



Structure Report

Crystal structure of kiwellin, a major cell-wall protein from kiwifruit



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ABSTRACT

Kiwellin is a cysteine-rich, cell wall-associated protein with no known structural homologues. It is one of the most abundant proteins in kiwifruit (*Actinidia* spp.), and has been shown to be recognised by IgE of some patients allergic to kiwifruit. Cleavage of kiwellin into an N-terminal 4 kDa peptide called kissper and a core domain called KiTH is mediated by actinidin *in vitro*, and isolation of the kissper peptide from green-fleshed kiwifruit extracts suggested it may result from *in vivo* processing of kiwellin. In solution, kissper is highly flexible and displays pore-forming activity in synthetic lipid-bilayers. We present here the 2.05 Å resolution crystal structure of full-length kiwellin, purified from its native source, *Actinidia chinensis* (gold-fleshed kiwifruit). The structure confirms the modularity of the protein and the intrinsic flexibility of kissper and reveals that KiTH harbours a double-psi β -barrel fold hooked to an N-terminal β hairpin. Comparisons with structurally-related proteins suggest that a deep gorge located at the protein surface forms a binding site for endogenous ligands.

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1. Introduction

Kiwellin is a cysteine-rich protein identified as one of the major protein components of kiwifruit (*Actinidia* spp. Lindl.) (Tamburrini et al., 2005; Tuppo et al., 2008; Maddumage et al., 2013) and, subsequently, as a novel kiwifruit allergen (Tamburrini et al., 2005; Ciardiello et al., 2009; Bernardi et al., 2010; Bublin et al., 2010). Kiwellin is present in the edible part of the fruit and differential extraction showed that kiwellin is enriched in high salt fractions, suggesting it is associated with the cell wall (Tamburrini et al., 2005; Ciardiello et al., 2009). Homologues of kiwellin are found in a large variety of plants, but not in *Arabidopsis*, and none of them has been functionally characterised. Transcript levels of a grape homologue (Grip22) were found to increase in the late stage of ripening (Davies and Robinson, 2000), in contrast to kiwifruit where kiwellin is expressed from early fruit development (Ciardiello et al., 2009). More recently, comparative transcript profiling identified a potato homologue (TC197025) as being strongly up-regulated in plants infected with *Phytophthora infestans* (Draffehn et al., 2013).

No structural homologue has been identified for kiwellin. The protein was described as modular with two domains, an

N-terminal 4 kDa peptide called kissper (residues 1–39) containing six cysteines and a C-terminal domain called KiTH (residues 40–189) containing 8 cysteines (Tuppo et al., 2008). Cleavage of kiwellin into kissper and KiTH can be mediated by actinidin *in vitro* (Tuppo et al., 2008) and the kissper peptide was isolated from ripe green-fleshed kiwifruit, suggesting it derives from *in vivo* processing of kiwellin (Ciardiello et al., 2008). Preliminary structural analysis indicated that isolated kissper is mostly flexible in solution despite all of its six cysteines being involved in disulphide bonds (Ciardiello et al., 2008). At a functional level, kissper was found to have pH-dependent and voltage-gated pore-forming activities characterised by anion selectivity and channelling in model synthetic planar lipid membranes (Ciardiello et al., 2008), and, more recently, to exert anti-inflammatory and anti-oxidant effects on human intestinal cultured cells (Ciacci et al., 2014).

In this report, we present the crystal structure of the full length kiwellin, purified from its native source, *Actinidia chinensis* (gold-fleshed kiwifruit). The structure confirms the modularity of the protein and the intrinsic flexibility of kissper, and reveals that KiTH harbours a double-psi β -barrel fold hooked to an N-terminal β hairpin, with long loops protruding out of the barrel forming a deep gorge at the protein surface. Comparisons with structurally-related proteins suggest that kiwellin might be involved in carbohydrate binding and/or hydrolysis; however, no activity against a range of oligo- and polysaccharides was detected.

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2. Protein purification, crystallisation and structure determination

Kiwellin was purified from kiwifruit using a modified version of the protocol described in Tamburrini et al. (2005). Whole fruit tissue without skin (150 g) from gold-fleshed kiwifruit (*A. chinensis* Planch. var. *chinensis* 'Hort16A') was homogenised in 150 mL of high salt buffer (0.5 M NaCl, 0.1 M Tris/HCl, pH 8.3). After centrifugation (12,500×g) for 30 min, the supernatant was dialysed against 10 mM Tris/HCl, pH 7.5 and loaded on a HiTrap Q 5 mL column (GE Healthcare) equilibrated in the same buffer. The flow-through was collected, adjusted to pH 5.0 and loaded on a HiTrap S 5 mL column (GE Healthcare) equilibrated in 10 mM Na acetate, pH 5.0. Elution was performed using a 0–0.5 M NaCl linear gradient in 10 mM Na acetate, pH 5.0. The protein was concentrated using a Vivaspin concentrator (MWCO = 5000 Da, Sartorius) and loaded on Superdex 75 HiLoad 16/60 (GE Healthcare) equilibrated in 20 mM Tris pH 8.0, 150 mM NaCl. Peak fractions were collected, concentrated to 9.3 mg mL⁻¹ and stored at 193 K.

The integrity of the protein was assessed by electrospray mass spectrometry. A 1 µL aliquot of kiwellin stock solution was diluted 250-fold with 50:50:0.1 acetonitrile:water:formic acid, and infused at 6 µL min⁻¹ into the IonSpray source of a QSTAR XL Quadrupole-Time-of Flight mass spectrometer (Applied Biosystems, Foster City, CA, USA) scanning the *m/z* range 1000–2400 in positive ion mode. The resulting spectra were deconvoluted using the Bayesian Protein Reconstruct Tool within Analyst 2.0 (Applied Biosystems) to give intact protein molecular weight profiles. The experimental mass of purified kiwellin was 19,768.4 Da, in agreement with the calculated value of 19,749.7 Da for the 189 residues of the mature protein sequence (GenBank accession number AGC39168.1).

Kiwellin was crystallised by hanging drop vapour diffusion at 291 K using polyethylene glycol monomethyl ether 2000 (PEG 2000 MME) as precipitant. Clusters of extremely thin plate crystals, yielding low resolution and highly mosaic data, were usually obtained. In one instance, however, a thicker plate crystal was obtained, suitable for data collection. For this particular condition, the 9.3 mg mL⁻¹ kiwellin stock solution was diluted 2.6-fold using 20 mM Tris pH 8.0, and the drop consisted of 1 µL of diluted kiwellin solution and 1 µL of reservoir solution (0.1 M HEPES pH 7.5, 0.05 M KSCN, 27% (w/v) PEG 2000 MME). Cryoprotection was done by successive transfers of a piece of the thick crystal into precipitant solutions supplemented with 5%, 10%, 15% and 20% 2-methyl-2,4-pentanediol. A complete dataset was collected at the Australian Synchrotron MX2 beamline to 2.05 Å resolution. The crystal belonged to the P2₁ space group with two molecules in the asymmetric unit. Data were processed with iMOSFLM (Battye et al., 2011) and programs from the CCP4 package (Winn et al., 2011). No structural homologue could be identified from a BLAST search (Altschul et al., 1990) using the kiwellin amino acid sequence against the Protein Data Bank. However, the fold-recognition server HHPred (Soding et al., 2005) confidently reported double-psi β-barrel proteins as structurally related to kiwellin. The best HHPred hit, corresponding to the N-terminal domain of the bacterial expansin-like protein EXLX1 (residues 4–106, PDB entry 3D30) produced an *E*-value of 2.8×10^{-21} when aligned to the C-terminal domain of kiwellin (residues 69–189, i.e., covering 63% of the full-length sequence). Pairwise sequence alignment between EXLX1_{4–106} and kiwellin_{69–189} was very low (18.8% identity, with 38.4% gaps) and attempts to solve the structure by standard molecular replacement were unsuccessful. Despite these limitations, the structure was successfully solved using mr_rosetta (Terwilliger et al., 2012), starting from the best hit identified by HHPred (EXLX1_{4–106}). During the fully automated mr_rosetta

Table 1

Data collection and refinement statistics. Values in parentheses are for the last resolution shell.

Crystal	
Space group	P2 ₁
Cell parameters (Å and °)	<i>a</i> = 52.42, <i>b</i> = 59.70, <i>c</i> = 54.55, β = 97.45
Dataset	
λ (Å)	0.9794
Reflections observed	141,651
Unique reflections	20,381
Resolution range (Å)	40.08–2.05 (2.16–2.05)
<i>R</i> _{sym} (%)	14.0 (65.7)
CC _{1/2}	0.995 (0.85)
<i>I</i> / σ (I)	9.9 (3.0)
Completeness	96.9 (95.2)
Multiplicity	7.0 (6.9)
<i>B</i> _{wilson} (Å ²)	23.7
Refinement	
Resolution (Å)	40.08–2.05 (2.10–2.05)
Reflections	19,316 (1414)
Total number of atoms	2329
TLS groups	3 (A24–A39; A48–A189; B48–B189)
<i>R</i> _{work} / <i>R</i> _{free}	19.3/22.4 (29.2/33.2)
RMSD bonds (Å)/angles (°)	0.01/1.36
Average B factors (Å ²)	36.4/37.5
(protein/water)	
Ramachandran statistics of ϕ/ψ angles (%)	
Most favored	89.6
Additional favored	9.6
Generously favored	0.8
Disallowed	0

procedure, the five best initial molecular replacement solutions (as assessed by LLG scores) were selected and each model was rebuilt twenty times by rosetta in combination with density-modified maps. The best resulting rosetta models (top 20%, based on the rosetta score) were refined using phenix.refine and new density-modified maps were calculated. An average map was calculated from the top 20% density-modified maps and used in another round of rosetta to rebuild five models (so-called relaxed models) for each of the best rosetta models obtained previously. The top five relaxed models (as assessed by LLG scores) were finally rebuilt using phenix.autobuild and assessed using their respective *R*/*R*_{free} to yield the final solution (*R* = 0.26/*R*_{free} = 0.28). The resulting electron density maps were of very good quality, allowing manual rebuilding to be performed where necessary (principally around the disulphide bridges and in loop regions). Refinement was carried out with Refmac5 (Murshudov et al., 2011), using individual isotropic B-factors, automatic local NCS and 3 TLS groups. Rebuilding was done in Coot (Emsley et al., 2010). Optimised refinement parameters obtained from the PDB_REDO server (Joosten et al., 2011) were used in the final stage of refinement. Data collection and refinement statistics are listed in Table 1.

3. Overall structure of the core domain

The core structural domain of kiwellin encompasses residues 48–189 (Fig. 1). It consists of an N-terminal β-hairpin (residues 48–66) with disulphide bonds at both ends (Cys48–Cys66 and Cys56–Cys148) that links it to external loops of a 6-stranded double-psi β-barrel (residues 67–189), a complex motif in which two interlocked ββα units are related by pseudo 2-fold symmetry (Castillo et al., 1999) (Fig. 1). The two “psi-loops” of the motif (residues 80–106 connecting β3 and β4, and residues 142–162 connecting β7 and β8) are remarkably long, but are stabilised by two additional disulphide bonds (Cys95–Cys120, and Cys142–Cys158)

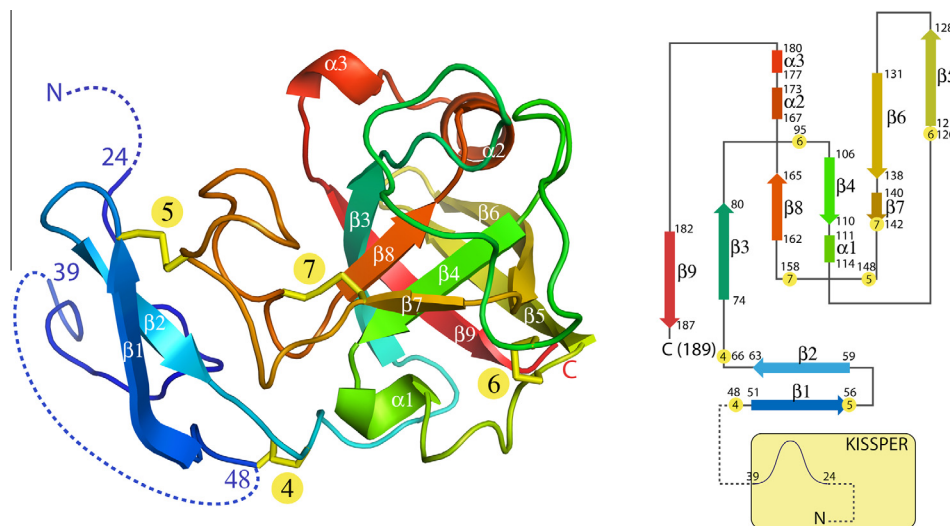


Fig. 1. Kiwelin structure and topology. The structure of kiwelin is coloured in rainbow mode from blue (N-terminal) to red (C-terminal). Molecule A of the asymmetric unit is displayed, including the ordered part of kissper (residues 24–39). Parts of the structure missing in the electron density maps are shown by a dotted line. The four disulphide bonds visible in electron density maps (labelled 4–7) are drawn in stick mode. The topology diagram is drawn with the same colour scheme. Individual cysteines are indicated by a yellow circle, and disulphides bonds numbers (4–7, as above) are indicated. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

that connect them to the rest of the structure. Only three small regions of weak electron density are observed in the structure (residues 57–59, 88–90 and 150–152) and the whole core domain is virtually identical in the two molecules of the asymmetric unit (rmsd of 0.09 Å between the 944 atoms encompassing residues 48–189 of each chain). Surface representation of the core domain reveals a deep gorge (~8 Å wide, 13 Å long and 13 Å deep) at the protein surface, formed on one side by the double-psi β-barrel and the first psi-loop, and on the other by the second psi-loop, stabilised by the N-terminal hairpin (Fig. 2). Electrostatic calculations performed with the PDB2PQR server (Dolinsky et al., 2004) and rendered on the surface of the molecule by the PyMOL APBS tools plug-in (Baker et al., 2001) show that the gorge has a strongly negative character at pH 7.0, in contrast with the rest of the protein (Fig. S1). When calculated at pH 4.0, however (a pH value close to that measured for kiwifruit tissue homogenate), the electrostatic potential is positive across the whole protein surface, and particu-

larly at the entrance of the gorge, along the N-terminal β-hairpin (Fig. S1).

4. Kissper

In electron density maps, additional stretches of strong electron density were observed in close proximity to the core domain of molecule A of the asymmetric unit. This electron density was of sufficient quality to confidently build residues 24–39 of kissper, although the N-terminal region of kissper (residues 1–23) and the proline-rich linker (residues 40–47) remained unresolved (Figs. 1 and S2). In contrast, no density was observed at the equivalent location of molecule B, indicating that, for molecule B, the whole 1–47 region is disordered in the crystal. The stretch of kissper visible in the electron density maps adopts a coil structure lacking secondary structure elements and is only “remotely” connected to the core of the structure by the disordered linker. The explanation for the ordering of this coil structure in the crystal comes from its critical role in the crystal packing. As seen in Fig. S3, the crystal packing can best be described as stacks of sheets, each consisting of kiwelin core domains closely packed together, while connections between the sheets are mediated only by the ordered stretch of kissper seen in electron density maps (Fig. S3). Hence the structure adopted by kissper_{24–39} in the crystal can most likely be regarded as a crystallographic artefact. This unusual packing arrangement may also explain why, macroscopically, most crystals obtained consisted of clusters of extremely thin plates.

The obvious flexibility of kissper is in agreement with previous NMR experiments in which isolated kissper peptide purified from kiwifruit showed multiple conformations in solution despite the presence of three disulphide bonds (Ciardiello et al., 2008). Among these, the identity of one disulphide bond was clearly established (Cys14–Cys25), whereas two alternative possibilities were proposed for the remaining ones: Cys4–Cys20/Cys8–Cys36 or Cys4–Cys36/Cys8–Cys20 (Ciardiello et al., 2008). In the structure, Cys25 and Cys36 are present in the ordered stretch of kissper, but their involvement in disulphide bonds could not be unambiguously established from the electron density maps (Fig. S4). To determine whether the disulphide bonds observed in isolated

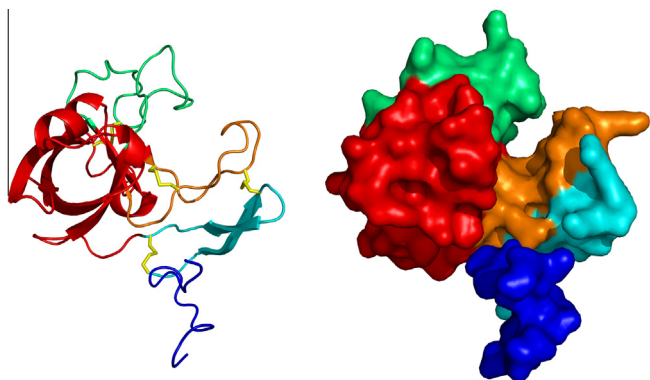


Fig. 2. Surface representation of kiwelin. Kiwelin is shown in ribbon and surface modes, viewed from the top side and rotated ~180° compared with Fig. 1. The colour scheme is as follows: kissper – dark blue; N-terminal hairpin – cyan; double psi β-barrel – red; first psi-loop – green; second psi-loop – orange. For the surface representation, Asp88 and Gln155, located at the tip of psi-loop 1 and psi-loop 2, respectively, have been modelled as alanines since no electron density was observed for the side chains of these two residues.

kissper are also present in the context of the full length protein, we performed multiple digestions of the kiwellin sample in non-reducing conditions and analysed the resulting peptides by electrospray mass spectrometry (Supplementary methods). An initial microwave-assisted trypsin digestion generated a peptide ISSCNGPCRDLNDCDGLQICIKGKCNDDPEVGTHICR from the N-terminal part of the protein, and MS analysis of this peptide unambiguously established that all six cysteines are involved in disulphide bonds (the experimental monoisotopic mass for the peptide was 3984.76 Da, in agreement with a theoretical mass of 3984.75 Da assuming all cysteines as oxidised vs 3999.75 Da considering all cysteines as reduced). A further incubation of this digest with AspN generated a cross-linked peptide with a mass consistent with ISSCNGPCR linked to DGQLICIK and DDPEVGTHICR (experimental and theoretical monoisotopic masses were 3060.49 and 3060.39 Da, respectively), with MS/MS spectra confirming this assignment. This immediately confirmed the Cys14–Cys25 disulphide bond previously identified in isolated kissper but left two possibilities for the remaining disulphides (Cys4–Cys20/Cys8–Cys36 or Cys4–Cys36/Cys8–Cys20), as previously (Ciardiello et al., 2008). Although MS/MS analysis confirmed the identities of the cross-linked peptides, it unfortunately could not resolve the disulphide bond pattern any further. Additional digestion of the double digest with GluC generated slightly shorter crossed-linked peptides (ISSCNGPCR, DGQLICIK and VGTHICR, with experimental and theoretical monoisotopic masses of 2604.21 and 2604.24 Da, respectively) but gave MS/MS spectra similar to the above. Altogether, our results indicate that the disulphide bond pattern observed for isolated kissper is already present in the context of the full length protein and that the absence of electron density for the disulphide bonds beyond Cys25 and Cys36 result from static disorder in the crystal, consistent with the very high inherent conformational flexibility previously observed for this peptide in solution (Ciardiello et al., 2008).

5. Structural comparisons

A search for proteins structurally related to kiwellin using the DALI server (Holm and Park, 2000) identified a range of double-psi β -barrel proteins involved in carbohydrate binding or hydrolysis, including expansins (Yennawar et al., 2006; Kerff et al., 2008), endoglucanases (Davies et al., 1995; Hirvonen and Papageorgiou, 2003), fungal elicitors cerato-platanins (de Oliveira et al., 2011), and the plant-defence proteins carwin and barwin (Ludvigsen and Poulsen, 1992; Huet et al., 2013). Structural comparisons between these proteins show that the second psi-loop is significantly longer in kiwellin than in other structurally-related proteins, resulting in the formation of the gorge at the kiwellin surface where other proteins have a much shallower groove (Fig. 3). However, in both cerato-platanin (de Oliveira et al., 2011) and endoglucanase (Davies et al., 1995) carbohydrate binding sites coincide with the location of the gorge in kiwellin. This suggests that kiwellin may also be involved in carbohydrate binding even though the surface and surroundings of the gorge lack the presence of aromatic residues often involved in carbohydrate recognition. The absence of catalytic activity of expansins, cerato-platanin and carwin comes from alterations of either one or two of the catalytic aspartic acids responsible for the cellulase activity of endoglucanase V (EGV), in which Asp121 acts as the proton donor and Asp10 as the catalytic base (Davies et al., 1995). In kiwellin, two aspartic acid residues (Asp164 and Asp82) are found at the locations of the catalytic base and proton donor of EGV, respectively. However, while the conformation of Asp164 is similar to that of Asp10 in EGV, the side chain of Asp82 points in the opposite direction from Asp121 in EGV, oriented away from the active

site (Fig. S5). This residue is located within the first psi-loop of the barrel, a region that could be prone to conformational changes, especially if involved in carbohydrate binding. Alternatively Asp88, located at the tip of the loop and whose side chain is disordered in electron density maps, could also undergo conformational change and may therefore be another candidate to act as a putative proton donor in the active site (Fig. S5). Based on these results, we investigated substrate-binding or catalytic activities of kiwellin against a range of substrates, including oligosaccharides (1,4- β -D-mannopentaose, 1,4- β -D-mannohexaose, 1,4- β -D-maltohexaose, 1,4- β -D-maltoheptaose, xylotetraose and 6³,6⁴- α -D-galactosyl-mannopentaose) and polysaccharides (citrus pectin, tamarind xyloglucan, tamarind azo-xyloglucan, azo-galactan, azo-casein, carboxymethyl cellulose, azo-carboxymethyl cellulose, carob galactomannan, birchwood xylan, chitin and chitin azure) (Supplementary methods), but no activity was detected for any of these substrates. The biological role of this intriguing protein therefore remains to be elucidated.

6. Kiwellin, a plant food allergen

Structural diversity among plant allergens is remarkably low. In a comprehensive survey, Jenkins et al. (2005) classified a set of 129 known plant food allergens into only 20 of 3849 Pfam families, with four families accounting for more than 65% of food allergens. Similarly, 147 plant respiratory allergens were classified into 18

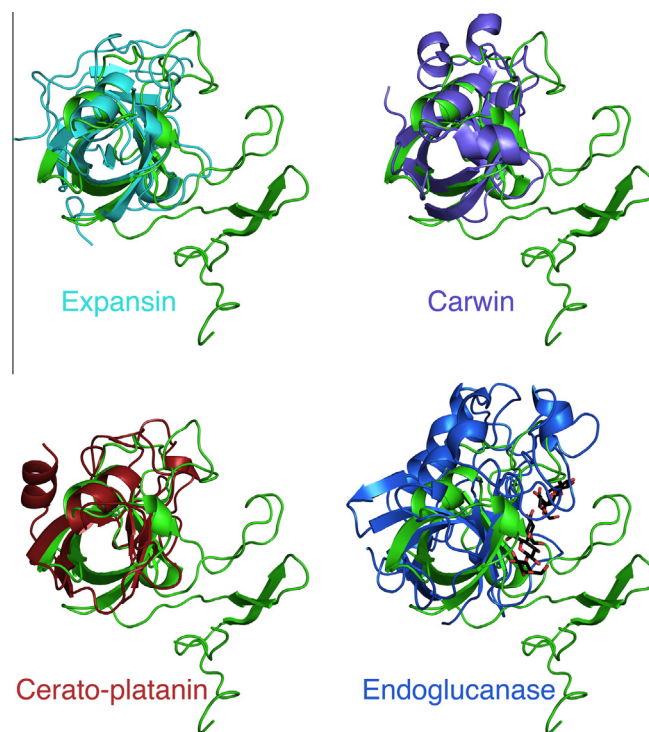


Fig. 3. Structural comparisons. The structure of kiwellin (in green) is superimposed with structurally-related proteins (expansin, PDB 3D30; carwin, PDB 4JP6; cerato-platanin, PDB 2KGA; endoglucanase, PDB 4ENG). The oligosaccharides bound to endoglucanase are drawn in black. Alignment statistics obtained from the DALI server for each match are indicated below (Z, Z score of the match; rmsd, root mean square deviation of the match (Å); Nali, number of aligned positions; Nres, number of residues in the matched structure; %id, sequence identity of aligned positions): 3D30: Z = 12.1; rmsd = 2.2; Nali = 98; Nres = 208; %id = 12 – 4JP6: Z = 8.6; rmsd = 3.1; Nali = 92; Nres = 122; %id = 21 – 2KGA: Z = 7.5; rmsd = 2.5; Nali = 90; Nres = 120; %id = 17 – 4ENG: Z = 5.2; rmsd = 2.4; Nali = 86; Nres = 214; %id = 12. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Pfam families. When combined, all allergens fell into 29 Pfam families (Jenkins et al., 2005) among which only one respiratory plant allergen, Barwin, shares a fold related to kiwellin. The present structure of *A. chinensis* kiwellin (Act c 5, in the allergen nomenclature) therefore extends the structural repertoire of known plant food allergens.

In a large epidemiological study, sensitisation to *Actinidia deliciosa* kiwellin (Act d 5) ranged from 4% to 18% across different regions of Europe (Le et al., 2013). Binding of IgE obtained from six patients allergic to kiwifruits was assessed against both Act d 5 and Act c 5, and against *A. deliciosa* KiTH (Tuppo et al., 2008). Both Act d 5 and Act c 5 were detected at similar levels when using the same sera, suggesting that IgE-binding epitopes are conserved between the two homologous proteins. Largely protruding at the protein surface, kissper, the N-terminal hairpin and the two very long psi-loops are structural features of kiwellin that may represent candidate epitopes for IgE binding. A BLAST search using the *A. chinensis* kiwellin sequence as reference retrieved eleven homologous sequences from *Actinidia* species (five from *A. deliciosa*, three from *Actinidia eriantha* and three from *Actinidia arguta*). Alignment of these sequences shows thirteen amino acid differences that were mapped onto the structure: four are found within kissper, three are located in the disordered linker between kissper and KiTH, three stand in the N-terminal hairpin, three are located in the first psi-loop and the last one is located between $\alpha 2$ and $\alpha 3$ (Fig. S6). Therefore, among the putative epitope candidates listed above, only the second psi-loop of kiwellin is conserved across different *Actinidia* species. While additional experiments are needed to identify epitopes at the protein surface, the present structure provides a basis for better understanding the antigenic properties of kiwellin.

7. Accession number

The coordinates and structure factors have been deposited at the Protein Data Bank, with accession code 4PMK.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.jsb.2014.07.005>.

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Supplementary content

Supplementary methods

Protein digestion and mass-spectrometry

A 1.5 μL aliquot of kiwellin stock solution was diluted 12-fold in 50 mM ammonium bicarbonate (pH 8.0) and digested with 0.5 μg of sequencing-grade modified porcine trypsin (Promega, Madison, WI, USA) at 45°C for 60 min in a temperature-controlled microwave (CEM, Mathews, NC, USA). A 1 μL aliquot of this digest was diluted 50-fold in 0.1% formic acid and 10 μL injected for LC-MS/MS analysis. A 10 μL aliquot of the above digest was diluted with 7.5 μL of 40 ng μL^{-1} AspN (Roche Diagnostics GmbH, Penzburg, Germany) and incubated at 37°C for 2 h. A 1 μL aliquot of this digest was diluted 20-fold in 0.1% formic acid and 10 μL injected for LC-MS/MS analysis. Finally, an 8 μL aliquot of the above double-digest was diluted with 10 μL of 50 mM ammonium bicarbonate, 1.5 μL of 100 ng μL^{-1} Glu-C (Sigma, St Louis, MO, USA) added, and the sample incubated at 37°C for 2 h. A 7 μL aliquot of this digest was diluted 3-fold in 0.1% formic acid and 10 μL injected for LC-MS/MS analysis. Peptides were captured on a 0.3 x 5 mm PepMap cartridge (LC Packings, Dionex Corporation, Sunnyvale, CA, USA) before being separated on a 0.3 x 100 mm Zorbax 300SB- C18 column (Agilent, Santa Clara, CA, USA). The HPLC gradient between Buffer A (0.1% formic acid in water) and Buffer B (0.1% formic acid in acetonitrile) was formed at 6 $\mu\text{L min}^{-1}$ as follows: 10% B for the first 3 min, increasing to 35% B by 48 min, increasing to 95% B by 51 min, held at 95% until 54 min, back to 10% B at 55.5 min and held there until 60 min. For the two digests involving AspN and Glu-C, a 45 min version of this gradient was used whereby the time points from 48 min onwards occurred 15 min earlier. The LC effluent was directed into the Ionspray source of QSTAR XL hybrid Quadrupole-Time-of-Flight mass spectrometer (Applied Biosystems, Foster City, CA, USA) scanning

from 330–1600 m/z . The top three most abundant multiply-charged ions were selected for MS/MS analysis (100–1600 m/z). In the case of the trypsin+AspN sample analysis, the MS method comprised a TOF-MS scan followed by a Product Ion Scan for m/z 613.1 with the m/z range 150–1200. The mass spectrometer and HPLC system were under the control of the Analyst QS 2.0 software package (Applied Biosystems). The resulting TOF-MS data were deconvoluted using the Bayesian Peptide Reconstruct Tool within Analyst, to generate intact molecular weights for the detected peptides. The MS/MS datasets were manually interrogated to confirm the identities of the cross-linked peptide species.

Oligosaccharide binding and hydrolysis assays

1,4- β -D-mannopentaose, 1,4- β -D-mannohexaose, 1,4- β -D-maltohexaose, 1,4- β -D-maltoheptaose, xylotetraose and 6³,6⁴- α -D-galactosyl-mannopentaose were prepared at 10 mg mL⁻¹ in 20 mM acetate, pH 4.5.

For hydrolysis assays, 10 μ L reactions consisting of kiwellin 55 μ M and oligosaccharides 8.5 mg mL⁻¹ were prepared in 50 mM Na acetate, pH 4.5 buffer and 50 mM Tris HCl, pH 8.0 buffer. Negative controls consisted of oligosaccharides 8.5 mg mL⁻¹ in 50 mM Na acetate, pH 4.5. Reactions were incubated for up to 24 h at 27°C. Reactions were stopped by heating at 94°C for 1 min. Samples (5 μ L) were loaded on a thin layer chromatography pre-coated silica gel 60 F₂₅₄ plate (Merck) and developed with chloroform/acetic acid/H₂O (6:7:1 v/v). To visualize the spots, the plate was sprayed with EtOH / sulphuric acid (95:5 v/v), dried, and baked for 5 min at 100°C. Glucose, maltose and mannotriose were used as additional references.

For binding assays, kiwellin (250 μ M) was incubated with oligosaccharides (5 mg mL⁻¹) in 50 mM Na acetate, pH 4.5 for 30 min at 22°C. Samples (20 μ L) were then applied to a Biospin 6 column (MW cutoff = 6000 Da, Biorad). After 4 min centrifugation at 1000 $\times g$,

the eluate was collected, spotted on a TLC plate and visualized as previously. Controls consisting of protein only and sugar only solutions confirmed that after centrifugation kiwellin is present in the eluate while free oligosaccharides remain trapped within the column.

Assays for hydrolysis reactions against polymeric substrates

Assays for hydrolytic activity were carried out using several independent never-frozen preparations of kiwellin, with controls consisting of equivalent reactions lacking enzyme or using a preparation that had been heated at 100°C for 10 min and clarified by centrifugation.

For assays of CMCase and XGase activity by viscometry, all solutions were equilibrated to a temperature of 23°C before use. In a small tube was placed 750 µL of 1% (w/v) high viscosity CMC (Sigma), 300 µL of water, 300 µL of 0.1 M sodium acetate buffer, pH 5.5, and 150 µL of a kiwellin preparation containing between 5.8 and 18.5 mg protein mL⁻¹. After rapid mixing, 1 mL of the mixture was placed at the bottom of a Cannon-Manning semi-micro viscometer incubated in a water bath at 23°C. Elapsed time and efflux time were recorded immediately and at intervals over 20 h. Assays for XGase activity were carried out similarly except that a stock solution of 1% (w/v) tamarind xyloglucan replaced CMC.

Agarose plates for radial diffusion assays for PG and CMCase were made in large (14 cm) Petri dishes with a gel depth of approximately 6 mm. Gels contained 1% (w/v) agarose, 100 mM sodium acetate buffer, pH 5.5 or 6.0, 10 mM EDTA and either 0.1% (w/v) CMC (Sigma) or 0.01% (w/v) citrus polygalacturonic acid (Sigma). After the plates had set, holes were made in a grid formation using a 6-mm-diameter drinking straw. The wells were loaded with various preparations of kiwellin (100 µL), and controls of buffer or the supernatant of heated kiwellin preparations as above. Plates were covered with the lids, sealed with Parafilm

and incubated at 28°C overnight. For plates containing polygalacturonic acid as substrate, reactions were stopped by rinsing with 5% (v/v) acetic acid for 30 s, then with water. Plates were stained with a dilute solution of Ruthenium Red in water for 1 h, then destained four times with water for 30 min each. Plates containing CMC as substrate were stained with a 1 mg mL⁻¹ solution of Congo Red in water for 15 min, washed twice with 1 M NaCl for 10 min each, then rinsed with 5% acetic acid to turn the dye black and make cleared zones more easily visible. The diameters of zones of clearing, if present, were measured using callipers.

Assays for activity using azo-linked substrates (Megazyme) were carried out following the manufacturer's recommended protocols. Substrate solutions of azo-CMC and azo-galactan (potato) were prepared at a concentration of 2% (w/v) in 0.1 M sodium acetate, pH 4.9, azo-xyloglucan at 1% (w/v) in 0.1 M sodium acetate, pH 4.9, and azo-casein at 2% (w/v) in 0.1 M sodium phosphate, pH 7.0. Kiwellin preparations and substrate were mixed in equal volumes, and incubated at 30°C for 30 min. Reactions were stopped by adding the recommended volume of stop solution and vortexing immediately. Stop solutions were: zinc acetate in ethanol (for azo-CMC), methanol (for azo-xyloglucan), ethanol (for azo-galactan) and 5% TCA (for azo-casein). Stopped reactions were clarified by centrifugation, and absorbance of the supernatant was measured at 590 nm (for glycans) or 440 nm (for casein). Values were compared with equivalent tubes to which the stop solution was added to the substrate before the kiwellin preparation.

Polysaccharide binding assays

Xyloglucan (tamarind), galactomannan (carob) and xylan 85% (birchwood) were prepared at a concentration of 10 mg mL⁻¹ in water according to manufacturer protocols. A 600 µL aliquot of each substrate and 800 µL of 0.05 M NaOAc buffer pH 5.0 was loaded on a gel filtration S300 column (GE Healthcare) and eluted with 0.05 M NaOAc, 0.125 M NaCl and

0.05% chlorobutanol, pH 6.0, buffer to determine T_0 , collecting 20 min fractions. Kiwellin and substrates were incubated at 20°C for 16 h. The treated substrates were loaded on the S300 column under the same conditions as the untreated substrate. Fractions were analysed by the phenol sulphuric method to determine neutral sugar contents (2 mL of sulphuric acid and 1 mL of 5% phenol solution were added to 750 μ L of fraction, vortexed and read at 490 nm once cooled to room temperature).

Chitinase assay

Reactions consisting of chitin azure 1 mg mL⁻¹, kiwellin 0.1 mg mL⁻¹ in either potassium phosphate 50 mM, pH 7.0, or sodium acetate 50 mM, pH 4.0, were incubated at 22°C for 3 h on an end-over-end carousel mixer. The mixture was then centrifuged at 16,000 xg for 5 min, and the absorbance at 570 nm of the supernatant was measured. Negative controls consisted of solutions without kiwellin.

Chitin binding assay

Reactions consisting of chitin 5 mg mL⁻¹, kiwellin 0.5 mg mL⁻¹ in either potassium phosphate 50 mM, pH 7.0 or sodium acetate 50 mM, pH 4.0 were incubated at 22°C for 3 h on an end-over-end carousel mixer. The mixture was then centrifuged at 16,000 xg for 5 min. The protein concentration in the supernatant was measured by absorbance at 280 nm, and compared to kiwellin solutions without chitin.

Supplementary figures

Figure S1. Electrostatic potential calculated at pH 7.0 and pH 4.0. The protein surface, viewed along and directly above the gorge (left and right pictures, respectively), is coloured according to the calculated electrostatic potential at pH 7.0 (top panel) and pH 4.0 (bottom panel), with blue (positive) and red (negative) in the range between $+10 k_bT$ and $-10 k_bT$. For surface representations, Asp88 and Gln155, located at the tip of psi-loop 1 and psi-loop2, respectively, have been modelled as alanines since no electron density was observed for the side chains of these two residues.

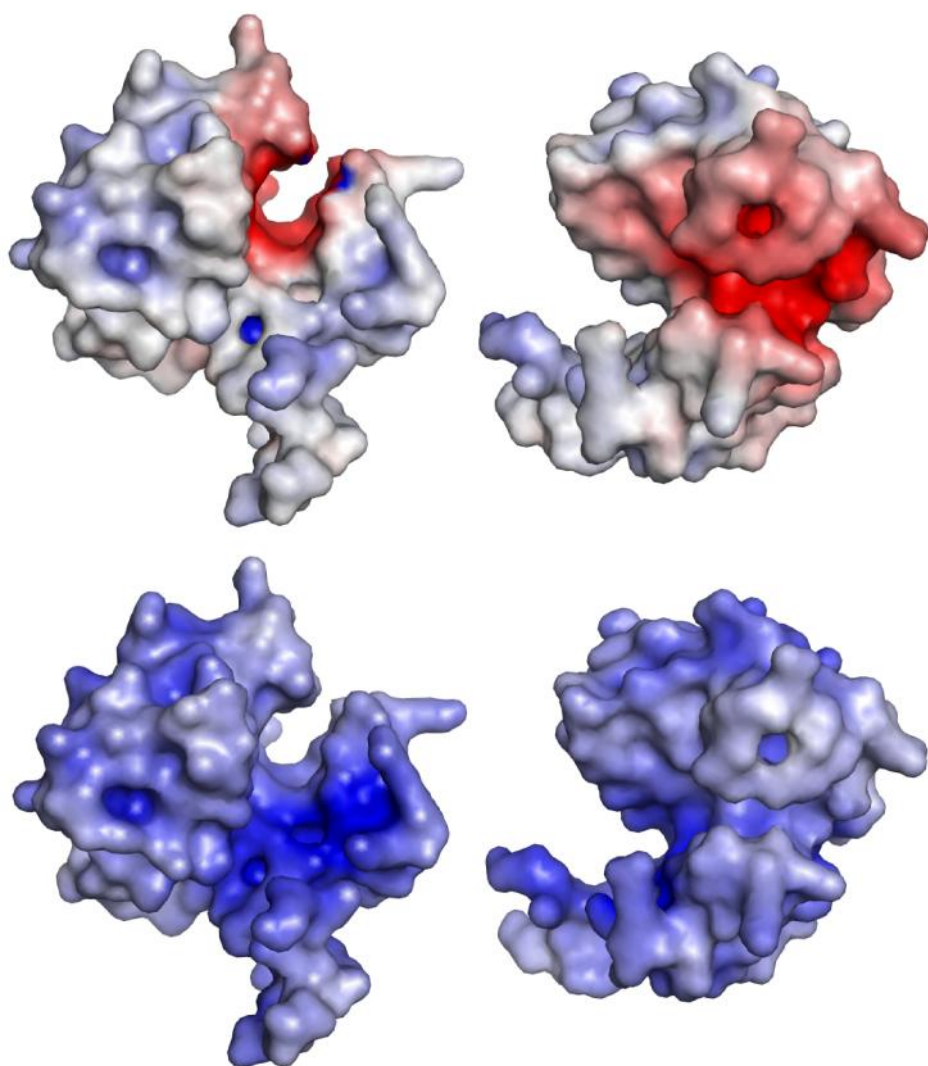


Figure S2. Electron density maps around kissper. Final electron density maps (2Fo-Fc, contoured at 1.1 σ and Fo-Fc, contoured at 3 σ) are shown in blue and green, respectively. Protein models are shown in pink for kissper (residues 24–39), green for KiTH (molecule A of the asymmetric unit) and yellow for a symmetry-related molecule B. Additional blobs of electron density are present towards the N-terminal part of kissper, but are of insufficient quality to allow building of additional residues (Figures S2, S3 and S4 were generated with CCP4mg (McNicholas *et al.*, 2011)).

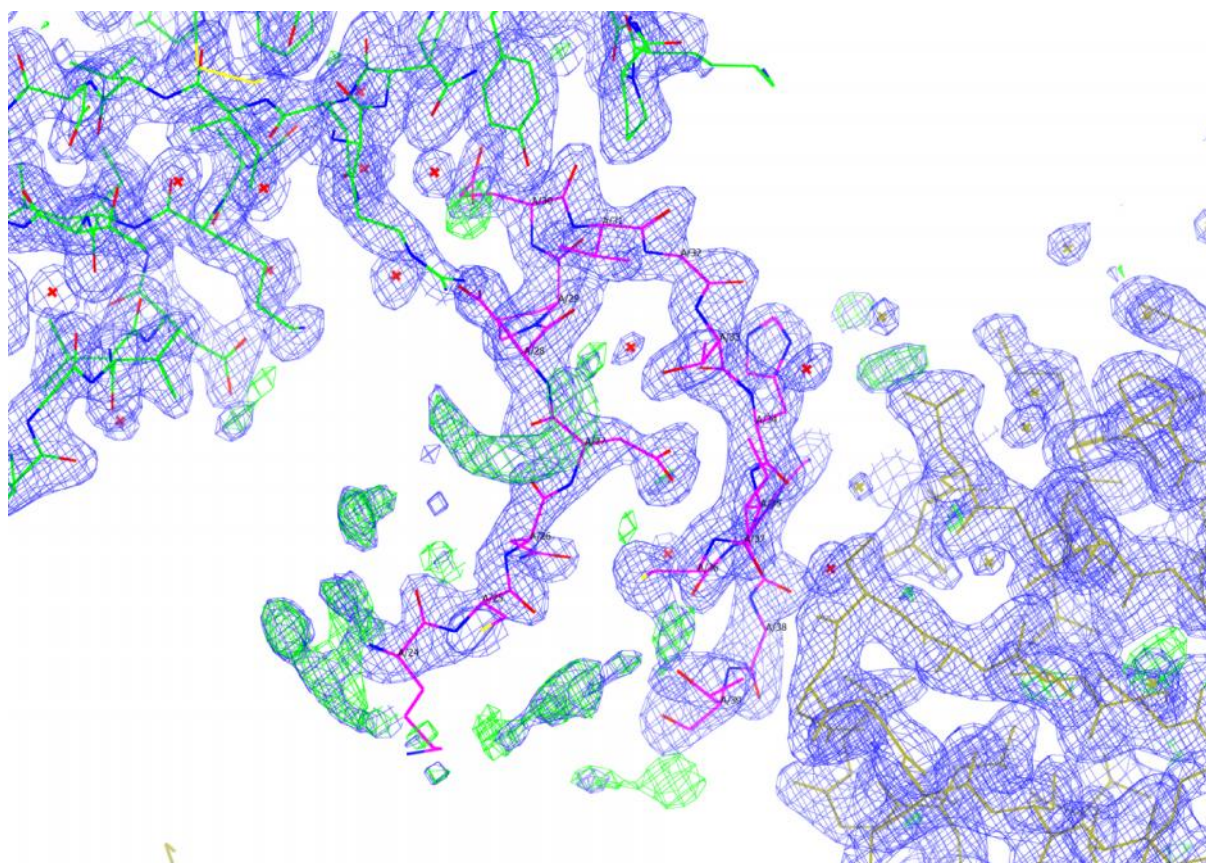


Figure S3. Crystal packing. The packing of kiwellin molecules in the crystal is shown along the bc face, with molecules A and B of the asymmetric unit shown in blue and yellow, respectively. The unit cell is shown in black. Ordered parts of kissper are the only contact points between symmetry-related molecules along the c axis.

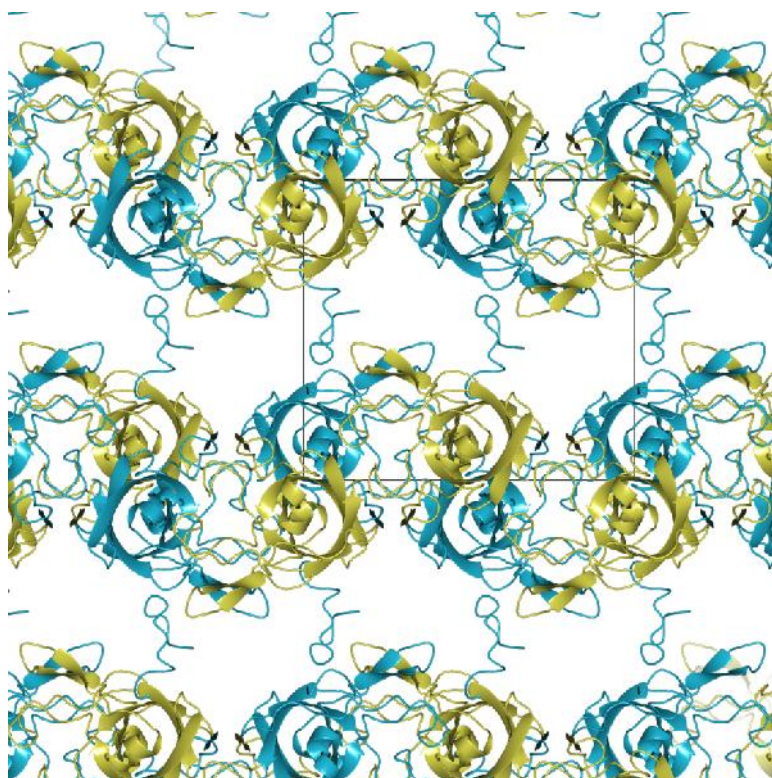


Figure S4. Electron density maps around Cys25 (left) and Cys36 (right) of kissper.

Electron density maps (2Fo-Fc, contoured at 1.1 σ and Fo-Fc, contoured at 3 σ are shown in blue and green, respectively.

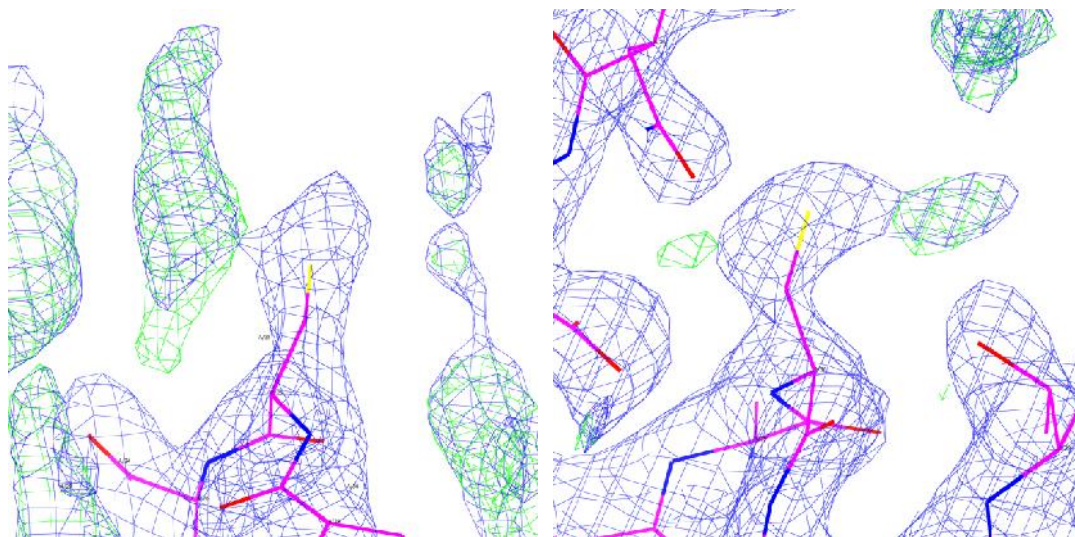


Figure S5. Comparison between the endoglucanase active site and kiwellin. Active site residues of endoglucanase (Asp121 and Asn10) are shown in stick mode and coloured dark blue. In order to obtain a complex with oligosaccharides (also shown in dark blue), the catalytic base (Asp10) was mutated to an asparagine. The C- α trace of kiwellin is shown in rainbow mode, with residues Asp164, Asp82 and Asp88 highlighted in stick mode.

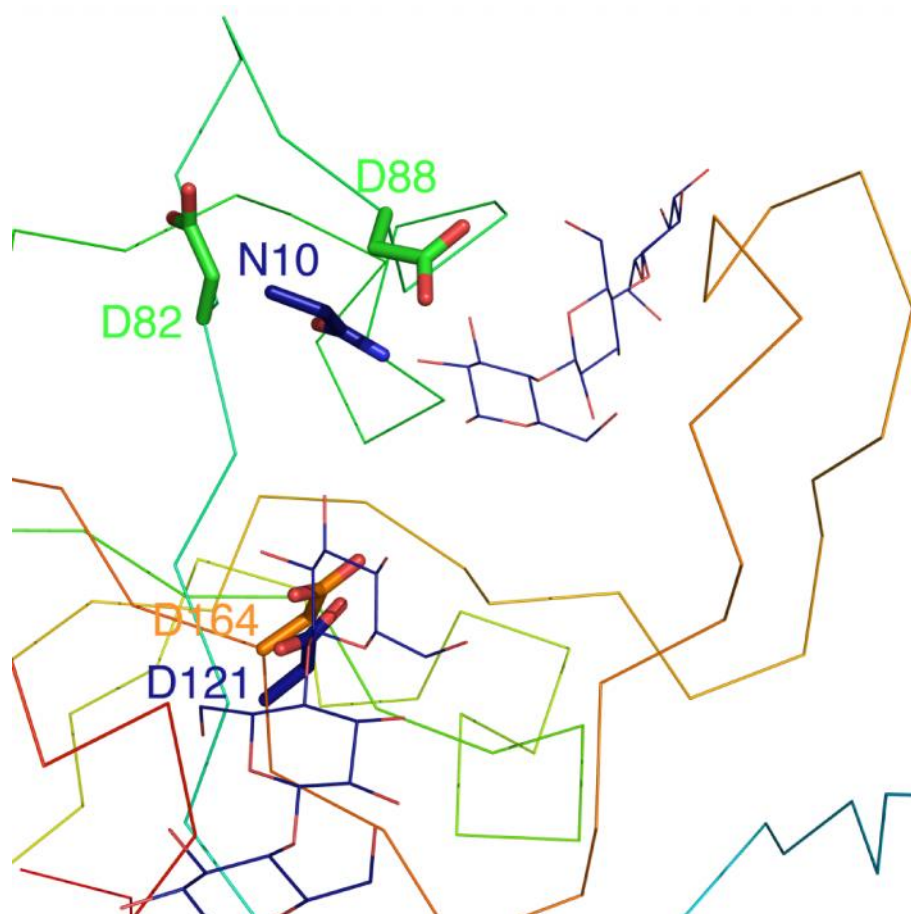
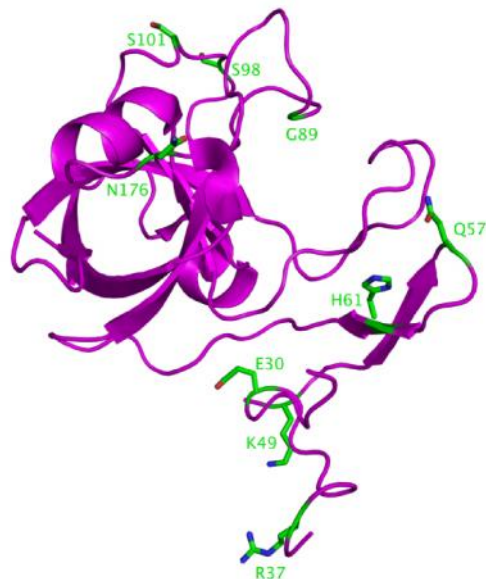


Figure S6. Sequence alignment of *Actinidia* kiwellin sequences. The alignment was performed using ClustalW2 (Larkin et al., 2007) and rendered using ESPript (Robert and Gouet, 2014). The structural elements of kiwellin are indicated above the alignment. The thirteen amino acid differences are mapped onto the kiwellin structure (drawn in green and labelled).



Supplementary reference

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HEADER PLANT PROTEIN 22-MAY-14 4PMK
 TITLE CRYSTAL STRUCTURE OF KIWELLIN
 COMPND MOL_ID: 1;
 COMPND 2 MOLECULE: KIWELLIN;
 COMPND 3 CHAIN: A, B;
 COMPND 4 FRAGMENT: UNP RESIDUES 25-213
 SOURCE MOL_ID: 1;
 SOURCE 2 ORGANISM_SCIENTIFIC: ACTINIDIA CHINENSIS;
 SOURCE 3 ORGANISM_COMMON: KIWI;
 SOURCE 4 ORGANISM_TAXID: 3625;
 SOURCE 5 TISSUE: FRUIT TISSUE WITHOUT SKIN;
 SOURCE 6 OTHER_DETAILS: FRUIT TISSUE
 KEYWDS DOUBLE PSI BETA BARREL, PLANT PROTEIN
 EXPDTA X-RAY DIFFRACTION
 AUTHOR C.HAMIAUX,E.N.BAKER,R.G.ATKINSON
 JRNL AUTH C.HAMIAUX,R.MADDUMAGE,M.J.MIDDLEDITCH,R.PRAKASH,
 JRNL AUTH 2 D.A.BRUMMELL,E.N.BAKER,R.G.ATKINSON
 JRNL TITL CRYSTAL STRUCTURE OF KIWELLIN, A MAJOR CELL-WALL PROTEIN
 JRNL TITL 2 FROM KIWIFRUIT
 JRNL REF TO BE PUBLISHED
 REMARK 2
 REMARK 2 RESOLUTION. 2.05 ANGSTROMS.
 REMARK 3
 REMARK 3 REFINEMENT.
 REMARK 3 PROGRAM : REFMAC 5.8.0071
 REMARK 3 AUTHORS : MURSHUDOV,VAGIN,DODSON
 REMARK 3
 REMARK 3 REFINEMENT TARGET : MAXIMUM LIKELIHOOD

REMARK 3

REMARK 3 DATA USED IN REFINEMENT.

REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.05

REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 40.08

REMARK 3 DATA CUTOFF (SIGMA(F)) : 0.000

REMARK 3 COMPLETENESS FOR RANGE (%) : 96.4

REMARK 3 NUMBER OF REFLECTIONS : 20350

REMARK 3

REMARK 3 FIT TO DATA USED IN REFINEMENT.

REMARK 3 CROSS-VALIDATION METHOD : THROUGHOUT

REMARK 3 FREE R VALUE TEST SET SELECTION : RANDOM

REMARK 3 R VALUE (WORKING + TEST SET) : 0.195

REMARK 3 R VALUE (WORKING SET) : 0.193

REMARK 3 FREE R VALUE : 0.224

REMARK 3 FREE R VALUE TEST SET SIZE (%) : 5.100

REMARK 3 FREE R VALUE TEST SET COUNT : 1034

REMARK 3

REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.

REMARK 3 TOTAL NUMBER OF BINS USED : 20

REMARK 3 BIN RESOLUTION RANGE HIGH (A) : 2.05

REMARK 3 BIN RESOLUTION RANGE LOW (A) : 2.10

REMARK 3 REFLECTION IN BIN (WORKING SET) : 1414

REMARK 3 BIN COMPLETENESS (WORKING+TEST) (%) : 96.02

REMARK 3 BIN R VALUE (WORKING SET) : 0.2910

REMARK 3 BIN FREE R VALUE SET COUNT : 83

REMARK 3 BIN FREE R VALUE : 0.3320

REMARK 3

REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.

REMARK 3 PROTEIN ATOMS : 2181

REMARK 3 NUCLEIC ACID ATOMS : 0

REMARK 3 HETEROGEN ATOMS : 2

REMARK 3 SOLVENT ATOMS : 146

REMARK 3

REMARK 3 B VALUES.

REMARK 3 FROM WILSON PLOT (A^2) : 23.70

REMARK 3 MEAN B VALUE (OVERALL, A^2) : 36.57

REMARK 3 OVERALL ANISOTROPIC B VALUE.

REMARK 3 B11 (A^2) : -1.71000

REMARK 3 B22 (A^2) : -3.48000

REMARK 3 B33 (A^2) : 4.81000

REMARK 3 B12 (A^2) : 0.00000

REMARK 3 B13 (A^2) : 0.84000

REMARK 3 B23 (A^2) : 0.00000

REMARK 3

REMARK 3 ESTIMATED OVERALL COORDINATE ERROR.

REMARK 3 ESU BASED ON R VALUE (A): 0.197

REMARK 3 ESU BASED ON FREE R VALUE (A): 0.164

REMARK 3 ESU BASED ON MAXIMUM LIKELIHOOD (A): 0.134

REMARK 3 ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A^2): 10.072

REMARK 3

REMARK 3 CORRELATION COEFFICIENTS.

REMARK 3 CORRELATION COEFFICIENT FO-FC : 0.949

REMARK 3 CORRELATION COEFFICIENT FO-FC FREE : 0.923

REMARK 3

REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES COUNT RMS WEIGHT

REMARK 3 BOND LENGTHS REFINED ATOMS (A): 2231 ; 0.010 ; 0.019

REMARK 3 BOND LENGTHS OTHERS (A): 1986 ; 0.003 ; 0.020

REMARK 3 BOND ANGLES REFINED ATOMS (DEGREES): 3028 ; 1.355 ; 1.936

REMARK 3 BOND ANGLES OTHERS (DEGREES): 4615 ; 0.849 ; 3.000

REMARK 3 TORSION ANGLES, PERIOD 1 (DEGREES): 294 ; 6.685 ; 5.000

REMARK 3 TORSION ANGLES, PERIOD 2 (DEGREES): 93 ; 31.019 ; 25.161

REMARK 3 TORSION ANGLES, PERIOD 3 (DEGREES): 349 ; 13.029 ; 15.000

REMARK 3 TORSION ANGLES, PERIOD 4 (DEGREES): 11 ; 16.425 ; 15.000

REMARK 3 CHIRAL-CENTER RESTRAINTS (A**3): 325 ; 0.080 ; 0.200

REMARK 3 GENERAL PLANES REFINED ATOMS (A): 2596 ; 0.006 ; 0.021

REMARK 3 GENERAL PLANES OTHERS (A): 481 ; 0.002 ; 0.020

REMARK 3 NON-BONDED CONTACTS REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 NON-BONDED CONTACTS OTHERS (A): NULL ; NULL ; NULL

REMARK 3 NON-BONDED TORSION REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 NON-BONDED TORSION OTHERS (A): NULL ; NULL ; NULL

REMARK 3 H-BOND (X...Y) REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 H-BOND (X...Y) OTHERS (A): NULL ; NULL ; NULL

REMARK 3 POTENTIAL METAL-ION REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 POTENTIAL METAL-ION OTHERS (A): NULL ; NULL ; NULL

REMARK 3 SYMMETRY VDW REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 SYMMETRY VDW OTHERS (A): NULL ; NULL ; NULL

REMARK 3 SYMMETRY H-BOND REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 SYMMETRY H-BOND OTHERS (A): NULL ; NULL ; NULL

REMARK 3 SYMMETRY METAL-ION REFINED ATOMS (A): NULL ; NULL ; NULL

REMARK 3 SYMMETRY METAL-ION OTHERS (A): NULL ; NULL ; NULL

REMARK 3

REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. COUNT RMS WEIGHT

REMARK 3 MAIN-CHAIN BOND REFINED ATOMS (A**2): 1188 ; 2.583 ; 1.856

REMARK 3 MAIN-CHAIN BOND OTHER ATOMS (A**2): 1187 ; 2.570 ; 1.854

REMARK 3 MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 1478 ; 4.072 ; 2.766

REMARK 3 MAIN-CHAIN ANGLE OTHER ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 SIDE-CHAIN BOND REFINED ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 SIDE-CHAIN BOND OTHER ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 SIDE-CHAIN ANGLE REFINED ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 SIDE-CHAIN ANGLE OTHER ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 LONG RANGE B REFINED ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 LONG RANGE B OTHER ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3

REMARK 3 ANISOTROPIC THERMAL FACTOR RESTRAINTS. COUNT RMS WEIGHT

REMARK 3 RIGID-BOND RESTRAINTS (A**2): NULL ; NULL ; NULL

REMARK 3 SPHERICITY; FREE ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3 SPHERICITY; BONDED ATOMS (A**2): NULL ; NULL ; NULL

REMARK 3

REMARK 3 NCS RESTRAINTS STATISTICS

REMARK 3 NUMBER OF DIFFERENT NCS GROUPS : NULL

REMARK 3

REMARK 3 TLS DETAILS

REMARK 3 NUMBER OF TLS GROUPS : 3

REMARK 3

REMARK 3 TLS GROUP : 1

REMARK 3 NUMBER OF COMPONENTS GROUP : 1

REMARK 3 COMPONENTS C SSSEQI TO C SSSEQI

REMARK 3 RESIDUE RANGE : A 24 A 39

REMARK 3 ORIGIN FOR THE GROUP (A): 29.1010 3.9960 29.7880

REMARK 3 T TENSOR

REMARK 3 T11: 0.5424 T22: 0.5331

REMARK 3 T33: 0.1995 T12: 0.0081

REMARK 3 T13: -0.0733 T23: 0.0998

REMARK 3 L TENSOR

REMARK 3 L11: 0.6239 L22: 3.3182

REMARK 3 L33: 10.3424 L12: 1.2008

REMARK 3 L13: -0.7075 L23: -4.4360

REMARK 3 S TENSOR

REMARK 3 S11: 0.2635 S12: 0.1862 S13: 0.2637

REMARK 3 S21: 0.3043 S22: 0.5178 S23: 0.6857

REMARK 3 S31: 0.1249 S32: -0.4814 S33: -0.7813

REMARK 3

REMARK 3 TLS GROUP : 2

REMARK 3 NUMBER OF COMPONENTS GROUP : 1

REMARK 3 COMPONENTS C SSSEQI TO C SSSEQI

REMARK 3 RESIDUE RANGE : A 48 A 189

REMARK 3 ORIGIN FOR THE GROUP (A): 24.5130 6.3010 7.8910

REMARK 3 T TENSOR

REMARK 3 T11: 0.1322 T22: 0.0773

REMARK 3 T33: 0.0132 T12: 0.0047

REMARK 3 T13: -0.0186 T23: 0.0001

REMARK 3 L TENSOR

REMARK 3 L11: 3.3404 L22: 2.5619

REMARK 3 L33: 2.4056 L12: 0.3486

REMARK 3 L13: 1.0313 L23: 0.0969

REMARK 3 S TENSOR

REMARK 3 S11: 0.0304 S12: -0.1286 S13: 0.1611

REMARK 3 S21: 0.1545 S22: -0.0551 S23: 0.0209

REMARK 3 S31: -0.1342 S32: -0.0463 S33: 0.0247

REMARK 3

REMARK 3 TLS GROUP : 3

REMARK 3 NUMBER OF COMPONENTS GROUP : 1

REMARK 3 COMPONENTS C SSSEQI TO C SSSEQI

REMARK 3 RESIDUE RANGE : B 48 B 189

REMARK 3 ORIGIN FOR THE GROUP (A): 1.6590 25.8840 7.9610

REMARK 3 T TENSOR

REMARK 3 T11: 0.1319 T22: 0.0383

REMARK 3 T33: 0.0237 T12: 0.0047

REMARK 3 T13: -0.0323 T23: -0.0016

REMARK 3 L TENSOR

REMARK 3 L11: 3.9298 L22: 1.9659

REMARK 3 L33: 2.3102 L12: 0.5372

REMARK 3 L13: -1.3276 L23: 0.1724

REMARK 3 S TENSOR

REMARK 3 S11: 0.0766 S12: -0.1121 S13: -0.1681

REMARK 3 S21: 0.1530 S22: -0.0541 S23: 0.0637

REMARK 3 S31: 0.1383 S32: 0.0218 S33: -0.0226

REMARK 3

REMARK 3 BULK SOLVENT MODELLING.

REMARK 3 METHOD USED : MASK

REMARK 3 PARAMETERS FOR MASK CALCULATION

REMARK 3 VDW PROBE RADIUS : 1.10

REMARK 3 ION PROBE RADIUS : 0.70

REMARK 3 SHRINKAGE RADIUS : 0.70

REMARK 3

REMARK 3 OTHER REFINEMENT REMARKS: U VALUES: WITH TLS ADDED HYDROGENS HAVE

REMARK 3 BEEN ADDED IN THE RIDING POSITIONS

REMARK 4

REMARK 4 4PMK COMPLIES WITH FORMAT V. 3.30, 13-JUL-11

REMARK 100

REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 29-MAY-14.

REMARK 100 THE DEPOSITION ID IS D_1000201683.

REMARK 200

REMARK 200 EXPERIMENTAL DETAILS

REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION

REMARK 200 DATE OF DATA COLLECTION : 30-APR-12

REMARK 200 TEMPERATURE (KELVIN) : 100

REMARK 200 PH : 7.5

REMARK 200 NUMBER OF CRYSTALS USED : 1

REMARK 200

REMARK 200 SYNCHROTRON (Y/N) : Y

REMARK 200 RADIATION SOURCE : AUSTRALIAN SYNCHROTRON

REMARK 200 BEAMLINE : MX2

REMARK 200 X-RAY GENERATOR MODEL : NULL

REMARK 200 MONOCHROMATIC OR LAUE (M/L) : M

REMARK 200 WAVELENGTH OR RANGE (A) : 0.9794

REMARK 200 MONOCHROMATOR : NULL

REMARK 200 OPTICS : NULL

REMARK 200

REMARK 200 DETECTOR TYPE : CCD

REMARK 200 DETECTOR MANUFACTURER : ADSC QUANTUM 315R

REMARK 200 INTENSITY-INTEGRATION SOFTWARE : MOSFLM

REMARK 200 DATA SCALING SOFTWARE : SCALA

REMARK 200

REMARK 200 NUMBER OF UNIQUE REFLECTIONS : 20381

REMARK 200 RESOLUTION RANGE HIGH (A) : 2.050

REMARK 200 RESOLUTION RANGE LOW (A) : 40.080

REMARK 200 REJECTION CRITERIA (SIGMA(I)) : NULL

REMARK 200

REMARK 200 OVERALL.

REMARK 200 COMPLETENESS FOR RANGE (%) : 96.9

REMARK 200 DATA REDUNDANCY : 7.000

REMARK 200 R MERGE (I) : NULL

REMARK 200 R SYM (I) : 0.14000

REMARK 200 $\langle I/\text{SIGMA}(I) \rangle$ FOR THE DATA SET : 9.9000

REMARK 200

REMARK 200 IN THE HIGHEST RESOLUTION SHELL.

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.05

REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : 2.16

REMARK 200 COMPLETENESS FOR SHELL (%) : 96.3

REMARK 200 DATA REDUNDANCY IN SHELL : 6.90

REMARK 200 R MERGE FOR SHELL (I) : 0.65700

REMARK 200 R SYM FOR SHELL (I) : 0.65700

REMARK 200 $\langle I/\text{SIGMA}(I) \rangle$ FOR SHELL : 3.000

REMARK 200

REMARK 200 DIFFRACTION PROTOCOL: SINGLE WAVELENGTH

REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: MOLECULAR REPLACEMENT

REMARK 200 SOFTWARE USED: MR_ROSETTA

REMARK 200 STARTING MODEL: 3D30

REMARK 200

REMARK 200 REMARK: THIN PLATE

REMARK 280

REMARK 280 CRYSTAL

REMARK 280 SOLVENT CONTENT, VS (%): 42.60

REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): 2.14

REMARK 280

REMARK 280 CRYSTALLIZATION CONDITIONS: 0.1 M HEPES, 0.05 M KSCN, 27% PEG 2000

REMARK 280 MME

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY

REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 1 21 1

REMARK 290

REMARK 290 SYMOP SYMMETRY

REMARK 290 NNNMMM OPERATOR

REMARK 290 1555 X,Y,Z

REMARK 290 2555 -X,Y+1/2,-Z

REMARK 290

REMARK 290 WHERE NNN -> OPERATOR NUMBER

REMARK 290 MMM -> TRANSLATION VECTOR

REMARK 290

REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS

REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM

REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY

REMARK 290 RELATED MOLECULES.

REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.00000

REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.00000

REMARK 290 SMTRY1 2 -1.000000 0.000000 0.000000 0.00000

REMARK 290 SMTRY2 2 0.000000 1.000000 0.000000 29.85000

REMARK 290 SMTRY3 2 0.000000 0.000000 -1.000000 0.00000

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1, 2

REMARK 300 SEE REMARK 350 FOR THE AUTHOR PROVIDED AND/OR PROGRAM

REMARK 300 GENERATED ASSEMBLY INFORMATION FOR THE STRUCTURE IN

REMARK 300 THIS ENTRY. THE REMARK MAY ALSO PROVIDE INFORMATION ON

REMARK 300 BURIED SURFACE AREA.

REMARK 300 REMARK: THE BIOLOGICAL UNIT IS A MONOMER. THERE ARE 2 BIOLOGICAL

REMARK 300 UNITS IN THE ASYMMETRIC UNIT (CHAINS A & B

REMARK 350

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC

REMARK 350 SOFTWARE DETERMINED QUATERNARY STRUCTURE: MONOMERIC

REMARK 350 SOFTWARE USED: PISA

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000

REMARK 350

REMARK 350 BIOMOLECULE: 2

REMARK 350 AUTHOR DETERMINED BIOLOGICAL UNIT: MONOMERIC

REMARK 350 SOFTWARE DETERMINED QUATERNARY STRUCTURE: MONOMERIC

REMARK 350 SOFTWARE USED: PISA

REMARK 350 APPLY THE FOLLOWING TO CHAINS: B

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.00000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.00000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.00000

REMARK 465

REMARK 465 MISSING RESIDUES

REMARK 465 THE FOLLOWING RESIDUES WERE NOT LOCATED IN THE

REMARK 465 EXPERIMENT. (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 465 IDENTIFIER; SSSEQ=SEQUENCE NUMBER; I=INSERTION CODE.)

REMARK 465

REMARK 465 M RES C SSSEQI

REMARK 465 ILE A 1

REMARK 465 SER A 2

REMARK 465 SER A 3

REMARK 465 CYS A 4

REMARK 465 ASN A 5

REMARK 465 GLY A 6

REMARK 465 PRO A 7

REMARK 465 CYS A 8

REMARK 465 ARG A 9

REMARK 465 ASP A 10

REMARK 465 LEU A 11

REMARK 465 ASN A 12

REMARK 465 ASP A 13

REMARK 465 CYS A 14

REMARK 465 ASP A 15

REMARK 465 GLY A 16

REMARK 465 GLN A 17

REMARK 465	LEU A	18
REMARK 465	ILE A	19
REMARK 465	CYS A	20
REMARK 465	ILE A	21
REMARK 465	LYS A	22
REMARK 465	GLY A	23
REMARK 465	THR A	40
REMARK 465	PRO A	41
REMARK 465	SER A	42
REMARK 465	PRO A	43
REMARK 465	GLN A	44
REMARK 465	PRO A	45
REMARK 465	GLY A	46
REMARK 465	GLY A	47
REMARK 465	ILE B	1
REMARK 465	SER B	2
REMARK 465	SER B	3
REMARK 465	CYS B	4
REMARK 465	ASN B	5
REMARK 465	GLY B	6
REMARK 465	PRO B	7
REMARK 465	CYS B	8
REMARK 465	ARG B	9
REMARK 465	ASP B	10
REMARK 465	LEU B	11
REMARK 465	ASN B	12
REMARK 465	ASP B	13
REMARK 465	CYS B	14

REMARK 465	ASP B	15
REMARK 465	GLY B	16
REMARK 465	GLN B	17
REMARK 465	LEU B	18
REMARK 465	ILE B	19
REMARK 465	CYS B	20
REMARK 465	ILE B	21
REMARK 465	LYS B	22
REMARK 465	GLY B	23
REMARK 465	LYS B	24
REMARK 465	CYS B	25
REMARK 465	ASN B	26
REMARK 465	ASP B	27
REMARK 465	ASP B	28
REMARK 465	PRO B	29
REMARK 465	GLU B	30
REMARK 465	VAL B	31
REMARK 465	GLY B	32
REMARK 465	THR B	33
REMARK 465	HIS B	34
REMARK 465	ILE B	35
REMARK 465	CYS B	36
REMARK 465	ARG B	37
REMARK 465	GLY B	38
REMARK 465	THR B	39
REMARK 465	THR B	40
REMARK 465	PRO B	41
REMARK 465	SER B	42

REMARK 465 PRO B 43

REMARK 465 GLN B 44

REMARK 465 PRO B 45

REMARK 465 GLY B 46

REMARK 465 GLY B 47

REMARK 465 ASP B 88

REMARK 465 GLY B 89

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: TORSION ANGLES

REMARK 500

REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:

REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;

REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT:(10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)

REMARK 500

REMARK 500 EXPECTED VALUES: GJ KLEYWEGT AND TA JONES (1996). PHI/PSI-

REMARK 500 CHOLOGY: RAMACHANDRAN REVISITED. STRUCTURE 4, 1395 - 1400

REMARK 500

REMARK 500 M RES CSSEQI PSI PHI

REMARK 500 CYS A 56 -118.51 -114.91

REMARK 500 CYS B 56 -117.31 -118.26

REMARK 500

REMARK 500 REMARK: NULL

REMARK 800

REMARK 800 SITE

REMARK 800 SITE_IDENTIFIER: AC1

REMARK 800 EVIDENCE_CODE: SOFTWARE

REMARK 800 SITE_DESCRIPTION: binding site for residue CL A 201

REMARK 800

REMARK 800 SITE_IDENTIFIER: AC2

REMARK 800 EVIDENCE_CODE: SOFTWARE

REMARK 800 SITE_DESCRIPTION: binding site for residue CL B 201

DBREF 4PMK A 1 189 UNP L7TT83 L7TT83_ACTCH 25 213

DBREF 4PMK B 1 189 UNP L7TT83 L7TT83_ACTCH 25 213

SEQRES 1 A 189 ILE SER SER CYS ASN GLY PRO CYS ARG ASP LEU ASN ASP

SEQRES 2 A 189 CYS ASP GLY GLN LEU ILE CYS ILE LYS GLY LYS CYS ASN

SEQRES 3 A 189 ASP ASP PRO GLU VAL GLY THR HIS ILE CYS ARG GLY THR

SEQRES 4 A 189 THR PRO SER PRO GLN PRO GLY GLY CYS LYS PRO SER GLY

SEQRES 5 A 189 THR LEU THR CYS GLN GLY LYS SER HIS PRO THR TYR ASP

SEQRES 6 A 189 CYS SER PRO PRO VAL THR SER SER THR PRO ALA LYS LEU

SEQRES 7 A 189 THR ASN ASN ASP PHE SER GLU GLY GLY ASP GLY GLY GLY

SEQRES 8 A 189 PRO SER GLU CYS ASP GLU SER TYR HIS SER ASN ASN GLU

SEQRES 9 A 189 ARG ILE VAL ALA LEU SER THR GLY TRP TYR ASN GLY GLY

SEQRES 10 A 189 SER ARG CYS GLY LYS MET ILE ARG ILE THR ALA SER ASN

SEQRES 11 A 189 GLY LYS SER VAL SER ALA LYS VAL VAL ASP GLU CYS ASP

SEQRES 12 A 189 SER ARG HIS GLY CYS ASP LYS GLU HIS ALA GLY GLN PRO

SEQRES 13 A 189 PRO CYS ARG ASN ASN ILE VAL ASP GLY SER ASN ALA VAL

SEQRES 14 A 189 TRP SER ALA LEU GLY LEU ASN LYS ASN VAL GLY VAL VAL

SEQRES 15 A 189 ASP ILE THR TRP SER MET ALA

SEQRES 1 B 189 ILE SER SER CYS ASN GLY PRO CYS ARG ASP LEU ASN ASP

SEQRES 2 B 189 CYS ASP GLY GLN LEU ILE CYS ILE LYS GLY LYS CYS ASN

SEQRES 3 B 189 ASP ASP PRO GLU VAL GLY THR HIS ILE CYS ARG GLY THR

SEQRES 4 B 189 THR PRO SER PRO GLN PRO GLY GLY CYS LYS PRO SER GLY

SEQRES 5 B 189 THR LEU THR CYS GLN GLY LYS SER HIS PRO THR TYR ASP
SEQRES 6 B 189 CYS SER PRO PRO VAL THR SER SER THR PRO ALA LYS LEU
SEQRES 7 B 189 THR ASN ASN ASP PHE SER GLU GLY GLY ASP GLY GLY GLY
SEQRES 8 B 189 PRO SER GLU CYS ASP GLU SER TYR HIS SER ASN ASN GLU
SEQRES 9 B 189 ARG ILE VAL ALA LEU SER THR GLY TRP TYR ASN GLY GLY
SEQRES 10 B 189 SER ARG CYS GLY LYS MET ILE ARG ILE THR ALA SER ASN
SEQRES 11 B 189 GLY LYS SER VAL SER ALA LYS VAL VAL ASP GLU CYS ASP
SEQRES 12 B 189 SER ARG HIS GLY CYS ASP LYS GLU HIS ALA GLY GLN PRO
SEQRES 13 B 189 PRO CYS ARG ASN ASN ILE VAL ASP GLY SER ASN ALA VAL
SEQRES 14 B 189 TRP SER ALA LEU GLY LEU ASN LYS ASN VAL GLY VAL VAL
SEQRES 15 B 189 ASP ILE THR TRP SER MET ALA

HET CL A 201 1
HET CL B 201 1

HETNAM CL CHLORIDE ION

FORMUL 3 CL 2(CL 1-)

FORMUL 5 HOH *146(H2 O)

HELIX 1 AA1 THR A 111 ASN A 115 1 5
HELIX 2 AA2 GLY A 116 SER A 118 5 3
HELIX 3 AA3 SER A 166 LEU A 173 1 8
HELIX 4 AA4 ASN A 176 GLY A 180 5 5
HELIX 5 AA5 THR B 111 ASN B 115 1 5
HELIX 6 AA6 GLY B 116 SER B 118 5 3
HELIX 7 AA7 SER B 166 LEU B 173 1 8
HELIX 8 AA8 ASN B 176 GLY B 180 5 5

SHEET 1 AA1 2 GLY A 52 THR A 55 0
SHEET 2 AA1 2 SER A 60 THR A 63 -1 O HIS A 61 N LEU A 54
SHEET 1 AA2 7 THR A 74 ASN A 80 0
SHEET 2 AA2 7 ILE A 162 GLY A 165 1 O GLY A 165 N THR A 79

SHEET 3 AA2 7 ILE A 106 SER A 110 -1 N ALA A 108 O ASP A 164
 SHEET 4 AA2 7 SER A 133 CYS A 142 1 O VAL A 139 N VAL A 107
 SHEET 5 AA2 7 MET A 123 ALA A 128 -1 N ILE A 126 O VAL A 134
 SHEET 6 AA2 7 VAL A 182 MET A 188 -1 O SER A 187 N ARG A 125
 SHEET 7 AA2 7 THR A 74 ASN A 80 -1 N THR A 74 O TRP A 186
 SHEET 1 AA3 2 GLY B 52 THR B 55 O
 SHEET 2 AA3 2 SER B 60 THR B 63 -1 O HIS B 61 N LEU B 54
 SHEET 1 AA4 7 THR B 74 ASN B 80 O
 SHEET 2 AA4 7 ILE B 162 GLY B 165 1 O GLY B 165 N THR B 79
 SHEET 3 AA4 7 ILE B 106 SER B 110 -1 N ALA B 108 O ASP B 164
 SHEET 4 AA4 7 SER B 133 CYS B 142 1 O VAL B 139 N VAL B 107
 SHEET 5 AA4 7 MET B 123 ALA B 128 -1 N ILE B 126 O VAL B 134
 SHEET 6 AA4 7 VAL B 182 MET B 188 -1 O SER B 187 N ARG B 125
 SHEET 7 AA4 7 THR B 74 ASN B 80 -1 N THR B 74 O TRP B 186
 SSBOND 1 CYS A 48 CYS A 66 1555 1555 2.06
 SSBOND 2 CYS A 56 CYS A 148 1555 1555 2.06
 SSBOND 3 CYS A 95 CYS A 120 1555 1555 2.04
 SSBOND 4 CYS A 142 CYS A 158 1555 1555 2.09
 SSBOND 5 CYS B 48 CYS B 66 1555 1555 2.06
 SSBOND 6 CYS B 56 CYS B 148 1555 1555 2.07
 SSBOND 7 CYS B 95 CYS B 120 1555 1555 2.06
 SSBOND 8 CYS B 142 CYS B 158 1555 1555 2.07
 SITE 1 AC1 1 SER A 72
 SITE 1 AC2 1 SER B 72
 CRYST1 52.420 59.700 54.550 90.00 97.45 90.00 P 1 21 1 4
 ORIGX1 1.000000 0.000000 0.000000 0.000000
 ORIGX2 0.000000 1.000000 0.000000 0.000000
 ORIGX3 0.000000 0.000000 1.000000 0.000000

SCALE1	0.019077	0.000000	0.002495	0.00000	
SCALE2	0.000000	0.016750	0.000000	0.00000	
SCALE3	0.000000	0.000000	0.018488	0.00000	
ATOM	1	N	LYS A 24	18.338	7.273 29.250 1.00 92.40 N
ANISOU	1	N	LYS A 24	9657 14989 10461 1134 807 5236 N	
ATOM	2	CA	LYS A 24	19.117	8.095 30.227 1.00 90.88 C
ANISOU	2	CA	LYS A 24	10023 14254 10253 1571 1237 4790 C	
ATOM	3	C	LYS A 24	20.575	8.277 29.792 1.00 84.79 C
ANISOU	3	C	LYS A 24	9776 13014 9427 1405 1034 4131 C	
ATOM	4	O	LYS A 24	20.993	7.764 28.747 1.00 82.29 O
ANISOU	4	O	LYS A 24	9400 12769 9096 1028 604 3999 O	
ATOM	5	CB	LYS A 24	19.079	7.459 31.615 1.00 93.04 C
ANISOU	5	CB	LYS A 24	10486 14425 10441 1550 1352 4652 C	
ATOM	6	CG	LYS A 24	17.684	7.192 32.153 1.00 99.09 C
ANISOU	6	CG	LYS A 24	10721 15699 11228 1683 1555 5309 C	
ATOM	7	CD	LYS A 24	17.730	6.795 33.622 1.00 100.32 C
ANISOU	7	CD	LYS A 24	11157 15668 11291 1753 1767 5127 C	
ATOM	8	CE	LYS A 24	18.227	5.370 33.826 1.00 98.07 C
ANISOU	8	CE	LYS A 24	11034 15330 10900 1131 1248 4781 C	
ATOM	9	NZ	LYS A 24	17.236	4.367 33.347 1.00 99.94 N
ANISOU	9	NZ	LYS A 24	10729 16145 11099 672 882 5291 N	
ATOM	10	N	CYS A 25	21.337	9.024 30.591 1.00 80.56 N
ANISOU	10	N	CYS A 25	9766 12021 8823 1673 1352 3753 N	
ATOM	11	CA	CYS A 25	22.754	9.272 30.309 1.00 76.68 C
ANISOU	11	CA	CYS A 25	9739 11155 8241 1502 1185 3184 C	
ATOM	12	C	CYS A 25	23.599	8.042 30.661 1.00 70.75 C
ANISOU	12	C	CYS A 25	9161 10335 7386 1096 799 2770 C	
ATOM	13	O	CYS A 25	23.698	7.675 31.830 1.00 69.03 O

ANISOU	13	O	CYS A 25	9151	9985	7092	1107	906	2631	O
ATOM	14	CB	CYS A 25	23.259	10.494	31.096	1.00	77.84		C
ANISOU	14	CB	CYS A 25	10441	10857	8279	1832	1631	2972	C
ATOM	15	SG	CYS A 25	22.360	12.046	30.813	1.00	80.58		S
ANISOU	15	SG	CYS A 25	10801	11145	8673	2437	2189	3431	S
ATOM	16	N	ASN A 26	24.191	7.410	29.648	1.00	67.01		N
ANISOU	16	N	ASN A 26	8630	9943	6889	774	377	2594	N
ATOM	17	CA	ASN A 26	25.075	6.254	29.846	1.00	64.08		C
ANISOU	17	CA	ASN A 26	8473	9491	6384	475	36	2219	C
ATOM	18	C	ASN A 26	26.354	6.342	29.000	1.00	58.48		C
ANISOU	18	C	ASN A 26	7954	8678	5589	359	-183	1861	C
ATOM	19	O	ASN A 26	26.484	7.223	28.142	1.00	55.53		O
ANISOU	19	O	ASN A 26	7518	8315	5267	431	-129	1909	O
ATOM	20	CB	ASN A 26	24.321	4.951	29.528	1.00	66.47		C
ANISOU	20	CB	ASN A 26	8548	10047	6663	173	-286	2448	C
ATOM	21	CG	ASN A 26	24.631	3.827	30.514	1.00	69.34		C
ANISOU	21	CG	ASN A 26	9158	10298	6892	20	-417	2229	C
ATOM	22	OD1	ASN A 26	25.421	3.985	31.449	1.00	66.76		O
ANISOU	22	OD1	ASN A 26	9121	9740	6504	145	-280	1916	O
ATOM	23	ND2	ASN A 26	23.995	2.682	30.310	1.00	73.77		N
ANISOU	23	ND2	ASN A 26	9633	11023	7372	-292	-701	2418	N
ATOM	24	N	ASP A 27	27.295	5.432	29.268	1.00	54.12		N
ANISOU	24	N	ASP A 27	7627	8049	4889	209	-410	1533	N
ATOM	25	CA	ASP A 27	28.523	5.303	28.483	1.00	50.47		C
ANISOU	25	CA	ASP A 27	7296	7573	4309	131	-620	1244	C
ATOM	26	C	ASP A 27	28.175	4.819	27.073	1.00	50.24		C
ANISOU	26	C	ASP A 27	7112	7692	4285	-23	-880	1386	C
ATOM	27	O	ASP A 27	27.307	3.972	26.900	1.00	49.50		O

ANISOU	27	O	ASP A 27	6935	7690	4184	-190	-1040	1599	O
ATOM	28	CB	ASP A 27	29.480	4.285	29.121	1.00	49.47		C
ANISOU	28	CB	ASP A 27	7412	7384	4001	83	-780	953	C
ATOM	29	CG	ASP A 27	30.155	4.799	30.408	1.00	51.00		C
ANISOU	29	CG	ASP A 27	7796	7456	4127	161	-583	771	C
ATOM	30	OD1	ASP A 27	30.943	5.776	30.344	1.00	51.42		O
ANISOU	30	OD1	ASP A 27	7925	7487	4124	175	-484	653	O
ATOM	31	OD2	ASP A 27	29.951	4.178	31.476	1.00	48.13		O
ANISOU	31	OD2	ASP A 27	7542	7021	3723	154	-558	748	O
ATOM	32	N	ASP A 28	28.838	5.373	26.065	1.00	49.75		N
ANISOU	32	N	ASP A 28	7040	7660	4202	-16	-933	1289	N
ATOM	33	CA	ASP A 28	28.727	4.843	24.716	1.00	50.46		C
ANISOU	33	CA	ASP A 28	7083	7853	4236	-182	-1195	1361	C
ATOM	34	C	ASP A 28	29.816	3.789	24.553	1.00	49.93		C
ANISOU	34	C	ASP A 28	7309	7727	3935	-200	-1391	1062	C
ATOM	35	O	ASP A 28	31.016	4.112	24.614	1.00	46.26		O
ANISOU	35	O	ASP A 28	6924	7269	3382	-67	-1338	820	O
ATOM	36	CB	ASP A 28	28.898	5.931	23.666	1.00	51.44		C
ANISOU	36	CB	ASP A 28	7068	8043	4435	-149	-1145	1417	C
ATOM	37	CG	ASP A 28	28.782	5.389	22.245	1.00	54.60		C
ANISOU	37	CG	ASP A 28	7456	8538	4749	-348	-1417	1494	C
ATOM	38	OD1	ASP A 28	28.859	4.155	22.053	1.00	55.21		O
ANISOU	38	OD1	ASP A 28	7749	8579	4650	-495	-1640	1424	O
ATOM	39	OD2	ASP A 28	28.603	6.196	21.309	1.00	61.46		O
ANISOU	39	OD2	ASP A 28	8164	9490	5698	-367	-1406	1629	O
ATOM	40	N	PRO A 29	29.410	2.524	24.325	1.00	51.71		N
ANISOU	40	N	PRO A 29	7719	7911	4018	-368	-1614	1112	N
ATOM	41	CA	PRO A 29	30.384	1.430	24.280	1.00	51.70		C

ANISOU	41	CA	PRO A	29	8094	7799	3752	-293	-1746	854	C
ATOM	42	C	PRO A	29	31.359	1.500	23.095	1.00	50.83		C
ANISOU	42	C	PRO A	29	8087	7732	3494	-195	-1806	707	C
ATOM	43	O	PRO A	29	32.403	0.836	23.126	1.00	50.11		O
ANISOU	43	O	PRO A	29	8251	7607	3184	10	-1820	503	O
ATOM	44	CB	PRO A	29	29.494	0.180	24.206	1.00	53.58		C
ANISOU	44	CB	PRO A	29	8594	7929	3837	-562	-1966	999	C
ATOM	45	CG	PRO A	29	28.254	0.653	23.535	1.00	55.50		C
ANISOU	45	CG	PRO A	29	8542	8324	4222	-845	-2037	1352	C
ATOM	46	CD	PRO A	29	28.039	2.047	24.043	1.00	54.59		C
ANISOU	46	CD	PRO A	29	7990	8343	4409	-653	-1760	1452	C
ATOM	47	N	GLU A	30	31.021	2.284	22.065	1.00	50.57		N
ANISOU	47	N	GLU A	30	7852	7797	3566	-307	-1822	840	N
ATOM	48	CA	GLU A	30	31.929	2.514	20.936	1.00	50.34		C
ANISOU	48	CA	GLU A	30	7878	7838	3411	-219	-1850	717	C
ATOM	49	C	GLU A	30	33.067	3.449	21.312	1.00	48.15		C
ANISOU	49	C	GLU A	30	7413	7708	3176	-5	-1671	557	C
ATOM	50	O	GLU A	30	34.142	3.409	20.708	1.00	49.06		O
ANISOU	50	O	GLU A	30	7580	7940	3120	137	-1672	426	O
ATOM	51	CB	GLU A	30	31.170	3.083	19.723	1.00	52.02		C
ANISOU	51	CB	GLU A	30	7934	8116	3715	-447	-1942	931	C
ATOM	52	CG	GLU A	30	30.099	2.145	19.204	1.00	55.26		C
ANISOU	52	CG	GLU A	30	8544	8444	4010	-774	-2179	1140	C
ATOM	53	CD	GLU A	30	30.578	0.697	19.175	1.00	58.91		C
ANISOU	53	CD	GLU A	30	9572	8692	4120	-757	-2307	960	C
ATOM	54	OE1	GLU A	30	31.579	0.407	18.472	1.00	56.73		O
ANISOU	54	OE1	GLU A	30	9572	8362	3619	-566	-2293	763	O
ATOM	55	OE2	GLU A	30	29.966	-0.143	19.879	1.00	61.31		O

ANISOU	55	OE2	GLU	A	30	10068	8878	4348	-907	-2398	1032	O
ATOM	56	N	VAL	A	31	32.805	4.303	22.289	1.00	44.63		N
ANISOU	56	N	VAL	A	31	6773	7266	2917	-7	-1514	599	N
ATOM	57	CA	VAL	A	31	33.771	5.274	22.762	1.00	43.17		C
ANISOU	57	CA	VAL	A	31	6481	7194	2726	72	-1367	483	C
ATOM	58	C	VAL	A	31	34.712	4.605	23.758	1.00	43.39		C
ANISOU	58	C	VAL	A	31	6621	7280	2586	211	-1358	324	C
ATOM	59	O	VAL	A	31	35.904	4.912	23.796	1.00	43.33		O
ANISOU	59	O	VAL	A	31	6546	7486	2433	275	-1335	234	O
ATOM	60	CB	VAL	A	31	33.043	6.499	23.373	1.00	42.50		C
ANISOU	60	CB	VAL	A	31	6283	7015	2849	7	-1177	608	C
ATOM	61	CG1	VAL	A	31	33.993	7.375	24.171	1.00	42.15		C
ANISOU	61	CG1	VAL	A	31	6287	7011	2719	-2	-1039	480	C
ATOM	62	CG2	VAL	A	31	32.346	7.293	22.259	1.00	42.66		C
ANISOU	62	CG2	VAL	A	31	6160	7044	3006	-66	-1170	793	C
ATOM	63	N	GLY	A	32	34.169	3.689	24.554	1.00	43.02		N
ANISOU	63	N	GLY	A	32	6721	7082	2541	237	-1389	330	N
ATOM	64	CA	GLY	A	32	34.966	2.947	25.509	1.00	45.30		C
ANISOU	64	CA	GLY	A	32	7133	7411	2666	387	-1392	209	C
ATOM	65	C	GLY	A	32	35.255	3.688	26.798	1.00	44.47		C
ANISOU	65	C	GLY	A	32	6953	7337	2605	330	-1259	177	C
ATOM	66	O	GLY	A	32	36.185	3.320	27.513	1.00	49.17		O
ANISOU	66	O	GLY	A	32	7577	8067	3037	424	-1271	101	O
ATOM	67	N	THR	A	33	34.469	4.718	27.118	1.00	43.24		N
ANISOU	67	N	THR	A	33	6739	7055	2634	190	-1119	259	N
ATOM	68	CA	THR	A	33	34.485	5.276	28.478	1.00	43.49		C
ANISOU	68	CA	THR	A	33	6854	6998	2671	123	-967	233	C
ATOM	69	C	THR	A	33	33.857	4.249	29.434	1.00	43.52		C

ANISOU	69	C	THR A 33	6976	6860	2699	175	-981	241	C
ATOM	70	O	THR A 33	33.126	3.361	28.995	1.00	41.48		O
ANISOU	70	O	THR A 33	6734	6538	2490	200	-1088	313	O
ATOM	71	CB	THR A 33	33.676	6.599	28.616	1.00	43.59		C
ANISOU	71	CB	THR A 33	6890	6836	2836	46	-745	343	C
ATOM	72	OG1	THR A 33	32.385	6.461	28.009	1.00	42.95		O
ANISOU	72	OG1	THR A 33	6690	6673	2955	103	-724	531	O
ATOM	73	CG2	THR A 33	34.413	7.796	28.016	1.00	43.15		C
ANISOU	73	CG2	THR A 33	6833	6866	2696	-68	-705	315	C
ATOM	74	N	HIS A 34	34.130	4.373	30.733	1.00	45.36		N
ANISOU	74	N	HIS A 34	7328	7041	2865	136	-890	181	N
ATOM	75	CA	HIS A 34	33.479	3.501	31.717	1.00	46.78		C
ANISOU	75	CA	HIS A 34	7628	7075	3070	163	-884	197	C
ATOM	76	C	HIS A 34	33.027	4.256	32.955	1.00	48.38		C
ANISOU	76	C	HIS A 34	7961	7110	3314	90	-651	221	C
ATOM	77	O	HIS A 34	33.094	3.722	34.068	1.00	47.69		O
ANISOU	77	O	HIS A 34	8012	6958	3149	74	-645	169	O
ATOM	78	CB	HIS A 34	34.402	2.345	32.114	1.00	48.73		C
ANISOU	78	CB	HIS A 34	7970	7428	3117	259	-1052	86	C
ATOM	79	CG	HIS A 34	34.729	1.427	30.985	1.00	51.40		C
ANISOU	79	CG	HIS A 34	8315	7850	3363	407	-1227	73	C
ATOM	80	ND1	HIS A 34	35.978	1.380	30.402	1.00	54.64		N
ANISOU	80	ND1	HIS A 34	8648	8513	3599	550	-1292	22	N
ATOM	81	CD2	HIS A 34	33.965	0.534	30.311	1.00	53.74		C
ANISOU	81	CD2	HIS A 34	8737	8011	3672	418	-1339	127	C
ATOM	82	CE1	HIS A 34	35.969	0.497	29.417	1.00	56.47		C
ANISOU	82	CE1	HIS A 34	8998	8715	3743	708	-1399	22	C
ATOM	83	NE2	HIS A 34	34.758	-0.029	29.341	1.00	55.57		N

ANISOU	83	NE2 HIS A 34	9048	8342	3726	593	-1446	74	N
ATOM	84	N ILE A 35	32.528	5.476	32.763	1.00	49.45		N
ANISOU	84	N ILE A 35	8102	7142	3546	73	-440	309	N
ATOM	85	CA ILE A 35	32.120	6.331	33.886	1.00	53.68		C
ANISOU	85	CA ILE A 35	8881	7453	4061	54	-151	336	C
ATOM	86	C ILE A 35	30.864	5.820	34.618	1.00	55.29		C
ANISOU	86	C ILE A 35	9076	7539	4395	166	-6	485	C
ATOM	87	O ILE A 35	30.672	6.095	35.816	1.00	57.16		O
ANISOU	87	O ILE A 35	9559	7601	4560	167	203	469	O
ATOM	88	CB ILE A 35	31.904	7.803	33.441	1.00	56.62		C
ANISOU	88	CB ILE A 35	9366	7692	4456	71	84	412	C
ATOM	89	CG1 ILE A 35	33.247	8.448	33.080	1.00	58.22		C
ANISOU	89	CG1 ILE A 35	9669	8001	4449	-146	-38	266	C
ATOM	90	CG2 ILE A 35	31.220	8.639	34.528	1.00	57.82		C
ANISOU	90	CG2 ILE A 35	9866	7534	4569	152	461	485	C
ATOM	91	CD1 ILE A 35	33.652	8.264	31.638	1.00	58.44		C
ANISOU	91	CD1 ILE A 35	9392	8277	4536	-134	-254	273	C
ATOM	92	N CYS A 36	30.016	5.082	33.903	1.00	52.97		N
ANISOU	92	N CYS A 36	8516	7358	4253	221	-124	651	N
ATOM	93	CA CYS A 36	28.783	4.548	34.475	1.00	53.30		C
ANISOU	93	CA CYS A 36	8469	7388	4394	268	-27	864	C
ATOM	94	C CYS A 36	28.886	3.062	34.806	1.00	49.56		C
ANISOU	94	C CYS A 36	8030	6963	3838	147	-298	791	C
ATOM	95	O CYS A 36	27.905	2.448	35.209	1.00	51.47		O
ANISOU	95	O CYS A 36	8195	7235	4126	105	-288	977	O
ATOM	96	CB CYS A 36	27.614	4.811	33.517	1.00	57.29		C
ANISOU	96	CB CYS A 36	8651	8034	5081	338	26	1196	C
ATOM	97	SG CYS A 36	27.333	6.579	33.276	1.00	62.31		S

ANISOU	97	SG	CYS A 36	9321	8559	5796	578	421	1335	S
ATOM	98	N	ARG A 37	30.077	2.487	34.661	1.00	45.02		N
ANISOU	98	N	ARG A 37	7585	6410	3111	103	-527	551	N
ATOM	99	CA	ARG A 37	30.271	1.063	34.933	1.00	42.78		C
ANISOU	99	CA	ARG A 37	7431	6121	2702	51	-765	477	C
ATOM	100	C	ARG A 37	30.015	0.766	36.412	1.00	42.17		C
ANISOU	100	C	ARG A 37	7512	5933	2579	20	-655	461	C
ATOM	101	O	ARG A 37	30.568	1.420	37.278	1.00	41.25		O
ANISOU	101	O	ARG A 37	7519	5752	2401	36	-501	351	O
ATOM	102	CB	ARG A 37	31.683	0.636	34.523	1.00	41.28		C
ANISOU	102	CB	ARG A 37	7340	6009	2335	126	-956	269	C
ATOM	103	CG	ARG A 37	31.902	-0.866	34.490	1.00	40.92		C
ANISOU	103	CG	ARG A 37	7505	5920	2120	162	-1187	215	C
ATOM	104	CD	ARG A 37	33.358	-1.204	34.227	1.00	40.14		C
ANISOU	104	CD	ARG A 37	7480	5948	1825	354	-1294	65	C
ATOM	105	NE	ARG A 37	33.594	-2.627	34.416	1.00	40.86		N
ANISOU	105	NE	ARG A 37	7872	5939	1713	472	-1451	22	N
ATOM	106	CZ	ARG A 37	33.341	-3.573	33.516	1.00	42.52		C
ANISOU	106	CZ	ARG A 37	8326	6030	1802	510	-1598	43	C
ATOM	107	NH1	ARG A 37	32.843	-3.271	32.317	1.00	41.62		N
ANISOU	107	NH1	ARG A 37	8132	5922	1762	409	-1636	114	N
ATOM	108	NH2	ARG A 37	33.592	-4.843	33.818	1.00	44.54		N
ANISOU	108	NH2	ARG A 37	8972	6130	1821	639	-1709	-1	N
ATOM	109	N	GLY A 38	29.123	-0.191	36.667	1.00	42.64		N
ANISOU	109	N	GLY A 38	7590	5971	2639	-75	-742	596	N
ATOM	110	CA	GLY A 38	28.770	-0.643	38.005	1.00	43.02		C
ANISOU	110	CA	GLY A 38	7784	5928	2633	-128	-664	605	C
ATOM	111	C	GLY A 38	27.639	0.116	38.673	1.00	44.38		C

ANISOU	111	C	GLY A 38	7820	6103	2939	-100	-339	829	C
ATOM	112	O	GLY A 38	27.156	-0.304	39.717	1.00	44.41		O
ANISOU	112	O	GLY A 38	7915	6059	2900	-153	-260	886	O
ATOM	113	N	THR A 39	27.195	1.228	38.095	1.00	45.42		N
ANISOU	113	N	THR A 39	7750	6294	3215	20	-121	981	N
ATOM	114	CA	THR A 39	26.287	2.124	38.839	1.00	48.07		C
ANISOU	114	CA	THR A 39	8034	6598	3631	179	290	1193	C
ATOM	115	C	THR A 39	24.825	1.636	38.936	1.00	50.72		C
ANISOU	115	C	THR A 39	8066	7151	4053	147	351	1593	C
ATOM	116	O	THR A 39	24.325	0.946	38.044	1.00	51.28		O
ANISOU	116	O	THR A 39	7893	7433	4157	-34	82	1782	O
ATOM	117	CB	THR A 39	26.333	3.543	38.256	1.00	48.59		C
ANISOU	117	CB	THR A 39	8065	6617	3779	382	551	1244	C
ATOM	118	OG1	THR A 39	25.950	3.514	36.874	1.00	47.99		O
ANISOU	118	OG1	THR A 39	7656	6748	3831	364	388	1426	O
ATOM	119	CG2	THR A 39	27.748	4.107	38.396	1.00	47.07		C
ANISOU	119	CG2	THR A 39	8202	6240	3442	332	513	893	C
ATOM	120	N	CYS A 48	38.620	-0.742	17.239	1.00	49.23		N
ANISOU	120	N	CYS A 48	6494	6397	5815	-13	-1824	532	N
ATOM	121	CA	CYS A 48	38.275	0.596	16.795	1.00	45.47		C
ANISOU	121	CA	CYS A 48	6020	5973	5285	-87	-1666	415	C
ATOM	122	C	CYS A 48	37.991	1.488	17.998	1.00	45.23		C
ANISOU	122	C	CYS A 48	6128	6014	5045	-204	-1724	395	C
ATOM	123	O	CYS A 48	37.127	1.189	18.827	1.00	40.60		O
ANISOU	123	O	CYS A 48	5704	5450	4271	-243	-1728	450	O
ATOM	124	CB	CYS A 48	37.061	0.557	15.872	1.00	43.70		C
ANISOU	124	CB	CYS A 48	5855	5707	5041	-66	-1456	380	C
ATOM	125	SG	CYS A 48	36.564	2.181	15.237	1.00	41.21		S

ANISOU	125	SG	CYS A	48	5549	5425	4684	-141	-1279	258	S
ATOM	126	N	LYS A	49	38.750	2.572	18.097	1.00	46.11		N
ANISOU	126	N	LYS A	49	6167	6166	5187	-267	-1770	311	N
ATOM	127	CA	LYS A	49	38.585	3.552	19.165	1.00	44.56		C
ANISOU	127	CA	LYS A	49	6095	6028	4808	-375	-1833	246	C
ATOM	128	C	LYS A	49	38.464	4.953	18.565	1.00	38.24		C
ANISOU	128	C	LYS A	49	5271	5202	4057	-435	-1713	113	C
ATOM	129	O	LYS A	49	38.939	5.186	17.452	1.00	35.44		O
ANISOU	129	O	LYS A	49	4767	4811	3888	-415	-1638	101	O
ATOM	130	CB	LYS A	49	39.786	3.490	20.116	1.00	54.62		C
ANISOU	130	CB	LYS A	49	7318	7356	6078	-413	-2087	277	C
ATOM	131	CG	LYS A	49	39.842	2.226	20.962	1.00	62.87		C
ANISOU	131	CG	LYS A	49	8430	8421	7034	-372	-2247	428	C
ATOM	132	CD	LYS A	49	41.012	2.277	21.940	1.00	77.83		C
ANISOU	132	CD	LYS A	49	10280	10380	8912	-414	-2523	459	C
ATOM	133	CE	LYS A	49	40.914	1.188	23.002	1.00	86.29		C
ANISOU	133	CE	LYS A	49	11476	11484	9828	-402	-2701	626	C
ATOM	134	NZ	LYS A	49	40.816	-0.174	22.403	1.00	88.55		N
ANISOU	134	NZ	LYS A	49	11707	11664	10273	-279	-2688	763	N
ATOM	135	N	PRO A	50	37.849	5.897	19.304	1.00	35.20		N
ANISOU	135	N	PRO A	50	5033	4836	3507	-508	-1699	14	N
ATOM	136	CA	PRO A	50	37.820	7.268	18.808	1.00	32.63		C
ANISOU	136	CA	PRO A	50	4690	4449	3257	-565	-1626	-107	C
ATOM	137	C	PRO A	50	39.214	7.839	18.476	1.00	31.24		C
ANISOU	137	C	PRO A	50	4344	4254	3271	-631	-1740	-120	C
ATOM	138	O	PRO A	50	40.185	7.588	19.200	1.00	30.97		O
ANISOU	138	O	PRO A	50	4253	4274	3240	-664	-1933	-97	O
ATOM	139	CB	PRO A	50	37.188	8.052	19.977	1.00	36.43		C

ANISOU	139	CB	PRO A	50	5355	4961	3525	-622	-1658	-232	C
ATOM	140	CG	PRO A	50	36.499	7.015	20.818	1.00	37.28		C
ANISOU	140	CG	PRO A	50	5580	5164	3418	-587	-1660	-156	C
ATOM	141	CD	PRO A	50	37.381	5.820	20.706	1.00	37.94		C
ANISOU	141	CD	PRO A	50	5555	5266	3596	-549	-1783	0	C
ATOM	142	N	SER A	51	39.299	8.589	17.375	1.00	28.50		N
ANISOU	142	N	SER A	51	3909	3837	3082	-656	-1626	-141	N
ATOM	143	CA	SER A	51	40.536	9.259	16.966	1.00	27.92		C
ANISOU	143	CA	SER A	51	3663	3749	3195	-747	-1702	-143	C
ATOM	144	C	SER A	51	40.792	10.507	17.776	1.00	28.76		C
ANISOU	144	C	SER A	51	3846	3805	3278	-875	-1832	-260	C
ATOM	145	O	SER A	51	41.951	10.931	17.933	1.00	29.69		O
ANISOU	145	O	SER A	51	3832	3931	3520	-975	-1976	-266	O
ATOM	146	CB	SER A	51	40.480	9.643	15.493	1.00	27.14		C
ANISOU	146	CB	SER A	51	3460	3604	3247	-750	-1525	-103	C
ATOM	147	OG	SER A	51	39.329	10.427	15.211	1.00	25.93		O
ANISOU	147	OG	SER A	51	3458	3358	3036	-754	-1404	-156	O
ATOM	148	N	GLY A	52	39.717	11.090	18.300	1.00	27.74		N
ANISOU	148	N	GLY A	52	3918	3622	2999	-871	-1786	-366	N
ATOM	149	CA	GLY A	52	39.810	12.314	19.089	1.00	29.67		C
ANISOU	149	CA	GLY A	52	4265	3796	3211	-975	-1903	-519	C
ATOM	150	C	GLY A	52	38.430	12.900	19.310	1.00	29.00		C
ANISOU	150	C	GLY A	52	4376	3645	2998	-924	-1783	-641	C
ATOM	151	O	GLY A	52	37.485	12.151	19.473	1.00	27.03		O
ANISOU	151	O	GLY A	52	4208	3467	2596	-824	-1673	-616	O
ATOM	152	N	THR A	53	38.324	14.231	19.290	1.00	30.81		N
ANISOU	152	N	THR A	53	4667	3729	3310	-993	-1807	-770	N
ATOM	153	CA	THR A	53	37.069	14.946	19.555	1.00	31.81		C

ANISOU	153	CA	THR A 53	4966	3773	3347	-931	-1712	-922	C
ATOM	154	C	THR A 53	36.879	16.228	18.739	1.00	32.58		C
ANISOU	154	C	THR A 53	5069	3655	3655	-971	-1676	-967	C
ATOM	155	O	THR A 53	37.835	16.836	18.283	1.00	33.21		O
ANISOU	155	O	THR A 53	5052	3638	3928	-1093	-1768	-921	O
ATOM	156	CB	THR A 53	36.943	15.389	21.036	1.00	34.08		C
ANISOU	156	CB	THR A 53	5415	4101	3434	-955	-1838	-1132	C
ATOM	157	OG1	THR A 53	38.003	16.281	21.363	1.00	35.63		O
ANISOU	157	OG1	THR A 53	5587	4203	3747	-1093	-2039	-1220	O
ATOM	158	CG2	THR A 53	36.999	14.196	21.974	1.00	34.95		C
ANISOU	158	CG2	THR A 53	5558	4427	3294	-924	-1884	-1079	C
ATOM	159	N	LEU A 54	35.612	16.599	18.564	1.00	33.11		N
ANISOU	159	N	LEU A 54	5241	3650	3688	-867	-1543	-1046	N
ATOM	160	CA	LEU A 54	35.195	17.891	18.051	1.00	34.79		C
ANISOU	160	CA	LEU A 54	5507	3635	4074	-876	-1533	-1124	C
ATOM	161	C	LEU A 54	34.151	18.434	19.009	1.00	37.76		C
ANISOU	161	C	LEU A 54	6052	3980	4317	-780	-1514	-1369	C
ATOM	162	O	LEU A 54	33.211	17.728	19.377	1.00	37.48		O
ANISOU	162	O	LEU A 54	6059	4090	4092	-663	-1388	-1397	O
ATOM	163	CB	LEU A 54	34.559	17.747	16.663	1.00	32.56		C
ANISOU	163	CB	LEU A 54	5161	3302	3907	-810	-1372	-959	C
ATOM	164	CG	LEU A 54	35.498	17.456	15.490	1.00	31.87		C
ANISOU	164	CG	LEU A 54	4911	3228	3971	-902	-1359	-735	C
ATOM	165	CD1	LEU A 54	34.700	17.155	14.215	1.00	29.85		C
ANISOU	165	CD1	LEU A 54	4620	2968	3755	-816	-1194	-592	C
ATOM	166	CD2	LEU A 54	36.460	18.615	15.270	1.00	33.88		C
ANISOU	166	CD2	LEU A 54	5131	3309	4433	-1068	-1493	-727	C
ATOM	167	N	THR A 55	34.281	19.692	19.374	1.00	41.67		N

ANISOU	167	N	THR A 55	6635	4280	4919	-827	-1631	-1549	N
ATOM	168	CA	THR A 55	33.419	20.281	20.384	1.00	46.66		C
ANISOU	168	CA	THR A 55	7423	4885	5422	-732	-1626	-1831	C
ATOM	169	C	THR A 55	32.356	21.101	19.704	1.00	49.17		C
ANISOU	169	C	THR A 55	7778	4999	5904	-616	-1531	-1888	C
ATOM	170	O	THR A 55	32.658	21.940	18.865	1.00	48.99		O
ANISOU	170	O	THR A 55	7732	4738	6142	-677	-1596	-1816	O
ATOM	171	CB	THR A 55	34.215	21.156	21.326	1.00	49.40		C
ANISOU	171	CB	THR A 55	7858	5134	5778	-843	-1840	-2042	C
ATOM	172	OG1	THR A 55	35.025	22.047	20.553	1.00	53.67		O
ANISOU	172	OG1	THR A 55	8342	5426	6624	-979	-1964	-1962	O
ATOM	173	CG2	THR A 55	35.121	20.300	22.179	1.00	50.78		C
ANISOU	173	CG2	THR A 55	8008	5541	5747	-934	-1948	-2008	C
ATOM	174	N	CYS A 56	31.110	20.860	20.086	1.00	53.82		N
ANISOU	174	N	CYS A 56	8418	5688	6342	-452	-1382	-2009	N
ATOM	175	CA	CYS A 56	29.960	21.448	19.420	1.00	58.01		C
ANISOU	175	CA	CYS A 56	8956	6065	7022	-309	-1277	-2047	C
ATOM	176	C	CYS A 56	29.222	22.392	20.365	1.00	61.72		C
ANISOU	176	C	CYS A 56	9550	6442	7458	-192	-1287	-2394	C
ATOM	177	O	CYS A 56	29.802	23.378	20.823	1.00	74.20		O
ANISOU	177	O	CYS A 56	11221	7835	9138	-258	-1453	-2571	O
ATOM	178	CB	CYS A 56	29.076	20.332	18.886	1.00	52.78		C
ANISOU	178	CB	CYS A 56	8203	5596	6253	-209	-1082	-1881	C
ATOM	179	SG	CYS A 56	29.067	20.196	17.100	1.00	53.98		S
ANISOU	179	SG	CYS A 56	8239	5632	6640	-224	-1040	-1571	S
ATOM	180	N	GLN A 57	27.961	22.110	20.673	1.00	70.07		N
ANISOU	180	N	GLN A 57	10608	7632	8384	-22	-1115	-2507	N
ATOM	181	CA	GLN A 57	27.170	23.019	21.491	1.00	77.43		C

ANISOU	181	CA	GLN A 57	11636	8487	9297	120	-1097	-2857	C
ATOM	182	C	GLN A 57	27.543	22.773	22.940	1.00	77.09		C
ANISOU	182	C	GLN A 57	11691	8661	8939	70	-1126	-3070	C
ATOM	183	O	GLN A 57	26.784	22.157	23.689	1.00	74.69		O
ANISOU	183	O	GLN A 57	11391	8629	8361	155	-967	-3167	O
ATOM	184	CB	GLN A 57	25.678	22.786	21.262	1.00	84.27		C
ANISOU	184	CB	GLN A 57	12431	9445	10145	320	-888	-2895	C
ATOM	185	CG	GLN A 57	25.225	23.094	19.844	1.00	94.96		C
ANISOU	185	CG	GLN A 57	13698	10584	11801	381	-880	-2698	C
ATOM	186	CD	GLN A 57	23.742	22.833	19.625	1.00	105.73		C
ANISOU	186	CD	GLN A 57	14968	12050	13156	577	-691	-2734	C
ATOM	187	OE1	GLN A 57	23.058	22.287	20.493	1.00	120.98		O
ANISOU	187	OE1	GLN A 57	16879	14244	14843	651	-537	-2875	O
ATOM	188	NE2	GLN A 57	23.239	23.223	18.456	1.00	102.48		N
ANISOU	188	NE2	GLN A 57	14490	11442	13007	653	-707	-2595	N
ATOM	189	N	GLY A 58	28.734	23.237	23.314	1.00	76.56		N
ANISOU	189	N	GLY A 58	11698	8486	8906	-82	-1337	-3123	N
ATOM	190	CA	GLY A 58	29.334	22.907	24.601	1.00	77.54		C
ANISOU	190	CA	GLY A 58	11912	8825	8723	-169	-1415	-3268	C
ATOM	191	C	GLY A 58	29.498	21.414	24.878	1.00	76.83		C
ANISOU	191	C	GLY A 58	11762	9083	8346	-228	-1327	-3039	C
ATOM	192	O	GLY A 58	29.607	21.023	26.041	1.00	77.11		O
ANISOU	192	O	GLY A 58	11882	9357	8061	-257	-1339	-3162	O
ATOM	193	N	LYS A 59	29.523	20.578	23.831	1.00	68.61		N
ANISOU	193	N	LYS A 59	10587	8070	7411	-249	-1249	-2711	N
ATOM	194	CA	LYS A 59	29.657	19.128	24.001	1.00	65.22		C
ANISOU	194	CA	LYS A 59	10099	7926	6755	-296	-1178	-2483	C
ATOM	195	C	LYS A 59	30.795	18.577	23.148	1.00	60.53		C

ANISOU	195	C	LYS A 59	9398	7280	6322	-424	-1287	-2189	C
ATOM	196	O	LYS A 59	30.908	18.921	21.970	1.00	54.75		O
ANISOU	196	O	LYS A 59	8583	6354	5865	-428	-1285	-2060	O
ATOM	197	CB	LYS A 59	28.340	18.418	23.635	1.00	70.69		C
ANISOU	197	CB	LYS A 59	10723	8755	7382	-166	-935	-2396	C
ATOM	198	CG	LYS A 59	27.987	17.280	24.584	1.00	81.67		C
ANISOU	198	CG	LYS A 59	12138	10477	8415	-178	-833	-2353	C
ATOM	199	CD	LYS A 59	26.666	16.618	24.204	1.00	87.22		C
ANISOU	199	CD	LYS A 59	12755	11304	9081	-70	-597	-2266	C
ATOM	200	CE	LYS A 59	25.964	15.965	25.395	1.00	91.79		C
ANISOU	200	CE	LYS A 59	13385	12199	9292	-60	-459	-2339	C
ATOM	201	NZ	LYS A 59	24.556	15.571	25.082	1.00	85.31		N
ANISOU	201	NZ	LYS A 59	12463	11484	8465	48	-221	-2309	N
ATOM	202	N	SER A 60	31.633	17.730	23.747	1.00	55.32		N
ANISOU	202	N	SER A 60	8734	6799	5484	-525	-1384	-2086	N
ATOM	203	CA	SER A 60	32.676	17.001	23.010	1.00	50.73		C
ANISOU	203	CA	SER A 60	8024	6217	5032	-622	-1465	-1811	C
ATOM	204	C	SER A 60	32.086	15.779	22.344	1.00	45.34		C
ANISOU	204	C	SER A 60	7252	5656	4318	-555	-1298	-1582	C
ATOM	205	O	SER A 60	31.503	14.927	23.014	1.00	48.84		O
ANISOU	205	O	SER A 60	7737	6302	4519	-517	-1213	-1561	O
ATOM	206	CB	SER A 60	33.798	16.511	23.923	1.00	51.72		C
ANISOU	206	CB	SER A 60	8167	6484	5000	-737	-1655	-1785	C
ATOM	207	OG	SER A 60	34.463	17.575	24.565	1.00	57.05		O
ANISOU	207	OG	SER A 60	8921	7054	5703	-822	-1843	-1996	O
ATOM	208	N	HIS A 61	32.240	15.697	21.031	1.00	38.41		N
ANISOU	208	N	HIS A 61	6257	4659	3678	-552	-1254	-1410	N
ATOM	209	CA	HIS A 61	31.863	14.535	20.282	1.00	34.35		C

ANISOU	209	CA	HIS A	61	5651	4237	3164	-503	-1128	-1197	C
ATOM	210	C	HIS A	61	33.130	13.801	19.879	1.00	32.19		C
ANISOU	210	C	HIS A	61	5266	3995	2971	-587	-1235	-1008	C
ATOM	211	O	HIS A	61	34.114	14.439	19.530	1.00	31.19		O
ANISOU	211	O	HIS A	61	5083	3757	3012	-672	-1351	-1002	O
ATOM	212	CB	HIS A	61	31.066	14.911	19.025	1.00	33.66		C
ANISOU	212	CB	HIS A	61	5509	4013	3267	-426	-997	-1147	C
ATOM	213	CG	HIS A	61	29.764	15.575	19.323	1.00	35.89		C
ANISOU	213	CG	HIS A	61	5867	4262	3508	-317	-888	-1326	C
ATOM	214	ND1	HIS A	61	29.678	16.855	19.824	1.00	39.31		N
ANISOU	214	ND1	HIS A	61	6389	4558	3989	-304	-952	-1552	N
ATOM	215	CD2	HIS A	61	28.493	15.129	19.211	1.00	36.90		C
ANISOU	215	CD2	HIS A	61	5981	4476	3564	-210	-723	-1323	C
ATOM	216	CE1	HIS A	61	28.408	17.167	20.017	1.00	40.65		C
ANISOU	216	CE1	HIS A	61	6592	4737	4117	-176	-823	-1692	C
ATOM	217	NE2	HIS A	61	27.669	16.138	19.644	1.00	40.28		N
ANISOU	217	NE2	HIS A	61	6473	4833	3997	-123	-680	-1549	N
ATOM	218	N	PRO A	62	33.114	12.458	19.942	1.00	30.27		N
ANISOU	218	N	PRO A	62	4983	3899	2621	-563	-1201	-857	N
ATOM	219	CA	PRO A	62	34.245	11.672	19.503	1.00	29.32		C
ANISOU	219	CA	PRO A	62	4739	3805	2597	-608	-1292	-689	C
ATOM	220	C	PRO A	62	34.298	11.677	17.991	1.00	26.82		C
ANISOU	220	C	PRO A	62	4300	3393	2498	-584	-1196	-578	C
ATOM	221	O	PRO A	62	33.249	11.724	17.338	1.00	25.12		O
ANISOU	221	O	PRO A	62	4102	3140	2302	-512	-1050	-572	O
ATOM	222	CB	PRO A	62	33.897	10.271	19.989	1.00	29.77		C
ANISOU	222	CB	PRO A	62	4817	4013	2483	-565	-1264	-575	C
ATOM	223	CG	PRO A	62	32.405	10.228	19.912	1.00	30.48		C

ANISOU	223	CG	PRO A 62	4976	4124	2481	-490	-1081	-616	C
ATOM	224	CD	PRO A 62	31.957	11.611	20.297	1.00	30.94		C
ANISOU	224	CD	PRO A 62	5120	4112	2523	-489	-1064	-828	C
ATOM	225	N	THR A 63	35.508	11.685	17.446	1.00	26.64		N
ANISOU	225	N	THR A 63	4148	3343	2631	-648	-1281	-497	N
ATOM	226	CA	THR A 63	35.718	11.444	16.014	1.00	25.53		C
ANISOU	226	CA	THR A 63	3876	3167	2657	-629	-1185	-371	C
ATOM	227	C	THR A 63	36.268	10.023	15.843	1.00	25.60		C
ANISOU	227	C	THR A 63	3781	3287	2660	-584	-1199	-248	C
ATOM	228	O	THR A 63	36.817	9.434	16.792	1.00	24.65		O
ANISOU	228	O	THR A 63	3664	3242	2459	-596	-1327	-239	O
ATOM	229	CB	THR A 63	36.711	12.433	15.405	1.00	25.81		C
ANISOU	229	CB	THR A 63	3813	3112	2882	-738	-1244	-358	C
ATOM	230	OG1	THR A 63	37.902	12.485	16.210	1.00	27.27		O
ANISOU	230	OG1	THR A 63	3939	3337	3084	-827	-1421	-383	O
ATOM	231	CG2	THR A 63	36.098	13.802	15.341	1.00	26.61		C
ANISOU	231	CG2	THR A 63	4019	3057	3036	-770	-1229	-459	C
ATOM	232	N	TYR A 64	36.087	9.480	14.640	1.00	24.53		N
ANISOU	232	N	TYR A 64	3561	3153	2606	-527	-1078	-158	N
ATOM	233	CA	TYR A 64	36.571	8.162	14.296	1.00	26.07		C
ANISOU	233	CA	TYR A 64	3652	3422	2830	-464	-1080	-65	C
ATOM	234	C	TYR A 64	37.056	8.136	12.865	1.00	26.54		C
ANISOU	234	C	TYR A 64	3565	3483	3034	-454	-985	-6	C
ATOM	235	O	TYR A 64	36.469	8.783	11.997	1.00	25.87		O
ANISOU	235	O	TYR A 64	3505	3349	2974	-463	-874	-4	O
ATOM	236	CB	TYR A 64	35.455	7.134	14.423	1.00	25.07		C
ANISOU	236	CB	TYR A 64	3616	3320	2589	-374	-1008	-35	C
ATOM	237	CG	TYR A 64	34.857	6.936	15.809	1.00	26.64		C

ANISOU	237	CG TYR A 64	3958	3558	2607	-383	-1069	-67	C
ATOM	238	CD1 TYR A 64	33.740	7.657	16.217	1.00	28.26		C
ANISOU	238	CD1 TYR A 64	4287	3749	2702	-390	-993	-154	C
ATOM	239	CD2 TYR A 64	35.337	5.972	16.649	1.00	27.57		C
ANISOU	239	CD2 TYR A 64	4081	3736	2658	-376	-1191	-3	C
ATOM	240	CE1 TYR A 64	33.136	7.422	17.428	1.00	30.04		C
ANISOU	240	CE1 TYR A 64	4632	4046	2735	-398	-1014	-185	C
ATOM	241	CE2 TYR A 64	34.759	5.748	17.871	1.00	30.41		C
ANISOU	241	CE2 TYR A 64	4578	4156	2821	-398	-1233	-9	C
ATOM	242	CZ TYR A 64	33.665	6.483	18.263	1.00	31.23		C
ANISOU	242	CZ TYR A 64	4798	4272	2795	-413	-1133	-105	C
ATOM	243	OH TYR A 64	33.097	6.234	19.490	1.00	35.48		O
ANISOU	243	OH TYR A 64	5463	4907	3110	-440	-1153	-114	O
ATOM	244	N ASP A 65	38.114	7.369	12.615	1.00	30.09		N
ANISOU	244	N ASP A 65	3862	4000	3573	-429	-1030	42	N
ATOM	245	CA ASP A 65	38.494	7.029	11.228	1.00	33.72		C
ANISOU	245	CA ASP A 65	4177	4501	4132	-389	-910	85	C
ATOM	246	C ASP A 65	38.114	5.577	10.899	1.00	33.42		C
ANISOU	246	C ASP A 65	4136	4489	4072	-255	-869	102	C
ATOM	247	O ASP A 65	38.219	5.153	9.756	1.00	40.65		O
ANISOU	247	O ASP A 65	4965	5444	5038	-199	-760	109	O
ATOM	248	CB ASP A 65	39.944	7.334	10.918	1.00	37.67		C
ANISOU	248	CB ASP A 65	4472	5065	4774	-454	-950	105	C
ATOM	249	CG ASP A 65	40.874	6.754	11.909	1.00	46.99		C
ANISOU	249	CG ASP A 65	5571	6286	5998	-439	-1122	101	C
ATOM	250	OD1 ASP A 65	40.499	5.758	12.582	1.00	48.08		O
ANISOU	250	OD1 ASP A 65	5789	6415	6065	-348	-1192	107	O
ATOM	251	OD2 ASP A 65	41.985	7.309	12.012	1.00	57.44		O

ANISOU	251	OD2 ASP A 65	6744	7648	7432	-528	-1197	105	O
ATOM	252	N CYS A 66	37.636	4.844	11.903	1.00	31.63		N
ANISOU	252	N CYS A 66	4017	4239	3763	-212	-956	108	N
ATOM	253	CA CYS A 66	37.313	3.433	11.783	1.00	28.49		C
ANISOU	253	CA CYS A 66	3631	3831	3366	-102	-957	137	C
ATOM	254	C CYS A 66	35.898	3.150	12.250	1.00	26.93		C
ANISOU	254	C CYS A 66	3611	3588	3032	-96	-924	149	C
ATOM	255	O CYS A 66	35.222	3.989	12.849	1.00	28.01		O
ANISOU	255	O CYS A 66	3858	3719	3065	-162	-910	124	O
ATOM	256	CB CYS A 66	38.272	2.616	12.643	1.00	32.94		C
ANISOU	256	CB CYS A 66	4127	4406	3983	-64	-1130	174	C
ATOM	257	SG CYS A 66	38.260	3.019	14.426	1.00	38.42		S
ANISOU	257	SG CYS A 66	4954	5107	4535	-155	-1307	199	S
ATOM	258	N SER A 67	35.457	1.939	11.986	1.00	25.65		N
ANISOU	258	N SER A 67	3467	3395	2884	-17	-913	180	N
ATOM	259	CA SER A 67	34.156	1.462	12.426	1.00	25.86		C
ANISOU	259	CA SER A 67	3635	3387	2803	-22	-886	212	C
ATOM	260	C SER A 67	34.347	0.018	12.869	1.00	24.12		C
ANISOU	260	C SER A 67	3425	3118	2622	34	-997	287	C
ATOM	261	O SER A 67	35.351	-0.585	12.504	1.00	24.92		O
ANISOU	261	O SER A 67	3413	3201	2856	108	-1063	284	O
ATOM	262	CB SER A 67	33.166	1.506	11.252	1.00	22.83		C
ANISOU	262	CB SER A 67	3265	2985	2426	5	-740	177	C
ATOM	263	OG SER A 67	32.873	2.827	10.866	1.00	22.55		O
ANISOU	263	OG SER A 67	3237	2971	2360	-43	-656	131	O
ATOM	264	N PRO A 68	33.378	-0.561	13.602	1.00	26.60		N
ANISOU	264	N PRO A 68	3864	3408	2836	2	-1014	356	N
ATOM	265	CA PRO A 68	33.505	-1.989	13.994	1.00	28.48		C

ANISOU	265	CA	PRO A	68	4126	3567	3128	42	-1134	456	C
ATOM	266	C	PRO A	68	33.624	-2.909	12.759	1.00	30.88		C
ANISOU	266	C	PRO A	68	4351	3780	3601	148	-1108	413	C
ATOM	267	O	PRO A	68	33.326	-2.468	11.636	1.00	30.73		O
ANISOU	267	O	PRO A	68	4285	3783	3607	172	-976	319	O
ATOM	268	CB	PRO A	68	32.212	-2.273	14.778	1.00	26.43		C
ANISOU	268	CB	PRO A	68	4009	3315	2718	-42	-1104	539	C
ATOM	269	CG	PRO A	68	31.705	-0.930	15.197	1.00	26.66		C
ANISOU	269	CG	PRO A	68	4084	3452	2595	-115	-1006	473	C
ATOM	270	CD	PRO A	68	32.133	0.034	14.119	1.00	27.43		C
ANISOU	270	CD	PRO A	68	4083	3556	2783	-75	-924	353	C
ATOM	271	N	PRO A	69	34.065	-4.168	12.964	1.00	31.97		N
ANISOU	271	N	PRO A	69	4481	3813	3854	216	-1244	477	N
ATOM	272	CA	PRO A	69	34.183	-5.139	11.880	1.00	30.69		C
ANISOU	272	CA	PRO A	69	4256	3545	3859	330	-1237	410	C
ATOM	273	C	PRO A	69	32.851	-5.343	11.127	1.00	28.71		C
ANISOU	273	C	PRO A	69	4078	3259	3574	299	-1116	374	C
ATOM	274	O	PRO A	69	31.791	-5.431	11.741	1.00	29.67		O
ANISOU	274	O	PRO A	69	4309	3370	3593	201	-1104	463	O
ATOM	275	CB	PRO A	69	34.569	-6.425	12.605	1.00	34.32		C
ANISOU	275	CB	PRO A	69	4749	3865	4425	378	-1433	523	C
ATOM	276	CG	PRO A	69	35.130	-5.991	13.914	1.00	37.92		C
ANISOU	276	CG	PRO A	69	5232	4392	4784	313	-1554	633	C
ATOM	277	CD	PRO A	69	34.366	-4.763	14.277	1.00	35.57		C
ANISOU	277	CD	PRO A	69	5007	4233	4274	184	-1422	622	C
ATOM	278	N	VAL A	70	32.916	-5.383	9.805	1.00	27.58		N
ANISOU	278	N	VAL A	70	3860	3117	3503	377	-1025	242	N
ATOM	279	CA	VAL A	70	31.771	-5.731	8.982	1.00	26.35		C

ANISOU	279	CA	VAL A 70	3759	2917	3336	363	-946	194	C
ATOM	280	C	VAL A 70	31.658	-7.263	8.976	1.00	30.30		C
ANISOU	280	C	VAL A 70	4300	3232	3982	419	-1071	213	C
ATOM	281	O	VAL A 70	32.631	-7.965	8.676	1.00	30.66		O
ANISOU	281	O	VAL A 70	4273	3201	4176	545	-1152	150	O
ATOM	282	CB	VAL A 70	31.940	-5.190	7.562	1.00	26.67		C
ANISOU	282	CB	VAL A 70	3717	3043	3372	422	-816	46	C
ATOM	283	CG1	VAL A 70	30.768	-5.582	6.674	1.00	27.04		C
ANISOU	283	CG1	VAL A 70	3821	3050	3402	409	-762	-11	C
ATOM	284	CG2	VAL A 70	32.023	-3.674	7.578	1.00	28.34		C
ANISOU	284	CG2	VAL A 70	3901	3402	3463	353	-713	52	C
ATOM	285	N	THR A 71	30.488	-7.776	9.364	1.00	32.40		N
ANISOU	285	N	THR A 71	4671	3419	4219	323	-1094	304	N
ATOM	286	CA	THR A 71	30.228	-9.222	9.422	1.00	32.97		C
ANISOU	286	CA	THR A 71	4802	3284	4439	340	-1227	349	C
ATOM	287	C	THR A 71	28.955	-9.531	8.655	1.00	32.66		C
ANISOU	287	C	THR A 71	4807	3201	4400	281	-1167	297	C
ATOM	288	O	THR A 71	28.358	-8.649	8.027	1.00	29.12		O
ANISOU	288	O	THR A 71	4335	2889	3842	249	-1030	223	O
ATOM	289	CB	THR A 71	30.131	-9.761	10.888	1.00	35.00		C
ANISOU	289	CB	THR A 71	5152	3465	4683	246	-1362	570	C
ATOM	290	OG1	THR A 71	28.947	-9.274	11.530	1.00	31.64		O
ANISOU	290	OG1	THR A 71	4798	3137	4087	82	-1277	681	O
ATOM	291	CG2	THR A 71	31.370	-9.369	11.715	1.00	35.19		C
ANISOU	291	CG2	THR A 71	5133	3552	4684	294	-1444	627	C
ATOM	292	N	SER A 72	28.551	-10.794	8.662	1.00	33.15		N
ANISOU	292	N	SER A 72	4931	3062	4603	267	-1286	335	N
ATOM	293	CA	SER A 72	27.259	-11.176	8.097	1.00	33.84		C

ANISOU	293	CA	SER A 72	5060	3095	4703	179	-1259	310	C
ATOM	294	C	SER A 72	26.096	-10.605	8.908	1.00	33.53		C
ANISOU	294	C	SER A 72	5056	3170	4513	0	-1179	466	C
ATOM	295	O	SER A 72	24.956	-10.610	8.448	1.00	34.28		O
ANISOU	295	O	SER A 72	5151	3281	4593	-83	-1126	444	O
ATOM	296	CB	SER A 72	27.144	-12.695	8.049	1.00	36.27		C
ANISOU	296	CB	SER A 72	5431	3130	5221	186	-1430	331	C
ATOM	297	OG	SER A 72	27.513	-13.235	9.288	1.00	37.26		O
ANISOU	297	OG	SER A 72	5614	3150	5394	141	-1560	537	O
ATOM	298	N	SER A 73	26.377	-10.133	10.121	1.00	33.38		N
ANISOU	298	N	SER A 73	5060	3241	4383	-57	-1174	613	N
ATOM	299	CA	SER A 73	25.352	-9.559	10.981	1.00	33.18		C
ANISOU	299	CA	SER A 73	5060	3351	4194	-213	-1080	741	C
ATOM	300	C	SER A 73	25.972	-8.426	11.776	1.00	30.26		C
ANISOU	300	C	SER A 73	4681	3156	3661	-201	-1019	763	C
ATOM	301	O	SER A 73	26.326	-8.587	12.937	1.00	31.69		O
ANISOU	301	O	SER A 73	4917	3349	3773	-254	-1087	907	O
ATOM	302	CB	SER A 73	24.809	-10.645	11.912	1.00	37.09		C
ANISOU	302	CB	SER A 73	5636	3727	4731	-351	-1182	951	C
ATOM	303	OG	SER A 73	23.805	-10.132	12.759	1.00	40.10		O
ANISOU	303	OG	SER A 73	6026	4270	4940	-505	-1069	1070	O
ATOM	304	N	THR A 74	26.113	-7.277	11.132	1.00	26.87		N
ANISOU	304	N	THR A 74	4188	2854	3167	-137	-904	621	N
ATOM	305	CA	THR A 74	26.839	-6.170	11.694	1.00	24.85		C
ANISOU	305	CA	THR A 74	3917	2731	2793	-114	-864	606	C
ATOM	306	C	THR A 74	25.890	-5.307	12.517	1.00	23.08		C
ANISOU	306	C	THR A 74	3720	2656	2395	-221	-753	653	C
ATOM	307	O	THR A 74	24.978	-4.722	11.964	1.00	19.79		O

ANISOU	307	O	THR A 74	3266	2301	1952	-234	-641	583	O
ATOM	308	CB	THR A 74	27.472	-5.303	10.596	1.00	24.74		C
ANISOU	308	CB	THR A 74	3823	2771	2806	-9	-797	444	C
ATOM	309	OG1	THR A 74	28.135	-6.127	9.624	1.00	24.36		O
ANISOU	309	OG1	THR A 74	3734	2612	2909	97	-860	362	O
ATOM	310	CG2	THR A 74	28.459	-4.309	11.197	1.00	23.91		C
ANISOU	310	CG2	THR A 74	3697	2764	2625	8	-796	436	C
ATOM	311	N	PRO A 75	26.110	-5.207	13.847	1.00	22.11		N
ANISOU	311	N	PRO A 75	3657	2600	2145	-288	-787	763	N
ATOM	312	CA	PRO A 75	25.223	-4.357	14.645	1.00	21.14		C
ANISOU	312	CA	PRO A 75	3554	2639	1839	-374	-664	774	C
ATOM	313	C	PRO A 75	25.435	-2.879	14.344	1.00	19.89		C
ANISOU	313	C	PRO A 75	3354	2576	1627	-312	-573	621	C
ATOM	314	O	PRO A 75	26.577	-2.404	14.181	1.00	19.93		O
ANISOU	314	O	PRO A 75	3343	2567	1663	-244	-630	562	O
ATOM	315	CB	PRO A 75	25.625	-4.668	16.120	1.00	23.75		C
ANISOU	315	CB	PRO A 75	3974	3024	2026	-454	-746	921	C
ATOM	316	CG	PRO A 75	26.534	-5.855	16.058	1.00	25.55		C
ANISOU	316	CG	PRO A 75	4228	3085	2394	-418	-929	1022	C
ATOM	317	CD	PRO A 75	27.136	-5.860	14.669	1.00	25.20		C
ANISOU	317	CD	PRO A 75	4098	2930	2545	-283	-945	875	C
ATOM	318	N	ALA A 76	24.361	-2.118	14.327	1.00	19.27		N
ANISOU	318	N	ALA A 76	3250	2593	1479	-338	-439	561	N
ATOM	319	CA	ALA A 76	24.463	-0.736	13.931	1.00	19.99		C
ANISOU	319	CA	ALA A 76	3307	2734	1556	-274	-368	422	C
ATOM	320	C	ALA A 76	23.289	0.060	14.461	1.00	19.73		C
ANISOU	320	C	ALA A 76	3263	2821	1414	-306	-236	372	C
ATOM	321	O	ALA A 76	22.312	-0.517	14.949	1.00	20.44		O

ANISOU	321	O	ALA A 76	3347	2971	1449	-381	-179	444	O
ATOM	322	CB	ALA A 76	24.520	-0.657	12.397	1.00	18.61		C
ANISOU	322	CB	ALA A 76	3066	2477	1529	-196	-362	349	C
ATOM	323	N	LYS A 77	23.401	1.380	14.332	1.00	20.25		N
ANISOU	323	N	LYS A 77	3315	2913	1464	-249	-190	247	N
ATOM	324	CA	LYS A 77	22.328	2.322	14.624	1.00	20.52		C
ANISOU	324	CA	LYS A 77	3321	3035	1440	-235	-67	153	C
ATOM	325	C	LYS A 77	21.829	2.924	13.308	1.00	19.10		C
ANISOU	325	C	LYS A 77	3066	2789	1401	-158	-36	84	C
ATOM	326	O	LYS A 77	22.642	3.384	12.484	1.00	21.08		O
ANISOU	326	O	LYS A 77	3319	2955	1735	-108	-94	55	O
ATOM	327	CB	LYS A 77	22.840	3.427	15.518	1.00	23.70		C
ANISOU	327	CB	LYS A 77	3781	3490	1734	-221	-64	52	C
ATOM	328	CG	LYS A 77	23.352	2.980	16.891	1.00	27.60		C
ANISOU	328	CG	LYS A 77	4362	4075	2048	-298	-109	111	C
ATOM	329	CD	LYS A 77	22.195	2.757	17.848	1.00	33.98		C
ANISOU	329	CD	LYS A 77	5172	5043	2694	-359	15	127	C
ATOM	330	CE	LYS A 77	22.641	2.601	19.300	1.00	39.40		C
ANISOU	330	CE	LYS A 77	5964	5858	3148	-437	-17	165	C
ATOM	331	NZ	LYS A 77	22.861	1.174	19.626	1.00	40.77		N
ANISOU	331	NZ	LYS A 77	6176	6028	3285	-534	-97	381	N
ATOM	332	N	LEU A 78	20.511	2.913	13.110	1.00	19.14		N
ANISOU	332	N	LEU A 78	2998	2844	1430	-155	50	70	N
ATOM	333	CA	LEU A 78	19.891	3.513	11.912	1.00	19.21		C
ANISOU	333	CA	LEU A 78	2934	2802	1564	-80	63	15	C
ATOM	334	C	LEU A 78	19.404	4.898	12.301	1.00	20.55		C
ANISOU	334	C	LEU A 78	3084	3004	1719	-10	132	-109	C
ATOM	335	O	LEU A 78	18.721	5.073	13.322	1.00	21.84		O

ANISOU	335	O	LEU A 78	3227	3279	1792	-22	225	-158	O
ATOM	336	CB	LEU A 78	18.739	2.658	11.388	1.00	18.13		C
ANISOU	336	CB	LEU A 78	2710	2689	1490	-113	87	68	C
ATOM	337	CG	LEU A 78	17.977	3.159	10.162	1.00	18.80		C
ANISOU	337	CG	LEU A 78	2714	2739	1693	-42	79	25	C
ATOM	338	CD1	LEU A 78	18.758	2.956	8.861	1.00	17.95		C
ANISOU	338	CD1	LEU A 78	2641	2529	1650	-14	-20	46	C
ATOM	339	CD2	LEU A 78	16.615	2.489	10.078	1.00	19.38		C
ANISOU	339	CD2	LEU A 78	2675	2878	1811	-88	120	58	C
ATOM	340	N	THR A 79	19.806	5.887	11.511	1.00	19.90		N
ANISOU	340	N	THR A 79	3013	2825	1724	62	85	-160	N
ATOM	341	CA	THR A 79	19.318	7.247	11.639	1.00	22.10		C
ANISOU	341	CA	THR A 79	3273	3079	2044	147	120	-278	C
ATOM	342	C	THR A 79	18.704	7.631	10.279	1.00	21.94		C
ANISOU	342	C	THR A 79	3187	2985	2166	215	84	-258	C
ATOM	343	O	THR A 79	18.696	6.823	9.330	1.00	19.29		O
ANISOU	343	O	THR A 79	2827	2639	1863	186	41	-168	O
ATOM	344	CB	THR A 79	20.442	8.227	12.062	1.00	22.98		C
ANISOU	344	CB	THR A 79	3479	3114	2137	155	68	-346	C
ATOM	345	OG1	THR A 79	21.539	8.117	11.165	1.00	25.32		O
ANISOU	345	OG1	THR A 79	3808	3323	2490	126	-22	-264	O
ATOM	346	CG2	THR A 79	20.952	7.930	13.486	1.00	25.33		C
ANISOU	346	CG2	THR A 79	3846	3505	2275	92	87	-378	C
ATOM	347	N	ASN A 80	18.151	8.836	10.214	1.00	21.63		N
ANISOU	347	N	ASN A 80	3121	2894	2206	308	93	-348	N
ATOM	348	CA	ASN A 80	17.454	9.309	9.036	1.00	23.31		C
ANISOU	348	CA	ASN A 80	3270	3038	2549	382	44	-322	C
ATOM	349	C	ASN A 80	18.184	10.504	8.407	1.00	25.01		C

ANISOU	349	C	ASN A 80	3559	3097	2845	422	-45	-317	C
ATOM	350	O	ASN A 80	18.566	11.438	9.102	1.00	25.19		O
ANISOU	350	O	ASN A 80	3638	3051	2882	449	-45	-409	O
ATOM	351	CB	ASN A 80	16.029	9.678	9.397	1.00	26.11		C
ANISOU	351	CB	ASN A 80	3502	3451	2965	470	113	-412	C
ATOM	352	CG	ASN A 80	15.236	10.180	8.215	1.00	29.14		C
ANISOU	352	CG	ASN A 80	3809	3765	3496	557	36	-379	C
ATOM	353	OD1	ASN A 80	14.966	11.360	8.121	1.00	32.46		O
ANISOU	353	OD1	ASN A 80	4223	4084	4025	665	1	-445	O
ATOM	354	ND2	ASN A 80	14.867	9.290	7.307	1.00	29.80		N
ANISOU	354	ND2	ASN A 80	3840	3893	3589	513	-7	-278	N
ATOM	355	N	ASN A 81	18.344	10.455	7.083	1.00	25.76		N
ANISOU	355	N	ASN A 81	3657	3141	2988	415	-123	-208	N
ATOM	356	CA	ASN A 81	19.023	11.484	6.325	1.00	25.03		C
ANISOU	356	CA	ASN A 81	3633	2915	2964	424	-207	-154	C
ATOM	357	C	ASN A 81	18.224	11.869	5.085	1.00	29.04		C
ANISOU	357	C	ASN A 81	4099	3377	3559	486	-283	-77	C
ATOM	358	O	ASN A 81	17.561	11.022	4.458	1.00	24.16		O
ANISOU	358	O	ASN A 81	3416	2849	2915	483	-289	-32	O
ATOM	359	CB	ASN A 81	20.403	10.983	5.907	1.00	25.45		C
ANISOU	359	CB	ASN A 81	3749	2981	2939	321	-226	-68	C
ATOM	360	CG	ASN A 81	21.239	12.067	5.273	1.00	28.46		C
ANISOU	360	CG	ASN A 81	4194	3240	3379	296	-294	0	C
ATOM	361	OD1	ASN A 81	21.514	13.105	5.891	1.00	34.17		O
ANISOU	361	OD1	ASN A 81	4961	3850	4171	306	-318	-59	O
ATOM	362	ND2	ASN A 81	21.626	11.852	4.013	1.00	27.85		N
ANISOU	362	ND2	ASN A 81	4124	3184	3273	255	-328	123	N
ATOM	363	N	ASP A 82	18.307	13.164	4.748	1.00	28.17		N

ANISOU	363	N	ASP	A	82	4032	3115	3556	534	-359	-56	N
ATOM	364	CA	ASP	A	82	17.707	13.739	3.568	1.00	29.84		C
ANISOU	364	CA	ASP	A	82	4229	3255	3853	590	-463	47	C
ATOM	365	C	ASP	A	82	18.792	13.823	2.486	1.00	29.21		C
ANISOU	365	C	ASP	A	82	4238	3154	3708	488	-519	206	C
ATOM	366	O	ASP	A	82	19.731	14.590	2.604	1.00	31.36		O
ANISOU	366	O	ASP	A	82	4587	3320	4009	436	-539	239	O
ATOM	367	CB	ASP	A	82	17.144	15.132	3.920	1.00	32.11		C
ANISOU	367	CB	ASP	A	82	4516	3368	4318	709	-523	-21	C
ATOM	368	CG	ASP	A	82	16.448	15.823	2.741	1.00	35.15		C
ANISOU	368	CG	ASP	A	82	4887	3654	4816	783	-661	102	C
ATOM	369	OD1	ASP	A	82	16.541	15.381	1.567	1.00	31.71		O
ANISOU	369	OD1	ASP	A	82	4466	3284	4299	724	-720	256	O
ATOM	370	OD2	ASP	A	82	15.804	16.845	3.003	1.00	38.53		O
ANISOU	370	OD2	ASP	A	82	5292	3934	5414	907	-722	39	O
ATOM	371	N	PHE	A	83	18.655	12.999	1.456	1.00	26.48		N
ANISOU	371	N	PHE	A	83	3873	2922	3266	454	-537	295	N
ATOM	372	CA	PHE	A	83	19.621	12.897	0.372	1.00	25.79		C
ANISOU	372	CA	PHE	A	83	3852	2872	3074	359	-561	432	C
ATOM	373	C	PHE	A	83	19.294	13.779	-0.809	1.00	26.38		C
ANISOU	373	C	PHE	A	83	3967	2876	3180	374	-680	585	C
ATOM	374	O	PHE	A	83	19.997	13.747	-1.837	1.00	26.89		O
ANISOU	374	O	PHE	A	83	4087	2999	3131	290	-696	717	O
ATOM	375	CB	PHE	A	83	19.645	11.458	-0.155	1.00	24.31		C
ANISOU	375	CB	PHE	A	83	3634	2856	2746	319	-520	422	C
ATOM	376	CG	PHE	A	83	20.201	10.483	0.807	1.00	22.98		C
ANISOU	376	CG	PHE	A	83	3446	2753	2533	282	-421	318	C
ATOM	377	CD1	PHE	A	83	19.386	9.905	1.772	1.00	23.14		C

ANISOU	377	CD1 PHE A 83	3403	2799	2590	323	-381	213	C
ATOM	378	CD2 PHE A 83	21.538	10.146	0.770	1.00	24.04		C
ANISOU	378	CD2 PHE A 83	3615	2926	2591	204	-372	336	C
ATOM	379	CE1 PHE A 83	19.882	9.005	2.684	1.00	22.91		C
ANISOU	379	CE1 PHE A 83	3369	2823	2514	281	-307	145	C
ATOM	380	CE2 PHE A 83	22.049	9.215	1.680	1.00	24.95		C
ANISOU	380	CE2 PHE A 83	3713	3090	2678	180	-307	252	C
ATOM	381	CZ PHE A 83	21.220	8.642	2.629	1.00	24.19		C
ANISOU	381	CZ PHE A 83	3576	3007	2609	215	-282	167	C
ATOM	382	N SER A 84	18.216	14.533	-0.689	1.00	27.87		N
ANISOU	382	N SER A 84	4122	2954	3514	485	-764	571	N
ATOM	383	CA SER A 84	17.691	15.291	-1.804	1.00	31.22		C
ANISOU	383	CA SER A 84	4575	3307	3980	520	-909	728	C
ATOM	384	C SER A 84	18.364	16.661	-1.930	1.00	33.63		C
ANISOU	384	C SER A 84	4979	3413	4384	484	-981	847	C
ATOM	385	O SER A 84	19.053	17.123	-1.010	1.00	32.89		O
ANISOU	385	O SER A 84	4916	3215	4364	456	-927	770	O
ATOM	386	CB SER A 84	16.177	15.471	-1.628	1.00	32.11		C
ANISOU	386	CB SER A 84	4581	3381	4237	672	-985	659	C
ATOM	387	OG SER A 84	15.881	16.363	-0.558	1.00	31.43		O
ANISOU	387	OG SER A 84	4470	3131	4340	772	-977	540	O
ATOM	388	N GLU A 85	18.162	17.274	-3.089	1.00	36.53		N
ANISOU	388	N GLU A 85	5401	3730	4747	473	-1115	1044	N
ATOM	389	CA GLU A 85	18.619	18.647	-3.393	1.00	43.88		C
ANISOU	389	CA GLU A 85	6434	4444	5796	433	-1223	1208	C
ATOM	390	C GLU A 85	18.126	19.678	-2.369	1.00	41.06		C
ANISOU	390	C GLU A 85	6065	3830	5707	560	-1282	1086	C
ATOM	391	O GLU A 85	18.865	20.588	-2.009	1.00	45.29		O

ANISOU	391	O	GLU A 85	6679	4177	6351	502	-1307	1116	O
ATOM	392	CB	GLU A 85	18.136	19.054	-4.793	1.00	49.60		C
ANISOU	392	CB	GLU A 85	7209	5165	6472	430	-1385	1447	C
ATOM	393	CG	GLU A 85	16.623	19.278	-4.879	1.00	61.68		C
ANISOU	393	CG	GLU A 85	8661	6625	8151	614	-1528	1412	C
ATOM	394	CD	GLU A 85	16.145	19.645	-6.265	1.00	82.50		C
ANISOU	394	CD	GLU A 85	11351	9268	10726	609	-1716	1659	C
ATOM	395	OE1	GLU A 85	16.781	19.220	-7.256	1.00	99.93		O
ANISOU	395	OE1	GLU A 85	13633	11649	12686	467	-1695	1813	O
ATOM	396	OE2	GLU A 85	15.123	20.359	-6.362	1.00	105.64		O
ANISOU	396	OE2	GLU A 85	14246	12040	13853	755	-1888	1696	O
ATOM	397	N	GLY A 86	16.885	19.514	-1.909	1.00	41.12		N
ANISOU	397	N	GLY A 86	5965	3837	5822	731	-1302	937	N
ATOM	398	CA	GLY A 86	16.291	20.353	-0.880	1.00	47.77		C
ANISOU	398	CA	GLY A 86	6768	4478	6905	883	-1330	765	C
ATOM	399	C	GLY A 86	16.385	19.668	0.468	1.00	53.59		C
ANISOU	399	C	GLY A 86	7437	5328	7598	900	-1150	509	C
ATOM	400	O	GLY A 86	15.374	19.175	0.979	1.00	65.89		O
ANISOU	400	O	GLY A 86	8866	6986	9185	1019	-1095	357	O
ATOM	401	N	GLY A 87	17.594	19.600	1.036	1.00	51.83		N
ANISOU	401	N	GLY A 87	7290	5106	7297	771	-1061	474	N
ATOM	402	CA	GLY A 87	17.794	18.882	2.285	1.00	52.81		C
ANISOU	402	CA	GLY A 87	7367	5355	7342	765	-904	261	C
ATOM	403	C	GLY A 87	18.910	19.315	3.211	1.00	62.62		C
ANISOU	403	C	GLY A 87	8692	6507	8593	681	-862	172	C
ATOM	404	O	GLY A 87	19.680	20.215	2.905	1.00	62.83		O
ANISOU	404	O	GLY A 87	8815	6356	8701	603	-950	275	O
ATOM	405	N	ASP A 88	18.971	18.648	4.361	1.00	74.54		N

ANISOU	405	N	ASP	A	88	10162	8145	10015	686	-735	-14	N
ATOM	406	CA	ASP	A	88	19.937	18.947	5.416	1.00	87.16		C
ANISOU	406	CA	ASP	A	88	11828	9689	11599	616	-700	-134	C
ATOM	407	C	ASP	A	88	21.306	18.296	5.180	1.00	90.60		C
ANISOU	407	C	ASP	A	88	12302	10232	11889	434	-663	-20	C
ATOM	408	O	ASP	A	88	22.274	18.624	5.866	1.00	87.73		O
ANISOU	408	O	ASP	A	88	11994	9812	11528	350	-668	-79	O
ATOM	409	CB	ASP	A	88	19.377	18.457	6.760	1.00	91.01		C
ANISOU	409	CB	ASP	A	88	12258	10302	12022	697	-582	-369	C
ATOM	410	CG	ASP	A	88	20.015	19.149	7.964	1.00	101.42		C
ANISOU	410	CG	ASP	A	88	13654	11516	13365	681	-584	-549	C
ATOM	411	OD1	ASP	A	88	20.584	20.249	7.806	1.00	103.34		O
ANISOU	411	OD1	ASP	A	88	13984	11531	13748	651	-697	-529	O
ATOM	412	OD2	ASP	A	88	19.944	18.588	9.081	1.00	101.36		O
ANISOU	412	OD2	ASP	A	88	13626	11657	13230	690	-479	-709	O
ATOM	413	N	GLY	A	89	21.390	17.392	4.203	1.00	91.60		N
ANISOU	413	N	GLY	A	89	12392	10513	11898	379	-634	129	N
ATOM	414	CA	GLY	A	89	22.563	16.533	4.020	1.00	84.19		C
ANISOU	414	CA	GLY	A	89	11456	9719	10814	241	-573	200	C
ATOM	415	C	GLY	A	89	23.829	17.168	3.455	1.00	82.82		C
ANISOU	415	C	GLY	A	89	11336	9467	10666	100	-621	343	C
ATOM	416	O	GLY	A	89	24.813	16.461	3.210	1.00	86.23		O
ANISOU	416	O	GLY	A	89	11743	10032	10988	-3	-564	401	O
ATOM	417	N	GLY	A	90	23.821	18.483	3.235	1.00	71.24		N
ANISOU	417	N	GLY	A	90	9933	7780	9355	93	-726	403	N
ATOM	418	CA	GLY	A	90	25.017	19.178	2.756	1.00	64.19		C
ANISOU	418	CA	GLY	A	90	9086	6799	8506	-68	-774	554	C
ATOM	419	C	GLY	A	90	25.202	18.994	1.259	1.00	57.69		C

ANISOU	419	C	GLY A 90	8258	6069	7591	-144	-773	791	C
ATOM	420	O	GLY A 90	24.319	19.347	0.462	1.00	65.26		O
ANISOU	420	O	GLY A 90	9244	6972	8581	-76	-844	894	O
ATOM	421	N	GLY A 91	26.343	18.441	0.861	1.00	46.81		N
ANISOU	421	N	GLY A 91	6841	4850	6093	-280	-695	875	N
ATOM	422	CA	GLY A 91	26.617	18.274	-0.563	1.00	47.11		C
ANISOU	422	CA	GLY A 91	6877	5013	6011	-363	-673	1088	C
ATOM	423	C	GLY A 91	25.935	17.057	-1.171	1.00	39.88		C
ANISOU	423	C	GLY A 91	5919	4310	4923	-273	-608	1060	C
ATOM	424	O	GLY A 91	25.219	16.345	-0.484	1.00	33.73		O
ANISOU	424	O	GLY A 91	5108	3571	4137	-156	-583	893	O
ATOM	425	N	PRO A 92	26.154	16.816	-2.480	1.00	39.36		N
ANISOU	425	N	PRO A 92	5857	4390	4708	-340	-583	1224	N
ATOM	426	CA	PRO A 92	25.653	15.599	-3.107	1.00	35.52		C
ANISOU	426	CA	PRO A 92	5335	4113	4047	-271	-527	1178	C
ATOM	427	C	PRO A 92	26.307	14.357	-2.498	1.00	31.97		C
ANISOU	427	C	PRO A 92	4805	3815	3525	-264	-407	1014	C
ATOM	428	O	PRO A 92	27.379	14.444	-1.908	1.00	29.21		O
ANISOU	428	O	PRO A 92	4418	3461	3219	-340	-358	987	O
ATOM	429	CB	PRO A 92	26.066	15.757	-4.584	1.00	37.96		C
ANISOU	429	CB	PRO A 92	5675	4554	4193	-376	-514	1386	C
ATOM	430	CG	PRO A 92	26.373	17.202	-4.757	1.00	41.92		C
ANISOU	430	CG	PRO A 92	6243	4868	4816	-478	-601	1579	C
ATOM	431	CD	PRO A 92	26.917	17.635	-3.433	1.00	39.93		C
ANISOU	431	CD	PRO A 92	5967	4451	4753	-496	-600	1459	C
ATOM	432	N	SER A 93	25.657	13.217	-2.641	1.00	29.51		N
ANISOU	432	N	SER A 93	4466	3625	3122	-175	-380	911	N
ATOM	433	CA	SER A 93	26.215	11.953	-2.187	1.00	29.40		C

ANISOU	433	CA	SER A	93	4386	3738	3047	-159	-287	772	C
ATOM	434	C	SER A	93	27.586	11.647	-2.806	1.00	29.08		C
ANISOU	434	C	SER A	93	4296	3848	2904	-253	-192	820	C
ATOM	435	O	SER A	93	27.809	11.814	-4.015	1.00	28.77		O
ANISOU	435	O	SER A	93	4271	3919	2739	-309	-166	938	O
ATOM	436	CB	SER A	93	25.230	10.829	-2.465	1.00	29.87		C
ANISOU	436	CB	SER A	93	4435	3883	3032	-66	-294	680	C
ATOM	437	OG	SER A	93	24.095	10.952	-1.622	1.00	27.99		O
ANISOU	437	OG	SER A	93	4200	3532	2904	17	-351	607	O
ATOM	438	N	GLU A	94	28.505	11.211	-1.953	1.00	29.31		N
ANISOU	438	N	GLU A	94	4260	3894	2984	-270	-139	730	N
ATOM	439	CA	GLU A	94	29.894	10.939	-2.357	1.00	33.93		C
ANISOU	439	CA	GLU A	94	4759	4621	3513	-348	-44	755	C
ATOM	440	C	GLU A	94	30.017	9.955	-3.510	1.00	31.34		C
ANISOU	440	C	GLU A	94	4400	4496	3012	-317	37	728	C
ATOM	441	O	GLU A	94	30.772	10.197	-4.447	1.00	38.93		O
ANISOU	441	O	GLU A	94	5324	5597	3871	-398	115	820	O
ATOM	442	CB	GLU A	94	30.667	10.344	-1.176	1.00	39.61		C
ANISOU	442	CB	GLU A	94	5402	5328	4320	-330	-28	632	C
ATOM	443	CG	GLU A	94	31.200	11.315	-0.145	1.00	56.10		C
ANISOU	443	CG	GLU A	94	7487	7278	6550	-406	-83	653	C
ATOM	444	CD	GLU A	94	32.238	12.262	-0.724	1.00	70.25		C
ANISOU	444	CD	GLU A	94	9231	9096	8365	-554	-53	796	C
ATOM	445	OE1	GLU A	94	33.131	11.800	-1.470	1.00	87.74		O
ANISOU	445	OE1	GLU A	94	11346	11492	10500	-596	47	826	O
ATOM	446	OE2	GLU A	94	32.147	13.474	-0.440	1.00	69.43		O
ANISOU	446	OE2	GLU A	94	9185	8831	8365	-631	-128	876	O
ATOM	447	N	CYS A	95	29.271	8.850	-3.446	1.00	26.91		N

ANISOU	447	N	CYS A 95	3854	3957	2414	-207	20	597	N
ATOM	448	CA	CYS A 95	29.486	7.727	-4.368	1.00	27.05		C
ANISOU	448	CA	CYS A 95	3839	4149	2288	-159	90	511	C
ATOM	449	C	CYS A 95	29.330	8.125	-5.838	1.00	29.48		C
ANISOU	449	C	CYS A 95	4192	4597	2411	-209	118	619	C
ATOM	450	O	CYS A 95	30.194	7.800	-6.628	1.00	29.45		O
ANISOU	450	O	CYS A 95	4131	4777	2279	-236	225	606	O
ATOM	451	CB	CYS A 95	28.599	6.519	-4.024	1.00	26.47		C
ANISOU	451	CB	CYS A 95	3789	4035	2233	-49	38	361	C
ATOM	452	SG	CYS A 95	28.972	5.809	-2.372	1.00	28.05		S
ANISOU	452	SG	CYS A 95	3937	4116	2605	-2	17	250	S
ATOM	453	N	ASP A 96	28.240	8.812	-6.187	1.00	31.84		N
ANISOU	453	N	ASP A 96	4587	4821	2691	-215	20	722	N
ATOM	454	CA	ASP A 96	27.953	9.190	-7.592	1.00	34.65		C
ANISOU	454	CA	ASP A 96	5006	5308	2851	-263	13	846	C
ATOM	455	C	ASP A 96	27.930	10.702	-7.817	1.00	38.32		C
ANISOU	455	C	ASP A 96	5528	5684	3349	-368	-42	1082	C
ATOM	456	O	ASP A 96	27.592	11.163	-8.924	1.00	36.98		O
ANISOU	456	O	ASP A 96	5429	5598	3024	-417	-78	1229	O
ATOM	457	CB	ASP A 96	26.623	8.576	-8.066	1.00	37.33		C
ANISOU	457	CB	ASP A 96	5411	5654	3118	-175	-89	775	C
ATOM	458	CG	ASP A 96	25.475	8.768	-7.064	1.00	40.09		C
ANISOU	458	CG	ASP A 96	5778	5794	3663	-107	-209	747	C
ATOM	459	OD1	ASP A 96	25.682	9.284	-5.949	1.00	43.07		O
ANISOU	459	OD1	ASP A 96	6128	6022	4214	-113	-209	753	O
ATOM	460	OD2	ASP A 96	24.346	8.375	-7.389	1.00	49.20		O
ANISOU	460	OD2	ASP A 96	6961	6943	4788	-48	-302	706	O
ATOM	461	N	GLU A 97	28.271	11.479	-6.784	1.00	37.26		N

ANISOU	461	N	GLU A 97	5371	5371	3414	-406	-64	1121	N
ATOM	462	CA	GLU A 97	28.273	12.946	-6.892	1.00	40.36		C
ANISOU	462	CA	GLU A 97	5823	5625	3885	-507	-136	1335	C
ATOM	463	C	GLU A 97	26.910	13.429	-7.408	1.00	35.27		C
ANISOU	463	C	GLU A 97	5283	4890	3229	-450	-283	1427	C
ATOM	464	O	GLU A 97	26.832	14.186	-8.356	1.00	41.09		O
ANISOU	464	O	GLU A 97	6088	5650	3875	-529	-332	1633	O
ATOM	465	CB	GLU A 97	29.415	13.420	-7.814	1.00	48.24		C
ANISOU	465	CB	GLU A 97	6795	6783	4750	-667	-35	1510	C
ATOM	466	CG	GLU A 97	30.799	12.918	-7.395	1.00	60.13		C
ANISOU	466	CG	GLU A 97	8164	8408	6276	-717	113	1416	C
ATOM	467	CD	GLU A 97	31.884	13.045	-8.475	1.00	65.91		C
ANISOU	467	CD	GLU A 97	8831	9387	6825	-858	258	1548	C
ATOM	468	OE1	GLU A 97	32.480	14.138	-8.623	1.00	72.41		O
ANISOU	468	OE1	GLU A 97	9649	10165	7698	-1022	262	1755	O
ATOM	469	OE2	GLU A 97	32.180	12.027	-9.146	1.00	70.30		O
ANISOU	469	OE2	GLU A 97	9331	10186	7194	-807	377	1433	O
ATOM	470	N	SER A 98	25.843	12.919	-6.808	1.00	31.67		N
ANISOU	470	N	SER A 98	4826	4349	2858	-316	-355	1280	N
ATOM	471	CA	SER A 98	24.493	13.290	-7.167	1.00	30.86		C
ANISOU	471	CA	SER A 98	4785	4161	2780	-241	-501	1338	C
ATOM	472	C	SER A 98	23.611	13.374	-5.947	1.00	28.92		C
ANISOU	472	C	SER A 98	4510	3727	2750	-128	-565	1208	C
ATOM	473	O	SER A 98	23.948	12.867	-4.875	1.00	25.09		O
ANISOU	473	O	SER A 98	3970	3216	2346	-103	-493	1054	O
ATOM	474	CB	SER A 98	23.897	12.251	-8.119	1.00	33.13		C
ANISOU	474	CB	SER A 98	5080	4640	2868	-193	-512	1277	C
ATOM	475	OG	SER A 98	24.497	12.324	-9.403	1.00	38.26		O

ANISOU	475	OG	SER A 98	5775	5480	3282	-290	-469	1412	O
ATOM	476	N	TYR A 99	22.477	14.037	-6.125	1.00	29.62		N
ANISOU	476	N	TYR A 99	4633	3696	2926	-59	-705	1276	N
ATOM	477	CA	TYR A 99	21.428	14.043	-5.132	1.00	29.74		C
ANISOU	477	CA	TYR A 99	4601	3577	3121	66	-758	1141	C
ATOM	478	C	TYR A 99	20.503	12.900	-5.466	1.00	28.75		C
ANISOU	478	C	TYR A 99	4427	3588	2910	137	-776	1038	C
ATOM	479	O	TYR A 99	20.499	12.405	-6.599	1.00	28.19		O
ANISOU	479	O	TYR A 99	4385	3671	2656	103	-797	1096	O
ATOM	480	CB	TYR A 99	20.664	15.373	-5.154	1.00	30.30		C
ANISOU	480	CB	TYR A 99	4710	3440	3363	124	-907	1254	C
ATOM	481	CG	TYR A 99	21.468	16.507	-4.587	1.00	31.69		C
ANISOU	481	CG	TYR A 99	4934	3428	3679	61	-907	1316	C
ATOM	482	CD1	TYR A 99	21.784	16.549	-3.222	1.00	31.99		C
ANISOU	482	CD1	TYR A 99	4936	3372	3847	85	-838	1146	C
ATOM	483	CD2	TYR A 99	21.939	17.519	-5.408	1.00	34.81		C
ANISOU	483	CD2	TYR A 99	5414	3744	4069	-38	-983	1549	C
ATOM	484	CE1	TYR A 99	22.539	17.583	-2.697	1.00	32.48		C
ANISOU	484	CE1	TYR A 99	5045	3255	4041	18	-856	1185	C
ATOM	485	CE2	TYR A 99	22.681	18.560	-4.896	1.00	38.56		C
ANISOU	485	CE2	TYR A 99	5932	4025	4693	-115	-999	1608	C
ATOM	486	CZ	TYR A 99	22.975	18.588	-3.536	1.00	36.17		C
ANISOU	486	CZ	TYR A 99	5591	3622	4530	-83	-940	1412	C
ATOM	487	OH	TYR A 99	23.713	19.623	-3.036	1.00	39.02		O
ANISOU	487	OH	TYR A 99	5998	3783	5043	-167	-974	1455	O
ATOM	488	N	HIS A 100	19.688	12.527	-4.491	1.00	27.30		N
ANISOU	488	N	HIS A 100	4169	3348	2854	228	-773	889	N
ATOM	489	CA	HIS A 100	18.769	11.409	-4.631	1.00	28.43		C

ANISOU	489	CA	HIS A 100	4248	3599	2956	279	-791	784	C
ATOM	490	C	HIS A 100	17.419	11.717	-4.029	1.00	29.53		C
ANISOU	490	C	HIS A 100	4305	3646	3271	388	-865	727	C
ATOM	491	O	HIS A 100	17.328	12.392	-3.013	1.00	33.60		O
ANISOU	491	O	HIS A 100	4796	4034	3938	436	-837	677	O
ATOM	492	CB	HIS A 100	19.331	10.186	-3.930	1.00	26.80		C
ANISOU	492	CB	HIS A 100	4006	3471	2705	249	-666	635	C
ATOM	493	CG	HIS A 100	20.555	9.637	-4.585	1.00	29.46		C
ANISOU	493	CG	HIS A 100	4390	3929	2875	168	-590	652	C
ATOM	494	ND1	HIS A 100	21.827	9.912	-4.134	1.00	31.53		N
ANISOU	494	ND1	HIS A 100	4667	4173	3139	109	-496	664	N
ATOM	495	CD2	HIS A 100	20.704	8.836	-5.666	1.00	31.50		C
ANISOU	495	CD2	HIS A 100	4671	4338	2961	142	-593	642	C
ATOM	496	CE1	HIS A 100	22.706	9.301	-4.907	1.00	33.08		C
ANISOU	496	CE1	HIS A 100	4877	4511	3181	57	-432	666	C
ATOM	497	NE2	HIS A 100	22.050	8.643	-5.845	1.00	35.89		N
ANISOU	497	NE2	HIS A 100	5246	4971	3420	80	-484	644	N
ATOM	498	N	SER A 101	16.379	11.173	-4.634	1.00	27.51		N
ANISOU	498	N	SER A 101	3993	3468	2992	426	-954	716	N
ATOM	499	CA	SER A 101	15.050	11.184	-4.036	1.00	27.75		C
ANISOU	499	CA	SER A 101	3899	3457	3187	524	-1001	636	C
ATOM	500	C	SER A 101	15.084	10.388	-2.724	1.00	24.30		C
ANISOU	500	C	SER A 101	3392	3042	2800	515	-857	477	C
ATOM	501	O	SER A 101	15.676	9.313	-2.667	1.00	23.58		O
ANISOU	501	O	SER A 101	3323	3036	2598	440	-781	423	O
ATOM	502	CB	SER A 101	14.047	10.523	-4.990	1.00	28.26		C
ANISOU	502	CB	SER A 101	3906	3632	3200	535	-1125	648	C
ATOM	503	OG	SER A 101	12.843	10.179	-4.328	1.00	29.77		O

ANISOU	503	OG	SER A 101	3941	3828	3541	601	-1136	546	O
ATOM	504	N	ASN A 102	14.415	10.874	-1.689	1.00	23.83		N
ANISOU	504	N	ASN A 102	3245	2909	2899	595	-825	400	N
ATOM	505	CA	ASN A 102	14.269	10.074	-0.463	1.00	23.71		C
ANISOU	505	CA	ASN A 102	3157	2946	2906	578	-694	268	C
ATOM	506	C	ASN A 102	13.286	8.872	-0.532	1.00	24.76		C
ANISOU	506	C	ASN A 102	3172	3197	3040	553	-702	217	C
ATOM	507	O	ASN A 102	13.155	8.143	0.445	1.00	22.70		O
ANISOU	507	O	ASN A 102	2855	2983	2787	515	-596	136	O
ATOM	508	CB	ASN A 102	13.927	10.981	0.708	1.00	23.83		C
ANISOU	508	CB	ASN A 102	3121	2874	3059	665	-635	185	C
ATOM	509	CG	ASN A 102	15.025	11.951	1.001	1.00	23.97		C
ANISOU	509	CG	ASN A 102	3261	2768	3079	657	-617	206	C
ATOM	510	OD1	ASN A 102	16.223	11.591	1.051	1.00	23.92		O
ANISOU	510	OD1	ASN A 102	3349	2780	2961	561	-564	229	O
ATOM	511	ND2	ASN A 102	14.643	13.200	1.221	1.00	25.46		N
ANISOU	511	ND2	ASN A 102	3441	2818	3414	760	-669	192	N
ATOM	512	N	ASN A 103	12.596	8.685	-1.673	1.00	26.88		N
ANISOU	512	N	ASN A 103	3405	3510	3298	561	-837	272	N
ATOM	513	CA	ASN A 103	11.870	7.439	-1.969	1.00	27.21		C
ANISOU	513	CA	ASN A 103	3361	3655	3322	503	-873	231	C
ATOM	514	C	ASN A 103	12.771	6.332	-2.459	1.00	25.79		C
ANISOU	514	C	ASN A 103	3290	3523	2984	401	-856	218	C
ATOM	515	O	ASN A 103	12.345	5.188	-2.513	1.00	24.78		O
ANISOU	515	O	ASN A 103	3112	3450	2854	338	-873	164	O
ATOM	516	CB	ASN A 103	10.812	7.636	-3.038	1.00	35.07		C
ANISOU	516	CB	ASN A 103	4279	4684	4359	548	-1050	282	C
ATOM	517	CG	ASN A 103	9.642	8.424	-2.544	1.00	37.11		C

ANISOU	517	CG	ASN A 103	4371	4915	4815	660	-1079	265	C
ATOM	518	OD1	ASN A 103	9.149	8.198	-1.440	1.00	40.98		O
ANISOU	518	OD1	ASN A 103	4737	5431	5405	669	-961	178	O
ATOM	519	ND2	ASN A 103	9.185	9.353	-3.356	1.00	41.74		N
ANISOU	519	ND2	ASN A 103	4947	5455	5456	750	-1235	351	N
ATOM	520	N	GLU A 104	14.012	6.654	-2.816	1.00	24.67		N
ANISOU	520	N	GLU A 104	3288	3359	2727	383	-824	262	N
ATOM	521	CA	GLU A 104	14.989	5.620	-3.076	1.00	24.65		C
ANISOU	521	CA	GLU A 104	3370	3401	2596	307	-777	221	C
ATOM	522	C	GLU A 104	15.402	5.001	-1.750	1.00	24.43		C
ANISOU	522	C	GLU A 104	3323	3341	2617	274	-651	153	C
ATOM	523	O	GLU A 104	15.491	5.698	-0.701	1.00	19.60		O
ANISOU	523	O	GLU A 104	2692	2679	2077	303	-574	153	O
ATOM	524	CB	GLU A 104	16.229	6.166	-3.755	1.00	27.33		C
ANISOU	524	CB	GLU A 104	3832	3748	2805	295	-756	286	C
ATOM	525	CG	GLU A 104	16.008	6.771	-5.122	1.00	35.18		C
ANISOU	525	CG	GLU A 104	4874	4789	3701	307	-876	384	C
ATOM	526	CD	GLU A 104	17.263	7.477	-5.637	1.00	38.51		C
ANISOU	526	CD	GLU A 104	5405	5223	4003	276	-828	478	C
ATOM	527	OE1	GLU A 104	18.355	6.866	-5.556	1.00	40.68		O
ANISOU	527	OE1	GLU A 104	5719	5544	4193	231	-725	424	O
ATOM	528	OE2	GLU A 104	17.155	8.649	-6.110	1.00	45.93		O
ANISOU	528	OE2	GLU A 104	6381	6122	4948	293	-898	613	O
ATOM	529	N	ARG A 105	15.642	3.694	-1.794	1.00	21.58		N
ANISOU	529	N	ARG A 105	2977	3005	2217	214	-643	92	N
ATOM	530	CA	ARG A 105	16.134	2.982	-0.652	1.00	22.96		C
ANISOU	530	CA	ARG A 105	3154	3147	2422	173	-549	53	C
ATOM	531	C	ARG A 105	17.645	3.100	-0.712	1.00	22.53		C

ANISOU	531	C	ARG A 105	3199	3080	2282	175	-493	57	C
ATOM	532	O	ARG A 105	18.291	2.370	-1.462	1.00	22.25		O
ANISOU	532	O	ARG A 105	3215	3069	2171	161	-513	19	O
ATOM	533	CB	ARG A 105	15.666	1.536	-0.685	1.00	24.31		C
ANISOU	533	CB	ARG A 105	3295	3319	2624	108	-591	0	C
ATOM	534	CG	ARG A 105	14.225	1.376	-0.217	1.00	25.14		C
ANISOU	534	CG	ARG A 105	3268	3442	2842	78	-613	6	C
ATOM	535	CD	ARG A 105	13.793	-0.066	-0.324	1.00	26.19		C
ANISOU	535	CD	ARG A 105	3376	3555	3019	-12	-672	-33	C
ATOM	536	NE	ARG A 105	13.494	-0.324	-1.720	1.00	30.89		N
ANISOU	536	NE	ARG A 105	3991	4176	3571	-7	-806	-75	N
ATOM	537	CZ	ARG A 105	14.106	-1.183	-2.534	1.00	27.07		C
ANISOU	537	CZ	ARG A 105	3600	3669	3015	-23	-868	-149	C
ATOM	538	NH1	ARG A 105	15.102	-1.949	-2.144	1.00	27.77		N
ANISOU	538	NH1	ARG A 105	3767	3692	3092	-37	-817	-187	N
ATOM	539	NH2	ARG A 105	13.665	-1.275	-3.768	1.00	29.29		N
ANISOU	539	NH2	ARG A 105	3892	4000	3237	-18	-993	-193	N
ATOM	540	N	ILE A 106	18.179	4.066	0.034	1.00	18.46		N
ANISOU	540	N	ILE A 106	2700	2530	1785	195	-427	91	N
ATOM	541	CA	ILE A 106	19.578	4.412	-0.042	1.00	18.24		C
ANISOU	541	CA	ILE A 106	2740	2496	1694	189	-382	109	C
ATOM	542	C	ILE A 106	20.105	4.722	1.361	1.00	16.86		C
ANISOU	542	C	ILE A 106	2568	2274	1565	180	-312	100	C
ATOM	543	O	ILE A 106	19.357	5.162	2.228	1.00	17.04		O
ANISOU	543	O	ILE A 106	2553	2273	1647	195	-292	90	O
ATOM	544	CB	ILE A 106	19.828	5.581	-0.992	1.00	19.40		C
ANISOU	544	CB	ILE A 106	2925	2652	1795	207	-411	185	C
ATOM	545	CG1	ILE A 106	18.988	6.791	-0.593	1.00	20.10		C

ANISOU	545	CG1 ILE A 106	2985	2674	1977	251	-439	226	C
ATOM	546	CG2 ILE A 106	19.567	5.175	-2.450	1.00	21.00		C
ANISOU	546	CG2 ILE A 106	3148	2934	1896	206	-481	194	C
ATOM	547	CD1 ILE A 106	19.144	7.991	-1.494	1.00	21.81		C
ANISOU	547	CD1 ILE A 106	3248	2864	2175	265	-495	330	C
ATOM	548	N VAL A 107	21.395	4.507	1.569	1.00	16.81		N
ANISOU	548	N VAL A 107	2599	2267	1524	158	-277	96	N
ATOM	549	CA VAL A 107	22.009	4.800	2.859	1.00	16.93		C
ANISOU	549	CA VAL A 107	2624	2246	1563	142	-235	88	C
ATOM	550	C VAL A 107	23.348	5.472	2.718	1.00	17.41		C
ANISOU	550	C VAL A 107	2711	2300	1605	125	-219	114	C
ATOM	551	O VAL A 107	23.982	5.449	1.654	1.00	17.66		O
ANISOU	551	O VAL A 107	2746	2373	1591	119	-218	139	O
ATOM	552	CB VAL A 107	22.222	3.536	3.699	1.00	17.44		C
ANISOU	552	CB VAL A 107	2685	2311	1631	115	-227	60	C
ATOM	553	CG1 VAL A 107	20.884	2.915	4.040	1.00	19.52		C
ANISOU	553	CG1 VAL A 107	2911	2581	1924	101	-233	52	C
ATOM	554	CG2 VAL A 107	23.112	2.516	3.008	1.00	18.06		C
ANISOU	554	CG2 VAL A 107	2771	2400	1689	118	-247	39	C
ATOM	555	N ALA A 108	23.748	6.096	3.814	1.00	16.74		N
ANISOU	555	N ALA A 108	2639	2173	1548	109	-204	105	N
ATOM	556	CA ALA A 108	25.104	6.530	4.027	1.00	17.56		C
ANISOU	556	CA ALA A 108	2751	2269	1653	72	-199	120	C
ATOM	557	C ALA A 108	25.652	5.704	5.152	1.00	17.76		C
ANISOU	557	C ALA A 108	2773	2304	1672	58	-203	85	C
ATOM	558	O ALA A 108	24.901	5.323	6.035	1.00	22.66		O
ANISOU	558	O ALA A 108	3406	2921	2283	62	-200	60	O
ATOM	559	CB ALA A 108	25.155	8.033	4.398	1.00	17.23		C

ANISOU	559	CB	ALA A 108	2738	2149	1658	57	-212	132	C
ATOM	560	N	LEU A 109	26.961	5.457	5.143	1.00	17.64		N
ANISOU	560	N	LEU A 109	2733	2309	1661	36	-211	92	N
ATOM	561	CA	LEU A 109	27.615	4.645	6.156	1.00	18.30		C
ANISOU	561	CA	LEU A 109	2810	2397	1747	29	-243	76	C
ATOM	562	C	LEU A 109	28.707	5.427	6.844	1.00	19.04		C
ANISOU	562	C	LEU A 109	2894	2481	1860	-15	-272	78	C
ATOM	563	O	LEU A 109	29.401	6.209	6.183	1.00	19.35		O
ANISOU	563	O	LEU A 109	2899	2525	1929	-44	-259	100	O
ATOM	564	CB	LEU A 109	28.291	3.438	5.494	1.00	20.36		C
ANISOU	564	CB	LEU A 109	3023	2687	2024	63	-251	68	C
ATOM	565	CG	LEU A 109	27.468	2.429	4.730	1.00	21.17		C
ANISOU	565	CG	LEU A 109	3133	2790	2120	103	-246	45	C
ATOM	566	CD1	LEU A 109	28.368	1.417	4.018	1.00	22.78		C
ANISOU	566	CD1	LEU A 109	3289	3016	2352	152	-253	1	C
ATOM	567	CD2	LEU A 109	26.526	1.721	5.699	1.00	23.27		C
ANISOU	567	CD2	LEU A 109	3439	3013	2389	88	-276	56	C
ATOM	568	N	SER A 110	28.867	5.226	8.158	1.00	18.75		N
ANISOU	568	N	SER A 110	2886	2438	1800	-34	-318	62	N
ATOM	569	CA	SER A 110	29.995	5.796	8.888	1.00	18.62		C
ANISOU	569	CA	SER A 110	2855	2418	1800	-81	-376	54	C
ATOM	570	C	SER A 110	31.278	5.603	8.115	1.00	19.67		C
ANISOU	570	C	SER A 110	2890	2584	2000	-86	-383	79	C
ATOM	571	O	SER A 110	31.481	4.571	7.447	1.00	21.03		O
ANISOU	571	O	SER A 110	3012	2790	2191	-34	-365	86	O
ATOM	572	CB	SER A 110	30.154	5.175	10.278	1.00	19.88		C
ANISOU	572	CB	SER A 110	3054	2596	1903	-94	-444	50	C
ATOM	573	OG	SER A 110	29.024	5.434	11.119	1.00	19.83		O

ANISOU	573	OG	SER A 110	3130	2594	1811	-101	-417	18	O
ATOM	574	N	THR A 111	32.149	6.601	8.220	1.00	20.63		N
ANISOU	574	N	THR A 111	2976	2698	2165	-150	-410	83	N
ATOM	575	CA	THR A 111	33.467	6.619	7.590	1.00	21.47		C
ANISOU	575	CA	THR A 111	2959	2856	2342	-178	-407	110	C
ATOM	576	C	THR A 111	34.173	5.260	7.503	1.00	23.38		C
ANISOU	576	C	THR A 111	3112	3159	2614	-108	-426	103	C
ATOM	577	O	THR A 111	34.568	4.853	6.418	1.00	24.14		O
ANISOU	577	O	THR A 111	3122	3317	2735	-71	-357	102	O
ATOM	578	CB	THR A 111	34.379	7.661	8.291	1.00	22.30		C
ANISOU	578	CB	THR A 111	3037	2936	2501	-275	-481	109	C
ATOM	579	OG1	THR A 111	33.789	8.974	8.207	1.00	21.49		O
ANISOU	579	OG1	THR A 111	3014	2747	2403	-332	-469	108	O
ATOM	580	CG2	THR A 111	35.777	7.706	7.659	1.00	22.82		C
ANISOU	580	CG2	THR A 111	2939	3076	2654	-320	-471	146	C
ATOM	581	N	GLY A 112	34.357	4.570	8.633	1.00	23.41		N
ANISOU	581	N	GLY A 112	3136	3145	2613	-86	-523	95	N
ATOM	582	CA	GLY A 112	34.996	3.253	8.619	1.00	24.06		C
ANISOU	582	CA	GLY A 112	3141	3248	2753	-5	-570	93	C
ATOM	583	C	GLY A 112	34.366	2.286	7.610	1.00	23.70		C
ANISOU	583	C	GLY A 112	3102	3196	2706	81	-496	69	C
ATOM	584	O	GLY A 112	35.060	1.653	6.827	1.00	22.87		O
ANISOU	584	O	GLY A 112	2892	3133	2666	149	-469	33	O
ATOM	585	N	TRP A 113	33.048	2.158	7.672	1.00	22.23		N
ANISOU	585	N	TRP A 113	3035	2965	2448	78	-470	75	N
ATOM	586	CA	TRP A 113	32.301	1.274	6.804	1.00	20.34		C
ANISOU	586	CA	TRP A 113	2817	2706	2204	141	-424	47	C
ATOM	587	C	TRP A 113	32.250	1.787	5.360	1.00	20.36		C

ANISOU	587	C	TRP A 113	2779	2773	2183	146	-318	17	C
ATOM	588	O	TRP A 113	32.263	0.995	4.451	1.00	21.32		O
ANISOU	588	O	TRP A 113	2870	2916	2314	212	-286	-36	O
ATOM	589	CB	TRP A 113	30.873	1.098	7.332	1.00	21.07		C
ANISOU	589	CB	TRP A 113	3027	2746	2234	115	-429	73	C
ATOM	590	CG	TRP A 113	30.788	0.314	8.619	1.00	21.31		C
ANISOU	590	CG	TRP A 113	3109	2729	2261	103	-523	122	C
ATOM	591	CD1	TRP A 113	31.679	-0.568	9.066	1.00	25.55		C
ANISOU	591	CD1	TRP A 113	3611	3233	2865	142	-619	143	C
ATOM	592	CD2	TRP A 113	29.725	0.325	9.572	1.00	22.21		C
ANISOU	592	CD2	TRP A 113	3316	2830	2293	48	-527	166	C
ATOM	593	NE1	TRP A 113	31.282	-1.104	10.263	1.00	26.93		N
ANISOU	593	NE1	TRP A 113	3867	3370	2996	104	-698	220	N
ATOM	594	CE2	TRP A 113	30.078	-0.571	10.601	1.00	24.83		C
ANISOU	594	CE2	TRP A 113	3678	3129	2626	39	-630	233	C
ATOM	595	CE3	TRP A 113	28.512	1.008	9.669	1.00	21.36		C
ANISOU	595	CE3	TRP A 113	3258	2746	2113	8	-452	158	C
ATOM	596	CZ2	TRP A 113	29.260	-0.815	11.720	1.00	25.66		C
ANISOU	596	CZ2	TRP A 113	3871	3243	2635	-27	-647	303	C
ATOM	597	CZ3	TRP A 113	27.706	0.790	10.811	1.00	24.16		C
ANISOU	597	CZ3	TRP A 113	3679	3115	2384	-44	-457	202	C
ATOM	598	CH2	TRP A 113	28.083	-0.119	11.804	1.00	24.29		C
ANISOU	598	CH2	TRP A 113	3734	3118	2378	-70	-546	279	C
ATOM	599	N	TYR A 114	32.212	3.102	5.178	1.00	19.80		N
ANISOU	599	N	TYR A 114	2716	2730	2078	75	-274	51	N
ATOM	600	CA	TYR A 114	32.260	3.712	3.882	1.00	20.48		C
ANISOU	600	CA	TYR A 114	2770	2884	2126	58	-186	60	C
ATOM	601	C	TYR A 114	33.562	3.332	3.204	1.00	22.07		C

ANISOU	601	C	TYR A 114	2837	3186	2364	86	-140	30	C
ATOM	602	O	TYR A 114	33.620	3.133	1.979	1.00	20.38		O
ANISOU	602	O	TYR A 114	2588	3060	2096	114	-56	2	O
ATOM	603	CB	TYR A 114	32.136	5.250	4.006	1.00	20.71		C
ANISOU	603	CB	TYR A 114	2834	2889	2147	-35	-177	125	C
ATOM	604	CG	TYR A 114	32.093	5.901	2.640	1.00	19.67		C
ANISOU	604	CG	TYR A 114	2689	2820	1965	-68	-99	173	C
ATOM	605	CD1	TYR A 114	30.958	5.799	1.853	1.00	21.61		C
ANISOU	605	CD1	TYR A 114	3006	3067	2139	-35	-77	177	C
ATOM	606	CD2	TYR A 114	33.183	6.586	2.129	1.00	22.24		C
ANISOU	606	CD2	TYR A 114	2925	3217	2307	-141	-52	227	C
ATOM	607	CE1	TYR A 114	30.913	6.343	0.572	1.00	21.18		C
ANISOU	607	CE1	TYR A 114	2952	3085	2011	-67	-20	237	C
ATOM	608	CE2	TYR A 114	33.143	7.160	0.859	1.00	22.84		C
ANISOU	608	CE2	TYR A 114	2999	3369	2311	-187	24	298	C
ATOM	609	CZ	TYR A 114	31.989	7.040	0.097	1.00	23.45		C
ANISOU	609	CZ	TYR A 114	3167	3445	2298	-146	33	305	C
ATOM	610	OH	TYR A 114	31.917	7.584	-1.176	1.00	26.09		O
ANISOU	610	OH	TYR A 114	3513	3866	2534	-194	92	391	O
ATOM	611	N	ASN A 115	34.617	3.278	4.016	1.00	21.89		N
ANISOU	611	N	ASN A 115	2729	3163	2423	77	-195	32	N
ATOM	612	CA	ASN A 115	35.902	2.737	3.603	1.00	22.95		C
ANISOU	612	CA	ASN A 115	2702	3391	2626	127	-167	-13	C
ATOM	613	C	ASN A 115	36.399	3.294	2.241	1.00	24.22		C
ANISOU	613	C	ASN A 115	2770	3698	2735	90	-27	-5	C
ATOM	614	O	ASN A 115	36.725	2.548	1.295	1.00	23.21		O
ANISOU	614	O	ASN A 115	2566	3669	2584	173	54	-85	O
ATOM	615	CB	ASN A 115	35.786	1.216	3.605	1.00	24.21		C

ANISOU	615	CB	ASN A 115	2861	3508	2829	261	-209	-98	C
ATOM	616	CG	ASN A 115	37.108	0.525	3.349	1.00	25.10		C
ANISOU	616	CG	ASN A 115	2795	3696	3046	350	-200	-169	C
ATOM	617	OD1	ASN A 115	38.157	0.964	3.809	1.00	26.56		O
ANISOU	617	OD1	ASN A 115	2855	3930	3306	313	-227	-139	O
ATOM	618	ND2	ASN A 115	37.062	-0.549	2.574	1.00	26.89		N
ANISOU	618	ND2	ASN A 115	2999	3934	3286	472	-164	-279	N
ATOM	619	N	GLY A 116	36.436	4.624	2.156	1.00	23.36		N
ANISOU	619	N	GLY A 116	2676	3599	2602	-39	-1	91	N
ATOM	620	CA	GLY A 116	36.948	5.319	1.006	1.00	23.60		C
ANISOU	620	CA	GLY A 116	2625	3764	2576	-114	121	146	C
ATOM	621	C	GLY A 116	36.122	5.118	-0.251	1.00	25.21		C
ANISOU	621	C	GLY A 116	2908	4035	2635	-80	209	137	C
ATOM	622	O	GLY A 116	36.599	5.405	-1.341	1.00	25.76		O
ANISOU	622	O	GLY A 116	2906	4260	2622	-123	327	169	O
ATOM	623	N	GLY A 117	34.906	4.603	-0.101	1.00	23.83		N
ANISOU	623	N	GLY A 117	2873	3760	2421	-11	151	95	N
ATOM	624	CA	GLY A 117	34.022	4.367	-1.233	1.00	27.90		C
ANISOU	624	CA	GLY A 117	3470	4329	2801	21	201	77	C
ATOM	625	C	GLY A 117	33.936	2.917	-1.701	1.00	28.81		C
ANISOU	625	C	GLY A 117	3569	4485	2891	154	216	-75	C
ATOM	626	O	GLY A 117	33.272	2.657	-2.708	1.00	31.37		O
ANISOU	626	O	GLY A 117	3958	4871	3091	179	250	-112	O
ATOM	627	N	SER A 118	34.566	1.968	-0.998	1.00	26.45		N
ANISOU	627	N	SER A 118	3196	4143	2712	239	173	-165	N
ATOM	628	CA	SER A 118	34.615	0.558	-1.475	1.00	28.27		C
ANISOU	628	CA	SER A 118	3404	4386	2952	377	176	-326	C
ATOM	629	C	SER A 118	33.250	-0.145	-1.572	1.00	27.66		C

ANISOU	629	C	SER A 118	3474	4194	2841	416	100	-375	C
ATOM	630	O	SER A 118	33.102	-1.100	-2.341	1.00	26.38		O
ANISOU	630	O	SER A 118	3321	4057	2645	505	113	-511	O
ATOM	631	CB	SER A 118	35.523	-0.307	-0.604	1.00	29.74		C
ANISOU	631	CB	SER A 118	3486	4506	3307	468	110	-393	C
ATOM	632	OG	SER A 118	34.886	-0.647	0.601	1.00	34.60		O
ANISOU	632	OG	SER A 118	4199	4940	4007	465	-28	-347	O
ATOM	633	N	ARG A 119	32.262	0.336	-0.821	1.00	25.94		N
ANISOU	633	N	ARG A 119	3362	3860	2636	349	24	-276	N
ATOM	634	CA	ARG A 119	30.897	-0.230	-0.870	1.00	25.98		C
ANISOU	634	CA	ARG A 119	3482	3768	2619	363	-46	-302	C
ATOM	635	C	ARG A 119	29.902	0.594	-1.693	1.00	24.43		C
ANISOU	635	C	ARG A 119	3361	3627	2295	302	-22	-243	C
ATOM	636	O	ARG A 119	28.732	0.240	-1.791	1.00	20.90		O
ANISOU	636	O	ARG A 119	2989	3118	1835	304	-83	-258	O
ATOM	637	CB	ARG A 119	30.408	-0.501	0.561	1.00	26.44		C
ANISOU	637	CB	ARG A 119	3589	3673	2785	344	-146	-248	C
ATOM	638	CG	ARG A 119	31.200	-1.666	1.142	1.00	30.43		C
ANISOU	638	CG	ARG A 119	4043	4106	3413	424	-205	-313	C
ATOM	639	CD	ARG A 119	30.750	-2.163	2.515	1.00	37.69		C
ANISOU	639	CD	ARG A 119	5021	4882	4417	402	-313	-247	C
ATOM	640	NE	ARG A 119	31.687	-1.699	3.496	1.00	46.90		N
ANISOU	640	NE	ARG A 119	6135	6057	5630	381	-338	-183	N
ATOM	641	CZ	ARG A 119	32.653	-2.406	4.063	1.00	40.55		C
ANISOU	641	CZ	ARG A 119	5266	5208	4930	442	-409	-197	C
ATOM	642	NH1	ARG A 119	32.804	-3.703	3.860	1.00	45.90		N
ANISOU	642	NH1	ARG A 119	5936	5800	5703	540	-470	-272	N
ATOM	643	NH2	ARG A 119	33.455	-1.783	4.905	1.00	43.39		N

ANISOU	643	NH2	ARG	A 119	5576	5598	5314	405	-439	-134	N
ATOM	644	N	CYS	A 120	30.387	1.671	-2.311	1.00	25.51		N
ANISOU	644	N	CYS	A 120	3467	3879	2345	244	56	-166	N
ATOM	645	CA	CYS	A 120	29.563	2.533	-3.162	1.00	25.63		C
ANISOU	645	CA	CYS	A 120	3553	3947	2238	187	63	-84	C
ATOM	646	C	CYS	A 120	28.864	1.758	-4.234	1.00	25.35		C
ANISOU	646	C	CYS	A 120	3568	3971	2091	236	47	-180	C
ATOM	647	O	CYS	A 120	29.492	0.986	-4.956	1.00	26.57		O
ANISOU	647	O	CYS	A 120	3684	4228	2183	294	103	-302	O
ATOM	648	CB	CYS	A 120	30.430	3.615	-3.831	1.00	29.64		C
ANISOU	648	CB	CYS	A 120	4015	4586	2662	111	156	19	C
ATOM	649	SG	CYS	A 120	30.813	4.984	-2.700	1.00	30.47		S
ANISOU	649	SG	CYS	A 120	4103	4581	2891	13	132	166	S
ATOM	650	N	GLY	A 121	27.563	1.993	-4.354	1.00	23.46		N
ANISOU	650	N	GLY	A 121	3408	3676	1830	215	-32	-136	N
ATOM	651	CA	GLY	A 121	26.759	1.395	-5.403	1.00	25.60		C
ANISOU	651	CA	GLY	A 121	3734	4004	1989	243	-77	-215	C
ATOM	652	C	GLY	A 121	26.324	-0.039	-5.116	1.00	26.92		C
ANISOU	652	C	GLY	A 121	3911	4075	2243	304	-147	-367	C
ATOM	653	O	GLY	A 121	25.611	-0.627	-5.918	1.00	29.25		O
ANISOU	653	O	GLY	A 121	4253	4396	2465	321	-206	-454	O
ATOM	654	N	LYS	A 122	26.721	-0.601	-3.981	1.00	26.28		N
ANISOU	654	N	LYS	A 122	3794	3874	2318	329	-158	-390	N
ATOM	655	CA	LYS	A 122	26.360	-1.969	-3.656	1.00	28.24		C
ANISOU	655	CA	LYS	A 122	4058	4001	2669	373	-238	-506	C
ATOM	656	C	LYS	A 122	25.140	-1.989	-2.780	1.00	27.31		C
ANISOU	656	C	LYS	A 122	3970	3760	2647	318	-322	-428	C
ATOM	657	O	LYS	A 122	24.835	-0.983	-2.140	1.00	25.05		O

ANISOU	657	O	LYS A 122	3677	3469	2372	269	-303	-303	O
ATOM	658	CB	LYS A 122	27.513	-2.676	-2.955	1.00	33.78		C
ANISOU	658	CB	LYS A 122	4705	4642	3490	435	-219	-563	C
ATOM	659	CG	LYS A 122	28.694	-2.925	-3.876	1.00	38.43		C
ANISOU	659	CG	LYS A 122	5234	5362	4006	512	-131	-686	C
ATOM	660	CD	LYS A 122	29.849	-3.556	-3.113	1.00	44.89		C
ANISOU	660	CD	LYS A 122	5971	6114	4972	587	-127	-734	C
ATOM	661	CE	LYS A 122	31.125	-3.543	-3.949	1.00	47.24		C
ANISOU	661	CE	LYS A 122	6165	6581	5203	661	-6	-840	C
ATOM	662	NZ	LYS A 122	32.172	-4.387	-3.320	1.00	52.83		N
ANISOU	662	NZ	LYS A 122	6779	7210	6084	766	-30	-922	N
ATOM	663	N	MET A 123	24.434	-3.122	-2.745	1.00	23.38		N
ANISOU	663	N	MET A 123	3500	3161	2223	321	-411	-506	N
ATOM	664	CA	MET A 123	23.302	-3.250	-1.852	1.00	23.02		C
ANISOU	664	CA	MET A 123	3459	3013	2274	254	-475	-426	C
ATOM	665	C	MET A 123	23.749	-3.808	-0.501	1.00	22.36		C
ANISOU	665	C	MET A 123	3365	2810	2318	246	-485	-379	C
ATOM	666	O	MET A 123	24.630	-4.676	-0.415	1.00	23.05		O
ANISOU	666	O	MET A 123	3455	2834	2470	302	-505	-450	O
ATOM	667	CB	MET A 123	22.233	-4.150	-2.452	1.00	27.29		C
ANISOU	667	CB	MET A 123	4024	3502	2841	229	-578	-507	C
ATOM	668	CG	MET A 123	21.786	-3.728	-3.856	1.00	29.35		C
ANISOU	668	CG	MET A 123	4306	3890	2954	238	-598	-563	C
ATOM	669	SD	MET A 123	21.141	-2.039	-3.942	1.00	33.25		S
ANISOU	669	SD	MET A 123	4777	4493	3364	202	-563	-403	S
ATOM	670	CE	MET A 123	19.668	-2.212	-2.918	1.00	31.59		C
ANISOU	670	CE	MET A 123	4514	4183	3307	131	-630	-330	C
ATOM	671	N	ILE A 124	23.116	-3.314	0.547	1.00	19.93		N

ANISOU	671	N	ILE A 124	3048	2481	2045	181	-476	-262	N
ATOM	672	CA	ILE A 124	23.156	-3.972	1.820	1.00	21.10		C
ANISOU	672	CA	ILE A 124	3203	2525	2288	144	-507	-199	C
ATOM	673	C	ILE A 124	21.758	-4.411	2.184	1.00	23.11		C
ANISOU	673	C	ILE A 124	3453	2732	2596	56	-553	-151	C
ATOM	674	O	ILE A 124	20.773	-3.970	1.576	1.00	25.41		O
ANISOU	674	O	ILE A 124	3718	3082	2855	33	-554	-161	O
ATOM	675	CB	ILE A 124	23.721	-3.079	2.924	1.00	21.68		C
ANISOU	675	CB	ILE A 124	3266	2635	2336	131	-448	-107	C
ATOM	676	CG1	ILE A 124	22.837	-1.834	3.144	1.00	20.46		C
ANISOU	676	CG1	ILE A 124	3094	2557	2124	91	-391	-49	C
ATOM	677	CG2	ILE A 124	25.157	-2.706	2.576	1.00	21.99		C
ANISOU	677	CG2	ILE A 124	3286	2722	2348	200	-411	-148	C
ATOM	678	CD1	ILE A 124	23.115	-1.144	4.437	1.00	21.56		C
ANISOU	678	CD1	ILE A 124	3235	2710	2245	64	-350	21	C
ATOM	679	N	ARG A 125	21.696	-5.301	3.167	1.00	21.68		N
ANISOU	679	N	ARG A 125	3291	2447	2501	3	-598	-88	N
ATOM	680	CA	ARG A 125	20.469	-5.784	3.725	1.00	23.77		C
ANISOU	680	CA	ARG A 125	3537	2672	2822	-107	-627	-13	C
ATOM	681	C	ARG A 125	20.441	-5.359	5.187	1.00	23.02		C
ANISOU	681	C	ARG A 125	3438	2617	2691	-165	-563	117	C
ATOM	682	O	ARG A 125	21.382	-5.639	5.949	1.00	20.64		O
ANISOU	682	O	ARG A 125	3180	2270	2393	-150	-580	165	O
ATOM	683	CB	ARG A 125	20.402	-7.316	3.648	1.00	29.47		C
ANISOU	683	CB	ARG A 125	4299	3225	3675	-146	-745	-30	C
ATOM	684	CG	ARG A 125	19.006	-7.835	3.960	1.00	38.11		C
ANISOU	684	CG	ARG A 125	5356	4285	4838	-285	-781	45	C
ATOM	685	CD	ARG A 125	18.776	-9.265	3.499	1.00	48.77		C

ANISOU	685	CD	ARG A 125	6745	5451	6335	-331	-922	-4	C
ATOM	686	NE	ARG A 125	17.662	-9.880	4.227	1.00	64.39		N
ANISOU	686	NE	ARG A 125	8689	7376	8401	-501	-954	130	N
ATOM	687	CZ	ARG A 125	17.247	-11.137	4.082	1.00	76.62		C
ANISOU	687	CZ	ARG A 125	10264	8742	10104	-594	-1085	134	C
ATOM	688	NH1	ARG A 125	17.860	-11.956	3.231	1.00	82.71		N
ANISOU	688	NH1	ARG A 125	11108	9353	10964	-512	-1205	-15	N
ATOM	689	NH2	ARG A 125	16.211	-11.576	4.791	1.00	78.23		N
ANISOU	689	NH2	ARG A 125	10418	8926	10379	-773	-1094	283	N
ATOM	690	N	ILE A 126	19.365	-4.689	5.559	1.00	22.17		N
ANISOU	690	N	ILE A 126	3273	2605	2547	-223	-496	163	N
ATOM	691	CA	ILE A 126	19.210	-4.170	6.894	1.00	23.79		C
ANISOU	691	CA	ILE A 126	3470	2884	2686	-272	-415	256	C
ATOM	692	C	ILE A 126	18.101	-4.935	7.534	1.00	24.05		C
ANISOU	692	C	ILE A 126	3463	2912	2762	-403	-415	350	C
ATOM	693	O	ILE A 126	17.085	-5.134	6.906	1.00	25.91		O
ANISOU	693	O	ILE A 126	3629	3154	3060	-443	-432	326	O
ATOM	694	CB	ILE A 126	18.802	-2.706	6.858	1.00	24.02		C
ANISOU	694	CB	ILE A 126	3447	3037	2643	-224	-321	216	C
ATOM	695	CG1	ILE A 126	19.922	-1.869	6.230	1.00	25.49		C
ANISOU	695	CG1	ILE A 126	3671	3226	2789	-120	-320	149	C
ATOM	696	CG2	ILE A 126	18.460	-2.222	8.266	1.00	24.03		C
ANISOU	696	CG2	ILE A 126	3434	3127	2568	-275	-229	279	C
ATOM	697	CD1	ILE A 126	19.454	-0.500	5.786	1.00	27.47		C
ANISOU	697	CD1	ILE A 126	3879	3550	3008	-67	-267	109	C
ATOM	698	N	THR A 127	18.296	-5.349	8.777	1.00	25.48		N
ANISOU	698	N	THR A 127	3684	3092	2904	-480	-400	466	N
ATOM	699	CA	THR A 127	17.270	-6.032	9.511	1.00	27.80		C

ANISOU	699	CA	THR A 127	3938	3407	3218	-631	-378	587	C
ATOM	700	C	THR A 127	16.991	-5.288	10.805	1.00	29.47		C
ANISOU	700	C	THR A 127	4129	3787	3281	-674	-245	652	C
ATOM	701	O	THR A 127	17.912	-5.000	11.570	1.00	26.12		O
ANISOU	701	O	THR A 127	3786	3383	2755	-643	-240	678	O
ATOM	702	CB	THR A 127	17.698	-7.466	9.847	1.00	30.46		C
ANISOU	702	CB	THR A 127	4358	3574	3640	-714	-501	701	C
ATOM	703	OG1	THR A 127	17.891	-8.202	8.639	1.00	30.44		O
ANISOU	703	OG1	THR A 127	4374	3411	3782	-666	-625	607	O
ATOM	704	CG2	THR A 127	16.641	-8.179	10.714	1.00	32.42		C
ANISOU	704	CG2	THR A 127	4568	3851	3899	-907	-473	869	C
ATOM	705	N	ALA A 128	15.714	-5.021	11.064	1.00	31.33		N
ANISOU	705	N	ALA A 128	4250	4151	3505	-748	-142	669	N
ATOM	706	CA	ALA A 128	15.300	-4.273	12.258	1.00	32.63		C
ANISOU	706	CA	ALA A 128	4377	4506	3517	-779	10	695	C
ATOM	707	C	ALA A 128	14.878	-5.190	13.399	1.00	37.06		C
ANISOU	707	C	ALA A 128	4947	5123	4013	-960	47	878	C
ATOM	708	O	ALA A 128	14.780	-6.394	13.208	1.00	36.26		O
ANISOU	708	O	ALA A 128	4868	4889	4019	-1070	-55	993	O
ATOM	709	CB	ALA A 128	14.159	-3.350	11.902	1.00	33.41		C
ANISOU	709	CB	ALA A 128	4320	4733	3640	-732	118	593	C
ATOM	710	N	SER A 129	14.601	-4.596	14.563	1.00	40.46		N
ANISOU	710	N	SER A 129	5360	5749	4265	-995	192	900	N
ATOM	711	CA	SER A 129	14.188	-5.331	15.776	1.00	45.43		C
ANISOU	711	CA	SER A 129	6001	6487	4774	-1181	258	1089	C
ATOM	712	C	SER A 129	12.821	-6.002	15.666	1.00	47.77		C
ANISOU	712	C	SER A 129	6143	6840	5168	-1340	320	1184	C
ATOM	713	O	SER A 129	12.529	-6.954	16.384	1.00	50.69		O

ANISOU	713	O	SER A 129	6531	7229	5500	-1531	324	1387	O
ATOM	714	CB	SER A 129	14.161	-4.383	16.977	1.00	48.93		C
ANISOU	714	CB	SER A 129	6452	7166	4972	-1163	420	1045	C
ATOM	715	OG	SER A 129	15.340	-3.595	17.029	1.00	54.88		O
ANISOU	715	OG	SER A 129	7324	7875	5653	-1017	362	930	O
ATOM	716	N	ASN A 130	11.972	-5.493	14.783	1.00	44.56		N
ANISOU	716	N	ASN A 130	5578	6463	4888	-1273	360	1051	N
ATOM	717	CA	ASN A 130	10.683	-6.116	14.528	1.00	45.48		C
ANISOU	717	CA	ASN A 130	5523	6624	5134	-1420	394	1125	C
ATOM	718	C	ASN A 130	10.793	-7.273	13.540	1.00	44.36		C
ANISOU	718	C	ASN A 130	5423	6227	5205	-1488	190	1183	C
ATOM	719	O	ASN A 130	9.777	-7.793	13.083	1.00	48.37		O
ANISOU	719	O	ASN A 130	5789	6729	5860	-1602	173	1218	O
ATOM	720	CB	ASN A 130	9.710	-5.080	13.983	1.00	46.56		C
ANISOU	720	CB	ASN A 130	5460	6898	5333	-1308	497	953	C
ATOM	721	CG	ASN A 130	10.210	-4.440	12.691	1.00	46.35		C
ANISOU	721	CG	ASN A 130	5472	6723	5415	-1109	370	782	C
ATOM	722	OD1	ASN A 130	11.121	-4.955	12.040	1.00	42.04		O
ANISOU	722	OD1	ASN A 130	5070	5975	4927	-1078	209	787	O
ATOM	723	ND2	ASN A 130	9.635	-3.310	12.336	1.00	45.37		N
ANISOU	723	ND2	ASN A 130	5220	6704	5316	-971	444	633	N
ATOM	724	N	GLY A 131	12.015	-7.660	13.179	1.00	40.91		N
ANISOU	724	N	GLY A 131	5167	5581	4794	-1412	33	1175	N
ATOM	725	CA	GLY A 131	12.206	-8.763	12.241	1.00	41.20		C
ANISOU	725	CA	GLY A 131	5259	5364	5030	-1452	-163	1193	C
ATOM	726	C	GLY A 131	12.061	-8.396	10.771	1.00	38.45		C
ANISOU	726	C	GLY A 131	4855	4943	4809	-1317	-244	998	C
ATOM	727	O	GLY A 131	12.304	-9.233	9.917	1.00	37.81		O

ANISOU	727	O	GLY A 131	4833	4661	4874	-1323	-408	968	O
ATOM	728	N	LYS A 132	11.683	-7.160	10.455	1.00	39.13		N
ANISOU	728	N	LYS A 132	4841	5187	4842	-1190	-142	863	N
ATOM	729	CA	LYS A 132	11.564	-6.743	9.045	1.00	37.82		C
ANISOU	729	CA	LYS A 132	4634	4965	4769	-1063	-230	699	C
ATOM	730	C	LYS A 132	12.928	-6.433	8.439	1.00	32.77		C
ANISOU	730	C	LYS A 132	4152	4214	4087	-898	-308	598	C
ATOM	731	O	LYS A 132	13.855	-6.075	9.145	1.00	28.85		O
ANISOU	731	O	LYS A 132	3752	3732	3477	-843	-261	620	O
ATOM	732	CB	LYS A 132	10.668	-5.514	8.897	1.00	40.73		C
ANISOU	732	CB	LYS A 132	4838	5522	5115	-980	-115	609	C
ATOM	733	CG	LYS A 132	9.181	-5.779	9.109	1.00	46.81		C
ANISOU	733	CG	LYS A 132	5396	6415	5975	-1120	-54	667	C
ATOM	734	CD	LYS A 132	8.342	-4.940	8.156	1.00	49.28		C
ANISOU	734	CD	LYS A 132	5550	6802	6371	-1012	-73	540	C
ATOM	735	CE	LYS A 132	6.862	-5.266	8.240	1.00	56.40		C
ANISOU	735	CE	LYS A 132	6209	7823	7396	-1149	-37	589	C
ATOM	736	NZ	LYS A 132	6.258	-4.776	9.506	1.00	61.17		N
ANISOU	736	NZ	LYS A 132	6675	8649	7917	-1189	186	638	N
ATOM	737	N	SER A 133	13.016	-6.554	7.122	1.00	30.62		N
ANISOU	737	N	SER A 133	3892	3847	3896	-826	-426	485	N
ATOM	738	CA	SER A 133	14.260	-6.412	6.395	1.00	30.56		C
ANISOU	738	CA	SER A 133	4012	3744	3856	-686	-497	387	C
ATOM	739	C	SER A 133	14.016	-5.659	5.109	1.00	30.25		C
ANISOU	739	C	SER A 133	3930	3750	3814	-577	-530	256	C
ATOM	740	O	SER A 133	12.926	-5.742	4.524	1.00	31.78		O
ANISOU	740	O	SER A 133	4018	3977	4080	-624	-574	232	O
ATOM	741	CB	SER A 133	14.843	-7.782	6.031	1.00	32.66		C

ANISOU	741	CB	SER A 133	4380	3806	4222	-727	-642	387	C
ATOM	742	OG	SER A 133	15.724	-8.228	7.036	1.00	40.82		O
ANISOU	742	OG	SER A 133	5509	4772	5228	-747	-638	489	O
ATOM	743	N	VAL A 134	15.049	-4.960	4.667	1.00	28.96		N
ANISOU	743	N	VAL A 134	3846	3588	3567	-443	-520	184	N
ATOM	744	CA	VAL A 134	14.998	-4.146	3.452	1.00	28.93		C
ANISOU	744	CA	VAL A 134	3828	3635	3529	-339	-550	86	C
ATOM	745	C	VAL A 134	16.405	-4.096	2.871	1.00	24.90		C
ANISOU	745	C	VAL A 134	3435	3074	2953	-241	-573	20	C
ATOM	746	O	VAL A 134	17.390	-4.132	3.607	1.00	23.01		O
ANISOU	746	O	VAL A 134	3257	2803	2683	-221	-531	53	O
ATOM	747	CB	VAL A 134	14.474	-2.708	3.754	1.00	31.20		C
ANISOU	747	CB	VAL A 134	4034	4052	3770	-280	-452	99	C
ATOM	748	CG1	VAL A 134	15.488	-1.877	4.534	1.00	30.35		C
ANISOU	748	CG1	VAL A 134	3995	3964	3572	-215	-359	114	C
ATOM	749	CG2	VAL A 134	14.092	-1.974	2.464	1.00	33.47		C
ANISOU	749	CG2	VAL A 134	4290	4381	4047	-200	-516	36	C
ATOM	750	N	SER A 135	16.501	-4.091	1.558	1.00	23.23		N
ANISOU	750	N	SER A 135	3246	2865	2716	-186	-644	-72	N
ATOM	751	CA	SER A 135	17.771	-3.853	0.901	1.00	24.85		C
ANISOU	751	CA	SER A 135	3534	3072	2838	-89	-636	-139	C
ATOM	752	C	SER A 135	17.850	-2.378	0.492	1.00	23.98		C
ANISOU	752	C	SER A 135	3408	3072	2633	-22	-578	-121	C
ATOM	753	O	SER A 135	16.834	-1.744	0.144	1.00	22.55		O
ANISOU	753	O	SER A 135	3165	2950	2454	-25	-598	-102	O
ATOM	754	CB	SER A 135	17.938	-4.758	-0.319	1.00	27.88		C
ANISOU	754	CB	SER A 135	3964	3408	3220	-69	-737	-262	C
ATOM	755	OG	SER A 135	17.172	-4.264	-1.395	1.00	34.44		O

ANISOU	755	OG	SER A 135	4767	4327	3991	-59	-788	-301	O
ATOM	756	N	ALA A 136	19.067	-1.844	0.527	1.00	21.39		N
ANISOU	756	N	ALA A 136	3130	2760	2238	36	-519	-122	N
ATOM	757	CA	ALA A 136	19.293	-0.441	0.284	1.00	20.27		C
ANISOU	757	CA	ALA A 136	2985	2690	2026	82	-468	-84	C
ATOM	758	C	ALA A 136	20.649	-0.268	-0.327	1.00	20.70		C
ANISOU	758	C	ALA A 136	3091	2772	2001	128	-437	-115	C
ATOM	759	O	ALA A 136	21.562	-1.053	-0.069	1.00	22.28		O
ANISOU	759	O	ALA A 136	3313	2933	2221	140	-428	-156	O
ATOM	760	CB	ALA A 136	19.193	0.336	1.589	1.00	19.45		C
ANISOU	760	CB	ALA A 136	2855	2580	1954	71	-396	-18	C
ATOM	761	N	LYS A 137	20.782	0.748	-1.172	1.00	22.68		N
ANISOU	761	N	LYS A 137	3353	3095	2168	154	-425	-87	N
ATOM	762	CA	LYS A 137	22.028	0.994	-1.893	1.00	20.86		C
ANISOU	762	CA	LYS A 137	3154	2926	1844	180	-379	-102	C
ATOM	763	C	LYS A 137	22.910	1.965	-1.151	1.00	18.04		C
ANISOU	763	C	LYS A 137	2791	2560	1504	174	-309	-32	C
ATOM	764	O	LYS A 137	22.438	2.987	-0.713	1.00	18.32		O
ANISOU	764	O	LYS A 137	2822	2571	1570	163	-306	38	O
ATOM	765	CB	LYS A 137	21.713	1.547	-3.273	1.00	22.62		C
ANISOU	765	CB	LYS A 137	3403	3245	1946	187	-411	-85	C
ATOM	766	CG	LYS A 137	22.953	1.724	-4.118	1.00	25.31		C
ANISOU	766	CG	LYS A 137	3767	3687	2164	199	-344	-98	C
ATOM	767	CD	LYS A 137	22.585	2.028	-5.568	1.00	30.08		C
ANISOU	767	CD	LYS A 137	4412	4410	2606	194	-384	-84	C
ATOM	768	CE	LYS A 137	21.856	3.354	-5.684	1.00	33.90		C
ANISOU	768	CE	LYS A 137	4908	4884	3090	171	-431	66	C
ATOM	769	NZ	LYS A 137	21.613	3.750	-7.118	1.00	38.62		N

ANISOU	769	NZ	LYS A 137	5558	5608	3507	158	-482	117	N
ATOM	770	N	VAL A 138	24.195	1.671	-1.028	1.00	18.20		N
ANISOU	770	N	VAL A 138	2804	2596	1516	186	-260	-61	N
ATOM	771	CA	VAL A 138	25.123	2.615	-0.397	1.00	19.29		C
ANISOU	771	CA	VAL A 138	2926	2730	1672	165	-208	2	C
ATOM	772	C	VAL A 138	25.441	3.759	-1.381	1.00	19.87		C
ANISOU	772	C	VAL A 138	3009	2879	1662	141	-176	75	C
ATOM	773	O	VAL A 138	25.949	3.516	-2.473	1.00	21.42		O
ANISOU	773	O	VAL A 138	3201	3177	1759	147	-144	52	O
ATOM	774	CB	VAL A 138	26.444	1.947	0.009	1.00	19.80		C
ANISOU	774	CB	VAL A 138	2953	2800	1770	183	-178	-46	C
ATOM	775	CG1	VAL A 138	27.401	2.984	0.625	1.00	21.22		C
ANISOU	775	CG1	VAL A 138	3106	2983	1975	145	-142	20	C
ATOM	776	CG2	VAL A 138	26.199	0.813	0.975	1.00	19.46		C
ANISOU	776	CG2	VAL A 138	2915	2668	1811	199	-228	-86	C
ATOM	777	N	VAL A 139	25.127	4.996	-0.997	1.00	19.96		N
ANISOU	777	N	VAL A 139	3036	2838	1709	112	-187	162	N
ATOM	778	CA	VAL A 139	25.422	6.146	-1.838	1.00	20.55		C
ANISOU	778	CA	VAL A 139	3131	2950	1727	72	-176	265	C
ATOM	779	C	VAL A 139	26.287	7.222	-1.209	1.00	19.56		C
ANISOU	779	C	VAL A 139	2997	2768	1666	18	-151	333	C
ATOM	780	O	VAL A 139	26.718	8.125	-1.908	1.00	17.33		O
ANISOU	780	O	VAL A 139	2728	2511	1347	-37	-139	436	O
ATOM	781	CB	VAL A 139	24.140	6.800	-2.384	1.00	21.09		C
ANISOU	781	CB	VAL A 139	3239	2988	1785	88	-249	329	C
ATOM	782	CG1	VAL A 139	23.344	5.781	-3.180	1.00	21.28		C
ANISOU	782	CG1	VAL A 139	3268	3083	1736	123	-291	264	C
ATOM	783	CG2	VAL A 139	23.323	7.396	-1.263	1.00	21.14		C

ANISOU	783	CG2 VAL A 139	3242	2869	1922	113	-286	326	C
ATOM	784	N ASP A 140	26.563	7.152	0.093	1.00	19.11		N
ANISOU	784	N ASP A 140	2923	2638	1700	19	-153	284	N
ATOM	785	CA ASP A 140	27.240	8.277	0.714	1.00	20.20		C
ANISOU	785	CA ASP A 140	3064	2705	1907	-38	-157	335	C
ATOM	786	C ASP A 140	27.920	7.861	2.013	1.00	20.84		C
ANISOU	786	C ASP A 140	3115	2761	2043	-43	-157	264	C
ATOM	787	O ASP A 140	27.711	6.748	2.507	1.00	19.37		O
ANISOU	787	O ASP A 140	2918	2594	1849	2	-160	195	O
ATOM	788	CB ASP A 140	26.205	9.381	0.971	1.00	23.58		C
ANISOU	788	CB ASP A 140	3546	3014	2398	-24	-213	370	C
ATOM	789	CG ASP A 140	26.822	10.810	1.134	1.00	24.50		C
ANISOU	789	CG ASP A 140	3688	3030	2591	-95	-240	447	C
ATOM	790	OD1 ASP A 140	28.014	11.073	0.807	1.00	23.54		O
ANISOU	790	OD1 ASP A 140	3535	2948	2460	-180	-210	508	O
ATOM	791	OD2 ASP A 140	26.060	11.685	1.580	1.00	25.72		O
ANISOU	791	OD2 ASP A 140	3886	3058	2828	-64	-294	440	O
ATOM	792	N GLU A 141	28.744	8.773	2.528	1.00	21.76		N
ANISOU	792	N GLU A 141	3223	2827	2217	-108	-170	294	N
ATOM	793	CA GLU A 141	29.493	8.627	3.778	1.00	20.01		C
ANISOU	793	CA GLU A 141	2978	2582	2042	-128	-197	238	C
ATOM	794	C GLU A 141	28.826	9.460	4.861	1.00	21.39		C
ANISOU	794	C GLU A 141	3223	2645	2261	-127	-246	196	C
ATOM	795	O GLU A 141	28.484	10.616	4.631	1.00	22.71		O
ANISOU	795	O GLU A 141	3430	2722	2476	-147	-268	230	O
ATOM	796	CB GLU A 141	30.914	9.172	3.592	1.00	21.89		C
ANISOU	796	CB GLU A 141	3148	2849	2322	-217	-190	289	C
ATOM	797	CG GLU A 141	31.711	9.205	4.889	1.00	25.33		C

ANISOU	797	CG	GLU A 141	3557	3253	2812	-250	-249	237	C
ATOM	798	CD	GLU A 141	33.147	9.708	4.728	1.00	28.83		C
ANISOU	798	CD	GLU A 141	3902	3733	3320	-349	-253	285	C
ATOM	799	OE1	GLU A 141	33.488	10.221	3.656	1.00	32.85		O
ANISOU	799	OE1	GLU A 141	4372	4281	3829	-408	-198	372	O
ATOM	800	OE2	GLU A 141	33.944	9.573	5.688	1.00	29.35		O
ANISOU	800	OE2	GLU A 141	3923	3799	3430	-375	-315	243	O
ATOM	801	N	CYS A 142	28.692	8.883	6.048	1.00	20.86		N
ANISOU	801	N	CYS A 142	3170	2581	2176	-102	-266	122	N
ATOM	802	CA	CYS A 142	28.277	9.603	7.238	1.00	23.07		C
ANISOU	802	CA	CYS A 142	3508	2789	2467	-104	-300	52	C
ATOM	803	C	CYS A 142	29.591	9.909	7.930	1.00	23.90		C
ANISOU	803	C	CYS A 142	3595	2887	2599	-177	-356	38	C
ATOM	804	O	CYS A 142	30.205	9.024	8.511	1.00	20.62		O
ANISOU	804	O	CYS A 142	3149	2538	2149	-181	-379	27	O
ATOM	805	CB	CYS A 142	27.384	8.695	8.095	1.00	26.86		C
ANISOU	805	CB	CYS A 142	4011	3317	2878	-53	-280	-4	C
ATOM	806	SG	CYS A 142	26.511	9.554	9.410	1.00	34.89		S
ANISOU	806	SG	CYS A 142	5095	4289	3872	-30	-281	-115	S
ATOM	807	N	ASP A 143	30.055	11.153	7.794	1.00	25.38		N
ANISOU	807	N	ASP A 143	3794	2985	2864	-241	-393	52	N
ATOM	808	CA	ASP A 143	31.449	11.488	8.033	1.00	23.30		C
ANISOU	808	CA	ASP A 143	3478	2722	2654	-337	-448	70	C
ATOM	809	C	ASP A 143	31.681	11.621	9.531	1.00	23.61		C
ANISOU	809	C	ASP A 143	3564	2741	2668	-354	-528	-36	C
ATOM	810	O	ASP A 143	31.095	12.473	10.184	1.00	22.98		O
ANISOU	810	O	ASP A 143	3569	2568	2593	-346	-559	-123	O
ATOM	811	CB	ASP A 143	31.796	12.787	7.301	1.00	24.48		C

ANISOU	811	CB	ASP A 143	3627	2768	2905	-422	-467	141	C
ATOM	812	CG	ASP A 143	33.299	13.133	7.344	1.00	27.62		C
ANISOU	812	CG	ASP A 143	3935	3181	3378	-549	-513	184	C
ATOM	813	OD1	ASP A 143	34.088	12.564	8.150	1.00	28.49		O
ANISOU	813	OD1	ASP A 143	3990	3360	3475	-564	-560	134	O
ATOM	814	OD2	ASP A 143	33.681	14.062	6.607	1.00	31.28		O
ANISOU	814	OD2	ASP A 143	4382	3579	3924	-644	-517	278	O
ATOM	815	N	SER A 144	32.502	10.732	10.075	1.00	25.17		N
ANISOU	815	N	SER A 144	3705	3031	2828	-366	-566	-36	N
ATOM	816	CA	SER A 144	32.802	10.716	11.517	1.00	23.98		C
ANISOU	816	CA	SER A 144	3602	2892	2618	-389	-660	-121	C
ATOM	817	C	SER A 144	34.110	11.430	11.846	1.00	25.65		C
ANISOU	817	C	SER A 144	3760	3073	2914	-498	-768	-130	C
ATOM	818	O	SER A 144	34.503	11.506	13.022	1.00	24.46		O
ANISOU	818	O	SER A 144	3647	2935	2712	-532	-873	-204	O
ATOM	819	CB	SER A 144	32.847	9.266	12.012	1.00	25.24		C
ANISOU	819	CB	SER A 144	3744	3160	2688	-336	-668	-96	C
ATOM	820	OG	SER A 144	33.807	8.495	11.306	1.00	22.80		O
ANISOU	820	OG	SER A 144	3310	2908	2447	-333	-671	-19	O
ATOM	821	N	ARG A 145	34.760	11.994	10.828	1.00	26.58		N
ANISOU	821	N	ARG A 145	3791	3156	3152	-566	-748	-53	N
ATOM	822	CA	ARG A 145	36.006	12.765	11.029	1.00	30.98		C
ANISOU	822	CA	ARG A 145	4274	3678	3819	-697	-847	-46	C
ATOM	823	C	ARG A 145	35.791	14.265	11.190	1.00	31.02		C
ANISOU	823	C	ARG A 145	4369	3510	3907	-778	-905	-97	C
ATOM	824	O	ARG A 145	36.559	14.940	11.886	1.00	29.66		O
ANISOU	824	O	ARG A 145	4192	3279	3799	-882	-1030	-153	O
ATOM	825	CB	ARG A 145	36.948	12.597	9.851	1.00	32.59		C

ANISOU	825	CB	ARG A 145	4312	3955	4115	-754	-786	78	C
ATOM	826	CG	ARG A 145	37.480	11.200	9.625	1.00	35.95		C
ANISOU	826	CG	ARG A 145	4614	4538	4509	-678	-747	110	C
ATOM	827	CD	ARG A 145	38.580	11.289	8.581	1.00	42.71		C
ANISOU	827	CD	ARG A 145	5284	5478	5465	-753	-687	203	C
ATOM	828	NE	ARG A 145	39.277	10.023	8.404	1.00	51.48		N
ANISOU	828	NE	ARG A 145	6248	6731	6580	-671	-663	206	N
ATOM	829	CZ	ARG A 145	39.153	9.209	7.352	1.00	58.86		C
ANISOU	829	CZ	ARG A 145	7120	7761	7483	-584	-534	233	C
ATOM	830	NH1	ARG A 145	38.338	9.505	6.334	1.00	56.98		N
ANISOU	830	NH1	ARG A 145	6955	7510	7183	-577	-418	276	N
ATOM	831	NH2	ARG A 145	39.860	8.076	7.317	1.00	53.00		N
ANISOU	831	NH2	ARG A 145	6241	7124	6773	-495	-534	208	N
ATOM	832	N	HIS A 146	34.763	14.786	10.529	1.00	29.25		N
ANISOU	832	N	HIS A 146	4225	3191	3697	-730	-832	-78	N
ATOM	833	CA	HIS A 146	34.532	16.222	10.453	1.00	30.57		C
ANISOU	833	CA	HIS A 146	4475	3159	3983	-794	-890	-103	C
ATOM	834	C	HIS A 146	33.172	16.590	11.011	1.00	28.56		C
ANISOU	834	C	HIS A 146	4363	2810	3678	-674	-881	-237	C
ATOM	835	O	HIS A 146	32.260	15.773	10.996	1.00	28.79		O
ANISOU	835	O	HIS A 146	4409	2934	3594	-553	-791	-252	O
ATOM	836	CB	HIS A 146	34.561	16.651	8.987	1.00	31.39		C
ANISOU	836	CB	HIS A 146	4531	3220	4175	-846	-822	71	C
ATOM	837	CG	HIS A 146	35.806	16.251	8.281	1.00	31.67		C
ANISOU	837	CG	HIS A 146	4404	3387	4244	-953	-787	205	C
ATOM	838	ND1	HIS A 146	35.832	15.259	7.333	1.00	30.02		N
ANISOU	838	ND1	HIS A 146	4105	3346	3954	-898	-662	298	N
ATOM	839	CD2	HIS A 146	37.082	16.674	8.423	1.00	35.15		C

ANISOU	839	CD2 HIS A 146	4739	3827	4790	-1108	-858	242	C
ATOM	840	CE1 HIS A 146	37.066	15.103	6.895	1.00	32.73		C
ANISOU	840	CE1 HIS A 146	4290	3798	4348	-1003	-642	383	C
ATOM	841	NE2 HIS A 146	37.843	15.948	7.542	1.00	35.75		N
ANISOU	841	NE2 HIS A 146	4650	4085	4848	-1136	-759	361	N
ATOM	842	N GLY A 147	33.037	17.825	11.475	1.00	30.09		N
ANISOU	842	N GLY A 147	4649	2812	3973	-708	-974	-340	N
ATOM	843	CA GLY A 147	31.730	18.350	11.885	1.00	31.33		C
ANISOU	843	CA GLY A 147	4925	2861	4119	-579	-958	-482	C
ATOM	844	C GLY A 147	31.851	19.536	12.794	1.00	33.13		C
ANISOU	844	C GLY A 147	5253	2901	4433	-614	-1086	-665	C
ATOM	845	O GLY A 147	32.941	20.061	12.975	1.00	34.78		O
ANISOU	845	O GLY A 147	5445	3036	4736	-760	-1201	-656	O
ATOM	846	N CYS A 148	30.724	19.972	13.345	1.00	35.62		N
ANISOU	846	N CYS A 148	5665	3140	4728	-479	-1067	-840	N
ATOM	847	CA CYS A 148	30.676	21.100	14.285	1.00	39.74		C
ANISOU	847	CA CYS A 148	6299	3478	5321	-476	-1182	-1071	C
ATOM	848	C CYS A 148	31.100	22.446	13.685	1.00	43.20		C
ANISOU	848	C CYS A 148	6775	3613	6024	-573	-1312	-1023	C
ATOM	849	O CYS A 148	31.498	23.345	14.407	1.00	41.98		O
ANISOU	849	O CYS A 148	6702	3291	5959	-631	-1448	-1190	O
ATOM	850	CB CYS A 148	31.545	20.801	15.527	1.00	42.95		C
ANISOU	850	CB CYS A 148	6727	4004	5588	-560	-1265	-1205	C
ATOM	851	SG CYS A 148	30.919	19.461	16.575	1.00	42.50		S
ANISOU	851	SG CYS A 148	6678	4259	5210	-449	-1146	-1300	S
ATOM	852	N ASP A 149	30.999	22.580	12.370	1.00	47.14		N
ANISOU	852	N ASP A 149	7225	4042	6644	-598	-1279	-792	N
ATOM	853	CA ASP A 149	31.500	23.752	11.660	1.00	54.01		C

ANISOU	853	CA	ASP A 149	8122	4641	7759	-726	-1399	-672	C
ATOM	854	C	ASP A 149	30.427	24.247	10.698	1.00	61.68		C
ANISOU	854	C	ASP A 149	9130	5460	8847	-611	-1374	-570	C
ATOM	855	O	ASP A 149	29.302	23.741	10.712	1.00	56.98		O
ANISOU	855	O	ASP A 149	8531	4965	8152	-428	-1271	-634	O
ATOM	856	CB	ASP A 149	32.779	23.387	10.905	1.00	57.49		C
ANISOU	856	CB	ASP A 149	8442	5188	8213	-929	-1396	-426	C
ATOM	857	CG	ASP A 149	32.550	22.300	9.851	1.00	62.55		C
ANISOU	857	CG	ASP A 149	8981	6061	8725	-884	-1235	-219	C
ATOM	858	OD1	ASP A 149	31.381	22.022	9.512	1.00	67.21		O
ANISOU	858	OD1	ASP A 149	9602	6677	9259	-722	-1154	-224	O
ATOM	859	OD2	ASP A 149	33.541	21.719	9.365	1.00	62.16		O
ANISOU	859	OD2	ASP A 149	8811	6171	8634	-1009	-1194	-65	O
ATOM	860	N	LYS A 150	30.786	25.214	9.852	1.00	76.51		N
ANISOU	860	N	LYS A 150	11034	7101	10935	-730	-1474	-394	N
ATOM	861	CA	LYS A 150	29.846	25.840	8.912	1.00	81.90		C
ANISOU	861	CA	LYS A 150	11766	7597	11757	-636	-1496	-270	C
ATOM	862	C	LYS A 150	29.528	24.957	7.696	1.00	84.35		C
ANISOU	862	C	LYS A 150	11989	8125	11934	-614	-1365	-20	C
ATOM	863	O	LYS A 150	28.399	24.974	7.202	1.00	78.30		O
ANISOU	863	O	LYS A 150	11242	7328	11182	-456	-1341	7	O
ATOM	864	CB	LYS A 150	30.386	27.203	8.472	1.00	87.02		C
ANISOU	864	CB	LYS A 150	12489	7898	12678	-791	-1671	-147	C
ATOM	865	CG	LYS A 150	30.632	28.121	9.657	1.00	95.14		C
ANISOU	865	CG	LYS A 150	13616	8678	13854	-804	-1822	-425	C
ATOM	866	CD	LYS A 150	30.987	29.544	9.269	1.00	101.06		C
ANISOU	866	CD	LYS A 150	14461	9021	14917	-939	-2020	-325	C
ATOM	867	CE	LYS A 150	31.152	30.386	10.530	1.00	103.44		C

ANISOU	867	CE	LYS A 150	14870	9077	15354	-928	-2175	-660	C
ATOM	868	NZ	LYS A 150	31.504	31.803	10.257	1.00100.51			N
ANISOU	868	NZ	LYS A 150	14604	8264	15322	-1064	-2396	-591	N
ATOM	869	N	GLU A 151	30.507	24.177	7.232	1.00	84.93		N
ANISOU	869	N	GLU A 151	11961	8424	11883	-763	-1286	143	N
ATOM	870	CA	GLU A 151	30.298	23.245	6.111	1.00	83.90		C
ANISOU	870	CA	GLU A 151	11750	8526	11601	-744	-1156	345	C
ATOM	871	C	GLU A 151	29.281	22.163	6.439	1.00	69.38		C
ANISOU	871	C	GLU A 151	9884	6886	9590	-546	-1042	210	C
ATOM	872	O	GLU A 151	28.590	21.668	5.549	1.00	60.62		O
ANISOU	872	O	GLU A 151	8750	5879	8405	-470	-976	327	O
ATOM	873	CB	GLU A 151	31.623	22.602	5.682	1.00	94.21		C
ANISOU	873	CB	GLU A 151	12939	10043	12815	-927	-1086	495	C
ATOM	874	CG	GLU A 151	32.561	23.578	4.983	1.00110.94			C
ANISOU	874	CG	GLU A 151	15052	12015	15087	-1151	-1164	711	C
ATOM	875	CD	GLU A 151	33.967	23.054	4.765	1.00119.09			C
ANISOU	875	CD	GLU A 151	15936	13254	16056	-1337	-1095	817	C
ATOM	876	OE1	GLU A 151	34.396	22.131	5.486	1.00114.99			O
ANISOU	876	OE1	GLU A 151	15335	12927	15427	-1300	-1041	676	O
ATOM	877	OE2	GLU A 151	34.652	23.584	3.865	1.00127.11			O
ANISOU	877	OE2	GLU A 151	16912	14244	17141	-1523	-1099	1052	O
ATOM	878	N	HIS A 152	29.207	21.807	7.720	1.00	72.89		N
ANISOU	878	N	HIS A 152	10337	7390	9968	-477	-1028	-29	N
ATOM	879	CA	HIS A 152	28.260	20.808	8.226	1.00	78.35		C
ANISOU	879	CA	HIS A 152	11003	8267	10499	-311	-921	-163	C
ATOM	880	C	HIS A 152	27.112	21.437	9.042	1.00	73.34		C
ANISOU	880	C	HIS A 152	10439	7494	9931	-143	-950	-387	C
ATOM	881	O	HIS A 152	26.358	20.713	9.693	1.00	73.99		O

ANISOU	881	O	HIS A 152	10497	7732	9883	-22	-858	-526	O
ATOM	882	CB	HIS A 152	29.005	19.759	9.077	1.00	79.17		C
ANISOU	882	CB	HIS A 152	11053	8590	10436	-360	-865	-245	C
ATOM	883	CG	HIS A 152	30.045	18.993	8.318	1.00	85.17		C
ANISOU	883	CG	HIS A 152	11717	9512	11133	-483	-819	-60	C
ATOM	884	ND1	HIS A 152	29.809	17.743	7.784	1.00	91.12		N
ANISOU	884	ND1	HIS A 152	12399	10478	11745	-431	-708	15	N
ATOM	885	CD2	HIS A 152	31.324	19.303	7.996	1.00	84.64		C
ANISOU	885	CD2	HIS A 152	11600	9428	11132	-653	-865	52	C
ATOM	886	CE1	HIS A 152	30.897	17.315	7.166	1.00	88.71		C
ANISOU	886	CE1	HIS A 152	12007	10281	11418	-545	-682	148	C
ATOM	887	NE2	HIS A 152	31.829	18.245	7.278	1.00	91.12		N
ANISOU	887	NE2	HIS A 152	12313	10463	11845	-684	-769	181	N
ATOM	888	N	ALA A 153	26.989	22.768	9.012	1.00	69.64		N
ANISOU	888	N	ALA A 153	10052	6736	9672	-136	-1074	-424	N
ATOM	889	CA	ALA A 153	25.880	23.484	9.660	1.00	68.78		C
ANISOU	889	CA	ALA A 153	10001	6469	9665	48	-1106	-649	C
ATOM	890	C	ALA A 153	25.871	23.434	11.202	1.00	68.42		C
ANISOU	890	C	ALA A 153	9992	6482	9523	102	-1083	-958	C
ATOM	891	O	ALA A 153	24.828	23.656	11.828	1.00	67.22		O
ANISOU	891	O	ALA A 153	9852	6312	9376	280	-1044	-1172	O
ATOM	892	CB	ALA A 153	24.547	22.970	9.115	1.00	70.80		C
ANISOU	892	CB	ALA A 153	10191	6829	9882	221	-1017	-613	C
ATOM	893	N	GLY A 154	27.026	23.170	11.814	1.00	60.98		N
ANISOU	893	N	GLY A 154	9061	5620	8488	-50	-1110	-985	N
ATOM	894	CA	GLY A 154	27.100	22.970	13.263	1.00	57.69		C
ANISOU	894	CA	GLY A 154	8686	5312	7923	-20	-1093	-1251	C
ATOM	895	C	GLY A 154	26.654	21.578	13.705	1.00	50.25		C

ANISOU	895	C	GLY A 154	7675	4701	6718	41	-933	-1265	C
ATOM	896	O	GLY A 154	26.471	21.330	14.890	1.00	50.63		O
ANISOU	896	O	GLY A 154	7757	4874	6606	85	-894	-1470	O
ATOM	897	N	GLN A 155	26.463	20.666	12.764	1.00	49.63		N
ANISOU	897	N	GLN A 155	7507	4763	6589	37	-846	-1047	N
ATOM	898	CA	GLN A 155	26.074	19.294	13.114	1.00	50.48		C
ANISOU	898	CA	GLN A 155	7551	5155	6474	75	-712	-1035	C
ATOM	899	C	GLN A 155	27.300	18.512	13.547	1.00	44.48		C
ANISOU	899	C	GLN A 155	6777	4542	5580	-66	-736	-975	C
ATOM	900	O	GLN A 155	28.351	18.637	12.916	1.00	39.53		O
ANISOU	900	O	GLN A 155	6124	3858	5038	-192	-807	-830	O
ATOM	901	CB	GLN A 155	25.401	18.592	11.947	1.00	52.88		C
ANISOU	901	CB	GLN A 155	7769	5538	6784	125	-629	-846	C
ATOM	902	CG	GLN A 155	23.977	19.064	11.715	1.00	66.78		C
ANISOU	902	CG	GLN A 155	9512	7224	8635	293	-591	-921	C
ATOM	903	CD	GLN A 155	23.433	18.624	10.374	1.00	71.73		C
ANISOU	903	CD	GLN A 155	10067	7881	9307	321	-563	-717	C
ATOM	904	OE1	GLN A 155	23.688	17.506	9.929	1.00	76.45		O
ANISOU	904	OE1	GLN A 155	10611	8651	9786	261	-505	-583	O
ATOM	905	NE2	GLN A 155	22.689	19.510	9.714	1.00	82.33		N
ANISOU	905	NE2	GLN A 155	11412	9046	10824	417	-621	-697	N
ATOM	906	N	PRO A 156	27.181	17.723	14.634	1.00	42.91		N
ANISOU	906	N	PRO A 156	6589	4537	5176	-48	-681	-1079	N
ATOM	907	CA	PRO A 156	28.324	16.942	15.095	1.00	40.48		C
ANISOU	907	CA	PRO A 156	6266	4364	4749	-167	-728	-1015	C
ATOM	908	C	PRO A 156	28.817	15.945	14.078	1.00	34.05		C
ANISOU	908	C	PRO A 156	5352	3639	3946	-218	-694	-783	C
ATOM	909	O	PRO A 156	28.113	15.627	13.109	1.00	31.53		O

ANISOU	909	O	PRO A 156	4985	3327	3669	-156	-613	-678	O
ATOM	910	CB	PRO A 156	27.784	16.195	16.313	1.00	45.76		C
ANISOU	910	CB	PRO A 156	6970	5234	5184	-118	-658	-1132	C
ATOM	911	CG	PRO A 156	26.304	16.198	16.144	1.00	47.21		C
ANISOU	911	CG	PRO A 156	7135	5442	5363	20	-525	-1189	C
ATOM	912	CD	PRO A 156	26.015	17.526	15.511	1.00	46.16		C
ANISOU	912	CD	PRO A 156	7022	5064	5454	76	-577	-1250	C
ATOM	913	N	PRO A 157	30.040	15.458	14.282	1.00	30.30		N
ANISOU	913	N	PRO A 157	4841	3235	3437	-324	-764	-715	N
ATOM	914	CA	PRO A 157	30.472	14.403	13.406	1.00	29.12		C
ANISOU	914	CA	PRO A 157	4591	3187	3286	-346	-719	-531	C
ATOM	915	C	PRO A 157	29.571	13.176	13.601	1.00	28.12		C
ANISOU	915	C	PRO A 157	4456	3212	3015	-259	-617	-511	C
ATOM	916	O	PRO A 157	29.026	12.955	14.690	1.00	26.90		O
ANISOU	916	O	PRO A 157	4362	3136	2722	-224	-598	-616	O
ATOM	917	CB	PRO A 157	31.902	14.132	13.865	1.00	31.14		C
ANISOU	917	CB	PRO A 157	4800	3496	3534	-454	-826	-503	C
ATOM	918	CG	PRO A 157	31.933	14.560	15.295	1.00	31.24		C
ANISOU	918	CG	PRO A 157	4911	3513	3447	-470	-911	-677	C
ATOM	919	CD	PRO A 157	30.981	15.705	15.388	1.00	32.32		C
ANISOU	919	CD	PRO A 157	5138	3505	3637	-410	-887	-818	C
ATOM	920	N	CYS A 158	29.397	12.412	12.538	1.00	25.53		N
ANISOU	920	N	CYS A 158	4057	2928	2716	-233	-550	-377	N
ATOM	921	CA	CYS A 158	28.739	11.117	12.620	1.00	26.50		C
ANISOU	921	CA	CYS A 158	4160	3176	2731	-179	-476	-333	C
ATOM	922	C	CYS A 158	29.427	10.189	13.638	1.00	25.47		C
ANISOU	922	C	CYS A 158	4038	3155	2485	-219	-532	-324	C
ATOM	923	O	CYS A 158	30.644	10.267	13.840	1.00	25.66		O

ANISOU	923	O	CYS A 158	4034	3175	2540	-284	-627	-306	O
ATOM	924	CB	CYS A 158	28.764	10.476	11.236	1.00	28.15		C
ANISOU	924	CB	CYS A 158	4292	3399	3004	-163	-430	-204	C
ATOM	925	SG	CYS A 158	27.672	9.071	11.082	1.00	38.27		S
ANISOU	925	SG	CYS A 158	5556	4781	4204	-96	-348	-162	S
ATOM	926	N	ARG A 159	28.646	9.337	14.295	1.00	25.34		N
ANISOU	926	N	ARG A 159	4053	3237	2340	-188	-482	-325	N
ATOM	927	CA	ARG A 159	29.199	8.253	15.113	1.00	27.92		C
ANISOU	927	CA	ARG A 159	4389	3660	2558	-223	-542	-266	C
ATOM	928	C	ARG A 159	29.845	7.229	14.194	1.00	27.10		C
ANISOU	928	C	ARG A 159	4199	3552	2546	-215	-563	-139	C
ATOM	929	O	ARG A 159	29.773	7.349	12.966	1.00	24.37		O
ANISOU	929	O	ARG A 159	3794	3156	2311	-187	-513	-109	O
ATOM	930	CB	ARG A 159	28.115	7.582	15.961	1.00	32.16		C
ANISOU	930	CB	ARG A 159	4981	4302	2935	-209	-472	-268	C
ATOM	931	CG	ARG A 159	27.568	8.437	17.076	1.00	36.58		C
ANISOU	931	CG	ARG A 159	5625	4913	3362	-212	-443	-415	C
ATOM	932	CD	ARG A 159	28.379	8.275	18.340	1.00	41.82		C
ANISOU	932	CD	ARG A 159	6361	5661	3869	-279	-553	-431	C
ATOM	933	NE	ARG A 159	28.322	9.489	19.139	1.00	51.18		N
ANISOU	933	NE	ARG A 159	7622	6845	4978	-283	-569	-619	N
ATOM	934	CZ	ARG A 159	28.652	9.579	20.425	1.00	54.09		C
ANISOU	934	CZ	ARG A 159	8083	7318	5151	-333	-640	-693	C
ATOM	935	NH1	ARG A 159	29.080	8.512	21.113	1.00	52.40		N
ANISOU	935	NH1	ARG A 159	7897	7221	4790	-390	-711	-565	N
ATOM	936	NH2	ARG A 159	28.551	10.754	21.029	1.00	53.73		N
ANISOU	936	NH2	ARG A 159	8108	7251	5055	-323	-651	-899	N
ATOM	937	N	ASN A 160	30.444	6.197	14.780	1.00	25.24		N

ANISOU	937	N	ASN A 160	3961	3371	2260	-232	-641	-69	N
ATOM	938	CA	ASN A 160	31.214	5.210	14.001	1.00	25.12		C
ANISOU	938	CA	ASN A 160	3855	3341	2350	-205	-678	22	C
ATOM	939	C	ASN A 160	30.475	3.962	13.534	1.00	23.89		C
ANISOU	939	C	ASN A 160	3694	3184	2200	-159	-626	94	C
ATOM	940	O	ASN A 160	31.032	3.180	12.747	1.00	23.72		O
ANISOU	940	O	ASN A 160	3598	3134	2279	-118	-647	137	O
ATOM	941	CB	ASN A 160	32.483	4.831	14.771	1.00	24.50		C
ANISOU	941	CB	ASN A 160	3751	3291	2269	-234	-826	57	C
ATOM	942	CG	ASN A 160	32.283	3.687	15.746	1.00	27.69		C
ANISOU	942	CG	ASN A 160	4219	3739	2564	-237	-895	139	C
ATOM	943	OD1	ASN A 160	31.193	3.462	16.273	1.00	24.89		O
ANISOU	943	OD1	ASN A 160	3952	3421	2084	-251	-832	151	O
ATOM	944	ND2	ASN A 160	33.374	2.961	16.011	1.00	28.91		N
ANISOU	944	ND2	ASN A 160	4319	3892	2772	-226	-1033	207	N
ATOM	945	N	ASN A 161	29.232	3.798	13.992	1.00	22.45		N
ANISOU	945	N	ASN A 161	3579	3031	1919	-167	-558	94	N
ATOM	946	CA	ASN A 161	28.450	2.600	13.759	1.00	21.07		C
ANISOU	946	CA	ASN A 161	3407	2852	1747	-154	-525	169	C
ATOM	947	C	ASN A 161	27.077	2.901	13.181	1.00	20.00		C
ANISOU	947	C	ASN A 161	3265	2720	1613	-138	-403	132	C
ATOM	948	O	ASN A 161	26.090	2.242	13.529	1.00	18.86		O
ANISOU	948	O	ASN A 161	3140	2609	1415	-163	-359	177	O
ATOM	949	CB	ASN A 161	28.304	1.787	15.050	1.00	22.49		C
ANISOU	949	CB	ASN A 161	3660	3084	1801	-208	-582	253	C
ATOM	950	CG	ASN A 161	27.597	2.546	16.147	1.00	23.86		C
ANISOU	950	CG	ASN A 161	3907	3359	1802	-256	-522	199	C
ATOM	951	OD1	ASN A 161	27.471	3.745	16.083	1.00	27.26		O

ANISOU	951	OD1 ASN A 161	4337	3796	2226	-240	-473	82	O
ATOM	952	ND2 ASN A 161	27.161	1.843	17.177	1.00	27.98		N
ANISOU	952	ND2 ASN A 161	4494	3958	2181	-318	-530	285	N
ATOM	953	N ILE A 162	27.037	3.861	12.260	1.00	19.37		N
ANISOU	953	N ILE A 162	3148	2606	1606	-102	-358	67	N
ATOM	954	CA ILE A 162	25.796	4.422	11.769	1.00	19.93		C
ANISOU	954	CA ILE A 162	3208	2678	1688	-76	-267	23	C
ATOM	955	C ILE A 162	25.493	3.984	10.340	1.00	20.05		C
ANISOU	955	C ILE A 162	3169	2654	1795	-38	-248	51	C
ATOM	956	O ILE A 162	26.373	4.006	9.478	1.00	19.78		O
ANISOU	956	O ILE A 162	3103	2589	1822	-21	-277	60	O
ATOM	957	CB ILE A 162	25.852	5.983	11.793	1.00	20.44		C
ANISOU	957	CB ILE A 162	3287	2711	1769	-61	-251	-67	C
ATOM	958	CG1 ILE A 162	26.095	6.509	13.209	1.00	22.35		C
ANISOU	958	CG1 ILE A 162	3593	2994	1906	-94	-274	-133	C
ATOM	959	CG2 ILE A 162	24.567	6.589	11.249	1.00	20.74		C
ANISOU	959	CG2 ILE A 162	3302	2734	1846	-11	-176	-109	C
ATOM	960	CD1 ILE A 162	24.938	6.318	14.177	1.00	23.06		C
ANISOU	960	CD1 ILE A 162	3712	3176	1873	-98	-195	-168	C
ATOM	961	N VAL A 163	24.234	3.604	10.114	1.00	22.73		N
ANISOU	961	N VAL A 163	3491	3012	2135	-31	-197	58	N
ATOM	962	CA VAL A 163	23.649	3.483	8.749	1.00	22.80		C
ANISOU	962	CA VAL A 163	3453	2995	2213	5	-183	59	C
ATOM	963	C VAL A 163	22.596	4.567	8.735	1.00	23.17		C
ANISOU	963	C VAL A 163	3482	3053	2268	35	-130	12	C
ATOM	964	O VAL A 163	21.718	4.576	9.586	1.00	23.01		O
ANISOU	964	O VAL A 163	3451	3083	2208	24	-80	-9	O
ATOM	965	CB VAL A 163	22.964	2.130	8.506	1.00	22.32		C

ANISOU	965	CB	VAL A 163	3374	2935	2173	-16	-194	100	C
ATOM	966	CG1	VAL A 163	22.202	2.145	7.174	1.00	27.65		C
ANISOU	966	CG1	VAL A 163	4005	3600	2900	17	-192	82	C
ATOM	967	CG2	VAL A 163	23.993	1.023	8.549	1.00	21.47		C
ANISOU	967	CG2	VAL A 163	3287	2786	2086	-25	-263	137	C
ATOM	968	N	ASP A 164	22.775	5.546	7.862	1.00	23.81		N
ANISOU	968	N	ASP A 164	3559	3091	2398	73	-142	-2	N
ATOM	969	CA	ASP A 164	21.954	6.740	7.837	1.00	24.73		C
ANISOU	969	CA	ASP A 164	3663	3181	2552	119	-119	-48	C
ATOM	970	C	ASP A 164	21.040	6.517	6.622	1.00	22.35		C
ANISOU	970	C	ASP A 164	3311	2883	2300	153	-132	-15	C
ATOM	971	O	ASP A 164	21.491	6.612	5.492	1.00	21.16		O
ANISOU	971	O	ASP A 164	3168	2709	2161	157	-171	29	O
ATOM	972	CB	ASP A 164	22.868	7.963	7.646	1.00	26.01		C
ANISOU	972	CB	ASP A 164	3866	3265	2751	121	-154	-57	C
ATOM	973	CG	ASP A 164	22.315	9.255	8.266	1.00	32.12		C
ANISOU	973	CG	ASP A 164	4657	3979	3566	167	-144	-140	C
ATOM	974	OD1	ASP A 164	21.231	9.252	8.891	1.00	35.45		O
ANISOU	974	OD1	ASP A 164	5047	4443	3978	211	-92	-206	O
ATOM	975	OD2	ASP A 164	22.988	10.311	8.115	1.00	35.67		O
ANISOU	975	OD2	ASP A 164	5147	4334	4070	159	-189	-146	O
ATOM	976	N	GLY A 165	19.778	6.179	6.844	1.00	20.78		N
ANISOU	976	N	GLY A 165	3050	2729	2116	169	-101	-34	N
ATOM	977	CA	GLY A 165	18.908	5.815	5.721	1.00	19.92		C
ANISOU	977	CA	GLY A 165	2884	2632	2052	189	-137	-4	C
ATOM	978	C	GLY A 165	17.876	6.841	5.357	1.00	20.81		C
ANISOU	978	C	GLY A 165	2941	2726	2242	265	-150	-25	C
ATOM	979	O	GLY A 165	17.457	7.653	6.186	1.00	21.31		O

ANISOU	979	O	GLY A 165	2981	2780	2337	312	-105	-88	O
ATOM	980	N	SER A 166	17.428	6.767	4.105	1.00	18.92		N
ANISOU	980	N	SER A 166	2674	2482	2031	285	-221	20	N
ATOM	981	CA	SER A 166	16.370	7.592	3.598	1.00	18.52		C
ANISOU	981	CA	SER A 166	2557	2412	2067	363	-268	20	C
ATOM	982	C	SER A 166	15.059	7.252	4.281	1.00	20.05		C
ANISOU	982	C	SER A 166	2622	2677	2320	381	-219	-34	C
ATOM	983	O	SER A 166	14.943	6.227	4.952	1.00	23.30		O
ANISOU	983	O	SER A 166	3007	3157	2690	309	-158	-45	O
ATOM	984	CB	SER A 166	16.191	7.358	2.063	1.00	18.13		C
ANISOU	984	CB	SER A 166	2513	2373	2002	361	-373	91	C
ATOM	985	OG	SER A 166	15.761	6.030	1.803	1.00	16.06		O
ANISOU	985	OG	SER A 166	2207	2182	1711	305	-386	81	O
ATOM	986	N	ASN A 167	14.067	8.118	4.106	1.00	22.23		N
ANISOU	986	N	ASN A 167	2810	2936	2702	477	-248	-59	N
ATOM	987	CA	ASN A 167	12.682	7.846	4.530	1.00	23.37		C
ANISOU	987	CA	ASN A 167	2786	3168	2925	504	-206	-108	C
ATOM	988	C	ASN A 167	12.146	6.496	4.049	1.00	22.67		C
ANISOU	988	C	ASN A 167	2629	3162	2822	409	-239	-62	C
ATOM	989	O	ASN A 167	11.455	5.828	4.788	1.00	22.08		O
ANISOU	989	O	ASN A 167	2450	3179	2762	356	-159	-86	O
ATOM	990	CB	ASN A 167	11.732	8.933	4.011	1.00	26.49		C
ANISOU	990	CB	ASN A 167	3083	3517	3463	639	-282	-124	C
ATOM	991	CG	ASN A 167	11.992	10.302	4.624	1.00	27.92		C
ANISOU	991	CG	ASN A 167	3307	3595	3707	748	-254	-199	C
ATOM	992	OD1	ASN A 167	12.613	10.439	5.685	1.00	26.19		O
ANISOU	992	OD1	ASN A 167	3153	3376	3422	727	-152	-271	O
ATOM	993	ND2	ASN A 167	11.510	11.315	3.956	1.00	27.40		N

ANISOU	993	ND2 ASN A 167	3210	3431	3772	865	-363	-182	N
ATOM	994	N ALA A 168	12.473	6.114	2.809	1.00	22.07		N
ANISOU	994	N ALA A 168	2617	3057	2713	381	-356	0	N
ATOM	995	CA ALA A 168	11.989	4.867	2.209	1.00	23.12		C
ANISOU	995	CA ALA A 168	2701	3242	2840	294	-418	21	C
ATOM	996	C ALA A 168	12.532	3.642	2.927	1.00	21.54		C
ANISOU	996	C ALA A 168	2550	3057	2579	180	-347	20	C
ATOM	997	O ALA A 168	11.845	2.615	3.073	1.00	20.97		O
ANISOU	997	O ALA A 168	2396	3026	2545	93	-352	26	O
ATOM	998	CB ALA A 168	12.330	4.836	0.710	1.00	24.22		C
ANISOU	998	CB ALA A 168	2922	3354	2925	301	-558	64	C
ATOM	999	N VAL A 169	13.761	3.767	3.421	1.00	21.56		N
ANISOU	999	N VAL A 169	2678	3014	2497	174	-290	21	N
ATOM	1000	CA VAL A 169	14.368	2.733	4.222	1.00	20.64		C
ANISOU	1000	CA VAL A 169	2615	2897	2329	83	-235	33	C
ATOM	1001	C VAL A 169	13.600	2.554	5.518	1.00	20.14		C
ANISOU	1001	C VAL A 169	2458	2908	2285	38	-129	30	C
ATOM	1002	O VAL A 169	13.262	1.435	5.881	1.00	22.56		O
ANISOU	1002	O VAL A 169	2733	3239	2601	-67	-119	69	O
ATOM	1003	CB VAL A 169	15.855	3.007	4.494	1.00	20.59		C
ANISOU	1003	CB VAL A 169	2743	2838	2241	97	-212	35	C
ATOM	1004	CG1 VAL A 169	16.399	2.058	5.555	1.00	19.71		C
ANISOU	1004	CG1 VAL A 169	2676	2728	2086	16	-164	57	C
ATOM	1005	CG2 VAL A 169	16.640	2.900	3.202	1.00	19.82		C
ANISOU	1005	CG2 VAL A 169	2722	2701	2108	115	-294	42	C
ATOM	1006	N TRP A 170	13.281	3.653	6.182	1.00	22.32		N
ANISOU	1006	N TRP A 170	2688	3222	2569	113	-50	-17	N
ATOM	1007	CA TRP A 170	12.505	3.621	7.447	1.00	21.93		C

ANISOU	1007	CA	TRP A 170	2538	3284	2511	83	80	-42	C
ATOM	1008	C	TRP A 170	11.095	3.071	7.290	1.00	22.85		C
ANISOU	1008	C	TRP A 170	2470	3489	2721	35	90	-25	C
ATOM	1009	O	TRP A 170	10.656	2.194	8.057	1.00	24.17		O
ANISOU	1009	O	TRP A 170	2577	3741	2866	-84	165	22	O
ATOM	1010	CB	TRP A 170	12.428	5.018	8.059	1.00	22.16		C
ANISOU	1010	CB	TRP A 170	2552	3328	2541	202	154	-138	C
ATOM	1011	CG	TRP A 170	13.690	5.386	8.704	1.00	20.47		C
ANISOU	1011	CG	TRP A 170	2494	3064	2220	203	176	-157	C
ATOM	1012	CD1	TRP A 170	14.844	5.757	8.091	1.00	18.73		C
ANISOU	1012	CD1	TRP A 170	2403	2729	1986	227	91	-139	C
ATOM	1013	CD2	TRP A 170	13.951	5.395	10.108	1.00	20.83		C
ANISOU	1013	CD2	TRP A 170	2577	3190	2149	165	287	-195	C
ATOM	1014	NE1	TRP A 170	15.804	6.013	9.026	1.00	19.44		N
ANISOU	1014	NE1	TRP A 170	2595	2810	1981	208	130	-167	N
ATOM	1015	CE2	TRP A 170	15.276	5.801	10.278	1.00	19.83		C
ANISOU	1015	CE2	TRP A 170	2600	2977	1956	173	243	-205	C
ATOM	1016	CE3	TRP A 170	13.183	5.112	11.238	1.00	23.35		C
ANISOU	1016	CE3	TRP A 170	2811	3663	2399	118	422	-220	C
ATOM	1017	CZ2	TRP A 170	15.869	5.902	11.534	1.00	20.71		C
ANISOU	1017	CZ2	TRP A 170	2791	3142	1935	139	305	-243	C
ATOM	1018	CZ3	TRP A 170	13.775	5.238	12.498	1.00	23.99		C
ANISOU	1018	CZ3	TRP A 170	2983	3811	2323	85	500	-255	C
ATOM	1019	CH2	TRP A 170	15.088	5.637	12.632	1.00	22.34		C
ANISOU	1019	CH2	TRP A 170	2932	3503	2052	99	431	-271	C
ATOM	1020	N	SER A 171	10.364	3.576	6.306	1.00	22.85		N
ANISOU	1020	N	SER A 171	2375	3477	2832	115	5	-48	N
ATOM	1021	CA	SER A 171	9.003	3.101	6.118	1.00	24.56		C

ANISOU	1021	CA	SER A 171	2390	3783	3158	70	-4	-37	C
ATOM	1022	C	SER A 171	9.000	1.644	5.640	1.00	24.46		C
ANISOU	1022	C	SER A 171	2398	3742	3152	-85	-89	39	C
ATOM	1023	O	SER A 171	8.091	0.898	5.969	1.00	26.67		O
ANISOU	1023	O	SER A 171	2536	4101	3495	-195	-56	75	O
ATOM	1024	CB	SER A 171	8.209	4.011	5.178	1.00	26.23		C
ANISOU	1024	CB	SER A 171	2485	3984	3495	202	-103	-76	C
ATOM	1025	OG	SER A 171	8.736	3.959	3.873	1.00	27.09		O
ANISOU	1025	OG	SER A 171	2710	3992	3589	218	-269	-39	O
ATOM	1026	N	ALA A 172	10.023	1.213	4.913	1.00	23.32		N
ANISOU	1026	N	ALA A 172	2426	3484	2950	-100	-192	58	N
ATOM	1027	CA	ALA A 172	10.067	-0.180	4.478	1.00	24.75		C
ANISOU	1027	CA	ALA A 172	2641	3612	3151	-230	-281	101	C
ATOM	1028	C	ALA A 172	10.278	-1.168	5.654	1.00	26.50		C
ANISOU	1028	C	ALA A 172	2890	3839	3340	-369	-193	171	C
ATOM	1029	O	ALA A 172	9.824	-2.295	5.615	1.00	27.01		O
ANISOU	1029	O	ALA A 172	2913	3878	3470	-504	-242	223	O
ATOM	1030	CB	ALA A 172	11.115	-0.381	3.410	1.00	23.11		C
ANISOU	1030	CB	ALA A 172	2599	3296	2884	-192	-398	78	C
ATOM	1031	N	LEU A 173	10.953	-0.719	6.698	1.00	27.97		N
ANISOU	1031	N	LEU A 173	3150	4053	3425	-342	-76	180	N
ATOM	1032	CA	LEU A 173	11.145	-1.512	7.892	1.00	28.71		C
ANISOU	1032	CA	LEU A 173	3278	4173	3459	-468	6	266	C
ATOM	1033	C	LEU A 173	10.001	-1.335	8.876	1.00	31.95		C
ANISOU	1033	C	LEU A 173	3516	4754	3869	-530	154	290	C
ATOM	1034	O	LEU A 173	10.052	-1.868	9.971	1.00	32.51		O
ANISOU	1034	O	LEU A 173	3606	4887	3860	-644	245	375	O
ATOM	1035	CB	LEU A 173	12.445	-1.071	8.566	1.00	29.77		C

ANISOU	1035	CB	LEU A 173	3573	4277	3462	-410	48	258	C
ATOM	1036	CG	LEU A 173	13.723	-1.362	7.794	1.00	31.47		C
ANISOU	1036	CG	LEU A 173	3945	4347	3667	-364	-71	244	C
ATOM	1037	CD1	LEU A 173	14.888	-0.671	8.490	1.00	33.64		C
ANISOU	1037	CD1	LEU A 173	4334	4619	3830	-300	-24	226	C
ATOM	1038	CD2	LEU A 173	13.965	-2.864	7.676	1.00	31.70		C
ANISOU	1038	CD2	LEU A 173	4030	4270	3746	-478	-163	319	C
ATOM	1039	N	GLY A 174	8.993	-0.547	8.511	1.00	32.90		N
ANISOU	1039	N	GLY A 174	3465	4962	4072	-449	182	217	N
ATOM	1040	CA	GLY A 174	7.848	-0.319	9.366	1.00	36.26		C
ANISOU	1040	CA	GLY A 174	3690	5575	4515	-487	338	214	C
ATOM	1041	C	GLY A 174	8.136	0.553	10.581	1.00	35.70		C
ANISOU	1041	C	GLY A 174	3648	5617	4301	-415	511	153	C
ATOM	1042	O	GLY A 174	7.448	0.460	11.587	1.00	39.12		O
ANISOU	1042	O	GLY A 174	3959	6226	4678	-487	673	170	O
ATOM	1043	N	LEU A 175	9.105	1.443	10.456	1.00	35.08		N
ANISOU	1043	N	LEU A 175	3720	5448	4161	-276	477	73	N
ATOM	1044	CA	LEU A 175	9.575	2.252	11.568	1.00	35.70		C
ANISOU	1044	CA	LEU A 175	3868	5600	4096	-211	605	-2	C
ATOM	1045	C	LEU A 175	9.260	3.726	11.359	1.00	38.23		C
ANISOU	1045	C	LEU A 175	4121	5920	4483	-13	629	-162	C
ATOM	1046	O	LEU A 175	9.350	4.228	10.233	1.00	41.67		O
ANISOU	1046	O	LEU A 175	4568	6227	5037	89	497	-187	O
ATOM	1047	CB	LEU A 175	11.088	2.082	11.709	1.00	35.29		C
ANISOU	1047	CB	LEU A 175	4055	5423	3931	-226	529	36	C
ATOM	1048	CG	LEU A 175	11.584	0.667	12.024	1.00	39.08		C
ANISOU	1048	CG	LEU A 175	4628	5869	4350	-398	486	191	C
ATOM	1049	CD1	LEU A 175	13.083	0.550	11.820	1.00	40.54		C

ANISOU	1049	CD1 LEU A 175	5015	5905	4482	-373	373	211	C
ATOM	1050	CD2 LEU A 175	11.173	0.262	13.434	1.00	42.20		C
ANISOU	1050	CD2 LEU A 175	4989	6443	4603	-522	639	258	C
ATOM	1051	N ASN A 176	8.933	4.407	12.461	1.00	41.98		N
ANISOU	1051	N ASN A 176	4542	6536	4875	42	793	-268	N
ATOM	1052	CA ASN A 176	8.672	5.840	12.485	1.00	43.27		C
ANISOU	1052	CA ASN A 176	4653	6683	5104	242	825	-445	C
ATOM	1053	C ASN A 176	9.969	6.600	12.700	1.00	42.89		C
ANISOU	1053	C ASN A 176	4828	6501	4968	309	770	-508	C
ATOM	1054	O ASN A 176	10.547	6.556	13.799	1.00	41.95		O
ANISOU	1054	O ASN A 176	4815	6457	4669	257	857	-537	O
ATOM	1055	CB ASN A 176	7.696	6.174	13.629	1.00	50.64		C
ANISOU	1055	CB ASN A 176	5414	7847	5981	273	1041	-564	C
ATOM	1056	CG ASN A 176	7.230	7.632	13.615	1.00	53.66		C
ANISOU	1056	CG ASN A 176	5706	8202	6480	506	1070	-774	C
ATOM	1057	OD1 ASN A 176	7.888	8.518	13.068	1.00	54.14		O
ANISOU	1057	OD1 ASN A 176	5894	8063	6613	629	941	-831	O
ATOM	1058	ND2 ASN A 176	6.082	7.880	14.224	1.00	57.71		N
ANISOU	1058	ND2 ASN A 176	5992	8915	7022	564	1241	-887	N
ATOM	1059	N LYS A 177	10.407	7.333	11.677	1.00	40.73		N
ANISOU	1059	N LYS A 177	4620	6039	4816	417	623	-526	N
ATOM	1060	CA LYS A 177	11.656	8.093	11.769	1.00	40.79		C
ANISOU	1060	CA LYS A 177	4823	5904	4769	465	556	-572	C
ATOM	1061	C LYS A 177	11.681	9.150	12.868	1.00	41.18		C
ANISOU	1061	C LYS A 177	4896	5992	4759	564	658	-757	C
ATOM	1062	O LYS A 177	12.745	9.681	13.168	1.00	40.98		O
ANISOU	1062	O LYS A 177	5034	5867	4668	571	610	-800	O
ATOM	1063	CB LYS A 177	12.016	8.732	10.430	1.00	40.68		C

ANISOU	1063	CB	LYS A 177	4861	5696	4901	547	389	-537	C
ATOM	1064	CG	LYS A 177	11.107	9.876	10.004	1.00	46.68		C
ANISOU	1064	CG	LYS A 177	5500	6398	5838	720	362	-636	C
ATOM	1065	CD	LYS A 177	11.595	10.411	8.669	1.00	48.47		C
ANISOU	1065	CD	LYS A 177	5809	6435	6171	767	182	-552	C
ATOM	1066	CE	LYS A 177	10.935	11.719	8.300	1.00	51.98		C
ANISOU	1066	CE	LYS A 177	6182	6768	6799	947	119	-635	C
ATOM	1067	NZ	LYS A 177	9.562	11.473	7.793	1.00	56.94		N
ANISOU	1067	NZ	LYS A 177	6597	7481	7555	1006	103	-623	N
ATOM	1068	N	ASN A 178	10.534	9.465	13.459	1.00	45.90		N
ANISOU	1068	N	ASN A 178	5324	6734	5381	640	796	-880	N
ATOM	1069	CA	ASN A 178	10.487	10.397	14.588	1.00	50.46		C
ANISOU	1069	CA	ASN A 178	5919	7375	5879	740	913	-1092	C
ATOM	1070	C	ASN A 178	11.177	9.933	15.869	1.00	52.29		C
ANISOU	1070	C	ASN A 178	6280	7748	5840	616	1012	-1103	C
ATOM	1071	O	ASN A 178	11.502	10.763	16.714	1.00	51.10		O
ANISOU	1071	O	ASN A 178	6211	7607	5599	689	1060	-1283	O
ATOM	1072	CB	ASN A 178	9.042	10.785	14.920	1.00	57.55		C
ANISOU	1072	CB	ASN A 178	6575	8428	6866	863	1060	-1238	C
ATOM	1073	CG	ASN A 178	8.408	11.633	13.834	1.00	57.64		C
ANISOU	1073	CG	ASN A 178	6470	8274	7158	1042	941	-1280	C
ATOM	1074	OD1	ASN A 178	9.105	12.250	13.029	1.00	53.83		O
ANISOU	1074	OD1	ASN A 178	6120	7553	6781	1096	766	-1245	O
ATOM	1075	ND2	ASN A 178	7.083	11.682	13.818	1.00	64.90		N
ANISOU	1075	ND2	ASN A 178	7133	9326	8199	1130	1033	-1348	N
ATOM	1076	N	VAL A 179	11.403	8.631	16.027	1.00	48.36		N
ANISOU	1076	N	VAL A 179	5811	7349	5216	433	1026	-916	N
ATOM	1077	CA	VAL A 179	12.188	8.155	17.166	1.00	47.99		C

ANISOU	1077	CA	VAL A 179	5911	7411	4911	308	1075	-886	C
ATOM	1078	C	VAL A 179	13.677	8.417	16.927	1.00	43.03		C
ANISOU	1078	C	VAL A 179	5494	6587	4268	295	905	-857	C
ATOM	1079	O	VAL A 179	14.491	8.284	17.842	1.00	42.30		O
ANISOU	1079	O	VAL A 179	5540	6551	3982	222	904	-862	O
ATOM	1080	CB	VAL A 179	11.938	6.665	17.498	1.00	50.71		C
ANISOU	1080	CB	VAL A 179	6223	7911	5136	112	1133	-677	C
ATOM	1081	CG1	VAL A 179	10.443	6.408	17.654	1.00	54.82		C
ANISOU	1081	CG1	VAL A 179	6504	8629	5696	104	1302	-692	C
ATOM	1082	CG2	VAL A 179	12.555	5.731	16.456	1.00	49.35		C
ANISOU	1082	CG2	VAL A 179	6113	7567	5070	21	962	-473	C
ATOM	1083	N	GLY A 180	14.040	8.753	15.687	1.00	39.08		N
ANISOU	1083	N	GLY A 180	5010	5873	3964	355	758	-813	N
ATOM	1084	CA	GLY A 180	15.357	9.317	15.383	1.00	37.35		C
ANISOU	1084	CA	GLY A 180	4954	5469	3769	367	614	-819	C
ATOM	1085	C	GLY A 180	16.464	8.289	15.214	1.00	36.46		C
ANISOU	1085	C	GLY A 180	4949	5323	3583	231	518	-642	C
ATOM	1086	O	GLY A 180	17.292	8.409	14.297	1.00	35.44		O
ANISOU	1086	O	GLY A 180	4877	5034	3554	234	391	-577	O
ATOM	1087	N	VAL A 181	16.489	7.286	16.100	1.00	37.65		N
ANISOU	1087	N	VAL A 181	5122	5625	3558	113	579	-560	N
ATOM	1088	CA	VAL A 181	17.498	6.226	16.058	1.00	35.16		C
ANISOU	1088	CA	VAL A 181	4902	5274	3184	-5	479	-392	C
ATOM	1089	C	VAL A 181	16.948	4.885	16.544	1.00	36.33		C
ANISOU	1089	C	VAL A 181	5011	5559	3234	-132	543	-244	C
ATOM	1090	O	VAL A 181	16.182	4.828	17.515	1.00	36.52		O
ANISOU	1090	O	VAL A 181	4990	5765	3119	-170	680	-275	O
ATOM	1091	CB	VAL A 181	18.746	6.621	16.868	1.00	34.06		C

ANISOU	1091	CB	VAL A 181	4909	5118	2916	-28	409	-439	C
ATOM	1092	CG1	VAL A 181	18.425	6.754	18.354	1.00	36.79		C
ANISOU	1092	CG1	VAL A 181	5291	5657	3030	-63	517	-524	C
ATOM	1093	CG2	VAL A 181	19.865	5.619	16.628	1.00	33.78		C
ANISOU	1093	CG2	VAL A 181	4946	5013	2877	-115	281	-273	C
ATOM	1094	N	VAL A 182	17.315	3.816	15.832	1.00	31.46		N
ANISOU	1094	N	VAL A 182	4407	4850	2698	-200	446	-86	N
ATOM	1095	CA	VAL A 182	16.933	2.454	16.206	1.00	31.92		C
ANISOU	1095	CA	VAL A 182	4448	4980	2699	-337	465	81	C
ATOM	1096	C	VAL A 182	18.118	1.511	16.029	1.00	29.20		C
ANISOU	1096	C	VAL A 182	4215	4513	2368	-396	313	216	C
ATOM	1097	O	VAL A 182	19.030	1.820	15.284	1.00	26.49		O
ANISOU	1097	O	VAL A 182	3914	4034	2117	-325	210	180	O
ATOM	1098	CB	VAL A 182	15.744	1.896	15.361	1.00	33.46		C
ANISOU	1098	CB	VAL A 182	4495	5173	3044	-360	500	132	C
ATOM	1099	CG1	VAL A 182	14.468	2.669	15.617	1.00	34.90		C
ANISOU	1099	CG1	VAL A 182	4531	5500	3229	-304	655	13	C
ATOM	1100	CG2	VAL A 182	16.066	1.892	13.884	1.00	31.92		C
ANISOU	1100	CG2	VAL A 182	4292	4800	3036	-289	376	125	C
ATOM	1101	N	ASP A 183	18.088	0.380	16.737	1.00	29.79		N
ANISOU	1101	N	ASP A 183	4329	4638	2353	-526	303	376	N
ATOM	1102	CA	ASP A 183	19.050	-0.711	16.564	1.00	28.86		C
ANISOU	1102	CA	ASP A 183	4297	4385	2282	-577	148	518	C
ATOM	1103	C	ASP A 183	18.718	-1.554	15.342	1.00	26.30		C
ANISOU	1103	C	ASP A 183	3912	3920	2162	-581	84	570	C
ATOM	1104	O	ASP A 183	17.581	-1.943	15.133	1.00	25.93		O
ANISOU	1104	O	ASP A 183	3771	3913	2166	-642	151	605	O
ATOM	1105	CB	ASP A 183	19.061	-1.606	17.793	1.00	34.23		C

ANISOU	1105	CB	ASP A 183	5050	5155	2799	-719	144	690	C
ATOM	1106	CG	ASP A 183	19.686	-0.921	19.000	1.00	39.56		C
ANISOU	1106	CG	ASP A 183	5823	5960	3247	-719	157	646	C
ATOM	1107	OD1	ASP A 183	20.789	-0.350	18.838	1.00	41.49		O
ANISOU	1107	OD1	ASP A 183	6126	6125	3514	-633	57	562	O
ATOM	1108	OD2	ASP A 183	19.088	-0.966	20.094	1.00	46.43		O
ANISOU	1108	OD2	ASP A 183	6708	7022	3913	-812	266	693	O
ATOM	1109	N	ILE A 184	19.733	-1.851	14.552	1.00	24.18		N
ANISOU	1109	N	ILE A 184	3690	3493	2005	-519	-48	564	N
ATOM	1110	CA	ILE A 184	19.607	-2.753	13.431	1.00	23.38		C
ANISOU	1110	CA	ILE A 184	3557	3251	2077	-518	-128	594	C
ATOM	1111	C	ILE A 184	20.819	-3.647	13.333	1.00	23.64		C
ANISOU	1111	C	ILE A 184	3673	3140	2170	-505	-277	661	C
ATOM	1112	O	ILE A 184	21.794	-3.472	14.080	1.00	24.30		O
ANISOU	1112	O	ILE A 184	3826	3238	2169	-491	-325	687	O
ATOM	1113	CB	ILE A 184	19.499	-1.960	12.113	1.00	23.03		C
ANISOU	1113	CB	ILE A 184	3449	3168	2133	-404	-118	453	C
ATOM	1114	CG1	ILE A 184	20.690	-1.005	11.949	1.00	22.38		C
ANISOU	1114	CG1	ILE A 184	3413	3066	2024	-303	-145	366	C
ATOM	1115	CG2	ILE A 184	18.202	-1.174	12.092	1.00	23.32		C
ANISOU	1115	CG2	ILE A 184	3384	3321	2157	-399	4	391	C
ATOM	1116	CD1	ILE A 184	20.963	-0.671	10.500	1.00	23.51		C
ANISOU	1116	CD1	ILE A 184	3524	3135	2274	-214	-180	284	C
ATOM	1117	N	THR A 185	20.757	-4.604	12.412	1.00	23.40		N
ANISOU	1117	N	THR A 185	3629	2968	2293	-502	-361	674	N
ATOM	1118	CA	THR A 185	21.934	-5.302	11.940	1.00	23.68		C
ANISOU	1118	CA	THR A 185	3713	2852	2431	-434	-496	671	C
ATOM	1119	C	THR A 185	21.952	-5.189	10.440	1.00	23.95		C

ANISOU	1119	C	THR A 185	3698	2825	2578	-340	-505	533	C
ATOM	1120	O	THR A 185	20.894	-5.046	9.789	1.00	23.50		O
ANISOU	1120	O	THR A 185	3582	2797	2550	-363	-455	489	O
ATOM	1121	CB	THR A 185	21.930	-6.806	12.334	1.00	25.79		C
ANISOU	1121	CB	THR A 185	4036	2977	2783	-520	-615	819	C
ATOM	1122	OG1	THR A 185	20.752	-7.437	11.825	1.00	27.70		O
ANISOU	1122	OG1	THR A 185	4235	3173	3117	-604	-604	839	O
ATOM	1123	CG2	THR A 185	22.025	-7.001	13.887	1.00	26.58		C
ANISOU	1123	CG2	THR A 185	4208	3149	2742	-627	-625	994	C
ATOM	1124	N	TRP A 186	23.135	-5.269	9.860	1.00	23.45		N
ANISOU	1124	N	TRP A 186	3647	2690	2571	-237	-572	465	N
ATOM	1125	CA	TRP A 186	23.205	-5.272	8.401	1.00	22.18		C
ANISOU	1125	CA	TRP A 186	3448	2490	2489	-153	-578	335	C
ATOM	1126	C	TRP A 186	24.322	-6.162	7.884	1.00	21.95		C
ANISOU	1126	C	TRP A 186	3436	2336	2569	-66	-681	285	C
ATOM	1127	O	TRP A 186	25.234	-6.575	8.615	1.00	21.10		O
ANISOU	1127	O	TRP A 186	3357	2174	2488	-46	-753	346	O
ATOM	1128	CB	TRP A 186	23.356	-3.829	7.861	1.00	21.73		C
ANISOU	1128	CB	TRP A 186	3350	2553	2353	-92	-484	246	C
ATOM	1129	CG	TRP A 186	24.664	-3.197	8.168	1.00	20.84		C
ANISOU	1129	CG	TRP A 186	3242	2471	2205	-35	-486	231	C
ATOM	1130	CD1	TRP A 186	25.037	-2.622	9.362	1.00	23.00		C
ANISOU	1130	CD1	TRP A 186	3541	2799	2398	-68	-475	287	C
ATOM	1131	CD2	TRP A 186	25.809	-3.118	7.311	1.00	20.13		C
ANISOU	1131	CD2	TRP A 186	3121	2369	2157	55	-503	152	C
ATOM	1132	NE1	TRP A 186	26.340	-2.181	9.283	1.00	21.67		N
ANISOU	1132	NE1	TRP A 186	3355	2640	2239	-10	-502	251	N
ATOM	1133	CE2	TRP A 186	26.834	-2.469	8.035	1.00	21.12		C

ANISOU	1133	CE2 TRP A 186	3240	2536	2246	65	-509	174	C
ATOM	1134	CE3 TRP A 186	26.078	-3.544	6.004	1.00	21.37		C
ANISOU	1134	CE3 TRP A 186	3250	2500	2369	126	-511	56	C
ATOM	1135	CZ2 TRP A 186	28.098	-2.211	7.482	1.00	20.36		C
ANISOU	1135	CZ2 TRP A 186	3089	2460	2187	134	-514	117	C
ATOM	1136	CZ3 TRP A 186	27.345	-3.268	5.451	1.00	21.52		C
ANISOU	1136	CZ3 TRP A 186	3221	2556	2401	203	-498	-9	C
ATOM	1137	CH2 TRP A 186	28.326	-2.607	6.182	1.00	19.91		C
ANISOU	1137	CH2 TRP A 186	2991	2395	2179	203	-496	29	C
ATOM	1138	N SER A 187	24.250	-6.431	6.592	1.00	20.58		N
ANISOU	1138	N SER A 187	3239	2126	2453	-5	-690	162	N
ATOM	1139	CA SER A 187	25.323	-7.068	5.888	1.00	22.45		C
ANISOU	1139	CA SER A 187	3469	2282	2778	109	-752	60	C
ATOM	1140	C SER A 187	25.221	-6.698	4.435	1.00	23.10		C
ANISOU	1140	C SER A 187	3519	2434	2826	172	-698	-89	C
ATOM	1141	O SER A 187	24.204	-6.136	4.005	1.00	20.04		O
ANISOU	1141	O SER A 187	3123	2121	2372	120	-647	-93	O
ATOM	1142	CB SER A 187	25.241	-8.582	6.043	1.00	27.03		C
ANISOU	1142	CB SER A 187	4098	2664	3510	99	-887	82	C
ATOM	1143	OG SER A 187	24.238	-9.153	5.243	1.00	30.23		O
ANISOU	1143	OG SER A 187	4516	3006	3966	58	-915	16	O
ATOM	1144	N MET A 188	26.265	-7.001	3.678	1.00	25.24		N
ANISOU	1144	N MET A 188	3762	2693	3133	287	-708	-210	N
ATOM	1145	CA MET A 188	26.187	-6.861	2.215	1.00	28.50		C
ANISOU	1145	CA MET A 188	4157	3180	3492	345	-662	-361	C
ATOM	1146	C MET A 188	25.132	-7.821	1.693	1.00	29.24		C
ANISOU	1146	C MET A 188	4298	3165	3646	308	-746	-421	C
ATOM	1147	O MET A 188	24.889	-8.867	2.288	1.00	28.06		O

ANISOU	1147	O	MET A 188	4187	2846	3628	274	-850	-381	O
ATOM	1148	CB	MET A 188	27.523	-7.196	1.556	1.00	29.74		C
ANISOU	1148	CB	MET A 188	4265	3354	3681	480	-649	-497	C
ATOM	1149	CG	MET A 188	28.714	-6.378	2.042	1.00	29.09		C
ANISOU	1149	CG	MET A 188	4110	3371	3571	513	-584	-445	C
ATOM	1150	SD	MET A 188	28.490	-4.577	1.960	1.00	28.57		S
ANISOU	1150	SD	MET A 188	4024	3492	3339	430	-458	-355	S
ATOM	1151	CE	MET A 188	28.260	-4.438	0.185	1.00	30.17		C
ANISOU	1151	CE	MET A 188	4221	3813	3428	471	-387	-492	C
ATOM	1152	N	ALA A 189	24.535	-7.470	0.559	1.00	34.11		N
ANISOU	1152	N	ALA A 189	4915	3875	4172	307	-715	-512	N
ATOM	1153	CA	ALA A 189	23.503	-8.291	-0.072	1.00	37.03		C
ANISOU	1153	CA	ALA A 189	5321	4160	4588	264	-807	-589	C
ATOM	1154	C	ALA A 189	23.721	-8.477	-1.592	1.00	45.08		C
ANISOU	1154	C	ALA A 189	6354	5249	5525	349	-807	-793	C
ATOM	1155	O	ALA A 189	24.625	-7.876	-2.193	1.00	49.05		O
ANISOU	1155	O	ALA A 189	6829	5893	5915	433	-711	-857	O
ATOM	1156	CB	ALA A 189	22.136	-7.681	0.206	1.00	35.35		C
ANISOU	1156	CB	ALA A 189	5092	4003	4335	141	-797	-473	C
TER	1157		ALA A 189							
ATOM	1158	N	CYS B 48	-12.580	32.859	17.447	1.00	45.32		N
ANISOU	1158	N	CYS B 48	5833	5590	5798	-326	1345	-670	N
ATOM	1159	CA	CYS B 48	-12.134	31.492	16.987	1.00	45.99		C
ANISOU	1159	CA	CYS B 48	5974	5726	5772	-372	1158	-533	C
ATOM	1160	C	CYS B 48	-11.861	30.577	18.186	1.00	44.50		C
ANISOU	1160	C	CYS B 48	5907	5637	5366	-522	1195	-522	C
ATOM	1161	O	CYS B 48	-10.983	30.849	18.994	1.00	43.06		O
ANISOU	1161	O	CYS B 48	5843	5502	5014	-581	1215	-573	O

ATOM	1162	CB	CYS B 48	-10.893	31.550	16.067	1.00	44.81	C	
ANISOU	1162	CB	CYS B 48	5901	5529	5596	-309	977	-469	C
ATOM	1163	SG	CYS B 48	-10.375	29.940	15.381	1.00	45.65	S	
ANISOU	1163	SG	CYS B 48	6061	5665	5618	-343	776	-329	S
ATOM	1164	N	LYS B 49	-12.626	29.497	18.286	1.00	47.96	N	
ANISOU	1164	N	LYS B 49	6303	6114	5806	-587	1206	-449	N
ATOM	1165	CA	LYS B 49	-12.477	28.503	19.355	1.00	48.62	C	
ANISOU	1165	CA	LYS B 49	6496	6280	5698	-721	1248	-387	C
ATOM	1166	C	LYS B 49	-12.361	27.094	18.764	1.00	41.01	C	
ANISOU	1166	C	LYS B 49	5555	5276	4750	-746	1118	-239	C
ATOM	1167	O	LYS B 49	-12.784	26.870	17.633	1.00	38.75	O	
ANISOU	1167	O	LYS B 49	5166	4930	4628	-691	1036	-226	O
ATOM	1168	CB	LYS B 49	-13.677	28.561	20.290	1.00	55.12	C	
ANISOU	1168	CB	LYS B 49	7249	7169	6524	-807	1464	-453	C
ATOM	1169	CG	LYS B 49	-13.726	29.819	21.138	1.00	64.76	C	
ANISOU	1169	CG	LYS B 49	8474	8433	7696	-814	1632	-623	C
ATOM	1170	CD	LYS B 49	-14.891	29.768	22.116	1.00	80.01	C	
ANISOU	1170	CD	LYS B 49	10341	10447	9614	-911	1864	-693	C
ATOM	1171	CE	LYS B 49	-14.788	30.855	23.175	1.00	86.07	C	
ANISOU	1171	CE	LYS B 49	11150	11281	10272	-957	2051	-884	C
ATOM	1172	NZ	LYS B 49	-14.689	32.215	22.575	1.00	89.93	N	
ANISOU	1172	NZ	LYS B 49	11567	11645	10958	-826	2075	-1021	N
ATOM	1173	N	PRO B 50	-11.783	26.143	19.523	1.00	39.76	N	
ANISOU	1173	N	PRO B 50	5530	5156	4423	-830	1103	-127	N
ATOM	1174	CA	PRO B 50	-11.680	24.772	19.002	1.00	35.90	C	
ANISOU	1174	CA	PRO B 50	5068	4588	3985	-854	1011	9	C
ATOM	1175	C	PRO B 50	-13.052	24.201	18.652	1.00	33.78	C	
ANISOU	1175	C	PRO B 50	4668	4282	3885	-917	1096	-6	C

ATOM	1176	O	PRO B 50	-14.030	24.457	19.361	1.00	32.73	O	
ANISOU	1176	O	PRO B 50	4468	4213	3756	-985	1262	-58	O
ATOM	1177	CB	PRO B 50	-11.035	23.989	20.162	1.00	38.67	C	
ANISOU	1177	CB	PRO B 50	5570	4994	4127	-931	1036	151	C
ATOM	1178	CG	PRO B 50	-10.357	25.027	21.006	1.00	40.23	C	
ANISOU	1178	CG	PRO B 50	5830	5324	4131	-925	1057	77	C
ATOM	1179	CD	PRO B 50	-11.263	26.231	20.904	1.00	41.61	C	
ANISOU	1179	CD	PRO B 50	5886	5512	4413	-910	1179	-111	C
ATOM	1180	N	SER B 51	-13.116	23.460	17.548	1.00	30.25	N	
ANISOU	1180	N	SER B 51	4173	3745	3577	-902	989	18	N
ATOM	1181	CA	SER B 51	-14.343	22.806	17.119	1.00	29.76	C	
ANISOU	1181	CA	SER B 51	3972	3657	3676	-983	1048	-11	C
ATOM	1182	C	SER B 51	-14.614	21.549	17.940	1.00	30.75	C	
ANISOU	1182	C	SER B 51	4176	3733	3774	-1127	1162	100	C
ATOM	1183	O	SER B 51	-15.765	21.112	18.049	1.00	29.81	O	
ANISOU	1183	O	SER B 51	3947	3617	3762	-1235	1281	70	O
ATOM	1184	CB	SER B 51	-14.268	22.434	15.634	1.00	28.48	C	
ANISOU	1184	CB	SER B 51	3734	3438	3649	-940	893	-49	C
ATOM	1185	OG	SER B 51	-13.124	21.663	15.365	1.00	27.93	O	
ANISOU	1185	OG	SER B 51	3807	3271	3533	-923	790	30	O
ATOM	1186	N	GLY B 52	-13.547	20.965	18.485	1.00	29.86	N	
ANISOU	1186	N	GLY B 52	4243	3574	3529	-1124	1126	239	N
ATOM	1187	CA	GLY B 52	-13.638	19.732	19.251	1.00	31.27	C	
ANISOU	1187	CA	GLY B 52	4518	3681	3681	-1237	1228	397	C
ATOM	1188	C	GLY B 52	-12.263	19.133	19.448	1.00	30.27	C	
ANISOU	1188	C	GLY B 52	4561	3487	3452	-1173	1124	561	C
ATOM	1189	O	GLY B 52	-11.316	19.876	19.628	1.00	29.31	O	
ANISOU	1189	O	GLY B 52	4497	3453	3185	-1077	1028	560	O

ATOM	1190	N	THR	B	53	-12.156	17.799	19.388	1.00	31.29	N
ANISOU	1190	N	THR	B	53	4758	3454	3678	-1225	1150	697
ATOM	1191	CA	THR	B	53	-10.890	17.085	19.641	1.00	32.12	C
ANISOU	1191	CA	THR	B	53	5013	3476	3716	-1151	1070	891
ATOM	1192	C	THR	B	53	-10.697	15.840	18.782	1.00	33.15	C
ANISOU	1192	C	THR	B	53	5162	3362	4072	-1156	1049	930
ATOM	1193	O	THR	B	53	-11.665	15.261	18.299	1.00	33.36	O
ANISOU	1193	O	THR	B	53	5111	3279	4285	-1269	1140	845
ATOM	1194	CB	THR	B	53	-10.771	16.601	21.121	1.00	34.59	C
ANISOU	1194	CB	THR	B	53	5449	3848	3844	-1205	1183	1130
ATOM	1195	OG1	THR	B	53	-11.836	15.706	21.418	1.00	36.26	O
ANISOU	1195	OG1	THR	B	53	5649	3950	4178	-1351	1365	1195
ATOM	1196	CG2	THR	B	53	-10.826	17.769	22.090	1.00	34.60	C
ANISOU	1196	CG2	THR	B	53	5452	4108	3588	-1214	1215	1081
ATOM	1197	N	LEU	B	54	-9.432	15.445	18.628	1.00	33.08	N
ANISOU	1197	N	LEU	B	54	5246	3275	4046	-1037	939	1047
ATOM	1198	CA	LEU	B	54	-9.013	14.146	18.109	1.00	35.52	C
ANISOU	1198	CA	LEU	B	54	5611	3329	4556	-1023	948	1135
ATOM	1199	C	LEU	B	54	-7.968	13.574	19.064	1.00	38.46	C
ANISOU	1199	C	LEU	B	54	6120	3673	4820	-931	936	1431
ATOM	1200	O	LEU	B	54	-7.037	14.274	19.462	1.00	36.64	O
ANISOU	1200	O	LEU	B	54	5916	3615	4389	-821	815	1488
ATOM	1201	CB	LEU	B	54	-8.366	14.288	16.731	1.00	33.91	C
ANISOU	1201	CB	LEU	B	54	5355	3061	4466	-930	806	964
ATOM	1202	CG	LEU	B	54	-9.303	14.603	15.562	1.00	33.88	C
ANISOU	1202	CG	LEU	B	54	5211	3070	4591	-1010	797	694
ATOM	1203	CD1	LEU	B	54	-8.494	14.922	14.306	1.00	32.29	C
ANISOU	1203	CD1	LEU	B	54	4974	2868	4425	-903	645	552

ATOM	1204	CD2 LEU B 54	-10.269	13.458	15.328	1.00	35.43	C
ANISOU	1204	CD2 LEU B 54	5378	3079	5004	-1169	941 656	C
ATOM	1205	N THR B 55	-8.095	12.301	19.399	1.00	43.91	N
ANISOU	1205	N THR B 55	6886	4145	5651	-974	1059 1623	N
ATOM	1206	CA THR B 55	-7.239	11.688	20.398	1.00	49.21	C
ANISOU	1206	CA THR B 55	7680	4797	6222	-884	1062 1958	C
ATOM	1207	C THR B 55	-6.166	10.882	19.709	1.00	50.56	C
ANISOU	1207	C THR B 55	7884	4741	6586	-740	991 2032	C
ATOM	1208	O THR B 55	-6.460	10.080	18.844	1.00	51.51	O
ANISOU	1208	O THR B 55	7989	4593	6988	-785	1066 1929	O
ATOM	1209	CB THR B 55	-8.045	10.788	21.326	1.00	53.88	C
ANISOU	1209	CB THR B 55	8343	5281	6847	-1010	1268 2179	C
ATOM	1210	OG1 THR B 55	-8.842	9.912	20.541	1.00	57.05	O
ANISOU	1210	OG1 THR B 55	8712	5394	7570	-1129	1403 2061	O
ATOM	1211	CG2 THR B 55	-8.959	11.627	22.198	1.00	56.22	C
ANISOU	1211	CG2 THR B 55	8610	5842	6908	-1135	1347 2133	C
ATOM	1212	N CYS B 56	-4.922	11.109	20.104	1.00	53.42	N
ANISOU	1212	N CYS B 56	8279	5222	6795	-575	851 2194	N
ATOM	1213	CA CYS B 56	-3.765	10.568	19.411	1.00	58.86	C
ANISOU	1213	CA CYS B 56	8970	5744	7649	-409	761 2236	C
ATOM	1214	C CYS B 56	-2.963	9.641	20.317	1.00	64.21	C
ANISOU	1214	C CYS B 56	9736	6338	8324	-281	777 2633	C
ATOM	1215	O CYS B 56	-3.482	8.609	20.734	1.00	75.28	O
ANISOU	1215	O CYS B 56	11211	7519	9872	-337	943 2829	O
ATOM	1216	CB CYS B 56	-2.921	11.720	18.876	1.00	56.71	C
ANISOU	1216	CB CYS B 56	8621	5692	7232	-311	567 2052	C
ATOM	1217	SG CYS B 56	-2.885	11.843	17.095	1.00	58.70	S
ANISOU	1217	SG CYS B 56	8788	5796	7719	-306	526 1700	S

ATOM	1218	N	GLN B 57	-1.711	9.978	20.615	1.00	73.55		N
ANISOU	1218	N	GLN B 57	10901	7692	9354	-110	610	2765	N
ATOM	1219	CA	GLN B 57	-0.837	9.110	21.396	1.00	86.29		C
ANISOU	1219	CA	GLN B 57	12569	9248	10970	48	595	3163	C
ATOM	1220	C	GLN B 57	-1.215	9.281	22.855	1.00	86.13		C
ANISOU	1220	C	GLN B 57	12611	9478	10635	-20	623	3423	C
ATOM	1221	O	GLN B 57	-0.495	9.913	23.626	1.00	85.02		O
ANISOU	1221	O	GLN B 57	12448	9671	10185	49	474	3542	O
ATOM	1222	CB	GLN B 57	0.630	9.486	21.170	1.00	94.19		C
ANISOU	1222	CB	GLN B 57	13492	10390	11904	248	391	3189	C
ATOM	1223	CG	GLN B 57	1.107	9.287	19.739	1.00	98.96		C
ANISOU	1223	CG	GLN B 57	14035	10761	12803	324	373	2943	C
ATOM	1224	CD	GLN B 57	2.522	9.789	19.516	1.00	111.68		C
ANISOU	1224	CD	GLN B 57	15552	12547	14334	502	180	2941	C
ATOM	1225	OE1	GLN B 57	3.121	10.418	20.392	1.00	120.99		O
ANISOU	1225	OE1	GLN B 57	16698	14050	15220	551	40	3081	O
ATOM	1226	NE2	GLN B 57	3.073	9.496	18.341	1.00	115.89		N
ANISOU	1226	NE2	GLN B 57	16032	12876	15124	589	179	2770	N
ATOM	1227	N	GLY B 58	-2.371	8.727	23.215	1.00	86.86		N
ANISOU	1227	N	GLY B 58	12776	9426	10802	-174	824	3489	N
ATOM	1228	CA	GLY B 58	-2.990	8.979	24.510	1.00	87.69		C
ANISOU	1228	CA	GLY B 58	12939	9779	10601	-289	892	3669	C
ATOM	1229	C	GLY B 58	-3.244	10.449	24.828	1.00	83.97		C
ANISOU	1229	C	GLY B 58	12410	9703	9792	-386	801	3416	C
ATOM	1230	O	GLY B 58	-3.412	10.792	26.001	1.00	79.49		O
ANISOU	1230	O	GLY B 58	11882	9420	8899	-448	815	3567	O
ATOM	1231	N	LYS B 59	-3.284	11.313	23.805	1.00	73.93		N
ANISOU	1231	N	LYS B 59	11048	8448	8593	-403	721	3038	N

ATOM	1232	CA	LYS B 59	-3.470	12.750	24.011	1.00	73.04	C
ANISOU	1232	CA	LYS B 59	10877	8664	8213	-479	646 2786	C
ATOM	1233	C	LYS B 59	-4.627	13.289	23.193	1.00	66.13	C
ANISOU	1233	C	LYS B 59	9939	7703	7483	-616	739 2442	C
ATOM	1234	O	LYS B 59	-4.747	12.987	22.014	1.00	69.47	O
ANISOU	1234	O	LYS B 59	10318	7891	8185	-598	740 2280	O
ATOM	1235	CB	LYS B 59	-2.251	13.574	23.600	1.00	78.70	C
ANISOU	1235	CB	LYS B 59	11522	9546	8834	-350	431 2664	C
ATOM	1236	CG	LYS B 59	-0.917	13.224	24.242	1.00	93.18	C
ANISOU	1236	CG	LYS B 59	13366	11516	10523	-190	287 2959	C
ATOM	1237	CD	LYS B 59	0.147	14.254	23.853	1.00	100.89	C
ANISOU	1237	CD	LYS B 59	14247	12698	11388	-110	90 2770	C
ATOM	1238	CE	LYS B 59	1.566	13.700	23.929	1.00	104.51	C
ANISOU	1238	CE	LYS B 59	14669	13180	11860	88	-62 3012	C
ATOM	1239	NZ	LYS B 59	2.567	14.615	23.302	1.00	101.23	N
ANISOU	1239	NZ	LYS B 59	14145	12904	11415	155	-230 2793	N
ATOM	1240	N	SER B 60	-5.417	14.153	23.816	1.00	61.08	N
ANISOU	1240	N	SER B 60	9283	7286	6640	-743	807 2321	N
ATOM	1241	CA	SER B 60	-6.494	14.887	23.167	1.00	55.69	C
ANISOU	1241	CA	SER B 60	8514	6590	6057	-853	878 2002	C
ATOM	1242	C	SER B 60	-5.944	16.175	22.501	1.00	50.64	C
ANISOU	1242	C	SER B 60	7793	6089	5360	-784	725 1739	C
ATOM	1243	O	SER B 60	-5.374	17.039	23.165	1.00	51.31	O
ANISOU	1243	O	SER B 60	7883	6423	5190	-764	650 1722	O
ATOM	1244	CB	SER B 60	-7.548	15.198	24.246	1.00	57.21	C
ANISOU	1244	CB	SER B 60	8722	6951	6064	-1007	1045 2016	C
ATOM	1245	OG	SER B 60	-8.747	15.717	23.724	1.00	59.51	O
ANISOU	1245	OG	SER B 60	8916	7211	6485	-1114	1148 1754	O

ATOM	1246	N	HIS B 61	-6.076	16.276	21.179	1.00	42.60		N
ANISOU	1246	N	HIS B 61	6700	4909	4575	-754	681	1538	N
ATOM	1247	CA	HIS B 61	-5.685	17.470	20.449	1.00	37.81		C
ANISOU	1247	CA	HIS B 61	6018	4404	3946	-696	562	1304	C
ATOM	1248	C	HIS B 61	-6.943	18.224	20.039	1.00	35.48		C
ANISOU	1248	C	HIS B 61	5630	4129	3720	-790	651	1073	C
ATOM	1249	O	HIS B 61	-7.920	17.593	19.653	1.00	34.95		O
ANISOU	1249	O	HIS B 61	5527	3923	3828	-869	751	1044	O
ATOM	1250	CB	HIS B 61	-4.893	17.104	19.196	1.00	37.99		C
ANISOU	1250	CB	HIS B 61	6014	4260	4159	-585	446	1255	C
ATOM	1251	CG	HIS B 61	-3.592	16.431	19.484	1.00	39.72		C
ANISOU	1251	CG	HIS B 61	6294	4453	4345	-464	353	1468	C
ATOM	1252	ND1	HIS B 61	-3.510	15.136	19.935	1.00	44.66		N
ANISOU	1252	ND1	HIS B 61	6992	4924	5051	-448	418	1718	N
ATOM	1253	CD2	HIS B 61	-2.319	16.878	19.384	1.00	40.48		C
ANISOU	1253	CD2	HIS B 61	6374	4655	4352	-349	205	1477	C
ATOM	1254	CE1	HIS B 61	-2.241	14.815	20.111	1.00	44.27		C
ANISOU	1254	CE1	HIS B 61	6963	4893	4963	-309	306	1885	C
ATOM	1255	NE2	HIS B 61	-1.498	15.849	19.771	1.00	42.13		N
ANISOU	1255	NE2	HIS B 61	6632	4789	4587	-252	172	1734	N
ATOM	1256	N	PRO B 62	-6.922	19.575	20.119	1.00	31.65		N
ANISOU	1256	N	PRO B 62	5096	3814	3115	-781	621	907	N
ATOM	1257	CA	PRO B 62	-8.048	20.363	19.677	1.00	30.16		C
ANISOU	1257	CA	PRO B 62	4803	3641	3017	-833	697	704	C
ATOM	1258	C	PRO B 62	-8.089	20.382	18.159	1.00	29.05		C
ANISOU	1258	C	PRO B 62	4578	3372	3087	-773	610	579	C
ATOM	1259	O	PRO B 62	-7.041	20.355	17.514	1.00	24.86		O
ANISOU	1259	O	PRO B 62	4071	2801	2574	-678	480	587	O

ATOM	1260	CB	PRO B 62	-7.712	21.759	20.186	1.00	31.01		C
ANISOU	1260	CB	PRO B 62	4899	3931	2951	-815	684	586	C
ATOM	1261	CG	PRO B 62	-6.219	21.801	20.144	1.00	30.30		C
ANISOU	1261	CG	PRO B 62	4869	3881	2762	-724	530	654	C
ATOM	1262	CD	PRO B 62	-5.772	20.420	20.490	1.00	31.11		C
ANISOU	1262	CD	PRO B 62	5053	3911	2857	-712	508	892	C
ATOM	1263	N	THR B 63	-9.296	20.373	17.610	1.00	29.83		N
ANISOU	1263	N	THR B 63	4573	3427	3334	-834	682	471	N
ATOM	1264	CA	THR B 63	-9.495	20.639	16.183	1.00	28.35		C
ANISOU	1264	CA	THR B 63	4281	3189	3302	-786	596	331	C
ATOM	1265	C	THR B 63	-10.041	22.060	16.030	1.00	27.95		C
ANISOU	1265	C	THR B 63	4126	3256	3237	-751	610	193	C
ATOM	1266	O	THR B 63	-10.617	22.620	16.991	1.00	27.44		O
ANISOU	1266	O	THR B 63	4050	3280	3097	-797	728	176	O
ATOM	1267	CB	THR B 63	-10.491	19.648	15.568	1.00	28.07		C
ANISOU	1267	CB	THR B 63	4171	3046	3449	-881	651	295	C
ATOM	1268	OG1	THR B 63	-11.683	19.584	16.371	1.00	30.42		O
ANISOU	1268	OG1	THR B 63	4416	3388	3755	-995	808	298	O
ATOM	1269	CG2	THR B 63	-9.878	18.279	15.490	1.00	29.15		C
ANISOU	1269	CG2	THR B 63	4407	3015	3654	-899	644	409	C
ATOM	1270	N	TYR B 64	-9.864	22.625	14.828	1.00	25.24		N
ANISOU	1270	N	TYR B 64	3711	2910	2971	-668	505	103	N
ATOM	1271	CA	TYR B 64	-10.358	23.951	14.482	1.00	25.50		C
ANISOU	1271	CA	TYR B 64	3637	3020	3033	-608	513	0	C
ATOM	1272	C	TYR B 64	-10.872	23.981	13.045	1.00	26.24		C
ANISOU	1272	C	TYR B 64	3599	3112	3259	-569	428	-66	C
ATOM	1273	O	TYR B 64	-10.306	23.315	12.176	1.00	23.30		O
ANISOU	1273	O	TYR B 64	3253	2690	2911	-556	326	-60	O

ATOM	1274	CB	TYR B 64	-9.249	24.992	14.588	1.00	24.64	C
ANISOU	1274	CB	TYR B 64	3594	2941	2826	-518	458 -13	C
ATOM	1275	CG	TYR B 64	-8.660	25.205	15.979	1.00	26.92	C
ANISOU	1275	CG	TYR B 64	3994	3288	2947	-558	522 21	C
ATOM	1276	CD1	TYR B 64	-9.211	26.110	16.860	1.00	27.47	C
ANISOU	1276	CD1	TYR B 64	4040	3430	2966	-590	652 -54	C
ATOM	1277	CD2	TYR B 64	-7.512	24.547	16.360	1.00	28.74	C
ANISOU	1277	CD2	TYR B 64	4340	3516	3065	-558	449 121	C
ATOM	1278	CE1	TYR B 64	-8.655	26.324	18.109	1.00	31.77	C
ANISOU	1278	CE1	TYR B 64	4682	4066	3324	-645	705 -46	C
ATOM	1279	CE2	TYR B 64	-6.942	24.759	17.601	1.00	33.80	C
ANISOU	1279	CE2	TYR B 64	5065	4257	3521	-596	483 158	C
ATOM	1280	CZ	TYR B 64	-7.525	25.636	18.475	1.00	31.76	C
ANISOU	1280	CZ	TYR B 64	4789	4092	3186	-651	610 67	C
ATOM	1281	OH	TYR B 64	-6.944	25.822	19.702	1.00	39.35	O
ANISOU	1281	OH	TYR B 64	5833	5188	3931	-708	640 85	O
ATOM	1282	N	ASP B 65	-11.936	24.751	12.818	1.00	27.90	N
ANISOU	1282	N	ASP B 65	3661	3390	3549	-547	474 -128	N
ATOM	1283	CA	ASP B 65	-12.388	25.119	11.475	1.00	33.75	C
ANISOU	1283	CA	ASP B 65	4258	4184	4381	-480	377 -171	C
ATOM	1284	C	ASP B 65	-11.894	26.508	11.108	1.00	32.72	C
ANISOU	1284	C	ASP B 65	4121	4073	4238	-341	340 -166	C
ATOM	1285	O	ASP B 65	-11.999	26.914	9.949	1.00	31.22	O
ANISOU	1285	O	ASP B 65	3839	3932	4090	-262	245 -163	O
ATOM	1286	CB	ASP B 65	-13.917	25.336	11.463	1.00	40.49	C
ANISOU	1286	CB	ASP B 65	4916	5120	5350	-508	452 -216	C
ATOM	1287	CG	ASP B 65	-14.699	24.102	11.587	1.00	50.68	C
ANISOU	1287	CG	ASP B 65	6152	6407	6696	-655	496 -243	C

ATOM	1288	OD1 ASP B 65	-14.169	23.034	11.225	1.00	77.44		O
ANISOU	1288	OD1 ASP B 65	9625	9727	10070	-723	437	-239	O
ATOM	1289	OD2 ASP B 65	-15.877	24.205	12.021	1.00	55.45		O
ANISOU	1289	OD2 ASP B 65	6619	7070	7380	-707	603	-276	O
ATOM	1290	N CYS B 66	-11.441	27.255	12.109	1.00	28.73		N
ANISOU	1290	N CYS B 66	3704	3539	3676	-322	430	-168	N
ATOM	1291	CA CYS B 66	-11.117	28.661	11.952	1.00	28.95		C
ANISOU	1291	CA CYS B 66	3720	3552	3728	-211	447	-182	C
ATOM	1292	C CYS B 66	-9.686	28.939	12.390	1.00	27.71		C
ANISOU	1292	C CYS B 66	3724	3351	3453	-209	425	-180	C
ATOM	1293	O CYS B 66	-9.028	28.116	13.019	1.00	28.41		O
ANISOU	1293	O CYS B 66	3924	3438	3431	-283	407	-157	O
ATOM	1294	CB CYS B 66	-12.085	29.497	12.802	1.00	32.24		C
ANISOU	1294	CB CYS B 66	4055	3978	4219	-204	614	-237	C
ATOM	1295	SG CYS B 66	-12.078	29.107	14.589	1.00	39.76		S
ANISOU	1295	SG CYS B 66	5120	4944	5042	-343	772	-285	S
ATOM	1296	N SER B 67	-9.230	30.137	12.078	1.00	25.83		N
ANISOU	1296	N SER B 67	3486	3078	3249	-122	433	-196	N
ATOM	1297	CA SER B 67	-7.935	30.627	12.522	1.00	25.06		C
ANISOU	1297	CA SER B 67	3513	2950	3060	-131	431	-223	C
ATOM	1298	C SER B 67	-8.139	32.081	12.977	1.00	26.03		C
ANISOU	1298	C SER B 67	3611	3019	3260	-93	570	-301	C
ATOM	1299	O SER B 67	-9.157	32.673	12.643	1.00	25.67		O
ANISOU	1299	O SER B 67	3449	2946	3358	-21	639	-299	O
ATOM	1300	CB SER B 67	-6.960	30.574	11.370	1.00	24.53		C
ANISOU	1300	CB SER B 67	3472	2865	2984	-71	296	-170	C
ATOM	1301	OG SER B 67	-6.673	29.241	11.005	1.00	20.82		O
ANISOU	1301	OG SER B 67	3033	2423	2457	-109	191	-125	O

ATOM	1302	N	PRO B 68	-7.191	32.648	13.748	1.00	28.50		N
ANISOU	1302	N	PRO B 68	4022	3319	3489	-143	619	-379	N
ATOM	1303	CA	PRO B 68	-7.321	34.064	14.107	1.00	30.56		C
ANISOU	1303	CA	PRO B 68	4265	3497	3849	-118	772	-483	C
ATOM	1304	C	PRO B 68	-7.448	34.970	12.871	1.00	31.86		C
ANISOU	1304	C	PRO B 68	4357	3552	4198	20	763	-416	C
ATOM	1305	O	PRO B 68	-7.125	34.540	11.742	1.00	29.47		O
ANISOU	1305	O	PRO B 68	4040	3268	3890	78	619	-302	O
ATOM	1306	CB	PRO B 68	-6.002	34.369	14.861	1.00	30.49		C
ANISOU	1306	CB	PRO B 68	4371	3513	3699	-213	775	-577	C
ATOM	1307	CG	PRO B 68	-5.472	33.037	15.286	1.00	28.66		C
ANISOU	1307	CG	PRO B 68	4206	3408	3275	-288	651	-513	C
ATOM	1308	CD	PRO B 68	-5.915	32.074	14.230	1.00	29.11		C
ANISOU	1308	CD	PRO B 68	4213	3455	3392	-219	534	-378	C
ATOM	1309	N	PRO B 69	-7.885	36.224	13.076	1.00	32.94		N
ANISOU	1309	N	PRO B 69	4449	3573	4493	73	927	-482	N
ATOM	1310	CA	PRO B 69	-7.971	37.201	11.983	1.00	32.21		C
ANISOU	1310	CA	PRO B 69	4294	3356	4588	216	942	-389	C
ATOM	1311	C	PRO B 69	-6.656	37.413	11.209	1.00	29.76		C
ANISOU	1311	C	PRO B 69	4065	3011	4234	220	845	-333	C
ATOM	1312	O	PRO B 69	-5.584	37.515	11.794	1.00	28.10		O
ANISOU	1312	O	PRO B 69	3955	2798	3925	114	856	-437	O
ATOM	1313	CB	PRO B 69	-8.355	38.502	12.704	1.00	37.29		C
ANISOU	1313	CB	PRO B 69	4919	3847	5403	235	1175	-515	C
ATOM	1314	CG	PRO B 69	-8.933	38.073	14.018	1.00	39.43		C
ANISOU	1314	CG	PRO B 69	5195	4203	5584	123	1276	-661	C
ATOM	1315	CD	PRO B 69	-8.176	36.834	14.387	1.00	35.17		C
ANISOU	1315	CD	PRO B 69	4753	3826	4783	-6	1123	-657	C

ATOM	1316	N	VAL B 70	-6.749	37.456	9.890	1.00	28.15		N
ANISOU	1316	N	VAL B 70	3803	2804	4088	336	747	-169	N
ATOM	1317	CA	VAL B 70	-5.618	37.802	9.056	1.00	28.46		C
ANISOU	1317	CA	VAL B 70	3904	2802	4110	352	688	-103	C
ATOM	1318	C	VAL B 70	-5.523	39.329	9.043	1.00	32.39		C
ANISOU	1318	C	VAL B 70	4403	3096	4808	413	864	-110	C
ATOM	1319	O	VAL B 70	-6.500	40.015	8.727	1.00	33.99		O
ANISOU	1319	O	VAL B 70	4511	3211	5191	542	950	-23	O
ATOM	1320	CB	VAL B 70	-5.791	37.248	7.625	1.00	27.87		C
ANISOU	1320	CB	VAL B 70	3768	2828	3994	444	526	74	C
ATOM	1321	CG1	VAL B 70	-4.630	37.648	6.724	1.00	28.35		C
ANISOU	1321	CG1	VAL B 70	3890	2853	4028	460	485	148	C
ATOM	1322	CG2	VAL B 70	-5.863	35.738	7.665	1.00	28.10		C
ANISOU	1322	CG2	VAL B 70	3802	3019	3857	369	381	50	C
ATOM	1323	N	THR B 71	-4.357	39.855	9.415	1.00	33.34		N
ANISOU	1323	N	THR B 71	4620	3136	4912	317	927	-216	N
ATOM	1324	CA	THR B 71	-4.106	41.295	9.429	1.00	34.65		C
ANISOU	1324	CA	THR B 71	4804	3078	5284	341	1116	-249	C
ATOM	1325	C	THR B 71	-2.845	41.603	8.626	1.00	31.07		C
ANISOU	1325	C	THR B 71	4411	2583	4811	317	1074	-183	C
ATOM	1326	O	THR B 71	-2.233	40.720	8.024	1.00	28.97		O
ANISOU	1326	O	THR B 71	4163	2469	4376	298	901	-112	O
ATOM	1327	CB	THR B 71	-3.988	41.853	10.893	1.00	37.01		C
ANISOU	1327	CB	THR B 71	5151	3298	5614	206	1297	-513	C
ATOM	1328	OG1	THR B 71	-2.794	41.372	11.526	1.00	32.73		O
ANISOU	1328	OG1	THR B 71	4692	2876	4867	32	1223	-657	O
ATOM	1329	CG2	THR B 71	-5.208	41.453	11.729	1.00	37.33		C
ANISOU	1329	CG2	THR B 71	5133	3406	5646	214	1347	-585	C

ATOM	1330	N	SER B 72	-2.444	42.861	8.618	1.00	34.71		N
ANISOU	1330	N	SER B 72	4902	2827	5459	311	1251	-217	N
ATOM	1331	CA	SER B 72	-1.145	43.248	8.037	1.00	35.91		C
ANISOU	1331	CA	SER B 72	5113	2926	5604	249	1251	-192	C
ATOM	1332	C	SER B 72	0.030	42.708	8.851	1.00	36.20		C
ANISOU	1332	C	SER B 72	5208	3094	5452	54	1185	-400	C
ATOM	1333	O	SER B 72	1.163	42.710	8.381	1.00	37.80		O
ANISOU	1333	O	SER B 72	5438	3321	5602	-9	1140	-387	O
ATOM	1334	CB	SER B 72	-1.037	44.770	7.991	1.00	36.96		C
ANISOU	1334	CB	SER B 72	5265	2761	6016	265	1493	-204	C
ATOM	1335	OG	SER B 72	-1.389	45.322	9.244	1.00	35.59		O
ANISOU	1335	OG	SER B 72	5102	2473	5947	182	1670	-446	O
ATOM	1336	N	SER B 73	-0.233	42.263	10.080	1.00	36.31		N
ANISOU	1336	N	SER B 73	5229	3207	5361	-41	1184	-583	N
ATOM	1337	CA	SER B 73	0.809	41.695	10.934	1.00	35.05		C
ANISOU	1337	CA	SER B 73	5107	3213	4998	-213	1102	-756	C
ATOM	1338	C	SER B 73	0.205	40.561	11.753	1.00	32.05		C
ANISOU	1338	C	SER B 73	4720	3026	4433	-232	996	-790	C
ATOM	1339	O	SER B 73	-0.147	40.732	12.918	1.00	31.68		O
ANISOU	1339	O	SER B 73	4684	3004	4348	-320	1089	-960	O
ATOM	1340	CB	SER B 73	1.364	42.783	11.841	1.00	39.25		C
ANISOU	1340	CB	SER B 73	5668	3631	5614	-368	1287	-1001	C
ATOM	1341	OG	SER B 73	2.380	42.277	12.678	1.00	46.67		O
ANISOU	1341	OG	SER B 73	6622	4770	6340	-536	1193	-1163	O
ATOM	1342	N	THR B 74	0.067	39.402	11.122	1.00	29.16		N
ANISOU	1342	N	THR B 74	4336	2791	3952	-155	816	-631	N
ATOM	1343	CA	THR B 74	-0.667	38.280	11.705	1.00	27.99		C
ANISOU	1343	CA	THR B 74	4177	2788	3668	-154	730	-618	C

ATOM	1344	C	THR B 74	0.281	37.413	12.532	1.00	26.62	C
ANISOU	1344	C	THR B 74	4043	2795	3277	-273	617 -693	C
ATOM	1345	O	THR B 74	1.195	36.821	11.973	1.00	22.98	O
ANISOU	1345	O	THR B 74	3586	2404	2744	-266	487 -623	O
ATOM	1346	CB	THR B 74	-1.297	37.393	10.608	1.00	26.67	C
ANISOU	1346	CB	THR B 74	3968	2668	3498	-28	599 -424	C
ATOM	1347	OG1	THR B 74	-1.975	38.204	9.639	1.00	25.85	O
ANISOU	1347	OG1	THR B 74	3814	2435	3574	98	667 -311	O
ATOM	1348	CG2	THR B 74	-2.272	36.404	11.224	1.00	25.26	C
ANISOU	1348	CG2	THR B 74	3769	2590	3237	-34	559 -420	C
ATOM	1349	N	PRO B 75	0.068	37.328	13.858	1.00	28.16	N
ANISOU	1349	N	PRO B 75	4259	3079	3362	-376	670 -827	N
ATOM	1350	CA	PRO B 75	0.963	36.501	14.673	1.00	28.13	C
ANISOU	1350	CA	PRO B 75	4281	3273	3134	-476	551 -862	C
ATOM	1351	C	PRO B 75	0.750	34.993	14.402	1.00	27.94	C
ANISOU	1351	C	PRO B 75	4257	3346	3011	-406	393 -689	C
ATOM	1352	O	PRO B 75	-0.373	34.536	14.210	1.00	27.42	O
ANISOU	1352	O	PRO B 75	4179	3246	2993	-343	409 -612	O
ATOM	1353	CB	PRO B 75	0.569	36.842	16.122	1.00	30.45	C
ANISOU	1353	CB	PRO B 75	4597	3649	3323	-598	666 -1034	C
ATOM	1354	CG	PRO B 75	-0.341	38.020	16.039	1.00	32.77	C
ANISOU	1354	CG	PRO B 75	4876	3750	3823	-573	870 -1131	C
ATOM	1355	CD	PRO B 75	-0.958	37.995	14.668	1.00	31.69	C
ANISOU	1355	CD	PRO B 75	4701	3463	3878	-404	846 -947	C
ATOM	1356	N	ALA B 76	1.832	34.230	14.380	1.00	26.10	N
ANISOU	1356	N	ALA B 76	4028	3226	2661	-421	252 -635	N
ATOM	1357	CA	ALA B 76	1.748	32.846	13.963	1.00	26.03	C
ANISOU	1357	CA	ALA B 76	4021	3259	2610	-346	123 -477	C

ATOM	1358	C	ALA B 76	2.942	32.069	14.469	1.00	23.35	C
ANISOU	1358	C	ALA B 76	3682	3067	2121	-378	-3 -440	C
ATOM	1359	O	ALA B 76	3.913	32.653	14.958	1.00	23.94	O
ANISOU	1359	O	ALA B 76	3739	3231	2126	-455	-12 -536	O
ATOM	1360	CB	ALA B 76	1.676	32.767	12.434	1.00	25.26	C
ANISOU	1360	CB	ALA B 76	3897	3049	2650	-239	87 -388	C
ATOM	1361	N	LYS B 77	2.839	30.745	14.347	1.00	24.80	N
ANISOU	1361	N	LYS B 77	3877	3274	2271	-317	-95 -300	N
ATOM	1362	CA	LYS B 77	3.918	29.817	14.665	1.00	24.56	C
ANISOU	1362	CA	LYS B 77	3835	3356	2140	-301	-221 -213	C
ATOM	1363	C	LYS B 77	4.399	29.199	13.368	1.00	23.68	C
ANISOU	1363	C	LYS B 77	3698	3154	2145	-199	-289 -138	C
ATOM	1364	O	LYS B 77	3.578	28.739	12.541	1.00	21.63	O
ANISOU	1364	O	LYS B 77	3452	2782	1985	-143	-269 -93	O
ATOM	1365	CB	LYS B 77	3.413	28.709	15.585	1.00	27.16	C
ANISOU	1365	CB	LYS B 77	4204	3753	2363	-305	-246 -96	C
ATOM	1366	CG	LYS B 77	2.909	29.182	16.940	1.00	30.90	C
ANISOU	1366	CG	LYS B 77	4708	4351	2682	-415	-172 -164	C
ATOM	1367	CD	LYS B 77	4.067	29.422	17.886	1.00	36.90	C
ANISOU	1367	CD	LYS B 77	5441	5325	3254	-485	-246 -200	C
ATOM	1368	CE	LYS B 77	3.616	29.603	19.327	1.00	42.93	C
ANISOU	1368	CE	LYS B 77	6241	6264	3808	-601	-189 -246	C
ATOM	1369	NZ	LYS B 77	3.394	31.034	19.632	1.00	46.81	N
ANISOU	1369	NZ	LYS B 77	6726	6762	4296	-715	-61 -489	N
ATOM	1370	N	LEU B 78	5.719	29.199	13.184	1.00	22.36	N
ANISOU	1370	N	LEU B 78	3482	3054	1960	-185	-363 -141	N
ATOM	1371	CA	LEU B 78	6.325	28.607	11.989	1.00	22.02	C
ANISOU	1371	CA	LEU B 78	3407	2942	2018	-93	-414 -89	C

ATOM	1372	C	LEU	B	78	6.822	27.245	12.366	1.00	22.13	C
ANISOU	1372	C	LEU	B	78	3411	2998	2001	-28	-504	38
ATOM	1373	O	LEU	B	78	7.528	27.087	13.376	1.00	25.13	O
ANISOU	1373	O	LEU	B	78	3761	3522	2268	-47	-569	79
ATOM	1374	CB	LEU	B	78	7.475	29.478	11.450	1.00	20.36	C
ANISOU	1374	CB	LEU	B	78	3134	2763	1837	-113	-415	-171
ATOM	1375	CG	LEU	B	78	8.228	28.964	10.217	1.00	20.22	C
ANISOU	1375	CG	LEU	B	78	3074	2699	1909	-29	-448	-137
ATOM	1376	CD1	LEU	B	78	7.434	29.164	8.921	1.00	19.88	C
ANISOU	1376	CD1	LEU	B	78	3066	2531	1958	7	-384	-143
ATOM	1377	CD2	LEU	B	78	9.595	29.640	10.113	1.00	21.18	C
ANISOU	1377	CD2	LEU	B	78	3113	2906	2030	-66	-462	-205
ATOM	1378	N	THR	B	79	6.423	26.255	11.586	1.00	20.06	N
ANISOU	1378	N	THR	B	79	3170	2615	1838	48	-503	102
ATOM	1379	CA	THR	B	79	6.917	24.900	11.716	1.00	20.92	C
ANISOU	1379	CA	THR	B	79	3269	2700	1979	131	-562	225
ATOM	1380	C	THR	B	79	7.524	24.509	10.368	1.00	22.41	C
ANISOU	1380	C	THR	B	79	3418	2800	2295	207	-563	191
ATOM	1381	O	THR	B	79	7.537	25.321	9.409	1.00	20.85	O
ANISOU	1381	O	THR	B	79	3206	2588	2128	186	-526	89
ATOM	1382	CB	THR	B	79	5.802	23.911	12.156	1.00	22.22	C
ANISOU	1382	CB	THR	B	79	3505	2776	2162	130	-527	320
ATOM	1383	OG1	THR	B	79	4.694	24.008	11.267	1.00	21.92	O
ANISOU	1383	OG1	THR	B	79	3495	2625	2208	105	-459	243
ATOM	1384	CG2	THR	B	79	5.297	24.210	13.582	1.00	23.17	C
ANISOU	1384	CG2	THR	B	79	3663	3011	2131	53	-516	365
ATOM	1385	N	ASN	B	80	8.056	23.291	10.301	1.00	23.56	N
ANISOU	1385	N	ASN	B	80	3547	2889	2518	298	-594	281

ATOM	1386	CA	ASN B 80	8.761	22.804	9.117	1.00	24.89	C
ANISOU	1386	CA	ASN B 80	3669	2980	2808	374	-581 235	C
ATOM	1387	C	ASN B 80	8.055	21.614	8.502	1.00	26.12	C
ANISOU	1387	C	ASN B 80	3876	2962	3088	408	-527 241	C
ATOM	1388	O	ASN B 80	7.673	20.684	9.211	1.00	28.43	O
ANISOU	1388	O	ASN B 80	4209	3178	3417	431	-522 353	O
ATOM	1389	CB	ASN B 80	10.201	22.428	9.472	1.00	26.35	C
ANISOU	1389	CB	ASN B 80	3757	3240	3014	464	-647 308	C
ATOM	1390	CG	ASN B 80	10.987	21.926	8.274	1.00	31.11	C
ANISOU	1390	CG	ASN B 80	4301	3766	3753	546	-613 245	C
ATOM	1391	OD1	ASN B 80	11.261	20.753	8.179	1.00	36.24	O
ANISOU	1391	OD1	ASN B 80	4939	4305	4527	646	-600 311	O
ATOM	1392	ND2	ASN B 80	11.348	22.818	7.360	1.00	32.90	N
ANISOU	1392	ND2	ASN B 80	4493	4043	3965	504	-581 119	N
ATOM	1393	N	ASN B 81	7.893	21.659	7.185	1.00	25.06	N
ANISOU	1393	N	ASN B 81	3739	2773	3010	400	-479 117	N
ATOM	1394	CA	ASN B 81	7.195	20.631	6.426	1.00	28.35	C
ANISOU	1394	CA	ASN B 81	4194	3044	3535	399	-418 63	C
ATOM	1395	C	ASN B 81	7.990	20.247	5.184	1.00	26.19	C
ANISOU	1395	C	ASN B 81	3875	2733	3343	451	-380 -45	C
ATOM	1396	O	ASN B 81	8.636	21.097	4.545	1.00	22.95	O
ANISOU	1396	O	ASN B 81	3418	2428	2874	449	-386 -109	O
ATOM	1397	CB	ASN B 81	5.807	21.143	6.009	1.00	28.96	C
ANISOU	1397	CB	ASN B 81	4311	3136	3556	300	-393 -11	C
ATOM	1398	CG	ASN B 81	4.945	20.075	5.345	1.00	31.98	C
ANISOU	1398	CG	ASN B 81	4721	3393	4035	265	-338 -85	C
ATOM	1399	OD1	ASN B 81	4.628	20.164	4.148	1.00	35.41	O
ANISOU	1399	OD1	ASN B 81	5140	3855	4460	229	-317 -215	O

ATOM	1400	ND2 ASN B 81	4.547	19.077	6.119	1.00	31.77		N
ANISOU	1400	ND2 ASN B 81	4735	3241	4093	264	-309	-5	N
ATOM	1401	N ASP B 82	7.953	18.951	4.878	1.00	25.46		N
ANISOU	1401	N ASP B 82	3797	2481	3395	491	-323	-68	N
ATOM	1402	CA ASP B 82	8.544	18.378	3.679	1.00	26.74		C
ANISOU	1402	CA ASP B 82	3925	2582	3652	528	-255	-206	C
ATOM	1403	C ASP B 82	7.435	18.299	2.621	1.00	27.86		C
ANISOU	1403	C ASP B 82	4108	2719	3760	419	-207	-368	C
ATOM	1404	O ASP B 82	6.493	17.540	2.770	1.00	30.02		O
ANISOU	1404	O ASP B 82	4428	2878	4102	365	-173	-387	O
ATOM	1405	CB ASP B 82	9.105	16.990	4.014	1.00	30.94		C
ANISOU	1405	CB ASP B 82	4448	2922	4386	634	-201	-146	C
ATOM	1406	CG ASP B 82	9.761	16.281	2.817	1.00	35.79		C
ANISOU	1406	CG ASP B 82	5023	3445	5132	679	-100	-314	C
ATOM	1407	OD1 ASP B 82	9.675	16.735	1.647	1.00	33.04		O
ANISOU	1407	OD1 ASP B 82	4665	3192	4697	610	-68	-490	O
ATOM	1408	OD2 ASP B 82	10.373	15.231	3.063	1.00	38.87		O
ANISOU	1408	OD2 ASP B 82	5389	3663	5715	790	-43	-262	O
ATOM	1409	N PHE B 83	7.568	19.092	1.564	1.00	25.01		N
ANISOU	1409	N PHE B 83	3719	2497	3286	381	-207	-476	N
ATOM	1410	CA PHE B 83	6.596	19.170	0.475	1.00	24.35		C
ANISOU	1410	CA PHE B 83	3651	2478	3123	281	-186	-618	C
ATOM	1411	C PHE B 83	6.927	18.303	-0.713	1.00	24.75		C
ANISOU	1411	C PHE B 83	3687	2489	3229	269	-99	-808	C
ATOM	1412	O PHE B 83	6.215	18.324	-1.730	1.00	26.28		O
ANISOU	1412	O PHE B 83	3880	2778	3327	176	-86	-948	O
ATOM	1413	CB PHE B 83	6.566	20.609	-0.051	1.00	24.84		C
ANISOU	1413	CB PHE B 83	3692	2737	3009	254	-231	-599	C

ATOM	1414	CG	PHE	B	83	6.009	21.595	0.922	1.00	23.65		C
ANISOU	1414	CG	PHE	B	83	3556	2631	2798	241	-294	-461	C
ATOM	1415	CD1	PHE	B	83	6.819	22.161	1.895	1.00	22.69		C
ANISOU	1415	CD1	PHE	B	83	3423	2514	2683	291	-322	-351	C
ATOM	1416	CD2	PHE	B	83	4.677	21.927	0.889	1.00	25.25		C
ANISOU	1416	CD2	PHE	B	83	3772	2879	2943	174	-320	-456	C
ATOM	1417	CE1	PHE	B	83	6.318	23.066	2.799	1.00	21.72		C
ANISOU	1417	CE1	PHE	B	83	3317	2431	2505	265	-361	-258	C
ATOM	1418	CE2	PHE	B	83	4.160	22.858	1.798	1.00	24.98		C
ANISOU	1418	CE2	PHE	B	83	3747	2874	2870	167	-355	-345	C
ATOM	1419	CZ	PHE	B	83	4.989	23.429	2.745	1.00	24.07		C
ANISOU	1419	CZ	PHE	B	83	3636	2752	2757	208	-367	-257	C
ATOM	1420	N	SER	B	84	8.011	17.563	-0.608	1.00	25.41		N
ANISOU	1420	N	SER	B	84	3746	2450	3459	362	-37	-820	N
ATOM	1421	CA	SER	B	84	8.540	16.787	-1.726	1.00	27.27		C
ANISOU	1421	CA	SER	B	84	3958	2639	3762	364	73	-1020	C
ATOM	1422	C	SER	B	84	7.876	15.424	-1.861	1.00	32.16		C
ANISOU	1422	C	SER	B	84	4618	3057	4545	313	163	-1152	C
ATOM	1423	O	SER	B	84	7.210	14.944	-0.936	1.00	34.95		O
ANISOU	1423	O	SER	B	84	5013	3269	4998	304	148	-1049	O
ATOM	1424	CB	SER	B	84	10.056	16.603	-1.548	1.00	28.17		C
ANISOU	1424	CB	SER	B	84	4007	2701	3997	504	116	-976	C
ATOM	1425	OG	SER	B	84	10.360	15.706	-0.475	1.00	27.80		O
ANISOU	1425	OG	SER	B	84	3960	2445	4159	609	127	-846	O
ATOM	1426	N	GLU	B	85	8.087	14.803	-3.023	1.00	35.72		N
ANISOU	1426	N	GLU	B	85	5054	3494	5023	269	273	-1392	N
ATOM	1427	CA	GLU	B	85	7.648	13.429	-3.297	1.00	41.24		C
ANISOU	1427	CA	GLU	B	85	5783	3973	5912	211	398	-1576	C

ATOM	1428	C	GLU	B	85	8.142	12.423	-2.234	1.00	40.03	C	
ANISOU	1428	C	GLU	B	85	5646	3507	6058	342	465	-1436	C
ATOM	1429	O	GLU	B	85	7.422	11.492	-1.880	1.00	40.10	O	
ANISOU	1429	O	GLU	B	85	5704	3303	6230	288	530	-1462	O
ATOM	1430	CB	GLU	B	85	8.128	13.004	-4.689	1.00	47.92	C	
ANISOU	1430	CB	GLU	B	85	6601	4867	6740	163	524	-1869	C
ATOM	1431	CG	GLU	B	85	9.640	12.791	-4.778	1.00	57.54	C	
ANISOU	1431	CG	GLU	B	85	7765	6005	8094	322	616	-1864	C
ATOM	1432	CD	GLU	B	85	10.106	12.373	-6.157	1.00	74.35	C	
ANISOU	1432	CD	GLU	B	85	9864	8188	10197	267	765	-2174	C
ATOM	1433	OE1	GLU	B	85	9.450	12.747	-7.158	1.00	79.48	O	
ANISOU	1433	OE1	GLU	B	85	10527	9068	10605	111	748	-2348	O
ATOM	1434	OE2	GLU	B	85	11.137	11.668	-6.236	1.00	92.87	O	
ANISOU	1434	OE2	GLU	B	85	12166	10358	12761	385	903	-2241	O
ATOM	1435	N	GLY	B	86	9.366	12.629	-1.744	1.00	40.64	N	
ANISOU	1435	N	GLY	B	86	5672	3568	6203	510	449	-1279	N
ATOM	1436	CA	GLY	B	86	9.979	11.812	-0.693	1.00	44.82	C	
ANISOU	1436	CA	GLY	B	86	6191	3850	6987	670	485	-1087	C
ATOM	1437	C	GLY	B	86	9.404	11.965	0.714	1.00	48.83	C	
ANISOU	1437	C	GLY	B	86	6746	4326	7483	688	377	-809	C
ATOM	1438	O	GLY	B	86	9.801	11.241	1.640	1.00	53.96	O	
ANISOU	1438	O	GLY	B	86	7395	4782	8325	816	400	-615	O
ATOM	1439	N	GLY	B	87	8.481	12.901	0.889	1.00	45.71	N	
ANISOU	1439	N	GLY	B	87	6385	4121	6861	567	266	-776	N
ATOM	1440	CA	GLY	B	87	7.879	13.141	2.193	1.00	49.46	C	
ANISOU	1440	CA	GLY	B	87	6903	4597	7294	564	176	-540	C
ATOM	1441	C	GLY	B	87	7.112	11.945	2.712	1.00	53.96	C	
ANISOU	1441	C	GLY	B	87	7542	4901	8061	530	269	-498	C

ATOM	1442	O	GLY B 87	6.526	12.020	3.787	1.00	60.47	O	
ANISOU	1442	O	GLY B 87	8409	5715	8853	514	219	-306	O
ATOM	1443	N	GLY B 90	2.636	13.614	3.338	1.00	51.09	N	
ANISOU	1443	N	GLY B 90	7259	4903	7249	40	110	-545	N
ATOM	1444	CA	GLY B 90	1.438	12.908	2.916	1.00	51.45	C	
ANISOU	1444	CA	GLY B 90	7310	4864	7376	-120	185	-705	C
ATOM	1445	C	GLY B 90	1.199	13.031	1.414	1.00	54.05	C	
ANISOU	1445	C	GLY B 90	7585	5327	7625	-216	185	-986	C
ATOM	1446	O	GLY B 90	2.052	12.650	0.598	1.00	63.55	O	
ANISOU	1446	O	GLY B 90	8781	6486	8881	-173	238	-1121	O
ATOM	1447	N	GLY B 91	0.039	13.556	1.033	1.00	44.58	N	
ANISOU	1447	N	GLY B 91	6337	4309	6292	-346	127	-1073	N
ATOM	1448	CA	GLY B 91	-0.275	13.715	-0.382	1.00	45.81	C	
ANISOU	1448	CA	GLY B 91	6429	4648	6328	-445	106	-1319	C
ATOM	1449	C	GLY B 91	0.384	14.943	-0.999	1.00	43.36	C	
ANISOU	1449	C	GLY B 91	6087	4586	5803	-358	5	-1284	C
ATOM	1450	O	GLY B 91	1.088	15.686	-0.307	1.00	37.31	O	
ANISOU	1450	O	GLY B 91	5344	3836	4998	-231	-43	-1088	O
ATOM	1451	N	PRO B 92	0.144	15.176	-2.303	1.00	38.34	N	
ANISOU	1451	N	PRO B 92	5394	4157	5016	-438	-23	-1473	N
ATOM	1452	CA	PRO B 92	0.606	16.400	-2.929	1.00	37.27	C	
ANISOU	1452	CA	PRO B 92	5228	4267	4665	-370	-111	-1414	C
ATOM	1453	C	PRO B 92	-0.062	17.639	-2.311	1.00	32.29	C	
ANISOU	1453	C	PRO B 92	4570	3775	3924	-335	-219	-1209	C
ATOM	1454	O	PRO B 92	-1.121	17.551	-1.721	1.00	31.77	O	
ANISOU	1454	O	PRO B 92	4481	3689	3901	-396	-237	-1172	O
ATOM	1455	CB	PRO B 92	0.182	16.234	-4.402	1.00	40.32	C	
ANISOU	1455	CB	PRO B 92	5554	4865	4901	-493	-118	-1655	C

ATOM	1456	CG	PRO	B	92	-0.109	14.784	-4.576	1.00	43.20	C	
ANISOU	1456	CG	PRO	B	92	5930	5044	5440	-614	-4	-1887	C
ATOM	1457	CD	PRO	B	92	-0.634	14.356	-3.240	1.00	41.54	C	
ANISOU	1457	CD	PRO	B	92	5755	4601	5427	-609	23	-1745	C
ATOM	1458	N	SER	B	93	0.568	18.787	-2.467	1.00	30.89	N	
ANISOU	1458	N	SER	B	93	4391	3727	3621	-240	-272	-1088	N
ATOM	1459	CA	SER	B	93	-0.009	20.047	-2.009	1.00	30.15	C	
ANISOU	1459	CA	SER	B	93	4269	3751	3436	-201	-352	-914	C
ATOM	1460	C	SER	B	93	-1.395	20.339	-2.627	1.00	30.55	C	
ANISOU	1460	C	SER	B	93	4230	3997	3381	-287	-419	-958	C
ATOM	1461	O	SER	B	93	-1.602	20.179	-3.838	1.00	28.72	O	
ANISOU	1461	O	SER	B	93	3946	3939	3026	-352	-445	-1092	O
ATOM	1462	CB	SER	B	93	0.968	21.176	-2.307	1.00	29.20	C	
ANISOU	1462	CB	SER	B	93	4160	3724	3212	-105	-372	-809	C
ATOM	1463	OG	SER	B	93	2.103	21.074	-1.460	1.00	30.13	O	
ANISOU	1463	OG	SER	B	93	4332	3685	3431	-25	-331	-737	O
ATOM	1464	N	GLU	B	94	-2.319	20.777	-1.776	1.00	29.88	N	
ANISOU	1464	N	GLU	B	94	4116	3902	3337	-286	-448	-846	N
ATOM	1465	CA	GLU	B	94	-3.729	21.020	-2.165	1.00	36.30	C	
ANISOU	1465	CA	GLU	B	94	4814	4891	4086	-356	-513	-869	C
ATOM	1466	C	GLU	B	94	-3.862	22.039	-3.314	1.00	33.95	C	
ANISOU	1466	C	GLU	B	94	4443	4860	3596	-314	-598	-821	C
ATOM	1467	O	GLU	B	94	-4.594	21.794	-4.256	1.00	39.10	O	
ANISOU	1467	O	GLU	B	94	4999	5714	4143	-396	-657	-926	O
ATOM	1468	CB	GLU	B	94	-4.590	21.458	-0.948	1.00	39.73	C	
ANISOU	1468	CB	GLU	B	94	5226	5259	4610	-339	-507	-738	C
ATOM	1469	CG	GLU	B	94	-6.040	20.972	-0.987	1.00	54.48	C	
ANISOU	1469	CG	GLU	B	94	6979	7205	6514	-455	-525	-822	C

ATOM	1470	CD	GLU	B	94	-6.176	19.450	-0.874	1.00	62.05	C	
ANISOU	1470	CD	GLU	B	94	7966	8014	7597	-592	-451	-996	C
ATOM	1471	OE1	GLU	B	94	-5.433	18.832	-0.068	1.00	62.70	O	
ANISOU	1471	OE1	GLU	B	94	8165	7859	7799	-571	-366	-966	O
ATOM	1472	OE2	GLU	B	94	-7.029	18.869	-1.594	1.00	64.75	O	
ANISOU	1472	OE2	GLU	B	94	8206	8475	7920	-724	-475	-1160	O
ATOM	1473	N	CYS	B	95	-3.101	23.140	-3.270	1.00	30.60	N	
ANISOU	1473	N	CYS	B	95	4062	4443	3121	-196	-601	-664	N
ATOM	1474	CA	CYS	B	95	-3.305	24.250	-4.210	1.00	30.94	C	
ANISOU	1474	CA	CYS	B	95	4041	4712	3004	-137	-668	-553	C
ATOM	1475	C	CYS	B	95	-3.146	23.860	-5.681	1.00	34.24	C	
ANISOU	1475	C	CYS	B	95	4422	5352	3237	-200	-707	-678	C
ATOM	1476	O	CYS	B	95	-4.012	24.191	-6.478	1.00	33.04	O	
ANISOU	1476	O	CYS	B	95	4161	5448	2947	-219	-795	-652	O
ATOM	1477	CB	CYS	B	95	-2.429	25.457	-3.868	1.00	29.99	C	
ANISOU	1477	CB	CYS	B	95	3985	4516	2893	-17	-632	-374	C
ATOM	1478	SG	CYS	B	95	-2.823	26.188	-2.233	1.00	30.85	S	
ANISOU	1478	SG	CYS	B	95	4114	4433	3173	46	-590	-239	S
ATOM	1479	N	ASP	B	96	-2.057	23.166	-6.026	1.00	32.36	N	
ANISOU	1479	N	ASP	B	96	4262	5042	2992	-231	-640	-812	N
ATOM	1480	CA	ASP	B	96	-1.779	22.790	-7.426	1.00	34.10	C	
ANISOU	1480	CA	ASP	B	96	4458	5476	3022	-300	-650	-958	C
ATOM	1481	C	ASP	B	96	-1.722	21.280	-7.633	1.00	35.37	C	
ANISOU	1481	C	ASP	B	96	4632	5559	3247	-432	-590	-1244	C
ATOM	1482	O	ASP	B	96	-1.400	20.816	-8.733	1.00	37.33	O	
ANISOU	1482	O	ASP	B	96	4871	5960	3353	-507	-570	-1420	O
ATOM	1483	CB	ASP	B	96	-0.471	23.424	-7.908	1.00	34.80	C	
ANISOU	1483	CB	ASP	B	96	4615	5581	3026	-222	-596	-881	C

ATOM	1484	CG	ASP	B	96	0.703	23.175	-6.956	1.00	37.85	C	
ANISOU	1484	CG	ASP	B	96	5097	5679	3604	-164	-498	-877	C
ATOM	1485	OD1	ASP	B	96	0.511	22.732	-5.792	1.00	38.58	O	
ANISOU	1485	OD1	ASP	B	96	5216	5559	3885	-157	-481	-873	O
ATOM	1486	OD2	ASP	B	96	1.841	23.427	-7.382	1.00	40.32	O	
ANISOU	1486	OD2	ASP	B	96	5450	5999	3871	-125	-438	-871	O
ATOM	1487	N	GLU	B	97	-2.049	20.509	-6.592	1.00	37.20	N	
ANISOU	1487	N	GLU	B	97	4888	5552	3695	-465	-547	-1294	N
ATOM	1488	CA	GLU	B	97	-2.039	19.043	-6.687	1.00	40.03	C	
ANISOU	1488	CA	GLU	B	97	5266	5775	4170	-588	-463	-1553	C
ATOM	1489	C	GLU	B	97	-0.690	18.578	-7.227	1.00	35.06	C	
ANISOU	1489	C	GLU	B	97	4710	5068	3543	-564	-363	-1674	C
ATOM	1490	O	GLU	B	97	-0.623	17.804	-8.156	1.00	35.76	O	
ANISOU	1490	O	GLU	B	97	4782	5234	3570	-672	-315	-1919	O
ATOM	1491	CB	GLU	B	97	-3.183	18.541	-7.590	1.00	46.52	C	
ANISOU	1491	CB	GLU	B	97	5975	6831	4870	-755	-521	-1755	C
ATOM	1492	CG	GLU	B	97	-4.561	19.013	-7.160	1.00	55.89	C	
ANISOU	1492	CG	GLU	B	97	7052	8130	6052	-778	-624	-1642	C
ATOM	1493	CD	GLU	B	97	-5.596	18.788	-8.248	1.00	65.76	C	
ANISOU	1493	CD	GLU	B	97	8155	9713	7117	-927	-718	-1813	C
ATOM	1494	OE1	GLU	B	97	-5.599	19.567	-9.229	1.00	75.66	O	
ANISOU	1494	OE1	GLU	B	97	9350	11280	8120	-892	-814	-1745	O
ATOM	1495	OE2	GLU	B	97	-6.395	17.830	-8.126	1.00	70.05	O	
ANISOU	1495	OE2	GLU	B	97	8640	10216	7762	-1086	-694	-2010	O
ATOM	1496	N	SER	B	98	0.387	19.084	-6.644	1.00	32.31	N	
ANISOU	1496	N	SER	B	98	4430	4581	3264	-426	-326	-1513	N
ATOM	1497	CA	SER	B	98	1.714	18.625	-7.011	1.00	32.36	C	
ANISOU	1497	CA	SER	B	98	4488	4493	3313	-386	-221	-1614	C

ATOM	1498	C	SER B 98	2.606	18.645	-5.794	1.00	27.96	C
ANISOU	1498	C	SER B 98	3990	3677	2955	-260	-177 -1459	C
ATOM	1499	O	SER B 98	2.265	19.160	-4.740	1.00	24.16	O
ANISOU	1499	O	SER B 98	3521	3124	2536	-208	-230 -1272	O
ATOM	1500	CB	SER B 98	2.329	19.439	-8.160	1.00	36.97	C
ANISOU	1500	CB	SER B 98	5056	5331	3661	-365	-231 -1603	C
ATOM	1501	OG	SER B 98	2.655	20.742	-7.741	1.00	43.05	O
ANISOU	1501	OG	SER B 98	5835	6137	4384	-253	-283 -1343	O
ATOM	1502	N	TYR B 99	3.739	18.001	-5.968	1.00	29.43	N
ANISOU	1502	N	TYR B 99	4204	3737	3241	-216	-74 -1557	N
ATOM	1503	CA	TYR B 99	4.791	18.001	-5.004	1.00	28.56	C
ANISOU	1503	CA	TYR B 99	4124	3433	3294	-88	-39 -1420	C
ATOM	1504	C	TYR B 99	5.709	19.151	-5.356	1.00	28.71	C
ANISOU	1504	C	TYR B 99	4127	3602	3180	-15	-57 -1313	C
ATOM	1505	O	TYR B 99	5.697	19.653	-6.490	1.00	28.27	O
ANISOU	1505	O	TYR B 99	4049	3763	2929	-62	-59 -1376	O
ATOM	1506	CB	TYR B 99	5.556	16.673	-5.061	1.00	30.26	C
ANISOU	1506	CB	TYR B 99	4354	3429	3715	-63	93 -1578	C
ATOM	1507	CG	TYR B 99	4.773	15.516	-4.493	1.00	31.43	C
ANISOU	1507	CG	TYR B 99	4530	3357	4053	-123	137 -1645	C
ATOM	1508	CD1	TYR B 99	4.476	15.456	-3.116	1.00	31.68	C
ANISOU	1508	CD1	TYR B 99	4594	3228	4216	-70	98 -1441	C
ATOM	1509	CD2	TYR B 99	4.315	14.507	-5.307	1.00	35.25	C
ANISOU	1509	CD2	TYR B 99	5012	3801	4582	-247	227 -1914	C
ATOM	1510	CE1	TYR B 99	3.740	14.411	-2.584	1.00	32.29	C
ANISOU	1510	CE1	TYR B 99	4701	3097	4470	-133	155 -1479	C
ATOM	1511	CE2	TYR B 99	3.584	13.454	-4.791	1.00	39.86	C
ANISOU	1511	CE2	TYR B 99	5621	4162	5362	-320	287 -1979	C

ATOM	1512	CZ	TYR	B	99	3.302	13.408	-3.426	1.00	37.87	C	
ANISOU	1512	CZ	TYR	B	99	5404	3738	5247	-258	254	-1747	C
ATOM	1513	OH	TYR	B	99	2.580	12.351	-2.926	1.00	39.04	O	
ANISOU	1513	OH	TYR	B	99	5582	3655	5596	-338	332	-1796	O
ATOM	1514	N	HIS	B	100	6.530	19.532	-4.389	1.00	27.16	N	
ANISOU	1514	N	HIS	B	100	3936	3298	3083	90	-65	-1152	N
ATOM	1515	CA	HIS	B	100	7.429	20.657	-4.542	1.00	28.67	C	
ANISOU	1515	CA	HIS	B	100	4106	3603	3183	146	-73	-1045	C
ATOM	1516	C	HIS	B	100	8.791	20.362	-3.942	1.00	28.81	C	
ANISOU	1516	C	HIS	B	100	4098	3493	3355	247	-23	-1011	C
ATOM	1517	O	HIS	B	100	8.888	19.674	-2.935	1.00	29.59	O	
ANISOU	1517	O	HIS	B	100	4205	3420	3619	300	-30	-959	O
ATOM	1518	CB	HIS	B	100	6.854	21.872	-3.818	1.00	27.27	C	
ANISOU	1518	CB	HIS	B	100	3940	3479	2941	153	-164	-850	C
ATOM	1519	CG	HIS	B	100	5.567	22.361	-4.400	1.00	28.07	C	
ANISOU	1519	CG	HIS	B	100	4040	3729	2896	82	-222	-841	C
ATOM	1520	ND1	HIS	B	100	5.521	23.269	-5.432	1.00	34.98	N	
ANISOU	1520	ND1	HIS	B	100	4897	4804	3590	64	-231	-807	N
ATOM	1521	CD2	HIS	B	100	4.283	22.059	-4.105	1.00	29.98	C	
ANISOU	1521	CD2	HIS	B	100	4282	3962	3149	29	-274	-848	C
ATOM	1522	CE1	HIS	B	100	4.261	23.493	-5.762	1.00	36.04	C	
ANISOU	1522	CE1	HIS	B	100	5011	5055	3625	16	-299	-787	C
ATOM	1523	NE2	HIS	B	100	3.490	22.766	-4.972	1.00	33.62	N	
ANISOU	1523	NE2	HIS	B	100	4709	4628	3437	-11	-326	-825	N
ATOM	1524	N	SER	B	101	9.829	20.920	-4.547	1.00	27.42	N	
ANISOU	1524	N	SER	B	101	3881	3417	3119	273	26	-1022	N
ATOM	1525	CA	SER	B	101	11.163	20.904	-3.957	1.00	27.96	C	
ANISOU	1525	CA	SER	B	101	3892	3415	3317	368	55	-968	C

ATOM	1526	C	SER B 101	11.146	21.698	-2.648	1.00	26.33	C
ANISOU	1526	C	SER B 101	3686	3188	3131	397	-41 -776	C
ATOM	1527	O	SER B 101	10.532	22.758	-2.578	1.00	28.21	O
ANISOU	1527	O	SER B 101	3954	3514	3250	345	-92 -692	O
ATOM	1528	CB	SER B 101	12.159	21.546	-4.910	1.00	28.04	C
ANISOU	1528	CB	SER B 101	3850	3568	3235	363	131 -1014	C
ATOM	1529	OG	SER B 101	13.372	21.889	-4.255	1.00	27.85	O
ANISOU	1529	OG	SER B 101	3748	3523	3311	436	136 -933	O
ATOM	1530	N	ASN B 102	11.837	21.219	-1.626	1.00	25.20	N
ANISOU	1530	N	ASN B 102	3502	2939	3134	481	-62 -707	N
ATOM	1531	CA	ASN B 102	11.961	22.016	-0.394	1.00	25.97	C
ANISOU	1531	CA	ASN B 102	3588	3060	3219	491	-150 -551	C
ATOM	1532	C	ASN B 102	12.933	23.218	-0.478	1.00	25.67	C
ANISOU	1532	C	ASN B 102	3484	3150	3121	476	-145 -520	C
ATOM	1533	O	ASN B 102	13.047	23.959	0.490	1.00	24.70	O
ANISOU	1533	O	ASN B 102	3348	3060	2979	460	-207 -426	O
ATOM	1534	CB	ASN B 102	12.297	21.121	0.784	1.00	25.66	C
ANISOU	1534	CB	ASN B 102	3524	2905	3321	580	-191 -464	C
ATOM	1535	CG	ASN B 102	11.191	20.150	1.090	1.00	25.97	C
ANISOU	1535	CG	ASN B 102	3643	2803	3420	569	-192 -458	C
ATOM	1536	OD1	ASN B 102	9.992	20.505	1.109	1.00	28.40	O
ANISOU	1536	OD1	ASN B 102	4022	3130	3640	484	-219 -456	O
ATOM	1537	ND2	ASN B 102	11.568	18.911	1.321	1.00	24.56	N
ANISOU	1537	ND2	ASN B 102	3447	2473	3410	656	-152 -454	N
ATOM	1538	N	ASN B 103	13.604	23.407	-1.624	1.00	27.74	N
ANISOU	1538	N	ASN B 103	3704	3485	3350	465	-58 -610	N
ATOM	1539	CA	ASN B 103	14.315	24.668	-1.936	1.00	27.09	C
ANISOU	1539	CA	ASN B 103	3575	3520	3196	416	-24 -584	C

ATOM	1540	C	ASN B 103	13.416	25.762	-2.403	1.00	24.04	C
ANISOU	1540	C	ASN B 103	3269	3195	2671	333	-23 -534	C
ATOM	1541	O	ASN B 103	13.843	26.911	-2.475	1.00	23.75	O
ANISOU	1541	O	ASN B 103	3212	3216	2595	286	8 -484	O
ATOM	1542	CB	ASN B 103	15.360	24.492	-3.028	1.00	33.09	C
ANISOU	1542	CB	ASN B 103	4261	4347	3965	429	89 -687	C
ATOM	1543	CG	ASN B 103	16.570	23.737	-2.559	1.00	38.18	C
ANISOU	1543	CG	ASN B 103	4781	4954	4771	526	103 -715	C
ATOM	1544	OD1	ASN B 103	17.068	23.950	-1.450	1.00	38.85	O
ANISOU	1544	OD1	ASN B 103	4797	5040	4922	556	25 -629	O
ATOM	1545	ND2	ASN B 103	17.055	22.845	-3.403	1.00	45.53	N
ANISOU	1545	ND2	ASN B 103	5671	5864	5766	576	204 -840	N
ATOM	1546	N	GLU B 104	12.182	25.426	-2.754	1.00	21.72	N
ANISOU	1546	N	GLU B 104	3054	2886	2312	314	-49 -545	N
ATOM	1547	CA	GLU B 104	11.208	26.447	-3.024	1.00	23.49	C
ANISOU	1547	CA	GLU B 104	3336	3163	2424	261	-68 -464	C
ATOM	1548	C	GLU B 104	10.800	27.071	-1.698	1.00	21.29	C
ANISOU	1548	C	GLU B 104	3077	2816	2196	254	-133 -367	C
ATOM	1549	O	GLU B 104	10.683	26.385	-0.661	1.00	18.44	O
ANISOU	1549	O	GLU B 104	2716	2378	1913	283	-189 -366	O
ATOM	1550	CB	GLU B 104	9.954	25.888	-3.700	1.00	26.14	C
ANISOU	1550	CB	GLU B 104	3723	3532	2677	240	-95 -507	C
ATOM	1551	CG	GLU B 104	10.183	25.278	-5.064	1.00	33.05	C
ANISOU	1551	CG	GLU B 104	4587	4507	3464	221	-29 -633	C
ATOM	1552	CD	GLU B 104	8.932	24.558	-5.579	1.00	39.01	C
ANISOU	1552	CD	GLU B 104	5375	5302	4146	180	-70 -712	C
ATOM	1553	OE1	GLU B 104	7.822	25.138	-5.478	1.00	36.14	O
ANISOU	1553	OE1	GLU B 104	5033	4984	3714	158	-138 -619	O

ATOM	1554	OE2	GLU	B 104	9.055	23.399	-6.056	1.00	44.68	O	
ANISOU	1554	OE2	GLU	B 104	6085	6000	4891	167	-26	-879	O
ATOM	1555	N	ARG	B 105	10.561	28.379	-1.744	1.00	22.39	N	
ANISOU	1555	N	ARG	B 105	3236	2980	2292	216	-111	-284	N
ATOM	1556	CA	ARG	B 105	10.026	29.105	-0.587	1.00	23.04	C	
ANISOU	1556	CA	ARG	B 105	3343	2997	2413	196	-146	-217	C
ATOM	1557	C	ARG	B 105	8.510	28.980	-0.652	1.00	22.58	C	
ANISOU	1557	C	ARG	B 105	3336	2926	2317	203	-188	-179	C
ATOM	1558	O	ARG	B 105	7.859	29.678	-1.420	1.00	21.55	O	
ANISOU	1558	O	ARG	B 105	3223	2839	2125	200	-167	-116	O
ATOM	1559	CB	ARG	B 105	10.482	30.549	-0.642	1.00	25.15	C	
ANISOU	1559	CB	ARG	B 105	3603	3264	2689	150	-75	-162	C
ATOM	1560	CG	ARG	B 105	11.919	30.717	-0.172	1.00	25.45	C	
ANISOU	1560	CG	ARG	B 105	3567	3314	2787	120	-48	-215	C
ATOM	1561	CD	ARG	B 105	12.352	32.152	-0.307	1.00	25.24	C	
ANISOU	1561	CD	ARG	B 105	3535	3269	2787	49	47	-178	C
ATOM	1562	NE	ARG	B 105	12.660	32.394	-1.700	1.00	30.39	N	
ANISOU	1562	NE	ARG	B 105	4188	3974	3384	50	131	-141	N
ATOM	1563	CZ	ARG	B 105	12.052	33.243	-2.521	1.00	28.28	C	
ANISOU	1563	CZ	ARG	B 105	3976	3698	3071	46	196	-31	C
ATOM	1564	NH1	ARG	B 105	11.048	34.018	-2.140	1.00	31.40	N	
ANISOU	1564	NH1	ARG	B 105	4425	4009	3496	51	196	53	N
ATOM	1565	NH2	ARG	B 105	12.487	33.316	-3.760	1.00	33.00	N	
ANISOU	1565	NH2	ARG	B 105	4568	4381	3591	42	269	2	N
ATOM	1566	N	ILE	B 106	7.983	28.007	0.083	1.00	23.17	N	
ANISOU	1566	N	ILE	B 106	3424	2952	2429	217	-246	-211	N
ATOM	1567	CA	ILE	B 106	6.571	27.635	0.020	1.00	22.08	C	
ANISOU	1567	CA	ILE	B 106	3314	2809	2268	212	-284	-201	C

ATOM	1568	C	ILE B 106	6.065	27.312	1.433	1.00	19.52	C
ANISOU	1568	C	ILE B 106	3010	2404	2004	205	-320 -182	C
ATOM	1569	O	ILE B 106	6.831	26.907	2.291	1.00	17.00	O
ANISOU	1569	O	ILE B 106	2684	2047	1728	216	-333 -188	O
ATOM	1570	CB	ILE B 106	6.335	26.457	-0.919	1.00	24.62	C
ANISOU	1570	CB	ILE B 106	3630	3166	2558	211	-294 -291	C
ATOM	1571	CG1	ILE B 106	7.203	25.258	-0.505	1.00	24.54	C
ANISOU	1571	CG1	ILE B 106	3611	3076	2638	237	-286 -364	C
ATOM	1572	CG2	ILE B 106	6.586	26.866	-2.383	1.00	25.77	C
ANISOU	1572	CG2	ILE B 106	3760	3438	2593	203	-258 -306	C
ATOM	1573	CD1	ILE B 106	7.059	24.063	-1.399	1.00	26.88	C
ANISOU	1573	CD1	ILE B 106	3904	3370	2937	228	-264 -488	C
ATOM	1574	N	VAL B 107	4.777	27.530	1.662	1.00	19.62	N
ANISOU	1574	N	VAL B 107	3035	2409	2009	190	-333 -150	N
ATOM	1575	CA	VAL B 107	4.169	27.245	2.939	1.00	18.14	C
ANISOU	1575	CA	VAL B 107	2869	2162	1862	173	-349 -132	C
ATOM	1576	C	VAL B 107	2.839	26.544	2.817	1.00	21.26	C
ANISOU	1576	C	VAL B 107	3261	2552	2266	152	-367 -147	C
ATOM	1577	O	VAL B 107	2.173	26.587	1.759	1.00	18.20	O
ANISOU	1577	O	VAL B 107	2843	2231	1841	149	-379 -164	O
ATOM	1578	CB	VAL B 107	3.956	28.523	3.764	1.00	19.60	C
ANISOU	1578	CB	VAL B 107	3061	2334	2054	156	-314 -89	C
ATOM	1579	CG1	VAL B 107	5.294	29.151	4.105	1.00	22.41	C
ANISOU	1579	CG1	VAL B 107	3410	2695	2410	146	-294 -100	C
ATOM	1580	CG2	VAL B 107	3.077	29.533	3.059	1.00	20.18	C
ANISOU	1580	CG2	VAL B 107	3116	2426	2124	172	-283 -43	C
ATOM	1581	N	ALA B 108	2.458	25.903	3.918	1.00	18.45	N
ANISOU	1581	N	ALA B 108	2928	2132	1949	130	-370 -135	N

ATOM	1582	CA	ALA B 108	1.082	25.487	4.146	1.00	18.19	C
ANISOU	1582	CA	ALA B 108	2884	2087	1939	91	-367 -139	C
ATOM	1583	C	ALA B 108	0.526	26.360	5.251	1.00	16.61	C
ANISOU	1583	C	ALA B 108	2690	1882	1738	78	-334 -89	C
ATOM	1584	O	ALA B 108	1.279	26.761	6.129	1.00	17.59	O
ANISOU	1584	O	ALA B 108	2845	1994	1844	80	-322 -67	O
ATOM	1585	CB	ALA B 108	1.030	24.020	4.537	1.00	18.32	C
ANISOU	1585	CB	ALA B 108	2928	2018	2014	65	-364 -161	C
ATOM	1586	N	LEU B 109	-0.774	26.648	5.211	1.00	16.70	N
ANISOU	1586	N	LEU B 109	2660	1916	1768	61	-317 -84	N
ATOM	1587	CA	LEU B 109	-1.437	27.449	6.247	1.00	18.83	C
ANISOU	1587	CA	LEU B 109	2926	2174	2053	48	-261 -59	C
ATOM	1588	C	LEU B 109	-2.511	26.635	6.967	1.00	19.78	C
ANISOU	1588	C	LEU B 109	3036	2276	2203	-8	-235 -64	C
ATOM	1589	O	LEU B 109	-3.211	25.854	6.316	1.00	18.26	O
ANISOU	1589	O	LEU B 109	2800	2097	2040	-34	-260 -91	O
ATOM	1590	CB	LEU B 109	-2.113	28.648	5.618	1.00	21.22	C
ANISOU	1590	CB	LEU B 109	3166	2512	2382	94	-239 -33	C
ATOM	1591	CG	LEU B 109	-1.280	29.655	4.827	1.00	21.20	C
ANISOU	1591	CG	LEU B 109	3169	2519	2367	148	-237 -1	C
ATOM	1592	CD1	LEU B 109	-2.197	30.642	4.114	1.00	22.54	C
ANISOU	1592	CD1	LEU B 109	3266	2720	2579	210	-217 67	C
ATOM	1593	CD2	LEU B 109	-0.342	30.365	5.775	1.00	20.23	C
ANISOU	1593	CD2	LEU B 109	3101	2338	2247	129	-182 -20	C
ATOM	1594	N	SER B 110	-2.663	26.836	8.291	1.00	17.89	N
ANISOU	1594	N	SER B 110	2831	2018	1947	-42	-177 -48	N
ATOM	1595	CA	SER B 110	-3.770	26.275	9.027	1.00	18.02	C
ANISOU	1595	CA	SER B 110	2832	2026	1988	-101	-125 -44	C

ATOM	1596	C	SER B 110	-5.073	26.479	8.271	1.00	18.47	C	
ANISOU	1596	C	SER B 110	2783	2120	2113	-99	-117	-69	C
ATOM	1597	O	SER B 110	-5.271	27.487	7.589	1.00	19.78	O	
ANISOU	1597	O	SER B 110	2890	2325	2301	-36	-126	-65	O
ATOM	1598	CB	SER B 110	-3.920	26.898	10.433	1.00	19.62	C	
ANISOU	1598	CB	SER B 110	3068	2243	2144	-135	-41	-40	C
ATOM	1599	OG	SER B 110	-2.799	26.631	11.262	1.00	18.26	O	
ANISOU	1599	OG	SER B 110	2977	2081	1880	-151	-62	-9	O
ATOM	1600	N	THR B 111	-5.950	25.496	8.405	1.00	19.90	N	
ANISOU	1600	N	THR B 111	2932	2293	2336	-167	-99	-83	N
ATOM	1601	CA	THR B 111	-7.267	25.456	7.757	1.00	22.67	C	
ANISOU	1601	CA	THR B 111	3154	2707	2751	-189	-102	-118	C
ATOM	1602	C	THR B 111	-7.978	26.800	7.668	1.00	24.01	C	
ANISOU	1602	C	THR B 111	3229	2939	2956	-118	-72	-101	C
ATOM	1603	O	THR B 111	-8.370	27.201	6.580	1.00	27.66	O	
ANISOU	1603	O	THR B 111	3593	3481	3435	-64	-134	-92	O
ATOM	1604	CB	THR B 111	-8.184	24.428	8.477	1.00	24.13	C	
ANISOU	1604	CB	THR B 111	3321	2859	2987	-298	-34	-135	C
ATOM	1605	OG1	THR B 111	-7.586	23.136	8.400	1.00	24.71	O	
ANISOU	1605	OG1	THR B 111	3476	2846	3068	-352	-53	-140	O
ATOM	1606	CG2	THR B 111	-9.590	24.375	7.842	1.00	24.44	C	
ANISOU	1606	CG2	THR B 111	3196	2989	3100	-336	-40	-187	C
ATOM	1607	N	GLY B 112	-8.165	27.486	8.800	1.00	20.54	N	
ANISOU	1607	N	GLY B 112	2812	2467	2526	-116	30	-93	N
ATOM	1608	CA	GLY B 112	-8.804	28.810	8.779	1.00	21.65	C	
ANISOU	1608	CA	GLY B 112	2864	2625	2737	-35	90	-83	C
ATOM	1609	C	GLY B 112	-8.173	29.780	7.783	1.00	23.42	C	
ANISOU	1609	C	GLY B 112	3082	2849	2966	72	35	-36	C

ATOM	1610	O	GLY B 112	-8.869	30.384	6.957	1.00	21.78		O
ANISOU	1610	O	GLY B 112	2757	2696	2824	154	11	13	O
ATOM	1611	N	TRP B 113	-6.848	29.910	7.848	1.00	20.27		N
ANISOU	1611	N	TRP B 113	2802	2400	2499	72	14	-37	N
ATOM	1612	CA	TRP B 113	-6.108	30.798	6.949	1.00	19.36		C
ANISOU	1612	CA	TRP B 113	2697	2273	2385	155	-19	11	C
ATOM	1613	C	TRP B 113	-6.092	30.272	5.507	1.00	20.83		C
ANISOU	1613	C	TRP B 113	2835	2552	2529	182	-139	50	C
ATOM	1614	O	TRP B 113	-6.072	31.064	4.585	1.00	20.99		O
ANISOU	1614	O	TRP B 113	2809	2605	2560	265	-162	124	O
ATOM	1615	CB	TRP B 113	-4.668	30.960	7.459	1.00	18.53		C
ANISOU	1615	CB	TRP B 113	2716	2109	2216	124	-8	-20	C
ATOM	1616	CG	TRP B 113	-4.581	31.734	8.735	1.00	18.17		C
ANISOU	1616	CG	TRP B 113	2712	2002	2189	92	109	-77	C
ATOM	1617	CD1	TRP B 113	-5.488	32.617	9.190	1.00	19.18		C
ANISOU	1617	CD1	TRP B 113	2785	2089	2413	119	222	-97	C
ATOM	1618	CD2	TRP B 113	-3.511	31.735	9.693	1.00	18.33		C
ANISOU	1618	CD2	TRP B 113	2826	2012	2126	23	128	-136	C
ATOM	1619	NE1	TRP B 113	-5.068	33.172	10.356	1.00	20.05		N
ANISOU	1619	NE1	TRP B 113	2960	2158	2502	59	324	-186	N
ATOM	1620	CE2	TRP B 113	-3.858	32.650	10.694	1.00	17.58		C
ANISOU	1620	CE2	TRP B 113	2736	1880	2065	-6	258	-210	C
ATOM	1621	CE3	TRP B 113	-2.308	31.050	9.798	1.00	17.13		C
ANISOU	1621	CE3	TRP B 113	2740	1891	1877	-14	49	-136	C
ATOM	1622	CZ2	TRP B 113	-3.050	32.905	11.800	1.00	19.46		C
ANISOU	1622	CZ2	TRP B 113	3045	2136	2214	-91	301	-297	C
ATOM	1623	CZ3	TRP B 113	-1.499	31.299	10.889	1.00	17.81		C
ANISOU	1623	CZ3	TRP B 113	2884	2000	1885	-79	79	-194	C

ATOM	1624	CH2 TRP B 113	-1.872	32.222	11.881	1.00	19.10		C
ANISOU	1624	CH2 TRP B 113	3053	2151	2054	-127	199	-281	C
ATOM	1625	N TYR B 114	-6.067	28.948	5.330	1.00	20.02		N
ANISOU	1625	N TYR B 114	2745	2487	2375	107	-202	-1	N
ATOM	1626	CA TYR B 114	-6.084	28.328	4.014	1.00	20.68		C
ANISOU	1626	CA TYR B 114	2782	2672	2405	104	-302	-12	C
ATOM	1627	C TYR B 114	-7.394	28.686	3.328	1.00	22.27		C
ANISOU	1627	C TYR B 114	2827	2999	2635	141	-338	27	C
ATOM	1628	O TYR B 114	-7.436	28.905	2.121	1.00	25.22		O
ANISOU	1628	O TYR B 114	3139	3496	2947	186	-417	69	O
ATOM	1629	CB TYR B 114	-5.942	26.791	4.131	1.00	21.45		C
ANISOU	1629	CB TYR B 114	2921	2746	2484	1	-327	-101	C
ATOM	1630	CG TYR B 114	-5.902	26.130	2.779	1.00	22.61		C
ANISOU	1630	CG TYR B 114	3024	2995	2571	-23	-412	-158	C
ATOM	1631	CD1 TYR B 114	-4.779	26.250	1.978	1.00	26.33		C
ANISOU	1631	CD1 TYR B 114	3551	3484	2968	14	-446	-157	C
ATOM	1632	CD2 TYR B 114	-7.005	25.449	2.268	1.00	26.57		C
ANISOU	1632	CD2 TYR B 114	3416	3597	3082	-94	-451	-226	C
ATOM	1633	CE1 TYR B 114	-4.730	25.672	0.719	1.00	27.66		C
ANISOU	1633	CE1 TYR B 114	3683	3768	3060	-18	-510	-229	C
ATOM	1634	CE2 TYR B 114	-6.974	24.868	1.012	1.00	27.23		C
ANISOU	1634	CE2 TYR B 114	3455	3803	3088	-137	-526	-308	C
ATOM	1635	CZ TYR B 114	-5.821	24.984	0.244	1.00	28.31		C
ANISOU	1635	CZ TYR B 114	3664	3956	3137	-97	-552	-311	C
ATOM	1636	OH TYR B 114	-5.759	24.450	-1.020	1.00	32.19		O
ANISOU	1636	OH TYR B 114	4114	4588	3527	-146	-614	-409	O
ATOM	1637	N ASN B 115	-8.446	28.743	4.131	1.00	21.92		N
ANISOU	1637	N ASN B 115	2711	2942	2676	123	-278	18	N

ATOM	1638	CA	ASN B 115	-9.737	29.305	3.737	1.00	23.37		C
ANISOU	1638	CA	ASN B 115	2721	3236	2923	184	-291	72	C
ATOM	1639	C	ASN B 115	-10.225	28.746	2.398	1.00	23.50		C
ANISOU	1639	C	ASN B 115	2618	3448	2863	164	-425	62	C
ATOM	1640	O	ASN B 115	-10.524	29.480	1.466	1.00	23.76		O
ANISOU	1640	O	ASN B 115	2551	3610	2868	263	-490	164	O
ATOM	1641	CB	ASN B 115	-9.614	30.826	3.727	1.00	26.68		C
ANISOU	1641	CB	ASN B 115	3130	3601	3408	325	-234	188	C
ATOM	1642	CG	ASN B 115	-10.938	31.527	3.459	1.00	28.83		C
ANISOU	1642	CG	ASN B 115	3211	3962	3783	424	-229	273	C
ATOM	1643	OD1	ASN B 115	-11.990	31.112	3.942	1.00	32.64		O
ANISOU	1643	OD1	ASN B 115	3582	4489	4329	379	-203	221	O
ATOM	1644	ND2	ASN B 115	-10.884	32.592	2.670	1.00	30.04		N
ANISOU	1644	ND2	ASN B 115	3315	4140	3959	564	-248	420	N
ATOM	1645	N	GLY B 116	-10.252	27.411	2.318	1.00	22.57		N
ANISOU	1645	N	GLY B 116	2518	3352	2707	28	-458	-65	N
ATOM	1646	CA	GLY B 116	-10.786	26.708	1.194	1.00	23.51		C
ANISOU	1646	CA	GLY B 116	2520	3660	2752	-38	-568	-134	C
ATOM	1647	C	GLY B 116	-9.999	26.936	-0.076	1.00	24.69		C
ANISOU	1647	C	GLY B 116	2699	3924	2758	9	-660	-104	C
ATOM	1648	O	GLY B 116	-10.496	26.647	-1.151	1.00	25.46		O
ANISOU	1648	O	GLY B 116	2678	4238	2759	-26	-764	-141	O
ATOM	1649	N	GLY B 117	-8.778	27.457	0.047	1.00	23.63		N
ANISOU	1649	N	GLY B 117	2713	3665	2599	76	-619	-43	N
ATOM	1650	CA	GLY B 117	-7.899	27.658	-1.090	1.00	25.01		C
ANISOU	1650	CA	GLY B 117	2932	3932	2638	112	-678	-14	C
ATOM	1651	C	GLY B 117	-7.787	29.093	-1.563	1.00	27.30		C
ANISOU	1651	C	GLY B 117	3194	4271	2906	260	-684	179	C

ATOM	1652	O	GLY B 117	-7.138	29.339	-2.585	1.00	32.37	O	
ANISOU	1652	O	GLY B 117	3862	5015	3421	290	-728	229	O
ATOM	1653	N	SER B 118	-8.402	30.051	-0.861	1.00	28.13	N	
ANISOU	1653	N	SER B 118	3248	4298	3142	352	-624	290	N
ATOM	1654	CA	SER B 118	-8.455	31.451	-1.370	1.00	29.53	C	
ANISOU	1654	CA	SER B 118	3381	4502	3338	508	-615	496	C
ATOM	1655	C	SER B 118	-7.089	32.154	-1.488	1.00	28.19	C	
ANISOU	1655	C	SER B 118	3362	4200	3149	550	-548	562	C
ATOM	1656	O	SER B 118	-6.942	33.109	-2.263	1.00	31.14	O	
ANISOU	1656	O	SER B 118	3715	4621	3496	656	-551	736	O
ATOM	1657	CB	SER B 118	-9.370	32.323	-0.510	1.00	32.88	C	
ANISOU	1657	CB	SER B 118	3721	4824	3948	602	-530	578	C
ATOM	1658	OG	SER B 118	-8.711	32.670	0.701	1.00	35.07	O	
ANISOU	1658	OG	SER B 118	4135	4856	4334	584	-392	522	O
ATOM	1659	N	ARG B 119	-6.103	31.686	-0.737	1.00	25.82	N	
ANISOU	1659	N	ARG B 119	3202	3744	2865	469	-486	438	N
ATOM	1660	CA	ARG B 119	-4.745	32.245	-0.785	1.00	26.31	C	
ANISOU	1660	CA	ARG B 119	3390	3693	2914	484	-423	469	C
ATOM	1661	C	ARG B 119	-3.749	31.390	-1.587	1.00	25.25	C	
ANISOU	1661	C	ARG B 119	3318	3644	2630	413	-478	385	C
ATOM	1662	O	ARG B 119	-2.582	31.746	-1.697	1.00	23.57	O	
ANISOU	1662	O	ARG B 119	3194	3361	2401	415	-428	398	O
ATOM	1663	CB	ARG B 119	-4.258	32.526	0.655	1.00	25.65	C	
ANISOU	1663	CB	ARG B 119	3397	3395	2953	454	-312	399	C
ATOM	1664	CG	ARG B 119	-5.043	33.700	1.219	1.00	29.50	C	
ANISOU	1664	CG	ARG B 119	3832	3786	3592	540	-221	489	C
ATOM	1665	CD	ARG B 119	-4.581	34.206	2.588	1.00	31.57	C	
ANISOU	1665	CD	ARG B 119	4178	3857	3960	504	-93	409	C

ATOM	1666	NE	ARG	B 119	-5.523	33.744	3.575	1.00	39.52	N	
ANISOU	1666	NE	ARG	B 119	5142	4855	5019	466	-69	327	N
ATOM	1667	CZ	ARG	B 119	-6.484	34.449	4.151	1.00	36.03	C	
ANISOU	1667	CZ	ARG	B 119	4629	4352	4708	520	21	349	C
ATOM	1668	NH1	ARG	B 119	-6.629	35.744	3.944	1.00	41.10	N	
ANISOU	1668	NH1	ARG	B 119	5242	4899	5476	627	110	451	N
ATOM	1669	NH2	ARG	B 119	-7.289	33.829	5.009	1.00	37.37	N	
ANISOU	1669	NH2	ARG	B 119	4759	4541	4898	463	42	262	N
ATOM	1670	N	CYS	B 120	-4.236	30.305	-2.190	1.00	28.48	N	
ANISOU	1670	N	CYS	B 120	3670	4208	2941	347	-568	290	N
ATOM	1671	CA	CYS	B 120	-3.420	29.428	-3.066	1.00	28.86	C	
ANISOU	1671	CA	CYS	B 120	3763	4350	2853	278	-607	182	C
ATOM	1672	C	CYS	B 120	-2.728	30.172	-4.174	1.00	28.23	C	
ANISOU	1672	C	CYS	B 120	3701	4374	2651	331	-606	296	C
ATOM	1673	O	CYS	B 120	-3.358	30.960	-4.875	1.00	26.78	O	
ANISOU	1673	O	CYS	B 120	3440	4328	2408	406	-645	456	O
ATOM	1674	CB	CYS	B 120	-4.299	28.353	-3.719	1.00	31.44	C	
ANISOU	1674	CB	CYS	B 120	3998	4858	3090	194	-698	60	C
ATOM	1675	SG	CYS	B 120	-4.681	26.995	-2.596	1.00	35.19	S	
ANISOU	1675	SG	CYS	B 120	4493	5183	3694	80	-671	-125	S
ATOM	1676	N	GLY	B 121	-1.425	29.950	-4.285	1.00	26.40	N	
ANISOU	1676	N	GLY	B 121	3563	4076	2391	300	-554	232	N
ATOM	1677	CA	GLY	B 121	-0.610	30.565	-5.302	1.00	27.45	C	
ANISOU	1677	CA	GLY	B 121	3724	4299	2408	331	-528	324	C
ATOM	1678	C	GLY	B 121	-0.184	31.999	-5.033	1.00	28.71	C	
ANISOU	1678	C	GLY	B 121	3920	4332	2657	413	-441	507	C
ATOM	1679	O	GLY	B 121	0.507	32.596	-5.857	1.00	28.22	O	
ANISOU	1679	O	GLY	B 121	3884	4327	2511	434	-399	608	O

ATOM	1680	N	LYS B 122	-0.598	32.572	-3.903	1.00	28.90		N
ANISOU	1680	N	LYS B 122	3947	4182	2853	449	-396	545	N
ATOM	1681	CA	LYS B 122	-0.242	33.957	-3.598	1.00	30.47		C
ANISOU	1681	CA	LYS B 122	4179	4229	3168	512	-290	690	C
ATOM	1682	C	LYS B 122	0.990	33.983	-2.740	1.00	27.83		C
ANISOU	1682	C	LYS B 122	3930	3726	2918	449	-206	579	C
ATOM	1683	O	LYS B 122	1.308	32.983	-2.102	1.00	23.02		O
ANISOU	1683	O	LYS B 122	3343	3096	2309	384	-238	419	O
ATOM	1684	CB	LYS B 122	-1.385	34.666	-2.892	1.00	33.15		C
ANISOU	1684	CB	LYS B 122	4463	4477	3655	586	-266	775	C
ATOM	1685	CG	LYS B 122	-2.571	34.893	-3.814	1.00	35.51		C
ANISOU	1685	CG	LYS B 122	4648	4959	3886	676	-349	935	C
ATOM	1686	CD	LYS B 122	-3.695	35.547	-3.053	1.00	38.46		C
ANISOU	1686	CD	LYS B 122	4947	5230	4436	759	-312	1007	C
ATOM	1687	CE	LYS B 122	-4.979	35.573	-3.849	1.00	43.93		C
ANISOU	1687	CE	LYS B 122	5489	6137	5067	848	-420	1146	C
ATOM	1688	NZ	LYS B 122	-4.722	35.816	-5.293	1.00	47.17		N
ANISOU	1688	NZ	LYS B 122	5879	6752	5291	893	-484	1315	N
ATOM	1689	N	MET B 123	1.692	35.118	-2.730	1.00	25.06		N
ANISOU	1689	N	MET B 123	3619	3259	2643	466	-97	670	N
ATOM	1690	CA	MET B 123	2.828	35.260	-1.847	1.00	25.93		C
ANISOU	1690	CA	MET B 123	3786	3228	2837	395	-21	556	C
ATOM	1691	C	MET B 123	2.383	35.833	-0.499	1.00	25.48		C
ANISOU	1691	C	MET B 123	3737	3005	2938	389	39	513	C
ATOM	1692	O	MET B 123	1.491	36.686	-0.408	1.00	25.16		O
ANISOU	1692	O	MET B 123	3672	2890	2996	457	90	618	O
ATOM	1693	CB	MET B 123	3.893	36.151	-2.467	1.00	30.75		C
ANISOU	1693	CB	MET B 123	4429	3798	3459	381	82	638	C

ATOM	1694	CG	MET B 123	4.337	35.726	-3.859	1.00	35.20		C
ANISOU	1694	CG	MET B 123	4985	4540	3848	384	49	690	C
ATOM	1695	SD	MET B 123	4.997	34.047	-3.929	1.00	36.95		S
ANISOU	1695	SD	MET B 123	5200	4886	3952	316	-40	475	S
ATOM	1696	CE	MET B 123	6.474	34.246	-2.921	1.00	31.53		C
ANISOU	1696	CE	MET B 123	4536	4056	3389	243	41	356	C
ATOM	1697	N	ILE B 124	3.030	35.359	0.548	1.00	23.81		N
ANISOU	1697	N	ILE B 124	3553	2745	2747	311	38	359	N
ATOM	1698	CA	ILE B 124	2.978	36.027	1.817	1.00	24.47		C
ANISOU	1698	CA	ILE B 124	3656	2690	2950	272	119	290	C
ATOM	1699	C	ILE B 124	4.387	36.468	2.173	1.00	27.40		C
ANISOU	1699	C	ILE B 124	4055	3006	3349	186	186	209	C
ATOM	1700	O	ILE B 124	5.369	35.999	1.586	1.00	28.76		O
ANISOU	1700	O	ILE B 124	4224	3257	3448	161	152	194	O
ATOM	1701	CB	ILE B 124	2.427	35.124	2.931	1.00	23.63		C
ANISOU	1701	CB	ILE B 124	3547	2609	2822	240	57	181	C
ATOM	1702	CG1	ILE B 124	3.312	33.894	3.150	1.00	24.39		C
ANISOU	1702	CG1	ILE B 124	3657	2790	2822	187	-31	89	C
ATOM	1703	CG2	ILE B 124	0.993	34.744	2.599	1.00	24.76		C
ANISOU	1703	CG2	ILE B 124	3643	2808	2957	308	4	248	C
ATOM	1704	CD1	ILE B 124	3.051	33.204	4.469	1.00	27.93		C
ANISOU	1704	CD1	ILE B 124	4117	3238	3257	142	-63	2	C
ATOM	1705	N	ARG B 125	4.451	37.367	3.141	1.00	24.13		N
ANISOU	1705	N	ARG B 125	3658	2465	3046	134	288	140	N
ATOM	1706	CA	ARG B 125	5.681	37.856	3.698	1.00	28.58		C
ANISOU	1706	CA	ARG B 125	4229	2984	3645	25	354	26	C
ATOM	1707	C	ARG B 125	5.689	37.438	5.157	1.00	24.24		C
ANISOU	1707	C	ARG B 125	3680	2469	3060	-51	317	-130	C

ATOM	1708	O	ARG B 125	4.759	37.733	5.919	1.00	24.86		O
ANISOU	1708	O	ARG B 125	3771	2488	3186	-47	362	-165	O
ATOM	1709	CB	ARG B 125	5.742	39.394	3.601	1.00	33.55		C
ANISOU	1709	CB	ARG B 125	4878	3428	4442	3	531	58	C
ATOM	1710	CG	ARG B 125	7.079	40.019	3.992	1.00	43.25		C
ANISOU	1710	CG	ARG B 125	6103	4609	5723	-135	618	-68	C
ATOM	1711	CD	ARG B 125	8.213	39.578	3.079	1.00	50.55		C
ANISOU	1711	CD	ARG B 125	7000	5641	6566	-153	573	-29	C
ATOM	1712	NE	ARG B 125	9.265	40.585	3.001	1.00	58.70		N
ANISOU	1712	NE	ARG B 125	8022	6576	7705	-264	713	-79	N
ATOM	1713	CZ	ARG B 125	10.352	40.484	2.236	1.00	62.59		C
ANISOU	1713	CZ	ARG B 125	8481	7135	8164	-303	724	-56	C
ATOM	1714	NH1	ARG B 125	10.570	39.409	1.484	1.00	58.81		N
ANISOU	1714	NH1	ARG B 125	7979	6820	7545	-234	607	3	N
ATOM	1715	NH2	ARG B 125	11.239	41.474	2.233	1.00	74.39		N
ANISOU	1715	NH2	ARG B 125	9960	8526	9779	-423	871	-109	N
ATOM	1716	N	ILE B 126	6.767	36.789	5.542	1.00	23.55		N
ANISOU	1716	N	ILE B 126	3570	2488	2888	-117	244	-216	N
ATOM	1717	CA	ILE B 126	6.921	36.283	6.873	1.00	25.78		C
ANISOU	1717	CA	ILE B 126	3846	2851	3099	-185	186	-332	C
ATOM	1718	C	ILE B 126	8.035	37.049	7.498	1.00	26.81		C
ANISOU	1718	C	ILE B 126	3948	2987	3252	-313	246	-465	C
ATOM	1719	O	ILE B 126	9.047	37.247	6.866	1.00	27.92		O
ANISOU	1719	O	ILE B 126	4052	3141	3415	-340	259	-462	O
ATOM	1720	CB	ILE B 126	7.343	34.817	6.852	1.00	26.45		C
ANISOU	1720	CB	ILE B 126	3908	3074	3069	-147	38	-306	C
ATOM	1721	CG1	ILE B 126	6.234	33.962	6.254	1.00	26.87		C
ANISOU	1721	CG1	ILE B 126	3984	3125	3101	-48	-17	-207	C

ATOM	1722	CG2 ILE B 126	7.717	34.342	8.266	1.00	25.83		C
ANISOU	1722	CG2 ILE B 126	3813	3100	2899	-216	-26	-394	C
ATOM	1723	CD1 ILE B 126	6.710	32.581	5.823	1.00	26.58		C
ANISOU	1723	CD1 ILE B 126	3927	3172	2998	-1	-125	-178	C
ATOM	1724	N THR B 127	7.850	37.464	8.741	1.00	26.41		N
ANISOU	1724	N THR B 127	3905	2942	3186	-405	287	-596	N
ATOM	1725	CA THR B 127	8.881	38.160	9.456	1.00	29.93		C
ANISOU	1725	CA THR B 127	4312	3428	3633	-556	335	-761	C
ATOM	1726	C THR B 127	9.181	37.432	10.746	1.00	28.42		C
ANISOU	1726	C THR B 127	4089	3437	3271	-622	219	-851	C
ATOM	1727	O THR B 127	8.274	37.150	11.520	1.00	28.72		O
ANISOU	1727	O THR B 127	4169	3500	3244	-612	212	-861	O
ATOM	1728	CB THR B 127	8.434	39.608	9.786	1.00	34.19		C
ANISOU	1728	CB THR B 127	4887	3783	4321	-638	531	-873	C
ATOM	1729	OG1 THR B 127	8.220	40.325	8.561	1.00	33.70		O
ANISOU	1729	OG1 THR B 127	4850	3531	4424	-564	642	-748	O
ATOM	1730	CG2 THR B 127	9.492	40.340	10.630	1.00	33.04		C
ANISOU	1730	CG2 THR B 127	4693	3690	4170	-833	590	-1095	C
ATOM	1731	N ALA B 128	10.462	37.190	10.999	1.00	32.10		N
ANISOU	1731	N ALA B 128	4472	4059	3664	-693	137	-910	N
ATOM	1732	CA ALA B 128	10.894	36.467	12.193	1.00	32.54		C
ANISOU	1732	CA ALA B 128	4479	4346	3539	-745	4	-960	C
ATOM	1733	C ALA B 128	11.314	37.399	13.314	1.00	36.91		C
ANISOU	1733	C ALA B 128	4997	4991	4036	-937	64	-1183	C
ATOM	1734	O ALA B 128	11.400	38.608	13.115	1.00	42.32		O
ANISOU	1734	O ALA B 128	5691	5532	4856	-1038	221	-1314	O
ATOM	1735	CB ALA B 128	12.038	35.549	11.844	1.00	32.88		C
ANISOU	1735	CB ALA B 128	4425	4536	3531	-689	-139	-880	C

ATOM	1736	N	SER B 129	11.592	36.824	14.483	1.00	37.62	N
ANISOU	1736	N	SER B 129	5044	5324	3925	-992	-56 -1223	N
ATOM	1737	CA	SER B 129	11.993	37.597	15.686	1.00	42.80	C
ANISOU	1737	CA	SER B 129	5656	6138	4468	-1198	-22 -1460	C
ATOM	1738	C	SER B 129	13.357	38.278	15.571	1.00	41.92	C
ANISOU	1738	C	SER B 129	5419	6110	4397	-1341	-18 -1613	C
ATOM	1739	O	SER B 129	13.644	39.235	16.273	1.00	47.79	O
ANISOU	1739	O	SER B 129	6133	6906	5120	-1540	70 -1855	O
ATOM	1740	CB	SER B 129	12.016	36.679	16.903	1.00	44.70	C
ANISOU	1740	CB	SER B 129	5871	6671	4443	-1207	-180 -1420	C
ATOM	1741	OG	SER B 129	10.839	35.886	16.964	1.00	51.57	O
ANISOU	1741	OG	SER B 129	6845	7470	5281	-1074	-190 -1255	O
ATOM	1742	N	ASN B 130	14.210	37.764	14.700	1.00	40.11	N
ANISOU	1742	N	ASN B 130	5110	5902	4229	-1252	-104 -1487	N
ATOM	1743	CA	ASN B 130	15.492	38.401	14.422	1.00	42.87	C
ANISOU	1743	CA	ASN B 130	5328	6311	4650	-1381	-82 -1618	C
ATOM	1744	C	ASN B 130	15.370	39.549	13.412	1.00	44.14	C
ANISOU	1744	C	ASN B 130	5546	6165	5060	-1428	136 -1674	C
ATOM	1745	O	ASN B 130	16.379	40.070	12.949	1.00	41.98	O
ANISOU	1745	O	ASN B 130	5175	5891	4884	-1523	185 -1751	O
ATOM	1746	CB	ASN B 130	16.478	37.363	13.883	1.00	43.90	C
ANISOU	1746	CB	ASN B 130	5334	6589	4756	-1257	-246 -1459	C
ATOM	1747	CG	ASN B 130	15.986	36.706	12.600	1.00	39.83	C
ANISOU	1747	CG	ASN B 130	4901	5869	4363	-1049	-227 -1240	C
ATOM	1748	OD1	ASN B 130	15.053	37.194	11.960	1.00	37.53	O
ANISOU	1748	OD1	ASN B 130	4739	5333	4189	-1011	-90 -1207	O
ATOM	1749	ND2	ASN B 130	16.575	35.571	12.251	1.00	38.89	N
ANISOU	1749	ND2	ASN B 130	4701	5862	4214	-909	-366 -1092	N

ATOM	1750	N	GLY B 131	14.142	39.911	13.037	1.00	42.63		N
ANISOU	1750	N	GLY B 131	5502	5719	4976	-1350	268	-1611	N
ATOM	1751	CA	GLY B 131	13.929	41.003	12.099	1.00	40.49		C
ANISOU	1751	CA	GLY B 131	5291	5149	4944	-1369	477	-1618	C
ATOM	1752	C	GLY B 131	14.068	40.617	10.636	1.00	36.90		C
ANISOU	1752	C	GLY B 131	4847	4587	4586	-1211	470	-1395	C
ATOM	1753	O	GLY B 131	13.800	41.438	9.773	1.00	38.75		O
ANISOU	1753	O	GLY B 131	5141	4585	4999	-1197	634	-1343	O
ATOM	1754	N	LYS B 132	14.479	39.387	10.332	1.00	36.41		N
ANISOU	1754	N	LYS B 132	4728	4694	4411	-1090	293	-1260	N
ATOM	1755	CA	LYS B 132	14.587	38.945	8.930	1.00	33.42		C
ANISOU	1755	CA	LYS B 132	4361	4236	4101	-947	293	-1074	C
ATOM	1756	C	LYS B 132	13.217	38.615	8.341	1.00	29.23		C
ANISOU	1756	C	LYS B 132	3958	3561	3589	-784	307	-906	C
ATOM	1757	O	LYS B 132	12.305	38.247	9.050	1.00	25.60		O
ANISOU	1757	O	LYS B 132	3554	3117	3057	-744	259	-901	O
ATOM	1758	CB	LYS B 132	15.486	37.717	8.790	1.00	37.09		C
ANISOU	1758	CB	LYS B 132	4716	4912	4465	-869	121	-1008	C
ATOM	1759	CG	LYS B 132	16.971	37.991	8.990	1.00	46.56		C
ANISOU	1759	CG	LYS B 132	5751	6266	5674	-1001	105	-1135	C
ATOM	1760	CD	LYS B 132	17.807	37.135	8.045	1.00	50.10		C
ANISOU	1760	CD	LYS B 132	6107	6792	6137	-890	42	-1026	C
ATOM	1761	CE	LYS B 132	19.287	37.470	8.121	1.00	59.03		C
ANISOU	1761	CE	LYS B 132	7051	8073	7304	-1019	45	-1148	C
ATOM	1762	NZ	LYS B 132	19.902	37.009	9.398	1.00	61.43		N
ANISOU	1762	NZ	LYS B 132	7216	8647	7479	-1070	-125	-1235	N
ATOM	1763	N	SER B 133	13.117	38.711	7.023	1.00	30.01		N
ANISOU	1763	N	SER B 133	4089	3544	3768	-697	370	-768	N

ATOM	1764	CA	SER B 133	11.867	38.540	6.308	1.00	30.08	C
ANISOU	1764	CA	SER B 133	4195	3436	3796	-555	388 -610	C
ATOM	1765	C	SER B 133	12.117	37.768	5.038	1.00	29.96	C
ANISOU	1765	C	SER B 133	4168	3470	3744	-443	334 -471	C
ATOM	1766	O	SER B 133	13.207	37.847	4.453	1.00	28.21	O
ANISOU	1766	O	SER B 133	3883	3295	3542	-484	362 -482	O
ATOM	1767	CB	SER B 133	11.264	39.900	5.929	1.00	34.01	C
ANISOU	1767	CB	SER B 133	4761	3708	4455	-577	576 -581	C
ATOM	1768	OG	SER B 133	10.377	40.354	6.937	1.00	42.47	O
ANISOU	1768	OG	SER B 133	5877	4700	5559	-608	626 -669	O
ATOM	1769	N	VAL B 134	11.082	37.058	4.606	1.00	27.36	N
ANISOU	1769	N	VAL B 134	3896	3137	3364	-316	270 -357	N
ATOM	1770	CA	VAL B 134	11.126	36.242	3.405	1.00	29.19	C
ANISOU	1770	CA	VAL B 134	4125	3428	3539	-216	219 -250	C
ATOM	1771	C	VAL B 134	9.718	36.186	2.834	1.00	25.57	C
ANISOU	1771	C	VAL B 134	3737	2910	3070	-116	217 -129	C
ATOM	1772	O	VAL B 134	8.739	36.204	3.576	1.00	25.91	O
ANISOU	1772	O	VAL B 134	3811	2910	3123	-100	199 -139	O
ATOM	1773	CB	VAL B 134	11.658	34.814	3.724	1.00	32.93	C
ANISOU	1773	CB	VAL B 134	4544	4043	3926	-176	79 -290	C
ATOM	1774	CG1	VAL B 134	10.656	33.981	4.523	1.00	32.88	C
ANISOU	1774	CG1	VAL B 134	4579	4051	3866	-124	-18 -280	C
ATOM	1775	CG2	VAL B 134	12.043	34.078	2.446	1.00	33.29	C
ANISOU	1775	CG2	VAL B 134	4569	4144	3935	-104	65 -235	C
ATOM	1776	N	SER B 135	9.616	36.180	1.519	1.00	24.00	N
ANISOU	1776	N	SER B 135	3550	2727	2843	-56	241 -17	N
ATOM	1777	CA	SER B 135	8.354	35.930	0.878	1.00	26.01	C
ANISOU	1777	CA	SER B 135	3840	2988	3054	39	204 95	C

ATOM	1778	C	SER B 135	8.285	34.452	0.480	1.00	27.99		C
ANISOU	1778	C	SER B 135	4074	3368	3192	87	84	67	C
ATOM	1779	O	SER B 135	9.306	33.815	0.142	1.00	30.07		O
ANISOU	1779	O	SER B 135	4303	3705	3417	72	66	10	O
ATOM	1780	CB	SER B 135	8.180	36.824	-0.342	1.00	30.66		C
ANISOU	1780	CB	SER B 135	4449	3545	3655	76	297	250	C
ATOM	1781	OG	SER B 135	8.958	36.326	-1.416	1.00	34.66		O
ANISOU	1781	OG	SER B 135	4937	4171	4063	77	289	269	O
ATOM	1782	N	ALA B 136	7.078	33.906	0.541	1.00	23.42		N
ANISOU	1782	N	ALA B 136	3512	2806	2581	140	15	95	N
ATOM	1783	CA	ALA B 136	6.864	32.493	0.308	1.00	22.16		C
ANISOU	1783	CA	ALA B 136	3342	2732	2345	168	-82	46	C
ATOM	1784	C	ALA B 136	5.499	32.321	-0.319	1.00	22.07		C
ANISOU	1784	C	ALA B 136	3334	2765	2287	217	-122	115	C
ATOM	1785	O	ALA B 136	4.576	33.094	-0.054	1.00	21.73		O
ANISOU	1785	O	ALA B 136	3293	2670	2293	241	-98	188	O
ATOM	1786	CB	ALA B 136	6.964	31.725	1.613	1.00	20.09		C
ANISOU	1786	CB	ALA B 136	3079	2444	2112	146	-139	-39	C
ATOM	1787	N	LYS B 137	5.380	31.311	-1.169	1.00	21.42		N
ANISOU	1787	N	LYS B 137	3238	2784	2115	228	-178	79	N
ATOM	1788	CA	LYS B 137	4.129	31.044	-1.854	1.00	22.32		C
ANISOU	1788	CA	LYS B 137	3333	2987	2162	256	-232	121	C
ATOM	1789	C	LYS B 137	3.253	30.056	-1.070	1.00	18.38		C
ANISOU	1789	C	LYS B 137	2826	2460	1699	240	-295	45	C
ATOM	1790	O	LYS B 137	3.729	29.043	-0.646	1.00	19.51		O
ANISOU	1790	O	LYS B 137	2982	2567	1862	215	-313	-51	O
ATOM	1791	CB	LYS B 137	4.427	30.482	-3.233	1.00	23.68		C
ANISOU	1791	CB	LYS B 137	3490	3307	2201	249	-248	91	C

ATOM	1792	CG	LYS B 137	3.182	30.283	-4.061	1.00	27.07		C
ANISOU	1792	CG	LYS B 137	3879	3880	2526	262	-316	128	C
ATOM	1793	CD	LYS B 137	3.544	29.964	-5.512	1.00	31.89		C
ANISOU	1793	CD	LYS B 137	4477	4676	2964	242	-319	103	C
ATOM	1794	CE	LYS B 137	4.295	28.643	-5.606	1.00	35.17		C
ANISOU	1794	CE	LYS B 137	4905	5084	3374	190	-309	-97	C
ATOM	1795	NZ	LYS B 137	4.558	28.234	-7.033	1.00	40.74		N
ANISOU	1795	NZ	LYS B 137	5596	5986	3898	154	-298	-167	N
ATOM	1796	N	VAL B 138	1.962	30.326	-0.946	1.00	19.30		N
ANISOU	1796	N	VAL B 138	2912	2593	1829	260	-321	101	N
ATOM	1797	CA	VAL B 138	1.034	29.390	-0.307	1.00	20.21		C
ANISOU	1797	CA	VAL B 138	3009	2692	1976	231	-367	34	C
ATOM	1798	C	VAL B 138	0.716	28.247	-1.263	1.00	24.26		C
ANISOU	1798	C	VAL B 138	3493	3319	2408	195	-426	-54	C
ATOM	1799	O	VAL B 138	0.206	28.485	-2.373	1.00	23.81		O
ANISOU	1799	O	VAL B 138	3385	3410	2250	206	-463	-18	O
ATOM	1800	CB	VAL B 138	-0.287	30.059	0.089	1.00	21.24		C
ANISOU	1800	CB	VAL B 138	3092	2819	2160	260	-366	110	C
ATOM	1801	CG1	VAL B 138	-1.242	29.035	0.711	1.00	22.34		C
ANISOU	1801	CG1	VAL B 138	3205	2952	2332	212	-400	34	C
ATOM	1802	CG2	VAL B 138	-0.035	31.207	1.042	1.00	21.64		C
ANISOU	1802	CG2	VAL B 138	3174	2744	2305	284	-283	163	C
ATOM	1803	N	VAL B 139	1.025	27.011	-0.857	1.00	23.20		N
ANISOU	1803	N	VAL B 139	3385	3118	2311	149	-430	-169	N
ATOM	1804	CA	VAL B 139	0.743	25.859	-1.718	1.00	25.09		C
ANISOU	1804	CA	VAL B 139	3601	3433	2500	96	-459	-293	C
ATOM	1805	C	VAL B 139	-0.118	24.784	-1.079	1.00	23.19		C
ANISOU	1805	C	VAL B 139	3350	3119	2341	35	-469	-372	C

ATOM	1806	O	VAL B 139	-0.530	23.867	-1.770	1.00	18.81	O	
ANISOU	1806	O	VAL B 139	2766	2620	1761	-30	-484	-495	O
ATOM	1807	CB	VAL B 139	2.031	25.213	-2.269	1.00	24.97	C	
ANISOU	1807	CB	VAL B 139	3620	3401	2467	93	-423	-388	C
ATOM	1808	CG1	VAL B 139	2.822	26.228	-3.077	1.00	25.70	C	
ANISOU	1808	CG1	VAL B 139	3712	3589	2464	132	-399	-318	C
ATOM	1809	CG2	VAL B 139	2.862	24.629	-1.150	1.00	26.03	C	
ANISOU	1809	CG2	VAL B 139	3801	3362	2728	111	-388	-402	C
ATOM	1810	N	ASP B 140	-0.407	24.881	0.223	1.00	20.08	N	
ANISOU	1810	N	ASP B 140	2980	2609	2041	42	-449	-312	N
ATOM	1811	CA	ASP B 140	-1.050	23.765	0.873	1.00	21.77	C	
ANISOU	1811	CA	ASP B 140	3198	2732	2339	-22	-435	-373	C
ATOM	1812	C	ASP B 140	-1.736	24.186	2.164	1.00	22.12	C	
ANISOU	1812	C	ASP B 140	3247	2717	2441	-21	-413	-287	C
ATOM	1813	O	ASP B 140	-1.541	25.300	2.637	1.00	22.06	O	
ANISOU	1813	O	ASP B 140	3248	2716	2418	30	-401	-201	O
ATOM	1814	CB	ASP B 140	-0.012	22.661	1.127	1.00	25.87	C	
ANISOU	1814	CB	ASP B 140	3782	3117	2930	-23	-398	-431	C
ATOM	1815	CG	ASP B 140	-0.632	21.232	1.312	1.00	28.28	C	
ANISOU	1815	CG	ASP B 140	4093	3315	3337	-103	-364	-524	C
ATOM	1816	OD1	ASP B 140	-1.819	20.961	0.986	1.00	26.13	O	
ANISOU	1816	OD1	ASP B 140	3764	3102	3064	-185	-375	-590	O
ATOM	1817	OD2	ASP B 140	0.132	20.361	1.756	1.00	33.94	O	
ANISOU	1817	OD2	ASP B 140	4864	3883	4147	-83	-320	-528	O
ATOM	1818	N	GLU B 141	-2.564	23.279	2.679	1.00	20.75	N	
ANISOU	1818	N	GLU B 141	3064	2485	2337	-92	-392	-325	N
ATOM	1819	CA	GLU B 141	-3.309	23.435	3.923	1.00	23.86	C	
ANISOU	1819	CA	GLU B 141	3460	2827	2780	-113	-351	-262	C

ATOM	1820	C	GLU B 141	-2.648	22.600	5.012	1.00	22.36	C	
ANISOU	1820	C	GLU B 141	3360	2495	2642	-123	-307	-224	C
ATOM	1821	O	GLU B 141	-2.314	21.445	4.789	1.00	22.44	O	
ANISOU	1821	O	GLU B 141	3401	2415	2711	-151	-293	-272	O
ATOM	1822	CB	GLU B 141	-4.733	22.888	3.756	1.00	23.70	C	
ANISOU	1822	CB	GLU B 141	3354	2846	2804	-201	-345	-322	C
ATOM	1823	CG	GLU B 141	-5.517	22.863	5.058	1.00	26.72	C	
ANISOU	1823	CG	GLU B 141	3738	3169	3243	-239	-278	-267	C
ATOM	1824	CD	GLU B 141	-6.957	22.366	4.899	1.00	29.30	C	
ANISOU	1824	CD	GLU B 141	3957	3546	3629	-336	-262	-332	C
ATOM	1825	OE1	GLU B 141	-7.279	21.820	3.825	1.00	30.70	O	
ANISOU	1825	OE1	GLU B 141	4068	3791	3804	-391	-309	-437	O
ATOM	1826	OE2	GLU B 141	-7.764	22.533	5.853	1.00	27.15	O	
ANISOU	1826	OE2	GLU B 141	3659	3260	3398	-367	-198	-290	O
ATOM	1827	N	CYS B 142	-2.512	23.183	6.185	1.00	23.64	N	
ANISOU	1827	N	CYS B 142	3559	2641	2782	-103	-279	-138	N
ATOM	1828	CA	CYS B 142	-2.084	22.480	7.380	1.00	23.65	C	
ANISOU	1828	CA	CYS B 142	3634	2552	2801	-114	-245	-66	C
ATOM	1829	C	CYS B 142	-3.393	22.183	8.083	1.00	24.59	C	
ANISOU	1829	C	CYS B 142	3733	2656	2954	-194	-183	-52	C
ATOM	1830	O	CYS B 142	-4.001	23.070	8.683	1.00	23.82	O	
ANISOU	1830	O	CYS B 142	3610	2622	2818	-202	-151	-34	O
ATOM	1831	CB	CYS B 142	-1.168	23.377	8.222	1.00	28.15	C	
ANISOU	1831	CB	CYS B 142	4241	3165	3289	-65	-256	-1	C
ATOM	1832	SG	CYS B 142	-0.311	22.510	9.567	1.00	37.04	S	
ANISOU	1832	SG	CYS B 142	5444	4239	4392	-55	-251	117	S
ATOM	1833	N	ASP B 143	-3.849	20.935	7.981	1.00	24.65	N	
ANISOU	1833	N	ASP B 143	3746	2570	3051	-259	-148	-74	N

ATOM	1834	CA	ASP B 143	-5.241	20.607	8.245	1.00	24.60		C
ANISOU	1834	CA	ASP B 143	3687	2562	3099	-357	-86	-100	C
ATOM	1835	C	ASP B 143	-5.459	20.495	9.734	1.00	24.44		C
ANISOU	1835	C	ASP B 143	3725	2508	3054	-388	-9	14	C
ATOM	1836	O	ASP B 143	-4.900	19.640	10.372	1.00	25.44		O
ANISOU	1836	O	ASP B 143	3935	2532	3200	-388	20	107	O
ATOM	1837	CB	ASP B 143	-5.596	19.315	7.526	1.00	26.82		C
ANISOU	1837	CB	ASP B 143	3950	2744	3495	-439	-63	-190	C
ATOM	1838	CG	ASP B 143	-7.105	18.977	7.568	1.00	29.22		C
ANISOU	1838	CG	ASP B 143	4164	3070	3869	-565	-4	-253	C
ATOM	1839	OD1	ASP B 143	-7.894	19.571	8.339	1.00	28.76		O
ANISOU	1839	OD1	ASP B 143	4066	3078	3784	-585	38	-203	O
ATOM	1840	OD2	ASP B 143	-7.497	18.071	6.802	1.00	33.34		O
ANISOU	1840	OD2	ASP B 143	4645	3542	4480	-655	9	-372	O
ATOM	1841	N	SER B 144	-6.260	21.400	10.282	1.00	24.72		N
ANISOU	1841	N	SER B 144	3711	2638	3043	-406	30	14	N
ATOM	1842	CA	SER B 144	-6.571	21.404	11.717	1.00	22.84		C
ANISOU	1842	CA	SER B 144	3522	2405	2751	-451	119	103	C
ATOM	1843	C	SER B 144	-7.891	20.676	12.042	1.00	24.66		C
ANISOU	1843	C	SER B 144	3705	2599	3066	-569	222	95	C
ATOM	1844	O	SER B 144	-8.288	20.603	13.205	1.00	22.79		O
ANISOU	1844	O	SER B 144	3503	2375	2781	-623	317	168	O
ATOM	1845	CB	SER B 144	-6.627	22.848	12.208	1.00	23.10		C
ANISOU	1845	CB	SER B 144	3532	2553	2691	-411	133	81	C
ATOM	1846	OG	SER B 144	-7.586	23.604	11.497	1.00	23.67		O
ANISOU	1846	OG	SER B 144	3483	2683	2827	-402	138	-6	O
ATOM	1847	N	ARG B 145	-8.565	20.134	11.018	1.00	25.55		N
ANISOU	1847	N	ARG B 145	3730	2682	3294	-622	207	-3	N

ATOM	1848	CA	ARG B 145	-9.805	19.360	11.217	1.00	30.22		C
ANISOU	1848	CA	ARG B 145	4256	3236	3990	-757	307	-34	C
ATOM	1849	C	ARG B 145	-9.568	17.856	11.379	1.00	30.15		C
ANISOU	1849	C	ARG B 145	4334	3040	4081	-834	369	15	C
ATOM	1850	O	ARG B 145	-10.333	17.180	12.037	1.00	31.51		O
ANISOU	1850	O	ARG B 145	4506	3146	4320	-946	488	55	O
ATOM	1851	CB	ARG B 145	-10.761	19.522	10.034	1.00	31.08		C
ANISOU	1851	CB	ARG B 145	4199	3436	4174	-799	259	-184	C
ATOM	1852	CG	ARG B 145	-11.315	20.907	9.798	1.00	34.64		C
ANISOU	1852	CG	ARG B 145	4529	4056	4578	-725	220	-215	C
ATOM	1853	CD	ARG B 145	-12.419	20.808	8.746	1.00	42.31		C
ANISOU	1853	CD	ARG B 145	5312	5136	5626	-785	175	-335	C
ATOM	1854	NE	ARG B 145	-13.122	22.066	8.542	1.00	50.77		N
ANISOU	1854	NE	ARG B 145	6240	6364	6687	-702	148	-336	N
ATOM	1855	CZ	ARG B 145	-12.979	22.877	7.490	1.00	56.23		C
ANISOU	1855	CZ	ARG B 145	6855	7172	7339	-596	31	-348	C
ATOM	1856	NH1	ARG B 145	-12.153	22.573	6.485	1.00	61.07		N
ANISOU	1856	NH1	ARG B 145	7519	7787	7896	-575	-74	-381	N
ATOM	1857	NH2	ARG B 145	-13.681	24.009	7.438	1.00	51.11		N
ANISOU	1857	NH2	ARG B 145	6073	6636	6711	-507	31	-318	N
ATOM	1858	N	HIS B 146	-8.550	17.337	10.710	1.00	31.29		N
ANISOU	1858	N	HIS B 146	4542	3089	4258	-776	303	3	N
ATOM	1859	CA	HIS B 146	-8.341	15.901	10.598	1.00	32.27		C
ANISOU	1859	CA	HIS B 146	4731	3003	4529	-838	371	17	C
ATOM	1860	C	HIS B 146	-6.977	15.537	11.133	1.00	32.33		C
ANISOU	1860	C	HIS B 146	4873	2902	4509	-721	354	180	C
ATOM	1861	O	HIS B 146	-6.070	16.362	11.132	1.00	32.27		O
ANISOU	1861	O	HIS B 146	4886	2998	4377	-601	256	213	O

ATOM	1862	CB	HIS B 146	-8.376	15.492	9.131	1.00	34.27		C
ANISOU	1862	CB	HIS B 146	4915	3233	4875	-875	320	-182	C
ATOM	1863	CG	HIS B 146	-9.627	15.896	8.437	1.00	36.37		C
ANISOU	1863	CG	HIS B 146	5019	3655	5146	-976	298	-343	C
ATOM	1864	ND1	HIS B 146	-9.652	16.881	7.474	1.00	36.60		N
ANISOU	1864	ND1	HIS B 146	4951	3881	5076	-913	173	-439	N
ATOM	1865	CD2	HIS B 146	-10.901	15.473	8.582	1.00	37.62		C
ANISOU	1865	CD2	HIS B 146	5081	3818	5396	-1130	382	-410	C
ATOM	1866	CE1	HIS B 146	-10.887	17.035	7.045	1.00	38.81		C
ANISOU	1866	CE1	HIS B 146	5074	4292	5381	-1011	168	-549	C
ATOM	1867	NE2	HIS B 146	-11.662	16.193	7.698	1.00	39.72		N
ANISOU	1867	NE2	HIS B 146	5180	4298	5615	-1149	293	-547	N
ATOM	1868	N	GLY B 147	-6.827	14.292	11.562	1.00	32.30		N
ANISOU	1868	N	GLY B 147	4950	2687	4636	-757	453	284	N
ATOM	1869	CA	GLY B 147	-5.510	13.772	11.925	1.00	34.08		C
ANISOU	1869	CA	GLY B 147	5281	2792	4875	-628	433	448	C
ATOM	1870	C	GLY B 147	-5.635	12.550	12.779	1.00	36.34		C
ANISOU	1870	C	GLY B 147	5656	2862	5289	-669	570	636	C
ATOM	1871	O	GLY B 147	-6.731	12.021	12.949	1.00	36.39		O
ANISOU	1871	O	GLY B 147	5645	2785	5395	-818	692	607	O
ATOM	1872	N	CYS B 148	-4.504	12.116	13.327	1.00	40.78		N
ANISOU	1872	N	CYS B 148	6304	3340	5850	-535	551	844	N
ATOM	1873	CA	CYS B 148	-4.452	10.981	14.244	1.00	45.13		C
ANISOU	1873	CA	CYS B 148	6950	3686	6510	-534	675	1096	C
ATOM	1874	C	CYS B 148	-4.835	9.639	13.602	1.00	46.65		C
ANISOU	1874	C	CYS B 148	7161	3549	7014	-620	824	1020	C
ATOM	1875	O	CYS B 148	-5.239	8.737	14.298	1.00	45.72		O
ANISOU	1875	O	CYS B 148	7111	3243	7017	-680	970	1193	O

ATOM	1876	CB	CYS B 148	-5.340	11.255	15.484	1.00	47.96		C
ANISOU	1876	CB	CYS B 148	7336	4169	6720	-634	749	1244	C
ATOM	1877	SG	CYS B 148	-4.740	12.578	16.555	1.00	45.29		S
ANISOU	1877	SG	CYS B 148	7007	4177	6025	-539	616	1374	S
ATOM	1878	N	ASP B 149	-4.707	9.526	12.286	1.00	50.10		N
ANISOU	1878	N	ASP B 149	7540	3921	7574	-635	798	755	N
ATOM	1879	CA	ASP B 149	-5.186	8.361	11.529	1.00	58.64		C
ANISOU	1879	CA	ASP B 149	8620	4717	8943	-758	945	593	C
ATOM	1880	C	ASP B 149	-4.100	7.911	10.547	1.00	69.27		C
ANISOU	1880	C	ASP B 149	9971	5917	10430	-642	922	476	C
ATOM	1881	O	ASP B 149	-2.984	8.433	10.588	1.00	62.49		O
ANISOU	1881	O	ASP B 149	9118	5170	9457	-461	800	567	O
ATOM	1882	CB	ASP B 149	-6.469	8.726	10.773	1.00	61.02		C
ANISOU	1882	CB	ASP B 149	8809	5148	9230	-959	950	299	C
ATOM	1883	CG	ASP B 149	-6.254	9.856	9.760	1.00	66.14		C
ANISOU	1883	CG	ASP B 149	9359	6070	9702	-913	774	83	C
ATOM	1884	OD1	ASP B 149	-5.083	10.162	9.439	1.00	65.13		O
ANISOU	1884	OD1	ASP B 149	9256	5977	9516	-750	678	107	O
ATOM	1885	OD2	ASP B 149	-7.255	10.439	9.288	1.00	72.16		O
ANISOU	1885	OD2	ASP B 149	10012	7017	10388	-1035	737	-96	O
ATOM	1886	N	LYS B 150	-4.432	6.964	9.660	1.00	88.76		N
ANISOU	1886	N	LYS B 150	12428	8150	13147	-758	1049	253	N
ATOM	1887	CA	LYS B 150	-3.468	6.405	8.690	1.00	91.85		C
ANISOU	1887	CA	LYS B 150	12824	8371	13704	-667	1071	104	C
ATOM	1888	C	LYS B 150	-3.160	7.338	7.523	1.00	87.32		C
ANISOU	1888	C	LYS B 150	12159	8067	12951	-650	918	-160	C
ATOM	1889	O	LYS B 150	-2.028	7.358	7.038	1.00	86.62		O
ANISOU	1889	O	LYS B 150	12073	7959	12879	-500	876	-183	O

ATOM	1890	CB	LYS B 150	-3.942	5.050	8.156	1.00	92.78		C
ANISOU	1890	CB	LYS B 150	12964	8130	14156	-819	1285	-75	C
ATOM	1891	CG	LYS B 150	-4.020	4.010	9.254	1.00	105.03		C
ANISOU	1891	CG	LYS B 150	14623	9350	15933	-803	1462	226	C
ATOM	1892	CD	LYS B 150	-4.109	2.586	8.741	1.00	112.72		C
ANISOU	1892	CD	LYS B 150	15641	9887	17302	-897	1699	80	C
ATOM	1893	CE	LYS B 150	-4.018	1.623	9.918	1.00	117.37		C
ANISOU	1893	CE	LYS B 150	16347	10136	18112	-832	1872	461	C
ATOM	1894	NZ	LYS B 150	-4.074	0.194	9.521	1.00	117.63		N
ANISOU	1894	NZ	LYS B 150	16435	9680	18578	-912	2137	353	N
ATOM	1895	N	GLU B 151	-4.152	8.107	7.080	1.00	82.44		N
ANISOU	1895	N	GLU B 151	11452	7703	12167	-794	842	-341	N
ATOM	1896	CA	GLU B 151	-3.944	9.083	5.999	1.00	84.07		C
ANISOU	1896	CA	GLU B 151	11573	8192	12179	-776	693	-549	C
ATOM	1897	C	GLU B 151	-2.948	10.171	6.385	1.00	76.03		C
ANISOU	1897	C	GLU B 151	10565	7370	10953	-578	544	-369	C
ATOM	1898	O	GLU B 151	-2.257	10.717	5.522	1.00	74.24		O
ANISOU	1898	O	GLU B 151	10301	7279	10630	-506	457	-488	O
ATOM	1899	CB	GLU B 151	-5.274	9.714	5.578	1.00	92.44		C
ANISOU	1899	CB	GLU B 151	12522	9493	13107	-950	636	-721	C
ATOM	1900	CG	GLU B 151	-6.171	8.745	4.819	1.00	102.05		C
ANISOU	1900	CG	GLU B 151	13686	10587	14499	-1171	754	-995	C
ATOM	1901	CD	GLU B 151	-7.581	9.250	4.591	1.00	103.39		C
ANISOU	1901	CD	GLU B 151	13724	10995	14565	-1346	703	-1127	C
ATOM	1902	OE1	GLU B 151	-8.050	10.120	5.357	1.00	108.60		O
ANISOU	1902	OE1	GLU B 151	14355	11824	15084	-1309	636	-956	O
ATOM	1903	OE2	GLU B 151	-8.227	8.753	3.644	1.00	101.00		O
ANISOU	1903	OE2	GLU B 151	13335	10715	14326	-1527	738	-1414	O

ATOM	1904	N	HIS B 152	-2.894	10.479	7.681	1.00	77.64		N
ANISOU	1904	N	HIS B 152	10819	7600	11083	-508	525	-92	N
ATOM	1905	CA	HIS B 152	-1.964	11.463	8.233	1.00	80.71		C
ANISOU	1905	CA	HIS B 152	11216	8170	11279	-344	395	81	C
ATOM	1906	C	HIS B 152	-0.818	10.818	9.040	1.00	80.75		C
ANISOU	1906	C	HIS B 152	11294	8011	11377	-180	421	333	C
ATOM	1907	O	HIS B 152	-0.077	11.521	9.723	1.00	90.95		O
ANISOU	1907	O	HIS B 152	12589	9458	12510	-60	319	503	O
ATOM	1908	CB	HIS B 152	-2.736	12.473	9.101	1.00	75.35		C
ANISOU	1908	CB	HIS B 152	10521	7709	10401	-392	338	182	C
ATOM	1909	CG	HIS B 152	-3.792	13.230	8.350	1.00	76.53		C
ANISOU	1909	CG	HIS B 152	10575	8042	10461	-512	296	-26	C
ATOM	1910	ND1	HIS B 152	-3.577	14.487	7.828	1.00	72.71		N
ANISOU	1910	ND1	HIS B 152	10031	7793	9802	-459	173	-98	N
ATOM	1911	CD2	HIS B 152	-5.067	12.904	8.022	1.00	73.34		C
ANISOU	1911	CD2	HIS B 152	10113	7627	10127	-679	361	-165	C
ATOM	1912	CE1	HIS B 152	-4.672	14.902	7.216	1.00	65.12		C
ANISOU	1912	CE1	HIS B 152	8979	6959	8805	-568	157	-250	C
ATOM	1913	NE2	HIS B 152	-5.590	13.960	7.318	1.00	70.51		N
ANISOU	1913	NE2	HIS B 152	9651	7511	9628	-705	262	-303	N
ATOM	1914	N	ALA B 153	-0.678	9.491	8.960	1.00	81.01		N
ANISOU	1914	N	ALA B 153	11376	7733	11673	-176	561	356	N
ATOM	1915	CA	ALA B 153	0.431	8.755	9.597	1.00	76.46		C
ANISOU	1915	CA	ALA B 153	10851	6971	11229	5	595	607	C
ATOM	1916	C	ALA B 153	0.414	8.736	11.139	1.00	74.33		C
ANISOU	1916	C	ALA B 153	10640	6734	10867	61	584	965	C
ATOM	1917	O	ALA B 153	1.445	8.499	11.772	1.00	71.61		O
ANISOU	1917	O	ALA B 153	10310	6363	10533	239	545	1211	O

ATOM	1918	CB	ALA B 153	1.766	9.300	9.094	1.00	77.78		C
ANISOU	1918	CB	ALA B 153	10963	7265	11326	173	479	575	C
ATOM	1919	N	GLY B 154	-0.746	8.976	11.745	1.00	69.31		N
ANISOU	1919	N	GLY B 154	10027	6176	10131	-89	618	996	N
ATOM	1920	CA	GLY B 154	-0.836	9.137	13.200	1.00	68.07		C
ANISOU	1920	CA	GLY B 154	9923	6121	9818	-60	603	1308	C
ATOM	1921	C	GLY B 154	-0.400	10.513	13.701	1.00	59.32		C
ANISOU	1921	C	GLY B 154	8775	5375	8389	-1	428	1348	C
ATOM	1922	O	GLY B 154	-0.253	10.724	14.905	1.00	58.69		O
ANISOU	1922	O	GLY B 154	8731	5428	8140	36	395	1593	O
ATOM	1923	N	GLN B 155	-0.206	11.461	12.793	1.00	52.53		N
ANISOU	1923	N	GLN B 155	7841	4680	7439	-4	326	1107	N
ATOM	1924	CA	GLN B 155	0.151	12.823	13.199	1.00	57.17		C
ANISOU	1924	CA	GLN B 155	8390	5581	7752	30	185	1110	C
ATOM	1925	C	GLN B 155	-1.093	13.586	13.640	1.00	49.72		C
ANISOU	1925	C	GLN B 155	7441	4792	6659	-119	209	1046	C
ATOM	1926	O	GLN B 155	-2.133	13.481	12.988	1.00	43.67		O
ANISOU	1926	O	GLN B 155	6647	3962	5984	-242	278	871	O
ATOM	1927	CB	GLN B 155	0.837	13.569	12.063	1.00	58.83		C
ANISOU	1927	CB	GLN B 155	8526	5889	7937	84	88	899	C
ATOM	1928	CG	GLN B 155	2.265	13.099	11.847	1.00	71.50		C
ANISOU	1928	CG	GLN B 155	10114	7419	9635	254	44	981	C
ATOM	1929	CD	GLN B 155	2.830	13.576	10.530	1.00	77.94		C
ANISOU	1929	CD	GLN B 155	10862	8278	10475	284	-4	748	C
ATOM	1930	OE1	GLN B 155	2.580	14.709	10.110	1.00	83.89		O
ANISOU	1930	OE1	GLN B 155	11576	9222	11076	226	-69	603	O
ATOM	1931	NE2	GLN B 155	3.594	12.714	9.865	1.00	84.22		N
ANISOU	1931	NE2	GLN B 155	11644	8890	11467	377	43	715	N

ATOM	1932	N	PRO B 156	-0.995	14.344	14.750	1.00	46.03		N
ANISOU	1932	N	PRO B 156	6988	4538	5963	-112	158	1175	N
ATOM	1933	CA	PRO B 156	-2.139	15.127	15.206	1.00	42.55		C
ANISOU	1933	CA	PRO B 156	6535	4244	5390	-242	199	1101	C
ATOM	1934	C	PRO B 156	-2.626	16.139	14.199	1.00	38.08		C
ANISOU	1934	C	PRO B 156	5886	3771	4812	-287	159	840	C
ATOM	1935	O	PRO B 156	-1.904	16.487	13.249	1.00	31.25		O
ANISOU	1935	O	PRO B 156	4980	2918	3975	-214	74	725	O
ATOM	1936	CB	PRO B 156	-1.608	15.861	16.446	1.00	45.82		C
ANISOU	1936	CB	PRO B 156	6973	4892	5546	-206	135	1246	C
ATOM	1937	CG	PRO B 156	-0.128	15.855	16.289	1.00	49.97		C
ANISOU	1937	CG	PRO B 156	7483	5451	6053	-58	12	1316	C
ATOM	1938	CD	PRO B 156	0.168	14.535	15.635	1.00	50.51		C
ANISOU	1938	CD	PRO B 156	7570	5243	6379	10	61	1377	C
ATOM	1939	N	PRO B 157	-3.855	16.623	14.405	1.00	35.82		N
ANISOU	1939	N	PRO B 157	5566	3557	4485	-402	224	758	N
ATOM	1940	CA	PRO B 157	-4.281	17.697	13.562	1.00	32.71		C
ANISOU	1940	CA	PRO B 157	5084	3275	4067	-419	177	555	C
ATOM	1941	C	PRO B 157	-3.386	18.917	13.781	1.00	32.14		C
ANISOU	1941	C	PRO B 157	5008	3374	3831	-335	80	545	C
ATOM	1942	O	PRO B 157	-2.839	19.126	14.882	1.00	27.18		O
ANISOU	1942	O	PRO B 157	4429	2840	3059	-313	68	670	O
ATOM	1943	CB	PRO B 157	-5.709	17.967	14.027	1.00	33.90		C
ANISOU	1943	CB	PRO B 157	5193	3481	4206	-539	277	514	C
ATOM	1944	CG	PRO B 157	-5.736	17.521	15.452	1.00	35.43		C
ANISOU	1944	CG	PRO B 157	5471	3683	4309	-573	358	707	C
ATOM	1945	CD	PRO B 157	-4.789	16.367	15.518	1.00	37.32		C
ANISOU	1945	CD	PRO B 157	5790	3765	4624	-505	341	868	C

ATOM	1946	N	CYS B 158	-3.200	19.679	12.716	1.00	27.28	N
ANISOU	1946	N	CYS B 158	4330	2802	3233	-297	14	399
ATOM	1947	CA	CYS B 158	-2.521	20.969	12.800	1.00	29.78	C
ANISOU	1947	CA	CYS B 158	4630	3260	3425	-243	-52	359
ATOM	1948	C	CYS B 158	-3.200	21.899	13.822	1.00	27.36	C
ANISOU	1948	C	CYS B 158	4319	3075	3000	-302	10	349
ATOM	1949	O	CYS B 158	-4.422	21.847	14.012	1.00	30.33	O
ANISOU	1949	O	CYS B 158	4666	3444	3415	-376	96	321
ATOM	1950	CB	CYS B 158	-2.542	21.607	11.407	1.00	32.52	C
ANISOU	1950	CB	CYS B 158	4907	3618	3830	-211	-101	216
ATOM	1951	SG	CYS B 158	-1.446	23.012	11.217	1.00	43.77	S
ANISOU	1951	SG	CYS B 158	6319	5155	5158	-139	-170	173
ATOM	1952	N	ARG B 159	-2.416	22.755	14.469	1.00	25.70	N
ANISOU	1952	N	ARG B 159	4128	2983	2653	-279	-24	354
ATOM	1953	CA	ARG B 159	-2.969	23.873	15.252	1.00	28.17	C
ANISOU	1953	CA	ARG B 159	4430	3409	2866	-334	46	283
ATOM	1954	C	ARG B 159	-3.607	24.902	14.331	1.00	25.54	C
ANISOU	1954	C	ARG B 159	4019	3057	2628	-317	69	146
ATOM	1955	O	ARG B 159	-3.531	24.768	13.111	1.00	23.22	O
ANISOU	1955	O	ARG B 159	3685	2699	2438	-266	12	116
ATOM	1956	CB	ARG B 159	-1.883	24.542	16.101	1.00	31.03	C
ANISOU	1956	CB	ARG B 159	4823	3907	3059	-332	3	287
ATOM	1957	CG	ARG B 159	-1.351	23.667	17.217	1.00	37.96	C
ANISOU	1957	CG	ARG B 159	5763	4860	3799	-347	-21	451
ATOM	1958	CD	ARG B 159	-2.177	23.799	18.477	1.00	47.70	C
ANISOU	1958	CD	ARG B 159	7031	6200	4893	-447	88	469
ATOM	1959	NE	ARG B 159	-2.115	22.574	19.268	1.00	61.44	N
ANISOU	1959	NE	ARG B 159	8834	7951	6560	-458	91	680

ATOM	1960	CZ	ARG B 159	-2.439	22.472	20.556	1.00	62.57	C
ANISOU	1960	CZ	ARG B 159	9025	8236	6514	-538	161 762	C
ATOM	1961	NH1	ARG B 159	-2.852	23.531	21.251	1.00	63.95	N
ANISOU	1961	NH1	ARG B 159	9190	8560	6547	-625	240 618	N
ATOM	1962	NH2	ARG B 159	-2.350	21.286	21.154	1.00	63.39	N
ANISOU	1962	NH2	ARG B 159	9188	8326	6573	-530	164 996	N
ATOM	1963	N	ASN B 160	-4.224	25.931	14.908	1.00	24.24	N
ANISOU	1963	N	ASN B 160	3829	2954	2426	-353	157 67	N
ATOM	1964	CA	ASN B 160	-5.001	26.892	14.136	1.00	25.31	C
ANISOU	1964	CA	ASN B 160	3880	3060	2676	-320	198 -29	C
ATOM	1965	C	ASN B 160	-4.261	28.133	13.658	1.00	23.75	C
ANISOU	1965	C	ASN B 160	3670	2862	2490	-263	174 -99	C
ATOM	1966	O	ASN B 160	-4.814	28.907	12.857	1.00	22.45	O
ANISOU	1966	O	ASN B 160	3435	2659	2436	-210	197 -139	O
ATOM	1967	CB	ASN B 160	-6.264	27.273	14.895	1.00	28.13	C
ANISOU	1967	CB	ASN B 160	4193	3447	3046	-377	336 -77	C
ATOM	1968	CG	ASN B 160	-6.072	28.429	15.857	1.00	33.84	C
ANISOU	1968	CG	ASN B 160	4941	4232	3685	-406	430 -169	C
ATOM	1969	OD1	ASN B 160	-4.985	28.659	16.397	1.00	31.56	O
ANISOU	1969	OD1	ASN B 160	4721	4001	3268	-427	392 -180	O
ATOM	1970	ND2	ASN B 160	-7.161	29.145	16.113	1.00	42.05	N
ANISOU	1970	ND2	ASN B 160	5912	5267	4800	-416	562 -250	N
ATOM	1971	N	ASN B 161	-3.023	28.308	14.126	1.00	22.33	N
ANISOU	1971	N	ASN B 161	3550	2730	2203	-274	128 -100	N
ATOM	1972	CA	ASN B 161	-2.237	29.504	13.864	1.00	22.91	C
ANISOU	1972	CA	ASN B 161	3617	2802	2285	-252	128 -179	C
ATOM	1973	C	ASN B 161	-0.858	29.199	13.278	1.00	23.50	C
ANISOU	1973	C	ASN B 161	3710	2886	2334	-214	10 -141	C

ATOM	1974	O	ASN B 161	0.133	29.864	13.620	1.00	25.35		O
ANISOU	1974	O	ASN B 161	3955	3170	2508	-239	-1	-197	O
ATOM	1975	CB	ASN B 161	-2.089	30.328	15.150	1.00	24.51		C
ANISOU	1975	CB	ASN B 161	3850	3082	2381	-335	219	-279	C
ATOM	1976	CG	ASN B 161	-1.371	29.576	16.255	1.00	24.51		C
ANISOU	1976	CG	ASN B 161	3906	3216	2189	-400	164	-229	C
ATOM	1977	OD1	ASN B 161	-1.232	28.370	16.194	1.00	23.52		O
ANISOU	1977	OD1	ASN B 161	3802	3096	2038	-376	86	-98	O
ATOM	1978	ND2	ASN B 161	-0.935	30.292	17.279	1.00	24.72		N
ANISOU	1978	ND2	ASN B 161	3954	3355	2083	-485	211	-332	N
ATOM	1979	N	ILE B 162	-0.814	28.215	12.372	1.00	23.59		N
ANISOU	1979	N	ILE B 162	3711	2850	2401	-161	-66	-67	N
ATOM	1980	CA	ILE B 162	0.422	27.660	11.868	1.00	21.15		C
ANISOU	1980	CA	ILE B 162	3413	2545	2079	-119	-164	-26	C
ATOM	1981	C	ILE B 162	0.712	28.099	10.441	1.00	20.74		C
ANISOU	1981	C	ILE B 162	3323	2446	2111	-60	-190	-53	C
ATOM	1982	O	ILE B 162	-0.175	28.065	9.576	1.00	18.98		O
ANISOU	1982	O	ILE B 162	3067	2184	1961	-34	-178	-54	O
ATOM	1983	CB	ILE B 162	0.371	26.105	11.905	1.00	21.88		C
ANISOU	1983	CB	ILE B 162	3529	2602	2182	-105	-209	70	C
ATOM	1984	CG1	ILE B 162	0.130	25.592	13.344	1.00	23.88		C
ANISOU	1984	CG1	ILE B 162	3829	2912	2334	-160	-180	142	C
ATOM	1985	CG2	ILE B 162	1.655	25.506	11.359	1.00	20.64		C
ANISOU	1985	CG2	ILE B 162	3370	2433	2040	-43	-293	106	C
ATOM	1986	CD1	ILE B 162	1.288	25.800	14.308	1.00	22.39		C
ANISOU	1986	CD1	ILE B 162	3657	2846	2004	-172	-231	172	C
ATOM	1987	N	VAL B 163	1.961	28.503	10.208	1.00	20.83		N
ANISOU	1987	N	VAL B 163	3329	2484	2101	-44	-227	-72	N

ATOM	1988	CA	VAL B 163	2.529	28.600	8.847	1.00	21.82	C
ANISOU	1988	CA	VAL B 163	3427	2583	2281	10	-259 -76	C
ATOM	1989	C	VAL B 163	3.570	27.515	8.836	1.00	21.91	C
ANISOU	1989	C	VAL B 163	3440	2612	2274	39	-331 -41	C
ATOM	1990	O	VAL B 163	4.479	27.516	9.676	1.00	20.19	O
ANISOU	1990	O	VAL B 163	3219	2456	1997	24	-362 -30	O
ATOM	1991	CB	VAL B 163	3.220	29.948	8.576	1.00	23.90	C
ANISOU	1991	CB	VAL B 163	3673	2850	2557	0	-219 -124	C
ATOM	1992	CG1	VAL B 163	3.987	29.941	7.241	1.00	25.03	C
ANISOU	1992	CG1	VAL B 163	3792	2988	2731	48	-246 -113	C
ATOM	1993	CG2	VAL B 163	2.195	31.063	8.615	1.00	26.40	C
ANISOU	1993	CG2	VAL B 163	3986	3117	2929	-8	-127 -147	C
ATOM	1994	N	ASP B 164	3.410	26.566	7.937	1.00	21.83	N
ANISOU	1994	N	ASP B 164	3425	2553	2315	79	-355 -27	N
ATOM	1995	CA	ASP B 164	4.262	25.366	7.913	1.00	25.25	C
ANISOU	1995	CA	ASP B 164	3859	2963	2773	122	-401 8	C
ATOM	1996	C	ASP B 164	5.170	25.565	6.705	1.00	20.89	C
ANISOU	1996	C	ASP B 164	3268	2421	2247	163	-409 -41	C
ATOM	1997	O	ASP B 164	4.705	25.483	5.574	1.00	18.14	O
ANISOU	1997	O	ASP B 164	2913	2055	1922	168	-393 -85	O
ATOM	1998	CB	ASP B 164	3.345	24.137	7.754	1.00	28.77	C
ANISOU	1998	CB	ASP B 164	4329	3321	3281	118	-387 27	C
ATOM	1999	CG	ASP B 164	3.909	22.847	8.391	1.00	39.14	C
ANISOU	1999	CG	ASP B 164	5665	4571	4637	157	-405 111	C
ATOM	2000	OD1	ASP B 164	5.001	22.864	9.005	1.00	41.25	O
ANISOU	2000	OD1	ASP B 164	5915	4889	4869	199	-447 170	O
ATOM	2001	OD2	ASP B 164	3.237	21.793	8.264	1.00	37.35	O
ANISOU	2001	OD2	ASP B 164	5463	4240	4489	144	-373 122	O

ATOM	2002	N	GLY B 165	6.429	25.912	6.925	1.00	19.86		N
ANISOU	2002	N	GLY B 165	3103	2346	2099	180	-432	-41	N
ATOM	2003	CA	GLY B 165	7.288	26.291	5.806	1.00	20.31		C
ANISOU	2003	CA	GLY B 165	3116	2424	2174	204	-417	-91	C
ATOM	2004	C	GLY B 165	8.343	25.267	5.442	1.00	20.36		C
ANISOU	2004	C	GLY B 165	3081	2417	2238	272	-437	-94	C
ATOM	2005	O	GLY B 165	8.754	24.451	6.262	1.00	18.81		O
ANISOU	2005	O	GLY B 165	2872	2207	2068	313	-477	-33	O
ATOM	2006	N	SER B 166	8.796	25.350	4.196	1.00	17.68		N
ANISOU	2006	N	SER B 166	2714	2086	1916	289	-401	-156	N
ATOM	2007	CA	SER B 166	9.827	24.504	3.667	1.00	17.56		C
ANISOU	2007	CA	SER B 166	2647	2057	1968	354	-391	-188	C
ATOM	2008	C	SER B 166	11.134	24.849	4.367	1.00	17.61		C
ANISOU	2008	C	SER B 166	2570	2138	1982	377	-425	-157	C
ATOM	2009	O	SER B 166	11.233	25.877	5.023	1.00	18.98		O
ANISOU	2009	O	SER B 166	2735	2383	2095	317	-443	-144	O
ATOM	2010	CB	SER B 166	9.982	24.736	2.139	1.00	17.57		C
ANISOU	2010	CB	SER B 166	2638	2089	1950	344	-328	-276	C
ATOM	2011	OG	SER B 166	10.419	26.065	1.843	1.00	15.85		O
ANISOU	2011	OG	SER B 166	2396	1952	1673	301	-302	-272	O
ATOM	2012	N	ASN B 167	12.134	24.012	4.165	1.00	17.95		N
ANISOU	2012	N	ASN B 167	2542	2170	2109	458	-424	-162	N
ATOM	2013	CA	ASN B 167	13.512	24.277	4.589	1.00	19.28		C
ANISOU	2013	CA	ASN B 167	2591	2437	2297	489	-456	-145	C
ATOM	2014	C	ASN B 167	14.040	25.629	4.096	1.00	19.26		C
ANISOU	2014	C	ASN B 167	2547	2530	2239	404	-414	-214	C
ATOM	2015	O	ASN B 167	14.736	26.295	4.825	1.00	17.32		O
ANISOU	2015	O	ASN B 167	2229	2385	1967	362	-453	-207	O

ATOM	2016	CB	ASN B 167	14.466	23.185	4.069	1.00	20.73	C
ANISOU	2016	CB	ASN B 167	2690	2578	2610	605	-428 -161	C
ATOM	2017	CG	ASN B 167	14.199	21.816	4.658	1.00	23.00	C
ANISOU	2017	CG	ASN B 167	2999	2743	2996	706	-455 -69	C
ATOM	2018	OD1	ASN B 167	13.586	21.661	5.723	1.00	23.30	O
ANISOU	2018	OD1	ASN B 167	3090	2773	2991	696	-519 39	O
ATOM	2019	ND2	ASN B 167	14.711	20.802	3.984	1.00	24.09	N
ANISOU	2019	ND2	ASN B 167	3094	2782	3278	804	-390 -110	N
ATOM	2020	N	ALA B 168	13.722	25.998	2.840	1.00	18.08	N
ANISOU	2020	N	ALA B 168	2441	2356	2073	372	-330 -278	N
ATOM	2021	CA	ALA B 168	14.220	27.219	2.233	1.00	18.57	C
ANISOU	2021	CA	ALA B 168	2474	2484	2099	297	-265 -318	C
ATOM	2022	C	ALA B 168	13.654	28.457	2.951	1.00	19.91	C
ANISOU	2022	C	ALA B 168	2692	2659	2213	203	-273 -292	C
ATOM	2023	O	ALA B 168	14.343	29.500	3.075	1.00	20.01	O
ANISOU	2023	O	ALA B 168	2653	2721	2229	128	-234 -320	O
ATOM	2024	CB	ALA B 168	13.868	27.241	0.740	1.00	19.95	C
ANISOU	2024	CB	ALA B 168	2695	2645	2238	293	-178 -360	C
ATOM	2025	N	VAL B 169	12.419	28.337	3.436	1.00	18.77	N
ANISOU	2025	N	VAL B 169	2639	2457	2036	201	-307 -252	N
ATOM	2026	CA	VAL B 169	11.803	29.387	4.241	1.00	18.83	C
ANISOU	2026	CA	VAL B 169	2691	2456	2009	124	-302 -241	C
ATOM	2027	C	VAL B 169	12.577	29.579	5.536	1.00	19.63	C
ANISOU	2027	C	VAL B 169	2725	2639	2096	81	-357 -261	C
ATOM	2028	O	VAL B 169	12.923	30.703	5.875	1.00	21.29	O
ANISOU	2028	O	VAL B 169	2911	2878	2300	-13	-317 -314	O
ATOM	2029	CB	VAL B 169	10.334	29.104	4.536	1.00	17.75	C
ANISOU	2029	CB	VAL B 169	2644	2253	1847	135	-320 -201	C

ATOM	2030	CG1 VAL B 169	9.778	30.054	5.584	1.00	17.91	C
ANISOU	2030	CG1 VAL B 169	2696	2266	1843	64	-307 -207	C
ATOM	2031	CG2 VAL B 169	9.535	29.198	3.247	1.00	17.92	C
ANISOU	2031	CG2 VAL B 169	2711	2238	1862	156	-273 -188	C
ATOM	2032	N TRP B 170	12.906	28.490	6.203	1.00	22.71	N
ANISOU	2032	N TRP B 170	3075	3072	2482	145	-444 -219	N
ATOM	2033	CA TRP B 170	13.694	28.534	7.465	1.00	22.19	C
ANISOU	2033	CA TRP B 170	2925	3138	2369	116	-525 -215	C
ATOM	2034	C TRP B 170	15.100	29.099	7.293	1.00	23.27	C
ANISOU	2034	C TRP B 170	2926	3383	2534	74	-519 -283	C
ATOM	2035	O TRP B 170	15.530	29.988	8.035	1.00	23.24	O
ANISOU	2035	O TRP B 170	2869	3480	2481	-37	-529 -351	O
ATOM	2036	CB TRP B 170	13.783	27.136	8.078	1.00	22.35	C
ANISOU	2036	CB TRP B 170	2925	3175	2392	226	-618 -108	C
ATOM	2037	CG TRP B 170	12.533	26.743	8.739	1.00	20.73	C
ANISOU	2037	CG TRP B 170	2832	2909	2136	223	-632 -44	C
ATOM	2038	CD1 TRP B 170	11.376	26.357	8.139	1.00	20.04	C
ANISOU	2038	CD1 TRP B 170	2846	2682	2085	244	-579 -33	C
ATOM	2039	CD2 TRP B 170	12.287	26.721	10.149	1.00	21.31	C
ANISOU	2039	CD2 TRP B 170	2918	3080	2098	185	-697 11	C
ATOM	2040	NE1 TRP B 170	10.420	26.118	9.086	1.00	21.28	N
ANISOU	2040	NE1 TRP B 170	3075	2828	2182	220	-598 25	N
ATOM	2041	CE2 TRP B 170	10.955	26.331	10.329	1.00	21.01	C
ANISOU	2041	CE2 TRP B 170	2997	2939	2049	185	-664 57	C
ATOM	2042	CE3 TRP B 170	13.047	27.052	11.264	1.00	23.07	C
ANISOU	2042	CE3 TRP B 170	3058	3494	2212	135	-777 14	C
ATOM	2043	CZ2 TRP B 170	10.375	26.228	11.579	1.00	22.09	C
ANISOU	2043	CZ2 TRP B 170	3178	3142	2074	143	-694 116	C

ATOM	2044	CZ3 TRP B 170	12.475	26.926	12.521	1.00	25.88		C
ANISOU	2044	CZ3 TRP B 170	3462	3937	2435	93	-820	74	C
ATOM	2045	CH2 TRP B 170	11.161	26.504	12.666	1.00	23.85		C
ANISOU	2045	CH2 TRP B 170	3330	3559	2173	101	-772	129	C
ATOM	2046	N SER B 171	15.838	28.582	6.323	1.00	24.27		N
ANISOU	2046	N SER B 171	2984	3497	2740	148	-492	-284	N
ATOM	2047	CA SER B 171	17.199	29.038	6.123	1.00	24.99		C
ANISOU	2047	CA SER B 171	2925	3699	2872	110	-476	-349	C
ATOM	2048	C SER B 171	17.194	30.483	5.610	1.00	24.33		C
ANISOU	2048	C SER B 171	2869	3583	2791	-29	-360	-436	C
ATOM	2049	O SER B 171	18.099	31.238	5.908	1.00	23.82		O
ANISOU	2049	O SER B 171	2697	3614	2738	-129	-346	-512	O
ATOM	2050	CB SER B 171	17.982	28.093	5.201	1.00	26.50		C
ANISOU	2050	CB SER B 171	3030	3879	3159	230	-453	-337	C
ATOM	2051	OG SER B 171	17.450	28.114	3.897	1.00	29.41		O
ANISOU	2051	OG SER B 171	3493	4133	3548	240	-343	-362	O
ATOM	2052	N ALA B 172	16.148	30.908	4.908	1.00	23.11		N
ANISOU	2052	N ALA B 172	2854	3296	2632	-41	-277	-418	N
ATOM	2053	CA ALA B 172	16.085	32.320	4.465	1.00	22.73		C
ANISOU	2053	CA ALA B 172	2840	3189	2607	-158	-154	-463	C
ATOM	2054	C ALA B 172	15.871	33.309	5.627	1.00	21.30		C
ANISOU	2054	C ALA B 172	2672	3015	2406	-284	-151	-531	C
ATOM	2055	O ALA B 172	16.301	34.437	5.583	1.00	21.73		O
ANISOU	2055	O ALA B 172	2699	3046	2509	-404	-56	-605	O
ATOM	2056	CB ALA B 172	15.027	32.504	3.396	1.00	21.37		C
ANISOU	2056	CB ALA B 172	2795	2894	2431	-118	-76	-396	C
ATOM	2057	N LEU B 173	15.216	32.864	6.674	1.00	21.69		N
ANISOU	2057	N LEU B 173	2761	3094	2386	-264	-242	-516	N

ATOM	2058	CA	LEU B 173	15.020	33.672	7.855	1.00	21.85	C	
ANISOU	2058	CA	LEU B 173	2790	3150	2362	-387	-239	-605	C
ATOM	2059	C	LEU B 173	16.170	33.521	8.824	1.00	23.83	C	
ANISOU	2059	C	LEU B 173	2894	3609	2552	-453	-339	-677	C
ATOM	2060	O	LEU B 173	16.131	34.070	9.917	1.00	26.75	O	
ANISOU	2060	O	LEU B 173	3251	4064	2849	-569	-356	-774	O
ATOM	2061	CB	LEU B 173	13.736	33.235	8.526	1.00	22.03	C	
ANISOU	2061	CB	LEU B 173	2922	3133	2317	-341	-281	-551	C
ATOM	2062	CG	LEU B 173	12.447	33.515	7.766	1.00	21.16	C	
ANISOU	2062	CG	LEU B 173	2936	2844	2258	-292	-192	-491	C
ATOM	2063	CD1	LEU B 173	11.303	32.820	8.472	1.00	20.72	C	
ANISOU	2063	CD1	LEU B 173	2955	2781	2137	-241	-249	-437	C
ATOM	2064	CD2	LEU B 173	12.197	35.006	7.642	1.00	21.78	C	
ANISOU	2064	CD2	LEU B 173	3052	2807	2415	-393	-48	-564	C
ATOM	2065	N	GLY B 174	17.175	32.740	8.460	1.00	25.84	N	
ANISOU	2065	N	GLY B 174	3027	3964	2829	-375	-408	-635	N
ATOM	2066	CA	GLY B 174	18.339	32.535	9.322	1.00	29.11	C	
ANISOU	2066	CA	GLY B 174	3264	4608	3189	-415	-522	-680	C
ATOM	2067	C	GLY B 174	18.088	31.646	10.529	1.00	29.26	C	
ANISOU	2067	C	GLY B 174	3275	4767	3077	-352	-678	-596	C
ATOM	2068	O	GLY B 174	18.772	31.773	11.540	1.00	35.85	O	
ANISOU	2068	O	GLY B 174	3985	5824	3811	-427	-777	-646	O
ATOM	2069	N	LEU B 175	17.133	30.736	10.414	1.00	27.45	N	
ANISOU	2069	N	LEU B 175	3167	4423	2840	-220	-698	-464	N
ATOM	2070	CA	LEU B 175	16.664	29.939	11.528	1.00	30.93	C	
ANISOU	2070	CA	LEU B 175	3638	4954	3159	-167	-812	-358	C
ATOM	2071	C	LEU B 175	16.962	28.462	11.330	1.00	31.46	C	
ANISOU	2071	C	LEU B 175	3661	5013	3279	25	-896	-186	C

ATOM	2072	O	LEU B 175	16.850	27.952	10.211	1.00	31.16	O	
ANISOU	2072	O	LEU B 175	3658	4811	3371	124	-831	-155	O
ATOM	2073	CB	LEU B 175	15.146	30.124	11.677	1.00	32.68	C	
ANISOU	2073	CB	LEU B 175	4047	5024	3348	-191	-740	-349	C
ATOM	2074	CG	LEU B 175	14.650	31.542	11.993	1.00	35.18	C	
ANISOU	2074	CG	LEU B 175	4423	5309	3633	-362	-635	-510	C
ATOM	2075	CD1	LEU B 175	13.145	31.648	11.806	1.00	35.86	C	
ANISOU	2075	CD1	LEU B 175	4672	5210	3741	-342	-546	-483	C
ATOM	2076	CD2	LEU B 175	15.075	31.954	13.399	1.00	38.63	C	
ANISOU	2076	CD2	LEU B 175	4791	5981	3907	-493	-707	-601	C
ATOM	2077	N	ASN B 176	17.286	27.783	12.431	1.00	32.32	N	
ANISOU	2077	N	ASN B 176	3700	5297	3284	76	-1032	-72	N
ATOM	2078	CA	ASN B 176	17.565	26.344	12.467	1.00	35.75	C	
ANISOU	2078	CA	ASN B 176	4089	5714	3780	271	-1111	125	C
ATOM	2079	C	ASN B 176	16.283	25.566	12.693	1.00	36.59	C	
ANISOU	2079	C	ASN B 176	4370	5659	3875	332	-1085	247	C
ATOM	2080	O	ASN B 176	15.714	25.608	13.796	1.00	33.25	O	
ANISOU	2080	O	ASN B 176	4006	5335	3293	275	-1134	303	O
ATOM	2081	CB	ASN B 176	18.554	26.012	13.615	1.00	41.13	C	
ANISOU	2081	CB	ASN B 176	4596	6687	4346	305	-1279	229	C
ATOM	2082	CG	ASN B 176	19.029	24.555	13.598	1.00	42.21	C	
ANISOU	2082	CG	ASN B 176	4655	6791	4592	535	-1351	456	C
ATOM	2083	OD1	ASN B 176	18.374	23.670	13.053	1.00	47.27	O	
ANISOU	2083	OD1	ASN B 176	5413	7188	5361	651	-1279	546	O
ATOM	2084	ND2	ASN B 176	20.176	24.310	14.193	1.00	50.29	N	
ANISOU	2084	ND2	ASN B 176	5470	8061	5578	600	-1488	544	N
ATOM	2085	N	LYS B 177	15.849	24.823	11.672	1.00	36.64	N	
ANISOU	2085	N	LYS B 177	4451	5432	4040	436	-1004	280	N

ATOM	2086	CA	LYS B 177	14.592	24.062	11.760	1.00	37.21	C
ANISOU	2086	CA	LYS B 177	4680	5331	4128	475	-962 373	C
ATOM	2087	C	LYS B 177	14.573	23.000	12.841	1.00	36.03	C
ANISOU	2087	C	LYS B 177	4526	5232	3931	572	-1050 589	C
ATOM	2088	O	LYS B 177	13.510	22.481	13.152	1.00	34.76	O
ANISOU	2088	O	LYS B 177	4494	4957	3757	571	-1012 670	O
ATOM	2089	CB	LYS B 177	14.231	23.425	10.429	1.00	38.21	C
ANISOU	2089	CB	LYS B 177	4864	5221	4431	552	-861 339	C
ATOM	2090	CG	LYS B 177	15.142	22.280	10.014	1.00	42.46	C
ANISOU	2090	CG	LYS B 177	5305	5697	5130	719	-873 424	C
ATOM	2091	CD	LYS B 177	14.646	21.723	8.693	1.00	48.93	C
ANISOU	2091	CD	LYS B 177	6200	6293	6099	756	-754 340	C
ATOM	2092	CE	LYS B 177	15.318	20.417	8.331	1.00	52.44	C
ANISOU	2092	CE	LYS B 177	6576	6616	6733	925	-730 413	C
ATOM	2093	NZ	LYS B 177	16.687	20.667	7.814	1.00	56.47	N
ANISOU	2093	NZ	LYS B 177	6919	7228	7309	980	-733 350	N
ATOM	2094	N	ASN B 178	15.725	22.695	13.429	1.00	40.09	N
ANISOU	2094	N	ASN B 178	4886	5929	4417	652	-1165 696	N
ATOM	2095	CA	ASN B 178	15.771	21.762	14.559	1.00	44.70	C
ANISOU	2095	CA	ASN B 178	5456	6601	4928	750	-1262 944	C
ATOM	2096	C	ASN B 178	15.062	22.211	15.828	1.00	45.94	C
ANISOU	2096	C	ASN B 178	5693	6931	4833	622	-1307 984	C
ATOM	2097	O	ASN B 178	14.736	21.371	16.672	1.00	48.41	O
ANISOU	2097	O	ASN B 178	6049	7265	5080	691	-1349 1206	O
ATOM	2098	CB	ASN B 178	17.218	21.381	14.893	1.00	53.76	C
ANISOU	2098	CB	ASN B 178	6388	7942	6096	879	-1391 1067	C
ATOM	2099	CG	ASN B 178	17.858	20.545	13.797	1.00	57.69	C
ANISOU	2099	CG	ASN B 178	6810	8238	6871	1054	-1330 1088	C

ATOM	2100	OD1 ASN B 178	17.162	19.941	12.973	1.00	57.00		O
ANISOU	2100	OD1 ASN B 178	6848	7862	6949	1098	-1204	1063	O
ATOM	2101	ND2 ASN B 178	19.181	20.502	13.782	1.00	60.54		N
ANISOU	2101	ND2 ASN B 178	6956	8762	7284	1146	-1414	1118	N
ATOM	2102	N VAL B 179	14.831	23.514	15.992	1.00	42.02		N
ANISOU	2102	N VAL B 179	5215	6553	4198	437	-1285	774	N
ATOM	2103	CA VAL B 179	14.061	23.987	17.150	1.00	40.35		C
ANISOU	2103	CA VAL B 179	5089	6490	3752	302	-1294	768	C
ATOM	2104	C VAL B 179	12.569	23.737	16.915	1.00	36.18		C
ANISOU	2104	C VAL B 179	4749	5719	3280	277	-1162	771	C
ATOM	2105	O VAL B 179	11.760	23.880	17.827	1.00	32.10		O
ANISOU	2105	O VAL B 179	4319	5279	2599	189	-1141	796	O
ATOM	2106	CB VAL B 179	14.328	25.478	17.494	1.00	43.00		C
ANISOU	2106	CB VAL B 179	5376	7026	3938	103	-1294	522	C
ATOM	2107	CG1 VAL B 179	15.824	25.730	17.653	1.00	45.72		C
ANISOU	2107	CG1 VAL B 179	5510	7619	4242	108	-1422	495	C
ATOM	2108	CG2 VAL B 179	13.716	26.433	16.461	1.00	40.32		C
ANISOU	2108	CG2 VAL B 179	5120	6468	3733	12	-1142	298	C
ATOM	2109	N GLY B 180	12.203	23.422	15.674	1.00	33.16		N
ANISOU	2109	N GLY B 180	4417	5065	3118	340	-1069	723	N
ATOM	2110	CA GLY B 180	10.885	22.864	15.368	1.00	30.23		C
ANISOU	2110	CA GLY B 180	4189	4464	2832	345	-963	759	C
ATOM	2111	C GLY B 180	9.786	23.887	15.236	1.00	29.39		C
ANISOU	2111	C GLY B 180	4173	4315	2679	202	-864	583	C
ATOM	2112	O GLY B 180	8.941	23.765	14.358	1.00	29.56		O
ANISOU	2112	O GLY B 180	4263	4137	2830	206	-774	526	O
ATOM	2113	N VAL B 181	9.783	24.893	16.112	1.00	31.02		N
ANISOU	2113	N VAL B 181	4370	4713	2702	76	-877	490	N

ATOM	2114	CA	VAL B 181	8.783	25.952	16.092	1.00	28.71	C	
ANISOU	2114	CA	VAL B 181	4150	4377	2382	-50	-767	320	C
ATOM	2115	C	VAL B 181	9.357	27.286	16.569	1.00	30.54	C	
ANISOU	2115	C	VAL B 181	4323	4785	2494	-180	-772	141	C
ATOM	2116	O	VAL B 181	10.115	27.346	17.556	1.00	30.98	O	
ANISOU	2116	O	VAL B 181	4312	5084	2376	-225	-865	161	O
ATOM	2117	CB	VAL B 181	7.541	25.565	16.918	1.00	31.64	C	
ANISOU	2117	CB	VAL B 181	4622	4734	2665	-93	-707	395	C
ATOM	2118	CG1	VAL B 181	7.867	25.439	18.405	1.00	32.82	C	
ANISOU	2118	CG1	VAL B 181	4759	5141	2568	-146	-777	486	C
ATOM	2119	CG2	VAL B 181	6.415	26.570	16.688	1.00	32.38	C	
ANISOU	2119	CG2	VAL B 181	4775	4737	2791	-190	-576	224	C
ATOM	2120	N	VAL B 182	8.984	28.353	15.872	1.00	25.49	N	
ANISOU	2120	N	VAL B 182	3705	4030	1950	-244	-669	-32	N
ATOM	2121	CA	VAL B 182	9.351	29.720	16.246	1.00	26.39	C	
ANISOU	2121	CA	VAL B 182	3783	4244	2000	-386	-625	-232	C
ATOM	2122	C	VAL B 182	8.144	30.651	16.087	1.00	26.41	C	
ANISOU	2122	C	VAL B 182	3870	4096	2068	-455	-467	-360	C
ATOM	2123	O	VAL B 182	7.227	30.335	15.340	1.00	26.88	O	
ANISOU	2123	O	VAL B 182	3987	3974	2252	-379	-412	-298	O
ATOM	2124	CB	VAL B 182	10.518	30.284	15.389	1.00	28.77	C	
ANISOU	2124	CB	VAL B 182	3987	4538	2408	-388	-643	-318	C
ATOM	2125	CG1	VAL B 182	11.805	29.513	15.631	1.00	30.61	C	
ANISOU	2125	CG1	VAL B 182	4099	4949	2582	-324	-794	-215	C
ATOM	2126	CG2	VAL B 182	10.185	30.276	13.906	1.00	28.12	C	
ANISOU	2126	CG2	VAL B 182	3938	4219	2527	-300	-572	-300	C
ATOM	2127	N	ASP B 183	8.168	31.800	16.773	1.00	28.03	N	
ANISOU	2127	N	ASP B 183	4070	4379	2202	-598	-393	-546	N

ATOM	2128	CA	ASP B 183	7.203	32.897	16.581	1.00	28.26	C	
ANISOU	2128	CA	ASP B 183	4157	4243	2336	-657	-222	-689	C
ATOM	2129	C	ASP B 183	7.514	33.745	15.360	1.00	28.12	C	
ANISOU	2129	C	ASP B 183	4117	4045	2521	-636	-151	-750	C
ATOM	2130	O	ASP B 183	8.656	34.120	15.123	1.00	28.86	O	
ANISOU	2130	O	ASP B 183	4142	4195	2630	-681	-187	-811	O
ATOM	2131	CB	ASP B 183	7.189	33.820	17.795	1.00	31.92	C	
ANISOU	2131	CB	ASP B 183	4622	4843	2662	-828	-144	-891	C
ATOM	2132	CG	ASP B 183	6.556	33.171	18.999	1.00	36.25	C	
ANISOU	2132	CG	ASP B 183	5215	5556	3002	-862	-163	-839	C
ATOM	2133	OD1	ASP B 183	5.473	32.560	18.839	1.00	41.82	O	
ANISOU	2133	OD1	ASP B 183	5983	6151	3757	-779	-124	-719	O
ATOM	2134	OD2	ASP B 183	7.132	33.273	20.099	1.00	42.90	O	
ANISOU	2134	OD2	ASP B 183	6024	6652	3623	-979	-215	-919	O
ATOM	2135	N	ILE B 184	6.486	34.015	14.565	1.00	27.44	N	
ANISOU	2135	N	ILE B 184	4082	3755	2588	-566	-53	-716	N
ATOM	2136	CA	ILE B 184	6.603	34.899	13.413	1.00	27.45	C	
ANISOU	2136	CA	ILE B 184	4074	3581	2773	-539	33	-743	C
ATOM	2137	C	ILE B 184	5.382	35.793	13.320	1.00	28.12	C	
ANISOU	2137	C	ILE B 184	4206	3496	2983	-534	193	-792	C
ATOM	2138	O	ILE B 184	4.412	35.614	14.075	1.00	27.45	O	
ANISOU	2138	O	ILE B 184	4154	3431	2846	-544	233	-809	O
ATOM	2139	CB	ILE B 184	6.702	34.108	12.111	1.00	25.95	C	
ANISOU	2139	CB	ILE B 184	3875	3327	2657	-404	-43	-583	C
ATOM	2140	CG1	ILE B 184	5.503	33.156	11.952	1.00	27.87	C	
ANISOU	2140	CG1	ILE B 184	4161	3530	2898	-311	-71	-463	C
ATOM	2141	CG2	ILE B 184	7.996	33.318	12.089	1.00	28.19	C	
ANISOU	2141	CG2	ILE B 184	4096	3748	2865	-392	-176	-542	C

ATOM	2142	CD1 ILE B 184	5.231	32.799	10.504	1.00	27.99		C
ANISOU	2142	CD1 ILE B 184	4173	3446	3015	-202	-90	-359	C
ATOM	2143	N THR B 185	5.446	36.763	12.409	1.00	25.00		N
ANISOU	2143	N THR B 185	3806	2934	2757	-514	292	-803	N
ATOM	2144	CA THR B 185	4.255	37.442	11.941	1.00	26.18		C
ANISOU	2144	CA THR B 185	3982	2900	3064	-443	421	-770	C
ATOM	2145	C THR B 185	4.233	37.317	10.419	1.00	23.96		C
ANISOU	2145	C THR B 185	3689	2533	2881	-318	386	-602	C
ATOM	2146	O THR B 185	5.268	37.153	9.784	1.00	24.19		O
ANISOU	2146	O THR B 185	3697	2599	2893	-322	325	-570	O
ATOM	2147	CB THR B 185	4.235	38.938	12.324	1.00	28.77		C
ANISOU	2147	CB THR B 185	4319	3083	3528	-532	615	-932	C
ATOM	2148	OG1 THR B 185	5.406	39.572	11.791	1.00	33.65		O
ANISOU	2148	OG1 THR B 185	4917	3655	4212	-591	641	-970	O
ATOM	2149	CG2 THR B 185	4.155	39.140	13.862	1.00	30.87		C
ANISOU	2149	CG2 THR B 185	4598	3453	3677	-676	673	-1138	C
ATOM	2150	N TRP B 186	3.051	37.403	9.836	1.00	24.16		N
ANISOU	2150	N TRP B 186	3716	2465	2999	-211	425	-499	N
ATOM	2151	CA TRP B 186	2.955	37.371	8.387	1.00	22.01		C
ANISOU	2151	CA TRP B 186	3428	2144	2791	-100	392	-340	C
ATOM	2152	C TRP B 186	1.825	38.233	7.861	1.00	22.01		C
ANISOU	2152	C TRP B 186	3413	2002	2949	-3	501	-253	C
ATOM	2153	O TRP B 186	0.923	38.659	8.590	1.00	22.00		O
ANISOU	2153	O TRP B 186	3406	1934	3019	-1	596	-311	O
ATOM	2154	CB TRP B 186	2.812	35.917	7.870	1.00	20.98		C
ANISOU	2154	CB TRP B 186	3286	2143	2544	-39	231	-245	C
ATOM	2155	CG TRP B 186	1.506	35.276	8.195	1.00	20.81		C
ANISOU	2155	CG TRP B 186	3254	2148	2507	3	206	-214	C

ATOM	2156	CD1 TRP B 186	1.146	34.700	9.392	1.00	21.64		C
ANISOU	2156	CD1 TRP B 186	3374	2313	2536	-54	196	-283	C
ATOM	2157	CD2 TRP B 186	0.355	35.189	7.346	1.00	19.35		C
ANISOU	2157	CD2 TRP B 186	3028	1945	2379	102	196	-105	C
ATOM	2158	NE1 TRP B 186	-0.153	34.237	9.317	1.00	20.10		N
ANISOU	2158	NE1 TRP B 186	3151	2121	2365	-3	193	-230	N
ATOM	2159	CE2 TRP B 186	-0.655	34.534	8.073	1.00	19.98		C
ANISOU	2159	CE2 TRP B 186	3092	2065	2433	92	185	-129	C
ATOM	2160	CE3 TRP B 186	0.089	35.584	6.032	1.00	21.00		C
ANISOU	2160	CE3 TRP B 186	3202	2132	2644	195	189	18	C
ATOM	2161	CZ2 TRP B 186	-1.928	34.279	7.531	1.00	20.06		C
ANISOU	2161	CZ2 TRP B 186	3039	2092	2491	165	167	-52	C
ATOM	2162	CZ3 TRP B 186	-1.183	35.319	5.493	1.00	22.20		C
ANISOU	2162	CZ3 TRP B 186	3291	2323	2820	275	155	106	C
ATOM	2163	CH2 TRP B 186	-2.158	34.668	6.234	1.00	21.31		C
ANISOU	2163	CH2 TRP B 186	3150	2249	2698	257	142	61	C
ATOM	2164	N SER B 187	1.907	38.507	6.568	1.00	22.18		N
ANISOU	2164	N SER B 187	3420	1985	3022	82	493	-105	N
ATOM	2165	CA SER B 187	0.824	39.136	5.869	1.00	23.75		C
ANISOU	2165	CA SER B 187	3585	2092	3347	208	554	38	C
ATOM	2166	C SER B 187	0.935	38.746	4.425	1.00	22.31		C
ANISOU	2166	C SER B 187	3382	1999	3098	292	454	211	C
ATOM	2167	O SER B 187	1.943	38.194	4.009	1.00	19.35		O
ANISOU	2167	O SER B 187	3027	1711	2613	243	380	195	O
ATOM	2168	CB SER B 187	0.889	40.654	6.015	1.00	28.80		C
ANISOU	2168	CB SER B 187	4241	2513	4190	207	752	26	C
ATOM	2169	OG SER B 187	1.895	41.220	5.203	1.00	29.42		O
ANISOU	2169	OG SER B 187	4345	2531	4304	190	793	95	O

ATOM	2170	N	MET B 188	-0.112	39.020	3.669	1.00	24.52		N
ANISOU	2170	N	MET B 188	3608	2274	3434	418	452	371	N
ATOM	2171	CA	MET B 188	-0.039	38.883	2.216	1.00	28.76		C
ANISOU	2171	CA	MET B 188	4121	2910	3895	496	375	549	C
ATOM	2172	C	MET B 188	1.029	39.838	1.707	1.00	30.08		C
ANISOU	2172	C	MET B 188	4338	2967	4125	474	482	611	C
ATOM	2173	O	MET B 188	1.214	40.915	2.262	1.00	27.10		O
ANISOU	2173	O	MET B 188	3988	2392	3918	451	641	577	O
ATOM	2174	CB	MET B 188	-1.383	39.233	1.557	1.00	31.18		C
ANISOU	2174	CB	MET B 188	4342	3243	4263	643	361	733	C
ATOM	2175	CG	MET B 188	-2.561	38.416	2.052	1.00	32.50		C
ANISOU	2175	CG	MET B 188	4436	3510	4401	660	278	674	C
ATOM	2176	SD	MET B 188	-2.335	36.625	1.972	1.00	30.93		S
ANISOU	2176	SD	MET B 188	4245	3523	3982	562	99	550	S
ATOM	2177	CE	MET B 188	-2.126	36.471	0.197	1.00	30.55		C
ANISOU	2177	CE	MET B 188	4166	3647	3795	624	-3	715	C
ATOM	2178	N	ALA B 189	1.725	39.436	0.653	1.00	33.55		N
ANISOU	2178	N	ALA B 189	4787	3529	4432	470	413	686	N
ATOM	2179	CA	ALA B 189	2.796	40.242	0.057	1.00	36.43		C
ANISOU	2179	CA	ALA B 189	5192	3811	4836	437	518	755	C
ATOM	2180	C	ALA B 189	2.412	40.650	-1.360	1.00	42.50		C
ANISOU	2180	C	ALA B 189	5940	4644	5563	554	513	1017	C
ATOM	2181	O	ALA B 189	1.420	40.157	-1.893	1.00	50.62		O
ANISOU	2181	O	ALA B 189	6911	5822	6499	647	399	1116	O
ATOM	2182	CB	ALA B 189	4.095	39.462	0.038	1.00	34.91		C
ANISOU	2182	CB	ALA B 189	5023	3725	4517	324	461	619	C
TER	2183		ALA B 189							
HETATM	2184	CL	CL A 201	30.798	-14.094	9.158	1.00	54.26		CL

HETATM	2185	CL	CL B 201	-4.616	46.079	8.992	1.00	63.08	CL
HETATM	2186	O	HOH A 301	35.079	-1.383	6.736	1.00	31.59	O
HETATM	2187	O	HOH A 302	5.659	1.245	6.526	1.00	41.18	O
HETATM	2188	O	HOH A 303	37.575	1.243	6.785	1.00	34.02	O
HETATM	2189	O	HOH A 304	32.357	3.285	37.383	1.00	29.86	O
HETATM	2190	O	HOH A 305	36.325	5.719	31.073	1.00	39.04	O
HETATM	2191	O	HOH A 306	7.439	-2.656	4.554	1.00	34.92	O
HETATM	2192	O	HOH A 307	44.072	9.926	16.647	1.00	26.56	O
HETATM	2193	O	HOH A 308	39.206	17.324	16.024	1.00	42.38	O
HETATM	2194	O	HOH A 309	36.219	6.056	4.433	1.00	21.88	O
HETATM	2195	O	HOH A 310	34.337	22.201	13.883	1.00	36.81	O
HETATM	2196	O	HOH A 311	38.844	13.939	12.975	1.00	35.10	O
HETATM	2197	O	HOH A 312	35.405	-4.807	8.863	1.00	32.95	O
HETATM	2198	O	HOH A 313	38.194	7.561	-1.915	1.00	35.43	O
HETATM	2199	O	HOH A 314	8.133	5.762	-0.637	1.00	39.20	O
HETATM	2200	O	HOH A 315	34.813	2.430	35.818	1.00	45.47	O
HETATM	2201	O	HOH A 316	37.718	17.383	11.250	1.00	39.42	O
HETATM	2202	O	HOH A 317	14.050	-4.403	0.269	1.00	28.32	O
HETATM	2203	O	HOH A 318	11.949	5.302	-5.278	1.00	42.53	O
HETATM	2204	O	HOH A 319	16.576	-3.582	-4.041	1.00	53.81	O
HETATM	2205	O	HOH A 320	39.403	14.796	15.706	1.00	34.85	O
HETATM	2206	O	HOH A 321	8.990	6.609	2.925	1.00	45.47	O
HETATM	2207	O	HOH A 322	23.934	21.488	-5.151	1.00	29.94	O
HETATM	2208	O	HOH A 323	14.601	2.430	-4.105	1.00	25.97	O
HETATM	2209	O	HOH A 324	42.271	6.294	14.767	1.00	54.50	O
HETATM	2210	O	HOH A 325	9.819	7.330	6.672	1.00	27.19	O
HETATM	2211	O	HOH A 326	35.050	-4.914	-3.374	1.00	50.84	O
HETATM	2212	O	HOH A 327	25.170	-5.325	-4.534	1.00	34.48	O

HETATM	2213	O	HOH A 328	35.758	19.108	11.361	1.00	30.52	O
HETATM	2214	O	HOH A 329	20.678	21.959	-4.398	1.00	36.64	O
HETATM	2215	O	HOH A 330	6.009	7.602	0.077	1.00	47.95	O
HETATM	2216	O	HOH A 331	35.738	-4.355	6.112	1.00	36.56	O
HETATM	2217	O	HOH A 332	31.573	2.887	0.311	1.00	18.09	O
HETATM	2218	O	HOH A 333	33.489	5.764	11.208	1.00	25.32	O
HETATM	2219	O	HOH A 334	39.431	11.157	12.758	1.00	23.55	O
HETATM	2220	O	HOH A 335	15.113	10.802	3.839	1.00	23.43	O
HETATM	2221	O	HOH A 336	22.767	-1.592	17.521	1.00	35.65	O
HETATM	2222	O	HOH A 337	20.941	16.387	0.923	1.00	29.30	O
HETATM	2223	O	HOH A 338	22.603	13.113	-1.741	1.00	30.05	O
HETATM	2224	O	HOH A 339	27.614	-1.420	16.713	1.00	38.78	O
HETATM	2225	O	HOH A 340	39.241	6.111	14.941	1.00	28.98	O
HETATM	2226	O	HOH A 341	15.572	-0.405	18.426	1.00	44.57	O
HETATM	2227	O	HOH A 342	30.710	10.990	16.875	1.00	39.30	O
HETATM	2228	O	HOH A 343	17.755	10.454	12.483	1.00	30.77	O
HETATM	2229	O	HOH A 344	20.375	-8.037	7.130	1.00	31.04	O
HETATM	2230	O	HOH A 345	35.856	11.512	6.360	1.00	33.35	O
HETATM	2231	O	HOH A 346	22.073	-3.857	16.747	1.00	34.76	O
HETATM	2232	O	HOH A 347	25.774	9.933	14.144	1.00	30.43	O
HETATM	2233	O	HOH A 348	27.599	-1.438	33.919	1.00	42.69	O
HETATM	2234	O	HOH A 349	30.905	-5.892	14.151	1.00	41.02	O
HETATM	2235	O	HOH A 350	12.957	13.380	-1.874	1.00	28.07	O
HETATM	2236	O	HOH A 351	28.692	16.799	10.616	1.00	43.47	O
HETATM	2237	O	HOH A 352	24.893	-9.351	15.108	1.00	42.01	O
HETATM	2238	O	HOH A 353	27.012	-9.698	16.201	1.00	47.34	O
HETATM	2239	O	HOH A 354	16.177	18.295	5.534	1.00	44.62	O
HETATM	2240	O	HOH A 355	10.274	-7.507	5.460	1.00	47.33	O

HETATM	2241	O	HOH A 356	40.834	2.790	16.330	1.00	41.66	O
HETATM	2242	O	HOH A 357	26.918	14.325	1.335	1.00	41.82	O
HETATM	2243	O	HOH A 358	37.261	0.492	9.587	1.00	34.17	O
HETATM	2244	O	HOH A 359	25.357	20.783	17.602	1.00	52.57	O
HETATM	2245	O	HOH A 360	9.184	6.734	9.026	1.00	27.49	O
HETATM	2246	O	HOH A 361	19.229	15.098	7.275	1.00	41.67	O
HETATM	2247	O	HOH A 362	16.726	15.401	-5.181	1.00	38.64	O
HETATM	2248	O	HOH A 363	26.665	2.444	20.024	1.00	39.50	O
HETATM	2249	O	HOH A 364	30.327	5.780	17.658	1.00	45.19	O
HETATM	2250	O	HOH A 365	25.141	11.034	6.845	1.00	34.12	O
HETATM	2251	O	HOH A 366	25.817	11.990	4.387	1.00	35.10	O
HETATM	2252	O	HOH A 367	21.393	12.180	9.494	1.00	43.99	O
HETATM	2253	O	HOH A 368	15.052	11.255	12.438	1.00	41.94	O
HETATM	2254	O	HOH A 369	35.064	-1.411	9.509	1.00	26.62	O
HETATM	2255	O	HOH A 370	18.288	2.344	-4.584	1.00	37.02	O
HETATM	2256	O	HOH A 371	26.062	5.122	-5.505	1.00	43.37	O
HETATM	2257	O	HOH A 372	31.622	2.701	26.961	1.00	55.95	O
HETATM	2258	O	HOH A 373	29.441	-8.693	14.042	1.00	52.22	O
HETATM	2259	O	HOH A 374	28.315	13.298	7.038	1.00	27.79	O
HETATM	2260	O	HOH A 375	23.084	15.086	0.262	1.00	34.11	O
HETATM	2261	O	HOH A 376	29.375	14.633	0.436	1.00	54.43	O
HETATM	2262	O	HOH A 377	23.495	8.806	-9.935	1.00	50.26	O
HETATM	2263	O	HOH A 378	18.204	-5.398	15.956	1.00	37.75	O
HETATM	2264	O	HOH A 379	30.211	10.506	23.103	1.00	45.82	O
HETATM	2265	O	HOH A 380	23.555	9.919	12.139	1.00	37.10	O
HETATM	2266	O	HOH A 381	28.318	12.323	18.312	1.00	36.43	O
HETATM	2267	O	HOH A 382	29.009	-2.761	14.615	1.00	36.91	O
HETATM	2268	O	HOH B 301	-8.861	33.425	6.835	1.00	34.78	O

HETATM	2269	O	HOH B 302	20.580	31.481	6.401	1.00	46.94	O
HETATM	2270	O	HOH B 303	-5.712	37.811	2.777	1.00	34.50	O
HETATM	2271	O	HOH B 304	18.880	34.743	4.982	1.00	42.19	O
HETATM	2272	O	HOH B 305	-10.052	26.041	4.597	1.00	26.34	O
HETATM	2273	O	HOH B 306	-10.698	25.011	-3.250	1.00	39.16	O
HETATM	2274	O	HOH B 307	-11.541	30.779	7.173	1.00	44.28	O
HETATM	2275	O	HOH B 308	-17.958	22.121	16.784	1.00	29.17	O
HETATM	2276	O	HOH B 309	-15.931	21.561	12.701	1.00	34.62	O
HETATM	2277	O	HOH B 310	-8.338	10.025	13.943	1.00	37.51	O
HETATM	2278	O	HOH B 311	18.226	26.264	-0.518	1.00	31.97	O
HETATM	2279	O	HOH B 312	4.706	11.193	-1.532	1.00	49.88	O
HETATM	2280	O	HOH B 313	6.145	32.733	22.624	1.00	52.65	O
HETATM	2281	O	HOH B 314	11.661	29.621	-3.997	1.00	25.46	O
HETATM	2282	O	HOH B 315	2.357	10.564	-5.071	1.00	28.54	O
HETATM	2283	O	HOH B 316	16.275	24.834	6.672	1.00	23.65	O
HETATM	2284	O	HOH B 317	0.781	37.240	-4.339	1.00	42.38	O
HETATM	2285	O	HOH B 318	-9.294	36.973	8.706	1.00	41.56	O
HETATM	2286	O	HOH B 319	-12.709	18.145	13.372	1.00	33.02	O
HETATM	2287	O	HOH B 320	12.184	36.719	0.037	1.00	37.03	O
HETATM	2288	O	HOH B 321	5.519	10.058	-4.096	1.00	44.67	O
HETATM	2289	O	HOH B 322	12.786	37.493	-2.471	1.00	41.20	O
HETATM	2290	O	HOH B 323	-7.313	26.533	11.570	1.00	22.53	O
HETATM	2291	O	HOH B 324	-5.424	29.134	0.398	1.00	22.89	O
HETATM	2292	O	HOH B 325	-12.992	25.960	15.098	1.00	32.66	O
HETATM	2293	O	HOH B 326	11.220	21.348	4.040	1.00	22.98	O
HETATM	2294	O	HOH B 327	0.465	22.203	14.374	1.00	35.44	O
HETATM	2295	O	HOH B 328	3.606	18.844	-1.652	1.00	33.66	O
HETATM	2296	O	HOH B 329	5.750	40.177	7.327	1.00	31.80	O

HETATM	2297	O	HOH B 330	-2.081	18.673	7.073	1.00	30.05	O
HETATM	2298	O	HOH B 331	-13.325	20.927	12.974	1.00	24.61	O
HETATM	2299	O	HOH B 332	3.448	33.915	17.319	1.00	33.43	O
HETATM	2300	O	HOH B 333	-4.048	22.925	23.915	1.00	54.01	O
HETATM	2301	O	HOH B 334	-9.803	20.545	6.776	1.00	33.39	O
HETATM	2302	O	HOH B 335	6.009	21.680	-8.637	1.00	46.23	O
HETATM	2303	O	HOH B 336	-0.725	17.399	1.376	1.00	48.39	O
HETATM	2304	O	HOH B 337	-1.265	33.353	17.051	1.00	38.90	O
HETATM	2305	O	HOH B 338	9.433	16.571	-5.081	1.00	37.51	O
HETATM	2306	O	HOH B 339	0.822	41.577	15.219	1.00	47.33	O
HETATM	2307	O	HOH B 340	-10.886	31.677	10.234	1.00	31.53	O
HETATM	2308	O	HOH B 341	-4.890	37.705	14.277	1.00	38.10	O
HETATM	2309	O	HOH B 342	0.249	27.066	-5.303	1.00	43.13	O
HETATM	2310	O	HOH B 343	2.698	22.153	12.249	1.00	39.56	O
HETATM	2311	O	HOH B 344	-0.057	29.520	20.259	1.00	48.25	O
HETATM	2312	O	HOH B 345	3.094	17.182	0.364	1.00	36.93	O
HETATM	2313	O	HOH B 346	8.613	21.739	12.521	1.00	23.07	O
HETATM	2314	O	HOH B 347	17.017	25.465	9.170	1.00	30.32	O
HETATM	2315	O	HOH B 348	15.390	39.934	5.602	1.00	41.61	O
HETATM	2316	O	HOH B 349	-0.173	19.767	15.526	1.00	40.23	O
HETATM	2317	O	HOH B 350	13.512	18.684	-1.946	1.00	24.65	O
HETATM	2318	O	HOH B 351	-8.968	33.621	9.813	1.00	33.78	O
HETATM	2319	O	HOH B 352	-1.913	5.430	11.586	1.00	51.91	O
HETATM	2320	O	HOH B 353	6.719	16.896	7.157	1.00	48.66	O
HETATM	2321	O	HOH B 354	4.976	19.918	9.645	1.00	43.14	O
HETATM	2322	O	HOH B 355	4.121	36.191	16.765	1.00	34.97	O
HETATM	2323	O	HOH B 356	2.749	19.277	2.006	1.00	35.69	O
HETATM	2324	O	HOH B 357	1.105	21.030	6.903	1.00	33.90	O

HETATM	2325	O	HOH B 358	7.851	29.794	-4.210	1.00	39.47	O
HETATM	2326	O	HOH B 359	-4.132	26.666	17.628	1.00	43.93	O
HETATM	2327	O	HOH B 360	10.085	13.992	5.548	1.00	39.27	O
HETATM	2328	O	HOH B 361	7.745	38.806	14.040	1.00	50.01	O
HETATM	2329	O	HOH B 362	12.140	14.505	1.480	1.00	43.74	O
HETATM	2330	O	HOH B 363	2.540	23.028	-9.904	1.00	52.89	O
HETATM	2331	O	HOH B 364	-3.893	20.113	17.319	1.00	46.30	O

CONECT 125 257

CONECT 179 851

CONECT 257 125

CONECT 452 649

CONECT 649 452

CONECT 806 925

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