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 α=γ=90° β = 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

	λ1	λ2	λ3	λ4	Loop Swapped
Wavelength	1.2825	1.282273	1.03321	1.2815	1.54
	Peak	Inflection	Remote	Peak2	
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	λ2	λ3	Loop Swapped
	Peak	Inflection	Remote	
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

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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  1.00100.09
ATOM     57  CG  GLN   541      -1.301   8.502 -14.410  1.00103.89
ATOM     58  CD  GLN   541      -1.594   9.081 -15.785  1.00103.89
ATOM     59  OE1 GLN   541      -0.796   8.943 -16.714  1.00103.89
ATOM     60  NE2 GLN   541      -2.755   9.718 -15.925  1.00103.89
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
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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	25.286	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

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

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

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

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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	1.00	100.65
ATOM	591	NH1	ARG	607	6.784	28.832	-15.865	1.00	103.89
ATOM	592	NH2	ARG	607	4.630	28.223	-15.369	1.00	102.59
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	1.00	102.18
ATOM	598	CG	LYS	608	10.424	31.350	-16.274	1.00	103.89
ATOM	599	CD	LYS	608	9.461	30.171	-16.340	1.00	103.89
ATOM	600	CE	LYS	608	8.964	29.932	-17.759	1.00	103.89
ATOM	601	NZ	LYS	608	8.165	31.082	-18.270	1.00	103.89
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
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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

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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  1.00100.42
ATOM    801  NZ  LYS   633      17.077  11.030  21.970  1.00103.10
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  1.00103.89
ATOM    825  OD1 ASN   636       8.754  15.975  23.484  1.00103.52
ATOM    826  ND2 ASN   636      10.831  16.808  23.745  1.00103.89
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
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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

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	1.00	100.68
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

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

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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
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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

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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  1.00103.89
ATOM   1525  CD  ARG   740      25.026  34.207  28.814  1.00103.89
ATOM   1526  NE  ARG   740      25.296  33.857  27.419  1.00103.89
ATOM   1527  CZ  ARG   740      25.433  34.736  26.431  1.00103.89
ATOM   1528  NH1 ARG   740      25.323  36.037  26.670  1.00103.89
ATOM   1529  NH2 ARG   740      25.688  34.312  25.199  1.00103.89
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  1.00103.29
ATOM   1535  CG  LYS   741      20.947  34.200  33.777  1.00103.89
ATOM   1536  CD  LYS   741      19.778  34.099  34.759  1.00103.89
ATOM   1537  CE  LYS   741      19.069  35.439  34.946  1.00103.89
ATOM   1538  NZ  LYS   741      17.977  35.360  35.958  1.00103.89
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  1.00103.89
ATOM   1545  OD1 ASN   742      17.149  27.591  30.881  1.00103.89
ATOM   1546  ND2 ASN   742      19.164  26.619  30.650  1.00103.89
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
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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

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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
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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
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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  1.00103.35
ATOM   1966  OE1 GLU   808      42.737  37.378  -9.170  1.00102.74
ATOM   1967  OE2 GLU   808      43.570  35.875 -10.541  1.00103.78
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  1.00103.89
ATOM   1973  CG  LYS   809      34.065  36.088  -9.983  1.00103.89
ATOM   1974  CD  LYS   809      33.212  36.469 -11.187  1.00103.89
ATOM   1975  CE  LYS   809      33.819  37.637 -11.959  1.00103.89
ATOM   1976  NZ  LYS   809      32.995  38.022 -13.142  1.00103.22
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  1.00100.88
ATOM   1984  CE  LYS   810      35.237  28.631 -11.379  1.00101.70
ATOM   1985  NZ  LYS   810      33.822  28.655 -10.895  1.00103.29
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  1.00101.10
ATOM   1992  OD1 ASN   811      39.526  35.510  -7.114  1.00103.89
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
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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
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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
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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

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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
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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
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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	1.00	100.00
ATOM	806	CG	ASN	A	636	-29.445	65.155	97.287	1.00	100.00
ATOM	807	OD1	ASN	A	636	-28.277	65.260	97.664	1.00	100.00
ATOM	808	ND2	ASN	A	636	-30.343	64.418	97.930	1.00	100.00
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

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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

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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
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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

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

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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
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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

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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
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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
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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

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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
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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	1.00	100.00
ATOM	2729	CG	GLU	B	565	21.206	29.640	38.005	1.00	100.00
ATOM	2730	CD	GLU	B	565	21.229	28.578	36.909	1.00	100.00
ATOM	2731	OE1	GLU	B	565	21.424	28.943	35.729	1.00	100.00
ATOM	2732	OE2	GLU	B	565	21.051	27.379	37.225	1.00	100.00
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

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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
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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
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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

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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
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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

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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
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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

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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  1.00100.00
ATOM   3541  CA  ILE B 665      43.498  49.124  53.298  1.00100.00
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  1.00100.00
ATOM   3547  O   ILE B 665      44.034  48.842  55.633  1.00100.00
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
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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

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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
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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

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

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

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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
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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

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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
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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

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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
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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
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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
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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
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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
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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

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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
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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

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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
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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

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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
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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
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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

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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
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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

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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
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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
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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

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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
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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  1.00100.00
ATOM   7465  CG  GLU C 837      19.247  54.481 101.346  1.00100.00
ATOM   7466  CD  GLU C 837      18.289  54.456 100.164  1.00100.00
ATOM   7467  OE1 GLU C 837      17.946  55.546  99.652  1.00100.00
ATOM   7468  OE2 GLU C 837      17.870  53.353  99.751  1.00100.00
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
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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
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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
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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

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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

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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
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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
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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

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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
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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

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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

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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
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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

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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
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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
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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
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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
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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
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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

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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
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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

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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

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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
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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
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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
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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

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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
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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

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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
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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

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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
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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
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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
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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

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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
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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
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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
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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

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
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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
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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
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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

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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
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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

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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
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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

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
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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
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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
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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

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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
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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
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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

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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
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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

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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
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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
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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
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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

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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
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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
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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

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

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

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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
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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
5	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
10	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
15	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
20	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
25	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
30	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
35	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
40	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
45	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
50	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
55	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
60	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
65	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
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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
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
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
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
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
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
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
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
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
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
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
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
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
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

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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
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
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
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
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
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
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
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
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
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
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
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
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
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
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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

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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
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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
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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
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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
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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

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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
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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
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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
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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
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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
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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
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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

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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
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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

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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
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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
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ATOM   2158  N   ASP A 803     -25.843  -8.448  28.669  1.00 28.44
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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
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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
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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
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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
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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

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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
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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

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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
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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

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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
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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

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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
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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

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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
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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

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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
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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

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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
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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
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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

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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
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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
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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
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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
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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

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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
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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
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
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
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
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
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
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
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
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
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
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
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
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
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
ATOM	5156	CA	GLN	B	851	22.231	27.915	39.419	1.00	29.80
ATOM	5157	CB	GLN	B	851	23.641	28.042	40.006	1.00	57.33
ATOM	5158	CG	GLN	B	851	23.706	28.453	41.467	1.00	58.18
ATOM	5159	CD	GLN	B	851	25.130	28.731	41.920	1.00	58.63
ATOM	5160	OE1	GLN	B	851	25.355	29.314	42.983	1.00	58.50
ATOM	5161	NE2	GLN	B	851	26.101	28.309	41.114	1.00	58.38
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
ATOM	5164	N	LYS	B	852	21.464	30.192	39.724	1.00	28.14
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
ATOM   5170  NZ  LYS B 852      23.538  34.014  43.959  1.00 43.16
ATOM   5171  C   LYS B 852      19.153  31.116  39.941  1.00 28.34
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
ATOM   5178  CE2 TRP B 853      17.216  34.136  35.377  1.00 23.34
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
ATOM   5181  NE1 TRP B 853      18.302  33.614  34.725  1.00 24.36
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
ATOM   5184  CH2 TRP B 853      15.545  35.657  36.085  1.00 24.37
ATOM   5185  C   TRP B 853      16.783  29.488  38.882  1.00 29.77
ATOM   5186  O   TRP B 853      15.632  29.561  39.309  1.00 29.78
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
ATOM   5189  CB  GLN B 854      17.937  25.993  39.358  1.00 34.76
ATOM   5190  CG  GLN B 854      17.451  24.662  39.918  1.00 34.86
ATOM   5191  CD  GLN B 854      16.141  24.207  39.305  1.00 35.26
ATOM   5192  OE1 GLN B 854      15.984  24.197  38.085  1.00 35.00
ATOM   5193  NE2 GLN B 854      15.195  23.815  40.151  1.00 35.46
ATOM   5194  C   GLN B 854      16.611  27.328  41.005  1.00 30.99
ATOM   5195  O   GLN B 854      15.559  26.884  41.462  1.00 30.12
ATOM   5196  N   ALA B 855      17.501  27.976  41.748  1.00 37.27
ATOM   5197  CA  ALA B 855      17.270  28.206  43.171  1.00 38.24
ATOM   5198  CB  ALA B 855      18.445  28.958  43.777  1.00 27.97
ATOM   5199  C   ALA B 855      15.976  28.988  43.380  1.00 38.50
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ATOM   5201  N   LEU B 856      15.622  29.817  42.404  1.00 35.46
ATOM   5202  CA  LEU B 856      14.398  30.613  42.484  1.00 35.13
ATOM   5203  CB  LEU B 856      14.507  31.858  41.597  1.00 30.40
ATOM   5204  CG  LEU B 856      15.541  32.924  41.965  1.00 29.57
ATOM   5205  CD1 LEU B 856      15.493  34.056  40.956  1.00 30.17
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
ATOM   5209  N   ALA B 857      13.385  28.876  41.127  1.00 36.42
ATOM   5210  CA  ALA B 857      12.299  28.055  40.609  1.00 36.87
ATOM   5211  CB  ALA B 857      12.648  27.577  39.206  1.00 33.84
ATOM   5212  C   ALA B 857      11.926  26.859  41.482  1.00 37.18
ATOM   5213  O   ALA B 857      10.774  26.429  41.482  1.00 37.43
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ATOM   5215  CA  GLU B 858      12.634  25.161  43.069  1.00 42.85
ATOM   5216  CB  GLU B 858      13.921  24.368  43.295  1.00 56.15
ATOM   5217  CG  GLU B 858      15.034  25.173  43.930  1.00 56.44
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
TER
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
ATOM   5242  C31 SIL A   1     -15.924  -8.260  21.089  1.00 26.02
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
ATOM   5246  N17 SIL A   1     -12.749  -5.402  28.877  1.00 24.74
ATOM   5247  C15 SIL A   1     -11.635  -4.635  28.662  1.00 25.23
ATOM   5248  O16 SIL A   1     -10.964  -4.202  29.580  1.00 24.95
ATOM   5249  C14 SIL A   1     -11.266  -4.350  27.234  1.00 25.33
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
ATOM   5252  N10 SIL A   1     -10.467  -3.764  25.300  1.00 25.03
ATOM   5253  C3  SIL A   1     -11.495  -4.455  25.004  1.00 24.25
ATOM   5254  C4  SIL A   1     -12.014  -4.783  23.619  1.00 25.73
ATOM   5255  C6  SIL A   1     -12.905  -3.666  22.952  1.00 26.42
ATOM   5256  C8  SIL A   1     -13.128  -2.379  23.800  1.00 25.69
ATOM   5257  C2  SIL A   1     -12.059  -4.866  26.277  1.00 24.93
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
ATOM   5261  C19 SIL B   1      13.700  32.702  27.070  1.00 24.84
ATOM   5262  C43 SIL B   1      12.729  33.045  28.058  1.00 24.56
ATOM   5263  O44 SIL B   1      12.899  34.250  28.780  1.00 26.57
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
ATOM   5269  S23 SIL B   1      12.368  29.137  25.587  1.00 28.36
ATOM   5270  O38 SIL B   1      11.164  28.457  26.018  1.00 26.14
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
ATOM   5279  C20 SIL B   1      13.569  31.507  26.332  1.00 24.95
ATOM   5280  N17 SIL B   1      15.678  34.063  27.775  1.00 25.01
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
PIKNHREEVVGVAQAINKKSGNGGTFTEKDEKDFAAYLAFCGIVLHNAQLYET
SLLENKRNQVLLDLASLIFEEQQSLEVILKKIAATIISFMQVQKCTIFIVDEDCSD
SFSSVFHMECEELEKSSDTLTREHDANKINYMYAQYVKNTMEPLNIPDVSKDK
RFPWTTENTGNVNQQCIRSLLCTPIKNGKKNKVIGVCQLVNKMEENTGKVKPF
NRNDEQFLEAFVIFCGLGIQNTQMYEAVERAMAKQMVTLEVLSYHASAA
EEETRELQSLAAAVVPSAQTLKITDFSFSDFELSDLETALCTIRMFTDLNLVQNF
QMKHEVLCRWILSVKKNYRKNVAYHNWRHAFNTAQCMFAALKAGKIQNKL
TDLEILALLIAALSHDLDHPGVSNQFLINTNSELALMYNDESVLEHHHFDQCLM
ILNSPGNQILSGLSIEEYKTTLKIIKQAILATDLALYIKRRGEFFELIRKNQFNLED
PHQKELFLAMLMTACDLSAITKPWPIQQRIAELVATEFFDQGDRERKELNIEPT
DLMNREKKNKIPSMQVGFIDAICLQLYEALTHVSEDCFPLLDGCRKNRQKWQ
ALAE

SEQ ID NO: 7

CGTGAATTCATGGAGGAAGAAACAAGAGAGCTAC

SEQ ID NO: 8

CGTTCTAGACTATCAGTTCCGCTTGGCCTGGCCGCTTTCCCC

SEQ ID NO: 9

CGTGAATTCATGCATCATCATCATCATCATCTTCTGGTTCCGCGTGGATCTG
CGCCCGAGGAAGAAACAAGAGAGCTAC

SEQ ID NO: 10

CAAAGAAAGTTCTGAATTTGTGTTGATGAGAAACTGATTGGAGACTCCAG
GATGATCCAAATCGTGGCTTAG

SEQ ID NO: 11

ATCAACACAAATTCAGAACTTGCTTTGATGTATAATGATGAATCTGTGTTG
GAACACCATCATTTTGACCAG

SEQ ID NO: 12

CGTTCTAGACTATCATTCTGCAAGGGCCTGCCATTTCTG

SEQ ID NO: 13

CGTCATATGGAGGAAGAAACAAGAGAGCTAC

SEQ ID NO: 14

CGTCTCGAGCTATCATTCTGCAAGGGCCTGCCATTTCTG

Claims

1. A crystal of phosphodiesterase 5 (PDE5).

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

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

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

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

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

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

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

10. The crystal of PDE5 according to any one of claims 3, 4, 8 or 9, wherein said PDE5 comprises 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 claim 11, wherein said PDE5 is as defined in any one of claims 5 to 7.

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

14. The crystal of PDE5 as defined in any one of the claims 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.

15. The crystal of the PDE5/PDE5 ligand complex according to claim 12, 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.

16. The crystal of PDE5 as defined in any one of claims 8 to 10 or the crystal of the PDE5/PDE5 ligand complex according to claim 13, 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.

17. The crystal of PDE5 according to any one of claims 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.

18. The crystal of the PDE5/PDE5 ligand complex according to claim 12, 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.

19. The crystal of PDE5 according to any one of claims 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.

20. The crystal of the PDE5/PDE5 ligand complex according to claim 13, 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.

21. Use of the atomic co-ordinates determined from the crystal of PDE5 according to claim 17 or the crystal of the PDE5/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.

22. Use of the atomic co-ordinates determined from the crystal of PDE5 according to claim 19 or the crystal of the PDE5/PDE5 ligand complex according to claim 20 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.

23. 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 claim 21 or claim 22 to computationally or otherwise evaluate the binding interactions of a PDE5 ligand with an active site on PDE5.

24. Use according to claim 23, 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.

25. Use according to claim 23 or claim 24, 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.

26. Use according to any one of claims 23 to 25 to design a compound capable of associating with PDE5.

27. Use according to any one of claims 23 to 26 to design a compound capable of associating with any active site of PDE5.

28. 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 claims 1 to 10 and determining the three-dimensional structure to ascertain whether said compound is bound to PDE5.

29. A compound designed by the use according to any one of claims 23 to 27 or identified by the method of claim 28.

30. 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 claim 21 or claim 22, 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.

31. The method according to claim 30, 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.

32. A PDE5 ligand selected by the method of claim 30 or claim 31.

33. Use of a PDE5 ligand according to claim 32 as a pharmaceutical.

34. Use of a PDE5 ligand according to claim 32 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.

35. Use according to claim 34, wherein said disorder is a mammalian sexual disorder.

36. Use of the atomic co-ordinates determined from the crystal of PDE5 as defined in claim 17 or claim 19 or the crystal of the PDE5/PDE5 ligand complex as defined in claim 18 or claim 20, to solve the crystal structure of a mutant, derivative, fragment, variant, analogue, homologue or complex of a PDE-related protein.

37. Use of the atomic co-ordinates determined from the crystal of PDE5 as defined in claim 17 or claim 19 or the crystal of the PDE5/PDE5 ligand complex as defined in claim 18 or claim 20, to produce a model of the three-dimensional structure of a PDE-related protein.

38. Use of the three-dimensional structure of PDE5 as derivable as set out in claim 21 or claim 22 to design site-directed mutants that mimic other PDE5 isoforms or variants thereof.

39. 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.

40. A crystal of PDE5 or 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.

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

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

43. 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.

44. The method according to claim 43, further comprising:

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

45. The method according to claim 44, further comprising:

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

46. The method according to claim 45, further comprising:

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