.00	15.32
ATOM	4321	C	GLU	B	747	39.180	24.290	4.433	1.00	13.29
ATOM	4322	O	GLU	B	747	39.282	24.771	3.304	1.00	14.07
ATOM	4323	N	ASP	B	748	38.166	23.513	4.803	1.00	13.96
ATOM	4324	CA	ASP	B	748	37.084	23.191	3.887	1.00	13.92
ATOM	4325	CB	ASP	B	748	36.391	21.894	4.321	1.00	13.77
ATOM	4326	CG	ASP	B	748	35.189	21.563	3.462	1.00	13.81
ATOM	4327	OD1	ASP	B	748	34.054	21.867	3.882	1.00	14.62
ATOM	4328	OD2	ASP	B	748	35.375	21.003	2.359	1.00	15.35
ATOM	4329	C	ASP	B	748	36.095	24.356	3.887	1.00	13.51
ATOM	4330	O	ASP	B	748	35.579	24.735	4.935	1.00	13.66
ATOM	4331	N	PRO	B	749	35.822	24.937	2.708	1.00	13.79
ATOM	4332	CD	PRO	B	749	36.168	24.378	1.389	1.00	13.93
ATOM	4333	CA	PRO	B	749	34.898	26.069	2.558	1.00	13.95
ATOM	4334	CB	PRO	B	749	34.764	26.208	1.042	1.00	13.88
ATOM	4335	CG	PRO	B	749	34.981	24.789	0.562	1.00	14.39
ATOM	4336	C	PRO	B	749	33.559	25.831	3.235	1.00	13.32
ATOM	4337	O	PRO	B	749	33.039	26.695	3.943	1.00	14.05
ATOM	4338	N	HIS	B	750	33.010	24.644	3.020	1.00	14.05
ATOM	4339	CA	HIS	B	750	31.728	24.279	3.590	1.00	12.91
ATOM	4340	CB	HIS	B	750	31.330	22.889	3.088	1.00	13.72
ATOM	4341	CG	HIS	B	750	29.984	22.446	3.556	1.00	13.46
ATOM	4342	CD2	HIS	B	750	28.744	22.735	3.097	1.00	13.84

ATOM	4343	ND1	HIS	B	750	29.808	21.633	4.656	1.00	14.16
ATOM	4344	CE1	HIS	B	750	28.516	21.443	4.854	1.00	13.52
ATOM	4345	NE2	HIS	B	750	27.850	22.102	3.924	1.00	14.31
ATOM	4346	C	HIS	B	750	31.747	24.320	5.118	1.00	13.46
ATOM	4347	O	HIS	B	750	30.873	24.923	5.742	1.00	12.90
ATOM	4348	N	GLU	B	751	32.751	23.697	5.724	1.00	13.27
ATOM	4349	CA	GLU	B	751	32.840	23.688	7.179	1.00	13.47
ATOM	4350	CB	GLU	B	751	33.910	22.699	7.641	1.00	13.35
ATOM	4351	CG	GLU	B	751	33.526	21.253	7.405	1.00	13.83
ATOM	4352	CD	GLU	B	751	34.504	20.293	8.035	1.00	13.30
ATOM	4353	OE1	GLU	B	751	34.840	20.487	9.219	1.00	15.77
ATOM	4354	OE2	GLU	B	751	34.927	19.339	7.350	1.00	15.78
ATOM	4355	C	GLU	B	751	33.131	25.075	7.749	1.00	13.47
ATOM	4356	O	GLU	B	751	32.713	25.394	8.862	1.00	13.29
ATOM	4357	N	LYS	B	752	33.847	25.894	6.989	1.00	12.92
ATOM	4358	CA	LYS	B	752	34.166	27.247	7.426	1.00	13.81
ATOM	4359	CB	LYS	B	752	35.129	27.915	6.432	1.00	13.59
ATOM	4360	CG	LYS	B	752	35.355	29.414	6.657	1.00	13.56
ATOM	4361	CD	LYS	B	752	36.021	29.733	7.999	1.00	13.42
ATOM	4362	CE	LYS	B	752	37.491	29.327	8.025	1.00	13.46
ATOM	4363	NZ	LYS	B	752	38.290	30.076	7.000	1.00	13.63
ATOM	4364	C	LYS	B	752	32.873	28.049	7.534	1.00	13.74
ATOM	4365	O	LYS	B	752	32.636	28.722	8.531	1.00	13.14
ATOM	4366	N	GLU	B	753	32.031	27.961	6.508	1.00	13.30
ATOM	4367	CA	GLU	B	753	30.759	28.684	6.508	1.00	12.99
ATOM	4368	CB	GLU	B	753	30.034	28.475	5.181	1.00	13.90
ATOM	4369	CG	GLU	B	753	28.702	29.199	5.082	1.00	13.81
ATOM	4370	CD	GLU	B	753	27.704	28.442	4.220	1.00	14.47
ATOM	4371	OE1	GLU	B	753	27.273	27.340	4.635	1.00	15.51
ATOM	4372	OE2	GLU	B	753	27.355	28.938	3.128	1.00	15.24
ATOM	4373	C	GLU	B	753	29.881	28.197	7.658	1.00	13.82
ATOM	4374	O	GLU	B	753	29.220	28.992	8.334	1.00	13.27
ATOM	4375	N	LEU	B	754	29.871	26.884	7.860	1.00	12.82
ATOM	4376	CA	LEU	B	754	29.100	26.280	8.938	1.00	13.40
ATOM	4377	CB	LEU	B	754	29.282	24.757	8.927	1.00	13.35
ATOM	4378	CG	LEU	B	754	28.567	23.951	10.014	1.00	13.53
ATOM	4379	CD1	LEU	B	754	27.068	24.230	9.994	1.00	13.51
ATOM	4380	CD2	LEU	B	754	28.856	22.470	9.788	1.00	13.60
ATOM	4381	C	LEU	B	754	29.579	26.840	10.267	1.00	13.55
ATOM	4382	O	LEU	B	754	28.777	27.246	11.111	1.00	13.35
ATOM	4383	N	PHE	B	755	30.894	26.860	10.456	1.00	13.26
ATOM	4384	CA	PHE	B	755	31.454	27.374	11.692	1.00	13.30
ATOM	4385	CB	PHE	B	755	32.976	27.241	11.702	1.00	13.45
ATOM	4386	CG	PHE	B	755	33.617	27.911	12.873	1.00	13.23
ATOM	4387	CD1	PHE	B	755	33.388	27.444	14.160	1.00	13.93
ATOM	4388	CD2	PHE	B	755	34.407	29.036	12.699	1.00	13.59
ATOM	4389	CE1	PHE	B	755	33.936	28.092	15.259	1.00	13.56
ATOM	4390	CE2	PHE	B	755	34.960	29.694	13.798	1.00	13.37
ATOM	4391	CZ	PHE	B	755	34.723	29.220	15.077	1.00	13.61
ATOM	4392	C	PHE	B	755	31.079	28.832	11.918	1.00	13.49
ATOM	4393	O	PHE	B	755	30.685	29.212	13.015	1.00	12.82
ATOM	4394	N	LEU	B	756	31.211	29.654	10.884	1.00	13.02
ATOM	4395	CA	LEU	B	756	30.875	31.064	11.028	1.00	13.23
ATOM	4396	CB	LEU	B	756	31.164	31.810	9.719	1.00	13.05
ATOM	4397	CG	LEU	B	756	32.652	31.839	9.349	1.00	13.78
ATOM	4398	CD1	LEU	B	756	32.849	32.454	7.975	1.00	13.46
ATOM	4399	CD2	LEU	B	756	33.407	32.630	10.411	1.00	13.54
ATOM	4400	C	LEU	B	756	29.409	31.229	11.432	1.00	13.73
ATOM	4401	O	LEU	B	756	29.061	32.140	12.175	1.00	12.67
ATOM	4402	N	ALA	B	757	28.551	30.341	10.947	1.00	13.05
ATOM	4403	CA	ALA	B	757	27.139	30.420	11.288	1.00	13.56
ATOM	4404	CB	ALA	B	757	26.349	29.435	10.459	1.00	12.99
ATOM	4405	C	ALA	B	757	26.957	30.121	12.767	1.00	13.19
ATOM	4406	O	ALA	B	757	26.185	30.781	13.450	1.00	12.62
ATOM	4407	N	MET	B	758	27.668	29.112	13.256	1.00	12.69
ATOM	4408	CA	MET	B	758	27.578	28.731	14.660	1.00	12.99

ATOM	4409	CB	MET	B	758	28.338	27.423	14.898	1.00 13.30
ATOM	4410	CG	MET	B	758	27.845	26.244	14.067	1.00 13.40
ATOM	4411	SD	MET	B	758	26.240	25.651	14.615	1.00 12.72
ATOM	4412	CE	MET	B	758	25.217	26.101	13.215	1.00 13.37
ATOM	4413	C	MET	B	758	28.150	29.828	15.559	1.00 13.50
ATOM	4414	O	MET	B	758	27.638	30.088	16.654	1.00 12.19
ATOM	4415	N	LEU	B	759	29.213	30.476	15.094	1.00 13.30
ATOM	4416	CA	LEU	B	759	29.832	31.537	15.874	1.00 13.04
ATOM	4417	CB	LEU	B	759	31.137	31.997	15.216	1.00 13.37
ATOM	4418	CG	LEU	B	759	31.963	33.086	15.913	1.00 13.42
ATOM	4419	CD1	LEU	B	759	32.296	32.676	17.343	1.00 13.56
ATOM	4420	CD2	LEU	B	759	33.244	33.331	15.125	1.00 12.91
ATOM	4421	C	LEU	B	759	28.864	32.699	16.007	1.00 13.37
ATOM	4422	O	LEU	B	759	28.763	33.306	17.070	1.00 13.06
ATOM	4423	N	MET	B	760	28.149	33.012	14.930	1.00 12.74
ATOM	4424	CA	MET	B	760	27.178	34.104	14.983	1.00 12.84
ATOM	4425	CB	MET	B	760	26.525	34.315	13.612	1.00 13.23
ATOM	4426	CG	MET	B	760	27.432	34.997	12.598	1.00 13.09
ATOM	4427	SD	MET	B	760	27.858	36.692	13.053	1.00 8.80
ATOM	4428	CE	MET	B	760	28.638	37.260	11.617	1.00 14.74
ATOM	4429	C	MET	B	760	26.110	33.798	16.032	1.00 13.64
ATOM	4430	O	MET	B	760	25.730	34.672	16.810	1.00 12.64
ATOM	4431	N	THR	B	761	25.641	32.552	16.064	1.00 12.98
ATOM	4432	CA	THR	B	761	24.626	32.153	17.036	1.00 13.32
ATOM	4433	CB	THR	B	761	24.174	30.695	16.813	1.00 13.46
ATOM	4434	OG1	THR	B	761	23.623	30.574	15.502	1.00 11.91
ATOM	4435	CG2	THR	B	761	23.112	30.281	17.846	1.00 13.21
ATOM	4436	C	THR	B	761	25.200	32.267	18.441	1.00 13.55
ATOM	4437	O	THR	B	761	24.545	32.754	19.361	1.00 12.30
ATOM	4438	N	ALA	B	762	26.432	31.803	18.600	1.00 12.95
ATOM	4439	CA	ALA	B	762	27.089	31.865	19.899	1.00 13.08
ATOM	4440	CB	ALA	B	762	28.500	31.303	19.794	1.00 13.34
ATOM	4441	C	ALA	B	762	27.134	33.301	20.418	1.00 13.23
ATOM	4442	O	ALA	B	762	26.911	33.548	21.598	1.00 12.28
ATOM	4443	N	CYS	B	763	27.401	34.253	19.531	1.00 12.82
ATOM	4444	CA	CYS	B	763	27.477	35.654	19.936	1.00 12.72
ATOM	4445	CB	CYS	B	763	28.256	36.463	18.895	1.00 13.10
ATOM	4446	SG	CYS	B	763	30.023	36.059	18.838	1.00 11.08
ATOM	4447	C	CYS	B	763	26.092	36.256	20.139	1.00 13.88
ATOM	4448	O	CYS	B	763	25.874	37.057	21.048	1.00 12.47
ATOM	4449	N	ASP	B	764	25.160	35.855	19.286	1.00 12.53
ATOM	4450	CA	ASP	B	764	23.785	36.342	19.358	1.00 13.08
ATOM	4451	CB	ASP	B	764	22.982	35.722	18.220	1.00 13.46
ATOM	4452	CG	ASP	B	764	21.680	36.449	17.956	1.00 13.17
ATOM	4453	OD1	ASP	B	764	20.868	35.928	17.174	1.00 13.36
ATOM	4454	OD2	ASP	B	764	21.470	37.541	18.520	1.00 13.00
ATOM	4455	C	ASP	B	764	23.124	35.998	20.695	1.00 13.08
ATOM	4456	O	ASP	B	764	22.399	36.813	21.276	1.00 12.76
ATOM	4457	N	LEU	B	765	23.373	34.787	21.184	1.00 12.91
ATOM	4458	CA	LEU	B	765	22.771	34.340	22.436	1.00 13.09
ATOM	4459	CB	LEU	B	765	22.453	32.841	22.356	1.00 13.29
ATOM	4460	CG	LEU	B	765	21.696	32.320	21.137	1.00 13.56
ATOM	4461	CD1	LEU	B	765	21.464	30.816	21.288	1.00 13.22
ATOM	4462	CD2	LEU	B	765	20.380	33.063	20.996	1.00 13.40
ATOM	4463	C	LEU	B	765	23.627	34.568	23.676	1.00 13.54
ATOM	4464	O	LEU	B	765	23.225	34.177	24.775	1.00 12.44
ATOM	4465	N	SER	B	766	24.779	35.212	23.508	1.00 13.19
ATOM	4466	CA	SER	B	766	25.718	35.405	24.611	1.00 13.13
ATOM	4467	CB	SER	B	766	26.992	36.079	24.099	1.00 13.87
ATOM	4468	OG	SER	B	766	26.711	37.365	23.602	1.00 13.86
ATOM	4469	C	SER	B	766	25.274	36.091	25.899	1.00 13.52
ATOM	4470	O	SER	B	766	26.013	36.075	26.877	1.00 12.55
ATOM	4471	N	ALA	B	767	24.093	36.695	25.935	1.00 13.24
ATOM	4472	CA	ALA	B	767	23.679	37.309	27.189	1.00 12.99
ATOM	4473	CB	ALA	B	767	22.357	38.062	27.009	1.00 13.16
ATOM	4474	C	ALA	B	767	23.509	36.183	28.219	1.00 13.66

ATOM	4475	O	ALA	B	767	23.619	36.400	29.429	1.00 12.34
ATOM	4476	N	ILE	B	768	23.263	34.975	27.719	1.00 13.01
ATOM	4477	CA	ILE	B	768	23.045	33.812	28.571	1.00 13.46
ATOM	4478	CB	ILE	B	768	22.448	32.641	27.750	1.00 13.09
ATOM	4479	CG2	ILE	B	768	23.553	31.910	26.991	1.00 13.45
ATOM	4480	CG1	ILE	B	768	21.678	31.700	28.675	1.00 13.04
ATOM	4481	CD1	ILE	B	768	20.451	32.350	29.292	1.00 13.92
ATOM	4482	C	ILE	B	768	24.323	33.328	29.255	1.00 13.85
ATOM	4483	O	ILE	B	768	24.287	32.408	30.076	1.00 13.61
ATOM	4484	N	THR	B	769	25.442	33.960	28.919	1.00 13.29
ATOM	4485	CA	THR	B	769	26.745	33.591	29.467	1.00 13.73
ATOM	4486	CB	THR	B	769	27.797	33.471	28.350	1.00 13.21
ATOM	4487	OG1	THR	B	769	28.158	34.787	27.906	1.00 12.68
ATOM	4488	CG2	THR	B	769	27.248	32.693	27.160	1.00 13.45
ATOM	4489	C	THR	B	769	27.266	34.647	30.437	1.00 13.09
ATOM	4490	O	THR	B	769	28.296	34.459	31.075	1.00 14.10
ATOM	4491	N	LYS	B	770	26.554	35.760	30.544	1.00 14.07
ATOM	4492	CA	LYS	B	770	26.989	36.855	31.400	1.00 13.23
ATOM	4493	CB	LYS	B	770	26.265	38.136	30.986	1.00 13.51
ATOM	4494	CG	LYS	B	770	26.522	38.532	29.549	1.00 13.04
ATOM	4495	CD	LYS	B	770	27.951	39.019	29.336	1.00 13.67
ATOM	4496	CE	LYS	B	770	28.142	39.520	27.912	1.00 13.64
ATOM	4497	NZ	LYS	B	770	29.438	40.235	27.736	1.00 13.29
ATOM	4498	C	LYS	B	770	26.782	36.625	32.889	1.00 13.39
ATOM	4499	O	LYS	B	770	26.047	35.726	33.297	1.00 14.22
ATOM	4500	N	PRO	B	771	27.471	37.421	33.725	1.00 13.45
ATOM	4501	CD	PRO	B	771	28.551	38.367	33.387	1.00 14.16
ATOM	4502	CA	PRO	B	771	27.325	37.284	35.175	1.00 13.62
ATOM	4503	CB	PRO	B	771	28.144	38.454	35.709	1.00 13.05
ATOM	4504	CG	PRO	B	771	29.272	38.530	34.712	1.00 13.60
ATOM	4505	C	PRO	B	771	25.831	37.408	35.482	1.00 13.65
ATOM	4506	O	PRO	B	771	25.106	38.115	34.776	1.00 13.86
ATOM	4507	N	TRP	B	772	25.373	36.720	36.521	1.00 13.39
ATOM	4508	CA	TRP	B	772	23.959	36.724	36.891	1.00 13.62
ATOM	4509	CB	TRP	B	772	23.783	36.084	38.269	1.00 13.68
ATOM	4510	CG	TRP	B	772	22.356	36.003	38.748	1.00 13.50
ATOM	4511	CD2	TRP	B	772	21.247	35.375	38.084	1.00 13.91
ATOM	4512	CE2	TRP	B	772	20.131	35.486	38.943	1.00 13.55
ATOM	4513	CE3	TRP	B	772	21.090	34.727	36.853	1.00 13.38
ATOM	4514	CD1	TRP	B	772	21.875	36.459	39.940	1.00 13.69
ATOM	4515	NE1	TRP	B	772	20.545	36.151	40.067	1.00 13.88
ATOM	4516	CZ2	TRP	B	772	18.872	34.973	38.610	1.00 13.72
ATOM	4517	CZ3	TRP	B	772	19.840	34.217	36.520	1.00 13.75
ATOM	4518	CH2	TRP	B	772	18.746	34.344	37.398	1.00 13.99
ATOM	4519	C	TRP	B	772	23.250	38.078	36.859	1.00 13.88
ATOM	4520	O	TRP	B	772	22.201	38.208	36.226	1.00 13.65
ATOM	4521	N	PRO	B	773	23.800	39.104	37.537	1.00 13.22
ATOM	4522	CD	PRO	B	773	25.069	39.175	38.281	1.00 13.90
ATOM	4523	CA	PRO	B	773	23.128	40.410	37.516	1.00 13.91
ATOM	4524	CB	PRO	B	773	24.069	41.306	38.335	1.00 13.97
ATOM	4525	CG	PRO	B	773	25.396	40.645	38.198	1.00 14.23
ATOM	4526	C	PRO	B	773	22.857	40.954	36.112	1.00 13.69
ATOM	4527	O	PRO	B	773	21.808	41.547	35.861	1.00 13.74
ATOM	4528	N	ILE	B	774	23.804	40.748	35.204	1.00 13.67
ATOM	4529	CA	ILE	B	774	23.659	41.190	33.823	1.00 13.43
ATOM	4530	CB	ILE	B	774	24.995	41.072	33.074	1.00 13.71
ATOM	4531	CG2	ILE	B	774	24.832	41.535	31.636	1.00 13.33
ATOM	4532	CG1	ILE	B	774	26.051	41.916	33.788	1.00 13.41
ATOM	4533	CD1	ILE	B	774	27.458	41.706	33.260	1.00 14.05
ATOM	4534	C	ILE	B	774	22.600	40.344	33.114	1.00 13.55
ATOM	4535	O	ILE	B	774	21.705	40.878	32.460	1.00 12.82
ATOM	4536	N	GLN	B	775	22.700	39.025	33.257	1.00 13.40
ATOM	4537	CA	GLN	B	775	21.738	38.112	32.635	1.00 13.26
ATOM	4538	CB	GLN	B	775	22.099	36.656	32.975	1.00 13.69
ATOM	4539	CG	GLN	B	775	20.929	35.668	32.948	1.00 13.15
ATOM	4540	CD	GLN	B	775	20.265	35.522	31.582	1.00 13.65

ATOM	4541	OE1	GLN	B	775	19.195	34.921	31.473	1.00 14.24
ATOM	4542	NE2	GLN	B	775	20.895	36.057	30.540	1.00 13.75
ATOM	4543	C	GLN	B	775	20.306	38.427	33.073	1.00 13.41
ATOM	4544	O	GLN	B	775	19.395	38.493	32.247	1.00 14.04
ATOM	4545	N	GLN	B	776	20.111	38.629	34.371	1.00 13.81
ATOM	4546	CA	GLN	B	776	18.794	38.944	34.900	1.00 13.49
ATOM	4547	CB	GLN	B	776	18.870	39.197	36.393	1.00 13.68
ATOM	4548	CG	GLN	B	776	18.894	37.962	37.234	1.00 14.29
ATOM	4549	CD	GLN	B	776	18.751	38.311	38.693	1.00 14.22
ATOM	4550	OE1	GLN	B	776	19.630	38.951	39.275	1.00 14.59
ATOM	4551	NE2	GLN	B	776	17.627	37.916	39.291	1.00 14.57
ATOM	4552	C	GLN	B	776	18.197	40.182	34.249	1.00 13.51
ATOM	4553	O	GLN	B	776	17.023	40.187	33.860	1.00 13.93
ATOM	4554	N	ARG	B	777	19.012	41.230	34.164	1.00 13.53
ATOM	4555	CA	ARG	B	777	18.600	42.495	33.583	1.00 13.16
ATOM	4556	CB	ARG	B	777	19.717	43.541	33.732	1.00 13.63
ATOM	4557	CG	ARG	B	777	19.320	44.939	33.240	1.00 13.79
ATOM	4558	CD	ARG	B	777	20.448	45.964	33.402	1.00 14.01
ATOM	4559	NE	ARG	B	777	21.567	45.740	32.488	1.00 13.71
ATOM	4560	CZ	ARG	B	777	21.513	45.920	31.171	1.00 13.46
ATOM	4561	NH1	ARG	B	777	20.391	46.338	30.594	1.00 14.44
ATOM	4562	NH2	ARG	B	777	22.581	45.672	30.425	1.00 14.48
ATOM	4563	C	ARG	B	777	18.219	42.346	32.117	1.00 13.73
ATOM	4564	O	ARG	B	777	17.218	42.909	31.674	1.00 13.77
ATOM	4565	N	ILE	B	778	19.014	41.590	31.365	1.00 13.63
ATOM	4566	CA	ILE	B	778	18.724	41.402	29.956	1.00 13.23
ATOM	4567	CB	ILE	B	778	19.931	40.805	29.207	1.00 13.97
ATOM	4568	CG2	ILE	B	778	19.572	40.579	27.732	1.00 13.38
ATOM	4569	CG1	ILE	B	778	21.117	41.763	29.308	1.00 13.61
ATOM	4570	CD1	ILE	B	778	22.382	41.247	28.664	1.00 14.08
ATOM	4571	C	ILE	B	778	17.511	40.502	29.786	1.00 14.00
ATOM	4572	O	ILE	B	778	16.666	40.753	28.928	1.00 13.06
ATOM	4573	N	ALA	B	779	17.416	39.465	30.615	1.00 12.73
ATOM	4574	CA	ALA	B	779	16.281	38.560	30.541	1.00 13.39
ATOM	4575	CB	ALA	B	779	16.408	37.454	31.596	1.00 13.54
ATOM	4576	C	ALA	B	779	14.999	39.353	30.753	1.00 13.98
ATOM	4577	O	ALA	B	779	13.962	39.023	30.186	1.00 13.49
ATOM	4578	N	GLU	B	780	15.073	40.404	31.567	1.00 12.76
ATOM	4579	CA	GLU	B	780	13.900	41.237	31.826	1.00 13.49
ATOM	4580	CB	GLU	B	780	14.173	42.211	32.978	1.00 13.68
ATOM	4581	CG	GLU	B	780	14.223	41.571	34.359	1.00 13.79
ATOM	4582	CD	GLU	B	780	14.655	42.553	35.454	1.00 14.11
ATOM	4583	OE1	GLU	B	780	14.498	42.231	36.656	1.00 15.37
ATOM	4584	OE2	GLU	B	780	15.163	43.647	35.119	1.00 15.85
ATOM	4585	C	GLU	B	780	13.488	42.015	30.576	1.00 13.50
ATOM	4586	O	GLU	B	780	12.300	42.245	30.342	1.00 14.10
ATOM	4587	N	LEU	B	781	14.465	42.424	29.774	1.00 13.23
ATOM	4588	CA	LEU	B	781	14.177	43.157	28.542	1.00 13.92
ATOM	4589	CB	LEU	B	781	15.454	43.773	27.980	1.00 13.37
ATOM	4590	CG	LEU	B	781	16.182	44.763	28.886	1.00 13.66
ATOM	4591	CD1	LEU	B	781	17.429	45.275	28.178	1.00 13.70
ATOM	4592	CD2	LEU	B	781	15.254	45.912	29.228	1.00 13.70
ATOM	4593	C	LEU	B	781	13.589	42.208	27.507	1.00 13.63
ATOM	4594	O	LEU	B	781	12.661	42.555	26.769	1.00 13.39
ATOM	4595	N	VAL	B	782	14.139	41.003	27.445	1.00 13.17
ATOM	4596	CA	VAL	B	782	13.645	40.025	26.496	1.00 13.22
ATOM	4597	CB	VAL	B	782	14.476	38.736	26.550	1.00 13.32
ATOM	4598	CG1	VAL	B	782	13.835	37.671	25.663	1.00 13.68
ATOM	4599	CG2	VAL	B	782	15.894	39.030	26.089	1.00 13.27
ATOM	4600	C	VAL	B	782	12.186	39.699	26.787	1.00 13.18
ATOM	4601	O	VAL	B	782	11.367	39.617	25.866	1.00 14.06
ATOM	4602	N	ALA	B	783	11.863	39.532	28.067	1.00 13.25
ATOM	4603	CA	ALA	B	783	10.495	39.217	28.476	1.00 13.26
ATOM	4604	CB	ALA	B	783	10.455	38.895	29.963	1.00 13.03
ATOM	4605	C	ALA	B	783	9.555	40.374	28.160	1.00 13.65
ATOM	4606	O	ALA	B	783	8.420	40.167	27.715	1.00 13.36

ATOM	4607	N	THR	B	784	10.024	41.594	28.396	1.00 12.89
ATOM	4608	CA	THR	B	784	9.210	42.768	28.116	1.00 13.18
ATOM	4609	CB	THR	B	784	9.957	44.061	28.446	1.00 13.65
ATOM	4610	OG1	THR	B	784	10.126	44.173	29.867	1.00 14.04
ATOM	4611	CG2	THR	B	784	9.172	45.270	27.928	1.00 13.53
ATOM	4612	C	THR	B	784	8.837	42.788	26.637	1.00 13.60
ATOM	4613	O	THR	B	784	7.684	43.036	26.282	1.00 13.21
ATOM	4614	N	GLU	B	785	9.815	42.513	25.776	1.00 12.95
ATOM	4615	CA	GLU	B	785	9.564	42.515	24.345	1.00 13.23
ATOM	4616	CB	GLU	B	785	10.880	42.406	23.563	1.00 13.34
ATOM	4617	CG	GLU	B	785	10.677	42.377	22.051	1.00 13.36
ATOM	4618	CD	GLU	B	785	11.962	42.528	21.260	1.00 13.65
ATOM	4619	OE1	GLU	B	785	12.034	41.959	20.148	1.00 12.05
ATOM	4620	OE2	GLU	B	785	12.887	43.222	21.738	1.00 12.88
ATOM	4621	C	GLU	B	785	8.612	41.392	23.942	1.00 13.21
ATOM	4622	O	GLU	B	785	7.673	41.620	23.181	1.00 13.20
ATOM	4623	N	PHE	B	786	8.855	40.187	24.452	1.00 13.83
ATOM	4624	CA	PHE	B	786	7.994	39.049	24.140	1.00 13.34
ATOM	4625	CB	PHE	B	786	8.529	37.761	24.778	1.00 13.26
ATOM	4626	CG	PHE	B	786	9.767	37.218	24.119	1.00 13.68
ATOM	4627	CD1	PHE	B	786	10.212	37.723	22.902	1.00 13.67
ATOM	4628	CD2	PHE	B	786	10.471	36.172	24.707	1.00 13.57
ATOM	4629	CE1	PHE	B	786	11.338	37.194	22.277	1.00 14.12
ATOM	4630	CE2	PHE	B	786	11.597	35.635	24.093	1.00 13.53
ATOM	4631	CZ	PHE	B	786	12.032	36.145	22.874	1.00 13.69
ATOM	4632	C	PHE	B	786	6.570	39.286	24.621	1.00 14.07
ATOM	4633	O	PHE	B	786	5.610	38.979	23.910	1.00 12.89
ATOM	4634	N	PHE	B	787	6.430	39.832	25.824	1.00 13.42
ATOM	4635	CA	PHE	B	787	5.097	40.089	26.353	1.00 13.53
ATOM	4636	CB	PHE	B	787	5.156	40.457	27.838	1.00 13.15
ATOM	4637	CG	PHE	B	787	5.585	39.318	28.736	1.00 13.34
ATOM	4638	CD1	PHE	B	787	5.481	37.993	28.319	1.00 13.08
ATOM	4639	CD2	PHE	B	787	6.063	39.576	30.013	1.00 13.33
ATOM	4640	CE1	PHE	B	787	5.848	36.949	29.166	1.00 13.59
ATOM	4641	CE2	PHE	B	787	6.428	38.542	30.863	1.00 13.88
ATOM	4642	CZ	PHE	B	787	6.323	37.229	30.445	1.00 13.52
ATOM	4643	C	PHE	B	787	4.397	41.188	25.562	1.00 13.69
ATOM	4644	O	PHE	B	787	3.165	41.214	25.472	1.00 12.98
ATOM	4645	N	ASP	B	788	5.176	42.097	24.983	1.00 13.20
ATOM	4646	CA	ASP	B	788	4.585	43.160	24.184	1.00 13.40
ATOM	4647	CB	ASP	B	788	5.651	44.198	23.809	1.00 13.03
ATOM	4648	CG	ASP	B	788	5.096	45.332	22.958	1.00 14.00
ATOM	4649	OD1	ASP	B	788	4.250	46.104	23.463	1.00 13.80
ATOM	4650	OD2	ASP	B	788	5.507	45.448	21.781	1.00 13.33
ATOM	4651	C	ASP	B	788	4.007	42.499	22.929	1.00 13.74
ATOM	4652	O	ASP	B	788	2.932	42.872	22.459	1.00 12.91
ATOM	4653	N	GLN	B	789	4.720	41.509	22.392	1.00 13.16
ATOM	4654	CA	GLN	B	789	4.234	40.804	21.209	1.00 13.37
ATOM	4655	CB	GLN	B	789	5.277	39.812	20.676	1.00 13.41
ATOM	4656	CG	GLN	B	789	4.686	38.824	19.680	1.00 13.64
ATOM	4657	CD	GLN	B	789	5.714	37.919	19.030	1.00 13.10
ATOM	4658	OE1	GLN	B	789	5.417	36.776	18.686	1.00 13.57
ATOM	4659	NE2	GLN	B	789	6.917	38.431	18.841	1.00 12.49
ATOM	4660	C	GLN	B	789	2.963	40.054	21.572	1.00 13.70
ATOM	4661	O	GLN	B	789	2.017	40.007	20.794	1.00 12.42
ATOM	4662	N	GLY	B	790	2.951	39.461	22.762	1.00 12.88
ATOM	4663	CA	GLY	B	790	1.773	38.735	23.205	1.00 13.21
ATOM	4664	C	GLY	B	790	0.560	39.649	23.215	1.00 13.17
ATOM	4665	O	GLY	B	790	-0.535	39.233	22.844	1.00 13.21
ATOM	4666	N	ASP	B	791	0.737	40.893	23.650	1.00 13.34
ATOM	4667	CA	ASP	B	791	-0.380	41.831	23.676	1.00 13.36
ATOM	4668	CB	ASP	B	791	0.047	43.189	24.251	1.00 13.35
ATOM	4669	CG	ASP	B	791	0.431	43.116	25.719	1.00 13.34
ATOM	4670	OD1	ASP	B	791	-0.057	42.211	26.432	1.00 14.28
ATOM	4671	OD2	ASP	B	791	1.206	43.989	26.173	1.00 13.91
ATOM	4672	C	ASP	B	791	-0.918	42.036	22.258	1.00 13.27

ATOM	4673	O	ASP	B	791	-2.127	42.065	22.037	1.00	13.15
ATOM	4674	N	ARG	B	792	-0.007	42.182	21.304	1.00	13.41
ATOM	4675	CA	ARG	B	792	-0.365	42.377	19.901	1.00	13.46
ATOM	4676	CB	ARG	B	792	0.900	42.600	19.057	1.00	13.77
ATOM	4677	CG	ARG	B	792	1.732	43.827	19.433	1.00	13.53
ATOM	4678	CD	ARG	B	792	1.371	45.037	18.573	1.00	14.15
ATOM	4679	NE	ARG	B	792	1.755	44.880	17.170	1.00	13.72
ATOM	4680	CZ	ARG	B	792	2.954	45.181	16.673	1.00	13.45
ATOM	4681	NH1	ARG	B	792	3.910	45.658	17.461	1.00	14.15
ATOM	4682	NH2	ARG	B	792	3.191	45.019	15.378	1.00	13.91
ATOM	4683	C	ARG	B	792	-1.105	41.144	19.384	1.00	13.41
ATOM	4684	O	ARG	B	792	-2.069	41.260	18.634	1.00	12.85
ATOM	4685	N	GLU	B	793	-0.646	39.960	19.778	1.00	13.61
ATOM	4686	CA	GLU	B	793	-1.287	38.723	19.336	1.00	13.40
ATOM	4687	CB	GLU	B	793	-0.485	37.503	19.809	1.00	12.77
ATOM	4688	CG	GLU	B	793	0.975	37.561	19.384	1.00	13.72
ATOM	4689	CD	GLU	B	793	1.747	36.287	19.678	1.00	13.23
ATOM	4690	OE1	GLU	B	793	1.496	35.664	20.726	1.00	13.98
ATOM	4691	OE2	GLU	B	793	2.625	35.922	18.864	1.00	13.77
ATOM	4692	C	GLU	B	793	-2.727	38.631	19.829	1.00	13.74
ATOM	4693	O	GLU	B	793	-3.623	38.302	19.055	1.00	13.60
ATOM	4694	N	ARG	B	794	-2.949	38.913	21.111	1.00	13.60
ATOM	4695	CA	ARG	B	794	-4.301	38.857	21.664	1.00	13.53
ATOM	4696	CB	ARG	B	794	-4.311	39.273	23.139	1.00	13.72
ATOM	4697	CG	ARG	B	794	-3.932	38.176	24.116	1.00	13.75
ATOM	4698	CD	ARG	B	794	-5.043	37.957	25.157	1.00	14.19
ATOM	4699	NE	ARG	B	794	-4.620	37.002	26.184	1.00	14.25
ATOM	4700	CZ	ARG	B	794	-3.496	37.138	26.880	1.00	13.74
ATOM	4701	NH1	ARG	B	794	-2.716	38.183	26.655	1.00	14.25
ATOM	4702	NH2	ARG	B	794	-3.133	36.220	27.767	1.00	14.23
ATOM	4703	C	ARG	B	794	-5.228	39.781	20.889	1.00	13.46
ATOM	4704	O	ARG	B	794	-6.361	39.419	20.578	1.00	13.31
ATOM	4705	N	LYS	B	795	-4.734	40.973	20.576	1.00	13.36
ATOM	4706	CA	LYS	B	795	-5.530	41.955	19.857	1.00	13.34
ATOM	4707	CB	LYS	B	795	-4.937	43.354	20.055	1.00	13.53
ATOM	4708	CG	LYS	B	795	-5.114	43.873	21.468	1.00	14.13
ATOM	4709	CD	LYS	B	795	-4.913	45.373	21.551	1.00	14.30
ATOM	4710	CE	LYS	B	795	-5.311	45.897	22.926	1.00	13.84
ATOM	4711	NZ	LYS	B	795	-6.701	45.492	23.308	1.00	14.94
ATOM	4712	C	LYS	B	795	-5.713	41.687	18.367	1.00	13.62
ATOM	4713	O	LYS	B	795	-6.842	41.671	17.866	1.00	14.41
ATOM	4714	N	GLU	B	796	-4.612	41.463	17.661	1.00	13.38
ATOM	4715	CA	GLU	B	796	-4.672	41.236	16.219	1.00	13.13
ATOM	4716	CB	GLU	B	796	-3.328	41.609	15.588	1.00	13.72
ATOM	4717	CG	GLU	B	796	-2.826	42.988	16.014	1.00	13.67
ATOM	4718	CD	GLU	B	796	-1.465	43.348	15.436	1.00	13.72
ATOM	4719	OE1	GLU	B	796	-0.810	44.254	15.997	1.00	13.66
ATOM	4720	OE2	GLU	B	796	-1.054	42.745	14.419	1.00	14.29
ATOM	4721	C	GLU	B	796	-5.067	39.820	15.789	1.00	13.43
ATOM	4722	O	GLU	B	796	-5.680	39.647	14.739	1.00	13.81
ATOM	4723	N	LEU	B	797	-4.728	38.815	16.594	1.00	13.23
ATOM	4724	CA	LEU	B	797	-5.043	37.430	16.249	1.00	13.14
ATOM	4725	CB	LEU	B	797	-3.781	36.567	16.357	1.00	13.87
ATOM	4726	CG	LEU	B	797	-2.593	36.996	15.489	1.00	13.18
ATOM	4727	CD1	LEU	B	797	-1.353	36.223	15.896	1.00	13.38
ATOM	4728	CD2	LEU	B	797	-2.913	36.776	14.014	1.00	13.71
ATOM	4729	C	LEU	B	797	-6.156	36.799	17.088	1.00	13.52
ATOM	4730	O	LEU	B	797	-6.695	35.755	16.723	1.00	13.04
ATOM	4731	N	ASN	B	798	-6.484	37.434	18.211	1.00	13.47
ATOM	4732	CA	ASN	B	798	-7.516	36.949	19.127	1.00	13.02
ATOM	4733	CB	ASN	B	798	-8.899	36.960	18.469	1.00	13.86
ATOM	4734	CG	ASN	B	798	-10.022	36.973	19.494	1.00	13.83
ATOM	4735	OD1	ASN	B	798	-10.012	37.790	20.414	1.00	13.89
ATOM	4736	ND2	ASN	B	798	-10.995	36.075	19.343	1.00	13.39
ATOM	4737	C	ASN	B	798	-7.190	35.541	19.609	1.00	13.95
ATOM	4738	O	ASN	B	798	-8.037	34.646	19.609	1.00	13.13

ATOM	4739	N	ILE	B	799	-5.945	35.351	20.021	1.00 13.12
ATOM	4740	CA	ILE	B	799	-5.507	34.056	20.512	1.00 13.66
ATOM	4741	CB	ILE	B	799	-4.395	33.453	19.627	1.00 13.75
ATOM	4742	CG2	ILE	B	799	-4.878	33.284	18.197	1.00 14.16
ATOM	4743	CG1	ILE	B	799	-3.160	34.356	19.688	1.00 13.61
ATOM	4744	CD1	ILE	B	799	-1.935	33.758	19.058	1.00 13.93
ATOM	4745	C	ILE	B	799	-4.913	34.217	21.900	1.00 13.48
ATOM	4746	O	ILE	B	799	-4.668	35.329	22.370	1.00 13.64
ATOM	4747	N	GLU	B	800	-4.687	33.087	22.552	1.00 14.06
ATOM	4748	CA	GLU	B	800	-4.054	33.071	23.857	1.00 13.34
ATOM	4749	CB	GLU	B	800	-4.561	31.865	24.659	1.00 13.58
ATOM	4750	CG	GLU	B	800	-4.025	31.747	26.082	1.00 14.53
ATOM	4751	CD	GLU	B	800	-4.646	32.742	27.053	1.00 14.01
ATOM	4752	OE1	GLU	B	800	-4.249	32.722	28.238	1.00 15.95
ATOM	4753	OE2	GLU	B	800	-5.527	33.541	26.648	1.00 14.59
ATOM	4754	C	GLU	B	800	-2.594	32.875	23.436	1.00 14.04
ATOM	4755	O	GLU	B	800	-2.256	31.851	22.834	1.00 13.55
ATOM	4756	N	PRO	B	801	-1.716	33.860	23.713	1.00 13.55
ATOM	4757	CD	PRO	B	801	-1.923	35.137	24.416	1.00 13.81
ATOM	4758	CA	PRO	B	801	-0.310	33.709	23.318	1.00 13.62
ATOM	4759	CB	PRO	B	801	0.331	35.021	23.775	1.00 13.68
ATOM	4760	CG	PRO	B	801	-0.811	35.981	23.854	1.00 13.25
ATOM	4761	C	PRO	B	801	0.368	32.504	23.972	1.00 13.37
ATOM	4762	O	PRO	B	801	-0.062	32.045	25.034	1.00 13.39
ATOM	4763	N	THR	B	802	1.420	31.997	23.333	1.00 13.56
ATOM	4764	CA	THR	B	802	2.171	30.877	23.883	1.00 13.21
ATOM	4765	CB	THR	B	802	3.265	30.398	22.898	1.00 13.60
ATOM	4766	OG1	THR	B	802	3.897	29.218	23.412	1.00 15.49
ATOM	4767	CG2	THR	B	802	4.301	31.470	22.686	1.00 13.81
ATOM	4768	C	THR	B	802	2.802	31.385	25.182	1.00 13.77
ATOM	4769	O	THR	B	802	2.985	32.588	25.355	1.00 13.22
ATOM	4770	N	ASP	B	803	3.131	30.475	26.092	1.00 13.32
ATOM	4771	CA	ASP	B	803	3.706	30.856	27.380	1.00 13.31
ATOM	4772	CB	ASP	B	803	4.212	29.613	28.114	1.00 13.94
ATOM	4773	CG	ASP	B	803	3.082	28.728	28.613	1.00 13.91
ATOM	4774	OD1	ASP	B	803	1.903	29.086	28.418	1.00 14.67
ATOM	4775	OD2	ASP	B	803	3.377	27.674	29.211	1.00 14.64
ATOM	4776	C	ASP	B	803	4.814	31.902	27.317	1.00 13.45
ATOM	4777	O	ASP	B	803	4.814	32.862	28.084	1.00 13.00
ATOM	4778	N	LEU	B	804	5.759	31.721	26.405	1.00 13.78
ATOM	4779	CA	LEU	B	804	6.860	32.665	26.273	1.00 13.29
ATOM	4780	CB	LEU	B	804	7.860	32.167	25.217	1.00 13.79
ATOM	4781	CG	LEU	B	804	7.352	31.366	24.008	1.00 14.04
ATOM	4782	CD1	LEU	B	804	8.505	31.149	23.028	1.00 14.31
ATOM	4783	CD2	LEU	B	804	6.766	30.010	24.463	1.00 14.08
ATOM	4784	C	LEU	B	804	6.393	34.081	25.930	1.00 13.21
ATOM	4785	O	LEU	B	804	7.065	35.056	26.270	1.00 13.26
ATOM	4786	N	MET	B	805	5.230	34.194	25.294	1.00 13.60
ATOM	4787	CA	MET	B	805	4.700	35.496	24.886	1.00 13.19
ATOM	4788	CB	MET	B	805	4.180	35.406	23.443	1.00 13.55
ATOM	4789	CG	MET	B	805	5.060	34.603	22.497	1.00 14.42
ATOM	4790	SD	MET	B	805	6.755	35.164	22.517	1.00 18.64
ATOM	4791	CE	MET	B	805	6.543	36.719	21.827	1.00 13.70
ATOM	4792	C	MET	B	805	3.554	35.955	25.784	1.00 13.59
ATOM	4793	O	MET	B	805	2.994	37.037	25.588	1.00 13.23
ATOM	4794	N	ASN	B	806	3.230	35.136	26.781	1.00 13.10
ATOM	4795	CA	ASN	B	806	2.109	35.405	27.674	1.00 13.55
ATOM	4796	CB	ASN	B	806	1.297	34.119	27.837	1.00 13.28
ATOM	4797	CG	ASN	B	806	-0.066	34.361	28.442	1.00 13.62
ATOM	4798	OD1	ASN	B	806	-0.395	35.474	28.850	1.00 13.40
ATOM	4799	ND2	ASN	B	806	-0.867	33.311	28.510	1.00 13.85
ATOM	4800	C	ASN	B	806	2.484	35.952	29.044	1.00 13.50
ATOM	4801	O	ASN	B	806	2.938	35.211	29.917	1.00 13.48
ATOM	4802	N	ARG	B	807	2.269	37.250	29.228	1.00 13.65
ATOM	4803	CA	ARG	B	807	2.587	37.915	30.483	1.00 13.46
ATOM	4804	CB	ARG	B	807	2.191	39.387	30.406	1.00 13.91

ATOM	4805	CG	ARG	B	807	2.726	40.246	31.531	1.00	14.18
ATOM	4806	CD	ARG	B	807	2.101	41.633	31.474	1.00	14.25
ATOM	4807	NE	ARG	B	807	2.093	42.200	30.122	1.00	15.07
ATOM	4808	CZ	ARG	B	807	3.159	42.713	29.520	1.00	13.88
ATOM	4809	NH1	ARG	B	807	4.322	42.731	30.148	1.00	14.69
ATOM	4810	NH2	ARG	B	807	3.065	43.212	28.290	1.00	13.49
ATOM	4811	C	ARG	B	807	1.874	37.265	31.659	1.00	13.26
ATOM	4812	O	ARG	B	807	2.383	37.277	32.779	1.00	13.94
ATOM	4813	N	GLU	B	808	0.693	36.709	31.404	1.00	13.78
ATOM	4814	CA	GLU	B	808	-0.083	36.072	32.461	1.00	13.64
ATOM	4815	CB	GLU	B	808	-1.463	35.658	31.938	1.00	13.88
ATOM	4816	CG	GLU	B	808	-2.226	36.784	31.252	1.00	13.85
ATOM	4817	CD	GLU	B	808	-3.612	36.366	30.794	1.00	14.04
ATOM	4818	OE1	GLU	B	808	-3.783	35.205	30.349	1.00	15.24
ATOM	4819	OE2	GLU	B	808	-4.531	37.210	30.863	1.00	15.39
ATOM	4820	C	GLU	B	808	0.648	34.852	33.009	1.00	13.88
ATOM	4821	O	GLU	B	808	0.466	34.487	34.177	1.00	13.93
ATOM	4822	N	LYS	B	809	1.476	34.235	32.164	1.00	13.62
ATOM	4823	CA	LYS	B	809	2.242	33.043	32.550	1.00	14.10
ATOM	4824	CB	LYS	B	809	2.164	31.962	31.455	1.00	14.01
ATOM	4825	CG	LYS	B	809	0.758	31.544	31.023	1.00	13.97
ATOM	4826	CD	LYS	B	809	0.028	30.748	32.101	1.00	14.37
ATOM	4827	CE	LYS	B	809	0.603	29.344	32.287	1.00	13.75
ATOM	4828	NZ	LYS	B	809	0.234	28.377	31.204	1.00	14.54
ATOM	4829	C	LYS	B	809	3.712	33.382	32.805	1.00	13.36
ATOM	4830	O	LYS	B	809	4.600	32.570	32.550	1.00	13.97
ATOM	4831	N	LYS	B	810	3.972	34.582	33.310	1.00	13.85
ATOM	4832	CA	LYS	B	810	5.339	35.006	33.599	1.00	13.58
ATOM	4833	CB	LYS	B	810	5.336	36.434	34.161	1.00	13.76
ATOM	4834	CG	LYS	B	810	4.593	36.581	35.489	1.00	13.89
ATOM	4835	CD	LYS	B	810	4.363	38.047	35.869	1.00	14.06
ATOM	4836	CE	LYS	B	810	3.474	38.152	37.117	1.00	14.12
ATOM	4837	NZ	LYS	B	810	2.931	39.517	37.391	1.00	14.24
ATOM	4838	C	LYS	B	810	6.018	34.055	34.595	1.00	13.19
ATOM	4839	O	LYS	B	810	7.245	34.012	34.686	1.00	13.12
ATOM	4840	N	ASN	B	811	5.219	33.288	35.334	1.00	14.01
ATOM	4841	CA	ASN	B	811	5.760	32.355	36.326	1.00	13.56
ATOM	4842	CB	ASN	B	811	4.615	31.780	37.181	1.00	13.51
ATOM	4843	CG	ASN	B	811	3.794	30.732	36.443	1.00	13.81
ATOM	4844	OD1	ASN	B	811	4.165	29.558	36.388	1.00	14.40
ATOM	4845	ND2	ASN	B	811	2.685	31.157	35.860	1.00	13.53
ATOM	4846	C	ASN	B	811	6.573	31.228	35.680	1.00	13.70
ATOM	4847	O	ASN	B	811	7.366	30.555	36.346	1.00	13.49
ATOM	4848	N	LYS	B	812	6.386	31.047	34.376	1.00	13.69
ATOM	4849	CA	LYS	B	812	7.084	30.011	33.620	1.00	13.42
ATOM	4850	CB	LYS	B	812	6.294	29.665	32.350	1.00	13.81
ATOM	4851	CG	LYS	B	812	5.379	28.463	32.461	1.00	14.23
ATOM	4852	CD	LYS	B	812	4.354	28.599	33.563	1.00	14.10
ATOM	4853	CE	LYS	B	812	3.615	27.277	33.787	1.00	13.86
ATOM	4854	NZ	LYS	B	812	4.535	26.146	34.141	1.00	15.09
ATOM	4855	C	LYS	B	812	8.503	30.393	33.206	1.00	13.10
ATOM	4856	O	LYS	B	812	9.270	29.541	32.766	1.00	13.86
ATOM	4857	N	ILE	B	813	8.866	31.661	33.351	1.00	13.12
ATOM	4858	CA	ILE	B	813	10.197	32.101	32.920	1.00	13.59
ATOM	4859	CB	ILE	B	813	10.421	33.598	33.266	1.00	13.44
ATOM	4860	CG2	ILE	B	813	11.906	33.955	33.162	1.00	13.48
ATOM	4861	CG1	ILE	B	813	9.586	34.465	32.309	1.00	13.50
ATOM	4862	CD1	ILE	B	813	9.741	35.962	32.495	1.00	13.82
ATOM	4863	C	ILE	B	813	11.397	31.263	33.384	1.00	13.51
ATOM	4864	O	ILE	B	813	12.203	30.825	32.559	1.00	13.39
ATOM	4865	N	PRO	B	814	11.543	31.032	34.699	1.00	13.47
ATOM	4866	CD	PRO	B	814	10.846	31.652	35.841	1.00	13.54
ATOM	4867	CA	PRO	B	814	12.683	30.232	35.162	1.00	13.44
ATOM	4868	CB	PRO	B	814	12.446	30.137	36.671	1.00	13.68
ATOM	4869	CG	PRO	B	814	11.850	31.467	36.973	1.00	13.47
ATOM	4870	C	PRO	B	814	12.821	28.854	34.508	1.00	13.57

ATOM	4871	O	PRO	B	814	13.902	28.499	34.015	1.00	13.58
ATOM	4872	N	SER	B	815	11.745	28.071	34.513	1.00	13.37
ATOM	4873	CA	SER	B	815	11.790	26.736	33.924	1.00	13.56
ATOM	4874	CB	SER	B	815	10.474	25.994	34.165	1.00	13.87
ATOM	4875	OG	SER	B	815	9.377	26.686	33.607	1.00	14.21
ATOM	4876	C	SER	B	815	12.087	26.791	32.431	1.00	13.37
ATOM	4877	O	SER	B	815	12.790	25.925	31.896	1.00	13.76
ATOM	4878	N	MET	B	816	11.558	27.807	31.755	1.00	13.07
ATOM	4879	CA	MET	B	816	11.793	27.942	30.324	1.00	13.42
ATOM	4880	CB	MET	B	816	10.795	28.925	29.709	1.00	13.67
ATOM	4881	CG	MET	B	816	9.359	28.420	29.792	1.00	14.00
ATOM	4882	SD	MET	B	816	8.158	29.375	28.827	1.00	17.04
ATOM	4883	CE	MET	B	816	8.404	31.005	29.555	1.00	14.32
ATOM	4884	C	MET	B	816	13.230	28.364	30.042	1.00	13.50
ATOM	4885	O	MET	B	816	13.823	27.915	29.064	1.00	13.26
ATOM	4886	N	GLN	B	817	13.793	29.211	30.899	1.00	13.14
ATOM	4887	CA	GLN	B	817	15.180	29.636	30.728	1.00	13.39
ATOM	4888	CB	GLN	B	817	15.561	30.648	31.805	1.00	13.67
ATOM	4889	CG	GLN	B	817	14.872	31.997	31.680	1.00	13.70
ATOM	4890	CD	GLN	B	817	15.472	32.877	30.595	1.00	13.41
ATOM	4891	OE1	GLN	B	817	16.444	32.497	29.933	1.00	15.28
ATOM	4892	NE2	GLN	B	817	14.901	34.066	30.412	1.00	14.17
ATOM	4893	C	GLN	B	817	16.075	28.397	30.833	1.00	14.00
ATOM	4894	O	GLN	B	817	16.991	28.204	30.035	1.00	12.84
ATOM	4895	N	VAL	B	818	15.801	27.559	31.829	1.00	13.15
ATOM	4896	CA	VAL	B	818	16.559	26.328	32.012	1.00	13.29
ATOM	4897	CB	VAL	B	818	16.094	25.567	33.273	1.00	13.67
ATOM	4898	CG1	VAL	B	818	16.794	24.223	33.355	1.00	13.62
ATOM	4899	CG2	VAL	B	818	16.396	26.390	34.518	1.00	13.63
ATOM	4900	C	VAL	B	818	16.377	25.419	30.791	1.00	13.49
ATOM	4901	O	VAL	B	818	17.328	24.801	30.318	1.00	13.27
ATOM	4902	N	GLY	B	819	15.151	25.342	30.283	1.00	13.19
ATOM	4903	CA	GLY	B	819	14.892	24.513	29.120	1.00	13.58
ATOM	4904	C	GLY	B	819	15.603	25.040	27.882	1.00	13.37
ATOM	4905	O	GLY	B	819	16.051	24.271	27.035	1.00	13.17
ATOM	4906	N	PHE	B	820	15.694	26.359	27.779	1.00	13.70
ATOM	4907	CA	PHE	B	820	16.359	27.003	26.648	1.00	13.07
ATOM	4908	CB	PHE	B	820	16.081	28.508	26.665	1.00	13.58
ATOM	4909	CG	PHE	B	820	16.726	29.250	25.538	1.00	13.82
ATOM	4910	CD1	PHE	B	820	16.273	29.079	24.234	1.00	13.41
ATOM	4911	CD2	PHE	B	820	17.814	30.086	25.771	1.00	13.94
ATOM	4912	CE1	PHE	B	820	16.896	29.727	23.175	1.00	13.69
ATOM	4913	CE2	PHE	B	820	18.447	30.741	24.712	1.00	14.12
ATOM	4914	CZ	PHE	B	820	17.981	30.555	23.412	1.00	13.67
ATOM	4915	C	PHE	B	820	17.866	26.762	26.721	1.00	13.63
ATOM	4916	O	PHE	B	820	18.520	26.520	25.705	1.00	12.19
ATOM	4917	N	ILE	B	821	18.418	26.838	27.927	1.00	13.34
ATOM	4918	CA	ILE	B	821	19.846	26.618	28.105	1.00	13.41
ATOM	4919	CB	ILE	B	821	20.278	26.917	29.560	1.00	13.34
ATOM	4920	CG2	ILE	B	821	21.715	26.457	29.789	1.00	13.68
ATOM	4921	CG1	ILE	B	821	20.144	28.415	29.838	1.00	13.61
ATOM	4922	CD1	ILE	B	821	20.416	28.787	31.264	1.00	13.34
ATOM	4923	C	ILE	B	821	20.179	25.173	27.751	1.00	13.74
ATOM	4924	O	ILE	B	821	21.146	24.910	27.035	1.00	13.71
ATOM	4925	N	ASP	B	822	19.364	24.242	28.240	1.00	13.64
ATOM	4926	CA	ASP	B	822	19.574	22.823	27.967	1.00	13.50
ATOM	4927	CB	ASP	B	822	18.602	21.971	28.788	1.00	13.59
ATOM	4928	CG	ASP	B	822	18.950	21.932	30.265	1.00	13.89
ATOM	4929	OD1	ASP	B	822	20.063	22.368	30.636	1.00	14.13
ATOM	4930	OD2	ASP	B	822	18.108	21.449	31.058	1.00	14.07
ATOM	4931	C	ASP	B	822	19.422	22.439	26.495	1.00	13.67
ATOM	4932	O	ASP	B	822	20.274	21.751	25.926	1.00	13.78
ATOM	4933	N	ALA	B	823	18.339	22.894	25.877	1.00	13.22
ATOM	4934	CA	ALA	B	823	18.050	22.552	24.490	1.00	13.84
ATOM	4935	CB	ALA	B	823	16.560	22.710	24.233	1.00	13.48
ATOM	4936	C	ALA	B	823	18.825	23.290	23.405	1.00	13.74

ATOM	4937	O	ALA	B	823	19.084	22.721	22.346	1.00	13.86
ATOM	4938	N	ILE	B	824	19.200	24.542	23.658	1.00	12.87
ATOM	4939	CA	ILE	B	824	19.897	25.342	22.647	1.00	13.66
ATOM	4940	CB	ILE	B	824	19.073	26.633	22.328	1.00	13.43
ATOM	4941	CG2	ILE	B	824	19.879	27.591	21.454	1.00	13.46
ATOM	4942	CG1	ILE	B	824	17.750	26.267	21.648	1.00	14.01
ATOM	4943	CD1	ILE	B	824	17.902	25.746	20.235	1.00	13.61
ATOM	4944	C	ILE	B	824	21.329	25.789	22.944	1.00	13.96
ATOM	4945	O	ILE	B	824	22.227	25.616	22.117	1.00	13.39
ATOM	4946	N	CYS	B	825	21.541	26.358	24.125	1.00	13.46
ATOM	4947	CA	CYS	B	825	22.837	26.915	24.493	1.00	13.65
ATOM	4948	CB	CYS	B	825	22.635	27.938	25.607	1.00	13.50
ATOM	4949	SG	CYS	B	825	21.379	29.163	25.229	1.00	11.56
ATOM	4950	C	CYS	B	825	24.000	26.016	24.881	1.00	13.68
ATOM	4951	O	CYS	B	825	25.080	26.113	24.304	1.00	13.78
ATOM	4952	N	LEU	B	826	23.792	25.161	25.873	1.00	13.38
ATOM	4953	CA	LEU	B	826	24.864	24.295	26.352	1.00	14.05
ATOM	4954	CB	LEU	B	826	24.282	23.255	27.305	1.00	14.02
ATOM	4955	CG	LEU	B	826	24.723	23.272	28.771	1.00	14.15
ATOM	4956	CD1	LEU	B	826	25.162	24.654	29.228	1.00	14.10
ATOM	4957	CD2	LEU	B	826	23.574	22.755	29.607	1.00	14.03
ATOM	4958	C	LEU	B	826	25.707	23.606	25.281	1.00	13.23
ATOM	4959	O	LEU	B	826	26.929	23.757	25.265	1.00	13.46
ATOM	4960	N	GLN	B	827	25.065	22.855	24.391	1.00	13.65
ATOM	4961	CA	GLN	B	827	25.787	22.142	23.336	1.00	13.12
ATOM	4962	CB	GLN	B	827	24.818	21.339	22.471	1.00	13.83
ATOM	4963	CG	GLN	B	827	24.146	20.194	23.193	1.00	13.88
ATOM	4964	CD	GLN	B	827	23.439	19.267	22.235	1.00	13.80
ATOM	4965	OE1	GLN	B	827	24.044	18.772	21.282	1.00	15.06
ATOM	4966	NE2	GLN	B	827	22.153	19.025	22.474	1.00	14.95
ATOM	4967	C	GLN	B	827	26.591	23.068	22.437	1.00	13.68
ATOM	4968	O	GLN	B	827	27.662	22.696	21.954	1.00	13.20
ATOM	4969	N	LEU	B	828	26.066	24.268	22.203	1.00	13.23
ATOM	4970	CA	LEU	B	828	26.748	25.230	21.355	1.00	13.47
ATOM	4971	CB	LEU	B	828	25.823	26.404	21.018	1.00	13.22
ATOM	4972	CG	LEU	B	828	26.448	27.496	20.148	1.00	13.75
ATOM	4973	CD1	LEU	B	828	27.020	26.904	18.873	1.00	13.69
ATOM	4974	CD2	LEU	B	828	25.382	28.530	19.820	1.00	13.40
ATOM	4975	C	LEU	B	828	28.018	25.749	22.010	1.00	13.97
ATOM	4976	O	LEU	B	828	29.081	25.721	21.402	1.00	13.06
ATOM	4977	N	TYR	B	829	27.919	26.209	23.252	1.00	13.08
ATOM	4978	CA	TYR	B	829	29.101	26.727	23.929	1.00	13.60
ATOM	4979	CB	TYR	B	829	28.701	27.499	25.193	1.00	13.16
ATOM	4980	CG	TYR	B	829	27.968	28.775	24.858	1.00	13.48
ATOM	4981	CD1	TYR	B	829	28.596	29.784	24.128	1.00	13.08
ATOM	4982	CE1	TYR	B	829	27.910	30.941	23.759	1.00	13.14
ATOM	4983	CD2	TYR	B	829	26.633	28.954	25.221	1.00	13.33
ATOM	4984	CE2	TYR	B	829	25.940	30.104	24.858	1.00	13.35
ATOM	4985	CZ	TYR	B	829	26.582	31.088	24.128	1.00	13.21
ATOM	4986	OH	TYR	B	829	25.890	32.205	23.736	1.00	13.07
ATOM	4987	C	TYR	B	829	30.124	25.645	24.245	1.00	14.02
ATOM	4988	O	TYR	B	829	31.306	25.944	24.415	1.00	13.35
ATOM	4989	N	GLU	B	830	29.681	24.394	24.321	1.00	13.22
ATOM	4990	CA	GLU	B	830	30.611	23.296	24.582	1.00	13.38
ATOM	4991	CB	GLU	B	830	29.870	22.016	24.975	1.00	13.55
ATOM	4992	CG	GLU	B	830	29.071	22.129	26.251	1.00	13.58
ATOM	4993	CD	GLU	B	830	28.354	20.843	26.606	1.00	13.85
ATOM	4994	OE1	GLU	B	830	27.870	20.141	25.684	1.00	14.69
ATOM	4995	OE2	GLU	B	830	28.255	20.541	27.811	1.00	14.68
ATOM	4996	C	GLU	B	830	31.385	23.046	23.296	1.00	13.61
ATOM	4997	O	GLU	B	830	32.597	22.821	23.314	1.00	13.75
ATOM	4998	N	ALA	B	831	30.674	23.096	22.173	1.00	13.30
ATOM	4999	CA	ALA	B	831	31.293	22.877	20.877	1.00	13.74
ATOM	5000	CB	ALA	B	831	30.221	22.855	19.773	1.00	13.40
ATOM	5001	C	ALA	B	831	32.330	23.958	20.587	1.00	13.76
ATOM	5002	O	ALA	B	831	33.427	23.662	20.116	1.00	13.75

ATOM	5003	N	LEU	B	832	31.984	25.213	20.862	1.00	13.19
ATOM	5004	CA	LEU	B	832	32.914	26.308	20.618	1.00	13.29
ATOM	5005	CB	LEU	B	832	32.250	27.654	20.931	1.00	13.40
ATOM	5006	CG	LEU	B	832	33.072	28.916	20.655	1.00	13.47
ATOM	5007	CD1	LEU	B	832	33.557	28.938	19.211	1.00	13.65
ATOM	5008	CD2	LEU	B	832	32.220	30.130	20.960	1.00	13.11
ATOM	5009	C	LEU	B	832	34.174	26.137	21.468	1.00	13.50
ATOM	5010	O	LEU	B	832	35.279	26.446	21.024	1.00	13.33
ATOM	5011	N	THR	B	833	34.008	25.634	22.687	1.00	13.36
ATOM	5012	CA	THR	B	833	35.149	25.432	23.579	1.00	13.72
ATOM	5013	CB	THR	B	833	34.683	25.078	25.004	1.00	13.68
ATOM	5014	OG1	THR	B	833	33.871	26.144	25.513	1.00	13.46
ATOM	5015	CG2	THR	B	833	35.882	24.882	25.927	1.00	13.55
ATOM	5016	C	THR	B	833	36.039	24.313	23.042	1.00	13.69
ATOM	5017	O	THR	B	833	37.254	24.313	23.252	1.00	13.43
ATOM	5018	N	HIS	B	834	35.427	23.359	22.350	1.00	13.88
ATOM	5019	CA	HIS	B	834	36.180	22.260	21.762	1.00	13.84
ATOM	5020	CB	HIS	B	834	35.229	21.211	21.180	1.00	13.76
ATOM	5021	CG	HIS	B	834	35.888	19.906	20.850	1.00	14.18
ATOM	5022	CD2	HIS	B	834	36.126	19.301	19.662	1.00	14.12
ATOM	5023	ND1	HIS	B	834	36.347	19.037	21.819	1.00	14.81
ATOM	5024	CE1	HIS	B	834	36.834	17.954	21.240	1.00	14.00
ATOM	5025	NE2	HIS	B	834	36.710	18.087	19.932	1.00	15.19
ATOM	5026	C	HIS	B	834	37.028	22.859	20.645	1.00	13.62
ATOM	5027	O	HIS	B	834	38.166	22.445	20.418	1.00	14.45
ATOM	5028	N	VAL	B	835	36.462	23.838	19.945	1.00	13.89
ATOM	5029	CA	VAL	B	835	37.172	24.493	18.852	1.00	13.52
ATOM	5030	CB	VAL	B	835	36.240	25.435	18.065	1.00	13.30
ATOM	5031	CG1	VAL	B	835	37.024	26.142	16.965	1.00	13.72
ATOM	5032	CG2	VAL	B	835	35.075	24.634	17.477	1.00	13.51
ATOM	5033	C	VAL	B	835	38.353	25.291	19.405	1.00	13.29
ATOM	5034	O	VAL	B	835	39.454	25.230	18.864	1.00	14.08
ATOM	5035	N	SER	B	836	38.108	26.046	20.475	1.00	13.96
ATOM	5036	CA	SER	B	836	39.154	26.827	21.135	1.00	13.69
ATOM	5037	CB	SER	B	836	39.229	28.247	20.573	1.00	13.52
ATOM	5038	OG	SER	B	836	40.244	28.991	21.238	1.00	14.14
ATOM	5039	C	SER	B	836	38.867	26.883	22.627	1.00	13.50
ATOM	5040	O	SER	B	836	37.889	27.496	23.060	1.00	13.16
ATOM	5041	N	GLU	B	837	39.723	26.236	23.412	1.00	13.58
ATOM	5042	CA	GLU	B	837	39.559	26.192	24.863	1.00	13.50
ATOM	5043	CB	GLU	B	837	40.728	25.442	25.504	1.00	13.71
ATOM	5044	CG	GLU	B	837	42.038	26.223	25.483	1.00	14.05
ATOM	5045	CD	GLU	B	837	43.244	25.373	25.821	1.00	14.04
ATOM	5046	OE1	GLU	B	837	43.110	24.449	26.658	1.00	15.55
ATOM	5047	OE2	GLU	B	837	44.337	25.637	25.257	1.00	15.11
ATOM	5048	C	GLU	B	837	39.467	27.575	25.486	1.00	13.68
ATOM	5049	O	GLU	B	837	38.941	27.726	26.587	1.00	13.84
ATOM	5050	N	ASP	B	838	39.993	28.574	24.789	1.00	13.34
ATOM	5051	CA	ASP	B	838	39.974	29.938	25.289	1.00	13.64
ATOM	5052	CB	ASP	B	838	40.957	30.794	24.492	1.00	13.75
ATOM	5053	CG	ASP	B	838	42.388	30.436	24.788	1.00	13.94
ATOM	5054	OD1	ASP	B	838	42.738	30.399	25.987	1.00	14.91
ATOM	5055	OD2	ASP	B	838	43.154	30.197	23.834	1.00	15.30
ATOM	5056	C	ASP	B	838	38.586	30.567	25.268	1.00	13.25
ATOM	5057	O	ASP	B	838	38.390	31.687	25.742	1.00	13.46
ATOM	5058	N	CYS	B	839	37.622	29.844	24.711	1.00	13.76
ATOM	5059	CA	CYS	B	839	36.253	30.336	24.665	1.00	13.25
ATOM	5060	CB	CYS	B	839	35.574	29.944	23.351	1.00	13.23
ATOM	5061	SG	CYS	B	839	35.995	31.008	21.959	1.00	13.78
ATOM	5062	C	CYS	B	839	35.468	29.750	25.829	1.00	13.40
ATOM	5063	O	CYS	B	839	34.271	29.969	25.953	1.00	13.90
ATOM	5064	N	PHE	B	840	36.163	29.008	26.686	1.00	13.65
ATOM	5065	CA	PHE	B	840	35.539	28.377	27.843	1.00	13.51
ATOM	5066	CB	PHE	B	840	36.604	27.675	28.691	1.00	13.59
ATOM	5067	CG	PHE	B	840	36.056	27.059	29.946	1.00	13.69
ATOM	5068	CD1	PHE	B	840	35.235	25.937	29.882	1.00	13.58

ATOM	5069	CD2	PHE	B	840	36.299	27.645	31.183	1.00	13.70
ATOM	5070	CE1	PHE	B	840	34.654	25.407	31.040	1.00	13.83
ATOM	5071	CE2	PHE	B	840	35.729	27.130	32.342	1.00	13.77
ATOM	5072	CZ	PHE	B	840	34.905	26.011	32.273	1.00	13.61
ATOM	5073	C	PHE	B	840	34.719	29.309	28.751	1.00	13.48
ATOM	5074	O	PHE	B	840	33.714	28.883	29.332	1.00	13.51
ATOM	5075	N	PRO	B	841	35.136	30.583	28.897	1.00	13.60
ATOM	5076	CD	PRO	B	841	36.371	31.244	28.434	1.00	13.43
ATOM	5077	CA	PRO	B	841	34.369	31.486	29.762	1.00	13.55
ATOM	5078	CB	PRO	B	841	35.103	32.813	29.614	1.00	14.04
ATOM	5079	CG	PRO	B	841	36.520	32.370	29.428	1.00	13.44
ATOM	5080	C	PRO	B	841	32.899	31.591	29.391	1.00	13.38
ATOM	5081	O	PRO	B	841	32.048	31.785	30.256	1.00	13.14
ATOM	5082	N	LEU	B	842	32.600	31.466	28.104	1.00	13.15
ATOM	5083	CA	LEU	B	842	31.216	31.546	27.656	1.00	13.49
ATOM	5084	CB	LEU	B	842	31.162	31.584	26.128	1.00	13.36
ATOM	5085	CG	LEU	B	842	31.782	32.805	25.447	1.00	13.44
ATOM	5086	CD1	LEU	B	842	31.873	32.553	23.958	1.00	13.45
ATOM	5087	CD2	LEU	B	842	30.950	34.047	25.744	1.00	13.54
ATOM	5088	C	LEU	B	842	30.447	30.334	28.179	1.00	13.60
ATOM	5089	O	LEU	B	842	29.315	30.453	28.647	1.00	12.90
ATOM	5090	N	LEU	B	843	31.075	29.167	28.100	1.00	12.83
ATOM	5091	CA	LEU	B	843	30.449	27.939	28.573	1.00	13.32
ATOM	5092	CB	LEU	B	843	31.332	26.734	28.228	1.00	13.78
ATOM	5093	CG	LEU	B	843	30.703	25.355	27.992	1.00	13.98
ATOM	5094	CD1	LEU	B	843	31.760	24.305	28.299	1.00	13.64
ATOM	5095	CD2	LEU	B	843	29.467	25.130	28.841	1.00	14.01
ATOM	5096	C	LEU	B	843	30.274	28.038	30.090	1.00	13.23
ATOM	5097	O	LEU	B	843	29.189	27.783	30.619	1.00	13.06
ATOM	5098	N	ASP	B	844	31.346	28.425	30.781	1.00	13.96
ATOM	5099	CA	ASP	B	844	31.334	28.550	32.239	1.00	13.40
ATOM	5100	CB	ASP	B	844	32.701	29.053	32.728	1.00	13.63
ATOM	5101	CG	ASP	B	844	32.831	29.033	34.245	1.00	13.72
ATOM	5102	OD1	ASP	B	844	32.443	28.025	34.870	1.00	14.53
ATOM	5103	OD2	ASP	B	844	33.342	30.028	34.812	1.00	15.20
ATOM	5104	C	ASP	B	844	30.221	29.492	32.694	1.00	13.73
ATOM	5105	O	ASP	B	844	29.496	29.197	33.647	1.00	13.48
ATOM	5106	N	GLY	B	845	30.071	30.607	31.988	1.00	13.44
ATOM	5107	CA	GLY	B	845	29.038	31.570	32.332	1.00	13.40
ATOM	5108	C	GLY	B	845	27.647	31.013	32.109	1.00	13.47
ATOM	5109	O	GLY	B	845	26.736	31.262	32.903	1.00	12.94
ATOM	5110	N	CYS	B	846	27.485	30.248	31.035	1.00	13.82
ATOM	5111	CA	CYS	B	846	26.201	29.642	30.706	1.00	13.26
ATOM	5112	CB	CYS	B	846	26.297	28.921	29.356	1.00	13.79
ATOM	5113	SG	CYS	B	846	24.725	28.295	28.731	1.00	13.52
ATOM	5114	C	CYS	B	846	25.798	28.658	31.804	1.00	13.94
ATOM	5115	O	CYS	B	846	24.668	28.694	32.298	1.00	13.04
ATOM	5116	N	ARG	B	847	26.728	27.783	32.184	1.00	13.41
ATOM	5117	CA	ARG	B	847	26.463	26.796	33.229	1.00	13.31
ATOM	5118	CB	ARG	B	847	27.705	25.943	33.516	1.00	13.37
ATOM	5119	CG	ARG	B	847	28.188	25.064	32.372	1.00	14.04
ATOM	5120	CD	ARG	B	847	29.302	24.168	32.884	1.00	13.97
ATOM	5121	NE	ARG	B	847	30.003	23.408	31.853	1.00	14.34
ATOM	5122	CZ	ARG	B	847	29.428	22.618	30.950	1.00	14.01
ATOM	5123	NH1	ARG	B	847	28.108	22.467	30.912	1.00	14.80
ATOM	5124	NH2	ARG	B	847	30.189	21.948	30.089	1.00	14.79
ATOM	5125	C	ARG	B	847	26.047	27.485	34.522	1.00	13.48
ATOM	5126	O	ARG	B	847	25.152	27.009	35.232	1.00	13.91
ATOM	5127	N	LYS	B	848	26.708	28.594	34.835	1.00	13.94
ATOM	5128	CA	LYS	B	848	26.412	29.340	36.053	1.00	13.25
ATOM	5129	CB	LYS	B	848	27.417	30.481	36.235	1.00	13.57
ATOM	5130	CG	LYS	B	848	28.800	29.985	36.648	1.00	13.81
ATOM	5131	CD	LYS	B	848	29.815	31.106	36.714	1.00	13.81
ATOM	5132	CE	LYS	B	848	31.149	30.580	37.195	1.00	14.09
ATOM	5133	NZ	LYS	B	848	31.049	30.081	38.593	1.00	14.51
ATOM	5134	C	LYS	B	848	24.986	29.884	36.035	1.00	13.45

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ATOM   5135  O   LYS B 848      24.292  29.835  37.048  1.00 13.85
ATOM   5136  N   ASN B 849      24.540  30.395  34.894  1.00 13.45
ATOM   5137  CA  ASN B 849      23.174  30.908  34.832  1.00 13.49
ATOM   5138  CB  ASN B 849      22.951  31.746  33.572  1.00 13.62
ATOM   5139  CG  ASN B 849      23.588  33.110  33.680  1.00 13.26
ATOM   5140  OD1 ASN B 849      23.510  33.755  34.728  1.00 13.50
ATOM   5141  ND2 ASN B 849      24.225  33.562  32.604  1.00 13.65
ATOM   5142  C   ASN B 849      22.178  29.765  34.896  1.00 13.58
ATOM   5143  O   ASN B 849      21.054  29.930  35.377  1.00 13.68
ATOM   5144  N   ARG B 850      22.585  28.598  34.411  1.00 13.43
ATOM   5145  CA  ARG B 850      21.715  27.436  34.462  1.00 12.67
ATOM   5146  CB  ARG B 850      22.420  26.232  33.825  1.00 13.54
ATOM   5147  CG  ARG B 850      21.810  24.855  34.111  1.00 14.23
ATOM   5148  CD  ARG B 850      20.430  24.704  33.546  1.00 14.47
ATOM   5149  NE  ARG B 850      20.064  23.312  33.241  1.00 14.15
ATOM   5150  CZ  ARG B 850      19.881  22.339  34.132  1.00 13.71
ATOM   5151  NH1 ARG B 850      20.040  22.555  35.433  1.00 14.08
ATOM   5152  NH2 ARG B 850      19.476  21.145  33.715  1.00 15.06
ATOM   5153  C   ARG B 850      21.367  27.148  35.925  1.00 13.55
ATOM   5154  O   ARG B 850      20.217  26.865  36.256  1.00 13.79
ATOM   5155  N   GLN B 851      22.360  27.251  36.804  1.00 13.67
ATOM   5156  CA  GLN B 851      22.138  26.984  38.220  1.00 13.90
ATOM   5157  CB  GLN B 851      23.483  26.874  38.961  1.00 13.39
ATOM   5158  CG  GLN B 851      23.353  26.415  40.406  1.00 13.91
ATOM   5159  CD  GLN B 851      23.041  27.549  41.369  1.00 13.85
ATOM   5160  OE1 GLN B 851      22.265  27.384  42.314  1.00 15.18
ATOM   5161  NE2 GLN B 851      23.660  28.703  41.145  1.00 14.45
ATOM   5162  C   GLN B 851      21.264  28.049  38.868  1.00 13.95
ATOM   5163  O   GLN B 851      20.379  27.728  39.666  1.00 13.82
ATOM   5164  N   LYS B 852      21.498  29.311  38.517  1.00 13.53
ATOM   5165  CA  LYS B 852      20.720  30.411  39.079  1.00 13.38
ATOM   5166  CB  LYS B 852      21.292  31.749  38.605  1.00 13.58
ATOM   5167  CG  LYS B 852      22.759  31.950  38.981  1.00 13.56
ATOM   5168  CD  LYS B 852      22.960  31.999  40.495  1.00 14.03
ATOM   5169  CE  LYS B 852      22.438  33.302  41.072  1.00 14.03
ATOM   5170  NZ  LYS B 852      22.689  33.406  42.534  1.00 14.49
ATOM   5171  C   LYS B 852      19.251  30.287  38.676  1.00 13.29
ATOM   5172  O   LYS B 852      18.350  30.435  39.512  1.00 13.69
ATOM   5173  N   TRP B 853      19.006  30.015  37.396  1.00 13.65
ATOM   5174  CA  TRP B 853      17.636  29.870  36.917  1.00 13.56
ATOM   5175  CB  TRP B 853      17.609  29.807  35.385  1.00 13.20
ATOM   5176  CG  TRP B 853      17.719  31.148  34.717  1.00 13.29
ATOM   5177  CD2 TRP B 853      16.828  32.259  34.870  1.00 13.46
ATOM   5178  CE2 TRP B 853      17.298  33.291  34.025  1.00 13.48
ATOM   5179  CE3 TRP B 853      15.676  32.483  35.636  1.00 13.37
ATOM   5180  CD1 TRP B 853      18.670  31.541  33.815  1.00 13.10
ATOM   5181  NE1 TRP B 853      18.422  32.825  33.394  1.00 13.38
ATOM   5182  CZ2 TRP B 853      16.656  34.530  33.923  1.00 14.02
ATOM   5183  CZ3 TRP B 853      15.035  33.716  35.533  1.00 13.68
ATOM   5184  CH2 TRP B 853      15.528  34.722  34.682  1.00 13.34
ATOM   5185  C   TRP B 853      16.960  28.634  37.508  1.00 13.57
ATOM   5186  O   TRP B 853      15.787  28.683  37.881  1.00 14.33
ATOM   5187  N   GLN B 854      17.702  27.534  37.605  1.00 14.02
ATOM   5188  CA  GLN B 854      17.163  26.298  38.168  1.00 13.51
ATOM   5189  CB  GLN B 854      18.146  25.145  37.951  1.00 14.01
ATOM   5190  CG  GLN B 854      17.724  23.820  38.585  1.00 13.91
ATOM   5191  CD  GLN B 854      16.370  23.332  38.094  1.00 13.80
ATOM   5192  OE1 GLN B 854      16.052  23.435  36.905  1.00 14.94
ATOM   5193  NE2 GLN B 854      15.571  22.781  39.003  1.00 14.18
ATOM   5194  C   GLN B 854      16.862  26.443  39.660  1.00 13.67
ATOM   5195  O   GLN B 854      15.902  25.859  40.169  1.00 14.20
ATOM   5196  N   ALA B 855      17.678  27.213  40.368  1.00 14.02
ATOM   5197  CA  ALA B 855      17.445  27.391  41.797  1.00 13.73
ATOM   5198  CB  ALA B 855      18.593  28.184  42.428  1.00 13.80
ATOM   5199  C   ALA B 855      16.113  28.107  42.015  1.00 13.69
ATOM   5200  O   ALA B 855      15.482  27.969  43.065  1.00 14.56
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ATOM	5201	N	LEU	B	856	15.680	28.859	41.009	1.00	13.89
ATOM	5202	CA	LEU	B	856	14.428	29.596	41.098	1.00	13.98
ATOM	5203	CB	LEU	B	856	14.475	30.839	40.208	1.00	13.70
ATOM	5204	CG	LEU	B	856	15.391	31.992	40.619	1.00	13.60
ATOM	5205	CD1	LEU	B	856	15.234	33.134	39.630	1.00	14.01
ATOM	5206	CD2	LEU	B	856	15.047	32.441	42.039	1.00	13.93
ATOM	5207	C	LEU	B	856	13.239	28.741	40.688	1.00	13.97
ATOM	5208	O	LEU	B	856	12.197	28.751	41.343	1.00	14.63
ATOM	5209	N	ALA	B	857	13.398	27.993	39.604	1.00	14.26
ATOM	5210	CA	ALA	B	857	12.318	27.167	39.095	1.00	13.79
ATOM	5211	CB	ALA	B	857	12.686	26.650	37.705	1.00	13.54
ATOM	5212	C	ALA	B	857	11.904	26.003	39.993	1.00	14.16
ATOM	5213	O	ALA	B	857	10.809	25.459	39.826	1.00	14.85
ATOM	5214	N	GLU	B	858	12.758	25.634	40.945	1.00	14.15
ATOM	5215	CA	GLU	B	858	12.468	24.502	41.828	1.00	14.37
ATOM	5216	CB	GLU	B	858	13.715	23.636	42.001	1.00	14.36
ATOM	5217	CG	GLU	B	858	14.910	24.372	42.607	1.00	14.14
ATOM	5218	CD	GLU	B	858	16.043	23.436	42.985	1.00	14.01
ATOM	5219	OE1	GLU	B	858	15.827	22.565	43.857	1.00	15.57
ATOM	5220	OE2	GLU	B	858	17.152	23.560	42.416	1.00	15.83
ATOM	5221	C	GLU	B	858	11.928	24.846	43.209	1.00	13.96
ATOM	5222	O	GLU	B	858	11.947	26.034	43.599	1.00	15.06
ATOM	5223	OXT	GLU	B	858	11.510	23.886	43.896	1.00	15.36
TER										
ATOM	5225	ZN	ZN	A	864	-8.625	0.108	20.339	1.00	6.99
ATOM	5226	MG	MG	A	865	-11.094	-0.709	17.643	1.00	6.75
TER										
ATOM	5228	ZN	ZN	B	864	20.128	39.145	17.670	1.00	4.77
ATOM	5229	MG	MG	B	865	0.001	-0.253	-0.263	1.00	6.04
END										

Table 6

Atomic coordinates for baculovirus -expressed PDE5* complex with Sildenafil

Atom Number, Atom Type, Residue Type, Residue Number Cartesian Coordinates X,Y, Z, Atom Occupancy (O) and Temperature Factor (B)

						X	Y	Z	O	B
ATOM	1	CB	THR	A	537	-3.008	28.295	13.745	1.00	40.04
ATOM	2	OG1	THR	A	537	-4.423	28.364	13.527	1.00	40.20
ATOM	3	CG2	THR	A	537	-2.273	28.516	12.435	1.00	40.01
ATOM	4	C	THR	A	537	-2.764	26.998	15.853	1.00	42.52
ATOM	5	O	THR	A	537	-3.657	26.395	16.451	1.00	44.33
ATOM	6	N	THR	A	537	-3.513	25.856	13.760	1.00	44.29
ATOM	7	CA	THR	A	537	-2.652	26.924	14.338	1.00	43.47
ATOM	8	N	ARG	A	538	-1.857	27.751	16.466	1.00	33.65
ATOM	9	CA	ARG	A	538	-1.818	27.897	17.916	1.00	31.51
ATOM	10	CB	ARG	A	538	-3.201	28.267	18.463	1.00	51.67
ATOM	11	CG	ARG	A	538	-3.420	27.913	19.928	1.00	52.25
ATOM	12	CD	ARG	A	538	-2.377	28.532	20.845	1.00	52.37
ATOM	13	NE	ARG	A	538	-1.851	27.547	21.788	1.00	52.59
ATOM	14	CZ	ARG	A	538	-1.048	27.833	22.809	1.00	52.58
ATOM	15	NH1	ARG	A	538	-0.676	29.087	23.032	1.00	52.27
ATOM	16	NH2	ARG	A	538	-0.608	26.864	23.600	1.00	52.33
ATOM	17	C	ARG	A	538	-1.336	26.584	18.521	1.00	30.67
ATOM	18	O	ARG	A	538	-0.175	26.465	18.906	1.00	30.03
ATOM	19	N	GLU	A	539	-2.221	25.594	18.593	1.00	27.90

ATOM	20	CA	GLU	A	539	-1.827	24.310	19.151	1.00	27.13
ATOM	21	CB	GLU	A	539	-3.000	23.322	19.146	1.00	33.40
ATOM	22	CG	GLU	A	539	-2.627	21.946	19.679	1.00	34.46
ATOM	23	CD	GLU	A	539	-3.814	21.007	19.761	1.00	34.35
ATOM	24	OE1	GLU	A	539	-4.656	21.037	18.843	1.00	34.50
ATOM	25	OE2	GLU	A	539	-3.899	20.233	20.738	1.00	34.57
ATOM	26	C	GLU	A	539	-0.666	23.734	18.346	1.00	27.02
ATOM	27	O	GLU	A	539	0.280	23.189	18.909	1.00	27.32
ATOM	28	N	LEU	A	540	-0.739	23.866	17.027	1.00	26.77
ATOM	29	CA	LEU	A	540	0.320	23.354	16.166	1.00	26.36
ATOM	30	CB	LEU	A	540	-0.070	23.496	14.695	1.00	24.87
ATOM	31	CG	LEU	A	540	1.027	23.155	13.682	1.00	24.86
ATOM	32	CD1	LEU	A	540	1.426	21.689	13.833	1.00	25.12
ATOM	33	CD2	LEU	A	540	0.531	23.447	12.264	1.00	25.63
ATOM	34	C	LEU	A	540	1.631	24.091	16.415	1.00	26.72
ATOM	35	O	LEU	A	540	2.681	23.479	16.603	1.00	26.47
ATOM	36	N	GLN	A	541	1.573	25.416	16.407	1.00	25.80
ATOM	37	CA	GLN	A	541	2.777	26.196	16.626	1.00	26.31
ATOM	38	CB	GLN	A	541	2.455	27.682	16.484	1.00	28.46
ATOM	39	CG	GLN	A	541	2.334	28.108	15.029	1.00	28.55
ATOM	40	CD	GLN	A	541	1.709	29.475	14.868	1.00	28.37
ATOM	41	OE1	GLN	A	541	1.843	30.334	15.736	1.00	28.46
ATOM	42	NE2	GLN	A	541	1.033	29.687	13.747	1.00	29.26
ATOM	43	C	GLN	A	541	3.415	25.894	17.978	1.00	25.96
ATOM	44	O	GLN	A	541	4.636	25.785	18.082	1.00	26.05
ATOM	45	N	SER	A	542	2.589	25.733	19.008	1.00	27.15
ATOM	46	CA	SER	A	542	3.103	25.440	20.341	1.00	27.52
ATOM	47	CB	SER	A	542	1.980	25.510	21.379	1.00	38.20
ATOM	48	OG	SER	A	542	1.535	26.841	21.558	1.00	38.87
ATOM	49	C	SER	A	542	3.752	24.067	20.390	1.00	27.50
ATOM	50	O	SER	A	542	4.795	23.888	21.015	1.00	27.75
ATOM	51	N	LEU	A	543	3.131	23.095	19.732	1.00	23.90
ATOM	52	CA	LEU	A	543	3.676	21.743	19.723	1.00	23.62
ATOM	53	CB	LEU	A	543	2.702	20.785	19.022	1.00	31.43
ATOM	54	CG	LEU	A	543	2.929	19.274	19.167	1.00	32.27
ATOM	55	CD1	LEU	A	543	1.959	18.529	18.263	1.00	31.54
ATOM	56	CD2	LEU	A	543	4.340	18.904	18.800	1.00	32.06
ATOM	57	C	LEU	A	543	5.025	21.725	19.009	1.00	23.65
ATOM	58	O	LEU	A	543	5.998	21.144	19.498	1.00	23.61
ATOM	59	N	ALA	A	544	5.079	22.365	17.848	1.00	24.41
ATOM	60	CA	ALA	A	544	6.295	22.402	17.052	1.00	24.73
ATOM	61	CB	ALA	A	544	6.014	23.090	15.728	1.00	23.31
ATOM	62	C	ALA	A	544	7.477	23.076	17.748	1.00	25.97
ATOM	63	O	ALA	A	544	8.619	22.642	17.600	1.00	25.19
ATOM	64	N	ALA	A	545	7.202	24.125	18.512	1.00	29.21
ATOM	65	CA	ALA	A	545	8.259	24.861	19.196	1.00	30.03
ATOM	66	CB	ALA	A	545	7.837	26.315	19.351	1.00	32.13
ATOM	67	C	ALA	A	545	8.660	24.288	20.553	1.00	30.21
ATOM	68	O	ALA	A	545	9.698	24.657	21.105	1.00	30.14
ATOM	69	N	ALA	A	546	7.849	23.382	21.088	1.00	28.91
ATOM	70	CA	ALA	A	546	8.126	22.790	22.391	1.00	28.92
ATOM	71	CB	ALA	A	546	6.878	22.068	22.913	1.00	27.14
ATOM	72	C	ALA	A	546	9.308	21.831	22.400	1.00	29.12
ATOM	73	O	ALA	A	546	9.648	21.222	21.381	1.00	29.57
ATOM	74	N	VAL	A	547	9.936	21.702	23.564	1.00	27.29
ATOM	75	CA	VAL	A	547	11.060	20.791	23.714	1.00	26.19
ATOM	76	CB	VAL	A	547	11.917	21.148	24.947	1.00	37.00
ATOM	77	CG1	VAL	A	547	12.925	20.042	25.223	1.00	37.18
ATOM	78	CG2	VAL	A	547	12.635	22.464	24.711	1.00	37.04
ATOM	79	C	VAL	A	547	10.482	19.395	23.903	1.00	26.09
ATOM	80	O	VAL	A	547	9.473	19.226	24.588	1.00	27.35
ATOM	81	N	VAL	A	548	11.110	18.400	23.286	1.00	28.09
ATOM	82	CA	VAL	A	548	10.638	17.029	23.409	1.00	28.48
ATOM	83	CB	VAL	A	548	10.792	16.254	22.079	1.00	23.53
ATOM	84	CG1	VAL	A	548	10.198	14.845	22.215	1.00	24.59
ATOM	85	CG2	VAL	A	548	10.123	17.016	20.953	1.00	23.63

ATOM	86	C	VAL	A	548	11.468	16.336	24.475	1.00 28.05
ATOM	87	O	VAL	A	548	12.637	16.033	24.252	1.00 29.14
ATOM	88	N	PRO	A	549	10.879	16.080	25.655	1.00 28.24
ATOM	89	CD	PRO	A	549	9.550	16.472	26.151	1.00 28.37
ATOM	90	CA	PRO	A	549	11.647	15.414	26.709	1.00 28.05
ATOM	91	CB	PRO	A	549	10.648	15.321	27.858	1.00 28.48
ATOM	92	CG	PRO	A	549	9.781	16.524	27.640	1.00 28.59
ATOM	93	C	PRO	A	549	12.133	14.045	26.254	1.00 28.74
ATOM	94	O	PRO	A	549	11.639	13.495	25.262	1.00 27.64
ATOM	95	N	SER	A	550	13.103	13.505	26.977	1.00 30.38
ATOM	96	CA	SER	A	550	13.658	12.202	26.649	1.00 30.47
ATOM	97	CB	SER	A	550	14.923	11.963	27.464	1.00 32.70
ATOM	98	OG	SER	A	550	14.611	11.959	28.843	1.00 32.28
ATOM	99	C	SER	A	550	12.654	11.101	26.955	1.00 29.91
ATOM	100	O	SER	A	550	11.683	11.310	27.684	1.00 30.19
ATOM	101	N	ALA	A	551	12.898	9.922	26.396	1.00 27.46
ATOM	102	CA	ALA	A	551	12.022	8.784	26.626	1.00 27.31
ATOM	103	CB	ALA	A	551	12.451	7.610	25.756	1.00 33.59
ATOM	104	C	ALA	A	551	12.064	8.389	28.097	1.00 27.99
ATOM	105	O	ALA	A	551	11.031	8.093	28.700	1.00 27.97
ATOM	106	N	GLN	A	552	13.264	8.382	28.670	1.00 30.15
ATOM	107	CA	GLN	A	552	13.433	8.019	30.074	1.00 31.28
ATOM	108	CB	GLN	A	552	14.917	8.099	30.457	1.00 50.35
ATOM	109	CG	GLN	A	552	15.547	9.470	30.254	1.00 51.01
ATOM	110	CD	GLN	A	552	17.068	9.439	30.310	1.00 51.35
ATOM	111	OE1	GLN	A	552	17.725	8.932	29.398	1.00 51.08
ATOM	112	NE2	GLN	A	552	17.635	9.979	31.385	1.00 51.12
ATOM	113	C	GLN	A	552	12.595	8.934	30.969	1.00 31.11
ATOM	114	O	GLN	A	552	11.888	8.470	31.868	1.00 30.93
ATOM	115	N	THR	A	553	12.660	10.232	30.704	1.00 32.81
ATOM	116	CA	THR	A	553	11.904	11.202	31.484	1.00 32.49
ATOM	117	CB	THR	A	553	12.250	12.637	31.060	1.00 35.77
ATOM	118	OG1	THR	A	553	13.615	12.915	31.399	1.00 35.76
ATOM	119	CG2	THR	A	553	11.339	13.639	31.761	1.00 35.80
ATOM	120	C	THR	A	553	10.399	10.999	31.333	1.00 32.89
ATOM	121	O	THR	A	553	9.658	11.065	32.313	1.00 33.04
ATOM	122	N	LEU	A	554	9.954	10.750	30.105	1.00 29.86
ATOM	123	CA	LEU	A	554	8.534	10.545	29.827	1.00 28.95
ATOM	124	CB	LEU	A	554	8.278	10.693	28.325	1.00 27.17
ATOM	125	CG	LEU	A	554	8.586	12.088	27.769	1.00 27.34
ATOM	126	CD1	LEU	A	554	8.439	12.101	26.255	1.00 27.36
ATOM	127	CD2	LEU	A	554	7.650	13.105	28.410	1.00 27.14
ATOM	128	C	LEU	A	554	8.011	9.197	30.326	1.00 28.80
ATOM	129	O	LEU	A	554	6.803	9.014	30.486	1.00 28.57
ATOM	130	N	LYS	A	555	8.925	8.260	30.561	1.00 24.74
ATOM	131	CA	LYS	A	555	8.588	6.935	31.071	1.00 25.34
ATOM	132	CB	LYS	A	555	7.764	7.072	32.356	1.00 44.27
ATOM	133	CG	LYS	A	555	8.420	7.960	33.402	1.00 45.10
ATOM	134	CD	LYS	A	555	7.451	8.363	34.501	1.00 45.29
ATOM	135	CE	LYS	A	555	8.106	9.352	35.455	1.00 45.10
ATOM	136	NZ	LYS	A	555	7.173	9.818	36.518	1.00 45.31
ATOM	137	C	LYS	A	555	7.818	6.084	30.060	1.00 24.58
ATOM	138	O	LYS	A	555	7.148	5.116	30.433	1.00 25.45
ATOM	139	N	ILE	A	556	7.932	6.430	28.783	1.00 26.12
ATOM	140	CA	ILE	A	556	7.222	5.699	27.740	1.00 26.45
ATOM	141	CB	ILE	A	556	7.160	6.515	26.432	1.00 24.50
ATOM	142	CG2	ILE	A	556	6.294	7.753	26.640	1.00 24.65
ATOM	143	CG1	ILE	A	556	8.571	6.907	25.987	1.00 24.30
ATOM	144	CD1	ILE	A	556	8.631	7.477	24.582	1.00 24.18
ATOM	145	C	ILE	A	556	7.806	4.321	27.446	1.00 26.74
ATOM	146	O	ILE	A	556	7.203	3.525	26.722	1.00 26.46
ATOM	147	N	THR	A	557	8.974	4.027	28.004	1.00 26.58
ATOM	148	CA	THR	A	557	9.571	2.718	27.782	1.00 26.91
ATOM	149	CB	THR	A	557	11.098	2.750	27.964	1.00 33.52
ATOM	150	OG1	THR	A	557	11.653	3.811	27.179	1.00 33.53
ATOM	151	CG2	THR	A	557	11.709	1.430	27.506	1.00 33.78

ATOM	152	C	THR	A	557	8.983	1.711	28.766	1.00 26.91
ATOM	153	O	THR	A	557	9.108	0.501	28.578	1.00 27.08
ATOM	154	N	ASP	A	558	8.327	2.213	29.810	1.00 22.97
ATOM	155	CA	ASP	A	558	7.739	1.347	30.824	1.00 24.55
ATOM	156	CB	ASP	A	558	7.564	2.101	32.145	1.00 42.16
ATOM	157	CG	ASP	A	558	8.816	2.834	32.573	1.00 43.08
ATOM	158	OD1	ASP	A	558	9.918	2.258	32.459	1.00 43.16
ATOM	159	OD2	ASP	A	558	8.692	3.987	33.036	1.00 43.34
ATOM	160	C	ASP	A	558	6.386	0.797	30.408	1.00 23.87
ATOM	161	O	ASP	A	558	5.522	1.537	29.940	1.00 24.35
ATOM	162	N	PHE	A	559	6.200	-0.505	30.593	1.00 26.69
ATOM	163	CA	PHE	A	559	4.936	-1.140	30.257	1.00 26.24
ATOM	164	CB	PHE	A	559	5.052	-2.662	30.372	1.00 34.04
ATOM	165	CG	PHE	A	559	5.885	-3.290	29.292	1.00 34.73
ATOM	166	CD1	PHE	A	559	5.537	-3.135	27.952	1.00 34.65
ATOM	167	CD2	PHE	A	559	7.018	-4.036	29.610	1.00 34.64
ATOM	168	CE1	PHE	A	559	6.304	-3.713	26.943	1.00 34.43
ATOM	169	CE2	PHE	A	559	7.793	-4.618	28.610	1.00 34.92
ATOM	170	CZ	PHE	A	559	7.435	-4.456	27.272	1.00 34.80
ATOM	171	C	PHE	A	559	3.841	-0.639	31.196	1.00 26.88
ATOM	172	O	PHE	A	559	2.664	-0.631	30.837	1.00 25.97
ATOM	173	N	SER	A	560	4.245	-0.213	32.389	1.00 25.49
ATOM	174	CA	SER	A	560	3.321	0.285	33.407	1.00 26.93
ATOM	175	CB	SER	A	560	3.945	0.120	34.797	1.00 39.67
ATOM	176	OG	SER	A	560	5.170	0.830	34.899	1.00 40.02
ATOM	177	C	SER	A	560	2.920	1.745	33.197	1.00 26.06
ATOM	178	O	SER	A	560	2.205	2.327	34.018	1.00 26.04
ATOM	179	N	PHE	A	561	3.382	2.326	32.098	1.00 26.05
ATOM	180	CA	PHE	A	561	3.081	3.711	31.751	1.00 25.67
ATOM	181	CB	PHE	A	561	3.551	3.982	30.321	1.00 26.66
ATOM	182	CG	PHE	A	561	3.158	5.330	29.795	1.00 25.48
ATOM	183	CD1	PHE	A	561	3.990	6.430	29.972	1.00 26.67
ATOM	184	CD2	PHE	A	561	1.948	5.502	29.127	1.00 26.67
ATOM	185	CE1	PHE	A	561	3.624	7.686	29.489	1.00 26.12
ATOM	186	CE2	PHE	A	561	1.571	6.748	28.642	1.00 25.76
ATOM	187	CZ	PHE	A	561	2.412	7.844	28.823	1.00 26.46
ATOM	188	C	PHE	A	561	1.597	4.082	31.865	1.00 26.23
ATOM	189	O	PHE	A	561	0.715	3.293	31.533	1.00 25.55
ATOM	190	N	SER	A	562	1.335	5.304	32.320	1.00 24.91
ATOM	191	CA	SER	A	562	-0.029	5.803	32.463	1.00 26.24
ATOM	192	CB	SER	A	562	-0.406	5.906	33.940	1.00 42.72
ATOM	193	OG	SER	A	562	-1.720	6.414	34.084	1.00 43.29
ATOM	194	C	SER	A	562	-0.134	7.179	31.817	1.00 24.23
ATOM	195	O	SER	A	562	0.730	8.024	32.013	1.00 25.59
ATOM	196	N	ASP	A	563	-1.199	7.401	31.055	1.00 23.00
ATOM	197	CA	ASP	A	563	-1.410	8.675	30.373	1.00 22.76
ATOM	198	CB	ASP	A	563	-2.135	8.446	29.043	1.00 25.24
ATOM	199	CG	ASP	A	563	-3.635	8.228	29.230	1.00 23.77
ATOM	200	OD1	ASP	A	563	-4.037	7.150	29.718	1.00 23.35
ATOM	201	OD2	ASP	A	563	-4.421	9.143	28.906	1.00 24.81
ATOM	202	C	ASP	A	563	-2.263	9.659	31.176	1.00 22.96
ATOM	203	O	ASP	A	563	-2.297	10.848	30.865	1.00 21.79
ATOM	204	N	PHE	A	564	-2.958	9.150	32.187	1.00 24.29
ATOM	205	CA	PHE	A	564	-3.878	9.962	32.987	1.00 25.23
ATOM	206	CB	PHE	A	564	-4.394	9.157	34.180	1.00 41.24
ATOM	207	CG	PHE	A	564	-5.576	9.787	34.857	1.00 41.58
ATOM	208	CD1	PHE	A	564	-6.793	9.895	34.191	1.00 41.99
ATOM	209	CD2	PHE	A	564	-5.469	10.300	36.146	1.00 42.28
ATOM	210	CE1	PHE	A	564	-7.888	10.506	34.797	1.00 41.91
ATOM	211	CE2	PHE	A	564	-6.558	10.915	36.763	1.00 41.92
ATOM	212	CZ	PHE	A	564	-7.769	11.018	36.086	1.00 41.83
ATOM	213	C	PHE	A	564	-3.410	11.321	33.490	1.00 25.10
ATOM	214	O	PHE	A	564	-4.185	12.278	33.488	1.00 25.27
ATOM	215	N	GLU	A	565	-2.158	11.406	33.921	1.00 29.45
ATOM	216	CA	GLU	A	565	-1.618	12.651	34.459	1.00 30.36
ATOM	217	CB	GLU	A	565	-0.456	12.341	35.408	1.00 40.02

ATOM	218	CG	GLU	A	565	-0.821	11.524	36.645	1.00 40.24
ATOM	219	CD	GLU	A	565	-1.312	10.120	36.320	1.00 40.61
ATOM	220	OE1	GLU	A	565	-0.655	9.424	35.514	1.00 40.05
ATOM	221	OE2	GLU	A	565	-2.352	9.711	36.883	1.00 40.18
ATOM	222	C	GLU	A	565	-1.144	13.652	33.409	1.00 30.08
ATOM	223	O	GLU	A	565	-0.860	14.810	33.732	1.00 30.87
ATOM	224	N	LEU	A	566	-1.070	13.217	32.155	1.00 25.91
ATOM	225	CA	LEU	A	566	-0.587	14.073	31.078	1.00 25.51
ATOM	226	CB	LEU	A	566	0.157	13.219	30.051	1.00 30.68
ATOM	227	CG	LEU	A	566	1.256	12.294	30.578	1.00 31.45
ATOM	228	CD1	LEU	A	566	1.775	11.429	29.437	1.00 30.44
ATOM	229	CD2	LEU	A	566	2.377	13.112	31.186	1.00 31.07
ATOM	230	C	LEU	A	566	-1.642	14.889	30.349	1.00 25.31
ATOM	231	O	LEU	A	566	-2.793	14.475	30.220	1.00 24.57
ATOM	232	N	SER	A	567	-1.228	16.054	29.859	1.00 27.06
ATOM	233	CA	SER	A	567	-2.110	16.928	29.096	1.00 26.87
ATOM	234	CB	SER	A	567	-1.619	18.373	29.159	1.00 26.86
ATOM	235	OG	SER	A	567	-0.406	18.519	28.439	1.00 26.48
ATOM	236	C	SER	A	567	-2.038	16.447	27.650	1.00 26.54
ATOM	237	O	SER	A	567	-1.187	15.617	27.314	1.00 25.78
ATOM	238	N	ASP	A	568	-2.921	16.963	26.800	1.00 25.65
ATOM	239	CA	ASP	A	568	-2.935	16.588	25.388	1.00 25.44
ATOM	240	CB	ASP	A	568	-4.077	17.292	24.657	1.00 35.03
ATOM	241	CG	ASP	A	568	-5.437	16.732	25.028	1.00 35.82
ATOM	242	OD1	ASP	A	568	-6.450	17.284	24.555	1.00 36.02
ATOM	243	OD2	ASP	A	568	-5.489	15.744	25.788	1.00 35.24
ATOM	244	C	ASP	A	568	-1.604	16.946	24.739	1.00 26.02
ATOM	245	O	ASP	A	568	-1.040	16.154	23.981	1.00 24.45
ATOM	246	N	LEU	A	569	-1.104	18.140	25.040	1.00 26.56
ATOM	247	CA	LEU	A	569	0.177	18.584	24.501	1.00 27.05
ATOM	248	CB	LEU	A	569	0.544	19.958	25.066	1.00 35.85
ATOM	249	CG	LEU	A	569	1.958	20.460	24.751	1.00 36.55
ATOM	250	CD1	LEU	A	569	2.110	20.683	23.255	1.00 36.24
ATOM	251	CD2	LEU	A	569	2.211	21.755	25.509	1.00 36.44
ATOM	252	C	LEU	A	569	1.267	17.582	24.864	1.00 25.81
ATOM	253	O	LEU	A	569	2.080	17.214	24.021	1.00 27.30
ATOM	254	N	GLU	A	570	1.283	17.151	26.126	1.00 24.45
ATOM	255	CA	GLU	A	570	2.266	16.183	26.596	1.00 23.61
ATOM	256	CB	GLU	A	570	2.143	15.984	28.104	1.00 28.33
ATOM	257	CG	GLU	A	570	2.600	17.182	28.912	1.00 28.49
ATOM	258	CD	GLU	A	570	2.473	16.953	30.402	1.00 28.93
ATOM	259	OE1	GLU	A	570	1.346	16.679	30.864	1.00 27.96
ATOM	260	OE2	GLU	A	570	3.500	17.049	31.111	1.00 29.89
ATOM	261	C	GLU	A	570	2.149	14.832	25.892	1.00 23.15
ATOM	262	O	GLU	A	570	3.166	14.194	25.622	1.00 23.63
ATOM	263	N	THR	A	571	0.931	14.382	25.592	1.00 21.78
ATOM	264	CA	THR	A	571	0.803	13.099	24.897	1.00 21.61
ATOM	265	CB	THR	A	571	-0.670	12.597	24.814	1.00 20.96
ATOM	266	OG1	THR	A	571	-1.477	13.550	24.117	1.00 22.41
ATOM	267	CG2	THR	A	571	-1.242	12.365	26.212	1.00 20.91
ATOM	268	C	THR	A	571	1.362	13.236	23.483	1.00 22.39
ATOM	269	O	THR	A	571	1.924	12.283	22.929	1.00 21.33
ATOM	270	N	ALA	A	572	1.218	14.425	22.906	1.00 21.89
ATOM	271	CA	ALA	A	572	1.726	14.683	21.564	1.00 22.51
ATOM	272	CB	ALA	A	572	1.235	16.037	21.061	1.00 23.95
ATOM	273	C	ALA	A	572	3.247	14.647	21.603	1.00 23.15
ATOM	274	O	ALA	A	572	3.885	14.120	20.690	1.00 23.62
ATOM	275	N	LEU	A	573	3.830	15.211	22.660	1.00 24.60
ATOM	276	CA	LEU	A	573	5.281	15.215	22.805	1.00 25.21
ATOM	277	CB	LEU	A	573	5.694	16.061	24.013	1.00 27.78
ATOM	278	CG	LEU	A	573	5.470	17.565	23.808	1.00 27.76
ATOM	279	CD1	LEU	A	573	5.732	18.313	25.101	1.00 27.67
ATOM	280	CD2	LEU	A	573	6.391	18.074	22.699	1.00 27.52
ATOM	281	C	LEU	A	573	5.777	13.784	22.953	1.00 25.21
ATOM	282	O	LEU	A	573	6.797	13.413	22.374	1.00 25.36
ATOM	283	N	CYS	A	574	5.052	12.979	23.725	1.00 21.84

ATOM	284	CA	CYS	A	574	5.432	11.581	23.897	1.00 21.46
ATOM	285	CB	CYS	A	574	4.446	10.852	24.807	1.00 23.13
ATOM	286	SG	CYS	A	574	4.663	11.173	26.560	1.00 22.80
ATOM	287	C	CYS	A	574	5.426	10.890	22.540	1.00 21.90
ATOM	288	O	CYS	A	574	6.277	10.047	22.260	1.00 21.49
ATOM	289	N	THR	A	575	4.449	11.240	21.705	1.00 23.44
ATOM	290	CA	THR	A	575	4.334	10.631	20.384	1.00 21.88
ATOM	291	CB	THR	A	575	3.006	11.042	19.699	1.00 21.68
ATOM	292	OG1	THR	A	575	1.916	10.641	20.536	1.00 22.63
ATOM	293	CG2	THR	A	575	2.857	10.370	18.340	1.00 22.72
ATOM	294	C	THR	A	575	5.534	11.000	19.518	1.00 22.93
ATOM	295	O	THR	A	575	6.111	10.140	18.865	1.00 20.91
ATOM	296	N	ILE	A	576	5.929	12.268	19.529	1.00 22.16
ATOM	297	CA	ILE	A	576	7.091	12.673	18.748	1.00 23.75
ATOM	298	CB	ILE	A	576	7.403	14.171	18.924	1.00 26.26
ATOM	299	CG2	ILE	A	576	8.756	14.495	18.311	1.00 26.23
ATOM	300	CG1	ILE	A	576	6.318	15.016	18.260	1.00 26.29
ATOM	301	CD1	ILE	A	576	6.476	16.494	18.490	1.00 26.83
ATOM	302	C	ILE	A	576	8.311	11.872	19.209	1.00 22.92
ATOM	303	O	ILE	A	576	9.111	11.416	18.394	1.00 23.77
ATOM	304	N	ARG	A	577	8.447	11.703	20.521	1.00 24.95
ATOM	305	CA	ARG	A	577	9.575	10.965	21.077	1.00 24.47
ATOM	306	CB	ARG	A	577	9.560	11.050	22.609	1.00 26.95
ATOM	307	CG	ARG	A	577	10.652	10.234	23.294	1.00 27.15
ATOM	308	CD	ARG	A	577	12.031	10.561	22.731	1.00 27.06
ATOM	309	NE	ARG	A	577	12.398	11.956	22.957	1.00 26.65
ATOM	310	CZ	ARG	A	577	13.447	12.556	22.401	1.00 27.38
ATOM	311	NH1	ARG	A	577	14.247	11.888	21.578	1.00 27.39
ATOM	312	NH2	ARG	A	577	13.696	13.829	22.666	1.00 26.81
ATOM	313	C	ARG	A	577	9.565	9.509	20.625	1.00 24.18
ATOM	314	O	ARG	A	577	10.619	8.913	20.416	1.00 24.97
ATOM	315	N	MET	A	578	8.372	8.938	20.471	1.00 21.76
ATOM	316	CA	MET	A	578	8.247	7.552	20.032	1.00 21.44
ATOM	317	CB	MET	A	578	6.782	7.122	20.042	1.00 25.13
ATOM	318	CG	MET	A	578	6.222	6.855	21.425	1.00 23.93
ATOM	319	SD	MET	A	578	4.483	6.363	21.351	1.00 23.95
ATOM	320	CE	MET	A	578	3.892	6.945	22.915	1.00 24.88
ATOM	321	C	MET	A	578	8.820	7.370	18.630	1.00 22.27
ATOM	322	O	MET	A	578	9.562	6.422	18.373	1.00 22.21
ATOM	323	N	PHE	A	579	8.462	8.270	17.722	1.00 22.29
ATOM	324	CA	PHE	A	579	8.960	8.194	16.355	1.00 22.58
ATOM	325	CB	PHE	A	579	8.317	9.267	15.474	1.00 22.36
ATOM	326	CG	PHE	A	579	6.970	8.885	14.925	1.00 22.77
ATOM	327	CD1	PHE	A	579	5.812	9.077	15.672	1.00 22.73
ATOM	328	CD2	PHE	A	579	6.864	8.341	13.649	1.00 21.91
ATOM	329	CE1	PHE	A	579	4.560	8.733	15.151	1.00 22.92
ATOM	330	CE2	PHE	A	579	5.625	7.993	13.119	1.00 22.30
ATOM	331	CZ	PHE	A	579	4.469	8.190	13.871	1.00 22.31
ATOM	332	C	PHE	A	579	10.466	8.390	16.328	1.00 24.14
ATOM	333	O	PHE	A	579	11.183	7.701	15.600	1.00 22.99
ATOM	334	N	THR	A	580	10.935	9.336	17.133	1.00 24.07
ATOM	335	CA	THR	A	580	12.350	9.667	17.198	1.00 24.45
ATOM	336	CB	THR	A	580	12.567	10.901	18.085	1.00 24.15
ATOM	337	OG1	THR	A	580	11.712	11.961	17.636	1.00 24.88
ATOM	338	CG2	THR	A	580	14.008	11.370	18.009	1.00 24.18
ATOM	339	C	THR	A	580	13.239	8.535	17.691	1.00 24.89
ATOM	340	O	THR	A	580	14.218	8.188	17.030	1.00 24.15
ATOM	341	N	ASP	A	581	12.903	7.955	18.840	1.00 26.03
ATOM	342	CA	ASP	A	581	13.703	6.870	19.402	1.00 26.27
ATOM	343	CB	ASP	A	581	13.395	6.710	20.894	1.00 26.96
ATOM	344	CG	ASP	A	581	14.029	7.808	21.733	1.00 26.96
ATOM	345	OD1	ASP	A	581	14.376	8.868	21.167	1.00 26.78
ATOM	346	OD2	ASP	A	581	14.176	7.620	22.958	1.00 27.14
ATOM	347	C	ASP	A	581	13.578	5.534	18.676	1.00 26.95
ATOM	348	O	ASP	A	581	14.306	4.589	18.978	1.00 27.55
ATOM	349	N	LEU	A	582	12.654	5.447	17.727	1.00 25.40

ATOM	350	CA	LEU	A	582	12.516	4.231	16.934	1.00 25.74
ATOM	351	CB	LEU	A	582	11.040	3.918	16.642	1.00 23.64
ATOM	352	CG	LEU	A	582	10.286	3.274	17.817	1.00 22.73
ATOM	353	CD1	LEU	A	582	8.801	3.146	17.484	1.00 21.47
ATOM	354	CD2	LEU	A	582	10.873	1.900	18.125	1.00 22.27
ATOM	355	C	LEU	A	582	13.284	4.483	15.635	1.00 26.83
ATOM	356	O	LEU	A	582	13.259	3.669	14.710	1.00 26.36
ATOM	357	N	ASN	A	583	13.967	5.625	15.588	1.00 30.93
ATOM	358	CA	ASN	A	583	14.767	6.026	14.433	1.00 32.87
ATOM	359	CB	ASN	A	583	15.944	5.065	14.247	1.00 52.34
ATOM	360	CG	ASN	A	583	17.069	5.331	15.225	1.00 53.08
ATOM	361	OD1	ASN	A	583	18.026	4.561	15.312	1.00 53.41
ATOM	362	ND2	ASN	A	583	16.967	6.432	15.962	1.00 53.31
ATOM	363	C	ASN	A	583	13.973	6.114	13.143	1.00 31.76
ATOM	364	O	ASN	A	583	14.443	5.706	12.085	1.00 32.63
ATOM	365	N	LEU	A	584	12.769	6.665	13.235	1.00 27.18
ATOM	366	CA	LEU	A	584	11.904	6.813	12.073	1.00 27.03
ATOM	367	CB	LEU	A	584	10.455	6.521	12.468	1.00 25.42
ATOM	368	CG	LEU	A	584	9.877	5.107	12.377	1.00 27.73
ATOM	369	CD1	LEU	A	584	10.936	4.047	12.537	1.00 26.75
ATOM	370	CD2	LEU	A	584	8.771	4.975	13.422	1.00 25.52
ATOM	371	C	LEU	A	584	11.971	8.208	11.468	1.00 26.54
ATOM	372	O	LEU	A	584	11.760	8.380	10.270	1.00 27.46
ATOM	373	N	VAL	A	585	12.265	9.204	12.296	1.00 28.54
ATOM	374	CA	VAL	A	585	12.300	10.589	11.831	1.00 29.02
ATOM	375	CB	VAL	A	585	12.403	11.550	13.025	1.00 27.38
ATOM	376	CG1	VAL	A	585	12.404	12.993	12.545	1.00 27.75
ATOM	377	CG2	VAL	A	585	11.236	11.310	13.971	1.00 27.59
ATOM	378	C	VAL	A	585	13.375	10.951	10.804	1.00 30.26
ATOM	379	O	VAL	A	585	13.059	11.379	9.693	1.00 29.85
ATOM	380	N	GLN	A	586	14.639	10.799	11.167	1.00 36.79
ATOM	381	CA	GLN	A	586	15.697	11.132	10.228	1.00 38.86
ATOM	382	CB	GLN	A	586	17.024	11.300	10.969	1.00 56.08
ATOM	383	CG	GLN	A	586	16.935	12.315	12.102	1.00 56.46
ATOM	384	CD	GLN	A	586	18.288	12.833	12.551	1.00 56.85
ATOM	385	OE1	GLN	A	586	18.393	13.538	13.556	1.00 56.83
ATOM	386	NE2	GLN	A	586	19.332	12.494	11.801	1.00 56.71
ATOM	387	C	GLN	A	586	15.796	10.046	9.163	1.00 38.13
ATOM	388	O	GLN	A	586	16.005	10.336	7.985	1.00 38.63
ATOM	389	N	ASN	A	587	15.615	8.799	9.586	1.00 34.73
ATOM	390	CA	ASN	A	587	15.665	7.652	8.685	1.00 34.34
ATOM	391	CB	ASN	A	587	15.120	6.420	9.399	1.00 37.16
ATOM	392	CG	ASN	A	587	15.340	5.140	8.620	1.00 36.75
ATOM	393	OD1	ASN	A	587	15.392	5.141	7.389	1.00 36.63
ATOM	394	ND2	ASN	A	587	15.450	4.031	9.341	1.00 37.09
ATOM	395	C	ASN	A	587	14.834	7.911	7.430	1.00 34.66
ATOM	396	O	ASN	A	587	15.294	7.691	6.307	1.00 34.46
ATOM	397	N	PHE	A	588	13.600	8.372	7.628	1.00 30.54
ATOM	398	CA	PHE	A	588	12.711	8.654	6.511	1.00 30.38
ATOM	399	CB	PHE	A	588	11.366	7.964	6.734	1.00 24.15
ATOM	400	CG	PHE	A	588	11.487	6.479	6.910	1.00 23.77
ATOM	401	CD1	PHE	A	588	11.369	5.896	8.169	1.00 24.08
ATOM	402	CD2	PHE	A	588	11.762	5.663	5.820	1.00 23.24
ATOM	403	CE1	PHE	A	588	11.526	4.515	8.336	1.00 24.41
ATOM	404	CE2	PHE	A	588	11.921	4.285	5.969	1.00 23.43
ATOM	405	CZ	PHE	A	588	11.804	3.707	7.228	1.00 23.76
ATOM	406	C	PHE	A	588	12.535	10.151	6.304	1.00 30.36
ATOM	407	O	PHE	A	588	11.595	10.599	5.649	1.00 30.79
ATOM	408	N	GLN	A	589	13.462	10.912	6.873	1.00 35.42
ATOM	409	CA	GLN	A	589	13.489	12.366	6.750	1.00 36.58
ATOM	410	CB	GLN	A	589	14.167	12.739	5.433	1.00 49.72
ATOM	411	CG	GLN	A	589	15.501	12.043	5.243	1.00 49.96
ATOM	412	CD	GLN	A	589	15.680	11.505	3.839	1.00 50.27
ATOM	413	OE1	GLN	A	589	14.788	10.852	3.296	1.00 50.16
ATOM	414	NE2	GLN	A	589	16.839	11.762	3.249	1.00 50.04
ATOM	415	C	GLN	A	589	12.133	13.055	6.846	1.00 36.29

ATOM	416	O	GLN	A	589	11.648	13.655	5.882	1.00 36.29
ATOM	417	N	MET	A	590	11.524	12.969	8.021	1.00 36.14
ATOM	418	CA	MET	A	590	10.240	13.608	8.258	1.00 35.67
ATOM	419	CB	MET	A	590	9.459	12.847	9.331	1.00 32.44
ATOM	420	CG	MET	A	590	9.055	11.431	8.966	1.00 31.88
ATOM	421	SD	MET	A	590	8.254	10.607	10.373	1.00 31.19
ATOM	422	CE	MET	A	590	6.882	11.641	10.615	1.00 32.88
ATOM	423	C	MET	A	590	10.515	15.022	8.759	1.00 35.35
ATOM	424	O	MET	A	590	11.351	15.209	9.641	1.00 35.80
ATOM	425	N	LYS	A	591	9.839	16.014	8.191	1.00 35.07
ATOM	426	CA	LYS	A	591	10.016	17.389	8.648	1.00 34.67
ATOM	427	CB	LYS	A	591	9.427	18.381	7.641	1.00 46.77
ATOM	428	CG	LYS	A	591	10.350	18.721	6.480	1.00 47.35
ATOM	429	CD	LYS	A	591	10.650	17.509	5.612	1.00 47.48
ATOM	430	CE	LYS	A	591	11.738	17.813	4.587	1.00 47.57
ATOM	431	NZ	LYS	A	591	11.398	18.958	3.694	1.00 47.52
ATOM	432	C	LYS	A	591	9.274	17.492	9.976	1.00 33.93
ATOM	433	O	LYS	A	591	8.132	17.049	10.081	1.00 34.06
ATOM	434	N	HIS	A	592	9.926	18.068	10.983	1.00 27.75
ATOM	435	CA	HIS	A	592	9.332	18.205	12.310	1.00 26.86
ATOM	436	CB	HIS	A	592	10.227	19.071	13.208	1.00 27.82
ATOM	437	CG	HIS	A	592	9.770	19.139	14.632	1.00 26.72
ATOM	438	CD2	HIS	A	592	9.317	20.178	15.374	1.00 27.57
ATOM	439	ND1	HIS	A	592	9.755	18.040	15.464	1.00 27.40
ATOM	440	CE1	HIS	A	592	9.314	18.399	16.657	1.00 27.96
ATOM	441	NE2	HIS	A	592	9.041	19.692	16.628	1.00 27.67
ATOM	442	C	HIS	A	592	7.927	18.796	12.277	1.00 28.09
ATOM	443	O	HIS	A	592	7.021	18.288	12.933	1.00 26.68
ATOM	444	N	GLU	A	593	7.749	19.865	11.508	1.00 32.89
ATOM	445	CA	GLU	A	593	6.456	20.534	11.405	1.00 34.01
ATOM	446	CB	GLU	A	593	6.572	21.771	10.510	1.00 53.17
ATOM	447	CG	GLU	A	593	7.483	22.870	11.051	1.00 53.98
ATOM	448	CD	GLU	A	593	8.914	22.403	11.272	1.00 54.08
ATOM	449	OE1	GLU	A	593	9.519	21.853	10.326	1.00 53.79
ATOM	450	OE2	GLU	A	593	9.434	22.591	12.394	1.00 53.97
ATOM	451	C	GLU	A	593	5.370	19.613	10.856	1.00 33.01
ATOM	452	O	GLU	A	593	4.230	19.634	11.319	1.00 32.84
ATOM	453	N	VAL	A	594	5.730	18.808	9.864	1.00 27.04
ATOM	454	CA	VAL	A	594	4.783	17.886	9.249	1.00 25.85
ATOM	455	CB	VAL	A	594	5.382	17.279	7.962	1.00 24.72
ATOM	456	CG1	VAL	A	594	4.446	16.233	7.381	1.00 24.57
ATOM	457	CG2	VAL	A	594	5.631	18.383	6.945	1.00 24.02
ATOM	458	C	VAL	A	594	4.386	16.771	10.215	1.00 26.36
ATOM	459	O	VAL	A	594	3.214	16.386	10.283	1.00 25.05
ATOM	460	N	LEU	A	595	5.356	16.246	10.956	1.00 24.15
ATOM	461	CA	LEU	A	595	5.062	15.187	11.918	1.00 25.41
ATOM	462	CB	LEU	A	595	6.352	14.633	12.536	1.00 24.61
ATOM	463	CG	LEU	A	595	6.204	13.640	13.696	1.00 25.86
ATOM	464	CD1	LEU	A	595	5.345	12.453	13.272	1.00 24.75
ATOM	465	CD2	LEU	A	595	7.577	13.163	14.141	1.00 25.05
ATOM	466	C	LEU	A	595	4.148	15.745	13.009	1.00 25.02
ATOM	467	O	LEU	A	595	3.197	15.088	13.435	1.00 24.20
ATOM	468	N	CYS	A	596	4.426	16.970	13.451	1.00 24.36
ATOM	469	CA	CYS	A	596	3.603	17.588	14.479	1.00 24.03
ATOM	470	CB	CYS	A	596	4.195	18.931	14.907	1.00 27.15
ATOM	471	SG	CYS	A	596	5.699	18.771	15.892	1.00 26.30
ATOM	472	C	CYS	A	596	2.177	17.789	13.987	1.00 24.31
ATOM	473	O	CYS	A	596	1.222	17.537	14.721	1.00 24.29
ATOM	474	N	ARG	A	597	2.032	18.233	12.742	1.00 22.43
ATOM	475	CA	ARG	A	597	0.703	18.460	12.194	1.00 22.27
ATOM	476	CB	ARG	A	597	0.777	19.177	10.841	1.00 37.36
ATOM	477	CG	ARG	A	597	-0.597	19.576	10.315	1.00 38.44
ATOM	478	CD	ARG	A	597	-0.541	20.392	9.032	1.00 38.82
ATOM	479	NE	ARG	A	597	0.033	21.719	9.233	1.00 38.78
ATOM	480	CZ	ARG	A	597	1.286	22.043	8.936	1.00 38.71
ATOM	481	NH1	ARG	A	597	2.101	21.133	8.421	1.00 38.58

ATOM	482	NH2	ARG	A	597	1.721	23.278	9.149	1.00 38.90
ATOM	483	C	ARG	A	597	-0.042	17.140	12.042	1.00 21.87
ATOM	484	O	ARG	A	597	-1.231	17.049	12.347	1.00 22.25
ATOM	485	N	TRP	A	598	0.661	16.114	11.578	1.00 22.62
ATOM	486	CA	TRP	A	598	0.039	14.802	11.396	1.00 20.68
ATOM	487	CB	TRP	A	598	1.048	13.826	10.788	1.00 21.19
ATOM	488	CG	TRP	A	598	0.506	12.443	10.641	1.00 20.61
ATOM	489	CD2	TRP	A	598	0.680	11.358	11.554	1.00 21.45
ATOM	490	CE2	TRP	A	598	-0.059	10.262	11.048	1.00 20.54
ATOM	491	CE3	TRP	A	598	1.386	11.201	12.755	1.00 20.69
ATOM	492	CD1	TRP	A	598	-0.304	11.982	9.644	1.00 21.12
ATOM	493	NE1	TRP	A	598	-0.648	10.671	9.882	1.00 21.75
ATOM	494	CZ2	TRP	A	598	-0.111	9.028	11.701	1.00 20.03
ATOM	495	CZ3	TRP	A	598	1.334	9.974	13.406	1.00 21.23
ATOM	496	CH2	TRP	A	598	0.588	8.901	12.875	1.00 21.56
ATOM	497	C	TRP	A	598	-0.461	14.256	12.734	1.00 20.83
ATOM	498	O	TRP	A	598	-1.575	13.743	12.833	1.00 20.85
ATOM	499	N	ILE	A	599	0.371	14.362	13.762	1.00 18.38
ATOM	500	CA	ILE	A	599	-0.001	13.881	15.081	1.00 17.01
ATOM	501	CB	ILE	A	599	1.138	14.106	16.103	1.00 18.07
ATOM	502	CG2	ILE	A	599	0.625	13.881	17.516	1.00 18.87
ATOM	503	CG1	ILE	A	599	2.304	13.158	15.794	1.00 18.94
ATOM	504	CD1	ILE	A	599	3.523	13.367	16.669	1.00 18.33
ATOM	505	C	ILE	A	599	-1.263	14.596	15.554	1.00 18.40
ATOM	506	O	ILE	A	599	-2.184	13.969	16.081	1.00 16.74
ATOM	507	N	LEU	A	600	-1.311	15.912	15.371	1.00 21.06
ATOM	508	CA	LEU	A	600	-2.486	16.657	15.802	1.00 21.13
ATOM	509	CB	LEU	A	600	-2.202	18.162	15.761	1.00 21.76
ATOM	510	CG	LEU	A	600	-1.149	18.582	16.788	1.00 21.76
ATOM	511	CD1	LEU	A	600	-0.811	20.053	16.597	1.00 21.85
ATOM	512	CD2	LEU	A	600	-1.672	18.324	18.201	1.00 22.51
ATOM	513	C	LEU	A	600	-3.728	16.325	14.979	1.00 20.73
ATOM	514	O	LEU	A	600	-4.841	16.351	15.501	1.00 21.49
ATOM	515	N	SER	A	601	-3.540	16.032	13.694	1.00 21.08
ATOM	516	CA	SER	A	601	-4.665	15.674	12.833	1.00 20.75
ATOM	517	CB	SER	A	601	-4.225	15.579	11.372	1.00 22.55
ATOM	518	OG	SER	A	601	-4.008	16.869	10.822	1.00 23.14
ATOM	519	C	SER	A	601	-5.228	14.333	13.287	1.00 20.19
ATOM	520	O	SER	A	601	-6.438	14.125	13.275	1.00 20.13
ATOM	521	N	VAL	A	602	-4.340	13.424	13.679	1.00 21.43
ATOM	522	CA	VAL	A	602	-4.773	12.116	14.168	1.00 21.85
ATOM	523	CB	VAL	A	602	-3.564	11.204	14.471	1.00 17.69
ATOM	524	CG1	VAL	A	602	-4.018	9.928	15.198	1.00 18.88
ATOM	525	CG2	VAL	A	602	-2.867	10.845	13.174	1.00 19.25
ATOM	526	C	VAL	A	602	-5.581	12.312	15.445	1.00 21.58
ATOM	527	O	VAL	A	602	-6.705	11.823	15.566	1.00 20.63
ATOM	528	N	LYS	A	603	-5.011	13.052	16.394	1.00 20.30
ATOM	529	CA	LYS	A	603	-5.697	13.303	17.655	1.00 19.93
ATOM	530	CB	LYS	A	603	-4.833	14.186	18.567	1.00 29.59
ATOM	531	CG	LYS	A	603	-5.553	14.663	19.829	1.00 29.47
ATOM	532	CD	LYS	A	603	-4.587	15.206	20.882	1.00 30.01
ATOM	533	CE	LYS	A	603	-3.846	16.449	20.416	1.00 30.55
ATOM	534	NZ	LYS	A	603	-2.899	16.934	21.464	1.00 31.23
ATOM	535	C	LYS	A	603	-7.052	13.968	17.430	1.00 19.43
ATOM	536	O	LYS	A	603	-8.034	13.636	18.095	1.00 20.76
ATOM	537	N	LYS	A	604	-7.100	14.894	16.481	1.00 19.98
ATOM	538	CA	LYS	A	604	-8.325	15.629	16.174	1.00 21.57
ATOM	539	CB	LYS	A	604	-8.024	16.775	15.207	1.00 38.76
ATOM	540	CG	LYS	A	604	-9.262	17.531	14.741	1.00 39.38
ATOM	541	CD	LYS	A	604	-8.910	18.610	13.732	1.00 39.39
ATOM	542	CE	LYS	A	604	-10.158	19.340	13.255	1.00 39.74
ATOM	543	NZ	LYS	A	604	-9.843	20.385	12.242	1.00 39.72
ATOM	544	C	LYS	A	604	-9.413	14.754	15.579	1.00 20.90
ATOM	545	O	LYS	A	604	-10.609	15.039	15.742	1.00 21.11
ATOM	546	N	ASN	A	605	-9.009	13.688	14.892	1.00 21.37
ATOM	547	CA	ASN	A	605	-9.987	12.812	14.273	1.00 21.04

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ATOM    548  CB  ASN A 605      -9.486  12.315  12.920  1.00 27.07
ATOM    549  CG  ASN A 605      -9.635  13.366  11.836  1.00 27.98
ATOM    550  OD1 ASN A 605      -8.775  14.234  11.666  1.00 27.85
ATOM    551  ND2 ASN A 605     -10.745  13.308  11.112  1.00 27.52
ATOM    552  C   ASN A 605     -10.506  11.662  15.116  1.00 21.57
ATOM    553  O   ASN A 605     -11.072  10.702  14.590  1.00 23.07
ATOM    554  N   TYR A 606     -10.292  11.754  16.422  1.00 20.07
ATOM    555  CA  TYR A 606     -10.853  10.792  17.349  1.00 20.46
ATOM    556  CB  TYR A 606      -9.858  10.374  18.437  1.00 18.79
ATOM    557  CG  TYR A 606      -8.993   9.216  17.992  1.00 18.19
ATOM    558  CD1 TYR A 606      -7.745   9.430  17.409  1.00 19.08
ATOM    559  CE1 TYR A 606      -6.989   8.362  16.913  1.00 18.94
ATOM    560  CD2 TYR A 606      -9.467   7.909  18.074  1.00 18.23
ATOM    561  CE2 TYR A 606      -8.722   6.840  17.578  1.00 17.63
ATOM    562  CZ  TYR A 606      -7.485   7.077  16.999  1.00 18.23
ATOM    563  OH  TYR A 606      -6.747   6.029  16.489  1.00 15.86
ATOM    564  C   TYR A 606     -12.015  11.580  17.947  1.00 21.76
ATOM    565  O   TYR A 606     -11.975  12.819  18.007  1.00 20.70
ATOM    566  N   ARG A 607     -13.060  10.882  18.365  1.00 19.57
ATOM    567  CA  ARG A 607     -14.223  11.562  18.931  1.00 20.12
ATOM    568  CB  ARG A 607     -15.497  10.791  18.575  1.00 23.54
ATOM    569  CG  ARG A 607     -15.679  10.605  17.074  1.00 23.38
ATOM    570  CD  ARG A 607     -17.034  10.010  16.715  1.00 23.37
ATOM    571  NE  ARG A 607     -17.142   9.734  15.282  1.00 24.11
ATOM    572  CZ  ARG A 607     -18.274   9.408  14.665  1.00 24.11
ATOM    573  NH1 ARG A 607     -19.405   9.321  15.355  1.00 24.42
ATOM    574  NH2 ARG A 607     -18.274   9.163  13.362  1.00 25.10
ATOM    575  C   ARG A 607     -14.037  11.647  20.438  1.00 20.33
ATOM    576  O   ARG A 607     -14.168  10.648  21.150  1.00 20.09
ATOM    577  N   LYS A 608     -13.736  12.847  20.926  1.00 25.24
ATOM    578  CA  LYS A 608     -13.484  13.033  22.349  1.00 25.95
ATOM    579  CB  LYS A 608     -13.108  14.491  22.636  1.00 41.13
ATOM    580  CG  LYS A 608     -14.175  15.511  22.294  1.00 41.73
ATOM    581  CD  LYS A 608     -13.670  16.916  22.603  1.00 41.87
ATOM    582  CE  LYS A 608     -14.750  17.972  22.413  1.00 41.79
ATOM    583  NZ  LYS A 608     -14.231  19.340  22.703  1.00 41.73
ATOM    584  C   LYS A 608     -14.625  12.599  23.254  1.00 26.44
ATOM    585  O   LYS A 608     -14.397  12.225  24.405  1.00 25.96
ATOM    586  N   ASN A 609     -15.847  12.626  22.732  1.00 27.23
ATOM    587  CA  ASN A 609     -17.005  12.248  23.522  1.00 27.32
ATOM    588  CB  ASN A 609     -18.212  13.066  23.071  1.00 36.30
ATOM    589  CG  ASN A 609     -17.995  14.554  23.282  1.00 36.84
ATOM    590  OD1 ASN A 609     -17.809  15.008  24.411  1.00 37.02
ATOM    591  ND2 ASN A 609     -17.998  15.316  22.199  1.00 37.30
ATOM    592  C   ASN A 609     -17.317  10.758  23.541  1.00 26.80
ATOM    593  O   ASN A 609     -18.330  10.332  24.098  1.00 27.72
ATOM    594  N   VAL A 610     -16.451   9.964  22.920  1.00 21.65
ATOM    595  CA  VAL A 610     -16.616   8.512  22.946  1.00 20.92
ATOM    596  CB  VAL A 610     -16.097   7.862  21.645  1.00 20.35
ATOM    597  CG1 VAL A 610     -15.897   6.370  21.846  1.00 20.76
ATOM    598  CG2 VAL A 610     -17.120   8.086  20.522  1.00 18.26
ATOM    599  C   VAL A 610     -15.780   8.109  24.171  1.00 19.89
ATOM    600  O   VAL A 610     -14.590   8.414  24.254  1.00 20.96
ATOM    601  N   ALA A 611     -16.423   7.450  25.130  1.00 19.80
ATOM    602  CA  ALA A 611     -15.791   7.078  26.397  1.00 19.90
ATOM    603  CB  ALA A 611     -16.780   6.287  27.251  1.00 20.34
ATOM    604  C   ALA A 611     -14.448   6.363  26.383  1.00 19.34
ATOM    605  O   ALA A 611     -13.549   6.731  27.138  1.00 20.80
ATOM    606  N   TYR A 612     -14.307   5.343  25.542  1.00 18.10
ATOM    607  CA  TYR A 612     -13.060   4.599  25.512  1.00 15.69
ATOM    608  CB  TYR A 612     -13.321   3.134  25.873  1.00 20.49
ATOM    609  CG  TYR A 612     -12.107   2.251  25.709  1.00 20.53
ATOM    610  CD1 TYR A 612     -12.047   1.304  24.685  1.00 21.50
ATOM    611  CE1 TYR A 612     -10.932   0.484  24.536  1.00 20.27
ATOM    612  CD2 TYR A 612     -11.020   2.359  26.577  1.00 20.70
ATOM    613  CE2 TYR A 612      -9.906   1.546  26.434  1.00 19.44
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ATOM	614	CZ	TYR	A	612	-9.870	0.611	25.414	1.00 20.76
ATOM	615	OH	TYR	A	612	-8.769	-0.205	25.284	1.00 20.43
ATOM	616	C	TYR	A	612	-12.264	4.682	24.218	1.00 14.59
ATOM	617	O	TYR	A	612	-11.064	4.921	24.268	1.00 15.21
ATOM	618	N	HIS	A	613	-12.915	4.500	23.069	1.00 16.35
ATOM	619	CA	HIS	A	613	-12.197	4.553	21.793	1.00 15.66
ATOM	620	CB	HIS	A	613	-12.942	3.763	20.705	1.00 19.05
ATOM	621	CG	HIS	A	613	-12.971	2.286	20.941	1.00 21.28
ATOM	622	CD2	HIS	A	613	-12.010	1.341	20.797	1.00 20.01
ATOM	623	ND1	HIS	A	613	-14.087	1.628	21.408	1.00 19.61
ATOM	624	CE1	HIS	A	613	-13.816	0.342	21.541	1.00 20.40
ATOM	625	NE2	HIS	A	613	-12.562	0.140	21.176	1.00 20.73
ATOM	626	C	HIS	A	613	-11.998	5.989	21.330	1.00 15.17
ATOM	627	O	HIS	A	613	-12.633	6.451	20.376	1.00 17.00
ATOM	628	N	ASN	A	614	-11.101	6.682	22.020	1.00 18.64
ATOM	629	CA	ASN	A	614	-10.784	8.068	21.725	1.00 17.28
ATOM	630	CB	ASN	A	614	-11.344	8.977	22.827	1.00 21.97
ATOM	631	CG	ASN	A	614	-10.939	8.530	24.219	1.00 21.21
ATOM	632	OD1	ASN	A	614	-9.752	8.417	24.526	1.00 22.66
ATOM	633	ND2	ASN	A	614	-11.928	8.277	25.074	1.00 21.32
ATOM	634	C	ASN	A	614	-9.265	8.207	21.628	1.00 18.30
ATOM	635	O	ASN	A	614	-8.543	7.210	21.671	1.00 17.11
ATOM	636	N	TRP	A	615	-8.773	9.434	21.504	1.00 20.23
ATOM	637	CA	TRP	A	615	-7.335	9.650	21.388	1.00 20.84
ATOM	638	CB	TRP	A	615	-7.020	11.152	21.346	1.00 18.84
ATOM	639	CG	TRP	A	615	-5.567	11.469	21.610	1.00 20.81
ATOM	640	CD2	TRP	A	615	-4.446	11.146	20.775	1.00 20.87
ATOM	641	CE2	TRP	A	615	-3.287	11.632	21.427	1.00 20.24
ATOM	642	CE3	TRP	A	615	-4.307	10.493	19.542	1.00 20.69
ATOM	643	CD1	TRP	A	615	-5.055	12.115	22.700	1.00 19.88
ATOM	644	NE1	TRP	A	615	-3.689	12.217	22.599	1.00 19.37
ATOM	645	CZ2	TRP	A	615	-2.007	11.488	20.886	1.00 21.34
ATOM	646	CZ3	TRP	A	615	-3.031	10.346	19.004	1.00 21.28
ATOM	647	CH2	TRP	A	615	-1.897	10.845	19.679	1.00 21.14
ATOM	648	C	TRP	A	615	-6.457	8.993	22.453	1.00 19.80
ATOM	649	O	TRP	A	615	-5.383	8.479	22.133	1.00 19.45
ATOM	650	N	ARG	A	616	-6.888	9.010	23.713	1.00 19.15
ATOM	651	CA	ARG	A	616	-6.063	8.424	24.764	1.00 18.73
ATOM	652	CB	ARG	A	616	-6.658	8.707	26.146	1.00 20.84
ATOM	653	CG	ARG	A	616	-6.628	10.197	26.516	1.00 20.98
ATOM	654	CD	ARG	A	616	-5.208	10.754	26.511	1.00 21.78
ATOM	655	NE	ARG	A	616	-5.185	12.195	26.772	1.00 22.05
ATOM	656	CZ	ARG	A	616	-4.519	12.760	27.773	1.00 22.62
ATOM	657	NH1	ARG	A	616	-3.820	12.012	28.610	1.00 22.11
ATOM	658	NH2	ARG	A	616	-4.558	14.074	27.936	1.00 22.34
ATOM	659	C	ARG	A	616	-5.869	6.922	24.559	1.00 18.23
ATOM	660	O	ARG	A	616	-4.799	6.388	24.857	1.00 18.43
ATOM	661	N	HIS	A	617	-6.889	6.246	24.041	1.00 17.23
ATOM	662	CA	HIS	A	617	-6.754	4.812	23.796	1.00 17.41
ATOM	663	CB	HIS	A	617	-8.095	4.194	23.403	1.00 16.86
ATOM	664	CG	HIS	A	617	-7.964	2.830	22.798	1.00 13.76
ATOM	665	CD2	HIS	A	617	-8.291	2.369	21.569	1.00 17.85
ATOM	666	ND1	HIS	A	617	-7.384	1.772	23.465	1.00 17.12
ATOM	667	CE1	HIS	A	617	-7.357	0.716	22.670	1.00 15.55
ATOM	668	NE2	HIS	A	617	-7.899	1.052	21.515	1.00 16.82
ATOM	669	C	HIS	A	617	-5.737	4.566	22.682	1.00 17.79
ATOM	670	O	HIS	A	617	-4.911	3.643	22.770	1.00 17.66
ATOM	671	N	ALA	A	618	-5.807	5.384	21.635	1.00 16.69
ATOM	672	CA	ALA	A	618	-4.897	5.268	20.499	1.00 17.60
ATOM	673	CB	ALA	A	618	-5.268	6.270	19.416	1.00 19.06
ATOM	674	C	ALA	A	618	-3.478	5.517	20.973	1.00 18.60
ATOM	675	O	ALA	A	618	-2.553	4.777	20.642	1.00 16.65
ATOM	676	N	PHE	A	619	-3.327	6.573	21.764	1.00 16.36
ATOM	677	CA	PHE	A	619	-2.040	6.942	22.316	1.00 18.60
ATOM	678	CB	PHE	A	619	-2.205	8.224	23.142	1.00 21.01
ATOM	679	CG	PHE	A	619	-0.989	8.594	23.938	1.00 22.31

	ATOM	680	CD1	PHE	A	619	0.166	9.041	23.305	1.00 21.99
	ATOM	681	CD2	PHE	A	619	-0.995	8.475	25.326	1.00 22.04
	ATOM	682	CE1	PHE	A	619	1.304	9.366	24.045	1.00 21.42
	ATOM	683	CE2	PHE	A	619	0.139	8.798	26.076	1.00 21.94
5	ATOM	684	CZ	PHE	A	619	1.292	9.246	25.426	1.00 21.32
	ATOM	685	C	PHE	A	619	-1.459	5.816	23.176	1.00 17.86
	ATOM	686	O	PHE	A	619	-0.285	5.470	23.040	1.00 17.74
	ATOM	687	N	ASN	A	620	-2.281	5.239	24.049	1.00 17.68
	ATOM	688	CA	ASN	A	620	-1.814	4.160	24.920	1.00 18.84
10	ATOM	689	CB	ASN	A	620	-2.868	3.793	25.972	1.00 22.20
	ATOM	690	CG	ASN	A	620	-3.028	4.867	27.037	1.00 22.41
	ATOM	691	OD1	ASN	A	620	-2.078	5.578	27.354	1.00 22.93
	ATOM	692	ND2	ASN	A	620	-4.220	4.969	27.611	1.00 21.57
	ATOM	693	C	ASN	A	620	-1.450	2.921	24.113	1.00 18.91
15	ATOM	694	O	ASN	A	620	-0.514	2.201	24.461	1.00 18.42
	ATOM	695	N	THR	A	621	-2.184	2.682	23.031	1.00 16.41
	ATOM	696	CA	THR	A	621	-1.901	1.519	22.191	1.00 16.82
	ATOM	697	CB	THR	A	621	-2.965	1.360	21.093	1.00 17.95
	ATOM	698	OG1	THR	A	621	-4.246	1.190	21.704	1.00 17.42
20	ATOM	699	CG2	THR	A	621	-2.664	0.130	20.233	1.00 17.02
	ATOM	700	C	THR	A	621	-0.526	1.693	21.556	1.00 18.34
	ATOM	701	O	THR	A	621	0.276	0.749	21.505	1.00 18.19
	ATOM	702	N	ALA	A	622	-0.249	2.901	21.085	1.00 15.98
	ATOM	703	CA	ALA	A	622	1.041	3.211	20.479	1.00 18.35
25	ATOM	704	CB	ALA	A	622	1.005	4.592	19.864	1.00 16.90
	ATOM	705	C	ALA	A	622	2.151	3.138	21.529	1.00 17.61
	ATOM	706	O	ALA	A	622	3.242	2.656	21.248	1.00 16.57
	ATOM	707	N	GLN	A	623	1.876	3.622	22.740	1.00 17.78
	ATOM	708	CA	GLN	A	623	2.878	3.578	23.803	1.00 19.17
30	ATOM	709	CB	GLN	A	623	2.351	4.260	25.071	1.00 19.99
	ATOM	710	CG	GLN	A	623	3.361	4.335	26.219	1.00 19.42
	ATOM	711	CD	GLN	A	623	3.358	3.103	27.110	1.00 20.35
	ATOM	712	OE1	GLN	A	623	2.302	2.595	27.488	1.00 19.39
	ATOM	713	NE2	GLN	A	623	4.547	2.634	27.475	1.00 19.48
35	ATOM	714	C	GLN	A	623	3.251	2.137	24.114	1.00 19.45
	ATOM	715	O	GLN	A	623	4.420	1.824	24.358	1.00 19.89
	ATOM	716	N	CYS	A	624	2.258	1.256	24.118	1.00 17.26
	ATOM	717	CA	CYS	A	624	2.533	-0.146	24.385	1.00 19.37
	ATOM	718	CB	CYS	A	624	1.234	-0.938	24.530	1.00 19.88
40	ATOM	719	SG	CYS	A	624	1.499	-2.658	25.026	1.00 19.62
	ATOM	720	C	CYS	A	624	3.369	-0.708	23.237	1.00 18.34
	ATOM	721	O	CYS	A	624	4.255	-1.528	23.460	1.00 18.71
	ATOM	722	N	MET	A	625	3.094	-0.258	22.015	1.00 19.30
	ATOM	723	CA	MET	A	625	3.844	-0.720	20.843	1.00 18.88
45	ATOM	724	CB	MET	A	625	3.259	-0.102	19.567	1.00 21.69
	ATOM	725	CG	MET	A	625	3.952	-0.521	18.267	1.00 19.33
	ATOM	726	SD	MET	A	625	3.854	-2.291	17.926	1.00 18.96
	ATOM	727	CE	MET	A	625	2.148	-2.414	17.292	1.00 20.28
	ATOM	728	C	MET	A	625	5.307	-0.296	21.019	1.00 20.73
50	ATOM	729	O	MET	A	625	6.226	-1.097	20.832	1.00 19.61
	ATOM	730	N	PHE	A	626	5.515	0.968	21.381	1.00 21.46
	ATOM	731	CA	PHE	A	626	6.862	1.487	21.604	1.00 22.24
	ATOM	732	CB	PHE	A	626	6.810	2.973	22.003	1.00 18.30
	ATOM	733	CG	PHE	A	626	8.162	3.566	22.325	1.00 18.77
55	ATOM	734	CD1	PHE	A	626	8.662	3.539	23.628	1.00 19.77
	ATOM	735	CD2	PHE	A	626	8.943	4.126	21.321	1.00 19.03
	ATOM	736	CE1	PHE	A	626	9.920	4.060	23.921	1.00 19.58
	ATOM	737	CE2	PHE	A	626	10.207	4.650	21.607	1.00 19.50
	ATOM	738	CZ	PHE	A	626	10.693	4.616	22.907	1.00 17.99
60	ATOM	739	C	PHE	A	626	7.578	0.684	22.685	1.00 22.81
	ATOM	740	O	PHE	A	626	8.747	0.321	22.528	1.00 22.67
	ATOM	741	N	ALA	A	627	6.878	0.405	23.781	1.00 23.57
	ATOM	742	CA	ALA	A	627	7.460	-0.351	24.883	1.00 24.17
	ATOM	743	CB	ALA	A	627	6.511	-0.357	26.082	1.00 26.38
65	ATOM	744	C	ALA	A	627	7.794	-1.787	24.477	1.00 24.26
	ATOM	745	O	ALA	A	627	8.854	-2.305	24.834	1.00 25.36

ATOM	746	N	ALA	A	628	6.898	-2.428	23.728	1.00 21.99
ATOM	747	CA	ALA	A	628	7.127	-3.806	23.296	1.00 22.22
ATOM	748	CB	ALA	A	628	5.884	-4.364	22.609	1.00 18.57
ATOM	749	C	ALA	A	628	8.315	-3.879	22.350	1.00 23.09
ATOM	750	O	ALA	A	628	9.085	-4.838	22.382	1.00 22.87
ATOM	751	N	LEU	A	629	8.462	-2.864	21.506	1.00 21.79
ATOM	752	CA	LEU	A	629	9.565	-2.835	20.555	1.00 24.56
ATOM	753	CB	LEU	A	629	9.338	-1.737	19.521	1.00 24.39
ATOM	754	CG	LEU	A	629	8.155	-1.980	18.582	1.00 25.70
ATOM	755	CD1	LEU	A	629	7.906	-0.753	17.734	1.00 25.30
ATOM	756	CD2	LEU	A	629	8.446	-3.200	17.711	1.00 26.08
ATOM	757	C	LEU	A	629	10.897	-2.608	21.256	1.00 25.12
ATOM	758	O	LEU	A	629	11.898	-3.243	20.920	1.00 25.35
ATOM	759	N	LYS	A	630	10.907	-1.705	22.234	1.00 32.90
ATOM	760	CA	LYS	A	630	12.126	-1.394	22.981	1.00 33.87
ATOM	761	CB	LYS	A	630	12.033	0.012	23.573	1.00 31.73
ATOM	762	CG	LYS	A	630	12.137	1.116	22.544	1.00 31.51
ATOM	763	CD	LYS	A	630	13.494	1.089	21.868	1.00 32.17
ATOM	764	CE	LYS	A	630	13.682	2.292	20.966	1.00 31.52
ATOM	765	NZ	LYS	A	630	14.984	2.243	20.254	1.00 31.88
ATOM	766	C	LYS	A	630	12.416	-2.394	24.096	1.00 34.55
ATOM	767	O	LYS	A	630	13.176	-3.347	23.906	1.00 35.07
ATOM	768	N	ALA	A	631	11.814	-2.168	25.260	1.00 30.54
ATOM	769	CA	ALA	A	631	12.005	-3.047	26.406	1.00 30.93
ATOM	770	CB	ALA	A	631	11.175	-2.548	27.590	1.00 31.25
ATOM	771	C	ALA	A	631	11.630	-4.492	26.070	1.00 30.76
ATOM	772	O	ALA	A	631	12.270	-5.432	26.538	1.00 30.38
ATOM	773	N	GLY	A	632	10.588	-4.660	25.257	1.00 30.21
ATOM	774	CA	GLY	A	632	10.147	-5.991	24.871	1.00 30.31
ATOM	775	C	GLY	A	632	11.073	-6.644	23.860	1.00 30.73
ATOM	776	O	GLY	A	632	10.975	-7.843	23.592	1.00 30.32
ATOM	777	N	LYS	A	633	11.967	-5.848	23.287	1.00 31.93
ATOM	778	CA	LYS	A	633	12.937	-6.346	22.315	1.00 32.77
ATOM	779	CB	LYS	A	633	13.858	-7.374	22.979	1.00 44.15
ATOM	780	CG	LYS	A	633	14.875	-6.775	23.929	1.00 44.47
ATOM	781	CD	LYS	A	633	15.841	-7.835	24.426	1.00 44.54
ATOM	782	CE	LYS	A	633	17.052	-7.197	25.079	1.00 44.74
ATOM	783	NZ	LYS	A	633	17.770	-6.316	24.114	1.00 44.90
ATOM	784	C	LYS	A	633	12.352	-6.948	21.041	1.00 32.00
ATOM	785	O	LYS	A	633	12.862	-7.944	20.522	1.00 32.88
ATOM	786	N	ILE	A	634	11.292	-6.338	20.527	1.00 26.60
ATOM	787	CA	ILE	A	634	10.670	-6.818	19.305	1.00 25.39
ATOM	788	CB	ILE	A	634	9.124	-6.695	19.400	1.00 26.41
ATOM	789	CG2	ILE	A	634	8.473	-7.074	18.076	1.00 27.54
ATOM	790	CG1	ILE	A	634	8.607	-7.612	20.510	1.00 27.29
ATOM	791	CD1	ILE	A	634	7.113	-7.543	20.725	1.00 27.31
ATOM	792	C	ILE	A	634	11.200	-6.013	18.117	1.00 25.00
ATOM	793	O	ILE	A	634	11.127	-6.446	16.968	1.00 25.10
ATOM	794	N	GLN	A	635	11.770	-4.850	18.409	1.00 23.96
ATOM	795	CA	GLN	A	635	12.305	-3.975	17.377	1.00 23.37
ATOM	796	CB	GLN	A	635	12.904	-2.716	18.010	1.00 27.98
ATOM	797	CG	GLN	A	635	13.476	-1.740	17.002	1.00 28.57
ATOM	798	CD	GLN	A	635	14.111	-0.516	17.645	1.00 28.17
ATOM	799	OE1	GLN	A	635	14.635	0.354	16.953	1.00 29.49
ATOM	800	NE2	GLN	A	635	14.059	-0.444	18.967	1.00 27.30
ATOM	801	C	GLN	A	635	13.368	-4.672	16.535	1.00 24.49
ATOM	802	O	GLN	A	635	13.445	-4.468	15.324	1.00 24.24
ATOM	803	N	ASN	A	636	14.180	-5.493	17.195	1.00 30.08
ATOM	804	CA	ASN	A	636	15.266	-6.222	16.547	1.00 31.17
ATOM	805	CB	ASN	A	636	16.172	-6.829	17.618	1.00 31.58
ATOM	806	CG	ASN	A	636	16.612	-5.811	18.651	1.00 32.71
ATOM	807	OD1	ASN	A	636	17.739	-5.309	18.607	1.00 32.53
ATOM	808	ND2	ASN	A	636	15.716	-5.490	19.585	1.00 31.94
ATOM	809	C	ASN	A	636	14.782	-7.330	15.617	1.00 31.51
ATOM	810	O	ASN	A	636	15.553	-7.853	14.809	1.00 31.97
ATOM	811	N	LYS	A	637	13.510	-7.690	15.732	1.00 28.95

	ATOM	812	CA	LYS	A	637	12.944	-8.750	14.904	1.00 28.44
	ATOM	813	CB	LYS	A	637	11.983	-9.596	15.740	1.00 31.06
	ATOM	814	CG	LYS	A	637	12.590	-10.196	16.993	1.00 30.31
	ATOM	815	CD	LYS	A	637	11.502	-10.770	17.889	1.00 30.88
5	ATOM	816	CE	LYS	A	637	12.072	-11.316	19.186	1.00 31.13
	ATOM	817	NZ	LYS	A	637	12.956	-12.494	18.960	1.00 31.42
	ATOM	818	C	LYS	A	637	12.200	-8.219	13.683	1.00 28.47
	ATOM	819	O	LYS	A	637	11.696	-9.003	12.875	1.00 29.67
	ATOM	820	N	LEU	A	638	12.137	-6.898	13.539	1.00 27.41
10	ATOM	821	CA	LEU	A	638	11.401	-6.297	12.427	1.00 27.76
	ATOM	822	CB	LEU	A	638	10.187	-5.546	12.977	1.00 24.26
	ATOM	823	CG	LEU	A	638	9.349	-6.293	14.016	1.00 24.56
	ATOM	824	CD1	LEU	A	638	8.265	-5.366	14.549	1.00 25.02
	ATOM	825	CD2	LEU	A	638	8.740	-7.549	13.396	1.00 24.12
15	ATOM	826	C	LEU	A	638	12.203	-5.348	11.543	1.00 26.64
	ATOM	827	O	LEU	A	638	13.301	-4.925	11.896	1.00 28.43
	ATOM	828	N	THR	A	639	11.630	-5.011	10.389	1.00 23.44
	ATOM	829	CA	THR	A	639	12.253	-4.093	9.441	1.00 22.41
	ATOM	830	CB	THR	A	639	11.772	-4.343	8.004	1.00 28.95
20	ATOM	831	OG1	THR	A	639	10.378	-4.021	7.908	1.00 28.33
	ATOM	832	CG2	THR	A	639	11.982	-5.794	7.611	1.00 28.40
	ATOM	833	C	THR	A	639	11.870	-2.662	9.798	1.00 22.44
	ATOM	834	O	THR	A	639	10.921	-2.445	10.551	1.00 23.44
	ATOM	835	N	ASP	A	640	12.601	-1.695	9.250	1.00 24.48
25	ATOM	836	CA	ASP	A	640	12.321	-0.288	9.508	1.00 24.67
	ATOM	837	CB	ASP	A	640	13.313	0.604	8.747	1.00 30.57
	ATOM	838	CG	ASP	A	640	14.693	0.642	9.393	1.00 30.89
	ATOM	839	OD1	ASP	A	640	15.634	1.146	8.743	1.00 30.85
	ATOM	840	OD2	ASP	A	640	14.838	0.184	10.548	1.00 30.86
30	ATOM	841	C	ASP	A	640	10.895	0.038	9.074	1.00 24.64
	ATOM	842	O	ASP	A	640	10.177	0.761	9.765	1.00 24.23
	ATOM	843	N	LEU	A	641	10.491	-0.513	7.931	1.00 24.25
	ATOM	844	CA	LEU	A	641	9.153	-0.291	7.392	1.00 23.81
	ATOM	845	CB	LEU	A	641	9.066	-0.863	5.975	1.00 25.82
35	ATOM	846	CG	LEU	A	641	9.326	0.063	4.781	1.00 27.50
	ATOM	847	CD1	LEU	A	641	10.267	1.188	5.137	1.00 25.96
	ATOM	848	CD2	LEU	A	641	9.858	-0.767	3.629	1.00 26.21
	ATOM	849	C	LEU	A	641	8.074	-0.914	8.269	1.00 23.08
	ATOM	850	O	LEU	A	641	7.013	-0.332	8.464	1.00 24.13
40	ATOM	851	N	GLU	A	642	8.336	-2.110	8.778	1.00 23.58
	ATOM	852	CA	GLU	A	642	7.371	-2.771	9.639	1.00 24.03
	ATOM	853	CB	GLU	A	642	7.847	-4.188	9.966	1.00 29.79
	ATOM	854	CG	GLU	A	642	7.607	-5.150	8.816	1.00 30.52
	ATOM	855	CD	GLU	A	642	8.276	-6.492	9.004	1.00 30.88
45	ATOM	856	OE1	GLU	A	642	7.928	-7.424	8.246	1.00 30.84
	ATOM	857	OE2	GLU	A	642	9.147	-6.615	9.893	1.00 30.40
	ATOM	858	C	GLU	A	642	7.166	-1.947	10.911	1.00 24.17
	ATOM	859	O	GLU	A	642	6.043	-1.816	11.404	1.00 24.58
	ATOM	860	N	ILE	A	643	8.260	-1.382	11.419	1.00 21.47
50	ATOM	861	CA	ILE	A	643	8.230	-0.555	12.625	1.00 21.07
	ATOM	862	CB	ILE	A	643	9.659	-0.184	13.062	1.00 24.97
	ATOM	863	CG2	ILE	A	643	9.614	0.833	14.195	1.00 23.30
	ATOM	864	CG1	ILE	A	643	10.409	-1.444	13.502	1.00 23.69
	ATOM	865	CD1	ILE	A	643	11.900	-1.229	13.673	1.00 24.32
55	ATOM	866	C	ILE	A	643	7.440	0.727	12.350	1.00 20.73
	ATOM	867	O	ILE	A	643	6.536	1.088	13.109	1.00 20.07
	ATOM	868	N	LEU	A	644	7.792	1.405	11.259	1.00 21.45
	ATOM	869	CA	LEU	A	644	7.122	2.632	10.843	1.00 22.42
	ATOM	870	CB	LEU	A	644	7.707	3.112	9.510	1.00 22.90
60	ATOM	871	CG	LEU	A	644	7.028	4.294	8.816	1.00 23.31
	ATOM	872	CD1	LEU	A	644	7.162	5.546	9.670	1.00 23.35
	ATOM	873	CD2	LEU	A	644	7.671	4.506	7.449	1.00 22.87
	ATOM	874	C	LEU	A	644	5.623	2.400	10.686	1.00 22.48
	ATOM	875	O	LEU	A	644	4.809	3.178	11.183	1.00 21.76
65	ATOM	876	N	ALA	A	645	5.262	1.327	9.993	1.00 19.64
	ATOM	877	CA	ALA	A	645	3.858	1.003	9.770	1.00 19.40

ATOM	878	CB	ALA	A	645	3.747	-0.144	8.759	1.00 19.42
ATOM	879	C	ALA	A	645	3.110	0.643	11.062	1.00 18.96
ATOM	880	O	ALA	A	645	1.946	1.016	11.238	1.00 16.29
ATOM	881	N	LEU	A	646	3.767	-0.073	11.970	1.00 15.67
ATOM	882	CA	LEU	A	646	3.113	-0.458	13.218	1.00 17.59
ATOM	883	CB	LEU	A	646	3.972	-1.464	13.982	1.00 21.09
ATOM	884	CG	LEU	A	646	4.011	-2.880	13.401	1.00 20.20
ATOM	885	CD1	LEU	A	646	5.105	-3.678	14.102	1.00 20.69
ATOM	886	CD2	LEU	A	646	2.654	-3.552	13.561	1.00 21.23
ATOM	887	C	LEU	A	646	2.826	0.750	14.112	1.00 16.19
ATOM	888	O	LEU	A	646	1.770	0.824	14.748	1.00 17.93
ATOM	889	N	LEU	A	647	3.767	1.687	14.168	1.00 20.47
ATOM	890	CA	LEU	A	647	3.578	2.875	15.000	1.00 18.59
ATOM	891	CB	LEU	A	647	4.874	3.682	15.097	1.00 19.99
ATOM	892	CG	LEU	A	647	4.819	4.890	16.042	1.00 19.72
ATOM	893	CD1	LEU	A	647	4.422	4.432	17.445	1.00 21.01
ATOM	894	CD2	LEU	A	647	6.168	5.563	16.078	1.00 21.38
ATOM	895	C	LEU	A	647	2.447	3.735	14.436	1.00 19.57
ATOM	896	O	LEU	A	647	1.583	4.199	15.183	1.00 19.14
ATOM	897	N	ILE	A	648	2.447	3.935	13.120	1.00 17.04
ATOM	898	CA	ILE	A	648	1.393	4.714	12.475	1.00 16.34
ATOM	899	CB	ILE	A	648	1.671	4.884	10.962	1.00 16.27
ATOM	900	CG2	ILE	A	648	0.428	5.441	10.251	1.00 17.73
ATOM	901	CG1	ILE	A	648	2.895	5.787	10.770	1.00 18.41
ATOM	902	CD1	ILE	A	648	3.350	5.921	9.339	1.00 17.00
ATOM	903	C	ILE	A	648	0.060	3.999	12.674	1.00 17.17
ATOM	904	O	ILE	A	648	-0.946	4.620	13.027	1.00 16.88
ATOM	905	N	ALA	A	649	0.056	2.684	12.477	1.00 17.97
ATOM	906	CA	ALA	A	649	-1.171	1.912	12.634	1.00 18.14
ATOM	907	CB	ALA	A	649	-0.927	0.460	12.228	1.00 19.75
ATOM	908	C	ALA	A	649	-1.724	1.977	14.060	1.00 17.69
ATOM	909	O	ALA	A	649	-2.928	2.180	14.266	1.00 17.10
ATOM	910	N	ALA	A	650	-0.850	1.802	15.047	1.00 16.14
ATOM	911	CA	ALA	A	650	-1.276	1.846	16.438	1.00 15.98
ATOM	912	CB	ALA	A	650	-0.070	1.703	17.365	1.00 18.40
ATOM	913	C	ALA	A	650	-1.987	3.175	16.708	1.00 16.55
ATOM	914	O	ALA	A	650	-3.049	3.214	17.327	1.00 17.85
ATOM	915	N	LEU	A	651	-1.401	4.259	16.226	1.00 17.09
ATOM	916	CA	LEU	A	651	-1.974	5.589	16.438	1.00 17.07
ATOM	917	CB	LEU	A	651	-0.956	6.659	16.056	1.00 20.77
ATOM	918	CG	LEU	A	651	0.304	6.766	16.906	1.00 20.44
ATOM	919	CD1	LEU	A	651	1.326	7.596	16.156	1.00 20.57
ATOM	920	CD2	LEU	A	651	-0.036	7.402	18.255	1.00 20.14
ATOM	921	C	LEU	A	651	-3.246	5.846	15.648	1.00 17.89
ATOM	922	O	LEU	A	651	-4.133	6.569	16.102	1.00 17.40
ATOM	923	N	SER	A	652	-3.335	5.248	14.465	1.00 14.66
ATOM	924	CA	SER	A	652	-4.484	5.470	13.591	1.00 16.84
ATOM	925	CB	SER	A	652	-4.013	5.620	12.141	1.00 19.10
ATOM	926	OG	SER	A	652	-2.948	6.535	12.014	1.00 18.78
ATOM	927	C	SER	A	652	-5.549	4.386	13.596	1.00 17.02
ATOM	928	O	SER	A	652	-6.593	4.574	12.987	1.00 16.48
ATOM	929	N	HIS	A	653	-5.302	3.280	14.292	1.00 19.51
ATOM	930	CA	HIS	A	653	-6.219	2.143	14.241	1.00 18.51
ATOM	931	CB	HIS	A	653	-5.607	0.939	14.972	1.00 15.82
ATOM	932	CG	HIS	A	653	-5.944	0.882	16.427	1.00 16.43
ATOM	933	CD2	HIS	A	653	-6.947	0.252	17.079	1.00 15.65
ATOM	934	ND1	HIS	A	653	-5.237	1.574	17.385	1.00 14.87
ATOM	935	CE1	HIS	A	653	-5.794	1.376	18.567	1.00 15.10
ATOM	936	NE2	HIS	A	653	-6.838	0.580	18.406	1.00 15.73
ATOM	937	C	HIS	A	653	-7.681	2.284	14.652	1.00 19.28
ATOM	938	O	HIS	A	653	-8.486	1.441	14.289	1.00 17.55
ATOM	939	N	ASP	A	654	-8.039	3.329	15.395	1.00 14.03
ATOM	940	CA	ASP	A	654	-9.434	3.505	15.811	1.00 13.68
ATOM	941	CB	ASP	A	654	-9.576	3.404	17.342	1.00 17.23
ATOM	942	CG	ASP	A	654	-9.893	1.995	17.816	1.00 16.81
ATOM	943	OD1	ASP	A	654	-10.559	1.251	17.063	1.00 16.45

ATOM	944	OD2	ASP	A	654	-9.510	1.647	18.953	1.00 16.54
ATOM	945	C	ASP	A	654	-9.986	4.858	15.351	1.00 14.35
ATOM	946	O	ASP	A	654	-11.004	5.325	15.870	1.00 15.00
ATOM	947	N	LEU	A	655	-9.342	5.461	14.353	1.00 14.26
ATOM	948	CA	LEU	A	655	-9.745	6.777	13.838	1.00 15.05
ATOM	949	CB	LEU	A	655	-8.976	7.071	12.542	1.00 21.81
ATOM	950	CG	LEU	A	655	-8.028	8.263	12.357	1.00 25.53
ATOM	951	CD1	LEU	A	655	-7.712	8.958	13.671	1.00 22.91
ATOM	952	CD2	LEU	A	655	-6.766	7.763	11.665	1.00 22.84
ATOM	953	C	LEU	A	655	-11.257	6.941	13.591	1.00 16.32
ATOM	954	O	LEU	A	655	-11.889	6.120	12.923	1.00 15.44
ATOM	955	N	ASP	A	656	-11.826	8.013	14.147	1.00 16.42
ATOM	956	CA	ASP	A	656	-13.251	8.326	13.988	1.00 17.71
ATOM	957	CB	ASP	A	656	-13.556	8.647	12.508	1.00 20.19
ATOM	958	CG	ASP	A	656	-14.905	9.353	12.312	1.00 20.24
ATOM	959	OD1	ASP	A	656	-15.243	10.252	13.110	1.00 19.07
ATOM	960	OD2	ASP	A	656	-15.623	9.021	11.344	1.00 19.47
ATOM	961	C	ASP	A	656	-14.197	7.232	14.496	1.00 16.50
ATOM	962	O	ASP	A	656	-15.295	7.060	13.971	1.00 16.42
ATOM	963	N	HIS	A	657	-13.777	6.502	15.523	1.00 16.01
ATOM	964	CA	HIS	A	657	-14.627	5.454	16.073	1.00 15.64
ATOM	965	CB	HIS	A	657	-13.902	4.710	17.196	1.00 18.44
ATOM	966	CG	HIS	A	657	-14.585	3.446	17.606	1.00 19.68
ATOM	967	CD2	HIS	A	657	-15.832	3.224	18.080	1.00 15.96
ATOM	968	ND1	HIS	A	657	-13.979	2.209	17.524	1.00 19.05
ATOM	969	CE1	HIS	A	657	-14.825	1.281	17.930	1.00 16.34
ATOM	970	NE2	HIS	A	657	-15.958	1.871	18.271	1.00 21.05
ATOM	971	C	HIS	A	657	-15.893	6.126	16.611	1.00 17.49
ATOM	972	O	HIS	A	657	-15.826	7.093	17.377	1.00 16.58
ATOM	973	N	PRO	A	658	-17.068	5.625	16.216	1.00 19.29
ATOM	974	CD	PRO	A	658	-17.281	4.579	15.199	1.00 17.12
ATOM	975	CA	PRO	A	658	-18.346	6.189	16.659	1.00 19.86
ATOM	976	CB	PRO	A	658	-19.313	5.701	15.595	1.00 16.51
ATOM	977	CG	PRO	A	658	-18.772	4.311	15.313	1.00 15.25
ATOM	978	C	PRO	A	658	-18.789	5.780	18.058	1.00 19.74
ATOM	979	O	PRO	A	658	-19.745	6.335	18.589	1.00 20.03
ATOM	980	N	GLY	A	659	-18.125	4.788	18.639	1.00 16.93
ATOM	981	CA	GLY	A	659	-18.500	4.360	19.972	1.00 18.25
ATOM	982	C	GLY	A	659	-19.458	3.189	20.003	1.00 18.14
ATOM	983	O	GLY	A	659	-19.993	2.857	21.060	1.00 17.96
ATOM	984	N	VAL	A	660	-19.695	2.581	18.844	1.00 19.22
ATOM	985	CA	VAL	A	660	-20.573	1.418	18.749	1.00 20.26
ATOM	986	CB	VAL	A	660	-21.909	1.771	18.060	1.00 19.84
ATOM	987	CG1	VAL	A	660	-22.697	2.730	18.941	1.00 20.64
ATOM	988	CG2	VAL	A	660	-21.655	2.391	16.698	1.00 20.17
ATOM	989	C	VAL	A	660	-19.844	0.334	17.958	1.00 20.35
ATOM	990	O	VAL	A	660	-18.953	0.630	17.160	1.00 20.64
ATOM	991	N	SER	A	661	-20.226	-0.915	18.190	1.00 18.66
ATOM	992	CA	SER	A	661	-19.605	-2.069	17.541	1.00 19.40
ATOM	993	CB	SER	A	661	-20.001	-3.341	18.278	1.00 23.46
ATOM	994	OG	SER	A	661	-21.369	-3.622	18.044	1.00 22.76
ATOM	995	C	SER	A	661	-19.955	-2.260	16.069	1.00 19.19
ATOM	996	O	SER	A	661	-20.857	-1.614	15.539	1.00 19.47
ATOM	997	N	ASN	A	662	-19.237	-3.175	15.421	1.00 20.96
ATOM	998	CA	ASN	A	662	-19.493	-3.489	14.018	1.00 21.17
ATOM	999	CB	ASN	A	662	-18.474	-4.500	13.487	1.00 20.86
ATOM	1000	CG	ASN	A	662	-17.189	-3.844	13.053	1.00 20.37
ATOM	1001	OD1	ASN	A	662	-17.200	-2.702	12.606	1.00 21.25
ATOM	1002	ND2	ASN	A	662	-16.078	-4.566	13.158	1.00 19.75
ATOM	1003	C	ASN	A	662	-20.894	-4.065	13.895	1.00 21.10
ATOM	1004	O	ASN	A	662	-21.651	-3.713	12.985	1.00 21.05
ATOM	1005	N	GLN	A	663	-21.242	-4.941	14.831	1.00 25.13
ATOM	1006	CA	GLN	A	663	-22.556	-5.555	14.836	1.00 26.08
ATOM	1007	CB	GLN	A	663	-22.696	-6.503	16.031	1.00 35.28
ATOM	1008	CG	GLN	A	663	-21.884	-7.790	15.904	1.00 36.63
ATOM	1009	CD	GLN	A	663	-20.381	-7.582	16.043	1.00 36.48

ATOM	1010	OE1	GLN	A	663	-19.588	-8.447	15.665	1.00	36.95
ATOM	1011	NE2	GLN	A	663	-19.983	-6.441	16.600	1.00	36.26
ATOM	1012	C	GLN	A	663	-23.638	-4.480	14.881	1.00	25.84
ATOM	1013	O	GLN	A	663	-24.625	-4.554	14.153	1.00	25.82
ATOM	1014	N	PHE	A	664	-23.451	-3.474	15.730	1.00	24.41
ATOM	1015	CA	PHE	A	664	-24.423	-2.394	15.832	1.00	25.34
ATOM	1016	CB	PHE	A	664	-23.991	-1.391	16.906	1.00	26.39
ATOM	1017	CG	PHE	A	664	-24.932	-0.226	17.069	1.00	27.42
ATOM	1018	CD1	PHE	A	664	-24.841	0.881	16.230	1.00	26.41
ATOM	1019	CD2	PHE	A	664	-25.915	-0.240	18.057	1.00	27.03
ATOM	1020	CE1	PHE	A	664	-25.713	1.963	16.367	1.00	27.10
ATOM	1021	CE2	PHE	A	664	-26.795	0.840	18.202	1.00	27.63
ATOM	1022	CZ	PHE	A	664	-26.687	1.943	17.350	1.00	26.59
ATOM	1023	C	PHE	A	664	-24.577	-1.697	14.476	1.00	25.16
ATOM	1024	O	PHE	A	664	-25.691	-1.485	14.006	1.00	24.58
ATOM	1025	N	LEU	A	665	-23.454	-1.361	13.847	1.00	21.05
ATOM	1026	CA	LEU	A	665	-23.479	-0.698	12.542	1.00	22.93
ATOM	1027	CB	LEU	A	665	-22.058	-0.348	12.104	1.00	22.29
ATOM	1028	CG	LEU	A	665	-21.328	0.745	12.893	1.00	22.66
ATOM	1029	CD1	LEU	A	665	-19.914	0.890	12.347	1.00	22.68
ATOM	1030	CD2	LEU	A	665	-22.069	2.064	12.776	1.00	22.45
ATOM	1031	C	LEU	A	665	-24.147	-1.563	11.471	1.00	22.68
ATOM	1032	O	LEU	A	665	-24.748	-1.053	10.520	1.00	23.83
ATOM	1033	N	ILE	A	666	-24.031	-2.874	11.618	1.00	24.12
ATOM	1034	CA	ILE	A	666	-24.635	-3.794	10.664	1.00	24.57
ATOM	1035	CB	ILE	A	666	-24.023	-5.204	10.785	1.00	26.67
ATOM	1036	CG2	ILE	A	666	-24.819	-6.195	9.951	1.00	26.86
ATOM	1037	CG1	ILE	A	666	-22.559	-5.176	10.340	1.00	25.51
ATOM	1038	CD1	ILE	A	666	-21.811	-6.483	10.553	1.00	26.41
ATOM	1039	C	ILE	A	666	-26.136	-3.880	10.926	1.00	26.29
ATOM	1040	O	ILE	A	666	-26.937	-3.859	9.993	1.00	26.10
ATOM	1041	N	ASN	A	667	-26.511	-3.968	12.197	1.00	31.89
ATOM	1042	CA	ASN	A	667	-27.920	-4.070	12.563	1.00	34.09
ATOM	1043	CB	ASN	A	667	-28.063	-4.437	14.044	1.00	34.18
ATOM	1044	CG	ASN	A	667	-27.511	-5.809	14.355	1.00	33.95
ATOM	1045	OD1	ASN	A	667	-27.608	-6.722	13.538	1.00	34.50
ATOM	1046	ND2	ASN	A	667	-26.939	-5.969	15.544	1.00	34.36
ATOM	1047	C	ASN	A	667	-28.733	-2.816	12.270	1.00	34.67
ATOM	1048	O	ASN	A	667	-29.944	-2.891	12.058	1.00	34.88
ATOM	1049	N	THR	A	668	-28.073	-1.665	12.264	1.00	41.41
ATOM	1050	CA	THR	A	668	-28.755	-0.408	11.993	1.00	41.66
ATOM	1051	CB	THR	A	668	-28.180	0.728	12.851	1.00	34.82
ATOM	1052	OG1	THR	A	668	-26.774	0.855	12.598	1.00	34.37
ATOM	1053	CG2	THR	A	668	-28.404	0.438	14.325	1.00	34.77
ATOM	1054	C	THR	A	668	-28.630	-0.028	10.521	1.00	41.72
ATOM	1055	O	THR	A	668	-29.012	1.070	10.121	1.00	42.66
ATOM	1056	N	ASN	A	669	-28.096	-0.945	9.720	1.00	36.50
ATOM	1057	CA	ASN	A	669	-27.916	-0.715	8.289	1.00	35.43
ATOM	1058	CB	ASN	A	669	-29.271	-0.756	7.581	1.00	39.66
ATOM	1059	CG	ASN	A	669	-29.861	-2.147	7.553	1.00	39.15
ATOM	1060	OD1	ASN	A	669	-29.314	-3.048	6.919	1.00	39.61
ATOM	1061	ND2	ASN	A	669	-30.974	-2.334	8.247	1.00	39.97
ATOM	1062	C	ASN	A	669	-27.217	0.603	8.002	1.00	33.95
ATOM	1063	O	ASN	A	669	-27.676	1.406	7.187	1.00	35.22
ATOM	1064	N	SER	A	670	-26.098	0.816	8.684	1.00	24.12
ATOM	1065	CA	SER	A	670	-25.304	2.020	8.524	1.00	24.45
ATOM	1066	CB	SER	A	670	-24.162	2.032	9.543	1.00	36.85
ATOM	1067	OG	SER	A	670	-23.245	3.081	9.279	1.00	38.12
ATOM	1068	C	SER	A	670	-24.727	2.056	7.120	1.00	22.19
ATOM	1069	O	SER	A	670	-24.529	1.013	6.498	1.00	22.80
ATOM	1070	N	GLU	A	671	-24.461	3.261	6.626	1.00	25.15
ATOM	1071	CA	GLU	A	671	-23.888	3.426	5.299	1.00	25.09
ATOM	1072	CB	GLU	A	671	-23.736	4.911	4.975	1.00	30.03
ATOM	1073	CG	GLU	A	671	-23.322	5.198	3.547	1.00	30.00
ATOM	1074	CD	GLU	A	671	-23.174	6.683	3.277	1.00	30.78
ATOM	1075	OE1	GLU	A	671	-22.113	7.253	3.613	1.00	30.04

ATOM	1076	OE2	GLU	A	671	-24.132	7.283	2.742	1.00	30.29
ATOM	1077	C	GLU	A	671	-22.521	2.757	5.281	1.00	23.99
ATOM	1078	O	GLU	A	671	-22.087	2.222	4.267	1.00	24.80
ATOM	1079	N	LEU	A	672	-21.857	2.786	6.429	1.00	23.33
ATOM	1080	CA	LEU	A	672	-20.533	2.196	6.581	1.00	21.52
ATOM	1081	CB	LEU	A	672	-20.010	2.512	7.984	1.00	30.40
ATOM	1082	CG	LEU	A	672	-18.683	3.260	8.158	1.00	31.15
ATOM	1083	CD1	LEU	A	672	-18.555	4.398	7.164	1.00	30.73
ATOM	1084	CD2	LEU	A	672	-18.603	3.772	9.586	1.00	31.17
ATOM	1085	C	LEU	A	672	-20.561	0.685	6.349	1.00	22.19
ATOM	1086	O	LEU	A	672	-19.688	0.138	5.673	1.00	20.56
ATOM	1087	N	ALA	A	673	-21.565	0.014	6.910	1.00	20.08
ATOM	1088	CA	ALA	A	673	-21.685	-1.434	6.766	1.00	20.23
ATOM	1089	CB	ALA	A	673	-22.827	-1.958	7.639	1.00	23.81
ATOM	1090	C	ALA	A	673	-21.934	-1.794	5.310	1.00	20.27
ATOM	1091	O	ALA	A	673	-21.446	-2.808	4.821	1.00	20.29
ATOM	1092	N	LEU	A	674	-22.714	-0.970	4.620	1.00	18.83
ATOM	1093	CA	LEU	A	674	-22.998	-1.229	3.213	1.00	20.25
ATOM	1094	CB	LEU	A	674	-24.063	-0.265	2.694	1.00	26.85
ATOM	1095	CG	LEU	A	674	-24.330	-0.385	1.189	1.00	27.73
ATOM	1096	CD1	LEU	A	674	-24.803	-1.793	0.849	1.00	27.05
ATOM	1097	CD2	LEU	A	674	-25.364	0.646	0.779	1.00	27.39
ATOM	1098	C	LEU	A	674	-21.740	-1.082	2.363	1.00	18.25
ATOM	1099	O	LEU	A	674	-21.454	-1.915	1.500	1.00	21.42
ATOM	1100	N	MET	A	675	-20.980	-0.027	2.624	1.00	22.09
ATOM	1101	CA	MET	A	675	-19.758	0.244	1.874	1.00	23.03
ATOM	1102	CB	MET	A	675	-19.140	1.562	2.330	1.00	41.71
ATOM	1103	CG	MET	A	675	-20.013	2.771	2.096	1.00	42.43
ATOM	1104	SD	MET	A	675	-19.158	4.258	2.607	1.00	43.58
ATOM	1105	CE	MET	A	675	-18.192	4.598	1.138	1.00	42.87
ATOM	1106	C	MET	A	675	-18.711	-0.848	2.018	1.00	23.59
ATOM	1107	O	MET	A	675	-17.961	-1.130	1.079	1.00	22.39
ATOM	1108	N	TYR	A	676	-18.662	-1.463	3.193	1.00	22.64
ATOM	1109	CA	TYR	A	676	-17.670	-2.495	3.451	1.00	22.20
ATOM	1110	CB	TYR	A	676	-16.894	-2.113	4.717	1.00	21.16
ATOM	1111	CG	TYR	A	676	-16.197	-0.767	4.574	1.00	21.36
ATOM	1112	CD1	TYR	A	676	-16.385	0.249	5.513	1.00	21.19
ATOM	1113	CE1	TYR	A	676	-15.774	1.501	5.352	1.00	20.94
ATOM	1114	CD2	TYR	A	676	-15.378	-0.503	3.475	1.00	20.92
ATOM	1115	CE2	TYR	A	676	-14.760	0.739	3.307	1.00	20.99
ATOM	1116	CZ	TYR	A	676	-14.964	1.734	4.242	1.00	21.41
ATOM	1117	OH	TYR	A	676	-14.374	2.969	4.059	1.00	22.70
ATOM	1118	C	TYR	A	676	-18.206	-3.926	3.531	1.00	23.64
ATOM	1119	O	TYR	A	676	-17.519	-4.824	4.019	1.00	22.37
ATOM	1120	N	ASN	A	677	-19.421	-4.129	3.025	1.00	21.83
ATOM	1121	CA	ASN	A	677	-20.071	-5.444	2.995	1.00	23.13
ATOM	1122	CB	ASN	A	677	-19.487	-6.296	1.861	1.00	56.74
ATOM	1123	CG	ASN	A	677	-18.007	-6.571	2.033	1.00	57.80
ATOM	1124	OD1	ASN	A	677	-17.594	-7.241	2.979	1.00	58.17
ATOM	1125	ND2	ASN	A	677	-17.197	-6.052	1.116	1.00	58.15
ATOM	1126	C	ASN	A	677	-20.019	-6.223	4.311	1.00	22.92
ATOM	1127	O	ASN	A	677	-19.726	-7.425	4.332	1.00	22.51
ATOM	1128	N	ASP	A	678	-20.317	-5.521	5.398	1.00	22.36
ATOM	1129	CA	ASP	A	678	-20.353	-6.096	6.742	1.00	23.31
ATOM	1130	CB	ASP	A	678	-21.461	-7.146	6.843	1.00	24.85
ATOM	1131	CG	ASP	A	678	-22.824	-6.604	6.466	1.00	25.27
ATOM	1132	OD1	ASP	A	678	-23.031	-5.376	6.536	1.00	23.89
ATOM	1133	OD2	ASP	A	678	-23.699	-7.420	6.111	1.00	26.42
ATOM	1134	C	ASP	A	678	-19.070	-6.725	7.261	1.00	21.81
ATOM	1135	O	ASP	A	678	-19.084	-7.336	8.332	1.00	23.49
ATOM	1136	N	GLU	A	679	-17.972	-6.578	6.533	1.00	19.14
ATOM	1137	CA	GLU	A	679	-16.703	-7.166	6.962	1.00	20.71
ATOM	1138	CB	GLU	A	679	-15.988	-7.819	5.778	1.00	46.03
ATOM	1139	CG	GLU	A	679	-16.640	-9.084	5.259	1.00	47.01
ATOM	1140	CD	GLU	A	679	-15.840	-9.724	4.139	1.00	47.28
ATOM	1141	OE1	GLU	A	679	-15.723	-9.106	3.059	1.00	47.36

ATOM	1142	OE2	GLU	A	679	-15.320	-10.841	4.337	1.00 47.19
ATOM	1143	C	GLU	A	679	-15.770	-6.137	7.582	1.00 19.51
ATOM	1144	O	GLU	A	679	-15.378	-5.185	6.912	1.00 20.45
ATOM	1145	N	SER	A	680	-15.407	-6.345	8.848	1.00 17.83
ATOM	1146	CA	SER	A	680	-14.505	-5.442	9.574	1.00 17.23
ATOM	1147	CB	SER	A	680	-13.043	-5.747	9.224	1.00 21.15
ATOM	1148	OG	SER	A	680	-12.707	-7.098	9.511	1.00 20.61
ATOM	1149	C	SER	A	680	-14.827	-3.997	9.202	1.00 16.25
ATOM	1150	O	SER	A	680	-13.941	-3.218	8.844	1.00 15.64
ATOM	1151	N	VAL	A	681	-16.108	-3.664	9.309	1.00 18.34
ATOM	1152	CA	VAL	A	681	-16.629	-2.353	8.947	1.00 16.30
ATOM	1153	CB	VAL	A	681	-18.115	-2.245	9.327	1.00 19.28
ATOM	1154	CG1	VAL	A	681	-18.674	-0.895	8.881	1.00 20.72
ATOM	1155	CG2	VAL	A	681	-18.894	-3.397	8.665	1.00 19.24
ATOM	1156	C	VAL	A	681	-15.864	-1.173	9.529	1.00 16.04
ATOM	1157	O	VAL	A	681	-15.356	-0.347	8.790	1.00 17.05
ATOM	1158	N	LEU	A	681A	-15.782	-1.110	10.852	1.00 15.07
ATOM	1159	CA	LEU	A	681A	-15.079	-0.028	11.529	1.00 16.07
ATOM	1160	CB	LEU	A	681A	-15.166	-0.217	13.043	1.00 22.39
ATOM	1161	CG	LEU	A	681A	-16.520	0.073	13.680	1.00 24.40
ATOM	1162	CD1	LEU	A	681A	-16.571	-0.536	15.076	1.00 24.68
ATOM	1163	CD2	LEU	A	681A	-16.732	1.573	13.710	1.00 25.32
ATOM	1164	C	LEU	A	681A	-13.613	0.027	11.125	1.00 15.73
ATOM	1165	O	LEU	A	681A	-13.070	1.089	10.848	1.00 14.66
ATOM	1166	N	GLU	A	682	-12.975	-1.134	11.078	1.00 14.20
ATOM	1167	CA	GLU	A	682	-11.566	-1.181	10.731	1.00 16.26
ATOM	1168	CB	GLU	A	682	-11.042	-2.601	10.954	1.00 17.70
ATOM	1169	CG	GLU	A	682	-11.075	-3.043	12.424	1.00 17.27
ATOM	1170	CD	GLU	A	682	-12.466	-3.381	12.956	1.00 17.63
ATOM	1171	OE1	GLU	A	682	-13.350	-3.778	12.164	1.00 16.51
ATOM	1172	OE2	GLU	A	682	-12.672	-3.273	14.192	1.00 18.25
ATOM	1173	C	GLU	A	682	-11.272	-0.675	9.313	1.00 13.40
ATOM	1174	O	GLU	A	682	-10.257	-0.010	9.088	1.00 16.15
ATOM	1175	N	HIS	A	683	-12.140	-0.983	8.353	1.00 14.40
ATOM	1176	CA	HIS	A	683	-11.943	-0.474	7.001	1.00 15.72
ATOM	1177	CB	HIS	A	683	-12.955	-1.084	6.030	1.00 20.22
ATOM	1178	CG	HIS	A	683	-12.527	-2.406	5.483	1.00 21.36
ATOM	1179	CD2	HIS	A	683	-12.905	-3.667	5.800	1.00 22.11
ATOM	1180	ND1	HIS	A	683	-11.538	-2.529	4.531	1.00 19.70
ATOM	1181	CE1	HIS	A	683	-11.325	-3.810	4.286	1.00 20.00
ATOM	1182	NE2	HIS	A	683	-12.139	-4.520	5.044	1.00 21.26
ATOM	1183	C	HIS	A	683	-12.102	1.046	7.044	1.00 15.07
ATOM	1184	O	HIS	A	683	-11.395	1.772	6.343	1.00 16.13
ATOM	1185	N	HIS	A	684	-13.033	1.519	7.874	1.00 16.25
ATOM	1186	CA	HIS	A	684	-13.258	2.952	8.026	1.00 17.73
ATOM	1187	CB	HIS	A	684	-14.505	3.216	8.878	1.00 19.40
ATOM	1188	CG	HIS	A	684	-14.776	4.670	9.116	1.00 20.37
ATOM	1189	CD2	HIS	A	684	-14.870	5.387	10.261	1.00 19.50
ATOM	1190	ND1	HIS	A	684	-14.982	5.563	8.087	1.00 20.04
ATOM	1191	CE1	HIS	A	684	-15.194	6.766	8.588	1.00 19.05
ATOM	1192	NE2	HIS	A	684	-15.131	6.688	9.903	1.00 18.64
ATOM	1193	C	HIS	A	684	-12.038	3.601	8.677	1.00 17.41
ATOM	1194	O	HIS	A	684	-11.602	4.677	8.248	1.00 17.52
ATOM	1195	N	HIS	A	685	-11.491	2.952	9.704	1.00 16.56
ATOM	1196	CA	HIS	A	685	-10.316	3.481	10.387	1.00 17.88
ATOM	1197	CB	HIS	A	685	-9.886	2.568	11.553	1.00 17.97
ATOM	1198	CG	HIS	A	685	-10.943	2.365	12.599	1.00 17.64
ATOM	1199	CD2	HIS	A	685	-11.311	1.258	13.291	1.00 17.69
ATOM	1200	ND1	HIS	A	685	-11.728	3.392	13.079	1.00 16.45
ATOM	1201	CE1	HIS	A	685	-12.533	2.927	14.020	1.00 18.14
ATOM	1202	NE2	HIS	A	685	-12.299	1.634	14.168	1.00 17.23
ATOM	1203	C	HIS	A	685	-9.178	3.619	9.380	1.00 17.11
ATOM	1204	O	HIS	A	685	-8.482	4.639	9.348	1.00 17.09
ATOM	1205	N	PHE	A	686	-8.984	2.596	8.551	1.00 17.41
ATOM	1206	CA	PHE	A	686	-7.928	2.656	7.551	1.00 17.43
ATOM	1207	CB	PHE	A	686	-7.766	1.325	6.810	1.00 22.00

ATOM	1208	CG	PHE	A	686	-6.738	1.384	5.715	1.00	21.91
ATOM	1209	CD1	PHE	A	686	-5.396	1.591	6.014	1.00	22.44
ATOM	1210	CD2	PHE	A	686	-7.123	1.328	4.379	1.00	22.63
ATOM	1211	CE1	PHE	A	686	-4.449	1.754	4.998	1.00	21.95
ATOM	1212	CE2	PHE	A	686	-6.186	1.487	3.356	1.00	22.74
ATOM	1213	CZ	PHE	A	686	-4.847	1.704	3.668	1.00	23.18
ATOM	1214	C	PHE	A	686	-8.183	3.760	6.531	1.00	18.51
ATOM	1215	O	PHE	A	686	-7.250	4.436	6.104	1.00	18.35
ATOM	1216	N	ASP	A	687	-9.439	3.934	6.130	1.00	17.80
ATOM	1217	CA	ASP	A	687	-9.768	4.974	5.166	1.00	18.73
ATOM	1218	CB	ASP	A	687	-11.262	4.969	4.836	1.00	27.45
ATOM	1219	CG	ASP	A	687	-11.661	6.129	3.932	1.00	29.42
ATOM	1220	OD1	ASP	A	687	-11.162	6.190	2.789	1.00	29.29
ATOM	1221	OD2	ASP	A	687	-12.465	6.984	4.366	1.00	29.84
ATOM	1222	C	ASP	A	687	-9.389	6.329	5.751	1.00	17.84
ATOM	1223	O	ASP	A	687	-8.793	7.164	5.070	1.00	18.06
ATOM	1224	N	GLN	A	688	-9.726	6.534	7.020	1.00	20.35
ATOM	1225	CA	GLN	A	688	-9.412	7.786	7.703	1.00	19.96
ATOM	1226	CB	GLN	A	688	-10.060	7.804	9.085	1.00	24.85
ATOM	1227	CG	GLN	A	688	-11.577	7.795	9.021	1.00	25.62
ATOM	1228	CD	GLN	A	688	-12.120	9.081	8.440	1.00	26.01
ATOM	1229	OE1	GLN	A	688	-12.052	10.129	9.076	1.00	27.97
ATOM	1230	NE2	GLN	A	688	-12.647	9.012	7.221	1.00	27.26
ATOM	1231	C	GLN	A	688	-7.911	7.969	7.831	1.00	20.01
ATOM	1232	O	GLN	A	688	-7.406	9.077	7.689	1.00	19.66
ATOM	1233	N	CYS	A	689	-7.202	6.871	8.091	1.00	18.42
ATOM	1234	CA	CYS	A	689	-5.746	6.902	8.229	1.00	18.66
ATOM	1235	CB	CYS	A	689	-5.224	5.498	8.556	1.00	19.50
ATOM	1236	SG	CYS	A	689	-3.425	5.370	8.637	1.00	16.97
ATOM	1237	C	CYS	A	689	-5.098	7.413	6.942	1.00	18.50
ATOM	1238	O	CYS	A	689	-4.234	8.295	6.977	1.00	19.39
ATOM	1239	N	LEU	A	690	-5.524	6.854	5.812	1.00	19.82
ATOM	1240	CA	LEU	A	690	-5.006	7.235	4.497	1.00	20.55
ATOM	1241	CB	LEU	A	690	-5.556	6.288	3.429	1.00	25.80
ATOM	1242	CG	LEU	A	690	-4.985	6.446	2.017	1.00	26.79
ATOM	1243	CD1	LEU	A	690	-3.507	6.105	2.029	1.00	27.37
ATOM	1244	CD2	LEU	A	690	-5.728	5.535	1.059	1.00	27.51
ATOM	1245	C	LEU	A	690	-5.389	8.678	4.148	1.00	19.76
ATOM	1246	O	LEU	A	690	-4.621	9.401	3.521	1.00	21.37
ATOM	1247	N	MET	A	691	-6.587	9.088	4.549	1.00	21.76
ATOM	1248	CA	MET	A	691	-7.044	10.451	4.285	1.00	21.56
ATOM	1249	CB	MET	A	691	-8.450	10.654	4.851	1.00	39.93
ATOM	1250	CG	MET	A	691	-9.006	12.052	4.633	1.00	40.74
ATOM	1251	SD	MET	A	691	-10.617	12.278	5.400	1.00	42.16
ATOM	1252	CE	MET	A	691	-10.138	12.715	7.088	1.00	40.97
ATOM	1253	C	MET	A	691	-6.079	11.451	4.928	1.00	22.42
ATOM	1254	O	MET	A	691	-5.673	12.435	4.300	1.00	21.69
ATOM	1255	N	ILE	A	692	-5.712	11.200	6.179	1.00	20.61
ATOM	1256	CA	ILE	A	692	-4.799	12.094	6.878	1.00	21.43
ATOM	1257	CB	ILE	A	692	-4.704	11.744	8.385	1.00	23.64
ATOM	1258	CG2	ILE	A	692	-3.670	12.633	9.066	1.00	23.04
ATOM	1259	CG1	ILE	A	692	-6.072	11.921	9.056	1.00	23.49
ATOM	1260	CD1	ILE	A	692	-6.591	13.352	9.054	1.00	25.57
ATOM	1261	C	ILE	A	692	-3.403	12.045	6.252	1.00	22.50
ATOM	1262	O	ILE	A	692	-2.759	13.081	6.084	1.00	22.01
ATOM	1263	N	LEU	A	693	-2.940	10.846	5.901	1.00	24.42
ATOM	1264	CA	LEU	A	693	-1.615	10.689	5.298	1.00	25.47
ATOM	1265	CB	LEU	A	693	-1.288	9.203	5.087	1.00	21.69
ATOM	1266	CG	LEU	A	693	-0.950	8.368	6.333	1.00	21.16
ATOM	1267	CD1	LEU	A	693	-0.945	6.888	5.985	1.00	22.43
ATOM	1268	CD2	LEU	A	693	0.411	8.794	6.887	1.00	21.71
ATOM	1269	C	LEU	A	693	-1.499	11.437	3.972	1.00	25.25
ATOM	1270	O	LEU	A	693	-0.414	11.883	3.601	1.00	26.01
ATOM	1271	N	ASN	A	694	-2.614	11.579	3.261	1.00	23.58
ATOM	1272	CA	ASN	A	694	-2.610	12.284	1.981	1.00	22.99
ATOM	1273	CB	ASN	A	694	-3.613	11.656	1.005	1.00	26.66

ATOM	1274	CG	ASN	A	694	-3.178	10.294	0.514	1.00	26.69
ATOM	1275	OD1	ASN	A	694	-2.009	10.078	0.209	1.00	27.10
ATOM	1276	ND2	ASN	A	694	-4.127	9.369	0.413	1.00	27.29
ATOM	1277	C	ASN	A	694	-2.949	13.763	2.132	1.00	23.59
ATOM	1278	O	ASN	A	694	-2.913	14.508	1.155	1.00	24.38
ATOM	1279	N	SER	A	695	-3.285	14.181	3.348	1.00	24.35
ATOM	1280	CA	SER	A	695	-3.644	15.572	3.596	1.00	24.87
ATOM	1281	CB	SER	A	695	-4.279	15.727	4.980	1.00	30.85
ATOM	1282	OG	SER	A	695	-5.570	15.146	5.009	1.00	31.53
ATOM	1283	C	SER	A	695	-2.431	16.475	3.496	1.00	25.45
ATOM	1284	O	SER	A	695	-1.399	16.213	4.108	1.00	25.07
ATOM	1285	N	PRO	A	696	-2.544	17.558	2.717	1.00	28.09
ATOM	1286	CD	PRO	A	696	-3.728	18.069	2.009	1.00	32.92
ATOM	1287	CA	PRO	A	696	-1.410	18.471	2.579	1.00	28.93
ATOM	1288	CB	PRO	A	696	-1.978	19.603	1.718	1.00	32.61
ATOM	1289	CG	PRO	A	696	-3.460	19.552	1.991	1.00	33.55
ATOM	1290	C	PRO	A	696	-0.900	18.944	3.940	1.00	28.17
ATOM	1291	O	PRO	A	696	-1.686	19.310	4.818	1.00	27.52
ATOM	1292	N	GLY	A	697	0.419	18.913	4.104	1.00	27.38
ATOM	1293	CA	GLY	A	697	1.035	19.336	5.347	1.00	27.26
ATOM	1294	C	GLY	A	697	1.106	18.239	6.391	1.00	27.36
ATOM	1295	O	GLY	A	697	1.688	18.430	7.460	1.00	27.28
ATOM	1296	N	ASN	A	698	0.523	17.084	6.080	1.00	24.05
ATOM	1297	CA	ASN	A	698	0.506	15.951	7.006	1.00	24.41
ATOM	1298	CB	ASN	A	698	-0.937	15.592	7.379	1.00	26.46
ATOM	1299	CG	ASN	A	698	-1.624	16.668	8.190	1.00	26.12
ATOM	1300	OD1	ASN	A	698	-2.038	17.702	7.664	1.00	27.64
ATOM	1301	ND2	ASN	A	698	-1.749	16.428	9.486	1.00	26.42
ATOM	1302	C	ASN	A	698	1.165	14.698	6.436	1.00	24.62
ATOM	1303	O	ASN	A	698	1.157	13.643	7.076	1.00	22.80
ATOM	1304	N	GLN	A	699	1.734	14.812	5.240	1.00	24.05
ATOM	1305	CA	GLN	A	699	2.348	13.669	4.572	1.00	24.71
ATOM	1306	CB	GLN	A	699	2.486	13.982	3.083	1.00	37.81
ATOM	1307	CG	GLN	A	699	1.165	14.399	2.451	1.00	38.52
ATOM	1308	CD	GLN	A	699	1.324	14.910	1.036	1.00	38.73
ATOM	1309	OE1	GLN	A	699	1.768	14.184	0.148	1.00	39.77
ATOM	1310	NE2	GLN	A	699	0.964	16.170	0.819	1.00	38.87
ATOM	1311	C	GLN	A	699	3.687	13.229	5.151	1.00	23.74
ATOM	1312	O	GLN	A	699	4.739	13.494	4.573	1.00	24.82
ATOM	1313	N	ILE	A	700	3.639	12.530	6.284	1.00	23.85
ATOM	1314	CA	ILE	A	700	4.853	12.058	6.938	1.00	23.88
ATOM	1315	CB	ILE	A	700	4.572	11.572	8.374	1.00	25.21
ATOM	1316	CG2	ILE	A	700	4.101	12.736	9.225	1.00	24.98
ATOM	1317	CG1	ILE	A	700	3.528	10.454	8.363	1.00	25.64
ATOM	1318	CD1	ILE	A	700	3.370	9.764	9.699	1.00	25.16
ATOM	1319	C	ILE	A	700	5.550	10.935	6.182	1.00	24.95
ATOM	1320	O	ILE	A	700	6.662	10.540	6.546	1.00	24.94
ATOM	1321	N	LEU	A	701	4.904	10.426	5.135	1.00	25.36
ATOM	1322	CA	LEU	A	701	5.476	9.350	4.327	1.00	25.43
ATOM	1323	CB	LEU	A	701	4.460	8.218	4.146	1.00	25.64
ATOM	1324	CG	LEU	A	701	3.976	7.487	5.401	1.00	25.01
ATOM	1325	CD1	LEU	A	701	2.975	6.403	5.008	1.00	25.21
ATOM	1326	CD2	LEU	A	701	5.161	6.879	6.124	1.00	25.48
ATOM	1327	C	LEU	A	701	5.904	9.859	2.951	1.00	27.13
ATOM	1328	O	LEU	A	701	6.280	9.075	2.082	1.00	26.39
ATOM	1329	N	SER	A	702	5.851	11.172	2.764	1.00	36.40
ATOM	1330	CA	SER	A	702	6.218	11.787	1.488	1.00	38.48
ATOM	1331	CB	SER	A	702	6.077	13.303	1.581	1.00	34.20
ATOM	1332	OG	SER	A	702	7.065	13.837	2.446	1.00	34.77
ATOM	1333	C	SER	A	702	7.639	11.459	1.036	1.00	38.77
ATOM	1334	O	SER	A	702	7.915	11.380	-0.162	1.00	39.14
ATOM	1335	N	GLY	A	703	8.537	11.278	1.997	1.00	37.92
ATOM	1336	CA	GLY	A	703	9.920	10.984	1.673	1.00	37.06
ATOM	1337	C	GLY	A	703	10.242	9.556	1.271	1.00	36.77
ATOM	1338	O	GLY	A	703	11.329	9.293	0.760	1.00	37.21
ATOM	1339	N	LEU	A	704	9.316	8.628	1.493	1.00	28.47

ATOM	1340	CA	LEU	A	704	9.566	7.231	1.138	1.00	27.53
ATOM	1341	CB	LEU	A	704	8.446	6.321	1.655	1.00	29.58
ATOM	1342	CG	LEU	A	704	8.208	6.233	3.161	1.00	30.45
ATOM	1343	CD1	LEU	A	704	7.255	5.088	3.465	1.00	29.64
ATOM	1344	CD2	LEU	A	704	9.510	6.005	3.855	1.00	30.15
ATOM	1345	C	LEU	A	704	9.682	7.037	-0.364	1.00	26.70
ATOM	1346	O	LEU	A	704	9.092	7.783	-1.142	1.00	27.33
ATOM	1347	N	SER	A	705	10.450	6.028	-0.762	1.00	29.04
ATOM	1348	CA	SER	A	705	10.606	5.704	-2.171	1.00	28.79
ATOM	1349	CB	SER	A	705	11.734	4.690	-2.369	1.00	23.35
ATOM	1350	OG	SER	A	705	11.393	3.441	-1.802	1.00	24.99
ATOM	1351	C	SER	A	705	9.275	5.062	-2.540	1.00	29.09
ATOM	1352	O	SER	A	705	8.493	4.712	-1.654	1.00	29.81
ATOM	1353	N	ILE	A	706	9.019	4.894	-3.831	1.00	27.02
ATOM	1354	CA	ILE	A	706	7.764	4.295	-4.268	1.00	26.47
ATOM	1355	CB	ILE	A	706	7.700	4.211	-5.809	1.00	35.41
ATOM	1356	CG2	ILE	A	706	6.441	3.472	-6.241	1.00	36.09
ATOM	1357	CG1	ILE	A	706	7.728	5.622	-6.402	1.00	36.23
ATOM	1358	CD1	ILE	A	706	7.821	5.658	-7.917	1.00	36.02
ATOM	1359	C	ILE	A	706	7.561	2.902	-3.681	1.00	26.18
ATOM	1360	O	ILE	A	706	6.487	2.584	-3.175	1.00	26.02
ATOM	1361	N	GLU	A	707	8.594	2.071	-3.736	1.00	25.11
ATOM	1362	CA	GLU	A	707	8.484	0.720	-3.206	1.00	25.30
ATOM	1363	CB	GLU	A	707	9.725	-0.092	-3.577	1.00	46.28
ATOM	1364	CG	GLU	A	707	9.775	-0.446	-5.051	1.00	47.07
ATOM	1365	CD	GLU	A	707	8.667	-1.406	-5.452	1.00	47.32
ATOM	1366	OE1	GLU	A	707	8.296	-1.422	-6.645	1.00	47.31
ATOM	1367	OE2	GLU	A	707	8.177	-2.153	-4.576	1.00	47.02
ATOM	1368	C	GLU	A	707	8.284	0.730	-1.692	1.00	25.18
ATOM	1369	O	GLU	A	707	7.483	-0.042	-1.164	1.00	24.41
ATOM	1370	N	GLU	A	708	9.005	1.610	-1.002	1.00	23.37
ATOM	1371	CA	GLU	A	708	8.887	1.708	0.448	1.00	24.60
ATOM	1372	CB	GLU	A	708	9.904	2.704	1.011	1.00	30.84
ATOM	1373	CG	GLU	A	708	11.278	2.100	1.265	1.00	31.16
ATOM	1374	CD	GLU	A	708	12.236	3.077	1.921	1.00	31.10
ATOM	1375	OE1	GLU	A	708	13.164	2.615	2.617	1.00	31.36
ATOM	1376	OE2	GLU	A	708	12.073	4.301	1.732	1.00	31.87
ATOM	1377	C	GLU	A	708	7.481	2.138	0.839	1.00	24.78
ATOM	1378	O	GLU	A	708	6.886	1.579	1.768	1.00	23.94
ATOM	1379	N	TYR	A	709	6.961	3.133	0.128	1.00	23.21
ATOM	1380	CA	TYR	A	709	5.619	3.644	0.390	1.00	25.29
ATOM	1381	CB	TYR	A	709	5.295	4.802	-0.550	1.00	27.48
ATOM	1382	CG	TYR	A	709	3.912	5.365	-0.325	1.00	28.20
ATOM	1383	CD1	TYR	A	709	3.654	6.221	0.743	1.00	28.35
ATOM	1384	CE1	TYR	A	709	2.375	6.712	0.980	1.00	28.11
ATOM	1385	CD2	TYR	A	709	2.853	5.011	-1.157	1.00	29.10
ATOM	1386	CE2	TYR	A	709	1.567	5.496	-0.927	1.00	29.20
ATOM	1387	CZ	TYR	A	709	1.337	6.343	0.142	1.00	29.09
ATOM	1388	OH	TYR	A	709	0.065	6.813	0.379	1.00	28.65
ATOM	1389	C	TYR	A	709	4.568	2.549	0.224	1.00	25.53
ATOM	1390	O	TYR	A	709	3.740	2.336	1.111	1.00	24.94
ATOM	1391	N	LYS	A	710	4.602	1.859	-0.915	1.00	25.86
ATOM	1392	CA	LYS	A	710	3.658	0.778	-1.191	1.00	26.20
ATOM	1393	CB	LYS	A	710	3.955	0.144	-2.551	1.00	48.58
ATOM	1394	CG	LYS	A	710	3.417	-1.276	-2.683	1.00	49.43
ATOM	1395	CD	LYS	A	710	3.795	-1.914	-4.008	1.00	49.56
ATOM	1396	CE	LYS	A	710	3.501	-3.408	-3.993	1.00	49.72
ATOM	1397	NZ	LYS	A	710	2.086	-3.707	-3.633	1.00	49.51
ATOM	1398	C	LYS	A	710	3.689	-0.309	-0.123	1.00	25.97
ATOM	1399	O	LYS	A	710	2.640	-0.743	0.356	1.00	25.66
ATOM	1400	N	THR	A	711	4.891	-0.756	0.236	1.00	24.32
ATOM	1401	CA	THR	A	711	5.049	-1.800	1.240	1.00	23.82
ATOM	1402	CB	THR	A	711	6.528	-2.205	1.399	1.00	33.44
ATOM	1403	OG1	THR	A	711	7.030	-2.673	0.141	1.00	33.80
ATOM	1404	CG2	THR	A	711	6.669	-3.307	2.441	1.00	33.11
ATOM	1405	C	THR	A	711	4.523	-1.346	2.596	1.00	23.74

ATOM	1406	O	THR	A	711	3.861	-2.106	3.295	1.00 24.01
ATOM	1407	N	THR	A	712	4.813	-0.100	2.951	1.00 22.39
ATOM	1408	CA	THR	A	712	4.379	0.449	4.227	1.00 21.87
ATOM	1409	CB	THR	A	712	5.003	1.831	4.468	1.00 23.06
ATOM	1410	OG1	THR	A	712	6.432	1.713	4.416	1.00 24.85
ATOM	1411	CG2	THR	A	712	4.604	2.371	5.832	1.00 23.79
ATOM	1412	C	THR	A	712	2.859	0.548	4.330	1.00 21.27
ATOM	1413	O	THR	A	712	2.287	0.150	5.340	1.00 22.87
ATOM	1414	N	LEU	A	713	2.207	1.060	3.291	1.00 23.23
ATOM	1415	CA	LEU	A	713	0.751	1.189	3.314	1.00 22.85
ATOM	1416	CB	LEU	A	713	0.249	1.892	2.049	1.00 31.38
ATOM	1417	CG	LEU	A	713	-0.070	3.382	2.200	1.00 32.26
ATOM	1418	CD1	LEU	A	713	-1.303	3.560	3.082	1.00 32.03
ATOM	1419	CD2	LEU	A	713	1.117	4.106	2.804	1.00 32.84
ATOM	1420	C	LEU	A	713	0.051	-0.154	3.473	1.00 22.64
ATOM	1421	O	LEU	A	713	-0.966	-0.251	4.159	1.00 22.10
ATOM	1422	N	LYS	A	714	0.605	-1.187	2.844	1.00 20.65
ATOM	1423	CA	LYS	A	714	0.054	-2.534	2.919	1.00 20.74
ATOM	1424	CB	LYS	A	714	0.822	-3.457	1.970	1.00 43.81
ATOM	1425	CG	LYS	A	714	0.599	-4.943	2.199	1.00 44.63
ATOM	1426	CD	LYS	A	714	1.492	-5.772	1.278	1.00 44.93
ATOM	1427	CE	LYS	A	714	1.524	-7.235	1.692	1.00 44.98
ATOM	1428	NZ	LYS	A	714	0.178	-7.868	1.647	1.00 44.80
ATOM	1429	C	LYS	A	714	0.165	-3.051	4.348	1.00 19.68
ATOM	1430	O	LYS	A	714	-0.755	-3.693	4.865	1.00 20.74
ATOM	1431	N	ILE	A	715	1.300	-2.777	4.984	1.00 20.42
ATOM	1432	CA	ILE	A	715	1.504	-3.216	6.348	1.00 20.28
ATOM	1433	CB	ILE	A	715	2.950	-2.960	6.818	1.00 24.09
ATOM	1434	CG2	ILE	A	715	3.105	-3.399	8.264	1.00 24.82
ATOM	1435	CG1	ILE	A	715	3.930	-3.718	5.917	1.00 25.35
ATOM	1436	CD1	ILE	A	715	5.381	-3.440	6.231	1.00 24.56
ATOM	1437	C	ILE	A	715	0.539	-2.476	7.257	1.00 19.19
ATOM	1438	O	ILE	A	715	-0.035	-3.073	8.161	1.00 19.49
ATOM	1439	N	ILE	A	716	0.367	-1.180	7.005	1.00 19.27
ATOM	1440	CA	ILE	A	716	-0.546	-0.361	7.800	1.00 18.10
ATOM	1441	CB	ILE	A	716	-0.519	1.112	7.345	1.00 20.08
ATOM	1442	CG2	ILE	A	716	-1.672	1.877	7.984	1.00 20.73
ATOM	1443	CG1	ILE	A	716	0.828	1.743	7.717	1.00 19.90
ATOM	1444	CD1	ILE	A	716	1.027	3.151	7.204	1.00 20.14
ATOM	1445	C	ILE	A	716	-1.977	-0.890	7.705	1.00 16.92
ATOM	1446	O	ILE	A	716	-2.647	-1.066	8.727	1.00 17.86
ATOM	1447	N	LYS	A	717	-2.449	-1.143	6.488	1.00 18.04
ATOM	1448	CA	LYS	A	717	-3.808	-1.656	6.315	1.00 19.57
ATOM	1449	CB	LYS	A	717	-4.150	-1.839	4.834	1.00 22.85
ATOM	1450	CG	LYS	A	717	-5.590	-2.297	4.619	1.00 22.42
ATOM	1451	CD	LYS	A	717	-5.930	-2.486	3.144	1.00 23.58
ATOM	1452	CE	LYS	A	717	-7.357	-2.986	2.980	1.00 22.98
ATOM	1453	NZ	LYS	A	717	-7.730	-3.216	1.552	1.00 24.81
ATOM	1454	C	LYS	A	717	-3.977	-2.985	7.042	1.00 19.43
ATOM	1455	O	LYS	A	717	-4.957	-3.197	7.753	1.00 18.92
ATOM	1456	N	GLN	A	718	-3.024	-3.894	6.870	1.00 19.29
ATOM	1457	CA	GLN	A	718	-3.136	-5.173	7.552	1.00 17.73
ATOM	1458	CB	GLN	A	718	-2.009	-6.099	7.096	1.00 35.14
ATOM	1459	CG	GLN	A	718	-2.134	-6.456	5.621	1.00 35.99
ATOM	1460	CD	GLN	A	718	-0.956	-7.249	5.095	1.00 36.88
ATOM	1461	OE1	GLN	A	718	-0.973	-7.718	3.956	1.00 37.13
ATOM	1462	NE2	GLN	A	718	0.076	-7.396	5.915	1.00 36.21
ATOM	1463	C	GLN	A	718	-3.144	-5.031	9.073	1.00 16.21
ATOM	1464	O	GLN	A	718	-3.899	-5.725	9.764	1.00 16.17
ATOM	1465	N	ALA	A	719	-2.326	-4.117	9.585	1.00 17.17
ATOM	1466	CA	ALA	A	719	-2.236	-3.886	11.020	1.00 16.40
ATOM	1467	CB	ALA	A	719	-1.062	-2.939	11.335	1.00 18.08
ATOM	1468	C	ALA	A	719	-3.542	-3.325	11.577	1.00 15.71
ATOM	1469	O	ALA	A	719	-3.996	-3.754	12.637	1.00 15.47
ATOM	1470	N	ILE	A	720	-4.150	-2.380	10.864	1.00 15.28
ATOM	1471	CA	ILE	A	720	-5.402	-1.802	11.330	1.00 17.34

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ATOM   1472  CB  ILE A 720      -5.758  -0.520  10.525  1.00 16.58
ATOM   1473  CG2 ILE A 720      -7.185  -0.054  10.855  1.00 17.16
ATOM   1474  CG1 ILE A 720      -4.736   0.570  10.852  1.00 17.26
ATOM   1475  CD1 ILE A 720      -5.042   1.931  10.241  1.00 17.39
ATOM   1476  C   ILE A 720      -6.516  -2.847  11.257  1.00 14.75
ATOM   1477  O   ILE A 720      -7.288  -3.002  12.199  1.00 16.06
ATOM   1478  N   LEU A 721      -6.583  -3.605  10.165  1.00 16.72
ATOM   1479  CA  LEU A 721      -7.617  -4.629  10.070  1.00 17.03
ATOM   1480  CB  LEU A 721      -7.616  -5.282   8.684  1.00 21.51
ATOM   1481  CG  LEU A 721      -8.136  -4.398   7.544  1.00 22.77
ATOM   1482  CD1 LEU A 721      -8.089  -5.164   6.236  1.00 22.53
ATOM   1483  CD2 LEU A 721      -9.556  -3.947   7.834  1.00 22.98
ATOM   1484  C   LEU A 721      -7.442  -5.694  11.148  1.00 15.19
ATOM   1485  O   LEU A 721      -8.416  -6.269  11.624  1.00 16.45
ATOM   1486  N   ALA A 722      -6.199  -5.940  11.546  1.00 17.48
ATOM   1487  CA  ALA A 722      -5.924  -6.935  12.571  1.00 17.80
ATOM   1488  CB  ALA A 722      -4.431  -7.113  12.735  1.00 18.14
ATOM   1489  C   ALA A 722      -6.547  -6.557  13.905  1.00 18.00
ATOM   1490  O   ALA A 722      -6.764  -7.420  14.750  1.00 18.41
ATOM   1491  N   THR A 723      -6.854  -5.274  14.094  1.00 15.61
ATOM   1492  CA  THR A 723      -7.434  -4.856  15.359  1.00 15.90
ATOM   1493  CB  THR A 723      -7.199  -3.360  15.650  1.00 16.83
ATOM   1494  OG1 THR A 723      -7.801  -2.550  14.635  1.00 17.34
ATOM   1495  CG2 THR A 723      -5.701  -3.084  15.726  1.00 18.33
ATOM   1496  C   THR A 723      -8.909  -5.192  15.499  1.00 16.50
ATOM   1497  O   THR A 723      -9.542  -4.838  16.492  1.00 17.29
ATOM   1498  N   ASP A 724      -9.452  -5.875  14.498  1.00 17.56
ATOM   1499  CA  ASP A 724     -10.826  -6.342  14.549  1.00 18.40
ATOM   1500  CB  ASP A 724     -11.304  -6.762  13.157  1.00 16.11
ATOM   1501  CG  ASP A 724     -12.737  -7.273  13.160  1.00 14.99
ATOM   1502  OD1 ASP A 724     -13.297  -7.492  14.254  1.00 16.02
ATOM   1503  OD2 ASP A 724     -13.310  -7.458  12.069  1.00 18.73
ATOM   1504  C   ASP A 724     -10.707  -7.582  15.431  1.00 18.02
ATOM   1505  O   ASP A 724     -10.114  -8.571  15.006  1.00 18.53
ATOM   1506  N   LEU A 725     -11.242  -7.536  16.649  1.00 20.52
ATOM   1507  CA  LEU A 725     -11.140  -8.685  17.545  1.00 21.37
ATOM   1508  CB  LEU A 725     -11.851  -8.407  18.873  1.00 31.10
ATOM   1509  CG  LEU A 725     -10.960  -7.911  20.016  1.00 32.17
ATOM   1510  CD1 LEU A 725     -11.782  -7.798  21.293  1.00 32.32
ATOM   1511  CD2 LEU A 725      -9.809  -8.885  20.232  1.00 31.61
ATOM   1512  C   LEU A 725     -11.673  -9.981  16.942  1.00 22.61
ATOM   1513  O   LEU A 725     -11.229 -11.061  17.316  1.00 22.86
ATOM   1514  N   ALA A 726     -12.613  -9.887  16.006  1.00 24.20
ATOM   1515  CA  ALA A 726     -13.158 -11.095  15.376  1.00 26.25
ATOM   1516  CB  ALA A 726     -14.375 -10.746  14.520  1.00 26.36
ATOM   1517  C   ALA A 726     -12.093 -11.782  14.520  1.00 25.26
ATOM   1518  O   ALA A 726     -12.043 -13.015  14.431  1.00 26.23
ATOM   1519  N   LEU A 727     -11.253 -10.981  13.879  1.00 25.84
ATOM   1520  CA  LEU A 727     -10.183 -11.497  13.037  1.00 27.01
ATOM   1521  CB  LEU A 727      -9.582 -10.354  12.217  1.00 27.22
ATOM   1522  CG  LEU A 727      -9.355 -10.566  10.718  1.00 29.26
ATOM   1523  CD1 LEU A 727     -10.607 -11.167  10.073  1.00 27.54
ATOM   1524  CD2 LEU A 727      -9.011  -9.229  10.069  1.00 28.24
ATOM   1525  C   LEU A 727      -9.123 -12.118  13.946  1.00 26.83
ATOM   1526  O   LEU A 727      -8.441 -13.077  13.575  1.00 27.75
ATOM   1527  N   TYR A 728      -8.982 -11.566  15.144  1.00 23.72
ATOM   1528  CA  TYR A 728      -8.013 -12.096  16.094  1.00 24.54
ATOM   1529  CB  TYR A 728      -7.843 -11.144  17.280  1.00 26.68
ATOM   1530  CG  TYR A 728      -7.128 -11.784  18.440  1.00 27.14
ATOM   1531  CD1 TYR A 728      -7.828 -12.208  19.568  1.00 27.32
ATOM   1532  CE1 TYR A 728      -7.183 -12.878  20.602  1.00 27.41
ATOM   1533  CD2 TYR A 728      -5.762 -12.040  18.377  1.00 27.43
ATOM   1534  CE2 TYR A 728      -5.111 -12.709  19.400  1.00 27.27
ATOM   1535  CZ  TYR A 728      -5.825 -13.126  20.505  1.00 27.40
ATOM   1536  OH  TYR A 728      -5.178 -13.810  21.507  1.00 28.59
ATOM   1537  C   TYR A 728      -8.483 -13.462  16.593  1.00 24.46
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ATOM   1538  O   TYR A 728      -7.713 -14.425  16.643  1.00 24.91
ATOM   1539  N   ILE A 729      -9.753 -13.536  16.968  1.00 25.84
ATOM   1540  CA  ILE A 729     -10.335 -14.779  17.463  1.00 26.31
ATOM   1541  CB  ILE A 729     -11.803 -14.555  17.876  1.00 28.61
ATOM   1542  CG2 ILE A 729     -12.482 -15.887  18.155  1.00 28.30
ATOM   1543  CG1 ILE A 729     -11.855 -13.646  19.106  1.00 27.91
ATOM   1544  CD1 ILE A 729     -13.251 -13.165  19.462  1.00 28.85
ATOM   1545  C   ILE A 729     -10.265 -15.874  16.401  1.00 28.18
ATOM   1546  O   ILE A 729     -10.162 -17.061  16.727  1.00 28.43
ATOM   1547  N   LYS A 730     -10.304 -15.469  15.135  1.00 32.05
ATOM   1548  CA  LYS A 730     -10.265 -16.402  14.008  1.00 33.23
ATOM   1549  CB  LYS A 730     -10.833 -15.714  12.758  1.00 40.71
ATOM   1550  CG  LYS A 730     -10.709 -16.526  11.475  1.00 40.87
ATOM   1551  CD  LYS A 730     -11.146 -15.727  10.251  1.00 40.83
ATOM   1552  CE  LYS A 730     -11.013 -16.555   8.977  1.00 41.35
ATOM   1553  NZ  LYS A 730     -11.478 -15.810   7.772  1.00 41.21
ATOM   1554  C   LYS A 730      -8.865 -16.938  13.697  1.00 33.75
ATOM   1555  O   LYS A 730      -8.688 -18.137  13.457  1.00 33.39
ATOM   1556  N   ARG A 731      -7.876 -16.050  13.703  1.00 31.85
ATOM   1557  CA  ARG A 731      -6.503 -16.428  13.380  1.00 31.83
ATOM   1558  CB  ARG A 731      -5.825 -15.293  12.604  1.00 43.64
ATOM   1559  CG  ARG A 731      -6.375 -15.070  11.205  1.00 44.14
ATOM   1560  CD  ARG A 731      -5.975 -13.707  10.644  1.00 44.16
ATOM   1561  NE  ARG A 731      -4.534 -13.536  10.456  1.00 44.52
ATOM   1562  CZ  ARG A 731      -3.809 -14.173   9.541  1.00 44.27
ATOM   1563  NH1 ARG A 731      -4.383 -15.039   8.716  1.00 44.55
ATOM   1564  NH2 ARG A 731      -2.507 -13.933   9.440  1.00 44.01
ATOM   1565  C   ARG A 731      -5.603 -16.813  14.549  1.00 31.39
ATOM   1566  O   ARG A 731      -4.510 -17.339  14.333  1.00 31.88
ATOM   1567  N   ARG A 732      -6.040 -16.566  15.780  1.00 27.33
ATOM   1568  CA  ARG A 732      -5.189 -16.880  16.923  1.00 27.09
ATOM   1569  CB  ARG A 732      -5.783 -16.315  18.218  1.00 27.95
ATOM   1570  CG  ARG A 732      -7.063 -16.972  18.680  1.00 27.63
ATOM   1571  CD  ARG A 732      -7.423 -16.469  20.056  1.00 27.47
ATOM   1572  NE  ARG A 732      -8.557 -17.178  20.632  1.00 27.81
ATOM   1573  CZ  ARG A 732      -8.915 -17.083  21.907  1.00 28.15
ATOM   1574  NH1 ARG A 732      -8.225 -16.308  22.735  1.00 28.26
ATOM   1575  NH2 ARG A 732      -9.955 -17.772  22.358  1.00 29.20
ATOM   1576  C   ARG A 732      -4.928 -18.372  17.086  1.00 26.60
ATOM   1577  O   ARG A 732      -3.853 -18.767  17.524  1.00 26.91
ATOM   1578  N   GLY A 733      -5.909 -19.195  16.733  1.00 28.21
ATOM   1579  CA  GLY A 733      -5.741 -20.633  16.860  1.00 28.94
ATOM   1580  C   GLY A 733      -4.533 -21.138  16.097  1.00 28.70
ATOM   1581  O   GLY A 733      -3.785 -21.991  16.582  1.00 29.01
ATOM   1582  N   GLU A 734      -4.344 -20.609  14.895  1.00 26.13
ATOM   1583  CA  GLU A 734      -3.224 -20.999  14.049  1.00 26.64
ATOM   1584  CB  GLU A 734      -3.257 -20.213  12.741  1.00 32.54
ATOM   1585  CG  GLU A 734      -2.289 -20.720  11.697  1.00 32.73
ATOM   1586  CD  GLU A 734      -2.261 -19.855  10.458  1.00 32.93
ATOM   1587  OE1 GLU A 734      -3.330 -19.331  10.068  1.00 32.62
ATOM   1588  OE2 GLU A 734      -1.168 -19.713   9.867  1.00 33.12
ATOM   1589  C   GLU A 734      -1.927 -20.705  14.783  1.00 26.89
ATOM   1590  O   GLU A 734      -1.071 -21.571  14.935  1.00 26.89
ATOM   1591  N   PHE A 735      -1.797 -19.463  15.233  1.00 26.37
ATOM   1592  CA  PHE A 735      -0.630 -18.996  15.965  1.00 26.70
ATOM   1593  CB  PHE A 735      -0.911 -17.569  16.455  1.00 35.10
ATOM   1594  CG  PHE A 735       0.263 -16.884  17.099  1.00 35.60
ATOM   1595  CD1 PHE A 735       1.487 -16.801  16.448  1.00 35.44
ATOM   1596  CD2 PHE A 735       0.116 -16.256  18.333  1.00 35.57
ATOM   1597  CE1 PHE A 735       2.549 -16.098  17.013  1.00 35.65
ATOM   1598  CE2 PHE A 735       1.168 -15.550  18.909  1.00 35.48
ATOM   1599  CZ  PHE A 735       2.388 -15.469  18.247  1.00 35.90
ATOM   1600  C   PHE A 735      -0.309 -19.919  17.148  1.00 26.06
ATOM   1601  O   PHE A 735       0.819 -20.387  17.297  1.00 26.34
ATOM   1602  N   PHE A 736      -1.313 -20.186  17.978  1.00 27.83
ATOM   1603  CA  PHE A 736      -1.144 -21.049  19.146  1.00 27.77
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ATOM	1604	CB	PHE	A	736	-2.462	-21.134	19.925	1.00	26.06
ATOM	1605	CG	PHE	A	736	-2.927	-19.810	20.492	1.00	26.21
ATOM	1606	CD1	PHE	A	736	-4.239	-19.659	20.948	1.00	25.79
ATOM	1607	CD2	PHE	A	736	-2.059	-18.727	20.587	1.00	25.60
ATOM	1608	CE1	PHE	A	736	-4.676	-18.450	21.489	1.00	25.76
ATOM	1609	CE2	PHE	A	736	-2.490	-17.508	21.130	1.00	25.65
ATOM	1610	CZ	PHE	A	736	-3.801	-17.376	21.580	1.00	25.15
ATOM	1611	C	PHE	A	736	-0.692	-22.453	18.737	1.00	27.64
ATOM	1612	O	PHE	A	736	0.212	-23.020	19.352	1.00	28.68
ATOM	1613	N	GLU	A	737	-1.335	-23.001	17.709	1.00	26.38
ATOM	1614	CA	GLU	A	737	-1.015	-24.335	17.187	1.00	26.87
ATOM	1615	CB	GLU	A	737	-1.860	-24.633	15.943	1.00	54.89
ATOM	1616	CG	GLU	A	737	-3.324	-24.925	16.215	1.00	55.77
ATOM	1617	CD	GLU	A	737	-3.541	-26.319	16.765	1.00	56.24
ATOM	1618	OE1	GLU	A	737	-3.171	-27.293	16.074	1.00	56.16
ATOM	1619	OE2	GLU	A	737	-4.081	-26.440	17.885	1.00	55.95
ATOM	1620	C	GLU	A	737	0.458	-24.431	16.809	1.00	26.60
ATOM	1621	O	GLU	A	737	1.158	-25.385	17.181	1.00	24.87
ATOM	1622	N	LEU	A	738	0.919	-23.446	16.047	1.00	24.73
ATOM	1623	CA	LEU	A	738	2.304	-23.402	15.603	1.00	25.81
ATOM	1624	CB	LEU	A	738	2.558	-22.131	14.790	1.00	23.18
ATOM	1625	CG	LEU	A	738	2.098	-22.127	13.326	1.00	24.63
ATOM	1626	CD1	LEU	A	738	0.728	-22.761	13.172	1.00	25.88
ATOM	1627	CD2	LEU	A	738	2.093	-20.699	12.816	1.00	24.42
ATOM	1628	C	LEU	A	738	3.271	-23.459	16.771	1.00	25.22
ATOM	1629	O	LEU	A	738	4.259	-24.190	16.730	1.00	26.20
ATOM	1630	N	ILE	A	739	2.992	-22.676	17.809	1.00	22.89
ATOM	1631	CA	ILE	A	739	3.851	-22.643	18.983	1.00	23.09
ATOM	1632	CB	ILE	A	739	3.406	-21.531	19.961	1.00	29.33
ATOM	1633	CG2	ILE	A	739	4.227	-21.594	21.237	1.00	29.45
ATOM	1634	CG1	ILE	A	739	3.554	-20.161	19.293	1.00	29.28
ATOM	1635	CD1	ILE	A	739	4.978	-19.789	18.968	1.00	29.71
ATOM	1636	C	ILE	A	739	3.850	-23.981	19.717	1.00	23.52
ATOM	1637	O	ILE	A	739	4.904	-24.513	20.040	1.00	24.40
ATOM	1638	N	ARG	A	740	2.665	-24.523	19.971	1.00	25.73
ATOM	1639	CA	ARG	A	740	2.545	-25.790	20.683	1.00	27.35
ATOM	1640	CB	ARG	A	740	1.070	-26.135	20.897	1.00	48.66
ATOM	1641	CG	ARG	A	740	0.840	-27.418	21.679	1.00	49.28
ATOM	1642	CD	ARG	A	740	-0.625	-27.566	22.043	1.00	49.58
ATOM	1643	NE	ARG	A	740	-1.484	-27.521	20.863	1.00	49.67
ATOM	1644	CZ	ARG	A	740	-1.504	-28.454	19.916	1.00	49.81
ATOM	1645	NH1	ARG	A	740	-0.709	-29.514	20.008	1.00	50.00
ATOM	1646	NH2	ARG	A	740	-2.317	-28.330	18.876	1.00	49.79
ATOM	1647	C	ARG	A	740	3.241	-26.950	19.975	1.00	27.41
ATOM	1648	O	ARG	A	740	3.784	-27.845	20.628	1.00	27.24
ATOM	1649	N	LYS	A	741	3.230	-26.935	18.646	1.00	27.03
ATOM	1650	CA	LYS	A	741	3.863	-27.999	17.874	1.00	27.38
ATOM	1651	CB	LYS	A	741	3.055	-28.279	16.605	1.00	33.72
ATOM	1652	CG	LYS	A	741	1.670	-28.843	16.885	1.00	34.15
ATOM	1653	CD	LYS	A	741	0.952	-29.259	15.614	1.00	34.24
ATOM	1654	CE	LYS	A	741	-0.401	-29.874	15.943	1.00	34.27
ATOM	1655	NZ	LYS	A	741	-1.166	-30.255	14.726	1.00	34.95
ATOM	1656	C	LYS	A	741	5.315	-27.692	17.511	1.00	27.29
ATOM	1657	O	LYS	A	741	5.937	-28.430	16.745	1.00	28.07
ATOM	1658	N	ASN	A	742	5.854	-26.606	18.061	1.00	25.30
ATOM	1659	CA	ASN	A	742	7.239	-26.224	17.797	1.00	25.09
ATOM	1660	CB	ASN	A	742	8.189	-27.297	18.332	1.00	29.88
ATOM	1661	CG	ASN	A	742	8.202	-27.351	19.837	1.00	30.15
ATOM	1662	OD1	ASN	A	742	8.592	-26.389	20.491	1.00	30.86
ATOM	1663	ND2	ASN	A	742	7.768	-28.474	20.400	1.00	30.30
ATOM	1664	C	ASN	A	742	7.498	-26.005	16.318	1.00	24.75
ATOM	1665	O	ASN	A	742	8.526	-26.431	15.782	1.00	23.22
ATOM	1666	N	GLN	A	743	6.564	-25.319	15.665	1.00	27.53
ATOM	1667	CA	GLN	A	743	6.670	-25.035	14.240	1.00	28.70
ATOM	1668	CB	GLN	A	743	5.451	-25.592	13.495	1.00	37.55
ATOM	1669	CG	GLN	A	743	5.093	-27.027	13.845	1.00	37.58

ATOM	1670	CD	GLN	A	743	3.960	-27.566	12.992	1.00	38.11
ATOM	1671	OE1	GLN	A	743	2.923	-26.918	12.830	1.00	38.11
ATOM	1672	NE2	GLN	A	743	4.147	-28.763	12.447	1.00	37.75
ATOM	1673	C	GLN	A	743	6.755	-23.533	13.979	1.00	28.82
ATOM	1674	O	GLN	A	743	6.881	-23.105	12.832	1.00	28.92
ATOM	1675	N	PHE	A	744	6.681	-22.729	15.035	1.00	28.91
ATOM	1676	CA	PHE	A	744	6.743	-21.284	14.850	1.00	29.47
ATOM	1677	CB	PHE	A	744	6.432	-20.556	16.157	1.00	40.72
ATOM	1678	CG	PHE	A	744	6.298	-19.064	15.997	1.00	40.67
ATOM	1679	CD1	PHE	A	744	5.279	-18.525	15.214	1.00	41.29
ATOM	1680	CD2	PHE	A	744	7.191	-18.200	16.618	1.00	41.11
ATOM	1681	CE1	PHE	A	744	5.153	-17.145	15.053	1.00	41.25
ATOM	1682	CE2	PHE	A	744	7.074	-16.819	16.464	1.00	41.16
ATOM	1683	CZ	PHE	A	744	6.053	-16.292	15.680	1.00	41.33
ATOM	1684	C	PHE	A	744	8.097	-20.819	14.326	1.00	29.13
ATOM	1685	O	PHE	A	744	9.146	-21.260	14.792	1.00	30.17
ATOM	1686	N	ASN	A	745	8.055	-19.921	13.349	1.00	28.18
ATOM	1687	CA	ASN	A	745	9.260	-19.363	12.750	1.00	29.83
ATOM	1688	CB	ASN	A	745	9.795	-20.272	11.648	1.00	38.97
ATOM	1689	CG	ASN	A	745	10.919	-19.622	10.867	1.00	39.20
ATOM	1690	OD1	ASN	A	745	11.985	-19.348	11.411	1.00	39.54
ATOM	1691	ND2	ASN	A	745	10.679	-19.357	9.590	1.00	40.15
ATOM	1692	C	ASN	A	745	8.941	-18.005	12.149	1.00	29.56
ATOM	1693	O	ASN	A	745	8.208	-17.914	11.165	1.00	29.59
ATOM	1694	N	LEU	A	746	9.499	-16.956	12.741	1.00	38.07
ATOM	1695	CA	LEU	A	746	9.268	-15.597	12.270	1.00	39.23
ATOM	1696	CB	LEU	A	746	9.822	-14.591	13.280	1.00	38.00
ATOM	1697	CG	LEU	A	746	8.967	-14.381	14.528	1.00	37.62
ATOM	1698	CD1	LEU	A	746	9.676	-13.427	15.475	1.00	38.20
ATOM	1699	CD2	LEU	A	746	7.609	-13.821	14.125	1.00	37.68
ATOM	1700	C	LEU	A	746	9.852	-15.302	10.895	1.00	39.66
ATOM	1701	O	LEU	A	746	9.455	-14.335	10.245	1.00	39.51
ATOM	1702	N	GLU	A	747	10.792	-16.128	10.449	1.00	39.64
ATOM	1703	CA	GLU	A	747	11.404	-15.918	9.143	1.00	39.71
ATOM	1704	CB	GLU	A	747	12.605	-16.845	8.965	1.00	45.59
ATOM	1705	CG	GLU	A	747	13.921	-16.094	8.881	1.00	46.56
ATOM	1706	CD	GLU	A	747	15.125	-16.981	9.132	1.00	46.55
ATOM	1707	OE1	GLU	A	747	15.305	-17.974	8.395	1.00	46.54
ATOM	1708	OE2	GLU	A	747	15.890	-16.679	10.072	1.00	46.60
ATOM	1709	C	GLU	A	747	10.391	-16.136	8.029	1.00	38.87
ATOM	1710	O	GLU	A	747	10.422	-15.454	7.002	1.00	39.21
ATOM	1711	N	ASP	A	748	9.487	-17.086	8.234	1.00	32.77
ATOM	1712	CA	ASP	A	748	8.455	-17.363	7.248	1.00	32.31
ATOM	1713	CB	ASP	A	748	7.654	-18.600	7.652	1.00	47.03
ATOM	1714	CG	ASP	A	748	6.639	-19.002	6.603	1.00	47.67
ATOM	1715	OD1	ASP	A	748	5.613	-18.305	6.459	1.00	47.81
ATOM	1716	OD2	ASP	A	748	6.876	-20.018	5.912	1.00	48.36
ATOM	1717	C	ASP	A	748	7.544	-16.141	7.190	1.00	32.61
ATOM	1718	O	ASP	A	748	6.915	-15.777	8.185	1.00	30.88
ATOM	1719	N	PRO	A	749	7.466	-15.490	6.018	1.00	39.12
ATOM	1720	CD	PRO	A	749	8.049	-15.930	4.739	1.00	38.16
ATOM	1721	CA	PRO	A	749	6.634	-14.299	5.824	1.00	39.58
ATOM	1722	CB	PRO	A	749	6.773	-14.021	4.325	1.00	38.14
ATOM	1723	CG	PRO	A	749	7.069	-15.367	3.745	1.00	38.10
ATOM	1724	C	PRO	A	749	5.176	-14.417	6.274	1.00	39.62
ATOM	1725	O	PRO	A	749	4.601	-13.447	6.770	1.00	39.95
ATOM	1726	N	HIS	A	750	4.571	-15.588	6.108	1.00	32.50
ATOM	1727	CA	HIS	A	750	3.181	-15.742	6.524	1.00	31.88
ATOM	1728	CB	HIS	A	750	2.562	-17.016	5.946	1.00	30.66
ATOM	1729	CG	HIS	A	750	1.149	-17.240	6.384	1.00	30.76
ATOM	1730	CD2	HIS	A	750	-0.008	-16.667	5.981	1.00	30.83
ATOM	1731	ND1	HIS	A	750	0.815	-18.097	7.410	1.00	31.54
ATOM	1732	CE1	HIS	A	750	-0.488	-18.041	7.621	1.00	31.23
ATOM	1733	NE2	HIS	A	750	-1.011	-17.180	6.768	1.00	31.56
ATOM	1734	C	HIS	A	750	3.055	-15.761	8.042	1.00	31.66
ATOM	1735	O	HIS	A	750	2.146	-15.148	8.604	1.00	31.17

ATOM	1736	N	GLU	A	751	3.957	-16.470	8.711	1.00 31.26
ATOM	1737	CA	GLU	A	751	3.913	-16.519	10.165	1.00 31.20
ATOM	1738	CB	GLU	A	751	4.898	-17.563	10.703	1.00 33.16
ATOM	1739	CG	GLU	A	751	4.444	-19.000	10.455	1.00 33.17
ATOM	1740	CD	GLU	A	751	5.215	-20.017	11.274	1.00 33.56
ATOM	1741	OE1	GLU	A	751	5.432	-19.772	12.478	1.00 33.10
ATOM	1742	OE2	GLU	A	751	5.587	-21.071	10.720	1.00 33.79
ATOM	1743	C	GLU	A	751	4.247	-15.127	10.699	1.00 31.23
ATOM	1744	O	GLU	A	751	3.836	-14.753	11.800	1.00 31.00
ATOM	1745	N	LYS	A	752	4.979	-14.364	9.892	1.00 29.23
ATOM	1746	CA	LYS	A	752	5.372	-13.008	10.239	1.00 29.88
ATOM	1747	CB	LYS	A	752	6.292	-12.439	9.154	1.00 37.79
ATOM	1748	CG	LYS	A	752	6.867	-11.058	9.453	1.00 38.37
ATOM	1749	CD	LYS	A	752	7.766	-11.087	10.684	1.00 38.41
ATOM	1750	CE	LYS	A	752	8.526	-9.783	10.861	1.00 38.61
ATOM	1751	NZ	LYS	A	752	9.473	-9.521	9.748	1.00 38.19
ATOM	1752	C	LYS	A	752	4.143	-12.120	10.373	1.00 29.16
ATOM	1753	O	LYS	A	752	3.921	-11.510	11.425	1.00 29.42
ATOM	1754	N	GLU	A	753	3.341	-12.029	9.315	1.00 30.11
ATOM	1755	CA	GLU	A	753	2.156	-11.191	9.402	1.00 30.60
ATOM	1756	CB	GLU	A	753	1.467	-11.040	8.038	1.00 54.85
ATOM	1757	CG	GLU	A	753	1.100	-12.316	7.315	1.00 55.61
ATOM	1758	CD	GLU	A	753	0.501	-12.034	5.942	1.00 55.82
ATOM	1759	OE1	GLU	A	753	1.195	-11.420	5.102	1.00 55.58
ATOM	1760	OE2	GLU	A	753	-0.663	-12.420	5.705	1.00 55.80
ATOM	1761	C	GLU	A	753	1.201	-11.736	10.458	1.00 29.96
ATOM	1762	O	GLU	A	753	0.476	-10.973	11.094	1.00 30.36
ATOM	1763	N	LEU	A	754	1.215	-13.050	10.668	1.00 25.09
ATOM	1764	CA	LEU	A	754	0.364	-13.638	11.695	1.00 23.83
ATOM	1765	CB	LEU	A	754	0.510	-15.160	11.719	1.00 25.34
ATOM	1766	CG	LEU	A	754	-0.242	-15.857	12.852	1.00 26.46
ATOM	1767	CD1	LEU	A	754	-1.730	-15.558	12.759	1.00 25.32
ATOM	1768	CD2	LEU	A	754	0.010	-17.364	12.767	1.00 25.75
ATOM	1769	C	LEU	A	754	0.812	-13.064	13.039	1.00 23.90
ATOM	1770	O	LEU	A	754	-0.011	-12.728	13.896	1.00 24.10
ATOM	1771	N	PHE	A	755	2.126	-12.953	13.215	1.00 22.27
ATOM	1772	CA	PHE	A	755	2.673	-12.405	14.444	1.00 23.27
ATOM	1773	CB	PHE	A	755	4.188	-12.601	14.506	1.00 27.67
ATOM	1774	CG	PHE	A	755	4.811	-11.977	15.715	1.00 27.49
ATOM	1775	CD1	PHE	A	755	4.559	-12.492	16.981	1.00 27.28
ATOM	1776	CD2	PHE	A	755	5.589	-10.834	15.596	1.00 26.66
ATOM	1777	CE1	PHE	A	755	5.070	-11.872	18.117	1.00 28.85
ATOM	1778	CE2	PHE	A	755	6.108	-10.200	16.727	1.00 27.67
ATOM	1779	CZ	PHE	A	755	5.849	-10.718	17.987	1.00 27.51
ATOM	1780	C	PHE	A	755	2.352	-10.914	14.590	1.00 23.26
ATOM	1781	O	PHE	A	755	1.932	-10.469	15.665	1.00 22.65
ATOM	1782	N	LEU	A	756	2.553	-10.148	13.520	1.00 21.99
ATOM	1783	CA	LEU	A	756	2.274	-8.712	13.552	1.00 23.22
ATOM	1784	CB	LEU	A	756	2.593	-8.059	12.206	1.00 24.32
ATOM	1785	CG	LEU	A	756	4.060	-7.993	11.785	1.00 25.68
ATOM	1786	CD1	LEU	A	756	4.163	-7.476	10.364	1.00 24.86
ATOM	1787	CD2	LEU	A	756	4.821	-7.094	12.737	1.00 25.84
ATOM	1788	C	LEU	A	756	0.820	-8.435	13.906	1.00 22.88
ATOM	1789	O	LEU	A	756	0.520	-7.441	14.561	1.00 22.05
ATOM	1790	N	ALA	A	757	-0.078	-9.316	13.477	1.00 22.97
ATOM	1791	CA	ALA	A	757	-1.498	-9.152	13.770	1.00 22.24
ATOM	1792	CB	ALA	A	757	-2.326	-10.143	12.950	1.00 21.11
ATOM	1793	C	ALA	A	757	-1.733	-9.387	15.255	1.00 23.73
ATOM	1794	O	ALA	A	757	-2.491	-8.668	15.907	1.00 22.64
ATOM	1795	N	MET	A	758	-1.080	-10.407	15.794	1.00 17.51
ATOM	1796	CA	MET	A	758	-1.234	-10.717	17.198	1.00 18.28
ATOM	1797	CB	MET	A	758	-0.581	-12.072	17.503	1.00 27.85
ATOM	1798	CG	MET	A	758	-1.181	-13.255	16.720	1.00 27.03
ATOM	1799	SD	MET	A	758	-2.826	-13.794	17.241	1.00 29.72
ATOM	1800	CE	MET	A	758	-3.778	-13.473	15.747	1.00 28.03
ATOM	1801	C	MET	A	758	-0.608	-9.605	18.039	1.00 17.15

ATOM	1802	O	MET	A	758	-1.088	-9.319	19.137	1.00 18.07
ATOM	1803	N	LEU	A	759	0.447	-8.979	17.515	1.00 17.47
ATOM	1804	CA	LEU	A	759	1.139	-7.898	18.225	1.00 19.04
ATOM	1805	CB	LEU	A	759	2.418	-7.482	17.491	1.00 19.37
ATOM	1806	CG	LEU	A	759	3.214	-6.328	18.112	1.00 20.18
ATOM	1807	CD1	LEU	A	759	3.610	-6.669	19.550	1.00 21.45
ATOM	1808	CD2	LEU	A	759	4.439	-6.039	17.261	1.00 21.48
ATOM	1809	C	LEU	A	759	0.213	-6.699	18.342	1.00 19.95
ATOM	1810	O	LEU	A	759	0.119	-6.081	19.406	1.00 18.11
ATOM	1811	N	MET	A	760	-0.454	-6.367	17.240	1.00 17.24
ATOM	1812	CA	MET	A	760	-1.393	-5.240	17.251	1.00 17.90
ATOM	1813	CB	MET	A	760	-2.032	-5.063	15.874	1.00 18.91
ATOM	1814	CG	MET	A	760	-1.140	-4.422	14.835	1.00 19.09
ATOM	1815	SD	MET	A	760	-0.717	-2.696	15.216	1.00 18.56
ATOM	1816	CE	MET	A	760	-2.370	-1.939	15.227	1.00 17.91
ATOM	1817	C	MET	A	760	-2.468	-5.487	18.302	1.00 18.32
ATOM	1818	O	MET	A	760	-2.808	-4.590	19.072	1.00 15.93
ATOM	1819	N	THR	A	761	-3.002	-6.706	18.350	1.00 17.94
ATOM	1820	CA	THR	A	761	-4.024	-7.021	19.336	1.00 17.15
ATOM	1821	CB	THR	A	761	-4.540	-8.454	19.164	1.00 18.32
ATOM	1822	OG1	THR	A	761	-5.103	-8.594	17.856	1.00 18.56
ATOM	1823	CG2	THR	A	761	-5.594	-8.772	20.220	1.00 17.55
ATOM	1824	C	THR	A	761	-3.446	-6.880	20.746	1.00 17.99
ATOM	1825	O	THR	A	761	-4.089	-6.332	21.635	1.00 19.05
ATOM	1826	N	ALA	A	762	-2.228	-7.381	20.946	1.00 16.64
ATOM	1827	CA	ALA	A	762	-1.590	-7.298	22.255	1.00 16.82
ATOM	1828	CB	ALA	A	762	-0.194	-7.908	22.202	1.00 19.67
ATOM	1829	C	ALA	A	762	-1.514	-5.854	22.755	1.00 18.11
ATOM	1830	O	ALA	A	762	-1.766	-5.585	23.933	1.00 16.84
ATOM	1831	N	CYS	A	763	-1.169	-4.936	21.860	1.00 15.07
ATOM	1832	CA	CYS	A	763	-1.081	-3.523	22.216	1.00 16.86
ATOM	1833	CB	CYS	A	763	-0.303	-2.767	21.147	1.00 16.42
ATOM	1834	SG	CYS	A	763	1.450	-3.220	21.036	1.00 16.68
ATOM	1835	C	CYS	A	763	-2.469	-2.904	22.372	1.00 18.36
ATOM	1836	O	CYS	A	763	-2.705	-2.091	23.269	1.00 15.92
ATOM	1837	N	ASP	A	764	-3.385	-3.289	21.494	1.00 17.47
ATOM	1838	CA	ASP	A	764	-4.743	-2.766	21.528	1.00 18.98
ATOM	1839	CB	ASP	A	764	-5.539	-3.360	20.360	1.00 18.28
ATOM	1840	CG	ASP	A	764	-6.834	-2.624	20.089	1.00 19.27
ATOM	1841	OD1	ASP	A	764	-7.670	-3.161	19.333	1.00 22.03
ATOM	1842	OD2	ASP	A	764	-7.013	-1.507	20.614	1.00 18.63
ATOM	1843	C	ASP	A	764	-5.446	-3.078	22.857	1.00 18.67
ATOM	1844	O	ASP	A	764	-6.269	-2.290	23.331	1.00 19.51
ATOM	1845	N	LEU	A	765	-5.126	-4.217	23.470	1.00 16.07
ATOM	1846	CA	LEU	A	765	-5.771	-4.596	24.726	1.00 16.91
ATOM	1847	CB	LEU	A	765	-6.108	-6.098	24.712	1.00 22.31
ATOM	1848	CG	LEU	A	765	-6.925	-6.653	23.540	1.00 22.32
ATOM	1849	CD1	LEU	A	765	-7.143	-8.152	23.733	1.00 22.41
ATOM	1850	CD2	LEU	A	765	-8.260	-5.940	23.451	1.00 22.60
ATOM	1851	C	LEU	A	765	-4.911	-4.288	25.953	1.00 17.63
ATOM	1852	O	LEU	A	765	-5.250	-4.699	27.062	1.00 18.64
ATOM	1853	N	SER	A	766	-3.830	-3.541	25.750	1.00 17.02
ATOM	1854	CA	SER	A	766	-2.869	-3.230	26.812	1.00 18.24
ATOM	1855	CB	SER	A	766	-1.846	-2.205	26.312	1.00 20.09
ATOM	1856	OG	SER	A	766	-2.378	-0.892	26.319	1.00 21.90
ATOM	1857	C	SER	A	766	-3.400	-2.775	28.171	1.00 17.35
ATOM	1858	O	SER	A	766	-2.738	-2.975	29.197	1.00 16.73
ATOM	1859	N	ALA	A	767	-4.571	-2.152	28.196	1.00 18.41
ATOM	1860	CA	ALA	A	767	-5.113	-1.682	29.466	1.00 19.58
ATOM	1861	CB	ALA	A	767	-6.465	-0.994	29.242	1.00 14.05
ATOM	1862	C	ALA	A	767	-5.272	-2.823	30.461	1.00 20.35
ATOM	1863	O	ALA	A	767	-5.111	-2.636	31.666	1.00 20.93
ATOM	1864	N	ILE	A	768	-5.580	-4.008	29.949	1.00 18.87
ATOM	1865	CA	ILE	A	768	-5.789	-5.176	30.786	1.00 20.62
ATOM	1866	CB	ILE	A	768	-6.405	-6.330	29.943	1.00 19.42
ATOM	1867	CG2	ILE	A	768	-5.323	-7.008	29.112	1.00 20.41

ATOM	1868	CG1	ILE	A	768	-7.087	-7.351	30.856	1.00	20.44
ATOM	1869	CD1	ILE	A	768	-8.333	-6.831	31.548	1.00	20.90
ATOM	1870	C	ILE	A	768	-4.499	-5.657	31.466	1.00	20.39
ATOM	1871	O	ILE	A	768	-4.543	-6.544	32.307	1.00	21.21
ATOM	1872	N	THR	A	769	-3.364	-5.061	31.108	1.00	19.18
ATOM	1873	CA	THR	A	769	-2.075	-5.437	31.693	1.00	19.16
ATOM	1874	CB	THR	A	769	-0.996	-5.672	30.620	1.00	20.58
ATOM	1875	OG1	THR	A	769	-0.519	-4.408	30.131	1.00	19.24
ATOM	1876	CG2	THR	A	769	-1.561	-6.478	29.453	1.00	20.09
ATOM	1877	C	THR	A	769	-1.496	-4.379	32.637	1.00	21.13
ATOM	1878	O	THR	A	769	-0.488	-4.618	33.300	1.00	21.47
ATOM	1879	N	LYS	A	770	-2.127	-3.214	32.691	1.00	19.99
ATOM	1880	CA	LYS	A	770	-1.634	-2.120	33.527	1.00	20.68
ATOM	1881	CB	LYS	A	770	-2.313	-0.812	33.108	1.00	20.27
ATOM	1882	CG	LYS	A	770	-2.103	-0.409	31.660	1.00	19.98
ATOM	1883	CD	LYS	A	770	-0.711	0.136	31.431	1.00	20.21
ATOM	1884	CE	LYS	A	770	-0.502	0.464	29.960	1.00	20.34
ATOM	1885	NZ	LYS	A	770	0.829	1.065	29.701	1.00	21.28
ATOM	1886	C	LYS	A	770	-1.861	-2.330	35.026	1.00	19.97
ATOM	1887	O	LYS	A	770	-2.628	-3.204	35.437	1.00	20.86
ATOM	1888	N	PRO	A	771	-1.186	-1.521	35.866	1.00	23.24
ATOM	1889	CD	PRO	A	771	-0.150	-0.537	35.512	1.00	25.67
ATOM	1890	CA	PRO	A	771	-1.329	-1.615	37.321	1.00	24.06
ATOM	1891	CB	PRO	A	771	-0.461	-0.463	37.823	1.00	25.01
ATOM	1892	CG	PRO	A	771	0.636	-0.421	36.809	1.00	24.38
ATOM	1893	C	PRO	A	771	-2.804	-1.429	37.672	1.00	23.94
ATOM	1894	O	PRO	A	771	-3.529	-0.723	36.970	1.00	23.81
ATOM	1895	N	TRP	A	772	-3.236	-2.057	38.759	1.00	22.70
ATOM	1896	CA	TRP	A	772	-4.626	-2.009	39.201	1.00	23.47
ATOM	1897	CB	TRP	A	772	-4.721	-2.480	40.652	1.00	31.03
ATOM	1898	CG	TRP	A	772	-6.120	-2.631	41.148	1.00	31.98
ATOM	1899	CD2	TRP	A	772	-7.205	-3.295	40.484	1.00	31.41
ATOM	1900	CE2	TRP	A	772	-8.322	-3.228	41.345	1.00	32.26
ATOM	1901	CE3	TRP	A	772	-7.342	-3.940	39.246	1.00	31.94
ATOM	1902	CD1	TRP	A	772	-6.611	-2.199	42.346	1.00	31.60
ATOM	1903	NE1	TRP	A	772	-7.930	-2.553	42.471	1.00	31.93
ATOM	1904	CZ2	TRP	A	772	-9.565	-3.785	41.009	1.00	32.15
ATOM	1905	CZ3	TRP	A	772	-8.579	-4.493	38.912	1.00	31.45
ATOM	1906	CH2	TRP	A	772	-9.672	-4.411	39.792	1.00	31.98
ATOM	1907	C	TRP	A	772	-5.368	-0.678	39.057	1.00	23.85
ATOM	1908	O	TRP	A	772	-6.409	-0.609	38.399	1.00	22.22
ATOM	1909	N	PRO	A	773	-4.857	0.398	39.678	1.00	25.77
ATOM	1910	CD	PRO	A	773	-3.583	0.541	40.403	1.00	32.22
ATOM	1911	CA	PRO	A	773	-5.546	1.689	39.567	1.00	26.04
ATOM	1912	CB	PRO	A	773	-4.609	2.650	40.304	1.00	32.61
ATOM	1913	CG	PRO	A	773	-3.259	1.991	40.171	1.00	33.14
ATOM	1914	C	PRO	A	773	-5.831	2.122	38.134	1.00	25.71
ATOM	1915	O	PRO	A	773	-6.900	2.653	37.834	1.00	26.03
ATOM	1916	N	ILE	A	774	-4.869	1.885	37.253	1.00	21.46
ATOM	1917	CA	ILE	A	774	-5.008	2.236	35.850	1.00	20.45
ATOM	1918	CB	ILE	A	774	-3.648	2.105	35.135	1.00	25.41
ATOM	1919	CG2	ILE	A	774	-3.790	2.436	33.654	1.00	25.27
ATOM	1920	CG1	ILE	A	774	-2.633	3.037	35.802	1.00	26.17
ATOM	1921	CD1	ILE	A	774	-1.205	2.807	35.355	1.00	25.47
ATOM	1922	C	ILE	A	774	-6.038	1.329	35.173	1.00	19.51
ATOM	1923	O	ILE	A	774	-6.928	1.804	34.471	1.00	18.75
ATOM	1924	N	GLN	A	775	-5.925	0.021	35.388	1.00	22.02
ATOM	1925	CA	GLN	A	775	-6.868	-0.916	34.783	1.00	21.75
ATOM	1926	CB	GLN	A	775	-6.491	-2.361	35.135	1.00	20.94
ATOM	1927	CG	GLN	A	775	-7.668	-3.340	35.192	1.00	21.03
ATOM	1928	CD	GLN	A	775	-8.395	-3.531	33.864	1.00	21.36
ATOM	1929	OE1	GLN	A	775	-9.457	-4.141	33.826	1.00	21.09
ATOM	1930	NE2	GLN	A	775	-7.826	-3.018	32.779	1.00	21.40
ATOM	1931	C	GLN	A	775	-8.300	-0.626	35.219	1.00	21.97
ATOM	1932	O	GLN	A	775	-9.216	-0.637	34.402	1.00	21.91
ATOM	1933	N	GLN	A	776	-8.486	-0.372	36.510	1.00	21.52

ATOM	1934	CA	GLN	A	776	-9.807	-0.066	37.051	1.00 23.77
ATOM	1935	CB	GLN	A	776	-9.709	0.263	38.537	1.00 38.83
ATOM	1936	CG	GLN	A	776	-9.798	-0.919	39.456	1.00 39.61
ATOM	1937	CD	GLN	A	776	-9.747	-0.503	40.910	1.00 39.43
ATOM	1938	OE1	GLN	A	776	-8.717	-0.035	41.397	1.00 39.77
ATOM	1939	NE2	GLN	A	776	-10.865	-0.662	41.610	1.00 39.38
ATOM	1940	C	GLN	A	776	-10.420	1.133	36.350	1.00 23.07
ATOM	1941	O	GLN	A	776	-11.582	1.106	35.942	1.00 24.26
ATOM	1942	N	ARG	A	777	-9.628	2.190	36.231	1.00 23.71
ATOM	1943	CA	ARG	A	777	-10.081	3.413	35.598	1.00 23.28
ATOM	1944	CB	ARG	A	777	-8.993	4.489	35.692	1.00 27.59
ATOM	1945	CG	ARG	A	777	-9.423	5.850	35.159	1.00 27.74
ATOM	1946	CD	ARG	A	777	-8.305	6.873	35.280	1.00 27.86
ATOM	1947	NE	ARG	A	777	-7.155	6.535	34.445	1.00 27.75
ATOM	1948	CZ	ARG	A	777	-7.161	6.545	33.114	1.00 27.57
ATOM	1949	NH1	ARG	A	777	-8.257	6.881	32.448	1.00 28.23
ATOM	1950	NH2	ARG	A	777	-6.066	6.216	32.446	1.00 28.20
ATOM	1951	C	ARG	A	777	-10.465	3.191	34.139	1.00 23.20
ATOM	1952	O	ARG	A	777	-11.537	3.605	33.704	1.00 22.51
ATOM	1953	N	ILE	A	778	-9.592	2.535	33.380	1.00 17.78
ATOM	1954	CA	ILE	A	778	-9.884	2.297	31.972	1.00 17.96
ATOM	1955	CB	ILE	A	778	-8.633	1.806	31.225	1.00 19.43
ATOM	1956	CG2	ILE	A	778	-8.967	1.520	29.764	1.00 18.09
ATOM	1957	CG1	ILE	A	778	-7.560	2.894	31.305	1.00 19.35
ATOM	1958	CD1	ILE	A	778	-6.214	2.505	30.738	1.00 19.60
ATOM	1959	C	ILE	A	778	-11.038	1.323	31.796	1.00 18.56
ATOM	1960	O	ILE	A	778	-11.872	1.502	30.903	1.00 18.79
ATOM	1961	N	ALA	A	779	-11.106	0.309	32.654	1.00 20.16
ATOM	1962	CA	ALA	A	779	-12.199	-0.656	32.590	1.00 21.21
ATOM	1963	CB	ALA	A	779	-12.066	-1.680	33.708	1.00 24.43
ATOM	1964	C	ALA	A	779	-13.531	0.091	32.712	1.00 21.19
ATOM	1965	O	ALA	A	779	-14.519	-0.280	32.085	1.00 20.38
ATOM	1966	N	GLU	A	780	-13.558	1.147	33.518	1.00 20.96
ATOM	1967	CA	GLU	A	780	-14.786	1.926	33.682	1.00 22.15
ATOM	1968	CB	GLU	A	780	-14.652	2.894	34.863	1.00 51.37
ATOM	1969	CG	GLU	A	780	-14.497	2.196	36.206	1.00 52.40
ATOM	1970	CD	GLU	A	780	-14.449	3.163	37.373	1.00 53.03
ATOM	1971	OE1	GLU	A	780	-13.590	4.072	37.359	1.00 53.05
ATOM	1972	OE2	GLU	A	780	-15.266	3.013	38.306	1.00 52.97
ATOM	1973	C	GLU	A	780	-15.147	2.696	32.407	1.00 21.53
ATOM	1974	O	GLU	A	780	-16.326	2.918	32.127	1.00 20.90
ATOM	1975	N	LEU	A	781	-14.134	3.105	31.642	1.00 18.46
ATOM	1976	CA	LEU	A	781	-14.365	3.818	30.390	1.00 19.53
ATOM	1977	CB	LEU	A	781	-13.050	4.399	29.847	1.00 20.51
ATOM	1978	CG	LEU	A	781	-12.392	5.516	30.672	1.00 21.84
ATOM	1979	CD1	LEU	A	781	-11.131	6.026	29.976	1.00 21.36
ATOM	1980	CD2	LEU	A	781	-13.389	6.660	30.828	1.00 20.48
ATOM	1981	C	LEU	A	781	-14.949	2.824	29.389	1.00 19.65
ATOM	1982	O	LEU	A	781	-15.898	3.133	28.654	1.00 19.62
ATOM	1983	N	VAL	A	782	-14.368	1.628	29.362	1.00 21.76
ATOM	1984	CA	VAL	A	782	-14.837	0.569	28.474	1.00 22.54
ATOM	1985	CB	VAL	A	782	-14.026	-0.740	28.693	1.00 22.92
ATOM	1986	CG1	VAL	A	782	-14.659	-1.889	27.931	1.00 21.63
ATOM	1987	CG2	VAL	A	782	-12.588	-0.554	28.231	1.00 22.05
ATOM	1988	C	VAL	A	782	-16.311	0.290	28.766	1.00 21.93
ATOM	1989	O	VAL	A	782	-17.142	0.238	27.857	1.00 23.01
ATOM	1990	N	ALA	A	783	-16.632	0.123	30.045	1.00 19.50
ATOM	1991	CA	ALA	A	783	-18.000	-0.166	30.445	1.00 21.17
ATOM	1992	CB	ALA	A	783	-18.061	-0.447	31.942	1.00 21.14
ATOM	1993	C	ALA	A	783	-18.940	0.979	30.078	1.00 20.67
ATOM	1994	O	ALA	A	783	-20.051	0.755	29.598	1.00 21.82
ATOM	1995	N	THR	A	784	-18.490	2.209	30.291	1.00 23.13
ATOM	1996	CA	THR	A	784	-19.312	3.362	29.962	1.00 23.26
ATOM	1997	CB	THR	A	784	-18.577	4.668	30.312	1.00 24.94
ATOM	1998	OG1	THR	A	784	-18.379	4.726	31.731	1.00 25.01
ATOM	1999	CG2	THR	A	784	-19.379	5.877	29.864	1.00 24.89

ATOM	2000	C	THR	A	784	-19.702	3.364	28.481	1.00 24.33
ATOM	2001	O	THR	A	784	-20.881	3.543	28.130	1.00 22.64
ATOM	2002	N	GLU	A	785	-18.720	3.153	27.612	1.00 19.82
ATOM	2003	CA	GLU	A	785	-18.991	3.136	26.182	1.00 21.00
ATOM	2004	CB	GLU	A	785	-17.678	2.998	25.387	1.00 21.06
ATOM	2005	CG	GLU	A	785	-17.871	2.918	23.873	1.00 20.31
ATOM	2006	CD	GLU	A	785	-16.575	3.080	23.081	1.00 21.05
ATOM	2007	OE1	GLU	A	785	-16.506	2.557	21.947	1.00 20.57
ATOM	2008	OE2	GLU	A	785	-15.637	3.740	23.572	1.00 18.86
ATOM	2009	C	GLU	A	785	-19.965	2.006	25.846	1.00 20.29
ATOM	2010	O	GLU	A	785	-20.905	2.211	25.083	1.00 20.32
ATOM	2011	N	PHE	A	786	-19.753	0.824	26.422	1.00 21.26
ATOM	2012	CA	PHE	A	786	-20.643	-0.307	26.161	1.00 21.97
ATOM	2013	CB	PHE	A	786	-20.185	-1.567	26.901	1.00 26.06
ATOM	2014	CG	PHE	A	786	-18.955	-2.216	26.324	1.00 27.41
ATOM	2015	CD1	PHE	A	786	-18.629	-2.067	24.978	1.00 27.06
ATOM	2016	CD2	PHE	A	786	-18.146	-3.021	27.122	1.00 26.60
ATOM	2017	CE1	PHE	A	786	-17.519	-2.711	24.437	1.00 27.27
ATOM	2018	CE2	PHE	A	786	-17.032	-3.672	26.586	1.00 27.24
ATOM	2019	CZ	PHE	A	786	-16.722	-3.515	25.244	1.00 27.18
ATOM	2020	C	PHE	A	786	-22.068	0.011	26.599	1.00 23.40
ATOM	2021	O	PHE	A	786	-23.023	-0.269	25.878	1.00 21.69
ATOM	2022	N	PHE	A	787	-22.206	0.594	27.787	1.00 23.44
ATOM	2023	CA	PHE	A	787	-23.530	0.926	28.297	1.00 22.70
ATOM	2024	CB	PHE	A	787	-23.445	1.413	29.751	1.00 22.93
ATOM	2025	CG	PHE	A	787	-22.945	0.370	30.719	1.00 21.91
ATOM	2026	CD1	PHE	A	787	-23.122	-0.991	30.464	1.00 22.94
ATOM	2027	CD2	PHE	A	787	-22.335	0.749	31.910	1.00 23.07
ATOM	2028	CE1	PHE	A	787	-22.697	-1.954	31.383	1.00 23.17
ATOM	2029	CE2	PHE	A	787	-21.907	-0.201	32.833	1.00 22.50
ATOM	2030	CZ	PHE	A	787	-22.087	-1.555	32.572	1.00 23.33
ATOM	2031	C	PHE	A	787	-24.215	1.968	27.417	1.00 23.79
ATOM	2032	O	PHE	A	787	-25.431	1.906	27.205	1.00 21.92
ATOM	2033	N	ASP	A	788	-23.442	2.912	26.884	1.00 23.70
ATOM	2034	CA	ASP	A	788	-24.021	3.923	26.010	1.00 25.33
ATOM	2035	CB	ASP	A	788	-22.978	4.959	25.591	1.00 54.55
ATOM	2036	CG	ASP	A	788	-23.605	6.296	25.233	1.00 55.82
ATOM	2037	OD1	ASP	A	788	-24.157	6.955	26.141	1.00 56.10
ATOM	2038	OD2	ASP	A	788	-23.558	6.686	24.046	1.00 55.97
ATOM	2039	C	ASP	A	788	-24.571	3.216	24.774	1.00 24.36
ATOM	2040	O	ASP	A	788	-25.646	3.551	24.283	1.00 25.06
ATOM	2041	N	GLN	A	789	-23.837	2.235	24.257	1.00 20.19
ATOM	2042	CA	GLN	A	789	-24.350	1.522	23.101	1.00 19.43
ATOM	2043	CB	GLN	A	789	-23.340	0.508	22.566	1.00 19.05
ATOM	2044	CG	GLN	A	789	-23.987	-0.433	21.563	1.00 19.55
ATOM	2045	CD	GLN	A	789	-23.011	-1.268	20.781	1.00 19.48
ATOM	2046	OE1	GLN	A	789	-23.388	-2.299	20.222	1.00 20.82
ATOM	2047	NE2	GLN	A	789	-21.755	-0.833	20.718	1.00 18.14
ATOM	2048	C	GLN	A	789	-25.629	0.802	23.503	1.00 20.46
ATOM	2049	O	GLN	A	789	-26.586	0.735	22.729	1.00 20.11
ATOM	2050	N	GLY	A	790	-25.639	0.266	24.721	1.00 22.31
ATOM	2051	CA	GLY	A	790	-26.810	-0.436	25.216	1.00 24.09
ATOM	2052	C	GLY	A	790	-28.031	0.463	25.175	1.00 25.10
ATOM	2053	O	GLY	A	790	-29.115	0.025	24.783	1.00 24.31
ATOM	2054	N	ASP	A	791	-27.857	1.722	25.573	1.00 25.00
ATOM	2055	CA	ASP	A	791	-28.963	2.683	25.568	1.00 25.93
ATOM	2056	CB	ASP	A	791	-28.525	4.026	26.160	1.00 29.26
ATOM	2057	CG	ASP	A	791	-28.107	3.918	27.611	1.00 29.25
ATOM	2058	OD1	ASP	A	791	-28.575	2.987	28.297	1.00 29.11
ATOM	2059	OD2	ASP	A	791	-27.323	4.778	28.068	1.00 30.04
ATOM	2060	C	ASP	A	791	-29.464	2.909	24.143	1.00 25.33
ATOM	2061	O	ASP	A	791	-30.669	3.029	23.907	1.00 26.34
ATOM	2062	N	ARG	A	792	-28.527	2.984	23.205	1.00 25.90
ATOM	2063	CA	ARG	A	792	-28.842	3.185	21.794	1.00 25.99
ATOM	2064	CB	ARG	A	792	-27.546	3.326	20.990	1.00 34.02
ATOM	2065	CG	ARG	A	792	-26.801	4.633	21.228	1.00 34.62

ATOM	2066	CD	ARG	A	792	-27.310	5.716	20.300	1.00	35.57
ATOM	2067	NE	ARG	A	792	-26.820	5.533	18.935	1.00	35.28
ATOM	2068	CZ	ARG	A	792	-25.591	5.845	18.537	1.00	34.46
ATOM	2069	NH1	ARG	A	792	-24.726	6.358	19.403	1.00	34.52
ATOM	2070	NH2	ARG	A	792	-25.225	5.647	17.278	1.00	34.52
ATOM	2071	C	ARG	A	792	-29.645	2.005	21.261	1.00	26.14
ATOM	2072	O	ARG	A	792	-30.634	2.179	20.553	1.00	26.08
ATOM	2073	N	GLU	A	793	-29.219	0.797	21.608	1.00	25.23
ATOM	2074	CA	GLU	A	793	-29.910	-0.396	21.141	1.00	25.15
ATOM	2075	CB	GLU	A	793	-29.156	-1.650	21.584	1.00	28.67
ATOM	2076	CG	GLU	A	793	-27.715	-1.688	21.120	1.00	29.21
ATOM	2077	CD	GLU	A	793	-27.005	-2.958	21.543	1.00	29.03
ATOM	2078	OE1	GLU	A	793	-27.219	-3.406	22.689	1.00	28.67
ATOM	2079	OE2	GLU	A	793	-26.222	-3.501	20.737	1.00	28.60
ATOM	2080	C	GLU	A	793	-31.343	-0.444	21.660	1.00	26.11
ATOM	2081	O	GLU	A	793	-32.254	-0.858	20.945	1.00	25.51
ATOM	2082	N	ARG	A	794	-31.546	-0.022	22.904	1.00	30.47
ATOM	2083	CA	ARG	A	794	-32.887	-0.041	23.477	1.00	30.88
ATOM	2084	CB	ARG	A	794	-32.861	0.402	24.945	1.00	42.43
ATOM	2085	CG	ARG	A	794	-31.776	-0.241	25.786	1.00	42.99
ATOM	2086	CD	ARG	A	794	-31.978	0.056	27.266	1.00	43.11
ATOM	2087	NE	ARG	A	794	-32.839	-0.939	27.893	1.00	43.32
ATOM	2088	CZ	ARG	A	794	-32.425	-1.820	28.798	1.00	42.83
ATOM	2089	NH1	ARG	A	794	-31.158	-1.826	29.194	1.00	43.06
ATOM	2090	NH2	ARG	A	794	-33.274	-2.708	29.295	1.00	43.25
ATOM	2091	C	ARG	A	794	-33.818	0.886	22.701	1.00	31.12
ATOM	2092	O	ARG	A	794	-34.972	0.547	22.451	1.00	30.32
ATOM	2093	N	LYS	A	795	-33.307	2.050	22.314	1.00	28.47
ATOM	2094	CA	LYS	A	795	-34.111	3.036	21.597	1.00	30.19
ATOM	2095	CB	LYS	A	795	-33.538	4.438	21.833	1.00	43.10
ATOM	2096	CG	LYS	A	795	-33.084	4.688	23.262	1.00	43.51
ATOM	2097	CD	LYS	A	795	-32.642	6.129	23.482	1.00	44.03
ATOM	2098	CE	LYS	A	795	-33.794	6.991	23.976	1.00	43.69
ATOM	2099	NZ	LYS	A	795	-34.961	6.964	23.051	1.00	43.61
ATOM	2100	C	LYS	A	795	-34.238	2.799	20.093	1.00	29.44
ATOM	2101	O	LYS	A	795	-35.341	2.832	19.545	1.00	29.39
ATOM	2102	N	GLU	A	796	-33.110	2.558	19.433	1.00	32.97
ATOM	2103	CA	GLU	A	796	-33.080	2.358	17.987	1.00	33.23
ATOM	2104	CB	GLU	A	796	-31.723	2.803	17.443	1.00	31.41
ATOM	2105	CG	GLU	A	796	-31.265	4.158	17.957	1.00	31.18
ATOM	2106	CD	GLU	A	796	-29.913	4.573	17.401	1.00	31.42
ATOM	2107	OE1	GLU	A	796	-29.334	5.558	17.904	1.00	31.78
ATOM	2108	OE2	GLU	A	796	-29.432	3.917	16.455	1.00	32.26
ATOM	2109	C	GLU	A	796	-33.376	0.939	17.496	1.00	33.01
ATOM	2110	O	GLU	A	796	-33.778	0.750	16.347	1.00	33.78
ATOM	2111	N	LEU	A	797	-33.170	-0.058	18.347	1.00	29.85
ATOM	2112	CA	LEU	A	797	-33.424	-1.438	17.952	1.00	29.25
ATOM	2113	CB	LEU	A	797	-32.134	-2.261	18.059	1.00	32.07
ATOM	2114	CG	LEU	A	797	-30.951	-1.828	17.185	1.00	32.45
ATOM	2115	CD1	LEU	A	797	-29.759	-2.731	17.475	1.00	32.42
ATOM	2116	CD2	LEU	A	797	-31.325	-1.904	15.709	1.00	32.29
ATOM	2117	C	LEU	A	797	-34.513	-2.073	18.807	1.00	29.52
ATOM	2118	O	LEU	A	797	-34.954	-3.192	18.534	1.00	29.88
ATOM	2119	N	ASN	A	798	-34.940	-1.348	19.839	1.00	31.24
ATOM	2120	CA	ASN	A	798	-35.972	-1.815	20.757	1.00	31.79
ATOM	2121	CB	ASN	A	798	-37.332	-1.805	20.062	1.00	46.67
ATOM	2122	CG	ASN	A	798	-37.975	-0.439	20.083	1.00	47.32
ATOM	2123	OD1	ASN	A	798	-38.405	0.038	21.136	1.00	47.67
ATOM	2124	ND2	ASN	A	798	-38.037	0.208	18.924	1.00	47.41
ATOM	2125	C	ASN	A	798	-35.694	-3.189	21.338	1.00	31.17
ATOM	2126	O	ASN	A	798	-36.593	-4.016	21.468	1.00	30.69
ATOM	2127	N	ILE	A	799	-34.438	-3.427	21.694	1.00	29.19
ATOM	2128	CA	ILE	A	799	-34.046	-4.701	22.274	1.00	29.70
ATOM	2129	CB	ILE	A	799	-33.026	-5.444	21.379	1.00	28.41
ATOM	2130	CG2	ILE	A	799	-33.660	-5.795	20.036	1.00	29.14
ATOM	2131	CG1	ILE	A	799	-31.781	-4.571	21.191	1.00	28.71

ATOM	2132	CD1	ILE	A	799	-30.632	-5.251	20.494	1.00	28.52
ATOM	2133	C	ILE	A	799	-33.389	-4.463	23.627	1.00	29.70
ATOM	2134	O	ILE	A	799	-32.889	-3.370	23.904	1.00	29.11
ATOM	2135	N	GLU	A	800	-33.410	-5.481	24.477	1.00	31.12
ATOM	2136	CA	GLU	A	800	-32.764	-5.369	25.775	1.00	32.32
ATOM	2137	CB	GLU	A	800	-33.322	-6.394	26.768	1.00	47.83
ATOM	2138	CG	GLU	A	800	-32.572	-6.418	28.099	1.00	48.49
ATOM	2139	CD	GLU	A	800	-32.999	-7.559	29.007	1.00	48.67
ATOM	2140	OE1	GLU	A	800	-32.393	-7.713	30.091	1.00	48.86
ATOM	2141	OE2	GLU	A	800	-33.938	-8.299	28.640	1.00	48.41
ATOM	2142	C	GLU	A	800	-31.309	-5.692	25.474	1.00	31.85
ATOM	2143	O	GLU	A	800	-31.009	-6.731	24.888	1.00	31.72
ATOM	2144	N	PRO	A	801	-30.386	-4.801	25.855	1.00	32.29
ATOM	2145	CD	PRO	A	801	-30.534	-3.557	26.629	1.00	32.84
ATOM	2146	CA	PRO	A	801	-28.976	-5.083	25.578	1.00	32.39
ATOM	2147	CB	PRO	A	801	-28.281	-3.798	26.019	1.00	33.48
ATOM	2148	CG	PRO	A	801	-29.143	-3.351	27.168	1.00	33.84
ATOM	2149	C	PRO	A	801	-28.462	-6.308	26.323	1.00	31.89
ATOM	2150	O	PRO	A	801	-29.056	-6.752	27.312	1.00	31.79
ATOM	2151	N	THR	A	802	-27.362	-6.863	25.826	1.00	28.76
ATOM	2152	CA	THR	A	802	-26.739	-8.016	26.456	1.00	28.15
ATOM	2153	CB	THR	A	802	-25.626	-8.603	25.569	1.00	44.26
ATOM	2154	OG1	THR	A	802	-25.026	-9.721	26.233	1.00	45.50
ATOM	2155	CG2	THR	A	802	-24.561	-7.555	25.282	1.00	44.69
ATOM	2156	C	THR	A	802	-26.139	-7.521	27.767	1.00	28.29
ATOM	2157	O	THR	A	802	-25.956	-6.317	27.960	1.00	27.03
ATOM	2158	N	ASP	A	803	-25.843	-8.448	28.669	1.00	28.44
ATOM	2159	CA	ASP	A	803	-25.275	-8.094	29.963	1.00	28.64
ATOM	2160	CB	ASP	A	803	-24.779	-9.358	30.667	1.00	34.48
ATOM	2161	CG	ASP	A	803	-25.893	-10.098	31.379	1.00	34.81
ATOM	2162	OD1	ASP	A	803	-27.045	-10.054	30.893	1.00	34.90
ATOM	2163	OD2	ASP	A	803	-25.611	-10.730	32.420	1.00	35.01
ATOM	2164	C	ASP	A	803	-24.153	-7.063	29.906	1.00	28.44
ATOM	2165	O	ASP	A	803	-24.176	-6.074	30.635	1.00	28.48
ATOM	2166	N	LEU	A	804	-23.177	-7.275	29.031	1.00	25.97
ATOM	2167	CA	LEU	A	804	-22.058	-6.348	28.952	1.00	26.25
ATOM	2168	CB	LEU	A	804	-20.951	-6.937	28.075	1.00	47.64
ATOM	2169	CG	LEU	A	804	-21.304	-7.412	26.671	1.00	48.05
ATOM	2170	CD1	LEU	A	804	-21.264	-6.244	25.708	1.00	48.53
ATOM	2171	CD2	LEU	A	804	-20.301	-8.466	26.242	1.00	48.25
ATOM	2172	C	LEU	A	804	-22.415	-4.938	28.501	1.00	26.00
ATOM	2173	O	LEU	A	804	-21.654	-4.007	28.728	1.00	25.68
ATOM	2174	N	MET	A	805	-23.576	-4.763	27.881	1.00	25.47
ATOM	2175	CA	MET	A	805	-23.971	-3.427	27.445	1.00	25.62
ATOM	2176	CB	MET	A	805	-24.246	-3.422	25.940	1.00	32.20
ATOM	2177	CG	MET	A	805	-22.992	-3.634	25.113	1.00	31.73
ATOM	2178	SD	MET	A	805	-23.263	-3.668	23.345	1.00	32.78
ATOM	2179	CE	MET	A	805	-21.557	-3.485	22.751	1.00	31.70
ATOM	2180	C	MET	A	805	-25.186	-2.920	28.209	1.00	24.74
ATOM	2181	O	MET	A	805	-25.808	-1.932	27.813	1.00	25.55
ATOM	2182	N	ASN	A	806	-25.502	-3.596	29.311	1.00	23.96
ATOM	2183	CA	ASN	A	806	-26.645	-3.239	30.151	1.00	25.57
ATOM	2184	CB	ASN	A	806	-27.467	-4.495	30.463	1.00	28.17
ATOM	2185	CG	ASN	A	806	-28.738	-4.190	31.241	1.00	28.82
ATOM	2186	OD1	ASN	A	806	-28.985	-3.049	31.628	1.00	28.36
ATOM	2187	ND2	ASN	A	806	-29.550	-5.216	31.474	1.00	28.76
ATOM	2188	C	ASN	A	806	-26.159	-2.592	31.448	1.00	25.52
ATOM	2189	O	ASN	A	806	-25.648	-3.273	32.338	1.00	25.16
ATOM	2190	N	ARG	A	807	-26.321	-1.276	31.544	1.00	25.21
ATOM	2191	CA	ARG	A	807	-25.892	-0.512	32.717	1.00	25.42
ATOM	2192	CB	ARG	A	807	-26.254	0.963	32.532	1.00	30.28
ATOM	2193	CG	ARG	A	807	-25.516	1.919	33.450	1.00	31.10
ATOM	2194	CD	ARG	A	807	-26.051	3.331	33.290	1.00	31.22
ATOM	2195	NE	ARG	A	807	-26.092	3.752	31.892	1.00	31.51
ATOM	2196	CZ	ARG	A	807	-25.040	4.157	31.192	1.00	31.00
ATOM	2197	NH1	ARG	A	807	-23.839	4.205	31.753	1.00	32.13

ATOM	2198	NH2	ARG	A	807	-25.191	4.516	29.923	1.00 30.26
ATOM	2199	C	ARG	A	807	-26.528	-1.030	34.002	1.00 27.00
ATOM	2200	O	ARG	A	807	-25.916	-0.988	35.073	1.00 26.42
ATOM	2201	N	GLU	A	808	-27.762	-1.508	33.895	1.00 29.47
ATOM	2202	CA	GLU	A	808	-28.477	-2.031	35.053	1.00 30.52
ATOM	2203	CB	GLU	A	808	-29.914	-2.372	34.659	1.00 44.58
ATOM	2204	CG	GLU	A	808	-30.775	-1.147	34.408	1.00 45.18
ATOM	2205	CD	GLU	A	808	-32.132	-1.492	33.837	1.00 45.51
ATOM	2206	OE1	GLU	A	808	-32.761	-2.451	34.332	1.00 45.53
ATOM	2207	OE2	GLU	A	808	-32.573	-0.796	32.898	1.00 45.65
ATOM	2208	C	GLU	A	808	-27.780	-3.261	35.629	1.00 30.44
ATOM	2209	O	GLU	A	808	-27.875	-3.542	36.828	1.00 30.33
ATOM	2210	N	LYS	A	809	-27.077	-3.985	34.765	1.00 31.29
ATOM	2211	CA	LYS	A	809	-26.355	-5.190	35.162	1.00 31.25
ATOM	2212	CB	LYS	A	809	-26.522	-6.279	34.092	1.00 41.16
ATOM	2213	CG	LYS	A	809	-27.951	-6.773	33.888	1.00 41.47
ATOM	2214	CD	LYS	A	809	-28.391	-7.716	34.995	1.00 41.55
ATOM	2215	CE	LYS	A	809	-27.714	-9.075	34.885	1.00 41.48
ATOM	2216	NZ	LYS	A	809	-28.230	-9.865	33.733	1.00 41.41
ATOM	2217	C	LYS	A	809	-24.870	-4.879	35.338	1.00 30.98
ATOM	2218	O	LYS	A	809	-24.023	-5.744	35.129	1.00 30.77
ATOM	2219	N	LYS	A	810	-24.551	-3.646	35.721	1.00 26.58
ATOM	2220	CA	LYS	A	810	-23.155	-3.259	35.901	1.00 26.99
ATOM	2221	CB	LYS	A	810	-23.050	-1.768	36.235	1.00 43.46
ATOM	2222	CG	LYS	A	810	-23.626	-1.387	37.587	1.00 44.21
ATOM	2223	CD	LYS	A	810	-23.413	0.090	37.878	1.00 44.21
ATOM	2224	CE	LYS	A	810	-23.942	0.459	39.256	1.00 44.19
ATOM	2225	NZ	LYS	A	810	-23.718	1.897	39.566	1.00 44.47
ATOM	2226	C	LYS	A	810	-22.462	-4.077	36.997	1.00 26.09
ATOM	2227	O	LYS	A	810	-21.234	-4.128	37.060	1.00 26.59
ATOM	2228	N	ASN	A	811	-23.250	-4.720	37.852	1.00 29.32
ATOM	2229	CA	ASN	A	811	-22.693	-5.526	38.934	1.00 29.87
ATOM	2230	CB	ASN	A	811	-23.812	-6.017	39.858	1.00 45.97
ATOM	2231	CG	ASN	A	811	-24.632	-7.135	39.240	1.00 46.38
ATOM	2232	OD1	ASN	A	811	-24.137	-8.247	39.042	1.00 46.84
ATOM	2233	ND2	ASN	A	811	-25.887	-6.847	38.927	1.00 46.45
ATOM	2234	C	ASN	A	811	-21.931	-6.730	38.385	1.00 29.68
ATOM	2235	O	ASN	A	811	-21.228	-7.425	39.121	1.00 29.10
ATOM	2236	N	LYS	A	812	-22.075	-6.970	37.086	1.00 24.91
ATOM	2237	CA	LYS	A	812	-21.418	-8.100	36.438	1.00 25.57
ATOM	2238	CB	LYS	A	812	-22.292	-8.623	35.295	1.00 45.40
ATOM	2239	CG	LYS	A	812	-22.850	-10.016	35.509	1.00 46.25
ATOM	2240	CD	LYS	A	812	-23.811	-10.060	36.678	1.00 46.19
ATOM	2241	CE	LYS	A	812	-24.429	-11.439	36.816	1.00 46.23
ATOM	2242	NZ	LYS	A	812	-23.387	-12.487	37.001	1.00 46.38
ATOM	2243	C	LYS	A	812	-20.025	-7.789	35.886	1.00 24.76
ATOM	2244	O	LYS	A	812	-19.340	-8.688	35.401	1.00 24.68
ATOM	2245	N	ILE	A	813	-19.598	-6.534	35.963	1.00 26.65
ATOM	2246	CA	ILE	A	813	-18.294	-6.162	35.424	1.00 26.72
ATOM	2247	CB	ILE	A	813	-18.008	-4.656	35.630	1.00 25.86
ATOM	2248	CG2	ILE	A	813	-16.564	-4.337	35.260	1.00 25.72
ATOM	2249	CG1	ILE	A	813	-18.955	-3.830	34.751	1.00 25.85
ATOM	2250	CD1	ILE	A	813	-18.880	-2.335	34.984	1.00 26.75
ATOM	2251	C	ILE	A	813	-17.123	-6.986	35.957	1.00 26.25
ATOM	2252	O	ILE	A	813	-16.271	-7.426	35.185	1.00 25.98
ATOM	2253	N	PRO	A	814	-17.055	-7.205	37.280	1.00 22.10
ATOM	2254	CD	PRO	A	814	-17.742	-6.559	38.415	1.00 23.22
ATOM	2255	CA	PRO	A	814	-15.916	-8.003	37.741	1.00 23.12
ATOM	2256	CB	PRO	A	814	-16.116	-8.048	39.253	1.00 22.48
ATOM	2257	CG	PRO	A	814	-16.722	-6.697	39.537	1.00 22.19
ATOM	2258	C	PRO	A	814	-15.842	-9.392	37.115	1.00 23.05
ATOM	2259	O	PRO	A	814	-14.792	-9.796	36.619	1.00 23.01
ATOM	2260	N	SER	A	815	-16.952	-10.123	37.129	1.00 24.56
ATOM	2261	CA	SER	A	815	-16.955	-11.465	36.555	1.00 24.61
ATOM	2262	CB	SER	A	815	-18.286	-12.174	36.844	1.00 32.62
ATOM	2263	OG	SER	A	815	-19.393	-11.454	36.330	1.00 33.36

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ATOM   2264  C   SER A 815     -16.687 -11.440  35.049  1.00 24.80
ATOM   2265  O   SER A 815     -16.055 -12.349  34.513  1.00 25.10
ATOM   2266  N   MET A 816     -17.153 -10.398  34.368  1.00 25.71
ATOM   2267  CA  MET A 816     -16.938 -10.286  32.925  1.00 24.80
ATOM   2268  CB  MET A 816     -17.820  -9.188  32.332  1.00 40.93
ATOM   2269  CG  MET A 816     -19.302  -9.432  32.489  1.00 41.93
ATOM   2270  SD  MET A 816     -20.264  -8.316  31.459  1.00 42.83
ATOM   2271  CE  MET A 816     -19.866  -6.716  32.201  1.00 41.73
ATOM   2272  C   MET A 816     -15.479 -10.000  32.585  1.00 24.22
ATOM   2273  O   MET A 816     -14.969 -10.476  31.574  1.00 24.07
ATOM   2274  N   GLN A 817     -14.806  -9.216  33.420  1.00 24.08
ATOM   2275  CA  GLN A 817     -13.403  -8.909  33.182  1.00 22.68
ATOM   2276  CB  GLN A 817     -12.904  -7.844  34.161  1.00 21.90
ATOM   2277  CG  GLN A 817     -13.287  -6.415  33.786  1.00 21.57
ATOM   2278  CD  GLN A 817     -12.797  -6.020  32.407  1.00 22.28
ATOM   2279  OE1 GLN A 817     -13.389  -6.392  31.396  1.00 21.33
ATOM   2280  NE2 GLN A 817     -11.704  -5.272  32.359  1.00 21.19
ATOM   2281  C   GLN A 817     -12.587 -10.185  33.344  1.00 24.08
ATOM   2282  O   GLN A 817     -11.655 -10.435  32.588  1.00 22.00
ATOM   2283  N   VAL A 818     -12.947 -10.990  34.340  1.00 22.79
ATOM   2284  CA  VAL A 818     -12.262 -12.256  34.582  1.00 23.81
ATOM   2285  CB  VAL A 818     -12.839 -12.958  35.828  1.00 26.49
ATOM   2286  CG1 VAL A 818     -12.225 -14.338  35.983  1.00 26.65
ATOM   2287  CG2 VAL A 818     -12.567 -12.115  37.064  1.00 26.49
ATOM   2288  C   VAL A 818     -12.453 -13.161  33.364  1.00 24.69
ATOM   2289  O   VAL A 818     -11.502 -13.776  32.871  1.00 23.39
ATOM   2290  N   GLY A 819     -13.687 -13.234  32.878  1.00 25.13
ATOM   2291  CA  GLY A 819     -13.971 -14.061  31.716  1.00 24.79
ATOM   2292  C   GLY A 819     -13.221 -13.571  30.490  1.00 24.86
ATOM   2293  O   GLY A 819     -12.729 -14.354  29.677  1.00 25.43
ATOM   2294  N   PHE A 820     -13.140 -12.255  30.355  1.00 24.15
ATOM   2295  CA  PHE A 820     -12.440 -11.635  29.241  1.00 22.60
ATOM   2296  CB  PHE A 820     -12.606 -10.113  29.336  1.00 22.65
ATOM   2297  CG  PHE A 820     -11.736  -9.335  28.389  1.00 22.10
ATOM   2298  CD1 PHE A 820     -11.863  -9.490  27.011  1.00 22.63
ATOM   2299  CD2 PHE A 820     -10.803  -8.424  28.879  1.00 22.66
ATOM   2300  CE1 PHE A 820     -11.069  -8.743  26.133  1.00 22.28
ATOM   2301  CE2 PHE A 820     -10.008  -7.677  28.011  1.00 22.73
ATOM   2302  CZ  PHE A 820     -10.143  -7.839  26.637  1.00 22.74
ATOM   2303  C   PHE A 820     -10.964 -12.024  29.293  1.00 23.46
ATOM   2304  O   PHE A 820     -10.357 -12.369  28.283  1.00 21.24
ATOM   2305  N   ILE A 821     -10.390 -11.984  30.488  1.00 21.23
ATOM   2306  CA  ILE A 821      -8.990 -12.323  30.646  1.00 21.89
ATOM   2307  CB  ILE A 821      -8.525 -12.044  32.088  1.00 22.37
ATOM   2308  CG2 ILE A 821      -7.130 -12.596  32.315  1.00 22.42
ATOM   2309  CG1 ILE A 821      -8.526 -10.534  32.332  1.00 21.45
ATOM   2310  CD1 ILE A 821      -8.377 -10.160  33.777  1.00 23.29
ATOM   2311  C   ILE A 821      -8.744 -13.784  30.292  1.00 22.08
ATOM   2312  O   ILE A 821      -7.864 -14.081  29.488  1.00 24.60
ATOM   2313  N   ASP A 822      -9.528 -14.687  30.873  1.00 31.25
ATOM   2314  CA  ASP A 822      -9.364 -16.113  30.600  1.00 32.20
ATOM   2315  CB  ASP A 822     -10.379 -16.950  31.390  1.00 31.68
ATOM   2316  CG  ASP A 822     -10.096 -16.978  32.876  1.00 30.88
ATOM   2317  OD1 ASP A 822      -8.923 -16.812  33.265  1.00 31.47
ATOM   2318  OD2 ASP A 822     -11.054 -17.186  33.652  1.00 31.29
ATOM   2319  C   ASP A 822      -9.520 -16.474  29.127  1.00 33.01
ATOM   2320  O   ASP A 822      -8.680 -17.165  28.552  1.00 33.17
ATOM   2321  N   ALA A 823     -10.600 -15.996  28.523  1.00 31.01
ATOM   2322  CA  ALA A 823     -10.912 -16.309  27.131  1.00 30.74
ATOM   2323  CB  ALA A 823     -12.402 -16.092  26.894  1.00 28.33
ATOM   2324  C   ALA A 823     -10.123 -15.608  26.030  1.00 30.37
ATOM   2325  O   ALA A 823      -9.919 -16.179  24.959  1.00 30.71
ATOM   2326  N   ILE A 824      -9.671 -14.385  26.281  1.00 26.40
ATOM   2327  CA  ILE A 824      -8.968 -13.624  25.250  1.00 25.53
ATOM   2328  CB  ILE A 824      -9.761 -12.325  24.898  1.00 28.97
ATOM   2329  CG2 ILE A 824      -8.978 -11.487  23.899  1.00 29.02
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ATOM	2330	CG1	ILE	A	824	-11.154	-12.665	24.357	1.00	29.19
ATOM	2331	CD1	ILE	A	824	-11.151	-13.353	23.013	1.00	29.99
ATOM	2332	C	ILE	A	824	-7.537	-13.185	25.546	1.00	27.07
ATOM	2333	O	ILE	A	824	-6.639	-13.358	24.722	1.00	26.42
ATOM	2334	N	CYS	A	825	-7.324	-12.617	26.726	1.00	24.64
ATOM	2335	CA	CYS	A	825	-6.020	-12.070	27.075	1.00	24.29
ATOM	2336	CB	CYS	A	825	-6.207	-11.003	28.145	1.00	22.55
ATOM	2337	SG	CYS	A	825	-7.489	-9.813	27.703	1.00	21.61
ATOM	2338	C	CYS	A	825	-4.878	-12.979	27.493	1.00	23.81
ATOM	2339	O	CYS	A	825	-3.776	-12.856	26.971	1.00	23.60
ATOM	2340	N	LEU	A	826	-5.131	-13.866	28.448	1.00	25.10
ATOM	2341	CA	LEU	A	826	-4.098	-14.761	28.955	1.00	26.70
ATOM	2342	CB	LEU	A	826	-4.727	-15.770	29.921	1.00	38.73
ATOM	2343	CG	LEU	A	826	-4.228	-15.764	31.370	1.00	39.48
ATOM	2344	CD1	LEU	A	826	-4.024	-14.343	31.867	1.00	38.99
ATOM	2345	CD2	LEU	A	826	-5.230	-16.498	32.243	1.00	39.26
ATOM	2346	C	LEU	A	826	-3.301	-15.492	27.873	1.00	25.78
ATOM	2347	O	LEU	A	826	-2.072	-15.427	27.854	1.00	26.14
ATOM	2348	N	GLN	A	827	-3.993	-16.179	26.972	1.00	26.44
ATOM	2349	CA	GLN	A	827	-3.308	-16.919	25.920	1.00	26.16
ATOM	2350	CB	GLN	A	827	-4.313	-17.689	25.065	1.00	31.94
ATOM	2351	CG	GLN	A	827	-5.146	-18.687	25.839	1.00	32.38
ATOM	2352	CD	GLN	A	827	-6.176	-19.374	24.967	1.00	33.15
ATOM	2353	OE1	GLN	A	827	-5.844	-20.233	24.146	1.00	33.30
ATOM	2354	NE2	GLN	A	827	-7.437	-18.989	25.130	1.00	33.01
ATOM	2355	C	GLN	A	827	-2.483	-16.005	25.034	1.00	26.24
ATOM	2356	O	GLN	A	827	-1.394	-16.372	24.593	1.00	26.27
ATOM	2357	N	LEU	A	828	-2.995	-14.811	24.761	1.00	23.62
ATOM	2358	CA	LEU	A	828	-2.256	-13.887	23.912	1.00	23.54
ATOM	2359	CB	LEU	A	828	-3.121	-12.678	23.547	1.00	27.47
ATOM	2360	CG	LEU	A	828	-2.393	-11.621	22.705	1.00	27.18
ATOM	2361	CD1	LEU	A	828	-1.769	-12.267	21.474	1.00	28.21
ATOM	2362	CD2	LEU	A	828	-3.361	-10.534	22.293	1.00	27.24
ATOM	2363	C	LEU	A	828	-0.948	-13.398	24.525	1.00	24.07
ATOM	2364	O	LEU	A	828	0.089	-13.389	23.863	1.00	23.90
ATOM	2365	N	TYR	A	829	-0.984	-12.979	25.785	1.00	22.58
ATOM	2366	CA	TYR	A	829	0.232	-12.492	26.410	1.00	23.51
ATOM	2367	CB	TYR	A	829	-0.108	-11.655	27.652	1.00	22.13
ATOM	2368	CG	TYR	A	829	-0.797	-10.352	27.273	1.00	22.65
ATOM	2369	CD1	TYR	A	829	-0.133	-9.395	26.504	1.00	21.70
ATOM	2370	CE1	TYR	A	829	-0.778	-8.224	26.084	1.00	22.06
ATOM	2371	CD2	TYR	A	829	-2.126	-10.110	27.622	1.00	22.96
ATOM	2372	CE2	TYR	A	829	-2.782	-8.939	27.202	1.00	21.69
ATOM	2373	CZ	TYR	A	829	-2.096	-8.009	26.437	1.00	22.78
ATOM	2374	OH	TYR	A	829	-2.717	-6.850	26.023	1.00	20.96
ATOM	2375	C	TYR	A	829	1.171	-13.653	26.725	1.00	22.44
ATOM	2376	O	TYR	A	829	2.378	-13.469	26.803	1.00	23.40
ATOM	2377	N	GLU	A	830	0.615	-14.851	26.877	1.00	26.33
ATOM	2378	CA	GLU	A	830	1.451	-16.025	27.127	1.00	27.63
ATOM	2379	CB	GLU	A	830	0.602	-17.227	27.539	1.00	34.99
ATOM	2380	CG	GLU	A	830	0.034	-17.110	28.941	1.00	35.86
ATOM	2381	CD	GLU	A	830	-0.865	-18.266	29.318	1.00	36.17
ATOM	2382	OE1	GLU	A	830	-1.246	-18.349	30.507	1.00	35.89
ATOM	2383	OE2	GLU	A	830	-1.195	-19.084	28.430	1.00	36.49
ATOM	2384	C	GLU	A	830	2.186	-16.326	25.826	1.00	26.91
ATOM	2385	O	GLU	A	830	3.383	-16.614	25.827	1.00	27.95
ATOM	2386	N	ALA	A	831	1.465	-16.235	24.711	1.00	26.22
ATOM	2387	CA	ALA	A	831	2.056	-16.489	23.398	1.00	26.36
ATOM	2388	CB	ALA	A	831	0.965	-16.533	22.328	1.00	20.71
ATOM	2389	C	ALA	A	831	3.091	-15.425	23.044	1.00	25.92
ATOM	2390	O	ALA	A	831	4.108	-15.725	22.429	1.00	26.14
ATOM	2391	N	LEU	A	832	2.833	-14.180	23.432	1.00	25.86
ATOM	2392	CA	LEU	A	832	3.767	-13.096	23.138	1.00	24.48
ATOM	2393	CB	LEU	A	832	3.127	-11.738	23.447	1.00	23.29
ATOM	2394	CG	LEU	A	832	4.036	-10.513	23.333	1.00	22.75
ATOM	2395	CD1	LEU	A	832	4.597	-10.387	21.926	1.00	22.85

ATOM	2396	CD2	LEU	A	832	3.237	-9.268	23.701	1.00	23.24
ATOM	2397	C	LEU	A	832	5.056	-13.238	23.936	1.00	25.65
ATOM	2398	O	LEU	A	832	6.140	-12.902	23.454	1.00	25.17
ATOM	2399	N	THR	A	833	4.931	-13.720	25.166	1.00	26.35
ATOM	2400	CA	THR	A	833	6.092	-13.910	26.021	1.00	27.50
ATOM	2401	CB	THR	A	833	5.654	-14.289	27.446	1.00	28.58
ATOM	2402	OG1	THR	A	833	4.872	-13.218	27.994	1.00	28.28
ATOM	2403	CG2	THR	A	833	6.868	-14.531	28.339	1.00	28.51
ATOM	2404	C	THR	A	833	6.968	-15.007	25.418	1.00	28.22
ATOM	2405	O	THR	A	833	8.197	-14.977	25.540	1.00	28.01
ATOM	2406	N	HIS	A	834	6.333	-15.964	24.750	1.00	32.53
ATOM	2407	CA	HIS	A	834	7.080	-17.044	24.117	1.00	33.13
ATOM	2408	CB	HIS	A	834	6.131	-18.053	23.473	1.00	41.03
ATOM	2409	CG	HIS	A	834	6.833	-19.200	22.820	1.00	41.66
ATOM	2410	CD2	HIS	A	834	7.017	-19.505	21.514	1.00	41.45
ATOM	2411	ND1	HIS	A	834	7.497	-20.170	23.538	1.00	41.66
ATOM	2412	CE1	HIS	A	834	8.060	-21.024	22.702	1.00	41.76
ATOM	2413	NE2	HIS	A	834	7.785	-20.643	21.467	1.00	41.58
ATOM	2414	C	HIS	A	834	7.979	-16.433	23.050	1.00	33.02
ATOM	2415	O	HIS	A	834	9.179	-16.701	23.003	1.00	33.90
ATOM	2416	N	VAL	A	835	7.390	-15.603	22.195	1.00	34.00
ATOM	2417	CA	VAL	A	835	8.142	-14.943	21.136	1.00	33.47
ATOM	2418	CB	VAL	A	835	7.235	-14.027	20.282	1.00	34.13
ATOM	2419	CG1	VAL	A	835	8.082	-13.226	19.304	1.00	33.51
ATOM	2420	CG2	VAL	A	835	6.213	-14.863	19.533	1.00	33.76
ATOM	2421	C	VAL	A	835	9.278	-14.105	21.705	1.00	34.04
ATOM	2422	O	VAL	A	835	10.373	-14.076	21.147	1.00	33.58
ATOM	2423	N	SER	A	836	9.017	-13.416	22.813	1.00	31.52
ATOM	2424	CA	SER	A	836	10.041	-12.585	23.436	1.00	32.24
ATOM	2425	CB	SER	A	836	10.016	-11.176	22.838	1.00	33.50
ATOM	2426	OG	SER	A	836	11.125	-10.416	23.284	1.00	33.58
ATOM	2427	C	SER	A	836	9.861	-12.503	24.949	1.00	31.70
ATOM	2428	O	SER	A	836	8.937	-11.856	25.447	1.00	30.73
ATOM	2429	N	GLU	A	837	10.758	-13.168	25.668	1.00	32.13
ATOM	2430	CA	GLU	A	837	10.742	-13.209	27.126	1.00	32.75
ATOM	2431	CB	GLU	A	837	12.035	-13.862	27.624	1.00	50.88
ATOM	2432	CG	GLU	A	837	13.295	-13.194	27.082	1.00	51.44
ATOM	2433	CD	GLU	A	837	14.564	-13.981	27.368	1.00	51.73
ATOM	2434	OE1	GLU	A	837	14.863	-14.226	28.558	1.00	51.76
ATOM	2435	OE2	GLU	A	837	15.264	-14.349	26.399	1.00	51.58
ATOM	2436	C	GLU	A	837	10.579	-11.836	27.779	1.00	32.06
ATOM	2437	O	GLU	A	837	9.916	-11.702	28.808	1.00	32.57
ATOM	2438	N	ASP	A	838	11.185	-10.821	27.175	1.00	27.93
ATOM	2439	CA	ASP	A	838	11.135	-9.463	27.699	1.00	28.49
ATOM	2440	CB	ASP	A	838	12.085	-8.574	26.896	1.00	35.78
ATOM	2441	CG	ASP	A	838	13.511	-9.093	26.908	1.00	37.30
ATOM	2442	OD1	ASP	A	838	14.167	-9.014	27.969	1.00	36.40
ATOM	2443	OD2	ASP	A	838	13.971	-9.589	25.857	1.00	37.49
ATOM	2444	C	ASP	A	838	9.738	-8.838	27.723	1.00	27.26
ATOM	2445	O	ASP	A	838	9.570	-7.716	28.202	1.00	27.48
ATOM	2446	N	CYS	A	839	8.740	-9.550	27.207	1.00	26.97
ATOM	2447	CA	CYS	A	839	7.372	-9.035	27.207	1.00	26.65
ATOM	2448	CB	CYS	A	839	6.668	-9.360	25.882	1.00	26.64
ATOM	2449	SG	CYS	A	839	7.139	-8.301	24.485	1.00	26.65
ATOM	2450	C	CYS	A	839	6.586	-9.638	28.365	1.00	27.57
ATOM	2451	O	CYS	A	839	5.373	-9.461	28.471	1.00	26.86
ATOM	2452	N	PHE	A	840	7.282	-10.352	29.243	1.00	26.10
ATOM	2453	CA	PHE	A	840	6.626	-10.976	30.385	1.00	26.52
ATOM	2454	CB	PHE	A	840	7.653	-11.679	31.281	1.00	35.43
ATOM	2455	CG	PHE	A	840	7.045	-12.344	32.485	1.00	35.52
ATOM	2456	CD1	PHE	A	840	6.211	-13.450	32.340	1.00	35.69
ATOM	2457	CD2	PHE	A	840	7.273	-11.842	33.762	1.00	35.56
ATOM	2458	CE1	PHE	A	840	5.610	-14.046	33.450	1.00	35.99
ATOM	2459	CE2	PHE	A	840	6.678	-12.429	34.878	1.00	35.60
ATOM	2460	CZ	PHE	A	840	5.843	-13.533	34.722	1.00	35.62
ATOM	2461	C	PHE	A	840	5.810	-9.991	31.227	1.00	25.53

ATOM	2462	O	PHE	A	840	4.726	-10.332	31.698	1.00	26.75
ATOM	2463	N	PRO	A	841	6.311	-8.757	31.422	1.00	24.00
ATOM	2464	CD	PRO	A	841	7.585	-8.177	30.965	1.00	27.23
ATOM	2465	CA	PRO	A	841	5.567	-7.783	32.225	1.00	23.95
ATOM	2466	CB	PRO	A	841	6.345	-6.491	32.002	1.00	26.33
ATOM	2467	CG	PRO	A	841	7.751	-6.988	31.890	1.00	27.03
ATOM	2468	C	PRO	A	841	4.104	-7.662	31.821	1.00	24.02
ATOM	2469	O	PRO	A	841	3.238	-7.446	32.667	1.00	23.76
ATOM	2470	N	LEU	A	842	3.826	-7.809	30.531	1.00	23.41
ATOM	2471	CA	LEU	A	842	2.447	-7.711	30.069	1.00	22.32
ATOM	2472	CB	LEU	A	842	2.400	-7.647	28.540	1.00	22.25
ATOM	2473	CG	LEU	A	842	3.064	-6.397	27.957	1.00	22.19
ATOM	2474	CD1	LEU	A	842	3.184	-6.527	26.442	1.00	21.97
ATOM	2475	CD2	LEU	A	842	2.255	-5.154	28.349	1.00	23.44
ATOM	2476	C	LEU	A	842	1.633	-8.888	30.590	1.00	23.15
ATOM	2477	O	LEU	A	842	0.508	-8.714	31.048	1.00	22.28
ATOM	2478	N	LEU	A	843	2.210	-10.085	30.537	1.00	20.37
ATOM	2479	CA	LEU	A	843	1.528	-11.277	31.019	1.00	22.54
ATOM	2480	CB	LEU	A	843	2.369	-12.517	30.716	1.00	30.62
ATOM	2481	CG	LEU	A	843	1.666	-13.867	30.542	1.00	32.10
ATOM	2482	CD1	LEU	A	843	2.718	-14.960	30.647	1.00	31.42
ATOM	2483	CD2	LEU	A	843	0.586	-14.078	31.579	1.00	31.97
ATOM	2484	C	LEU	A	843	1.338	-11.162	32.531	1.00	20.83
ATOM	2485	O	LEU	A	843	0.252	-11.406	33.057	1.00	22.49
ATOM	2486	N	ASP	A	844	2.410	-10.791	33.222	1.00	25.10
ATOM	2487	CA	ASP	A	844	2.381	-10.650	34.673	1.00	25.84
ATOM	2488	CB	ASP	A	844	3.756	-10.204	35.177	1.00	33.41
ATOM	2489	CG	ASP	A	844	3.889	-10.316	36.680	1.00	33.77
ATOM	2490	OD1	ASP	A	844	3.499	-11.367	37.233	1.00	33.62
ATOM	2491	OD2	ASP	A	844	4.392	-9.360	37.305	1.00	34.08
ATOM	2492	C	ASP	A	844	1.306	-9.667	35.129	1.00	25.11
ATOM	2493	O	ASP	A	844	0.517	-9.976	36.020	1.00	25.50
ATOM	2494	N	GLY	A	845	1.272	-8.492	34.505	1.00	23.99
ATOM	2495	CA	GLY	A	845	0.282	-7.488	34.861	1.00	24.47
ATOM	2496	C	GLY	A	845	-1.141	-7.954	34.612	1.00	24.36
ATOM	2497	O	GLY	A	845	-2.057	-7.628	35.366	1.00	23.75
ATOM	2498	N	CYS	A	846	-1.325	-8.720	33.542	1.00	23.31
ATOM	2499	CA	CYS	A	846	-2.631	-9.252	33.188	1.00	22.27
ATOM	2500	CB	CYS	A	846	-2.556	-9.961	31.833	1.00	24.57
ATOM	2501	SG	CYS	A	846	-4.118	-10.668	31.278	1.00	23.77
ATOM	2502	C	CYS	A	846	-3.093	-10.236	34.255	1.00	23.19
ATOM	2503	O	CYS	A	846	-4.237	-10.197	34.699	1.00	23.71
ATOM	2504	N	ARG	A	847	-2.197	-11.126	34.669	1.00	25.45
ATOM	2505	CA	ARG	A	847	-2.554	-12.103	35.681	1.00	26.33
ATOM	2506	CB	ARG	A	847	-1.454	-13.170	35.788	1.00	44.92
ATOM	2507	CG	ARG	A	847	-1.334	-13.973	34.489	1.00	45.65
ATOM	2508	CD	ARG	A	847	-0.520	-15.257	34.590	1.00	45.89
ATOM	2509	NE	ARG	A	847	0.924	-15.037	34.557	1.00	45.99
ATOM	2510	CZ	ARG	A	847	1.805	-15.950	34.155	1.00	45.73
ATOM	2511	NH1	ARG	A	847	1.392	-17.142	33.743	1.00	45.92
ATOM	2512	NH2	ARG	A	847	3.102	-15.678	34.178	1.00	45.71
ATOM	2513	C	ARG	A	847	-2.839	-11.434	37.021	1.00	25.65
ATOM	2514	O	ARG	A	847	-3.673	-11.909	37.794	1.00	25.84
ATOM	2515	N	LYS	A	848	-2.172	-10.319	37.291	1.00	27.18
ATOM	2516	CA	LYS	A	848	-2.408	-9.606	38.540	1.00	27.41
ATOM	2517	CB	LYS	A	848	-1.344	-8.529	38.755	1.00	29.68
ATOM	2518	CG	LYS	A	848	0.011	-9.082	39.165	1.00	30.06
ATOM	2519	CD	LYS	A	848	1.023	-7.964	39.328	1.00	30.03
ATOM	2520	CE	LYS	A	848	2.406	-8.518	39.644	1.00	30.39
ATOM	2521	NZ	LYS	A	848	3.450	-7.453	39.583	1.00	30.98
ATOM	2522	C	LYS	A	848	-3.796	-8.974	38.514	1.00	27.81
ATOM	2523	O	LYS	A	848	-4.515	-8.996	39.511	1.00	28.26
ATOM	2524	N	ASN	A	849	-4.179	-8.412	37.372	1.00	28.20
ATOM	2525	CA	ASN	A	849	-5.498	-7.807	37.270	1.00	26.64
ATOM	2526	CB	ASN	A	849	-5.640	-7.028	35.961	1.00	26.08
ATOM	2527	CG	ASN	A	849	-4.970	-5.674	36.027	1.00	25.73

ATOM	2528	OD1	ASN	A	849	-4.993	-5.012	37.067	1.00	26.13
ATOM	2529	ND2	ASN	A	849	-4.382	-5.247	34.923	1.00	26.48
ATOM	2530	C	ASN	A	849	-6.572	-8.875	37.372	1.00	27.18
ATOM	2531	O	ASN	A	849	-7.679	-8.612	37.844	1.00	26.84
ATOM	2532	N	ARG	A	850	-6.244	-10.086	36.934	1.00	25.96
ATOM	2533	CA	ARG	A	850	-7.194	-11.177	37.017	1.00	26.10
ATOM	2534	CB	ARG	A	850	-6.640	-12.431	36.338	1.00	38.03
ATOM	2535	CG	ARG	A	850	-7.583	-13.607	36.453	1.00	38.77
ATOM	2536	CD	ARG	A	850	-6.976	-14.898	35.941	1.00	38.89
ATOM	2537	NE	ARG	A	850	-7.798	-16.037	36.336	1.00	39.62
ATOM	2538	CZ	ARG	A	850	-9.075	-16.181	36.003	1.00	39.00
ATOM	2539	NH1	ARG	A	850	-9.669	-15.255	35.264	1.00	40.11
ATOM	2540	NH2	ARG	A	850	-9.765	-17.235	36.417	1.00	38.97
ATOM	2541	C	ARG	A	850	-7.513	-11.488	38.480	1.00	25.71
ATOM	2542	O	ARG	A	850	-8.675	-11.647	38.849	1.00	26.96
ATOM	2543	N	GLN	A	851	-6.476	-11.564	39.311	1.00	29.93
ATOM	2544	CA	GLN	A	851	-6.659	-11.860	40.728	1.00	30.30
ATOM	2545	CB	GLN	A	851	-5.294	-11.993	41.413	1.00	53.42
ATOM	2546	CG	GLN	A	851	-4.938	-10.873	42.375	1.00	54.29
ATOM	2547	CD	GLN	A	851	-3.479	-10.910	42.794	1.00	54.54
ATOM	2548	OE1	GLN	A	851	-3.071	-10.204	43.717	1.00	54.48
ATOM	2549	NE2	GLN	A	851	-2.681	-11.724	42.106	1.00	54.48
ATOM	2550	C	GLN	A	851	-7.493	-10.765	41.381	1.00	29.94
ATOM	2551	O	GLN	A	851	-8.377	-11.042	42.189	1.00	30.04
ATOM	2552	N	LYS	A	852	-7.213	-9.518	41.017	1.00	27.54
ATOM	2553	CA	LYS	A	852	-7.950	-8.381	41.557	1.00	27.65
ATOM	2554	CB	LYS	A	852	-7.378	-7.075	40.998	1.00	40.34
ATOM	2555	CG	LYS	A	852	-6.005	-6.705	41.527	1.00	40.79
ATOM	2556	CD	LYS	A	852	-6.096	-6.263	42.977	1.00	40.88
ATOM	2557	CE	LYS	A	852	-4.760	-5.766	43.497	1.00	40.95
ATOM	2558	NZ	LYS	A	852	-4.883	-5.208	44.879	1.00	41.45
ATOM	2559	C	LYS	A	852	-9.433	-8.470	41.204	1.00	27.70
ATOM	2560	O	LYS	A	852	-10.301	-8.360	42.075	1.00	27.95
ATOM	2561	N	TRP	A	853	-9.722	-8.655	39.920	1.00	24.75
ATOM	2562	CA	TRP	A	853	-11.103	-8.747	39.467	1.00	25.36
ATOM	2563	CB	TRP	A	853	-11.150	-8.857	37.940	1.00	23.18
ATOM	2564	CG	TRP	A	853	-10.967	-7.544	37.240	1.00	23.11
ATOM	2565	CD2	TRP	A	853	-11.771	-6.368	37.399	1.00	22.95
ATOM	2566	CE2	TRP	A	853	-11.244	-5.382	36.534	1.00	22.63
ATOM	2567	CE3	TRP	A	853	-12.886	-6.052	38.189	1.00	23.00
ATOM	2568	CD1	TRP	A	853	-10.013	-7.233	36.312	1.00	23.06
ATOM	2569	NE1	TRP	A	853	-10.173	-5.937	35.884	1.00	22.64
ATOM	2570	CZ2	TRP	A	853	-11.794	-4.101	36.436	1.00	22.97
ATOM	2571	CZ3	TRP	A	853	-13.433	-4.778	38.092	1.00	22.86
ATOM	2572	CH2	TRP	A	853	-12.886	-3.818	37.220	1.00	22.99
ATOM	2573	C	TRP	A	853	-11.816	-9.931	40.101	1.00	24.85
ATOM	2574	O	TRP	A	853	-12.976	-9.824	40.505	1.00	24.94
ATOM	2575	N	GLN	A	854	-11.107	-11.051	40.202	1.00	28.90
ATOM	2576	CA	GLN	A	854	-11.662	-12.264	40.785	1.00	30.44
ATOM	2577	CB	GLN	A	854	-10.673	-13.419	40.625	1.00	37.29
ATOM	2578	CG	GLN	A	854	-11.183	-14.749	41.152	1.00	37.88
ATOM	2579	CD	GLN	A	854	-12.554	-15.102	40.608	1.00	38.02
ATOM	2580	OE1	GLN	A	854	-12.812	-14.978	39.411	1.00	38.44
ATOM	2581	NE2	GLN	A	854	-13.439	-15.557	41.487	1.00	38.37
ATOM	2582	C	GLN	A	854	-12.014	-12.081	42.257	1.00	30.52
ATOM	2583	O	GLN	A	854	-12.994	-12.650	42.736	1.00	31.44
ATOM	2584	N	ALA	A	855	-11.219	-11.288	42.969	1.00	32.15
ATOM	2585	CA	ALA	A	855	-11.465	-11.039	44.388	1.00	32.96
ATOM	2586	CB	ALA	A	855	-10.282	-10.300	45.003	1.00	27.28
ATOM	2587	C	ALA	A	855	-12.747	-10.231	44.572	1.00	33.38
ATOM	2588	O	ALA	A	855	-13.473	-10.411	45.551	1.00	33.79
ATOM	2589	N	LEU	A	856	-13.020	-9.338	43.627	1.00	34.25
ATOM	2590	CA	LEU	A	856	-14.223	-8.517	43.685	1.00	34.81
ATOM	2591	CB	LEU	A	856	-14.102	-7.325	42.732	1.00	29.75
ATOM	2592	CG	LEU	A	856	-12.988	-6.310	43.001	1.00	29.61
ATOM	2593	CD1	LEU	A	856	-12.998	-5.251	41.926	1.00	29.93

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ATOM   2594  CD2 LEU A 856     -13.180  -5.679  44.373  1.00 29.63
ATOM   2595  C   LEU A 856     -15.455  -9.339  43.315  1.00 35.51
ATOM   2596  O   LEU A 856     -16.560  -9.063  43.786  1.00 35.20
ATOM   2597  N   ALA A 857     -15.258 -10.358  42.484  1.00 39.71
ATOM   2598  CA  ALA A 857     -16.354 -11.208  42.030  1.00 40.78
ATOM   2599  CB  ALA A 857     -16.044 -11.745  40.640  1.00 32.69
ATOM   2600  C   ALA A 857     -16.710 -12.369  42.956  1.00 41.78
ATOM   2601  O   ALA A 857     -17.849 -12.833  42.951  1.00 41.70
ATOM   2602  N   GLU A 858     -15.748 -12.847  43.738  1.00 51.08
ATOM   2603  CA  GLU A 858     -16.005 -13.967  44.639  1.00 52.63
ATOM   2604  CB  GLU A 858     -14.710 -14.741  44.909  1.00 56.18
ATOM   2605  CG  GLU A 858     -13.570 -13.890  45.433  1.00 56.32
ATOM   2606  CD  GLU A 858     -12.341 -14.710  45.778  1.00 56.60
ATOM   2607  OE1 GLU A 858     -11.844 -15.446  44.898  1.00 56.57
ATOM   2608  OE2 GLU A 858     -11.871 -14.614  46.930  1.00 56.45
ATOM   2609  C   GLU A 858     -16.635 -13.536  45.960  1.00 53.20
ATOM   2610  O   GLU A 858     -15.986 -13.709  47.014  1.00 53.41
ATOM   2611  OXT GLU A 858     -17.776 -13.032  45.927  1.00 56.42
TER
ATOM   2613  CB  THR B 537      25.255  66.687  12.776  1.00 47.44
ATOM   2614  OG1 THR B 537      24.336  67.782  12.890  1.00 47.61
ATOM   2615  CG2 THR B 537      25.471  66.356  11.307  1.00 47.41
ATOM   2616  C   THR B 537      24.866  65.684  15.026  1.00 50.26
ATOM   2617  O   THR B 537      24.138  65.096  15.828  1.00 50.63
ATOM   2618  N   THR B 537      23.266  65.220  13.181  1.00 50.23
ATOM   2619  CA  THR B 537      24.695  65.462  13.530  1.00 50.15
ATOM   2620  N   ARG B 538      25.822  66.534  15.395  1.00 48.27
ATOM   2621  CA  ARG B 538      26.099  66.827  16.801  1.00 48.37
ATOM   2622  CB  ARG B 538      24.804  67.211  17.532  1.00 55.34
ATOM   2623  CG  ARG B 538      24.941  67.437  19.040  1.00 55.68
ATOM   2624  CD  ARG B 538      25.783  68.664  19.378  1.00 55.76
ATOM   2625  NE  ARG B 538      25.806  68.927  20.818  1.00 55.63
ATOM   2626  CZ  ARG B 538      26.529  69.882  21.401  1.00 55.83
ATOM   2627  NH1 ARG B 538      27.302  70.677  20.672  1.00 55.58
ATOM   2628  NH2 ARG B 538      26.481  70.040  22.718  1.00 55.68
ATOM   2629  C   ARG B 538      26.707  65.579  17.427  1.00 48.47
ATOM   2630  O   ARG B 538      27.882  65.561  17.796  1.00 47.96
ATOM   2631  N   GLU B 539      25.895  64.534  17.532  1.00 51.41
ATOM   2632  CA  GLU B 539      26.331  63.265  18.096  1.00 50.79
ATOM   2633  CB  GLU B 539      25.162  62.280  18.093  1.00 45.27
ATOM   2634  CG  GLU B 539      25.499  60.877  18.559  1.00 45.43
ATOM   2635  CD  GLU B 539      24.274  59.985  18.595  1.00 45.09
ATOM   2636  OE1 GLU B 539      23.553  59.931  17.576  1.00 45.02
ATOM   2637  OE2 GLU B 539      24.032  59.340  19.636  1.00 45.34
ATOM   2638  C   GLU B 539      27.490  62.719  17.268  1.00 49.89
ATOM   2639  O   GLU B 539      28.360  62.015  17.783  1.00 51.14
ATOM   2640  N   LEU B 540      27.493  63.056  15.981  1.00 35.39
ATOM   2641  CA  LEU B 540      28.537  62.617  15.066  1.00 34.61
ATOM   2642  CB  LEU B 540      28.047  62.729  13.621  1.00 33.85
ATOM   2643  CG  LEU B 540      29.094  62.491  12.529  1.00 33.88
ATOM   2644  CD1 LEU B 540      29.755  61.135  12.722  1.00 33.93
ATOM   2645  CD2 LEU B 540      28.436  62.579  11.166  1.00 34.03
ATOM   2646  C   LEU B 540      29.798  63.451  15.245  1.00 33.92
ATOM   2647  O   LEU B 540      30.910  62.923  15.296  1.00 33.74
ATOM   2648  N   GLN B 541      29.620  64.763  15.328  1.00 38.91
ATOM   2649  CA  GLN B 541      30.747  65.664  15.511  1.00 38.96
ATOM   2650  CB  GLN B 541      30.265  67.110  15.475  1.00 49.53
ATOM   2651  CG  GLN B 541      29.654  67.501  14.147  1.00 49.81
ATOM   2652  CD  GLN B 541      29.118  68.910  14.156  1.00 49.94
ATOM   2653  OE1 GLN B 541      28.185  69.225  14.896  1.00 50.34
ATOM   2654  NE2 GLN B 541      29.707  69.774  13.336  1.00 50.07
ATOM   2655  C   GLN B 541      31.389  65.356  16.850  1.00 38.55
ATOM   2656  O   GLN B 541      32.613  65.343  16.980  1.00 39.00
ATOM   2657  N   SER B 542      30.551  65.099  17.847  1.00 32.80
ATOM   2658  CA  SER B 542      31.034  64.772  19.177  1.00 32.42
ATOM   2659  CB  SER B 542      29.861  64.645  20.153  1.00 41.30
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ATOM	2660	OG	SER	B	542	29.144	65.863	20.263	1.00 42.04
ATOM	2661	C	SER	B	542	31.789	63.456	19.113	1.00 30.70
ATOM	2662	O	SER	B	542	32.848	63.305	19.714	1.00 31.49
ATOM	2663	N	LEU	B	543	31.233	62.505	18.370	1.00 31.05
ATOM	2664	CA	LEU	B	543	31.841	61.188	18.228	1.00 30.13
ATOM	2665	CB	LEU	B	543	30.895	60.257	17.460	1.00 31.49
ATOM	2666	CG	LEU	B	543	30.924	58.757	17.783	1.00 32.02
ATOM	2667	CD1	LEU	B	543	30.315	57.991	16.615	1.00 31.51
ATOM	2668	CD2	LEU	B	543	32.336	58.278	18.036	1.00 31.28
ATOM	2669	C	LEU	B	543	33.175	61.259	17.492	1.00 29.52
ATOM	2670	O	LEU	B	543	34.183	60.737	17.963	1.00 29.71
ATOM	2671	N	ALA	B	544	33.175	61.911	16.335	1.00 27.41
ATOM	2672	CA	ALA	B	544	34.374	62.027	15.522	1.00 26.77
ATOM	2673	CB	ALA	B	544	34.040	62.722	14.213	1.00 32.00
ATOM	2674	C	ALA	B	544	35.529	62.748	16.214	1.00 27.56
ATOM	2675	O	ALA	B	544	36.685	62.357	16.075	1.00 27.33
ATOM	2676	N	ALA	B	545	35.214	63.801	16.960	1.00 29.78
ATOM	2677	CA	ALA	B	545	36.241	64.580	17.642	1.00 29.66
ATOM	2678	CB	ALA	B	545	35.723	65.990	17.905	1.00 33.66
ATOM	2679	C	ALA	B	545	36.731	63.962	18.948	1.00 30.65
ATOM	2680	O	ALA	B	545	37.829	64.272	19.417	1.00 29.67
ATOM	2681	N	ALA	B	546	35.921	63.090	19.537	1.00 29.20
ATOM	2682	CA	ALA	B	546	36.284	62.464	20.801	1.00 30.23
ATOM	2683	CB	ALA	B	546	35.090	61.705	21.364	1.00 34.60
ATOM	2684	C	ALA	B	546	37.493	61.538	20.713	1.00 29.49
ATOM	2685	O	ALA	B	546	37.779	60.959	19.664	1.00 29.95
ATOM	2686	N	VAL	B	547	38.219	61.423	21.820	1.00 29.24
ATOM	2687	CA	VAL	B	547	39.377	60.543	21.872	1.00 29.27
ATOM	2688	CB	VAL	B	547	40.359	60.950	22.990	1.00 28.05
ATOM	2689	CG1	VAL	B	547	41.419	59.877	23.158	1.00 27.67
ATOM	2690	CG2	VAL	B	547	41.010	62.282	22.650	1.00 28.10
ATOM	2691	C	VAL	B	547	38.845	59.151	22.179	1.00 29.34
ATOM	2692	O	VAL	B	547	38.009	58.988	23.066	1.00 30.26
ATOM	2693	N	VAL	B	548	39.324	58.152	21.443	1.00 28.29
ATOM	2694	CA	VAL	B	548	38.879	56.778	21.653	1.00 27.44
ATOM	2695	CB	VAL	B	548	38.971	55.953	20.349	1.00 28.22
ATOM	2696	CG1	VAL	B	548	38.545	54.510	20.613	1.00 27.84
ATOM	2697	CG2	VAL	B	548	38.100	56.585	19.271	1.00 28.24
ATOM	2698	C	VAL	B	548	39.721	56.099	22.724	1.00 26.75
ATOM	2699	O	VAL	B	548	40.903	55.822	22.518	1.00 26.81
ATOM	2700	N	PRO	B	549	39.121	55.826	23.890	1.00 24.59
ATOM	2701	CD	PRO	B	549	37.783	56.267	24.317	1.00 25.72
ATOM	2702	CA	PRO	B	549	39.830	55.172	24.995	1.00 25.08
ATOM	2703	CB	PRO	B	549	38.764	55.089	26.081	1.00 25.73
ATOM	2704	CG	PRO	B	549	37.932	56.312	25.818	1.00 26.01
ATOM	2705	C	PRO	B	549	40.362	53.795	24.600	1.00 26.03
ATOM	2706	O	PRO	B	549	39.894	53.197	23.628	1.00 24.91
ATOM	2707	N	SER	B	550	41.334	53.298	25.361	1.00 27.34
ATOM	2708	CA	SER	B	550	41.935	51.997	25.088	1.00 27.02
ATOM	2709	CB	SER	B	550	43.224	51.821	25.896	1.00 31.88
ATOM	2710	OG	SER	B	550	42.943	51.600	27.267	1.00 31.82
ATOM	2711	C	SER	B	550	40.975	50.873	25.440	1.00 26.64
ATOM	2712	O	SER	B	550	40.052	51.062	26.229	1.00 26.84
ATOM	2713	N	ALA	B	551	41.193	49.701	24.853	1.00 26.78
ATOM	2714	CA	ALA	B	551	40.336	48.558	25.135	1.00 27.11
ATOM	2715	CB	ALA	B	551	40.790	47.342	24.317	1.00 24.60
ATOM	2716	C	ALA	B	551	40.385	48.244	26.630	1.00 27.04
ATOM	2717	O	ALA	B	551	39.373	47.895	27.237	1.00 26.84
ATOM	2718	N	GLN	B	552	41.573	48.370	27.213	1.00 28.38
ATOM	2719	CA	GLN	B	552	41.775	48.112	28.636	1.00 29.31
ATOM	2720	CB	GLN	B	552	43.233	48.374	29.014	1.00 41.60
ATOM	2721	CG	GLN	B	552	44.219	47.373	28.448	1.00 42.50
ATOM	2722	CD	GLN	B	552	45.646	47.898	28.453	1.00 42.52
ATOM	2723	OE1	GLN	B	552	46.015	48.738	27.626	1.00 42.19
ATOM	2724	NE2	GLN	B	552	46.453	47.413	29.392	1.00 42.63
ATOM	2725	C	GLN	B	552	40.878	49.011	29.475	1.00 28.87

ATOM	2726	O	GLN	B	552	40.149	48.544	30.355	1.00	28.59
ATOM	2727	N	THR	B	553	40.944	50.307	29.196	1.00	30.11
ATOM	2728	CA	THR	B	553	40.145	51.283	29.915	1.00	29.74
ATOM	2729	CB	THR	B	553	40.415	52.713	29.399	1.00	32.61
ATOM	2730	OG1	THR	B	553	41.795	53.047	29.598	1.00	32.65
ATOM	2731	CG2	THR	B	553	39.541	53.718	30.142	1.00	32.91
ATOM	2732	C	THR	B	553	38.655	50.990	29.765	1.00	29.20
ATOM	2733	O	THR	B	553	37.919	50.996	30.747	1.00	29.52
ATOM	2734	N	LEU	B	554	38.225	50.723	28.534	1.00	27.01
ATOM	2735	CA	LEU	B	554	36.820	50.455	28.244	1.00	26.50
ATOM	2736	CB	LEU	B	554	36.562	50.590	26.741	1.00	28.84
ATOM	2737	CG	LEU	B	554	36.851	51.973	26.146	1.00	29.16
ATOM	2738	CD1	LEU	B	554	36.766	51.908	24.630	1.00	29.33
ATOM	2739	CD2	LEU	B	554	35.862	52.992	26.699	1.00	29.62
ATOM	2740	C	LEU	B	554	36.324	49.098	28.733	1.00	26.37
ATOM	2741	O	LEU	B	554	35.117	48.879	28.832	1.00	26.37
ATOM	2742	N	LYS	B	555	37.255	48.192	29.026	1.00	25.28
ATOM	2743	CA	LYS	B	555	36.931	46.857	29.524	1.00	24.39
ATOM	2744	CB	LYS	B	555	36.089	46.958	30.802	1.00	35.97
ATOM	2745	CG	LYS	B	555	36.740	47.722	31.945	1.00	36.48
ATOM	2746	CD	LYS	B	555	35.806	47.781	33.150	1.00	36.95
ATOM	2747	CE	LYS	B	555	36.409	48.579	34.297	1.00	36.81
ATOM	2748	NZ	LYS	B	555	35.499	48.633	35.478	1.00	37.17
ATOM	2749	C	LYS	B	555	36.188	45.975	28.520	1.00	24.71
ATOM	2750	O	LYS	B	555	35.592	44.966	28.905	1.00	24.80
ATOM	2751	N	ILE	B	556	36.229	46.336	27.242	1.00	24.43
ATOM	2752	CA	ILE	B	556	35.520	45.556	26.231	1.00	24.37
ATOM	2753	CB	ILE	B	556	35.436	46.312	24.895	1.00	23.67
ATOM	2754	CG2	ILE	B	556	34.651	47.601	25.078	1.00	24.41
ATOM	2755	CG1	ILE	B	556	36.838	46.637	24.384	1.00	24.28
ATOM	2756	CD1	ILE	B	556	36.847	47.138	22.956	1.00	23.53
ATOM	2757	C	ILE	B	556	36.095	44.167	25.966	1.00	23.99
ATOM	2758	O	ILE	B	556	35.499	43.380	25.235	1.00	23.82
ATOM	2759	N	THR	B	557	37.246	43.860	26.551	1.00	24.82
ATOM	2760	CA	THR	B	557	37.843	42.545	26.345	1.00	25.70
ATOM	2761	CB	THR	B	557	39.381	42.593	26.486	1.00	34.81
ATOM	2762	OG1	THR	B	557	39.901	43.678	25.706	1.00	34.99
ATOM	2763	CG2	THR	B	557	40.001	41.289	25.991	1.00	34.84
ATOM	2764	C	THR	B	557	37.289	41.526	27.344	1.00	25.75
ATOM	2765	O	THR	B	557	37.425	40.318	27.154	1.00	25.95
ATOM	2766	N	ASP	B	558	36.646	42.013	28.400	1.00	21.17
ATOM	2767	CA	ASP	B	558	36.099	41.126	29.423	1.00	20.89
ATOM	2768	CB	ASP	B	558	35.952	41.873	30.750	1.00	39.26
ATOM	2769	CG	ASP	B	558	37.214	42.607	31.147	1.00	40.04
ATOM	2770	OD1	ASP	B	558	38.293	41.981	31.148	1.00	40.44
ATOM	2771	OD2	ASP	B	558	37.124	43.809	31.464	1.00	40.62
ATOM	2772	C	ASP	B	558	34.742	40.543	29.045	1.00	21.50
ATOM	2773	O	ASP	B	558	33.846	41.259	28.594	1.00	21.10
ATOM	2774	N	PHE	B	559	34.586	39.242	29.246	1.00	27.65
ATOM	2775	CA	PHE	B	559	33.322	38.583	28.942	1.00	28.56
ATOM	2776	CB	PHE	B	559	33.474	37.067	29.076	1.00	27.72
ATOM	2777	CG	PHE	B	559	34.269	36.438	27.968	1.00	27.53
ATOM	2778	CD1	PHE	B	559	33.773	36.407	26.670	1.00	27.89
ATOM	2779	CD2	PHE	B	559	35.509	35.863	28.224	1.00	27.40
ATOM	2780	CE1	PHE	B	559	34.499	35.809	25.642	1.00	27.88
ATOM	2781	CE2	PHE	B	559	36.243	35.263	27.202	1.00	27.42
ATOM	2782	CZ	PHE	B	559	35.738	35.236	25.911	1.00	27.16
ATOM	2783	C	PHE	B	559	32.214	39.072	29.872	1.00	28.90
ATOM	2784	O	PHE	B	559	31.030	38.983	29.545	1.00	28.49
ATOM	2785	N	SER	B	560	32.604	39.597	31.029	1.00	29.75
ATOM	2786	CA	SER	B	560	31.638	40.087	32.008	1.00	30.25
ATOM	2787	CB	SER	B	560	32.204	39.924	33.421	1.00	41.19
ATOM	2788	OG	SER	B	560	33.408	40.654	33.576	1.00	41.28
ATOM	2789	C	SER	B	560	31.248	41.543	31.778	1.00	30.07
ATOM	2790	O	SER	B	560	30.571	42.149	32.609	1.00	29.90
ATOM	2791	N	PHE	B	561	31.674	42.098	30.648	1.00	25.27

ATOM	2792	CA	PHE	B	561	31.377	43.484	30.297	1.00	24.91
ATOM	2793	CB	PHE	B	561	31.775	43.744	28.842	1.00	26.48
ATOM	2794	CG	PHE	B	561	31.458	45.135	28.357	1.00	26.42
ATOM	2795	CD1	PHE	B	561	32.349	46.181	28.564	1.00	26.47
ATOM	2796	CD2	PHE	B	561	30.267	45.392	27.679	1.00	26.27
ATOM	2797	CE1	PHE	B	561	32.061	47.468	28.100	1.00	27.33
ATOM	2798	CE2	PHE	B	561	29.970	46.676	27.210	1.00	26.55
ATOM	2799	CZ	PHE	B	561	30.870	47.715	27.421	1.00	26.39
ATOM	2800	C	PHE	B	561	29.904	43.837	30.476	1.00	24.69
ATOM	2801	O	PHE	B	561	29.020	43.040	30.170	1.00	25.07
ATOM	2802	N	SER	B	562	29.652	45.047	30.966	1.00	26.30
ATOM	2803	CA	SER	B	562	28.291	45.538	31.163	1.00	27.46
ATOM	2804	CB	SER	B	562	27.992	45.694	32.655	1.00	44.74
ATOM	2805	OG	SER	B	562	26.657	46.118	32.861	1.00	45.35
ATOM	2806	C	SER	B	562	28.188	46.895	30.476	1.00	25.80
ATOM	2807	O	SER	B	562	29.092	47.721	30.593	1.00	25.80
ATOM	2808	N	ASP	B	563	27.094	47.120	29.756	1.00	22.70
ATOM	2809	CA	ASP	B	563	26.896	48.380	29.050	1.00	23.18
ATOM	2810	CB	ASP	B	563	26.203	48.138	27.709	1.00	23.75
ATOM	2811	CG	ASP	B	563	24.700	47.931	27.861	1.00	23.45
ATOM	2812	OD1	ASP	B	563	24.282	46.853	28.330	1.00	23.97
ATOM	2813	OD2	ASP	B	563	23.936	48.858	27.522	1.00	24.26
ATOM	2814	C	ASP	B	563	26.014	49.330	29.847	1.00	22.69
ATOM	2815	O	ASP	B	563	25.889	50.504	29.503	1.00	23.59
ATOM	2816	N	PHE	B	564	25.398	48.813	30.902	1.00	25.43
ATOM	2817	CA	PHE	B	564	24.471	49.599	31.708	1.00	26.75
ATOM	2818	CB	PHE	B	564	24.056	48.800	32.942	1.00	37.63
ATOM	2819	CG	PHE	B	564	22.817	49.324	33.606	1.00	38.09
ATOM	2820	CD1	PHE	B	564	21.604	49.337	32.921	1.00	38.40
ATOM	2821	CD2	PHE	B	564	22.858	49.809	34.907	1.00	38.36
ATOM	2822	CE1	PHE	B	564	20.446	49.826	33.525	1.00	38.54
ATOM	2823	CE2	PHE	B	564	21.706	50.301	35.522	1.00	38.90
ATOM	2824	CZ	PHE	B	564	20.498	50.309	34.829	1.00	38.44
ATOM	2825	C	PHE	B	564	24.907	50.999	32.137	1.00	27.15
ATOM	2826	O	PHE	B	564	24.118	51.945	32.064	1.00	26.92
ATOM	2827	N	GLU	B	565	26.156	51.139	32.566	1.00	29.91
ATOM	2828	CA	GLU	B	565	26.654	52.431	33.034	1.00	30.93
ATOM	2829	CB	GLU	B	565	27.762	52.219	34.069	1.00	40.08
ATOM	2830	CG	GLU	B	565	27.372	51.367	35.270	1.00	40.03
ATOM	2831	CD	GLU	B	565	27.050	49.935	34.890	1.00	40.48
ATOM	2832	OE1	GLU	B	565	27.787	49.363	34.058	1.00	40.51
ATOM	2833	OE2	GLU	B	565	26.066	49.378	35.428	1.00	40.01
ATOM	2834	C	GLU	B	565	27.173	53.361	31.944	1.00	30.09
ATOM	2835	O	GLU	B	565	27.567	54.497	32.227	1.00	30.95
ATOM	2836	N	LEU	B	566	27.167	52.894	30.700	1.00	27.08
ATOM	2837	CA	LEU	B	566	27.671	53.692	29.594	1.00	26.42
ATOM	2838	CB	LEU	B	566	28.395	52.784	28.591	1.00	35.46
ATOM	2839	CG	LEU	B	566	29.522	51.884	29.106	1.00	36.46
ATOM	2840	CD1	LEU	B	566	30.022	50.996	27.969	1.00	35.95
ATOM	2841	CD2	LEU	B	566	30.659	52.730	29.659	1.00	36.32
ATOM	2842	C	LEU	B	566	26.600	54.483	28.860	1.00	25.95
ATOM	2843	O	LEU	B	566	25.454	54.048	28.756	1.00	24.61
ATOM	2844	N	SER	B	567	26.986	55.655	28.358	1.00	25.45
ATOM	2845	CA	SER	B	567	26.080	56.501	27.590	1.00	25.56
ATOM	2846	CB	SER	B	567	26.519	57.963	27.665	1.00	33.98
ATOM	2847	OG	SER	B	567	27.722	58.173	26.947	1.00	34.14
ATOM	2848	C	SER	B	567	26.155	56.027	26.140	1.00	25.50
ATOM	2849	O	SER	B	567	27.047	55.247	25.791	1.00	23.97
ATOM	2850	N	ASP	B	568	25.234	56.490	25.300	1.00	26.74
ATOM	2851	CA	ASP	B	568	25.240	56.101	23.892	1.00	26.93
ATOM	2852	CB	ASP	B	568	24.110	56.790	23.127	1.00	31.14
ATOM	2853	CG	ASP	B	568	22.760	56.161	23.390	1.00	31.71
ATOM	2854	OD1	ASP	B	568	21.783	56.584	22.743	1.00	32.07
ATOM	2855	OD2	ASP	B	568	22.678	55.246	24.240	1.00	31.51
ATOM	2856	C	ASP	B	568	26.569	56.455	23.241	1.00	26.60
ATOM	2857	O	ASP	B	568	27.130	55.656	22.494	1.00	26.36

ATOM	2858	N	LEU	B	569	27.071	57.656	23.526	1.00	26.00
ATOM	2859	CA	LEU	B	569	28.341	58.091	22.964	1.00	25.02
ATOM	2860	CB	LEU	B	569	28.683	59.507	23.446	1.00	35.36
ATOM	2861	CG	LEU	B	569	30.009	60.124	22.980	1.00	35.65
ATOM	2862	CD1	LEU	B	569	30.050	60.203	21.464	1.00	36.29
ATOM	2863	CD2	LEU	B	569	30.153	61.516	23.583	1.00	35.93
ATOM	2864	C	LEU	B	569	29.432	57.113	23.388	1.00	24.35
ATOM	2865	O	LEU	B	569	30.267	56.716	22.574	1.00	25.31
ATOM	2866	N	GLU	B	570	29.412	56.715	24.659	1.00	23.22
ATOM	2867	CA	GLU	B	570	30.406	55.784	25.173	1.00	23.38
ATOM	2868	CB	GLU	B	570	30.216	55.560	26.676	1.00	33.69
ATOM	2869	CG	GLU	B	570	30.567	56.787	27.522	1.00	34.19
ATOM	2870	CD	GLU	B	570	30.543	56.509	29.017	1.00	34.09
ATOM	2871	OE1	GLU	B	570	29.467	56.160	29.548	1.00	33.38
ATOM	2872	OE2	GLU	B	570	31.605	56.642	29.665	1.00	35.27
ATOM	2873	C	GLU	B	570	30.351	54.458	24.423	1.00	23.12
ATOM	2874	O	GLU	B	570	31.397	53.899	24.085	1.00	23.04
ATOM	2875	N	THR	B	571	29.148	53.954	24.155	1.00	23.20
ATOM	2876	CA	THR	B	571	29.038	52.692	23.423	1.00	23.72
ATOM	2877	CB	THR	B	571	27.582	52.146	23.367	1.00	22.43
ATOM	2878	OG1	THR	B	571	26.753	53.014	22.589	1.00	23.16
ATOM	2879	CG2	THR	B	571	27.010	52.013	24.772	1.00	23.40
ATOM	2880	C	THR	B	571	29.564	52.865	22.000	1.00	22.59
ATOM	2881	O	THR	B	571	30.147	51.937	21.441	1.00	23.35
ATOM	2882	N	ALA	B	572	29.367	54.047	21.418	1.00	23.15
ATOM	2883	CA	ALA	B	572	29.852	54.323	20.065	1.00	23.02
ATOM	2884	CB	ALA	B	572	29.330	55.671	19.575	1.00	25.21
ATOM	2885	C	ALA	B	572	31.381	54.315	20.061	1.00	24.49
ATOM	2886	O	ALA	B	572	32.007	53.797	19.133	1.00	23.72
ATOM	2887	N	LEU	B	573	31.984	54.906	21.092	1.00	24.96
ATOM	2888	CA	LEU	B	573	33.438	54.924	21.203	1.00	25.56
ATOM	2889	CB	LEU	B	573	33.870	55.787	22.395	1.00	25.61
ATOM	2890	CG	LEU	B	573	33.684	57.294	22.204	1.00	25.96
ATOM	2891	CD1	LEU	B	573	33.998	58.025	23.505	1.00	25.46
ATOM	2892	CD2	LEU	B	573	34.581	57.784	21.076	1.00	24.77
ATOM	2893	C	LEU	B	573	33.961	53.490	21.363	1.00	23.87
ATOM	2894	O	LEU	B	573	34.960	53.116	20.744	1.00	25.16
ATOM	2895	N	CYS	B	574	33.291	52.697	22.195	1.00	21.17
ATOM	2896	CA	CYS	B	574	33.672	51.297	22.406	1.00	20.66
ATOM	2897	CB	CYS	B	574	32.687	50.593	23.342	1.00	22.74
ATOM	2898	SG	CYS	B	574	32.882	50.908	25.120	1.00	21.69
ATOM	2899	C	CYS	B	574	33.665	50.555	21.072	1.00	21.23
ATOM	2900	O	CYS	B	574	34.536	49.727	20.801	1.00	19.77
ATOM	2901	N	THR	B	575	32.668	50.849	20.248	1.00	21.05
ATOM	2902	CA	THR	B	575	32.543	50.203	18.948	1.00	20.83
ATOM	2903	CB	THR	B	575	31.211	50.590	18.273	1.00	21.54
ATOM	2904	OG1	THR	B	575	30.128	50.166	19.109	1.00	22.40
ATOM	2905	CG2	THR	B	575	31.067	49.917	16.912	1.00	22.61
ATOM	2906	C	THR	B	575	33.722	50.565	18.052	1.00	21.63
ATOM	2907	O	THR	B	575	34.268	49.708	17.357	1.00	20.92
ATOM	2908	N	ILE	B	576	34.122	51.833	18.068	1.00	21.26
ATOM	2909	CA	ILE	B	576	35.256	52.261	17.254	1.00	21.61
ATOM	2910	CB	ILE	B	576	35.510	53.786	17.365	1.00	24.97
ATOM	2911	CG2	ILE	B	576	36.817	54.147	16.660	1.00	25.32
ATOM	2912	CG1	ILE	B	576	34.333	54.558	16.757	1.00	25.33
ATOM	2913	CD1	ILE	B	576	34.503	56.083	16.761	1.00	25.78
ATOM	2914	C	ILE	B	576	36.506	51.521	17.717	1.00	22.18
ATOM	2915	O	ILE	B	576	37.344	51.139	16.900	1.00	21.36
ATOM	2916	N	ARG	B	577	36.619	51.318	19.028	1.00	21.36
ATOM	2917	CA	ARG	B	577	37.761	50.620	19.598	1.00	22.50
ATOM	2918	CB	ARG	B	577	37.749	50.702	21.131	1.00	20.87
ATOM	2919	CG	ARG	B	577	38.879	49.924	21.796	1.00	21.90
ATOM	2920	CD	ARG	B	577	40.239	50.280	21.195	1.00	21.96
ATOM	2921	NE	ARG	B	577	40.657	51.648	21.501	1.00	21.18
ATOM	2922	CZ	ARG	B	577	41.693	52.255	20.927	1.00	22.44
ATOM	2923	NH1	ARG	B	577	42.421	51.622	20.011	1.00	22.46

ATOM	2924	NH2	ARG	B	577	42.005	53.504	21.265	1.00	22.38
ATOM	2925	C	ARG	B	577	37.779	49.164	19.149	1.00	21.04
ATOM	2926	O	ARG	B	577	38.846	48.599	18.938	1.00	23.18
ATOM	2927	N	MET	B	578	36.600	48.560	19.000	1.00	21.91
ATOM	2928	CA	MET	B	578	36.507	47.172	18.548	1.00	21.13
ATOM	2929	CB	MET	B	578	35.054	46.705	18.554	1.00	20.87
ATOM	2930	CG	MET	B	578	34.503	46.404	19.925	1.00	21.65
ATOM	2931	SD	MET	B	578	32.749	46.041	19.841	1.00	22.25
ATOM	2932	CE	MET	B	578	32.205	46.673	21.420	1.00	22.99
ATOM	2933	C	MET	B	578	37.079	47.018	17.135	1.00	21.37
ATOM	2934	O	MET	B	578	37.872	46.114	16.876	1.00	21.93
ATOM	2935	N	PHE	B	579	36.660	47.886	16.222	1.00	21.44
ATOM	2936	CA	PHE	B	579	37.160	47.840	14.850	1.00	20.75
ATOM	2937	CB	PHE	B	579	36.496	48.908	13.979	1.00	23.89
ATOM	2938	CG	PHE	B	579	35.160	48.512	13.440	1.00	22.77
ATOM	2939	CD1	PHE	B	579	34.009	48.672	14.203	1.00	22.94
ATOM	2940	CD2	PHE	B	579	35.051	47.979	12.161	1.00	22.86
ATOM	2941	CE1	PHE	B	579	32.765	48.302	13.695	1.00	23.49
ATOM	2942	CE2	PHE	B	579	33.813	47.607	11.645	1.00	23.55
ATOM	2943	CZ	PHE	B	579	32.668	47.769	12.415	1.00	23.73
ATOM	2944	C	PHE	B	579	38.660	48.101	14.832	1.00	21.82
ATOM	2945	O	PHE	B	579	39.411	47.442	14.113	1.00	20.97
ATOM	2946	N	THR	B	580	39.085	49.074	15.628	1.00	23.77
ATOM	2947	CA	THR	B	580	40.488	49.450	15.684	1.00	23.88
ATOM	2948	CB	THR	B	580	40.684	50.693	16.572	1.00	24.40
ATOM	2949	OG1	THR	B	580	39.895	51.770	16.051	1.00	25.13
ATOM	2950	CG2	THR	B	580	42.153	51.109	16.596	1.00	24.68
ATOM	2951	C	THR	B	580	41.402	48.338	16.174	1.00	24.19
ATOM	2952	O	THR	B	580	42.389	48.011	15.512	1.00	24.60
ATOM	2953	N	ASP	B	581	41.072	47.743	17.314	1.00	26.39
ATOM	2954	CA	ASP	B	581	41.903	46.687	17.872	1.00	27.24
ATOM	2955	CB	ASP	B	581	41.635	46.554	19.369	1.00	26.21
ATOM	2956	CG	ASP	B	581	42.295	47.666	20.171	1.00	26.06
ATOM	2957	OD1	ASP	B	581	42.688	48.690	19.565	1.00	25.91
ATOM	2958	OD2	ASP	B	581	42.418	47.520	21.402	1.00	26.26
ATOM	2959	C	ASP	B	581	41.821	45.333	17.182	1.00	27.49
ATOM	2960	O	ASP	B	581	42.535	44.403	17.552	1.00	27.57
ATOM	2961	N	LEU	B	582	40.947	45.217	16.189	1.00	23.58
ATOM	2962	CA	LEU	B	582	40.859	43.984	15.415	1.00	24.50
ATOM	2963	CB	LEU	B	582	39.395	43.600	15.139	1.00	22.05
ATOM	2964	CG	LEU	B	582	38.660	42.981	16.337	1.00	21.75
ATOM	2965	CD1	LEU	B	582	37.178	42.787	16.035	1.00	22.80
ATOM	2966	CD2	LEU	B	582	39.309	41.648	16.680	1.00	21.90
ATOM	2967	C	LEU	B	582	41.605	44.305	14.117	1.00	24.79
ATOM	2968	O	LEU	B	582	41.591	43.531	13.153	1.00	25.28
ATOM	2969	N	ASN	B	583	42.255	45.469	14.117	1.00	27.83
ATOM	2970	CA	ASN	B	583	43.037	45.956	12.984	1.00	30.24
ATOM	2971	CB	ASN	B	583	44.235	45.037	12.740	1.00	52.59
ATOM	2972	CG	ASN	B	583	45.196	45.017	13.906	1.00	53.50
ATOM	2973	OD1	ASN	B	583	44.827	44.655	15.023	1.00	53.73
ATOM	2974	ND2	ASN	B	583	46.440	45.410	13.655	1.00	53.71
ATOM	2975	C	ASN	B	583	42.223	46.074	11.704	1.00	29.60
ATOM	2976	O	ASN	B	583	42.733	45.818	10.614	1.00	30.55
ATOM	2977	N	LEU	B	584	40.964	46.478	11.840	1.00	27.68
ATOM	2978	CA	LEU	B	584	40.069	46.620	10.696	1.00	27.10
ATOM	2979	CB	LEU	B	584	38.632	46.323	11.131	1.00	25.59
ATOM	2980	CG	LEU	B	584	38.111	44.884	11.080	1.00	26.48
ATOM	2981	CD1	LEU	B	584	39.198	43.891	11.360	1.00	26.71
ATOM	2982	CD2	LEU	B	584	36.954	44.746	12.065	1.00	24.71
ATOM	2983	C	LEU	B	584	40.115	47.992	10.047	1.00	27.65
ATOM	2984	O	LEU	B	584	39.908	48.120	8.843	1.00	26.67
ATOM	2985	N	VAL	B	585	40.380	49.021	10.845	1.00	28.02
ATOM	2986	CA	VAL	B	585	40.415	50.380	10.326	1.00	28.97
ATOM	2987	CB	VAL	B	585	40.586	51.400	11.467	1.00	33.37
ATOM	2988	CG1	VAL	B	585	40.639	52.812	10.902	1.00	33.53
ATOM	2989	CG2	VAL	B	585	39.436	51.267	12.448	1.00	33.91

ATOM	2990	C	VAL	B	585	41.502	50.620	9.283	1.00	29.73
ATOM	2991	O	VAL	B	585	41.210	51.056	8.172	1.00	29.62
ATOM	2992	N	GLN	B	586	42.749	50.330	9.638	1.00	34.73
ATOM	2993	CA	GLN	B	586	43.860	50.536	8.718	1.00	36.38
ATOM	2994	CB	GLN	B	586	45.171	50.626	9.501	1.00	56.06
ATOM	2995	CG	GLN	B	586	45.261	51.887	10.349	1.00	56.60
ATOM	2996	CD	GLN	B	586	46.523	51.955	11.184	1.00	57.01
ATOM	2997	OE1	GLN	B	586	46.729	51.142	12.085	1.00	56.81
ATOM	2998	NE2	GLN	B	586	47.378	52.930	10.887	1.00	56.83
ATOM	2999	C	GLN	B	586	43.936	49.439	7.666	1.00	35.19
ATOM	3000	O	GLN	B	586	44.176	49.716	6.492	1.00	36.38
ATOM	3001	N	ASN	B	587	43.716	48.199	8.088	1.00	28.60
ATOM	3002	CA	ASN	B	587	43.749	47.058	7.180	1.00	27.39
ATOM	3003	CB	ASN	B	587	43.208	45.816	7.893	1.00	34.50
ATOM	3004	CG	ASN	B	587	43.520	44.530	7.155	1.00	34.35
ATOM	3005	OD1	ASN	B	587	43.721	44.528	5.943	1.00	34.55
ATOM	3006	ND2	ASN	B	587	43.549	43.423	7.888	1.00	34.96
ATOM	3007	C	ASN	B	587	42.895	47.331	5.941	1.00	27.36
ATOM	3008	O	ASN	B	587	43.336	47.133	4.811	1.00	26.90
ATOM	3009	N	PHE	B	588	41.666	47.796	6.154	1.00	26.94
ATOM	3010	CA	PHE	B	588	40.765	48.048	5.040	1.00	26.43
ATOM	3011	CB	PHE	B	588	39.423	47.350	5.317	1.00	20.94
ATOM	3012	CG	PHE	B	588	39.558	45.856	5.503	1.00	20.97
ATOM	3013	CD1	PHE	B	588	39.472	45.277	6.765	1.00	20.43
ATOM	3014	CD2	PHE	B	588	39.845	45.038	4.417	1.00	20.60
ATOM	3015	CE1	PHE	B	588	39.678	43.899	6.940	1.00	20.54
ATOM	3016	CE2	PHE	B	588	40.052	43.662	4.576	1.00	19.56
ATOM	3017	CZ	PHE	B	588	39.969	43.091	5.842	1.00	21.12
ATOM	3018	C	PHE	B	588	40.573	49.521	4.670	1.00	27.33
ATOM	3019	O	PHE	B	588	39.625	49.878	3.973	1.00	27.04
ATOM	3020	N	GLN	B	589	41.502	50.365	5.111	1.00	28.79
ATOM	3021	CA	GLN	B	589	41.465	51.800	4.818	1.00	29.49
ATOM	3022	CB	GLN	B	589	41.843	52.064	3.350	1.00	45.46
ATOM	3023	CG	GLN	B	589	43.334	51.986	3.014	1.00	45.82
ATOM	3024	CD	GLN	B	589	43.797	50.588	2.639	1.00	46.29
ATOM	3025	OE1	GLN	B	589	42.993	49.736	2.257	1.00	46.04
ATOM	3026	NE2	GLN	B	589	45.104	50.353	2.724	1.00	45.90
ATOM	3027	C	GLN	B	589	40.127	52.481	5.106	1.00	29.77
ATOM	3028	O	GLN	B	589	39.509	53.063	4.212	1.00	29.22
ATOM	3029	N	MET	B	590	39.686	52.421	6.357	1.00	30.86
ATOM	3030	CA	MET	B	590	38.432	53.050	6.743	1.00	30.28
ATOM	3031	CB	MET	B	590	37.759	52.259	7.865	1.00	26.11
ATOM	3032	CG	MET	B	590	37.254	50.888	7.485	1.00	26.11
ATOM	3033	SD	MET	B	590	36.366	50.192	8.891	1.00	24.81
ATOM	3034	CE	MET	B	590	35.005	51.232	8.953	1.00	27.02
ATOM	3035	C	MET	B	590	38.680	54.467	7.241	1.00	30.44
ATOM	3036	O	MET	B	590	39.453	54.666	8.175	1.00	30.43
ATOM	3037	N	LYS	B	591	38.039	55.449	6.616	1.00	28.66
ATOM	3038	CA	LYS	B	591	38.181	56.833	7.059	1.00	29.65
ATOM	3039	CB	LYS	B	591	37.556	57.798	6.045	1.00	48.54
ATOM	3040	CG	LYS	B	591	38.530	58.376	5.022	1.00	49.40
ATOM	3041	CD	LYS	B	591	39.125	57.314	4.114	1.00	49.46
ATOM	3042	CE	LYS	B	591	40.123	57.925	3.141	1.00	49.63
ATOM	3043	NZ	LYS	B	591	39.519	59.026	2.336	1.00	49.46
ATOM	3044	C	LYS	B	591	37.453	56.951	8.399	1.00	28.39
ATOM	3045	O	LYS	B	591	36.361	56.409	8.566	1.00	28.80
ATOM	3046	N	HIS	B	592	38.060	57.646	9.354	1.00	26.99
ATOM	3047	CA	HIS	B	592	37.447	57.803	10.669	1.00	26.60
ATOM	3048	CB	HIS	B	592	38.305	58.713	11.554	1.00	26.53
ATOM	3049	CG	HIS	B	592	37.869	58.742	12.985	1.00	26.27
ATOM	3050	CD2	HIS	B	592	37.395	59.750	13.755	1.00	26.34
ATOM	3051	ND1	HIS	B	592	37.888	57.622	13.788	1.00	26.28
ATOM	3052	CE1	HIS	B	592	37.446	57.939	14.992	1.00	26.55
ATOM	3053	NE2	HIS	B	592	37.140	59.224	14.998	1.00	26.20
ATOM	3054	C	HIS	B	592	36.027	58.366	10.594	1.00	26.93
ATOM	3055	O	HIS	B	592	35.114	57.856	11.244	1.00	26.72

ATOM	3056	N	GLU	B	593	35.844	59.423	9.810	1.00	25.99
ATOM	3057	CA	GLU	B	593	34.532	60.049	9.675	1.00	26.68
ATOM	3058	CB	GLU	B	593	34.615	61.240	8.717	1.00	47.65
ATOM	3059	CG	GLU	B	593	35.479	62.386	9.232	1.00	48.65
ATOM	3060	CD	GLU	B	593	36.880	61.942	9.628	1.00	48.66
ATOM	3061	OE1	GLU	B	593	37.595	61.373	8.773	1.00	48.66
ATOM	3062	OE2	GLU	B	593	37.266	62.160	10.798	1.00	48.65
ATOM	3063	C	GLU	B	593	33.479	59.056	9.188	1.00	25.92
ATOM	3064	O	GLU	B	593	32.368	59.011	9.717	1.00	25.44
ATOM	3065	N	VAL	B	594	33.837	58.257	8.188	1.00	23.11
ATOM	3066	CA	VAL	B	594	32.914	57.265	7.640	1.00	23.96
ATOM	3067	CB	VAL	B	594	33.511	56.574	6.390	1.00	21.56
ATOM	3068	CG1	VAL	B	594	32.576	55.471	5.891	1.00	21.95
ATOM	3069	CG2	VAL	B	594	33.747	57.604	5.297	1.00	21.81
ATOM	3070	C	VAL	B	594	32.556	56.196	8.667	1.00	23.30
ATOM	3071	O	VAL	B	594	31.385	55.849	8.824	1.00	23.33
ATOM	3072	N	LEU	B	595	33.558	55.663	9.360	1.00	24.80
ATOM	3073	CA	LEU	B	595	33.300	54.639	10.364	1.00	24.45
ATOM	3074	CB	LEU	B	595	34.616	54.127	10.959	1.00	24.30
ATOM	3075	CG	LEU	B	595	34.502	53.137	12.123	1.00	25.09
ATOM	3076	CD1	LEU	B	595	33.643	51.938	11.723	1.00	23.72
ATOM	3077	CD2	LEU	B	595	35.892	52.686	12.545	1.00	23.89
ATOM	3078	C	LEU	B	595	32.391	55.190	11.464	1.00	24.32
ATOM	3079	O	LEU	B	595	31.482	54.501	11.935	1.00	24.28
ATOM	3080	N	CYS	B	596	32.625	56.437	11.866	1.00	23.70
ATOM	3081	CA	CYS	B	596	31.794	57.057	12.895	1.00	22.77
ATOM	3082	CB	CYS	B	596	32.354	58.426	13.302	1.00	27.45
ATOM	3083	SG	CYS	B	596	33.875	58.384	14.277	1.00	27.23
ATOM	3084	C	CYS	B	596	30.363	57.233	12.386	1.00	22.78
ATOM	3085	O	CYS	B	596	29.404	56.963	13.108	1.00	22.99
ATOM	3086	N	ARG	B	597	30.221	57.681	11.140	1.00	22.21
ATOM	3087	CA	ARG	B	597	28.899	57.893	10.562	1.00	21.97
ATOM	3088	CB	ARG	B	597	29.018	58.543	9.178	1.00	33.99
ATOM	3089	CG	ARG	B	597	27.678	58.924	8.570	1.00	35.29
ATOM	3090	CD	ARG	B	597	27.807	59.645	7.228	1.00	35.28
ATOM	3091	NE	ARG	B	597	28.241	61.035	7.362	1.00	35.24
ATOM	3092	CZ	ARG	B	597	29.494	61.455	7.216	1.00	35.37
ATOM	3093	NH1	ARG	B	597	30.463	60.596	6.926	1.00	35.79
ATOM	3094	NH2	ARG	B	597	29.778	62.745	7.354	1.00	35.68
ATOM	3095	C	ARG	B	597	28.149	56.563	10.459	1.00	21.87
ATOM	3096	O	ARG	B	597	26.954	56.496	10.729	1.00	21.94
ATOM	3097	N	TRP	B	598	28.862	55.511	10.069	1.00	23.25
ATOM	3098	CA	TRP	B	598	28.264	54.185	9.944	1.00	23.59
ATOM	3099	CB	TRP	B	598	29.287	53.194	9.374	1.00	21.37
ATOM	3100	CG	TRP	B	598	28.744	51.811	9.234	1.00	19.95
ATOM	3101	CD2	TRP	B	598	28.905	50.725	10.157	1.00	20.76
ATOM	3102	CE2	TRP	B	598	28.159	49.636	9.653	1.00	21.16
ATOM	3103	CE3	TRP	B	598	29.602	50.568	11.363	1.00	20.58
ATOM	3104	CD1	TRP	B	598	27.937	51.349	8.237	1.00	20.72
ATOM	3105	NE1	TRP	B	598	27.581	50.044	8.481	1.00	20.01
ATOM	3106	CZ2	TRP	B	598	28.091	48.404	10.313	1.00	19.36
ATOM	3107	CZ3	TRP	B	598	29.534	49.346	12.019	1.00	21.53
ATOM	3108	CH2	TRP	B	598	28.780	48.277	11.491	1.00	21.51
ATOM	3109	C	TRP	B	598	27.774	53.687	11.301	1.00	23.33
ATOM	3110	O	TRP	B	598	26.660	53.170	11.429	1.00	22.55
ATOM	3111	N	ILE	B	599	28.614	53.836	12.318	1.00	19.88
ATOM	3112	CA	ILE	B	599	28.250	53.401	13.652	1.00	19.76
ATOM	3113	CB	ILE	B	599	29.400	53.659	14.656	1.00	18.66
ATOM	3114	CG2	ILE	B	599	28.917	53.410	16.078	1.00	20.09
ATOM	3115	CG1	ILE	B	599	30.586	52.742	14.328	1.00	19.91
ATOM	3116	CD1	ILE	B	599	31.835	53.042	15.140	1.00	18.69
ATOM	3117	C	ILE	B	599	26.989	54.124	14.105	1.00	20.60
ATOM	3118	O	ILE	B	599	26.072	53.501	14.636	1.00	20.28
ATOM	3119	N	LEU	B	600	26.933	55.435	13.883	1.00	24.36
ATOM	3120	CA	LEU	B	600	25.761	56.200	14.292	1.00	24.27
ATOM	3121	CB	LEU	B	600	26.023	57.700	14.135	1.00	30.88

ATOM	3122	CG	LEU	B	600	27.104	58.235	15.080	1.00	31.45
ATOM	3123	CD1	LEU	B	600	27.378	59.680	14.764	1.00	31.56
ATOM	3124	CD2	LEU	B	600	26.663	58.079	16.529	1.00	31.65
ATOM	3125	C	LEU	B	600	24.518	55.788	13.512	1.00	25.39
ATOM	3126	O	LEU	B	600	23.432	55.697	14.086	1.00	24.82
ATOM	3127	N	SER	B	601	24.681	55.522	12.216	1.00	24.46
ATOM	3128	CA	SER	B	601	23.563	55.098	11.373	1.00	23.76
ATOM	3129	CB	SER	B	601	24.018	54.931	9.920	1.00	24.34
ATOM	3130	OG	SER	B	601	24.232	56.181	9.287	1.00	24.61
ATOM	3131	C	SER	B	601	23.004	53.771	11.884	1.00	23.31
ATOM	3132	O	SER	B	601	21.793	53.574	11.947	1.00	24.08
ATOM	3133	N	VAL	B	602	23.895	52.855	12.248	1.00	20.00
ATOM	3134	CA	VAL	B	602	23.465	51.560	12.765	1.00	19.52
ATOM	3135	CB	VAL	B	602	24.681	50.622	12.998	1.00	20.56
ATOM	3136	CG1	VAL	B	602	24.271	49.399	13.806	1.00	20.50
ATOM	3137	CG2	VAL	B	602	25.258	50.193	11.659	1.00	20.79
ATOM	3138	C	VAL	B	602	22.685	51.742	14.073	1.00	18.74
ATOM	3139	O	VAL	B	602	21.598	51.188	14.243	1.00	19.51
ATOM	3140	N	LYS	B	603	23.230	52.533	14.989	1.00	21.59
ATOM	3141	CA	LYS	B	603	22.568	52.767	16.268	1.00	22.24
ATOM	3142	CB	LYS	B	603	23.433	53.674	17.156	1.00	32.07
ATOM	3143	CG	LYS	B	603	22.812	53.968	18.523	1.00	32.67
ATOM	3144	CD	LYS	B	603	23.775	54.700	19.457	1.00	32.26
ATOM	3145	CE	LYS	B	603	24.152	56.067	18.910	1.00	33.03
ATOM	3146	NZ	LYS	B	603	24.991	56.838	19.866	1.00	33.90
ATOM	3147	C	LYS	B	603	21.193	53.404	16.072	1.00	21.31
ATOM	3148	O	LYS	B	603	20.229	53.057	16.758	1.00	21.06
ATOM	3149	N	LYS	B	604	21.103	54.318	15.116	1.00	21.77
ATOM	3150	CA	LYS	B	604	19.846	55.003	14.860	1.00	22.10
ATOM	3151	CB	LYS	B	604	20.071	56.179	13.904	1.00	35.05
ATOM	3152	CG	LYS	B	604	18.815	56.987	13.614	1.00	35.34
ATOM	3153	CD	LYS	B	604	19.111	58.153	12.691	1.00	35.68
ATOM	3154	CE	LYS	B	604	17.841	58.897	12.313	1.00	35.70
ATOM	3155	NZ	LYS	B	604	18.118	60.009	11.357	1.00	35.94
ATOM	3156	C	LYS	B	604	18.781	54.088	14.290	1.00	23.45
ATOM	3157	O	LYS	B	604	17.588	54.266	14.567	1.00	23.47
ATOM	3158	N	ASN	B	605	19.200	53.104	13.497	1.00	24.27
ATOM	3159	CA	ASN	B	605	18.238	52.198	12.887	1.00	24.84
ATOM	3160	CB	ASN	B	605	18.790	51.629	11.580	1.00	33.82
ATOM	3161	CG	ASN	B	605	18.757	52.650	10.461	1.00	34.72
ATOM	3162	OD1	ASN	B	605	19.593	53.552	10.401	1.00	35.05
ATOM	3163	ND2	ASN	B	605	17.771	52.529	9.579	1.00	34.67
ATOM	3164	C	ASN	B	605	17.713	51.091	13.784	1.00	25.28
ATOM	3165	O	ASN	B	605	17.138	50.109	13.309	1.00	26.57
ATOM	3166	N	TYR	B	606	17.935	51.237	15.083	1.00	22.80
ATOM	3167	CA	TYR	B	606	17.381	50.301	16.047	1.00	21.47
ATOM	3168	CB	TYR	B	606	18.406	49.906	17.116	1.00	19.39
ATOM	3169	CG	TYR	B	606	19.259	48.734	16.684	1.00	18.74
ATOM	3170	CD1	TYR	B	606	20.482	48.930	16.047	1.00	19.52
ATOM	3171	CE1	TYR	B	606	21.221	47.852	15.566	1.00	19.69
ATOM	3172	CD2	TYR	B	606	18.795	47.427	16.836	1.00	18.61
ATOM	3173	CE2	TYR	B	606	19.530	46.337	16.355	1.00	19.30
ATOM	3174	CZ	TYR	B	606	20.739	46.563	15.719	1.00	19.25
ATOM	3175	OH	TYR	B	606	21.459	45.499	15.209	1.00	18.12
ATOM	3176	C	TYR	B	606	16.234	51.093	16.662	1.00	22.67
ATOM	3177	O	TYR	B	606	16.323	52.319	16.782	1.00	24.05
ATOM	3178	N	ARG	B	607	15.146	50.419	17.009	1.00	23.34
ATOM	3179	CA	ARG	B	607	13.997	51.106	17.602	1.00	23.02
ATOM	3180	CB	ARG	B	607	12.718	50.315	17.322	1.00	22.58
ATOM	3181	CG	ARG	B	607	12.516	50.043	15.838	1.00	22.23
ATOM	3182	CD	ARG	B	607	11.149	49.467	15.533	1.00	23.26
ATOM	3183	NE	ARG	B	607	11.044	49.076	14.131	1.00	21.78
ATOM	3184	CZ	ARG	B	607	9.916	48.698	13.537	1.00	23.35
ATOM	3185	NH1	ARG	B	607	8.780	48.661	14.220	1.00	22.77
ATOM	3186	NH2	ARG	B	607	9.931	48.344	12.258	1.00	23.68
ATOM	3187	C	ARG	B	607	14.247	51.243	19.100	1.00	23.25

ATOM	3188	O	ARG	B	607	14.123	50.282	19.855	1.00	22.89
ATOM	3189	N	LYS	B	608	14.602	52.450	19.526	1.00	26.06
ATOM	3190	CA	LYS	B	608	14.921	52.697	20.928	1.00	27.43
ATOM	3191	CB	LYS	B	608	15.228	54.183	21.147	1.00	43.34
ATOM	3192	CG	LYS	B	608	14.041	55.104	20.946	1.00	43.63
ATOM	3193	CD	LYS	B	608	14.394	56.538	21.307	1.00	43.77
ATOM	3194	CE	LYS	B	608	13.192	57.458	21.141	1.00	44.09
ATOM	3195	NZ	LYS	B	608	13.518	58.878	21.457	1.00	43.98
ATOM	3196	C	LYS	B	608	13.878	52.248	21.940	1.00	26.36
ATOM	3197	O	LYS	B	608	14.221	51.870	23.062	1.00	27.18
ATOM	3198	N	ASN	B	609	12.606	52.277	21.559	1.00	24.76
ATOM	3199	CA	ASN	B	609	11.560	51.890	22.490	1.00	25.81
ATOM	3200	CB	ASN	B	609	10.305	52.718	22.222	1.00	34.37
ATOM	3201	CG	ASN	B	609	10.558	54.201	22.378	1.00	35.05
ATOM	3202	OD1	ASN	B	609	10.969	54.657	23.444	1.00	35.79
ATOM	3203	ND2	ASN	B	609	10.326	54.961	21.315	1.00	35.63
ATOM	3204	C	ASN	B	609	11.226	50.406	22.548	1.00	24.40
ATOM	3205	O	ASN	B	609	10.336	49.993	23.294	1.00	24.72
ATOM	3206	N	VAL	B	610	11.925	49.596	21.759	1.00	22.64
ATOM	3207	CA	VAL	B	610	11.699	48.160	21.814	1.00	21.87
ATOM	3208	CB	VAL	B	610	12.205	47.456	20.536	1.00	21.44
ATOM	3209	CG1	VAL	B	610	12.237	45.953	20.746	1.00	21.17
ATOM	3210	CG2	VAL	B	610	11.276	47.783	19.377	1.00	21.07
ATOM	3211	C	VAL	B	610	12.513	47.729	23.037	1.00	22.60
ATOM	3212	O	VAL	B	610	13.704	48.016	23.127	1.00	22.78
ATOM	3213	N	ALA	B	611	11.865	47.051	23.976	1.00	21.43
ATOM	3214	CA	ALA	B	611	12.500	46.651	25.232	1.00	21.58
ATOM	3215	CB	ALA	B	611	11.521	45.828	26.061	1.00	24.34
ATOM	3216	C	ALA	B	611	13.851	45.941	25.176	1.00	21.37
ATOM	3217	O	ALA	B	611	14.795	46.361	25.851	1.00	21.07
ATOM	3218	N	TYR	B	612	13.951	44.878	24.382	1.00	20.78
ATOM	3219	CA	TYR	B	612	15.202	44.119	24.301	1.00	19.11
ATOM	3220	CB	TYR	B	612	14.926	42.648	24.623	1.00	19.45
ATOM	3221	CG	TYR	B	612	16.144	41.756	24.493	1.00	19.72
ATOM	3222	CD1	TYR	B	612	16.194	40.756	23.523	1.00	19.82
ATOM	3223	CE1	TYR	B	612	17.304	39.933	23.401	1.00	19.95
ATOM	3224	CD2	TYR	B	612	17.238	41.914	25.337	1.00	19.48
ATOM	3225	CE2	TYR	B	612	18.359	41.094	25.222	1.00	20.02
ATOM	3226	CZ	TYR	B	612	18.382	40.109	24.259	1.00	20.21
ATOM	3227	OH	TYR	B	612	19.471	39.271	24.168	1.00	20.28
ATOM	3228	C	TYR	B	612	15.994	44.218	22.994	1.00	20.06
ATOM	3229	O	TYR	B	612	17.203	44.465	23.027	1.00	19.27
ATOM	3230	N	HIS	B	613	15.338	44.021	21.851	1.00	20.51
ATOM	3231	CA	HIS	B	613	16.046	44.096	20.569	1.00	19.40
ATOM	3232	CB	HIS	B	613	15.310	43.290	19.493	1.00	21.37
ATOM	3233	CG	HIS	B	613	15.351	41.811	19.712	1.00	21.97
ATOM	3234	CD2	HIS	B	613	16.338	40.907	19.503	1.00	21.44
ATOM	3235	ND1	HIS	B	613	14.283	41.101	20.216	1.00	21.50
ATOM	3236	CE1	HIS	B	613	14.608	39.824	20.307	1.00	22.37
ATOM	3237	NE2	HIS	B	613	15.851	39.679	19.881	1.00	22.50
ATOM	3238	C	HIS	B	613	16.229	45.530	20.093	1.00	19.18
ATOM	3239	O	HIS	B	613	15.583	45.971	19.149	1.00	19.28
ATOM	3240	N	ASN	B	614	17.137	46.241	20.749	1.00	19.04
ATOM	3241	CA	ASN	B	614	17.429	47.631	20.425	1.00	19.60
ATOM	3242	CB	ASN	B	614	16.895	48.526	21.541	1.00	24.32
ATOM	3243	CG	ASN	B	614	17.245	47.996	22.914	1.00	24.73
ATOM	3244	OD1	ASN	B	614	18.405	47.678	23.188	1.00	26.31
ATOM	3245	ND2	ASN	B	614	16.247	47.890	23.787	1.00	24.39
ATOM	3246	C	ASN	B	614	18.948	47.761	20.311	1.00	19.61
ATOM	3247	O	ASN	B	614	19.658	46.757	20.336	1.00	19.88
ATOM	3248	N	TRP	B	615	19.451	48.986	20.188	1.00	20.60
ATOM	3249	CA	TRP	B	615	20.893	49.189	20.052	1.00	20.16
ATOM	3250	CB	TRP	B	615	21.219	50.686	20.022	1.00	22.74
ATOM	3251	CG	TRP	B	615	22.672	50.982	20.262	1.00	23.84
ATOM	3252	CD2	TRP	B	615	23.773	50.638	19.412	1.00	23.87
ATOM	3253	CE2	TRP	B	615	24.949	51.101	20.046	1.00	24.13

ATOM	3254	CE3	TRP	B	615	23.882	49.985	18.179	1.00	24.34
ATOM	3255	CD1	TRP	B	615	23.209	51.620	21.346	1.00	23.95
ATOM	3256	NE1	TRP	B	615	24.574	51.694	21.224	1.00	24.06
ATOM	3257	CZ2	TRP	B	615	26.222	50.932	19.485	1.00	24.74
ATOM	3258	CZ3	TRP	B	615	25.152	49.816	17.618	1.00	24.67
ATOM	3259	CH2	TRP	B	615	26.304	50.290	18.276	1.00	23.93
ATOM	3260	C	TRP	B	615	21.776	48.514	21.098	1.00	19.91
ATOM	3261	O	TRP	B	615	22.834	47.960	20.766	1.00	18.94
ATOM	3262	N	ARG	B	616	21.373	48.572	22.361	1.00	18.07
ATOM	3263	CA	ARG	B	616	22.193	47.978	23.403	1.00	19.36
ATOM	3264	CB	ARG	B	616	21.610	48.286	24.785	1.00	22.36
ATOM	3265	CG	ARG	B	616	21.612	49.788	25.119	1.00	22.18
ATOM	3266	CD	ARG	B	616	23.029	50.377	25.052	1.00	22.30
ATOM	3267	NE	ARG	B	616	23.086	51.816	25.313	1.00	23.22
ATOM	3268	CZ	ARG	B	616	23.686	52.364	26.368	1.00	23.02
ATOM	3269	NH1	ARG	B	616	24.280	51.600	27.272	1.00	22.92
ATOM	3270	NH2	ARG	B	616	23.714	53.685	26.504	1.00	23.10
ATOM	3271	C	ARG	B	616	22.392	46.479	23.208	1.00	18.33
ATOM	3272	O	ARG	B	616	23.483	45.970	23.476	1.00	18.59
ATOM	3273	N	HIS	B	617	21.363	45.772	22.736	1.00	20.45
ATOM	3274	CA	HIS	B	617	21.495	44.333	22.512	1.00	17.68
ATOM	3275	CB	HIS	B	617	20.156	43.690	22.143	1.00	17.10
ATOM	3276	CG	HIS	B	617	20.300	42.309	21.571	1.00	16.72
ATOM	3277	CD2	HIS	B	617	20.008	41.819	20.343	1.00	19.45
ATOM	3278	ND1	HIS	B	617	20.842	41.261	22.283	1.00	17.70
ATOM	3279	CE1	HIS	B	617	20.880	40.183	21.517	1.00	16.30
ATOM	3280	NE2	HIS	B	617	20.380	40.497	20.336	1.00	14.56
ATOM	3281	C	HIS	B	617	22.507	44.058	21.402	1.00	18.17
ATOM	3282	O	HIS	B	617	23.343	43.151	21.528	1.00	17.84
ATOM	3283	N	ALA	B	618	22.420	44.836	20.326	1.00	18.42
ATOM	3284	CA	ALA	B	618	23.329	44.707	19.189	1.00	17.70
ATOM	3285	CB	ALA	B	618	22.918	45.659	18.067	1.00	21.95
ATOM	3286	C	ALA	B	618	24.749	45.026	19.652	1.00	17.93
ATOM	3287	O	ALA	B	618	25.701	44.320	19.324	1.00	18.41
ATOM	3288	N	PHE	B	619	24.882	46.100	20.421	1.00	17.19
ATOM	3289	CA	PHE	B	619	26.184	46.502	20.936	1.00	17.81
ATOM	3290	CB	PHE	B	619	26.040	47.811	21.726	1.00	18.98
ATOM	3291	CG	PHE	B	619	27.290	48.224	22.454	1.00	18.41
ATOM	3292	CD1	PHE	B	619	28.423	48.626	21.755	1.00	18.73
ATOM	3293	CD2	PHE	B	619	27.340	48.172	23.842	1.00	19.11
ATOM	3294	CE1	PHE	B	619	29.588	48.966	22.427	1.00	19.47
ATOM	3295	CE2	PHE	B	619	28.498	48.509	24.527	1.00	19.39
ATOM	3296	CZ	PHE	B	619	29.627	48.907	23.816	1.00	19.32
ATOM	3297	C	PHE	B	619	26.791	45.407	21.818	1.00	18.52
ATOM	3298	O	PHE	B	619	27.979	45.091	21.695	1.00	18.60
ATOM	3299	N	ASN	B	620	25.983	44.819	22.699	1.00	18.74
ATOM	3300	CA	ASN	B	620	26.484	43.774	23.585	1.00	19.38
ATOM	3301	CB	ASN	B	620	25.457	43.424	24.670	1.00	22.15
ATOM	3302	CG	ASN	B	620	25.289	44.538	25.691	1.00	22.79
ATOM	3303	OD1	ASN	B	620	26.218	45.288	25.941	1.00	23.65
ATOM	3304	ND2	ASN	B	620	24.110	44.632	26.292	1.00	22.68
ATOM	3305	C	ASN	B	620	26.857	42.524	22.806	1.00	18.58
ATOM	3306	O	ASN	B	620	27.787	41.809	23.178	1.00	19.87
ATOM	3307	N	THR	B	621	26.134	42.262	21.723	1.00	19.05
ATOM	3308	CA	THR	B	621	26.438	41.099	20.903	1.00	18.12
ATOM	3309	CB	THR	B	621	25.352	40.874	19.823	1.00	17.52
ATOM	3310	OG1	THR	B	621	24.095	40.640	20.462	1.00	18.11
ATOM	3311	CG2	THR	B	621	25.694	39.657	18.953	1.00	18.01
ATOM	3312	C	THR	B	621	27.796	41.323	20.233	1.00	18.57
ATOM	3313	O	THR	B	621	28.601	40.398	20.134	1.00	19.61
ATOM	3314	N	ALA	B	622	28.046	42.550	19.785	1.00	19.36
ATOM	3315	CA	ALA	B	622	29.310	42.896	19.140	1.00	18.22
ATOM	3316	CB	ALA	B	622	29.221	44.288	18.511	1.00	22.38
ATOM	3317	C	ALA	B	622	30.452	42.843	20.152	1.00	20.92
ATOM	3318	O	ALA	B	622	31.555	42.407	19.829	1.00	18.90
ATOM	3319	N	GLN	B	623	30.192	43.285	21.381	1.00	17.97

ATOM	3320	CA	GLN	B	623	31.219	43.257	22.420	1.00	19.34
ATOM	3321	CB	GLN	B	623	30.709	43.970	23.677	1.00	20.66
ATOM	3322	CG	GLN	B	623	31.720	44.081	24.823	1.00	21.04
ATOM	3323	CD	GLN	B	623	31.756	42.848	25.704	1.00	21.30
ATOM	3324	OE1	GLN	B	623	30.712	42.346	26.134	1.00	22.15
ATOM	3325	NE2	GLN	B	623	32.956	42.362	25.995	1.00	21.86
ATOM	3326	C	GLN	B	623	31.600	41.811	22.739	1.00	18.06
ATOM	3327	O	GLN	B	623	32.776	41.499	22.963	1.00	19.37
ATOM	3328	N	CYS	B	624	30.609	40.924	22.755	1.00	18.07
ATOM	3329	CA	CYS	B	624	30.880	39.519	23.027	1.00	17.94
ATOM	3330	CB	CYS	B	624	29.585	38.724	23.171	1.00	21.24
ATOM	3331	SG	CYS	B	624	29.857	37.007	23.684	1.00	20.09
ATOM	3332	C	CYS	B	624	31.695	38.961	21.866	1.00	19.06
ATOM	3333	O	CYS	B	624	32.615	38.158	22.067	1.00	18.98
ATOM	3334	N	MET	B	625	31.371	39.400	20.653	1.00	18.53
ATOM	3335	CA	MET	B	625	32.102	38.937	19.470	1.00	18.30
ATOM	3336	CB	MET	B	625	31.491	39.521	18.195	1.00	19.41
ATOM	3337	CG	MET	B	625	32.164	39.070	16.897	1.00	19.09
ATOM	3338	SD	MET	B	625	32.084	37.274	16.604	1.00	16.39
ATOM	3339	CE	MET	B	625	30.324	37.033	16.399	1.00	18.22
ATOM	3340	C	MET	B	625	33.555	39.393	19.606	1.00	18.55
ATOM	3341	O	MET	B	625	34.483	38.640	19.332	1.00	19.67
ATOM	3342	N	PHE	B	626	33.749	40.636	20.036	1.00	19.00
ATOM	3343	CA	PHE	B	626	35.101	41.156	20.225	1.00	18.99
ATOM	3344	CB	PHE	B	626	35.063	42.625	20.649	1.00	19.58
ATOM	3345	CG	PHE	B	626	36.421	43.211	20.909	1.00	19.51
ATOM	3346	CD1	PHE	B	626	36.965	43.200	22.190	1.00	21.50
ATOM	3347	CD2	PHE	B	626	37.162	43.759	19.868	1.00	20.23
ATOM	3348	CE1	PHE	B	626	38.234	43.731	22.433	1.00	19.73
ATOM	3349	CE2	PHE	B	626	38.433	44.292	20.095	1.00	20.70
ATOM	3350	CZ	PHE	B	626	38.971	44.277	21.384	1.00	20.75
ATOM	3351	C	PHE	B	626	35.851	40.352	21.279	1.00	20.36
ATOM	3352	O	PHE	B	626	36.993	39.951	21.066	1.00	19.87
ATOM	3353	N	ALA	B	627	35.211	40.117	22.420	1.00	20.43
ATOM	3354	CA	ALA	B	627	35.853	39.367	23.490	1.00	21.24
ATOM	3355	CB	ALA	B	627	34.950	39.322	24.713	1.00	23.11
ATOM	3356	C	ALA	B	627	36.192	37.949	23.033	1.00	20.95
ATOM	3357	O	ALA	B	627	37.274	37.433	23.329	1.00	21.81
ATOM	3358	N	ALA	B	628	35.267	37.327	22.305	1.00	19.64
ATOM	3359	CA	ALA	B	628	35.474	35.970	21.808	1.00	18.50
ATOM	3360	CB	ALA	B	628	34.194	35.453	21.156	1.00	21.27
ATOM	3361	C	ALA	B	628	36.619	35.901	20.808	1.00	18.67
ATOM	3362	O	ALA	B	628	37.415	34.958	20.827	1.00	21.28
ATOM	3363	N	LEU	B	629	36.695	36.890	19.921	1.00	19.77
ATOM	3364	CA	LEU	B	629	37.748	36.926	18.911	1.00	20.08
ATOM	3365	CB	LEU	B	629	37.449	38.026	17.885	1.00	20.64
ATOM	3366	CG	LEU	B	629	36.265	37.740	16.957	1.00	20.56
ATOM	3367	CD1	LEU	B	629	35.933	38.980	16.138	1.00	20.95
ATOM	3368	CD2	LEU	B	629	36.612	36.556	16.048	1.00	21.88
ATOM	3369	C	LEU	B	629	39.097	37.175	19.565	1.00	20.23
ATOM	3370	O	LEU	B	629	40.083	36.505	19.254	1.00	20.58
ATOM	3371	N	LYS	B	630	39.131	38.142	20.478	1.00	22.49
ATOM	3372	CA	LYS	B	630	40.354	38.517	21.184	1.00	24.06
ATOM	3373	CB	LYS	B	630	40.218	39.936	21.730	1.00	29.47
ATOM	3374	CG	LYS	B	630	40.467	41.003	20.712	1.00	30.15
ATOM	3375	CD	LYS	B	630	41.918	40.980	20.304	1.00	30.05
ATOM	3376	CE	LYS	B	630	42.193	42.037	19.271	1.00	29.88
ATOM	3377	NZ	LYS	B	630	43.597	41.963	18.828	1.00	29.81
ATOM	3378	C	LYS	B	630	40.727	37.597	22.331	1.00	24.07
ATOM	3379	O	LYS	B	630	41.585	36.724	22.197	1.00	23.83
ATOM	3380	N	ALA	B	631	40.091	37.815	23.475	1.00	24.13
ATOM	3381	CA	ALA	B	631	40.368	37.020	24.659	1.00	24.70
ATOM	3382	CB	ALA	B	631	39.527	37.516	25.828	1.00	25.17
ATOM	3383	C	ALA	B	631	40.121	35.534	24.437	1.00	25.41
ATOM	3384	O	ALA	B	631	40.882	34.700	24.922	1.00	25.73
ATOM	3385	N	GLY	B	632	39.060	35.203	23.705	1.00	24.21

ATOM	3386	CA	GLY	B	632	38.743	33.804	23.468	1.00	23.42
ATOM	3387	C	GLY	B	632	39.586	33.166	22.380	1.00	22.70
ATOM	3388	O	GLY	B	632	39.440	31.978	22.090	1.00	24.46
ATOM	3389	N	LYS	B	633	40.456	33.968	21.775	1.00	23.53
ATOM	3390	CA	LYS	B	633	41.357	33.531	20.717	1.00	24.70
ATOM	3391	CB	LYS	B	633	42.419	32.592	21.292	1.00	32.80
ATOM	3392	CG	LYS	B	633	43.316	33.272	22.310	1.00	33.19
ATOM	3393	CD	LYS	B	633	44.524	32.424	22.662	1.00	33.59
ATOM	3394	CE	LYS	B	633	45.416	33.167	23.643	1.00	33.78
ATOM	3395	NZ	LYS	B	633	45.749	34.527	23.130	1.00	34.10
ATOM	3396	C	LYS	B	633	40.709	32.888	19.499	1.00	24.23
ATOM	3397	O	LYS	B	633	41.243	31.935	18.928	1.00	24.88
ATOM	3398	N	ILE	B	634	39.565	33.411	19.079	1.00	22.51
ATOM	3399	CA	ILE	B	634	38.911	32.861	17.907	1.00	20.76
ATOM	3400	CB	ILE	B	634	37.376	32.982	18.036	1.00	22.93
ATOM	3401	CG2	ILE	B	634	36.694	32.531	16.750	1.00	23.15
ATOM	3402	CG1	ILE	B	634	36.907	32.122	19.218	1.00	22.60
ATOM	3403	CD1	ILE	B	634	35.410	32.116	19.444	1.00	24.49
ATOM	3404	C	ILE	B	634	39.424	33.612	16.680	1.00	21.02
ATOM	3405	O	ILE	B	634	39.394	33.109	15.559	1.00	21.18
ATOM	3406	N	GLN	B	635	39.920	34.821	16.911	1.00	20.73
ATOM	3407	CA	GLN	B	635	40.453	35.656	15.848	1.00	21.87
ATOM	3408	CB	GLN	B	635	41.023	36.933	16.464	1.00	28.05
ATOM	3409	CG	GLN	B	635	41.703	37.868	15.503	1.00	29.39
ATOM	3410	CD	GLN	B	635	42.362	39.034	16.217	1.00	27.87
ATOM	3411	OE1	GLN	B	635	43.020	39.856	15.596	1.00	29.76
ATOM	3412	NE2	GLN	B	635	42.178	39.110	17.532	1.00	27.16
ATOM	3413	C	GLN	B	635	41.543	34.904	15.089	1.00	22.14
ATOM	3414	O	GLN	B	635	41.600	34.934	13.858	1.00	21.83
ATOM	3415	N	ASN	B	636	42.387	34.224	15.854	1.00	23.53
ATOM	3416	CA	ASN	B	636	43.504	33.447	15.335	1.00	24.32
ATOM	3417	CB	ASN	B	636	44.216	32.735	16.486	1.00	22.54
ATOM	3418	CG	ASN	B	636	44.607	33.675	17.606	1.00	22.42
ATOM	3419	OD1	ASN	B	636	45.788	33.821	17.921	1.00	23.23
ATOM	3420	ND2	ASN	B	636	43.620	34.307	18.221	1.00	21.19
ATOM	3421	C	ASN	B	636	43.089	32.390	14.325	1.00	24.28
ATOM	3422	O	ASN	B	636	43.868	32.022	13.443	1.00	24.97
ATOM	3423	N	LYS	B	637	41.864	31.899	14.463	1.00	22.71
ATOM	3424	CA	LYS	B	637	41.355	30.842	13.597	1.00	22.76
ATOM	3425	CB	LYS	B	637	40.417	29.948	14.409	1.00	25.00
ATOM	3426	CG	LYS	B	637	41.028	29.410	15.688	1.00	25.88
ATOM	3427	CD	LYS	B	637	39.983	28.674	16.515	1.00	24.87
ATOM	3428	CE	LYS	B	637	40.570	28.186	17.820	1.00	26.38
ATOM	3429	NZ	LYS	B	637	41.716	27.261	17.598	1.00	26.67
ATOM	3430	C	LYS	B	637	40.630	31.305	12.341	1.00	22.83
ATOM	3431	O	LYS	B	637	40.289	30.488	11.483	1.00	22.28
ATOM	3432	N	LEU	B	638	40.407	32.610	12.218	1.00	21.88
ATOM	3433	CA	LEU	B	638	39.669	33.131	11.081	1.00	22.21
ATOM	3434	CB	LEU	B	638	38.421	33.855	11.601	1.00	18.60
ATOM	3435	CG	LEU	B	638	37.598	33.093	12.650	1.00	20.22
ATOM	3436	CD1	LEU	B	638	36.507	34.001	13.212	1.00	18.99
ATOM	3437	CD2	LEU	B	638	36.985	31.847	12.035	1.00	19.54
ATOM	3438	C	LEU	B	638	40.447	34.061	10.160	1.00	21.99
ATOM	3439	O	LEU	B	638	41.531	34.549	10.502	1.00	21.62
ATOM	3440	N	THR	B	639	39.878	34.299	8.982	1.00	19.43
ATOM	3441	CA	THR	B	639	40.474	35.188	7.998	1.00	20.58
ATOM	3442	CB	THR	B	639	39.900	34.937	6.593	1.00	24.74
ATOM	3443	OG1	THR	B	639	38.501	35.257	6.581	1.00	23.76
ATOM	3444	CG2	THR	B	639	40.075	33.472	6.195	1.00	24.89
ATOM	3445	C	THR	B	639	40.110	36.609	8.413	1.00	20.43
ATOM	3446	O	THR	B	639	39.185	36.802	9.203	1.00	20.14
ATOM	3447	N	ASP	B	640	40.828	37.594	7.884	1.00	22.11
ATOM	3448	CA	ASP	B	640	40.550	38.989	8.195	1.00	21.37
ATOM	3449	CB	ASP	B	640	41.576	39.908	7.528	1.00	24.51
ATOM	3450	CG	ASP	B	640	42.964	39.763	8.119	1.00	24.64
ATOM	3451	OD1	ASP	B	640	43.900	40.381	7.575	1.00	23.86

ATOM	3452	OD2	ASP	B	640	43.118	39.040	9.124	1.00	24.36
ATOM	3453	C	ASP	B	640	39.150	39.360	7.718	1.00	22.46
ATOM	3454	O	ASP	B	640	38.440	40.094	8.398	1.00	21.08
ATOM	3455	N	LEU	B	641	38.761	38.850	6.549	1.00	22.62
ATOM	3456	CA	LEU	B	641	37.436	39.127	5.988	1.00	22.81
ATOM	3457	CB	LEU	B	641	37.312	38.504	4.594	1.00	24.97
ATOM	3458	CG	LEU	B	641	37.449	39.409	3.365	1.00	27.28
ATOM	3459	CD1	LEU	B	641	38.476	40.500	3.601	1.00	25.76
ATOM	3460	CD2	LEU	B	641	37.793	38.557	2.152	1.00	25.23
ATOM	3461	C	LEU	B	641	36.338	38.574	6.888	1.00	22.25
ATOM	3462	O	LEU	B	641	35.295	39.204	7.086	1.00	21.31
ATOM	3463	N	GLU	B	642	36.561	37.379	7.417	1.00	20.49
ATOM	3464	CA	GLU	B	642	35.588	36.765	8.301	1.00	20.51
ATOM	3465	CB	GLU	B	642	36.005	35.327	8.615	1.00	24.37
ATOM	3466	CG	GLU	B	642	35.704	34.391	7.460	1.00	24.67
ATOM	3467	CD	GLU	B	642	36.405	33.053	7.574	1.00	24.64
ATOM	3468	OE1	GLU	B	642	36.092	32.159	6.760	1.00	27.01
ATOM	3469	OE2	GLU	B	642	37.267	32.893	8.461	1.00	24.86
ATOM	3470	C	GLU	B	642	35.427	37.579	9.581	1.00	20.92
ATOM	3471	O	GLU	B	642	34.309	37.764	10.069	1.00	20.75
ATOM	3472	N	ILE	B	643	36.542	38.076	10.108	1.00	21.11
ATOM	3473	CA	ILE	B	643	36.529	38.880	11.325	1.00	19.45
ATOM	3474	CB	ILE	B	643	37.973	39.195	11.771	1.00	22.34
ATOM	3475	CG2	ILE	B	643	37.970	40.210	12.912	1.00	21.69
ATOM	3476	CG1	ILE	B	643	38.652	37.895	12.217	1.00	20.78
ATOM	3477	CD1	ILE	B	643	40.165	37.993	12.357	1.00	22.35
ATOM	3478	C	ILE	B	643	35.762	40.177	11.055	1.00	19.94
ATOM	3479	O	ILE	B	643	34.921	40.598	11.858	1.00	19.49
ATOM	3480	N	LEU	B	644	36.044	40.790	9.911	1.00	19.97
ATOM	3481	CA	LEU	B	644	35.385	42.027	9.502	1.00	19.99
ATOM	3482	CB	LEU	B	644	35.926	42.466	8.135	1.00	21.41
ATOM	3483	CG	LEU	B	644	35.277	43.650	7.415	1.00	21.06
ATOM	3484	CD1	LEU	B	644	35.449	44.915	8.234	1.00	22.38
ATOM	3485	CD2	LEU	B	644	35.921	43.809	6.042	1.00	21.65
ATOM	3486	C	LEU	B	644	33.877	41.817	9.409	1.00	21.45
ATOM	3487	O	LEU	B	644	33.093	42.583	9.970	1.00	18.41
ATOM	3488	N	ALA	B	645	33.485	40.770	8.691	1.00	19.49
ATOM	3489	CA	ALA	B	645	32.076	40.444	8.499	1.00	20.21
ATOM	3490	CB	ALA	B	645	31.940	39.266	7.539	1.00	18.61
ATOM	3491	C	ALA	B	645	31.371	40.125	9.806	1.00	20.78
ATOM	3492	O	ALA	B	645	30.229	40.535	10.009	1.00	19.80
ATOM	3493	N	LEU	B	646	32.047	39.395	10.688	1.00	17.92
ATOM	3494	CA	LEU	B	646	31.455	39.028	11.968	1.00	18.51
ATOM	3495	CB	LEU	B	646	32.381	38.084	12.735	1.00	21.14
ATOM	3496	CG	LEU	B	646	32.393	36.631	12.250	1.00	19.75
ATOM	3497	CD1	LEU	B	646	33.560	35.903	12.894	1.00	20.35
ATOM	3498	CD2	LEU	B	646	31.077	35.951	12.587	1.00	20.12
ATOM	3499	C	LEU	B	646	31.138	40.241	12.837	1.00	17.72
ATOM	3500	O	LEU	B	646	30.075	40.304	13.460	1.00	18.91
ATOM	3501	N	LEU	B	647	32.054	41.202	12.893	1.00	18.38
ATOM	3502	CA	LEU	B	647	31.815	42.387	13.710	1.00	18.99
ATOM	3503	CB	LEU	B	647	33.074	43.255	13.800	1.00	16.80
ATOM	3504	CG	LEU	B	647	32.940	44.461	14.734	1.00	18.47
ATOM	3505	CD1	LEU	B	647	32.637	43.978	16.146	1.00	18.48
ATOM	3506	CD2	LEU	B	647	34.221	45.278	14.707	1.00	18.50
ATOM	3507	C	LEU	B	647	30.666	43.201	13.128	1.00	18.90
ATOM	3508	O	LEU	B	647	29.776	43.646	13.861	1.00	18.98
ATOM	3509	N	ILE	B	648	30.689	43.399	11.813	1.00	18.80
ATOM	3510	CA	ILE	B	648	29.633	44.146	11.134	1.00	17.53
ATOM	3511	CB	ILE	B	648	29.948	44.298	9.620	1.00	17.43
ATOM	3512	CG2	ILE	B	648	28.747	44.886	8.884	1.00	16.56
ATOM	3513	CG1	ILE	B	648	31.189	45.181	9.439	1.00	16.47
ATOM	3514	CD1	ILE	B	648	31.622	45.377	7.987	1.00	16.64
ATOM	3515	C	ILE	B	648	28.303	43.405	11.322	1.00	19.67
ATOM	3516	O	ILE	B	648	27.268	44.020	11.608	1.00	19.92
ATOM	3517	N	ALA	B	649	28.327	42.084	11.170	1.00	17.14

ATOM	3518	CA	ALA	B	649	27.105	41.297	11.335	1.00	19.06
ATOM	3519	CB	ALA	B	649	27.353	39.830	10.964	1.00	15.65
ATOM	3520	C	ALA	B	649	26.562	41.381	12.753	1.00	17.80
ATOM	3521	O	ALA	B	649	25.360	41.559	12.957	1.00	16.89
ATOM	3522	N	ALA	B	650	27.442	41.245	13.738	1.00	17.06
ATOM	3523	CA	ALA	B	650	27.016	41.316	15.128	1.00	16.09
ATOM	3524	CB	ALA	B	650	28.219	41.166	16.056	1.00	20.12
ATOM	3525	C	ALA	B	650	26.299	42.641	15.406	1.00	17.22
ATOM	3526	O	ALA	B	650	25.239	42.660	16.031	1.00	18.13
ATOM	3527	N	LEU	B	651	26.875	43.739	14.935	1.00	18.31
ATOM	3528	CA	LEU	B	651	26.295	45.065	15.145	1.00	18.19
ATOM	3529	CB	LEU	B	651	27.302	46.143	14.744	1.00	17.38
ATOM	3530	CG	LEU	B	651	28.532	46.318	15.633	1.00	17.82
ATOM	3531	CD1	LEU	B	651	29.580	47.146	14.917	1.00	17.72
ATOM	3532	CD2	LEU	B	651	28.108	46.993	16.939	1.00	16.75
ATOM	3533	C	LEU	B	651	25.010	45.305	14.363	1.00	19.12
ATOM	3534	O	LEU	B	651	24.145	46.073	14.792	1.00	19.03
ATOM	3535	N	SER	B	652	24.879	44.644	13.218	1.00	16.50
ATOM	3536	CA	SER	B	652	23.717	44.861	12.361	1.00	15.50
ATOM	3537	CB	SER	B	652	24.165	45.025	10.902	1.00	19.61
ATOM	3538	OG	SER	B	652	25.258	45.908	10.760	1.00	18.90
ATOM	3539	C	SER	B	652	22.667	43.764	12.374	1.00	17.20
ATOM	3540	O	SER	B	652	21.616	43.932	11.770	1.00	16.98
ATOM	3541	N	HIS	B	653	22.922	42.664	13.073	1.00	19.06
ATOM	3542	CA	HIS	B	653	22.001	41.533	12.998	1.00	19.69
ATOM	3543	CB	HIS	B	653	22.594	40.312	13.697	1.00	17.94
ATOM	3544	CG	HIS	B	653	22.332	40.270	15.165	1.00	17.54
ATOM	3545	CD2	HIS	B	653	21.396	39.612	15.888	1.00	16.38
ATOM	3546	ND1	HIS	B	653	23.064	41.010	16.066	1.00	17.02
ATOM	3547	CE1	HIS	B	653	22.592	40.809	17.282	1.00	14.84
ATOM	3548	NE2	HIS	B	653	21.582	39.965	17.202	1.00	19.75
ATOM	3549	C	HIS	B	653	20.548	41.689	13.430	1.00	20.16
ATOM	3550	O	HIS	B	653	19.734	40.833	13.106	1.00	18.45
ATOM	3551	N	ASP	B	654	20.206	42.762	14.143	1.00	15.51
ATOM	3552	CA	ASP	B	654	18.808	42.945	14.562	1.00	15.82
ATOM	3553	CB	ASP	B	654	18.680	42.848	16.082	1.00	17.70
ATOM	3554	CG	ASP	B	654	18.401	41.444	16.565	1.00	16.46
ATOM	3555	OD1	ASP	B	654	17.724	40.681	15.845	1.00	17.13
ATOM	3556	OD2	ASP	B	654	18.826	41.109	17.689	1.00	16.53
ATOM	3557	C	ASP	B	654	18.246	44.300	14.120	1.00	15.98
ATOM	3558	O	ASP	B	654	17.249	44.775	14.679	1.00	16.02
ATOM	3559	N	LEU	B	655	18.875	44.903	13.113	1.00	14.12
ATOM	3560	CA	LEU	B	655	18.474	46.212	12.585	1.00	16.45
ATOM	3561	CB	LEU	B	655	19.191	46.465	11.253	1.00	22.99
ATOM	3562	CG	LEU	B	655	20.250	47.557	11.043	1.00	25.93
ATOM	3563	CD1	LEU	B	655	20.660	48.211	12.341	1.00	24.18
ATOM	3564	CD2	LEU	B	655	21.435	46.946	10.315	1.00	23.72
ATOM	3565	C	LEU	B	655	16.968	46.355	12.374	1.00	15.99
ATOM	3566	O	LEU	B	655	16.332	45.488	11.777	1.00	16.81
ATOM	3567	N	ASP	B	656	16.403	47.452	12.877	1.00	18.46
ATOM	3568	CA	ASP	B	656	14.975	47.741	12.723	1.00	18.67
ATOM	3569	CB	ASP	B	656	14.676	48.025	11.243	1.00	19.71
ATOM	3570	CG	ASP	B	656	13.318	48.677	11.028	1.00	21.79
ATOM	3571	OD1	ASP	B	656	12.968	49.591	11.803	1.00	19.47
ATOM	3572	OD2	ASP	B	656	12.612	48.282	10.075	1.00	21.77
ATOM	3573	C	ASP	B	656	14.046	46.647	13.244	1.00	19.00
ATOM	3574	O	ASP	B	656	12.965	46.434	12.697	1.00	18.21
ATOM	3575	N	HIS	B	657	14.460	45.952	14.298	1.00	17.23
ATOM	3576	CA	HIS	B	657	13.631	44.899	14.864	1.00	16.33
ATOM	3577	CB	HIS	B	657	14.377	44.174	15.983	1.00	19.47
ATOM	3578	CG	HIS	B	657	13.705	42.915	16.419	1.00	18.64
ATOM	3579	CD2	HIS	B	657	12.475	42.701	16.941	1.00	17.65
ATOM	3580	ND1	HIS	B	657	14.300	41.673	16.318	1.00	19.33
ATOM	3581	CE1	HIS	B	657	13.467	40.752	16.763	1.00	16.32
ATOM	3582	NE2	HIS	B	657	12.352	41.349	17.147	1.00	20.76
ATOM	3583	C	HIS	B	657	12.352	45.546	15.409	1.00	17.90

ATOM	3584	O	HIS	B	657	12.419	46.529	16.151	1.00	17.75
ATOM	3585	N	PRO	B	658	11.176	45.011	15.034	1.00	19.30
ATOM	3586	CD	PRO	B	658	11.026	43.936	14.032	1.00	15.12
ATOM	3587	CA	PRO	B	658	9.863	45.519	15.463	1.00	20.23
ATOM	3588	CB	PRO	B	658	8.922	44.970	14.398	1.00	15.90
ATOM	3589	CG	PRO	B	658	9.539	43.612	14.093	1.00	14.22
ATOM	3590	C	PRO	B	658	9.422	45.146	16.877	1.00	19.73
ATOM	3591	O	PRO	B	658	8.411	45.650	17.371	1.00	20.21
ATOM	3592	N	GLY	B	659	10.160	44.258	17.530	1.00	20.02
ATOM	3593	CA	GLY	B	659	9.800	43.886	18.884	1.00	20.59
ATOM	3594	C	GLY	B	659	8.794	42.760	18.918	1.00	20.21
ATOM	3595	O	GLY	B	659	8.194	42.491	19.954	1.00	21.72
ATOM	3596	N	VAL	B	660	8.589	42.117	17.772	1.00	20.05
ATOM	3597	CA	VAL	B	660	7.685	40.980	17.675	1.00	19.03
ATOM	3598	CB	VAL	B	660	6.353	41.336	16.963	1.00	22.30
ATOM	3599	CG1	VAL	B	660	5.551	42.293	17.825	1.00	23.15
ATOM	3600	CG2	VAL	B	660	6.623	41.946	15.599	1.00	22.17
ATOM	3601	C	VAL	B	660	8.432	39.915	16.882	1.00	20.57
ATOM	3602	O	VAL	B	660	9.340	40.233	16.115	1.00	20.96
ATOM	3603	N	SER	B	661	8.043	38.660	17.068	1.00	18.27
ATOM	3604	CA	SER	B	661	8.707	37.525	16.413	1.00	19.30
ATOM	3605	CB	SER	B	661	8.450	36.256	17.217	1.00	23.22
ATOM	3606	OG	SER	B	661	7.108	35.823	17.058	1.00	22.03
ATOM	3607	C	SER	B	661	8.337	37.237	14.961	1.00	19.20
ATOM	3608	O	SER	B	661	7.410	37.814	14.402	1.00	16.38
ATOM	3609	N	ASN	B	662	9.080	36.311	14.360	1.00	18.48
ATOM	3610	CA	ASN	B	662	8.810	35.905	12.989	1.00	17.98
ATOM	3611	CB	ASN	B	662	9.832	34.868	12.521	1.00	19.15
ATOM	3612	CG	ASN	B	662	11.117	35.491	12.060	1.00	20.55
ATOM	3613	OD1	ASN	B	662	11.113	36.584	11.504	1.00	18.07
ATOM	3614	ND2	ASN	B	662	12.229	34.788	12.263	1.00	19.60
ATOM	3615	C	ASN	B	662	7.428	35.275	12.943	1.00	18.27
ATOM	3616	O	ASN	B	662	6.651	35.512	12.020	1.00	19.29
ATOM	3617	N	GLN	B	663	7.129	34.463	13.952	1.00	19.10
ATOM	3618	CA	GLN	B	663	5.845	33.793	14.020	1.00	19.98
ATOM	3619	CB	GLN	B	663	5.763	32.909	15.267	1.00	47.82
ATOM	3620	CG	GLN	B	663	6.544	31.609	15.160	1.00	48.95
ATOM	3621	CD	GLN	B	663	8.056	31.793	15.228	1.00	49.43
ATOM	3622	OE1	GLN	B	663	8.814	30.853	14.978	1.00	49.36
ATOM	3623	NE2	GLN	B	663	8.499	32.997	15.576	1.00	48.96
ATOM	3624	C	GLN	B	663	4.708	34.798	14.029	1.00	19.45
ATOM	3625	O	GLN	B	663	3.701	34.609	13.352	1.00	19.22
ATOM	3626	N	PHE	B	664	4.883	35.869	14.795	1.00	17.76
ATOM	3627	CA	PHE	B	664	3.866	36.909	14.888	1.00	18.71
ATOM	3628	CB	PHE	B	664	4.266	37.946	15.938	1.00	20.58
ATOM	3629	CG	PHE	B	664	3.280	39.077	16.084	1.00	20.67
ATOM	3630	CD1	PHE	B	664	3.340	40.185	15.243	1.00	20.97
ATOM	3631	CD2	PHE	B	664	2.291	39.031	17.064	1.00	20.35
ATOM	3632	CE1	PHE	B	664	2.428	41.232	15.377	1.00	20.58
ATOM	3633	CE2	PHE	B	664	1.377	40.074	17.203	1.00	21.94
ATOM	3634	CZ	PHE	B	664	1.448	41.174	16.357	1.00	21.03
ATOM	3635	C	PHE	B	664	3.691	37.571	13.525	1.00	17.64
ATOM	3636	O	PHE	B	664	2.574	37.781	13.071	1.00	17.39
ATOM	3637	N	LEU	B	665	4.801	37.883	12.865	1.00	18.84
ATOM	3638	CA	LEU	B	665	4.734	38.504	11.552	1.00	20.08
ATOM	3639	CB	LEU	B	665	6.146	38.866	11.078	1.00	18.16
ATOM	3640	CG	LEU	B	665	6.834	39.975	11.886	1.00	19.07
ATOM	3641	CD1	LEU	B	665	8.288	40.092	11.490	1.00	19.47
ATOM	3642	CD2	LEU	B	665	6.119	41.289	11.654	1.00	18.80
ATOM	3643	C	LEU	B	665	4.039	37.582	10.540	1.00	20.00
ATOM	3644	O	LEU	B	665	3.350	38.044	9.627	1.00	21.88
ATOM	3645	N	ILE	B	666	4.222	36.276	10.700	1.00	18.71
ATOM	3646	CA	ILE	B	666	3.593	35.317	9.806	1.00	19.12
ATOM	3647	CB	ILE	B	666	4.239	33.920	9.951	1.00	22.08
ATOM	3648	CG2	ILE	B	666	3.423	32.879	9.199	1.00	21.74
ATOM	3649	CG1	ILE	B	666	5.674	33.967	9.421	1.00	21.76

ATOM	3650	CD1	ILE	B	666	6.456	32.684	9.619	1.00	21.29
ATOM	3651	C	ILE	B	666	2.104	35.218	10.119	1.00	18.58
ATOM	3652	O	ILE	B	666	1.274	35.193	9.211	1.00	20.21
ATOM	3653	N	ASN	B	667	1.773	35.183	11.408	1.00	21.92
ATOM	3654	CA	ASN	B	667	0.378	35.072	11.837	1.00	22.79
ATOM	3655	CB	ASN	B	667	0.295	34.756	13.334	1.00	23.85
ATOM	3656	CG	ASN	B	667	0.779	33.354	13.669	1.00	23.91
ATOM	3657	OD1	ASN	B	667	0.712	32.444	12.843	1.00	24.94
ATOM	3658	ND2	ASN	B	667	1.250	33.173	14.895	1.00	23.83
ATOM	3659	C	ASN	B	667	-0.472	36.305	11.544	1.00	23.14
ATOM	3660	O	ASN	B	667	-1.702	36.213	11.470	1.00	22.85
ATOM	3661	N	THR	B	668	0.169	37.459	11.392	1.00	24.81
ATOM	3662	CA	THR	B	668	-0.566	38.677	11.086	1.00	25.96
ATOM	3663	CB	THR	B	668	-0.019	39.894	11.882	1.00	21.17
ATOM	3664	OG1	THR	B	668	1.404	39.984	11.714	1.00	23.05
ATOM	3665	CG2	THR	B	668	-0.338	39.753	13.362	1.00	22.09
ATOM	3666	C	THR	B	668	-0.511	38.973	9.585	1.00	26.69
ATOM	3667	O	THR	B	668	-0.961	40.022	9.139	1.00	27.70
ATOM	3668	N	ASN	B	669	0.026	38.030	8.815	1.00	26.73
ATOM	3669	CA	ASN	B	669	0.138	38.169	7.362	1.00	27.16
ATOM	3670	CB	ASN	B	669	-1.255	38.135	6.726	1.00	36.60
ATOM	3671	CG	ASN	B	669	-1.940	36.796	6.906	1.00	36.71
ATOM	3672	OD1	ASN	B	669	-1.482	35.775	6.387	1.00	36.69
ATOM	3673	ND2	ASN	B	669	-3.039	36.789	7.650	1.00	37.50
ATOM	3674	C	ASN	B	669	0.867	39.453	6.978	1.00	27.24
ATOM	3675	O	ASN	B	669	0.440	40.195	6.088	1.00	26.93
ATOM	3676	N	SER	B	670	1.981	39.696	7.659	1.00	23.11
ATOM	3677	CA	SER	B	670	2.802	40.876	7.435	1.00	22.67
ATOM	3678	CB	SER	B	670	3.949	40.898	8.448	1.00	34.05
ATOM	3679	OG	SER	B	670	4.874	41.925	8.154	1.00	35.41
ATOM	3680	C	SER	B	670	3.382	40.916	6.028	1.00	22.16
ATOM	3681	O	SER	B	670	3.580	39.880	5.388	1.00	22.16
ATOM	3682	N	GLU	B	671	3.662	42.125	5.548	1.00	21.76
ATOM	3683	CA	GLU	B	671	4.236	42.279	4.225	1.00	21.00
ATOM	3684	CB	GLU	B	671	4.388	43.757	3.872	1.00	26.81
ATOM	3685	CG	GLU	B	671	4.799	43.990	2.433	1.00	26.53
ATOM	3686	CD	GLU	B	671	4.963	45.461	2.099	1.00	27.67
ATOM	3687	OE1	GLU	B	671	6.052	46.018	2.361	1.00	28.24
ATOM	3688	OE2	GLU	B	671	3.995	46.062	1.584	1.00	26.44
ATOM	3689	C	GLU	B	671	5.607	41.617	4.228	1.00	20.25
ATOM	3690	O	GLU	B	671	5.996	40.962	3.271	1.00	20.37
ATOM	3691	N	LEU	B	672	6.332	41.799	5.323	1.00	20.82
ATOM	3692	CA	LEU	B	672	7.664	41.222	5.476	1.00	21.28
ATOM	3693	CB	LEU	B	672	8.189	41.544	6.872	1.00	29.67
ATOM	3694	CG	LEU	B	672	9.522	42.279	7.026	1.00	30.73
ATOM	3695	CD1	LEU	B	672	9.670	43.391	6.003	1.00	30.03
ATOM	3696	CD2	LEU	B	672	9.588	42.833	8.438	1.00	30.18
ATOM	3697	C	LEU	B	672	7.610	39.711	5.277	1.00	21.18
ATOM	3698	O	LEU	B	672	8.470	39.121	4.620	1.00	20.85
ATOM	3699	N	ALA	B	673	6.585	39.084	5.844	1.00	21.74
ATOM	3700	CA	ALA	B	673	6.435	37.635	5.726	1.00	21.93
ATOM	3701	CB	ALA	B	673	5.285	37.150	6.607	1.00	19.72
ATOM	3702	C	ALA	B	673	6.202	37.211	4.282	1.00	22.57
ATOM	3703	O	ALA	B	673	6.723	36.189	3.839	1.00	21.41
ATOM	3704	N	LEU	B	674	5.410	37.987	3.548	1.00	20.77
ATOM	3705	CA	LEU	B	674	5.151	37.664	2.153	1.00	21.89
ATOM	3706	CB	LEU	B	674	4.078	38.586	1.572	1.00	30.80
ATOM	3707	CG	LEU	B	674	3.816	38.413	0.069	1.00	31.55
ATOM	3708	CD1	LEU	B	674	3.312	37.005	-0.217	1.00	31.01
ATOM	3709	CD2	LEU	B	674	2.799	39.449	-0.391	1.00	30.99
ATOM	3710	C	LEU	B	674	6.431	37.811	1.336	1.00	22.16
ATOM	3711	O	LEU	B	674	6.775	36.929	0.552	1.00	21.85
ATOM	3712	N	MET	B	675	7.132	38.922	1.536	1.00	23.84
ATOM	3713	CA	MET	B	675	8.366	39.192	0.809	1.00	25.40
ATOM	3714	CB	MET	B	675	8.979	40.513	1.278	1.00	42.14
ATOM	3715	CG	MET	B	675	8.153	41.746	0.946	1.00	42.93

ATOM	3716	SD	MET	B	675	8.869	43.254	1.635	1.00	43.64
ATOM	3717	CE	MET	B	675	10.093	43.646	0.397	1.00	43.26
ATOM	3718	C	MET	B	675	9.397	38.080	0.973	1.00	24.69
ATOM	3719	O	MET	B	675	10.072	37.706	0.010	1.00	25.28
ATOM	3720	N	TYR	B	676	9.514	37.546	2.186	1.00	22.91
ATOM	3721	CA	TYR	B	676	10.503	36.506	2.449	1.00	23.58
ATOM	3722	CB	TYR	B	676	11.316	36.899	3.687	1.00	22.54
ATOM	3723	CG	TYR	B	676	11.987	38.248	3.527	1.00	23.06
ATOM	3724	CD1	TYR	B	676	11.763	39.276	4.437	1.00	23.12
ATOM	3725	CE1	TYR	B	676	12.338	40.539	4.259	1.00	22.13
ATOM	3726	CD2	TYR	B	676	12.814	38.508	2.432	1.00	24.18
ATOM	3727	CE2	TYR	B	676	13.400	39.762	2.247	1.00	22.56
ATOM	3728	CZ	TYR	B	676	13.155	40.772	3.161	1.00	23.95
ATOM	3729	OH	TYR	B	676	13.719	42.015	2.974	1.00	23.51
ATOM	3730	C	TYR	B	676	9.973	35.074	2.578	1.00	22.94
ATOM	3731	O	TYR	B	676	10.640	34.204	3.144	1.00	23.18
ATOM	3732	N	ASN	B	677	8.781	34.840	2.034	1.00	23.86
ATOM	3733	CA	ASN	B	677	8.137	33.524	2.034	1.00	25.01
ATOM	3734	CB	ASN	B	677	8.760	32.633	0.948	1.00	56.05
ATOM	3735	CG	ASN	B	677	10.243	32.381	1.169	1.00	57.14
ATOM	3736	OD1	ASN	B	677	10.642	31.796	2.177	1.00	57.41
ATOM	3737	ND2	ASN	B	677	11.069	32.819	0.222	1.00	57.47
ATOM	3738	C	ASN	B	677	8.139	32.783	3.373	1.00	24.18
ATOM	3739	O	ASN	B	677	8.385	31.575	3.430	1.00	22.27
ATOM	3740	N	ASP	B	678	7.850	33.519	4.442	1.00	20.57
ATOM	3741	CA	ASP	B	678	7.783	32.970	5.794	1.00	20.56
ATOM	3742	CB	ASP	B	678	6.692	31.895	5.876	1.00	24.90
ATOM	3743	CG	ASP	B	678	5.310	32.442	5.609	1.00	26.44
ATOM	3744	OD1	ASP	B	678	5.139	33.676	5.661	1.00	24.56
ATOM	3745	OD2	ASP	B	678	4.386	31.632	5.359	1.00	26.91
ATOM	3746	C	ASP	B	678	9.074	32.390	6.358	1.00	19.72
ATOM	3747	O	ASP	B	678	9.067	31.843	7.464	1.00	21.82
ATOM	3748	N	GLU	B	679	10.175	32.513	5.625	1.00	18.31
ATOM	3749	CA	GLU	B	679	11.452	31.964	6.086	1.00	18.54
ATOM	3750	CB	GLU	B	679	12.148	31.211	4.955	1.00	42.65
ATOM	3751	CG	GLU	B	679	11.459	29.942	4.518	1.00	43.73
ATOM	3752	CD	GLU	B	679	12.276	29.188	3.492	1.00	44.02
ATOM	3753	OE1	GLU	B	679	12.480	29.723	2.381	1.00	44.05
ATOM	3754	OE2	GLU	B	679	12.723	28.066	3.803	1.00	44.29
ATOM	3755	C	GLU	B	679	12.407	33.021	6.611	1.00	18.73
ATOM	3756	O	GLU	B	679	12.768	33.939	5.875	1.00	19.73
ATOM	3757	N	SER	B	680	12.832	32.866	7.867	1.00	18.88
ATOM	3758	CA	SER	B	680	13.758	33.798	8.506	1.00	16.49
ATOM	3759	CB	SER	B	680	15.197	33.508	8.065	1.00	21.45
ATOM	3760	OG	SER	B	680	15.556	32.162	8.358	1.00	20.83
ATOM	3761	C	SER	B	680	13.383	35.226	8.127	1.00	16.21
ATOM	3762	O	SER	B	680	14.232	36.019	7.722	1.00	14.77
ATOM	3763	N	VAL	B	681	12.099	35.536	8.272	1.00	17.92
ATOM	3764	CA	VAL	B	681	11.558	36.838	7.904	1.00	16.01
ATOM	3765	CB	VAL	B	681	10.084	36.928	8.328	1.00	18.23
ATOM	3766	CG1	VAL	B	681	9.501	38.295	7.956	1.00	18.53
ATOM	3767	CG2	VAL	B	681	9.295	35.822	7.634	1.00	19.77
ATOM	3768	C	VAL	B	681	12.328	38.038	8.440	1.00	15.81
ATOM	3769	O	VAL	B	681	12.799	38.872	7.667	1.00	17.42
ATOM	3770	N	LEU	B	681A	12.449	38.120	9.761	1.00	15.91
ATOM	3771	CA	LEU	B	681A	13.164	39.216	10.410	1.00	17.15
ATOM	3772	CB	LEU	B	681A	13.094	39.055	11.925	1.00	20.96
ATOM	3773	CG	LEU	B	681A	11.729	39.310	12.559	1.00	24.02
ATOM	3774	CD1	LEU	B	681A	11.671	38.670	13.947	1.00	23.49
ATOM	3775	CD2	LEU	B	681A	11.500	40.805	12.619	1.00	23.37
ATOM	3776	C	LEU	B	681A	14.626	39.293	9.997	1.00	17.72
ATOM	3777	O	LEU	B	681A	15.151	40.367	9.733	1.00	16.37
ATOM	3778	N	GLU	B	682	15.281	38.141	9.936	1.00	16.35
ATOM	3779	CA	GLU	B	682	16.690	38.112	9.582	1.00	16.54
ATOM	3780	CB	GLU	B	682	17.226	36.693	9.797	1.00	17.48
ATOM	3781	CG	GLU	B	682	17.172	36.219	11.264	1.00	19.45

ATOM	3782	CD	GLU	B	682	15.765	35.939	11.783	1.00	17.96
ATOM	3783	OE1	GLU	B	682	14.873	35.587	10.975	1.00	16.02
ATOM	3784	OE2	GLU	B	682	15.553	36.043	13.015	1.00	18.67
ATOM	3785	C	GLU	B	682	16.957	38.616	8.162	1.00	16.65
ATOM	3786	O	GLU	B	682	17.956	39.307	7.908	1.00	17.06
ATOM	3787	N	HIS	B	683	16.068	38.286	7.233	1.00	16.83
ATOM	3788	CA	HIS	B	683	16.225	38.780	5.880	1.00	17.12
ATOM	3789	CB	HIS	B	683	15.193	38.144	4.953	1.00	21.77
ATOM	3790	CG	HIS	B	683	15.579	36.779	4.481	1.00	20.98
ATOM	3791	CD2	HIS	B	683	15.140	35.552	4.845	1.00	21.60
ATOM	3792	ND1	HIS	B	683	16.550	36.571	3.524	1.00	21.61
ATOM	3793	CE1	HIS	B	683	16.690	35.274	3.317	1.00	20.39
ATOM	3794	NE2	HIS	B	683	15.847	34.634	4.107	1.00	21.29
ATOM	3795	C	HIS	B	683	16.050	40.291	5.923	1.00	16.91
ATOM	3796	O	HIS	B	683	16.745	41.017	5.220	1.00	18.17
ATOM	3797	N	HIS	B	684	15.136	40.756	6.772	1.00	16.37
ATOM	3798	CA	HIS	B	684	14.900	42.194	6.906	1.00	18.67
ATOM	3799	CB	HIS	B	684	13.674	42.472	7.789	1.00	18.26
ATOM	3800	CG	HIS	B	684	13.376	43.934	7.962	1.00	19.15
ATOM	3801	CD2	HIS	B	684	13.327	44.714	9.068	1.00	20.53
ATOM	3802	ND1	HIS	B	684	13.124	44.769	6.896	1.00	20.23
ATOM	3803	CE1	HIS	B	684	12.939	46.002	7.336	1.00	19.60
ATOM	3804	NE2	HIS	B	684	13.056	45.996	8.650	1.00	19.94
ATOM	3805	C	HIS	B	684	16.131	42.858	7.516	1.00	18.24
ATOM	3806	O	HIS	B	684	16.556	43.927	7.066	1.00	19.27
ATOM	3807	N	HIS	B	685	16.706	42.228	8.537	1.00	18.19
ATOM	3808	CA	HIS	B	685	17.890	42.797	9.180	1.00	17.28
ATOM	3809	CB	HIS	B	685	18.349	41.957	10.376	1.00	17.43
ATOM	3810	CG	HIS	B	685	17.301	41.751	11.425	1.00	18.40
ATOM	3811	CD2	HIS	B	685	16.971	40.654	12.148	1.00	18.57
ATOM	3812	ND1	HIS	B	685	16.479	42.765	11.871	1.00	17.46
ATOM	3813	CE1	HIS	B	685	15.689	42.299	12.823	1.00	17.20
ATOM	3814	NE2	HIS	B	685	15.967	41.022	13.011	1.00	17.24
ATOM	3815	C	HIS	B	685	19.028	42.908	8.175	1.00	18.93
ATOM	3816	O	HIS	B	685	19.725	43.919	8.140	1.00	16.49
ATOM	3817	N	PHE	B	686	19.227	41.870	7.363	1.00	18.43
ATOM	3818	CA	PHE	B	686	20.289	41.922	6.363	1.00	19.77
ATOM	3819	CB	PHE	B	686	20.430	40.587	5.625	1.00	22.01
ATOM	3820	CG	PHE	B	686	21.424	40.635	4.501	1.00	22.74
ATOM	3821	CD1	PHE	B	686	22.771	40.879	4.757	1.00	22.40
ATOM	3822	CD2	PHE	B	686	21.008	40.509	3.185	1.00	22.19
ATOM	3823	CE1	PHE	B	686	23.689	41.003	3.714	1.00	22.33
ATOM	3824	CE2	PHE	B	686	21.915	40.631	2.139	1.00	23.22
ATOM	3825	CZ	PHE	B	686	23.259	40.882	2.406	1.00	22.45
ATOM	3826	C	PHE	B	686	20.017	43.025	5.345	1.00	19.33
ATOM	3827	O	PHE	B	686	20.924	43.747	4.938	1.00	19.34
ATOM	3828	N	ASP	B	687	18.762	43.149	4.927	1.00	20.18
ATOM	3829	CA	ASP	B	687	18.390	44.175	3.974	1.00	21.34
ATOM	3830	CB	ASP	B	687	16.886	44.130	3.728	1.00	29.63
ATOM	3831	CG	ASP	B	687	16.421	45.207	2.777	1.00	30.70
ATOM	3832	OD1	ASP	B	687	16.880	45.210	1.616	1.00	31.13
ATOM	3833	OD2	ASP	B	687	15.602	46.053	3.194	1.00	32.12
ATOM	3834	C	ASP	B	687	18.789	45.539	4.526	1.00	20.19
ATOM	3835	O	ASP	B	687	19.402	46.344	3.826	1.00	20.58
ATOM	3836	N	GLN	B	688	18.447	45.779	5.790	1.00	19.31
ATOM	3837	CA	GLN	B	688	18.773	47.044	6.447	1.00	20.14
ATOM	3838	CB	GLN	B	688	18.145	47.090	7.842	1.00	25.17
ATOM	3839	CG	GLN	B	688	16.621	47.113	7.823	1.00	26.26
ATOM	3840	CD	GLN	B	688	16.074	48.399	7.241	1.00	26.81
ATOM	3841	OE1	GLN	B	688	16.218	49.471	7.835	1.00	28.04
ATOM	3842	NE2	GLN	B	688	15.456	48.306	6.071	1.00	26.91
ATOM	3843	C	GLN	B	688	20.282	47.246	6.549	1.00	20.35
ATOM	3844	O	GLN	B	688	20.777	48.366	6.389	1.00	19.51
ATOM	3845	N	CYS	B	689	21.003	46.159	6.811	1.00	19.79
ATOM	3846	CA	CYS	B	689	22.457	46.199	6.924	1.00	20.08
ATOM	3847	CB	CYS	B	689	22.984	44.803	7.271	1.00	19.48

ATOM	3848	SG	CYS	B	689	24.795	44.663	7.336	1.00	17.52
ATOM	3849	C	CYS	B	689	23.085	46.679	5.617	1.00	19.76
ATOM	3850	O	CYS	B	689	23.949	47.563	5.605	1.00	19.63
ATOM	3851	N	LEU	B	690	22.655	46.072	4.517	1.00	19.56
ATOM	3852	CA	LEU	B	690	23.147	46.417	3.192	1.00	20.27
ATOM	3853	CB	LEU	B	690	22.516	45.489	2.154	1.00	27.59
ATOM	3854	CG	LEU	B	690	23.083	45.572	0.739	1.00	27.68
ATOM	3855	CD1	LEU	B	690	24.542	45.123	0.746	1.00	28.21
ATOM	3856	CD2	LEU	B	690	22.257	44.692	-0.183	1.00	28.78
ATOM	3857	C	LEU	B	690	22.795	47.867	2.872	1.00	20.36
ATOM	3858	O	LEU	B	690	23.607	48.606	2.332	1.00	21.09
ATOM	3859	N	MET	B	691	21.571	48.264	3.206	1.00	21.14
ATOM	3860	CA	MET	B	691	21.120	49.630	2.961	1.00	22.00
ATOM	3861	CB	MET	B	691	19.730	49.839	3.568	1.00	37.31
ATOM	3862	CG	MET	B	691	19.151	51.226	3.340	1.00	37.86
ATOM	3863	SD	MET	B	691	17.539	51.412	4.127	1.00	38.97
ATOM	3864	CE	MET	B	691	18.030	51.835	5.809	1.00	38.00
ATOM	3865	C	MET	B	691	22.109	50.629	3.572	1.00	22.35
ATOM	3866	O	MET	B	691	22.552	51.559	2.902	1.00	22.19
ATOM	3867	N	ILE	B	692	22.455	50.420	4.839	1.00	21.40
ATOM	3868	CA	ILE	B	692	23.385	51.308	5.534	1.00	21.97
ATOM	3869	CB	ILE	B	692	23.522	50.930	7.029	1.00	25.90
ATOM	3870	CG2	ILE	B	692	24.515	51.866	7.710	1.00	24.75
ATOM	3871	CG1	ILE	B	692	22.159	51.011	7.727	1.00	26.02
ATOM	3872	CD1	ILE	B	692	21.569	52.395	7.770	1.00	26.52
ATOM	3873	C	ILE	B	692	24.775	51.286	4.899	1.00	22.83
ATOM	3874	O	ILE	B	692	25.391	52.332	4.704	1.00	21.06
ATOM	3875	N	LEU	B	693	25.261	50.092	4.566	1.00	21.77
ATOM	3876	CA	LEU	B	693	26.581	49.951	3.951	1.00	23.08
ATOM	3877	CB	LEU	B	693	26.940	48.468	3.787	1.00	21.71
ATOM	3878	CG	LEU	B	693	27.301	47.701	5.060	1.00	21.98
ATOM	3879	CD1	LEU	B	693	27.277	46.218	4.784	1.00	22.22
ATOM	3880	CD2	LEU	B	693	28.677	48.144	5.553	1.00	22.27
ATOM	3881	C	LEU	B	693	26.664	50.635	2.595	1.00	23.02
ATOM	3882	O	LEU	B	693	27.752	51.009	2.153	1.00	24.07
ATOM	3883	N	ASN	B	694	25.519	50.794	1.934	1.00	24.41
ATOM	3884	CA	ASN	B	694	25.478	51.437	0.626	1.00	24.18
ATOM	3885	CB	ASN	B	694	24.448	50.760	-0.285	1.00	28.06
ATOM	3886	CG	ASN	B	694	24.886	49.387	-0.756	1.00	28.56
ATOM	3887	OD1	ASN	B	694	26.040	49.184	-1.122	1.00	29.03
ATOM	3888	ND2	ASN	B	694	23.953	48.439	-0.769	1.00	28.87
ATOM	3889	C	ASN	B	694	25.149	52.922	0.715	1.00	25.26
ATOM	3890	O	ASN	B	694	25.185	53.625	-0.295	1.00	25.49
ATOM	3891	N	SER	B	695	24.830	53.392	1.917	1.00	24.51
ATOM	3892	CA	SER	B	695	24.483	54.796	2.124	1.00	26.67
ATOM	3893	CB	SER	B	695	23.842	54.991	3.497	1.00	38.96
ATOM	3894	OG	SER	B	695	22.544	54.433	3.532	1.00	40.66
ATOM	3895	C	SER	B	695	25.679	55.724	1.999	1.00	26.23
ATOM	3896	O	SER	B	695	26.750	55.447	2.534	1.00	25.50
ATOM	3897	N	PRO	B	696	25.503	56.854	1.298	1.00	30.83
ATOM	3898	CD	PRO	B	696	24.242	57.397	0.766	1.00	35.10
ATOM	3899	CA	PRO	B	696	26.600	57.810	1.125	1.00	31.36
ATOM	3900	CB	PRO	B	696	25.936	58.959	0.362	1.00	35.40
ATOM	3901	CG	PRO	B	696	24.499	58.882	0.813	1.00	35.60
ATOM	3902	C	PRO	B	696	27.205	58.251	2.461	1.00	31.40
ATOM	3903	O	PRO	B	696	26.480	58.569	3.406	1.00	31.21
ATOM	3904	N	GLY	B	697	28.535	58.250	2.528	1.00	27.19
ATOM	3905	CA	GLY	B	697	29.227	58.653	3.741	1.00	26.21
ATOM	3906	C	GLY	B	697	29.268	57.587	4.821	1.00	25.99
ATOM	3907	O	GLY	B	697	29.813	57.811	5.901	1.00	25.64
ATOM	3908	N	ASN	B	698	28.698	56.422	4.532	1.00	25.20
ATOM	3909	CA	ASN	B	698	28.661	55.328	5.498	1.00	24.25
ATOM	3910	CB	ASN	B	698	27.215	54.970	5.867	1.00	26.49
ATOM	3911	CG	ASN	B	698	26.516	56.050	6.651	1.00	26.36
ATOM	3912	OD1	ASN	B	698	26.081	57.067	6.101	1.00	28.19
ATOM	3913	ND2	ASN	B	698	26.399	55.834	7.948	1.00	26.66

ATOM	3914	C	ASN	B	698	29.302	54.053	4.967	1.00	25.12
ATOM	3915	O	ASN	B	698	29.271	53.025	5.639	1.00	23.91
ATOM	3916	N	GLN	B	699	29.876	54.114	3.771	1.00	24.45
ATOM	3917	CA	GLN	B	699	30.456	52.923	3.146	1.00	24.83
ATOM	3918	CB	GLN	B	699	30.510	53.143	1.633	1.00	34.19
ATOM	3919	CG	GLN	B	699	29.191	53.687	1.093	1.00	34.82
ATOM	3920	CD	GLN	B	699	29.205	53.911	-0.399	1.00	35.20
ATOM	3921	OE1	GLN	B	699	29.346	52.971	-1.178	1.00	35.77
ATOM	3922	NE2	GLN	B	699	29.056	55.163	-0.808	1.00	35.33
ATOM	3923	C	GLN	B	699	31.819	52.493	3.683	1.00	23.99
ATOM	3924	O	GLN	B	699	32.860	52.768	3.083	1.00	25.36
ATOM	3925	N	ILE	B	700	31.791	51.794	4.814	1.00	20.88
ATOM	3926	CA	ILE	B	700	32.996	51.309	5.475	1.00	21.48
ATOM	3927	CB	ILE	B	700	32.696	50.857	6.919	1.00	24.53
ATOM	3928	CG2	ILE	B	700	32.254	52.056	7.759	1.00	24.80
ATOM	3929	CG1	ILE	B	700	31.623	49.765	6.917	1.00	24.49
ATOM	3930	CD1	ILE	B	700	31.415	49.110	8.268	1.00	24.76
ATOM	3931	C	ILE	B	700	33.674	50.154	4.740	1.00	20.59
ATOM	3932	O	ILE	B	700	34.754	49.717	5.141	1.00	22.27
ATOM	3933	N	LEU	B	701	33.051	49.665	3.669	1.00	23.58
ATOM	3934	CA	LEU	B	701	33.627	48.571	2.892	1.00	23.94
ATOM	3935	CB	LEU	B	701	32.609	47.433	2.711	1.00	22.71
ATOM	3936	CG	LEU	B	701	32.080	46.709	3.955	1.00	22.35
ATOM	3937	CD1	LEU	B	701	31.078	45.635	3.527	1.00	22.17
ATOM	3938	CD2	LEU	B	701	33.235	46.087	4.732	1.00	22.94
ATOM	3939	C	LEU	B	701	34.058	49.086	1.523	1.00	25.02
ATOM	3940	O	LEU	B	701	34.425	48.308	0.643	1.00	25.13
ATOM	3941	N	SER	B	702	34.020	50.404	1.354	1.00	28.81
ATOM	3942	CA	SER	B	702	34.383	51.035	0.087	1.00	30.23
ATOM	3943	CB	SER	B	702	34.177	52.549	0.174	1.00	36.19
ATOM	3944	OG	SER	B	702	35.139	53.137	1.032	1.00	36.39
ATOM	3945	C	SER	B	702	35.825	50.761	-0.323	1.00	30.61
ATOM	3946	O	SER	B	702	36.154	50.788	-1.511	1.00	30.09
ATOM	3947	N	GLY	B	703	36.680	50.504	0.661	1.00	30.88
ATOM	3948	CA	GLY	B	703	38.083	50.258	0.379	1.00	30.78
ATOM	3949	C	GLY	B	703	38.446	48.843	-0.029	1.00	31.56
ATOM	3950	O	GLY	B	703	39.570	48.595	-0.461	1.00	31.02
ATOM	3951	N	LEU	B	704	37.506	47.914	0.109	1.00	27.62
ATOM	3952	CA	LEU	B	704	37.748	46.522	-0.252	1.00	28.14
ATOM	3953	CB	LEU	B	704	36.638	45.628	0.312	1.00	24.97
ATOM	3954	CG	LEU	B	704	36.734	45.205	1.775	1.00	25.06
ATOM	3955	CD1	LEU	B	704	35.542	44.349	2.161	1.00	25.71
ATOM	3956	CD2	LEU	B	704	38.002	44.413	1.965	1.00	26.03
ATOM	3957	C	LEU	B	704	37.834	46.306	-1.760	1.00	27.32
ATOM	3958	O	LEU	B	704	37.211	47.026	-2.537	1.00	27.75
ATOM	3959	N	SER	B	705	38.610	45.305	-2.164	1.00	25.03
ATOM	3960	CA	SER	B	705	38.740	44.982	-3.576	1.00	25.33
ATOM	3961	CB	SER	B	705	39.909	44.019	-3.807	1.00	22.63
ATOM	3962	OG	SER	B	705	39.647	42.746	-3.249	1.00	22.15
ATOM	3963	C	SER	B	705	37.428	44.308	-3.952	1.00	25.55
ATOM	3964	O	SER	B	705	36.645	43.950	-3.073	1.00	25.89
ATOM	3965	N	ILE	B	706	37.190	44.134	-5.248	1.00	28.89
ATOM	3966	CA	ILE	B	706	35.960	43.503	-5.712	1.00	30.40
ATOM	3967	CB	ILE	B	706	35.967	43.351	-7.249	1.00	38.06
ATOM	3968	CG2	ILE	B	706	34.756	42.548	-7.701	1.00	38.45
ATOM	3969	CG1	ILE	B	706	35.984	44.737	-7.900	1.00	38.67
ATOM	3970	CD1	ILE	B	706	36.141	44.717	-9.410	1.00	38.81
ATOM	3971	C	ILE	B	706	35.735	42.134	-5.070	1.00	29.62
ATOM	3972	O	ILE	B	706	34.697	41.897	-4.452	1.00	29.75
ATOM	3973	N	GLU	B	707	36.704	41.234	-5.210	1.00	26.84
ATOM	3974	CA	GLU	B	707	36.579	39.900	-4.631	1.00	26.37
ATOM	3975	CB	GLU	B	707	37.811	39.056	-4.958	1.00	46.28
ATOM	3976	CG	GLU	B	707	37.665	38.188	-6.198	1.00	47.22
ATOM	3977	CD	GLU	B	707	36.441	37.287	-6.135	1.00	47.50
ATOM	3978	OE1	GLU	B	707	35.368	37.699	-6.626	1.00	47.38
ATOM	3979	OE2	GLU	B	707	36.548	36.171	-5.581	1.00	47.48

ATOM	3980	C	GLU	B	707	36.372	39.927	-3.121	1.00	25.62
ATOM	3981	O	GLU	B	707	35.505	39.227	-2.591	1.00	24.84
ATOM	3982	N	GLU	B	708	37.175	40.723	-2.419	1.00	24.00
ATOM	3983	CA	GLU	B	708	37.031	40.803	-0.974	1.00	22.95
ATOM	3984	CB	GLU	B	708	38.126	41.683	-0.365	1.00	34.88
ATOM	3985	CG	GLU	B	708	39.451	40.952	-0.225	1.00	34.89
ATOM	3986	CD	GLU	B	708	40.418	41.646	0.714	1.00	35.05
ATOM	3987	OE1	GLU	B	708	41.368	40.981	1.167	1.00	35.66
ATOM	3988	OE2	GLU	B	708	40.235	42.846	0.994	1.00	35.78
ATOM	3989	C	GLU	B	708	35.654	41.327	-0.579	1.00	23.54
ATOM	3990	O	GLU	B	708	35.049	40.824	0.368	1.00	23.08
ATOM	3991	N	TYR	B	709	35.169	42.332	-1.302	1.00	22.88
ATOM	3992	CA	TYR	B	709	33.855	42.908	-1.022	1.00	23.56
ATOM	3993	CB	TYR	B	709	33.583	44.072	-1.975	1.00	28.79
ATOM	3994	CG	TYR	B	709	32.228	44.708	-1.784	1.00	29.56
ATOM	3995	CD1	TYR	B	709	31.950	45.476	-0.656	1.00	29.43
ATOM	3996	CE1	TYR	B	709	30.691	46.039	-0.461	1.00	29.53
ATOM	3997	CD2	TYR	B	709	31.214	44.516	-2.718	1.00	30.32
ATOM	3998	CE2	TYR	B	709	29.950	45.072	-2.533	1.00	29.63
ATOM	3999	CZ	TYR	B	709	29.696	45.830	-1.404	1.00	30.45
ATOM	4000	OH	TYR	B	709	28.447	46.375	-1.221	1.00	30.77
ATOM	4001	C	TYR	B	709	32.764	41.841	-1.174	1.00	24.17
ATOM	4002	O	TYR	B	709	31.909	41.677	-0.297	1.00	23.90
ATOM	4003	N	LYS	B	710	32.800	41.117	-2.289	1.00	25.48
ATOM	4004	CA	LYS	B	710	31.821	40.062	-2.543	1.00	27.03
ATOM	4005	CB	LYS	B	710	32.064	39.418	-3.910	1.00	49.22
ATOM	4006	CG	LYS	B	710	31.519	37.999	-3.992	1.00	50.09
ATOM	4007	CD	LYS	B	710	31.985	37.258	-5.227	1.00	50.44
ATOM	4008	CE	LYS	B	710	31.769	35.762	-5.057	1.00	50.21
ATOM	4009	NZ	LYS	B	710	30.379	35.439	-4.621	1.00	50.37
ATOM	4010	C	LYS	B	710	31.872	38.972	-1.480	1.00	25.65
ATOM	4011	O	LYS	B	710	30.840	38.500	-0.998	1.00	26.50
ATOM	4012	N	THR	B	711	33.081	38.556	-1.128	1.00	23.83
ATOM	4013	CA	THR	B	711	33.249	37.511	-0.135	1.00	22.67
ATOM	4014	CB	THR	B	711	34.727	37.120	-0.008	1.00	25.01
ATOM	4015	OG1	THR	B	711	35.193	36.642	-1.275	1.00	25.50
ATOM	4016	CG2	THR	B	711	34.904	36.029	1.038	1.00	24.57
ATOM	4017	C	THR	B	711	32.723	37.944	1.232	1.00	22.92
ATOM	4018	O	THR	B	711	32.095	37.157	1.940	1.00	23.60
ATOM	4019	N	THR	B	712	32.975	39.202	1.586	1.00	20.46
ATOM	4020	CA	THR	B	712	32.551	39.742	2.871	1.00	20.53
ATOM	4021	CB	THR	B	712	33.201	41.117	3.125	1.00	22.65
ATOM	4022	OG1	THR	B	712	34.624	40.993	3.023	1.00	23.36
ATOM	4023	CG2	THR	B	712	32.849	41.628	4.515	1.00	22.01
ATOM	4024	C	THR	B	712	31.030	39.887	2.964	1.00	20.03
ATOM	4025	O	THR	B	712	30.433	39.564	3.992	1.00	19.56
ATOM	4026	N	LEU	B	713	30.405	40.375	1.899	1.00	20.53
ATOM	4027	CA	LEU	B	713	28.957	40.551	1.907	1.00	21.14
ATOM	4028	CB	LEU	B	713	28.484	41.186	0.599	1.00	32.94
ATOM	4029	CG	LEU	B	713	27.729	42.511	0.729	1.00	34.20
ATOM	4030	CD1	LEU	B	713	26.628	42.370	1.774	1.00	34.24
ATOM	4031	CD2	LEU	B	713	28.684	43.616	1.134	1.00	34.00
ATOM	4032	C	LEU	B	713	28.263	39.212	2.116	1.00	21.40
ATOM	4033	O	LEU	B	713	27.265	39.117	2.834	1.00	19.21
ATOM	4034	N	LYS	B	714	28.795	38.171	1.488	1.00	20.01
ATOM	4035	CA	LYS	B	714	28.220	36.837	1.620	1.00	20.38
ATOM	4036	CB	LYS	B	714	28.920	35.876	0.657	1.00	40.77
ATOM	4037	CG	LYS	B	714	28.564	34.419	0.847	1.00	41.45
ATOM	4038	CD	LYS	B	714	29.316	33.548	-0.149	1.00	42.11
ATOM	4039	CE	LYS	B	714	29.138	32.073	0.165	1.00	42.05
ATOM	4040	NZ	LYS	B	714	27.703	31.694	0.221	1.00	42.14
ATOM	4041	C	LYS	B	714	28.343	36.322	3.052	1.00	19.95
ATOM	4042	O	LYS	B	714	27.417	35.721	3.597	1.00	20.70
ATOM	4043	N	ILE	B	715	29.499	36.544	3.662	1.00	19.98
ATOM	4044	CA	ILE	B	715	29.705	36.101	5.029	1.00	18.62
ATOM	4045	CB	ILE	B	715	31.145	36.386	5.500	1.00	22.51

ATOM	4046	CG2	ILE	B	715	31.317	35.943	6.939	1.00	21.50
ATOM	4047	CG1	ILE	B	715	32.141	35.638	4.612	1.00	22.82
ATOM	4048	CD1	ILE	B	715	33.571	36.088	4.812	1.00	22.76
ATOM	4049	C	ILE	B	715	28.732	36.838	5.955	1.00	18.65
ATOM	4050	O	ILE	B	715	28.190	36.245	6.882	1.00	17.75
ATOM	4051	N	ILE	B	716	28.528	38.127	5.693	1.00	18.42
ATOM	4052	CA	ILE	B	716	27.624	38.951	6.500	1.00	17.16
ATOM	4053	CB	ILE	B	716	27.676	40.424	6.040	1.00	19.95
ATOM	4054	CG2	ILE	B	716	26.549	41.225	6.683	1.00	19.27
ATOM	4055	CG1	ILE	B	716	29.037	41.024	6.404	1.00	18.80
ATOM	4056	CD1	ILE	B	716	29.258	42.434	5.887	1.00	18.71
ATOM	4057	C	ILE	B	716	26.192	38.426	6.411	1.00	19.67
ATOM	4058	O	ILE	B	716	25.544	38.183	7.436	1.00	16.84
ATOM	4059	N	LYS	B	717	25.706	38.224	5.192	1.00	17.44
ATOM	4060	CA	LYS	B	717	24.344	37.721	5.040	1.00	19.23
ATOM	4061	CB	LYS	B	717	23.980	37.489	3.573	1.00	19.08
ATOM	4062	CG	LYS	B	717	22.575	36.915	3.425	1.00	19.36
ATOM	4063	CD	LYS	B	717	22.145	36.779	1.975	1.00	20.95
ATOM	4064	CE	LYS	B	717	20.713	36.253	1.906	1.00	20.68
ATOM	4065	NZ	LYS	B	717	20.177	36.245	0.520	1.00	22.57
ATOM	4066	C	LYS	B	717	24.167	36.408	5.797	1.00	18.60
ATOM	4067	O	LYS	B	717	23.204	36.240	6.539	1.00	19.65
ATOM	4068	N	GLN	B	718	25.091	35.469	5.602	1.00	18.67
ATOM	4069	CA	GLN	B	718	24.992	34.181	6.280	1.00	18.42
ATOM	4070	CB	GLN	B	718	26.110	33.256	5.794	1.00	35.34
ATOM	4071	CG	GLN	B	718	25.885	32.724	4.386	1.00	36.06
ATOM	4072	CD	GLN	B	718	27.121	32.072	3.798	1.00	36.81
ATOM	4073	OE1	GLN	B	718	27.036	31.295	2.843	1.00	37.02
ATOM	4074	NE2	GLN	B	718	28.282	32.397	4.356	1.00	36.65
ATOM	4075	C	GLN	B	718	25.039	34.298	7.802	1.00	16.64
ATOM	4076	O	GLN	B	718	24.337	33.577	8.517	1.00	17.20
ATOM	4077	N	ALA	B	719	25.855	35.221	8.299	1.00	17.42
ATOM	4078	CA	ALA	B	719	25.989	35.400	9.737	1.00	16.91
ATOM	4079	CB	ALA	B	719	27.181	36.314	10.037	1.00	18.95
ATOM	4080	C	ALA	B	719	24.705	35.979	10.338	1.00	16.46
ATOM	4081	O	ALA	B	719	24.280	35.566	11.415	1.00	16.41
ATOM	4082	N	ILE	B	720	24.087	36.923	9.632	1.00	16.16
ATOM	4083	CA	ILE	B	720	22.848	37.517	10.128	1.00	18.05
ATOM	4084	CB	ILE	B	720	22.463	38.775	9.317	1.00	16.77
ATOM	4085	CG2	ILE	B	720	21.021	39.200	9.634	1.00	17.00
ATOM	4086	CG1	ILE	B	720	23.458	39.903	9.626	1.00	17.24
ATOM	4087	CD1	ILE	B	720	23.165	41.216	8.938	1.00	18.75
ATOM	4088	C	ILE	B	720	21.725	36.484	10.083	1.00	16.85
ATOM	4089	O	ILE	B	720	20.966	36.339	11.044	1.00	17.13
ATOM	4090	N	LEU	B	721	21.628	35.741	8.983	1.00	17.26
ATOM	4091	CA	LEU	B	721	20.588	34.726	8.886	1.00	17.99
ATOM	4092	CB	LEU	B	721	20.611	34.056	7.507	1.00	21.38
ATOM	4093	CG	LEU	B	721	19.998	34.910	6.390	1.00	22.95
ATOM	4094	CD1	LEU	B	721	20.102	34.181	5.071	1.00	22.96
ATOM	4095	CD2	LEU	B	721	18.544	35.204	6.707	1.00	22.88
ATOM	4096	C	LEU	B	721	20.764	33.686	9.984	1.00	17.50
ATOM	4097	O	LEU	B	721	19.791	33.142	10.493	1.00	18.24
ATOM	4098	N	ALA	B	722	22.013	33.425	10.359	1.00	18.93
ATOM	4099	CA	ALA	B	722	22.305	32.448	11.398	1.00	19.70
ATOM	4100	CB	ALA	B	722	23.818	32.282	11.556	1.00	22.76
ATOM	4101	C	ALA	B	722	21.689	32.803	12.748	1.00	19.06
ATOM	4102	O	ALA	B	722	21.491	31.926	13.581	1.00	19.32
ATOM	4103	N	THR	B	723	21.389	34.081	12.972	1.00	19.12
ATOM	4104	CA	THR	B	723	20.820	34.484	14.255	1.00	18.93
ATOM	4105	CB	THR	B	723	20.997	36.000	14.503	1.00	16.46
ATOM	4106	OG1	THR	B	723	20.359	36.746	13.463	1.00	18.08
ATOM	4107	CG2	THR	B	723	22.485	36.355	14.536	1.00	17.70
ATOM	4108	C	THR	B	723	19.352	34.093	14.440	1.00	20.30
ATOM	4109	O	THR	B	723	18.744	34.373	15.474	1.00	18.88
ATOM	4110	N	ASP	B	724	18.785	33.464	13.421	1.00	20.75
ATOM	4111	CA	ASP	B	724	17.417	32.977	13.495	1.00	21.45

ATOM	4112	CB	ASP	B	724	16.901	32.670	12.084	1.00	20.47
ATOM	4113	CG	ASP	B	724	15.541	31.991	12.091	1.00	19.47
ATOM	4114	OD1	ASP	B	724	14.982	31.769	13.183	1.00	20.37
ATOM	4115	OD2	ASP	B	724	15.029	31.683	10.995	1.00	20.97
ATOM	4116	C	ASP	B	724	17.571	31.684	14.296	1.00	22.80
ATOM	4117	O	ASP	B	724	18.171	30.729	13.803	1.00	21.11
ATOM	4118	N	LEU	B	725	17.057	31.648	15.524	1.00	21.88
ATOM	4119	CA	LEU	B	725	17.211	30.454	16.354	1.00	23.26
ATOM	4120	CB	LEU	B	725	16.575	30.659	17.734	1.00	21.15
ATOM	4121	CG	LEU	B	725	17.439	31.482	18.698	1.00	22.29
ATOM	4122	CD1	LEU	B	725	16.712	31.674	20.019	1.00	22.69
ATOM	4123	CD2	LEU	B	725	18.768	30.765	18.927	1.00	22.08
ATOM	4124	C	LEU	B	725	16.685	29.178	15.720	1.00	24.43
ATOM	4125	O	LEU	B	725	17.084	28.074	16.110	1.00	24.43
ATOM	4126	N	ALA	B	726	15.802	29.322	14.735	1.00	24.46
ATOM	4127	CA	ALA	B	726	15.256	28.158	14.042	1.00	24.85
ATOM	4128	CB	ALA	B	726	14.096	28.576	13.144	1.00	26.10
ATOM	4129	C	ALA	B	726	16.361	27.502	13.219	1.00	25.58
ATOM	4130	O	ALA	B	726	16.436	26.277	13.127	1.00	24.81
ATOM	4131	N	LEU	B	727	17.217	28.323	12.617	1.00	25.66
ATOM	4132	CA	LEU	B	727	18.332	27.826	11.825	1.00	26.45
ATOM	4133	CB	LEU	B	727	18.952	28.969	11.016	1.00	32.52
ATOM	4134	CG	LEU	B	727	18.730	28.953	9.499	1.00	34.10
ATOM	4135	CD1	LEU	B	727	17.320	28.490	9.163	1.00	32.76
ATOM	4136	CD2	LEU	B	727	18.999	30.343	8.938	1.00	32.91
ATOM	4137	C	LEU	B	727	19.370	27.216	12.767	1.00	26.66
ATOM	4138	O	LEU	B	727	19.994	26.208	12.448	1.00	27.25
ATOM	4139	N	TYR	B	728	19.549	27.828	13.933	1.00	23.88
ATOM	4140	CA	TYR	B	728	20.497	27.311	14.912	1.00	24.96
ATOM	4141	CB	TYR	B	728	20.576	28.246	16.127	1.00	22.32
ATOM	4142	CG	TYR	B	728	21.197	27.606	17.348	1.00	22.57
ATOM	4143	CD1	TYR	B	728	20.402	27.173	18.410	1.00	23.27
ATOM	4144	CE1	TYR	B	728	20.958	26.520	19.512	1.00	22.36
ATOM	4145	CD2	TYR	B	728	22.569	27.372	17.416	1.00	23.33
ATOM	4146	CE2	TYR	B	728	23.133	26.713	18.512	1.00	22.71
ATOM	4147	CZ	TYR	B	728	22.322	26.292	19.553	1.00	23.34
ATOM	4148	OH	TYR	B	728	22.876	25.642	20.638	1.00	25.15
ATOM	4149	C	TYR	B	728	20.085	25.908	15.365	1.00	25.55
ATOM	4150	O	TYR	B	728	20.894	24.982	15.368	1.00	25.79
ATOM	4151	N	ILE	B	729	18.821	25.759	15.747	1.00	27.10
ATOM	4152	CA	ILE	B	729	18.313	24.476	16.218	1.00	27.90
ATOM	4153	CB	ILE	B	729	16.849	24.608	16.692	1.00	33.37
ATOM	4154	CG2	ILE	B	729	16.245	23.231	16.936	1.00	34.11
ATOM	4155	CG1	ILE	B	729	16.800	25.447	17.969	1.00	33.59
ATOM	4156	CD1	ILE	B	729	15.400	25.662	18.512	1.00	34.44
ATOM	4157	C	ILE	B	729	18.396	23.395	15.151	1.00	28.43
ATOM	4158	O	ILE	B	729	18.561	22.212	15.463	1.00	28.49
ATOM	4159	N	LYS	B	730	18.286	23.803	13.893	1.00	30.10
ATOM	4160	CA	LYS	B	730	18.335	22.865	12.777	1.00	30.87
ATOM	4161	CB	LYS	B	730	17.637	23.474	11.554	1.00	41.47
ATOM	4162	CG	LYS	B	730	17.736	22.627	10.292	1.00	41.83
ATOM	4163	CD	LYS	B	730	17.082	23.312	9.099	1.00	41.85
ATOM	4164	CE	LYS	B	730	17.161	22.437	7.856	1.00	42.29
ATOM	4165	NZ	LYS	B	730	16.471	23.056	6.689	1.00	41.92
ATOM	4166	C	LYS	B	730	19.753	22.450	12.390	1.00	30.30
ATOM	4167	O	LYS	B	730	19.968	21.341	11.899	1.00	30.78
ATOM	4168	N	ARG	B	731	20.722	23.330	12.611	1.00	26.44
ATOM	4169	CA	ARG	B	731	22.101	23.029	12.234	1.00	26.05
ATOM	4170	CB	ARG	B	731	22.691	24.207	11.455	1.00	44.87
ATOM	4171	CG	ARG	B	731	22.027	24.477	10.123	1.00	45.35
ATOM	4172	CD	ARG	B	731	22.579	25.739	9.481	1.00	45.70
ATOM	4173	NE	ARG	B	731	24.018	25.666	9.236	1.00	45.72
ATOM	4174	CZ	ARG	B	731	24.600	24.771	8.445	1.00	45.64
ATOM	4175	NH1	ARG	B	731	23.870	23.859	7.816	1.00	45.97
ATOM	4176	NH2	ARG	B	731	25.915	24.793	8.272	1.00	45.83
ATOM	4177	C	ARG	B	731	23.076	22.657	13.349	1.00	25.87

ATOM	4178	O	ARG	B	731	24.144	22.121	13.069	1.00	25.60
ATOM	4179	N	ARG	B	732	22.724	22.931	14.600	1.00	24.75
ATOM	4180	CA	ARG	B	732	23.636	22.646	15.704	1.00	24.59
ATOM	4181	CB	ARG	B	732	23.051	23.154	17.021	1.00	28.71
ATOM	4182	CG	ARG	B	732	21.825	22.412	17.490	1.00	28.36
ATOM	4183	CD	ARG	B	732	21.266	23.052	18.742	1.00	28.99
ATOM	4184	NE	ARG	B	732	20.160	22.282	19.295	1.00	28.09
ATOM	4185	CZ	ARG	B	732	19.555	22.567	20.444	1.00	29.06
ATOM	4186	NH1	ARG	B	732	19.951	23.607	21.164	1.00	29.87
ATOM	4187	NH2	ARG	B	732	18.560	21.807	20.878	1.00	29.81
ATOM	4188	C	ARG	B	732	24.027	21.177	15.845	1.00	24.59
ATOM	4189	O	ARG	B	732	25.143	20.871	16.272	1.00	24.56
ATOM	4190	N	GLY	B	733	23.114	20.278	15.495	1.00	28.28
ATOM	4191	CA	GLY	B	733	23.409	18.857	15.592	1.00	29.55
ATOM	4192	C	GLY	B	733	24.686	18.506	14.852	1.00	29.73
ATOM	4193	O	GLY	B	733	25.582	17.856	15.402	1.00	29.54
ATOM	4194	N	GLU	B	734	24.775	18.940	13.599	1.00	29.63
ATOM	4195	CA	GLU	B	734	25.954	18.676	12.779	1.00	29.74
ATOM	4196	CB	GLU	B	734	25.772	19.317	11.396	1.00	37.09
ATOM	4197	CG	GLU	B	734	27.011	19.313	10.513	1.00	37.69
ATOM	4198	CD	GLU	B	734	26.712	19.749	9.090	1.00	37.69
ATOM	4199	OE1	GLU	B	734	25.895	20.673	8.905	1.00	37.77
ATOM	4200	OE2	GLU	B	734	27.302	19.174	8.153	1.00	37.96
ATOM	4201	C	GLU	B	734	27.234	19.187	13.448	1.00	29.89
ATOM	4202	O	GLU	B	734	28.241	18.481	13.508	1.00	29.99
ATOM	4203	N	PHE	B	735	27.193	20.416	13.953	1.00	26.19
ATOM	4204	CA	PHE	B	735	28.348	21.015	14.617	1.00	28.01
ATOM	4205	CB	PHE	B	735	28.001	22.449	15.051	1.00	32.46
ATOM	4206	CG	PHE	B	735	29.121	23.170	15.748	1.00	32.58
ATOM	4207	CD1	PHE	B	735	30.350	23.353	15.121	1.00	32.98
ATOM	4208	CD2	PHE	B	735	28.930	23.710	17.018	1.00	32.86
ATOM	4209	CE1	PHE	B	735	31.374	24.067	15.746	1.00	33.43
ATOM	4210	CE2	PHE	B	735	29.941	24.424	17.653	1.00	33.17
ATOM	4211	CZ	PHE	B	735	31.168	24.606	17.017	1.00	33.32
ATOM	4212	C	PHE	B	735	28.759	20.185	15.832	1.00	28.38
ATOM	4213	O	PHE	B	735	29.943	19.877	16.023	1.00	28.13
ATOM	4214	N	PHE	B	736	27.772	19.823	16.646	1.00	35.56
ATOM	4215	CA	PHE	B	736	28.008	19.033	17.848	1.00	36.50
ATOM	4216	CB	PHE	B	736	26.695	18.843	18.615	1.00	29.57
ATOM	4217	CG	PHE	B	736	26.153	20.118	19.217	1.00	28.48
ATOM	4218	CD1	PHE	B	736	24.849	20.174	19.707	1.00	29.25
ATOM	4219	CD2	PHE	B	736	26.947	21.261	19.298	1.00	28.68
ATOM	4220	CE1	PHE	B	736	24.343	21.351	20.270	1.00	28.48
ATOM	4221	CE2	PHE	B	736	26.451	22.440	19.857	1.00	28.64
ATOM	4222	CZ	PHE	B	736	25.142	22.481	20.344	1.00	28.27
ATOM	4223	C	PHE	B	736	28.636	17.678	17.538	1.00	36.98
ATOM	4224	O	PHE	B	736	29.472	17.192	18.299	1.00	37.51
ATOM	4225	N	GLU	B	737	28.236	17.074	16.422	1.00	35.33
ATOM	4226	CA	GLU	B	737	28.779	15.778	16.019	1.00	34.66
ATOM	4227	CB	GLU	B	737	28.042	15.245	14.788	1.00	48.23
ATOM	4228	CG	GLU	B	737	26.624	14.782	15.052	1.00	48.59
ATOM	4229	CD	GLU	B	737	26.562	13.677	16.084	1.00	48.98
ATOM	4230	OE1	GLU	B	737	27.347	12.710	15.969	1.00	48.80
ATOM	4231	OE2	GLU	B	737	25.724	13.771	17.004	1.00	49.04
ATOM	4232	C	GLU	B	737	30.264	15.895	15.698	1.00	35.25
ATOM	4233	O	GLU	B	737	31.095	15.184	16.276	1.00	34.50
ATOM	4234	N	LEU	B	738	30.582	16.792	14.766	1.00	34.53
ATOM	4235	CA	LEU	B	738	31.958	17.036	14.339	1.00	34.99
ATOM	4236	CB	LEU	B	738	32.010	18.266	13.422	1.00	33.43
ATOM	4237	CG	LEU	B	738	31.532	18.137	11.969	1.00	33.44
ATOM	4238	CD1	LEU	B	738	30.237	17.345	11.885	1.00	33.77
ATOM	4239	CD2	LEU	B	738	31.345	19.531	11.388	1.00	33.47
ATOM	4240	C	LEU	B	738	32.889	17.243	15.530	1.00	35.52
ATOM	4241	O	LEU	B	738	34.020	16.760	15.535	1.00	35.19
ATOM	4242	N	ILE	B	739	32.403	17.960	16.538	1.00	35.96
ATOM	4243	CA	ILE	B	739	33.177	18.243	17.740	1.00	36.59

ATOM	4244	CB	ILE	B	739	32.489	19.347	18.578	1.00	41.13
ATOM	4245	CG2	ILE	B	739	33.192	19.509	19.913	1.00	41.32
ATOM	4246	CG1	ILE	B	739	32.478	20.665	17.798	1.00	41.45
ATOM	4247	CD1	ILE	B	739	33.852	21.224	17.510	1.00	41.21
ATOM	4248	C	ILE	B	739	33.353	16.998	18.610	1.00	37.53
ATOM	4249	O	ILE	B	739	34.455	16.711	19.088	1.00	36.85
ATOM	4250	N	ARG	B	740	32.262	16.264	18.808	1.00	40.80
ATOM	4251	CA	ARG	B	740	32.276	15.058	19.627	1.00	41.57
ATOM	4252	CB	ARG	B	740	30.860	14.490	19.744	1.00	49.23
ATOM	4253	CG	ARG	B	740	30.708	13.372	20.763	1.00	49.50
ATOM	4254	CD	ARG	B	740	29.268	12.894	20.816	1.00	49.76
ATOM	4255	NE	ARG	B	740	28.870	12.228	19.577	1.00	49.63
ATOM	4256	CZ	ARG	B	740	29.192	10.977	19.264	1.00	49.97
ATOM	4257	NH1	ARG	B	740	29.917	10.246	20.103	1.00	49.93
ATOM	4258	NH2	ARG	B	740	28.795	10.456	18.111	1.00	49.81
ATOM	4259	C	ARG	B	740	33.202	13.999	19.045	1.00	41.31
ATOM	4260	O	ARG	B	740	34.041	13.437	19.750	1.00	41.75
ATOM	4261	N	LYS	B	741	33.048	13.734	17.753	1.00	36.01
ATOM	4262	CA	LYS	B	741	33.858	12.734	17.074	1.00	36.04
ATOM	4263	CB	LYS	B	741	33.142	12.261	15.806	1.00	51.86
ATOM	4264	CG	LYS	B	741	31.823	11.547	16.084	1.00	52.33
ATOM	4265	CD	LYS	B	741	31.198	10.984	14.819	1.00	52.60
ATOM	4266	CE	LYS	B	741	29.956	10.164	15.147	1.00	52.72
ATOM	4267	NZ	LYS	B	741	29.371	9.514	13.941	1.00	52.84
ATOM	4268	C	LYS	B	741	35.257	13.229	16.739	1.00	36.83
ATOM	4269	O	LYS	B	741	36.017	12.544	16.056	1.00	35.76
ATOM	4270	N	ASN	B	742	35.598	14.424	17.217	1.00	47.96
ATOM	4271	CA	ASN	B	742	36.925	14.991	16.979	1.00	48.89
ATOM	4272	CB	ASN	B	742	37.984	14.073	17.601	1.00	45.18
ATOM	4273	CG	ASN	B	742	37.660	13.696	19.038	1.00	45.25
ATOM	4274	OD1	ASN	B	742	37.873	14.481	19.958	1.00	45.19
ATOM	4275	ND2	ASN	B	742	37.127	12.492	19.231	1.00	45.61
ATOM	4276	C	ASN	B	742	37.210	15.160	15.482	1.00	48.30
ATOM	4277	O	ASN	B	742	38.318	14.886	15.023	1.00	49.56
ATOM	4278	N	GLN	B	743	36.214	15.627	14.733	1.00	35.63
ATOM	4279	CA	GLN	B	743	36.345	15.806	13.288	1.00	33.02
ATOM	4280	CB	GLN	B	743	35.226	15.034	12.583	1.00	55.29
ATOM	4281	CG	GLN	B	743	34.914	13.679	13.206	1.00	55.90
ATOM	4282	CD	GLN	B	743	33.531	13.159	12.830	1.00	56.30
ATOM	4283	OE1	GLN	B	743	32.531	13.872	12.943	1.00	56.03
ATOM	4284	NE2	GLN	B	743	33.470	11.903	12.396	1.00	56.30
ATOM	4285	C	GLN	B	743	36.296	17.272	12.833	1.00	32.63
ATOM	4286	O	GLN	B	743	36.519	17.568	11.659	1.00	30.98
ATOM	4287	N	PHE	B	744	36.008	18.186	13.754	1.00	30.07
ATOM	4288	CA	PHE	B	744	35.913	19.600	13.396	1.00	29.86
ATOM	4289	CB	PHE	B	744	35.664	20.451	14.646	1.00	36.04
ATOM	4290	CG	PHE	B	744	35.433	21.906	14.349	1.00	36.02
ATOM	4291	CD1	PHE	B	744	34.426	22.294	13.472	1.00	36.51
ATOM	4292	CD2	PHE	B	744	36.224	22.886	14.939	1.00	36.37
ATOM	4293	CE1	PHE	B	744	34.210	23.641	13.186	1.00	36.33
ATOM	4294	CE2	PHE	B	744	36.017	24.237	14.660	1.00	36.35
ATOM	4295	CZ	PHE	B	744	35.007	24.613	13.781	1.00	36.44
ATOM	4296	C	PHE	B	744	37.158	20.101	12.671	1.00	30.17
ATOM	4297	O	PHE	B	744	38.274	19.948	13.163	1.00	29.71
ATOM	4298	N	ASN	B	745	36.953	20.703	11.500	1.00	33.40
ATOM	4299	CA	ASN	B	745	38.047	21.229	10.685	1.00	34.97
ATOM	4300	CB	ASN	B	745	38.463	20.192	9.634	1.00	36.63
ATOM	4301	CG	ASN	B	745	39.397	20.765	8.586	1.00	36.73
ATOM	4302	OD1	ASN	B	745	40.281	21.562	8.896	1.00	37.02
ATOM	4303	ND2	ASN	B	745	39.216	20.345	7.337	1.00	37.05
ATOM	4304	C	ASN	B	745	37.674	22.537	9.992	1.00	34.71
ATOM	4305	O	ASN	B	745	36.930	22.540	9.011	1.00	34.81
ATOM	4306	N	LEU	B	746	38.209	23.645	10.495	1.00	32.32
ATOM	4307	CA	LEU	B	746	37.914	24.961	9.934	1.00	31.51
ATOM	4308	CB	LEU	B	746	38.459	26.059	10.853	1.00	35.95
ATOM	4309	CG	LEU	B	746	37.591	26.325	12.083	1.00	36.41

ATOM	4310	CD1	LEU	B	746	38.239	27.390	12.951	1.00	36.26
ATOM	4311	CD2	LEU	B	746	36.200	26.773	11.635	1.00	36.10
ATOM	4312	C	LEU	B	746	38.419	25.181	8.511	1.00	31.36
ATOM	4313	O	LEU	B	746	38.085	26.183	7.877	1.00	31.04
ATOM	4314	N	GLU	B	747	39.224	24.252	8.010	1.00	30.95
ATOM	4315	CA	GLU	B	747	39.738	24.357	6.650	1.00	31.86
ATOM	4316	CB	GLU	B	747	40.918	23.402	6.453	1.00	51.07
ATOM	4317	CG	GLU	B	747	42.129	23.738	7.311	1.00	51.73
ATOM	4318	CD	GLU	B	747	43.251	22.728	7.163	1.00	52.11
ATOM	4319	OE1	GLU	B	747	43.666	22.467	6.014	1.00	52.03
ATOM	4320	OE2	GLU	B	747	43.718	22.201	8.196	1.00	52.21
ATOM	4321	C	GLU	B	747	38.617	24.014	5.670	1.00	31.25
ATOM	4322	O	GLU	B	747	38.646	24.421	4.507	1.00	30.95
ATOM	4323	N	ASP	B	748	37.634	23.260	6.156	1.00	31.79
ATOM	4324	CA	ASP	B	748	36.480	22.864	5.357	1.00	31.93
ATOM	4325	CB	ASP	B	748	35.754	21.697	6.031	1.00	39.97
ATOM	4326	CG	ASP	B	748	34.571	21.193	5.223	1.00	40.51
ATOM	4327	OD1	ASP	B	748	33.678	21.995	4.889	1.00	40.27
ATOM	4328	OD2	ASP	B	748	34.533	19.981	4.928	1.00	40.36
ATOM	4329	C	ASP	B	748	35.546	24.071	5.265	1.00	32.12
ATOM	4330	O	ASP	B	748	35.026	24.538	6.280	1.00	31.68
ATOM	4331	N	PRO	B	749	35.317	24.586	4.046	1.00	30.33
ATOM	4332	CD	PRO	B	749	35.694	23.972	2.761	1.00	44.68
ATOM	4333	CA	PRO	B	749	34.445	25.746	3.827	1.00	30.40
ATOM	4334	CB	PRO	B	749	34.380	25.845	2.304	1.00	44.80
ATOM	4335	CG	PRO	B	749	34.577	24.423	1.863	1.00	45.23
ATOM	4336	C	PRO	B	749	33.065	25.626	4.470	1.00	30.78
ATOM	4337	O	PRO	B	749	32.553	26.591	5.045	1.00	29.64
ATOM	4338	N	HIS	B	750	32.464	24.443	4.379	1.00	31.42
ATOM	4339	CA	HIS	B	750	31.148	24.231	4.963	1.00	31.75
ATOM	4340	CB	HIS	B	750	30.569	22.890	4.513	1.00	36.05
ATOM	4341	CG	HIS	B	750	29.289	22.529	5.200	1.00	36.27
ATOM	4342	CD2	HIS	B	750	28.002	22.836	4.908	1.00	35.87
ATOM	4343	ND1	HIS	B	750	29.250	21.786	6.360	1.00	36.16
ATOM	4344	CE1	HIS	B	750	27.996	21.648	6.752	1.00	36.46
ATOM	4345	NE2	HIS	B	750	27.219	22.276	5.888	1.00	36.37
ATOM	4346	C	HIS	B	750	31.212	24.288	6.480	1.00	31.05
ATOM	4347	O	HIS	B	750	30.373	24.922	7.118	1.00	31.52
ATOM	4348	N	GLU	B	751	32.208	23.629	7.062	1.00	26.46
ATOM	4349	CA	GLU	B	751	32.356	23.642	8.512	1.00	26.08
ATOM	4350	CB	GLU	B	751	33.415	22.625	8.946	1.00	32.16
ATOM	4351	CG	GLU	B	751	33.004	21.185	8.700	1.00	32.81
ATOM	4352	CD	GLU	B	751	34.040	20.193	9.190	1.00	32.54
ATOM	4353	OE1	GLU	B	751	34.381	20.234	10.392	1.00	32.25
ATOM	4354	OE2	GLU	B	751	34.507	19.373	8.372	1.00	33.04
ATOM	4355	C	GLU	B	751	32.741	25.038	8.997	1.00	25.23
ATOM	4356	O	GLU	B	751	32.426	25.424	10.127	1.00	26.00
ATOM	4357	N	LYS	B	752	33.413	25.791	8.134	1.00	25.46
ATOM	4358	CA	LYS	B	752	33.835	27.144	8.477	1.00	25.14
ATOM	4359	CB	LYS	B	752	34.760	27.710	7.400	1.00	34.00
ATOM	4360	CG	LYS	B	752	35.473	28.988	7.807	1.00	34.35
ATOM	4361	CD	LYS	B	752	36.445	28.715	8.950	1.00	34.98
ATOM	4362	CE	LYS	B	752	37.386	29.878	9.166	1.00	34.20
ATOM	4363	NZ	LYS	B	752	38.098	30.208	7.910	1.00	34.22
ATOM	4364	C	LYS	B	752	32.600	28.024	8.593	1.00	25.44
ATOM	4365	O	LYS	B	752	32.435	28.747	9.574	1.00	25.14
ATOM	4366	N	GLU	B	753	31.724	27.956	7.597	1.00	26.17
ATOM	4367	CA	GLU	B	753	30.519	28.775	7.639	1.00	27.32
ATOM	4368	CB	GLU	B	753	29.773	28.743	6.300	1.00	47.16
ATOM	4369	CG	GLU	B	753	29.010	27.468	6.008	1.00	48.02
ATOM	4370	CD	GLU	B	753	28.190	27.578	4.738	1.00	48.29
ATOM	4371	OE1	GLU	B	753	28.791	27.692	3.647	1.00	48.21
ATOM	4372	OE2	GLU	B	753	26.944	27.561	4.832	1.00	48.25
ATOM	4373	C	GLU	B	753	29.620	28.287	8.764	1.00	26.46
ATOM	4374	O	GLU	B	753	28.913	29.080	9.383	1.00	26.43
ATOM	4375	N	LEU	B	754	29.658	26.983	9.035	1.00	24.18

ATOM	4376	CA	LEU	B	754	28.860	26.406	10.110	1.00	22.29
ATOM	4377	CB	LEU	B	754	28.981	24.877	10.116	1.00	25.44
ATOM	4378	CG	LEU	B	754	28.264	24.173	11.273	1.00	25.42
ATOM	4379	CD1	LEU	B	754	26.772	24.485	11.234	1.00	26.03
ATOM	4380	CD2	LEU	B	754	28.494	22.674	11.174	1.00	26.23
ATOM	4381	C	LEU	B	754	29.338	26.957	11.451	1.00	22.78
ATOM	4382	O	LEU	B	754	28.524	27.323	12.308	1.00	23.06
ATOM	4383	N	PHE	B	755	30.657	27.015	11.636	1.00	20.22
ATOM	4384	CA	PHE	B	755	31.216	27.528	12.872	1.00	20.52
ATOM	4385	CB	PHE	B	755	32.745	27.445	12.870	1.00	21.28
ATOM	4386	CG	PHE	B	755	33.380	28.142	14.042	1.00	20.97
ATOM	4387	CD1	PHE	B	755	33.212	27.654	15.332	1.00	21.53
ATOM	4388	CD2	PHE	B	755	34.111	29.309	13.858	1.00	22.19
ATOM	4389	CE1	PHE	B	755	33.763	28.323	16.426	1.00	21.26
ATOM	4390	CE2	PHE	B	755	34.667	29.989	14.949	1.00	21.93
ATOM	4391	CZ	PHE	B	755	34.492	29.496	16.230	1.00	21.53
ATOM	4392	C	PHE	B	755	30.811	28.982	13.064	1.00	19.98
ATOM	4393	O	PHE	B	755	30.378	29.372	14.147	1.00	22.32
ATOM	4394	N	LEU	B	756	30.968	29.778	12.010	1.00	19.82
ATOM	4395	CA	LEU	B	756	30.621	31.193	12.070	1.00	19.75
ATOM	4396	CB	LEU	B	756	30.868	31.858	10.716	1.00	18.84
ATOM	4397	CG	LEU	B	756	32.329	31.854	10.252	1.00	18.79
ATOM	4398	CD1	LEU	B	756	32.433	32.482	8.864	1.00	19.24
ATOM	4399	CD2	LEU	B	756	33.192	32.610	11.262	1.00	19.62
ATOM	4400	C	LEU	B	756	29.165	31.372	12.488	1.00	21.11
ATOM	4401	O	LEU	B	756	28.839	32.294	13.233	1.00	19.94
ATOM	4402	N	ALA	B	757	28.291	30.488	12.014	1.00	20.80
ATOM	4403	CA	ALA	B	757	26.873	30.568	12.373	1.00	21.25
ATOM	4404	CB	ALA	B	757	26.064	29.560	11.552	1.00	23.40
ATOM	4405	C	ALA	B	757	26.693	30.294	13.861	1.00	22.25
ATOM	4406	O	ALA	B	757	25.917	30.971	14.542	1.00	22.17
ATOM	4407	N	MET	B	758	27.412	29.291	14.364	1.00	19.96
ATOM	4408	CA	MET	B	758	27.348	28.926	15.771	1.00	20.73
ATOM	4409	CB	MET	B	758	28.154	27.647	16.023	1.00	27.97
ATOM	4410	CG	MET	B	758	27.601	26.422	15.324	1.00	27.07
ATOM	4411	SD	MET	B	758	25.940	25.980	15.881	1.00	27.12
ATOM	4412	CE	MET	B	758	24.971	26.627	14.530	1.00	27.43
ATOM	4413	C	MET	B	758	27.895	30.043	16.656	1.00	18.82
ATOM	4414	O	MET	B	758	27.352	30.315	17.725	1.00	21.47
ATOM	4415	N	LEU	B	759	28.976	30.674	16.208	1.00	19.71
ATOM	4416	CA	LEU	B	759	29.597	31.756	16.954	1.00	18.16
ATOM	4417	CB	LEU	B	759	30.892	32.189	16.270	1.00	20.33
ATOM	4418	CG	LEU	B	759	31.646	33.349	16.919	1.00	19.85
ATOM	4419	CD1	LEU	B	759	31.992	33.005	18.363	1.00	21.09
ATOM	4420	CD2	LEU	B	759	32.891	33.646	16.103	1.00	19.80
ATOM	4421	C	LEU	B	759	28.635	32.933	17.048	1.00	20.05
ATOM	4422	O	LEU	B	759	28.535	33.577	18.091	1.00	19.37
ATOM	4423	N	MET	B	760	27.921	33.202	15.960	1.00	18.13
ATOM	4424	CA	MET	B	760	26.955	34.302	15.959	1.00	19.70
ATOM	4425	CB	MET	B	760	26.325	34.455	14.575	1.00	17.26
ATOM	4426	CG	MET	B	760	27.211	35.177	13.547	1.00	16.88
ATOM	4427	SD	MET	B	760	27.567	36.936	13.895	1.00	17.69
ATOM	4428	CE	MET	B	760	25.887	37.644	13.962	1.00	17.02
ATOM	4429	C	MET	B	760	25.879	34.059	17.017	1.00	18.46
ATOM	4430	O	MET	B	760	25.510	34.970	17.765	1.00	18.74
ATOM	4431	N	THR	B	761	25.380	32.831	17.102	1.00	17.88
ATOM	4432	CA	THR	B	761	24.358	32.516	18.092	1.00	17.90
ATOM	4433	CB	THR	B	761	23.858	31.070	17.933	1.00	20.06
ATOM	4434	OG1	THR	B	761	23.316	30.905	16.619	1.00	20.01
ATOM	4435	CG2	THR	B	761	22.778	30.746	18.971	1.00	19.13
ATOM	4436	C	THR	B	761	24.922	32.694	19.495	1.00	18.35
ATOM	4437	O	THR	B	761	24.265	33.241	20.375	1.00	17.84
ATOM	4438	N	ALA	B	762	26.160	32.244	19.695	1.00	18.42
ATOM	4439	CA	ALA	B	762	26.808	32.347	20.996	1.00	17.98
ATOM	4440	CB	ALA	B	762	28.224	31.780	20.930	1.00	19.48
ATOM	4441	C	ALA	B	762	26.843	33.795	21.472	1.00	17.59

ATOM	4442	O	ALA	B	762	26.567	34.077	22.637	1.00	20.01
ATOM	4443	N	CYS	B	763	27.186	34.705	20.570	1.00	17.78
ATOM	4444	CA	CYS	B	763	27.247	36.115	20.914	1.00	18.49
ATOM	4445	CB	CYS	B	763	28.041	36.869	19.850	1.00	20.27
ATOM	4446	SG	CYS	B	763	29.790	36.353	19.790	1.00	21.15
ATOM	4447	C	CYS	B	763	25.841	36.704	21.071	1.00	19.17
ATOM	4448	O	CYS	B	763	25.596	37.521	21.957	1.00	19.53
ATOM	4449	N	ASP	B	764	24.921	36.265	20.219	1.00	20.39
ATOM	4450	CA	ASP	B	764	23.534	36.729	20.254	1.00	20.66
ATOM	4451	CB	ASP	B	764	22.739	36.046	19.130	1.00	19.31
ATOM	4452	CG	ASP	B	764	21.474	36.802	18.767	1.00	19.31
ATOM	4453	OD1	ASP	B	764	20.707	36.320	17.903	1.00	19.87
ATOM	4454	OD2	ASP	B	764	21.265	37.889	19.341	1.00	17.76
ATOM	4455	C	ASP	B	764	22.862	36.429	21.598	1.00	20.80
ATOM	4456	O	ASP	B	764	22.021	37.191	22.074	1.00	20.53
ATOM	4457	N	LEU	B	765	23.235	35.319	22.220	1.00	17.19
ATOM	4458	CA	LEU	B	765	22.626	34.934	23.489	1.00	17.73
ATOM	4459	CB	LEU	B	765	22.337	33.428	23.476	1.00	20.86
ATOM	4460	CG	LEU	B	765	21.556	32.898	22.270	1.00	21.66
ATOM	4461	CD1	LEU	B	765	21.264	31.422	22.444	1.00	21.03
ATOM	4462	CD2	LEU	B	765	20.257	33.679	22.125	1.00	20.47
ATOM	4463	C	LEU	B	765	23.497	35.276	24.697	1.00	18.18
ATOM	4464	O	LEU	B	765	23.205	34.833	25.813	1.00	19.59
ATOM	4465	N	SER	B	766	24.516	36.111	24.475	1.00	19.68
ATOM	4466	CA	SER	B	766	25.498	36.475	25.504	1.00	20.44
ATOM	4467	CB	SER	B	766	26.478	37.527	24.959	1.00	23.53
ATOM	4468	OG	SER	B	766	25.937	38.837	24.998	1.00	25.78
ATOM	4469	C	SER	B	766	24.997	36.932	26.872	1.00	20.03
ATOM	4470	O	SER	B	766	25.695	36.770	27.871	1.00	19.65
ATOM	4471	N	ALA	B	767	23.806	37.513	26.929	1.00	22.57
ATOM	4472	CA	ALA	B	767	23.284	37.974	28.210	1.00	23.91
ATOM	4473	CB	ALA	B	767	21.943	38.682	28.002	1.00	17.04
ATOM	4474	C	ALA	B	767	23.123	36.832	29.213	1.00	23.55
ATOM	4475	O	ALA	B	767	23.202	37.045	30.426	1.00	24.64
ATOM	4476	N	ILE	B	768	22.911	35.621	28.703	1.00	23.20
ATOM	4477	CA	ILE	B	768	22.718	34.448	29.546	1.00	22.31
ATOM	4478	CB	ILE	B	768	22.143	33.257	28.717	1.00	23.65
ATOM	4479	CG2	ILE	B	768	23.253	32.563	27.933	1.00	22.89
ATOM	4480	CG1	ILE	B	768	21.457	32.255	29.641	1.00	23.26
ATOM	4481	CD1	ILE	B	768	20.179	32.796	30.272	1.00	23.73
ATOM	4482	C	ILE	B	768	24.004	33.999	30.247	1.00	22.60
ATOM	4483	O	ILE	B	768	23.958	33.164	31.140	1.00	22.93
ATOM	4484	N	THR	B	769	25.138	34.571	29.849	1.00	21.92
ATOM	4485	CA	THR	B	769	26.438	34.224	30.435	1.00	21.95
ATOM	4486	CB	THR	B	769	27.525	34.077	29.356	1.00	23.33
ATOM	4487	OG1	THR	B	769	27.793	35.362	28.778	1.00	24.40
ATOM	4488	CG2	THR	B	769	27.087	33.111	28.267	1.00	24.02
ATOM	4489	C	THR	B	769	26.962	35.287	31.399	1.00	22.67
ATOM	4490	O	THR	B	769	27.973	35.086	32.073	1.00	22.65
ATOM	4491	N	LYS	B	770	26.284	36.425	31.452	1.00	23.25
ATOM	4492	CA	LYS	B	770	26.720	37.530	32.296	1.00	23.60
ATOM	4493	CB	LYS	B	770	25.996	38.802	31.849	1.00	21.12
ATOM	4494	CG	LYS	B	770	26.258	39.179	30.403	1.00	20.96
ATOM	4495	CD	LYS	B	770	27.656	39.759	30.206	1.00	20.82
ATOM	4496	CE	LYS	B	770	27.893	40.115	28.739	1.00	20.75
ATOM	4497	NZ	LYS	B	770	29.176	40.840	28.511	1.00	21.62
ATOM	4498	C	LYS	B	770	26.525	37.339	33.802	1.00	24.02
ATOM	4499	O	LYS	B	770	25.758	36.476	34.239	1.00	23.96
ATOM	4500	N	PRO	B	771	27.238	38.140	34.618	1.00	24.80
ATOM	4501	CD	PRO	B	771	28.330	39.060	34.249	1.00	25.87
ATOM	4502	CA	PRO	B	771	27.109	38.045	36.076	1.00	25.95
ATOM	4503	CB	PRO	B	771	27.976	39.198	36.569	1.00	25.81
ATOM	4504	CG	PRO	B	771	29.083	39.215	35.563	1.00	26.51
ATOM	4505	C	PRO	B	771	25.631	38.220	36.440	1.00	26.70
ATOM	4506	O	PRO	B	771	24.905	38.955	35.763	1.00	25.64
ATOM	4507	N	TRP	B	772	25.202	37.546	37.503	1.00	27.13

ATOM	4508	CA	TRP	B	772	23.811	37.553	37.959	1.00	27.52
ATOM	4509	CB	TRP	B	772	23.744	37.021	39.394	1.00	31.16
ATOM	4510	CG	TRP	B	772	22.355	36.817	39.921	1.00	31.91
ATOM	4511	CD2	TRP	B	772	21.272	36.141	39.267	1.00	31.55
ATOM	4512	CE2	TRP	B	772	20.171	36.166	40.150	1.00	31.84
ATOM	4513	CE3	TRP	B	772	21.126	35.516	38.021	1.00	31.35
ATOM	4514	CD1	TRP	B	772	21.878	37.212	41.138	1.00	31.40
ATOM	4515	NE1	TRP	B	772	20.569	36.827	41.283	1.00	32.07
ATOM	4516	CZ2	TRP	B	772	18.937	35.591	39.828	1.00	32.13
ATOM	4517	CZ3	TRP	B	772	19.897	34.944	37.701	1.00	31.80
ATOM	4518	CH2	TRP	B	772	18.819	34.987	38.602	1.00	31.93
ATOM	4519	C	TRP	B	772	23.009	38.853	37.865	1.00	27.06
ATOM	4520	O	TRP	B	772	21.913	38.864	37.305	1.00	27.10
ATOM	4521	N	PRO	B	773	23.533	39.964	38.409	1.00	27.24
ATOM	4522	CD	PRO	B	773	24.841	40.176	39.050	1.00	36.67
ATOM	4523	CA	PRO	B	773	22.778	41.220	38.336	1.00	26.63
ATOM	4524	CB	PRO	B	773	23.649	42.192	39.133	1.00	36.87
ATOM	4525	CG	PRO	B	773	25.027	41.669	38.902	1.00	37.42
ATOM	4526	C	PRO	B	773	22.520	41.692	36.914	1.00	25.67
ATOM	4527	O	PRO	B	773	21.476	42.272	36.626	1.00	26.52
ATOM	4528	N	ILE	B	774	23.480	41.443	36.029	1.00	21.82
ATOM	4529	CA	ILE	B	774	23.341	41.834	34.636	1.00	21.26
ATOM	4530	CB	ILE	B	774	24.707	41.788	33.915	1.00	30.27
ATOM	4531	CG2	ILE	B	774	24.523	42.062	32.429	1.00	30.62
ATOM	4532	CG1	ILE	B	774	25.649	42.821	34.543	1.00	31.27
ATOM	4533	CD1	ILE	B	774	27.075	42.765	34.037	1.00	31.12
ATOM	4534	C	ILE	B	774	22.342	40.909	33.947	1.00	20.74
ATOM	4535	O	ILE	B	774	21.452	41.375	33.239	1.00	21.33
ATOM	4536	N	GLN	B	775	22.482	39.604	34.166	1.00	22.90
ATOM	4537	CA	GLN	B	775	21.569	38.636	33.565	1.00	23.62
ATOM	4538	CB	GLN	B	775	21.965	37.205	33.956	1.00	24.73
ATOM	4539	CG	GLN	B	775	20.801	36.214	33.995	1.00	25.27
ATOM	4540	CD	GLN	B	775	20.070	36.062	32.661	1.00	25.01
ATOM	4541	OE1	GLN	B	775	18.983	35.495	32.610	1.00	23.97
ATOM	4542	NE2	GLN	B	775	20.669	36.556	31.583	1.00	25.73
ATOM	4543	C	GLN	B	775	20.127	38.905	33.987	1.00	24.69
ATOM	4544	O	GLN	B	775	19.213	38.883	33.161	1.00	23.74
ATOM	4545	N	GLN	B	776	19.930	39.158	35.277	1.00	24.42
ATOM	4546	CA	GLN	B	776	18.596	39.440	35.800	1.00	25.46
ATOM	4547	CB	GLN	B	776	18.647	39.710	37.303	1.00	39.22
ATOM	4548	CG	GLN	B	776	18.627	38.482	38.172	1.00	40.03
ATOM	4549	CD	GLN	B	776	18.641	38.828	39.648	1.00	40.44
ATOM	4550	OE1	GLN	B	776	19.635	39.339	40.167	1.00	40.18
ATOM	4551	NE2	GLN	B	776	17.536	38.554	40.332	1.00	40.01
ATOM	4552	C	GLN	B	776	17.989	40.658	35.121	1.00	24.70
ATOM	4553	O	GLN	B	776	16.832	40.641	34.712	1.00	25.09
ATOM	4554	N	ARG	B	777	18.773	41.725	35.028	1.00	23.31
ATOM	4555	CA	ARG	B	777	18.298	42.949	34.410	1.00	23.89
ATOM	4556	CB	ARG	B	777	19.369	44.038	34.481	1.00	27.39
ATOM	4557	CG	ARG	B	777	18.902	45.369	33.917	1.00	27.72
ATOM	4558	CD	ARG	B	777	19.965	46.434	34.058	1.00	28.34
ATOM	4559	NE	ARG	B	777	21.102	46.209	33.170	1.00	27.57
ATOM	4560	CZ	ARG	B	777	21.029	46.232	31.843	1.00	27.93
ATOM	4561	NH1	ARG	B	777	19.870	46.468	31.244	1.00	28.38
ATOM	4562	NH2	ARG	B	777	22.119	46.032	31.113	1.00	27.27
ATOM	4563	C	ARG	B	777	17.905	42.728	32.958	1.00	23.38
ATOM	4564	O	ARG	B	777	16.814	43.119	32.535	1.00	24.57
ATOM	4565	N	ILE	B	778	18.784	42.089	32.191	1.00	18.64
ATOM	4566	CA	ILE	B	778	18.487	41.853	30.783	1.00	19.91
ATOM	4567	CB	ILE	B	778	19.729	41.350	30.028	1.00	21.48
ATOM	4568	CG2	ILE	B	778	19.371	41.065	28.575	1.00	21.88
ATOM	4569	CG1	ILE	B	778	20.809	42.432	30.077	1.00	22.67
ATOM	4570	CD1	ILE	B	778	22.127	42.024	29.472	1.00	22.44
ATOM	4571	C	ILE	B	778	17.333	40.880	30.605	1.00	19.30
ATOM	4572	O	ILE	B	778	16.494	41.063	29.718	1.00	18.16
ATOM	4573	N	ALA	B	779	17.272	39.865	31.459	1.00	20.27

ATOM	4574	CA	ALA	B	779	16.193	38.890	31.393	1.00	21.96
ATOM	4575	CB	ALA	B	779	16.333	37.880	32.513	1.00	23.30
ATOM	4576	C	ALA	B	779	14.851	39.610	31.495	1.00	21.94
ATOM	4577	O	ALA	B	779	13.896	39.271	30.790	1.00	21.55
ATOM	4578	N	GLU	B	780	14.780	40.615	32.361	1.00	23.66
ATOM	4579	CA	GLU	B	780	13.539	41.368	32.520	1.00	24.79
ATOM	4580	CB	GLU	B	780	13.643	42.309	33.723	1.00	46.99
ATOM	4581	CG	GLU	B	780	13.971	41.572	35.016	1.00	47.98
ATOM	4582	CD	GLU	B	780	13.473	42.287	36.255	1.00	48.28
ATOM	4583	OE1	GLU	B	780	13.748	43.499	36.398	1.00	48.22
ATOM	4584	OE2	GLU	B	780	12.814	41.630	37.089	1.00	48.29
ATOM	4585	C	GLU	B	780	13.171	42.144	31.251	1.00	23.73
ATOM	4586	O	GLU	B	780	11.989	42.308	30.931	1.00	23.36
ATOM	4587	N	LEU	B	781	14.180	42.615	30.525	1.00	21.19
ATOM	4588	CA	LEU	B	781	13.949	43.336	29.282	1.00	19.63
ATOM	4589	CB	LEU	B	781	15.257	43.926	28.761	1.00	24.73
ATOM	4590	CG	LEU	B	781	15.902	44.956	29.687	1.00	25.34
ATOM	4591	CD1	LEU	B	781	17.189	45.469	29.065	1.00	25.01
ATOM	4592	CD2	LEU	B	781	14.926	46.101	29.913	1.00	24.85
ATOM	4593	C	LEU	B	781	13.393	42.353	28.261	1.00	21.36
ATOM	4594	O	LEU	B	781	12.510	42.686	27.466	1.00	20.39
ATOM	4595	N	VAL	B	782	13.918	41.134	28.286	1.00	21.98
ATOM	4596	CA	VAL	B	782	13.455	40.112	27.360	1.00	22.60
ATOM	4597	CB	VAL	B	782	14.275	38.812	27.499	1.00	22.53
ATOM	4598	CG1	VAL	B	782	13.660	37.713	26.643	1.00	22.91
ATOM	4599	CG2	VAL	B	782	15.712	39.056	27.054	1.00	23.90
ATOM	4600	C	VAL	B	782	11.988	39.808	27.648	1.00	22.59
ATOM	4601	O	VAL	B	782	11.159	39.746	26.737	1.00	22.68
ATOM	4602	N	ALA	B	783	11.671	39.628	28.925	1.00	20.36
ATOM	4603	CA	ALA	B	783	10.301	39.327	29.323	1.00	20.69
ATOM	4604	CB	ALA	B	783	10.232	39.082	30.821	1.00	21.72
ATOM	4605	C	ALA	B	783	9.376	40.474	28.932	1.00	20.76
ATOM	4606	O	ALA	B	783	8.283	40.249	28.426	1.00	22.62
ATOM	4607	N	THR	B	784	9.823	41.704	29.155	1.00	22.97
ATOM	4608	CA	THR	B	784	9.013	42.862	28.807	1.00	23.28
ATOM	4609	CB	THR	B	784	9.752	44.182	29.139	1.00	23.34
ATOM	4610	OG1	THR	B	784	9.934	44.280	30.562	1.00	23.54
ATOM	4611	CG2	THR	B	784	8.956	45.387	28.645	1.00	23.16
ATOM	4612	C	THR	B	784	8.643	42.846	27.322	1.00	23.86
ATOM	4613	O	THR	B	784	7.485	43.086	26.963	1.00	24.06
ATOM	4614	N	GLU	B	785	9.612	42.547	26.459	1.00	20.32
ATOM	4615	CA	GLU	B	785	9.333	42.519	25.029	1.00	19.62
ATOM	4616	CB	GLU	B	785	10.633	42.371	24.221	1.00	19.82
ATOM	4617	CG	GLU	B	785	10.424	42.346	22.703	1.00	19.80
ATOM	4618	CD	GLU	B	785	11.708	42.572	21.908	1.00	22.07
ATOM	4619	OE1	GLU	B	785	11.800	42.066	20.765	1.00	20.56
ATOM	4620	OE2	GLU	B	785	12.620	43.264	22.408	1.00	19.00
ATOM	4621	C	GLU	B	785	8.360	41.386	24.709	1.00	20.53
ATOM	4622	O	GLU	B	785	7.395	41.588	23.964	1.00	20.48
ATOM	4623	N	PHE	B	786	8.603	40.205	25.276	1.00	19.27
ATOM	4624	CA	PHE	B	786	7.725	39.053	25.054	1.00	20.35
ATOM	4625	CB	PHE	B	786	8.185	37.824	25.853	1.00	27.64
ATOM	4626	CG	PHE	B	786	9.394	37.122	25.285	1.00	28.61
ATOM	4627	CD1	PHE	B	786	9.799	37.330	23.971	1.00	28.46
ATOM	4628	CD2	PHE	B	786	10.111	36.225	26.072	1.00	28.06
ATOM	4629	CE1	PHE	B	786	10.903	36.652	23.451	1.00	28.92
ATOM	4630	CE2	PHE	B	786	11.212	35.543	25.561	1.00	28.43
ATOM	4631	CZ	PHE	B	786	11.608	35.758	24.250	1.00	28.30
ATOM	4632	C	PHE	B	786	6.289	39.380	25.475	1.00	20.75
ATOM	4633	O	PHE	B	786	5.340	39.061	24.760	1.00	18.68
ATOM	4634	N	PHE	B	787	6.144	40.003	26.646	1.00	22.35
ATOM	4635	CA	PHE	B	787	4.825	40.361	27.160	1.00	21.89
ATOM	4636	CB	PHE	B	787	4.917	40.801	28.632	1.00	21.52
ATOM	4637	CG	PHE	B	787	5.419	39.729	29.567	1.00	22.41
ATOM	4638	CD1	PHE	B	787	5.256	38.376	29.265	1.00	22.32
ATOM	4639	CD2	PHE	B	787	6.035	40.070	30.771	1.00	21.61

ATOM	4640	CE1	PHE	B	787	5.698	37.384	30.148	1.00	22.73
ATOM	4641	CE2	PHE	B	787	6.478	39.085	31.653	1.00	22.56
ATOM	4642	CZ	PHE	B	787	6.309	37.742	31.341	1.00	21.88
ATOM	4643	C	PHE	B	787	4.154	41.453	26.317	1.00	21.60
ATOM	4644	O	PHE	B	787	2.924	41.484	26.195	1.00	21.58
ATOM	4645	N	ASP	B	788	4.950	42.338	25.721	1.00	20.66
ATOM	4646	CA	ASP	B	788	4.387	43.384	24.872	1.00	21.38
ATOM	4647	CB	ASP	B	788	5.459	44.404	24.467	1.00	29.62
ATOM	4648	CG	ASP	B	788	4.892	45.559	23.646	1.00	31.03
ATOM	4649	OD1	ASP	B	788	4.010	46.284	24.159	1.00	31.00
ATOM	4650	OD2	ASP	B	788	5.327	45.750	22.486	1.00	30.30
ATOM	4651	C	ASP	B	788	3.802	42.712	23.630	1.00	21.98
ATOM	4652	O	ASP	B	788	2.754	43.116	23.138	1.00	20.90
ATOM	4653	N	GLN	B	789	4.480	41.686	23.117	1.00	18.78
ATOM	4654	CA	GLN	B	789	3.950	40.980	21.958	1.00	19.35
ATOM	4655	CB	GLN	B	789	4.947	39.965	21.397	1.00	18.41
ATOM	4656	CG	GLN	B	789	4.283	39.057	20.363	1.00	19.65
ATOM	4657	CD	GLN	B	789	5.228	38.067	19.715	1.00	19.91
ATOM	4658	OE1	GLN	B	789	4.805	37.004	19.253	1.00	20.58
ATOM	4659	NE2	GLN	B	789	6.503	38.413	19.663	1.00	17.85
ATOM	4660	C	GLN	B	789	2.690	40.240	22.382	1.00	19.10
ATOM	4661	O	GLN	B	789	1.728	40.154	21.622	1.00	19.13
ATOM	4662	N	GLY	B	790	2.713	39.701	23.598	1.00	20.13
ATOM	4663	CA	GLY	B	790	1.565	38.983	24.118	1.00	21.62
ATOM	4664	C	GLY	B	790	0.338	39.870	24.089	1.00	21.39
ATOM	4665	O	GLY	B	790	-0.748	39.426	23.711	1.00	20.51
ATOM	4666	N	ASP	B	791	0.506	41.127	24.491	1.00	21.64
ATOM	4667	CA	ASP	B	791	-0.612	42.066	24.488	1.00	23.10
ATOM	4668	CB	ASP	B	791	-0.205	43.401	25.128	1.00	27.91
ATOM	4669	CG	ASP	B	791	0.161	43.263	26.599	1.00	28.04
ATOM	4670	OD1	ASP	B	791	-0.368	42.352	27.271	1.00	28.51
ATOM	4671	OD2	ASP	B	791	0.967	44.083	27.092	1.00	29.30
ATOM	4672	C	ASP	B	791	-1.118	42.307	23.061	1.00	22.57
ATOM	4673	O	ASP	B	791	-2.328	42.422	22.837	1.00	22.71
ATOM	4674	N	ARG	B	792	-0.196	42.388	22.103	1.00	22.55
ATOM	4675	CA	ARG	B	792	-0.557	42.600	20.701	1.00	21.86
ATOM	4676	CB	ARG	B	792	0.697	42.794	19.831	1.00	25.58
ATOM	4677	CG	ARG	B	792	1.559	44.015	20.155	1.00	26.82
ATOM	4678	CD	ARG	B	792	1.268	45.192	19.225	1.00	27.03
ATOM	4679	NE	ARG	B	792	1.602	44.929	17.819	1.00	26.18
ATOM	4680	CZ	ARG	B	792	2.768	45.220	17.247	1.00	26.00
ATOM	4681	NH1	ARG	B	792	3.746	45.785	17.950	1.00	26.11
ATOM	4682	NH2	ARG	B	792	2.943	44.982	15.954	1.00	27.12
ATOM	4683	C	ARG	B	792	-1.338	41.393	20.179	1.00	21.59
ATOM	4684	O	ARG	B	792	-2.251	41.541	19.366	1.00	22.04
ATOM	4685	N	GLU	B	793	-0.981	40.199	20.640	1.00	21.27
ATOM	4686	CA	GLU	B	793	-1.678	38.999	20.189	1.00	23.41
ATOM	4687	CB	GLU	B	793	-0.915	37.741	20.613	1.00	32.13
ATOM	4688	CG	GLU	B	793	0.523	37.716	20.126	1.00	32.18
ATOM	4689	CD	GLU	B	793	1.199	36.378	20.354	1.00	32.76
ATOM	4690	OE1	GLU	B	793	0.883	35.713	21.363	1.00	33.25
ATOM	4691	OE2	GLU	B	793	2.058	35.998	19.531	1.00	32.81
ATOM	4692	C	GLU	B	793	-3.106	38.946	20.726	1.00	23.75
ATOM	4693	O	GLU	B	793	-4.044	38.610	19.995	1.00	22.66
ATOM	4694	N	ARG	B	794	-3.277	39.283	21.999	1.00	24.04
ATOM	4695	CA	ARG	B	794	-4.603	39.256	22.599	1.00	24.34
ATOM	4696	CB	ARG	B	794	-4.564	39.780	24.038	1.00	32.14
ATOM	4697	CG	ARG	B	794	-3.332	39.401	24.824	1.00	33.26
ATOM	4698	CD	ARG	B	794	-3.543	39.603	26.316	1.00	33.20
ATOM	4699	NE	ARG	B	794	-4.342	38.518	26.866	1.00	33.66
ATOM	4700	CZ	ARG	B	794	-3.964	37.749	27.881	1.00	33.17
ATOM	4701	NH1	ARG	B	794	-2.794	37.948	28.472	1.00	33.10
ATOM	4702	NH2	ARG	B	794	-4.748	36.759	28.285	1.00	33.54
ATOM	4703	C	ARG	B	794	-5.566	40.119	21.797	1.00	25.06
ATOM	4704	O	ARG	B	794	-6.713	39.740	21.563	1.00	24.85
ATOM	4705	N	LYS	B	795	-5.090	41.279	21.369	1.00	26.49

ATOM	4706	CA	LYS	B	795	-5.928	42.205	20.627	1.00 27.67
ATOM	4707	CB	LYS	B	795	-5.412	43.633	20.821	1.00 43.32
ATOM	4708	CG	LYS	B	795	-5.021	43.940	22.260	1.00 43.98
ATOM	4709	CD	LYS	B	795	-4.846	45.433	22.504	1.00 44.35
ATOM	4710	CE	LYS	B	795	-6.121	46.059	23.052	1.00 44.46
ATOM	4711	NZ	LYS	B	795	-7.293	45.855	22.159	1.00 44.56
ATOM	4712	C	LYS	B	795	-6.032	41.883	19.140	1.00 27.05
ATOM	4713	O	LYS	B	795	-7.125	41.624	18.636	1.00 28.54
ATOM	4714	N	GLU	B	796	-4.894	41.885	18.451	1.00 25.18
ATOM	4715	CA	GLU	B	796	-4.842	41.634	17.007	1.00 24.55
ATOM	4716	CB	GLU	B	796	-3.464	42.009	16.464	1.00 28.07
ATOM	4717	CG	GLU	B	796	-2.991	43.391	16.889	1.00 29.00
ATOM	4718	CD	GLU	B	796	-1.615	43.741	16.348	1.00 28.65
ATOM	4719	OE1	GLU	B	796	-0.962	44.626	16.931	1.00 29.39
ATOM	4720	OE2	GLU	B	796	-1.187	43.144	15.340	1.00 29.53
ATOM	4721	C	GLU	B	796	-5.173	40.214	16.549	1.00 24.25
ATOM	4722	O	GLU	B	796	-5.637	40.011	15.423	1.00 25.17
ATOM	4723	N	LEU	B	797	-4.922	39.228	17.399	1.00 22.33
ATOM	4724	CA	LEU	B	797	-5.201	37.847	17.021	1.00 21.19
ATOM	4725	CB	LEU	B	797	-3.923	36.999	17.111	1.00 24.95
ATOM	4726	CG	LEU	B	797	-2.757	37.369	16.184	1.00 24.74
ATOM	4727	CD1	LEU	B	797	-1.555	36.486	16.498	1.00 24.36
ATOM	4728	CD2	LEU	B	797	-3.173	37.209	14.720	1.00 25.36
ATOM	4729	C	LEU	B	797	-6.295	37.239	17.889	1.00 22.61
ATOM	4730	O	LEU	B	797	-6.717	36.108	17.657	1.00 21.44
ATOM	4731	N	ASN	B	798	-6.756	38.002	18.877	1.00 22.45
ATOM	4732	CA	ASN	B	798	-7.807	37.556	19.791	1.00 23.65
ATOM	4733	CB	ASN	B	798	-9.165	37.569	19.089	1.00 32.89
ATOM	4734	CG	ASN	B	798	-10.163	38.479	19.777	1.00 34.23
ATOM	4735	OD1	ASN	B	798	-10.392	38.372	20.982	1.00 32.44
ATOM	4736	ND2	ASN	B	798	-10.767	39.381	19.010	1.00 35.38
ATOM	4737	C	ASN	B	798	-7.532	36.164	20.352	1.00 23.21
ATOM	4738	O	ASN	B	798	-8.414	35.305	20.384	1.00 23.77
ATOM	4739	N	ILE	B	799	-6.299	35.945	20.794	1.00 22.30
ATOM	4740	CA	ILE	B	799	-5.914	34.655	21.359	1.00 24.01
ATOM	4741	CB	ILE	B	799	-4.993	33.868	20.403	1.00 37.22
ATOM	4742	CG2	ILE	B	799	-5.661	33.695	19.047	1.00 37.98
ATOM	4743	CG1	ILE	B	799	-3.664	34.613	20.244	1.00 37.41
ATOM	4744	CD1	ILE	B	799	-2.556	33.780	19.633	1.00 37.91
ATOM	4745	C	ILE	B	799	-5.146	34.867	22.658	1.00 23.86
ATOM	4746	O	ILE	B	799	-4.542	35.922	22.867	1.00 22.69
ATOM	4747	N	GLU	B	800	-5.178	33.870	23.533	1.00 27.63
ATOM	4748	CA	GLU	B	800	-4.442	33.961	24.787	1.00 28.49
ATOM	4749	CB	GLU	B	800	-4.912	32.882	25.766	1.00 54.96
ATOM	4750	CG	GLU	B	800	-4.159	32.874	27.091	1.00 55.87
ATOM	4751	CD	GLU	B	800	-4.612	31.758	28.018	1.00 56.25
ATOM	4752	OE1	GLU	B	800	-4.037	31.633	29.121	1.00 56.19
ATOM	4753	OE2	GLU	B	800	-5.541	31.008	27.645	1.00 56.33
ATOM	4754	C	GLU	B	800	-2.995	33.711	24.385	1.00 28.05
ATOM	4755	O	GLU	B	800	-2.712	32.791	23.616	1.00 28.04
ATOM	4756	N	PRO	B	801	-2.060	34.539	24.866	1.00 26.29
ATOM	4757	CD	PRO	B	801	-2.159	35.766	25.673	1.00 32.02
ATOM	4758	CA	PRO	B	801	-0.675	34.280	24.465	1.00 25.59
ATOM	4759	CB	PRO	B	801	0.047	35.561	24.875	1.00 32.25
ATOM	4760	CG	PRO	B	801	-0.719	35.993	26.085	1.00 32.69
ATOM	4761	C	PRO	B	801	-0.115	33.044	25.155	1.00 25.64
ATOM	4762	O	PRO	B	801	-0.688	32.552	26.127	1.00 26.27
ATOM	4763	N	THR	B	802	0.990	32.529	24.634	1.00 27.06
ATOM	4764	CA	THR	B	802	1.622	31.366	25.242	1.00 27.00
ATOM	4765	CB	THR	B	802	2.731	30.798	24.340	1.00 41.37
ATOM	4766	OG1	THR	B	802	3.289	29.626	24.947	1.00 42.49
ATOM	4767	CG2	THR	B	802	3.824	31.831	24.124	1.00 41.44
ATOM	4768	C	THR	B	802	2.220	31.839	26.562	1.00 26.88
ATOM	4769	O	THR	B	802	2.390	33.041	26.776	1.00 25.80
ATOM	4770	N	ASP	B	803	2.526	30.902	27.449	1.00 25.95
ATOM	4771	CA	ASP	B	803	3.096	31.248	28.744	1.00 25.37

ATOM	4772	CB	ASP	B	803	3.534	29.974	29.469	1.00	34.61
ATOM	4773	CG	ASP	B	803	2.374	29.260	30.141	1.00	34.77
ATOM	4774	OD1	ASP	B	803	1.263	29.252	29.568	1.00	34.79
ATOM	4775	OD2	ASP	B	803	2.581	28.699	31.238	1.00	35.35
ATOM	4776	C	ASP	B	803	4.260	32.240	28.673	1.00	24.64
ATOM	4777	O	ASP	B	803	4.283	33.226	29.409	1.00	25.72
ATOM	4778	N	LEU	B	804	5.217	31.999	27.785	1.00	27.10
ATOM	4779	CA	LEU	B	804	6.359	32.899	27.686	1.00	26.94
ATOM	4780	CB	LEU	B	804	7.423	32.300	26.757	1.00	52.26
ATOM	4781	CG	LEU	B	804	7.015	31.757	25.390	1.00	53.10
ATOM	4782	CD1	LEU	B	804	7.196	32.830	24.331	1.00	53.31
ATOM	4783	CD2	LEU	B	804	7.882	30.551	25.052	1.00	53.28
ATOM	4784	C	LEU	B	804	6.012	34.329	27.268	1.00	26.18
ATOM	4785	O	LEU	B	804	6.806	35.240	27.474	1.00	26.67
ATOM	4786	N	MET	B	805	4.823	34.537	26.705	1.00	24.63
ATOM	4787	CA	MET	B	805	4.423	35.880	26.285	1.00	24.58
ATOM	4788	CB	MET	B	805	4.151	35.902	24.780	1.00	30.72
ATOM	4789	CG	MET	B	805	5.333	35.419	23.963	1.00	31.20
ATOM	4790	SD	MET	B	805	5.137	35.642	22.209	1.00	31.94
ATOM	4791	CE	MET	B	805	6.846	35.924	21.734	1.00	31.24
ATOM	4792	C	MET	B	805	3.191	36.373	27.044	1.00	23.91
ATOM	4793	O	MET	B	805	2.552	37.352	26.647	1.00	23.70
ATOM	4794	N	ASN	B	806	2.884	35.699	28.147	1.00	22.71
ATOM	4795	CA	ASN	B	806	1.728	36.042	28.970	1.00	23.25
ATOM	4796	CB	ASN	B	806	0.917	34.772	29.255	1.00	28.25
ATOM	4797	CG	ASN	B	806	-0.352	35.045	30.054	1.00	27.90
ATOM	4798	OD1	ASN	B	806	-0.642	36.181	30.420	1.00	28.09
ATOM	4799	ND2	ASN	B	806	-1.114	33.991	30.325	1.00	28.50
ATOM	4800	C	ASN	B	806	2.177	36.683	30.281	1.00	23.54
ATOM	4801	O	ASN	B	806	2.651	35.992	31.178	1.00	24.88
ATOM	4802	N	ARG	B	807	2.023	38.003	30.386	1.00	22.01
ATOM	4803	CA	ARG	B	807	2.417	38.748	31.585	1.00	22.16
ATOM	4804	CB	ARG	B	807	2.040	40.223	31.426	1.00	30.21
ATOM	4805	CG	ARG	B	807	2.729	41.167	32.399	1.00	30.83
ATOM	4806	CD	ARG	B	807	2.164	42.572	32.270	1.00	30.96
ATOM	4807	NE	ARG	B	807	2.118	43.013	30.879	1.00	31.52
ATOM	4808	CZ	ARG	B	807	3.161	43.482	30.205	1.00	31.30
ATOM	4809	NH1	ARG	B	807	4.347	43.583	30.795	1.00	31.76
ATOM	4810	NH2	ARG	B	807	3.019	43.843	28.935	1.00	30.41
ATOM	4811	C	ARG	B	807	1.753	38.186	32.844	1.00	23.50
ATOM	4812	O	ARG	B	807	2.324	38.241	33.933	1.00	22.48
ATOM	4813	N	GLU	B	808	0.549	37.645	32.694	1.00	27.30
ATOM	4814	CA	GLU	B	808	-0.164	37.075	33.833	1.00	27.61
ATOM	4815	CB	GLU	B	808	-1.585	36.680	33.421	1.00	44.18
ATOM	4816	CG	GLU	B	808	-2.572	37.835	33.427	1.00	44.75
ATOM	4817	CD	GLU	B	808	-3.887	37.494	32.750	1.00	45.10
ATOM	4818	OE1	GLU	B	808	-4.418	36.388	32.990	1.00	44.66
ATOM	4819	OE2	GLU	B	808	-4.390	38.342	31.982	1.00	44.84
ATOM	4820	C	GLU	B	808	0.559	35.865	34.416	1.00	28.07
ATOM	4821	O	GLU	B	808	0.426	35.572	35.604	1.00	27.52
ATOM	4822	N	LYS	B	809	1.328	35.171	33.582	1.00	30.73
ATOM	4823	CA	LYS	B	809	2.063	33.984	34.015	1.00	31.34
ATOM	4824	CB	LYS	B	809	1.888	32.856	32.988	1.00	44.52
ATOM	4825	CG	LYS	B	809	0.443	32.434	32.739	1.00	44.86
ATOM	4826	CD	LYS	B	809	-0.095	31.554	33.853	1.00	45.24
ATOM	4827	CE	LYS	B	809	0.499	30.152	33.794	1.00	45.08
ATOM	4828	NZ	LYS	B	809	0.023	29.386	32.607	1.00	45.32
ATOM	4829	C	LYS	B	809	3.549	34.280	34.187	1.00	31.41
ATOM	4830	O	LYS	B	809	4.389	33.396	34.014	1.00	31.64
ATOM	4831	N	LYS	B	810	3.874	35.522	34.534	1.00	29.88
ATOM	4832	CA	LYS	B	810	5.266	35.924	34.714	1.00	29.67
ATOM	4833	CB	LYS	B	810	5.350	37.417	35.033	1.00	35.65
ATOM	4834	CG	LYS	B	810	4.772	37.787	36.384	1.00	35.72
ATOM	4835	CD	LYS	B	810	4.977	39.256	36.681	1.00	36.06
ATOM	4836	CE	LYS	B	810	4.445	39.617	38.058	1.00	36.21
ATOM	4837	NZ	LYS	B	810	4.806	41.010	38.416	1.00	36.50

ATOM	4838	C	LYS	B	810	5.981	35.135	35.815	1.00	29.55
ATOM	4839	O	LYS	B	810	7.204	35.220	35.954	1.00	29.80
ATOM	4840	N	ASN	B	811	5.221	34.371	36.595	1.00	28.77
ATOM	4841	CA	ASN	B	811	5.809	33.576	37.672	1.00	28.26
ATOM	4842	CB	ASN	B	811	4.716	33.113	38.643	1.00	33.98
ATOM	4843	CG	ASN	B	811	3.760	32.122	38.012	1.00	33.96
ATOM	4844	OD1	ASN	B	811	4.059	30.935	37.904	1.00	34.26
ATOM	4845	ND2	ASN	B	811	2.607	32.611	37.578	1.00	34.21
ATOM	4846	C	ASN	B	811	6.558	32.364	37.122	1.00	28.78
ATOM	4847	O	ASN	B	811	7.277	31.681	37.852	1.00	28.05
ATOM	4848	N	LYS	B	812	6.391	32.112	35.826	1.00	27.42
ATOM	4849	CA	LYS	B	812	7.034	30.983	35.161	1.00	27.06
ATOM	4850	CB	LYS	B	812	6.175	30.518	33.980	1.00	41.02
ATOM	4851	CG	LYS	B	812	5.384	29.246	34.224	1.00	41.61
ATOM	4852	CD	LYS	B	812	4.485	29.360	35.436	1.00	41.66
ATOM	4853	CE	LYS	B	812	3.735	28.062	35.681	1.00	41.87
ATOM	4854	NZ	LYS	B	812	4.665	26.921	35.913	1.00	41.60
ATOM	4855	C	LYS	B	812	8.436	31.306	34.655	1.00	25.94
ATOM	4856	O	LYS	B	812	9.169	30.409	34.248	1.00	27.20
ATOM	4857	N	ILE	B	813	8.814	32.579	34.693	1.00	24.47
ATOM	4858	CA	ILE	B	813	10.126	32.993	34.203	1.00	24.87
ATOM	4859	CB	ILE	B	813	10.353	34.509	34.452	1.00	27.03
ATOM	4860	CG2	ILE	B	813	11.812	34.887	34.190	1.00	26.32
ATOM	4861	CG1	ILE	B	813	9.420	35.312	33.537	1.00	27.43
ATOM	4862	CD1	ILE	B	813	9.422	36.809	33.792	1.00	27.47
ATOM	4863	C	ILE	B	813	11.321	32.198	34.725	1.00	24.94
ATOM	4864	O	ILE	B	813	12.153	31.747	33.940	1.00	24.37
ATOM	4865	N	PRO	B	814	11.433	32.015	36.051	1.00	23.33
ATOM	4866	CD	PRO	B	814	10.649	32.549	37.180	1.00	25.56
ATOM	4867	CA	PRO	B	814	12.588	31.251	36.536	1.00	24.96
ATOM	4868	CB	PRO	B	814	12.336	31.171	38.041	1.00	25.58
ATOM	4869	CG	PRO	B	814	11.650	32.478	38.317	1.00	25.37
ATOM	4870	C	PRO	B	814	12.708	29.870	35.892	1.00	24.30
ATOM	4871	O	PRO	B	814	13.752	29.519	35.346	1.00	26.00
ATOM	4872	N	SER	B	815	11.629	29.101	35.942	1.00	27.38
ATOM	4873	CA	SER	B	815	11.631	27.759	35.372	1.00	28.28
ATOM	4874	CB	SER	B	815	10.320	27.048	35.705	1.00	30.12
ATOM	4875	OG	SER	B	815	9.214	27.762	35.193	1.00	30.40
ATOM	4876	C	SER	B	815	11.852	27.767	33.860	1.00	28.08
ATOM	4877	O	SER	B	815	12.426	26.831	33.307	1.00	28.51
ATOM	4878	N	MET	B	816	11.405	28.822	33.190	1.00	26.53
ATOM	4879	CA	MET	B	816	11.581	28.899	31.743	1.00	25.98
ATOM	4880	CB	MET	B	816	10.633	29.940	31.147	1.00	38.18
ATOM	4881	CG	MET	B	816	9.173	29.635	31.422	1.00	38.60
ATOM	4882	SD	MET	B	816	8.038	30.687	30.502	1.00	40.03
ATOM	4883	CE	MET	B	816	8.543	32.319	31.070	1.00	38.78
ATOM	4884	C	MET	B	816	13.021	29.224	31.384	1.00	25.44
ATOM	4885	O	MET	B	816	13.540	28.736	30.383	1.00	25.22
ATOM	4886	N	GLN	B	817	13.666	30.047	32.207	1.00	24.56
ATOM	4887	CA	GLN	B	817	15.057	30.413	31.984	1.00	24.03
ATOM	4888	CB	GLN	B	817	15.503	31.465	33.000	1.00	23.33
ATOM	4889	CG	GLN	B	817	15.074	32.885	32.672	1.00	23.25
ATOM	4890	CD	GLN	B	817	15.603	33.349	31.331	1.00	24.23
ATOM	4891	OE1	GLN	B	817	15.073	32.980	30.285	1.00	23.44
ATOM	4892	NE2	GLN	B	817	16.666	34.146	31.354	1.00	23.50
ATOM	4893	C	GLN	B	817	15.923	29.166	32.122	1.00	24.21
ATOM	4894	O	GLN	B	817	16.862	28.961	31.350	1.00	25.39
ATOM	4895	N	VAL	B	818	15.609	28.342	33.116	1.00	22.52
ATOM	4896	CA	VAL	B	818	16.350	27.103	33.331	1.00	24.31
ATOM	4897	CB	VAL	B	818	15.820	26.335	34.562	1.00	26.47
ATOM	4898	CG1	VAL	B	818	16.541	24.993	34.688	1.00	26.36
ATOM	4899	CG2	VAL	B	818	16.037	27.164	35.815	1.00	26.36
ATOM	4900	C	VAL	B	818	16.182	26.236	32.085	1.00	23.82
ATOM	4901	O	VAL	B	818	17.148	25.659	31.588	1.00	23.44
ATOM	4902	N	GLY	B	819	14.953	26.172	31.577	1.00	26.53
ATOM	4903	CA	GLY	B	819	14.669	25.386	30.385	1.00	25.97

ATOM	4904	C	GLY	B	819	15.410	25.903	29.164	1.00	25.98
ATOM	4905	O	GLY	B	819	15.928	25.128	28.365	1.00	25.51
ATOM	4906	N	PHE	B	820	15.455	27.223	29.021	1.00	22.89
ATOM	4907	CA	PHE	B	820	16.149	27.869	27.906	1.00	22.59
ATOM	4908	CB	PHE	B	820	15.941	29.389	27.997	1.00	24.78
ATOM	4909	CG	PHE	B	820	16.821	30.195	27.078	1.00	26.25
ATOM	4910	CD1	PHE	B	820	16.716	30.071	25.696	1.00	25.90
ATOM	4911	CD2	PHE	B	820	17.742	31.104	27.601	1.00	24.43
ATOM	4912	CE1	PHE	B	820	17.513	30.841	24.845	1.00	25.64
ATOM	4913	CE2	PHE	B	820	18.545	31.877	26.762	1.00	25.89
ATOM	4914	CZ	PHE	B	820	18.432	31.747	25.381	1.00	25.35
ATOM	4915	C	PHE	B	820	17.641	27.535	27.953	1.00	22.74
ATOM	4916	O	PHE	B	820	18.256	27.231	26.932	1.00	21.86
ATOM	4917	N	ILE	B	821	18.222	27.595	29.143	1.00	24.60
ATOM	4918	CA	ILE	B	821	19.640	27.303	29.295	1.00	26.01
ATOM	4919	CB	ILE	B	821	20.099	27.593	30.739	1.00	23.25
ATOM	4920	CG2	ILE	B	821	21.480	27.001	30.984	1.00	23.21
ATOM	4921	CG1	ILE	B	821	20.096	29.105	30.980	1.00	22.99
ATOM	4922	CD1	ILE	B	821	20.409	29.506	32.410	1.00	23.26
ATOM	4923	C	ILE	B	821	19.944	25.848	28.929	1.00	26.27
ATOM	4924	O	ILE	B	821	20.893	25.565	28.187	1.00	26.66
ATOM	4925	N	ASP	B	822	19.129	24.931	29.436	1.00	29.94
ATOM	4926	CA	ASP	B	822	19.332	23.511	29.168	1.00	30.98
ATOM	4927	CB	ASP	B	822	18.391	22.657	30.023	1.00	31.31
ATOM	4928	CG	ASP	B	822	18.798	22.617	31.478	1.00	31.53
ATOM	4929	OD1	ASP	B	822	19.984	22.882	31.771	1.00	31.53
ATOM	4930	OD2	ASP	B	822	17.939	22.301	32.330	1.00	31.44
ATOM	4931	C	ASP	B	822	19.147	23.103	27.715	1.00	30.90
ATOM	4932	O	ASP	B	822	19.963	22.368	27.162	1.00	31.36
ATOM	4933	N	ALA	B	823	18.070	23.577	27.102	1.00	28.23
ATOM	4934	CA	ALA	B	823	17.757	23.217	25.724	1.00	27.21
ATOM	4935	CB	ALA	B	823	16.268	23.438	25.470	1.00	28.57
ATOM	4936	C	ALA	B	823	18.563	23.923	24.642	1.00	27.07
ATOM	4937	O	ALA	B	823	18.861	23.330	23.607	1.00	27.74
ATOM	4938	N	ILE	B	824	18.926	25.178	24.878	1.00	23.52
ATOM	4939	CA	ILE	B	824	19.639	25.950	23.869	1.00	23.73
ATOM	4940	CB	ILE	B	824	18.802	27.205	23.482	1.00	34.66
ATOM	4941	CG2	ILE	B	824	19.646	28.198	22.686	1.00	35.04
ATOM	4942	CG1	ILE	B	824	17.571	26.780	22.682	1.00	35.26
ATOM	4943	CD1	ILE	B	824	17.912	26.136	21.354	1.00	35.75
ATOM	4944	C	ILE	B	824	21.052	26.416	24.195	1.00	23.62
ATOM	4945	O	ILE	B	824	21.963	26.256	23.387	1.00	24.76
ATOM	4946	N	CYS	B	825	21.242	26.982	25.381	1.00	25.35
ATOM	4947	CA	CYS	B	825	22.537	27.545	25.750	1.00	25.12
ATOM	4948	CB	CYS	B	825	22.322	28.602	26.827	1.00	22.81
ATOM	4949	SG	CYS	B	825	21.059	29.783	26.356	1.00	22.83
ATOM	4950	C	CYS	B	825	23.700	26.653	26.169	1.00	25.45
ATOM	4951	O	CYS	B	825	24.796	26.778	25.627	1.00	26.37
ATOM	4952	N	LEU	B	826	23.477	25.783	27.145	1.00	25.06
ATOM	4953	CA	LEU	B	826	24.541	24.921	27.651	1.00	26.86
ATOM	4954	CB	LEU	B	826	23.954	23.898	28.626	1.00	41.13
ATOM	4955	CG	LEU	B	826	24.523	23.958	30.048	1.00	41.95
ATOM	4956	CD1	LEU	B	826	24.537	25.392	30.550	1.00	41.82
ATOM	4957	CD2	LEU	B	826	23.695	23.076	30.967	1.00	41.66
ATOM	4958	C	LEU	B	826	25.397	24.208	26.606	1.00	25.29
ATOM	4959	O	LEU	B	826	26.623	24.327	26.619	1.00	27.23
ATOM	4960	N	GLN	B	827	24.764	23.467	25.703	1.00	27.86
ATOM	4961	CA	GLN	B	827	25.512	22.737	24.679	1.00	27.22
ATOM	4962	CB	GLN	B	827	24.560	21.935	23.796	1.00	43.35
ATOM	4963	CG	GLN	B	827	23.663	20.981	24.546	1.00	43.82
ATOM	4964	CD	GLN	B	827	22.683	20.289	23.626	1.00	44.18
ATOM	4965	OE1	GLN	B	827	23.077	19.509	22.759	1.00	44.12
ATOM	4966	NE2	GLN	B	827	21.396	20.582	23.800	1.00	44.14
ATOM	4967	C	GLN	B	827	26.346	23.652	23.791	1.00	27.96
ATOM	4968	O	GLN	B	827	27.469	23.310	23.417	1.00	27.98
ATOM	4969	N	LEU	B	828	25.789	24.807	23.439	1.00	23.58

ATOM	4970	CA	LEU	B	828	26.491	25.753	22.585	1.00	23.82
ATOM	4971	CB	LEU	B	828	25.574	26.922	22.212	1.00	24.08
ATOM	4972	CG	LEU	B	828	26.222	28.012	21.353	1.00	24.69
ATOM	4973	CD1	LEU	B	828	26.835	27.406	20.087	1.00	24.52
ATOM	4974	CD2	LEU	B	828	25.180	29.058	21.001	1.00	24.55
ATOM	4975	C	LEU	B	828	27.768	26.289	23.218	1.00	23.20
ATOM	4976	O	LEU	B	828	28.824	26.307	22.586	1.00	23.94
ATOM	4977	N	TYR	B	829	27.681	26.736	24.464	1.00	24.32
ATOM	4978	CA	TYR	B	829	28.866	27.266	25.122	1.00	24.21
ATOM	4979	CB	TYR	B	829	28.461	28.040	26.378	1.00	23.28
ATOM	4980	CG	TYR	B	829	27.724	29.315	26.015	1.00	21.35
ATOM	4981	CD1	TYR	B	829	28.358	30.318	25.280	1.00	22.17
ATOM	4982	CE1	TYR	B	829	27.673	31.462	24.866	1.00	21.77
ATOM	4983	CD2	TYR	B	829	26.383	29.488	26.337	1.00	23.05
ATOM	4984	CE2	TYR	B	829	25.686	30.630	25.928	1.00	21.86
ATOM	4985	CZ	TYR	B	829	26.338	31.609	25.192	1.00	22.76
ATOM	4986	OH	TYR	B	829	25.662	32.733	24.759	1.00	20.79
ATOM	4987	C	TYR	B	829	29.871	26.163	25.428	1.00	25.08
ATOM	4988	O	TYR	B	829	31.076	26.408	25.465	1.00	24.92
ATOM	4989	N	GLU	B	830	29.380	24.944	25.628	1.00	25.46
ATOM	4990	CA	GLU	B	830	30.278	23.826	25.892	1.00	27.34
ATOM	4991	CB	GLU	B	830	29.482	22.572	26.268	1.00	35.78
ATOM	4992	CG	GLU	B	830	28.822	22.637	27.635	1.00	36.70
ATOM	4993	CD	GLU	B	830	27.981	21.409	27.938	1.00	36.51
ATOM	4994	OE1	GLU	B	830	27.433	21.318	29.056	1.00	36.91
ATOM	4995	OE2	GLU	B	830	27.863	20.533	27.053	1.00	37.38
ATOM	4996	C	GLU	B	830	31.087	23.563	24.624	1.00	26.06
ATOM	4997	O	GLU	B	830	32.305	23.377	24.679	1.00	26.54
ATOM	4998	N	ALA	B	831	30.398	23.566	23.486	1.00	25.64
ATOM	4999	CA	ALA	B	831	31.026	23.332	22.189	1.00	23.78
ATOM	5000	CB	ALA	B	831	29.952	23.253	21.093	1.00	30.54
ATOM	5001	C	ALA	B	831	32.031	24.427	21.853	1.00	24.89
ATOM	5002	O	ALA	B	831	33.110	24.151	21.328	1.00	24.70
ATOM	5003	N	LEU	B	832	31.679	25.671	22.158	1.00	22.52
ATOM	5004	CA	LEU	B	832	32.578	26.778	21.872	1.00	23.49
ATOM	5005	CB	LEU	B	832	31.905	28.116	22.198	1.00	21.26
ATOM	5006	CG	LEU	B	832	32.754	29.333	21.824	1.00	22.68
ATOM	5007	CD1	LEU	B	832	33.199	29.213	20.369	1.00	21.78
ATOM	5008	CD2	LEU	B	832	31.963	30.613	22.042	1.00	22.23
ATOM	5009	C	LEU	B	832	33.854	26.627	22.694	1.00	22.63
ATOM	5010	O	LEU	B	832	34.955	26.916	22.220	1.00	23.62
ATOM	5011	N	THR	B	833	33.697	26.165	23.928	1.00	26.15
ATOM	5012	CA	THR	B	833	34.828	25.973	24.822	1.00	27.69
ATOM	5013	CB	THR	B	833	34.350	25.621	26.247	1.00	25.51
ATOM	5014	OG1	THR	B	833	33.549	26.695	26.759	1.00	27.15
ATOM	5015	CG2	THR	B	833	35.539	25.401	27.181	1.00	26.42
ATOM	5016	C	THR	B	833	35.733	24.862	24.293	1.00	27.86
ATOM	5017	O	THR	B	833	36.949	24.876	24.506	1.00	27.78
ATOM	5018	N	HIS	B	834	35.132	23.904	23.600	1.00	29.42
ATOM	5019	CA	HIS	B	834	35.885	22.795	23.026	1.00	30.11
ATOM	5020	CB	HIS	B	834	34.920	21.755	22.449	1.00	46.85
ATOM	5021	CG	HIS	B	834	35.571	20.457	22.084	1.00	47.63
ATOM	5022	CD2	HIS	B	834	36.207	20.064	20.955	1.00	47.79
ATOM	5023	ND1	HIS	B	834	35.621	19.382	22.945	1.00	47.75
ATOM	5024	CE1	HIS	B	834	36.257	18.381	22.361	1.00	47.72
ATOM	5025	NE2	HIS	B	834	36.623	18.769	21.153	1.00	47.50
ATOM	5026	C	HIS	B	834	36.773	23.351	21.912	1.00	30.08
ATOM	5027	O	HIS	B	834	37.939	22.972	21.773	1.00	30.93
ATOM	5028	N	VAL	B	835	36.209	24.259	21.119	1.00	25.19
ATOM	5029	CA	VAL	B	835	36.935	24.866	20.015	1.00	25.37
ATOM	5030	CB	VAL	B	835	35.986	25.730	19.144	1.00	27.06
ATOM	5031	CG1	VAL	B	835	36.764	26.460	18.071	1.00	27.88
ATOM	5032	CG2	VAL	B	835	34.932	24.842	18.505	1.00	27.32
ATOM	5033	C	VAL	B	835	38.107	25.704	20.515	1.00	25.36
ATOM	5034	O	VAL	B	835	39.204	25.626	19.971	1.00	25.68
ATOM	5035	N	SER	B	836	37.874	26.504	21.552	1.00	28.63

	ATOM	5036	CA	SER	B	836	38.926	27.340	22.130	1.00 29.30
	ATOM	5037	CB	SER	B	836	38.924	28.734	21.489	1.00 32.06
	ATOM	5038	OG	SER	B	836	39.982	29.529	21.996	1.00 32.73
	ATOM	5039	C	SER	B	836	38.674	27.454	23.629	1.00 29.51
5	ATOM	5040	O	SER	B	836	37.718	28.096	24.058	1.00 28.84
	ATOM	5041	N	GLU	B	837	39.530	26.825	24.426	1.00 26.81
	ATOM	5042	CA	GLU	B	837	39.359	26.846	25.874	1.00 27.10
	ATOM	5043	CB	GLU	B	837	40.430	25.972	26.536	1.00 50.60
	ATOM	5044	CG	GLU	B	837	41.843	26.245	26.062	1.00 51.48
10	ATOM	5045	CD	GLU	B	837	42.811	25.145	26.460	1.00 51.89
	ATOM	5046	OE1	GLU	B	837	42.985	24.912	27.677	1.00 51.52
	ATOM	5047	OE2	GLU	B	837	43.394	24.512	25.552	1.00 51.73
	ATOM	5048	C	GLU	B	837	39.348	28.242	26.494	1.00 26.43
	ATOM	5049	O	GLU	B	837	38.902	28.413	27.628	1.00 27.28
15	ATOM	5050	N	ASP	B	838	39.819	29.238	25.749	1.00 24.88
	ATOM	5051	CA	ASP	B	838	39.846	30.604	26.254	1.00 25.77
	ATOM	5052	CB	ASP	B	838	40.811	31.457	25.428	1.00 38.63
	ATOM	5053	CG	ASP	B	838	42.256	31.011	25.582	1.00 39.53
	ATOM	5054	OD1	ASP	B	838	42.765	31.036	26.724	1.00 39.53
20	ATOM	5055	OD2	ASP	B	838	42.877	30.633	24.568	1.00 39.29
	ATOM	5056	C	ASP	B	838	38.449	31.226	26.252	1.00 25.03
	ATOM	5057	O	ASP	B	838	38.277	32.360	26.699	1.00 25.25
	ATOM	5058	N	CYS	B	839	37.464	30.483	25.748	1.00 29.32
	ATOM	5059	CA	CYS	B	839	36.073	30.949	25.721	1.00 28.67
25	ATOM	5060	CB	CYS	B	839	35.383	30.561	24.400	1.00 25.46
	ATOM	5061	SG	CYS	B	839	35.809	31.580	22.967	1.00 23.35
	ATOM	5062	C	CYS	B	839	35.299	30.342	26.895	1.00 29.69
	ATOM	5063	O	CYS	B	839	34.075	30.468	26.984	1.00 29.52
	ATOM	5064	N	PHE	B	840	36.023	29.686	27.798	1.00 26.11
30	ATOM	5065	CA	PHE	B	840	35.405	29.055	28.960	1.00 25.54
	ATOM	5066	CB	PHE	B	840	36.467	28.387	29.834	1.00 29.48
	ATOM	5067	CG	PHE	B	840	35.916	27.797	31.101	1.00 29.46
	ATOM	5068	CD1	PHE	B	840	35.084	26.679	31.060	1.00 29.72
	ATOM	5069	CD2	PHE	B	840	36.204	28.373	32.333	1.00 29.95
35	ATOM	5070	CE1	PHE	B	840	34.546	26.143	32.231	1.00 30.22
	ATOM	5071	CE2	PHE	B	840	35.671	27.845	33.512	1.00 29.42
	ATOM	5072	CZ	PHE	B	840	34.840	26.729	33.460	1.00 29.68
	ATOM	5073	C	PHE	B	840	34.567	29.996	29.831	1.00 26.06
	ATOM	5074	O	PHE	B	840	33.531	29.593	30.354	1.00 26.34
40	ATOM	5075	N	PRO	B	841	35.007	31.253	30.013	1.00 25.13
	ATOM	5076	CD	PRO	B	841	36.255	31.904	29.575	1.00 24.36
	ATOM	5077	CA	PRO	B	841	34.210	32.164	30.846	1.00 24.99
	ATOM	5078	CB	PRO	B	841	34.927	33.502	30.673	1.00 24.78
	ATOM	5079	CG	PRO	B	841	36.368	33.073	30.535	1.00 24.46
45	ATOM	5080	C	PRO	B	841	32.729	32.229	30.446	1.00 24.81
	ATOM	5081	O	PRO	B	841	31.865	32.393	31.300	1.00 25.33
	ATOM	5082	N	LEU	B	842	32.435	32.096	29.155	1.00 24.08
	ATOM	5083	CA	LEU	B	842	31.044	32.143	28.707	1.00 22.49
	ATOM	5084	CB	LEU	B	842	30.972	32.171	27.177	1.00 19.33
50	ATOM	5085	CG	LEU	B	842	31.614	33.377	26.488	1.00 20.20
	ATOM	5086	CD1	LEU	B	842	31.712	33.118	24.985	1.00 19.25
	ATOM	5087	CD2	LEU	B	842	30.794	34.632	26.783	1.00 20.71
	ATOM	5088	C	LEU	B	842	30.260	30.944	29.242	1.00 22.87
	ATOM	5089	O	LEU	B	842	29.143	31.088	29.732	1.00 23.13
55	ATOM	5090	N	LEU	B	843	30.855	29.760	29.158	1.00 22.66
	ATOM	5091	CA	LEU	B	843	30.195	28.553	29.640	1.00 22.53
	ATOM	5092	CB	LEU	B	843	31.032	27.317	29.298	1.00 33.57
	ATOM	5093	CG	LEU	B	843	30.366	25.935	29.275	1.00 34.94
	ATOM	5094	CD1	LEU	B	843	31.458	24.882	29.157	1.00 34.20
60	ATOM	5095	CD2	LEU	B	843	29.540	25.691	30.515	1.00 34.62
	ATOM	5096	C	LEU	B	843	30.024	28.635	31.153	1.00 22.75
	ATOM	5097	O	LEU	B	843	28.976	28.280	31.690	1.00 22.24
	ATOM	5098	N	ASP	B	844	31.068	29.101	31.831	1.00 25.80
	ATOM	5099	CA	ASP	B	844	31.061	29.228	33.283	1.00 26.51
65	ATOM	5100	CB	ASP	B	844	32.425	29.733	33.761	1.00 37.17
	ATOM	5101	CG	ASP	B	844	32.584	29.653	35.267	1.00 37.71

ATOM	5102	OD1	ASP	B	844	32.277	28.589	35.844	1.00	37.75
ATOM	5103	OD2	ASP	B	844	33.028	30.654	35.871	1.00	38.29
ATOM	5104	C	ASP	B	844	29.953	30.171	33.750	1.00	26.88
ATOM	5105	O	ASP	B	844	29.215	29.855	34.683	1.00	25.76
ATOM	5106	N	GLY	B	845	29.840	31.323	33.093	1.00	27.19
ATOM	5107	CA	GLY	B	845	28.811	32.281	33.457	1.00	27.20
ATOM	5108	C	GLY	B	845	27.418	31.719	33.239	1.00	27.51
ATOM	5109	O	GLY	B	845	26.511	31.944	34.043	1.00	26.76
ATOM	5110	N	CYS	B	846	27.246	30.982	32.147	1.00	23.86
ATOM	5111	CA	CYS	B	846	25.956	30.381	31.838	1.00	24.52
ATOM	5112	CB	CYS	B	846	26.026	29.636	30.505	1.00	23.78
ATOM	5113	SG	CYS	B	846	24.460	28.924	29.962	1.00	22.31
ATOM	5114	C	CYS	B	846	25.538	29.414	32.938	1.00	24.60
ATOM	5115	O	CYS	B	846	24.388	29.414	33.373	1.00	24.31
ATOM	5116	N	ARG	B	847	26.477	28.589	33.394	1.00	26.53
ATOM	5117	CA	ARG	B	847	26.174	27.621	34.438	1.00	26.50
ATOM	5118	CB	ARG	B	847	27.317	26.605	34.556	1.00	46.23
ATOM	5119	CG	ARG	B	847	27.486	25.797	33.273	1.00	46.99
ATOM	5120	CD	ARG	B	847	28.277	24.507	33.443	1.00	47.45
ATOM	5121	NE	ARG	B	847	29.724	24.700	33.406	1.00	47.23
ATOM	5122	CZ	ARG	B	847	30.594	23.737	33.111	1.00	47.33
ATOM	5123	NH1	ARG	B	847	30.165	22.517	32.822	1.00	47.47
ATOM	5124	NH2	ARG	B	847	31.896	23.989	33.109	1.00	46.97
ATOM	5125	C	ARG	B	847	25.893	28.301	35.776	1.00	26.91
ATOM	5126	O	ARG	B	847	25.046	27.842	36.549	1.00	27.77
ATOM	5127	N	LYS	B	848	26.592	29.400	36.039	1.00	28.28
ATOM	5128	CA	LYS	B	848	26.384	30.155	37.271	1.00	27.83
ATOM	5129	CB	LYS	B	848	27.420	31.277	37.399	1.00	32.07
ATOM	5130	CG	LYS	B	848	28.831	30.798	37.731	1.00	32.23
ATOM	5131	CD	LYS	B	848	29.798	31.975	37.858	1.00	32.55
ATOM	5132	CE	LYS	B	848	31.198	31.513	38.248	1.00	32.52
ATOM	5133	NZ	LYS	B	848	32.179	32.642	38.241	1.00	33.18
ATOM	5134	C	LYS	B	848	24.973	30.740	37.257	1.00	28.34
ATOM	5135	O	LYS	B	848	24.291	30.758	38.282	1.00	28.54
ATOM	5136	N	ASN	B	849	24.525	31.213	36.097	1.00	24.72
ATOM	5137	CA	ASN	B	849	23.179	31.765	36.026	1.00	24.90
ATOM	5138	CB	ASN	B	849	22.975	32.558	34.734	1.00	24.86
ATOM	5139	CG	ASN	B	849	23.561	33.949	34.817	1.00	25.77
ATOM	5140	OD1	ASN	B	849	23.482	34.602	35.865	1.00	26.99
ATOM	5141	ND2	ASN	B	849	24.139	34.422	33.717	1.00	25.44
ATOM	5142	C	ASN	B	849	22.117	30.676	36.149	1.00	24.90
ATOM	5143	O	ASN	B	849	21.041	30.909	36.698	1.00	25.65
ATOM	5144	N	ARG	B	850	22.410	29.484	35.639	1.00	26.25
ATOM	5145	CA	ARG	B	850	21.452	28.392	35.738	1.00	26.05
ATOM	5146	CB	ARG	B	850	21.991	27.128	35.071	1.00	37.42
ATOM	5147	CG	ARG	B	850	21.057	25.945	35.237	1.00	37.84
ATOM	5148	CD	ARG	B	850	21.721	24.635	34.879	1.00	37.92
ATOM	5149	NE	ARG	B	850	20.875	23.509	35.261	1.00	38.86
ATOM	5150	CZ	ARG	B	850	19.666	23.286	34.761	1.00	38.08
ATOM	5151	NH1	ARG	B	850	19.168	24.114	33.854	1.00	39.16
ATOM	5152	NH2	ARG	B	850	18.950	22.247	35.172	1.00	37.88
ATOM	5153	C	ARG	B	850	21.209	28.112	37.217	1.00	26.02
ATOM	5154	O	ARG	B	850	20.087	27.861	37.646	1.00	25.93
ATOM	5155	N	GLN	B	851	22.290	28.148	37.986	1.00	29.35
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ATOM	5157	CB	GLN	B	851	23.641	28.042	40.006	1.00	57.33
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ATOM	5159	CD	GLN	B	851	25.130	28.731	41.920	1.00	58.63
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ATOM	5162	C	GLN	B	851	21.289	28.920	40.068	1.00	29.02
ATOM	5163	O	GLN	B	851	20.413	28.550	40.852	1.00	29.23
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ATOM	5165	CA	LYS	B	852	20.635	31.253	40.283	1.00	28.58
ATOM	5166	CB	LYS	B	852	21.150	32.616	39.815	1.00	42.42
ATOM	5167	CG	LYS	B	852	22.495	33.007	40.409	1.00	42.77

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ATOM   5168  CD  LYS B 852      22.371  33.238  41.906  1.00 42.79
ATOM   5169  CE  LYS B 852      23.700  33.633  42.527  1.00 43.26
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ATOM   5172  O   LYS B 852      18.296  31.254  40.819  1.00 28.28
ATOM   5173  N   TRP B 853      18.846  30.854  38.672  1.00 28.99
ATOM   5174  CA  TRP B 853      17.454  30.709  38.252  1.00 29.17
ATOM   5175  CB  TRP B 853      17.355  30.629  36.719  1.00 25.14
ATOM   5176  CG  TRP B 853      17.517  31.963  36.032  1.00 23.87
ATOM   5177  CD2 TRP B 853      16.695  33.121  36.210  1.00 23.86
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ATOM   5179  CE3 TRP B 853      15.567  33.400  36.995  1.00 24.36
ATOM   5180  CD1 TRP B 853      18.475  32.311  35.121  1.00 24.42
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ATOM   5182  CZ2 TRP B 853      16.648  35.412  35.305  1.00 23.69
ATOM   5183  CZ3 TRP B 853      15.002  34.669  36.924  1.00 23.64
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ATOM   5185  C   TRP B 853      16.783  29.488  38.882  1.00 29.77
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ATOM   5187  N   GLN B 854      17.504  28.371  38.946  1.00 29.55
ATOM   5188  CA  GLN B 854      16.951  27.150  39.526  1.00 30.02
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ATOM   5190  CG  GLN B 854      17.451  24.662  39.918  1.00 34.86
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ATOM   5192  OE1 GLN B 854      15.984  24.197  38.085  1.00 35.00
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ATOM   5194  C   GLN B 854      16.611  27.328  41.005  1.00 30.99
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ATOM   5206  CD2 LEU B 856      15.266  33.443  43.367  1.00 30.22
ATOM   5207  C   LEU B 856      13.179  29.805  42.054  1.00 34.94
ATOM   5208  O   LEU B 856      12.076  30.012  42.555  1.00 34.78
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ATOM   5218  CD  GLU B 858      16.249  24.329  44.252  1.00 56.70
ATOM   5219  OE1 GLU B 858      16.752  23.629  43.346  1.00 56.58
ATOM   5220  OE2 GLU B 858      16.700  24.370  45.415  1.00 56.71
ATOM   5221  C   GLU B 858      12.037  25.541  44.416  1.00 42.83
ATOM   5222  O   GLU B 858      11.799  26.744  44.645  1.00 42.70
ATOM   5223  OXT GLU B 858      11.814  24.618  45.227  1.00 56.34
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ATOM   5225  N1  SIL A   1     -13.215  -5.663  26.629  1.00 24.07
ATOM   5226  C18 SIL A   1     -13.515  -5.899  27.857  1.00 24.70
ATOM   5227  C19 SIL A   1     -14.726  -6.742  28.146  1.00 24.74
ATOM   5228  C43 SIL A   1     -15.702  -6.365  29.114  1.00 25.67
ATOM   5229  O44 SIL A   1     -15.506  -5.152  29.812  1.00 24.76
ATOM   5230  C45 SIL A   1     -16.389  -4.626  30.824  1.00 25.28
ATOM   5231  C47 SIL A   1     -15.790  -3.294  31.325  1.00 25.55
ATOM   5232  C41 SIL A   1     -16.830  -7.231  29.333  1.00 25.19
ATOM   5233  C39 SIL A   1     -16.955  -8.443  28.594  1.00 26.15
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ATOM   5234  C22 SIL A   1     -15.963  -8.801  27.633  1.00 25.41
ATOM   5235  S23 SIL A   1     -16.074 -10.311  26.687  1.00 26.04
ATOM   5236  O38 SIL A   1     -17.300 -10.973  27.102  1.00 25.69
ATOM   5237  O37 SIL A   1     -14.845 -11.046  26.958  1.00 26.01
ATOM   5238  N24 SIL A   1     -16.149 -10.048  25.039  1.00 26.05
ATOM   5239  C35 SIL A   1     -17.168  -8.998  24.670  1.00 26.28
ATOM   5240  C33 SIL A   1     -17.218  -8.772  23.126  1.00 26.30
ATOM   5241  N29 SIL A   1     -15.854  -8.482  22.563  1.00 26.54
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ATOM   5243  C27 SIL A   1     -14.887  -9.587  22.889  1.00 26.44
ATOM   5244  C25 SIL A   1     -14.787  -9.831  24.428  1.00 25.61
ATOM   5245  C20 SIL A   1     -14.868  -7.946  27.427  1.00 25.44
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ATOM   5250  N11 SIL A   1     -10.297  -3.680  26.649  1.00 24.67
ATOM   5251  C12 SIL A   1      -9.206  -2.961  27.299  1.00 25.39
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TER
ATOM   5259  N1  SIL B   1      15.164  33.812  25.541  1.00 25.10
ATOM   5260  C18 SIL B   1      14.895  33.565  26.769  1.00 24.27
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ATOM   5264  C45 SIL B   1      12.006  34.722  29.810  1.00 25.69
ATOM   5265  C47 SIL B   1      12.558  36.064  30.336  1.00 25.09
ATOM   5266  C41 SIL B   1      11.622  32.157  28.280  1.00 25.59
ATOM   5267  C39 SIL B   1      11.507  30.960  27.526  1.00 25.77
ATOM   5268  C22 SIL B   1      12.487  30.633  26.544  1.00 25.79
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ATOM   5271  O37 SIL B   1      13.594  28.402  25.827  1.00 26.31
ATOM   5272  N24 SIL B   1      12.244  29.398  23.942  1.00 26.57
ATOM   5273  C35 SIL B   1      11.267  30.495  23.609  1.00 25.93
ATOM   5274  C33 SIL B   1      11.168  30.716  22.066  1.00 26.61
ATOM   5275  N29 SIL B   1      12.519  30.913  21.439  1.00 26.95
ATOM   5276  C31 SIL B   1      12.402  31.132  19.969  1.00 25.72
ATOM   5277  C27 SIL B   1      13.436  29.763  21.739  1.00 26.60
ATOM   5278  C25 SIL B   1      13.583  29.525  23.276  1.00 26.54
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ATOM   5281  C15 SIL B   1      16.778  34.843  27.541  1.00 25.62
ATOM   5282  O16 SIL B   1      17.471  35.279  28.442  1.00 25.56
ATOM   5283  C14 SIL B   1      17.109  35.142  26.111  1.00 24.85
ATOM   5284  N11 SIL B   1      18.054  35.828  25.516  1.00 24.72
ATOM   5285  C12 SIL B   1      19.147  36.556  26.153  1.00 25.78
ATOM   5286  N10 SIL B   1      17.863  35.755  24.172  1.00 25.21
ATOM   5287  C3  SIL B   1      16.841  35.056  23.885  1.00 25.43
ATOM   5288  C4  SIL B   1      16.304  34.734  22.500  1.00 25.15
ATOM   5289  C6  SIL B   1      15.454  35.880  21.819  1.00 26.50
ATOM   5290  C8  SIL B   1      15.284  37.187  22.646  1.00 26.25
ATOM   5291  C2  SIL B   1      16.305  34.627  25.167  1.00 24.69
TER
ATOM   5293 ZN   ZN  A 864     -8.302   0.061  19.726  1.00 33.93
ATOM   5294 MG   MG  A 865    -10.882  -0.915  17.074  1.00 20.57
TER
ATOM   5296 ZN   ZN  B 864     19.969  39.499  18.508  1.00 25.29
ATOM   5297 MG   MG  B 865      0.014   0.254  -1.283  1.00 32.82
END
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Abbreviations

cAMP	cyclic adenosine monophosphate
cGMP	cyclic guanosine monophosphate
PDE	phosphodiesterase
PGK	protein kinase G
MAD	multi-wavelength anomalous dispersion
PCR	polymerase chain reaction
2YT	16g tryptone, 10g yeast extract, 5g NaCl per litre solution
Tris	tris[hydroxymethyl]amino-methane
E-64	epoxysuccinyl-l-leucylamido-(4-guanidino) butane
DTT	DL-dithiothreitol
β-ME	β-mercaptoethanol
IPTG	β-D-isopropyl-thiogalactopyranoside
EDTA	ethylenediamine tetraacetic acid
Bis-Tris	bis[2-hydroxyethyl]imino-tris[hydroxymethyl]methane
PEG	polyethylene glycol
PEG2KMME	polyethylene glycol 2000 monomethyl ether
PEG4KMME	polyethylene glycol 4000 monomethyl ether
PEG8KMME	polyethylene glycol 8000 monomethyl ether
rmsd	root mean square deviation
rpm	revolutions per minute
Moi (or MOI)	multiplicity of infection
Sildenafil	5-[2-ethoxy-5-(4-methyl-1-piperazinylsulphonyl)phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H-pyrazolo[4,3-d]pyrimidin-7-one, which is also known as 1-[[3-(6,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulphonyl]-4-methylpiperazine (see EP-A-0463756)

UK-092,480 see "Sildenafil"

List of Sequences (which forms part of the description)

SEQ ID NO: 1

Wild-type PDE5 "loop region"

HRGVNNSYIQRSEHPLAQLYCHSIME

SEQ ID NO: 2

Wild-type PDE5 catalytic domain

EEETRELQSLAAAVVPSAQTLKITDFSFSDFELSDLETALCTIRMFTDLNLVQNF
QMKHEVLCRWILSVKKNYRKNVAYHNWRHAFNTAQCMFAALKAGKIQNKL
TDLEILALLIAALSHDLDHRGVNNSYIQRSEHPLAQLYCHSIMEHHHFDQCLMI
LNSPGNQILSGLSIEEYKTTLKIIKQAILATDLALYIKRRGEFFELIRKNQFNLEDP
HQKELFLAMLMTACDLSAITKPWPIQQRIAELVATEFFDQGDRERKELNIEPTD
LMNREKKNKIPSMQVGFIDAICLQLYEALTHVSEDCFPLLDGCRKNRQKWQA
LAEQQEKMLINGESGQAKRN

SEQ ID NO: 3

Full length wild-type PDE5 sequence

ERAGPSFGQQRQQQQPQQQKQQQRDQDSVEAWLDDHWDFTFSYFVRKATRE
MVNAWFAERVHTIPVCKEGIRGHTESCSCPLQQSPRADNSVPGTPTRKISASEF
DRPLRPIVVKDSEGTVSFLSDSEKKEQMPLTPPRFDHDEGDQCSRLLELVKDIS
SHLDVTALCHKIFLHIHGLISADRYSLFLVCEDSSNDKFLISRLFDVAEGSTLEEV
SNNCIRLEWNKGIVGHVAALGEPLNIKDAYEDPRFNAEVDQITGYKTQSILCM
PIKNHREEVVGVAQAINKKSGNGGTFTEKDEKDFAAYLAFCGIVLHNAQLYET
SLLENKRNQVLLDLASLIFEEQQSLEVILKKIAATIISFMQVQKCTIFIVDEDCSD

SFSSVFHMECEELEKSSDTLTREHDANKINYMYAQYVKNTMEPLNIPDVSKDK
RFPWTTENTGNVNQQCIRSLLCTPIKNGKKNKVIGVCQLVNKMEENTGKVKPF
NRNDEQFLEAFVIFCGLGIQNTQMYEAVERAMAKQMVTLEVLSYHASAAEEE
TRELQSLAAAVVPSAQTLKITDFSFSDFELSDLETALCTIRMFTDLNLVQNFQM
KHEVLCRWILSVKKNYRKNVAYHNWRHAFNTAQCMFAALKAGKIQNKLTDL
EILALLIAALSHDLDHRGVNNSYIQRSEHPLAQLYCHSIMEHHHFDQCLMILNS
PGNQILSGLSIEEYKTTLKIIKQAILATDLALYIKRRGEFFELIRKNQFNLEDPHQ
KELFLAMLMTACDLSAITKPWPIQQRIAELVATEFFDQGDRERKELNIEPTDLM
NREKKNKIPSMQVGFIDAICLQLYEALTHVSEDCFPLLDGCRKNRQKWQALAE
QQEKMLINGESGQAKRN

SEQ ID NO: 4

Wild-type PDE4 "loop region"

HPGVSNQFLINTNSELALMYNDESVLE

SEQ ID NO: 5

*Loop-swapped PDE5 catalytic domain = PDE5**

EEETRELQSLAAAVVPSAQTLKITDFSFSDFELSDLETALCTIRMFTDLNLVQNF
QMKHEVLCRWILSVKKNYRKNVAYHNWRHAFNTAQCMFAALKAGKIQNKL
TDLEILALLIAALSHDLDHPGVSNQFLINTNSELALMYNDESVLEHHHFDQCLM
ILNSPGNQILSGLSIEEYKTTLKIIKQAILATDLALYIKRRGEFFELIRKNQFNLED
PHQKELFLAMLMTACDLSAITKPWPIQQRIAELVATEFFDQGDRERKELNIEPT
DLMNREKKNKIPSMQVGFIDAICLQLYEALTHVSEDCFPLLDGCRKNRQKWQ
ALAE

SEQ ID NO: 6

*Full length PDE5 sequence comprising PDE5**

ERAGPSFGQQRQQQQPQQQKQQQRDQDSVEAWLDDHWDFTFSYFVRKATRE
MVNAWFAERVHTIPVCKEGIRGHTESCSCPLQQSPRADNSVPGTPTRKISASEF
DRPLRPIVVKDSEGTVSFLSDSEKKEQMPLTPPRFDHDEGDQCSRLLELVKDIS
SHLDVTALCHKIFLHIHGLISADRYSLFLVCEDSSNDKFLISRLFDVAEGSTLEEV
SNNCIRLEWNKGIVGHVAALGEPLNIKDAYEDPRFNAEVDQITGYKTQSILCM
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ALAE

SEQ ID NO: 7

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SEQ ID NO: 8

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SEQ ID NO: 9

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SEQ ID NO: 10

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SEQ ID NO: 11

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SEQ ID NO: 12

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SEQ ID NO: 13

CGTCATATGGAGGAAGAAACAAGAGAGCTAC

SEQ ID NO: 14

CGTCTCGAGCTATCATTCTGCAAGGGCCTGCCATTTCTG

Claims

1. A crystal of phosphodiesterase 5 (PDE5) catalytic domain.

2. The crystal of PDE5 catalytic domain according to claim 1, wherein said PDE5 is from a mammal.

3. The crystal of PDE5 catalytic domain according to claim 1 or claim 2, wherein said PDE5 is from a human.

4. The crystal of PDE5 catalytic domain according to any one of claims 1 to 3, wherein said PDE5 is an isoform selected from the group consisting of PDE5A1, PDE5A2, PDE5A3 and PDE5A4.

5. The crystal of PDE5 catalytic domain according to claim 3 or claim 4, wherein said PDE5 catalytic domain comprises SEQ ID NO: 1 or a homologue, fragment, variant, analogue or derivative thereof.

6. The crystal of PDE5 catalytic domain according to any one of claims 3 to 5, wherein said PDE5 catalytic domain comprises SEQ ID NO: 2 or a homologue, fragment, variant, analogue or derivative thereof.

7. The crystal of PDE5 catalytic domain according to claim 3 or claim 4, wherein said PDE5 catalytic domain comprises SEQ ID NO: 4 or a homologue, fragment, variant, analogue or derivative thereof.

8. The crystal of PDE5 catalytic domain according to any one of claims 3, 4 or 7, wherein said PDE5 catalytic domain comprises SEQ ID NO: 5 or a homologue, fragment, variant, analogue or derivative thereof.

9. A crystal of a PDE5 catalytic domain /PDE5 ligand complex.

10. The crystal of a PDE5 catalytic domain /PDE5 ligand complex according to claim 9, wherein said PDE5 catalytic domain is as defined in any one of claims 5 or 6.

11. The crystal of a PDE5 catalytic domain /PDE5 ligand complex according to claim 9, wherein said PDE5 catalytic domain is as defined in any one of claims 7 or 8.

12. The crystal of PDE5 catalytic domain as defined in either of the claims 5 or 6, which has one or more of the following characteristics:
    (a) a space group $P6_2$;
    (b) unit cell dimensions a ~95 Å ±1%, b ~95 Å ±1%, c ~82 Å ±1%, $\alpha=\beta=90°$, $\gamma=120°$;
    (c) 1 molecule per asymmetric unit;
    (d) comprises a PDE5 catalytic domain of a molecular weight of approximately 40 kDa ± 2 kDa;
    (e) a calculated solvent content of approximately 43 ± 5%; and
    (f) a hexagonal crystal system.

13. The crystal of the PDE5 catalytic domain /PDE5 ligand complex according to claim 10, which has one or more of the following characteristics:
    (a) a space group $P2_12_12_1$;
    (b) unit cell dimensions a ~94 Å ±1%, b ~104 Å ±1%, c ~142 Å ±1%, $\alpha= \beta = \gamma = 90°$;
    (c) 4 molecules per asymmetric unit;
    (d) comprises a PDE5 catalytic domain of a molecular weight of approximately 40 kDa ± 2 kDa;
    (e) a calculated solvent content of approximately 43 ± 5%; and
    (f) an orthorhombic crystal system.

14. The crystal of PDE5 catalytic domain as defined in any one of claims 7 or

8 or the crystal of the PDE5/PDE5 ligand complex according to claim 11, which has one or more of the following characteristics:

(a) a space group $P2_1$;

(b) unit cell dimensions a ~55 Å ±1%, b ~78 Å ±1%, c ~82 Å ±1%, $\alpha = \gamma = 90$, β ~101° ±2°;

(c) 2 molecules per asymmetric unit;

(d) comprises a PDE5 catalytic domain of a molecular weight of approximately 38 kDa ± 2 kDa;

(e) a calculated solvent content of approximately 46 ± 5%; and

(f) a monoclinic crystal system.

15. The crystal of PDE5 catalytic domain according to any one of claims 5 or 6, wherein said PDE5 catalytic domain has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 3** or a derivative set as expressed in any reference frame.

16. The crystal of the PDE5 catalytic domain /PDE5 ligand complex according to claim 10, wherein said PDE5 catalytic domain /PDE5 ligand complex has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 4** or a derivative set as expressed in any reference frame.

17. The crystal of PDE5 catalytic domain according to any one of claims 7 or 8, wherein said PDE5 catalytic domain has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 5** or a derivative set as expressed in any reference frame.

18. The crystal of the PDE5 catalytic domain /PDE5 ligand complex according to claim 11, wherein said PDE5 catalytic domain /PDE5 ligand complex has a three-dimensional structure characterised by the atomic co-ordinates set out in **Table 6** or a derivative set as expressed in any

reference frame.

19. Use of the atomic co-ordinates determined from the crystal of PDE5 catalytic domain according to claim 15 or the crystal of the PDE5 catalytic domain /PDE5 ligand complex according to claim 16 for deriving a three-dimensional structure of (i) a full-length wild-type PDE5 or a mutant, derivative, fragment, variant, analogue or homologue thereof or (ii) a wild-type PDE5 sub-domain or a mutant, derivative, fragment, variant, analogue or homologue thereof.

20. Use of the atomic co-ordinates determined from the crystal of PDE5 catalytic domain according to claim 17 or the crystal of the PDE5 catalytic domain /PDE5 ligand complex according to claim 18 for deriving a three-dimensional structure of (i) a full-length wild-type PDE5 or a mutant, derivative, fragment, variant, analogue or homologue thereof or (ii) a wild-type PDE5 sub-domain or a mutant, derivative, fragment, variant, analogue or homologue thereof.

21. Use of the three-dimensional structure of a wild-type PDE5 sub-domain or a mutant, derivative, fragment, variant, analogue or homologue thereof, as derivable according to claim 19 or claim 20 using any of the coordinates sets of Tables 3, 4, 5 or 6 to computationally or otherwise evaluate the binding interactions of a PDE5 ligand with an active site on PDE5.

22. Use according to any one of claims 21 to design a compound capable of associating with any active site of PDE5.

23. A method of selecting a PDE5 ligand from a group of potential PDE5 ligands, comprising the following steps:

(a) computationally creating a three-dimensional representation of the structure of PDE5 catalytic domain as derived from the atomic co-ordinates as defined in claim 19 or claim 20, and a three-dimensional

representation of the structure of the potential PDE5 ligand;

(b) co-displaying the three-dimensional representation of the potential PDE5 ligand with the three-dimensional representation of the PDE5 catalytic domain structure; and

(c) assessing whether the three-dimensional representation of the potential PDE5 ligand fits the three-dimensional representation of an active site of the PDE5 catalytic domain structure.

24. The method according to claim 23, further comprising the following steps:

(d) incorporating the potential PDE5 ligand in a biological PDE5 activity assay; and

(e) determining whether the potential PDE5 ligand modulates PDE5 activity in said assay.

25. Use of the atomic co-ordinates determined from the crystal of PDE5 catalytic domain as defined in claim 15 or claim 17 or the crystal of the PDE5 catalytic domain /PDE5 ligand complex as defined in claim 16 or claim 18, to solve the crystal structure of a mutant, derivative, fragment, variant, analogue, homologue or complex of a PDE-related protein.

26. Use of the atomic co-ordinates determined from the crystal of PDE5 catalytic domain as defined in claim 15 or claim 17 or the crystal of the PDE5 catalytic domain /PDE5 ligand complex as defined in claim 16 or claim 18, to produce a model of the three-dimensional structure of a PDE-related protein.

27. Use of the three-dimensional structure of PDE5 catalytic domain as derivable as set out in claim 19 or claim 20 to design site-directed mutants that mimic other PDE5 isoforms or variants thereof.

28. A crystal of PDE5 catalytic domain or a crystal of a PDE5 catalytic domain /PDE5 ligand complex wherein the active site on PDE5 is within the third

sub-domain of the protein and is bounded by Helices 15 (H15 813-824) and 14 (H14 772-797), the C-terminus of Helix 13 (H13 749-765), and the C-terminus of Helix 11 (H11 706-721) along with the loop region between Helices 11 and 12a (H12a 725-731) as shown in Figure 2.

29. A crystal of PDE5 catalytic domain or of a PDE5 catalytic domain /PDE5 ligand complex wherein the active site on PDE5 comprises Leu 765, Ala 767 and Ile 768 and one or more of Phe 820, Val 782, Phe 786, Tyr 612, Leu 804, Ala 779, Ala 783, Ile 813, Met 816 and Gln 817.

30. A crystal of PDE5 catalytic domain wherein the crystal system of said crystal is characterised as being monoclinic, orthorhombic or hexagonal.

31. A crystal of a PDE5 catalytic domain /PDE5 ligand complex wherein the crystal system of said crystal is characterised as being monoclinic or orthorhombic.

32. A method of genetically engineering a structurally stabilised PDE5 catalytic domain protein, comprising:

(a) aligning the amino acid sequence of a PDE5 catalytic domain with the amino acid sequence of (i) PDE4, (ii) the catalytic domain of PDE4 as shown in Figure 1 or (iii) SEQ ID NO: 4;

(b) identifying the structurally equivalent sub-domain of the PDE5 catalytic domain protein that corresponds to SEQ ID NO: 4; and

(c) genetically engineering the replacement of the structurally equivalent sub-domain of the PDE5 catalytic domain protein or a portion thereof with SEQ ID NO: 4 or a homologue, fragment, variant, analogue or derivative thereof.

33. A method of producing a structurally stabilised PDE5 catalytic domain protein, comprising expressing the genetically engineered PDE5 catalytic domain protein as defined in claim 32 in a host cell.

34. The method according to claim 33, further comprising purifying the expressed genetically engineered PDE5 catalytic domain protein of claim 33.

35. A method of crystallising a structurally stabilised PDE5 catalytic domain protein as defined in claim 34, comprising growing a crystal of said PDE5 catalytic domain protein in a solution containing:

    (a) Tris or MES buffer, ammonium phosphate and/or PEG2KMME;

    (b) Tris buffer, sodium acetate and/or PEG4K; or

    (c) 0.16M Sodium Acetate, 80mM Tris hydrochloride pH 8.5, 24% w/v PEG8KMME.

36. The method according to claim 35, wherein the pH of (a) is at pH 6.0-8.4 and (b) is at pH 6.5-8.6.

37. The method according to claim 35 or claim 36, wherein the pH of (b) is at pH 8.2-8.6.

38. The method according to claim 35 or claim 36, wherein said solution contains 0.1 M Tris, pH 8.0, 50 mM ammonium phosphate, pH 7.0; 16-26% w/v PEG2KMME.

39. The method according to claim 35 or claim 36, wherein said solution contains 0.1 M MES pH 6.0-6.5, 50 mM ammonium phosphate, pH 7.5; 22-34% w/v PEG2KMME;

40. The method according to any one of claims 35 to 37, wherein said solution contains 0.1M Tris pH 8.2-8.6, 0.2M sodium acetate and 26-30% w/v PEG4K.

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            100                 105                 110
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225                 230                 235                 240
Ile Gln Gln Arg Ile Ala Glu Leu Val Ala Thr Glu Phe Phe Asp Gln
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            260                 265                 270
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            20                  25                  30
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65                  70                  75                  80
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        195                 200                 205
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Glu Ile Leu Ala Leu Leu Ile Ala Ala Leu Ser His Asp Leu Asp His
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Cys Leu Met Ile Leu Asn Ser Pro Gly Asn Gln Ile Leu Ser Gly Leu
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Ser Ile Glu Glu Tyr Lys Thr Thr Leu Lys Ile Ile Lys Gln Ala Ile
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725 730 735
Glu Leu Ile Arg Lys Asn Gln Phe Asn Leu Glu Asp Pro His Gln Lys
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Glu Leu Phe Leu Ala Met Leu Met Thr Ala Cys Asp Leu Ser Ala Ile
755 760 765
Thr Lys Pro Trp Pro Ile Gln Gln Arg Ile Ala Glu Leu Val Ala Thr
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Glu Phe Phe Asp Gln Gly Asp Arg Glu Arg Lys Glu Leu Asn Ile Glu
785 790 795 800
Pro Thr Asp Leu Met Asn Arg Glu Lys Lys Asn Lys Ile Pro Ser Met
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