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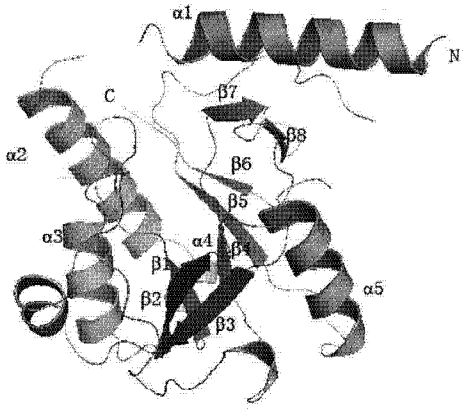
(54)发明名称

人源 5,10- 次甲基四氢叶酸合成酶及其复合物的结晶方法、晶体以及应用

(57)摘要

本发明涉及一种人源 5,10- 次甲基四氢叶酸合成酶 (MTHFS) 的晶体及其结晶的方法,同时也涉及人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体及其结晶的方法、人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体及其结晶的方法、人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的复合物的晶体及其结晶的方法、人源 5,10- 次甲基四氢叶酸合成酶与产物 10- 甲酰四氢叶酸复合物的晶体及其结晶的方法;还涉及这些晶体中重要的结构域或肽片段;以及利用这些结构域或肽片段进行药物设计和筛选的方法。



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1. 一种人源 5,10- 次甲基四氢叶酸合成酶的晶体,其特征在于所述晶体的空间群为 :C2221,晶胞参数为 a = 48.70±2 Å,b = 145.12±2 Å,c = 59.21±2 Å; α = 90.00°, β = 90.00°, γ = 90.00°。

2. 一种人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体,其特征在于所述晶体的空间群为 :C2221,晶胞参数为 a = 48.51±2 Å,b = 145.22±2 Å,c = 59.65±2 Å; α = 90.00°, β = 90.00°, γ = 90.00°。

3. 一种人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体,其特征在于所述晶体的空间群为 :P21212,晶胞参数为 a = 59.579±2 Å ,b = 144.101±2 Å ,c = 48.532±2 Å; α = 90.00°, β = 90.00°, γ = 90.00°。

4. 一种人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体,其特征在于所述晶体的空间群为 :C2221,晶胞参数为 a = 48.45±2 Å ,b = 145.23±2 Å,c = 59.60±2 Å; α = 90.00°, = 90.00°, γ = 90.00°。

5. 一种人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体,其特征在于所述晶体的空间群为 :C2221,晶胞参数为 a = 48.69±2 Å,b = 141.03±2 Å,c = 59.99±2 Å; α = 90.00°, β = 90.00°, γ = 90.00°。

6. 一种人源 5,10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体,其特征在于所述晶体的空间群为 :C2221,晶胞参数为 a = 48.86±2 Å,b = 144.97±2 Å,c = 59.41±2 Å; α = 90.00°, β = 90.00°, γ = 90.00°。

7. 根据权利要求 1 所述的人源 5,10- 次甲基四氢叶酸合成酶的晶体的结晶方法,包括 :

将所述人源 5,10- 次甲基四氢叶酸合成酶的溶液与池液混合 ;

利用悬滴法或坐滴法进行结晶 ;

在 1-2 天后收集晶体 ;

其特征在于,在 5 至 25 摄氏度、50% 至 80% 的湿度范围内,池液为 :含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20% -30% PEG3000 至 4000、0.1mol/L 的 pH = 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

8. 根据权利要求 2 或 3 所述的人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体的结晶方法,包括 :

向所述人源 5,10- 次甲基四氢叶酸合成酶的溶液中加入 ATP 溶液,再加入还原剂和镁离子,混合后得到人源 5,10- 次甲基四氢叶酸合成酶与 ATP 的混合液 ;

将所述人源 5,10- 次甲基四氢叶酸合成酶与 ATP 的混合液与池液混合 ;

利用悬滴法或坐滴法进行结晶 ;

在 1-2 天后收集晶体 ;

其特征在于,在 5 至 25 摄氏度、50% 至 80% 的湿度范围内,池液为 :含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20% -30% PEG3000 至 4000、0.1mol/L 的 pH = 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

9. 根据权利要求 4 所述的人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体的结晶方法,包括 :

向所述人源 5,10- 次甲基四氢叶酸合成酶的溶液中加入谷氨酸溶液，混合后得到人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的混合液；

将所述人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的混合液与池液混合；

利用悬滴法或坐滴法进行结晶；

在 1-2 天后收集晶体；

其特征在于，在 5 至 25 摄氏度、50％至 80％的湿度范围内，池液为：含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20％ -30％ PEG3000 至 4000、0.1mol/L 的 pH ＝ 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

10. 根据权利要求 5 所述的人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体的结晶方法，包括：

向所述人源 5,10- 次甲基四氢叶酸合成酶的溶液中加入 ATP、5- 甲酰四氢叶酸、巯基乙醇、镁离子溶液，混合后得到人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液；

将所述人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液与池液混合；

利用悬滴法或坐滴法进行结晶；

在 1-2 天后收集晶体；

其特征在于，在 5 至 25 摄氏度、50％至 80％的湿度范围内，池液为：含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20％ -30％ PEG3000 至 4000、0.1mol/L 的 pH ＝ 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

11. 根据权利要求 6 所述的人源 5,10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体的结晶方法，包括：

向所述人源 5,10- 次甲基四氢叶酸合成酶的溶液中加入 ATP、5- 甲酰四氢叶酸、巯基乙醇、镁离子溶液，混合后得到人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液；

将所述人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液与池液混合；

利用悬滴法或坐滴法进行结晶；

在 4-14 天后收集晶体；

其特征在于，在 5 至 25 摄氏度、50％至 80％的湿度范围内，池液为：含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20％ -30％ PEG3000 至 4000、0.1mol/L 的 pH ＝ 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

12. 根据权利要求 1 所述的人源 5,10- 次甲基四氢叶酸合成酶的晶体的 F55、M58、E61、M90、Y152、Y153 位氨基酸在空间中所形成的结构域，其特征在于所述结构域与底物 5- 甲酰四氢叶酸中的蝶呤基团结合。

13. 根据权利要求 1 所述的人源 5,10- 次甲基四氢叶酸合成酶的晶体的 F85、W109、R148 位氨基酸在空间中所形成的结构域，其特征在于所述结构域与底物 5- 甲酰四氢叶酸中的对氨基苯甲酸基团结合。

14. 根据权利要求 1 所述的人源 5,10- 次甲基四氢叶酸合成酶的晶体的 K10、R14、R145、D154 位氨基酸在空间中所形成的结构域，其特征在于所述结构域与 ATP 结合。

15. 根据权利要求 2 所述的人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体中 α5 的 152-161 位氨基酸在空间中所形成的结构域，其特征在于所述结构域是与从 ATP 水解下来的磷酸基团结合的结构域。

16. 根据权利要求 4 所述的人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体中 β 3 和 β 4 之间的氨基酸即第 89 和 134 位氨基酸之间的氨基酸在空间中所形成的结构域,其特征在于所述结构域形成一个 loop 环结构,该结构中的氨基酸与谷氨酸结合。

17. 根据权利要求 5 所述的人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体中氨基酸残基 F55、L56、S57、M58、E61、P81、Y83、M90、W109、P135、R148、K150、Y152 和 Y153 所形成的结构域,其特征在于所述结构域形成一个球形口袋,N5- 亚胺磷酸过渡态的蝶呤环位于所述球形口袋的中间。

18. 根据权利要求 5 所述的人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体中蝶呤环在空间中的结构域,其特征在于所述蝶呤环以 C4a 与 C8a 之间的键为轴发生了扭转,所述喋呤环上的电子发生了重排。

19. 根据权利要求 6 所述的人源 5,10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体中 Y83 在空间中的结构域,其特征在于 Y83 的位置与在权利要求 5 所述的晶体的位置相比,发生了变化。

20. 与权利要求 12-19 中任一项所述的结构域类似或者与所述结构域结合的小分子化合物、短肽、多肽、核酸、抗体或免疫结合物中的一种或几种的组合物。

人源 5,10- 次甲基四氢叶酸合成酶及其复合物的结晶方法、晶体以及应用

技术领域

[0001] 本发明涉及一种人源 5,10- 次甲基四氢叶酸合成酶 (MTHFS) 的晶体及其结晶的方法,同时也涉及人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体及其结晶的方法、人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体及其结晶的方法、人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体及其结晶的方法、人源 5,10- 次甲基四氢叶酸合成酶与产物 10- 甲酰四氢叶酸复合物的晶体及其结晶的方法 ;还涉及这些晶体中对于人源 5,10- 次甲基四氢叶酸合成酶的酶活性起关键作用的结构域或肽片段 ;以及利用这些重要结构域或肽片段进行药物设计和筛选的方法。

背景技术

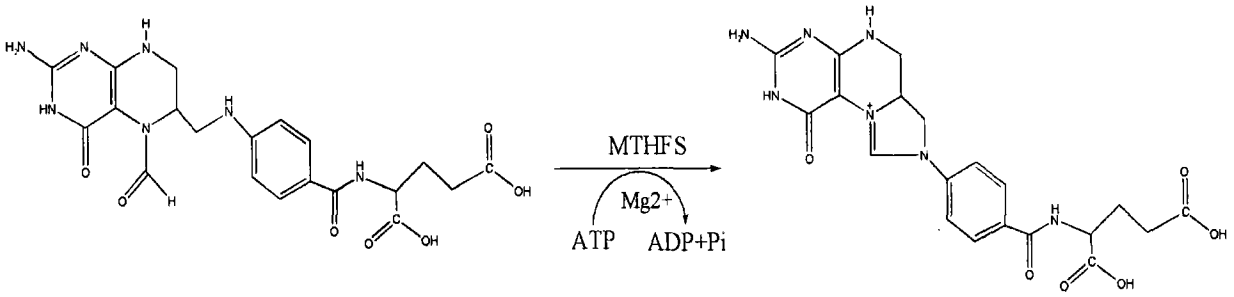
[0002] 叶酸,这种水溶性的 B 族维生素早在 19 世纪 40 年代已被发现。叶酸介导的单碳代谢途径存在于从微生物到高等植物、动物的生命活动中,此代谢途径对细胞的发育和增殖非常重要,并且在很多生理活动中起着非常重要的作用,因此还原型叶酸是其中重要的辅助因子。叶酸只能在原核生物、酵母、植物中合成,但是对人体却是必须的,叶酸介导的单碳代谢途径如果被阻断,在人体内将引发癌症,心血管疾病和发育异常等。该代谢途径中涉及的酶类,很久以来就被用作治疗癌症 (Appling,1991 ;Fox and Strover,2008 ; Chattopadhyay et.al.,2007 ;Farber et.al.,1948)。目前,抗叶酸药物不仅被用作化疗药物,也在治疗风湿性关节炎和银屑病等疾病中发挥作用。

[0003] 叶酸在生物体内以多种氧化态存在,如 :叶酸,二氢叶酸,四氢叶酸等。这些不同状态的叶酸携带的单碳单位也存在不同的氧化状态如甲醇或甲酸,它们通过酶学反应进行相互的转换。不同状态的四氢叶酸可以接受或提供单碳单位给多种生命活动。包括 :(1) 嘌呤和嘧啶的从头合成,二磷酸尿嘧啶甲基化形成二磷酸胸腺嘧啶 ;(2) 同型半胱氨酸甲基化形成甲硫氨酸,甲硫氨酸可以形成 S- 腺苷甲硫氨酸,后者对细胞内的甲基化反应至关重要。嘌呤、嘧啶的从头合成和同型半胱氨酸的合成都对代谢途径上游的合成阻断很敏感,会导致二磷酸尿嘧啶错误地掺入 DNA 当中,并且会提升细胞内的同型半胱氨酸浓度,破坏 S- 腺苷甲硫氨酸依赖型甲基化反应。叶酸代谢途径的紊乱将导致多重严重疾病,所以该途径的很多酶都被作为药物设计的重要靶点。叶酸的单谷氨酸衍生物穿过细胞膜进入细胞,在细胞内被多聚谷氨酸合成酶催化合成不同长度的谷氨酸衍生物,多聚谷氨酸支链可以使叶酸存在于细胞内,同时也可以增加其与胞内结合酶类的结合能力。

[0004] 5,10- 次甲基四氢叶酸合成酶 (Homo sapiens5,10-methenyltetrahydrofolate synthetase,简称 MTHFS),也称为 5- 甲酰四氢叶酸环化酶 (5-formyltetrahydrofolatecyclo-ligase)。酶学分类号 :(EC)6.3.3.2.

[0005] MTHFS 催化的体内代谢反应为 :

[0006]



5-甲酰四氢叶酸 5,10-次甲基四氢叶酸

[0007] 反应的底物为5-甲酰四氢叶酸(5-formyltetrahydrofolate,简称5-FTHF),反应的产物为5,10-次甲基四氢叶酸(5,10-methenyltetrahydrofolate,简称5,10-MTHF)。此催化反应在室温下即可进行,二价镁离子和ATP(三磷酸腺苷)为5,10-次甲基四氢叶酸合成酶的辅助因子。

[0008] MTHFS存在于很多生物中,包括:细菌、植物和动物,表明其在叶酸代谢中具有很重要的作用。目前对叶酸代谢途径中多种重要蛋白的酶学特征研究结果显示,5-甲酰四氢叶酸是目前已知的唯一热动力学稳定的还原型叶酸衍生物,并且没有被直接用作单碳载体。在原核生物中,5-甲酰四氢叶酸被认为是一种单碳载体的储存状态,主要存在于种子和孢子中,其状态随5,10-次甲基四氢叶酸合成酶的表达而变化。在哺乳动物中,5-甲酰四氢叶酸占胞内总叶酸含量的10%-15%,5-甲酰四氢叶酸对一些单碳代谢途径中的酶类有抑制作用,如:丝氨酸羟甲基转移酶(serine hydroxymethyltransferase)和5-氨基咪唑-4-甲酰胺基核苷酸转甲酰基酶(AICAR Tfase)。5,10-次甲基四氢叶酸合成酶是唯一可以将5-甲酰四氢叶酸转换为其它类型还原型叶酸的酶。通过调节体内5-甲酰四氢叶酸的浓度,5,10-次甲基四氢叶酸合成酶可以控制很多叶酸依赖型代谢途径,例如:嘌呤、嘧啶、氨基酸等代谢途径。上述代谢途径与生命发育,癌症预防和治疗中的关键步骤紧密相连。

[0009] 有研究表明:使用5-甲酰四氢同型叶酸,可以抑制5,10-次甲基四氢叶酸合成酶的活性,进而抑制人乳腺癌。从图1中可以看到,5,10-次甲基四氢叶酸合成酶在单碳代谢途径中的作用,它同时可以正向和反向调节此代谢途径。

[0010] 5,10-次甲基四氢叶酸合成酶是单碳循环上游的关键酶,通过代谢途径的分析,它对下游代谢的影响要比二氢叶酸还原酶显著。对于癌症引起的基因组甲基化异常以及DNA及RNA的完整性、DNA的修复能力等方面来说,5,10-次甲基四氢叶酸合成酶都是一个很关键的调控靶蛋白。

[0011] 5,10-次甲基四氢叶酸合成酶在不同生物中的氨基酸序列与人体内的氨基酸序列同源性比较列于表1中:(同源性比较使用NCBI的BLAST软件)

[0012] 表1

[0013]

种名		同源性(%)
黑猩猩	Pan troglodytes	97%
马	Equus caballus	87%
大鼠	Rattus norvegicus	83%
小家鼠	Mus musculus	83%
兔	Rabbits	77%
斑马鱼	Danio rerio	61%
领鞭毛虫	Monosiga brevicollis	44%
肺炎支原体	Mycoplasma pneumoniae	28%
炭疽芽孢杆菌	Bacillus Anthracis	26%

[0014] 虽然原核生物中的 5,10- 次甲基四氢叶酸合成酶三维结构已经被解析，其与人源 5,10- 次甲基四氢叶酸合成酶氨基酸序列的同源性仅为 28%。而哺乳动物以及人的 5,10- 次甲基四氢叶酸合成酶的三维结构解析却未见报道。

[0015] 由于叶酸的衍生物在生理环境中不稳定，体内多数叶酸衍生物是以结合在蛋白上的形式存在的。叶酸依赖型单碳代谢网络中酶反应链中存在着底物流传递，即底物与酶结合后发生反应，反应完成后的产物并不与酶分离，而是以这种结合状态传递到下一个酶反应中。研究也表明，这一代谢途径中 :通过形成中间态来调节酶活性，进而调节代谢途径的趋向和保持动态平衡。如 :从猪肝中提取的 10- 甲酰四氢叶酸脱氢酶，就是已结合有带 6 个谷氨酸的四氢叶酸。这样就导致 :如果反应链中一个酶发生变异，其中间产物发生积累，则对整个代谢途径的影响都是深远的。

[0016] MTHFS 催化 5- 甲酰四氢叶酸不可逆转化为 5,10- 次甲基四氢叶酸 (Jolivet, 1997)，此催化反应依赖于三磷酸腺苷 (adenosine-triphosphate，简称 ATP) 并且可被产物反馈抑制 (Huennekens et.al.，1984 ;Jolivet et.al.，1996 ;Maras et.al.，1994)。核磁共振 (NMR) 波谱和同位素交换方法研究表明 :MTHFS 催化的反应存在两个中间态 (Huang and Schirch，1995)。(1)5- 甲酰四氢叶酸的甲酰基团亲核攻击 ATP 的磷酸基团产生第一个 N5- 亚胺磷酸中间态，这部分反应是可逆的。(2) 第二个亲核攻击发生在分子内，N10 与 N5- 亚胺磷酸的 N5 连接，形成一个四面体中间态磷酸咪唑啉。磷酸咪唑啉中间态移除磷酸基团，最后形成催化产物 5,10- 次甲基四氢叶酸。5,10- 次甲基四氢叶酸是叶酸代谢的中间产物，可以在与酶结合的状态下转化为 10- 甲酰四氢叶酸。反应的最后一步使得由 MTHFS 催化的反应不可逆。目前，对这一反应机理的三维结构方面的信息所知甚少。有报道的是源于肺炎支原体 (Mycoplasmapnuemoniae) 的 MTHFS(mpMTHFS)，并且结合二磷酸腺苷 (adenonisine disphosphate，简称 ADP) 和 5- 甲酰四氢叶酸的三元复合物结构 (Chen et.al.，2005)，另外一个是源于炭疽芽胞杆菌 (Bacillus anthracis)(bMTHFS) 的 MTHFS，并且结合有 ADP(Meieret.al.，2007)。人源 MTHFS(hMTHFS) 的氨基酸序列与蛋白质数据库 (http://www.rcsb.org/pdb/) 中的一级结构相比较同源性少于 28% (Berman et.al.，2000)。从已知的结构看出 :hMTHFS 和 mpMTHFS、bMTHFS 的整体结构十分相似，预示着 MTHFS 趋向于一种保守的折叠方式。在鼠类研究中，利用酶稳态动力学和分子模拟技术表明，N5 和 N10 甲基化的叶酸衍生物用做 MTHFS 抑制物的可行性较小 (Field et.al.，2006，2007)。

[0017] 在直肠癌和胰癌化疗中常规使用的5-氟尿嘧啶(5-fluorouracil,简称5-FU)是通过抑制胸苷酸合成酶(thymidylate synthase,简称TS)发挥作用的(Longley et.al.,2003),胸苷酸合成酶(TS)从5,10-亚甲基四氢叶酸上获得一个单碳单元来催化脱氧尿苷酸(deoxyuridylate)转化为脱氧胸苷酸(deoxythymidylate),这一反应对于DNA的合成至关重要(Carreras and Santi,1995)。临床上,为了提高治疗效果,5-甲酰四氢叶酸(5-formylTHF)通常和5-FU一起使用。这样使用的好处在于:MTHFS可以催化5-甲酰四氢叶酸合成5,10-次甲基四氢叶酸,而5,10-次甲基四氢叶酸可以转化为5,10-亚甲基四氢叶酸。低含量的5,10-亚甲基四氢叶酸导致5-FU从TS四聚体上解离下来,从而降低胸苷类似物的抑制效果(Bertino,1977;Sirotnak et.al.,2000)。5,10-亚甲基四氢叶酸也可由丝氨酸羟甲基转移酶(serinehydroxymethyltransferase,简称SHMT)在转化丝氨酸为甘氨酸的过程中合成。SHMT的酶活性可以被MTHFS直接调节,因为MTHFS的底物:5-甲酰四氢叶酸可以抑制SHMT(Renwick et.al.,1998;Schirch and Szebenyi,2005;Stover and Schirch,1990)。5-氨基咪唑-4-甲酰胺基核苷酸转甲酰基酶(phosphoribosylaminoimidazolecarboxamide transformylase,简称AICARFT)和甘氨酰胺核苷酸转甲酰基酶(Glycinamideribonucleotide transformylase,简称GARFT)是单碳代谢途径中参与嘌呤代谢的两个酶,可以从10-甲酰四氢叶酸上获得单碳单元,也被用来作为抗癌药物的靶点(Allegra et.al.,1985;Piper et.al.,1988)。洛美曲索(Lometrexol)为第二代叶酸拮抗剂的代表,用来抑制GARFT活性,进而抑制嘌呤合成,达到治疗癌症的目地。

[0018] 使用甲氨蝶呤(Methotrexate,简称MTX)和氨基蝶呤(aminopterin)抑制二氢叶酸还原酶(dihydrofolatereductase,简称DHFR)导致二氢叶酸的多聚谷氨酸衍生物积累,进而抑制AICARFT的酶活性(Quinlivan et.al.,2000;Shih et.al.,1997)。同样,通过5-甲酰四氢叶酸的类似物抑制5,10-次甲基四氢叶酸合成酶(5,10-methenyltetrahydrofolate synthetase,简称MTHFS)导致5-甲酰四氢叶酸的积累,进而抑制丝氨酸羟甲基转移酶(serinehydroxymethyltransferase,简称SHMT)和AICARFT的酶活性。如上所述,酶活性的抑制对碳单元在代谢途径中的转移是有负面效应的,导致细胞中一些重要组分的合成阻断,这也是目前使用叶酸类似物进行癌症化学治疗的机理。使用叶酸衍生物进行癌症治疗,存在两个问题,(一)这些药物经过几十年的使用后,在很多病例中发现了耐药现象,而且对一些病人来说,这两种药物效果不够明显;(二)这些药物多具有比较强的细胞毒性。因此,开发新型叶酸衍生物药物用于癌症化学治疗是目前的研究热点。

发明内容

[0019] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶的晶体,其特征在于所述晶体的空间群为:C2221,晶胞参数为 $a=48.70\pm2$ Å, $b=145.12\pm2$ Å, $c=59.21\pm2$ Å; $\alpha=90.00°$, $\beta=90.00°$, $\gamma=90.00°$。

[0020] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与ADP的复合物的晶体,其特征在于所述晶体的空间群为:C2221,晶胞参数为 $a=48.51\pm2$ Å, $b=145.22\pm2$ Å, $c=59.65\pm2$ Å; $\alpha=90.00°$, $\beta=90.00°$, $\gamma=90.00°$。

[0021] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与ADP的复合物的晶体,其特征在于所述晶体的空间群为:P21212,晶胞参数为 a=59.579±2 Å, b=144.101±2 Å, c=48.532±2 Å; α=90.00°, β=90.00°, γ=90.00°。

[0022] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体,其特征在于所述晶体的空间群为:C2221,晶胞参数为 a=48.45±2 Å, b=145.23±2 Å, c=59.60±2 Å; α=90.00°, β=90.00°, γ=90.00°。

[0023] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与N5-亚胺磷酸过渡态的复合物的晶体,其特征在于所述晶体的空间群为:C2221,晶胞参数为 a=48.69±2 Å, b=141.03±2 Å, c=59.99±2 Å; α=90.00°, β=90.00°, γ=90.00°。

[0024] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与10-甲酰四氢叶酸的复合物的晶体,其特征在于所述晶体的空间群为:C2221,晶胞参数为 a=48.86±2 Å, b=144.97±2 Å, c=59.41±2 Å; α=90.00°, β=90.00°, γ=90.00°。

[0025] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶的晶体的结晶方法,包括:将所述人源5,10-次甲基四氢叶酸合成酶的溶液与池液混合;利用悬滴法或坐滴法进行结晶;在1-2天后收集晶体;其特征在于在5至25摄氏度、50%至80%的湿度范围内,池液为:含0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20%-30% PEG3000至4000、0.1mol/L的pH=6.4-7.0的N-2-羟乙基哌嗪-N-2-乙磺酸或吗啉乙磺酸缓冲液。

[0026] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与ADP的复合物的晶体的结晶方法,包括:向所述人源5,10-次甲基四氢叶酸合成酶的溶液中加入ATP溶液,再加入还原剂和镁离子,混合后得到人源5,10-次甲基四氢叶酸合成酶与ATP的混合液;将所述人源5,10-次甲基四氢叶酸合成酶与ATP的混合液与池液混合;利用悬滴法或坐滴法进行结晶;在1-2天后收集晶体;其特征在于在5至25摄氏度、50%至80%的湿度范围内,池液为:含0.01-0.03mol/L$MgCl_2$、0.01-0.04mol/L $NiCl_2$、20%-30% PEG3000至4000、0.1mol/L的pH=6.4-7.0的N-2-羟乙基哌嗪-N-2-乙磺酸或吗啉乙磺酸缓冲液。

[0027] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体的结晶方法,包括:向所述人源5,10-次甲基四氢叶酸合成酶的溶液中加入谷氨酸溶液,混合后得到人源5,10-次甲基四氢叶酸合成酶与谷氨酸的混合液;将所述人源5,10-次甲基四氢叶酸合成酶与谷氨酸的混合液与池液混合;利用悬滴法或坐滴法进行结晶;在1-2天后收集晶体;其特征在于在5至25摄氏度、50%至80%的湿度范围内,池液为:含0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20%-30% PEG3000至4000、0.1mol/L的pH=6.4-7.0的N-2-羟乙基哌嗪-N-2-乙磺酸或吗啉乙磺酸缓冲液。

[0028] 本发明提供一种人源5,10-次甲基四氢叶酸合成酶与N5-亚胺磷酸过渡态的复合物的晶体的结晶方法,包括:向所述人源5,10-次甲基四氢叶酸合成酶的溶液中加入ATP、5-甲酰四氢叶酸、巯基乙醇、镁离子溶液,混合后得到人源5,10-次甲基四氢叶酸合成酶与

N5- 亚胺磷酸的混合液；将所述人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液与池液混合；利用悬滴法或坐滴法进行结晶；在 1-2 天后收集晶体；其特征在于在 5 至 25 摄氏度、50％至 80％的湿度范围内，池液为：含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20％ -30％ PEG3000 至 4000、0.1mol/L 的 pH ＝ 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

[0029] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体的结晶方法，包括：向所述人源 5,10- 次甲基四氢叶酸合成酶的溶液中加入 ATP、5- 甲酰四氢叶酸、巯基乙醇、镁离子溶液，混合后得到人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液；将所述人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸的混合液与池液混合；利用悬滴法或坐滴法进行结晶；在 4-14 天后收集晶体；其特征在于在 5 至 25 摄氏度、50％至 80％的湿度范围内，池液为：含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20％ -30％ PEG3000 至 4000、0.1mol/L 的 pH ＝ 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。

[0030] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶的晶体的 F55、M58、E61、M90、Y152、Y153 位氨基酸在空间中所形成的结构域，其特征在于所述结构域与底物 5- 甲酰四氢叶酸中的蝶呤基团结合。

[0031] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶的晶体的 F85、W109、R148 位氨基酸在空间中所形成的结构域，其特征在于所述结构域与底物 5- 甲酰四氢叶酸中的对氨基苯甲酸基团结合。

[0032] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶的晶体的 K10、R14、R145、D154 位氨基酸在空间中所形成的结构域，其特征在于所述结构域与 ATP 结合。

[0033] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体中 α 5 的 152-161 位氨基酸在空间中所形成的结构域，其特征在于所述结构域是与从 ATP 水解下来的磷酸基团结合的结构域。

[0034] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体中 β 3 和 β 4 之间的氨基酸即第 89 和 135 位氨基酸之间的氨基酸在空间中所形成的结构域，其特征在于所述结构域形成一个 loop 环结构，该结构中的氨基酸与谷氨酸结合。

[0035] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体中氨基酸残基 F55，L56，S57，M58，E61，P81，Y83，M90，W109，P135，R148，K150，Y152 和 Y153 所形成的结构域，其特征在于所述结构域形成一个球形口袋，N5- 亚胺磷酸过渡态的蝶呤环位于所述球形口袋的中间。

[0036] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体中蝶呤环在空间中的结构域，其特征在于所述蝶呤环以 C4a 与 C8a 之间的键为轴发生了扭转，所述喋呤环上的电子发生了重排。

[0037] 本发明提供一种人源 5,10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体中 Y83 在空间中的结构域，其特征在于 Y83 的位置与在权利要求 5 所述的晶体的位置相比，发生了变化。

[0038] 本发明提供与上述的任一结构域类似或者结合的小分子化合物、短肽、多肽、核酸、抗体或免疫结合物中的一种或几种的组合物。

附图说明

[0039] 图 1 示出了 5,10- 亚甲基四氢叶酸合成酶在单碳代谢途径中的位置及作用。TS：胸苷酸合成酶 (thymidylate synthase，简称 TS)；MTHFS：5,10- 次甲基四氢叶酸合成酶 (5,10-methenyltetrahydrofolatesynthetase，简称 MTHFS)；SHMT：丝氨酸羟甲基转移酶 (serinehydroxymethyrltransferase，简称 SHMT)；DHFR：二氢叶酸还原酶 (dihydrofolate reductase，简称 DHFR)；MTHFR：亚甲基四氢叶酸还原酶 (Methylenetetrahydrofolate reductase，简称 MTHFR)；MTHFD：亚甲基四氢叶酸脱氢酶 (methylenetetrahydrofolate dehydrogenase，简称 MTHFD)

[0040] 图 2 示出了 MTHFS 催化反应产物 5,10- 次甲基四氢叶酸转化为 10- 甲酰四氢叶酸，5,10- 次甲基四氢叶酸是叶酸代谢的中间产物，可以在与酶结合状态转化为 10- 甲酰四氢叶酸。A：5,10- 次甲基四氢叶酸；B：10- 甲酰四氢叶酸。

[0041] 图 3 示出了 5,10- 亚甲基四氢叶酸合成酶晶体的立体三维结构示意图。

[0042] 图 4 示出了 5,10- 亚甲基四氢叶酸合成酶与 ADP 的复合物的晶体的三维结构示意图。

[0043] 图 5 示出了 5,10- 亚甲基四氢叶酸合成酶与谷氨酸的复合物的晶体的三维结构示意图。

[0044] 图 6 示出了 5,10- 亚甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体的三维结构示意图。

[0045] 图 7 示出了 5,10- 亚甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体的三维结构示意图。

具体实施方式

[0046] 人源 5,10- 次甲基四氢叶酸合成酶 (MTHFS) 的表达与纯化：

[0047] MTHFS 的氨基酸序列如下：MAAAAVSSAKRSLRGELKQRLRAMSAEERLRQSRVLSQKVIAHSEYQKSKRISIFLSMQDEIETEEIIKDIFQRGKICFIPRYRFQSNHMDMVRIESPEEISLLPKTSWNIPQPGEGDVREEALSTGGLDLIFMPGLGFDKHGNRLGRGKGYYDAYLKRCLQHQEVKPYTLALAFKEQICLQVPVNENDMKVDEVLYEDSSTA

[0048] 从商品化人转录文库中 PCR 克隆得到全长的人 MTHFS 的基因。使用的引物如下：

[0049] BC019921 上游：

[0050] TACTTCCAATCCAATGCTATGGCGGCGGCAGCGGT

[0051] BC019921 下游：

[0052] TTATCCACTTCCAATGTTAAGCTGTTGACGAGTCT

[0053] 克隆得到的基因，通过连接反应克隆到商品化 PET21b 载体中，该载体在蛋白质的氮端具有 6 个组氨酸的表达标签。使用 BL21(DE3) 宿主菌表达重组蛋白，37 摄氏度，当菌浓度达到 OD_{600nm} = 0.8 时，加入终浓度为 0.2mM 的 IPTG。然后，16 摄氏度表达 24 小时，4000rpm，收集表达菌。

[0054] 收集的表达菌重悬于磷酸盐缓冲液 (50mM Na_2HPO_4，10mMKH_2PO_4，137mM NaCl，2.7mM KCl，pH7.4)，使用 100W 超声波破碎细胞，在磷酸盐缓冲液中重悬细菌，16000rpm，30 分钟，

取上清，经 QIAGEN 的 Ni-NTA 亲和层析柱可以得到初步纯化的蛋白，使用烟草蚀纹病毒 (TEV) 蛋白酶切除酶氮端具有的 6 个组氨酸表达标签。然后，再通过 QIAGEN 的 Ni-NTA 亲和层析柱去除蛋白中的 TEV 蛋白酶及 6 个组氨酸表达标签。获得的纯化蛋白，使用 Milipore 公司的浓缩产品 Amicon、截留分子量为 5kDa，浓缩蛋白到 1 毫升，使用 GE 公司的 SuperDex G75 分子筛纯化。

[0055] 使用分子筛纯化 MTHFS 为单一的洗出峰，同时蛋白缓冲液换为：20mM Tris-HCl，pH8.0，200mM NaCl，0.5mM EDTA（乙二胺四乙酸二钠）和 5mM β-巯基乙醇 (β-mercaptoethanol)，使用 Milipore 公司的浓缩产品 Amicon，截留分子量为 5kDa，浓缩到 10mg/ml。

[0056] 晶体的生长：

[0057] 晶体可采用分批结晶、液-液扩散、蒸气扩散、透析等方法获得。本发明中采用的是液-液扩散的方法，包括悬滴法或坐滴法。在以下的实验中采用 Hampton 公司的晶体筛选试剂盒，晶体生长的条件为在 5 至 25 摄氏度、50％至 80％的湿度范围内，池液为：含 0.01-0.03mol/L $MgCl_2$、0.01-0.04mol/L $NiCl_2$、20％ -30％ PEG3000 至 4000、0.1mol/L 的 pH ＝ 6.4-7.0 的 N-2- 羟乙基哌嗪 -N-2- 乙磺酸或吗啉乙磺酸缓冲液。在结晶前，将人源 5,10- 次甲基四氢叶酸合成酶与池液混合或者将人源 5,10- 次甲基四氢叶酸合成酶和各种底物的混合液与池液混合。

[0058] 下面披露一些优选的实施方式：

[0059] 人源 5,10- 次甲基四氢叶酸合成酶的晶体的结晶方法，首先将所述人源 5,10- 次甲基四氢叶酸合成酶的浓缩液与池液混合；将上述酶蛋白溶液在 Eppendorf 冷冻离心机离心 14,000rpm，15 分钟；采用 Hampton 公司的晶体筛选试剂盒结晶，结晶的池液的组成为 0.02MMgCl_2、0.02M $NiCl_2$、HEPES(0.1M，pH6.6) 和 20％ PEG3350，大约两天后收集得到的晶体。

[0060] 人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体的结晶方法，首先向所述人源 5,10- 次甲基四氢叶酸合成酶的溶液加入终浓度为 5mM 的 ATP 溶液，再加入还原剂和镁离子，混合后得到人源 5,10- 次甲基四氢叶酸合成酶与 ATP 的混合液；将所述人源 5,10- 次甲基四氢叶酸合成酶与 ATP 的混合液与池液混合 1 小时；结晶前将所述蛋白溶液在 Eppendorf 冷冻离心机离心 14,000rpm，15 分钟（主要目的是为了去除杂质），采用 Hampton 公司的晶体筛选试剂盒结晶，结晶的池液的组成为 0.02M $MgCl_2$、0.02M $NiCl_2$、HEPES(0.1M，pH6.6) 和 20％ PEG3350，1-2 天收集晶体进行数据收集。

[0061] 人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体的结晶方法，向 5-10mg/ml 蛋白溶液中加入终浓度为 3mM 的谷氨酸溶液，混合 1 小时，结晶前将所述蛋白溶液在 Eppendorf 冷冻离心机离心 14,000rpm，15 分钟，采用 Hampton 公司的晶体筛选试剂盒结晶，结晶的池液的组成为 0.02M $MgCl_2$、0.02M $NiCl_2$、HEPES(0.1M，pH6.6) 和 20％ PEG3350，1-2 天收集晶体进行数据收集。

[0062] 人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体的结晶方法，向 5-10mg/ml 蛋白溶液中加入终浓度为 5mM ATP、5mM 5- 甲酰四氢叶酸、2mM 巯基乙醇、5mM 镁离子，混合 1 小时，结晶前将所述蛋白溶液在 Eppendorf 冷冻离心机离心 14,000rpm，15 分钟，采用 Hampton 公司的晶体筛选试剂盒结晶，结晶的池液的组成为 0.02M

$MgCl_2$、0.02M $NiCl_2$、HEPES(0.1M，pH6.6) 和 20％ PEG3350，1-2 天收集晶体进行数据收集。

[0063] 人源 5，10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体的结晶方法，5-10mg/ml 蛋白溶液中加入终浓度为 5mM ATP、5mM 5- 甲酰四氢叶酸、2mM 巯基乙醇、5mM 镁离子，混合 1 小时，结晶前将所述蛋白溶液在 Eppendorf 冷冻离心机离心 14，000rpm，15 分钟，结晶的池液的组成为 0.02M $MgCl_2$、0.02M $NiCl_2$、HEPES(0.1M，pH6.6) 和 20％ PEG3350，4-14 天收集晶体进行数据收集。

[0064] 结晶的具体过程为晶体生长于 16℃，进行悬滴蒸气扩散结晶或坐滴法结晶实验，将包含混合池液 2 微升和 2 微升蛋白溶液或蛋白溶液与底物或产物的混合液的混合，进行扩散，在 300μl 包含 0.02MMgCl_2、0.02M $NiCl_2$、HEPES(0.1M，pH6.6) 和 20％ PEG3350 的池液存在下，经过一段时间发现最大尺寸达 300-500μm 的片状晶体，将晶体转移至包含 0.01M MgCl2、0.01M NiCl2、HEPES(0.1M，pH6.6)、10％ PEG3350、20％甘油作为防冻剂的溶液中。然后在收集 X- 射线数据前快速冷冻样品。

[0065] 晶体的解析

[0066] 获得的复合物晶体转移到含有 10-15％甘油的池液中，挑出单晶，快速冷冻至液氮中，经初步 X 衍射筛选后，确定要收集的晶体数据。衍射数据的收集：使用同步辐射，波长为0.979 Å，数据初步处理使用 HKL2000(Otwinowski and Minor，1997)。野生型结构解析使用分子置换方法，使用软件为 Balbes(Long et.al.，2008)，以蛋白质数据库中的 mpMTHFS(PDB code 1U3G) 建模。复合物晶体数据收集使用 in-house FRE+copper rotating anode and a R-AXIS IV++detector(Rigaku，USA) 及同步辐射。复合物结构的解析使用软件为 Phaser(McCoy et.al.，2007)，以人源 hMTHFS 的结构为模板建模。结构模型的修正使用软件 Phenix refine(Adams et.al.，2002) 和 Refmac(Murshudov et.al.，1997)。用 R 因子和 Rfree 因子来监测模型质量和修正误差。

[0067] 人源 5，10- 次甲基四氢叶酸合成酶的晶体，空间群为：C2221，晶胞参数为 a = 48.70 ± 2 Å，b =145.12 ± 2 Å，c =59.21 ± 2 Å；α = 90.00°，β = 90.00°，γ = 90.00°。

[0068] 人源 5，10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体，空间群为：C2221，晶胞参数为a =48.51 ± 2 Å，b = 145.22 ± 2 Å，c=59.65 ± 2 Å；α = 90.00°，β = 90.00°，γ = 90.00°。

[0069] 人源 5，10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体，空间群为：P21212，晶胞参数为 a＝59.579 ± 2 Å，b＝144.101 ± 2 Å，c =48.532 ± 2 Å；α = 90.00°，β = 90.00°，γ = 90.00°。

[0070] 人源 5，10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体，空间群为：C2221，晶胞参数为 a =48.45 ± 2 Å，b = 145.23 ± 2 Å，c =59.60 ± 2 Å；α = 90.00°，β = 90.00°，γ = 90.00°。

[0071] 人源 5，10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体，空间群为：C2221，晶胞参数为a =48.69 ± 2 Å，b =141.03 ± 2 Å，c =59.99 ± 2 Å；α = 90.00°，β = 90.00°，γ = 90.00°。

[0072] 人源 5，10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体，空间群

为 :C2221，晶胞参数为a =48.86 ± 2 Å , b = 144.97± 2 Å , c =59.41 ± 2 Å; α = 90.00° , β = 90.00° , γ = 90.00° 。

[0073] 表 2 为人源 5,10- 次甲基四氢叶酸合成酶的晶体的坐标

[0074] 表 2

[0075]

CRYST1	48.705	145.122	59.218	90.00	90.00	90.00 C 2 2 21					
SCALE1		0.020532	-0.000000	-0.000000		0.00000					
SCALE2		0.000000	0.006891	-0.000000		0.00000					
SCALE3		0.000000	0.000000	0.016887		0.00000					
原子	1	N	MET	A	1	43.237	61.209	-8.419	1.00	50.49	N
原子	2	CA	MET	A	1	42.398	61.619	-7.299	1.00	41.25	C
原子	3	C	MET	A	1	41.884	60.414	-6.517	1.00	49.64	C
原子	4	CB	MET	A	1	41.219	62.474	-7.778	1.00	25.86	C
原子	5	CG	MET	A	1	41.498	63.971	-7.808	1.00	55.27	C
原子	6	SD	MET	A	1	42.109	64.612	-6.232	1.00	57.80	S
原子	7	CE	MET	A	1	40.856	64.013	-5.094	1.00	35.37	C
原子	8	O	MET	A	1	41.447	59.417	-7.098	1.00	28.81	O
原子	9	O	ALA	A	2	39.223	58.414	-4.419	1.00	36.59	O
原子	10	N	ALA	A	2	41.947	60.509	-5.194	1.00	41.59	N
原子	11	CA	ALA	A	2	41.366	59.490	-4.336	1.00	40.92	C
原子	12	C	ALA	A	2	39.865	59.452	-4.582	1.00	32.46	C
原子	13	CB	ALA	A	2	41.660	59.794	-2.876	1.00	43.26	C
原子	14	N	ALA	A	3	39.317	60.603	-4.961	1.00	33.36	N
原子	15	CA	ALA	A	3	37.900	60.726	-5.272	1.00	37.54	C
原子	16	CB	ALA	A	3	37.553	62.173	-5.607	1.00	32.19	C
原子	17	C	ALA	A	3	37.539	59.810	-6.433	1.00	31.59	C
原子	18	O	ALA	A	3	36.561	59.067	-6.370	1.00	30.24	O
原子	19	N	ALA	A	4	38.335	59.869	-7.496	1.00	29.27	N
原子	20	CA	ALA	A	4	38.127	58.998	-8.643	1.00	18.41	C
原子	21	CB	ALA	A	4	39.090	59.354	-9.768	1.00	29.97	C
原子	22	C	ALA	A	4	38.272	57.527	-8.255	1.00	23.85	C
原子	23	O	ALA	A	4	37.564	56.668	-8.779	1.00	28.00	O
原子	24	N	ALA	A	5	39.194	57.236	-7.343	1.00	25.57	N
原子	25	CA	ALA	A	5	39.419	55.858	-6.919	1.00	27.34	C
原子	26	CB	ALA	A	5	40.666	55.753	-6.061	1.00	29.60	C
原子	27	C	ALA	A	5	38.201	55.346	-6.165	1.00	25.26	C
原子	28	O	ALA	A	5	37.809	54.186	-6.312	1.00	20.99	O
原子	29	N	VAL	A	6	37.606	56.220	-5.357	1.00	26.45	N
原子	30	CA	VAL	A	6	36.368	55.897	-4.659	1.00	30.83	C
原子	31	CB	VAL	A	6	35.952	57.021	-3.691	1.00	22.38	C
原子	32	CG1	VAL	A	6	34.535	56.787	-3.191	1.00	31.08	C
原子	33	CG2	VAL	A	6	36.930	57.110	-2.525	1.00	26.60	C
原子	34	C	VAL	A	6	35.240	55.659	-5.657	1.00	20.16	C
原子	35	O	VAL	A	6	34.474	54.704	-5.533	1.00	23.52	O
原子	36	N	SER	A	7	35.144	56.531	-6.654	1.00	32.52	N
原子	37	CA	SER	A	7	34.112	56.393	-7.676	1.00	22.19	C
原子	38	CB	SER	A	7	34.201	57.533	-8.696	1.00	24.72	C
原子	39	OG	SER	A	7	34.064	58.796	-8.065	1.00	37.16	O
原子	40	C	SER	A	7	34.226	55.045	-8.376	1.00	21.60	C
原子	41	O	SER	A	7	33.223	54.391	-8.647	1.00	32.80	O
原子	42	N	SER	A	8	35.459	54.638	-8.657	1.00	25.92	N
原子	43	CA	SER	A	8	35.730	53.390	-9.364	1.00	26.33	C
原子	44	CB	SER	A	8	37.220	53.280	-9.689	1.00	24.79	C
原子	45	OG	SER	A	8	37.528	52.003	-10.223	1.00	26.13	O
原子	46	C	SER	A	8	35.303	52.182	-8.548	1.00	20.71	C
原子	47	O	SER	A	8	34.701	51.246	-9.072	1.00	27.86	O

[0076]

原子	48	N	ALA	A	9	35.633	52.207	-7.262	1.00	29.59	N
原子	49	CA	ALA	A	9	35.244	51.141	-6.349	1.00	19.03	C
原子	50	CB	ALA	A	9	35.768	51.432	-4.955	1.00	27.28	C
原子	51	C	ALA	A	9	33.727	51.002	-6.334	1.00	23.14	C
原子	52	O	ALA	A	9	33.194	49.897	-6.428	1.00	29.07	O
原子	53	N	LYS	A	10	33.039	52.134	-6.236	1.00	22.07	N
原子	54	CA	LYS	A	10	31.580	52.146	-6.212	1.00	25.88	C
原子	55	CB	LYS	A	10	31.051	53.566	-5.970	1.00	32.86	C
原子	56	CG	LYS	A	10	31.329	54.113	-4.573	1.00	22.99	C
原子	57	CD	LYS	A	10	30.751	55.518	-4.399	1.00	21.02	C
原子	58	CE	LYS	A	10	30.616	55.880	-2.925	1.00	32.36	C
原子	59	NZ	LYS	A	10	29.966	57.207	-2.726	1.00	43.96	N
原子	60	C	LYS	A	10	30.997	51.578	-7.503	1.00	25.13	C
原子	61	O	LYS	A	10	30.085	50.750	-7.474	1.00	25.56	O
原子	62	N	ARG	A	11	31.531	52.024	-8.636	1.00	23.09	N
原子	63	CA	ARG	A	11	31.065	51.553	-9.930	1.00	20.17	C
原子	64	CB	ARG	A	11	31.817	52.271	-11.051	1.00	33.50	C
原子	65	CG	ARG	A	11	31.446	51.815	-12.446	1.00	32.43	C
原子	66	CD	ARG	A	11	32.306	52.533	-13.474	1.00	37.12	C
原子	67	NE	ARG	A	11	33.712	52.514	-13.080	1.00	35.83	N
原子	68	CZ	ARG	A	11	34.516	51.468	-13.240	1.00	46.92	C
原子	69	NH1	ARG	A	11	34.055	50.354	-13.794	1.00	47.69	N
原子	70	NH2	ARG	A	11	35.782	51.534	-12.848	1.00	43.79	N
原子	71	C	ARG	A	11	31.229	50.045	-10.073	1.00	21.69	C
原子	72	O	ARG	A	11	30.325	49.355	-10.543	1.00	24.17	O
原子	73	N	SER	A	12	32.384	49.531	-9.663	1.00	30.48	N
原子	74	CA	SER	A	12	32.633	48.095	-9.750	1.00	38.29	C
原子	75	CB	SER	A	12	34.071	47.762	-9.348	1.00	33.87	C
原子	76	OG	SER	A	12	34.989	48.210	-10.330	1.00	35.60	O
原子	77	C	SER	A	12	31.651	47.328	-8.876	1.00	33.45	C
原子	78	O	SER	A	12	31.071	46.328	-9.304	1.00	35.56	O
原子	79	N	LEU	A	13	31.464	47.805	-7.650	1.00	28.35	N
原子	80	CA	LEU	A	13	30.552	47.153	-6.722	1.00	26.80	C
原子	81	CB	LEU	A	13	30.627	47.801	-5.340	1.00	26.17	C
原子	82	CG	LEU	A	13	29.803	47.135	-4.234	1.00	31.25	C
原子	83	CD1	LEU	A	13	30.013	45.617	-4.218	1.00	27.45	C
原子	84	CD2	LEU	A	13	30.147	47.739	-2.891	1.00	26.71	C
原子	85	C	LEU	A	13	29.119	47.151	-7.254	1.00	25.78	C
原子	86	O	LEU	A	13	28.414	46.148	-7.143	1.00	30.58	O
原子	87	N	ARG	A	14	28.690	48.268	-7.836	1.00	25.53	N
原子	88	CA	ARG	A	14	27.369	48.333	-8.456	1.00	30.17	C
原子	89	CB	ARG	A	14	27.122	49.707	-9.084	1.00	22.65	C
原子	90	CG	ARG	A	14	26.978	50.830	-8.075	1.00	22.44	C
原子	91	CD	ARG	A	14	26.468	52.114	-8.714	1.00	27.02	C
原子	92	NE	ARG	A	14	26.456	53.198	-7.738	1.00	27.26	N
原子	93	CZ	ARG	A	14	27.295	54.227	-7.743	1.00	34.40	C
原子	94	NH1	ARG	A	14	28.211	54.341	-8.699	1.00	31.50	N
原子	95	NH2	ARG	A	14	27.209	55.147	-6.794	1.00	32.52	N
原子	96	C	ARG	A	14	27.224	47.248	-9.517	1.00	31.22	C
原子	97	O	ARG	A	14	26.177	46.604	-9.625	1.00	28.00	O
原子	98	N	GLY	A	15	28.280	47.050	-10.299	1.00	30.59	N
原子	99	CA	GLY	A	15	28.280	46.021	-11.323	1.00	39.04	C
原子	100	C	GLY	A	15	28.168	44.643	-10.706	1.00	41.45	C
原子	101	O	GLY	A	15	27.370	43.815	-11.143	1.00	42.15	O
原子	102	N	GLU	A	16	28.971	44.402	-9.677	1.00	36.59	N
原子	103	CA	GLU	A	16	28.937	43.136	-8.957	1.00	44.44	C
原子	104	CB	GLU	A	16	30.049	43.088	-7.903	1.00	40.98	C
原子	105	CG	GLU	A	16	31.432	43.454	-8.441	1.00	52.74	C

[0077]

原子	106	CD	GLU	A	16	32.513	43.427	-7.373	1.00	68.63	C
原子	107	OE1	GLU	A	16	32.502	42.500	-6.535	1.00	61.94	O
原子	108	OE2	GLU	A	16	33.379	44.329	-7.374	1.00	67.31	O
原子	109	C	GLU	A	16	27.569	42.908	-8.313	1.00	40.08	C
原子	110	O	GLU	A	16	27.071	41.786	-8.285	1.00	51.08	O
原子	111	N	LEU	A	17	26.963	43.982	-7.813	1.00	43.70	N
原子	112	CA	LEU	A	17	25.672	43.905	-7.128	1.00	40.38	C
原子	113	CB	LEU	A	17	25.422	45.173	-6.306	1.00	27.46	C
原子	114	CG	LEU	A	17	26.324	45.423	-5.097	1.00	30.92	C
原子	115	CD1	LEU	A	17	26.050	46.796	-4.489	1.00	25.41	C
原子	116	CD2	LEU	A	17	26.144	44.330	-4.056	1.00	38.85	C
原子	117	C	LEU	A	17	24.503	43.689	-8.082	1.00	36.65	C
原子	118	O	LEU	A	17	23.671	42.807	-7.867	1.00	32.95	O
原子	119	N	LYS	A	18	24.436	44.511	-9.126	1.00	41.44	N
原子	120	CA	LYS	A	18	23.311	44.486	-10.056	1.00	41.28	C
原子	121	CB	LYS	A	18	23.424	45.621	-11.074	1.00	42.95	C
原子	122	CG	LYS	A	18	23.288	47.007	-10.462	1.00	58.80	C
原子	123	CD	LYS	A	18	23.223	48.082	-11.532	1.00	54.49	C
原子	124	CE	LYS	A	18	21.944	47.969	-12.343	1.00	61.22	C
原子	125	NZ	LYS	A	18	20.732	48.098	-11.487	1.00	46.99	N
原子	126	C	LYS	A	18	23.219	43.145	-10.769	1.00	39.95	C
原子	127	O	LYS	A	18	22.147	42.744	-11.222	1.00	39.78	O
原子	128	O	ALA	A	19	24.825	39.263	-9.944	1.00	71.01	O
原子	129	N	ALA	A	19	24.354	42.461	-10.867	1.00	45.56	N
原子	130	CA	ALA	A	19	24.393	41.112	-11.409	1.00	40.28	C
原子	131	C	ALA	A	19	24.020	40.118	-10.319	1.00	53.13	C
原子	132	CB	ALA	A	19	25.774	40.801	-11.961	1.00	60.65	C
原子	133	N	ARG	A	20	22.795	40.248	-9.812	1.00	61.43	N
原子	134	CA	ARG	A	20	22.267	39.384	-8.754	1.00	37.19	C
原子	135	C	ARG	A	20	20.821	39.765	-8.471	1.00	37.46	C
原子	136	CB	ARG	A	20	23.096	39.509	-7.476	1.00	41.45	C
原子	137	CG	ARG	A	20	24.308	38.600	-7.418	1.00	38.72	C
原子	138	CD	ARG	A	20	25.421	39.237	-6.611	1.00	35.43	C
原子	139	NE	ARG	A	20	25.433	38.782	-5.225	1.00	53.26	N
原子	140	CZ	ARG	A	20	26.310	39.192	-4.314	1.00	56.41	C
原子	141	NH1	ARG	A	20	27.246	40.074	-4.637	1.00	48.41	N
原子	142	NH2	ARG	A	20	26.250	38.721	-3.077	1.00	54.77	N
原子	143	O	ARG	A	20	20.413	40.906	-8.704	1.00	36.64	O
原子	144	O	ALA	A	24	15.541	36.870	-10.076	1.00	39.79	O
原子	145	N	ALA	A	24	18.206	36.872	-9.563	1.00	44.35	N
原子	146	CA	ALA	A	24	17.347	36.031	-8.735	1.00	35.99	C
原子	147	C	ALA	A	24	15.940	35.979	-9.325	1.00	25.91	C
原子	148	CB	ALA	A	24	17.311	36.552	-7.306	1.00	51.88	C
原子	149	N	SER	A	25	15.194	34.929	-8.995	1.00	27.61	N
原子	150	CA	SER	A	25	13.865	34.720	-9.568	1.00	28.55	C
原子	151	C	SER	A	25	12.852	35.685	-8.978	1.00	33.80	C
原子	152	CB	SER	A	25	13.389	33.285	-9.322	1.00	26.45	C
原子	153	OG	SER	A	25	13.194	33.050	-7.935	1.00	26.72	O
原子	154	O	SER	A	25	13.085	36.274	-7.926	1.00	32.75	O
原子	155	N	ALA	A	26	11.724	35.842	-9.662	1.00	25.35	N
原子	156	CA	ALA	A	26	10.651	36.697	-9.178	1.00	30.23	C
原子	157	CB	ALA	A	26	9.550	36.798	-10.221	1.00	30.33	C
原子	158	C	ALA	A	26	10.093	36.183	-7.855	1.00	41.97	C
原子	159	O	ALA	A	26	9.887	36.956	-6.915	1.00	29.96	O
原子	160	N	GLU	A	27	9.857	34.876	-7.786	1.00	29.13	N
原子	161	CA	GLU	A	27	9.259	34.265	-6.599	1.00	35.58	C
原子	162	CB	GLU	A	27	8.948	32.785	-6.850	1.00	44.60	C
原子	163	CG	GLU	A	27	10.150	31.956	-7.271	1.00	41.78	C

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原子	164	CD	GLU	A	27	9.784	30.522	-7.619	1.00	30.75	C
原子	165	OE1	GLU	A	27	8.587	30.172	-7.548	1.00	37.75	O
原子	166	OE2	GLU	A	27	10.698	29.744	-7.965	1.00	38.25	O
原子	167	C	GLU	A	27	10.135	34.431	-5.359	1.00	40.43	C
原子	168	O	GLU	A	27	9.629	34.621	-4.248	1.00	35.50	O
原子	169	N	GLU	A	28	11.448	34.360	-5.550	1.00	26.73	N
原子	170	CA	GLU	A	28	12.388	34.567	-4.454	1.00	25.18	C
原子	171	CB	GLU	A	28	13.799	34.173	-4.889	1.00	32.27	C
原子	172	CG	GLU	A	28	14.901	34.646	-3.958	1.00	36.72	C
原子	173	CD	GLU	A	28	14.929	33.898	-2.638	1.00	35.59	C
原子	174	OE1	GLU	A	28	14.069	33.019	-2.419	1.00	31.32	O
原子	175	OE2	GLU	A	28	15.820	34.189	-1.817	1.00	40.75	O
原子	176	C	GLU	A	28	12.368	36.022	-3.984	1.00	35.66	C
原子	177	O	GLU	A	28	12.411	36.296	-2.788	1.00	30.01	O
原子	178	N	ARG	A	29	12.311	36.955	-4.928	1.00	28.72	N
原子	179	CA	ARG	A	29	12.193	38.366	-4.581	1.00	23.20	C
原子	180	CB	ARG	A	29	12.061	39.230	-5.836	1.00	29.48	C
原子	181	CG	ARG	A	29	13.357	39.466	-6.583	1.00	49.86	C
原子	182	CD	ARG	A	29	13.168	40.525	-7.662	1.00	42.45	C
原子	183	NE	ARG	A	29	14.282	40.542	-8.602	1.00	42.62	N
原子	184	CZ	ARG	A	29	14.275	39.922	-9.778	1.00	50.33	C
原子	185	NH1	ARG	A	29	13.207	39.238	-10.164	1.00	55.12	N
原子	186	NH2	ARG	A	29	15.337	39.990	-10.569	1.00	44.99	N
原子	187	C	ARG	A	29	10.965	38.570	-3.713	1.00	31.67	C
原子	188	O	ARG	A	29	11.015	39.269	-2.699	1.00	28.47	O
原子	189	N	LEU	A	30	9.856	37.965	-4.127	1.00	27.53	N
原子	190	CA	LEU	A	30	8.625	38.042	-3.358	1.00	28.33	C
原子	191	CB	LEU	A	30	7.465	37.396	-4.116	1.00	30.15	C
原子	192	CG	LEU	A	30	6.996	38.144	-5.362	1.00	45.39	C
原子	193	CD1	LEU	A	30	5.796	37.450	-5.986	1.00	46.77	C
原子	194	CD2	LEU	A	30	6.668	39.592	-5.021	1.00	40.81	C
原子	195	C	LEU	A	30	8.811	37.380	-2.002	1.00	38.43	C
原子	196	O	LEU	A	30	8.290	37.861	-0.996	1.00	33.07	O
原子	197	N	ARG	A	31	9.566	36.284	-1.976	1.00	35.43	N
原子	198	CA	ARG	A	31	9.822	35.565	-0.729	1.00	41.68	C
原子	199	CB	ARG	A	31	10.693	34.330	-0.971	1.00	29.07	C
原子	200	CG	ARG	A	31	10.874	33.475	0.272	1.00	33.23	C
原子	201	CD	ARG	A	31	11.891	32.361	0.068	1.00	29.46	C
原子	202	NE	ARG	A	31	13.267	32.847	0.081	1.00	39.44	N
原子	203	CZ	ARG	A	31	13.985	33.032	1.185	1.00	25.86	C
原子	204	NH1	ARG	A	31	13.452	32.777	2.371	1.00	34.69	N
原子	205	NH2	ARG	A	31	15.232	33.472	1.105	1.00	32.18	N
原子	206	C	ARG	A	31	10.483	36.456	0.316	1.00	33.67	C
原子	207	O	ARG	A	31	9.963	36.624	1.421	1.00	33.31	O
原子	208	N	GLN	A	32	11.637	37.019	-0.031	1.00	24.06	N
原子	209	CA	GLN	A	32	12.363	37.873	0.902	1.00	25.72	C
原子	210	CB	GLN	A	32	13.760	38.213	0.375	1.00	28.10	C
原子	211	CG	GLN	A	32	14.696	37.025	0.328	1.00	25.46	C
原子	212	CD	GLN	A	32	16.121	37.415	0.013	1.00	25.28	C
原子	213	OE1	GLN	A	32	16.672	38.331	0.615	1.00	23.31	O
原子	214	NE2	GLN	A	32	16.730	36.715	-0.939	1.00	29.70	N
原子	215	C	GLN	A	32	11.582	39.141	1.219	1.00	28.45	C
原子	216	O	GLN	A	32	11.682	39.680	2.324	1.00	26.15	O
原子	217	N	SER	A	33	10.807	39.617	0.250	1.00	30.70	N
原子	218	CA	SER	A	33	9.949	40.770	0.477	1.00	29.80	C
原子	219	CB	SER	A	33	9.267	41.211	-0.821	1.00	27.34	C
原子	220	OG	SER	A	33	10.199	41.807	-1.713	1.00	17.82	O
原子	221	C	SER	A	33	8.924	40.474	1.575	1.00	28.38	C

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原子	222	O	SER	A	33	8.645	41.327	2.412	1.00	22.62	O
原子	223	N	ARG	A	34	8.373	39.264	1.574	1.00	28.26	N
原子	224	CA	ARG	A	34	7.457	38.836	2.634	1.00	25.71	C
原子	225	CB	ARG	A	34	6.891	37.445	2.336	1.00	32.46	C
原子	226	CG	ARG	A	34	5.978	37.348	1.131	1.00	41.80	C
原子	227	CD	ARG	A	34	5.694	35.881	0.824	1.00	54.66	C
原子	228	NE	ARG	A	34	4.903	35.696	-0.388	1.00	68.80	N
原子	229	CZ	ARG	A	34	4.834	34.553	-1.063	1.00	56.35	C
原子	230	NH1	ARG	A	34	5.518	33.493	-0.650	1.00	50.15	N
原子	231	NH2	ARG	A	34	4.089	34.470	-2.156	1.00	79.32	N
原子	232	C	ARG	A	34	8.151	38.788	3.992	1.00	29.41	C
原子	233	O	ARG	A	34	7.560	39.131	5.017	1.00	23.86	O
原子	234	N	VAL	A	35	9.400	38.339	3.999	1.00	23.99	N
原子	235	CA	VAL	A	35	10.164	38.231	5.236	1.00	24.68	C
原子	236	CB	VAL	A	35	11.496	37.488	5.008	1.00	25.40	C
原子	237	CG1	VAL	A	35	12.402	37.614	6.218	1.00	28.08	C
原子	238	CG2	VAL	A	35	11.238	36.029	4.684	1.00	38.64	C
原子	239	C	VAL	A	35	10.439	39.606	5.833	1.00	30.35	C
原子	240	O	VAL	A	35	10.278	39.818	7.032	1.00	20.23	O
原子	241	N	LEU	A	36	10.848	40.547	4.992	1.00	21.93	N
原子	242	CA	LEU	A	36	11.138	41.897	5.467	1.00	21.78	C
原子	243	CB	LEU	A	36	11.919	42.702	4.419	1.00	23.66	C
原子	244	CG	LEU	A	36	13.425	42.430	4.502	1.00	35.62	C
原子	245	CD1	LEU	A	36	13.743	41.031	4.013	1.00	37.52	C
原子	246	CD2	LEU	A	36	14.243	43.458	3.749	1.00	23.59	C
原子	247	C	LEU	A	36	9.882	42.631	5.907	1.00	22.77	C
原子	248	O	LEU	A	36	9.919	43.402	6.864	1.00	27.98	O
原子	249	N	SER	A	37	8.769	42.397	5.219	1.00	22.42	N
原子	250	CA	SER	A	37	7.516	43.040	5.607	1.00	22.36	C
原子	251	CB	SER	A	37	6.386	42.654	4.657	1.00	21.27	C
原子	252	OG	SER	A	37	6.678	43.051	3.332	1.00	38.43	O
原子	253	C	SER	A	37	7.150	42.681	7.047	1.00	27.18	C
原子	254	O	SER	A	37	6.810	43.553	7.843	1.00	25.48	O
原子	255	N	GLN	A	38	7.227	41.394	7.372	1.00	21.53	N
原子	256	CA	GLN	A	38	6.979	40.930	8.734	1.00	20.43	C
原子	257	CB	GLN	A	38	7.177	39.412	8.827	1.00	25.87	C
原子	258	CG	GLN	A	38	5.926	38.581	8.639	1.00	42.07	C
原子	259	CD	GLN	A	38	6.177	37.106	8.921	1.00	47.66	C
原子	260	OE1	GLN	A	38	6.849	36.419	8.149	1.00	39.58	O
原子	261	NE2	GLN	A	38	5.639	36.616	10.032	1.00	53.01	N
原子	262	C	GLN	A	38	7.918	41.615	9.711	1.00	22.28	C
原子	263	O	GLN	A	38	7.484	42.161	10.723	1.00	27.51	O
原子	264	N	LYS	A	39	9.212	41.567	9.408	1.00	17.06	N
原子	265	CA	LYS	A	39	10.221	42.196	10.249	1.00	23.59	C
原子	266	CB	LYS	A	39	11.625	41.990	9.670	1.00	24.01	C
原子	267	CG	LYS	A	39	12.235	40.619	9.951	1.00	24.33	C
原子	268	CD	LYS	A	39	11.230	39.501	9.707	1.00	44.61	C
原子	269	CE	LYS	A	39	11.848	38.123	9.900	1.00	67.70	C
原子	270	NZ	LYS	A	39	10.893	37.036	9.530	1.00	39.24	N
原子	271	C	LYS	A	39	9.937	43.683	10.428	1.00	33.56	C
原子	272	O	LYS	A	39	10.136	44.226	11.510	1.00	24.27	O
原子	273	N	VAL	A	40	9.471	44.339	9.367	1.00	23.48	N
原子	274	CA	VAL	A	40	9.165	45.764	9.445	1.00	14.43	C
原子	275	CB	VAL	A	40	8.925	46.374	8.052	1.00	22.04	C
原子	276	CG1	VAL	A	40	8.235	47.731	8.174	1.00	21.98	C
原子	277	CG2	VAL	A	40	10.243	46.509	7.308	1.00	24.26	C
原子	278	C	VAL	A	40	7.952	46.025	10.332	1.00	17.76	C
原子	279	O	VAL	A	40	7.996	46.863	11.235	1.00	26.13	O

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原子	280	N	ILE	A	41	6.875	45.292	10.082	1.00	21.04	N
原子	281	CA	ILE	A	41	5.642	45.464	10.839	1.00	25.86	C
原子	282	CB	ILE	A	41	4.514	44.562	10.283	1.00	29.42	C
原子	283	CG1	ILE	A	41	4.289	44.853	8.798	1.00	28.69	C
原子	284	CD1	ILE	A	41	4.191	46.314	8.466	1.00	35.88	C
原子	285	CG2	ILE	A	41	3.221	44.753	11.063	1.00	40.69	C
原子	286	C	ILE	A	41	5.838	45.229	12.344	1.00	27.75	C
原子	287	O	ILE	A	41	5.097	45.771	13.164	1.00	25.32	O
原子	288	N	ALA	A	42	6.848	44.440	12.702	1.00	32.49	N
原子	289	CA	ALA	A	42	7.141	44.158	14.107	1.00	25.62	C
原子	290	CB	ALA	A	42	7.619	42.732	14.268	1.00	30.29	C
原子	291	C	ALA	A	42	8.178	45.125	14.671	1.00	35.06	C
原子	292	O	ALA	A	42	8.517	45.070	15.853	1.00	22.26	O
原子	293	N	HIS	A	43	8.680	46.010	13.818	1.00	21.52	N
原子	294	CA	HIS	A	43	9.767	46.904	14.191	1.00	28.56	C
原子	295	CB	HIS	A	43	10.457	47.420	12.929	1.00	16.20	C
原子	296	CG	HIS	A	43	11.768	48.087	13.185	1.00	18.79	C
原子	297	ND1	HIS	A	43	12.975	47.480	12.916	1.00	24.92	N
原子	298	CE1	HIS	A	43	13.958	48.303	13.232	1.00	23.25	C
原子	299	NE2	HIS	A	43	13.432	49.421	13.698	1.00	26.95	N
原子	300	CD2	HIS	A	43	12.063	49.312	13.677	1.00	22.20	C
原子	301	C	HIS	A	43	9.274	48.068	15.059	1.00	22.73	C
原子	302	O	HIS	A	43	8.260	48.697	14.756	1.00	21.61	O
原子	303	N	SER	A	44	10.002	48.343	16.139	1.00	22.37	N
原子	304	CA	SER	A	44	9.590	49.343	17.122	1.00	20.61	C
原子	305	CB	SER	A	44	10.555	49.349	18.312	1.00	31.97	C
原子	306	OG	SER	A	44	10.705	48.048	18.852	1.00	48.48	O
原子	307	C	SER	A	44	9.498	50.749	16.544	1.00	21.93	C
原子	308	O	SER	A	44	8.541	51.480	16.815	1.00	20.41	O
原子	309	N	GLU	A	45	10.509	51.136	15.773	1.00	22.14	N
原子	310	CA	GLU	A	45	10.539	52.462	15.164	1.00	23.22	C
原子	311	CB	GLU	A	45	11.893	52.726	14.507	1.00	25.20	C
原子	312	CG	GLU	A	45	13.038	52.844	15.499	1.00	37.59	C
原子	313	CD	GLU	A	45	12.835	53.974	16.490	1.00	33.35	C
原子	314	OE1	GLU	A	45	11.963	54.838	16.247	1.00	43.69	O
原子	315	OE2	GLU	A	45	13.550	54.003	17.511	1.00	40.93	O
原子	316	C	GLU	A	45	9.419	52.618	14.147	1.00	22.83	C
原子	317	O	GLU	A	45	8.814	53.677	14.040	1.00	20.87	O
原子	318	N	TYR	A	46	9.138	51.555	13.401	1.00	19.12	N
原子	319	CA	TYR	A	46	8.025	51.577	12.465	1.00	16.98	C
原子	320	CB	TYR	A	46	8.010	50.322	11.585	1.00	23.01	C
原子	321	CG	TYR	A	46	6.734	50.206	10.796	1.00	24.44	C
原子	322	CD1	TYR	A	46	6.536	50.968	9.648	1.00	21.44	C
原子	323	CE1	TYR	A	46	5.366	50.885	8.931	1.00	16.96	C
原子	324	CZ	TYR	A	46	4.368	50.039	9.355	1.00	20.20	C
原子	325	OH	TYR	A	46	3.204	49.957	8.640	1.00	21.52	O
原子	326	CE2	TYR	A	46	4.534	49.272	10.496	1.00	19.97	C
原子	327	CD2	TYR	A	46	5.711	49.363	11.211	1.00	15.93	C
原子	328	C	TYR	A	46	6.682	51.717	13.184	1.00	20.85	C
原子	329	O	TYR	A	46	5.871	52.573	12.844	1.00	19.38	O
原子	330	N	GLN	A	47	6.450	50.877	14.184	1.00	19.28	N
原子	331	CA	GLN	A	47	5.198	50.922	14.930	1.00	14.19	C
原子	332	CB	GLN	A	47	5.176	49.824	16.002	1.00	16.91	C
原子	333	CG	GLN	A	47	5.188	48.424	15.411	1.00	19.60	C
原子	334	CD	GLN	A	47	5.101	47.338	16.469	1.00	40.49	C
原子	335	OE1	GLN	A	47	4.964	47.622	17.659	1.00	37.67	O
原子	336	NE2	GLN	A	47	5.176	46.087	16.037	1.00	39.61	N
原子	337	C	GLN	A	47	4.924	52.293	15.558	1.00	12.06	C

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原子	338	O	GLN	A	47	3.778	52.730	15.635	1.00	21.70	O
原子	339	N	LYS	A	48	5.978	52.970	15.999	1.00	19.97	N
原子	340	CA	LYS	A	48	5.827	54.259	16.671	1.00	17.17	C
原子	341	CB	LYS	A	48	7.006	54.515	17.618	1.00	27.76	C
原子	342	CG	LYS	A	48	7.112	53.527	18.771	1.00	37.26	C
原子	343	CD	LYS	A	48	8.440	53.680	19.506	1.00	30.89	C
原子	344	CE	LYS	A	48	8.577	52.666	20.637	1.00	50.38	C
原子	345	NZ	LYS	A	48	7.673	52.974	21.777	1.00	44.93	N
原子	346	C	LYS	A	48	5.695	55.422	15.692	1.00	16.94	C
原子	347	O	LYS	A	48	5.124	56.455	16.029	1.00	18.50	O
原子	348	N	SER	A	49	6.215	55.245	14.480	1.00	15.50	N
原子	349	CA	SER	A	49	6.311	56.339	13.506	1.00	13.40	C
原子	350	CB	SER	A	49	7.066	55.873	12.261	1.00	27.57	C
原子	351	OG	SER	A	49	6.305	54.918	11.541	1.00	31.97	O
原子	352	C	SER	A	49	4.945	56.896	13.108	1.00	25.05	C
原子	353	O	SER	A	49	3.985	56.146	12.951	1.00	21.43	O
原子	354	N	LYS	A	50	4.864	58.216	12.943	1.00	16.42	N
原子	355	CA	LYS	A	50	3.601	58.862	12.612	1.00	17.77	C
原子	356	CB	LYS	A	50	3.302	59.988	13.610	1.00	28.48	C
原子	357	CG	LYS	A	50	3.194	59.509	15.058	1.00	33.04	C
原子	358	CD	LYS	A	50	3.129	60.682	16.036	1.00	30.85	C
原子	359	CE	LYS	A	50	2.981	60.202	17.482	1.00	34.00	C
原子	360	NZ	LYS	A	50	3.947	59.122	17.818	1.00	40.38	N
原子	361	C	LYS	A	50	3.606	59.401	11.183	1.00	15.40	C
原子	362	O	LYS	A	50	2.587	59.369	10.505	1.00	19.29	O
原子	363	N	ARG	A	51	4.760	59.890	10.738	1.00	20.01	N
原子	364	CA	ARG	A	51	4.916	60.451	9.389	1.00	14.97	C
原子	365	CB	ARG	A	51	5.191	61.954	9.459	1.00	15.66	C
原子	366	CG	ARG	A	51	4.092	62.729	10.172	1.00	27.60	C
原子	367	CD	ARG	A	51	4.522	64.141	10.542	1.00	21.27	C
原子	368	NE	ARG	A	51	5.016	64.880	9.386	1.00	19.76	N
原子	369	CZ	ARG	A	51	4.242	65.464	8.480	1.00	22.32	C
原子	370	NH1	ARG	A	51	2.922	65.399	8.588	1.00	26.48	N
原子	371	NH2	ARG	A	51	4.790	66.113	7.462	1.00	21.46	N
原子	372	C	ARG	A	51	6.056	59.720	8.704	1.00	11.45	C
原子	373	O	ARG	A	51	7.194	59.758	9.163	1.00	20.00	O
原子	374	N	ILE	A	52	5.742	59.043	7.609	1.00	16.68	N
原子	375	CA	ILE	A	52	6.656	58.071	7.035	1.00	13.49	C
原子	376	CB	ILE	A	52	6.128	56.647	7.315	1.00	20.95	C
原子	377	CG1	ILE	A	52	7.215	55.590	7.111	1.00	33.17	C
原子	378	CD1	ILE	A	52	6.919	54.295	7.847	1.00	36.27	C
原子	379	CG2	ILE	A	52	4.884	56.362	6.489	1.00	25.67	C
原子	380	C	ILE	A	52	6.878	58.264	5.533	1.00	14.94	C
原子	381	O	ILE	A	52	5.953	58.590	4.795	1.00	20.16	O
原子	382	N	SER	A	53	8.121	58.078	5.099	1.00	16.91	N
原子	383	CA	SER	A	53	8.460	58.090	3.678	1.00	12.88	C
原子	384	CB	SER	A	53	9.664	58.984	3.418	1.00	10.77	C
原子	385	OG	SER	A	53	10.162	58.779	2.103	1.00	18.76	O
原子	386	C	SER	A	53	8.813	56.682	3.244	1.00	13.34	C
原子	387	O	SER	A	53	9.605	56.005	3.895	1.00	19.72	O
原子	388	N	ILE	A	54	8.223	56.242	2.142	1.00	13.26	N
原子	389	CA	ILE	A	54	8.505	54.914	1.622	1.00	11.68	C
原子	390	CB	ILE	A	54	7.410	53.912	2.019	1.00	9.55	C
原子	391	CG1	ILE	A	54	7.809	52.489	1.620	1.00	18.54	C
原子	392	CD1	ILE	A	54	7.118	51.416	2.451	1.00	16.51	C
原子	393	CG2	ILE	A	54	6.063	54.307	1.432	1.00	13.71	C
原子	394	C	ILE	A	54	8.620	54.968	0.110	1.00	12.72	C
原子	395	O	ILE	A	54	7.929	55.751	-0.536	1.00	14.87	O

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原子	396	N	PHE	A	55	9.499	54.137	-0.444	1.00	13.10	N
原子	397	CA	PHE	A	55	9.686	54.070	-1.889	1.00	14.41	C
原子	398	CB	PHE	A	55	11.153	53.793	-2.246	1.00	13.26	C
原子	399	CG	PHE	A	55	11.700	52.524	-1.649	1.00	19.87	C
原子	400	CD1	PHE	A	55	11.614	51.321	-2.335	1.00	27.12	C
原子	401	CE1	PHE	A	55	12.121	50.155	-1.789	1.00	15.81	C
原子	402	CZ	PHE	A	55	12.725	50.181	-0.545	1.00	21.00	C
原子	403	CE2	PHE	A	55	12.825	51.372	0.148	1.00	15.07	C
原子	404	CD2	PHE	A	55	12.311	52.536	-0.404	1.00	20.17	C
原子	405	C	PHE	A	55	8.786	53.036	-2.552	1.00	19.61	C
原子	406	O	PHE	A	55	8.351	52.057	-1.929	1.00	15.86	O
原子	407	N	LEU	A	56	8.503	53.287	-3.825	1.00	16.80	N
原子	408	CA	LEU	A	56	7.779	52.363	-4.676	1.00	22.49	C
原子	409	CB	LEU	A	56	6.912	53.149	-5.663	1.00	17.52	C
原子	410	CG	LEU	A	56	5.509	53.576	-5.200	1.00	23.24	C
原子	411	CD1	LEU	A	56	5.316	53.449	-3.692	1.00	29.19	C
原子	412	CD2	LEU	A	56	5.148	54.977	-5.684	1.00	22.10	C
原子	413	C	LEU	A	56	8.820	51.503	-5.393	1.00	26.29	C
原子	414	O	LEU	A	56	9.746	52.025	-6.011	1.00	23.65	O
原子	415	N	SER	A	57	8.673	50.187	-5.293	1.00	23.61	N
原子	416	CA	SER	A	57	9.762	49.265	-5.610	1.00	17.84	C
原子	417	CB	SER	A	57	9.491	47.888	-4.994	1.00	22.59	C
原子	418	OG	SER	A	57	9.259	47.989	-3.604	1.00	21.37	O
原子	419	C	SER	A	57	10.022	49.075	-7.100	1.00	21.93	C
原子	420	O	SER	A	57	9.098	48.920	-7.883	1.00	19.86	O
原子	421	N	MET	A	58	11.294	49.069	-7.475	1.00	18.94	N
原子	422	CA	MET	A	58	11.681	48.614	-8.802	1.00	18.39	C
原子	423	CB	MET	A	58	12.963	49.295	-9.245	1.00	23.41	C
原子	424	CG	MET	A	58	12.867	50.798	-9.212	1.00	39.53	C
原子	425	SD	MET	A	58	14.183	51.562	-10.141	1.00	43.98	S
原子	426	CE	MET	A	58	13.978	53.265	-9.615	1.00	46.38	C
原子	427	C	MET	A	58	11.879	47.115	-8.721	1.00	24.53	C
原子	428	O	MET	A	58	11.714	46.528	-7.656	1.00	19.29	O
原子	429	N	GLN	A	59	12.240	46.488	-9.833	1.00	26.67	N
原子	430	CA	GLN	A	59	12.323	45.032	-9.857	1.00	30.96	C
原子	431	CB	GLN	A	59	12.188	44.497	-11.286	1.00	35.93	C
原子	432	CG	GLN	A	59	10.768	44.556	-11.813	1.00	26.18	C
原子	433	CD	GLN	A	59	9.774	43.877	-10.889	1.00	52.89	C
原子	434	OE1	GLN	A	59	9.928	42.703	-10.542	1.00	48.41	O
原子	435	NE2	GLN	A	59	8.742	44.612	-10.488	1.00	54.44	N
原子	436	C	GLN	A	59	13.577	44.492	-9.180	1.00	23.90	C
原子	437	O	GLN	A	59	13.653	43.307	-8.865	1.00	31.79	O
原子	438	N	ASP	A	60	14.556	45.360	-8.949	1.00	27.50	N
原子	439	CA	ASP	A	60	15.761	44.960	-8.233	1.00	28.43	C
原子	440	CB	ASP	A	60	17.013	45.492	-8.934	1.00	26.48	C
原子	441	CG	ASP	A	60	16.945	46.985	-9.203	1.00	36.97	C
原子	442	OD1	ASP	A	60	15.920	47.615	-8.865	1.00	32.78	O
原子	443	OD2	ASP	A	60	17.922	47.534	-9.754	1.00	42.07	O
原子	444	C	ASP	A	60	15.721	45.427	-6.781	1.00	24.71	C
原子	445	O	ASP	A	60	16.761	45.591	-6.143	1.00	28.34	O
原子	446	N	GLU	A	61	14.513	45.637	-6.268	1.00	27.61	N
原子	447	CA	GLU	A	61	14.328	46.138	-4.910	1.00	24.96	C
原子	448	CB	GLU	A	61	13.878	47.604	-4.936	1.00	26.62	C
原子	449	CG	GLU	A	61	14.924	48.576	-5.455	1.00	30.58	C
原子	450	CD	GLU	A	61	14.472	50.028	-5.387	1.00	26.47	C
原子	451	OE1	GLU	A	61	13.262	50.288	-5.535	1.00	22.29	O
原子	452	OE2	GLU	A	61	15.333	50.911	-5.196	1.00	31.42	O
原子	453	C	GLU	A	61	13.303	45.320	-4.135	1.00	17.14	C

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原子	454	O	GLU	A	61	12.352	44.783	-4.704	1.00	20.61	O
原子	455	N	ILE	A	62	13.496	45.239	-2.825	1.00	25.39	N
原子	456	CA	ILE	A	62	12.476	44.684	-1.954	1.00	17.59	C
原子	457	CB	ILE	A	62	12.806	44.949	-0.476	1.00	22.40	C
原子	458	CG1	ILE	A	62	13.861	43.958	0.017	1.00	20.48	C
原子	459	CD1	ILE	A	62	13.319	42.569	0.251	1.00	24.09	C
原子	460	CG2	ILE	A	62	11.548	44.848	0.379	1.00	24.10	C
原子	461	C	ILE	A	62	11.136	45.322	-2.292	1.00	19.41	C
原子	462	O	ILE	A	62	11.037	46.538	-2.445	1.00	22.11	O
原子	463	N	GLU	A	63	10.106	44.496	-2.412	1.00	16.08	N
原子	464	CA	GLU	A	63	8.772	44.979	-2.741	1.00	22.42	C
原子	465	CB	GLU	A	63	7.933	43.840	-3.330	1.00	25.16	C
原子	466	CG	GLU	A	63	6.484	44.189	-3.612	1.00	24.33	C
原子	467	CD	GLU	A	63	6.338	45.395	-4.515	1.00	30.86	C
原子	468	OE1	GLU	A	63	6.860	45.354	-5.649	1.00	26.68	O
原子	469	OE2	GLU	A	63	5.692	46.378	-4.092	1.00	23.20	O
原子	470	C	GLU	A	63	8.106	45.564	-1.494	1.00	34.23	C
原子	471	O	GLU	A	63	7.999	44.890	-0.470	1.00	21.19	O
原子	472	N	THR	A	64	7.677	46.822	-1.580	1.00	24.63	N
原子	473	CA	THR	A	64	7.105	47.520	-0.428	1.00	17.78	C
原子	474	CB	THR	A	64	7.580	48.997	-0.363	1.00	13.48	C
原子	475	OG1	THR	A	64	7.356	49.636	-1.624	1.00	16.39	O
原子	476	CG2	THR	A	64	9.055	49.082	-0.011	1.00	18.79	C
原子	477	C	THR	A	64	5.577	47.514	-0.393	1.00	15.13	C
原子	478	O	THR	A	64	4.975	48.099	0.510	1.00	19.26	O
原子	479	N	GLU	A	65	4.945	46.863	-1.365	1.00	16.86	N
原子	480	CA	GLU	A	65	3.484	46.862	-1.443	1.00	16.91	C
原子	481	CB	GLU	A	65	2.998	45.940	-2.568	1.00	21.54	C
原子	482	CG	GLU	A	65	1.489	45.757	-2.610	1.00	40.13	C
原子	483	CD	GLU	A	65	1.035	44.842	-3.736	1.00	60.76	C
原子	484	OE1	GLU	A	65	1.614	44.915	-4.841	1.00	54.24	O
原子	485	OE2	GLU	A	65	0.091	44.053	-3.518	1.00	55.99	O
原子	486	C	GLU	A	65	2.804	46.483	-0.118	1.00	21.16	C
原子	487	O	GLU	A	65	1.858	47.142	0.311	1.00	25.74	O
原子	488	N	GLU	A	66	3.291	45.431	0.529	1.00	15.79	N
原子	489	CA	GLU	A	66	2.683	44.962	1.773	1.00	19.83	C
原子	490	CB	GLU	A	66	3.311	43.636	2.221	1.00	23.36	C
原子	491	CG	GLU	A	66	2.702	43.039	3.486	1.00	34.17	C
原子	492	CD	GLU	A	66	3.207	41.629	3.773	1.00	47.04	C
原子	493	OE1	GLU	A	66	3.314	40.819	2.823	1.00	32.93	O
原子	494	OE2	GLU	A	66	3.493	41.328	4.951	1.00	56.71	O
原子	495	C	GLU	A	66	2.782	46.007	2.882	1.00	22.53	C
原子	496	O	GLU	A	66	1.805	46.278	3.579	1.00	16.36	O
原子	497	N	ILE	A	67	3.966	46.588	3.038	1.00	18.54	N
原子	498	CA	ILE	A	67	4.203	47.609	4.060	1.00	17.49	C
原子	499	CB	ILE	A	67	5.692	48.004	4.103	1.00	19.60	C
原子	500	CG1	ILE	A	67	6.540	46.773	4.430	1.00	14.85	C
原子	501	CD1	ILE	A	67	8.000	46.902	4.057	1.00	19.73	C
原子	502	CG2	ILE	A	67	5.941	49.121	5.138	1.00	16.26	C
原子	503	C	ILE	A	67	3.323	48.840	3.831	1.00	24.36	C
原子	504	O	ILE	A	67	2.770	49.403	4.774	1.00	22.98	O
原子	505	N	ILE	A	68	3.183	49.246	2.572	1.00	20.62	N
原子	506	CA	ILE	A	68	2.340	50.389	2.235	1.00	16.34	C
原子	507	CB	ILE	A	68	2.408	50.726	0.725	1.00	18.50	C
原子	508	CG1	ILE	A	68	3.817	51.189	0.359	1.00	15.55	C
原子	509	CD1	ILE	A	68	4.028	51.413	-1.144	1.00	22.42	C
原子	510	CG2	ILE	A	68	1.397	51.812	0.367	1.00	17.21	C
原子	511	C	ILE	A	68	0.890	50.165	2.662	1.00	18.71	C

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原子	512	O	ILE	A	68	0.229	51.082	3.143	1.00	18.46	O
原子	513	N	LYS	A	69	0.392	48.948	2.481	1.00	23.08	N
原子	514	CA	LYS	A	69	-0.967	48.636	2.898	1.00	23.13	C
原子	515	CB	LYS	A	69	-1.360	47.230	2.444	1.00	31.31	C
原子	516	CG	LYS	A	69	-1.380	47.078	0.928	1.00	44.40	C
原子	517	CD	LYS	A	69	-1.778	45.679	0.495	1.00	53.21	C
原子	518	CE	LYS	A	69	-1.932	45.603	-1.017	1.00	46.43	C
原子	519	NZ	LYS	A	69	-2.159	44.206	-1.479	1.00	45.01	N
原子	520	C	LYS	A	69	-1.091	48.780	4.411	1.00	23.28	C
原子	521	O	LYS	A	69	-2.074	49.325	4.916	1.00	22.88	O
原子	522	N	ASP	A	70	-0.070	48.316	5.124	1.00	21.90	N
原子	523	CA	ASP	A	70	-0.055	48.361	6.586	1.00	17.42	C
原子	524	CB	ASP	A	70	1.094	47.506	7.122	1.00	20.83	C
原子	525	CG	ASP	A	70	0.995	47.262	8.618	1.00	20.73	C
原子	526	OD1	ASP	A	70	0.255	46.345	9.027	1.00	27.16	O
原子	527	OD2	ASP	A	70	1.669	47.984	9.377	1.00	20.98	O
原子	528	C	ASP	A	70	0.073	49.787	7.106	1.00	26.11	C
原子	529	O	ASP	A	70	-0.522	50.139	8.125	1.00	22.63	O
原子	530	N	ILE	A	71	0.861	50.600	6.405	1.00	17.60	N
原子	531	CA	ILE	A	71	1.048	52.004	6.765	1.00	16.68	C
原子	532	CB	ILE	A	71	1.919	52.740	5.707	1.00	16.26	C
原子	533	CG1	ILE	A	71	3.399	52.409	5.920	1.00	14.67	C
原子	534	CD1	ILE	A	71	4.322	52.913	4.830	1.00	18.09	C
原子	535	CG2	ILE	A	71	1.683	54.247	5.767	1.00	11.70	C
原子	536	C	ILE	A	71	-0.300	52.702	6.901	1.00	16.17	C
原子	537	O	ILE	A	71	-0.547	53.423	7.866	1.00	24.60	O
原子	538	N	PHE	A	72	-1.173	52.483	5.924	1.00	22.98	N
原子	539	CA	PHE	A	72	-2.492	53.103	5.939	1.00	26.99	C
原子	540	CB	PHE	A	72	-3.108	53.099	4.539	1.00	20.96	C
原子	541	CG	PHE	A	72	-2.446	54.065	3.587	1.00	20.54	C
原子	542	CD1	PHE	A	72	-2.685	55.430	3.689	1.00	23.67	C
原子	543	CE1	PHE	A	72	-2.080	56.327	2.824	1.00	25.01	C
原子	544	CZ	PHE	A	72	-1.223	55.863	1.842	1.00	20.00	C
原子	545	CE2	PHE	A	72	-0.970	54.503	1.729	1.00	23.87	C
原子	546	CD2	PHE	A	72	-1.583	53.611	2.599	1.00	22.22	C
原子	547	C	PHE	A	72	-3.428	52.462	6.969	1.00	26.30	C
原子	548	O	PHE	A	72	-4.289	53.140	7.532	1.00	26.98	O
原子	549	N	GLN	A	73	-3.250	51.167	7.216	1.00	22.02	N
原子	550	CA	GLN	A	73	-4.000	50.477	8.269	1.00	21.95	C
原子	551	CB	GLN	A	73	3.574	49.013	8.379	1.00	21.12	C
原子	552	CG	GLN	A	73	-4.086	48.102	7.279	1.00	51.05	C
原子	553	CD	GLN	A	73	-3.911	46.633	7.627	1.00	43.93	C
原子	554	OE1	GLN	A	73	-3.850	46.264	8.802	1.00	51.65	O
原子	555	NE2	GLN	A	73	-3.831	45.789	6.606	1.00	54.07	N
原子	556	C	GLN	A	73	-3.766	51.145	9.616	1.00	24.92	C
原子	557	O	GLN	A	73	-4.694	51.308	10.413	1.00	27.83	O
原子	558	N	ARG	A	74	-2.512	51.512	9.865	1.00	24.55	N
原子	559	CA	ARG	A	74	-2.106	52.094	11.138	1.00	23.81	C
原子	560	CB	ARG	A	74	-0.648	51.734	11.444	1.00	24.23	C
原子	561	CG	ARG	A	74	-0.381	50.234	11.592	1.00	27.27	C
原子	562	CD	ARG	A	74	1.064	49.981	12.011	1.00	25.40	C
原子	563	NE	ARG	A	74	1.354	48.570	12.263	1.00	28.74	N
原子	564	CZ	ARG	A	74	1.647	48.062	13.458	1.00	37.24	C
原子	565	NH1	ARG	A	74	1.698	48.845	14.533	1.00	24.85	N
原子	566	NH2	ARG	A	74	1.894	46.764	13.581	1.00	35.82	N
原子	567	C	ARG	A	74	-2.296	53.613	11.154	1.00	23.64	C
原子	568	O	ARG	A	74	-1.865	54.298	12.091	1.00	20.21	O
原子	569	N	GLY	A	75	-2.950	54.130	10.119	1.00	27.49	N

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原子	570	CA	GLY	A	75	-3.242	55.552	10.027	1.00	24.55	C
原子	571	C	GLY	A	75	-2.022	56.451	10.048	1.00	24.00	C
原子	572	O	GLY	A	75	-2.053	57.529	10.643	1.00	23.30	O
原子	573	N	LYS	A	76	-0.941	56.021	9.403	1.00	20.38	N
原子	574	CA	LYS	A	76	0.247	56.860	9.309	1.00	23.69	C
原子	575	CB	LYS	A	76	1.514	56.015	9.152	1.00	16.61	C
原子	576	CG	LYS	A	76	1.716	54.959	10.247	1.00	18.34	C
原子	577	CD	LYS	A	76	3.056	54.258	10.099	1.00	19.29	C
原子	578	CE	LYS	A	76	3.183	53.075	11.053	1.00	20.33	C
原子	579	NZ	LYS	A	76	3.049	53.496	12.483	1.00	23.43	N
原子	580	C	LYS	A	76	0.105	57.812	8.130	1.00	18.93	C
原子	581	O	LYS	A	76	-0.603	57.513	7.169	1.00	21.11	O
原子	582	N	ILE	A	77	0.766	58.961	8.214	1.00	24.39	N
原子	583	CA	ILE	A	77	0.834	59.884	7.087	1.00	19.24	C
原子	584	CB	ILE	A	77	1.138	61.321	7.540	1.00	25.61	C
原子	585	CG1	ILE	A	77	0.286	61.692	8.755	1.00	27.94	C
原子	586	CD1	ILE	A	77	-1.207	61.676	8.488	1.00	25.96	C
原子	587	CG2	ILE	A	77	0.928	62.306	6.372	1.00	18.92	C
原子	588	C	ILE	A	77	1.942	59.419	6.156	1.00	15.35	C
原子	589	O	ILE	A	77	3.109	59.393	6.543	1.00	17.65	O
原子	590	N	CYS	A	78	1.571	59.074	4.926	1.00	21.25	N
原子	591	CA	CYS	A	78	2.472	58.401	3.998	1.00	23.06	C
原子	592	CB	CYS	A	78	1.767	57.168	3.428	1.00	22.33	C
原子	593	SG	CYS	A	78	2.818	56.039	2.511	1.00	22.20	S
原子	594	C	CYS	A	78	2.937	59.307	2.851	1.00	17.27	C
原子	595	O	CYS	A	78	2.118	59.916	2.164	1.00	17.99	O
原子	596	N	PHE	A	79	4.252	59.383	2.658	1.00	18.25	N
原子	597	CA	PHE	A	79	4.857	60.196	1.603	1.00	18.13	C
原子	598	CB	PHE	A	79	5.747	61.290	2.199	1.00	18.65	C
原子	599	CG	PHE	A	79	5.020	62.273	3.080	1.00	17.53	C
原子	600	CD1	PHE	A	79	4.521	63.453	2.556	1.00	15.06	C
原子	601	CE1	PHE	A	79	3.865	64.365	3.358	1.00	14.19	C
原子	602	CZ	PHE	A	79	3.704	64.107	4.709	1.00	14.77	C
原子	603	CE2	PHE	A	79	4.212	62.936	5.248	1.00	15.96	C
原子	604	CD2	PHE	A	79	4.865	62.028	4.434	1.00	16.36	C
原子	605	C	PHE	A	79	5.728	59.322	0.707	1.00	18.80	C
原子	606	O	PHE	A	79	6.409	58.425	1.192	1.00	15.18	O
原子	607	N	ILE	A	80	5.721	59.600	-0.594	1.00	16.46	N
原子	608	CA	ILE	A	80	6.558	58.866	-1.539	1.00	15.99	C
原子	609	CB	ILE	A	80	5.713	58.031	-2.515	1.00	12.89	C
原子	610	CG1	ILE	A	80	4.788	58.934	-3.332	1.00	15.58	C
原子	611	CD1	ILE	A	80	4.203	58.251	-4.558	1.00	15.91	C
原子	612	CG2	ILE	A	80	4.929	56.951	-1.744	1.00	14.97	C
原子	613	C	ILE	A	80	7.469	59.811	-2.326	1.00	19.38	C
原子	614	O	ILE	A	80	7.190	61.002	-2.437	1.00	16.49	O
原子	615	N	PRO	A	81	8.570	59.281	-2.870	1.00	19.50	N
原子	616	CA	PRO	A	81	9.521	60.124	-3.598	1.00	17.14	C
原子	617	CB	PRO	A	81	10.616	59.134	-4.011	1.00	22.73	C
原子	618	CG	PRO	A	81	10.510	58.025	-3.012	1.00	16.04	C
原子	619	CD	PRO	A	81	9.044	57.892	-2.756	1.00	19.69	C
原子	620	C	PRO	A	81	8.919	60.764	-4.844	1.00	18.98	C
原子	621	O	PRO	A	81	8.166	60.127	-5.579	1.00	16.22	O
原子	622	N	ARG	A	82	9.248	62.032	-5.065	1.00	12.60	N
原子	623	CA	ARG	A	82	9.004	62.664	-6.357	1.00	16.55	C
原子	624	CB	ARG	A	82	7.898	63.711	-6.262	1.00	16.61	C
原子	625	CG	ARG	A	82	7.471	64.291	-7.626	1.00	19.56	C
原子	626	CD	ARG	A	82	6.560	65.491	-7.437	1.00	17.50	C
原子	627	NE	ARG	A	82	7.236	66.536	-6.677	1.00	22.10	N

	原子	628	CZ	ARG	A	82	6.626	67.555	-6.081	1.00	19.29	C
	原子	629	NH1	ARG	A	82	5.305	67.684	-6.157	1.00	18.40	N
	原子	630	NH2	ARG	A	82	7.346	68.449	-5.407	1.00	15.85	N
	原子	631	C	ARG	A	82	10.323	63.276	-6.821	1.00	15.35	C
	原子	632	O	ARG	A	82	10.756	64.297	-6.299	1.00	19.11	O
	原子	633	N	TYR	A	83	10.972	62.617	-7.777	1.00	12.69	N
	原子	634	CA	TYR	A	83	12.304	63.001	-8.229	1.00	16.04	C
	原子	635	CB	TYR	A	83	13.046	61.795	-8.820	1.00	21.19	C
	原子	636	CG	TYR	A	83	13.288	60.639	-7.885	1.00	28.11	C
	原子	637	CD1	TYR	A	83	14.354	60.649	-6.991	1.00	34.10	C
	原子	638	CE1	TYR	A	83	14.587	59.577	-6.144	1.00	35.45	C
	原子	639	CZ	TYR	A	83	13.755	58.479	-6.194	1.00	30.39	C
	原子	640	OH	TYR	A	83	13.976	57.409	-5.359	1.00	37.03	O
	原子	641	CE2	TYR	A	83	12.699	58.442	-7.080	1.00	26.33	C
	原子	642	CD2	TYR	A	83	12.473	59.517	-7.919	1.00	26.99	C
	原子	643	C	TYR	A	83	12.258	64.061	-9.320	1.00	25.94	C
	原子	644	O	TYR	A	83	11.385	64.032	-10.184	1.00	24.13	O
	原子	645	N	ARG	A	84	13.218	64.981	-9.277	1.00	18.56	N
	原子	646	CA	ARG	A	84	13.487	65.894	-10.387	1.00	26.36	C
	原子	647	CB	ARG	A	84	13.797	67.299	-9.859	1.00	27.78	C
	原子	648	CG	ARG	A	84	12.587	68.196	-9.688	1.00	44.46	C
	原子	649	CD	ARG	A	84	12.381	69.097	-10.902	1.00	53.84	C
	原子	650	NE	ARG	A	84	13.438	70.098	-11.041	1.00	50.39	N
	原子	651	CZ	ARG	A	84	13.447	71.049	-11.972	1.00	52.86	C
	原子	652	NH1	ARG	A	84	12.454	71.128	-12.845	1.00	47.82	N
	原子	653	NH2	ARG	A	84	14.447	71.918	-12.035	1.00	52.96	N
	原子	654	C	ARG	A	84	14.688	65.371	-11.162	1.00	30.79	C
	原子	655	O	ARG	A	84	15.826	65.542	-10.732	1.00	35.32	O
[0086]	原子	656	N	PHE	A	85	14.434	64.735	-12.302	1.00	31.46	N
	原子	657	CA	PHE	A	85	15.493	64.083	-13.069	1.00	34.15	C
	原子	658	CB	PHE	A	85	14.904	63.344	-14.275	1.00	38.51	C
	原子	659	CG	PHE	A	85	14.178	62.078	-13.912	1.00	41.30	C
	原子	660	CD1	PHE	A	85	13.169	62.088	-12.963	1.00	33.90	C
	原子	661	CE1	PHE	A	85	12.502	60.927	-12.624	1.00	43.21	C
	原子	662	CZ	PHE	A	85	12.833	59.738	-13.239	1.00	53.72	C
	原子	663	CE2	PHE	A	85	13.833	59.712	-14.192	1.00	45.46	C
	原子	664	CD2	PHE	A	85	14.500	60.878	-14.524	1.00	60.65	C
	原子	665	C	PHE	A	85	16.586	65.055	-13.511	1.00	38.16	C
	原子	666	O	PHE	A	85	17.743	64.670	-13.675	1.00	45.10	O
	原子	667	N	GLN	A	86	16.216	66.318	-13.687	1.00	34.40	N
	原子	668	CA	GLN	A	86	17.166	67.345	-14.097	1.00	48.20	C
	原子	669	CB	GLN	A	86	16.462	68.695	-14.270	1.00	45.13	C
	原子	670	CG	GLN	A	86	15.548	68.786	-15.485	1.00	58.93	C
	原子	671	CD	GLN	A	86	14.142	68.282	-15.212	1.00	61.91	C
	原子	672	OE1	GLN	A	86	13.927	67.428	-14.351	1.00	40.87	O
	原子	673	NE2	GLN	A	86	13.173	68.810	-15.951	1.00	59.53	N
	原子	674	C	GLN	A	86	18.344	67.494	-13.130	1.00	50.67	C
	原子	675	O	GLN	A	86	19.414	67.958	-13.523	1.00	41.28	O
	原子	676	N	SER	A	87	18.151	67.107	-11.871	1.00	42.01	N
	原子	677	CA	SER	A	87	19.204	67.259	-10.865	1.00	31.25	C
	原子	678	CB	SER	A	87	19.095	68.620	-10.175	1.00	41.11	C
	原子	679	OG	SER	A	87	17.921	68.701	-9.385	1.00	48.30	O
	原子	680	C	SER	A	87	19.177	66.158	-9.813	1.00	30.22	C
	原子	681	O	SER	A	87	18.684	65.061	-10.059	1.00	41.02	O
	原子	682	N	ASN	A	88	19.720	66.462	-8.640	1.00	37.84	N
	原子	683	CA	ASN	A	88	19.625	65.550	-7.510	1.00	38.11	C
	原子	684	CB	ASN	A	88	20.990	65.351	-6.836	1.00	33.17	C
	原子	685	CG	ASN	A	88	21.451	66.568	-6.056	1.00	47.69	C

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原子	686	OD1	ASN	A	88	20.883	67.653	-6.170	1.00	50.10	O
原子	687	ND2	ASN	A	88	22.494	66.389	-5.252	1.00	53.90	N
原子	688	C	ASN	A	88	18.561	65.992	-6.506	1.00	35.20	C
原子	689	O	ASN	A	88	18.658	65.697	-5.314	1.00	35.75	O
原子	690	N	HIS	A	89	17.542	66.694	-6.998	1.00	30.02	N
原子	691	CA	HIS	A	89	16.434	67.136	-6.154	1.00	24.50	C
原子	692	CB	HIS	A	89	15.930	68.518	-6.586	1.00	24.71	C
原子	693	CG	HIS	A	89	14.772	69.025	-5.777	1.00	21.83	C
原子	694	ND1	HIS	A	89	14.861	69.270	-4.424	1.00	23.10	N
原子	695	CE1	HIS	A	89	13.699	69.711	-3.978	1.00	21.85	C
原子	696	NE2	HIS	A	89	12.856	69.769	-4.994	1.00	21.52	N
原子	697	CD2	HIS	A	89	13.501	69.338	-6.131	1.00	23.04	C
原子	698	C	HIS	A	89	15.271	66.148	-6.143	1.00	21.43	C
原子	699	O	HIS	A	89	14.832	65.665	-7.191	1.00	22.40	O
原子	700	N	MET	A	90	14.793	65.845	-4.940	1.00	23.13	N
原子	701	CA	MET	A	90	13.581	65.068	-4.751	1.00	17.88	C
原子	702	CB	MET	A	90	13.920	63.605	-4.445	1.00	25.38	C
原子	703	CG	MET	A	90	14.507	63.378	-3.053	1.00	28.38	C
原子	704	SD	MET	A	90	14.894	61.648	-2.676	1.00	30.44	S
原子	705	CE	MET	A	90	13.405	60.853	-3.202	1.00	15.29	C
原子	706	C	MET	A	90	12.816	65.680	-3.578	1.00	23.94	C
原子	707	O	MET	A	90	13.423	66.276	-2.688	1.00	23.68	O
原子	708	N	ASP	A	91	11.490	65.571	-3.596	1.00	19.32	N
原子	709	CA	ASP	A	91	10.691	65.833	-2.400	1.00	17.53	C
原子	710	CB	ASP	A	91	9.642	66.916	-2.623	1.00	16.61	C
原子	711	CG	ASP	A	91	10.222	68.195	-3.174	1.00	17.61	C
原子	712	OD1	ASP	A	91	10.968	68.897	-2.461	1.00	19.56	O
原子	713	OD2	ASP	A	91	9.910	68.485	-4.333	1.00	13.86	O
原子	714	C	ASP	A	91	9.955	64.557	-2.046	1.00	18.38	C
原子	715	O	ASP	A	91	9.866	63.632	-2.858	1.00	22.38	O
原子	716	N	MET	A	92	9.421	64.513	-0.833	1.00	19.94	N
原子	717	CA	MET	A	92	8.528	63.440	-0.445	1.00	21.21	C
原子	718	CB	MET	A	92	8.898	62.912	0.939	1.00	19.44	C
原子	719	CG	MET	A	92	10.286	62.309	0.995	1.00	15.10	C
原子	720	SD	MET	A	92	10.432	60.833	-0.039	1.00	17.87	S
原子	721	CE	MET	A	92	12.171	60.494	0.136	1.00	16.29	C
原子	722	C	MET	A	92	7.110	63.989	-0.461	1.00	15.62	C
原子	723	O	MET	A	92	6.792	64.943	0.257	1.00	14.10	O
原子	724	N	VAL	A	93	6.265	63.401	-1.298	1.00	13.20	N
原子	725	CA	VAL	A	93	4.921	63.924	-1.496	1.00	12.43	C
原子	726	CB	VAL	A	93	4.649	64.239	-2.975	1.00	18.31	C
原子	727	CG1	VAL	A	93	5.616	65.305	-3.468	1.00	21.51	C
原子	728	CG2	VAL	A	93	4.770	62.978	-3.818	1.00	18.69	C
原子	729	C	VAL	A	93	3.854	62.985	-0.953	1.00	13.77	C
原子	730	O	VAL	A	93	3.984	61.764	-1.028	1.00	17.42	O
原子	731	N	ARG	A	94	2.794	63.572	-0.411	1.00	20.41	N
原子	732	CA	ARG	A	94	1.755	62.814	0.277	1.00	18.14	C
原子	733	CB	ARG	A	94	0.915	63.750	1.154	1.00	25.31	C
原子	734	CG	ARG	A	94	-0.350	63.104	1.664	1.00	27.69	C
原子	735	CD	ARG	A	94	-0.207	62.649	3.088	1.00	38.30	C
原子	736	NE	ARG	A	94	-0.797	63.630	3.984	1.00	38.43	N
原子	737	CZ	ARG	A	94	-2.023	63.537	4.485	1.00	38.86	C
原子	738	NH1	ARG	A	94	-2.785	62.496	4.189	1.00	49.07	N
原子	739	NH2	ARG	A	94	-2.484	64.484	5.288	1.00	35.06	N
原子	740	C	ARG	A	94	0.834	62.017	-0.651	1.00	20.74	C
原子	741	O	ARG	A	94	0.324	62.534	-1.646	1.00	25.34	O
原子	742	N	ILE	A	95	0.630	60.751	-0.300	1.00	14.36	N
原子	743	CA	ILE	A	95	-0.298	59.875	-0.995	1.00	18.68	C

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原子	744	CB	ILE	A	95	0.452	58.636	-1.527	1.00	22.48	C
原子	745	CG1	ILE	A	95	0.321	58.544	-3.043	1.00	26.39	C
原子	746	CD1	ILE	A	95	1.027	59.651	-3.770	1.00	32.45	C
原子	747	CG2	ILE	A	95	0.008	57.374	-0.819	1.00	39.62	C
原子	748	C	ILE	A	95	-1.393	59.465	-0.006	1.00	22.25	C
原子	749	O	ILE	A	95	-1.104	59.241	1.167	1.00	29.38	O
原子	750	N	GLU	A	96	-2.640	59.370	-0.466	1.00	24.84	N
原子	751	CA	GLU	A	96	-3.786	59.225	0.448	1.00	23.72	C
原子	752	CB	GLU	A	96	-4.944	60.112	-0.011	1.00	35.48	C
原子	753	CG	GLU	A	96	-4.565	61.556	-0.263	1.00	48.02	C
原子	754	CD	GLU	A	96	-4.610	62.405	0.990	1.00	54.32	C
原子	755	OE1	GLU	A	96	-4.999	61.884	2.055	1.00	57.37	O
原子	756	OE2	GLU	A	96	-4.260	63.601	0.903	1.00	51.17	O
原子	757	C	GLU	A	96	-4.304	57.795	0.629	1.00	27.75	C
原子	758	O	GLU	A	96	-5.039	57.510	1.572	1.00	28.88	O
原子	759	N	SER	A	97	-3.949	56.906	-0.290	1.00	25.60	N
原子	760	CA	SER	A	97	-4.359	55.510	-0.192	1.00	39.49	C
原子	761	CB	SER	A	97	-5.797	55.329	-0.678	1.00	26.61	C
原子	762	OG	SER	A	97	-5.876	55.493	-2.081	1.00	30.59	O
原子	763	C	SER	A	97	-3.432	54.665	-1.038	1.00	25.00	C
原子	764	O	SER	A	97	-2.755	55.188	-1.920	1.00	20.33	O
原子	765	N	PRO	A	98	-3.392	53.352	-0.775	1.00	26.41	N
原子	766	CA	PRO	A	98	-2.610	52.468	-1.641	1.00	27.47	C
原子	767	CB	PRO	A	98	-2.826	51.084	-1.018	1.00	24.08	C
原子	768	CG	PRO	A	98	-3.202	51.361	0.404	1.00	27.11	C
原子	769	CD	PRO	A	98	-3.993	52.631	0.359	1.00	26.56	C
原子	770	C	PRO	A	98	-3.157	52.483	-3.060	1.00	36.50	C
原子	771	O	PRO	A	98	-2.388	52.389	-4.014	1.00	23.16	O
原子	772	N	GLU	A	99	-4.475	52.605	-3.190	1.00	29.40	N
原子	773	CA	GLU	A	99	-5.127	52.530	-4.494	1.00	22.52	C
原子	774	CB	GLU	A	99	-6.643	52.395	-4.332	1.00	30.69	C
原子	775	CG	GLU	A	99	-7.093	51.072	-3.719	1.00	32.38	C
原子	776	CD	GLU	A	99	-6.939	51.035	-2.207	1.00	33.79	C
原子	777	OE1	GLU	A	99	-6.875	52.115	-1.586	1.00	35.06	O
原子	778	OE2	GLU	A	99	-6.889	49.926	-1.638	1.00	35.34	O
原子	779	C	GLU	A	99	-4.795	53.723	-5.386	1.00	25.47	C
原子	780	O	GLU	A	99	-4.811	53.613	-6.607	1.00	19.00	O
原子	781	N	GLU	A	100	-4.496	54.864	-4.778	1.00	18.38	N
原子	782	CA	GLU	A	100	-4.134	56.056	-5.545	1.00	23.30	C
原子	783	CB	GLU	A	100	-3.886	57.241	-4.607	1.00	22.02	C
原子	784	CG	GLU	A	100	-3.555	58.541	-5.323	1.00	23.21	C
原子	785	CD	GLU	A	100	-3.229	59.676	-4.368	1.00	35.54	C
原子	786	OE1	GLU	A	100	-3.328	59.476	-3.141	1.00	33.23	O
原子	787	OE2	GLU	A	100	-2.872	60.773	-4.847	1.00	40.00	O
原子	788	C	GLU	A	100	-2.894	55.795	-6.398	1.00	26.49	C
原子	789	O	GLU	A	100	-2.753	56.333	-7.501	1.00	19.28	O
原子	790	N	ILE	A	101	-2.003	54.952	-5.886	1.00	19.56	N
原子	791	CA	ILE	A	101	-0.731	54.692	-6.548	1.00	17.58	C
原子	792	CB	ILE	A	101	0.141	53.735	-5.720	1.00	16.28	C
原子	793	CG1	ILE	A	101	0.523	54.396	-4.392	1.00	26.76	C
原子	794	CD1	ILE	A	101	1.287	53.495	-3.453	1.00	23.50	C
原子	795	CG2	ILE	A	101	1.389	53.340	-6.496	1.00	23.50	C
原子	796	C	ILE	A	101	-0.925	54.153	-7.967	1.00	23.19	C
原子	797	O	ILE	A	101	-0.167	54.488	-8.886	1.00	18.72	O
原子	798	N	SER	A	102	-1.960	53.340	-8.141	1.00	25.81	N
原子	799	CA	SER	A	102	-2.243	52.701	-9.421	1.00	23.34	C
原子	800	CB	SER	A	102	-3.346	51.654	-9.248	1.00	19.25	C
原子	801	OG	SER	A	102	-2.953	50.657	-8.321	1.00	45.61	O

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原子	802	C	SER	A	102	-2.642	53.690	-10.520	1.00	26.68	C
原子	803	O	SER	A	102	-2.536	53.379	-11.707	1.00	19.58	O
原子	804	N	LEU	A	103	-3.102	54.873	-10.129	1.00	16.91	N
原子	805	CA	LEU	A	103	-3.557	55.866	-11.106	1.00	25.53	C
原子	806	CB	LEU	A	103	-4.786	56.618	-10.584	1.00	26.14	C
原子	807	CG	LEU	A	103	-5.961	55.767	-10.095	1.00	18.37	C
原子	808	CD1	LEU	A	103	-7.167	56.646	-9.813	1.00	27.03	C
原子	809	CD2	LEU	A	103	-6.306	54.685	-11.103	1.00	23.65	C
原子	810	C	LEU	A	103	-2.473	56.868	-11.505	1.00	25.95	C
原子	811	O	LEU	A	103	-2.622	57.595	-12.486	1.00	21.45	O
原子	812	N	LEU	A	104	-1.382	56.906	-10.749	1.00	16.95	N
原子	813	CA	LEU	A	104	-0.333	57.889	-10.997	1.00	14.18	C
原子	814	CB	LEU	A	104	0.697	57.882	-9.866	1.00	18.81	C
原子	815	CG	LEU	A	104	0.177	58.283	-8.487	1.00	15.53	C
原子	816	CD1	LEU	A	104	1.259	58.058	-7.445	1.00	18.73	C
原子	817	CD2	LEU	A	104	-0.275	59.741	-8.488	1.00	15.30	C
原子	818	C	LEU	A	104	0.380	57.648	-12.323	1.00	20.20	C
原子	819	O	LEU	A	104	0.469	56.518	-12.791	1.00	16.71	O
原子	820	N	PRO	A	105	0.899	58.723	-12.923	1.00	19.06	N
原子	821	CA	PRO	A	105	1.781	58.626	-14.090	1.00	20.52	C
原子	822	CB	PRO	A	105	2.057	60.088	-14.457	1.00	26.11	C
原子	823	CG	PRO	A	105	1.196	60.926	-13.555	1.00	21.04	C
原子	824	CD	PRO	A	105	0.806	60.092	-12.393	1.00	15.08	C
原子	825	C	PRO	A	105	3.079	57.973	-13.639	1.00	20.10	C
原子	826	O	PRO	A	105	3.367	57.996	-12.444	1.00	17.62	O
原子	827	N	LYS	A	106	3.847	57.406	-14.561	1.00	18.76	N
原子	828	CA	LYS	A	106	5.108	56.770	-14.204	1.00	15.60	C
原子	829	CB	LYS	A	106	5.089	55.285	-14.590	1.00	20.48	C
原子	830	CG	LYS	A	106	4.066	54.455	-13.821	1.00	21.96	C
原子	831	CD	LYS	A	106	3.763	53.143	-14.535	1.00	31.65	C
原子	832	CE	LYS	A	106	4.801	52.079	-14.239	1.00	46.37	C
原子	833	NZ	LYS	A	106	4.685	51.564	-12.842	1.00	50.50	N
原子	834	C	LYS	A	106	6.301	57.463	-14.850	1.00	22.23	C
原子	835	O	LYS	A	106	6.178	58.073	-15.917	1.00	16.99	O
原子	836	N	THR	A	107	7.458	57.360	-14.199	1.00	16.83	N
原子	837	CA	THR	A	107	8.697	57.917	-14.733	1.00	22.96	C
原子	838	CB	THR	A	107	9.708	58.182	-13.617	1.00	23.23	C
原子	839	OG1	THR	A	107	10.256	56.935	-13.170	1.00	20.22	O
原子	840	CG2	THR	A	107	9.034	58.876	-12.443	1.00	20.21	C
原子	841	C	THR	A	107	9.352	56.962	-15.728	1.00	20.36	C
原子	842	O	THR	A	107	8.842	55.875	-15.980	1.00	21.07	O
原子	843	N	SER	A	108	10.496	57.370	-16.270	1.00	24.50	N
原子	844	CA	SER	A	108	11.264	56.526	-17.184	1.00	27.17	C
原子	845	CB	SER	A	108	12.381	57.332	-17.852	1.00	25.25	C
原子	846	OG	SER	A	108	13.312	57.798	-16.897	1.00	27.33	O
原子	847	C	SER	A	108	11.844	55.292	-16.487	1.00	33.46	C
原子	848	O	SER	A	108	12.368	54.387	-17.140	1.00	34.20	O
原子	849	N	TRP	A	109	11.758	55.258	-15.160	1.00	23.25	N
原子	850	CA	TRP	A	109	12.157	54.071	-14.416	1.00	30.16	C
原子	851	CB	TRP	A	109	12.794	54.448	-13.073	1.00	28.29	C
原子	852	CG	TRP	A	109	14.102	55.169	-13.207	1.00	35.70	C
原子	853	CD1	TRP	A	109	14.285	56.478	-13.546	1.00	28.66	C
原子	854	NE1	TRP	A	109	15.625	56.779	-13.563	1.00	38.24	N
原子	855	CE2	TRP	A	109	16.338	55.661	-13.230	1.00	40.49	C
原子	856	CD2	TRP	A	109	15.413	54.623	-12.994	1.00	34.31	C
原子	857	CE3	TRP	A	109	15.891	53.361	-12.632	1.00	38.73	C
原子	858	CZ3	TRP	A	109	17.259	53.177	-12.517	1.00	43.96	C
原子	859	CH2	TRP	A	109	18.154	54.227	-12.756	1.00	45.06	C

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原子	860	CZ2	TRP	A	109	17.715	55.472	-13.112	1.00	38.67	C
原子	861	C	TRP	A	109	10.945	53.175	-14.197	1.00	24.70	C
原子	862	O	TRP	A	109	11.026	52.169	-13.494	1.00	26.79	O
原子	863	N	ASN	A	110	9.819	53.552	-14.799	1.00	22.73	N
原子	864	CA	ASN	A	110	8.577	52.800	-14.652	1.00	16.91	C
原子	865	CB	ASN	A	110	8.739	51.376	-15.176	1.00	26.84	C
原子	866	CG	ASN	A	110	8.852	51.325	-16.674	1.00	37.60	C
原子	867	OD1	ASN	A	110	7.879	51.560	-17.388	1.00	45.44	O
原子	868	ND2	ASN	A	110	10.045	51.015	-17.166	1.00	46.26	N
原子	869	C	ASN	A	110	8.104	52.755	-13.211	1.00	23.87	C
原子	870	O	ASN	A	110	7.505	51.774	-12.780	1.00	23.35	O
原子	871	N	ILE	A	111	8.393	53.820	-12.474	1.00	24.21	N
原子	872	CA	ILE	A	111	7.953	53.949	-11.093	1.00	31.79	C
原子	873	CB	ILE	A	111	9.135	54.240	-10.156	1.00	26.11	C
原子	874	CG1	ILE	A	111	10.106	53.058	-10.147	1.00	35.67	C
原子	875	CD1	ILE	A	111	9.502	51.776	-9.602	1.00	27.52	C
原子	876	CG2	ILE	A	111	8.641	54.530	-8.745	1.00	35.66	C
原子	877	C	ILE	A	111	6.949	55.087	-11.003	1.00	22.96	C
原子	878	O	ILE	A	111	7.165	56.154	-11.577	1.00	23.94	O
原子	879	N	PRO	A	112	5.836	54.855	-10.295	1.00	27.83	N
原子	880	CA	PRO	A	112	4.795	55.874	-10.142	1.00	21.36	C
原子	881	CB	PRO	A	112	3.679	55.127	-9.398	1.00	18.03	C
原子	882	CG	PRO	A	112	3.959	53.667	9.627	1.00	18.54	C
原子	883	CD	PRO	A	112	5.447	53.566	-9.698	1.00	26.13	C
原子	884	C	PRO	A	112	5.262	57.070	-9.315	1.00	18.39	C
原子	885	O	PRO	A	112	5.938	56.902	-8.299	1.00	23.92	O
原子	886	N	GLN	A	113	4.915	58.268	-9.775	1.00	19.63	N
原子	887	CA	GLN	A	113	5.074	59.491	-8.993	1.00	19.90	C
原子	888	CB	GLN	A	113	6.539	59.962	-8.917	1.00	23.60	C
原子	889	CG	GLN	A	113	7.091	60.657	-10.165	1.00	25.71	C
原子	890	CD	GLN	A	113	8.485	61.253	-9.947	1.00	20.71	C
原子	891	OE1	GLN	A	113	9.296	60.725	-9.180	1.00	17.59	O
原子	892	NE2	GLN	A	113	8.767	62.351	-10.632	1.00	17.78	N
原子	893	C	GLN	A	113	4.169	60.553	-9.601	1.00	20.34	C
原子	894	O	GLN	A	113	3.986	60.589	-10.823	1.00	19.20	O
原子	895	N	PRO	A	114	3.568	61.401	-8.751	1.00	18.34	N
原子	896	CA	PRO	A	114	2.666	62.441	-9.259	1.00	20.94	C
原子	897	CB	PRO	A	114	2.334	63.263	-8.009	1.00	21.03	C
原子	898	CG	PRO	A	114	2.512	62.286	-6.860	1.00	21.58	C
原子	899	CD	PRO	A	114	3.668	61.414	-7.280	1.00	18.40	C
原子	900	C	PRO	A	114	3.359	63.305	-10.311	1.00	18.05	C
原子	901	O	PRO	A	114	4.565	63.532	-10.221	1.00	15.83	O
原子	902	N	GLY	A	115	2.599	63.760	-11.302	1.00	18.70	N
原子	903	CA	GLY	A	115	3.142	64.536	-12.402	1.00	27.03	C
原子	904	C	GLY	A	115	3.409	65.989	-12.052	1.00	25.33	C
原子	905	O	GLY	A	115	3.204	66.411	-10.920	1.00	24.07	O
原子	906	N	GLU	A	116	3.854	66.758	-13.039	1.00	25.85	N
原子	907	CA	GLU	A	116	4.288	68.138	-12.818	1.00	35.84	C
原子	908	CB	GLU	A	116	5.044	68.663	-14.041	1.00	34.54	C
原子	909	CG	GLU	A	116	6.375	67.975	-14.271	1.00	37.48	C
原子	910	CD	GLU	A	116	7.046	68.414	-15.557	1.00	59.18	C
原子	911	OE1	GLU	A	116	7.154	69.637	-15.787	1.00	73.32	O
原子	912	OE2	GLU	A	116	7.471	67.534	-16.337	1.00	61.10	O
原子	913	C	GLU	A	116	3.179	69.111	-12.417	1.00	32.64	C
原子	914	O	GLU	A	116	3.416	70.033	-11.633	1.00	37.53	O
原子	915	N	GLY	A	117	1.975	68.916	-12.946	1.00	33.61	N
原子	916	CA	GLY	A	117	0.864	69.790	-12.599	1.00	36.66	C
原子	917	C	GLY	A	117	0.110	69.361	-11.349	1.00	37.02	C

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原子	918	O	GLY	A	117	-0.812	70.041	-10.898	1.00	30.23	O
原子	919	N	ASP	A	118	0.512	68.227	-10.787	1.00	20.34	N
原子	920	CA	ASP	A	118	-0.169	67.641	-9.642	1.00	18.30	C
原子	921	CB	ASP	A	118	0.017	66.112	-9.664	1.00	18.82	C
原子	922	CG	ASP	A	118	-0.864	65.388	-8.650	1.00	24.93	C
原子	923	OD1	ASP	A	118	1.321	66.025	-7.681	1.00	28.77	O
原子	924	OD2	ASP	A	118	-1.091	64.167	-8.814	1.00	24.50	O
原子	925	C	ASP	A	118	0.346	68.254	-8.334	1.00	26.34	C
原子	926	O	ASP	A	118	1.428	67.917	-7.858	1.00	28.17	O
原子	927	N	VAL	A	119	-0.431	69.171	-7.764	1.00	30.86	N
原子	928	CA	VAL	A	119	-0.036	69.855	-6.534	1.00	27.76	C
原子	929	CB	VAL	A	119	-0.914	71.086	-6.261	1.00	40.26	C
原子	930	CG1	VAL	A	119	-0.561	71.690	-4.916	1.00	33.94	C
原子	931	CG2	VAL	A	119	-0.750	72.113	-7.381	1.00	39.71	C
原子	932	C	VAL	A	119	-0.101	68.917	-5.334	1.00	30.74	C
原子	933	O	VAL	A	119	-1.136	68.307	-5.063	1.00	28.20	O
原子	934	N	ARG	A	120	1.011	68.807	-4.617	1.00	22.91	N
原子	935	CA	ARG	A	120	1.123	67.833	-3.541	1.00	24.13	C
原子	936	CB	ARG	A	120	2.127	66.748	-3.922	1.00	23.55	C
原子	937	CG	ARG	A	120	1.663	65.819	-5.013	1.00	21.89	C
原子	938	CD	ARG	A	120	0.723	64.768	-4.469	1.00	25.25	C
原子	939	NE	ARG	A	120	-0.081	64.172	-5.529	1.00	25.43	N
原子	940	CZ	ARG	A	120	-0.754	63.037	-5.401	1.00	19.17	C
原子	941	NH1	ARG	A	120	-0.704	62.365	-4.260	1.00	16.49	N
原子	942	NH2	ARG	A	120	-1.467	62.570	-6.415	1.00	21.11	N
原子	943	C	ARG	A	120	1.592	68.482	-2.261	1.00	13.39	C
原子	944	O	ARG	A	120	2.380	69.424	-2.294	1.00	23.12	O
原子	945	N	GLU	A	121	1.117	67.962	-1.134	1.00	22.38	N
原子	946	CA	GLU	A	121	1.694	68.306	0.154	1.00	22.82	C
原子	947	CB	GLU	A	121	0.795	67.841	1.301	1.00	24.24	C
原子	948	CG	GLU	A	121	1.421	68.052	2.670	1.00	19.35	C
原子	949	CD	GLU	A	121	0.701	67.309	3.778	1.00	28.54	C
原子	950	OE1	GLU	A	121	-0.508	67.030	3.635	1.00	31.48	O
原子	951	OE2	GLU	A	121	1.350	67.002	4.796	1.00	26.47	O
原子	952	C	GLU	A	121	3.054	67.638	0.271	1.00	17.21	C
原子	953	O	GLU	A	121	3.165	66.415	0.171	1.00	16.87	O
原子	954	N	GLU	A	122	4.086	68.448	0.470	1.00	16.13	N
原子	955	CA	GLU	A	122	5.443	67.947	0.636	1.00	17.52	C
原子	956	CB	GLU	A	122	6.446	68.911	-0.009	1.00	13.86	C
原子	957	CG	GLU	A	122	6.175	69.142	-1.511	1.00	17.86	C
原子	958	CD	GLU	A	122	7.124	70.146	-2.159	1.00	29.81	C
原子	959	OE1	GLU	A	122	7.944	70.759	-1.446	1.00	25.71	O
原子	960	OE2	GLU	A	122	7.051	70.315	-3.395	1.00	21.56	O
原子	961	C	GLU	A	122	5.753	67.754	2.118	1.00	20.68	C
原子	962	O	GLU	A	122	5.473	68.632	2.933	1.00	24.76	O
原子	963	N	ALA	A	123	6.330	66.606	2.460	1.00	18.59	N
原子	964	CA	ALA	A	123	6.634	66.281	3.854	1.00	19.87	C
原子	965	CB	ALA	A	123	7.492	65.030	3.929	1.00	18.00	C
原子	966	C	ALA	A	123	7.283	67.415	4.658	1.00	18.34	C
原子	967	O	ALA	A	123	6.934	67.638	5.811	1.00	20.67	O
原子	968	N	LEU	A	124	8.228	68.126	4.059	1.00	15.98	N
原子	969	CA	LEU	A	124	8.965	69.150	4.790	1.00	18.26	C
原子	970	CB	LEU	A	124	10.315	69.417	4.130	1.00	22.29	C
原子	971	CG	LEU	A	124	11.298	68.261	4.298	1.00	23.34	C
原子	972	CD1	LEU	A	124	12.580	68.521	3.517	1.00	16.56	C
原子	973	CD2	LEU	A	124	11.591	68.036	5.779	1.00	21.09	C
原子	974	C	LEU	A	124	8.185	70.454	4.966	1.00	21.65	C
原子	975	O	LEU	A	124	8.627	71.368	5.667	1.00	18.71	O

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原子	976	N	SER	A	125	7.021	70.532	4.334	1.00	20.01	N
原子	977	CA	SER	A	125	6.160	71.694	4.482	1.00	33.50	C
原子	978	CB	SER	A	125	5.315	71.900	3.226	1.00	30.46	C
原子	979	OG	SER	A	125	4.233	70.988	3.184	1.00	34.48	O
原子	980	C	SER	A	125	5.253	71.532	5.695	1.00	31.09	C
原子	981	O	SER	A	125	4.672	72.504	6.174	1.00	24.39	O
原子	982	N	THR	A	126	5.145	70.304	6.198	1.00	19.49	N
原子	983	CA	THR	A	126	4.177	70.000	7.248	1.00	22.61	C
原子	984	CB	THR	A	126	2.988	69.211	6.688	1.00	20.30	C
原子	985	OG1	THR	A	126	3.464	68.018	6.053	1.00	26.53	O
原子	986	CG2	THR	A	126	2.222	70.047	5.672	1.00	34.26	C
原子	987	C	THR	A	126	4.725	69.230	8.450	1.00	21.15	C
原子	988	O	THR	A	126	3.983	68.501	9.097	1.00	25.22	O
原子	989	N	GLY	A	127	6.009	69.384	8.749	1.00	26.65	N
原子	990	CA	GLY	A	127	6.557	68.813	9.968	1.00	27.25	C
原子	991	C	GLY	A	127	7.753	67.895	9.805	1.00	25.90	C
原子	992	O	GLY	A	127	8.466	67.631	10.773	1.00	34.59	O
原子	993	N	GLY	A	128	7.975	67.401	8.590	1.00	19.35	N
原子	994	CA	GLY	A	128	9.085	66.499	8.338	1.00	18.68	C
原子	995	C	GLY	A	128	8.659	65.045	8.414	1.00	14.87	C
原子	996	O	GLY	A	128	7.495	64.727	8.186	1.00	18.05	O
原子	997	N	LEU	A	129	9.600	64.167	8.751	1.00	28.53	N
原子	998	CA	LEU	A	129	9.336	62.729	8.802	1.00	17.23	C
原子	999	CB	LEU	A	129	9.874	62.056	7.540	1.00	13.00	C
原子	1000	CG	LEU	A	129	9.293	62.540	6.209	1.00	15.01	C
原子	1001	CD1	LEU	A	129	10.291	62.333	5.076	1.00	16.14	C
原子	1002	CD2	LEU	A	129	7.971	61.851	5.915	1.00	13.59	C
原子	1003	C	LEU	A	129	9.953	62.054	10.033	1.00	11.35	C
原子	1004	O	LEU	A	129	11.051	62.404	10.460	1.00	21.75	O
原子	1005	N	ASP	A	130	9.233	61.079	10.582	1.00	15.44	N
原子	1006	CA	ASP	A	130	9.709	60.269	11.697	1.00	19.08	C
原子	1007	CB	ASP	A	130	8.518	59.670	12.458	1.00	23.52	C
原子	1008	CG	ASP	A	130	7.640	60.727	13.095	1.00	25.24	C
原子	1009	OD1	ASP	A	130	8.176	61.602	13.804	1.00	35.68	O
原子	1010	OD2	ASP	A	130	6.412	60.683	12.887	1.00	26.42	O
原子	1011	C	ASP	A	130	10.584	59.130	11.202	1.00	24.88	C
原子	1012	O	ASP	A	130	11.555	58.739	11.855	1.00	15.33	O
原子	1013	N	LEU	A	131	10.225	58.596	10.041	1.00	16.46	N
原子	1014	CA	LEU	A	131	10.857	57.388	9.523	1.00	12.38	C
原子	1015	CB	LEU	A	131	10.061	56.163	9.947	1.00	12.19	C
原子	1016	CG	LEU	A	131	10.608	54.812	9.474	1.00	22.98	C
原子	1017	CD1	LEU	A	131	12.033	54.632	9.957	1.00	21.75	C
原子	1018	CD2	LEU	A	131	9.725	53.679	9.971	1.00	36.61	C
原子	1019	C	LEU	A	131	10.934	57.428	8.007	1.00	14.29	C
原子	1020	O	LEU	A	131	9.935	57.684	7.335	1.00	17.90	O
原子	1021	N	ILE	A	132	12.125	57.163	7.484	1.00	13.67	N
原子	1022	CA	ILE	A	132	12.351	57.097	6.043	1.00	12.99	C
原子	1023	CB	ILE	A	132	13.355	58.162	5.600	1.00	10.26	C
原子	1024	CG1	ILE	A	132	12.811	59.564	5.876	1.00	13.05	C
原子	1025	CD1	ILE	A	132	13.801	60.675	5.573	1.00	13.09	C
原子	1026	CG2	ILE	A	132	13.696	57.985	4.115	1.00	17.99	C
原子	1027	C	ILE	A	132	12.918	55.733	5.650	1.00	19.28	C
原子	1028	O	ILE	A	132	14.001	55.363	6.095	1.00	12.95	O
原子	1029	N	PHE	A	133	12.188	54.991	4.820	1.00	15.32	N
原子	1030	CA	PHE	A	133	12.691	53.735	4.285	1.00	17.78	C
原子	1031	CB	PHE	A	133	11.540	52.877	3.767	1.00	17.30	C
原子	1032	CG	PHE	A	133	10.731	52.227	4.850	1.00	16.48	C
原子	1033	CD1	PHE	A	133	11.189	51.079	5.480	1.00	20.88	C

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原子	1034	CE1	PHE	A	133	10.443	50.475	6.467	1.00	18.49	C
原子	1035	CZ	PHE	A	133	9.225	51.010	6.837	1.00	18.83	C
原子	1036	CE2	PHE	A	133	8.757	52.149	6.213	1.00	23.73	C
原子	1037	CD2	PHE	A	133	9.505	52.747	5.228	1.00	15.48	C
原子	1038	C	PHE	A	133	13.696	54.013	3.167	1.00	28.92	C
原子	1039	O	PHE	A	133	13.367	54.665	2.173	1.00	20.44	O
原子	1040	N	MET	A	134	14.921	53.522	3.339	1.00	24.41	N
原子	1041	CA	MET	A	134	16.026	53.852	2.435	1.00	26.30	C
原子	1042	CB	MET	A	134	17.318	54.018	3.237	1.00	23.81	C
原子	1043	CG	MET	A	134	17.268	55.077	4.313	1.00	31.74	C
原子	1044	SD	MET	A	134	17.263	56.722	3.590	1.00	33.56	S
原子	1045	CE	MET	A	134	18.446	56.498	2.258	1.00	18.44	C
原子	1046	C	MET	A	134	16.274	52.793	1.364	1.00	18.78	C
原子	1047	O	MET	A	134	16.666	51.676	1.686	1.00	23.83	O
原子	1048	N	PRO	A	135	16.094	53.157	0.081	1.00	18.99	N
原子	1049	CA	PRO	A	135	16.404	52.215	-1.001	1.00	21.85	C
原子	1050	CB	PRO	A	135	15.635	52.786	-2.203	1.00	18.71	C
原子	1051	CG	PRO	A	135	15.074	54.127	-1.756	1.00	26.59	C
原子	1052	CD	PRO	A	135	15.705	54.474	-0.444	1.00	20.68	C
原子	1053	C	PRO	A	135	17.895	52.270	-1.297	1.00	21.34	C
原子	1054	O	PRO	A	135	18.559	53.219	-0.872	1.00	21.20	O
原子	1055	N	GLY	A	136	18.415	51.276	-2.011	1.00	22.98	N
原子	1056	CA	GLY	A	136	19.811	51.284	-2.411	1.00	18.00	C
原子	1057	C	GLY	A	136	20.202	50.022	-3.152	1.00	22.41	C
原子	1058	O	GLY	A	136	19.466	49.040	-3.144	1.00	22.62	O
原子	1059	N	LEU	A	137	21.365	50.054	-3.793	1.00	26.67	N
原子	1060	CA	LEU	A	137	21.883	48.887	-4.492	1.00	23.87	C
原子	1061	CB	LEU	A	137	22.878	49.308	-5.575	1.00	22.38	C
原子	1062	CG	LEU	A	137	22.224	49.922	-6.808	1.00	24.03	C
原子	1063	CD1	LEU	A	137	23.273	50.383	-7.815	1.00	22.53	C
原子	1064	CD2	LEU	A	137	21.273	48.923	-7.428	1.00	26.18	C
原子	1065	C	LEU	A	137	22.547	47.923	-3.521	1.00	24.16	C
原子	1066	O	LEU	A	137	22.419	46.707	-3.657	1.00	25.48	O
原子	1067	N	GLY	A	138	23.257	48.474	-2.542	1.00	21.55	N
原子	1068	CA	GLY	A	138	23.929	47.662	-1.547	1.00	21.69	C
原子	1069	C	GLY	A	138	24.092	48.374	-0.221	1.00	22.82	C
原子	1070	O	GLY	A	138	24.054	49.600	-0.151	1.00	21.27	O
原子	1071	N	PHE	A	139	24.275	47.591	0.835	1.00	28.74	N
原子	1072	CA	PHE	A	139	24.499	48.119	2.170	1.00	24.53	C
原子	1073	CB	PHE	A	139	23.192	48.135	2.962	1.00	22.63	C
原子	1074	CG	PHE	A	139	22.039	48.741	2.221	1.00	26.55	C
原子	1075	CD1	PHE	A	139	21.748	50.089	2.348	1.00	33.76	C
原子	1076	CE1	PHE	A	139	20.683	50.651	1.664	1.00	24.83	C
原子	1077	CZ	PHE	A	139	19.903	49.866	0.854	1.00	24.01	C
原子	1078	CE2	PHE	A	139	20.179	48.517	0.722	1.00	23.80	C
原子	1079	CD2	PHE	A	139	21.242	47.962	1.400	1.00	21.49	C
原子	1080	C	PHE	A	139	25.474	47.199	2.880	1.00	23.18	C
原子	1081	O	PHE	A	139	25.522	46.007	2.586	1.00	22.77	O
原子	1082	N	ASP	A	140	26.254	47.744	3.808	1.00	21.20	N
原子	1083	CA	ASP	A	140	27.057	46.895	4.687	1.00	37.35	C
原子	1084	CB	ASP	A	140	28.550	47.253	4.628	1.00	29.98	C
原子	1085	CG	ASP	A	140	28.844	48.662	5.106	1.00	36.45	C
原子	1086	OD1	ASP	A	140	28.091	49.189	5.955	1.00	31.94	O
原子	1087	OD2	ASP	A	140	29.848	49.240	4.634	1.00	30.43	O
原子	1088	C	ASP	A	140	26.511	46.948	6.115	1.00	38.21	C
原子	1089	O	ASP	A	140	25.589	47.708	6.402	1.00	28.56	O
原子	1090	N	LYS	A	141	27.069	46.132	7.001	1.00	32.81	N
原子	1091	CA	LYS	A	141	26.561	46.039	8.367	1.00	37.43	C

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原子	1092	CB	LYS	A	141	27.073	44.763	9.047	1.00	43.56	C
原子	1093	CG	LYS	A	141	26.510	43.474	8.453	1.00	48.32	C
原子	1094	CD	LYS	A	141	27.348	42.262	8.856	1.00	41.35	C
原子	1095	CE	LYS	A	141	27.070	41.055	7.965	1.00	46.98	C
原子	1096	NZ	LYS	A	141	25.854	40.292	8.368	1.00	48.73	N
原子	1097	C	LYS	A	141	26.885	47.274	9.211	1.00	27.44	C
原子	1098	O	LYS	A	141	26.519	47.343	10.385	1.00	36.71	O
原子	1099	N	HIS	A	142	27.567	48.245	8.610	1.00	27.58	N
原子	1100	CA	HIS	A	142	27.869	49.507	9.283	1.00	41.15	C
原子	1101	CB	HIS	A	142	29.254	50.024	8.881	1.00	43.21	C
原子	1102	CG	HIS	A	142	30.382	49.112	9.255	1.00	51.04	C
原子	1103	ND1	HIS	A	142	30.856	48.129	8.412	1.00	43.32	N
原子	1104	CE1	HIS	A	142	31.853	47.491	8.998	1.00	53.16	C
原子	1105	NE2	HIS	A	142	32.049	48.028	10.188	1.00	49.93	N
原子	1106	CD2	HIS	A	142	31.144	49.046	10.372	1.00	57.82	C
原子	1107	C	HIS	A	142	26.823	50.573	8.961	1.00	32.77	C
原子	1108	O	HIS	A	142	26.830	51.660	9.538	1.00	40.82	O
原子	1109	N	GLY	A	143	25.928	50.263	8.033	1.00	30.66	N
原子	1110	CA	GLY	A	143	24.906	51.209	7.630	1.00	25.96	C
原子	1111	C	GLY	A	143	25.311	52.031	6.422	1.00	37.16	C
原子	1112	O	GLY	A	143	24.555	52.887	5.966	1.00	34.26	O
原子	1113	N	ASN	A	144	26.510	51.782	5.906	1.00	35.36	N
原子	1114	CA	ASN	A	144	26.928	52.407	4.662	1.00	30.84	C
原子	1115	CB	ASN	A	144	28.380	52.054	4.321	1.00	36.00	C
原子	1116	CG	ASN	A	144	29.376	52.645	5.304	1.00	37.16	C
原子	1117	OD1	ASN	A	144	30.268	51.949	5.790	1.00	38.86	O
原子	1118	ND2	ASN	A	144	29.233	53.935	5.598	1.00	23.20	N
原子	1119	C	ASN	A	144	25.998	51.965	3.541	1.00	26.04	C
原子	1120	O	ASN	A	144	25.640	50.789	3.444	1.00	22.74	O
原子	1121	N	ARG	A	145	25.598	52.915	2.703	1.00	20.81	N
原子	1122	CA	ARG	A	145	24.677	52.628	1.613	1.00	22.75	C
原子	1123	CB	ARG	A	145	23.373	53.419	1.778	1.00	24.37	C
原子	1124	CG	ARG	A	145	22.395	53.264	0.615	1.00	23.08	C
原子	1125	CD	ARG	A	145	21.231	54.247	0.724	1.00	34.37	C
原子	1126	NE	ARG	A	145	21.606	55.585	0.281	1.00	39.93	N
原子	1127	CZ	ARG	A	145	21.126	56.185	-0.806	1.00	24.73	C
原子	1128	NH1	ARG	A	145	20.227	55.578	-1.566	1.00	23.14	N
原子	1129	NH2	ARG	A	145	21.537	57.405	-1.123	1.00	51.77	N
原子	1130	C	ARG	A	145	25.313	52.962	0.274	1.00	24.44	C
原子	1131	O	ARG	A	145	25.989	53.983	0.133	1.00	28.41	O
原子	1132	N	LEU	A	146	25.100	52.086	-0.704	1.00	19.04	N
原子	1133	CA	LEU	A	146	25.543	52.339	-2.061	1.00	22.32	C
原子	1134	CB	LEU	A	146	26.321	51.130	-2.592	1.00	24.86	C
原子	1135	CG	LEU	A	146	26.766	51.150	-4.057	1.00	30.16	C
原子	1136	CD1	LEU	A	146	27.573	52.400	-4.367	1.00	28.85	C
原子	1137	CD2	LEU	A	146	27.571	49.895	-4.392	1.00	20.09	C
原子	1138	C	LEU	A	146	24.308	52.594	-2.908	1.00	21.14	C
原子	1139	O	LEU	A	146	23.557	51.668	-3.204	1.00	28.90	O
原子	1140	N	GLY	A	147	24.090	53.851	-3.286	1.00	20.50	N
原子	1141	CA	GLY	A	147	22.959	54.197	-4.127	1.00	18.87	C
原子	1142	C	GLY	A	147	23.290	54.014	-5.596	1.00	31.39	C
原子	1143	O	GLY	A	147	24.339	53.476	-5.940	1.00	29.76	O
原子	1144	N	ARG	A	148	22.398	54.471	-6.466	1.00	27.26	N
原子	1145	CA	ARG	A	148	22.604	54.337	-7.905	1.00	33.38	C
原子	1146	CB	ARG	A	148	21.260	54.339	-8.636	1.00	33.58	C
原子	1147	CG	ARG	A	148	20.365	53.192	-8.210	1.00	22.62	C
原子	1148	CD	ARG	A	148	19.006	53.231	-8.875	1.00	41.42	C
原子	1149	NE	ARG	A	148	18.084	52.304	-8.227	1.00	46.64	N

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原子	1150	CZ	ARG	A	148	17.867	51.059	-8.635	1.00	42.63	C
原子	1151	NH1	ARG	A	148	18.500	50.587	-9.702	1.00	35.28	N
原子	1152	NH2	ARG	A	148	17.013	50.286	-7.977	1.00	36.84	N
原子	1153	C	ARG	A	148	23.535	55.408	-8.467	1.00	36.81	C
原子	1154	O	ARG	A	148	23.881	55.380	-9.647	1.00	47.04	O
原子	1155	N	GLY	A	149	23.936	56.352	-7.621	1.00	35.01	N
原子	1156	CA	GLY	A	149	24.930	57.335	-8.009	1.00	33.00	C
原子	1157	C	GLY	A	149	24.473	58.782	-8.024	1.00	31.55	C
原子	1158	O	GLY	A	149	25.304	59.690	-8.011	1.00	42.17	O
原子	1159	N	LYS	A	150	23.162	59.009	-8.049	1.00	34.07	N
原子	1160	CA	LYS	A	150	22.639	60.376	-8.121	1.00	33.62	C
原子	1161	CB	LYS	A	150	21.216	60.400	-8.681	1.00	34.11	C
原子	1162	CG	LYS	A	150	21.041	59.741	-10.037	1.00	64.17	C
原子	1163	CD	LYS	A	150	20.664	58.281	-9.878	1.00	54.12	C
原子	1164	CE	LYS	A	150	19.830	57.796	-11.047	1.00	61.97	C
原子	1165	NZ	LYS	A	150	19.169	56.501	-10.731	1.00	49.86	N
原子	1166	C	LYS	A	150	22.667	61.113	-6.778	1.00	48.63	C
原子	1167	O	LYS	A	150	22.676	62.342	-6.741	1.00	41.43	O
原子	1168	N	GLY	A	151	22.659	60.364	-5.681	1.00	30.17	N
原子	1169	CA	GLY	A	151	22.721	60.962	-4.357	1.00	38.79	C
原子	1170	C	GLY	A	151	21.508	61.772	-3.915	1.00	34.04	C
原子	1171	O	GLY	A	151	21.631	62.658	-3.063	1.00	39.54	O
原子	1172	N	TYR	A	152	20.338	61.471	-4.478	1.00	21.35	N
原子	1173	CA	TYR	A	152	19.088	62.111	-4.061	1.00	18.40	C
原子	1174	CB	TYR	A	152	17.890	61.464	-4.753	1.00	21.11	C
原子	1175	CG	TYR	A	152	17.740	61.777	-6.223	1.00	31.97	C
原子	1176	CD1	TYR	A	152	18.158	60.873	-7.188	1.00	27.65	C
原子	1177	CE1	TYR	A	152	18.012	61.148	-8.534	1.00	39.17	C
原子	1178	CZ	TYR	A	152	17.434	62.332	-8.928	1.00	33.15	C
原子	1179	OH	TYR	A	152	17.287	62.604	-10.266	1.00	31.90	O
原子	1180	CE2	TYR	A	152	17.002	63.245	-7.989	1.00	31.67	C
原子	1181	CD2	TYR	A	152	17.153	62.962	-6.644	1.00	24.37	C
原子	1182	C	TYR	A	152	18.851	62.002	-2.555	1.00	30.42	C
原子	1183	O	TYR	A	152	18.546	62.989	-1.892	1.00	23.10	O
原子	1184	N	TYR	A	153	18.953	60.787	-2.024	1.00	24.94	N
原子	1185	CA	TYR	A	153	18.638	60.559	-0.614	1.00	19.78	C
原子	1186	CB	TYR	A	153	18.506	59.062	-0.304	1.00	23.73	C
原子	1187	CG	TYR	A	153	17.106	58.519	-0.539	1.00	21.62	C
原子	1188	CD1	TYR	A	153	16.737	58.002	-1.772	1.00	23.97	C
原子	1189	CE1	TYR	A	153	15.460	57.516	-1.995	1.00	23.01	C
原子	1190	CZ	TYR	A	153	14.532	57.544	-0.978	1.00	23.30	C
原子	1191	OH	TYR	A	153	13.264	57.057	-1.200	1.00	17.47	O
原子	1192	CE2	TYR	A	153	14.871	58.053	0.259	1.00	17.07	C
原子	1193	CD2	TYR	A	153	16.150	58.539	0.473	1.00	21.64	C
原子	1194	C	TYR	A	153	19.627	61.242	0.329	1.00	29.45	C
原子	1195	O	TYR	A	153	19.239	61.747	1.379	1.00	27.11	O
原子	1196	N	ASP	A	154	20.901	61.270	-0.041	1.00	31.05	N
原子	1197	CA	ASP	A	154	21.887	61.954	0.791	1.00	28.94	C
原子	1198	CB	ASP	A	154	23.298	61.802	0.218	1.00	49.55	C
原子	1199	CG	ASP	A	154	23.677	60.353	-0.022	1.00	47.24	C
原子	1200	OD1	ASP	A	154	24.471	59.807	0.774	1.00	65.16	O
原子	1201	OD2	ASP	A	154	23.175	59.759	-1.001	1.00	47.71	O
原子	1202	C	ASP	A	154	21.519	63.427	0.910	1.00	31.47	C
原子	1203	O	ASP	A	154	21.617	64.020	1.981	1.00	33.90	O
原子	1204	N	ALA	A	155	21.074	64.007	-0.199	1.00	32.45	N
原子	1205	CA	ALA	A	155	20.689	65.414	-0.229	1.00	35.10	C
原子	1206	CB	ALA	A	155	20.559	65.896	-1.669	1.00	22.54	C
原子	1207	C	ALA	A	155	19.393	65.659	0.534	1.00	27.03	C

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原子	1208	O	ALA	A	155	19.244	66.671	1.222	1.00	25.56	O
原子	1209	N	TYR	A	156	18.447	64.735	0.408	1.00	26.27	N
原子	1210	CA	TYR	A	156	17.184	64.876	1.117	1.00	16.66	C
原子	1211	CB	TYR	A	156	16.172	63.812	0.691	1.00	16.85	C
原子	1212	CG	TYR	A	156	14.794	64.084	1.234	1.00	19.64	C
原子	1213	CD1	TYR	A	156	13.994	65.075	0.677	1.00	18.77	C
原子	1214	CE1	TYR	A	156	12.732	65.348	1.185	1.00	15.50	C
原子	1215	CZ	TYR	A	156	12.264	64.628	2.270	1.00	14.21	C
原子	1216	OH	TYR	A	156	11.014	64.882	2.771	1.00	15.00	O
原子	1217	CE2	TYR	A	156	13.042	63.641	2.843	1.00	11.27	C
原子	1218	CD2	TYR	A	156	14.303	63.376	2.328	1.00	15.67	C
原子	1219	C	TYR	A	156	17.388	64.843	2.630	1.00	25.39	C
原子	1220	O	TYR	A	156	16.784	65.628	3.355	1.00	23.85	O
原子	1221	N	LEU	A	157	18.236	63.936	3.102	1.00	31.73	N
原子	1222	CA	LEU	A	157	18.546	63.850	4.532	1.00	29.13	C
原子	1223	CB	LEU	A	157	19.567	62.742	4.797	1.00	27.65	C
原子	1224	CG	LEU	A	157	19.084	61.500	5.552	1.00	42.50	C
原子	1225	CD1	LEU	A	157	17.566	61.412	5.585	1.00	38.95	C
原子	1226	CD2	LEU	A	157	19.703	60.232	4.967	1.00	31.62	C
原子	1227	C	LEU	A	157	19.049	65.174	5.099	1.00	29.60	C
原子	1228	O	LEU	A	157	18.686	65.564	6.208	1.00	32.13	O
原子	1229	N	LYS	A	158	19.889	65.862	4.338	1.00	29.76	N
原子	1230	CA	LYS	A	158	20.417	67.149	4.775	1.00	31.40	C
原子	1231	CB	LYS	A	158	21.479	67.662	3.800	1.00	41.47	C
原子	1232	CG	LYS	A	158	22.744	66.819	3.766	1.00	30.25	C
原子	1233	CD	LYS	A	158	23.802	67.469	2.889	1.00	55.67	C
原子	1234	CE	LYS	A	158	25.101	66.682	2.907	1.00	70.84	C
原子	1235	NZ	LYS	A	158	26.143	67.338	2.068	1.00	63.62	N
原子	1236	C	LYS	A	158	19.305	68.179	4.946	1.00	39.92	C
原子	1237	O	LYS	A	158	19.332	68.980	5.877	1.00	31.77	O
原子	1238	N	ARG	A	159	18.326	68.154	4.046	1.00	28.35	N
原子	1239	CA	ARG	A	159	17.193	69.067	4.131	1.00	31.23	C
原子	1240	CB	ARG	A	159	16.312	68.964	2.882	1.00	32.46	C
原子	1241	CG	ARG	A	159	16.911	69.541	1.608	1.00	34.99	C
原子	1242	CD	ARG	A	159	15.956	69.330	0.430	1.00	33.18	C
原子	1243	NE	ARG	A	159	14.712	70.061	0.634	1.00	28.55	N
原子	1244	CZ	ARG	A	159	13.533	69.706	0.139	1.00	23.50	C
原子	1245	NH1	ARG	A	159	13.413	68.612	-0.599	1.00	19.35	N
原子	1246	NH2	ARG	A	159	12.465	70.449	0.392	1.00	17.16	N
原子	1247	C	ARG	A	159	16.347	68.797	5.375	1.00	28.05	C
原子	1248	O	ARG	A	159	15.843	69.728	6.003	1.00	34.82	O
原子	1249	N	CYS	A	160	16.182	67.523	5.719	1.00	25.62	N
原子	1250	CA	CYS	A	160	15.356	67.147	6.864	1.00	20.60	C
原子	1251	CB	CYS	A	160	15.254	65.629	6.986	1.00	24.30	C
原子	1252	SG	CYS	A	160	14.249	64.876	5.702	1.00	22.63	S
原子	1253	C	CYS	A	160	15.904	67.733	8.154	1.00	29.65	C
原子	1254	O	CYS	A	160	15.151	68.066	9.068	1.00	33.15	O
原子	1255	N	LEU	A	161	17.222	67.855	8.220	1.00	30.45	N
原子	1256	CA	LEU	A	161	17.882	68.398	9.398	1.00	36.83	C
原子	1257	CB	LEU	A	161	19.397	68.247	9.260	1.00	39.22	C
原子	1258	CG	LEU	A	161	19.982	66.861	9.572	1.00	35.05	C
原子	1259	CD1	LEU	A	161	19.004	65.734	9.267	1.00	42.41	C
原子	1260	CD2	LEU	A	161	21.294	66.654	8.833	1.00	39.26	C
原子	1261	C	LEU	A	161	17.500	69.860	9.625	1.00	49.12	C
原子	1262	O	LEU	A	161	17.561	70.364	10.748	1.00	33.01	O
原子	1263	N	GLN	A	162	17.090	70.534	8.556	1.00	31.12	N
原子	1264	CA	GLN	A	162	16.727	71.941	8.646	1.00	31.33	C
原子	1265	CB	GLN	A	162	16.888	72.620	7.288	1.00	35.10	C

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原子	1266	CG	GLN	A	162	18.319	72.888	6.883	1.00	37.14	C
原子	1267	CD	GLN	A	162	18.398	73.538	5.523	1.00	33.73	C
原子	1268	OE1	GLN	A	162	17.566	73.275	4.655	1.00	54.38	O
原子	1269	NE2	GLN	A	162	19.390	74.397	5.328	1.00	43.22	N
原子	1270	C	GLN	A	162	15.310	72.175	9.158	1.00	42.74	C
原子	1271	O	GLN	A	162	14.934	73.314	9.433	1.00	43.31	O
原子	1272	N	HIS	A	163	14.525	71.109	9.281	1.00	24.71	N
原子	1273	CA	HIS	A	163	13.129	71.247	9.687	1.00	28.65	C
原子	1274	CB	HIS	A	163	12.201	70.759	8.577	1.00	31.78	C
原子	1275	CG	HIS	A	163	12.220	71.614	7.355	1.00	23.99	C
原子	1276	ND1	HIS	A	163	13.267	71.604	6.458	1.00	38.86	N
原子	1277	CE1	HIS	A	163	13.010	72.449	5.476	1.00	30.97	C
原子	1278	NE2	HIS	A	163	11.833	73.007	5.702	1.00	44.58	N
原子	1279	CD2	HIS	A	163	11.318	72.501	6.869	1.00	19.86	C
原子	1280	C	HIS	A	163	12.818	70.462	10.940	1.00	44.67	C
原子	1281	O	HIS	A	163	11.760	70.629	11.546	1.00	41.36	O
原子	1282	N	GLN	A	164	13.734	69.586	11.319	1.00	26.72	N
原子	1283	CA	GLN	A	164	13.488	68.723	12.452	1.00	31.24	C
原子	1284	CB	GLN	A	164	13.418	67.266	11.997	1.00	30.96	C
原子	1285	CG	GLN	A	164	12.670	67.069	10.699	1.00	33.88	C
原子	1286	CD	GLN	A	164	12.471	65.611	10.375	1.00	18.16	C
原子	1287	OE1	GLN	A	164	12.587	64.750	11.248	1.00	30.18	O
原子	1288	NE2	GLN	A	164	12.171	65.320	9.116	1.00	29.97	N
原子	1289	C	GLN	A	164	14.583	68.895	13.476	1.00	29.68	C
原子	1290	O	GLN	A	164	15.761	68.986	13.132	1.00	26.40	O
原子	1291	N	GLU	A	165	14.175	68.950	14.737	1.00	39.37	N
原子	1292	CA	GLU	A	165	15.101	69.002	15.852	1.00	38.63	C
原子	1293	CB	GLU	A	165	14.367	69.423	17.126	1.00	42.44	C
原子	1294	CG	GLU	A	165	13.473	70.644	16.958	1.00	50.87	C
原子	1295	CD	GLU	A	165	12.249	70.366	16.100	1.00	65.49	C
原子	1296	OE1	GLU	A	165	11.799	69.200	16.058	1.00	62.43	O
原子	1297	OE2	GLU	A	165	11.735	71.316	15.470	1.00	57.39	O
原子	1298	C	GLU	A	165	15.701	67.619	16.029	1.00	44.04	C
原子	1299	O	GLU	A	165	16.777	67.462	16.603	1.00	45.99	O
原子	1300	N	VAL	A	166	14.989	66.616	15.528	1.00	31.28	N
原子	1301	CA	VAL	A	166	15.448	65.238	15.582	1.00	23.77	C
原子	1302	CB	VAL	A	166	14.590	64.397	16.541	1.00	40.89	C
原子	1303	CG1	VAL	A	166	14.863	64.796	17.987	1.00	37.86	C
原子	1304	CG2	VAL	A	166	13.113	64.558	16.209	1.00	49.67	C
原子	1305	C	VAL	A	166	15.373	64.647	14.182	1.00	24.93	C
原子	1306	O	VAL	A	166	14.332	64.697	13.539	1.00	31.03	O
原子	1307	N	LYS	A	167	16.483	64.102	13.707	1.00	29.16	N
原子	1308	CA	LYS	A	167	16.534	63.541	12.365	1.00	40.50	C
原子	1309	CB	LYS	A	167	17.972	63.161	11.995	1.00	38.26	C
原子	1310	CG	LYS	A	167	18.669	62.264	13.004	1.00	37.26	C
原子	1311	CD	LYS	A	167	20.096	61.958	12.571	1.00	52.99	C
原子	1312	CE	LYS	A	167	20.752	60.933	13.487	1.00	62.49	C
原子	1313	NZ	LYS	A	167	22.106	60.543	13.006	1.00	54.86	N
原子	1314	C	LYS	A	167	15.600	62.338	12.231	1.00	26.80	C
原子	1315	O	LYS	A	167	15.358	61.622	13.202	1.00	26.96	O
原子	1316	N	PRO	A	168	15.061	62.121	11.022	1.00	20.26	N
原子	1317	CA	PRO	A	168	14.214	60.950	10.783	1.00	16.87	C
原子	1318	CB	PRO	A	168	13.857	61.067	9.296	1.00	16.76	C
原子	1319	CG	PRO	A	168	14.077	62.506	8.953	1.00	25.10	C
原子	1320	CD	PRO	A	168	15.200	62.967	9.825	1.00	27.73	C
原子	1321	C	PRO	A	168	15.017	59.677	11.000	1.00	17.62	C
原子	1322	O	PRO	A	168	16.213	59.657	10.697	1.00	20.78	O
原子	1323	N	TYR	A	169	14.376	58.634	11.518	1.00	13.49	N

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原子	1324	CA	TYR	A	169	15.016	57.330	11.609	1.00	17.61	C
原子	1325	CB	TYR	A	169	14.217	56.402	12.526	1.00	22.81	C
原子	1326	CG	TYR	A	169	14.954	55.135	12.913	1.00	23.72	C
原子	1327	CD1	TYR	A	169	15.918	55.149	13.913	1.00	22.88	C
原子	1328	CE1	TYR	A	169	16.597	53.998	14.260	1.00	23.20	C
原子	1329	CZ	TYR	A	169	16.310	52.812	13.611	1.00	20.33	C
原子	1330	OH	TYR	A	169	16.981	51.662	13.951	1.00	33.43	O
原子	1331	CE2	TYR	A	169	15.360	52.773	12.617	1.00	30.19	C
原子	1332	CD2	TYR	A	169	14.689	53.928	12.272	1.00	26.49	C
原子	1333	C	TYR	A	169	15.084	56.758	10.200	1.00	17.36	C
原子	1334	O	TYR	A	169	14.123	56.857	9.444	1.00	19.69	O
原子	1335	N	THR	A	170	16.223	56.184	9.831	1.00	15.14	N
原子	1336	CA	THR	A	170	16.390	55.657	8.475	1.00	17.61	C
原子	1337	CB	THR	A	170	17.589	56.299	7.750	1.00	17.38	C
原子	1338	OG1	THR	A	170	18.759	56.189	8.568	1.00	19.82	O
原子	1339	CG2	THR	A	170	17.310	57.774	7.481	1.00	20.98	C
原子	1340	C	THR	A	170	16.539	54.144	8.472	1.00	18.86	C
原子	1341	O	THR	A	170	17.430	53.593	9.123	1.00	26.33	O
原子	1342	N	LEU	A	171	15.655	53.482	7.734	1.00	18.93	N
原子	1343	CA	LEU	A	171	15.562	52.030	7.758	1.00	18.35	C
原子	1344	CB	LEU	A	171	14.220	51.618	8.367	1.00	21.32	C
原子	1345	CG	LEU	A	171	14.075	50.268	9.074	1.00	40.36	C
原子	1346	CD1	LEU	A	171	15.174	50.073	10.106	1.00	34.51	C
原子	1347	CD2	LEU	A	171	12.702	50.176	9.733	1.00	28.33	C
原子	1348	C	LEU	A	171	15.685	51.477	6.340	1.00	20.10	C
原子	1349	O	LEU	A	171	14.794	51.669	5.513	1.00	20.54	O
原子	1350	N	ALA	A	172	16.788	50.784	6.072	1.00	16.52	N
原子	1351	CA	ALA	A	172	17.024	50.180	4.765	1.00	13.96	C
原子	1352	CB	ALA	A	172	18.514	50.163	4.455	1.00	16.63	C
原子	1353	C	ALA	A	172	16.449	48.774	4.696	1.00	24.47	C
原子	1354	O	ALA	A	172	16.471	48.036	5.682	1.00	23.73	O
原子	1355	N	LEU	A	173	15.941	48.412	3.521	1.00	21.98	N
原子	1356	CA	LEU	A	173	15.362	47.102	3.287	1.00	21.72	C
原子	1357	CB	LEU	A	173	13.906	47.244	2.851	1.00	19.32	C
原子	1358	CG	LEU	A	173	13.022	48.080	3.781	1.00	23.33	C
原子	1359	CD1	LEU	A	173	11.636	48.291	3.188	1.00	16.29	C
原子	1360	CD2	LEU	A	173	12.937	47.429	5.156	1.00	14.65	C
原子	1361	C	LEU	A	173	16.180	46.421	2.201	1.00	26.56	C
原子	1362	O	LEU	A	173	16.221	46.885	1.062	1.00	29.29	O
原子	1363	N	ALA	A	174	16.843	45.328	2.552	1.00	19.45	N
原子	1364	CA	ALA	A	174	17.829	44.747	1.655	1.00	18.56	C
原子	1365	CB	ALA	A	174	19.228	45.025	2.171	1.00	24.16	C
原子	1366	C	ALA	A	174	17.644	43.257	1.428	1.00	27.06	C
原子	1367	O	ALA	A	174	17.372	42.504	2.358	1.00	25.18	O
原子	1368	N	PHE	A	175	17.796	42.832	0.180	1.00	17.66	N
原子	1369	CA	PHE	A	175	17.909	41.411	-0.091	1.00	22.70	C
原子	1370	CB	PHE	A	175	18.015	41.158	-1.594	1.00	25.59	C
原子	1371	CG	PHE	A	175	16.748	41.426	-2.345	1.00	21.67	C
原子	1372	CD1	PHE	A	175	15.565	40.824	-1.961	1.00	16.47	C
原子	1373	CE1	PHE	A	175	14.401	41.057	-2.646	1.00	21.02	C
原子	1374	CZ	PHE	A	175	14.405	41.896	-3.745	1.00	25.39	C
原子	1375	CE2	PHE	A	175	15.579	42.502	-4.140	1.00	18.21	C
原子	1376	CD2	PHE	A	175	16.743	42.265	-3.443	1.00	19.97	C
原子	1377	C	PHE	A	175	19.178	40.929	0.580	1.00	24.62	C
原子	1378	O	PHE	A	175	20.105	41.710	0.803	1.00	29.93	O
原子	1379	N	LYS	A	176	19.228	39.644	0.906	1.00	29.68	N
原子	1380	CA	LYS	A	176	20.463	39.062	1.398	1.00	25.09	C
原子	1381	CB	LYS	A	176	20.306	37.552	1.579	1.00	27.62	C

[0099]

原子	1382	CG	LYS A 176	19.441	37.154	2.754	1.00	28.98	C
原子	1383	CD	LYS A 176	19.472	35.643	2.971	1.00	36.91	C
原子	1384	CE	LYS A 176	18.881	34.903	1.782	1.00	37.36	C
原子	1385	NZ	LYS A 176	18.721	33.448	2.058	1.00	42.51	N
原子	1386	C	LYS A 176	21.574	39.346	0.396	1.00	15.90	C
原子	1387	O	LYS A 176	22.714	39.607	0.768	1.00	20.44	O
原子	1388	N	GLU A 177	21.224	39.294	-0.882	1.00	25.32	N
原子	1389	CA	GLU A 177	22.200	39.455	-1.953	1.00	31.24	C
原子	1390	CB	GLU A 177	21.570	39.094	-3.302	1.00	27.67	C
原子	1391	CG	GLU A 177	21.297	37.601	-3.491	1.00	30.59	C
原子	1392	CD	GLU A 177	19.993	37.135	-2.859	1.00	41.80	C
原子	1393	OE1	GLU A 177	19.405	37.884	-2.049	1.00	34.14	O
原子	1394	OE2	GLU A 177	19.554	36.007	-3.175	1.00	34.99	O
原子	1395	C	GLU A 177	22.820	40.856	-1.994	1.00	37.35	C
原子	1396	O	GLU A 177	23.855	41.065	-2.625	1.00	30.47	O
原子	1397	N	GLN A 178	22.193	41.804	-1.303	1.00	36.22	N
原子	1398	CA	GLN A 178	22.639	43.194	-1.324	1.00	29.61	C
原子	1399	CB	GLN A 178	21.439	44.140	-1.262	1.00	29.43	C
原子	1400	CG	GLN A 178	20.628	44.205	-2.540	1.00	23.93	C
原子	1401	CD	GLN A 178	19.467	45.165	-2.427	1.00	31.28	C
原子	1402	OE1	GLN A 178	19.547	46.310	-2.872	1.00	31.53	O
原子	1403	NE2	GLN A 178	18.386	44.711	-1.809	1.00	19.77	N
原子	1404	C	GLN A 178	23.619	43.544	-0.208	1.00	24.49	C
原子	1405	O	GLN A 178	24.236	44.611	-0.230	1.00	22.05	O
原子	1406	N	ILE A 179	23.757	42.657	0.774	1.00	25.63	N
原子	1407	CA	ILE A 179	24.676	42.911	1.876	1.00	23.42	C
原子	1408	CB	ILE A 179	24.367	42.030	3.103	1.00	24.35	C
原子	1409	CG1	ILE A 179	22.884	42.123	3.470	1.00	24.89	C
原子	1410	CD1	ILE A 179	22.371	43.547	3.623	1.00	24.96	C
原子	1411	CG2	ILE A 179	25.246	42.424	4.276	1.00	30.60	C
原子	1412	C	ILE A 179	26.123	42.706	1.438	1.00	23.43	C
原子	1413	O	ILE A 179	26.484	41.643	0.933	1.00	34.25	O
原子	1414	N	CYS A 180	26.941	43.734	1.636	1.00	23.65	N
原子	1415	CA	CYS A 180	28.340	43.735	1.222	1.00	26.86	C
原子	1416	CB	CYS A 180	28.634	44.989	0.400	1.00	28.20	C
原子	1417	SG	CYS A 180	27.579	45.186	-1.037	1.00	32.19	S
原子	1418	C	CYS A 180	29.266	43.721	2.431	1.00	38.73	C
原子	1419	O	CYS A 180	28.877	44.138	3.520	1.00	32.70	O
原子	1420	N	LEU A 181	30.496	43.254	2.237	1.00	40.01	N
原子	1421	CA	LEU A 181	31.498	43.309	3.294	1.00	33.49	C
原子	1422	CB	LEU A 181	32.796	42.621	2.857	1.00	33.75	C
原子	1423	CG	LEU A 181	33.880	42.312	3.904	1.00	41.07	C
原子	1424	CD1	LEU A 181	35.005	41.491	3.289	1.00	33.81	C
原子	1425	CD2	LEU A 181	34.449	43.567	4.557	1.00	37.05	C
原子	1426	C	LEU A 181	31.778	44.762	3.638	1.00	35.36	C
原子	1427	O	LEU A 181	31.760	45.150	4.805	1.00	37.58	O
原子	1428	N	GLN A 182	32.026	45.564	2.607	1.00	32.02	N
原子	1429	CA	GLN A 182	32.465	46.939	2.786	1.00	36.60	C
原子	1430	CB	GLN A 182	33.983	46.966	2.976	1.00	32.92	C
原子	1431	CG	GLN A 182	34.669	48.227	2.490	1.00	41.85	C
原子	1432	CD	GLN A 182	34.986	49.194	3.609	1.00	55.63	C
原子	1433	OE1	GLN A 182	35.607	50.234	3.384	1.00	71.24	O
原子	1434	NE2	GLN A 182	34.569	48.856	4.823	1.00	54.48	N
原子	1435	C	GLN A 182	32.067	47.798	1.590	1.00	47.43	C
原子	1436	O	GLN A 182	32.539	47.581	0.476	1.00	27.37	O
原子	1437	N	VAL A 183	31.193	48.771	1.822	1.00	31.55	N
原子	1438	CA	VAL A 183	30.792	49.693	0.765	1.00	24.14	C
原子	1439	CB	VAL A 183	29.351	50.199	0.968	1.00	33.25	C

[0100]

原子	1440	CG1	VAL	A	183	29.064	51.368	0.037	1.00	29.58	C
原子	1441	CG2	VAL	A	183	28.355	49.072	0.750	1.00	29.97	C
原子	1442	C	VAL	A	183	31.741	50.882	0.712	1.00	36.41	C
原子	1443	O	VAL	A	183	31.920	51.582	1.707	1.00	34.55	O
原子	1444	N	PRO	A	184	32.366	51.109	-0.452	1.00	28.90	N
原子	1445	CA	PRO	A	184	33.244	52.276	-0.580	1.00	35.06	C
原子	1446	CB	PRO	A	184	33.638	52.260	-2.062	1.00	35.92	C
原子	1447	CG	PRO	A	184	33.407	50.852	-2.514	1.00	40.32	C
原子	1448	CD	PRO	A	184	32.248	50.350	-1.709	1.00	37.19	C
原子	1449	C	PRO	A	184	32.444	53.534	-0.267	1.00	38.75	C
原子	1450	O	PRO	A	184	31.343	53.687	-0.794	1.00	37.70	O
原子	1451	O	ALA	A	185	34.230	56.942	0.801	1.00	43.67	O
原子	1452	N	ALA	A	185	32.974	54.413	0.578	1.00	30.55	N
原子	1453	CA	ALA	A	185	32.238	55.610	0.970	1.00	36.19	C
原子	1454	C	ALA	A	185	33.004	56.900	0.691	1.00	46.39	C
原子	1455	CB	ALA	A	185	31.844	55.534	2.442	1.00	49.68	C
原子	1456	N	ASN	A	186	32.269	57.950	0.329	1.00	62.02	N
原子	1457	CA	ASN	A	186	32.847	59.280	0.163	1.00	60.12	C
原子	1458	C	ASN	A	186	33.103	59.939	1.511	1.00	58.29	C
原子	1459	CB	ASN	A	186	31.927	60.170	-0.676	1.00	59.88	C
原子	1460	CG	ASN	A	186	32.044	59.897	-2.164	1.00	65.22	C
原子	1461	OD1	ASN	A	186	33.045	59.355	-2.633	1.00	56.30	O
原子	1462	ND2	ASN	A	186	31.019	60.282	-2.917	1.00	64.85	N
原子	1463	O	ASN	A	186	32.327	59.762	2.455	1.00	59.60	O
原子	1464	O	ALA	A	190	24.511	57.205	4.486	1.00	40.41	O
原子	1465	N	ALA	A	190	26.139	59.419	3.741	1.00	46.14	N
原子	1466	CA	ALA	A	190	25.483	59.331	5.043	1.00	38.96	C
原子	1467	C	ALA	A	190	25.044	57.898	5.351	1.00	33.11	C
原子	1468	CB	ALA	A	190	24.297	60.281	5.103	1.00	45.44	C
原子	1469	N	LYS	A	191	25.277	57.453	6.581	1.00	32.25	N
原子	1470	CA	LYS	A	191	24.898	56.102	6.974	1.00	33.05	C
原子	1471	CB	LYS	A	191	25.717	55.631	8.173	1.00	39.21	C
原子	1472	CG	LYS	A	191	27.220	55.705	8.010	1.00	37.53	C
原子	1473	CD	LYS	A	191	27.867	54.693	8.937	1.00	43.35	C
原子	1474	CE	LYS	A	191	29.121	55.234	9.591	1.00	46.63	C
原子	1475	NZ	LYS	A	191	29.494	54.407	10.774	1.00	57.53	N
原子	1476	C	LYS	A	191	23.422	56.019	7.332	1.00	34.18	C
原子	1477	O	LYS	A	191	22.836	56.989	7.810	1.00	35.97	O
原子	1478	N	VAL	A	192	22.828	54.853	7.105	1.00	27.06	N
原子	1479	CA	VAL	A	192	21.469	54.594	7.561	1.00	24.39	C
原子	1480	CB	VAL	A	192	20.723	53.603	6.643	1.00	23.86	C
原子	1481	CG1	VAL	A	192	20.599	54.176	5.234	1.00	25.04	C
原子	1482	CG2	VAL	A	192	21.428	52.258	6.608	1.00	25.90	C
原子	1483	C	VAL	A	192	21.529	54.054	8.980	1.00	31.85	C
原子	1484	O	VAL	A	192	22.543	53.491	9.395	1.00	31.64	O
原子	1485	N	ASP	A	193	20.448	54.234	9.729	1.00	24.62	N
原子	1486	CA	ASP	A	193	20.430	53.811	11.122	1.00	26.41	C
原子	1487	CB	ASP	A	193	19.209	54.378	11.837	1.00	20.49	C
原子	1488	CG	ASP	A	193	19.362	55.849	12.155	1.00	22.17	C
原子	1489	OD1	ASP	A	193	20.414	56.224	12.713	1.00	36.45	O
原子	1490	OD2	ASP	A	193	18.432	56.625	11.855	1.00	21.62	O
原子	1491	C	ASP	A	193	20.441	52.303	11.233	1.00	25.18	C
原子	1492	O	ASP	A	193	21.083	51.738	12.120	1.00	22.99	O
原子	1493	N	GLU	A	194	19.730	51.653	10.321	1.00	22.26	N
原子	1494	CA	GLU	A	194	19.568	50.213	10.392	1.00	19.27	C
原子	1495	CB	GLU	A	194	18.426	49.882	11.345	1.00	29.48	C
原子	1496	CG	GLU	A	194	18.133	48.411	11.506	1.00	22.64	C
原子	1497	CD	GLU	A	194	17.173	48.165	12.654	1.00	25.10	C

[0101]

原子	1498	OE1	GLU	A	194	16.858	46.991	12.934	1.00	37.98	O
原子	1499	OE2	GLU	A	194	16.740	49.160	13.273	1.00	34.35	O
原子	1500	C	GLU	A	194	19.300	49.604	9.027	1.00	23.05	C
原子	1501	O	GLU	A	194	18.555	50.161	8.217	1.00	18.31	O
原子	1502	N	VAL	A	195	19.919	48.456	8.781	1.00	21.02	N
原子	1503	CA	VAL	A	195	19.665	47.699	7.565	1.00	27.72	C
原子	1504	CB	VAL	A	195	20.972	47.377	6.803	1.00	23.14	C
原子	1505	CG1	VAL	A	195	21.816	48.627	6.637	1.00	24.03	C
原子	1506	CG2	VAL	A	195	21.766	46.300	7.524	1.00	52.71	C
原子	1507	C	VAL	A	195	18.950	46.406	7.943	1.00	28.09	C
原子	1508	O	VAL	A	195	19.422	45.659	8.794	1.00	25.89	O
原子	1509	N	LEU	A	196	17.795	46.162	7.335	1.00	17.17	N
原子	1510	CA	LEU	A	196	17.049	44.940	7.585	1.00	21.85	C
原子	1511	CB	LEU	A	196	15.558	45.236	7.740	1.00	23.73	C
原子	1512	CG	LEU	A	196	15.145	46.097	8.936	1.00	25.55	C
原子	1513	CD1	LEU	A	196	13.629	46.242	8.967	1.00	21.28	C
原子	1514	CD2	LEU	A	196	15.657	45.484	10.224	1.00	22.11	C
原子	1515	C	LEU	A	196	17.251	43.979	6.431	1.00	28.50	C
原子	1516	O	LEU	A	196	17.358	44.397	5.278	1.00	20.60	O
原子	1517	N	TYR	A	197	17.290	42.690	6.746	1.00	23.79	N
原子	1518	CA	TYR	A	197	17.459	41.661	5.733	1.00	23.77	C
原子	1519	CB	TYR	A	197	18.820	41.812	5.063	1.00	17.47	C
原子	1520	CG	TYR	A	197	19.975	41.612	6.015	1.00	22.60	C
原子	1521	CD1	TYR	A	197	20.522	40.351	6.215	1.00	33.83	C
原子	1522	CE1	TYR	A	197	21.573	40.159	7.088	1.00	28.87	C
原子	1523	CZ	TYR	A	197	22.092	41.232	7.779	1.00	32.86	C
原子	1524	OH	TYR	A	197	23.141	41.040	8.649	1.00	37.85	O
原子	1525	CE2	TYR	A	197	21.567	42.496	7.600	1.00	38.33	C
原子	1526	CD2	TYR	A	197	20.513	42.679	6.722	1.00	31.81	C
原子	1527	C	TYR	A	197	17.382	40.291	6.379	1.00	20.89	C
原子	1528	O	TYR	A	197	17.722	40.138	7.554	1.00	32.65	O
原子	1529	N	GLU	A	198	16.926	39.302	5.614	1.00	31.22	N
原子	1530	CA	GLU	A	198	17.092	37.899	5.995	1.00	29.71	C
原子	1531	CB	GLU	A	198	16.628	37.635	7.428	1.00	52.28	C
原子	1532	CG	GLU	A	198	17.492	36.613	8.156	1.00	53.70	C
原子	1533	CD	GLU	A	198	18.983	36.887	8.005	1.00	50.28	C
原子	1534	OE1	GLU	A	198	19.433	37.210	6.882	1.00	45.72	O
原子	1535	OE2	GLU	A	198	19.712	36.768	9.012	1.00	63.90	O
原子	1536	C	GLU	A	198	16.448	36.921	5.018	1.00	37.74	C
原子	1537	O	GLU	A	198	15.663	37.315	4.155	1.00	42.79	O
原子	1538	O	ALA	A	199	14.190	33.761	4.584	1.00	43.85	O
原子	1539	N	ALA	A	199	16.803	35.646	5.155	1.00	45.01	N
原子	1540	CA	ALA	A	199	16.381	34.623	4.204	1.00	37.79	C
原子	1541	C	ALA	A	199	14.873	34.619	4.032	1.00	42.44	C
原子	1542	CB	ALA	A	199	16.864	33.247	4.651	1.00	56.16	C
原子	1543	O	HOH		1	9.583	67.067	1.099	1.00	4.20	O
原子	1544	O	HOH		2	9.962	70.055	0.511	1.00	16.46	O
原子	1545	O	HOH		3	8.030	57.515	-6.473	1.00	19.94	O
原子	1546	O	HOH		4	11.746	56.561	0.959	1.00	15.98	O
原子	1547	O	HOH		5	0.928	54.112	-11.476	1.00	17.61	O
原子	1548	O	HOH		6	9.527	55.580	-5.257	1.00	19.76	O
原子	1549	O	HOH		7	9.174	72.967	-2.618	1.00	20.16	O
原子	1550	O	HOH		8	-0.142	62.909	-10.971	1.00	19.76	O
原子	1551	O	HOH		9	0.831	54.309	13.612	1.00	23.81	O
原子	1552	O	HOH		10	11.046	71.372	-2.862	1.00	13.36	O
原子	1553	O	HOH		11	16.156	46.268	-1.688	1.00	21.53	O
原子	1554	O	HOH		12	23.341	57.589	-5.007	1.00	27.92	O
原子	1555	O	HOH		13	11.294	42.957	-6.403	1.00	32.98	O

[0102]

原子	1556	O	HOH	14	0.000	54.788	-14.804	1.00	29.19	0
原子	1557	O	HOH	15	3.506	66.394	-8.240	1.00	24.86	0
原子	1558	O	HOH	16	6.012	49.126	-4.118	1.00	26.62	0
原子	1559	O	HOH	17	10.086	66.627	-7.299	1.00	23.30	0
原子	1560	O	HOH	18	13.642	72.463	2.346	1.00	31.11	0
原子	1561	O	HOH	19	0.362	66.401	7.180	1.00	25.87	0
原子	1562	O	HOH	20	4.181	70.052	-4.880	1.00	24.35	0
原子	1563	O	HOH	21	-5.037	55.922	7.050	1.00	34.82	0
原子	1564	O	HOH	22	12.236	52.918	-5.746	1.00	29.85	0
原子	1565	O	HOH	23	18.671	59.070	12.369	1.00	43.00	0
原子	1566	O	HOH	24	1.315	46.977	16.578	1.00	35.89	0
原子	1567	O	HOH	25	-3.197	57.766	6.977	1.00	29.53	0
原子	1568	O	HOH	26	10.389	69.271	-7.157	1.00	17.05	0
原子	1569	O	HOH	27	25.527	57.134	0.097	1.00	35.69	0
原子	1570	O	HOH	28	0.059	45.275	11.352	1.00	28.91	0
原子	1571	O	HOH	29	11.376	57.034	-10.654	1.00	22.35	0
原子	1572	O	HOH	30	6.405	45.094	1.580	1.00	26.76	0
原子	1573	O	HOH	31	-3.831	62.752	-2.931	1.00	32.78	0
原子	1574	O	HOH	32	11.141	60.326	-16.070	1.00	26.74	0
原子	1575	O	HOH	33	6.735	72.561	0.000	0.77	11.81	0
原子	1576	O	HOH	34	9.530	58.150	-8.805	1.00	22.02	0
原子	1577	O	HOH	35	16.427	39.886	2.976	1.00	28.66	0
原子	1578	O	HOH	36	0.138	48.701	-1.262	1.00	27.30	0
原子	1579	O	HOH	37	1.464	51.702	14.603	1.00	24.79	0
原子	1580	O	HOH	38	31.312	42.328	-0.552	1.00	32.80	0
原子	1581	O	HOH	39	12.364	46.397	17.067	1.00	35.33	0
原子	1582	O	HOH	40	3.708	49.731	-4.760	1.00	26.44	0
原子	1583	O	HOH	41	3.533	71.268	-0.336	1.00	27.24	0
原子	1584	O	HOH	42	6.763	64.585	-11.557	1.00	30.92	0
原子	1585	O	HOH	43	-8.419	56.456	-2.370	1.00	29.90	0
原子	1586	O	HOH	44	2.074	72.336	2.723	1.00	31.62	0
原子	1587	O	HOH	45	13.206	30.466	-7.249	1.00	33.58	0
原子	1588	O	HOH	46	7.439	67.126	-11.072	1.00	36.31	0
原子	1589	O	HOH	47	5.497	61.144	-13.258	1.00	30.70	0
原子	1590	O	HOH	48	-0.863	44.614	7.404	1.00	31.32	0
原子	1591	O	HOH	49	6.417	49.742	-8.287	1.00	33.54	0
原子	1592	O	HOH	50	16.436	59.829	14.953	1.00	35.85	0
原子	1593	O	HOH	51	9.812	66.574	-10.176	1.00	27.70	0
原子	1594	O	HOH	52	-7.880	64.626	1.874	1.00	56.14	0
原子	1595	O	HOH	53	16.309	48.928	-1.740	1.00	31.70	0
原子	1596	O	HOH	54	32.310	44.685	-0.233	1.00	36.38	0
原子	1597	O	HOH	55	7.590	64.459	12.112	1.00	32.70	0
原子	1598	O	HOH	56	7.910	70.302	-8.306	1.00	34.01	0
原子	1599	O	HOH	57	18.214	40.463	-9.563	1.00	28.63	0
原子	1600	O	HOH	58	19.493	39.989	10.351	1.00	45.09	0
原子	1601	O	HOH	59	11.710	43.477	13.559	1.00	31.77	0
原子	1602	O	HOH	60	12.299	55.406	-6.241	1.00	32.82	0
原子	1603	O	HOH	61	-6.741	66.716	0.528	1.00	42.37	0
原子	1604	O	HOH	62	8.500	70.711	8.247	1.00	26.35	0
原子	1605	O	HOH	63	6.670	59.621	17.455	1.00	48.64	0
原子	1606	O	HOH	64	31.043	56.011	-9.096	1.00	39.00	0
原子	1607	O	HOH	65	20.160	58.458	9.255	1.00	44.83	0
原子	1608	O	HOH	66	9.818	64.204	13.652	1.00	44.89	0
原子	1609	O	HOH	67	-1.062	59.831	3.969	1.00	20.69	0
原子	1610	O	HOH	68	18.893	38.320	-11.925	1.00	35.04	0
原子	1611	O	HOH	69	29.343	58.240	-0.097	1.00	42.87	0
原子	1612	O	HOH	70	17.106	65.358	-3.015	1.00	24.46	0
原子	1613	O	HOH	71	10.465	70.738	-15.257	1.00	43.18	0

[0103]

原子	1614	O	HOH	72	29.569	58.034	-7.505	1.00	39.65	0
原子	1615	O	HOH	73	-3.448	59.684	4.998	1.00	34.62	0
原子	1616	O	HOH	74	5.547	43.502	-0.621	1.00	37.06	0
原子	1617	O	HOH	75	1.032	49.483	-3.653	1.00	40.51	0
原子	1618	O	HOH	76	4.888	59.848	20.526	1.00	35.57	0
原子	1619	O	HOH	77	18.007	42.046	9.919	1.00	36.22	0
原子	1620	O	HOH	78	33.480	60.828	-10.012	1.00	44.15	0
原子	1621	O	HOH	79	27.719	60.196	1.617	1.00	38.51	0
原子	1622	O	HOH	80	27.600	41.102	-2.195	1.00	41.89	0
原子	1623	O	HOH	81	22.006	47.629	10.867	1.00	34.27	0
原子	1624	O	HOH	82	18.466	33.821	-2.119	1.00	38.12	0
原子	1625	O	HOH	83	20.986	36.410	-10.928	1.00	41.13	0
原子	1626	O	HOH	84	14.095	30.178	-1.762	1.00	38.02	0
原子	1627	O	HOH	85	-2.578	67.124	1.861	1.00	37.03	0
原子	1628	O	HOH	86	19.978	58.288	-3.984	1.00	20.06	0
原子	1629	O	HOH	87	-6.576	54.927	2.601	1.00	39.57	0
原子	1630	O	HOH	88	17.172	30.892	-0.514	1.00	43.68	0
原子	1631	O	HOH	89	-6.781	63.960	4.284	1.00	45.18	0
原子	1632	O	HOH	90	5.590	41.330	1.144	1.00	36.04	0
原子	1633	O	HOH	91	10.588	69.782	13.644	1.00	56.56	0
原子	1634	O	HOH	92	34.938	47.666	-5.252	1.00	38.63	0
原子	1635	O	HOH	93	28.135	53.804	-1.572	1.00	42.14	0
原子	1636	O	HOH	94	23.823	49.737	11.392	1.00	54.16	0
原子	1637	O	HOH	95	10.320	39.781	-11.263	1.00	49.69	0
原子	1638	O	HOH	96	19.884	43.016	-7.188	1.00	52.46	0
原子	1639	O	HOH	97	11.174	26.833	-8.058	1.00	49.86	0
原子	1640	O	HOH	98	16.770	57.623	-9.608	1.00	42.94	0
原子	1641	O	HOH	99	-2.272	66.732	8.172	1.00	59.69	0
原子	1642	O	HOH	100	19.435	44.208	10.874	1.00	38.32	0
原子	1643	O	HOH	101	17.533	30.419	2.470	1.00	47.48	0
原子	1644	O	HOH	102	4.399	41.716	-2.647	1.00	42.21	0

END

[0104] 表 3 为人源 5,10- 次甲基四氢叶酸合成酶与谷氨酸的复合物的晶体的坐标：

[0105] 表 3

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ATOM      1  N   MET A   1     -17.348 -10.183   7.583  1.00 35.43           N
ATOM      2  CA  MET A   1     -17.905 -11.515   7.788  1.00 41.41           C
ATOM      3  C   MET A   1     -17.380 -12.476   6.724  1.00 45.63           C
ATOM      4  CB  MET A   1     -19.440 -11.478   7.773  1.00 45.32           C
ATOM      5  CG  MET A   1     -20.067 -10.617   8.868  1.00 37.59           C
ATOM      6  SD  MET A   1     -19.725 -11.228  10.533  1.00 59.03           S
ATOM      7  CE  MET A   1     -20.654 -12.757  10.528  1.00 53.80           C
ATOM      8  O   MET A   1     -16.773 -13.499   7.044  1.00 42.09           O
ATOM      9  O   ALA A   2     -14.960 -14.026   4.128  1.00 49.53           O
ATOM     10  N   ALA A   2     -17.615 -12.138   5.458  1.00 48.40           N
ATOM     11  CA  ALA A   2     -17.077 -12.905   4.338  1.00 45.74           C
ATOM     12  C   ALA A   2     -15.560 -13.001   4.459  1.00 49.29           C
ATOM     13  CB  ALA A   2     -17.464 -12.257   3.017  1.00 40.17           C
ATOM     14  O   ALA A   3     -12.247 -13.680   6.175  1.00 42.90           O
ATOM     15  N   ALA A   3     -14.950 -11.917   4.932  1.00 48.58           N
ATOM     16  CA  ALA A   3     -13.517 -11.881   5.196  1.00 52.51           C
ATOM     17  C   ALA A   3     -13.159 -12.859   6.315  1.00 50.38           C
ATOM     18  CB  ALA A   3     -13.085 -10.466   5.567  1.00 47.96           C
ATOM     19  N   ALA A   4     -13.885 -12.759   7.425  1.00 36.70           N
ATOM     20  CA  ALA A   4     -13.661 -13.620   8.579  1.00 40.63           C
ATOM     21  CB  ALA A   4     -14.641 -13.285   9.702  1.00 32.11           C
ATOM     22  C   ALA A   4     -13.771 -15.086   8.195  1.00 39.83           C
ATOM     23  O   ALA A   4     -12.959 -15.905   8.628  1.00 35.23           O
ATOM     24  N   ALA A   5     -14.778 -15.409   7.385  1.00 29.09           N
ATOM     25  CA  ALA A   5     -14.978 -16.776   6.915  1.00 31.34           C
ATOM     26  CB  ALA A   5     -16.217 -16.865   6.040  1.00 40.09           C
ATOM     27  C   ALA A   5     -13.748 -17.265   6.160  1.00 41.10           C
ATOM     28  O   ALA A   5     -13.344 -18.426   6.293  1.00 35.68           O
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[0106]

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ATOM     29  N   VAL A   6     -13.156 -16.376   5.366  1.00 38.33           N
ATOM     30  CA  VAL A   6     -11.916 -16.687   4.663  1.00 48.93           C
ATOM     31  CB  VAL A   6     -11.498 -15.546   3.698  1.00 60.52           C
ATOM     32  CG1 VAL A   6     -10.167 -15.860   3.028  1.00 47.51           C
ATOM     33  CG2 VAL A   6     -12.570 -15.319   2.641  1.00 34.39           C
ATOM     34  C   VAL A   6     -10.802 -16.982   5.672  1.00 31.98           C
ATOM     35  O   VAL A   6     -10.124 -18.012   5.576  1.00 28.68           O
ATOM     36  N   SER A   7     -10.639 -16.087   6.647  1.00 42.71           N
ATOM     37  CA  SER A   7      -9.637 -16.250   7.703  1.00 34.73           C
ATOM     38  CB  SER A   7      -9.676 -15.074   8.687  1.00 35.76           C
ATOM     39  OG  SER A   7      -9.444 -13.837   8.036  1.00 51.46           O
ATOM     40  C   SER A   7      -9.805 -17.565   8.462  1.00 40.44           C
ATOM     41  O   SER A   7      -8.821 -18.236   8.781  1.00 39.35           O
ATOM     42  N   SER A   8     -11.049 -17.927   8.762  1.00 34.96           N
ATOM     43  CA  SER A   8     -11.317 -19.198   9.426  1.00 35.73           C
ATOM     44  CB  SER A   8     -12.805 -19.359   9.732  1.00 30.41           C
ATOM     45  OG  SER A   8     -13.055 -20.649  10.259  1.00 41.68           O
ATOM     46  C   SER A   8     -10.831 -20.368   8.572  1.00 40.24           C
ATOM     47  O   SER A   8     -10.080 -21.226   9.046  1.00 31.04           O
ATOM     48  N   ALA A   9     -11.255 -20.392   7.311  1.00 27.74           N
ATOM     49  CA  ALA A   9     -10.852 -21.453   6.390  1.00 28.91           C
ATOM     50  CB  ALA A   9     -11.508 -21.264   5.032  1.00 36.07           C
ATOM     51  C   ALA A   9      -9.325 -21.546   6.257  1.00 30.07           C
ATOM     52  O   ALA A   9      -8.765 -22.640   6.218  1.00 36.17           O
ATOM     53  N   LYS A  10      -8.652 -20.400   6.195  1.00 32.46           N
ATOM     54  CA  LYS A  10      -7.191 -20.387   6.172  1.00 40.86           C
ATOM     55  CB  LYS A  10      -6.657 -18.964   5.966  1.00 41.64           C
ATOM     56  CG  LYS A  10      -6.842 -18.415   4.561  1.00 38.00           C
ATOM     57  CD  LYS A  10      -6.293 -16.997   4.444  1.00 34.36           C
ATOM     58  CE  LYS A  10      -6.150 -16.592   2.980  1.00 32.98           C
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[0107]

ATOM	59	NZ	LYS	A	10	-5.606	-15.216	2.829	1.00	55.50	N
ATOM	60	C	LYS	A	10	-6.622	-20.973	7.461	1.00	38.45	C
ATOM	61	O	LYS	A	10	-5.691	-21.780	7.430	1.00	38.50	O
ATOM	62	N	ARG	A	11	-7.184	-20.550	8.591	1.00	33.39	N
ATOM	63	CA	ARG	A	11	-6.722	-20.999	9.901	1.00	29.69	C
ATOM	64	CB	ARG	A	11	-7.484	-20.265	11.007	1.00	57.95	C
ATOM	65	CG	ARG	A	11	-7.179	20.743	12.422	1.00	54.26	C
ATOM	66	CD	ARG	A	11	-8.149	-20.141	13.437	1.00	56.68	C
ATOM	67	NE	ARG	A	11	-9.533	-20.187	12.967	1.00	57.12	N
ATOM	68	CZ	ARG	A	11	-10.333	-21.243	13.081	1.00	59.00	C
ATOM	69	NH1	ARG	A	11	-9.894	-22.357	13.653	1.00	52.97	N
ATOM	70	NH2	ARG	A	11	-11.576	-21.189	12.621	1.00	57.11	N
ATOM	71	C	ARG	A	11	-6.850	-22.514	10.067	1.00	39.39	C
ATOM	72	O	ARG	A	11	-5.913	-23.181	10.511	1.00	38.22	O
ATOM	73	N	SER	A	12	-8.004	-23.063	9.704	1.00	32.80	N
ATOM	74	CA	SER	A	12	-8.183	-24.507	9.774	1.00	35.88	C
ATOM	75	CB	SER	A	12	-9.612	-24.905	9.399	1.00	32.51	C
ATOM	76	OG	SER	A	12	-10.556	-24.357	10.306	1.00	56.44	O
ATOM	77	C	SER	A	12	-7.181	-25.219	8.869	1.00	42.98	C
ATOM	78	O	SER	A	12	-6.486	-26.139	9.302	1.00	33.33	O
ATOM	79	N	LEU	A	13	-7.107	-24.797	7.610	1.00	32.15	N
ATOM	80	CA	LEU	A	13	-6.189	-25.427	6.670	1.00	27.68	C
ATOM	81	CB	LEU	A	13	-6.291	-24.781	5.284	1.00	30.53	C
ATOM	82	CG	LEU	A	13	-5.494	-25.416	4.139	1.00	38.90	C
ATOM	83	CD1	LEU	A	13	-5.683	-26.929	4.073	1.00	35.08	C
ATOM	84	CD2	LEU	A	13	-5.869	-24.780	2.811	1.00	35.99	C
ATOM	85	C	LEU	A	13	-4.753	-25.392	7.210	1.00	34.85	C
ATOM	86	O	LEU	A	13	-4.016	-26.369	7.087	1.00	30.26	O
ATOM	87	N	ARG	A	14	-4.370	-24.280	7.832	1.00	32.31	N
ATOM	88	CA	ARG	A	14	-3.041	-24.166	8.435	1.00	37.55	C
ATOM	89	CB	ARG	A	14	-2.835	-22.791	9.078	1.00	36.39	C
ATOM	90	CG	ARG	A	14	-2.619	-21.670	8.081	1.00	31.34	C
ATOM	91	CD	ARG	A	14	-1.982	-20.451	8.732	1.00	30.65	C
ATOM	92	NE	ARG	A	14	-1.930	-19.332	7.797	1.00	24.75	N
ATOM	93	CZ	ARG	A	14	-2.783	-18.314	7.803	1.00	38.94	C
ATOM	94	NH1	ARG	A	14	-3.748	-18.260	8.712	1.00	33.84	N
ATOM	95	NH2	ARG	A	14	-2.668	-17.345	6.902	1.00	51.22	N
ATOM	96	C	ARG	A	14	-2.792	-25.255	9.473	1.00	36.40	C
ATOM	97	O	ARG	A	14	-1.795	-25.970	9.402	1.00	40.50	O
ATOM	98	N	GLY	A	15	-3.689	-25.363	10.447	1.00	39.63	N
ATOM	99	CA	GLY	A	15	-3.558	-26.368	11.487	1.00	31.32	C
ATOM	100	C	GLY	A	15	-3.500	-27.753	10.879	1.00	40.63	C
ATOM	101	O	GLY	A	15	-2.653	-28.584	11.236	1.00	37.31	O
ATOM	102	N	GLU	A	16	-4.422	-28.002	9.959	1.00	36.67	N
ATOM	103	CA	GLU	A	16	-4.443	-29.249	9.213	1.00	40.11	C
ATOM	104	CB	GLU	A	16	-5.556	-29.191	8.167	1.00	40.23	C
ATOM	105	CG	GLU	A	16	-5.953	-30.528	7.567	1.00	57.62	C
ATOM	106	CD	GLU	A	16	-7.067	-30.391	6.547	1.00	76.46	C
ATOM	107	OE1	GLU	A	16	-7.826	-29.403	6.635	1.00	50.42	O
ATOM	108	OE2	GLU	A	16	-7.181	-31.261	5.654	1.00	62.86	O
ATOM	109	C	GLU	A	16	-3.090	-29.475	8.539	1.00	46.98	C
ATOM	110	O	GLU	A	16	-2.481	-30.535	8.683	1.00	42.79	O
ATOM	111	N	LEU	A	17	-2.634	-28.470	7.797	1.00	38.11	N
ATOM	112	CA	LEU	A	17	-1.368	-28.553	7.076	1.00	34.21	C
ATOM	113	CB	LEU	A	17	-1.136	-27.292	6.234	1.00	38.20	C
ATOM	114	CG	LEU	A	17	-1.837	-27.221	4.873	1.00	34.43	C
ATOM	115	CD1	LEU	A	17	-1.655	-25.850	4.237	1.00	33.00	C
ATOM	116	CD2	LEU	A	17	-1.323	-28.314	3.951	1.00	27.80	C
ATOM	117	C	LEU	A	17	-0.191	-28.789	8.013	1.00	39.30	C
ATOM	118	O	LEU	A	17	0.686	-29.609	7.719	1.00	37.86	O
ATOM	119	N	LYS	A	18	-0.172	-28.072	9.136	1.00	34.58	N
ATOM	120	CA	LYS	A	18	0.917	-28.206	10.098	1.00	41.66	C
ATOM	121	CB	LYS	A	18	0.865	-27.093	11.142	1.00	46.40	C
ATOM	122	CG	LYS	A	18	0.862	-25.692	10.553	1.00	54.69	C
ATOM	123	CD	LYS	A	18	1.526	-24.701	11.490	1.00	38.83	C
ATOM	124	CE	LYS	A	18	3.007	-25.013	11.623	1.00	59.40	C
ATOM	125	NZ	LYS	A	18	3.758	-23.905	12.276	1.00	69.07	N
ATOM	126	C	LYS	A	18	0.895	-29.572	10.780	1.00	61.57	C

[0108]

ATOM	127	O	LYS	A	18	1.935	-30.092	11.190	1.00	59.62	O
ATOM	128	O	ALA	A	19	0.981	-33.389	11.131	1.00	73.95	O
ATOM	129	N	ALA	A	19	-0.295	-30.147	10.902	1.00	55.21	N
ATOM	130	CA	ALA	A	19	-0.434	-31.482	11.461	1.00	44.27	C
ATOM	131	C	ALA	A	19	0.318	-32.500	10.606	1.00	58.84	C
ATOM	132	CB	ALA	A	19	-1.902	-31.862	11.579	1.00	55.82	C
ATOM	133	N	ARG	A	20	0.219	-32.360	9.287	1.00	57.92	N
ATOM	134	CA	ARG	A	20	0.890	-33.271	8.359	1.00	43.89	C
ATOM	135	C	ARG	A	20	2.395	-33.010	8.301	1.00	53.35	C
ATOM	136	CB	ARG	A	20	0.275	-33.166	6.957	1.00	58.35	C
ATOM	137	CG	ARG	A	20	-1.088	-33.815	6.837	1.00	47.85	C
ATOM	138	CD	ARG	A	20	-1.556	-33.901	5.384	1.00	75.44	C
ATOM	139	NE	ARG	A	20	-1.996	-32.613	4.850	1.00	57.07	N
ATOM	140	CZ	ARG	A	20	-2.509	-32.443	3.632	1.00	82.48	C
ATOM	141	NH1	ARG	A	20	-2.656	-33.482	2.823	1.00	83.04	N
ATOM	142	NH2	ARG	A	20	-2.883	-31.236	3.225	1.00	69.45	N
ATOM	143	O	ARG	A	20	3.193	-33.951	8.274	1.00	56.32	O
ATOM	144	N	LEU	A	21	2.778	-31.735	8.277	1.00	50.17	N
ATOM	145	CA	LEU	A	21	4.190	-31.369	8.302	1.00	44.16	C
ATOM	146	C	LEU	A	21	4.846	-31.851	9.600	1.00	49.08	C
ATOM	147	CB	LEU	A	21	4.357	-29.857	8.175	1.00	50.77	C
ATOM	148	CG	LEU	A	21	3.970	-29.181	6.858	1.00	47.94	C
ATOM	149	CD1	LEU	A	21	3.965	-27.658	7.014	1.00	40.74	C
ATOM	150	CD2	LEU	A	21	4.910	-29.604	5.740	1.00	41.32	C
ATOM	151	O	LEU	A	21	5.883	-32.517	9.567	1.00	44.46	O
ATOM	152	N	MET	A	24	6.928	-35.336	9.749	1.00	60.95	N
ATOM	153	CA	MET	A	24	6.985	-36.107	8.515	1.00	53.82	C
ATOM	154	C	MET	A	24	8.030	-37.198	8.632	1.00	50.79	C
ATOM	155	CB	MET	A	24	7.351	-35.210	7.330	1.00	52.83	C
ATOM	156	CG	MET	A	24	6.197	-34.471	6.686	1.00	64.36	C
ATOM	157	SD	MET	A	24	6.724	-33.657	5.151	1.00	54.60	S
ATOM	158	CE	MET	A	24	7.420	-35.035	4.263	1.00	43.93	C
ATOM	159	O	MET	A	24	7.961	-38.208	7.927	1.00	66.68	O
ATOM	160	N	SER	A	25	8.985	-36.976	9.531	1.00	37.07	N
ATOM	161	CA	SER	A	25	10.213	-37.765	9.602	1.00	45.26	C
ATOM	162	C	SER	A	25	11.342	-36.970	8.955	1.00	42.30	C
ATOM	163	CB	SER	A	25	10.049	-39.133	8.928	1.00	40.76	C
ATOM	164	OG	SER	A	25	11.276	-39.605	8.395	1.00	58.02	O
ATOM	165	O	SER	A	25	11.237	-36.552	7.800	1.00	43.52	O
ATOM	166	N	ALA	A	26	12.408	-36.739	9.712	1.00	40.38	N
ATOM	167	CA	ALA	A	26	13.519	-35.941	9.221	1.00	49.26	C
ATOM	168	CB	ALA	A	26	14.656	-35.939	10.230	1.00	35.37	C
ATOM	169	C	ALA	A	26	13.994	-36.458	7.868	1.00	51.61	C
ATOM	170	O	ALA	A	26	14.094	-35.700	6.901	1.00	55.34	O
ATOM	171	N	GLU	A	27	14.265	-37.758	7.804	1.00	54.21	N
ATOM	172	CA	GLU	A	27	14.808	-38.375	6.599	1.00	46.54	C
ATOM	173	CB	GLU	A	27	15.147	-39.850	6.847	1.00	49.20	C
ATOM	174	CG	GLU	A	27	13.997	-40.680	7.400	1.00	53.03	C
ATOM	175	CD	GLU	A	27	14.363	-42.145	7.591	1.00	71.27	C
ATOM	176	OE1	GLU	A	27	15.562	-42.484	7.486	1.00	61.46	O
ATOM	177	OE2	GLU	A	27	13.450	-42.960	7.846	1.00	62.39	O
ATOM	178	C	GLU	A	27	13.900	-38.224	5.376	1.00	49.89	C
ATOM	179	O	GLU	A	27	14.384	-38.108	4.249	1.00	40.96	O
ATOM	180	N	GLU	A	28	12.589	-38.230	5.589	1.00	37.13	N
ATOM	181	CA	GLU	A	28	11.665	-38.016	4.483	1.00	28.63	C
ATOM	182	CB	GLU	A	28	10.235	-38.382	4.885	1.00	43.48	C
ATOM	183	CG	GLU	A	28	9.155	-37.948	3.889	1.00	40.84	C
ATOM	184	CD	GLU	A	28	9.263	-38.642	2.543	1.00	38.77	C
ATOM	185	OE1	GLU	A	28	10.184	-39.464	2.368	1.00	31.10	O
ATOM	186	OE2	GLU	A	28	8.425	-38.366	1.657	1.00	46.32	O
ATOM	187	C	GLU	A	28	11.739	-36.573	3.988	1.00	46.59	C
ATOM	188	O	GLU	A	28	11.759	-36.329	2.783	1.00	51.17	O
ATOM	189	N	ARG	A	29	11.789	-35.618	4.914	1.00	40.35	N
ATOM	190	CA	ARG	A	29	11.947	-34.218	4.539	1.00	36.98	C
ATOM	191	CB	ARG	A	29	12.064	-33.328	5.773	1.00	40.62	C
ATOM	192	CG	ARG	A	29	10.816	-33.255	6.620	1.00	68.20	C
ATOM	193	CD	ARG	A	29	10.941	-32.144	7.643	1.00	59.79	C
ATOM	194	NE	ARG	A	29	9.850	-32.164	8.610	1.00	65.36	N

	ATOM	195	CZ	ARG	A	29	9.937	-32.708	9.819	1.00	56.28	C
	ATOM	196	NH1	ARG	A	29	11.069	-33.278	10.210	1.00	55.15	N
	ATOM	197	NH2	ARG	A	29	8.895	-32.681	10.638	1.00	51.39	N
	ATOM	198	C	ARG	A	29	13.186	-34.035	3.672	1.00	46.33	C
	ATOM	199	O	ARG	A	29	13.133	-33.376	2.632	1.00	36.91	O
	ATOM	200	N	LEU	A	30	14.301	-34.612	4.112	1.00	41.98	N
	ATOM	201	CA	LEU	A	30	15.556	-34.524	3.373	1.00	39.60	C
	ATOM	202	CB	LEU	A	30	16.702	-35.166	4.163	1.00	43.98	C
	ATOM	203	CG	LEU	A	30	17.234	-34.440	5.401	1.00	46.18	C
	ATOM	204	CD1	LEU	A	30	18.359	-35.249	6.025	1.00	45.27	C
	ATOM	205	CD2	LEU	A	30	17.710	-33.039	5.055	1.00	31.22	C
	ATOM	206	C	LEU	A	30	15.452	-35.175	1.995	1.00	45.06	C
	ATOM	207	O	LEU	A	30	15.884	-34.602	0.996	1.00	35.31	O
	ATOM	208	N	ARG	A	31	14.881	-36.373	1.946	1.00	45.87	N
	ATOM	209	CA	ARG	A	31	14.720	-37.093	0.686	1.00	47.48	C
	ATOM	210	CB	ARG	A	31	13.937	-38.386	0.908	1.00	43.91	C
	ATOM	211	CG	ARG	A	31	13.634	-39.152	-0.361	1.00	44.73	C
	ATOM	212	CD	ARG	A	31	12.623	-40.257	0.111	1.00	48.47	C
	ATOM	213	NE	ARG	A	31	11.260	-39.742	-0.045	1.00	52.45	N
	ATOM	214	CZ	ARG	A	31	10.535	-39.432	-1.113	1.00	39.79	C
	ATOM	215	NH1	ARG	A	31	11.053	-39.582	-2.322	1.00	39.61	N
	ATOM	216	NH2	ARG	A	31	9.300	-38.967	-0.974	1.00	34.59	N
	ATOM	217	C	ARG	A	31	13.976	-36.228	-0.318	1.00	42.69	C
	ATOM	218	O	ARG	A	31	14.380	-36.099	-1.475	1.00	34.69	O
	ATOM	219	N	GLN	A	32	12.886	-35.630	0.146	1.00	39.96	N
	ATOM	220	CA	GLN	A	32	12.003	-34.860	-0.711	1.00	32.22	C
	ATOM	221	CB	GLN	A	32	10.663	-34.647	-0.008	1.00	42.95	C
	ATOM	222	CG	GLN	A	32	9.484	-34.639	-0.941	1.00	23.59	C
	ATOM	223	CD	GLN	A	32	8.172	-34.851	-0.230	1.00	29.92	C
	ATOM	224	OE1	GLN	A	32	8.075	-35.646	0.704	1.00	32.80	O
	ATOM	225	NE2	GLN	A	32	7.146	-34.140	-0.672	1.00	24.13	N
	ATOM	226	C	GLN	A	32	12.642	-33.527	-1.094	1.00	45.11	C
	ATOM	227	O	GLN	A	32	12.357	-32.966	-2.158	1.00	34.37	O
[0109]	ATOM	228	N	SER	A	33	13.500	-33.020	-0.217	1.00	42.20	N
	ATOM	229	CA	SER	A	33	14.276	-31.833	-0.525	1.00	35.80	C
	ATOM	230	CB	SER	A	33	14.993	-31.313	0.724	1.00	23.91	C
	ATOM	231	OG	SER	A	33	14.071	-30.858	1.698	1.00	29.05	O
	ATOM	232	C	SER	A	33	15.273	-32.104	-1.660	1.00	30.78	C
	ATOM	233	O	SER	A	33	15.472	-31.254	-2.531	1.00	35.87	O
	ATOM	234	N	ARG	A	34	15.892	-33.283	-1.650	1.00	32.69	N
	ATOM	235	CA	ARG	A	34	16.878	-33.637	-2.672	1.00	37.60	C
	ATOM	236	CB	ARG	A	34	17.590	-34.944	-2.326	1.00	37.33	C
	ATOM	237	CG	ARG	A	34	18.291	-34.959	-0.972	1.00	62.73	C
	ATOM	238	CD	ARG	A	34	18.699	-36.383	-0.590	1.00	68.62	C
	ATOM	239	NE	ARG	A	34	19.129	-36.490	0.804	1.00	78.54	N
	ATOM	240	CZ	ARG	A	34	19.300	-37.640	1.450	1.00	84.19	C
	ATOM	241	NH1	ARG	A	34	19.074	-38.790	0.831	1.00	69.06	N
	ATOM	242	NH2	ARG	A	34	19.692	-37.639	2.718	1.00	77.94	N
	ATOM	243	C	ARG	A	34	16.218	-33.764	-4.042	1.00	33.08	C
	ATOM	244	O	ARG	A	34	16.810	-33.428	-5.062	1.00	35.51	O
	ATOM	245	N	VAL	A	35	14.988	-34.258	-4.060	1.00	32.46	N
	ATOM	246	CA	VAL	A	35	14.225	-34.347	-5.296	1.00	32.87	C
	ATOM	247	CB	VAL	A	35	12.882	-35.075	-5.064	1.00	33.07	C
	ATOM	248	CG1	VAL	A	35	11.960	-34.922	-6.262	1.00	36.03	C
	ATOM	249	CG2	VAL	A	35	13.129	-36.544	-4.764	1.00	44.90	C
	ATOM	250	C	VAL	A	35	13.980	-32.946	-5.865	1.00	35.09	C
	ATOM	251	O	VAL	A	35	14.256	-32.681	-7.034	1.00	40.70	O
	ATOM	252	N	LEU	A	36	13.479	-32.045	-5.025	1.00	42.45	N
	ATOM	253	CA	LEU	A	36	13.157	-30.687	-5.459	1.00	27.33	C
	ATOM	254	CB	LEU	A	36	12.330	-29.952	-4.398	1.00	29.03	C
	ATOM	255	CG	LEU	A	36	10.813	-30.124	-4.527	1.00	31.46	C
	ATOM	256	CD1	LEU	A	36	10.393	-31.541	-4.179	1.00	56.80	C
	ATOM	257	CD2	LEU	A	36	10.079	-29.118	-3.663	1.00	38.36	C
	ATOM	258	C	LEU	A	36	14.389	-29.869	-5.857	1.00	33.25	C
	ATOM	259	O	LEU	A	36	14.347	-29.117	-6.831	1.00	37.65	O
	ATOM	260	N	SER	A	37	15.477	-30.018	-5.106	1.00	29.31	N
	ATOM	261	CA	SER	A	37	16.735	-29.369	-5.454	1.00	29.41	C
	ATOM	262	CB	SER	A	37	17.852	-29.794	-4.501	1.00	27.98	C

[0110]

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ATOM    263  OG  SER A  37      17.456 -29.622  -3.157  1.00 46.10           O
ATOM    264  C   SER A  37      17.127 -29.695  -6.892  1.00 36.68           C
ATOM    265  O   SER A  37      17.569 -28.819  -7.636  1.00 37.53           O
ATOM    266  N   GLN A  38      16.959 -30.959  -7.272  1.00 36.59           N
ATOM    267  CA  GLN A  38      17.323 -31.416  -8.607  1.00 35.17           C
ATOM    268  CB  GLN A  38      17.349 -32.943  -8.670  1.00 47.90           C
ATOM    269  CG  GLN A  38      18.444  33.579   7.830  1.00 50.16           C
ATOM    270  CD  GLN A  38      19.835 -33.145  -8.250  1.00 66.31           C
ATOM    271  OE1 GLN A  38      20.122 -32.993  -9.440  1.00 85.33           O
ATOM    272  NE2 GLN A  38      20.712 -32.946  -7.271  1.00 63.78           N
ATOM    273  C   GLN A  38      16.363 -30.867  -9.655  1.00 24.67           C
ATOM    274  O   GLN A  38      16.778 -30.487 -10.745  1.00 31.89           O
ATOM    275  N   LYS A  39      15.077 -30.836  -9.326  1.00 29.78           N
ATOM    276  CA  LYS A  39      14.096 -30.232 -10.211  1.00 32.83           C
ATOM    277  CB  LYS A  39      12.681 -30.386  -9.643  1.00 34.02           C
ATOM    278  CG  LYS A  39      12.175 -31.821  -9.604  1.00 37.32           C
ATOM    279  CD  LYS A  39      10.922 -31.949  -8.745  1.00 49.17           C
ATOM    280  CE  LYS A  39       9.665 -31.529  -9.494  1.00 43.42           C
ATOM    281  NZ  LYS A  39       9.094 -32.644 -10.301  1.00 60.63           N
ATOM    282  C   LYS A  39      14.441 -28.761 -10.409  1.00 43.80           C
ATOM    283  O   LYS A  39      14.364 -28.247 -11.524  1.00 37.92           O
ATOM    284  N   VAL A  40      14.828 -28.092  -9.324  1.00 32.94           N
ATOM    285  CA  VAL A  40      15.211 -26.686  -9.388  1.00 24.86           C
ATOM    286  CB  VAL A  40      15.485 -26.099  -7.983  1.00 34.22           C
ATOM    287  CG1 VAL A  40      16.115 -24.704  -8.085  1.00 14.67           C
ATOM    288  CG2 VAL A  40      14.209 -26.045  -7.167  1.00 25.45           C
ATOM    289  C   VAL A  40      16.448 -26.475 -10.258  1.00 32.22           C
ATOM    290  O   VAL A  40      16.454 -25.624 -11.151  1.00 31.98           O
ATOM    291  N   ILE A  41      17.499 -27.245  -9.990  1.00 32.42           N
ATOM    292  CA  ILE A  41      18.752 -27.078 -10.711  1.00 25.96           C
ATOM    293  CB  ILE A  41      19.849 -28.027 -10.191  1.00 29.58           C
ATOM    294  CG1 ILE A  41      20.125 -27.770  -8.710  1.00 29.94           C
ATOM    295  CD1 ILE A  41      20.191 -26.322  -8.360  1.00 47.35           C
ATOM    296  CG2 ILE A  41      21.130 -27.867 -11.012  1.00 27.25           C
ATOM    297  C   ILE A  41      18.572 -27.282 -12.216  1.00 24.79           C
ATOM    298  O   ILE A  41      19.279 -26.669 -13.020  1.00 24.75           O
ATOM    299  N   ALA A  42      17.628 -28.138 -12.595  1.00 28.32           N
ATOM    300  CA  ALA A  42      17.387 -28.431 -14.003  1.00 37.55           C
ATOM    301  CB  ALA A  42      16.982 -29.890 -14.171  1.00 27.17           C
ATOM    302  C   ALA A  42      16.312 -27.519 -14.573  1.00 30.78           C
ATOM    303  O   ALA A  42      15.894 -27.678 -15.723  1.00 28.59           O
ATOM    304  N   HIS A  43      15.880 -26.553 -13.768  1.00 29.30           N
ATOM    305  CA  HIS A  43      14.768 -25.685 -14.144  1.00 28.43           C
ATOM    306  CB  HIS A  43      14.006 -25.244 -12.896  1.00 26.86           C
ATOM    307  CG  HIS A  43      12.667 -24.651  13.186  1.00 27.71           C
ATOM    308  ND1 HIS A  43      12.501 -23.325 -13.521  1.00 36.86           N
ATOM    309  CE1 HIS A  43      11.218 -23.083 -13.718  1.00 42.30           C
ATOM    310  NE2 HIS A  43      10.547 -24.203 -13.522  1.00 38.28           N
ATOM    311  CD2 HIS A  43      11.431 -25.199 -13.185  1.00 34.70           C
ATOM    312  C   HIS A  43      15.215 -24.470 -14.976  1.00 35.72           C
ATOM    313  O   HIS A  43      16.203 -23.802 -14.645  1.00 28.77           O
ATOM    314  N   SER A  44      14.470 -24.198 -16.047  1.00 22.77           N
ATOM    315  CA  SER A  44      14.807 -23.156 -17.014  1.00 21.39           C
ATOM    316  CB  SER A  44      13.749 -23.095 -18.119  1.00 32.26           C
ATOM    317  OG  SER A  44      13.490 -24.380 -18.650  1.00 83.13           O
ATOM    318  C   SER A  44      14.959 -21.774 -16.391  1.00 27.47           C
ATOM    319  O   SER A  44      15.992 -21.128 -16.551  1.00 24.06           O
ATOM    320  N   GLU A  45      13.921 -21.316 -15.703  1.00 25.64           N
ATOM    321  CA  GLU A  45      13.935 -19.987 -15.114  1.00 23.00           C
ATOM    322  CB  GLU A  45      12.577 -19.652 -14.499  1.00 30.31           C
ATOM    323  CG  GLU A  45      11.431 -19.681 -15.507  1.00 43.44           C
ATOM    324  CD  GLU A  45      11.607 -18.658 -16.625  1.00 61.60           C
ATOM    325  OE1 GLU A  45      12.218 -17.592 -16.378  1.00 47.71           O
ATOM    326  OE2 GLU A  45      11.123 -18.915 -17.748  1.00 51.69           O
ATOM    327  C   GLU A  45      15.032 -19.875 -14.069  1.00 27.20           C
ATOM    328  O   GLU A  45      15.597 -18.808 -13.870  1.00 30.01           O
ATOM    329  N   TYR A  46      15.348 -20.979 -13.405  1.00 21.73           N
ATOM    330  CA  TYR A  46      16.447 -20.963 -12.452  1.00 24.18           C
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	ATOM	331	CB	TYR	A	46	16.426	-22.198	-11.543	1.00	14.51	C
	ATOM	332	CG	TYR	A	46	17.680	-22.299	-10.713	1.00	26.34	C
	ATOM	333	CD1	TYR	A	46	17.854	-21.500	-9.588	1.00	14.70	C
	ATOM	334	CE1	TYR	A	46	19.001	-21.566	-8.840	1.00	12.71	C
	ATOM	335	CZ	TYR	A	46	20.008	-22.437	-9.208	1.00	33.14	C
	ATOM	336	OH	TYR	A	46	21.161	-22.510	-8.464	1.00	31.46	O
	ATOM	337	CE2	TYR	A	46	19.866	-23.241	-10.325	1.00	25.64	C
	ATOM	338	CD2	TYR	A	46	18.708	-23.163	-11.072	1.00	17.68	C
	ATOM	339	C	TYR	A	46	17.805	-20.838	-13.155	1.00	26.85	C
	ATOM	340	O	TYR	A	46	18.656	-20.047	-12.749	1.00	36.88	O
	ATOM	341	N	GLN	A	47	18.008	-21.615	-14.213	1.00	25.63	N
	ATOM	342	CA	GLN	A	47	19.270	-21.565	-14.946	1.00	22.30	C
	ATOM	343	CB	GLN	A	47	19.327	-22.674	-15.998	1.00	26.79	C
	ATOM	344	CG	GLN	A	47	19.180	-24.093	-15.444	1.00	23.71	C
	ATOM	345	CD	GLN	A	47	19.472	-25.163	-16.495	1.00	54.26	C
	ATOM	346	OE1	GLN	A	47	19.889	-24.855	-17.616	1.00	39.80	O
	ATOM	347	NE2	GLN	A	47	19.261	-26.425	-16.131	1.00	34.80	N
	ATOM	348	C	GLN	A	47	19.511	-20.204	-15.606	1.00	28.36	C
	ATOM	349	O	GLN	A	47	20.657	-19.779	-15.766	1.00	25.17	O
	ATOM	350	N	LYS	A	48	18.432	-19.522	-15.976	1.00	23.88	N
	ATOM	351	CA	LYS	A	48	18.532	-18.236	-16.665	1.00	23.78	C
	ATOM	352	CB	LYS	A	48	17.326	-18.027	-17.585	1.00	33.63	C
	ATOM	353	CG	LYS	A	48	17.230	-19.000	-18.765	1.00	33.52	C
	ATOM	354	CD	LYS	A	48	15.936	-18.764	-19.549	1.00	40.52	C
	ATOM	355	CE	LYS	A	48	15.794	-19.715	-20.741	1.00	43.51	C
	ATOM	356	NZ	LYS	A	48	16.669	-19.330	21.881	1.00	45.67	N
	ATOM	357	C	LYS	A	48	18.649	-17.045	-15.715	1.00	25.39	C
	ATOM	358	O	LYS	A	48	19.192	-16.011	-16.081	1.00	30.46	O
	ATOM	359	N	SER	A	49	18.135	-17.200	-14.498	1.00	26.77	N
	ATOM	360	CA	SER	A	49	18.056	-16.107	-13.521	1.00	32.22	C
	ATOM	361	CB	SER	A	49	17.141	-16.495	-12.357	1.00	27.74	C
	ATOM	362	OG	SER	A	49	17.849	-17.290	-11.420	1.00	44.21	O
	ATOM	363	C	SER	A	49	19.414	-15.694	-12.954	1.00	36.24	C
[0111]	ATOM	364	O	SER	A	49	20.177	-16.528	-12.466	1.00	27.52	O
	ATOM	365	N	LYS	A	50	19.691	-14.394	-12.997	1.00	43.26	N
	ATOM	366	CA	LYS	A	50	20.953	-13.845	-12.505	1.00	37.10	C
	ATOM	367	CB	LYS	A	50	21.398	-12.680	-13.399	1.00	36.75	C
	ATOM	368	CG	LYS	A	50	21.429	-13.051	-14.889	1.00	55.97	C
	ATOM	369	CD	LYS	A	50	21.209	-11.845	-15.801	1.00	74.87	C
	ATOM	370	CE	LYS	A	50	21.437	-12.209	-17.271	1.00	64.34	C
	ATOM	371	NZ	LYS	A	50	20.675	-13.422	-17.688	1.00	44.05	N
	ATOM	372	C	LYS	A	50	20.836	-13.399	-11.050	1.00	25.41	C
	ATOM	373	O	LYS	A	50	21.691	-13.718	-10.221	1.00	26.09	O
	ATOM	374	N	ARG	A	51	19.764	-12.673	-10.743	1.00	30.39	N
	ATOM	375	CA	ARG	A	51	19.529	-12.155	-9.393	1.00	21.23	C
	ATOM	376	CB	ARG	A	51	19.230	-10.656	-9.451	1.00	20.04	C
	ATOM	377	CG	ARG	A	51	20.292	-9.875	-10.233	1.00	30.62	C
	ATOM	378	CD	ARG	A	51	19.902	-8.421	-10.462	1.00	19.20	C
	ATOM	379	NE	ARG	A	51	19.450	-7.785	-9.227	1.00	28.77	N
	ATOM	380	CZ	ARG	A	51	20.261	-7.278	-8.306	1.00	28.96	C
	ATOM	381	NH1	ARG	A	51	21.574	-7.324	-8.484	1.00	27.77	N
	ATOM	382	NH2	ARG	A	51	19.757	-6.729	-7.209	1.00	23.87	N
	ATOM	383	C	ARG	A	51	18.404	-12.918	-8.703	1.00	20.02	C
	ATOM	384	O	ARG	A	51	17.256	-12.897	-9.154	1.00	18.34	O
	ATOM	385	N	ILE	A	52	18.743	-13.597	-7.611	1.00	17.16	N
	ATOM	386	CA	ILE	A	52	17.837	-14.563	-7.001	1.00	16.03	C
	ATOM	387	CB	ILE	A	52	18.392	-15.990	-7.173	1.00	38.42	C
	ATOM	388	CG1	ILE	A	52	17.271	-17.022	-7.117	1.00	41.08	C
	ATOM	389	CD1	ILE	A	52	17.585	-18.279	-7.894	1.00	58.48	C
	ATOM	390	CG2	ILE	A	52	19.451	-16.293	-6.121	1.00	34.97	C
	ATOM	391	C	ILE	A	52	17.547	-14.332	-5.518	1.00	23.10	C
	ATOM	392	O	ILE	A	52	18.449	-14.048	-4.724	1.00	22.53	O
	ATOM	393	N	SER	A	53	16.274	-14.458	-5.150	1.00	22.24	N
	ATOM	394	CA	SER	A	53	15.880	-14.468	-3.744	1.00	19.21	C
	ATOM	395	CB	SER	A	53	14.722	-13.503	-3.484	1.00	32.24	C
	ATOM	396	OG	SER	A	53	14.079	-13.821	-2.257	1.00	24.12	O
	ATOM	397	C	SER	A	53	15.484	-15.876	-3.308	1.00	15.17	C
	ATOM	398	O	SER	A	53	14.649	-16.518	-3.943	1.00	13.96	O

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ATOM	399	N	ILE	A	54	16.100	-16.353	-2.230	1.00	26.11	N
ATOM	400	CA	ILE	A	54	15.805	-17.677	-1.693	1.00	18.96	C
ATOM	401	CB	ILE	A	54	16.864	-18.706	-2.122	1.00	18.86	C
ATOM	402	CG1	ILE	A	54	16.387	-20.127	-1.814	1.00	20.63	C
ATOM	403	CD1	ILE	A	54	17.226	-21.197	-2.458	1.00	16.66	C
ATOM	404	CG2	ILE	A	54	18.202	-18.411	-1.452	1.00	13.18	C
ATOM	405	C	ILE	A	54	15.731	-17.617	-0.169	1.00	21.15	C
ATOM	406	O	ILE	A	54	16.417	-16.807	0.458	1.00	22.03	O
ATOM	407	N	PHE	A	55	14.896	-18.469	0.422	1.00	17.74	N
ATOM	408	CA	PHE	A	55	14.693	-18.462	1.868	1.00	17.67	C
ATOM	409	CB	PHE	A	55	13.214	-18.677	2.204	1.00	19.27	C
ATOM	410	CG	PHE	A	55	12.633	-19.935	1.618	1.00	22.78	C
ATOM	411	CD1	PHE	A	55	12.577	-21.101	2.366	1.00	19.32	C
ATOM	412	CE1	PHE	A	55	12.042	-22.265	1.827	1.00	25.69	C
ATOM	413	CZ	PHE	A	55	11.554	-22.268	0.535	1.00	21.35	C
ATOM	414	CE2	PHE	A	55	11.599	-21.114	-0.219	1.00	19.63	C
ATOM	415	CD2	PHE	A	55	12.137	-19.953	0.322	1.00	16.69	C
ATOM	416	C	PHE	A	55	15.535	-19.496	2.602	1.00	17.75	C
ATOM	417	O	PHE	A	55	15.901	-20.540	2.046	1.00	15.55	O
ATOM	418	N	LEU	A	56	15.834	-19.190	3.860	1.00	19.55	N
ATOM	419	CA	LEU	A	56	16.490	-20.135	4.749	1.00	27.28	C
ATOM	420	CB	LEU	A	56	17.367	-19.391	5.753	1.00	25.61	C
ATOM	421	CG	LEU	A	56	18.369	-18.419	5.108	1.00	29.47	C
ATOM	422	CD1	LEU	A	56	19.255	-17.759	6.134	1.00	14.91	C
ATOM	423	CD2	LEU	A	56	19.222	-19.119	4.047	1.00	24.48	C
ATOM	424	C	LEU	A	56	15.423	-20.988	5.438	1.00	24.22	C
ATOM	425	O	LEU	A	56	14.507	-20.459	6.068	1.00	27.87	O
ATOM	426	N	SER	A	57	15.553	-22.307	5.305	1.00	29.99	N
ATOM	427	CA	SER	A	57	14.474	-23.250	5.619	1.00	31.54	C
ATOM	428	CB	SER	A	57	14.769	-24.621	5.001	1.00	24.18	C
ATOM	429	OG	SER	A	57	14.861	-24.531	3.598	1.00	36.38	O
ATOM	430	C	SER	A	57	14.207	-23.455	7.099	1.00	32.52	C
ATOM	431	O	SER	A	57	15.136	-23.588	7.899	1.00	35.13	O
ATOM	432	N	MET	A	58	12.926	-23.498	7.451	1.00	30.95	N
ATOM	433	CA	MET	A	58	12.512	-23.992	8.757	1.00	44.90	C
ATOM	434	CB	MET	A	58	11.216	-23.325	9.203	1.00	37.03	C
ATOM	435	CG	MET	A	58	11.350	-21.823	9.326	1.00	47.96	C
ATOM	436	SD	MET	A	58	9.897	-21.037	10.014	1.00	48.23	S
ATOM	437	CE	MET	A	58	10.302	-19.309	9.751	1.00	65.80	C
ATOM	438	C	MET	A	58	12.333	-25.501	8.664	1.00	49.20	C
ATOM	439	O	MET	A	58	12.445	-26.077	7.579	1.00	48.80	O
ATOM	440	N	GLN	A	59	12.055	-26.141	9.795	1.00	56.04	N
ATOM	441	CA	GLN	A	59	11.984	-27.601	9.841	1.00	52.18	C
ATOM	442	CB	GLN	A	59	12.116	-28.102	11.281	1.00	59.03	C
ATOM	443	CG	GLN	A	59	13.522	-27.972	11.831	1.00	56.39	C
ATOM	444	CD	GLN	A	59	14.565	-28.557	10.891	1.00	65.55	C
ATOM	445	OE1	GLN	A	59	14.326	-29.575	10.237	1.00	63.90	O
ATOM	446	NE2	GLN	A	59	15.730	-27.919	10.824	1.00	60.07	N
ATOM	447	C	GLN	A	59	10.735	-28.178	9.165	1.00	46.87	C
ATOM	448	O	GLN	A	59	10.701	-29.352	8.801	1.00	48.58	O
ATOM	449	N	ASP	A	60	9.715	-27.348	8.988	1.00	52.84	N
ATOM	450	CA	ASP	A	60	8.505	-27.783	8.299	1.00	56.22	C
ATOM	451	CB	ASP	A	60	7.250	-27.270	9.017	1.00	49.01	C
ATOM	452	CG	ASP	A	60	7.261	-25.767	9.221	1.00	41.32	C
ATOM	453	OD1	ASP	A	60	8.290	-25.126	8.920	1.00	57.49	O
ATOM	454	OD2	ASP	A	60	6.237	-25.223	9.688	1.00	67.62	O
ATOM	455	C	ASP	A	60	8.510	-27.330	6.844	1.00	36.22	C
ATOM	456	O	ASP	A	60	7.464	-27.278	6.201	1.00	44.13	O
ATOM	457	N	GLU	A	61	9.698	-27.003	6.339	1.00	47.47	N
ATOM	458	CA	GLU	A	61	9.870	-26.506	4.975	1.00	47.37	C
ATOM	459	CB	GLU	A	61	10.314	-25.039	4.984	1.00	36.50	C
ATOM	460	CG	GLU	A	61	9.218	-24.015	5.186	1.00	41.57	C
ATOM	461	CD	GLU	A	61	9.776	-22.611	5.266	1.00	38.88	C
ATOM	462	OE1	GLU	A	61	11.003	-22.481	5.445	1.00	39.00	O
ATOM	463	OE2	GLU	A	61	8.997	-21.641	5.151	1.00	55.52	O
ATOM	464	C	GLU	A	61	10.920	-27.306	4.217	1.00	33.50	C
ATOM	465	O	GLU	A	61	11.872	-27.828	4.808	1.00	34.71	O
ATOM	466	N	ILE	A	62	10.748	-27.380	2.902	1.00	38.54	N

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ATOM	467	CA	ILE	A	62	11.778	-27.904	2.019	1.00	33.22	C
ATOM	468	CB	ILE	A	62	11.450	-27.590	0.550	1.00	29.83	C
ATOM	469	CG1	ILE	A	62	10.349	-28.526	0.048	1.00	27.75	C
ATOM	470	CD1	ILE	A	62	10.846	-29.922	-0.300	1.00	27.21	C
ATOM	471	CG2	ILE	A	62	12.705	-27.725	-0.313	1.00	30.04	C
ATOM	472	C	ILE	A	62	13.119	-27.270	2.372	1.00	34.72	C
ATOM	473	O	ILE	A	62	13.208	-26.054	2.530	1.00	28.82	O
ATOM	474	N	GLU	A	63	14.155	-28.093	2.511	1.00	26.61	N
ATOM	475	CA	GLU	A	63	15.497	-27.592	2.802	1.00	31.05	C
ATOM	476	CB	GLU	A	63	16.359	-28.697	3.415	1.00	23.31	C
ATOM	477	CG	GLU	A	63	17.804	-28.295	3.675	1.00	31.43	C
ATOM	478	CD	GLU	A	63	17.923	-27.141	4.647	1.00	44.82	C
ATOM	479	OE1	GLU	A	63	17.572	-27.319	5.835	1.00	36.76	O
ATOM	480	OE2	GLU	A	63	18.375	-26.057	4.221	1.00	38.70	O
ATOM	481	C	GLU	A	63	16.167	-27.045	1.540	1.00	27.26	C
ATOM	482	O	GLU	A	63	16.280	-27.743	0.537	1.00	30.44	O
ATOM	483	N	THR	A	64	16.615	-25.796	1.604	1.00	26.62	N
ATOM	484	CA	THR	A	64	17.166	-25.113	0.435	1.00	22.92	C
ATOM	485	CB	THR	A	64	16.646	-23.665	0.345	1.00	22.76	C
ATOM	486	OG1	THR	A	64	16.942	-22.969	1.569	1.00	18.66	O
ATOM	487	CG2	THR	A	64	15.141	-23.662	0.094	1.00	19.32	C
ATOM	488	C	THR	A	64	18.691	-25.079	0.388	1.00	21.51	C
ATOM	489	O	THR	A	64	19.266	-24.506	-0.536	1.00	26.42	O
ATOM	490	N	GLU	A	65	19.337	-25.702	1.373	1.00	23.98	N
ATOM	491	CA	GLU	A	65	20.796	-25.695	1.466	1.00	23.73	C
ATOM	492	CB	GLU	A	65	21.282	-26.631	2.577	1.00	39.12	C
ATOM	493	CG	GLU	A	65	22.792	-26.862	2.544	1.00	39.96	C
ATOM	494	CD	GLU	A	65	23.306	-27.653	3.732	1.00	72.42	C
ATOM	495	OE1	GLU	A	65	22.825	-27.418	4.861	1.00	76.12	O
ATOM	496	OE2	GLU	A	65	24.205	-28.500	3.536	1.00	80.85	O
ATOM	497	C	GLU	A	65	21.500	-26.063	0.157	1.00	31.88	C
ATOM	498	O	GLU	A	65	22.430	-25.378	-0.269	1.00	33.98	O
ATOM	499	N	GLU	A	66	21.062	-27.148	-0.471	1.00	27.62	N
ATOM	500	CA	GLU	A	66	21.707	-27.619	-1.689	1.00	40.04	C
ATOM	501	CB	GLU	A	66	21.172	-28.995	-2.114	1.00	44.42	C
ATOM	502	CG	GLU	A	66	21.899	-29.596	-3.322	1.00	63.21	C
ATOM	503	CD	GLU	A	66	21.400	-30.984	-3.699	1.00	72.93	C
ATOM	504	OE1	GLU	A	66	20.836	-31.683	-2.828	1.00	54.36	O
ATOM	505	OE2	GLU	A	66	21.578	-31.377	-4.874	1.00	71.60	O
ATOM	506	C	GLU	A	66	21.550	-26.596	-2.810	1.00	34.01	C
ATOM	507	O	GLU	A	66	22.495	-26.332	-3.556	1.00	36.42	O
ATOM	508	N	ILE	A	67	20.360	-26.013	-2.914	1.00	30.70	N
ATOM	509	CA	ILE	A	67	20.109	-24.975	-3.909	1.00	29.69	C
ATOM	510	CB	ILE	A	67	18.630	-24.532	-3.903	1.00	36.65	C
ATOM	511	CG1	ILE	A	67	17.718	-25.717	-4.227	1.00	28.65	C
ATOM	512	CD1	ILE	A	67	16.258	-25.456	-3.956	1.00	25.49	C
ATOM	513	CG2	ILE	A	67	18.406	-23.391	-4.891	1.00	26.10	C
ATOM	514	C	ILE	A	67	21.019	-23.768	-3.669	1.00	28.88	C
ATOM	515	O	ILE	A	67	21.612	-23.226	-4.603	1.00	20.04	O
ATOM	516	N	ILE	A	68	21.141	-23.358	-2.410	1.00	33.08	N
ATOM	517	CA	ILE	A	68	21.983	-22.216	-2.065	1.00	25.58	C
ATOM	518	CB	ILE	A	68	21.917	-21.888	-0.560	1.00	26.15	C
ATOM	519	CG1	ILE	A	68	20.505	-21.442	-0.176	1.00	22.27	C
ATOM	520	CD1	ILE	A	68	20.336	-21.167	1.306	1.00	18.19	C
ATOM	521	CG2	ILE	A	68	22.929	-20.804	-0.202	1.00	20.30	C
ATOM	522	C	ILE	A	68	23.434	-22.437	-2.483	1.00	24.94	C
ATOM	523	O	ILE	A	68	24.091	-21.522	-2.983	1.00	32.43	O
ATOM	524	N	LYS	A	69	23.932	-23.651	-2.278	1.00	22.04	N
ATOM	525	CA	LYS	A	69	25.277	-23.993	-2.716	1.00	27.44	C
ATOM	526	CB	LYS	A	69	25.651	-25.407	-2.281	1.00	39.11	C
ATOM	527	CG	LYS	A	69	25.881	-25.551	-0.793	1.00	46.15	C
ATOM	528	CD	LYS	A	69	26.240	-26.984	-0.456	1.00	70.71	C
ATOM	529	CE	LYS	A	69	26.464	-27.173	1.032	1.00	60.62	C
ATOM	530	NZ	LYS	A	69	26.631	28.619	1.352	1.00	47.11	N
ATOM	531	C	LYS	A	69	25.406	-23.870	-4.226	1.00	27.30	C
ATOM	532	O	LYS	A	69	26.398	-23.339	-4.722	1.00	31.73	O
ATOM	533	N	ASP	A	70	24.403	-24.367	-4.950	1.00	29.51	N
ATOM	534	CA	ASP	A	70	24.404	-24.304	-6.408	1.00	31.89	C

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ATOM    535  CB  ASP A  70      23.211 -25.063  -6.996  1.00 29.96           C
ATOM    536  CG  ASP A  70      23.391 -25.379  -8.473  1.00 29.93           C
ATOM    537  OD1 ASP A  70      24.141 -26.326  -8.797  1.00 43.01           O
ATOM    538  OD2 ASP A  70      22.772 -24.690  -9.307  1.00 31.04           O
ATOM    539  C   ASP A  70      24.375 -22.864  -6.891  1.00 29.87           C
ATOM    540  O   ASP A  70      25.051 -22.518  -7.855  1.00 31.26           O
ATOM    541  N   ILE A  71      23.578 -22.031  -6.224  1.00 32.71           N
ATOM    542  CA  ILE A  71      23.421 -20.636  -6.621  1.00 20.89           C
ATOM    543  CB  ILE A  71      22.517 -19.864  -5.624  1.00 30.12           C
ATOM    544  CG1 ILE A  71      21.045 -20.176  -5.898  1.00 29.89           C
ATOM    545  CD1 ILE A  71      20.093 -19.645  -4.843  1.00 16.37           C
ATOM    546  CG2 ILE A  71      22.756 -18.357  -5.715  1.00 19.01           C
ATOM    547  C   ILE A  71      24.771 -19.935  -6.760  1.00 26.45           C
ATOM    548  O   ILE A  71      25.012 -19.211  -7.730  1.00 31.39           O
ATOM    549  N   PHE A  72      25.653 -20.169  -5.794  1.00 27.64           N
ATOM    550  CA  PHE A  72      26.951 -19.505  -5.758  1.00 29.86           C
ATOM    551  CB  PHE A  72      27.522 -19.530  -4.339  1.00 32.08           C
ATOM    552  CG  PHE A  72      26.843 -18.575  -3.400  1.00 42.39           C
ATOM    553  CD1 PHE A  72      27.033 -17.208  -3.526  1.00 29.49           C
ATOM    554  CE1 PHE A  72      26.412 -16.327  -2.670  1.00 25.70           C
ATOM    555  CZ  PHE A  72      25.591 -16.802  -1.679  1.00 22.78           C
ATOM    556  CE2 PHE A  72      25.387 -18.159  -1.542  1.00 26.43           C
ATOM    557  CD2 PHE A  72      26.010 -19.040  -2.401  1.00 20.86           C
ATOM    558  C   PHE A  72      27.952 -20.091  -6.754  1.00 38.31           C
ATOM    559  O   PHE A  72      28.850 -19.389  -7.231  1.00 40.72           O
ATOM    560  N   GLN A  73      27.792 -21.372   -7.065  1.00 36.02           N
ATOM    561  CA  GLN A  73      28.633 -22.022  -8.061  1.00 38.31           C
ATOM    562  CB  GLN A  73      28.401 -23.529  -8.061  1.00 35.14           C
ATOM    563  CG  GLN A  73      28.816 -24.209  -6.768  1.00 39.63           C
ATOM    564  CD  GLN A  73      28.596 -25.702  -6.806  1.00 45.79           C
ATOM    565  OE1 GLN A  73      28.312 -26.272  -7.861  1.00 70.15           O
ATOM    566  NE2 GLN A  73      28.723 -26.348  -5.653  1.00 45.02           N
ATOM    567  C   GLN A  73      28.343 -21.467  -9.437  1.00 38.59           C
ATOM    568  O   GLN A  73      29.253 -21.314 -10.255  1.00 39.65           O
ATOM    569  N   ARG A  74      27.069 -21.174  -9.682  1.00 33.21           N
ATOM    570  CA  ARG A  74      26.627 -20.626 -10.954  1.00 26.75           C
ATOM    571  CB  ARG A  74      25.159 -20.982 -11.204  1.00 25.62           C
ATOM    572  CG  ARG A  74      24.884 -22.460 -11.486  1.00 25.11           C
ATOM    573  CD  ARG A  74      23.461 -22.632 -12.010  1.00 32.84           C
ATOM    574  NE  ARG A  74      23.061 -24.025 -12.214  1.00 45.06           N
ATOM    575  CZ  ARG A  74      22.561 -24.512 -13.351  1.00 65.79           C
ATOM    576  NH1 ARG A  74      22.388 -23.727 -14.409  1.00 41.22           N
ATOM    577  NH2 ARG A  74      22.224 -25.792 -13.426  1.00 67.05           N
ATOM    578  C   ARG A  74      26.821 -19.107 -10.986  1.00 29.48           C
ATOM    579  O   ARG A  74      26.398 -18.434 -11.934  1.00 27.95           O
ATOM    580  N   GLY A  75      27.462 -18.582  -9.941  1.00 32.34           N
ATOM    581  CA  GLY A  75      27.777 -17.166  -9.838  1.00 21.49           C
ATOM    582  C   GLY A  75      26.571 -16.241  -9.885  1.00 35.21           C
ATOM    583  O   GLY A  75      26.639 -15.173 -10.502  1.00 34.32           O
ATOM    584  N   LYS A  76      25.468 -16.640  -9.246  1.00 29.84           N
ATOM    585  CA  LYS A  76      24.267 -15.800  -9.210  1.00 34.53           C
ATOM    586  CB  LYS A  76      22.995 -16.650  -9.162  1.00 30.00           C
ATOM    587  CG  LYS A  76      22.895 -17.700 -10.254  1.00 26.79           C
ATOM    588  CD  LYS A  76      21.615 -18.501 -10.100  1.00 27.26           C
ATOM    589  CE  LYS A  76      21.473 -19.540 -11.206  1.00 24.02           C
ATOM    590  NZ  LYS A  76      21.431 -18.914 -12.554  1.00 25.77           N
ATOM    591  C   LYS A  76      24.304 -14.887  -7.998  1.00 31.13           C
ATOM    592  O   LYS A  76      24.960 -15.201  -7.006  1.00 27.40           O
ATOM    593  N   ILE A  77      23.595 -13.764  -8.070  1.00 30.68           N
ATOM    594  CA  ILE A  77      23.508 -12.862  -6.921  1.00 27.09           C
ATOM    595  CB  ILE A  77      23.210 -11.404  -7.347  1.00 30.30           C
ATOM    596  CG1 ILE A  77      23.942 -11.080  -8.649  1.00 37.46           C
ATOM    597  CD1 ILE A  77      25.448 -11.364  -8.604  1.00 26.76           C
ATOM    598  CG2 ILE A  77      23.625 -10.401  -6.254  1.00 19.17           C
ATOM    599  C   ILE A  77      22.449 -13.386  -5.948  1.00 18.72           C
ATOM    600  O   ILE A  77      21.294 -13.569  -6.322  1.00 24.43           O
ATOM    601  N   CYS A  78      22.851 -13.642  -4.706  1.00 24.65           N
ATOM    602  CA  CYS A  78      21.969 -14.287  -3.732  1.00 26.20           C
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[0115]

ATOM	603	CB	CYS	A	78	22.682	-15.467	-3.060	1.00	19.07	C
ATOM	604	SG	CYS	A	78	21.588	-16.608	-2.145	1.00	24.47	S
ATOM	605	C	CYS	A	78	21.433	-13.333	-2.661	1.00	32.12	C
ATOM	606	O	CYS	A	78	22.198	-12.664	-1.965	1.00	23.23	O
ATOM	607	N	PHE	A	79	20.112	-13.296	-2.522	1.00	21.22	N
ATOM	608	CA	PHE	A	79	19.459	-12.460	-1.520	1.00	19.86	C
ATOM	609	CB	PHE	A	79	18.583	-11.395	-2.186	1.00	27.17	C
ATOM	610	CG	PHE	A	79	19.351	-10.411	-3.033	1.00	19.57	C
ATOM	611	CD1	PHE	A	79	19.768	-9.193	-2.509	1.00	19.90	C
ATOM	612	CE1	PHE	A	79	20.478	-8.287	-3.286	1.00	19.09	C
ATOM	613	CZ	PHE	A	79	20.772	-8.591	-4.599	1.00	20.67	C
ATOM	614	CE2	PHE	A	79	20.359	-9.802	-5.132	1.00	27.19	C
ATOM	615	CD2	PHE	A	79	19.652	-10.703	-4.350	1.00	17.60	C
ATOM	616	C	PHE	A	79	18.586	-13.313	-0.610	1.00	14.77	C
ATOM	617	O	PHE	A	79	17.933	-14.245	-1.065	1.00	19.41	O
ATOM	618	N	ILE	A	80	18.566	-12.991	0.679	1.00	17.20	N
ATOM	619	CA	ILE	A	80	17.722	-13.715	1.628	1.00	20.77	C
ATOM	620	CB	ILE	A	80	18.547	-14.608	2.588	1.00	13.36	C
ATOM	621	CG1	ILE	A	80	19.525	-13.752	3.399	1.00	10.30	C
ATOM	622	CD1	ILE	A	80	20.288	-14.509	4.464	1.00	9.08	C
ATOM	623	CG2	ILE	A	80	19.264	-15.711	1.813	1.00	13.21	C
ATOM	624	C	ILE	A	80	16.841	-12.767	2.441	1.00	28.40	C
ATOM	625	O	ILE	A	80	17.138	-11.569	2.560	1.00	20.90	O
ATOM	626	N	PRO	A	81	15.747	-13.305	3.002	1.00	19.06	N
ATOM	627	CA	PRO	A	81	14.795	-12.481	3.749	1.00	17.40	C
ATOM	628	CB	PRO	A	81	13.742	-13.498	4.210	1.00	16.26	C
ATOM	629	CG	PRO	A	81	13.825	-14.609	3.226	1.00	23.69	C
ATOM	630	CD	PRO	A	81	15.287	-14.699	2.869	1.00	22.71	C
ATOM	631	C	PRO	A	81	15.420	-11.807	4.961	1.00	23.82	C
ATOM	632	O	PRO	A	81	16.291	-12.388	5.616	1.00	17.41	O
ATOM	633	N	ARG	A	82	14.976	-10.586	5.242	1.00	17.42	N
ATOM	634	CA	ARG	A	82	15.252	-9.933	6.507	1.00	17.43	C
ATOM	635	CB	ARG	A	82	16.380	-8.913	6.374	1.00	18.65	C
ATOM	636	CG	ARG	A	82	16.818	-8.301	7.723	1.00	13.65	C
ATOM	637	CD	ARG	A	82	17.750	-7.113	7.507	1.00	22.97	C
ATOM	638	NE	ARG	A	82	17.103	-6.040	6.754	1.00	23.41	N
ATOM	639	CZ	ARG	A	82	17.755	-5.077	6.106	1.00	20.98	C
ATOM	640	NH1	ARG	A	82	19.081	-5.042	6.112	1.00	17.19	N
ATOM	641	NH2	ARG	A	82	17.078	-4.143	5.450	1.00	18.02	N
ATOM	642	C	ARG	A	82	13.961	9.265	6.975	1.00	23.53	C
ATOM	643	O	ARG	A	82	13.620	-8.170	6.531	1.00	23.81	O
ATOM	644	N	TYR	A	83	13.239	-9.947	7.860	1.00	16.77	N
ATOM	645	CA	TYR	A	83	11.917	-9.507	8.293	1.00	19.53	C
ATOM	646	CB	TYR	A	83	11.106	-10.691	8.839	1.00	25.78	C
ATOM	647	CG	TYR	A	83	10.936	-11.863	7.903	1.00	23.74	C
ATOM	648	CD1	TYR	A	83	9.910	-11.885	6.968	1.00	27.79	C
ATOM	649	CE1	TYR	A	83	9.740	-12.967	6.116	1.00	25.84	C
ATOM	650	CZ	TYR	A	83	10.598	-14.046	6.202	1.00	26.63	C
ATOM	651	OH	TYR	A	83	10.435	-15.121	5.361	1.00	31.61	O
ATOM	652	CE2	TYR	A	83	11.618	-14.053	7.129	1.00	22.12	C
ATOM	653	CD2	TYR	A	83	11.777	-12.965	7.978	1.00	32.63	C
ATOM	654	C	TYR	A	83	11.966	-8.447	9.388	1.00	25.33	C
ATOM	655	O	TYR	A	83	12.737	-8.563	10.340	1.00	28.74	O
ATOM	656	N	ARG	A	84	11.127	-7.422	9.251	1.00	30.90	N
ATOM	657	CA	ARG	A	84	10.809	-6.528	10.361	1.00	28.42	C
ATOM	658	CB	ARG	A	84	10.490	-5.123	9.849	1.00	32.82	C
ATOM	659	CG	ARG	A	84	11.714	-4.304	9.458	1.00	54.19	C
ATOM	660	CD	ARG	A	84	12.187	-3.424	10.605	1.00	51.68	C
ATOM	661	NE	ARG	A	84	11.117	-2.553	11.094	1.00	77.07	N
ATOM	662	CZ	ARG	A	84	11.272	-1.617	12.027	1.00	72.76	C
ATOM	663	NH1	ARG	A	84	12.463	-1.420	12.579	1.00	51.64	N
ATOM	664	NH2	ARG	A	84	10.236	-0.877	12.408	1.00	51.95	N
ATOM	665	C	ARG	A	84	9.591	-7.105	11.070	1.00	32.09	C
ATOM	666	O	ARG	A	84	8.464	-6.974	10.588	1.00	51.25	O
ATOM	667	N	PHE	A	85	9.813	-7.754	12.204	1.00	39.47	N
ATOM	668	CA	PHE	A	85	8.731	-8.443	12.900	1.00	51.93	C
ATOM	669	CB	PHE	A	85	9.304	-9.363	13.984	1.00	42.53	C
ATOM	670	CG	PHE	A	85	10.207	-10.438	13.440	1.00	52.39	C

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ATOM	671	CD1	PHE	A	85	9.682	-11.645	13.014	1.00	34.95	C
ATOM	672	CE1	PHE	A	85	10.500	-12.634	12.504	1.00	41.39	C
ATOM	673	CZ	PHE	A	85	11.858	-12.419	12.406	1.00	42.40	C
ATOM	674	CE2	PHE	A	85	12.398	-11.216	12.819	1.00	51.50	C
ATOM	675	CD2	PHE	A	85	11.574	-10.231	13.331	1.00	54.92	C
ATOM	676	C	PHE	A	85	7.655	-7.502	13.458	1.00	45.05	C
ATOM	677	O	PHE	A	85	6.527	-7.917	13.714	1.00	51.28	O
ATOM	678	N	GLN	A	86	8.006	-6.231	13.614	1.00	47.22	N
ATOM	679	CA	GLN	A	86	7.068	-5.226	14.097	1.00	66.07	C
ATOM	680	CB	GLN	A	86	7.787	-3.902	14.383	1.00	65.49	C
ATOM	681	CG	GLN	A	86	8.770	-3.947	15.543	1.00	65.25	C
ATOM	682	CD	GLN	A	86	10.137	-4.473	15.138	1.00	70.10	C
ATOM	683	OE1	GLN	A	86	10.347	-4.873	13.994	1.00	60.67	O
ATOM	684	NE2	GLN	A	86	11.074	-4.471	16.078	1.00	76.79	N
ATOM	685	C	GLN	A	86	5.924	-4.983	13.113	1.00	64.63	C
ATOM	686	O	GLN	A	86	4.908	-4.389	13.472	1.00	69.78	O
ATOM	687	N	SER	A	87	6.092	-5.431	11.872	1.00	55.46	N
ATOM	688	CA	SER	A	87	5.058	-5.252	10.851	1.00	44.36	C
ATOM	689	CB	SER	A	87	5.229	-3.907	10.147	1.00	55.05	C
ATOM	690	OG	SER	A	87	6.498	-3.818	9.526	1.00	42.60	O
ATOM	691	C	SER	A	87	5.070	-6.373	9.821	1.00	40.05	C
ATOM	692	O	SER	A	87	5.571	-7.465	10.087	1.00	59.87	O
ATOM	693	N	ASN	A	88	4.512	-6.101	8.647	1.00	41.85	N
ATOM	694	CA	ASN	A	88	4.597	-7.051	7.542	1.00	45.21	C
ATOM	695	CB	ASN	A	88	3.238	-7.251	6.861	1.00	40.20	C
ATOM	696	CG	ASN	A	88	2.798	-6.037	6.065	1.00	40.13	C
ATOM	697	OD1	ASN	A	88	3.253	-4.919	6.308	1.00	47.53	O
ATOM	698	ND2	ASN	A	88	1.901	-6.251	5.114	1.00	39.48	N
ATOM	699	C	ASN	A	88	5.650	-6.620	6.524	1.00	34.92	C
ATOM	700	O	ASN	A	88	5.522	-6.885	5.327	1.00	43.77	O
ATOM	701	N	HIS	A	89	6.700	-5.966	7.013	1.00	30.25	N
ATOM	702	CA	HIS	A	89	7.778	-5.517	6.141	1.00	24.27	C
ATOM	703	CB	HIS	A	89	8.226	-4.110	6.501	1.00	27.57	C
ATOM	704	CG	HIS	A	89	9.354	-3.623	5.656	1.00	36.97	C
ATOM	705	ND1	HIS	A	89	9.189	-3.231	4.340	1.00	26.99	N
ATOM	706	CE1	HIS	A	89	10.346	-2.866	3.841	1.00	28.48	C
ATOM	707	NE2	HIS	A	89	11.272	-3.003	4.781	1.00	28.48	N
ATOM	708	CD2	HIS	A	89	10.674	-3.478	5.920	1.00	21.26	C
ATOM	709	C	HIS	A	89	9.005	-6.435	6.121	1.00	33.50	C
ATOM	710	O	HIS	A	89	9.448	-6.948	7.160	1.00	33.88	O
ATOM	711	N	MET	A	90	9.561	-6.619	4.926	1.00	29.66	N
ATOM	712	CA	MET	A	90	10.776	-7.402	4.751	1.00	19.65	C
ATOM	713	CB	MET	A	90	10.425	-8.860	4.442	1.00	25.62	C
ATOM	714	CG	MET	A	90	9.794	-9.072	3.063	1.00	26.22	C
ATOM	715	SD	MET	A	90	9.513	-10.814	2.676	1.00	25.35	S
ATOM	716	CE	MET	A	90	10.980	-11.525	3.398	1.00	14.23	C
ATOM	717	C	MET	A	90	11.604	-6.831	3.602	1.00	25.47	C
ATOM	718	O	MET	A	90	11.072	-6.119	2.747	1.00	26.03	O
ATOM	719	N	ASP	A	91	12.902	-7.137	3.592	1.00	20.56	N
ATOM	720	CA	ASP	A	91	13.759	-6.864	2.446	1.00	16.24	C
ATOM	721	CB	ASP	A	91	14.836	-5.825	2.763	1.00	24.65	C
ATOM	722	CG	ASP	A	91	14.271	-4.463	3.058	1.00	24.60	C
ATOM	723	OD1	ASP	A	91	13.514	-3.916	2.219	1.00	27.33	O
ATOM	724	OD2	ASP	A	91	14.604	-3.945	4.137	1.00	25.87	O
ATOM	725	C	ASP	A	91	14.471	-8.144	2.064	1.00	27.00	C
ATOM	726	O	ASP	A	91	14.543	-9.082	2.852	1.00	26.51	O
ATOM	727	N	MET	A	92	15.004	-8.167	0.850	1.00	18.59	N
ATOM	728	CA	MET	A	92	15.869	-9.245	0.415	1.00	16.64	C
ATOM	729	CB	MET	A	92	15.483	-9.701	-0.991	1.00	18.42	C
ATOM	730	CG	MET	A	92	14.063	-10.245	-1.039	1.00	18.95	C
ATOM	731	SD	MET	A	92	13.859	-11.650	0.094	1.00	22.83	S
ATOM	732	CE	MET	A	92	12.102	-11.965	-0.087	1.00	13.99	C
ATOM	733	C	MET	A	92	17.297	-8.729	0.459	1.00	18.95	C
ATOM	734	O	MET	A	92	17.671	-7.830	-0.296	1.00	24.17	O
ATOM	735	N	VAL	A	93	18.087	-9.284	1.367	1.00	19.88	N
ATOM	736	CA	VAL	A	93	19.430	-8.779	1.610	1.00	20.83	C
ATOM	737	CB	VAL	A	93	19.654	-8.501	3.110	1.00	24.99	C
ATOM	738	CG1	VAL	A	93	18.662	-7.443	3.594	1.00	14.49	C

	ATOM	739	CG2	VAL	A	93	19.518	-9.780	3.914	1.00	16.71	C
	ATOM	740	C	VAL	A	93	20.492	-9.723	1.064	1.00	17.73	C
	ATOM	741	O	VAL	A	93	20.355	-10.943	1.136	1.00	21.97	O
	ATOM	742	N	ARG	A	94	21.547	-9.147	0.499	1.00	34.02	N
	ATOM	743	CA	ARG	A	94	22.554	-9.940	-0.192	1.00	21.96	C
	ATOM	744	CB	ARG	A	94	23.332	-9.064	-1.170	1.00	21.24	C
	ATOM	745	CG	ARG	A	94	24.322	-9.820	-2.028	1.00	22.27	C
	ATOM	746	CD	ARG	A	94	24.915	-8.914	-3.079	1.00	31.11	C
	ATOM	747	NE	ARG	A	94	25.922	-9.597	-3.884	1.00	37.69	N
	ATOM	748	CZ	ARG	A	94	26.818	-8.972	-4.643	1.00	41.04	C
	ATOM	749	NH1	ARG	A	94	26.836	-7.646	-4.697	1.00	29.21	N
	ATOM	750	NH2	ARG	A	94	27.700	-9.675	-5.344	1.00	30.73	N
	ATOM	751	C	ARG	A	94	23.513	-10.630	0.766	1.00	23.81	C
	ATOM	752	O	ARG	A	94	24.049	-10.006	1.679	1.00	23.98	O
	ATOM	753	N	ILE	A	95	23.714	-11.927	0.555	1.00	24.71	N
	ATOM	754	CA	ILE	A	95	24.778	-12.659	1.228	1.00	27.55	C
	ATOM	755	CB	ILE	A	95	24.248	-13.903	1.966	1.00	29.81	C
	ATOM	756	CG1	ILE	A	95	23.419	-14.784	1.026	1.00	29.90	C
	ATOM	757	CD1	ILE	A	95	23.126	-16.165	1.589	1.00	26.54	C
	ATOM	758	CG2	ILE	A	95	23.430	-13.485	3.185	1.00	18.39	C
	ATOM	759	C	ILE	A	95	25.830	-13.039	0.183	1.00	32.06	C
	ATOM	760	O	ILE	A	95	25.508	-13.183	-1.001	1.00	37.38	O
	ATOM	761	N	GLU	A	96	27.082	-13.191	0.607	1.00	29.20	N
	ATOM	762	CA	GLU	A	96	28.181	-13.357	-0.345	1.00	44.03	C
	ATOM	763	CB	GLU	A	96	29.322	-12.386	-0.023	1.00	51.73	C
	ATOM	764	CG	GLU	A	96	28.905	10.925	0.127	1.00	58.68	C
	ATOM	765	CD	GLU	A	96	29.043	-10.125	-1.158	1.00	47.61	C
	ATOM	766	OE1	GLU	A	96	29.885	-10.486	-2.007	1.00	64.94	O
	ATOM	767	OE2	GLU	A	96	28.317	-9.120	-1.313	1.00	61.53	O
	ATOM	768	C	GLU	A	96	28.720	-14.789	-0.432	1.00	33.26	C
	ATOM	769	O	GLU	A	96	29.565	-15.086	-1.272	1.00	30.84	O
	ATOM	770	N	SER	A	97	28.241	-15.669	0.440	1.00	30.11	N
	ATOM	771	CA	SER	A	97	28.634	-17.076	0.398	1.00	37.47	C
[0117]	ATOM	772	CB	SER	A	97	30.065	-17.259	0.908	1.00	26.39	C
	ATOM	773	OG	SER	A	97	30.156	-16.967	2.290	1.00	38.94	O
	ATOM	774	C	SER	A	97	27.679	-17.912	1.238	1.00	34.16	C
	ATOM	775	O	SER	A	97	26.972	-17.377	2.089	1.00	33.04	O
	ATOM	776	N	PRO	A	98	27.643	-19.230	0.991	1.00	33.13	N
	ATOM	777	CA	PRO	A	98	26.820	-20.110	1.828	1.00	30.58	C
	ATOM	778	CB	PRO	A	98	26.990	-21.488	1.173	1.00	19.91	C
	ATOM	779	CG	PRO	A	98	27.481	-21.209	-0.221	1.00	35.04	C
	ATOM	780	CD	PRO	A	98	28.296	-19.952	-0.114	1.00	25.84	C
	ATOM	781	C	PRO	A	98	27.357	-20.153	3.251	1.00	31.66	C
	ATOM	782	O	PRO	A	98	26.594	-20.353	4.195	1.00	37.09	O
	ATOM	783	N	GLU	A	99	28.666	-19.969	3.392	1.00	32.35	N
	ATOM	784	CA	GLU	A	99	29.336	-20.097	4.683	1.00	33.75	C
	ATOM	785	CB	GLU	A	99	30.842	-20.286	4.484	1.00	31.32	C
	ATOM	786	CG	GLU	A	99	31.228	-21.649	3.910	1.00	37.29	C
	ATOM	787	CD	GLU	A	99	31.072	-21.738	2.398	1.00	40.91	C
	ATOM	788	OE1	GLU	A	99	31.243	-20.706	1.719	1.00	37.93	O
	ATOM	789	OE2	GLU	A	99	30.788	-22.846	1.888	1.00	44.79	O
	ATOM	790	C	GLU	A	99	29.062	-18.916	5.613	1.00	29.51	C
	ATOM	791	O	GLU	A	99	29.148	-19.040	6.831	1.00	31.65	O
	ATOM	792	N	GLU	A	100	28.734	-17.772	5.027	1.00	33.16	N
	ATOM	793	CA	GLU	A	100	28.369	-16.587	5.792	1.00	38.79	C
	ATOM	794	CB	GLU	A	100	28.199	-15.397	4.844	1.00	36.03	C
	ATOM	795	CG	GLU	A	100	27.678	-14.134	5.504	1.00	30.16	C
	ATOM	796	CD	GLU	A	100	27.417	-13.022	4.507	1.00	31.20	C
	ATOM	797	OE1	GLU	A	100	27.680	-13.224	3.304	1.00	30.94	O
	ATOM	798	OE2	GLU	A	100	26.953	-11.942	4.926	1.00	30.52	O
	ATOM	799	C	GLU	A	100	27.080	-16.823	6.582	1.00	34.62	C
	ATOM	800	O	GLU	A	100	26.893	-16.286	7.676	1.00	29.82	O
	ATOM	801	N	ILE	A	101	26.189	-17.632	6.020	1.00	25.79	N
	ATOM	802	CA	ILE	A	101	24.910	-17.911	6.660	1.00	20.82	C
	ATOM	803	CB	ILE	A	101	24.060	-18.891	5.812	1.00	19.12	C
	ATOM	804	CG1	ILE	A	101	23.655	-18.237	4.492	1.00	26.20	C
	ATOM	805	CD1	ILE	A	101	23.083	-19.218	3.465	1.00	22.05	C
	ATOM	806	CG2	ILE	A	101	22.807	-19.338	6.559	1.00	25.25	C

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ATOM	807	C	ILE	A	101	25.135	-18.461	8.066	1.00 31.37	C
ATOM	808	O	ILE	A	101	24.336	-18.221	8.967	1.00 30.71	O
ATOM	809	N	SER	A	102	26.237	-19.183	8.247	1.00 31.02	N
ATOM	810	CA	SER	A	102	26.539	-19.843	9.518	1.00 36.66	C
ATOM	811	CB	SER	A	102	27.681	-20.842	9.332	1.00 29.04	C
ATOM	812	OG	SER	A	102	27.329	-21.839	8.393	1.00 48.98	O
ATOM	813	C	SER	A	102	26.901	-18.871	10.640	1.00 30.84	C
ATOM	814	O	SER	A	102	26.790	-19.204	11.816	1.00 28.86	O
ATOM	815	N	LEU	A	103	27.346	-17.675	10.274	1.00 17.98	N
ATOM	816	CA	LEU	A	103	27.799	-16.702	11.261	1.00 22.91	C
ATOM	817	CB	LEU	A	103	29.041	-15.972	10.742	1.00 37.35	C
ATOM	818	CG	LEU	A	103	30.179	-16.842	10.198	1.00 30.28	C
ATOM	819	CD1	LEU	A	103	31.410	-15.993	9.902	1.00 26.42	C
ATOM	820	CD2	LEU	A	103	30.522	-17.953	11.177	1.00 27.83	C
ATOM	821	C	LEU	A	103	26.716	-15.690	11.647	1.00 21.54	C
ATOM	822	O	LEU	A	103	26.848	-14.971	12.633	1.00 28.93	O
ATOM	823	N	LEU	A	104	25.646	-15.645	10.866	1.00 25.59	N
ATOM	824	CA	LEU	A	104	24.574	-14.683	11.086	1.00 25.47	C
ATOM	825	CB	LEU	A	104	23.568	-14.751	9.933	1.00 27.69	C
ATOM	826	CG	LEU	A	104	24.088	-14.349	8.553	1.00 29.36	C
ATOM	827	CD1	LEU	A	104	23.015	-14.551	7.485	1.00 19.45	C
ATOM	828	CD2	LEU	A	104	24.569	-12.906	8.584	1.00 17.98	C
ATOM	829	C	LEU	A	104	23.854	-14.920	12.410	1.00 28.97	C
ATOM	830	O	LEU	A	104	23.845	-16.039	12.922	1.00 22.71	O
ATOM	831	N	PRO	A	105	23.248	-13.861	12.966	1.00 25.38	N
ATOM	832	CA	PRO	A	105	22.384	-13.963	14.147	1.00 26.02	C
ATOM	833	CB	PRO	A	105	22.127	-12.498	14.530	1.00 20.33	C
ATOM	834	CG	PRO	A	105	23.018	-11.679	13.669	1.00 20.06	C
ATOM	835	CD	PRO	A	105	23.326	-12.483	12.460	1.00 22.32	C
ATOM	836	C	PRO	A	105	21.071	-14.612	13.728	1.00 26.01	C
ATOM	837	O	PRO	A	105	20.755	-14.625	12.536	1.00 21.32	O
ATOM	838	N	LYS	A	106	20.311	-15.140	14.678	1.00 21.61	N
ATOM	839	CA	LYS	A	106	19.067	-15.816	14.339	1.00 24.57	C
ATOM	840	CB	LYS	A	106	19.125	-17.296	14.726	1.00 29.34	C
ATOM	841	CG	LYS	A	106	20.144	-18.091	13.936	1.00 19.98	C
ATOM	842	CD	LYS	A	106	20.581	-19.339	14.685	1.00 43.34	C
ATOM	843	CE	LYS	A	106	19.562	-20.453	14.542	1.00 66.04	C
ATOM	844	NZ	LYS	A	106	19.584	-21.056	13.178	1.00 60.87	N
ATOM	845	C	LYS	A	106	17.875	-15.149	15.001	1.00 28.83	C
ATOM	846	O	LYS	A	106	17.996	-14.555	16.073	1.00 24.37	O
ATOM	847	N	THR	A	107	16.721	-15.263	14.355	1.00 28.97	N
ATOM	848	CA	THR	A	107	15.488	-14.682	14.866	1.00 41.42	C
ATOM	849	CB	THR	A	107	14.520	-14.367	13.718	1.00 27.65	C
ATOM	850	OG1	THR	A	107	13.935	-15.585	13.241	1.00 25.46	O
ATOM	851	CG2	THR	A	107	15.275	-13.703	12.575	1.00 34.96	C
ATOM	852	C	THR	A	107	14.815	-15.628	15.858	1.00 31.14	C
ATOM	853	O	THR	A	107	15.319	-16.717	16.127	1.00 23.89	O
ATOM	854	N	SER	A	108	13.677	-15.210	16.404	1.00 40.71	N
ATOM	855	CA	SER	A	108	12.934	-16.047	17.346	1.00 30.30	C
ATOM	856	CB	SER	A	108	11.782	-15.263	17.974	1.00 34.00	C
ATOM	857	OG	SER	A	108	10.946	-14.709	16.974	1.00 37.75	O
ATOM	858	C	SER	A	108	12.409	-17.318	16.675	1.00 37.65	C
ATOM	859	O	SER	A	108	11.920	-18.227	17.340	1.00 43.83	O
ATOM	860	N	TRP	A	109	12.518	-17.378	15.353	1.00 33.57	N
ATOM	861	CA	TRP	A	109	12.130	-18.566	14.608	1.00 33.19	C
ATOM	862	CB	TRP	A	109	11.454	-18.184	13.284	1.00 35.96	C
ATOM	863	CG	TRP	A	109	10.169	-17.404	13.444	1.00 42.16	C
ATOM	864	CD1	TRP	A	109	10.040	-16.083	13.771	1.00 41.33	C
ATOM	865	NE1	TRP	A	109	8.711	-15.732	13.813	1.00 41.01	N
ATOM	866	CE2	TRP	A	109	7.955	-16.827	13.503	1.00 52.77	C
ATOM	867	CD2	TRP	A	109	8.834	-17.901	13.260	1.00 47.16	C
ATOM	868	CE3	TRP	A	109	8.308	-19.149	12.916	1.00 46.51	C
ATOM	869	CZ3	TRP	A	109	6.933	-19.286	12.828	1.00 52.12	C
ATOM	870	CH2	TRP	A	109	6.078	-18.204	13.075	1.00 52.52	C
ATOM	871	CZ2	TRP	A	109	6.567	-16.970	13.412	1.00 60.10	C
ATOM	872	C	TRP	A	109	13.345	-19.438	14.331	1.00 30.70	C
ATOM	873	O	TRP	A	109	13.246	-20.426	13.605	1.00 30.26	O
ATOM	874	N	ASN	A	110	14.493	-19.061	14.892	1.00 29.49	N

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ATOM	875	CA	ASN	A	110	15.723	-19.831	14.714	1.00	34.47	C
ATOM	876	CB	ASN	A	110	15.543	-21.259	15.227	1.00	40.93	C
ATOM	877	CG	ASN	A	110	15.544	-21.334	16.734	1.00	51.79	C
ATOM	878	OD1	ASN	A	110	16.541	-21.014	17.381	1.00	57.31	O
ATOM	879	ND2	ASN	A	110	14.423	-21.758	17.305	1.00	71.22	N
ATOM	880	C	ASN	A	110	16.186	-19.847	13.262	1.00	28.32	C
ATOM	881	O	ASN	A	110	16.848	-20.783	12.811	1.00	28.81	O
ATOM	882	N	ILE	A	111	15.825	-18.796	12.542	1.00	26.62	N
ATOM	883	CA	ILE	A	111	16.260	-18.603	11.172	1.00	38.00	C
ATOM	884	CB	ILE	A	111	15.074	-18.247	10.258	1.00	40.64	C
ATOM	885	CG1	ILE	A	111	14.078	-19.408	10.214	1.00	43.89	C
ATOM	886	CD1	ILE	A	111	14.726	-20.737	9.846	1.00	44.77	C
ATOM	887	CG2	ILE	A	111	15.564	-17.907	8.859	1.00	33.44	C
ATOM	888	C	ILE	A	111	17.288	-17.482	11.135	1.00	30.44	C
ATOM	889	O	ILE	A	111	17.100	-16.445	11.772	1.00	26.28	O
ATOM	890	N	PRO	A	112	18.391	-17.700	10.407	1.00	34.04	N
ATOM	891	CA	PRO	A	112	19.427	-16.676	10.257	1.00	24.31	C
ATOM	892	CB	PRO	A	112	20.577	-17.438	9.588	1.00	31.13	C
ATOM	893	CG	PRO	A	112	20.312	-18.897	9.897	1.00	21.89	C
ATOM	894	CD	PRO	A	112	18.818	-19.004	9.870	1.00	27.21	C
ATOM	895	C	PRO	A	112	18.987	-15.505	9.376	1.00	29.10	C
ATOM	896	O	PRO	A	112	18.304	-15.688	8.367	1.00	26.60	O
ATOM	897	N	GLN	A	113	19.368	-14.302	9.790	1.00	21.54	N
ATOM	898	CA	GLN	A	113	19.250	-13.109	8.963	1.00	28.40	C
ATOM	899	CB	GLN	A	113	17.799	-12.601	8.898	1.00	27.26	C
ATOM	900	CG	GLN	A	113	17.226	11.995	10.194	1.00	18.85	C
ATOM	901	CD	GLN	A	113	15.839	-11.370	9.996	1.00	23.42	C
ATOM	902	OE1	GLN	A	113	15.006	-11.893	9.251	1.00	23.67	O
ATOM	903	NE2	GLN	A	113	15.594	-10.246	10.662	1.00	19.95	N
ATOM	904	C	GLN	A	113	20.196	-12.061	9.554	1.00	27.97	C
ATOM	905	O	GLN	A	113	20.447	-12.068	10.762	1.00	19.92	O
ATOM	906	N	PRO	A	114	20.754	-11.183	8.706	1.00	25.29	N
ATOM	907	CA	PRO	A	114	21.683	-10.162	9.211	1.00	31.51	C
ATOM	908	CB	PRO	A	114	21.976	-9.308	7.975	1.00	28.77	C
ATOM	909	CG	PRO	A	114	21.668	-10.231	6.781	1.00	21.02	C
ATOM	910	CD	PRO	A	114	20.525	-11.077	7.252	1.00	20.86	C
ATOM	911	C	PRO	A	114	21.002	-9.327	10.283	1.00	31.49	C
ATOM	912	O	PRO	A	114	19.785	-9.214	10.252	1.00	25.25	O
ATOM	913	N	GLY	A	115	21.769	-8.756	11.205	1.00	30.01	N
ATOM	914	CA	GLY	A	115	21.209	-8.023	12.325	1.00	15.78	C
ATOM	915	C	GLY	A	115	20.797	-6.594	12.022	1.00	28.75	C
ATOM	916	O	GLY	A	115	20.832	-6.150	10.878	1.00	31.31	O
ATOM	917	N	GLU	A	116	20.412	-5.869	13.068	1.00	29.06	N
ATOM	918	CA	GLU	A	116	19.916	-4.502	12.938	1.00	40.71	C
ATOM	919	CB	GLU	A	116	19.292	-4.034	14.256	1.00	60.48	C
ATOM	920	CG	GLU	A	116	17.972	-4.700	14.595	1.00	68.12	C
ATOM	921	CD	GLU	A	116	17.375	-4.178	15.889	1.00	96.58	C
ATOM	922	OE1	GLU	A	116	18.022	-3.332	16.542	1.00	114.85	O
ATOM	923	OE2	GLU	A	116	16.260	-4.612	16.254	1.00	81.77	O
ATOM	924	C	GLU	A	116	20.978	-3.501	12.504	1.00	39.97	C
ATOM	925	O	GLU	A	116	20.681	-2.548	11.782	1.00	40.02	O
ATOM	926	N	GLY	A	117	22.208	-3.704	12.962	1.00	33.84	N
ATOM	927	CA	GLY	A	117	23.283	-2.788	12.632	1.00	28.35	C
ATOM	928	C	GLY	A	117	24.066	-3.200	11.402	1.00	39.54	C
ATOM	929	O	GLY	A	117	24.976	-2.487	10.976	1.00	30.45	O
ATOM	930	N	ASP	A	118	23.713	-4.349	10.830	1.00	25.16	N
ATOM	931	CA	ASP	A	118	24.421	-4.878	9.674	1.00	24.75	C
ATOM	932	CB	ASP	A	118	24.336	-6.407	9.657	1.00	31.38	C
ATOM	933	CG	ASP	A	118	25.209	-7.038	8.582	1.00	32.38	C
ATOM	934	OD1	ASP	A	118	25.724	-6.305	7.711	1.00	31.26	O
ATOM	935	OD2	ASP	A	118	25.372	-8.277	8.605	1.00	25.91	O
ATOM	936	C	ASP	A	118	23.848	-4.273	8.384	1.00	32.04	C
ATOM	937	O	ASP	A	118	22.771	-4.652	7.924	1.00	30.56	O
ATOM	938	N	VAL	A	119	24.574	-3.315	7.820	1.00	26.19	N
ATOM	939	CA	VAL	A	119	24.179	-2.665	6.574	1.00	26.70	C
ATOM	940	CB	VAL	A	119	25.059	-1.440	6.260	1.00	51.21	C
ATOM	941	CG1	VAL	A	119	24.698	-0.876	4.891	1.00	32.19	C
ATOM	942	CG2	VAL	A	119	24.913	-0.376	7.338	1.00	23.60	C

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ATOM	943	C	VAL	A	119	24.302	-3.637	5.413	1.00	34.24	C
ATOM	944	O	VAL	A	119	25.358	-4.228	5.206	1.00	43.90	O
ATOM	945	N	ARG	A	120	23.223	-3.792	4.652	1.00	35.96	N
ATOM	946	CA	ARG	A	120	23.184	-4.768	3.571	1.00	25.81	C
ATOM	947	CB	ARG	A	120	22.227	-5.914	3.910	1.00	27.21	C
ATOM	948	CG	ARG	A	120	22.695	-6.824	5.013	1.00	25.05	C
ATOM	949	CD	ARG	A	120	23.751	-7.763	4.506	1.00	19.90	C
ATOM	950	NE	ARG	A	120	24.424	-8.418	5.618	1.00	23.37	N
ATOM	951	CZ	ARG	A	120	25.163	-9.515	5.503	1.00	19.76	C
ATOM	952	NH1	ARG	A	120	25.317	-10.093	4.319	1.00	16.71	N
ATOM	953	NH2	ARG	A	120	25.735	-10.043	6.577	1.00	19.90	N
ATOM	954	C	ARG	A	120	22.710	-4.144	2.282	1.00	22.44	C
ATOM	955	O	ARG	A	120	21.895	-3.224	2.288	1.00	23.28	O
ATOM	956	N	GLU	A	121	23.217	-4.664	1.172	1.00	27.70	N
ATOM	957	CA	GLU	A	121	22.652	-4.358	-0.130	1.00	22.49	C
ATOM	958	CB	GLU	A	121	23.542	-4.924	-1.232	1.00	23.96	C
ATOM	959	CG	GLU	A	121	23.106	-4.545	-2.633	1.00	33.43	C
ATOM	960	CD	GLU	A	121	23.779	-5.385	-3.699	1.00	38.32	C
ATOM	961	OE1	GLU	A	121	25.008	-5.600	-3.608	1.00	26.55	O
ATOM	962	OE2	GLU	A	121	23.075	-5.836	-4.626	1.00	32.68	O
ATOM	963	C	GLU	A	121	21.265	-4.988	-0.214	1.00	18.03	C
ATOM	964	O	GLU	A	121	21.118	-6.199	-0.049	1.00	24.91	O
ATOM	965	N	GLU	A	122	20.251	-4.167	-0.459	1.00	21.40	N
ATOM	966	CA	GLU	A	122	18.881	-4.650	-0.587	1.00	19.02	C
ATOM	967	CB	GLU	A	122	17.905	-3.675	0.091	1.00	18.93	C
ATOM	968	CG	GLU	A	122	18.320	-3.295	1.511	1.00	18.51	C
ATOM	969	CD	GLU	A	122	17.367	-2.321	2.180	1.00	25.80	C
ATOM	970	OE1	GLU	A	122	16.625	-1.614	1.467	1.00	34.27	O
ATOM	971	OE2	GLU	A	122	17.371	-2.257	3.427	1.00	31.10	O
ATOM	972	C	GLU	A	122	18.559	-4.803	-2.069	1.00	23.86	C
ATOM	973	O	GLU	A	122	18.836	-3.901	-2.854	1.00	29.60	O
ATOM	974	N	ALA	A	123	17.977	-5.940	-2.446	1.00	25.56	N
ATOM	975	CA	ALA	A	123	17.786	-6.271	-3.859	1.00	28.22	C
ATOM	976	CB	ALA	A	123	16.997	-7.581	-4.012	1.00	17.96	C
ATOM	977	C	ALA	A	123	17.140	-5.158	-4.682	1.00	27.93	C
ATOM	978	O	ALA	A	123	17.486	-4.961	-5.847	1.00	24.48	O
ATOM	979	N	LEU	A	124	16.207	-4.432	-4.074	1.00	23.89	N
ATOM	980	CA	LEU	A	124	15.458	-3.408	-4.791	1.00	28.50	C
ATOM	981	CB	LEU	A	124	14.104	-3.169	-4.117	1.00	26.08	C
ATOM	982	CG	LEU	A	124	13.157	-4.360	-4.277	1.00	24.55	C
ATOM	983	CD1	LEU	A	124	11.781	-4.064	-3.683	1.00	20.31	C
ATOM	984	CD2	LEU	A	124	13.047	-4.745	-5.754	1.00	20.98	C
ATOM	985	C	LEU	A	124	16.238	-2.100	-4.962	1.00	27.78	C
ATOM	986	O	LEU	A	124	15.797	-1.186	-5.663	1.00	21.64	O
ATOM	987	N	SER	A	125	17.406	-2.025	4.336	1.00	28.30	N
ATOM	988	CA	SER	A	125	18.283	-0.866	-4.483	1.00	33.56	C
ATOM	989	CB	SER	A	125	19.045	-0.603	-3.183	1.00	31.61	C
ATOM	990	OG	SER	A	125	20.169	-1.464	-3.079	1.00	29.31	O
ATOM	991	C	SER	A	125	19.288	-1.072	-5.616	1.00	36.73	C
ATOM	992	O	SER	A	125	19.988	-0.136	-6.018	1.00	29.10	O
ATOM	993	N	THR	A	126	19.360	-2.297	-6.130	1.00	26.11	N
ATOM	994	CA	THR	A	126	20.353	-2.634	-7.146	1.00	23.78	C
ATOM	995	CB	THR	A	126	21.523	-3.446	-6.548	1.00	25.67	C
ATOM	996	OG1	THR	A	126	21.003	-4.586	-5.859	1.00	32.61	O
ATOM	997	CG2	THR	A	126	22.330	-2.615	-5.572	1.00	33.32	C
ATOM	998	C	THR	A	126	19.794	-3.435	-8.318	1.00	33.24	C
ATOM	999	O	THR	A	126	20.503	-4.265	-8.891	1.00	29.32	O
ATOM	1000	N	GLY	A	127	18.534	-3.213	-8.672	1.00	26.50	N
ATOM	1001	CA	GLY	A	127	18.011	-3.803	-9.892	1.00	28.97	C
ATOM	1002	C	GLY	A	127	16.819	-4.737	-9.773	1.00	38.40	C
ATOM	1003	O	GLY	A	127	16.170	-5.018	-10.780	1.00	35.89	O
ATOM	1004	N	GLY	A	128	16.535	-5.229	-8.569	1.00	30.24	N
ATOM	1005	CA	GLY	A	128	15.407	-6.121	-8.366	1.00	21.52	C
ATOM	1006	C	GLY	A	128	15.786	-7.588	-8.367	1.00	19.66	C
ATOM	1007	O	GLY	A	128	16.933	-7.943	-8.109	1.00	21.04	O
ATOM	1008	N	LEU	A	129	14.814	-8.445	-8.665	1.00	28.93	N
ATOM	1009	CA	LEU	A	129	15.035	-9.887	-8.675	1.00	27.99	C
ATOM	1010	CB	LEU	A	129	14.406	-10.525	-7.431	1.00	17.49	C

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ATOM	1011	CG	LEU	A	129	15.010	-10.083	-6.096	1.00	27.28	C
ATOM	1012	CD1	LEU	A	129	14.054	-10.349	-4.942	1.00	20.24	C
ATOM	1013	CD2	LEU	A	129	16.345	-10.775	-5.873	1.00	19.25	C
ATOM	1014	C	LEU	A	129	14.484	-10.547	-9.944	1.00	27.84	C
ATOM	1015	O	LEU	A	129	13.426	-10.154	-10.452	1.00	25.89	O
ATOM	1016	N	ASP	A	130	15.206	-11.546	-10.451	1.00	21.38	N
ATOM	1017	CA	ASP	A	130	14.744	-12.315	-11.603	1.00	21.99	C
ATOM	1018	CB	ASP	A	130	15.929	-12.904	-12.381	1.00	17.31	C
ATOM	1019	CG	ASP	A	130	16.786	-11.833	-13.040	1.00	33.79	C
ATOM	1020	OD1	ASP	A	130	16.244	-11.086	-13.879	1.00	32.21	O
ATOM	1021	OD2	ASP	A	130	17.997	-11.738	-12.729	1.00	29.78	O
ATOM	1022	C	ASP	A	130	13.847	-13.440	-11.132	1.00	26.07	C
ATOM	1023	O	ASP	A	130	12.857	-13.783	-11.780	1.00	24.26	O
ATOM	1024	N	LEU	A	131	14.209	-14.020	-9.993	1.00	28.44	N
ATOM	1025	CA	LEU	A	131	13.515	-15.190	-9.476	1.00	22.89	C
ATOM	1026	CB	LEU	A	131	14.248	-16.465	-9.892	1.00	25.57	C
ATOM	1027	CG	LEU	A	131	13.686	-17.789	-9.367	1.00	30.67	C
ATOM	1028	CD1	LEU	A	131	12.290	-18.006	-9.894	1.00	29.65	C
ATOM	1029	CD2	LEU	A	131	14.581	-18.940	-9.777	1.00	39.42	C
ATOM	1030	C	LEU	A	131	13.411	-15.133	-7.960	1.00	28.36	C
ATOM	1031	O	LEU	A	131	14.385	-14.813	-7.264	1.00	19.31	O
ATOM	1032	N	ILE	A	132	12.224	-15.440	-7.452	1.00	17.10	N
ATOM	1033	CA	ILE	A	132	12.004	-15.478	-6.019	1.00	13.62	C
ATOM	1034	CB	ILE	A	132	10.978	-14.411	-5.581	1.00	21.58	C
ATOM	1035	CG1	ILE	A	132	11.449	-13.015	-5.989	1.00	13.59	C
ATOM	1036	CD1	ILE	A	132	10.531	-11.905	-5.544	1.00	16.04	C
ATOM	1037	CG2	ILE	A	132	10.734	-14.475	-4.077	1.00	25.51	C
ATOM	1038	C	ILE	A	132	11.471	-16.847	-5.644	1.00	20.82	C
ATOM	1039	O	ILE	A	132	10.424	-17.263	-6.133	1.00	23.05	O
ATOM	1040	N	PHE	A	133	12.199	-17.562	-4.795	1.00	23.92	N
ATOM	1041	CA	PHE	A	133	11.677	-18.796	-4.233	1.00	22.74	C
ATOM	1042	CB	PHE	A	133	12.805	-19.689	-3.717	1.00	15.17	C
ATOM	1043	CG	PHE	A	133	13.627	-20.306	-4.810	1.00	16.52	C
ATOM	1044	CD1	PHE	A	133	13.167	-21.413	-5.505	1.00	24.34	C
ATOM	1045	CE1	PHE	A	133	13.917	-21.978	-6.514	1.00	17.99	C
ATOM	1046	CZ	PHE	A	133	15.145	-21.441	-6.843	1.00	18.42	C
ATOM	1047	CE2	PHE	A	133	15.616	-20.338	-6.159	1.00	23.53	C
ATOM	1048	CD2	PHE	A	133	14.857	-19.776	-5.147	1.00	21.07	C
ATOM	1049	C	PHE	A	133	10.688	-18.449	-3.127	1.00	22.91	C
ATOM	1050	O	PHE	A	133	11.016	-17.713	-2.195	1.00	28.91	O
ATOM	1051	N	MET	A	134	9.473	-18.971	-3.262	1.00	24.90	N
ATOM	1052	CA	MET	A	134	8.358	-18.629	-2.384	1.00	29.47	C
ATOM	1053	CB	MET	A	134	7.094	-18.421	-3.218	1.00	36.61	C
ATOM	1054	CG	MET	A	134	7.206	-17.329	-4.262	1.00	35.17	C
ATOM	1055	SD	MET	A	134	7.028	-15.696	-3.531	1.00	40.33	S
ATOM	1056	CE	MET	A	134	5.736	-16.042	-2.339	1.00	26.16	C
ATOM	1057	C	MET	A	134	8.090	-19.714	-1.349	1.00	22.78	C
ATOM	1058	O	MET	A	134	7.775	-20.850	-1.711	1.00	20.40	O
ATOM	1059	N	PRO	A	135	8.220	-19.366	-0.055	1.00	32.41	N
ATOM	1060	CA	PRO	A	135	7.864	-20.261	1.055	1.00	30.87	C
ATOM	1061	CB	PRO	A	135	8.522	-19.606	2.281	1.00	21.80	C
ATOM	1062	CG	PRO	A	135	9.260	-18.395	1.784	1.00	32.76	C
ATOM	1063	CD	PRO	A	135	8.724	-18.067	0.423	1.00	22.97	C
ATOM	1064	C	PRO	A	135	6.354	-20.276	1.271	1.00	29.33	C
ATOM	1065	O	PRO	A	135	5.665	-19.349	0.826	1.00	19.54	O
ATOM	1066	N	GLY	A	136	5.849	-21.303	1.948	1.00	33.09	N
ATOM	1067	CA	GLY	A	136	4.444	-21.353	2.311	1.00	27.36	C
ATOM	1068	C	GLY	A	136	4.110	-22.597	3.109	1.00	32.19	C
ATOM	1069	O	GLY	A	136	4.854	-23.581	3.095	1.00	33.43	O
ATOM	1070	N	LEU	A	137	2.986	-22.556	3.814	1.00	33.72	N
ATOM	1071	CA	LEU	A	137	2.503	-23.735	4.513	1.00	41.53	C
ATOM	1072	CB	LEU	A	137	1.484	-23.355	5.589	1.00	34.01	C
ATOM	1073	CG	LEU	A	137	2.082	-22.826	6.892	1.00	38.43	C
ATOM	1074	CD1	LEU	A	137	0.987	-22.474	7.883	1.00	50.32	C
ATOM	1075	CD2	LEU	A	137	3.036	-23.854	7.480	1.00	42.70	C
ATOM	1076	C	LEU	A	137	1.896	-24.701	3.505	1.00	37.30	C
ATOM	1077	O	LEU	A	137	2.137	-25.906	3.568	1.00	33.99	O
ATOM	1078	N	GLY	A	138	1.125	-24.163	2.565	1.00	21.56	N

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ATOM	1079	CA	GLY	A	138	0.490	-24.977	1.546	1.00	24.44	C
ATOM	1080	C	GLY	A	138	0.266	-24.252	0.234	1.00	33.42	C
ATOM	1081	O	GLY	A	138	0.237	-23.021	0.173	1.00	32.21	O
ATOM	1082	N	PHE	A	139	0.104	-25.036	-0.823	1.00	37.96	N
ATOM	1083	CA	PHE	A	139	-0.124	-24.515	-2.158	1.00	39.27	C
ATOM	1084	CB	PHE	A	139	1.188	-24.512	-2.944	1.00	31.22	C
ATOM	1085	CG	PHE	A	139	2.307	-23.774	2.263	1.00	35.12	C
ATOM	1086	CD1	PHE	A	139	2.529	-22.429	-2.516	1.00	24.89	C
ATOM	1087	CE1	PHE	A	139	3.562	-21.755	-1.899	1.00	26.47	C
ATOM	1088	CZ	PHE	A	139	4.387	-22.419	-1.023	1.00	26.07	C
ATOM	1089	CE2	PHE	A	139	4.181	-23.759	-0.762	1.00	33.81	C
ATOM	1090	CD2	PHE	A	139	3.146	-24.431	-1.383	1.00	30.30	C
ATOM	1091	C	PHE	A	139	-1.124	-25.420	-2.864	1.00	33.91	C
ATOM	1092	O	PHE	A	139	-1.188	-26.611	-2.570	1.00	29.73	O
ATOM	1093	N	ASP	A	140	-1.914	-24.860	-3.776	1.00	31.43	N
ATOM	1094	CA	ASP	A	140	-2.715	-25.681	-4.680	1.00	40.46	C
ATOM	1095	CB	ASP	A	140	-4.204	-25.308	-4.625	1.00	34.29	C
ATOM	1096	CG	ASP	A	140	-4.499	-23.940	-5.208	1.00	37.42	C
ATOM	1097	OD1	ASP	A	140	-3.705	-23.445	-6.035	1.00	36.04	O
ATOM	1098	OD2	ASP	A	140	-5.543	-23.361	-4.841	1.00	36.83	O
ATOM	1099	C	ASP	A	140	-2.145	-25.598	-6.100	1.00	40.56	C
ATOM	1100	O	ASP	A	140	-1.216	-24.834	-6.352	1.00	40.14	O
ATOM	1101	N	LYS	A	141	-2.688	-26.389	-7.020	1.00	38.93	N
ATOM	1102	CA	LYS	A	141	-2.141	-26.469	-8.373	1.00	44.75	C
ATOM	1103	CB	LYS	A	141	-2.584	-27.767	-9.056	1.00	38.99	C
ATOM	1104	CG	LYS	A	141	-2.044	29.024	-8.392	1.00	34.83	C
ATOM	1105	CD	LYS	A	141	-2.577	-30.285	-9.067	1.00	47.52	C
ATOM	1106	CE	LYS	A	141	-2.116	-31.541	-8.330	1.00	45.13	C
ATOM	1107	NZ	LYS	A	141	-2.588	-32.796	-8.990	1.00	47.28	N
ATOM	1108	C	LYS	A	141	-2.494	-25.267	-9.247	1.00	33.40	C
ATOM	1109	O	LYS	A	141	-2.258	-25.282	-10.452	1.00	41.47	O
ATOM	1110	N	HIS	A	142	-3.066	-24.233	-8.641	1.00	33.91	N
ATOM	1111	CA	HIS	A	142	-3.346	-22.992	-9.359	1.00	33.52	C
ATOM	1112	CB	HIS	A	142	-4.761	-22.505	-9.076	1.00	39.97	C
ATOM	1113	CG	HIS	A	142	-5.826	-23.403	-9.633	1.00	56.23	C
ATOM	1114	ND1	HIS	A	142	-6.581	-24.227	-8.847	1.00	51.01	N
ATOM	1115	CE1	HIS	A	142	-7.428	-24.905	-9.617	1.00	34.57	C
ATOM	1116	NE2	HIS	A	142	-7.230	-24.544	-10.863	1.00	65.99	N
ATOM	1117	CD2	HIS	A	142	-6.225	-23.602	-10.913	1.00	73.93	C
ATOM	1118	C	HIS	A	142	-2.352	-21.908	-8.974	1.00	33.53	C
ATOM	1119	O	HIS	A	142	-2.454	-20.770	-9.421	1.00	47.44	O
ATOM	1120	N	GLY	A	143	-1.389	-22.270	-8.137	1.00	29.48	N
ATOM	1121	CA	GLY	A	143	-0.409	-21.319	-7.663	1.00	32.85	C
ATOM	1122	C	GLY	A	143	-0.891	-20.515	-6.469	1.00	34.82	C
ATOM	1123	O	GLY	A	143	-0.226	-19.565	6.052	1.00	27.28	O
ATOM	1124	N	ASN	A	144	-2.049	-20.878	-5.922	1.00	35.96	N
ATOM	1125	CA	ASN	A	144	-2.520	-20.237	-4.701	1.00	35.19	C
ATOM	1126	CB	ASN	A	144	-3.964	-20.624	-4.377	1.00	36.66	C
ATOM	1127	CG	ASN	A	144	-4.974	-19.941	-5.281	1.00	43.34	C
ATOM	1128	OD1	ASN	A	144	-5.910	-20.574	5.765	1.00	53.24	O
ATOM	1129	ND2	ASN	A	144	-4.790	-18.646	-5.510	1.00	33.32	N
ATOM	1130	C	ASN	A	144	-1.606	-20.638	-3.559	1.00	28.27	C
ATOM	1131	O	ASN	A	144	-1.219	-21.804	-3.450	1.00	31.78	O
ATOM	1132	N	ARG	A	145	-1.261	-19.673	-2.712	1.00	32.96	N
ATOM	1133	CA	ARG	A	145	-0.327	-19.909	-1.616	1.00	32.90	C
ATOM	1134	CB	ARG	A	145	0.928	-19.039	-1.783	1.00	22.22	C
ATOM	1135	CG	ARG	A	145	2.000	-19.299	-0.738	1.00	27.54	C
ATOM	1136	CD	ARG	A	145	3.190	-18.367	-0.900	1.00	25.11	C
ATOM	1137	NE	ARG	A	145	2.887	-17.027	-0.415	1.00	42.90	N
ATOM	1138	CZ	ARG	A	145	3.363	-16.511	0.713	1.00	29.03	C
ATOM	1139	NH1	ARG	A	145	4.183	-17.215	1.480	1.00	28.88	N
ATOM	1140	NH2	ARG	A	145	3.025	-15.280	1.066	1.00	41.83	N
ATOM	1141	C	ARG	A	145	-0.968	-19.639	-0.257	1.00	23.94	C
ATOM	1142	O	ARG	A	145	-1.693	-18.662	-0.078	1.00	27.93	O
ATOM	1143	N	LEU	A	146	-0.697	-20.515	0.701	1.00	27.75	N
ATOM	1144	CA	LEU	A	146	-1.113	-20.275	2.073	1.00	22.25	C
ATOM	1145	CB	LEU	A	146	-1.853	-21.487	2.637	1.00	29.28	C
ATOM	1146	CG	LEU	A	146	-2.244	-21.431	4.119	1.00	24.76	C

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ATOM	1147	CD1	LEU	A	146	-3.099	-20.209	4.410	1.00	16.92	C
ATOM	1148	CD2	LEU	A	146	-2.971	-22.707	4.533	1.00	28.64	C
ATOM	1149	C	LEU	A	146	0.120	-19.971	2.910	1.00	32.14	C
ATOM	1150	O	LEU	A	146	0.935	-20.856	3.173	1.00	33.89	O
ATOM	1151	N	GLY	A	147	0.262	-18.713	3.315	1.00	25.04	N
ATOM	1152	CA	GLY	A	147	1.374	-18.311	4.153	1.00	21.66	C
ATOM	1153	C	GLY	A	147	1.071	-18.562	5.615	1.00	34.04	C
ATOM	1154	O	GLY	A	147	0.072	-19.192	5.949	1.00	34.85	O
ATOM	1155	N	ARG	A	148	1.930	-18.062	6.493	1.00	42.74	N
ATOM	1156	CA	ARG	A	148	1.719	-18.223	7.928	1.00	37.90	C
ATOM	1157	CB	ARG	A	148	3.055	-18.280	8.670	1.00	32.79	C
ATOM	1158	CG	ARG	A	148	3.869	-19.501	8.292	1.00	39.79	C
ATOM	1159	CD	ARG	A	148	5.314	-19.384	8.715	1.00	35.90	C
ATOM	1160	NE	ARG	A	148	6.131	-20.395	8.052	1.00	47.31	N
ATOM	1161	CZ	ARG	A	148	6.304	-21.635	8.500	1.00	60.90	C
ATOM	1162	NH1	ARG	A	148	5.722	-22.024	9.628	1.00	44.23	N
ATOM	1163	NH2	ARG	A	148	7.064	-22.485	7.821	1.00	54.54	N
ATOM	1164	C	ARG	A	148	0.810	-17.140	8.501	1.00	42.02	C
ATOM	1165	O	ARG	A	148	0.437	-17.197	9.674	1.00	48.13	O
ATOM	1166	N	GLY	A	149	0.451	-16.163	7.671	1.00	36.00	N
ATOM	1167	CA	GLY	A	149	-0.544	-15.176	8.055	1.00	49.17	C
ATOM	1168	C	GLY	A	149	-0.097	-13.725	8.067	1.00	57.55	C
ATOM	1169	O	GLY	A	149	-0.934	-12.819	8.086	1.00	53.53	O
ATOM	1170	N	LYS	A	150	1.213	-13.493	8.053	1.00	44.20	N
ATOM	1171	CA	LYS	A	150	1.743	-12.136	8.178	1.00	47.67	C
ATOM	1172	CB	LYS	A	150	3.159	-12.165	8.769	1.00	45.03	C
ATOM	1173	CG	LYS	A	150	3.230	-12.733	10.193	1.00	76.26	C
ATOM	1174	CD	LYS	A	150	4.666	-12.821	10.712	1.00	88.22	C
ATOM	1175	CE	LYS	A	150	4.715	-13.194	12.192	1.00	86.29	C
ATOM	1176	NZ	LYS	A	150	6.094	-13.090	12.764	1.00	72.78	N
ATOM	1177	C	LYS	A	150	1.703	-11.333	6.868	1.00	46.14	C
ATOM	1178	O	LYS	A	150	1.643	-10.103	6.888	1.00	51.71	O
ATOM	1179	N	GLY	A	151	1.737	-12.024	5.733	1.00	44.54	N
ATOM	1180	CA	GLY	A	151	1.630	-11.356	4.444	1.00	36.60	C
ATOM	1181	C	GLY	A	151	2.875	-10.611	3.993	1.00	28.04	C
ATOM	1182	O	GLY	A	151	2.785	-9.640	3.240	1.00	38.39	O
ATOM	1183	N	TYR	A	152	4.037	-11.079	4.440	1.00	30.92	N
ATOM	1184	CA	TYR	A	152	5.317	-10.473	4.079	1.00	30.25	C
ATOM	1185	CB	TYR	A	152	6.458	-11.161	4.827	1.00	26.14	C
ATOM	1186	CG	TYR	A	152	6.606	-10.781	6.278	1.00	33.06	C
ATOM	1187	CD1	TYR	A	152	6.304	-11.689	7.283	1.00	40.55	C
ATOM	1188	CE1	TYR	A	152	6.453	-11.357	8.614	1.00	32.97	C
ATOM	1189	CZ	TYR	A	152	6.907	-10.103	8.955	1.00	36.07	C
ATOM	1190	OH	TYR	A	152	7.057	-9.772	10.275	1.00	40.33	O
ATOM	1191	CE2	TYR	A	152	7.223	-9.183	7.978	1.00	40.04	C
ATOM	1192	CD2	TYR	A	152	7.076	-9.525	6.646	1.00	34.14	C
ATOM	1193	C	TYR	A	152	5.604	-10.560	2.581	1.00	28.48	C
ATOM	1194	O	TYR	A	152	6.028	-9.587	1.959	1.00	36.04	O
ATOM	1195	N	TYR	A	153	5.390	-11.740	2.012	1.00	28.66	N
ATOM	1196	CA	TYR	A	153	5.728	-11.995	0.615	1.00	35.73	C
ATOM	1197	CB	TYR	A	153	5.858	-13.500	0.365	1.00	31.17	C
ATOM	1198	CG	TYR	A	153	7.249	-14.040	0.633	1.00	24.97	C
ATOM	1199	CD1	TYR	A	153	7.627	-14.445	1.900	1.00	17.62	C
ATOM	1200	CE1	TYR	A	153	8.897	-14.940	2.142	1.00	25.12	C
ATOM	1201	CZ	TYR	A	153	9.798	-15.030	1.102	1.00	20.91	C
ATOM	1202	OH	TYR	A	153	11.066	-15.522	1.323	1.00	18.16	O
ATOM	1203	CE2	TYR	A	153	9.441	-14.633	-0.162	1.00	19.19	C
ATOM	1204	CD2	TYR	A	153	8.184	-14.142	-0.392	1.00	29.78	C
ATOM	1205	C	TYR	A	153	4.742	-11.358	-0.361	1.00	33.67	C
ATOM	1206	O	TYR	A	153	5.114	-10.989	-1.474	1.00	38.02	O
ATOM	1207	N	ASP	A	154	3.487	-11.233	0.055	1.00	35.91	N
ATOM	1208	CA	ASP	A	154	2.490	-10.566	-0.770	1.00	44.30	C
ATOM	1209	CB	ASP	A	154	1.090	-10.735	-0.176	1.00	57.42	C
ATOM	1210	CG	ASP	A	154	0.729	-12.190	0.078	1.00	51.56	C
ATOM	1211	OD1	ASP	A	154	-0.073	-12.737	-0.706	1.00	60.13	O
ATOM	1212	OD2	ASP	A	154	1.243	-12.785	1.054	1.00	45.89	O
ATOM	1213	C	ASP	A	154	2.836	-9.086	-0.883	1.00	34.95	C
ATOM	1214	O	ASP	A	154	2.758	-8.493	-1.956	1.00	41.17	O

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ATOM	1215	N	ALA	A	155	3.230	-8.498	0.240	1.00	38.80	N
ATOM	1216	CA	ALA	A	155	3.625	-7.096	0.275	1.00	32.33	C
ATOM	1217	CB	ALA	A	155	3.730	-6.607	1.714	1.00	35.42	C
ATOM	1218	C	ALA	A	155	4.941	-6.885	-0.453	1.00	33.20	C
ATOM	1219	O	ALA	A	155	5.112	-5.896	1.169	1.00	43.70	O
ATOM	1220	N	TYR	A	156	5.879	-7.811	-0.277	1.00	31.24	N
ATOM	1221	CA	TYR	A	156	7.164	-7.670	-0.951	1.00	37.76	C
ATOM	1222	CB	TYR	A	156	8.178	-8.731	-0.505	1.00	31.19	C
ATOM	1223	CG	TYR	A	156	9.548	-8.466	-1.078	1.00	22.15	C
ATOM	1224	CD1	TYR	A	156	10.369	-7.491	-0.529	1.00	20.12	C
ATOM	1225	CE1	TYR	A	156	11.614	-7.217	-1.064	1.00	21.92	C
ATOM	1226	CZ	TYR	A	156	12.049	-7.919	-2.169	1.00	24.70	C
ATOM	1227	OH	TYR	A	156	13.292	-7.651	-2.695	1.00	24.29	O
ATOM	1228	CE2	TYR	A	156	11.251	-8.892	-2.741	1.00	15.61	C
ATOM	1229	CD2	TYR	A	156	10.002	-9.155	-2.194	1.00	20.75	C
ATOM	1230	C	TYR	A	156	6.990	-7.696	-2.466	1.00	27.46	C
ATOM	1231	O	TYR	A	156	7.561	-6.872	-3.176	1.00	31.93	O
ATOM	1232	N	LEU	A	157	6.182	-8.633	-2.954	1.00	36.83	N
ATOM	1233	CA	LEU	A	157	5.925	-8.750	-4.392	1.00	33.71	C
ATOM	1234	CB	LEU	A	157	4.978	-9.907	-4.670	1.00	35.92	C
ATOM	1235	CG	LEU	A	157	5.669	-11.259	-4.782	1.00	44.25	C
ATOM	1236	CD1	LEU	A	157	4.640	-12.381	-4.837	1.00	32.48	C
ATOM	1237	CD2	LEU	A	157	6.562	-11.266	-6.018	1.00	50.42	C
ATOM	1238	C	LEU	A	157	5.357	-7.477	-5.007	1.00	31.67	C
ATOM	1239	O	LEU	A	157	5.676	-7.126	-6.145	1.00	40.55	O
ATOM	1240	N	LYS	A	158	4.508	-6.791	-4.252	1.00	43.37	N
ATOM	1241	CA	LYS	A	158	3.956	-5.521	-4.702	1.00	27.73	C
ATOM	1242	CB	LYS	A	158	2.854	-5.044	-3.755	1.00	33.89	C
ATOM	1243	CG	LYS	A	158	1.631	-5.949	-3.742	1.00	37.49	C
ATOM	1244	CD	LYS	A	158	0.528	-5.364	-2.885	1.00	63.26	C
ATOM	1245	CE	LYS	A	158	-0.631	-6.338	-2.744	1.00	73.51	C
ATOM	1246	NZ	LYS	A	158	-1.726	-5.765	-1.909	1.00	62.29	N
ATOM	1247	C	LYS	A	158	5.046	-4.465	-4.844	1.00	41.15	C
ATOM	1248	O	LYS	A	158	4.961	-3.598	-5.715	1.00	53.35	O
ATOM	1249	N	ARG	A	159	6.072	-4.537	-3.999	1.00	39.36	N
ATOM	1250	CA	ARG	A	159	7.177	-3.583	-4.095	1.00	36.97	C
ATOM	1251	CB	ARG	A	159	8.073	-3.637	-2.859	1.00	40.63	C
ATOM	1252	CG	ARG	A	159	7.442	-3.097	-1.585	1.00	31.35	C
ATOM	1253	CD	ARG	A	159	8.384	-3.326	-0.402	1.00	45.42	C
ATOM	1254	NE	ARG	A	159	9.636	-2.586	-0.547	1.00	34.06	N
ATOM	1255	CZ	ARG	A	159	10.768	-2.899	0.077	1.00	29.24	C
ATOM	1256	NH1	ARG	A	159	10.816	-3.948	0.887	1.00	27.85	N
ATOM	1257	NH2	ARG	A	159	11.857	-2.165	-0.115	1.00	19.87	N
ATOM	1258	C	ARG	A	159	8.015	-3.837	-5.341	1.00	31.36	C
ATOM	1259	O	ARG	A	159	8.512	-2.899	-5.960	1.00	49.74	O
ATOM	1260	N	CYS	A	160	8.179	-5.107	-5.702	1.00	30.31	N
ATOM	1261	CA	CYS	A	160	8.983	-5.475	-6.868	1.00	33.22	C
ATOM	1262	CB	CYS	A	160	9.075	-6.995	-7.007	1.00	40.49	C
ATOM	1263	SG	CYS	A	160	10.092	-7.787	-5.745	1.00	37.50	S
ATOM	1264	C	CYS	A	160	8.416	-4.874	-8.146	1.00	29.45	C
ATOM	1265	O	CYS	A	160	9.152	-4.543	-9.074	1.00	45.96	O
ATOM	1266	N	LEU	A	161	7.099	-4.738	-8.185	1.00	38.66	N
ATOM	1267	CA	LEU	A	161	6.424	-4.182	-9.347	1.00	44.85	C
ATOM	1268	CB	LEU	A	161	4.909	-4.326	-9.186	1.00	46.43	C
ATOM	1269	CG	LEU	A	161	4.269	-5.698	-9.440	1.00	46.84	C
ATOM	1270	CD1	LEU	A	161	5.247	-6.843	-9.248	1.00	36.43	C
ATOM	1271	CD2	LEU	A	161	3.041	-5.890	-8.559	1.00	49.50	C
ATOM	1272	C	LEU	A	161	6.795	-2.714	-9.601	1.00	53.79	C
ATOM	1273	O	LEU	A	161	6.617	-2.212	-10.713	1.00	60.45	O
ATOM	1274	N	GLN	A	162	7.311	-2.029	-8.581	1.00	33.49	N
ATOM	1275	CA	GLN	A	162	7.676	-0.619	-8.725	1.00	37.63	C
ATOM	1276	CB	GLN	A	162	7.449	0.129	-7.418	1.00	50.64	C
ATOM	1277	CG	GLN	A	162	6.009	0.230	-6.993	1.00	47.96	C
ATOM	1278	CD	GLN	A	162	5.886	0.650	-5.544	1.00	76.55	C
ATOM	1279	OE1	GLN	A	162	6.786	0.400	-4.732	1.00	60.91	O
ATOM	1280	NE2	GLN	A	162	4.781	1.308	-5.211	1.00	80.81	N
ATOM	1281	C	GLN	A	162	9.120	-0.390	-9.167	1.00	65.59	C
ATOM	1282	O	GLN	A	162	9.548	0.757	-9.314	1.00	70.36	O

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ATOM	1283	N	HIS	A	163	9.873	-1.464	-9.374	1.00	40.02	N
ATOM	1284	CA	HIS	A	163	11.272	-1.322	-9.763	1.00	43.14	C
ATOM	1285	CB	HIS	A	163	12.199	-1.812	-8.654	1.00	38.65	C
ATOM	1286	CG	HIS	A	163	12.096	-1.018	-7.399	1.00	32.30	C
ATOM	1287	ND1	HIS	A	163	11.008	-1.107	-6.554	1.00	38.55	N
ATOM	1288	CE1	HIS	A	163	11.183	-0.294	-5.530	1.00	31.74	C
ATOM	1289	NE2	HIS	A	163	12.342	0.324	-5.682	1.00	49.95	N
ATOM	1290	CD2	HIS	A	163	12.929	-0.110	-6.843	1.00	24.16	C
ATOM	1291	C	HIS	A	163	11.553	-2.111	-11.012	1.00	46.87	C
ATOM	1292	O	HIS	A	163	12.574	-1.917	-11.673	1.00	66.48	O
ATOM	1293	N	GLN	A	164	10.646	-3.020	-11.324	1.00	41.43	N
ATOM	1294	CA	GLN	A	164	10.866	-3.917	-12.436	1.00	39.84	C
ATOM	1295	CB	GLN	A	164	10.910	-5.359	-11.931	1.00	47.87	C
ATOM	1296	CG	GLN	A	164	11.568	-5.478	-10.563	1.00	33.92	C
ATOM	1297	CD	GLN	A	164	11.936	-6.898	-10.200	1.00	32.60	C
ATOM	1298	OE1	GLN	A	164	11.677	-7.837	-10.950	1.00	37.34	O
ATOM	1299	NE2	GLN	A	164	12.547	-7.061	-9.038	1.00	35.96	N
ATOM	1300	C	GLN	A	164	9.767	-3.717	-13.457	1.00	48.53	C
ATOM	1301	O	GLN	A	164	8.587	-3.649	-13.107	1.00	33.96	O
ATOM	1302	N	GLU	A	165	10.165	-3.582	-14.717	1.00	59.43	N
ATOM	1303	CA	GLU	A	165	9.210	-3.550	-15.808	1.00	59.50	C
ATOM	1304	CB	GLU	A	165	9.893	-3.151	-17.117	1.00	67.72	C
ATOM	1305	CG	GLU	A	165	10.620	-1.811	-17.062	1.00	73.39	C
ATOM	1306	CD	GLU	A	165	11.868	-1.857	-16.192	1.00	97.25	C
ATOM	1307	OE1	GLU	A	165	12.453	-2.951	-16.042	1.00	90.99	O
ATOM	1308	OE2	GLU	A	165	12.265	-0.799	-15.658	1.00	77.72	O
ATOM	1309	C	GLU	A	165	8.627	-4.947	-15.912	1.00	47.41	C
ATOM	1310	O	GLU	A	165	7.453	-5.122	-16.239	1.00	73.41	O
ATOM	1311	N	VAL	A	166	9.463	-5.939	-15.617	1.00	39.82	N
ATOM	1312	CA	VAL	A	166	9.034	-7.330	-15.621	1.00	54.72	C
ATOM	1313	CB	VAL	A	166	9.912	-8.185	-16.549	1.00	63.51	C
ATOM	1314	CG1	VAL	A	166	9.575	-7.895	-18.007	1.00	48.52	C
ATOM	1315	CG2	VAL	A	166	11.389	-7.925	-16.271	1.00	54.64	C
ATOM	1316	C	VAL	A	166	9.102	-7.885	-14.210	1.00	37.03	C
ATOM	1317	O	VAL	A	166	10.145	-7.822	-13.562	1.00	38.86	O
ATOM	1318	N	LYS	A	167	7.987	-8.418	-13.728	1.00	37.89	N
ATOM	1319	CA	LYS	A	167	7.936	-8.930	-12.366	1.00	49.39	C
ATOM	1320	CB	LYS	A	167	6.503	-9.312	-11.976	1.00	48.05	C
ATOM	1321	CG	LYS	A	167	5.828	-10.267	-12.940	1.00	71.28	C
ATOM	1322	CD	LYS	A	167	4.415	-10.595	-12.494	1.00	87.48	C
ATOM	1323	CE	LYS	A	167	3.709	-11.476	-13.514	1.00	82.66	C
ATOM	1324	NZ	LYS	A	167	2.300	-11.769	-13.123	1.00	79.37	N
ATOM	1325	C	LYS	A	167	8.886	-10.115	-12.217	1.00	39.43	C
ATOM	1326	O	LYS	A	167	9.262	-10.743	-13.205	1.00	38.67	O
ATOM	1327	N	PRO	A	168	9.300	-10.409	-10.977	1.00	40.87	N
ATOM	1328	CA	PRO	A	168	10.158	-11.574	-10.752	1.00	24.77	C
ATOM	1329	CB	PRO	A	168	10.535	-11.455	-9.269	1.00	26.04	C
ATOM	1330	CG	PRO	A	168	10.175	-10.060	-8.866	1.00	50.31	C
ATOM	1331	CD	PRO	A	168	9.026	-9.671	-9.735	1.00	37.90	C
ATOM	1332	C	PRO	A	168	9.355	-12.847	-10.967	1.00	27.03	C
ATOM	1333	O	PRO	A	168	8.153	-12.852	-10.706	1.00	31.54	O
ATOM	1334	N	TYR	A	169	10.000	-13.901	-11.449	1.00	17.12	N
ATOM	1335	CA	TYR	A	169	9.357	-15.205	-11.529	1.00	21.30	C
ATOM	1336	CB	TYR	A	169	10.152	-16.117	-12.457	1.00	19.08	C
ATOM	1337	CG	TYR	A	169	9.437	-17.385	-12.866	1.00	24.78	C
ATOM	1338	CD1	TYR	A	169	8.573	-17.401	-13.957	1.00	23.89	C
ATOM	1339	CE1	TYR	A	169	7.923	-18.570	-14.336	1.00	28.27	C
ATOM	1340	CZ	TYR	A	169	8.149	-19.734	-13.628	1.00	31.83	C
ATOM	1341	OH	TYR	A	169	7.514	-20.900	-13.997	1.00	34.54	O
ATOM	1342	CE2	TYR	A	169	9.008	-19.738	-12.548	1.00	24.34	C
ATOM	1343	CD2	TYR	A	169	9.644	-18.574	-12.176	1.00	20.37	C
ATOM	1344	C	TYR	A	169	9.295	-15.797	-10.119	1.00	21.65	C
ATOM	1345	O	TYR	A	169	10.256	-15.710	-9.355	1.00	23.45	O
ATOM	1346	N	THR	A	170	8.161	-16.381	-9.760	1.00	26.37	N
ATOM	1347	CA	THR	A	170	7.990	-16.890	-8.402	1.00	28.85	C
ATOM	1348	CB	THR	A	170	6.787	-16.242	-7.699	1.00	19.55	C
ATOM	1349	OG1	THR	A	170	5.621	-16.398	-8.516	1.00	31.33	O
ATOM	1350	CG2	THR	A	170	7.052	-14.761	-7.461	1.00	12.93	C

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ATOM	1351	C	THR	A	170	7.846	-18.404	-8.365	1.00 20.93	C
ATOM	1352	O	THR	A	170	6.878	-18.963	-8.879	1.00 29.34	O
ATOM	1353	N	LEU	A	171	8.822	-19.056	-7.743	1.00 23.76	N
ATOM	1354	CA	LEU	A	171	8.883	-20.507	-7.701	1.00 23.84	C
ATOM	1355	CB	LEU	A	171	10.241	-20.982	-8.223	1.00 16.63	C
ATOM	1356	CG	LEU	A	171	10.296	-22.334	-8.934	1.00 39.12	C
ATOM	1357	CD1	LEU	A	171	9.322	-22.365	-10.105	1.00 35.34	C
ATOM	1358	CD2	LEU	A	171	11.720	-22.605	-9.411	1.00 31.27	C
ATOM	1359	C	LEU	A	171	8.673	-21.020	-6.284	1.00 28.71	C
ATOM	1360	O	LEU	A	171	9.518	-20.813	-5.416	1.00 26.29	O
ATOM	1361	N	ALA	A	172	7.550	-21.694	-6.054	1.00 30.63	N
ATOM	1362	CA	ALA	A	172	7.278	-22.278	-4.747	1.00 28.49	C
ATOM	1363	CB	ALA	A	172	5.788	-22.241	-4.439	1.00 26.59	C
ATOM	1364	C	ALA	A	172	7.799	-23.706	-4.681	1.00 32.32	C
ATOM	1365	O	ALA	A	172	7.693	-24.452	-5.649	1.00 34.54	O
ATOM	1366	N	LEU	A	173	8.364	-24.072	-3.534	1.00 37.15	N
ATOM	1367	CA	LEU	A	173	8.885	-25.416	-3.310	1.00 29.88	C
ATOM	1368	CB	LEU	A	173	10.360	-25.363	-2.917	1.00 26.05	C
ATOM	1369	CG	LEU	A	173	11.230	-24.459	-3.795	1.00 30.88	C
ATOM	1370	CD1	LEU	A	173	12.605	-24.252	-3.169	1.00 15.21	C
ATOM	1371	CD2	LEU	A	173	11.350	25.007	-5.219	1.00 15.70	C
ATOM	1372	C	LEU	A	173	8.070	-26.077	-2.210	1.00 32.78	C
ATOM	1373	O	LEU	A	173	7.955	-25.542	-1.106	1.00 39.60	O
ATOM	1374	N	ALA	A	174	7.502	-27.240	-2.510	1.00 29.43	N
ATOM	1375	CA	ALA	A	174	6.536	-27.848	-1.606	1.00 34.20	C
ATOM	1376	CB	ALA	A	174	5.123	-27.477	-2.038	1.00 32.05	C
ATOM	1377	C	ALA	A	174	6.659	-29.363	-1.474	1.00 34.72	C
ATOM	1378	O	ALA	A	174	6.791	-30.077	-2.471	1.00 35.57	O
ATOM	1379	N	PHE	A	175	6.615	-29.843	-0.233	1.00 32.88	N
ATOM	1380	CA	PHE	A	175	6.424	-31.261	0.032	1.00 25.94	C
ATOM	1381	CB	PHE	A	175	6.305	-31.515	1.535	1.00 32.53	C
ATOM	1382	CG	PHE	A	175	7.574	-31.284	2.298	1.00 24.18	C
ATOM	1383	CD1	PHE	A	175	8.757	-31.873	1.896	1.00 24.55	C
ATOM	1384	CE1	PHE	A	175	9.915	-31.664	2.605	1.00 24.55	C
ATOM	1385	CZ	PHE	A	175	9.896	-30.872	3.730	1.00 22.51	C
ATOM	1386	CE2	PHE	A	175	8.725	-30.288	4.140	1.00 15.94	C
ATOM	1387	CD2	PHE	A	175	7.575	-30.497	3.433	1.00 18.73	C
ATOM	1388	C	PHE	A	175	5.125	-31.679	-0.644	1.00 25.03	C
ATOM	1389	O	PHE	A	175	4.240	-30.850	-0.847	1.00 35.51	O
ATOM	1390	N	LYS	A	176	5.011	-32.953	-1.009	1.00 33.96	N
ATOM	1391	CA	LYS	A	176	3.756	-33.476	-1.540	1.00 34.54	C
ATOM	1392	CB	LYS	A	176	3.882	-34.962	-1.860	1.00 27.81	C
ATOM	1393	CG	LYS	A	176	5.068	-35.321	-2.725	1.00 40.85	C
ATOM	1394	CD	LYS	A	176	5.068	-36.814	-3.054	1.00 56.08	C
ATOM	1395	CE	LYS	A	176	5.387	-37.660	-1.833	1.00 43.87	C
ATOM	1396	NZ	LYS	A	176	5.595	-39.092	-2.195	1.00 58.80	N
ATOM	1397	C	LYS	A	176	2.667	-33.279	-0.496	1.00 33.36	C
ATOM	1398	O	LYS	A	176	1.489	-33.170	-0.818	1.00 31.84	O
ATOM	1399	N	GLU	A	177	3.079	-33.237	0.765	1.00 28.10	N
ATOM	1400	CA	GLU	A	177	2.151	-33.066	1.872	1.00 40.72	C
ATOM	1401	CB	GLU	A	177	2.848	-33.396	3.201	1.00 39.96	C
ATOM	1402	CG	GLU	A	177	3.056	-34.894	3.455	1.00 24.10	C
ATOM	1403	CD	GLU	A	177	4.282	-35.460	2.753	1.00 52.25	C
ATOM	1404	OE1	GLU	A	177	4.833	-34.795	1.848	1.00 43.39	O
ATOM	1405	OE2	GLU	A	177	4.693	-36.585	3.108	1.00 52.79	O
ATOM	1406	C	GLU	A	177	1.532	-31.664	1.920	1.00 32.63	C
ATOM	1407	O	GLU	A	177	0.463	-31.474	2.499	1.00 37.74	O
ATOM	1408	N	GLN	A	178	2.197	-30.690	1.301	1.00 30.00	N
ATOM	1409	CA	GLN	A	178	1.729	-29.304	1.333	1.00 31.45	C
ATOM	1410	CB	GLN	A	178	2.906	-28.326	1.289	1.00 33.04	C
ATOM	1411	CG	GLN	A	178	3.746	-28.318	2.543	1.00 22.73	C
ATOM	1412	CD	GLN	A	178	4.942	-27.411	2.423	1.00 37.78	C
ATOM	1413	OE1	GLN	A	178	5.004	-26.356	3.060	1.00 36.68	O
ATOM	1414	NE2	GLN	A	178	5.901	-27.807	1.589	1.00 21.62	N
ATOM	1415	C	GLN	A	178	0.747	-28.975	0.212	1.00 29.64	C
ATOM	1416	O	GLN	A	178	0.122	-27.916	0.225	1.00 24.16	O
ATOM	1417	N	ILE	A	179	0.605	-29.885	-0.746	1.00 29.89	N
ATOM	1418	CA	ILE	A	179	-0.281	-29.665	-1.887	1.00 24.16	C

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ATOM	1419	CB	ILE	A	179	0.101	-30.552	-3.088	1.00	32.57	C
ATOM	1420	CG1	ILE	A	179	1.600	-30.427	-3.388	1.00	37.81	C
ATOM	1421	CD1	ILE	A	179	2.080	-28.973	-3.580	1.00	29.55	C
ATOM	1422	CG2	ILE	A	179	-0.738	-30.180	-4.314	1.00	30.85	C
ATOM	1423	C	ILE	A	179	-1.737	-29.912	-1.523	1.00	31.84	C
ATOM	1424	O	ILE	A	179	-2.092	-31.002	-1.093	1.00	48.22	O
ATOM	1425	N	CYS	A	180	-2.568	-28.888	-1.708	1.00	28.44	N
ATOM	1426	CA	CYS	A	180	-3.974	-28.928	-1.319	1.00	36.25	C
ATOM	1427	CB	CYS	A	180	-4.301	-27.755	-0.388	1.00	32.34	C
ATOM	1428	SG	CYS	A	180	-3.136	-27.519	0.966	1.00	35.16	S
ATOM	1429	C	CYS	A	180	-4.898	-28.866	-2.533	1.00	49.32	C
ATOM	1430	O	CYS	A	180	-4.512	-28.380	-3.594	1.00	39.22	O
ATOM	1431	N	LEU	A	181	-6.123	-29.351	-2.366	1.00	33.65	N
ATOM	1432	CA	LEU	A	181	-7.130	-29.269	-3.413	1.00	30.24	C
ATOM	1433	CB	LEU	A	181	-8.408	-29.999	-2.977	1.00	63.26	C
ATOM	1434	CG	LEU	A	181	-9.510	-30.305	-3.999	1.00	58.06	C
ATOM	1435	CD1	LEU	A	181	-10.576	-31.207	-3.394	1.00	49.89	C
ATOM	1436	CD2	LEU	A	181	-10.150	-29.036	-4.536	1.00	58.28	C
ATOM	1437	C	LEU	A	181	-7.413	-27.801	-3.699	1.00	38.20	C
ATOM	1438	O	LEU	A	181	-7.232	-27.339	-4.821	1.00	52.39	O
ATOM	1439	N	GLN	A	182	-7.864	-27.071	-2.680	1.00	48.09	N
ATOM	1440	CA	GLN	A	182	-8.096	-25.630	-2.799	1.00	32.40	C
ATOM	1441	CB	GLN	A	182	-9.587	-25.328	-3.016	1.00	29.44	C
ATOM	1442	CG	GLN	A	182	-10.088	-25.647	-4.431	1.00	93.26	C
ATOM	1443	CD	GLN	A	182	-11.605	-25.769	-4.527	1.00	112.60	C
ATOM	1444	OE1	GLN	A	182	-12.313	-25.725	-3.518	1.00	108.40	O
ATOM	1445	NE2	GLN	A	182	-12.109	-25.931	-5.750	1.00	81.78	N
ATOM	1446	C	GLN	A	182	-7.566	-24.866	-1.584	1.00	44.84	C
ATOM	1447	O	GLN	A	182	-7.850	-25.222	-0.442	1.00	45.95	O
ATOM	1448	N	VAL	A	183	-6.777	-23.827	-1.839	1.00	39.36	N
ATOM	1449	CA	VAL	A	183	-6.368	-22.904	-0.786	1.00	41.34	C
ATOM	1450	CB	VAL	A	183	-4.938	-22.360	-1.007	1.00	40.73	C
ATOM	1451	CG1	VAL	A	183	-4.693	-21.138	-0.127	1.00	29.31	C
ATOM	1452	CG2	VAL	A	183	-3.896	-23.442	-0.745	1.00	25.41	C
ATOM	1453	C	VAL	A	183	-7.333	-21.725	-0.754	1.00	40.58	C
ATOM	1454	O	VAL	A	183	-7.547	-21.070	-1.773	1.00	44.59	O
ATOM	1455	N	PRO	A	184	-7.932	-21.454	0.415	1.00	36.99	N
ATOM	1456	CA	PRO	A	184	-8.785	-20.264	0.509	1.00	39.41	C
ATOM	1457	CB	PRO	A	184	-9.206	-20.243	1.983	1.00	38.48	C
ATOM	1458	CG	PRO	A	184	8.985	-21.643	2.479	1.00	44.74	C
ATOM	1459	CD	PRO	A	184	-7.816	-22.168	1.697	1.00	38.54	C
ATOM	1460	C	PRO	A	184	-7.956	-19.026	0.185	1.00	40.13	C
ATOM	1461	O	PRO	A	184	-6.818	-18.921	0.651	1.00	48.91	O
ATOM	1462	O	ALA	A	185	-9.772	-15.662	-0.856	1.00	40.24	O
ATOM	1463	N	ALA	A	185	-8.505	-18.103	-0.596	1.00	32.40	N
ATOM	1464	CA	ALA	A	185	-7.745	-16.928	-1.004	1.00	47.07	C
ATOM	1465	C	ALA	A	185	-8.543	-15.642	-0.826	1.00	52.53	C
ATOM	1466	CB	ALA	A	185	-7.283	-17.075	-2.450	1.00	39.69	C
ATOM	1467	N	ASN	A	186	-7.835	-14.531	-0.636	1.00	56.50	N
ATOM	1468	CA	ASN	A	186	-8.462	-13.215	-0.580	1.00	48.90	C
ATOM	1469	C	ASN	A	186	-8.842	-12.727	-1.972	1.00	64.36	C
ATOM	1470	CB	ASN	A	186	-7.529	-12.195	0.080	1.00	70.86	C
ATOM	1471	CG	ASN	A	186	-7.421	-12.384	1.582	1.00	64.33	C
ATOM	1472	OD1	ASN	A	186	-8.309	-12.958	2.214	1.00	72.14	O
ATOM	1473	ND2	ASN	A	186	-6.331	-11.891	2.163	1.00	52.84	N
ATOM	1474	O	ASN	A	186	-7.981	-12.306	-2.749	1.00	75.54	O
ATOM	1475	N	MET	A	190	-1.962	-12.869	-4.212	1.00	44.48	N
ATOM	1476	CA	MET	A	190	-0.939	-13.082	-5.239	1.00	63.43	C
ATOM	1477	C	MET	A	190	-0.665	-14.572	-5.440	1.00	41.72	C
ATOM	1478	CB	MET	A	190	0.373	-12.359	-4.878	1.00	43.13	C
ATOM	1479	CG	MET	A	190	0.275	-10.831	-4.752	1.00	45.40	C
ATOM	1480	SD	MET	A	190	0.499	-9.926	-6.301	1.00	87.43	S
ATOM	1481	CE	MET	A	190	1.838	-10.849	-7.068	1.00	59.57	C
ATOM	1482	O	MET	A	190	-0.200	-15.241	-4.522	1.00	39.33	O
ATOM	1483	N	LYS	A	191	-0.955	-15.083	-6.635	1.00	33.92	N
ATOM	1484	CA	LYS	A	191	-0.598	-16.447	-7.000	1.00	31.80	C
ATOM	1485	CB	LYS	A	191	-1.388	-16.915	-8.224	1.00	40.53	C
ATOM	1486	CG	LYS	A	191	-2.899	-16.794	-8.127	1.00	45.28	C

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ATOM	1487	CD	LYS	A	191	-3.557	-17.890	-8.965	1.00	64.09	C
ATOM	1488	CE	LYS	A	191	-4.689	-17.366	-9.835	1.00	50.15	C
ATOM	1489	NZ	LYS	A	191	-4.148	-16.607	-10.997	1.00	71.72	N
ATOM	1490	C	LYS	A	191	0.883	-16.517	-7.340	1.00	32.44	C
ATOM	1491	O	LYS	A	191	1.504	-15.511	-7.675	1.00	43.74	O
ATOM	1492	N	VAL	A	192	1.449	-17.713	-7.268	1.00	31.88	N
ATOM	1493	CA	VAL	A	192	2.829	-17.906	-7.681	1.00	31.76	C
ATOM	1494	CB	VAL	A	192	3.599	-18.847	-6.728	1.00	28.93	C
ATOM	1495	CG1	VAL	A	192	3.608	-18.269	-5.328	1.00	23.76	C
ATOM	1496	CG2	VAL	A	192	2.992	-20.249	-6.722	1.00	23.01	C
ATOM	1497	C	VAL	A	192	2.821	-18.457	-9.094	1.00	29.33	C
ATOM	1498	O	VAL	A	192	1.833	-19.046	-9.527	1.00	42.83	O
ATOM	1499	N	ASP	A	193	3.914	-18.259	-9.818	1.00	31.07	N
ATOM	1500	CA	ASP	A	193	3.988	-18.710	-11.200	1.00	28.19	C
ATOM	1501	CB	ASP	A	193	5.235	-18.144	-11.883	1.00	16.48	C
ATOM	1502	CG	ASP	A	193	5.106	-16.667	-12.183	1.00	24.68	C
ATOM	1503	OD1	ASP	A	193	4.051	-16.277	-12.724	1.00	37.40	O
ATOM	1504	OD2	ASP	A	193	6.043	-15.895	-11.870	1.00	29.10	O
ATOM	1505	C	ASP	A	193	3.967	-20.227	-11.299	1.00	30.99	C
ATOM	1506	O	ASP	A	193	3.353	-20.792	-12.204	1.00	27.49	O
ATOM	1507	N	GLU	A	194	4.621	-20.890	-10.353	1.00	30.28	N
ATOM	1508	CA	GLU	A	194	4.746	-22.335	-10.431	1.00	24.15	C
ATOM	1509	CB	GLU	A	194	5.810	-22.685	-11.469	1.00	32.11	C
ATOM	1510	CG	GLU	A	194	6.101	-24.158	-11.632	1.00	28.50	C
ATOM	1511	CD	GLU	A	194	7.140	-24.395	-12.707	1.00	33.79	C
ATOM	1512	OE1	GLU	A	194	7.552	-25.556	-12.907	1.00	39.54	O
ATOM	1513	OE2	GLU	A	194	7.547	-23.405	-13.353	1.00	27.03	O
ATOM	1514	C	GLU	A	194	5.096	-22.953	-9.086	1.00	32.69	C
ATOM	1515	O	GLU	A	194	5.894	-22.398	-8.326	1.00	33.90	O
ATOM	1516	N	VAL	A	195	4.493	-24.104	-8.799	1.00	30.47	N
ATOM	1517	CA	VAL	A	195	4.818	-24.862	-7.597	1.00	31.52	C
ATOM	1518	CB	VAL	A	195	3.558	-25.177	-6.751	1.00	28.62	C
ATOM	1519	CG1	VAL	A	195	2.653	-23.961	-6.688	1.00	29.00	C
ATOM	1520	CG2	VAL	A	195	2.792	-26.354	-7.339	1.00	55.22	C
ATOM	1521	C	VAL	A	195	5.517	-26.157	-7.995	1.00	23.73	C
ATOM	1522	O	VAL	A	195	5.040	-26.895	-8.855	1.00	25.42	O
ATOM	1523	N	LEU	A	196	6.671	-26.412	-7.394	1.00	28.94	N
ATOM	1524	CA	LEU	A	196	7.392	-27.650	-7.644	1.00	35.96	C
ATOM	1525	CB	LEU	A	196	8.897	-27.390	-7.768	1.00	25.27	C
ATOM	1526	CG	LEU	A	196	9.345	-26.544	8.961	1.00	38.86	C
ATOM	1527	CD1	LEU	A	196	10.865	-26.484	-9.009	1.00	28.41	C
ATOM	1528	CD2	LEU	A	196	8.786	-27.106	-10.259	1.00	19.48	C
ATOM	1529	C	LEU	A	196	7.125	-28.629	-6.516	1.00	33.95	C
ATOM	1530	O	LEU	A	196	7.022	-28.230	-5.354	1.00	38.25	O
ATOM	1531	N	TYR	A	197	7.016	-29.908	-6.858	1.00	41.45	N
ATOM	1532	CA	TYR	A	197	6.800	-30.942	-5.858	1.00	37.66	C
ATOM	1533	CB	TYR	A	197	5.438	-30.746	-5.205	1.00	34.37	C
ATOM	1534	CG	TYR	A	197	4.295	-30.923	-6.169	1.00	38.32	C
ATOM	1535	CD1	TYR	A	197	3.709	-32.168	-6.354	1.00	41.89	C
ATOM	1536	CE1	TYR	A	197	2.662	-32.339	-7.244	1.00	50.32	C
ATOM	1537	CZ	TYR	A	197	2.196	-31.261	-7.960	1.00	44.36	C
ATOM	1538	OH	TYR	A	197	1.155	-31.434	-8.843	1.00	52.81	O
ATOM	1539	CE2	TYR	A	197	2.764	-30.016	-7.797	1.00	39.75	C
ATOM	1540	CD2	TYR	A	197	3.808	-29.852	-6.908	1.00	35.32	C
ATOM	1541	C	TYR	A	197	6.848	-32.341	-6.453	1.00	36.13	C
ATOM	1542	O	TYR	A	197	6.627	-32.522	-7.645	1.00	47.70	O
ATOM	1543	N	GLU	A	198	7.164	-33.307	-5.592	1.00	52.19	N
ATOM	1544	CA	GLU	A	198	6.867	-34.733	-5.775	1.00	44.71	C
ATOM	1545	CB	GLU	A	198	6.647	35.123	-7.234	1.00	48.53	C
ATOM	1546	CG	GLU	A	198	5.171	-35.192	-7.603	1.00	43.72	C
ATOM	1547	CD	GLU	A	198	4.939	-35.646	-9.032	1.00	73.97	C
ATOM	1548	OE1	GLU	A	198	5.800	-36.369	-9.575	1.00	68.63	O
ATOM	1549	OE2	GLU	A	198	3.892	-35.284	-9.610	1.00	60.54	O
ATOM	1550	C	GLU	A	198	7.841	-35.687	-5.073	1.00	69.29	C
ATOM	1551	O	GLU	A	198	8.889	-35.273	-4.576	1.00	76.51	O
ATOM	1552	N	GLY	A	199	7.464	-36.963	-5.033	1.00	63.47	N
ATOM	1553	CA	GLY	A	199	8.156	-37.974	-4.251	1.00	54.55	C
ATOM	1554	C	GLY	A	199	9.662	-37.821	-4.207	1.00	46.69	C

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ATOM   1555  O   GLY A 199      10.390 -38.709  -4.646  1.00 76.54           O
TER
ATOM   1556  N   GLU B  99      17.852  -8.153  10.596  1.00 37.71           N
ATOM   1557  CA  GLU B  99      17.029  -7.630  11.676  1.00 34.14           C
ATOM   1558  CB  GLU B  99      17.412  -8.320  12.985  1.00 49.80           C
ATOM   1559  CG  GLU B  99      17.835  -9.775  12.795  1.00 48.33           C
ATOM   1560  CD  GLU B  99      18.121 -10.490  14.101  1.00 50.23           C
ATOM   1561  OE1 GLU B  99      18.662 -11.617  14.058  1.00 37.82           O
ATOM   1562  OE2 GLU B  99      17.803  -9.928  15.170  1.00 47.82           O
ATOM   1563  C   GLU B  99      17.199  -6.110  11.807  1.00 54.27           C
ATOM   1564  O   GLU B  99      16.801  -5.341  10.927  1.00 30.98           O
TER
ATOM   1565 NI   NI  C   1      -9.273 -26.086  -8.257  1.00 60.90          Ni
ATOM   1566 NI   NI  C   2      13.510  -2.332   5.278  1.00 38.07          Ni
TER
ATOM   1567 MG   MG  D   1      14.614  -5.513  -1.077  1.00 14.36          Mg
TER
ATOM   1568 MG   MG  E   1      -6.266 -30.692   0.622  1.00 48.45          Mg
TER
ATOM   1569 MG   MG  F   1       4.519 -14.811   4.833  1.00 43.68          Mg
TER
ATOM   1570 MG   MG  G   1       8.965 -15.718   9.665  1.00 51.14          Mg
TER
HETATM 1571  O   HOH S   1      20.670  -6.197   8.103  1.00 20.50           O
HETATM 1572  O   HOH S   2      23.088 -18.358  11.662  1.00 17.99           O
HETATM 1573  O   HOH S   3      12.612 -15.819  -0.836  1.00 21.77           O
HETATM 1574  O   HOH S   4      14.973   0.483   2.530  1.00 19.49           O
HETATM 1575  O   HOH S   5      -4.989 -14.208  -0.084  1.00 33.20           O
HETATM 1576  O   HOH S   6      19.293 -23.396   4.587  1.00 25.94           O
HETATM 1577  O   HOH S   7       4.032 -35.574  11.337  1.00 34.78           O
HETATM 1578  O   HOH S   8       3.031 -13.561   3.014  1.00 45.74           O
HETATM 1579  O   HOH S   9      -7.636 -27.823  -8.363  1.00 32.44           O
HETATM 1580  O   HOH S  10      14.377  -5.838   7.333  1.00 31.49           O
HETATM 1581  O   HOH S  11      14.741 -17.108   5.396  1.00 25.88           O
HETATM 1582  O   HOH S  12      16.145 -15.086   6.636  1.00 19.57           O
HETATM 1583  O   HOH S  13      14.454 -14.579   8.713  1.00 25.37           O
HETATM 1584  O   HOH S  14      17.950   0.000   0.000  1.00 29.28           O
HETATM 1585  O   HOH S  15      24.225 -17.596  14.899  1.00 21.36           O
HETATM 1586  O   HOH S  16      15.689  -1.218   5.214  1.00 29.80           O
HETATM 1587  O   HOH S  17      12.742 -15.367  10.719  1.00 32.23           O
HETATM 1588  O   HOH S  18      25.044 -25.852 -12.680  1.00 38.81           O
HETATM 1589  O   HOH S  19      12.043 -16.992   5.780  1.00 36.55           O
HETATM 1590  O   HOH S  20       0.611 -22.636 -11.410  1.00 44.72           O
HETATM 1591  O   HOH S  21       8.153 -26.167   1.666  1.00 30.66           O
HETATM 1592  O   HOH S  22       6.953  -7.174   3.082  1.00 36.76           O
HETATM 1593  O   HOH S  23      25.796 -12.768  -4.027  1.00 32.35           O
HETATM 1594  O   HOH S  24      -6.819 -10.006  -3.358  1.00 47.27           O
HETATM 1595  O   HOH S  25      14.330  -5.781  10.087  1.00 28.84           O
HETATM 1596  O   HOH S  26      24.391  -9.500  11.117  1.00 30.04           O
HETATM 1597  O   HOH S  27      31.967  -8.168  -2.681  1.00 43.62           O
HETATM 1598  O   HOH S  28      11.556 -19.702   5.754  1.00 41.45           O
HETATM 1599  O   HOH S  29      15.615  -8.219 -13.318  1.00 43.54           O
HETATM 1600  O   HOH S  30     -16.413  -8.436   5.310  1.00 39.85           O
HETATM 1601  O   HOH S  31      13.602  -9.597 -14.507  1.00 47.94           O
HETATM 1602  O   HOH S  32      18.177 -27.698  -1.049  1.00 31.54           O
HETATM 1603  O   HOH S  33       7.604  -0.152  13.211  1.00 49.10           O
HETATM 1604  O   HOH S  34      13.351 -12.233  16.471  1.00 47.36           O
HETATM 1605  O   HOH S  35      28.685 -10.108   4.258  1.00 42.05           O
HETATM 1606  O   HOH S  36      14.484  -2.189  -0.513  1.00 32.36           O
HETATM 1607  O   HOH S  37      13.141 -15.318 -15.838  1.00 47.68           O
HETATM 1608  O   HOH S  38      25.583  -6.559   1.516  1.00 35.93           O
HETATM 1609  O   HOH S  39      27.362  -8.407   1.058  1.00 41.43           O
HETATM 1610  O   HOH S  40      26.116  -9.098  12.898  1.00 36.09           O
HETATM 1611  O   HOH S  41      22.970 -20.946 -14.785  1.00 28.85           O
HETATM 1612  O   HOH S  42      20.495   2.667  -4.910  1.00 35.87           O
HETATM 1613  O   HOH S  43       5.095   3.273  -3.235  1.00 47.20           O
HETATM 1614  O   HOH S  44       0.773 -15.377   5.161  1.00 41.27           O
HETATM 1615  O   HOH S  45      16.400  -1.674  -8.083  1.00 37.60           O
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[0129]

[0130]

HETATM	1616	O	HOH	S	46	0.105	-19.652	-11.977	1.00	50.88	O
HETATM	1617	O	HOH	S	47	27.231	-5.440	-1.618	1.00	41.82	O
HETATM	1618	O	HOH	S	48	-8.047	-28.649	0.784	1.00	40.53	O
HETATM	1619	O	HOH	S	49	4.309	-33.208	11.811	1.00	60.35	O
HETATM	1620	O	HOH	S	50	4.924	-37.494	10.095	1.00	52.27	O
HETATM	1621	O	HOH	S	51	6.211	-14.001	-14.207	1.00	39.24	O
HETATM	1622	O	HOH	S	52	20.081	-1.828	8.828	1.00	43.03	O
HETATM	1623	O	HOH	S	53	-4.576	-31.771	5.029	1.00	68.58	O
HETATM	1624	O	HOH	S	54	17.542	-7.853	-11.804	1.00	52.02	O
HETATM	1625	O	HOH	S	55	17.847	-22.495	9.029	1.00	34.25	O
HETATM	1626	O	HOH	S	56	-4.408	-13.226	-3.207	1.00	66.57	O
HETATM	1627	O	HOH	S	57	7.963	-23.544	1.912	1.00	30.72	O
HETATM	1628	O	HOH	S	58	23.970	-2.024	-10.843	1.00	46.27	O
HETATM	1629	O	HOH	S	59	21.486	-1.136	-10.328	1.00	39.14	O
HETATM	1630	O	HOH	S	60	7.338	1.921	-2.769	1.00	53.37	O
HETATM	1631	O	HOH	S	61	16.190	-25.684	9.225	1.00	63.34	O
HETATM	1632	O	HOH	S	62	20.806	-1.494	-0.056	1.00	36.25	O
HETATM	1633	O	HOH	S	63	5.117	-10.360	13.635	1.00	47.26	O
HETATM	1634	O	HOH	S	64	11.942	-25.834	-16.882	1.00	39.38	O
HETATM	1635	O	HOH	S	65	4.308	2.909	-7.440	1.00	45.58	O
HETATM	1636	O	HOH	S	66	-1.871	-16.476	4.293	1.00	49.34	O
HETATM	1637	O	HOH	S	67	2.058	-24.940	-11.104	1.00	32.35	O
HETATM	1638	O	HOH	S	68	-3.654	-13.400	3.891	1.00	46.22	O
TER											

[0131] 表 4 为人源 5,10- 次甲基四氢叶酸合成酶与 ADP 的复合物的晶体坐标。

[0132] 表 4

[0133]

ATOM	1	N	ALA	A	-1	-17.037	6.341	-3.440	1.00	67.21	N
ATOM	2	CA	ALA	A	-1	-17.589	7.665	-3.694	1.00	56.32	C
ATOM	3	CB	ALA	A	-1	-17.439	8.548	-2.460	1.00	40.37	C
ATOM	4	C	ALA	A	-1	-16.917	8.309	-4.904	1.00	55.26	C
ATOM	5	O	ALA	A	-1	-16.149	9.260	-4.767	1.00	54.51	O
ATOM	6	N	ALA	A	0	-17.219	7.782	-6.087	1.00	46.84	N
ATOM	7	CA	ALA	A	0	-16.570	8.212	-7.323	1.00	50.89	C
ATOM	8	CB	ALA	A	0	-17.068	7.382	-8.498	1.00	52.82	C
ATOM	9	C	ALA	A	0	-16.732	9.703	-7.618	1.00	54.32	C
ATOM	10	O	ALA	A	0	-15.762	10.382	-7.953	1.00	51.61	O
ATOM	11	N	MET	A	1	-17.956	10.208	-7.500	1.00	35.55	N
ATOM	12	CA	MET	A	1	-18.236	11.606	-7.817	1.00	35.65	C
ATOM	13	CB	MET	A	1	-19.740	11.838	-7.969	1.00	31.45	C
ATOM	14	CG	MET	A	1	-20.405	10.915	-8.977	1.00	39.79	C
ATOM	15	SD	MET	A	1	-19.560	10.886	-10.572	1.00	49.17	S
ATOM	16	CE	MET	A	1	-19.980	12.506	-11.210	1.00	30.92	C
ATOM	17	C	MET	A	1	-17.647	12.550	-6.772	1.00	38.66	C
ATOM	18	O	MET	A	1	-17.142	13.622	-7.107	1.00	35.66	O
ATOM	19	N	ALA	A	2	-17.713	12.149	-5.507	1.00	40.37	N
ATOM	20	CA	ALA	A	2	-17.108	12.930	-4.436	1.00	45.63	C
ATOM	21	CB	ALA	A	2	-17.495	12.362	-3.079	1.00	39.83	C
ATOM	22	C	ALA	A	2	-15.593	12.940	-4.601	1.00	40.98	C
ATOM	23	O	ALA	A	2	-14.933	13.941	-4.320	1.00	40.05	O
ATOM	24	N	ALA	A	3	-15.052	11.817	-5.064	1.00	38.82	N
ATOM	25	CA	ALA	A	3	-13.621	11.701	-5.314	1.00	43.68	C
ATOM	26	CB	ALA	A	3	-13.259	10.264	-5.678	1.00	34.60	C
ATOM	27	C	ALA	A	3	-13.203	12.654	-6.425	1.00	32.72	C
ATOM	28	O	ALA	A	3	-12.200	13.356	-6.311	1.00	36.09	O
ATOM	29	N	ALA	A	4	-13.989	12.679	-7.497	1.00	35.81	N
ATOM	30	CA	ALA	A	4	-13.701	13.532	-8.644	1.00	26.73	C
ATOM	31	CB	ALA	A	4	-14.621	13.187	-9.802	1.00	27.09	C
ATOM	32	C	ALA	A	4	-13.822	15.011	-8.287	1.00	28.76	C
ATOM	33	O	ALA	A	4	-13.050	15.839	-8.769	1.00	30.28	O
ATOM	34	N	ALA	A	5	-14.797	15.334	-7.444	1.00	27.61	N
ATOM	35	CA	ALA	A	5	-15.005	16.708	-7.002	1.00	32.20	C
ATOM	36	CB	ALA	A	5	-16.259	16.808	-6.145	1.00	28.22	C
ATOM	37	C	ALA	A	5	-13.790	17.223	-6.238	1.00	33.93	C
ATOM	38	O	ALA	A	5	-13.451	18.405	-6.314	1.00	28.58	O
ATOM	39	N	VAL	A	6	-13.137	16.330	-5.503	1.00	33.08	N
ATOM	40	CA	VAL	A	6	-11.934	16.685	-4.764	1.00	33.44	C
ATOM	41	CB	VAL	A	6	-11.530	15.576	-3.769	1.00	33.38	C
ATOM	42	CG1	VAL	A	6	-10.185	15.894	-3.136	1.00	35.97	C
ATOM	43	CG2	VAL	A	6	-12.599	15.404	-2.702	1.00	29.20	C
ATOM	44	C	VAL	A	6	-10.783	16.933	-5.730	1.00	30.85	C
ATOM	45	O	VAL	A	6	-10.059	17.920	-5.610	1.00	26.62	O
ATOM	46	N	SER	A	7	-10.626	16.032	-6.694	1.00	31.55	N
ATOM	47	CA	SER	A	7	-9.577	16.161	-7.698	1.00	31.70	C
ATOM	48	CB	SER	A	7	-9.625	14.980	-8.665	1.00	35.87	C
ATOM	49	OG	SER	A	7	-9.589	13.750	-7.961	1.00	40.86	O
ATOM	50	C	SER	A	7	-9.723	17.467	-8.468	1.00	27.45	C
ATOM	51	O	SER	A	7	-8.735	18.129	-8.780	1.00	38.29	O
ATOM	52	N	SER	A	8	-10.963	17.831	-8.775	1.00	31.44	N
ATOM	53	CA	SER	A	8	-11.243	19.072	-9.487	1.00	31.86	C
ATOM	54	CB	SER	A	8	-12.737	19.182	-9.796	1.00	27.08	C
ATOM	55	OG	SER	A	8	-13.025	20.368	-10.516	1.00	29.58	O
ATOM	56	C	SER	A	8	-10.787	20.290	-8.688	1.00	30.02	C
ATOM	57	O	SER	A	8	-10.160	21.201	-9.233	1.00	31.63	O
ATOM	58	N	ALA	A	9	-11.108	20.304	-7.397	1.00	33.05	N
ATOM	59	CA	ALA	A	9	-10.726	21.408	-6.523	1.00	28.48	C

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ATOM	60	CB	ALA	A	9	-11.372	21.248	-5.148	1.00	34.84	C
ATOM	61	C	ALA	A	9	-9.208	21.501	-6.394	1.00	26.20	C
ATOM	62	O	ALA	A	9	-8.640	22.593	-6.419	1.00	29.65	O
ATOM	63	N	LYS	A	10	-8.556	20.350	-6.261	1.00	25.05	N
ATOM	64	CA	LYS	A	10	-7.100	20.306	-6.206	1.00	28.57	C
ATOM	65	CB	LYS	A	10	-6.603	18.872	-6.010	1.00	31.94	C
ATOM	66	CG	LYS	A	10	-6.844	18.295	-4.620	1.00	28.80	C
ATOM	67	CD	LYS	A	10	-6.317	16.867	-4.532	1.00	28.88	C
ATOM	68	CE	LYS	A	10	-6.387	16.320	-3.116	1.00	30.92	C
ATOM	69	NZ	LYS	A	10	-5.879	14.920	-3.046	1.00	31.41	N
ATOM	70	C	LYS	A	10	-6.512	20.884	-7.488	1.00	31.65	C
ATOM	71	O	LYS	A	10	-5.608	21.717	-7.449	1.00	28.85	O
ATOM	72	N	ARG	A	11	-7.040	20.432	-8.621	1.00	29.76	N
ATOM	73	CA	ARG	A	11	-6.587	20.891	-9.926	1.00	27.65	C
ATOM	74	CB	ARG	A	11	-7.344	20.156	-11.033	1.00	29.19	C
ATOM	75	CG	ARG	A	11	-7.149	20.749	-12.417	1.00	44.58	C
ATOM	76	CD	ARG	A	11	-7.954	19.979	-13.455	1.00	57.40	C
ATOM	77	NE	ARG	A	11	-9.374	19.940	-13.107	1.00	40.25	N
ATOM	78	CZ	ARG	A	11	-10.240	20.908	-13.394	1.00	53.81	C
ATOM	79	NH1	ARG	A	11	-9.835	21.992	-14.041	1.00	52.92	N
ATOM	80	NH2	ARG	A	11	-11.512	20.796	-13.037	1.00	49.16	N
ATOM	81	C	ARG	A	11	-6.762	22.398	-10.077	1.00	29.84	C
ATOM	82	O	ARG	A	11	-5.850	23.095	-10.522	1.00	30.08	O
ATOM	83	N	SER	A	12	-7.937	22.898	-9.706	1.00	33.81	N
ATOM	84	CA	SER	A	12	-8.213	24.326	-9.796	1.00	33.67	C
ATOM	85	CB	SER	A	12	-9.667	24.629	-9.423	1.00	33.93	C
ATOM	86	OG	SER	A	12	-10.534	24.397	-10.520	1.00	41.64	O
ATOM	87	C	SER	A	12	-7.257	25.138	-8.926	1.00	32.05	C
ATOM	88	O	SER	A	12	-6.787	26.200	-9.332	1.00	32.31	O
ATOM	89	N	LEU	A	13	-6.965	24.630	-7.733	1.00	28.35	N
ATOM	90	CA	LEU	A	13	-6.076	25.324	-6.808	1.00	31.76	C
ATOM	91	CB	LEU	A	13	-6.142	24.690	-5.417	1.00	28.56	C
ATOM	92	CG	LEU	A	13	-5.457	25.466	-4.289	1.00	29.23	C
ATOM	93	CD1	LEU	A	13	-5.852	26.939	-4.313	1.00	25.00	C
ATOM	94	CD2	LEU	A	13	-5.778	24.843	-2.941	1.00	24.99	C
ATOM	95	C	LEU	A	13	-4.639	25.340	-7.318	1.00	24.38	C
ATOM	96	O	LEU	A	13	-3.930	26.332	-7.160	1.00	28.27	O
ATOM	97	N	ARG	A	14	-4.212	24.238	-7.928	1.00	25.28	N
ATOM	98	CA	ARG	A	14	-2.868	24.151	-8.488	1.00	29.22	C
ATOM	99	CB	ARG	A	14	-2.607	22.756	-9.063	1.00	26.33	C
ATOM	100	CG	ARG	A	14	-2.546	21.653	-8.015	1.00	37.22	C
ATOM	101	CD	ARG	A	14	-1.980	20.368	-8.599	1.00	32.80	C
ATOM	102	NE	ARG	A	14	-2.038	19.264	-7.644	1.00	33.51	N
ATOM	103	CZ	ARG	A	14	-2.948	18.296	-7.672	1.00	40.03	C
ATOM	104	NH1	ARG	A	14	-3.882	18.282	-8.614	1.00	36.84	N
ATOM	105	NH2	ARG	A	14	-2.921	17.336	-6.759	1.00	35.60	N
ATOM	106	C	ARG	A	14	-2.644	25.218	-9.560	1.00	31.22	C
ATOM	107	O	ARG	A	14	-1.623	25.904	-9.562	1.00	28.32	O
ATOM	108	N	GLY	A	15	-3.608	25.354	-10.465	1.00	34.73	N
ATOM	109	CA	GLY	A	15	-3.535	26.358	-11.510	1.00	32.22	C
ATOM	110	C	GLY	A	15	-3.476	27.756	-10.929	1.00	33.44	C
ATOM	111	O	GLY	A	15	-2.683	28.592	-11.363	1.00	37.08	O
ATOM	112	N	GLU	A	16	-4.323	28.008	-9.937	1.00	30.90	N
ATOM	113	CA	GLU	A	16	-4.340	29.292	-9.247	1.00	40.01	C
ATOM	114	CB	GLU	A	16	-5.497	29.338	-8.250	1.00	31.39	C
ATOM	115	CG	GLU	A	16	-5.373	30.419	-7.192	1.00	44.27	C
ATOM	116	CD	GLU	A	16	-6.531	30.403	-6.213	1.00	76.03	C
ATOM	117	OE1	GLU	A	16	-7.579	29.808	-6.544	1.00	65.38	O
ATOM	118	OE2	GLU	A	16	-6.396	30.983	-5.115	1.00	66.94	O
ATOM	119	C	GLU	A	16	-3.020	29.548	-8.529	1.00	43.49	C
ATOM	120	O	GLU	A	16	-2.499	30.664	-8.545	1.00	37.47	O
ATOM	121	N	LEU	A	17	-2.482	28.505	-7.905	1.00	37.86	N
ATOM	122	CA	LEU	A	17	-1.228	28.611	-7.166	1.00	32.69	C
ATOM	123	CB	LEU	A	17	-1.016	27.374	6.288	1.00	31.01	C
ATOM	124	CG	LEU	A	17	-1.904	27.272	-5.046	1.00	36.79	C
ATOM	125	CD1	LEU	A	17	-1.770	25.902	-4.400	1.00	34.00	C
ATOM	126	CD2	LEU	A	17	-1.571	28.378	-4.054	1.00	33.36	C
ATOM	127	C	LEU	A	17	-0.041	28.800	-8.100	1.00	37.34	C

[0135]

ATOM	128	O	LEU	A	17	0.851	29.601	-7.824	1.00	36.66	O
ATOM	129	N	LYS	A	18	-0.028	28.065	-9.208	1.00	36.00	N
ATOM	130	CA	LYS	A	18	1.067	28.174	-10.166	1.00	37.03	C
ATOM	131	CB	LYS	A	18	0.993	27.071	-11.223	1.00	29.44	C
ATOM	132	CG	LYS	A	18	1.104	25.670	-10.657	1.00	43.79	C
ATOM	133	CD	LYS	A	18	1.930	24.767	-11.557	1.00	64.46	C
ATOM	134	CE	LYS	A	18	3.417	25.048	-11.393	1.00	72.85	C
ATOM	135	NZ	LYS	A	18	4.256	24.044	-12.105	1.00	54.36	N
ATOM	136	C	LYS	A	18	1.094	29.544	-10.833	1.00	38.69	C
ATOM	137	O	LYS	A	18	2.162	30.069	-11.143	1.00	48.34	O
ATOM	138	N	ALA	A	19	-0.083	30.118	-11.058	1.00	37.19	N
ATOM	139	CA	ALA	A	19	-0.167	31.459	-11.619	1.00	36.50	C
ATOM	140	CB	ALA	A	19	-1.618	31.864	-11.826	1.00	38.43	C
ATOM	141	C	ALA	A	19	0.544	32.452	-10.705	1.00	50.52	C
ATOM	142	O	ALA	A	19	1.372	33.244	-11.156	1.00	46.79	O
ATOM	143	N	ARG	A	20	0.221	32.398	-9.416	1.00	39.87	N
ATOM	144	CA	ARG	A	20	0.852	33.273	-8.431	1.00	42.52	C
ATOM	145	CB	ARG	A	20	0.270	33.031	-7.033	1.00	39.21	C
ATOM	146	CG	ARG	A	20	-1.118	33.618	-6.828	1.00	45.85	C
ATOM	147	CD	ARG	A	20	-1.396	33.920	-5.359	1.00	63.77	C
ATOM	148	NE	ARG	A	20	-2.079	32.826	-4.676	1.00	70.37	N
ATOM	149	CZ	ARG	A	20	-2.433	32.858	-3.395	1.00	70.83	C
ATOM	150	NH1	ARG	A	20	-2.161	33.927	-2.660	1.00	69.57	N
ATOM	151	NH2	ARG	A	20	-3.055	31.822	-2.847	1.00	52.65	N
ATOM	152	C	ARG	A	20	2.367	33.089	-8.403	1.00	37.06	C
ATOM	153	O	ARG	A	20	3.118	34.062	-8.359	1.00	44.20	O
ATOM	154	N	LEU	A	21	2.808	31.836	-8.427	1.00	41.16	N
ATOM	155	CA	LEU	A	21	4.229	31.522	-8.359	1.00	40.58	C
ATOM	156	CB	LEU	A	21	4.434	30.014	-8.215	1.00	34.91	C
ATOM	157	CG	LEU	A	21	3.955	29.411	-6.895	1.00	39.30	C
ATOM	158	CD1	LEU	A	21	3.748	27.907	-7.018	1.00	41.64	C
ATOM	159	CD2	LEU	A	21	4.935	29.737	-5.778	1.00	43.03	C
ATOM	160	C	LEU	A	21	4.989	32.047	-9.573	1.00	46.65	C
ATOM	161	O	LEU	A	21	6.061	32.639	-9.436	1.00	45.55	O
ATOM	162	N	ALA	A	22	4.432	31.826	-10.759	1.00	46.33	N
ATOM	163	CA	ALA	A	22	5.058	32.284	-11.993	1.00	44.66	C
ATOM	164	CB	ALA	A	22	4.277	31.779	-13.200	1.00	40.64	C
ATOM	165	C	ALA	A	22	5.162	33.805	-12.026	1.00	44.52	C
ATOM	166	O	ALA	A	22	6.037	34.361	-12.689	1.00	53.10	O
ATOM	167	N	ALA	A	23	4.276	34.471	-11.292	1.00	50.29	N
ATOM	168	CA	ALA	A	23	4.217	35.929	-11.293	1.00	39.99	C
ATOM	169	CB	ALA	A	23	2.797	36.402	-11.013	1.00	39.59	C
ATOM	170	C	ALA	A	23	5.195	36.561	-10.305	1.00	58.87	C
ATOM	171	O	ALA	A	23	5.323	37.783	-10.248	1.00	44.40	O
ATOM	172	N	MET	A	24	5.879	35.730	-9.527	1.00	62.12	N
ATOM	173	CA	MET	A	24	6.869	36.227	-8.580	1.00	52.90	C
ATOM	174	CB	MET	A	24	7.110	35.212	-7.460	1.00	45.20	C
ATOM	175	CG	MET	A	24	5.923	34.998	-6.535	1.00	43.03	C
ATOM	176	SD	MET	A	24	6.316	33.864	-5.193	1.00	54.04	S
ATOM	177	CE	MET	A	24	7.723	34.697	-4.460	1.00	41.08	C
ATOM	178	C	MET	A	24	8.184	36.538	-9.282	1.00	41.91	C
ATOM	179	O	MET	A	24	8.601	35.820	-10.190	1.00	52.38	O
ATOM	180	N	SER	A	25	8.833	37.617	-8.859	1.00	46.46	N
ATOM	181	CA	SER	A	25	10.136	37.978	-9.400	1.00	43.54	C
ATOM	182	CB	SER	A	25	10.486	39.426	-9.045	1.00	49.34	C
ATOM	183	OG	SER	A	25	10.577	39.596	-7.639	1.00	44.45	O
ATOM	184	C	SER	A	25	11.206	37.030	-8.869	1.00	43.82	C
ATOM	185	O	SER	A	25	11.043	36.429	-7.808	1.00	46.67	O
ATOM	186	N	ALA	A	26	12.298	36.895	-9.613	1.00	43.13	N
ATOM	187	CA	ALA	A	26	13.378	35.999	-9.222	1.00	40.66	C
ATOM	188	CB	ALA	A	26	14.410	35.895	-10.332	1.00	39.22	C
ATOM	189	C	ALA	A	26	14.035	36.453	-7.922	1.00	46.94	C
ATOM	190	O	ALA	A	26	14.445	35.630	-7.103	1.00	40.18	O
ATOM	191	N	GLU	A	27	14.131	37.765	-7.739	1.00	41.77	N
ATOM	192	CA	GLU	A	27	14.784	38.328	-6.563	1.00	45.37	C
ATOM	193	CB	GLU	A	27	15.211	39.774	-6.826	1.00	49.26	C
ATOM	194	CG	GLU	A	27	14.088	40.683	-7.294	1.00	56.79	C
ATOM	195	CD	GLU	A	27	14.587	42.058	-7.685	1.00	58.43	C

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ATOM	196	OE1	GLU	A	27	15.811	42.288	-7.595	1.00	66.64	O
ATOM	197	OE2	GLU	A	27	13.760	42.906	-8.083	1.00	51.22	O
ATOM	198	C	GLU	A	27	13.901	38.247	-5.319	1.00	48.93	C
ATOM	199	O	GLU	A	27	14.401	38.245	-4.194	1.00	41.64	O
ATOM	200	N	GLU	A	28	12.589	38.178	-5.525	1.00	41.59	N
ATOM	201	CA	GLU	A	28	11.657	38.032	-4.412	1.00	35.67	C
ATOM	202	CB	GLU	A	28	10.245	38.452	-4.824	1.00	42.36	C
ATOM	203	CG	GLU	A	28	9.155	38.025	-3.849	1.00	44.64	C
ATOM	204	CD	GLU	A	28	9.240	38.731	-2.505	1.00	47.59	C
ATOM	205	OE1	GLU	A	28	10.176	39.533	-2.299	1.00	39.19	O
ATOM	206	OE2	GLU	A	28	8.363	38.482	-1.652	1.00	47.29	O
ATOM	207	C	GLU	A	28	11.656	36.598	-3.899	1.00	45.04	C
ATOM	208	O	GLU	A	28	11.565	36.359	-2.695	1.00	46.95	O
ATOM	209	N	ARG	A	29	11.756	35.644	-4.819	1.00	37.55	N
ATOM	210	CA	ARG	A	29	11.855	34.238	-4.447	1.00	43.86	C
ATOM	211	CB	ARG	A	29	11.915	33.347	-5.690	1.00	35.80	C
ATOM	212	CG	ARG	A	29	10.646	33.340	-6.524	1.00	46.66	C
ATOM	213	CD	ARG	A	29	10.696	32.244	-7.580	1.00	57.23	C
ATOM	214	NE	ARG	A	29	9.592	32.341	-8.530	1.00	61.21	N
ATOM	215	CZ	ARG	A	29	9.695	32.869	-9.746	1.00	72.85	C
ATOM	216	NH1	ARG	A	29	10.857	33.349	-10.169	1.00	61.12	N
ATOM	217	NH2	ARG	A	29	8.637	32.914	-10.544	1.00	61.98	N
ATOM	218	C	ARG	A	29	13.098	34.015	-3.596	1.00	44.98	C
ATOM	219	O	ARG	A	29	13.057	33.307	-2.592	1.00	34.72	O
ATOM	220	N	LEU	A	30	14.203	34.627	-4.010	1.00	39.40	N
ATOM	221	CA	LEU	A	30	15.466	34.498	-3.295	1.00	47.51	C
ATOM	222	CB	LEU	A	30	16.607	35.096	-4.119	1.00	41.72	C
ATOM	223	CG	LEU	A	30	16.945	34.377	-5.424	1.00	54.84	C
ATOM	224	CD1	LEU	A	30	17.663	35.310	-6.391	1.00	57.01	C
ATOM	225	CD2	LEU	A	30	17.769	33.123	-5.158	1.00	39.95	C
ATOM	226	C	LEU	A	30	15.398	35.165	-1.926	1.00	43.43	C
ATOM	227	O	LEU	A	30	16.087	34.754	-0.992	1.00	44.89	O
ATOM	228	N	ARG	A	31	14.564	36.193	-1.811	1.00	44.79	N
ATOM	229	CA	ARG	A	31	14.419	36.921	-0.556	1.00	41.05	C
ATOM	230	CB	ARG	A	31	13.662	38.232	-0.772	1.00	36.99	C
ATOM	231	CG	ARG	A	31	13.662	39.140	0.447	1.00	40.86	C
ATOM	232	CD	ARG	A	31	12.744	40.334	0.260	1.00	38.85	C
ATOM	233	NE	ARG	A	31	11.339	39.941	0.204	1.00	46.06	N
ATOM	234	CZ	ARG	A	31	10.607	39.633	1.270	1.00	36.96	C
ATOM	235	NH1	ARG	A	31	11.149	39.666	2.480	1.00	40.48	N
ATOM	236	NH2	ARG	A	31	9.335	39.288	1.126	1.00	31.91	N
ATOM	237	C	ARG	A	31	13.709	36.082	0.499	1.00	44.23	C
ATOM	238	O	ARG	A	31	14.228	35.884	1.598	1.00	35.94	O
ATOM	239	N	GLN	A	32	12.517	35.596	0.165	1.00	37.45	N
ATOM	240	CA	GLN	A	32	11.766	34.746	1.082	1.00	40.22	C
ATOM	241	CB	GLN	A	32	10.385	34.407	0.516	1.00	36.11	C
ATOM	242	CG	GLN	A	32	9.463	35.604	0.357	1.00	44.90	C
ATOM	243	CD	GLN	A	32	8.030	35.199	0.074	1.00	40.53	C
ATOM	244	OE1	GLN	A	32	7.507	34.264	0.680	1.00	36.76	O
ATOM	245	NE2	GLN	A	32	7.386	35.904	-0.849	1.00	31.94	N
ATOM	246	C	GLN	A	32	12.540	33.468	1.379	1.00	37.11	C
ATOM	247	O	GLN	A	32	12.412	32.892	2.458	1.00	38.49	O
ATOM	248	N	SER	A	33	13.345	33.032	0.415	1.00	39.49	N
ATOM	249	CA	SER	A	33	14.175	31.846	0.592	1.00	37.81	C
ATOM	250	CB	SER	A	33	14.851	31.458	-0.725	1.00	35.89	C
ATOM	251	OG	SER	A	33	13.915	30.921	-1.642	1.00	30.44	O
ATOM	252	C	SER	A	33	15.221	32.070	1.678	1.00	35.64	C
ATOM	253	O	SER	A	33	15.476	31.188	2.496	1.00	31.88	O
ATOM	254	N	ARG	A	34	15.824	33.254	1.681	1.00	40.06	N
ATOM	255	CA	ARG	A	34	16.826	33.601	2.683	1.00	36.24	C
ATOM	256	CB	ARG	A	34	17.591	34.859	2.266	1.00	46.15	C
ATOM	257	CG	ARG	A	34	18.516	34.641	1.082	1.00	43.75	C
ATOM	258	CD	ARG	A	34	18.997	35.954	0.487	1.00	60.28	C
ATOM	259	NE	ARG	A	34	19.609	35.747	-0.823	1.00	67.57	N
ATOM	260	CZ	ARG	A	34	19.870	36.716	-1.694	1.00	78.88	C
ATOM	261	NH1	ARG	A	34	19.573	37.976	-1.403	1.00	70.51	N
ATOM	262	NH2	ARG	A	34	20.426	36.424	-2.862	1.00	88.18	N
ATOM	263	C	ARG	A	34	16.196	33.790	4.059	1.00	33.84	C

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ATOM	264	O	ARG	A	34	16.830	33.535	5.083	1.00	36.10	O
ATOM	265	N	VAL	A	35	14.946	34.237	4.078	1.00	32.54	N
ATOM	266	CA	VAL	A	35	14.217	34.389	5.333	1.00	37.13	C
ATOM	267	CB	VAL	A	35	12.910	35.177	5.146	1.00	38.96	C
ATOM	268	CG1	VAL	A	35	12.098	35.172	6.433	1.00	46.77	C
ATOM	269	CG2	VAL	A	35	13.209	36.602	4.702	1.00	39.96	C
ATOM	270	C	VAL	A	35	13.908	33.024	5.941	1.00	41.80	C
ATOM	271	O	VAL	A	35	14.078	32.816	7.142	1.00	36.70	O
ATOM	272	N	LEU	A	36	13.457	32.094	5.104	1.00	34.49	N
ATOM	273	CA	LEU	A	36	13.156	30.742	5.563	1.00	39.38	C
ATOM	274	CB	LEU	A	36	12.355	29.967	4.512	1.00	34.28	C
ATOM	275	CG	LEU	A	36	10.833	30.071	4.636	1.00	41.84	C
ATOM	276	CD1	LEU	A	36	10.375	31.507	4.460	1.00	53.80	C
ATOM	277	CD2	LEU	A	36	10.145	29.162	3.635	1.00	31.09	C
ATOM	278	C	LEU	A	36	14.423	29.981	5.935	1.00	35.15	C
ATOM	279	O	LEU	A	36	14.424	29.188	6.874	1.00	38.60	O
ATOM	280	N	SER	A	37	15.500	30.226	5.198	1.00	31.87	N
ATOM	281	CA	SER	A	37	16.781	29.608	5.505	1.00	29.99	C
ATOM	282	CB	SER	A	37	17.862	30.109	4.551	1.00	28.65	C
ATOM	283	OG	SER	A	37	17.659	29.602	3.249	1.00	47.32	O
ATOM	284	C	SER	A	37	17.181	29.892	6.946	1.00	34.99	C
ATOM	285	O	SER	A	37	17.475	28.975	7.710	1.00	30.68	O
ATOM	286	N	GLN	A	38	17.186	31.169	7.311	1.00	34.40	N
ATOM	287	CA	GLN	A	38	17.542	31.582	8.663	1.00	36.71	C
ATOM	288	CB	GLN	A	38	17.595	33.108	8.756	1.00	41.17	C
ATOM	289	CG	GLN	A	38	18.492	33.757	7.712	1.00	42.19	C
ATOM	290	CD	GLN	A	38	19.931	33.286	7.802	1.00	66.94	C
ATOM	291	OE1	GLN	A	38	20.457	33.058	8.892	1.00	67.58	O
ATOM	292	NE2	GLN	A	38	20.577	33.144	6.651	1.00	56.59	N
ATOM	293	C	GLN	A	38	16.565	31.022	9.696	1.00	37.01	C
ATOM	294	O	GLN	A	38	16.959	30.677	10.810	1.00	35.68	O
ATOM	295	N	LYS	A	39	15.291	30.931	9.323	1.00	28.60	N
ATOM	296	CA	LYS	A	39	14.278	30.366	10.211	1.00	29.98	C
ATOM	297	CB	LYS	A	39	12.870	30.582	9.645	1.00	39.07	C
ATOM	298	CG	LYS	A	39	12.420	32.035	9.608	1.00	38.73	C
ATOM	299	CD	LYS	A	39	11.140	32.193	8.797	1.00	57.75	C
ATOM	300	CE	LYS	A	39	9.894	31.991	9.646	1.00	48.34	C
ATOM	301	NZ	LYS	A	39	9.420	33.267	10.255	1.00	59.89	N
ATOM	302	C	LYS	A	39	14.529	28.878	10.440	1.00	41.19	C
ATOM	303	O	LYS	A	39	14.312	28.363	11.537	1.00	28.97	O
ATOM	304	N	VAL	A	40	14.988	28.193	9.397	1.00	29.50	N
ATOM	305	CA	VAL	A	40	15.279	26.765	9.485	1.00	29.76	C
ATOM	306	CB	VAL	A	40	15.489	26.138	8.090	1.00	33.26	C
ATOM	307	CG1	VAL	A	40	16.109	24.752	8.212	1.00	29.23	C
ATOM	308	CG2	VAL	A	40	14.174	26.070	7.339	1.00	34.30	C
ATOM	309	C	VAL	A	40	16.510	26.491	10.343	1.00	36.70	C
ATOM	310	O	VAL	A	40	16.514	25.572	11.163	1.00	32.29	O
ATOM	311	N	ILE	A	41	17.553	27.290	10.147	1.00	29.52	N
ATOM	312	CA	ILE	A	41	18.799	27.107	10.882	1.00	34.56	C
ATOM	313	CB	ILE	A	41	19.905	28.050	10.370	1.00	33.41	C
ATOM	314	CG1	ILE	A	41	20.016	27.970	8.846	1.00	40.75	C
ATOM	315	CD1	ILE	A	41	20.155	26.559	8.313	1.00	37.26	C
ATOM	316	CG2	ILE	A	41	21.234	27.706	11.013	1.00	40.75	C
ATOM	317	C	ILE	A	41	18.597	27.321	12.380	1.00	35.87	C
ATOM	318	O	ILE	A	41	19.300	26.735	13.200	1.00	30.56	O
ATOM	319	N	ALA	A	42	17.626	28.158	12.731	1.00	36.40	N
ATOM	320	CA	ALA	A	42	17.328	28.438	14.130	1.00	42.84	C
ATOM	321	CB	ALA	A	42	16.849	29.873	14.294	1.00	35.96	C
ATOM	322	C	ALA	A	42	16.289	27.462	14.676	1.00	38.76	C
ATOM	323	O	ALA	A	42	15.985	27.468	15.869	1.00	30.53	O
ATOM	324	N	HIS	A	43	15.752	26.624	13.794	1.00	27.39	N
ATOM	325	CA	HIS	A	43	14.702	25.679	14.161	1.00	32.83	C
ATOM	326	CB	HIS	A	43	14.059	25.088	12.904	1.00	28.97	C
ATOM	327	CG	HIS	A	43	12.675	24.560	13.122	1.00	26.07	C
ATOM	328	ND1	HIS	A	43	12.428	23.300	13.622	1.00	37.13	N
ATOM	329	CE1	HIS	A	43	11.124	23.109	13.705	1.00	35.18	C
ATOM	330	NE2	HIS	A	43	10.515	24.200	13.275	1.00	33.81	N
ATOM	331	CD2	HIS	A	43	11.463	25.122	12.903	1.00	31.63	C

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ATOM	332	C	HIS	A	43	15.243	24.562	15.054	1.00	31.99	C
ATOM	333	O	HIS	A	43	16.286	23.975	14.765	1.00	25.53	O
ATOM	334	N	SER	A	44	14.524	24.269	16.134	1.00	34.05	N
ATOM	335	CA	SER	A	44	14.982	23.297	17.126	1.00	29.49	C
ATOM	336	CB	SER	A	44	14.178	23.424	18.424	1.00	33.02	C
ATOM	337	OG	SER	A	44	12.795	23.228	18.191	1.00	49.40	O
ATOM	338	C	SER	A	44	14.945	21.855	16.626	1.00	31.02	C
ATOM	339	O	SER	A	44	15.813	21.055	16.972	1.00	31.33	O
ATOM	340	N	GLU	A	45	13.939	21.519	15.825	1.00	26.57	N
ATOM	341	CA	GLU	A	45	13.857	20.178	15.254	1.00	25.63	C
ATOM	342	CB	GLU	A	45	12.474	19.911	14.654	1.00	30.74	C
ATOM	343	CG	GLU	A	45	11.416	19.550	15.681	1.00	44.15	C
ATOM	344	CD	GLU	A	45	11.742	18.271	16.430	1.00	69.97	C
ATOM	345	OE1	GLU	A	45	11.838	17.203	15.787	1.00	55.37	O
ATOM	346	OE2	GLU	A	45	11.896	18.332	17.667	1.00	50.89	O
ATOM	347	C	GLU	A	45	14.944	19.958	14.207	1.00	25.59	C
ATOM	348	O	GLU	A	45	15.415	18.838	14.020	1.00	28.97	O
ATOM	349	N	TYR	A	46	15.342	21.030	13.527	1.00	25.09	N
ATOM	350	CA	TYR	A	46	16.421	20.946	12.549	1.00	26.65	C
ATOM	351	CB	TYR	A	46	16.481	22.205	11.683	1.00	26.17	C
ATOM	352	CG	TYR	A	46	17.744	22.278	10.859	1.00	34.88	C
ATOM	353	CD1	TYR	A	46	17.882	21.525	9.701	1.00	26.33	C
ATOM	354	CE1	TYR	A	46	19.037	21.581	8.947	1.00	27.53	C
ATOM	355	CZ	TYR	A	46	20.076	22.390	9.352	1.00	28.52	C
ATOM	356	OH	TYR	A	46	21.226	22.441	8.600	1.00	32.34	O
ATOM	357	CE2	TYR	A	46	19.966	23.143	10.502	1.00	30.21	C
ATOM	358	CD2	TYR	A	46	18.806	23.082	11.249	1.00	29.04	C
ATOM	359	C	TYR	A	46	17.776	20.728	13.216	1.00	28.94	C
ATOM	360	O	TYR	A	46	18.544	19.857	12.812	1.00	25.20	O
ATOM	361	N	GLN	A	47	18.063	21.527	14.238	1.00	26.76	N
ATOM	362	CA	GLN	A	47	19.345	21.452	14.927	1.00	34.32	C
ATOM	363	CB	GLN	A	47	19.484	22.604	15.926	1.00	25.69	C
ATOM	364	CG	GLN	A	47	19.765	23.952	15.273	1.00	27.35	C
ATOM	365	CD	GLN	A	47	21.087	23.975	14.522	1.00	42.04	C
ATOM	366	OE1	GLN	A	47	22.039	23.287	14.893	1.00	37.56	O
ATOM	367	NE2	GLN	A	47	21.153	24.775	13.463	1.00	36.57	N
ATOM	368	C	GLN	A	47	19.542	20.109	15.625	1.00	27.13	C
ATOM	369	O	GLN	A	47	20.669	19.632	15.759	1.00	28.81	O
ATOM	370	N	LYS	A	48	18.443	19.499	16.054	1.00	24.87	N
ATOM	371	CA	LYS	A	48	18.505	18.220	16.754	1.00	31.68	C
ATOM	372	CB	LYS	A	48	17.280	18.045	17.653	1.00	30.89	C
ATOM	373	CG	LYS	A	48	17.193	19.030	18.807	1.00	30.86	C
ATOM	374	CD	LYS	A	48	15.867	18.891	19.540	1.00	45.30	C
ATOM	375	CE	LYS	A	48	15.853	19.721	20.811	1.00	44.14	C
ATOM	376	NZ	LYS	A	48	16.930	19.294	21.745	1.00	50.74	N
ATOM	377	C	LYS	A	48	18.589	17.048	15.781	1.00	29.36	C
ATOM	378	O	LYS	A	48	19.108	15.986	16.121	1.00	30.71	O
ATOM	379	N	SER	A	49	18.076	17.245	14.571	1.00	28.47	N
ATOM	380	CA	SER	A	49	17.999	16.168	13.590	1.00	31.19	C
ATOM	381	CB	SER	A	49	17.089	16.562	12.419	1.00	30.63	C
ATOM	382	OG	SER	A	49	17.704	17.553	11.608	1.00	41.68	O
ATOM	383	C	SER	A	49	19.372	15.753	13.075	1.00	31.79	C
ATOM	384	O	SER	A	49	20.228	16.595	12.811	1.00	39.69	O
ATOM	385	N	LYS	A	50	19.565	14.447	12.926	1.00	28.18	N
ATOM	386	CA	LYS	A	50	20.845	13.894	12.503	1.00	29.45	C
ATOM	387	CB	LYS	A	50	21.272	12.782	13.462	1.00	40.96	C
ATOM	388	CG	LYS	A	50	21.366	13.230	14.917	1.00	55.59	C
ATOM	389	CD	LYS	A	50	21.126	12.074	15.877	1.00	51.61	C
ATOM	390	CE	LYS	A	50	21.244	12.523	17.327	1.00	53.43	C
ATOM	391	NZ	LYS	A	50	20.373	13.694	17.631	1.00	45.80	N
ATOM	392	C	LYS	A	50	20.778	13.364	11.071	1.00	29.53	C
ATOM	393	O	LYS	A	50	21.740	13.479	10.310	1.00	28.97	O
ATOM	394	N	ARG	A	51	19.637	12.782	10.711	1.00	29.83	N
ATOM	395	CA	ARG	A	51	19.429	12.254	9.365	1.00	25.62	C
ATOM	396	CB	ARG	A	51	19.122	10.757	9.419	1.00	23.45	C
ATOM	397	CG	ARG	A	51	20.252	9.931	10.023	1.00	27.23	C
ATOM	398	CD	ARG	A	51	19.798	8.532	10.398	1.00	24.82	C
ATOM	399	NE	ARG	A	51	19.213	7.830	9.262	1.00	27.74	N

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ATOM	400	CZ	ARG	A	51	19.913	7.148	8.362	1.00	32.94	C
ATOM	401	NH1	ARG	A	51	21.234	7.071	8.463	1.00	29.22	N
ATOM	402	NH2	ARG	A	51	19.291	6.544	7.360	1.00	27.58	N
ATOM	403	C	ARG	A	51	18.305	13.017	8.668	1.00	24.68	C
ATOM	404	O	ARG	A	51	17.177	13.064	9.155	1.00	25.76	O
ATOM	405	N	ILE	A	52	18.619	13.608	7.522	1.00	26.07	N
ATOM	406	CA	ILE	A	52	17.719	14.573	6.907	1.00	26.68	C
ATOM	407	CB	ILE	A	52	18.287	15.996	7.045	1.00	35.11	C
ATOM	408	CG1	ILE	A	52	17.261	17.035	6.598	1.00	30.98	C
ATOM	409	CD1	ILE	A	52	17.676	18.434	6.936	1.00	51.42	C
ATOM	410	CG2	ILE	A	52	19.577	16.139	6.252	1.00	36.84	C
ATOM	411	C	ILE	A	52	17.399	14.301	5.439	1.00	24.12	C
ATOM	412	O	ILE	A	52	18.252	13.860	4.668	1.00	28.67	O
ATOM	413	N	SER	A	53	16.151	14.568	5.068	1.00	24.80	N
ATOM	414	CA	SER	A	53	15.726	14.525	3.673	1.00	24.13	C
ATOM	415	CB	SER	A	53	14.541	13.575	3.497	1.00	26.22	C
ATOM	416	OG	SER	A	53	13.888	13.801	2.266	1.00	25.94	O
ATOM	417	C	SER	A	53	15.339	15.927	3.218	1.00	25.04	C
ATOM	418	O	SER	A	53	14.463	16.556	3.808	1.00	22.16	O
ATOM	419	N	ILE	A	54	15.999	16.417	2.173	1.00	24.64	N
ATOM	420	CA	ILE	A	54	15.690	17.733	1.626	1.00	25.59	C
ATOM	421	CB	ILE	A	54	16.737	18.777	2.050	1.00	27.74	C
ATOM	422	CG1	ILE	A	54	16.287	20.187	1.654	1.00	29.36	C
ATOM	423	CD1	ILE	A	54	17.064	21.283	2.343	1.00	30.14	C
ATOM	424	CG2	ILE	A	54	18.094	18.441	1.449	1.00	23.80	C
ATOM	425	C	ILE	A	54	15.605	17.677	0.102	1.00	27.19	C
ATOM	426	O	ILE	A	54	16.295	16.885	-0.539	1.00	25.28	O
ATOM	427	N	PHE	A	55	14.755	18.521	-0.473	1.00	23.32	N
ATOM	428	CA	PHE	A	55	14.557	18.537	-1.917	1.00	25.72	C
ATOM	429	CB	PHE	A	55	13.086	18.803	-2.255	1.00	26.43	C
ATOM	430	CG	PHE	A	55	12.543	20.072	-1.660	1.00	30.99	C
ATOM	431	CD1	PHE	A	55	12.590	21.261	-2.370	1.00	26.92	C
ATOM	432	CE1	PHE	A	55	12.088	22.432	-1.824	1.00	24.99	C
ATOM	433	CZ	PHE	A	55	11.529	22.421	-0.557	1.00	26.29	C
ATOM	434	CE2	PHE	A	55	11.476	21.242	0.160	1.00	24.23	C
ATOM	435	CD2	PHE	A	55	11.980	20.076	-0.391	1.00	26.41	C
ATOM	436	C	PHE	A	55	15.449	19.562	-2.605	1.00	32.16	C
ATOM	437	O	PHE	A	55	15.853	20.557	-2.000	1.00	24.71	O
ATOM	438	N	LEU	A	56	15.766	19.300	-3.869	1.00	23.29	N
ATOM	439	CA	LEU	A	56	16.492	20.252	-4.702	1.00	29.50	C
ATOM	440	CB	LEU	A	56	17.397	19.516	-5.692	1.00	30.43	C
ATOM	441	CG	LEU	A	56	18.343	18.487	-5.059	1.00	30.70	C
ATOM	442	CD1	LEU	A	56	19.217	17.846	-6.120	1.00	26.28	C
ATOM	443	CD2	LEU	A	56	19.199	19.129	-3.976	1.00	28.82	C
ATOM	444	C	LEU	A	56	15.482	21.136	-5.434	1.00	38.67	C
ATOM	445	O	LEU	A	56	14.594	20.641	-6.127	1.00	34.26	O
ATOM	446	N	SER	A	57	15.627	22.446	-5.271	1.00	36.35	N
ATOM	447	CA	SER	A	57	14.580	23.396	-5.638	1.00	35.39	C
ATOM	448	CB	SER	A	57	14.866	24.762	-5.007	1.00	30.14	C
ATOM	449	OG	SER	A	57	14.920	24.670	-3.597	1.00	31.76	O
ATOM	450	C	SER	A	57	14.336	23.569	-7.136	1.00	35.22	C
ATOM	451	O	SER	A	57	15.273	23.704	-7.921	1.00	29.40	O
ATOM	452	N	MET	A	58	13.060	23.565	-7.511	1.00	30.41	N
ATOM	453	CA	MET	A	58	12.636	23.994	-8.836	1.00	41.22	C
ATOM	454	CB	MET	A	58	11.358	23.267	-9.257	1.00	39.47	C
ATOM	455	CG	MET	A	58	11.519	21.757	-9.377	1.00	35.43	C
ATOM	456	SD	MET	A	58	9.974	20.908	-9.755	1.00	52.68	S
ATOM	457	CE	MET	A	58	10.392	19.224	-9.310	1.00	52.72	C
ATOM	458	C	MET	A	58	12.408	25.504	-8.801	1.00	44.27	C
ATOM	459	O	MET	A	58	12.435	26.113	-7.731	1.00	38.74	O
ATOM	460	N	GLN	A	59	12.176	26.107	-9.962	1.00	47.52	N
ATOM	461	CA	GLN	A	59	12.106	27.564	-10.055	1.00	56.34	C
ATOM	462	CB	GLN	A	59	12.108	28.018	-11.518	1.00	48.33	C
ATOM	463	CG	GLN	A	59	13.340	27.586	-12.297	1.00	50.33	C
ATOM	464	CD	GLN	A	59	14.633	28.066	-11.663	1.00	72.97	C
ATOM	465	OE1	GLN	A	59	14.654	29.068	-10.948	1.00	83.62	O
ATOM	466	NE2	GLN	A	59	15.722	27.351	-11.926	1.00	90.53	N
ATOM	467	C	GLN	A	59	10.915	28.171	-9.317	1.00	40.29	C

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ATOM	468	O	GLN	A	59	10.912	29.364	-9.020	1.00	44.32	O
ATOM	469	N	ASP	A	60	9.908	27.355	-9.024	1.00	40.92	N
ATOM	470	CA	ASP	A	60	8.725	27.835	-8.314	1.00	35.98	C
ATOM	471	CB	ASP	A	60	7.445	27.401	-9.034	1.00	39.33	C
ATOM	472	CG	ASP	A	60	7.357	25.899	-9.211	1.00	54.58	C
ATOM	473	OD1	ASP	A	60	8.309	25.190	-8.818	1.00	46.44	O
ATOM	474	OD2	ASP	A	60	6.333	25.425	9.747	1.00	47.71	O
ATOM	475	C	ASP	A	60	8.697	27.367	-6.863	1.00	38.04	C
ATOM	476	O	ASP	A	60	7.638	27.319	-6.239	1.00	38.40	O
ATOM	477	N	GLU	A	61	9.868	27.029	-6.332	1.00	30.77	N
ATOM	478	CA	GLU	A	61	9.978	26.547	-4.959	1.00	35.63	C
ATOM	479	CB	GLU	A	61	10.367	25.068	-4.941	1.00	28.95	C
ATOM	480	CG	GLU	A	61	9.316	24.120	-5.483	1.00	38.87	C
ATOM	481	CD	GLU	A	61	9.803	22.684	-5.504	1.00	29.74	C
ATOM	482	OE1	GLU	A	61	11.030	22.477	-5.586	1.00	26.45	O
ATOM	483	OE2	GLU	A	61	8.966	21.762	-5.438	1.00	38.35	O
ATOM	484	C	GLU	A	61	11.006	27.336	-4.156	1.00	33.03	C
ATOM	485	O	GLU	A	61	11.972	27.864	-4.709	1.00	27.59	O
ATOM	486	N	ILE	A	62	10.788	27.409	-2.846	1.00	31.44	N
ATOM	487	CA	ILE	A	62	11.774	27.971	-1.938	1.00	30.14	C
ATOM	488	CB	ILE	A	62	11.399	27.704	-0.465	1.00	26.78	C
ATOM	489	CG1	ILE	A	62	10.354	28.711	0.020	1.00	29.24	C
ATOM	490	CD1	ILE	A	62	10.922	30.087	0.315	1.00	28.80	C
ATOM	491	CG2	ILE	A	62	12.632	27.781	0.416	1.00	31.60	C
ATOM	492	C	ILE	A	62	13.126	27.333	-2.222	1.00	31.67	C
ATOM	493	O	ILE	A	62	13.238	26.109	-2.288	1.00	29.84	O
ATOM	494	N	GLU	A	63	14.149	28.162	-2.402	1.00	28.68	N
ATOM	495	CA	GLU	A	63	15.493	27.665	-2.682	1.00	32.98	C
ATOM	496	CB	GLU	A	63	16.362	28.769	-3.287	1.00	33.65	C
ATOM	497	CG	GLU	A	63	17.826	28.392	-3.431	1.00	39.99	C
ATOM	498	CD	GLU	A	63	18.046	27.245	-4.399	1.00	42.40	C
ATOM	499	OE1	GLU	A	63	17.677	27.382	-5.584	1.00	39.73	O
ATOM	500	OE2	GLU	A	63	18.600	26.209	-3.975	1.00	36.14	O
ATOM	501	C	GLU	A	63	16.151	27.095	-1.425	1.00	33.09	C
ATOM	502	O	GLU	A	63	16.259	27.775	-0.406	1.00	34.17	O
ATOM	503	N	THR	A	64	16.596	25.844	-1.510	1.00	27.40	N
ATOM	504	CA	THR	A	64	17.131	25.137	-0.351	1.00	27.73	C
ATOM	505	CB	THR	A	64	16.623	23.682	-0.302	1.00	27.73	C
ATOM	506	OG1	THR	A	64	17.022	22.997	-1.497	1.00	28.70	O
ATOM	507	CG2	THR	A	64	15.107	23.643	-0.177	1.00	23.38	C
ATOM	508	C	THR	A	64	18.656	25.099	-0.319	1.00	29.81	C
ATOM	509	O	THR	A	64	19.245	24.462	0.554	1.00	27.99	O
ATOM	510	N	GLU	A	65	19.291	25.780	-1.267	1.00	26.44	N
ATOM	511	CA	GLU	A	65	20.746	25.722	-1.414	1.00	27.35	C
ATOM	512	CB	GLU	A	65	21.216	26.641	-2.544	1.00	30.61	C
ATOM	513	CG	GLU	A	65	22.721	26.641	-2.755	1.00	39.24	C
ATOM	514	CD	GLU	A	65	23.118	27.274	-4.072	1.00	54.22	C
ATOM	515	OE1	GLU	A	65	22.215	27.570	-4.881	1.00	77.10	O
ATOM	516	OE2	GLU	A	65	24.330	27.474	-4.299	1.00	62.44	O
ATOM	517	C	GLU	A	65	21.511	26.046	-0.131	1.00	29.12	C
ATOM	518	O	GLU	A	65	22.441	25.333	0.239	1.00	27.66	O
ATOM	519	N	GLU	A	66	21.122	27.125	0.539	1.00	28.32	N
ATOM	520	CA	GLU	A	66	21.817	27.558	1.746	1.00	37.24	C
ATOM	521	CB	GLU	A	66	21.366	28.962	2.162	1.00	35.36	C
ATOM	522	CG	GLU	A	66	22.179	29.558	3.300	1.00	49.41	C
ATOM	523	CD	GLU	A	66	21.781	30.987	3.619	1.00	74.37	C
ATOM	524	OE1	GLU	A	66	21.445	31.741	2.680	1.00	59.62	O
ATOM	525	OE2	GLU	A	66	21.809	31.357	4.811	1.00	72.13	O
ATOM	526	C	GLU	A	66	21.616	26.568	2.890	1.00	27.87	C
ATOM	527	O	GLU	A	66	22.530	26.326	3.677	1.00	28.20	O
ATOM	528	N	ILE	A	67	20.417	25.998	2.975	1.00	26.17	N
ATOM	529	CA	ILE	A	67	20.124	24.983	3.981	1.00	27.49	C
ATOM	530	CB	ILE	A	67	18.643	24.566	3.955	1.00	28.51	C
ATOM	531	CG1	ILE	A	67	17.743	25.774	4.220	1.00	30.92	C
ATOM	532	CD1	ILE	A	67	16.263	25.454	4.198	1.00	24.68	C
ATOM	533	CG2	ILE	A	67	18.379	23.481	4.985	1.00	24.91	C
ATOM	534	C	ILE	A	67	20.995	23.750	3.767	1.00	30.76	C
ATOM	535	O	ILE	A	67	21.548	23.197	4.716	1.00	29.92	O

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ATOM	536	N	ILE	A	68	21.115	23.328	2.512	1.00	32.73	N
ATOM	537	CA	ILE	A	68	21.936	22.175	2.162	1.00	26.45	C
ATOM	538	CB	ILE	A	68	21.889	21.882	0.649	1.00	27.21	C
ATOM	539	CG1	ILE	A	68	20.482	21.441	0.234	1.00	25.56	C
ATOM	540	CD1	ILE	A	68	20.291	21.330	-1.264	1.00	26.25	C
ATOM	541	CG2	ILE	A	68	22.899	20.812	0.287	1.00	23.87	C
ATOM	542	C	ILE	A	68	23.386	22.374	2.601	1.00	32.70	C
ATOM	543	O	ILE	A	68	24.021	21.451	3.114	1.00	26.24	O
ATOM	544	N	LYS	A	69	23.902	23.584	2.402	1.00	26.99	N
ATOM	545	CA	LYS	A	69	25.255	23.917	2.831	1.00	28.05	C
ATOM	546	CB	LYS	A	69	25.627	25.338	2.403	1.00	27.25	C
ATOM	547	CG	LYS	A	69	25.777	25.527	0.904	1.00	50.71	C
ATOM	548	CD	LYS	A	69	26.207	26.949	0.579	1.00	51.27	C
ATOM	549	CE	LYS	A	69	26.103	27.235	-0.911	1.00	64.98	C
ATOM	550	NZ	LYS	A	69	26.330	28.676	-1.212	1.00	61.77	N
ATOM	551	C	LYS	A	69	25.378	23.787	4.345	1.00	28.63	C
ATOM	552	O	LYS	A	69	26.336	23.206	4.852	1.00	33.43	O
ATOM	553	N	ASP	A	70	24.401	24.336	5.060	1.00	29.82	N
ATOM	554	CA	ASP	A	70	24.391	24.277	6.515	1.00	28.82	C
ATOM	555	CB	ASP	A	70	23.194	25.047	7.076	1.00	25.98	C
ATOM	556	CG	ASP	A	70	23.295	25.266	8.574	1.00	32.74	C
ATOM	557	OD1	ASP	A	70	24.159	26.060	9.001	1.00	26.87	O
ATOM	558	OD2	ASP	A	70	22.507	24.652	9.325	1.00	30.72	O
ATOM	559	C	ASP	A	70	24.338	22.829	6.984	1.00	31.56	C
ATOM	560	O	ASP	A	70	25.043	22.439	7.917	1.00	29.98	O
ATOM	561	N	ILE	A	71	23.495	22.038	6.327	1.00	25.52	N
ATOM	562	CA	ILE	A	71	23.347	20.623	6.645	1.00	27.50	C
ATOM	563	CB	ILE	A	71	22.442	19.913	5.616	1.00	24.31	C
ATOM	564	CG1	ILE	A	71	20.972	20.217	5.904	1.00	23.17	C
ATOM	565	CD1	ILE	A	71	20.024	19.683	4.855	1.00	29.66	C
ATOM	566	CG2	ILE	A	71	22.682	18.413	5.637	1.00	25.88	C
ATOM	567	C	ILE	A	71	24.691	19.905	6.708	1.00	31.62	C
ATOM	568	O	ILE	A	71	24.974	19.178	7.663	1.00	28.95	O
ATOM	569	N	PHE	A	72	25.516	20.119	5.687	1.00	31.70	N
ATOM	570	CA	PHE	A	72	26.812	19.457	5.599	1.00	27.46	C
ATOM	571	CB	PHE	A	72	27.347	19.496	4.166	1.00	31.83	C
ATOM	572	CG	PHE	A	72	26.670	18.523	3.243	1.00	31.88	C
ATOM	573	CD1	PHE	A	72	26.997	17.178	3.277	1.00	34.85	C
ATOM	574	CE1	PHE	A	72	26.377	16.279	2.435	1.00	28.17	C
ATOM	575	CZ	PHE	A	72	25.417	16.718	1.543	1.00	30.46	C
ATOM	576	CE2	PHE	A	72	25.081	18.056	1.498	1.00	38.89	C
ATOM	577	CD2	PHE	A	72	25.705	18.951	2.347	1.00	29.77	C
ATOM	578	C	PHE	A	72	27.836	20.044	6.565	1.00	31.32	C
ATOM	579	O	PHE	A	72	28.724	19.336	7.036	1.00	32.60	O
ATOM	580	N	GLN	A	73	27.709	21.334	6.858	1.00	35.07	N
ATOM	581	CA	GLN	A	73	28.620	21.995	7.787	1.00	40.47	C
ATOM	582	CB	GLN	A	73	28.476	23.519	7.699	1.00	35.05	C
ATOM	583	CG	GLN	A	73	28.993	24.118	6.399	1.00	40.80	C
ATOM	584	CD	GLN	A	73	28.849	25.627	6.352	1.00	49.39	C
ATOM	585	OE1	GLN	A	73	28.305	26.241	7.269	1.00	61.38	O
ATOM	586	NE2	GLN	A	73	29.338	26.233	5.278	1.00	46.00	N
ATOM	587	C	GLN	A	73	28.394	21.519	9.222	1.00	42.94	C
ATOM	588	O	GLN	A	73	29.282	21.633	10.066	1.00	39.75	O
ATOM	589	N	ARG	A	74	27.207	20.983	9.494	1.00	32.76	N
ATOM	590	CA	ARG	A	74	26.885	20.472	10.823	1.00	36.79	C
ATOM	591	CB	ARG	A	74	25.523	20.999	11.292	1.00	29.86	C
ATOM	592	CG	ARG	A	74	25.468	22.519	11.372	1.00	30.49	C
ATOM	593	CD	ARG	A	74	24.121	23.029	11.829	1.00	29.46	C
ATOM	594	NE	ARG	A	74	23.947	24.444	11.514	1.00	35.32	N
ATOM	595	CZ	ARG	A	74	24.441	25.439	12.243	1.00	50.33	C
ATOM	596	NH1	ARG	A	74	25.150	25.177	13.333	1.00	33.72	N
ATOM	597	NH2	ARG	A	74	24.229	26.697	11.880	1.00	35.63	N
ATOM	598	C	ARG	A	74	26.926	18.943	10.849	1.00	31.73	C
ATOM	599	O	ARG	A	74	26.412	18.315	11.777	1.00	28.05	O
ATOM	600	N	GLY	A	75	27.534	18.356	9.820	1.00	32.36	N
ATOM	601	CA	GLY	A	75	27.732	16.918	9.758	1.00	33.59	C
ATOM	602	C	GLY	A	75	26.461	16.092	9.815	1.00	35.10	C
ATOM	603	O	GLY	A	75	26.458	14.991	10.364	1.00	37.19	O

	ATOM	604	N	LYS	A	76	25.376	16.621	9.257	1.00	32.63	N
	ATOM	605	CA	LYS	A	76	24.128	15.870	9.183	1.00	30.79	C
	ATOM	606	CB	LYS	A	76	22.924	16.810	9.082	1.00	35.54	C
	ATOM	607	CG	LYS	A	76	22.741	17.746	10.269	1.00	32.69	C
	ATOM	608	CD	LYS	A	76	21.453	18.547	10.136	1.00	31.89	C
	ATOM	609	CE	LYS	A	76	21.367	19.655	11.175	1.00	35.54	C
	ATOM	610	NZ	LYS	A	76	21.377	19.127	12.567	1.00	30.15	N
	ATOM	611	C	LYS	A	76	24.165	14.945	7.974	1.00	32.10	C
	ATOM	612	O	LYS	A	76	24.804	15.252	6.971	1.00	29.43	O
	ATOM	613	N	ILE	A	77	23.486	13.807	8.075	1.00	28.85	N
	ATOM	614	CA	ILE	A	77	23.405	12.871	6.962	1.00	30.21	C
	ATOM	615	CB	ILE	A	77	23.129	11.439	7.445	1.00	27.61	C
	ATOM	616	CG1	ILE	A	77	24.075	11.074	8.590	1.00	36.90	C
	ATOM	617	CD1	ILE	A	77	25.537	11.228	8.243	1.00	32.97	C
	ATOM	618	CG2	ILE	A	77	23.276	10.451	6.300	1.00	30.13	C
	ATOM	619	C	ILE	A	77	22.300	13.319	6.016	1.00	27.67	C
	ATOM	620	O	ILE	A	77	21.130	13.369	6.394	1.00	25.06	O
	ATOM	621	N	CYS	A	78	22.679	13.643	4.785	1.00	25.32	N
	ATOM	622	CA	CYS	A	78	21.757	14.261	3.840	1.00	29.39	C
	ATOM	623	CB	CYS	A	78	22.428	15.460	3.166	1.00	26.22	C
	ATOM	624	SG	CYS	A	78	21.301	16.521	2.243	1.00	31.18	S
	ATOM	625	C	CYS	A	78	21.247	13.285	2.783	1.00	28.37	C
	ATOM	626	O	CYS	A	78	22.028	12.581	2.143	1.00	28.17	O
	ATOM	627	N	PHE	A	79	19.929	13.255	2.610	1.00	29.02	N
	ATOM	628	CA	PHE	A	79	19.295	12.431	1.587	1.00	26.35	C
	ATOM	629	CB	PHE	A	79	18.418	11.347	2.224	1.00	30.13	C
	ATOM	630	CG	PHE	A	79	19.178	10.363	3.069	1.00	32.18	C
	ATOM	631	CD1	PHE	A	79	19.644	9.177	2.527	1.00	25.63	C
	ATOM	632	CE1	PHE	A	79	20.341	8.272	3.303	1.00	29.84	C
	ATOM	633	CZ	PHE	A	79	20.577	8.544	4.636	1.00	24.42	C
	ATOM	634	CE2	PHE	A	79	20.114	9.721	5.189	1.00	28.28	C
	ATOM	635	CD2	PHE	A	79	19.418	10.621	4.409	1.00	27.81	C
	ATOM	636	C	PHE	A	79	18.441	13.310	0.680	1.00	28.75	C
[0142]	ATOM	637	O	PHE	A	79	17.807	14.260	1.143	1.00	24.78	O
	ATOM	638	N	ILE	A	80	18.426	12.994	-0.610	1.00	24.90	N
	ATOM	639	CA	ILE	A	80	17.596	13.725	-1.560	1.00	25.00	C
	ATOM	640	CB	ILE	A	80	18.449	14.544	-2.549	1.00	25.70	C
	ATOM	641	CG1	ILE	A	80	19.372	13.622	-3.349	1.00	23.85	C
	ATOM	642	CD1	ILE	A	80	20.043	14.298	-4.528	1.00	24.35	C
	ATOM	643	CG2	ILE	A	80	19.239	15.616	-1.811	1.00	23.95	C
	ATOM	644	C	ILE	A	80	16.682	12.783	-2.338	1.00	23.87	C
	ATOM	645	O	ILE	A	80	16.934	11.579	-2.406	1.00	23.86	O
	ATOM	646	N	PRO	A	81	15.610	13.334	-2.923	1.00	26.70	N
	ATOM	647	CA	PRO	A	81	14.650	12.566	-3.721	1.00	23.35	C
	ATOM	648	CB	PRO	A	81	13.646	13.630	-4.172	1.00	28.01	C
	ATOM	649	CG	PRO	A	81	13.751	14.711	-3.153	1.00	24.32	C
	ATOM	650	CD	PRO	A	81	15.192	14.737	-2.756	1.00	27.72	C
	ATOM	651	C	PRO	A	81	15.269	11.906	-4.951	1.00	26.48	C
	ATOM	652	O	PRO	A	81	16.108	12.503	-5.630	1.00	26.01	O
	ATOM	653	N	ARG	A	82	14.852	10.673	-5.221	1.00	29.46	N
	ATOM	654	CA	ARG	A	82	15.127	10.023	-6.495	1.00	28.29	C
	ATOM	655	CB	ARG	A	82	16.179	8.923	-6.352	1.00	23.49	C
	ATOM	656	CG	ARG	A	82	16.576	8.283	-7.679	1.00	32.19	C
	ATOM	657	CD	ARG	A	82	17.491	7.092	-7.463	1.00	29.99	C
	ATOM	658	NE	ARG	A	82	16.859	6.078	-6.625	1.00	38.44	N
	ATOM	659	CZ	ARG	A	82	17.501	5.046	-6.087	1.00	32.55	C
	ATOM	660	NH1	ARG	A	82	18.801	4.888	-6.297	1.00	29.59	N
	ATOM	661	NH2	ARG	A	82	16.844	4.173	-5.337	1.00	27.35	N
	ATOM	662	C	ARG	A	82	13.821	9.443	-7.020	1.00	29.61	C
	ATOM	663	O	ARG	A	82	13.349	8.414	-6.535	1.00	29.50	O
	ATOM	664	N	TYR	A	83	13.234	10.117	-8.004	1.00	30.67	N
	ATOM	665	CA	TYR	A	83	11.927	9.733	-8.527	1.00	28.60	C
	ATOM	666	CB	TYR	A	83	11.219	10.942	-9.148	1.00	28.76	C
	ATOM	667	CG	TYR	A	83	11.141	12.150	-8.246	1.00	31.73	C
	ATOM	668	CD1	TYR	A	83	10.034	12.366	-7.434	1.00	43.85	C
	ATOM	669	CE1	TYR	A	83	9.962	13.470	-6.606	1.00	40.97	C
	ATOM	670	CZ	TYR	A	83	11.001	14.373	-6.584	1.00	39.67	C
	ATOM	671	OH	TYR	A	83	10.931	15.470	-5.760	1.00	49.74	O

	ATOM	672	CE2	TYR	A	83	12.110	14.182	-7.380	1.00	34.40	C
	ATOM	673	CD2	TYR	A	83	12.174	13.077	-8.204	1.00	40.75	C
	ATOM	674	C	TYR	A	83	12.011	8.620	-9.565	1.00	35.41	C
	ATOM	675	O	TYR	A	83	12.850	8.656	-10.464	1.00	32.03	O
	ATOM	676	N	ARG	A	84	11.130	7.634	-9.430	1.00	32.90	N
	ATOM	677	CA	ARG	A	84	10.923	6.628	-10.463	1.00	39.96	C
	ATOM	678	CB	ARG	A	84	10.676	5.259	-9.832	1.00	56.01	C
	ATOM	679	CG	ARG	A	84	11.929	4.573	-9.317	1.00	61.23	C
	ATOM	680	CD	ARG	A	84	12.461	3.579	-10.335	1.00	55.92	C
	ATOM	681	NE	ARG	A	84	11.429	2.623	-10.723	1.00	69.91	N
	ATOM	682	CZ	ARG	A	84	11.620	1.601	-11.550	1.00	82.08	C
	ATOM	683	NH1	ARG	A	84	12.814	1.385	-12.087	1.00	76.86	N
	ATOM	684	NH2	ARG	A	84	10.610	0.793	-11.841	1.00	86.64	N
	ATOM	685	C	ARG	A	84	9.708	7.063	-11.269	1.00	46.81	C
	ATOM	686	O	ARG	A	84	8.571	6.770	-10.902	1.00	48.80	O
	ATOM	687	N	PHE	A	85	9.957	7.770	-12.365	1.00	41.90	N
	ATOM	688	CA	PHE	A	85	8.899	8.474	-13.087	1.00	54.48	C
	ATOM	689	CB	PHE	A	85	9.497	9.340	-14.198	1.00	56.50	C
	ATOM	690	CG	PHE	A	85	10.252	10.532	-13.687	1.00	60.75	C
	ATOM	691	CD1	PHE	A	85	9.630	11.761	-13.559	1.00	59.71	C
	ATOM	692	CE1	PHE	A	85	10.323	12.858	-13.084	1.00	62.20	C
	ATOM	693	CZ	PHE	A	85	11.647	12.732	-12.727	1.00	48.15	C
	ATOM	694	CE2	PHE	A	85	12.277	11.512	-12.845	1.00	53.86	C
	ATOM	695	CD2	PHE	A	85	11.581	10.419	-13.321	1.00	62.37	C
	ATOM	696	C	PHE	A	85	7.773	7.596	-13.635	1.00	59.32	C
	ATOM	697	O	PHE	A	85	6.717	8.107	-14.007	1.00	59.85	O
	ATOM	698	N	GLN	A	86	7.988	6.285	-13.684	1.00	35.25	N
	ATOM	699	CA	GLN	A	86	6.944	5.380	-14.151	1.00	62.22	C
	ATOM	700	CB	GLN	A	86	7.437	3.932	-14.178	1.00	53.33	C
	ATOM	701	CG	GLN	A	86	8.472	3.631	-15.248	1.00	64.10	C
	ATOM	702	CD	GLN	A	86	9.884	3.941	-14.798	1.00	76.99	C
	ATOM	703	OE1	GLN	A	86	10.290	5.101	-14.732	1.00	63.65	O
	ATOM	704	NE2	GLN	A	86	10.647	2.898	-14.492	1.00	63.54	N
[0143]	ATOM	705	C	GLN	A	86	5.705	5.474	-13.268	1.00	73.76	C
	ATOM	706	O	GLN	A	86	4.577	5.517	-13.762	1.00	66.37	O
	ATOM	707	N	SER	A	87	5.925	5.506	-11.958	1.00	72.23	N
	ATOM	708	CA	SER	A	87	4.833	5.484	-10.995	1.00	53.83	C
	ATOM	709	CB	SER	A	87	4.826	4.149	-10.250	1.00	45.08	C
	ATOM	710	OG	SER	A	87	6.083	3.904	-9.645	1.00	53.19	O
	ATOM	711	C	SER	A	87	4.934	6.627	9.992	1.00	47.76	C
	ATOM	712	O	SER	A	87	5.611	7.626	-10.235	1.00	62.28	O
	ATOM	713	N	ASN	A	88	4.244	6.472	-8.866	1.00	49.18	N
	ATOM	714	CA	ASN	A	88	4.321	7.435	-7.778	1.00	55.16	C
	ATOM	715	CB	ASN	A	88	2.959	7.595	-7.100	1.00	49.05	C
	ATOM	716	CG	ASN	A	88	2.504	6.328	-6.399	1.00	63.40	C
	ATOM	717	OD1	ASN	A	88	2.988	5.234	-6.693	1.00	54.01	O
	ATOM	718	ND2	ASN	A	88	1.569	6.470	-5.468	1.00	50.00	N
	ATOM	719	C	ASN	A	88	5.357	6.999	-6.753	1.00	60.29	C
	ATOM	720	O	ASN	A	88	5.129	7.096	-5.546	1.00	45.00	O
	ATOM	721	N	HIS	A	89	6.498	6.522	-7.238	1.00	36.41	N
	ATOM	722	CA	HIS	A	89	7.520	5.973	-6.357	1.00	38.87	C
	ATOM	723	CB	HIS	A	89	7.863	4.542	-6.765	1.00	37.34	C
	ATOM	724	CG	HIS	A	89	8.959	3.936	-5.950	1.00	37.70	C
	ATOM	725	ND1	HIS	A	89	8.777	3.529	-4.647	1.00	35.99	N
	ATOM	726	CE1	HIS	A	89	9.910	3.038	-4.179	1.00	32.30	C
	ATOM	727	NE2	HIS	A	89	10.820	3.115	-5.132	1.00	35.66	N
	ATOM	728	CD2	HIS	A	89	10.252	3.673	-6.251	1.00	28.56	C
	ATOM	729	C	HIS	A	89	8.797	6.809	-6.292	1.00	32.12	C
	ATOM	730	O	HIS	A	89	9.332	7.237	-7.313	1.00	32.21	O
	ATOM	731	N	MET	A	90	9.279	7.022	-5.072	1.00	30.08	N
	ATOM	732	CA	MET	A	90	10.522	7.741	-4.846	1.00	31.04	C
	ATOM	733	CB	MET	A	90	10.245	9.226	-4.602	1.00	34.11	C
	ATOM	734	CG	MET	A	90	9.782	9.535	-3.184	1.00	33.33	C
	ATOM	735	SD	MET	A	90	9.420	11.279	-2.901	1.00	42.63	S
	ATOM	736	CE	MET	A	90	10.908	12.028	-3.546	1.00	23.25	C
	ATOM	737	C	MET	A	90	11.232	7.154	-3.636	1.00	31.54	C
	ATOM	738	O	MET	A	90	10.592	6.630	-2.725	1.00	30.28	O
	ATOM	739	N	ASP	A	91	12.558	7.229	-3.636	1.00	25.51	N

[0144]

ATOM	740	CA	ASP	A	91	13.329	6.953	-2.433	1.00	27.24	C
ATOM	741	CB	ASP	A	91	14.325	5.814	-2.637	1.00	28.78	C
ATOM	742	CG	ASP	A	91	13.716	4.623	-3.318	1.00	37.06	C
ATOM	743	OD1	ASP	A	91	12.821	3.983	-2.726	1.00	33.04	O
ATOM	744	OD2	ASP	A	91	14.154	4.324	-4.446	1.00	30.44	O
ATOM	745	C	ASP	A	91	14.106	8.198	-2.077	1.00	33.16	C
ATOM	746	O	ASP	A	91	14.190	9.140	-2.867	1.00	26.43	O
ATOM	747	N	MET	A	92	14.682	8.197	-0.884	1.00	23.04	N
ATOM	748	CA	MET	A	92	15.613	9.240	-0.496	1.00	24.03	C
ATOM	749	CB	MET	A	92	15.256	9.786	0.887	1.00	24.72	C
ATOM	750	CG	MET	A	92	13.880	10.439	0.940	1.00	24.19	C
ATOM	751	SD	MET	A	92	13.716	11.840	-0.190	1.00	25.01	S
ATOM	752	CE	MET	A	92	11.990	12.260	0.035	1.00	24.72	C
ATOM	753	C	MET	A	92	17.015	8.650	-0.524	1.00	22.97	C
ATOM	754	O	MET	A	92	17.302	7.682	0.180	1.00	31.70	O
ATOM	755	N	VAL	A	93	17.876	9.221	-1.359	1.00	22.16	N
ATOM	756	CA	VAL	A	93	19.215	8.682	-1.561	1.00	25.00	C
ATOM	757	CB	VAL	A	93	19.476	8.376	-3.055	1.00	25.74	C
ATOM	758	CG1	VAL	A	93	18.530	7.284	-3.535	1.00	24.41	C
ATOM	759	CG2	VAL	A	93	19.314	9.630	-3.892	1.00	22.16	C
ATOM	760	C	VAL	A	93	20.295	9.621	-1.029	1.00	25.85	C
ATOM	761	O	VAL	A	93	20.177	10.841	-1.130	1.00	26.52	O
ATOM	762	N	ARG	A	94	21.347	9.041	-0.460	1.00	27.49	N
ATOM	763	CA	ARG	A	94	22.377	9.814	0.228	1.00	24.86	C
ATOM	764	CB	ARG	A	94	23.142	8.923	1.210	1.00	28.92	C
ATOM	765	CG	ARG	A	94	24.198	9.660	2.020	1.00	30.82	C
ATOM	766	CD	ARG	A	94	24.909	8.718	2.982	1.00	42.10	C
ATOM	767	NE	ARG	A	94	25.823	9.427	3.873	1.00	36.15	N
ATOM	768	CZ	ARG	A	94	26.642	8.832	4.736	1.00	43.17	C
ATOM	769	NH1	ARG	A	94	26.671	7.509	4.830	1.00	37.81	N
ATOM	770	NH2	ARG	A	94	27.437	9.562	5.507	1.00	50.02	N
ATOM	771	C	ARG	A	94	23.367	10.500	-0.710	1.00	27.88	C
ATOM	772	O	ARG	A	94	23.934	9.870	-1.603	1.00	29.22	O
ATOM	773	N	ILE	A	95	23.568	11.797	-0.493	1.00	24.12	N
ATOM	774	CA	ILE	A	95	24.633	12.536	-1.157	1.00	27.69	C
ATOM	775	CB	ILE	A	95	24.111	13.799	-1.864	1.00	29.73	C
ATOM	776	CG1	ILE	A	95	23.363	14.696	-0.877	1.00	30.12	C
ATOM	777	CD1	ILE	A	95	22.973	16.042	-1.455	1.00	26.33	C
ATOM	778	CG2	ILE	A	95	23.216	13.421	-3.037	1.00	24.61	C
ATOM	779	C	ILE	A	95	25.688	12.918	-0.123	1.00	36.89	C
ATOM	780	O	ILE	A	95	25.380	13.065	1.059	1.00	31.76	O
ATOM	781	N	GLU	A	96	26.926	13.061	-0.548	1.00	30.07	N
ATOM	782	CA	GLU	A	96	27.993	13.269	0.413	1.00	35.10	C
ATOM	783	CB	GLU	A	96	29.121	12.268	0.233	1.00	36.57	C
ATOM	784	CG	GLU	A	96	28.702	10.864	-0.066	1.00	56.18	C
ATOM	785	CD	GLU	A	96	29.008	9.849	0.993	1.00	47.31	C
ATOM	786	OE1	GLU	A	96	29.703	10.123	1.951	1.00	64.46	O
ATOM	787	OE2	GLU	A	96	28.570	8.728	0.838	1.00	54.71	O
ATOM	788	C	GLU	A	96	28.542	14.680	0.477	1.00	35.42	C
ATOM	789	O	GLU	A	96	29.367	14.954	1.279	1.00	40.05	O
ATOM	790	N	SER	A	97	28.054	15.563	-0.364	1.00	33.47	N
ATOM	791	CA	SER	A	97	28.468	16.964	-0.331	1.00	33.48	C
ATOM	792	CB	SER	A	97	29.930	17.100	-0.764	1.00	34.96	C
ATOM	793	OG	SER	A	97	30.053	17.009	-2.173	1.00	40.36	O
ATOM	794	C	SER	A	97	27.583	17.832	-1.221	1.00	35.11	C
ATOM	795	O	SER	A	97	26.920	17.325	-2.126	1.00	32.20	O
ATOM	796	N	PRO	A	98	27.571	19.150	-0.966	1.00	33.40	N
ATOM	797	CA	PRO	A	98	26.799	20.070	-1.807	1.00	28.51	C
ATOM	798	CB	PRO	A	98	27.039	21.436	-1.152	1.00	29.32	C
ATOM	799	CG	PRO	A	98	27.473	21.126	0.248	1.00	39.09	C
ATOM	800	CD	PRO	A	98	28.239	19.846	0.147	1.00	32.93	C
ATOM	801	C	PRO	A	98	27.327	20.081	-3.234	1.00	34.25	C
ATOM	802	O	PRO	A	98	26.549	20.219	-4.178	1.00	41.67	O
ATOM	803	N	GLU	A	99	28.639	19.926	-3.384	1.00	34.17	N
ATOM	804	CA	GLU	A	99	29.277	20.006	-4.694	1.00	34.61	C
ATOM	805	CB	GLU	A	99	30.791	20.184	-4.548	1.00	35.09	C
ATOM	806	CG	GLU	A	99	31.210	21.512	-3.930	1.00	40.72	C
ATOM	807	CD	GLU	A	99	31.033	21.540	-2.426	1.00	46.97	C

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ATOM	808	OE1	GLU	A	99	31.104	20.462	-1.800	1.00	34.38	O
ATOM	809	OE2	GLU	A	99	30.828	22.640	-1.870	1.00	43.37	O
ATOM	810	C	GLU	A	99	28.967	18.802	-5.583	1.00	30.30	C
ATOM	811	O	GLU	A	99	29.024	18.898	-6.806	1.00	33.07	O
ATOM	812	N	GLU	A	100	28.645	17.668	-4.969	1.00	28.84	N
ATOM	813	CA	GLU	A	100	28.300	16.472	-5.728	1.00	30.30	C
ATOM	814	CB	GLU	A	100	28.088	15.284	-4.794	1.00	32.47	C
ATOM	815	CG	GLU	A	100	27.479	14.081	-5.482	1.00	29.39	C
ATOM	816	CD	GLU	A	100	27.301	12.905	-4.550	1.00	39.83	C
ATOM	817	OE1	GLU	A	100	27.598	13.047	-3.346	1.00	38.01	O
ATOM	818	OE2	GLU	A	100	26.866	11.838	-5.025	1.00	41.18	O
ATOM	819	C	GLU	A	100	27.045	16.707	-6.562	1.00	30.86	C
ATOM	820	O	GLU	A	100	26.899	16.166	-7.660	1.00	28.06	O
ATOM	821	N	ILE	A	101	26.142	17.519	-6.025	1.00	28.98	N
ATOM	822	CA	ILE	A	101	24.887	17.840	-6.693	1.00	27.76	C
ATOM	823	CB	ILE	A	101	24.057	18.837	-5.863	1.00	25.37	C
ATOM	824	CG1	ILE	A	101	23.652	18.206	-4.528	1.00	29.29	C
ATOM	825	CD1	ILE	A	101	23.104	19.193	-3.519	1.00	25.62	C
ATOM	826	CG2	ILE	A	101	22.829	19.292	-6.642	1.00	29.52	C
ATOM	827	C	ILE	A	101	25.127	18.415	-8.087	1.00	29.87	C
ATOM	828	O	ILE	A	101	24.345	18.182	-9.009	1.00	29.85	O
ATOM	829	N	SER	A	102	26.221	19.151	-8.237	1.00	28.16	N
ATOM	830	CA	SER	A	102	26.526	19.822	-9.496	1.00	36.20	C
ATOM	831	CB	SER	A	102	27.625	20.863	-9.288	1.00	30.86	C
ATOM	832	OG	SER	A	102	27.143	21.949	-8.519	1.00	55.60	O
ATOM	833	C	SER	A	102	26.924	18.877	-10.628	1.00	33.71	C
ATOM	834	O	SER	A	102	26.859	19.250	-11.796	1.00	29.44	O
ATOM	835	N	LEU	A	103	27.337	17.661	-10.283	1.00	29.97	N
ATOM	836	CA	LEU	A	103	27.794	16.703	-11.288	1.00	31.13	C
ATOM	837	CB	LEU	A	103	29.052	15.978	-10.806	1.00	26.14	C
ATOM	838	CG	LEU	A	103	30.184	16.857	-10.275	1.00	35.31	C
ATOM	839	CD1	LEU	A	103	31.386	16.004	-9.881	1.00	33.26	C
ATOM	840	CD2	LEU	A	103	30.578	17.923	-11.292	1.00	30.62	C
ATOM	841	C	LEU	A	103	26.723	15.681	-11.660	1.00	33.38	C
ATOM	842	O	LEU	A	103	26.855	14.971	-12.657	1.00	26.49	O
ATOM	843	N	LEU	A	104	25.669	15.602	-10.854	1.00	23.22	N
ATOM	844	CA	LEU	A	104	24.598	14.636	-11.088	1.00	24.22	C
ATOM	845	CB	LEU	A	104	23.605	14.651	-9.924	1.00	31.48	C
ATOM	846	CG	LEU	A	104	24.106	14.099	-8.587	1.00	25.65	C
ATOM	847	CD1	LEU	A	104	23.037	14.250	-7.521	1.00	25.08	C
ATOM	848	CD2	LEU	A	104	24.515	12.643	-8.738	1.00	25.43	C
ATOM	849	C	LEU	A	104	23.853	14.900	-12.392	1.00	27.23	C
ATOM	850	O	LEU	A	104	23.737	16.045	-12.827	1.00	24.43	O
ATOM	851	N	PRO	A	105	23.345	13.834	-13.024	1.00	24.30	N
ATOM	852	CA	PRO	A	105	22.488	13.986	-14.204	1.00	26.27	C
ATOM	853	CB	PRO	A	105	22.331	12.552	-14.715	1.00	24.14	C
ATOM	854	CG	PRO	A	105	22.595	11.692	-13.536	1.00	25.06	C
ATOM	855	CD	PRO	A	105	23.543	12.424	-12.647	1.00	23.45	C
ATOM	856	C	PRO	A	105	21.137	14.550	-13.783	1.00	35.06	C
ATOM	857	O	PRO	A	105	20.789	14.474	-12.605	1.00	24.95	O
ATOM	858	N	LYS	A	106	20.387	15.113	-14.724	1.00	27.17	N
ATOM	859	CA	LYS	A	106	19.106	15.725	-14.392	1.00	31.28	C
ATOM	860	CB	LYS	A	106	19.107	17.206	-14.778	1.00	35.14	C
ATOM	861	CG	LYS	A	106	20.168	18.019	-14.060	1.00	30.63	C
ATOM	862	CD	LYS	A	106	20.357	19.386	-14.695	1.00	42.65	C
ATOM	863	CE	LYS	A	106	19.488	20.430	-14.026	1.00	57.07	C
ATOM	864	NZ	LYS	A	106	19.943	20.706	-12.636	1.00	62.53	N
ATOM	865	C	LYS	A	106	17.930	15.007	-15.041	1.00	33.67	C
ATOM	866	O	LYS	A	106	18.086	14.316	-16.049	1.00	27.53	O
ATOM	867	N	THR	A	107	16.752	15.178	-14.450	1.00	30.70	N
ATOM	868	CA	THR	A	107	15.531	14.588	-14.980	1.00	31.47	C
ATOM	869	CB	THR	A	107	14.529	14.279	-13.853	1.00	28.00	C
ATOM	870	OG1	THR	A	107	14.005	15.508	-13.334	1.00	30.50	O
ATOM	871	CG2	THR	A	107	15.206	13.501	-12.735	1.00	33.86	C
ATOM	872	C	THR	A	107	14.866	15.541	-15.967	1.00	33.33	C
ATOM	873	O	THR	A	107	15.400	16.608	-16.269	1.00	29.67	O
ATOM	874	N	SER	A	108	13.695	15.155	-16.463	1.00	29.30	N
ATOM	875	CA	SER	A	108	12.958	15.991	-17.405	1.00	35.38	C

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ATOM	876	CB	SER	A	108	11.819	15.201	-18.052	1.00	32.05	C
ATOM	877	OG	SER	A	108	10.920	14.707	-17.076	1.00	37.03	O
ATOM	878	C	SER	A	108	12.422	17.251	-16.727	1.00	38.81	C
ATOM	879	O	SER	A	108	11.923	18.158	-17.391	1.00	33.53	O
ATOM	880	N	TRP	A	109	12.528	17.302	-15.403	1.00	36.80	N
ATOM	881	CA	TRP	A	109	12.129	18.486	-14.649	1.00	34.73	C
ATOM	882	CB	TRP	A	109	11.474	18.088	-13.323	1.00	42.39	C
ATOM	883	CG	TRP	A	109	10.155	17.386	-13.484	1.00	45.90	C
ATOM	884	CD1	TRP	A	109	9.957	16.085	-13.845	1.00	45.73	C
ATOM	885	NE1	TRP	A	109	8.611	15.803	-13.886	1.00	47.09	N
ATOM	886	CE2	TRP	A	109	7.912	16.929	-13.545	1.00	40.50	C
ATOM	887	CD2	TRP	A	109	8.850	17.949	-13.283	1.00	55.96	C
ATOM	888	CE3	TRP	A	109	8.386	19.213	-12.908	1.00	52.46	C
ATOM	889	CZ3	TRP	A	109	7.020	19.417	-12.809	1.00	48.72	C
ATOM	890	CH2	TRP	A	109	6.113	18.384	-13.075	1.00	47.82	C
ATOM	891	CZ2	TRP	A	109	6.537	17.137	-13.443	1.00	41.98	C
ATOM	892	C	TRP	A	109	13.339	19.375	-14.386	1.00	35.12	C
ATOM	893	O	TRP	A	109	13.254	20.355	-13.647	1.00	28.64	O
ATOM	894	N	ASN	A	110	14.465	19.023	-15.000	1.00	31.76	N
ATOM	895	CA	ASN	A	110	15.717	19.739	-14.788	1.00	26.31	C
ATOM	896	CB	ASN	A	110	15.651	21.148	-15.378	1.00	36.20	C
ATOM	897	CG	ASN	A	110	16.029	21.176	-16.843	1.00	47.37	C
ATOM	898	OD1	ASN	A	110	16.992	21.835	-17.234	1.00	55.76	O
ATOM	899	ND2	ASN	A	110	15.285	20.441	-17.661	1.00	38.71	N
ATOM	900	C	ASN	A	110	16.149	19.790	-13.325	1.00	40.33	C
ATOM	901	O	ASN	A	110	16.706	20.787	-12.867	1.00	31.97	O
ATOM	902	N	ILE	A	111	15.888	18.709	-12.598	1.00	28.98	N
ATOM	903	CA	ILE	A	111	16.329	18.584	-11.214	1.00	33.28	C
ATOM	904	CB	ILE	A	111	15.148	18.338	-10.260	1.00	35.42	C
ATOM	905	CG1	ILE	A	111	14.288	19.596	-10.155	1.00	38.30	C
ATOM	906	CD1	ILE	A	111	15.017	20.778	-9.557	1.00	38.51	C
ATOM	907	CG2	ILE	A	111	15.653	17.924	-8.884	1.00	38.44	C
ATOM	908	C	ILE	A	111	17.311	17.430	-11.094	1.00	31.45	C
ATOM	909	O	ILE	A	111	17.063	16.345	-11.616	1.00	26.83	O
ATOM	910	N	PRO	A	112	18.437	17.666	-10.410	1.00	26.15	N
ATOM	911	CA	PRO	A	112	19.479	16.647	-10.255	1.00	25.94	C
ATOM	912	CB	PRO	A	112	20.605	17.404	-9.541	1.00	29.50	C
ATOM	913	CG	PRO	A	112	20.319	18.855	-9.784	1.00	28.05	C
ATOM	914	CD	PRO	A	112	18.832	18.954	-9.817	1.00	32.62	C
ATOM	915	C	PRO	A	112	19.031	15.460	-9.405	1.00	31.71	C
ATOM	916	O	PRO	A	112	18.295	15.624	-8.431	1.00	31.29	O
ATOM	917	N	GLN	A	113	19.482	14.271	-9.792	1.00	25.48	N
ATOM	918	CA	GLN	A	113	19.272	13.057	-9.013	1.00	25.25	C
ATOM	919	CB	GLN	A	113	17.798	12.639	-9.013	1.00	28.73	C
ATOM	920	CG	GLN	A	113	17.338	11.899	-10.262	1.00	27.07	C
ATOM	921	CD	GLN	A	113	15.932	11.344	-10.122	1.00	26.04	C
ATOM	922	OE1	GLN	A	113	15.079	11.941	-9.466	1.00	24.10	O
ATOM	923	NE2	GLN	A	113	15.684	10.196	-10.740	1.00	30.58	N
ATOM	924	C	GLN	A	113	20.145	11.950	-9.590	1.00	33.63	C
ATOM	925	O	GLN	A	113	20.327	11.872	-10.804	1.00	31.61	O
ATOM	926	N	PRO	A	114	20.702	11.096	-8.719	1.00	32.63	N
ATOM	927	CA	PRO	A	114	21.594	10.019	-9.162	1.00	34.36	C
ATOM	928	CB	PRO	A	114	21.774	9.177	-7.897	1.00	36.39	C
ATOM	929	CG	PRO	A	114	21.589	10.148	-6.782	1.00	27.28	C
ATOM	930	CD	PRO	A	114	20.544	11.119	-7.255	1.00	28.58	C
ATOM	931	C	PRO	A	114	20.977	9.180	-10.280	1.00	28.46	C
ATOM	932	O	PRO	A	114	19.782	8.890	-10.245	1.00	29.12	O
ATOM	933	N	GLY	A	115	21.791	8.805	-11.261	1.00	28.57	N
ATOM	934	CA	GLY	A	115	21.325	8.020	-12.391	1.00	32.46	C
ATOM	935	C	GLY	A	115	20.885	6.621	-12.005	1.00	39.64	C
ATOM	936	O	GLY	A	115	21.063	6.194	-10.865	1.00	31.19	O
ATOM	937	N	GLU	A	116	20.320	5.900	-12.967	1.00	46.89	N
ATOM	938	CA	GLU	A	116	19.748	4.583	-12.704	1.00	42.72	C
ATOM	939	CB	GLU	A	116	18.977	4.077	-13.925	1.00	53.86	C
ATOM	940	CG	GLU	A	116	17.759	4.914	-14.279	1.00	73.99	C
ATOM	941	CD	GLU	A	116	16.972	4.332	-15.436	1.00	90.88	C
ATOM	942	OE1	GLU	A	116	17.020	3.099	-15.630	1.00	93.13	O
ATOM	943	OE2	GLU	A	116	16.301	5.108	-16.150	1.00	72.16	O

	ATOM	944	C	GLU A 116	20.784	3.547	-12.273	1.00	46.51	C
	ATOM	945	O	GLU A 116	20.478	2.651	-11.488	1.00	50.37	O
	ATOM	946	N	GLY A 117	22.004	3.668	-12.785	1.00	41.73	N
	ATOM	947	CA	GLY A 117	23.056	2.721	-12.460	1.00	43.63	C
	ATOM	948	C	GLY A 117	23.867	3.118	-11.241	1.00	47.27	C
	ATOM	949	O	GLY A 117	24.744	2.374	-10.801	1.00	36.54	O
	ATOM	950	N	ASP A 118	23.572	4.292	-10.693	1.00	34.62	N
	ATOM	951	CA	ASP A 118	24.292	4.809	-9.533	1.00	31.27	C
	ATOM	952	CB	ASP A 118	24.221	6.339	-9.514	1.00	33.54	C
	ATOM	953	CG	ASP A 118	25.176	6.959	-8.510	1.00	41.90	C
	ATOM	954	OD1	ASP A 118	25.719	6.221	-7.664	1.00	31.20	O
	ATOM	955	OD2	ASP A 118	25.384	8.190	-8.569	1.00	32.09	O
	ATOM	956	C	ASP A 118	23.734	4.230	-8.230	1.00	35.63	C
	ATOM	957	O	ASP A 118	22.736	4.718	-7.701	1.00	42.63	O
	ATOM	958	N	VAL A 119	24.386	3.191	-7.716	1.00	33.16	N
	ATOM	959	CA	VAL A 119	23.935	2.532	-6.492	1.00	35.07	C
	ATOM	960	CB	VAL A 119	24.714	1.231	-6.229	1.00	42.07	C
	ATOM	961	CG1	VAL A 119	24.334	0.652	-4.876	1.00	48.84	C
	ATOM	962	CG2	VAL A 119	24.457	0.224	-7.341	1.00	40.55	C
	ATOM	963	C	VAL A 119	24.055	3.449	-5.277	1.00	36.23	C
	ATOM	964	O	VAL A 119	25.148	3.902	-4.934	1.00	44.03	O
	ATOM	965	N	ARG A 120	22.928	3.706	-4.623	1.00	34.34	N
	ATOM	966	CA	ARG A 120	22.882	4.672	-3.532	1.00	29.87	C
	ATOM	967	CB	ARG A 120	21.997	5.859	-3.916	1.00	33.35	C
	ATOM	968	CG	ARG A 120	22.575	6.737	-5.005	1.00	31.59	C
	ATOM	969	CD	ARG A 120	23.643	7.662	-4.458	1.00	32.53	C
	ATOM	970	NE	ARG A 120	24.438	8.259	-5.527	1.00	31.88	N
	ATOM	971	CZ	ARG A 120	25.033	9.442	-5.443	1.00	27.87	C
	ATOM	972	NH1	ARG A 120	24.912	10.168	-4.340	1.00	25.33	N
	ATOM	973	NH2	ARG A 120	25.737	9.905	-6.466	1.00	25.93	N
	ATOM	974	C	ARG A 120	22.374	4.074	-2.230	1.00	29.64	C
	ATOM	975	O	ARG A 120	21.589	3.127	-2.228	1.00	29.34	O
	ATOM	976	N	GLU A 121	22.833	4.643	-1.122	1.00	29.04	N
[0147]	ATOM	977	CA	GLU A 121	22.304	4.312	0.188	1.00	31.08	C
	ATOM	978	CB	GLU A 121	23.231	4.846	1.283	1.00	29.40	C
	ATOM	979	CG	GLU A 121	22.833	4.446	2.693	1.00	40.68	C
	ATOM	980	CD	GLU A 121	23.563	5.246	3.756	1.00	39.00	C
	ATOM	981	OE1	GLU A 121	24.788	5.447	3.617	1.00	47.68	O
	ATOM	982	OE2	GLU A 121	22.908	5.675	4.729	1.00	32.18	O
	ATOM	983	C	GLU A 121	20.926	4.951	0.310	1.00	26.60	C
	ATOM	984	O	GLU A 121	20.784	6.162	0.154	1.00	26.82	O
	ATOM	985	N	GLU A 122	19.911	4.137	0.570	1.00	26.13	N
	ATOM	986	CA	GLU A 122	18.557	4.652	0.716	1.00	30.35	C
	ATOM	987	CB	GLU A 122	17.547	3.704	0.069	1.00	27.18	C
	ATOM	988	CG	GLU A 122	17.762	3.520	-1.425	1.00	27.74	C
	ATOM	989	CD	GLU A 122	16.834	2.487	-2.030	1.00	37.90	C
	ATOM	990	OE1	GLU A 122	16.088	1.835	-1.270	1.00	38.20	O
	ATOM	991	OE2	GLU A 122	16.853	2.325	-3.268	1.00	41.42	O
	ATOM	992	C	GLU A 122	18.225	4.880	2.185	1.00	26.97	C
	ATOM	993	O	GLU A 122	18.508	4.034	3.033	1.00	33.64	O
	ATOM	994	N	ALA A 123	17.629	6.030	2.477	1.00	25.00	N
	ATOM	995	CA	ALA A 123	17.357	6.436	3.852	1.00	29.39	C
	ATOM	996	CB	ALA A 123	16.514	7.701	3.870	1.00	26.41	C
	ATOM	997	C	ALA A 123	16.693	5.343	4.689	1.00	32.08	C
	ATOM	998	O	ALA A 123	17.049	5.142	5.850	1.00	28.40	O
	ATOM	999	N	LEU A 124	15.733	4.640	4.097	1.00	30.44	N
	ATOM	1000	CA	LEU A 124	14.956	3.644	4.826	1.00	39.00	C
	ATOM	1001	CB	LEU A 124	13.579	3.466	4.186	1.00	30.52	C
	ATOM	1002	CG	LEU A 124	12.603	4.625	4.387	1.00	35.94	C
	ATOM	1003	CD1	LEU A 124	11.309	4.362	3.636	1.00	34.74	C
	ATOM	1004	CD2	LEU A 124	12.331	4.852	5.869	1.00	36.83	C
	ATOM	1005	C	LEU A 124	15.658	2.294	4.954	1.00	37.96	C
	ATOM	1006	O	LEU A 124	15.112	1.359	5.533	1.00	41.81	O
	ATOM	1007	N	SER A 125	16.865	2.188	4.415	1.00	34.44	N
	ATOM	1008	CA	SER A 125	17.630	0.954	4.554	1.00	38.38	C
	ATOM	1009	CB	SER A 125	18.211	0.514	3.209	1.00	32.89	C
	ATOM	1010	OG	SER A 125	19.130	1.468	2.710	1.00	43.81	O
	ATOM	1011	C	SER A 125	18.739	1.120	5.586	1.00	41.21	C

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ATOM	1012	O	SER A 125	19.417	0.155	5.945	1.00	44.32	O
ATOM	1013	N	THR A 126	18.909	2.348	6.069	1.00	35.88	N
ATOM	1014	CA	THR A 126	19.970	2.659	7.018	1.00	34.10	C
ATOM	1015	CB	THR A 126	21.064	3.527	6.369	1.00	39.19	C
ATOM	1016	OG1	THR A 126	20.455	4.596	5.632	1.00	33.79	O
ATOM	1017	CG2	THR A 126	21.903	2.688	5.421	1.00	45.10	C
ATOM	1018	C	THR A 126	19.463	3.351	8.283	1.00	32.19	C
ATOM	1019	O	THR A 126	20.241	3.961	9.017	1.00	38.58	O
ATOM	1020	N	GLY A 127	18.162	3.261	8.539	1.00	33.16	N
ATOM	1021	CA	GLY A 127	17.617	3.757	9.791	1.00	37.18	C
ATOM	1022	C	GLY A 127	16.540	4.822	9.692	1.00	40.91	C
ATOM	1023	O	GLY A 127	16.075	5.322	10.713	1.00	54.10	O
ATOM	1024	N	GLY A 128	16.143	5.176	8.475	1.00	34.95	N
ATOM	1025	CA	GLY A 128	15.081	6.149	8.280	1.00	34.80	C
ATOM	1026	C	GLY A 128	15.529	7.594	8.400	1.00	28.96	C
ATOM	1027	O	GLY A 128	16.705	7.907	8.219	1.00	27.00	O
ATOM	1028	N	LEU A 129	14.587	8.478	8.716	1.00	30.96	N
ATOM	1029	CA	LEU A 129	14.856	9.912	8.742	1.00	27.32	C
ATOM	1030	CB	LEU A 129	14.237	10.576	7.509	1.00	25.28	C
ATOM	1031	CG	LEU A 129	14.763	10.111	6.148	1.00	23.38	C
ATOM	1032	CD1	LEU A 129	13.720	10.335	5.062	1.00	26.02	C
ATOM	1033	CD2	LEU A 129	16.069	10.815	5.809	1.00	24.81	C
ATOM	1034	C	LEU A 129	14.324	10.588	10.005	1.00	24.48	C
ATOM	1035	O	LEU A 129	13.273	10.214	10.526	1.00	27.66	O
ATOM	1036	N	ASP A 130	15.057	11.587	10.488	1.00	26.62	N
ATOM	1037	CA	ASP A 130	14.627	12.379	11.635	1.00	28.01	C
ATOM	1038	CB	ASP A 130	15.839	12.918	12.401	1.00	23.83	C
ATOM	1039	CG	ASP A 130	16.655	11.819	13.053	1.00	28.29	C
ATOM	1040	OD1	ASP A 130	16.054	10.924	13.684	1.00	33.44	O
ATOM	1041	OD2	ASP A 130	17.898	11.852	12.940	1.00	28.72	O
ATOM	1042	C	ASP A 130	13.755	13.542	11.178	1.00	28.86	C
ATOM	1043	O	ASP A 130	12.775	13.894	11.832	1.00	25.56	O
ATOM	1044	N	LEU A 131	14.123	14.133	10.046	1.00	24.60	N
ATOM	1045	CA	LEU A 131	13.417	15.295	9.525	1.00	25.91	C
ATOM	1046	CB	LEU A 131	14.131	16.580	9.943	1.00	24.15	C
ATOM	1047	CG	LEU A 131	13.571	17.865	9.327	1.00	31.38	C
ATOM	1048	CD1	LEU A 131	12.423	18.402	10.161	1.00	41.02	C
ATOM	1049	CD2	LEU A 131	14.660	18.912	9.191	1.00	41.81	C
ATOM	1050	C	LEU A 131	13.298	15.256	8.006	1.00	25.53	C
ATOM	1051	O	LEU A 131	14.248	14.907	7.305	1.00	25.09	O
ATOM	1052	N	ILE A 132	12.123	15.623	7.505	1.00	24.03	N
ATOM	1053	CA	ILE A 132	11.891	15.696	6.070	1.00	24.00	C
ATOM	1054	CB	ILE A 132	10.882	14.633	5.605	1.00	23.31	C
ATOM	1055	CG1	ILE A 132	11.361	13.230	5.985	1.00	23.19	C
ATOM	1056	CD1	ILE A 132	10.412	12.134	5.568	1.00	25.95	C
ATOM	1057	CG2	ILE A 132	10.654	14.735	4.104	1.00	26.29	C
ATOM	1058	C	ILE A 132	11.357	17.070	5.688	1.00	27.42	C
ATOM	1059	O	ILE A 132	10.264	17.456	6.100	1.00	25.56	O
ATOM	1060	N	PHE A 133	12.133	17.812	4.908	1.00	24.87	N
ATOM	1061	CA	PHE A 133	11.646	19.059	4.336	1.00	25.54	C
ATOM	1062	CB	PHE A 133	12.807	19.909	3.831	1.00	27.89	C
ATOM	1063	CG	PHE A 133	13.623	20.527	4.926	1.00	29.75	C
ATOM	1064	CD1	PHE A 133	13.182	21.670	5.573	1.00	30.40	C
ATOM	1065	CE1	PHE A 133	13.933	22.248	6.580	1.00	25.17	C
ATOM	1066	CZ	PHE A 133	15.135	21.687	6.947	1.00	27.05	C
ATOM	1067	CE2	PHE A 133	15.585	20.550	6.308	1.00	26.69	C
ATOM	1068	CD2	PHE A 133	14.833	19.974	5.305	1.00	25.87	C
ATOM	1069	C	PHE A 133	10.670	18.767	3.199	1.00	29.24	C
ATOM	1070	O	PHE A 133	11.018	18.105	2.221	1.00	28.43	O
ATOM	1071	N	MET A 134	9.447	19.265	3.332	1.00	30.16	N
ATOM	1072	CA	MET A 134	8.387	18.945	2.385	1.00	25.71	C
ATOM	1073	CB	MET A 134	7.084	18.659	3.136	1.00	36.74	C
ATOM	1074	CG	MET A 134	7.171	17.515	4.133	1.00	28.61	C
ATOM	1075	SD	MET A 134	7.172	15.906	3.323	1.00	32.48	S
ATOM	1076	CE	MET A 134	5.659	16.021	2.375	1.00	28.84	C
ATOM	1077	C	MET A 134	8.161	20.074	1.391	1.00	28.05	C
ATOM	1078	O	MET A 134	7.841	21.195	1.785	1.00	28.70	O
ATOM	1079	N	PRO A 135	8.334	19.784	0.091	1.00	33.40	N

	ATOM	1080	CA	PRO	A	135	7.955	20.744	-0.947	1.00 29.27 C
	ATOM	1081	CB	PRO	A	135	8.752	20.283	-2.167	1.00 25.17 C
	ATOM	1082	CG	PRO	A	135	9.073	18.839	-1.920	1.00 29.26 C
	ATOM	1083	CD	PRO	A	135	8.829	18.515	-0.471	1.00 29.15 C
	ATOM	1084	C	PRO	A	135	6.472	20.602	-1.250	1.00 34.12 C
	ATOM	1085	O	PRO	A	135	5.827	19.689	-0.736	1.00 27.46 O
	ATOM	1086	N	GLY	A	136	5.944	21.479	-2.096	1.00 35.51 N
	ATOM	1087	CA	GLY	A	136	4.543	21.420	-2.473	1.00 26.88 C
	ATOM	1088	C	GLY	A	136	4.090	22.699	-3.147	1.00 33.34 C
	ATOM	1089	O	GLY	A	136	4.774	23.718	-3.076	1.00 29.11 O
	ATOM	1090	N	LEU	A	137	2.938	22.649	-3.808	1.00 27.38 N
	ATOM	1091	CA	LEU	A	137	2.390	23.837	-4.450	1.00 34.04 C
	ATOM	1092	CB	LEU	A	137	1.430	23.457	-5.579	1.00 29.01 C
	ATOM	1093	CG	LEU	A	137	2.085	22.916	-6.852	1.00 32.40 C
	ATOM	1094	CD1	LEU	A	137	1.039	22.681	-7.933	1.00 27.53 C
	ATOM	1095	CD2	LEU	A	137	3.159	23.874	-7.338	1.00 38.57 C
	ATOM	1096	C	LEU	A	137	1.683	24.730	-3.439	1.00 29.49 C
	ATOM	1097	O	LEU	A	137	1.771	25.956	-3.513	1.00 29.33 O
	ATOM	1098	N	GLY	A	138	0.986	24.111	-2.492	1.00 23.44 N
	ATOM	1099	CA	GLY	A	138	0.252	24.863	-1.493	1.00 28.80 C
	ATOM	1100	C	GLY	A	138	0.104	24.164	-0.154	1.00 32.79 C
	ATOM	1101	O	GLY	A	138	0.119	22.937	-0.067	1.00 24.20 O
	ATOM	1102	N	PHE	A	139	-0.039	24.963	0.897	1.00 31.77 N
	ATOM	1103	CA	PHE	A	139	-0.279	24.450	2.237	1.00 28.97 C
	ATOM	1104	CB	PHE	A	139	1.015	24.422	3.057	1.00 31.29 C
	ATOM	1105	CG	PHE	A	139	2.209	23.894	2.311	1.00 31.80 C
	ATOM	1106	CD1	PHE	A	139	2.598	22.572	2.445	1.00 33.62 C
	ATOM	1107	CE1	PHE	A	139	3.699	22.087	1.766	1.00 31.26 C
	ATOM	1108	CZ	PHE	A	139	4.430	22.924	0.948	1.00 29.58 C
	ATOM	1109	CE2	PHE	A	139	4.057	24.246	0.810	1.00 29.96 C
	ATOM	1110	CD2	PHE	A	139	2.954	24.726	1.493	1.00 34.72 C
	ATOM	1111	C	PHE	A	139	-1.267	25.371	2.934	1.00 34.87 C
	ATOM	1112	O	PHE	A	139	-1.340	26.557	2.616	1.00 32.00 O
[0149]	ATOM	1113	N	ASP	A	140	-2.025	24.827	3.880	1.00 26.37 N
	ATOM	1114	CA	ASP	A	140	-2.822	25.661	4.772	1.00 32.89 C
	ATOM	1115	CB	ASP	A	140	-4.304	25.263	4.753	1.00 29.04 C
	ATOM	1116	CG	ASP	A	140	-4.543	23.852	5.250	1.00 40.95 C
	ATOM	1117	OD1	ASP	A	140	-3.742	23.360	6.072	1.00 40.76 O
	ATOM	1118	OD2	ASP	A	140	-5.543	23.235	4.824	1.00 37.45 O
	ATOM	1119	C	ASP	A	140	-2.234	25.597	6.181	1.00 40.43 C
	ATOM	1120	O	ASP	A	140	-1.302	24.832	6.434	1.00 31.64 O
	ATOM	1121	N	LYS	A	141	-2.768	26.401	7.092	1.00 40.43 N
	ATOM	1122	CA	LYS	A	141	-2.218	26.479	8.442	1.00 39.07 C
	ATOM	1123	CB	LYS	A	141	-2.621	27.795	9.113	1.00 40.82 C
	ATOM	1124	CG	LYS	A	141	-1.961	29.020	8.491	1.00 45.01 C
	ATOM	1125	CD	LYS	A	141	-2.578	30.317	8.997	1.00 42.95 C
	ATOM	1126	CE	LYS	A	141	-2.065	31.512	8.204	1.00 53.96 C
	ATOM	1127	NZ	LYS	A	141	-2.454	32.813	8.817	1.00 54.31 N
	ATOM	1128	C	LYS	A	141	-2.617	25.281	9.303	1.00 38.88 C
	ATOM	1129	O	LYS	A	141	-2.364	25.259	10.507	1.00 44.29 O
	ATOM	1130	N	HIS	A	142	-3.232	24.284	8.675	1.00 38.42 N
	ATOM	1131	CA	HIS	A	142	-3.620	23.057	9.365	1.00 49.20 C
	ATOM	1132	CB	HIS	A	142	-5.038	22.644	8.968	1.00 41.48 C
	ATOM	1133	CG	HIS	A	142	-6.084	23.640	9.359	1.00 58.71 C
	ATOM	1134	ND1	HIS	A	142	-6.894	23.475	10.461	1.00 66.42 N
	ATOM	1135	CE1	HIS	A	142	-7.712	24.508	10.562	1.00 59.78 C
	ATOM	1136	NE2	HIS	A	142	-7.457	25.339	9.568	1.00 60.94 N
	ATOM	1137	CD2	HIS	A	142	-6.443	24.820	8.801	1.00 44.36 C
	ATOM	1138	C	HIS	A	142	-2.641	21.929	9.057	1.00 41.39 C
	ATOM	1139	O	HIS	A	142	-2.753	20.832	9.600	1.00 43.84 O
	ATOM	1140	N	GLY	A	143	-1.683	22.208	8.181	1.00 33.67 N
	ATOM	1141	CA	GLY	A	143	-0.684	21.225	7.810	1.00 35.74 C
	ATOM	1142	C	GLY	A	143	-1.057	20.448	6.562	1.00 38.30 C
	ATOM	1143	O	GLY	A	143	-0.279	19.628	6.078	1.00 33.60 O
	ATOM	1144	N	ASN	A	144	-2.255	20.695	6.044	1.00 32.21 N
	ATOM	1145	CA	ASN	A	144	-2.673	20.075	4.793	1.00 35.54 C
	ATOM	1146	CB	ASN	A	144	-4.119	20.440	4.463	1.00 33.06 C
	ATOM	1147	CG	ASN	A	144	-5.100	19.940	5.504	1.00 45.25 C

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ATOM	1148	OD1	ASN	A	144	-5.938	20.694	5.998	1.00	42.24	O
ATOM	1149	ND2	ASN	A	144	-4.997	18.663	5.848	1.00	34.80	N
ATOM	1150	C	ASN	A	144	-1.753	20.522	3.669	1.00	32.82	C
ATOM	1151	O	ASN	A	144	-1.337	21.679	3.628	1.00	34.76	O
ATOM	1152	N	ARG	A	145	-1.431	19.609	2.758	1.00	36.94	N
ATOM	1153	CA	ARG	A	145	-0.513	19.926	1.671	1.00	26.90	C
ATOM	1154	CB	ARG	A	145	0.825	19.207	1.857	1.00	30.53	C
ATOM	1155	CG	ARG	A	145	1.858	19.565	0.795	1.00	29.66	C
ATOM	1156	CD	ARG	A	145	3.127	18.742	0.943	1.00	39.04	C
ATOM	1157	NE	ARG	A	145	2.886	17.341	0.622	1.00	50.27	N
ATOM	1158	CZ	ARG	A	145	3.164	16.781	-0.550	1.00	32.68	C
ATOM	1159	NH1	ARG	A	145	3.712	17.496	-1.524	1.00	34.03	N
ATOM	1160	NH2	ARG	A	145	2.900	15.498	-0.745	1.00	44.42	N
ATOM	1161	C	ARG	A	145	-1.085	19.593	0.301	1.00	30.12	C
ATOM	1162	O	ARG	A	145	-1.744	18.569	0.116	1.00	28.81	O
ATOM	1163	N	LEU	A	146	-0.818	20.472	-0.657	1.00	25.60	N
ATOM	1164	CA	LEU	A	146	-1.203	20.252	-2.040	1.00	26.48	C
ATOM	1165	CB	LEU	A	146	-2.010	21.441	-2.568	1.00	24.86	C
ATOM	1166	CG	LEU	A	146	-2.394	21.404	-4.053	1.00	28.09	C
ATOM	1167	CD1	LEU	A	146	-3.089	20.099	-4.414	1.00	25.50	C
ATOM	1168	CD2	LEU	A	146	-3.268	22.595	-4.407	1.00	28.89	C
ATOM	1169	C	LEU	A	146	0.051	20.056	-2.878	1.00	29.16	C
ATOM	1170	O	LEU	A	146	0.827	20.989	-3.075	1.00	33.45	O
ATOM	1171	N	GLY	A	147	0.252	18.832	-3.354	1.00	28.06	N
ATOM	1172	CA	GLY	A	147	1.402	18.509	-4.179	1.00	27.95	C
ATOM	1173	C	GLY	A	147	1.157	18.795	-5.649	1.00	34.18	C
ATOM	1174	O	GLY	A	147	0.256	19.557	-5.998	1.00	31.17	O
ATOM	1175	N	ARG	A	148	1.956	18.178	-6.515	1.00	37.95	N
ATOM	1176	CA	ARG	A	148	1.859	18.426	-7.951	1.00	34.43	C
ATOM	1177	CB	ARG	A	148	3.252	18.430	-8.589	1.00	28.67	C
ATOM	1178	CG	ARG	A	148	4.129	19.553	-8.065	1.00	37.23	C
ATOM	1179	CD	ARG	A	148	5.571	19.423	-8.512	1.00	39.93	C
ATOM	1180	NE	ARG	A	148	6.417	20.436	-7.884	1.00	47.93	N
ATOM	1181	CZ	ARG	A	148	6.533	21.686	-8.319	1.00	51.31	C
ATOM	1182	NH1	ARG	A	148	5.856	22.085	-9.388	1.00	41.47	N
ATOM	1183	NH2	ARG	A	148	7.325	22.540	-7.684	1.00	49.11	N
ATOM	1184	C	ARG	A	148	0.934	17.437	-8.656	1.00	36.26	C
ATOM	1185	O	ARG	A	148	0.726	17.524	-9.865	1.00	37.16	O
ATOM	1186	N	GLY	A	149	0.377	16.501	-7.894	1.00	29.92	N
ATOM	1187	CA	GLY	A	149	-0.618	15.587	-8.423	1.00	39.65	C
ATOM	1188	C	GLY	A	149	-0.173	14.140	-8.524	1.00	41.25	C
ATOM	1189	O	GLY	A	149	-0.976	13.263	-8.841	1.00	47.52	O
ATOM	1190	N	LYS	A	150	1.103	13.884	-8.255	1.00	37.73	N
ATOM	1191	CA	LYS	A	150	1.651	12.536	-8.388	1.00	51.72	C
ATOM	1192	CB	LYS	A	150	3.106	12.590	-8.861	1.00	51.23	C
ATOM	1193	CG	LYS	A	150	3.268	13.055	-10.298	1.00	63.84	C
ATOM	1194	CD	LYS	A	150	2.870	11.963	-11.276	1.00	84.23	C
ATOM	1195	CE	LYS	A	150	2.247	12.549	-12.528	1.00	86.75	C
ATOM	1196	NZ	LYS	A	150	0.878	13.066	-12.251	1.00	93.25	N
ATOM	1197	C	LYS	A	150	1.545	11.731	-7.094	1.00	44.60	C
ATOM	1198	O	LYS	A	150	1.531	10.501	-7.118	1.00	37.05	O
ATOM	1199	N	GLY	A	151	1.476	12.434	-5.968	1.00	31.45	N
ATOM	1200	CA	GLY	A	151	1.347	11.791	-4.673	1.00	33.21	C
ATOM	1201	C	GLY	A	151	2.610	11.085	-4.217	1.00	31.43	C
ATOM	1202	O	GLY	A	151	2.555	10.171	-3.393	1.00	34.74	O
ATOM	1203	N	TYR	A	152	3.750	11.508	-4.753	1.00	30.76	N
ATOM	1204	CA	TYR	A	152	5.037	10.936	-4.374	1.00	31.00	C
ATOM	1205	CB	TYR	A	152	6.179	11.661	-5.089	1.00	38.78	C
ATOM	1206	CG	TYR	A	152	6.404	11.234	-6.522	1.00	38.77	C
ATOM	1207	CD1	TYR	A	152	6.217	12.125	-7.571	1.00	43.27	C
ATOM	1208	CE1	TYR	A	152	6.429	11.740	-8.882	1.00	38.72	C
ATOM	1209	CZ	TYR	A	152	6.832	10.451	-9.157	1.00	34.06	C
ATOM	1210	OH	TYR	A	152	7.043	10.064	-10.460	1.00	44.05	O
ATOM	1211	CE2	TYR	A	152	7.029	9.549	-8.133	1.00	40.72	C
ATOM	1212	CD2	TYR	A	152	6.814	9.943	-6.825	1.00	50.38	C
ATOM	1213	C	TYR	A	152	5.257	11.017	-2.867	1.00	31.50	C
ATOM	1214	O	TYR	A	152	5.543	10.013	-2.215	1.00	28.62	O
ATOM	1215	N	TYR	A	153	5.121	12.221	-2.321	1.00	28.12	N

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ATOM	1216	CA	TYR	A	153	5.414	12.461	-0.909	1.00 30.55	C
ATOM	1217	CB	TYR	A	153	5.595	13.956	-0.639	1.00 27.39	C
ATOM	1218	CG	TYR	A	153	7.020	14.428	-0.819	1.00 30.23	C
ATOM	1219	CD1	TYR	A	153	7.470	14.899	-2.046	1.00 31.46	C
ATOM	1220	CE1	TYR	A	153	8.776	15.328	-2.212	1.00 27.09	C
ATOM	1221	CZ	TYR	A	153	9.649	15.287	-1.139	1.00 29.64	C
ATOM	1222	OH	TYR	A	153	10.952	15.708	-1.279	1.00 25.03	O
ATOM	1223	CE2	TYR	A	153	9.223	14.823	0.084	1.00 28.05	C
ATOM	1224	CD2	TYR	A	153	7.919	14.396	0.239	1.00 27.06	C
ATOM	1225	C	TYR	A	153	4.396	11.854	0.054	1.00 29.95	C
ATOM	1226	O	TYR	A	153	4.762	11.389	1.133	1.00 33.14	O
ATOM	1227	N	ASP	A	154	3.122	11.863	-0.328	1.00 30.36	N
ATOM	1228	CA	ASP	A	154	2.102	11.171	0.451	1.00 27.12	C
ATOM	1229	CB	ASP	A	154	0.744	11.230	-0.248	1.00 33.72	C
ATOM	1230	CG	ASP	A	154	0.172	12.629	-0.298	1.00 41.37	C
ATOM	1231	OD1	ASP	A	154	0.320	13.377	0.691	1.00 39.60	O
ATOM	1232	OD2	ASP	A	154	-0.440	12.979	-1.327	1.00 45.26	O
ATOM	1233	C	ASP	A	154	2.513	9.715	0.600	1.00 30.88	C
ATOM	1234	O	ASP	A	154	2.538	9.173	1.702	1.00 31.94	O
ATOM	1235	N	ALA	A	155	2.837	9.092	-0.529	1.00 34.94	N
ATOM	1236	CA	ALA	A	155	3.209	7.684	-0.558	1.00 38.12	C
ATOM	1237	CB	ALA	A	155	3.380	7.212	-1.993	1.00 29.33	C
ATOM	1238	C	ALA	A	155	4.472	7.408	0.251	1.00 29.45	C
ATOM	1239	O	ALA	A	155	4.538	6.428	0.992	1.00 36.40	O
ATOM	1240	N	TYR	A	156	5.474	8.271	0.107	1.00 27.83	N
ATOM	1241	CA	TYR	A	156	6.727	8.086	0.828	1.00 28.06	C
ATOM	1242	CB	TYR	A	156	7.797	9.075	0.360	1.00 27.60	C
ATOM	1243	CG	TYR	A	156	9.149	8.816	0.983	1.00 25.51	C
ATOM	1244	CD1	TYR	A	156	10.010	7.868	0.448	1.00 24.47	C
ATOM	1245	CE1	TYR	A	156	11.244	7.620	1.018	1.00 25.37	C
ATOM	1246	CZ	TYR	A	156	11.628	8.319	2.142	1.00 28.03	C
ATOM	1247	OH	TYR	A	156	12.856	8.077	2.713	1.00 28.12	O
ATOM	1248	CE2	TYR	A	156	10.789	9.263	2.695	1.00 26.46	C
ATOM	1249	CD2	TYR	A	156	9.557	9.504	2.117	1.00 25.26	C
ATOM	1250	C	TYR	A	156	6.531	8.204	2.336	1.00 28.82	C
ATOM	1251	O	TYR	A	156	7.056	7.396	3.099	1.00 30.47	O
ATOM	1252	N	LEU	A	157	5.774	9.211	2.761	1.00 31.14	N
ATOM	1253	CA	LEU	A	157	5.510	9.416	4.183	1.00 35.54	C
ATOM	1254	CB	LEU	A	157	4.633	10.647	4.410	1.00 30.07	C
ATOM	1255	CG	LEU	A	157	5.387	11.931	4.754	1.00 41.61	C
ATOM	1256	CD1	LEU	A	157	4.423	13.079	5.017	1.00 36.81	C
ATOM	1257	CD2	LEU	A	157	6.290	11.697	5.959	1.00 46.83	C
ATOM	1258	C	LEU	A	157	4.878	8.192	4.832	1.00 31.54	C
ATOM	1259	O	LEU	A	157	5.161	7.876	5.985	1.00 32.79	O
ATOM	1260	N	LYS	A	158	4.019	7.505	4.090	1.00 38.38	N
ATOM	1261	CA	LYS	A	158	3.388	6.296	4.604	1.00 37.95	C
ATOM	1262	CB	LYS	A	158	2.218	5.882	3.709	1.00 39.33	C
ATOM	1263	CG	LYS	A	158	1.162	6.970	3.582	1.00 44.63	C
ATOM	1264	CD	LYS	A	158	0.032	6.571	2.646	1.00 50.72	C
ATOM	1265	CE	LYS	A	158	-0.857	7.769	2.328	1.00 48.92	C
ATOM	1266	NZ	LYS	A	158	-2.163	7.371	1.731	1.00 56.14	N
ATOM	1267	C	LYS	A	158	4.409	5.170	4.744	1.00 39.24	C
ATOM	1268	O	LYS	A	158	4.327	4.361	5.668	1.00 38.61	O
ATOM	1269	N	ARG	A	159	5.379	5.132	3.833	1.00 39.41	N
ATOM	1270	CA	ARG	A	159	6.467	4.160	3.911	1.00 43.52	C
ATOM	1271	CB	ARG	A	159	7.355	4.227	2.666	1.00 32.50	C
ATOM	1272	CG	ARG	A	159	6.980	3.241	1.574	1.00 43.55	C
ATOM	1273	CD	ARG	A	159	7.856	3.429	0.342	1.00 35.97	C
ATOM	1274	NE	ARG	A	159	9.268	3.165	0.610	1.00 35.23	N
ATOM	1275	CZ	ARG	A	159	10.267	3.616	-0.143	1.00 34.31	C
ATOM	1276	NH1	ARG	A	159	10.013	4.366	-1.207	1.00 38.57	N
ATOM	1277	NH2	ARG	A	159	11.522	3.326	0.171	1.00 38.55	N
ATOM	1278	C	ARG	A	159	7.322	4.352	5.160	1.00 32.52	C
ATOM	1279	O	ARG	A	159	7.725	3.380	5.796	1.00 33.36	O
ATOM	1280	N	CYS	A	160	7.609	5.605	5.500	1.00 32.90	N
ATOM	1281	CA	CYS	A	160	8.398	5.905	6.690	1.00 34.95	C
ATOM	1282	CB	CYS	A	160	8.608	7.409	6.838	1.00 36.53	C
ATOM	1283	SG	CYS	A	160	9.643	8.130	5.555	1.00 43.13	S

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ATOM	1284	C	CYS	A	160	7.720	5.356	7.935	1.00	38.17	C
ATOM	1285	O	CYS	A	160	8.379	5.020	8.917	1.00	45.79	O
ATOM	1286	N	LEU	A	161	6.395	5.279	7.885	1.00	57.66	N
ATOM	1287	CA	LEU	A	161	5.617	4.671	8.955	1.00	53.85	C
ATOM	1288	CB	LEU	A	161	4.189	5.220	8.948	1.00	50.30	C
ATOM	1289	CG	LEU	A	161	3.975	6.648	9.464	1.00	48.38	C
ATOM	1290	CD1	LEU	A	161	5.267	7.456	9.480	1.00	51.56	C
ATOM	1291	CD2	LEU	A	161	2.898	7.354	8.647	1.00	47.46	C
ATOM	1292	C	LEU	A	161	5.611	3.157	8.775	1.00	57.17	C
ATOM	1293	O	LEU	A	161	4.557	2.520	8.771	1.00	69.73	O
ATOM	1294	N	GLN	A	162	6.805	2.594	8.617	1.00	46.20	N
ATOM	1295	CA	GLN	A	162	6.980	1.160	8.429	1.00	47.45	C
ATOM	1296	CB	GLN	A	162	6.854	0.790	6.954	1.00	77.13	C
ATOM	1297	CG	GLN	A	162	5.434	0.592	6.467	1.00	69.97	C
ATOM	1298	CD	GLN	A	162	5.385	-0.187	5.168	1.00	85.17	C
ATOM	1299	OE1	GLN	A	162	6.360	-0.218	4.419	1.00	66.08	O
ATOM	1300	NE2	GLN	A	162	4.253	-0.827	4.899	1.00	77.58	N
ATOM	1301	C	GLN	A	162	8.318	1.788	8.783	1.00	65.95	C
ATOM	1302	O	GLN	A	162	8.454	3.010	8.802	1.00	89.96	O
ATOM	1303	N	HIS	A	163	9.297	0.943	9.078	1.00	57.12	N
ATOM	1304	CA	HIS	A	163	10.613	1.407	9.491	1.00	54.82	C
ATOM	1305	CB	HIS	A	163	11.556	1.981	8.444	1.00	54.75	C
ATOM	1306	CG	HIS	A	163	11.909	1.018	7.360	1.00	34.57	C
ATOM	1307	ND1	HIS	A	163	10.992	0.564	6.443	1.00	46.09	N
ATOM	1308	CE1	HIS	A	163	11.591	-0.266	5.605	1.00	57.99	C
ATOM	1309	NE2	HIS	A	163	12.860	-0.357	5.949	1.00	45.03	N
ATOM	1310	CD2	HIS	A	163	13.088	0.431	7.050	1.00	30.79	C
ATOM	1311	C	HIS	A	163	10.960	2.041	10.816	1.00	54.34	C
ATOM	1312	O	HIS	A	163	11.760	1.513	11.586	1.00	78.22	O
ATOM	1313	N	GLN	A	164	10.362	3.196	11.062	1.00	57.50	N
ATOM	1314	CA	GLN	A	164	10.729	4.011	12.201	1.00	57.00	C
ATOM	1315	CB	GLN	A	164	10.846	5.471	11.764	1.00	45.21	C
ATOM	1316	CG	GLN	A	164	11.736	5.650	10.538	1.00	44.39	C
ATOM	1317	CD	GLN	A	164	11.672	7.047	9.950	1.00	36.12	C
ATOM	1318	OE1	GLN	A	164	11.807	7.228	8.739	1.00	46.55	O
ATOM	1319	NE2	GLN	A	164	11.463	8.040	10.803	1.00	30.55	N
ATOM	1320	C	GLN	A	164	9.713	3.859	13.319	1.00	56.64	C
ATOM	1321	O	GLN	A	164	8.509	3.996	13.100	1.00	47.87	O
ATOM	1322	N	GLU	A	165	10.205	3.552	14.515	1.00	60.19	N
ATOM	1323	CA	GLU	A	165	9.354	3.533	15.692	1.00	49.48	C
ATOM	1324	CB	GLU	A	165	10.151	3.145	16.939	1.00	59.79	C
ATOM	1325	CG	GLU	A	165	10.561	1.681	17.008	1.00	71.11	C
ATOM	1326	CD	GLU	A	165	11.939	1.423	16.428	1.00	85.99	C
ATOM	1327	OE1	GLU	A	165	12.376	2.194	15.548	1.00	67.96	O
ATOM	1328	OE2	GLU	A	165	12.588	0.445	16.857	1.00	71.61	O
ATOM	1329	C	GLU	A	165	8.779	4.929	15.857	1.00	42.45	C
ATOM	1330	O	GLU	A	165	7.598	5.100	16.156	1.00	66.97	O
ATOM	1331	N	VAL	A	166	9.631	5.926	15.645	1.00	40.29	N
ATOM	1332	CA	VAL	A	166	9.219	7.320	15.723	1.00	41.91	C
ATOM	1333	CB	VAL	A	166	10.110	8.120	16.697	1.00	46.76	C
ATOM	1334	CG1	VAL	A	166	9.936	7.599	18.117	1.00	68.28	C
ATOM	1335	CG2	VAL	A	166	11.570	8.044	16.276	1.00	49.40	C
ATOM	1336	C	VAL	A	166	9.241	7.969	14.340	1.00	45.54	C
ATOM	1337	O	VAL	A	166	10.291	8.084	13.708	1.00	40.92	O
ATOM	1338	N	LYS	A	167	8.068	8.383	13.875	1.00	39.50	N
ATOM	1339	CA	LYS	A	167	7.933	8.996	12.561	1.00	45.33	C
ATOM	1340	CB	LYS	A	167	6.473	9.369	12.302	1.00	48.91	C
ATOM	1341	CG	LYS	A	167	5.833	10.153	13.435	1.00	54.12	C
ATOM	1342	CD	LYS	A	167	4.615	10.924	12.958	1.00	70.79	C
ATOM	1343	CE	LYS	A	167	3.960	11.679	14.102	1.00	79.62	C
ATOM	1344	NZ	LYS	A	167	3.136	12.812	13.602	1.00	75.95	N
ATOM	1345	C	LYS	A	167	8.823	10.228	12.429	1.00	36.35	C
ATOM	1346	O	LYS	A	167	9.214	10.828	13.432	1.00	33.03	O
ATOM	1347	N	PRO	A	168	9.150	10.607	11.186	1.00	35.18	N
ATOM	1348	CA	PRO	A	168	9.979	11.791	10.947	1.00	28.56	C
ATOM	1349	CB	PRO	A	168	10.291	11.709	9.442	1.00	29.11	C
ATOM	1350	CG	PRO	A	168	9.866	10.330	9.005	1.00	45.64	C
ATOM	1351	CD	PRO	A	168	8.759	9.948	9.929	1.00	41.31	C

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ATOM	1352	C	PRO A 168	9.198	13.066	11.235	1.00	24.82	C
ATOM	1353	O	PRO A 168	7.972	13.070	11.136	1.00	27.19	O
ATOM	1354	N	TYR A 169	9.898	14.134	11.597	1.00	24.46	N
ATOM	1355	CA	TYR A 169	9.270	15.443	11.673	1.00	26.27	C
ATOM	1356	CB	TYR A 169	10.061	16.369	12.590	1.00	24.78	C
ATOM	1357	CG	TYR A 169	9.314	17.623	12.977	1.00	26.59	C
ATOM	1358	CD1	TYR A 169	8.370	17.604	13.996	1.00	35.45	C
ATOM	1359	CE1	TYR A 169	7.688	18.748	14.359	1.00	31.13	C
ATOM	1360	CZ	TYR A 169	7.948	19.931	13.699	1.00	28.77	C
ATOM	1361	OH	TYR A 169	7.276	21.077	14.050	1.00	30.58	O
ATOM	1362	CE2	TYR A 169	8.882	19.975	12.687	1.00	26.30	C
ATOM	1363	CD2	TYR A 169	9.558	18.826	12.332	1.00	28.60	C
ATOM	1364	C	TYR A 169	9.208	16.024	10.265	1.00	27.91	C
ATOM	1365	O	TYR A 169	10.218	16.079	9.566	1.00	25.79	O
ATOM	1366	N	THR A 170	8.020	16.443	9.846	1.00	28.14	N
ATOM	1367	CA	THR A 170	7.840	16.959	8.495	1.00	27.06	C
ATOM	1368	CB	THR A 170	6.619	16.327	7.808	1.00	24.48	C
ATOM	1369	OG1	THR A 170	5.474	16.443	8.661	1.00	30.12	O
ATOM	1370	CG2	THR A 170	6.878	14.855	7.518	1.00	26.20	C
ATOM	1371	C	THR A 170	7.713	18.478	8.494	1.00	28.93	C
ATOM	1372	O	THR A 170	6.773	19.035	9.062	1.00	28.22	O
ATOM	1373	N	LEU A 171	8.669	19.139	7.849	1.00	24.23	N
ATOM	1374	CA	LEU A 171	8.733	20.595	7.837	1.00	25.78	C
ATOM	1375	CB	LEU A 171	10.040	21.063	8.480	1.00	26.34	C
ATOM	1376	CG	LEU A 171	10.243	22.567	8.663	1.00	37.39	C
ATOM	1377	CD1	LEU A 171	9.203	23.131	9.616	1.00	38.58	C
ATOM	1378	CD2	LEU A 171	11.647	22.850	9.173	1.00	41.26	C
ATOM	1379	C	LEU A 171	8.632	21.135	6.414	1.00	30.18	C
ATOM	1380	O	LEU A 171	9.546	20.956	5.608	1.00	29.14	O
ATOM	1381	N	ALA A 172	7.521	21.797	6.109	1.00	27.65	N
ATOM	1382	CA	ALA A 172	7.311	22.361	4.780	1.00	31.16	C
ATOM	1383	CB	ALA A 172	5.831	22.351	4.424	1.00	29.26	C
ATOM	1384	C	ALA A 172	7.869	23.774	4.679	1.00	33.77	C
ATOM	1385	O	ALA A 172	7.771	24.559	5.623	1.00	29.08	O
ATOM	1386	N	LEU A 173	8.458	24.086	3.530	1.00	25.43	N
ATOM	1387	CA	LEU A 173	8.983	25.420	3.263	1.00	27.05	C
ATOM	1388	CB	LEU A 173	10.435	25.340	2.790	1.00	29.55	C
ATOM	1389	CG	LEU A 173	11.381	24.515	3.671	1.00	30.33	C
ATOM	1390	CD1	LEU A 173	12.719	24.300	2.976	1.00	25.78	C
ATOM	1391	CD2	LEU A 173	11.571	25.174	5.033	1.00	22.82	C
ATOM	1392	C	LEU A 173	8.125	26.085	2.198	1.00	39.08	C
ATOM	1393	O	LEU A 173	8.088	25.639	1.051	1.00	33.44	O
ATOM	1394	N	ALA A 174	7.434	27.154	2.576	1.00	28.94	N
ATOM	1395	CA	ALA A 174	6.446	27.756	1.692	1.00	28.16	C
ATOM	1396	CB	ALA A 174	5.040	27.444	2.193	1.00	28.13	C
ATOM	1397	C	ALA A 174	6.619	29.261	1.508	1.00	38.00	C
ATOM	1398	O	ALA A 174	6.906	29.987	2.459	1.00	31.33	O
ATOM	1399	N	PHE A 175	6.448	29.718	0.271	1.00	31.24	N
ATOM	1400	CA	PHE A 175	6.335	31.143	0.001	1.00	31.19	C
ATOM	1401	CB	PHE A 175	6.244	31.413	-1.504	1.00	34.16	C
ATOM	1402	CG	PHE A 175	7.522	31.156	-2.254	1.00	29.08	C
ATOM	1403	CD1	PHE A 175	8.698	31.790	-1.888	1.00	30.03	C
ATOM	1404	CE1	PHE A 175	9.870	31.562	-2.581	1.00	30.85	C
ATOM	1405	CZ	PHE A 175	9.878	30.701	-3.660	1.00	35.71	C
ATOM	1406	CE2	PHE A 175	8.710	30.067	-4.041	1.00	25.73	C
ATOM	1407	CD2	PHE A 175	7.540	30.298	-3.342	1.00	28.09	C
ATOM	1408	C	PHE A 175	5.061	31.639	0.670	1.00	31.43	C
ATOM	1409	O	PHE A 175	4.113	30.874	0.848	1.00	27.91	O
ATOM	1410	N	LYS A 176	5.034	32.914	1.042	1.00	31.30	N
ATOM	1411	CA	LYS A 176	3.815	33.511	1.577	1.00	35.33	C
ATOM	1412	CB	LYS A 176	3.995	35.013	1.791	1.00	51.71	C
ATOM	1413	CG	LYS A 176	4.666	35.398	3.092	1.00	51.27	C
ATOM	1414	CD	LYS A 176	4.693	36.910	3.251	1.00	59.43	C
ATOM	1415	CE	LYS A 176	5.385	37.574	2.068	1.00	59.73	C
ATOM	1416	NZ	LYS A 176	5.420	39.057	2.200	1.00	52.85	N
ATOM	1417	C	LYS A 176	2.672	33.278	0.600	1.00	36.63	C
ATOM	1418	O	LYS A 176	1.520	33.110	0.996	1.00	35.43	O
ATOM	1419	N	GLU A 177	3.012	33.271	-0.685	1.00	33.39	N

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ATOM	1420	CA	GLU	A	177	2.037	33.134	-1.761	1.00	44.24	C
ATOM	1421	CB	GLU	A	177	2.694	33.463	-3.105	1.00	32.89	C
ATOM	1422	CG	GLU	A	177	2.897	34.951	-3.366	1.00	35.82	C
ATOM	1423	CD	GLU	A	177	4.030	35.561	-2.555	1.00	49.83	C
ATOM	1424	OE1	GLU	A	177	4.716	34.823	-1.815	1.00	45.58	O
ATOM	1425	OE2	GLU	A	177	4.237	36.787	-2.662	1.00	61.15	O
ATOM	1426	C	GLU	A	177	1.399	31.746	-1.826	1.00	36.92	C
ATOM	1427	O	GLU	A	177	0.324	31.576	-2.403	1.00	41.63	O
ATOM	1428	N	GLN	A	178	2.065	30.759	-1.236	1.00	31.85	N
ATOM	1429	CA	GLN	A	178	1.595	29.379	-1.292	1.00	29.63	C
ATOM	1430	CB	GLN	A	178	2.783	28.415	-1.304	1.00	33.03	C
ATOM	1431	CG	GLN	A	178	3.664	28.522	-2.539	1.00	30.09	C
ATOM	1432	CD	GLN	A	178	4.872	27.610	-2.466	1.00	29.33	C
ATOM	1433	OE1	GLN	A	178	5.828	27.882	-1.741	1.00	29.83	O
ATOM	1434	NE2	GLN	A	178	4.838	26.523	-3.227	1.00	34.88	N
ATOM	1435	C	GLN	A	178	0.653	29.032	-0.141	1.00	34.67	C
ATOM	1436	O	GLN	A	178	0.058	27.953	-0.120	1.00	33.10	O
ATOM	1437	N	ILE	A	179	0.517	29.946	0.814	1.00	30.97	N
ATOM	1438	CA	ILE	A	179	-0.329	29.707	1.978	1.00	26.49	C
ATOM	1439	CB	ILE	A	179	0.052	30.629	3.151	1.00	32.29	C
ATOM	1440	CG1	ILE	A	179	1.549	30.510	3.452	1.00	34.87	C
ATOM	1441	CD1	ILE	A	179	2.012	29.090	3.695	1.00	29.63	C
ATOM	1442	CG2	ILE	A	179	-0.774	30.296	4.383	1.00	29.57	C
ATOM	1443	C	ILE	A	179	-1.800	29.901	1.632	1.00	28.52	C
ATOM	1444	O	ILE	A	179	-2.209	30.976	1.193	1.00	40.94	O
ATOM	1445	N	CYS	A	180	-2.592	28.854	1.835	1.00	35.23	N
ATOM	1446	CA	CYS	A	180	-4.000	28.871	1.451	1.00	35.45	C
ATOM	1447	CB	CYS	A	180	-4.312	27.692	0.529	1.00	37.66	C
ATOM	1448	SG	CYS	A	180	-3.196	27.546	-0.880	1.00	44.87	S
ATOM	1449	C	CYS	A	180	-4.928	28.833	2.659	1.00	37.72	C
ATOM	1450	O	CYS	A	180	-4.525	28.447	3.754	1.00	44.42	O
ATOM	1451	N	LEU	A	181	-6.176	29.237	2.443	1.00	43.83	N
ATOM	1452	CA	LEU	A	181	-7.194	29.206	3.482	1.00	36.56	C
ATOM	1453	CB	LEU	A	181	-8.423	30.005	3.034	1.00	42.09	C
ATOM	1454	CG	LEU	A	181	-9.578	30.266	4.010	1.00	54.57	C
ATOM	1455	CD1	LEU	A	181	-10.611	31.169	3.356	1.00	48.27	C
ATOM	1456	CD2	LEU	A	181	-10.236	28.978	4.487	1.00	46.45	C
ATOM	1457	C	LEU	A	181	-7.592	27.765	3.749	1.00	39.48	C
ATOM	1458	O	LEU	A	181	-7.616	27.308	4.892	1.00	39.13	O
ATOM	1459	N	GLN	A	182	-7.907	27.051	2.675	1.00	37.13	N
ATOM	1460	CA	GLN	A	182	-8.423	25.697	2.778	1.00	40.56	C
ATOM	1461	CB	GLN	A	182	-9.954	25.727	2.750	1.00	54.12	C
ATOM	1462	CG	GLN	A	182	-10.629	24.403	3.071	1.00	50.59	C
ATOM	1463	CD	GLN	A	182	-12.142	24.528	3.113	1.00	90.22	C
ATOM	1464	OE1	GLN	A	182	-12.862	23.725	2.518	1.00	81.36	O
ATOM	1465	NE2	GLN	A	182	-12.631	25.549	3.807	1.00	71.04	N
ATOM	1466	C	GLN	A	182	-7.889	24.847	1.631	1.00	45.22	C
ATOM	1467	O	GLN	A	182	-8.239	25.068	0.473	1.00	46.17	O
ATOM	1468	N	VAL	A	183	-7.029	23.887	1.955	1.00	41.32	N
ATOM	1469	CA	VAL	A	183	-6.489	22.974	0.954	1.00	39.07	C
ATOM	1470	CB	VAL	A	183	-5.042	22.560	1.285	1.00	41.66	C
ATOM	1471	CG1	VAL	A	183	-4.628	21.367	0.443	1.00	40.63	C
ATOM	1472	CG2	VAL	A	183	-4.093	23.728	1.069	1.00	35.38	C
ATOM	1473	C	VAL	A	183	-7.349	21.721	0.850	1.00	37.00	C
ATOM	1474	O	VAL	A	183	-7.589	21.042	1.849	1.00	37.03	O
ATOM	1475	N	PRO	A	184	-7.822	21.414	-0.366	1.00	33.76	N
ATOM	1476	CA	PRO	A	184	-8.654	20.230	-0.602	1.00	38.98	C
ATOM	1477	CB	PRO	A	184	-9.025	20.348	-2.087	1.00	38.75	C
ATOM	1478	CG	PRO	A	184	-8.766	21.780	-2.445	1.00	42.67	C
ATOM	1479	CD	PRO	A	184	-7.614	22.195	-1.595	1.00	43.12	C
ATOM	1480	C	PRO	A	184	-7.855	18.956	-0.371	1.00	33.35	C
ATOM	1481	O	PRO	A	184	-6.750	18.821	-0.896	1.00	39.10	O
ATOM	1482	N	VAL	A	185	-8.406	18.035	0.410	1.00	37.20	N
ATOM	1483	CA	VAL	A	185	-7.728	16.781	0.698	1.00	40.91	C
ATOM	1484	CB	VAL	A	185	-6.974	16.835	2.042	1.00	44.07	C
ATOM	1485	CG1	VAL	A	185	-5.838	17.841	1.980	1.00	38.94	C
ATOM	1486	CG2	VAL	A	185	-7.934	17.163	3.180	1.00	36.64	C
ATOM	1487	C	VAL	A	185	-8.703	15.617	0.744	1.00	44.41	C

ATOM	1488	O	VAL	A	185	-9.912	15.808	0.865	1.00	46.74	O
ATOM	1489	N	ASN	A	186	-8.164	14.408	0.638	1.00	47.19	N
ATOM	1490	CA	ASN	A	186	-8.939	13.198	0.874	1.00	42.72	C
ATOM	1491	CB	ASN	A	186	-9.103	12.386	-0.414	1.00	45.67	C
ATOM	1492	CG	ASN	A	186	-7.790	12.159	-1.135	1.00	46.38	C
ATOM	1493	OD1	ASN	A	186	-7.562	12.702	-2.216	1.00	50.27	O
ATOM	1494	ND2	ASN	A	186	-6.916	11.358	-0.538	1.00	56.17	N
ATOM	1495	C	ASN	A	186	-8.288	12.367	1.974	1.00	47.75	C
ATOM	1496	O	ASN	A	186	-7.336	12.816	2.616	1.00	41.02	O
ATOM	1497	N	GLY	A	187	-8.802	11.162	2.194	1.00	50.88	N
ATOM	1498	CA	GLY	A	187	-8.306	10.310	3.259	1.00	45.53	C
ATOM	1499	C	GLY	A	187	-6.886	9.822	3.041	1.00	52.87	C
ATOM	1500	O	GLY	A	187	-6.251	9.302	3.960	1.00	58.46	O
ATOM	1501	N	GLY	A	188	-6.385	9.993	1.822	1.00	44.99	N
ATOM	1502	CA	GLY	A	188	-5.065	9.506	1.466	1.00	52.75	C
ATOM	1503	C	GLY	A	188	-3.962	10.539	1.594	1.00	59.67	C
ATOM	1504	O	GLY	A	188	-2.781	10.195	1.576	1.00	54.79	O
ATOM	1505	N	ASP	A	189	-4.343	11.805	1.725	1.00	48.73	N
ATOM	1506	CA	ASP	A	189	-3.372	12.889	1.826	1.00	46.26	C
ATOM	1507	CB	ASP	A	189	-4.023	14.223	1.457	1.00	44.79	C
ATOM	1508	CG	ASP	A	189	-4.473	14.267	0.010	1.00	41.71	C
ATOM	1509	OD1	ASP	A	189	-3.673	13.903	-0.874	1.00	40.98	O
ATOM	1510	OD2	ASP	A	189	-5.627	14.667	-0.242	1.00	38.35	O
ATOM	1511	C	ASP	A	189	-2.750	12.961	3.218	1.00	42.65	C
ATOM	1512	O	ASP	A	189	-3.412	12.691	4.219	1.00	52.18	O
ATOM	1513	N	MET	A	190	-1.472	13.328	3.269	1.00	39.62	N
ATOM	1514	CA	MET	A	190	-0.722	13.342	4.521	1.00	40.87	C
ATOM	1515	CB	MET	A	190	0.571	12.537	4.370	1.00	34.51	C
ATOM	1516	CG	MET	A	190	0.365	11.114	3.877	1.00	34.15	C
ATOM	1517	SD	MET	A	190	-0.397	10.054	5.118	1.00	45.13	S
ATOM	1518	CE	MET	A	190	0.903	9.994	6.346	1.00	34.09	C
ATOM	1519	C	MET	A	190	-0.393	14.760	4.981	1.00	32.50	C
ATOM	1520	O	MET	A	190	0.243	15.527	4.259	1.00	37.58	O
ATOM	1521	N	LYS	A	191	-0.826	15.099	6.190	1.00	29.66	N
ATOM	1522	CA	LYS	A	191	0.520	16.397	6.780	1.00	34.87	C
ATOM	1523	CB	LYS	A	191	-1.353	16.626	8.042	1.00	37.69	C
ATOM	1524	CG	LYS	A	191	-2.847	16.728	7.809	1.00	48.68	C
ATOM	1525	CD	LYS	A	191	-3.577	17.025	9.110	1.00	56.82	C
ATOM	1526	CE	LYS	A	191	-5.085	16.957	8.934	1.00	73.67	C
ATOM	1527	NZ	LYS	A	191	-5.798	17.205	10.218	1.00	70.33	N
ATOM	1528	C	LYS	A	191	0.955	16.505	7.140	1.00	31.77	C
ATOM	1529	O	LYS	A	191	1.617	15.500	7.392	1.00	36.79	O
ATOM	1530	N	VAL	A	192	1.463	17.733	7.166	1.00	30.65	N
ATOM	1531	CA	VAL	A	192	2.810	17.994	7.657	1.00	27.73	C
ATOM	1532	CB	VAL	A	192	3.564	18.985	6.758	1.00	34.97	C
ATOM	1533	CG1	VAL	A	192	3.768	18.394	5.369	1.00	26.60	C
ATOM	1534	CG2	VAL	A	192	2.814	20.305	6.679	1.00	28.49	C
ATOM	1535	C	VAL	A	192	2.725	18.549	9.074	1.00	30.50	C
ATOM	1536	O	VAL	A	192	1.724	19.159	9.449	1.00	30.74	O
ATOM	1537	N	ASP	A	193	3.774	18.334	9.860	1.00	27.99	N
ATOM	1538	CA	ASP	A	193	3.789	18.782	11.248	1.00	30.33	C
ATOM	1539	CB	ASP	A	193	4.997	18.202	11.987	1.00	27.35	C
ATOM	1540	CG	ASP	A	193	4.928	16.695	12.122	1.00	29.60	C
ATOM	1541	OD1	ASP	A	193	3.838	16.175	12.439	1.00	36.69	O
ATOM	1542	OD2	ASP	A	193	5.964	16.032	11.913	1.00	27.98	O
ATOM	1543	C	ASP	A	193	3.792	20.302	11.364	1.00	35.58	C
ATOM	1544	O	ASP	A	193	3.219	20.861	12.299	1.00	31.34	O
ATOM	1545	N	GLU	A	194	4.435	20.966	10.410	1.00	29.99	N
ATOM	1546	CA	GLU	A	194	4.620	22.408	10.488	1.00	27.27	C
ATOM	1547	CB	GLU	A	194	5.782	22.724	11.432	1.00	28.83	C
ATOM	1548	CG	GLU	A	194	6.091	24.200	11.585	1.00	29.34	C
ATOM	1549	CD	GLU	A	194	7.231	24.453	12.555	1.00	31.09	C
ATOM	1550	OE1	GLU	A	194	7.669	25.616	12.675	1.00	45.65	O
ATOM	1551	OE2	GLU	A	194	7.692	23.487	13.198	1.00	30.89	O
ATOM	1552	C	GLU	A	194	4.879	23.026	9.117	1.00	30.47	C
ATOM	1553	O	GLU	A	194	5.608	22.462	8.301	1.00	27.82	O
ATOM	1554	N	VAL	A	195	4.275	24.184	8.870	1.00	29.01	N
ATOM	1555	CA	VAL	A	195	4.525	24.929	7.642	1.00	28.73	C

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ATOM   1556  CB  VAL A 195       3.213  25.206   6.857  1.00 32.83           C
ATOM   1557  CG1 VAL A 195       2.371  23.945   6.774  1.00 27.29           C
ATOM   1558  CG2 VAL A 195       2.414  26.326   7.504  1.00 45.31           C
ATOM   1559  C   VAL A 195       5.263  26.232   7.951  1.00 25.13           C
ATOM   1560  O   VAL A 195       4.779  27.068   8.712  1.00 28.52           O
ATOM   1561  N   LEU A 196       6.453  26.385   7.378  1.00 28.31           N
ATOM   1562  CA  LEU A 196       7.252  27.589   7.579  1.00 35.70           C
ATOM   1563  CB  LEU A 196       8.742  27.246   7.634  1.00 35.47           C
ATOM   1564  CG  LEU A 196       9.289  26.665   8.937  1.00 43.51           C
ATOM   1565  CD1 LEU A 196      10.810  26.620   8.891  1.00 42.13           C
ATOM   1566  CD2 LEU A 196       8.810  27.484  10.125  1.00 34.23           C
ATOM   1567  C   LEU A 196       7.004  28.597   6.464  1.00 36.03           C
ATOM   1568  O   LEU A 196       6.808  28.214   5.310  1.00 33.84           O
ATOM   1569  N   TYR A 197       7.022  29.883   6.808  1.00 31.74           N
ATOM   1570  CA  TYR A 197       6.808  30.936   5.819  1.00 32.51           C
ATOM   1571  CB  TYR A 197       5.444  30.761   5.153  1.00 33.40           C
ATOM   1572  CG  TYR A 197       4.281  30.990   6.091  1.00 32.02           C
ATOM   1573  CD1 TYR A 197       3.817  32.273   6.354  1.00 41.48           C
ATOM   1574  CE1 TYR A 197       2.757  32.487   7.214  1.00 39.96           C
ATOM   1575  CZ  TYR A 197       2.147  31.413   7.822  1.00 41.44           C
ATOM   1576  OH  TYR A 197       1.090  31.627   8.677  1.00 50.75           O
ATOM   1577  CE2 TYR A 197       2.588  30.129   7.579  1.00 31.12           C
ATOM   1578  CD2 TYR A 197       3.649  29.923   6.718  1.00 41.04           C
ATOM   1579  C   TYR A 197       6.891  32.344   6.408  1.00 41.97           C
ATOM   1580  O   TYR A 197       6.818  32.522   7.623  1.00 34.40           O
ATOM   1581  N   GLU A 198       7.050  33.321   5.514  1.00 44.49           N
ATOM   1582  CA  GLU A 198       6.930  34.761   5.795  1.00 48.54           C
ATOM   1583  CB  GLU A 198       6.806  35.077   7.289  1.00 43.52           C
ATOM   1584  CG  GLU A 198       5.366  35.095   7.780  1.00 49.66           C
ATOM   1585  CD  GLU A 198       5.238  35.614   9.194  1.00 62.94           C
ATOM   1586  OE1 GLU A 198       5.778  36.704   9.479  1.00 76.05           O
ATOM   1587  OE2 GLU A 198       4.589  34.935  10.018  1.00 64.33           O
ATOM   1588  C   GLU A 198       8.035  35.597   5.149  1.00 61.06           C
ATOM   1589  O   GLU A 198       9.220  35.291   5.276  1.00 75.47           O
ATOM   1590  N   GLY A 199       7.626  36.656   4.455  1.00 69.56           N
ATOM   1591  CA  GLY A 199       8.551  37.528   3.755  1.00 63.98           C
ATOM   1592  C   GLY A 199       9.557  38.191   4.676  1.00 50.00           C
ATOM   1593  O   GLY A 199       9.682  39.417   4.695  1.00 76.19           O
TER    1594        GLY A 199
ATOM   1595 NI    NI  C   2      13.086   2.397   5.194  1.00 34.90          NI
ATOM   1596 MG    MG  C   3      12.834   7.149 -13.980  1.00 68.27          MG
ATOM   1597 NI    NI  C   4      -9.568  26.119   8.316  1.00 61.90          NI
ATOM   1598 MG    MG  C   7      13.208  29.982  -6.651  1.00 55.89          MG
ATOM   1599 MG    MG  C   8       7.377   5.445  -2.077  1.00 51.81          MG
ATOM   1600 MG    MG  C   9      22.868  17.547 -15.203  0.84 48.78          MG
ATOM   1601 MG    MG  C  11      -6.357  30.545  -0.384  1.00 52.78          MG
TER    1602        MG  C  11
ATOM   1603  P   PO4 B   1       4.386  15.122  -4.677  1.00 43.52           P
ATOM   1604  O1  PO4 B   1       5.806  14.730  -5.012  1.00 63.21           O
ATOM   1605  O2  PO4 B   1       4.344  16.590  -4.331  1.00 59.90           O
ATOM   1606  O3  PO4 B   1       3.519  14.881  -5.887  1.00 55.06           O
ATOM   1607  O4  PO4 B   1       3.864  14.312  -3.513  1.00 34.42           O
TER    1608       PO4 B   1
ATOM   1609 MG    MG  D   1      14.326   5.610   1.147  1.00 22.16          MG
ATOM   1610 MG    MG  D   2      -1.416  15.580  -0.682  1.00 53.08          MG
ATOM   1611  PB  ADP D 302      -0.619  15.432  -4.791  1.00 42.20           P
ATOM   1612  O1B ADP D 302      -1.080  17.013  -4.797  1.00 43.59           O
ATOM   1613  O2B ADP D 302       0.899  15.305  -5.418  1.00 35.88           O
ATOM   1614  O3B ADP D 302      -0.608  14.928  -3.420  1.00 41.06           O
ATOM   1615  PA  ADP D 302      -2.782  13.562  -5.022  1.00 53.74           P
ATOM   1616  O1A ADP D 302      -2.735  13.709  -3.382  1.00 63.13           O
ATOM   1617  O2A ADP D 302      -4.293  13.933  -5.564  1.00 57.83           O
ATOM   1618  O3A ADP D 302      -1.687  14.580  -5.714  1.00 50.27           O
ATOM   1619  O5' ADP D 302      -2.454  12.183  -5.382  1.00 59.86           O
TER    1620       ADP D 302
ATOM   1621 MG    MG  E   1      -4.302  15.973   4.898  1.00 57.89          MG
TER    1622        MG  E   1
ATOM   1623 MG    MG  F   1      14.724  15.202  15.458  1.00 59.58          MG
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TER    1624       MG F   1
ATOM   1625 MG    MG G   1      28.431   9.797  -3.908  1.00 64.58          MG
TER    1626       MG G   1
HETATM 1627  O   HOH S   1      14.181   2.412   0.430  1.00 31.79           O
HETATM 1628  O   HOH S   2      23.562  18.485 -11.612  1.00 27.34           O
HETATM 1629  O   HOH S   3      14.623  -0.031  -2.614  1.00 48.28           O
HETATM 1630  O   HOH S   4      24.485   9.497 -11.009  1.00 29.40           O
HETATM 1631  O   HOH S   5      23.634  18.104  13.699  1.00 42.45           O
HETATM 1632  O   HOH S   6      12.412   1.329  -2.982  1.00 29.00           O
HETATM 1633  O   HOH S   7       8.167  26.453  -1.889  1.00 32.96           O
HETATM 1634  O   HOH S   8      20.447   6.019  -8.312  1.00 34.44           O
HETATM 1635  O   HOH S   9      18.173  23.652  -4.113  1.00 39.50           O
HETATM 1636  O   HOH S  10      13.888   5.791  -6.964  1.00 33.71           O
HETATM 1637  O   HOH S  11      10.724   0.497   2.362  1.00 45.37           O
HETATM 1638  O   HOH S  12      23.758   6.148   7.300  1.00 33.00           O
HETATM 1639  O   HOH S  13      19.990   2.657  -4.646  1.00 28.69           O
HETATM 1640  O   HOH S  14      29.456  16.803   6.805  1.00 54.94           O
HETATM 1641  O   HOH S  15      11.941  20.192  -5.583  1.00 37.41           O
HETATM 1642  O   HOH S  16       6.033  13.833  13.484  1.00 38.37           O
HETATM 1643  O   HOH S  17      27.453  14.906   6.524  1.00 52.09           O
HETATM 1644  O   HOH S  18      13.934   3.135  -7.407  1.00 36.83           O
HETATM 1645  O   HOH S  19      17.887  27.361   1.872  1.00 39.66           O
HETATM 1646  O   HOH S  20      13.257  12.205 -16.442  1.00 44.64           O
HETATM 1647  O   HOH S  21      17.582   0.000   0.000  1.00 45.23           O
HETATM 1648  O   HOH S  22      14.785  14.556  -8.850  1.00 39.45           O
HETATM 1649  O   HOH S  23       7.871  32.609   2.897  1.00 31.18           O
HETATM 1650  O   HOH S  24      24.245  24.133  -1.538  1.00 46.60           O
HETATM 1651  O   HOH S  25      22.881  20.766  14.817  1.00 27.89           O
HETATM 1652  O   HOH S  26      12.850  26.243  17.269  1.00 41.10           O
HETATM 1653  O   HOH S  27      20.669  23.115  -4.808  1.00 44.78           O
HETATM 1654  O   HOH S  28      20.355   1.481   0.024  1.00 58.77           O
HETATM 1655  O   HOH S  29      17.376   8.124 -11.599  1.00 37.57           O
HETATM 1656  O   HOH S  30      32.453  15.925  -2.534  1.00 37.79           O
HETATM 1657  O   HOH S  31      21.763   0.633   2.285  1.00 54.63           O
HETATM 1658  O   HOH S  32      11.029  42.459  -7.817  1.00 46.63           O
HETATM 1659  O   HOH S  33      18.961  12.423 -13.741  1.00 53.70           O
HETATM 1660  O   HOH S  34      17.896  22.559  -7.725  1.00 50.12           O
HETATM 1661  O   HOH S  35       5.456  18.998  -4.256  1.00 46.69           O
HETATM 1662  O   HOH S  36      -8.139  28.260  -0.012  1.00 46.58           O
HETATM 1663  O   HOH S  37      16.707   8.212  11.868  1.00 45.81           O
HETATM 1664  O   HOH S  38      12.960  29.368  13.702  1.00 45.50           O
HETATM 1665  O   HOH S  39      11.155  17.799  -6.194  1.00 43.29           O
HETATM 1666  O   HOH S  40      17.508  12.944  17.762  1.00 43.17           O
HETATM 1667  O   HOH S  41      -6.055  16.227  -9.013  1.00 44.40           O
HETATM 1668  O   HOH S  42       3.451  13.850   8.483  1.00 43.35           O
HETATM 1669  O   HOH S  43      14.478   7.175  13.251  1.00 49.45           O
HETATM 1670  O   HOH S  44      25.258  12.549   3.890  1.00 26.09           O
HETATM 1671  O   HOH S  45       6.828   7.787  -3.507  1.00 33.83           O
HETATM 1672  O   HOH S  46      27.754  12.718   4.967  1.00 47.46           O
HETATM 1673  O   HOH S  47      23.197  23.093  -4.143  1.00 47.24           O
HETATM 1674  O   HOH S  48      19.457  13.292  20.442  1.00 54.60           O
HETATM 1675  O   HOH S  49       6.481  30.328   9.887  1.00 40.26           O
HETATM 1676  O   HOH S  50       2.557  25.306  10.902  1.00 37.90           O
HETATM 1677  O   HOH S  51      10.250  42.232  -2.913  1.00 53.26           O
HETATM 1678  O   HOH S  52      31.445   9.253   4.295  1.00 60.74           O
HETATM 1679  O   HOH S  53      18.685  31.175   0.783  1.00 54.60           O
HETATM 1680  O   HOH S  54      -4.027  18.260  -1.369  1.00 34.28           O
HETATM 1681  O   HOH S  55       5.292  27.938  11.526  1.00 50.53           O
HETATM 1682  O   HOH S  56      13.814  40.375   4.273  1.00 72.66           O
HETATM 1683  O   HOH S  57      -7.556  27.987   8.547  1.00 42.28           O
HETATM 1684  O   HOH S  58      -9.934  26.956  10.954  1.00 52.68           O
HETATM 1685  O   HOH S  59      23.947  30.118   0.129  1.00 55.75           O
HETATM 1686  O   HOH S  60      25.133  22.469  -5.918  1.00 55.47           O
HETATM 1687  O   HOH S  61      27.057   2.070  -8.974  1.00 43.41           O
HETATM 1688  O   HOH S  62      -7.728  13.590  -4.986  1.00 53.90           O
HETATM 1689  O   HOH S  63      19.757  31.337  11.721  1.00 45.86           O
HETATM 1690  O   HOH S  64       0.204   8.570  -3.298  1.00 38.64           O
HETATM 1691  O   HOH S  65      25.768   9.032 -13.473  1.00 43.10           O
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HETATM 1692  O   HOH S  66      18.370  25.197  -7.310  1.00 51.58           O
HETATM 1693  O   HOH S  67      17.685  10.292 -15.524  1.00 58.27           O
HETATM 1694  O   HOH S  68      12.648  16.932  19.953  1.00 63.67           O
HETATM 1695  O   HOH S  69       4.880  38.339  -5.170  1.00 60.94           O
HETATM 1696  O   HOH S  70      30.021  12.855   3.735  1.00 48.02           O
HETATM 1697  O   HOH S  71      14.111  39.633 -11.156  1.00 64.77           O
HETATM 1698  O   HOH S  72      27.021   8.157  -1.067  1.00 42.97           O
HETATM 1699  O   HOH S  73      18.935   8.790  20.863  1.00 54.90           O
HETATM 1700  O   HOH S  74      24.185   6.910  -1.299  1.00 45.77           O
HETATM 1701  O   HOH S  75      15.387   1.164  -5.026  1.00 42.03           O
HETATM 1702  O   HOH S  76       8.477  18.645  -5.937  1.00 43.47           O
HETATM 1703  O   HOH S  77       8.363   2.578 -10.559  1.00 56.03           O
HETATM 1704  O   HOH S  78       3.181  36.918  -6.850  1.00 56.06           O
HETATM 1705  O   HOH S  79      -2.021  16.924   3.049  1.00 40.75           O
HETATM 1706  O   HOH S  80      20.541  22.038  -7.699  1.00 50.64           O
HETATM 1707  O   HOH S  81       8.204  -0.937   2.459  1.00 42.92           O
HETATM 1708  O   HOH S  82       3.840  21.262 -11.769  1.00 51.24           O
HETATM 1709  O   HOH S  83      13.246  38.061 -13.229  1.00 53.93           O
HETATM 1710  O   HOH S  84      24.393   5.304 -13.556  1.00 56.21           O
HETATM 1711  O   HOH S  85      -1.754  28.341 -14.332  1.00 47.12           O
HETATM 1712  O   HOH S  86       1.702  14.012  -2.507  1.00 40.63           O
HETATM 1713  O   HOH S  87      -2.975  16.490  -3.006  1.00 40.64           O
HETATM 1714  O   HOH S  88      16.803   1.805  -7.988  1.00 54.36           O
HETATM 1715  O   HOH S  89      17.467  21.749 -20.116  1.00 54.42           O
HETATM 1716  O   HOH S  90      -5.940  27.503   6.733  1.00 44.08           O
HETATM 1717  O   HOH S  91       7.236  23.881  -1.514  1.00 45.13           O
HETATM 1718  O   HOH S  92      -0.139  19.525  11.727  1.00 49.04           O
HETATM 1719  O   HOH S  93      -8.179  29.545  -2.365  1.00 64.32           O
HETATM 1720  O   HOH S  94      15.694  24.678 -12.899  1.00 58.06           O
HETATM 1721  O   HOH S  95      13.647   9.992  14.869  1.00 60.68           O
HETATM 1722  O   HOH S  96      -1.647  10.621  -2.487  1.00 52.23           O
HETATM 1723  O   HOH S  97      15.756   1.991   7.982  1.00 52.31           O
HETATM 1724  O   HOH S  98      23.320  20.324 -16.109  1.00 60.97           O
HETATM 1725  O   HOH S  99       3.753  -2.543   2.992  1.00 59.02           O
HETATM 1726  O   HOH S 100      25.941   3.054   3.567  1.00 49.41           O
HETATM 1727  O   HOH S 101      -3.003  10.116  -6.854  1.00 53.54           O
HETATM 1728  O   HOH S 102       6.379  -3.034   3.510  1.00 46.17           O
HETATM 1729  O   HOH S 103       5.397  13.787  10.326  1.00 53.37           O
HETATM 1730  O   HOH S 104      -8.674  24.954   6.168  1.00 49.77           O
HETATM 1731  O   HOH S 105      18.405   9.959 -12.988  1.00 62.47           O
HETATM 1732  O   HOH S 106      19.615  22.180 -16.560  1.00 50.98           O
HETATM 1733  O   HOH S 107      12.778  15.604 -10.590  1.00 38.56           O
HETATM 1734  O   HOH S 108       2.053  14.786   2.051  1.00 39.55           O
HETATM 1735  O   HOH S 109      -8.495  16.679  11.107  1.00 61.64           O
HETATM 1736  O   HOH S 110      -4.644  11.809  -2.197  1.00 52.30           O
HETATM 1737  O   HOH S 111      18.060   3.814  -9.272  1.00 48.12           O
HETATM 1738  O   HOH S 112      24.256  15.795  14.914  1.00 48.68           O
HETATM 1739  O   HOH S 113      22.077  15.853  16.852  1.00 58.75           O
HETATM 1740  O   HOH S 114     -11.623  27.364   7.350  1.00 58.93           O
HETATM 1741  O   HOH S 115      25.689  29.034  -6.213  1.00 62.10           O
HETATM 1742  O   HOH S 116     -15.366  20.610  -7.214  1.00 57.38           O
HETATM 1743  O   HOH S 117      27.446  26.382   9.784  1.00 52.13           O
HETATM 1744  O   HOH S 118      -0.780   6.946  -1.215  1.00 67.58           O
HETATM 1745  O   HOH S 119      32.407  14.416   3.941  1.00 61.02           O
HETATM 1746  O   HOH S 120      -3.180  14.315 -10.176  1.00 49.30           O
HETATM 1747  O   HOH S 121     -13.636  23.435  -6.982  1.00 55.46           O
HETATM 1748  O   HOH S 122      16.123  26.725  -9.226  1.00 62.32           O
HETATM 1749  O   HOH S 123      -5.791  13.788  -7.794  1.00 54.45           O
HETATM 1750  O   HOH S 124      16.362  15.222  -6.516  1.00 24.41           O
HETATM 1751  O   HOH S 125      12.446  15.937   1.056  1.00 25.06           O
HETATM 1752  O   HOH S 126      14.565  17.219  -5.297  1.00 24.18           O
HETATM 1753  O   HOH S 127      16.936   5.592 -11.162  1.00 43.07           O
HETATM 1754  O   HOH S 128      14.676   5.669  -9.891  1.00 51.76           O
HETATM 1755  O   HOH S 130      -9.542  12.446 -10.604  1.00 64.68           O
HETATM 1756  O   HOH S 131      12.969  24.225 -12.356  1.00 45.16           O
HETATM 1757  O   HOH S 133      19.397  29.024  -0.595  1.00 60.32           O
HETATM 1758  O   HOH S 134      32.301  11.466   2.616  1.00 68.25           O
HETATM 1759  O   HOH S 135       1.877  15.851 -12.754  1.00 56.83           O
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[0158]

[0159]

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HETATM 1760  O   HOH S 136     -8.490  20.480   7.251  1.00 48.11           O
HETATM 1761  O   HOH S 137     -2.082  13.119   8.006  1.00 52.53           O
HETATM 1762  O   HOH S 138      0.003  34.767   4.969  1.00 44.34           O
HETATM 1763  O   HOH S 139    -12.842  23.141  -9.716  1.00 56.16           O
HETATM 1764  O   HOH S 140     10.217  25.035  16.824  1.00 59.34           O
HETATM 1765  O   HOH S 141      2.886   2.225   4.530  1.00 62.01           O
HETATM 1766  O   HOH S 143     22.888  28.011  -7.355  1.00 64.53           O
HETATM 1767  O   HOH S 144      5.948  24.677  -5.945  1.00 46.64           O
HETATM 1768  O   HOH S 145      8.078  30.204 -10.623  1.00 71.16           O
TER    1769      HOH S 145
ATOM   1770  O   HOH S 146      4.006  14.855 -11.673  1.00 30.00           O
ATOM   1771  O   HOH S 147      8.541  15.171  -9.946  1.00 30.00           O
ATOM   1772  O   HOH S 148      1.437  14.270  11.371  1.00 30.00           O
ATOM   1773  O   HOH S 149     -4.149  21.621  13.586  1.00 30.00           O
ATOM   1774  O   HOH S 150     -9.972  27.847  -6.200  1.00 30.00           O
ATOM   1775 MG   MG  H   1      5.359  32.013  10.372  1.00 30.00          Mg
ATOM   1776 Ni    Ni I   1     31.225   6.380   1.442  1.00 30.00          Ni
ATOM   1777 MG   MG  J   1      0.838  22.596  12.151  1.00 30.00          Mg
END
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[0160] 表 5 为人源 5,10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物的晶体的坐标。

[0161] 表 5

[0162]

ATOM	1	N	MET	A	1	16.343	9.355	7.945	1.00	34.02	N
ATOM	2	CA	MET	A	1	17.277	10.513	8.143	1.00	34.81	C
ATOM	3	CB	MET	A	1	18.733	10.055	8.137	1.00	34.30	C
ATOM	4	CG	MET	A	1	19.361	9.936	9.533	1.00	34.35	C
ATOM	5	SD	MET	A	1	19.651	11.532	10.346	1.00	37.39	S
ATOM	6	CE	MET	A	1	20.364	12.521	9.025	1.00	32.27	C
ATOM	7	C	MET	A	1	17.082	11.629	7.124	1.00	35.19	C
ATOM	8	O	MET	A	1	16.900	12.799	7.494	1.00	35.27	O
ATOM	9	N	ALA	A	2	17.134	11.268	5.845	1.00	34.49	N
ATOM	10	CA	ALA	A	2	16.722	12.171	4.779	1.00	34.40	C
ATOM	11	CB	ALA	A	2	17.028	11.565	3.429	1.00	34.16	C
ATOM	12	C	ALA	A	2	15.226	12.408	4.921	1.00	35.41	C
ATOM	13	O	ALA	A	2	14.732	13.504	4.634	1.00	35.55	O
ATOM	14	N	ALA	A	3	14.523	11.364	5.376	1.00	35.44	N
ATOM	15	CA	ALA	A	3	13.084	11.405	5.628	1.00	35.26	C
ATOM	16	CB	ALA	A	3	12.561	10.000	5.964	1.00	34.46	C
ATOM	17	C	ALA	A	3	12.779	12.390	6.759	1.00	35.66	C
ATOM	18	O	ALA	A	3	11.781	13.118	6.720	1.00	36.16	O
ATOM	19	N	ALA	A	4	13.659	12.421	7.755	1.00	35.37	N
ATOM	20	CA	ALA	A	4	13.517	13.332	8.875	1.00	35.04	C
ATOM	21	CB	ALA	A	4	14.454	12.933	10.011	1.00	34.53	C
ATOM	22	C	ALA	A	4	13.666	14.818	8.487	1.00	35.13	C
ATOM	23	O	ALA	A	4	12.829	15.623	8.874	1.00	35.35	O
ATOM	24	N	ALA	A	5	14.686	15.185	7.706	1.00	35.28	N
ATOM	25	CA	ALA	A	5	14.859	16.601	7.274	1.00	35.00	C
ATOM	26	CB	ALA	A	5	16.174	16.794	6.556	1.00	33.55	C
ATOM	27	C	ALA	A	5	13.708	17.101	6.401	1.00	35.80	C
ATOM	28	O	ALA	A	5	13.351	18.281	6.447	1.00	35.62	O
ATOM	29	N	VAL	A	6	13.157	16.186	5.597	1.00	35.95	N
ATOM	30	CA	VAL	A	6	11.903	16.390	4.852	1.00	36.31	C
ATOM	31	CB	VAL	A	6	11.567	15.147	3.939	1.00	36.61	C
ATOM	32	CG1	VAL	A	6	10.245	15.332	3.225	1.00	36.90	C
ATOM	33	CG2	VAL	A	6	12.675	14.879	2.912	1.00	36.14	C
ATOM	34	C	VAL	A	6	10.714	16.717	5.799	1.00	36.34	C
ATOM	35	O	VAL	A	6	9.902	17.602	5.501	1.00	36.52	O
ATOM	36	N	SER	A	7	10.625	16.014	6.935	1.00	36.23	N
ATOM	37	CA	SER	A	7	9.543	16.233	7.916	1.00	36.04	C
ATOM	38	CB	SER	A	7	9.365	15.018	8.831	1.00	35.80	C
ATOM	39	OG	SER	A	7	9.022	13.869	8.076	1.00	35.56	O
ATOM	40	C	SER	A	7	9.757	17.494	8.743	1.00	35.72	C
ATOM	41	O	SER	A	7	8.794	18.152	9.147	1.00	35.80	O
ATOM	42	N	SER	A	8	11.022	17.816	9.001	1.00	35.39	N
ATOM	43	CA	SER	A	8	11.381	19.103	9.570	1.00	35.29	C
ATOM	44	CB	SER	A	8	12.904	19.245	9.645	1.00	35.24	C
ATOM	45	OG	SER	A	8	13.282	20.341	10.460	1.00	34.91	O
ATOM	46	C	SER	A	8	10.767	20.182	8.681	1.00	35.40	C
ATOM	47	O	SER	A	8	9.956	20.981	9.144	1.00	35.46	O
ATOM	48	N	ALA	A	9	11.124	20.138	7.393	1.00	35.75	N
ATOM	49	CA	ALA	A	9	10.659	21.073	6.356	1.00	35.63	C
ATOM	50	CB	ALA	A	9	11.177	20.650	4.999	1.00	35.19	C
ATOM	51	C	ALA	A	9	9.151	21.207	6.313	1.00	35.74	C
ATOM	52	O	ALA	A	9	8.622	22.323	6.236	1.00	35.86	O
ATOM	53	N	LYS	A	10	8.464	20.066	6.359	1.00	35.72	N
ATOM	54	CA	LYS	A	10	7.007	20.042	6.373	1.00	35.34	C
ATOM	55	CB	LYS	A	10	6.475	18.607	6.189	1.00	35.89	C
ATOM	56	CG	LYS	A	10	6.743	17.975	4.803	1.00	35.39	C
ATOM	57	CD	LYS	A	10	5.959	16.687	4.612	1.00	35.34	C
ATOM	58	CE	LYS	A	10	6.741	15.681	3.782	1.00	36.74	C
ATOM	59	NZ	LYS	A	10	5.951	15.124	2.616	1.00	38.06	N

[0163]

ATOM	60	C	LYS	A	10	6.467	20.692	7.659	1.00	35.06	C
ATOM	61	O	LYS	A	10	5.592	21.564	7.600	1.00	35.05	O
ATOM	62	N	ARG	A	11	7.013	20.291	8.808	1.00	35.28	N
ATOM	63	CA	ARG	A	11	6.577	20.800	10.110	1.00	35.05	C
ATOM	64	CB	ARG	A	11	7.360	20.089	11.220	1.00	35.16	C
ATOM	65	CG	ARG	A	11	6.844	20.273	12.647	1.00	35.03	C
ATOM	66	CD	ARG	A	11	7.988	20.010	13.620	1.00	35.48	C
ATOM	67	NE	ARG	A	11	9.268	20.388	13.000	1.00	35.57	N
ATOM	68	CZ	ARG	A	11	10.054	21.393	13.388	1.00	35.25	C
ATOM	69	NH1	ARG	A	11	9.733	22.137	14.449	1.00	34.56	N
ATOM	70	NH2	ARG	A	11	11.180	21.632	12.715	1.00	34.61	N
ATOM	71	C	ARG	A	11	6.700	22.336	10.197	1.00	34.75	C
ATOM	72	O	ARG	A	11	5.705	23.030	10.434	1.00	34.50	O
ATOM	73	N	SER	A	12	7.912	22.852	9.985	1.00	34.69	N
ATOM	74	CA	SER	A	12	8.159	24.299	9.884	1.00	35.12	C
ATOM	75	CB	SER	A	12	9.499	24.588	9.189	1.00	35.50	C
ATOM	76	OG	SER	A	12	10.581	23.894	9.794	1.00	35.99	O
ATOM	77	C	SER	A	12	7.062	24.987	9.089	1.00	35.22	C
ATOM	78	O	SER	A	12	6.281	25.770	9.635	1.00	35.48	O
ATOM	79	N	LEU	A	13	7.012	24.664	7.797	1.00	35.06	N
ATOM	80	CA	LEU	A	13	6.074	25.257	6.843	1.00	34.71	C
ATOM	81	CB	LEU	A	13	6.305	24.664	5.441	1.00	34.75	C
ATOM	82	CG	LEU	A	13	5.719	25.290	4.165	1.00	34.22	C
ATOM	83	CD1	LEU	A	13	6.140	26.727	3.930	1.00	33.98	C
ATOM	84	CD2	LEU	A	13	6.143	24.452	2.996	1.00	34.48	C
ATOM	85	C	LEU	A	13	4.604	25.168	7.281	1.00	34.80	C
ATOM	86	O	LEU	A	13	3.822	26.059	6.969	1.00	34.83	O
ATOM	87	N	ARG	A	14	4.237	24.118	8.020	1.00	34.93	N
ATOM	88	CA	ARG	A	14	2.909	24.046	8.652	1.00	34.67	C
ATOM	89	CB	ARG	A	14	2.683	22.696	9.317	1.00	34.56	C
ATOM	90	CG	ARG	A	14	2.816	21.547	8.387	1.00	34.50	C
ATOM	91	CD	ARG	A	14	1.814	20.457	8.716	1.00	35.05	C
ATOM	92	NE	ARG	A	14	1.832	19.408	7.695	1.00	34.75	N
ATOM	93	CZ	ARG	A	14	2.532	18.280	7.785	1.00	34.67	C
ATOM	94	NH1	ARG	A	14	3.269	18.028	8.867	1.00	34.62	N
ATOM	95	NH2	ARG	A	14	2.484	17.400	6.794	1.00	34.67	N
ATOM	96	C	ARG	A	14	2.721	25.135	9.701	1.00	34.94	C
ATOM	97	O	ARG	A	14	1.653	25.724	9.800	1.00	34.93	O
ATOM	98	N	GLY	A	15	3.754	25.383	10.502	1.00	35.07	N
ATOM	99	CA	GLY	A	15	3.671	26.381	11.553	1.00	35.17	C
ATOM	100	C	GLY	A	15	3.494	27.722	10.889	1.00	35.50	C
ATOM	101	O	GLY	A	15	2.481	28.407	11.080	1.00	35.64	O
ATOM	102	N	GLU	A	16	4.469	28.084	10.069	1.00	35.47	N
ATOM	103	CA	GLU	A	16	4.407	29.361	9.378	1.00	35.85	C
ATOM	104	CB	GLU	A	16	5.523	29.484	8.344	1.00	35.98	C
ATOM	105	CG	GLU	A	16	5.625	30.875	7.731	1.00	36.51	C
ATOM	106	CD	GLU	A	16	6.076	30.839	6.274	1.00	37.57	C
ATOM	107	OE1	GLU	A	16	6.900	29.956	5.896	1.00	36.95	O
ATOM	108	OE2	GLU	A	16	5.599	31.706	5.505	1.00	38.34	O
ATOM	109	C	GLU	A	16	3.047	29.562	8.717	1.00	35.72	C
ATOM	110	O	GLU	A	16	2.457	30.627	8.853	1.00	36.08	O
ATOM	111	N	LEU	A	17	2.564	28.526	8.021	1.00	35.69	N
ATOM	112	CA	LEU	A	17	1.281	28.570	7.310	1.00	34.96	C
ATOM	113	CB	LEU	A	17	1.080	27.363	6.386	1.00	34.57	C
ATOM	114	CG	LEU	A	17	1.699	27.356	4.976	1.00	34.35	C
ATOM	115	CD1	LEU	A	17	1.667	25.949	4.389	1.00	33.87	C
ATOM	116	CD2	LEU	A	17	1.015	28.331	4.031	1.00	34.13	C
ATOM	117	C	LEU	A	17	0.109	28.697	8.253	1.00	35.08	C
ATOM	118	O	LEU	A	17	-0.823	29.437	7.956	1.00	35.49	O
ATOM	119	N	LYS	A	18	0.149	27.994	9.387	1.00	35.29	N
ATOM	120	CA	LYS	A	18	-0.914	28.120	10.388	1.00	35.20	C
ATOM	121	CB	LYS	A	18	-0.844	27.010	11.423	1.00	34.52	C
ATOM	122	CG	LYS	A	18	-0.867	25.624	10.821	1.00	34.62	C
ATOM	123	CD	LYS	A	18	-1.213	24.541	11.836	1.00	34.79	C
ATOM	124	CE	LYS	A	18	-2.718	24.301	11.862	1.00	35.36	C
ATOM	125	NZ	LYS	A	18	-3.079	22.844	11.925	1.00	36.16	N
ATOM	126	C	LYS	A	18	-0.876	29.499	11.055	1.00	35.37	C
ATOM	127	O	LYS	A	18	-1.919	29.994	11.504	1.00	35.62	O

	ATOM	128	N	ALA	A	19	0.316	30.108	11.107	1.00	34.82	N
	ATOM	129	CA	ALA	A	19	0.454	31.494	11.538	1.00	35.39	C
	ATOM	130	CB	ALA	A	19	1.919	31.918	11.648	1.00	35.81	C
	ATOM	131	C	ALA	A	19	-0.297	32.356	10.535	1.00	35.86	C
	ATOM	132	O	ALA	A	19	-1.437	32.757	10.811	1.00	35.96	O
	ATOM	133	N	ARG	A	20	0.323	32.595	9.367	1.00	36.44	N
	ATOM	134	CA	ARG	A	20	-0.294	33.310	8.208	1.00	35.78	C
	ATOM	135	CB	ARG	A	20	0.451	33.025	6.896	1.00	35.65	C
	ATOM	136	CG	ARG	A	20	1.955	33.366	6.961	1.00	36.76	C
	ATOM	137	CD	ARG	A	20	2.512	33.829	5.619	1.00	36.66	C
	ATOM	138	NE	ARG	A	20	2.898	32.708	4.762	1.00	36.87	N
	ATOM	139	CZ	ARG	A	20	2.733	32.692	3.441	1.00	37.02	C
	ATOM	140	NH1	ARG	A	20	2.163	33.734	2.831	1.00	36.46	N
	ATOM	141	NH2	ARG	A	20	3.123	31.636	2.731	1.00	35.69	N
	ATOM	142	C	ARG	A	20	-1.799	33.083	8.035	1.00	35.38	C
	ATOM	143	O	ARG	A	20	-2.521	34.022	7.712	1.00	35.14	O
	ATOM	144	N	LEU	A	21	-2.268	31.854	8.274	1.00	35.39	N
	ATOM	145	CA	LEU	A	21	-3.716	31.578	8.402	1.00	35.23	C
	ATOM	146	CB	LEU	A	21	-4.013	30.069	8.336	1.00	34.65	C
	ATOM	147	CG	LEU	A	21	-3.995	29.461	6.921	1.00	33.72	C
	ATOM	148	CD1	LEU	A	21	-3.765	27.951	6.931	1.00	33.26	C
	ATOM	149	CD2	LEU	A	21	-5.279	29.802	6.173	1.00	32.81	C
	ATOM	150	C	LEU	A	21	-4.279	32.246	9.669	1.00	35.54	C
	ATOM	151	O	LEU	A	21	-4.282	33.476	9.736	1.00	35.52	O
	ATOM	152	N	GLY	A	22	-4.705	31.463	10.671	1.00	35.87	N
	ATOM	153	CA	GLY	A	22	-5.270	32.004	11.925	1.00	35.86	C
	ATOM	154	C	GLY	A	22	-4.753	33.363	12.396	1.00	35.44	C
	ATOM	155	O	GLY	A	22	-5.303	34.423	12.052	1.00	34.99	O
	ATOM	156	N	ALA	A	24	-5.933	35.612	9.217	1.00	34.70	N
	ATOM	157	CA	ALA	A	24	-6.897	35.994	8.201	1.00	34.60	C
	ATOM	158	CB	ALA	A	24	-7.031	34.894	7.127	1.00	34.79	C
	ATOM	159	C	ALA	A	24	-8.215	36.209	8.902	1.00	34.64	C
	ATOM	160	O	ALA	A	24	-8.757	35.272	9.477	1.00	34.83	O
[0164]	ATOM	161	N	SER	A	25	-8.718	37.441	8.884	1.00	34.00	N
	ATOM	162	CA	SER	A	25	-10.020	37.756	9.485	1.00	34.27	C
	ATOM	163	CB	SER	A	25	-10.363	39.225	9.229	1.00	35.02	C
	ATOM	164	OG	SER	A	25	-10.142	39.560	7.860	1.00	35.61	O
	ATOM	165	C	SER	A	25	-11.111	36.882	8.872	1.00	34.67	C
	ATOM	166	O	SER	A	25	-10.982	36.453	7.718	1.00	35.05	O
	ATOM	167	N	ALA	A	26	-12.190	36.633	9.611	1.00	34.32	N
	ATOM	168	CA	ALA	A	26	-13.322	35.858	9.064	1.00	34.40	C
	ATOM	169	CB	ALA	A	26	-14.416	35.643	10.125	1.00	34.15	C
	ATOM	170	C	ALA	A	26	-13.919	36.461	7.780	1.00	34.12	C
	ATOM	171	O	ALA	A	26	-14.290	35.732	6.860	1.00	34.19	O
	ATOM	172	N	GLU	A	27	-14.014	37.785	7.724	1.00	34.17	N
	ATOM	173	CA	GLU	A	27	-14.589	38.455	6.558	1.00	34.60	C
	ATOM	174	CB	GLU	A	27	-14.887	39.946	6.843	1.00	35.77	C
	ATOM	175	CG	GLU	A	27	-13.774	40.710	7.609	1.00	36.40	C
	ATOM	176	CD	GLU	A	27	-13.918	42.234	7.571	1.00	36.60	C
	ATOM	177	OE1	GLU	A	27	-15.060	42.742	7.436	1.00	36.39	O
	ATOM	178	OE2	GLU	A	27	-12.871	42.920	7.689	1.00	36.58	O
	ATOM	179	C	GLU	A	27	-13.685	38.254	5.330	1.00	34.38	C
	ATOM	180	O	GLU	A	27	-14.153	37.859	4.263	1.00	34.13	O
	ATOM	181	N	GLU	A	28	-12.387	38.502	5.497	1.00	34.19	N
	ATOM	182	CA	GLU	A	28	-11.430	38.198	4.457	1.00	34.02	C
	ATOM	183	CB	GLU	A	28	-11.000	38.418	4.945	1.00	34.08	C
	ATOM	184	CG	GLU	A	28	-8.918	37.739	4.107	1.00	33.36	C
	ATOM	185	CD	GLU	A	28	-8.747	38.331	2.720	1.00	32.62	C
	ATOM	186	OE1	GLU	A	28	-9.752	38.704	2.086	1.00	32.64	O
	ATOM	187	OE2	GLU	A	28	-7.592	38.401	2.251	1.00	32.68	O
	ATOM	188	C	GLU	A	28	-11.652	36.753	4.032	1.00	33.65	C
	ATOM	189	O	GLU	A	28	-11.998	36.490	2.886	1.00	33.55	O
	ATOM	190	N	ARG	A	29	-11.500	35.830	4.973	1.00	33.56	N
	ATOM	191	CA	ARG	A	29	-11.745	34.411	4.732	1.00	33.35	C
	ATOM	192	CB	ARG	A	29	-11.852	33.681	6.080	1.00	33.39	C
	ATOM	193	CG	ARG	A	29	-11.747	32.159	6.048	1.00	33.51	C
	ATOM	194	CD	ARG	A	29	-13.090	31.480	5.693	1.00	33.04	C
	ATOM	195	NE	ARG	A	29	-13.046	30.033	5.895	1.00	32.19	N

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ATOM	196	CZ	ARG	A	29	-13.947	29.331	6.577	1.00	31.72	C
ATOM	197	NH1	ARG	A	29	-15.002	29.922	7.125	1.00	31.81	N
ATOM	198	NH2	ARG	A	29	-13.795	28.017	6.691	1.00	31.46	N
ATOM	199	C	ARG	A	29	-12.992	34.166	3.845	1.00	33.79	C
ATOM	200	O	ARG	A	29	-12.936	33.359	2.890	1.00	33.52	O
ATOM	201	N	LEU	A	30	-14.100	34.861	4.146	1.00	33.80	N
ATOM	202	CA	LEU	A	30	-15.334	34.753	3.343	1.00	33.45	C
ATOM	203	CB	LEU	A	30	-16.528	35.414	4.033	1.00	33.67	C
ATOM	204	CG	LEU	A	30	-16.995	34.785	5.349	1.00	34.30	C
ATOM	205	CD1	LEU	A	30	-17.732	35.810	6.218	1.00	34.57	C
ATOM	206	CD2	LEU	A	30	-17.848	33.531	5.138	1.00	33.97	C
ATOM	207	C	LEU	A	30	-15.175	35.328	1.943	1.00	33.20	C
ATOM	208	O	LEU	A	30	-15.653	34.727	0.978	1.00	33.37	O
ATOM	209	N	ARG	A	31	-14.504	36.478	1.837	1.00	33.10	N
ATOM	210	CA	ARG	A	31	-14.304	37.161	0.552	1.00	32.72	C
ATOM	211	CB	ARG	A	31	13.490	38.455	0.736	1.00	32.81	C
ATOM	212	CG	ARG	A	31	-13.075	39.106	-0.582	1.00	32.51	C
ATOM	213	CD	ARG	A	31	-12.088	40.231	-0.404	1.00	32.09	C
ATOM	214	NE	ARG	A	31	-10.706	39.773	-0.230	1.00	31.96	N
ATOM	215	CZ	ARG	A	31	-9.896	39.375	-1.211	1.00	31.81	C
ATOM	216	NH1	ARG	A	31	-10.321	39.340	-2.473	1.00	30.32	N
ATOM	217	NH2	ARG	A	31	-8.653	38.985	-0.911	1.00	31.88	N
ATOM	218	C	ARG	A	31	-13.630	36.243	-0.483	1.00	32.20	C
ATOM	219	O	ARG	A	31	-14.157	36.012	-1.580	1.00	32.24	O
ATOM	220	N	GLN	A	32	-12.468	35.719	-0.102	1.00	31.98	N
ATOM	221	CA	GLN	A	32	-11.637	34.893	-0.964	1.00	31.72	C
ATOM	222	CB	GLN	A	32	-10.333	34.572	-0.233	1.00	31.66	C
ATOM	223	CG	GLN	A	32	-9.057	35.028	-0.925	1.00	31.17	C
ATOM	224	CD	GLN	A	32	-7.853	34.958	-1.000	1.00	31.20	C
ATOM	225	OE1	GLN	A	32	-7.802	35.643	1.017	1.00	31.96	O
ATOM	226	NE2	GLN	A	32	-6.877	34.137	-0.353	1.00	30.78	N
ATOM	227	C	GLN	A	32	-12.388	33.611	-1.338	1.00	31.61	C
ATOM	228	O	GLN	A	32	-12.185	33.072	-2.425	1.00	31.04	O
ATOM	229	N	SER	A	33	-13.258	33.150	-0.432	1.00	31.90	N
ATOM	230	CA	SER	A	33	-14.141	32.004	-0.660	1.00	31.20	C
ATOM	231	CB	SER	A	33	-14.786	31.545	0.645	1.00	31.24	C
ATOM	232	OG	SER	A	33	-13.812	31.093	1.564	1.00	31.10	O
ATOM	233	C	SER	A	33	-15.217	32.325	-1.687	1.00	31.35	C
ATOM	234	O	SER	A	33	-15.451	31.541	-2.606	1.00	31.35	O
ATOM	235	N	ARG	A	34	-15.869	33.477	-1.551	1.00	31.68	N
ATOM	236	CA	ARG	A	34	-16.774	33.965	-2.615	1.00	31.88	C
ATOM	237	CB	ARG	A	34	-17.304	35.361	-2.287	1.00	33.05	C
ATOM	238	CG	ARG	A	34	-18.807	35.447	-2.074	1.00	34.15	C
ATOM	239	CD	ARG	A	34	-19.193	36.861	-1.621	1.00	35.19	C
ATOM	240	NE	ARG	A	34	-19.139	36.989	-0.156	1.00	34.99	N
ATOM	241	CZ	ARG	A	34	-19.115	38.141	0.514	1.00	35.64	C
ATOM	242	NH1	ARG	A	34	-19.124	39.314	-0.136	1.00	36.01	N
ATOM	243	NH2	ARG	A	34	-19.066	38.117	1.847	1.00	35.58	N
ATOM	244	C	ARG	A	34	-16.129	33.990	-4.014	1.00	31.50	C
ATOM	245	O	ARG	A	34	-16.818	33.780	-5.014	1.00	31.73	O
ATOM	246	N	VAL	A	35	-14.816	34.230	-4.083	1.00	31.20	N
ATOM	247	CA	VAL	A	35	-14.116	34.312	-5.376	1.00	30.76	C
ATOM	248	CB	VAL	A	35	-12.881	35.246	-5.314	1.00	30.82	C
ATOM	249	CG1	VAL	A	35	-12.256	35.404	-6.676	1.00	30.70	C
ATOM	250	CG2	VAL	A	35	-13.296	36.608	-4.817	1.00	31.39	C
ATOM	251	C	VAL	A	35	-13.789	32.936	-5.994	1.00	30.92	C
ATOM	252	O	VAL	A	35	-14.097	32.690	-7.172	1.00	31.25	O
ATOM	253	N	LEU	A	36	-13.195	32.038	-5.201	1.00	30.91	N
ATOM	254	CA	LEU	A	36	-12.950	30.651	-5.632	1.00	30.38	C
ATOM	255	CB	LEU	A	36	-12.190	29.870	-4.563	1.00	29.61	C
ATOM	256	CG	LEU	A	36	-10.665	29.920	-4.604	1.00	29.83	C
ATOM	257	CD1	LEU	A	36	-10.152	31.188	-3.985	1.00	30.58	C
ATOM	258	CD2	LEU	A	36	-10.124	28.764	-3.838	1.00	29.69	C
ATOM	259	C	LEU	A	36	-14.237	29.918	-5.984	1.00	30.04	C
ATOM	260	O	LEU	A	36	-14.283	29.173	-6.959	1.00	30.20	O
ATOM	261	N	SER	A	37	-15.278	30.132	-5.188	1.00	29.70	N
ATOM	262	CA	SER	A	37	-16.586	29.573	-5.485	1.00	30.05	C
ATOM	263	CB	SER	A	37	-17.641	30.243	-4.627	1.00	30.58	C

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ATOM    264  OG  SER A  37     -17.904  29.459  -3.489  1.00 30.29           O
ATOM    265  C   SER A  37     -16.934  29.770  -6.956  1.00 30.43           C
ATOM    266  O   SER A  37     -17.090  28.805  -7.714  1.00 29.93           O
ATOM    267  N   GLN A  38     -17.026  31.039  -7.343  1.00 30.97           N
ATOM    268  CA  GLN A  38     -17.374  31.440  -8.700  1.00 31.05           C
ATOM    269  CB  GLN A  38     -17.406  32.976  -8.795  1.00 32.13           C
ATOM    270  CG  GLN A  38     -18.304  33.636  -7.739  1.00 32.24           C
ATOM    271  CD  GLN A  38     -19.777  33.304  -7.951  1.00 33.67           C
ATOM    272  OE1 GLN A  38     -20.292  33.409  -9.080  1.00 33.82           O
ATOM    273  NE2 GLN A  38     -20.467  32.894  -6.869  1.00 32.93           N
ATOM    274  C   GLN A  38     -16.395  30.860  -9.706  1.00 30.46           C
ATOM    275  O   GLN A  38     -16.818  30.358 -10.771  1.00 30.15           O
ATOM    276  N   LYS A  39     -15.100  30.930  -9.369  1.00 30.05           N
ATOM    277  CA  LYS A  39     -14.064  30.286 -10.180  1.00 30.17           C
ATOM    278  CB  LYS A  39     -12.668  30.511  -9.602  1.00 30.42           C
ATOM    279  CG  LYS A  39     -11.976  31.751 -10.208  1.00 31.09           C
ATOM    280  CD  LYS A  39     -10.887  32.331  -9.315  1.00 31.88           C
ATOM    281  CE  LYS A  39      -9.516  31.681  -9.541  1.00 32.42           C
ATOM    282  NZ  LYS A  39      -8.748  32.338 -10.640  1.00 33.41           N
ATOM    283  C   LYS A  39     -14.356  28.801 -10.418  1.00 29.94           C
ATOM    284  O   LYS A  39      14.202  28.332 -11.558  1.00 30.21           O
ATOM    285  N   VAL A  40     -14.808  28.093  -9.368  1.00 29.47           N
ATOM    286  CA  VAL A  40     -15.241  26.700  -9.455  1.00 28.70           C
ATOM    287  CB  VAL A  40     -15.605  26.098  -8.059  1.00 28.47           C
ATOM    288  CG1 VAL A  40     -16.214  24.715  -8.187  1.00 27.42           C
ATOM    289  CG2 VAL A  40     -14.404  26.037  -7.159  1.00 28.85           C
ATOM    290  C   VAL A  40     -16.469  26.618 -10.338  1.00 28.88           C
ATOM    291  O   VAL A  40     -16.482  25.906 -11.344  1.00 28.81           O
ATOM    292  N   ILE A  41     -17.507  27.356  -9.974  1.00 29.01           N
ATOM    293  CA  ILE A  41     -18.780  27.275 -10.688  1.00 28.85           C
ATOM    294  CB  ILE A  41     -19.796  28.325 -10.155  1.00 29.27           C
ATOM    295  CG1 ILE A  41     -19.820  28.345  -8.610  1.00 29.35           C
ATOM    296  CD1 ILE A  41     -20.173  27.035  -7.917  1.00 28.47           C
ATOM    297  CG2 ILE A  41     -21.209  28.111 -10.713  1.00 29.02           C
ATOM    298  C   ILE A  41     -18.590  27.362 -12.214  1.00 29.07           C
ATOM    299  O   ILE A  41     -19.343  26.734 -12.969  1.00 29.32           O
ATOM    300  N   ALA A  42     -17.567  28.095 -12.658  1.00 29.16           N
ATOM    301  CA  ALA A  42     -17.310  28.317 -14.090  1.00 28.69           C
ATOM    302  CB  ALA A  42     -16.907  29.764 -14.342  1.00 28.64           C
ATOM    303  C   ALA A  42     -16.242  27.395 -14.652  1.00 28.59           C
ATOM    304  O   ALA A  42     -15.882  27.497 -15.820  1.00 28.65           O
ATOM    305  N   HIS A  43     -15.733  26.499 -13.825  1.00 28.45           N
ATOM    306  CA  HIS A  43     -14.589  25.674 -14.208  1.00 28.25           C
ATOM    307  CB  HIS A  43     -13.858  25.267 -12.934  1.00 28.08           C
ATOM    308  CG  HIS A  43     -12.523  24.658 -13.169  1.00 27.68           C
ATOM    309  ND1 HIS A  43     -12.367  23.353 -13.579  1.00 27.56           N
ATOM    310  CE1 HIS A  43     -11.080  23.083 -13.696  1.00 27.73           C
ATOM    311  NE2 HIS A  43     -10.396  24.163 -13.361  1.00 27.79           N
ATOM    312  CD2 HIS A  43     -11.277  25.162 -13.021  1.00 27.87           C
ATOM    313  C   HIS A  43     -15.031  24.447 -15.030  1.00 28.07           C
ATOM    314  O   HIS A  43     -16.002  23.773 -14.662  1.00 28.06           O
ATOM    315  N   SER A  44     -14.334  24.156 -16.130  1.00 27.95           N
ATOM    316  CA  SER A  44     -14.767  23.080 -17.048  1.00 28.01           C
ATOM    317  CB  SER A  44     -13.779  22.844 -18.180  1.00 28.32           C
ATOM    318  OG  SER A  44     -13.468  24.041 -18.835  1.00 29.94           O
ATOM    319  C   SER A  44     -14.930  21.752 -16.363  1.00 28.11           C
ATOM    320  O   SER A  44     -15.871  21.024 -16.641  1.00 28.37           O
ATOM    321  N   GLU A  45     -13.986  21.431 -15.490  1.00 28.06           N
ATOM    322  CA  GLU A  45     -13.986  20.157 -14.795  1.00 28.02           C
ATOM    323  CB  GLU A  45     -12.590  19.840 -14.280  1.00 27.94           C
ATOM    324  CG  GLU A  45     -11.546  19.738 -15.410  1.00 28.27           C
ATOM    325  CD  GLU A  45     -11.796  18.564 -16.376  1.00 28.65           C
ATOM    326  OE1 GLU A  45     -12.425  17.542 -15.980  1.00 28.35           O
ATOM    327  OE2 GLU A  45     -11.348  18.672 -17.542  1.00 28.96           O
ATOM    328  C   GLU A  45     -15.029  20.087 -13.671  1.00 28.28           C
ATOM    329  O   GLU A  45     -15.531  19.001 -13.357  1.00 28.17           O
ATOM    330  N   TYR A  46     -15.368  21.222 -13.065  1.00 27.91           N
ATOM    331  CA  TYR A  46     -16.535  21.229 -12.214  1.00 27.76           C
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ATOM	332	CB	TYR	A	46	-16.659	22.497	-11.353	1.00	27.59	C
ATOM	333	CG	TYR	A	46	17.909	22.461	-10.504	1.00	27.27	C
ATOM	334	CD1	TYR	A	46	-18.020	21.579	-9.426	1.00	26.98	C
ATOM	335	CE1	TYR	A	46	-19.170	21.529	-8.650	1.00	26.70	C
ATOM	336	CZ	TYR	A	46	-20.233	22.341	-8.974	1.00	27.25	C
ATOM	337	OH	TYR	A	46	-21.389	22.277	-8.233	1.00	27.56	O
ATOM	338	CE2	TYR	A	46	-20.155	23.215	-10.044	1.00	27.41	C
ATOM	339	CD2	TYR	A	46	-18.997	23.270	-10.801	1.00	27.46	C
ATOM	340	C	TYR	A	46	-17.766	21.030	-13.100	1.00	27.98	C
ATOM	341	O	TYR	A	46	-18.600	20.159	-12.835	1.00	28.26	O
ATOM	342	N	GLN	A	47	-17.877	21.807	-14.170	1.00	28.09	N
ATOM	343	CA	GLN	A	47	-19.069	21.731	-15.012	1.00	28.04	C
ATOM	344	CB	GLN	A	47	-18.985	22.749	-16.148	1.00	27.93	C
ATOM	345	CG	GLN	A	47	-19.435	24.116	-15.715	1.00	28.12	C
ATOM	346	CD	GLN	A	47	-19.004	25.207	-16.675	1.00	29.62	C
ATOM	347	OE1	GLN	A	47	-18.473	24.946	-17.778	1.00	29.29	O
ATOM	348	NE2	GLN	A	47	-19.225	26.461	-16.261	1.00	29.92	N
ATOM	349	C	GLN	A	47	-19.345	20.319	-15.533	1.00	27.79	C
ATOM	350	O	GLN	A	47	-20.440	19.799	-15.351	1.00	27.66	O
ATOM	351	N	LYS	A	48	-18.333	19.704	-16.144	1.00	28.11	N
ATOM	352	CA	LYS	A	48	-18.424	18.357	-16.738	1.00	27.88	C
ATOM	353	CB	LYS	A	48	-17.168	18.063	-17.580	1.00	27.86	C
ATOM	354	CG	LYS	A	48	-16.980	19.055	-18.756	1.00	28.32	C
ATOM	355	CD	LYS	A	48	-15.677	18.814	-19.529	1.00	28.63	C
ATOM	356	CE	LYS	A	48	-15.165	20.102	-20.209	1.00	29.11	C
ATOM	357	NZ	LYS	A	48	-15.333	20.238	-21.705	1.00	28.63	N
ATOM	358	C	LYS	A	48	-18.690	17.207	-15.757	1.00	27.78	C
ATOM	359	O	LYS	A	48	-19.247	16.192	-16.140	1.00	27.80	O
ATOM	360	N	SER	A	49	-18.328	17.372	-14.489	1.00	28.24	N
ATOM	361	CA	SER	A	49	-18.304	16.240	-13.553	1.00	27.62	C
ATOM	362	CB	SER	A	49	-17.172	16.395	-12.531	1.00	27.65	C
ATOM	363	OG	SER	A	49	-17.633	17.077	-11.372	1.00	28.14	O
ATOM	364	C	SER	A	49	-19.640	15.932	-12.862	1.00	27.41	C
ATOM	365	O	SER	A	49	-20.478	16.807	-12.666	1.00	27.27	O
ATOM	366	N	LYS	A	50	-19.801	14.668	-12.477	1.00	27.67	N
ATOM	367	CA	LYS	A	50	-21.069	14.142	-12.002	1.00	27.32	C
ATOM	368	CB	LYS	A	50	-21.541	13.041	-12.953	1.00	27.62	C
ATOM	369	CG	LYS	A	50	-21.688	13.570	-14.393	1.00	28.12	C
ATOM	370	CD	LYS	A	50	-21.538	12.509	-15.495	1.00	28.41	C
ATOM	371	CE	LYS	A	50	-21.719	13.158	-16.882	1.00	28.76	C
ATOM	372	NZ	LYS	A	50	-20.510	13.929	-17.307	1.00	28.24	N
ATOM	373	C	LYS	A	50	-20.942	13.642	-10.573	1.00	27.51	C
ATOM	374	O	LYS	A	50	-21.699	14.074	-9.684	1.00	27.91	O
ATOM	375	N	ARG	A	51	-19.985	12.744	-10.328	1.00	27.35	N
ATOM	376	CA	ARG	A	51	-19.772	12.245	-8.960	1.00	27.07	C
ATOM	377	CB	ARG	A	51	-19.586	10.726	-8.940	1.00	26.87	C
ATOM	378	CG	ARG	A	51	-20.591	9.980	-9.839	1.00	26.65	C
ATOM	379	CD	ARG	A	51	-20.201	8.523	-10.116	1.00	26.31	C
ATOM	380	NE	ARG	A	51	-19.779	7.843	-8.902	1.00	26.34	N
ATOM	381	CZ	ARG	A	51	-20.607	7.346	-7.991	1.00	26.62	C
ATOM	382	NH1	ARG	A	51	-21.925	7.414	-8.155	1.00	26.60	N
ATOM	383	NH2	ARG	A	51	-20.111	6.766	-6.910	1.00	27.16	N
ATOM	384	C	ARG	A	51	-18.582	12.994	-8.390	1.00	26.57	C
ATOM	385	O	ARG	A	51	-17.482	12.899	-8.918	1.00	26.34	O
ATOM	386	N	ILE	A	52	-18.854	13.765	-7.335	1.00	26.65	N
ATOM	387	CA	ILE	A	52	-17.944	14.741	-6.758	1.00	26.08	C
ATOM	388	CB	ILE	A	52	-18.542	16.178	-6.846	1.00	26.42	C
ATOM	389	CG1	ILE	A	52	-18.378	16.708	-8.289	1.00	26.82	C
ATOM	390	CD1	ILE	A	52	-18.391	18.182	-8.458	1.00	26.59	C
ATOM	391	CG2	ILE	A	52	-17.920	17.128	-5.801	1.00	26.09	C
ATOM	392	C	ILE	A	52	-17.664	14.428	-5.315	1.00	26.16	C
ATOM	393	O	ILE	A	52	-18.576	14.121	-4.564	1.00	26.50	O
ATOM	394	N	SER	A	53	-16.397	14.504	-4.932	1.00	26.20	N
ATOM	395	CA	SER	A	53	-16.022	14.511	-3.526	1.00	26.25	C
ATOM	396	CB	SER	A	53	-14.900	13.511	-3.256	1.00	26.27	C
ATOM	397	OG	SER	A	53	-14.312	13.767	-1.986	1.00	25.88	O
ATOM	398	C	SER	A	53	-15.580	15.915	-3.096	1.00	26.06	C
ATOM	399	O	SER	A	53	-14.765	16.546	-3.774	1.00	26.18	O

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ATOM	400	N	ILE	A	54	-16.104	16.374	-1.957	1.00	25.98	N
ATOM	401	CA	ILE	A	54	-15.851	17.711	-1.436	1.00	25.92	C
ATOM	402	CB	ILE	A	54	-16.909	18.731	-1.938	1.00	25.83	C
ATOM	403	CG1	ILE	A	54	-16.365	20.167	-1.826	1.00	25.95	C
ATOM	404	CD1	ILE	A	54	-17.336	21.243	-2.164	1.00	26.28	C
ATOM	405	CG2	ILE	A	54	-18.270	18.513	-1.259	1.00	25.47	C
ATOM	406	C	ILE	A	54	-15.820	17.674	0.088	1.00	26.42	C
ATOM	407	O	ILE	A	54	-16.475	16.831	0.705	1.00	26.62	O
ATOM	408	N	PHE	A	55	-15.051	18.580	0.696	1.00	26.74	N
ATOM	409	CA	PHE	A	55	-14.819	18.567	2.140	1.00	26.70	C
ATOM	410	CB	PHE	A	55	-13.328	18.793	2.475	1.00	26.78	C
ATOM	411	CG	PHE	A	55	-12.760	20.074	1.921	1.00	27.16	C
ATOM	412	CD1	PHE	A	55	-12.763	21.241	2.673	1.00	27.63	C
ATOM	413	CE1	PHE	A	55	-12.239	22.424	2.146	1.00	27.61	C
ATOM	414	CZ	PHE	A	55	-11.705	22.442	0.869	1.00	27.12	C
ATOM	415	CE2	PHE	A	55	-11.678	21.290	0.123	1.00	26.99	C
ATOM	416	CD2	PHE	A	55	-12.211	20.114	0.645	1.00	27.30	C
ATOM	417	C	PHE	A	55	-15.647	19.645	2.780	1.00	26.95	C
ATOM	418	O	PHE	A	55	-16.075	20.586	2.103	1.00	26.75	O
ATOM	419	N	LEU	A	56	-15.850	19.495	4.091	1.00	27.23	N
ATOM	420	CA	LEU	A	56	-16.580	20.452	4.909	1.00	27.61	C
ATOM	421	CB	LEU	A	56	-17.526	19.721	5.853	1.00	27.99	C
ATOM	422	CG	LEU	A	56	-18.479	18.709	5.203	1.00	27.60	C
ATOM	423	CD1	LEU	A	56	-19.196	17.912	6.268	1.00	27.93	C
ATOM	424	CD2	LEU	A	56	-19.497	19.394	4.258	1.00	27.87	C
ATOM	425	C	LEU	A	56	-15.588	21.329	5.677	1.00	28.42	C
ATOM	426	O	LEU	A	56	-14.840	20.870	6.555	1.00	28.90	O
ATOM	427	N	SER	A	57	-15.590	22.606	5.333	1.00	28.96	N
ATOM	428	CA	SER	A	57	-14.499	23.509	5.676	1.00	29.45	C
ATOM	429	CB	SER	A	57	-14.702	24.813	4.916	1.00	29.31	C
ATOM	430	OG	SER	A	57	-15.031	24.500	3.576	1.00	28.72	O
ATOM	431	C	SER	A	57	-14.291	23.777	7.170	1.00	30.18	C
ATOM	432	O	SER	A	57	-15.226	24.127	7.883	1.00	30.14	O
ATOM	433	N	MET	A	58	-13.052	23.599	7.625	1.00	30.31	N
ATOM	434	CA	MET	A	58	-12.621	24.070	8.930	1.00	30.43	C
ATOM	435	CB	MET	A	58	-11.411	23.293	9.388	1.00	30.66	C
ATOM	436	CG	MET	A	58	-11.514	21.833	9.106	1.00	30.99	C
ATOM	437	SD	MET	A	58	-10.311	20.951	10.083	1.00	32.56	S
ATOM	438	CE	MET	A	58	-10.504	19.272	9.485	1.00	33.09	C
ATOM	439	C	MET	A	58	-12.221	25.514	8.747	1.00	31.57	C
ATOM	440	O	MET	A	58	-12.057	25.977	7.608	1.00	31.88	O
ATOM	441	N	GLN	A	59	-12.022	26.221	9.854	1.00	31.90	N
ATOM	442	CA	GLN	A	59	-11.805	27.673	9.813	1.00	32.09	C
ATOM	443	CB	GLN	A	59	-11.845	28.263	11.222	1.00	33.00	C
ATOM	444	CG	GLN	A	59	-13.067	27.823	12.045	1.00	33.63	C
ATOM	445	CD	GLN	A	59	-14.387	27.994	11.299	1.00	34.47	C
ATOM	446	OE1	GLN	A	59	-14.460	28.698	10.276	1.00	34.55	O
ATOM	447	NE2	GLN	A	59	-15.441	27.349	11.807	1.00	35.14	N
ATOM	448	C	GLN	A	59	-10.558	28.133	9.067	1.00	32.41	C
ATOM	449	O	GLN	A	59	-10.509	29.263	8.553	1.00	33.14	O
ATOM	450	N	ASP	A	60	-9.552	27.273	8.988	1.00	31.84	N
ATOM	451	CA	ASP	A	60	-8.364	27.612	8.215	1.00	31.55	C
ATOM	452	CB	ASP	A	60	-7.099	27.130	8.928	1.00	31.59	C
ATOM	453	CG	ASP	A	60	-7.101	25.627	9.179	1.00	32.30	C
ATOM	454	OD1	ASP	A	60	-8.190	25.007	9.234	1.00	31.90	O
ATOM	455	OD2	ASP	A	60	-5.997	25.062	9.331	1.00	33.54	O
ATOM	456	C	ASP	A	60	-8.447	27.025	6.806	1.00	31.51	C
ATOM	457	O	ASP	A	60	-7.422	26.646	6.226	1.00	32.08	O
ATOM	458	N	GLU	A	61	-9.657	26.939	6.259	1.00	30.88	N
ATOM	459	CA	GLU	A	61	-9.866	26.441	4.895	1.00	30.47	C
ATOM	460	CB	GLU	A	61	-10.314	24.987	4.912	1.00	30.17	C
ATOM	461	CG	GLU	A	61	-9.301	24.021	5.461	1.00	30.76	C
ATOM	462	CD	GLU	A	61	9.804	22.595	5.530	1.00	30.29	C
ATOM	463	OE1	GLU	A	61	-10.971	22.366	5.941	1.00	29.60	O
ATOM	464	OE2	GLU	A	61	-8.999	21.706	5.174	1.00	30.47	O
ATOM	465	C	GLU	A	61	-10.923	27.229	4.139	1.00	30.95	C
ATOM	466	O	GLU	A	61	-11.970	27.594	4.696	1.00	31.64	O
ATOM	467	N	ILE	A	62	-10.660	27.473	2.861	1.00	30.40	N

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ATOM	468	CA	ILE	A	62	-11.701	27.889	1.924	1.00	30.11	C
ATOM	469	CB	ILE	A	62	-11.276	27.508	0.485	1.00	29.78	C
ATOM	470	CG1	ILE	A	62	-10.213	28.502	-0.025	1.00	29.67	C
ATOM	471	CD1	ILE	A	62	-10.669	29.926	-0.184	1.00	29.54	C
ATOM	472	CG2	ILE	A	62	-12.494	27.330	-0.458	1.00	29.50	C
ATOM	473	C	ILE	A	62	-13.074	27.278	2.292	1.00	29.91	C
ATOM	474	O	ILE	A	62	-13.174	26.066	2.555	1.00	29.27	O
ATOM	475	N	GLU	A	63	-14.107	28.128	2.345	1.00	30.38	N
ATOM	476	CA	GLU	A	63	-15.480	27.688	2.676	1.00	29.89	C
ATOM	477	CB	GLU	A	63	-16.286	28.819	3.354	1.00	29.71	C
ATOM	478	CG	GLU	A	63	-17.794	28.529	3.680	1.00	29.86	C
ATOM	479	CD	GLU	A	63	-18.051	27.481	4.791	1.00	30.27	C
ATOM	480	OE1	GLU	A	63	-17.977	27.806	6.012	1.00	29.77	O
ATOM	481	OE2	GLU	A	63	-18.367	26.319	4.417	1.00	30.09	O
ATOM	482	C	GLU	A	63	-16.169	27.120	1.426	1.00	29.55	C
ATOM	483	O	GLU	A	63	-16.422	27.840	0.455	1.00	29.98	O
ATOM	484	N	THR	A	64	-16.448	25.816	1.460	1.00	29.16	N
ATOM	485	CA	THR	A	64	-17.068	25.093	0.346	1.00	28.19	C
ATOM	486	CB	THR	A	64	-16.592	23.635	0.306	1.00	27.47	C
ATOM	487	OG1	THR	A	64	-16.811	23.027	1.584	1.00	27.75	O
ATOM	488	CG2	THR	A	64	-15.129	23.564	0.055	1.00	27.51	C
ATOM	489	C	THR	A	64	-18.597	25.075	0.366	1.00	28.06	C
ATOM	490	O	THR	A	64	-19.207	24.401	-0.452	1.00	28.13	O
ATOM	491	N	GLU	A	65	-19.209	25.807	1.293	1.00	28.61	N
ATOM	492	CA	GLU	A	65	-20.659	25.759	1.510	1.00	28.80	C
ATOM	493	CB	GLU	A	65	-21.040	26.707	2.645	1.00	29.59	C
ATOM	494	CG	GLU	A	65	-22.538	26.939	2.868	1.00	31.08	C
ATOM	495	CD	GLU	A	65	-22.807	28.039	3.915	1.00	33.08	C
ATOM	496	OE1	GLU	A	65	-22.830	27.744	5.153	1.00	32.55	O
ATOM	497	OE2	GLU	A	65	-22.987	29.206	3.475	1.00	33.82	O
ATOM	498	C	GLU	A	65	-21.449	26.115	0.258	1.00	29.09	C
ATOM	499	O	GLU	A	65	-22.403	25.425	-0.112	1.00	29.06	O
ATOM	500	N	GLU	A	66	-21.048	27.205	-0.380	1.00	28.93	N
ATOM	501	CA	GLU	A	66	-21.706	27.678	-1.573	1.00	28.99	C
ATOM	502	CB	GLU	A	66	-21.058	29.002	-1.966	1.00	30.04	C
ATOM	503	CG	GLU	A	66	-21.617	29.730	-3.175	1.00	30.94	C
ATOM	504	CD	GLU	A	66	-21.016	31.123	-3.298	1.00	32.10	C
ATOM	505	OE1	GLU	A	66	-20.993	31.848	-2.281	1.00	32.30	O
ATOM	506	OE2	GLU	A	66	-20.558	31.488	-4.404	1.00	32.85	O
ATOM	507	C	GLU	A	66	-21.620	26.631	-2.707	1.00	28.52	C
ATOM	508	O	GLU	A	66	-22.623	26.314	-3.353	1.00	28.33	O
ATOM	509	N	ILE	A	67	-20.418	26.097	-2.921	1.00	28.34	N
ATOM	510	CA	ILE	A	67	-20.153	25.098	-3.950	1.00	27.90	C
ATOM	511	CB	ILE	A	67	-18.667	24.725	-3.960	1.00	27.89	C
ATOM	512	CG1	ILE	A	67	-17.852	25.931	-4.458	1.00	28.06	C
ATOM	513	CD1	ILE	A	67	-16.397	25.877	-4.098	1.00	27.92	C
ATOM	514	CG2	ILE	A	67	-18.410	23.460	-4.817	1.00	27.45	C
ATOM	515	C	ILE	A	67	-21.027	23.869	-3.744	1.00	27.79	C
ATOM	516	O	ILE	A	67	-21.636	23.371	-4.690	1.00	27.65	O
ATOM	517	N	ILE	A	68	-21.095	23.406	-2.497	1.00	27.89	N
ATOM	518	CA	ILE	A	68	-22.016	22.358	-2.082	1.00	27.29	C
ATOM	519	CB	ILE	A	68	-21.897	22.049	-0.557	1.00	27.40	C
ATOM	520	CG1	ILE	A	68	-20.658	21.187	-0.293	1.00	27.04	C
ATOM	521	CD1	ILE	A	68	-20.064	21.319	1.069	1.00	26.82	C
ATOM	522	CG2	ILE	A	68	-23.117	21.302	-0.022	1.00	27.64	C
ATOM	523	C	ILE	A	68	-23.431	22.711	-2.512	1.00	27.59	C
ATOM	524	O	ILE	A	68	-24.088	21.901	-3.148	1.00	28.10	O
ATOM	525	N	LYS	A	69	-23.903	23.918	-2.222	1.00	27.76	N
ATOM	526	CA	LYS	A	69	-25.269	24.267	-2.623	1.00	27.77	C
ATOM	527	CB	LYS	A	69	-25.669	25.662	-2.123	1.00	28.58	C
ATOM	528	CG	LYS	A	69	-25.483	25.786	-0.573	1.00	30.36	C
ATOM	529	CD	LYS	A	69	-26.156	27.000	0.115	1.00	30.68	C
ATOM	530	CE	LYS	A	69	-26.509	26.629	1.566	1.00	31.88	C
ATOM	531	NZ	LYS	A	69	-26.957	27.822	2.367	1.00	34.39	N
ATOM	532	C	LYS	A	69	-25.419	24.097	-4.137	1.00	28.04	C
ATOM	533	O	LYS	A	69	-26.394	23.516	-4.595	1.00	28.45	O
ATOM	534	N	ASP	A	70	-24.406	24.534	-4.894	1.00	28.35	N
ATOM	535	CA	ASP	A	70	-24.409	24.467	-6.363	1.00	27.92	C

	ATOM	536	CB	ASP	A	70	-23.300	25.332	-6.947	1.00	27.82	C
	ATOM	537	CG	ASP	A	70	-23.440	25.502	-8.458	1.00	28.72	C
	ATOM	538	OD1	ASP	A	70	-24.254	26.355	-8.883	1.00	29.18	O
	ATOM	539	OD2	ASP	A	70	-22.763	24.776	-9.222	1.00	28.32	O
	ATOM	540	C	ASP	A	70	-24.262	23.051	-6.917	1.00	27.93	C
	ATOM	541	O	ASP	A	70	-24.648	22.775	-8.054	1.00	27.58	O
	ATOM	542	N	ILE	A	71	-23.669	22.179	-6.100	1.00	28.00	N
	ATOM	543	CA	ILE	A	71	-23.446	20.789	-6.436	1.00	27.56	C
	ATOM	544	CB	ILE	A	71	-22.529	20.103	-5.388	1.00	27.12	C
	ATOM	545	CG1	ILE	A	71	-21.069	20.348	-5.761	1.00	26.80	C
	ATOM	546	CD1	ILE	A	71	-20.088	19.638	-4.915	1.00	26.41	C
	ATOM	547	CG2	ILE	A	71	-22.798	18.591	-5.280	1.00	27.31	C
	ATOM	548	C	ILE	A	71	-24.788	20.114	-6.556	1.00	27.71	C
	ATOM	549	O	ILE	A	71	-25.009	19.348	-7.506	1.00	27.64	O
	ATOM	550	N	PHE	A	72	-25.684	20.430	-5.614	1.00	27.65	N
	ATOM	551	CA	PHE	A	72	-26.982	19.747	-5.515	1.00	28.01	C
	ATOM	552	CB	PHE	A	72	-27.546	19.804	-4.086	1.00	28.22	C
	ATOM	553	CG	PHE	A	72	-26.994	18.743	-3.176	1.00	28.46	C
	ATOM	554	CD1	PHE	A	72	-27.295	17.392	-3.386	1.00	28.36	C
	ATOM	555	CE1	PHE	A	72	-26.781	16.418	-2.549	1.00	28.56	C
	ATOM	556	CZ	PHE	A	72	-25.946	16.789	-1.479	1.00	28.55	C
	ATOM	557	CE2	PHE	A	72	-25.641	18.118	-1.266	1.00	28.29	C
	ATOM	558	CD2	PHE	A	72	-26.163	19.087	-2.116	1.00	28.43	C
	ATOM	559	C	PHE	A	72	-27.998	20.259	-6.536	1.00	27.77	C
	ATOM	560	O	PHE	A	72	-28.725	19.457	-7.168	1.00	27.47	O
	ATOM	561	N	GLN	A	73	-28.037	21.589	-6.680	1.00	27.78	N
	ATOM	562	CA	GLN	A	73	-28.827	22.281	-7.713	1.00	27.88	C
	ATOM	563	CB	GLN	A	73	-28.361	23.712	-7.835	1.00	27.98	C
	ATOM	564	CG	GLN	A	73	-29.114	24.708	-7.041	1.00	28.38	C
	ATOM	565	CD	GLN	A	73	-28.362	25.977	-7.030	1.00	28.56	C
	ATOM	566	OE1	GLN	A	73	-27.856	26.419	-8.072	1.00	28.12	O
	ATOM	567	NE2	GLN	A	73	-28.226	26.568	-5.850	1.00	28.49	N
	ATOM	568	C	GLN	A	73	-28.665	21.720	-9.105	1.00	27.81	C
[0170]	ATOM	569	O	GLN	A	73	-29.570	21.855	-9.939	1.00	28.37	O
	ATOM	570	N	ARG	A	74	-27.492	21.140	-9.349	1.00	27.47	N
	ATOM	571	CA	ARG	A	74	-27.141	20.597	-10.635	1.00	27.37	C
	ATOM	572	CB	ARG	A	74	-25.761	21.099	-11.021	1.00	27.42	C
	ATOM	573	CG	ARG	A	74	-25.741	22.590	-11.139	1.00	28.02	C
	ATOM	574	CD	ARG	A	74	-24.562	23.103	-11.933	1.00	28.13	C
	ATOM	575	NE	ARG	A	74	-24.698	24.547	-12.028	1.00	29.20	N
	ATOM	576	CZ	ARG	A	74	-23.724	25.402	-12.315	1.00	29.76	C
	ATOM	577	NH1	ARG	A	74	-22.478	24.972	-12.569	1.00	30.08	N
	ATOM	578	NH2	ARG	A	74	-24.001	26.705	-12.334	1.00	28.97	N
	ATOM	579	C	ARG	A	74	-27.191	19.076	-10.657	1.00	27.53	C
	ATOM	580	O	ARG	A	74	-26.572	18.445	-11.522	1.00	27.64	O
	ATOM	581	N	GLY	A	75	-27.925	18.497	-9.705	1.00	27.63	N
	ATOM	582	CA	GLY	A	75	-28.109	17.049	-9.598	1.00	27.44	C
	ATOM	583	C	GLY	A	75	-26.844	16.250	-9.806	1.00	27.61	C
	ATOM	584	O	GLY	A	75	-26.830	15.298	-10.588	1.00	27.61	O
	ATOM	585	N	LYS	A	76	-25.768	16.674	-9.146	1.00	27.52	N
	ATOM	586	CA	LYS	A	76	-24.506	15.934	-9.086	1.00	27.30	C
	ATOM	587	CB	LYS	A	76	-23.339	16.903	-8.895	1.00	27.29	C
	ATOM	588	CG	LYS	A	76	-22.978	17.710	-10.124	1.00	27.36	C
	ATOM	589	CD	LYS	A	76	-21.589	18.299	-10.000	1.00	27.11	C
	ATOM	590	CE	LYS	A	76	-21.376	19.419	-11.011	1.00	27.07	C
	ATOM	591	NZ	LYS	A	76	-21.672	18.967	-12.406	1.00	27.49	N
	ATOM	592	C	LYS	A	76	-24.543	15.000	-7.878	1.00	27.62	C
	ATOM	593	O	LYS	A	76	-25.218	15.316	-6.880	1.00	27.38	O
	ATOM	594	N	ILE	A	77	-23.819	13.874	-7.944	1.00	27.20	N
	ATOM	595	CA	ILE	A	77	-23.788	12.930	-6.819	1.00	27.15	C
	ATOM	596	CB	ILE	A	77	-23.496	11.464	-7.250	1.00	27.46	C
	ATOM	597	CG1	ILE	A	77	-24.073	11.139	-8.648	1.00	27.43	C
	ATOM	598	CD1	ILE	A	77	-25.618	11.183	-8.785	1.00	27.38	C
	ATOM	599	CG2	ILE	A	77	-23.945	10.492	-6.153	1.00	27.20	C
	ATOM	600	C	ILE	A	77	-22.702	13.388	-5.862	1.00	27.15	C
	ATOM	601	O	ILE	A	77	-21.515	13.210	-6.150	1.00	27.33	O
	ATOM	602	N	CYS	A	78	-23.103	13.980	-4.741	1.00	26.86	N
	ATOM	603	CA	CYS	A	78	-22.152	14.582	-3.806	1.00	26.97	C

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ATOM	604	CB	CYS	A	78	-22.816	15.754	-3.107	1.00	26.95	C
ATOM	605	SG	CYS	A	78	-21.682	16.619	-2.060	1.00	26.20	S
ATOM	606	C	CYS	A	78	-21.584	13.589	-2.752	1.00	26.97	C
ATOM	607	O	CYS	A	78	-22.337	12.787	-2.195	1.00	27.11	O
ATOM	608	N	PHE	A	79	-20.271	13.648	-2.492	1.00	26.78	N
ATOM	609	CA	PHE	A	79	-19.584	12.792	-1.489	1.00	26.43	C
ATOM	610	CB	PHE	A	79	-18.696	11.708	-2.135	1.00	26.38	C
ATOM	611	CG	PHE	A	79	-19.446	10.736	-3.005	1.00	26.71	C
ATOM	612	CD1	PHE	A	79	-19.810	9.490	-2.524	1.00	26.90	C
ATOM	613	CE1	PHE	A	79	-20.510	8.601	-3.318	1.00	26.74	C
ATOM	614	CZ	PHE	A	79	-20.860	8.947	-4.604	1.00	26.84	C
ATOM	615	CE2	PHE	A	79	-20.519	10.185	-5.098	1.00	26.79	C
ATOM	616	CD2	PHE	A	79	-19.812	11.075	-4.301	1.00	26.68	C
ATOM	617	C	PHE	A	79	-18.730	13.610	-0.527	1.00	25.89	C
ATOM	618	O	PHE	A	79	-18.146	14.635	-0.898	1.00	25.43	O
ATOM	619	N	ILE	A	80	-18.666	13.145	0.716	1.00	26.27	N
ATOM	620	CA	ILE	A	80	-17.835	13.803	1.709	1.00	26.68	C
ATOM	621	CB	ILE	A	80	-18.661	14.699	2.692	1.00	26.44	C
ATOM	622	CG1	ILE	A	80	-19.715	13.872	3.432	1.00	26.43	C
ATOM	623	CD1	ILE	A	80	-20.048	14.394	4.796	1.00	26.34	C
ATOM	624	CG2	ILE	A	80	-19.288	15.895	1.948	1.00	26.11	C
ATOM	625	C	ILE	A	80	-16.984	12.777	2.459	1.00	26.79	C
ATOM	626	O	ILE	A	80	-17.442	11.655	2.687	1.00	26.99	O
ATOM	627	N	PRO	A	81	-15.745	13.152	2.842	1.00	26.62	N
ATOM	628	CA	PRO	A	81	-14.846	12.304	3.628	1.00	26.85	C
ATOM	629	CB	PRO	A	81	-13.865	13.310	4.219	1.00	26.51	C
ATOM	630	CG	PRO	A	81	-13.807	14.384	3.262	1.00	26.52	C
ATOM	631	CD	PRO	A	81	-15.186	14.502	2.656	1.00	26.48	C
ATOM	632	C	PRO	A	81	-15.512	11.635	4.808	1.00	26.97	C
ATOM	633	O	PRO	A	81	-16.350	12.241	5.456	1.00	26.86	O
ATOM	634	N	ARG	A	82	-15.128	10.403	5.103	1.00	27.21	N
ATOM	635	CA	ARG	A	82	-15.371	9.859	6.434	1.00	27.59	C
ATOM	636	CB	ARG	A	82	-16.552	8.869	6.435	1.00	27.60	C
ATOM	637	CG	ARG	A	82	-17.011	8.432	7.843	1.00	27.73	C
ATOM	638	CD	ARG	A	82	-17.858	7.195	7.809	1.00	27.23	C
ATOM	639	NE	ARG	A	82	-17.138	6.140	7.121	1.00	27.28	N
ATOM	640	CZ	ARG	A	82	-17.682	5.232	6.327	1.00	27.44	C
ATOM	641	NH1	ARG	A	82	-18.989	5.225	6.057	1.00	27.59	N
ATOM	642	NH2	ARG	A	82	-16.887	4.335	5.768	1.00	28.40	N
ATOM	643	C	ARG	A	82	-14.088	9.208	6.895	1.00	27.66	C
ATOM	644	O	ARG	A	82	-13.807	8.086	6.509	1.00	28.02	O
ATOM	645	N	TYR	A	83	-13.297	9.931	7.687	1.00	28.07	N
ATOM	646	CA	TYR	A	83	-11.960	9.459	8.091	1.00	29.07	C
ATOM	647	CB	TYR	A	83	-10.961	10.627	8.209	1.00	29.60	C
ATOM	648	CG	TYR	A	83	-11.147	11.538	9.413	1.00	29.92	C
ATOM	649	CD1	TYR	A	83	-11.920	12.701	9.323	1.00	30.02	C
ATOM	650	CE1	TYR	A	83	-12.099	13.557	10.433	1.00	29.91	C
ATOM	651	CZ	TYR	A	83	-11.495	13.247	11.642	1.00	30.67	C
ATOM	652	OH	TYR	A	83	-11.671	14.089	12.720	1.00	31.74	O
ATOM	653	CE2	TYR	A	83	-10.705	12.103	11.760	1.00	30.51	C
ATOM	654	CD2	TYR	A	83	-10.524	11.262	10.637	1.00	30.41	C
ATOM	655	C	TYR	A	83	-11.998	8.635	9.377	1.00	30.04	C
ATOM	656	O	TYR	A	83	-12.925	8.769	10.177	1.00	30.55	O
ATOM	657	N	ARG	A	84	-11.011	7.775	9.587	1.00	30.51	N
ATOM	658	CA	ARG	A	84	-10.921	7.039	10.843	1.00	31.33	C
ATOM	659	CB	ARG	A	84	-10.819	5.538	10.576	1.00	31.86	C
ATOM	660	CG	ARG	A	84	-11.788	5.026	9.482	1.00	31.94	C
ATOM	661	CD	ARG	A	84	-12.381	3.657	9.829	1.00	32.54	C
ATOM	662	NE	ARG	A	84	-11.380	2.807	10.471	1.00	33.41	N
ATOM	663	CZ	ARG	A	84	-11.653	1.726	11.188	1.00	33.88	C
ATOM	664	NH1	ARG	A	84	-12.918	1.346	11.366	1.00	34.18	N
ATOM	665	NH2	ARG	A	84	-10.654	1.032	11.727	1.00	33.68	N
ATOM	666	C	ARG	A	84	-9.715	7.541	11.638	1.00	32.10	C
ATOM	667	O	ARG	A	84	-8.658	7.794	11.068	1.00	32.12	O
ATOM	668	N	PHE	A	85	-9.857	7.695	12.948	1.00	32.82	N
ATOM	669	CA	PHE	A	85	-8.738	8.240	13.728	1.00	33.86	C
ATOM	670	CB	PHE	A	85	-9.232	8.985	14.985	1.00	34.50	C
ATOM	671	CG	PHE	A	85	-9.619	8.076	16.154	1.00	35.66	C

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ATOM	672	CD1	PHE	A	85	-10.887	7.479	16.210	1.00	35.50	C
ATOM	673	CE1	PHE	A	85	-11.252	6.661	17.297	1.00	36.04	C
ATOM	674	CZ	PHE	A	85	-10.344	6.442	18.347	1.00	36.07	C
ATOM	675	CE2	PHE	A	85	-9.073	7.045	18.308	1.00	35.60	C
ATOM	676	CD2	PHE	A	85	-8.722	7.856	17.219	1.00	35.70	C
ATOM	677	C	PHE	A	85	-7.629	7.212	14.053	1.00	34.21	C
ATOM	678	O	PHE	A	85	-6.471	7.588	14.296	1.00	33.89	O
ATOM	679	N	GLN	A	86	-7.991	5.924	14.053	1.00	34.34	N
ATOM	680	CA	GLN	A	86	-7.029	4.843	14.301	1.00	34.03	C
ATOM	681	CB	GLN	A	86	-7.684	3.447	14.205	1.00	34.36	C
ATOM	682	CG	GLN	A	86	-8.797	3.142	15.213	1.00	34.83	C
ATOM	683	CD	GLN	A	86	-10.143	3.678	14.756	1.00	35.35	C
ATOM	684	OE1	GLN	A	86	-10.298	4.108	13.600	1.00	35.13	O
ATOM	685	NE2	GLN	A	86	-11.124	3.668	15.661	1.00	35.37	N
ATOM	686	C	GLN	A	86	-5.883	4.899	13.295	1.00	33.95	C
ATOM	687	O	GLN	A	86	-4.717	4.762	13.675	1.00	34.35	O
ATOM	688	N	SER	A	87	-6.217	5.102	12.019	1.00	33.24	N
ATOM	689	CA	SER	A	87	-5.252	4.897	10.955	1.00	32.61	C
ATOM	690	CB	SER	A	87	-5.613	3.633	10.177	1.00	32.69	C
ATOM	691	OG	SER	A	87	-6.868	3.786	9.542	1.00	31.94	O
ATOM	692	C	SER	A	87	-5.149	6.086	10.013	1.00	32.12	C
ATOM	693	O	SER	A	87	-5.343	7.227	10.414	1.00	32.84	O
ATOM	694	N	ASN	A	88	-4.809	5.815	8.765	1.00	31.60	N
ATOM	695	CA	ASN	A	88	-4.864	6.845	7.758	1.00	31.57	C
ATOM	696	CB	ASN	A	88	-3.488	7.061	7.127	1.00	32.09	C
ATOM	697	CG	ASN	A	88	-3.104	5.952	6.176	1.00	32.46	C
ATOM	698	OD1	ASN	A	88	-3.694	4.858	6.194	1.00	32.17	O
ATOM	699	ND2	ASN	A	88	-2.106	6.228	5.327	1.00	32.03	N
ATOM	700	C	ASN	A	88	-5.948	6.545	6.718	1.00	31.28	C
ATOM	701	O	ASN	A	88	-5.891	7.001	5.571	1.00	31.08	O
ATOM	702	N	HIS	A	89	-6.955	5.796	7.160	1.00	31.35	N
ATOM	703	CA	HIS	A	89	-8.110	5.434	6.325	1.00	30.82	C
ATOM	704	CB	HIS	A	89	-8.682	4.075	6.769	1.00	31.10	C
ATOM	705	CG	HIS	A	89	-9.776	3.555	5.894	1.00	30.09	C
ATOM	706	ND1	HIS	A	89	-9.609	3.333	4.543	1.00	29.36	N
ATOM	707	CE1	HIS	A	89	-10.740	2.880	4.033	1.00	29.40	C
ATOM	708	NE2	HIS	A	89	-11.633	2.788	5.005	1.00	29.07	N
ATOM	709	CD2	HIS	A	89	-11.053	3.205	6.180	1.00	30.03	C
ATOM	710	C	HIS	A	89	-9.220	6.500	6.287	1.00	30.39	C
ATOM	711	O	HIS	A	89	-9.532	7.159	7.295	1.00	30.33	O
ATOM	712	N	MET	A	90	-9.783	6.656	5.091	1.00	29.68	N
ATOM	713	CA	MET	A	90	-11.008	7.415	4.872	1.00	29.09	C
ATOM	714	CB	MET	A	90	-10.762	8.944	4.812	1.00	28.71	C
ATOM	715	CG	MET	A	90	-9.764	9.401	3.762	1.00	29.13	C
ATOM	716	SD	MET	A	90	-10.127	10.990	2.977	1.00	26.49	S
ATOM	717	CE	MET	A	90	-10.739	11.886	4.404	1.00	27.93	C
ATOM	718	C	MET	A	90	-11.717	6.918	3.603	1.00	29.03	C
ATOM	719	O	MET	A	90	-11.104	6.779	2.544	1.00	28.91	O
ATOM	720	N	ASP	A	91	-13.004	6.629	3.741	1.00	28.86	N
ATOM	721	CA	ASP	A	91	-13.872	6.286	2.632	1.00	27.81	C
ATOM	722	CB	ASP	A	91	-14.776	5.102	3.063	1.00	27.90	C
ATOM	723	CG	ASP	A	91	-13.957	3.837	3.489	1.00	29.12	C
ATOM	724	OD1	ASP	A	91	-13.059	3.504	2.678	1.00	29.41	O
ATOM	725	OD2	ASP	A	91	-14.176	3.179	4.585	1.00	28.00	O
ATOM	726	C	ASP	A	91	-14.652	7.592	2.349	1.00	27.97	C
ATOM	727	O	ASP	A	91	-14.910	8.363	3.286	1.00	28.21	O
ATOM	728	N	MET	A	92	-14.974	7.885	1.082	1.00	27.93	N
ATOM	729	CA	MET	A	92	-15.816	9.063	0.704	1.00	26.80	C
ATOM	730	CB	MET	A	92	-15.444	9.629	-0.672	1.00	26.81	C
ATOM	731	CG	MET	A	92	-14.060	10.224	-0.794	1.00	26.85	C
ATOM	732	SD	MET	A	92	-13.843	11.749	0.136	1.00	27.15	S
ATOM	733	CE	MET	A	92	-12.060	11.854	0.043	1.00	27.00	C
ATOM	734	C	MET	A	92	-17.276	8.648	0.635	1.00	26.95	C
ATOM	735	O	MET	A	92	-17.653	7.789	-0.167	1.00	27.06	O
ATOM	736	N	VAL	A	93	-18.112	9.270	1.454	1.00	27.20	N
ATOM	737	CA	VAL	A	93	-19.479	8.800	1.622	1.00	26.96	C
ATOM	738	CB	VAL	A	93	-19.707	8.372	3.060	1.00	27.64	C
ATOM	739	CG1	VAL	A	93	-18.691	7.271	3.468	1.00	27.37	C

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ATOM	740	CG2	VAL	A	93	-19.608	9.568	3.996	1.00	27.39	C
ATOM	741	C	VAL	A	93	-20.525	9.827	1.174	1.00	26.97	C
ATOM	742	O	VAL	A	93	-20.379	11.034	1.386	1.00	27.02	O
ATOM	743	N	ARG	A	94	-21.585	9.319	0.555	1.00	27.55	N
ATOM	744	CA	ARG	A	94	-22.564	10.124	-0.163	1.00	27.77	C
ATOM	745	CB	ARG	A	94	-23.365	9.220	-1.110	1.00	27.81	C
ATOM	746	CG	ARG	A	94	-24.349	9.956	-2.013	1.00	27.78	C
ATOM	747	CD	ARG	A	94	-25.372	9.012	-2.576	1.00	27.95	C
ATOM	748	NE	ARG	A	94	-26.199	9.656	-3.586	1.00	28.97	N
ATOM	749	CZ	ARG	A	94	-26.766	9.009	-4.609	1.00	29.95	C
ATOM	750	NH1	ARG	A	94	-26.588	7.697	-4.767	1.00	29.79	N
ATOM	751	NH2	ARG	A	94	-27.503	9.670	-5.492	1.00	29.24	N
ATOM	752	C	ARG	A	94	-23.513	10.870	0.766	1.00	28.08	C
ATOM	753	O	ARG	A	94	-24.056	10.274	1.695	1.00	28.69	O
ATOM	754	N	ILE	A	95	-23.720	12.163	0.509	1.00	27.95	N
ATOM	755	CA	ILE	A	95	-24.779	12.912	1.179	1.00	28.57	C
ATOM	756	CB	ILE	A	95	-24.248	14.165	1.918	1.00	28.35	C
ATOM	757	CG1	ILE	A	95	-23.522	15.102	0.949	1.00	28.30	C
ATOM	758	CD1	ILE	A	95	-23.292	16.509	1.491	1.00	27.85	C
ATOM	759	CG2	ILE	A	95	-23.347	13.752	3.052	1.00	27.59	C
ATOM	760	C	ILE	A	95	-25.948	13.228	0.220	1.00	28.89	C
ATOM	761	O	ILE	A	95	-25.774	13.321	-0.993	1.00	28.78	O
ATOM	762	N	GLU	A	96	-27.147	13.379	0.767	1.00	29.74	N
ATOM	763	CA	GLU	A	96	-28.355	13.439	-0.067	1.00	30.37	C
ATOM	764	CB	GLU	A	96	-29.368	12.422	0.439	1.00	31.54	C
ATOM	765	CG	GLU	A	96	-28.800	11.013	0.592	1.00	31.85	C
ATOM	766	CD	GLU	A	96	-29.429	9.999	-0.355	1.00	32.51	C
ATOM	767	OE1	GLU	A	96	-30.535	10.271	-0.891	1.00	32.14	O
ATOM	768	OE2	GLU	A	96	-28.815	8.912	-0.531	1.00	33.07	O
ATOM	769	C	GLU	A	96	-29.014	14.827	-0.203	1.00	30.37	C
ATOM	770	O	GLU	A	96	-29.668	15.089	-1.209	1.00	30.17	O
ATOM	771	N	SER	A	97	-28.852	15.691	0.804	1.00	30.19	N
ATOM	772	CA	SER	A	97	-29.165	17.120	0.693	1.00	29.86	C
ATOM	773	CB	SER	A	97	-30.605	17.404	1.172	1.00	30.79	C
ATOM	774	OG	SER	A	97	-30.857	16.928	2.483	1.00	31.10	O
ATOM	775	C	SER	A	97	-28.121	17.929	1.478	1.00	29.68	C
ATOM	776	O	SER	A	97	-27.379	17.340	2.240	1.00	29.83	O
ATOM	777	N	PRO	A	98	-28.031	19.269	1.280	1.00	30.03	N
ATOM	778	CA	PRO	A	98	-27.098	20.033	2.135	1.00	30.07	C
ATOM	779	CB	PRO	A	98	-27.131	21.447	1.535	1.00	29.64	C
ATOM	780	CG	PRO	A	98	-27.581	21.266	0.158	1.00	29.79	C
ATOM	781	CD	PRO	A	98	-28.561	20.115	0.192	1.00	30.08	C
ATOM	782	C	PRO	A	98	-27.566	20.102	3.586	1.00	30.57	C
ATOM	783	O	PRO	A	98	-26.761	20.343	4.480	1.00	30.55	O
ATOM	784	N	GLU	A	99	-28.865	19.902	3.797	1.00	30.88	N
ATOM	785	CA	GLU	A	99	-29.485	20.007	5.108	1.00	30.62	C
ATOM	786	CB	GLU	A	99	-31.011	19.896	4.999	1.00	31.53	C
ATOM	787	CG	GLU	A	99	-31.710	21.112	4.375	1.00	31.74	C
ATOM	788	CD	GLU	A	99	-31.777	21.049	2.853	1.00	31.79	C
ATOM	789	OE1	GLU	A	99	-32.508	20.169	2.318	1.00	31.92	O
ATOM	790	OE2	GLU	A	99	-31.101	21.890	2.200	1.00	31.40	O
ATOM	791	C	GLU	A	99	-28.967	18.903	5.998	1.00	31.02	C
ATOM	792	O	GLU	A	99	-28.753	19.108	7.202	1.00	31.69	O
ATOM	793	N	GLU	A	100	-28.757	17.732	5.397	1.00	30.69	N
ATOM	794	CA	GLU	A	100	-28.190	16.584	6.094	1.00	30.97	C
ATOM	795	CB	GLU	A	100	-27.996	15.437	5.114	1.00	31.06	C
ATOM	796	CG	GLU	A	100	-27.822	14.071	5.752	1.00	31.26	C
ATOM	797	CD	GLU	A	100	-27.386	13.019	4.740	1.00	31.37	C
ATOM	798	OE1	GLU	A	100	-27.580	13.232	3.513	1.00	30.92	O
ATOM	799	OE2	GLU	A	100	-26.832	11.981	5.172	1.00	31.48	O
ATOM	800	C	GLU	A	100	-26.864	16.911	6.783	1.00	30.66	C
ATOM	801	O	GLU	A	100	-26.543	16.314	7.810	1.00	31.05	O
ATOM	802	N	ILE	A	101	-26.105	17.854	6.226	1.00	30.07	N
ATOM	803	CA	ILE	A	101	-24.821	18.250	6.801	1.00	30.43	C
ATOM	804	CB	ILE	A	101	-24.113	19.345	5.946	1.00	30.14	C
ATOM	805	CG1	ILE	A	101	-23.517	18.717	4.695	1.00	28.93	C
ATOM	806	CD1	ILE	A	101	-23.046	19.731	3.716	1.00	28.89	C
ATOM	807	CG2	ILE	A	101	-23.014	20.088	6.755	1.00	30.24	C

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ATOM    808  C   ILE A 101     -24.959  18.703   8.262  1.00 30.76           C
ATOM    809  O   ILE A 101      24.064  18.453   9.102  1.00 30.10           O
ATOM    810  N   SER A 102     -26.090  19.342   8.556  1.00 30.86           N
ATOM    811  CA  SER A 102     -26.314  19.955   9.863  1.00 30.64           C
ATOM    812  CB  SER A 102     -27.306  21.107   9.737  1.00 31.01           C
ATOM    813  OG  SER A 102     -27.006  21.885   8.585  1.00 31.57           O
ATOM    814  C   SER A 102     -26.823  18.983  10.897  1.00 30.44           C
ATOM    815  O   SER A 102     -26.952  19.344  12.059  1.00 31.04           O
ATOM    816  N   LEU A 103     -27.141  17.763  10.478  1.00 30.46           N
ATOM    817  CA  LEU A 103     -27.640  16.742  11.397  1.00 30.53           C
ATOM    818  CB  LEU A 103     -28.808  15.956  10.776  1.00 30.83           C
ATOM    819  CG  LEU A 103     -30.097  16.677  10.347  1.00 31.08           C
ATOM    820  CD1 LEU A 103     -31.196  15.669  10.236  1.00 32.22           C
ATOM    821  CD2 LEU A 103     -30.530  17.729  11.322  1.00 31.01           C
ATOM    822  C   LEU A 103     -26.521  15.793  11.831  1.00 30.46           C
ATOM    823  O   LEU A 103     -26.519  15.295  12.956  1.00 30.43           O
ATOM    824  N   LEU A 104     -25.561  15.582  10.936  1.00 30.41           N
ATOM    825  CA  LEU A 104     -24.452  14.644  11.147  1.00 30.04           C
ATOM    826  CB  LEU A 104     -23.484  14.653   9.937  1.00 29.99           C
ATOM    827  CG  LEU A 104     -23.906  14.265   8.517  1.00 29.19           C
ATOM    828  CD1 LEU A 104     -22.757  14.557   7.603  1.00 28.91           C
ATOM    829  CD2 LEU A 104     -24.287  12.813   8.395  1.00 29.73           C
ATOM    830  C   LEU A 104     -23.660  14.894  12.442  1.00 29.82           C
ATOM    831  O   LEU A 104     -23.561  16.038  12.896  1.00 29.74           O
ATOM    832  N   PRO A 105     -23.093  13.814  13.029  1.00 30.26           N
ATOM    833  CA  PRO A 105     -22.220  13.907  14.208  1.00 29.77           C
ATOM    834  CB  PRO A 105     -21.955  12.449  14.574  1.00 29.59           C
ATOM    835  CG  PRO A 105     -22.920  11.640  13.772  1.00 29.75           C
ATOM    836  CD  PRO A 105     -23.234  12.418  12.566  1.00 29.71           C
ATOM    837  C   PRO A 105     -20.920  14.560  13.805  1.00 30.06           C
ATOM    838  O   PRO A 105     -20.608  14.592  12.613  1.00 29.99           O
ATOM    839  N   LYS A 106     -20.165  15.085  14.763  1.00 30.15           N
ATOM    840  CA  LYS A 106     -18.919  15.780  14.413  1.00 30.41           C
ATOM    841  CB  LYS A 106     -19.050  17.284  14.669  1.00 30.69           C
ATOM    842  CG  LYS A 106     -19.936  18.000  13.647  1.00 30.36           C
ATOM    843  CD  LYS A 106     -20.910  18.968  14.290  1.00 30.44           C
ATOM    844  CE  LYS A 106     -20.170  20.126  14.962  1.00 31.76           C
ATOM    845  NZ  LYS A 106     -19.034  20.618  14.113  1.00 31.91           N
ATOM    846  C   LYS A 106     -17.744  15.192  15.160  1.00 30.63           C
ATOM    847  O   LYS A 106     -17.875  14.830  16.315  1.00 31.26           O
ATOM    848  N   THR A 107     -16.604  15.088  14.499  1.00 30.79           N
ATOM    849  CA  THR A 107     -15.389  14.542  15.122  1.00 31.48           C
ATOM    850  CB  THR A 107     -14.355  14.168  14.038  1.00 31.47           C
ATOM    851  OG1 THR A 107     -14.158  15.288  13.162  1.00 31.47           O
ATOM    852  CG2 THR A 107     -14.823  12.950  13.231  1.00 30.56           C
ATOM    853  C   THR A 107     -14.694  15.477  16.146  1.00 32.18           C
ATOM    854  O   THR A 107     -15.115  16.624  16.369  1.00 32.19           O
ATOM    855  N   SER A 108     -13.620  14.974  16.756  1.00 32.73           N
ATOM    856  CA  SER A 108     -12.790  15.749  17.683  1.00 33.39           C
ATOM    857  CB  SER A 108     -11.643  14.877  18.199  1.00 33.55           C
ATOM    858  OG  SER A 108     -10.707  14.590  17.174  1.00 33.12           O
ATOM    859  C   SER A 108     -12.252  17.056  17.050  1.00 33.81           C
ATOM    860  O   SER A 108     -11.904  18.015  17.763  1.00 34.15           O
ATOM    861  N   TRP A 109     -12.194  17.086  15.713  1.00 33.30           N
ATOM    862  CA  TRP A 109     -11.861  18.304  14.950  1.00 33.73           C
ATOM    863  CB  TRP A 109     -11.137  17.946  13.617  1.00 33.74           C
ATOM    864  CG  TRP A 109      -9.698  17.386  13.745  1.00 34.68           C
ATOM    865  CD1 TRP A 109      -9.329  16.202  14.327  1.00 35.13           C
ATOM    866  NE1 TRP A 109      -7.962  16.041  14.254  1.00 35.89           N
ATOM    867  CE2 TRP A 109      -7.411  17.115  13.604  1.00 36.37           C
ATOM    868  CD2 TRP A 109      -8.470  17.986  13.258  1.00 35.88           C
ATOM    869  CE3 TRP A 109      -8.164  19.179  12.572  1.00 36.59           C
ATOM    870  CZ3 TRP A 109      -6.807  19.460  12.256  1.00 36.16           C
ATOM    871  CH2 TRP A 109      -5.784  18.561  12.608  1.00 36.20           C
ATOM    872  CZ2 TRP A 109      -6.063  17.388  13.275  1.00 37.18           C
ATOM    873  C   TRP A 109     -13.127  19.158  14.672  1.00 32.96           C
ATOM    874  O   TRP A 109     -13.127  20.028  13.795  1.00 32.61           O
ATOM    875  N   ASN A 110     -14.204  18.922  15.420  1.00 32.68           N
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ATOM	876	CA	ASN A 110	-15.515	19.496	15.064	1.00	32.37	C
ATOM	877	CB	ASN A 110	-15.686	20.909	15.632	1.00	32.27	C
ATOM	878	CG	ASN A 110	-16.358	20.907	16.982	1.00	33.01	C
ATOM	879	OD1	ASN A 110	-17.530	21.286	17.105	1.00	33.16	O
ATOM	880	ND2	ASN A 110	-15.630	20.474	18.010	1.00	32.92	N
ATOM	881	C	ASN A 110	-15.774	19.451	13.543	1.00	31.69	C
ATOM	882	O	ASN A 110	-16.293	20.399	12.946	1.00	31.41	O
ATOM	883	N	ILE A 111	-15.398	18.330	12.941	1.00	31.10	N
ATOM	884	CA	ILE A 111	-15.664	18.085	11.536	1.00	31.05	C
ATOM	885	CB	ILE A 111	-14.360	17.715	10.748	1.00	31.52	C
ATOM	886	CG1	ILE A 111	-13.637	19.004	10.390	1.00	32.00	C
ATOM	887	CD1	ILE A 111	-14.607	20.182	9.955	1.00	31.43	C
ATOM	888	CG2	ILE A 111	-14.649	16.943	9.461	1.00	30.48	C
ATOM	889	C	ILE A 111	-16.774	17.064	11.371	1.00	30.33	C
ATOM	890	O	ILE A 111	-16.672	15.955	11.900	1.00	30.20	O
ATOM	891	N	PRO A 112	-17.836	17.442	10.636	1.00	29.92	N
ATOM	892	CA	PRO A 112	-19.038	16.635	10.522	1.00	29.40	C
ATOM	893	CB	PRO A 112	-20.085	17.620	9.975	1.00	29.51	C
ATOM	894	CG	PRO A 112	-19.408	18.983	9.959	1.00	29.26	C
ATOM	895	CD	PRO A 112	-17.955	18.677	9.849	1.00	29.86	C
ATOM	896	C	PRO A 112	-18.846	15.490	9.555	1.00	29.51	C
ATOM	897	O	PRO A 112	-18.327	15.664	8.442	1.00	29.16	O
ATOM	898	N	GLN A 113	-19.246	14.310	10.007	1.00	29.59	N
ATOM	899	CA	GLN A 113	-19.243	13.122	9.179	1.00	28.95	C
ATOM	900	CB	GLN A 113	-17.822	12.567	9.033	1.00	28.62	C
ATOM	901	CG	GLN A 113	-17.089	12.248	10.316	1.00	28.46	C
ATOM	902	CD	GLN A 113	-15.817	11.511	10.032	1.00	27.97	C
ATOM	903	OE1	GLN A 113	-14.922	12.057	9.417	1.00	28.21	O
ATOM	904	NE2	GLN A 113	-15.737	10.259	10.446	1.00	27.90	N
ATOM	905	C	GLN A 113	-20.205	12.087	9.753	1.00	29.13	C
ATOM	906	O	GLN A 113	-20.478	12.104	10.962	1.00	29.48	O
ATOM	907	N	PRO A 114	-20.734	11.197	8.894	1.00	28.80	N
ATOM	908	CA	PRO A 114	-21.564	10.082	9.365	1.00	29.35	C
ATOM	909	CB	PRO A 114	-21.845	9.286	8.087	1.00	29.56	C
ATOM	910	CG	PRO A 114	-21.554	10.228	6.962	1.00	29.23	C
ATOM	911	CD	PRO A 114	-20.499	11.138	7.440	1.00	28.77	C
ATOM	912	C	PRO A 114	-20.790	9.204	10.353	1.00	29.50	C
ATOM	913	O	PRO A 114	-19.625	8.908	10.113	1.00	29.92	O
ATOM	914	N	GLY A 115	-21.412	8.804	11.455	1.00	29.53	N
ATOM	915	CA	GLY A 115	-20.728	7.994	12.460	1.00	30.12	C
ATOM	916	C	GLY A 115	-20.554	6.524	12.101	1.00	31.09	C
ATOM	917	O	GLY A 115	-20.391	6.175	10.926	1.00	30.82	O
ATOM	918	N	GLU A 116	-20.602	5.673	13.135	1.00	32.09	N
ATOM	919	CA	GLU A 116	-20.462	4.201	13.030	1.00	32.70	C
ATOM	920	CB	GLU A 116	-20.038	3.618	14.381	1.00	33.04	C
ATOM	921	CG	GLU A 116	-18.544	3.770	14.639	1.00	34.43	C
ATOM	922	CD	GLU A 116	-17.998	2.681	15.556	1.00	37.15	C
ATOM	923	OE1	GLU A 116	-18.722	2.277	16.511	1.00	37.10	O
ATOM	924	OE2	GLU A 116	-16.841	2.238	15.314	1.00	37.83	O
ATOM	925	C	GLU A 116	-21.675	3.412	12.488	1.00	31.66	C
ATOM	926	O	GLU A 116	-21.570	2.703	11.483	1.00	31.30	O
ATOM	927	N	GLY A 117	-22.818	3.518	13.152	1.00	31.77	N
ATOM	928	CA	GLY A 117	-23.979	2.745	12.740	1.00	31.43	C
ATOM	929	C	GLY A 117	-24.398	3.049	11.313	1.00	31.11	C
ATOM	930	O	GLY A 117	-25.055	2.231	10.670	1.00	30.79	O
ATOM	931	N	ASP A 118	-24.002	4.227	10.828	1.00	31.23	N
ATOM	932	CA	ASP A 118	-24.516	4.790	9.586	1.00	30.78	C
ATOM	933	CB	ASP A 118	-24.178	6.292	9.503	1.00	30.15	C
ATOM	934	CG	ASP A 118	-25.278	7.121	8.811	1.00	30.83	C
ATOM	935	OD1	ASP A 118	-25.948	6.604	7.875	1.00	31.10	O
ATOM	936	OD2	ASP A 118	-25.477	8.300	9.208	1.00	30.71	O
ATOM	937	C	ASP A 118	-23.933	4.020	8.404	1.00	30.65	C
ATOM	938	O	ASP A 118	-22.718	4.071	8.171	1.00	30.63	O
ATOM	939	N	VAL A 119	-24.779	3.278	7.687	1.00	29.89	N
ATOM	940	CA	VAL A 119	-24.312	2.556	6.505	1.00	29.90	C
ATOM	941	CB	VAL A 119	-25.080	1.212	6.248	1.00	30.36	C
ATOM	942	CG1	VAL A 119	-24.648	0.588	4.920	1.00	29.83	C
ATOM	943	CG2	VAL A 119	-24.869	0.212	7.395	1.00	30.23	C

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ATOM	944	C	VAL A 119	-24.437	3.503	5.310	1.00	30.49	C
ATOM	945	O	VAL A 119	-25.548	3.960	4.970	1.00	30.91	O
ATOM	946	N	ARG A 120	-23.304	3.808	4.679	1.00	29.89	N
ATOM	947	CA	ARG A 120	-23.272	4.853	3.662	1.00	28.82	C
ATOM	948	CB	ARG A 120	-22.212	5.897	4.018	1.00	28.55	C
ATOM	949	CG	ARG A 120	-22.624	6.875	5.093	1.00	29.36	C
ATOM	950	CD	ARG A 120	-23.736	7.777	4.609	1.00	28.90	C
ATOM	951	NE	ARG A 120	-24.387	8.519	5.688	1.00	29.18	N
ATOM	952	CZ	ARG A 120	-25.098	9.629	5.484	1.00	30.02	C
ATOM	953	NH1	ARG A 120	-25.229	10.121	4.256	1.00	29.97	N
ATOM	954	NH2	ARG A 120	-25.667	10.271	6.494	1.00	30.53	N
ATOM	955	C	ARG A 120	-22.948	4.298	2.306	1.00	28.86	C
ATOM	956	O	ARG A 120	-22.169	3.347	2.185	1.00	28.75	O
ATOM	957	N	GLU A 121	-23.510	4.916	1.272	1.00	29.08	N
ATOM	958	CA	GLU A 121	-22.996	4.677	-0.069	1.00	28.24	C
ATOM	959	CB	GLU A 121	-23.867	5.311	-1.140	1.00	28.06	C
ATOM	960	CG	GLU A 121	-23.833	4.470	-2.408	1.00	28.46	C
ATOM	961	CD	GLU A 121	-24.173	5.250	-3.635	1.00	28.91	C
ATOM	962	OE1	GLU A 121	-25.351	5.683	-3.742	1.00	29.31	O
ATOM	963	OE2	GLU A 121	-23.259	5.423	-4.481	1.00	28.19	O
ATOM	964	C	GLU A 121	-21.584	5.217	0.164	1.00	27.82	C
ATOM	965	O	GLU A 121	-21.366	6.417	-0.011	1.00	27.95	O
ATOM	966	N	GLU A 122	-20.627	4.322	-0.371	1.00	27.87	N
ATOM	967	CA	GLU A 122	-19.216	4.711	-0.502	1.00	27.75	C
ATOM	968	CB	GLU A 122	-18.289	3.702	0.174	1.00	27.92	C
ATOM	969	CG	GLU A 122	-18.632	3.482	1.637	1.00	28.52	C
ATOM	970	CD	GLU A 122	-17.731	2.476	2.323	1.00	28.72	C
ATOM	971	OE1	GLU A 122	-17.246	1.562	1.618	1.00	29.52	O
ATOM	972	OE2	GLU A 122	-17.521	2.601	3.561	1.00	28.27	O
ATOM	973	C	GLU A 122	-18.851	4.853	-1.959	1.00	27.80	C
ATOM	974	O	GLU A 122	-19.130	3.960	-2.769	1.00	27.81	O
ATOM	975	N	ALA A 123	-18.223	5.984	-2.284	1.00	27.79	N
ATOM	976	CA	ALA A 123	-17.965	6.381	-3.670	1.00	27.28	C
ATOM	977	CB	ALA A 123	-17.083	7.608	-3.714	1.00	27.18	C
ATOM	978	C	ALA A 123	-17.383	5.270	-4.544	1.00	27.81	C
ATOM	979	O	ALA A 123	-17.864	5.069	-5.655	1.00	28.21	O
ATOM	980	N	LEU A 124	-16.383	4.539	-4.040	1.00	28.16	N
ATOM	981	CA	LEU A 124	-15.709	3.460	-4.812	1.00	28.19	C
ATOM	982	CB	LEU A 124	-14.317	3.204	-4.250	1.00	27.88	C
ATOM	983	CG	LEU A 124	-13.400	4.391	4.467	1.00	28.28	C
ATOM	984	CD1	LEU A 124	-12.196	4.162	-3.572	1.00	28.88	C
ATOM	985	CD2	LEU A 124	-13.019	4.572	-5.945	1.00	28.52	C
ATOM	986	C	LEU A 124	-16.459	2.131	-4.919	1.00	28.24	C
ATOM	987	O	LEU A 124	-15.996	1.201	-5.623	1.00	28.08	O
ATOM	988	N	SER A 125	-17.582	2.047	-4.199	1.00	28.00	N
ATOM	989	CA	SER A 125	-18.530	0.938	-4.332	1.00	28.18	C
ATOM	990	CB	SER A 125	-19.344	0.732	-3.037	1.00	28.10	C
ATOM	991	OG	SER A 125	-20.420	1.666	-2.908	1.00	27.63	O
ATOM	992	C	SER A 125	-19.475	1.161	-5.524	1.00	27.65	C
ATOM	993	O	SER A 125	-20.137	0.230	-5.989	1.00	27.61	O
ATOM	994	N	THR A 126	-19.535	2.393	-6.023	1.00	27.81	N
ATOM	995	CA	THR A 126	-20.503	2.727	-7.058	1.00	27.43	C
ATOM	996	CB	THR A 126	-21.695	3.520	-6.484	1.00	27.73	C
ATOM	997	OG1	THR A 126	-21.220	4.554	-5.603	1.00	27.99	O
ATOM	998	CG2	THR A 126	-22.660	2.583	-5.729	1.00	27.89	C
ATOM	999	C	THR A 126	-19.944	3.443	-8.281	1.00	27.63	C
ATOM	1000	O	THR A 126	-20.704	4.099	-8.993	1.00	27.93	O
ATOM	1001	N	GLY A 127	-18.639	3.309	-8.540	1.00	27.85	N
ATOM	1002	CA	GLY A 127	-18.005	3.933	-9.727	1.00	27.64	C
ATOM	1003	C	GLY A 127	-16.867	4.941	-9.509	1.00	27.83	C
ATOM	1004	O	GLY A 127	-16.369	5.548	-10.473	1.00	27.92	O
ATOM	1005	N	GLY A 128	-16.451	5.130	-8.254	1.00	27.90	N
ATOM	1006	CA	GLY A 128	-15.439	6.131	-7.910	1.00	27.37	C
ATOM	1007	C	GLY A 128	-15.885	7.554	-8.167	1.00	26.90	C
ATOM	1008	O	GLY A 128	-17.085	7.851	-8.170	1.00	26.86	O
ATOM	1009	N	LEU A 129	-14.918	8.426	-8.432	1.00	27.12	N
ATOM	1010	CA	LEU A 129	-15.164	9.854	-8.510	1.00	26.85	C
ATOM	1011	CB	LEU A 129	-14.552	10.520	-7.299	1.00	26.57	C

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ATOM	1012	CG	LEU	A	129	-15.291	10.133	-6.018	1.00	26.49	C
ATOM	1013	CD1	LEU	A	129	-14.346	10.143	-4.833	1.00	26.53	C
ATOM	1014	CD2	LEU	A	129	-16.473	11.083	-5.796	1.00	26.69	C
ATOM	1015	C	LEU	A	129	-14.635	10.508	-9.788	1.00	27.38	C
ATOM	1016	O	LEU	A	129	-13.525	10.200	-10.278	1.00	27.68	O
ATOM	1017	N	ASP	A	130	-15.456	11.412	-10.326	1.00	27.22	N
ATOM	1018	CA	ASP	A	130	-15.064	12.268	-11.435	1.00	27.33	C
ATOM	1019	CB	ASP	A	130	-16.307	12.844	-12.132	1.00	27.18	C
ATOM	1020	CG	ASP	A	130	-17.049	11.788	-12.968	1.00	27.27	C
ATOM	1021	OD1	ASP	A	130	-16.380	11.090	-13.760	1.00	27.46	O
ATOM	1022	OD2	ASP	A	130	-18.293	11.648	-12.827	1.00	27.15	O
ATOM	1023	C	ASP	A	130	-14.092	13.366	-10.959	1.00	27.51	C
ATOM	1024	O	ASP	A	130	-13.021	13.579	-11.577	1.00	27.53	O
ATOM	1025	N	LEU	A	131	-14.438	14.009	-9.834	1.00	27.14	N
ATOM	1026	CA	LEU	A	131	-13.650	15.123	-9.283	1.00	26.88	C
ATOM	1027	CB	LEU	A	131	-14.156	16.449	-9.860	1.00	26.70	C
ATOM	1028	CG	LEU	A	131	-13.737	17.705	-9.096	1.00	26.61	C
ATOM	1029	CD1	LEU	A	131	-12.455	18.277	-9.643	1.00	27.04	C
ATOM	1030	CD2	LEU	A	131	-14.823	18.726	-9.194	1.00	26.99	C
ATOM	1031	C	LEU	A	131	-13.583	15.193	-7.732	1.00	26.61	C
ATOM	1032	O	LEU	A	131	-14.606	15.186	-7.029	1.00	26.34	O
ATOM	1033	N	ILE	A	132	-12.371	15.295	-7.207	1.00	26.84	N
ATOM	1034	CA	ILE	A	132	-12.174	15.461	-5.780	1.00	26.38	C
ATOM	1035	CB	ILE	A	132	-11.130	14.454	-5.311	1.00	26.55	C
ATOM	1036	CG1	ILE	A	132	-11.532	13.052	-5.789	1.00	26.01	C
ATOM	1037	CD1	ILE	A	132	-10.432	12.039	-5.806	1.00	26.14	C
ATOM	1038	CG2	ILE	A	132	-10.924	14.535	-3.778	1.00	26.77	C
ATOM	1039	C	ILE	A	132	-11.731	16.907	-5.490	1.00	26.41	C
ATOM	1040	O	ILE	A	132	-10.790	17.410	-6.114	1.00	26.83	O
ATOM	1041	N	PHE	A	133	-12.425	17.610	-4.598	1.00	26.15	N
ATOM	1042	CA	PHE	A	133	-11.921	18.922	-4.191	1.00	26.40	C
ATOM	1043	CB	PHE	A	133	-13.007	19.860	-3.724	1.00	26.17	C
ATOM	1044	CG	PHE	A	133	-13.783	20.468	-4.825	1.00	26.08	C
ATOM	1045	CD1	PHE	A	133	-13.336	21.607	-5.449	1.00	26.22	C
ATOM	1046	CE1	PHE	A	133	-14.057	22.179	-6.463	1.00	26.32	C
ATOM	1047	CZ	PHE	A	133	-15.254	21.625	-6.862	1.00	26.06	C
ATOM	1048	CE2	PHE	A	133	-15.725	20.496	-6.248	1.00	25.94	C
ATOM	1049	CD2	PHE	A	133	-14.985	19.916	-5.226	1.00	26.24	C
ATOM	1050	C	PHE	A	133	-11.006	18.641	-3.049	1.00	26.96	C
ATOM	1051	O	PHE	A	133	-11.364	17.937	-2.080	1.00	26.99	O
ATOM	1052	N	MET	A	134	-9.811	19.185	-3.154	1.00	27.26	N
ATOM	1053	CA	MET	A	134	-8.771	18.802	-2.228	1.00	27.43	C
ATOM	1054	CB	MET	A	134	-7.534	18.437	-3.018	1.00	27.86	C
ATOM	1055	CG	MET	A	134	-7.739	17.292	-3.983	1.00	27.30	C
ATOM	1056	SD	MET	A	134	-7.177	15.734	-3.277	1.00	28.01	S
ATOM	1057	CE	MET	A	134	-5.533	16.209	-2.723	1.00	28.03	C
ATOM	1058	C	MET	A	134	-8.466	19.901	-1.210	1.00	27.97	C
ATOM	1059	O	MET	A	134	-8.270	21.066	-1.589	1.00	27.94	O
ATOM	1060	N	PRO	A	135	-8.443	19.537	0.089	1.00	28.19	N
ATOM	1061	CA	PRO	A	135	-8.015	20.444	1.140	1.00	28.68	C
ATOM	1062	CB	PRO	A	135	-8.625	19.826	2.390	1.00	28.21	C
ATOM	1063	CG	PRO	A	135	-8.610	18.406	2.126	1.00	28.04	C
ATOM	1064	CD	PRO	A	135	-8.805	18.224	0.644	1.00	28.05	C
ATOM	1065	C	PRO	A	135	-6.495	20.401	1.223	1.00	29.60	C
ATOM	1066	O	PRO	A	135	-5.855	19.673	0.442	1.00	29.45	O
ATOM	1067	N	GLY	A	136	-5.932	21.174	2.150	1.00	29.83	N
ATOM	1068	CA	GLY	A	136	-4.506	21.152	2.408	1.00	30.22	C
ATOM	1069	C	GLY	A	136	-4.086	22.429	3.081	1.00	31.27	C
ATOM	1070	O	GLY	A	136	-4.705	23.493	2.897	1.00	31.36	O
ATOM	1071	N	LEU	A	137	-3.026	22.318	3.868	1.00	31.83	N
ATOM	1072	CA	LEU	A	137	-2.425	23.462	4.515	1.00	31.87	C
ATOM	1073	CB	LEU	A	137	-1.429	23.017	5.591	1.00	32.17	C
ATOM	1074	CG	LEU	A	137	-1.993	22.586	6.932	1.00	32.14	C
ATOM	1075	CD1	LEU	A	137	-0.856	22.406	7.890	1.00	33.30	C
ATOM	1076	CD2	LEU	A	137	-2.999	23.605	7.491	1.00	32.85	C
ATOM	1077	C	LEU	A	137	-1.737	24.370	3.503	1.00	31.92	C
ATOM	1078	O	LEU	A	137	-1.842	25.587	3.620	1.00	32.21	O
ATOM	1079	N	GLY	A	138	-1.027	23.797	2.529	1.00	31.88	N

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ATOM	1080	CA	GLY	A	138	-0.395	24.617	1.490	1.00	32.02	C
ATOM	1081	C	GLY	A	138	-0.196	23.941	0.152	1.00	32.07	C
ATOM	1082	O	GLY	A	138	-0.193	22.732	0.047	1.00	32.10	O
ATOM	1083	N	PHE	A	139	-0.037	24.734	-0.891	1.00	32.65	N
ATOM	1084	CA	PHE	A	139	0.254	24.199	-2.214	1.00	32.23	C
ATOM	1085	CB	PHE	A	139	-1.008	24.124	-3.060	1.00	31.67	C
ATOM	1086	CG	PHE	A	139	-2.175	23.497	-2.366	1.00	31.61	C
ATOM	1087	CD1	PHE	A	139	-2.477	22.157	-2.567	1.00	31.31	C
ATOM	1088	CE1	PHE	A	139	-3.564	21.565	-1.931	1.00	30.63	C
ATOM	1089	CZ	PHE	A	139	-4.354	22.309	-1.079	1.00	30.51	C
ATOM	1090	CE2	PHE	A	139	-4.069	23.659	-0.871	1.00	30.79	C
ATOM	1091	CD2	PHE	A	139	-2.987	24.249	-1.515	1.00	31.24	C
ATOM	1092	C	PHE	A	139	1.191	25.176	-2.876	1.00	33.04	C
ATOM	1093	O	PHE	A	139	1.112	26.376	-2.608	1.00	33.56	O
ATOM	1094	N	ASP	A	140	2.078	24.682	-3.736	1.00	33.22	N
ATOM	1095	CA	ASP	A	140	2.838	25.567	-4.609	1.00	33.38	C
ATOM	1096	CB	ASP	A	140	4.339	25.218	-4.573	1.00	33.74	C
ATOM	1097	CG	ASP	A	140	4.616	23.767	-4.938	1.00	33.81	C
ATOM	1098	OD1	ASP	A	140	3.734	23.140	-5.575	1.00	33.68	O
ATOM	1099	OD2	ASP	A	140	5.703	23.244	-4.587	1.00	33.92	O
ATOM	1100	C	ASP	A	140	2.250	25.529	-6.035	1.00	33.27	C
ATOM	1101	O	ASP	A	140	1.430	24.669	-6.362	1.00	32.94	O
ATOM	1102	N	LYS	A	141	2.661	26.470	-6.879	1.00	33.62	N
ATOM	1103	CA	LYS	A	141	2.206	26.507	-8.268	1.00	33.37	C
ATOM	1104	CB	LYS	A	141	2.602	27.852	-8.898	1.00	33.42	C
ATOM	1105	CG	LYS	A	141	1.942	29.074	-8.226	1.00	33.50	C
ATOM	1106	CD	LYS	A	141	2.418	30.417	-8.798	1.00	33.27	C
ATOM	1107	CE	LYS	A	141	1.806	31.583	-8.029	1.00	33.54	C
ATOM	1108	NZ	LYS	A	141	2.359	32.908	-8.438	1.00	33.78	N
ATOM	1109	C	LYS	A	141	2.700	25.302	-9.111	1.00	33.15	C
ATOM	1110	O	LYS	A	141	2.104	24.972	-10.127	1.00	32.02	O
ATOM	1111	N	HIS	A	142	3.803	24.675	-8.674	1.00	34.15	N
ATOM	1112	CA	HIS	A	142	4.370	23.444	-9.277	1.00	33.84	C
ATOM	1113	CB	HIS	A	142	5.831	23.120	-8.763	1.00	34.13	C
ATOM	1114	CG	HIS	A	142	6.899	24.177	-9.025	1.00	35.19	C
ATOM	1115	ND1	HIS	A	142	7.341	25.065	-8.051	1.00	35.89	N
ATOM	1116	CE1	HIS	A	142	8.298	25.840	-8.538	1.00	34.83	C
ATOM	1117	NE2	HIS	A	142	8.540	25.454	-9.778	1.00	35.34	N
ATOM	1118	CD2	HIS	A	142	7.694	24.406	-10.103	1.00	35.11	C
ATOM	1119	C	HIS	A	142	3.381	22.224	-9.029	1.00	33.50	C
ATOM	1120	O	HIS	A	142	3.553	21.142	-9.605	1.00	33.02	O
ATOM	1121	N	GLY	A	143	2.356	22.410	-8.180	1.00	33.28	N
ATOM	1122	CA	GLY	A	143	1.246	21.429	-8.003	1.00	32.60	C
ATOM	1123	C	GLY	A	143	1.192	20.595	-6.712	1.00	32.63	C
ATOM	1124	O	GLY	A	143	0.201	19.913	-6.444	1.00	32.09	O
ATOM	1125	N	ASN	A	144	2.256	20.649	-5.914	1.00	32.90	N
ATOM	1126	CA	ASN	A	144	2.395	19.831	-4.700	1.00	32.69	C
ATOM	1127	CB	ASN	A	144	3.828	19.908	-4.174	1.00	33.07	C
ATOM	1128	CG	ASN	A	144	4.803	19.143	-5.028	1.00	33.16	C
ATOM	1129	OD1	ASN	A	144	5.556	19.743	-5.790	1.00	32.99	O
ATOM	1130	ND2	ASN	A	144	4.794	17.803	-4.914	1.00	32.99	N
ATOM	1131	C	ASN	A	144	1.454	20.227	-3.573	1.00	33.26	C
ATOM	1132	O	ASN	A	144	0.929	21.348	-3.553	1.00	33.32	O
ATOM	1133	N	ARG	A	145	1.256	19.307	-2.627	1.00	33.09	N
ATOM	1134	CA	ARG	A	145	0.346	19.537	-1.504	1.00	32.51	C
ATOM	1135	CB	ARG	A	145	-0.856	18.574	-1.556	1.00	32.01	C
ATOM	1136	CG	ARG	A	145	-2.068	19.010	-0.712	1.00	31.67	C
ATOM	1137	CD	ARG	A	145	-3.274	18.080	-0.870	1.00	30.75	C
ATOM	1138	NE	ARG	A	145	-3.164	16.973	0.070	1.00	31.50	N
ATOM	1139	CZ	ARG	A	145	-3.878	16.855	1.184	1.00	30.72	C
ATOM	1140	NH1	ARG	A	145	-4.785	17.763	1.482	1.00	30.04	N
ATOM	1141	NH2	ARG	A	145	-3.686	15.828	1.997	1.00	30.81	N
ATOM	1142	C	ARG	A	145	1.061	19.425	-0.163	1.00	32.50	C
ATOM	1143	O	ARG	A	145	1.906	18.558	0.041	1.00	32.76	O
ATOM	1144	N	LEU	A	146	0.729	20.337	0.735	1.00	32.62	N
ATOM	1145	CA	LEU	A	146	1.036	20.161	2.133	1.00	32.80	C
ATOM	1146	CB	LEU	A	146	1.583	21.448	2.747	1.00	32.89	C
ATOM	1147	CG	LEU	A	146	2.168	21.384	4.161	1.00	33.02	C

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ATOM	1148	CD1	LEU	A	146	2.792	20.025	4.490	1.00	33.39	C
ATOM	1149	CD2	LEU	A	146	3.191	22.493	4.299	1.00	33.46	C
ATOM	1150	C	LEU	A	146	-0.250	19.706	2.822	1.00	32.69	C
ATOM	1151	O	LEU	A	146	-1.150	20.504	3.097	1.00	32.17	O
ATOM	1152	N	GLY	A	147	-0.323	18.403	3.067	1.00	33.03	N
ATOM	1153	CA	GLY	A	147	-1.434	17.809	3.783	1.00	32.99	C
ATOM	1154	C	GLY	A	147	-1.290	18.030	5.271	1.00	33.29	C
ATOM	1155	O	GLY	A	147	-0.311	18.622	5.726	1.00	33.61	O
ATOM	1156	N	ARG	A	148	-2.263	17.535	6.037	1.00	34.20	N
ATOM	1157	CA	ARG	A	148	-2.283	17.778	7.493	1.00	34.25	C
ATOM	1158	CB	ARG	A	148	-3.692	17.694	8.066	1.00	33.38	C
ATOM	1159	CG	ARG	A	148	-4.592	18.769	7.541	1.00	33.29	C
ATOM	1160	CD	ARG	A	148	-5.750	19.005	8.455	1.00	33.40	C
ATOM	1161	NE	ARG	A	148	-6.620	20.055	7.938	1.00	32.91	N
ATOM	1162	CZ	ARG	A	148	-6.447	21.353	8.154	1.00	32.83	C
ATOM	1163	NH1	ARG	A	148	5.432	21.781	8.888	1.00	33.83	N
ATOM	1164	NH2	ARG	A	148	-7.295	22.228	7.638	1.00	32.91	N
ATOM	1165	C	ARG	A	148	-1.348	16.856	8.244	1.00	34.50	C
ATOM	1166	O	ARG	A	148	-1.255	16.940	9.471	1.00	34.71	O
ATOM	1167	N	GLY	A	149	-0.656	15.988	7.503	1.00	34.32	N
ATOM	1168	CA	GLY	A	149	0.374	15.147	8.080	1.00	34.09	C
ATOM	1169	C	GLY	A	149	-0.028	13.695	8.167	1.00	34.31	C
ATOM	1170	O	GLY	A	149	0.827	12.816	8.016	1.00	34.24	O
ATOM	1171	N	LYS	A	150	-1.323	13.440	8.385	1.00	33.89	N
ATOM	1172	CA	LYS	A	150	-1.822	12.079	8.636	1.00	33.40	C
ATOM	1173	CB	LYS	A	150	-3.171	12.104	9.377	1.00	33.50	C
ATOM	1174	CG	LYS	A	150	-3.516	13.402	10.182	1.00	34.60	C
ATOM	1175	CD	LYS	A	150	-3.010	13.379	11.632	1.00	34.68	C
ATOM	1176	CE	LYS	A	150	-3.250	14.717	12.333	1.00	35.35	C
ATOM	1177	NZ	LYS	A	150	-2.425	14.857	13.578	1.00	35.35	N
ATOM	1178	C	LYS	A	150	-1.893	11.138	7.404	1.00	33.05	C
ATOM	1179	O	LYS	A	150	-2.143	9.938	7.550	1.00	32.89	O
ATOM	1180	N	GLY	A	151	-1.675	11.671	6.202	1.00	32.86	N
ATOM	1181	CA	GLY	A	151	-1.585	10.856	4.983	1.00	32.11	C
ATOM	1182	C	GLY	A	151	-2.914	10.345	4.461	1.00	31.66	C
ATOM	1183	O	GLY	A	151	-2.976	9.309	3.801	1.00	31.71	O
ATOM	1184	N	TYR	A	152	-3.986	11.076	4.729	1.00	31.56	N
ATOM	1185	CA	TYR	A	152	-5.319	10.574	4.407	1.00	31.11	C
ATOM	1186	CB	TYR	A	152	-6.405	11.335	5.188	1.00	30.91	C
ATOM	1187	CG	TYR	A	152	-6.610	10.865	6.613	1.00	30.84	C
ATOM	1188	CD1	TYR	A	152	-6.211	11.647	7.693	1.00	31.41	C
ATOM	1189	CE1	TYR	A	152	-6.401	11.209	9.007	1.00	31.32	C
ATOM	1190	CZ	TYR	A	152	-6.998	9.988	9.227	1.00	31.05	C
ATOM	1191	OH	TYR	A	152	-7.192	9.529	10.502	1.00	31.60	O
ATOM	1192	CE2	TYR	A	152	-7.412	9.209	8.177	1.00	30.75	C
ATOM	1193	CD2	TYR	A	152	-7.215	9.641	6.879	1.00	30.65	C
ATOM	1194	C	TYR	A	152	-5.610	10.608	2.916	1.00	30.53	C
ATOM	1195	O	TYR	A	152	-6.106	9.615	2.360	1.00	30.31	O
ATOM	1196	N	TYR	A	153	-5.306	11.750	2.282	1.00	30.54	N
ATOM	1197	CA	TYR	A	153	-5.713	11.999	0.891	1.00	29.70	C
ATOM	1198	CB	TYR	A	153	-5.802	13.485	0.568	1.00	28.94	C
ATOM	1199	CG	TYR	A	153	-7.213	14.018	0.686	1.00	28.73	C
ATOM	1200	CD1	TYR	A	153	-7.649	14.652	1.853	1.00	28.73	C
ATOM	1201	CE1	TYR	A	153	-8.953	15.132	1.977	1.00	27.60	C
ATOM	1202	CZ	TYR	A	153	-9.826	14.990	0.926	1.00	27.27	C
ATOM	1203	OH	TYR	A	153	-11.099	15.476	1.045	1.00	26.46	O
ATOM	1204	CE2	TYR	A	153	-9.423	14.372	-0.250	1.00	27.55	C
ATOM	1205	CD2	TYR	A	153	-8.124	13.876	-0.358	1.00	28.16	C
ATOM	1206	C	TYR	A	153	-4.847	11.265	-0.103	1.00	30.36	C
ATOM	1207	O	TYR	A	153	-5.386	10.702	-1.058	1.00	30.58	O
ATOM	1208	N	ASP	A	154	-3.527	11.257	0.144	1.00	30.88	N
ATOM	1209	CA	ASP	A	154	-2.538	10.483	-0.643	1.00	30.65	C
ATOM	1210	CB	ASP	A	154	-1.129	10.525	-0.015	1.00	31.35	C
ATOM	1211	CG	ASP	A	154	-0.573	11.943	0.152	1.00	32.49	C
ATOM	1212	OD1	ASP	A	154	0.486	12.202	-0.455	1.00	33.12	O
ATOM	1213	OD2	ASP	A	154	-1.168	12.778	0.894	1.00	32.41	O
ATOM	1214	C	ASP	A	154	-2.940	9.019	-0.740	1.00	30.33	C
ATOM	1215	O	ASP	A	154	-2.838	8.392	-1.807	1.00	30.40	O

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ATOM	1216	N	ALA	A	155	-3.379	8.477	0.390	1.00	30.36	N
ATOM	1217	CA	ALA	A	155	-3.672	7.058	0.465	1.00	30.49	C
ATOM	1218	CB	ALA	A	155	-3.816	6.599	1.912	1.00	30.07	C
ATOM	1219	C	ALA	A	155	-4.929	6.797	-0.328	1.00	30.44	C
ATOM	1220	O	ALA	A	155	-4.959	5.871	-1.160	1.00	30.50	O
ATOM	1221	N	TYR	A	156	-5.946	7.637	-0.091	1.00	30.34	N
ATOM	1222	CA	TYR	A	156	-7.222	7.551	0.794	1.00	29.50	C
ATOM	1223	CB	TYR	A	156	-8.220	8.602	-0.282	1.00	29.00	C
ATOM	1224	CG	TYR	A	156	-9.573	8.406	-0.900	1.00	28.47	C
ATOM	1225	CD1	TYR	A	156	-10.431	7.422	-0.431	1.00	28.08	C
ATOM	1226	CE1	TYR	A	156	-11.656	7.196	-1.028	1.00	27.98	C
ATOM	1227	CZ	TYR	A	156	-12.027	7.957	-2.118	1.00	27.95	C
ATOM	1228	OH	TYR	A	156	-13.240	7.737	-2.722	1.00	27.66	O
ATOM	1229	CE2	TYR	A	156	-11.187	8.940	-2.606	1.00	28.00	C
ATOM	1230	CD2	TYR	A	156	-9.968	9.153	-2.000	1.00	28.65	C
ATOM	1231	C	TYR	A	156	-7.061	7.587	-2.332	1.00	29.81	C
ATOM	1232	O	TYR	A	156	-7.655	6.761	-3.024	1.00	29.79	O
ATOM	1233	N	LEU	A	157	-6.241	8.511	-2.857	1.00	29.90	N
ATOM	1234	CA	LEU	A	157	-6.042	8.654	-4.317	1.00	29.93	C
ATOM	1235	CB	LEU	A	157	-5.182	9.860	-4.654	1.00	29.86	C
ATOM	1236	CG	LEU	A	157	-5.490	11.171	-3.962	1.00	30.07	C
ATOM	1237	CD1	LEU	A	157	-4.454	12.183	-4.437	1.00	30.05	C
ATOM	1238	CD2	LEU	A	157	-6.936	11.642	-4.215	1.00	29.31	C
ATOM	1239	C	LEU	A	157	-5.391	7.454	-4.956	1.00	30.55	C
ATOM	1240	O	LEU	A	157	-5.661	7.136	-6.113	1.00	31.22	O
ATOM	1241	N	LYS	A	158	-4.497	6.817	4.214	1.00	30.36	N
ATOM	1242	CA	LYS	A	158	-3.949	5.540	-4.621	1.00	30.41	C
ATOM	1243	CB	LYS	A	158	-2.794	5.141	-3.697	1.00	31.22	C
ATOM	1244	CG	LYS	A	158	-1.606	6.102	-3.874	1.00	32.12	C
ATOM	1245	CD	LYS	A	158	-0.446	5.865	-2.926	1.00	32.79	C
ATOM	1246	CE	LYS	A	158	0.513	7.065	-3.021	1.00	33.77	C
ATOM	1247	NZ	LYS	A	158	1.664	6.953	-2.082	1.00	35.03	N
ATOM	1248	C	LYS	A	158	-5.057	4.488	-4.689	1.00	30.61	C
ATOM	1249	O	LYS	A	158	-5.091	3.668	-5.621	1.00	31.31	O
ATOM	1250	N	ARG	A	159	-5.997	4.536	-3.750	1.00	30.42	N
ATOM	1251	CA	ARG	A	159	-7.149	3.652	-3.841	1.00	30.41	C
ATOM	1252	CB	ARG	A	159	-8.020	3.725	-2.593	1.00	29.77	C
ATOM	1253	CG	ARG	A	159	-7.615	2.762	-1.489	1.00	29.76	C
ATOM	1254	CD	ARG	A	159	-8.554	2.905	-0.272	1.00	29.52	C
ATOM	1255	NE	ARG	A	159	-9.902	2.403	-0.530	1.00	28.76	N
ATOM	1256	CZ	ARG	A	159	-10.995	2.867	0.066	1.00	27.94	C
ATOM	1257	NH1	ARG	A	159	-10.902	3.854	0.959	1.00	28.28	N
ATOM	1258	NH2	ARG	A	159	-12.176	2.350	-0.238	1.00	26.90	N
ATOM	1259	C	ARG	A	159	-7.976	3.991	-5.058	1.00	30.65	C
ATOM	1260	O	ARG	A	159	-8.554	3.104	-5.694	1.00	30.86	O
ATOM	1261	N	CYS	A	160	-8.041	5.277	-5.378	1.00	30.68	N
ATOM	1262	CA	CYS	A	160	-8.795	5.733	-6.537	1.00	30.67	C
ATOM	1263	CB	CYS	A	160	-8.857	7.239	-6.553	1.00	30.63	C
ATOM	1264	SG	CYS	A	160	-10.344	7.820	-5.875	1.00	30.18	S
ATOM	1265	C	CYS	A	160	-8.216	5.230	-7.857	1.00	31.09	C
ATOM	1266	O	CYS	A	160	-8.910	4.558	-8.631	1.00	31.33	O
ATOM	1267	N	LEU	A	161	-6.953	5.558	-8.115	1.00	30.87	N
ATOM	1268	CA	LEU	A	161	-6.218	4.961	-9.230	1.00	31.24	C
ATOM	1269	CB	LEU	A	161	-4.721	5.085	-8.972	1.00	31.03	C
ATOM	1270	CG	LEU	A	161	-4.012	6.391	-9.330	1.00	30.77	C
ATOM	1271	CD1	LEU	A	161	-4.876	7.618	-9.148	1.00	30.42	C
ATOM	1272	CD2	LEU	A	161	-2.713	6.493	-8.517	1.00	31.12	C
ATOM	1273	C	LEU	A	161	-6.614	3.482	-9.472	1.00	31.98	C
ATOM	1274	O	LEU	A	161	-6.771	3.064	-10.617	1.00	32.54	O
ATOM	1275	N	GLN	A	162	-6.796	2.709	-8.396	1.00	31.83	N
ATOM	1276	CA	GLN	A	162	-7.258	1.315	-8.491	1.00	31.64	C
ATOM	1277	CB	GLN	A	162	-7.107	0.592	-7.155	1.00	32.28	C
ATOM	1278	CG	GLN	A	162	-5.790	-0.106	-6.937	1.00	32.03	C
ATOM	1279	CD	GLN	A	162	-5.951	-1.308	-6.027	1.00	31.90	C
ATOM	1280	OE1	GLN	A	162	-6.759	-1.292	-5.096	1.00	31.71	O
ATOM	1281	NE2	GLN	A	162	-5.203	-2.368	-6.305	1.00	31.69	N
ATOM	1282	C	GLN	A	162	-8.685	1.128	-9.030	1.00	32.00	C
ATOM	1283	O	GLN	A	162	-8.823	0.794	-10.192	1.00	33.49	O

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ATOM	1284	N	HIS	A	163	-9.734	1.310	-8.216	1.00 32.28	N
ATOM	1285	CA	HIS	A	163	-11.143	1.037	-8.657	1.00 32.25	C
ATOM	1286	CB	HIS	A	163	-12.199	1.335	-7.528	1.00 31.02	C
ATOM	1287	CG	HIS	A	163	-12.773	0.127	-6.806	1.00 30.51	C
ATOM	1288	ND1	HIS	A	163	-12.728	-0.005	-5.433	1.00 31.09	N
ATOM	1289	CE1	HIS	A	163	-13.347	-1.119	-5.059	1.00 30.03	C
ATOM	1290	NE2	HIS	A	163	-13.803	-1.723	-6.142	1.00 29.53	N
ATOM	1291	CD2	HIS	A	163	-13.477	-0.954	-7.246	1.00 31.56	C
ATOM	1292	C	HIS	A	163	-11.529	1.783	-9.977	1.00 32.36	C
ATOM	1293	O	HIS	A	163	-12.634	1.584	-10.486	1.00 33.10	O
ATOM	1294	N	GLN	A	164	-10.622	2.607	-10.531	1.00 32.16	N
ATOM	1295	CA	GLN	A	164	-10.930	3.569	-11.642	1.00 32.18	C
ATOM	1296	CB	GLN	A	164	-10.892	5.028	-11.135	1.00 31.55	C
ATOM	1297	CG	GLN	A	164	-12.080	5.477	-10.325	1.00 30.22	C
ATOM	1298	CD	GLN	A	164	-11.967	6.910	-9.834	1.00 29.54	C
ATOM	1299	OE1	GLN	A	164	-12.066	7.865	-10.604	1.00 29.64	O
ATOM	1300	NE2	GLN	A	164	-11.777	7.065	-8.533	1.00 29.85	N
ATOM	1301	C	GLN	A	164	-9.983	3.511	-12.843	1.00 32.44	C
ATOM	1302	O	GLN	A	164	-8.761	3.551	-12.662	1.00 31.99	O
ATOM	1303	N	GLU	A	165	-10.533	3.464	-14.065	1.00 33.05	N
ATOM	1304	CA	GLU	A	165	-9.690	3.530	-15.286	1.00 33.55	C
ATOM	1305	CB	GLU	A	165	-10.471	3.224	-16.576	1.00 34.18	C
ATOM	1306	CG	GLU	A	165	-10.772	1.742	-16.832	1.00 34.76	C
ATOM	1307	CD	GLU	A	165	-11.805	1.184	-15.870	1.00 35.04	C
ATOM	1308	OE1	GLU	A	165	-12.403	1.978	-15.106	1.00 34.47	O
ATOM	1309	OE2	GLU	A	165	-12.015	-0.048	-15.878	1.00 35.82	O
ATOM	1310	C	GLU	A	165	-9.011	4.899	-15.377	1.00 33.32	C
ATOM	1311	O	GLU	A	165	-7.818	5.031	-15.041	1.00 33.33	O
ATOM	1312	N	VAL	A	166	-9.773	5.913	-15.792	1.00 32.56	N
ATOM	1313	CA	VAL	A	166	-9.299	7.298	-15.738	1.00 32.09	C
ATOM	1314	CB	VAL	A	166	-10.139	8.228	-16.641	1.00 32.32	C
ATOM	1315	CG1	VAL	A	166	-9.819	7.942	-18.134	1.00 31.73	C
ATOM	1316	CG2	VAL	A	166	-11.640	8.080	-16.353	1.00 32.13	C
ATOM	1317	C	VAL	A	166	-9.287	7.786	-14.290	1.00 32.19	C
ATOM	1318	O	VAL	A	166	-10.244	7.541	-13.544	1.00 32.21	O
ATOM	1319	N	LYS	A	167	-8.186	8.423	-13.877	1.00 32.09	N
ATOM	1320	CA	LYS	A	167	-8.068	8.971	-12.504	1.00 31.20	C
ATOM	1321	CB	LYS	A	167	-6.599	9.268	-12.120	1.00 31.36	C
ATOM	1322	CG	LYS	A	167	-5.896	10.371	-12.961	1.00 32.69	C
ATOM	1323	CD	LYS	A	167	-4.368	10.458	-12.723	1.00 33.21	C
ATOM	1324	CE	LYS	A	167	-3.766	11.637	-13.504	1.00 34.57	C
ATOM	1325	NZ	LYS	A	167	-2.305	11.860	-13.250	1.00 35.01	N
ATOM	1326	C	LYS	A	167	-8.984	10.204	-12.311	1.00 30.87	C
ATOM	1327	O	LYS	A	167	-9.316	10.886	-13.286	1.00 30.84	O
ATOM	1328	N	PRO	A	168	-9.424	10.476	-11.062	1.00 30.25	N
ATOM	1329	CA	PRO	A	168	-10.248	11.673	-10.856	1.00 29.30	C
ATOM	1330	CB	PRO	A	168	-10.617	11.603	-9.375	1.00 28.46	C
ATOM	1331	CG	PRO	A	168	-10.446	10.185	-8.999	1.00 29.37	C
ATOM	1332	CD	PRO	A	168	-9.324	9.665	-9.836	1.00 30.28	C
ATOM	1333	C	PRO	A	168	-9.417	12.910	-11.102	1.00 28.92	C
ATOM	1334	O	PRO	A	168	-8.213	12.880	-10.875	1.00 29.27	O
ATOM	1335	N	TYR	A	169	-10.046	13.970	-11.588	1.00 28.12	N
ATOM	1336	CA	TYR	A	169	-9.402	15.274	-11.620	1.00 28.05	C
ATOM	1337	CB	TYR	A	169	-10.132	16.167	-12.609	1.00 27.64	C
ATOM	1338	CG	TYR	A	169	-9.362	17.381	-13.020	1.00 27.67	C
ATOM	1339	CD1	TYR	A	169	-8.298	17.288	-13.909	1.00 27.60	C
ATOM	1340	CE1	TYR	A	169	-7.603	18.416	-14.296	1.00 27.71	C
ATOM	1341	CZ	TYR	A	169	-7.967	19.650	-13.788	1.00 27.71	C
ATOM	1342	OH	TYR	A	169	-7.290	20.791	-14.172	1.00 27.89	O
ATOM	1343	CE2	TYR	A	169	-9.021	19.764	-12.914	1.00 27.75	C
ATOM	1344	CD2	TYR	A	169	-9.712	18.636	-12.537	1.00 27.82	C
ATOM	1345	C	TYR	A	169	-9.404	15.879	-10.199	1.00 27.74	C
ATOM	1346	O	TYR	A	169	-10.444	15.938	-9.546	1.00 27.63	O
ATOM	1347	N	THR	A	170	-8.241	16.290	-9.705	1.00 27.87	N
ATOM	1348	CA	THR	A	170	-8.109	16.748	-8.305	1.00 27.78	C
ATOM	1349	CB	THR	A	170	-6.961	16.003	-7.564	1.00 27.56	C
ATOM	1350	OG1	THR	A	170	-5.721	16.228	-8.237	1.00 28.27	O
ATOM	1351	CG2	THR	A	170	-7.199	14.509	-7.542	1.00 27.15	C

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ATOM	1352	C	THR	A	170	-7.932	18.277	-8.194	1.00	27.73	C
ATOM	1353	O	THR	A	170	-6.932	18.833	-8.683	1.00	28.04	O
ATOM	1354	N	LEU	A	171	-8.902	18.948	-7.564	1.00	27.29	N
ATOM	1355	CA	LEU	A	171	-8.942	20.415	-7.543	1.00	27.48	C
ATOM	1356	CB	LEU	A	171	-10.300	20.899	-8.000	1.00	27.31	C
ATOM	1357	CG	LEU	A	171	-10.311	22.259	-8.670	1.00	27.52	C
ATOM	1358	CD1	LEU	A	171	-9.159	22.353	-9.638	1.00	27.95	C
ATOM	1359	CD2	LEU	A	171	-11.633	22.455	-9.393	1.00	27.22	C
ATOM	1360	C	LEU	A	171	-8.646	21.025	-6.184	1.00	27.73	C
ATOM	1361	O	LEU	A	171	-9.528	21.113	-5.325	1.00	27.54	O
ATOM	1362	N	ALA	A	172	-7.405	21.455	-5.990	1.00	27.91	N
ATOM	1363	CA	ALA	A	172	-7.028	22.108	-4.746	1.00	28.08	C
ATOM	1364	CB	ALA	A	172	-5.518	22.204	-4.630	1.00	28.84	C
ATOM	1365	C	ALA	A	172	-7.652	23.491	-4.693	1.00	28.14	C
ATOM	1366	O	ALA	A	172	-7.605	24.240	-5.672	1.00	28.33	O
ATOM	1367	N	LEU	A	173	-8.252	23.822	-3.554	1.00	28.66	N
ATOM	1368	CA	LEU	A	173	-8.826	25.157	-3.355	1.00	28.69	C
ATOM	1369	CB	LEU	A	173	-10.323	25.084	-3.038	1.00	28.39	C
ATOM	1370	CG	LEU	A	173	-11.333	24.326	-3.913	1.00	27.47	C
ATOM	1371	CD1	LEU	A	173	-12.711	24.410	-3.258	1.00	26.96	C
ATOM	1372	CD2	LEU	A	173	-11.402	24.840	5.340	1.00	27.29	C
ATOM	1373	C	LEU	A	173	-8.072	25.820	-2.217	1.00	28.62	C
ATOM	1374	O	LEU	A	173	-8.101	25.321	-1.097	1.00	28.71	O
ATOM	1375	N	ALA	A	174	-7.399	26.932	-2.527	1.00	28.94	N
ATOM	1376	CA	ALA	A	174	-6.438	27.589	-1.634	1.00	29.56	C
ATOM	1377	CB	ALA	A	174	-5.022	27.335	-2.115	1.00	29.35	C
ATOM	1378	C	ALA	A	174	-6.656	29.104	-1.472	1.00	30.42	C
ATOM	1379	O	ALA	A	174	-6.957	29.817	-2.447	1.00	30.07	O
ATOM	1380	N	PHE	A	175	-6.485	29.590	-0.236	1.00	30.58	N
ATOM	1381	CA	PHE	A	175	-6.273	31.012	0.007	1.00	30.77	C
ATOM	1382	CB	PHE	A	175	-6.120	31.328	1.500	1.00	31.10	C
ATOM	1383	CG	PHE	A	175	-7.351	31.106	2.305	1.00	30.44	C
ATOM	1384	CD1	PHE	A	175	-8.551	31.700	1.948	1.00	30.57	C
ATOM	1385	CE1	PHE	A	175	-9.699	31.498	2.701	1.00	30.77	C
ATOM	1386	CZ	PHE	A	175	-9.648	30.699	3.828	1.00	31.15	C
ATOM	1387	CE2	PHE	A	175	-8.439	30.118	4.208	1.00	30.97	C
ATOM	1388	CD2	PHE	A	175	-7.302	30.328	3.447	1.00	30.55	C
ATOM	1389	C	PHE	A	175	-4.967	31.394	-0.649	1.00	31.52	C
ATOM	1390	O	PHE	A	175	-4.012	30.596	-0.609	1.00	31.67	O
ATOM	1391	N	LYS	A	176	-4.929	32.607	-1.227	1.00	31.83	N
ATOM	1392	CA	LYS	A	176	-3.684	33.322	-1.595	1.00	31.59	C
ATOM	1393	CB	LYS	A	176	-3.933	34.840	-1.619	1.00	31.69	C
ATOM	1394	CG	LYS	A	176	-4.712	35.384	-2.821	1.00	31.52	C
ATOM	1395	CD	LYS	A	176	-4.598	36.912	-2.950	1.00	30.89	C
ATOM	1396	CE	LYS	A	176	-5.689	37.634	-2.151	1.00	31.16	C
ATOM	1397	NZ	LYS	A	176	-5.472	39.120	-2.100	1.00	31.24	N
ATOM	1398	C	LYS	A	176	-2.565	33.042	-0.588	1.00	32.20	C
ATOM	1399	O	LYS	A	176	-1.437	32.722	-0.971	1.00	32.39	O
ATOM	1400	N	GLU	A	177	-2.922	33.158	0.699	1.00	32.39	N
ATOM	1401	CA	GLU	A	177	-2.053	32.901	1.852	1.00	32.39	C
ATOM	1402	CB	GLU	A	177	-2.837	33.187	3.150	1.00	32.22	C
ATOM	1403	CG	GLU	A	177	-3.067	34.670	3.468	1.00	31.89	C
ATOM	1404	CD	GLU	A	177	-4.158	35.323	2.620	1.00	32.88	C
ATOM	1405	OE1	GLU	A	177	-4.951	34.595	1.963	1.00	32.60	O
ATOM	1406	OE2	GLU	A	177	-4.228	36.582	2.619	1.00	33.15	O
ATOM	1407	C	GLU	A	177	-1.434	31.486	1.902	1.00	32.54	C
ATOM	1408	O	GLU	A	177	-0.294	31.298	2.367	1.00	32.74	O
ATOM	1409	N	GLN	A	178	-2.196	30.502	1.425	1.00	32.18	N
ATOM	1410	CA	GLN	A	178	-1.781	29.100	1.457	1.00	32.23	C
ATOM	1411	CB	GLN	A	178	-2.998	28.187	1.378	1.00	31.75	C
ATOM	1412	CG	GLN	A	178	-3.543	27.776	2.714	1.00	31.46	C
ATOM	1413	CD	GLN	A	178	-4.944	27.283	2.606	1.00	30.90	C
ATOM	1414	OE1	GLN	A	178	-5.305	26.238	3.151	1.00	31.52	O
ATOM	1415	NE2	GLN	A	178	-5.758	28.027	1.886	1.00	30.83	N
ATOM	1416	C	GLN	A	178	-0.807	28.719	0.353	1.00	32.70	C
ATOM	1417	O	GLN	A	178	-0.204	27.630	0.403	1.00	33.00	O
ATOM	1418	N	ILE	A	179	-0.655	29.594	-0.639	1.00	32.80	N
ATOM	1419	CA	ILE	A	179	0.230	29.320	-1.772	1.00	32.96	C

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ATOM	1420	CB	ILE	A	179	-0.212	30.099	-3.054	1.00	32.79	C
ATOM	1421	CG1	ILE	A	179	-1.606	29.635	-3.526	1.00	32.05	C
ATOM	1422	CD1	ILE	A	179	-1.722	28.160	-3.932	1.00	31.51	C
ATOM	1423	CG2	ILE	A	179	0.808	29.953	-4.194	1.00	33.50	C
ATOM	1424	C	ILE	A	179	1.689	29.570	-1.377	1.00	33.68	C
ATOM	1425	O	ILE	A	179	2.008	30.610	-0.799	1.00	34.32	O
ATOM	1426	N	CYS	A	180	2.557	28.592	-1.646	1.00	33.85	N
ATOM	1427	CA	CYS	A	180	3.970	28.654	-1.247	1.00	34.09	C
ATOM	1428	CB	CYS	A	180	4.356	27.406	-0.458	1.00	33.27	C
ATOM	1429	SG	CYS	A	180	3.378	27.170	1.019	1.00	33.15	S
ATOM	1430	C	CYS	A	180	4.855	28.769	-2.477	1.00	34.28	C
ATOM	1431	O	CYS	A	180	4.379	28.592	-3.609	1.00	34.05	O
ATOM	1432	N	LEU	A	181	6.135	29.065	-2.250	1.00	34.34	N
ATOM	1433	CA	LEU	A	181	7.115	29.118	-3.314	1.00	34.40	C
ATOM	1434	CB	LEU	A	181	8.384	29.843	-2.842	1.00	35.46	C
ATOM	1435	CG	LEU	A	181	9.592	30.182	-3.735	1.00	35.61	C
ATOM	1436	CD1	LEU	A	181	10.625	30.885	-2.886	1.00	34.74	C
ATOM	1437	CD2	LEU	A	181	10.242	28.960	-4.374	1.00	35.97	C
ATOM	1438	C	LEU	A	181	7.369	27.663	-3.662	1.00	34.81	C
ATOM	1439	O	LEU	A	181	6.993	27.213	-4.734	1.00	35.27	O
ATOM	1440	N	GLN	A	182	7.978	26.914	-2.747	1.00	35.18	N
ATOM	1441	CA	GLN	A	182	8.027	25.451	-2.891	1.00	35.29	C
ATOM	1442	CB	GLN	A	182	9.384	24.948	-3.456	1.00	35.14	C
ATOM	1443	CG	GLN	A	182	9.400	24.805	-5.036	1.00	36.03	C
ATOM	1444	CD	GLN	A	182	10.599	25.518	-5.777	1.00	37.31	C
ATOM	1445	OE1	GLN	A	182	11.644	25.838	5.169	1.00	36.73	O
ATOM	1446	NE2	GLN	A	182	10.428	25.763	-7.098	1.00	36.24	N
ATOM	1447	C	GLN	A	182	7.589	24.752	-1.595	1.00	34.65	C
ATOM	1448	O	GLN	A	182	7.774	25.283	-0.490	1.00	34.47	O
ATOM	1449	N	VAL	A	183	6.938	23.603	-1.771	1.00	34.19	N
ATOM	1450	CA	VAL	A	183	6.506	22.718	-0.695	1.00	34.15	C
ATOM	1451	CB	VAL	A	183	5.013	22.320	-0.888	1.00	33.55	C
ATOM	1452	CG1	VAL	A	183	4.713	20.917	-0.367	1.00	33.61	C
ATOM	1453	CG2	VAL	A	183	4.101	23.352	-0.232	1.00	33.51	C
ATOM	1454	C	VAL	A	183	7.429	21.486	-0.672	1.00	34.40	C
ATOM	1455	O	VAL	A	183	7.778	20.960	-1.722	1.00	34.55	O
ATOM	1456	N	PRO	A	184	7.849	21.030	0.519	1.00	34.43	N
ATOM	1457	CA	PRO	A	184	8.657	19.813	0.523	1.00	34.71	C
ATOM	1458	CB	PRO	A	184	9.182	19.747	1.967	1.00	35.38	C
ATOM	1459	CG	PRO	A	184	8.907	21.120	2.555	1.00	35.30	C
ATOM	1460	CD	PRO	A	184	7.682	21.576	1.872	1.00	34.75	C
ATOM	1461	C	PRO	A	184	7.795	18.591	0.184	1.00	35.05	C
ATOM	1462	O	PRO	A	184	6.690	18.459	0.697	1.00	35.58	O
ATOM	1463	N	ALA	A	185	8.282	17.731	-0.700	1.00	35.19	N
ATOM	1464	CA	ALA	A	185	7.499	16.584	-1.151	1.00	36.19	C
ATOM	1465	CB	ALA	A	185	7.135	16.730	-2.628	1.00	35.02	C
ATOM	1466	C	ALA	A	185	8.246	15.268	-0.887	1.00	37.26	C
ATOM	1467	O	ALA	A	185	9.434	15.277	-0.555	1.00	36.74	O
ATOM	1468	N	ASN	A	186	7.538	14.145	-1.024	1.00	37.63	N
ATOM	1469	CA	ASN	A	186	8.138	12.809	-0.881	1.00	37.77	C
ATOM	1470	CB	ASN	A	186	7.253	11.898	-0.013	1.00	38.66	C
ATOM	1471	CG	ASN	A	186	7.552	12.019	1.476	1.00	39.27	C
ATOM	1472	OD1	ASN	A	186	8.398	12.820	1.904	1.00	39.31	O
ATOM	1473	ND2	ASN	A	186	6.854	11.219	2.275	1.00	39.14	N
ATOM	1474	C	ASN	A	186	8.384	12.134	-2.222	1.00	37.53	C
ATOM	1475	O	ASN	A	186	7.565	11.330	-2.670	1.00	38.14	O
ATOM	1476	N	ALA	A	189	3.959	12.969	-1.607	1.00	35.46	N
ATOM	1477	CA	ALA	A	189	3.820	11.779	-2.444	1.00	34.84	C
ATOM	1478	CB	ALA	A	189	3.196	10.618	-1.662	1.00	34.17	C
ATOM	1479	C	ALA	A	189	3.074	12.011	-3.764	1.00	34.25	C
ATOM	1480	O	ALA	A	189	3.542	11.540	-4.812	1.00	34.22	O
ATOM	1481	N	ALA	A	190	1.935	12.718	-3.729	1.00	33.87	N
ATOM	1482	CA	ALA	A	190	1.037	12.860	-4.918	1.00	33.05	C
ATOM	1483	CB	ALA	A	190	-0.239	11.942	-4.759	1.00	32.62	C
ATOM	1484	C	ALA	A	190	0.629	14.309	-5.233	1.00	31.85	C
ATOM	1485	O	ALA	A	190	0.163	15.001	-4.347	1.00	31.70	O
ATOM	1486	N	LYS	A	191	0.808	14.761	-6.477	1.00	31.16	N
ATOM	1487	CA	LYS	A	191	0.384	16.122	-6.904	1.00	30.88	C

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ATOM   1488  CB  LYS A 191       1.074  16.548  -8.199  1.00 31.09           C
ATOM   1489  CG  LYS A 191       2.566  16.743  -8.117  1.00 31.60           C
ATOM   1490  CD  LYS A 191       3.133  17.167  -9.477  1.00 30.82           C
ATOM   1491  CE  LYS A 191       4.613  16.838  -9.523  1.00 30.95           C
ATOM   1492  NZ  LYS A 191       5.351  17.585 -10.575  1.00 31.51           N
ATOM   1493  C   LYS A 191      -1.121  16.296  -7.147  1.00 30.57           C
ATOM   1494  O   LYS A 191      -1.839  15.324  -7.373  1.00 31.40           O
ATOM   1495  N   VAL A 192      -1.583  17.547  -7.122  1.00 30.27           N
ATOM   1496  CA  VAL A 192      -2.941  17.881  -7.539  1.00 29.44           C
ATOM   1497  CB  VAL A 192      -3.651  18.911  -6.591  1.00 29.05           C
ATOM   1498  CG1 VAL A 192      -3.682  18.431  -5.165  1.00 29.13           C
ATOM   1499  CG2 VAL A 192      -3.010  20.275  -6.661  1.00 29.20           C
ATOM   1500  C   VAL A 192      -2.904  18.426  -8.976  1.00 29.22           C
ATOM   1501  O   VAL A 192      -2.020  19.206  -9.321  1.00 29.73           O
ATOM   1502  N   ASP A 193      -3.864  18.005  -9.800  1.00 28.98           N
ATOM   1503  CA  ASP A 193      -4.086  18.534 -11.155  1.00 28.48           C
ATOM   1504  CB  ASP A 193      -5.400  17.995 -11.719  1.00 28.24           C
ATOM   1505  CG  ASP A 193      -5.353  16.497 -11.985  1.00 28.18           C
ATOM   1506  OD1 ASP A 193      -4.356  16.003 -12.553  1.00 28.71           O
ATOM   1507  OD2 ASP A 193      -6.319  15.806 -11.626  1.00 28.08           O
ATOM   1508  C   ASP A 193      -4.109  20.067 -11.273  1.00 28.64           C
ATOM   1509  O   ASP A 193      -3.599  20.608 -12.260  1.00 29.09           O
ATOM   1510  N   GLU A 194      -4.713  20.748 -10.287  1.00 28.45           N
ATOM   1511  CA  GLU A 194      -4.885  22.203 -10.298  1.00 28.15           C
ATOM   1512  CB  GLU A 194      -6.018  22.563 -11.237  1.00 28.18           C
ATOM   1513  CG  GLU A 194      -6.141  24.031 -11.632  1.00 28.30           C
ATOM   1514  CD  GLU A 194      -7.218  24.230 -12.710  1.00 28.53           C
ATOM   1515  OE1 GLU A 194      -7.633  25.384 -12.960  1.00 28.55           O
ATOM   1516  OE2 GLU A 194      -7.657  23.221 -13.309  1.00 28.41           O
ATOM   1517  C   GLU A 194      -5.186  22.772  -8.916  1.00 28.41           C
ATOM   1518  O   GLU A 194      -5.961  22.191  -8.126  1.00 28.17           O
ATOM   1519  N   VAL A 195      -4.557  23.917  -8.644  1.00 28.37           N
ATOM   1520  CA  VAL A 195      -4.814  24.702  -7.450  1.00 28.57           C
ATOM   1521  CB  VAL A 195      -3.494  25.018  -6.677  1.00 29.21           C
ATOM   1522  CG1 VAL A 195      -2.891  23.768  -6.099  1.00 29.50           C
ATOM   1523  CG2 VAL A 195      -2.466  25.625  -7.598  1.00 30.13           C
ATOM   1524  C   VAL A 195      -5.539  25.986  -7.868  1.00 28.65           C
ATOM   1525  O   VAL A 195      -5.172  26.606  -8.843  1.00 28.65           O
ATOM   1526  N   LEU A 196      -6.591  26.368  -7.160  1.00 29.16           N
ATOM   1527  CA  LEU A 196      -7.236  27.658  -7.411  1.00 29.40           C
ATOM   1528  CB  LEU A 196      -8.748  27.522  -7.602  1.00 28.96           C
ATOM   1529  CG  LEU A 196      -9.357  26.592  -8.641  1.00 28.41           C
ATOM   1530  CD1 LEU A 196     -10.833  26.621  -8.392  1.00 28.66           C
ATOM   1531  CD2 LEU A 196      -9.044  27.021 -10.066  1.00 28.26           C
ATOM   1532  C   LEU A 196      -6.976  28.630  -6.278  1.00 29.55           C
ATOM   1533  O   LEU A 196      -6.723  28.216  -5.150  1.00 29.89           O
ATOM   1534  N   TYR A 197      -7.061  29.922  -6.594  1.00 30.54           N
ATOM   1535  CA  TYR A 197      -6.810  31.031  -5.660  1.00 30.94           C
ATOM   1536  CB  TYR A 197      -5.432  30.879  -5.027  1.00 31.10           C
ATOM   1537  CG  TYR A 197      -4.289  30.982  -6.017  1.00 31.30           C
ATOM   1538  CD1 TYR A 197      -3.807  32.225  -6.419  1.00 31.85           C
ATOM   1539  CE1 TYR A 197      -2.779  32.326  -7.314  1.00 32.34           C
ATOM   1540  CZ  TYR A 197      -2.193  31.195  -7.810  1.00 31.62           C
ATOM   1541  OH  TYR A 197      -1.156  31.344  -8.695  1.00 32.63           O
ATOM   1542  CE2 TYR A 197      -2.630  29.945  -7.430  1.00 30.99           C
ATOM   1543  CD2 TYR A 197      -3.674  29.841  -6.535  1.00 30.97           C
ATOM   1544  C   TYR A 197      -6.865  32.376  -6.387  1.00 31.73           C
ATOM   1545  O   TYR A 197      -6.964  32.399  -7.616  1.00 32.77           O
ATOM   1546  N   GLU A 198      -6.808  33.477  -5.627  1.00 31.95           N
ATOM   1547  CA  GLU A 198      -6.332  34.818  -6.105  1.00 32.15           C
ATOM   1548  CB  GLU A 198      -5.996  34.848  -7.595  1.00 32.29           C
ATOM   1549  CG  GLU A 198      -4.973  35.889  -7.988  1.00 33.28           C
ATOM   1550  CD  GLU A 198      -4.398  35.618  -9.377  1.00 35.22           C
ATOM   1551  OE1 GLU A 198      -5.161  35.177 -10.283  1.00 35.59           O
ATOM   1552  OE2 GLU A 198      -3.173  35.829  -9.557  1.00 35.36           O
ATOM   1553  C   GLU A 198      -7.266  35.966  -5.756  1.00 31.98           C
ATOM   1554  O   GLU A 198      -8.468  35.836  -5.893  1.00 32.16           O
TER    1555       GLU A 198
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HETATM 1556  N1  THF B 501     -11.313  16.621   6.043  1.00 28.42           N
HETATM 1557  C2  THF B 501     -11.186  18.089   5.712  1.00 30.24           C
HETATM 1558  NA2 THF B 501     -12.149  18.985   6.267  1.00 29.87           N
HETATM 1559  N3  THF B 501      -9.768  18.632   5.800  1.00 27.52           N
HETATM 1560  C4  THF B 501      -8.503  17.820   5.937  1.00 25.15           C
HETATM 1561  O4  THF B 501      -7.516  18.372   5.160  1.00 22.40           O
HETATM 1562  C4A THF B 501      -8.679  16.284   5.733  1.00 29.88           C
HETATM 1563  N5  THF B 501      -7.703  15.320   6.359  1.00 31.65           N
HETATM 1564  C6  THF B 501      -8.194  14.610   7.702  1.00 32.89           C
HETATM 1565  C7  THF B 501      -9.600  14.038   7.483  1.00 30.15           C
HETATM 1566  N8  THF B 501     -10.215  14.341   6.215  1.00 26.11           N
HETATM 1567  C8A THF B 501     -10.100  15.744   5.721  1.00 28.09           C
HETATM 1568  C9  THF B 501      -8.039  15.325   9.068  1.00 39.15           C
HETATM 1569  N10 THF B 501      -7.004  14.869  10.014  1.00 48.49           N
HETATM 1570  C11 THF B 501      -5.497  13.676  14.013  1.00 48.49           C
HETATM 1571  C12 THF B 501      -6.790  13.424  13.579  1.00 48.49           C
HETATM 1572  C13 THF B 501      -7.258  13.881  12.244  1.00 48.49           C
HETATM 1573  C14 THF B 501      -6.399  14.453  11.291  1.00 48.49           C
HETATM 1574  C15 THF B 501      -4.982  14.564  11.652  1.00 48.49           C
HETATM 1575  C16 THF B 501      -4.536  14.189  12.987  1.00 48.49           C
HETATM 1576  C   THF B 501      -5.071  13.129  15.402  1.00 48.49           C
HETATM 1577  O   THF B 501      -5.854  12.955  16.273  1.00 48.49           O
HETATM 1578  N   THF B 501      -3.652  12.836  15.589  1.00 48.49           N
HETATM 1579  CA  THF B 501      -3.008  12.286  16.783  1.00 48.49           C
HETATM 1580  CB  THF B 501      -2.350  10.974  16.337  1.00 48.49           C
HETATM 1581  CG  THF B 501      -1.508  11.086  15.066  1.00 48.49           C
HETATM 1582  CD  THF B 501      -0.351  10.129  14.926  1.00 48.49           C
HETATM 1583  OE1 THF B 501      -0.623   9.002  14.961  1.00 48.49           O
HETATM 1584  OE2 THF B 501       0.973  10.514  15.127  1.00 48.49           O
HETATM 1585  CT  THF B 501      -2.041  13.192  17.581  1.00 48.49           C
HETATM 1586  O1  THF B 501      -1.999  14.364  17.433  1.00 48.49           O
HETATM 1587  O2  THF B 501      -1.130  12.613  18.464  1.00 48.49           O
HETATM 1588  CP1 THF B 501      -6.802  14.590   5.476  1.00 40.02           C
HETATM 1589  O3  THF B 501      -5.615  14.680   5.361  1.00 47.65           O
TER    1590      THF B 501
ATOM   1591  O   HOH S   2     -10.702  13.050  14.530  1.00 31.15           O
ATOM   1592  O   HOH S   4     -14.673   5.597   7.336  1.00 27.97           O
ATOM   1593  O   HOH S   5     -20.740   6.204   8.077  1.00 29.10           O
ATOM   1594  O   HOH S   6     -23.957   6.229  -6.764  1.00 27.52           O
ATOM   1595  O   HOH S   7      -7.673  32.366  -2.391  1.00 31.16           O
ATOM   1596  O   HOH S  10     -18.892  23.538   4.627  1.00 26.66           O
ATOM   1597  O   HOH S  11     -24.363   9.507  10.932  1.00 30.36           O
ATOM   1598  O   HOH S  14     -25.565  13.173  -3.563  1.00 27.15           O
ATOM   1599  O   HOH S  17       9.436  27.911   5.522  1.00 32.70           O
ATOM   1600  O   HOH S  19     -12.416  15.831  -1.038  1.00 26.55           O
ATOM   1601  O   HOH S  20      -4.073  -3.421  -4.078  1.00 30.20           O
ATOM   1602  O   HOH S  21      -7.827  26.612   2.411  1.00 30.44           O
ATOM   1603  O   HOH S  22      -8.069  -1.856  -9.428  1.00 31.50           O
ATOM   1604  O   HOH S  24      -6.906  -3.410  -3.735  1.00 30.31           O
ATOM   1605  O   HOH S  25     -18.818  29.678   7.664  1.00 29.24           O
ATOM   1606  O   HOH S  26     -14.129  15.264 -15.039  1.00 28.09           O
ATOM   1607  O   HOH S  27     -15.285  17.064   5.107  1.00 26.99           O
ATOM   1608  O   HOH S  30      -7.194   7.113   3.465  1.00 29.77           O
ATOM   1609  O   HOH S  31      16.057  14.572   2.672  1.00 32.14           O
ATOM   1610  O   HOH S  32      -7.956  -4.973  -2.211  1.00 28.73           O
ATOM   1611  O   HOH S  33     -17.176   1.984   8.682  1.00 26.17           O
ATOM   1612  O   HOH S  35     -20.090   1.647   8.866  1.00 26.79           O
ATOM   1613  O   HOH S  36       8.518  28.595   7.851  1.00 35.46           O
ATOM   1614  O   HOH S  37       3.753  18.197   1.566  1.00 33.51           O
ATOM   1615  O   HOH S  38     -26.535   5.383  -7.170  1.00 30.42           O
ATOM   1616  O   HOH S  39      -3.868  13.618  -8.469  1.00 28.65           O
ATOM   1617  O   HOH S  40     -13.777  10.074 -14.245  1.00 27.50           O
ATOM   1618  O   HOH S  41     -13.519  32.936  11.758  1.00 31.66           O
ATOM   1619  O   HOH S  42       7.618  11.292  -4.960  1.00 34.19           O
TER    1620      HOH S  42
ATOM   1621  P   PO4 C   1      -4.331  14.535   4.833  1.00 30.00           P
ATOM   1622  O1  PO4 C   1      -4.236  15.717   3.973  1.00 30.00           O
ATOM   1623  O2  PO4 C   1      -5.747  14.438   5.310  1.00 30.00           O
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ATOM   1624  O3  PO4 C   1      -3.848  13.450   3.940  1.00 30.00           O
ATOM   1625  O4  PO4 C   1      -3.389  14.655   5.966  1.00 30.00           O
END
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[0187] 表 6 为人源 5,10- 次甲基四氢叶酸合成酶与 10- 甲酰四氢叶酸的复合物的晶体的坐标。

[0188] 表 6

[0189]

ATOM	1	N	ALA	A	0	-17.356	7.679	-6.322	1.00	38.92	N
ATOM	2	CA	ALA	A	0	-16.539	8.245	-7.384	1.00	37.70	C
ATOM	3	CB	ALA	A	0	-16.846	7.599	-8.706	1.00	38.04	C
ATOM	4	C	ALA	A	0	-16.762	9.742	-7.517	1.00	35.89	C
ATOM	5	O	ALA	A	0	-15.841	10.440	-7.893	1.00	35.45	O
ATOM	6	N	MET	A	1	-18.005	10.185	-7.331	1.00	33.05	N
ATOM	7	CA	MET	A	1	-18.380	11.564	-7.668	1.00	29.41	C
ATOM	8	CB	MET	A	1	-19.897	11.776	-7.841	1.00	29.52	C
ATOM	9	CG	MET	A	1	-20.605	10.834	-8.893	1.00	29.86	C
ATOM	10	SD	MET	A	1	-19.758	10.931	-10.492	1.00	39.28	S
ATOM	11	CE	MET	A	1	-20.508	12.480	-11.011	1.00	27.18	C
ATOM	12	C	MET	A	1	-17.788	12.553	-6.620	1.00	27.64	C
ATOM	13	O	MET	A	1	-17.241	13.569	-6.987	1.00	25.46	O
ATOM	14	N	GLY	A	2	-17.919	12.248	-5.328	1.00	25.48	N
ATOM	15	CA	GLY	A	2	-17.271	13.045	-4.320	1.00	25.43	C
ATOM	16	C	GLY	A	2	-15.731	13.089	-4.457	1.00	25.79	C
ATOM	17	O	GLY	A	2	-15.137	14.146	-4.209	1.00	23.50	O
ATOM	18	N	ALA	A	3	-15.125	11.936	-4.799	1.00	25.67	N
ATOM	19	CA	ALA	A	3	-13.677	11.852	-5.088	1.00	27.42	C
ATOM	20	CB	ALA	A	3	-13.275	10.429	-5.483	1.00	26.84	C
ATOM	21	C	ALA	A	3	-13.346	12.802	-6.221	1.00	24.53	C
ATOM	22	O	ALA	A	3	-12.419	13.592	-6.130	1.00	26.57	O
ATOM	23	N	ALA	A	4	-14.116	12.709	-7.302	1.00	23.69	N
ATOM	24	CA	ALA	A	4	-13.848	13.555	-8.468	1.00	21.61	C
ATOM	25	CB	ALA	A	4	-14.839	13.221	-9.593	1.00	22.54	C
ATOM	26	C	ALA	A	4	-13.963	15.049	-8.105	1.00	21.07	C
ATOM	27	O	ALA	A	4	-13.301	15.848	-8.695	1.00	17.76	O
ATOM	28	N	ALA	A	5	-14.930	15.417	-7.244	1.00	19.77	N
ATOM	29	CA	ALA	A	5	-15.067	16.824	-6.924	1.00	20.60	C
ATOM	30	CB	ALA	A	5	-16.427	17.108	-6.218	1.00	20.92	C
ATOM	31	C	ALA	A	5	-13.875	17.294	-6.092	1.00	19.57	C
ATOM	32	O	ALA	A	5	-13.417	18.430	-6.206	1.00	18.16	O
ATOM	33	N	VAL	A	6	-13.355	16.393	-5.259	1.00	20.19	N
ATOM	34	CA	VAL	A	6	-12.111	16.703	-4.552	1.00	20.49	C
ATOM	35	CB	VAL	A	6	-11.705	15.637	-3.537	1.00	21.48	C
ATOM	36	CG1	VAL	A	6	-10.272	16.030	-2.975	1.00	24.29	C
ATOM	37	CG2	VAL	A	6	-12.748	15.586	-2.378	1.00	23.03	C
ATOM	38	C	VAL	A	6	-10.939	16.948	-5.533	1.00	18.49	C
ATOM	39	O	VAL	A	6	-10.211	17.948	-5.414	1.00	16.99	O
ATOM	40	N	SER	A	7	-10.831	16.054	-6.529	1.00	19.05	N
ATOM	41	CA	SER	A	7	-9.734	16.200	-7.517	1.00	19.24	C
ATOM	42	CB	SER	A	7	-9.676	15.066	-8.547	1.00	20.11	C
ATOM	43	OG	SER	A	7	-9.673	13.863	-7.868	1.00	29.85	O
ATOM	44	C	SER	A	7	-9.899	17.509	-8.281	1.00	19.39	C
ATOM	45	O	SER	A	7	-8.919	18.159	-8.622	1.00	20.10	O
ATOM	46	N	SER	A	8	-11.153	17.841	-8.626	1.00	20.28	N
ATOM	47	CA	SER	A	8	-11.407	19.063	-9.342	1.00	20.46	C
ATOM	48	CB	SER	A	8	-12.891	19.146	-9.686	1.00	19.64	C
ATOM	49	OG	SER	A	8	-13.148	20.406	-10.279	1.00	22.77	O
ATOM	50	C	SER	A	8	-10.963	20.306	-8.530	1.00	19.78	C
ATOM	51	O	SER	A	8	-10.341	21.234	-9.053	1.00	20.14	O
ATOM	52	N	ALA	A	9	-11.288	20.321	-7.234	1.00	19.82	N
ATOM	53	CA	ALA	A	9	-10.878	21.429	-6.366	1.00	20.47	C
ATOM	54	CB	ALA	A	9	-11.491	21.208	-4.971	1.00	20.97	C
ATOM	55	C	ALA	A	9	-9.351	21.520	-6.270	1.00	19.85	C
ATOM	56	O	ALA	A	9	-8.765	22.615	-6.304	1.00	20.63	O
ATOM	57	N	LYS	A	10	-8.688	20.369	-6.142	1.00	19.39	N
ATOM	58	CA	LYS	A	10	-7.223	20.372	-6.103	1.00	19.14	C
ATOM	59	CB	LYS	A	10	-6.672	18.944	-5.878	1.00	19.89	C

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ATOM     60  CG  LYS A  10      -6.978  18.423  -4.502  1.00 16.72           C
ATOM     61  CD  LYS A  10      -6.491  16.988  -4.393  1.00 18.87           C
ATOM     62  CE  LYS A  10      -6.679  16.460  -2.996  1.00 24.73           C
ATOM     63  NZ  LYS A  10      -6.065  15.109  -3.028  1.00 30.06           N
ATOM     64  C   LYS A  10      -6.618  20.927  -7.389  1.00 19.40           C
ATOM     65  O   LYS A  10      -5.745  21.745  -7.381  1.00 17.75           O
ATOM     66  N   ARG A  11      -7.166  20.498  -8.515  1.00 20.52           N
ATOM     67  CA  ARG A  11      -6.678  20.973  -9.800  1.00 19.97           C
ATOM     68  CB  ARG A  11      -7.483  20.210 -10.894  1.00 22.78           C
ATOM     69  CG  ARG A  11      -7.052  20.503 -12.310  1.00 27.16           C
ATOM     70  CD  ARG A  11      -8.077  19.792 -13.310  1.00 30.78           C
ATOM     71  NE  ARG A  11      -9.517  19.884 -12.927  1.00 32.13           N
ATOM     72  CZ  ARG A  11     -10.270  20.996 -13.064  1.00 34.21           C
ATOM     73  NH1 ARG A  11      -9.707  22.107 -13.557  1.00 39.27           N
ATOM     74  NH2 ARG A  11     -11.549  21.033 -12.688  1.00 33.87           N
ATOM     75  C   ARG A  11      -6.853  22.468  -9.933  1.00 19.33           C
ATOM     76  O   ARG A  11      -5.946  23.198 -10.346  1.00 19.80           O
ATOM     77  N   SER A  12      -8.037  22.956  -9.587  1.00 20.92           N
ATOM     78  CA  SER A  12      -8.272  24.409  -9.659  1.00 23.61           C
ATOM     79  CB  SER A  12      -9.697  24.630  -9.211  1.00 24.33           C
ATOM     80  OG  SER A  12      -9.965  26.008  -9.158  1.00 38.06           O
ATOM     81  C   SER A  12      -7.306  25.227  -8.784  1.00 23.14           C
ATOM     82  O   SER A  12      -6.726  26.218  -9.225  1.00 22.99           O
ATOM     83  N   LEU A  13      -7.091  24.761  -7.560  1.00 21.66           N
ATOM     84  CA  LEU A  13      -6.155  25.436  -6.675  1.00 20.39           C
ATOM     85  CB  LEU A  13      -6.332  24.826  -5.274  1.00 20.35           C
ATOM     86  CG  LEU A  13      -5.428  25.508  -4.208  1.00 19.96           C
ATOM     87  CD1 LEU A  13      -5.511  27.078  -4.144  1.00 23.01           C
ATOM     88  CD2 LEU A  13      -5.843  24.814  -2.843  1.00 22.60           C
ATOM     89  C   LEU A  13      -4.690  25.400  -7.179  1.00 20.94           C
ATOM     90  O   LEU A  13      -3.945  26.379  -7.091  1.00 22.53           O
ATOM     91  N   ARG A  14      -4.264  24.260  -7.699  1.00 19.67           N
ATOM     92  CA  ARG A  14      -2.985  24.183  -8.369  1.00 20.36           C
ATOM     93  CB  ARG A  14      -2.712  22.769  -8.971  1.00 19.14           C
ATOM     94  CG  ARG A  14      -2.579  21.652  -7.946  1.00 20.25           C
ATOM     95  CD  ARG A  14      -1.996  20.356  -8.617  1.00 24.75           C
ATOM     96  NE  ARG A  14      -2.148  19.278  -7.644  1.00 22.35           N
ATOM     97  CZ  ARG A  14      -3.095  18.376  -7.622  1.00 25.18           C
ATOM     98  NH1 ARG A  14      -3.979  18.279  -8.659  1.00 25.58           N
ATOM     99  NH2 ARG A  14      -3.136  17.549  -6.583  1.00 24.35           N
ATOM    100  C   ARG A  14      -2.782  25.230  -9.445  1.00 21.71           C
ATOM    101  O   ARG A  14      -1.700  25.875  -9.505  1.00 20.43           O
ATOM    102  N   GLY A  15      -3.815  25.400 -10.288  1.00 21.46           N
ATOM    103  CA  GLY A  15      -3.746  26.437 -11.341  1.00 22.24           C
ATOM    104  C   GLY A  15      -3.619  27.810 -10.730  1.00 23.70           C
ATOM    105  O   GLY A  15      -2.766  28.575 -11.142  1.00 25.99           O
ATOM    106  N   GLU A  16      -4.391  28.093  -9.678  1.00 25.41           N
ATOM    107  CA  GLU A  16      -4.237  29.376  -9.003  1.00 28.27           C
ATOM    108  CB  GLU A  16      -5.280  29.515  -7.893  1.00 28.10           C
ATOM    109  CG  GLU A  16      -6.711  29.638  -8.455  1.00 38.56           C
ATOM    110  CD  GLU A  16      -7.820  29.458  -7.392  1.00 47.80           C
ATOM    111  OE1 GLU A  16      -7.642  29.930  -6.242  1.00 54.01           O
ATOM    112  OE2 GLU A  16      -8.871  28.842  -7.705  1.00 52.97           O
ATOM    113  C   GLU A  16      -2.816  29.623  -8.459  1.00 25.89           C
ATOM    114  O   GLU A  16      -2.202  30.675  -8.694  1.00 25.08           O
ATOM    115  N   LEU A  17      -2.307  28.635  -7.713  1.00 25.82           N
ATOM    116  CA  LEU A  17      -0.996  28.708  -7.085  1.00 24.51           C
ATOM    117  CB  LEU A  17      -0.721  27.449  -6.241  1.00 23.46           C
ATOM    118  CG  LEU A  17      -1.613  27.418  -5.003  1.00 25.55           C
ATOM    119  CD1 LEU A  17      -1.679  26.024  -4.434  1.00 22.90           C
ATOM    120  CD2 LEU A  17      -1.078  28.428  -3.942  1.00 28.78           C
ATOM    121  C   LEU A  17       0.052  28.830  -8.112  1.00 23.52           C
ATOM    122  O   LEU A  17       0.921  29.670  -7.980  1.00 24.68           O
ATOM    123  N   LYS A  18       0.012  27.989  -9.160  1.00 24.83           N
ATOM    124  CA  LYS A  18       1.028  28.084 -10.203  1.00 24.07           C
ATOM    125  CB  LYS A  18       0.813  27.031 -11.294  1.00 25.24           C
ATOM    126  CG  LYS A  18       1.363  25.632 -10.903  1.00 27.02           C
ATOM    127  CD  LYS A  18       0.760  24.510 -11.762  1.00 34.65           C
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[0191]

ATOM	128	CE	LYS	A	18	1.707	23.320	-11.930	1.00	35.17	C
ATOM	129	NZ	LYS	A	18	3.151	23.735	-11.990	1.00	35.12	N
ATOM	130	C	LYS	A	18	1.100	29.448	-10.860	1.00	25.08	C
ATOM	131	O	LYS	A	18	2.194	29.896	-11.224	1.00	26.08	O
ATOM	132	N	ALA	A	19	-0.044	30.091	-11.052	1.00	25.98	N
ATOM	133	CA	ALA	A	19	-0.064	31.396	-11.677	1.00	28.04	C
ATOM	134	CB	ALA	A	19	-1.470	31.827	-11.884	1.00	28.55	C
ATOM	135	C	ALA	A	19	0.656	32.422	-10.781	1.00	30.11	C
ATOM	136	O	ALA	A	19	1.545	33.211	-11.269	1.00	29.80	O
ATOM	137	N	ARG	A	20	0.314	32.425	-9.490	1.00	29.52	N
ATOM	138	CA	ARG	A	20	1.095	33.256	-8.496	1.00	31.56	C
ATOM	139	CB	ARG	A	20	0.532	33.104	-7.101	1.00	31.95	C
ATOM	140	CG	ARG	A	20	-0.909	33.176	-7.088	1.00	36.34	C
ATOM	141	CD	ARG	A	20	-1.434	32.587	-5.839	1.00	45.33	C
ATOM	142	NE	ARG	A	20	-1.307	33.535	-4.767	1.00	51.78	N
ATOM	143	CZ	ARG	A	20	-1.881	33.391	-3.577	1.00	56.59	C
ATOM	144	NH1	ARG	A	20	-2.647	32.307	-3.297	1.00	54.19	N
ATOM	145	NH2	ARG	A	20	-1.695	34.359	-2.666	1.00	58.80	N
ATOM	146	C	ARG	A	20	2.576	32.969	-8.442	1.00	30.84	C
ATOM	147	O	ARG	A	20	3.422	33.874	-8.377	1.00	32.15	O
ATOM	148	N	LEU	A	21	2.920	31.688	-8.474	1.00	32.21	N
ATOM	149	CA	LEU	A	21	4.325	31.352	-8.480	1.00	31.38	C
ATOM	150	CB	LEU	A	21	4.521	29.881	-8.226	1.00	31.20	C
ATOM	151	CG	LEU	A	21	4.019	29.360	-6.901	1.00	30.92	C
ATOM	152	CD1	LEU	A	21	3.802	27.765	-7.043	1.00	28.41	C
ATOM	153	CD2	LEU	A	21	4.977	29.669	-5.756	1.00	32.65	C
ATOM	154	C	LEU	A	21	5.013	31.820	-9.751	1.00	32.88	C
ATOM	155	O	LEU	A	21	6.165	32.322	-9.701	1.00	31.78	O
ATOM	156	N	ARG	A	22	4.336	31.671	-10.896	1.00	32.94	N
ATOM	157	CA	ARG	A	22	4.845	32.277	-12.158	1.00	35.53	C
ATOM	158	CB	ARG	A	22	3.909	32.018	-13.361	1.00	34.17	C
ATOM	159	CG	ARG	A	22	4.411	30.929	-14.228	1.00	36.91	C
ATOM	160	CD	ARG	A	22	4.298	31.325	-15.717	1.00	41.97	C
ATOM	161	NE	ARG	A	22	5.322	30.719	-16.582	1.00	45.61	N
ATOM	162	CZ	ARG	A	22	5.856	31.326	-17.654	1.00	50.44	C
ATOM	163	NH1	ARG	A	22	5.450	32.556	-18.003	1.00	53.58	N
ATOM	164	NH2	ARG	A	22	6.773	30.709	-18.414	1.00	47.82	N
ATOM	165	C	ARG	A	22	5.036	33.792	-12.057	1.00	34.89	C
ATOM	166	O	ARG	A	22	5.974	34.323	-12.631	1.00	36.41	O
ATOM	167	N	ALA	A	23	4.163	34.459	-11.320	1.00	34.39	N
ATOM	168	CA	ALA	A	23	4.135	35.907	-11.288	1.00	35.20	C
ATOM	169	CB	ALA	A	23	2.798	36.309	-10.900	1.00	32.57	C
ATOM	170	C	ALA	A	23	5.159	36.557	-10.308	1.00	36.77	C
ATOM	171	O	ALA	A	23	5.183	37.791	-10.115	1.00	37.27	O
ATOM	172	N	MET	A	24	5.975	35.729	-9.660	1.00	36.97	N
ATOM	173	CA	MET	A	24	6.919	36.211	-8.660	1.00	35.80	C
ATOM	174	CB	MET	A	24	7.031	35.065	-7.614	1.00	36.41	C
ATOM	175	CG	MET	A	24	7.733	35.453	-6.336	1.00	38.68	C
ATOM	176	SD	MET	A	24	7.931	33.997	-5.271	1.00	42.38	S
ATOM	177	CE	MET	A	24	6.252	33.503	-5.172	1.00	25.09	C
ATOM	178	C	MET	A	24	8.272	36.529	-9.346	1.00	34.67	C
ATOM	179	O	MET	A	24	8.645	35.857	-10.287	1.00	36.83	O
ATOM	180	N	SER	A	25	9.069	37.505	-8.920	1.00	33.23	N
ATOM	181	CA	SER	A	25	10.414	37.652	-9.532	1.00	32.18	C
ATOM	182	CB	SER	A	25	10.946	39.098	-9.315	1.00	31.82	C
ATOM	183	OG	SER	A	25	10.944	39.337	-7.922	1.00	29.96	O
ATOM	184	C	SER	A	25	11.538	36.710	-9.024	1.00	31.79	C
ATOM	185	O	SER	A	25	11.535	36.265	-7.915	1.00	33.62	O
ATOM	186	N	ALA	A	26	12.529	36.444	-9.831	1.00	31.12	N
ATOM	187	CA	ALA	A	26	13.635	35.679	-9.360	1.00	32.44	C
ATOM	188	CB	ALA	A	26	14.697	35.588	-10.392	1.00	31.90	C
ATOM	189	C	ALA	A	26	14.191	36.273	-8.069	1.00	33.65	C
ATOM	190	O	ALA	A	26	14.441	35.549	-7.100	1.00	32.56	O
ATOM	191	N	ALA	A	27	14.421	37.588	-8.070	1.00	34.16	N
ATOM	192	CA	ALA	A	27	14.988	38.277	-6.869	1.00	33.65	C
ATOM	193	CB	ALA	A	27	15.224	39.858	-7.182	1.00	33.67	C
ATOM	194	C	ALA	A	27	14.101	38.072	-5.626	1.00	33.43	C
ATOM	195	O	ALA	A	27	14.577	37.908	-4.518	1.00	35.18	O

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ATOM	196	N	GLU	A	28	12.806	38.092	-5.786	1.00	32.39	N
ATOM	197	CA	GLU	A	28	11.970	37.973	-4.634	1.00	31.78	C
ATOM	198	CB	GLU	A	28	10.600	38.361	-5.006	1.00	31.37	C
ATOM	199	CG	GLU	A	28	9.510	38.003	-4.030	1.00	30.03	C
ATOM	200	CD	GLU	A	28	9.548	38.775	-2.692	1.00	34.21	C
ATOM	201	OE1	GLU	A	28	10.371	39.710	-2.591	1.00	36.18	O
ATOM	202	OE2	GLU	A	28	8.781	38.445	-1.769	1.00	32.05	O
ATOM	203	C	GLU	A	28	11.937	36.506	-4.109	1.00	32.05	C
ATOM	204	O	GLU	A	28	11.954	36.264	-2.929	1.00	31.01	O
ATOM	205	N	ALA	A	29	11.831	35.552	-5.004	1.00	30.51	N
ATOM	206	CA	ALA	A	29	11.871	34.150	-4.586	1.00	29.18	C
ATOM	207	CB	ALA	A	29	11.873	33.274	-5.825	1.00	27.80	C
ATOM	208	C	ALA	A	29	13.166	33.971	-3.752	1.00	29.50	C
ATOM	209	O	ALA	A	29	13.169	33.308	-2.698	1.00	28.67	O
ATOM	210	N	LEU	A	30	14.263	34.557	-4.229	1.00	29.16	N
ATOM	211	CA	LEU	A	30	15.556	34.537	-3.529	1.00	31.02	C
ATOM	212	CB	LEU	A	30	16.677	35.142	-4.367	1.00	31.13	C
ATOM	213	CG	LEU	A	30	17.212	34.205	-5.443	1.00	36.07	C
ATOM	214	CD1	LEU	A	30	18.340	34.894	-6.353	1.00	38.83	C
ATOM	215	CD2	LEU	A	30	17.664	32.830	-4.840	1.00	36.04	C
ATOM	216	C	LEU	A	30	15.532	35.205	-2.157	1.00	31.09	C
ATOM	217	O	LEU	A	30	16.196	34.691	-1.228	1.00	29.50	O
ATOM	218	N	ARG	A	31	14.776	36.296	-2.028	1.00	30.25	N
ATOM	219	CA	ARG	A	31	14.600	36.986	-0.721	1.00	31.05	C
ATOM	220	CB	ARG	A	31	13.942	38.338	-0.895	1.00	31.74	C
ATOM	221	CG	ARG	A	31	13.680	39.061	0.442	1.00	32.16	C
ATOM	222	CD	ARG	A	31	12.910	40.283	0.155	1.00	31.47	C
ATOM	223	NE	ARG	A	31	11.514	39.948	0.134	1.00	29.35	N
ATOM	224	CZ	ARG	A	31	10.843	39.569	1.199	1.00	33.31	C
ATOM	225	NH1	ARG	A	31	11.473	39.489	2.380	1.00	34.20	N
ATOM	226	NH2	ARG	A	31	9.551	39.258	1.087	1.00	30.62	N
ATOM	227	C	ARG	A	31	13.798	36.144	0.342	1.00	32.04	C
ATOM	228	O	ARG	A	31	14.231	36.034	1.492	1.00	30.17	O
ATOM	229	N	GLN	A	32	12.749	35.448	-0.095	1.00	27.97	N
ATOM	230	CA	GLN	A	32	11.927	34.744	0.837	1.00	27.35	C
ATOM	231	CB	GLN	A	32	10.545	34.338	0.298	1.00	26.37	C
ATOM	232	CG	GLN	A	32	9.549	35.409	0.277	1.00	26.39	C
ATOM	233	CD	GLN	A	32	8.185	34.953	-0.035	1.00	25.78	C
ATOM	234	OE1	GLN	A	32	7.604	34.115	0.667	1.00	28.34	O
ATOM	235	NE2	GLN	A	32	7.550	35.636	-1.045	1.00	28.13	N
ATOM	236	C	GLN	A	32	12.705	33.468	1.195	1.00	26.02	C
ATOM	237	O	GLN	A	32	12.521	32.981	2.338	1.00	24.80	O
ATOM	238	N	SER	A	33	13.444	32.926	0.221	1.00	24.87	N
ATOM	239	CA	SER	A	33	14.292	31.748	0.463	1.00	24.29	C
ATOM	240	CB	SER	A	33	14.946	31.217	-0.815	1.00	23.16	C
ATOM	241	OG	SER	A	33	13.902	30.910	-1.742	1.00	20.00	O
ATOM	242	C	SER	A	33	15.374	32.103	1.513	1.00	26.42	C
ATOM	243	O	SER	A	33	15.701	31.304	2.386	1.00	25.09	O
ATOM	244	N	ALA	A	34	15.975	33.285	1.418	1.00	23.78	N
ATOM	245	CA	ALA	A	34	16.934	33.697	2.449	1.00	25.35	C
ATOM	246	CB	ALA	A	34	17.725	34.998	2.023	1.00	23.48	C
ATOM	247	C	ALA	A	34	16.320	33.812	3.843	1.00	23.93	C
ATOM	248	O	ALA	A	34	16.968	33.403	4.849	1.00	25.19	O
ATOM	249	N	VAL	A	35	15.128	34.321	3.944	1.00	24.53	N
ATOM	250	CA	VAL	A	35	14.405	34.408	5.180	1.00	25.14	C
ATOM	251	CB	VAL	A	35	13.088	35.145	5.011	1.00	24.97	C
ATOM	252	CG1	VAL	A	35	12.177	35.032	6.254	1.00	25.95	C
ATOM	253	CG2	VAL	A	35	13.367	36.595	4.653	1.00	26.27	C
ATOM	254	C	VAL	A	35	14.104	32.996	5.745	1.00	27.15	C
ATOM	255	O	VAL	A	35	14.354	32.711	6.939	1.00	25.28	O
ATOM	256	N	LEU	A	36	13.656	32.088	4.886	1.00	23.27	N
ATOM	257	CA	LEU	A	36	13.393	30.740	5.383	1.00	23.65	C
ATOM	258	CB	LEU	A	36	12.590	29.871	4.342	1.00	23.00	C
ATOM	259	CG	LEU	A	36	11.178	30.362	4.187	1.00	24.06	C
ATOM	260	CD1	LEU	A	36	10.303	29.298	3.705	1.00	22.07	C
ATOM	261	CD2	LEU	A	36	10.578	30.983	5.442	1.00	31.05	C
ATOM	262	C	LEU	A	36	14.628	30.022	5.806	1.00	22.68	C
ATOM	263	O	LEU	A	36	14.527	29.233	6.791	1.00	24.88	O

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ATOM	264	N	SER	A	37	15.741	30.209	5.103	1.00	21.95	N
ATOM	265	CA	SER	A	37	17.005	29.546	5.438	1.00	23.43	C
ATOM	266	CB	SER	A	37	18.126	29.911	4.526	1.00	22.56	C
ATOM	267	OG	SER	A	37	17.720	29.578	3.166	1.00	29.27	O
ATOM	268	C	SER	A	37	17.424	29.909	6.882	1.00	24.69	C
ATOM	269	O	SER	A	37	17.829	29.040	7.636	1.00	23.14	O
ATOM	270	N	ALA	A	38	17.310	31.203	7.225	1.00	25.61	N
ATOM	271	CA	ALA	A	38	17.640	31.656	8.600	1.00	24.74	C
ATOM	272	CB	ALA	A	38	17.604	33.223	8.669	1.00	24.33	C
ATOM	273	C	ALA	A	38	16.659	31.025	9.603	1.00	24.34	C
ATOM	274	O	ALA	A	38	17.061	30.616	10.706	1.00	25.19	O
ATOM	275	N	LYS	A	39	15.377	30.970	9.259	1.00	22.80	N
ATOM	276	CA	LYS	A	39	14.388	30.319	10.098	1.00	22.39	C
ATOM	277	CB	LYS	A	39	13.002	30.507	9.567	1.00	23.26	C
ATOM	278	CG	LYS	A	39	12.421	31.904	9.886	1.00	26.45	C
ATOM	279	CD	LYS	A	39	11.171	32.120	9.058	1.00	32.43	C
ATOM	280	CE	LYS	A	39	10.008	31.706	9.822	1.00	36.60	C
ATOM	281	NZ	LYS	A	39	9.283	32.981	10.100	1.00	39.19	N
ATOM	282	C	LYS	A	39	14.653	28.840	10.356	1.00	22.91	C
ATOM	283	O	LYS	A	39	14.568	28.387	11.479	1.00	22.20	O
ATOM	284	N	VAL	A	40	14.931	28.084	9.297	1.00	21.52	N
ATOM	285	CA	VAL	A	40	15.330	26.685	9.431	1.00	18.92	C
ATOM	286	CB	VAL	A	40	15.608	26.116	8.024	1.00	19.38	C
ATOM	287	CG1	VAL	A	40	16.321	24.721	8.139	1.00	17.85	C
ATOM	288	CG2	VAL	A	40	14.231	26.038	7.296	1.00	18.69	C
ATOM	289	C	VAL	A	40	16.613	26.507	10.300	1.00	20.16	C
ATOM	290	O	VAL	A	40	16.608	25.672	11.233	1.00	21.62	O
ATOM	291	N	ILE	A	41	17.656	27.287	10.030	1.00	19.94	N
ATOM	292	CA	ILE	A	41	18.914	27.158	10.725	1.00	24.24	C
ATOM	293	CB	ILE	A	41	20.021	28.048	10.147	1.00	24.27	C
ATOM	294	CG1	ILE	A	41	20.297	27.727	8.680	1.00	29.63	C
ATOM	295	CD1	ILE	A	41	20.500	26.336	8.444	1.00	35.23	C
ATOM	296	CG2	ILE	A	41	21.323	27.839	10.827	1.00	31.50	C
ATOM	297	C	ILE	A	41	18.730	27.389	12.219	1.00	23.65	C
ATOM	298	O	ILE	A	41	19.423	26.755	13.009	1.00	24.73	O
ATOM	299	N	ALA	A	42	17.794	28.251	12.610	1.00	23.79	N
ATOM	300	CA	ALA	A	42	17.447	28.481	14.033	1.00	24.37	C
ATOM	301	CB	ALA	A	42	16.879	29.873	14.235	1.00	24.15	C
ATOM	302	C	ALA	A	42	16.446	27.501	14.565	1.00	23.23	C
ATOM	303	O	ALA	A	42	16.062	27.591	15.766	1.00	25.90	O
ATOM	304	N	HIS	A	43	15.935	26.574	13.734	1.00	19.78	N
ATOM	305	CA	HIS	A	43	14.828	25.752	14.147	1.00	20.21	C
ATOM	306	CB	HIS	A	43	14.088	25.249	12.908	1.00	20.54	C
ATOM	307	CG	HIS	A	43	12.778	24.657	13.200	1.00	23.17	C
ATOM	308	ND1	HIS	A	43	12.635	23.368	13.684	1.00	30.33	N
ATOM	309	CE1	HIS	A	43	11.343	23.091	13.784	1.00	30.76	C
ATOM	310	NE2	HIS	A	43	10.661	24.132	13.344	1.00	27.22	N
ATOM	311	CD2	HIS	A	43	11.530	25.114	12.960	1.00	25.96	C
ATOM	312	C	HIS	A	43	15.273	24.509	15.030	1.00	20.85	C
ATOM	313	O	HIS	A	43	16.173	23.789	14.694	1.00	19.39	O
ATOM	314	N	SER	A	44	14.641	24.321	16.169	1.00	22.27	N
ATOM	315	CA	SER	A	44	15.162	23.302	17.096	1.00	23.72	C
ATOM	316	CB	SER	A	44	14.376	23.348	18.430	1.00	25.67	C
ATOM	317	OG	SER	A	44	13.070	22.912	18.239	1.00	34.73	O
ATOM	318	C	SER	A	44	15.102	21.891	16.574	1.00	23.42	C
ATOM	319	O	SER	A	44	16.002	21.074	16.870	1.00	22.40	O
ATOM	320	N	GLU	A	45	14.058	21.570	15.808	1.00	22.70	N
ATOM	321	CA	GLU	A	45	13.967	20.218	15.239	1.00	23.96	C
ATOM	322	CB	GLU	A	45	12.579	19.951	14.670	1.00	25.51	C
ATOM	323	CG	GLU	A	45	11.493	19.565	15.679	1.00	34.30	C
ATOM	324	CD	GLU	A	45	11.850	18.175	16.314	1.00	42.57	C
ATOM	325	OE1	GLU	A	45	11.974	17.138	15.584	1.00	45.65	O
ATOM	326	OE2	GLU	A	45	12.059	18.135	17.534	1.00	45.38	O
ATOM	327	C	GLU	A	45	15.049	20.008	14.163	1.00	23.51	C
ATOM	328	O	GLU	A	45	15.665	18.938	14.087	1.00	21.85	O
ATOM	329	N	TYR	A	46	15.338	21.032	13.365	1.00	21.04	N
ATOM	330	CA	TYR	A	46	16.462	21.007	12.427	1.00	19.13	C
ATOM	331	CB	TYR	A	46	16.483	22.254	11.570	1.00	17.94	C

	ATOM	332	CG	TYR	A	46	17.764	22.386	10.802	1.00	19.69	C
	ATOM	333	CD1	TYR	A	46	17.997	21.518	9.668	1.00	20.26	C
	ATOM	334	CE1	TYR	A	46	19.173	21.594	8.970	1.00	17.29	C
	ATOM	335	CZ	TYR	A	46	20.156	22.455	9.359	1.00	19.78	C
	ATOM	336	OH	TYR	A	46	21.298	22.450	8.660	1.00	19.74	O
	ATOM	337	CE2	TYR	A	46	20.022	23.296	10.525	1.00	18.01	C
	ATOM	338	CD2	TYR	A	46	18.805	23.238	11.217	1.00	16.55	C
	ATOM	339	C	TYR	A	46	17.823	20.870	13.191	1.00	18.86	C
	ATOM	340	O	TYR	A	46	18.629	20.020	12.899	1.00	15.62	O
	ATOM	341	N	GLN	A	47	18.016	21.655	14.237	1.00	17.18	N
	ATOM	342	CA	GLN	A	47	19.315	21.642	14.934	1.00	18.48	C
	ATOM	343	CB	GLN	A	47	19.318	22.754	16.011	1.00	17.85	C
	ATOM	344	CG	GLN	A	47	19.410	24.131	15.353	1.00	22.22	C
	ATOM	345	CD	GLN	A	47	19.640	25.233	16.374	1.00	34.82	C
	ATOM	346	OE1	GLN	A	47	19.849	24.955	17.572	1.00	39.14	O
	ATOM	347	NE2	GLN	A	47	19.710	26.471	15.908	1.00	34.78	N
	ATOM	348	C	GLN	A	47	19.587	20.245	15.549	1.00	17.49	C
	ATOM	349	O	GLN	A	47	20.694	19.748	15.509	1.00	19.95	O
	ATOM	350	N	LYS	A	48	18.564	19.613	16.092	1.00	18.22	N
	ATOM	351	CA	LYS	A	48	18.749	18.298	16.728	1.00	19.05	C
	ATOM	352	CB	LYS	A	48	17.621	17.999	17.747	1.00	17.64	C
	ATOM	353	CG	LYS	A	48	17.618	18.937	18.880	1.00	25.10	C
	ATOM	354	CD	LYS	A	48	16.352	18.696	19.801	1.00	30.12	C
	ATOM	355	CE	LYS	A	48	16.372	19.665	21.048	1.00	34.00	C
	ATOM	356	NZ	LYS	A	48	15.228	19.343	22.006	1.00	41.92	N
	ATOM	357	C	LYS	A	48	18.752	17.147	15.802	1.00	20.02	C
	ATOM	358	O	LYS	A	48	19.166	16.100	16.195	1.00	21.47	O
	ATOM	359	N	SER	A	49	18.319	17.286	14.559	1.00	19.51	N
	ATOM	360	CA	SER	A	49	18.157	16.122	13.657	1.00	21.06	C
	ATOM	361	CB	SER	A	49	17.126	16.453	12.529	1.00	21.95	C
	ATOM	362	OG	SER	A	49	15.806	16.402	13.063	1.00	28.82	O
	ATOM	363	C	SER	A	49	19.453	15.653	13.031	1.00	21.87	C
	ATOM	364	O	SER	A	49	20.293	16.463	12.685	1.00	25.70	O
[0194]	ATOM	365	N	ALA	A	50	19.709	14.325	13.034	1.00	17.62	N
	ATOM	366	CA	ALA	A	50	21.003	13.823	12.510	1.00	20.05	C
	ATOM	367	CB	ALA	A	50	21.464	12.588	13.334	1.00	21.90	C
	ATOM	368	C	ALA	A	50	20.883	13.380	11.078	1.00	19.78	C
	ATOM	369	O	ALA	A	50	21.848	13.475	10.335	1.00	21.76	O
	ATOM	370	N	ARG	A	51	19.703	12.881	10.721	1.00	16.46	N
	ATOM	371	CA	ARG	A	51	19.507	12.245	9.348	1.00	14.45	C
	ATOM	372	CB	ARG	A	51	19.170	10.802	9.544	1.00	16.33	C
	ATOM	373	CG	ARG	A	51	20.434	9.958	9.994	1.00	18.11	C
	ATOM	374	CD	ARG	A	51	20.016	8.531	10.500	1.00	22.07	C
	ATOM	375	NE	ARG	A	51	19.447	7.753	9.406	1.00	19.29	N
	ATOM	376	CZ	ARG	A	51	20.183	7.166	8.455	1.00	21.67	C
	ATOM	377	NH1	ARG	A	51	21.508	7.216	8.476	1.00	20.69	N
	ATOM	378	NH2	ARG	A	51	19.580	6.511	7.470	1.00	18.80	N
	ATOM	379	C	ARG	A	51	18.355	12.984	8.701	1.00	13.39	C
	ATOM	380	O	ARG	A	51	17.229	12.963	9.219	1.00	14.66	O
	ATOM	381	N	ILE	A	52	18.646	13.634	7.589	1.00	15.56	N
	ATOM	382	CA	ILE	A	52	17.725	14.620	6.976	1.00	15.45	C
	ATOM	383	CB	ILE	A	52	18.409	16.001	6.987	1.00	17.33	C
	ATOM	384	CG1	ILE	A	52	18.590	16.413	8.488	1.00	24.17	C
	ATOM	385	CD1	ILE	A	52	18.975	17.808	8.662	1.00	25.81	C
	ATOM	386	CG2	ILE	A	52	17.497	17.023	6.310	1.00	17.50	C
	ATOM	387	C	ILE	A	52	17.473	14.338	5.528	1.00	13.17	C
	ATOM	388	O	ILE	A	52	18.377	13.916	4.817	1.00	16.18	O
	ATOM	389	N	SER	A	53	16.216	14.466	5.112	1.00	15.28	N
	ATOM	390	CA	SER	A	53	15.908	14.452	3.677	1.00	15.12	C
	ATOM	391	CB	SER	A	53	14.688	13.542	3.381	1.00	15.13	C
	ATOM	392	OG	SER	A	53	14.092	13.905	2.124	1.00	18.43	O
	ATOM	393	C	SER	A	53	15.540	15.883	3.272	1.00	13.10	C
	ATOM	394	O	SER	A	53	14.727	16.534	3.905	1.00	13.32	O
	ATOM	395	N	ILE	A	54	16.179	16.364	2.210	1.00	12.26	N
	ATOM	396	CA	ILE	A	54	15.834	17.734	1.669	1.00	12.25	C
	ATOM	397	CB	ILE	A	54	16.920	18.733	2.059	1.00	13.80	C
	ATOM	398	CG1	ILE	A	54	16.410	20.191	1.768	1.00	14.36	C
	ATOM	399	CD1	ILE	A	54	17.169	21.204	2.619	1.00	17.18	C

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ATOM	400	CG2	ILE	A	54	18.271	18.431	1.464	1.00	13.72	C
ATOM	401	C	ILE	A	54	15.709	17.632	0.168	1.00	13.56	C
ATOM	402	O	ILE	A	54	16.376	16.770	-0.484	1.00	13.66	O
ATOM	403	N	PHE	A	55	14.831	18.460	-0.385	1.00	13.21	N
ATOM	404	CA	PHE	A	55	14.688	18.472	-1.861	1.00	14.23	C
ATOM	405	CB	PHE	A	55	13.243	18.735	-2.192	1.00	13.92	C
ATOM	406	CG	PHE	A	55	12.725	20.020	-1.601	1.00	16.77	C
ATOM	407	CD1	PHE	A	55	12.812	21.248	-2.335	1.00	18.81	C
ATOM	408	CE1	PHE	A	55	12.278	22.453	-1.790	1.00	19.10	C
ATOM	409	CZ	PHE	A	55	11.706	22.444	-0.515	1.00	21.04	C
ATOM	410	CE2	PHE	A	55	11.560	21.263	0.191	1.00	18.84	C
ATOM	411	CD2	PHE	A	55	12.120	20.012	-0.343	1.00	18.59	C
ATOM	412	C	PHE	A	55	15.571	19.512	-2.550	1.00	16.19	C
ATOM	413	O	PHE	A	55	16.056	20.486	-1.945	1.00	15.34	O
ATOM	414	N	LEU	A	56	15.827	19.259	-3.839	1.00	15.80	N
ATOM	415	CA	LEU	A	56	16.651	20.141	-4.640	1.00	19.19	C
ATOM	416	CB	LEU	A	56	17.465	19.280	-5.611	1.00	18.06	C
ATOM	417	CG	LEU	A	56	18.826	18.777	-5.163	1.00	25.46	C
ATOM	418	CD1	LEU	A	56	19.296	19.055	-3.709	1.00	21.07	C
ATOM	419	CD2	LEU	A	56	19.308	17.498	-5.718	1.00	23.62	C
ATOM	420	C	LEU	A	56	15.687	21.027	-5.436	1.00	20.39	C
ATOM	421	O	LEU	A	56	14.792	20.530	-6.108	1.00	21.29	O
ATOM	422	N	SER	A	57	15.811	22.323	-5.308	1.00	22.23	N
ATOM	423	CA	SER	A	57	14.629	23.224	-5.493	1.00	21.42	C
ATOM	424	CB	SER	A	57	14.923	24.637	-4.936	1.00	21.86	C
ATOM	425	OG	SER	A	57	15.101	24.603	-3.541	1.00	21.51	O
ATOM	426	C	SER	A	57	14.349	23.424	-6.965	1.00	23.87	C
ATOM	427	O	SER	A	57	15.297	23.693	-7.758	1.00	22.92	O
ATOM	428	N	MET	A	58	13.080	23.261	-7.304	1.00	23.19	N
ATOM	429	CA	MET	A	58	12.548	23.663	-8.672	1.00	25.31	C
ATOM	430	CB	MET	A	58	11.266	22.874	-9.005	1.00	24.60	C
ATOM	431	CG	MET	A	58	11.607	21.385	-9.301	1.00	27.71	C
ATOM	432	SD	MET	A	58	10.051	20.458	-9.497	1.00	33.71	S
ATOM	433	CE	MET	A	58	10.568	18.686	-9.482	1.00	29.41	C
ATOM	434	C	MET	A	58	12.329	25.177	-8.706	1.00	26.14	C
ATOM	435	O	MET	A	58	12.392	25.866	-7.632	1.00	24.98	O
ATOM	436	N	ALA	A	59	12.106	25.751	-9.904	1.00	27.13	N
ATOM	437	CA	ALA	A	59	12.062	27.213	-9.951	1.00	28.15	C
ATOM	438	CB	ALA	A	59	12.191	27.747	-11.439	1.00	28.04	C
ATOM	439	C	ALA	A	59	10.830	27.761	-9.241	1.00	28.21	C
ATOM	440	O	ALA	A	59	10.751	28.945	-8.979	1.00	29.38	O
ATOM	441	N	ASP	A	60	9.869	26.921	-8.916	1.00	28.79	N
ATOM	442	CA	ASP	A	60	8.664	27.438	-8.270	1.00	28.55	C
ATOM	443	CB	ASP	A	60	7.378	26.875	-8.940	1.00	29.32	C
ATOM	444	CG	ASP	A	60	7.322	25.297	-8.961	1.00	32.51	C
ATOM	445	OD1	ASP	A	60	8.364	24.621	-8.707	1.00	29.49	O
ATOM	446	OD2	ASP	A	60	6.235	24.708	-9.255	1.00	34.71	O
ATOM	447	C	ASP	A	60	8.681	27.073	-6.777	1.00	25.95	C
ATOM	448	O	ASP	A	60	7.624	26.966	-6.167	1.00	28.60	O
ATOM	449	N	GLU	A	61	9.857	26.783	-6.254	1.00	23.41	N
ATOM	450	CA	GLU	A	61	9.954	26.313	-4.852	1.00	21.75	C
ATOM	451	CB	GLU	A	61	10.472	24.841	-4.789	1.00	22.14	C
ATOM	452	CG	GLU	A	61	9.334	23.800	-4.969	1.00	22.85	C
ATOM	453	CD	GLU	A	61	9.942	22.419	-5.234	1.00	23.97	C
ATOM	454	OE1	GLU	A	61	11.142	22.341	-5.420	1.00	20.90	O
ATOM	455	OE2	GLU	A	61	9.227	21.417	-5.292	1.00	26.97	O
ATOM	456	C	GLU	A	61	10.920	27.231	-4.103	1.00	20.18	C
ATOM	457	O	GLU	A	61	11.889	27.728	-4.677	1.00	23.32	O
ATOM	458	N	ILE	A	62	10.703	27.355	-2.783	1.00	20.93	N
ATOM	459	CA	ILE	A	62	11.790	27.831	-1.925	1.00	20.49	C
ATOM	460	CB	ILE	A	62	11.452	27.629	-0.394	1.00	19.61	C
ATOM	461	CG1	ILE	A	62	10.355	28.603	0.103	1.00	21.94	C
ATOM	462	CD1	ILE	A	62	11.020	30.019	0.412	1.00	22.07	C
ATOM	463	CG2	ILE	A	62	12.797	27.729	0.495	1.00	17.96	C
ATOM	464	C	ILE	A	62	13.219	27.202	-2.308	1.00	22.93	C
ATOM	465	O	ILE	A	62	13.377	25.987	-2.512	1.00	23.90	O
ATOM	466	N	GLU	A	63	14.252	28.050	-2.460	1.00	21.17	N
ATOM	467	CA	GLU	A	63	15.608	27.611	-2.787	1.00	22.24	C

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ATOM	468	CB	GLU	A	63	16.459	28.814	-3.281	1.00	20.55	C
ATOM	469	CG	GLU	A	63	17.877	28.517	-3.682	1.00	23.37	C
ATOM	470	CD	GLU	A	63	18.046	27.241	-4.541	1.00	28.01	C
ATOM	471	OE1	GLU	A	63	17.509	27.176	-5.677	1.00	31.32	O
ATOM	472	OE2	GLU	A	63	18.718	26.288	-4.092	1.00	27.29	O
ATOM	473	C	GLU	A	63	16.249	27.007	-1.514	1.00	20.86	C
ATOM	474	O	GLU	A	63	16.386	27.686	-0.502	1.00	21.90	O
ATOM	475	N	THR	A	64	16.659	25.753	-1.578	1.00	19.63	N
ATOM	476	CA	THR	A	64	17.266	25.076	-0.388	1.00	20.00	C
ATOM	477	CB	THR	A	64	16.744	23.589	-0.386	1.00	19.00	C
ATOM	478	OG1	THR	A	64	17.160	22.946	-1.607	1.00	20.96	O
ATOM	479	CG2	THR	A	64	15.252	23.477	-0.136	1.00	16.95	C
ATOM	480	C	THR	A	64	18.839	25.058	-0.338	1.00	21.64	C
ATOM	481	O	THR	A	64	19.471	24.485	0.615	1.00	20.85	O
ATOM	482	N	GLU	A	65	19.504	25.677	-1.332	1.00	21.16	N
ATOM	483	CA	GLU	A	65	20.913	25.689	-1.432	1.00	22.50	C
ATOM	484	CB	GLU	A	65	21.340	26.668	-2.559	1.00	23.62	C
ATOM	485	CG	GLU	A	65	22.767	26.693	-2.745	1.00	30.52	C
ATOM	486	CD	GLU	A	65	23.160	27.517	-3.974	1.00	42.37	C
ATOM	487	OE1	GLU	A	65	22.565	28.587	-4.228	1.00	49.01	O
ATOM	488	OE2	GLU	A	65	24.082	27.091	4.689	1.00	48.18	O
ATOM	489	C	GLU	A	65	21.681	26.065	-0.107	1.00	21.67	C
ATOM	490	O	GLU	A	65	22.637	25.378	0.285	1.00	21.58	O
ATOM	491	N	GLU	A	66	21.251	27.107	0.539	1.00	22.06	N
ATOM	492	CA	GLU	A	66	21.922	27.550	1.772	1.00	24.28	C
ATOM	493	CB	GLU	A	66	21.366	28.895	2.238	1.00	25.62	C
ATOM	494	CG	GLU	A	66	21.862	30.065	1.389	1.00	31.42	C
ATOM	495	CD	GLU	A	66	21.755	31.366	2.217	1.00	40.44	C
ATOM	496	OE1	GLU	A	66	20.724	31.602	2.862	1.00	40.58	O
ATOM	497	OE2	GLU	A	66	22.739	32.141	2.275	1.00	50.61	O
ATOM	498	C	GLU	A	66	21.719	26.518	2.909	1.00	23.12	C
ATOM	499	O	GLU	A	66	22.630	26.312	3.706	1.00	22.27	O
ATOM	500	N	ILE	A	67	20.545	25.888	2.943	1.00	21.16	N
ATOM	501	CA	ILE	A	67	20.223	24.842	3.958	1.00	20.54	C
ATOM	502	CB	ILE	A	67	18.753	24.477	3.990	1.00	21.00	C
ATOM	503	CG1	ILE	A	67	17.919	25.731	4.322	1.00	19.36	C
ATOM	504	CD1	ILE	A	67	16.522	25.573	4.025	1.00	21.89	C
ATOM	505	CG2	ILE	A	67	18.440	23.384	5.063	1.00	19.82	C
ATOM	506	C	ILE	A	67	21.135	23.626	3.735	1.00	21.86	C
ATOM	507	O	ILE	A	67	21.704	23.050	4.680	1.00	19.72	O
ATOM	508	N	ILE	A	68	21.349	23.267	2.470	1.00	18.55	N
ATOM	509	CA	ILE	A	68	22.203	22.157	2.184	1.00	18.05	C
ATOM	510	CB	ILE	A	68	22.128	21.808	0.601	1.00	18.55	C
ATOM	511	CG1	ILE	A	68	20.713	21.347	0.301	1.00	20.16	C
ATOM	512	CD1	ILE	A	68	20.322	21.253	-1.136	1.00	23.12	C
ATOM	513	CG2	ILE	A	68	23.151	20.770	0.243	1.00	18.10	C
ATOM	514	C	ILE	A	68	23.616	22.381	2.633	1.00	18.96	C
ATOM	515	O	ILE	A	68	24.258	21.490	3.238	1.00	17.04	O
ATOM	516	N	ALA	A	69	24.122	23.598	2.374	1.00	19.13	N
ATOM	517	CA	ALA	A	69	25.447	23.874	2.793	1.00	19.92	C
ATOM	518	CB	ALA	A	69	25.881	25.227	2.283	1.00	21.07	C
ATOM	519	C	ALA	A	69	25.502	23.772	4.343	1.00	20.96	C
ATOM	520	O	ALA	A	69	26.436	23.148	4.881	1.00	22.52	O
ATOM	521	N	ASP	A	70	24.487	24.286	5.032	1.00	21.36	N
ATOM	522	CA	ASP	A	70	24.473	24.221	6.517	1.00	20.59	C
ATOM	523	CB	ASP	A	70	23.263	24.921	7.103	1.00	21.15	C
ATOM	524	CG	ASP	A	70	23.460	25.247	8.584	1.00	25.01	C
ATOM	525	OD1	ASP	A	70	24.211	26.218	8.887	1.00	27.75	O
ATOM	526	OD2	ASP	A	70	22.852	24.532	9.408	1.00	22.61	O
ATOM	527	C	ASP	A	70	24.430	22.782	6.994	1.00	21.46	C
ATOM	528	O	ASP	A	70	25.055	22.422	7.986	1.00	20.06	O
ATOM	529	N	ILE	A	71	23.600	21.971	6.324	1.00	18.51	N
ATOM	530	CA	ILE	A	71	23.519	20.546	6.680	1.00	18.05	C
ATOM	531	CB	ILE	A	71	22.545	19.743	5.643	1.00	15.86	C
ATOM	532	CG1	ILE	A	71	21.092	20.072	5.963	1.00	16.34	C
ATOM	533	CD1	ILE	A	71	20.122	19.692	4.781	1.00	15.57	C
ATOM	534	CG2	ILE	A	71	22.829	18.196	5.712	1.00	17.22	C
ATOM	535	C	ILE	A	71	24.867	19.867	6.723	1.00	19.51	C

	ATOM	536	O	ILE	A	71	25.179	19.145	7.658	1.00	20.38	O
	ATOM	537	N	PHE	A	72	25.680	20.066	5.692	1.00	20.67	N
	ATOM	538	CA	PHE	A	72	26.945	19.415	5.658	1.00	21.96	C
	ATOM	539	CB	PHE	A	72	27.464	19.454	4.264	1.00	22.50	C
	ATOM	540	CG	PHE	A	72	26.819	18.408	3.387	1.00	23.69	C
	ATOM	541	CD1	PHE	A	72	27.217	17.064	3.479	1.00	23.31	C
	ATOM	542	CE1	PHE	A	72	26.602	16.062	2.653	1.00	21.87	C
	ATOM	543	CZ	PHE	A	72	25.609	16.459	1.774	1.00	22.87	C
	ATOM	544	CE2	PHE	A	72	25.244	17.799	1.629	1.00	27.18	C
	ATOM	545	CD2	PHE	A	72	25.847	18.797	2.481	1.00	22.27	C
	ATOM	546	C	PHE	A	72	27.950	20.073	6.651	1.00	25.45	C
	ATOM	547	O	PHE	A	72	28.808	19.401	7.185	1.00	25.67	O
	ATOM	548	N	GLN	A	73	27.779	21.354	6.910	1.00	25.67	N
	ATOM	549	CA	GLN	A	73	28.596	22.029	7.961	1.00	27.78	C
	ATOM	550	CB	GLN	A	73	28.360	23.552	7.877	1.00	28.10	C
	ATOM	551	CG	GLN	A	73	29.088	24.175	6.623	1.00	33.34	C
	ATOM	552	CD	GLN	A	73	28.867	25.663	6.455	1.00	39.26	C
	ATOM	553	OE1	GLN	A	73	28.421	26.353	7.388	1.00	40.57	O
	ATOM	554	NE2	GLN	A	73	29.173	26.178	5.253	1.00	41.97	N
	ATOM	555	C	GLN	A	73	28.333	21.496	9.367	1.00	27.15	C
	ATOM	556	O	GLN	A	73	29.181	21.568	10.266	1.00	28.48	O
	ATOM	557	N	ARG	A	74	27.125	21.042	9.615	1.00	23.71	N
	ATOM	558	CA	ARG	A	74	26.798	20.467	10.848	1.00	24.04	C
	ATOM	559	CB	ARG	A	74	25.452	20.966	11.311	1.00	22.64	C
	ATOM	560	CG	ARG	A	74	25.534	22.530	11.413	1.00	27.44	C
	ATOM	561	CD	ARG	A	74	24.349	23.091	12.024	1.00	26.94	C
	ATOM	562	NE	ARG	A	74	24.205	24.508	11.589	1.00	26.75	N
	ATOM	563	CZ	ARG	A	74	24.834	25.564	12.112	1.00	33.30	C
	ATOM	564	NH1	ARG	A	74	25.660	25.451	13.160	1.00	29.53	N
	ATOM	565	NH2	ARG	A	74	24.570	26.779	11.592	1.00	32.91	N
	ATOM	566	C	ARG	A	74	26.939	18.918	10.925	1.00	22.80	C
	ATOM	567	O	ARG	A	74	26.407	18.312	11.880	1.00	23.69	O
	ATOM	568	N	GLY	A	75	27.627	18.351	9.929	1.00	22.95	N
[0197]	ATOM	569	CA	GLY	A	75	27.853	16.911	9.815	1.00	23.69	C
	ATOM	570	C	GLY	A	75	26.554	16.105	9.893	1.00	23.51	C
	ATOM	571	O	GLY	A	75	26.522	15.010	10.439	1.00	24.19	O
	ATOM	572	N	LYS	A	76	25.462	16.622	9.329	1.00	21.84	N
	ATOM	573	CA	LYS	A	76	24.262	15.852	9.279	1.00	20.35	C
	ATOM	574	CB	LYS	A	76	22.993	16.751	9.166	1.00	18.13	C
	ATOM	575	CG	LYS	A	76	22.874	17.690	10.443	1.00	21.67	C
	ATOM	576	CD	LYS	A	76	21.643	18.601	10.433	1.00	22.24	C
	ATOM	577	CE	LYS	A	76	21.535	19.193	11.881	1.00	23.57	C
	ATOM	578	NZ	LYS	A	76	22.202	20.416	11.617	1.00	35.29	N
	ATOM	579	C	LYS	A	76	24.387	14.916	8.082	1.00	18.71	C
	ATOM	580	O	LYS	A	76	25.087	15.234	7.143	1.00	22.44	O
	ATOM	581	N	ILE	A	77	23.673	13.797	8.112	1.00	18.96	N
	ATOM	582	CA	ILE	A	77	23.624	12.828	7.012	1.00	18.65	C
	ATOM	583	CB	ILE	A	77	23.330	11.422	7.524	1.00	18.85	C
	ATOM	584	CG1	ILE	A	77	24.232	11.151	8.767	1.00	21.43	C
	ATOM	585	CD1	ILE	A	77	25.595	11.261	8.373	1.00	21.74	C
	ATOM	586	CG2	ILE	A	77	23.560	10.393	6.329	1.00	18.48	C
	ATOM	587	C	ILE	A	77	22.477	13.282	6.107	1.00	17.03	C
	ATOM	588	O	ILE	A	77	21.353	13.402	6.535	1.00	19.00	O
	ATOM	589	N	CYS	A	78	22.784	13.466	4.825	1.00	17.78	N
	ATOM	590	CA	CYS	A	78	21.866	14.219	3.949	1.00	15.25	C
	ATOM	591	CB	CYS	A	78	22.615	15.374	3.295	1.00	16.89	C
	ATOM	592	SG	CYS	A	78	21.531	16.474	2.355	1.00	21.44	S
	ATOM	593	C	CYS	A	78	21.363	13.266	2.827	1.00	16.06	C
	ATOM	594	O	CYS	A	78	22.192	12.565	2.189	1.00	17.19	O
	ATOM	595	N	PHE	A	79	20.042	13.237	2.659	1.00	13.50	N
	ATOM	596	CA	PHE	A	79	19.407	12.395	1.594	1.00	13.92	C
	ATOM	597	CB	PHE	A	79	18.540	11.326	2.217	1.00	14.86	C
	ATOM	598	CG	PHE	A	79	19.293	10.360	3.117	1.00	14.57	C
	ATOM	599	CD1	PHE	A	79	19.743	9.140	2.601	1.00	12.29	C
	ATOM	600	CE1	PHE	A	79	20.440	8.223	3.408	1.00	14.34	C
	ATOM	601	CZ	PHE	A	79	20.715	8.578	4.778	1.00	16.25	C
	ATOM	602	CE2	PHE	A	79	20.214	9.806	5.269	1.00	18.11	C
	ATOM	603	CD2	PHE	A	79	19.522	10.695	4.455	1.00	14.04	C

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ATOM	604	C	PHE	A	79	18.600	13.301	0.694	1.00	13.45	C
ATOM	605	O	PHE	A	79	17.970	14.279	1.181	1.00	14.20	O
ATOM	606	N	ILE	A	80	18.581	12.963	-0.616	1.00	13.14	N
ATOM	607	CA	ILE	A	80	17.767	13.735	-1.568	1.00	11.69	C
ATOM	608	CB	ILE	A	80	18.688	14.533	-2.574	1.00	14.93	C
ATOM	609	CG1	ILE	A	80	19.599	13.562	-3.330	1.00	13.15	C
ATOM	610	CD1	ILE	A	80	20.237	14.212	-4.640	1.00	16.78	C
ATOM	611	CG2	ILE	A	80	19.512	15.638	-1.757	1.00	14.31	C
ATOM	612	C	ILE	A	80	16.810	12.757	-2.300	1.00	12.76	C
ATOM	613	O	ILE	A	80	17.078	11.545	-2.355	1.00	11.05	O
ATOM	614	N	PRO	A	81	15.760	13.283	-2.938	1.00	11.52	N
ATOM	615	CA	PRO	A	81	14.855	12.452	-3.717	1.00	13.35	C
ATOM	616	CB	PRO	A	81	13.744	13.409	-4.175	1.00	14.03	C
ATOM	617	CG	PRO	A	81	13.742	14.505	-3.063	1.00	11.48	C
ATOM	618	CD	PRO	A	81	15.196	14.649	-2.695	1.00	14.45	C
ATOM	619	C	PRO	A	81	15.517	11.827	-4.899	1.00	12.85	C
ATOM	620	O	PRO	A	81	16.301	12.452	-5.590	1.00	13.58	O
ATOM	621	N	ARG	A	82	15.134	10.563	-5.152	1.00	13.48	N
ATOM	622	CA	ARG	A	82	15.463	9.890	-6.447	1.00	13.20	C
ATOM	623	CB	ARG	A	82	16.587	8.873	-6.305	1.00	12.30	C
ATOM	624	CG	ARG	A	82	16.814	8.091	-7.687	1.00	14.27	C
ATOM	625	CD	ARG	A	82	17.781	6.921	-7.474	1.00	20.28	C
ATOM	626	NE	ARG	A	82	17.077	5.930	-6.640	1.00	22.14	N
ATOM	627	CZ	ARG	A	82	17.698	4.934	-5.986	1.00	21.84	C
ATOM	628	NH1	ARG	A	82	19.018	4.811	-6.072	1.00	23.63	N
ATOM	629	NH2	ARG	A	82	16.994	4.051	-5.283	1.00	19.24	N
ATOM	630	C	ARG	A	82	14.166	9.263	-6.886	1.00	14.45	C
ATOM	631	O	ARG	A	82	13.644	8.326	-6.221	1.00	15.42	O
ATOM	632	N	TYR	A	83	13.546	9.843	-7.915	1.00	14.47	N
ATOM	633	CA	TYR	A	83	12.246	9.480	-8.311	1.00	16.42	C
ATOM	634	CB	TYR	A	83	11.468	10.749	-8.691	1.00	18.34	C
ATOM	635	CG	TYR	A	83	10.012	10.518	-9.073	1.00	22.37	C
ATOM	636	CD1	TYR	A	83	9.033	10.105	-8.136	1.00	24.51	C
ATOM	637	CE1	TYR	A	83	7.656	9.908	-8.514	1.00	25.17	C
ATOM	638	CZ	TYR	A	83	7.308	10.177	-9.820	1.00	25.52	C
ATOM	639	OH	TYR	A	83	6.072	10.001	-10.232	1.00	31.18	O
ATOM	640	CE2	TYR	A	83	8.239	10.531	-10.759	1.00	27.71	C
ATOM	641	CD2	TYR	A	83	9.602	10.708	-10.397	1.00	28.66	C
ATOM	642	C	TYR	A	83	12.343	8.513	-9.532	1.00	18.96	C
ATOM	643	O	TYR	A	83	13.116	8.755	-10.431	1.00	18.73	O
ATOM	644	N	ARG	A	84	11.541	7.443	-9.519	1.00	21.01	N
ATOM	645	CA	ARG	A	84	11.510	6.535	-10.659	1.00	23.34	C
ATOM	646	CB	ARG	A	84	11.552	5.068	-10.125	1.00	24.83	C
ATOM	647	CG	ARG	A	84	11.659	3.978	-11.244	1.00	26.43	C
ATOM	648	CD	ARG	A	84	11.800	2.541	-10.649	1.00	33.02	C
ATOM	649	NE	ARG	A	84	11.140	1.600	-11.583	1.00	35.95	N
ATOM	650	CZ	ARG	A	84	11.755	1.058	-12.607	1.00	36.97	C
ATOM	651	NH1	ARG	A	84	13.034	1.360	-12.780	1.00	39.69	N
ATOM	652	NH2	ARG	A	84	11.116	0.207	-13.439	1.00	33.48	N
ATOM	653	C	ARG	A	84	10.188	6.812	-11.337	1.00	22.99	C
ATOM	654	O	ARG	A	84	9.133	6.536	-10.766	1.00	22.15	O
ATOM	655	N	PHE	A	85	10.248	7.467	-12.503	1.00	24.13	N
ATOM	656	CA	PHE	A	85	9.066	7.979	-13.200	1.00	26.47	C
ATOM	657	CB	PHE	A	85	9.450	8.895	-14.368	1.00	28.76	C
ATOM	658	CG	PHE	A	85	10.217	10.142	-13.921	1.00	31.10	C
ATOM	659	CD1	PHE	A	85	9.593	11.362	-13.914	1.00	36.11	C
ATOM	660	CE1	PHE	A	85	10.266	12.553	-13.534	1.00	33.78	C
ATOM	661	CZ	PHE	A	85	11.570	12.485	-13.072	1.00	32.05	C
ATOM	662	CE2	PHE	A	85	12.231	11.226	-13.038	1.00	31.48	C
ATOM	663	CD2	PHE	A	85	11.544	10.063	-13.473	1.00	34.38	C
ATOM	664	C	PHE	A	85	8.182	6.842	-13.696	1.00	27.34	C
ATOM	665	O	PHE	A	85	7.000	6.978	-13.674	1.00	24.29	O
ATOM	666	N	GLN	A	86	8.782	5.702	-14.015	1.00	28.41	N
ATOM	667	CA	GLN	A	86	7.981	4.600	-14.585	1.00	30.58	C
ATOM	668	CB	GLN	A	86	8.862	3.419	-14.988	1.00	32.22	C
ATOM	669	CG	GLN	A	86	9.830	3.676	-16.072	1.00	36.11	C
ATOM	670	CD	GLN	A	86	11.206	4.086	-15.568	1.00	44.77	C
ATOM	671	OE1	GLN	A	86	11.348	4.775	-14.536	1.00	39.48	O

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ATOM	672	NE2	GLN	A	86	12.235	3.673	-16.310	1.00	45.88	N
ATOM	673	C	GLN	A	86	6.989	4.093	-13.561	1.00	31.78	C
ATOM	674	O	GLN	A	86	5.949	3.611	-13.944	1.00	33.81	O
ATOM	675	N	SER	A	87	7.297	4.156	-12.259	1.00	30.26	N
ATOM	676	CA	SER	A	87	6.431	3.516	-11.263	1.00	29.69	C
ATOM	677	CB	SER	A	87	7.175	2.398	-10.500	1.00	28.91	C
ATOM	678	OG	SER	A	87	8.473	2.834	-10.075	1.00	27.79	O
ATOM	679	C	SER	A	87	5.925	4.546	-10.266	1.00	30.02	C
ATOM	680	O	SER	A	87	5.280	4.189	-9.284	1.00	28.84	O
ATOM	681	N	ASN	A	88	6.235	5.823	-10.521	1.00	27.83	N
ATOM	682	CA	ASN	A	88	5.793	6.903	-9.624	1.00	26.85	C
ATOM	683	CB	ASN	A	88	4.295	7.040	-9.617	1.00	25.25	C
ATOM	684	CG	ASN	A	88	3.850	8.178	-8.716	1.00	30.42	C
ATOM	685	OD1	ASN	A	88	4.561	9.217	-8.645	1.00	30.06	O
ATOM	686	ND2	ASN	A	88	2.734	7.997	-7.958	1.00	32.98	N
ATOM	687	C	ASN	A	88	6.253	6.620	-8.186	1.00	26.98	C
ATOM	688	O	ASN	A	88	5.503	6.771	-7.240	1.00	28.17	O
ATOM	689	N	HIS	A	89	7.508	6.239	-8.012	1.00	25.53	N
ATOM	690	CA	HIS	A	89	8.011	5.740	-6.679	1.00	22.37	C
ATOM	691	CB	HIS	A	89	8.513	4.302	-6.942	1.00	21.16	C
ATOM	692	CG	HIS	A	89	9.461	3.775	-5.882	1.00	21.30	C
ATOM	693	ND1	HIS	A	89	9.042	3.510	-4.599	1.00	20.11	N
ATOM	694	CE1	HIS	A	89	10.055	3.056	-3.880	1.00	20.07	C
ATOM	695	NE2	HIS	A	89	11.127	3.010	-4.658	1.00	24.52	N
ATOM	696	CD2	HIS	A	89	10.773	3.439	-5.929	1.00	20.59	C
ATOM	697	C	HIS	A	89	9.219	6.642	-6.403	1.00	19.25	C
ATOM	698	O	HIS	A	89	10.085	6.860	-7.279	1.00	20.65	O
ATOM	699	N	MET	A	90	9.405	7.018	-5.129	1.00	17.40	N
ATOM	700	CA	MET	A	90	10.592	7.846	-4.793	1.00	16.02	C
ATOM	701	CB	MET	A	90	10.087	9.216	-4.280	1.00	17.49	C
ATOM	702	CG	MET	A	90	11.203	10.212	-3.936	1.00	23.53	C
ATOM	703	SD	MET	A	90	10.461	11.790	-3.319	1.00	22.92	S
ATOM	704	CE	MET	A	90	9.216	11.181	-2.224	1.00	14.29	C
ATOM	705	C	MET	A	90	11.344	7.094	-3.658	1.00	16.00	C
ATOM	706	O	MET	A	90	10.717	6.389	-2.770	1.00	17.72	O
ATOM	707	N	ASP	A	91	12.673	7.196	-3.695	1.00	13.81	N
ATOM	708	CA	ASP	A	91	13.525	6.838	-2.509	1.00	14.46	C
ATOM	709	CB	ASP	A	91	14.574	5.769	-2.870	1.00	13.77	C
ATOM	710	CG	ASP	A	91	13.918	4.461	-3.224	1.00	16.45	C
ATOM	711	OD1	ASP	A	91	13.278	3.927	-2.318	1.00	18.76	O
ATOM	712	OD2	ASP	A	91	14.127	4.041	-4.349	1.00	14.20	O
ATOM	713	C	ASP	A	91	14.281	8.082	-2.095	1.00	14.34	C
ATOM	714	O	ASP	A	91	14.330	9.076	-2.855	1.00	15.93	O
ATOM	715	N	MET	A	92	14.845	8.071	-0.893	1.00	12.66	N
ATOM	716	CA	MET	A	92	15.703	9.176	-0.504	1.00	14.57	C
ATOM	717	CB	MET	A	92	15.246	9.678	0.907	1.00	15.11	C
ATOM	718	CG	MET	A	92	13.872	10.318	0.926	1.00	14.13	C
ATOM	719	SD	MET	A	92	13.918	11.814	-0.128	1.00	16.53	S
ATOM	720	CE	MET	A	92	12.228	12.353	0.093	1.00	18.67	C
ATOM	721	C	MET	A	92	17.132	8.619	-0.466	1.00	13.21	C
ATOM	722	O	MET	A	92	17.417	7.613	0.269	1.00	14.23	O
ATOM	723	N	VAL	A	93	18.041	9.219	-1.264	1.00	12.37	N
ATOM	724	CA	VAL	A	93	19.322	8.631	-1.449	1.00	12.98	C
ATOM	725	CB	VAL	A	93	19.626	8.315	-2.937	1.00	13.45	C
ATOM	726	CG1	VAL	A	93	18.670	7.204	-3.424	1.00	14.86	C
ATOM	727	CG2	VAL	A	93	19.494	9.576	-3.840	1.00	12.24	C
ATOM	728	C	VAL	A	93	20.466	9.556	-0.939	1.00	14.15	C
ATOM	729	O	VAL	A	93	20.377	10.780	-1.042	1.00	13.13	O
ATOM	730	N	ARG	A	94	21.520	8.922	-0.405	1.00	15.35	N
ATOM	731	CA	ARG	A	94	22.549	9.749	0.291	1.00	15.02	C
ATOM	732	CB	ARG	A	94	23.371	8.863	1.190	1.00	16.56	C
ATOM	733	CG	ARG	A	94	24.352	9.728	2.049	1.00	17.42	C
ATOM	734	CD	ARG	A	94	24.945	8.834	3.140	1.00	23.35	C
ATOM	735	NE	ARG	A	94	25.904	9.607	3.940	1.00	22.52	N
ATOM	736	CZ	ARG	A	94	26.793	9.032	4.756	1.00	29.00	C
ATOM	737	NH1	ARG	A	94	26.865	7.720	4.810	1.00	28.73	N
ATOM	738	NH2	ARG	A	94	27.625	9.760	5.473	1.00	25.29	N
ATOM	739	C	ARG	A	94	23.464	10.499	-0.627	1.00	15.54	C

	ATOM	740	O	ARG	A	94	23.991	9.924	-1.589	1.00	17.17	O
	ATOM	741	N	ILE	A	95	23.688	11.787	-0.373	1.00	14.67	N
	ATOM	742	CA	ILE	A	95	24.779	12.522	-1.054	1.00	17.46	C
	ATOM	743	CB	ILE	A	95	24.276	13.741	-1.741	1.00	17.08	C
	ATOM	744	CG1	ILE	A	95	23.312	14.489	-0.787	1.00	18.32	C
	ATOM	745	CD1	ILE	A	95	23.148	16.046	-1.172	1.00	16.44	C
	ATOM	746	CG2	ILE	A	95	23.499	13.304	-3.074	1.00	16.84	C
	ATOM	747	C	ILE	A	95	25.818	12.949	0.023	1.00	19.09	C
	ATOM	748	O	ILE	A	95	25.462	13.046	1.239	1.00	18.97	O
	ATOM	749	N	GLU	A	96	27.058	13.170	-0.398	1.00	21.56	N
	ATOM	750	CA	GLU	A	96	28.150	13.296	0.600	1.00	23.34	C
	ATOM	751	CB	GLU	A	96	29.242	12.309	0.335	1.00	24.73	C
	ATOM	752	CG	GLU	A	96	28.762	10.904	0.404	1.00	34.00	C
	ATOM	753	CD	GLU	A	96	29.160	10.191	1.642	1.00	42.71	C
	ATOM	754	OE1	GLU	A	96	29.371	10.847	2.688	1.00	49.25	O
	ATOM	755	OE2	GLU	A	96	29.254	8.951	1.568	1.00	44.45	O
	ATOM	756	C	GLU	A	96	28.754	14.704	0.637	1.00	23.67	C
	ATOM	757	O	GLU	A	96	29.551	14.982	1.505	1.00	24.48	O
	ATOM	758	N	SER	A	97	28.385	15.569	-0.288	1.00	21.96	N
	ATOM	759	CA	SER	A	97	28.787	16.990	-0.259	1.00	22.31	C
	ATOM	760	CB	SER	A	97	30.249	17.187	-0.782	1.00	21.65	C
	ATOM	761	OG	SER	A	97	30.304	17.117	-2.197	1.00	24.36	O
	ATOM	762	C	SER	A	97	27.783	17.844	-1.061	1.00	22.63	C
	ATOM	763	O	SER	A	97	27.027	17.322	-1.925	1.00	21.88	O
	ATOM	764	N	PRO	A	98	27.776	19.157	-0.821	1.00	22.91	N
	ATOM	765	CA	PRO	A	98	26.969	20.010	1.688	1.00	23.03	C
	ATOM	766	CB	PRO	A	98	27.137	21.428	-1.082	1.00	22.52	C
	ATOM	767	CG	PRO	A	98	27.492	21.032	0.458	1.00	23.28	C
	ATOM	768	CD	PRO	A	98	28.378	19.875	0.314	1.00	22.52	C
	ATOM	769	C	PRO	A	98	27.530	19.938	-3.089	1.00	23.62	C
	ATOM	770	O	PRO	A	98	26.766	20.022	-4.059	1.00	23.89	O
	ATOM	771	N	GLU	A	99	28.853	19.840	-3.222	1.00	21.32	N
	ATOM	772	CA	GLU	A	99	29.437	19.957	-4.567	1.00	22.45	C
[0200]	ATOM	773	CB	GLU	A	99	30.929	20.113	-4.507	1.00	23.93	C
	ATOM	774	CG	GLU	A	99	31.371	21.472	-3.818	1.00	25.24	C
	ATOM	775	CD	GLU	A	99	31.144	21.497	-2.277	1.00	29.18	C
	ATOM	776	OE1	GLU	A	99	31.140	20.454	-1.614	1.00	26.57	O
	ATOM	777	OE2	GLU	A	99	31.077	22.603	-1.711	1.00	38.21	O
	ATOM	778	C	GLU	A	99	29.098	18.774	-5.460	1.00	22.64	C
	ATOM	779	O	GLU	A	99	29.074	18.887	-6.671	1.00	20.15	O
	ATOM	780	N	GLU	A	100	28.825	17.629	-4.861	1.00	20.72	N
	ATOM	781	CA	GLU	A	100	28.465	16.444	-5.640	1.00	21.34	C
	ATOM	782	CB	GLU	A	100	28.154	15.293	-4.643	1.00	21.62	C
	ATOM	783	CG	GLU	A	100	27.922	14.011	-5.314	1.00	25.82	C
	ATOM	784	CD	GLU	A	100	27.319	12.934	-4.369	1.00	31.57	C
	ATOM	785	OE1	GLU	A	100	27.622	12.907	-3.132	1.00	25.93	O
	ATOM	786	OE2	GLU	A	100	26.571	12.093	-4.903	1.00	32.56	O
	ATOM	787	C	GLU	A	100	27.221	16.717	-6.497	1.00	19.50	C
	ATOM	788	O	GLU	A	100	27.060	16.161	-7.577	1.00	19.06	O
	ATOM	789	N	ILE	A	101	26.321	17.545	-5.981	1.00	19.10	N
	ATOM	790	CA	ILE	A	101	25.056	17.857	-6.618	1.00	18.77	C
	ATOM	791	CB	ILE	A	101	24.209	18.857	-5.757	1.00	17.35	C
	ATOM	792	CG1	ILE	A	101	23.813	18.162	-4.450	1.00	18.96	C
	ATOM	793	CD1	ILE	A	101	23.165	19.126	-3.461	1.00	17.29	C
	ATOM	794	CG2	ILE	A	101	22.951	19.224	-6.537	1.00	19.50	C
	ATOM	795	C	ILE	A	101	25.253	18.394	-8.063	1.00	20.45	C
	ATOM	796	O	ILE	A	101	24.525	17.983	-8.982	1.00	18.88	O
	ATOM	797	N	SER	A	102	26.255	19.245	-8.220	1.00	20.54	N
	ATOM	798	CA	SER	A	102	26.584	19.820	-9.502	1.00	22.66	C
	ATOM	799	CB	SER	A	102	27.771	20.762	-9.302	1.00	23.50	C
	ATOM	800	OG	SER	A	102	27.231	21.781	-8.529	1.00	33.75	O
	ATOM	801	C	SER	A	102	26.995	18.837	-10.578	1.00	21.28	C
	ATOM	802	O	SER	A	102	26.962	19.186	-11.764	1.00	21.06	O
	ATOM	803	N	LEU	A	103	27.482	17.663	-10.178	1.00	20.08	N
	ATOM	804	CA	LEU	A	103	27.932	16.660	-11.182	1.00	17.92	C
	ATOM	805	CB	LEU	A	103	29.136	15.882	-10.661	1.00	18.36	C
	ATOM	806	CG	LEU	A	103	30.328	16.789	-10.248	1.00	20.02	C
	ATOM	807	CD1	LEU	A	103	31.579	15.990	-9.884	1.00	21.48	C

	ATOM	808	CD2	LEU	A	103	30.657	17.976	-11.191	1.00 18.49 C
	ATOM	809	C	LEU	A	103	26.830	15.648	-11.578	1.00 17.74 C
	ATOM	810	O	LEU	A	103	27.033	14.866	-12.477	1.00 17.44 O
	ATOM	811	N	LEU	A	104	25.712	15.605	-10.846	1.00 15.72 N
	ATOM	812	CA	LEU	A	104	24.727	14.565	-11.098	1.00 15.38 C
	ATOM	813	CB	LEU	A	104	23.665	14.543	-9.927	1.00 16.56 C
	ATOM	814	CG	LEU	A	104	24.298	14.272	-8.518	1.00 15.46 C
	ATOM	815	CD1	LEU	A	104	23.202	14.321	-7.422	1.00 18.17 C
	ATOM	816	CD2	LEU	A	104	24.857	12.864	-8.498	1.00 17.22 C
	ATOM	817	C	LEU	A	104	23.992	14.829	-12.405	1.00 15.72 C
	ATOM	818	O	LEU	A	104	23.861	15.991	-12.847	1.00 15.59 O
	ATOM	819	N	PRO	A	105	23.507	13.754	-13.041	1.00 15.11 N
	ATOM	820	CA	PRO	A	105	22.640	13.930	-14.187	1.00 16.55 C
	ATOM	821	CB	PRO	A	105	22.409	12.487	-14.697	1.00 16.17 C
	ATOM	822	CG	PRO	A	105	22.763	11.562	-13.465	1.00 16.15 C
	ATOM	823	CD	PRO	A	105	23.582	12.367	-12.524	1.00 16.10 C
	ATOM	824	C	PRO	A	105	21.314	14.581	-13.679	1.00 17.76 C
	ATOM	825	O	PRO	A	105	21.038	14.553	-12.460	1.00 16.42 O
	ATOM	826	N	LYS	A	106	20.496	15.113	-14.601	1.00 17.66 N
	ATOM	827	CA	LYS	A	106	19.292	15.764	-14.253	1.00 18.80 C
	ATOM	828	CB	LYS	A	106	19.305	17.229	-14.709	1.00 18.06 C
	ATOM	829	CG	LYS	A	106	20.264	18.097	-13.892	1.00 21.10 C
	ATOM	830	CD	LYS	A	106	20.270	19.551	-14.382	1.00 28.03 C
	ATOM	831	CE	LYS	A	106	20.277	19.650	-15.954	1.00 40.23 C
	ATOM	832	NZ	LYS	A	106	20.569	21.063	-16.595	1.00 46.64 N
	ATOM	833	C	LYS	A	106	18.100	15.007	-14.877	1.00 19.97 C
	ATOM	834	O	LYS	A	106	18.264	14.345	-15.883	1.00 18.50 O
	ATOM	835	N	THR	A	107	16.928	15.110	-14.244	1.00 18.19 N
	ATOM	836	CA	THR	A	107	15.711	14.601	-14.829	1.00 17.69 C
	ATOM	837	CB	THR	A	107	14.653	14.412	-13.704	1.00 17.03 C
	ATOM	838	OG1	THR	A	107	14.196	15.721	-13.272	1.00 16.55 O
	ATOM	839	CG2	THR	A	107	15.357	13.671	-12.507	1.00 18.75 C
	ATOM	840	C	THR	A	107	15.090	15.544	-15.874	1.00 17.64 C
[0201]	ATOM	841	O	THR	A	107	15.562	16.630	-16.082	1.00 17.90 O
	ATOM	842	N	SER	A	108	13.972	15.132	-16.424	1.00 20.72 N
	ATOM	843	CA	SER	A	108	13.146	15.984	-17.296	1.00 21.74 C
	ATOM	844	CB	SER	A	108	12.089	15.113	-18.011	1.00 23.76 C
	ATOM	845	OG	SER	A	108	11.091	14.671	-17.069	1.00 25.63 O
	ATOM	846	C	SER	A	108	12.491	17.203	-16.602	1.00 24.60 C
	ATOM	847	O	SER	A	108	11.853	18.051	-17.271	1.00 24.62 O
	ATOM	848	N	TRP	A	109	12.599	17.280	-15.271	1.00 20.69 N
	ATOM	849	CA	TRP	A	109	12.236	18.484	-14.541	1.00 21.68 C
	ATOM	850	CB	TRP	A	109	11.549	18.037	-13.199	1.00 19.67 C
	ATOM	851	CG	TRP	A	109	10.152	17.445	-13.495	1.00 25.15 C
	ATOM	852	CD1	TRP	A	109	9.849	16.219	-14.073	1.00 23.87 C
	ATOM	853	NE1	TRP	A	109	8.454	16.109	-14.219	1.00 26.45 N
	ATOM	854	CE2	TRP	A	109	7.853	17.250	-13.725	1.00 28.53 C
	ATOM	855	CD2	TRP	A	109	8.875	18.107	-13.262	1.00 25.35 C
	ATOM	856	CE3	TRP	A	109	8.506	19.335	-12.668	1.00 31.59 C
	ATOM	857	CZ3	TRP	A	109	7.111	19.672	-12.555	1.00 31.82 C
	ATOM	858	CH2	TRP	A	109	6.136	18.801	-13.014	1.00 30.43 C
	ATOM	859	CZ2	TRP	A	109	6.470	17.575	-13.567	1.00 29.59 C
	ATOM	860	C	TRP	A	109	13.481	19.358	-14.293	1.00 20.12 C
	ATOM	861	O	TRP	A	109	13.451	20.323	-13.545	1.00 20.71 O
	ATOM	862	N	ASN	A	110	14.597	19.032	-14.956	1.00 19.96 N
	ATOM	863	CA	ASN	A	110	15.827	19.778	-14.780	1.00 21.74 C
	ATOM	864	CB	ASN	A	110	15.577	21.216	-15.234	1.00 23.91 C
	ATOM	865	CG	ASN	A	110	16.621	21.713	-16.176	1.00 31.98 C
	ATOM	866	OD1	ASN	A	110	17.075	20.986	-17.071	1.00 38.69 O
	ATOM	867	ND2	ASN	A	110	17.014	22.997	-16.013	1.00 41.95 N
	ATOM	868	C	ASN	A	110	16.354	19.804	-13.318	1.00 21.35 C
	ATOM	869	O	ASN	A	110	16.988	20.758	-12.934	1.00 22.08 O
	ATOM	870	N	ILE	A	111	16.069	18.764	-12.555	1.00 20.28 N
	ATOM	871	CA	ILE	A	111	16.535	18.639	-11.161	1.00 21.05 C
	ATOM	872	CB	ILE	A	111	15.304	18.209	-10.257	1.00 21.10 C
	ATOM	873	CG1	ILE	A	111	14.282	19.338	-10.262	1.00 23.19 C
	ATOM	874	CD1	ILE	A	111	14.976	20.726	-9.809	1.00 25.43 C
	ATOM	875	CG2	ILE	A	111	15.743	18.016	-8.782	1.00 27.20 C

	ATOM	876	C	ILE	A	111	17.608	17.498	-11.130	1.00	18.21	C
	ATOM	877	O	ILE	A	111	17.429	16.414	-11.735	1.00	19.30	O
	ATOM	878	N	PRO	A	112	18.677	17.698	-10.372	1.00	18.69	N
	ATOM	879	CA	PRO	A	112	19.645	16.651	-10.228	1.00	16.69	C
	ATOM	880	CB	PRO	A	112	20.819	17.329	-9.457	1.00	17.69	C
	ATOM	881	CG	PRO	A	112	20.636	18.839	-9.732	1.00	16.92	C
	ATOM	882	CD	PRO	A	112	19.108	18.945	-9.686	1.00	17.35	C
	ATOM	883	C	PRO	A	112	19.111	15.456	-9.426	1.00	18.23	C
	ATOM	884	O	PRO	A	112	18.409	15.629	-8.414	1.00	17.38	O
	ATOM	885	N	GLN	A	113	19.532	14.272	-9.849	1.00	16.30	N
	ATOM	886	CA	GLN	A	113	19.381	13.058	-9.004	1.00	18.28	C
	ATOM	887	CB	GLN	A	113	17.926	12.603	-8.909	1.00	19.30	C
	ATOM	888	CG	GLN	A	113	17.421	11.822	-10.123	1.00	18.80	C
	ATOM	889	CD	GLN	A	113	15.998	11.239	-9.999	1.00	16.04	C
	ATOM	890	OE1	GLN	A	113	15.098	11.815	-9.369	1.00	17.97	O
	ATOM	891	NE2	GLN	A	113	15.758	10.166	-10.728	1.00	16.38	N
	ATOM	892	C	GLN	A	113	20.348	11.994	-9.542	1.00	18.28	C
	ATOM	893	O	GLN	A	113	20.648	12.016	-10.771	1.00	18.06	O
	ATOM	894	N	PRO	A	114	20.825	11.079	-8.674	1.00	19.18	N
	ATOM	895	CA	PRO	A	114	21.804	10.065	-9.124	1.00	20.01	C
	ATOM	896	CB	PRO	A	114	22.081	9.267	-7.863	1.00	18.88	C
	ATOM	897	CG	PRO	A	114	21.828	10.250	-6.666	1.00	21.14	C
	ATOM	898	CD	PRO	A	114	20.596	11.004	-7.204	1.00	19.16	C
	ATOM	899	C	PRO	A	114	21.187	9.231	-10.213	1.00	18.78	C
	ATOM	900	O	PRO	A	114	19.969	8.966	-10.185	1.00	20.88	O
	ATOM	901	N	GLY	A	115	21.987	8.800	-11.187	1.00	20.57	N
	ATOM	902	CA	GLY	A	115	21.384	8.062	-12.262	1.00	23.04	C
	ATOM	903	C	GLY	A	115	21.044	6.604	-11.961	1.00	25.71	C
	ATOM	904	O	GLY	A	115	21.374	6.086	-10.910	1.00	23.26	O
	ATOM	905	N	ALA	A	116	20.380	5.965	-12.930	1.00	28.06	N
	ATOM	906	CA	ALA	A	116	19.860	4.622	-12.865	1.00	30.28	C
	ATOM	907	CB	ALA	A	116	19.211	4.203	-14.234	1.00	30.51	C
	ATOM	908	C	ALA	A	116	20.877	3.602	-12.344	1.00	31.61	C
[0202]	ATOM	909	O	ALA	A	116	20.545	2.764	-11.494	1.00	33.77	O
	ATOM	910	N	GLY	A	117	22.123	3.646	-12.751	1.00	31.75	N
	ATOM	911	CA	GLY	A	117	22.976	2.597	-12.176	1.00	30.71	C
	ATOM	912	C	GLY	A	117	23.926	3.024	-11.088	1.00	31.04	C
	ATOM	913	O	GLY	A	117	24.863	2.293	-10.779	1.00	31.97	O
	ATOM	914	N	ASP	A	118	23.710	4.206	-10.490	1.00	28.03	N
	ATOM	915	CA	ASP	A	118	24.554	4.703	-9.430	1.00	25.00	C
	ATOM	916	CB	ASP	A	118	24.480	6.261	-9.492	1.00	23.65	C
	ATOM	917	CG	ASP	A	118	25.365	6.987	-8.457	1.00	26.43	C
	ATOM	918	OD1	ASP	A	118	25.754	6.396	-7.424	1.00	26.42	O
	ATOM	919	OD2	ASP	A	118	25.655	8.224	-8.641	1.00	27.19	O
	ATOM	920	C	ASP	A	118	23.963	4.112	-8.130	1.00	25.64	C
	ATOM	921	O	ASP	A	118	22.897	4.526	-7.642	1.00	25.76	O
	ATOM	922	N	VAL	A	119	24.639	3.141	-7.543	1.00	26.36	N
	ATOM	923	CA	VAL	A	119	24.131	2.455	-6.355	1.00	25.97	C
	ATOM	924	CB	VAL	A	119	24.908	1.172	-6.026	1.00	25.44	C
	ATOM	925	CG1	VAL	A	119	24.378	0.623	-4.762	1.00	29.58	C
	ATOM	926	CG2	VAL	A	119	24.680	0.066	-7.148	1.00	27.42	C
	ATOM	927	C	VAL	A	119	24.267	3.373	-5.160	1.00	25.91	C
	ATOM	928	O	VAL	A	119	25.355	3.814	-4.842	1.00	27.87	O
	ATOM	929	N	ARG	A	120	23.186	3.646	-4.468	1.00	24.42	N
	ATOM	930	CA	ARG	A	120	23.195	4.648	-3.438	1.00	23.48	C
	ATOM	931	CB	ARG	A	120	22.268	5.765	-3.870	1.00	22.74	C
	ATOM	932	CG	ARG	A	120	22.902	6.659	-4.938	1.00	23.83	C
	ATOM	933	CD	ARG	A	120	23.735	7.718	-4.330	1.00	22.44	C
	ATOM	934	NE	ARG	A	120	24.518	8.348	-5.409	1.00	24.86	N
	ATOM	935	CZ	ARG	A	120	25.174	9.486	-5.307	1.00	21.85	C
	ATOM	936	NH1	ARG	A	120	25.138	10.179	-4.169	1.00	20.12	N
	ATOM	937	NH2	ARG	A	120	25.870	9.926	-6.338	1.00	22.46	N
	ATOM	938	C	ARG	A	120	22.673	4.082	-2.154	1.00	21.11	C
	ATOM	939	O	ARG	A	120	21.821	3.276	-2.163	1.00	23.47	O
	ATOM	940	N	GLU	A	121	23.227	4.514	-1.031	1.00	20.52	N
	ATOM	941	CA	GLU	A	121	22.600	4.238	0.230	1.00	20.79	C
	ATOM	942	CB	GLU	A	121	23.438	4.866	1.324	1.00	21.98	C
	ATOM	943	CG	GLU	A	121	22.997	4.480	2.687	1.00	22.28	C

	ATOM	944	CD	GLU	A	121	23.733	5.274	3.782	1.00	29.30	C
	ATOM	945	OE1	GLU	A	121	24.938	5.458	3.669	1.00	28.70	O
	ATOM	946	OE2	GLU	A	121	23.115	5.763	4.739	1.00	27.80	O
	ATOM	947	C	GLU	A	121	21.222	4.915	0.307	1.00	19.19	C
	ATOM	948	O	GLU	A	121	21.139	6.074	0.087	1.00	18.96	O
	ATOM	949	N	GLU	A	122	20.171	4.179	0.635	1.00	18.69	N
	ATOM	950	CA	GLU	A	122	18.838	4.685	0.812	1.00	17.23	C
	ATOM	951	CB	GLU	A	122	17.769	3.701	0.209	1.00	16.67	C
	ATOM	952	CG	GLU	A	122	17.930	3.591	-1.354	1.00	21.74	C
	ATOM	953	CD	GLU	A	122	17.036	2.556	-2.022	1.00	25.75	C
	ATOM	954	OE1	GLU	A	122	16.291	1.840	-1.356	1.00	28.12	O
	ATOM	955	OE2	GLU	A	122	17.145	2.427	-3.278	1.00	29.95	O
	ATOM	956	C	GLU	A	122	18.583	4.956	2.262	1.00	17.96	C
	ATOM	957	O	GLU	A	122	19.023	4.153	3.138	1.00	18.17	O
	ATOM	958	N	ALA	A	123	17.796	5.981	2.549	1.00	15.30	N
	ATOM	959	CA	ALA	A	123	17.611	6.398	3.966	1.00	16.51	C
	ATOM	960	CB	ALA	A	123	16.784	7.725	4.060	1.00	15.24	C
	ATOM	961	C	ALA	A	123	16.920	5.260	4.789	1.00	17.57	C
	ATOM	962	O	ALA	A	123	17.242	5.041	5.932	1.00	16.77	O
	ATOM	963	N	LEU	A	124	15.899	4.614	4.195	1.00	19.68	N
	ATOM	964	CA	LEU	A	124	15.189	3.550	4.950	1.00	22.11	C
	ATOM	965	CB	LEU	A	124	13.797	3.307	4.352	1.00	21.29	C
	ATOM	966	CG	LEU	A	124	12.873	4.492	4.440	1.00	21.30	C
	ATOM	967	CD1	LEU	A	124	11.485	4.240	3.760	1.00	18.72	C
	ATOM	968	CD2	LEU	A	124	12.695	5.066	5.864	1.00	24.74	C
	ATOM	969	C	LEU	A	124	15.997	2.221	5.016	1.00	24.60	C
	ATOM	970	O	LEU	A	124	15.614	1.276	5.710	1.00	28.05	O
	ATOM	971	N	SER	A	125	17.119	2.131	4.335	1.00	26.20	N
	ATOM	972	CA	SER	A	125	17.932	0.929	4.484	1.00	27.25	C
	ATOM	973	CB	SER	A	125	18.560	0.610	3.123	1.00	26.54	C
	ATOM	974	OG	SER	A	125	19.689	1.450	2.887	1.00	34.50	O
	ATOM	975	C	SER	A	125	19.004	1.083	5.605	1.00	25.76	C
	ATOM	976	O	SER	A	125	19.711	0.083	5.958	1.00	26.61	O
[0203]	ATOM	977	N	THR	A	126	19.147	2.303	6.170	1.00	23.31	N
	ATOM	978	CA	THR	A	126	20.283	2.573	7.075	1.00	23.22	C
	ATOM	979	CB	THR	A	126	21.374	3.391	6.401	1.00	23.73	C
	ATOM	980	OG1	THR	A	126	20.819	4.628	5.948	1.00	21.97	O
	ATOM	981	CG2	THR	A	126	21.992	2.656	5.159	1.00	22.14	C
	ATOM	982	C	THR	A	126	19.857	3.332	8.325	1.00	24.31	C
	ATOM	983	O	THR	A	126	20.667	4.017	8.941	1.00	26.48	O
	ATOM	984	N	GLY	A	127	18.589	3.273	8.657	1.00	23.80	N
	ATOM	985	CA	GLY	A	127	18.122	3.948	9.888	1.00	24.79	C
	ATOM	986	C	GLY	A	127	16.860	4.775	9.834	1.00	24.67	C
	ATOM	987	O	GLY	A	127	16.264	5.096	10.915	1.00	27.75	O
	ATOM	988	N	GLY	A	128	16.439	5.156	8.644	1.00	21.73	N
	ATOM	989	CA	GLY	A	128	15.262	6.062	8.469	1.00	21.35	C
	ATOM	990	C	GLY	A	128	15.695	7.528	8.559	1.00	18.29	C
	ATOM	991	O	GLY	A	128	16.876	7.869	8.354	1.00	17.43	O
	ATOM	992	N	LEU	A	129	14.751	8.410	8.943	1.00	18.50	N
	ATOM	993	CA	LEU	A	129	14.991	9.883	8.845	1.00	16.49	C
	ATOM	994	CB	LEU	A	129	14.222	10.435	7.618	1.00	15.51	C
	ATOM	995	CG	LEU	A	129	14.878	9.989	6.291	1.00	12.97	C
	ATOM	996	CD1	LEU	A	129	13.887	10.232	5.114	1.00	15.22	C
	ATOM	997	CD2	LEU	A	129	16.219	10.753	6.076	1.00	14.18	C
	ATOM	998	C	LEU	A	129	14.456	10.579	10.092	1.00	16.76	C
	ATOM	999	O	LEU	A	129	13.395	10.249	10.548	1.00	19.89	O
	ATOM	1000	N	ASP	A	130	15.217	11.511	10.623	1.00	14.83	N
	ATOM	1001	CA	ASP	A	130	14.722	12.340	11.749	1.00	14.82	C
	ATOM	1002	CB	ASP	A	130	15.919	12.994	12.425	1.00	15.30	C
	ATOM	1003	CG	ASP	A	130	16.834	11.955	13.063	1.00	19.30	C
	ATOM	1004	OD1	ASP	A	130	16.297	11.090	13.755	1.00	23.76	O
	ATOM	1005	OD2	ASP	A	130	18.057	11.955	12.821	1.00	24.05	O
	ATOM	1006	C	ASP	A	130	13.814	13.465	11.246	1.00	15.66	C
	ATOM	1007	O	ASP	A	130	12.853	13.815	11.881	1.00	15.11	O
	ATOM	1008	N	LEU	A	131	14.138	13.998	10.061	1.00	16.25	N
	ATOM	1009	CA	LEU	A	131	13.437	15.201	9.550	1.00	14.94	C
	ATOM	1010	CB	LEU	A	131	14.185	16.428	10.000	1.00	14.90	C
	ATOM	1011	CG	LEU	A	131	13.487	17.797	10.139	1.00	23.81	C

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ATOM	1012	CD1	LEU	A	131	12.574	18.072	9.242	1.00	27.49	C
ATOM	1013	CD2	LEU	A	131	14.493	19.030	10.357	1.00	32.24	C
ATOM	1014	C	LEU	A	131	13.383	15.192	8.018	1.00	14.07	C
ATOM	1015	O	LEU	A	131	14.390	14.889	7.350	1.00	13.63	O
ATOM	1016	N	ILE	A	132	12.198	15.501	7.487	1.00	13.19	N
ATOM	1017	CA	ILE	A	132	12.019	15.550	6.062	1.00	12.47	C
ATOM	1018	CB	ILE	A	132	10.976	14.527	5.609	1.00	14.04	C
ATOM	1019	CG1	ILE	A	132	11.481	13.088	5.925	1.00	14.10	C
ATOM	1020	CD1	ILE	A	132	10.381	12.054	5.547	1.00	16.96	C
ATOM	1021	CG2	ILE	A	132	10.778	14.665	4.016	1.00	15.22	C
ATOM	1022	C	ILE	A	132	11.497	16.953	5.718	1.00	12.51	C
ATOM	1023	O	ILE	A	132	10.404	17.318	6.158	1.00	12.72	O
ATOM	1024	N	PHE	A	133	12.257	17.693	4.905	1.00	13.02	N
ATOM	1025	CA	PHE	A	133	11.793	19.016	4.323	1.00	13.44	C
ATOM	1026	CB	PHE	A	133	12.923	19.838	3.812	1.00	14.47	C
ATOM	1027	CG	PHE	A	133	13.808	20.411	4.911	1.00	16.97	C
ATOM	1028	CD1	PHE	A	133	13.364	21.526	5.650	1.00	17.79	C
ATOM	1029	CE1	PHE	A	133	14.162	22.103	6.640	1.00	17.29	C
ATOM	1030	CZ	PHE	A	133	15.350	21.575	6.964	1.00	21.26	C
ATOM	1031	CE2	PHE	A	133	15.816	20.367	6.224	1.00	24.27	C
ATOM	1032	CD2	PHE	A	133	15.012	19.839	5.228	1.00	16.87	C
ATOM	1033	C	PHE	A	133	10.831	18.684	3.231	1.00	15.49	C
ATOM	1034	O	PHE	A	133	11.133	17.873	2.287	1.00	17.05	O
ATOM	1035	N	MET	A	134	9.639	19.222	3.351	1.00	17.15	N
ATOM	1036	CA	MET	A	134	8.523	18.842	2.470	1.00	19.75	C
ATOM	1037	CB	MET	A	134	7.269	18.654	3.310	1.00	19.22	C
ATOM	1038	CG	MET	A	134	7.297	17.539	4.350	1.00	23.99	C
ATOM	1039	SD	MET	A	134	7.282	15.951	3.403	1.00	27.71	S
ATOM	1040	CE	MET	A	134	5.894	16.206	2.196	1.00	23.30	C
ATOM	1041	C	MET	A	134	8.316	19.966	1.422	1.00	19.94	C
ATOM	1042	O	MET	A	134	8.119	21.151	1.802	1.00	21.99	O
ATOM	1043	N	PRO	A	135	8.461	19.636	0.120	1.00	19.77	N
ATOM	1044	CA	PRO	A	135	8.044	20.649	-0.908	1.00	18.20	C
ATOM	1045	CB	PRO	A	135	8.872	20.233	-2.116	1.00	18.25	C
ATOM	1046	CG	PRO	A	135	9.006	18.754	-1.980	1.00	19.93	C
ATOM	1047	CD	PRO	A	135	8.859	18.365	-0.495	1.00	19.59	C
ATOM	1048	C	PRO	A	135	6.543	20.500	-1.199	1.00	17.53	C
ATOM	1049	O	PRO	A	135	5.852	19.580	-0.711	1.00	17.51	O
ATOM	1050	N	GLY	A	136	5.968	21.451	-1.937	1.00	18.49	N
ATOM	1051	CA	GLY	A	136	4.582	21.251	-2.371	1.00	17.67	C
ATOM	1052	C	GLY	A	136	4.142	22.550	-3.039	1.00	18.63	C
ATOM	1053	O	GLY	A	136	4.819	23.558	-2.946	1.00	17.38	O
ATOM	1054	N	LEU	A	137	3.011	22.506	-3.711	1.00	19.64	N
ATOM	1055	CA	LEU	A	137	2.527	23.751	-4.354	1.00	18.46	C
ATOM	1056	CB	LEU	A	137	1.555	23.371	-5.480	1.00	19.37	C
ATOM	1057	CG	LEU	A	137	2.206	22.791	-6.734	1.00	19.07	C
ATOM	1058	CD1	LEU	A	137	1.012	22.402	-7.683	1.00	20.98	C
ATOM	1059	CD2	LEU	A	137	3.195	23.712	-7.386	1.00	26.98	C
ATOM	1060	C	LEU	A	137	1.802	24.649	-3.417	1.00	19.17	C
ATOM	1061	O	LEU	A	137	1.820	25.856	-3.603	1.00	20.71	O
ATOM	1062	N	GLY	A	138	1.106	24.085	-2.455	1.00	18.86	N
ATOM	1063	CA	GLY	A	138	0.323	24.928	-1.491	1.00	20.21	C
ATOM	1064	C	GLY	A	138	0.269	24.260	-0.106	1.00	20.97	C
ATOM	1065	O	GLY	A	138	0.337	23.036	0.026	1.00	18.79	O
ATOM	1066	N	PHE	A	139	0.005	25.040	0.929	1.00	18.84	N
ATOM	1067	CA	PHE	A	139	-0.187	24.461	2.239	1.00	18.90	C
ATOM	1068	CB	PHE	A	139	1.130	24.556	3.053	1.00	18.99	C
ATOM	1069	CG	PHE	A	139	2.301	23.860	2.393	1.00	21.73	C
ATOM	1070	CD1	PHE	A	139	2.522	22.517	2.688	1.00	23.50	C
ATOM	1071	CE1	PHE	A	139	3.488	21.768	2.054	1.00	20.39	C
ATOM	1072	CZ	PHE	A	139	4.332	22.402	1.159	1.00	17.15	C
ATOM	1073	CE2	PHE	A	139	4.165	23.762	0.845	1.00	21.71	C
ATOM	1074	CD2	PHE	A	139	3.128	24.518	1.507	1.00	18.73	C
ATOM	1075	C	PHE	A	139	-1.227	25.343	2.926	1.00	19.51	C
ATOM	1076	O	PHE	A	139	-1.244	26.535	2.642	1.00	20.78	O
ATOM	1077	N	ASP	A	140	-2.036	24.774	3.808	1.00	19.76	N
ATOM	1078	CA	ASP	A	140	-2.825	25.659	4.721	1.00	22.35	C
ATOM	1079	CB	ASP	A	140	-4.326	25.337	4.671	1.00	20.26	C

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ATOM	1080	CG	ASP	A	140	-4.666	23.938	5.192	1.00 21.13	C
ATOM	1081	OD1	ASP	A	140	-3.924	23.394	6.086	1.00 23.29	O
ATOM	1082	OD2	ASP	A	140	-5.618	23.300	4.683	1.00 23.86	O
ATOM	1083	C	ASP	A	140	-2.196	25.598	6.140	1.00 24.88	C
ATOM	1084	O	ASP	A	140	-1.106	24.938	6.367	1.00 22.83	O
ATOM	1085	N	LYS	A	141	-2.808	26.340	7.061	1.00 25.33	N
ATOM	1086	CA	LYS	A	141	-2.261	26.459	8.436	1.00 26.88	C
ATOM	1087	CB	LYS	A	141	-2.794	27.729	9.122	1.00 28.06	C
ATOM	1088	CG	LYS	A	141	-2.343	28.980	8.477	1.00 33.75	C
ATOM	1089	CD	LYS	A	141	-0.873	29.215	8.674	1.00 43.53	C
ATOM	1090	CE	LYS	A	141	-0.535	29.546	10.165	1.00 48.96	C
ATOM	1091	NZ	LYS	A	141	0.921	29.557	10.490	1.00 48.92	N
ATOM	1092	C	LYS	A	141	-2.569	25.294	9.307	1.00 26.91	C
ATOM	1093	O	LYS	A	141	-2.102	25.253	10.444	1.00 28.79	O
ATOM	1094	N	HIS	A	142	-3.326	24.339	8.826	1.00 26.01	N
ATOM	1095	CA	HIS	A	142	3.527	23.094	9.538	1.00 27.03	C
ATOM	1096	CB	HIS	A	142	-4.848	22.527	9.082	1.00 26.67	C
ATOM	1097	CG	HIS	A	142	-5.985	23.417	9.431	1.00 33.47	C
ATOM	1098	ND1	HIS	A	142	-6.422	24.425	8.597	1.00 35.38	N
ATOM	1099	CE1	HIS	A	142	-7.396	25.081	9.198	1.00 37.94	C
ATOM	1100	NE2	HIS	A	142	-7.604	24.550	10.388	1.00 38.07	N
ATOM	1101	CD2	HIS	A	142	-6.710	23.520	10.572	1.00 37.02	C
ATOM	1102	C	HIS	A	142	-2.465	22.074	9.136	1.00 26.57	C
ATOM	1103	O	HIS	A	142	-2.520	20.925	9.588	1.00 27.29	O
ATOM	1104	N	GLY	A	143	-1.575	22.456	8.236	1.00 25.30	N
ATOM	1105	CA	GLY	A	143	-0.621	21.477	7.757	1.00 24.57	C
ATOM	1106	C	GLY	A	143	-1.072	20.610	6.589	1.00 24.30	C
ATOM	1107	O	GLY	A	143	-0.338	19.683	6.154	1.00 21.73	O
ATOM	1108	N	ASN	A	144	-2.223	20.906	6.003	1.00 20.91	N
ATOM	1109	CA	ASN	A	144	-2.570	20.170	4.790	1.00 21.28	C
ATOM	1110	CB	ASN	A	144	-4.074	20.362	4.392	1.00 21.95	C
ATOM	1111	CG	ASN	A	144	-5.023	19.937	5.471	1.00 25.74	C
ATOM	1112	OD1	ASN	A	144	-5.766	20.772	6.026	1.00 28.64	O
ATOM	1113	ND2	ASN	A	144	-5.007	18.671	5.818	1.00 21.44	N
ATOM	1114	C	ASN	A	144	-1.634	20.630	3.682	1.00 20.03	C
ATOM	1115	O	ASN	A	144	-1.235	21.771	3.616	1.00 19.61	O
ATOM	1116	N	ARG	A	145	-1.359	19.717	2.749	1.00 19.54	N
ATOM	1117	CA	ARG	A	145	-0.423	20.012	1.684	1.00 17.66	C
ATOM	1118	CB	ARG	A	145	0.831	19.115	1.852	1.00 16.99	C
ATOM	1119	CG	ARG	A	145	1.892	19.300	0.703	1.00 17.66	C
ATOM	1120	CD	ARG	A	145	3.218	18.533	0.908	1.00 26.52	C
ATOM	1121	NE	ARG	A	145	2.949	17.250	0.405	1.00 35.29	N
ATOM	1122	CZ	ARG	A	145	3.300	16.711	-0.752	1.00 26.25	C
ATOM	1123	NH1	ARG	A	145	4.222	17.201	-1.587	1.00 25.65	N
ATOM	1124	NH2	ARG	A	145	2.786	15.547	-0.920	1.00 27.52	N
ATOM	1125	C	ARG	A	145	-1.089	19.667	0.341	1.00 16.15	C
ATOM	1126	O	ARG	A	145	-1.802	18.650	0.205	1.00 18.14	O
ATOM	1127	N	LEU	A	146	-0.789	20.510	-0.644	1.00 16.89	N
ATOM	1128	CA	LEU	A	146	-1.263	20.257	-1.982	1.00 15.93	C
ATOM	1129	CB	LEU	A	146	-1.906	21.520	-2.539	1.00 16.16	C
ATOM	1130	CG	LEU	A	146	-2.466	21.369	-3.979	1.00 17.26	C
ATOM	1131	CD1	LEU	A	146	-3.503	20.303	-4.127	1.00 22.17	C
ATOM	1132	CD2	LEU	A	146	-3.044	22.756	-4.459	1.00 20.98	C
ATOM	1133	C	LEU	A	146	0.030	19.982	-2.723	1.00 15.21	C
ATOM	1134	O	LEU	A	146	0.824	20.858	-2.938	1.00 14.86	O
ATOM	1135	N	GLY	A	147	0.204	18.743	-3.156	1.00 17.29	N
ATOM	1136	CA	GLY	A	147	1.378	18.375	-3.962	1.00 20.02	C
ATOM	1137	C	GLY	A	147	1.104	18.550	-5.470	1.00 21.42	C
ATOM	1138	O	GLY	A	147	0.100	19.190	-5.913	1.00 18.05	O
ATOM	1139	N	ARG	A	148	2.004	18.031	-6.290	1.00 20.42	N
ATOM	1140	CA	ARG	A	148	1.870	18.272	-7.750	1.00 22.57	C
ATOM	1141	CB	ARG	A	148	3.227	18.088	-8.388	1.00 20.62	C
ATOM	1142	CG	ARG	A	148	4.124	19.286	-8.110	1.00 20.27	C
ATOM	1143	CD	ARG	A	148	5.479	19.084	-8.711	1.00 26.23	C
ATOM	1144	NE	ARG	A	148	6.493	19.950	-8.076	1.00 26.70	N
ATOM	1145	CZ	ARG	A	148	6.664	21.249	-8.393	1.00 29.06	C
ATOM	1146	NH1	ARG	A	148	5.938	21.832	-9.349	1.00 26.99	N
ATOM	1147	NH2	ARG	A	148	7.583	21.978	-7.751	1.00 29.35	N

	ATOM	1148	C	ARG A 148	0.859	17.331	-8.400	1.00	23.87	C
	ATOM	1149	O	ARG A 148	0.431	17.550	-9.595	1.00	24.55	O
	ATOM	1150	N	GLY A 149	0.452	16.295	-7.675	1.00	23.90	N
	ATOM	1151	CA	GLY A 149	-0.602	15.475	-8.151	1.00	25.18	C
	ATOM	1152	C	GLY A 149	-0.421	13.990	-7.931	1.00	27.11	C
	ATOM	1153	O	GLY A 149	-1.374	13.325	-7.506	1.00	30.37	O
	ATOM	1154	N	ALA A 150	0.793	13.455	-8.121	1.00	27.17	N
	ATOM	1155	CA	ALA A 150	0.859	11.985	-8.088	1.00	28.13	C
	ATOM	1156	CB	ALA A 150	1.787	11.454	-9.220	1.00	29.29	C
	ATOM	1157	C	ALA A 150	1.141	11.342	-6.704	1.00	27.71	C
	ATOM	1158	O	ALA A 150	1.187	10.084	-6.569	1.00	28.59	O
	ATOM	1159	N	GLY A 151	1.240	12.174	-5.677	1.00	23.50	N
	ATOM	1160	CA	GLY A 151	1.337	11.642	-4.300	1.00	23.84	C
	ATOM	1161	C	GLY A 151	2.563	10.827	-3.920	1.00	21.84	C
	ATOM	1162	O	GLY A 151	2.527	9.958	-3.023	1.00	22.06	O
	ATOM	1163	N	TYR A 152	3.673	11.133	-4.572	1.00	21.46	N
	ATOM	1164	CA	TYR A 152	4.895	10.423	-4.227	1.00	19.80	C
	ATOM	1165	CB	TYR A 152	5.972	10.631	-5.276	1.00	22.41	C
	ATOM	1166	CG	TYR A 152	6.034	12.024	-5.741	1.00	26.69	C
	ATOM	1167	CD1	TYR A 152	6.988	12.886	-5.237	1.00	27.07	C
	ATOM	1168	CE1	TYR A 152	7.038	14.264	-5.647	1.00	26.57	C
	ATOM	1169	CZ	TYR A 152	6.103	14.775	-6.508	1.00	30.70	C
	ATOM	1170	OH	TYR A 152	6.195	16.108	-6.935	1.00	29.12	O
	ATOM	1171	CE2	TYR A 152	5.104	13.903	-7.032	1.00	32.84	C
	ATOM	1172	CD2	TYR A 152	5.073	12.536	-6.621	1.00	27.73	C
	ATOM	1173	C	TYR A 152	5.375	10.714	-2.793	1.00	19.01	C
	ATOM	1174	O	TYR A 152	5.847	9.817	-2.128	1.00	18.23	O
	ATOM	1175	N	TYR A 153	5.247	11.965	-2.316	1.00	19.99	N
	ATOM	1176	CA	TYR A 153	5.636	12.216	-0.917	1.00	21.82	C
	ATOM	1177	CB	TYR A 153	5.804	13.729	-0.616	1.00	22.89	C
	ATOM	1178	CG	TYR A 153	7.209	14.253	-0.792	1.00	21.09	C
	ATOM	1179	CD1	TYR A 153	7.643	14.788	-2.014	1.00	20.52	C
	ATOM	1180	CE1	TYR A 153	8.917	15.257	-2.209	1.00	17.68	C
[0206]	ATOM	1181	CZ	TYR A 153	9.831	15.182	-1.130	1.00	18.03	C
	ATOM	1182	OH	TYR A 153	11.065	15.670	-1.235	1.00	15.12	O
	ATOM	1183	CE2	TYR A 153	9.430	14.702	0.108	1.00	16.52	C
	ATOM	1184	CD2	TYR A 153	8.131	14.181	0.274	1.00	18.83	C
	ATOM	1185	C	TYR A 153	4.675	11.588	0.054	1.00	22.34	C
	ATOM	1186	O	TYR A 153	5.086	11.039	1.100	1.00	20.75	O
	ATOM	1187	N	ASP A 154	3.368	11.629	-0.268	1.00	23.34	N
	ATOM	1188	CA	ASP A 154	2.425	10.950	0.655	1.00	26.41	C
	ATOM	1189	CB	ASP A 154	1.018	11.099	0.123	1.00	25.95	C
	ATOM	1190	CG	ASP A 154	0.646	12.534	-0.146	1.00	34.47	C
	ATOM	1191	OD1	ASP A 154	-0.204	13.054	0.620	1.00	39.47	O
	ATOM	1192	OD2	ASP A 154	1.184	13.152	-1.113	1.00	40.16	O
	ATOM	1193	C	ASP A 154	2.758	9.460	0.792	1.00	24.49	C
	ATOM	1194	O	ASP A 154	2.739	8.858	1.869	1.00	23.94	O
	ATOM	1195	N	ALA A 155	3.001	8.811	-0.340	1.00	25.10	N
	ATOM	1196	CA	ALA A 155	3.398	7.414	-0.305	1.00	24.53	C
	ATOM	1197	CB	ALA A 155	3.605	6.857	-1.804	1.00	23.24	C
	ATOM	1198	C	ALA A 155	4.721	7.190	0.464	1.00	24.00	C
	ATOM	1199	O	ALA A 155	4.904	6.167	1.136	1.00	21.80	O
	ATOM	1200	N	TYR A 156	5.697	8.101	0.269	1.00	20.82	N
	ATOM	1201	CA	TYR A 156	6.972	7.926	0.962	1.00	20.57	C
	ATOM	1202	CB	TYR A 156	8.055	8.975	0.488	1.00	17.92	C
	ATOM	1203	CG	TYR A 156	9.406	8.678	1.059	1.00	16.21	C
	ATOM	1204	CD1	TYR A 156	10.214	7.690	0.487	1.00	16.79	C
	ATOM	1205	CE1	TYR A 156	11.435	7.322	1.050	1.00	14.44	C
	ATOM	1206	CZ	TYR A 156	11.919	8.040	2.200	1.00	16.22	C
	ATOM	1207	OH	TYR A 156	13.143	7.734	2.725	1.00	15.56	O
	ATOM	1208	CE2	TYR A 156	11.149	9.068	2.748	1.00	18.15	C
	ATOM	1209	CD2	TYR A 156	9.875	9.363	2.189	1.00	16.26	C
	ATOM	1210	C	TYR A 156	6.784	8.058	2.503	1.00	21.05	C
	ATOM	1211	O	TYR A 156	7.351	7.255	3.248	1.00	19.18	O
	ATOM	1212	N	LEU A 157	6.011	9.059	2.939	1.00	22.57	N
	ATOM	1213	CA	LEU A 157	5.718	9.186	4.399	1.00	23.91	C
	ATOM	1214	CB	LEU A 157	4.805	10.374	4.726	1.00	26.77	C
	ATOM	1215	CG	LEU A 157	5.539	11.624	5.115	1.00	29.69	C

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ATOM	1216	CD1	LEU	A	157	6.785	11.808	4.180	1.00	30.49	C
ATOM	1217	CD2	LEU	A	157	4.509	12.816	4.963	1.00	34.28	C
ATOM	1218	C	LEU	A	157	5.116	7.939	4.972	1.00	25.53	C
ATOM	1219	O	LEU	A	157	5.554	7.451	6.016	1.00	24.25	O
ATOM	1220	N	LYS	A	158	4.153	7.356	4.264	1.00	28.18	N
ATOM	1221	CA	LYS	A	158	3.621	6.037	4.742	1.00	28.79	C
ATOM	1222	CB	LYS	A	158	2.502	5.484	3.831	1.00	29.79	C
ATOM	1223	CG	LYS	A	158	1.281	6.248	3.838	1.00	34.56	C
ATOM	1224	CD	LYS	A	158	0.214	5.561	2.990	1.00	40.44	C
ATOM	1225	CE	LYS	A	158	-0.671	6.668	2.406	1.00	47.91	C
ATOM	1226	NZ	LYS	A	158	-1.800	6.027	1.639	1.00	53.60	N
ATOM	1227	C	LYS	A	158	4.689	4.997	4.882	1.00	28.35	C
ATOM	1228	O	LYS	A	158	4.733	4.254	5.881	1.00	28.94	O
ATOM	1229	N	ARG	A	159	5.566	4.879	3.878	1.00	28.17	N
ATOM	1230	CA	ARG	A	159	6.682	3.964	3.974	1.00	27.94	C
ATOM	1231	CB	ARG	A	159	7.605	3.981	2.724	1.00	27.77	C
ATOM	1232	CG	ARG	A	159	7.143	3.213	1.526	1.00	31.99	C
ATOM	1233	CD	ARG	A	159	8.129	3.469	0.330	1.00	29.57	C
ATOM	1234	NE	ARG	A	159	9.359	2.767	0.597	1.00	29.84	N
ATOM	1235	CZ	ARG	A	159	10.546	3.094	0.109	1.00	31.97	C
ATOM	1236	NH1	ARG	A	159	10.681	4.153	-0.664	1.00	27.10	N
ATOM	1237	NH2	ARG	A	159	11.595	2.348	0.407	1.00	30.33	N
ATOM	1238	C	ARG	A	159	7.608	4.176	5.128	1.00	27.28	C
ATOM	1239	O	ARG	A	159	8.228	3.209	5.593	1.00	28.97	O
ATOM	1240	N	CYS	A	160	7.814	5.428	5.548	1.00	27.10	N
ATOM	1241	CA	CYS	A	160	8.732	5.628	6.687	1.00	29.16	C
ATOM	1242	CB	CYS	A	160	8.969	7.093	6.964	1.00	28.54	C
ATOM	1243	SG	CYS	A	160	9.897	7.836	5.700	1.00	25.07	S
ATOM	1244	C	CYS	A	160	8.384	4.888	7.987	1.00	32.19	C
ATOM	1245	O	CYS	A	160	9.269	4.389	8.740	1.00	33.94	O
ATOM	1246	N	LEU	A	161	7.100	4.774	8.221	1.00	36.41	N
ATOM	1247	CA	LEU	A	161	6.595	4.037	9.387	1.00	38.29	C
ATOM	1248	CB	LEU	A	161	5.099	4.183	9.409	1.00	37.46	C
ATOM	1249	CG	LEU	A	161	4.622	5.635	9.629	1.00	42.05	C
ATOM	1250	CD1	LEU	A	161	5.554	6.709	9.175	1.00	41.90	C
ATOM	1251	CD2	LEU	A	161	3.218	5.912	9.037	1.00	47.10	C
ATOM	1252	C	LEU	A	161	7.073	2.556	9.472	1.00	39.39	C
ATOM	1253	O	LEU	A	161	7.176	1.982	10.582	1.00	41.93	O
ATOM	1254	N	ALA	A	162	7.416	1.945	8.344	1.00	36.83	N
ATOM	1255	CA	ALA	A	162	7.823	0.566	8.364	1.00	37.85	C
ATOM	1256	CB	ALA	A	162	7.622	-0.103	7.019	1.00	36.90	C
ATOM	1257	C	ALA	A	162	9.278	0.348	8.791	1.00	37.18	C
ATOM	1258	O	ALA	A	162	9.773	-0.823	8.727	1.00	36.81	O
ATOM	1259	N	HIS	A	163	9.956	1.422	9.215	1.00	35.25	N
ATOM	1260	CA	HIS	A	163	11.327	1.282	9.650	1.00	34.33	C
ATOM	1261	CB	HIS	A	163	12.302	1.812	8.605	1.00	33.75	C
ATOM	1262	CG	HIS	A	163	12.257	1.021	7.391	1.00	27.52	C
ATOM	1263	ND1	HIS	A	163	11.193	1.120	6.507	1.00	29.25	N
ATOM	1264	CE1	HIS	A	163	11.363	0.222	5.546	1.00	30.37	C
ATOM	1265	NE2	HIS	A	163	12.482	-0.430	5.795	1.00	20.35	N
ATOM	1266	CD2	HIS	A	163	13.049	0.014	6.958	1.00	20.81	C
ATOM	1267	C	HIS	A	163	11.646	1.977	10.863	1.00	34.56	C
ATOM	1268	O	HIS	A	163	12.790	1.783	11.393	1.00	33.65	O
ATOM	1269	N	GLN	A	164	10.719	2.849	11.274	1.00	33.80	N
ATOM	1270	CA	GLN	A	164	11.006	3.579	12.438	1.00	34.07	C
ATOM	1271	CB	GLN	A	164	11.582	4.961	12.074	1.00	35.09	C
ATOM	1272	CG	GLN	A	164	10.861	5.653	10.974	1.00	31.51	C
ATOM	1273	CD	GLN	A	164	11.639	6.917	10.511	1.00	30.27	C
ATOM	1274	OE1	GLN	A	164	12.302	6.911	9.502	1.00	28.49	O
ATOM	1275	NE2	GLN	A	164	11.551	7.994	11.289	1.00	24.59	N
ATOM	1276	C	GLN	A	164	9.813	3.622	13.378	1.00	34.91	C
ATOM	1277	O	GLN	A	164	8.678	3.643	12.926	1.00	31.84	O
ATOM	1278	N	ALA	A	165	10.159	3.547	14.671	1.00	37.75	N
ATOM	1279	CA	ALA	A	165	9.323	3.647	15.851	1.00	40.60	C
ATOM	1280	CB	ALA	A	165	10.217	3.457	17.151	1.00	41.00	C
ATOM	1281	C	ALA	A	165	8.833	5.049	15.796	1.00	41.67	C
ATOM	1282	O	ALA	A	165	7.624	5.274	15.790	1.00	43.75	O
ATOM	1283	N	ALA	A	166	9.765	5.996	15.641	1.00	40.31	N

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ATOM	1284	CA	ALA	A	166	9.381	7.395	15.747	1.00	38.99	C
ATOM	1285	CB	ALA	A	166	10.444	8.148	16.624	1.00	40.34	C
ATOM	1286	C	ALA	A	166	9.245	7.998	14.346	1.00	37.53	C
ATOM	1287	O	ALA	A	166	10.201	7.968	13.612	1.00	36.58	O
ATOM	1288	N	LYS	A	167	8.057	8.450	13.963	1.00	35.18	N
ATOM	1289	CA	LYS	A	167	7.816	9.044	12.625	1.00	34.40	C
ATOM	1290	CB	LYS	A	167	6.375	9.471	12.518	1.00	35.09	C
ATOM	1291	CG	LYS	A	167	5.954	9.721	11.065	1.00	41.09	C
ATOM	1292	CD	LYS	A	167	4.935	10.856	10.886	1.00	46.54	C
ATOM	1293	CE	LYS	A	167	4.152	10.571	9.549	1.00	51.86	C
ATOM	1294	NZ	LYS	A	167	3.101	11.624	9.249	1.00	54.22	N
ATOM	1295	C	LYS	A	167	8.702	10.305	12.315	1.00	30.42	C
ATOM	1296	O	LYS	A	167	8.995	11.045	13.221	1.00	31.71	O
ATOM	1297	N	PRO	A	168	9.194	10.501	11.056	1.00	26.62	N
ATOM	1298	CA	PRO	A	168	10.106	11.673	10.852	1.00	22.02	C
ATOM	1299	CB	PRO	A	168	10.436	11.627	9.376	1.00	21.17	C
ATOM	1300	CG	PRO	A	168	10.063	10.200	8.881	1.00	26.66	C
ATOM	1301	CD	PRO	A	168	8.931	9.748	9.819	1.00	27.88	C
ATOM	1302	C	PRO	A	168	9.331	12.980	11.101	1.00	20.49	C
ATOM	1303	O	PRO	A	168	8.145	13.009	10.703	1.00	22.37	O
ATOM	1304	N	TYR	A	169	9.993	14.034	11.619	1.00	15.70	N
ATOM	1305	CA	TYR	A	169	9.355	15.347	11.678	1.00	16.24	C
ATOM	1306	CB	TYR	A	169	10.223	16.291	12.519	1.00	15.93	C
ATOM	1307	CG	TYR	A	169	9.465	17.520	12.905	1.00	17.60	C
ATOM	1308	CD1	TYR	A	169	8.573	17.501	13.991	1.00	21.75	C
ATOM	1309	CE1	TYR	A	169	7.887	18.700	14.364	1.00	25.50	C
ATOM	1310	CZ	TYR	A	169	8.134	19.889	13.634	1.00	25.45	C
ATOM	1311	OH	TYR	A	169	7.486	21.068	13.999	1.00	26.70	O
ATOM	1312	CE2	TYR	A	169	9.042	19.925	12.584	1.00	22.95	C
ATOM	1313	CD2	TYR	A	169	9.718	18.733	12.230	1.00	17.17	C
ATOM	1314	C	TYR	A	169	9.207	15.913	10.243	1.00	14.79	C
ATOM	1315	O	TYR	A	169	10.134	15.773	9.440	1.00	15.51	O
ATOM	1316	N	THR	A	170	8.049	16.473	9.876	1.00	16.39	N
ATOM	1317	CA	THR	A	170	7.904	16.950	8.485	1.00	15.56	C
ATOM	1318	CB	THR	A	170	6.693	16.355	7.764	1.00	17.28	C
ATOM	1319	OG1	THR	A	170	5.550	16.344	8.612	1.00	18.17	O
ATOM	1320	CG2	THR	A	170	6.973	14.822	7.422	1.00	17.21	C
ATOM	1321	C	THR	A	170	7.772	18.475	8.513	1.00	16.83	C
ATOM	1322	O	THR	A	170	6.872	19.002	9.193	1.00	17.23	O
ATOM	1323	N	LEU	A	171	8.672	19.139	7.812	1.00	16.00	N
ATOM	1324	CA	LEU	A	171	8.759	20.626	7.864	1.00	17.49	C
ATOM	1325	CB	LEU	A	171	10.039	21.039	8.522	1.00	19.35	C
ATOM	1326	CG	LEU	A	171	10.413	22.473	8.785	1.00	24.04	C
ATOM	1327	CD1	LEU	A	171	9.321	23.163	9.591	1.00	25.74	C
ATOM	1328	CD2	LEU	A	171	11.840	22.522	9.520	1.00	23.33	C
ATOM	1329	C	LEU	A	171	8.713	21.111	6.418	1.00	18.47	C
ATOM	1330	O	LEU	A	171	9.697	20.957	5.645	1.00	18.25	O
ATOM	1331	N	ALA	A	172	7.601	21.757	6.124	1.00	17.33	N
ATOM	1332	CA	ALA	A	172	7.397	22.352	4.773	1.00	18.88	C
ATOM	1333	CB	ALA	A	172	5.922	22.405	4.489	1.00	17.41	C
ATOM	1334	C	ALA	A	172	7.997	23.745	4.716	1.00	19.90	C
ATOM	1335	O	ALA	A	172	7.927	24.500	5.699	1.00	20.42	O
ATOM	1336	N	LEU	A	173	8.485	24.135	3.533	1.00	19.38	N
ATOM	1337	CA	LEU	A	173	9.095	25.433	3.310	1.00	20.94	C
ATOM	1338	CB	LEU	A	173	10.515	25.305	2.821	1.00	21.11	C
ATOM	1339	CG	LEU	A	173	11.403	24.421	3.744	1.00	20.89	C
ATOM	1340	CD1	LEU	A	173	12.730	24.292	3.148	1.00	17.66	C
ATOM	1341	CD2	LEU	A	173	11.444	25.050	5.145	1.00	15.97	C
ATOM	1342	C	LEU	A	173	8.251	26.073	2.184	1.00	21.16	C
ATOM	1343	O	LEU	A	173	8.257	25.548	1.096	1.00	24.94	O
ATOM	1344	N	ALA	A	174	7.591	27.191	2.467	1.00	21.25	N
ATOM	1345	CA	ALA	A	174	6.570	27.758	1.585	1.00	21.42	C
ATOM	1346	CB	ALA	A	174	5.258	27.634	2.212	1.00	19.46	C
ATOM	1347	C	ALA	A	174	6.841	29.228	1.386	1.00	22.88	C
ATOM	1348	O	ALA	A	174	7.264	29.940	2.322	1.00	21.96	O
ATOM	1349	N	PHE	A	175	6.610	29.709	0.162	1.00	21.35	N
ATOM	1350	CA	PHE	A	175	6.377	31.167	-0.018	1.00	22.35	C
ATOM	1351	CB	PHE	A	175	6.354	31.456	-1.559	1.00	22.33	C

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ATOM	1352	CG	PHE	A	175	7.618	31.124	-2.282	1.00	21.82	C
ATOM	1353	CD1	PHE	A	175	8.821	31.719	-1.966	1.00	22.75	C
ATOM	1354	CE1	PHE	A	175	9.934	31.463	-2.643	1.00	22.83	C
ATOM	1355	CZ	PHE	A	175	9.922	30.566	-3.744	1.00	23.79	C
ATOM	1356	CE2	PHE	A	175	8.754	29.988	-4.051	1.00	20.80	C
ATOM	1357	CD2	PHE	A	175	7.612	30.237	-3.377	1.00	19.45	C
ATOM	1358	C	PHE	A	175	5.110	31.632	0.670	1.00	22.46	C
ATOM	1359	O	PHE	A	175	4.138	30.865	0.810	1.00	21.91	O
ATOM	1360	N	LYS	A	176	5.002	32.914	1.135	1.00	22.40	N
ATOM	1361	CA	LYS	A	176	3.733	33.355	1.671	1.00	25.18	C
ATOM	1362	CB	LYS	A	176	3.838	34.830	2.156	1.00	27.16	C
ATOM	1363	CG	LYS	A	176	4.824	35.609	1.361	1.00	30.86	C
ATOM	1364	CD	LYS	A	176	5.395	36.835	2.154	1.00	36.72	C
ATOM	1365	CE	LYS	A	176	4.316	37.480	2.954	1.00	41.63	C
ATOM	1366	NZ	LYS	A	176	4.727	38.908	3.096	1.00	48.56	N
ATOM	1367	C	LYS	A	176	2.639	33.185	0.587	1.00	24.77	C
ATOM	1368	O	LYS	A	176	1.503	32.904	0.885	1.00	25.49	O
ATOM	1369	N	GLU	A	177	3.045	33.276	-0.674	1.00	27.15	N
ATOM	1370	CA	GLU	A	177	2.091	33.120	-1.806	1.00	26.75	C
ATOM	1371	CB	GLU	A	177	2.844	33.445	-3.110	1.00	26.89	C
ATOM	1372	CG	GLU	A	177	3.089	34.937	-3.317	1.00	29.70	C
ATOM	1373	CD	GLU	A	177	4.413	35.396	-2.750	1.00	35.86	C
ATOM	1374	OE1	GLU	A	177	4.895	34.775	-1.783	1.00	34.07	O
ATOM	1375	OE2	GLU	A	177	5.011	36.377	-3.256	1.00	36.81	O
ATOM	1376	C	GLU	A	177	1.494	31.720	-1.891	1.00	27.00	C
ATOM	1377	O	GLU	A	177	0.482	31.491	-2.523	1.00	27.47	O
ATOM	1378	N	GLN	A	178	2.146	30.758	-1.250	1.00	25.12	N
ATOM	1379	CA	GLN	A	178	1.681	29.406	-1.250	1.00	23.21	C
ATOM	1380	CB	GLN	A	178	2.892	28.460	-1.300	1.00	23.21	C
ATOM	1381	CG	GLN	A	178	3.696	28.496	-2.533	1.00	20.68	C
ATOM	1382	CD	GLN	A	178	4.834	27.526	-2.498	1.00	22.97	C
ATOM	1383	OE1	GLN	A	178	5.871	27.744	-1.833	1.00	23.37	O
ATOM	1384	NE2	GLN	A	178	4.667	26.410	-3.211	1.00	29.50	N
ATOM	1385	C	GLN	A	178	0.766	29.012	-0.088	1.00	22.56	C
ATOM	1386	O	GLN	A	178	0.186	27.898	-0.082	1.00	20.24	O
ATOM	1387	N	ILE	A	179	0.558	29.917	0.883	1.00	22.76	N
ATOM	1388	CA	ILE	A	179	-0.362	29.648	1.954	1.00	22.71	C
ATOM	1389	CB	ILE	A	179	0.067	30.434	3.271	1.00	21.69	C
ATOM	1390	CG1	ILE	A	179	1.549	30.275	3.574	1.00	26.09	C
ATOM	1391	CD1	ILE	A	179	2.065	28.786	3.589	1.00	23.90	C
ATOM	1392	CG2	ILE	A	179	-0.898	30.117	4.437	1.00	22.28	C
ATOM	1393	C	ILE	A	179	-1.836	29.865	1.615	1.00	23.88	C
ATOM	1394	O	ILE	A	179	-2.226	30.969	1.259	1.00	25.90	O
ATOM	1395	N	CYS	A	180	-2.654	28.831	1.687	1.00	24.75	N
ATOM	1396	CA	CYS	A	180	-4.065	28.870	1.362	1.00	28.37	C
ATOM	1397	CB	CYS	A	180	-4.388	27.599	0.557	1.00	29.24	C
ATOM	1398	SG	CYS	A	180	-3.270	27.438	-0.808	1.00	29.58	S
ATOM	1399	C	CYS	A	180	-4.980	28.871	2.602	1.00	29.38	C
ATOM	1400	O	CYS	A	180	-4.611	28.372	3.651	1.00	28.94	O
ATOM	1401	N	LEU	A	181	-6.224	29.335	2.450	1.00	28.98	N
ATOM	1402	CA	LEU	A	181	-7.229	29.165	3.456	1.00	28.57	C
ATOM	1403	CB	LEU	A	181	-8.546	29.924	3.091	1.00	29.86	C
ATOM	1404	CG	LEU	A	181	-9.957	29.740	3.747	1.00	32.88	C
ATOM	1405	CD1	LEU	A	181	-10.151	28.924	5.076	1.00	34.45	C
ATOM	1406	CD2	LEU	A	181	-10.683	31.036	3.866	1.00	32.73	C
ATOM	1407	C	LEU	A	181	-7.502	27.718	3.754	1.00	28.36	C
ATOM	1408	O	LEU	A	181	-7.507	27.342	4.898	1.00	29.23	O
ATOM	1409	N	GLN	A	182	-7.721	26.875	2.749	1.00	26.88	N
ATOM	1410	CA	GLN	A	182	-8.123	25.487	3.002	1.00	27.83	C
ATOM	1411	CB	GLN	A	182	-9.623	25.329	3.230	1.00	28.85	C
ATOM	1412	CG	GLN	A	182	-10.229	23.919	3.300	1.00	31.64	C
ATOM	1413	CD	GLN	A	182	-9.766	23.060	4.469	1.00	39.32	C
ATOM	1414	OE1	GLN	A	182	-9.419	23.545	5.540	1.00	43.84	O
ATOM	1415	NE2	GLN	A	182	-9.743	21.753	4.251	1.00	46.50	N
ATOM	1416	C	GLN	A	182	-7.618	24.689	1.811	1.00	27.81	C
ATOM	1417	O	GLN	A	182	-7.897	25.028	0.678	1.00	26.98	O
ATOM	1418	N	VAL	A	183	-6.777	23.689	2.066	1.00	25.48	N
ATOM	1419	CA	VAL	A	183	-6.379	22.806	0.962	1.00	24.63	C

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ATOM	1420	CB	VAL	A	183	-4.887	22.242	1.214	1.00	24.90	C
ATOM	1421	CG1	VAL	A	183	-4.530	21.180	0.136	1.00	24.45	C
ATOM	1422	CG2	VAL	A	183	-3.961	23.386	1.210	1.00	23.85	C
ATOM	1423	C	VAL	A	183	-7.405	21.706	0.867	1.00	26.27	C
ATOM	1424	O	VAL	A	183	-7.766	21.080	1.865	1.00	26.17	O
ATOM	1425	N	PRO	A	184	-7.961	21.469	-0.314	1.00	25.58	N
ATOM	1426	CA	PRO	A	184	-8.867	20.374	-0.443	1.00	27.34	C
ATOM	1427	CB	PRO	A	184	-9.293	20.434	-1.922	1.00	26.03	C
ATOM	1428	CG	PRO	A	184	-8.944	21.722	-2.404	1.00	28.12	C
ATOM	1429	CD	PRO	A	184	-7.766	22.209	-1.581	1.00	26.65	C
ATOM	1430	C	PRO	A	184	-8.066	19.071	-0.229	1.00	28.43	C
ATOM	1431	O	PRO	A	184	-6.932	18.914	-0.762	1.00	27.92	O
ATOM	1432	N	ALA	A	185	-8.627	18.144	0.517	1.00	30.29	N
ATOM	1433	CA	ALA	A	185	-7.833	16.953	0.824	1.00	32.96	C
ATOM	1434	CB	ALA	A	185	-7.127	17.123	2.223	1.00	33.57	C
ATOM	1435	C	ALA	A	185	-8.680	15.682	0.734	1.00	35.10	C
ATOM	1436	O	ALA	A	185	-9.911	15.746	0.835	1.00	34.90	O
ATOM	1437	N	ALA	A	186	-7.990	14.573	0.494	1.00	36.65	N
ATOM	1438	CA	ALA	A	186	-8.418	13.186	0.672	1.00	40.61	C
ATOM	1439	CB	ALA	A	186	-9.642	13.054	1.478	1.00	39.87	C
ATOM	1440	C	ALA	A	186	-8.541	12.530	-0.682	1.00	41.88	C
ATOM	1441	O	ALA	A	186	-7.544	11.951	-1.135	1.00	44.55	O
ATOM	1442	N	ASP	A	189	-4.573	11.644	2.384	1.00	39.65	N
ATOM	1443	CA	ASP	A	189	-3.544	12.690	2.111	1.00	38.28	C
ATOM	1444	CB	ASP	A	189	-4.176	14.010	1.653	1.00	37.89	C
ATOM	1445	CG	ASP	A	189	-4.731	13.937	0.252	1.00	40.14	C
ATOM	1446	OD1	ASP	A	189	-4.575	12.890	-0.407	1.00	45.15	O
ATOM	1447	OD2	ASP	A	189	-5.351	14.900	-0.192	1.00	39.69	O
ATOM	1448	C	ASP	A	189	-2.833	13.013	3.404	1.00	37.50	C
ATOM	1449	O	ASP	A	189	-3.489	13.054	4.453	1.00	37.18	O
ATOM	1450	N	MET	A	190	-1.520	13.317	3.319	1.00	35.59	N
ATOM	1451	CA	MET	A	190	-0.693	13.468	4.522	1.00	34.00	C
ATOM	1452	CB	MET	A	190	0.681	12.769	4.330	1.00	35.86	C
ATOM	1453	CG	MET	A	190	0.633	11.219	4.072	1.00	39.91	C
ATOM	1454	SD	MET	A	190	-0.036	10.124	5.394	1.00	50.52	S
ATOM	1455	CE	MET	A	190	1.338	10.077	6.552	1.00	39.74	C
ATOM	1456	C	MET	A	190	-0.485	14.951	4.862	1.00	30.71	C
ATOM	1457	N	LYS	A	191	-0.733	15.194	6.131	1.00	27.81	N
ATOM	1458	CA	LYS	A	191	-0.493	16.483	6.763	1.00	27.08	C
ATOM	1459	CB	LYS	A	191	-1.364	16.618	8.005	1.00	28.70	C
ATOM	1460	CG	LYS	A	191	-1.847	18.066	8.186	1.00	36.05	C
ATOM	1461	CD	LYS	A	191	-2.982	18.218	9.200	1.00	37.53	C
ATOM	1462	CE	LYS	A	191	-4.223	17.581	8.724	1.00	45.34	C
ATOM	1463	NZ	LYS	A	191	-5.188	17.654	9.855	1.00	50.42	N
ATOM	1464	C	LYS	A	191	0.927	16.625	7.235	1.00	25.64	C
ATOM	1465	O	LYS	A	191	1.511	15.648	7.650	1.00	26.26	O
ATOM	1466	N	VAL	A	192	1.505	17.800	7.133	1.00	21.01	N
ATOM	1467	CA	VAL	A	192	2.867	17.995	7.653	1.00	19.33	C
ATOM	1468	CB	VAL	A	192	3.688	18.952	6.828	1.00	19.14	C
ATOM	1469	CG1	VAL	A	192	3.901	18.389	5.389	1.00	17.06	C
ATOM	1470	CG2	VAL	A	192	3.081	20.384	6.764	1.00	20.23	C
ATOM	1471	C	VAL	A	192	2.795	18.477	9.114	1.00	20.67	C
ATOM	1472	O	VAL	A	192	1.786	19.071	9.525	1.00	21.65	O
ATOM	1473	N	ASP	A	193	3.863	18.284	9.867	1.00	19.17	N
ATOM	1474	CA	ASP	A	193	3.918	18.792	11.220	1.00	20.13	C
ATOM	1475	CB	ASP	A	193	5.165	18.267	11.946	1.00	18.82	C
ATOM	1476	CG	ASP	A	193	5.107	16.791	12.138	1.00	23.93	C
ATOM	1477	OD1	ASP	A	193	4.057	16.305	12.562	1.00	28.35	O
ATOM	1478	OD2	ASP	A	193	6.087	16.060	11.816	1.00	19.44	O
ATOM	1479	C	ASP	A	193	3.984	20.325	11.304	1.00	20.66	C
ATOM	1480	O	ASP	A	193	3.388	20.915	12.276	1.00	20.77	O
ATOM	1481	N	GLU	A	194	4.712	20.978	10.390	1.00	19.39	N
ATOM	1482	CA	GLU	A	194	4.872	22.430	10.465	1.00	19.88	C
ATOM	1483	CB	GLU	A	194	6.075	22.730	11.312	1.00	21.31	C
ATOM	1484	CG	GLU	A	194	6.379	24.213	11.446	1.00	25.62	C
ATOM	1485	CD	GLU	A	194	7.352	24.442	12.563	1.00	28.82	C
ATOM	1486	OE1	GLU	A	194	7.697	25.619	12.768	1.00	36.01	O
ATOM	1487	OE2	GLU	A	194	7.787	23.434	13.191	1.00	29.17	O

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ATOM   1488  C   GLU A 194      5.099  23.039   9.079  1.00 20.97           C
ATOM   1489  O   GLU A 194      5.865  22.466   8.270  1.00 20.22           O
ATOM   1490  N   VAL A 195      4.445  24.165   8.785  1.00 19.54           N
ATOM   1491  CA  VAL A 195      4.736  24.938   7.547  1.00 21.31           C
ATOM   1492  CB  VAL A 195      3.432  25.360   6.871  1.00 20.55           C
ATOM   1493  CG1 VAL A 195      2.481  24.144   6.733  1.00 23.14           C
ATOM   1494  CG2 VAL A 195      3.750  26.030   5.516  1.00 23.70           C
ATOM   1495  C   VAL A 195      5.496  26.221   7.873  1.00 20.65           C
ATOM   1496  O   VAL A 195      5.010  26.998   8.659  1.00 23.94           O
ATOM   1497  N   LEU A 196      6.697  26.411   7.372  1.00 19.11           N
ATOM   1498  CA  LEU A 196      7.443  27.637   7.577  1.00 22.97           C
ATOM   1499  CB  LEU A 196      8.930  27.456   7.711  1.00 22.46           C
ATOM   1500  CG  LEU A 196      9.496  26.592   8.873  1.00 27.89           C
ATOM   1501  CD1 LEU A 196     11.016  26.755   8.778  1.00 25.43           C
ATOM   1502  CD2 LEU A 196      8.886  26.947  10.274  1.00 27.14           C
ATOM   1503  C   LEU A 196      7.209  28.577   6.406  1.00 24.28           C
ATOM   1504  O   LEU A 196      7.328  28.177   5.243  1.00 21.22           O
ATOM   1505  N   TYR A 197      6.920  29.832   6.718  1.00 24.81           N
ATOM   1506  CA  TYR A 197      6.922  30.873   5.684  1.00 26.85           C
ATOM   1507  CB  TYR A 197      5.519  30.937   5.095  1.00 25.25           C
ATOM   1508  CG  TYR A 197      4.395  31.034   6.091  1.00 27.01           C
ATOM   1509  CD1 TYR A 197      3.797  32.280   6.349  1.00 33.08           C
ATOM   1510  CE1 TYR A 197      2.718  32.403   7.256  1.00 33.17           C
ATOM   1511  CZ  TYR A 197      2.221  31.277   7.872  1.00 34.70           C
ATOM   1512  OH  TYR A 197      1.149  31.394   8.759  1.00 38.04           O
ATOM   1513  CE2 TYR A 197      2.796  30.016   7.602  1.00 31.00           C
ATOM   1514  CD2 TYR A 197      3.865  29.918   6.724  1.00 27.44           C
ATOM   1515  C   TYR A 197      7.243  32.209   6.345  1.00 29.03           C
ATOM   1516  O   TYR A 197      7.178  32.284   7.568  1.00 29.50           O
ATOM   1517  N   GLU A 198      7.586  33.224   5.562  1.00 29.84           N
ATOM   1518  CA  GLU A 198      7.780  34.590   6.063  1.00 31.16           C
ATOM   1519  CB  GLU A 198      8.150  35.544   4.899  1.00 30.39           C
ATOM   1520  CG  GLU A 198      8.646  36.914   5.407  1.00 30.94           C
[0211] ATOM   1521  CD  GLU A 198      9.024  37.819   4.284  1.00 39.24           C
ATOM   1522  OE1 GLU A 198      9.950  38.668   4.454  1.00 37.27           O
ATOM   1523  OE2 GLU A 198      8.422  37.645   3.201  1.00 40.30           O
ATOM   1524  C   GLU A 198      6.553  35.087   6.846  1.00 32.02           C
ATOM   1525  O   GLU A 198      5.432  35.204   6.298  1.00 35.12           O
ATOM   1526  N1  THF B 501     12.274  17.521  -6.290  1.00 23.05           N
ATOM   1527  C2  THF B 501     11.722  18.749  -5.649  1.00 23.82           C
ATOM   1528  NA2 THF B 501     12.546  19.840  -5.686  1.00 22.35           N
ATOM   1529  N3  THF B 501     10.216  19.071  -5.714  1.00 27.83           N
ATOM   1530  C4  THF B 501      9.292  18.025  -6.141  1.00 26.95           C
ATOM   1531  O4  THF B 501      8.084  18.169  -6.217  1.00 30.66           O
ATOM   1532  C4A THF B 501      9.926  16.813  -6.815  1.00 29.40           C
ATOM   1533  N5  THF B 501      8.967  15.745  -7.278  1.00 28.34           N
ATOM   1534  C6  THF B 501      9.689  14.524  -7.749  1.00 33.60           C
ATOM   1535  C7  THF B 501     10.836  14.106  -7.066  1.00 30.49           C
ATOM   1536  N8  THF B 501     11.910  15.097  -7.003  1.00 28.34           N
ATOM   1537  C8A THF B 501     11.340  16.423  -6.296  1.00 28.16           C
ATOM   1538  C9  THF B 501      8.857  14.024  -8.961  0.00 34.51           C
ATOM   1539  N10 THF B 501      8.515  14.454  -9.873  1.00 32.90           N
ATOM   1540  C11 THF B 501      4.458  15.052 -10.761  1.00 30.74           C
ATOM   1541  C12 THF B 501      5.289  16.106 -10.938  1.00 29.68           C
ATOM   1542  C13 THF B 501      6.771  16.027 -10.564  1.00 34.94           C
ATOM   1543  C14 THF B 501      7.194  14.669 -10.427  1.00 32.98           C
ATOM   1544  C15 THF B 501      6.228  13.486 -10.113  1.00 30.66           C
ATOM   1545  C16 THF B 501      4.950  13.623 -10.441  1.00 26.73           C
ATOM   1546  C17 THF B 501      2.947  15.119 -10.981  1.00 33.73           C
ATOM   1547  O   THF B 501      2.210  14.571 -10.191  1.00 33.20           O
ATOM   1548  N   THF B 501      2.483  15.774 -12.221  1.00 32.81           N
ATOM   1549  CA  THF B 501      1.061  15.865 -12.611  1.00 35.11           C
ATOM   1550  CB  THF B 501      0.838  14.699 -13.162  0.00 35.55           C
ATOM   1551  CG  THF B 501      1.973  13.669 -13.178  0.00 35.41           C
ATOM   1552  CD  THF B 501      2.644  13.308 -14.500  0.00 35.51           C
ATOM   1553  OE1 THF B 501      1.850  12.428 -15.249  0.00 35.63           O
ATOM   1554  OE2 THF B 501      4.036  13.054 -14.457  0.00 35.38           O
ATOM   1555  CT  THF B 501      0.796  17.168 -13.390  1.00 35.71           C
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	ATOM	1556	O1	THF	B	501	1.809	18.252	-12.889	0.00	34.94	O
	ATOM	1557	O2	THF	B	501	1.273	16.727	-14.514	0.00	36.17	O
	ATOM	1558	C18	THF	B	501	9.576	14.984	-10.709	1.00	34.09	C
	ATOM	1559	O5	THF	B	501	10.664	14.677	-10.354	1.00	35.57	O
	ATOM	1560	NI	NI	C	1	-9.116	26.104	8.608	1.00	36.52	NI
	ATOM	1561	NI	NI	C	2	13.217	2.187	-5.111	1.00	27.11	NI
	ATOM	1562	MG	MG	C	3	14.633	5.620	1.231	1.00	11.34	MG
	ATOM	1563	MG	MG	C	4	13.551	12.122	-16.404	1.00	38.38	MG
	ATOM	1564	MG	MG	C	6	-8.101	33.256	-6.008	1.00	98.12	MG
	ATOM	1565	MG	MG	C	7	13.077	6.948	-13.819	1.00	52.21	MG
	ATOM	1566	MG	MG	C	8	17.516	42.131	0.338	1.00	44.47	MG
	ATOM	1567	MG	MG	C	9	-1.712	28.234	-14.231	1.00	50.84	MG
	ATOM	1568	MG	MG	C	10	7.297	24.528	-12.568	1.00	66.63	MG
	ATOM	1569	MG	MG	C	11	7.988	5.122	-1.748	1.00	42.15	MG
	ATOM	1570	MG	MG	C	12	24.901	17.885	15.891	1.00	52.23	MG
	ATOM	1571	O	HOH	S	1	14.791	16.990	-5.233	1.00	15.43	O
	ATOM	1572	O	HOH	S	2	14.763	-0.269	-2.402	1.00	30.72	O
	ATOM	1573	O	HOH	S	3	14.250	5.683	-6.945	1.00	21.98	O
	ATOM	1574	O	HOH	S	4	14.417	2.427	0.395	1.00	24.58	O
	ATOM	1575	O	HOH	S	5	23.508	18.365	-11.517	1.00	19.18	O
	ATOM	1576	O	HOH	S	6	25.471	12.622	3.968	1.00	22.62	O
	ATOM	1577	O	HOH	S	7	13.665	29.226	-6.612	1.00	33.56	O
	ATOM	1578	O	HOH	S	8	18.574	23.477	-3.965	1.00	25.16	O
	ATOM	1579	O	HOH	S	9	14.605	14.521	-8.602	1.00	21.57	O
	ATOM	1580	O	HOH	S	10	8.279	26.312	-1.781	1.00	25.89	O
	ATOM	1581	O	HOH	S	11	20.249	2.573	-4.680	1.00	26.42	O
	ATOM	1582	O	HOH	S	12	7.984	32.460	2.847	1.00	28.69	O
	ATOM	1583	O	HOH	S	13	23.029	20.816	14.764	1.00	26.23	O
	ATOM	1584	O	HOH	S	14	-3.956	18.389	-1.545	1.00	33.13	O
	ATOM	1585	O	HOH	S	15	4.785	28.250	-11.912	1.00	38.81	O
	ATOM	1586	O	HOH	S	16	13.040	15.481	-10.874	1.00	20.65	O
	ATOM	1587	O	HOH	S	17	24.592	9.572	-10.803	1.00	22.53	O
	ATOM	1588	O	HOH	S	18	20.705	6.016	-8.248	1.00	25.51	O
[0212]	ATOM	1589	O	HOH	S	19	29.432	16.784	6.950	1.00	40.77	O
	ATOM	1590	O	HOH	S	20	7.557	-0.872	2.402	1.00	36.67	O
	ATOM	1591	O	HOH	S	21	12.000	24.311	-12.149	1.00	43.51	O
	ATOM	1592	O	HOH	S	22	14.823	0.044	10.364	1.00	38.13	O
	ATOM	1593	O	HOH	S	23	5.981	0.000	0.002	0.50	46.84	O
	ATOM	1594	O	HOH	S	24	18.038	25.228	19.120	1.00	49.80	O
	ATOM	1595	O	HOH	S	25	5.246	6.970	-5.087	1.00	33.05	O
	ATOM	1596	O	HOH	S	26	27.934	12.942	5.115	1.00	31.78	O
	ATOM	1597	O	HOH	S	27	23.365	7.702	10.930	1.00	34.38	O
	ATOM	1598	O	HOH	S	28	32.752	16.096	-2.429	1.00	30.11	O
	ATOM	1599	O	HOH	S	29	6.555	21.961	-4.694	1.00	31.09	O
	ATOM	1600	O	HOH	S	30	6.131	18.917	-4.438	1.00	30.30	O
	ATOM	1601	O	HOH	S	31	17.708	8.360	-11.635	1.00	31.45	O
	ATOM	1602	O	HOH	S	32	-19.674	9.931	-4.501	1.00	32.18	O
	ATOM	1603	O	HOH	S	33	27.765	14.692	7.075	1.00	32.50	O
	ATOM	1604	O	HOH	S	34	26.526	23.488	14.975	1.00	27.34	O
	ATOM	1605	O	HOH	S	35	18.284	22.493	-10.977	1.00	40.18	O
	ATOM	1606	O	HOH	S	36	26.198	8.909	-13.188	1.00	50.88	O
	ATOM	1607	O	HOH	S	37	4.223	17.015	-5.049	1.00	34.11	O
	ATOM	1608	O	HOH	S	38	30.713	17.147	3.018	1.00	44.95	O
	ATOM	1609	O	HOH	S	39	25.669	17.698	-14.489	1.00	41.00	O
	ATOM	1610	O	HOH	S	40	9.769	13.072	-18.493	1.00	44.05	O
	ATOM	1611	O	HOH	S	41	26.932	25.258	16.574	1.00	36.04	O
	ATOM	1612	O	HOH	S	42	17.067	5.666	-11.043	1.00	39.43	O
	ATOM	1613	O	HOH	S	43	12.905	28.987	13.456	1.00	38.02	O
	ATOM	1614	O	HOH	S	44	-2.026	16.947	3.114	1.00	35.52	O
	ATOM	1615	O	HOH	S	45	10.789	0.001	2.282	1.00	44.05	O
	ATOM	1616	O	HOH	S	46	-6.117	14.217	-7.365	1.00	42.96	O
	ATOM	1617	O	HOH	S	47	-6.416	16.614	-8.860	1.00	30.10	O
	ATOM	1618	O	HOH	S	48	7.606	28.764	-12.738	1.00	38.09	O
	ATOM	1619	O	HOH	S	49	-4.110	16.346	4.687	1.00	39.40	O
	ATOM	1620	O	HOH	S	50	17.849	0.001	-0.001	0.50	38.55	O
	ATOM	1621	O	HOH	S	51	25.386	27.940	7.125	1.00	38.64	O
	ATOM	1622	O	HOH	S	52	5.633	13.742	10.190	1.00	31.16	O
	ATOM	1623	O	HOH	S	53	6.479	30.541	9.834	1.00	37.29	O

[0213]

ATOM	1624	O	HOH	S	54	-21.773	8.266	-0.655	1.00	43.44	0
ATOM	1625	O	HOH	S	55	18.332	22.365	-8.123	1.00	46.42	0
ATOM	1626	O	HOH	S	56	-22.868	5.869	-1.032	1.00	42.90	0
ATOM	1627	O	HOH	S	57	8.735	27.520	14.294	1.00	54.44	0
ATOM	1628	O	HOH	S	58	5.561	32.409	10.730	1.00	49.17	0
ATOM	1629	O	HOH	S	59	3.485	20.878	-11.256	1.00	24.68	0
ATOM	1630	O	HOH	S	60	14.734	15.153	15.705	1.00	49.21	0
ATOM	1631	O	HOH	S	61	2.354	38.984	5.133	1.00	63.36	0
ATOM	1632	O	HOH	S	62	3.604	14.260	8.690	1.00	44.75	0
ATOM	1633	O	HOH	S	63	6.117	24.558	-5.825	1.00	36.29	0
ATOM	1634	O	HOH	S	64	-5.242	28.089	6.696	1.00	28.81	0
ATOM	1635	O	HOH	S	65	-0.022	8.022	-3.401	1.00	48.23	0
ATOM	1636	O	HOH	S	66	16.449	13.966	16.698	1.00	44.59	0
ATOM	1637	O	HOH	S	67	7.580	23.905	-1.597	1.00	35.19	0
ATOM	1638	O	HOH	S	68	0.198	19.801	11.675	1.00	42.02	0
ATOM	1639	O	HOH	S	69	17.878	9.768	-14.801	1.00	46.89	0
ATOM	1640	O	HOH	S	70	6.426	13.830	13.793	1.00	40.62	0
ATOM	1641	O	HOH	S	71	-6.813	9.885	2.462	1.00	48.45	0
ATOM	1642	O	HOH	S	72	-15.099	20.665	-6.482	1.00	36.04	0
ATOM	1643	O	HOH	S	73	12.638	15.964	1.078	1.00	14.82	0
ATOM	1644	O	HOH	S	74	16.420	15.111	-6.587	1.00	15.39	0
ATOM	1645	O	HOH	S	75	7.026	7.446	-3.404	1.00	18.90	0
ATOM	1646	O	HOH	S	76	-7.743	27.792	8.463	1.00	30.87	0
ATOM	1647	O	HOH	S	77	0.849	15.057	-5.069	1.00	24.83	0
ATOM	1648	O	HOH	S	78	15.279	1.219	-5.114	1.00	26.19	0
ATOM	1649	O	HOH	S	79	6.019	3.368	-3.758	1.00	50.05	0
ATOM	1650	O	HOH	S	80	5.655	27.518	11.523	1.00	40.00	0
ATOM	1651	O	HOH	S	81	-20.698	10.004	-2.597	1.00	34.27	0
ATOM	1652	O	HOH	S	82	13.933	3.010	-6.968	1.00	24.85	0
ATOM	1653	O	HOH	S	83	-8.817	25.328	6.508	1.00	35.97	0
ATOM	1654	O	HOH	S	84	7.396	-0.240	4.782	1.00	45.17	0
ATOM	1655	O	HOH	S	85	1.086	20.398	-10.731	1.00	30.36	0
ATOM	1656	O	HOH	S	86	16.087	44.311	0.072	1.00	46.57	0
ATOM	1657	O	HOH	S	87	-1.638	15.412	-0.177	1.00	42.00	0
ATOM	1658	O	HOH	S	88	-2.388	16.724	-3.452	1.00	36.91	0
ATOM	1659	O	HOH	S	89	18.191	27.766	1.435	1.00	33.23	0
ATOM	1660	O	HOH	S	90	12.147	31.009	-6.800	1.00	49.78	0
ATOM	1661	O	HOH	S	91	19.117	10.785	-13.093	1.00	36.89	0
ATOM	1662	O	HOH	S	92	26.104	20.028	-14.054	1.00	38.19	0
ATOM	1663	O	HOH	S	93	27.614	13.079	12.159	1.00	42.92	0
ATOM	1664	O	HOH	S	94	-9.657	27.743	-5.754	1.00	51.46	0
ATOM	1665	O	HOH	S	95	-16.782	20.916	-8.806	1.00	40.66	0
ATOM	1666	O	HOH	S	96	6.352	28.700	-16.775	1.00	42.54	0
ATOM	1667	O	HOH	S	97	8.741	22.832	-11.719	1.00	50.59	0
ATOM	1668	O	HOH	S	98	24.762	28.026	-7.399	1.00	64.22	0
ATOM	1669	O	HOH	S	99	8.883	23.287	15.955	1.00	40.97	0
ATOM	1670	O	HOH	S	100	10.938	16.974	19.406	1.00	46.49	0
ATOM	1671	O	HOH	S	101	22.073	0.355	1.830	1.00	56.20	0
ATOM	1672	O	HOH	S	102	-10.072	12.611	-4.680	1.00	36.80	0
ATOM	1673	O	HOH	S	103	18.249	25.647	-7.442	1.00	47.69	0
ATOM	1674	O	HOH	S	104	-0.713	15.155	-2.578	1.00	48.82	0
ATOM	1675	O	HOH	S	105	19.708	31.320	11.668	1.00	42.89	0
ATOM	1676	O	HOH	S	106	15.949	26.860	20.611	1.00	53.47	0
ATOM	1677	O	HOH	S	107	8.704	25.788	16.337	1.00	52.05	0
ATOM	1678	O	HOH	S	108	2.227	27.636	10.490	1.00	48.10	0
ATOM	1679	O	HOH	S	109	-9.747	26.821	10.816	1.00	45.33	0
ATOM	1680	O	HOH	S	110	13.617	40.449	3.640	1.00	43.09	0
ATOM	1681	O	HOH	S	111	5.886	4.601	14.758	1.00	46.14	0
ATOM	1682	O	HOH	S	112	21.188	0.167	-9.357	1.00	58.94	0
ATOM	1683	O	HOH	S	113	10.899	11.079	-17.568	1.00	53.90	0
ATOM	1684	O	HOH	S	114	19.039	2.484	-9.757	1.00	52.12	0
ATOM	1685	O	HOH	S	115	8.064	30.374	-11.270	1.00	51.12	0
ATOM	1686	O	HOH	S	116	2.438	24.926	10.905	1.00	29.46	0
ATOM	1687	O	HOH	S	117	23.920	6.157	7.134	1.00	36.12	0
ATOM	1688	O	HOH	S	118	11.316	25.132	17.104	1.00	43.39	0
ATOM	1689	O	HOH	S	119	0.710	23.335	12.492	1.00	47.97	0
ATOM	1690	O	HOH	S	120	20.558	22.652	-5.203	1.00	51.86	0
ATOM	1691	O	HOH	S	121	16.995	1.869	-8.032	1.00	42.32	0

[0214]

ATOM	1692	O	HOH S 122	-17.806	8.731	4.155	1.00	54.44	0
ATOM	1693	O	HOH S 123	14.771	5.864	-10.009	1.00	42.68	0
ATOM	1694	O	HOH S 124	33.585	18.686	-2.550	1.00	48.72	0
ATOM	1695	O	HOH S 125	14.229	22.890	-12.759	1.00	48.12	0
ATOM	1696	O	HOH S 126	-7.855	13.831	-4.740	1.00	47.83	0
ATOM	1697	O	HOH S 127	23.474	9.493	12.904	1.00	50.75	0
ATOM	1698	O	HOH S 128	8.416	16.139	18.391	1.00	59.59	0
ATOM	1699	O	HOH S 129	6.264	39.608	1.560	1.00	53.51	0
ATOM	1700	O	HOH S 130	-11.059	27.247	7.760	1.00	36.43	0
ATOM	1701	O	HOH S 131	0.009	6.840	-1.019	1.00	50.92	0
ATOM	1702	O	HOH S 132	32.665	18.149	1.897	1.00	54.07	0
ATOM	1703	O	HOH S 133	7.561	12.640	-17.062	1.00	48.18	0
ATOM	1704	O	HOH S 134	15.649	40.022	3.738	1.00	72.69	0
ATOM	1705	O	HOH S 135	25.951	5.851	8.503	1.00	47.45	0
ATOM	1706	O	HOH S 136	27.108	2.409	-8.958	1.00	42.18	0
ATOM	1707	O	HOH S 137	-10.466	25.080	-5.386	1.00	42.89	0

[0215] 各种 MTHFS 突变体以及人野生型 MTHFS 的酶活性测定

[0216] 通过对各种 MTHFS 同源蛋白的生物化学和酶学性质的研究，发明人挑选了 15 个位点进行定点突变研究。

[0217] 突变使用的原理是：通过使用定点突变的方法将分析得到的潜在关键位点进行突变，突变的方法使用 STRATAGENE 公司定点突变试剂盒，通过 PCR 一步得到突变体，经过 DNA 测序来验证突变是否成功。潜在的关键氨基酸残基都被突变成为丙氨酸 (A)，由于丙氨酸具有最简单的氨基酸支链，同时又对蛋白质的二级结构产生很小的影响，所以这一方法已经成为广泛用于定点突变中。

[0218] 以 5- 甲基四氢叶酸为底物，加入任一种 MTHFS 突变体或人野生型 MTHFS 以及辅助因子镁离子、ATP（三磷酸腺苷）。室温反应 2 分钟，通过紫外吸收光谱检测 360nm 处吸收光强度的变化，确定生成物 5,10- 亚甲基四氢叶酸的含量，进而确定酶活性的强弱。将人野生型 MTHFS 的活性设为 100%，突变体酶的相对活性为与人野生型酶活性比较获得。

[0219] 表 7. MTHFS 突变体的相对活性

[0220]

突变体	参与的反应	相对活性(%)
K10A	ATP 结合	7.5
R14A	ATP 结合	12.9
R145A	ATP 结合	2.3
D154A	ATP 结合	0.9
F55A	底物结合	53.6
M58A	底物结合	121.6
E61A	底物结合	8.6
Y83A	底物结合	100
M90A	底物结合	49.2
Y152A	底物结合	24.9
Y153A	底物结合	3.2
F85A	底物结合	72.3
W109A	底物结合	39.7
R148A	底物结合	30.7
K150A	底物结合	100
人野生型		100

[0221] 人源 5,10- 次甲基四氢叶酸合成酶及其复合物的空间构型

[0222] 经结构修正得到人源 MTHFS 的原子坐标，MTHFS 的三维结构见图 3，其中该酶的三维结构中包括 α 螺旋和 β 片层，其位点如下：α1 2-18；α2 26-42；α3 44-48；β1 50-54；α4 65-73；β2 77-84；β3 89-95；β4 131-134；β5 138-140；β6 145-146；α5 152-162；β7 169-173；β8 194-196。

[0223] 从突变实验以及三维结构图的结果可知：以下几个位点对于酶发挥活性是关键的：F55、M58、E61、M90、Y152、Y153 通过与底物 5- 甲基四氢叶酸中的蝶呤基团结合来发挥酶活性；F85、W109、R148 通过与底物 5- 甲基四氢叶酸中的对氨基苯甲酸基团结合来发挥酶活性；K10、R14、R145、D154 通过与 ATP 结合来发挥酶活性。

[0224] 人源 5，10- 次甲基四氢叶酸合成酶与 ADP 复合物：蛋白结合磷酸基团以后，在结构中原来无法建模的部分，E187-D189，在人源 MTHFS 结合 ADP 的复合物结构中得到了很好的构建。E187-D189 位于 ATP 的结合部位，D189 与 ATP 水解下来的磷酸的 O1 氧原子形成一个氢键，并且结合了一个镁离子。另外，D189 和 K10 形成一个盐桥。这些新的化学作用键的形成，使得在脱辅基蛋白结构中无法建模的部分 (A174-D193) 得到了稳定。由于在三维结构中只能显示 ADP 的两个磷酸基团和一个从 ATP 上水解下来的磷酸基团，其中水解下来的磷酸将作为亲核基团参与酶反应。此磷酸基团位于 α5(152-161 位氨基酸）的一段，151-153 位氨基酸残基与之有相互作用。使用 ATP 类似物，例如使用硫类似物来替代磷酸基团设计小分子药物可以抑制此处磷酸基团进入酶分子，从而抑制酶活性。

[0225] 人源 5，10- 次甲基四氢叶酸合成酶与谷氨酸复合物：结合在一个 111-116 位氨基酸残基附近的中性电荷裂缝上，该裂缝为 β3(89-95 氨基酸区段）和 β4(131-135 氨基酸区段）之间的一个大 Loop 环区域，其中 G115 和 E116 与它有 4 埃之内的相互作用，谷氨酸部分通过一个圆形口突出结合口袋以外而位于蛋白表面。这种特异性的结合可以被用来设计多肽抑制剂，用来设计特异性的酶抑制剂。

[0226] 人源 5，10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物：氨基酸残基 F55，L56，S57，M58，E61，P81，Y83，M90，W109，P135，R148，K150，Y152 和 Y153 围成的一个大球形口袋中，5- 亚胺磷酸反应中间态的蝶呤环就位于球形的中间。4- 螺旋和 3、4- 折叠，以及它们之间的长 loop，形成了一个帽子形状的结构覆盖在活性中心的上面。W109 位于蝶呤环的上面，并且看上去是用来关闭活性中心的盖子，W109 与蝶呤环的距离为 7 Å，说明两者之间没有相互作用。蝶呤环的构象并不是一个平面，它在 C6 位置沿垂直轴方向伸展。61 位的羧基氧与蝶呤环的 N3 和氨基氮相互作用。E61 在直系同源 MTHFS 中是保守残基。M90 与蝶呤环的 N8 形成一个氢键。在蝶呤环和 F55，Y83，P135，Y152，Y153 的芳香侧链之间存在着很多疏水的范德华力相互作用。Y83 在野生型和复合物的晶体中区别最大，Y83 的侧链发生旋转形成一个垂直状态，使得蝶呤环进入结合口袋。Y83 侧链的移动，反过来使 Y85 的侧链远离了结合口袋。所述的氨基酸残基均为参与酶反应的关键基团，可以为设计小分子药物提供结构信息。此 N5- 亚胺磷酸过渡态中，蝶呤环以 C4a 与 C8a 之间的键为轴发生了扭转，所述喋呤环上的电子发生了重排。

[0227] 人源 5，10- 次甲基四氢叶酸合成酶与生成物 10- 甲酰四氢叶酸的复合物：与人源 5，10- 次甲基四氢叶酸合成酶与 N5- 亚胺磷酸过渡态的复合物空间的构型总体上相同，只有 Y83 侧链的移动位置不同。Y83 可以用来设计抑制其移动的小分子，进而设计小分子药物。

[0228] 上面的结构信息可用于设计或制造药物。

[0229] 本发明还提供了 5,10- 次甲基四氢叶酸合成酶或其复合物的抑制剂,包括与上述的结构域类似或者与上述的结构域结合的小分子化合物、短肽、多肽、核酸、抗体或免疫结合物。

[0230] 本发明还提供了用于移植癌症的药物组合物,包括 5,10- 次甲基四氢叶酸合成酶或其复合物的抑制剂,以及药用载体或赋形物。

[0231] 序列表

[0232] <110> 中国科学院生物物理研究所

[0233] <120> 人源 5,10- 次甲基四氢叶酸合成酶及其复合物的结晶方法、晶体

[0234] 以及应用

[0235] <130>P25377IBP

[0236] <160>1

[0237] <170>PatentIn version 3.2

[0238] <210>1

[0239] <211>203

[0240] <212>PRT

[0241] <213> 人类

[0242] <400>1

[0243] Met Ala Ala Ala Ala Val Ser Ser Ala Lys Arg Ser Leu Arg Gly Glu

[0244] 1 5 10 15

[0245] Leu Lys Gln Arg Leu Arg Ala Met Ser Ala Glu Glu Arg Leu Arg Gln

[0246] 20 25 30

[0247] Ser Arg Val Leu Ser Gln Lys Val Ile Ala His Ser Glu Tyr Gln Lys

[0248] 35 40 45

[0249] Ser Lys Arg Ile Ser Ile Phe Leu Ser Met Gln Asp Glu Ile Glu Thr

[0250] 50 55 60

[0251] Glu Glu Ile Ile Lys Asp Ile Phe Gln Arg Gly Lys Ile Cys Phe Ile

[0252] 65 70 75 80

[0253] Pro Arg Tyr Arg Phe Gln Ser Asn His Met Asp Met Val Arg Ile Glu

[0254] 85 90 95

[0255] Ser Pro Glu Glu Ile Ser Leu Leu Pro Lys Thr Ser Trp Asn Ile Pro

[0256] 100 105 110

[0257] Gln Pro Gly Glu Gly Asp Val Arg Glu Glu Ala Leu Ser Thr Gly Gly

[0258] 115 120 125

[0259] Leu Asp Leu Ile Phe Met Pro Gly Leu Gly Phe Asp Lys His Gly Asn

[0260] 130 135 140

[0261] Arg Leu Gly Arg Gly Lys Gly Tyr Tyr Asp Ala Tyr Leu Lys Arg Cys

[0262] 145 150 155 160

[0263] Leu Gln His Gln Glu Val Lys Pro Tyr Thr Leu Ala Leu Ala Phe Lys

[0264] 165 170 175

[0265] Glu Gln Ile Cys Leu Gln Val Pro Val Asn Glu Asn Asp Met Lys Val

[0266] 180 185 190

[0267] Asp Glu Val Leu Tyr Glu Asp Ser Ser Thr Ala

[0268] 195 200

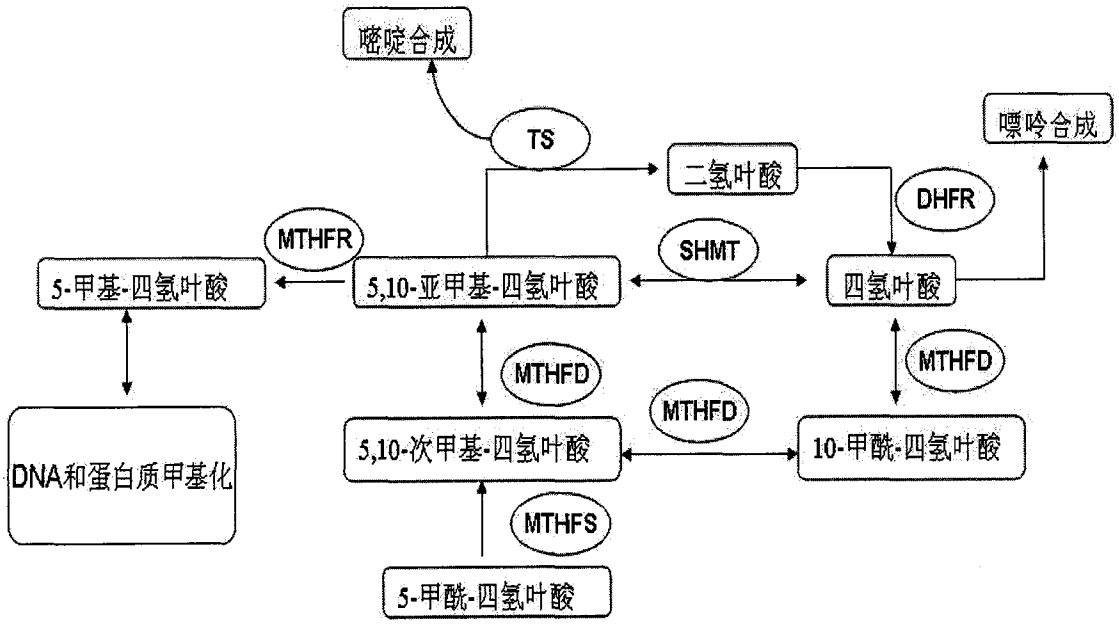
嘧啶合成
TS
二氢叶酸
嘌呤合成
DHFR
MTHFR
SHMT
5-甲基-四氢叶酸
5,10-亚甲基-四氢叶酸
四氢叶酸
MTHFD
MTHFD
MTHFD
DNA和蛋白质甲基化
5,10-次甲基-四氢叶酸
10-甲酰-四氢叶酸
MTHFS
5-甲酰-四氢叶酸

图 1

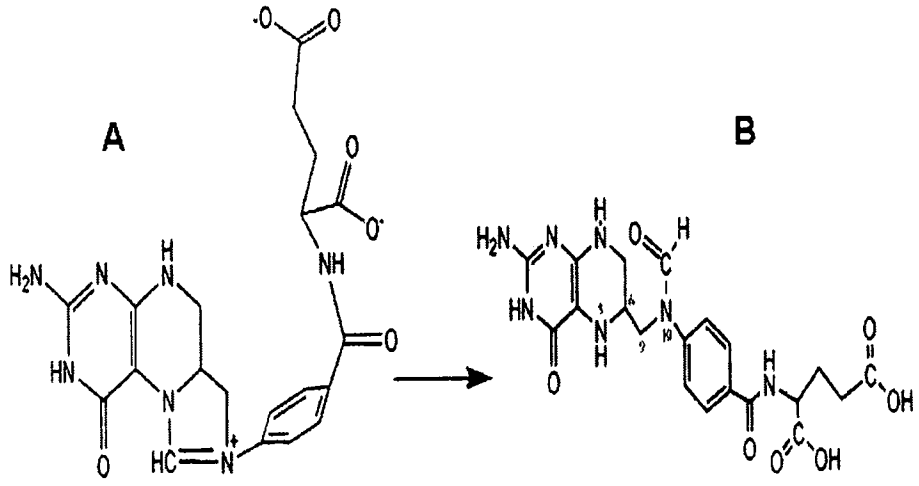
A
B

图 2

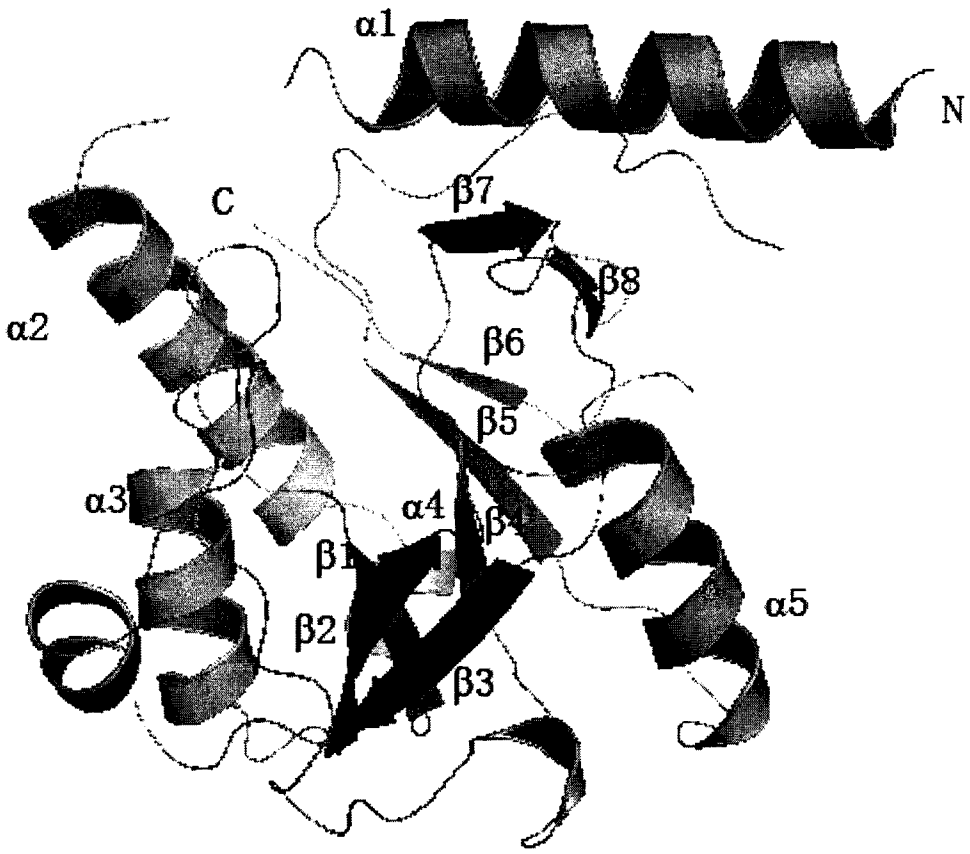

图 3

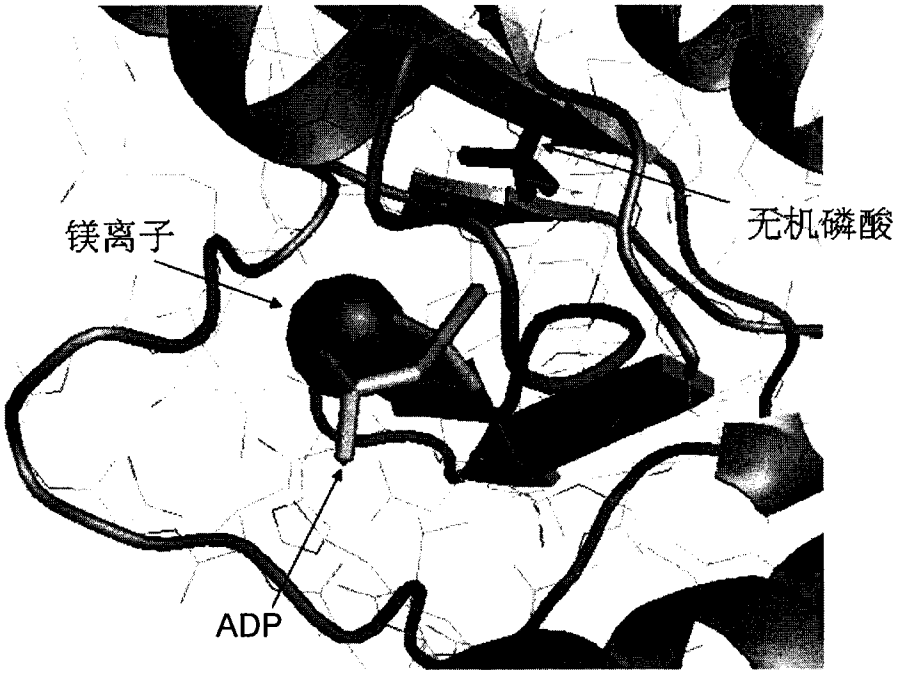

图 4

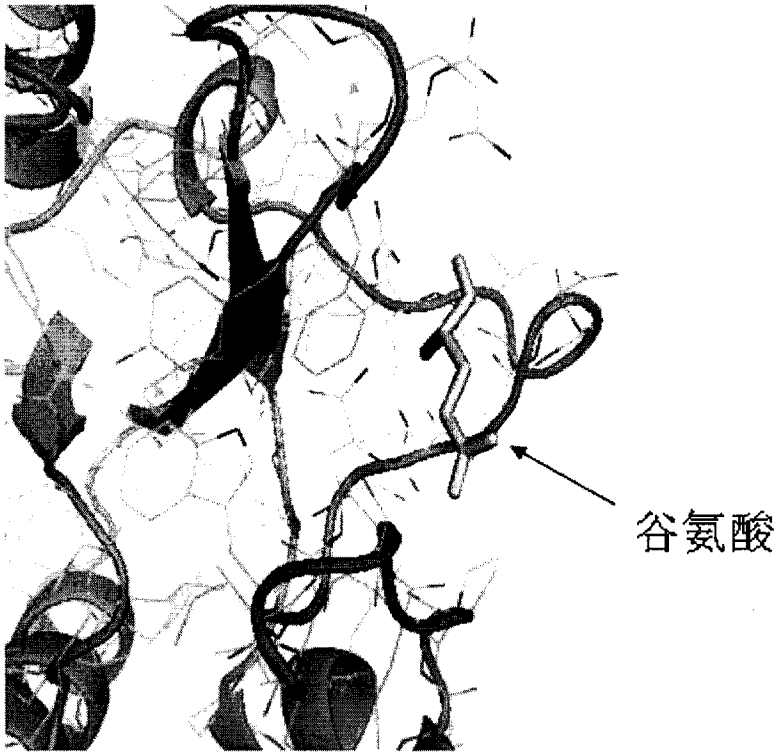

图 5

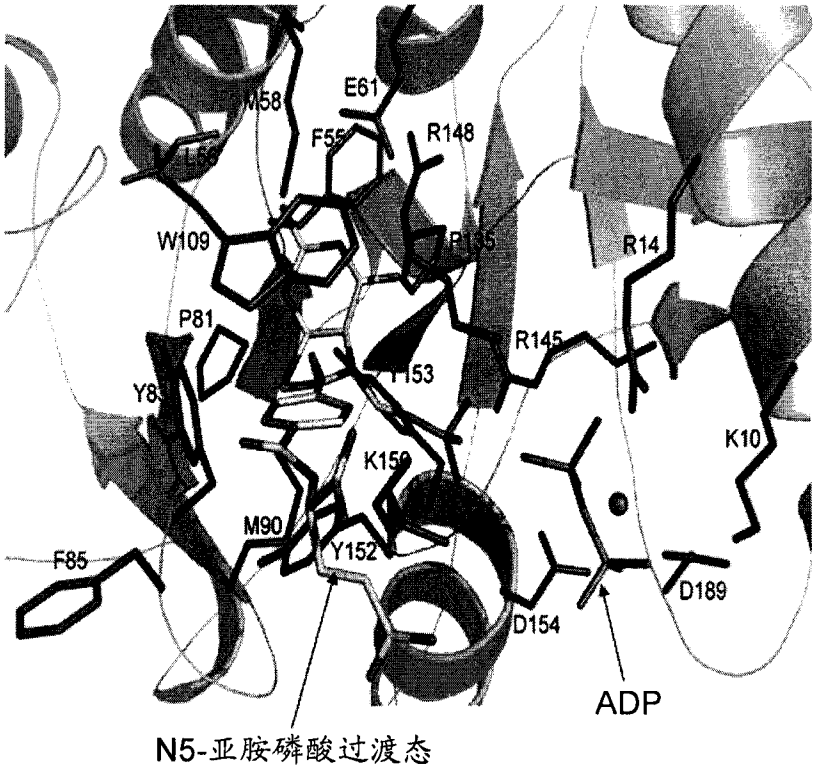
E61
M58
F55
R148
W109
R14
P81
R145
Y153
K10
K159
M90
Y152
F85
D189
D154
ADP
N5-亚胺磷酸过渡态

图 6

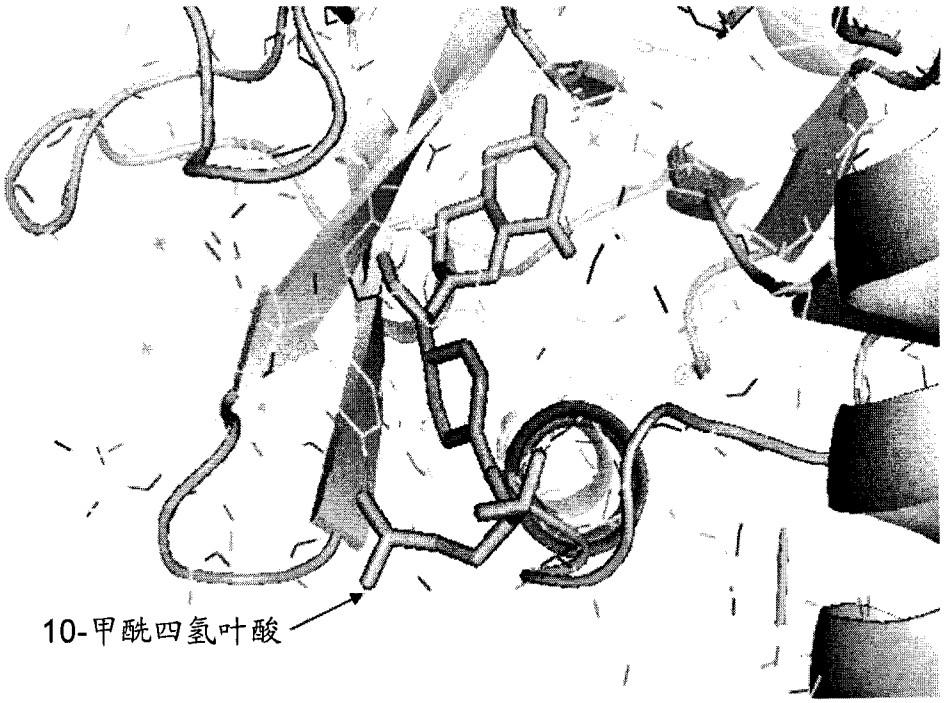
10-甲酰四氢叶酸

图 7