



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 04:41 PM UTC

PDB ID : 8USC / pdb_00008usc
EMDB ID : EMD-42507
Title : Nub1/Fat10-processing human 26S proteasome
Authors : Arkinson, C.; Gee, C.L.; Martin, A.
Deposited on : 2023-10-27
Resolution : 3.10 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

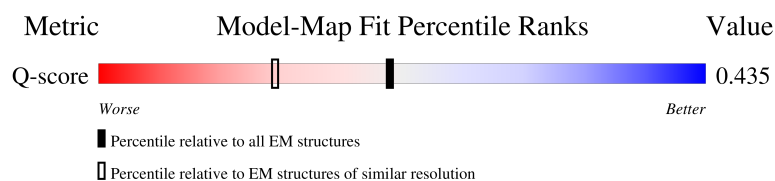
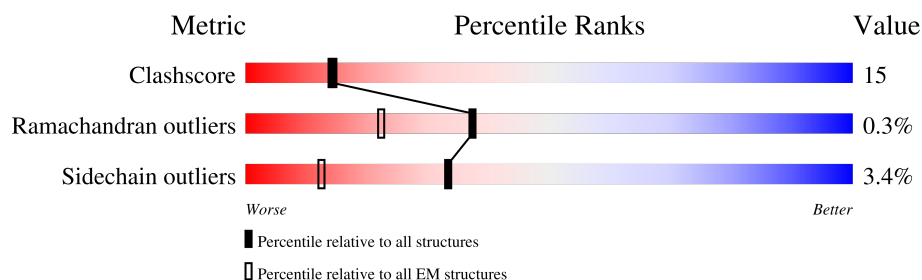
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.10 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.




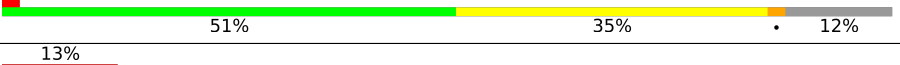

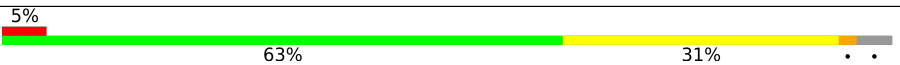
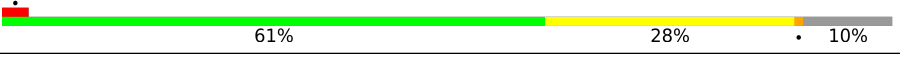

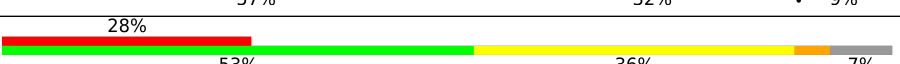
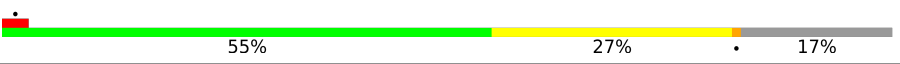
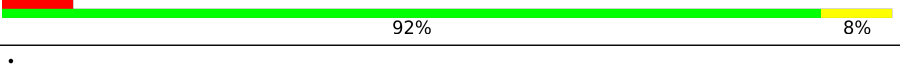
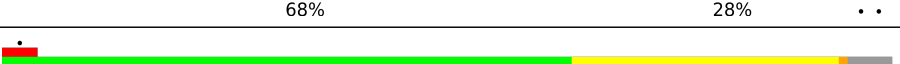
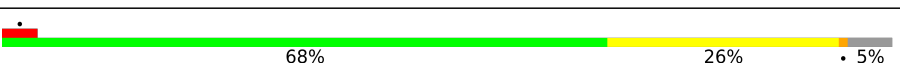



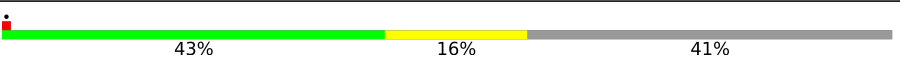



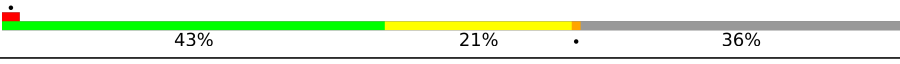




Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	14724 (2.60 - 3.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	H	234	
2	Y	389	
3	f	908	
4	X	422	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
5	U	953	
6	Z	324	
7	a	376	
8	b	377	
9	A	433	
10	B	440	
11	C	406	
12	D	418	
13	E	389	
14	F	439	
15	v	12	
16	G	246	
17	I	261	
18	J	248	
19	K	241	
20	L	263	
21	M	255	
22	O	277	
23	e	70	
24	d	350	
25	W	456	
26	g	601	
27	V	534	
28	c	424	

2 Entry composition

There are 32 unique types of molecules in this entry. The entry contains 70061 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Proteasome subunit alpha type-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	H	232	Total	C	N	O	S	0	0
			1813	1158	307	342	6		

- Molecule 2 is a protein called 26S proteasome non-ATPase regulatory subunit 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	Y	380	Total	C	N	O	S	0	0
			3127	1995	535	580	17		

- Molecule 3 is a protein called 26S proteasome non-ATPase regulatory subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	f	842	Total	C	N	O	S	0	0
			6512	4117	1105	1245	45		

- Molecule 4 is a protein called 26S proteasome non-ATPase regulatory subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	X	378	Total	C	N	O	S	0	0
			2994	1909	507	566	12		

- Molecule 5 is a protein called 26S proteasome non-ATPase regulatory subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	U	841	Total	C	N	O	S	0	0
			6559	4162	1115	1238	44		

- Molecule 6 is a protein called 26S proteasome non-ATPase regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	Z	286	Total	C	N	O	S	0	0
			2281	1457	392	427	5		

- Molecule 7 is a protein called 26S proteasome non-ATPase regulatory subunit 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	a	373	Total	C	N	O	S	0	0
			2995	1911	510	559	15		

- Molecule 8 is a protein called 26S proteasome non-ATPase regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	b	191	Total	C	N	O	S	0	0
			1458	910	261	279	8		

- Molecule 9 is a protein called 26S proteasome regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	A	415	Total	C	N	O	S	0	0
			3261	2053	573	617	18		

- Molecule 10 is a protein called 26S proteasome regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	B	398	Total	C	N	O	S	0	0
			3122	1966	532	609	15		

- Molecule 11 is a protein called 26S protease regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	C	386	Total	C	N	O	S	0	0
			3051	1919	547	567	18		

- Molecule 12 is a protein called 26S proteasome regulatory subunit 6B.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	D	380	Total	C	N	O	S	0	0
			3040	1923	524	580	13		

- Molecule 13 is a protein called 26S protease regulatory subunit 10B.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	E	360	Total	C	N	O	S	0	0
			2859	1805	505	533	16		

- Molecule 14 is a protein called 26S proteasome regulatory subunit 6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	F	364	Total	C	N	O	S	0	0
			2850	1803	492	538	17		

- Molecule 15 is a protein called substrate peptide.

Mol	Chain	Residues	Atoms				AltConf	Trace
15	v	12	Total	C	N	O	0	0
			60	36	12	12		

- Molecule 16 is a protein called Proteasome subunit alpha type-6.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	G	239	Total	C	N	O	S	0	0
			1820	1157	304	346	13		

- Molecule 17 is a protein called Proteasome subunit alpha type-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	I	248	Total	C	N	O	S	0	0
			1911	1207	325	370	9		

- Molecule 18 is a protein called Proteasome subunit alpha type-7.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	J	236	Total	C	N	O	S	0	0
			1749	1090	318	336	5		

- Molecule 19 is a protein called Proteasome subunit alpha type-5.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	K	228	Total	C	N	O	S	0	0
			1733	1089	285	349	10		

- Molecule 20 is a protein called Proteasome subunit alpha type-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	L	238	Total	C	N	O	S	0	0
			1850	1159	334	346	11		

- Molecule 21 is a protein called Proteasome subunit alpha type-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	M	240	Total	C	N	O	S	0	0
			1856	1178	314	353	11		

- Molecule 22 is a protein called Proteasome subunit beta type-7.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	O	44	Total	C	N	O	S	0	0
			355	222	64	66	3		

- Molecule 23 is a protein called 26S proteasome complex subunit SEM1.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	e	41	Total	C	N	O	S	0	0
			353	217	55	81			

- Molecule 24 is a protein called 26S proteasome non-ATPase regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	d	269	Total	C	N	O	S	0	0
			2188	1414	359	406	9		

- Molecule 25 is a protein called 26S proteasome non-ATPase regulatory subunit 12.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	W	438	Total	C	N	O	S	0	0
			3570	2261	609	677	23		

- Molecule 26 is a protein called Isoform 2 of NEDD8 ultimate buster 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	g	95	Total	C	N	O	S	0	0
			771	487	139	144	1		

- Molecule 27 is a protein called 26S proteasome non-ATPase regulatory subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	V	441	Total	C	N	O	S	0	0
			3593	2290	641	649	13		

- Molecule 28 is a protein called 26S proteasome non-ATPase regulatory subunit 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	c	273	Total	C	N	O	S	0	0
			2150	1362	369	401	18		

There are 114 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
c	311	LEU	-	insertion	UNP O00487
c	312	ILE	-	expression tag	UNP O00487
c	313	ASN	-	expression tag	UNP O00487
c	314	HIS	-	expression tag	UNP O00487
c	315	HIS	-	expression tag	UNP O00487
c	316	HIS	-	expression tag	UNP O00487
c	317	HIS	-	expression tag	UNP O00487
c	318	HIS	-	expression tag	UNP O00487
c	319	HIS	-	expression tag	UNP O00487
c	320	ASP	-	expression tag	UNP O00487
c	321	TYR	-	expression tag	UNP O00487
c	322	ASP	-	expression tag	UNP O00487
c	323	ILE	-	expression tag	UNP O00487
c	324	PRO	-	expression tag	UNP O00487
c	325	THR	-	expression tag	UNP O00487
c	326	THR	-	expression tag	UNP O00487
c	327	ALA	-	expression tag	UNP O00487
c	328	SER	-	expression tag	UNP O00487
c	329	GLU	-	expression tag	UNP O00487
c	330	ASN	-	expression tag	UNP O00487
c	331	LEU	-	expression tag	UNP O00487
c	332	TYR	-	expression tag	UNP O00487
c	333	PHE	-	expression tag	UNP O00487
c	334	GLN	-	expression tag	UNP O00487
c	335	GLY	-	expression tag	UNP O00487
c	336	GLU	-	expression tag	UNP O00487
c	337	LEU	-	expression tag	UNP O00487
c	338	GLY	-	expression tag	UNP O00487
c	339	MET	-	expression tag	UNP O00487
c	340	ARG	-	expression tag	UNP O00487
c	341	GLY	-	expression tag	UNP O00487
c	342	SER	-	expression tag	UNP O00487
c	343	ALA	-	expression tag	UNP O00487
c	344	GLY	-	expression tag	UNP O00487
c	345	LYS	-	expression tag	UNP O00487
c	346	ALA	-	expression tag	UNP O00487
c	347	GLY	-	expression tag	UNP O00487

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
c	348	GLU	-	expression tag	UNP O00487
c	349	GLY	-	expression tag	UNP O00487
c	350	GLU	-	expression tag	UNP O00487
c	351	ILE	-	expression tag	UNP O00487
c	352	PRO	-	expression tag	UNP O00487
c	353	ALA	-	expression tag	UNP O00487
c	354	PRO	-	expression tag	UNP O00487
c	355	LEU	-	expression tag	UNP O00487
c	356	ALA	-	expression tag	UNP O00487
c	357	GLY	-	expression tag	UNP O00487
c	358	THR	-	expression tag	UNP O00487
c	359	VAL	-	expression tag	UNP O00487
c	360	SER	-	expression tag	UNP O00487
c	361	LYS	-	expression tag	UNP O00487
c	362	ILE	-	expression tag	UNP O00487
c	363	LEU	-	expression tag	UNP O00487
c	364	VAL	-	expression tag	UNP O00487
c	365	LYS	-	expression tag	UNP O00487
c	366	GLU	-	expression tag	UNP O00487
c	367	GLY	-	expression tag	UNP O00487
c	368	ASP	-	expression tag	UNP O00487
c	369	THR	-	expression tag	UNP O00487
c	370	VAL	-	expression tag	UNP O00487
c	371	LYS	-	expression tag	UNP O00487
c	372	ALA	-	expression tag	UNP O00487
c	373	GLY	-	expression tag	UNP O00487
c	374	GLN	-	expression tag	UNP O00487
c	375	THR	-	expression tag	UNP O00487
c	376	VAL	-	expression tag	UNP O00487
c	377	LEU	-	expression tag	UNP O00487
c	378	VAL	-	expression tag	UNP O00487
c	379	LEU	-	expression tag	UNP O00487
c	380	GLU	-	expression tag	UNP O00487
c	381	ALA	-	expression tag	UNP O00487
c	382	MET	-	expression tag	UNP O00487
c	383	LYS	-	expression tag	UNP O00487
c	384	MET	-	expression tag	UNP O00487
c	385	GLU	-	expression tag	UNP O00487
c	386	THR	-	expression tag	UNP O00487
c	387	GLU	-	expression tag	UNP O00487
c	388	ILE	-	expression tag	UNP O00487
c	389	ASN	-	expression tag	UNP O00487

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
c	390	ALA	-	expression tag	UNP O00487
c	391	PRO	-	expression tag	UNP O00487
c	392	THR	-	expression tag	UNP O00487
c	393	ASP	-	expression tag	UNP O00487
c	394	GLY	-	expression tag	UNP O00487
c	395	LYS	-	expression tag	UNP O00487
c	396	VAL	-	expression tag	UNP O00487
c	397	GLU	-	expression tag	UNP O00487
c	398	LYS	-	expression tag	UNP O00487
c	399	VAL	-	expression tag	UNP O00487
c	400	LEU	-	expression tag	UNP O00487
c	401	VAL	-	expression tag	UNP O00487
c	402	LYS	-	expression tag	UNP O00487
c	403	GLU	-	expression tag	UNP O00487
c	404	ARG	-	expression tag	UNP O00487
c	405	ASP	-	expression tag	UNP O00487
c	406	ALA	-	expression tag	UNP O00487
c	407	VAL	-	expression tag	UNP O00487
c	408	GLN	-	expression tag	UNP O00487
c	409	GLY	-	expression tag	UNP O00487
c	410	GLY	-	expression tag	UNP O00487
c	411	GLN	-	expression tag	UNP O00487
c	412	GLY	-	expression tag	UNP O00487
c	413	LEU	-	expression tag	UNP O00487
c	414	ILE	-	expression tag	UNP O00487
c	415	LYS	-	expression tag	UNP O00487
c	416	ILE	-	expression tag	UNP O00487
c	417	GLY	-	expression tag	UNP O00487
c	418	VAL	-	expression tag	UNP O00487
c	419	HIS	-	expression tag	UNP O00487
c	420	HIS	-	expression tag	UNP O00487
c	421	HIS	-	expression tag	UNP O00487
c	422	HIS	-	expression tag	UNP O00487
c	423	HIS	-	expression tag	UNP O00487
c	424	HIS	-	expression tag	UNP O00487

- Molecule 29 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

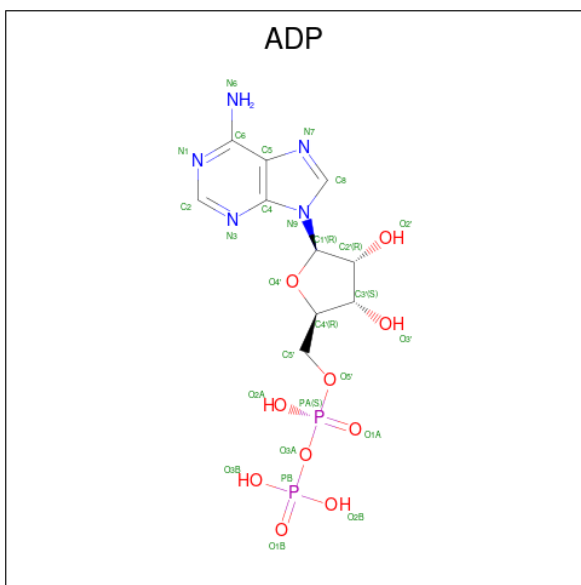
Mol	Chain	Residues	Atoms	AltConf
29	A	1	Total Mg 1 1	0

Continued on next page...

Mol	Chain	Residues	Atoms	AltConf
29	B	1	Total Mg 1 1	0
29	C	1	Total Mg 1 1	0
29	D	1	Total Mg 1 1	0
29	F	1	Total Mg 1 1	0

- # ATP

- Molecule 31 is ADENOSINE-5'-DIPHOSPHATE (CCD ID: ADP) (formula: $\text{C}_{10}\text{H}_{15}\text{N}_5\text{O}_{10}\text{P}_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
31	C	1	Total 27	C 10	N 5	O 10	P 2	0
31	D	1	Total 27	C 10	N 5	O 10	P 2	0
31	E	1	Total 27	C 10	N 5	O 10	P 2	0

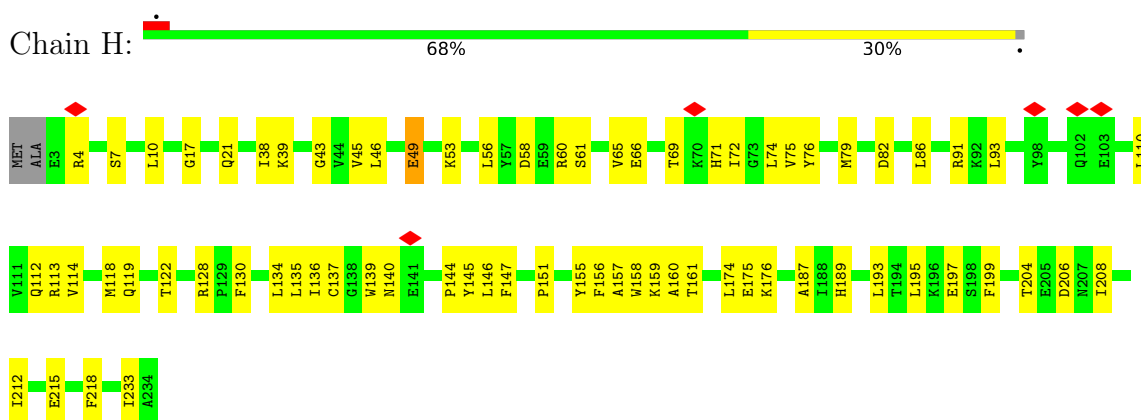
- Molecule 32 is ZINC ION (CCD ID: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms	AltConf
32	c	1	Total Zn 1 1	0

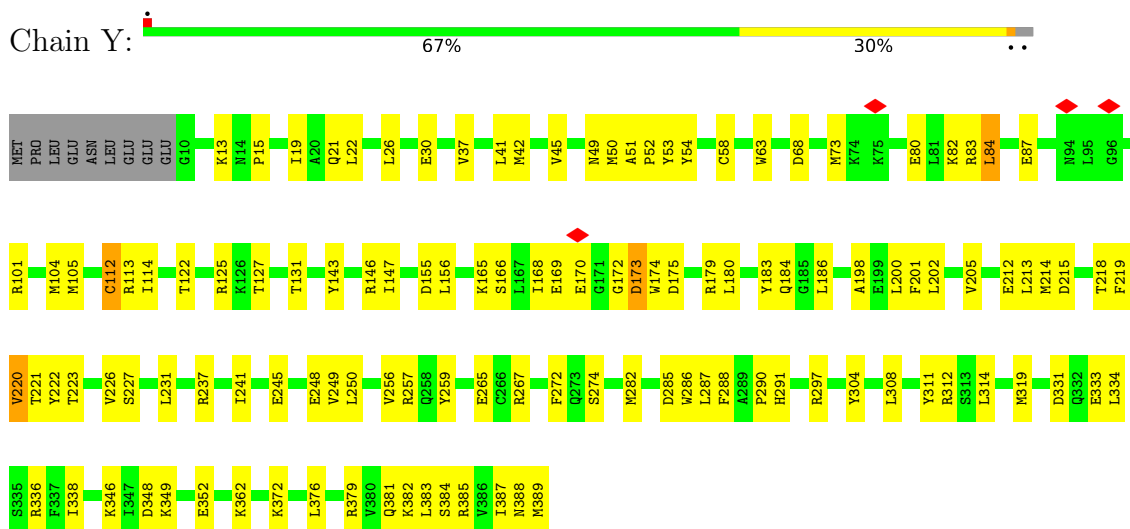
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Proteasome subunit alpha type-2

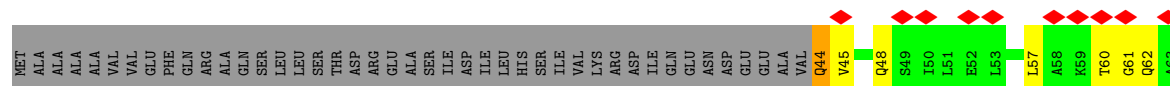


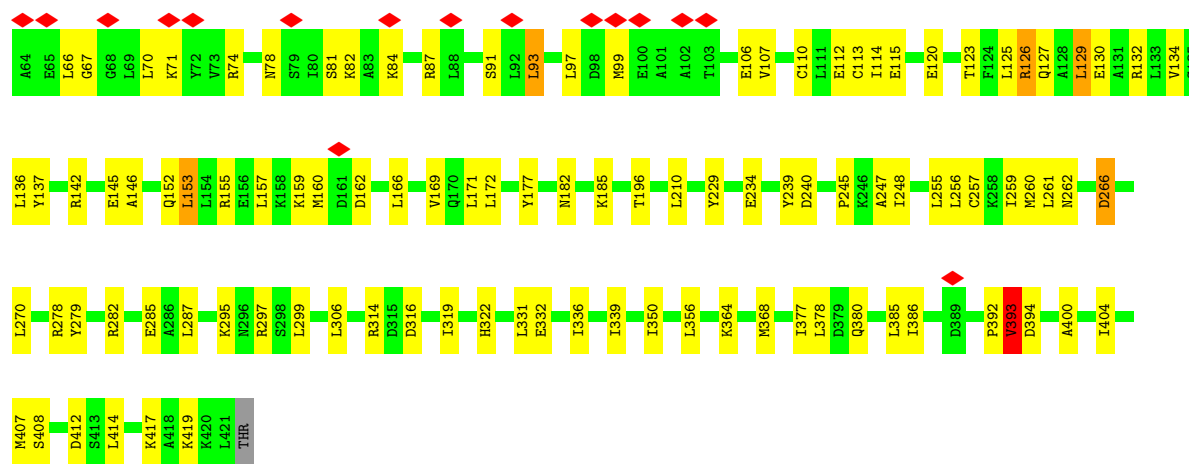
- Molecule 2: 26S proteasome non-ATPase regulatory subunit 6



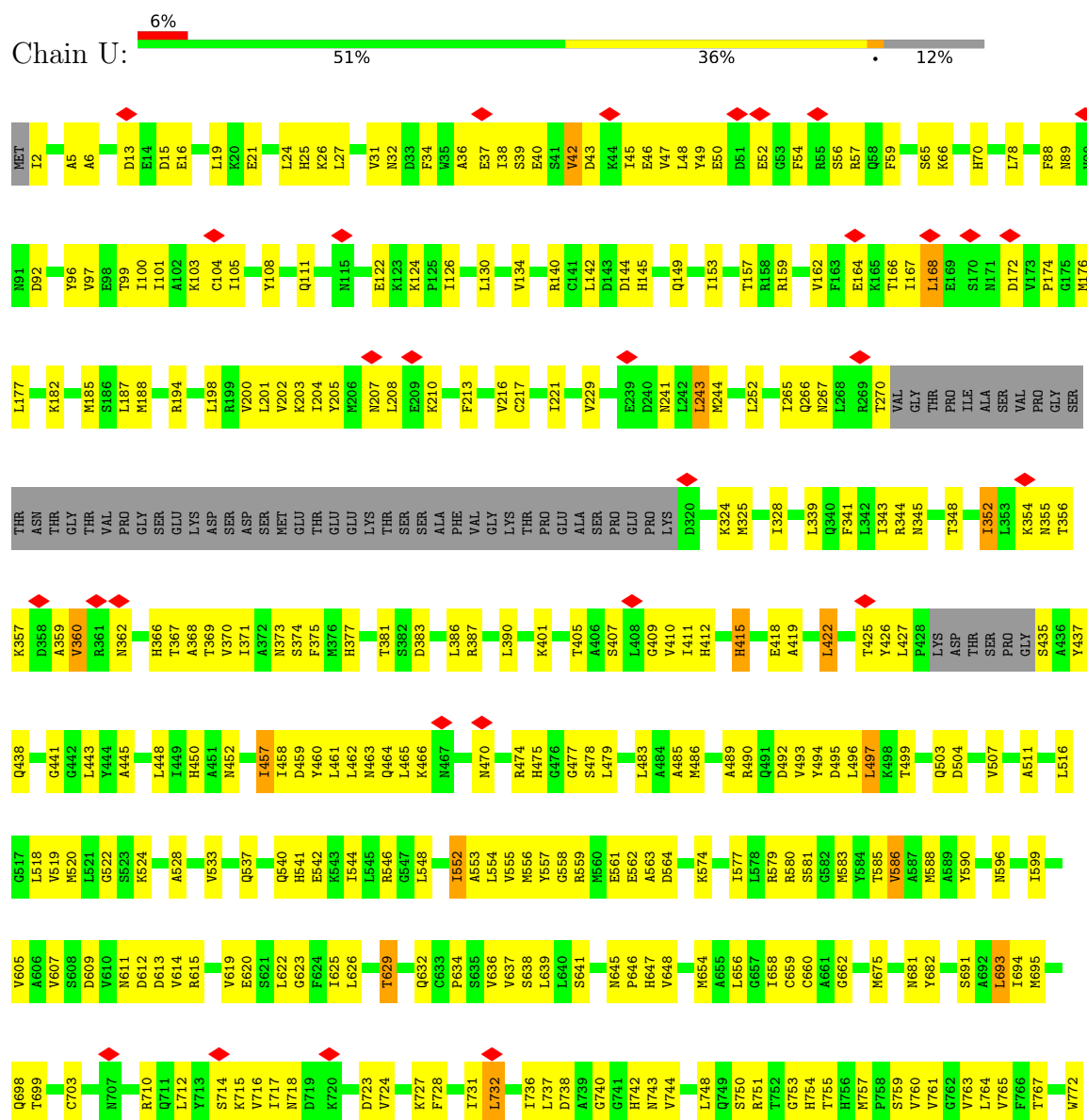
- Molecule 3: 26S proteasome non-ATPase regulatory subunit 2

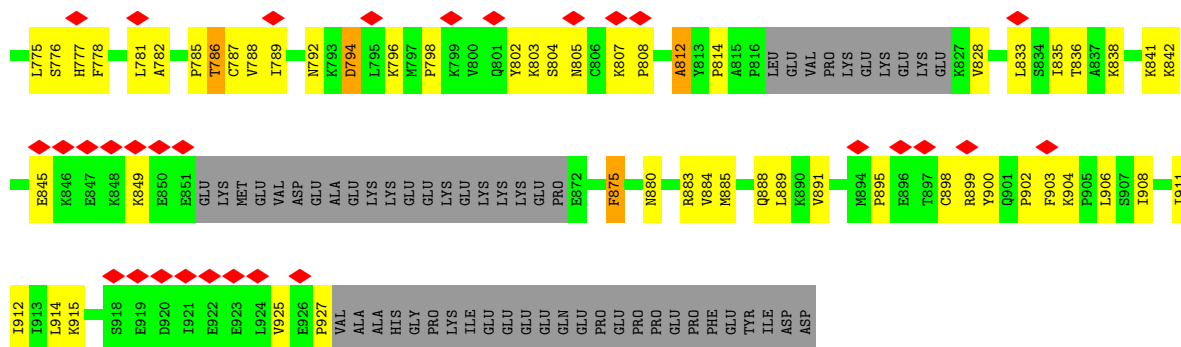






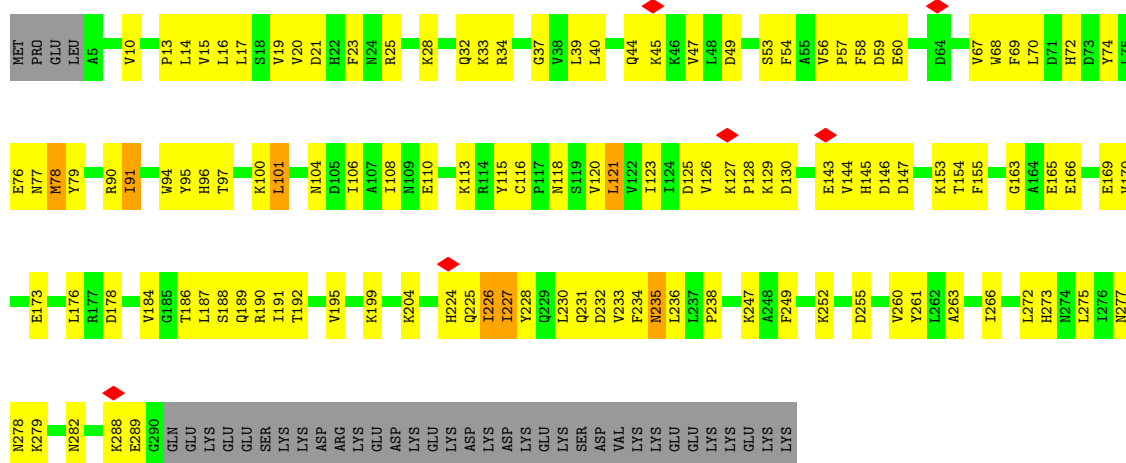
• Molecule 5: 26S proteasome non-ATPase regulatory subunit 1





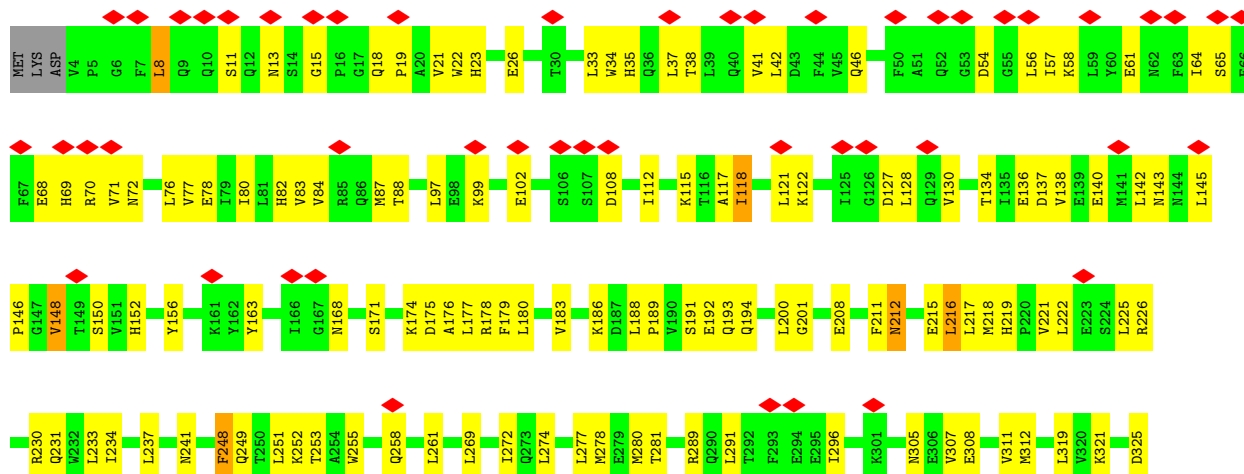
• Molecule 6: 26S proteasome non-ATPase regulatory subunit 7

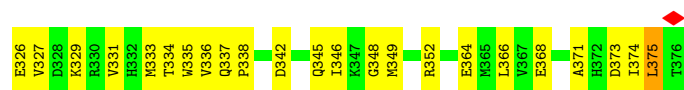
Chain Z: 51% 35% 12%



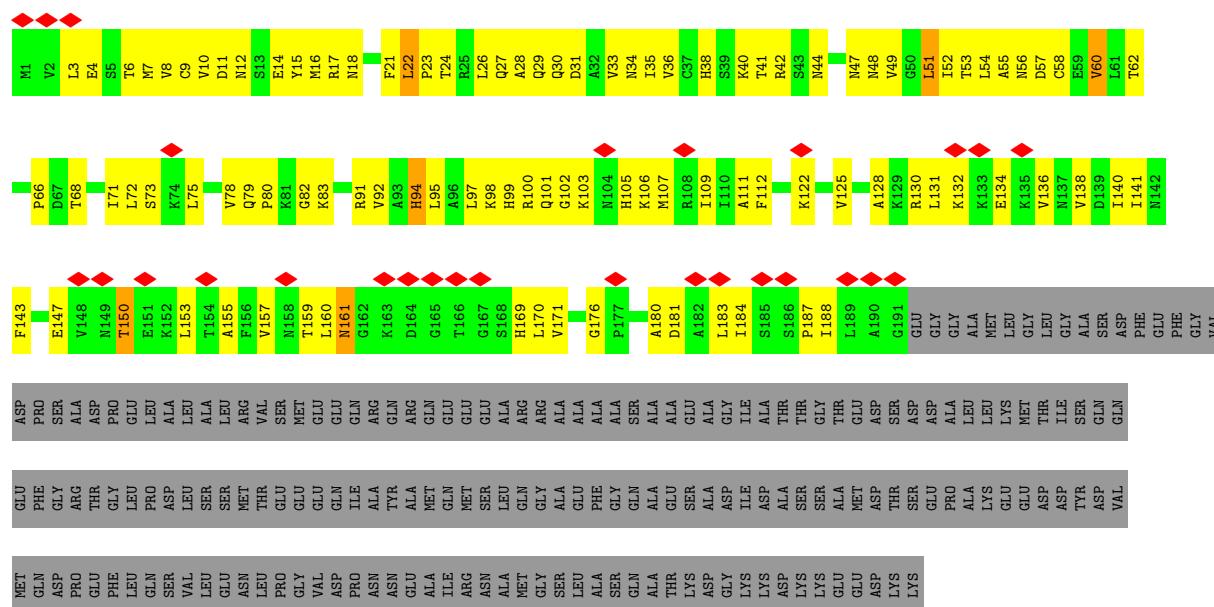
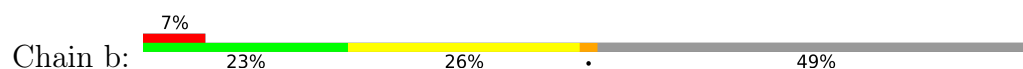
• Molecule 7: 26S proteasome non-ATPase regulatory subunit 13

Chain a: 13% 59% 39%

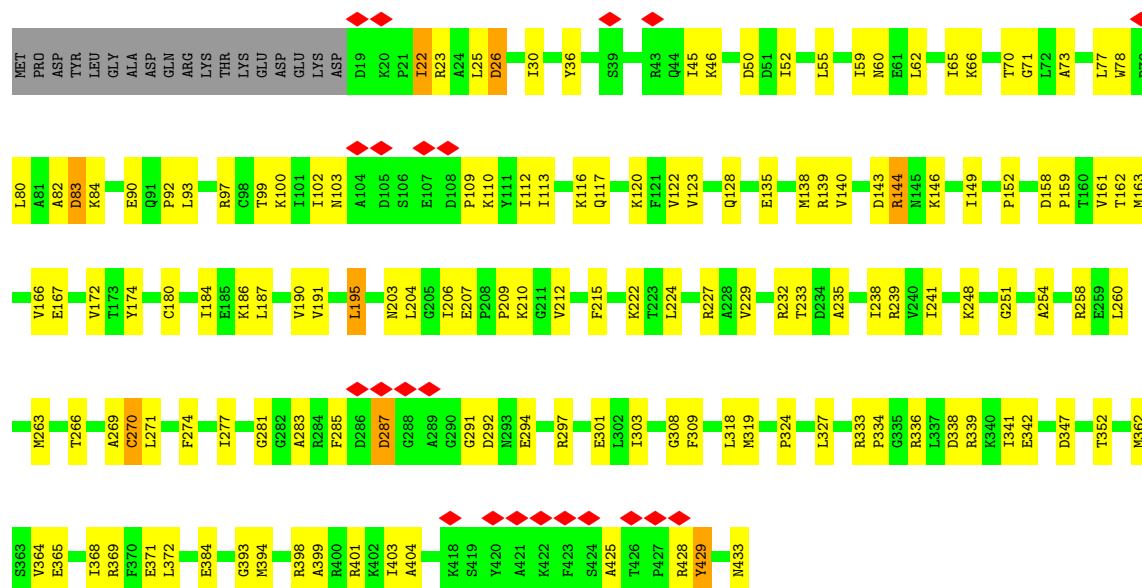




• Molecule 8: 26S proteasome non-ATPase regulatory subunit 4

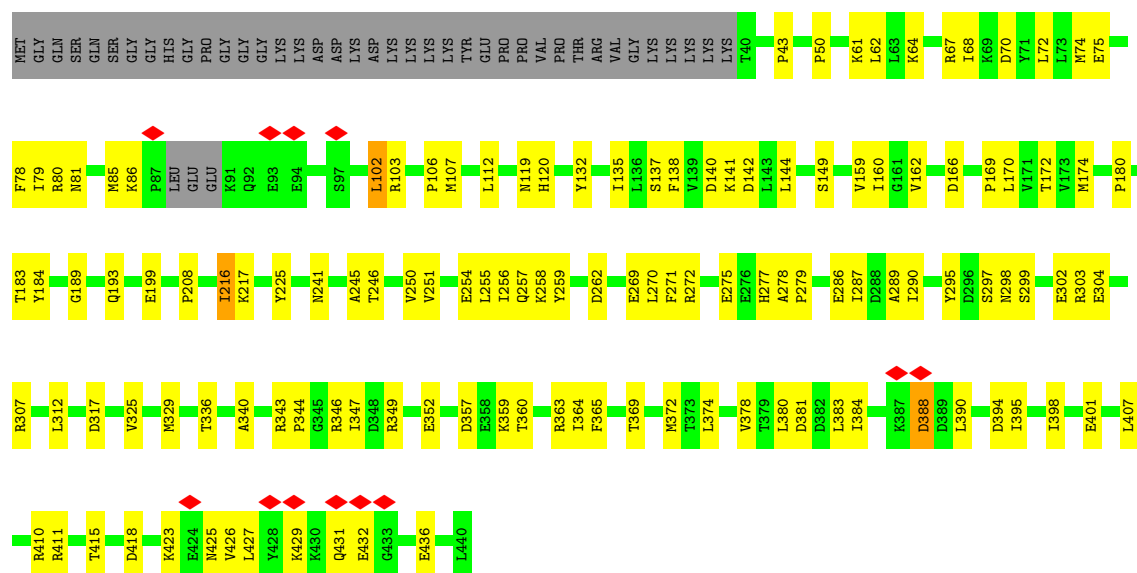


• Molecule 9: 26S proteasome regulatory subunit 7



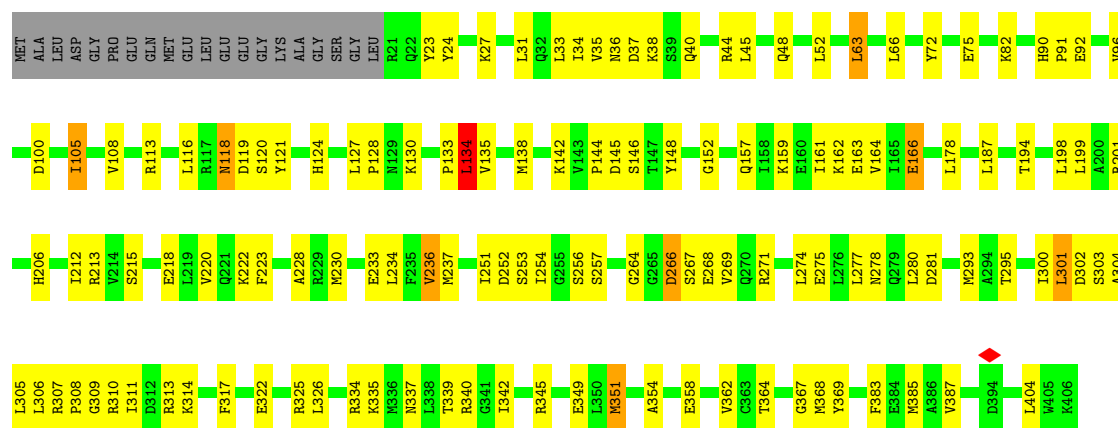
• Molecule 10: 26S proteasome regulatory subunit 4

Chain B: 



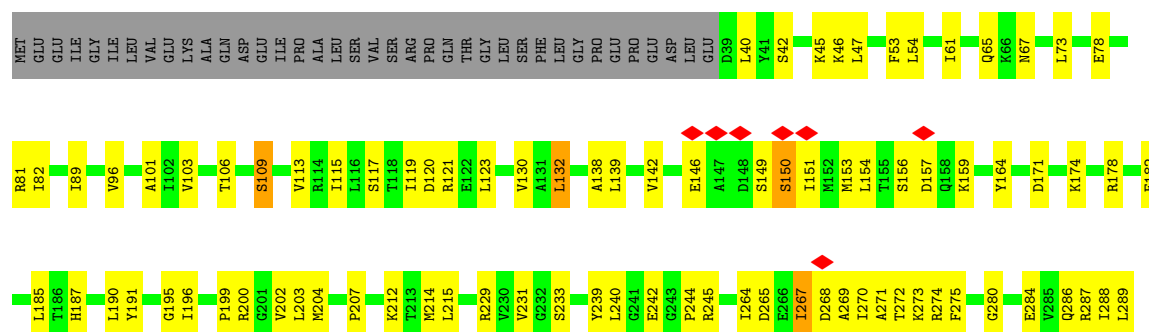
• Molecule 11: 26S protease regulatory subunit 8

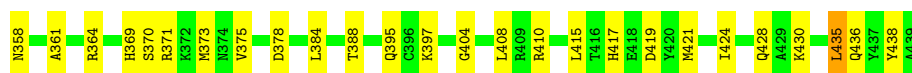
Chain C: 



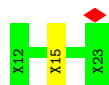
• Molecule 12: 26S proteasome regulatory subunit 6B

Chain D: 

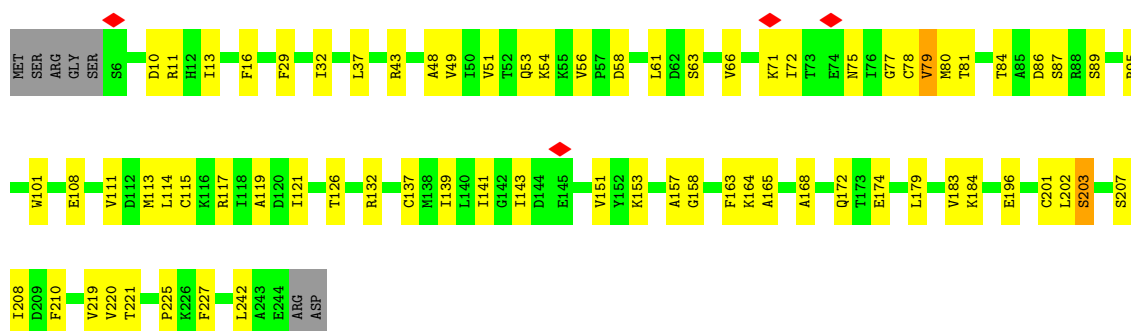




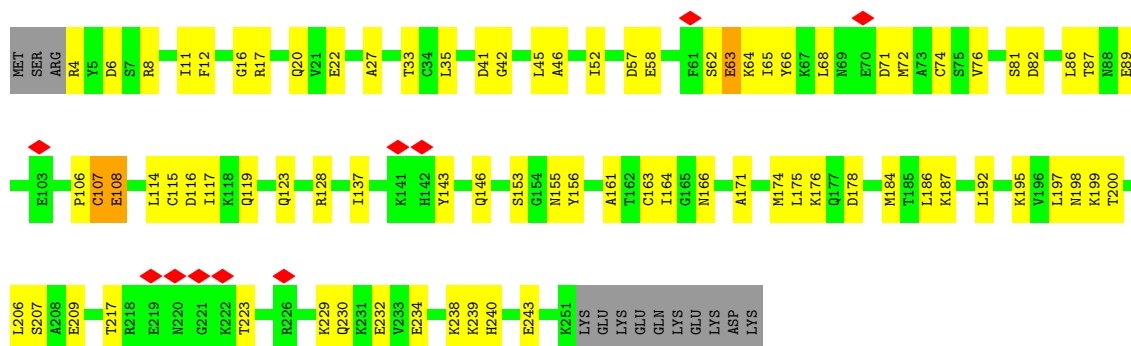
- Molecule 15: substrate peptide



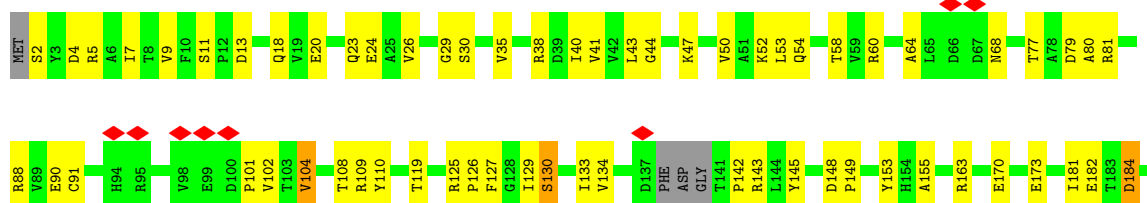
- Molecule 16: Proteasome subunit alpha type-6

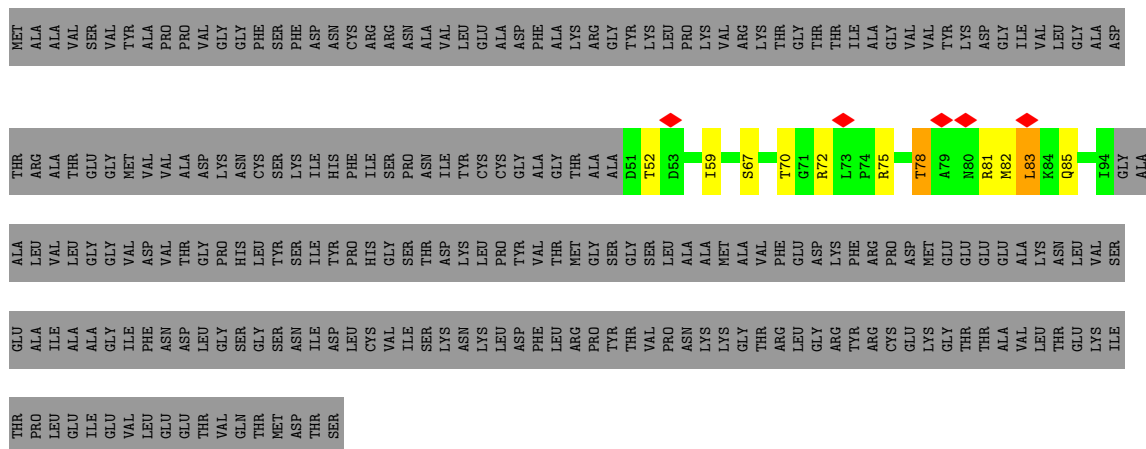


- Molecule 17: Proteasome subunit alpha type-4

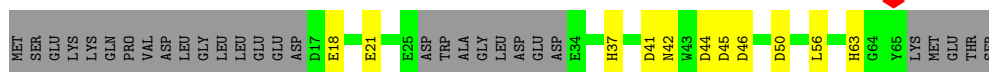


- Molecule 18: Proteasome subunit alpha type-7

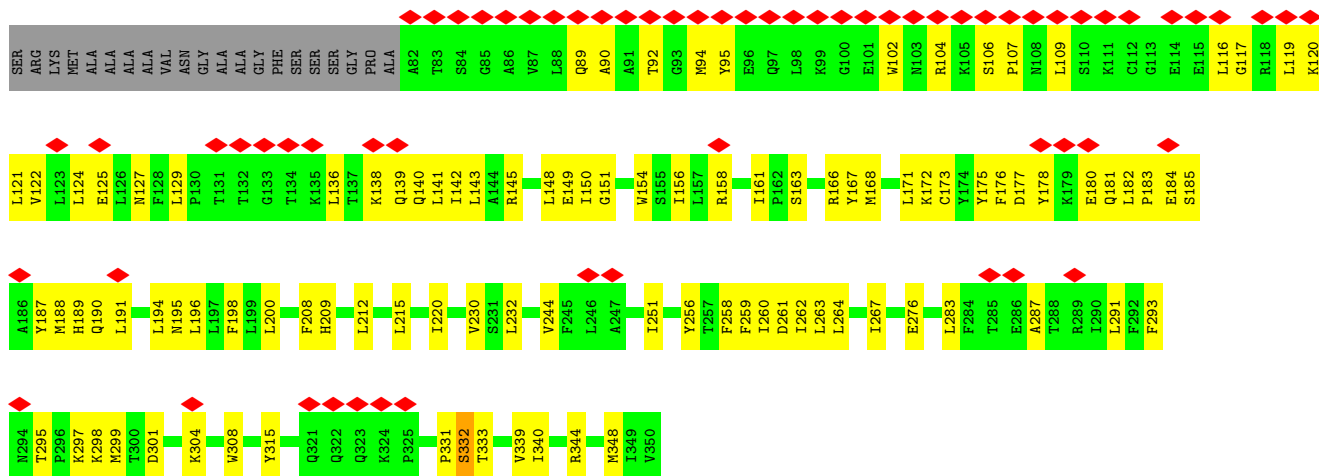
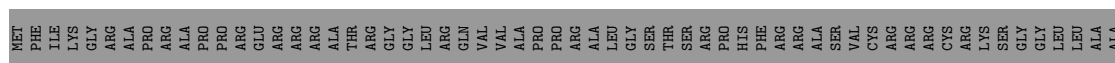




- Molecule 23: 26S proteasome complex subunit SEM1

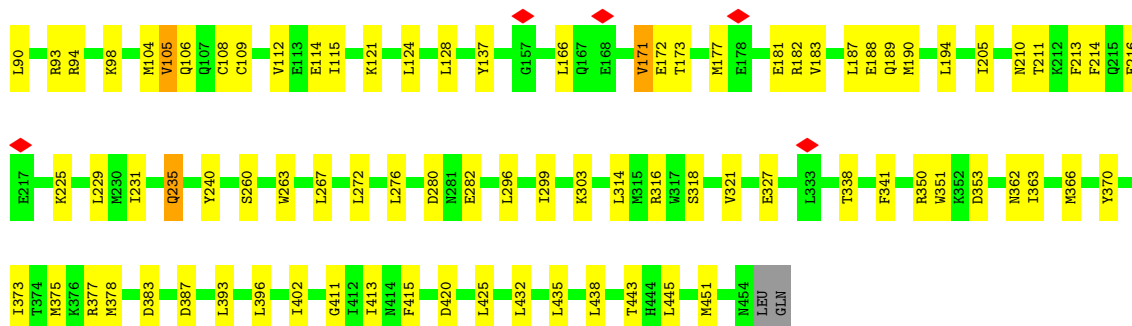


- Molecule 24: 26S proteasome non-ATPase regulatory subunit 8

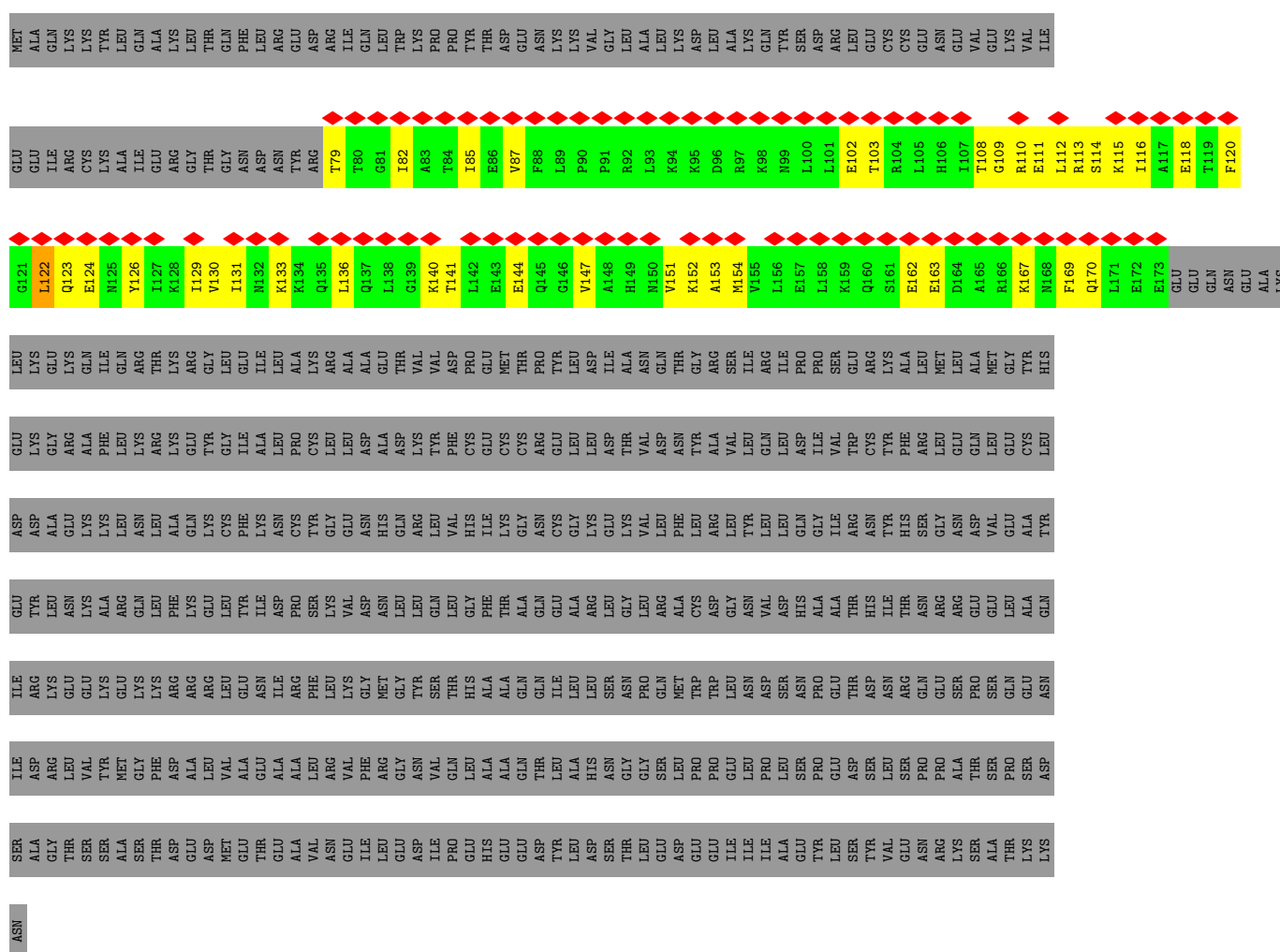


- Molecule 25: 26S proteasome non-ATPase regulatory subunit 12





• Molecule 26: Isoform 2 of NEDD8 ultimate buster 1



• Molecule 27: 26S proteasome non-ATPase regulatory subunit 3



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	41903	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1700	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.758	Depositor
Minimum map value	-0.411	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.041	Depositor
Recommended contour level	0.13	Depositor
Map size (\AA)	293.44, 293.44, 293.44	wwPDB
Map dimensions	280, 280, 280	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.048, 1.048, 1.048	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ADP, MG, ATP, ZN

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	H	0.12	0/1852	0.31	0/2507
2	Y	0.11	0/3185	0.26	0/4290
3	f	0.11	0/6623	0.32	0/8965
4	X	0.13	0/3038	0.34	0/4095
5	U	0.12	0/6670	0.34	0/9017
6	Z	0.15	0/2324	0.42	1/3150 (0.0%)
7	a	0.12	0/3053	0.36	0/4133
8	b	0.15	0/1478	0.40	0/2001
9	A	0.12	0/3315	0.31	0/4475
10	B	0.14	0/3167	0.35	0/4271
11	C	0.14	0/3092	0.34	0/4154
12	D	0.12	0/3090	0.34	0/4168
13	E	0.15	0/2902	0.40	0/3904
14	F	0.13	0/2888	0.32	0/3889
16	G	0.12	0/1853	0.31	0/2515
17	I	0.13	0/1941	0.33	0/2626
18	J	0.13	0/1773	0.34	0/2407
19	K	0.14	0/1759	0.36	0/2379
20	L	0.11	0/1885	0.28	0/2552
21	M	0.12	0/1891	0.31	0/2552
22	O	0.09	0/359	0.25	0/483
23	e	0.12	0/362	0.32	0/490
24	d	0.13	0/2234	0.33	0/3018
25	W	0.12	0/3618	0.33	1/4868 (0.0%)
26	g	0.12	0/778	0.34	0/1041
27	V	0.12	0/3663	0.32	0/4946
28	c	0.13	0/2191	0.34	0/2962
All	All	0.13	0/70984	0.33	2/95858 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	Z	78	MET	CB-CG-SD	5.86	130.28	112.70
25	W	40	LEU	CB-CA-C	-5.21	110.14	117.23

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	H	1813	0	1804	47	0
2	Y	3127	0	3133	92	0
3	f	6512	0	6529	236	0
4	X	2994	0	3097	82	0
5	U	6559	0	6600	260	0
6	Z	2281	0	2312	108	0
7	a	2995	0	3012	110	0
8	b	1458	0	1505	91	0
9	A	3261	0	3312	112	0
10	B	3122	0	3183	117	0
11	C	3051	0	3164	114	0
12	D	3040	0	3075	113	0
13	E	2859	0	2941	141	0
14	F	2850	0	2945	89	0
15	v	60	0	16	1	0
16	G	1820	0	1789	46	0
17	I	1911	0	1874	54	0
18	J	1749	0	1641	47	0
19	K	1733	0	1691	61	0
20	L	1850	0	1822	41	0
21	M	1856	0	1814	46	0
22	O	355	0	365	7	0
23	e	353	0	276	14	0
24	d	2188	0	2216	77	0
25	W	3570	0	3685	88	0
26	g	771	0	815	30	0
27	V	3593	0	3659	128	0
28	c	2150	0	2154	79	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	A	1	0	0	0	0
29	B	1	0	0	0	0
29	C	1	0	0	0	0
29	D	1	0	0	0	0
29	F	1	0	0	0	0
30	B	62	0	24	4	0
30	F	31	0	12	5	0
31	C	27	0	12	2	0
31	D	27	0	12	4	0
31	E	27	0	12	5	0
32	c	1	0	0	0	0
All	All	70061	0	70501	2170	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 15.

All (2170) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:44:GLN:N	4:X:44:GLN:HE21	1.30	1.27
4:X:44:GLN:N	4:X:44:GLN:NE2	2.10	0.99
6:Z:78:MET:HE2	28:c:98:MET:HE2	1.51	0.93
13:E:26:LEU:HD11	14:F:58:GLU:HB3	1.51	0.89
6:Z:101:LEU:HD12	25:W:451:MET:HG2	1.51	0.89
5:U:409:GLY:HA3	5:U:445:ALA:HB1	1.56	0.88
13:E:219:PHE:HB3	13:E:223:ARG:HH21	1.42	0.84
1:H:159:LYS:HG3	17:I:57:ASP:HB2	1.57	0.84
19:K:50:VAL:HG11	19:K:66:LYS:HE2	1.61	0.83
5:U:792:ASN:HB3	5:U:914:LEU:HB3	1.61	0.83
6:Z:228:TYR:HB2	7:a:338:PRO:HB2	1.61	0.81
3:f:597:VAL:HG13	3:f:656:GLY:HA2	1.62	0.81
27:V:78:HIS:HE1	27:V:104:THR:HG21	1.46	0.81
27:V:85:ALA:HB2	27:V:93:PHE:HB2	1.63	0.80
13:E:223:ARG:HD2	13:E:271:HIS:HB2	1.63	0.80
13:E:342:ASP:O	13:E:346:VAL:HG23	1.80	0.80
19:K:48:LEU:HD21	19:K:77:ALA:HB2	1.64	0.79
11:C:367:GLY:HA3	12:D:196:ILE:HG21	1.64	0.78
2:Y:220:VAL:HG21	2:Y:249:VAL:HG21	1.65	0.77
28:c:216:MET:HA	28:c:219:ASN:HD22	1.48	0.77
3:f:597:VAL:HG12	3:f:659:LEU:HD23	1.65	0.76
7:a:252:LYS:HD2	7:a:255:TRP:HE1	1.50	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:V:284:GLU:HA	27:V:287:ARG:HD2	1.68	0.75
3:f:141:LYS:HA	3:f:144:LEU:HB3	1.67	0.75
16:G:141:ILE:HG22	16:G:151:VAL:HG22	1.68	0.75
3:f:331:LEU:HB3	3:f:335:ARG:HH21	1.50	0.75
11:C:45:LEU:HB3	12:D:61:ILE:HG21	1.68	0.75
24:d:301:ASP:HA	24:d:304:LYS:HE2	1.69	0.75
6:Z:226:ILE:HG21	25:W:445:LEU:HD22	1.67	0.75
4:X:160:MET:HG3	4:X:162:ASP:H	1.52	0.75
5:U:42:VAL:HG13	5:U:43:ASP:H	1.50	0.74
10:B:287:ILE:HG12	10:B:329:MET:HE3	1.70	0.74
9:A:233:THR:HG22	9:A:235:ALA:H	1.53	0.74
13:E:171:LEU:HD11	13:E:279:THR:HG22	1.70	0.74
18:J:91:CYS:HB2	18:J:102:VAL:HG11	1.70	0.74
1:H:119:GLN:HG3	17:I:81:SER:HB2	1.69	0.74
13:E:296:ASP:OD1	13:E:296:ASP:N	2.20	0.73
10:B:401:GLU:OE2	10:B:425:ASN:ND2	2.22	0.73
7:a:77:VAL:HA	7:a:80:ILE:HG12	1.69	0.73
7:a:216:LEU:HD13	7:a:237:LEU:HB3	1.70	0.73
20:L:157:ARG:NH1	20:L:176:MET:SD	2.61	0.73
22:O:70:THR:HG23	22:O:72:ARG:H	1.52	0.73
3:f:46:SER:H	3:f:49:ASP:HB2	1.54	0.73
6:Z:101:LEU:HG	6:Z:123:ILE:HD11	1.70	0.73
13:E:364:GLN:HA	13:E:367:PHE:HB2	1.71	0.73
3:f:832:THR:HB	3:f:900:LEU:HD11	1.71	0.73
7:a:371:ALA:HB2	24:d:340:ILE:HD12	1.68	0.73
13:E:313:LEU:HD23	13:E:343:LEU:HD13	1.71	0.72
6:Z:32:GLN:OE1	6:Z:33:LYS:N	2.21	0.72
11:C:267:SER:OG	11:C:271:ARG:NH2	2.22	0.72
25:W:60:MET:HE3	25:W:60:MET:H	1.53	0.72
16:G:49:VAL:HG22	16:G:219:VAL:HG22	1.70	0.72
9:A:62:LEU:HD22	10:B:79:ILE:HG13	1.69	0.72
7:a:335:TRP:NE1	7:a:337:GLN:O	2.23	0.72
18:J:58:THR:HA	18:J:60:ARG:HH21	1.52	0.72
3:f:470:VAL:HG21	3:f:500:LEU:HD21	1.72	0.72
16:G:89:SER:HA	21:M:117:MET:HE1	1.71	0.72
20:L:88:MET:HG2	20:L:112:ILE:HD11	1.72	0.72
5:U:658:ILE:HD11	5:U:767:THR:HG21	1.72	0.71
3:f:348:ILE:O	3:f:746:ARG:NH1	2.23	0.71
6:Z:260:VAL:HG13	28:c:292:MET:HE3	1.72	0.71
13:E:26:LEU:HD21	14:F:58:GLU:HG2	1.70	0.71
1:H:74:LEU:HD11	1:H:134:LEU:HD13	1.72	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Z:59:ASP:HB2	8:b:99:HIS:HE1	1.56	0.71
8:b:62:THR:HG21	8:b:71:ILE:HA	1.73	0.70
6:Z:143:GLU:HG3	6:Z:145:HIS:H	1.55	0.70
7:a:326:GLU:HB2	25:W:373:ILE:HA	1.73	0.70
4:X:44:GLN:HG2	4:X:45:VAL:H	1.55	0.70
13:E:380:LEU:HG	13:E:383:LYS:HB3	1.74	0.70
20:L:72:ILE:HG21	20:L:88:MET:HE1	1.71	0.70
5:U:470:ASN:HA	5:U:474:ARG:HE	1.55	0.70
17:I:161:ALA:HB1	17:I:175:LEU:HD13	1.73	0.70
21:M:186:CYS:HA	21:M:189:ILE:HB	1.74	0.70
25:W:362:ASN:O	25:W:366:MET:HG3	1.92	0.70
7:a:84:VAL:HG21	7:a:97:LEU:HD11	1.74	0.70
27:V:128:ARG:HE	27:V:132:LEU:HD11	1.57	0.69
13:E:222:ALA:O	13:E:224:ASP:N	2.26	0.69
21:M:163:CYS:SG	21:M:164:ALA:N	2.65	0.69
10:B:304:GLU:OE1	10:B:307:ARG:NH1	2.25	0.69
1:H:17:GLY:HA3	17:I:27:ALA:HB2	1.74	0.69
5:U:78:LEU:HD21	5:U:103:LYS:HB2	1.73	0.69
5:U:577:ILE:HD12	5:U:580:ARG:HH21	1.58	0.69
7:a:188:LEU:HD13	7:a:192:GLU:HB3	1.74	0.69
21:M:197:ILE:HG21	21:M:211:LEU:HD13	1.73	0.69
26:g:130:VAL:HB	26:g:154:MET:HB3	1.75	0.69
9:A:123:VAL:HG12	14:F:87:PRO:HB3	1.73	0.69
9:A:128:GLN:N	9:A:128:GLN:OE1	2.25	0.69
17:I:86:LEU:HD22	17:I:114:LEU:HD11	1.74	0.69
5:U:902:PRO:HA	5:U:914:LEU:HA	1.75	0.69
8:b:141:ILE:HG22	8:b:171:VAL:HB	1.74	0.68
6:Z:129:LYS:HD2	28:c:215:LYS:HD2	1.75	0.68
8:b:71:ILE:H	8:b:71:ILE:HD12	1.58	0.68
5:U:140:ARG:O	5:U:144:ASP:HB2	1.94	0.68
5:U:607:VAL:O	12:D:67:ASN:ND2	2.26	0.68
10:B:299:SER:HB3	10:B:302:GLU:HB3	1.75	0.68
24:d:168:MET:SD	24:d:195:ASN:ND2	2.67	0.68
5:U:812:ALA:HB1	5:U:883:ARG:HH12	1.59	0.68
9:A:364:VAL:HG12	9:A:404:ALA:HB3	1.75	0.68
12:D:149:SER:HA	12:D:153:MET:HB3	1.75	0.68
3:f:654:VAL:HA	3:f:657:ILE:HD12	1.76	0.68
11:C:163:GLU:OE1	11:C:313:ARG:NH2	2.27	0.68
2:Y:104:MET:HE3	2:Y:127:THR:HA	1.76	0.67
11:C:228:ALA:HB1	11:C:275:GLU:HG3	1.75	0.67
24:d:261:ASP:HA	24:d:264:LEU:HD12	1.76	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:b:97:LEU:HD22	8:b:109:ILE:HD11	1.77	0.67
28:c:51:MET:HE3	28:c:77:GLN:HE21	1.59	0.67
3:f:382:ASN:HB2	3:f:417:ILE:HD11	1.76	0.67
5:U:524:LYS:HG3	5:U:556:MET:HE1	1.75	0.67
11:C:187:LEU:HB2	11:C:311:ILE:HD13	1.75	0.67
12:D:151:ILE:HA	13:E:213:ARG:HH22	1.59	0.67
11:C:198:LEU:HD22	31:C:502:ADP:H2'	1.75	0.67
1:H:204:THR:HG22	1:H:206:ASP:H	1.59	0.67
2:Y:173:ASP:OD2	11:C:340:ARG:NH2	2.27	0.67
3:f:741:LEU:HA	3:f:744:MET:HE2	1.76	0.67
5:U:620:GLU:HG2	5:U:654:MET:HB3	1.75	0.67
8:b:24:THR:HG23	8:b:26:LEU:H	1.57	0.67
12:D:275:PHE:O	12:D:286:GLN:NE2	2.22	0.67
13:E:136:GLY:H	31:E:401:ADP:HN62	1.43	0.67
21:M:134:SER:HB2	21:M:153:PRO:HD3	1.77	0.67
5:U:903:PHE:HB2	5:U:915:LYS:HB2	1.76	0.67
11:C:277:LEU:HD11	11:C:305:LEU:HB3	1.77	0.67
23:e:37:HIS:O	27:V:349:ARG:NH2	2.28	0.67
16:G:75:ASN:ND2	16:G:225:PRO:O	2.26	0.67
23:e:21:GLU:OE2	27:V:287:ARG:NH1	2.26	0.67
24:d:276:GLU:OE2	24:d:308:TRP:NE1	2.27	0.67
27:V:121:PHE:H	27:V:159:LEU:HD21	1.60	0.67
3:f:208:LEU:HD23	3:f:211:ILE:HD11	1.78	0.66
2:Y:50:MET:HG2	2:Y:53:TYR:HB3	1.77	0.66
10:B:103:ARG:HB2	10:B:160:ILE:HD12	1.76	0.66
14:F:324:THR:HG23	14:F:326:VAL:H	1.60	0.66
27:V:115:LYS:HD2	27:V:147:PHE:HB3	1.77	0.66
16:G:208:ILE:HG22	16:G:210:PHE:H	1.60	0.66
8:b:6:THR:HB	8:b:49:VAL:HG23	1.76	0.66
18:J:79:ASP:OD2	18:J:125:ARG:NH1	2.29	0.66
24:d:195:ASN:O	24:d:198:PHE:HB3	1.96	0.66
28:c:71:ASP:OD1	28:c:72:VAL:N	2.29	0.66
3:f:564:LEU:HD12	3:f:567:LEU:HD21	1.78	0.66
14:F:370:SER:HB2	14:F:375:VAL:HG21	1.78	0.66
9:A:274:PHE:HB2	9:A:319:MET:HG2	1.77	0.65
11:C:215:SER:HB3	11:C:218:GLU:HG3	1.77	0.65
3:f:110:TYR:HE2	3:f:123:ALA:HB2	1.59	0.65
11:C:351:MET:HG2	11:C:354:ALA:HB2	1.77	0.65
25:W:17:GLU:N	25:W:57:ALA:O	2.29	0.65
6:Z:263:ALA:HB1	28:c:288:VAL:HG13	1.78	0.65
27:V:169:LEU:O	27:V:173:ILE:HG13	1.96	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:166:LEU:HD23	4:X:196:THR:HG21	1.77	0.65
12:D:311:THR:HG21	12:D:317:LEU:HD11	1.78	0.65
7:a:216:LEU:HD23	7:a:241:ASN:HD22	1.60	0.65
9:A:55:LEU:O	9:A:59:ILE:HG12	1.96	0.65
10:B:70:ASP:O	10:B:74:MET:HG2	1.97	0.65
10:B:103:ARG:NH2	10:B:160:ILE:O	2.30	0.65
12:D:302:ASN:OD1	12:D:303:VAL:N	2.29	0.65
9:A:140:VAL:HG12	9:A:152:PRO:HA	1.78	0.65
17:I:71:ASP:HB3	17:I:223:THR:HG21	1.77	0.65
6:Z:224:HIS:ND1	6:Z:224:HIS:O	2.29	0.65
12:D:274:ARG:HG3	12:D:289:LEU:HD23	1.78	0.65
3:f:771:LEU:HD11	3:f:825:MET:HE1	1.80	0.64
8:b:68:THR:HA	8:b:71:ILE:HD13	1.78	0.64
12:D:231:VAL:HG23	12:D:265:ASP:HB3	1.79	0.64
5:U:105:ILE:HG22	5:U:134:VAL:HG22	1.80	0.64
13:E:167:PRO:O	13:E:274:LYS:NZ	2.29	0.64
13:E:176:PRO:HD3	13:E:280:ASN:HB2	1.80	0.64
14:F:276:LYS:HD3	14:F:326:VAL:HG21	1.78	0.64
28:c:224:SER:OG	28:c:226:MET:SD	2.54	0.64
12:D:214:MET:HE1	31:D:501:ADP:C4	2.32	0.64
12:D:242:GLU:OE1	12:D:245:ARG:NH1	2.30	0.64
12:D:316:THR:OG1	12:D:317:LEU:N	2.31	0.64
18:J:119:THR:HG22	18:J:126:PRO:HB3	1.79	0.64
3:f:593:THR:O	3:f:597:VAL:HG23	1.97	0.64
5:U:65:SER:HG	5:U:96:TYR:HH	1.45	0.64
24:d:331:PRO:O	24:d:333:THR:N	2.30	0.64
28:c:162:LEU:HD23	28:c:200:TYR:HB3	1.79	0.64
16:G:72:ILE:HG21	16:G:114:LEU:HD21	1.78	0.64
23:e:46:ASP:OD2	27:V:345:ARG:NH1	2.29	0.64
4:X:248:ILE:HD13	4:X:279:TYR:HB3	1.79	0.64
5:U:712:LEU:HA	5:U:715:LYS:HG2	1.80	0.64
5:U:798:PRO:O	5:U:880:ASN:ND2	2.31	0.64
5:U:803:LYS:HB2	5:U:875:PHE:HB2	1.80	0.64
10:B:256:ILE:HD11	10:B:290:ILE:HG22	1.79	0.64
8:b:107:MET:HG3	8:b:136:VAL:HG22	1.80	0.64
12:D:154:LEU:HD11	12:D:229:ARG:HH21	1.62	0.64
13:E:387:LYS:H	13:E:388:PRO:HD2	1.62	0.64
27:V:259:LEU:HD13	27:V:294:ARG:HD2	1.78	0.64
28:c:190:GLN:O	28:c:194:HIS:ND1	2.30	0.64
17:I:52:ILE:HD11	17:I:209:GLU:HG2	1.79	0.63
5:U:524:LYS:HZ2	5:U:562:GLU:HG3	1.63	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:285:PHE:HE1	9:A:291:GLY:HA3	1.63	0.63
2:Y:297:ARG:NH2	23:e:45:ASP:OD1	2.31	0.63
11:C:369:TYR:HE2	11:C:385:MET:HG3	1.63	0.63
21:M:113:ASP:O	21:M:117:MET:HG2	1.98	0.63
27:V:342:ILE:HD11	27:V:409:MET:HE3	1.81	0.63
3:f:664:GLU:OE1	10:B:67:ARG:NH2	2.31	0.63
7:a:208:GLU:OE2	7:a:208:GLU:N	2.27	0.63
27:V:488:ASN:O	27:V:492:LYS:HB2	1.99	0.63
3:f:275:MET:SD	3:f:275:MET:N	2.62	0.63
5:U:142:LEU:HD21	5:U:166:THR:HG22	1.80	0.63
7:a:277:LEU:O	7:a:281:THR:HG22	1.98	0.63
8:b:4:GLU:HA	8:b:106:LYS:H	1.63	0.63
9:A:372:LEU:HD11	19:K:207:GLU:HA	1.80	0.63
13:E:379:LYS:O	13:E:381:GLU:N	2.30	0.63
3:f:646:MET:SD	3:f:646:MET:N	2.65	0.63
16:G:132:ARG:HB2	21:M:12:SER:HA	1.79	0.63
27:V:86:VAL:O	27:V:89:LYS:NZ	2.31	0.63
5:U:16:GLU:HB2	5:U:19:LEU:HD23	1.80	0.63
5:U:52:GLU:OE1	5:U:57:ARG:NH2	2.32	0.63
14:F:333:ASN:ND2	30:F:501:ATP:O2G	2.31	0.63
16:G:132:ARG:NH1	21:M:123:THR:O	2.32	0.63
7:a:280:MET:SD	7:a:296:ILE:HG12	2.39	0.63
7:a:335:TRP:HD1	7:a:337:GLN:H	1.47	0.63
13:E:198:VAL:HB	13:E:232:MET:HA	1.81	0.63
7:a:335:TRP:CD1	7:a:337:GLN:H	2.17	0.62
13:E:205:ASP:N	13:E:205:ASP:OD1	2.32	0.62
27:V:121:PHE:HA	27:V:159:LEU:HD11	1.80	0.62
2:Y:331:ASP:OD2	2:Y:349:LYS:NZ	2.33	0.62
13:E:220:ASN:O	13:E:225:HIS:ND1	2.31	0.62
26:g:112:LEU:O	26:g:116:ILE:HG12	1.98	0.62
9:A:73:ALA:HB3	9:A:78:TRP:HD1	1.64	0.62
13:E:141:GLN:O	13:E:145:LEU:HG	1.99	0.62
2:Y:334:LEU:O	2:Y:338:ILE:HG13	2.00	0.62
4:X:44:GLN:HG2	4:X:45:VAL:N	2.13	0.62
4:X:125:LEU:O	4:X:129:LEU:HD22	1.97	0.62
8:b:34:ASN:O	8:b:38:HIS:ND1	2.33	0.62
10:B:246:THR:HG21	10:B:277:HIS:HB2	1.81	0.62
18:J:80:ALA:HA	18:J:129:ILE:HD13	1.82	0.62
21:M:75:MET:HE1	21:M:88:ALA:HA	1.81	0.62
2:Y:42:MET:HE2	2:Y:42:MET:HA	1.82	0.62
5:U:579:ARG:HB3	5:U:614:VAL:HG21	1.82	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U:761:VAL:O	5:U:765:VAL:HG22	2.00	0.62
20:L:104:PRO:HG2	20:L:107:ARG:HG3	1.81	0.62
2:Y:45:VAL:HG12	2:Y:73:MET:HE1	1.80	0.62
3:f:458:GLU:O	26:g:133:LYS:NZ	2.32	0.62
18:J:4:ASP:O	18:J:18:GLN:NE2	2.33	0.62
4:X:240:ASP:OD1	4:X:278:ARG:NH1	2.33	0.62
27:V:467:TYR:HA	27:V:472:PRO:HG2	1.81	0.62
2:Y:248:GLU:OE1	4:X:182:ASN:ND2	2.32	0.62
5:U:241:ASN:HD21	5:U:244:MET:HB2	1.65	0.62
6:Z:186:THR:O	6:Z:190:ARG:HG2	1.99	0.62
13:E:174:GLY:HA3	13:E:301:ILE:HG23	1.81	0.62
21:M:158:TYR:HD1	21:M:160:TYR:HE1	1.48	0.62
13:E:143:ARG:NH1	25:W:172:GLU:OE1	2.26	0.61
3:f:807:ARG:HA	3:f:811:LEU:HB2	1.82	0.61
3:f:379:GLY:HA2	3:f:417:ILE:HD13	1.82	0.61
25:W:188:GLU:OE2	25:W:225:LYS:NZ	2.33	0.61
4:X:350:ILE:HD12	4:X:385:LEU:HD21	1.82	0.61
8:b:29:GLN:O	8:b:33:VAL:HG23	2.00	0.61
17:I:171:ALA:HB2	17:I:200:THR:HG21	1.82	0.61
17:I:176:LYS:O	18:J:52:LYS:NZ	2.33	0.61
1:H:74:LEU:HD12	1:H:136:ILE:HG12	1.82	0.61
11:C:368:MET:HE1	12:D:191:TYR:HE1	1.66	0.61
13:E:331:ILE:HG13	13:E:371:VAL:HB	1.81	0.61
1:H:7:SER:O	1:H:21:GLN:NE2	2.34	0.61
12:D:200:ARG:HD2	12:D:302:ASN:HD21	1.66	0.61
25:W:316:ARG:NH2	25:W:383:ASP:OD1	2.32	0.61
3:f:658:ALA:HB2	3:f:693:ALA:HB1	1.83	0.61
10:B:258:LYS:HG3	10:B:259:TYR:CD2	2.35	0.61
20:L:138:ASP:OD1	20:L:138:ASP:N	2.31	0.61
5:U:49:TYR:HA	5:U:57:ARG:HB3	1.82	0.61
5:U:662:GLY:O	5:U:698:GLN:NE2	2.34	0.61
28:c:191:ALA:HB1	28:c:196:LEU:HB2	1.81	0.61
4:X:295:LYS:O	4:X:297:ARG:NH1	2.34	0.61
5:U:174:PRO:O	5:U:177:LEU:HB2	1.99	0.61
11:C:38:LYS:HG2	12:D:54:LEU:HB3	1.82	0.61
11:C:257:SER:HA	11:C:302:ASP:HB3	1.82	0.61
12:D:150:SER:O	13:E:213:ARG:NH1	2.34	0.61
21:M:170:GLN:O	21:M:174:THR:HG23	2.01	0.61
6:Z:236:LEU:HB3	25:W:435:LEU:HD12	1.83	0.61
10:B:360:THR:O	10:B:364:ILE:HG12	2.00	0.61
12:D:89:ILE:O	12:D:106:THR:OG1	2.17	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:b:55:ALA:HB1	8:b:82:GLY:HA3	1.82	0.60
12:D:106:THR:HG21	13:E:78:ARG:HG2	1.83	0.60
19:K:117:SER:O	19:K:121:LEU:HG	2.00	0.60
5:U:6:ALA:HB2	5:U:34:PHE:HD2	1.67	0.60
24:d:161:ILE:HD12	24:d:161:ILE:H	1.65	0.60
2:Y:308:LEU:HD23	2:Y:314:LEU:HD21	1.82	0.60
3:f:524:MET:HA	3:f:527:VAL:HG13	1.82	0.60
4:X:81:SER:HB3	4:X:84:LYS:HD2	1.82	0.60
8:b:41:THR:HB	8:b:42:ARG:NH1	2.16	0.60
24:d:212:LEU:HD11	24:d:230:VAL:HG22	1.83	0.60
5:U:712:LEU:O	5:U:716:VAL:HG12	2.01	0.60
5:U:794:ASP:N	5:U:794:ASP:OD1	2.34	0.60
8:b:100:ARG:HD2	8:b:105:HIS:HB2	1.83	0.60
10:B:423:LYS:O	10:B:427:LEU:HB3	2.00	0.60
9:A:84:LYS:HB3	10:B:102:LEU:HD21	1.84	0.60
9:A:187:LEU:HD11	9:A:318:LEU:HD11	1.82	0.60
19:K:52:LYS:NZ	19:K:61:PRO:O	2.33	0.60
23:e:18:GLU:OE2	23:e:18:GLU:N	2.34	0.60
25:W:171:VAL:HB	25:W:182:ARG:HG3	1.83	0.60
3:f:435:SER:HA	26:g:169:PHE:CG	2.37	0.60
7:a:308:GLU:OE2	25:W:370:TYR:OH	2.15	0.60
28:c:57:MET:HA	28:c:72:VAL:HG12	1.83	0.60
3:f:644:ALA:N	3:f:646:MET:SD	2.75	0.60
6:Z:238:PRO:HG3	25:W:432:LEU:HD21	1.84	0.60
12:D:385:LEU:HD13	12:D:401:LYS:HE3	1.83	0.60
26:g:123:GLN:HB2	26:g:126:TYR:HB2	1.83	0.60
3:f:241:PRO:HG3	5:U:835:ILE:HG21	1.83	0.60
4:X:234:GLU:OE1	12:D:338:ARG:NH2	2.35	0.60
5:U:460:TYR:HD2	5:U:461:LEU:HD22	1.66	0.60
5:U:727:LYS:O	5:U:731:ILE:HG22	2.02	0.60
6:Z:44:GLN:HG3	6:Z:45:LYS:H	1.67	0.60
9:A:209:PRO:HB3	9:A:338:ASP:HB2	1.84	0.60
13:E:309:ARG:O	13:E:313:LEU:HG	2.02	0.60
18:J:11:SER:OG	18:J:13:ASP:OD1	2.18	0.60
5:U:198:LEU:O	5:U:202:VAL:HG13	2.02	0.60
10:B:388:ASP:OD1	10:B:388:ASP:N	2.35	0.60
11:C:281:ASP:OD2	11:C:307:ARG:NH2	2.35	0.60
25:W:296:LEU:HB3	25:W:303:LYS:HD2	1.83	0.60
3:f:305:LEU:HG	3:f:321:MET:HE1	1.83	0.59
10:B:383:LEU:HD23	10:B:423:LYS:HE3	1.84	0.59
11:C:40:GLN:OE1	27:V:495:ARG:NH2	2.34	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:438:TYR:OH	19:K:19:GLY:O	2.20	0.59
17:I:33:THR:OG1	17:I:166:ASN:O	2.19	0.59
27:V:146:GLN:HB3	27:V:148:ARG:HE	1.65	0.59
3:f:670:MET:HE3	10:B:68:ILE:HA	1.84	0.59
5:U:542:GLU:HG2	5:U:546:ARG:HH21	1.68	0.59
11:C:91:PRO:HG3	12:D:109:SER:HB3	1.84	0.59
27:V:122:THR:HA	27:V:128:ARG:HD2	1.84	0.59
28:c:216:MET:HA	28:c:219:ASN:ND2	2.17	0.59
6:Z:226:ILE:HD13	25:W:445:LEU:HD21	1.84	0.59
9:A:287:ASP:N	9:A:287:ASP:OD1	2.34	0.59
14:F:256:LEU:HD13	14:F:268:VAL:HG22	1.83	0.59
16:G:56:VAL:HG22	16:G:66:VAL:HG11	1.83	0.59
5:U:533:VAL:O	5:U:537:GLN:NE2	2.35	0.59
5:U:623:GLY:HA2	5:U:659:CYS:HB3	1.84	0.59
9:A:22:ILE:HG23	11:C:159:LYS:HD3	1.84	0.59
27:V:281:ASN:HB3	27:V:284:GLU:HG2	1.85	0.59
5:U:588:MET:HE3	5:U:764:LEU:HD22	1.85	0.59
6:Z:145:HIS:O	6:Z:147:ASP:N	2.36	0.59
8:b:7:MET:HB2	8:b:97:LEU:HD13	1.84	0.59
3:f:206:ASP:O	3:f:210:GLU:HG2	2.03	0.59
4:X:44:GLN:O	4:X:48:GLN:NE2	2.34	0.59
5:U:906:LEU:HD13	5:U:912:ILE:HG21	1.85	0.59
18:J:43:LEU:HD22	18:J:134:VAL:HG21	1.84	0.59
18:J:104:VAL:HG23	18:J:133:ILE:HG22	1.85	0.59
26:g:108:THR:HA	26:g:141:THR:HA	1.84	0.59
2:Y:245:GLU:O	2:Y:249:VAL:HG22	2.03	0.59
6:Z:101:LEU:HD12	25:W:451:MET:CG	2.28	0.59
6:Z:247:LYS:HA	6:Z:247:LYS:HE3	1.84	0.59
11:C:90:HIS:HB3	11:C:91:PRO:HD3	1.84	0.59
21:M:41:CYS:SG	21:M:186:CYS:N	2.75	0.59
11:C:127:LEU:HD23	11:C:128:PRO:HD2	1.84	0.59
5:U:387:ARG:HH22	5:U:426:TYR:HD1	1.50	0.59
9:A:333:ARG:HH12	30:F:501:ATP:H5'1	1.68	0.59
9:A:369:ARG:NH2	19:K:206:MET:O	2.30	0.59
13:E:210:GLU:HB2	13:E:214:LEU:HG	1.85	0.59
20:L:166:GLN:OE1	20:L:169:ARG:NH1	2.35	0.59
27:V:302:TYR:OH	27:V:397:ARG:NH1	2.36	0.59
1:H:39:LYS:NZ	17:I:57:ASP:OD1	2.36	0.58
2:Y:221:THR:HG22	2:Y:256:VAL:HG21	1.85	0.58
4:X:99:MET:N	4:X:99:MET:SD	2.75	0.58
14:F:384:LEU:O	14:F:388:THR:HG23	2.02	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:348:ASP:O	2:Y:352:GLU:N	2.36	0.58
3:f:882:LEU:HD12	3:f:889:PRO:HD3	1.84	0.58
13:E:362:VAL:HG23	13:E:388:PRO:HA	1.84	0.58
14:F:251:LEU:HD11	14:F:285:ILE:HG12	1.86	0.58
4:X:255:LEU:HB2	4:X:287:LEU:HD13	1.84	0.58
9:A:283:ALA:H	10:B:303:ARG:HH22	1.50	0.58
24:d:90:ALA:O	24:d:94:MET:HG3	2.03	0.58
25:W:420:ASP:N	25:W:420:ASP:OD1	2.35	0.58
2:Y:312:ARG:HH21	4:X:386:ILE:HD11	1.66	0.58
3:f:127:SER:HB3	3:f:142:TYR:HB2	1.85	0.58
7:a:212:ASN:N	7:a:212:ASN:OD1	2.37	0.58
11:C:48:GLN:HB3	12:D:65:GLN:HE22	1.69	0.58
13:E:349:GLU:HA	13:E:352:MET:HB2	1.86	0.58
27:V:167:LEU:O	27:V:171:VAL:HG23	2.04	0.58
4:X:339:ILE:HD13	4:X:350:ILE:HD11	1.85	0.58
5:U:38:ILE:HD12	5:U:38:ILE:H	1.67	0.58
5:U:925:VAL:HG12	5:U:927:PRO:HD3	1.86	0.58
8:b:22:LEU:HB3	8:b:23:PRO:HD2	1.84	0.58
12:D:383:GLY:HA3	13:E:164:ILE:HD13	1.84	0.58
2:Y:381:GLN:HB2	27:V:482:PHE:HZ	1.67	0.58
4:X:57:LEU:O	4:X:61:GLY:N	2.34	0.58
5:U:36:ALA:O	5:U:39:SER:OG	2.22	0.58
5:U:710:ARG:NH2	5:U:738:ASP:OD1	2.34	0.58
27:V:139:MET:SD	27:V:139:MET:N	2.76	0.58
5:U:324:LYS:O	5:U:328:ILE:HG12	2.04	0.58
5:U:625:ILE:HG23	5:U:626:LEU:HG	1.86	0.58
9:A:274:PHE:HB3	9:A:277:ILE:HD13	1.85	0.58
9:A:384:GLU:HG2	10:B:344:PRO:HG2	1.84	0.58
9:A:428:ARG:HE	18:J:20:GLU:HB3	1.68	0.58
5:U:452:ASN:HD21	5:U:757:MET:HE1	1.68	0.58
11:C:36:ASN:HD21	27:V:89:LYS:HB3	1.69	0.58
12:D:297:ASP:OD2	12:D:323:ARG:NH2	2.34	0.58
13:E:349:GLU:HB3	13:E:384:LEU:HD21	1.84	0.58
26:g:162:GLU:HG2	26:g:163:GLU:H	1.69	0.58
28:c:130:GLN:HG2	28:c:162:LEU:HG	1.86	0.58
5:U:522:GLY:O	5:U:559:ARG:NH1	2.36	0.58
7:a:23:HIS:HA	7:a:26:GLU:HB3	1.86	0.58
7:a:174:LYS:NZ	7:a:175:ASP:OD1	2.37	0.57
11:C:162:LYS:HG2	11:C:166:GLU:HG3	1.86	0.57
17:I:116:ASP:OD1	18:J:81:ARG:NH2	2.36	0.57
5:U:31:VAL:HG11	5:U:66:LYS:HB3	1.85	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U:556:MET:HE3	5:U:563:ALA:HB3	1.87	0.57
12:D:273:LYS:HD2	12:D:274:ARG:N	2.18	0.57
17:I:68:LEU:HD11	17:I:74:CYS:HB3	1.86	0.57
28:c:215:LYS:HA	28:c:218:LEU:HD12	1.87	0.57
5:U:483:LEU:HD11	5:U:781:LEU:HD21	1.86	0.57
12:D:81:ARG:HD2	28:c:152:LYS:HG2	1.86	0.57
21:M:37:ILE:HD11	21:M:193:VAL:HG13	1.86	0.57
13:E:340:GLY:HA3	31:E:401:ADP:C8	2.40	0.57
14:F:410:ARG:NH2	14:F:419:ASP:OD2	2.32	0.57
19:K:46:VAL:HB	19:K:220:VAL:HG22	1.87	0.57
22:O:59:ILE:HG13	22:O:83:LEU:HG	1.86	0.57
3:f:560:LEU:HD21	3:f:798:THR:HG22	1.87	0.57
7:a:112:ILE:HD11	7:a:138:VAL:HG13	1.85	0.57
3:f:794:ALA:O	3:f:798:THR:HG23	2.05	0.57
6:Z:130:ASP:N	6:Z:130:ASP:OD1	2.35	0.57
7:a:226:ARG:NH1	7:a:230:ARG:O	2.34	0.57
14:F:171:ARG:HE	14:F:267:LEU:HD11	1.68	0.57
2:Y:198:ALA:HB2	2:Y:226:VAL:HG12	1.87	0.57
4:X:407:MET:HE2	6:Z:266:ILE:HD13	1.85	0.57
5:U:775:LEU:O	5:U:778:PHE:HB2	2.04	0.57
24:d:171:LEU:HD13	24:d:175:TYR:CE2	2.38	0.57
10:B:271:PHE:O	10:B:275:GLU:HG2	2.05	0.57
20:L:22:ILE:O	20:L:26:MET:HG2	2.04	0.57
20:L:84:LEU:O	20:L:88:MET:HG3	2.05	0.57
27:V:78:HIS:CE1	27:V:104:THR:HG21	2.35	0.57
12:D:204:MET:HE2	12:D:308:ILE:HG22	1.86	0.57
24:d:293:PHE:HB2	24:d:299:MET:HE3	1.85	0.57
27:V:448:GLU:O	27:V:461:LYS:HG2	2.04	0.57
2:Y:68:ASP:N	2:Y:68:ASP:OD1	2.37	0.56
2:Y:173:ASP:OD1	2:Y:173:ASP:N	2.32	0.56
6:Z:14:LEU:HD11	28:c:40:LYS:HG3	1.87	0.56
11:C:40:GLN:HB3	27:V:495:ARG:HH22	1.69	0.56
11:C:264:GLY:O	12:D:280:GLY:N	2.38	0.56
11:C:267:SER:HG	11:C:271:ARG:HH22	1.51	0.56
13:E:206:LYS:HD2	13:E:256:THR:HG22	1.87	0.56
20:L:109:VAL:HG22	20:L:134:ILE:HD12	1.86	0.56
24:d:145:ARG:NH1	24:d:183:PRO:O	2.38	0.56
1:H:38:ILE:HG22	1:H:160:ALA:HB1	1.86	0.56
9:A:336:ARG:NH2	30:F:501:ATP:O1G	2.38	0.56
13:E:206:LYS:HD3	13:E:260:LEU:HB2	1.87	0.56
24:d:120:LYS:O	24:d:124:LEU:HG	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:f:85:SER:O	3:f:88:SER:OG	2.23	0.56
5:U:204:ILE:HA	5:U:207:ASN:HD21	1.71	0.56
5:U:639:LEU:HD21	12:D:61:ILE:HD11	1.87	0.56
12:D:130:VAL:HG12	12:D:142:VAL:HG22	1.88	0.56
14:F:317:LEU:HD11	14:F:328:VAL:HG11	1.85	0.56
14:F:321:GLN:H	14:F:322:PRO:CD	2.19	0.56
17:I:35:LEU:HD12	17:I:163:CYS:HB2	1.86	0.56
2:Y:122:THR:OG1	2:Y:125:ARG:NH2	2.38	0.56
5:U:443:LEU:HD21	5:U:464:GLN:HG3	1.87	0.56
7:a:70:ARG:HH21	8:b:17:ARG:HA	1.70	0.56
8:b:38:HIS:HA	8:b:42:ARG:NH1	2.21	0.56
3:f:333:LEU:HD21	3:f:873:LEU:HD11	1.88	0.56
5:U:524:LYS:HZ1	5:U:563:ALA:HB2	1.71	0.56
5:U:609:ASP:O	5:U:615:ARG:NH1	2.34	0.56
6:Z:68:TRP:CD1	6:Z:104:ASN:HD21	2.23	0.56
8:b:99:HIS:O	8:b:101:GLN:NE2	2.39	0.56
13:E:331:ILE:HD11	13:E:387:LYS:NZ	2.21	0.56
24:d:212:LEU:HD22	24:d:220:ILE:HD12	1.88	0.56
27:V:410:ILE:HG21	27:V:422:ILE:HG12	1.87	0.56
28:c:127:ILE:HG23	28:c:162:LEU:HD11	1.87	0.56
2:Y:272:PHE:HB3	23:e:56:LEU:HD11	1.88	0.56
3:f:109:ILE:HG12	3:f:113:MET:HG2	1.88	0.56
6:Z:233:VAL:HG23	25:W:438:LEU:HD23	1.87	0.56
9:A:73:ALA:HB3	9:A:78:TRP:CD1	2.39	0.56
9:A:258:ARG:HG2	9:A:301:GLU:OE1	2.06	0.56
9:A:433:ASN:HB2	19:K:82:ILE:HD11	1.88	0.56
11:C:252:ASP:HB2	12:D:290:LEU:HD11	1.86	0.56
13:E:169:GLY:O	13:E:296:ASP:N	2.39	0.56
17:I:178:ASP:OD2	17:I:195:LYS:NZ	2.36	0.56
19:K:145:GLY:HA2	19:K:220:VAL:HG21	1.88	0.56
25:W:39:ARG:HH22	25:W:43:VAL:HG23	1.71	0.56
27:V:309:MET:HB2	27:V:332:LEU:HD13	1.88	0.56
3:f:388:ASP:O	3:f:392:THR:OG1	2.20	0.56
3:f:436:SER:HB3	26:g:170:GLN:HA	1.86	0.56
20:L:188:VAL:HG11	20:L:232:PHE:HD1	1.71	0.56
25:W:363:ILE:HG12	25:W:378:MET:HE2	1.86	0.56
3:f:665:GLU:OE2	3:f:665:GLU:N	2.36	0.56
3:f:688:ARG:O	3:f:724:ASN:ND2	2.38	0.56
3:f:725:SER:O	3:f:729:MET:HG2	2.06	0.56
5:U:369:THR:O	5:U:373:ASN:ND2	2.39	0.56
9:A:23:ARG:HB2	10:B:410:ARG:HH22	1.71	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:c:33:ILE:HD11	28:c:205:ILE:HD11	1.87	0.56
5:U:636:VAL:HG13	5:U:637:VAL:HG23	1.88	0.56
7:a:321:LYS:O	7:a:334:THR:OG1	2.24	0.56
8:b:3:LEU:HD13	8:b:44:ASN:HD21	1.70	0.56
8:b:12:ASN:OD1	8:b:53:THR:OG1	2.24	0.56
9:A:222:LYS:NZ	30:B:501:ATP:O2B	2.37	0.56
13:E:119:VAL:HG22	13:E:201:SER:HB3	1.88	0.56
25:W:42:GLU:O	25:W:46:THR:HG22	2.06	0.56
5:U:533:VAL:HB	5:U:537:GLN:HE22	1.71	0.56
13:E:223:ARG:HG3	13:E:224:ASP:H	1.70	0.56
19:K:31:ILE:HD13	19:K:140:ALA:HB2	1.87	0.56
27:V:98:LEU:HD21	27:V:206:VAL:HG22	1.86	0.56
27:V:452:ASN:OD1	27:V:455:LYS:NZ	2.38	0.56
2:Y:202:LEU:HD11	2:Y:231:LEU:HD11	1.88	0.55
9:A:239:ARG:HH22	9:A:241:ILE:HG12	1.70	0.55
12:D:89:ILE:HB	13:E:78:ARG:HG3	1.87	0.55
18:J:29:GLY:O	18:J:163:ARG:N	2.39	0.55
24:d:95:TYR:HE1	24:d:150:ILE:HD12	1.71	0.55
27:V:290:TYR:OH	27:V:294:ARG:NH2	2.36	0.55
4:X:364:LYS:O	4:X:368:MET:HG3	2.06	0.55
5:U:581:SER:O	5:U:585:THR:OG1	2.23	0.55
7:a:33:LEU:HD23	7:a:35:HIS:H	1.70	0.55
9:A:297:ARG:HD3	14:F:257:VAL:HG21	1.88	0.55
13:E:223:ARG:HD2	13:E:271:HIS:CB	2.36	0.55
21:M:36:ALA:HB1	21:M:49:VAL:HG22	1.88	0.55
5:U:559:ARG:HB3	5:U:562:GLU:HB3	1.87	0.55
11:C:40:GLN:HB3	27:V:495:ARG:NH2	2.21	0.55
24:d:104:ARG:HG2	24:d:106:SER:H	1.70	0.55
25:W:40:LEU:O	25:W:42:GLU:N	2.39	0.55
28:c:121:TRP:HZ3	28:c:123:SER:HB3	1.72	0.55
28:c:158:ASP:OD1	28:c:159:ALA:N	2.40	0.55
5:U:164:GLU:O	5:U:168:LEU:HB2	2.06	0.55
5:U:360:VAL:HG22	5:U:362:ASN:H	1.72	0.55
9:A:254:ALA:O	9:A:258:ARG:HG3	2.05	0.55
21:M:160:TYR:HD2	21:M:163:CYS:HB2	1.71	0.55
28:c:118:PHE:O	28:c:121:TRP:NE1	2.35	0.55
6:Z:227:ILE:HD11	7:a:346:ILE:HD11	1.88	0.55
7:a:140:GLU:O	7:a:143:ASN:ND2	2.40	0.55
11:C:133:PRO:O	11:C:134:LEU:HB2	2.06	0.55
14:F:279:ALA:HB3	14:F:280:PRO:HD3	1.88	0.55
16:G:80:MET:HB3	16:G:87:SER:HB2	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:137:TYR:CE1	20:L:217:LYS:HA	2.42	0.55
24:d:194:LEU:O	24:d:198:PHE:N	2.35	0.55
27:V:219:GLU:HA	27:V:224:LEU:HD21	1.87	0.55
2:Y:384:SER:O	2:Y:388:ASN:ND2	2.40	0.55
3:f:450:ILE:HD11	3:f:822:VAL:HG21	1.87	0.55
4:X:93:LEU:HD11	4:X:132:ARG:HG2	1.89	0.55
8:b:184:ILE:HG22	8:b:188:ILE:HG13	1.88	0.55
18:J:38:ARG:O	18:J:213:ARG:NH2	2.40	0.55
18:J:64:ALA:O	18:J:88:ARG:NH1	2.40	0.55
25:W:87:ILE:HD12	25:W:104:MET:HE3	1.88	0.55
4:X:70:LEU:HB3	4:X:71:LYS:HZ2	1.72	0.55
5:U:459:ASP:O	5:U:462:LEU:HB3	2.07	0.55
12:D:117:SER:HA	12:D:121:ARG:HH22	1.71	0.55
3:f:672:LEU:HD11	3:f:706:ILE:HG12	1.89	0.55
5:U:524:LYS:NZ	5:U:562:GLU:HG3	2.21	0.55
6:Z:17:LEU:HD12	28:c:39:LEU:HD12	1.89	0.55
10:B:135:ILE:HA	10:B:159:VAL:HB	1.88	0.55
12:D:164:TYR:HD1	12:D:174:LYS:HE2	1.71	0.55
16:G:117:ARG:O	16:G:121:ILE:HG12	2.06	0.55
28:c:63:ASP:O	28:c:139:ARG:NH1	2.36	0.55
28:c:115:HIS:HB3	28:c:118:PHE:HB2	1.88	0.55
2:Y:45:VAL:HG13	2:Y:50:MET:HB3	1.87	0.55
24:d:178:TYR:HB3	24:d:182:LEU:HG	1.87	0.55
27:V:208:ALA:O	27:V:211:TYR:HB2	2.06	0.55
1:H:38:ILE:HD11	1:H:187:ALA:O	2.07	0.55
3:f:445:LEU:HB3	3:f:466:LEU:HD11	1.88	0.55
5:U:494:TYR:OH	5:U:528:ALA:HA	2.07	0.55
5:U:789:ILE:HB	5:U:911:ILE:HG23	1.89	0.55
16:G:86:ASP:OD2	16:G:132:ARG:NH2	2.40	0.55
19:K:36:THR:OG1	19:K:172:SER:O	2.18	0.55
27:V:457:TYR:HE1	27:V:459:GLN:HB2	1.71	0.55
3:f:543:MET:HE1	3:f:583:VAL:HB	1.88	0.54
3:f:606:VAL:HG22	5:U:835:ILE:HD11	1.89	0.54
5:U:267:ASN:O	5:U:270:THR:OG1	2.26	0.54
8:b:51:LEU:HD23	8:b:71:ILE:HG23	1.88	0.54
2:Y:265:GLU:OE1	2:Y:267:ARG:NH2	2.35	0.54
5:U:375:PHE:O	5:U:740:GLY:N	2.36	0.54
5:U:504:ASP:OD1	5:U:541:HIS:NE2	2.40	0.54
10:B:369:THR:HB	10:B:374:LEU:HD21	1.88	0.54
28:c:128:ASN:HA	28:c:131:GLN:OE1	2.07	0.54
12:D:355:SER:OG	12:D:357:GLU:OE1	2.23	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:188:ALA:O	13:E:192:ASP:N	2.40	0.54
21:M:8:ASP:O	21:M:22:GLN:NE2	2.34	0.54
24:d:332:SER:HA	28:c:303:MET:HE3	1.89	0.54
27:V:175:MET:HB3	27:V:184:ALA:HB2	1.89	0.54
1:H:114:VAL:O	1:H:118:MET:HG3	2.07	0.54
3:f:378:ASN:HB3	3:f:398:TRP:HH2	1.73	0.54
3:f:674:THR:HG22	10:B:75:GLU:HG3	1.90	0.54
5:U:174:PRO:HA	5:U:177:LEU:HD13	1.89	0.54
6:Z:68:TRP:HZ3	6:Z:70:LEU:HB3	1.73	0.54
7:a:281:THR:HB	7:a:291:LEU:HD21	1.89	0.54
8:b:138:VAL:HB	8:b:160:LEU:HD11	1.89	0.54
9:A:113:ILE:HG21	9:A:149:ILE:HD11	1.89	0.54
10:B:278:ALA:HB3	10:B:279:PRO:HD3	1.89	0.54
12:D:366:ARG:NH2	12:D:400:GLU:OE2	2.32	0.54
13:E:59:GLU:OE1	13:E:60:VAL:N	2.41	0.54
13:E:199:VAL:HG13	14:F:344:ARG:HH21	1.72	0.54
25:W:235:GLN:HG2	25:W:350:ARG:HH21	1.71	0.54
1:H:66:GLU:OE1	1:H:91:ARG:NH2	2.40	0.54
3:f:438:ASP:O	3:f:441:LYS:HB2	2.07	0.54
11:C:75:GLU:N	11:C:75:GLU:OE2	2.40	0.54
13:E:204:VAL:O	13:E:214:LEU:HB3	2.08	0.54
22:O:67:SER:HA	22:O:70:THR:HG22	1.88	0.54
24:d:141:LEU:HB3	24:d:182:LEU:HD11	1.89	0.54
5:U:122:GLU:O	5:U:124:LYS:NZ	2.38	0.54
6:Z:20:VAL:HG22	6:Z:126:VAL:HG23	1.89	0.54
9:A:45:ILE:HD13	10:B:61:LYS:HE2	1.88	0.54
20:L:72:ILE:HG22	20:L:134:ILE:HA	1.89	0.54
5:U:759:SER:HA	5:U:782:ALA:HA	1.89	0.54
8:b:56:ASN:N	8:b:83:LYS:O	2.40	0.54
8:b:58:CYS:HB3	8:b:92:VAL:HG11	1.90	0.54
9:A:347:ASP:OD1	9:A:347:ASP:N	2.36	0.54
10:B:174:MET:HE2	10:B:250:VAL:HG13	1.88	0.54
13:E:143:ARG:HE	13:E:147:GLU:HG3	1.72	0.54
13:E:374:VAL:HG23	13:E:381:GLU:HA	1.90	0.54
14:F:247:THR:HG21	14:F:278:LYS:HG3	1.89	0.54
26:g:115:LYS:HA	26:g:118:GLU:HG2	1.89	0.54
28:c:61:PHE:O	28:c:63:ASP:N	2.39	0.54
8:b:38:HIS:O	8:b:42:ARG:HG2	2.07	0.54
10:B:251:VAL:HG13	11:C:278:ASN:HD22	1.73	0.54
14:F:151:VAL:HG12	14:F:163:THR:HA	1.88	0.54
17:I:8:ARG:HB3	17:I:11:ILE:HG13	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:153:SER:OG	17:I:155:ASN:OD1	2.15	0.54
1:H:10:LEU:HD21	1:H:122:THR:HA	1.89	0.54
9:A:25:LEU:HB3	9:A:30:ILE:HD11	1.90	0.54
9:A:174:TYR:CD2	9:A:232:ARG:HD3	2.43	0.54
11:C:345:ARG:O	11:C:349:GLU:HG2	2.07	0.54
25:W:318:SER:N	25:W:383:ASP:OD2	2.38	0.54
2:Y:223:THR:O	2:Y:227:SER:OG	2.19	0.54
2:Y:385:ARG:NH1	2:Y:389:MET:OXT	2.35	0.54
3:f:137:ARG:NH1	3:f:172:GLU:OE1	2.41	0.54
5:U:345:ASN:O	5:U:743:ASN:ND2	2.35	0.54
5:U:356:THR:HG21	5:U:731:ILE:HD13	1.90	0.54
5:U:463:ASN:HA	5:U:466:LYS:HE3	1.90	0.54
5:U:740:GLY:HA3	5:U:744:VAL:HG22	1.90	0.54
6:Z:59:ASP:HB2	8:b:99:HIS:CE1	2.41	0.54
7:a:118:ILE:O	7:a:122:LYS:HB2	2.08	0.54
7:a:252:LYS:HA	7:a:255:TRP:NE1	2.23	0.54
9:A:190:VAL:HG11	9:A:212:VAL:HG23	1.90	0.54
11:C:306:LEU:HD22	11:C:314:LYS:HE3	1.90	0.54
13:E:146:ARG:NH2	13:E:190:GLN:OE1	2.40	0.54
13:E:265:ASP:OD1	13:E:266:GLY:N	2.36	0.54
13:E:316:HIS:CE1	13:E:344:ARG:HB2	2.43	0.54
14:F:304:ARG:O	14:F:308:ARG:HG2	2.08	0.54
3:f:202:HIS:HE2	3:f:855:GLN:HB3	1.73	0.53
5:U:371:ILE:HD11	5:U:732:LEU:HD21	1.90	0.53
5:U:540:GLN:OE1	28:c:68:ARG:NH1	2.42	0.53
9:A:207:GLU:OE1	9:A:210:LYS:NZ	2.40	0.53
12:D:214:MET:HE1	31:D:501:ADP:C5	2.44	0.53
18:J:108:THR:HG21	18:J:145:TYR:HB3	1.90	0.53
21:M:168:ALA:HB1	21:M:171:ALA:HB3	1.89	0.53
24:d:89:GLN:O	24:d:92:THR:OG1	2.23	0.53
3:f:738:ASN:HB3	3:f:741:LEU:HB3	1.89	0.53
8:b:22:LEU:HD13	8:b:28:ALA:HB2	1.88	0.53
21:M:108:LEU:HD11	21:M:137:LEU:HB3	1.89	0.53
3:f:79:ARG:NH1	3:f:124:ASP:OD2	2.41	0.53
3:f:340:MET:HA	3:f:340:MET:HE3	1.90	0.53
3:f:739:ALA:HB3	10:B:208:PRO:HG2	1.90	0.53
5:U:42:VAL:O	5:U:46:GLU:HG2	2.09	0.53
9:A:224:LEU:HD22	30:B:501:ATP:H2'	1.89	0.53
1:H:189:HIS:HB3	1:H:233:ILE:HD11	1.89	0.53
2:Y:214:MET:HE3	2:Y:219:PHE:HD1	1.73	0.53
4:X:57:LEU:HD22	4:X:66:LEU:HD13	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:256:LEU:HD22	4:X:319:ILE:HD13	1.90	0.53
5:U:548:LEU:O	5:U:552:ILE:HG12	2.08	0.53
8:b:91:ARG:O	8:b:94:HIS:ND1	2.37	0.53
25:W:413:ILE:HG22	25:W:413:ILE:O	2.08	0.53
27:V:495:ARG:HA	27:V:495:ARG:CZ	2.38	0.53
28:c:41:MET:HG3	28:c:72:VAL:HG21	1.91	0.53
2:Y:80:GLU:O	2:Y:84:LEU:HD22	2.08	0.53
3:f:616:CYS:HA	3:f:650:GLN:HG2	1.90	0.53
5:U:750:SER:N	5:U:754:HIS:O	2.39	0.53
14:F:198:LEU:HD13	14:F:236:LEU:HD22	1.91	0.53
17:I:230:GLN:O	17:I:234:GLU:HG2	2.08	0.53
19:K:203:LYS:HB2	19:K:210:LEU:HD22	1.89	0.53
20:L:22:ILE:HD11	20:L:120:THR:HB	1.90	0.53
4:X:74:ARG:NH2	4:X:113:CYS:SG	2.82	0.53
4:X:160:MET:HE2	4:X:162:ASP:HB2	1.91	0.53
6:Z:77:ASN:OD1	28:c:98:MET:HE1	2.08	0.53
6:Z:187:LEU:O	6:Z:191:ILE:HG12	2.09	0.53
6:Z:279:LYS:HA	6:Z:282:ASN:ND2	2.24	0.53
14:F:61:ARG:NE	14:F:61:ARG:HA	2.22	0.53
28:c:131:GLN:HG3	28:c:162:LEU:HD12	1.89	0.53
3:f:170:TRP:CD2	3:f:211:ILE:HG22	2.44	0.53
13:E:293:GLY:H	13:E:296:ASP:CG	2.17	0.53
17:I:82:ASP:OD2	17:I:128:ARG:NH1	2.37	0.53
19:K:31:ILE:HD11	19:K:158:PRO:HD3	1.91	0.53
19:K:227:HIS:NE2	19:K:233:GLU:OE2	2.35	0.53
27:V:102:PRO:O	27:V:106:ARG:NH2	2.42	0.53
2:Y:45:VAL:HG11	2:Y:54:TYR:HD2	1.73	0.53
3:f:559:PRO:HB2	3:f:594:LEU:HD22	1.90	0.53
13:E:283:ASP:N	13:E:283:ASP:OD1	2.34	0.53
14:F:175:MET:HE1	14:F:256:LEU:HD21	1.90	0.53
2:Y:112:CYS:HB2	2:Y:147:ILE:HD11	1.90	0.53
3:f:327:ASN:HB2	3:f:420:TRP:HB2	1.90	0.53
3:f:514:VAL:O	3:f:518:THR:OG1	2.23	0.53
10:B:142:ASP:OD1	10:B:142:ASP:N	2.41	0.53
10:B:357:ASP:N	10:B:360:THR:OG1	2.42	0.53
13:E:122:MET:HG3	13:E:201:SER:HB2	1.90	0.53
24:d:167:TYR:O	24:d:171:LEU:HG	2.09	0.53
27:V:104:THR:HG22	27:V:107:ARG:HH22	1.73	0.53
28:c:190:GLN:HA	28:c:193:ILE:HD12	1.91	0.53
13:E:98:VAL:HA	13:E:110:TYR:HA	1.91	0.53
13:E:306:GLU:HG3	13:E:309:ARG:HH22	1.73	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:W:260:SER:HA	25:W:263:TRP:CD1	2.44	0.53
11:C:322:GLU:OE1	11:C:325:ARG:NH2	2.41	0.52
23:e:41:ASP:OD1	23:e:41:ASP:N	2.37	0.52
24:d:163:SER:HA	24:d:166:ARG:HD2	1.90	0.52
5:U:422:LEU:O	5:U:425:THR:OG1	2.28	0.52
5:U:804:SER:OG	5:U:805:ASN:N	2.42	0.52
6:Z:74:TYR:CE1	28:c:98:MET:HG3	2.44	0.52
13:E:143:ARG:HD3	25:W:173:THR:HG23	1.89	0.52
2:Y:383:LEU:O	2:Y:387:ILE:HG13	2.09	0.52
5:U:738:ASP:OD1	5:U:742:HIS:NE2	2.41	0.52
7:a:348:GLY:O	7:a:352:ARG:HG3	2.09	0.52
11:C:157:GLN:O	11:C:161:ILE:HG22	2.08	0.52
25:W:327:GLU:OE2	25:W:327:GLU:N	2.32	0.52
28:c:195:GLY:HA2	28:c:198:ARG:HE	1.74	0.52
28:c:279:ASP:OD1	28:c:279:ASP:N	2.42	0.52
2:Y:389:MET:HB3	27:V:95:LEU:HD22	1.91	0.52
3:f:102:HIS:CE1	3:f:105:LYS:HG2	2.44	0.52
3:f:438:ASP:N	3:f:438:ASP:OD1	2.42	0.52
5:U:611:ASN:HB3	5:U:614:VAL:HG12	1.90	0.52
7:a:342:ASP:HB3	7:a:345:GLN:HG2	1.91	0.52
11:C:152:GLY:O	31:C:502:ADP:N6	2.39	0.52
26:g:85:ILE:HD11	26:g:153:ALA:HB2	1.92	0.52
3:f:375:SER:HA	3:f:398:TRP:HZ2	1.74	0.52
6:Z:170:VAL:HA	28:c:152:LYS:HZ3	1.72	0.52
6:Z:173:GLU:OE2	28:c:152:LYS:NZ	2.30	0.52
9:A:45:ILE:HG13	10:B:62:LEU:HD13	1.91	0.52
28:c:136:LEU:HD23	28:c:136:LEU:H	1.74	0.52
1:H:157:ALA:O	17:I:57:ASP:HB3	2.09	0.52
5:U:32:ASN:HA	5:U:70:HIS:CE1	2.45	0.52
5:U:833:LEU:HA	5:U:836:THR:HG22	1.92	0.52
6:Z:74:TYR:CZ	28:c:98:MET:HG3	2.44	0.52
6:Z:125:ASP:HB2	6:Z:128:PRO:HD2	1.92	0.52
9:A:270:CYS:SG	9:A:271:LEU:N	2.83	0.52
10:B:390:LEU:H	10:B:390:LEU:HD23	1.75	0.52
13:E:272:ARG:HH21	13:E:274:LYS:HG3	1.75	0.52
16:G:196:GLU:HA	16:G:242:LEU:HD21	1.91	0.52
18:J:90:GLU:HG2	18:J:110:TYR:CG	2.44	0.52
19:K:84:ASP:OD2	19:K:135:ARG:NH1	2.34	0.52
27:V:259:LEU:HD21	27:V:295:ILE:HD11	1.90	0.52
5:U:458:ILE:HD12	5:U:485:ALA:HB2	1.90	0.52
5:U:496:LEU:HD23	5:U:497:LEU:HD22	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:a:168:ASN:OD1	7:a:171:SER:OG	2.21	0.52
11:C:222:LYS:HA	12:D:240:LEU:O	2.09	0.52
21:M:49:VAL:HG11	21:M:65:ARG:HB2	1.92	0.52
23:e:18:GLU:H	23:e:18:GLU:CD	2.18	0.52
27:V:212:TYR:OH	27:V:216:ARG:NH1	2.43	0.52
3:f:560:LEU:O	3:f:564:LEU:N	2.36	0.52
5:U:645:ASN:HD21	5:U:648:VAL:HG23	1.75	0.52
7:a:84:VAL:HA	7:a:87:MET:HG3	1.91	0.52
9:A:238:ILE:HG21	9:A:260:LEU:HD11	1.91	0.52
12:D:337:ASP:OD1	12:D:337:ASP:N	2.43	0.52
17:I:207:SER:OG	17:I:209:GLU:OE1	2.27	0.52
20:L:125:ARG:NH1	20:L:126:ARG:O	2.40	0.52
3:f:891:THR:HG22	3:f:893:ILE:H	1.75	0.52
5:U:111:GLN:HG2	5:U:126:ILE:HG12	1.92	0.52
10:B:107:MET:HB2	11:C:96:VAL:HB	1.91	0.52
10:B:295:TYR:HE2	10:B:297:SER:HB2	1.75	0.52
11:C:36:ASN:ND2	27:V:89:LYS:O	2.43	0.52
11:C:164:VAL:HG21	11:C:313:ARG:HG3	1.92	0.52
11:C:252:ASP:OD1	11:C:295:THR:OG1	2.27	0.52
12:D:119:ILE:O	12:D:121:ARG:NH1	2.42	0.52
24:d:244:VAL:HG11	24:d:267:ILE:HD12	1.92	0.52
3:f:695:ALA:HA	3:f:732:VAL:HG23	1.91	0.52
3:f:731:MET:HE1	3:f:821:LEU:HD21	1.92	0.52
4:X:417:LYS:NZ	6:Z:277:ASN:OD1	2.35	0.52
5:U:401:LYS:HE3	5:U:437:TYR:HB2	1.91	0.52
5:U:796:LYS:HG2	5:U:798:PRO:HD3	1.92	0.52
6:Z:15:VAL:HG12	6:Z:53:SER:HB3	1.91	0.52
7:a:186:LYS:O	7:a:188:LEU:HG	2.10	0.52
8:b:30:GLN:O	8:b:34:ASN:ND2	2.43	0.52
9:A:285:PHE:CE2	10:B:298:ASN:HA	2.45	0.52
11:C:368:MET:HE1	12:D:191:TYR:CE1	2.43	0.52
16:G:79:VAL:HG13	16:G:139:ILE:HB	1.92	0.52
16:G:165:ALA:HB1	16:G:179:LEU:HD13	1.92	0.52
17:I:46:ALA:HB1	17:I:197:LEU:HD11	1.92	0.52
21:M:23:VAL:O	21:M:27:MET:HG2	2.09	0.52
21:M:52:LEU:HD22	21:M:206:ASP:HB3	1.92	0.52
5:U:26:LYS:HD2	24:d:129:LEU:HD12	1.90	0.51
5:U:185:MET:HE1	5:U:753:GLY:HA3	1.91	0.51
5:U:359:ALA:HB1	5:U:718:ASN:HA	1.92	0.51
6:Z:127:LYS:O	6:Z:129:LYS:NZ	2.43	0.51
8:b:112:PHE:CE1	8:b:141:ILE:HD11	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:263:MET:O	9:A:266:THR:OG1	2.26	0.51
2:Y:83:ARG:O	2:Y:87:GLU:HG2	2.09	0.51
2:Y:186:LEU:HD21	2:Y:214:MET:HE1	1.92	0.51
2:Y:222:TYR:OH	2:Y:285:ASP:OD1	2.21	0.51
3:f:668:ALA:O	3:f:672:LEU:HD23	2.10	0.51
5:U:904:LYS:HD3	5:U:912:ILE:HG22	1.92	0.51
13:E:121:ASN:HD22	14:F:311:LEU:HB3	1.75	0.51
13:E:261:LEU:HD11	13:E:288:ALA:HB1	1.92	0.51
20:L:103:LEU:HD12	20:L:104:PRO:HD2	1.91	0.51
3:f:802:SER:HB2	3:f:809:ILE:HG21	1.91	0.51
10:B:259:TYR:HB2	10:B:262:ASP:OD2	2.09	0.51
10:B:343:ARG:NH1	10:B:344:PRO:O	2.39	0.51
13:E:214:LEU:O	13:E:217:GLU:HG2	2.10	0.51
13:E:259:GLU:O	13:E:263:GLN:HG2	2.10	0.51
14:F:289:ASP:OD1	14:F:332:THR:OG1	2.21	0.51
2:Y:184:GLN:HB3	2:Y:200:LEU:HD13	1.92	0.51
3:f:277:LEU:HD12	3:f:277:LEU:H	1.75	0.51
3:f:699:VAL:HG21	3:f:796:LEU:HD21	1.91	0.51
7:a:148:VAL:HG22	7:a:150:SER:H	1.74	0.51
12:D:264:ILE:HB	12:D:309:MET:HG3	1.92	0.51
13:E:198:VAL:HG13	13:E:203:ILE:HG13	1.92	0.51
13:E:232:MET:SD	13:E:235:ILE:HD12	2.51	0.51
13:E:280:ASN:O	13:E:281:ARG:NE	2.43	0.51
16:G:10:ASP:OD1	16:G:11:ARG:NH1	2.43	0.51
27:V:79:VAL:HG21	27:V:120:PHE:CE2	2.46	0.51
28:c:44:HIS:ND1	28:c:112:TYR:OH	2.34	0.51
3:f:110:TYR:CE2	3:f:123:ALA:HB2	2.45	0.51
5:U:751:ARG:NH2	5:U:785:PRO:O	2.44	0.51
6:Z:184:VAL:HG21	12:D:73:LEU:HD22	1.92	0.51
9:A:143:ASP:OD1	9:A:146:LYS:N	2.38	0.51
10:B:374:LEU:HD12	10:B:378:VAL:HG11	1.91	0.51
13:E:145:LEU:HD11	13:E:183:LEU:HB3	1.91	0.51
24:d:287:ALA:O	24:d:299:MET:HE1	2.09	0.51
25:W:166:LEU:HG	25:W:189:GLN:HG2	1.92	0.51
2:Y:168:ILE:HG23	2:Y:172:GLY:HA3	1.93	0.51
3:f:122:ALA:O	3:f:126:ILE:HG12	2.10	0.51
5:U:104:CYS:HB2	5:U:130:LEU:HD11	1.93	0.51
6:Z:67:VAL:HG21	8:b:91:ARG:HD3	1.93	0.51
11:C:303:SER:HA	11:C:306:LEU:HB2	1.93	0.51
19:K:121:LEU:HD22	20:L:79:ALA:HA	1.91	0.51
22:O:78:THR:O	22:O:82:MET:HG3	2.10	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:d:185:SER:O	24:d:188:MET:HG3	2.10	0.51
27:V:231:LEU:HD12	27:V:250:LEU:HD22	1.93	0.51
28:c:54:MET:HB3	28:c:82:VAL:HG13	1.92	0.51
2:Y:362:LYS:NZ	4:X:394:ASP:OD2	2.38	0.51
3:f:395:GLY:O	3:f:399:LEU:HG	2.10	0.51
3:f:416:MET:HB2	3:f:450:ILE:HD13	1.93	0.51
4:X:67:GLY:O	4:X:71:LYS:NZ	2.43	0.51
5:U:465:LEU:HD13	5:U:496:LEU:HD21	1.91	0.51
10:B:43:PRO:HA	10:B:277:HIS:HB3	1.92	0.51
10:B:149:SER:OG	10:B:166:ASP:OD2	2.19	0.51
17:I:198:ASN:HD22	17:I:240:HIS:CE1	2.29	0.51
17:I:239:LYS:O	17:I:243:GLU:HG2	2.10	0.51
5:U:101:ILE:HA	5:U:104:CYS:SG	2.50	0.51
5:U:639:LEU:CD2	12:D:61:ILE:HD11	2.40	0.51
6:Z:72:HIS:ND1	6:Z:115:TYR:OH	2.30	0.51
7:a:58:LYS:HZ2	7:a:83:VAL:HG22	1.75	0.51
9:A:425:ALA:O	9:A:429:TYR:N	2.42	0.51
13:E:182:LEU:HD21	31:E:401:ADP:H2'	1.92	0.51
13:E:200:SER:O	13:E:204:VAL:N	2.43	0.51
17:I:155:ASN:ND2	18:J:77:THR:HB	2.25	0.51
27:V:66:GLU:O	27:V:70:VAL:HG13	2.10	0.51
3:f:583:VAL:O	3:f:588:ARG:NE	2.41	0.51
5:U:325:MET:HA	5:U:325:MET:HE2	1.92	0.51
5:U:520:MET:HB3	5:U:555:VAL:HG23	1.92	0.51
5:U:524:LYS:NZ	5:U:563:ALA:HB2	2.26	0.51
5:U:765:VAL:HG23	5:U:778:PHE:HB3	1.93	0.51
7:a:115:LYS:HA	7:a:118:ILE:HG22	1.93	0.51
10:B:286:GLU:HB3	11:C:274:LEU:HD13	1.93	0.51
13:E:367:PHE:CD1	13:E:387:LYS:HE3	2.46	0.51
27:V:449:ALA:HA	27:V:460:SER:HA	1.93	0.51
3:f:144:LEU:HG	3:f:145:VAL:HG13	1.93	0.51
3:f:446:LEU:O	3:f:450:ILE:N	2.44	0.51
11:C:222:LYS:HD2	12:D:242:GLU:CD	2.36	0.51
12:D:411:GLU:HB3	12:D:412:GLN:OE1	2.10	0.51
12:D:412:GLN:OE1	12:D:412:GLN:N	2.44	0.51
14:F:313:LEU:HD23	14:F:317:LEU:HD23	1.92	0.51
19:K:142:LEU:HD22	19:K:153:LEU:HD11	1.93	0.51
3:f:414:LEU:O	3:f:417:ILE:HG22	2.11	0.50
3:f:679:LEU:HB3	3:f:713:PHE:HE2	1.76	0.50
4:X:134:VAL:HG12	4:X:172:LEU:HD13	1.93	0.50
5:U:371:ILE:HG22	5:U:777:HIS:CE1	2.45	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Z:192:THR:HG22	7:a:375:LEU:HG	1.93	0.50
9:A:303:ILE:HG23	9:A:336:ARG:CZ	2.42	0.50
12:D:202:VAL:HG12	12:D:329:ARG:HG3	1.92	0.50
13:E:219:PHE:HB3	13:E:223:ARG:NH2	2.20	0.50
13:E:370:ALA:HB1	13:E:384:LEU:HD12	1.92	0.50
14:F:94:ILE:HD11	14:F:125:LYS:HB2	1.92	0.50
17:I:106:PRO:O	17:I:108:GLU:N	2.45	0.50
28:c:37:ALA:O	28:c:41:MET:HG3	2.10	0.50
5:U:885:MET:HB2	5:U:888:GLN:HB2	1.93	0.50
7:a:37:LEU:HD21	7:a:64:ILE:HD11	1.93	0.50
12:D:269:ALA:HB1	13:E:255:ARG:HD3	1.93	0.50
14:F:137:ILE:HD12	14:F:140:VAL:HG23	1.94	0.50
14:F:428:GLN:HG3	14:F:430:LYS:HD2	1.92	0.50
25:W:18:VAL:HB	25:W:57:ALA:HB1	1.93	0.50
27:V:64:GLN:NE2	27:V:68:ASP:OD2	2.44	0.50
3:f:185:LEU:O	3:f:189:LYS:HG2	2.11	0.50
3:f:398:TRP:O	3:f:401:LYS:HG2	2.11	0.50
5:U:419:ALA:HA	5:U:422:LEU:HB3	1.94	0.50
6:Z:94:TRP:CZ2	6:Z:121:LEU:HD22	2.46	0.50
10:B:407:LEU:HG	11:C:178:LEU:HD11	1.93	0.50
17:I:6:ASP:O	17:I:20:GLN:NE2	2.35	0.50
21:M:75:MET:HA	21:M:136:MET:O	2.11	0.50
25:W:24:VAL:HA	25:W:27:ARG:HB2	1.92	0.50
25:W:166:LEU:O	25:W:189:GLN:NE2	2.40	0.50
25:W:211:THR:HA	25:W:214:PHE:CE1	2.46	0.50
3:f:570:GLY:HA2	3:f:599:ALA:HB1	1.93	0.50
3:f:879:ARG:HH21	3:f:895:GLU:HG2	1.76	0.50
7:a:321:LYS:HD2	7:a:336:VAL:HG11	1.92	0.50
9:A:174:TYR:HD2	9:A:232:ARG:HD3	1.76	0.50
9:A:398:ARG:NH2	10:B:199:GLU:OE1	2.44	0.50
12:D:187:HIS:HB3	12:D:190:LEU:HD13	1.93	0.50
21:M:46:VAL:HG22	21:M:215:TRP:HB3	1.92	0.50
25:W:177:MET:HE3	25:W:181:GLU:HG2	1.92	0.50
25:W:240:TYR:OH	25:W:353:ASP:OD2	2.25	0.50
26:g:129:ILE:HB	26:g:136:LEU:HD12	1.93	0.50
2:Y:205:VAL:HA	2:Y:219:PHE:HE2	1.77	0.50
3:f:103:TYR:O	3:f:107:LYS:N	2.37	0.50
7:a:305:ASN:OD1	25:W:377:ARG:NH2	2.44	0.50
9:A:97:ARG:HG2	9:A:139:ARG:HB3	1.93	0.50
11:C:253:SER:HB2	12:D:287:ARG:HG3	1.93	0.50
18:J:173:GLU:HA	19:K:58:LEU:HD21	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:135:LEU:HD22	1:H:146:LEU:HD11	1.92	0.50
3:f:782:HIS:HB3	3:f:787:LEU:HD22	1.92	0.50
4:X:78:ASN:ND2	4:X:120:GLU:OE2	2.44	0.50
5:U:19:LEU:HD13	24:d:124:LEU:HD11	1.92	0.50
9:A:248:LYS:HG3	10:B:259:TYR:HB3	1.94	0.50
11:C:369:TYR:CE2	11:C:385:MET:HG3	2.45	0.50
12:D:290:LEU:HA	12:D:293:LEU:HD12	1.93	0.50
3:f:829:MET:SD	3:f:829:MET:N	2.84	0.50
5:U:475:HIS:ND1	5:U:507:VAL:HG12	2.27	0.50
7:a:274:LEU:HD21	7:a:319:LEU:HD12	1.93	0.50
9:A:215:PHE:CE2	9:A:342:GLU:HG3	2.47	0.50
13:E:22:ILE:HD13	14:F:55:MET:HE3	1.93	0.50
14:F:69:MET:O	14:F:73:ILE:HG12	2.11	0.50
14:F:224:LEU:HD22	14:F:343:LEU:HD11	1.94	0.50
20:L:36:VAL:HG13	20:L:172:LEU:HD11	1.92	0.50
5:U:699:THR:HG22	5:U:814:PRO:HB3	1.94	0.50
8:b:27:GLN:HG2	14:F:53:LYS:HD2	1.92	0.50
11:C:119:ASP:OD1	11:C:120:SER:N	2.38	0.50
13:E:371:VAL:HA	13:E:374:VAL:HG12	1.94	0.50
5:U:40:GLU:CD	27:V:273:LYS:HZ1	2.19	0.50
8:b:31:ASP:O	8:b:35:ILE:HG12	2.12	0.50
11:C:48:GLN:HB3	12:D:65:GLN:NE2	2.27	0.50
12:D:376:ASN:O	12:D:380:GLN:HG2	2.11	0.50
17:I:89:GLU:OE2	17:I:117:ILE:HD13	2.12	0.50
3:f:330:PHE:HE2	3:f:827:PRO:HB3	1.77	0.49
5:U:176:MET:HE2	5:U:177:LEU:HD12	1.93	0.49
9:A:287:ASP:OD1	10:B:298:ASN:ND2	2.44	0.49
9:A:428:ARG:NH1	18:J:24:GLU:OE2	2.45	0.49
13:E:182:LEU:HD13	31:E:401:ADP:H5'1	1.94	0.49
14:F:369:HIS:CE1	14:F:397:LYS:HD2	2.47	0.49
19:K:179:SER:O	19:K:183:GLU:HG2	2.12	0.49
20:L:15:PRO:O	21:M:28:LYS:HD2	2.12	0.49
20:L:188:VAL:HG11	20:L:232:PHE:CD1	2.47	0.49
26:g:103:THR:HG21	26:g:115:LYS:HE3	1.94	0.49
5:U:634:PRO:O	5:U:638:SER:OG	2.15	0.49
9:A:78:TRP:CD1	10:B:138:PHE:HA	2.47	0.49
9:A:159:PRO:O	9:A:163:MET:HG3	2.12	0.49
10:B:169:PRO:HA	10:B:172:THR:HG22	1.94	0.49
10:B:180:PRO:O	10:B:241:ASN:ND2	2.39	0.49
11:C:127:LEU:CD2	11:C:128:PRO:HD2	2.41	0.49
13:E:370:ALA:O	13:E:384:LEU:HB2	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:W:83:LEU:O	25:W:87:ILE:HG12	2.12	0.49
28:c:56:LEU:HD23	28:c:73:PHE:CZ	2.47	0.49
1:H:128:ARG:HH12	16:G:126:THR:HG22	1.77	0.49
2:Y:155:ASP:OD1	2:Y:156:LEU:N	2.46	0.49
3:f:618:GLU:HA	10:B:85:MET:HE1	1.93	0.49
3:f:700:SER:HB2	3:f:779:CYS:SG	2.51	0.49
5:U:339:LEU:O	5:U:343:ILE:HG12	2.11	0.49
6:Z:195:VAL:HG12	6:Z:199:LYS:HD2	1.94	0.49
8:b:128:ALA:HA	8:b:131:LEU:HD12	1.93	0.49
12:D:391:ARG:HH12	12:D:397:LYS:HD2	1.76	0.49
17:I:45:LEU:HG	17:I:137:ILE:HD13	1.94	0.49
18:J:184:ASP:OD1	18:J:184:ASP:N	2.45	0.49
26:g:111:GLU:OE1	26:g:111:GLU:N	2.45	0.49
26:g:120:PHE:HB2	26:g:122:LEU:HD11	1.93	0.49
2:Y:105:MET:HG2	2:Y:127:THR:HG21	1.95	0.49
3:f:373:ALA:HB2	3:f:760:PHE:HD1	1.77	0.49
6:Z:169:GLU:HG2	28:c:152:LYS:HE2	1.94	0.49
8:b:147:GLU:CD	8:b:147:GLU:H	2.21	0.49
9:A:97:ARG:HA	9:A:139:ARG:HA	1.94	0.49
14:F:421:MET:HA	14:F:424:ILE:HD12	1.95	0.49
3:f:478:ARG:NH1	3:f:510:SER:OG	2.45	0.49
4:X:245:PRO:O	4:X:248:ILE:HG22	2.12	0.49
4:X:392:PRO:O	4:X:393:VAL:HB	2.10	0.49
5:U:187:LEU:HD22	12:D:45:LYS:HB3	1.94	0.49
6:Z:57:PRO:HG3	28:c:102:THR:HA	1.95	0.49
11:C:63:LEU:HD21	12:D:78:GLU:HB2	1.94	0.49
11:C:72:TYR:CE2	11:C:118:ASN:HA	2.47	0.49
13:E:331:ILE:HD12	13:E:367:PHE:HB3	1.93	0.49
17:I:17:ARG:NH1	17:I:22:GLU:OE1	2.45	0.49
1:H:112:GLN:HG2	1:H:155:TYR:CZ	2.48	0.49
5:U:187:LEU:HD21	12:D:46:LYS:NZ	2.28	0.49
8:b:157:VAL:HG21	8:b:170:LEU:HB2	1.95	0.49
30:B:502:ATP:O3G	11:C:307:ARG:NH1	2.43	0.49
12:D:338:ARG:O	12:D:339:ARG:HB2	2.13	0.49
16:G:37:LEU:HD22	16:G:53:GLN:HB3	1.94	0.49
25:W:263:TRP:HZ3	25:W:267:LEU:HD12	1.76	0.49
26:g:131:ILE:HG21	26:g:147:VAL:HG22	1.93	0.49
27:V:363:LEU:O	27:V:367:VAL:HG12	2.13	0.49
2:Y:282:MET:HE2	2:Y:288:PHE:CD1	2.47	0.49
3:f:137:ARG:O	3:f:141:LYS:HG2	2.13	0.49
3:f:659:LEU:HA	3:f:662:MET:HG2	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:177:TYR:CZ	4:X:185:LYS:HD3	2.48	0.49
4:X:316:ASP:HB3	4:X:319:ILE:HB	1.95	0.49
5:U:622:LEU:O	5:U:625:ILE:HG22	2.13	0.49
6:Z:16:LEU:HA	6:Z:19:VAL:HG12	1.94	0.49
7:a:180:LEU:HD22	7:a:221:VAL:HG21	1.94	0.49
8:b:107:MET:HE2	8:b:107:MET:N	2.28	0.49
11:C:100:ASP:HB2	11:C:124:HIS:HA	1.93	0.49
13:E:316:HIS:HE1	31:E:401:ADP:H1'	1.77	0.49
28:c:71:ASP:OD2	28:c:104:ARG:NH1	2.46	0.49
3:f:812:GLY:C	3:f:813:LYS:HD3	2.37	0.49
5:U:352:ILE:HD12	5:U:355:ASN:HD21	1.77	0.49
5:U:499:THR:O	5:U:503:GLN:HG2	2.12	0.49
8:b:4:GLU:HA	8:b:106:LYS:N	2.26	0.49
11:C:31:LEU:HD23	12:D:47:LEU:HB3	1.95	0.49
11:C:113:ARG:HH21	11:C:130:LYS:HA	1.76	0.49
1:H:56:LEU:HB3	16:G:165:ALA:O	2.13	0.49
4:X:67:GLY:O	4:X:71:LYS:HG2	2.11	0.49
7:a:231:GLN:O	7:a:234:ILE:HG22	2.13	0.49
8:b:150:THR:HB	8:b:153:LEU:HB2	1.95	0.49
8:b:161:ASN:O	8:b:161:ASN:ND2	2.44	0.49
10:B:365:PHE:HB3	10:B:380:LEU:HD13	1.95	0.49
24:d:187:TYR:O	24:d:190:GLN:HB3	2.13	0.49
27:V:391:THR:O	27:V:395:ILE:HG12	2.13	0.49
5:U:47:VAL:HA	5:U:50:GLU:HB2	1.95	0.49
10:B:411:ARG:NH2	10:B:418:ASP:OD2	2.43	0.49
13:E:365:GLU:O	13:E:369:LYS:NZ	2.46	0.49
25:W:213:PHE:O	25:W:216:GLU:HG3	2.12	0.49
27:V:168:GLN:HB3	27:V:191:LEU:HD12	1.95	0.49
3:f:498:LEU:O	3:f:502:LEU:HG	2.13	0.48
6:Z:79:TYR:OH	6:Z:90:ARG:HA	2.13	0.48
9:A:229:VAL:O	9:A:233:THR:OG1	2.21	0.48
10:B:290:ILE:HD11	10:B:312:LEU:HD22	1.95	0.48
11:C:303:SER:O	11:C:303:SER:OG	2.28	0.48
11:C:334:ARG:HG3	11:C:335:LYS:HG3	1.94	0.48
14:F:126:THR:HG1	14:F:128:THR:HG1	1.54	0.48
17:I:161:ALA:HB3	18:J:53:LEU:HD13	1.95	0.48
25:W:26:GLN:NE2	25:W:27:ARG:HG2	2.28	0.48
27:V:127:THR:O	27:V:131:LEU:HG	2.13	0.48
1:H:145:TYR:HB3	1:H:147:PHE:HE1	1.78	0.48
3:f:339:ILE:O	3:f:773:LYS:NZ	2.42	0.48
3:f:781:TYR:HB3	3:f:785:ARG:HA	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U:45:ILE:O	5:U:48:LEU:HB2	2.13	0.48
5:U:838:LYS:HA	5:U:841:LYS:HD3	1.94	0.48
6:Z:108:ILE:HD12	6:Z:108:ILE:H	1.78	0.48
7:a:38:THR:HA	7:a:41:VAL:HG12	1.95	0.48
10:B:251:VAL:HG22	11:C:278:ASN:ND2	2.28	0.48
13:E:232:MET:SD	13:E:235:ILE:HA	2.54	0.48
19:K:50:VAL:CG1	19:K:66:LYS:HE2	2.39	0.48
19:K:186:HIS:CE1	19:K:189:MET:HG2	2.48	0.48
1:H:130:PHE:O	1:H:151:PRO:HB3	2.12	0.48
2:Y:336:ARG:NH1	23:e:44:ASP:OD1	2.46	0.48
3:f:443:GLY:HA2	3:f:446:LEU:HG	1.96	0.48
3:f:609:VAL:HG13	3:f:657:ILE:HG23	1.95	0.48
5:U:615:ARG:O	5:U:619:VAL:HG23	2.13	0.48
6:Z:233:VAL:HG23	25:W:438:LEU:CD2	2.43	0.48
10:B:80:ARG:HH11	10:B:80:ARG:HG3	1.79	0.48
13:E:229:ILE:HD13	13:E:272:ARG:HH22	1.77	0.48
25:W:48:LEU:HD22	25:W:93:ARG:HH21	1.78	0.48
25:W:114:GLU:CD	25:W:114:GLU:H	2.21	0.48
27:V:337:LEU:HB3	27:V:398:LEU:HD13	1.95	0.48
27:V:493:ALA:C	27:V:495:ARG:H	2.21	0.48
1:H:45:VAL:HG22	1:H:212:ILE:HG22	1.94	0.48
3:f:207:LEU:O	3:f:211:ILE:HG12	2.13	0.48
5:U:475:HIS:CE1	5:U:511:ALA:HB2	2.48	0.48
6:Z:249:PHE:HE1	28:c:302:ALA:HB1	1.79	0.48
7:a:255:TRP:O	7:a:258:GLN:NE2	2.46	0.48
10:B:317:ASP:HB3	10:B:346:ARG:HG2	1.95	0.48
11:C:82:LYS:HA	11:C:105:ILE:HG21	1.94	0.48
13:E:223:ARG:HD2	13:E:271:HIS:CG	2.48	0.48
14:F:417:HIS:CE1	20:L:166:GLN:HG2	2.48	0.48
20:L:212:ILE:HD11	20:L:229:VAL:HG13	1.96	0.48
24:d:168:MET:HE2	24:d:168:MET:HA	1.95	0.48
5:U:153:ILE:O	5:U:157:THR:HG22	2.14	0.48
5:U:324:LYS:HZ1	5:U:328:ILE:HG23	1.79	0.48
5:U:693:LEU:HD12	5:U:736:ILE:HG21	1.95	0.48
5:U:807:LYS:HB2	5:U:808:PRO:HD3	1.96	0.48
9:A:172:VAL:HG21	9:A:227:ARG:HE	1.79	0.48
9:A:203:ASN:OD1	9:A:204:LEU:N	2.46	0.48
11:C:307:ARG:HH21	11:C:309:GLY:HA3	1.79	0.48
13:E:135:ILE:HD13	13:E:186:ALA:HB2	1.95	0.48
18:J:79:ASP:HB3	18:J:127:PHE:HD1	1.77	0.48
24:d:154:TRP:HZ2	24:d:158:ARG:HH21	1.61	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:V:417:ILE:HG12	27:V:422:ILE:HG13	1.95	0.48
1:H:93:LEU:HD13	1:H:113:ARG:HB3	1.94	0.48
3:f:67:ASP:HB3	3:f:70:LEU:HG	1.96	0.48
4:X:137:TYR:HB3	4:X:146:ALA:HB2	1.94	0.48
4:X:153:LEU:HD21	4:X:157:LEU:HD12	1.95	0.48
5:U:203:LYS:O	5:U:207:ASN:ND2	2.47	0.48
8:b:15:TYR:C	8:b:16:MET:HE2	2.38	0.48
16:G:29:PHE:HE1	16:G:157:ALA:HB2	1.77	0.48
19:K:195:ILE:HG23	19:K:217:LEU:HD21	1.95	0.48
26:g:152:LYS:H	26:g:152:LYS:HE2	1.79	0.48
2:Y:282:MET:HE2	2:Y:288:PHE:CG	2.48	0.48
4:X:256:LEU:HA	4:X:259:ILE:HD12	1.96	0.48
5:U:200:VAL:O	5:U:204:ILE:HG12	2.13	0.48
8:b:9:CYS:O	8:b:112:PHE:N	2.45	0.48
8:b:180:ALA:HB1	8:b:183:LEU:HB2	1.96	0.48
12:D:231:VAL:HG13	12:D:233:SER:H	1.79	0.48
23:e:21:GLU:HB2	27:V:256:ARG:CZ	2.44	0.48
24:d:140:GLN:O	24:d:143:LEU:HD12	2.13	0.48
27:V:333:ILE:O	27:V:337:LEU:HD23	2.14	0.48
3:f:71:TYR:OH	3:f:109:ILE:HD11	2.14	0.48
4:X:171:LEU:HD13	4:X:210:LEU:HD22	1.96	0.48
5:U:241:ASN:O	5:U:243:LEU:N	2.42	0.48
5:U:681:ASN:ND2	5:U:723:ASP:OD2	2.47	0.48
5:U:786:THR:O	5:U:786:THR:OG1	2.30	0.48
9:A:333:ARG:NE	30:F:501:ATP:O1G	2.46	0.48
9:A:371:GLU:OE2	19:K:204:GLN:NE2	2.44	0.48
11:C:251:ILE:HG12	11:C:293:MET:HE3	1.95	0.48
20:L:33:SER:O	20:L:62:LYS:NZ	2.47	0.48
27:V:224:LEU:O	27:V:257:ASN:ND2	2.38	0.48
3:f:801:VAL:HA	3:f:804:LEU:HD12	1.96	0.48
4:X:240:ASP:OD1	4:X:279:TYR:OH	2.28	0.48
7:a:72:ASN:OD1	8:b:17:ARG:NH2	2.45	0.48
10:B:64:LYS:O	10:B:68:ILE:HG13	2.13	0.48
23:e:42:ASN:N	23:e:45:ASP:OD2	2.46	0.48
25:W:73:MET:HA	25:W:73:MET:HE3	1.95	0.48
9:A:308:GLY:HA2	14:F:234:THR:HG21	1.96	0.48
13:E:265:ASP:O	13:E:294:ARG:NE	2.46	0.48
20:L:47:VAL:HG12	20:L:212:ILE:HG12	1.95	0.48
24:d:191:LEU:HA	24:d:194:LEU:HD12	1.96	0.48
27:V:175:MET:HE3	27:V:178:SER:HB2	1.95	0.48
1:H:39:LYS:HE3	1:H:144:PRO:HG2	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:f:663:GLY:HA2	3:f:781:TYR:OH	2.13	0.47
4:X:112:GLU:HA	4:X:115:GLU:HG2	1.95	0.47
5:U:415:HIS:CD2	5:U:418:GLU:HB3	2.49	0.47
16:G:13:ILE:HD13	16:G:126:THR:HA	1.95	0.47
21:M:69:VAL:HG11	21:M:111:LEU:HD21	1.95	0.47
27:V:215:ALA:HB3	27:V:253:LEU:HD22	1.96	0.47
1:H:65:VAL:HG12	1:H:218:PHE:HZ	1.79	0.47
2:Y:52:PRO:HD2	2:Y:114:ILE:O	2.14	0.47
3:f:297:MET:N	3:f:297:MET:SD	2.87	0.47
3:f:421:ASP:OD1	3:f:421:ASP:N	2.46	0.47
3:f:828:ARG:NH2	3:f:879:ARG:HH22	2.11	0.47
5:U:366:HIS:O	5:U:369:THR:OG1	2.23	0.47
7:a:76:LEU:O	7:a:80:ILE:HG23	2.13	0.47
7:a:289:ARG:HG3	7:a:333:MET:HB3	1.96	0.47
9:A:258:ARG:HH21	14:F:255:GLN:HA	1.77	0.47
10:B:415:THR:OG1	10:B:418:ASP:OD2	2.32	0.47
13:E:198:VAL:HA	13:E:203:ILE:HD12	1.96	0.47
19:K:44:GLU:OE1	19:K:190:THR:OG1	2.31	0.47
19:K:121:LEU:HD23	19:K:160:GLY:HA3	1.96	0.47
24:d:145:ARG:HH22	24:d:184:GLU:HA	1.79	0.47
27:V:296:LYS:HB2	27:V:305:ALA:HB2	1.96	0.47
27:V:495:ARG:HA	27:V:495:ARG:NE	2.29	0.47
2:Y:304:TYR:OH	2:Y:333:GLU:OE1	2.26	0.47
3:f:264:GLU:O	3:f:268:LEU:HG	2.15	0.47
3:f:513:GLU:HB2	3:f:554:TYR:CE1	2.49	0.47
3:f:699:VAL:HG21	3:f:796:LEU:CD2	2.44	0.47
5:U:489:ALA:HA	5:U:520:MET:HE1	1.96	0.47
6:Z:252:LYS:HG3	25:W:425:LEU:HD12	1.97	0.47
7:a:312:MET:HE3	7:a:312:MET:HB2	1.64	0.47
8:b:73:SER:HA	14:F:61:ARG:CZ	2.44	0.47
12:D:284:GLU:OE1	12:D:287:ARG:NH1	2.46	0.47
24:d:344:ARG:O	24:d:348:MET:HG2	2.14	0.47
27:V:67:LEU:O	27:V:70:VAL:HG22	2.14	0.47
27:V:404:LYS:HD3	27:V:446:VAL:HG21	1.96	0.47
3:f:196:MET:HA	3:f:196:MET:HE3	1.97	0.47
3:f:446:LEU:HD21	3:f:480:GLY:HA2	1.96	0.47
5:U:27:LEU:O	5:U:31:VAL:HG23	2.14	0.47
7:a:68:GLU:HB2	7:a:71:VAL:HG23	1.96	0.47
7:a:373:ASP:OD1	24:d:344:ARG:NH1	2.47	0.47
9:A:297:ARG:NH2	14:F:306:VAL:HG21	2.30	0.47
9:A:399:ALA:O	9:A:401:ARG:N	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:106:PRO:HG3	11:C:121:TYR:CD1	2.49	0.47
12:D:113:VAL:HB	12:D:138:ALA:HA	1.97	0.47
27:V:214:HIS:O	27:V:217:VAL:HG22	2.14	0.47
2:Y:290:PRO:HG2	2:Y:291:HIS:CE1	2.49	0.47
3:f:851:ASP:N	3:f:851:ASP:OD1	2.45	0.47
4:X:126:ARG:O	4:X:130:GLU:HG2	2.13	0.47
5:U:352:ILE:HA	5:U:355:ASN:HD21	1.79	0.47
5:U:450:HIS:CE1	5:U:457:ILE:HG12	2.50	0.47
6:Z:40:LEU:HD11	6:Z:54:PHE:CD2	2.50	0.47
6:Z:204:LYS:HD2	25:W:443:THR:HG21	1.95	0.47
10:B:426:VAL:O	10:B:429:LYS:HD3	2.14	0.47
11:C:220:VAL:HG21	12:D:287:ARG:HD3	1.96	0.47
13:E:223:ARG:HG3	13:E:224:ASP:N	2.30	0.47
13:E:373:LYS:HB2	13:E:384:LEU:HA	1.95	0.47
14:F:436:GLN:HA	20:L:53:GLN:NE2	2.29	0.47
27:V:236:ARG:O	27:V:240:LEU:HG	2.14	0.47
3:f:301:HIS:CD2	3:f:787:LEU:HD21	2.50	0.47
3:f:846:VAL:HB	3:f:868:HIS:NE2	2.30	0.47
6:Z:252:LYS:HE2	28:c:238:CYS:SG	2.54	0.47
7:a:117:ALA:O	7:a:121:LEU:HD12	2.15	0.47
9:A:99:THR:N	9:A:112:ILE:O	2.48	0.47
9:A:258:ARG:NH2	14:F:255:GLN:HA	2.30	0.47
14:F:52:ILE:O	14:F:56:LYS:HG2	2.14	0.47
24:d:251:ILE:HG21	24:d:260:ILE:HG13	1.97	0.47
27:V:86:VAL:HG21	27:V:160:LEU:HD13	1.96	0.47
1:H:75:VAL:HG22	1:H:76:TYR:H	1.79	0.47
5:U:383:ASP:HB2	5:U:386:LEU:HB2	1.96	0.47
5:U:465:LEU:HD22	5:U:496:LEU:HD21	1.97	0.47
5:U:490:ARG:HD2	5:U:493:VAL:HG23	1.97	0.47
6:Z:195:VAL:HG21	7:a:375:LEU:HD11	1.96	0.47
6:Z:225:GLN:CD	6:Z:226:ILE:HG13	2.40	0.47
11:C:63:LEU:HD12	11:C:63:LEU:HA	1.78	0.47
11:C:280:LEU:HD11	11:C:310:ARG:HB3	1.96	0.47
12:D:384:MET:HE3	13:E:164:ILE:HG21	1.96	0.47
14:F:89:LEU:HD21	14:F:126:THR:HB	1.96	0.47
14:F:184:GLN:OE1	14:F:243:GLN:NE2	2.47	0.47
18:J:170:GLU:HA	18:J:173:GLU:OE2	2.13	0.47
19:K:13:ASN:ND2	20:L:124:GLY:O	2.47	0.47
19:K:51:GLU:HA	19:K:215:ILE:HG22	1.97	0.47
19:K:182:GLN:NE2	20:L:55:GLU:OE1	2.48	0.47
21:M:159:GLY:C	21:M:160:TYR:HD1	2.23	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:M:229:LYS:HE3	21:M:229:LYS:HB3	1.66	0.47
24:d:256:TYR:O	24:d:260:ILE:HG12	2.13	0.47
27:V:68:ASP:O	27:V:71:THR:OG1	2.24	0.47
28:c:164:ASN:HB2	28:c:167:MET:SD	2.54	0.47
1:H:49:GLU:HG3	1:H:199:PHE:CD1	2.50	0.47
3:f:301:HIS:ND1	3:f:301:HIS:O	2.48	0.47
3:f:564:LEU:HD12	3:f:564:LEU:HA	1.80	0.47
6:Z:113:LYS:HA	6:Z:116:CYS:O	2.15	0.47
9:A:195:LEU:HD21	9:A:269:ALA:HB1	1.97	0.47
12:D:101:ALA:HB2	12:D:115:ILE:HD11	1.97	0.47
3:f:369:ARG:HG2	3:f:760:PHE:HB2	1.97	0.47
11:C:148:TYR:H	11:C:206:HIS:HE1	1.62	0.47
11:C:256:SER:HA	11:C:301:LEU:HA	1.97	0.47
13:E:155:ASN:ND2	13:E:157:GLU:OE2	2.48	0.47
14:F:198:LEU:HD11	14:F:329:ILE:HD13	1.96	0.47
14:F:240:CYS:O	14:F:244:THR:OG1	2.21	0.47
14:F:404:GLY:HA2	14:F:415:LEU:HD11	1.96	0.47
16:G:143:ILE:HG12	16:G:220:VAL:HG22	1.97	0.47
20:L:50:LYS:HB3	20:L:59:HIS:HB3	1.95	0.47
23:e:21:GLU:OE1	23:e:21:GLU:N	2.41	0.47
24:d:339:VAL:HG13	28:c:296:ILE:HG23	1.97	0.47
27:V:82:LEU:HD11	27:V:166:TYR:HD2	1.80	0.47
3:f:213:GLN:HE22	3:f:216:MET:HG2	1.79	0.47
6:Z:126:VAL:HA	28:c:216:MET:HE1	1.97	0.47
7:a:15:GLY:HA3	7:a:21:VAL:HG21	1.97	0.47
7:a:249:GLN:O	7:a:253:THR:HG22	2.15	0.47
3:f:105:LYS:HG3	3:f:106:LEU:N	2.30	0.46
3:f:138:GLU:HG3	3:f:141:LYS:HE3	1.98	0.46
4:X:257:CYS:O	4:X:261:LEU:HD12	2.14	0.46
5:U:13:ASP:OD2	24:d:166:ARG:NH2	2.48	0.46
6:Z:96:HIS:CE1	6:Z:123:ILE:HG12	2.50	0.46
7:a:248:PHE:O	7:a:252:LYS:HG2	2.15	0.46
8:b:44:ASN:HB3	8:b:47:ASN:ND2	2.30	0.46
10:B:431:GLN:HG2	10:B:432:GLU:H	1.79	0.46
12:D:273:LYS:HD2	12:D:274:ARG:H	1.80	0.46
25:W:105:VAL:HG23	25:W:128:LEU:HD22	1.97	0.46
28:c:85:GLU:H	28:c:85:GLU:CD	2.23	0.46
2:Y:174:TRP:CD1	11:C:337:ASN:HB3	2.50	0.46
9:A:158:ASP:O	9:A:162:THR:HG23	2.15	0.46
9:A:180:CYS:O	9:A:184:ILE:HG13	2.16	0.46
16:G:202:LEU:HB3	16:G:210:PHE:CE2	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:24:VAL:O	19:K:28:ILE:HD12	2.15	0.46
24:d:116:LEU:O	24:d:120:LYS:HG3	2.15	0.46
27:V:268:GLU:O	27:V:272:SER:OG	2.31	0.46
28:c:244:VAL:HG13	28:c:287:HIS:HD2	1.81	0.46
3:f:564:LEU:HA	3:f:567:LEU:HD21	1.97	0.46
5:U:205:TYR:HA	5:U:208:LEU:HD12	1.98	0.46
6:Z:255:ASP:OD1	27:V:467:TYR:OH	2.33	0.46
6:Z:278:ASN:ND2	27:V:494:MET:O	2.48	0.46
7:a:61:GLU:O	7:a:65:SER:N	2.48	0.46
7:a:325:ASP:OD1	7:a:326:GLU:N	2.48	0.46
11:C:257:SER:N	11:C:300:ILE:O	2.45	0.46
13:E:180:LYS:HE3	13:E:301:ILE:HG21	1.96	0.46
13:E:255:ARG:HA	13:E:258:MET:HG3	1.97	0.46
27:V:337:LEU:HD12	27:V:367:VAL:HG11	1.97	0.46
2:Y:58:CYS:HA	2:Y:63:TRP:HB2	1.97	0.46
2:Y:259:TYR:HB2	2:Y:274:SER:HB2	1.97	0.46
3:f:59:LEU:HD12	3:f:74:ALA:HA	1.97	0.46
3:f:391:LEU:HB2	3:f:398:TRP:CZ3	2.51	0.46
3:f:840:LEU:HD23	3:f:900:LEU:HD13	1.98	0.46
9:A:212:VAL:HG22	9:A:339:ARG:HB3	1.97	0.46
10:B:250:VAL:HG11	10:B:255:LEU:HD23	1.96	0.46
10:B:390:LEU:HD12	10:B:395:ILE:HG13	1.98	0.46
11:C:222:LYS:HG3	11:C:223:PHE:CE1	2.51	0.46
13:E:331:ILE:HD11	13:E:387:LYS:HZ1	1.81	0.46
27:V:207:ALA:HA	27:V:210:CYS:SG	2.55	0.46
28:c:251:LEU:HB3	28:c:284:LEU:HG	1.96	0.46
3:f:504:VAL:HB	3:f:518:THR:HG21	1.96	0.46
3:f:695:ALA:HB2	3:f:728:ALA:HA	1.97	0.46
5:U:54:PHE:HB3	5:U:57:ARG:HG2	1.96	0.46
5:U:579:ARG:NH1	5:U:609:ASP:OD1	2.49	0.46
6:Z:106:ILE:HG22	6:Z:155:PHE:HE1	1.81	0.46
6:Z:232:ASP:OD1	6:Z:235:ASN:ND2	2.49	0.46
8:b:26:LEU:HD21	8:b:80:PRO:HD3	1.97	0.46
9:A:186:LYS:HE3	9:A:341:ILE:HG12	1.98	0.46
9:A:292:ASP:O	9:A:294:GLU:N	2.47	0.46
11:C:24:TYR:HB3	12:D:40:LEU:HD12	1.97	0.46
13:E:273:VAL:O	13:E:273:VAL:HG12	2.16	0.46
17:I:72:MET:SD	17:I:107:CYS:HA	2.56	0.46
17:I:229:LYS:N	17:I:232:GLU:OE2	2.48	0.46
27:V:337:LEU:HB3	27:V:398:LEU:CD1	2.45	0.46
28:c:163:ILE:HG23	28:c:201:TYR:HD2	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:82:ASP:HB3	1:H:130:PHE:HD1	1.80	0.46
7:a:54:ASP:O	7:a:57:ILE:HG22	2.14	0.46
7:a:174:LYS:O	7:a:178:ARG:HG3	2.16	0.46
9:A:251:GLY:H	9:A:294:GLU:CD	2.23	0.46
11:C:266:ASP:O	11:C:268:GLU:N	2.49	0.46
12:D:120:ASP:OD1	12:D:123:LEU:N	2.47	0.46
16:G:32:ILE:HD12	16:G:137:CYS:HB2	1.97	0.46
16:G:174:GLU:OE1	16:G:174:GLU:N	2.47	0.46
3:f:496:ASP:N	3:f:496:ASP:OD1	2.48	0.46
4:X:87:ARG:HH21	4:X:91:SER:N	2.13	0.46
5:U:805:ASN:N	5:U:891:VAL:O	2.48	0.46
6:Z:275:LEU:HD22	27:V:490:SER:HA	1.97	0.46
7:a:251:LEU:HB3	7:a:255:TRP:CH2	2.51	0.46
9:A:122:VAL:HB	14:F:88:TYR:HB2	1.97	0.46
11:C:33:LEU:HD11	27:V:201:ARG:HG2	1.97	0.46
11:C:301:LEU:HD12	11:C:305:LEU:HD11	1.97	0.46
16:G:203:SER:O	16:G:207:SER:N	2.46	0.46
18:J:44:GLY:HA2	18:J:208:LEU:HA	1.98	0.46
23:e:50:ASP:N	23:e:50:ASP:OD1	2.45	0.46
25:W:55:ARG:HD2	25:W:94:ARG:O	2.16	0.46
3:f:527:VAL:HB	3:f:790:GLN:HB3	1.96	0.46
3:f:666:ILE:HG12	10:B:50:PRO:HB2	1.96	0.46
5:U:541:HIS:O	5:U:544:ILE:N	2.47	0.46
9:A:352:THR:HG22	9:A:371:GLU:HA	1.97	0.46
12:D:103:VAL:HG21	12:D:132:LEU:HD21	1.97	0.46
13:E:174:GLY:O	13:E:280:ASN:HA	2.16	0.46
13:E:354:ALA:HA	13:E:388:PRO:HG3	1.98	0.46
14:F:80:ILE:O	14:F:84:LYS:HG2	2.15	0.46
19:K:235:GLU:OE1	19:K:235:GLU:N	2.42	0.46
25:W:72:LYS:O	25:W:76:GLU:HG2	2.16	0.46
25:W:90:LEU:HA	25:W:93:ARG:HG2	1.97	0.46
25:W:213:PHE:O	25:W:213:PHE:HD2	1.98	0.46
26:g:85:ILE:HG13	26:g:151:VAL:O	2.16	0.46
3:f:239:TYR:HD1	10:B:67:ARG:HG3	1.81	0.46
5:U:366:HIS:CE1	5:U:367:THR:HG23	2.51	0.46
5:U:889:LEU:HD12	5:U:908:ILE:HA	1.98	0.46
6:Z:279:LYS:HA	6:Z:282:ASN:HD21	1.80	0.46
7:a:8:LEU:HA	7:a:22:TRP:HZ3	1.80	0.46
8:b:157:VAL:HG11	8:b:170:LEU:HB2	1.98	0.46
10:B:141:LYS:HA	10:B:144:LEU:HD23	1.98	0.46
24:d:180:GLU:CD	24:d:180:GLU:H	2.24	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:V:216:ARG:O	27:V:219:GLU:HB2	2.16	0.46
27:V:236:ARG:HD3	27:V:240:LEU:HD21	1.97	0.46
2:Y:127:THR:O	2:Y:131:THR:OG1	2.27	0.46
2:Y:183:TYR:CE1	2:Y:213:LEU:HD21	2.51	0.46
3:f:149:GLU:HG3	3:f:150:GLU:HG2	1.97	0.46
9:A:135:GLU:H	9:A:138:MET:HE3	1.81	0.46
11:C:213:ARG:HD2	12:D:299:PHE:CD2	2.51	0.46
13:E:121:ASN:HB3	14:F:311:LEU:HD13	1.97	0.46
13:E:271:HIS:ND1	13:E:271:HIS:O	2.49	0.46
13:E:384:LEU:HD12	13:E:387:LYS:HZ3	1.80	0.46
13:E:384:LEU:HD23	13:E:385:ASP:H	1.80	0.46
14:F:202:ILE:HD13	14:F:327:LYS:HB3	1.97	0.46
19:K:67:ILE:HG12	19:K:216:GLU:OE2	2.16	0.46
20:L:185:ASN:O	20:L:188:VAL:HG12	2.16	0.46
21:M:72:HIS:NE2	21:M:105:ASN:HB3	2.31	0.46
25:W:67:LEU:HD22	25:W:90:LEU:HD13	1.97	0.46
26:g:112:LEU:O	26:g:115:LYS:HG2	2.15	0.46
4:X:414:LEU:HD11	6:Z:273:HIS:HB2	1.97	0.45
5:U:99:THR:O	5:U:103:LYS:HG2	2.16	0.45
5:U:145:HIS:NE2	5:U:149:GLN:OE1	2.43	0.45
5:U:612:ASP:HB3	5:U:647:HIS:CG	2.51	0.45
6:Z:34:ARG:HE	6:Z:96:HIS:CG	2.33	0.45
6:Z:100:LYS:HA	25:W:451:MET:SD	2.56	0.45
6:Z:230:LEU:O	6:Z:233:VAL:HB	2.15	0.45
8:b:122:LYS:HA	8:b:125:VAL:HG22	1.97	0.45
10:B:289:ALA:HB2	11:C:274:LEU:HD12	1.98	0.45
10:B:380:LEU:O	10:B:384:ILE:HG13	2.15	0.45
13:E:281:ARG:HB3	13:E:283:ASP:OD1	2.16	0.45
14:F:225:MET:HB3	14:F:354:PHE:CE1	2.51	0.45
17:I:12:PHE:N	18:J:18:GLN:OE1	2.49	0.45
19:K:24:VAL:HG11	19:K:159:SER:HB3	1.98	0.45
24:d:283:LEU:HD13	24:d:315:TYR:HE1	1.81	0.45
26:g:110:ARG:O	26:g:113:ARG:HG2	2.16	0.45
27:V:372:LEU:HD23	27:V:372:LEU:H	1.80	0.45
3:f:93:PRO:HD3	9:A:36:TYR:CD2	2.51	0.45
3:f:237:VAL:HB	3:f:248:LEU:HD22	1.99	0.45
3:f:735:GLY:HA3	3:f:776:LEU:O	2.15	0.45
5:U:202:VAL:HB	5:U:216:VAL:HG23	1.98	0.45
8:b:51:LEU:C	8:b:52:ILE:HD13	2.41	0.45
10:B:289:ALA:O	11:C:271:ARG:NH1	2.48	0.45
13:E:368:MET:HE2	13:E:368:MET:HA	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:344:ARG:HB3	14:F:345:SER:H	1.58	0.45
17:I:195:LYS:O	17:I:199:LYS:HG2	2.16	0.45
25:W:112:VAL:HG22	25:W:124:LEU:HG	1.98	0.45
25:W:187:LEU:HD23	25:W:225:LYS:HD3	1.99	0.45
25:W:231:ILE:O	25:W:235:GLN:HB2	2.16	0.45
27:V:82:LEU:HD11	27:V:166:TYR:CD2	2.50	0.45
3:f:442:SER:H	3:f:477:MET:HE1	1.81	0.45
6:Z:78:MET:CE	28:c:98:MET:HE2	2.35	0.45
7:a:34:TRP:H	8:b:18:ASN:HB3	1.82	0.45
8:b:111:ALA:HB3	8:b:140:ILE:HD13	1.98	0.45
8:b:134:GLU:HG3	8:b:136:VAL:HG23	1.98	0.45
10:B:217:LYS:HE2	10:B:217:LYS:HA	1.99	0.45
13:E:374:VAL:O	13:E:374:VAL:HG22	2.17	0.45
16:G:72:ILE:HA	16:G:95:ARG:HG2	1.98	0.45
16:G:101:TRP:CH2	16:G:113:MET:HG3	2.51	0.45
19:K:212:ALA:HB2	19:K:235:GLU:HG3	1.98	0.45
21:M:74:GLY:HA3	21:M:224:HIS:CD2	2.51	0.45
22:O:75:ARG:HB2	22:O:78:THR:HG23	1.97	0.45
24:d:117:GLY:HA2	24:d:120:LYS:HE3	1.98	0.45
25:W:27:ARG:O	25:W:30:GLU:HG2	2.15	0.45
2:Y:13:LYS:HA	2:Y:212:GLU:HB2	1.96	0.45
3:f:45:LEU:HD23	3:f:49:ASP:HB3	1.99	0.45
3:f:316:ASP:O	3:f:319:GLU:HG3	2.17	0.45
3:f:882:LEU:HD11	3:f:900:LEU:HD23	1.97	0.45
5:U:341:PHE:CZ	5:U:787:CYS:HB3	2.51	0.45
6:Z:13:PRO:HD3	6:Z:163:GLY:O	2.16	0.45
7:a:176:ALA:HB3	7:a:200:LEU:HD13	1.99	0.45
7:a:191:SER:O	7:a:194:GLN:HG3	2.16	0.45
7:a:364:GLU:HG2	7:a:368:GLU:OE1	2.16	0.45
11:C:23:TYR:CE2	11:C:27:LYS:HD3	2.52	0.45
11:C:326:LEU:HD11	11:C:345:ARG:HG2	1.99	0.45
13:E:312:ILE:HB	13:E:343:LEU:HD12	1.98	0.45
14:F:285:ILE:HG21	14:F:288:LEU:HD13	1.97	0.45
19:K:37:ALA:HB3	19:K:170:ILE:HG12	1.96	0.45
19:K:67:ILE:HB	19:K:229:PHE:HE1	1.82	0.45
24:d:348:MET:HE2	24:d:348:MET:HA	1.99	0.45
25:W:375:MET:HE2	25:W:411:GLY:HA2	1.98	0.45
28:c:134:GLU:HA	28:c:137:SER:O	2.17	0.45
2:Y:15:PRO:HG3	2:Y:147:ILE:HD13	1.99	0.45
3:f:688:ARG:HG2	3:f:720:GLU:HB3	1.99	0.45
5:U:737:LEU:HD23	5:U:737:LEU:HA	1.83	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:68:ASN:HD21	18:J:101:PRO:HB2	1.80	0.45
27:V:313:LEU:HD21	27:V:329:HIS:CE1	2.52	0.45
2:Y:51:ALA:HB3	2:Y:52:PRO:HD3	1.98	0.45
2:Y:314:LEU:HA	4:X:380:GLN:HB3	1.97	0.45
2:Y:376:LEU:HD13	4:X:408:SER:HA	1.99	0.45
3:f:320:ILE:HD11	3:f:837:LEU:HD11	1.97	0.45
3:f:485:LEU:HD23	3:f:501:LEU:HD21	1.99	0.45
4:X:60:THR:HB	4:X:62:GLN:HE22	1.82	0.45
4:X:70:LEU:HB3	4:X:71:LYS:NZ	2.31	0.45
5:U:561:GLU:HA	5:U:564:ASP:OD1	2.16	0.45
6:Z:165:GLU:OE2	6:Z:166:GLU:N	2.49	0.45
10:B:394:ASP:O	10:B:398:ILE:HG12	2.17	0.45
10:B:407:LEU:HD23	10:B:407:LEU:HA	1.82	0.45
12:D:178:ARG:HG2	12:D:182:GLU:OE1	2.16	0.45
12:D:316:THR:HG23	12:D:317:LEU:HD12	1.98	0.45
22:O:81:ARG:O	22:O:85:GLN:HG3	2.16	0.45
25:W:17:GLU:HG2	25:W:58:SER:HB2	1.99	0.45
3:f:776:LEU:HD13	3:f:825:MET:SD	2.56	0.45
5:U:24:LEU:HD11	5:U:48:LEU:HD13	1.97	0.45
5:U:213:PHE:HA	5:U:216:VAL:HG12	1.97	0.45
5:U:354:LYS:HA	5:U:357:LYS:HG2	1.98	0.45
5:U:422:LEU:HG	5:U:426:TYR:CE2	2.51	0.45
5:U:748:LEU:HD23	5:U:760:VAL:HB	1.99	0.45
6:Z:226:ILE:HD13	25:W:445:LEU:HD11	1.99	0.45
7:a:311:VAL:HG21	7:a:331:VAL:HG11	1.98	0.45
8:b:79:GLN:OE1	8:b:79:GLN:HA	2.16	0.45
8:b:95:LEU:O	8:b:98:LYS:HG2	2.17	0.45
9:A:333:ARG:HH21	9:A:336:ARG:CZ	2.30	0.45
10:B:80:ARG:HG3	10:B:80:ARG:NH1	2.32	0.45
10:B:299:SER:O	10:B:302:GLU:N	2.49	0.45
11:C:36:ASN:ND2	27:V:89:LYS:HB3	2.31	0.45
11:C:233:GLU:O	11:C:236:VAL:HG12	2.16	0.45
13:E:149:ILE:O	13:E:153:LEU:HG	2.16	0.45
13:E:305:ASN:OD1	13:E:306:GLU:N	2.49	0.45
21:M:70:ASP:OD1	21:M:99:ARG:NH2	2.50	0.45
21:M:117:MET:HE3	21:M:117:MET:HB3	1.70	0.45
27:V:213:TYR:O	27:V:217:VAL:HG13	2.17	0.45
27:V:279:GLN:CD	27:V:279:GLN:H	2.24	0.45
28:c:161:ARG:HB3	28:c:201:TYR:CE2	2.52	0.45
2:Y:168:ILE:HD12	2:Y:180:LEU:HD22	1.97	0.45
3:f:189:LYS:NZ	3:f:216:MET:HE1	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U:352:ILE:HA	5:U:355:ASN:ND2	2.32	0.45
7:a:281:THR:HG23	7:a:335:TRP:CH2	2.51	0.45
8:b:29:GLN:HB2	8:b:112:PHE:CD2	2.52	0.45
10:B:140:ASP:OD2	10:B:140:ASP:N	2.49	0.45
14:F:77:SER:O	14:F:81:LYS:HG2	2.17	0.45
19:K:85:ALA:HB2	19:K:139:VAL:HG21	1.99	0.45
1:H:58:ASP:HB3	1:H:61:SER:HB3	1.98	0.45
2:Y:346:LYS:NZ	27:V:414:TYR:O	2.50	0.45
3:f:375:SER:HA	3:f:398:TRP:CZ2	2.51	0.45
5:U:89:ASN:HD21	5:U:100:ILE:HG21	1.82	0.45
5:U:159:ARG:HB3	5:U:162:VAL:HG12	1.99	0.45
5:U:479:LEU:HD23	5:U:479:LEU:HA	1.81	0.45
7:a:156:TYR:HB3	7:a:179:PHE:HB2	1.98	0.45
7:a:188:LEU:HD11	7:a:193:GLN:HG3	1.99	0.45
7:a:189:PRO:HG2	7:a:192:GLU:HB2	1.98	0.45
8:b:41:THR:HB	8:b:42:ARG:HH11	1.80	0.45
13:E:311:ASP:O	13:E:315:ILE:HG22	2.17	0.45
21:M:76:ALA:HB3	21:M:136:MET:HB2	1.99	0.45
27:V:175:MET:HE2	27:V:180:ARG:HB2	1.99	0.45
1:H:21:GLN:OE1	16:G:16:PHE:N	2.43	0.45
1:H:118:MET:HE2	1:H:151:PRO:HA	1.99	0.45
1:H:174:LEU:C	1:H:176:LYS:H	2.25	0.45
3:f:120:ARG:HB3	3:f:147:SER:HB2	1.97	0.45
3:f:126:ILE:HG13	3:f:142:TYR:CD2	2.51	0.45
3:f:160:ARG:NH1	3:f:203:GLU:OE2	2.50	0.45
3:f:479:LEU:HD21	3:f:816:TYR:CZ	2.51	0.45
4:X:239:TYR:HB3	4:X:247:ALA:HB2	1.98	0.45
5:U:377:HIS:HB2	5:U:411:ILE:HG12	1.99	0.45
8:b:155:ALA:O	8:b:159:THR:HG22	2.16	0.45
10:B:78:PHE:HA	10:B:81:ASN:ND2	2.32	0.45
10:B:183:THR:OG1	10:B:184:TYR:N	2.50	0.45
13:E:214:LEU:HD22	13:E:217:GLU:OE2	2.16	0.45
14:F:275:ALA:HB2	14:F:283:ILE:HD11	1.99	0.45
14:F:378:ASP:OD1	20:L:174:ARG:NH2	2.45	0.45
17:I:174:MET:HE3	17:I:174:MET:HB2	1.71	0.45
17:I:198:ASN:HA	17:I:206:LEU:HD13	1.99	0.45
21:M:71:ARG:H	21:M:71:ARG:HG2	1.57	0.45
2:Y:22:LEU:HD22	2:Y:37:VAL:HG13	1.97	0.44
2:Y:382:LYS:HE3	2:Y:382:LYS:HB3	1.77	0.44
3:f:70:LEU:C	3:f:73:PRO:HD2	2.43	0.44
3:f:528:GLY:HA3	3:f:790:GLN:NE2	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:X:229:TYR:HB2	4:X:257:CYS:HB3	1.99	0.44
4:X:282:ARG:O	4:X:285:GLU:HG2	2.16	0.44
5:U:580:ARG:HD3	5:U:613:ASP:HB3	1.98	0.44
9:A:103:ASN:N	9:A:109:PRO:O	2.50	0.44
12:D:410:ASP:O	12:D:413:GLU:HG2	2.17	0.44
16:G:71:LYS:O	16:G:95:ARG:NH1	2.46	0.44
17:I:35:LEU:HD11	17:I:175:LEU:HD11	1.99	0.44
28:c:164:ASN:H	28:c:167:MET:HE1	1.81	0.44
1:H:69:THR:OG1	1:H:71:HIS:ND1	2.47	0.44
2:Y:237:ARG:HA	2:Y:241:ILE:HB	1.98	0.44
2:Y:319:MET:SD	2:Y:334:LEU:HD11	2.57	0.44
3:f:133:MET:HE2	3:f:133:MET:HA	1.99	0.44
3:f:141:LYS:O	3:f:145:VAL:HG22	2.18	0.44
3:f:266:LEU:HD13	3:f:294:MET:HB2	1.98	0.44
3:f:293:GLN:O	3:f:297:MET:HE2	2.17	0.44
3:f:460:ASP:HB2	26:g:133:LYS:HD2	1.99	0.44
10:B:258:LYS:CE	11:C:223:PHE:HB3	2.47	0.44
12:D:212:LYS:NZ	31:D:501:ADP:O2B	2.49	0.44
12:D:271:ALA:O	12:D:317:LEU:HA	2.16	0.44
17:I:143:TYR:HB2	17:I:146:GLN:NE2	2.31	0.44
3:f:330:PHE:O	3:f:333:LEU:HB3	2.18	0.44
3:f:473:ASN:O	3:f:509:LYS:NZ	2.46	0.44
5:U:574:LYS:HD2	28:c:211:GLU:HG2	1.99	0.44
5:U:590:TYR:O	5:U:625:ILE:HD12	2.18	0.44
9:A:365:GLU:HB2	9:A:368:ILE:HD11	2.00	0.44
10:B:394:ASP:HA	11:C:308:PRO:HG2	1.99	0.44
11:C:135:VAL:HA	11:C:138:MET:SD	2.58	0.44
13:E:252:GLU:HG2	13:E:255:ARG:HH21	1.81	0.44
24:d:148:LEU:HB3	24:d:171:LEU:HB3	1.98	0.44
24:d:291:LEU:HB2	24:d:299:MET:HE2	1.98	0.44
28:c:299:CYS:O	28:c:303:MET:HG2	2.17	0.44
2:Y:379:ARG:NH2	4:X:412:ASP:OD1	2.46	0.44
3:f:195:ASN:HA	3:f:200:ALA:HB3	1.98	0.44
3:f:447:ALA:HA	3:f:450:ILE:HG22	2.00	0.44
3:f:828:ARG:HD2	3:f:874:LEU:HB2	2.00	0.44
4:X:378:LEU:HD23	4:X:385:LEU:HB3	1.98	0.44
5:U:105:ILE:C	5:U:105:ILE:HD12	2.42	0.44
5:U:210:LYS:O	5:U:210:LYS:HD2	2.17	0.44
8:b:7:MET:HE2	8:b:52:ILE:HG12	2.00	0.44
8:b:55:ALA:C	8:b:57:ASP:H	2.25	0.44
8:b:106:LYS:C	8:b:107:MET:HE2	2.42	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:100:LYS:HD2	14:F:167:GLU:HG2	2.00	0.44
11:C:91:PRO:HG2	11:C:92:GLU:OE2	2.17	0.44
17:I:57:ASP:OD2	17:I:58:GLU:N	2.51	0.44
24:d:178:TYR:HD1	24:d:181:GLN:HB2	1.81	0.44
25:W:54:THR:HB	25:W:59:ASP:HB3	1.99	0.44
25:W:69:ALA:O	25:W:73:MET:HG2	2.17	0.44
27:V:264:TYR:CE2	27:V:298:ILE:HG13	2.52	0.44
27:V:457:TYR:CE1	27:V:459:GLN:HB2	2.53	0.44
28:c:49:VAL:HG22	28:c:50:PRO:HA	2.00	0.44
2:Y:381:GLN:HB2	27:V:482:PHE:CZ	2.49	0.44
4:X:93:LEU:CD1	4:X:132:ARG:HG2	2.47	0.44
5:U:78:LEU:HD22	5:U:104:CYS:HB3	1.99	0.44
9:A:277:ILE:HG12	9:A:319:MET:SD	2.57	0.44
12:D:156:SER:HA	12:D:159:LYS:HD3	2.00	0.44
13:E:268:ASP:HB3	13:E:271:HIS:NE2	2.33	0.44
13:E:328:TYR:O	13:E:331:ILE:HG22	2.18	0.44
14:F:172:VAL:O	14:F:175:MET:HB2	2.17	0.44
20:L:71:GLY:HA3	20:L:221:PHE:CZ	2.53	0.44
24:d:145:ARG:O	24:d:149:GLU:HG3	2.18	0.44
26:g:108:THR:HG22	26:g:109:GLY:H	1.83	0.44
1:H:128:ARG:NH1	16:G:126:THR:HG22	2.33	0.44
2:Y:186:LEU:HD23	2:Y:201:PHE:HZ	1.83	0.44
3:f:471:LEU:HD23	3:f:471:LEU:H	1.82	0.44
3:f:573:ILE:HG13	3:f:599:ALA:CB	2.47	0.44
3:f:814:SER:HA	3:f:816:TYR:CE2	2.53	0.44
3:f:842:VAL:HG21	3:f:900:LEU:HD22	1.99	0.44
5:U:410:VAL:HG23	5:U:448:LEU:HD12	2.00	0.44
6:Z:225:GLN:NE2	6:Z:226:ILE:HG13	2.32	0.44
7:a:122:LYS:HE3	7:a:130:VAL:HG13	2.00	0.44
8:b:36:VAL:O	8:b:40:LYS:HG2	2.17	0.44
11:C:161:ILE:HD13	11:C:199:LEU:HD22	2.00	0.44
12:D:264:ILE:N	12:D:308:ILE:O	2.51	0.44
14:F:97:LEU:HB2	14:F:121:CYS:SG	2.57	0.44
14:F:321:GLN:CD	14:F:322:PRO:HD3	2.43	0.44
14:F:408:LEU:HD23	14:F:408:LEU:HA	1.85	0.44
17:I:16:GLY:HA3	18:J:24:GLU:HB2	2.00	0.44
19:K:25:GLU:O	19:K:29:GLU:HG2	2.17	0.44
20:L:196:ARG:NH1	20:L:237:GLU:O	2.42	0.44
24:d:232:LEU:HD13	24:d:244:VAL:HG22	1.99	0.44
25:W:108:CYS:HB3	25:W:128:LEU:HD11	1.99	0.44
27:V:68:ASP:CG	27:V:109:ASN:HD21	2.25	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:f:558:LEU:HB2	3:f:559:PRO:HD3	1.99	0.44
4:X:306:LEU:HD21	4:X:314:ARG:HE	1.82	0.44
5:U:159:ARG:HH21	5:U:162:VAL:HB	1.82	0.44
5:U:412:HIS:CD2	5:U:422:LEU:HD11	2.53	0.44
7:a:61:GLU:HA	7:a:64:ILE:HG22	2.00	0.44
8:b:100:ARG:NE	8:b:102:GLY:O	2.50	0.44
8:b:169:HIS:CD2	8:b:187:PRO:HA	2.53	0.44
14:F:55:MET:O	14:F:59:VAL:HB	2.18	0.44
16:G:84:THR:HB	21:M:156:VAL:HG22	1.99	0.44
16:G:202:LEU:HD23	16:G:202:LEU:HA	1.79	0.44
19:K:174:SER:O	19:K:178:GLN:HB2	2.18	0.44
20:L:112:ILE:HD13	20:L:112:ILE:HA	1.81	0.44
21:M:49:VAL:HB	21:M:212:GLU:HG3	2.00	0.44
26:g:114:SER:HA	26:g:124:GLU:HG3	1.99	0.44
27:V:224:LEU:HB2	27:V:261:TYR:HE1	1.83	0.44
27:V:462:GLU:H	27:V:462:GLU:CD	2.25	0.44
3:f:390:LEU:HD23	3:f:398:TRP:CZ3	2.52	0.44
4:X:123:THR:O	4:X:127:GLN:HG3	2.18	0.44
5:U:348:THR:HG21	5:U:377:HIS:CD2	2.53	0.44
5:U:748:LEU:H	5:U:748:LEU:HD12	1.83	0.44
8:b:9:CYS:HB3	8:b:54:LEU:HD11	2.00	0.44
8:b:141:ILE:HG13	8:b:143:PHE:CZ	2.52	0.44
9:A:120:LYS:HB2	14:F:90:VAL:CG2	2.47	0.44
14:F:153:VAL:HG12	14:F:160:ILE:HA	1.98	0.44
25:W:67:LEU:HB3	25:W:104:MET:HB2	1.98	0.44
25:W:387:ASP:N	25:W:387:ASP:OD1	2.49	0.44
27:V:374:LYS:HE3	27:V:374:LYS:HB3	1.67	0.44
2:Y:101:ARG:O	2:Y:105:MET:HG3	2.18	0.44
3:f:430:ASP:OD1	3:f:431:LYS:N	2.51	0.44
5:U:37:GLU:OE2	27:V:266:GLN:NE2	2.40	0.44
5:U:188:MET:HE1	5:U:194:ARG:HA	1.98	0.44
8:b:6:THR:O	8:b:49:VAL:HA	2.18	0.44
13:E:165:ILE:HD13	13:E:165:ILE:HA	1.90	0.44
13:E:313:LEU:CD2	13:E:343:LEU:HD13	2.45	0.44
13:E:331:ILE:HD12	13:E:367:PHE:CB	2.48	0.44
18:J:26:VAL:HG21	18:J:130:SER:HB2	1.99	0.44
19:K:88:LEU:HD23	19:K:119:LEU:HD23	1.99	0.44
24:d:121:LEU:O	24:d:125:GLU:HG2	2.18	0.44
25:W:373:ILE:HG22	25:W:415:PHE:HE2	1.83	0.44
3:f:792:ALA:O	3:f:796:LEU:HD13	2.18	0.43
5:U:26:LYS:HD3	5:U:26:LYS:HA	1.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:a:108:ASP:OD1	7:a:108:ASP:N	2.49	0.43
8:b:75:LEU:HD23	8:b:75:LEU:HA	1.85	0.43
8:b:141:ILE:HA	8:b:171:VAL:O	2.18	0.43
9:A:90:GLU:OE2	10:B:120:HIS:NE2	2.46	0.43
10:B:289:ALA:HB1	11:C:271:ARG:HG3	2.00	0.43
17:I:184:MET:HE3	17:I:184:MET:HB3	1.77	0.43
19:K:157:ASP:C	19:K:157:ASP:OD1	2.61	0.43
25:W:74:CYS:HB2	25:W:83:LEU:HD13	2.01	0.43
25:W:393:LEU:HD11	25:W:402:ILE:HD11	2.00	0.43
27:V:252:ASN:ND2	27:V:287:ARG:HB2	2.33	0.43
2:Y:13:LYS:HG3	2:Y:212:GLU:HA	2.00	0.43
5:U:475:HIS:ND1	5:U:511:ALA:HB2	2.33	0.43
5:U:520:MET:HE2	5:U:520:MET:HA	1.99	0.43
5:U:772:TRP:HB3	5:U:775:LEU:HG	1.99	0.43
6:Z:37:GLY:HA3	6:Z:95:TYR:CZ	2.53	0.43
7:a:325:ASP:O	7:a:329:LYS:HA	2.18	0.43
10:B:269:GLU:OE2	10:B:272:ARG:NH1	2.51	0.43
11:C:254:ILE:HG13	11:C:254:ILE:O	2.17	0.43
12:D:410:ASP:OD1	12:D:411:GLU:N	2.52	0.43
12:D:412:GLN:C	12:D:414:HIS:H	2.26	0.43
16:G:58:ASP:HB3	16:G:61:LEU:HG	2.00	0.43
16:G:77:GLY:HA3	16:G:227:PHE:CD1	2.53	0.43
26:g:154:MET:HA	26:g:154:MET:HE2	1.99	0.43
1:H:72:ILE:HG21	1:H:110:LEU:HD23	2.00	0.43
4:X:299:LEU:HD12	4:X:299:LEU:H	1.83	0.43
5:U:415:HIS:HD2	5:U:418:GLU:HB3	1.82	0.43
5:U:691:SER:O	5:U:695:MET:HB2	2.17	0.43
5:U:802:TYR:HB3	5:U:895:PRO:HB3	2.00	0.43
7:a:13:ASN:N	7:a:13:ASN:OD1	2.50	0.43
10:B:251:VAL:HG23	10:B:254:GLU:OE2	2.18	0.43
10:B:256:ILE:HD12	11:C:271:ARG:HD3	1.99	0.43
12:D:199:PRO:HG3	12:D:329:ARG:HD2	2.00	0.43
12:D:207:PRO:HG2	12:D:335:LEU:HG	2.01	0.43
14:F:53:LYS:O	14:F:57:SER:OG	2.25	0.43
14:F:288:LEU:HG	14:F:338:LEU:HD21	1.99	0.43
17:I:115:CYS:SG	17:I:156:TYR:HB3	2.58	0.43
18:J:109:ARG:HG3	18:J:153:TYR:CE2	2.53	0.43
24:d:163:SER:O	24:d:166:ARG:HG2	2.18	0.43
27:V:401:ASN:HD21	27:V:404:LYS:HE2	1.84	0.43
28:c:210:ASN:OD1	28:c:211:GLU:N	2.51	0.43
28:c:247:GLU:O	28:c:251:LEU:HG	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:f:138:GLU:HB3	3:f:142:TYR:CZ	2.52	0.43
3:f:708:ASP:OD1	10:B:43:PRO:HD2	2.18	0.43
5:U:15:ASP:OD1	5:U:15:ASP:N	2.51	0.43
5:U:324:LYS:NZ	5:U:328:ILE:HG23	2.33	0.43
6:Z:108:ILE:HD12	6:Z:108:ILE:N	2.34	0.43
6:Z:288:LYS:HE3	6:Z:288:LYS:HB3	1.83	0.43
7:a:87:MET:SD	7:a:88:THR:N	2.91	0.43
12:D:203:LEU:HB2	12:D:327:LEU:HD13	2.01	0.43
14:F:74:LYS:HB3	14:F:74:LYS:HE3	1.56	0.43
27:V:319:HIS:O	27:V:319:HIS:ND1	2.51	0.43
1:H:46:LEU:HD21	1:H:137:CYS:HB3	2.00	0.43
3:f:229:VAL:O	3:f:233:LEU:HG	2.18	0.43
3:f:332:ALA:O	3:f:335:ARG:HG2	2.18	0.43
3:f:513:GLU:OE2	3:f:514:VAL:HG23	2.19	0.43
5:U:583:MET:SD	5:U:605:VAL:HG11	2.58	0.43
7:a:42:LEU:O	7:a:46:GLN:HG2	2.17	0.43
7:a:64:ILE:O	7:a:68:GLU:HB3	2.18	0.43
7:a:70:ARG:NE	8:b:24:THR:OG1	2.52	0.43
7:a:252:LYS:HD2	7:a:255:TRP:NE1	2.27	0.43
10:B:436:GLU:OE1	10:B:436:GLU:N	2.50	0.43
14:F:338:LEU:HD23	14:F:338:LEU:HA	1.77	0.43
18:J:148:ASP:OD1	18:J:149:PRO:HD2	2.19	0.43
18:J:155:ALA:HB3	19:K:63:SER:HB2	2.00	0.43
20:L:4:ASN:HB3	20:L:5:GLN:H	1.52	0.43
20:L:13:TRP:N	21:M:22:GLN:OE1	2.48	0.43
25:W:451:MET:HE2	25:W:451:MET:HB2	1.76	0.43
26:g:136:LEU:HA	26:g:136:LEU:HD23	1.80	0.43
28:c:25:VAL:HG21	28:c:201:TYR:CZ	2.54	0.43
3:f:240:VAL:HG13	3:f:245:ASN:HB3	2.01	0.43
3:f:402:ASN:HB3	3:f:406:GLY:HA3	2.01	0.43
3:f:574:GLU:O	3:f:577:LEU:HG	2.19	0.43
5:U:401:LYS:NZ	5:U:435:SER:OG	2.32	0.43
7:a:175:ASP:OD1	7:a:175:ASP:N	2.52	0.43
9:A:102:ILE:HB	9:A:110:LYS:HB2	2.01	0.43
25:W:106:GLN:HA	25:W:109:CYS:SG	2.59	0.43
27:V:192:MET:HE3	27:V:211:TYR:HD1	1.83	0.43
27:V:192:MET:HE2	27:V:230:PHE:HZ	1.84	0.43
2:Y:19:ILE:HG23	2:Y:41:LEU:HD11	2.01	0.43
2:Y:166:SER:O	2:Y:170:GLU:HG3	2.19	0.43
2:Y:186:LEU:HD22	2:Y:287:LEU:HD21	2.01	0.43
2:Y:285:ASP:OD2	2:Y:288:PHE:N	2.37	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:f:218:GLU:HB3	3:f:258:LYS:HE3	2.00	0.43
3:f:478:ARG:NH1	3:f:507:ASP:OD2	2.44	0.43
3:f:845:ARG:HD3	3:f:865:PHE:HB2	2.00	0.43
4:X:57:LEU:HD21	4:X:62:GLN:HB2	2.01	0.43
4:X:157:LEU:HA	4:X:157:LEU:HD23	1.73	0.43
4:X:260:MET:HE2	4:X:322:HIS:HB3	2.01	0.43
5:U:583:MET:O	5:U:586:VAL:HG12	2.19	0.43
5:U:754:HIS:CD2	5:U:755:THR:H	2.37	0.43
6:Z:34:ARG:HB2	6:Z:96:HIS:HB2	1.99	0.43
7:a:193:GLN:HB3	7:a:225:LEU:HD11	1.99	0.43
8:b:68:THR:O	8:b:72:LEU:HG	2.19	0.43
11:C:44:ARG:HG3	11:C:45:LEU:N	2.33	0.43
11:C:304:ALA:O	11:C:310:ARG:NH1	2.50	0.43
12:D:244:PRO:HD3	12:D:288:ILE:HG13	2.00	0.43
16:G:54:LYS:NZ	16:G:63:SER:O	2.37	0.43
18:J:9:VAL:HA	19:K:23:GLN:HE22	1.83	0.43
19:K:210:LEU:HD11	19:K:215:ILE:HG12	2.01	0.43
22:O:70:THR:OG1	22:O:72:ARG:NH1	2.52	0.43
2:Y:21:GLN:HA	2:Y:286:TRP:HB3	1.99	0.43
4:X:142:ARG:HB3	4:X:145:GLU:CD	2.44	0.43
5:U:187:LEU:HD13	12:D:45:LYS:HB2	1.99	0.43
5:U:204:ILE:HA	5:U:207:ASN:ND2	2.33	0.43
5:U:367:THR:O	5:U:370:VAL:HB	2.19	0.43
5:U:803:LYS:HD3	5:U:875:PHE:CG	2.54	0.43
6:Z:79:TYR:CD2	6:Z:91:ILE:HG13	2.53	0.43
6:Z:261:TYR:CE1	27:V:479:ARG:HB3	2.54	0.43
7:a:70:ARG:NH2	8:b:17:ARG:HA	2.31	0.43
7:a:145:LEU:HD23	7:a:145:LEU:HA	1.81	0.43
7:a:221:VAL:HG23	7:a:222:LEU:H	1.82	0.43
8:b:21:PHE:HE1	8:b:176:GLY:H	1.66	0.43
9:A:46:LYS:NZ	9:A:50:ASP:OD2	2.52	0.43
9:A:52:ILE:HD13	10:B:72:LEU:HD12	2.01	0.43
14:F:358:ASN:N	14:F:361:ALA:HB3	2.34	0.43
24:d:297:LYS:HA	24:d:297:LYS:HD3	1.84	0.43
25:W:183:VAL:HG21	25:W:213:PHE:CD1	2.53	0.43
3:f:398:TRP:HA	3:f:401:LYS:HE3	2.01	0.43
6:Z:28:LYS:HB3	6:Z:28:LYS:HE2	1.77	0.43
7:a:11:SER:HB2	7:a:56:LEU:HD13	2.01	0.43
9:A:428:ARG:HD2	18:J:23:GLN:HB2	2.00	0.43
10:B:119:ASN:HA	10:B:135:ILE:HB	1.99	0.43
12:D:321:LEU:HD12	12:D:321:LEU:HA	1.84	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:310:LEU:HB2	13:E:332:VAL:HG21	2.00	0.43
24:d:258:PHE:O	24:d:262:ILE:HG13	2.19	0.43
25:W:39:ARG:NH2	25:W:43:VAL:HG23	2.34	0.43
25:W:190:MET:HE2	25:W:205:ILE:HG22	2.00	0.43
25:W:272:LEU:HD13	25:W:341:PHE:CE1	2.54	0.43
2:Y:50:MET:HE2	2:Y:113:ARG:O	2.19	0.43
2:Y:175:ASP:O	2:Y:179:ARG:HG3	2.19	0.43
4:X:81:SER:OG	4:X:82:LYS:N	2.52	0.43
6:Z:153:LYS:HE2	6:Z:155:PHE:CE1	2.54	0.43
6:Z:176:LEU:O	6:Z:178:ASP:N	2.52	0.43
9:A:120:LYS:HE2	14:F:90:VAL:HG21	2.01	0.43
13:E:19:HIS:HA	13:E:22:ILE:HG22	2.01	0.43
13:E:344:ARG:HH21	13:E:345:ASN:ND2	2.17	0.43
13:E:380:LEU:HD12	13:E:380:LEU:HA	1.90	0.43
24:d:127:ASN:HD22	24:d:136:LEU:HD21	1.84	0.43
27:V:226:VAL:HG23	27:V:227:VAL:HG13	2.01	0.43
28:c:97:ASP:O	28:c:100:LYS:HG2	2.18	0.43
3:f:225:ALA:O	3:f:229:VAL:HG12	2.19	0.42
3:f:608:LYS:HD3	3:f:608:LYS:HA	1.76	0.42
5:U:92:ASP:HA	5:U:97:VAL:HG11	2.00	0.42
5:U:201:LEU:HD23	5:U:201:LEU:HA	1.87	0.42
5:U:641:SER:HB2	5:U:675:MET:CE	2.49	0.42
6:Z:272:LEU:HD23	6:Z:272:LEU:HA	1.86	0.42
7:a:312:MET:SD	25:W:314:LEU:HD13	2.59	0.42
8:b:16:MET:HE2	8:b:16:MET:N	2.34	0.42
9:A:362:MET:HE2	9:A:362:MET:HB3	1.89	0.42
10:B:381:ASP:HA	10:B:384:ILE:HD12	1.99	0.42
13:E:254:GLN:O	13:E:258:MET:HG3	2.19	0.42
13:E:289:LEU:O	13:E:295:LEU:HB2	2.19	0.42
13:E:330:ALA:HB1	13:E:368:MET:HE3	2.00	0.42
13:E:334:LEU:HB2	13:E:371:VAL:HG13	2.00	0.42
16:G:43:ARG:HH21	16:G:164:LYS:HG2	1.83	0.42
17:I:155:ASN:HD22	18:J:77:THR:HB	1.84	0.42
19:K:37:ALA:C	19:K:38:ILE:HD13	2.44	0.42
2:Y:314:LEU:HD13	2:Y:319:MET:HG3	2.01	0.42
3:f:256:PHE:HD2	3:f:268:LEU:HD11	1.83	0.42
3:f:466:LEU:HB2	3:f:485:LEU:HD13	2.01	0.42
3:f:887:PHE:HB3	3:f:900:LEU:HB3	2.00	0.42
4:X:66:LEU:HD12	4:X:66:LEU:HA	1.80	0.42
4:X:417:LYS:C	4:X:419:LYS:H	2.27	0.42
5:U:21:GLU:OE2	5:U:56:SER:HB2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U:557:TYR:CE2	5:U:757:MET:HB2	2.54	0.42
5:U:660:CYS:O	5:U:694:ILE:HD13	2.19	0.42
6:Z:67:VAL:HG11	8:b:91:ARG:HB3	1.99	0.42
8:b:11:ASP:OD1	8:b:12:ASN:N	2.52	0.42
11:C:23:TYR:HE2	11:C:27:LYS:HD3	1.84	0.42
11:C:269:VAL:HG21	12:D:287:ARG:CZ	2.49	0.42
11:C:358:GLU:HA	12:D:324:PRO:HG2	2.00	0.42
12:D:371:SER:O	12:D:375:ILE:HG12	2.19	0.42
26:g:163:GLU:O	26:g:167:LYS:HG2	2.19	0.42
27:V:100:MET:O	27:V:103:SER:OG	2.33	0.42
1:H:53:LYS:NZ	12:D:412:GLN:O	2.35	0.42
1:H:158:TRP:CD2	1:H:161:THR:HB	2.55	0.42
5:U:845:GLU:O	5:U:849:LYS:HG3	2.19	0.42
7:a:146:PRO:HA	7:a:152:HIS:CE1	2.55	0.42
8:b:9:CYS:HB2	8:b:111:ALA:HA	2.00	0.42
11:C:339:THR:O	11:C:342:ILE:HB	2.19	0.42
11:C:362:VAL:HG22	11:C:387:VAL:HA	2.01	0.42
12:D:297:ASP:HB3	12:D:326:ARG:HG3	2.02	0.42
14:F:225:MET:HE3	14:F:233:LYS:HB3	2.00	0.42
17:I:4:ARG:HA	17:I:4:ARG:HD2	1.68	0.42
17:I:62:SER:HB2	17:I:65:ILE:O	2.18	0.42
24:d:331:PRO:HG2	27:V:470:ARG:HD2	2.02	0.42
25:W:194:LEU:HD12	25:W:229:LEU:HD22	2.01	0.42
25:W:210:ASN:OD1	25:W:211:THR:N	2.52	0.42
1:H:60:ARG:HH22	16:G:164:LYS:NZ	2.16	0.42
2:Y:372:LYS:HB3	4:X:404:ILE:HG21	2.00	0.42
3:f:100:ARG:N	3:f:101:PRO:HD3	2.33	0.42
5:U:553:ALA:HA	5:U:585:THR:HG23	2.01	0.42
6:Z:69:PHE:CE1	8:b:60:VAL:HG11	2.54	0.42
9:A:393:GLY:HA3	10:B:216:ILE:HG12	2.01	0.42
21:M:63:ASN:HB3	21:M:81:LEU:HD21	2.01	0.42
27:V:338:LEU:HD22	27:V:398:LEU:HB2	2.01	0.42
27:V:398:LEU:O	27:V:402:VAL:HG23	2.19	0.42
2:Y:127:THR:O	2:Y:131:THR:N	2.52	0.42
3:f:185:LEU:C	3:f:189:LYS:HZ3	2.28	0.42
3:f:342:PRO:HG2	3:f:389:LYS:HG3	2.01	0.42
3:f:590:PHE:HB2	3:f:649:HIS:CE1	2.55	0.42
5:U:88:PHE:CG	5:U:89:ASN:N	2.86	0.42
6:Z:21:ASP:OD2	28:c:104:ARG:NH2	2.50	0.42
9:A:215:PHE:CD2	9:A:324:PRO:HG3	2.54	0.42
11:C:142:LYS:HB3	11:C:142:LYS:HE3	1.79	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:364:THR:O	11:C:368:MET:HG2	2.20	0.42
13:E:50:LEU:HD21	14:F:139:LEU:HD11	2.01	0.42
13:E:218:MET:HE3	13:E:219:PHE:CE1	2.55	0.42
13:E:331:ILE:HD12	13:E:367:PHE:CG	2.55	0.42
14:F:312:GLU:O	14:F:316:GLN:HG2	2.19	0.42
17:I:119:GLN:NE2	17:I:123:GLN:OE1	2.39	0.42
18:J:41:VAL:HG23	18:J:211:MET:HB3	2.01	0.42
19:K:202:LEU:HD23	19:K:202:LEU:HA	1.83	0.42
24:d:139:GLN:O	24:d:143:LEU:HG	2.19	0.42
27:V:392:TYR:O	27:V:396:ILE:HG12	2.20	0.42
2:Y:169:GLU:HA	2:Y:169:GLU:OE1	2.19	0.42
2:Y:311:TYR:CB	2:Y:314:LEU:HD23	2.50	0.42
3:f:545:LYS:HD3	3:f:545:LYS:HA	1.85	0.42
4:X:87:ARG:HE	4:X:87:ARG:C	2.23	0.42
5:U:27:LEU:HD22	5:U:38:ILE:HG12	2.01	0.42
5:U:452:ASN:ND2	5:U:757:MET:HE1	2.33	0.42
7:a:118:ILE:O	7:a:122:LYS:CB	2.68	0.42
7:a:221:VAL:HG23	7:a:222:LEU:N	2.35	0.42
8:b:147:GLU:HG2	8:b:150:THR:HG23	2.01	0.42
10:B:347:ILE:HD13	10:B:347:ILE:HA	1.84	0.42
11:C:251:ILE:HD12	11:C:251:ILE:HA	1.92	0.42
14:F:64:HIS:HD1	14:F:64:HIS:C	2.27	0.42
14:F:126:THR:OG1	14:F:128:THR:OG1	2.26	0.42
19:K:89:ILE:O	19:K:93:ARG:HG3	2.19	0.42
19:K:217:LEU:HB2	19:K:234:LEU:HD11	2.02	0.42
25:W:321:VAL:HG22	25:W:351:TRP:HZ2	1.84	0.42
27:V:250:LEU:HD23	27:V:253:LEU:HD12	2.02	0.42
3:f:247:ALA:HA	3:f:250:ARG:NE	2.35	0.42
5:U:108:TYR:CD2	5:U:134:VAL:HG21	2.55	0.42
5:U:405:THR:OG1	5:U:441:GLY:HA3	2.19	0.42
5:U:448:LEU:HA	5:U:483:LEU:HD23	2.00	0.42
5:U:629:THR:OG1	5:U:632:GLN:HG3	2.20	0.42
5:U:900:TYR:HB3	5:U:914:LEU:HD21	2.00	0.42
6:Z:76:GLU:OE2	6:Z:115:TYR:OH	2.29	0.42
11:C:212:ILE:HD13	11:C:237:MET:HE3	2.01	0.42
13:E:331:ILE:O	13:E:371:VAL:HG21	2.20	0.42
14:F:272:PHE:O	14:F:276:LYS:HG2	2.19	0.42
18:J:38:ARG:HH21	18:J:182:GLU:HA	1.84	0.42
24:d:259:PHE:HA	24:d:262:ILE:HD12	2.02	0.42
25:W:280:ASP:OD2	25:W:282:GLU:N	2.50	0.42
26:g:82:ILE:HD13	26:g:102:GLU:CD	2.43	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:g:110:ARG:HE	26:g:110:ARG:HB2	1.66	0.42
3:f:231:LEU:HD22	3:f:857:GLY:HA2	2.01	0.42
4:X:339:ILE:HD12	4:X:339:ILE:HA	1.92	0.42
9:A:93:LEU:O	10:B:132:TYR:N	2.38	0.42
9:A:206:ILE:HA	14:F:373:MET:HE2	2.02	0.42
10:B:359:LYS:HB3	10:B:359:LYS:HE3	1.90	0.42
10:B:363:ARG:HD2	10:B:363:ARG:HA	1.90	0.42
12:D:311:THR:HG22	12:D:313:ARG:H	1.84	0.42
12:D:413:GLU:C	12:D:415:GLU:H	2.27	0.42
18:J:47:LYS:HB3	18:J:47:LYS:HE3	1.86	0.42
19:K:186:HIS:O	19:K:189:MET:HG3	2.20	0.42
21:M:90:ILE:HG13	21:M:118:TYR:CE2	2.55	0.42
24:d:138:LYS:O	24:d:142:ILE:HG12	2.20	0.42
27:V:264:TYR:HE2	27:V:294:ARG:HG2	1.83	0.42
7:a:57:ILE:HG13	7:a:61:GLU:HG2	2.01	0.42
8:b:10:VAL:HA	8:b:112:PHE:HB2	2.01	0.42
8:b:33:VAL:HA	8:b:36:VAL:HG22	2.00	0.42
9:A:26:ASP:O	9:A:30:ILE:HG12	2.19	0.42
13:E:62:LYS:HD2	13:E:63:GLN:N	2.35	0.42
20:L:44:ALA:HB3	20:L:215:VAL:HG13	2.02	0.42
3:f:346:ASP:OD1	3:f:351:THR:OG1	2.36	0.42
3:f:653:ALA:O	3:f:657:ILE:HG13	2.19	0.42
3:f:799:VAL:HG21	3:f:821:LEU:HG	2.02	0.42
3:f:813:LYS:HD3	3:f:813:LYS:N	2.35	0.42
4:X:172:LEU:HD23	4:X:172:LEU:HA	1.82	0.42
5:U:105:ILE:HD11	11:C:23:TYR:CE1	2.55	0.42
5:U:381:THR:HA	5:U:412:HIS:ND1	2.34	0.42
5:U:599:ILE:HD13	12:D:53:PHE:HE1	1.85	0.42
6:Z:236:LEU:HD12	6:Z:236:LEU:HA	1.87	0.42
6:Z:249:PHE:CE1	28:c:302:ALA:HB1	2.55	0.42
7:a:35:HIS:NE2	8:b:14:GLU:HB3	2.35	0.42
7:a:134:THR:HA	7:a:137:ASP:OD2	2.20	0.42
7:a:201:GLY:HA3	7:a:233:LEU:HD11	2.01	0.42
8:b:48:ASN:HA	8:b:66:PRO:HA	2.02	0.42
9:A:394:MET:HG2	10:B:349:ARG:NH2	2.35	0.42
17:I:41:ASP:O	17:I:217:THR:HG23	2.20	0.42
19:K:221:GLN:HB2	19:K:224:GLN:HB3	2.02	0.42
24:d:188:MET:SD	24:d:189:HIS:N	2.93	0.42
24:d:212:LEU:HD23	24:d:212:LEU:HA	1.83	0.42
25:W:98:LYS:HD2	25:W:137:TYR:CE2	2.55	0.42
25:W:366:MET:HB3	25:W:370:TYR:CD2	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:V:175:MET:HE3	27:V:175:MET:O	2.19	0.42
28:c:57:MET:O	28:c:109:VAL:HG22	2.20	0.42
3:f:657:ILE:HG13	3:f:657:ILE:H	1.75	0.41
5:U:182:LYS:O	5:U:185:MET:HG3	2.20	0.41
5:U:344:ARG:HH21	5:U:927:PRO:HB2	1.84	0.41
5:U:470:ASN:OD1	5:U:474:ARG:NE	2.53	0.41
5:U:646:PRO:HB2	5:U:682:TYR:OH	2.20	0.41
10:B:193:GLN:OE1	10:B:193:GLN:N	2.50	0.41
10:B:258:LYS:HG3	10:B:259:TYR:CE2	2.54	0.41
10:B:398:ILE:HD12	10:B:423:LYS:HA	2.02	0.41
13:E:373:LYS:C	13:E:380:LEU:HD23	2.45	0.41
16:G:51:VAL:HG22	16:G:202:LEU:HD12	2.02	0.41
17:I:63:GLU:HG3	17:I:64:LYS:HG2	2.01	0.41
17:I:192:LEU:HA	17:I:195:LYS:HG2	2.02	0.41
18:J:50:VAL:HB	18:J:54:GLN:HG2	2.02	0.41
20:L:71:GLY:HA3	20:L:221:PHE:CE2	2.55	0.41
24:d:148:LEU:HD23	24:d:148:LEU:HA	1.93	0.41
26:g:79:THR:O	26:g:82:ILE:HG13	2.19	0.41
28:c:168:MET:SD	28:c:169:VAL:HG23	2.60	0.41
3:f:403:LYS:HE2	3:f:403:LYS:HB2	1.87	0.41
3:f:416:MET:O	3:f:416:MET:HG2	2.20	0.41
5:U:479:LEU:HG	5:U:511:ALA:HB1	2.01	0.41
9:A:65:ILE:HG23	9:A:66:LYS:H	1.85	0.41
9:A:73:ALA:HB1	9:A:77:LEU:HD23	2.02	0.41
9:A:92:PRO:HG2	9:A:144:ARG:NH2	2.35	0.41
9:A:161:VAL:HG12	9:A:263:MET:SD	2.61	0.41
10:B:86:LYS:HA	10:B:86:LYS:HD2	1.82	0.41
12:D:96:VAL:HG23	12:D:101:ALA:HA	2.01	0.41
17:I:238:LYS:HD2	17:I:238:LYS:HA	1.77	0.41
19:K:9:ASP:HB3	19:K:22:PHE:HB3	2.02	0.41
19:K:196:LYS:NZ	19:K:240:ASP:O	2.52	0.41
19:K:211:ASN:OD1	19:K:213:THR:HG22	2.20	0.41
21:M:41:CYS:N	21:M:44:GLY:O	2.53	0.41
24:d:172:LYS:HD2	24:d:176:PHE:CE2	2.55	0.41
2:Y:45:VAL:O	2:Y:49:ASN:N	2.53	0.41
3:f:106:LEU:HA	3:f:109:ILE:HG22	2.01	0.41
3:f:906:TYR:HE2	3:f:908:LEU:HD22	1.85	0.41
4:X:114:ILE:HD13	4:X:114:ILE:HA	1.90	0.41
4:X:299:LEU:HD21	4:X:331:LEU:HA	2.02	0.41
5:U:427:LEU:HD13	5:U:438:GLN:HG2	2.02	0.41
7:a:18:GLN:HB2	7:a:19:PRO:HD3	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:a:61:GLU:O	7:a:64:ILE:HG22	2.21	0.41
8:b:100:ARG:HH21	8:b:103:LYS:HA	1.86	0.41
9:A:71:GLY:HA3	10:B:162:VAL:HG12	2.02	0.41
9:A:83:ASP:OD2	10:B:137:SER:OG	2.33	0.41
11:C:31:LEU:HA	11:C:34:ILE:HG22	2.01	0.41
13:E:20:LYS:HD3	13:E:20:LYS:HA	1.71	0.41
17:I:187:LYS:HB2	17:I:187:LYS:HE2	1.88	0.41
19:K:142:LEU:HD21	19:K:168:ARG:HB3	2.03	0.41
21:M:123:THR:HG22	21:M:130:PRO:HB3	2.02	0.41
24:d:102:TRP:HA	24:d:107:PRO:HB3	2.01	0.41
24:d:295:THR:HB	24:d:298:LYS:HG3	2.02	0.41
26:g:130:VAL:O	26:g:153:ALA:HA	2.20	0.41
27:V:169:LEU:HA	27:V:172:VAL:HG12	2.01	0.41
27:V:192:MET:HE2	27:V:230:PHE:CZ	2.55	0.41
1:H:86:LEU:HD23	1:H:86:LEU:HA	1.87	0.41
1:H:193:LEU:O	1:H:197:GLU:HG2	2.21	0.41
3:f:291:GLN:HA	3:f:294:MET:HE2	2.03	0.41
3:f:301:HIS:HD2	3:f:787:LEU:HD21	1.85	0.41
3:f:564:LEU:HD11	3:f:794:ALA:HA	2.02	0.41
3:f:691:PRO:HB2	3:f:724:ASN:HB3	2.01	0.41
3:f:831:VAL:HB	3:f:897:PHE:HD1	1.85	0.41
4:X:332:GLU:O	4:X:336:ILE:HG12	2.21	0.41
5:U:407:SER:HA	5:U:410:VAL:HG12	2.02	0.41
5:U:483:LEU:HA	5:U:518:LEU:HD13	2.02	0.41
5:U:558:GLY:N	5:U:588:MET:O	2.38	0.41
6:Z:37:GLY:HA2	6:Z:56:VAL:HG22	2.02	0.41
6:Z:58:PHE:CE2	6:Z:60:GLU:HB2	2.55	0.41
6:Z:101:LEU:HD23	6:Z:121:LEU:HD21	2.02	0.41
7:a:215:GLU:HA	7:a:218:MET:HB2	2.01	0.41
7:a:217:LEU:HD23	7:a:217:LEU:H	1.86	0.41
10:B:189:GLY:HA3	10:B:360:THR:HG22	2.01	0.41
13:E:144:GLU:OE1	13:E:297:ARG:NH2	2.54	0.41
13:E:370:ALA:HB2	13:E:386:TYR:O	2.21	0.41
19:K:142:LEU:HG	19:K:170:ILE:HD13	2.02	0.41
27:V:259:LEU:HD22	27:V:264:TYR:CE2	2.55	0.41
3:f:137:ARG:HA	3:f:137:ARG:NE	2.35	0.41
3:f:679:LEU:HG	3:f:690:VAL:HG11	2.03	0.41
4:X:400:ALA:O	4:X:404:ILE:HG12	2.20	0.41
5:U:443:LEU:HB3	5:U:477:GLY:HA2	2.02	0.41
5:U:659:CYS:SG	5:U:660:CYS:N	2.93	0.41
5:U:710:ARG:HH22	5:U:738:ASP:CG	2.24	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:Z:39:LEU:HG	6:Z:95:TYR:HD2	1.85	0.41
7:a:142:LEU:HD11	7:a:152:HIS:CD2	2.55	0.41
8:b:11:ASP:O	8:b:29:GLN:NE2	2.49	0.41
9:A:187:LEU:O	9:A:191:VAL:HG22	2.20	0.41
9:A:281:GLY:O	9:A:327:LEU:HA	2.20	0.41
9:A:333:ARG:NH1	30:F:501:ATP:H5'1	2.34	0.41
10:B:225:TYR:CE2	10:B:352:GLU:HG2	2.55	0.41
10:B:298:ASN:OD1	10:B:298:ASN:N	2.54	0.41
10:B:340:ALA:O	10:B:346:ARG:HD2	2.20	0.41
12:D:407:ILE:HD13	12:D:407:ILE:HA	1.87	0.41
13:E:102:MET:SD	28:c:50:PRO:HG3	2.60	0.41
13:E:180:LYS:H	13:E:180:LYS:HG2	1.59	0.41
19:K:84:ASP:N	19:K:84:ASP:OD1	2.53	0.41
20:L:193:ARG:HA	20:L:196:ARG:HD2	2.02	0.41
24:d:109:LEU:HB3	24:d:158:ARG:NH2	2.35	0.41
24:d:119:LEU:HA	24:d:122:VAL:HG22	2.01	0.41
27:V:346:LEU:HA	27:V:349:ARG:HG2	2.02	0.41
27:V:449:ALA:HB1	27:V:458:VAL:HG12	2.03	0.41
1:H:118:MET:HE2	1:H:118:MET:HB3	1.95	0.41
3:f:650:GLN:NE2	3:f:683:GLU:OE2	2.50	0.41
5:U:2:ILE:N	24:d:177:ASP:OD1	2.54	0.41
5:U:552:ILE:O	5:U:555:VAL:HG12	2.21	0.41
5:U:760:VAL:HA	5:U:763:VAL:HG12	2.01	0.41
5:U:775:LEU:HD22	5:U:778:PHE:HE2	1.84	0.41
7:a:78:GLU:O	7:a:82:HIS:ND1	2.47	0.41
9:A:80:LEU:HD22	9:A:82:ALA:HB3	2.01	0.41
10:B:384:ILE:HG13	10:B:384:ILE:H	1.63	0.41
12:D:200:ARG:HD2	12:D:302:ASN:ND2	2.33	0.41
13:E:145:LEU:CD1	13:E:183:LEU:HB3	2.50	0.41
14:F:364:ARG:HH22	14:F:371:ARG:NH2	2.19	0.41
21:M:87:LEU:HD13	21:M:135:PHE:CE1	2.56	0.41
24:d:200:LEU:HD12	24:d:263:LEU:HD11	2.03	0.41
27:V:204:ASP:HA	27:V:207:ALA:HB3	2.02	0.41
27:V:435:GLU:OE2	27:V:453:HIS:ND1	2.37	0.41
28:c:243:SER:O	28:c:247:GLU:HG3	2.20	0.41
2:Y:82:LYS:HA	2:Y:82:LYS:HD2	1.91	0.41
3:f:182:GLU:HB2	3:f:183:PRO:HD3	2.03	0.41
3:f:670:MET:O	3:f:674:THR:HG23	2.19	0.41
3:f:679:LEU:HB3	3:f:713:PHE:CE2	2.55	0.41
4:X:153:LEU:HD22	4:X:169:VAL:HG11	2.02	0.41
5:U:5:ALA:HB3	24:d:173:CYS:SG	2.60	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:U:596:ASN:HA	5:U:599:ILE:HG22	2.02	0.41
6:Z:25:ARG:HH21	28:c:104:ARG:NH2	2.17	0.41
6:Z:79:TYR:HE2	6:Z:91:ILE:N	2.19	0.41
6:Z:189:GLN:HA	6:Z:192:THR:OG1	2.21	0.41
9:A:334:PRO:HG2	14:F:395:GLN:HG2	2.01	0.41
10:B:245:ALA:HB1	10:B:279:PRO:O	2.21	0.41
12:D:42:SER:O	12:D:46:LYS:HG2	2.21	0.41
12:D:274:ARG:HB2	12:D:318:ASP:OD2	2.21	0.41
12:D:354:LEU:HD22	12:D:358:VAL:HG11	2.02	0.41
16:G:75:ASN:HB2	16:G:108:GLU:OE2	2.21	0.41
18:J:9:VAL:HA	19:K:23:GLN:NE2	2.35	0.41
18:J:200:GLN:OE1	18:J:200:GLN:HA	2.21	0.41
24:d:208:PHE:CD2	24:d:208:PHE:C	2.99	0.41
27:V:237:THR:HG22	27:V:241:ARG:HH12	1.85	0.41
3:f:232:TYR:HB2	3:f:855:GLN:NE2	2.36	0.41
3:f:391:LEU:HG	3:f:414:LEU:HG	2.03	0.41
4:X:155:ARG:O	4:X:159:LYS:HG3	2.20	0.41
4:X:266:ASP:OD1	4:X:266:ASP:N	2.53	0.41
5:U:495:ASP:O	5:U:499:THR:HG23	2.20	0.41
5:U:900:TYR:HB3	5:U:914:LEU:HD11	2.02	0.41
6:Z:10:VAL:HG13	6:Z:49:ASP:HA	2.03	0.41
9:A:166:VAL:HG13	9:A:167:GLU:N	2.36	0.41
10:B:62:LEU:HD12	10:B:62:LEU:HA	1.94	0.41
10:B:431:GLN:OE1	10:B:431:GLN:N	2.53	0.41
11:C:218:GLU:O	11:C:230:MET:HE1	2.21	0.41
12:D:239:TYR:HA	15:v:15:UNK:O	2.20	0.41
13:E:87:LEU:HD21	13:E:109:ARG:HA	2.02	0.41
13:E:117:PRO:HB2	13:E:118:LEU:H	1.61	0.41
13:E:170:CYS:HA	13:E:297:ARG:HB2	2.03	0.41
13:E:203:ILE:HG23	13:E:221:TYR:HD1	1.86	0.41
18:J:40:ILE:HG22	18:J:212:ARG:HG3	2.03	0.41
19:K:48:LEU:CD2	19:K:67:ILE:HD12	2.51	0.41
20:L:45:VAL:HG11	20:L:188:VAL:HG23	2.03	0.41
21:M:39:ILE:HD13	21:M:162:GLY:HA3	2.02	0.41
26:g:140:LYS:HE3	26:g:144:GLU:HG3	2.03	0.41
1:H:43:GLY:HA2	1:H:144:PRO:HB3	2.03	0.41
1:H:86:LEU:HD21	1:H:118:MET:HG2	2.03	0.41
2:Y:50:MET:CG	2:Y:53:TYR:HB3	2.48	0.41
3:f:72:ARG:O	3:f:76:GLU:HB2	2.21	0.41
3:f:89:MET:HE3	10:B:411:ARG:HD3	2.03	0.41
3:f:105:LYS:O	3:f:108:GLU:HG3	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:f:816:TYR:HA	3:f:819:TYR:HD2	1.85	0.41
5:U:217:CYS:O	5:U:221:ILE:HG23	2.20	0.41
5:U:229:VAL:HG21	5:U:252:LEU:HD11	2.01	0.41
5:U:368:ALA:HB2	5:U:728:PHE:CE2	2.55	0.41
5:U:478:SER:HB2	5:U:497:LEU:HD11	2.03	0.41
5:U:516:LEU:HA	5:U:519:VAL:HG12	2.02	0.41
5:U:656:LEU:HD23	5:U:656:LEU:HA	1.92	0.41
5:U:842:LYS:HA	5:U:845:GLU:CD	2.45	0.41
6:Z:110:GLU:HG2	6:Z:153:LYS:NZ	2.36	0.41
6:Z:173:GLU:OE2	28:c:152:LYS:HG3	2.21	0.41
7:a:99:LYS:HA	7:a:102:GLU:HG2	2.02	0.41
8:b:18:ASN:N	8:b:18:ASN:OD1	2.52	0.41
9:A:80:LEU:HA	9:A:80:LEU:HD23	1.85	0.41
10:B:401:GLU:OE2	11:C:313:ARG:NH1	2.54	0.41
11:C:66:LEU:HD23	11:C:66:LEU:HA	1.89	0.41
12:D:130:VAL:HG11	12:D:139:LEU:HD11	2.02	0.41
13:E:83:CYS:SG	13:E:84:ARG:N	2.94	0.41
14:F:137:ILE:O	14:F:160:ILE:HB	2.21	0.41
14:F:435:LEU:HB2	14:F:438:TYR:HD2	1.85	0.41
16:G:179:LEU:O	16:G:183:VAL:HG12	2.20	0.41
17:I:66:TYR:CD2	17:I:87:THR:HG21	2.56	0.41
18:J:79:ASP:CG	18:J:125:ARG:HH12	2.28	0.41
18:J:142:PRO:HD3	18:J:213:ARG:HH21	1.86	0.41
19:K:8:TYR:OH	20:L:7:ASP:OD2	2.23	0.41
20:L:105:VAL:O	20:L:109:VAL:HG23	2.20	0.41
21:M:37:ILE:HG22	21:M:164:ALA:HB2	2.02	0.41
24:d:166:ARG:HE	24:d:166:ARG:HB3	1.52	0.41
24:d:209:HIS:HB3	27:V:397:ARG:HH21	1.86	0.41
25:W:27:ARG:O	25:W:27:ARG:NH1	2.54	0.41
27:V:163:VAL:O	27:V:167:LEU:HG	2.20	0.41
27:V:298:ILE:HA	27:V:397:ARG:HH22	1.86	0.41
27:V:317:PRO:HB2	27:V:320:THR:HB	2.02	0.41
1:H:139:TRP:CD1	1:H:215:GLU:HA	2.55	0.41
3:f:444:ALA:O	3:f:447:ALA:HB3	2.21	0.41
3:f:457:ASN:HB2	3:f:461:PRO:HD3	2.03	0.41
3:f:782:HIS:CG	3:f:783:SER:N	2.89	0.41
3:f:783:SER:HB3	3:f:787:LEU:HB2	2.03	0.41
5:U:412:HIS:HD2	5:U:422:LEU:HD21	1.86	0.41
5:U:463:ASN:HA	5:U:466:LYS:HG3	2.02	0.41
5:U:898:CYS:SG	5:U:899:ARG:N	2.94	0.41
8:b:181:ASP:O	8:b:184:ILE:HG13	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:293:MET:HE1	11:C:305:LEU:HD13	2.03	0.41
12:D:267:ILE:HD12	12:D:267:ILE:HA	1.81	0.41
14:F:213:GLU:N	14:F:213:GLU:OE1	2.54	0.41
14:F:289:ASP:O	14:F:293:THR:OG1	2.37	0.41
25:W:396:LEU:HD23	25:W:396:LEU:HA	1.93	0.41
28:c:216:MET:HE2	28:c:216:MET:HB2	1.83	0.41
3:f:47:GLU:HG2	3:f:48:GLU:H	1.85	0.40
3:f:124:ASP:HB3	3:f:154:TRP:CZ2	2.55	0.40
3:f:137:ARG:NH2	3:f:169:GLU:HB2	2.36	0.40
3:f:545:LYS:HG3	3:f:550:LEU:HG	2.03	0.40
3:f:722:SER:O	3:f:726:ILE:HG12	2.21	0.40
5:U:542:GLU:OE2	28:c:32:TYR:OH	2.28	0.40
5:U:645:ASN:HA	5:U:646:PRO:HD3	1.95	0.40
7:a:65:SER:HA	7:a:68:GLU:CD	2.47	0.40
7:a:69:HIS:O	7:a:70:ARG:HD2	2.21	0.40
7:a:226:ARG:HH22	7:a:230:ARG:HB2	1.87	0.40
10:B:251:VAL:HG23	10:B:254:GLU:CD	2.46	0.40
10:B:364:ILE:HD12	30:B:502:ATP:N1	2.36	0.40
11:C:52:LEU:HD12	11:C:52:LEU:HA	1.90	0.40
12:D:215:LEU:HD23	12:D:333:PHE:HZ	1.87	0.40
12:D:350:SER:OG	12:D:351:LYS:HD3	2.21	0.40
13:E:56:ILE:HD12	13:E:102:MET:HA	2.03	0.40
14:F:292:GLY:O	14:F:339:ASP:N	2.53	0.40
18:J:7:ILE:HG12	18:J:18:GLN:HG2	2.02	0.40
25:W:267:LEU:HD23	25:W:267:LEU:HA	1.79	0.40
27:V:403:ILE:O	27:V:407:VAL:HG23	2.20	0.40
28:c:237:HIS:NE2	28:c:294:SER:OG	2.48	0.40
2:Y:26:LEU:HD23	2:Y:26:LEU:HA	1.89	0.40
2:Y:146:ARG:HG2	2:Y:183:TYR:HE1	1.86	0.40
3:f:91:SER:HA	10:B:410:ARG:O	2.21	0.40
3:f:109:ILE:O	3:f:113:MET:HG2	2.21	0.40
5:U:265:ILE:HG13	5:U:266:GLN:N	2.36	0.40
5:U:496:LEU:O	5:U:499:THR:OG1	2.36	0.40
5:U:841:LYS:O	5:U:845:GLU:HG3	2.20	0.40
6:Z:228:TYR:HA	6:Z:231:GLN:HB3	2.03	0.40
7:a:278:MET:HE1	7:a:319:LEU:HB3	2.03	0.40
13:E:127:PRO:HB3	13:E:195:PHE:HB3	2.02	0.40
13:E:202:SER:C	13:E:217:GLU:HG3	2.45	0.40
16:G:48:ALA:HB3	16:G:220:VAL:HG12	2.03	0.40
21:M:53:VAL:O	21:M:53:VAL:HG13	2.21	0.40
25:W:115:ILE:O	25:W:121:LYS:HD3	2.20	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:W:276:LEU:HD23	25:W:276:LEU:HA	1.94	0.40
27:V:250:LEU:HD23	27:V:250:LEU:HA	1.79	0.40
28:c:41:MET:CG	28:c:72:VAL:HG21	2.51	0.40
1:H:195:LEU:HD13	1:H:208:ILE:HD12	2.03	0.40
2:Y:50:MET:HE3	2:Y:50:MET:HB2	1.88	0.40
3:f:344:VAL:HG12	3:f:346:ASP:H	1.86	0.40
3:f:557:TRP:HA	3:f:560:LEU:HB2	2.03	0.40
3:f:723:TYR:HB3	3:f:761:MET:HE3	2.04	0.40
5:U:612:ASP:HB3	5:U:647:HIS:CD2	2.57	0.40
5:U:714:SER:HA	5:U:717:ILE:HG22	2.03	0.40
6:Z:23:PHE:HB2	6:Z:97:THR:HG21	2.03	0.40
6:Z:110:GLU:HG2	6:Z:153:LYS:HZ2	1.86	0.40
10:B:170:LEU:HD22	10:B:257:GLN:HE22	1.85	0.40
11:C:194:THR:CG2	11:C:317:PHE:HB3	2.51	0.40
12:D:191:TYR:O	12:D:195:GLY:N	2.52	0.40
12:D:362:ASP:O	12:D:366:ARG:NE	2.55	0.40
12:D:384:MET:HB3	12:D:388:ARG:NH2	2.36	0.40
13:E:206:LYS:HE3	13:E:206:LYS:HB3	1.90	0.40
14:F:145:LEU:HD23	14:F:145:LEU:HA	1.89	0.40
16:G:168:ALA:HA	16:G:172:GLN:HG3	2.03	0.40
18:J:104:VAL:HG11	18:J:143:ARG:HB2	2.03	0.40
24:d:151:GLY:HA3	24:d:167:TYR:CE1	2.57	0.40
24:d:196:LEU:HD11	24:d:215:LEU:HD11	2.03	0.40
27:V:218:TYR:HA	27:V:221:LEU:HB2	2.03	0.40
1:H:79:MET:HE3	1:H:79:MET:HB3	1.82	0.40
3:f:398:TRP:CD1	3:f:398:TRP:C	2.99	0.40
4:X:270:LEU:HD12	4:X:270:LEU:HA	1.82	0.40
7:a:54:ASP:OD1	7:a:54:ASP:N	2.55	0.40
11:C:144:PRO:HG3	11:C:201:ARG:HG2	2.02	0.40
12:D:146:GLU:CD	12:D:146:GLU:H	2.30	0.40
12:D:372:GLY:HA3	31:D:501:ADP:C8	2.56	0.40
16:G:153:LYS:HB3	16:G:163:PHE:CE1	2.57	0.40
18:J:2:SER:HA	18:J:5:ARG:HH21	1.87	0.40
19:K:109:VAL:HG11	19:K:152:GLN:HB2	2.03	0.40
20:L:203:GLN:O	20:L:239:ARG:NH2	2.53	0.40
21:M:15:SER:OG	21:M:17:ASP:OD1	2.33	0.40
23:e:56:LEU:HD23	23:e:56:LEU:HA	1.79	0.40
2:Y:165:LYS:O	2:Y:169:GLU:HG2	2.21	0.40
2:Y:215:ASP:OD1	2:Y:218:THR:N	2.43	0.40
2:Y:250:LEU:HD13	2:Y:257:ARG:HA	2.02	0.40
2:Y:312:ARG:HE	4:X:386:ILE:HD12	1.85	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:387:ILE:HG13	2:Y:387:ILE:H	1.77	0.40
4:X:97:LEU:HD11	4:X:106:GLU:HB3	2.03	0.40
6:Z:101:LEU:CD1	25:W:451:MET:HG2	2.37	0.40
7:a:280:MET:HE1	7:a:296:ILE:HA	2.03	0.40
7:a:281:THR:HG23	7:a:335:TRP:CZ3	2.57	0.40
8:b:130:ARG:HH21	8:b:131:LEU:HG	1.86	0.40
9:A:120:LYS:HB2	9:A:120:LYS:HE2	1.87	0.40
10:B:112:LEU:HD12	10:B:144:LEU:HD12	2.04	0.40
11:C:66:LEU:HD13	12:D:82:ILE:HG21	2.04	0.40
11:C:146:SER:HB2	11:C:201:ARG:HB3	2.03	0.40
16:G:119:ALA:HB1	16:G:158:GLY:O	2.21	0.40
16:G:179:LEU:HG	16:G:201:CYS:SG	2.61	0.40
17:I:42:GLY:HA3	17:I:186:LEU:HD13	2.04	0.40
19:K:91:LYS:O	19:K:91:LYS:HD3	2.21	0.40
21:M:189:ILE:HD13	21:M:189:ILE:HA	1.95	0.40
24:d:168:MET:HE2	24:d:171:LEU:HD11	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	H	230/234 (98%)	224 (97%)	6 (3%)	0	100	100
2	Y	378/389 (97%)	369 (98%)	9 (2%)	0	100	100
3	f	838/908 (92%)	793 (95%)	44 (5%)	1 (0%)	48	78
4	X	376/422 (89%)	353 (94%)	22 (6%)	1 (0%)	36	67
5	U	831/953 (87%)	768 (92%)	60 (7%)	3 (0%)	30	61
6	Z	284/324 (88%)	256 (90%)	25 (9%)	3 (1%)	11	39
7	a	371/376 (99%)	341 (92%)	30 (8%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	b	189/377 (50%)	170 (90%)	18 (10%)	1 (0%)	24	57
9	A	413/433 (95%)	379 (92%)	33 (8%)	1 (0%)	43	73
10	B	394/440 (90%)	368 (93%)	26 (7%)	0	100	100
11	C	384/406 (95%)	354 (92%)	29 (8%)	1 (0%)	36	67
12	D	378/418 (90%)	341 (90%)	34 (9%)	3 (1%)	16	47
13	E	354/389 (91%)	308 (87%)	41 (12%)	5 (1%)	9	34
14	F	358/439 (82%)	338 (94%)	18 (5%)	2 (1%)	21	52
16	G	237/246 (96%)	231 (98%)	5 (2%)	1 (0%)	30	61
17	I	246/261 (94%)	235 (96%)	10 (4%)	1 (0%)	30	61
18	J	232/248 (94%)	216 (93%)	16 (7%)	0	100	100
19	K	224/241 (93%)	207 (92%)	17 (8%)	0	100	100
20	L	236/263 (90%)	231 (98%)	5 (2%)	0	100	100
21	M	238/255 (93%)	228 (96%)	10 (4%)	0	100	100
22	O	42/277 (15%)	42 (100%)	0	0	100	100
23	e	37/70 (53%)	37 (100%)	0	0	100	100
24	d	267/350 (76%)	253 (95%)	13 (5%)	1 (0%)	30	61
25	W	436/456 (96%)	423 (97%)	12 (3%)	1 (0%)	43	73
26	g	93/601 (16%)	91 (98%)	2 (2%)	0	100	100
27	V	439/534 (82%)	421 (96%)	17 (4%)	1 (0%)	43	73
28	c	269/424 (63%)	253 (94%)	16 (6%)	0	100	100
All	All	8774/10734 (82%)	8230 (94%)	518 (6%)	26 (0%)	37	67

All (26) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	X	393	VAL
5	U	42	VAL
5	U	812	ALA
6	Z	146	ASP
12	D	339	ARG
13	E	223	ARG
13	E	387	LYS
14	F	321	GLN
25	W	41	GLN
8	b	22	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	A	116	LYS
11	C	134	LEU
12	D	303	VAL
13	E	85	ARG
16	G	184	LYS
17	I	107	CYS
24	d	332	SER
3	f	404	ASP
5	U	172	ASP
13	E	380	LEU
27	V	318	GLN
6	Z	154	THR
12	D	150	SER
13	E	229	ILE
14	F	209	LYS
6	Z	226	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	H	190/191 (100%)	185 (97%)	5 (3%)	40	68
2	Y	335/344 (97%)	329 (98%)	6 (2%)	51	73
3	f	709/763 (93%)	682 (96%)	27 (4%)	29	60
4	X	325/362 (90%)	311 (96%)	14 (4%)	26	57
5	U	715/816 (88%)	685 (96%)	30 (4%)	26	58
6	Z	257/295 (87%)	245 (95%)	12 (5%)	23	55
7	a	333/336 (99%)	310 (93%)	23 (7%)	14	41
8	b	167/312 (54%)	159 (95%)	8 (5%)	23	54
9	A	356/372 (96%)	343 (96%)	13 (4%)	30	61
10	B	350/385 (91%)	343 (98%)	7 (2%)	48	72
11	C	338/352 (96%)	321 (95%)	17 (5%)	22	53

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	D	333/366 (91%)	319 (96%)	14 (4%)	26	58
13	E	316/341 (93%)	298 (94%)	18 (6%)	18	49
14	F	311/379 (82%)	302 (97%)	9 (3%)	37	66
16	G	192/210 (91%)	185 (96%)	7 (4%)	31	62
17	I	197/221 (89%)	193 (98%)	4 (2%)	48	72
18	J	167/211 (79%)	161 (96%)	6 (4%)	31	62
19	K	188/203 (93%)	186 (99%)	2 (1%)	65	78
20	L	198/224 (88%)	192 (97%)	6 (3%)	36	65
21	M	192/212 (91%)	186 (97%)	6 (3%)	35	64
22	O	41/228 (18%)	38 (93%)	3 (7%)	13	40
23	e	37/63 (59%)	36 (97%)	1 (3%)	39	67
24	d	237/294 (81%)	236 (100%)	1 (0%)	84	86
25	W	403/416 (97%)	398 (99%)	5 (1%)	63	78
26	g	85/527 (16%)	83 (98%)	2 (2%)	43	69
27	V	389/460 (85%)	384 (99%)	5 (1%)	61	77
28	c	240/359 (67%)	230 (96%)	10 (4%)	26	58
All	All	7601/9242 (82%)	7340 (97%)	261 (3%)	33	63

All (261) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	H	4	ARG
1	H	49	GLU
1	H	140	ASN
1	H	156	PHE
1	H	175	GLU
2	Y	30	GLU
2	Y	84	LEU
2	Y	112	CYS
2	Y	143	TYR
2	Y	173	ASP
2	Y	220	VAL
3	f	58	MET
3	f	82	ILE
3	f	125	ILE
3	f	182	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	f	207	LEU
3	f	216	MET
3	f	266	LEU
3	f	306	GLU
3	f	344	VAL
3	f	352	HIS
3	f	403	LYS
3	f	414	LEU
3	f	440	ILE
3	f	455	VAL
3	f	466	LEU
3	f	483	PHE
3	f	518	THR
3	f	564	LEU
3	f	646	MET
3	f	655	LEU
3	f	692	LEU
3	f	736	THR
3	f	761	MET
3	f	791	VAL
3	f	865	PHE
3	f	878	GLU
3	f	900	LEU
4	X	44	GLN
4	X	93	LEU
4	X	107	VAL
4	X	110	CYS
4	X	126	ARG
4	X	129	LEU
4	X	136	LEU
4	X	152	GLN
4	X	153	LEU
4	X	262	ASN
4	X	266	ASP
4	X	356	LEU
4	X	377	ILE
4	X	393	VAL
5	U	25	HIS
5	U	59	PHE
5	U	167	ILE
5	U	168	LEU
5	U	243	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	U	352	ILE
5	U	360	VAL
5	U	374	SER
5	U	390	LEU
5	U	415	HIS
5	U	422	LEU
5	U	457	ILE
5	U	486	MET
5	U	492	ASP
5	U	497	LEU
5	U	552	ILE
5	U	554	LEU
5	U	586	VAL
5	U	629	THR
5	U	693	LEU
5	U	703	CYS
5	U	724	VAL
5	U	732	LEU
5	U	776	SER
5	U	786	THR
5	U	788	VAL
5	U	794	ASP
5	U	828	VAL
5	U	875	PHE
5	U	884	VAL
6	Z	47	VAL
6	Z	91	ILE
6	Z	101	LEU
6	Z	118	ASN
6	Z	120	VAL
6	Z	121	LEU
6	Z	144	VAL
6	Z	188	SER
6	Z	227	ILE
6	Z	234	PHE
6	Z	235	ASN
6	Z	289	GLU
7	a	8	LEU
7	a	118	ILE
7	a	127	ASP
7	a	128	LEU
7	a	136	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	a	148	VAL
7	a	163	TYR
7	a	177	LEU
7	a	183	VAL
7	a	211	PHE
7	a	212	ASN
7	a	216	LEU
7	a	219	HIS
7	a	248	PHE
7	a	261	LEU
7	a	269	LEU
7	a	272	ILE
7	a	307	VAL
7	a	327	VAL
7	a	349	MET
7	a	366	LEU
7	a	374	ILE
7	a	375	LEU
8	b	8	VAL
8	b	51	LEU
8	b	60	VAL
8	b	78	VAL
8	b	94	HIS
8	b	132	LYS
8	b	150	THR
8	b	161	ASN
9	A	22	ILE
9	A	26	ASP
9	A	60	ASN
9	A	70	THR
9	A	83	ASP
9	A	117	GLN
9	A	144	ARG
9	A	195	LEU
9	A	270	CYS
9	A	287	ASP
9	A	309	PHE
9	A	403	ILE
9	A	429	TYR
10	B	102	LEU
10	B	216	ILE
10	B	270	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	B	325	VAL
10	B	336	THR
10	B	372	MET
10	B	388	ASP
11	C	35	VAL
11	C	37	ASP
11	C	63	LEU
11	C	105	ILE
11	C	108	VAL
11	C	116	LEU
11	C	118	ASN
11	C	134	LEU
11	C	145	ASP
11	C	166	GLU
11	C	234	LEU
11	C	236	VAL
11	C	266	ASP
11	C	301	LEU
11	C	351	MET
11	C	383	PHE
11	C	404	LEU
12	D	109	SER
12	D	132	LEU
12	D	157	ASP
12	D	171	ASP
12	D	185	LEU
12	D	267	ILE
12	D	268	ASP
12	D	270	ILE
12	D	272	THR
12	D	303	VAL
12	D	305	VAL
12	D	328	ASP
12	D	399	PHE
12	D	407	ILE
13	E	62	LYS
13	E	120	TYR
13	E	124	HIS
13	E	151	LEU
13	E	180	LYS
13	E	196	LEU
13	E	203	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	E	205	ASP
13	E	270	LEU
13	E	289	LEU
13	E	296	ASP
13	E	301	ILE
13	E	326	ILE
13	E	327	ASP
13	E	332	VAL
13	E	369	LYS
13	E	371	VAL
13	E	386	TYR
14	F	59	VAL
14	F	96	LEU
14	F	124	ILE
14	F	153	VAL
14	F	159	LEU
14	F	208	HIS
14	F	332	THR
14	F	336	ASP
14	F	435	LEU
16	G	78	CYS
16	G	79	VAL
16	G	81	THR
16	G	111	VAL
16	G	115	CYS
16	G	203	SER
16	G	221	THR
17	I	63	GLU
17	I	76	VAL
17	I	108	GLU
17	I	164	ILE
18	J	30	SER
18	J	35	VAL
18	J	104	VAL
18	J	130	SER
18	J	181	ILE
18	J	184	ASP
19	K	47	CYS
19	K	139	VAL
20	L	138	ASP
20	L	146	GLN
20	L	178	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	L	198	THR
20	L	215	VAL
20	L	239	ARG
21	M	19	ARG
21	M	22	GLN
21	M	35	THR
21	M	54	LEU
21	M	158	TYR
21	M	216	VAL
22	O	52	THR
22	O	78	THR
22	O	83	LEU
23	e	63	HIS
24	d	156	ILE
25	W	105	VAL
25	W	171	VAL
25	W	235	GLN
25	W	299	ILE
25	W	338	THR
26	g	87	VAL
26	g	122	LEU
27	V	153	LYS
27	V	224	LEU
27	V	234	ARG
27	V	245	ASP
27	V	309	MET
28	c	54	MET
28	c	70	ILE
28	c	109	VAL
28	c	125	VAL
28	c	131	GLN
28	c	156	VAL
28	c	166	ASN
28	c	216	MET
28	c	230	THR
28	c	263	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (79) such sidechains are listed below:

Mol	Chain	Res	Type
1	H	95	GLN
2	Y	77	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	Y	344	HIS
3	f	291	GLN
3	f	327	ASN
3	f	402	ASN
3	f	452	ASN
3	f	540	GLN
3	f	565	ASN
3	f	790	GLN
4	X	127	GLN
4	X	207	GLN
4	X	380	GLN
5	U	207	ASN
5	U	266	GLN
5	U	355	ASN
5	U	415	HIS
5	U	452	ASN
5	U	491	GLN
5	U	537	GLN
5	U	711	GLN
5	U	749	GLN
5	U	754	HIS
5	U	777	HIS
6	Z	44	GLN
6	Z	231	GLN
6	Z	273	HIS
6	Z	278	ASN
7	a	9	GLN
7	a	86	GLN
7	a	169	HIS
7	a	241	ASN
7	a	264	ASN
7	a	369	HIS
8	b	48	ASN
8	b	101	GLN
8	b	142	ASN
8	b	149	ASN
9	A	165	GLN
9	A	231	ASN
10	B	257	GLN
10	B	315	GLN
11	C	41	ASN
11	C	69	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	C	205	HIS
11	C	221	GLN
11	C	278	ASN
12	D	65	GLN
12	D	83	GLN
12	D	99	ASN
12	D	295	GLN
13	E	19	HIS
13	E	121	ASN
13	E	316	HIS
14	F	92	ASN
14	F	214	ASN
14	F	243	GLN
14	F	436	GLN
17	I	149	GLN
17	I	198	ASN
19	K	13	ASN
19	K	114	GLN
19	K	118	ASN
19	K	155	HIS
21	M	97	ASN
21	M	120	HIS
21	M	147	GLN
24	d	127	ASN
24	d	195	ASN
24	d	242	ASN
25	W	235	GLN
25	W	423	ASN
26	g	135	GLN
27	V	125	ASN
27	V	247	GLN
27	V	260	HIS
27	V	347	GLN
28	c	30	GLN
28	c	240	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 12 ligands modelled in this entry, 6 are monoatomic - leaving 6 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
31	ADP	D	501	29	28,29,29	1.40	4 (14%)	43,45,45	1.86	8 (18%)
31	ADP	E	401	-	28,29,29	1.42	4 (14%)	43,45,45	1.85	8 (18%)
31	ADP	C	502	29	28,29,29	1.39	4 (14%)	43,45,45	1.85	9 (20%)
30	ATP	F	501	29	32,33,33	0.31	0	48,52,52	0.35	0
30	ATP	B	502	29	32,33,33	0.28	0	48,52,52	0.32	0
30	ATP	B	501	29	32,33,33	0.57	1 (3%)	48,52,52	0.37	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	ADP	D	501	29	-	1/16/32/32	0/3/3/3
31	ADP	E	401	-	-	4/16/32/32	0/3/3/3
31	ADP	C	502	29	-	3/16/32/32	0/3/3/3
30	ATP	F	501	29	-	5/22/38/38	0/3/3/3
30	ATP	B	502	29	-	7/22/38/38	0/3/3/3
30	ATP	B	501	29	-	8/22/38/38	0/3/3/3

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	E	401	ADP	C5-C4	4.80	1.47	1.39
31	D	501	ADP	C5-C4	4.75	1.47	1.39
31	C	502	ADP	C5-C4	4.57	1.47	1.39
31	E	401	ADP	C5-C6	2.68	1.48	1.41
31	D	501	ADP	C5-C6	2.66	1.48	1.41
31	C	502	ADP	C5-C6	2.65	1.48	1.41
31	C	502	ADP	C5-N7	-2.39	1.34	1.39
31	E	401	ADP	C5-N7	-2.35	1.34	1.39
31	D	501	ADP	C5-N7	-2.34	1.34	1.39
31	C	502	ADP	C8-N7	2.28	1.36	1.31
30	B	501	ATP	PA-O3A	2.27	1.62	1.59
31	D	501	ADP	C8-N7	2.24	1.36	1.31
31	E	401	ADP	C8-N7	2.22	1.36	1.31

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	E	401	ADP	C5-C4-N3	-6.20	118.17	126.72
31	C	502	ADP	C5-C4-N3	-5.96	118.51	126.72
31	D	501	ADP	C5-C4-N3	-5.89	118.60	126.72
31	E	401	ADP	N3-C4-N9	4.90	135.50	127.17
31	D	501	ADP	N3-C4-N9	4.78	135.30	127.17
31	C	502	ADP	N3-C4-N9	4.74	135.22	127.17
31	E	401	ADP	C2-N3-C4	3.81	121.12	111.83
31	C	502	ADP	C2-N3-C4	3.69	120.83	111.83
31	D	501	ADP	C2-N3-C4	3.67	120.80	111.83
31	C	502	ADP	C4-C5-N7	-3.44	106.65	110.58
31	D	501	ADP	C4-C5-N7	-3.34	106.77	110.58
31	E	401	ADP	C4-C5-N7	-3.30	106.81	110.58
31	E	401	ADP	N3-C2-N1	-3.17	123.79	128.58
31	D	501	ADP	N3-C2-N1	-3.15	123.82	128.58
31	C	502	ADP	N3-C2-N1	-3.14	123.83	128.58
31	D	501	ADP	C3'-C2'-C1'	2.73	106.62	101.46
31	C	502	ADP	C4-N9-C8	2.64	108.51	105.74
31	D	501	ADP	C4-N9-C8	2.63	108.50	105.74
31	C	502	ADP	C5-N7-C8	2.58	107.50	103.45
31	D	501	ADP	C5-N7-C8	2.51	107.39	103.45
31	E	401	ADP	C3'-C2'-C1'	2.45	106.11	101.46
31	E	401	ADP	C5-N7-C8	2.35	107.15	103.45
31	C	502	ADP	C3'-C2'-C1'	2.25	105.72	101.46
31	E	401	ADP	C4-N9-C8	2.19	108.03	105.74
31	C	502	ADP	N9-C8-N7	-2.02	111.07	113.94

There are no chirality outliers.

All (28) torsion outliers are listed below:

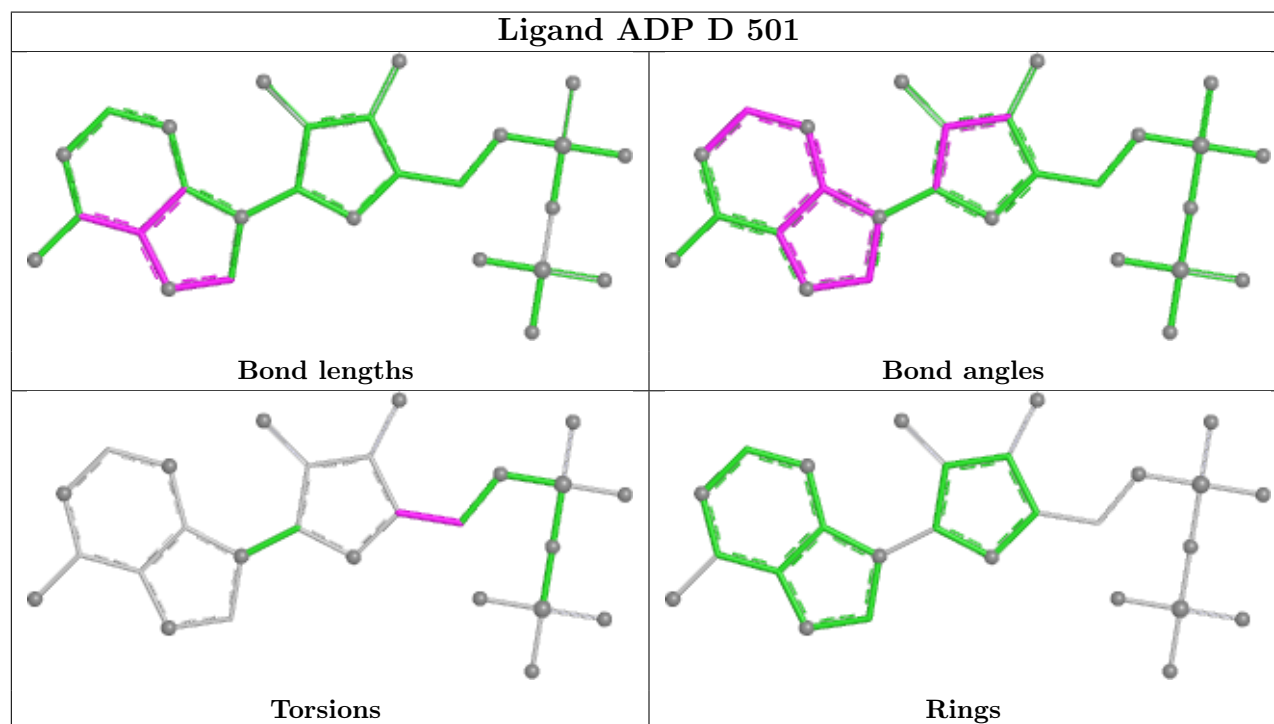
Mol	Chain	Res	Type	Atoms
30	B	501	ATP	PB-O3B-PG-O2G
30	B	501	ATP	C5'-O5'-PA-O1A
30	B	501	ATP	C5'-O5'-PA-O3A
30	B	502	ATP	PB-O3B-PG-O2G
30	B	502	ATP	C5'-O5'-PA-O1A
30	B	502	ATP	C5'-O5'-PA-O3A
30	F	501	ATP	O4'-C4'-C5'-O5'
31	C	502	ADP	C5'-O5'-PA-O1A
31	C	502	ADP	O4'-C4'-C5'-O5'
31	E	401	ADP	C5'-O5'-PA-O2A
31	E	401	ADP	C5'-O5'-PA-O3A
31	C	502	ADP	C3'-C4'-C5'-O5'
30	F	501	ATP	C3'-C4'-C5'-O5'
31	E	401	ADP	O4'-C4'-C5'-O5'
30	B	501	ATP	O4'-C4'-C5'-O5'
31	E	401	ADP	C3'-C4'-C5'-O5'
30	B	502	ATP	PB-O3B-PG-O3G
30	B	501	ATP	PG-O3B-PB-O1B
30	B	501	ATP	C5'-O5'-PA-O2A
30	B	502	ATP	C5'-O5'-PA-O2A
30	F	501	ATP	C5'-O5'-PA-O1A
30	B	502	ATP	PG-O3B-PB-O2B
30	B	501	ATP	C3'-C4'-C5'-O5'
30	B	502	ATP	PB-O3B-PG-O1G
30	B	501	ATP	PB-O3B-PG-O3G
30	F	501	ATP	PB-O3A-PA-O1A
30	F	501	ATP	PB-O3A-PA-O2A
31	D	501	ADP	O4'-C4'-C5'-O5'

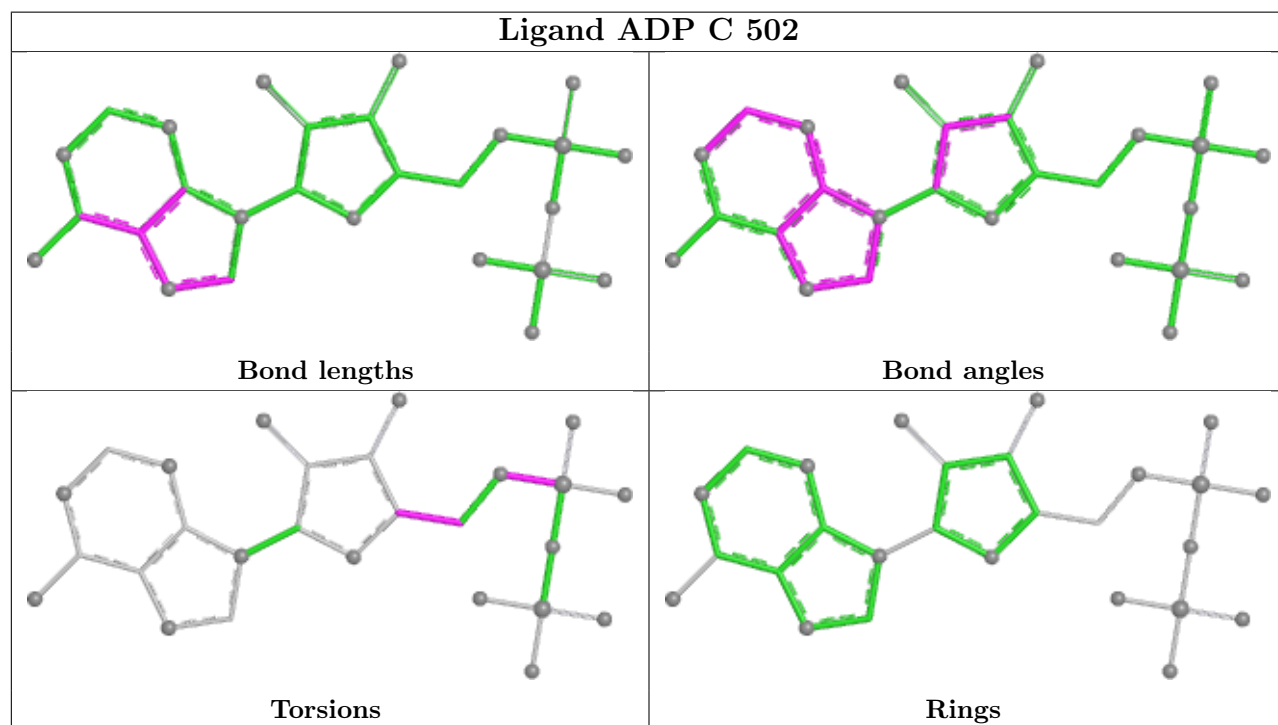
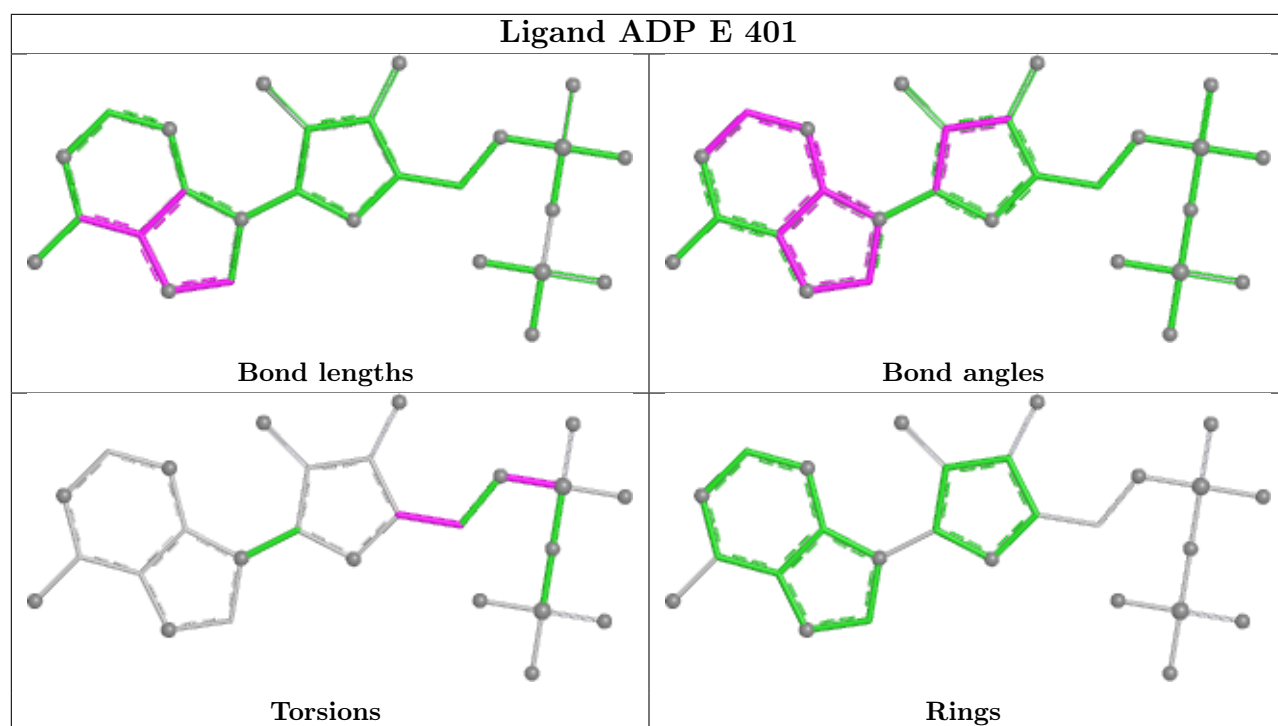
There are no ring outliers.

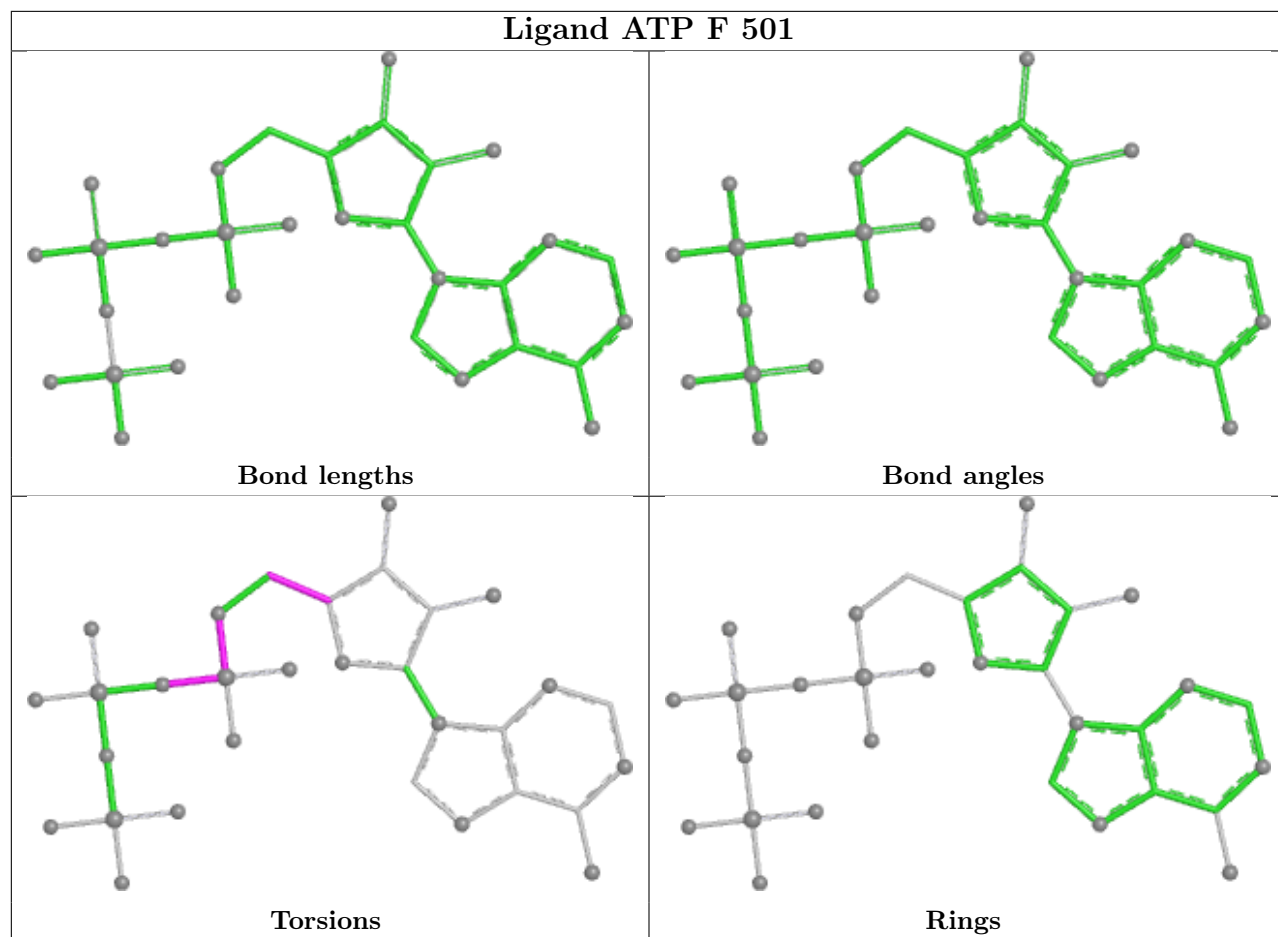
6 monomers are involved in 20 short contacts:

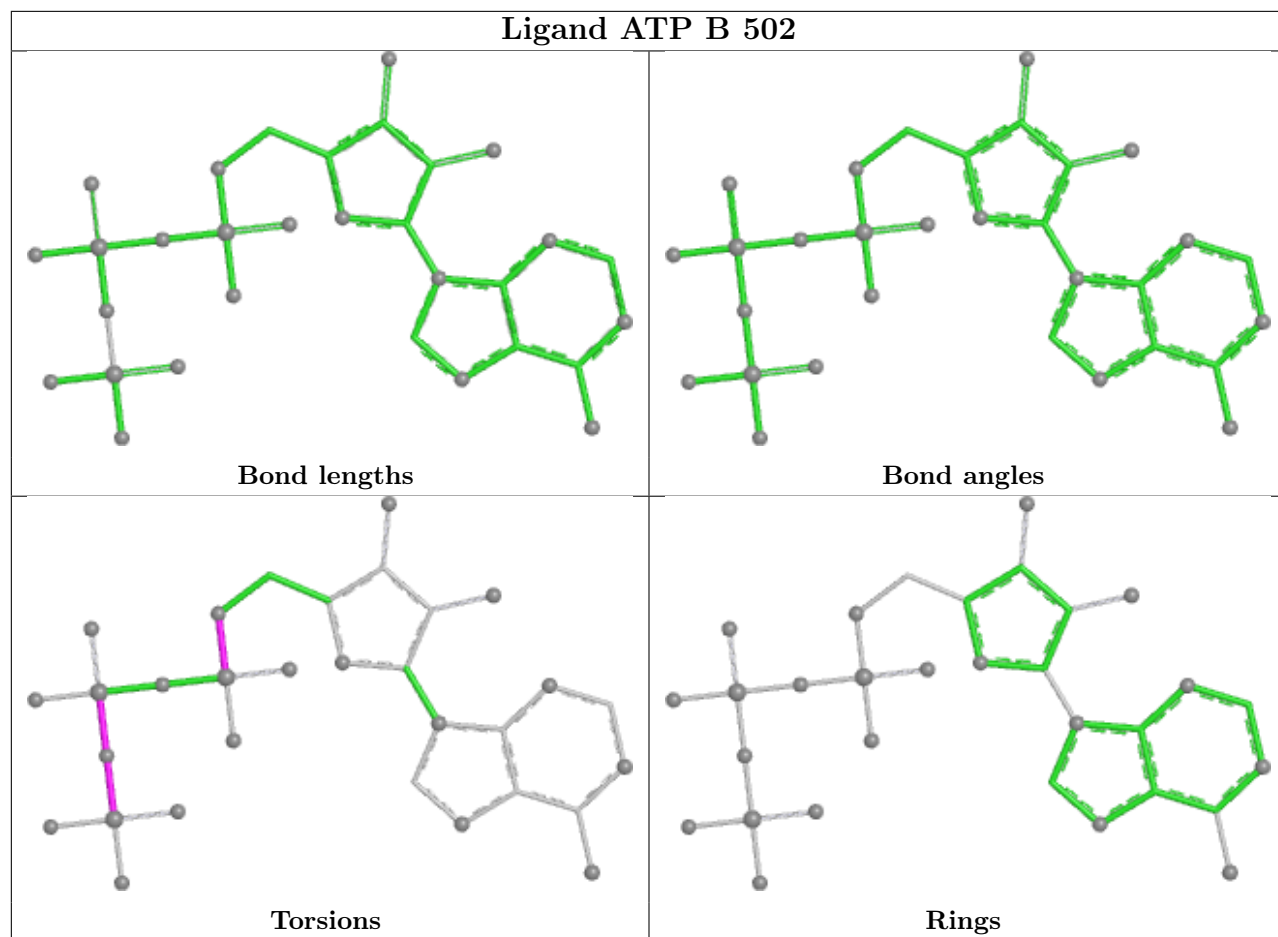
Mol	Chain	Res	Type	Clashes	Symm-Clashes
31	D	501	ADP	4	0
31	E	401	ADP	5	0
31	C	502	ADP	2	0
30	F	501	ATP	5	0
30	B	502	ATP	2	0
30	B	501	ATP	2	0

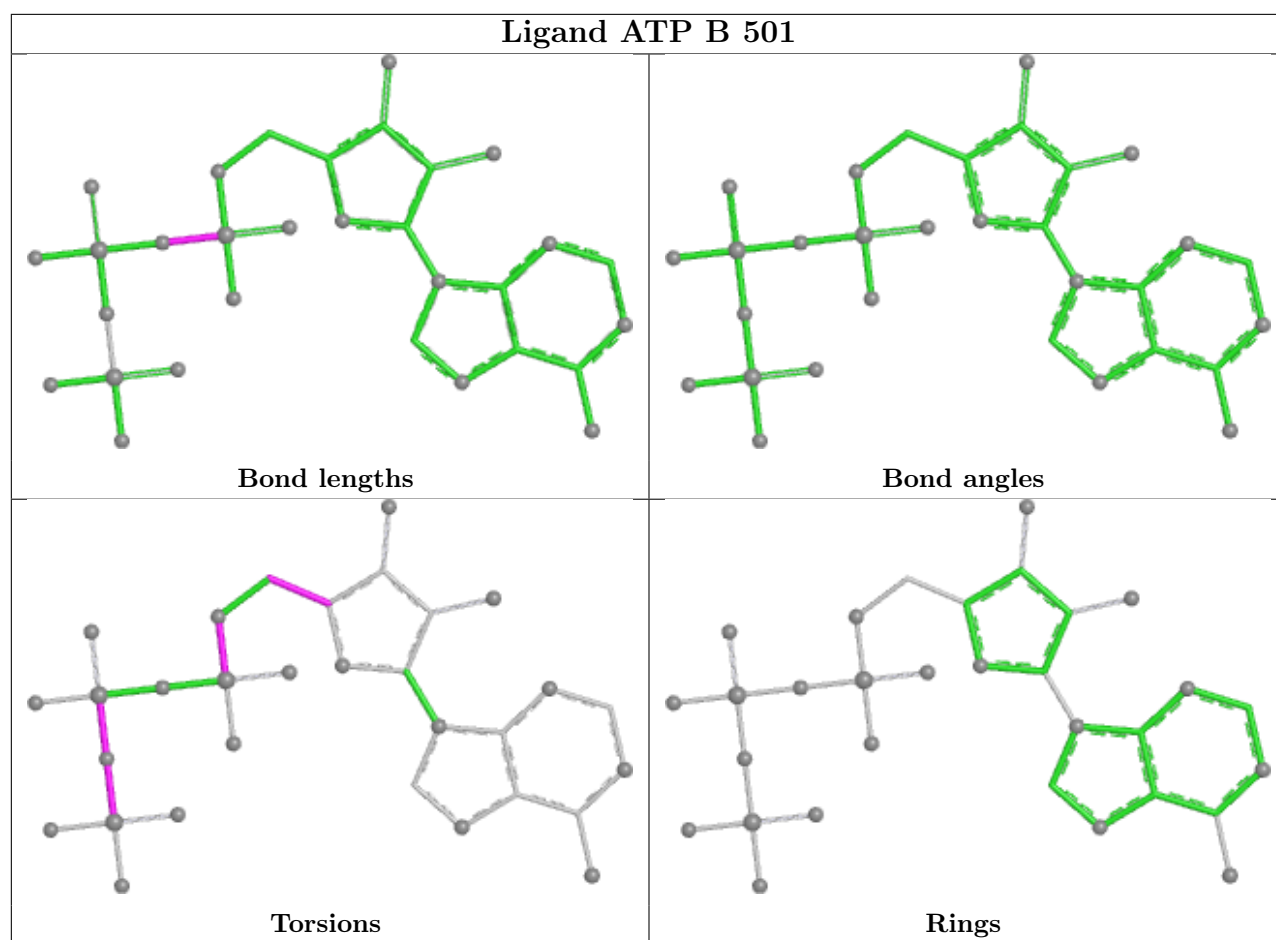
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.











5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

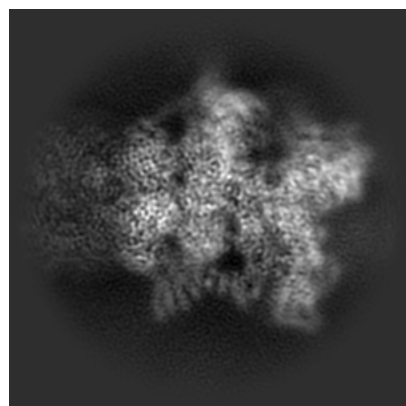
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-42507. These allow visual inspection of the internal detail of the map and identification of artifacts.

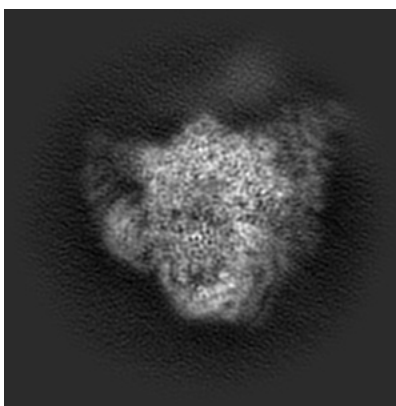
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

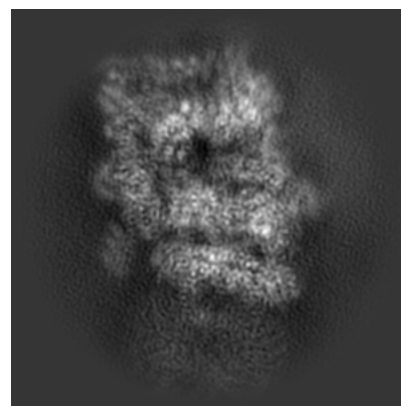
6.1.1 Primary map



X

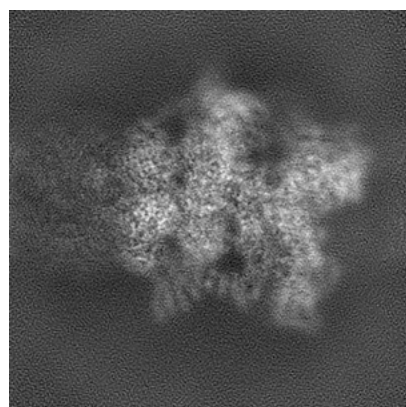


Y

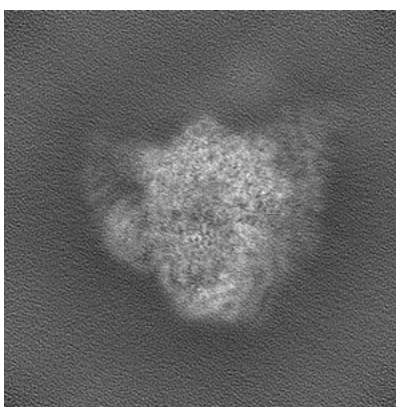


Z

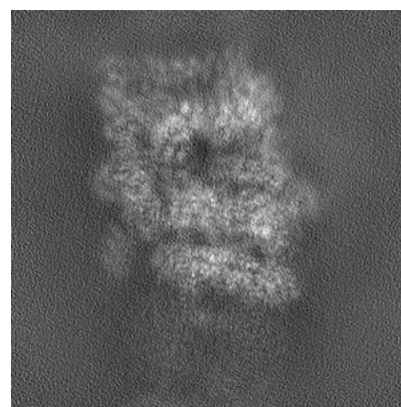
6.1.2 Raw map



X



Y

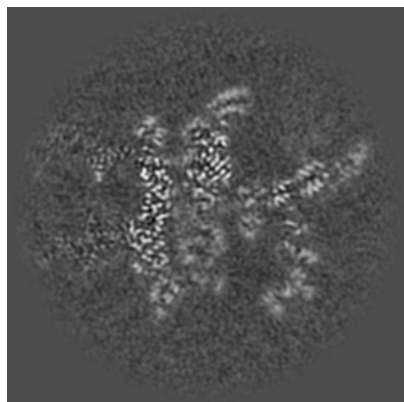


Z

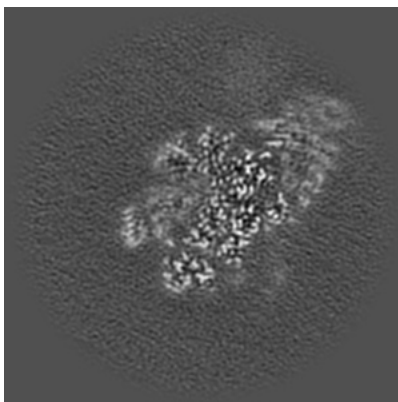
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

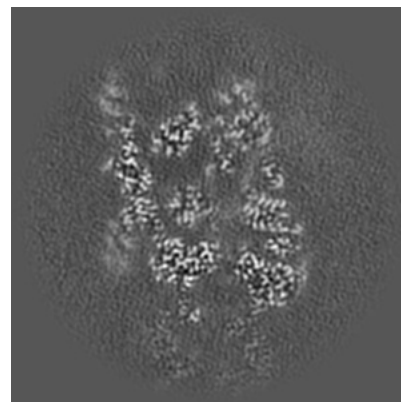
6.2.1 Primary map



X Index: 140

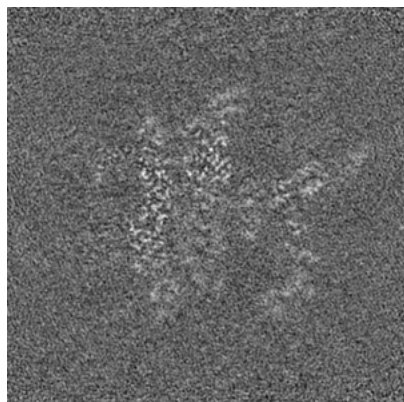


Y Index: 140

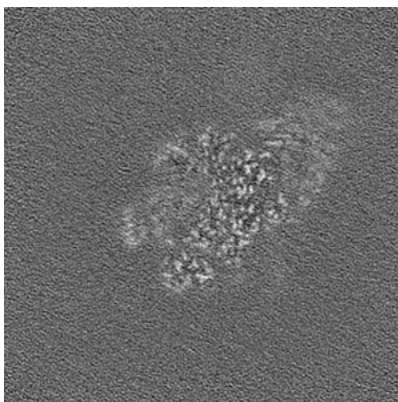


Z Index: 140

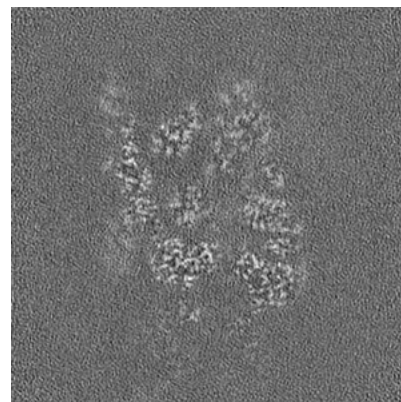
6.2.2 Raw map



X Index: 140



Y Index: 140

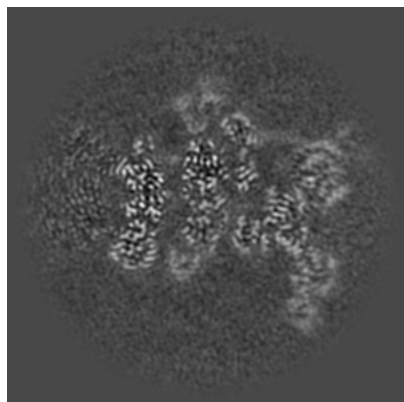


Z Index: 140

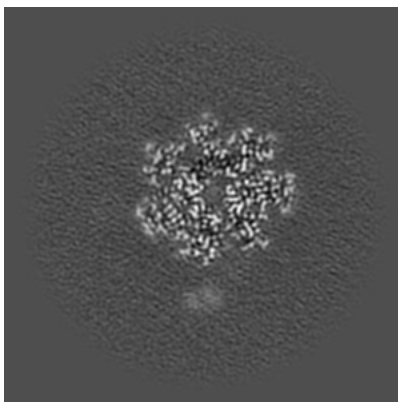
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

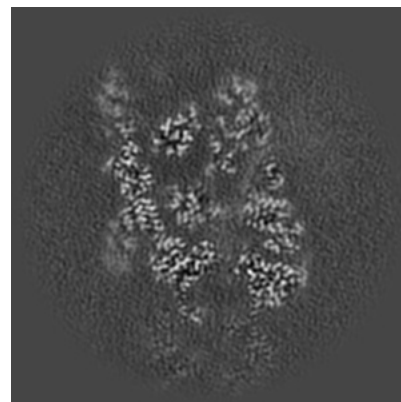
6.3.1 Primary map



X Index: 167

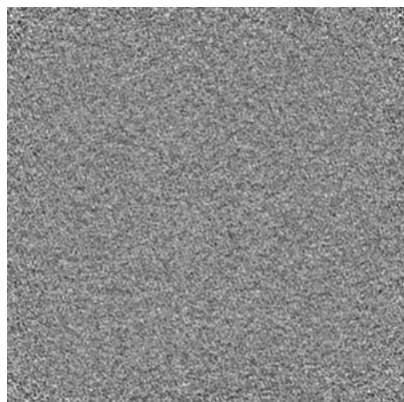


Y Index: 96

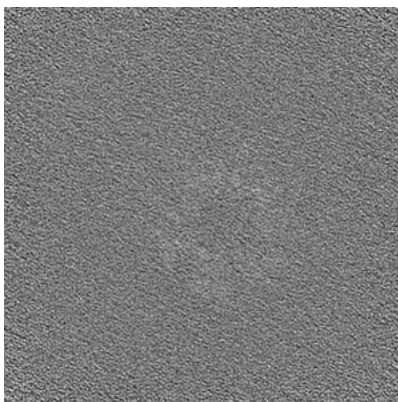


Z Index: 141

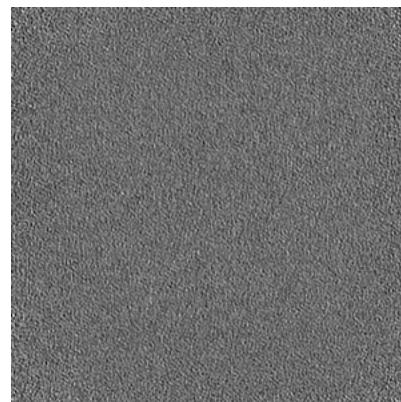
6.3.2 Raw map



X Index: 0



Y Index: 0

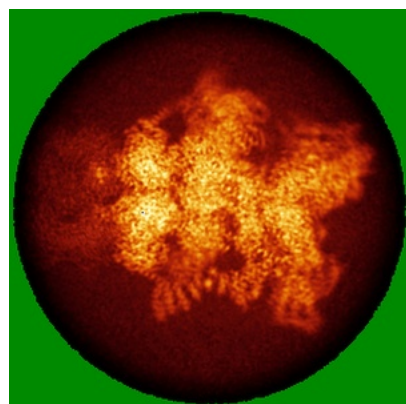


Z Index: 0

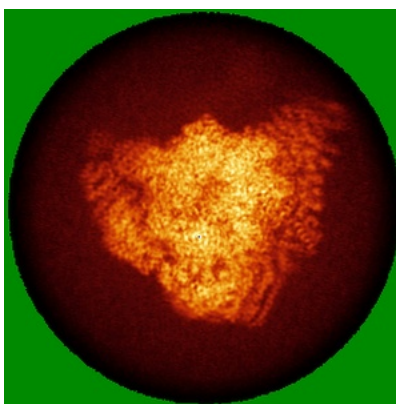
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

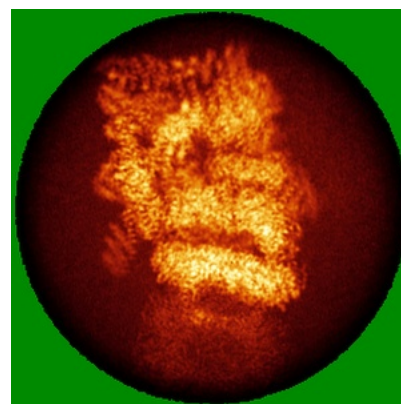
6.4.1 Primary map



X

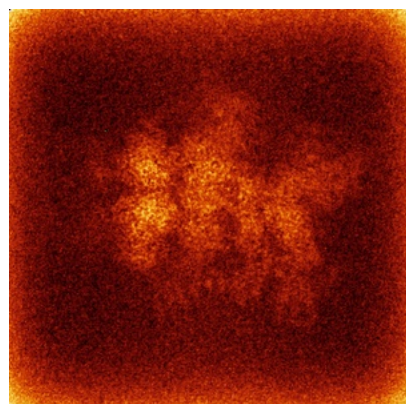


Y

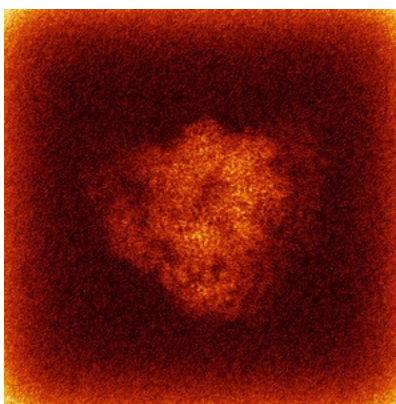


Z

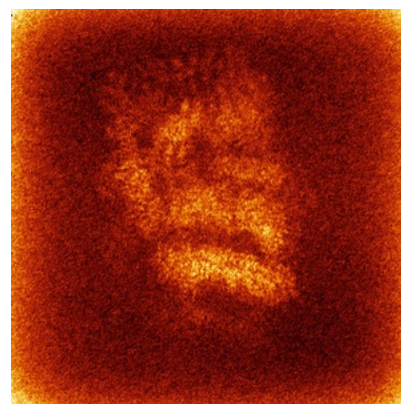
6.4.2 Raw map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.13. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

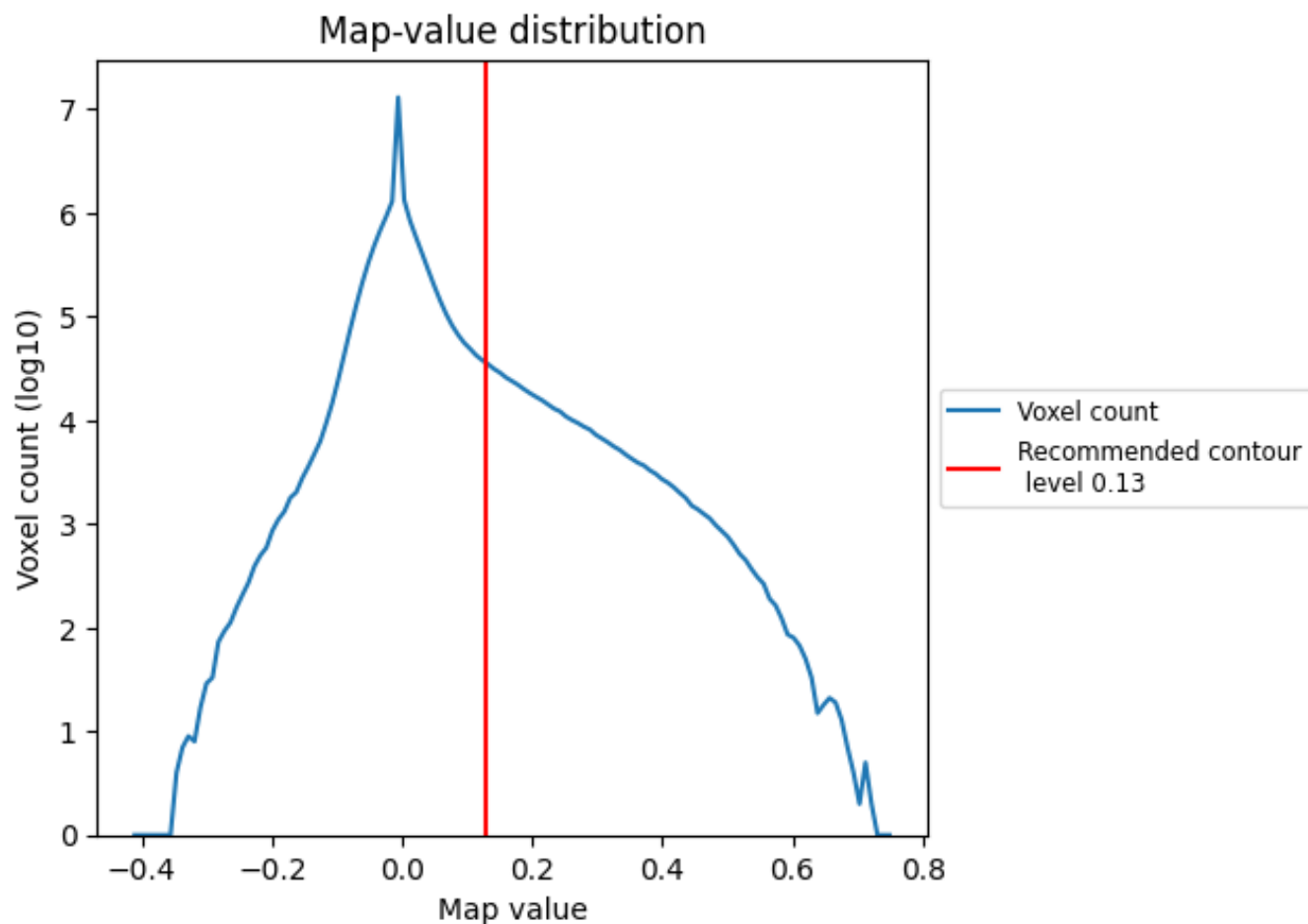
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

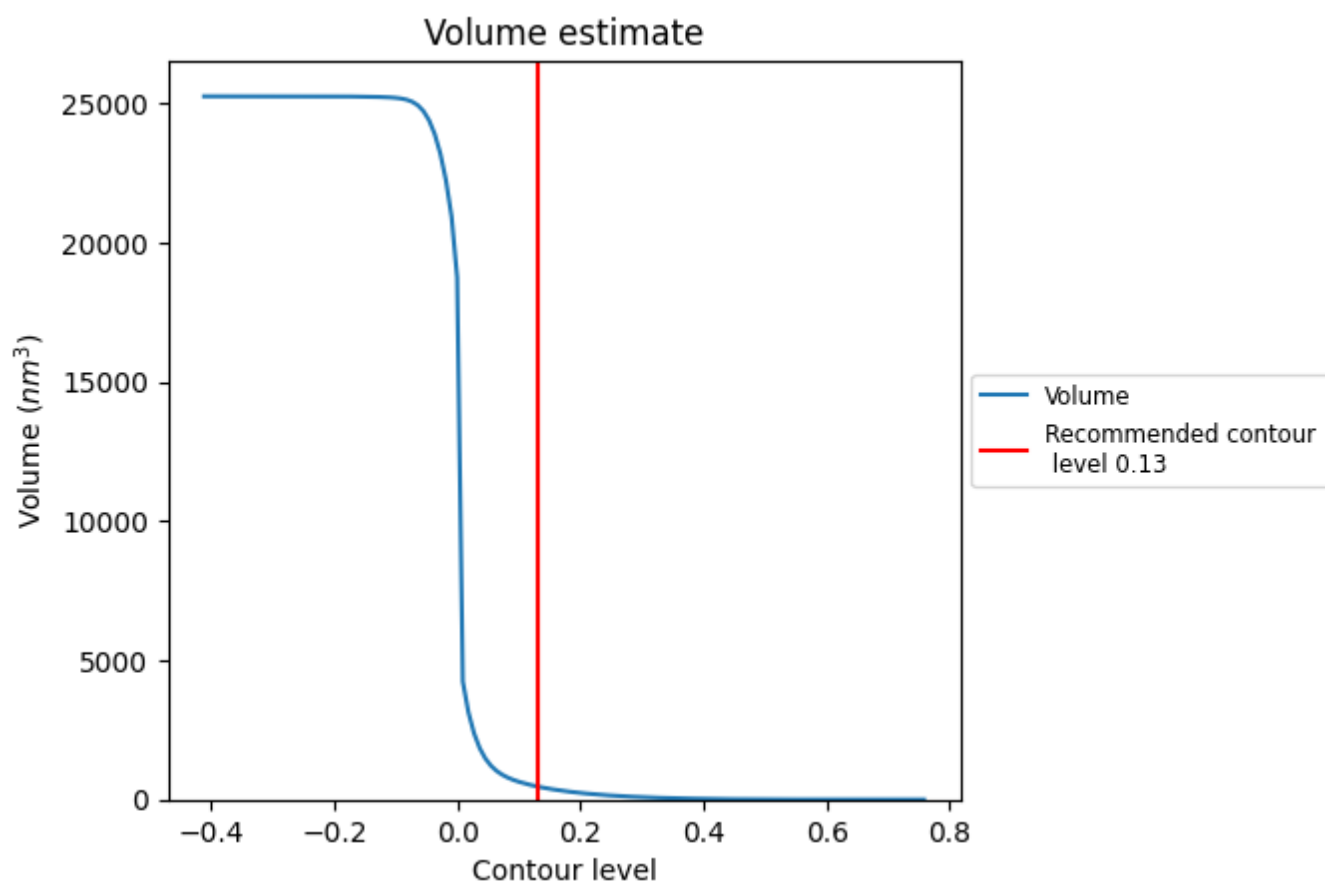
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

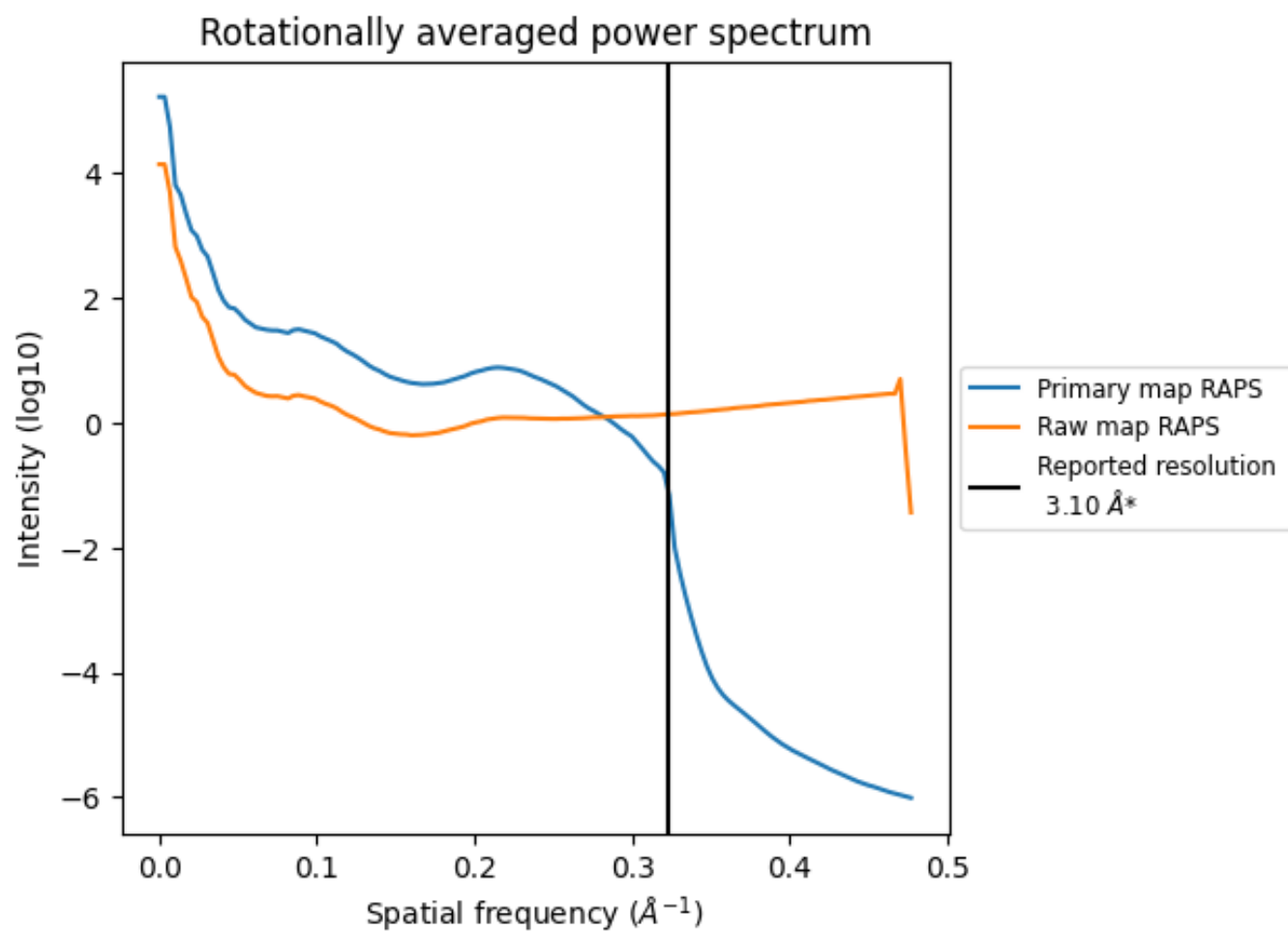
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 471 nm³; this corresponds to an approximate mass of 425 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

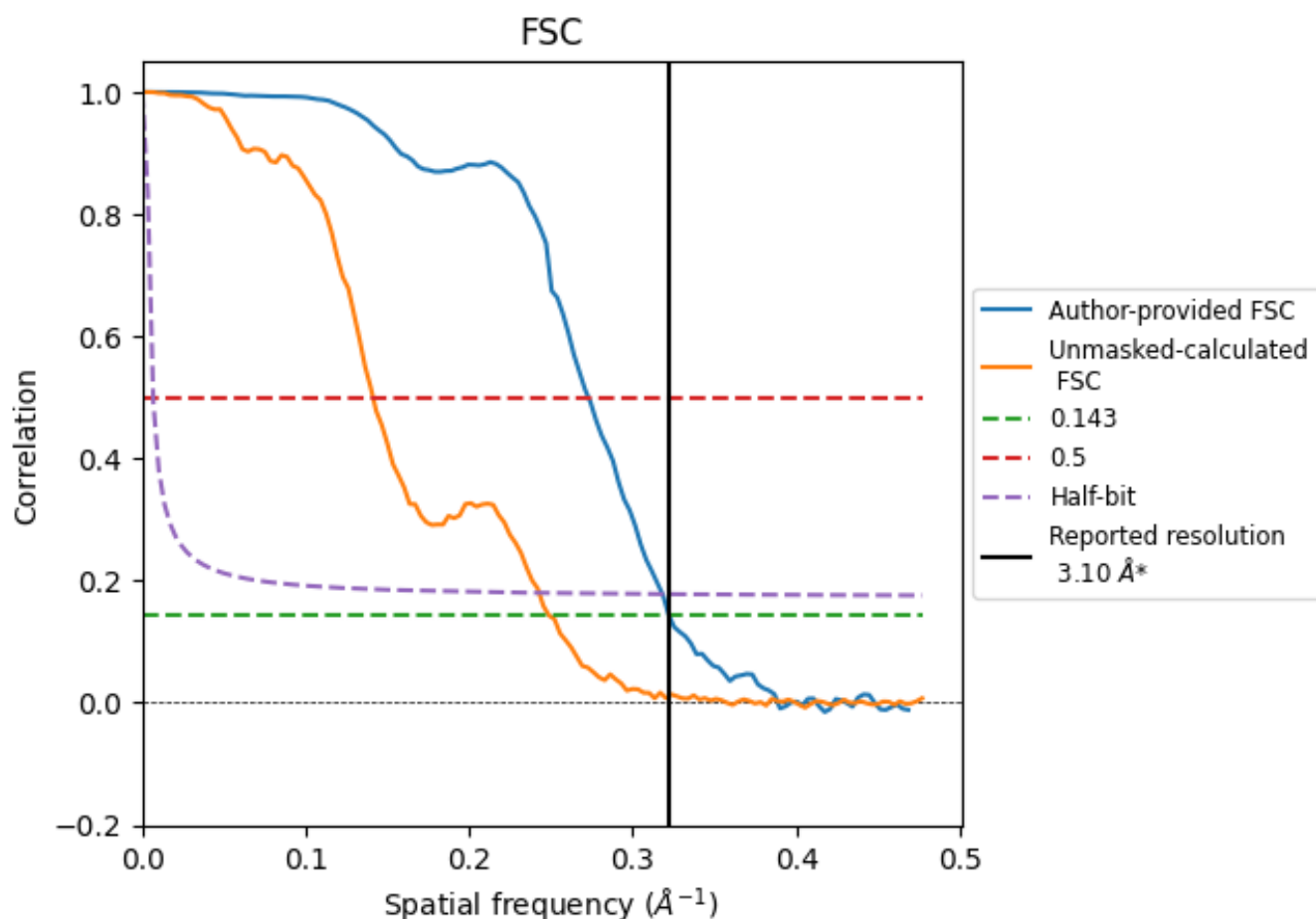


*Reported resolution corresponds to spatial frequency of 0.323 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.323 \AA^{-1}

8.2 Resolution estimates [i](#)

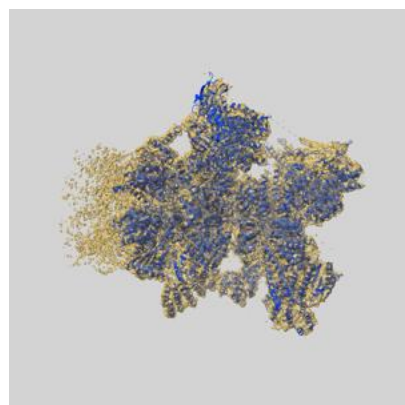
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.10	-	-
Author-provided FSC curve	3.10	3.66	3.14
Unmasked-calculated*	4.02	7.08	4.12

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.02 differs from the reported value 3.1 by more than 10 %

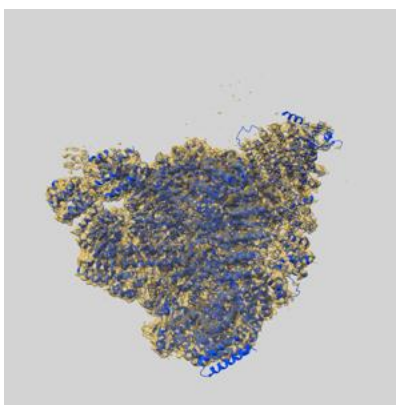
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-42507 and PDB model 8USC. Per-residue inclusion information can be found in [section 3](#) on [page 13](#).

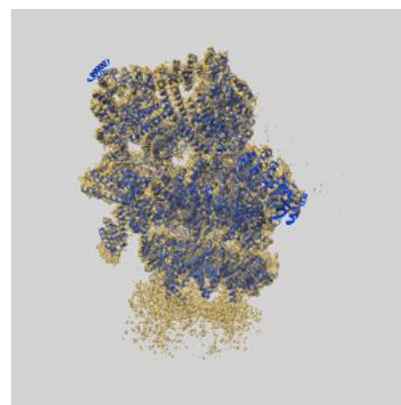
9.1 Map-model overlay [i](#)



X



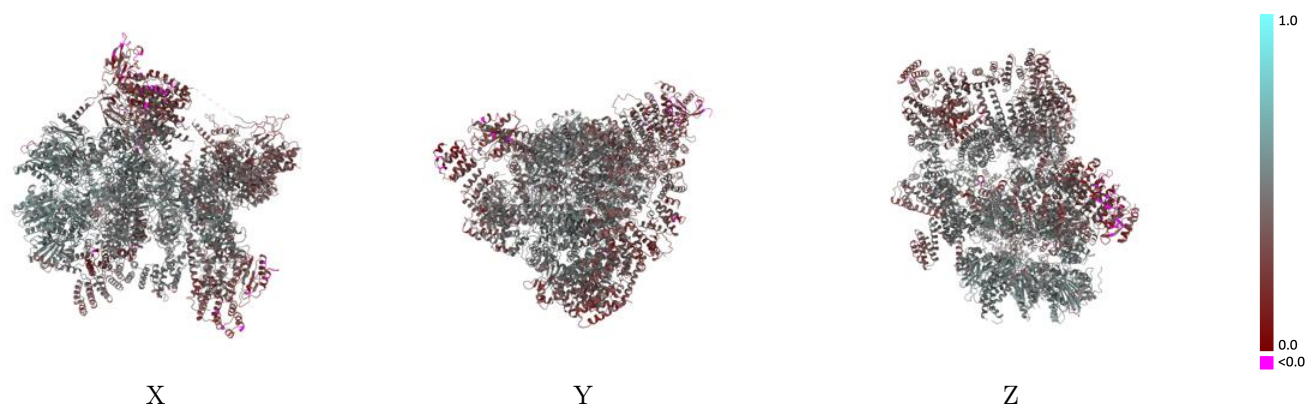
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.13 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)

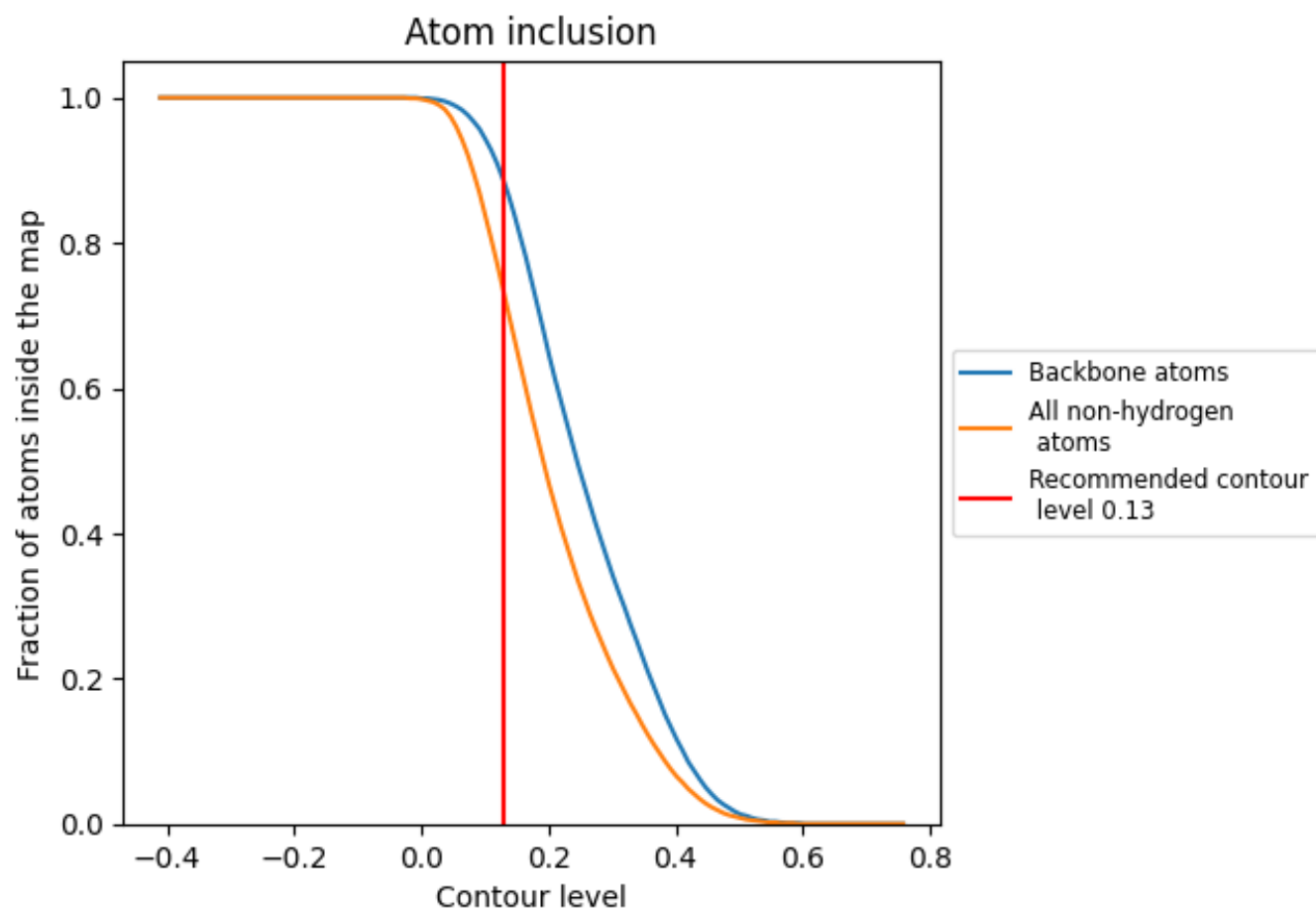


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)

This section was not generated.



























































9.4 Atom inclusion [i](#)



At the recommended contour level, 88% of all backbone atoms, 73% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.13) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7300	 0.4350
A	 0.7730	 0.4910
B	 0.7910	 0.4960
C	 0.8180	 0.5060
D	 0.7800	 0.4900
E	 0.5410	 0.3430
F	 0.7590	 0.4790
G	 0.8230	 0.5210
H	 0.8490	 0.5260
I	 0.7860	 0.5090
J	 0.8260	 0.5160
K	 0.8010	 0.5060
L	 0.8480	 0.5350
M	 0.8000	 0.5100
O	 0.6640	 0.5180
U	 0.7080	 0.3780
V	 0.6970	 0.3930
W	 0.7690	 0.4370
X	 0.7550	 0.4480
Y	 0.8250	 0.4650
Z	 0.7830	 0.4610
a	 0.6840	 0.3380
b	 0.6500	 0.3180
c	 0.7740	 0.4710
d	 0.5840	 0.3270
e	 0.7670	 0.4570
f	 0.6040	 0.3430
g	 0.1370	 0.2010
v	 0.9000	 0.5430

