



## Full wwPDB EM Validation Report ⓘ

Apr 28, 2025 – 04:53 PM EDT

PDB ID : 9NKF / pdb\_00009nkf  
EMDB ID : EMD-49507  
Title : Structure of human substrate-free 26S proteasome in the presence of ATPgS and MG-132,SA-like state (composite map)  
Authors : Peddada, N.; Beutler, B.  
Deposited on : 2025-02-28  
Resolution : 2.90 Å(reported)  
Based on initial model : 6MSB

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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>.

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

EMDB validation analysis : 0.0.1.dev118  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4-5-2 with Phenix2.0rc1  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.43.1

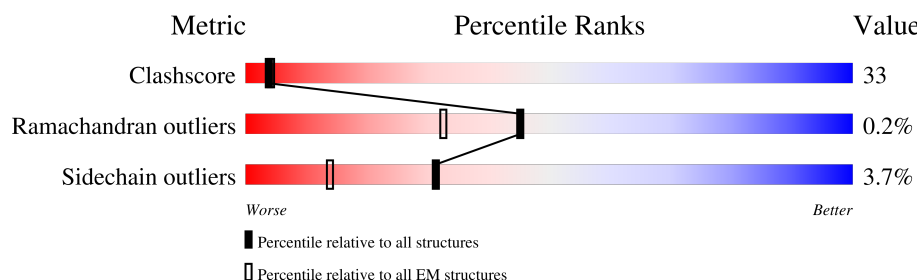
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 2.90 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.









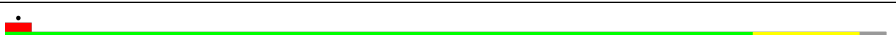
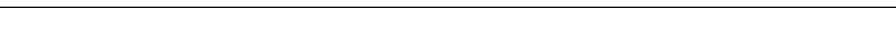
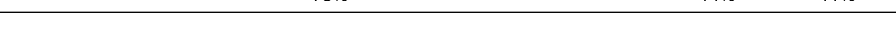
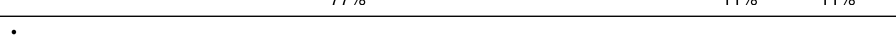
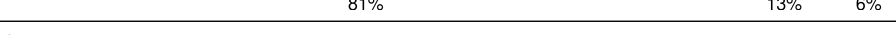
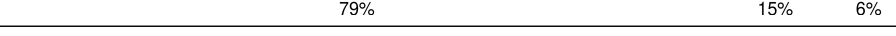













Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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  $\geq 3$ , 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	A	433	
2	B	440	
3	C	406	
4	D	418	
5	E	403	
6	G	246	
6	g	246	
7	H	234	

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Mol	Chain	Length	Quality of chain
7	h	234	
8	I	261	
8	i	261	
9	J	248	
9	j	248	
10	K	241	
10	k	241	
11	L	263	
11	l	263	
12	M	255	
12	m	255	
13	N	239	
13	n	239	
14	O	277	
14	o	277	
15	P	205	
15	p	205	
16	Q	201	
16	q	201	
17	R	263	
17	r	263	
18	S	241	
18	s	241	
19	T	264	
19	t	264	

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Mol	Chain	Length	Quality of chain
20	V	534	
21	W	456	
22	X	422	
23	Y	389	
24	Z	324	
25	a	376	
26	b	377	
27	c	310	
28	d	350	
29	e	70	
30	f	908	
31	F	439	
32	U	953	

## 2 Entry composition [i](#)

There are 37 unique types of molecules in this entry. The entry contains 145524 atoms, of which 44186 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 26S proteasome regulatory subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	366	Total	C	N	O	S	0	0
			2863	1805	503	537	18		

- Molecule 2 is a protein called 26S proteasome regulatory subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	388	Total	C	N	O	S	0	0
			3042	1915	519	593	15		

- Molecule 3 is a protein called 26S protease regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	379	Total	C	N	O	S	0	0
			2968	1867	534	551	16		

- Molecule 4 is a protein called 26S proteasome regulatory subunit 6B.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	380	Total	C	N	O	S	0	0
			3039	1923	524	579	13		

- Molecule 5 is a protein called 26S proteasome regulatory subunit 10B.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	375	Total	C	N	O	S	0	0
			2860	1796	512	536	16		

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

Mol	Chain	Residues	Atoms						AltConf	Trace
6	G	240	Total	C	H	N	O	S	0	0
			3402	1108	1660	304	318	12		

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Mol	Chain	Residues	Atoms						AltConf	Trace
6	g	240	Total	C	H	N	O	S	0	0
			3445	1124	1687	306	316	12		

- Molecule 7 is a protein called Proteasome subunit alpha type-2.

Mol	Chain	Residues	Atoms						AltConf	Trace
7	H	229	Total	C	H	N	O	S	0	0
			3252	1080	1590	288	288	6		
7	h	229	Total	C	H	N	O	S	0	0
			3252	1080	1590	288	288	6		

- Molecule 8 is a protein called Proteasome subunit alpha type-4.

Mol	Chain	Residues	Atoms						AltConf	Trace
8	I	247	Total	C	H	N	O	S	0	0
			3543	1150	1741	322	320	10		
8	i	247	Total	C	H	N	O	S	0	0
			3503	1143	1717	320	313	10		

- Molecule 9 is a protein called Proteasome subunit alpha type-7.

Mol	Chain	Residues	Atoms						AltConf	Trace
9	J	232	Total	C	H	N	O	S	0	0
			3151	1038	1518	306	284	5		
9	j	232	Total	C	H	N	O	S	0	0
			3151	1038	1518	306	284	5		

- Molecule 10 is a protein called Proteasome subunit alpha type-5.

Mol	Chain	Residues	Atoms						AltConf	Trace
10	K	233	Total	C	H	N	O	S	0	0
			3255	1057	1592	287	308	11		
10	k	233	Total	C	H	N	O	S	0	0
			3249	1056	1589	287	306	11		

- Molecule 11 is a protein called Proteasome subunit alpha type-1.

Mol	Chain	Residues	Atoms						AltConf	Trace
11	L	233	Total	C	H	N	O	S	0	0
			3359	1090	1649	318	293	9		
11	l	233	Total	C	H	N	O	S	0	0
			3352	1089	1645	315	293	10		

- Molecule 12 is a protein called Proteasome subunit alpha type-3.

Mol	Chain	Residues	Atoms						AltConf	Trace
12	M	239	Total	C	H	N	O	S	0	0
			3440	1131	1680	308	311	10		
12	m	239	Total	C	H	N	O	S	0	0
			3444	1131	1683	308	312	10		

- Molecule 13 is a protein called Proteasome subunit beta type-6.

Mol	Chain	Residues	Atoms						AltConf	Trace
13	N	202	Total	C	H	N	O	S	0	0
			2891	928	1422	257	272	12		
13	n	202	Total	C	H	N	O	S	0	0
			2881	926	1416	256	271	12		

- Molecule 14 is a protein called Proteasome subunit beta type-7.

Mol	Chain	Residues	Atoms						AltConf	Trace
14	O	220	Total	C	H	N	O	S	0	0
			3139	1005	1559	272	294	9		
14	o	220	Total	C	H	N	O	S	0	0
			3131	1003	1555	272	292	9		

- Molecule 15 is a protein called Proteasome subunit beta type-3.

Mol	Chain	Residues	Atoms						AltConf	Trace
15	P	204	Total	C	H	N	O	S	0	0
			3096	992	1550	262	273	19		
15	p	204	Total	C	H	N	O	S	0	0
			3081	989	1543	263	268	18		

- Molecule 16 is a protein called Proteasome subunit beta type-2.

Mol	Chain	Residues	Atoms						AltConf	Trace
16	Q	196	Total	C	H	N	O	S	0	0
			2986	974	1477	259	268	8		
16	q	196	Total	C	H	N	O	S	0	0
			2981	973	1475	259	266	8		

- Molecule 17 is a protein called Proteasome subunit beta type-5.

Mol	Chain	Residues	Atoms						AltConf	Trace
17	R	200	Total	C	H	N	O	S	0	0
			2953	957	1449	271	267	9		
17	r	200	Total	C	H	N	O	S	0	0
			2938	954	1438	270	267	9		

- Molecule 18 is a protein called Proteasome subunit beta type-1.

Mol	Chain	Residues	Atoms						AltConf	Trace
18	S	212	Total	C	H	N	O	S	0	0
			3163	1016	1579	279	279	10		
18	s	212	Total	C	H	N	O	S	0	0
			3168	1017	1581	279	281	10		

- Molecule 19 is a protein called Proteasome subunit beta type-4.

Mol	Chain	Residues	Atoms						AltConf	Trace
19	T	212	Total	C	H	N	O	S	0	0
			3102	1003	1526	280	282	11		
19	t	212	Total	C	H	N	O	S	0	0
			3079	998	1511	279	280	11		

- Molecule 20 is a protein called 26S proteasome non-ATPase regulatory subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	V	472	Total	C	N	O	S	0	0
			3754	2387	673	681	13		

- Molecule 21 is a protein called 26S proteasome non-ATPase regulatory subunit 12.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	W	446	Total	C	N	O	S	0	0
			3635	2302	622	687	24		

- Molecule 22 is a protein called 26S proteasome non-ATPase regulatory subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	X	334	Total	C	N	O	S	0	0
			2664	1696	448	508	12		

- Molecule 23 is a protein called 26S proteasome non-ATPase regulatory subunit 6.



Mol	Chain	Residues	Atoms					AltConf	Trace
23	Y	378	Total	C	N	O	S	0	0
			3115	1987	533	578	17		

- Molecule 24 is a protein called 26S proteasome non-ATPase regulatory subunit 7.

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

- Molecule 25 is a protein called 26S proteasome non-ATPase regulatory subunit 13.

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

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

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

- Molecule 27 is a protein called 26S proteasome non-ATPase regulatory subunit 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	c	287	Total	C	N	O	S	0	0
			2260	1430	389	422	19		

- Molecule 28 is a protein called 26S proteasome non-ATPase regulatory subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	d	257	Total	C	N	O	S	0	0
			2116	1371	346	390	9		

- Molecule 29 is a protein called 26S proteasome complex subunit SEM1.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	e	50	Total	C	N	O	0	0
			425	260	65	100		

- Molecule 30 is a protein called 26S proteasome non-ATPase regulatory subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	f	889	Total	C	N	O	S	0	0
			6866	4315	1174	1331	46		

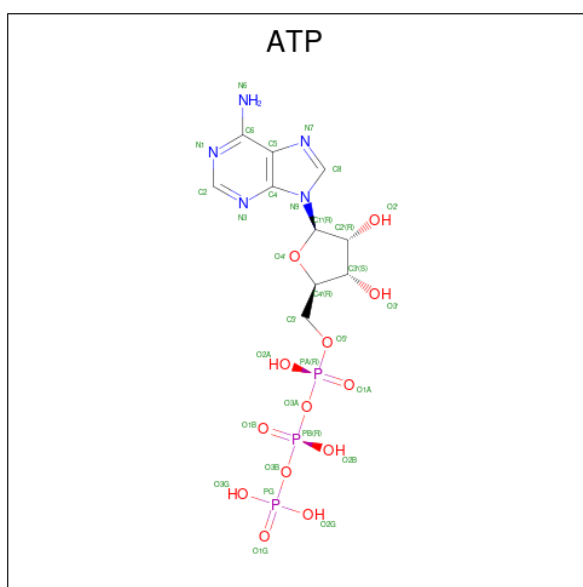
- Molecule 31 is a protein called 26S proteasome regulatory subunit 6A.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	F	376	Total	C	N	O	S	0	0
			2858	1802	496	545	15		

- Molecule 32 is a protein called 26S proteasome non-ATPase regulatory subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	U	808	Total	C	N	O	S	0	0
			6304	4003	1074	1183	44		

- Molecule 33 is ADENOSINE-5'-TRIPHOSPHATE (CCD ID: ATP) (formula:  $C_{10}H_{16}N_5O_{13}P_3$ ) (labeled as "Ligand of Interest" by depositor).

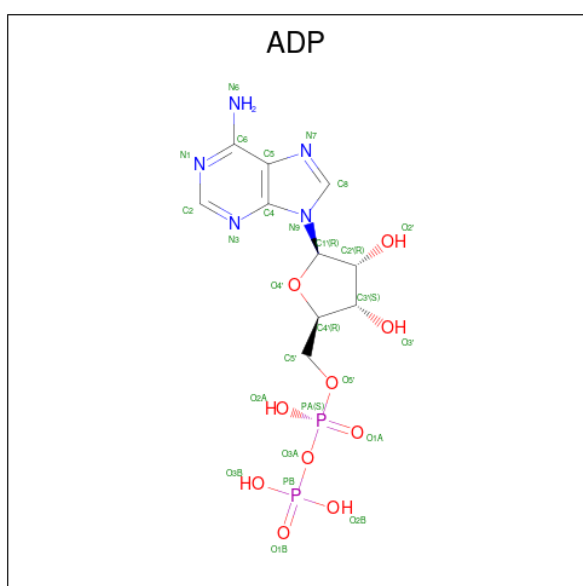


Mol	Chain	Residues	Atoms					AltConf
33	A	1	Total	C	N	O	P	0
			31	10	5	13	3	
33	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
33	D	1	Total	C	N	O	P	0
			31	10	5	13	3	
33	E	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 34 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

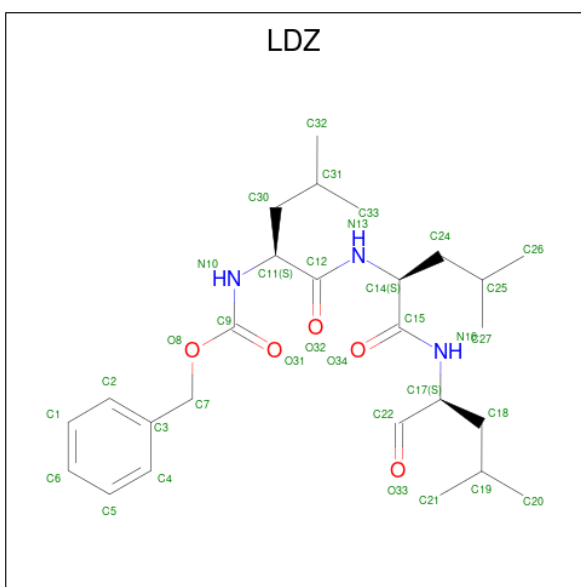
Mol	Chain	Residues	Atoms		AltConf
34	A	2	Total	Mg	0
			2	2	
34	B	1	Total	Mg	0
			1	1	
34	E	2	Total	Mg	0
			2	2	

- Molecule 35 is ADENOSINE-5'-DIPHOSPHATE (CCD ID: ADP) (formula: C<sub>10</sub>H<sub>15</sub>N<sub>5</sub>O<sub>10</sub>P<sub>2</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
35	C	1	Total	C	N	O	P	0
			27	10	5	10	2	
35	F	1	Total	C	N	O	P	0
			27	10	5	10	2	

- Molecule 36 is N-[(benzyloxy)carbonyl]-L-leucyl-N-[(2S)-4-methyl-1-oxopentan-2-yl]-L-leucinamide (CCD ID: LDZ) (formula: C<sub>26</sub>H<sub>41</sub>N<sub>3</sub>O<sub>5</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
36	N	1	Total 75	C 26	H 41	N 3	O 5	0
36	O	1	Total 75	C 26	H 41	N 3	O 5	0
36	R	1	Total 75	C 26	H 41	N 3	O 5	0
36	n	1	Total 75	C 26	H 41	N 3	O 5	0
36	o	1	Total 75	C 26	H 41	N 3	O 5	0
36	r	1	Total 75	C 26	H 41	N 3	O 5	0

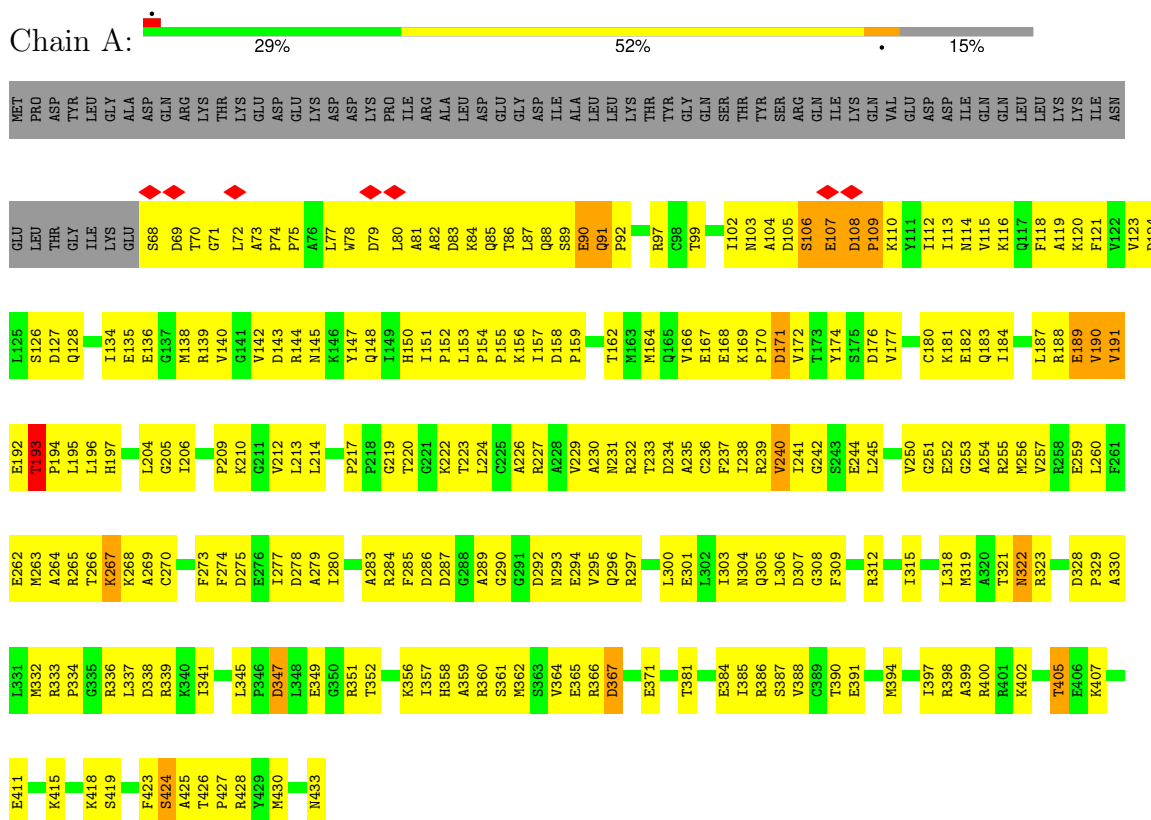
- Molecule 37 is ZINC ION (CCD ID: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

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

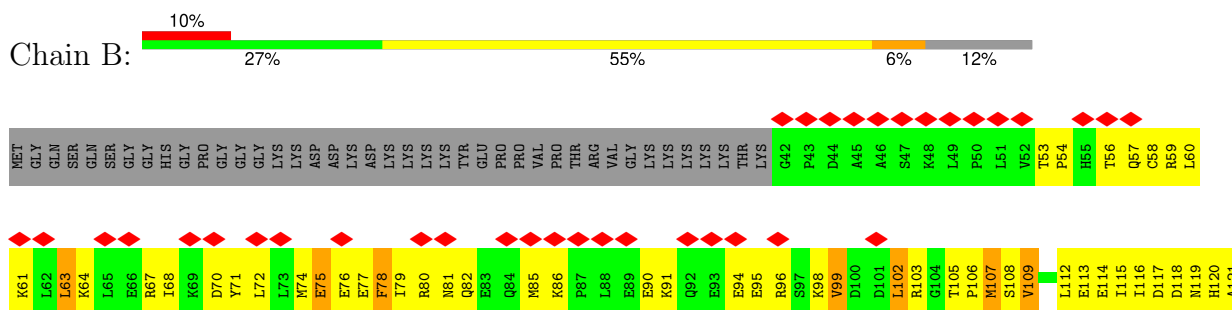
### 3 Residue-property plots

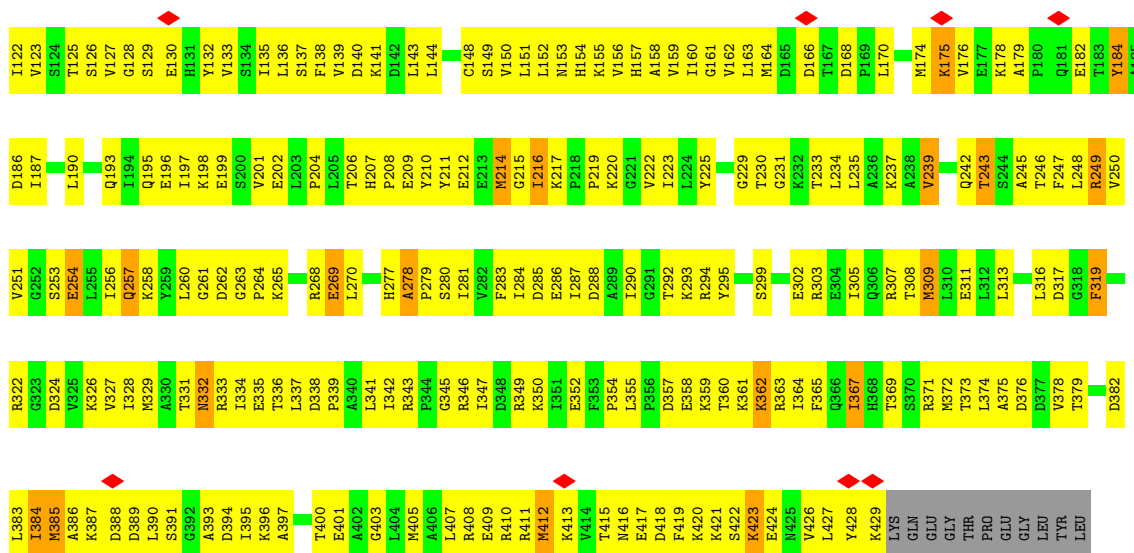
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: 26S proteasome regulatory subunit 7

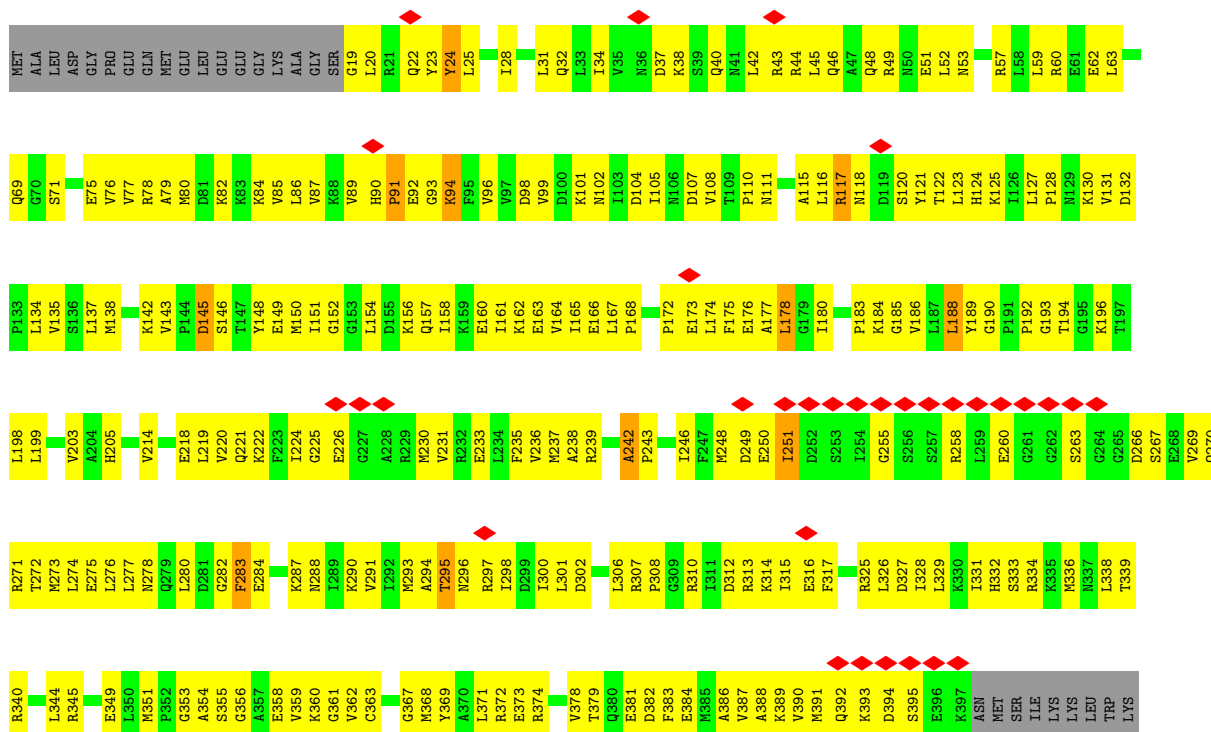


#### • Molecule 2: 26S proteasome regulatory subunit 4

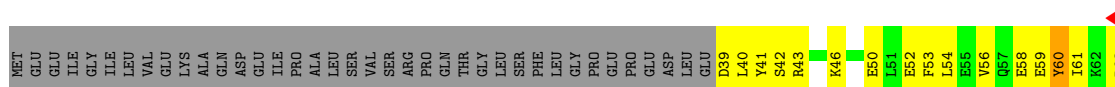


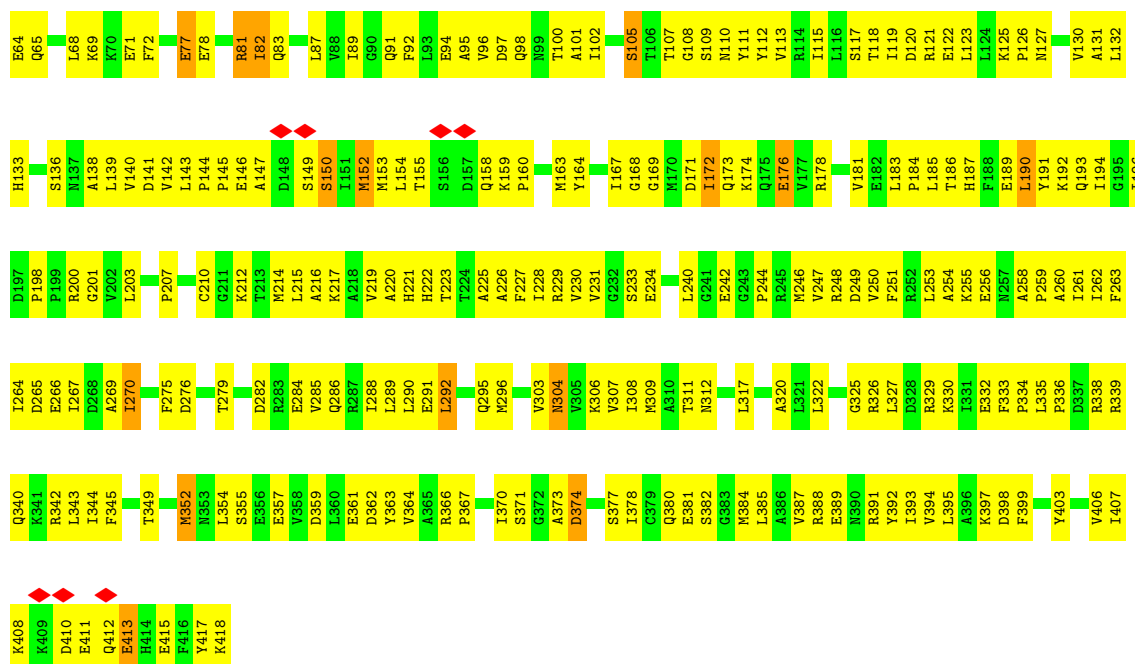


• Molecule 3: 26S protease regulatory subunit 8

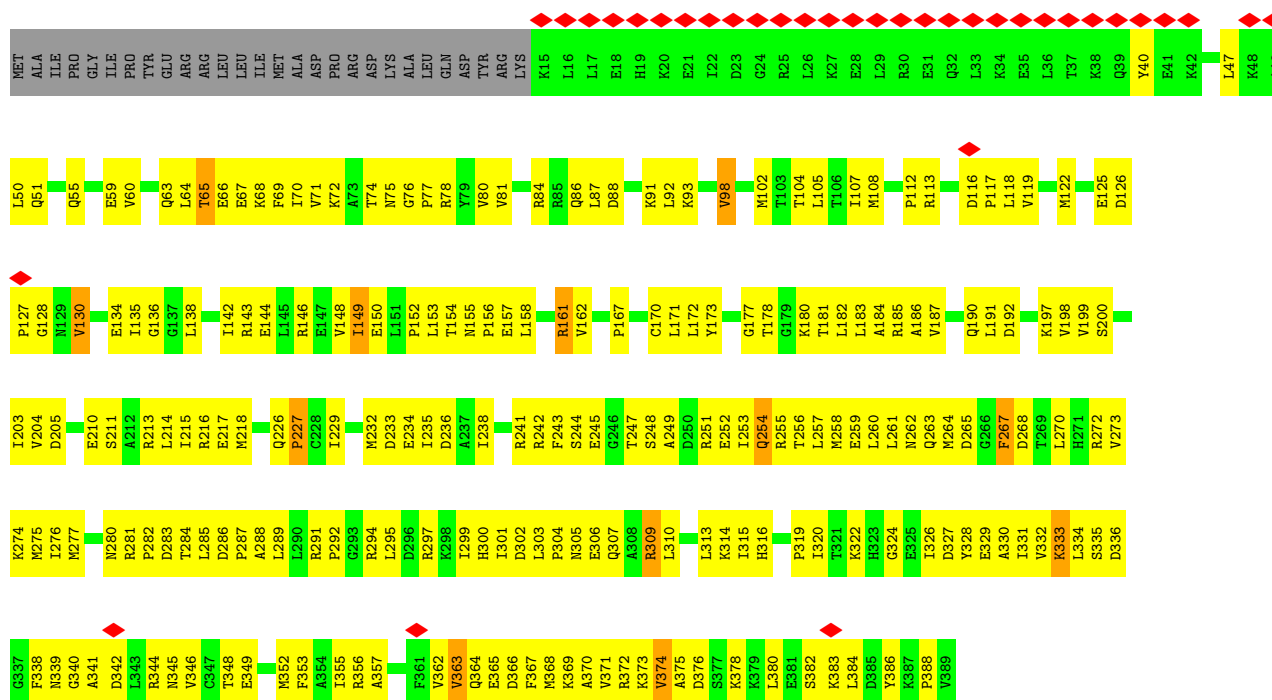


• Molecule 4: 26S proteasome regulatory subunit 6B

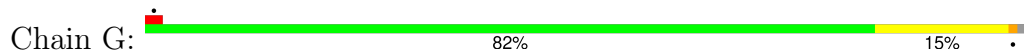




• Molecule 5: 26S proteasome regulatory subunit 10B




• Molecule 6: Proteasome subunit alpha type-6

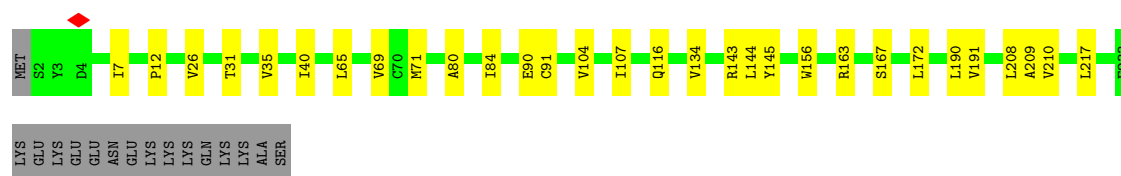







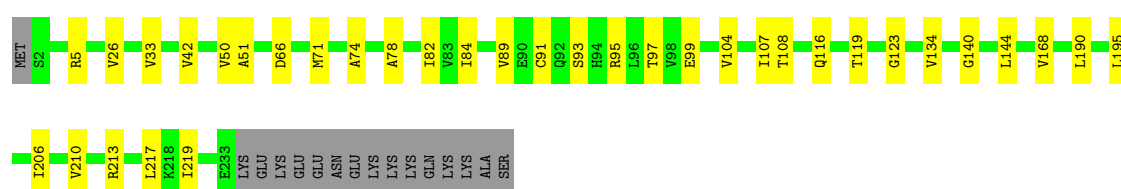
- Molecule 9: Proteasome subunit alpha type-7

Chain J: 




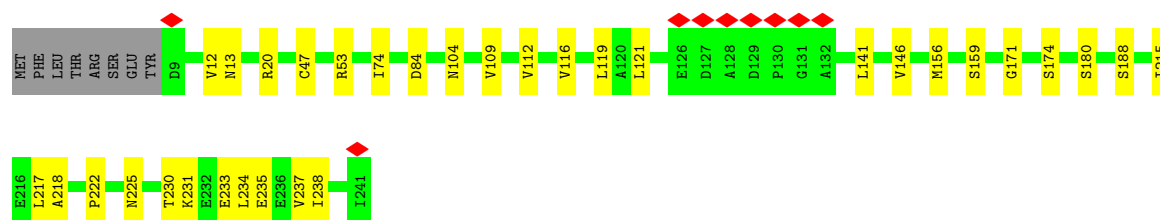
- Molecule 9: Proteasome subunit alpha type-7

Chain j: 




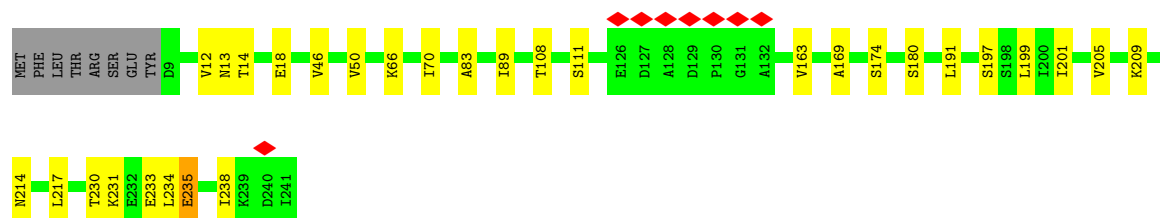
- Molecule 10: Proteasome subunit alpha type-5

Chain K: 



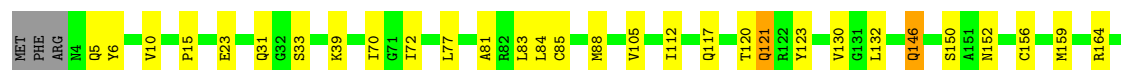
- Molecule 10: Proteasome subunit alpha type-5

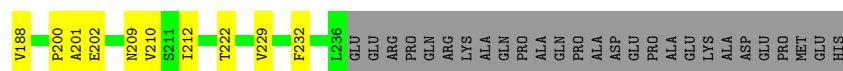
Chain k: 



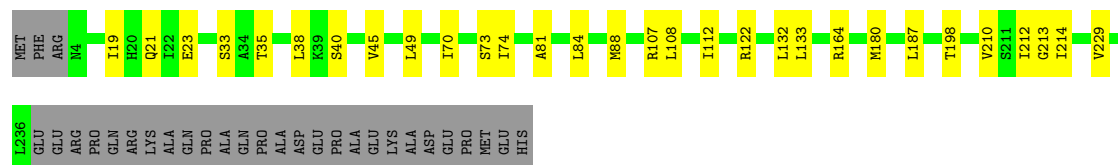
- Molecule 11: Proteasome subunit alpha type-1

Chain L: 

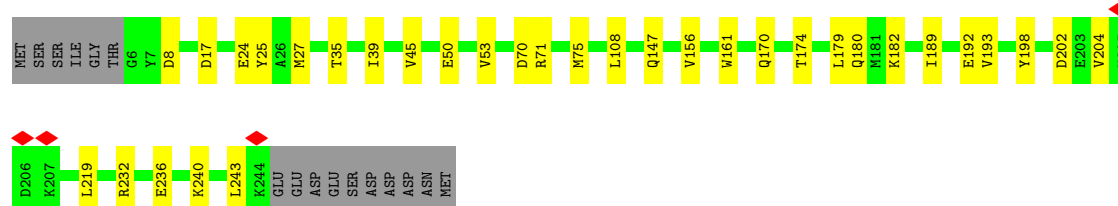
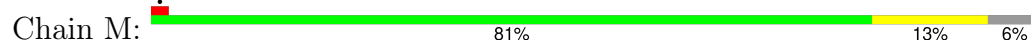




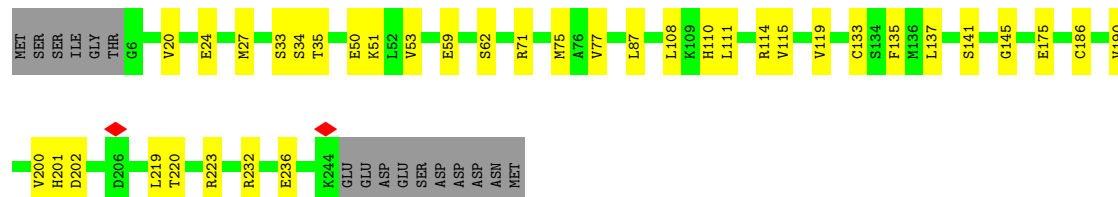
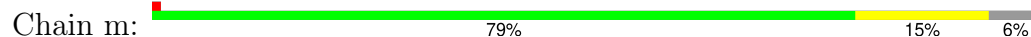
- Molecule 11: Proteasome subunit alpha type-1



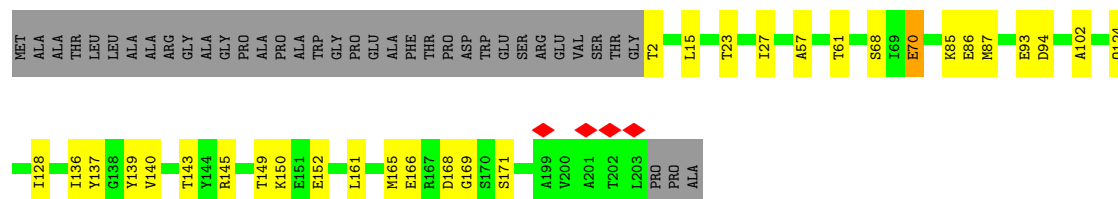
- Molecule 12: Proteasome subunit alpha type-3



- Molecule 12: Proteasome subunit alpha type-3

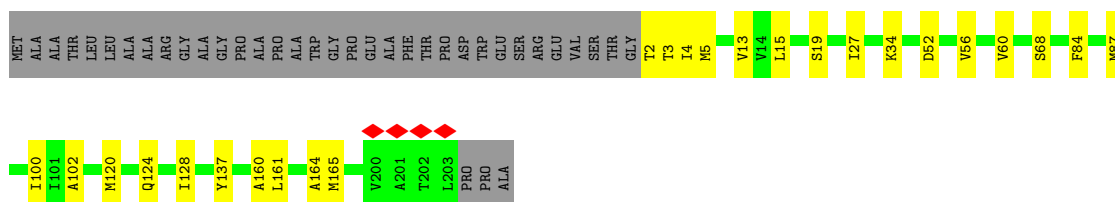


- Molecule 13: Proteasome subunit beta type-6

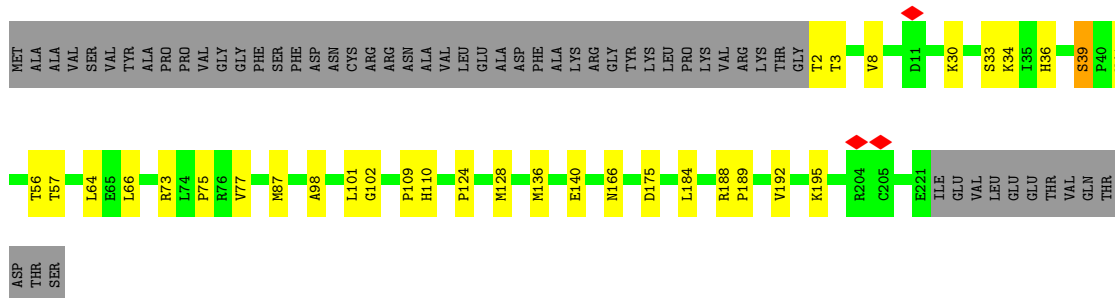


- Molecule 13: Proteasome subunit beta type-6

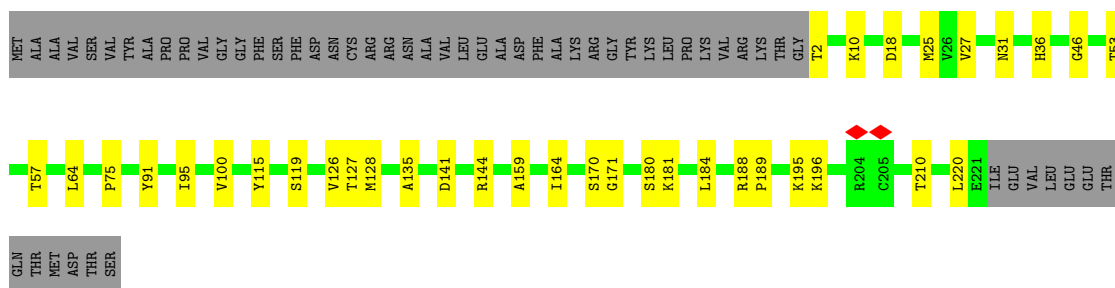




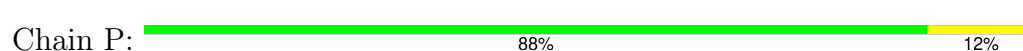
• Molecule 14: Proteasome subunit beta type-7



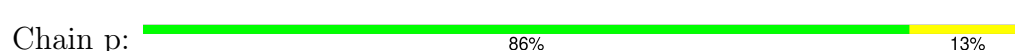
• Molecule 14: Proteasome subunit beta type-7




• Molecule 15: Proteasome subunit beta type-3



• Molecule 15: Proteasome subunit beta type-3




• Molecule 16: Proteasome subunit beta type-2

Chain Q:  84% 13%



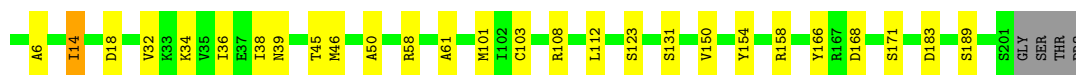
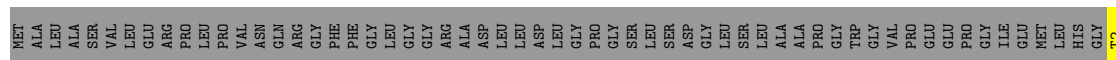
- Molecule 16: Proteasome subunit beta type-2

Chain q:  84% 13%



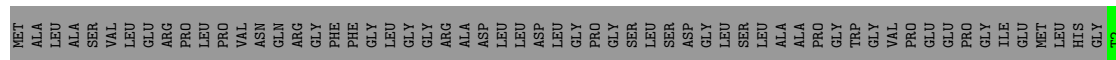
- Molecule 17: Proteasome subunit beta type-5

Chain R:  65% 10% 24%




- Molecule 17: Proteasome subunit beta type-5

Chain r:  65% 10% 24%




THR  
PRO

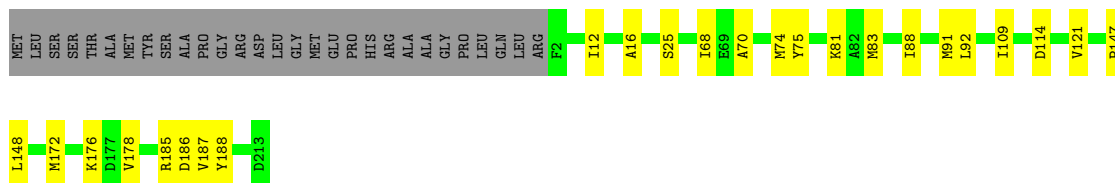
- Molecule 18: Proteasome subunit beta type-1

Chain S:  81% 7% 12%

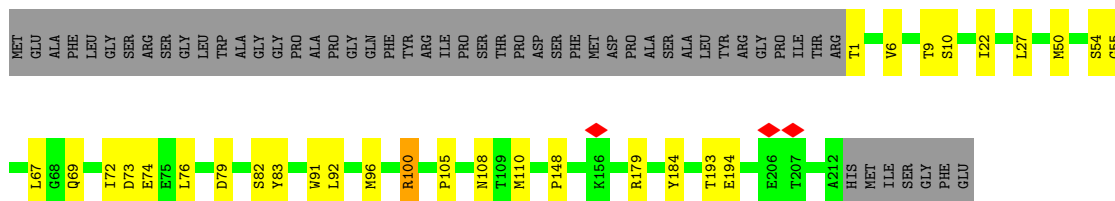


- Molecule 18: Proteasome subunit beta type-1

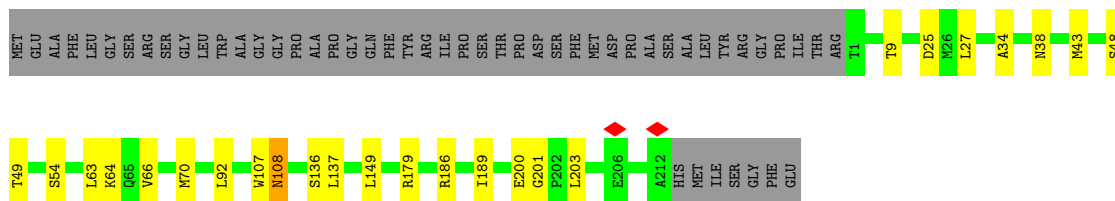
Chain s:  78% 10% 12%



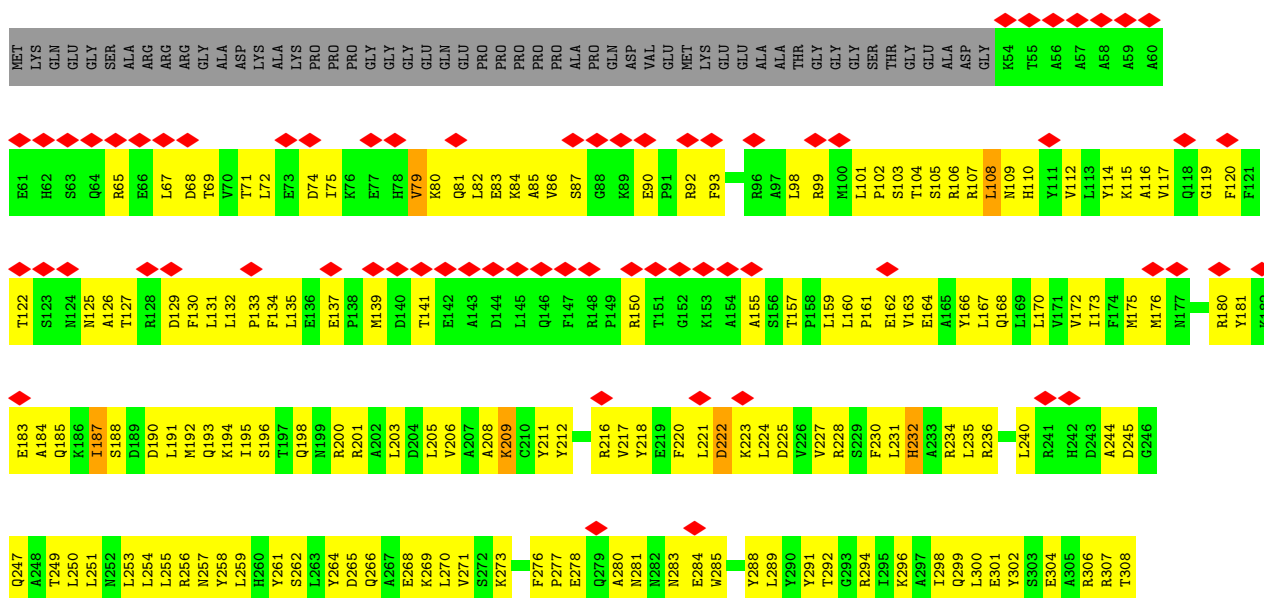
- Molecule 19: Proteasome subunit beta type-4

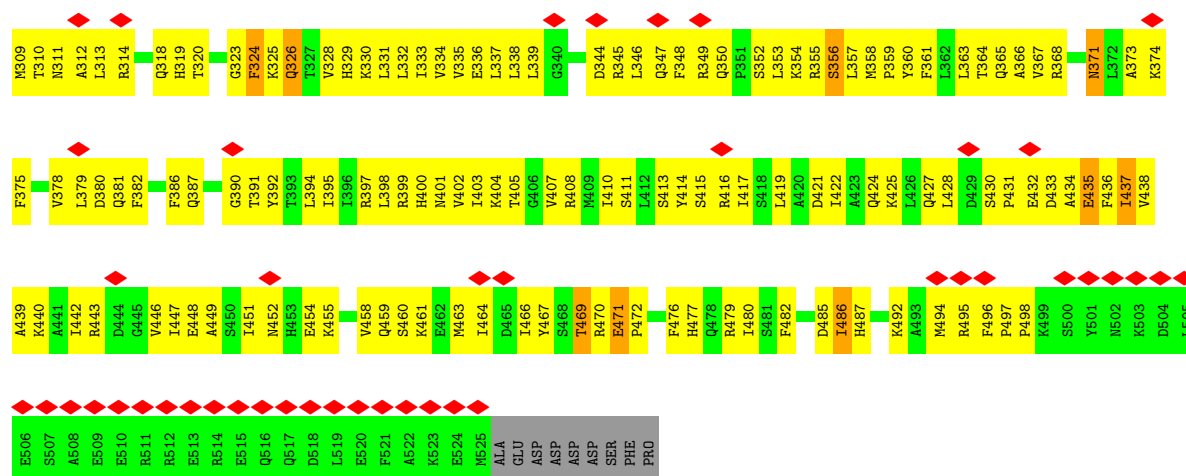


- Molecule 19: Proteasome subunit beta type-4

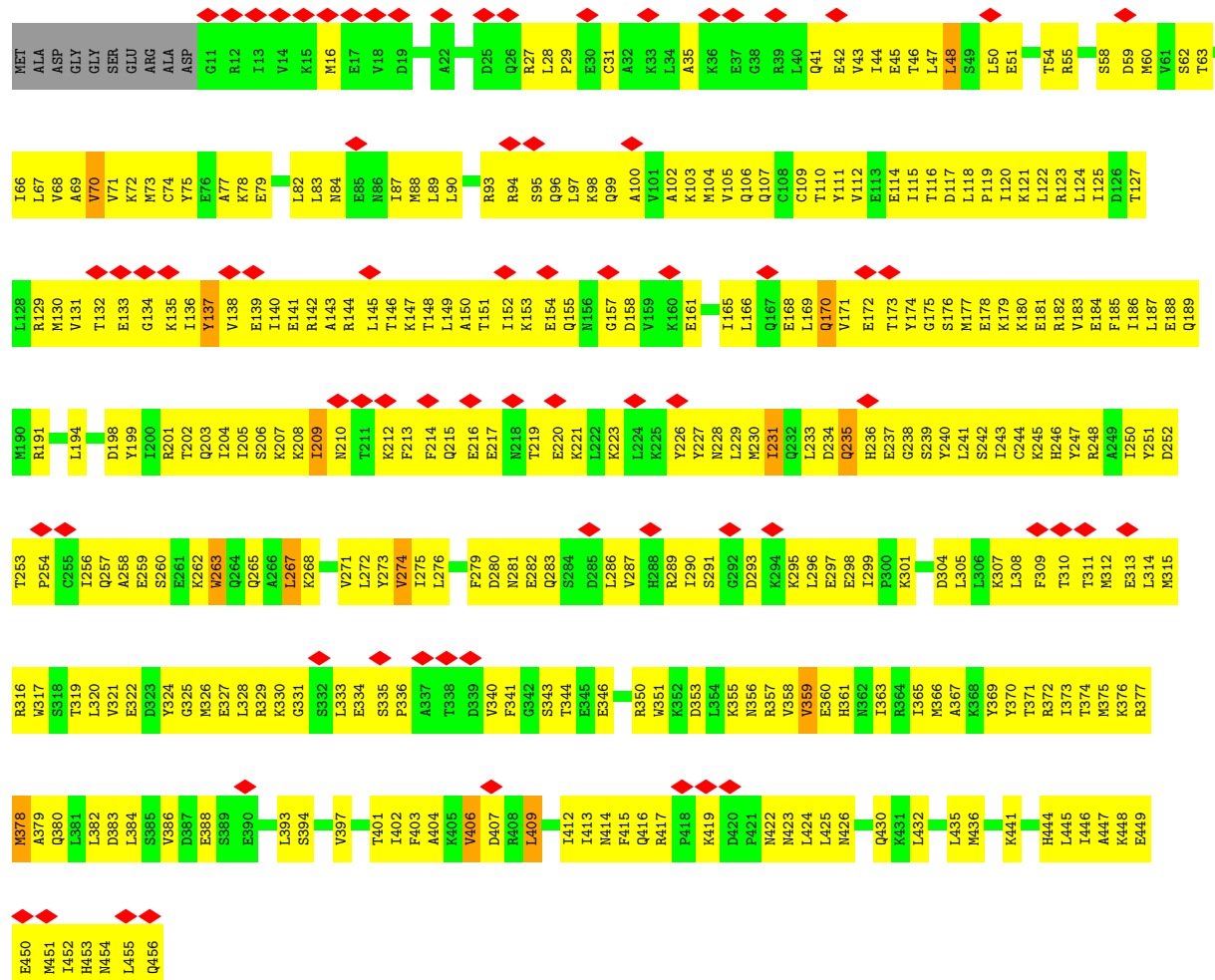


- Molecule 20: 26S proteasome non-ATPase regulatory subunit 3

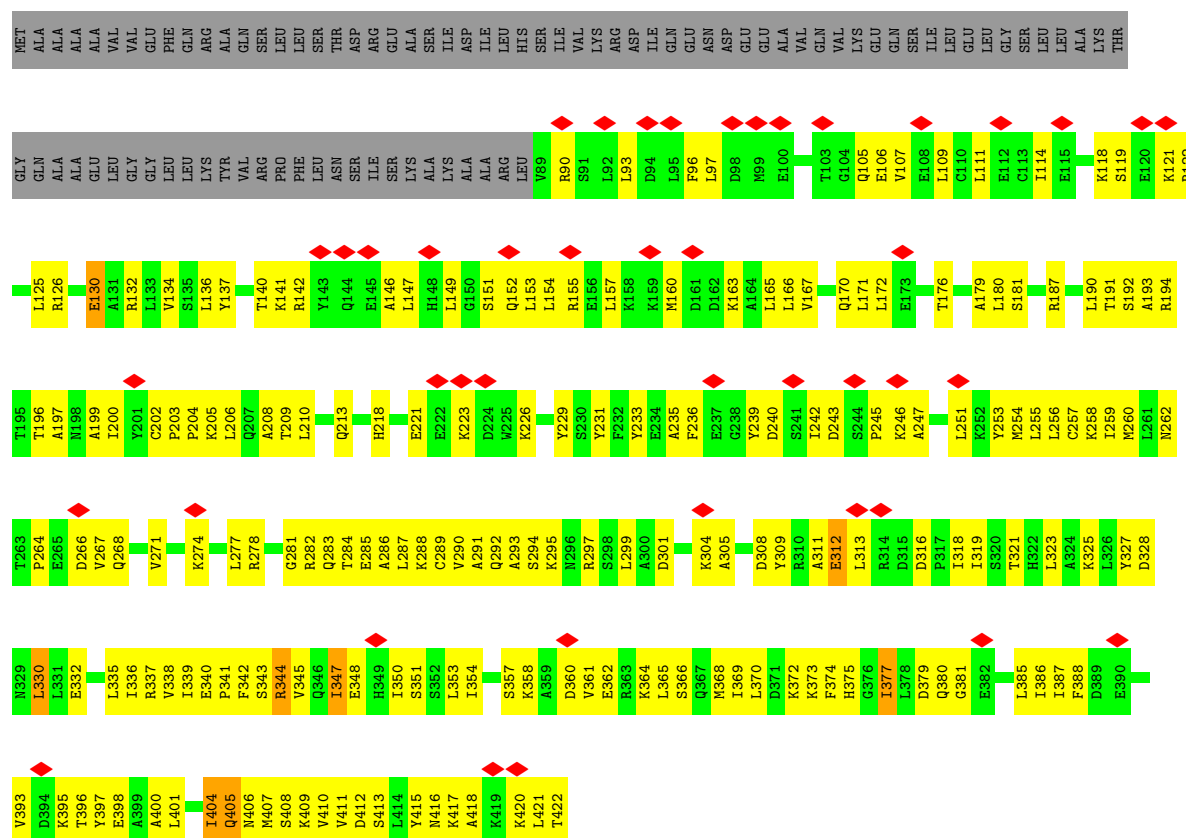




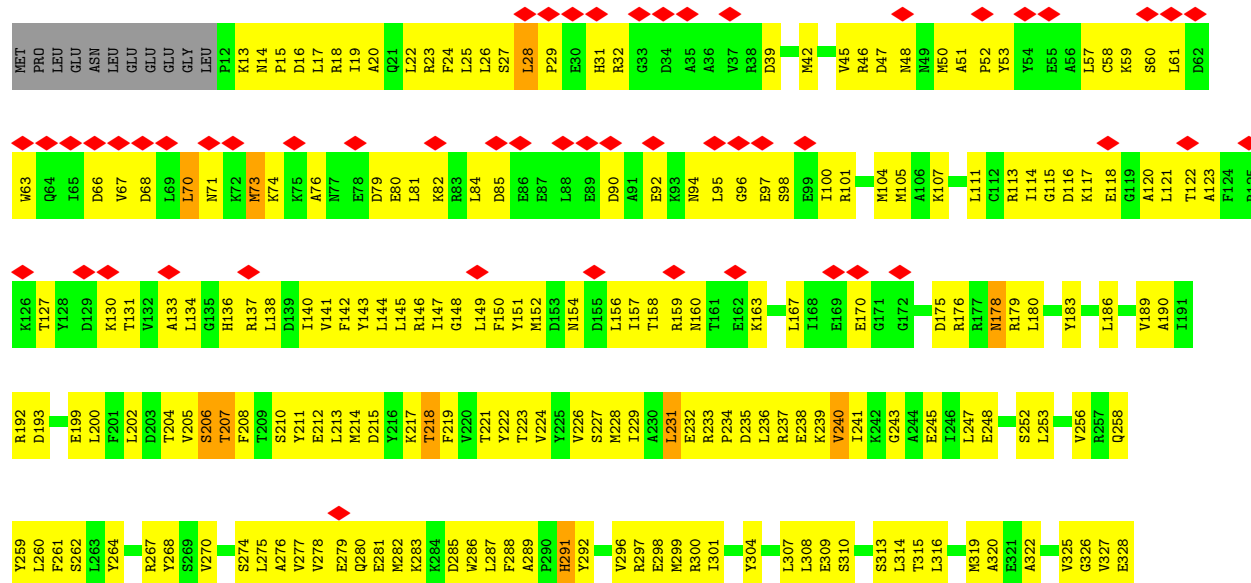
• Molecule 21: 26S proteasome non-ATPase regulatory subunit 12

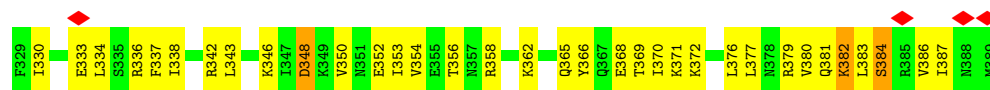


• Molecule 22: 26S proteasome non-ATPase regulatory subunit 11

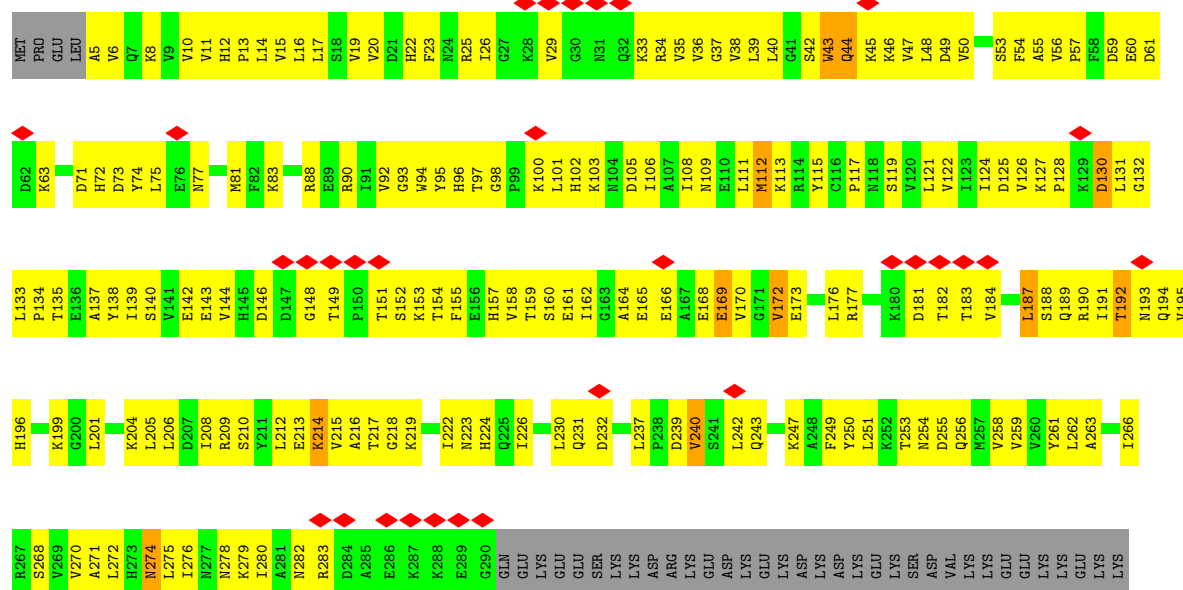


• Molecule 23: 26S proteasome non-ATPase subunit 6

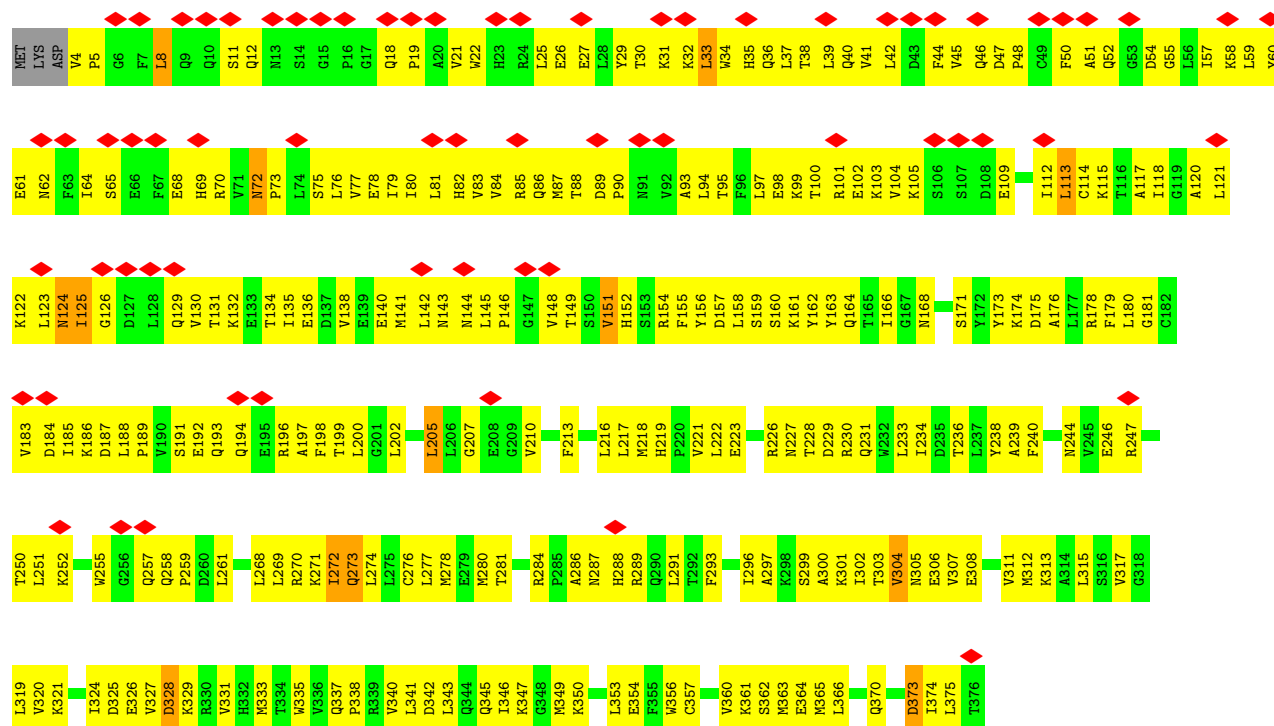




• Molecule 24: 26S proteasome non-ATPase regulatory subunit 7

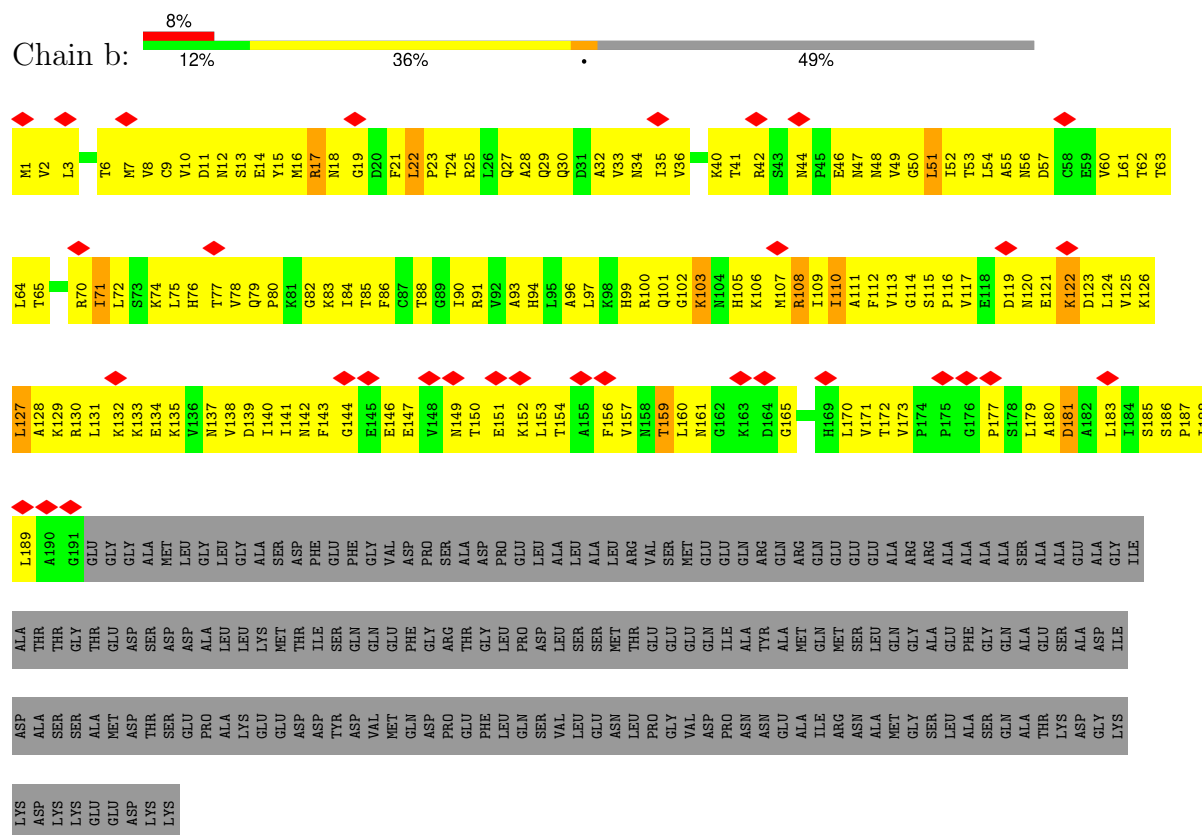


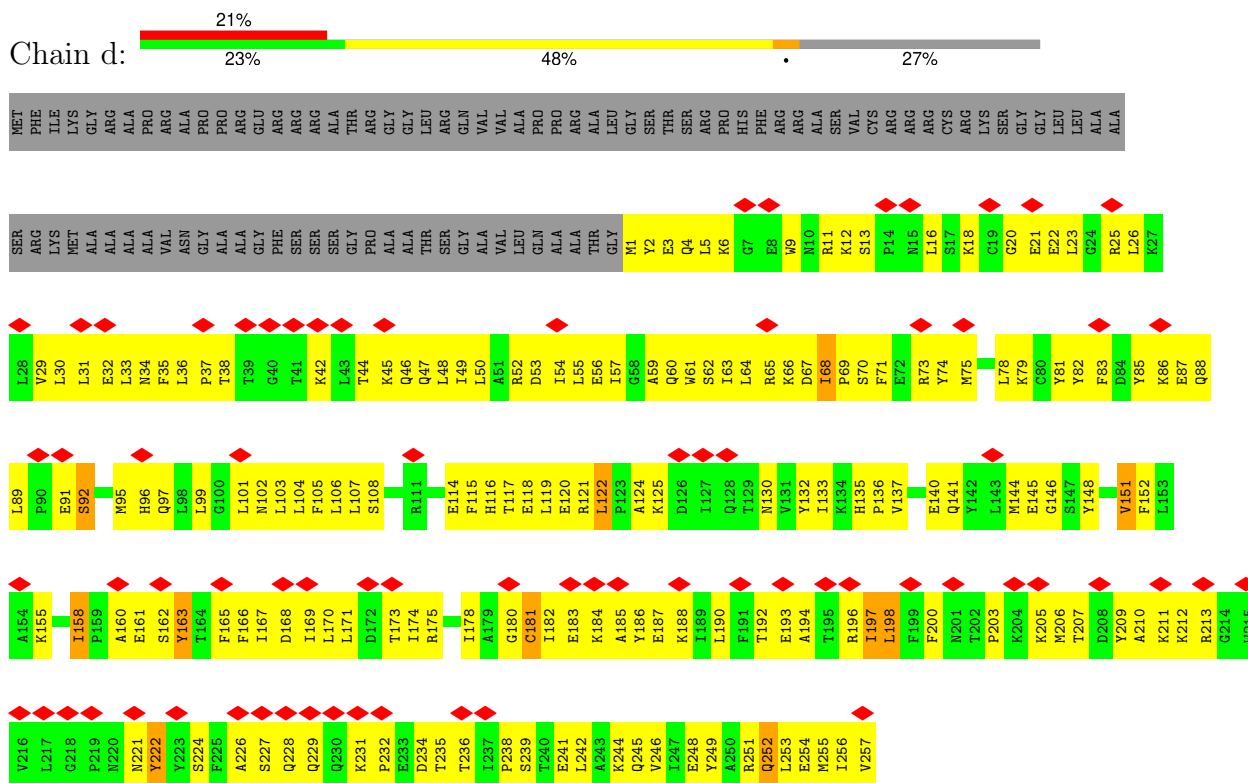
• Molecule 25: 26S proteasome non-ATPase regulatory subunit 13



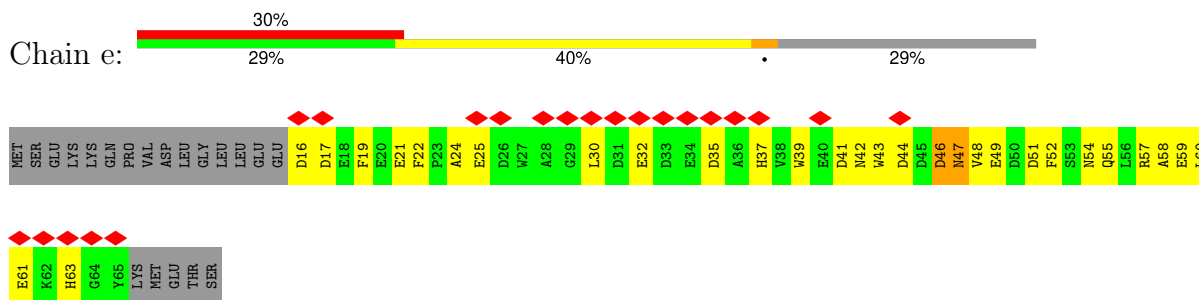


- Molecule 26: 26S proteasome non-ATPase regulatory subunit 4

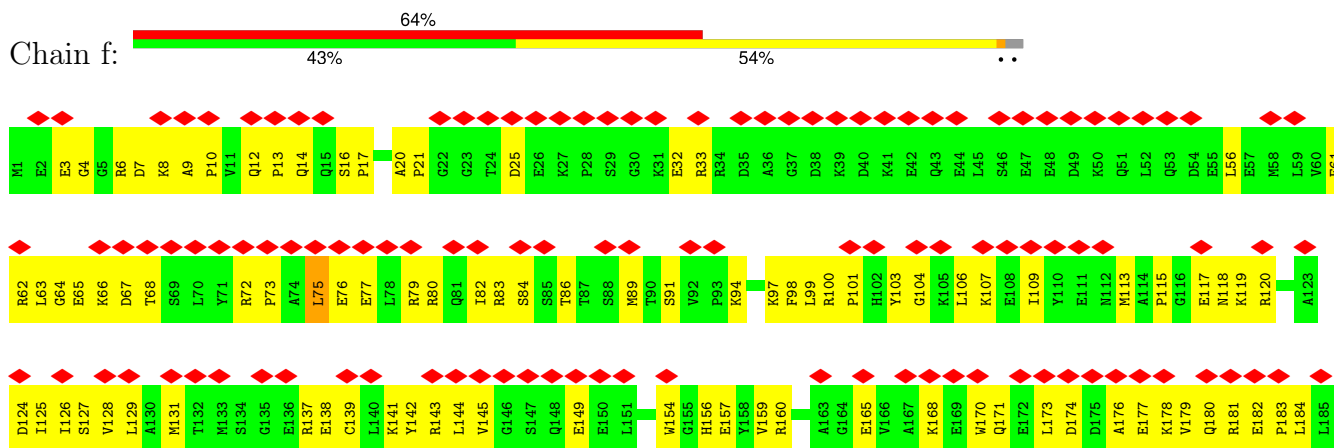




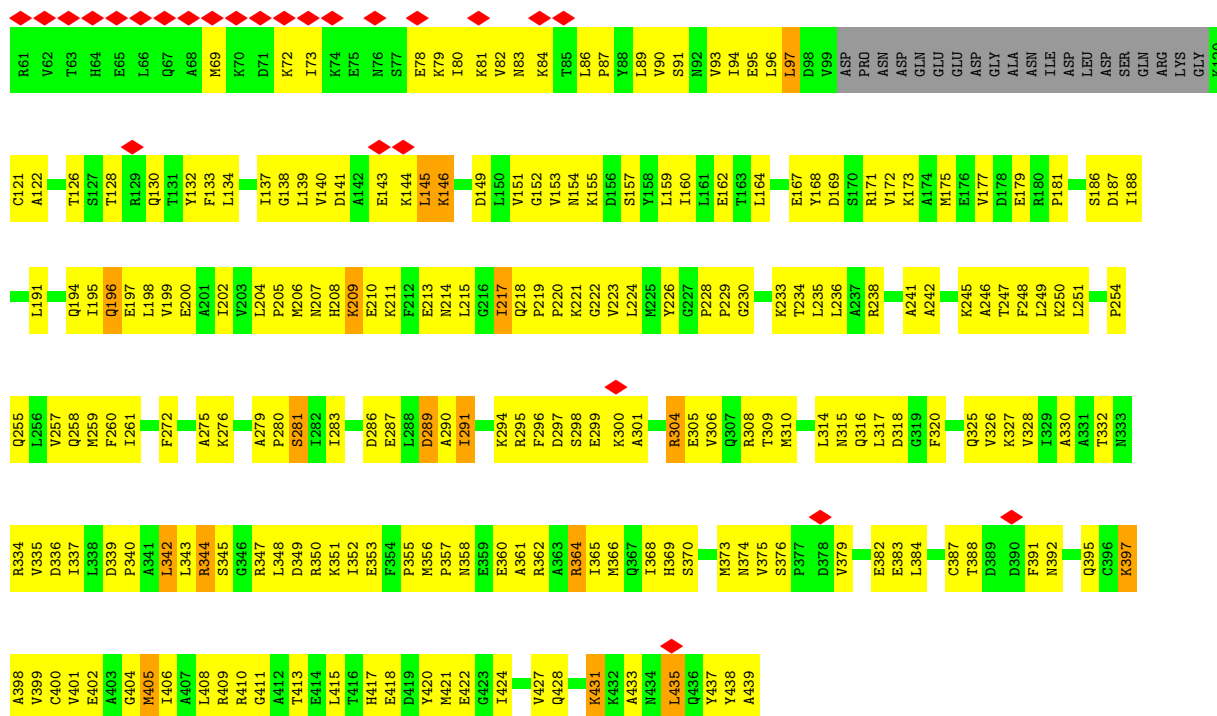
- Molecule 29: 26S proteasome complex subunit SEM1



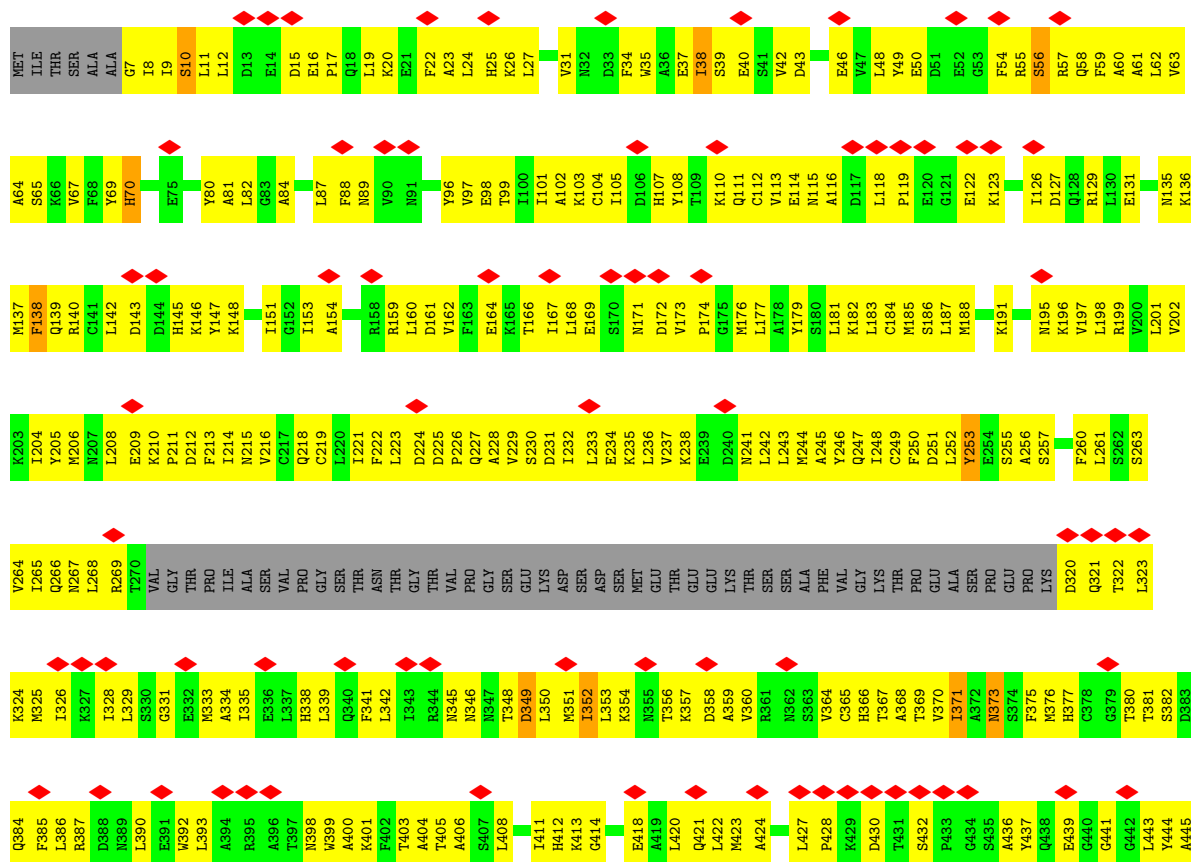
- Molecule 30: 26S proteasome non-ATPase regulatory subunit 2







• Molecule 32: 26S proteasome non-ATPase regulatory subunit 1





## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	106182	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	50	Depositor
Minimum defocus (nm)	1100	Depositor
Maximum defocus (nm)	2700	Depositor
Magnification	81000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.990	Depositor
Minimum map value	-0.002	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.021	Depositor
Recommended contour level	0.165	Depositor
Map size (Å)	691.656, 689.508, 691.656	wwPDB
Map dimensions	644, 642, 644	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.074, 1.074, 1.074	Depositor

## 5 Model quality

### 5.1 Standard geometry

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

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	A	0.19	0/2914	0.36	0/3937
2	B	0.18	0/3086	0.37	0/4164
3	C	0.19	0/3007	0.36	0/4045
4	D	0.19	0/3089	0.32	0/4168
5	E	0.19	0/2904	0.34	0/3924
6	G	0.17	0/1771	0.30	0/2403
6	g	0.16	0/1790	0.27	0/2429
7	H	0.17	0/1701	0.29	0/2318
7	h	0.17	0/1701	0.28	0/2318
8	I	0.19	0/1831	0.31	0/2487
8	i	0.16	0/1815	0.27	0/2466
9	J	0.17	0/1657	0.28	0/2261
9	j	0.16	0/1657	0.29	0/2261
10	K	0.17	0/1689	0.28	0/2294
10	k	0.15	0/1686	0.24	0/2290
11	L	0.18	0/1744	0.29	0/2371
11	l	0.16	0/1741	0.27	0/2367
12	M	0.17	0/1795	0.28	0/2434
12	m	0.16	0/1796	0.27	0/2435
13	N	0.16	0/1495	0.25	0/2026
13	n	0.16	0/1491	0.24	0/2021
14	O	0.16	0/1607	0.28	0/2185
14	o	0.17	0/1603	0.26	0/2180
15	P	0.17	0/1575	0.29	0/2128
15	p	0.18	0/1567	0.29	0/2118
16	Q	0.16	0/1541	0.25	0/2092
16	q	0.16	0/1538	0.28	0/2088
17	R	0.16	0/1535	0.25	0/2080
17	r	0.16	0/1531	0.26	0/2076
18	S	0.16	0/1614	0.27	0/2178
18	s	0.16	0/1617	0.27	0/2182
19	T	0.17	0/1606	0.26	0/2179

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
19	t	0.17	0/1598	0.28	0/2170
20	V	0.15	0/3824	0.30	0/5170
21	W	0.15	0/3683	0.32	0/4952
22	X	0.13	0/2705	0.29	0/3648
23	Y	0.16	0/3173	0.28	0/4273
24	Z	0.18	0/2324	0.29	0/3150
25	a	0.16	0/3053	0.33	0/4133
26	b	0.15	0/1478	0.38	0/2001
27	c	0.19	0/2302	0.33	0/3110
28	d	0.15	0/2162	0.31	0/2919
29	e	0.12	0/437	0.25	0/595
30	f	0.08	0/6980	0.25	0/9433
31	F	0.19	0/2896	0.33	0/3912
32	U	0.16	0/6417	0.32	0/8684
All	All	0.16	0/102726	0.30	0/139055

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

## 5.2 Too-close contacts ⓘ

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	A	2863	0	2895	357	0
2	B	3042	0	3100	418	0
3	C	2968	0	3066	334	0
4	D	3039	0	3074	353	0
5	E	2860	0	2828	338	0
6	G	1742	1660	1660	27	0
6	g	1758	1687	1687	19	0
7	H	1662	1590	1590	23	0
7	h	1662	1590	1590	18	0
8	I	1802	1741	1741	26	0
8	i	1786	1717	1717	15	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	J	1633	1518	1518	22	0
9	j	1633	1518	1518	20	0
10	K	1663	1592	1591	26	0
10	k	1660	1589	1589	16	0
11	L	1710	1649	1649	27	0
11	l	1707	1645	1645	22	0
12	M	1760	1680	1680	21	0
12	m	1761	1683	1683	21	0
13	N	1469	1422	1422	18	0
13	n	1465	1416	1416	17	0
14	O	1580	1559	1559	23	0
14	o	1576	1555	1555	28	0
15	P	1546	1550	1552	19	0
15	p	1538	1543	1545	24	0
16	Q	1509	1477	1477	17	0
16	q	1506	1475	1475	17	0
17	R	1504	1449	1449	23	0
17	r	1500	1438	1438	18	0
18	S	1584	1579	1579	11	0
18	s	1587	1581	1581	14	0
19	T	1576	1526	1528	20	0
19	t	1568	1511	1513	14	0
20	V	3754	0	3749	429	0
21	W	3635	0	3762	522	0
22	X	2664	0	2732	248	0
23	Y	3115	0	3120	375	0
24	Z	2281	0	2312	297	0
25	a	2995	0	3012	397	0
26	b	1458	0	1505	247	0
27	c	2260	0	2276	292	0
28	d	2116	0	2146	278	0
29	e	425	0	328	40	0
30	f	6866	0	6866	794	0
31	F	2858	0	2853	288	0
32	U	6304	0	6334	785	0
33	A	31	0	12	4	0
33	B	31	0	12	3	0
33	D	31	0	12	8	0
33	E	31	0	12	7	0
34	A	2	0	0	0	0
34	B	1	0	0	0	0
34	E	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	C	27	0	12	4	0
35	F	27	0	12	2	0
36	N	34	41	41	1	0
36	O	34	41	41	0	0
36	R	34	41	41	7	0
36	n	34	41	41	3	0
36	o	34	41	41	1	0
36	r	34	41	41	0	0
37	c	1	0	0	0	0
All	All	101338	44186	100223	6735	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 33.

All (6735) 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)
2:B:217:LYS:HA	2:B:217:LYS:HE3	1.20	1.17
2:B:361:LYS:HD3	2:B:390:LEU:HD11	1.25	1.15
26:b:111:ALA:HB3	26:b:140:ILE:HA	1.29	1.14
2:B:342:ILE:HG23	2:B:347:ILE:HD11	1.29	1.13
3:C:248:MET:HE1	3:C:273:MET:HG3	1.14	1.13
2:B:95:GLU:HA	2:B:98:LYS:HE2	1.31	1.12
3:C:251:ILE:HG12	3:C:296:ASN:HD21	1.05	1.12
2:B:278:ALA:HB1	2:B:279:PRO:HD2	1.31	1.11
27:c:27:THR:HG21	27:c:177:THR:HA	1.25	1.11
21:W:248:ARG:HD2	21:W:290:ILE:HD11	1.29	1.10
30:f:99:LEU:HG	30:f:101:PRO:HD2	1.34	1.10
30:f:681:TYR:HB3	30:f:761:MET:HE3	1.31	1.09
31:F:373:MET:HE2	31:F:415:LEU:HD11	1.30	1.09
20:V:428:LEU:HD21	20:V:437:ILE:HD11	1.25	1.09
25:a:197:ALA:HA	25:a:222:LEU:HD13	1.27	1.08
24:Z:172:VAL:HG13	27:c:217:LEU:HD21	1.31	1.08
32:U:137:MET:HE2	32:U:137:MET:HA	1.27	1.08
3:C:146:SER:HA	3:C:150:MET:HE3	1.35	1.08
23:Y:27:SER:HA	23:Y:59:LYS:HE2	1.36	1.08
30:f:370:MET:HE3	30:f:370:MET:HA	1.32	1.07
28:d:231:LYS:HG3	28:d:232:PRO:HD3	1.32	1.07
14:o:2:THR:N	14:o:170:SER:HG	1.51	1.07
1:A:268:LYS:HG2	30:f:354:GLU:HG2	1.29	1.06
30:f:545:LYS:HE2	30:f:547:GLU:HB3	1.38	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:112:ILE:HD12	25:a:151:VAL:HG21	1.32	1.05
30:f:729:MET:HA	30:f:729:MET:HE3	1.36	1.05
32:U:894:MET:HE2	32:U:902:PRO:HD3	1.35	1.05
28:d:36:LEU:HG	28:d:37:PRO:HD2	1.38	1.05
30:f:385:PHE:HB3	30:f:388:ASP:HB2	1.33	1.05
23:Y:96:GLY:HA2	23:Y:100:ILE:HG23	1.39	1.04
26:b:22:LEU:HB3	26:b:23:PRO:HD3	1.37	1.04
32:U:38:ILE:HD13	32:U:42:VAL:HB	1.36	1.04
30:f:138:GLU:HA	30:f:141:LYS:HE3	1.40	1.04
5:E:355:ILE:HD11	31:F:211:LYS:HD2	1.34	1.03
21:W:60:MET:HE1	21:W:99:GLN:HB2	1.37	1.03
20:V:333:ILE:HD11	20:V:360:TYR:HB3	1.41	1.03
20:V:443:ARG:HG2	28:d:184:LYS:HZ1	1.23	1.03
30:f:786:GLN:HB3	30:f:788:MET:HE1	1.39	1.02
4:D:56:VAL:HG23	32:U:600:ARG:HE	1.22	1.02
30:f:479:LEU:HD13	30:f:514:VAL:HG22	1.39	1.02
30:f:829:MET:HE3	30:f:829:MET:H	1.18	1.01
21:W:105:VAL:HG21	21:W:140:ILE:HD13	1.43	1.01
1:A:85:GLN:HA	1:A:88:GLN:HB3	1.42	1.01
24:Z:142:GLU:HG2	24:Z:153:LYS:HG3	1.41	1.01
30:f:791:VAL:HG22	30:f:800:LEU:HD11	1.40	1.01
1:A:196:LEU:HD13	30:f:348:ILE:HD13	1.39	1.00
5:E:380:LEU:HD11	31:F:351:LYS:HE3	1.42	1.00
24:Z:34:ARG:NH2	24:Z:105:ASP:OD2	1.95	1.00
30:f:744:MET:HE1	30:f:745:LEU:HD23	1.41	1.00
23:Y:232:GLU:HG2	23:Y:234:PRO:HD2	1.44	1.00
4:D:64:GLU:HB3	32:U:607:VAL:HG21	1.41	0.99
24:Z:19:VAL:HG21	24:Z:124:ILE:HD11	1.41	0.99
5:E:330:ALA:HA	5:E:333:LYS:HE2	1.42	0.99
31:F:188:ILE:HG12	31:F:235:LEU:HD23	1.44	0.99
28:d:206:MET:HE3	28:d:206:MET:H	1.21	0.99
3:C:249:ASP:OD1	3:C:250:GLU:N	1.94	0.99
27:c:163:ILE:HD11	27:c:199:HIS:HA	1.41	0.99
23:Y:18:ARG:HH11	23:Y:22:LEU:HD21	1.28	0.98
3:C:196:LYS:HD2	3:C:294:ALA:HB1	1.43	0.98
25:a:41:VAL:HG11	25:a:79:ILE:HD11	1.41	0.98
1:A:151:ILE:HD12	1:A:152:PRO:HD2	1.45	0.98
23:Y:29:PRO:HB2	23:Y:32:ARG:HG2	1.43	0.98
32:U:789:ILE:HG13	32:U:911:ILE:HA	1.45	0.98
1:A:196:LEU:HD11	30:f:345:PRO:HD2	1.45	0.97
30:f:520:LEU:HD23	30:f:557:TRP:HB2	1.44	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:200:LEU:HD22	25:a:222:LEU:HD12	1.45	0.97
30:f:536:SER:HA	30:f:539:LEU:HD12	1.46	0.97
20:V:452:ASN:ND2	28:d:187:GLU:OE2	1.96	0.97
32:U:509:GLY:HA3	32:U:544:ILE:HG13	1.46	0.97
30:f:125:ILE:HG21	30:f:129:LEU:HB2	1.42	0.97
32:U:377:HIS:HB3	32:U:380:THR:HG22	1.45	0.97
23:Y:237:ARG:HA	23:Y:241:ILE:HD12	1.46	0.97
26:b:19:GLY:HA2	26:b:24:THR:HA	1.44	0.97
1:A:99:THR:HG21	1:A:113:ILE:HD11	1.47	0.97
1:A:306:LEU:HA	1:A:312:ARG:HD3	1.45	0.96
30:f:559:PRO:HB2	30:f:594:LEU:HD23	1.45	0.96
21:W:373:ILE:HD11	21:W:377:ARG:HG2	1.46	0.96
32:U:576:PRO:HB3	32:U:611:ASN:HD22	1.30	0.96
20:V:480:ILE:HD11	24:Z:261:TYR:HA	1.44	0.95
23:Y:301:ILE:HD12	23:Y:342:ARG:HH21	1.28	0.95
30:f:79:ARG:HB3	30:f:82:ILE:HG22	1.47	0.95
32:U:525:ASN:OD1	32:U:528:ALA:N	1.99	0.95
30:f:703:ARG:HA	30:f:706:ILE:HD12	1.46	0.95
26:b:51:LEU:HD13	26:b:75:LEU:HD22	1.49	0.95
1:A:268:LYS:HE2	1:A:268:LYS:N	1.82	0.95
26:b:129:LYS:HG2	26:b:133:LYS:HZ1	1.30	0.95
4:D:41:TYR:HD2	32:U:183:LEU:HD11	1.32	0.95
27:c:167:MET:HE2	27:c:172:HIS:HB3	1.47	0.95
26:b:52:ILE:HG13	26:b:60:VAL:HG23	1.50	0.94
20:V:289:LEU:HB2	20:V:312:ALA:HB2	1.47	0.94
26:b:8:VAL:HG22	26:b:110:ILE:HD11	1.47	0.94
28:d:144:MET:HE2	28:d:144:MET:HA	1.49	0.94
30:f:180:GLN:HG3	30:f:219:LYS:HZ2	1.31	0.94
32:U:458:ILE:HD13	32:U:490:ARG:HH12	1.30	0.94
25:a:149:THR:HG23	25:a:183:VAL:HB	1.50	0.93
23:Y:52:PRO:HD3	23:Y:115:GLY:HA2	1.51	0.93
3:C:354:ALA:HB1	3:C:358:GLU:HB2	1.50	0.93
23:Y:238:GLU:OE1	23:Y:238:GLU:N	2.01	0.93
2:B:212:GLU:HA	30:f:845:ARG:HG3	1.49	0.93
22:X:233:TYR:HA	22:X:254:MET:HE1	1.51	0.93
25:a:227:ASN:OD1	25:a:228:THR:N	2.02	0.93
21:W:253:THR:O	21:W:257:GLN:N	2.01	0.93
25:a:126:GLY:HA3	25:a:130:VAL:HG21	1.50	0.93
25:a:278:MET:CE	25:a:319:LEU:HG	1.97	0.93
32:U:188:MET:HE2	32:U:188:MET:HA	1.51	0.93
24:Z:193:ASN:HB2	27:c:228:GLY:HA2	1.49	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:363:ILE:HD11	21:W:393:LEU:HD13	1.49	0.92
31:F:291:ILE:HD11	31:F:309:THR:HB	1.51	0.92
4:D:266:GLU:HB3	5:E:258:MET:HE3	1.52	0.92
32:U:757:MET:HE3	32:U:758:PRO:HD3	1.51	0.92
24:Z:144:VAL:HA	24:Z:152:SER:HB3	1.51	0.92
24:Z:176:LEU:HD21	27:c:217:LEU:HD22	1.52	0.92
32:U:333:MET:SD	32:U:334:ALA:N	2.43	0.92
24:Z:48:LEU:HD11	24:Z:92:VAL:HG21	1.50	0.92
30:f:270:LEU:HB2	30:f:271:MET:HE3	1.52	0.91
27:c:265:MET:HG2	27:c:266:THR:HG22	1.52	0.91
32:U:82:LEU:HB3	32:U:129:ARG:HD3	1.52	0.91
21:W:297:GLU:OE1	21:W:297:GLU:N	2.03	0.91
25:a:97:LEU:HD13	25:a:118:ILE:HD13	1.52	0.91
32:U:465:LEU:HD11	32:U:477:GLY:HA3	1.51	0.91
1:A:319:MET:HE2	1:A:337:LEU:HD13	1.49	0.91
5:E:215:ILE:HD13	5:E:260:LEU:HB2	1.53	0.91
30:f:686:LEU:HD13	30:f:687:ARG:HG3	1.49	0.91
4:D:332:GLU:HG3	4:D:334:PRO:HD3	1.51	0.91
23:Y:26:LEU:HD23	23:Y:59:LYS:HD2	1.52	0.91
2:B:292:THR:HG21	2:B:333:ARG:HH12	1.34	0.91
30:f:334:ALA:HB1	30:f:335:ARG:HH21	1.33	0.91
22:X:286:ALA:HA	22:X:309:TYR:HD2	1.33	0.90
30:f:261:ARG:HA	30:f:267:ARG:HH12	1.36	0.90
30:f:407:MET:HE1	30:f:440:ILE:HA	1.49	0.90
1:A:371:GLU:N	1:A:371:GLU:OE2	2.04	0.90
4:D:407:ILE:HD12	4:D:408:LYS:N	1.85	0.90
28:d:13:SER:HB3	28:d:16:LEU:HB2	1.50	0.90
23:Y:144:LEU:HA	23:Y:147:ILE:HD11	1.53	0.90
23:Y:387:ILE:HG21	24:Z:276:ILE:HD11	1.52	0.90
28:d:82:TYR:HD2	28:d:95:MET:HE1	1.37	0.90
21:W:419:LYS:HG2	21:W:424:LEU:HD13	1.51	0.90
32:U:669:ILE:HD13	32:U:695:MET:HE2	1.51	0.90
13:N:145:ARG:NH2	13:N:152:GLU:OE2	2.05	0.90
3:C:251:ILE:HG12	3:C:296:ASN:ND2	1.86	0.89
5:E:306:GLU:N	5:E:306:GLU:OE2	2.04	0.89
21:W:406:VAL:HG13	22:X:342:PHE:HB3	1.53	0.89
27:c:260:GLU:N	27:c:260:GLU:OE2	2.04	0.89
30:f:170:TRP:HE1	30:f:181:ARG:HB2	1.37	0.89
1:A:113:ILE:HD11	1:A:142:VAL:HG11	1.52	0.89
2:B:426:VAL:HG12	2:B:427:LEU:HD12	1.54	0.89
1:A:143:ASP:OD1	1:A:145:ASN:N	2.03	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:116:ILE:HG21	2:B:132:TYR:HE2	1.37	0.89
4:D:267:ILE:HG12	4:D:309:MET:CE	2.03	0.89
28:d:95:MET:HA	28:d:95:MET:HE3	1.55	0.89
28:d:206:MET:HA	28:d:209:TYR:HB2	1.53	0.89
21:W:155:GLN:HB2	21:W:161:GLU:OE1	1.72	0.89
21:W:268:LYS:HZ1	21:W:301:LYS:HE3	1.38	0.89
22:X:142:ARG:HB2	22:X:146:ALA:HB2	1.54	0.89
31:F:224:LEU:HD13	31:F:348:LEU:HD22	1.53	0.89
32:U:529:ILE:HD11	32:U:555:VAL:HG11	1.54	0.89
3:C:218:GLU:OE1	3:C:218:GLU:N	2.06	0.89
31:F:418:GLU:OE1	31:F:418:GLU:N	2.04	0.89
27:c:51:MET:HA	27:c:82:VAL:HG13	1.56	0.88
20:V:212:TYR:HA	20:V:253:LEU:HD11	1.55	0.88
5:E:352:MET:HE2	5:E:352:MET:HA	1.55	0.88
21:W:202:THR:HG22	21:W:233:LEU:HD22	1.54	0.88
30:f:813:LYS:HB2	30:f:882:LEU:HD11	1.53	0.88
2:B:90:GLU:H	2:B:94:GLU:HB3	1.36	0.88
5:E:149:ILE:HD11	5:E:276:ILE:HD11	1.53	0.88
28:d:23:LEU:HA	28:d:26:LEU:HD21	1.55	0.88
20:V:482:PHE:HE2	23:Y:377:LEU:HD11	1.39	0.88
32:U:554:LEU:HD11	32:U:761:VAL:HG23	1.54	0.88
32:U:201:LEU:HD22	32:U:204:ILE:HD11	1.56	0.88
20:V:244:ALA:HA	20:V:247:GLN:HE22	1.39	0.87
21:W:445:LEU:HD22	24:Z:226:ILE:HG12	1.56	0.87
25:a:278:MET:HE1	25:a:319:LEU:HG	1.52	0.87
31:F:317:LEU:HD21	31:F:328:VAL:HG21	1.53	0.87
1:A:323:ARG:HH22	1:A:433:ASN:HA	1.39	0.87
1:A:364:VAL:HG23	1:A:366:ARG:H	1.38	0.87
27:c:63:ASP:OD1	32:U:541:HIS:ND1	2.08	0.87
32:U:242:LEU:O	32:U:246:TYR:HB2	1.74	0.87
2:B:357:ASP:OD1	2:B:358:GLU:N	2.07	0.87
20:V:443:ARG:HG2	28:d:184:LYS:NZ	1.87	0.87
30:f:209:MET:HG3	30:f:212:GLU:HB2	1.54	0.87
31:F:299:GLU:OE1	31:F:299:GLU:N	2.07	0.87
3:C:44:ARG:NH1	3:C:44:ARG:O	2.07	0.87
3:C:69:GLN:OE1	3:C:69:GLN:N	2.06	0.87
30:f:813:LYS:HD2	30:f:882:LEU:HD21	1.55	0.87
1:A:139:ARG:O	1:A:153:LEU:N	2.08	0.86
4:D:393:ILE:HG12	21:W:133:GLU:HB3	1.57	0.86
23:Y:275:LEU:HD21	23:Y:296:VAL:HG13	1.55	0.86
30:f:673:ARG:HH21	30:f:707:LEU:HD22	1.38	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:842:VAL:HG11	30:f:862:ILE:HB	1.56	0.86
32:U:9:ILE:HD13	32:U:42:VAL:HG11	1.57	0.86
32:U:801:GLN:HE21	32:U:877:LEU:HA	1.39	0.86
3:C:336:MET:HE1	3:C:367:GLY:HA3	1.56	0.86
32:U:422:LEU:HG	32:U:423:MET:CE	2.05	0.86
4:D:269:ALA:HB1	5:E:255:ARG:HG2	1.57	0.86
22:X:369:ILE:HD12	23:Y:310:SER:HA	1.55	0.86
3:C:132:ASP:HB3	3:C:135:VAL:HG23	1.55	0.86
30:f:159:VAL:HG13	30:f:160:ARG:HH11	1.40	0.86
3:C:90:HIS:ND1	3:C:91:PRO:HD2	1.91	0.86
30:f:759:LEU:HB2	30:f:809:ILE:HD12	1.57	0.86
31:F:162:GLU:OE1	31:F:162:GLU:N	2.08	0.86
23:Y:282:MET:HG3	23:Y:288:PHE:HB3	1.58	0.85
28:d:206:MET:H	28:d:206:MET:CE	1.89	0.85
30:f:62:ARG:HH22	30:f:66:LYS:HD3	1.41	0.85
21:W:45:GLU:OE1	21:W:45:GLU:N	2.08	0.85
32:U:642:GLU:N	32:U:642:GLU:OE1	2.09	0.85
30:f:512:MET:O	30:f:512:MET:HE3	1.76	0.85
1:A:264:ALA:HA	1:A:267:LYS:HD2	1.57	0.85
3:C:172:PRO:O	3:C:173:GLU:HG3	1.77	0.85
4:D:269:ALA:HB2	5:E:258:MET:HE2	1.58	0.85
21:W:136:ILE:O	21:W:137:TYR:HB2	1.76	0.85
26:b:147:GLU:CD	26:b:150:THR:HA	2.00	0.85
32:U:872:GLU:OE1	32:U:872:GLU:N	2.09	0.85
5:E:204:VAL:HG21	5:E:253:ILE:HD11	1.57	0.85
20:V:259:LEU:HD13	20:V:264:TYR:HE1	1.42	0.85
24:Z:43:TRP:HB3	24:Z:48:LEU:HA	1.59	0.85
32:U:357:LYS:HE3	32:U:357:LYS:HA	1.58	0.85
1:A:115:VAL:HG21	1:A:118:PHE:HB2	1.59	0.85
21:W:169:LEU:HD11	21:W:173:THR:HG23	1.59	0.84
30:f:271:MET:HB2	30:f:275:MET:HE1	1.59	0.84
20:V:337:LEU:HD22	20:V:367:VAL:HG11	1.57	0.84
27:c:241:ASN:HD21	27:c:295:ASN:HD21	1.22	0.84
30:f:139:CYS:HA	30:f:143:ARG:HH21	1.43	0.84
2:B:379:THR:OG1	2:B:382:ASP:OD2	1.94	0.84
3:C:62:GLU:OE2	4:D:117:SER:OG	1.95	0.84
28:d:44:THR:OG1	28:d:47:GLN:NE2	2.11	0.84
4:D:154:LEU:N	4:D:158:GLN:OE1	2.11	0.84
20:V:337:LEU:O	20:V:401:ASN:ND2	2.11	0.84
24:Z:243:GLN:N	24:Z:243:GLN:OE1	2.11	0.84
26:b:19:GLY:CA	26:b:24:THR:HA	2.07	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:209:GLU:HB2	32:U:210:LYS:NZ	1.93	0.84
20:V:410:ILE:HD13	20:V:422:ILE:HD13	1.60	0.84
27:c:27:THR:CG2	27:c:177:THR:HA	2.08	0.84
2:B:387:LYS:HZ1	2:B:427:LEU:HB2	1.43	0.84
30:f:412:ALA:HB2	30:f:446:LEU:HD12	1.56	0.84
25:a:57:ILE:HD11	25:a:60:TYR:CD2	2.13	0.83
30:f:664:GLU:OE1	30:f:667:GLY:N	2.11	0.83
32:U:199:ARG:O	32:U:202:VAL:HG22	1.78	0.83
32:U:901:GLN:HE21	32:U:915:LYS:HB3	1.42	0.83
24:Z:8:LYS:NZ	24:Z:161:GLU:HG2	1.92	0.83
31:F:221:LYS:HA	31:F:221:LYS:HE3	1.59	0.83
1:A:182:GLU:N	1:A:182:GLU:OE2	2.12	0.83
4:D:336:PRO:HD2	4:D:371:SER:HA	1.60	0.83
5:E:352:MET:HE2	5:E:355:ILE:HG21	1.59	0.83
22:X:239:TYR:HE1	22:X:246:LYS:HB2	1.43	0.83
23:Y:189:VAL:HG13	23:Y:287:LEU:HD21	1.60	0.83
25:a:4:VAL:HB	25:a:5:PRO:HD3	1.58	0.83
32:U:131:GLU:OE1	32:U:135:ASN:ND2	2.11	0.83
5:E:270:LEU:HD21	5:E:273:VAL:HB	1.59	0.83
26:b:51:LEU:HD23	26:b:62:THR:HB	1.60	0.83
6:g:174:GLU:N	6:g:174:GLU:OE2	2.12	0.83
1:A:394:MET:HE3	2:B:199:GLU:HG3	1.60	0.83
32:U:609:ASP:OD1	32:U:610:VAL:N	2.10	0.83
21:W:367:ALA:HA	21:W:415:PHE:HD2	1.44	0.83
22:X:130:GLU:HG3	22:X:149:LEU:HD11	1.58	0.83
32:U:226:PRO:HA	32:U:260:PHE:HE1	1.40	0.83
32:U:457:ILE:H	32:U:457:ILE:HD12	1.44	0.83
32:U:694:ILE:HG23	32:U:695:MET:SD	2.18	0.83
2:B:196:GLU:N	2:B:196:GLU:OE1	2.12	0.83
27:c:34:SER:OG	27:c:37:ALA:N	2.12	0.83
32:U:757:MET:HE3	32:U:758:PRO:CD	2.08	0.83
3:C:86:LEU:HD12	3:C:96:VAL:HG22	1.58	0.82
4:D:41:TYR:CD2	32:U:183:LEU:HD11	2.13	0.82
21:W:273:TYR:HA	21:W:276:LEU:HD23	1.60	0.82
22:X:233:TYR:CA	22:X:254:MET:HE1	2.09	0.82
30:f:786:GLN:HB3	30:f:788:MET:CE	2.09	0.82
3:C:59:LEU:HD22	4:D:72:PHE:HE1	1.44	0.82
22:X:256:LEU:HD13	22:X:319:ILE:CD1	2.09	0.82
27:c:25:VAL:HG22	27:c:175:ARG:HA	1.60	0.82
24:Z:101:LEU:HD12	24:Z:138:TYR:HE2	1.44	0.82
25:a:286:ALA:HA	25:a:289:ARG:HE	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:175:ASP:OD1	25:a:176:ALA:N	2.12	0.82
5:E:277:MET:HE1	5:E:289:LEU:HD11	1.60	0.82
28:d:256:ILE:HD12	28:d:256:ILE:O	1.79	0.82
30:f:415:GLY:HA3	30:f:447:ALA:HB1	1.60	0.82
32:U:167:ILE:HB	32:U:204:ILE:HG21	1.61	0.82
3:C:379:THR:OG1	3:C:382:ASP:OD2	1.97	0.82
21:W:131:VAL:HG13	21:W:144:ARG:HD2	1.62	0.82
26:b:187:PRO:HG2	26:b:188:ILE:HD12	1.62	0.82
3:C:273:MET:HE2	3:C:293:MET:HG3	1.62	0.82
4:D:61:ILE:HD11	32:U:639:LEU:HD13	1.60	0.82
4:D:415:GLU:OE1	4:D:415:GLU:N	2.13	0.82
21:W:236:HIS:ND1	21:W:237:GLU:OE1	2.13	0.82
31:F:357:PRO:HB3	31:F:361:ALA:HB3	1.62	0.82
25:a:347:LYS:HD2	25:a:347:LYS:O	1.80	0.82
28:d:125:LYS:HB3	28:d:130:ASN:HB2	1.60	0.82
23:Y:224:VAL:HG23	23:Y:260:LEU:HD12	1.61	0.81
14:o:2:THR:OG1	36:o:301:LDZ:O33	1.96	0.81
31:F:384:LEU:HD11	31:F:420:TYR:HB3	1.62	0.81
2:B:390:LEU:HD22	2:B:395:ILE:HD11	1.60	0.81
26:b:115:SER:OG	26:b:116:PRO:HD2	1.78	0.81
28:d:75:MET:SD	28:d:78:LEU:HD11	2.19	0.81
1:A:177:VAL:HG12	1:A:224:LEU:HD23	1.62	0.81
24:Z:22:HIS:HA	24:Z:25:ARG:HD2	1.61	0.81
24:Z:199:LYS:HZ1	25:a:364:GLU:HG2	1.46	0.81
26:b:100:ARG:HG3	26:b:101:GLN:O	1.80	0.81
30:f:270:LEU:HB2	30:f:271:MET:CE	2.11	0.81
30:f:701:ASN:OD1	30:f:704:LEU:N	2.12	0.81
32:U:173:VAL:HG13	32:U:177:LEU:HB3	1.59	0.81
30:f:605:ASN:HD21	30:f:608:LYS:HB3	1.43	0.81
32:U:38:ILE:CD1	32:U:42:VAL:HB	2.10	0.81
32:U:333:MET:HE3	32:U:333:MET:H	1.44	0.81
23:Y:70:LEU:HG	23:Y:74:LYS:NZ	1.95	0.81
3:C:273:MET:HE1	3:C:293:MET:SD	2.20	0.81
30:f:828:ARG:HE	30:f:861:THR:HG21	1.45	0.81
3:C:164:VAL:HG21	3:C:186:VAL:HG11	1.63	0.81
3:C:173:GLU:HA	3:C:176:GLU:HG3	1.60	0.81
5:E:199:VAL:HG13	31:F:315:ASN:ND2	1.95	0.81
21:W:219:THR:HG23	21:W:223:LYS:H	1.45	0.81
2:B:223:ILE:HB	2:B:347:ILE:HD12	1.63	0.81
3:C:273:MET:CE	3:C:293:MET:HG3	2.11	0.81
5:E:241:ARG:H	31:F:304:ARG:HH12	1.27	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:84:LYS:NZ	1:A:84:LYS:O	2.13	0.81
26:b:121:GLU:O	26:b:123:ASP:N	2.14	0.81
26:b:156:PHE:O	26:b:159:THR:OG1	1.96	0.81
28:d:30:LEU:HD12	28:d:31:LEU:H	1.45	0.81
3:C:250:GLU:HG3	3:C:269:VAL:HG21	1.61	0.81
23:Y:328:GLU:OE1	23:Y:328:GLU:N	2.14	0.81
24:Z:239:ASP:OD2	24:Z:243:GLN:NE2	2.13	0.81
1:A:102:ILE:HD11	1:A:114:ASN:HB3	1.63	0.80
1:A:112:ILE:HD11	31:F:164:LEU:HD23	1.62	0.80
1:A:322:ASN:ND2	1:A:322:ASN:O	2.14	0.80
3:C:374:ARG:HD3	4:D:190:LEU:HD11	1.62	0.80
7:H:15:SER:OG	7:H:17:LYS:NZ	2.14	0.80
20:V:236:ARG:HA	32:U:70:HIS:NE2	1.96	0.80
25:a:57:ILE:HD12	25:a:60:TYR:HB3	1.63	0.80
25:a:363:MET:HA	25:a:363:MET:HE2	1.62	0.80
26:b:36:VAL:O	26:b:40:LYS:N	2.12	0.80
27:c:71:ASP:OD1	27:c:72:VAL:N	2.14	0.80
11:l:45:VAL:HG22	11:l:214:ILE:HD12	1.63	0.80
32:U:247:GLN:NE2	32:U:904:LYS:HD2	1.96	0.80
5:E:342:ASP:HA	5:E:345:ASN:HB2	1.63	0.80
20:V:492:LYS:HE2	20:V:492:LYS:HA	1.61	0.80
21:W:298:GLU:OE1	21:W:298:GLU:N	2.14	0.80
30:f:821:LEU:HD21	30:f:882:LEU:HD13	1.60	0.80
4:D:200:ARG:HG2	4:D:200:ARG:HH11	1.45	0.80
20:V:477:HIS:HD1	28:d:249:TYR:HH	1.29	0.80
23:Y:278:VAL:HA	23:Y:281:GLU:HG3	1.62	0.80
4:D:338:ARG:NH2	4:D:366:ARG:O	2.14	0.80
20:V:294:ARG:NH2	20:V:390:GLY:O	2.13	0.80
22:X:339:ILE:HD11	22:X:350:ILE:CD1	2.12	0.80
26:b:135:LYS:HA	26:b:135:LYS:HE3	1.63	0.80
21:W:59:ASP:HB3	21:W:62:SER:HB2	1.64	0.80
21:W:169:LEU:CD1	21:W:172:GLU:HB2	2.10	0.80
24:Z:11:VAL:HG21	24:Z:135:THR:HG21	1.63	0.80
25:a:94:LEU:HG	25:a:121:LEU:HD23	1.63	0.80
30:f:833:PHE:HE1	30:f:842:VAL:HG23	1.47	0.80
32:U:667:GLU:N	32:U:667:GLU:OE1	2.14	0.80
32:U:810:THR:OG1	32:U:888:GLN:OE1	1.98	0.80
3:C:57:ARG:HH22	32:U:649:ARG:HH12	1.30	0.80
1:A:81:ALA:HB2	2:B:137:SER:HB2	1.63	0.80
21:W:170:GLN:OE1	21:W:174:TYR:HB2	1.82	0.80
30:f:368:ALA:HB2	30:f:402:ASN:HA	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:F:79:LYS:HA	31:F:79:LYS:HE3	1.64	0.80
32:U:901:GLN:O	32:U:915:LYS:N	2.13	0.80
4:D:389:GLU:OE1	4:D:389:GLU:N	2.15	0.80
20:V:115:LYS:O	20:V:119:GLY:N	2.14	0.80
30:f:266:LEU:HD23	30:f:270:LEU:HD11	1.62	0.80
30:f:775:THR:O	30:f:778:LEU:HD22	1.80	0.80
32:U:137:MET:HA	32:U:137:MET:CE	2.09	0.80
1:A:280:ILE:HA	1:A:295:VAL:HG13	1.61	0.80
27:c:49:VAL:HG12	27:c:50:PRO:HD3	1.63	0.80
28:d:33:LEU:HG	28:d:47:GLN:HB2	1.64	0.80
28:d:71:PHE:HE2	28:d:75:MET:HE2	1.43	0.80
5:E:309:ARG:NH1	5:E:335:SER:O	2.15	0.80
20:V:244:ALA:HA	20:V:247:GLN:NE2	1.96	0.80
20:V:273:LYS:HE3	32:U:39:SER:HB2	1.64	0.79
30:f:474:SER:HB3	30:f:477:MET:HG3	1.63	0.79
26:b:7:MET:HB2	26:b:109:ILE:HG22	1.62	0.79
28:d:35:PHE:HB2	28:d:81:TYR:OH	1.82	0.79
5:E:300:HIS:ND1	5:E:300:HIS:O	2.15	0.79
20:V:256:ARG:NH1	29:e:21:GLU:OE2	2.14	0.79
32:U:167:ILE:HD12	32:U:204:ILE:HG22	1.64	0.79
22:X:167:VAL:HG21	22:X:197:ALA:HB2	1.64	0.79
23:Y:147:ILE:HD12	23:Y:148:GLY:H	1.46	0.79
26:b:18:ASN:OD1	26:b:25:ARG:NE	2.16	0.79
1:A:103:ASN:OD1	1:A:104:ALA:N	2.16	0.79
1:A:113:ILE:CD1	1:A:142:VAL:HG11	2.11	0.79
24:Z:8:LYS:HZ2	24:Z:161:GLU:HG2	1.47	0.79
25:a:247:ARG:O	25:a:251:LEU:HD13	1.82	0.79
26:b:22:LEU:CB	26:b:23:PRO:HD3	2.13	0.79
30:f:683:GLU:H	30:f:688:ARG:HE	1.30	0.79
32:U:233:LEU:HD22	32:U:268:LEU:HD21	1.64	0.79
32:U:457:ILE:HG22	32:U:461:LEU:HD23	1.65	0.79
32:U:744:VAL:HG21	32:U:783:TYR:HB3	1.65	0.79
1:A:387:SER:HA	1:A:390:THR:HG22	1.65	0.79
5:E:50:LEU:HD13	31:F:82:VAL:HG11	1.64	0.79
32:U:902:PRO:HA	32:U:914:LEU:HD12	1.62	0.79
2:B:95:GLU:HA	2:B:98:LYS:CE	2.13	0.79
25:a:90:PRO:HB3	25:a:121:LEU:HD11	1.64	0.79
14:O:98:ALA:HB1	14:O:128:MET:CE	2.13	0.79
27:c:31:VAL:HG22	27:c:67:VAL:HG13	1.64	0.79
32:U:368:ALA:O	32:U:371:ILE:HG22	1.83	0.79
32:U:405:THR:HG21	32:U:441:GLY:HA3	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:383:LEU:O	23:Y:386:VAL:HG12	1.83	0.78
25:a:87:MET:SD	25:a:88:THR:N	2.56	0.78
32:U:602:LEU:HD11	32:U:621:SER:HB2	1.66	0.78
1:A:268:LYS:HG2	30:f:354:GLU:CG	2.13	0.78
21:W:220:GLU:O	21:W:257:GLN:NE2	2.15	0.78
21:W:210:ASN:HA	21:W:213:PHE:HE1	1.48	0.78
4:D:392:TYR:O	4:D:393:ILE:HD13	1.84	0.78
21:W:182:ARG:O	21:W:186:ILE:HG22	1.82	0.78
2:B:212:GLU:CA	30:f:845:ARG:HG3	2.13	0.78
20:V:449:ALA:HB3	20:V:460:SER:HA	1.64	0.78
22:X:325:LYS:HA	22:X:325:LYS:HE2	1.65	0.78
1:A:323:ARG:HG2	1:A:323:ARG:HH11	1.49	0.78
22:X:172:LEU:O	22:X:176:THR:HG23	1.82	0.78
30:f:462:ALA:HB3	30:f:489:TYR:OH	1.82	0.78
4:D:266:GLU:HB3	5:E:258:MET:CE	2.13	0.78
20:V:72:LEU:CD2	20:V:112:VAL:HG22	2.14	0.78
26:b:41:THR:HA	26:b:47:ASN:HD22	1.48	0.78
1:A:151:ILE:HD12	1:A:152:PRO:CD	2.14	0.78
21:W:28:LEU:HD11	21:W:69:ALA:HB2	1.66	0.78
30:f:445:LEU:CD2	30:f:481:SER:HA	2.14	0.78
20:V:466:ILE:HD11	20:V:471:GLU:HG2	1.66	0.78
27:c:179:SER:OG	32:U:770:TRP:O	2.02	0.78
32:U:450:HIS:HD1	32:U:457:ILE:HG12	1.49	0.78
1:A:357:ILE:HD12	1:A:360:ARG:HE	1.48	0.77
2:B:217:LYS:HE3	2:B:217:LYS:CA	2.08	0.77
3:C:44:ARG:HH22	3:C:45:LEU:HD13	1.49	0.77
25:a:57:ILE:HD11	25:a:60:TYR:HD2	1.48	0.77
30:f:545:LYS:NZ	30:f:548:THR:OG1	2.18	0.77
1:A:239:ARG:HG2	2:B:319:PHE:CZ	2.19	0.77
5:E:313:LEU:HD11	5:E:331:ILE:HG21	1.66	0.77
20:V:247:GLN:OE1	20:V:247:GLN:N	2.17	0.77
21:W:372:ARG:CZ	25:a:327:VAL:HG21	2.15	0.77
32:U:377:HIS:HB3	32:U:380:THR:CG2	2.14	0.77
3:C:351:MET:HE1	3:C:362:VAL:HG21	1.67	0.77
22:X:415:TYR:HE2	23:Y:382:LYS:HE3	1.47	0.77
23:Y:336:ARG:NH1	29:e:47:ASN:OD1	2.18	0.77
32:U:437:TYR:HE1	32:U:472:ILE:HB	1.49	0.77
32:U:713:TYR:O	32:U:717:ILE:HG23	1.84	0.77
3:C:77:VAL:CG2	3:C:86:LEU:HD23	2.14	0.77
5:E:98:VAL:HB	5:E:107:ILE:HG23	1.65	0.77
5:E:355:ILE:HD11	31:F:211:LYS:CD	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:254:PRO:HA	21:W:257:GLN:O	1.84	0.77
32:U:236:LEU:CB	32:U:245:ALA:HB2	2.15	0.77
20:V:192:MET:HE1	20:V:211:TYR:HD1	1.49	0.77
21:W:117:ASP:O	21:W:120:ILE:HG22	1.85	0.77
22:X:105:GLN:OE1	22:X:105:GLN:N	2.18	0.77
24:Z:19:VAL:HG21	24:Z:124:ILE:CD1	2.15	0.77
28:d:78:LEU:HD12	28:d:79:LYS:H	1.47	0.77
4:D:173:GLN:HE21	4:D:334:PRO:HD2	1.50	0.77
4:D:248:ARG:HG3	4:D:295:GLN:HE22	1.50	0.77
3:C:270:GLN:NE2	3:C:302:ASP:OD1	2.18	0.77
20:V:482:PHE:CE2	23:Y:377:LEU:HD11	2.20	0.77
28:d:78:LEU:HD12	28:d:79:LYS:N	2.00	0.77
29:e:51:ASP:O	29:e:55:GLN:NE2	2.17	0.77
30:f:673:ARG:HH21	30:f:707:LEU:CD2	1.98	0.77
32:U:552:ILE:HD11	32:U:566:LEU:HD21	1.65	0.77
4:D:87:LEU:HB2	5:E:80:VAL:CG1	2.15	0.77
25:a:5:PRO:O	25:a:8:LEU:HG	1.85	0.77
25:a:41:VAL:HG11	25:a:79:ILE:CD1	2.13	0.77
26:b:90:ILE:HD12	26:b:90:ILE:H	1.49	0.77
28:d:82:TYR:CD2	28:d:95:MET:HE1	2.20	0.77
1:A:279:ALA:HB1	2:B:307:ARG:HG2	1.66	0.77
3:C:351:MET:HE3	3:C:387:VAL:HG12	1.65	0.77
4:D:159:LYS:HG3	4:D:160:PRO:HD2	1.66	0.77
23:Y:70:LEU:O	23:Y:74:LYS:NZ	2.17	0.77
26:b:108:ARG:HH12	26:b:137:ASN:HD21	1.33	0.77
2:B:217:LYS:HA	2:B:217:LYS:CE	2.04	0.76
20:V:159:LEU:HD22	20:V:163:VAL:HG11	1.67	0.76
23:Y:307:LEU:HD22	23:Y:319:MET:HE3	1.67	0.76
26:b:51:LEU:HD22	26:b:71:ILE:HG23	1.66	0.76
30:f:177:GLU:HG2	30:f:835:GLU:HA	1.67	0.76
32:U:413:LYS:HA	32:U:449:ILE:HA	1.67	0.76
32:U:516:LEU:HG	32:U:532:MET:HE2	1.64	0.76
1:A:334:PRO:HG2	31:F:395:GLN:HA	1.65	0.76
3:C:52:LEU:HD11	4:D:69:LYS:HG3	1.66	0.76
3:C:328:ILE:HG22	3:C:359:VAL:HG11	1.66	0.76
30:f:825:MET:HG2	30:f:827:PRO:HD3	1.67	0.76
14:o:127:THR:HG21	14:o:135:ALA:HB3	1.66	0.76
2:B:56:THR:HB	30:f:835:GLU:OE2	1.83	0.76
5:E:59:GLU:N	5:E:59:GLU:OE1	2.16	0.76
20:V:72:LEU:HD21	20:V:112:VAL:HG22	1.67	0.76
24:Z:6:VAL:HG23	24:Z:158:VAL:HG11	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:80:ILE:O	25:a:83:VAL:HG12	1.85	0.76
32:U:599:ILE:HD11	32:U:626:LEU:HD21	1.67	0.76
1:A:415:LYS:HA	1:A:419:SER:HB3	1.65	0.76
3:C:151:ILE:CD1	3:C:198:LEU:HD12	2.16	0.76
20:V:463:MET:HE3	20:V:464:ILE:N	2.00	0.76
1:A:73:ALA:HB1	1:A:74:PRO:HD2	1.68	0.76
24:Z:96:HIS:CE1	24:Z:98:GLY:HA3	2.20	0.76
24:Z:259:VAL:HG13	27:c:291:LEU:HD13	1.66	0.76
25:a:76:LEU:O	25:a:79:ILE:HG22	1.85	0.76
28:d:170:LEU:O	28:d:174:ILE:HG22	1.85	0.76
30:f:266:LEU:HD21	30:f:270:LEU:HD21	1.68	0.76
30:f:603:SER:HB2	30:f:639:LYS:HZ2	1.49	0.76
4:D:56:VAL:HG23	32:U:600:ARG:NE	2.00	0.76
20:V:497:PRO:HG2	20:V:498:PRO:HD3	1.66	0.76
22:X:151:SER:HB3	22:X:155:ARG:HH21	1.49	0.76
30:f:543:MET:HE2	30:f:543:MET:O	1.86	0.76
32:U:11:LEU:HD12	32:U:11:LEU:O	1.85	0.76
5:E:84:ARG:HD2	27:c:50:PRO:HG3	1.68	0.76
24:Z:213:GLU:OE1	25:a:350:LYS:NZ	2.13	0.76
30:f:656:GLY:HA2	30:f:660:ILE:HD13	1.68	0.76
31:F:279:ALA:HB1	31:F:280:PRO:HD2	1.66	0.76
32:U:708:GLN:O	32:U:711:GLN:HG2	1.85	0.76
3:C:75:GLU:OE1	3:C:111:ASN:HA	1.85	0.76
32:U:481:LEU:HD11	32:U:493:VAL:CG1	2.16	0.76
32:U:800:VAL:HG22	32:U:880:ASN:ND2	2.00	0.76
3:C:248:MET:CE	3:C:273:MET:HG3	2.07	0.76
4:D:279:THR:HG1	5:E:248:SER:HG	1.29	0.76
22:X:415:TYR:CE2	23:Y:382:LYS:HE3	2.21	0.76
3:C:242:ALA:HB1	3:C:243:PRO:HD2	1.67	0.76
4:D:122:GLU:OE1	4:D:122:GLU:HA	1.86	0.76
20:V:428:LEU:CD2	20:V:437:ILE:HD11	2.12	0.76
25:a:168:ASN:ND2	25:a:171:SER:OG	2.19	0.76
27:c:130:GLN:HE21	27:c:142:ALA:HB2	1.51	0.76
28:d:29:VAL:O	28:d:33:LEU:N	2.15	0.76
32:U:481:LEU:HD11	32:U:493:VAL:HG11	1.66	0.76
1:A:322:ASN:C	1:A:322:ASN:HD22	1.92	0.75
21:W:102:ALA:HB2	21:W:139:GLU:HB3	1.66	0.75
32:U:548:LEU:O	32:U:552:ILE:HG22	1.85	0.75
5:E:341:ALA:O	5:E:345:ASN:N	2.17	0.75
30:f:125:ILE:HG21	30:f:129:LEU:CB	2.16	0.75
32:U:583:MET:HE2	32:U:602:LEU:HD12	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:335:LEU:HD13	4:D:371:SER:HB3	1.66	0.75
21:W:186:ILE:CD1	21:W:208:LYS:HG2	2.16	0.75
23:Y:371:LYS:NZ	23:Y:372:LYS:HE2	2.01	0.75
27:c:31:VAL:HG23	27:c:203:ILE:HG21	1.68	0.75
28:d:188:LYS:HA	28:d:222:TYR:O	1.85	0.75
32:U:627:PHE:CE2	32:U:749:GLN:HG3	2.20	0.75
1:A:136:GLU:N	1:A:136:GLU:OE2	2.20	0.75
2:B:119:ASN:OD1	2:B:120:HIS:ND1	2.18	0.75
3:C:128:PRO:HD3	4:D:96:VAL:HG23	1.68	0.75
20:V:259:LEU:HG	20:V:291:TYR:CD1	2.22	0.75
20:V:323:GLY:HA2	29:e:24:ALA:HA	1.68	0.75
26:b:129:LYS:HG2	26:b:133:LYS:NZ	2.00	0.75
30:f:267:ARG:HA	30:f:271:MET:HE1	1.69	0.75
32:U:472:ILE:HD12	32:U:473:VAL:HG13	1.68	0.75
30:f:160:ARG:NH2	30:f:190:GLU:OE2	2.19	0.75
23:Y:336:ARG:NH2	29:e:49:GLU:OE2	2.18	0.75
30:f:182:GLU:HG3	30:f:183:PRO:HD3	1.67	0.75
30:f:209:MET:CG	30:f:212:GLU:HB2	2.17	0.75
30:f:638:ASP:O	30:f:640:LYS:HG2	1.87	0.75
4:D:91:GLN:HE21	4:D:127:ASN:HB2	1.52	0.75
20:V:371:ASN:HB2	20:V:427:GLN:HE21	1.50	0.75
22:X:285:GLU:HA	22:X:288:LYS:HB2	1.67	0.75
1:A:425:ALA:HB2	2:B:339:PRO:O	1.87	0.75
4:D:403:TYR:CE2	4:D:407:ILE:HG12	2.22	0.75
20:V:486:ILE:HD11	24:Z:268:SER:HB2	1.68	0.75
25:a:93:ALA:O	25:a:97:LEU:N	2.15	0.75
25:a:301:LYS:C	25:a:302:ILE:HD12	2.12	0.75
26:b:9:CYS:O	26:b:112:PHE:HB2	1.85	0.75
32:U:236:LEU:HB3	32:U:245:ALA:HB2	1.69	0.75
2:B:223:ILE:CG2	2:B:350:LYS:HG2	2.17	0.75
30:f:126:ILE:HD11	30:f:178:LYS:HD3	1.68	0.75
30:f:177:GLU:HG2	30:f:835:GLU:HB2	1.68	0.75
30:f:554:TYR:HB3	30:f:557:TRP:CH2	2.22	0.75
3:C:19:GLY:HA3	32:U:146:LYS:CE	2.17	0.74
26:b:83:LYS:HD2	26:b:84:ILE:H	1.50	0.74
27:c:219:ASN:O	27:c:220:LEU:HD23	1.87	0.74
32:U:352:ILE:HG21	32:U:376:MET:HE1	1.69	0.74
2:B:59:ARG:HB2	30:f:184:LEU:HD22	1.69	0.74
21:W:131:VAL:CG1	21:W:144:ARG:HD2	2.16	0.74
21:W:201:ARG:O	21:W:205:ILE:HG22	1.86	0.74
22:X:226:LYS:O	22:X:226:LYS:NZ	2.16	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:61:LEU:HG	23:Y:63:TRP:HD1	1.50	0.74
2:B:365:PHE:HE2	2:B:395:ILE:HD12	1.51	0.74
22:X:194:ARG:HD2	22:X:210:LEU:HD21	1.69	0.74
3:C:194:THR:HG21	3:C:317:PHE:HB3	1.69	0.74
21:W:177:MET:HE1	21:W:181:GLU:OE1	1.86	0.74
25:a:174:LYS:HG3	25:a:178:ARG:HH22	1.50	0.74
2:B:182:GLU:OE1	2:B:182:GLU:N	2.20	0.74
5:E:138:LEU:HD21	5:E:301:ILE:HG23	1.69	0.74
5:E:226:GLN:HB3	5:E:227:PRO:HD2	1.69	0.74
21:W:130:MET:HE3	21:W:131:VAL:N	2.00	0.74
25:a:148:VAL:HG13	25:a:149:THR:H	1.53	0.74
25:a:163:TYR:HA	25:a:166:ILE:HG22	1.70	0.74
27:c:128:ASN:HA	27:c:131:GLN:OE1	1.87	0.74
30:f:744:MET:CE	30:f:745:LEU:HD23	2.16	0.74
32:U:685:GLN:HB2	32:U:725:MET:HE1	1.70	0.74
1:A:82:ALA:HB3	1:A:85:GLN:HG2	1.69	0.74
1:A:278:ASP:OD2	1:A:321:THR:OG1	2.04	0.74
22:X:281:GLY:O	22:X:284:THR:HG22	1.87	0.74
24:Z:172:VAL:HG13	27:c:217:LEU:CD2	2.13	0.74
1:A:143:ASP:OD1	1:A:144:ARG:N	2.21	0.74
5:E:198:VAL:HG22	5:E:200:SER:H	1.52	0.74
22:X:137:TYR:HD2	22:X:146:ALA:HA	1.52	0.74
22:X:418:ALA:O	22:X:422:THR:HG22	1.88	0.74
31:F:276:LYS:HB2	31:F:276:LYS:NZ	2.02	0.74
32:U:172:ASP:C	32:U:174:PRO:HD3	2.13	0.74
32:U:408:LEU:O	32:U:411:ILE:HG22	1.86	0.74
32:U:627:PHE:HE2	32:U:749:GLN:HG3	1.53	0.74
1:A:119:ALA:HB3	1:A:121:PHE:CE2	2.22	0.74
4:D:322:LEU:HD22	4:D:330:LYS:HE3	1.68	0.74
20:V:306:ARG:HD3	20:V:336:GLU:HG3	1.69	0.74
21:W:178:GLU:OE1	21:W:178:GLU:HA	1.87	0.74
31:F:198:LEU:HD12	31:F:223:VAL:HG11	1.70	0.74
32:U:625:ILE:HG22	32:U:626:LEU:HD23	1.67	0.74
2:B:407:LEU:HD11	3:C:174:LEU:HD22	1.70	0.74
21:W:198:ASP:OD1	21:W:201:ARG:HB2	1.87	0.74
18:s:83:MET:HE1	18:s:91:MET:HE2	1.70	0.74
32:U:202:VAL:HG12	32:U:219:CYS:SG	2.27	0.74
32:U:685:GLN:CB	32:U:725:MET:HE1	2.17	0.74
1:A:400:ARG:CZ	1:A:400:ARG:HA	2.18	0.74
2:B:209:GLU:HA	2:B:212:GLU:HB2	1.68	0.74
20:V:443:ARG:CG	28:d:184:LYS:HZ1	2.00	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:245:GLU:OE1	23:Y:245:GLU:N	2.21	0.74
30:f:86:THR:O	30:f:89:MET:HE3	1.88	0.74
32:U:115:ASN:HD21	32:U:123:LYS:HD3	1.53	0.74
32:U:808:PRO:HD3	32:U:873:PRO:O	1.88	0.74
1:A:394:MET:HG3	2:B:199:GLU:OE1	1.88	0.73
4:D:364:VAL:HG23	4:D:364:VAL:O	1.88	0.73
21:W:75:TYR:HB2	21:W:111:TYR:CE2	2.22	0.73
22:X:239:TYR:CE1	22:X:246:LYS:HB2	2.23	0.73
26:b:110:ILE:HG22	26:b:139:ASP:HB3	1.70	0.73
31:F:143:GLU:OE1	31:F:143:GLU:N	2.20	0.73
32:U:479:LEU:HD21	32:U:511:ALA:HA	1.70	0.73
3:C:273:MET:O	3:C:277:LEU:N	2.20	0.73
21:W:373:ILE:CD1	25:a:326:GLU:HG3	2.18	0.73
27:c:31:VAL:HG22	27:c:67:VAL:CG1	2.18	0.73
14:o:195:LYS:NZ	14:o:196:LYS:O	2.21	0.73
31:F:175:MET:HG3	31:F:249:LEU:HD22	1.68	0.73
32:U:213:PHE:HA	32:U:216:VAL:HG12	1.69	0.73
2:B:365:PHE:CE2	2:B:395:ILE:HD12	2.23	0.73
7:H:64:VAL:O	7:H:219:ARG:NH1	2.21	0.73
20:V:175:MET:HE1	20:V:183:GLU:HB2	1.67	0.73
20:V:365:GLN:NE2	29:e:46:ASP:O	2.20	0.73
20:V:404:LYS:HD2	20:V:446:VAL:HG21	1.70	0.73
21:W:169:LEU:O	21:W:173:THR:OG1	2.05	0.73
23:Y:214:MET:HG3	23:Y:214:MET:O	1.87	0.73
28:d:103:LEU:HD12	28:d:133:ILE:HD11	1.68	0.73
30:f:192:VAL:HB	30:f:193:PRO:HD3	1.70	0.73
32:U:803:LYS:O	32:U:893:THR:N	2.19	0.73
2:B:56:THR:OG1	30:f:181:ARG:NH2	2.22	0.73
2:B:387:LYS:NZ	2:B:427:LEU:HB2	2.04	0.73
20:V:449:ALA:HB2	20:V:461:LYS:N	2.03	0.73
27:c:163:ILE:O	27:c:163:ILE:HD12	1.88	0.73
27:c:292:MET:HE1	28:d:253:LEU:HD13	1.69	0.73
2:B:278:ALA:HB1	2:B:279:PRO:CD	2.15	0.73
4:D:123:LEU:HB3	4:D:142:VAL:HG11	1.71	0.73
5:E:118:LEU:HD13	5:E:214:LEU:HD11	1.69	0.73
20:V:477:HIS:ND1	28:d:249:TYR:OH	2.20	0.73
21:W:60:MET:CE	21:W:99:GLN:HB2	2.15	0.73
23:Y:180:LEU:HD12	23:Y:180:LEU:O	1.89	0.73
25:a:134:THR:O	25:a:138:VAL:HG23	1.89	0.73
30:f:658:ALA:HA	30:f:662:MET:HE1	1.69	0.73
6:g:158:GLY:O	7:h:83:ARG:NH2	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:205:GLY:C	1:A:206:ILE:HD12	2.13	0.73
3:C:151:ILE:HD12	3:C:198:LEU:HD12	1.70	0.73
4:D:120:ASP:HB3	4:D:123:LEU:CD2	2.18	0.73
8:I:34:CYS:SG	8:I:75:SER:OG	2.46	0.73
21:W:140:ILE:HG13	21:W:140:ILE:O	1.87	0.73
25:a:59:LEU:HD23	25:a:60:TYR:H	1.51	0.73
32:U:792:ASN:N	32:U:796:LYS:O	2.20	0.73
4:D:339:ARG:HH21	4:D:342:ARG:HG2	1.52	0.73
20:V:349:ARG:HA	20:V:354:LYS:HE2	1.71	0.73
23:Y:85:ASP:OD1	23:Y:107:LYS:NZ	2.21	0.73
29:e:48:VAL:O	29:e:48:VAL:HG13	1.88	0.73
31:F:289:ASP:OD1	31:F:332:THR:HG23	1.88	0.73
1:A:262:GLU:O	1:A:266:THR:HG23	1.88	0.73
2:B:109:VAL:HG11	3:C:94:LYS:HD3	1.69	0.73
2:B:281:ILE:HD12	2:B:326:LYS:HB2	1.71	0.73
8:I:67:LYS:O	8:I:91:ARG:NH1	2.21	0.73
21:W:140:ILE:HD12	21:W:143:ALA:HB3	1.69	0.73
21:W:158:ASP:H	21:W:161:GLU:HG3	1.54	0.73
27:c:289:ASP:O	27:c:293:THR:HG23	1.88	0.73
32:U:681:ASN:OD1	32:U:682:TYR:N	2.21	0.73
2:B:127:VAL:HG23	2:B:128:GLY:H	1.53	0.73
20:V:361:PHE:O	20:V:364:THR:HG22	1.88	0.73
22:X:289:CYS:SG	22:X:305:ALA:HB1	2.28	0.73
32:U:198:LEU:HB3	32:U:223:LEU:HD21	1.69	0.73
22:X:297:ARG:HH21	22:X:337:ARG:HG3	1.53	0.73
23:Y:247:LEU:HD12	23:Y:248:GLU:N	2.03	0.73
28:d:36:LEU:HG	28:d:37:PRO:CD	2.15	0.73
30:f:826:GLN:CB	30:f:846:VAL:HA	2.19	0.73
21:W:308:LEU:HD22	21:W:315:MET:HE1	1.70	0.72
22:X:256:LEU:HD13	22:X:319:ILE:HD12	1.70	0.72
23:Y:189:VAL:CG1	23:Y:287:LEU:HD21	2.19	0.72
25:a:229:ASP:OD1	25:a:230:ARG:N	2.21	0.72
30:f:457:ASN:ND2	30:f:459:CYS:SG	2.62	0.72
30:f:784:ASP:HA	30:f:787:LEU:HD21	1.70	0.72
30:f:825:MET:N	30:f:825:MET:HE3	2.04	0.72
10:k:108:THR:OG1	10:k:111:SER:OG	2.06	0.72
4:D:392:TYR:C	4:D:393:ILE:HD13	2.15	0.72
20:V:227:VAL:HG22	20:V:231:LEU:CD2	2.19	0.72
20:V:329:HIS:O	20:V:333:ILE:HG23	1.88	0.72
21:W:217:GLU:N	21:W:217:GLU:OE1	2.21	0.72
21:W:251:TYR:C	21:W:254:PRO:HD2	2.13	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:c:50:PRO:HG2	27:c:51:MET:SD	2.30	0.72
30:f:221:ILE:HG23	30:f:768:LEU:HD21	1.71	0.72
22:X:253:TYR:CZ	22:X:318:ILE:HD11	2.24	0.72
23:Y:147:ILE:HD12	23:Y:148:GLY:N	2.02	0.72
26:b:138:VAL:HG12	26:b:160:LEU:CD1	2.19	0.72
28:d:95:MET:HE3	28:d:95:MET:CA	2.19	0.72
30:f:445:LEU:HD21	30:f:481:SER:HA	1.71	0.72
30:f:788:MET:N	30:f:788:MET:SD	2.63	0.72
3:C:333:SER:OG	3:C:338:LEU:HD11	1.89	0.72
23:Y:26:LEU:CD2	23:Y:59:LYS:HD2	2.19	0.72
4:D:267:ILE:HG12	4:D:309:MET:HE1	1.69	0.72
5:E:63:GLN:HG3	5:E:69:PHE:CE2	2.25	0.72
22:X:218:HIS:HE1	22:X:231:TYR:CE2	2.07	0.72
26:b:113:VAL:HG12	26:b:141:ILE:O	1.90	0.72
28:d:155:LYS:HE2	28:d:167:ILE:HG23	1.70	0.72
32:U:195:ASN:OD1	32:U:196:LYS:N	2.22	0.72
32:U:206:MET:HE2	32:U:206:MET:HA	1.70	0.72
20:V:236:ARG:HA	32:U:70:HIS:CE1	2.22	0.72
21:W:68:VAL:CG2	21:W:72:LYS:HE3	2.20	0.72
30:f:79:ARG:HB3	30:f:82:ILE:CG2	2.19	0.72
32:U:351:MET:HE2	32:U:351:MET:N	2.05	0.72
3:C:24:TYR:CD1	4:D:40:LEU:HB3	2.24	0.72
20:V:289:LEU:CB	20:V:312:ALA:HB2	2.17	0.72
22:X:218:HIS:HE1	22:X:231:TYR:HE2	1.36	0.72
22:X:282:ARG:HD3	22:X:312:GLU:OE2	1.89	0.72
23:Y:27:SER:HA	23:Y:59:LYS:CE	2.18	0.72
24:Z:40:LEU:HD11	24:Z:54:PHE:CD1	2.24	0.72
25:a:37:LEU:HA	25:a:40:GLN:NE2	2.05	0.72
30:f:267:ARG:HG3	30:f:271:MET:SD	2.30	0.72
30:f:712:LYS:HZ3	30:f:750:GLN:HA	1.54	0.72
32:U:247:GLN:CG	32:U:913:ILE:HD13	2.20	0.72
22:X:338:VAL:HG13	22:X:339:ILE:HD13	1.71	0.72
27:c:210:ASN:OD1	27:c:213:GLU:HB2	1.88	0.72
27:c:219:ASN:C	27:c:220:LEU:HD23	2.15	0.72
29:e:54:ASN:OD1	29:e:57:ARG:NH2	2.23	0.72
30:f:370:MET:HA	30:f:370:MET:CE	2.14	0.72
30:f:455:VAL:O	30:f:456:ARG:HG3	1.88	0.72
31:F:287:GLU:HA	31:F:287:GLU:OE2	1.87	0.72
1:A:285:PHE:CZ	1:A:287:ASP:HB3	2.24	0.72
3:C:173:GLU:HA	3:C:176:GLU:CG	2.18	0.72
4:D:52:GLU:HG3	32:U:596:ASN:OD1	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:133:GLU:C	21:W:136:ILE:HD13	2.14	0.72
21:W:371:THR:HG22	21:W:372:ARG:HG2	1.70	0.72
30:f:477:MET:CE	30:f:478:ARG:HB3	2.20	0.72
30:f:482:ILE:HB	30:f:518:THR:CG2	2.19	0.72
10:k:18:GLU:OE1	10:k:18:GLU:N	2.22	0.72
32:U:247:GLN:NE2	32:U:904:LYS:HB2	2.05	0.72
1:A:166:VAL:CG2	1:A:237:PHE:HB3	2.20	0.72
1:A:300:LEU:O	1:A:303:ILE:HG22	1.90	0.72
2:B:278:ALA:CB	2:B:279:PRO:HD2	2.17	0.72
5:E:384:LEU:HD12	5:E:386:TYR:HE1	1.54	0.72
21:W:79:GLU:HB3	21:W:82:LEU:HB2	1.72	0.72
23:Y:145:LEU:HD22	23:Y:160:ASN:ND2	2.05	0.72
25:a:97:LEU:HD13	25:a:118:ILE:CD1	2.19	0.72
26:b:8:VAL:HA	26:b:110:ILE:CD1	2.20	0.72
27:c:33:ILE:O	27:c:69:VAL:HG22	1.89	0.72
30:f:790:GLN:HA	30:f:796:LEU:HD22	1.71	0.72
32:U:139:GLN:OE1	32:U:139:GLN:HA	1.89	0.72
32:U:360:VAL:HA	32:U:365:CYS:SG	2.30	0.72
32:U:626:LEU:HD13	32:U:632:GLN:HE22	1.55	0.72
21:W:201:ARG:HD2	21:W:204:ILE:HD11	1.72	0.71
30:f:729:MET:HA	30:f:729:MET:CE	2.15	0.71
1:A:268:LYS:CG	30:f:354:GLU:HG2	2.17	0.71
20:V:192:MET:HE1	20:V:211:TYR:CD1	2.25	0.71
20:V:470:ARG:O	20:V:470:ARG:HG2	1.90	0.71
24:Z:38:VAL:HG21	24:Z:75:LEU:HD11	1.71	0.71
26:b:53:THR:HG22	26:b:55:ALA:H	1.54	0.71
28:d:125:LYS:HB3	28:d:130:ASN:CB	2.20	0.71
31:F:134:LEU:HD13	31:F:159:LEU:HA	1.71	0.71
32:U:325:MET:SD	32:U:325:MET:N	2.63	0.71
32:U:400:ALA:HA	32:U:403:THR:OG1	1.90	0.71
32:U:458:ILE:HD13	32:U:490:ARG:NH1	2.04	0.71
2:B:287:ILE:HG22	2:B:331:THR:HB	1.72	0.71
3:C:392:GLN:CD	22:X:199:ALA:HB2	2.15	0.71
20:V:114:TYR:HE1	20:V:137:GLU:HG2	1.56	0.71
20:V:309:MET:HE1	20:V:331:LEU:HB3	1.71	0.71
26:b:29:GLN:HA	26:b:29:GLN:HE21	1.55	0.71
28:d:235:THR:HA	28:d:238:PRO:HG2	1.71	0.71
32:U:360:VAL:HG11	32:U:392:TRP:HE1	1.55	0.71
32:U:723:ASP:OD1	32:U:726:ALA:N	2.23	0.71
1:A:213:LEU:HD12	1:A:337:LEU:HD21	1.71	0.71
22:X:339:ILE:HD11	22:X:350:ILE:HD11	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:183:TYR:HE1	23:Y:213:LEU:HD21	1.55	0.71
24:Z:249:PHE:HE1	27:c:302:ALA:HB1	1.55	0.71
27:c:29:GLU:OE1	27:c:29:GLU:N	2.23	0.71
32:U:16:GLU:O	32:U:20:LYS:HG3	1.89	0.71
32:U:804:SER:HB3	32:U:876:GLN:HB2	1.72	0.71
2:B:311:GLU:HA	2:B:311:GLU:OE2	1.90	0.71
3:C:24:TYR:HD1	4:D:40:LEU:HB3	1.54	0.71
20:V:231:LEU:HD12	20:V:250:LEU:HD22	1.72	0.71
24:Z:164:ALA:HB2	27:c:221:HIS:CE1	2.25	0.71
25:a:94:LEU:HG	25:a:121:LEU:CD2	2.21	0.71
26:b:1:MET:O	26:b:2:VAL:HG12	1.89	0.71
30:f:499:THR:HA	30:f:502:LEU:HD12	1.72	0.71
32:U:446:LEU:HD23	32:U:457:ILE:HG23	1.70	0.71
3:C:20:LEU:HD21	32:U:137:MET:SD	2.31	0.71
26:b:15:TYR:HB2	26:b:115:SER:OG	1.91	0.71
26:b:41:THR:HA	26:b:47:ASN:ND2	2.04	0.71
30:f:103:TYR:CE1	30:f:106:LEU:HD23	2.26	0.71
30:f:479:LEU:O	30:f:482:ILE:HG12	1.89	0.71
30:f:498:LEU:HA	30:f:501:LEU:HD21	1.73	0.71
1:A:284:ARG:HG3	1:A:296:GLN:NE2	2.05	0.71
4:D:153:MET:HE1	5:E:267:PHE:CE2	2.26	0.71
5:E:365:GLU:HA	5:E:365:GLU:OE1	1.89	0.71
21:W:124:LEU:HD21	21:W:147:LYS:HD3	1.71	0.71
21:W:367:ALA:HA	21:W:415:PHE:CD2	2.24	0.71
30:f:259:PHE:HA	30:f:262:PHE:CZ	2.26	0.71
1:A:196:LEU:HD11	30:f:345:PRO:CD	2.20	0.71
1:A:257:VAL:HG11	1:A:301:GLU:HB3	1.73	0.71
3:C:219:LEU:HD22	4:D:289:LEU:HD23	1.73	0.71
4:D:115:ILE:HG22	4:D:139:LEU:HD12	1.72	0.71
4:D:191:TYR:HD1	4:D:198:PRO:HG3	1.55	0.71
21:W:75:TYR:HB2	21:W:111:TYR:HE2	1.56	0.71
30:f:3:GLU:OE1	30:f:3:GLU:N	2.24	0.71
30:f:165:GLU:HA	30:f:168:LYS:HE2	1.73	0.71
2:B:56:THR:HG1	30:f:181:ARG:HH21	1.38	0.71
27:c:292:MET:HE2	28:d:253:LEU:HD22	1.73	0.71
28:d:231:LYS:CG	28:d:232:PRO:HD3	2.17	0.71
32:U:84:ALA:HB3	32:U:88:PHE:HB2	1.72	0.71
32:U:583:MET:CE	32:U:602:LEU:HD12	2.19	0.71
3:C:336:MET:HE1	3:C:367:GLY:CA	2.20	0.71
4:D:59:GLU:OE1	4:D:59:GLU:HA	1.88	0.71
5:E:197:LYS:HD2	5:E:198:VAL:N	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:165:ALA:HB1	6:G:179:LEU:HD13	1.71	0.71
13:N:27:ILE:O	19:T:179:ARG:NH1	2.24	0.71
23:Y:352:GLU:OE1	23:Y:352:GLU:HA	1.89	0.71
26:b:33:VAL:HG12	26:b:112:PHE:HE2	1.56	0.71
28:d:26:LEU:HD23	28:d:26:LEU:H	1.56	0.71
32:U:320:ASP:HB3	32:U:323:LEU:HD13	1.72	0.71
3:C:115:ALA:O	3:C:116:LEU:HD13	1.91	0.70
20:V:375:PHE:O	20:V:378:VAL:HG12	1.91	0.70
20:V:452:ASN:OD1	20:V:455:LYS:HB2	1.91	0.70
25:a:42:LEU:O	25:a:45:VAL:HG22	1.91	0.70
27:c:25:VAL:CG2	27:c:175:ARG:HA	2.20	0.70
28:d:1:MET:HG3	28:d:2:TYR:HD1	1.56	0.70
31:F:81:LYS:HA	31:F:84:LYS:HD3	1.71	0.70
3:C:90:HIS:CG	3:C:91:PRO:HD2	2.26	0.70
12:M:170:GLN:O	12:M:174:THR:HG23	1.90	0.70
22:X:233:TYR:HA	22:X:254:MET:CE	2.19	0.70
23:Y:233:ARG:HH12	23:Y:264:TYR:HA	1.54	0.70
26:b:128:ALA:HB1	26:b:160:LEU:HD21	1.71	0.70
30:f:731:MET:HE2	30:f:735:GLY:HA3	1.71	0.70
32:U:351:MET:HA	32:U:354:LYS:HB2	1.72	0.70
1:A:82:ALA:O	1:A:85:GLN:HG3	1.91	0.70
21:W:78:LYS:HE2	21:W:78:LYS:HA	1.73	0.70
24:Z:191:ILE:HG22	25:a:375:LEU:HD23	1.71	0.70
30:f:660:ILE:HA	30:f:669:GLU:OE1	1.91	0.70
31:F:383:GLU:OE2	31:F:417:HIS:NE2	2.24	0.70
32:U:567:ILE:CD1	32:U:586:VAL:HG23	2.21	0.70
5:E:65:THR:CG2	5:E:68:LYS:HB2	2.22	0.70
21:W:373:ILE:HD13	25:a:326:GLU:HG3	1.73	0.70
22:X:338:VAL:CG2	22:X:353:LEU:HD13	2.22	0.70
19:t:38:ASN:OD1	19:t:186:ARG:NH2	2.25	0.70
31:F:247:THR:OG1	31:F:281:SER:HB3	1.91	0.70
5:E:277:MET:HE3	5:E:295:LEU:HD11	1.72	0.70
6:G:158:GLY:O	7:H:83:ARG:NH2	2.25	0.70
20:V:161:PRO:HB3	20:V:198:GLN:OE1	1.91	0.70
20:V:313:LEU:HD11	20:V:329:HIS:CE1	2.26	0.70
22:X:342:PHE:CE1	22:X:345:VAL:HG11	2.26	0.70
22:X:397:TYR:OH	24:Z:258:VAL:HG21	1.91	0.70
24:Z:101:LEU:HD12	24:Z:138:TYR:CE2	2.27	0.70
24:Z:193:ASN:HB2	27:c:228:GLY:CA	2.21	0.70
25:a:149:THR:HA	25:a:152:HIS:ND1	2.06	0.70
28:d:184:LYS:HB2	28:d:186:TYR:CE1	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:557:TRP:HA	30:f:560:LEU:CD1	2.21	0.70
32:U:251:ASP:OD1	32:U:252:LEU:N	2.24	0.70
1:A:189:GLU:HB2	31:F:405:MET:HE1	1.73	0.70
1:A:430:MET:HE2	9:J:12:PRO:HB3	1.74	0.70
3:C:28:ILE:HD11	4:D:43:ARG:HG2	1.74	0.70
10:K:20:ARG:NH2	31:F:435:LEU:HA	2.07	0.70
21:W:27:ARG:HG2	21:W:50:LEU:HD11	1.73	0.70
21:W:158:ASP:N	21:W:161:GLU:HG3	2.06	0.70
22:X:292:GLN:OE1	22:X:292:GLN:HA	1.90	0.70
25:a:18:GLN:HG3	25:a:22:TRP:HE1	1.56	0.70
25:a:269:LEU:O	25:a:273:GLN:HB2	1.91	0.70
27:c:151:VAL:HG23	27:c:152:LYS:N	2.06	0.70
27:c:152:LYS:HE2	27:c:152:LYS:HA	1.72	0.70
27:c:196:LEU:HG	27:c:197:ASN:OD1	1.91	0.70
27:c:282:ARG:HG2	27:c:282:ARG:HH11	1.56	0.70
28:d:99:LEU:HD23	28:d:122:LEU:HD11	1.72	0.70
30:f:243:PRO:O	30:f:246:SER:OG	2.09	0.70
30:f:475:ASN:OD1	30:f:514:VAL:HG21	1.92	0.70
30:f:680:ARG:HB2	30:f:715:HIS:HA	1.74	0.70
32:U:147:TYR:CZ	32:U:169:GLU:HB2	2.25	0.70
1:A:81:ALA:CB	2:B:137:SER:HB2	2.21	0.70
1:A:140:VAL:HG12	1:A:152:PRO:HA	1.73	0.70
5:E:341:ALA:CB	31:F:345:SER:HB2	2.21	0.70
23:Y:123:ALA:O	23:Y:127:THR:HG23	1.91	0.70
25:a:18:GLN:O	25:a:21:VAL:HG22	1.91	0.70
25:a:79:ILE:HG23	25:a:80:ILE:HD12	1.74	0.70
25:a:126:GLY:HA3	25:a:130:VAL:CG2	2.20	0.70
26:b:110:ILE:HD12	26:b:110:ILE:O	1.92	0.70
32:U:49:TYR:O	32:U:57:ARG:HG3	1.92	0.70
2:B:103:ARG:HG2	2:B:160:ILE:HG21	1.72	0.70
3:C:277:LEU:HD13	3:C:310:ARG:HG3	1.72	0.70
23:Y:51:ALA:HB3	23:Y:115:GLY:HA3	1.71	0.70
25:a:173:TYR:CE2	25:a:216:LEU:HD12	2.27	0.70
26:b:129:LYS:O	26:b:133:LYS:HG2	1.91	0.70
30:f:696:LEU:CD2	30:f:708:ASP:HB2	2.22	0.70
31:F:169:ASP:OD2	31:F:171:ARG:NH2	2.19	0.70
32:U:9:ILE:CG2	32:U:27:LEU:HD21	2.22	0.70
4:D:152:MET:SD	4:D:152:MET:N	2.63	0.70
17:R:2:THR:N	17:R:131:SER:HG	1.90	0.70
28:d:212:LYS:NZ	28:d:213:ARG:HG2	2.07	0.70
8:i:44:LEU:HD22	8:i:190:LEU:HD23	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:137:MET:HE1	32:U:140:ARG:NE	2.07	0.70
1:A:99:THR:HG22	1:A:140:VAL:O	1.91	0.70
2:B:179:ALA:HB1	2:B:182:GLU:OE2	1.91	0.70
5:E:150:GLU:O	5:E:154:THR:HG22	1.91	0.70
20:V:71:THR:O	20:V:75:ILE:HD12	1.91	0.70
21:W:326:MET:HE3	21:W:331:GLY:HA3	1.74	0.70
28:d:193:GLU:O	28:d:197:ILE:HG23	1.91	0.70
32:U:423:MET:HE2	32:U:423:MET:N	2.06	0.70
3:C:287:LYS:C	3:C:288:ASN:HD22	1.99	0.69
21:W:229:LEU:HD22	21:W:229:LEU:H	1.56	0.69
21:W:447:ALA:O	21:W:451:MET:HG2	1.92	0.69
23:Y:70:LEU:HG	23:Y:74:LYS:HZ3	1.54	0.69
25:a:186:LYS:HD2	25:a:221:VAL:HG13	1.74	0.69
26:b:23:PRO:O	26:b:24:THR:OG1	2.11	0.69
26:b:51:LEU:C	26:b:52:ILE:HD12	2.17	0.69
26:b:132:LYS:HB3	26:b:160:LEU:HD22	1.73	0.69
27:c:143:VAL:HG22	27:c:159:ALA:HB2	1.73	0.69
28:d:75:MET:HG2	28:d:102:ASN:HB2	1.74	0.69
30:f:369:ARG:O	30:f:369:ARG:NH1	2.19	0.69
4:D:87:LEU:HB2	5:E:80:VAL:HG12	1.71	0.69
8:I:48:GLU:OE2	8:I:50:ARG:NH1	2.24	0.69
20:V:355:ARG:NE	20:V:355:ARG:HA	2.06	0.69
20:V:359:PRO:HA	20:V:382:PHE:CD2	2.28	0.69
21:W:60:MET:HA	21:W:97:LEU:HD23	1.73	0.69
27:c:88:ASP:OD1	27:c:90:VAL:HG12	1.91	0.69
8:i:161:ALA:HB1	8:i:175:LEU:HD13	1.75	0.69
5:E:330:ALA:CA	5:E:333:LYS:HE2	2.22	0.69
20:V:410:ILE:CD1	20:V:422:ILE:HD13	2.22	0.69
22:X:308:ASP:OD1	22:X:309:TYR:N	2.25	0.69
24:Z:23:PHE:HD2	24:Z:126:VAL:HG11	1.57	0.69
1:A:108:ASP:CB	1:A:109:PRO:HD3	2.22	0.69
18:S:136:LYS:NZ	17:r:28:ALA:O	2.24	0.69
20:V:255:LEU:O	20:V:259:LEU:HD23	1.92	0.69
20:V:300:LEU:HD11	28:d:116:HIS:ND1	2.07	0.69
21:W:257:GLN:O	21:W:262:LYS:NZ	2.22	0.69
30:f:500:LEU:O	30:f:503:PRO:HD2	1.93	0.69
32:U:236:LEU:HD13	32:U:244:MET:HG2	1.74	0.69
1:A:139:ARG:HB2	1:A:153:LEU:O	1.92	0.69
1:A:205:GLY:O	31:F:373:MET:HB3	1.93	0.69
1:A:209:PRO:HG2	1:A:339:ARG:NH2	2.08	0.69
4:D:374:ASP:OD1	4:D:374:ASP:N	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:342:ASP:HB2	5:E:374:VAL:HG11	1.74	0.69
20:V:332:LEU:O	20:V:335:VAL:HG12	1.93	0.69
23:Y:67:VAL:O	23:Y:70:LEU:HD23	1.92	0.69
23:Y:202:LEU:HB3	23:Y:239:LYS:HZ1	1.58	0.69
27:c:167:MET:HE2	27:c:172:HIS:CB	2.19	0.69
30:f:495:GLU:O	30:f:499:THR:HG22	1.93	0.69
31:F:370:SER:OG	31:F:420:TYR:OH	2.09	0.69
32:U:98:GLU:HA	32:U:101:ILE:CG2	2.23	0.69
32:U:234:GLU:HA	32:U:237:VAL:HG12	1.74	0.69
1:A:241:ILE:HG21	2:B:311:GLU:OE2	1.90	0.69
20:V:296:LYS:HZ3	20:V:308:THR:HG21	1.58	0.69
21:W:373:ILE:HA	25:a:326:GLU:HG2	1.73	0.69
23:Y:175:ASP:OD2	23:Y:179:ARG:NH2	2.24	0.69
24:Z:250:TYR:HA	24:Z:253:THR:HG22	1.75	0.69
25:a:84:VAL:O	25:a:87:MET:HG3	1.93	0.69
30:f:718:ASP:OD1	30:f:755:ASP:HB3	1.92	0.69
30:f:828:ARG:NE	30:f:861:THR:HG21	2.07	0.69
16:q:67:TYR:O	16:q:71:ASN:ND2	2.25	0.69
32:U:324:LYS:HE2	32:U:325:MET:HE1	1.74	0.69
1:A:86:THR:O	1:A:90:GLU:N	2.26	0.69
1:A:322:ASN:ND2	1:A:322:ASN:C	2.48	0.69
2:B:90:GLU:HB3	2:B:94:GLU:H	1.56	0.69
3:C:137:LEU:HD12	3:C:220:VAL:HG21	1.75	0.69
3:C:354:ALA:CB	3:C:358:GLU:HB2	2.22	0.69
4:D:258:ALA:HB3	4:D:259:PRO:HD3	1.74	0.69
23:Y:51:ALA:HB3	23:Y:115:GLY:CA	2.22	0.69
30:f:680:ARG:HD3	30:f:760:PHE:CE2	2.27	0.69
31:F:172:VAL:O	31:F:175:MET:HG2	1.93	0.69
31:F:373:MET:HE2	31:F:415:LEU:CD1	2.16	0.69
1:A:209:PRO:HG2	1:A:339:ARG:HH21	1.57	0.69
4:D:108:GLY:O	4:D:109:SER:OG	2.10	0.69
4:D:214:MET:N	33:D:501:ATP:O1A	2.26	0.69
5:E:270:LEU:HD21	5:E:273:VAL:CB	2.23	0.69
5:E:382:SER:OG	31:F:340:PRO:HG3	1.93	0.69
20:V:195:ILE:HD12	20:V:196:SER:N	2.08	0.69
20:V:492:LYS:HE2	20:V:492:LYS:CA	2.22	0.69
23:Y:236:LEU:O	23:Y:241:ILE:HG13	1.93	0.69
24:Z:190:ARG:HH12	27:c:297:VAL:HA	1.56	0.69
27:c:41:MET:HG2	27:c:112:TYR:CD2	2.27	0.69
28:d:152:PHE:HE2	28:d:198:LEU:HB3	1.56	0.69
30:f:477:MET:HE3	30:f:478:ARG:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:494:ARG:HG3	30:f:497:VAL:HG22	1.75	0.69
30:f:559:PRO:CB	30:f:594:LEU:HD23	2.21	0.69
30:f:689:ALA:O	30:f:693:ALA:HB3	1.93	0.69
32:U:204:ILE:HD12	32:U:205:TYR:N	2.08	0.69
1:A:262:GLU:HA	1:A:265:ARG:HD2	1.75	0.69
5:E:330:ALA:HA	5:E:333:LYS:CE	2.21	0.69
20:V:192:MET:HE3	20:V:230:PHE:CZ	2.27	0.69
25:a:54:ASP:O	25:a:57:ILE:HG22	1.93	0.69
30:f:466:LEU:HD12	30:f:481:SER:OG	1.93	0.69
4:D:335:LEU:CD1	4:D:371:SER:HB3	2.23	0.69
20:V:399:ARG:O	20:V:402:VAL:HG22	1.93	0.69
20:V:407:VAL:HA	20:V:410:ILE:HG22	1.75	0.69
20:V:416:ARG:HH12	23:Y:350:VAL:CG2	2.05	0.69
27:c:26:ASP:HA	27:c:176:GLN:HE21	1.57	0.69
28:d:52:ARG:HH22	28:d:89:LEU:HD21	1.58	0.69
28:d:194:ALA:HA	28:d:197:ILE:CD1	2.23	0.69
1:A:239:ARG:HG2	2:B:319:PHE:CE1	2.28	0.68
4:D:153:MET:HE1	5:E:267:PHE:HE2	1.56	0.68
5:E:356:ARG:HH11	5:E:356:ARG:HG3	1.58	0.68
20:V:466:ILE:HD12	20:V:469:THR:OG1	1.92	0.68
24:Z:164:ALA:HB1	24:Z:169:GLU:CG	2.22	0.68
25:a:33:LEU:HD13	25:a:36:GLN:HG3	1.75	0.68
25:a:273:GLN:HE21	25:a:302:ILE:HD11	1.56	0.68
26:b:135:LYS:H	26:b:135:LYS:HD2	1.58	0.68
27:c:49:VAL:HG21	27:c:148:ILE:HD11	1.75	0.68
28:d:13:SER:HB3	28:d:16:LEU:CB	2.23	0.68
32:U:58:GLN:HG2	32:U:87:LEU:HD22	1.75	0.68
32:U:602:LEU:CD2	32:U:622:LEU:HG	2.23	0.68
32:U:700:GLU:OE2	32:U:707:ASN:ND2	2.26	0.68
1:A:213:LEU:HD21	1:A:321:THR:HG22	1.75	0.68
1:A:279:ALA:CB	2:B:307:ARG:HG2	2.23	0.68
2:B:74:MET:HE2	2:B:74:MET:C	2.18	0.68
3:C:137:LEU:HD23	3:C:138:MET:HE3	1.75	0.68
4:D:248:ARG:HG3	4:D:295:GLN:NE2	2.08	0.68
5:E:342:ASP:HA	5:E:345:ASN:CB	2.23	0.68
21:W:35:ALA:HB2	21:W:43:VAL:HG21	1.74	0.68
22:X:218:HIS:CE1	22:X:231:TYR:CE2	2.80	0.68
23:Y:186:LEU:O	23:Y:189:VAL:HG12	1.93	0.68
25:a:113:LEU:HD11	25:a:154:ARG:HH12	1.56	0.68
25:a:293:PHE:CD2	25:a:329:LYS:HG3	2.28	0.68
28:d:52:ARG:HH22	28:d:89:LEU:HD11	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:9:ILE:HG22	32:U:27:LEU:HD21	1.75	0.68
32:U:583:MET:HA	32:U:583:MET:HE3	1.75	0.68
32:U:696:ILE:O	32:U:697:GLN:HG2	1.93	0.68
1:A:339:ARG:NH2	31:F:402:GLU:OE2	2.27	0.68
2:B:67:ARG:HH21	30:f:226:TYR:HD1	1.40	0.68
3:C:368:MET:HB3	3:C:372:ARG:HH21	1.59	0.68
20:V:324:PHE:O	20:V:328:VAL:HG12	1.92	0.68
20:V:415:SER:HA	23:Y:346:LYS:NZ	2.07	0.68
20:V:437:ILE:HG22	28:d:146:GLY:H	1.58	0.68
21:W:257:GLN:HB2	21:W:262:LYS:NZ	2.08	0.68
24:Z:59:ASP:HB2	26:b:99:HIS:NE2	2.08	0.68
27:c:111:TRP:HE1	27:c:130:GLN:HG2	1.59	0.68
29:e:42:ASN:HD21	29:e:44:ASP:HB2	1.59	0.68
31:F:374:ASN:ND2	31:F:413:THR:O	2.24	0.68
5:E:65:THR:HG22	5:E:68:LYS:HB2	1.75	0.68
20:V:432:GLU:CD	20:V:432:GLU:H	2.01	0.68
22:X:365:LEU:O	22:X:369:ILE:HG12	1.93	0.68
23:Y:186:LEU:HD11	23:Y:213:LEU:HD13	1.75	0.68
25:a:173:TYR:HE2	25:a:216:LEU:HD12	1.58	0.68
30:f:212:GLU:O	30:f:216:MET:HE2	1.93	0.68
30:f:294:MET:SD	30:f:294:MET:N	2.66	0.68
30:f:617:SER:HA	30:f:620:PHE:CE1	2.29	0.68
30:f:826:GLN:HB3	30:f:846:VAL:HA	1.74	0.68
31:F:226:TYR:HA	31:F:332:THR:O	1.93	0.68
2:B:190:LEU:HD23	2:B:193:GLN:NE2	2.09	0.68
2:B:223:ILE:HG21	2:B:350:LYS:HG2	1.76	0.68
2:B:290:ILE:HG23	2:B:309:MET:HE1	1.74	0.68
2:B:401:GLU:OE1	2:B:401:GLU:HA	1.92	0.68
20:V:400:HIS:HD2	28:d:145:GLU:HB3	1.56	0.68
21:W:124:LEU:HD21	21:W:147:LYS:CD	2.23	0.68
30:f:373:ALA:HB1	30:f:747:GLN:HE22	1.57	0.68
32:U:748:LEU:H	32:U:748:LEU:HD12	1.59	0.68
32:U:884:VAL:CG1	32:U:889:LEU:HA	2.23	0.68
3:C:326:LEU:HD22	3:C:345:ARG:HE	1.59	0.68
5:E:309:ARG:NH1	5:E:336:ASP:HA	2.09	0.68
21:W:179:LYS:HD2	21:W:179:LYS:O	1.94	0.68
23:Y:100:ILE:HD12	23:Y:101:ARG:N	2.08	0.68
1:A:82:ALA:O	1:A:85:GLN:N	2.27	0.68
1:A:166:VAL:HG21	1:A:237:PHE:HB3	1.74	0.68
4:D:153:MET:HE2	4:D:229:ARG:HB3	1.76	0.68
21:W:310:THR:O	21:W:313:GLU:HG2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:F:152:GLY:HA3	31:F:162:GLU:OE2	1.93	0.68
31:F:382:GLU:OE1	31:F:382:GLU:HA	1.94	0.68
32:U:341:PHE:CZ	32:U:787:CYS:HB3	2.29	0.68
32:U:357:LYS:HE2	32:U:360:VAL:HG21	1.74	0.68
32:U:878:LEU:HB3	32:U:882:ALA:HB1	1.74	0.68
2:B:288:ASP:OD2	2:B:333:ARG:HG3	1.93	0.68
5:E:136:GLY:O	33:E:402:ATP:N6	2.26	0.68
21:W:133:GLU:HA	21:W:136:ILE:HG21	1.76	0.68
21:W:335:SER:OG	21:W:336:PRO:HD3	1.94	0.68
23:Y:334:LEU:O	23:Y:338:ILE:HG12	1.94	0.68
25:a:78:GLU:HA	25:a:81:LEU:CD2	2.24	0.68
26:b:123:ASP:OD1	26:b:127:LEU:HD23	1.94	0.68
27:c:193:ILE:HG22	27:c:194:HIS:HD2	1.58	0.68
28:d:75:MET:CG	28:d:102:ASN:HB2	2.23	0.68
32:U:58:GLN:OE1	32:U:58:GLN:N	2.27	0.68
32:U:118:LEU:HD21	32:U:122:GLU:OE2	1.93	0.68
32:U:227:GLN:O	32:U:230:SER:OG	2.07	0.68
32:U:529:ILE:HD11	32:U:555:VAL:CG1	2.23	0.68
4:D:100:THR:HG21	4:D:112:TYR:CZ	2.28	0.68
4:D:338:ARG:HH22	4:D:367:PRO:HA	1.59	0.68
5:E:348:THR:HA	31:F:217:ILE:HD12	1.74	0.68
21:W:112:VAL:HG11	21:W:147:LYS:HE2	1.75	0.68
22:X:338:VAL:HG23	22:X:353:LEU:HD13	1.76	0.68
24:Z:11:VAL:HA	24:Z:50:VAL:HG23	1.76	0.68
25:a:240:PHE:CE1	25:a:272:ILE:HB	2.29	0.68
26:b:14:GLU:HG3	26:b:15:TYR:HD1	1.58	0.68
27:c:54:MET:SD	27:c:87:VAL:HG12	2.33	0.68
30:f:692:LEU:HD21	30:f:696:LEU:HD11	1.76	0.68
30:f:828:ARG:HD3	30:f:844:VAL:H	1.59	0.68
32:U:803:LYS:HA	32:U:876:GLN:O	1.94	0.68
2:B:316:LEU:HD22	2:B:327:VAL:HG21	1.76	0.68
3:C:231:VAL:HG11	3:C:272:THR:HG23	1.75	0.68
20:V:476:PHE:CZ	24:Z:258:VAL:HG22	2.28	0.68
23:Y:14:ASN:HB2	23:Y:15:PRO:HD3	1.73	0.68
25:a:324:ILE:HD13	25:a:331:VAL:HG22	1.76	0.68
13:n:4:ILE:HG13	13:n:100:ILE:HD12	1.74	0.68
32:U:680:VAL:HG12	32:U:683:VAL:H	1.59	0.68
3:C:49:ARG:HA	4:D:65:GLN:HE22	1.59	0.67
23:Y:50:MET:SD	23:Y:51:ALA:N	2.67	0.67
25:a:35:HIS:HB3	26:b:15:TYR:CE1	2.29	0.67
27:c:236:GLU:HG2	27:c:239:LYS:HE3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:71:PHE:HE1	28:d:166:PHE:HZ	1.41	0.67
30:f:505:MET:HE1	30:f:522:CYS:SG	2.34	0.67
30:f:750:GLN:N	30:f:750:GLN:OE1	2.27	0.67
31:F:80:ILE:O	31:F:84:LYS:N	2.26	0.67
32:U:418:GLU:HG2	32:U:421:GLN:NE2	2.09	0.67
32:U:423:MET:HG3	32:U:446:LEU:CD1	2.23	0.67
32:U:496:LEU:O	32:U:499:THR:HG22	1.94	0.67
32:U:529:ILE:CD1	32:U:555:VAL:HG11	2.24	0.67
32:U:808:PRO:HG3	32:U:873:PRO:HD2	1.76	0.67
1:A:85:GLN:O	1:A:89:SER:N	2.28	0.67
2:B:388:ASP:OD1	2:B:389:ASP:N	2.27	0.67
20:V:430:SER:HB2	20:V:432:GLU:OE1	1.94	0.67
21:W:239:SER:OG	21:W:242:SER:HB3	1.94	0.67
21:W:406:VAL:HG13	22:X:342:PHE:CB	2.25	0.67
26:b:16:MET:SD	26:b:25:ARG:HB2	2.33	0.67
26:b:140:ILE:O	26:b:170:LEU:HD12	1.95	0.67
27:c:151:VAL:HG23	27:c:152:LYS:H	1.59	0.67
30:f:160:ARG:CZ	30:f:160:ARG:HA	2.25	0.67
30:f:313:GLU:HB2	30:f:316:ASP:OD1	1.93	0.67
1:A:166:VAL:HG22	1:A:237:PHE:O	1.94	0.67
1:A:181:LYS:O	1:A:181:LYS:HD3	1.94	0.67
2:B:176:VAL:CG2	2:B:247:PHE:HB3	2.24	0.67
5:E:345:ASN:HA	5:E:348:THR:CG2	2.23	0.67
6:G:92:GLN:NE2	13:N:70:GLU:OE2	2.27	0.67
24:Z:199:LYS:NZ	25:a:364:GLU:HG2	2.09	0.67
28:d:18:LYS:NZ	28:d:21:GLU:OE1	2.26	0.67
32:U:450:HIS:ND1	32:U:457:ILE:HG12	2.09	0.67
32:U:888:GLN:O	32:U:891:VAL:HG22	1.94	0.67
2:B:133:VAL:HG12	2:B:157:HIS:O	1.94	0.67
2:B:260:LEU:CD2	2:B:299:SER:HB2	2.24	0.67
4:D:64:GLU:HB3	32:U:607:VAL:CG2	2.23	0.67
20:V:273:LYS:NZ	32:U:40:GLU:HB3	2.09	0.67
24:Z:170:VAL:HG22	27:c:151:VAL:O	1.94	0.67
1:A:139:ARG:NE	1:A:154:PRO:O	2.25	0.67
1:A:259:GLU:HA	1:A:259:GLU:OE1	1.93	0.67
3:C:23:TYR:CE2	32:U:105:ILE:HB	2.29	0.67
3:C:189:TYR:HE2	3:C:316:GLU:HG2	1.59	0.67
4:D:181:VAL:O	4:D:185:LEU:HD13	1.94	0.67
22:X:283:GLN:OE1	22:X:283:GLN:HA	1.93	0.67
25:a:246:GLU:O	25:a:250:THR:HG23	1.94	0.67
26:b:48:ASN:HD21	26:b:64:LEU:HB3	1.56	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:466:LEU:HB3	30:f:485:LEU:HD21	1.76	0.67
4:D:50:GLU:OE1	4:D:50:GLU:HA	1.93	0.67
21:W:207:LYS:HA	21:W:210:ASN:OD1	1.95	0.67
22:X:364:LYS:HD2	22:X:364:LYS:O	1.95	0.67
23:Y:192:ARG:CZ	23:Y:291:HIS:HB3	2.24	0.67
32:U:765:VAL:HG11	32:U:778:PHE:CD2	2.30	0.67
1:A:116:LYS:HG2	2:B:130:GLU:OE1	1.95	0.67
2:B:70:ASP:O	30:f:606:VAL:HG11	1.94	0.67
3:C:146:SER:CA	3:C:150:MET:HE3	2.18	0.67
21:W:268:LYS:HB2	21:W:336:PRO:HG2	1.77	0.67
30:f:415:GLY:HA3	30:f:447:ALA:CB	2.23	0.67
30:f:638:ASP:O	30:f:639:LYS:HG3	1.94	0.67
30:f:707:LEU:HD11	30:f:785:ARG:HD2	1.75	0.67
32:U:226:PRO:HA	32:U:260:PHE:CE1	2.27	0.67
32:U:437:TYR:CE1	32:U:472:ILE:HB	2.30	0.67
1:A:239:ARG:O	1:A:240:VAL:HG23	1.95	0.67
2:B:116:ILE:HG22	2:B:121:ALA:HA	1.77	0.67
21:W:131:VAL:HG21	21:W:140:ILE:HG13	1.76	0.67
21:W:186:ILE:HD11	21:W:208:LYS:HG2	1.77	0.67
21:W:210:ASN:HA	21:W:213:PHE:CE1	2.30	0.67
25:a:185:ILE:HD12	25:a:185:ILE:O	1.94	0.67
30:f:789:SER:HA	30:f:793:VAL:HB	1.77	0.67
32:U:577:ILE:O	32:U:580:ARG:HG2	1.95	0.67
20:V:259:LEU:HG	20:V:291:TYR:HD1	1.58	0.67
21:W:267:LEU:HD12	21:W:296:LEU:HD21	1.76	0.67
21:W:289:ARG:HH11	21:W:289:ARG:HG3	1.58	0.67
26:b:1:MET:HA	26:b:44:ASN:HB2	1.74	0.67
32:U:366:HIS:O	32:U:369:THR:HG22	1.95	0.67
32:U:657:GLY:O	32:U:661:ALA:HB2	1.95	0.67
1:A:262:GLU:O	1:A:265:ARG:HG2	1.95	0.67
4:D:336:PRO:HG2	4:D:371:SER:O	1.95	0.67
24:Z:11:VAL:HA	24:Z:50:VAL:CG2	2.25	0.67
24:Z:81:MET:HE1	27:c:94:LYS:HD3	1.76	0.67
24:Z:181:ASP:O	24:Z:184:VAL:HG22	1.95	0.67
25:a:233:LEU:O	25:a:236:THR:HG22	1.95	0.67
31:F:348:LEU:HD12	31:F:348:LEU:O	1.95	0.67
32:U:98:GLU:HA	32:U:101:ILE:HG22	1.77	0.67
32:U:164:GLU:O	32:U:167:ILE:HG12	1.95	0.67
3:C:381:GLU:CG	22:X:191:THR:HG23	2.25	0.66
21:W:31:CYS:HB3	21:W:43:VAL:HG13	1.77	0.66
21:W:68:VAL:HG22	21:W:72:LYS:HE3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:257:GLN:HB2	21:W:262:LYS:HZ1	1.59	0.66
21:W:451:MET:HE3	24:Z:100:LYS:O	1.94	0.66
23:Y:16:ASP:OD1	23:Y:18:ARG:N	2.29	0.66
23:Y:138:LEU:HA	23:Y:141:VAL:HG12	1.76	0.66
23:Y:190:ALA:O	23:Y:291:HIS:NE2	2.28	0.66
28:d:229:GLN:C	28:d:232:PRO:HD2	2.20	0.66
30:f:91:SER:HA	30:f:94:LYS:HE2	1.78	0.66
30:f:143:ARG:HH12	30:f:189:LYS:HA	1.60	0.66
30:f:557:TRP:HA	30:f:560:LEU:HG	1.76	0.66
30:f:637:LYS:HG2	30:f:677:HIS:CD2	2.30	0.66
32:U:266:GLN:N	32:U:266:GLN:OE1	2.28	0.66
1:A:169:LYS:NZ	1:A:231:ASN:O	2.17	0.66
9:J:104:VAL:HG21	9:J:143:ARG:HB2	1.77	0.66
21:W:136:ILE:HA	21:W:140:ILE:HG23	1.78	0.66
21:W:214:PHE:HA	21:W:216:GLU:OE2	1.95	0.66
24:Z:249:PHE:O	24:Z:253:THR:HG22	1.95	0.66
25:a:48:PRO:HB2	25:a:51:ALA:HA	1.78	0.66
25:a:87:MET:HE1	25:a:89:ASP:OD1	1.95	0.66
25:a:252:LYS:HB2	25:a:255:TRP:CZ3	2.31	0.66
26:b:85:THR:HG23	26:b:85:THR:O	1.95	0.66
27:c:55:GLY:C	27:c:56:LEU:HD23	2.20	0.66
28:d:144:MET:HE2	28:d:144:MET:CA	2.23	0.66
30:f:216:MET:HA	30:f:219:LYS:CE	2.25	0.66
30:f:301:HIS:NE2	30:f:305:LEU:HD23	2.10	0.66
30:f:369:ARG:NH2	30:f:744:MET:HB3	2.10	0.66
32:U:377:HIS:O	32:U:411:ILE:HA	1.94	0.66
1:A:82:ALA:HB3	1:A:85:GLN:CG	2.24	0.66
2:B:337:LEU:HD21	2:B:342:ILE:HD11	1.76	0.66
3:C:161:ILE:HG21	3:C:199:LEU:HD11	1.77	0.66
3:C:360:LYS:HA	3:C:363:CYS:SG	2.35	0.66
21:W:401:THR:HG22	21:W:402:ILE:HD13	1.75	0.66
22:X:122:ARG:HG3	22:X:125:LEU:HB3	1.77	0.66
25:a:57:ILE:CD1	25:a:60:TYR:HB3	2.24	0.66
25:a:311:VAL:HG21	25:a:324:ILE:HD11	1.77	0.66
28:d:53:ASP:HA	28:d:56:GLU:OE2	1.95	0.66
30:f:690:VAL:O	30:f:694:LEU:HD22	1.95	0.66
32:U:234:GLU:O	32:U:237:VAL:HG12	1.95	0.66
32:U:609:ASP:OD2	32:U:614:VAL:HG11	1.94	0.66
20:V:442:ILE:HB	28:d:184:LYS:HE3	1.75	0.66
21:W:169:LEU:O	21:W:169:LEU:HD12	1.96	0.66
21:W:330:LYS:HG2	21:W:331:GLY:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:219:HIS:CE1	25:a:221:VAL:HB	2.31	0.66
30:f:274:ASP:HB3	30:f:275:MET:CE	2.25	0.66
32:U:60:ALA:O	32:U:64:ALA:N	2.24	0.66
32:U:516:LEU:CG	32:U:532:MET:HE2	2.25	0.66
32:U:541:HIS:HB2	32:U:544:ILE:HD13	1.78	0.66
4:D:91:GLN:NE2	4:D:127:ASN:HB2	2.10	0.66
8:I:165:GLY:O	8:I:168:SER:OG	2.14	0.66
26:b:51:LEU:CD2	26:b:62:THR:HB	2.24	0.66
26:b:181:ASP:OD1	26:b:183:LEU:N	2.29	0.66
28:d:103:LEU:CD1	28:d:133:ILE:HD11	2.25	0.66
31:F:209:LYS:O	31:F:213:GLU:HG3	1.95	0.66
3:C:332:HIS:CD2	3:C:360:LYS:HB2	2.31	0.66
22:X:167:VAL:CG1	22:X:206:LEU:HD13	2.25	0.66
22:X:351:SER:HA	22:X:354:ILE:HG22	1.78	0.66
28:d:50:LEU:H	28:d:50:LEU:HD22	1.60	0.66
30:f:65:GLU:HB3	30:f:97:LYS:HE2	1.77	0.66
32:U:490:ARG:HD3	32:U:492:ASP:HB3	1.77	0.66
32:U:536:ALA:HB2	32:U:548:LEU:HD12	1.77	0.66
2:B:389:ASP:OD1	2:B:389:ASP:O	2.14	0.66
5:E:210:GLU:HG2	5:E:213:ARG:HH21	1.61	0.66
12:M:39:ILE:HD12	12:M:193:VAL:HG22	1.77	0.66
31:F:384:LEU:HD11	31:F:420:TYR:CB	2.25	0.66
32:U:349:ASP:HB2	32:U:352:ILE:HB	1.78	0.66
2:B:361:LYS:CD	2:B:390:LEU:HD11	2.15	0.66
3:C:388:ALA:HA	3:C:392:GLN:HB3	1.77	0.66
5:E:242:ARG:HA	5:E:254:GLN:NE2	2.11	0.66
20:V:168:GLN:HB2	20:V:191:LEU:HD23	1.77	0.66
20:V:247:GLN:NE2	20:V:277:PRO:HG3	2.11	0.66
21:W:169:LEU:HD13	21:W:172:GLU:HB2	1.77	0.66
21:W:216:GLU:HA	21:W:219:THR:OG1	1.95	0.66
27:c:30:GLN:HA	27:c:204:THR:HG23	1.78	0.66
28:d:36:LEU:HD23	28:d:38:THR:N	2.11	0.66
30:f:679:LEU:HD21	30:f:681:TYR:CE2	2.31	0.66
4:D:138:ALA:O	4:D:140:VAL:HG23	1.96	0.66
24:Z:249:PHE:CE1	27:c:302:ALA:HB1	2.31	0.66
26:b:128:ALA:HB1	26:b:160:LEU:CD2	2.26	0.66
27:c:167:MET:O	27:c:171:GLY:N	2.29	0.66
27:c:258:ALA:HA	27:c:261:GLU:OE2	1.95	0.66
30:f:420:TRP:H	30:f:451:VAL:HG23	1.61	0.66
31:F:272:PHE:CD2	31:F:316:GLN:HG2	2.31	0.66
31:F:392:ASN:OD1	31:F:395:GLN:NE2	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:177:LEU:HD11	32:U:204:ILE:HD13	1.78	0.66
32:U:198:LEU:HD23	32:U:223:LEU:CD2	2.26	0.66
32:U:249:CYS:SG	32:U:329:LEU:HD13	2.35	0.66
1:A:250:VAL:HG13	1:A:294:GLU:OE1	1.96	0.66
20:V:234:ARG:HB3	20:V:250:LEU:HD11	1.78	0.66
22:X:372:LYS:O	22:X:372:LYS:HG2	1.94	0.66
22:X:395:LYS:O	22:X:396:THR:HG22	1.95	0.66
24:Z:135:THR:HG22	24:Z:160:SER:OG	1.96	0.66
24:Z:199:LYS:HE2	24:Z:199:LYS:HA	1.77	0.66
25:a:186:LYS:HG2	25:a:193:GLN:NE2	2.09	0.66
25:a:278:MET:SD	25:a:319:LEU:HG	2.36	0.66
27:c:60:GLU:N	27:c:60:GLU:OE2	2.28	0.66
28:d:181:CYS:O	28:d:184:LYS:HG3	1.96	0.66
32:U:261:LEU:O	32:U:264:VAL:HG12	1.95	0.66
32:U:353:LEU:HD12	32:U:385:PHE:CD2	2.30	0.66
32:U:719:ASP:OD1	32:U:721:HIS:N	2.29	0.66
4:D:249:ASP:OD1	4:D:250:VAL:N	2.29	0.65
23:Y:239:LYS:HZ3	23:Y:239:LYS:HB3	1.61	0.65
10:k:231:LYS:NZ	10:k:235:GLU:OE2	2.29	0.65
31:F:169:ASP:O	31:F:172:VAL:HG12	1.95	0.65
32:U:247:GLN:CB	32:U:913:ILE:HD13	2.26	0.65
2:B:378:VAL:HA	2:B:416:ASN:OD1	1.96	0.65
3:C:40:GLN:HA	3:C:43:ARG:NH2	2.11	0.65
25:a:36:GLN:O	25:a:40:GLN:NE2	2.29	0.65
28:d:70:SER:HA	28:d:73:ARG:HH21	1.59	0.65
30:f:106:LEU:O	30:f:109:ILE:HG22	1.96	0.65
32:U:568:GLU:OE1	32:U:572:ARG:NH2	2.21	0.65
32:U:798:PRO:HG2	32:U:880:ASN:HD21	1.60	0.65
1:A:361:SER:CB	30:f:849:ALA:HB3	2.26	0.65
2:B:59:ARG:O	2:B:63:LEU:HD22	1.96	0.65
3:C:24:TYR:HE2	32:U:153:ILE:HD11	1.62	0.65
21:W:455:LEU:O	21:W:456:GLN:HG2	1.96	0.65
23:Y:61:LEU:HG	23:Y:63:TRP:CD1	2.30	0.65
24:Z:190:ARG:HH22	27:c:297:VAL:HA	1.60	0.65
24:Z:250:TYR:HA	24:Z:253:THR:CG2	2.26	0.65
30:f:462:ALA:HB3	30:f:489:TYR:CZ	2.32	0.65
32:U:801:GLN:NE2	32:U:877:LEU:HA	2.11	0.65
32:U:901:GLN:N	32:U:915:LYS:O	2.21	0.65
2:B:58:CYS:HA	30:f:184:LEU:HD11	1.79	0.65
4:D:91:GLN:HE22	4:D:248:ARG:CD	2.09	0.65
4:D:285:VAL:HG21	5:E:255:ARG:NH2	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:391:ARG:NH2	4:D:398:ASP:OD2	2.29	0.65
5:E:226:GLN:CB	5:E:227:PRO:HD2	2.26	0.65
11:L:212:ILE:HD12	11:L:229:VAL:HG13	1.76	0.65
20:V:428:LEU:HD21	20:V:434:ALA:HA	1.77	0.65
23:Y:183:TYR:CE1	23:Y:213:LEU:HD21	2.31	0.65
25:a:347:LYS:HD2	25:a:347:LYS:C	2.20	0.65
27:c:161:ARG:HD2	27:c:201:TYR:OH	1.96	0.65
30:f:548:THR:O	30:f:552:ASP:HB2	1.97	0.65
30:f:761:MET:HA	30:f:761:MET:HE2	1.78	0.65
32:U:58:GLN:HG2	32:U:87:LEU:CD2	2.27	0.65
4:D:201:GLY:HA2	4:D:307:VAL:O	1.97	0.65
20:V:428:LEU:HD23	20:V:434:ALA:HB2	1.79	0.65
22:X:297:ARG:NH2	22:X:337:ARG:HG3	2.10	0.65
24:Z:40:LEU:HD11	24:Z:54:PHE:CE1	2.30	0.65
26:b:51:LEU:HD13	26:b:75:LEU:CD2	2.25	0.65
28:d:105:PHE:O	28:d:108:SER:OG	2.14	0.65
30:f:729:MET:HE1	30:f:732:VAL:HB	1.78	0.65
31:F:89:LEU:HD21	31:F:126:THR:HB	1.78	0.65
31:F:224:LEU:HD13	31:F:348:LEU:CD2	2.25	0.65
32:U:567:ILE:HD12	32:U:586:VAL:HG23	1.78	0.65
2:B:103:ARG:HG2	2:B:160:ILE:CG2	2.25	0.65
5:E:349:GLU:HG3	5:E:373:LYS:HE3	1.78	0.65
17:R:32:VAL:HG11	36:R:301:LDZ:H19	1.78	0.65
25:a:112:ILE:HG21	25:a:140:GLU:OE2	1.96	0.65
25:a:163:TYR:HA	25:a:166:ILE:CG2	2.27	0.65
28:d:148:TYR:HD1	28:d:178:ILE:HD11	1.61	0.65
1:A:217:PRO:O	1:A:220:THR:OG1	2.10	0.65
2:B:127:VAL:HG23	2:B:128:GLY:N	2.12	0.65
5:E:310:LEU:HD12	5:E:310:LEU:O	1.97	0.65
20:V:130:PHE:HD2	20:V:134:PHE:HE2	1.43	0.65
20:V:471:GLU:HG3	20:V:472:PRO:HD3	1.77	0.65
23:Y:101:ARG:NH2	23:Y:105:MET:HE2	2.12	0.65
23:Y:243:GLY:O	23:Y:247:LEU:HG	1.97	0.65
24:Z:37:GLY:HA3	24:Z:95:TYR:CE1	2.32	0.65
24:Z:212:LEU:O	24:Z:215:VAL:HG13	1.96	0.65
25:a:321:LYS:HG3	25:a:335:TRP:HE3	1.61	0.65
30:f:531:ASN:O	30:f:535:THR:HG22	1.97	0.65
30:f:828:ARG:CZ	30:f:843:SER:HA	2.26	0.65
31:F:175:MET:HG3	31:F:249:LEU:CD2	2.26	0.65
31:F:226:TYR:CD2	31:F:335:VAL:HG21	2.32	0.65
32:U:885:MET:N	32:U:885:MET:SD	2.69	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:323:ARG:NH2	1:A:433:ASN:HA	2.10	0.65
2:B:68:ILE:H	2:B:68:ILE:HD12	1.62	0.65
5:E:313:LEU:HD11	5:E:331:ILE:CG2	2.27	0.65
21:W:89:LEU:O	21:W:93:ARG:HG3	1.96	0.65
30:f:177:GLU:HG2	30:f:835:GLU:CB	2.25	0.65
30:f:744:MET:O	30:f:748:LEU:HD12	1.97	0.65
4:D:230:VAL:HG22	4:D:263:PHE:O	1.97	0.65
21:W:312:MET:HE2	21:W:312:MET:HA	1.79	0.65
21:W:409:LEU:O	21:W:409:LEU:HD13	1.97	0.65
22:X:93:LEU:O	22:X:97:LEU:HD23	1.97	0.65
22:X:344:ARG:HB2	22:X:386:ILE:HD13	1.78	0.65
22:X:407:MET:HE2	24:Z:266:ILE:HD12	1.77	0.65
23:Y:387:ILE:HG21	24:Z:276:ILE:CD1	2.27	0.65
25:a:278:MET:HE2	25:a:320:VAL:CG1	2.27	0.65
4:D:322:LEU:HD22	4:D:330:LYS:CE	2.26	0.65
20:V:108:LEU:HD22	20:V:170:LEU:HD12	1.77	0.65
21:W:452:ILE:HG22	21:W:453:HIS:ND1	2.12	0.65
22:X:122:ARG:CG	22:X:125:LEU:HB3	2.27	0.65
22:X:243:ASP:OD1	22:X:245:PRO:HD2	1.97	0.65
23:Y:239:LYS:HE2	23:Y:239:LYS:HA	1.79	0.65
23:Y:366:TYR:HA	23:Y:369:THR:HG22	1.79	0.65
25:a:217:LEU:HD21	25:a:238:TYR:CD1	2.32	0.65
26:b:40:LYS:HE2	26:b:40:LYS:HA	1.77	0.65
27:c:152:LYS:HA	27:c:152:LYS:CE	2.25	0.65
30:f:373:ALA:CB	30:f:747:GLN:HE22	2.10	0.65
30:f:771:LEU:HD22	30:f:807:ARG:HH21	1.62	0.65
27:c:266:THR:HG23	27:c:269:GLN:HB3	1.77	0.64
28:d:42:LYS:HA	28:d:86:LYS:HZ3	1.62	0.64
30:f:474:SER:HB3	30:f:477:MET:CG	2.27	0.64
30:f:746:ARG:HG3	30:f:750:GLN:NE2	2.11	0.64
32:U:209:GLU:HB2	32:U:210:LYS:HZ3	1.62	0.64
32:U:506:ALA:HA	32:U:544:ILE:HD11	1.77	0.64
1:A:349:GLU:O	1:A:352:THR:HG22	1.97	0.64
2:B:424:GLU:O	2:B:428:TYR:HB3	1.97	0.64
5:E:72:LYS:HB2	5:E:78:ARG:HD3	1.79	0.64
5:E:74:THR:O	5:E:74:THR:HG23	1.96	0.64
5:E:198:VAL:CG1	5:E:232:MET:HA	2.26	0.64
20:V:82:LEU:O	20:V:86:VAL:HG22	1.97	0.64
21:W:112:VAL:HG23	21:W:120:ILE:HD11	1.79	0.64
21:W:240:TYR:O	21:W:243:ILE:HG12	1.97	0.64
21:W:312:MET:HB3	21:W:365:ILE:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:297:ALA:HB1	25:a:302:ILE:O	1.97	0.64
28:d:95:MET:HA	28:d:95:MET:CE	2.25	0.64
31:F:195:ILE:O	31:F:199:VAL:HG22	1.97	0.64
32:U:757:MET:HE3	32:U:758:PRO:N	2.11	0.64
32:U:807:LYS:H	32:U:807:LYS:CD	2.10	0.64
2:B:202:GLU:O	2:B:206:THR:HG23	1.98	0.64
2:B:417:GLU:O	2:B:421:LYS:HG2	1.98	0.64
3:C:332:HIS:HD2	3:C:360:LYS:HB2	1.62	0.64
5:E:182:LEU:HD22	33:E:402:ATP:H2'	1.79	0.64
21:W:102:ALA:O	21:W:106:GLN:HG2	1.97	0.64
26:b:127:LEU:O	26:b:131:LEU:HG	1.97	0.64
26:b:147:GLU:OE2	26:b:150:THR:HA	1.97	0.64
28:d:161:GLU:CD	28:d:163:TYR:H	2.04	0.64
30:f:445:LEU:HA	30:f:448:CYS:SG	2.37	0.64
8:i:119:GLN:HG3	9:j:78:ALA:HB1	1.78	0.64
1:A:213:LEU:HD12	1:A:337:LEU:CD2	2.27	0.64
2:B:428:TYR:CD1	2:B:429:LYS:HB2	2.31	0.64
4:D:83:GLN:HA	4:D:140:VAL:HG11	1.79	0.64
5:E:242:ARG:HD3	5:E:254:GLN:HG3	1.78	0.64
20:V:185:GLN:HB2	20:V:221:LEU:HD11	1.80	0.64
21:W:287:VAL:HB	21:W:309:PHE:CZ	2.33	0.64
23:Y:279:GLU:CD	23:Y:296:VAL:HG21	2.23	0.64
23:Y:366:TYR:HA	23:Y:369:THR:CG2	2.28	0.64
32:U:901:GLN:HG3	32:U:915:LYS:HB3	1.80	0.64
1:A:361:SER:O	2:B:215:GLY:HA3	1.98	0.64
2:B:223:ILE:HD12	2:B:329:MET:O	1.97	0.64
4:D:219:VAL:O	4:D:223:THR:HB	1.97	0.64
5:E:197:LYS:HG2	31:F:320:PHE:CD2	2.32	0.64
5:E:352:MET:CE	5:E:355:ILE:HG21	2.26	0.64
24:Z:130:ASP:N	24:Z:130:ASP:OD1	2.31	0.64
25:a:247:ARG:HH21	25:a:251:LEU:HD11	1.62	0.64
26:b:8:VAL:HA	26:b:110:ILE:HD12	1.80	0.64
27:c:75:MET:HE1	27:c:88:ASP:H	1.62	0.64
31:F:187:ASP:O	31:F:368:ILE:HD13	1.97	0.64
32:U:405:THR:CG2	32:U:441:GLY:HA3	2.28	0.64
2:B:197:ILE:HD13	2:B:222:VAL:HG21	1.80	0.64
3:C:242:ALA:HB1	3:C:243:PRO:CD	2.27	0.64
3:C:381:GLU:HG2	22:X:191:THR:HG23	1.78	0.64
4:D:42:SER:O	4:D:46:LYS:HB2	1.97	0.64
5:E:93:LYS:HB2	5:E:93:LYS:NZ	2.13	0.64
15:P:47:ARG:NH1	15:P:191:LYS:O	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:281:ASN:ND2	20:V:284:GLU:OE2	2.31	0.64
22:X:126:ARG:HH11	22:X:126:ARG:HG3	1.61	0.64
25:a:35:HIS:CD2	26:b:15:TYR:HA	2.33	0.64
30:f:240:VAL:CG1	30:f:241:PRO:HD3	2.28	0.64
32:U:807:LYS:HD2	32:U:807:LYS:N	2.13	0.64
1:A:264:ALA:HB1	1:A:315:ILE:HD12	1.80	0.64
2:B:295:TYR:CZ	3:C:271:ARG:HD3	2.32	0.64
4:D:340:GLN:O	4:D:344:ILE:HG13	1.98	0.64
25:a:149:THR:CG2	25:a:183:VAL:HB	2.26	0.64
28:d:30:LEU:HD12	28:d:31:LEU:N	2.12	0.64
28:d:158:ILE:O	28:d:158:ILE:HD12	1.98	0.64
30:f:694:LEU:HD23	30:f:695:ALA:H	1.63	0.64
6:g:192:GLU:OE1	6:g:192:GLU:N	2.29	0.64
31:F:361:ALA:O	31:F:365:ILE:HB	1.98	0.64
1:A:264:ALA:HA	1:A:267:LYS:CD	2.27	0.64
1:A:387:SER:HA	1:A:390:THR:CG2	2.27	0.64
5:E:157:GLU:OE2	5:E:158:LEU:HG	1.98	0.64
20:V:150:ARG:NH1	20:V:157:THR:O	2.30	0.64
20:V:449:ALA:HB2	20:V:461:LYS:H	1.62	0.64
22:X:408:SER:O	22:X:411:VAL:HG12	1.98	0.64
25:a:226:ARG:HH12	25:a:230:ARG:HG2	1.62	0.64
28:d:205:LYS:HG2	28:d:209:TYR:CD2	2.31	0.64
30:f:686:LEU:CD1	30:f:687:ARG:HG3	2.27	0.64
1:A:356:LYS:O	1:A:360:ARG:HG3	1.98	0.64
10:K:20:ARG:HE	31:F:435:LEU:HD23	1.61	0.64
20:V:175:MET:HE1	20:V:180:ARG:HB3	1.80	0.64
30:f:828:ARG:NH2	30:f:842:VAL:O	2.31	0.64
17:r:161:ILE:O	17:r:165:THR:HG23	1.98	0.64
32:U:16:GLU:HG3	32:U:19:LEU:HB3	1.79	0.64
32:U:352:ILE:CG2	32:U:376:MET:HE1	2.28	0.64
2:B:373:THR:OG1	2:B:412:MET:O	2.16	0.64
13:N:2:THR:N	13:N:171:SER:HG	1.96	0.64
21:W:75:TYR:OH	21:W:114:GLU:OE2	2.15	0.64
21:W:251:TYR:O	21:W:254:PRO:HD2	1.98	0.64
21:W:268:LYS:HE3	21:W:301:LYS:NZ	2.12	0.64
22:X:258:LYS:HD3	22:X:266:ASP:HB2	1.79	0.64
24:Z:38:VAL:HG21	24:Z:75:LEU:CD1	2.27	0.64
25:a:291:LEU:H	25:a:291:LEU:HD12	1.61	0.64
26:b:93:ALA:O	26:b:97:LEU:HD13	1.98	0.64
30:f:8:LYS:HD3	30:f:9:ALA:H	1.62	0.64
30:f:266:LEU:O	30:f:270:LEU:HG	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:281:ILE:HD12	30:f:286:LYS:HD3	1.79	0.64
30:f:729:MET:CE	30:f:732:VAL:HB	2.28	0.64
30:f:766:GLN:HG3	30:f:768:LEU:HD12	1.80	0.64
30:f:813:LYS:HD2	30:f:821:LEU:HD11	1.79	0.64
32:U:904:LYS:HE3	32:U:908:ILE:HD12	1.79	0.64
1:A:187:LEU:O	1:A:191:VAL:HG22	1.96	0.63
1:A:227:ARG:HD3	2:B:319:PHE:O	1.99	0.63
4:D:61:ILE:HD13	4:D:64:GLU:OE2	1.98	0.63
5:E:86:GLN:OE1	5:E:86:GLN:N	2.20	0.63
15:P:48:LEU:HD21	15:P:86:LEU:HD22	1.79	0.63
20:V:114:TYR:CE1	20:V:137:GLU:HG2	2.33	0.63
20:V:311:ASN:HA	20:V:314:ARG:HH11	1.63	0.63
21:W:355:LYS:O	21:W:358:VAL:HG12	1.98	0.63
24:Z:247:LYS:NZ	24:Z:247:LYS:HB3	2.13	0.63
25:a:324:ILE:HG22	25:a:326:GLU:OE2	1.98	0.63
30:f:593:THR:OG1	30:f:631:LYS:NZ	2.31	0.63
11:l:74:ILE:HG21	11:l:81:ALA:HB1	1.80	0.63
1:A:85:GLN:CA	1:A:88:GLN:HB3	2.23	0.63
1:A:263:MET:HG2	1:A:267:LYS:NZ	2.12	0.63
1:A:280:ILE:O	1:A:280:ILE:HD12	1.98	0.63
4:D:153:MET:HE2	4:D:229:ARG:CB	2.28	0.63
17:R:168:ASP:OD2	17:R:171:SER:OG	2.16	0.63
20:V:183:GLU:O	20:V:187:ILE:HG22	1.97	0.63
20:V:310:THR:O	20:V:314:ARG:HG2	1.98	0.63
22:X:286:ALA:CB	22:X:312:GLU:HG3	2.28	0.63
23:Y:275:LEU:CD2	23:Y:296:VAL:HG13	2.26	0.63
23:Y:275:LEU:HA	23:Y:278:VAL:HG12	1.80	0.63
25:a:191:SER:HA	25:a:194:GLN:NE2	2.13	0.63
25:a:213:PHE:HE1	25:a:240:PHE:HD2	1.46	0.63
26:b:7:MET:CE	26:b:52:ILE:HD11	2.28	0.63
26:b:88:THR:HA	26:b:91:ARG:HD2	1.79	0.63
27:c:27:THR:HA	27:c:175:ARG:HH21	1.61	0.63
30:f:61:GLU:OE2	30:f:97:LYS:HB2	1.98	0.63
30:f:291:GLN:HG2	30:f:879:ARG:HD3	1.81	0.63
30:f:416:MET:HE1	30:f:447:ALA:HA	1.80	0.63
30:f:530:CYS:SG	30:f:533:ASP:HB2	2.38	0.63
6:g:83:MET:O	6:g:87:SER:OG	2.16	0.63
32:U:422:LEU:C	32:U:423:MET:HE2	2.23	0.63
32:U:889:LEU:O	32:U:892:LEU:HD22	1.98	0.63
1:A:345:LEU:HD11	1:A:426:THR:HG21	1.80	0.63
5:E:149:ILE:CD1	5:E:276:ILE:HD11	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:345:ASN:HA	5:E:348:THR:HG22	1.80	0.63
5:E:352:MET:O	5:E:355:ILE:HG22	1.98	0.63
20:V:466:ILE:O	20:V:469:THR:OG1	2.15	0.63
21:W:116:THR:O	21:W:117:ASP:HB3	1.98	0.63
21:W:307:LYS:HG2	21:W:315:MET:HE2	1.80	0.63
24:Z:42:SER:HA	24:Z:90:ARG:CZ	2.29	0.63
25:a:223:GLU:HB3	25:a:234:ILE:HD11	1.80	0.63
25:a:360:VAL:HG23	27:c:308:VAL:HG13	1.79	0.63
28:d:61:TRP:CZ3	28:d:65:ARG:HD2	2.33	0.63
30:f:141:LYS:HZ2	30:f:142:TYR:HB2	1.63	0.63
30:f:180:GLN:HG3	30:f:219:LYS:NZ	2.11	0.63
30:f:240:VAL:HG13	30:f:241:PRO:HD3	1.80	0.63
30:f:787:LEU:HD22	30:f:791:VAL:HB	1.80	0.63
32:U:475:HIS:ND1	32:U:507:VAL:O	2.31	0.63
32:U:700:GLU:OE1	32:U:700:GLU:N	2.31	0.63
32:U:715:LYS:HB2	32:U:715:LYS:NZ	2.14	0.63
2:B:60:LEU:HA	2:B:63:LEU:HD23	1.80	0.63
5:E:368:MET:O	5:E:372:ARG:NE	2.32	0.63
11:L:146:GLN:NE2	11:L:159:MET:SD	2.71	0.63
13:N:15:LEU:HD11	13:N:102:ALA:HB3	1.79	0.63
21:W:131:VAL:CG2	21:W:140:ILE:HG13	2.29	0.63
21:W:186:ILE:HD12	21:W:208:LYS:HG2	1.80	0.63
22:X:205:LYS:HZ1	22:X:206:LEU:HD23	1.63	0.63
22:X:286:ALA:HB2	22:X:312:GLU:HG3	1.81	0.63
23:Y:278:VAL:HG23	23:Y:281:GLU:OE2	1.98	0.63
28:d:144:MET:HA	28:d:144:MET:CE	2.26	0.63
28:d:188:LYS:HB2	28:d:221:ASN:ND2	2.12	0.63
30:f:560:LEU:HD23	30:f:594:LEU:CD2	2.28	0.63
2:B:74:MET:HB2	30:f:610:GLN:CD	2.23	0.63
2:B:292:THR:HG23	2:B:333:ARG:HH22	1.64	0.63
5:E:242:ARG:HA	5:E:254:GLN:CD	2.23	0.63
5:E:324:GLY:O	5:E:326:ILE:HD12	1.99	0.63
22:X:119:SER:O	22:X:121:LYS:NZ	2.31	0.63
22:X:122:ARG:CZ	22:X:122:ARG:HB2	2.28	0.63
23:Y:104:MET:HE3	23:Y:127:THR:HA	1.81	0.63
23:Y:377:LEU:O	23:Y:380:VAL:HG12	1.99	0.63
25:a:161:LYS:NZ	25:a:164:GLN:OE1	2.31	0.63
28:d:52:ARG:HG3	28:d:81:TYR:CD2	2.34	0.63
30:f:303:VAL:O	30:f:306:GLU:HG3	1.97	0.63
30:f:592:ASN:O	30:f:595:VAL:HG12	1.99	0.63
32:U:544:ILE:HD12	32:U:544:ILE:H	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:115:VAL:CG2	1:A:118:PHE:HB2	2.28	0.63
2:B:207:HIS:HB3	2:B:210:TYR:CE1	2.33	0.63
4:D:160:PRO:HG2	4:D:220:ALA:HB3	1.80	0.63
4:D:266:GLU:HA	4:D:266:GLU:OE2	1.98	0.63
20:V:193:GLN:HA	20:V:193:GLN:OE1	1.98	0.63
20:V:496:PHE:N	20:V:497:PRO:HD2	2.14	0.63
21:W:93:ARG:HB2	21:W:96:GLN:HE22	1.63	0.63
21:W:209:ILE:HD13	21:W:227:TYR:HE2	1.64	0.63
21:W:401:THR:O	21:W:402:ILE:HD12	1.99	0.63
24:Z:165:GLU:HG3	24:Z:166:GLU:N	2.12	0.63
26:b:86:PHE:CE2	26:b:90:ILE:HD11	2.33	0.63
26:b:138:VAL:HG12	26:b:160:LEU:HD12	1.79	0.63
27:c:38:LEU:HD11	27:c:155:VAL:HG11	1.80	0.63
30:f:271:MET:HE3	30:f:271:MET:N	2.13	0.63
30:f:608:LYS:HE2	30:f:639:LYS:CE	2.29	0.63
30:f:829:MET:HE3	30:f:829:MET:N	2.02	0.63
31:F:276:LYS:HB2	31:F:276:LYS:HZ3	1.63	0.63
31:F:344:ARG:HH21	31:F:347:ARG:CZ	2.11	0.63
32:U:599:ILE:HG23	32:U:603:LEU:HD23	1.80	0.63
32:U:878:LEU:HB3	32:U:882:ALA:CB	2.28	0.63
3:C:86:LEU:HD12	3:C:96:VAL:CG2	2.28	0.63
3:C:162:LYS:HD2	23:Y:95:LEU:HD11	1.81	0.63
20:V:480:ILE:HD11	24:Z:261:TYR:CA	2.24	0.63
21:W:201:ARG:CZ	21:W:201:ARG:HB3	2.29	0.63
22:X:213:GLN:OE1	22:X:213:GLN:HA	1.98	0.63
25:a:136:GLU:OE1	25:a:136:GLU:HA	1.98	0.63
25:a:244:ASN:HB3	25:a:247:ARG:HB2	1.81	0.63
28:d:74:TYR:O	28:d:78:LEU:HG	1.98	0.63
14:o:210:THR:HG21	15:p:167:SER:HB2	1.81	0.63
2:B:77:GLU:O	2:B:81:ASN:HB2	1.98	0.63
2:B:166:ASP:CG	3:C:78:ARG:HH12	2.05	0.63
2:B:396:LYS:O	2:B:400:THR:HG22	1.98	0.63
5:E:309:ARG:HB3	5:E:332:VAL:HG13	1.80	0.63
5:E:352:MET:HE2	5:E:355:ILE:CG2	2.28	0.63
20:V:245:ASP:OD1	20:V:245:ASP:O	2.17	0.63
20:V:259:LEU:HD13	20:V:264:TYR:CE1	2.31	0.63
20:V:280:ALA:HB3	20:V:285:TRP:HE3	1.64	0.63
22:X:132:ARG:HD3	22:X:136:LEU:HD23	1.80	0.63
25:a:61:GLU:HA	25:a:64:ILE:CG1	2.28	0.63
30:f:461:PRO:HB2	30:f:465:LEU:HD11	1.81	0.63
30:f:744:MET:HB2	30:f:748:LEU:CD1	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:161:ASP:OD1	32:U:162:VAL:N	2.32	0.63
32:U:463:ASN:HA	32:U:466:LYS:HZ3	1.64	0.63
32:U:552:ILE:CD1	32:U:570:LEU:HD11	2.29	0.63
32:U:680:VAL:O	32:U:683:VAL:HG12	1.98	0.63
1:A:319:MET:HE2	1:A:337:LEU:CD1	2.28	0.63
5:E:138:LEU:HD21	5:E:301:ILE:CG2	2.29	0.63
24:Z:176:LEU:HD21	27:c:217:LEU:CD2	2.28	0.63
26:b:52:ILE:HD12	26:b:52:ILE:N	2.14	0.63
27:c:56:LEU:HB2	27:c:73:PHE:CE1	2.34	0.63
28:d:252:GLN:HG3	28:d:252:GLN:O	1.99	0.63
30:f:180:GLN:N	30:f:180:GLN:OE1	2.32	0.63
30:f:482:ILE:HB	30:f:518:THR:HG22	1.80	0.63
31:F:230:GLY:O	31:F:392:ASN:HB2	1.98	0.63
32:U:213:PHE:HA	32:U:216:VAL:CG1	2.29	0.63
32:U:423:MET:HG3	32:U:446:LEU:HD12	1.81	0.63
1:A:78:TRP:O	1:A:81:ALA:HB3	1.99	0.62
1:A:240:VAL:HG11	1:A:274:PHE:CD1	2.33	0.62
2:B:211:TYR:HA	2:B:216:ILE:CD1	2.29	0.62
4:D:374:ASP:O	4:D:378:ILE:HG13	1.99	0.62
17:R:2:THR:OG1	17:R:34:LYS:NZ	2.31	0.62
21:W:216:GLU:HA	21:W:219:THR:CB	2.28	0.62
21:W:356:ASN:O	21:W:359:VAL:HG12	1.99	0.62
26:b:97:LEU:HD23	26:b:107:MET:HB2	1.79	0.62
27:c:33:ILE:HD12	27:c:205:ILE:HD11	1.81	0.62
13:n:60:VAL:HG23	13:n:87:MET:CE	2.28	0.62
31:F:406:ILE:HD13	31:F:422:GLU:OE1	1.98	0.62
32:U:884:VAL:HG11	32:U:889:LEU:HA	1.81	0.62
1:A:273:PHE:HA	1:A:318:LEU:O	1.99	0.62
2:B:70:ASP:C	30:f:606:VAL:HG11	2.23	0.62
2:B:374:LEU:HD23	2:B:378:VAL:CG1	2.29	0.62
3:C:134:LEU:HD23	3:C:237:MET:SD	2.39	0.62
4:D:217:LYS:HA	5:E:267:PHE:CE1	2.34	0.62
20:V:227:VAL:HG22	20:V:231:LEU:HD21	1.80	0.62
22:X:206:LEU:HA	22:X:209:THR:HG22	1.81	0.62
25:a:341:LEU:HB3	25:a:345:GLN:HB2	1.81	0.62
27:c:54:MET:HG2	27:c:55:GLY:N	2.14	0.62
32:U:148:LYS:HE2	32:U:148:LYS:HA	1.80	0.62
32:U:353:LEU:O	32:U:356:THR:OG1	2.12	0.62
32:U:792:ASN:HB3	32:U:796:LYS:HB3	1.81	0.62
32:U:892:LEU:HD11	32:U:906:LEU:HD11	1.81	0.62
1:A:174:TYR:HD2	1:A:188:ARG:HH11	1.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:74:MET:SD	2:B:75:GLU:N	2.73	0.62
8:I:35:LEU:HD11	8:I:175:LEU:HD11	1.81	0.62
9:J:104:VAL:HG21	9:J:143:ARG:CB	2.29	0.62
20:V:251:LEU:HD11	20:V:270:LEU:HD21	1.80	0.62
21:W:307:LYS:HD2	21:W:315:MET:HE2	1.80	0.62
22:X:253:TYR:CE2	22:X:318:ILE:HD11	2.34	0.62
22:X:347:ILE:O	22:X:350:ILE:HG22	1.99	0.62
24:Z:173:GLU:OE1	27:c:152:LYS:NZ	2.22	0.62
25:a:33:LEU:HD11	25:a:36:GLN:HB2	1.80	0.62
30:f:189:LYS:HD3	30:f:190:GLU:HG3	1.81	0.62
30:f:346:ASP:OD2	30:f:378:ASN:ND2	2.32	0.62
30:f:637:LYS:HD2	30:f:637:LYS:C	2.24	0.62
1:A:222:LYS:HB2	33:A:501:ATP:O2B	2.00	0.62
3:C:150:MET:HA	3:C:331:ILE:HG21	1.80	0.62
4:D:53:PHE:O	4:D:56:VAL:HG12	1.98	0.62
5:E:60:VAL:HG23	5:E:98:VAL:HG21	1.82	0.62
5:E:275:MET:O	5:E:276:ILE:HD13	1.97	0.62
5:E:281:ARG:HB3	5:E:281:ARG:HH11	1.64	0.62
5:E:281:ARG:HB3	5:E:281:ARG:NH1	2.14	0.62
5:E:331:ILE:HG12	5:E:371:VAL:HG21	1.81	0.62
9:J:80:ALA:O	9:J:84:ILE:HD13	2.00	0.62
20:V:337:LEU:HD22	20:V:367:VAL:CG1	2.27	0.62
20:V:449:ALA:CB	20:V:460:SER:HA	2.27	0.62
23:Y:186:LEU:HD22	23:Y:287:LEU:HD13	1.81	0.62
24:Z:39:LEU:HD23	24:Z:53:SER:HB3	1.80	0.62
26:b:188:ILE:HD12	26:b:188:ILE:H	1.64	0.62
30:f:744:MET:HB2	30:f:748:LEU:HD12	1.80	0.62
31:F:246:ALA:HB1	31:F:280:PRO:O	1.98	0.62
31:F:384:LEU:HD22	31:F:424:ILE:HD11	1.80	0.62
1:A:102:ILE:N	1:A:102:ILE:HD12	2.15	0.62
2:B:223:ILE:HD13	2:B:329:MET:HB2	1.81	0.62
3:C:192:PRO:HG3	3:C:296:ASN:OD1	1.99	0.62
4:D:335:LEU:HD13	4:D:371:SER:CB	2.30	0.62
5:E:81:VAL:HB	5:E:105:LEU:O	2.00	0.62
20:V:187:ILE:HA	20:V:190:ASP:OD2	1.98	0.62
21:W:372:ARG:HD2	21:W:414:ASN:HB3	1.81	0.62
21:W:412:ILE:O	21:W:412:ILE:HG13	1.98	0.62
23:Y:104:MET:HE1	23:Y:130:LYS:HG3	1.82	0.62
24:Z:164:ALA:HB1	24:Z:169:GLU:HG3	1.81	0.62
25:a:302:ILE:HG22	25:a:303:THR:O	2.00	0.62
25:a:311:VAL:HG21	25:a:324:ILE:CD1	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:29:GLN:HA	26:b:29:GLN:NE2	2.14	0.62
28:d:42:LYS:HE2	28:d:87:GLU:HG2	1.82	0.62
16:q:180:VAL:HG21	16:q:194:ILE:HD13	1.82	0.62
32:U:599:ILE:CD1	32:U:626:LEU:HD21	2.29	0.62
32:U:609:ASP:O	32:U:615:ARG:NH1	2.32	0.62
32:U:736:ILE:HD11	32:U:779:LEU:HD23	1.79	0.62
32:U:759:SER:HA	32:U:782:ALA:HA	1.79	0.62
2:B:390:LEU:HD12	2:B:390:LEU:O	1.99	0.62
3:C:166:GLU:OE1	3:C:167:LEU:HD23	2.00	0.62
5:E:226:GLN:HB3	5:E:227:PRO:CD	2.29	0.62
10:K:104:ASN:OD1	17:R:58:ARG:NH2	2.32	0.62
20:V:463:MET:HE3	20:V:463:MET:C	2.25	0.62
20:V:471:GLU:HG3	20:V:472:PRO:CD	2.30	0.62
23:Y:24:PHE:CZ	23:Y:28:LEU:HD22	2.34	0.62
23:Y:167:LEU:O	23:Y:170:GLU:HG2	1.98	0.62
23:Y:233:ARG:NH1	23:Y:264:TYR:HA	2.14	0.62
26:b:77:THR:HA	26:b:79:GLN:NE2	2.14	0.62
26:b:129:LYS:O	26:b:133:LYS:NZ	2.23	0.62
30:f:263:PRO:HB2	30:f:266:LEU:CD2	2.29	0.62
30:f:346:ASP:HB2	30:f:350:LYS:HZ1	1.64	0.62
30:f:698:SER:O	30:f:705:ASN:ND2	2.31	0.62
30:f:716:ASP:HB2	30:f:719:PRO:HG3	1.80	0.62
32:U:209:GLU:HB2	32:U:210:LYS:HZ2	1.63	0.62
32:U:772:TRP:CD1	32:U:774:PRO:HG2	2.34	0.62
1:A:319:MET:CE	1:A:337:LEU:HD22	2.30	0.62
4:D:203:LEU:HD12	4:D:309:MET:O	2.00	0.62
5:E:272:ARG:HG3	5:E:272:ARG:HH11	1.65	0.62
20:V:415:SER:HB3	23:Y:348:ASP:OD1	1.99	0.62
20:V:424:GLN:OE1	20:V:424:GLN:HA	1.99	0.62
21:W:333:LEU:HD23	21:W:334:GLU:H	1.63	0.62
25:a:22:TRP:O	25:a:26:GLU:HG2	2.00	0.62
28:d:75:MET:HA	28:d:78:LEU:HD11	1.82	0.62
30:f:474:SER:O	30:f:477:MET:HE3	2.00	0.62
30:f:705:ASN:HA	30:f:708:ASP:OD2	1.99	0.62
31:F:78:GLU:OE1	31:F:81:LYS:HD3	2.00	0.62
32:U:222:PHE:HE1	32:U:754:HIS:HD1	1.47	0.62
1:A:268:LYS:HE3	30:f:354:GLU:CB	2.29	0.62
2:B:342:ILE:HG23	2:B:347:ILE:CD1	2.18	0.62
2:B:428:TYR:CE1	2:B:429:LYS:HB2	2.33	0.62
3:C:151:ILE:HG12	3:C:158:ILE:HD11	1.82	0.62
21:W:435:LEU:CD1	24:Z:237:LEU:HD23	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:445:LEU:HD22	24:Z:226:ILE:CG1	2.30	0.62
22:X:348:GLU:HA	22:X:348:GLU:OE2	2.00	0.62
23:Y:133:ALA:O	23:Y:137:ARG:HG3	1.98	0.62
24:Z:22:HIS:O	24:Z:26:ILE:HG22	1.99	0.62
24:Z:259:VAL:HG11	27:c:291:LEU:HD22	1.82	0.62
30:f:736:THR:O	30:f:746:ARG:NH2	2.33	0.62
30:f:787:LEU:CD2	30:f:791:VAL:HB	2.30	0.62
32:U:206:MET:HE2	32:U:206:MET:CA	2.30	0.62
3:C:193:GLY:HA2	35:C:501:ADP:O3A	1.99	0.62
21:W:201:ARG:O	21:W:204:ILE:HG13	1.99	0.62
22:X:235:ALA:O	22:X:239:TYR:HB2	2.00	0.62
24:Z:209:ARG:HG2	24:Z:209:ARG:HH11	1.65	0.62
24:Z:270:VAL:HG23	27:c:281:LYS:HE3	1.82	0.62
26:b:91:ARG:HB3	26:b:91:ARG:NH1	2.15	0.62
30:f:228:LYS:HE3	30:f:233:LEU:HD12	1.82	0.62
30:f:320:ILE:HG23	30:f:324:VAL:HG11	1.81	0.62
30:f:705:ASN:O	30:f:709:THR:HG22	2.00	0.62
32:U:380:THR:HG23	32:U:382:SER:H	1.63	0.62
32:U:713:TYR:O	32:U:716:VAL:HG22	1.99	0.62
32:U:902:PRO:CA	32:U:914:LEU:HD12	2.29	0.62
1:A:230:ALA:HA	1:A:233:THR:HG22	1.80	0.62
2:B:106:PRO:HB3	3:C:121:TYR:CD1	2.35	0.62
2:B:279:PRO:HB3	2:B:324:ASP:OD2	1.99	0.62
4:D:59:GLU:O	4:D:63:ASP:HB2	1.99	0.62
4:D:61:ILE:HD11	32:U:639:LEU:CD1	2.29	0.62
21:W:149:LEU:HB2	21:W:185:PHE:HE2	1.65	0.62
24:Z:223:ASN:O	24:Z:224:HIS:HB2	2.00	0.62
30:f:126:ILE:HD13	30:f:173:LEU:HD22	1.80	0.62
30:f:796:LEU:O	30:f:796:LEU:HD23	2.00	0.62
32:U:148:LYS:O	32:U:151:ILE:HG22	2.00	0.62
32:U:250:PHE:CD2	32:U:911:ILE:HG21	2.35	0.62
32:U:424:ALA:HA	32:U:427:LEU:HD13	1.82	0.62
32:U:892:LEU:HD11	32:U:906:LEU:CD1	2.28	0.62
2:B:159:VAL:C	2:B:160:ILE:HD12	2.24	0.61
2:B:264:PRO:HB3	2:B:311:GLU:CB	2.30	0.61
20:V:296:LYS:NZ	20:V:308:THR:HG21	2.14	0.61
21:W:268:LYS:HE3	21:W:301:LYS:HZ2	1.65	0.61
21:W:316:ARG:NH1	21:W:380:GLN:O	2.33	0.61
21:W:394:SER:HA	21:W:397:VAL:HG12	1.82	0.61
25:a:252:LYS:HA	25:a:255:TRP:CD2	2.35	0.61
28:d:52:ARG:NH2	28:d:89:LEU:HD21	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:98:GLU:OE1	32:U:98:GLU:N	2.33	0.61
32:U:268:LEU:HD23	32:U:325:MET:HB2	1.82	0.61
32:U:510:GLU:HG3	32:U:543:LYS:HG2	1.81	0.61
32:U:546:ARG:HD3	32:U:771:PHE:CG	2.34	0.61
1:A:364:VAL:HG23	1:A:366:ARG:N	2.14	0.61
22:X:202:CYS:O	22:X:204:PRO:HD3	1.99	0.61
26:b:142:ASN:HB3	26:b:172:THR:HA	1.80	0.61
30:f:346:ASP:HB2	30:f:350:LYS:NZ	2.14	0.61
30:f:416:MET:HE1	30:f:447:ALA:CB	2.30	0.61
32:U:186:SER:O	32:U:187:LEU:HD23	1.99	0.61
32:U:445:ALA:O	32:U:449:ILE:HG22	2.00	0.61
32:U:792:ASN:OD1	32:U:795:LEU:N	2.32	0.61
1:A:106:SER:O	1:A:107:GLU:HB2	1.99	0.61
3:C:82:LYS:HB3	3:C:82:LYS:HZ3	1.63	0.61
3:C:194:THR:CG2	3:C:317:PHE:HB3	2.30	0.61
5:E:161:ARG:NH2	21:W:173:THR:O	2.33	0.61
20:V:127:THR:HB	20:V:131:LEU:HD12	1.82	0.61
24:Z:230:LEU:CD2	25:a:349:MET:HE3	2.30	0.61
25:a:8:LEU:HA	25:a:11:SER:OG	2.00	0.61
25:a:112:ILE:HD12	25:a:151:VAL:CG2	2.20	0.61
26:b:48:ASN:HD22	26:b:64:LEU:HG	1.65	0.61
28:d:33:LEU:HD22	28:d:34:ASN:H	1.64	0.61
28:d:203:PRO:C	28:d:206:MET:HE1	2.25	0.61
30:f:141:LYS:NZ	30:f:142:TYR:HB2	2.15	0.61
30:f:177:GLU:CG	30:f:835:GLU:HB2	2.29	0.61
32:U:24:LEU:O	32:U:24:LEU:HD23	1.99	0.61
32:U:177:LEU:HD11	32:U:204:ILE:CD1	2.30	0.61
2:B:53:THR:OG1	2:B:54:PRO:HD3	1.99	0.61
4:D:284:GLU:O	4:D:288:ILE:HG12	2.00	0.61
4:D:374:ASP:HA	4:D:377:SER:HB3	1.81	0.61
5:E:367:PHE:O	5:E:371:VAL:HG23	1.99	0.61
20:V:106:ARG:HE	20:V:106:ARG:H	1.46	0.61
20:V:436:PHE:O	20:V:440:LYS:N	2.26	0.61
20:V:492:LYS:HA	20:V:492:LYS:CE	2.26	0.61
23:Y:224:VAL:CG2	23:Y:260:LEU:HD12	2.29	0.61
25:a:124:ASN:O	25:a:125:ILE:HG23	2.01	0.61
29:e:46:ASP:OD1	29:e:46:ASP:N	2.32	0.61
31:F:332:THR:HG22	31:F:334:ARG:H	1.65	0.61
32:U:350:LEU:HD22	32:U:385:PHE:CZ	2.34	0.61
32:U:892:LEU:HD11	32:U:906:LEU:CG	2.31	0.61
2:B:56:THR:HG23	2:B:58:CYS:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:138:MET:N	3:C:138:MET:HE2	2.16	0.61
4:D:109:SER:C	4:D:110:ASN:HD22	2.08	0.61
5:E:185:ARG:HD3	31:F:320:PHE:HA	1.83	0.61
5:E:270:LEU:HD11	5:E:273:VAL:HG11	1.80	0.61
21:W:142:ARG:O	21:W:142:ARG:HD3	2.00	0.61
21:W:166:LEU:HD13	21:W:166:LEU:O	2.00	0.61
21:W:371:THR:HG22	21:W:372:ARG:CG	2.29	0.61
21:W:435:LEU:HD11	24:Z:237:LEU:HD23	1.82	0.61
22:X:240:ASP:O	22:X:242:ILE:HG23	2.00	0.61
25:a:78:GLU:HA	25:a:81:LEU:HD23	1.83	0.61
28:d:59:ALA:HA	28:d:62:SER:OG	2.01	0.61
30:f:126:ILE:HG23	30:f:127:SER:H	1.65	0.61
15:p:137:VAL:HG11	15:p:145:MET:HB3	1.81	0.61
32:U:108:TYR:HE2	32:U:126:ILE:HG21	1.65	0.61
32:U:375:PHE:HE2	32:U:732:LEU:HD21	1.66	0.61
1:A:190:VAL:HG23	1:A:209:PRO:O	2.00	0.61
3:C:250:GLU:OE1	3:C:295:THR:HB	2.00	0.61
20:V:288:TYR:HD1	20:V:289:LEU:HD23	1.66	0.61
23:Y:179:ARG:HD3	23:Y:210:SER:OG	1.99	0.61
24:Z:247:LYS:HB3	24:Z:247:LYS:HZ1	1.66	0.61
26:b:41:THR:HG22	26:b:42:ARG:H	1.63	0.61
30:f:266:LEU:HD23	30:f:266:LEU:H	1.66	0.61
30:f:462:ALA:O	30:f:466:LEU:HB2	2.01	0.61
15:p:202:ARG:NH2	15:p:204:ASP:OD2	2.33	0.61
32:U:353:LEU:HD11	32:U:373:ASN:HB2	1.81	0.61
32:U:576:PRO:CB	32:U:611:ASN:HD22	2.10	0.61
32:U:892:LEU:HD11	32:U:906:LEU:HG	1.81	0.61
2:B:176:VAL:HG23	2:B:247:PHE:HB3	1.82	0.61
3:C:48:GLN:O	3:C:51:GLU:HG3	1.99	0.61
5:E:380:LEU:HD11	31:F:351:LYS:CE	2.24	0.61
20:V:480:ILE:CD1	24:Z:261:TYR:HA	2.24	0.61
21:W:133:GLU:O	21:W:136:ILE:HD13	2.00	0.61
21:W:145:LEU:HD23	21:W:177:MET:HE3	1.83	0.61
23:Y:101:ARG:HH21	23:Y:140:ILE:HD11	1.66	0.61
32:U:188:MET:HE2	32:U:188:MET:CA	2.27	0.61
32:U:250:PHE:HD2	32:U:911:ILE:HG21	1.65	0.61
32:U:485:ALA:O	32:U:488:THR:HG23	1.99	0.61
32:U:904:LYS:HE3	32:U:908:ILE:CD1	2.30	0.61
5:E:86:GLN:H	5:E:86:GLN:CD	2.08	0.61
25:a:226:ARG:NH2	25:a:233:LEU:HB3	2.16	0.61
26:b:63:THR:O	26:b:65:THR:HG22	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:200:PHE:HB2	28:d:203:PRO:HG3	1.83	0.61
30:f:655:LEU:HA	30:f:659:LEU:CD1	2.31	0.61
32:U:188:MET:HA	32:U:188:MET:CE	2.26	0.61
32:U:465:LEU:HD11	32:U:477:GLY:CA	2.29	0.61
1:A:387:SER:O	1:A:391:GLU:HB2	2.01	0.61
10:K:20:ARG:CZ	31:F:435:LEU:HA	2.31	0.61
12:M:53:VAL:O	12:M:53:VAL:HG23	1.99	0.61
20:V:306:ARG:HD2	20:V:336:GLU:OE2	2.01	0.61
21:W:247:TYR:O	21:W:250:ILE:HG12	2.01	0.61
23:Y:379:ARG:HG2	23:Y:379:ARG:HH11	1.66	0.61
24:Z:42:SER:HA	24:Z:90:ARG:NH1	2.13	0.61
25:a:202:LEU:HG	25:a:261:LEU:HD13	1.83	0.61
28:d:36:LEU:HD23	28:d:38:THR:H	1.65	0.61
28:d:235:THR:C	28:d:238:PRO:HD2	2.26	0.61
12:m:108:LEU:HD11	12:m:137:LEU:HB3	1.83	0.61
32:U:214:ILE:HG13	32:U:215:ASN:N	2.15	0.61
32:U:218:GLN:NE2	32:U:752:THR:HB	2.15	0.61
32:U:654:MET:HE1	32:U:686:GLY:HA2	1.81	0.61
1:A:156:LYS:HA	1:A:156:LYS:HE3	1.81	0.61
1:A:254:ALA:HB1	1:A:301:GLU:HG3	1.83	0.61
2:B:378:VAL:HG23	2:B:416:ASN:OD1	2.00	0.61
5:E:197:LYS:HG2	31:F:320:PHE:CE2	2.36	0.61
20:V:466:ILE:HD11	20:V:471:GLU:CG	2.30	0.61
21:W:307:LYS:O	21:W:313:GLU:HG3	2.00	0.61
22:X:140:THR:OG1	22:X:142:ARG:HD3	2.00	0.61
23:Y:275:LEU:HA	23:Y:278:VAL:CG1	2.31	0.61
26:b:132:LYS:HE2	26:b:133:LYS:HZ1	1.65	0.61
26:b:135:LYS:HD2	26:b:135:LYS:N	2.16	0.61
27:c:232:GLN:OE1	27:c:232:GLN:O	2.19	0.61
2:B:260:LEU:HD21	2:B:299:SER:HB2	1.83	0.60
20:V:212:TYR:HA	20:V:253:LEU:CD1	2.29	0.60
21:W:183:VAL:HA	21:W:186:ILE:CG2	2.31	0.60
21:W:307:LYS:CD	21:W:315:MET:HE2	2.31	0.60
21:W:413:ILE:O	21:W:413:ILE:HG13	2.00	0.60
21:W:448:LYS:HD2	24:Z:154:THR:HG21	1.82	0.60
25:a:280:MET:O	25:a:284:ARG:HG2	2.00	0.60
28:d:5:LEU:HD11	28:d:6:LYS:NZ	2.14	0.60
30:f:301:HIS:CE1	30:f:318:THR:HG21	2.35	0.60
30:f:545:LYS:NZ	30:f:547:GLU:OE1	2.32	0.60
14:o:46:GLY:HA3	14:o:53:THR:HG21	1.82	0.60
31:F:250:LYS:O	31:F:250:LYS:HG2	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:235:LYS:HA	32:U:235:LYS:HE2	1.82	0.60
32:U:346:ASN:OD1	32:U:348:THR:HG23	2.01	0.60
32:U:803:LYS:HD2	32:U:875:PHE:CB	2.31	0.60
1:A:251:GLY:O	1:A:253:GLY:N	2.29	0.60
1:A:423:PHE:HE1	2:B:334:ILE:HG21	1.66	0.60
2:B:71:TYR:CE1	2:B:75:GLU:HG3	2.36	0.60
4:D:89:ILE:HD12	5:E:70:ILE:HG23	1.81	0.60
21:W:244:CYS:HG	21:W:273:TYR:HD1	1.49	0.60
21:W:312:MET:HE2	21:W:312:MET:CA	2.31	0.60
23:Y:50:MET:HE1	23:Y:51:ALA:HB2	1.82	0.60
24:Z:81:MET:HE3	27:c:94:LYS:HB3	1.83	0.60
24:Z:270:VAL:CG2	27:c:281:LYS:HE3	2.31	0.60
25:a:120:ALA:HA	25:a:123:LEU:HG	1.82	0.60
25:a:184:ASP:O	25:a:185:ILE:HG13	2.01	0.60
26:b:40:LYS:O	26:b:40:LYS:HD3	2.00	0.60
26:b:128:ALA:HB2	26:b:156:PHE:CE1	2.36	0.60
27:c:27:THR:HG21	27:c:177:THR:CA	2.16	0.60
28:d:117:THR:HA	28:d:120:GLU:OE2	2.01	0.60
30:f:99:LEU:HD12	30:f:100:ARG:H	1.65	0.60
30:f:124:ASP:OD1	30:f:125:ILE:N	2.34	0.60
30:f:198:HIS:HA	30:f:201:GLU:CD	2.26	0.60
30:f:260:SER:O	30:f:270:LEU:HD13	2.01	0.60
30:f:766:GLN:HE21	30:f:769:THR:HB	1.65	0.60
31:F:122:ALA:HB2	31:F:137:ILE:CD1	2.30	0.60
32:U:325:MET:O	32:U:328:ILE:HG12	2.00	0.60
32:U:811:PHE:HZ	32:U:884:VAL:HA	1.66	0.60
1:A:273:PHE:CD1	1:A:318:LEU:HD22	2.36	0.60
2:B:166:ASP:OD1	3:C:78:ARG:NH1	2.32	0.60
3:C:189:TYR:CE2	3:C:316:GLU:HG2	2.37	0.60
4:D:107:THR:HG22	5:E:77:PRO:CG	2.31	0.60
4:D:389:GLU:HB2	4:D:391:ARG:HD3	1.83	0.60
21:W:220:GLU:HG3	21:W:221:LYS:CE	2.31	0.60
23:Y:20:ALA:HB2	23:Y:150:PHE:CE1	2.36	0.60
23:Y:39:ASP:OD1	23:Y:39:ASP:N	2.34	0.60
24:Z:36:VAL:HG22	24:Z:96:HIS:HB3	1.82	0.60
24:Z:122:VAL:HG12	24:Z:137:ALA:HB2	1.84	0.60
25:a:59:LEU:HD23	25:a:60:TYR:N	2.16	0.60
25:a:361:LYS:HD2	25:a:365:MET:HE1	1.82	0.60
26:b:83:LYS:CD	26:b:84:ILE:H	2.14	0.60
28:d:18:LYS:O	28:d:21:GLU:HG2	2.01	0.60
30:f:75:LEU:HD12	30:f:77:GLU:H	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:257:ARG:HB2	30:f:289:VAL:HG11	1.83	0.60
30:f:687:ARG:O	30:f:691:PRO:HG2	2.00	0.60
31:F:362:ARG:NE	31:F:388:THR:O	2.35	0.60
32:U:82:LEU:HB3	32:U:129:ARG:CD	2.30	0.60
32:U:443:LEU:HD22	32:U:443:LEU:H	1.66	0.60
32:U:573:ASP:OD1	32:U:578:LEU:HB2	2.01	0.60
1:A:254:ALA:O	1:A:257:VAL:HG12	2.01	0.60
1:A:394:MET:HE1	2:B:211:TYR:CE1	2.36	0.60
3:C:137:LEU:C	3:C:138:MET:HE2	2.26	0.60
3:C:329:LEU:HD22	3:C:344:LEU:HD22	1.83	0.60
4:D:122:GLU:OE2	27:c:278:GLN:HA	2.01	0.60
21:W:157:GLY:HA2	21:W:161:GLU:HG3	1.83	0.60
21:W:293:ASP:OD2	21:W:296:LEU:N	2.33	0.60
22:X:277:LEU:HD12	22:X:278:ARG:N	2.17	0.60
23:Y:192:ARG:HB2	23:Y:291:HIS:HD2	1.66	0.60
23:Y:215:ASP:O	23:Y:218:THR:HG22	2.01	0.60
23:Y:301:ILE:HD12	23:Y:342:ARG:NH2	2.09	0.60
24:Z:126:VAL:O	27:c:212:LEU:HD11	2.01	0.60
25:a:186:LYS:O	25:a:188:LEU:HD22	2.02	0.60
1:A:153:LEU:HD22	1:A:154:PRO:HD2	1.82	0.60
1:A:284:ARG:HG3	1:A:296:GLN:HE21	1.66	0.60
3:C:154:LEU:HD22	3:C:157:GLN:OE1	2.02	0.60
3:C:351:MET:HB3	3:C:391:MET:HE3	1.84	0.60
5:E:173:TYR:HB2	5:E:282:PRO:HG3	1.83	0.60
20:V:65:ARG:HA	20:V:68:ASP:OD1	2.01	0.60
20:V:309:MET:CE	20:V:331:LEU:HB3	2.32	0.60
20:V:497:PRO:CG	20:V:498:PRO:HD3	2.30	0.60
21:W:79:GLU:CD	21:W:82:LEU:HD12	2.27	0.60
22:X:388:PHE:CD2	23:Y:358:ARG:HD2	2.37	0.60
23:Y:113:ARG:O	23:Y:113:ARG:HD3	2.02	0.60
23:Y:154:ASN:O	23:Y:158:THR:OG1	2.17	0.60
25:a:370:GLN:HE22	28:d:244:LYS:HB3	1.66	0.60
30:f:637:LYS:HG2	30:f:677:HIS:HD2	1.66	0.60
30:f:744:MET:C	30:f:744:MET:HE2	2.26	0.60
7:h:35:VAL:HG11	7:h:193:THR:HG21	1.84	0.60
14:o:36:HIS:HB2	14:o:57:THR:HG21	1.84	0.60
31:F:188:ILE:HG12	31:F:235:LEU:CD2	2.26	0.60
32:U:357:LYS:HA	32:U:357:LYS:CE	2.25	0.60
1:A:219:GLY:O	1:A:381:THR:HB	2.02	0.60
2:B:235:LEU:HD13	2:B:235:LEU:O	2.01	0.60
4:D:173:GLN:NE2	4:D:334:PRO:HD2	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:254:ALA:CB	4:D:262:ILE:HD11	2.32	0.60
11:L:84:LEU:HD23	11:L:132:LEU:HD11	1.83	0.60
20:V:417:ILE:HD11	20:V:421:ASP:HB3	1.84	0.60
26:b:126:LYS:HA	26:b:129:LYS:HE3	1.82	0.60
26:b:132:LYS:HE2	26:b:133:LYS:NZ	2.15	0.60
30:f:106:LEU:HG	30:f:109:ILE:HG21	1.83	0.60
30:f:445:LEU:HD22	30:f:480:GLY:C	2.27	0.60
30:f:673:ARG:HH22	30:f:785:ARG:N	1.99	0.60
31:F:95:GLU:HG3	31:F:97:LEU:HD13	1.84	0.60
31:F:373:MET:CE	31:F:415:LEU:HD11	2.21	0.60
32:U:554:LEU:HD12	32:U:588:MET:CE	2.32	0.60
1:A:284:ARG:NH1	31:F:289:ASP:OD2	2.34	0.60
3:C:334:ARG:HG2	23:Y:175:ASP:HB3	1.84	0.60
4:D:43:ARG:NH1	4:D:43:ARG:HB2	2.15	0.60
12:M:161:TRP:CG	12:M:182:LYS:HZ1	2.19	0.60
21:W:148:THR:O	21:W:152:ILE:HG12	2.02	0.60
21:W:308:LEU:CD2	21:W:315:MET:HE1	2.30	0.60
23:Y:47:ASP:CG	23:Y:113:ARG:HE	2.09	0.60
23:Y:53:TYR:CE2	23:Y:70:LEU:HD13	2.36	0.60
23:Y:241:ILE:HG23	23:Y:261:PHE:HE1	1.67	0.60
24:Z:38:VAL:HG22	24:Z:112:MET:SD	2.42	0.60
24:Z:88:ARG:O	24:Z:88:ARG:HD2	2.01	0.60
25:a:273:GLN:NE2	25:a:302:ILE:HD11	2.17	0.60
30:f:62:ARG:O	30:f:65:GLU:HG2	2.02	0.60
30:f:126:ILE:HD11	30:f:178:LYS:CD	2.31	0.60
32:U:611:ASN:OD1	32:U:612:ASP:N	2.34	0.60
1:A:223:THR:HG23	2:B:319:PHE:HB3	1.82	0.60
3:C:250:GLU:C	3:C:251:ILE:HG13	2.27	0.60
15:P:13:MET:HB3	15:P:162:LEU:HD11	1.82	0.60
15:P:64:GLN:OE1	16:Q:86:ARG:NH2	2.35	0.60
16:Q:137:PHE:HB3	17:r:134:VAL:HG21	1.84	0.60
20:V:437:ILE:HG22	28:d:146:GLY:N	2.17	0.60
21:W:219:THR:CG2	21:W:223:LYS:H	2.14	0.60
22:X:377:ILE:HG23	23:Y:358:ARG:HH12	1.66	0.60
24:Z:11:VAL:HG12	24:Z:15:VAL:CG1	2.32	0.60
25:a:39:LEU:HD23	25:a:40:GLN:OE1	2.00	0.60
25:a:363:MET:HE2	25:a:363:MET:CA	2.29	0.60
27:c:63:ASP:OD1	32:U:506:ALA:HB2	2.02	0.60
27:c:167:MET:HG3	27:c:172:HIS:O	2.01	0.60
30:f:65:GLU:CD	30:f:97:LYS:HE2	2.26	0.60
32:U:803:LYS:HG2	32:U:893:THR:HB	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:323:ARG:HH12	1:A:433:ASN:CA	2.15	0.60
2:B:102:LEU:O	2:B:102:LEU:HD13	2.02	0.60
21:W:124:LEU:O	21:W:127:THR:HG22	2.02	0.60
21:W:228:ASN:O	21:W:231:ILE:HG22	2.02	0.60
21:W:330:LYS:HG2	21:W:331:GLY:N	2.16	0.60
24:Z:15:VAL:HG23	24:Z:53:SER:OG	2.02	0.60
28:d:148:TYR:CD1	28:d:178:ILE:HD11	2.36	0.60
30:f:63:LEU:O	30:f:67:ASP:HB2	2.01	0.60
7:h:188:HIS:O	7:h:192:LEU:HD12	2.02	0.60
14:o:64:LEU:HD22	14:o:75:PRO:HB3	1.84	0.60
31:F:410:ARG:O	31:F:410:ARG:HG3	2.00	0.60
32:U:803:LYS:HD2	32:U:875:PHE:HA	1.84	0.60
1:A:262:GLU:HA	1:A:265:ARG:CD	2.32	0.60
4:D:115:ILE:HD12	4:D:121:ARG:CZ	2.32	0.60
22:X:332:GLU:OE2	22:X:364:LYS:HE3	2.02	0.60
23:Y:117:LYS:HE2	23:Y:151:TYR:CD1	2.36	0.60
30:f:157:GLU:O	30:f:160:ARG:HG2	2.01	0.60
30:f:833:PHE:HA	30:f:836:GLU:OE2	2.01	0.60
32:U:552:ILE:HD13	32:U:570:LEU:HD11	1.82	0.60
32:U:602:LEU:HD23	32:U:622:LEU:HG	1.84	0.60
1:A:171:ASP:OD1	1:A:171:ASP:N	2.34	0.59
1:A:204:LEU:HB3	1:A:206:ILE:HD13	1.82	0.59
2:B:363:ARG:O	2:B:367:ILE:HG22	2.02	0.59
5:E:84:ARG:HD2	27:c:50:PRO:CG	2.31	0.59
21:W:105:VAL:CG2	21:W:140:ILE:HD13	2.27	0.59
21:W:254:PRO:N	21:W:262:LYS:HZ3	2.00	0.59
21:W:265:GLN:HG2	21:W:336:PRO:HD3	1.83	0.59
23:Y:48:ASN:HD22	23:Y:73:MET:HE2	1.67	0.59
24:Z:19:VAL:HG22	24:Z:95:TYR:CE2	2.36	0.59
26:b:6:THR:HA	26:b:108:ARG:O	2.02	0.59
27:c:139:ARG:HG3	27:c:139:ARG:HH11	1.67	0.59
27:c:180:ASN:ND2	32:U:725:MET:HG3	2.16	0.59
28:d:71:PHE:CE2	28:d:75:MET:HE2	2.30	0.59
30:f:3:GLU:HG2	30:f:7:ASP:CG	2.27	0.59
30:f:4:GLY:O	30:f:6:ARG:NE	2.35	0.59
31:F:296:PHE:CE1	31:F:298:SER:HB3	2.37	0.59
1:A:77:LEU:HD12	30:f:694:LEU:HD12	1.83	0.59
2:B:79:ILE:HA	2:B:82:GLN:HE21	1.67	0.59
20:V:323:GLY:CA	29:e:24:ALA:HA	2.31	0.59
23:Y:229:ILE:HD11	23:Y:298:GLU:HG2	1.84	0.59
27:c:303:MET:SD	27:c:303:MET:N	2.75	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:182:GLU:HG3	30:f:183:PRO:CD	2.33	0.59
30:f:445:LEU:HD22	30:f:481:SER:HA	1.83	0.59
30:f:821:LEU:HD21	30:f:882:LEU:HD22	1.83	0.59
31:F:224:LEU:HD12	31:F:330:ALA:HB3	1.83	0.59
1:A:181:LYS:HD3	1:A:181:LYS:C	2.27	0.59
21:W:312:MET:CG	21:W:365:ILE:HD11	2.32	0.59
25:a:174:LYS:HG3	25:a:178:ARG:NH2	2.17	0.59
30:f:275:MET:N	30:f:275:MET:HE3	2.16	0.59
30:f:690:VAL:HB	30:f:691:PRO:HD3	1.84	0.59
32:U:22:PHE:C	32:U:26:LYS:HZ2	2.10	0.59
32:U:268:LEU:HD23	32:U:325:MET:CB	2.32	0.59
32:U:626:LEU:HD13	32:U:632:GLN:NE2	2.16	0.59
2:B:54:PRO:HA	30:f:834:ASP:OD2	2.03	0.59
2:B:333:ARG:HB2	2:B:336:THR:HG22	1.84	0.59
3:C:76:VAL:O	3:C:76:VAL:HG13	2.02	0.59
4:D:200:ARG:HG2	4:D:200:ARG:NH1	2.15	0.59
20:V:192:MET:HE3	20:V:230:PHE:CE2	2.37	0.59
24:Z:251:LEU:O	24:Z:251:LEU:HD23	2.02	0.59
25:a:179:PHE:HE1	25:a:196:ARG:NE	1.99	0.59
28:d:25:ARG:HE	28:d:54:ILE:HD11	1.68	0.59
28:d:120:GLU:OE1	28:d:120:GLU:N	2.32	0.59
30:f:125:ILE:HD11	30:f:128:VAL:CG2	2.33	0.59
30:f:465:LEU:O	30:f:466:LEU:HD22	2.02	0.59
32:U:11:LEU:O	32:U:12:LEU:HD12	2.02	0.59
32:U:509:GLY:HA3	32:U:544:ILE:CG1	2.26	0.59
32:U:623:GLY:HA3	32:U:658:ILE:HD11	1.84	0.59
2:B:223:ILE:CB	2:B:347:ILE:HD12	2.31	0.59
2:B:251:VAL:HB	2:B:254:GLU:OE2	2.03	0.59
3:C:271:ARG:O	3:C:275:GLU:HG2	2.02	0.59
3:C:374:ARG:NE	3:C:374:ARG:HA	2.17	0.59
20:V:201:ARG:NE	20:V:201:ARG:HA	2.18	0.59
20:V:344:ASP:OD1	20:V:345:ARG:N	2.36	0.59
21:W:202:THR:CG2	21:W:233:LEU:HD22	2.28	0.59
23:Y:186:LEU:HD22	23:Y:287:LEU:CD1	2.32	0.59
23:Y:229:ILE:HB	23:Y:299:MET:CE	2.32	0.59
27:c:163:ILE:HG23	27:c:201:TYR:HD1	1.66	0.59
27:c:181:LEU:O	27:c:181:LEU:HD23	2.02	0.59
28:d:89:LEU:HD12	28:d:89:LEU:O	2.03	0.59
30:f:833:PHE:CE1	30:f:842:VAL:HG23	2.34	0.59
16:q:184:ASP:N	16:q:184:ASP:OD1	2.34	0.59
31:F:167:GLU:OE1	31:F:167:GLU:N	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:ARG:HB3	1:A:97:ARG:CZ	2.32	0.59
1:A:345:LEU:HD11	1:A:426:THR:CG2	2.32	0.59
1:A:361:SER:HB3	30:f:849:ALA:HB3	1.84	0.59
3:C:168:PRO:HG3	3:C:175:PHE:CE2	2.37	0.59
3:C:280:LEU:HD23	3:C:284:GLU:HG2	1.83	0.59
12:M:39:ILE:HG21	12:M:189:ILE:HD12	1.85	0.59
22:X:239:TYR:HD1	22:X:247:ALA:HA	1.68	0.59
23:Y:50:MET:CE	23:Y:51:ALA:HB2	2.32	0.59
28:d:22:GLU:O	28:d:26:LEU:HD23	2.03	0.59
28:d:71:PHE:HE1	28:d:166:PHE:CZ	2.20	0.59
28:d:120:GLU:H	28:d:120:GLU:CD	2.11	0.59
30:f:216:MET:HA	30:f:219:LYS:NZ	2.17	0.59
30:f:278:VAL:HG11	30:f:281:ILE:HG23	1.85	0.59
30:f:800:LEU:HA	30:f:803:PHE:CE2	2.36	0.59
32:U:885:MET:SD	32:U:888:GLN:HB2	2.43	0.59
1:A:227:ARG:HB2	2:B:319:PHE:HB2	1.83	0.59
3:C:258:ARG:NH1	3:C:260:GLU:O	2.36	0.59
4:D:109:SER:HB2	4:D:111:TYR:HE1	1.68	0.59
5:E:248:SER:HA	5:E:251:ARG:NH2	2.18	0.59
14:O:64:LEU:HD22	14:O:75:PRO:HB3	1.85	0.59
20:V:230:PHE:O	20:V:234:ARG:HG2	2.03	0.59
22:X:294:SER:HA	22:X:330:LEU:HD11	1.85	0.59
23:Y:314:LEU:HD23	23:Y:354:VAL:HG13	1.84	0.59
24:Z:188:SER:O	24:Z:192:THR:N	2.31	0.59
25:a:48:PRO:HB2	25:a:51:ALA:H	1.65	0.59
25:a:366:LEU:C	25:a:366:LEU:HD13	2.28	0.59
28:d:46:GLN:O	28:d:49:ILE:HG22	2.03	0.59
28:d:235:THR:HA	28:d:238:PRO:CG	2.32	0.59
30:f:125:ILE:HD11	30:f:128:VAL:HG22	1.85	0.59
30:f:266:LEU:CD2	30:f:270:LEU:HD21	2.33	0.59
30:f:686:LEU:HD12	30:f:687:ARG:HE	1.66	0.59
32:U:97:VAL:O	32:U:101:ILE:HG22	2.03	0.59
4:D:194:ILE:HG22	4:D:196:ILE:HG23	1.84	0.59
4:D:234:GLU:HA	5:E:216:ARG:HH12	1.68	0.59
5:E:117:PRO:HG3	31:F:94:ILE:HD13	1.85	0.59
5:E:125:GLU:O	5:E:127:PRO:HD3	2.03	0.59
20:V:431:PRO:HD2	20:V:432:GLU:OE2	2.03	0.59
23:Y:275:LEU:HD11	23:Y:299:MET:HB3	1.85	0.59
26:b:125:VAL:O	26:b:129:LYS:HB2	2.03	0.59
28:d:148:TYR:O	28:d:151:VAL:HG12	2.03	0.59
28:d:255:MET:C	28:d:255:MET:HE2	2.28	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:418:LEU:HB3	30:f:421:ASP:OD2	2.01	0.59
30:f:829:MET:H	30:f:829:MET:CE	2.04	0.59
7:h:110:VAL:HG22	7:h:135:ILE:HD13	1.85	0.59
32:U:138:PHE:CE2	32:U:162:VAL:HG21	2.38	0.59
4:D:96:VAL:HG13	4:D:97:ASP:OD1	2.03	0.59
10:K:233:GLU:O	10:K:237:VAL:HG23	2.03	0.59
23:Y:79:ASP:O	23:Y:82:LYS:HG2	2.03	0.59
25:a:205:LEU:HD12	25:a:268:LEU:HD11	1.85	0.59
27:c:154:LYS:HE2	27:c:154:LYS:HA	1.85	0.59
30:f:266:LEU:CD2	30:f:270:LEU:HD11	2.32	0.59
30:f:524:MET:HE2	30:f:524:MET:O	2.02	0.59
14:o:2:THR:N	14:o:170:SER:OG	2.30	0.59
32:U:229:VAL:HG21	32:U:252:LEU:CD2	2.33	0.59
32:U:458:ILE:O	32:U:462:LEU:HG	2.03	0.59
32:U:580:ARG:HH22	32:U:771:PHE:HE2	1.49	0.59
2:B:136:LEU:O	2:B:139:VAL:HG22	2.02	0.59
2:B:222:VAL:HG22	2:B:328:ILE:HG12	1.85	0.59
4:D:168:GLY:CA	33:D:501:ATP:HN62	2.16	0.59
4:D:256:GLU:OE1	4:D:256:GLU:HA	2.03	0.59
4:D:392:TYR:CE1	21:W:136:ILE:HD12	2.38	0.59
17:R:46:MET:CE	36:R:301:LDZ:H17	2.32	0.59
20:V:256:ARG:O	20:V:256:ARG:HD2	2.03	0.59
21:W:55:ARG:HD3	21:W:96:GLN:OE1	2.03	0.59
23:Y:232:GLU:CG	23:Y:234:PRO:HD2	2.26	0.59
26:b:138:VAL:HG22	26:b:140:ILE:HD12	1.84	0.59
28:d:2:TYR:HB2	28:d:32:GLU:OE2	2.02	0.59
30:f:177:GLU:HG2	30:f:835:GLU:CA	2.32	0.59
30:f:285:CYS:O	30:f:288:VAL:HG12	2.02	0.59
15:p:58:ASP:OD1	16:q:93:ARG:NH2	2.35	0.59
32:U:142:LEU:HD13	32:U:147:TYR:HE1	1.68	0.59
20:V:486:ILE:HD11	24:Z:268:SER:CB	2.33	0.58
22:X:153:LEU:HG	22:X:157:LEU:HD23	1.85	0.58
22:X:286:ALA:HA	22:X:309:TYR:CD2	2.25	0.58
23:Y:231:LEU:CD1	23:Y:236:LEU:HG	2.33	0.58
23:Y:371:LYS:HZ3	23:Y:372:LYS:HE2	1.65	0.58
28:d:170:LEU:O	28:d:173:THR:HG22	2.03	0.58
13:n:5:MET:HE1	13:n:160:ALA:HB3	1.85	0.58
31:F:366:MET:HE2	31:F:399:VAL:HG11	1.85	0.58
32:U:807:LYS:H	32:U:807:LYS:HD2	1.67	0.58
2:B:155:LYS:HZ3	2:B:155:LYS:HB2	1.66	0.58
4:D:164:TYR:H	4:D:222:HIS:CE1	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:143:ARG:HH11	5:E:143:ARG:HG3	1.68	0.58
5:E:198:VAL:HG11	5:E:232:MET:HG2	1.85	0.58
20:V:387:GLN:OE1	20:V:387:GLN:HA	2.02	0.58
22:X:293:ALA:HA	22:X:301:ASP:OD1	2.03	0.58
22:X:299:LEU:O	22:X:299:LEU:HD13	2.03	0.58
22:X:325:LYS:HE2	22:X:325:LYS:CA	2.31	0.58
24:Z:190:ARG:CZ	27:c:300:LEU:HD22	2.32	0.58
25:a:230:ARG:HG2	25:a:230:ARG:O	2.02	0.58
26:b:71:ILE:H	26:b:71:ILE:HD12	1.68	0.58
26:b:142:ASN:N	26:b:171:VAL:O	2.37	0.58
27:c:160:PHE:CE1	27:c:202:SER:HB2	2.38	0.58
27:c:292:MET:CE	28:d:253:LEU:HD22	2.32	0.58
30:f:198:HIS:HA	30:f:201:GLU:OE2	2.02	0.58
30:f:372:LEU:HD13	30:f:410:ALA:HB2	1.84	0.58
30:f:719:PRO:HG2	30:f:721:VAL:HG12	1.85	0.58
30:f:784:ASP:HA	30:f:787:LEU:CD2	2.33	0.58
3:C:31:LEU:HA	3:C:34:ILE:HG22	1.83	0.58
5:E:59:GLU:OE2	5:E:72:LYS:HD3	2.03	0.58
9:J:65:LEU:HD11	9:J:71:MET:HE3	1.84	0.58
14:O:101:LEU:HD23	14:O:102:GLY:N	2.18	0.58
19:T:108:ASN:HB3	19:T:110:MET:HE2	1.86	0.58
20:V:175:MET:CE	20:V:183:GLU:HB2	2.32	0.58
20:V:419:LEU:HD13	20:V:458:VAL:HG23	1.86	0.58
21:W:147:LYS:HB2	21:W:147:LYS:NZ	2.18	0.58
21:W:215:GLN:HG2	21:W:223:LYS:CE	2.33	0.58
22:X:205:LYS:NZ	22:X:206:LEU:HD23	2.18	0.58
22:X:362:GLU:OE2	22:X:380:GLN:NE2	2.29	0.58
23:Y:117:LYS:O	23:Y:120:ALA:N	2.35	0.58
23:Y:300:ARG:HH11	23:Y:300:ARG:HG3	1.67	0.58
24:Z:205:LEU:HD12	25:a:353:LEU:HD22	1.84	0.58
24:Z:240:VAL:HG23	24:Z:243:GLN:HE22	1.69	0.58
25:a:186:LYS:CD	25:a:221:VAL:HG22	2.34	0.58
28:d:99:LEU:CD2	28:d:122:LEU:HD11	2.33	0.58
30:f:268:LEU:HA	30:f:272:LEU:HD12	1.84	0.58
13:n:161:LEU:O	13:n:165:MET:HG3	2.03	0.58
31:F:146:LYS:N	31:F:149:ASP:OD2	2.36	0.58
32:U:210:LYS:H	32:U:210:LYS:HE2	1.69	0.58
1:A:115:VAL:HG22	1:A:119:ALA:O	2.02	0.58
3:C:351:MET:HE2	3:C:391:MET:HE3	1.85	0.58
4:D:384:MET:O	4:D:387:VAL:HG12	2.04	0.58
14:O:98:ALA:HB1	14:O:128:MET:HE1	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:S:68:ILE:HD11	18:S:92:LEU:HD13	1.85	0.58
21:W:138:VAL:HG12	21:W:176:SER:OG	2.04	0.58
21:W:142:ARG:NH1	21:W:146:THR:HB	2.18	0.58
21:W:150:ALA:HA	21:W:153:LYS:NZ	2.18	0.58
21:W:251:TYR:CZ	21:W:267:LEU:HD21	2.38	0.58
21:W:307:LYS:CG	21:W:315:MET:HE2	2.33	0.58
22:X:385:LEU:HG	22:X:387:ILE:CD1	2.33	0.58
23:Y:176:ARG:HH11	23:Y:179:ARG:HH22	1.52	0.58
23:Y:276:ALA:O	23:Y:279:GLU:HB3	2.02	0.58
24:Z:94:TRP:O	24:Z:121:LEU:HA	2.02	0.58
26:b:111:ALA:N	26:b:139:ASP:O	2.25	0.58
27:c:33:ILE:HG22	27:c:34:SER:N	2.18	0.58
27:c:120:CYS:SG	27:c:156:VAL:HG12	2.42	0.58
30:f:228:LYS:H	30:f:228:LYS:HE2	1.67	0.58
31:F:357:PRO:HB3	31:F:361:ALA:CB	2.33	0.58
32:U:449:ILE:HG12	32:U:450:HIS:HD2	1.68	0.58
32:U:498:LYS:HD3	32:U:531:ASP:OD2	2.04	0.58
32:U:634:PRO:HG2	32:U:667:GLU:OE2	2.03	0.58
1:A:230:ALA:HA	1:A:233:THR:CG2	2.32	0.58
1:A:365:GLU:O	1:A:367:ASP:N	2.35	0.58
2:B:64:LYS:O	30:f:646:MET:HE1	2.04	0.58
3:C:287:LYS:H	3:C:287:LYS:CD	2.16	0.58
20:V:218:TYR:HA	20:V:221:LEU:HB2	1.85	0.58
21:W:267:LEU:HD12	21:W:296:LEU:CD2	2.34	0.58
21:W:373:ILE:HA	25:a:326:GLU:CG	2.32	0.58
23:Y:53:TYR:OH	23:Y:66:ASP:HB2	2.04	0.58
24:Z:23:PHE:HD2	24:Z:126:VAL:CG1	2.16	0.58
30:f:778:LEU:HD23	30:f:778:LEU:H	1.68	0.58
31:F:279:ALA:HB1	31:F:280:PRO:CD	2.32	0.58
32:U:138:PHE:CE2	32:U:162:VAL:HG11	2.39	0.58
32:U:449:ILE:HG23	32:U:450:HIS:CD2	2.39	0.58
1:A:177:VAL:HG12	1:A:224:LEU:CD2	2.34	0.58
2:B:361:LYS:C	2:B:384:ILE:HD11	2.28	0.58
3:C:71:SER:HB2	4:D:112:TYR:HB3	1.84	0.58
3:C:161:ILE:CG1	3:C:203:VAL:HG21	2.33	0.58
3:C:374:ARG:HD3	4:D:190:LEU:CD1	2.32	0.58
4:D:52:GLU:HA	4:D:52:GLU:OE1	2.03	0.58
20:V:223:LYS:O	20:V:225:ASP:N	2.35	0.58
21:W:120:ILE:O	21:W:124:LEU:HB2	2.03	0.58
22:X:398:GLU:OE1	23:Y:365:GLN:NE2	2.36	0.58
23:Y:221:THR:HA	23:Y:224:VAL:HG12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:180:GLN:CG	30:f:219:LYS:HD3	2.34	0.58
30:f:545:LYS:CE	30:f:547:GLU:HB3	2.25	0.58
30:f:557:TRP:HA	30:f:560:LEU:CG	2.34	0.58
6:g:112:ASP:OD2	6:g:113:MET:HE3	2.02	0.58
14:o:36:HIS:CB	14:o:57:THR:HG21	2.34	0.58
31:F:343:LEU:HD23	31:F:348:LEU:HD11	1.86	0.58
32:U:597:LYS:HE2	32:U:597:LYS:HA	1.85	0.58
2:B:152:LEU:HA	2:B:158:ALA:O	2.03	0.58
2:B:378:VAL:HG21	2:B:419:PHE:CD2	2.39	0.58
3:C:132:ASP:HB3	3:C:135:VAL:CG2	2.31	0.58
21:W:328:LEU:CD2	21:W:341:PHE:HB3	2.34	0.58
22:X:336:ILE:HG12	22:X:374:PHE:HE1	1.68	0.58
23:Y:278:VAL:HA	23:Y:281:GLU:CG	2.32	0.58
25:a:61:GLU:O	25:a:65:SER:N	2.21	0.58
25:a:141:MET:HE2	25:a:152:HIS:NE2	2.18	0.58
25:a:321:LYS:HG3	25:a:335:TRP:CE3	2.39	0.58
26:b:30:GLN:O	26:b:33:VAL:HG22	2.04	0.58
28:d:30:LEU:CD1	28:d:31:LEU:HD13	2.34	0.58
28:d:155:LYS:CE	28:d:167:ILE:HG23	2.32	0.58
30:f:440:ILE:HG13	30:f:441:LYS:HD2	1.85	0.58
31:F:79:LYS:HE3	31:F:79:LYS:CA	2.31	0.58
32:U:471:ASP:OD2	32:U:508:THR:HB	2.04	0.58
32:U:646:PRO:HB3	32:U:680:VAL:HG21	1.85	0.58
32:U:791:LEU:HD11	32:U:795:LEU:O	2.03	0.58
1:A:297:ARG:HG2	31:F:290:ALA:HB1	1.86	0.58
2:B:292:THR:HG21	2:B:333:ARG:NH1	2.14	0.58
5:E:309:ARG:HH12	5:E:336:ASP:HA	1.69	0.58
5:E:341:ALA:HB3	31:F:345:SER:HB2	1.84	0.58
13:N:15:LEU:HD11	13:N:102:ALA:CB	2.33	0.58
21:W:312:MET:HE2	21:W:312:MET:N	2.19	0.58
23:Y:200:LEU:O	23:Y:204:THR:HG23	2.03	0.58
26:b:86:PHE:O	26:b:90:ILE:HD12	2.04	0.58
27:c:163:ILE:HD11	27:c:199:HIS:CA	2.25	0.58
30:f:830:LEU:HD12	30:f:861:THR:HB	1.86	0.58
31:F:305:GLU:HA	31:F:308:ARG:NH1	2.19	0.58
32:U:247:GLN:HE22	32:U:904:LYS:HD2	1.69	0.58
32:U:658:ILE:C	32:U:658:ILE:HD12	2.27	0.58
1:A:239:ARG:HG2	2:B:319:PHE:HZ	1.66	0.58
2:B:116:ILE:HD13	2:B:132:TYR:CE2	2.39	0.58
3:C:189:TYR:CE2	3:C:316:GLU:HA	2.38	0.58
10:K:171:GLY:O	10:K:174:SER:OG	2.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:249:THR:O	20:V:253:LEU:HG	2.04	0.58
20:V:313:LEU:HD21	20:V:329:HIS:CE1	2.39	0.58
20:V:414:TYR:OH	20:V:425:LYS:NZ	2.37	0.58
21:W:216:GLU:HA	21:W:219:THR:HB	1.85	0.58
22:X:180:LEU:O	22:X:181:SER:OG	2.18	0.58
23:Y:67:VAL:HA	23:Y:70:LEU:CD2	2.34	0.58
23:Y:138:LEU:HD21	23:Y:167:LEU:HB3	1.85	0.58
30:f:255:VAL:HB	30:f:259:PHE:CZ	2.38	0.58
30:f:556:ARG:NH2	30:f:627:GLU:OE1	2.36	0.58
30:f:612:LEU:C	30:f:632:LYS:HD3	2.29	0.58
30:f:771:LEU:HD22	30:f:807:ARG:NH2	2.19	0.58
32:U:186:SER:C	32:U:187:LEU:HD23	2.29	0.58
32:U:446:LEU:HD23	32:U:457:ILE:CG2	2.33	0.58
32:U:802:TYR:OH	32:U:880:ASN:O	2.20	0.58
3:C:334:ARG:HG2	23:Y:175:ASP:CB	2.34	0.58
4:D:370:ILE:HG21	4:D:407:ILE:HG22	1.85	0.58
5:E:170:CYS:SG	5:E:299:ILE:HD13	2.43	0.58
20:V:401:ASN:O	20:V:405:THR:HG23	2.03	0.58
21:W:120:ILE:O	21:W:124:LEU:N	2.36	0.58
25:a:180:LEU:CD1	25:a:222:LEU:HG	2.33	0.58
25:a:291:LEU:HD13	25:a:333:MET:HG2	1.86	0.58
26:b:188:ILE:HD12	26:b:188:ILE:N	2.18	0.58
2:B:118:ASP:OD1	2:B:119:ASN:N	2.37	0.57
2:B:135:ILE:HA	2:B:159:VAL:HB	1.85	0.57
3:C:164:VAL:O	3:C:165:ILE:HD13	2.03	0.57
16:Q:119:ASP:OD1	16:Q:119:ASP:N	2.37	0.57
20:V:120:PHE:HB3	20:V:159:LEU:HD11	1.86	0.57
21:W:151:THR:HA	21:W:154:GLU:CG	2.33	0.57
21:W:253:THR:O	21:W:256:ILE:N	2.35	0.57
23:Y:15:PRO:HD3	23:Y:143:TYR:HE1	1.68	0.57
23:Y:371:LYS:HD3	23:Y:372:LYS:N	2.19	0.57
25:a:186:LYS:HG2	25:a:193:GLN:HE22	1.68	0.57
27:c:58:LEU:O	27:c:70:ILE:HG22	2.03	0.57
32:U:198:LEU:O	32:U:201:LEU:N	2.36	0.57
32:U:422:LEU:HD12	32:U:422:LEU:O	2.03	0.57
1:A:196:LEU:CD1	30:f:345:PRO:HD2	2.29	0.57
1:A:323:ARG:HG2	1:A:323:ARG:NH1	2.13	0.57
2:B:81:ASN:O	2:B:85:MET:HE1	2.04	0.57
2:B:357:ASP:HB3	2:B:360:THR:HG23	1.86	0.57
5:E:75:ASN:ND2	31:F:130:GLN:OE1	2.36	0.57
20:V:265:ASP:N	20:V:265:ASP:OD1	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:376:LEU:HD23	23:Y:376:LEU:O	2.03	0.57
24:Z:17:LEU:HD22	27:c:39:LEU:HD12	1.86	0.57
25:a:79:ILE:HG23	25:a:80:ILE:CD1	2.34	0.57
26:b:138:VAL:HG12	26:b:160:LEU:HD11	1.86	0.57
30:f:296:PHE:HD2	30:f:300:ARG:HH12	1.53	0.57
30:f:369:ARG:NH2	30:f:370:MET:HE1	2.18	0.57
30:f:416:MET:HE3	30:f:416:MET:N	2.19	0.57
30:f:461:PRO:O	30:f:465:LEU:HG	2.04	0.57
9:j:99:GLU:OE1	9:j:99:GLU:N	2.36	0.57
32:U:798:PRO:HG2	32:U:880:ASN:ND2	2.19	0.57
1:A:262:GLU:CD	1:A:265:ARG:HD2	2.28	0.57
4:D:130:VAL:CG2	4:D:139:LEU:HD21	2.34	0.57
5:E:238:ILE:HD11	5:E:256:THR:HG21	1.87	0.57
5:E:334:LEU:HD12	5:E:334:LEU:O	2.04	0.57
20:V:102:PRO:O	20:V:106:ARG:NH2	2.28	0.57
20:V:482:PHE:O	20:V:485:ASP:HB3	2.04	0.57
21:W:320:LEU:HD22	21:W:324:TYR:HD2	1.69	0.57
21:W:343:SER:OG	21:W:344:THR:N	2.36	0.57
23:Y:138:LEU:HD12	23:Y:142:PHE:HE2	1.68	0.57
26:b:125:VAL:O	26:b:129:LYS:N	2.36	0.57
27:c:219:ASN:O	27:c:223:LYS:HD2	2.04	0.57
30:f:791:VAL:CG2	30:f:800:LEU:HD11	2.25	0.57
10:k:169:ALA:O	10:k:174:SER:OG	2.19	0.57
32:U:116:ALA:O	32:U:119:PRO:HD3	2.03	0.57
1:A:99:THR:HG21	1:A:113:ILE:CD1	2.30	0.57
1:A:226:ALA:O	1:A:229:VAL:HG12	2.03	0.57
1:A:236:CYS:SG	1:A:267:LYS:HD3	2.44	0.57
1:A:397:ILE:HG13	2:B:210:TYR:HB3	1.85	0.57
2:B:229:GLY:O	2:B:391:SER:HB2	2.04	0.57
2:B:333:ARG:HB2	2:B:336:THR:CG2	2.35	0.57
3:C:137:LEU:HD12	3:C:220:VAL:CG2	2.34	0.57
21:W:68:VAL:HG21	21:W:72:LYS:HE3	1.87	0.57
21:W:289:ARG:HG3	21:W:289:ARG:NH1	2.19	0.57
22:X:325:LYS:O	22:X:325:LYS:HD3	2.04	0.57
24:Z:81:MET:HE1	27:c:94:LYS:CD	2.33	0.57
25:a:101:ARG:HB2	25:a:114:CYS:SG	2.44	0.57
27:c:122:LEU:HB2	27:c:200:TYR:CE2	2.39	0.57
28:d:52:ARG:NH2	28:d:89:LEU:HD11	2.19	0.57
30:f:107:LYS:HA	30:f:137:ARG:HH22	1.70	0.57
30:f:285:CYS:O	30:f:289:VAL:HG23	2.04	0.57
30:f:696:LEU:HD22	30:f:708:ASP:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:48:LEU:O	32:U:48:LEU:HD13	2.04	0.57
32:U:101:ILE:O	32:U:105:ILE:HG13	2.04	0.57
32:U:806:CYS:O	32:U:876:GLN:NE2	2.33	0.57
2:B:287:ILE:HG12	2:B:329:MET:CE	2.35	0.57
3:C:198:LEU:O	3:C:198:LEU:HD13	2.04	0.57
3:C:354:ALA:HA	3:C:358:GLU:OE2	2.04	0.57
5:E:161:ARG:HE	21:W:173:THR:HA	1.69	0.57
5:E:384:LEU:HB3	5:E:386:TYR:CE1	2.39	0.57
20:V:72:LEU:HA	20:V:75:ILE:HD12	1.85	0.57
21:W:158:ASP:H	21:W:161:GLU:CG	2.17	0.57
23:Y:24:PHE:CE2	23:Y:28:LEU:HD22	2.40	0.57
23:Y:316:LEU:HD21	23:Y:352:GLU:OE1	2.04	0.57
25:a:226:ARG:HH12	25:a:230:ARG:CG	2.16	0.57
28:d:49:ILE:HG23	28:d:50:LEU:HD22	1.85	0.57
28:d:133:ILE:C	28:d:136:PRO:HD2	2.29	0.57
29:e:30:LEU:HD12	29:e:32:GLU:OE2	2.04	0.57
30:f:145:VAL:O	30:f:149:GLU:HG3	2.04	0.57
30:f:217:LEU:HD13	30:f:259:PHE:HZ	1.70	0.57
30:f:240:VAL:O	30:f:243:PRO:HD2	2.04	0.57
30:f:373:ALA:HB1	30:f:748:LEU:HD21	1.87	0.57
30:f:826:GLN:HB2	30:f:846:VAL:HA	1.84	0.57
6:g:120:ASP:OD1	7:h:83:ARG:NH1	2.38	0.57
31:F:82:VAL:HG23	31:F:83:ASN:OD1	2.04	0.57
32:U:472:ILE:HD12	32:U:473:VAL:CG1	2.33	0.57
32:U:623:GLY:HA2	32:U:659:CYS:HB2	1.86	0.57
2:B:371:ARG:HG2	2:B:371:ARG:HH11	1.68	0.57
21:W:97:LEU:HB2	21:W:100:ALA:HB2	1.84	0.57
21:W:280:ASP:OD2	21:W:283:GLN:N	2.35	0.57
21:W:452:ILE:HD11	24:Z:101:LEU:HD22	1.86	0.57
23:Y:100:ILE:HD12	23:Y:100:ILE:C	2.30	0.57
25:a:189:PRO:HG2	25:a:192:GLU:OE1	2.05	0.57
26:b:8:VAL:CG2	26:b:110:ILE:HD11	2.30	0.57
26:b:22:LEU:HB3	26:b:23:PRO:CD	2.23	0.57
27:c:29:GLU:O	27:c:66:THR:HA	2.04	0.57
30:f:179:VAL:HG11	30:f:216:MET:HE1	1.86	0.57
30:f:419:LEU:HD23	30:f:420:TRP:N	2.19	0.57
30:f:438:ASP:HA	30:f:441:LYS:HG2	1.85	0.57
30:f:672:LEU:HD13	30:f:707:LEU:HD12	1.87	0.57
36:n:301:LDZ:H40	14:o:115:TYR:CD2	2.39	0.57
32:U:11:LEU:HD11	32:U:23:ALA:HB2	1.87	0.57
32:U:147:TYR:OH	32:U:169:GLU:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:263:MET:HG2	1:A:267:LYS:HZ1	1.69	0.57
5:E:384:LEU:HB3	5:E:386:TYR:CD1	2.40	0.57
20:V:205:LEU:HG	20:V:245:ASP:OD2	2.05	0.57
20:V:273:LYS:HZ2	32:U:40:GLU:HB3	1.67	0.57
20:V:304:GLU:HG3	20:V:307:ARG:HE	1.70	0.57
23:Y:46:ARG:HB2	23:Y:46:ARG:CZ	2.34	0.57
24:Z:48:LEU:HD21	24:Z:92:VAL:CG2	2.34	0.57
25:a:186:LYS:CG	25:a:221:VAL:HG13	2.34	0.57
25:a:191:SER:O	25:a:194:GLN:HG2	2.05	0.57
28:d:171:LEU:O	28:d:175:ARG:HG2	2.05	0.57
30:f:502:LEU:O	30:f:505:MET:HG2	2.03	0.57
30:f:780:PRO:HB3	30:f:803:PHE:CE2	2.39	0.57
30:f:800:LEU:HA	30:f:803:PHE:CZ	2.40	0.57
1:A:158:ASP:OD1	1:A:159:PRO:HD2	2.05	0.57
1:A:257:VAL:CG1	1:A:301:GLU:HB3	2.33	0.57
2:B:294:ARG:HB2	2:B:294:ARG:HH11	1.68	0.57
3:C:138:MET:HE2	3:C:138:MET:HA	1.87	0.57
5:E:264:MET:HE3	5:E:294:ARG:HB3	1.87	0.57
20:V:334:VAL:CG2	20:V:395:ILE:HD11	2.35	0.57
20:V:454:GLU:OE1	20:V:455:LYS:N	2.37	0.57
21:W:155:GLN:OE1	21:W:155:GLN:N	2.37	0.57
22:X:369:ILE:HD12	23:Y:310:SER:CA	2.32	0.57
23:Y:138:LEU:HA	23:Y:141:VAL:CG1	2.35	0.57
23:Y:146:ARG:CZ	23:Y:146:ARG:HB2	2.34	0.57
24:Z:172:VAL:CG1	27:c:217:LEU:HD21	2.21	0.57
24:Z:276:ILE:O	24:Z:280:ILE:HG22	2.04	0.57
25:a:188:LEU:HB3	25:a:189:PRO:HD2	1.85	0.57
25:a:302:ILE:HG21	25:a:306:GLU:HG2	1.85	0.57
26:b:91:ARG:HB3	26:b:91:ARG:CZ	2.35	0.57
27:c:55:GLY:HA3	27:c:112:TYR:CE1	2.40	0.57
27:c:130:GLN:NE2	27:c:142:ALA:HB2	2.18	0.57
28:d:61:TRP:HZ3	28:d:65:ARG:HD2	1.68	0.57
30:f:274:ASP:HB3	30:f:275:MET:HE3	1.87	0.57
32:U:9:ILE:HG22	32:U:27:LEU:HD11	1.87	0.57
1:A:164:MET:HE2	1:A:244:GLU:OE1	2.05	0.57
3:C:164:VAL:HG21	3:C:186:VAL:CG1	2.32	0.57
5:E:344:ARG:O	5:E:348:THR:HG22	2.04	0.57
21:W:94:ARG:O	21:W:95:SER:HB2	2.05	0.57
21:W:137:TYR:O	21:W:141:GLU:N	2.37	0.57
22:X:301:ASP:O	22:X:304:LYS:HG3	2.05	0.57
22:X:415:TYR:OH	23:Y:382:LYS:HG2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:186:LEU:CD1	23:Y:213:LEU:HD13	2.34	0.57
24:Z:131:LEU:HD23	24:Z:131:LEU:H	1.69	0.57
24:Z:172:VAL:O	24:Z:176:LEU:HG	2.04	0.57
30:f:821:LEU:HD21	30:f:882:LEU:CD1	2.34	0.57
11:l:35:THR:HG22	11:l:133:LEU:HD12	1.86	0.57
32:U:173:VAL:HG11	32:U:177:LEU:HD22	1.87	0.57
32:U:191:LYS:HD3	32:U:191:LYS:N	2.20	0.57
1:A:264:ALA:CA	1:A:267:LYS:HD2	2.33	0.57
2:B:415:THR:N	2:B:418:ASP:OD2	2.29	0.57
4:D:91:GLN:HE22	4:D:248:ARG:NE	2.03	0.57
4:D:229:ARG:NH1	5:E:268:ASP:OD1	2.36	0.57
5:E:182:LEU:CD2	33:E:402:ATP:H2'	2.34	0.57
20:V:326:GLN:OE1	29:e:25:GLU:HB3	2.04	0.57
21:W:237:GLU:HG2	21:W:238:GLY:H	1.69	0.57
21:W:432:LEU:HD22	27:c:309:PHE:CD2	2.40	0.57
24:Z:48:LEU:CD1	24:Z:92:VAL:HG21	2.32	0.57
25:a:77:VAL:HG13	25:a:113:LEU:HD13	1.85	0.57
27:c:77:GLN:OE1	27:c:77:GLN:HA	2.04	0.57
32:U:62:LEU:HA	32:U:88:PHE:CE2	2.39	0.57
2:B:116:ILE:HG12	2:B:117:ASP:H	1.70	0.56
3:C:46:GLN:OE1	32:U:639:LEU:HD11	2.05	0.56
5:E:342:ASP:OD2	5:E:342:ASP:N	2.38	0.56
20:V:477:HIS:CE1	28:d:245:GLN:HE21	2.23	0.56
21:W:436:MET:CE	27:c:226:MET:HB3	2.35	0.56
23:Y:240:VAL:CG2	23:Y:260:LEU:HD11	2.35	0.56
27:c:123:SER:OG	27:c:124:GLY:N	2.38	0.56
30:f:103:TYR:HA	30:f:106:LEU:HB2	1.87	0.56
32:U:742:HIS:HE2	32:U:814:PRO:HG3	1.70	0.56
32:U:748:LEU:HD12	32:U:748:LEU:N	2.20	0.56
2:B:209:GLU:CA	2:B:212:GLU:HB2	2.35	0.56
2:B:212:GLU:HG2	30:f:845:ARG:HG3	1.87	0.56
2:B:369:THR:HG22	2:B:372:MET:HE1	1.88	0.56
2:B:426:VAL:CG1	2:B:427:LEU:HD12	2.29	0.56
5:E:299:ILE:HG22	5:E:301:ILE:HD12	1.86	0.56
20:V:408:ARG:HB2	20:V:408:ARG:HH11	1.70	0.56
22:X:218:HIS:CE1	22:X:231:TYR:HE2	2.16	0.56
22:X:239:TYR:HE1	22:X:246:LYS:CB	2.17	0.56
24:Z:25:ARG:HH21	27:c:104:ARG:NH1	2.02	0.56
28:d:235:THR:O	28:d:239:SER:N	2.38	0.56
32:U:213:PHE:HD1	32:U:216:VAL:HG11	1.70	0.56
1:A:193:THR:H	1:A:194:PRO:HD2	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:283:ALA:HA	1:A:328:ASP:OD2	2.06	0.56
1:A:303:ILE:HD11	1:A:330:ALA:C	2.29	0.56
2:B:223:ILE:CD1	2:B:329:MET:HB2	2.35	0.56
3:C:40:GLN:HA	3:C:40:GLN:OE1	2.04	0.56
3:C:77:VAL:HG23	3:C:86:LEU:HD23	1.88	0.56
3:C:340:ARG:HG3	23:Y:206:SER:O	2.05	0.56
3:C:351:MET:HE2	3:C:391:MET:CE	2.35	0.56
5:E:148:VAL:HG21	5:E:167:PRO:HB2	1.87	0.56
33:E:402:ATP:H5'1	31:F:344:ARG:HH12	1.71	0.56
19:T:6:VAL:HG11	13:n:120:MET:HE1	1.87	0.56
20:V:108:LEU:CD2	20:V:170:LEU:HD12	2.36	0.56
20:V:134:PHE:HB2	20:V:135:LEU:HD22	1.87	0.56
20:V:166:TYR:HE1	20:V:170:LEU:HD21	1.71	0.56
20:V:359:PRO:HA	20:V:382:PHE:HD2	1.67	0.56
23:Y:210:SER:HB3	23:Y:212:GLU:OE2	2.06	0.56
23:Y:381:GLN:O	23:Y:384:SER:OG	2.22	0.56
24:Z:8:LYS:HZ1	24:Z:161:GLU:HG2	1.70	0.56
24:Z:190:ARG:HE	24:Z:194:GLN:HG3	1.71	0.56
25:a:231:GLN:OE1	25:a:231:GLN:HA	2.05	0.56
29:e:47:ASN:O	29:e:48:VAL:HG12	2.05	0.56
30:f:104:GLY:O	30:f:107:LYS:NZ	2.34	0.56
30:f:106:LEU:HG	30:f:109:ILE:CG2	2.35	0.56
30:f:156:HIS:O	30:f:159:VAL:HG12	2.05	0.56
30:f:274:ASP:HB3	30:f:275:MET:HE1	1.87	0.56
30:f:290:VAL:O	30:f:294:MET:HE1	2.05	0.56
30:f:490:ALA:HA	30:f:524:MET:HE1	1.87	0.56
30:f:723:TYR:CG	30:f:723:TYR:O	2.57	0.56
30:f:742:ALA:HA	30:f:745:LEU:CD1	2.35	0.56
30:f:766:GLN:HG3	30:f:768:LEU:CD1	2.34	0.56
30:f:821:LEU:HD11	30:f:882:LEU:CD2	2.35	0.56
31:F:134:LEU:CD1	31:F:159:LEU:HA	2.34	0.56
31:F:196:GLN:HA	31:F:199:VAL:CG2	2.35	0.56
32:U:249:CYS:SG	32:U:328:ILE:HG13	2.44	0.56
32:U:672:LEU:HD23	32:U:675:MET:SD	2.44	0.56
1:A:126:SER:HB3	1:A:150:HIS:CE1	2.40	0.56
2:B:95:GLU:CA	2:B:98:LYS:HE2	2.21	0.56
2:B:112:LEU:HD11	2:B:114:GLU:O	2.05	0.56
2:B:153:ASN:OD1	2:B:154:HIS:N	2.39	0.56
2:B:363:ARG:O	2:B:363:ARG:NH1	2.39	0.56
3:C:328:ILE:HG12	35:C:501:ADP:C6	2.41	0.56
4:D:217:LYS:HA	5:E:267:PHE:HE1	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:191:ARG:HG3	21:W:191:ARG:HH11	1.70	0.56
21:W:363:ILE:CD1	21:W:393:LEU:HD13	2.30	0.56
23:Y:144:LEU:HB2	23:Y:160:ASN:HD22	1.70	0.56
24:Z:38:VAL:HG21	24:Z:75:LEU:HD21	1.87	0.56
24:Z:71:ASP:HB3	24:Z:74:TYR:HB3	1.88	0.56
25:a:35:HIS:HB3	26:b:15:TYR:CD1	2.40	0.56
26:b:187:PRO:HG2	26:b:188:ILE:CD1	2.34	0.56
28:d:47:GLN:HG2	28:d:48:LEU:N	2.19	0.56
30:f:180:GLN:HG3	30:f:219:LYS:HD3	1.88	0.56
10:k:230:THR:OG1	10:k:233:GLU:OE2	2.22	0.56
31:F:81:LYS:O	31:F:84:LYS:HG2	2.04	0.56
32:U:173:VAL:CG1	32:U:177:LEU:HB3	2.32	0.56
32:U:201:LEU:HD13	32:U:201:LEU:O	2.05	0.56
32:U:218:GLN:HE22	32:U:752:THR:HB	1.70	0.56
2:B:397:ALA:HA	2:B:400:THR:HG22	1.88	0.56
4:D:43:ARG:HB2	4:D:43:ARG:HH11	1.71	0.56
4:D:363:TYR:HA	4:D:366:ARG:NH1	2.20	0.56
7:H:230:ALA:HB1	22:X:90:ARG:HH12	1.71	0.56
20:V:160:LEU:HD22	20:V:200:ARG:NH1	2.20	0.56
20:V:175:MET:CE	20:V:180:ARG:HB3	2.36	0.56
21:W:312:MET:HE2	21:W:312:MET:H	1.71	0.56
23:Y:138:LEU:HD21	23:Y:167:LEU:CB	2.36	0.56
23:Y:307:LEU:HD21	23:Y:314:LEU:CD1	2.36	0.56
27:c:51:MET:CA	27:c:82:VAL:HG13	2.33	0.56
30:f:199:ASN:HA	30:f:202:HIS:CE1	2.40	0.56
30:f:423:ASP:O	30:f:427:THR:HG23	2.06	0.56
30:f:513:GLU:O	30:f:517:VAL:HG22	2.05	0.56
30:f:537:THR:HA	30:f:540:GLN:OE1	2.05	0.56
30:f:608:LYS:HE2	30:f:639:LYS:NZ	2.21	0.56
30:f:692:LEU:HG	30:f:696:LEU:HD21	1.86	0.56
2:B:403:GLY:HA3	3:C:180:ILE:HG13	1.88	0.56
3:C:104:ASP:OD1	3:C:107:ASP:HB2	2.06	0.56
3:C:267:SER:OG	3:C:270:GLN:HB2	2.05	0.56
20:V:394:LEU:O	20:V:397:ARG:HG2	2.06	0.56
20:V:433:ASP:OD1	20:V:433:ASP:N	2.36	0.56
21:W:132:THR:HG23	21:W:134:GLY:H	1.70	0.56
21:W:265:GLN:OE1	21:W:336:PRO:HG3	2.05	0.56
21:W:346:GLU:O	21:W:350:ARG:NH1	2.39	0.56
21:W:374:THR:HG22	21:W:377:ARG:HB3	1.88	0.56
23:Y:117:LYS:HB2	23:Y:121:LEU:CD1	2.35	0.56
23:Y:160:ASN:HA	23:Y:163:LYS:HG2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Z:48:LEU:HD21	24:Z:92:VAL:HG22	1.87	0.56
26:b:33:VAL:HA	26:b:36:VAL:CG1	2.35	0.56
30:f:216:MET:HA	30:f:219:LYS:HE2	1.86	0.56
30:f:672:LEU:HA	30:f:675:PHE:CE1	2.41	0.56
30:f:764:LEU:O	30:f:858:LYS:NZ	2.39	0.56
30:f:786:GLN:HB3	30:f:788:MET:SD	2.46	0.56
30:f:828:ARG:HH12	30:f:831:VAL:HG22	1.71	0.56
32:U:37:GLU:HG3	32:U:38:ILE:N	2.20	0.56
32:U:236:LEU:HB2	32:U:245:ALA:HB2	1.85	0.56
32:U:803:LYS:HD2	32:U:875:PHE:CA	2.36	0.56
2:B:60:LEU:HG	2:B:64:LYS:NZ	2.21	0.56
2:B:193:GLN:HE22	2:B:354:PRO:HD3	1.71	0.56
3:C:57:ARG:HH12	32:U:649:ARG:NH1	2.04	0.56
5:E:173:TYR:C	5:E:180:LYS:HE3	2.31	0.56
6:G:11:ARG:HH11	6:G:11:ARG:HG3	1.70	0.56
21:W:151:THR:HA	21:W:154:GLU:CD	2.31	0.56
21:W:371:THR:C	21:W:372:ARG:HG2	2.30	0.56
24:Z:224:HIS:HE1	25:a:340:VAL:HG11	1.71	0.56
25:a:252:LYS:HA	25:a:255:TRP:CE2	2.40	0.56
26:b:101:GLN:OE1	26:b:101:GLN:HA	2.06	0.56
27:c:29:GLU:HA	27:c:65:TYR:O	2.06	0.56
28:d:96:HIS:HB2	28:d:132:TYR:CD2	2.40	0.56
30:f:117:GLU:OE1	30:f:120:ARG:NE	2.35	0.56
30:f:137:ARG:HG3	30:f:138:GLU:N	2.19	0.56
30:f:498:LEU:HA	30:f:501:LEU:CD2	2.36	0.56
30:f:524:MET:O	30:f:773:LYS:NZ	2.35	0.56
11:l:164:ARG:NH1	11:l:198:THR:O	2.39	0.56
32:U:913:ILE:HD12	32:U:913:ILE:N	2.21	0.56
2:B:225:TYR:OH	2:B:352:GLU:HB2	2.06	0.56
21:W:98:LYS:HG3	21:W:139:GLU:HG2	1.87	0.56
22:X:132:ARG:HD3	22:X:132:ARG:O	2.05	0.56
23:Y:14:ASN:OD1	23:Y:143:TYR:OH	2.20	0.56
23:Y:183:TYR:OH	23:Y:212:GLU:OE2	2.24	0.56
25:a:319:LEU:HD12	25:a:337:GLN:HB2	1.87	0.56
26:b:142:ASN:OD1	26:b:150:THR:OG1	2.23	0.56
27:c:122:LEU:HD12	27:c:126:ASP:HB3	1.88	0.56
27:c:181:LEU:HD23	27:c:181:LEU:C	2.31	0.56
27:c:303:MET:HG2	28:d:242:LEU:HB3	1.88	0.56
28:d:188:LYS:HB2	28:d:221:ASN:HD21	1.68	0.56
31:F:140:VAL:HG21	31:F:160:ILE:HG21	1.88	0.56
32:U:23:ALA:HA	32:U:26:LYS:HD2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:69:TYR:CZ	32:U:99:THR:HG21	2.41	0.56
32:U:469:SER:OG	32:U:470:ASN:N	2.39	0.56
32:U:556:MET:SD	32:U:563:ALA:HA	2.46	0.56
2:B:197:ILE:CD1	2:B:222:VAL:HG21	2.35	0.56
20:V:280:ALA:HB3	20:V:285:TRP:CE3	2.41	0.56
21:W:140:ILE:O	21:W:140:ILE:CG1	2.54	0.56
21:W:179:LYS:CE	21:W:212:LYS:HD2	2.34	0.56
21:W:187:LEU:HD21	21:W:226:TYR:HD2	1.70	0.56
23:Y:217:LYS:HG3	23:Y:253:LEU:HD11	1.87	0.56
23:Y:387:ILE:HD13	24:Z:276:ILE:HD11	1.88	0.56
26:b:32:ALA:O	26:b:35:ILE:HG12	2.05	0.56
27:c:241:ASN:ND2	27:c:295:ASN:HD21	2.00	0.56
28:d:67:ASP:O	28:d:71:PHE:HB2	2.05	0.56
31:F:80:ILE:O	31:F:84:LYS:HB3	2.05	0.56
32:U:381:THR:HG22	32:U:412:HIS:HA	1.88	0.56
2:B:115:ILE:O	2:B:115:ILE:HG22	2.06	0.56
4:D:269:ALA:CB	5:E:258:MET:HE2	2.34	0.56
4:D:361:GLU:OE1	4:D:361:GLU:HA	2.05	0.56
5:E:148:VAL:O	5:E:149:ILE:HD12	2.06	0.56
5:E:198:VAL:HG13	5:E:232:MET:HA	1.86	0.56
5:E:314:LYS:HE3	5:E:328:TYR:HD2	1.69	0.56
5:E:322:LYS:HB3	5:E:326:ILE:CD1	2.36	0.56
20:V:302:TYR:CZ	20:V:338:LEU:HD13	2.41	0.56
21:W:111:TYR:O	21:W:115:ILE:HG22	2.06	0.56
21:W:326:MET:HE2	21:W:330:LYS:O	2.06	0.56
23:Y:113:ARG:O	23:Y:113:ARG:NH1	2.38	0.56
24:Z:23:PHE:CD2	24:Z:126:VAL:HG11	2.39	0.56
25:a:18:GLN:HB3	25:a:19:PRO:HD3	1.88	0.56
25:a:72:ASN:HA	26:b:17:ARG:HH12	1.71	0.56
30:f:744:MET:HA	30:f:747:GLN:HG3	1.88	0.56
7:h:110:VAL:HG22	7:h:135:ILE:CD1	2.36	0.56
31:F:422:GLU:OE1	31:F:422:GLU:C	2.49	0.56
32:U:139:GLN:NE2	32:U:143:ASP:OD1	2.39	0.56
1:A:102:ILE:HD11	1:A:114:ASN:CB	2.32	0.55
2:B:94:GLU:HG3	2:B:98:LYS:NZ	2.21	0.55
2:B:316:LEU:CD2	2:B:327:VAL:HG21	2.36	0.55
3:C:328:ILE:HG12	35:C:501:ADP:N1	2.20	0.55
4:D:200:ARG:HG3	4:D:200:ARG:O	2.06	0.55
5:E:297:ARG:HG2	5:E:299:ILE:CD1	2.36	0.55
7:H:74:VAL:HG22	7:H:75:TYR:H	1.70	0.55
17:R:2:THR:N	17:R:131:SER:OG	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:R:36:ILE:HD11	17:R:46:MET:SD	2.46	0.55
20:V:127:THR:O	20:V:131:LEU:HB2	2.06	0.55
20:V:302:TYR:CE2	20:V:338:LEU:HB3	2.42	0.55
23:Y:365:GLN:O	23:Y:369:THR:HG22	2.06	0.55
24:Z:209:ARG:HG2	24:Z:209:ARG:NH1	2.19	0.55
25:a:213:PHE:CE1	25:a:240:PHE:HD2	2.24	0.55
26:b:140:ILE:HG22	26:b:170:LEU:HD11	1.88	0.55
30:f:213:GLN:OE1	30:f:249:LEU:HD11	2.06	0.55
31:F:197:GLU:OE2	31:F:350:ARG:HB3	2.06	0.55
31:F:376:SER:OG	31:F:379:VAL:HG23	2.06	0.55
32:U:331:GLY:HA2	32:U:333:MET:HE1	1.88	0.55
32:U:625:ILE:HG22	32:U:626:LEU:CD2	2.36	0.55
32:U:803:LYS:CG	32:U:893:THR:HB	2.36	0.55
1:A:193:THR:H	1:A:194:PRO:CD	2.19	0.55
2:B:293:LYS:HB3	3:C:266:ASP:OD2	2.05	0.55
3:C:161:ILE:HG13	3:C:203:VAL:HG21	1.87	0.55
3:C:273:MET:CE	3:C:293:MET:CG	2.84	0.55
11:L:150:SER:O	11:L:152:ASN:N	2.37	0.55
20:V:114:TYR:O	20:V:117:VAL:HG12	2.07	0.55
20:V:320:THR:OG1	29:e:16:ASP:OD1	2.22	0.55
20:V:416:ARG:HH12	23:Y:350:VAL:HG21	1.68	0.55
22:X:401:LEU:HD21	23:Y:368:GLU:OE1	2.05	0.55
23:Y:160:ASN:OD1	23:Y:160:ASN:N	2.39	0.55
24:Z:187:LEU:HA	25:a:374:ILE:CG2	2.37	0.55
24:Z:213:GLU:HB3	24:Z:219:LYS:HZ2	1.72	0.55
25:a:18:GLN:O	25:a:22:TRP:HD1	1.90	0.55
26:b:110:ILE:HA	26:b:139:ASP:HB3	1.88	0.55
27:c:149:GLN:O	27:c:151:VAL:HG13	2.07	0.55
30:f:372:LEU:CD1	30:f:410:ALA:HB2	2.35	0.55
30:f:385:PHE:CB	30:f:388:ASP:HB2	2.22	0.55
30:f:600:TYR:HB3	30:f:603:SER:OG	2.06	0.55
32:U:669:ILE:HD11	32:U:709:PHE:CE1	2.41	0.55
2:B:135:ILE:HG22	2:B:141:LYS:HE2	1.88	0.55
21:W:184:GLU:OE2	21:W:188:GLU:HB2	2.05	0.55
22:X:407:MET:HG3	24:Z:266:ILE:HD12	1.88	0.55
24:Z:43:TRP:H	24:Z:90:ARG:HH22	1.55	0.55
24:Z:214:LYS:HG2	24:Z:218:GLY:HA2	1.88	0.55
25:a:8:LEU:HD22	25:a:26:GLU:OE2	2.06	0.55
30:f:472:HIS:CE1	30:f:474:SER:HB2	2.40	0.55
31:F:408:LEU:HD12	31:F:408:LEU:O	2.07	0.55
2:B:284:ILE:HG21	2:B:287:ILE:HD13	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:274:LEU:O	3:C:278:ASN:ND2	2.38	0.55
20:V:181:TYR:CE2	20:V:220:PHE:HB3	2.42	0.55
20:V:486:ILE:CD1	24:Z:268:SER:HB2	2.37	0.55
21:W:179:LYS:HD2	21:W:179:LYS:C	2.31	0.55
22:X:199:ALA:C	22:X:200:ILE:HD12	2.32	0.55
25:a:35:HIS:NE2	26:b:17:ARG:HD3	2.21	0.55
25:a:48:PRO:HB2	25:a:51:ALA:CA	2.37	0.55
26:b:48:ASN:ND2	26:b:64:LEU:HG	2.21	0.55
27:c:57:MET:HA	27:c:72:VAL:HG22	1.88	0.55
30:f:468:ASP:OD1	30:f:468:ASP:N	2.40	0.55
13:n:13:VAL:HG21	13:n:102:ALA:HB1	1.88	0.55
32:U:472:ILE:HD12	32:U:472:ILE:C	2.31	0.55
32:U:506:ALA:HA	32:U:544:ILE:CD1	2.36	0.55
32:U:552:ILE:O	32:U:555:VAL:HG12	2.06	0.55
1:A:292:ASP:OD1	1:A:292:ASP:O	2.23	0.55
4:D:167:ILE:HD11	4:D:214:MET:CG	2.37	0.55
4:D:403:TYR:O	4:D:407:ILE:HG13	2.07	0.55
5:E:341:ALA:HB1	31:F:345:SER:HB2	1.88	0.55
11:L:117:GLN:O	11:L:120:THR:OG1	2.20	0.55
20:V:256:ARG:HD3	20:V:291:TYR:OH	2.06	0.55
20:V:371:ASN:HB2	20:V:427:GLN:NE2	2.21	0.55
20:V:404:LYS:CD	20:V:446:VAL:HG21	2.37	0.55
23:Y:252:SER:OG	23:Y:253:LEU:HD12	2.06	0.55
23:Y:286:TRP:O	23:Y:287:LEU:HB3	2.05	0.55
24:Z:191:ILE:CG2	25:a:375:LEU:HD23	2.36	0.55
24:Z:199:LYS:HE3	25:a:364:GLU:CD	2.31	0.55
25:a:35:HIS:HA	25:a:38:THR:OG1	2.06	0.55
25:a:135:ILE:HD11	25:a:159:SER:HB3	1.87	0.55
25:a:278:MET:HE1	25:a:319:LEU:CG	2.31	0.55
30:f:857:GLY:O	30:f:860:LYS:NZ	2.36	0.55
32:U:265:ILE:HG23	32:U:326:ILE:CD1	2.36	0.55
32:U:798:PRO:C	32:U:799:LYS:HD3	2.31	0.55
1:A:423:PHE:CE2	2:B:350:LYS:HD2	2.42	0.55
2:B:193:GLN:HE22	2:B:354:PRO:CD	2.19	0.55
3:C:138:MET:HE2	3:C:138:MET:CA	2.36	0.55
3:C:188:LEU:O	3:C:294:ALA:HA	2.06	0.55
5:E:364:GLN:C	5:E:364:GLN:OE1	2.50	0.55
20:V:254:LEU:O	20:V:254:LEU:HD13	2.06	0.55
21:W:198:ASP:CG	21:W:201:ARG:HB2	2.32	0.55
24:Z:39:LEU:CD2	24:Z:53:SER:HB3	2.36	0.55
30:f:115:PRO:HG2	30:f:118:ASN:CG	2.31	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:407:MET:HE1	30:f:440:ILE:CA	2.30	0.55
32:U:43:ASP:C	32:U:43:ASP:OD1	2.49	0.55
32:U:331:GLY:O	32:U:335:ILE:HG12	2.06	0.55
1:A:197:HIS:NE2	30:f:343:LYS:HG3	2.21	0.55
1:A:384:GLU:O	1:A:388:VAL:HG23	2.07	0.55
2:B:412:MET:O	2:B:412:MET:HE2	2.07	0.55
3:C:273:MET:HE1	3:C:293:MET:CG	2.36	0.55
4:D:163:MET:HE2	4:D:221:HIS:CE1	2.42	0.55
4:D:201:GLY:C	4:D:327:LEU:HB2	2.32	0.55
5:E:65:THR:OG1	5:E:66:GLU:N	2.40	0.55
23:Y:25:LEU:O	23:Y:29:PRO:HG2	2.07	0.55
24:Z:254:ASN:OD1	24:Z:255:ASP:N	2.40	0.55
27:c:49:VAL:HG12	27:c:50:PRO:CD	2.36	0.55
30:f:662:MET:N	30:f:662:MET:HE3	2.22	0.55
7:h:64:VAL:O	7:h:219:ARG:NH1	2.38	0.55
8:i:192:LEU:O	8:i:196:VAL:HG23	2.06	0.55
32:U:16:GLU:HG3	32:U:19:LEU:CB	2.37	0.55
32:U:350:LEU:HD13	32:U:385:PHE:CE2	2.42	0.55
32:U:542:GLU:OE1	32:U:542:GLU:C	2.50	0.55
32:U:883:ARG:HG3	32:U:883:ARG:O	2.06	0.55
1:A:91:GLN:HB3	1:A:92:PRO:HD3	1.87	0.55
1:A:143:ASP:HB3	1:A:148:GLN:H	1.72	0.55
2:B:114:GLU:HG2	2:B:115:ILE:N	2.21	0.55
2:B:140:ASP:CG	2:B:143:LEU:HG	2.32	0.55
2:B:347:ILE:O	2:B:347:ILE:HG13	2.07	0.55
4:D:231:VAL:HG11	5:E:259:GLU:OE1	2.07	0.55
4:D:291:GLU:OE1	4:D:291:GLU:HA	2.07	0.55
5:E:249:ALA:HB1	31:F:261:ILE:HG12	1.87	0.55
16:Q:108:ASP:OD1	16:Q:109:GLU:N	2.40	0.55
20:V:254:LEU:HD13	20:V:254:LEU:C	2.31	0.55
23:Y:42:MET:HE3	23:Y:42:MET:HA	1.89	0.55
23:Y:338:ILE:CD1	23:Y:343:LEU:HD22	2.37	0.55
24:Z:164:ALA:HB2	27:c:221:HIS:HE1	1.68	0.55
25:a:180:LEU:HD11	25:a:222:LEU:HD21	1.89	0.55
26:b:100:ARG:HD2	26:b:103:LYS:HA	1.88	0.55
27:c:152:LYS:HE2	27:c:152:LYS:CA	2.32	0.55
28:d:122:LEU:HD22	28:d:122:LEU:N	2.22	0.55
30:f:334:ALA:HB1	30:f:335:ARG:NH2	2.12	0.55
30:f:613:LEU:HD22	30:f:613:LEU:H	1.71	0.55
30:f:680:ARG:CB	30:f:715:HIS:HA	2.37	0.55
30:f:784:ASP:OD1	30:f:791:VAL:HG21	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:811:LEU:HB2	30:f:878:GLU:OE1	2.07	0.55
31:F:91:SER:CB	31:F:126:THR:HA	2.36	0.55
32:U:890:LYS:NZ	32:U:891:VAL:HG12	2.22	0.55
32:U:894:MET:CE	32:U:902:PRO:HD3	2.23	0.55
1:A:277:ILE:HD12	1:A:280:ILE:HG13	1.88	0.55
2:B:237:LYS:HB3	3:C:283:PHE:CE1	2.42	0.55
2:B:343:ARG:HE	2:B:346:ARG:NH1	2.04	0.55
3:C:156:LYS:O	3:C:160:GLU:HG3	2.05	0.55
4:D:217:LYS:HG2	5:E:267:PHE:CE1	2.41	0.55
5:E:252:GLU:OE1	5:E:252:GLU:C	2.49	0.55
6:G:66:VAL:HG13	6:G:66:VAL:O	2.05	0.55
20:V:127:THR:HA	20:V:130:PHE:CE1	2.42	0.55
20:V:494:MET:HE2	24:Z:275:LEU:HA	1.89	0.55
21:W:144:ARG:O	21:W:148:THR:HG22	2.06	0.55
21:W:273:TYR:HB2	21:W:276:LEU:HB2	1.88	0.55
22:X:377:ILE:HD12	22:X:377:ILE:O	2.07	0.55
25:a:60:TYR:O	25:a:64:ILE:HG12	2.06	0.55
25:a:148:VAL:HG13	25:a:149:THR:N	2.20	0.55
26:b:53:THR:HG22	26:b:55:ALA:N	2.22	0.55
27:c:26:ASP:HA	27:c:176:GLN:NE2	2.22	0.55
27:c:208:ARG:HD2	27:c:209:LYS:N	2.21	0.55
30:f:232:TYR:CE2	30:f:233:LEU:HG	2.41	0.55
30:f:259:PHE:HA	30:f:262:PHE:CE1	2.41	0.55
32:U:472:ILE:CD1	32:U:473:VAL:HG13	2.37	0.55
32:U:803:LYS:HZ3	32:U:875:PHE:HB3	1.71	0.55
1:A:84:LYS:O	1:A:88:GLN:N	2.34	0.55
2:B:76:GLU:O	2:B:80:ARG:HG2	2.07	0.55
2:B:223:ILE:CG2	2:B:347:ILE:HD12	2.38	0.55
4:D:130:VAL:HG21	4:D:139:LEU:HD21	1.88	0.55
20:V:431:PRO:HD2	20:V:432:GLU:CD	2.31	0.55
21:W:67:LEU:HD12	21:W:90:LEU:HD13	1.89	0.55
21:W:67:LEU:CD1	21:W:90:LEU:HD13	2.37	0.55
21:W:114:GLU:C	21:W:114:GLU:OE1	2.50	0.55
21:W:220:GLU:HG3	21:W:221:LYS:HE2	1.89	0.55
21:W:244:CYS:SG	21:W:274:VAL:HG23	2.47	0.55
22:X:421:LEU:O	24:Z:283:ARG:NH2	2.40	0.55
23:Y:46:ARG:HB2	23:Y:46:ARG:NH1	2.22	0.55
24:Z:61:ASP:C	24:Z:61:ASP:OD1	2.50	0.55
24:Z:275:LEU:O	24:Z:275:LEU:HD22	2.06	0.55
25:a:180:LEU:HD22	25:a:221:VAL:HG11	1.89	0.55
27:c:123:SER:O	27:c:127:ILE:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:1:MET:CE	28:d:32:GLU:HG2	2.37	0.55
28:d:42:LYS:HG3	28:d:86:LYS:HG3	1.87	0.55
30:f:709:THR:O	30:f:712:LYS:HE3	2.07	0.55
30:f:828:ARG:NH1	30:f:831:VAL:HG13	2.22	0.55
32:U:48:LEU:HD13	32:U:48:LEU:C	2.32	0.55
1:A:159:PRO:HA	1:A:162:THR:HG22	1.89	0.54
4:D:150:SER:OG	4:D:250:VAL:HG22	2.08	0.54
4:D:393:ILE:HG12	21:W:133:GLU:CB	2.35	0.54
5:E:235:ILE:HD12	5:E:238:ILE:HG22	1.87	0.54
10:K:188:SER:O	10:K:188:SER:OG	2.24	0.54
20:V:85:ALA:HB2	20:V:93:PHE:HB2	1.88	0.54
20:V:330:LYS:HD3	20:V:360:TYR:CE1	2.42	0.54
20:V:408:ARG:HB2	20:V:408:ARG:NH1	2.21	0.54
21:W:219:THR:HG22	21:W:219:THR:O	2.07	0.54
24:Z:143:GLU:OE1	24:Z:143:GLU:N	2.40	0.54
28:d:104:LEU:O	28:d:104:LEU:HD23	2.06	0.54
30:f:498:LEU:O	30:f:501:LEU:HG	2.07	0.54
31:F:286:ASP:OD1	31:F:287:GLU:N	2.39	0.54
32:U:331:GLY:CA	32:U:333:MET:HE1	2.37	0.54
32:U:775:LEU:HD23	32:U:775:LEU:O	2.08	0.54
1:A:168:GLU:OE1	30:f:723:TYR:HB2	2.07	0.54
2:B:53:THR:HG21	30:f:832:THR:OG1	2.07	0.54
3:C:340:ARG:HG2	23:Y:208:PHE:H	1.71	0.54
4:D:388:ARG:HB3	4:D:389:GLU:OE1	2.07	0.54
12:M:219:LEU:HD23	12:M:219:LEU:H	1.72	0.54
20:V:410:ILE:HD13	20:V:422:ILE:CD1	2.35	0.54
21:W:48:LEU:HD22	21:W:48:LEU:H	1.71	0.54
21:W:55:ARG:HH22	21:W:93:ARG:HH21	1.56	0.54
21:W:187:LEU:HD21	21:W:226:TYR:CD2	2.42	0.54
21:W:317:TRP:CD1	21:W:358:VAL:HG11	2.42	0.54
25:a:35:HIS:O	25:a:38:THR:N	2.32	0.54
26:b:57:ASP:OD1	26:b:57:ASP:N	2.38	0.54
30:f:14:GLN:C	30:f:17:PRO:HD2	2.32	0.54
30:f:126:ILE:HG23	30:f:127:SER:N	2.21	0.54
31:F:86:LEU:C	31:F:86:LEU:HD13	2.32	0.54
32:U:50:GLU:OE1	32:U:50:GLU:HA	2.08	0.54
2:B:264:PRO:HB3	2:B:311:GLU:HB3	1.89	0.54
4:D:159:LYS:HG3	4:D:160:PRO:CD	2.35	0.54
17:R:158:ARG:NH1	17:R:189:SER:OG	2.41	0.54
20:V:411:SER:HB3	20:V:447:ILE:HG21	1.87	0.54
21:W:44:ILE:O	21:W:48:LEU:HD22	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:84:ASN:O	21:W:87:ILE:HG22	2.07	0.54
21:W:201:ARG:HA	21:W:204:ILE:HD11	1.88	0.54
23:Y:307:LEU:CD2	23:Y:308:LEU:HD22	2.38	0.54
23:Y:371:LYS:HZ2	23:Y:372:LYS:HE2	1.70	0.54
23:Y:377:LEU:O	23:Y:377:LEU:HD12	2.07	0.54
24:Z:199:LYS:CE	25:a:364:GLU:HG2	2.37	0.54
25:a:99:LYS:O	25:a:102:GLU:HG2	2.07	0.54
25:a:193:GLN:HA	25:a:193:GLN:OE1	2.06	0.54
30:f:183:PRO:O	30:f:187:LEU:HG	2.07	0.54
30:f:274:ASP:OD1	30:f:277:LEU:HD12	2.07	0.54
30:f:827:PRO:HB3	30:f:860:LYS:NZ	2.22	0.54
31:F:86:LEU:N	31:F:87:PRO:HD2	2.23	0.54
31:F:194:GLN:HE22	31:F:355:PRO:HD3	1.71	0.54
32:U:210:LYS:HE2	32:U:210:LYS:N	2.22	0.54
1:A:209:PRO:HB3	1:A:338:ASP:OD2	2.08	0.54
1:A:270:CYS:HB3	1:A:315:ILE:HD12	1.89	0.54
2:B:57:GLN:HG2	30:f:181:ARG:HH22	1.72	0.54
2:B:405:MET:SD	2:B:421:LYS:HD3	2.47	0.54
3:C:184:LYS:N	3:C:312:ASP:OD2	2.40	0.54
4:D:391:ARG:NH2	4:D:395:LEU:HG	2.22	0.54
4:D:393:ILE:CG1	21:W:133:GLU:HB3	2.31	0.54
5:E:116:ASP:HB3	5:E:119:VAL:HG23	1.89	0.54
5:E:148:VAL:HG13	5:E:149:ILE:HD13	1.89	0.54
7:H:47:THR:CG2	7:H:74:VAL:HG21	2.37	0.54
9:J:144:LEU:HD12	9:J:156:TRP:HB2	1.90	0.54
20:V:338:LEU:HD21	20:V:397:ARG:HG3	1.89	0.54
20:V:403:ILE:O	20:V:407:VAL:HG23	2.07	0.54
23:Y:214:MET:HE1	23:Y:222:TYR:CD2	2.42	0.54
24:Z:191:ILE:HG21	25:a:375:LEU:HA	1.90	0.54
24:Z:199:LYS:HE3	25:a:364:GLU:HG2	1.90	0.54
25:a:198:PHE:HE1	25:a:202:LEU:HD22	1.72	0.54
27:c:206:ASN:C	27:c:206:ASN:OD1	2.51	0.54
28:d:236:THR:O	28:d:239:SER:HB3	2.07	0.54
30:f:266:LEU:O	30:f:266:LEU:HG	2.07	0.54
30:f:377:VAL:O	30:f:381:VAL:HG23	2.06	0.54
6:g:7:ALA:N	6:g:10:ASP:OD2	2.35	0.54
12:m:220:THR:HG22	12:m:220:THR:O	2.08	0.54
14:o:220:LEU:HD13	15:p:47:ARG:HH11	1.73	0.54
18:s:70:ALA:O	18:s:74:MET:HG3	2.08	0.54
32:U:204:ILE:HD12	32:U:205:TYR:H	1.71	0.54
32:U:587:ALA:HB2	32:U:621:SER:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:386:ARG:O	1:A:390:THR:HG22	2.07	0.54
3:C:23:TYR:CD2	32:U:105:ILE:HD12	2.43	0.54
3:C:168:PRO:HG3	3:C:175:PHE:HE2	1.72	0.54
3:C:371:LEU:HD22	4:D:191:TYR:HE2	1.73	0.54
4:D:92:PHE:O	4:D:127:ASN:HA	2.07	0.54
21:W:234:ASP:O	21:W:239:SER:HB3	2.08	0.54
23:Y:48:ASN:HA	23:Y:73:MET:CE	2.38	0.54
23:Y:281:GLU:OE1	23:Y:281:GLU:C	2.50	0.54
23:Y:309:GLU:C	23:Y:309:GLU:OE1	2.51	0.54
25:a:25:LEU:HD21	25:a:37:LEU:HD11	1.90	0.54
27:c:151:VAL:O	27:c:152:LYS:HD2	2.08	0.54
27:c:216:MET:HG2	27:c:220:LEU:HD11	1.89	0.54
28:d:114:GLU:HA	28:d:117:THR:HG22	1.88	0.54
30:f:157:GLU:OE1	30:f:157:GLU:N	2.38	0.54
30:f:670:MET:SD	30:f:785:ARG:HD3	2.48	0.54
31:F:219:PRO:O	31:F:221:LYS:HD2	2.08	0.54
31:F:342:LEU:O	31:F:348:LEU:HD11	2.07	0.54
32:U:583:MET:CE	32:U:583:MET:HA	2.33	0.54
1:A:273:PHE:HD1	1:A:318:LEU:HD22	1.72	0.54
4:D:163:MET:HA	4:D:222:HIS:HE2	1.72	0.54
4:D:359:ASP:OD2	4:D:362:ASP:HB2	2.07	0.54
17:R:46:MET:HE2	36:R:301:LDZ:H17	1.89	0.54
20:V:98:LEU:O	20:V:101:LEU:HB3	2.08	0.54
20:V:348:PHE:HD1	20:V:361:PHE:HB2	1.73	0.54
23:Y:138:LEU:HD12	23:Y:142:PHE:CE2	2.42	0.54
23:Y:314:LEU:CD2	23:Y:354:VAL:HG13	2.37	0.54
24:Z:37:GLY:HA2	24:Z:56:VAL:HG22	1.88	0.54
24:Z:96:HIS:ND1	24:Z:98:GLY:HA3	2.22	0.54
24:Z:187:LEU:O	24:Z:191:ILE:HG23	2.07	0.54
24:Z:189:GLN:OE1	27:c:297:VAL:HG11	2.08	0.54
26:b:13:SER:O	26:b:16:MET:HB3	2.08	0.54
27:c:27:THR:HA	27:c:175:ARG:NH2	2.23	0.54
27:c:31:VAL:HG23	27:c:203:ILE:CG2	2.35	0.54
27:c:49:VAL:N	27:c:50:PRO:HD2	2.22	0.54
32:U:725:MET:HE3	32:U:725:MET:C	2.32	0.54
1:A:267:LYS:C	1:A:268:LYS:HE2	2.32	0.54
1:A:284:ARG:HA	1:A:296:GLN:NE2	2.21	0.54
4:D:60:TYR:OH	32:U:640:LEU:HG	2.08	0.54
4:D:251:PHE:HE2	4:D:292:LEU:HD23	1.72	0.54
4:D:255:LYS:HB2	4:D:255:LYS:NZ	2.21	0.54
5:E:244:SER:O	5:E:245:GLU:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:Q:158:GLU:HA	16:Q:158:GLU:OE1	2.07	0.54
19:T:54:SER:OG	19:T:55:GLY:N	2.41	0.54
20:V:194:LYS:NZ	20:V:194:LYS:HB3	2.23	0.54
21:W:293:ASP:OD2	21:W:293:ASP:C	2.51	0.54
22:X:274:LYS:HA	22:X:277:LEU:HG	1.89	0.54
23:Y:160:ASN:HA	23:Y:163:LYS:CG	2.38	0.54
26:b:130:ARG:HA	26:b:133:LYS:HG3	1.88	0.54
30:f:80:ARG:HD3	30:f:80:ARG:H	1.71	0.54
30:f:260:SER:O	30:f:263:PRO:HD2	2.08	0.54
30:f:535:THR:O	30:f:539:LEU:HG	2.08	0.54
30:f:556:ARG:O	30:f:559:PRO:HD2	2.08	0.54
30:f:664:GLU:N	30:f:668:ALA:HB3	2.22	0.54
30:f:712:LYS:NZ	30:f:713:PHE:HB2	2.23	0.54
15:p:145:MET:HE2	15:p:170:MET:HE1	1.88	0.54
32:U:213:PHE:O	32:U:216:VAL:HG12	2.07	0.54
5:E:338:PHE:HA	5:E:342:ASP:OD1	2.07	0.54
22:X:194:ARG:HG3	22:X:194:ARG:HH11	1.71	0.54
23:Y:387:ILE:CD1	24:Z:276:ILE:HD11	2.37	0.54
25:a:27:GLU:O	25:a:30:THR:OG1	2.24	0.54
27:c:33:ILE:O	27:c:34:SER:HB3	2.07	0.54
27:c:143:VAL:HG22	27:c:159:ALA:CB	2.36	0.54
29:e:35:ASP:HB3	29:e:37:HIS:CD2	2.43	0.54
30:f:463:LEU:HG	30:f:489:TYR:CE2	2.43	0.54
30:f:523:GLY:HA3	30:f:561:GLY:HA3	1.89	0.54
15:p:35:THR:HG22	15:p:37:ASP:H	1.72	0.54
32:U:457:ILE:CG2	32:U:461:LEU:HD23	2.37	0.54
32:U:557:TYR:HD1	32:U:588:MET:HE3	1.73	0.54
32:U:807:LYS:CD	32:U:807:LYS:N	2.70	0.54
2:B:264:PRO:HG3	2:B:308:THR:HA	1.89	0.54
4:D:100:THR:HG21	4:D:112:TYR:OH	2.08	0.54
11:L:5:GLN:OE1	11:L:5:GLN:N	2.41	0.54
13:N:168:ASP:OD1	13:N:169:GLY:N	2.41	0.54
20:V:191:LEU:C	20:V:191:LEU:HD13	2.32	0.54
20:V:471:GLU:N	20:V:472:PRO:HD2	2.23	0.54
23:Y:27:SER:HB2	23:Y:59:LYS:HG3	1.89	0.54
25:a:100:THR:O	25:a:103:LYS:HG2	2.07	0.54
25:a:148:VAL:O	25:a:149:THR:HG22	2.06	0.54
25:a:278:MET:HE2	25:a:320:VAL:HG13	1.89	0.54
26:b:86:PHE:CD2	26:b:90:ILE:HD11	2.43	0.54
28:d:71:PHE:HE2	28:d:75:MET:CE	2.18	0.54
30:f:463:LEU:HG	30:f:489:TYR:HE2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:716:ASP:N	30:f:716:ASP:OD2	2.37	0.54
32:U:127:ASP:OD1	32:U:129:ARG:HG2	2.08	0.54
32:U:599:ILE:HD11	32:U:626:LEU:CD2	2.37	0.54
32:U:669:ILE:CD1	32:U:695:MET:HE2	2.32	0.54
1:A:338:ASP:C	1:A:338:ASP:OD1	2.51	0.54
3:C:297:ARG:HB2	3:C:300:ILE:HG13	1.90	0.54
4:D:144:PRO:HD2	5:E:64:LEU:HD21	1.90	0.54
4:D:378:ILE:HG13	4:D:406:VAL:HG11	1.90	0.54
11:L:81:ALA:HB2	11:L:130:VAL:HG21	1.89	0.54
19:T:1:THR:N	19:T:105:PRO:O	2.41	0.54
20:V:440:LYS:HD3	28:d:146:GLY:N	2.23	0.54
21:W:78:LYS:HA	21:W:78:LYS:CE	2.37	0.54
21:W:317:TRP:CE2	21:W:355:LYS:HG3	2.43	0.54
21:W:448:LYS:HD2	24:Z:154:THR:CG2	2.38	0.54
24:Z:191:ILE:HA	24:Z:195:VAL:HG12	1.90	0.54
25:a:143:ASN:O	25:a:145:LEU:HD23	2.08	0.54
25:a:217:LEU:HD11	25:a:238:TYR:CD1	2.43	0.54
26:b:126:LYS:HG2	26:b:129:LYS:NZ	2.23	0.54
27:c:163:ILE:HG13	27:c:199:HIS:C	2.33	0.54
28:d:212:LYS:HZ2	28:d:213:ARG:HG2	1.73	0.54
30:f:520:LEU:HD23	30:f:557:TRP:CB	2.28	0.54
30:f:551:LYS:HA	30:f:551:LYS:HE3	1.90	0.54
30:f:686:LEU:O	30:f:686:LEU:HD22	2.08	0.54
30:f:768:LEU:HD12	30:f:769:THR:N	2.23	0.54
11:l:213:GLY:C	11:l:214:ILE:HD13	2.33	0.54
4:D:145:PRO:HG2	4:D:256:GLU:CD	2.33	0.53
4:D:327:LEU:O	4:D:327:LEU:HD23	2.07	0.53
4:D:339:ARG:HH22	4:D:343:LEU:HG	1.72	0.53
5:E:199:VAL:O	5:E:200:SER:HB3	2.08	0.53
5:E:307:GLN:OE1	5:E:307:GLN:HA	2.08	0.53
12:M:192:GLU:HA	12:M:192:GLU:OE2	2.07	0.53
14:O:39:SER:OG	14:O:41:ASN:OD1	2.26	0.53
20:V:368:ARG:HH12	29:e:43:TRP:HB3	1.73	0.53
21:W:117:ASP:CG	21:W:119:PRO:HD2	2.33	0.53
21:W:123:ARG:HH12	21:W:124:LEU:HA	1.73	0.53
21:W:286:LEU:HD13	21:W:290:ILE:HD13	1.89	0.53
22:X:163:LYS:HB3	22:X:196:THR:HG23	1.90	0.53
23:Y:17:LEU:HD12	23:Y:286:TRP:CH2	2.42	0.53
25:a:25:LEU:HD23	25:a:25:LEU:O	2.08	0.53
25:a:277:LEU:HD12	25:a:296:ILE:HD13	1.90	0.53
28:d:3:GLU:OE1	28:d:3:GLU:HA	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:268:LEU:O	30:f:272:LEU:HD12	2.08	0.53
30:f:627:GLU:HG3	30:f:627:GLU:O	2.08	0.53
30:f:679:LEU:HD22	30:f:688:ARG:HH12	1.73	0.53
30:f:745:LEU:HB2	30:f:746:ARG:HD3	1.89	0.53
10:k:14:THR:HG23	11:l:21:GLN:HE22	1.73	0.53
32:U:58:GLN:O	32:U:87:LEU:HD23	2.08	0.53
32:U:436:ALA:O	32:U:439:GLU:HG2	2.08	0.53
32:U:540:GLN:OE1	32:U:540:GLN:HA	2.07	0.53
1:A:297:ARG:CZ	31:F:306:VAL:HG21	2.38	0.53
2:B:105:THR:HB	2:B:106:PRO:HD3	1.90	0.53
22:X:154:LEU:HD22	22:X:166:LEU:HD11	1.90	0.53
22:X:208:ALA:HB1	22:X:239:TYR:HD2	1.73	0.53
23:Y:20:ALA:HB2	23:Y:150:PHE:CD1	2.43	0.53
23:Y:59:LYS:HD3	23:Y:60:SER:N	2.24	0.53
24:Z:48:LEU:HD12	24:Z:49:ASP:H	1.72	0.53
25:a:68:GLU:O	25:a:70:ARG:HD2	2.08	0.53
25:a:73:PRO:HA	25:a:76:LEU:HB3	1.90	0.53
9:j:66:ASP:OD2	9:j:95:ARG:NH2	2.41	0.53
31:F:195:ILE:HG12	31:F:236:LEU:CD1	2.38	0.53
32:U:195:ASN:HB2	32:U:223:LEU:HD11	1.90	0.53
32:U:357:LYS:HE3	32:U:357:LYS:CA	2.25	0.53
32:U:516:LEU:HB3	32:U:532:MET:HE2	1.90	0.53
32:U:615:ARG:HH21	32:U:645:ASN:HD22	1.57	0.53
2:B:288:ASP:O	2:B:292:THR:HB	2.08	0.53
4:D:203:LEU:HD13	4:D:327:LEU:HD11	1.90	0.53
4:D:207:PRO:HG2	4:D:335:LEU:HD23	1.90	0.53
6:G:38:THR:HG23	6:G:202:LEU:HD21	1.91	0.53
36:R:301:LDZ:H39	36:R:301:LDZ:C9	2.38	0.53
20:V:176:MET:HE1	20:V:217:VAL:HG23	1.89	0.53
24:Z:83:LYS:HB3	24:Z:83:LYS:HZ2	1.74	0.53
24:Z:259:VAL:HG21	27:c:241:ASN:ND2	2.24	0.53
25:a:130:VAL:HG12	25:a:131:THR:HG23	1.91	0.53
26:b:30:GLN:OE1	26:b:76:HIS:ND1	2.39	0.53
27:c:136:LEU:HD22	27:c:136:LEU:H	1.73	0.53
30:f:61:GLU:CD	30:f:97:LYS:HB2	2.34	0.53
30:f:154:TRP:HA	30:f:157:GLU:OE2	2.08	0.53
30:f:744:MET:HB3	30:f:747:GLN:HE21	1.72	0.53
32:U:221:ILE:HA	32:U:260:PHE:HE2	1.73	0.53
32:U:479:LEU:CD2	32:U:511:ALA:HA	2.36	0.53
32:U:610:VAL:HG23	32:U:611:ASN:N	2.23	0.53
32:U:811:PHE:CD2	32:U:885:MET:HE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:289:ALA:HA	31:F:296:PHE:CE1	2.43	0.53
2:B:116:ILE:HG21	2:B:132:TYR:CE2	2.30	0.53
5:E:122:MET:SD	5:E:198:VAL:HB	2.48	0.53
5:E:253:ILE:HG13	31:F:308:ARG:NH2	2.24	0.53
5:E:342:ASP:HB2	5:E:374:VAL:CG1	2.38	0.53
20:V:80:LYS:HG2	20:V:84:LYS:HE3	1.90	0.53
20:V:301:GLU:OE1	20:V:301:GLU:HA	2.07	0.53
21:W:208:LYS:O	21:W:208:LYS:HG3	2.06	0.53
21:W:419:LYS:NZ	21:W:423:ASN:HB3	2.22	0.53
22:X:407:MET:HE2	24:Z:266:ILE:HG23	1.90	0.53
23:Y:268:TYR:HB2	23:Y:322:ALA:O	2.08	0.53
23:Y:308:LEU:HD12	23:Y:356:THR:HG22	1.89	0.53
26:b:8:VAL:HA	26:b:110:ILE:HD11	1.90	0.53
28:d:23:LEU:HA	28:d:26:LEU:CD2	2.33	0.53
28:d:206:MET:HE3	28:d:206:MET:N	2.06	0.53
30:f:126:ILE:CD1	30:f:173:LEU:HD22	2.38	0.53
30:f:217:LEU:HD13	30:f:259:PHE:CZ	2.43	0.53
14:o:141:ASP:OD2	19:t:149:LEU:HD13	2.08	0.53
19:t:9:THR:OG1	19:t:25:ASP:OD2	2.27	0.53
31:F:233:LYS:HE3	31:F:332:THR:O	2.08	0.53
32:U:481:LEU:O	32:U:481:LEU:HD22	2.09	0.53
32:U:789:ILE:CG1	32:U:911:ILE:HA	2.28	0.53
1:A:284:ARG:O	31:F:334:ARG:NH1	2.41	0.53
1:A:365:GLU:OE2	1:A:366:ARG:NH2	2.42	0.53
2:B:420:LYS:O	2:B:423:LYS:HG3	2.09	0.53
3:C:40:GLN:OE1	3:C:43:ARG:NH1	2.41	0.53
3:C:118:ASN:N	3:C:118:ASN:OD1	2.40	0.53
4:D:217:LYS:HG2	5:E:267:PHE:CD1	2.43	0.53
5:E:314:LYS:HE3	5:E:328:TYR:CD2	2.43	0.53
20:V:65:ARG:O	20:V:69:THR:HG22	2.09	0.53
21:W:241:LEU:O	21:W:241:LEU:HD13	2.08	0.53
21:W:287:VAL:HB	21:W:309:PHE:HZ	1.73	0.53
22:X:208:ALA:HB1	22:X:239:TYR:CD2	2.43	0.53
22:X:297:ARG:HH21	22:X:337:ARG:CG	2.19	0.53
22:X:400:ALA:HA	24:Z:262:LEU:CD1	2.39	0.53
23:Y:24:PHE:CD2	23:Y:28:LEU:HD13	2.44	0.53
24:Z:12:HIS:O	24:Z:15:VAL:HG12	2.09	0.53
24:Z:75:LEU:HD23	24:Z:115:TYR:HE2	1.72	0.53
25:a:34:TRP:HZ3	26:b:19:GLY:H	1.56	0.53
26:b:9:CYS:SG	26:b:54:LEU:HD21	2.48	0.53
26:b:11:ASP:C	26:b:11:ASP:OD1	2.52	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:292:LYS:HE2	30:f:807:ARG:NH1	2.23	0.53
30:f:489:TYR:HB3	30:f:492:SER:HB3	1.90	0.53
30:f:555:ALA:HA	30:f:558:LEU:HD23	1.91	0.53
30:f:603:SER:CB	30:f:639:LYS:HZ2	2.21	0.53
31:F:364:ARG:O	31:F:368:ILE:HG13	2.08	0.53
32:U:377:HIS:HB2	32:U:411:ILE:HG13	1.91	0.53
4:D:407:ILE:HD12	4:D:407:ILE:C	2.33	0.53
5:E:352:MET:HA	5:E:355:ILE:HG22	1.91	0.53
10:K:112:VAL:O	10:K:116:VAL:HG23	2.08	0.53
11:L:6:TYR:CD2	11:L:15:PRO:HD3	2.44	0.53
21:W:151:THR:O	21:W:154:GLU:HB2	2.08	0.53
21:W:254:PRO:O	21:W:258:ALA:HB2	2.08	0.53
21:W:268:LYS:O	21:W:272:LEU:HB2	2.09	0.53
21:W:271:VAL:CG2	21:W:305:LEU:HB2	2.38	0.53
21:W:325:GLY:O	21:W:329:ARG:NH1	2.42	0.53
22:X:385:LEU:HG	22:X:387:ILE:HD11	1.90	0.53
22:X:388:PHE:CE2	23:Y:358:ARG:HD2	2.43	0.53
23:Y:214:MET:O	23:Y:214:MET:CG	2.53	0.53
25:a:87:MET:CE	25:a:89:ASP:OD1	2.56	0.53
25:a:102:GLU:HA	25:a:105:LYS:NZ	2.24	0.53
25:a:185:ILE:HD12	25:a:185:ILE:C	2.34	0.53
25:a:186:LYS:CD	25:a:221:VAL:HG13	2.37	0.53
26:b:3:LEU:O	26:b:106:LYS:N	2.36	0.53
26:b:91:ARG:HH22	26:b:130:ARG:HH12	1.57	0.53
26:b:109:ILE:HG13	26:b:138:VAL:HG23	1.89	0.53
26:b:129:LYS:HG2	26:b:133:LYS:CE	2.39	0.53
27:c:104:ARG:H	27:c:104:ARG:HD3	1.73	0.53
29:e:59:GLU:OE1	29:e:59:GLU:HA	2.09	0.53
30:f:288:VAL:HG13	30:f:873:LEU:HD13	1.90	0.53
30:f:346:ASP:O	30:f:350:LYS:HG2	2.08	0.53
30:f:461:PRO:HB2	30:f:465:LEU:CD1	2.38	0.53
30:f:486:GLY:HA3	30:f:521:ALA:HB1	1.90	0.53
30:f:713:PHE:CE2	30:f:752:HIS:HB3	2.43	0.53
17:r:36:ILE:HD11	17:r:46:MET:SD	2.49	0.53
32:U:177:LEU:HD11	32:U:204:ILE:CG1	2.39	0.53
32:U:213:PHE:CA	32:U:216:VAL:HG12	2.38	0.53
32:U:227:GLN:HG2	32:U:228:ALA:N	2.24	0.53
32:U:899:ARG:HG2	32:U:916:ASP:OD1	2.09	0.53
2:B:342:ILE:HA	2:B:347:ILE:HG12	1.90	0.53
4:D:163:MET:SD	4:D:222:HIS:NE2	2.82	0.53
10:K:53:ARG:HH11	10:K:53:ARG:HG3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:K:215:ILE:HD12	10:K:215:ILE:O	2.08	0.53
11:L:31:GLN:CB	31:F:435:LEU:HD13	2.39	0.53
19:T:9:THR:HG22	19:T:10:SER:H	1.74	0.53
21:W:55:ARG:HH22	21:W:93:ARG:HE	1.57	0.53
22:X:170:GLN:CD	22:X:192:SER:HG	2.12	0.53
27:c:49:VAL:O	27:c:116:PRO:HG3	2.09	0.53
27:c:163:ILE:HG23	27:c:201:TYR:CD1	2.43	0.53
28:d:42:LYS:HA	28:d:86:LYS:NZ	2.23	0.53
30:f:179:VAL:CG1	30:f:216:MET:HE1	2.38	0.53
12:m:202:ASP:C	12:m:202:ASP:OD1	2.52	0.53
32:U:463:ASN:HA	32:U:466:LYS:NZ	2.23	0.53
32:U:554:LEU:HD12	32:U:588:MET:HE1	1.89	0.53
1:A:143:ASP:OD1	1:A:143:ASP:C	2.52	0.53
2:B:154:HIS:ND1	2:B:154:HIS:O	2.42	0.53
2:B:361:LYS:HD3	2:B:390:LEU:CD1	2.18	0.53
2:B:390:LEU:HD22	2:B:395:ILE:CD1	2.33	0.53
13:N:128:ILE:HD11	13:N:137:TYR:CE1	2.44	0.53
20:V:162:GLU:HA	20:V:162:GLU:OE2	2.08	0.53
21:W:73:MET:HE1	21:W:77:ALA:HB2	1.89	0.53
21:W:175:GLY:O	21:W:182:ARG:NH1	2.41	0.53
21:W:214:PHE:HA	21:W:216:GLU:CD	2.34	0.53
22:X:282:ARG:HA	22:X:285:GLU:OE1	2.09	0.53
24:Z:190:ARG:NE	27:c:300:LEU:HD22	2.24	0.53
27:c:284:LEU:O	27:c:288:VAL:HG23	2.09	0.53
30:f:423:ASP:HA	30:f:426:LEU:HD23	1.90	0.53
32:U:164:GLU:HA	32:U:167:ILE:HG23	1.91	0.53
32:U:256:ALA:HB3	32:U:261:LEU:HD21	1.89	0.53
32:U:370:VAL:HG11	32:U:404:ALA:HA	1.91	0.53
32:U:765:VAL:HG13	32:U:775:LEU:CD2	2.39	0.53
1:A:159:PRO:O	1:A:162:THR:HG22	2.09	0.53
2:B:417:GLU:OE1	2:B:417:GLU:HA	2.07	0.53
3:C:42:LEU:HD13	4:D:54:LEU:HD13	1.89	0.53
4:D:233:SER:OG	5:E:259:GLU:OE1	2.21	0.53
5:E:205:ASP:C	5:E:205:ASP:OD1	2.51	0.53
5:E:356:ARG:HG3	5:E:356:ARG:NH1	2.24	0.53
6:G:122:SER:O	6:G:126:THR:HG23	2.09	0.53
15:P:48:LEU:CD2	15:P:86:LEU:HD22	2.39	0.53
18:S:26:ASP:C	18:S:26:ASP:OD1	2.52	0.53
20:V:254:LEU:CD1	20:V:270:LEU:HD13	2.39	0.53
23:Y:247:LEU:HD12	23:Y:248:GLU:H	1.72	0.53
24:Z:5:ALA:O	24:Z:46:LYS:HD2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Z:213:GLU:HB3	24:Z:219:LYS:NZ	2.24	0.53
25:a:52:GLN:HA	25:a:86:GLN:HG2	1.90	0.53
27:c:30:GLN:OE1	27:c:181:LEU:HD21	2.09	0.53
27:c:150:SER:HB3	27:c:155:VAL:O	2.09	0.53
30:f:271:MET:CE	30:f:271:MET:H	2.21	0.53
30:f:479:LEU:CD1	30:f:514:VAL:HG22	2.26	0.53
30:f:507:ASP:OD2	30:f:509:LYS:HG2	2.09	0.53
32:U:159:ARG:HB2	32:U:159:ARG:HH11	1.74	0.53
32:U:384:GLN:C	32:U:384:GLN:OE1	2.51	0.53
32:U:475:HIS:HE1	32:U:510:GLU:HB2	1.73	0.53
32:U:585:THR:O	32:U:589:ALA:N	2.34	0.53
2:B:197:ILE:CG2	2:B:239:VAL:HG21	2.39	0.53
2:B:207:HIS:HB3	2:B:210:TYR:HE1	1.71	0.53
3:C:351:MET:CE	3:C:362:VAL:HG21	2.37	0.53
8:I:174:MET:HE1	8:I:199:LYS:HB3	1.90	0.53
9:J:134:VAL:HG12	9:J:144:LEU:CD2	2.39	0.53
20:V:466:ILE:HD11	20:V:471:GLU:OE2	2.09	0.53
22:X:361:VAL:O	22:X:365:LEU:HD23	2.09	0.53
23:Y:48:ASN:HA	23:Y:73:MET:HE2	1.90	0.53
25:a:48:PRO:CB	25:a:51:ALA:HA	2.39	0.53
25:a:61:GLU:HA	25:a:64:ILE:HG13	1.90	0.53
28:d:212:LYS:HD2	28:d:212:LYS:C	2.34	0.53
30:f:154:TRP:O	30:f:157:GLU:HG2	2.09	0.53
30:f:301:HIS:CE1	30:f:305:LEU:HD23	2.43	0.53
30:f:373:ALA:CB	30:f:748:LEU:HD21	2.39	0.53
30:f:466:LEU:CB	30:f:485:LEU:HD21	2.37	0.53
31:F:78:GLU:OE1	31:F:78:GLU:HA	2.09	0.53
32:U:173:VAL:N	32:U:174:PRO:HD3	2.24	0.53
32:U:264:VAL:CG1	32:U:329:LEU:HD21	2.39	0.53
32:U:423:MET:HG3	32:U:446:LEU:HD11	1.90	0.53
32:U:501:LEU:HB2	32:U:512:ALA:HB1	1.89	0.53
32:U:609:ASP:OD1	32:U:609:ASP:C	2.52	0.53
3:C:63:LEU:HD13	3:C:63:LEU:C	2.34	0.52
3:C:235:PHE:HA	3:C:238:ALA:HB3	1.90	0.52
4:D:130:VAL:HB	4:D:139:LEU:CD2	2.40	0.52
4:D:146:GLU:OE1	4:D:147:ALA:N	2.42	0.52
4:D:392:TYR:H	21:W:136:ILE:HD11	1.74	0.52
5:E:72:LYS:O	5:E:72:LYS:HG2	2.08	0.52
5:E:342:ASP:O	5:E:346:VAL:N	2.40	0.52
12:M:39:ILE:HD12	12:M:193:VAL:CG2	2.39	0.52
20:V:130:PHE:O	20:V:133:PRO:HG2	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:381:GLN:HG3	20:V:382:PHE:CD1	2.44	0.52
21:W:121:LYS:HD2	21:W:121:LYS:C	2.33	0.52
21:W:201:ARG:CD	21:W:204:ILE:HD11	2.38	0.52
21:W:203:GLN:O	21:W:206:SER:OG	2.19	0.52
21:W:372:ARG:O	25:a:326:GLU:HG2	2.09	0.52
23:Y:29:PRO:CB	23:Y:32:ARG:HG2	2.27	0.52
24:Z:38:VAL:HG23	24:Z:56:VAL:HG11	1.91	0.52
25:a:342:ASP:N	25:a:342:ASP:OD1	2.40	0.52
26:b:78:VAL:HG13	26:b:78:VAL:O	2.08	0.52
26:b:179:LEU:HD13	26:b:181:ASP:H	1.74	0.52
28:d:206:MET:N	28:d:206:MET:SD	2.82	0.52
30:f:6:ARG:CD	30:f:6:ARG:H	2.22	0.52
30:f:523:GLY:O	30:f:564:LEU:HD11	2.08	0.52
30:f:646:MET:O	30:f:649:HIS:NE2	2.42	0.52
30:f:680:ARG:HH11	30:f:761:MET:CE	2.21	0.52
31:F:195:ILE:HA	31:F:236:LEU:HD21	1.92	0.52
32:U:494:TYR:CD1	32:U:516:LEU:HD11	2.44	0.52
32:U:678:ASP:OD1	32:U:679:PRO:HD2	2.10	0.52
32:U:710:ARG:NH1	32:U:737:LEU:HD21	2.24	0.52
32:U:712:LEU:O	32:U:716:VAL:HG13	2.09	0.52
32:U:811:PHE:CZ	32:U:884:VAL:HA	2.44	0.52
32:U:890:LYS:HZ2	32:U:891:VAL:HG12	1.74	0.52
1:A:232:ARG:HB2	1:A:232:ARG:CZ	2.39	0.52
1:A:394:MET:HE3	2:B:199:GLU:CG	2.34	0.52
2:B:280:SER:C	2:B:281:ILE:HD13	2.34	0.52
5:E:98:VAL:HB	5:E:107:ILE:CG2	2.38	0.52
5:E:192:ASP:N	5:E:192:ASP:OD1	2.42	0.52
20:V:379:LEU:HD11	20:V:395:ILE:HG21	1.90	0.52
20:V:482:PHE:HE2	23:Y:377:LEU:CD1	2.15	0.52
21:W:312:MET:HB3	21:W:365:ILE:CD1	2.38	0.52
21:W:441:LYS:HB2	21:W:441:LYS:HZ3	1.74	0.52
22:X:130:GLU:HB3	22:X:153:LEU:HD22	1.90	0.52
22:X:200:ILE:HG22	22:X:203:PRO:HD3	1.90	0.52
28:d:251:ARG:HH11	28:d:251:ARG:HG3	1.73	0.52
31:F:404:GLY:HA2	31:F:415:LEU:HD21	1.90	0.52
32:U:111:GLN:O	32:U:114:GLU:HG3	2.10	0.52
32:U:872:GLU:HG2	32:U:872:GLU:O	2.09	0.52
32:U:889:LEU:O	32:U:889:LEU:HD23	2.09	0.52
2:B:116:ILE:HG12	2:B:117:ASP:N	2.24	0.52
3:C:42:LEU:CD1	4:D:54:LEU:HD13	2.39	0.52
3:C:360:LYS:O	3:C:360:LYS:CD	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:384:GLU:O	3:C:387:VAL:HG22	2.08	0.52
5:E:286:ASP:OD1	5:E:287:PRO:HD2	2.09	0.52
12:M:8:ASP:OD2	12:M:25:TYR:OH	2.22	0.52
21:W:125:ILE:HG13	21:W:129:ARG:HH12	1.74	0.52
21:W:157:GLY:CA	21:W:161:GLU:HG3	2.39	0.52
21:W:259:GLU:HB3	21:W:262:LYS:HB3	1.90	0.52
22:X:340:GLU:N	22:X:341:PRO:HD2	2.24	0.52
22:X:396:THR:N	27:c:242:GLU:OE1	2.42	0.52
25:a:33:LEU:HB2	26:b:18:ASN:HD22	1.75	0.52
25:a:47:ASP:C	25:a:47:ASP:OD1	2.52	0.52
25:a:230:ARG:O	25:a:230:ARG:CG	2.57	0.52
26:b:13:SER:O	26:b:80:PRO:HB2	2.10	0.52
26:b:141:ILE:HB	26:b:171:VAL:CG2	2.39	0.52
30:f:75:LEU:HD12	30:f:76:GLU:N	2.24	0.52
30:f:373:ALA:HA	30:f:748:LEU:HD21	1.91	0.52
30:f:373:ALA:CA	30:f:748:LEU:HD21	2.39	0.52
30:f:679:LEU:HD11	30:f:681:TYR:HE2	1.74	0.52
32:U:167:ILE:HB	32:U:204:ILE:CG2	2.36	0.52
32:U:422:LEU:HG	32:U:423:MET:HE2	1.90	0.52
1:A:168:GLU:OE2	1:A:168:GLU:HA	2.09	0.52
1:A:295:VAL:HG21	2:B:307:ARG:CZ	2.39	0.52
3:C:82:LYS:HB3	3:C:82:LYS:NZ	2.25	0.52
4:D:132:LEU:CD2	4:D:139:LEU:HD23	2.40	0.52
4:D:140:VAL:O	4:D:140:VAL:HG12	2.09	0.52
5:E:148:VAL:HG13	5:E:149:ILE:CD1	2.40	0.52
5:E:235:ILE:O	5:E:235:ILE:HG13	2.09	0.52
17:R:50:ALA:HA	36:R:301:LDZ:H22	1.92	0.52
20:V:467:TYR:HE2	23:Y:362:LYS:HE2	1.74	0.52
22:X:236:PHE:CE1	22:X:251:LEU:HG	2.45	0.52
22:X:407:MET:HG3	24:Z:266:ILE:CD1	2.40	0.52
23:Y:267:ARG:O	23:Y:270:VAL:HG12	2.10	0.52
24:Z:40:LEU:HD11	24:Z:54:PHE:HD1	1.73	0.52
25:a:205:LEU:HD23	25:a:205:LEU:H	1.75	0.52
26:b:12:ASN:HD21	26:b:55:ALA:HB2	1.74	0.52
27:c:151:VAL:CG2	27:c:152:LYS:H	2.22	0.52
30:f:176:ALA:O	30:f:179:VAL:HG23	2.09	0.52
30:f:440:ILE:CG1	30:f:441:LYS:HD2	2.39	0.52
13:n:56:VAL:HG13	13:n:87:MET:HE3	1.92	0.52
31:F:221:LYS:HD2	31:F:221:LYS:N	2.25	0.52
32:U:173:VAL:HG13	32:U:176:MET:O	2.10	0.52
32:U:201:LEU:O	32:U:204:ILE:HD11	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:264:VAL:HG13	32:U:329:LEU:HD21	1.92	0.52
32:U:481:LEU:HD13	32:U:481:LEU:C	2.35	0.52
2:B:136:LEU:HB3	2:B:138:PHE:CD2	2.45	0.52
4:D:214:MET:CE	33:D:501:ATP:H2'	2.40	0.52
5:E:172:LEU:HD23	5:E:299:ILE:HB	1.92	0.52
19:T:27:LEU:HD22	19:T:184:TYR:HB2	1.91	0.52
20:V:386:PHE:HB3	20:V:392:TYR:HB2	1.91	0.52
22:X:343:SER:O	22:X:344:ARG:C	2.52	0.52
23:Y:13:LYS:HB2	23:Y:13:LYS:NZ	2.24	0.52
25:a:33:LEU:HD12	25:a:34:TRP:N	2.24	0.52
26:b:14:GLU:HB3	26:b:82:GLY:H	1.74	0.52
27:c:73:PHE:CD2	27:c:95:MET:HG2	2.44	0.52
27:c:164:ASN:OD1	27:c:165:ALA:N	2.43	0.52
28:d:212:LYS:HD2	28:d:213:ARG:N	2.24	0.52
19:t:200:GLU:OE1	19:t:201:GLY:N	2.43	0.52
32:U:472:ILE:HD12	32:U:473:VAL:N	2.25	0.52
1:A:113:ILE:HD11	1:A:142:VAL:CG1	2.34	0.52
5:E:319:PRO:O	5:E:320:ILE:HD13	2.08	0.52
8:I:11:ILE:HD13	9:J:7:ILE:HD12	1.91	0.52
20:V:135:LEU:HD22	20:V:135:LEU:N	2.25	0.52
20:V:201:ARG:HA	20:V:201:ARG:HE	1.75	0.52
20:V:278:GLU:OE1	20:V:278:GLU:HA	2.08	0.52
21:W:118:LEU:C	21:W:118:LEU:HD13	2.34	0.52
23:Y:31:HIS:C	23:Y:32:ARG:HD2	2.34	0.52
23:Y:241:ILE:HG23	23:Y:261:PHE:CE1	2.45	0.52
25:a:33:LEU:CD1	25:a:36:GLN:HG3	2.39	0.52
27:c:110:GLY:HA3	27:c:141:VAL:O	2.09	0.52
30:f:483:PHE:HE2	30:f:517:VAL:HG21	1.75	0.52
30:f:610:GLN:HA	30:f:610:GLN:HE21	1.75	0.52
18:s:114:ASP:OD2	18:s:114:ASP:N	2.36	0.52
31:F:175:MET:HB2	31:F:250:LYS:O	2.09	0.52
32:U:9:ILE:CD1	32:U:42:VAL:HG21	2.39	0.52
32:U:712:LEU:HD13	32:U:712:LEU:C	2.34	0.52
1:A:235:ALA:HB1	1:A:269:ALA:O	2.10	0.52
2:B:187:ILE:HD13	2:B:235:LEU:HD23	1.91	0.52
2:B:225:TYR:CZ	2:B:352:GLU:HB2	2.45	0.52
2:B:260:LEU:HD23	2:B:299:SER:HB2	1.92	0.52
2:B:355:LEU:HD13	2:B:389:ASP:HB2	1.90	0.52
3:C:189:TYR:CE1	3:C:298:ILE:HD12	2.45	0.52
3:C:282:GLY:O	3:C:284:GLU:N	2.43	0.52
4:D:382:SER:HB2	4:D:399:PHE:CD1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:270:LEU:CD2	5:E:273:VAL:HB	2.34	0.52
5:E:291:ARG:HH21	5:E:294:ARG:NH1	2.07	0.52
20:V:285:TRP:CD1	20:V:289:LEU:HD21	2.45	0.52
21:W:279:PHE:HD1	21:W:280:ASP:H	1.58	0.52
23:Y:300:ARG:HG3	23:Y:300:ARG:NH1	2.25	0.52
24:Z:113:LYS:HE2	24:Z:117:PRO:O	2.10	0.52
25:a:48:PRO:HB2	25:a:51:ALA:N	2.24	0.52
25:a:357:CYS:O	25:a:360:VAL:HG12	2.09	0.52
26:b:11:ASP:OD1	26:b:12:ASN:N	2.43	0.52
28:d:64:LEU:HA	28:d:165:PHE:CE1	2.45	0.52
28:d:198:LEU:HD12	28:d:200:PHE:CZ	2.45	0.52
28:d:227:SER:O	28:d:228:GLN:HG2	2.10	0.52
30:f:470:VAL:HA	30:f:478:ARG:HB2	1.90	0.52
30:f:617:SER:HA	30:f:620:PHE:HE1	1.74	0.52
32:U:177:LEU:O	32:U:177:LEU:HD23	2.10	0.52
1:A:365:GLU:HA	1:A:366:ARG:NH1	2.25	0.52
2:B:59:ARG:CB	30:f:184:LEU:HD22	2.39	0.52
3:C:237:MET:O	3:C:237:MET:HG2	2.09	0.52
4:D:203:LEU:HD22	4:D:322:LEU:HD21	1.92	0.52
4:D:373:ALA:HB1	5:E:292:PRO:O	2.10	0.52
20:V:349:ARG:NH2	29:e:37:HIS:O	2.43	0.52
20:V:366:ALA:HB2	20:V:374:LYS:HG3	1.92	0.52
21:W:422:ASN:O	21:W:426:ASN:HB2	2.10	0.52
23:Y:212:GLU:HG2	23:Y:213:LEU:N	2.24	0.52
24:Z:44:GLN:C	24:Z:45:LYS:HG2	2.34	0.52
24:Z:230:LEU:HB3	25:a:349:MET:HE3	1.91	0.52
25:a:135:ILE:HG13	25:a:155:PHE:HE2	1.75	0.52
25:a:370:GLN:NE2	28:d:244:LYS:HB3	2.25	0.52
26:b:25:ARG:NH1	26:b:144:GLY:O	2.42	0.52
26:b:91:ARG:HH21	26:b:127:LEU:HD21	1.75	0.52
26:b:91:ARG:HH21	26:b:127:LEU:CD2	2.22	0.52
26:b:91:ARG:HH12	26:b:130:ARG:HH12	1.58	0.52
28:d:193:GLU:O	28:d:197:ILE:HG12	2.10	0.52
30:f:217:LEU:HD11	30:f:245:ASN:HD21	1.75	0.52
30:f:456:ARG:O	30:f:456:ARG:HD2	2.09	0.52
30:f:620:PHE:CZ	30:f:629:LYS:HD2	2.44	0.52
30:f:780:PRO:HG3	30:f:803:PHE:CD2	2.44	0.52
32:U:334:ALA:O	32:U:338:HIS:N	2.30	0.52
32:U:443:LEU:HD22	32:U:443:LEU:N	2.25	0.52
1:A:301:GLU:HG2	31:F:254:PRO:HG2	1.92	0.52
1:A:424:SER:OG	1:A:425:ALA:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:57:ARG:NH2	32:U:649:ARG:HH12	2.04	0.52
4:D:364:VAL:O	4:D:364:VAL:CG2	2.58	0.52
4:D:417:TYR:OH	6:G:26:GLU:OE2	2.26	0.52
5:E:50:LEU:HD13	31:F:82:VAL:CG1	2.37	0.52
20:V:224:LEU:HB2	20:V:261:TYR:OH	2.09	0.52
20:V:404:LYS:HD2	20:V:446:VAL:CG2	2.40	0.52
20:V:404:LYS:HE3	20:V:446:VAL:HG21	1.91	0.52
21:W:445:LEU:HB3	24:Z:226:ILE:HD11	1.92	0.52
22:X:190:LEU:O	22:X:190:LEU:HD22	2.10	0.52
22:X:372:LYS:O	22:X:372:LYS:CG	2.58	0.52
24:Z:22:HIS:CE1	24:Z:55:ALA:HB1	2.44	0.52
24:Z:213:GLU:C	24:Z:219:LYS:HZ2	2.18	0.52
24:Z:263:ALA:HB1	27:c:288:VAL:HG13	1.91	0.52
25:a:258:GLN:N	25:a:259:PRO:HD2	2.25	0.52
25:a:340:VAL:C	25:a:341:LEU:HD23	2.35	0.52
26:b:97:LEU:HB3	26:b:100:ARG:HH12	1.75	0.52
26:b:129:LYS:O	26:b:132:LYS:HG2	2.10	0.52
27:c:229:LEU:HD22	27:c:229:LEU:N	2.25	0.52
30:f:271:MET:HE3	30:f:271:MET:H	1.74	0.52
12:m:87:LEU:HD12	12:m:133:CYS:SG	2.49	0.52
31:F:226:TYR:CE1	31:F:353:GLU:HA	2.45	0.52
32:U:505:ASP:C	32:U:505:ASP:OD1	2.52	0.52
32:U:536:ALA:HB1	32:U:545:LEU:HD11	1.92	0.52
32:U:610:VAL:HG23	32:U:611:ASN:H	1.74	0.52
32:U:801:GLN:HG2	32:U:878:LEU:H	1.75	0.52
3:C:24:TYR:OH	4:D:41:TYR:HD1	1.93	0.52
3:C:164:VAL:HG12	3:C:183:PRO:HG2	1.92	0.52
4:D:285:VAL:HG21	5:E:255:ARG:CZ	2.39	0.52
5:E:72:LYS:CB	5:E:78:ARG:HD3	2.40	0.52
5:E:138:LEU:O	5:E:142:ILE:HG13	2.10	0.52
20:V:318:GLN:HG2	20:V:319:HIS:H	1.75	0.52
21:W:206:SER:HB2	21:W:230:MET:HE3	1.92	0.52
22:X:366:SER:O	22:X:369:ILE:HG13	2.09	0.52
22:X:409:LYS:HA	22:X:412:ASP:HB2	1.92	0.52
24:Z:36:VAL:HG22	24:Z:96:HIS:CB	2.39	0.52
27:c:292:MET:CE	28:d:253:LEU:HD13	2.37	0.52
30:f:141:LYS:HD2	30:f:142:TYR:N	2.25	0.52
30:f:416:MET:HE1	30:f:447:ALA:CA	2.40	0.52
30:f:519:ALA:HB3	30:f:557:TRP:NE1	2.25	0.52
30:f:603:SER:HB2	30:f:639:LYS:HD3	1.91	0.52
30:f:672:LEU:HA	30:f:675:PHE:HE1	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:F:314:LEU:HD23	31:F:342:LEU:HD13	1.92	0.52
32:U:181:LEU:O	32:U:181:LEU:HD22	2.10	0.52
32:U:745:THR:HB	32:U:786:THR:CG2	2.40	0.52
32:U:803:LYS:HE3	32:U:804:SER:O	2.10	0.52
2:B:386:ALA:C	2:B:387:LYS:HD2	2.35	0.51
3:C:176:GLU:C	3:C:176:GLU:OE1	2.53	0.51
4:D:120:ASP:HB3	4:D:123:LEU:HD23	1.91	0.51
4:D:130:VAL:HB	4:D:139:LEU:HD22	1.93	0.51
4:D:130:VAL:HG23	4:D:132:LEU:HD21	1.92	0.51
5:E:91:LYS:NZ	5:E:91:LYS:HB3	2.24	0.51
5:E:352:MET:HA	5:E:352:MET:CE	2.33	0.51
6:G:112:ASP:OD1	6:G:112:ASP:N	2.43	0.51
19:T:74:GLU:OE2	19:T:82:SER:HA	2.09	0.51
20:V:304:GLU:HG3	20:V:307:ARG:NE	2.25	0.51
20:V:347:GLN:HE22	20:V:348:PHE:HE2	1.58	0.51
20:V:355:ARG:HH12	20:V:358:MET:HG2	1.75	0.51
21:W:263:TRP:HE1	21:W:295:LYS:HG2	1.75	0.51
21:W:279:PHE:HD1	21:W:280:ASP:N	2.08	0.51
22:X:316:ASP:C	22:X:316:ASP:OD2	2.53	0.51
23:Y:202:LEU:HD22	23:Y:239:LYS:HZ3	1.75	0.51
23:Y:300:ARG:HD3	29:e:52:PHE:CE1	2.44	0.51
24:Z:262:LEU:O	24:Z:266:ILE:HG12	2.10	0.51
25:a:35:HIS:NE2	26:b:17:ARG:HG2	2.25	0.51
28:d:45:LYS:HB3	28:d:88:GLN:OE1	2.11	0.51
30:f:119:LYS:HA	30:f:119:LYS:HE3	1.91	0.51
30:f:551:LYS:HA	30:f:551:LYS:CE	2.40	0.51
30:f:744:MET:HA	30:f:747:GLN:HE21	1.75	0.51
9:j:42:VAL:HG22	9:j:210:VAL:HG12	1.91	0.51
16:q:29:LYS:NZ	16:q:31:ASP:OD1	2.35	0.51
31:F:220:PRO:C	31:F:221:LYS:HD2	2.36	0.51
1:A:134:ILE:HD12	1:A:140:VAL:HG11	1.93	0.51
2:B:216:ILE:H	2:B:216:ILE:HD12	1.75	0.51
3:C:98:ASP:OD1	3:C:99:VAL:N	2.41	0.51
3:C:149:GLU:CG	23:Y:133:ALA:HB1	2.40	0.51
3:C:298:ILE:O	3:C:298:ILE:HG12	2.10	0.51
4:D:168:GLY:HA3	33:D:501:ATP:HN62	1.74	0.51
4:D:242:GLU:C	4:D:242:GLU:OE1	2.53	0.51
5:E:69:PHE:O	5:E:80:VAL:HA	2.10	0.51
5:E:190:GLN:O	5:E:191:LEU:HB2	2.10	0.51
5:E:204:VAL:CG2	5:E:253:ILE:HD11	2.34	0.51
36:N:301:LDZ:N16	36:N:301:LDZ:O32	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:281:ASN:C	20:V:281:ASN:OD1	2.53	0.51
20:V:430:SER:OG	20:V:433:ASP:OD1	2.20	0.51
23:Y:214:MET:HE2	23:Y:219:PHE:HA	1.92	0.51
24:Z:22:HIS:HD2	24:Z:25:ARG:HD3	1.75	0.51
25:a:104:VAL:HG23	25:a:104:VAL:O	2.09	0.51
25:a:210:VAL:HG12	25:a:213:PHE:CE2	2.44	0.51
26:b:48:ASN:HD21	26:b:64:LEU:CB	2.24	0.51
27:c:59:GLY:HA3	27:c:69:VAL:HA	1.90	0.51
28:d:52:ARG:HA	28:d:81:TYR:CD2	2.46	0.51
28:d:181:CYS:SG	28:d:182:ILE:N	2.83	0.51
29:e:60:LEU:HD22	29:e:60:LEU:H	1.75	0.51
30:f:821:LEU:HD11	30:f:882:LEU:HD22	1.92	0.51
32:U:676:THR:HG23	32:U:677:ASN:OD1	2.09	0.51
32:U:792:ASN:CG	32:U:796:LYS:H	2.18	0.51
1:A:196:LEU:CD1	30:f:348:ILE:HD13	2.28	0.51
2:B:94:GLU:O	2:B:98:LYS:HD3	2.10	0.51
2:B:411:ARG:HG2	2:B:413:LYS:H	1.74	0.51
3:C:356:GLY:HA3	35:C:501:ADP:C8	2.45	0.51
4:D:123:LEU:CB	4:D:142:VAL:HG11	2.39	0.51
21:W:84:ASN:HD21	21:W:123:ARG:HB2	1.75	0.51
21:W:105:VAL:O	21:W:109:CYS:N	2.42	0.51
21:W:145:LEU:HD11	21:W:185:PHE:CD1	2.46	0.51
23:Y:101:ARG:HH22	23:Y:105:MET:HE2	1.75	0.51
23:Y:229:ILE:HB	23:Y:299:MET:HE1	1.91	0.51
23:Y:240:VAL:HG23	23:Y:260:LEU:HD11	1.92	0.51
26:b:179:LEU:HD13	26:b:180:ALA:N	2.25	0.51
30:f:6:ARG:HB2	30:f:8:LYS:HZ3	1.75	0.51
30:f:438:ASP:O	30:f:441:LYS:HG2	2.10	0.51
30:f:530:CYS:O	30:f:534:VAL:HG22	2.09	0.51
30:f:664:GLU:O	30:f:669:GLU:HG2	2.11	0.51
30:f:681:TYR:CB	30:f:761:MET:HE3	2.22	0.51
30:f:813:LYS:CD	30:f:882:LEU:HD21	2.36	0.51
32:U:191:LYS:HE2	32:U:560:MET:HE1	1.92	0.51
32:U:231:ASP:HA	32:U:234:GLU:HG3	1.91	0.51
1:A:280:ILE:HA	1:A:295:VAL:CG1	2.35	0.51
2:B:54:PRO:HG3	2:B:60:LEU:HD23	1.93	0.51
2:B:112:LEU:HD12	2:B:113:GLU:N	2.25	0.51
4:D:249:ASP:OD1	4:D:249:ASP:C	2.53	0.51
5:E:244:SER:O	31:F:300:LYS:HA	2.10	0.51
10:K:234:LEU:O	10:K:238:ILE:HG13	2.09	0.51
11:L:88:MET:HE2	11:L:112:ILE:HD11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:494:MET:HE1	24:Z:274:ASN:OD1	2.10	0.51
22:X:258:LYS:HE2	22:X:266:ASP:OD2	2.10	0.51
22:X:366:SER:HA	22:X:369:ILE:HD11	1.91	0.51
23:Y:260:LEU:C	23:Y:260:LEU:HD23	2.34	0.51
24:Z:38:VAL:HG21	24:Z:75:LEU:CD2	2.40	0.51
24:Z:81:MET:CE	27:c:94:LYS:HD3	2.38	0.51
24:Z:190:ARG:NH2	27:c:300:LEU:HD22	2.25	0.51
25:a:304:VAL:HG13	25:a:305:ASN:OD1	2.10	0.51
28:d:227:SER:C	28:d:228:GLN:HG2	2.36	0.51
30:f:297:MET:HE1	30:f:456:ARG:HH21	1.74	0.51
30:f:712:LYS:HE2	30:f:750:GLN:CD	2.35	0.51
32:U:201:LEU:HD22	32:U:201:LEU:O	2.11	0.51
32:U:520:MET:HE1	32:U:525:ASN:HB3	1.92	0.51
2:B:59:ARG:NH2	30:f:184:LEU:HD13	2.25	0.51
3:C:273:MET:O	3:C:276:LEU:N	2.43	0.51
33:E:402:ATP:H5'1	31:F:344:ARG:NH1	2.26	0.51
7:H:202:MET:SD	7:H:207:ILE:HG21	2.51	0.51
9:J:69:VAL:HG12	9:J:104:VAL:HG12	1.93	0.51
19:T:69:GLN:NE2	19:T:73:ASP:OD1	2.44	0.51
21:W:51:GLU:HB3	21:W:66:ILE:HD12	1.92	0.51
22:X:154:LEU:CD2	22:X:166:LEU:HD11	2.41	0.51
24:Z:59:ASP:HB2	26:b:99:HIS:HE2	1.73	0.51
25:a:78:GLU:O	25:a:82:HIS:ND1	2.43	0.51
28:d:124:ALA:H	28:d:125:LYS:NZ	2.08	0.51
6:g:69:LEU:HD23	6:g:79:VAL:HG23	1.92	0.51
7:h:92:LEU:HD13	7:h:112:ARG:HB3	1.92	0.51
7:h:159:ALA:HB1	7:h:173:LEU:HD13	1.92	0.51
31:F:210:GLU:HA	31:F:213:GLU:OE2	2.11	0.51
31:F:300:LYS:O	31:F:301:ALA:HB3	2.09	0.51
2:B:85:MET:HG2	2:B:86:LYS:HD2	1.93	0.51
2:B:155:LYS:HB2	2:B:155:LYS:NZ	2.25	0.51
3:C:381:GLU:HG3	22:X:191:THR:HG23	1.93	0.51
4:D:126:PRO:O	4:D:127:ASN:C	2.54	0.51
5:E:50:LEU:HD11	31:F:82:VAL:HG21	1.92	0.51
5:E:80:VAL:HG13	5:E:80:VAL:O	2.10	0.51
20:V:116:ALA:HB1	20:V:167:LEU:HD21	1.91	0.51
20:V:313:LEU:HD11	20:V:329:HIS:HE1	1.71	0.51
21:W:353:ASP:O	21:W:357:ARG:HG2	2.10	0.51
22:X:335:LEU:O	22:X:338:VAL:HG12	2.11	0.51
24:Z:230:LEU:HD22	25:a:349:MET:HE3	1.92	0.51
25:a:326:GLU:OE2	25:a:326:GLU:N	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:100:ARG:NH2	26:b:107:MET:SD	2.84	0.51
30:f:72:ARG:HB3	30:f:73:PRO:HD3	1.93	0.51
30:f:459:CYS:SG	30:f:461:PRO:HD3	2.50	0.51
30:f:463:LEU:HD12	30:f:489:TYR:OH	2.11	0.51
30:f:709:THR:O	30:f:712:LYS:HG3	2.10	0.51
31:F:138:GLY:HA2	31:F:159:LEU:HD21	1.91	0.51
32:U:164:GLU:O	32:U:167:ILE:HG23	2.10	0.51
32:U:510:GLU:CG	32:U:543:LYS:HG2	2.40	0.51
32:U:801:GLN:HA	32:U:878:LEU:O	2.10	0.51
32:U:916:ASP:OD1	32:U:917:THR:N	2.44	0.51
1:A:252:GLU:HG2	31:F:259:MET:HE3	1.91	0.51
1:A:293:ASN:HB3	1:A:297:ARG:NH2	2.26	0.51
1:A:303:ILE:HG13	1:A:336:ARG:CD	2.40	0.51
2:B:91:LYS:O	2:B:91:LYS:HD3	2.11	0.51
2:B:249:ARG:HD3	3:C:283:PHE:CE2	2.45	0.51
3:C:149:GLU:HG2	23:Y:133:ALA:HB1	1.92	0.51
3:C:174:LEU:HD23	3:C:174:LEU:O	2.10	0.51
3:C:273:MET:HA	3:C:276:LEU:HB2	1.92	0.51
21:W:98:LYS:HA	21:W:135:LYS:HZ1	1.75	0.51
21:W:326:MET:HE2	21:W:326:MET:O	2.11	0.51
21:W:351:TRP:HA	21:W:351:TRP:CE3	2.45	0.51
21:W:373:ILE:HD12	25:a:326:GLU:HG3	1.88	0.51
24:Z:94:TRP:HB3	24:Z:112:MET:SD	2.51	0.51
25:a:72:ASN:CA	26:b:17:ARG:HH12	2.24	0.51
25:a:86:GLN:C	25:a:88:THR:HG23	2.36	0.51
25:a:302:ILE:CG2	25:a:306:GLU:HG2	2.40	0.51
27:c:247:GLU:O	27:c:251:LEU:HB2	2.11	0.51
27:c:256:ASN:C	27:c:256:ASN:OD1	2.53	0.51
28:d:200:PHE:CB	28:d:203:PRO:HG3	2.40	0.51
28:d:206:MET:O	28:d:210:ALA:N	2.27	0.51
30:f:639:LYS:HG3	30:f:640:LYS:HE2	1.91	0.51
30:f:828:ARG:NE	30:f:843:SER:HA	2.25	0.51
30:f:848:GLN:OE1	30:f:850:VAL:HG22	2.10	0.51
31:F:213:GLU:OE1	31:F:213:GLU:C	2.53	0.51
31:F:222:GLY:HA3	31:F:348:LEU:HA	1.93	0.51
1:A:197:HIS:HD2	30:f:345:PRO:HG2	1.76	0.51
3:C:327:ASP:O	3:C:331:ILE:HG13	2.11	0.51
4:D:216:ALA:CB	4:D:263:PHE:HE2	2.23	0.51
4:D:354:LEU:HA	4:D:394:VAL:HG23	1.92	0.51
5:E:130:VAL:CG1	5:E:186:ALA:HA	2.41	0.51
5:E:270:LEU:HD21	5:E:273:VAL:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:104:THR:O	20:V:107:ARG:HG2	2.11	0.51
21:W:372:ARG:NH1	25:a:327:VAL:HG21	2.24	0.51
25:a:95:THR:O	25:a:99:LYS:HB3	2.11	0.51
25:a:319:LEU:HD12	25:a:319:LEU:O	2.11	0.51
28:d:96:HIS:HB2	28:d:132:TYR:HD2	1.75	0.51
30:f:530:CYS:O	30:f:534:VAL:HG13	2.10	0.51
30:f:760:PHE:CD1	30:f:806:VAL:HG11	2.46	0.51
30:f:785:ARG:O	30:f:785:ARG:NE	2.38	0.51
11:l:180:MET:HE2	11:l:180:MET:HA	1.91	0.51
31:F:314:LEU:CD2	31:F:342:LEU:HD13	2.41	0.51
32:U:567:ILE:HD11	32:U:585:THR:HG22	1.93	0.51
32:U:660:CYS:SG	32:U:694:ILE:HD11	2.51	0.51
2:B:116:ILE:HD13	2:B:132:TYR:OH	2.11	0.51
2:B:371:ARG:HG2	2:B:371:ARG:NH1	2.25	0.51
3:C:90:HIS:O	3:C:91:PRO:C	2.53	0.51
4:D:339:ARG:HH22	4:D:343:LEU:CB	2.23	0.51
5:E:173:TYR:CB	5:E:282:PRO:HG3	2.41	0.51
11:L:121:GLN:HG3	11:L:121:GLN:O	2.10	0.51
15:P:170:MET:O	15:P:174:VAL:HG22	2.11	0.51
17:R:166:TYR:CE1	15:p:33:MET:HE1	2.45	0.51
20:V:150:ARG:NH2	20:V:155:ALA:O	2.44	0.51
20:V:449:ALA:HB3	20:V:459:GLN:O	2.09	0.51
21:W:152:ILE:HD12	21:W:165:ILE:HB	1.93	0.51
21:W:272:LEU:HD23	21:W:340:VAL:HG21	1.93	0.51
21:W:333:LEU:HG	21:W:335:SER:H	1.76	0.51
23:Y:377:LEU:HD12	23:Y:380:VAL:HG12	1.92	0.51
26:b:8:VAL:N	26:b:50:GLY:O	2.44	0.51
30:f:519:ALA:HB3	30:f:557:TRP:HE1	1.75	0.51
9:j:140:GLY:O	9:j:213:ARG:NH1	2.44	0.51
32:U:248:ILE:C	32:U:248:ILE:HD12	2.36	0.51
32:U:745:THR:HB	32:U:786:THR:HG21	1.93	0.51
1:A:127:ASP:OD1	1:A:128:GLN:HG2	2.11	0.51
1:A:213:LEU:CD1	1:A:337:LEU:HD21	2.41	0.51
3:C:63:LEU:HD22	4:D:82:ILE:HD13	1.92	0.51
4:D:107:THR:HG22	5:E:77:PRO:HG3	1.92	0.51
20:V:99:ARG:O	20:V:102:PRO:HD2	2.11	0.51
20:V:150:ARG:O	20:V:155:ALA:HB2	2.11	0.51
21:W:361:HIS:O	21:W:365:ILE:HG22	2.11	0.51
22:X:301:ASP:OD2	22:X:301:ASP:C	2.54	0.51
22:X:316:ASP:OD1	22:X:319:ILE:HG12	2.10	0.51
24:Z:81:MET:CE	27:c:94:LYS:HB3	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:277:LEU:CD1	25:a:296:ILE:HD13	2.41	0.51
26:b:107:MET:HE3	26:b:135:LYS:HB2	1.92	0.51
26:b:113:VAL:HG22	26:b:114:GLY:H	1.76	0.51
27:c:36:LEU:HD23	27:c:36:LEU:C	2.36	0.51
30:f:729:MET:HE3	30:f:729:MET:CA	2.22	0.51
30:f:826:GLN:HB3	30:f:846:VAL:HG13	1.92	0.51
8:i:119:GLN:CG	9:j:78:ALA:HB1	2.41	0.51
12:m:110:HIS:O	12:m:114:ARG:HG2	2.10	0.51
13:n:60:VAL:HG23	13:n:87:MET:HE1	1.93	0.51
19:t:54:SER:O	19:t:108:ASN:ND2	2.44	0.51
31:F:164:LEU:H	31:F:164:LEU:HD12	1.76	0.51
31:F:387:CYS:SG	31:F:421:MET:HE3	2.51	0.51
2:B:116:ILE:HD13	2:B:132:TYR:CZ	2.46	0.50
4:D:178:ARG:HB3	4:D:178:ARG:CZ	2.42	0.50
6:G:5:SER:N	6:G:19:GLU:OE2	2.42	0.50
6:G:174:GLU:OE1	6:G:174:GLU:N	2.32	0.50
12:M:70:ASP:OD1	12:M:71:ARG:N	2.43	0.50
18:S:64:LEU:O	18:S:68:ILE:HG13	2.11	0.50
20:V:349:ARG:HA	20:V:354:LYS:CE	2.39	0.50
21:W:201:ARG:HH21	21:W:205:ILE:HB	1.76	0.50
21:W:268:LYS:HD2	21:W:301:LYS:HG3	1.92	0.50
21:W:312:MET:CB	21:W:365:ILE:HD11	2.39	0.50
23:Y:18:ARG:HD2	23:Y:22:LEU:CD2	2.41	0.50
23:Y:202:LEU:O	23:Y:205:VAL:HG12	2.11	0.50
24:Z:17:LEU:HG	27:c:213:GLU:OE1	2.11	0.50
24:Z:213:GLU:OE1	24:Z:213:GLU:HA	2.10	0.50
28:d:205:LYS:HG2	28:d:209:TYR:HD2	1.73	0.50
30:f:304:PHE:HA	30:f:307:LEU:CD1	2.41	0.50
30:f:661:ALA:HB3	30:f:662:MET:HE3	1.93	0.50
32:U:34:PHE:CG	32:U:34:PHE:O	2.64	0.50
32:U:632:GLN:C	32:U:632:GLN:CD	2.79	0.50
1:A:139:ARG:HG3	1:A:155:PRO:HA	1.92	0.50
5:E:233:ASP:O	5:E:234:GLU:C	2.55	0.50
8:I:51:ASN:OD1	8:I:51:ASN:O	2.28	0.50
9:J:91:CYS:SG	9:J:107:ILE:HD13	2.52	0.50
13:N:85:LYS:NZ	13:N:86:GLU:OE2	2.35	0.50
19:T:72:ILE:O	19:T:76:LEU:HD13	2.10	0.50
20:V:68:ASP:O	20:V:72:LEU:HD23	2.09	0.50
20:V:203:LEU:HD13	20:V:203:LEU:C	2.36	0.50
20:V:479:ARG:NE	23:Y:370:ILE:HD11	2.26	0.50
21:W:304:ASP:C	21:W:304:ASP:OD1	2.54	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:X:281:GLY:H	22:X:284:THR:HG22	1.76	0.50
23:Y:96:GLY:HA2	23:Y:100:ILE:CG2	2.26	0.50
23:Y:136:HIS:O	23:Y:140:ILE:HG12	2.11	0.50
23:Y:307:LEU:CD2	23:Y:319:MET:HE3	2.38	0.50
24:Z:10:VAL:O	24:Z:50:VAL:HG22	2.11	0.50
24:Z:205:LEU:HD11	25:a:356:TRP:CZ3	2.46	0.50
25:a:320:VAL:HG21	25:a:333:MET:HE1	1.93	0.50
28:d:92:SER:H	28:d:95:MET:CG	2.24	0.50
9:j:104:VAL:O	9:j:108:THR:HG22	2.11	0.50
32:U:265:ILE:HG23	32:U:326:ILE:HD12	1.92	0.50
1:A:196:LEU:HG	1:A:197:HIS:CD2	2.47	0.50
1:A:235:ALA:HB1	1:A:269:ALA:C	2.36	0.50
4:D:212:LYS:HZ3	33:D:501:ATP:PB	2.34	0.50
5:E:242:ARG:NH2	5:E:286:ASP:OD2	2.44	0.50
5:E:380:LEU:CD1	31:F:343:LEU:HD13	2.41	0.50
20:V:83:GLU:OE1	20:V:160:LEU:HD12	2.10	0.50
21:W:133:GLU:OE1	21:W:133:GLU:N	2.44	0.50
21:W:165:ILE:HD13	21:W:189:GLN:HB3	1.93	0.50
21:W:273:TYR:CB	21:W:276:LEU:HB2	2.40	0.50
21:W:451:MET:HG3	21:W:451:MET:O	2.11	0.50
24:Z:43:TRP:HB3	24:Z:48:LEU:HD13	1.94	0.50
24:Z:214:LYS:HD2	24:Z:214:LYS:C	2.36	0.50
27:c:242:GLU:OE2	27:c:246:LYS:NZ	2.39	0.50
28:d:194:ALA:HA	28:d:197:ILE:HD13	1.93	0.50
30:f:494:ARG:HG3	30:f:497:VAL:CG2	2.40	0.50
30:f:560:LEU:HD23	30:f:594:LEU:HD21	1.93	0.50
31:F:315:ASN:C	31:F:315:ASN:OD1	2.54	0.50
32:U:177:LEU:HD11	32:U:204:ILE:HG12	1.92	0.50
2:B:261:GLY:C	2:B:263:GLY:H	2.18	0.50
3:C:19:GLY:N	32:U:146:LYS:HZ3	2.09	0.50
3:C:149:GLU:OE1	3:C:149:GLU:HA	2.11	0.50
3:C:235:PHE:O	3:C:239:ARG:HG2	2.11	0.50
4:D:284:GLU:O	4:D:284:GLU:OE1	2.28	0.50
5:E:264:MET:HE2	5:E:289:LEU:CD1	2.42	0.50
5:E:277:MET:HE3	5:E:295:LEU:HD21	1.93	0.50
5:E:327:ASP:OD2	5:E:329:GLU:N	2.43	0.50
21:W:47:LEU:O	21:W:50:LEU:HB2	2.12	0.50
22:X:166:LEU:O	22:X:170:GLN:HB2	2.12	0.50
22:X:259:ILE:HD13	22:X:290:VAL:HG13	1.92	0.50
23:Y:314:LEU:HD23	23:Y:314:LEU:O	2.12	0.50
23:Y:320:ALA:CB	23:Y:327:VAL:HG22	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:c:272:ILE:O	27:c:275:VAL:HG13	2.12	0.50
28:d:255:MET:HE2	28:d:256:ILE:C	2.35	0.50
30:f:505:MET:CE	30:f:519:ALA:HA	2.42	0.50
9:j:190:LEU:HD23	9:j:190:LEU:O	2.10	0.50
12:m:232:ARG:O	12:m:236:GLU:HG3	2.11	0.50
31:F:406:ILE:HD13	31:F:422:GLU:CD	2.37	0.50
32:U:69:TYR:CD1	32:U:69:TYR:C	2.90	0.50
32:U:252:LEU:HD12	32:U:256:ALA:HB2	1.94	0.50
32:U:441:GLY:O	32:U:445:ALA:N	2.42	0.50
32:U:554:LEU:HD12	32:U:588:MET:SD	2.52	0.50
32:U:650:TYR:OH	32:U:685:GLN:NE2	2.44	0.50
1:A:108:ASP:HB2	1:A:109:PRO:HD3	1.92	0.50
2:B:106:PRO:HB3	3:C:121:TYR:HD1	1.76	0.50
3:C:116:LEU:HD22	3:C:116:LEU:N	2.26	0.50
3:C:130:LYS:HG3	3:C:131:VAL:N	2.26	0.50
3:C:194:THR:HA	3:C:355:SER:HB2	1.93	0.50
20:V:350:GLN:O	20:V:354:LYS:HG2	2.11	0.50
20:V:428:LEU:HD23	20:V:434:ALA:CB	2.42	0.50
20:V:466:ILE:HD11	20:V:471:GLU:CD	2.36	0.50
21:W:70:VAL:HG11	21:W:90:LEU:HD11	1.94	0.50
21:W:252:ASP:O	21:W:256:ILE:HD12	2.11	0.50
22:X:407:MET:HA	22:X:410:VAL:HB	1.93	0.50
23:Y:189:VAL:HG13	23:Y:287:LEU:CD2	2.39	0.50
25:a:186:LYS:HD3	25:a:221:VAL:HG22	1.93	0.50
25:a:291:LEU:HD13	25:a:333:MET:CG	2.41	0.50
27:c:49:VAL:CG1	27:c:50:PRO:HD3	2.40	0.50
27:c:180:ASN:HD21	32:U:725:MET:HG3	1.76	0.50
28:d:63:ILE:HD11	28:d:166:PHE:CZ	2.47	0.50
30:f:474:SER:HB3	30:f:477:MET:HE2	1.94	0.50
7:h:18:LEU:HD23	7:h:21:ILE:HD12	1.92	0.50
12:m:111:LEU:O	12:m:115:VAL:HG23	2.12	0.50
16:q:164:LEU:HD12	16:q:194:ILE:HG21	1.92	0.50
32:U:377:HIS:HB2	32:U:411:ILE:CD1	2.41	0.50
32:U:597:LYS:HB3	32:U:597:LYS:NZ	2.25	0.50
32:U:901:GLN:NE2	32:U:915:LYS:HB3	2.19	0.50
1:A:68:SER:OG	1:A:69:ASP:N	2.44	0.50
2:B:119:ASN:OD1	2:B:119:ASN:C	2.54	0.50
2:B:294:ARG:NH1	2:B:294:ARG:CB	2.75	0.50
3:C:248:MET:HE1	3:C:273:MET:CG	2.10	0.50
11:L:210:VAL:HG13	11:L:229:VAL:HG11	1.93	0.50
12:M:35:THR:HG22	12:M:50:GLU:OE1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:83:GLU:O	20:V:87:SER:OG	2.19	0.50
20:V:309:MET:HB2	20:V:332:LEU:HD12	1.94	0.50
21:W:79:GLU:OE2	21:W:82:LEU:HD12	2.12	0.50
21:W:171:VAL:HG12	21:W:172:GLU:N	2.26	0.50
23:Y:224:VAL:HG22	23:Y:228:MET:HE3	1.94	0.50
25:a:33:LEU:HD12	25:a:33:LEU:C	2.36	0.50
25:a:217:LEU:HD11	25:a:238:TYR:CE1	2.47	0.50
28:d:140:GLU:OE2	28:d:144:MET:HE3	2.11	0.50
28:d:253:LEU:O	28:d:253:LEU:HG	2.12	0.50
30:f:6:ARG:NE	30:f:6:ARG:H	2.10	0.50
30:f:828:ARG:HB2	30:f:829:MET:CE	2.42	0.50
16:q:3:TYR:OH	16:q:139:THR:HG21	2.11	0.50
31:F:187:ASP:O	31:F:368:ILE:HG21	2.12	0.50
32:U:349:ASP:N	32:U:349:ASP:OD1	2.45	0.50
32:U:572:ARG:CZ	32:U:572:ARG:HB3	2.40	0.50
1:A:75:PRO:HA	1:A:78:TRP:CD2	2.47	0.50
1:A:219:GLY:HA3	2:B:343:ARG:HD2	1.92	0.50
1:A:245:LEU:HB2	1:A:280:ILE:HG21	1.94	0.50
1:A:267:LYS:HA	30:f:354:GLU:OE1	2.11	0.50
2:B:256:ILE:O	2:B:256:ILE:HG13	2.10	0.50
2:B:263:GLY:C	2:B:265:LYS:H	2.19	0.50
2:B:332:ASN:C	2:B:333:ARG:HG2	2.37	0.50
4:D:184:PRO:HG3	4:D:191:TYR:CE1	2.47	0.50
5:E:184:ALA:O	5:E:187:VAL:HG22	2.11	0.50
5:E:316:HIS:CD2	5:E:344:ARG:HB2	2.46	0.50
5:E:356:ARG:O	5:E:357:ALA:HB3	2.12	0.50
8:I:166:ASN:OD1	8:I:167:ASN:N	2.45	0.50
20:V:139:MET:HE1	20:V:141:THR:HG22	1.93	0.50
21:W:379:ALA:HB1	21:W:384:LEU:O	2.11	0.50
22:X:350:ILE:HG23	22:X:361:VAL:HG21	1.94	0.50
23:Y:23:ARG:O	23:Y:23:ARG:HD3	2.12	0.50
23:Y:224:VAL:HG11	23:Y:256:VAL:HG11	1.94	0.50
25:a:35:HIS:HB3	26:b:15:TYR:CZ	2.46	0.50
25:a:162:TYR:C	25:a:162:TYR:CD2	2.90	0.50
30:f:6:ARG:H	30:f:6:ARG:HE	1.58	0.50
30:f:12:GLN:HB3	30:f:13:PRO:HD3	1.93	0.50
30:f:559:PRO:O	30:f:563:GLY:N	2.36	0.50
32:U:84:ALA:HB3	32:U:88:PHE:HD2	1.76	0.50
32:U:208:LEU:O	32:U:211:PRO:HG3	2.12	0.50
2:B:184:TYR:CE2	2:B:198:LYS:HE3	2.47	0.50
3:C:172:PRO:C	3:C:174:LEU:H	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:193:GLY:O	3:C:356:GLY:N	2.45	0.50
3:C:373:GLU:C	3:C:373:GLU:OE1	2.55	0.50
4:D:264:ILE:CG2	4:D:267:ILE:HD13	2.42	0.50
4:D:266:GLU:O	5:E:258:MET:HE1	2.12	0.50
5:E:181:THR:OG1	33:E:402:ATP:O3G	2.25	0.50
18:S:4:PRO:O	19:T:100:ARG:NH1	2.40	0.50
20:V:228:ARG:HD3	20:V:257:ASN:ND2	2.27	0.50
20:V:497:PRO:HG3	24:Z:278:ASN:OD1	2.12	0.50
23:Y:176:ARG:NH1	23:Y:179:ARG:HH22	2.09	0.50
23:Y:307:LEU:HD22	23:Y:319:MET:CE	2.39	0.50
24:Z:139:ILE:HD12	24:Z:140:SER:H	1.77	0.50
25:a:41:VAL:HA	25:a:44:PHE:CD2	2.47	0.50
26:b:29:GLN:HE21	26:b:29:GLN:CA	2.17	0.50
26:b:48:ASN:ND2	26:b:64:LEU:HB3	2.26	0.50
27:c:102:THR:HG23	27:c:103:GLY:N	2.27	0.50
28:d:60:GLN:O	28:d:64:LEU:HD13	2.11	0.50
28:d:152:PHE:CE2	28:d:198:LEU:HB3	2.43	0.50
30:f:165:GLU:HA	30:f:168:LYS:CE	2.39	0.50
30:f:441:LYS:HD2	30:f:441:LYS:N	2.27	0.50
6:g:49:VAL:HG22	6:g:219:VAL:HG12	1.94	0.50
32:U:16:GLU:HG3	32:U:19:LEU:H	1.77	0.50
1:A:77:LEU:CD1	30:f:694:LEU:HD12	2.41	0.50
1:A:190:VAL:HG11	1:A:212:VAL:CG2	2.41	0.50
1:A:308:GLY:O	1:A:309:PHE:HB3	2.11	0.50
2:B:60:LEU:HA	2:B:63:LEU:CD2	2.40	0.50
2:B:302:GLU:C	2:B:302:GLU:OE1	2.55	0.50
3:C:258:ARG:NH2	3:C:263:SER:O	2.34	0.50
4:D:149:SER:HG	4:D:246:MET:CG	2.24	0.50
4:D:167:ILE:HD11	4:D:214:MET:HG2	1.94	0.50
4:D:230:VAL:CG2	4:D:264:ILE:HA	2.41	0.50
5:E:87:LEU:HD21	5:E:92:LEU:HD11	1.94	0.50
5:E:349:GLU:OE2	31:F:350:ARG:NE	2.27	0.50
21:W:28:LEU:HB3	21:W:29:PRO:HD3	1.94	0.50
21:W:328:LEU:HD23	21:W:341:PHE:HB3	1.94	0.50
22:X:256:LEU:O	22:X:260:MET:HG2	2.11	0.50
22:X:366:SER:O	22:X:370:LEU:HG	2.12	0.50
23:Y:149:LEU:N	23:Y:157:ILE:HD11	2.27	0.50
24:Z:22:HIS:CE1	24:Z:35:VAL:HG12	2.46	0.50
25:a:50:PHE:HD2	25:a:52:GLN:HB3	1.77	0.50
25:a:158:LEU:C	25:a:158:LEU:HD13	2.36	0.50
25:a:370:GLN:OE1	28:d:244:LYS:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:114:GLU:O	28:d:117:THR:HG22	2.12	0.50
30:f:411:ALA:HB3	30:f:443:GLY:HA3	1.93	0.50
30:f:531:ASN:OD1	30:f:531:ASN:N	2.43	0.50
30:f:557:TRP:CD1	30:f:558:LEU:HD22	2.46	0.50
30:f:631:LYS:O	30:f:635:LYS:HG2	2.12	0.50
30:f:713:PHE:CZ	30:f:752:HIS:HB3	2.47	0.50
12:m:220:THR:HG21	12:m:223:ARG:O	2.12	0.50
31:F:272:PHE:CE1	31:F:283:ILE:HG21	2.47	0.50
1:A:97:ARG:HH12	2:B:129:SER:HB2	1.77	0.49
4:D:94:GLU:C	4:D:94:GLU:OE1	2.55	0.49
4:D:95:ALA:O	27:c:272:ILE:HD11	2.12	0.49
9:J:190:LEU:HD23	9:J:190:LEU:C	2.37	0.49
17:R:108:ARG:CZ	17:R:108:ARG:HB2	2.41	0.49
20:V:81:GLN:HA	20:V:84:LYS:HD2	1.94	0.49
20:V:268:GLU:OE1	20:V:268:GLU:C	2.55	0.49
20:V:302:TYR:OH	20:V:338:LEU:HD13	2.11	0.49
20:V:471:GLU:HG3	20:V:472:PRO:N	2.27	0.49
21:W:137:TYR:C	21:W:141:GLU:HB2	2.36	0.49
21:W:445:LEU:HD23	21:W:445:LEU:O	2.12	0.49
24:Z:17:LEU:HD11	27:c:217:LEU:HD12	1.93	0.49
24:Z:25:ARG:HB2	27:c:104:ARG:HD2	1.94	0.49
25:a:35:HIS:C	25:a:38:THR:H	2.19	0.49
25:a:321:LYS:HB3	25:a:321:LYS:NZ	2.25	0.49
30:f:7:ASP:O	30:f:10:PRO:HD2	2.12	0.49
30:f:305:LEU:HD22	30:f:314:TYR:CD2	2.47	0.49
30:f:426:LEU:HD22	30:f:426:LEU:H	1.77	0.49
30:f:673:ARG:NH2	30:f:707:LEU:HD22	2.17	0.49
32:U:9:ILE:HD11	32:U:42:VAL:HG21	1.94	0.49
32:U:521:LEU:HD12	32:U:522:GLY:N	2.27	0.49
32:U:573:ASP:O	32:U:579:ARG:HD3	2.12	0.49
32:U:879:ASP:OD1	32:U:879:ASP:N	2.33	0.49
1:A:273:PHE:CE2	1:A:275:ASP:HB2	2.47	0.49
2:B:140:ASP:OD2	2:B:143:LEU:HG	2.12	0.49
2:B:230:THR:HG22	2:B:230:THR:O	2.11	0.49
3:C:189:TYR:O	3:C:317:PHE:HB2	2.12	0.49
3:C:363:CYS:HA	3:C:383:PHE:CE1	2.47	0.49
4:D:122:GLU:CD	27:c:278:GLN:HA	2.37	0.49
20:V:106:ARG:H	20:V:106:ARG:NE	2.08	0.49
21:W:71:VAL:HG21	21:W:104:MET:CG	2.41	0.49
22:X:147:LEU:HD21	22:X:176:THR:OG1	2.12	0.49
22:X:251:LEU:O	22:X:255:LEU:HG	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:70:LEU:HG	23:Y:74:LYS:HZ1	1.75	0.49
23:Y:223:THR:O	23:Y:227:SER:HB2	2.12	0.49
25:a:144:ASN:C	25:a:145:LEU:HD23	2.37	0.49
25:a:162:TYR:C	25:a:162:TYR:HD2	2.20	0.49
27:c:41:MET:CE	27:c:143:VAL:HG11	2.41	0.49
30:f:298:LEU:HD23	30:f:298:LEU:H	1.77	0.49
10:k:234:LEU:O	10:k:238:ILE:HG13	2.11	0.49
32:U:645:ASN:OD1	32:U:647:HIS:HB2	2.11	0.49
1:A:351:ARG:HB2	1:A:385:ILE:HD11	1.94	0.49
1:A:426:THR:N	1:A:427:PRO:HD2	2.27	0.49
2:B:373:THR:O	2:B:413:LYS:HG2	2.13	0.49
4:D:113:VAL:HB	4:D:138:ALA:HA	1.93	0.49
4:D:339:ARG:CZ	4:D:339:ARG:O	2.60	0.49
12:M:202:ASP:C	12:M:202:ASP:OD2	2.55	0.49
21:W:59:ASP:CB	21:W:62:SER:HB2	2.39	0.49
21:W:147:LYS:HB2	21:W:147:LYS:HZ1	1.75	0.49
21:W:248:ARG:CD	21:W:290:ILE:HD11	2.21	0.49
21:W:388:GLU:OE1	21:W:388:GLU:HA	2.11	0.49
23:Y:90:ASP:O	23:Y:94:ASN:ND2	2.45	0.49
23:Y:117:LYS:HZ3	23:Y:151:TYR:HD1	1.61	0.49
24:Z:131:LEU:H	24:Z:131:LEU:CD2	2.26	0.49
26:b:115:SER:HG	26:b:116:PRO:HD2	1.76	0.49
30:f:292:LYS:O	30:f:292:LYS:HG3	2.11	0.49
30:f:304:PHE:HA	30:f:307:LEU:HD11	1.94	0.49
30:f:612:LEU:O	30:f:632:LYS:HD3	2.13	0.49
8:i:187:LYS:HD3	8:i:187:LYS:N	2.27	0.49
17:r:13:VAL:HG21	17:r:103:CYS:HB3	1.93	0.49
31:F:241:ALA:HB2	31:F:248:PHE:CZ	2.47	0.49
32:U:138:PHE:CD2	32:U:162:VAL:HG21	2.47	0.49
32:U:520:MET:HE1	32:U:525:ASN:CB	2.42	0.49
1:A:323:ARG:HH12	1:A:433:ASN:N	2.11	0.49
3:C:351:MET:HE3	3:C:387:VAL:CG1	2.39	0.49
5:E:299:ILE:N	5:E:299:ILE:HD12	2.28	0.49
15:P:34:VAL:HG11	16:Q:117:TYR:CD2	2.47	0.49
21:W:177:MET:HE1	21:W:181:GLU:HB3	1.95	0.49
21:W:212:LYS:O	21:W:213:PHE:HD1	1.95	0.49
23:Y:192:ARG:NH2	23:Y:291:HIS:HB3	2.27	0.49
24:Z:121:LEU:C	24:Z:121:LEU:HD12	2.36	0.49
26:b:32:ALA:O	26:b:36:VAL:HG12	2.11	0.49
26:b:75:LEU:O	26:b:78:VAL:HB	2.12	0.49
27:c:151:VAL:CG2	27:c:152:LYS:N	2.73	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:228:LYS:CE	30:f:233:LEU:HD12	2.43	0.49
30:f:250:ARG:HH11	30:f:252:ALA:HB3	1.77	0.49
30:f:428:GLN:O	30:f:431:LYS:HG2	2.13	0.49
30:f:494:ARG:HB2	30:f:496:ASP:OD1	2.12	0.49
30:f:761:MET:HA	30:f:761:MET:CE	2.39	0.49
31:F:221:LYS:HE3	31:F:221:LYS:CA	2.36	0.49
32:U:562:GLU:OE1	32:U:562:GLU:N	2.46	0.49
32:U:710:ARG:NH2	32:U:738:ASP:OD1	2.44	0.49
1:A:68:SER:CB	1:A:72:LEU:HD22	2.43	0.49
1:A:264:ALA:HB1	1:A:315:ILE:CD1	2.43	0.49
1:A:290:GLY:HA3	31:F:296:PHE:CE2	2.47	0.49
2:B:246:THR:OG1	2:B:280:SER:HB3	2.13	0.49
2:B:378:VAL:HG21	2:B:419:PHE:HD2	1.75	0.49
4:D:89:ILE:CD1	5:E:70:ILE:HG23	2.42	0.49
5:E:126:ASP:OD1	5:E:128:GLY:N	2.38	0.49
14:O:8:VAL:HG12	14:O:124:PRO:O	2.12	0.49
22:X:125:LEU:HD12	22:X:125:LEU:O	2.13	0.49
22:X:151:SER:HB3	22:X:155:ARG:NH2	2.23	0.49
26:b:2:VAL:HG13	26:b:2:VAL:O	2.11	0.49
27:c:233:ASP:O	27:c:236:GLU:N	2.45	0.49
28:d:20:GLY:HA2	28:d:23:LEU:HG	1.95	0.49
28:d:118:GLU:O	28:d:121:ARG:HG2	2.13	0.49
17:r:7:PHE:HB3	17:r:126:THR:HG22	1.94	0.49
31:F:202:ILE:CD1	31:F:327:LYS:HB3	2.43	0.49
32:U:231:ASP:O	32:U:234:GLU:HG3	2.12	0.49
2:B:59:ARG:HA	2:B:59:ARG:NH1	2.27	0.49
2:B:112:LEU:HB2	2:B:150:VAL:HG21	1.95	0.49
2:B:246:THR:HG21	2:B:277:HIS:HB3	1.93	0.49
2:B:332:ASN:OD1	2:B:332:ASN:N	2.42	0.49
3:C:186:VAL:HG12	3:C:313:ARG:HB3	1.94	0.49
5:E:349:GLU:OE1	5:E:349:GLU:HA	2.11	0.49
20:V:262:SER:HB3	28:d:120:GLU:HB2	1.94	0.49
20:V:288:TYR:O	20:V:292:THR:HG22	2.11	0.49
21:W:55:ARG:HH22	21:W:93:ARG:NH2	2.09	0.49
21:W:132:THR:OG1	21:W:133:GLU:OE1	2.28	0.49
21:W:382:LEU:O	21:W:384:LEU:HD12	2.13	0.49
21:W:449:GLU:OE1	21:W:450:GLU:N	2.45	0.49
23:Y:16:ASP:OD1	23:Y:16:ASP:C	2.55	0.49
23:Y:134:LEU:HA	23:Y:137:ARG:HD2	1.95	0.49
23:Y:159:ARG:O	23:Y:163:LYS:HG2	2.13	0.49
26:b:7:MET:HE2	26:b:96:ALA:HB3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:108:ARG:NH1	26:b:137:ASN:HD21	2.07	0.49
27:c:282:ARG:HG2	27:c:282:ARG:NH1	2.27	0.49
28:d:33:LEU:HD22	28:d:34:ASN:OD1	2.11	0.49
28:d:161:GLU:OE1	28:d:162:SER:N	2.46	0.49
30:f:202:HIS:HA	30:f:205:CYS:SG	2.52	0.49
30:f:682:GLY:H	30:f:688:ARG:HH21	1.61	0.49
30:f:692:LEU:CD2	30:f:696:LEU:HD11	2.41	0.49
15:p:9:ALA:HB1	15:p:145:MET:CE	2.43	0.49
31:F:197:GLU:OE2	31:F:350:ARG:HD2	2.12	0.49
31:F:369:HIS:CD2	31:F:397:LYS:HB2	2.48	0.49
32:U:206:MET:HE2	32:U:206:MET:N	2.28	0.49
32:U:234:GLU:C	32:U:234:GLU:OE1	2.56	0.49
32:U:742:HIS:NE2	32:U:814:PRO:HG3	2.27	0.49
32:U:811:PHE:CG	32:U:885:MET:HE1	2.48	0.49
32:U:889:LEU:HD22	32:U:907:SER:O	2.12	0.49
1:A:398:ARG:HD3	2:B:195:GLN:NE2	2.27	0.49
2:B:394:ASP:OD1	3:C:308:PRO:HG2	2.13	0.49
2:B:421:LYS:HA	2:B:424:GLU:HG3	1.94	0.49
4:D:225:ALA:HB1	4:D:259:PRO:C	2.38	0.49
4:D:231:VAL:HG22	5:E:262:ASN:ND2	2.28	0.49
5:E:270:LEU:HD11	5:E:273:VAL:CG1	2.42	0.49
5:E:327:ASP:OD1	5:E:330:ALA:HB2	2.13	0.49
17:R:38:ILE:HG23	17:R:61:ALA:HA	1.94	0.49
20:V:415:SER:CA	23:Y:346:LYS:NZ	2.75	0.49
22:X:170:GLN:NE2	22:X:193:ALA:HA	2.28	0.49
23:Y:104:MET:HE1	23:Y:130:LYS:CG	2.42	0.49
23:Y:117:LYS:O	23:Y:121:LEU:N	2.37	0.49
23:Y:279:GLU:OE1	23:Y:296:VAL:HG21	2.12	0.49
24:Z:254:ASN:OD1	24:Z:254:ASN:C	2.55	0.49
25:a:140:GLU:C	25:a:140:GLU:OE1	2.56	0.49
25:a:280:MET:HG2	25:a:291:LEU:CD2	2.43	0.49
28:d:124:ALA:H	28:d:125:LYS:HZ3	1.60	0.49
30:f:192:VAL:CB	30:f:193:PRO:HD3	2.42	0.49
30:f:608:LYS:HG2	30:f:639:LYS:HZ1	1.77	0.49
30:f:657:ILE:HA	30:f:661:ALA:HB2	1.95	0.49
30:f:761:MET:HE2	30:f:761:MET:CA	2.43	0.49
7:h:85:LEU:HD12	7:h:131:VAL:HG21	1.94	0.49
31:F:91:SER:HB3	31:F:126:THR:HA	1.94	0.49
31:F:154:ASN:OD1	31:F:155:LYS:N	2.46	0.49
32:U:792:ASN:CB	32:U:796:LYS:HB3	2.42	0.49
1:A:268:LYS:HE3	30:f:354:GLU:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:223:ILE:HB	2:B:347:ILE:CD1	2.40	0.49
2:B:231:GLY:N	33:B:501:ATP:O2B	2.41	0.49
2:B:417:GLU:OE1	2:B:420:LYS:HE3	2.12	0.49
5:E:116:ASP:OD1	5:E:117:PRO:HD2	2.13	0.49
5:E:146:ARG:HG2	5:E:146:ARG:HH11	1.78	0.49
11:L:88:MET:SD	11:L:112:ILE:HD11	2.52	0.49
14:O:2:THR:HG23	14:O:34:LYS:HE3	1.94	0.49
20:V:218:TYR:O	20:V:222:ASP:N	2.45	0.49
21:W:366:MET:O	21:W:370:TYR:HB2	2.11	0.49
21:W:374:THR:HG23	21:W:377:ARG:H	1.78	0.49
22:X:287:LEU:O	22:X:290:VAL:HG12	2.13	0.49
24:Z:134:PRO:CG	27:c:220:LEU:HD13	2.43	0.49
25:a:196:ARG:HA	25:a:199:THR:CG2	2.43	0.49
25:a:328:ASP:N	25:a:328:ASP:OD1	2.45	0.49
26:b:23:PRO:HB2	26:b:27:GLN:HB2	1.94	0.49
29:e:52:PHE:HA	29:e:55:GLN:HE21	1.76	0.49
30:f:698:SER:OG	30:f:705:ASN:OD1	2.15	0.49
30:f:787:LEU:HA	30:f:790:GLN:HB2	1.95	0.49
6:g:73:THR:HG22	6:g:74:GLU:N	2.28	0.49
6:g:196:GLU:O	6:g:200:THR:HG23	2.12	0.49
8:i:44:LEU:C	8:i:44:LEU:HD12	2.38	0.49
31:F:360:GLU:C	31:F:360:GLU:OE2	2.56	0.49
32:U:333:MET:HE3	32:U:333:MET:N	2.21	0.49
32:U:369:THR:HG21	32:U:392:TRP:HZ2	1.78	0.49
32:U:748:LEU:H	32:U:748:LEU:CD1	2.24	0.49
32:U:801:GLN:HG2	32:U:878:LEU:O	2.12	0.49
2:B:363:ARG:HB3	2:B:363:ARG:CZ	2.43	0.49
4:D:284:GLU:OE1	4:D:284:GLU:C	2.56	0.49
5:E:60:VAL:HA	5:E:71:VAL:HG12	1.95	0.49
5:E:215:ILE:HG22	5:E:263:GLN:HE22	1.77	0.49
11:L:209:ASN:OD1	11:L:209:ASN:N	2.45	0.49
19:T:92:LEU:HD21	19:T:110:MET:SD	2.53	0.49
20:V:67:LEU:O	20:V:71:THR:HG22	2.13	0.49
20:V:404:LYS:CE	20:V:446:VAL:HG21	2.43	0.49
20:V:413:SER:HB2	23:Y:338:ILE:HB	1.94	0.49
21:W:112:VAL:CG2	21:W:120:ILE:HD11	2.43	0.49
21:W:125:ILE:HG13	21:W:129:ARG:NH1	2.28	0.49
21:W:231:ILE:HD13	21:W:246:HIS:HB3	1.95	0.49
21:W:243:ILE:HG13	21:W:273:TYR:CE1	2.47	0.49
22:X:375:HIS:O	22:X:388:PHE:HB2	2.12	0.49
22:X:416:ASN:O	22:X:420:LYS:HG3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Y:325:VAL:CG2	29:e:60:LEU:HD13	2.43	0.49
23:Y:338:ILE:HD11	23:Y:343:LEU:HD22	1.94	0.49
24:Z:39:LEU:HD11	24:Z:122:VAL:HG21	1.95	0.49
24:Z:201:LEU:HD12	24:Z:205:LEU:HD23	1.93	0.49
25:a:122:LYS:HE2	25:a:130:VAL:HG13	1.95	0.49
25:a:302:ILE:HD12	25:a:302:ILE:N	2.27	0.49
28:d:103:LEU:HD12	28:d:133:ILE:CD1	2.41	0.49
30:f:216:MET:N	30:f:216:MET:SD	2.86	0.49
30:f:321:MET:C	30:f:321:MET:SD	2.96	0.49
30:f:425:GLY:O	30:f:429:ILE:HG12	2.12	0.49
30:f:813:LYS:HD2	30:f:882:LEU:CD2	2.37	0.49
30:f:817:VAL:O	30:f:817:VAL:HG12	2.13	0.49
30:f:825:MET:SD	30:f:848:GLN:NE2	2.85	0.49
9:j:116:GLN:HG3	10:k:83:ALA:HB1	1.94	0.49
14:o:180:SER:OG	14:o:181:LYS:N	2.45	0.49
32:U:25:HIS:HD1	32:U:59:PHE:HE2	1.61	0.49
32:U:356:THR:HG22	32:U:717:ILE:CD1	2.43	0.49
32:U:680:VAL:HG13	32:U:682:TYR:CE1	2.48	0.49
1:A:80:LEU:O	1:A:80:LEU:HD22	2.13	0.49
2:B:202:GLU:HA	2:B:202:GLU:OE2	2.12	0.49
2:B:360:THR:O	2:B:364:ILE:HG12	2.13	0.49
2:B:410:ARG:NH1	23:Y:94:ASN:HA	2.28	0.49
3:C:149:GLU:OE1	3:C:149:GLU:CA	2.61	0.49
3:C:189:TYR:HE2	3:C:316:GLU:CG	2.23	0.49
4:D:200:ARG:O	4:D:200:ARG:CG	2.60	0.49
4:D:269:ALA:O	4:D:270:ILE:HD13	2.12	0.49
5:E:297:ARG:HG2	5:E:299:ILE:HD12	1.94	0.49
5:E:363:VAL:HG22	5:E:366:ASP:OD1	2.12	0.49
12:M:198:TYR:OH	12:M:236:GLU:OE1	2.30	0.49
20:V:72:LEU:HA	20:V:75:ILE:CD1	2.41	0.49
20:V:101:LEU:HD11	20:V:173:ILE:HD13	1.95	0.49
20:V:332:LEU:HA	20:V:335:VAL:HG12	1.93	0.49
21:W:48:LEU:HD12	21:W:90:LEU:HD21	1.93	0.49
21:W:436:MET:HE3	27:c:226:MET:HB3	1.95	0.49
21:W:448:LYS:O	21:W:452:ILE:HB	2.13	0.49
22:X:142:ARG:HB2	22:X:146:ALA:CB	2.36	0.49
22:X:421:LEU:C	22:X:421:LEU:HD13	2.38	0.49
23:Y:116:ASP:HB3	23:Y:118:GLU:OE1	2.12	0.49
24:Z:138:TYR:HE1	24:Z:157:HIS:HD2	1.61	0.49
24:Z:138:TYR:CE1	24:Z:157:HIS:HD2	2.31	0.49
25:a:280:MET:HE3	25:a:296:ILE:HG12	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:c:222:LYS:HD2	27:c:222:LYS:HA	1.58	0.49
28:d:5:LEU:HD11	28:d:6:LYS:HZ2	1.77	0.49
28:d:115:PHE:CE1	28:d:119:LEU:HD21	2.48	0.49
29:e:58:ALA:O	29:e:61:GLU:HG3	2.13	0.49
30:f:554:TYR:OH	30:f:788:MET:O	2.30	0.49
30:f:641:GLU:OE1	30:f:763:ARG:NH2	2.35	0.49
8:i:119:GLN:HA	8:i:122:THR:HG22	1.95	0.49
11:l:35:THR:HG21	11:l:73:SER:OG	2.13	0.49
18:s:148:LEU:HD23	18:s:178:VAL:HG12	1.95	0.49
32:U:238:LYS:HD2	32:U:238:LYS:O	2.13	0.49
32:U:251:ASP:OD1	32:U:251:ASP:C	2.56	0.49
32:U:516:LEU:CB	32:U:532:MET:HE2	2.43	0.49
32:U:536:ALA:HB1	32:U:545:LEU:CD1	2.43	0.49
32:U:748:LEU:HD23	32:U:760:VAL:HG22	1.94	0.49
2:B:125:THR:OG1	2:B:126:SER:N	2.46	0.48
2:B:209:GLU:HA	2:B:212:GLU:OE2	2.13	0.48
2:B:409:GLU:HA	2:B:409:GLU:OE2	2.13	0.48
3:C:28:ILE:CD1	4:D:43:ARG:HG2	2.41	0.48
3:C:152:GLY:HA3	3:C:328:ILE:HG13	1.94	0.48
3:C:381:GLU:HG2	22:X:191:THR:CG2	2.43	0.48
3:C:388:ALA:O	3:C:393:LYS:N	2.37	0.48
4:D:71:GLU:OE2	32:U:644:TYR:HD1	1.96	0.48
4:D:181:VAL:HG11	4:D:308:ILE:HD11	1.95	0.48
5:E:161:ARG:NE	21:W:173:THR:HA	2.28	0.48
5:E:272:ARG:HG3	5:E:272:ARG:NH1	2.28	0.48
20:V:218:TYR:HA	20:V:221:LEU:HD12	1.95	0.48
20:V:438:VAL:HG11	20:V:458:VAL:HG21	1.94	0.48
20:V:467:TYR:CE2	23:Y:362:LYS:HE2	2.48	0.48
21:W:130:MET:HE3	21:W:130:MET:C	2.38	0.48
21:W:170:GLN:O	21:W:171:VAL:HB	2.13	0.48
23:Y:227:SER:O	23:Y:231:LEU:HG	2.13	0.48
25:a:216:LEU:C	25:a:216:LEU:HD23	2.38	0.48
27:c:146:ASP:OD2	27:c:149:GLN:HG3	2.13	0.48
27:c:216:MET:C	27:c:220:LEU:HG	2.38	0.48
28:d:4:GLN:OE1	28:d:4:GLN:O	2.31	0.48
28:d:104:LEU:HD23	28:d:104:LEU:C	2.38	0.48
30:f:744:MET:CB	30:f:747:GLN:HE21	2.25	0.48
31:F:195:ILE:HG12	31:F:236:LEU:HD13	1.95	0.48
31:F:289:ASP:OD1	31:F:289:ASP:N	2.44	0.48
32:U:160:LEU:O	32:U:164:GLU:N	2.36	0.48
32:U:387:ARG:HA	32:U:390:LEU:HD21	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:401:LYS:O	32:U:405:THR:HG22	2.12	0.48
2:B:54:PRO:O	2:B:56:THR:HG22	2.12	0.48
2:B:90:GLU:N	2:B:94:GLU:HB3	2.18	0.48
2:B:176:VAL:HG21	2:B:247:PHE:CD1	2.48	0.48
2:B:397:ALA:HA	2:B:400:THR:CG2	2.42	0.48
3:C:37:ASP:OD1	3:C:37:ASP:N	2.44	0.48
3:C:300:ILE:C	3:C:300:ILE:HD12	2.37	0.48
5:E:353:PHE:CZ	5:E:373:LYS:HE2	2.49	0.48
7:H:48:GLU:OE1	7:H:50:LYS:HG3	2.14	0.48
20:V:130:PHE:HD2	20:V:134:PHE:CE2	2.27	0.48
20:V:334:VAL:HG21	20:V:395:ILE:HD11	1.95	0.48
21:W:112:VAL:HG23	21:W:120:ILE:CD1	2.43	0.48
21:W:124:LEU:CD2	21:W:147:LYS:HD2	2.43	0.48
21:W:176:SER:OG	21:W:176:SER:O	2.27	0.48
21:W:231:ILE:CD1	21:W:246:HIS:HB3	2.43	0.48
21:W:286:LEU:HD13	21:W:286:LEU:O	2.13	0.48
21:W:422:ASN:C	21:W:422:ASN:OD1	2.56	0.48
24:Z:148:GLY:O	24:Z:149:THR:HG23	2.13	0.48
25:a:324:ILE:CD1	25:a:331:VAL:HG22	2.43	0.48
26:b:151:GLU:HA	26:b:154:THR:OG1	2.12	0.48
30:f:180:GLN:O	30:f:183:PRO:HD2	2.12	0.48
30:f:712:LYS:HD2	30:f:713:PHE:N	2.29	0.48
30:f:828:ARG:HH21	30:f:861:THR:HG21	1.78	0.48
16:q:161:ARG:HB3	16:q:161:ARG:NH1	2.29	0.48
31:F:139:LEU:N	31:F:139:LEU:HD23	2.27	0.48
1:A:174:TYR:H	1:A:232:ARG:NH2	2.11	0.48
2:B:168:ASP:OD1	2:B:170:LEU:HB3	2.13	0.48
2:B:286:GLU:OE2	3:C:278:ASN:ND2	2.39	0.48
2:B:294:ARG:HB2	2:B:294:ARG:NH1	2.29	0.48
2:B:338:ASP:OD1	2:B:339:PRO:HD2	2.14	0.48
3:C:214:VAL:O	3:C:214:VAL:HG13	2.13	0.48
5:E:331:ILE:HG12	5:E:371:VAL:CG2	2.44	0.48
20:V:71:THR:O	20:V:74:ASP:HB2	2.13	0.48
20:V:216:ARG:NH1	29:e:21:GLU:HA	2.28	0.48
21:W:124:LEU:HD21	21:W:147:LYS:HD2	1.95	0.48
21:W:180:LYS:O	21:W:183:VAL:HG12	2.12	0.48
21:W:198:ASP:OD1	21:W:198:ASP:C	2.56	0.48
21:W:305:LEU:HG	21:W:309:PHE:HE2	1.78	0.48
23:Y:101:ARG:NH2	23:Y:140:ILE:HD11	2.29	0.48
23:Y:297:ARG:HG2	23:Y:297:ARG:HH11	1.78	0.48
25:a:33:LEU:HB2	26:b:18:ASN:ND2	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:112:ILE:CD1	25:a:151:VAL:HG11	2.44	0.48
25:a:156:TYR:HA	25:a:159:SER:OG	2.13	0.48
25:a:216:LEU:HD23	25:a:216:LEU:O	2.12	0.48
25:a:281:THR:HG22	25:a:289:ARG:NH1	2.28	0.48
28:d:78:LEU:HB2	28:d:82:TYR:HE1	1.78	0.48
30:f:94:LYS:HA	30:f:98:PHE:HD1	1.77	0.48
30:f:119:LYS:HG3	30:f:165:GLU:OE2	2.13	0.48
30:f:655:LEU:O	30:f:660:ILE:HD12	2.13	0.48
11:l:88:MET:SD	11:l:112:ILE:HD11	2.53	0.48
1:A:85:GLN:HB2	1:A:88:GLN:OE1	2.14	0.48
1:A:120:LYS:O	31:F:90:VAL:HB	2.12	0.48
1:A:387:SER:CA	1:A:390:THR:HG22	2.39	0.48
2:B:150:VAL:HG11	2:B:159:VAL:HG22	1.95	0.48
2:B:375:ALA:C	2:B:376:ASP:OD1	2.56	0.48
3:C:63:LEU:HD13	3:C:63:LEU:O	2.14	0.48
3:C:127:LEU:HB3	3:C:128:PRO:HD2	1.95	0.48
4:D:91:GLN:HE22	4:D:248:ARG:HD3	1.78	0.48
4:D:98:GLN:HE22	4:D:121:ARG:HE	1.61	0.48
5:E:197:LYS:HD2	5:E:197:LYS:C	2.37	0.48
13:N:161:LEU:O	13:N:165:MET:HG3	2.13	0.48
20:V:428:LEU:CD2	20:V:434:ALA:HA	2.44	0.48
21:W:331:GLY:N	21:W:334:GLU:OE1	2.42	0.48
21:W:403:PHE:HD2	21:W:417:ARG:NH2	2.11	0.48
22:X:151:SER:O	22:X:155:ARG:NE	2.46	0.48
23:Y:229:ILE:HD12	23:Y:229:ILE:O	2.14	0.48
24:Z:274:ASN:HD22	27:c:281:LYS:NZ	2.11	0.48
25:a:144:ASN:ND2	25:a:146:PRO:HB3	2.27	0.48
25:a:144:ASN:HD21	25:a:146:PRO:HB3	1.78	0.48
25:a:247:ARG:HH21	25:a:251:LEU:CD1	2.26	0.48
30:f:154:TRP:HA	30:f:157:GLU:CD	2.38	0.48
30:f:670:MET:HA	30:f:672:LEU:HD11	1.94	0.48
31:F:69:MET:O	31:F:73:ILE:HG13	2.12	0.48
31:F:204:LEU:C	31:F:204:LEU:HD23	2.38	0.48
32:U:159:ARG:HH11	32:U:159:ARG:CB	2.25	0.48
32:U:171:ASN:OD1	32:U:172:ASP:N	2.45	0.48
32:U:765:VAL:HG13	32:U:775:LEU:HD21	1.96	0.48
1:A:219:GLY:N	33:A:501:ATP:O1B	2.46	0.48
1:A:399:ALA:O	1:A:400:ARG:HB2	2.14	0.48
2:B:268:ARG:NH1	2:B:311:GLU:OE1	2.44	0.48
3:C:115:ALA:O	3:C:123:LEU:HA	2.14	0.48
3:C:145:ASP:OD1	3:C:145:ASP:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:287:LYS:H	3:C:287:LYS:HD2	1.78	0.48
4:D:92:PHE:HE1	4:D:101:ALA:HB1	1.78	0.48
4:D:131:ALA:HB2	4:D:143:LEU:HD11	1.95	0.48
4:D:392:TYR:HB3	21:W:137:TYR:HE1	1.78	0.48
5:E:197:LYS:HE2	31:F:320:PHE:CG	2.48	0.48
13:N:166:GLU:OE1	13:N:166:GLU:HA	2.14	0.48
21:W:307:LYS:HG2	21:W:315:MET:CE	2.41	0.48
21:W:376:LYS:CA	21:W:376:LYS:HE2	2.43	0.48
21:W:422:ASN:OD1	21:W:423:ASN:N	2.46	0.48
26:b:83:LYS:HD2	26:b:84:ILE:N	2.23	0.48
31:F:347:ARG:O	31:F:348:LEU:C	2.57	0.48
32:U:98:GLU:OE1	32:U:99:THR:N	2.45	0.48
32:U:579:ARG:HB3	32:U:614:VAL:HG21	1.95	0.48
32:U:615:ARG:HH21	32:U:645:ASN:ND2	2.11	0.48
32:U:901:GLN:HE21	32:U:915:LYS:CB	2.19	0.48
2:B:75:GLU:HA	2:B:78:PHE:HB3	1.95	0.48
2:B:79:ILE:HA	2:B:82:GLN:NE2	2.29	0.48
2:B:170:LEU:HD21	2:B:269:GLU:HB3	1.96	0.48
3:C:143:VAL:HG13	3:C:143:VAL:O	2.13	0.48
4:D:108:GLY:C	4:D:109:SER:HG	2.15	0.48
4:D:357:GLU:OE2	4:D:395:LEU:HA	2.12	0.48
20:V:407:VAL:HA	20:V:410:ILE:CG2	2.42	0.48
20:V:485:ASP:C	20:V:485:ASP:OD1	2.56	0.48
21:W:98:LYS:CE	21:W:139:GLU:HB2	2.44	0.48
21:W:241:LEU:CD1	21:W:245:LYS:HZ2	2.27	0.48
21:W:317:TRP:HD1	21:W:358:VAL:HG11	1.77	0.48
22:X:297:ARG:HH21	22:X:337:ARG:CB	2.27	0.48
24:Z:16:LEU:HG	27:c:216:MET:HE3	1.95	0.48
24:Z:105:ASP:O	24:Z:155:PHE:HE2	1.95	0.48
25:a:186:LYS:HD2	25:a:221:VAL:HA	1.96	0.48
28:d:161:GLU:OE1	28:d:163:TYR:N	2.31	0.48
28:d:248:GLU:HA	28:d:248:GLU:OE1	2.12	0.48
30:f:103:TYR:CZ	30:f:106:LEU:HD23	2.48	0.48
30:f:240:VAL:HG13	30:f:241:PRO:CD	2.43	0.48
30:f:578:ALA:O	30:f:582:VAL:HG13	2.13	0.48
14:o:188:ARG:HB3	14:o:189:PRO:CD	2.44	0.48
17:r:177:LEU:HB3	17:r:188:VAL:HG22	1.95	0.48
32:U:173:VAL:O	32:U:173:VAL:HG12	2.13	0.48
1:A:205:GLY:H	31:F:373:MET:HA	1.78	0.48
1:A:242:GLY:O	1:A:280:ILE:HG23	2.13	0.48
2:B:63:LEU:HD22	2:B:63:LEU:H	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:186:ASP:C	2:B:186:ASP:OD1	2.57	0.48
2:B:256:ILE:HB	2:B:305:ILE:HD11	1.95	0.48
4:D:125:LYS:CB	4:D:126:PRO:HD2	2.43	0.48
5:E:170:CYS:HB3	5:E:276:ILE:HD12	1.96	0.48
9:J:90:GLU:HA	9:J:90:GLU:OE2	2.12	0.48
16:Q:141:SER:OG	17:r:139:VAL:HG23	2.14	0.48
20:V:83:GLU:OE1	20:V:83:GLU:HA	2.12	0.48
20:V:184:ALA:O	20:V:187:ILE:HG23	2.14	0.48
20:V:352:SER:C	20:V:353:LEU:HD22	2.39	0.48
20:V:359:PRO:HA	20:V:382:PHE:CE2	2.48	0.48
25:a:226:ARG:HH12	25:a:230:ARG:CD	2.27	0.48
26:b:23:PRO:C	26:b:24:THR:HG1	2.18	0.48
26:b:91:ARG:O	26:b:94:HIS:HB3	2.14	0.48
26:b:128:ALA:CB	26:b:160:LEU:HD21	2.43	0.48
27:c:98:MET:HE3	27:c:98:MET:HB2	1.71	0.48
27:c:116:PRO:HD2	27:c:118:PHE:CE2	2.49	0.48
27:c:154:LYS:HA	27:c:154:LYS:CE	2.43	0.48
27:c:250:GLU:OE2	27:c:254:ASN:ND2	2.47	0.48
28:d:171:LEU:HA	28:d:174:ILE:CG2	2.44	0.48
30:f:139:CYS:SG	30:f:188:VAL:HG11	2.54	0.48
30:f:170:TRP:CZ3	30:f:173:LEU:HD13	2.49	0.48
30:f:744:MET:HA	30:f:747:GLN:CG	2.44	0.48
30:f:861:THR:OG1	30:f:862:ILE:N	2.46	0.48
31:F:194:GLN:NE2	31:F:353:GLU:O	2.46	0.48
32:U:398:ASN:O	32:U:437:TYR:HE2	1.96	0.48
32:U:478:SER:HB2	32:U:511:ALA:HB1	1.94	0.48
32:U:736:ILE:CD1	32:U:779:LEU:HD23	2.44	0.48
32:U:756:HIS:NE2	32:U:758:PRO:HG2	2.29	0.48
1:A:112:ILE:CD1	31:F:164:LEU:HD23	2.38	0.48
6:G:174:GLU:H	6:G:174:GLU:CD	2.20	0.48
7:H:82:TYR:O	7:H:86:VAL:HG23	2.13	0.48
17:R:6:ALA:HB3	17:R:101:MET:CE	2.43	0.48
20:V:193:GLN:OE1	20:V:193:GLN:CA	2.62	0.48
20:V:240:LEU:HD22	20:V:240:LEU:N	2.29	0.48
21:W:311:THR:O	21:W:312:MET:HB2	2.14	0.48
22:X:221:GLU:O	22:X:223:LYS:NZ	2.45	0.48
23:Y:232:GLU:OE1	23:Y:232:GLU:N	2.31	0.48
24:Z:214:LYS:N	24:Z:219:LYS:HZ2	2.12	0.48
25:a:109:GLU:O	25:a:112:ILE:HG12	2.13	0.48
25:a:161:LYS:HA	25:a:161:LYS:CE	2.43	0.48
27:c:48:GLY:C	27:c:50:PRO:HD2	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:790:GLN:HA	30:f:796:LEU:CD2	2.43	0.48
31:F:138:GLY:CA	31:F:159:LEU:HD21	2.44	0.48
32:U:265:ILE:HG13	32:U:329:LEU:HD23	1.95	0.48
32:U:505:ASP:OD1	32:U:507:VAL:N	2.45	0.48
32:U:653:ALA:HB2	32:U:675:MET:SD	2.53	0.48
4:D:312:ASN:C	4:D:312:ASN:OD1	2.57	0.48
4:D:377:SER:HB2	5:E:292:PRO:HB3	1.96	0.48
7:H:85:LEU:HD13	7:H:117:MET:HE2	1.96	0.48
20:V:107:ARG:HG3	20:V:107:ARG:O	2.13	0.48
20:V:415:SER:HB2	23:Y:346:LYS:HZ2	1.78	0.48
20:V:440:LYS:HD3	28:d:145:GLU:C	2.39	0.48
21:W:117:ASP:OD1	21:W:118:LEU:N	2.44	0.48
21:W:132:THR:OG1	21:W:133:GLU:N	2.46	0.48
21:W:187:LEU:HD23	21:W:187:LEU:C	2.39	0.48
24:Z:8:LYS:HG2	24:Z:47:VAL:HG22	1.95	0.48
24:Z:106:ILE:HD13	24:Z:155:PHE:CE2	2.49	0.48
24:Z:193:ASN:O	27:c:228:GLY:HA3	2.14	0.48
25:a:34:TRP:CZ3	26:b:18:ASN:HA	2.49	0.48
25:a:324:ILE:CD1	25:a:331:VAL:HG13	2.44	0.48
27:c:55:GLY:HA3	27:c:112:TYR:HE1	1.77	0.48
28:d:133:ILE:O	28:d:133:ILE:HG13	2.14	0.48
30:f:426:LEU:HD22	30:f:426:LEU:N	2.29	0.48
30:f:742:ALA:HA	30:f:745:LEU:HG	1.94	0.48
6:g:10:ASP:OD1	6:g:11:ARG:N	2.47	0.48
32:U:88:PHE:HZ	32:U:96:TYR:HH	1.59	0.48
32:U:159:ARG:CB	32:U:159:ARG:NH1	2.77	0.48
32:U:198:LEU:HD23	32:U:223:LEU:HD22	1.96	0.48
32:U:247:GLN:HA	32:U:913:ILE:HD13	1.96	0.48
32:U:486:MET:HE1	32:U:781:LEU:CD2	2.43	0.48
32:U:521:LEU:HD12	32:U:522:GLY:H	1.79	0.48
1:A:292:ASP:HB3	2:B:303:ARG:HD2	1.95	0.48
1:A:309:PHE:CE1	31:F:238:ARG:HA	2.48	0.48
2:B:385:MET:C	2:B:385:MET:HE3	2.39	0.48
3:C:25:LEU:HA	3:C:28:ILE:HG22	1.96	0.48
3:C:162:LYS:NZ	23:Y:98:SER:HB2	2.29	0.48
5:E:55:GLN:OE1	5:E:108:MET:HE2	2.14	0.48
5:E:248:SER:HA	5:E:251:ARG:HH22	1.78	0.48
5:E:284:THR:HG22	31:F:297:ASP:HB2	1.94	0.48
12:M:198:TYR:HB3	12:M:243:LEU:HD11	1.96	0.48
20:V:192:MET:O	20:V:195:ILE:CD1	2.62	0.48
20:V:254:LEU:HA	20:V:257:ASN:OD1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:55:ARG:HH22	21:W:93:ARG:NE	2.12	0.48
23:Y:48:ASN:OD1	23:Y:76:ALA:HB3	2.13	0.48
23:Y:96:GLY:CA	23:Y:100:ILE:HG23	2.28	0.48
24:Z:193:ASN:OD1	24:Z:194:GLN:HG2	2.13	0.48
25:a:41:VAL:O	25:a:44:PHE:N	2.45	0.48
25:a:77:VAL:HG21	25:a:113:LEU:HB3	1.95	0.48
25:a:82:HIS:HD2	25:a:85:ARG:HH22	1.61	0.48
25:a:142:LEU:O	25:a:143:ASN:HB3	2.14	0.48
25:a:278:MET:C	25:a:280:MET:H	2.22	0.48
27:c:132:SER:O	27:c:136:LEU:HD22	2.14	0.48
30:f:445:LEU:HD11	30:f:466:LEU:HD11	1.95	0.48
11:l:74:ILE:HG22	11:l:132:LEU:HD22	1.95	0.48
32:U:54:PHE:C	32:U:56:SER:H	2.22	0.48
32:U:145:HIS:O	32:U:145:HIS:CG	2.67	0.48
32:U:247:GLN:HE22	32:U:904:LYS:CG	2.26	0.48
32:U:587:ALA:HB2	32:U:621:SER:CB	2.44	0.48
1:A:77:LEU:C	1:A:77:LEU:HD23	2.39	0.47
1:A:83:ASP:HA	1:A:86:THR:CG2	2.44	0.47
2:B:358:GLU:C	2:B:358:GLU:OE2	2.56	0.47
3:C:339:THR:OG1	3:C:378:VAL:O	2.22	0.47
4:D:207:PRO:HD2	4:D:333:PHE:O	2.13	0.47
4:D:222:HIS:CD2	4:D:222:HIS:N	2.81	0.47
20:V:161:PRO:HG3	20:V:198:GLN:HE22	1.79	0.47
21:W:430:GLN:HA	21:W:430:GLN:OE1	2.14	0.47
23:Y:18:ARG:NH1	23:Y:22:LEU:HD21	2.12	0.47
23:Y:275:LEU:HD21	23:Y:296:VAL:CG1	2.36	0.47
23:Y:307:LEU:HD23	23:Y:308:LEU:HD22	1.96	0.47
24:Z:22:HIS:NE2	24:Z:55:ALA:HB1	2.29	0.47
24:Z:126:VAL:C	24:Z:128:PRO:HD3	2.39	0.47
25:a:141:MET:O	25:a:144:ASN:HB2	2.14	0.47
25:a:226:ARG:NH1	25:a:230:ARG:HG2	2.28	0.47
27:c:244:VAL:HG11	27:c:291:LEU:HG	1.95	0.47
28:d:21:GLU:HG3	28:d:22:GLU:N	2.28	0.47
30:f:25:ASP:OD1	30:f:25:ASP:N	2.47	0.47
30:f:182:GLU:N	30:f:183:PRO:HD2	2.29	0.47
30:f:404:ASP:N	30:f:404:ASP:OD1	2.46	0.47
30:f:631:LYS:HA	30:f:634:LYS:CD	2.44	0.47
30:f:872:VAL:O	30:f:874:LEU:HG	2.14	0.47
31:F:86:LEU:HD13	31:F:86:LEU:O	2.14	0.47
31:F:204:LEU:HD23	31:F:205:PRO:N	2.29	0.47
32:U:213:PHE:C	32:U:216:VAL:HG12	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:450:HIS:HD1	32:U:457:ILE:CG1	2.23	0.47
32:U:732:LEU:O	32:U:732:LEU:HD23	2.14	0.47
32:U:874:ASN:N	32:U:874:ASN:OD1	2.46	0.47
1:A:88:GLN:O	1:A:92:PRO:HG2	2.14	0.47
3:C:219:LEU:HD22	4:D:289:LEU:CD2	2.43	0.47
3:C:349:GLU:HA	3:C:349:GLU:OE2	2.12	0.47
3:C:362:VAL:HG13	3:C:386:ALA:HB3	1.96	0.47
5:E:104:THR:HG23	5:E:104:THR:O	2.13	0.47
5:E:118:LEU:HB2	5:E:214:LEU:HD21	1.96	0.47
5:E:146:ARG:HG2	5:E:146:ARG:NH1	2.28	0.47
5:E:322:LYS:HB3	5:E:326:ILE:HD13	1.95	0.47
20:V:122:THR:HG21	20:V:155:ALA:HB1	1.96	0.47
20:V:358:MET:N	20:V:359:PRO:HD2	2.29	0.47
21:W:51:GLU:O	21:W:54:THR:OG1	2.20	0.47
21:W:102:ALA:O	21:W:105:VAL:HG22	2.15	0.47
21:W:166:LEU:HD21	21:W:201:ARG:NH2	2.29	0.47
21:W:307:LYS:HB2	21:W:307:LYS:HZ3	1.79	0.47
23:Y:50:MET:HE3	23:Y:51:ALA:H	1.79	0.47
25:a:156:TYR:O	25:a:160:SER:N	2.47	0.47
28:d:241:GLU:C	28:d:241:GLU:OE1	2.57	0.47
30:f:437:GLU:O	30:f:440:ILE:HG12	2.13	0.47
31:F:215:LEU:O	31:F:215:LEU:HD23	2.14	0.47
31:F:226:TYR:HE1	31:F:353:GLU:CD	2.22	0.47
32:U:244:MET:HA	32:U:903:PHE:CE2	2.49	0.47
32:U:554:LEU:HD11	32:U:761:VAL:CG2	2.34	0.47
32:U:602:LEU:HD21	32:U:618:ALA:O	2.14	0.47
2:B:369:THR:HG22	2:B:372:MET:CE	2.44	0.47
3:C:127:LEU:HD13	4:D:102:ILE:HD11	1.97	0.47
4:D:304:ASN:OD1	4:D:304:ASN:N	2.39	0.47
5:E:261:LEU:HD12	5:E:294:ARG:NE	2.28	0.47
20:V:90:GLU:OE1	20:V:92:ARG:HB2	2.14	0.47
20:V:251:LEU:O	20:V:255:LEU:HB2	2.13	0.47
20:V:334:VAL:HG22	20:V:395:ILE:HD11	1.96	0.47
20:V:437:ILE:HA	28:d:146:GLY:HA3	1.96	0.47
21:W:259:GLU:OE1	21:W:260:SER:N	2.46	0.47
21:W:279:PHE:CD1	21:W:280:ASP:N	2.82	0.47
21:W:280:ASP:OD2	21:W:282:GLU:HB3	2.14	0.47
21:W:394:SER:HA	21:W:397:VAL:CG1	2.44	0.47
24:Z:214:LYS:HE2	24:Z:214:LYS:HB3	1.68	0.47
25:a:227:ASN:O	25:a:231:GLN:NE2	2.47	0.47
25:a:244:ASN:O	25:a:272:ILE:HD11	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:110:ILE:HG22	26:b:139:ASP:CB	2.42	0.47
26:b:140:ILE:HG22	26:b:170:LEU:CD1	2.44	0.47
26:b:147:GLU:OE1	26:b:147:GLU:N	2.47	0.47
29:e:60:LEU:HD22	29:e:60:LEU:N	2.29	0.47
30:f:125:ILE:HG23	30:f:131:MET:HE1	1.94	0.47
30:f:527:VAL:HG22	30:f:527:VAL:O	2.15	0.47
11:l:35:THR:CG2	11:l:133:LEU:HD12	2.44	0.47
32:U:672:LEU:HA	32:U:675:MET:HG2	1.95	0.47
32:U:697:GLN:NE2	32:U:745:THR:OG1	2.48	0.47
1:A:108:ASP:HB3	1:A:109:PRO:HD3	1.94	0.47
2:B:357:ASP:OD1	2:B:357:ASP:C	2.56	0.47
5:E:50:LEU:CD1	31:F:82:VAL:HG21	2.44	0.47
5:E:258:MET:HE3	5:E:258:MET:HB3	1.71	0.47
10:K:146:VAL:HG11	10:K:222:PRO:HA	1.95	0.47
21:W:169:LEU:HD13	21:W:172:GLU:OE1	2.14	0.47
23:Y:301:ILE:HD11	23:Y:337:PHE:CD1	2.49	0.47
23:Y:304:TYR:OH	23:Y:333:GLU:OE1	2.19	0.47
24:Z:43:TRP:HB3	24:Z:48:LEU:CD1	2.44	0.47
27:c:26:ASP:HB2	27:c:65:TYR:CE1	2.50	0.47
28:d:168:ASP:OD1	28:d:169:ILE:HG13	2.15	0.47
28:d:196:ARG:HD2	28:d:196:ARG:O	2.14	0.47
28:d:255:MET:HE1	28:d:257:VAL:HG12	1.97	0.47
30:f:33:ARG:CZ	30:f:33:ARG:HA	2.45	0.47
30:f:602:GLY:HA2	30:f:639:LYS:HB3	1.96	0.47
32:U:131:GLU:OE1	32:U:131:GLU:O	2.33	0.47
32:U:184:CYS:SG	32:U:185:MET:N	2.88	0.47
32:U:364:VAL:HG21	32:U:773:PHE:HE2	1.79	0.47
32:U:471:ASP:HA	32:U:474:ARG:HD3	1.95	0.47
32:U:471:ASP:OD1	32:U:471:ASP:O	2.31	0.47
32:U:673:GLU:O	32:U:676:THR:HG22	2.14	0.47
32:U:772:TRP:NE1	32:U:774:PRO:HG2	2.29	0.47
1:A:180:CYS:HB3	1:A:183:GLN:HB2	1.96	0.47
2:B:212:GLU:CB	30:f:845:ARG:HG3	2.43	0.47
2:B:309:MET:O	2:B:313:LEU:HG	2.15	0.47
4:D:342:ARG:HD3	4:D:361:GLU:OE2	2.14	0.47
5:E:363:VAL:HG23	5:E:365:GLU:H	1.79	0.47
20:V:130:PHE:C	20:V:133:PRO:HD2	2.39	0.47
21:W:55:ARG:NH2	21:W:93:ARG:HE	2.11	0.47
22:X:350:ILE:CG2	22:X:361:VAL:HG21	2.45	0.47
23:Y:330:ILE:O	23:Y:334:LEU:HB2	2.15	0.47
24:Z:22:HIS:CE1	24:Z:35:VAL:CG1	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Z:146:ASP:OD2	25:a:178:ARG:HA	2.14	0.47
24:Z:181:ASP:OD1	24:Z:181:ASP:N	2.46	0.47
25:a:45:VAL:HG23	25:a:46:GLN:OE1	2.14	0.47
25:a:86:GLN:O	25:a:86:GLN:HG3	2.13	0.47
26:b:48:ASN:ND2	26:b:64:LEU:CB	2.77	0.47
26:b:71:ILE:O	26:b:75:LEU:HD23	2.14	0.47
26:b:147:GLU:OE2	26:b:152:LYS:NZ	2.42	0.47
26:b:186:SER:OG	26:b:187:PRO:HD3	2.13	0.47
27:c:27:THR:O	27:c:27:THR:OG1	2.26	0.47
28:d:101:LEU:HD23	28:d:166:PHE:CE2	2.49	0.47
28:d:122:LEU:HD22	28:d:122:LEU:H	1.79	0.47
30:f:828:ARG:NH2	30:f:861:THR:HG21	2.29	0.47
30:f:828:ARG:HH12	30:f:831:VAL:HG13	1.78	0.47
31:F:318:ASP:C	31:F:318:ASP:OD1	2.57	0.47
31:F:431:LYS:HE3	31:F:431:LYS:HB3	1.79	0.47
32:U:65:SER:OG	32:U:81:ALA:N	2.48	0.47
32:U:84:ALA:CB	32:U:88:PHE:HD2	2.28	0.47
32:U:236:LEU:N	32:U:236:LEU:HD23	2.30	0.47
32:U:356:THR:HG22	32:U:717:ILE:HD12	1.96	0.47
1:A:360:ARG:HG2	30:f:851:ASP:OD2	2.14	0.47
2:B:295:TYR:CE2	3:C:271:ARG:HD3	2.49	0.47
2:B:303:ARG:HB2	2:B:303:ARG:CZ	2.43	0.47
3:C:89:VAL:HG22	3:C:93:GLY:O	2.14	0.47
3:C:273:MET:CE	3:C:293:MET:SD	2.99	0.47
4:D:171:ASP:OD1	4:D:171:ASP:N	2.48	0.47
20:V:175:MET:HE3	20:V:175:MET:HB3	1.74	0.47
21:W:75:TYR:HH	21:W:114:GLU:CD	2.18	0.47
21:W:142:ARG:HG2	21:W:177:MET:HG3	1.96	0.47
22:X:111:LEU:HD23	22:X:111:LEU:HA	1.78	0.47
23:Y:241:ILE:CG2	23:Y:261:PHE:HE1	2.28	0.47
24:Z:11:VAL:HG21	24:Z:135:THR:CG2	2.41	0.47
24:Z:259:VAL:CG1	27:c:291:LEU:HD22	2.45	0.47
25:a:115:LYS:HA	25:a:118:ILE:HG12	1.96	0.47
26:b:63:THR:OG1	26:b:64:LEU:N	2.47	0.47
26:b:187:PRO:CG	26:b:188:ILE:HD12	2.40	0.47
27:c:266:THR:OG1	27:c:268:GLU:OE2	2.32	0.47
27:c:266:THR:O	27:c:269:GLN:HB3	2.15	0.47
28:d:130:ASN:OD1	28:d:132:TYR:HB2	2.15	0.47
28:d:256:ILE:O	28:d:256:ILE:CD1	2.58	0.47
14:o:10:LYS:NZ	14:o:10:LYS:HB3	2.29	0.47
31:F:384:LEU:HD11	31:F:420:TYR:CG	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:904:LYS:CE	32:U:908:ILE:HD12	2.44	0.47
1:A:70:THR:OG1	1:A:71:GLY:N	2.47	0.47
1:A:73:ALA:HB2	2:B:140:ASP:HA	1.95	0.47
1:A:174:TYR:H	1:A:232:ARG:HH22	1.62	0.47
1:A:286:ASP:CB	31:F:337:ILE:HG22	2.45	0.47
2:B:53:THR:HB	30:f:834:ASP:OD1	2.14	0.47
2:B:74:MET:HE2	2:B:74:MET:O	2.14	0.47
2:B:223:ILE:HG12	2:B:334:ILE:HD11	1.97	0.47
2:B:423:LYS:HD2	2:B:423:LYS:C	2.40	0.47
3:C:63:LEU:HD21	4:D:81:ARG:HD2	1.97	0.47
3:C:142:LYS:NZ	4:D:325:GLY:HA3	2.30	0.47
3:C:222:LYS:NZ	4:D:286:GLN:OE1	2.32	0.47
3:C:248:MET:CE	3:C:273:MET:HE2	2.44	0.47
3:C:277:LEU:CD1	3:C:310:ARG:HG3	2.41	0.47
3:C:336:MET:CE	3:C:367:GLY:HA3	2.36	0.47
4:D:403:TYR:CD2	4:D:407:ILE:HG12	2.50	0.47
5:E:304:PRO:HD3	5:E:339:ASN:O	2.15	0.47
5:E:305:ASN:C	5:E:305:ASN:OD1	2.56	0.47
5:E:372:ARG:H	5:E:372:ARG:HD2	1.80	0.47
5:E:376:ASP:C	5:E:376:ASP:OD1	2.58	0.47
9:J:172:LEU:HD23	9:J:190:LEU:HD21	1.97	0.47
11:L:72:ILE:HD11	11:L:85:CYS:SG	2.55	0.47
12:M:236:GLU:O	12:M:240:LYS:HG2	2.15	0.47
20:V:195:ILE:HD12	20:V:196:SER:H	1.79	0.47
20:V:222:ASP:N	20:V:222:ASP:OD1	2.47	0.47
20:V:333:ILE:HD11	20:V:360:TYR:CB	2.29	0.47
20:V:364:THR:HG21	29:e:43:TRP:CH2	2.50	0.47
20:V:407:VAL:HG12	20:V:447:ILE:HD13	1.96	0.47
21:W:87:ILE:HD11	21:W:104:MET:HE3	1.97	0.47
21:W:244:CYS:SG	21:W:273:TYR:HD1	2.38	0.47
21:W:265:GLN:HG2	21:W:336:PRO:CD	2.45	0.47
21:W:360:GLU:O	21:W:363:ILE:HG22	2.15	0.47
23:Y:51:ALA:HB3	23:Y:52:PRO:HD3	1.96	0.47
23:Y:202:LEU:HD13	23:Y:239:LYS:NZ	2.29	0.47
23:Y:241:ILE:HD13	23:Y:264:TYR:CD2	2.50	0.47
23:Y:300:ARG:HE	23:Y:333:GLU:CD	2.22	0.47
24:Z:29:VAL:HB	24:Z:33:LYS:NZ	2.29	0.47
25:a:33:LEU:HD11	25:a:36:GLN:CB	2.44	0.47
25:a:76:LEU:O	25:a:80:ILE:HD13	2.14	0.47
25:a:136:GLU:OE1	25:a:136:GLU:CA	2.62	0.47
25:a:144:ASN:O	25:a:145:LEU:HG	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:196:ARG:HA	25:a:199:THR:HG22	1.96	0.47
25:a:278:MET:HE3	25:a:278:MET:HB2	1.77	0.47
25:a:361:LYS:O	25:a:361:LYS:HD3	2.15	0.47
26:b:141:ILE:O	26:b:141:ILE:HG13	2.12	0.47
27:c:167:MET:HA	27:c:167:MET:HE3	1.96	0.47
28:d:13:SER:OG	28:d:16:LEU:HD12	2.15	0.47
28:d:33:LEU:HD22	28:d:34:ASN:N	2.28	0.47
28:d:97:GLN:NE2	28:d:160:ALA:HB1	2.30	0.47
30:f:209:MET:SD	30:f:213:GLN:NE2	2.88	0.47
30:f:445:LEU:O	30:f:445:LEU:HD23	2.15	0.47
30:f:465:LEU:O	30:f:469:TYR:HE2	1.98	0.47
30:f:648:ALA:O	30:f:652:VAL:HG22	2.15	0.47
30:f:746:ARG:HD3	30:f:746:ARG:N	2.28	0.47
30:f:830:LEU:HD11	30:f:860:LYS:O	2.14	0.47
12:m:53:VAL:O	12:m:53:VAL:HG23	2.15	0.47
14:o:25:MET:HE2	18:s:188:TYR:OH	2.14	0.47
17:r:10:ARG:HH11	17:r:10:ARG:HG3	1.80	0.47
31:F:191:LEU:O	31:F:195:ILE:HG13	2.15	0.47
32:U:96:TYR:O	32:U:99:THR:HG22	2.15	0.47
32:U:418:GLU:HG2	32:U:421:GLN:HE22	1.79	0.47
32:U:644:TYR:H	32:U:644:TYR:HD2	1.61	0.47
32:U:801:GLN:NE2	32:U:877:LEU:HD23	2.29	0.47
1:A:292:ASP:OD1	1:A:292:ASP:C	2.57	0.47
1:A:305:GLN:O	1:A:312:ARG:HG3	2.14	0.47
2:B:204:PRO:HG3	2:B:211:TYR:CE2	2.50	0.47
2:B:220:LYS:NZ	2:B:345:GLY:O	2.48	0.47
3:C:85:VAL:HG11	3:C:108:VAL:HG11	1.96	0.47
3:C:128:PRO:HD3	4:D:96:VAL:CG2	2.42	0.47
3:C:351:MET:CB	3:C:391:MET:HE3	2.44	0.47
4:D:118:THR:HG22	4:D:118:THR:O	2.15	0.47
4:D:214:MET:HE3	4:D:214:MET:HB2	1.88	0.47
9:J:35:VAL:HG13	9:J:191:VAL:HG22	1.96	0.47
15:P:167:SER:CB	15:P:199:LEU:HD11	2.44	0.47
20:V:192:MET:O	20:V:195:ILE:HD12	2.14	0.47
20:V:203:LEU:HD22	20:V:206:VAL:CG2	2.44	0.47
23:Y:15:PRO:HD2	23:Y:146:ARG:HD2	1.96	0.47
24:Z:105:ASP:OD1	24:Z:108:ILE:HD12	2.14	0.47
24:Z:190:ARG:NH1	27:c:297:VAL:HA	2.25	0.47
24:Z:279:LYS:O	24:Z:282:ASN:OD1	2.33	0.47
26:b:51:LEU:CD1	26:b:61:LEU:HD12	2.45	0.47
26:b:79:GLN:CD	26:b:79:GLN:N	2.73	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:97:LEU:O	26:b:100:ARG:HB3	2.14	0.47
28:d:13:SER:HB3	28:d:16:LEU:CG	2.44	0.47
28:d:66:LYS:HB2	28:d:66:LYS:HE2	1.70	0.47
28:d:251:ARG:O	28:d:255:MET:HG3	2.15	0.47
6:g:188:ASP:OD1	6:g:188:ASP:N	2.47	0.47
16:q:108:ASP:OD1	16:q:109:GLU:N	2.47	0.47
31:F:222:GLY:HA2	31:F:328:VAL:O	2.15	0.47
32:U:353:LEU:CD1	32:U:373:ASN:HB2	2.45	0.47
32:U:793:LYS:HG3	32:U:794:ASP:N	2.29	0.47
1:A:263:MET:HG2	1:A:267:LYS:CE	2.45	0.47
1:A:303:ILE:HG13	1:A:336:ARG:HD3	1.97	0.47
1:A:358:HIS:CE1	1:A:386:ARG:HG3	2.50	0.47
2:B:114:GLU:OE1	2:B:122:ILE:HD13	2.14	0.47
2:B:184:TYR:O	2:B:187:ILE:HG22	2.14	0.47
2:B:375:ALA:O	2:B:376:ASP:OD1	2.33	0.47
3:C:48:GLN:OE1	20:V:495:ARG:HD3	2.15	0.47
5:E:257:LEU:O	5:E:261:LEU:HB2	2.15	0.47
21:W:271:VAL:O	21:W:275:ILE:HD12	2.15	0.47
23:Y:57:LEU:HD12	23:Y:58:CYS:N	2.30	0.47
24:Z:190:ARG:NH2	27:c:297:VAL:HA	2.28	0.47
27:c:104:ARG:HD3	27:c:104:ARG:N	2.29	0.47
28:d:107:LEU:HD21	28:d:140:GLU:HA	1.96	0.47
28:d:229:GLN:O	28:d:232:PRO:HD2	2.14	0.47
30:f:882:LEU:HD12	30:f:882:LEU:O	2.15	0.47
19:t:27:LEU:HD21	19:t:34:ALA:HB1	1.97	0.47
31:F:153:VAL:HG12	31:F:159:LEU:H	1.80	0.47
31:F:406:ILE:HG12	31:F:409:ARG:NH2	2.30	0.47
32:U:387:ARG:HA	32:U:387:ARG:NE	2.30	0.47
32:U:637:VAL:CG1	32:U:652:ALA:HB1	2.45	0.47
32:U:789:ILE:HG13	32:U:911:ILE:CD1	2.45	0.47
3:C:125:LYS:HB3	3:C:125:LYS:HE3	1.54	0.47
4:D:228:ILE:HD11	4:D:253:LEU:HD23	1.97	0.47
4:D:332:GLU:OE1	4:D:333:PHE:N	2.47	0.47
5:E:84:ARG:HG2	5:E:86:GLN:OE1	2.15	0.47
5:E:331:ILE:HD11	5:E:367:PHE:HB3	1.96	0.47
6:G:112:ASP:OD2	14:O:73:ARG:NH2	2.48	0.47
20:V:90:GLU:OE1	20:V:92:ARG:N	2.41	0.47
20:V:209:LYS:HA	20:V:209:LYS:HD3	1.61	0.47
21:W:89:LEU:HD23	21:W:93:ARG:HD2	1.97	0.47
21:W:209:ILE:HG23	21:W:227:TYR:OH	2.15	0.47
21:W:373:ILE:HD11	21:W:377:ARG:CG	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:X:338:VAL:HG13	22:X:339:ILE:CD1	2.43	0.47
23:Y:114:ILE:HG22	23:Y:115:GLY:N	2.30	0.47
24:Z:23:PHE:HB2	24:Z:126:VAL:HG21	1.96	0.47
25:a:97:LEU:HD11	25:a:117:ALA:HB1	1.96	0.47
26:b:119:ASP:OD1	26:b:152:LYS:HD2	2.14	0.47
27:c:114:SER:OG	27:c:147:PRO:HD3	2.15	0.47
30:f:138:GLU:CA	30:f:141:LYS:HE3	2.28	0.47
30:f:828:ARG:HD2	30:f:829:MET:O	2.15	0.47
31:F:291:ILE:HD12	31:F:306:VAL:HG12	1.96	0.47
32:U:167:ILE:HD12	32:U:204:ILE:CG2	2.40	0.47
32:U:369:THR:CG2	32:U:392:TRP:HZ2	2.27	0.47
32:U:423:MET:HE2	32:U:423:MET:CA	2.45	0.47
32:U:739:ALA:O	32:U:744:VAL:HG12	2.14	0.47
1:A:254:ALA:HA	1:A:257:VAL:HG12	1.96	0.46
3:C:391:MET:O	3:C:395:SER:OG	2.23	0.46
5:E:245:GLU:OE1	31:F:301:ALA:HB2	2.14	0.46
5:E:283:ASP:OD1	5:E:283:ASP:N	2.46	0.46
5:E:383:LYS:O	5:E:384:LEU:HD22	2.15	0.46
6:G:84:THR:OG1	12:M:156:VAL:HG22	2.15	0.46
13:N:128:ILE:HD11	13:N:137:TYR:CD1	2.50	0.46
20:V:208:ALA:HA	20:V:211:TYR:HD2	1.79	0.46
20:V:300:LEU:HA	20:V:302:TYR:CE1	2.50	0.46
20:V:333:ILE:CD1	20:V:360:TYR:HB3	2.28	0.46
20:V:360:TYR:OH	20:V:391:THR:HG21	2.15	0.46
21:W:112:VAL:HG21	21:W:124:LEU:HD23	1.97	0.46
22:X:377:ILE:CG2	23:Y:358:ARG:HH12	2.28	0.46
22:X:379:ASP:OD2	22:X:381:GLY:N	2.47	0.46
22:X:406:ASN:ND2	27:c:253:LYS:HB2	2.29	0.46
27:c:307:VAL:HG23	28:d:239:SER:OG	2.14	0.46
28:d:11:ARG:HE	28:d:12:LYS:H	1.61	0.46
30:f:480:GLY:HA2	30:f:483:PHE:CE1	2.50	0.46
30:f:828:ARG:HB2	30:f:829:MET:HE1	1.97	0.46
31:F:214:ASN:OD1	31:F:214:ASN:C	2.58	0.46
32:U:244:MET:O	32:U:248:ILE:HG23	2.14	0.46
32:U:250:PHE:HB3	32:U:911:ILE:HG21	1.97	0.46
32:U:800:VAL:O	32:U:880:ASN:N	2.48	0.46
1:A:83:ASP:HA	1:A:86:THR:HG23	1.97	0.46
1:A:124:ASP:OD1	1:A:124:ASP:N	2.47	0.46
1:A:307:ASP:C	1:A:307:ASP:OD1	2.58	0.46
1:A:334:PRO:HB3	31:F:398:ALA:HB2	1.96	0.46
2:B:160:ILE:HD12	2:B:160:ILE:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:205:HIS:O	3:C:205:HIS:ND1	2.40	0.46
7:H:47:THR:HG21	7:H:74:VAL:HG21	1.97	0.46
16:Q:172:ILE:O	16:q:174:ASN:N	2.45	0.46
36:R:301:LDZ:H21	36:R:301:LDZ:C22	2.45	0.46
20:V:203:LEU:HD22	20:V:203:LEU:O	2.15	0.46
20:V:251:LEU:HD23	20:V:276:PHE:HD1	1.81	0.46
21:W:41:GLN:O	21:W:45:GLU:OE1	2.32	0.46
21:W:51:GLU:H	21:W:51:GLU:HG2	1.59	0.46
21:W:105:VAL:HG21	21:W:140:ILE:CD1	2.28	0.46
21:W:419:LYS:HZ1	21:W:423:ASN:HB3	1.79	0.46
22:X:338:VAL:C	22:X:341:PRO:HD2	2.40	0.46
22:X:360:ASP:N	22:X:360:ASP:OD1	2.44	0.46
23:Y:371:LYS:HD3	23:Y:371:LYS:C	2.40	0.46
24:Z:93:GLY:HA2	24:Z:119:SER:HB2	1.96	0.46
27:c:61:PHE:CE1	27:c:139:ARG:HB2	2.50	0.46
30:f:420:TRP:N	30:f:451:VAL:HG23	2.29	0.46
30:f:477:MET:HE1	30:f:478:ARG:HB3	1.96	0.46
9:j:26:VAL:HG23	9:j:74:ALA:O	2.15	0.46
36:n:301:LDZ:H42	14:o:119:SER:OG	2.15	0.46
14:o:100:VAL:HG13	14:o:126:VAL:HG21	1.97	0.46
32:U:107:HIS:ND1	32:U:110:LYS:HE3	2.30	0.46
32:U:247:GLN:HE22	32:U:904:LYS:CD	2.28	0.46
32:U:247:GLN:HE21	32:U:904:LYS:HB2	1.79	0.46
1:A:114:ASN:C	1:A:114:ASN:OD1	2.58	0.46
1:A:286:ASP:HB2	31:F:337:ILE:HG22	1.96	0.46
3:C:121:TYR:HD1	3:C:121:TYR:H	1.63	0.46
3:C:128:PRO:CD	4:D:96:VAL:HG23	2.43	0.46
4:D:109:SER:HB2	4:D:111:TYR:CE1	2.48	0.46
17:R:18:ASP:OD1	17:R:34:LYS:NZ	2.48	0.46
20:V:268:GLU:HG2	20:V:299:GLN:OE1	2.15	0.46
22:X:236:PHE:HE1	22:X:251:LEU:CD1	2.29	0.46
23:Y:199:GLU:C	23:Y:199:GLU:OE1	2.59	0.46
23:Y:204:THR:HA	23:Y:207:THR:HG23	1.97	0.46
23:Y:307:LEU:HD23	23:Y:307:LEU:C	2.40	0.46
23:Y:383:LEU:O	23:Y:383:LEU:HD23	2.15	0.46
25:a:25:LEU:CD2	25:a:37:LEU:HD11	2.44	0.46
25:a:270:ARG:HD3	25:a:270:ARG:HA	1.73	0.46
26:b:3:LEU:O	26:b:105:HIS:HA	2.15	0.46
26:b:33:VAL:HA	26:b:36:VAL:HG12	1.97	0.46
27:c:246:LYS:NZ	27:c:246:LYS:HB2	2.29	0.46
28:d:52:ARG:HH22	28:d:89:LEU:CD2	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:62:ARG:HA	30:f:65:GLU:OE1	2.15	0.46
30:f:603:SER:H	30:f:639:LYS:HD3	1.80	0.46
9:j:134:VAL:HG12	9:j:144:LEU:HD13	1.96	0.46
10:k:197:SER:O	10:k:201:ILE:HG13	2.15	0.46
32:U:50:GLU:OE1	32:U:50:GLU:CA	2.62	0.46
32:U:247:GLN:CA	32:U:913:ILE:HD13	2.46	0.46
32:U:645:ASN:OD1	32:U:647:HIS:N	2.46	0.46
1:A:73:ALA:HB3	1:A:78:TRP:HE1	1.80	0.46
2:B:63:LEU:HB3	30:f:226:TYR:CG	2.51	0.46
2:B:212:GLU:HA	30:f:845:ARG:CG	2.33	0.46
2:B:239:VAL:O	2:B:243:THR:HB	2.16	0.46
3:C:218:GLU:HA	3:C:221:GLN:HB2	1.96	0.46
4:D:152:MET:SD	4:D:253:LEU:HD21	2.56	0.46
5:E:135:ILE:O	5:E:135:ILE:HG12	2.15	0.46
5:E:148:VAL:CG2	5:E:167:PRO:HB2	2.45	0.46
5:E:280:ASN:C	5:E:281:ARG:HG2	2.40	0.46
10:K:119:LEU:O	10:K:119:LEU:HD13	2.15	0.46
11:L:229:VAL:HG12	11:L:229:VAL:O	2.15	0.46
15:P:141:CYS:SG	15:P:145:MET:HE2	2.55	0.46
19:T:193:THR:HG22	19:T:194:GLU:H	1.81	0.46
21:W:43:VAL:O	21:W:46:THR:HG22	2.16	0.46
21:W:134:GLY:C	21:W:136:ILE:HG23	2.41	0.46
21:W:265:GLN:C	21:W:265:GLN:CD	2.83	0.46
21:W:444:HIS:CE1	24:Z:157:HIS:CD2	3.03	0.46
22:X:415:TYR:HE1	23:Y:383:LEU:HB2	1.80	0.46
23:Y:229:ILE:CA	23:Y:299:MET:HE1	2.46	0.46
24:Z:22:HIS:HD2	24:Z:25:ARG:CD	2.28	0.46
24:Z:201:LEU:HD21	27:c:309:PHE:HE1	1.81	0.46
25:a:98:GLU:OE1	25:a:98:GLU:HA	2.15	0.46
25:a:112:ILE:HG13	25:a:151:VAL:HG11	1.97	0.46
26:b:179:LEU:HD12	26:b:181:ASP:HB3	1.97	0.46
27:c:88:ASP:OD1	27:c:88:ASP:C	2.59	0.46
27:c:178:THR:HG21	32:U:399:TRP:CD1	2.51	0.46
28:d:92:SER:N	28:d:95:MET:HG2	2.31	0.46
28:d:135:HIS:HB3	28:d:136:PRO:HD3	1.97	0.46
30:f:143:ARG:HD3	30:f:143:ARG:N	2.30	0.46
30:f:292:LYS:O	30:f:292:LYS:NZ	2.44	0.46
30:f:731:MET:C	30:f:731:MET:SD	2.98	0.46
30:f:759:LEU:HB2	30:f:809:ILE:CD1	2.35	0.46
6:g:201:CYS:O	6:g:205:VAL:HG13	2.15	0.46
32:U:101:ILE:HA	32:U:104:CYS:SG	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:77:LEU:HD21	2:B:137:SER:O	2.16	0.46
2:B:59:ARG:H	30:f:184:LEU:HD11	1.80	0.46
2:B:421:LYS:HA	2:B:424:GLU:CG	2.46	0.46
3:C:110:PRO:O	3:C:111:ASN:C	2.58	0.46
3:C:369:TYR:HE2	3:C:389:LYS:HE2	1.80	0.46
4:D:183:LEU:HD12	4:D:183:LEU:HA	1.78	0.46
8:I:67:LYS:NZ	8:I:69:ASN:O	2.48	0.46
19:T:22:ILE:HD12	19:T:50:MET:HG3	1.97	0.46
20:V:298:ILE:HD13	20:V:298:ILE:N	2.30	0.46
20:V:398:LEU:O	20:V:402:VAL:HG13	2.15	0.46
21:W:228:ASN:OD1	21:W:228:ASN:C	2.59	0.46
21:W:311:THR:C	21:W:313:GLU:H	2.22	0.46
22:X:267:VAL:HG11	22:X:291:ALA:CB	2.46	0.46
22:X:379:ASP:OD2	22:X:379:ASP:C	2.58	0.46
24:Z:176:LEU:HD22	27:c:218:LEU:HB2	1.98	0.46
25:a:174:LYS:CG	25:a:178:ARG:HH22	2.24	0.46
25:a:210:VAL:HG12	25:a:213:PHE:HE2	1.80	0.46
25:a:246:GLU:OE2	25:a:250:THR:HG21	2.16	0.46
26:b:7:MET:HE1	26:b:52:ILE:HD11	1.98	0.46
26:b:143:PHE:HE1	26:b:173:VAL:HG11	1.81	0.46
27:c:54:MET:CE	27:c:75:MET:HB2	2.46	0.46
27:c:175:ARG:O	27:c:176:GLN:C	2.59	0.46
27:c:292:MET:HE2	28:d:253:LEU:CD2	2.42	0.46
31:F:228:PRO:HB3	31:F:229:PRO:HD2	1.97	0.46
32:U:166:THR:CG2	32:U:166:THR:O	2.63	0.46
32:U:611:ASN:O	32:U:614:VAL:HG12	2.15	0.46
32:U:744:VAL:CG2	32:U:783:TYR:HB3	2.42	0.46
2:B:78:PHE:CD2	2:B:79:ILE:HG13	2.51	0.46
3:C:32:GLN:OE1	3:C:32:GLN:HA	2.15	0.46
5:E:161:ARG:NE	21:W:173:THR:O	2.48	0.46
11:L:23:GLU:OE1	11:L:23:GLU:N	2.48	0.46
20:V:318:GLN:HG2	20:V:319:HIS:N	2.30	0.46
21:W:118:LEU:O	21:W:118:LEU:HD22	2.15	0.46
21:W:179:LYS:HE3	21:W:212:LYS:HD2	1.98	0.46
23:Y:46:ARG:HH11	23:Y:46:ARG:HG3	1.79	0.46
24:Z:74:TYR:OH	27:c:102:THR:HG21	2.15	0.46
25:a:61:GLU:HA	25:a:64:ILE:HD11	1.97	0.46
26:b:160:LEU:N	26:b:160:LEU:HD23	2.31	0.46
27:c:211:GLU:HB2	32:U:574:LYS:NZ	2.29	0.46
28:d:71:PHE:C	28:d:71:PHE:CD2	2.93	0.46
30:f:206:ASP:OD1	30:f:207:LEU:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:i:167:ASN:HB2	8:i:200:THR:HG23	1.97	0.46
16:q:19:ARG:NH1	16:q:193:ASN:OD1	2.49	0.46
31:F:291:ILE:CD1	31:F:306:VAL:HG12	2.46	0.46
32:U:137:MET:HE1	32:U:140:ARG:HE	1.80	0.46
32:U:420:LEU:HD22	32:U:460:TYR:CE2	2.50	0.46
1:A:213:LEU:HA	1:A:319:MET:O	2.16	0.46
1:A:304:ASN:O	1:A:308:GLY:HA3	2.15	0.46
2:B:148:CYS:SG	2:B:149:SER:N	2.89	0.46
3:C:19:GLY:HA3	32:U:146:LYS:NZ	2.31	0.46
3:C:148:TYR:CZ	3:C:162:LYS:HE2	2.51	0.46
4:D:39:ASP:O	4:D:42:SER:OG	2.29	0.46
5:E:84:ARG:CD	27:c:50:PRO:HG3	2.43	0.46
5:E:316:HIS:CD2	5:E:344:ARG:HG3	2.51	0.46
6:G:155:ASP:OD1	6:G:159:TYR:N	2.48	0.46
11:L:33:SER:H	31:F:439:ALA:HB2	1.81	0.46
11:L:212:ILE:CD1	11:L:229:VAL:HG13	2.44	0.46
13:N:149:THR:HG22	13:N:150:LYS:N	2.29	0.46
14:O:8:VAL:O	14:O:8:VAL:HG13	2.15	0.46
20:V:261:TYR:N	20:V:261:TYR:CD2	2.83	0.46
20:V:309:MET:HE1	20:V:331:LEU:HD23	1.98	0.46
21:W:107:GLN:HE21	21:W:111:TYR:HE1	1.63	0.46
21:W:220:GLU:HG3	21:W:221:LYS:HE3	1.97	0.46
21:W:333:LEU:HD23	21:W:334:GLU:N	2.28	0.46
23:Y:117:LYS:NZ	23:Y:151:TYR:HD1	2.14	0.46
25:a:207:GLY:O	25:a:271:LYS:HE2	2.16	0.46
27:c:41:MET:HE3	27:c:143:VAL:HG11	1.97	0.46
28:d:52:ARG:HH22	28:d:89:LEU:CD1	2.28	0.46
30:f:463:LEU:N	30:f:489:TYR:OH	2.48	0.46
6:g:113:MET:HE2	6:g:113:MET:HA	1.97	0.46
6:g:123:GLN:NE2	7:h:84:VAL:HG21	2.31	0.46
11:l:40:SER:HB3	11:l:187:LEU:HD22	1.98	0.46
16:q:119:ASP:OD1	16:q:119:ASP:N	2.49	0.46
17:r:190:SER:O	17:r:190:SER:OG	2.31	0.46
31:F:141:ASP:OD2	31:F:144:LYS:NZ	2.36	0.46
32:U:773:PHE:N	32:U:774:PRO:HD2	2.31	0.46
32:U:811:PHE:CZ	32:U:884:VAL:HG22	2.50	0.46
1:A:219:GLY:CA	2:B:343:ARG:HD2	2.46	0.46
2:B:341:LEU:O	2:B:341:LEU:HD23	2.16	0.46
4:D:339:ARG:NH2	4:D:343:LEU:HG	2.30	0.46
20:V:109:ASN:H	20:V:112:VAL:HB	1.81	0.46
20:V:324:PHE:HB2	29:e:22:PHE:CG	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:434:ALA:O	20:V:438:VAL:HG23	2.15	0.46
21:W:71:VAL:HG21	21:W:104:MET:HG2	1.98	0.46
21:W:106:GLN:HG2	21:W:106:GLN:H	1.51	0.46
22:X:323:LEU:HD23	22:X:323:LEU:HA	1.80	0.46
23:Y:68:ASP:HA	23:Y:71:ASN:ND2	2.31	0.46
23:Y:81:LEU:HD23	23:Y:81:LEU:N	2.31	0.46
23:Y:377:LEU:HD12	23:Y:380:VAL:CG1	2.45	0.46
24:Z:72:HIS:CE1	24:Z:111:LEU:HD21	2.51	0.46
25:a:76:LEU:HA	25:a:79:ILE:HG22	1.97	0.46
25:a:313:LYS:NZ	25:a:317:VAL:HG13	2.31	0.46
26:b:18:ASN:O	26:b:25:ARG:HG3	2.14	0.46
26:b:54:LEU:HB3	26:b:84:ILE:HG13	1.98	0.46
26:b:143:PHE:CE1	26:b:173:VAL:HG11	2.51	0.46
28:d:50:LEU:HD22	28:d:50:LEU:N	2.26	0.46
28:d:71:PHE:CE1	28:d:166:PHE:HZ	2.26	0.46
30:f:278:VAL:HG12	30:f:280:ASP:H	1.81	0.46
30:f:682:GLY:H	30:f:688:ARG:NH2	2.14	0.46
30:f:825:MET:HE3	30:f:825:MET:H	1.81	0.46
9:j:50:VAL:O	9:j:51:ALA:HB3	2.15	0.46
31:F:207:ASN:C	31:F:208:HIS:HD1	2.24	0.46
31:F:251:LEU:HD12	31:F:251:LEU:HA	1.75	0.46
32:U:620:GLU:HG3	32:U:654:MET:HB3	1.97	0.46
32:U:757:MET:N	32:U:758:PRO:HD2	2.31	0.46
2:B:96:ARG:O	2:B:99:VAL:HG12	2.16	0.46
2:B:164:MET:SD	2:B:164:MET:O	2.74	0.46
2:B:309:MET:HE2	2:B:309:MET:HB2	1.88	0.46
2:B:390:LEU:CD2	2:B:395:ILE:HD11	2.38	0.46
3:C:53:ASN:HA	4:D:68:LEU:HD21	1.96	0.46
4:D:100:THR:HG22	4:D:101:ALA:N	2.31	0.46
4:D:190:LEU:HD23	4:D:190:LEU:HA	1.71	0.46
5:E:40:TYR:HA	31:F:72:LYS:HD3	1.98	0.46
5:E:300:HIS:HD1	5:E:300:HIS:C	2.16	0.46
20:V:75:ILE:O	20:V:79:VAL:HG12	2.16	0.46
21:W:124:LEU:C	21:W:124:LEU:HD13	2.41	0.46
21:W:125:ILE:CG1	21:W:129:ARG:HH12	2.29	0.46
21:W:216:GLU:CD	21:W:216:GLU:H	2.24	0.46
24:Z:14:LEU:HD12	24:Z:14:LEU:O	2.16	0.46
24:Z:96:HIS:HE1	24:Z:98:GLY:HA3	1.79	0.46
25:a:57:ILE:HD12	25:a:57:ILE:O	2.16	0.46
25:a:287:ASN:OD1	25:a:288:HIS:ND1	2.48	0.46
25:a:354:GLU:OE1	25:a:354:GLU:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:149:ASN:ND2	26:b:151:GLU:OE2	2.49	0.46
27:c:261:GLU:O	27:c:264:LYS:HG2	2.15	0.46
30:f:143:ARG:NH1	30:f:189:LYS:HA	2.29	0.46
30:f:268:LEU:HA	30:f:272:LEU:CD1	2.46	0.46
30:f:370:MET:HE3	30:f:370:MET:CA	2.22	0.46
30:f:472:HIS:HE1	30:f:474:SER:HB2	1.81	0.46
7:h:85:LEU:HD11	7:h:117:MET:HE3	1.98	0.46
10:k:50:VAL:HG11	10:k:66:LYS:HB2	1.98	0.46
32:U:257:SER:OG	32:U:260:PHE:HB2	2.15	0.46
32:U:373:ASN:ND2	32:U:386:LEU:HD11	2.30	0.46
32:U:443:LEU:H	32:U:443:LEU:CD2	2.29	0.46
32:U:475:HIS:CG	32:U:511:ALA:HB2	2.51	0.46
1:A:176:ASP:HA	1:A:357:ILE:HG12	1.98	0.46
1:A:213:LEU:HB2	1:A:337:LEU:HG	1.97	0.46
1:A:213:LEU:HD23	1:A:214:LEU:N	2.31	0.46
1:A:328:ASP:C	1:A:330:ALA:H	2.24	0.46
2:B:57:GLN:HB2	30:f:181:ARG:NH1	2.30	0.46
2:B:120:HIS:C	2:B:135:ILE:HD11	2.41	0.46
3:C:85:VAL:HG23	3:C:87:VAL:HG13	1.98	0.46
3:C:185:GLY:HA2	3:C:291:VAL:O	2.15	0.46
4:D:269:ALA:C	4:D:270:ILE:HD13	2.41	0.46
5:E:55:GLN:CD	5:E:108:MET:HE2	2.41	0.46
5:E:190:GLN:N	5:E:190:GLN:OE1	2.49	0.46
9:J:40:ILE:HD11	9:J:210:VAL:HG13	1.98	0.46
15:P:3:MET:HE1	15:P:105:GLU:HG3	1.98	0.46
20:V:192:MET:HE1	20:V:211:TYR:HA	1.97	0.46
20:V:283:ASN:ND2	29:e:17:ASP:HB2	2.30	0.46
20:V:448:GLU:OE1	20:V:461:LYS:HD2	2.16	0.46
21:W:401:THR:HG22	21:W:402:ILE:CD1	2.44	0.46
22:X:142:ARG:O	22:X:146:ALA:HB3	2.16	0.46
23:Y:202:LEU:HD22	23:Y:239:LYS:NZ	2.31	0.46
23:Y:222:TYR:O	23:Y:226:VAL:HG22	2.16	0.46
25:a:84:VAL:HA	25:a:87:MET:CG	2.46	0.46
26:b:141:ILE:O	26:b:141:ILE:CG1	2.64	0.46
28:d:3:GLU:HB3	28:d:6:LYS:HE2	1.97	0.46
28:d:170:LEU:HA	28:d:173:THR:HG22	1.98	0.46
30:f:64:GLY:O	30:f:68:THR:OG1	2.24	0.46
30:f:318:THR:O	30:f:321:MET:HG3	2.15	0.46
30:f:351:THR:O	30:f:351:THR:HG23	2.15	0.46
30:f:524:MET:SD	30:f:524:MET:C	2.99	0.46
30:f:664:GLU:CD	30:f:666:ILE:H	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:680:ARG:HD2	30:f:761:MET:HE1	1.96	0.46
30:f:680:ARG:HH22	30:f:762:VAL:HG22	1.80	0.46
30:f:784:ASP:O	30:f:787:LEU:HG	2.16	0.46
11:l:19:ILE:O	11:l:23:GLU:OE1	2.34	0.46
11:l:33:SER:OG	11:l:49:LEU:O	2.17	0.46
13:n:15:LEU:HD21	13:n:102:ALA:HB3	1.98	0.46
31:F:140:VAL:HG21	31:F:160:ILE:CG2	2.46	0.46
31:F:339:ASP:OD1	31:F:340:PRO:HD2	2.16	0.46
31:F:388:THR:HG23	31:F:424:ILE:HD13	1.97	0.46
32:U:894:MET:HB2	32:U:906:LEU:HD23	1.98	0.46
1:A:214:LEU:HD23	1:A:341:ILE:HB	1.98	0.45
1:A:428:ARG:NE	1:A:428:ARG:O	2.50	0.45
2:B:71:TYR:CE1	30:f:654:VAL:HG21	2.51	0.45
3:C:149:GLU:OE2	23:Y:136:HIS:ND1	2.39	0.45
4:D:164:TYR:CD1	4:D:174:LYS:HD2	2.51	0.45
4:D:275:PHE:HA	4:D:282:ASP:OD2	2.16	0.45
4:D:380:GLN:NE2	5:E:167:PRO:HA	2.32	0.45
5:E:218:MET:HE2	5:E:218:MET:HB2	1.80	0.45
5:E:320:ILE:HD12	31:F:217:ILE:HG12	1.97	0.45
20:V:105:SER:O	20:V:108:LEU:HD12	2.14	0.45
20:V:168:GLN:O	20:V:172:VAL:HG22	2.16	0.45
20:V:348:PHE:CD1	20:V:361:PHE:HB2	2.51	0.45
21:W:274:VAL:CG1	21:W:287:VAL:HG12	2.45	0.45
23:Y:24:PHE:O	23:Y:29:PRO:HD2	2.16	0.45
23:Y:117:LYS:CE	23:Y:151:TYR:HD1	2.29	0.45
24:Z:162:ILE:HG21	27:c:221:HIS:HA	1.97	0.45
24:Z:201:LEU:HD21	27:c:309:PHE:CE1	2.51	0.45
25:a:124:ASN:OD1	25:a:124:ASN:N	2.37	0.45
25:a:340:VAL:O	25:a:341:LEU:HD23	2.16	0.45
28:d:63:ILE:HG23	28:d:64:LEU:HD12	1.98	0.45
30:f:65:GLU:HG3	30:f:66:LYS:HD2	1.98	0.45
30:f:221:ILE:CG2	30:f:768:LEU:HD21	2.43	0.45
30:f:445:LEU:HD23	30:f:445:LEU:C	2.40	0.45
6:g:73:THR:HG22	6:g:74:GLU:H	1.81	0.45
12:m:115:VAL:O	12:m:119:VAL:HG23	2.17	0.45
32:U:510:GLU:CD	32:U:543:LYS:HG2	2.40	0.45
32:U:719:ASP:CG	32:U:721:HIS:H	2.22	0.45
1:A:184:ILE:O	1:A:188:ARG:HG3	2.16	0.45
1:A:330:ALA:O	1:A:336:ARG:HD2	2.16	0.45
2:B:108:SER:O	2:B:151:LEU:HA	2.17	0.45
33:B:501:ATP:H3'	33:B:501:ATP:PA	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:191:TYR:CD1	4:D:198:PRO:HG3	2.43	0.45
4:D:192:LYS:HD2	4:D:192:LYS:O	2.15	0.45
4:D:263:PHE:HD1	4:D:264:ILE:N	2.15	0.45
4:D:391:ARG:HH22	4:D:395:LEU:HG	1.81	0.45
5:E:270:LEU:HD23	5:E:270:LEU:O	2.17	0.45
5:E:378:LYS:HG3	5:E:378:LYS:O	2.15	0.45
17:R:6:ALA:HB3	17:R:101:MET:HE1	1.97	0.45
19:T:92:LEU:O	19:T:96:MET:HG2	2.16	0.45
20:V:268:GLU:OE1	20:V:269:LYS:HD3	2.16	0.45
21:W:133:GLU:CA	21:W:136:ILE:HG21	2.44	0.45
22:X:373:LYS:HB2	22:X:373:LYS:HE3	1.84	0.45
23:Y:15:PRO:HB3	23:Y:147:ILE:HG23	1.97	0.45
23:Y:277:VAL:O	23:Y:280:GLN:HG3	2.16	0.45
24:Z:182:THR:C	24:Z:183:THR:HG1	2.21	0.45
25:a:157:ASP:O	25:a:160:SER:OG	2.23	0.45
26:b:138:VAL:HG22	26:b:139:ASP:N	2.31	0.45
27:c:62:VAL:HG23	27:c:63:ASP:H	1.81	0.45
27:c:67:VAL:HG11	27:c:141:VAL:HG21	1.97	0.45
27:c:223:LYS:HE2	27:c:223:LYS:HB3	1.85	0.45
27:c:286:GLU:OE2	27:c:286:GLU:HA	2.16	0.45
28:d:1:MET:HE2	28:d:32:GLU:HG2	1.98	0.45
30:f:579:ALA:O	30:f:582:VAL:HG22	2.15	0.45
30:f:608:LYS:HE2	30:f:639:LYS:HE3	1.97	0.45
30:f:766:GLN:NE2	30:f:769:THR:HB	2.30	0.45
30:f:827:PRO:HB3	30:f:860:LYS:HZ1	1.80	0.45
12:m:20:VAL:O	12:m:20:VAL:HG12	2.17	0.45
12:m:141:SER:O	12:m:145:GLY:N	2.40	0.45
15:p:9:ALA:HB1	15:p:145:MET:HE1	1.98	0.45
31:F:134:LEU:N	31:F:134:LEU:HD23	2.30	0.45
31:F:153:VAL:CG1	31:F:159:LEU:H	2.29	0.45
32:U:201:LEU:HD13	32:U:201:LEU:C	2.42	0.45
32:U:560:MET:HE3	32:U:560:MET:HB2	1.87	0.45
32:U:588:MET:HE3	32:U:588:MET:HB3	1.67	0.45
2:B:292:THR:CG2	2:B:333:ARG:HH22	2.28	0.45
4:D:263:PHE:HE1	4:D:265:ASP:HA	1.81	0.45
5:E:158:LEU:CD2	21:W:137:TYR:HE2	2.28	0.45
5:E:307:GLN:OE1	5:E:307:GLN:CA	2.63	0.45
16:Q:29:LYS:NZ	17:R:123:SER:O	2.41	0.45
20:V:85:ALA:HA	20:V:93:PHE:HD2	1.81	0.45
20:V:289:LEU:HA	20:V:292:THR:HG22	1.98	0.45
20:V:407:VAL:CA	20:V:410:ILE:HG22	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:79:GLU:O	21:W:83:LEU:N	2.48	0.45
21:W:131:VAL:O	21:W:132:THR:C	2.59	0.45
21:W:145:LEU:HD13	21:W:174:TYR:CD2	2.52	0.45
21:W:151:THR:HA	21:W:154:GLU:HG3	1.96	0.45
21:W:168:GLU:C	21:W:168:GLU:OE1	2.58	0.45
21:W:406:VAL:O	22:X:342:PHE:HB2	2.17	0.45
21:W:415:PHE:N	21:W:415:PHE:CD1	2.84	0.45
22:X:118:LYS:HG2	22:X:126:ARG:HH11	1.81	0.45
24:Z:124:ILE:HG22	24:Z:135:THR:OG1	2.16	0.45
26:b:121:GLU:O	26:b:122:LYS:C	2.60	0.45
28:d:63:ILE:HD12	28:d:63:ILE:HA	1.82	0.45
28:d:65:ARG:HA	28:d:66:LYS:NZ	2.30	0.45
28:d:71:PHE:CE2	28:d:75:MET:CE	2.97	0.45
30:f:139:CYS:HA	30:f:143:ARG:NH2	2.23	0.45
30:f:350:LYS:HD3	30:f:350:LYS:HA	1.56	0.45
30:f:476:THR:O	30:f:479:LEU:HB3	2.16	0.45
30:f:557:TRP:CA	30:f:560:LEU:HG	2.45	0.45
30:f:693:ALA:HA	30:f:696:LEU:HG	1.99	0.45
30:f:813:LYS:CB	30:f:882:LEU:HD21	2.46	0.45
17:r:36:ILE:HD13	17:r:57:GLU:CB	2.47	0.45
18:s:16:ALA:HB2	18:s:121:VAL:HG23	1.98	0.45
31:F:177:VAL:CG2	31:F:248:PHE:HB3	2.46	0.45
31:F:325:GLN:OE1	31:F:325:GLN:HA	2.15	0.45
32:U:234:GLU:O	32:U:237:VAL:CG1	2.62	0.45
32:U:241:ASN:HB3	32:U:244:MET:HE1	1.97	0.45
32:U:884:VAL:HG12	32:U:889:LEU:HA	1.96	0.45
1:A:204:LEU:HD12	1:A:204:LEU:HA	1.86	0.45
2:B:263:GLY:O	2:B:265:LYS:N	2.43	0.45
3:C:77:VAL:HG21	3:C:86:LEU:HD23	1.94	0.45
4:D:153:MET:CE	5:E:267:PHE:HE2	2.28	0.45
4:D:234:GLU:HA	5:E:216:ARG:NH1	2.30	0.45
4:D:267:ILE:HG23	4:D:317:LEU:HD21	1.99	0.45
4:D:292:LEU:HD22	4:D:296:MET:CE	2.46	0.45
4:D:397:LYS:HG2	4:D:397:LYS:O	2.14	0.45
15:P:12:ALA:HB3	15:P:136:VAL:HG22	1.98	0.45
20:V:231:LEU:H	20:V:231:LEU:HD22	1.82	0.45
21:W:121:LYS:HE3	21:W:121:LYS:HB3	1.74	0.45
21:W:312:MET:HG3	21:W:365:ILE:HD11	1.97	0.45
23:Y:278:VAL:CA	23:Y:281:GLU:HG3	2.38	0.45
25:a:293:PHE:HE1	25:a:331:VAL:HG22	1.80	0.45
28:d:125:LYS:N	28:d:125:LYS:HD3	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:234:ASP:OD1	28:d:235:THR:N	2.50	0.45
30:f:460:ASP:OD1	30:f:489:TYR:OH	2.31	0.45
30:f:557:TRP:HA	30:f:560:LEU:HD11	1.97	0.45
30:f:760:PHE:HA	30:f:806:VAL:HG11	1.98	0.45
30:f:778:LEU:HD23	30:f:778:LEU:N	2.31	0.45
32:U:131:GLU:CD	32:U:135:ASN:HD21	2.23	0.45
32:U:135:ASN:HA	32:U:138:PHE:HB2	1.99	0.45
32:U:166:THR:HG23	32:U:169:GLU:OE1	2.15	0.45
32:U:238:LYS:HD2	32:U:238:LYS:C	2.42	0.45
32:U:260:PHE:O	32:U:263:SER:OG	2.26	0.45
32:U:513:GLY:HA3	32:U:548:LEU:HD23	1.99	0.45
32:U:772:TRP:HB3	32:U:775:LEU:HB2	1.98	0.45
1:A:91:GLN:CB	1:A:92:PRO:HD3	2.47	0.45
2:B:150:VAL:HG12	2:B:152:LEU:HD23	1.98	0.45
3:C:101:LYS:HD3	3:C:102:ASN:OD1	2.16	0.45
3:C:389:LYS:HG3	3:C:393:LYS:HE3	1.99	0.45
4:D:155:THR:O	4:D:158:GLN:HG3	2.17	0.45
5:E:262:ASN:C	5:E:262:ASN:OD1	2.60	0.45
5:E:265:ASP:C	5:E:265:ASP:OD2	2.60	0.45
5:E:340:GLY:O	33:E:402:ATP:H1'	2.16	0.45
16:Q:101:ASN:C	16:Q:102:LEU:HD12	2.42	0.45
17:R:183:ASP:OD1	17:R:183:ASP:N	2.43	0.45
20:V:309:MET:CB	20:V:332:LEU:HD12	2.47	0.45
21:W:451:MET:HE3	24:Z:100:LYS:C	2.41	0.45
24:Z:230:LEU:CB	25:a:349:MET:HE3	2.47	0.45
25:a:122:LYS:HD2	25:a:125:ILE:HG13	1.99	0.45
26:b:11:ASP:OD2	26:b:16:MET:HE3	2.17	0.45
26:b:185:SER:O	26:b:189:LEU:HB2	2.16	0.45
27:c:71:ASP:OD1	27:c:71:ASP:C	2.59	0.45
27:c:281:LYS:O	27:c:281:LYS:HD2	2.16	0.45
27:c:302:ALA:O	27:c:306:THR:HG23	2.17	0.45
28:d:83:PHE:O	28:d:83:PHE:CG	2.70	0.45
29:e:42:ASN:ND2	29:e:44:ASP:HB2	2.28	0.45
30:f:127:SER:O	30:f:127:SER:OG	2.34	0.45
30:f:246:SER:HA	30:f:256:PHE:CE1	2.52	0.45
30:f:261:ARG:CA	30:f:267:ARG:HH12	2.20	0.45
30:f:655:LEU:HD22	30:f:659:LEU:HD11	1.99	0.45
11:l:122:ARG:CZ	11:l:122:ARG:HB2	2.46	0.45
14:o:164:ILE:HG23	14:o:171:GLY:HA2	1.99	0.45
15:p:112:ASP:OD2	15:p:115:THR:HG22	2.16	0.45
17:r:10:ARG:HG3	17:r:10:ARG:NH1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:F:194:GLN:NE2	31:F:355:PRO:HD3	2.31	0.45
1:A:190:VAL:HG11	1:A:212:VAL:HG21	1.99	0.45
3:C:71:SER:HB3	3:C:116:LEU:O	2.16	0.45
4:D:97:ASP:HA	27:c:272:ILE:HD12	1.99	0.45
6:G:193:GLN:OE1	6:G:193:GLN:N	2.50	0.45
19:T:74:GLU:OE1	19:T:83:TYR:CD2	2.70	0.45
20:V:101:LEU:N	20:V:102:PRO:HD2	2.32	0.45
20:V:106:ARG:HD2	20:V:106:ARG:C	2.42	0.45
22:X:163:LYS:HD2	22:X:196:THR:HG23	1.98	0.45
23:Y:46:ARG:HH11	23:Y:46:ARG:CG	2.30	0.45
23:Y:338:ILE:HD13	23:Y:338:ILE:N	2.32	0.45
24:Z:151:THR:HG23	25:a:146:PRO:HG2	1.97	0.45
24:Z:199:LYS:HE3	25:a:364:GLU:CG	2.46	0.45
25:a:148:VAL:CG1	25:a:149:THR:H	2.27	0.45
26:b:25:ARG:HA	26:b:28:ALA:HB3	1.99	0.45
28:d:182:ILE:O	28:d:182:ILE:HG22	2.17	0.45
30:f:7:ASP:OD1	30:f:7:ASP:N	2.49	0.45
30:f:94:LYS:HA	30:f:98:PHE:CD1	2.52	0.45
30:f:197:ALA:O	30:f:201:GLU:HG3	2.16	0.45
30:f:316:ASP:O	30:f:320:ILE:HG12	2.15	0.45
31:F:133:PHE:O	31:F:133:PHE:CG	2.67	0.45
32:U:167:ILE:HG13	32:U:168:LEU:N	2.31	0.45
32:U:368:ALA:HB2	32:U:728:PHE:HD1	1.82	0.45
32:U:573:ASP:OD1	32:U:575:ASP:HB2	2.16	0.45
32:U:798:PRO:C	32:U:880:ASN:HD22	2.25	0.45
1:A:127:ASP:OD1	1:A:128:GLN:N	2.50	0.45
3:C:371:LEU:CD2	4:D:191:TYR:HE2	2.30	0.45
4:D:60:TYR:CD1	32:U:603:LEU:HD12	2.51	0.45
9:J:191:VAL:HG11	9:J:208:LEU:HD21	1.99	0.45
10:K:20:ARG:HE	31:F:435:LEU:CD2	2.28	0.45
17:R:38:ILE:HG22	17:R:39:ASN:OD1	2.17	0.45
20:V:160:LEU:HD22	20:V:161:PRO:HD2	1.98	0.45
20:V:164:GLU:O	20:V:168:GLN:HG2	2.17	0.45
20:V:411:SER:CB	20:V:447:ILE:HG21	2.46	0.45
21:W:215:GLN:HG2	21:W:223:LYS:HE3	1.99	0.45
22:X:160:MET:N	22:X:160:MET:SD	2.89	0.45
24:Z:205:LEU:CD1	25:a:353:LEU:HD22	2.45	0.45
25:a:95:THR:O	25:a:99:LYS:N	2.48	0.45
25:a:140:GLU:OE1	25:a:140:GLU:O	2.34	0.45
26:b:7:MET:CB	26:b:109:ILE:HG22	2.42	0.45
28:d:166:PHE:HA	28:d:169:ILE:CD1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:e:48:VAL:O	29:e:48:VAL:CG1	2.60	0.45
30:f:8:LYS:HD3	30:f:9:ALA:N	2.30	0.45
30:f:262:PHE:O	30:f:264:GLU:N	2.45	0.45
12:m:186:CYS:O	12:m:190:VAL:HG23	2.17	0.45
13:n:52:ASP:O	13:n:56:VAL:HG23	2.17	0.45
14:o:144:ARG:NH1	14:o:144:ARG:HB3	2.32	0.45
19:t:48:SER:C	19:t:49:THR:HG1	2.23	0.45
32:U:159:ARG:NH1	32:U:159:ARG:HB3	2.32	0.45
32:U:725:MET:HE3	32:U:725:MET:O	2.17	0.45
1:A:192:GLU:OE2	1:A:232:ARG:HB3	2.17	0.45
1:A:197:HIS:CE1	30:f:343:LYS:HG3	2.51	0.45
1:A:405:THR:HG21	1:A:407:LYS:NZ	2.32	0.45
2:B:369:THR:HA	2:B:372:MET:HE2	1.99	0.45
3:C:158:ILE:O	3:C:161:ILE:HG22	2.17	0.45
6:G:203:SER:O	6:G:207:SER:N	2.49	0.45
20:V:126:ALA:O	20:V:129:ASP:HB2	2.17	0.45
20:V:254:LEU:HD12	20:V:270:LEU:HD13	1.99	0.45
21:W:281:ASN:OD1	21:W:281:ASN:N	2.48	0.45
22:X:271:VAL:HG11	22:X:288:LYS:HE2	1.98	0.45
22:X:278:ARG:O	22:X:278:ARG:HG2	2.17	0.45
22:X:415:TYR:OH	23:Y:379:ARG:O	2.35	0.45
23:Y:46:ARG:O	23:Y:47:ASP:HB2	2.17	0.45
23:Y:274:SER:O	23:Y:277:VAL:HG12	2.16	0.45
26:b:88:THR:HA	26:b:91:ARG:CD	2.45	0.45
27:c:35:SER:HB3	27:c:213:GLU:CD	2.41	0.45
27:c:44:HIS:CE1	27:c:53:VAL:HB	2.51	0.45
27:c:46:ARG:O	27:c:46:ARG:HD2	2.16	0.45
27:c:248:MET:CE	27:c:288:VAL:HG22	2.47	0.45
11:l:84:LEU:O	11:l:88:MET:HG3	2.17	0.45
16:q:43:LEU:HD12	16:q:183:ILE:HD11	1.97	0.45
2:B:290:ILE:HG23	2:B:290:ILE:O	2.15	0.45
3:C:51:GLU:C	3:C:51:GLU:OE2	2.59	0.45
4:D:410:ASP:OD1	4:D:411:GLU:N	2.50	0.45
8:I:8:ARG:HB3	8:I:11:ILE:HG13	1.98	0.45
9:J:31:THR:OG1	9:J:163:ARG:O	2.27	0.45
14:O:77:VAL:HG13	14:O:101:LEU:HD22	1.99	0.45
20:V:325:LYS:HA	20:V:328:VAL:CG1	2.47	0.45
20:V:392:TYR:C	20:V:392:TYR:CD2	2.95	0.45
21:W:42:GLU:HA	21:W:45:GLU:OE2	2.17	0.45
21:W:103:LYS:HA	21:W:106:GLN:HG3	1.99	0.45
22:X:277:LEU:HD12	22:X:278:ARG:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:X:404:ILE:O	23:Y:376:LEU:HD12	2.17	0.45
22:X:413:SER:HB2	27:c:260:GLU:OE1	2.17	0.45
23:Y:13:LYS:O	23:Y:13:LYS:CG	2.65	0.45
23:Y:80:GLU:OE1	23:Y:80:GLU:HA	2.17	0.45
23:Y:222:TYR:OH	23:Y:285:ASP:OD1	2.32	0.45
25:a:174:LYS:HE3	25:a:178:ARG:HH12	1.82	0.45
25:a:185:ILE:O	25:a:185:ILE:CD1	2.64	0.45
25:a:361:LYS:HD2	25:a:365:MET:CE	2.46	0.45
27:c:75:MET:CE	27:c:88:ASP:H	2.28	0.45
27:c:121:TRP:HZ3	27:c:123:SER:HB2	1.82	0.45
28:d:52:ARG:HG3	28:d:81:TYR:HB3	1.98	0.45
28:d:207:THR:O	28:d:211:LYS:HG2	2.17	0.45
30:f:138:GLU:HA	30:f:141:LYS:CE	2.30	0.45
30:f:679:LEU:CD2	30:f:688:ARG:HH22	2.30	0.45
10:k:70:ILE:HD11	10:k:89:ILE:HD12	1.98	0.45
13:n:27:ILE:O	19:t:179:ARG:NH1	2.47	0.45
31:F:171:ARG:NH1	31:F:258:GLN:OE1	2.50	0.45
32:U:98:GLU:CA	32:U:101:ILE:HG22	2.44	0.45
32:U:218:GLN:O	32:U:221:ILE:HG22	2.16	0.45
32:U:242:LEU:HD12	32:U:246:TYR:CD1	2.52	0.45
32:U:631:GLU:O	32:U:634:PRO:HD2	2.17	0.45
2:B:114:GLU:HG2	2:B:115:ILE:H	1.82	0.45
2:B:418:ASP:O	2:B:422:SER:HB2	2.16	0.45
3:C:23:TYR:HD2	32:U:102:ALA:HA	1.81	0.45
3:C:277:LEU:HA	3:C:277:LEU:HD23	1.72	0.45
3:C:325:ARG:NH1	3:C:353:GLY:H	2.15	0.45
4:D:53:PHE:HE1	32:U:632:GLN:CG	2.30	0.45
4:D:58:GLU:OE1	4:D:58:GLU:O	2.35	0.45
4:D:109:SER:CB	4:D:111:TYR:HE1	2.29	0.45
4:D:393:ILE:CG1	21:W:133:GLU:CB	2.92	0.45
5:E:281:ARG:HD2	5:E:386:TYR:HD2	1.82	0.45
5:E:300:HIS:HE1	5:E:302:ASP:OD2	2.00	0.45
8:I:90:LEU:HD21	8:I:114:LEU:HB2	1.98	0.45
12:M:232:ARG:HB3	12:M:232:ARG:CZ	2.46	0.45
20:V:71:THR:HG23	20:V:72:LEU:HD23	1.99	0.45
20:V:83:GLU:O	20:V:86:VAL:HG23	2.17	0.45
20:V:203:LEU:HD13	20:V:203:LEU:O	2.15	0.45
20:V:285:TRP:NE1	20:V:289:LEU:HD21	2.32	0.45
21:W:357:ARG:HA	21:W:357:ARG:HE	1.82	0.45
21:W:376:LYS:HD2	21:W:386:VAL:HG11	1.99	0.45
23:Y:92:GLU:OE1	23:Y:92:GLU:HA	2.18	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:280:MET:HG2	25:a:291:LEU:HD21	1.99	0.45
26:b:115:SER:O	26:b:116:PRO:C	2.60	0.45
27:c:114:SER:HA	27:c:145:VAL:O	2.16	0.45
27:c:175:ARG:C	27:c:176:GLN:HG3	2.43	0.45
28:d:161:GLU:OE2	28:d:163:TYR:HD1	2.00	0.45
30:f:159:VAL:HG13	30:f:160:ARG:NH1	2.21	0.45
30:f:679:LEU:CD2	30:f:688:ARG:HH12	2.29	0.45
30:f:828:ARG:CZ	30:f:861:THR:HG21	2.47	0.45
31:F:223:VAL:CG1	31:F:352:ILE:HD11	2.47	0.45
31:F:374:ASN:O	31:F:375:VAL:HG23	2.17	0.45
32:U:84:ALA:HB3	32:U:88:PHE:CD2	2.52	0.45
32:U:342:LEU:HD22	32:U:743:ASN:ND2	2.32	0.45
32:U:546:ARG:HD3	32:U:771:PHE:CD1	2.52	0.45
2:B:202:GLU:OE1	2:B:243:THR:HA	2.17	0.44
3:C:24:TYR:HE1	4:D:41:TYR:N	2.14	0.44
4:D:115:ILE:CG2	4:D:139:LEU:HD12	2.44	0.44
4:D:194:ILE:CG2	4:D:196:ILE:HG23	2.46	0.44
4:D:335:LEU:HD13	4:D:371:SER:CA	2.48	0.44
5:E:134:GLU:HA	5:E:315:ILE:HG21	1.99	0.44
5:E:143:ARG:HG3	5:E:143:ARG:NH1	2.31	0.44
5:E:345:ASN:HD21	31:F:349:ASP:CG	2.25	0.44
7:H:10:THR:HG23	7:H:20:GLN:HB2	1.99	0.44
16:Q:3:TYR:N	16:Q:18:ASP:OD2	2.50	0.44
21:W:149:LEU:HD22	21:W:185:PHE:CE2	2.52	0.44
21:W:441:LYS:HB2	21:W:441:LYS:NZ	2.30	0.44
22:X:268:GLN:HA	22:X:268:GLN:OE1	2.17	0.44
23:Y:224:VAL:HG11	23:Y:256:VAL:CG1	2.47	0.44
25:a:12:GLN:O	25:a:19:PRO:HG3	2.17	0.44
25:a:174:LYS:CD	25:a:178:ARG:HH12	2.30	0.44
25:a:236:THR:O	25:a:239:ALA:HB3	2.18	0.44
27:c:44:HIS:NE2	27:c:53:VAL:HB	2.32	0.44
27:c:286:GLU:OE2	27:c:286:GLU:CA	2.65	0.44
28:d:3:GLU:O	28:d:25:ARG:HD3	2.16	0.44
30:f:680:ARG:HD3	30:f:680:ARG:O	2.17	0.44
30:f:686:LEU:HD12	30:f:687:ARG:NE	2.30	0.44
8:i:33:THR:OG1	8:i:166:ASN:O	2.34	0.44
8:i:90:LEU:HG	8:i:114:LEU:HD13	1.99	0.44
10:k:209:LYS:O	10:k:214:ASN:ND2	2.45	0.44
11:l:210:VAL:CG1	11:l:229:VAL:HG21	2.46	0.44
14:o:27:VAL:HG22	18:s:185:ARG:HA	1.99	0.44
18:s:172:MET:O	18:s:176:LYS:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:F:392:ASN:CG	31:F:395:GLN:HE21	2.22	0.44
32:U:9:ILE:CG2	32:U:27:LEU:HD11	2.47	0.44
32:U:529:ILE:HD13	32:U:529:ILE:HA	1.77	0.44
1:A:196:LEU:HG	1:A:197:HIS:CE1	2.52	0.44
3:C:190:GLY:O	3:C:296:ASN:HA	2.17	0.44
4:D:144:PRO:CD	5:E:64:LEU:HD21	2.47	0.44
4:D:263:PHE:CD1	4:D:263:PHE:C	2.95	0.44
5:E:112:PRO:HD2	31:F:97:LEU:HD21	1.99	0.44
20:V:309:MET:CE	20:V:331:LEU:HD23	2.47	0.44
20:V:404:LYS:HD3	20:V:404:LYS:HA	1.69	0.44
20:V:496:PHE:N	20:V:497:PRO:CD	2.81	0.44
20:V:497:PRO:N	20:V:498:PRO:CD	2.80	0.44
22:X:226:LYS:HD2	22:X:226:LYS:HA	1.80	0.44
22:X:344:ARG:HB3	22:X:386:ILE:HG23	1.99	0.44
23:Y:330:ILE:CD1	23:Y:334:LEU:HG	2.48	0.44
25:a:197:ALA:HA	25:a:222:LEU:CD1	2.19	0.44
30:f:144:LEU:C	30:f:144:LEU:HD12	2.42	0.44
30:f:324:VAL:O	30:f:328:SER:OG	2.32	0.44
30:f:394:ASP:OD1	30:f:394:ASP:N	2.47	0.44
30:f:860:LYS:HD3	30:f:860:LYS:HA	1.69	0.44
30:f:887:PHE:CD1	30:f:888:LEU:HG	2.53	0.44
13:n:2:THR:HG23	13:n:34:LYS:NZ	2.32	0.44
31:F:154:ASN:OD1	31:F:154:ASN:C	2.60	0.44
31:F:300:LYS:O	31:F:300:LYS:HG2	2.17	0.44
32:U:87:LEU:O	32:U:87:LEU:HD12	2.18	0.44
32:U:324:LYS:HE2	32:U:325:MET:CE	2.46	0.44
32:U:380:THR:HG23	32:U:382:SER:N	2.30	0.44
1:A:195:LEU:HD13	1:A:235:ALA:HB2	1.98	0.44
2:B:130:GLU:OE1	2:B:130:GLU:N	2.51	0.44
2:B:139:VAL:HG23	2:B:141:LYS:HG2	1.99	0.44
2:B:170:LEU:HD11	2:B:174:MET:HE1	1.99	0.44
2:B:211:TYR:HA	2:B:216:ILE:HD12	1.99	0.44
4:D:181:VAL:HG21	4:D:308:ILE:HD11	2.00	0.44
5:E:215:ILE:HD12	5:E:256:THR:HG23	2.00	0.44
7:H:67:ILE:HD11	7:H:73:LEU:HD13	1.99	0.44
20:V:127:THR:HB	20:V:131:LEU:CD1	2.47	0.44
20:V:415:SER:HB2	23:Y:346:LYS:NZ	2.32	0.44
21:W:107:GLN:NE2	21:W:111:TYR:HE1	2.15	0.44
21:W:254:PRO:CD	21:W:262:LYS:HZ3	2.31	0.44
22:X:122:ARG:HG2	22:X:125:LEU:HB3	1.96	0.44
22:X:347:ILE:HG22	22:X:358:LYS:HE2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:a:122:LYS:CD	25:a:125:ILE:HG13	2.47	0.44
25:a:218:MET:O	25:a:218:MET:HG3	2.16	0.44
25:a:311:VAL:O	25:a:315:LEU:HD12	2.17	0.44
30:f:144:LEU:HD12	30:f:145:VAL:N	2.32	0.44
30:f:369:ARG:CZ	30:f:744:MET:HB3	2.47	0.44
30:f:536:SER:HA	30:f:539:LEU:CD1	2.31	0.44
30:f:723:TYR:CE2	30:f:727:PHE:HZ	2.35	0.44
7:h:67:ILE:HD11	7:h:73:LEU:HD12	1.99	0.44
31:F:283:ILE:HG23	31:F:328:VAL:HG22	1.98	0.44
32:U:9:ILE:HD13	32:U:42:VAL:CG1	2.40	0.44
32:U:108:TYR:HE2	32:U:126:ILE:CG2	2.30	0.44
32:U:118:LEU:HD21	32:U:122:GLU:CD	2.42	0.44
32:U:205:TYR:O	32:U:211:PRO:HB3	2.17	0.44
32:U:412:HIS:HB3	32:U:449:ILE:HD12	1.98	0.44
1:A:174:TYR:CE2	1:A:188:ARG:HD3	2.52	0.44
3:C:49:ARG:HB2	4:D:65:GLN:OE1	2.17	0.44
4:D:210:CYS:SG	4:D:335:LEU:HD22	2.57	0.44
5:E:366:ASP:OD1	5:E:366:ASP:N	2.50	0.44
19:T:22:ILE:HD12	19:T:50:MET:SD	2.58	0.44
20:V:240:LEU:HD22	20:V:240:LEU:H	1.83	0.44
20:V:454:GLU:OE1	20:V:454:GLU:C	2.60	0.44
22:X:200:ILE:HD12	22:X:200:ILE:N	2.32	0.44
23:Y:80:GLU:OE2	23:Y:84:LEU:HD21	2.16	0.44
25:a:34:TRP:O	25:a:38:THR:N	2.50	0.44
25:a:58:LYS:O	25:a:62:ASN:N	2.40	0.44
26:b:85:THR:O	26:b:85:THR:CG2	2.65	0.44
27:c:251:LEU:HD12	27:c:251:LEU:HA	1.72	0.44
28:d:9:TRP:HA	28:d:18:LYS:HZ1	1.83	0.44
30:f:160:ARG:HA	30:f:160:ARG:NH1	2.31	0.44
16:q:38:MET:CE	16:q:44:LEU:HD22	2.47	0.44
31:F:97:LEU:HD12	31:F:97:LEU:HA	1.86	0.44
32:U:176:MET:O	32:U:177:LEU:HB3	2.17	0.44
32:U:427:LEU:HB2	32:U:430:ASP:OD2	2.18	0.44
32:U:437:TYR:HE1	32:U:472:ILE:CB	2.26	0.44
32:U:693:LEU:HD23	32:U:736:ILE:HG21	2.00	0.44
1:A:123:VAL:CG1	1:A:147:TYR:O	2.66	0.44
3:C:246:ILE:HB	3:C:291:VAL:HG12	1.99	0.44
5:E:310:LEU:HD12	5:E:310:LEU:C	2.42	0.44
5:E:369:LYS:HA	5:E:372:ARG:HD3	1.98	0.44
5:E:383:LYS:C	5:E:384:LEU:HD22	2.43	0.44
8:I:174:MET:O	8:I:177:GLN:OE1	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:K:53:ARG:O	10:K:53:ARG:HG2	2.18	0.44
20:V:357:LEU:O	20:V:361:PHE:N	2.45	0.44
21:W:145:LEU:HB2	21:W:174:TYR:CE2	2.53	0.44
21:W:276:LEU:O	21:W:357:ARG:HD2	2.17	0.44
22:X:106:GLU:OE2	22:X:106:GLU:C	2.61	0.44
22:X:357:SER:O	22:X:361:VAL:HG12	2.17	0.44
23:Y:31:HIS:ND1	23:Y:32:ARG:HD2	2.32	0.44
23:Y:111:LEU:HD23	23:Y:111:LEU:HA	1.82	0.44
24:Z:13:PRO:HD2	24:Z:168:GLU:OE1	2.18	0.44
24:Z:57:PRO:HG2	24:Z:71:ASP:HB2	1.99	0.44
24:Z:224:HIS:CE1	25:a:340:VAL:HG11	2.52	0.44
24:Z:232:ASP:OD1	25:a:338:PRO:HG3	2.18	0.44
24:Z:242:LEU:HG	24:Z:243:GLN:OE1	2.17	0.44
27:c:245:VAL:HG23	27:c:291:LEU:HD11	1.99	0.44
30:f:699:VAL:O	30:f:699:VAL:HG12	2.17	0.44
14:o:115:TYR:CZ	14:o:128:MET:HE2	2.53	0.44
32:U:350:LEU:CB	32:U:351:MET:HE2	2.47	0.44
32:U:757:MET:SD	32:U:757:MET:C	3.01	0.44
32:U:892:LEU:H	32:U:892:LEU:CD2	2.30	0.44
3:C:120:SER:O	3:C:121:TYR:C	2.61	0.44
4:D:192:LYS:CD	4:D:192:LYS:C	2.91	0.44
5:E:349:GLU:HB3	5:E:370:ALA:HB1	1.99	0.44
13:N:139:TYR:O	13:N:143:THR:HG22	2.17	0.44
20:V:72:LEU:HD23	20:V:112:VAL:HG22	1.97	0.44
20:V:236:ARG:HD2	32:U:70:HIS:CD2	2.53	0.44
20:V:356:SER:O	20:V:359:PRO:HD2	2.18	0.44
20:V:494:MET:O	20:V:497:PRO:HG2	2.17	0.44
21:W:145:LEU:CD2	21:W:177:MET:HE3	2.47	0.44
21:W:272:LEU:HD12	21:W:272:LEU:HA	1.67	0.44
21:W:328:LEU:HD21	21:W:341:PHE:HB3	2.00	0.44
22:X:405:GLN:O	22:X:408:SER:HB3	2.17	0.44
23:Y:97:GLU:O	23:Y:100:ILE:HG13	2.18	0.44
23:Y:138:LEU:CA	23:Y:141:VAL:HG12	2.45	0.44
25:a:41:VAL:O	25:a:44:PHE:HB2	2.18	0.44
25:a:373:ASP:N	25:a:373:ASP:OD1	2.50	0.44
28:d:206:MET:CA	28:d:209:TYR:HB2	2.36	0.44
30:f:670:MET:SD	30:f:707:LEU:HD11	2.58	0.44
19:t:107:TRP:O	19:t:108:ASN:ND2	2.48	0.44
31:F:259:MET:HG3	31:F:260:PHE:N	2.31	0.44
31:F:391:PHE:CZ	31:F:428:GLN:HG2	2.52	0.44
32:U:46:GLU:HG2	32:U:80:TYR:HE2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:226:PRO:HB3	32:U:263:SER:OG	2.17	0.44
32:U:458:ILE:CD1	32:U:490:ARG:HH22	2.30	0.44
32:U:524:LYS:HB2	32:U:524:LYS:HE3	1.72	0.44
32:U:603:LEU:HD21	32:U:622:LEU:HD11	2.00	0.44
32:U:697:GLN:OE1	32:U:745:THR:HB	2.17	0.44
2:B:139:VAL:HG12	2:B:161:GLY:HA2	1.99	0.44
2:B:242:GLN:O	2:B:242:GLN:HG3	2.17	0.44
2:B:317:ASP:C	2:B:317:ASP:OD2	2.61	0.44
2:B:409:GLU:OE2	2:B:409:GLU:CA	2.65	0.44
3:C:158:ILE:HG12	3:C:199:LEU:HD21	2.00	0.44
3:C:194:THR:CA	3:C:355:SER:HB2	2.48	0.44
3:C:339:THR:HG22	3:C:340:ARG:H	1.83	0.44
3:C:340:ARG:NH2	23:Y:211:TYR:OH	2.51	0.44
4:D:345:PHE:O	4:D:349:THR:OG1	2.17	0.44
5:E:229:ILE:HA	5:E:274:LYS:O	2.18	0.44
7:H:195:LYS:HE2	7:H:202:MET:CE	2.48	0.44
11:L:10:VAL:HG22	11:L:10:VAL:O	2.17	0.44
15:P:177:ASP:OD1	15:P:177:ASP:C	2.60	0.44
19:T:67:LEU:HD13	19:T:91:TRP:CZ3	2.53	0.44
20:V:125:ASN:OD1	20:V:126:ALA:N	2.43	0.44
20:V:162:GLU:OE2	20:V:203:LEU:HA	2.18	0.44
20:V:349:ARG:CA	20:V:354:LYS:HE2	2.44	0.44
20:V:416:ARG:HH12	23:Y:350:VAL:HG22	1.82	0.44
21:W:312:MET:HA	21:W:312:MET:CE	2.45	0.44
21:W:371:THR:O	21:W:372:ARG:HG2	2.18	0.44
22:X:407:MET:HE2	24:Z:266:ILE:CD1	2.44	0.44
25:a:50:PHE:CD2	25:a:52:GLN:HB3	2.52	0.44
26:b:137:ASN:O	26:b:137:ASN:OD1	2.36	0.44
27:c:175:ARG:HD2	27:c:201:TYR:CD2	2.52	0.44
27:c:208:ARG:HD2	27:c:208:ARG:C	2.43	0.44
28:d:185:ALA:HA	28:d:224:SER:O	2.18	0.44
30:f:113:MET:SD	30:f:113:MET:C	3.01	0.44
17:r:183:ASP:OD1	17:r:183:ASP:N	2.49	0.44
19:t:66:VAL:O	19:t:70:MET:HG3	2.18	0.44
31:F:336:ASP:OD1	31:F:336:ASP:N	2.50	0.44
32:U:712:LEU:O	32:U:715:LYS:HG2	2.17	0.44
2:B:337:LEU:HD23	2:B:337:LEU:H	1.83	0.44
4:D:189:GLU:OE2	4:D:190:LEU:N	2.51	0.44
4:D:192:LYS:HE2	4:D:193:GLN:N	2.33	0.44
4:D:329:ARG:HD3	4:D:329:ARG:HA	1.80	0.44
7:H:230:ALA:CB	22:X:90:ARG:HH12	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:N:94:ASP:OD1	13:N:94:ASP:N	2.50	0.44
20:V:127:THR:O	20:V:131:LEU:N	2.39	0.44
20:V:172:VAL:HG12	20:V:187:ILE:HG23	2.00	0.44
20:V:432:GLU:CD	20:V:432:GLU:N	2.73	0.44
20:V:435:GLU:O	20:V:439:ALA:N	2.38	0.44
22:X:97:LEU:HD22	22:X:97:LEU:N	2.33	0.44
22:X:106:GLU:OE2	22:X:107:VAL:N	2.51	0.44
22:X:132:ARG:CD	22:X:136:LEU:HD23	2.48	0.44
23:Y:113:ARG:HD3	23:Y:113:ARG:C	2.43	0.44
23:Y:298:GLU:OE1	23:Y:298:GLU:HA	2.18	0.44
25:a:273:GLN:HE21	25:a:302:ILE:CD1	2.26	0.44
27:c:49:VAL:CG2	27:c:148:ILE:HD11	2.44	0.44
27:c:193:ILE:HG22	27:c:194:HIS:CD2	2.47	0.44
28:d:97:GLN:CD	28:d:160:ALA:HB1	2.43	0.44
30:f:20:ALA:HB3	30:f:21:PRO:HD3	2.00	0.44
30:f:630:ASP:O	30:f:634:LYS:HG2	2.18	0.44
6:g:123:GLN:HA	6:g:126:THR:HG22	2.00	0.44
9:j:217:LEU:HD21	9:j:219:ILE:HD11	2.00	0.44
13:n:128:ILE:HD11	13:n:137:TYR:CD1	2.53	0.44
31:F:188:ILE:CG1	31:F:235:LEU:HD23	2.31	0.44
31:F:275:ALA:HB1	31:F:281:SER:OG	2.18	0.44
32:U:655:ALA:O	32:U:659:CYS:HB3	2.18	0.44
2:B:331:THR:HG21	2:B:334:ILE:HD12	2.00	0.44
2:B:342:ILE:O	2:B:342:ILE:HG22	2.18	0.44
2:B:372:MET:SD	3:C:180:ILE:HD11	2.58	0.44
2:B:372:MET:HG3	3:C:178:LEU:O	2.17	0.44
3:C:297:ARG:CB	3:C:300:ILE:HG13	2.47	0.44
3:C:301:LEU:HA	3:C:301:LEU:HD23	1.85	0.44
3:C:313:ARG:HG3	3:C:314:LYS:N	2.32	0.44
4:D:105:SER:OG	4:D:107:THR:HG23	2.16	0.44
4:D:153:MET:HE3	4:D:227:PHE:HD2	1.83	0.44
4:D:163:MET:HA	4:D:222:HIS:NE2	2.32	0.44
4:D:392:TYR:HD1	21:W:137:TYR:CE1	2.34	0.44
5:E:211:SER:OG	5:E:256:THR:OG1	2.12	0.44
5:E:326:ILE:HG22	5:E:328:TYR:CE1	2.53	0.44
5:E:384:LEU:HD12	5:E:386:TYR:CE1	2.42	0.44
14:O:188:ARG:HB3	14:O:189:PRO:CD	2.48	0.44
20:V:289:LEU:HD23	20:V:289:LEU:N	2.32	0.44
20:V:318:GLN:OE1	20:V:318:GLN:N	2.49	0.44
21:W:94:ARG:O	21:W:94:ARG:HG3	2.17	0.44
21:W:145:LEU:HB2	21:W:174:TYR:CD2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:W:169:LEU:CD1	21:W:173:THR:HG23	2.41	0.44
22:X:344:ARG:HA	22:X:385:LEU:O	2.18	0.44
25:a:37:LEU:HD23	25:a:37:LEU:O	2.18	0.44
25:a:55:GLY:O	25:a:58:LYS:HG2	2.18	0.44
26:b:33:VAL:O	26:b:36:VAL:CG1	2.66	0.44
27:c:270:LEU:HD13	27:c:273:LYS:HE2	1.99	0.44
28:d:194:ALA:HA	28:d:197:ILE:HD11	2.00	0.44
28:d:198:LEU:HD12	28:d:200:PHE:CE1	2.53	0.44
30:f:16:SER:HB2	30:f:17:PRO:HD3	1.99	0.44
30:f:477:MET:HE3	30:f:478:ARG:H	1.83	0.44
30:f:631:LYS:HA	30:f:634:LYS:CG	2.47	0.44
9:j:116:GLN:HA	9:j:119:THR:HG22	2.00	0.44
31:F:213:GLU:OE1	31:F:214:ASN:N	2.51	0.44
31:F:226:TYR:CD1	31:F:226:TYR:C	2.96	0.44
31:F:310:MET:HE2	31:F:310:MET:HB3	1.73	0.44
32:U:398:ASN:O	32:U:437:TYR:CE2	2.71	0.44
32:U:424:ALA:HA	32:U:427:LEU:CD1	2.48	0.44
32:U:577:ILE:HD13	32:U:580:ARG:HD3	1.99	0.44
1:A:205:GLY:CA	31:F:373:MET:HB3	2.48	0.43
1:A:329:PRO:O	31:F:229:PRO:HB3	2.18	0.43
3:C:60:ARG:HE	3:C:60:ARG:HB2	1.60	0.43
3:C:199:LEU:O	3:C:199:LEU:HD13	2.18	0.43
3:C:326:LEU:HD13	3:C:345:ARG:HA	2.00	0.43
4:D:185:LEU:HD11	4:D:306:LYS:CG	2.48	0.43
4:D:246:MET:O	4:D:250:VAL:HG23	2.18	0.43
4:D:381:GLU:O	4:D:385:LEU:HD23	2.18	0.43
5:E:154:THR:HG23	5:E:155:ASN:OD1	2.17	0.43
5:E:171:LEU:HB2	5:E:295:LEU:HD13	1.98	0.43
5:E:235:ILE:HG23	5:E:285:LEU:HD21	1.99	0.43
5:E:273:VAL:O	5:E:273:VAL:HG12	2.18	0.43
5:E:372:ARG:H	5:E:372:ARG:CD	2.31	0.43
8:I:174:MET:HA	8:I:177:GLN:OE1	2.17	0.43
9:J:144:LEU:HD13	9:J:144:LEU:C	2.43	0.43
20:V:234:ARG:CB	20:V:250:LEU:HD11	2.46	0.43
21:W:60:MET:HE1	21:W:99:GLN:OE1	2.18	0.43
21:W:161:GLU:H	21:W:161:GLU:HG2	1.66	0.43
23:Y:229:ILE:HA	23:Y:299:MET:HE1	1.99	0.43
24:Z:275:LEU:C	24:Z:275:LEU:HD13	2.43	0.43
25:a:99:LYS:CG	25:a:103:LYS:HZ1	2.31	0.43
25:a:100:THR:HA	25:a:103:LYS:NZ	2.33	0.43
25:a:104:VAL:C	25:a:105:LYS:HG2	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:b:25:ARG:HH11	26:b:144:GLY:HA2	1.83	0.43
26:b:161:ASN:HA	26:b:165:GLY:O	2.18	0.43
28:d:203:PRO:HG2	28:d:206:MET:CE	2.48	0.43
30:f:125:ILE:CG2	30:f:129:LEU:HB2	2.31	0.43
30:f:263:PRO:O	30:f:266:LEU:HD22	2.17	0.43
30:f:408:LEU:HB2	30:f:439:TYR:OH	2.18	0.43
30:f:554:TYR:HD1	30:f:557:TRP:CZ3	2.35	0.43
30:f:656:GLY:HA2	30:f:660:ILE:CD1	2.41	0.43
14:o:91:TYR:CD2	14:o:95:ILE:HD12	2.53	0.43
32:U:19:LEU:HA	32:U:22:PHE:CD2	2.52	0.43
32:U:235:LYS:NZ	32:U:238:LYS:HE2	2.32	0.43
32:U:559:ARG:C	32:U:560:MET:HG3	2.42	0.43
32:U:592:GLY:HA2	32:U:627:PHE:CD1	2.52	0.43
32:U:629:THR:O	32:U:629:THR:OG1	2.36	0.43
1:A:189:GLU:OE2	31:F:409:ARG:NH1	2.51	0.43
1:A:238:ILE:HG21	1:A:260:LEU:HD22	1.99	0.43
1:A:295:VAL:HG21	2:B:307:ARG:NH2	2.33	0.43
1:A:424:SER:OG	1:A:427:PRO:HD2	2.18	0.43
2:B:74:MET:SD	2:B:75:GLU:HG2	2.58	0.43
2:B:195:GLN:O	2:B:199:GLU:HB3	2.19	0.43
2:B:257:GLN:HG3	2:B:262:ASP:O	2.18	0.43
4:D:192:LYS:HD2	4:D:192:LYS:C	2.42	0.43
4:D:263:PHE:HD1	4:D:263:PHE:C	2.26	0.43
18:S:145:LEU:HD21	18:S:182:ALA:HB2	1.99	0.43
20:V:203:LEU:HD22	20:V:206:VAL:HG22	1.99	0.43
20:V:251:LEU:HD12	20:V:251:LEU:HA	1.75	0.43
21:W:35:ALA:CB	21:W:43:VAL:HG21	2.47	0.43
21:W:118:LEU:HD21	21:W:121:LYS:CE	2.48	0.43
22:X:311:ALA:HB3	22:X:312:GLU:OE1	2.18	0.43
23:Y:227:SER:OG	23:Y:240:VAL:HG11	2.18	0.43
24:Z:201:LEU:HD23	27:c:308:VAL:HG11	2.00	0.43
25:a:34:TRP:HZ3	26:b:18:ASN:HA	1.82	0.43
25:a:37:LEU:HA	25:a:40:GLN:CD	2.43	0.43
25:a:40:GLN:CD	25:a:40:GLN:H	2.23	0.43
25:a:302:ILE:HG22	25:a:303:THR:N	2.33	0.43
30:f:281:ILE:CD1	30:f:286:LYS:HD3	2.48	0.43
30:f:620:PHE:CD2	30:f:620:PHE:C	2.96	0.43
30:f:821:LEU:CD2	30:f:882:LEU:HD13	2.40	0.43
30:f:827:PRO:HB3	30:f:860:LYS:HE3	1.99	0.43
30:f:842:VAL:HG21	30:f:862:ILE:CG1	2.49	0.43
6:g:75:ASN:N	6:g:75:ASN:OD1	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:l:38:LEU:HD23	11:l:38:LEU:N	2.33	0.43
19:t:136:SER:O	19:t:137:LEU:HD12	2.17	0.43
31:F:218:GLN:H	31:F:218:GLN:HG3	1.62	0.43
32:U:269:ARG:NH2	32:U:326:ILE:HG21	2.32	0.43
1:A:121:PHE:CZ	1:A:147:TYR:HE2	2.36	0.43
2:B:61:LYS:HA	2:B:64:LYS:HE2	2.00	0.43
2:B:68:ILE:HG22	2:B:72:LEU:HD23	2.00	0.43
2:B:82:GLN:HA	2:B:85:MET:SD	2.58	0.43
4:D:153:MET:CE	4:D:227:PHE:HD2	2.30	0.43
11:L:188:VAL:HG11	11:L:232:PHE:CD1	2.53	0.43
14:O:77:VAL:CG1	14:O:101:LEU:HD22	2.48	0.43
21:W:129:ARG:O	21:W:132:THR:HG22	2.18	0.43
21:W:239:SER:HG	21:W:242:SER:HB3	1.84	0.43
22:X:339:ILE:HD12	22:X:342:PHE:HE1	1.82	0.43
23:Y:313:SER:HB2	23:Y:353:ILE:HD11	1.99	0.43
24:Z:8:LYS:HB2	24:Z:8:LYS:HE2	1.54	0.43
24:Z:204:LYS:O	24:Z:208:ILE:HG13	2.19	0.43
25:a:184:ASP:OD1	25:a:185:ILE:N	2.52	0.43
26:b:101:GLN:O	26:b:102:GLY:C	2.60	0.43
30:f:6:ARG:H	30:f:6:ARG:HD2	1.83	0.43
30:f:242:GLU:HB2	30:f:243:PRO:HD3	2.01	0.43
30:f:680:ARG:O	30:f:680:ARG:CD	2.65	0.43
7:h:85:LEU:HD11	7:h:117:MET:CE	2.49	0.43
7:h:189:THR:O	7:h:193:THR:HG22	2.17	0.43
13:n:19:SER:O	13:n:19:SER:OG	2.36	0.43
31:F:206:MET:HB2	31:F:206:MET:HE3	1.82	0.43
31:F:438:TYR:O	31:F:439:ALA:HB3	2.18	0.43
32:U:88:PHE:HB3	32:U:89:ASN:OD1	2.18	0.43
1:A:167:GLU:OE2	1:A:168:GLU:HB2	2.18	0.43
1:A:398:ARG:HD3	2:B:195:GLN:CD	2.43	0.43
2:B:303:ARG:HG2	2:B:307:ARG:NH1	2.32	0.43
3:C:117:ARG:CZ	3:C:124:HIS:HE1	2.32	0.43
5:E:55:GLN:O	31:F:132:TYR:HA	2.19	0.43
7:H:107:ALA:O	7:H:111:GLN:HG3	2.18	0.43
20:V:172:VAL:HG13	20:V:187:ILE:HG13	2.00	0.43
20:V:273:LYS:HZ1	32:U:40:GLU:HB3	1.81	0.43
20:V:300:LEU:HD12	20:V:300:LEU:N	2.33	0.43
20:V:416:ARG:CB	20:V:416:ARG:NH1	2.81	0.43
21:W:98:LYS:HG3	21:W:139:GLU:CD	2.43	0.43
21:W:133:GLU:CA	21:W:136:ILE:HD13	2.47	0.43
21:W:268:LYS:NZ	21:W:301:LYS:HE3	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:X:395:LYS:HB3	27:c:242:GLU:OE1	2.18	0.43
23:Y:366:TYR:CA	23:Y:369:THR:HG22	2.47	0.43
24:Z:29:VAL:HB	24:Z:33:LYS:HZ2	1.83	0.43
24:Z:94:TRP:HH2	24:Z:105:ASP:CG	2.26	0.43
24:Z:143:GLU:O	24:Z:152:SER:HB3	2.19	0.43
25:a:100:THR:O	25:a:104:VAL:HG22	2.18	0.43
25:a:129:GLN:O	25:a:129:GLN:HG2	2.16	0.43
26:b:10:VAL:CG1	26:b:11:ASP:N	2.82	0.43
28:d:75:MET:SD	28:d:102:ASN:HB2	2.59	0.43
28:d:194:ALA:C	28:d:197:ILE:HG12	2.43	0.43
29:e:30:LEU:HD12	29:e:32:GLU:CD	2.44	0.43
30:f:7:ASP:C	30:f:10:PRO:HD2	2.43	0.43
30:f:261:ARG:HB2	30:f:267:ARG:HH22	1.84	0.43
30:f:507:ASP:CG	30:f:509:LYS:HG2	2.43	0.43
30:f:581:GLU:O	30:f:588:ARG:HD2	2.18	0.43
30:f:605:ASN:ND2	30:f:608:LYS:HB3	2.23	0.43
30:f:672:LEU:CD1	30:f:707:LEU:HD12	2.47	0.43
31:F:202:ILE:HD12	31:F:327:LYS:HB3	2.00	0.43
32:U:107:HIS:O	32:U:110:LYS:HG2	2.19	0.43
32:U:151:ILE:HG21	32:U:179:TYR:OH	2.18	0.43
32:U:669:ILE:HD12	32:U:669:ILE:HA	1.91	0.43
2:B:283:PHE:HD1	2:B:328:ILE:O	2.01	0.43
3:C:287:LYS:O	3:C:287:LYS:HG2	2.18	0.43
4:D:119:ILE:HD11	4:D:141:ASP:N	2.34	0.43
4:D:125:LYS:HG2	4:D:126:PRO:HD2	2.00	0.43
4:D:418:LYS:HB3	4:D:418:LYS:HE2	1.80	0.43
5:E:238:ILE:HD12	5:E:253:ILE:HD12	2.01	0.43
6:G:123:GLN:HG3	7:H:80:PRO:HB2	2.00	0.43
7:H:47:THR:HG21	7:H:74:VAL:CG2	2.48	0.43
10:K:217:LEU:HD23	10:K:218:ALA:N	2.33	0.43
15:P:33:MET:O	17:r:167:ARG:NH1	2.51	0.43
20:V:276:PHE:CD2	20:V:277:PRO:HD2	2.53	0.43
20:V:373:ALA:HB3	20:V:427:GLN:NE2	2.33	0.43
20:V:428:LEU:HD11	20:V:437:ILE:CD1	2.49	0.43
21:W:72:LYS:HA	21:W:111:TYR:OH	2.17	0.43
21:W:98:LYS:HG3	21:W:139:GLU:CG	2.48	0.43
21:W:144:ARG:HG2	21:W:144:ARG:HH11	1.82	0.43
21:W:199:TYR:HE1	21:W:236:HIS:CD2	2.37	0.43
22:X:97:LEU:HD11	22:X:106:GLU:CG	2.49	0.43
22:X:118:LYS:HZ2	22:X:118:LYS:CB	2.31	0.43
22:X:283:GLN:OE1	22:X:283:GLN:CA	2.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:X:395:LYS:C	22:X:397:TYR:H	2.24	0.43
25:a:65:SER:HA	25:a:68:GLU:HB2	2.00	0.43
25:a:173:TYR:C	25:a:173:TYR:CD1	2.96	0.43
25:a:198:PHE:HZ	25:a:257:GLN:HB2	1.83	0.43
26:b:51:LEU:O	26:b:51:LEU:HG	2.18	0.43
30:f:267:ARG:HA	30:f:271:MET:CE	2.44	0.43
30:f:480:GLY:HA2	30:f:483:PHE:HE1	1.84	0.43
30:f:483:PHE:CE2	30:f:517:VAL:HG21	2.53	0.43
30:f:789:SER:HA	30:f:793:VAL:CB	2.47	0.43
12:m:33:SER:OG	12:m:34:SER:N	2.51	0.43
15:p:87:MET:SD	15:p:129:PRO:HB3	2.58	0.43
31:F:122:ALA:HB2	31:F:137:ILE:HD13	1.98	0.43
31:F:164:LEU:HD12	31:F:164:LEU:N	2.34	0.43
32:U:8:ILE:C	32:U:10:SER:H	2.26	0.43
32:U:195:ASN:HB2	32:U:223:LEU:CD1	2.48	0.43
32:U:554:LEU:HA	32:U:588:MET:HE2	2.01	0.43
1:A:197:HIS:CD2	30:f:345:PRO:HG2	2.54	0.43
2:B:85:MET:SD	2:B:85:MET:N	2.91	0.43
2:B:144:LEU:HD13	2:B:144:LEU:HA	1.87	0.43
2:B:250:VAL:O	2:B:284:ILE:HA	2.19	0.43
2:B:324:ASP:C	2:B:324:ASP:OD1	2.62	0.43
3:C:105:ILE:HD12	3:C:108:VAL:HB	2.01	0.43
4:D:97:ASP:OD1	4:D:97:ASP:N	2.52	0.43
4:D:145:PRO:HG2	4:D:256:GLU:OE2	2.18	0.43
4:D:185:LEU:HD11	4:D:306:LYS:HG3	2.01	0.43
5:E:152:PRO:C	5:E:153:LEU:HD23	2.44	0.43
8:I:118:LYS:O	8:I:122:THR:HG22	2.18	0.43
20:V:254:LEU:HD11	20:V:270:LEU:HD13	2.01	0.43
22:X:152:GLN:O	22:X:155:ARG:HG2	2.17	0.43
22:X:401:LEU:O	22:X:401:LEU:HD13	2.18	0.43
24:Z:97:THR:O	24:Z:98:GLY:C	2.61	0.43
27:c:192:LEU:HA	27:c:196:LEU:HB3	1.99	0.43
27:c:292:MET:HE2	27:c:292:MET:HB3	1.92	0.43
30:f:65:GLU:CB	30:f:97:LYS:HE2	2.44	0.43
30:f:448:CYS:O	30:f:451:VAL:HG12	2.19	0.43
30:f:633:GLU:HA	30:f:636:ASP:OD1	2.18	0.43
36:n:301:LDZ:H40	14:o:115:TYR:CG	2.53	0.43
14:o:184:LEU:HD13	14:o:184:LEU:C	2.43	0.43
31:F:194:GLN:HG2	31:F:352:ILE:HG22	2.01	0.43
32:U:7:GLY:N	32:U:37:GLU:OE1	2.51	0.43
32:U:24:LEU:HD23	32:U:24:LEU:C	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:620:GLU:CG	32:U:654:MET:HB3	2.48	0.43
32:U:807:LYS:O	32:U:810:THR:HG22	2.19	0.43
1:A:402:LYS:HB2	1:A:402:LYS:HE2	1.70	0.43
2:B:264:PRO:HB3	2:B:311:GLU:HB2	2.01	0.43
3:C:161:ILE:HG12	3:C:203:VAL:HG21	2.00	0.43
3:C:198:LEU:HD13	3:C:198:LEU:C	2.44	0.43
3:C:300:ILE:C	3:C:300:ILE:CD1	2.92	0.43
3:C:300:ILE:HD12	3:C:301:LEU:N	2.34	0.43
4:D:176:GLU:OE2	4:D:329:ARG:NH1	2.46	0.43
4:D:343:LEU:HD23	4:D:343:LEU:HA	1.76	0.43
7:H:79:GLY:N	7:H:80:PRO:HD2	2.33	0.43
20:V:227:VAL:O	20:V:231:LEU:HD22	2.19	0.43
20:V:281:ASN:OD1	20:V:283:ASN:N	2.38	0.43
20:V:459:GLN:HG3	20:V:460:SER:N	2.34	0.43
20:V:482:PHE:CE2	23:Y:377:LEU:HD21	2.54	0.43
21:W:152:ILE:CD1	21:W:165:ILE:HB	2.48	0.43
21:W:241:LEU:HD13	21:W:241:LEU:C	2.44	0.43
21:W:319:THR:HA	21:W:322:GLU:HG3	2.00	0.43
21:W:406:VAL:CG1	22:X:342:PHE:HB3	2.36	0.43
22:X:409:LYS:HD2	27:c:256:ASN:HD22	1.83	0.43
23:Y:59:LYS:HD3	23:Y:59:LYS:C	2.44	0.43
24:Z:11:VAL:HG12	24:Z:15:VAL:HG11	2.01	0.43
24:Z:111:LEU:HD13	24:Z:111:LEU:C	2.43	0.43
24:Z:259:VAL:HG21	27:c:241:ASN:HD22	1.82	0.43
25:a:268:LEU:O	25:a:272:ILE:HG22	2.19	0.43
25:a:374:ILE:O	25:a:375:LEU:HD23	2.18	0.43
26:b:142:ASN:ND2	26:b:146:GLU:OE1	2.52	0.43
27:c:31:VAL:CG2	27:c:203:ILE:HG21	2.45	0.43
30:f:61:GLU:OE1	30:f:61:GLU:HA	2.19	0.43
30:f:694:LEU:HD23	30:f:695:ALA:N	2.31	0.43
30:f:707:LEU:HG	30:f:785:ARG:NH1	2.32	0.43
9:j:195:LEU:HD23	9:j:206:ILE:HG12	2.01	0.43
13:n:56:VAL:HG12	13:n:84:PHE:CE1	2.54	0.43
31:F:202:ILE:O	31:F:206:MET:HE3	2.19	0.43
2:B:184:TYR:CE2	2:B:198:LYS:CE	3.02	0.43
2:B:258:LYS:O	2:B:299:SER:OG	2.35	0.43
3:C:31:LEU:O	3:C:34:ILE:HG22	2.17	0.43
3:C:127:LEU:HB3	3:C:128:PRO:CD	2.48	0.43
4:D:378:ILE:HD13	4:D:403:TYR:CD1	2.53	0.43
5:E:243:PHE:CZ	31:F:304:ARG:CZ	3.02	0.43
6:G:120:ASP:OD1	7:H:83:ARG:NH1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:G:163:PHE:CG	6:G:166:THR:OG1	2.70	0.43
8:I:11:ILE:HG22	8:I:12:PHE:N	2.34	0.43
16:Q:184:ASP:OD2	16:Q:184:ASP:C	2.62	0.43
20:V:256:ARG:HD2	20:V:256:ARG:C	2.44	0.43
20:V:487:HIS:ND1	24:Z:271:ALA:HB2	2.33	0.43
21:W:54:THR:O	21:W:58:SER:N	2.51	0.43
21:W:177:MET:SD	21:W:178:GLU:N	2.92	0.43
21:W:413:ILE:CD1	21:W:415:PHE:HE1	2.31	0.43
22:X:325:LYS:HD3	22:X:325:LYS:C	2.43	0.43
23:Y:143:TYR:O	23:Y:147:ILE:HG13	2.18	0.43
23:Y:144:LEU:O	23:Y:147:ILE:HD12	2.17	0.43
23:Y:189:VAL:CG1	23:Y:287:LEU:HD11	2.49	0.43
23:Y:307:LEU:HD21	23:Y:314:LEU:HD11	2.00	0.43
25:a:33:LEU:HA	26:b:18:ASN:HB2	2.00	0.43
25:a:48:PRO:CG	25:a:51:ALA:HA	2.49	0.43
25:a:118:ILE:HD13	25:a:118:ILE:N	2.33	0.43
25:a:276:CYS:SG	25:a:299:SER:OG	2.72	0.43
26:b:23:PRO:C	26:b:24:THR:OG1	2.62	0.43
26:b:91:ARG:HH12	26:b:130:ARG:NH1	2.17	0.43
28:d:5:LEU:O	28:d:5:LEU:HD12	2.19	0.43
30:f:445:LEU:HD22	30:f:481:SER:CA	2.48	0.43
30:f:460:ASP:OD1	30:f:463:LEU:HD12	2.19	0.43
30:f:679:LEU:HD23	30:f:679:LEU:C	2.44	0.43
30:f:746:ARG:HA	30:f:750:GLN:CD	2.43	0.43
30:f:789:SER:HA	30:f:793:VAL:CG1	2.48	0.43
31:F:128:THR:HG22	31:F:128:THR:O	2.18	0.43
32:U:103:LYS:HZ2	32:U:103:LYS:HB2	1.84	0.43
32:U:365:CYS:HA	32:U:368:ALA:HB3	2.00	0.43
32:U:609:ASP:CG	32:U:614:VAL:HG11	2.43	0.43
32:U:756:HIS:CD2	32:U:758:PRO:HG2	2.53	0.43
32:U:793:LYS:HG3	32:U:794:ASP:OD1	2.18	0.43
1:A:210:LYS:HB2	1:A:312:ARG:HH22	1.84	0.43
2:B:214:MET:HB3	2:B:214:MET:HE3	1.78	0.43
3:C:20:LEU:C	3:C:22:GLN:H	2.25	0.43
3:C:25:LEU:HD23	3:C:28:ILE:HG21	2.01	0.43
3:C:42:LEU:HD13	4:D:54:LEU:CD1	2.49	0.43
3:C:146:SER:HA	3:C:150:MET:CE	2.25	0.43
3:C:249:ASP:OD1	3:C:250:GLU:O	2.37	0.43
3:C:390:VAL:O	3:C:394:ASP:HB3	2.18	0.43
4:D:46:LYS:HB3	4:D:46:LYS:HE2	1.76	0.43
4:D:78:GLU:O	4:D:78:GLU:HG2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:131:ALA:C	4:D:132:LEU:HD23	2.44	0.43
4:D:191:TYR:CE2	4:D:196:ILE:HD11	2.54	0.43
4:D:330:LYS:HD3	4:D:330:LYS:N	2.34	0.43
5:E:203:ILE:O	5:E:203:ILE:HG13	2.18	0.43
5:E:282:PRO:O	5:E:388:PRO:HA	2.19	0.43
5:E:331:ILE:CD1	5:E:367:PHE:HD2	2.32	0.43
11:L:164:ARG:HB2	11:L:164:ARG:CZ	2.49	0.43
20:V:103:SER:O	20:V:106:ARG:NE	2.51	0.43
21:W:149:LEU:HD13	21:W:185:PHE:CE2	2.54	0.43
21:W:308:LEU:HD22	21:W:315:MET:CE	2.44	0.43
21:W:310:THR:HG22	21:W:311:THR:N	2.34	0.43
21:W:416:GLN:OE1	21:W:416:GLN:HA	2.19	0.43
23:Y:180:LEU:HD12	23:Y:180:LEU:C	2.43	0.43
23:Y:228:MET:SD	23:Y:259:TYR:HE1	2.42	0.43
24:Z:29:VAL:HG11	24:Z:33:LYS:CE	2.49	0.43
27:c:95:MET:HE2	27:c:95:MET:HB2	1.90	0.43
27:c:125:VAL:O	27:c:129:THR:HG22	2.18	0.43
27:c:161:ARG:HG2	27:c:162:LEU:H	1.83	0.43
28:d:35:PHE:CD1	28:d:35:PHE:C	2.97	0.43
28:d:141:GLN:O	28:d:145:GLU:HG2	2.19	0.43
30:f:180:GLN:CB	30:f:219:LYS:HD3	2.49	0.43
30:f:601:ALA:O	30:f:639:LYS:HB3	2.19	0.43
12:m:175:GLU:OE1	12:m:175:GLU:HA	2.19	0.43
19:t:63:LEU:HD22	19:t:92:LEU:HD11	2.01	0.43
31:F:297:ASP:OD1	31:F:298:SER:N	2.52	0.43
32:U:103:LYS:HB2	32:U:103:LYS:NZ	2.33	0.43
32:U:112:CYS:SG	32:U:113:VAL:N	2.91	0.43
32:U:154:ALA:HB2	32:U:162:VAL:HG13	2.00	0.43
32:U:428:PRO:O	32:U:432:SER:HB2	2.19	0.43
32:U:623:GLY:HA3	32:U:658:ILE:CD1	2.47	0.43
32:U:661:ALA:HB1	32:U:693:LEU:HB3	1.99	0.43
1:A:134:ILE:HA	1:A:138:MET:SD	2.59	0.43
1:A:172:VAL:CG1	1:A:227:ARG:HG2	2.49	0.43
1:A:268:LYS:H	30:f:354:GLU:HG2	1.84	0.43
1:A:323:ARG:HH12	1:A:433:ASN:HA	1.82	0.43
1:A:424:SER:O	2:B:339:PRO:HB2	2.19	0.43
2:B:130:GLU:N	2:B:130:GLU:CD	2.77	0.43
2:B:364:ILE:HG22	2:B:395:ILE:HG21	1.99	0.43
3:C:164:VAL:CG2	3:C:186:VAL:HG11	2.39	0.43
4:D:186:THR:OG1	4:D:187:HIS:N	2.51	0.43
4:D:336:PRO:CD	4:D:371:SER:HA	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:144:GLU:OE2	5:E:297:ARG:NH1	2.49	0.43
5:E:363:VAL:HG23	5:E:365:GLU:N	2.34	0.43
8:I:122:THR:O	8:I:122:THR:OG1	2.37	0.43
10:K:74:ILE:CD1	10:K:109:VAL:HG22	2.49	0.43
13:N:57:ALA:O	13:N:61:THR:OG1	2.36	0.43
14:O:184:LEU:C	14:O:184:LEU:HD13	2.44	0.43
20:V:338:LEU:HD11	20:V:397:ARG:HD2	2.01	0.43
21:W:68:VAL:O	21:W:72:LYS:N	2.33	0.43
21:W:142:ARG:HD3	21:W:142:ARG:C	2.44	0.43
21:W:312:MET:HG3	21:W:369:TYR:OH	2.19	0.43
21:W:326:MET:C	21:W:326:MET:SD	3.01	0.43
22:X:340:GLU:OE1	22:X:340:GLU:O	2.36	0.43
23:Y:235:ASP:HA	23:Y:238:GLU:OE2	2.19	0.43
23:Y:292:TYR:O	23:Y:296:VAL:HG23	2.17	0.43
24:Z:109:ASN:ND2	24:Z:155:PHE:HE1	2.17	0.43
24:Z:237:LEU:HD23	24:Z:237:LEU:HA	1.81	0.43
25:a:69:HIS:ND1	25:a:69:HIS:O	2.52	0.43
27:c:161:ARG:HG2	27:c:162:LEU:N	2.34	0.43
28:d:75:MET:O	28:d:78:LEU:HD12	2.18	0.43
30:f:416:MET:N	30:f:416:MET:SD	2.92	0.43
30:f:524:MET:SD	30:f:525:ILE:N	2.92	0.43
30:f:569:LYS:HG2	30:f:573:ILE:HG21	2.01	0.43
8:i:53:HIS:HB3	8:i:56:LEU:HD13	2.00	0.43
11:l:70:ILE:HD13	11:l:108:LEU:CD2	2.48	0.43
17:r:173:GLY:O	17:r:193:VAL:HG23	2.19	0.43
18:s:75:TYR:CD1	18:s:83:MET:HG3	2.54	0.43
32:U:19:LEU:O	32:U:19:LEU:HD12	2.19	0.43
32:U:54:PHE:C	32:U:56:SER:N	2.77	0.43
32:U:225:ASP:OD1	32:U:227:GLN:NE2	2.52	0.43
32:U:620:GLU:OE1	32:U:770:TRP:HH2	2.02	0.43
1:A:268:LYS:HE3	30:f:354:GLU:HB2	1.98	0.42
1:A:332:MET:HE3	1:A:332:MET:HB3	1.82	0.42
1:A:423:PHE:O	1:A:424:SER:O	2.36	0.42
2:B:114:GLU:OE2	2:B:116:ILE:N	2.52	0.42
2:B:120:HIS:O	2:B:135:ILE:HD11	2.18	0.42
2:B:186:ASP:OD1	2:B:186:ASP:O	2.36	0.42
3:C:255:GLY:HA2	3:C:297:ARG:HH22	1.83	0.42
4:D:354:LEU:HA	4:D:354:LEU:HD12	1.80	0.42
9:J:190:LEU:HD23	9:J:190:LEU:O	2.19	0.42
10:K:121:LEU:HD21	11:L:77:LEU:HD21	2.01	0.42
20:V:79:VAL:HG11	20:V:120:PHE:HE1	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:99:ARG:NE	29:e:17:ASP:OD2	2.52	0.42
20:V:132:LEU:N	20:V:133:PRO:HD2	2.35	0.42
20:V:256:ARG:NH1	20:V:256:ARG:HG2	2.34	0.42
21:W:89:LEU:HD21	21:W:93:ARG:HH11	1.82	0.42
23:Y:240:VAL:HG21	23:Y:260:LEU:HD11	2.00	0.42
25:a:186:LYS:HB3	25:a:187:ASP:H	1.57	0.42
27:c:55:GLY:O	27:c:56:LEU:HD23	2.18	0.42
27:c:163:ILE:HD12	27:c:163:ILE:C	2.43	0.42
30:f:457:ASN:HD22	30:f:461:PRO:HD3	1.83	0.42
30:f:657:ILE:O	30:f:661:ALA:HB3	2.19	0.42
31:F:326:VAL:HG13	31:F:326:VAL:O	2.19	0.42
32:U:234:GLU:CA	32:U:237:VAL:HG12	2.45	0.42
32:U:247:GLN:HA	32:U:913:ILE:CD1	2.49	0.42
32:U:669:ILE:HD11	32:U:709:PHE:CZ	2.54	0.42
1:A:222:LYS:HE3	33:A:501:ATP:O2B	2.19	0.42
1:A:245:LEU:HA	1:A:256:MET:HE2	2.01	0.42
2:B:285:ASP:OD1	2:B:286:GLU:HG3	2.19	0.42
4:D:320:ALA:O	4:D:326:ARG:NH1	2.52	0.42
5:E:178:THR:OG1	5:E:180:LYS:NZ	2.52	0.42
5:E:299:ILE:HD12	5:E:299:ILE:H	1.84	0.42
10:K:12:VAL:HG23	10:K:13:ASN:CG	2.44	0.42
14:O:175:ASP:OD1	14:O:188:ARG:O	2.37	0.42
20:V:467:TYR:HE2	23:Y:362:LYS:CE	2.31	0.42
21:W:63:THR:HA	21:W:66:ILE:HD11	2.00	0.42
22:X:377:ILE:HG22	23:Y:309:GLU:O	2.19	0.42
23:Y:156:LEU:O	23:Y:160:ASN:OD1	2.36	0.42
24:Z:16:LEU:HD21	27:c:220:LEU:HD12	2.00	0.42
24:Z:61:ASP:OD1	24:Z:63:LYS:O	2.37	0.42
24:Z:133:LEU:HD12	24:Z:133:LEU:HA	1.81	0.42
24:Z:144:VAL:HA	24:Z:152:SER:CB	2.35	0.42
24:Z:199:LYS:HA	24:Z:199:LYS:CE	2.48	0.42
26:b:33:VAL:HG23	26:b:34:ASN:N	2.34	0.42
26:b:161:ASN:HB3	26:b:165:GLY:O	2.19	0.42
27:c:219:ASN:O	27:c:223:LYS:CD	2.67	0.42
27:c:248:MET:HE3	27:c:288:VAL:HG22	2.01	0.42
28:d:242:LEU:HD23	28:d:242:LEU:HA	1.73	0.42
30:f:513:GLU:O	30:f:517:VAL:HG13	2.18	0.42
30:f:607:LEU:O	30:f:611:GLN:OE1	2.37	0.42
30:f:617:SER:HA	30:f:620:PHE:CD1	2.54	0.42
31:F:196:GLN:HA	31:F:199:VAL:HG22	2.00	0.42
32:U:169:GLU:OE2	32:U:176:MET:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:247:GLN:NE2	32:U:904:LYS:CB	2.81	0.42
32:U:805:ASN:OD1	32:U:805:ASN:N	2.51	0.42
1:A:176:ASP:OD1	1:A:176:ASP:N	2.52	0.42
2:B:208:PRO:O	2:B:212:GLU:HG3	2.19	0.42
3:C:89:VAL:HG23	3:C:92:GLU:CB	2.49	0.42
3:C:224:ILE:HG13	3:C:225:GLY:H	1.84	0.42
4:D:123:LEU:H	4:D:123:LEU:HD22	1.85	0.42
5:E:297:ARG:HG2	5:E:299:ILE:HD11	2.01	0.42
5:E:339:ASN:OD1	5:E:340:GLY:N	2.49	0.42
6:G:211:LYS:HG3	6:G:212:PRO:N	2.34	0.42
14:O:64:LEU:HD22	14:O:75:PRO:CB	2.49	0.42
15:P:33:MET:HE1	17:r:166:TYR:CE1	2.54	0.42
20:V:71:THR:C	20:V:75:ILE:HD12	2.44	0.42
20:V:245:ASP:OD1	20:V:245:ASP:C	2.62	0.42
20:V:256:ARG:HG2	20:V:256:ARG:HH11	1.84	0.42
20:V:339:LEU:HD12	20:V:339:LEU:HA	1.84	0.42
20:V:415:SER:CA	23:Y:346:LYS:HZ2	2.32	0.42
21:W:375:MET:HE3	21:W:375:MET:HA	2.01	0.42
21:W:403:PHE:HD1	21:W:404:ALA:N	2.17	0.42
21:W:407:ASP:OD1	21:W:407:ASP:C	2.62	0.42
21:W:456:GLN:HA	24:Z:103:LYS:CE	2.50	0.42
25:a:304:VAL:O	25:a:307:VAL:HG12	2.20	0.42
26:b:25:ARG:NH1	26:b:144:GLY:HA2	2.35	0.42
26:b:79:GLN:CD	26:b:79:GLN:H	2.27	0.42
27:c:49:VAL:N	27:c:50:PRO:CD	2.83	0.42
30:f:245:ASN:ND2	30:f:259:PHE:HE2	2.17	0.42
30:f:603:SER:N	30:f:639:LYS:HD3	2.34	0.42
30:f:639:LYS:CG	30:f:640:LYS:HE2	2.49	0.42
30:f:680:ARG:HA	30:f:715:HIS:HB2	2.01	0.42
30:f:712:LYS:HA	30:f:715:HIS:CE1	2.54	0.42
13:n:3:THR:HG21	13:n:164:ALA:CB	2.49	0.42
31:F:245:LYS:HE2	31:F:245:LYS:H	1.83	0.42
32:U:131:GLU:O	32:U:135:ASN:ND2	2.44	0.42
32:U:792:ASN:OD1	32:U:796:LYS:N	2.52	0.42
1:A:139:ARG:C	1:A:153:LEU:HB2	2.44	0.42
1:A:297:ARG:NH1	31:F:306:VAL:HG11	2.34	0.42
2:B:178:LYS:CD	2:B:178:LYS:N	2.83	0.42
2:B:209:GLU:C	2:B:212:GLU:HB2	2.45	0.42
2:B:256:ILE:O	2:B:256:ILE:CG1	2.68	0.42
2:B:288:ASP:C	2:B:288:ASP:OD1	2.62	0.42
3:C:24:TYR:HE2	32:U:153:ILE:CD1	2.30	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:173:GLU:HA	3:C:176:GLU:OE2	2.19	0.42
5:E:76:GLY:HA3	5:E:77:PRO:HD3	1.76	0.42
5:E:338:PHE:HZ	5:E:375:ALA:HB2	1.84	0.42
8:I:99:LEU:HD12	15:P:64:GLN:HB3	2.01	0.42
16:Q:164:LEU:O	16:Q:168:GLN:HG2	2.20	0.42
20:V:346:LEU:HD12	20:V:346:LEU:O	2.20	0.42
20:V:451:ILE:HG12	20:V:452:ASN:N	2.34	0.42
21:W:74:CYS:SG	21:W:83:LEU:HB2	2.59	0.42
21:W:425:LEU:HD12	21:W:425:LEU:HA	1.80	0.42
23:Y:239:LYS:HB3	23:Y:239:LYS:NZ	2.26	0.42
23:Y:283:LYS:HG3	23:Y:292:TYR:CD2	2.54	0.42
27:c:168:MET:HG3	27:c:169:VAL:N	2.34	0.42
28:d:3:GLU:OE1	28:d:3:GLU:CA	2.67	0.42
30:f:228:LYS:HE2	30:f:228:LYS:HB2	1.73	0.42
30:f:233:LEU:HD23	30:f:233:LEU:HA	1.77	0.42
12:m:71:ARG:HH11	12:m:71:ARG:HG3	1.84	0.42
12:m:75:MET:HE2	12:m:77:VAL:CG1	2.50	0.42
14:o:31:ASN:OD1	14:o:188:ARG:NH2	2.52	0.42
31:F:241:ALA:HB2	31:F:248:PHE:CE2	2.53	0.42
32:U:136:LYS:HB2	32:U:136:LYS:HE3	1.77	0.42
32:U:212:ASP:C	32:U:212:ASP:OD1	2.62	0.42
32:U:650:TYR:HE2	32:U:685:GLN:HE21	1.67	0.42
1:A:135:GLU:OE1	1:A:138:MET:HE1	2.19	0.42
2:B:253:SER:HB2	3:C:275:GLU:OE2	2.20	0.42
2:B:288:ASP:O	2:B:288:ASP:OD1	2.37	0.42
2:B:397:ALA:CA	2:B:400:THR:HG22	2.49	0.42
2:B:412:MET:CE	2:B:413:LYS:HG3	2.49	0.42
3:C:115:ALA:C	3:C:116:LEU:HD22	2.45	0.42
3:C:224:ILE:HD12	3:C:233:GLU:OE1	2.20	0.42
3:C:226:GLU:H	3:C:226:GLU:HG3	1.63	0.42
3:C:250:GLU:HG2	3:C:251:ILE:H	1.84	0.42
4:D:125:LYS:HB3	4:D:126:PRO:HD2	2.01	0.42
4:D:415:GLU:OE1	4:D:415:GLU:CA	2.67	0.42
5:E:116:ASP:OD1	5:E:117:PRO:CD	2.68	0.42
5:E:245:GLU:O	5:E:245:GLU:CG	2.67	0.42
10:K:231:LYS:O	10:K:235:GLU:HG3	2.19	0.42
14:O:3:THR:HG23	14:O:3:THR:O	2.18	0.42
14:O:192:VAL:O	14:O:192:VAL:HG12	2.19	0.42
15:P:36:THR:O	15:P:36:THR:CG2	2.67	0.42
15:P:141:CYS:HB3	15:P:177:ASP:HB2	2.02	0.42
16:Q:13:VAL:O	16:Q:13:VAL:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:79:VAL:HG11	20:V:120:PHE:CE1	2.54	0.42
20:V:338:LEU:O	20:V:401:ASN:ND2	2.52	0.42
21:W:326:MET:SD	21:W:327:GLU:N	2.92	0.42
21:W:373:ILE:HD12	21:W:374:THR:N	2.35	0.42
22:X:171:LEU:HD11	22:X:210:LEU:HA	2.00	0.42
23:Y:118:GLU:O	23:Y:122:THR:HG22	2.20	0.42
23:Y:236:LEU:HB3	23:Y:241:ILE:HD11	2.02	0.42
25:a:77:VAL:CG1	25:a:113:LEU:HD13	2.48	0.42
27:c:63:ASP:OD2	32:U:541:HIS:HA	2.19	0.42
28:d:52:ARG:O	28:d:56:GLU:HG3	2.20	0.42
28:d:235:THR:CA	28:d:238:PRO:HD2	2.49	0.42
30:f:655:LEU:HA	30:f:659:LEU:HD12	2.00	0.42
30:f:671:ALA:O	30:f:674:THR:HG22	2.19	0.42
30:f:821:LEU:HD21	30:f:882:LEU:CD2	2.49	0.42
14:o:135:ALA:HB1	14:o:159:ALA:HB1	2.02	0.42
19:t:43:MET:SD	19:t:64:LYS:HG2	2.59	0.42
31:F:187:ASP:O	31:F:187:ASP:OD1	2.37	0.42
32:U:465:LEU:HB3	32:U:496:LEU:HD21	2.01	0.42
32:U:775:LEU:O	32:U:775:LEU:CD2	2.67	0.42
1:A:153:LEU:CD2	1:A:154:PRO:HD2	2.48	0.42
2:B:94:GLU:HG3	2:B:98:LYS:HZ3	1.84	0.42
2:B:133:VAL:HB	2:B:158:ALA:HA	2.01	0.42
2:B:139:VAL:HG11	2:B:159:VAL:HG12	2.01	0.42
2:B:201:VAL:HG11	2:B:328:ILE:HD11	2.01	0.42
2:B:347:ILE:O	2:B:347:ILE:CG1	2.67	0.42
2:B:355:LEU:HD23	2:B:355:LEU:HA	1.84	0.42
4:D:133:HIS:HB3	4:D:136:SER:O	2.19	0.42
5:E:241:ARG:N	31:F:304:ARG:HH12	2.06	0.42
5:E:328:TYR:O	5:E:332:VAL:HG23	2.20	0.42
7:H:159:ALA:O	8:I:55:LEU:HD13	2.20	0.42
12:M:108:LEU:HD23	12:M:147:GLN:HB3	2.00	0.42
21:W:87:ILE:HD11	21:W:104:MET:CE	2.50	0.42
21:W:370:TYR:CE1	25:a:326:GLU:OE1	2.72	0.42
22:X:422:THR:HA	24:Z:283:ARG:NE	2.34	0.42
23:Y:214:MET:HE1	23:Y:222:TYR:CG	2.54	0.42
24:Z:134:PRO:HG2	27:c:220:LEU:HD13	2.02	0.42
24:Z:165:GLU:HG3	24:Z:166:GLU:H	1.83	0.42
25:a:186:LYS:C	25:a:188:LEU:HD22	2.44	0.42
26:b:21:PHE:HA	26:b:177:PRO:HA	2.00	0.42
28:d:71:PHE:HZ	28:d:101:LEU:HD22	1.84	0.42
28:d:89:LEU:HD13	28:d:91:GLU:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:155:LYS:HD3	28:d:167:ILE:CG2	2.49	0.42
30:f:222:ASP:OD1	30:f:222:ASP:N	2.49	0.42
30:f:320:ILE:HA	30:f:324:VAL:HG21	2.00	0.42
30:f:513:GLU:OE2	30:f:514:VAL:HG23	2.19	0.42
30:f:631:LYS:O	30:f:635:LYS:HD3	2.19	0.42
31:F:168:TYR:HD2	31:F:173:LYS:HZ1	1.68	0.42
31:F:198:LEU:CD1	31:F:223:VAL:HG11	2.44	0.42
1:A:365:GLU:C	1:A:366:ARG:HD3	2.44	0.42
2:B:68:ILE:HD12	2:B:68:ILE:N	2.31	0.42
3:C:138:MET:HA	3:C:138:MET:CE	2.50	0.42
3:C:391:MET:HE2	3:C:391:MET:HB2	1.79	0.42
4:D:98:GLN:OE1	4:D:98:GLN:HA	2.18	0.42
4:D:339:ARG:HH22	4:D:343:LEU:CG	2.31	0.42
4:D:392:TYR:CZ	21:W:136:ILE:HD12	2.54	0.42
5:E:122:MET:HE1	5:E:218:MET:SD	2.60	0.42
5:E:197:LYS:HE2	31:F:320:PHE:CD1	2.55	0.42
5:E:261:LEU:HD21	5:E:288:ALA:CB	2.49	0.42
16:Q:15:VAL:HG23	16:Q:35:MET:HE2	2.01	0.42
21:W:359:VAL:CG2	21:W:382:LEU:HD22	2.49	0.42
22:X:114:ILE:O	22:X:118:LYS:HG3	2.19	0.42
22:X:397:TYR:HE2	23:Y:369:THR:HG21	1.85	0.42
25:a:180:LEU:HD11	25:a:222:LEU:CD2	2.50	0.42
26:b:16:MET:HG3	26:b:16:MET:O	2.18	0.42
26:b:161:ASN:O	26:b:165:GLY:N	2.50	0.42
28:d:95:MET:CA	28:d:95:MET:CE	2.92	0.42
30:f:304:PHE:CZ	30:f:311:VAL:HG11	2.54	0.42
30:f:507:ASP:OD1	30:f:509:LYS:HG2	2.19	0.42
12:m:50:GLU:OE2	12:m:201:HIS:ND1	2.45	0.42
18:s:83:MET:HE2	18:s:88:ILE:HG12	2.01	0.42
32:U:458:ILE:HD11	32:U:485:ALA:HB2	2.02	0.42
32:U:789:ILE:HD12	32:U:911:ILE:HD13	2.02	0.42
1:A:121:PHE:CD2	1:A:121:PHE:N	2.88	0.42
1:A:347:ASP:OD1	1:A:347:ASP:N	2.39	0.42
2:B:136:LEU:HD13	2:B:136:LEU:HA	1.92	0.42
2:B:156:VAL:O	2:B:156:VAL:HG12	2.19	0.42
2:B:223:ILE:HA	2:B:329:MET:O	2.20	0.42
2:B:333:ARG:O	2:B:336:THR:HG22	2.19	0.42
2:B:359:LYS:NZ	2:B:359:LYS:HB3	2.35	0.42
3:C:19:GLY:HA3	32:U:146:LYS:HE3	1.99	0.42
3:C:214:VAL:CG1	3:C:248:MET:HG2	2.50	0.42
3:C:250:GLU:CG	3:C:269:VAL:HG21	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:359:VAL:C	3:C:361:GLY:H	2.27	0.42
4:D:125:LYS:HE2	4:D:125:LYS:HB2	1.80	0.42
4:D:227:PHE:CD1	4:D:261:ILE:HB	2.55	0.42
4:D:244:PRO:HA	4:D:247:VAL:HG12	2.02	0.42
4:D:290:LEU:HD23	4:D:290:LEU:HA	1.81	0.42
5:E:66:GLU:HB3	5:E:67:GLU:OE2	2.20	0.42
5:E:342:ASP:O	5:E:346:VAL:HG23	2.19	0.42
12:M:179:LEU:O	12:M:180:GLN:C	2.63	0.42
18:S:80:ASN:OD1	18:S:80:ASN:N	2.52	0.42
20:V:230:PHE:C	20:V:230:PHE:CD1	2.97	0.42
20:V:232:HIS:CE1	20:V:254:LEU:HD21	2.55	0.42
20:V:349:ARG:HA	20:V:354:LYS:HD3	2.02	0.42
20:V:407:VAL:O	20:V:410:ILE:HG22	2.20	0.42
21:W:45:GLU:HA	21:W:48:LEU:HD23	2.01	0.42
21:W:121:LYS:HD2	21:W:122:LEU:N	2.35	0.42
21:W:254:PRO:CA	21:W:262:LYS:HZ3	2.33	0.42
22:X:358:LYS:HA	22:X:361:VAL:CG1	2.49	0.42
22:X:393:VAL:O	22:X:393:VAL:HG22	2.20	0.42
23:Y:117:LYS:HB2	23:Y:121:LEU:HD11	2.02	0.42
23:Y:281:GLU:OE1	23:Y:282:MET:N	2.52	0.42
23:Y:379:ARG:HG2	23:Y:379:ARG:NH1	2.32	0.42
24:Z:34:ARG:HH12	24:Z:102:HIS:HB2	1.84	0.42
25:a:68:GLU:HG2	25:a:70:ARG:HG2	2.01	0.42
25:a:166:ILE:O	25:a:166:ILE:HG13	2.20	0.42
25:a:288:HIS:O	25:a:289:ARG:C	2.62	0.42
26:b:16:MET:O	26:b:16:MET:CG	2.68	0.42
26:b:101:GLN:HG3	26:b:102:GLY:H	1.85	0.42
26:b:110:ILE:CD1	26:b:110:ILE:O	2.64	0.42
26:b:128:ALA:HB2	26:b:156:PHE:CD1	2.55	0.42
26:b:135:LYS:N	26:b:135:LYS:CD	2.82	0.42
27:c:208:ARG:C	27:c:208:ARG:CD	2.93	0.42
27:c:261:GLU:OE1	27:c:261:GLU:N	2.52	0.42
28:d:52:ARG:HA	28:d:81:TYR:CE2	2.54	0.42
28:d:53:ASP:O	28:d:57:ILE:HG22	2.20	0.42
29:e:19:PHE:N	29:e:19:PHE:CD1	2.83	0.42
29:e:37:HIS:O	29:e:37:HIS:ND1	2.53	0.42
30:f:32:GLU:HB3	30:f:33:ARG:HH21	1.85	0.42
30:f:505:MET:HE1	30:f:519:ALA:HA	2.01	0.42
12:m:35:THR:HG21	12:m:200:VAL:HG21	2.01	0.42
12:m:51:LYS:NZ	12:m:62:SER:O	2.49	0.42
19:t:189:ILE:HD12	19:t:203:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:F:198:LEU:HD22	31:F:236:LEU:HG	2.02	0.42
31:F:221:LYS:NZ	31:F:327:LYS:HE3	2.34	0.42
31:F:358:ASN:O	31:F:362:ARG:NH1	2.50	0.42
31:F:382:GLU:OE1	31:F:382:GLU:CA	2.63	0.42
32:U:805:ASN:OD1	32:U:893:THR:OG1	2.36	0.42
1:A:110:LYS:HE3	1:A:110:LYS:HB2	1.81	0.42
1:A:277:ILE:HG23	1:A:277:ILE:O	2.20	0.42
2:B:116:ILE:CG1	2:B:117:ASP:H	2.33	0.42
2:B:150:VAL:HG12	2:B:152:LEU:CD2	2.50	0.42
2:B:249:ARG:HG3	2:B:283:PHE:HD2	1.85	0.42
3:C:49:ARG:NE	4:D:64:GLU:OE1	2.46	0.42
3:C:75:GLU:OE1	3:C:76:VAL:N	2.53	0.42
3:C:165:ILE:CD1	3:C:290:LYS:HD3	2.50	0.42
3:C:373:GLU:OE1	3:C:373:GLU:O	2.38	0.42
3:C:392:GLN:OE1	22:X:199:ALA:HB2	2.20	0.42
4:D:412:GLN:O	4:D:413:GLU:HB2	2.19	0.42
5:E:135:ILE:HD12	5:E:183:LEU:HB2	2.02	0.42
5:E:158:LEU:HD22	21:W:137:TYR:HE2	1.85	0.42
5:E:300:HIS:ND1	5:E:300:HIS:C	2.75	0.42
5:E:304:PRO:CD	5:E:339:ASN:O	2.68	0.42
6:G:50:ILE:HG21	6:G:79:VAL:HB	2.02	0.42
6:G:201:CYS:O	6:G:205:VAL:HG13	2.20	0.42
11:L:200:PRO:O	11:L:202:GLU:N	2.53	0.42
14:O:36:HIS:CB	14:O:57:THR:HG21	2.50	0.42
20:V:83:GLU:HA	20:V:86:VAL:CG2	2.49	0.42
21:W:282:GLU:HA	21:W:282:GLU:OE1	2.20	0.42
21:W:417:ARG:H	21:W:417:ARG:HG2	1.71	0.42
24:Z:164:ALA:HB1	24:Z:169:GLU:HG2	1.98	0.42
25:a:48:PRO:HG2	25:a:51:ALA:HB2	2.02	0.42
25:a:325:ASP:OD1	25:a:325:ASP:N	2.52	0.42
26:b:6:THR:O	26:b:49:VAL:HA	2.20	0.42
26:b:119:ASP:HB2	26:b:124:LEU:CD2	2.49	0.42
26:b:134:GLU:O	26:b:135:LYS:C	2.62	0.42
26:b:153:LEU:O	26:b:156:PHE:N	2.47	0.42
26:b:188:ILE:H	26:b:188:ILE:CD1	2.30	0.42
27:c:53:VAL:O	27:c:113:HIS:HA	2.20	0.42
28:d:1:MET:O	28:d:1:MET:HG2	2.20	0.42
28:d:75:MET:HA	28:d:78:LEU:CD1	2.48	0.42
29:e:21:GLU:HG3	29:e:22:PHE:N	2.34	0.42
30:f:297:MET:HE1	30:f:456:ARG:NH2	2.34	0.42
30:f:519:ALA:HA	30:f:522:CYS:SG	2.59	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:h:218:ARG:NH2	7:h:224:GLU:OE1	2.45	0.42
17:r:5:LEU:C	17:r:5:LEU:HD12	2.45	0.42
32:U:358:ASP:OD1	32:U:359:ALA:N	2.52	0.42
32:U:549:ALA:HA	32:U:581:SER:OG	2.20	0.42
32:U:552:ILE:CD1	32:U:566:LEU:HD21	2.42	0.42
1:A:123:VAL:HG12	1:A:147:TYR:O	2.19	0.42
1:A:170:PRO:CB	1:A:227:ARG:HG3	2.50	0.42
1:A:255:ARG:NH1	1:A:255:ARG:HB3	2.35	0.42
1:A:263:MET:HG2	1:A:267:LYS:HE2	2.01	0.42
1:A:301:GLU:OE1	1:A:305:GLN:HG3	2.20	0.42
1:A:394:MET:HE2	2:B:219:PRO:CD	2.49	0.42
2:B:156:VAL:O	2:B:157:HIS:C	2.62	0.42
2:B:234:LEU:HD12	2:B:234:LEU:O	2.20	0.42
3:C:137:LEU:HD23	3:C:138:MET:CE	2.46	0.42
4:D:230:VAL:HG22	4:D:264:ILE:HA	2.00	0.42
4:D:264:ILE:HG21	4:D:267:ILE:HD13	2.02	0.42
4:D:303:VAL:O	4:D:303:VAL:HG13	2.18	0.42
5:E:264:MET:SD	5:E:275:MET:SD	3.17	0.42
10:K:20:ARG:NH1	31:F:433:ALA:O	2.52	0.42
10:K:141:LEU:HD12	10:K:156:MET:CE	2.50	0.42
13:N:93:GLU:OE2	13:N:93:GLU:HA	2.19	0.42
21:W:55:ARG:HH12	21:W:93:ARG:HB3	1.84	0.42
21:W:131:VAL:HG13	21:W:132:THR:N	2.34	0.42
21:W:265:GLN:HG2	21:W:336:PRO:HG3	2.01	0.42
21:W:291:SER:OG	21:W:305:LEU:HD21	2.20	0.42
21:W:359:VAL:HG22	21:W:382:LEU:HD13	2.01	0.42
21:W:382:LEU:C	21:W:384:LEU:HD12	2.45	0.42
23:Y:279:GLU:OE1	23:Y:292:TYR:HD2	2.02	0.42
23:Y:308:LEU:HD11	23:Y:314:LEU:HD21	2.01	0.42
24:Z:250:TYR:CA	24:Z:253:THR:HG22	2.46	0.42
25:a:37:LEU:HA	25:a:40:GLN:HE22	1.84	0.42
25:a:61:GLU:HA	25:a:64:ILE:CD1	2.50	0.42
25:a:77:VAL:O	25:a:81:LEU:HD23	2.19	0.42
25:a:79:ILE:CG2	25:a:80:ILE:CD1	2.98	0.42
25:a:90:PRO:CB	25:a:121:LEU:HD11	2.43	0.42
25:a:156:TYR:O	25:a:160:SER:HB3	2.19	0.42
25:a:244:ASN:C	25:a:272:ILE:HD11	2.45	0.42
27:c:120:CYS:HA	27:c:144:VAL:HG11	2.01	0.42
28:d:50:LEU:H	28:d:50:LEU:CD2	2.28	0.42
30:f:127:SER:HA	30:f:131:MET:SD	2.60	0.42
30:f:209:MET:HE2	30:f:213:GLN:HE21	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:241:PRO:HA	30:f:244:GLU:OE1	2.20	0.42
30:f:270:LEU:HB2	30:f:271:MET:HE1	1.98	0.42
30:f:557:TRP:C	30:f:560:LEU:HG	2.45	0.42
30:f:827:PRO:HB3	30:f:860:LYS:CE	2.50	0.42
9:j:93:SER:O	9:j:97:THR:HG23	2.20	0.42
15:p:93:LEU:O	15:p:93:LEU:HD23	2.19	0.42
18:s:12:ILE:HG21	18:s:109:ILE:HB	2.02	0.42
18:s:186:ASP:OD1	18:s:187:VAL:N	2.53	0.42
32:U:208:LEU:HD12	32:U:209:GLU:H	1.85	0.42
32:U:475:HIS:CE1	32:U:511:ALA:H	2.38	0.42
32:U:475:HIS:HA	32:U:511:ALA:CB	2.50	0.42
1:A:87:LEU:HA	1:A:87:LEU:HD23	1.77	0.41
1:A:183:GLN:HG3	1:A:341:ILE:HG23	2.02	0.41
2:B:175:LYS:HD2	2:B:175:LYS:HA	1.90	0.41
2:B:175:LYS:O	2:B:176:VAL:C	2.63	0.41
2:B:393:ALA:HB1	3:C:307:ARG:NH1	2.35	0.41
3:C:76:VAL:O	3:C:76:VAL:CG1	2.66	0.41
4:D:77:GLU:HG2	27:c:152:LYS:HG3	2.02	0.41
4:D:145:PRO:HB2	4:D:256:GLU:HG3	2.02	0.41
4:D:168:GLY:N	33:D:501:ATP:HN62	2.18	0.41
4:D:200:ARG:NH1	4:D:200:ARG:CG	2.81	0.41
5:E:66:GLU:OE1	5:E:66:GLU:HA	2.19	0.41
5:E:291:ARG:HG2	5:E:292:PRO:O	2.20	0.41
7:H:74:VAL:HG22	7:H:75:TYR:N	2.34	0.41
20:V:236:ARG:O	20:V:240:LEU:HD23	2.19	0.41
20:V:258:TYR:CE1	20:V:266:GLN:HG3	2.54	0.41
20:V:496:PHE:H	20:V:497:PRO:HD2	1.82	0.41
21:W:62:SER:O	21:W:66:ILE:HG12	2.20	0.41
21:W:94:ARG:HA	21:W:94:ARG:NE	2.35	0.41
22:X:262:ASN:C	22:X:264:PRO:HD3	2.45	0.41
24:Z:73:ASP:HB2	26:b:63:THR:CG2	2.50	0.41
24:Z:256:GLN:HG2	27:c:237:HIS:HE1	1.84	0.41
25:a:31:LYS:O	25:a:32:LYS:HB2	2.19	0.41
26:b:7:MET:CE	26:b:52:ILE:CD1	2.97	0.41
27:c:68:ARG:O	27:c:68:ARG:HG3	2.19	0.41
28:d:44:THR:OG1	28:d:44:THR:O	2.38	0.41
28:d:55:LEU:HD12	28:d:55:LEU:HA	1.76	0.41
28:d:181:CYS:HA	28:d:184:LYS:NZ	2.35	0.41
30:f:346:ASP:OD1	30:f:346:ASP:N	2.53	0.41
30:f:474:SER:HB3	30:f:477:MET:CE	2.50	0.41
30:f:670:MET:HA	30:f:672:LEU:CD1	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:57:THR:HG23	15:p:58:ASP:N	2.35	0.41
31:F:366:MET:CE	31:F:399:VAL:HG11	2.50	0.41
31:F:379:VAL:O	31:F:379:VAL:HG12	2.20	0.41
32:U:505:ASP:OD1	32:U:506:ALA:N	2.52	0.41
32:U:537:GLN:OE1	32:U:537:GLN:HA	2.19	0.41
1:A:99:THR:OG1	1:A:113:ILE:HG12	2.20	0.41
1:A:108:ASP:CB	1:A:109:PRO:CD	2.97	0.41
1:A:397:ILE:CG1	2:B:210:TYR:HB3	2.50	0.41
2:B:209:GLU:O	2:B:212:GLU:HB2	2.21	0.41
2:B:245:ALA:HB1	2:B:279:PRO:O	2.19	0.41
3:C:44:ARG:NH1	3:C:44:ARG:C	2.76	0.41
4:D:226:ALA:O	4:D:260:ALA:HA	2.19	0.41
5:E:242:ARG:NE	5:E:286:ASP:OD2	2.52	0.41
5:E:353:PHE:HE2	5:E:369:LYS:O	2.03	0.41
12:M:17:ASP:OD1	12:M:17:ASP:N	2.45	0.41
14:O:136:MET:O	14:O:140:GLU:HG2	2.20	0.41
21:W:88:MET:HE3	21:W:88:MET:HB3	1.84	0.41
21:W:378:MET:CE	21:W:393:LEU:HD22	2.50	0.41
22:X:171:LEU:HD23	22:X:171:LEU:HA	1.90	0.41
22:X:256:LEU:HD13	22:X:319:ILE:HD13	1.95	0.41
22:X:327:TYR:CD2	22:X:327:TYR:C	2.97	0.41
23:Y:45:VAL:HG23	23:Y:46:ARG:N	2.35	0.41
23:Y:117:LYS:HE2	23:Y:151:TYR:HD1	1.81	0.41
23:Y:149:LEU:CA	23:Y:157:ILE:HD11	2.50	0.41
23:Y:193:ASP:OD2	23:Y:193:ASP:C	2.64	0.41
23:Y:205:VAL:HA	23:Y:219:PHE:HE1	1.84	0.41
24:Z:39:LEU:HD23	24:Z:39:LEU:HA	1.83	0.41
24:Z:88:ARG:HD2	24:Z:88:ARG:C	2.43	0.41
24:Z:131:LEU:HD23	24:Z:132:GLY:H	1.85	0.41
25:a:34:TRP:HZ3	26:b:19:GLY:N	2.17	0.41
26:b:19:GLY:N	26:b:24:THR:HG22	2.35	0.41
26:b:120:ASN:OD1	26:b:120:ASN:C	2.63	0.41
28:d:25:ARG:HG3	28:d:54:ILE:HD13	2.01	0.41
28:d:34:ASN:OD1	28:d:34:ASN:N	2.40	0.41
28:d:130:ASN:C	28:d:132:TYR:N	2.77	0.41
28:d:171:LEU:N	28:d:171:LEU:HD23	2.34	0.41
30:f:65:GLU:HB3	30:f:97:LYS:CE	2.49	0.41
30:f:83:ARG:HG3	30:f:84:SER:N	2.35	0.41
30:f:524:MET:HE2	30:f:524:MET:C	2.45	0.41
30:f:736:THR:OG1	30:f:746:ARG:NH2	2.49	0.41
30:f:746:ARG:HA	30:f:750:GLN:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:760:PHE:HD1	30:f:806:VAL:HG11	1.82	0.41
9:j:5:ARG:O	9:j:123:GLY:N	2.51	0.41
10:k:180:SER:HB2	10:k:201:ILE:HD13	2.02	0.41
31:F:405:MET:HE3	31:F:405:MET:HB3	1.86	0.41
32:U:61:ALA:HA	32:U:64:ALA:HB3	2.02	0.41
32:U:449:ILE:HG12	32:U:450:HIS:CD2	2.50	0.41
32:U:514:LEU:CD1	32:U:550:VAL:HB	2.50	0.41
32:U:524:LYS:O	32:U:524:LYS:HG3	2.20	0.41
1:A:222:LYS:N	33:A:501:ATP:O2B	2.54	0.41
1:A:309:PHE:CE1	31:F:238:ARG:HG3	2.55	0.41
2:B:170:LEU:HD11	2:B:174:MET:CE	2.49	0.41
2:B:212:GLU:CG	30:f:845:ARG:HG3	2.49	0.41
4:D:154:LEU:O	4:D:155:THR:C	2.63	0.41
4:D:172:ILE:HG23	4:D:173:GLN:OE1	2.21	0.41
4:D:339:ARG:HH12	4:D:343:LEU:HD12	1.86	0.41
5:E:173:TYR:CG	5:E:282:PRO:HG3	2.55	0.41
5:E:322:LYS:HE3	5:E:322:LYS:HB2	1.84	0.41
9:J:144:LEU:HD13	9:J:145:TYR:N	2.35	0.41
13:N:136:ILE:O	13:N:140:VAL:HG13	2.20	0.41
16:Q:96:THR:O	16:Q:96:THR:OG1	2.26	0.41
20:V:349:ARG:CG	20:V:354:LYS:HE2	2.50	0.41
21:W:74:CYS:HB3	21:W:83:LEU:HD13	2.01	0.41
21:W:112:VAL:HG23	21:W:120:ILE:CG1	2.49	0.41
21:W:169:LEU:HG	21:W:173:THR:OG1	2.20	0.41
21:W:229:LEU:H	21:W:229:LEU:CD2	2.27	0.41
22:X:200:ILE:N	22:X:200:ILE:CD1	2.84	0.41
22:X:339:ILE:C	22:X:341:PRO:HD2	2.45	0.41
22:X:358:LYS:HA	22:X:361:VAL:HG12	2.02	0.41
23:Y:178:ASN:HD22	23:Y:178:ASN:HA	1.56	0.41
23:Y:236:LEU:HD22	23:Y:240:VAL:CG2	2.50	0.41
23:Y:275:LEU:CA	23:Y:278:VAL:HG12	2.50	0.41
24:Z:278:ASN:OD1	24:Z:278:ASN:C	2.63	0.41
26:b:126:LYS:HA	26:b:129:LYS:HB2	2.02	0.41
28:d:79:LYS:HB3	28:d:79:LYS:HE3	1.85	0.41
30:f:106:LEU:CD1	30:f:109:ILE:HG21	2.51	0.41
30:f:190:GLU:CD	30:f:197:ALA:HB2	2.46	0.41
30:f:275:MET:N	30:f:275:MET:SD	2.92	0.41
30:f:680:ARG:HD3	30:f:760:PHE:HE2	1.82	0.41
8:i:37:ILE:HD12	8:i:193:ALA:HB2	2.03	0.41
15:p:44:MET:HE2	15:p:66:LEU:CD2	2.51	0.41
31:F:326:VAL:O	31:F:326:VAL:CG1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:147:TYR:CE2	32:U:169:GLU:HB2	2.55	0.41
32:U:339:LEU:HD22	32:U:414:GLY:O	2.20	0.41
32:U:475:HIS:CE1	32:U:510:GLU:HB2	2.54	0.41
32:U:505:ASP:O	32:U:508:THR:HG22	2.20	0.41
32:U:672:LEU:HD11	32:U:690:ALA:HB1	2.03	0.41
32:U:695:MET:HA	32:U:698:GLN:OE1	2.20	0.41
32:U:800:VAL:HG22	32:U:880:ASN:HD21	1.82	0.41
32:U:803:LYS:NZ	32:U:875:PHE:HB3	2.34	0.41
2:B:67:ARG:HB3	30:f:646:MET:CE	2.50	0.41
2:B:343:ARG:HE	2:B:346:ARG:HH12	1.68	0.41
3:C:24:TYR:CE2	32:U:153:ILE:HD11	2.47	0.41
3:C:57:ARG:HH22	32:U:649:ARG:NH1	2.09	0.41
3:C:329:LEU:HD22	3:C:344:LEU:HD13	2.03	0.41
4:D:403:TYR:CZ	4:D:407:ILE:HG21	2.55	0.41
5:E:88:ASP:OD1	5:E:88:ASP:O	2.37	0.41
5:E:302:ASP:OD1	5:E:303:LEU:N	2.54	0.41
6:G:7:ALA:N	6:G:10:ASP:OD2	2.42	0.41
17:R:2:THR:OG1	36:R:301:LDZ:O33	2.36	0.41
20:V:208:ALA:O	20:V:211:TYR:HB2	2.20	0.41
21:W:67:LEU:HD11	21:W:90:LEU:HB3	2.02	0.41
21:W:78:LYS:N	21:W:78:LYS:HD2	2.35	0.41
21:W:132:THR:HG23	21:W:133:GLU:N	2.35	0.41
22:X:167:VAL:HG12	22:X:206:LEU:HD13	2.02	0.41
22:X:304:LYS:HG3	22:X:305:ALA:N	2.35	0.41
22:X:395:LYS:HD3	22:X:395:LYS:HA	1.76	0.41
24:Z:11:VAL:HG13	24:Z:50:VAL:HG21	2.01	0.41
24:Z:206:LEU:HA	24:Z:206:LEU:HD23	1.81	0.41
25:a:184:ASP:C	25:a:185:ILE:HG13	2.45	0.41
26:b:180:ALA:O	26:b:181:ASP:OD1	2.37	0.41
27:c:269:GLN:O	27:c:272:ILE:HG22	2.20	0.41
27:c:299:CYS:O	27:c:303:MET:HE1	2.20	0.41
28:d:180:GLY:O	28:d:183:GLU:HB2	2.21	0.41
30:f:706:ILE:HG12	30:f:745:LEU:HD13	2.03	0.41
30:f:789:SER:O	30:f:796:LEU:HD22	2.21	0.41
17:r:52:ASP:OD1	17:r:52:ASP:N	2.50	0.41
31:F:365:ILE:HG13	35:F:501:ADP:N1	2.35	0.41
32:U:241:ASN:OD1	32:U:243:LEU:N	2.42	0.41
32:U:252:LEU:HD12	32:U:252:LEU:O	2.21	0.41
32:U:352:ILE:HG21	32:U:376:MET:CE	2.43	0.41
32:U:422:LEU:HG	32:U:423:MET:HE3	1.94	0.41
32:U:554:LEU:HD12	32:U:554:LEU:HA	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:705:LYS:O	32:U:708:GLN:HG3	2.20	0.41
32:U:800:VAL:HG22	32:U:880:ASN:CG	2.45	0.41
1:A:156:LYS:HD3	1:A:157:ILE:N	2.36	0.41
1:A:183:GLN:N	1:A:183:GLN:OE1	2.53	0.41
1:A:337:LEU:HD12	1:A:337:LEU:HA	1.83	0.41
2:B:176:VAL:HG21	2:B:247:PHE:HD1	1.85	0.41
2:B:212:GLU:HG2	30:f:845:ARG:CG	2.49	0.41
2:B:220:LYS:HZ3	2:B:220:LYS:HB3	1.86	0.41
2:B:233:THR:O	2:B:237:LYS:HG2	2.21	0.41
2:B:400:THR:HA	3:C:180:ILE:HG23	2.02	0.41
2:B:408:ARG:HE	3:C:163:GLU:CD	2.28	0.41
4:D:122:GLU:OE2	27:c:279:ASP:N	2.54	0.41
4:D:153:MET:HE2	4:D:229:ARG:HB2	2.01	0.41
5:E:47:LEU:O	5:E:51:GLN:NE2	2.54	0.41
20:V:166:TYR:CD1	20:V:166:TYR:C	2.98	0.41
21:W:326:MET:HE2	21:W:326:MET:C	2.46	0.41
21:W:372:ARG:NH2	25:a:327:VAL:HG21	2.34	0.41
22:X:339:ILE:HD11	22:X:350:ILE:HD12	1.99	0.41
22:X:405:GLN:HG3	22:X:406:ASN:N	2.36	0.41
23:Y:149:LEU:HA	23:Y:157:ILE:HD11	2.03	0.41
23:Y:214:MET:HE3	23:Y:214:MET:HB2	1.94	0.41
25:a:78:GLU:O	25:a:81:LEU:HG	2.20	0.41
25:a:132:LYS:HA	25:a:135:ILE:HG22	2.02	0.41
25:a:361:LYS:HD3	25:a:361:LYS:C	2.45	0.41
26:b:44:ASN:C	26:b:46:GLU:H	2.27	0.41
26:b:179:LEU:CD1	26:b:181:ASP:H	2.33	0.41
28:d:67:ASP:HB2	28:d:70:SER:HB2	2.02	0.41
30:f:56:LEU:HD23	30:f:56:LEU:HA	1.90	0.41
30:f:438:ASP:C	30:f:441:LYS:HG2	2.46	0.41
30:f:687:ARG:C	30:f:691:PRO:HG2	2.46	0.41
15:p:33:MET:HG3	15:p:182:MET:HE3	2.02	0.41
32:U:31:VAL:O	32:U:31:VAL:HG13	2.20	0.41
32:U:345:ASN:OD1	32:U:345:ASN:N	2.52	0.41
32:U:365:CYS:O	32:U:369:THR:N	2.47	0.41
32:U:600:ARG:HG2	32:U:600:ARG:HH11	1.86	0.41
32:U:804:SER:HA	32:U:892:LEU:HA	2.01	0.41
1:A:259:GLU:OE1	1:A:259:GLU:CA	2.66	0.41
3:C:80:MET:HB2	3:C:84:LYS:O	2.20	0.41
3:C:115:ALA:C	3:C:116:LEU:HD13	2.46	0.41
4:D:322:LEU:HD23	4:D:327:LEU:HD21	2.03	0.41
5:E:270:LEU:HD23	5:E:270:LEU:C	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:L:70:ILE:HG12	11:L:105:VAL:HG22	2.03	0.41
12:M:202:ASP:OD2	12:M:204:VAL:N	2.53	0.41
18:S:148:LEU:HD12	18:S:178:VAL:CG1	2.51	0.41
21:W:254:PRO:HA	21:W:257:GLN:C	2.44	0.41
21:W:307:LYS:O	21:W:315:MET:HE3	2.21	0.41
21:W:326:MET:CE	21:W:331:GLY:HA3	2.48	0.41
22:X:96:PHE:CE2	22:X:109:LEU:HD23	2.55	0.41
23:Y:150:PHE:HD1	23:Y:150:PHE:O	2.04	0.41
23:Y:258:GLN:O	23:Y:262:SER:HB3	2.20	0.41
23:Y:282:MET:CG	23:Y:288:PHE:HB3	2.37	0.41
23:Y:325:VAL:HG22	29:e:60:LEU:HD13	2.03	0.41
24:Z:19:VAL:HG13	24:Z:95:TYR:HE2	1.86	0.41
24:Z:214:LYS:HE3	25:a:346:ILE:HD13	2.02	0.41
24:Z:261:TYR:C	24:Z:261:TYR:CD1	2.99	0.41
25:a:115:LYS:HA	25:a:115:LYS:HD3	1.89	0.41
25:a:300:ALA:HB3	25:a:302:ILE:HD13	2.02	0.41
26:b:117:VAL:HB	26:b:146:GLU:OE2	2.19	0.41
26:b:135:LYS:HE3	26:b:135:LYS:CA	2.41	0.41
30:f:174:ASP:HB2	30:f:178:LYS:HD2	2.01	0.41
30:f:462:ALA:HB3	30:f:489:TYR:CE1	2.56	0.41
30:f:631:LYS:HA	30:f:634:LYS:HD3	2.03	0.41
30:f:670:MET:C	30:f:672:LEU:HD12	2.45	0.41
30:f:771:LEU:O	30:f:775:THR:HG23	2.20	0.41
30:f:776:LEU:O	30:f:778:LEU:HD23	2.21	0.41
31:F:357:PRO:O	31:F:362:ARG:NH1	2.54	0.41
32:U:15:ASP:H	32:U:20:LYS:NZ	2.18	0.41
32:U:322:THR:HG22	32:U:322:THR:O	2.19	0.41
32:U:567:ILE:HD11	32:U:585:THR:CG2	2.50	0.41
32:U:616:ARG:HD2	32:U:770:TRP:CZ2	2.55	0.41
32:U:680:VAL:HB	32:U:683:VAL:CG1	2.50	0.41
1:A:319:MET:HE1	1:A:337:LEU:HD22	2.01	0.41
2:B:123:VAL:HG13	2:B:133:VAL:CG2	2.50	0.41
2:B:249:ARG:HG3	2:B:283:PHE:CD2	2.55	0.41
3:C:24:TYR:HE1	4:D:40:LEU:C	2.29	0.41
3:C:293:MET:CE	3:C:295:THR:HB	2.50	0.41
4:D:97:ASP:OD1	4:D:100:THR:HB	2.21	0.41
4:D:352:MET:CE	4:D:394:VAL:HG21	2.51	0.41
5:E:177:GLY:HA2	31:F:344:ARG:CD	2.50	0.41
5:E:200:SER:OG	5:E:234:GLU:O	2.28	0.41
6:G:17:SER:OG	6:G:18:PRO:HD2	2.21	0.41
8:I:119:GLN:HA	8:I:122:THR:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:O:56:THR:HG23	14:O:87:MET:HE1	2.02	0.41
20:V:289:LEU:O	20:V:292:THR:HG22	2.21	0.41
21:W:248:ARG:O	21:W:251:TYR:HB3	2.21	0.41
22:X:253:TYR:N	22:X:253:TYR:CD1	2.88	0.41
23:Y:15:PRO:HD3	23:Y:143:TYR:CE1	2.53	0.41
23:Y:239:LYS:HE2	23:Y:239:LYS:CA	2.45	0.41
25:a:39:LEU:HD23	25:a:39:LEU:H	1.85	0.41
25:a:135:ILE:CD1	25:a:159:SER:HB3	2.50	0.41
25:a:185:ILE:HD12	25:a:186:LYS:O	2.21	0.41
27:c:54:MET:HE3	27:c:75:MET:HB2	2.03	0.41
27:c:211:GLU:HB2	32:U:574:LYS:HZ2	1.85	0.41
28:d:9:TRP:H	28:d:9:TRP:HE3	1.67	0.41
28:d:68:ILE:HB	28:d:69:PRO:HD3	2.02	0.41
29:e:39:TRP:HE3	29:e:41:ASP:OD1	2.03	0.41
30:f:141:LYS:O	30:f:144:LEU:HG	2.20	0.41
30:f:292:LYS:O	30:f:292:LYS:CG	2.69	0.41
30:f:669:GLU:OE1	30:f:669:GLU:HA	2.20	0.41
30:f:742:ALA:O	30:f:746:ARG:NE	2.54	0.41
8:i:40:ASN:OD1	8:i:40:ASN:N	2.54	0.41
15:p:148:MET:HE2	18:s:147:PRO:C	2.45	0.41
18:s:68:ILE:HD11	18:s:92:LEU:HD13	2.02	0.41
31:F:138:GLY:HA3	31:F:159:LEU:CD2	2.50	0.41
32:U:182:LYS:HZ1	32:U:183:LEU:N	2.19	0.41
32:U:380:THR:C	32:U:381:THR:HG23	2.45	0.41
32:U:765:VAL:CG1	32:U:775:LEU:CD2	2.98	0.41
1:A:109:PRO:HB2	1:A:110:LYS:H	1.55	0.41
1:A:187:LEU:O	1:A:187:LEU:HG	2.21	0.41
1:A:222:LYS:HB2	1:A:222:LYS:HE3	1.84	0.41
3:C:329:LEU:CD2	3:C:344:LEU:HD22	2.49	0.41
4:D:263:PHE:HA	4:D:308:ILE:O	2.21	0.41
4:D:378:ILE:HD13	4:D:403:TYR:HD1	1.85	0.41
5:E:349:GLU:HG3	5:E:373:LYS:CE	2.50	0.41
6:G:75:ASN:OD1	6:G:75:ASN:N	2.54	0.41
15:P:192:ASP:OD1	15:P:192:ASP:C	2.63	0.41
20:V:298:ILE:HG22	20:V:298:ILE:O	2.19	0.41
20:V:306:ARG:CD	20:V:336:GLU:HG3	2.42	0.41
20:V:381:GLN:HE21	20:V:381:GLN:C	2.25	0.41
20:V:400:HIS:CD2	28:d:145:GLU:HB3	2.46	0.41
21:W:214:PHE:HA	21:W:216:GLU:OE1	2.20	0.41
21:W:393:LEU:HD12	21:W:393:LEU:HA	1.90	0.41
23:Y:326:GLY:HA2	29:e:63:HIS:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Z:214:LYS:HB2	24:Z:219:LYS:HD2	2.02	0.41
25:a:82:HIS:HD2	25:a:85:ARG:NH2	2.17	0.41
25:a:274:LEU:HA	25:a:274:LEU:HD12	1.83	0.41
26:b:183:LEU:O	26:b:183:LEU:HD22	2.21	0.41
27:c:161:ARG:O	27:c:200:TYR:HB2	2.20	0.41
28:d:11:ARG:NE	28:d:11:ARG:HA	2.36	0.41
28:d:63:ILE:HG13	28:d:165:PHE:CD2	2.55	0.41
28:d:169:ILE:HG13	28:d:169:ILE:H	1.67	0.41
28:d:255:MET:HE2	28:d:256:ILE:O	2.21	0.41
29:e:16:ASP:OD1	29:e:16:ASP:N	2.53	0.41
30:f:554:TYR:HD1	30:f:557:TRP:HZ3	1.67	0.41
30:f:729:MET:HE3	30:f:732:VAL:HB	2.02	0.41
11:l:212:ILE:CG2	11:l:214:ILE:HD11	2.49	0.41
13:n:2:THR:HG23	13:n:34:LYS:HZ3	1.86	0.41
31:F:89:LEU:HD21	31:F:126:THR:CB	2.48	0.41
32:U:142:LEU:HD13	32:U:147:TYR:CE1	2.53	0.41
32:U:247:GLN:NE2	32:U:904:LYS:CD	2.76	0.41
32:U:329:LEU:HA	32:U:329:LEU:HD12	1.71	0.41
1:A:205:GLY:C	31:F:373:MET:HB3	2.46	0.41
1:A:333:ARG:NH1	1:A:336:ARG:HG2	2.35	0.41
1:A:411:GLU:HA	1:A:411:GLU:OE1	2.21	0.41
2:B:107:MET:HE3	2:B:107:MET:HB2	2.01	0.41
2:B:116:ILE:HG23	2:B:120:HIS:C	2.46	0.41
2:B:162:VAL:CG1	2:B:163:LEU:N	2.83	0.41
2:B:174:MET:SD	2:B:270:LEU:HD13	2.61	0.41
2:B:176:VAL:HG22	2:B:247:PHE:O	2.20	0.41
2:B:225:TYR:HA	2:B:331:THR:O	2.21	0.41
2:B:256:ILE:HD11	2:B:295:TYR:CD1	2.56	0.41
2:B:293:LYS:HD2	2:B:295:TYR:OH	2.20	0.41
2:B:349:ARG:HG2	2:B:349:ARG:HH11	1.84	0.41
2:B:362:LYS:N	2:B:384:ILE:HD11	2.35	0.41
2:B:363:ARG:NH1	2:B:363:ARG:HB3	2.35	0.41
3:C:20:LEU:HA	3:C:20:LEU:HD22	1.87	0.41
3:C:189:TYR:HA	3:C:295:THR:O	2.21	0.41
4:D:214:MET:HE1	33:D:501:ATP:H2'	2.03	0.41
4:D:251:PHE:CE2	4:D:292:LEU:HD23	2.52	0.41
4:D:276:ASP:HB3	5:E:248:SER:HB2	2.02	0.41
5:E:135:ILE:CD1	5:E:183:LEU:HB2	2.51	0.41
8:I:174:MET:HE3	8:I:196:VAL:HA	2.02	0.41
8:I:194:ILE:HD12	8:I:237:ILE:HD13	2.02	0.41
10:K:171:GLY:N	10:K:174:SER:OG	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:O:109:PRO:O	14:O:110:HIS:ND1	2.54	0.41
14:O:166:ASN:OD1	19:T:148:PRO:HA	2.21	0.41
16:Q:167:LEU:HD23	16:Q:171:PHE:HB2	2.03	0.41
18:S:26:ASP:OD1	18:S:42:LYS:HE3	2.21	0.41
19:T:79:ASP:OD2	11:l:107:ARG:NE	2.54	0.41
20:V:299:GLN:O	20:V:300:LEU:HB2	2.21	0.41
21:W:184:GLU:C	21:W:184:GLU:CD	2.88	0.41
21:W:251:TYR:HD1	21:W:254:PRO:HG2	1.86	0.41
21:W:307:LYS:HG2	21:W:307:LYS:O	2.20	0.41
22:X:165:LEU:HD12	22:X:165:LEU:HA	1.90	0.41
22:X:328:ASP:OD1	22:X:328:ASP:C	2.63	0.41
22:X:364:LYS:O	22:X:368:MET:HG3	2.21	0.41
22:X:406:ASN:HD22	27:c:253:LYS:HB2	1.86	0.41
22:X:412:ASP:OD1	23:Y:379:ARG:NH1	2.54	0.41
23:Y:42:MET:HA	23:Y:42:MET:CE	2.51	0.41
23:Y:134:LEU:HA	23:Y:137:ARG:HG3	2.03	0.41
23:Y:178:ASN:OD1	23:Y:207:THR:HG21	2.21	0.41
23:Y:217:LYS:HZ3	23:Y:217:LYS:HB2	1.86	0.41
23:Y:221:THR:O	23:Y:224:VAL:HG12	2.20	0.41
23:Y:283:LYS:HG2	23:Y:292:TYR:CD1	2.56	0.41
24:Z:11:VAL:CG2	24:Z:135:THR:HG21	2.44	0.41
24:Z:16:LEU:HG	27:c:216:MET:CE	2.49	0.41
24:Z:81:MET:HE1	27:c:94:LYS:NZ	2.35	0.41
24:Z:135:THR:HG22	24:Z:135:THR:O	2.21	0.41
24:Z:215:VAL:HG23	24:Z:216:ALA:N	2.36	0.41
24:Z:272:LEU:HD12	24:Z:272:LEU:HA	1.76	0.41
25:a:229:ASP:OD1	25:a:229:ASP:C	2.64	0.41
26:b:70:ARG:O	26:b:74:LYS:HB2	2.21	0.41
27:c:126:ASP:HA	27:c:129:THR:HG22	2.01	0.41
27:c:139:ARG:HG3	27:c:139:ARG:NH1	2.34	0.41
27:c:291:LEU:HA	27:c:291:LEU:HD23	1.74	0.41
28:d:78:LEU:CD1	28:d:79:LYS:N	2.79	0.41
30:f:171:GLN:OE1	30:f:179:VAL:HG13	2.21	0.41
30:f:265:ALA:HA	30:f:267:ARG:HH11	1.85	0.41
30:f:305:LEU:HD13	30:f:305:LEU:O	2.21	0.41
30:f:407:MET:HE3	30:f:439:TYR:CE2	2.56	0.41
30:f:478:ARG:O	30:f:482:ILE:HG23	2.20	0.41
30:f:499:THR:O	30:f:503:PRO:HD3	2.20	0.41
30:f:626:GLU:O	30:f:627:GLU:HG2	2.21	0.41
30:f:635:LYS:HG2	30:f:635:LYS:H	1.61	0.41
30:f:638:ASP:C	30:f:639:LYS:HG3	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:f:660:ILE:HG23	30:f:669:GLU:OE1	2.21	0.41
30:f:703:ARG:HA	30:f:706:ILE:CD1	2.34	0.41
30:f:707:LEU:HD21	30:f:785:ARG:HD2	2.03	0.41
10:k:199:LEU:HD21	10:k:217:LEU:HD13	2.03	0.41
10:k:201:ILE:O	10:k:205:VAL:HG22	2.20	0.41
11:l:214:ILE:HD13	11:l:214:ILE:N	2.36	0.41
15:p:25:ARG:HG3	15:p:25:ARG:HH11	1.86	0.41
15:p:87:MET:HE3	15:p:119:PHE:HZ	1.85	0.41
15:p:148:MET:HE3	15:p:172:ASN:HB3	2.03	0.41
31:F:181:PRO:O	31:F:242:ALA:HB2	2.21	0.41
31:F:200:GLU:O	31:F:200:GLU:HG3	2.21	0.41
31:F:234:THR:HB	35:F:501:ADP:O2A	2.21	0.41
31:F:294:LYS:HG3	31:F:295:ARG:O	2.21	0.41
31:F:437:TYR:CD2	31:F:437:TYR:C	2.98	0.41
32:U:8:ILE:C	32:U:10:SER:N	2.79	0.41
32:U:137:MET:CE	32:U:137:MET:CA	2.89	0.41
32:U:177:LEU:CD1	32:U:204:ILE:HG12	2.51	0.41
32:U:201:LEU:O	32:U:204:ILE:CD1	2.69	0.41
32:U:247:GLN:HG3	32:U:913:ILE:HD13	1.97	0.41
32:U:321:GLN:HG2	32:U:322:THR:N	2.36	0.41
32:U:418:GLU:HG2	32:U:421:GLN:CD	2.45	0.41
32:U:514:LEU:HD12	32:U:514:LEU:HA	1.81	0.41
32:U:705:LYS:HA	32:U:708:GLN:HG2	2.03	0.41
1:A:189:GLU:CB	31:F:405:MET:HE1	2.47	0.41
1:A:234:ASP:OD2	30:f:348:ILE:HB	2.21	0.41
2:B:211:TYR:HB3	2:B:216:ILE:O	2.20	0.41
3:C:362:VAL:HG21	3:C:387:VAL:HG12	2.02	0.41
4:D:215:LEU:HD23	4:D:215:LEU:C	2.45	0.41
5:E:316:HIS:CG	5:E:344:ARG:HG3	2.56	0.41
5:E:380:LEU:HD13	31:F:335:VAL:HG11	2.03	0.41
8:I:3:ARG:NE	11:L:123:TYR:OH	2.46	0.41
14:O:188:ARG:HB3	14:O:189:PRO:HD3	2.02	0.41
20:V:185:GLN:HA	20:V:188:SER:OG	2.21	0.41
21:W:105:VAL:HG11	21:W:140:ILE:HD13	2.03	0.41
21:W:247:TYR:HD1	21:W:250:ILE:HD11	1.86	0.41
21:W:310:THR:O	21:W:311:THR:OG1	2.36	0.41
21:W:321:VAL:CG1	21:W:322:GLU:N	2.83	0.41
21:W:369:TYR:HD2	25:a:312:MET:HG2	1.85	0.41
21:W:370:TYR:OH	25:a:308:GLU:HG2	2.21	0.41
22:X:141:LYS:HD3	22:X:179:ALA:HB1	2.03	0.41
23:Y:189:VAL:HG13	23:Y:287:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Z:38:VAL:HG11	24:Z:75:LEU:HD11	2.03	0.41
25:a:181:GLY:N	25:a:184:ASP:OD2	2.54	0.41
27:c:49:VAL:CG1	27:c:50:PRO:CD	2.99	0.41
28:d:101:LEU:HG	28:d:163:TYR:CE1	2.56	0.41
30:f:257:ARG:HH11	30:f:289:VAL:HG21	1.85	0.41
30:f:298:LEU:HG	30:f:299:GLY:N	2.36	0.41
30:f:546:SER:OG	30:f:550:LEU:HD23	2.21	0.41
15:p:148:MET:HE3	15:p:172:ASN:CB	2.51	0.41
31:F:295:ARG:NE	31:F:339:ASP:OD2	2.46	0.41
32:U:17:PRO:HB2	32:U:55:ARG:NH2	2.35	0.41
32:U:253:TYR:HA	32:U:261:LEU:HD11	2.03	0.41
32:U:390:LEU:O	32:U:393:LEU:N	2.54	0.41
32:U:406:ALA:HB2	32:U:444:TYR:HD2	1.86	0.41
32:U:450:HIS:CE1	32:U:457:ILE:HG12	2.56	0.41
32:U:471:ASP:OD1	32:U:471:ASP:C	2.63	0.41
32:U:786:THR:HB	32:U:886:PRO:HD3	2.03	0.41
1:A:73:ALA:CB	2:B:140:ASP:HA	2.51	0.40
1:A:177:VAL:O	1:A:177:VAL:HG23	2.21	0.40
1:A:418:LYS:HE3	1:A:418:LYS:HB3	1.62	0.40
2:B:234:LEU:HD22	33:B:501:ATP:H2'	2.02	0.40
3:C:38:LYS:HB2	3:C:38:LYS:HE2	1.86	0.40
3:C:78:ARG:HG2	3:C:79:ALA:O	2.20	0.40
3:C:176:GLU:OE1	3:C:177:ALA:N	2.54	0.40
3:C:315:ILE:HG22	3:C:316:GLU:N	2.36	0.40
3:C:389:LYS:HE2	3:C:389:LYS:HB2	1.88	0.40
5:E:316:HIS:HD2	5:E:344:ARG:HB2	1.84	0.40
5:E:380:LEU:HD12	31:F:343:LEU:HD13	2.02	0.40
9:J:116:GLN:NE2	10:K:84:ASP:OD1	2.51	0.40
10:K:225:ASN:OD1	10:K:225:ASN:N	2.46	0.40
17:R:6:ALA:HA	17:R:14:ILE:O	2.20	0.40
17:R:150:VAL:HG12	17:R:154:TYR:CE2	2.56	0.40
21:W:340:VAL:HG12	21:W:341:PHE:CD2	2.57	0.40
21:W:403:PHE:C	21:W:403:PHE:CD1	2.98	0.40
21:W:450:GLU:O	21:W:454:ASN:HB3	2.21	0.40
23:Y:74:LYS:NZ	23:Y:74:LYS:HB3	2.36	0.40
24:Z:280:ILE:HD12	24:Z:280:ILE:O	2.21	0.40
26:b:25:ARG:NH1	26:b:144:GLY:CA	2.84	0.40
26:b:157:VAL:HG21	26:b:170:LEU:HD13	2.02	0.40
27:c:77:GLN:OE1	27:c:77:GLN:CA	2.69	0.40
27:c:209:LYS:HE2	27:c:209:LYS:HB2	1.89	0.40
28:d:1:MET:HG3	28:d:2:TYR:CD1	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:d:137:VAL:HG12	28:d:141:GLN:NE2	2.36	0.40
30:f:126:ILE:O	30:f:131:MET:HE2	2.21	0.40
30:f:479:LEU:HD13	30:f:514:VAL:CG2	2.29	0.40
30:f:796:LEU:HD21	30:f:799:VAL:HG21	2.02	0.40
30:f:804:LEU:HD21	30:f:806:VAL:HG22	2.02	0.40
30:f:838:ARG:HG2	30:f:839:PRO:HD2	2.03	0.40
9:j:91:CYS:SG	9:j:107:ILE:HD13	2.61	0.40
16:q:157:VAL:O	16:q:161:ARG:HG3	2.21	0.40
32:U:339:LEU:HD12	32:U:339:LEU:HA	1.84	0.40
32:U:458:ILE:HD13	32:U:490:ARG:HH22	1.84	0.40
32:U:671:LEU:O	32:U:674:PRO:HD2	2.20	0.40
1:A:104:ALA:O	1:A:105:ASP:C	2.63	0.40
1:A:303:ILE:HD11	1:A:330:ALA:CB	2.52	0.40
1:A:361:SER:HA	30:f:849:ALA:HB3	2.02	0.40
2:B:127:VAL:CG2	2:B:128:GLY:N	2.81	0.40
2:B:151:LEU:HD11	2:B:163:LEU:HB2	2.02	0.40
2:B:247:PHE:C	2:B:248:LEU:HD23	2.46	0.40
4:D:87:LEU:CD2	4:D:133:HIS:HA	2.51	0.40
4:D:98:GLN:HE22	4:D:121:ARG:NE	2.19	0.40
4:D:311:THR:OG1	4:D:312:ASN:N	2.55	0.40
5:E:113:ARG:HG3	5:E:113:ARG:NH1	2.36	0.40
5:E:155:ASN:OD1	5:E:155:ASN:N	2.53	0.40
7:H:33:PRO:HD2	7:H:48:GLU:HG2	2.03	0.40
8:I:83:ALA:O	8:I:87:THR:HG23	2.21	0.40
18:S:186:ASP:HB3	18:S:189:THR:HG22	2.03	0.40
20:V:224:LEU:O	20:V:227:VAL:HG12	2.21	0.40
21:W:235:GLN:HG3	21:W:235:GLN:O	2.20	0.40
22:X:134:VAL:HB	22:X:149:LEU:HD12	2.03	0.40
22:X:229:TYR:HB2	22:X:257:CYS:SG	2.61	0.40
22:X:364:LYS:HD2	22:X:368:MET:HG3	2.04	0.40
22:X:385:LEU:O	22:X:387:ILE:HD13	2.21	0.40
23:Y:23:ARG:HD3	23:Y:23:ARG:C	2.46	0.40
24:Z:11:VAL:CG1	24:Z:15:VAL:HG11	2.51	0.40
24:Z:247:LYS:NZ	24:Z:247:LYS:CB	2.83	0.40
26:b:72:LEU:HD23	26:b:72:LEU:N	2.37	0.40
26:b:111:ALA:CB	26:b:140:ILE:HG13	2.52	0.40
27:c:60:GLU:N	27:c:60:GLU:CD	2.79	0.40
30:f:608:LYS:HD2	30:f:608:LYS:C	2.46	0.40
30:f:746:ARG:O	30:f:750:GLN:HB2	2.21	0.40
30:f:821:LEU:HD11	30:f:882:LEU:HD21	2.02	0.40
9:j:33:VAL:CG2	9:j:168:VAL:HG11	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:p:11:MET:HE3	15:p:170:MET:HE2	2.03	0.40
15:p:182:MET:HE2	15:p:182:MET:HB2	1.98	0.40
31:F:93:VAL:HB	31:F:149:ASP:OD1	2.21	0.40
31:F:399:VAL:CG2	31:F:427:VAL:HG11	2.51	0.40
31:F:410:ARG:O	31:F:411:GLY:C	2.64	0.40
1:A:359:ALA:HA	1:A:362:MET:SD	2.61	0.40
2:B:135:ILE:HB	2:B:141:LYS:NZ	2.36	0.40
3:C:42:LEU:HD23	3:C:42:LEU:C	2.46	0.40
3:C:306:LEU:HD23	3:C:306:LEU:HA	1.83	0.40
5:E:281:ARG:NH1	5:E:283:ASP:OD1	2.54	0.40
5:E:362:VAL:HG23	31:F:215:LEU:HD11	2.03	0.40
8:I:140:ASP:OD2	8:I:146:GLN:NE2	2.46	0.40
18:S:148:LEU:C	18:S:148:LEU:HD13	2.46	0.40
21:W:48:LEU:CD1	21:W:90:LEU:HD21	2.51	0.40
21:W:94:ARG:O	21:W:94:ARG:CG	2.68	0.40
21:W:97:LEU:O	21:W:100:ALA:N	2.52	0.40
21:W:98:LYS:HE3	21:W:139:GLU:HB2	2.03	0.40
21:W:123:ARG:NH1	21:W:124:LEU:HA	2.35	0.40
21:W:142:ARG:C	21:W:142:ARG:CD	2.94	0.40
22:X:340:GLU:N	22:X:341:PRO:CD	2.84	0.40
23:Y:19:ILE:CG2	23:Y:150:PHE:HZ	2.34	0.40
23:Y:134:LEU:HA	23:Y:137:ARG:CD	2.50	0.40
23:Y:316:LEU:CD1	23:Y:327:VAL:HG13	2.51	0.40
23:Y:333:GLU:HG3	23:Y:337:PHE:CE2	2.56	0.40
24:Z:23:PHE:HE2	24:Z:127:LYS:HE2	1.85	0.40
24:Z:176:LEU:O	24:Z:177:ARG:C	2.65	0.40
25:a:99:LYS:HG3	25:a:103:LYS:HZ1	1.85	0.40
25:a:166:ILE:HG23	25:a:168:ASN:OD1	2.22	0.40
28:d:190:LEU:HD11	28:d:192:THR:HB	2.03	0.40
30:f:3:GLU:HG3	30:f:7:ASP:HA	2.04	0.40
30:f:79:ARG:HH11	30:f:80:ARG:HD3	1.85	0.40
30:f:520:LEU:C	30:f:520:LEU:HD13	2.46	0.40
30:f:852:VAL:HG22	30:f:853:VAL:N	2.36	0.40
7:h:64:VAL:HG12	7:h:217:PHE:HZ	1.85	0.40
9:j:89:VAL:HG22	16:q:66:LEU:HD21	2.03	0.40
10:k:12:VAL:HG23	10:k:13:ASN:OD1	2.21	0.40
12:m:87:LEU:HD13	12:m:135:PHE:CE1	2.57	0.40
31:F:96:LEU:HD13	31:F:145:LEU:O	2.21	0.40
31:F:154:ASN:HB3	31:F:157:SER:O	2.21	0.40
31:F:200:GLU:HA	31:F:204:LEU:HB3	2.03	0.40
32:U:350:LEU:HD21	32:U:384:GLN:HE22	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:U:460:TYR:CD1	32:U:460:TYR:C	2.99	0.40
32:U:501:LEU:O	32:U:501:LEU:HD12	2.21	0.40
32:U:578:LEU:HD23	32:U:578:LEU:HA	1.76	0.40
32:U:633:CYS:HB3	32:U:634:PRO:HD3	2.02	0.40
1:A:235:ALA:HB2	1:A:269:ALA:HB1	2.04	0.40
9:J:209:ALA:HB1	9:J:217:LEU:HD11	2.03	0.40
11:L:84:LEU:O	11:L:88:MET:HG3	2.21	0.40
20:V:159:LEU:HD22	20:V:163:VAL:CG1	2.46	0.40
20:V:235:LEU:O	20:V:235:LEU:HD12	2.21	0.40
20:V:333:ILE:HG13	20:V:334:VAL:N	2.36	0.40
20:V:338:LEU:HA	20:V:401:ASN:HD22	1.87	0.40
21:W:107:GLN:O	21:W:111:TYR:CD1	2.75	0.40
21:W:130:MET:C	21:W:130:MET:SD	3.04	0.40
22:X:187:ARG:HD3	22:X:187:ARG:HA	1.71	0.40
23:Y:144:LEU:CA	23:Y:147:ILE:HD11	2.38	0.40
23:Y:283:LYS:O	23:Y:289:ALA:HB2	2.21	0.40
26:b:33:VAL:HG12	26:b:112:PHE:CE2	2.46	0.40
30:f:554:TYR:OH	30:f:788:MET:HG2	2.21	0.40
30:f:606:VAL:HG23	30:f:607:LEU:HD22	2.04	0.40
30:f:633:GLU:H	30:f:633:GLU:HG3	1.66	0.40
30:f:721:VAL:HG22	30:f:723:TYR:H	1.85	0.40
8:i:184:MET:HE3	8:i:184:MET:HB3	2.02	0.40
32:U:224:ASP:O	32:U:224:ASP:CG	2.64	0.40
32:U:227:GLN:O	32:U:231:ASP:OD1	2.39	0.40
32:U:250:PHE:HD2	32:U:911:ILE:CG2	2.34	0.40
32:U:649:ARG:HD2	32:U:678:ASP:OD2	2.21	0.40
1:A:267:LYS:HA	30:f:354:GLU:CD	2.46	0.40
1:A:351:ARG:HB2	1:A:385:ILE:CD1	2.51	0.40
1:A:365:GLU:O	1:A:365:GLU:CD	2.65	0.40
1:A:365:GLU:O	1:A:365:GLU:OE2	2.39	0.40
2:B:112:LEU:HB2	2:B:150:VAL:CG2	2.50	0.40
2:B:118:ASP:CG	30:f:697:ILE:HG21	2.47	0.40
2:B:355:LEU:CD1	2:B:389:ASP:HB2	2.51	0.40
4:D:168:GLY:H	33:D:501:ATP:N6	2.19	0.40
4:D:169:GLY:HA3	4:D:343:LEU:HD13	2.04	0.40
5:E:65:THR:HG23	5:E:68:LYS:HB2	2.02	0.40
5:E:154:THR:C	5:E:156:PRO:HD3	2.47	0.40
6:G:166:THR:CG2	6:G:167:ALA:N	2.84	0.40
8:I:66:TYR:CD2	8:I:87:THR:HG21	2.57	0.40
10:K:230:THR:OG1	10:K:233:GLU:OE1	2.29	0.40
15:P:76:LYS:HB3	15:P:76:LYS:NZ	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:V:184:ALA:HA	20:V:187:ILE:CG2	2.52	0.40
20:V:311:ASN:HA	20:V:314:ARG:NH1	2.34	0.40
20:V:371:ASN:CB	20:V:427:GLN:HE21	2.27	0.40
21:W:191:ARG:O	21:W:191:ARG:HD2	2.22	0.40
21:W:253:THR:HG22	21:W:257:GLN:HG3	2.02	0.40
23:Y:167:LEU:HA	23:Y:170:GLU:OE2	2.21	0.40
23:Y:316:LEU:C	23:Y:316:LEU:HD12	2.47	0.40
24:Z:17:LEU:CG	27:c:213:GLU:OE1	2.69	0.40
24:Z:187:LEU:HD22	28:d:254:GLU:OE2	2.21	0.40
24:Z:276:ILE:HD13	24:Z:276:ILE:HA	1.84	0.40
25:a:29:TYR:HE2	25:a:60:TYR:CE1	2.40	0.40
25:a:103:LYS:HG3	25:a:104:VAL:HG13	2.03	0.40
25:a:198:PHE:CD1	25:a:198:PHE:C	3.00	0.40
25:a:244:ASN:ND2	25:a:247:ARG:HG3	2.37	0.40
27:c:147:PRO:C	27:c:148:ILE:HD13	2.47	0.40
27:c:194:HIS:CD2	27:c:194:HIS:N	2.88	0.40
27:c:267:PRO:O	27:c:271:ALA:N	2.41	0.40
28:d:185:ALA:HB2	28:d:226:ALA:HB3	2.03	0.40
28:d:188:LYS:HG3	28:d:222:TYR:H	1.86	0.40
30:f:143:ARG:NH2	30:f:188:VAL:HG12	2.37	0.40
15:p:76:LYS:NZ	15:p:76:LYS:HB3	2.37	0.40
16:q:154:GLU:O	16:q:158:GLU:HG2	2.21	0.40
31:F:175:MET:SD	31:F:251:LEU:HD13	2.62	0.40
31:F:204:LEU:HB3	31:F:205:PRO:HD3	2.03	0.40
32:U:69:TYR:O	32:U:69:TYR:HD1	2.04	0.40
32:U:561:GLU:OE1	32:U:561:GLU:HA	2.22	0.40
32:U:673:GLU:N	32:U:674:PRO:HD2	2.37	0.40
32:U:901:GLN:NE2	32:U:915:LYS:HD3	2.36	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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	A	364/433 (84%)	306 (84%)	52 (14%)	6 (2%)	8	28
2	B	386/440 (88%)	335 (87%)	50 (13%)	1 (0%)	37	66
3	C	377/406 (93%)	329 (87%)	44 (12%)	4 (1%)	12	37
4	D	378/418 (90%)	332 (88%)	45 (12%)	1 (0%)	37	66
5	E	373/403 (93%)	331 (89%)	41 (11%)	1 (0%)	37	66
6	G	238/246 (97%)	225 (94%)	13 (6%)	0	100	100
6	g	238/246 (97%)	232 (98%)	6 (2%)	0	100	100
7	H	227/234 (97%)	220 (97%)	7 (3%)	0	100	100
7	h	227/234 (97%)	225 (99%)	2 (1%)	0	100	100
8	I	245/261 (94%)	239 (98%)	6 (2%)	0	100	100
8	i	245/261 (94%)	242 (99%)	3 (1%)	0	100	100
9	J	230/248 (93%)	221 (96%)	9 (4%)	0	100	100
9	j	230/248 (93%)	221 (96%)	9 (4%)	0	100	100
10	K	231/241 (96%)	225 (97%)	6 (3%)	0	100	100
10	k	231/241 (96%)	227 (98%)	4 (2%)	0	100	100
11	L	231/263 (88%)	220 (95%)	10 (4%)	1 (0%)	30	60
11	l	231/263 (88%)	224 (97%)	7 (3%)	0	100	100
12	M	237/255 (93%)	233 (98%)	4 (2%)	0	100	100
12	m	237/255 (93%)	233 (98%)	4 (2%)	0	100	100
13	N	200/239 (84%)	196 (98%)	4 (2%)	0	100	100
13	n	200/239 (84%)	195 (98%)	5 (2%)	0	100	100
14	O	218/277 (79%)	213 (98%)	5 (2%)	0	100	100
14	o	218/277 (79%)	211 (97%)	7 (3%)	0	100	100
15	P	202/205 (98%)	196 (97%)	6 (3%)	0	100	100
15	p	202/205 (98%)	194 (96%)	8 (4%)	0	100	100
16	Q	194/201 (96%)	188 (97%)	5 (3%)	1 (0%)	25	56
16	q	194/201 (96%)	186 (96%)	8 (4%)	0	100	100
17	R	198/263 (75%)	197 (100%)	1 (0%)	0	100	100
17	r	198/263 (75%)	194 (98%)	4 (2%)	0	100	100
18	S	210/241 (87%)	205 (98%)	5 (2%)	0	100	100
18	s	210/241 (87%)	209 (100%)	1 (0%)	0	100	100
19	T	210/264 (80%)	199 (95%)	11 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	t	210/264 (80%)	198 (94%)	12 (6%)	0	100	100
20	V	470/534 (88%)	450 (96%)	20 (4%)	0	100	100
21	W	444/456 (97%)	409 (92%)	34 (8%)	1 (0%)	44	73
22	X	332/422 (79%)	315 (95%)	17 (5%)	0	100	100
23	Y	376/389 (97%)	355 (94%)	21 (6%)	0	100	100
24	Z	284/324 (88%)	252 (89%)	31 (11%)	1 (0%)	30	60
25	a	371/376 (99%)	327 (88%)	44 (12%)	0	100	100
26	b	189/377 (50%)	146 (77%)	40 (21%)	3 (2%)	8	28
27	c	285/310 (92%)	254 (89%)	30 (10%)	1 (0%)	30	60
28	d	255/350 (73%)	220 (86%)	35 (14%)	0	100	100
29	e	48/70 (69%)	42 (88%)	6 (12%)	0	100	100
30	f	887/908 (98%)	840 (95%)	47 (5%)	0	100	100
31	F	372/439 (85%)	334 (90%)	37 (10%)	1 (0%)	37	66
32	U	802/953 (84%)	752 (94%)	49 (6%)	1 (0%)	48	77
All	All	13135/14884 (88%)	12297 (94%)	815 (6%)	23 (0%)	45	73

All (23) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	108	ASP
1	A	109	PRO
1	A	424	SER
3	C	91	PRO
4	D	413	GLU
5	E	227	PRO
21	W	137	TYR
26	b	22	LEU
26	b	122	LYS
31	F	255	GLN
1	A	107	GLU
1	A	193	THR
2	B	278	ALA
26	b	181	ASP
1	A	91	GLN
3	C	242	ALA
11	L	201	ALA
3	C	117	ARG

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Mol	Chain	Res	Type
24	Z	222	ILE
27	c	156	VAL
32	U	815	ALA
3	C	251	ILE
16	Q	25	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	A	310/372 (83%)	296 (96%)	14 (4%)	23	56
2	B	341/385 (89%)	312 (92%)	29 (8%)	8	27
3	C	325/352 (92%)	315 (97%)	10 (3%)	35	70
4	D	333/366 (91%)	316 (95%)	17 (5%)	20	51
5	E	298/353 (84%)	282 (95%)	16 (5%)	18	49
6	G	165/210 (79%)	161 (98%)	4 (2%)	44	76
6	g	168/210 (80%)	166 (99%)	2 (1%)	67	89
7	H	150/191 (78%)	148 (99%)	2 (1%)	65	88
7	h	150/191 (78%)	149 (99%)	1 (1%)	81	94
8	I	166/221 (75%)	160 (96%)	6 (4%)	30	65
8	i	160/221 (72%)	155 (97%)	5 (3%)	35	70
9	J	136/211 (64%)	134 (98%)	2 (2%)	60	85
9	j	136/211 (64%)	133 (98%)	3 (2%)	47	78
10	K	159/203 (78%)	156 (98%)	3 (2%)	52	81
10	k	158/203 (78%)	154 (98%)	4 (2%)	42	75
11	L	161/224 (72%)	155 (96%)	6 (4%)	29	64
11	l	161/224 (72%)	161 (100%)	0	100	100
12	M	162/212 (76%)	158 (98%)	4 (2%)	42	75
12	m	163/212 (77%)	159 (98%)	4 (2%)	42	75
13	N	141/181 (78%)	136 (96%)	5 (4%)	31	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	n	140/181 (77%)	138 (99%)	2 (1%)	62	86
14	O	158/228 (69%)	153 (97%)	5 (3%)	34	69
14	o	157/228 (69%)	156 (99%)	1 (1%)	84	95
15	P	159/174 (91%)	158 (99%)	1 (1%)	84	95
15	p	156/174 (90%)	154 (99%)	2 (1%)	65	88
16	Q	149/171 (87%)	146 (98%)	3 (2%)	50	79
16	q	148/171 (86%)	147 (99%)	1 (1%)	81	94
17	R	139/202 (69%)	135 (97%)	4 (3%)	37	72
17	r	138/202 (68%)	132 (96%)	6 (4%)	25	57
18	S	158/199 (79%)	156 (99%)	2 (1%)	65	88
18	s	159/199 (80%)	157 (99%)	2 (1%)	65	88
19	T	151/215 (70%)	150 (99%)	1 (1%)	81	94
19	t	149/215 (69%)	148 (99%)	1 (1%)	81	94
20	V	391/460 (85%)	372 (95%)	19 (5%)	21	53
21	W	410/416 (99%)	390 (95%)	20 (5%)	21	53
22	X	291/362 (80%)	279 (96%)	12 (4%)	26	60
23	Y	334/344 (97%)	318 (95%)	16 (5%)	21	54
24	Z	257/295 (87%)	237 (92%)	20 (8%)	10	31
25	a	333/336 (99%)	317 (95%)	16 (5%)	21	54
26	b	167/312 (54%)	158 (95%)	9 (5%)	18	49
27	c	252/268 (94%)	232 (92%)	20 (8%)	10	30
28	d	231/294 (79%)	217 (94%)	14 (6%)	15	43
29	e	44/63 (70%)	42 (96%)	2 (4%)	23	56
30	f	745/763 (98%)	730 (98%)	15 (2%)	50	79
31	F	296/379 (78%)	271 (92%)	25 (8%)	9	28
32	U	688/816 (84%)	657 (96%)	31 (4%)	23	56
All	All	10343/12620 (82%)	9956 (96%)	387 (4%)	31	64

All (387) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	79	ASP
1	A	90	GLU

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Mol	Chain	Res	Type
1	A	106	SER
1	A	171	ASP
1	A	189	GLU
1	A	190	VAL
1	A	191	VAL
1	A	193	THR
1	A	240	VAL
1	A	267	LYS
1	A	322	ASN
1	A	347	ASP
1	A	367	ASP
1	A	405	THR
2	B	63	LEU
2	B	75	GLU
2	B	78	PHE
2	B	99	VAL
2	B	102	LEU
2	B	107	MET
2	B	109	VAL
2	B	175	LYS
2	B	184	TYR
2	B	214	MET
2	B	216	ILE
2	B	239	VAL
2	B	243	THR
2	B	249	ARG
2	B	254	GLU
2	B	257	GLN
2	B	269	GLU
2	B	309	MET
2	B	319	PHE
2	B	322	ARG
2	B	332	ASN
2	B	335	GLU
2	B	362	LYS
2	B	367	ILE
2	B	383	LEU
2	B	384	ILE
2	B	385	MET
2	B	412	MET
2	B	423	LYS
3	C	24	TYR

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Mol	Chain	Res	Type
3	C	94	LYS
3	C	122	THR
3	C	145	ASP
3	C	178	LEU
3	C	188	LEU
3	C	230	MET
3	C	236	VAL
3	C	283	PHE
3	C	295	THR
4	D	60	TYR
4	D	77	GLU
4	D	81	ARG
4	D	82	ILE
4	D	105	SER
4	D	150	SER
4	D	152	MET
4	D	172	ILE
4	D	176	GLU
4	D	190	LEU
4	D	240	LEU
4	D	270	ILE
4	D	292	LEU
4	D	304	ASN
4	D	352	MET
4	D	355	SER
4	D	374	ASP
5	E	65	THR
5	E	98	VAL
5	E	102	MET
5	E	130	VAL
5	E	149	ILE
5	E	161	ARG
5	E	162	VAL
5	E	217	GLU
5	E	236	ASP
5	E	247	THR
5	E	254	GLN
5	E	267	PHE
5	E	309	ARG
5	E	333	LYS
5	E	363	VAL
5	E	374	VAL

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Mol	Chain	Res	Type
6	G	75	ASN
6	G	109	ILE
6	G	131	MET
6	G	202	LEU
7	H	117	MET
7	H	126	VAL
8	I	7	SER
8	I	50	ARG
8	I	168	SER
8	I	177	GLN
8	I	188	SER
8	I	209	GLU
9	J	26	VAL
9	J	167	SER
10	K	47	CYS
10	K	159	SER
10	K	180	SER
11	L	39	LYS
11	L	83	LEU
11	L	121	GLN
11	L	146	GLN
11	L	156	CYS
11	L	222	THR
12	M	24	GLU
12	M	27	MET
12	M	45	VAL
12	M	75	MET
13	N	23	THR
13	N	68	SER
13	N	70	GLU
13	N	87	MET
13	N	124	GLN
14	O	30	LYS
14	O	33	SER
14	O	39	SER
14	O	66	LEU
14	O	195	LYS
15	P	121	CYS
16	Q	28	MET
16	Q	76	SER
16	Q	179	SER
17	R	14	ILE

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Mol	Chain	Res	Type
17	R	45	THR
17	R	103	CYS
17	R	112	LEU
18	S	109	ILE
18	S	113	LEU
19	T	100	ARG
20	V	79	VAL
20	V	108	LEU
20	V	110	HIS
20	V	187	ILE
20	V	209	LYS
20	V	222	ASP
20	V	232	HIS
20	V	271	VAL
20	V	324	PHE
20	V	326	GLN
20	V	356	SER
20	V	363	LEU
20	V	371	ASN
20	V	380	ASP
20	V	435	GLU
20	V	437	ILE
20	V	469	THR
20	V	471	GLU
20	V	486	ILE
21	W	16	MET
21	W	48	LEU
21	W	70	VAL
21	W	110	THR
21	W	170	GLN
21	W	194	LEU
21	W	209	ILE
21	W	231	ILE
21	W	235	GLN
21	W	263	TRP
21	W	267	LEU
21	W	274	VAL
21	W	299	ILE
21	W	314	LEU
21	W	359	VAL
21	W	378	MET
21	W	383	ASP

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Mol	Chain	Res	Type
21	W	406	VAL
21	W	409	LEU
21	W	446	ILE
22	X	130	GLU
22	X	295	LYS
22	X	312	GLU
22	X	313	LEU
22	X	321	THR
22	X	330	LEU
22	X	344	ARG
22	X	347	ILE
22	X	377	ILE
22	X	404	ILE
22	X	405	GLN
22	X	417	LYS
23	Y	28	LEU
23	Y	70	LEU
23	Y	73	MET
23	Y	131	THR
23	Y	152	MET
23	Y	178	ASN
23	Y	206	SER
23	Y	207	THR
23	Y	218	THR
23	Y	231	LEU
23	Y	240	VAL
23	Y	291	HIS
23	Y	315	THR
23	Y	348	ASP
23	Y	382	LYS
23	Y	384	SER
24	Z	20	VAL
24	Z	43	TRP
24	Z	44	GLN
24	Z	60	GLU
24	Z	77	ASN
24	Z	112	MET
24	Z	125	ASP
24	Z	130	ASP
24	Z	159	THR
24	Z	169	GLU
24	Z	172	VAL

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Mol	Chain	Res	Type
24	Z	187	LEU
24	Z	192	THR
24	Z	196	HIS
24	Z	210	SER
24	Z	214	LYS
24	Z	217	THR
24	Z	231	GLN
24	Z	240	VAL
24	Z	274	ASN
25	a	8	LEU
25	a	33	LEU
25	a	72	ASN
25	a	75	SER
25	a	113	LEU
25	a	124	ASN
25	a	125	ILE
25	a	151	VAL
25	a	205	LEU
25	a	272	ILE
25	a	273	GLN
25	a	304	VAL
25	a	328	ASP
25	a	343	LEU
25	a	362	SER
25	a	373	ASP
26	b	17	ARG
26	b	51	LEU
26	b	56	ASN
26	b	71	ILE
26	b	103	LYS
26	b	108	ARG
26	b	110	ILE
26	b	127	LEU
26	b	159	THR
27	c	66	THR
27	c	67	VAL
27	c	69	VAL
27	c	75	MET
27	c	98	MET
27	c	101	GLN
27	c	157	ILE
27	c	166	ASN

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Mol	Chain	Res	Type
27	c	178	THR
27	c	209	LYS
27	c	215	LYS
27	c	222	LYS
27	c	234	TYR
27	c	236	GLU
27	c	245	VAL
27	c	251	LEU
27	c	257	LYS
27	c	260	GLU
27	c	283	HIS
27	c	290	VAL
28	d	68	ILE
28	d	85	TYR
28	d	92	SER
28	d	106	LEU
28	d	122	LEU
28	d	151	VAL
28	d	158	ILE
28	d	163	TYR
28	d	181	CYS
28	d	197	ILE
28	d	198	LEU
28	d	222	TYR
28	d	246	VAL
28	d	252	GLN
29	e	46	ASP
29	e	47	ASN
30	f	75	LEU
30	f	236	CYS
30	f	294	MET
30	f	316	ASP
30	f	350	LYS
30	f	423	ASP
30	f	426	LEU
30	f	483	PHE
30	f	505	MET
30	f	518	THR
30	f	558	LEU
30	f	596	ASP
30	f	613	LEU
30	f	634	LYS

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Mol	Chain	Res	Type
30	f	882	LEU
6	g	39	SER
6	g	189	TRP
7	h	195	LYS
8	i	81	SER
8	i	186	LEU
8	i	199	LYS
8	i	200	THR
8	i	209	GLU
9	j	71	MET
9	j	82	ILE
9	j	84	ILE
10	k	46	VAL
10	k	163	VAL
10	k	191	LEU
10	k	235	GLU
12	m	24	GLU
12	m	27	MET
12	m	59	GLU
12	m	219	LEU
13	n	68	SER
13	n	124	GLN
14	o	18	ASP
15	p	164	GLU
15	p	182	MET
16	q	39	SER
17	r	13	VAL
17	r	59	LEU
17	r	81	SER
17	r	117	SER
17	r	123	SER
17	r	137	TYR
18	s	25	SER
18	s	81	LYS
19	t	108	ASN
31	F	97	LEU
31	F	121	CYS
31	F	145	LEU
31	F	146	LYS
31	F	151	VAL
31	F	179	GLU
31	F	186	SER

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Mol	Chain	Res	Type
31	F	196	GLN
31	F	209	LYS
31	F	217	ILE
31	F	257	VAL
31	F	281	SER
31	F	289	ASP
31	F	291	ILE
31	F	304	ARG
31	F	342	LEU
31	F	344	ARG
31	F	356	MET
31	F	364	ARG
31	F	397	LYS
31	F	400	CYS
31	F	401	VAL
31	F	405	MET
31	F	431	LYS
31	F	435	LEU
32	U	10	SER
32	U	35	TRP
32	U	38	ILE
32	U	56	SER
32	U	63	VAL
32	U	67	VAL
32	U	70	HIS
32	U	138	PHE
32	U	197	VAL
32	U	232	ILE
32	U	253	TYR
32	U	255	SER
32	U	267	ASN
32	U	349	ASP
32	U	352	ILE
32	U	367	THR
32	U	371	ILE
32	U	373	ASN
32	U	453	HIS
32	U	481	LEU
32	U	508	THR
32	U	529	ILE
32	U	533	VAL
32	U	539	THR

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Mol	Chain	Res	Type
32	U	583	MET
32	U	659	CYS
32	U	689	ILE
32	U	706	VAL
32	U	723	ASP
32	U	802	TYR
32	U	879	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (114) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	197	HIS
1	A	293	ASN
1	A	296	GLN
1	A	322	ASN
2	B	193	GLN
2	B	242	GLN
2	B	298	ASN
2	B	314	ASN
2	B	315	GLN
3	C	41	ASN
3	C	270	GLN
3	C	279	GLN
3	C	288	ASN
3	C	296	ASN
4	D	91	GLN
4	D	110	ASN
4	D	135	HIS
4	D	295	GLN
6	G	100	ASN
6	G	127	GLN
6	G	224	ASN
7	H	108	GLN
8	I	95	GLN
8	I	102	GLN
8	I	119	GLN
8	I	123	GLN
10	K	98	ASN
10	K	99	HIS
12	M	101	ASN
12	M	120	HIS
12	M	201	HIS

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Mol	Chain	Res	Type
13	N	63	GLN
13	N	111	GLN
13	N	124	GLN
14	O	173	ASN
15	P	6	ASN
15	P	71	ASN
16	Q	71	ASN
17	R	163	GLN
18	S	152	GLN
19	T	188	GLN
20	V	199	ASN
20	V	252	ASN
20	V	329	HIS
20	V	401	ASN
20	V	427	GLN
21	W	86	ASN
21	W	96	GLN
21	W	361	HIS
21	W	423	ASN
21	W	433	ASN
21	W	444	HIS
22	X	218	HIS
22	X	406	ASN
23	Y	48	ASN
23	Y	49	ASN
23	Y	344	HIS
23	Y	367	GLN
24	Z	77	ASN
24	Z	145	HIS
24	Z	157	HIS
24	Z	224	HIS
24	Z	231	GLN
24	Z	256	GLN
24	Z	274	ASN
25	a	12	GLN
25	a	169	HIS
25	a	193	GLN
25	a	257	GLN
25	a	273	GLN
25	a	372	HIS
26	b	27	GLN
26	b	29	GLN

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Mol	Chain	Res	Type
26	b	30	GLN
26	b	48	ASN
26	b	137	ASN
27	c	101	GLN
27	c	180	ASN
27	c	221	HIS
27	c	237	HIS
27	c	241	ASN
28	d	96	HIS
28	d	141	GLN
28	d	245	GLN
29	e	55	GLN
30	f	245	ASN
30	f	378	ASN
30	f	457	ASN
30	f	610	GLN
30	f	747	GLN
7	h	122	GLN
10	k	98	ASN
13	n	124	GLN
15	p	168	GLN
16	q	63	ASN
18	s	151	ASN
18	s	152	GLN
19	t	108	ASN
31	F	76	ASN
31	F	194	GLN
31	F	307	GLN
32	U	115	ASN
32	U	192	GLN
32	U	218	GLN
32	U	247	GLN
32	U	373	ASN
32	U	384	GLN
32	U	463	ASN
32	U	647	HIS
32	U	685	GLN
32	U	777	HIS
32	U	801	GLN
32	U	880	ASN
32	U	901	GLN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

## 5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

## 5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry ⓘ

Of 18 ligands modelled in this entry, 6 are monoatomic - leaving 12 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$
35	ADP	F	501	-	24,29,29	0.83	0	29,45,45	1.21	2 (6%)
33	ATP	D	501	-	28,33,33	0.84	0	34,52,52	0.75	2 (5%)
36	LDZ	N	301	-	33,34,34	0.55	1 (3%)	42,44,44	0.80	1 (2%)
36	LDZ	O	301	-	33,34,34	0.54	1 (3%)	42,44,44	0.66	1 (2%)
33	ATP	E	402	34	28,33,33	0.73	0	34,52,52	0.73	2 (5%)
36	LDZ	o	301	-	33,34,34	0.50	1 (3%)	42,44,44	0.71	1 (2%)
36	LDZ	R	301	-	33,34,34	0.50	1 (3%)	42,44,44	0.74	1 (2%)
36	LDZ	r	301	-	33,34,34	0.52	1 (3%)	42,44,44	0.92	1 (2%)
35	ADP	C	501	-	24,29,29	0.82	0	29,45,45	1.24	2 (6%)
36	LDZ	n	301	-	33,34,34	0.52	1 (3%)	42,44,44	0.77	1 (2%)
33	ATP	A	501	34	28,33,33	0.85	1 (3%)	34,52,52	0.65	1 (2%)
33	ATP	B	501	34	28,33,33	0.67	0	34,52,52	0.90	2 (5%)

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
35	ADP	F	501	-	-	2/12/32/32	0/3/3/3
33	ATP	D	501	-	-	0/18/38/38	0/3/3/3
36	LDZ	N	301	-	-	11/38/39/39	0/1/1/1
36	LDZ	O	301	-	-	13/38/39/39	0/1/1/1
33	ATP	E	402	34	-	5/18/38/38	0/3/3/3
36	LDZ	o	301	-	-	5/38/39/39	0/1/1/1
36	LDZ	R	301	-	-	4/38/39/39	0/1/1/1
36	LDZ	r	301	-	-	13/38/39/39	0/1/1/1
35	ADP	C	501	-	-	3/12/32/32	0/3/3/3
36	LDZ	n	301	-	-	13/38/39/39	0/1/1/1
33	ATP	A	501	34	-	3/18/38/38	0/3/3/3
33	ATP	B	501	34	-	3/18/38/38	0/3/3/3

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	O	301	LDZ	C17-N16	-2.29	1.43	1.46
36	N	301	LDZ	C17-N16	-2.27	1.43	1.46
36	o	301	LDZ	C17-N16	-2.06	1.43	1.46
36	r	301	LDZ	C17-N16	-2.05	1.43	1.46
33	A	501	ATP	PB-O3B	-2.04	1.57	1.59
36	R	301	LDZ	C17-N16	-2.03	1.43	1.46
36	n	301	LDZ	C17-N16	-2.01	1.43	1.46

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	B	501	ATP	C4'-O4'-C1'	-3.90	106.35	109.92
36	r	301	LDZ	C14-N13-C12	3.87	129.96	121.65
35	C	501	ADP	N3-C2-N1	-3.74	123.60	128.67
35	F	501	ADP	N3-C2-N1	-3.63	123.75	128.67
36	N	301	LDZ	C15-C14-N13	-2.97	103.08	111.11
36	n	301	LDZ	C15-C14-N13	-2.69	103.84	111.11
35	C	501	ADP	C4-C5-N7	-2.60	106.59	109.34
35	F	501	ADP	C4-C5-N7	-2.46	106.74	109.34
33	E	402	ATP	C4'-O4'-C1'	-2.35	107.77	109.92
36	O	301	LDZ	C15-C14-N13	-2.32	104.84	111.11
33	A	501	ATP	C5-C6-N6	2.30	123.81	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	E	402	ATP	C5-C6-N6	2.29	123.81	120.31
36	o	301	LDZ	C15-C14-N13	-2.29	104.91	111.11
33	B	501	ATP	C5-C6-N6	2.29	123.80	120.31
36	R	301	LDZ	C15-C14-N13	-2.25	105.02	111.11
33	D	501	ATP	C4'-O4'-C1'	-2.24	107.87	109.92
33	D	501	ATP	C5-C6-N6	2.22	123.69	120.31

There are no chirality outliers.

All (75) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
33	A	501	ATP	PB-O3B-PG-O3G
33	B	501	ATP	C4'-C5'-O5'-PA
33	E	402	ATP	C5'-O5'-PA-O2A
33	E	402	ATP	C5'-O5'-PA-O3A
35	C	501	ADP	C5'-O5'-PA-O1A
35	F	501	ADP	C5'-O5'-PA-O3A
36	N	301	LDZ	C22-C17-C18-C19
36	O	301	LDZ	O31-C9-O8-C7
36	O	301	LDZ	N10-C9-O8-C7
36	O	301	LDZ	O8-C9-N10-C11
36	R	301	LDZ	O31-C9-O8-C7
36	R	301	LDZ	N10-C9-O8-C7
36	R	301	LDZ	C22-C17-C18-C19
36	n	301	LDZ	O31-C9-O8-C7
36	n	301	LDZ	N10-C9-O8-C7
36	n	301	LDZ	O31-C9-N10-C11
36	r	301	LDZ	O31-C9-O8-C7
36	r	301	LDZ	N10-C9-O8-C7
36	O	301	LDZ	O31-C9-N10-C11
36	r	301	LDZ	C12-C11-C30-C31
36	n	301	LDZ	O8-C9-N10-C11
36	n	301	LDZ	C15-C14-C24-C25
36	O	301	LDZ	C15-C14-C24-C25
33	A	501	ATP	O4'-C4'-C5'-O5'
33	A	501	ATP	C3'-C4'-C5'-O5'
35	C	501	ADP	O4'-C4'-C5'-O5'
36	R	301	LDZ	N16-C17-C18-C19
36	N	301	LDZ	C30-C11-C12-N13
36	N	301	LDZ	C30-C11-C12-O32
36	n	301	LDZ	C11-C30-C31-C33
36	n	301	LDZ	N13-C14-C24-C25

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Mol	Chain	Res	Type	Atoms
36	r	301	LDZ	C30-C11-N10-C9
33	E	402	ATP	O4'-C4'-C5'-O5'
35	C	501	ADP	C3'-C4'-C5'-O5'
36	O	301	LDZ	N13-C14-C24-C25
36	n	301	LDZ	C11-C30-C31-C32
36	r	301	LDZ	C11-C12-N13-C14
36	r	301	LDZ	O32-C12-N13-C14
36	n	301	LDZ	C17-C18-C19-C21
36	n	301	LDZ	C17-C18-C19-C20
36	O	301	LDZ	N16-C17-C18-C19
36	r	301	LDZ	O8-C9-N10-C11
36	O	301	LDZ	C14-C24-C25-C27
36	r	301	LDZ	O31-C9-N10-C11
36	O	301	LDZ	C14-C24-C25-C26
36	o	301	LDZ	C3-C7-O8-C9
33	B	501	ATP	O4'-C4'-C5'-O5'
36	o	301	LDZ	C11-C30-C31-C32
36	r	301	LDZ	N13-C14-C24-C25
33	E	402	ATP	C3'-C4'-C5'-O5'
36	o	301	LDZ	C11-C30-C31-C33
36	N	301	LDZ	C18-C17-N16-C15
36	n	301	LDZ	C18-C17-N16-C15
36	N	301	LDZ	N10-C11-C12-O32
36	r	301	LDZ	C11-C30-C31-C32
33	E	402	ATP	C5'-O5'-PA-O1A
35	F	501	ADP	C5'-O5'-PA-O1A
36	N	301	LDZ	N10-C11-C12-N13
36	N	301	LDZ	C14-C24-C25-C26
36	N	301	LDZ	N13-C14-C15-O34
36	r	301	LDZ	N10-C11-C30-C31
36	r	301	LDZ	C11-C30-C31-C33
36	O	301	LDZ	C11-C30-C31-C32
36	N	301	LDZ	N13-C14-C15-N16
36	n	301	LDZ	C3-C7-O8-C9
36	O	301	LDZ	C11-C30-C31-C33
36	o	301	LDZ	N13-C14-C24-C25
36	O	301	LDZ	C22-C17-N16-C15
36	n	301	LDZ	C22-C17-N16-C15
36	N	301	LDZ	O8-C9-N10-C11
36	N	301	LDZ	O31-C9-N10-C11
36	O	301	LDZ	C18-C17-N16-C15
36	r	301	LDZ	C18-C17-N16-C15

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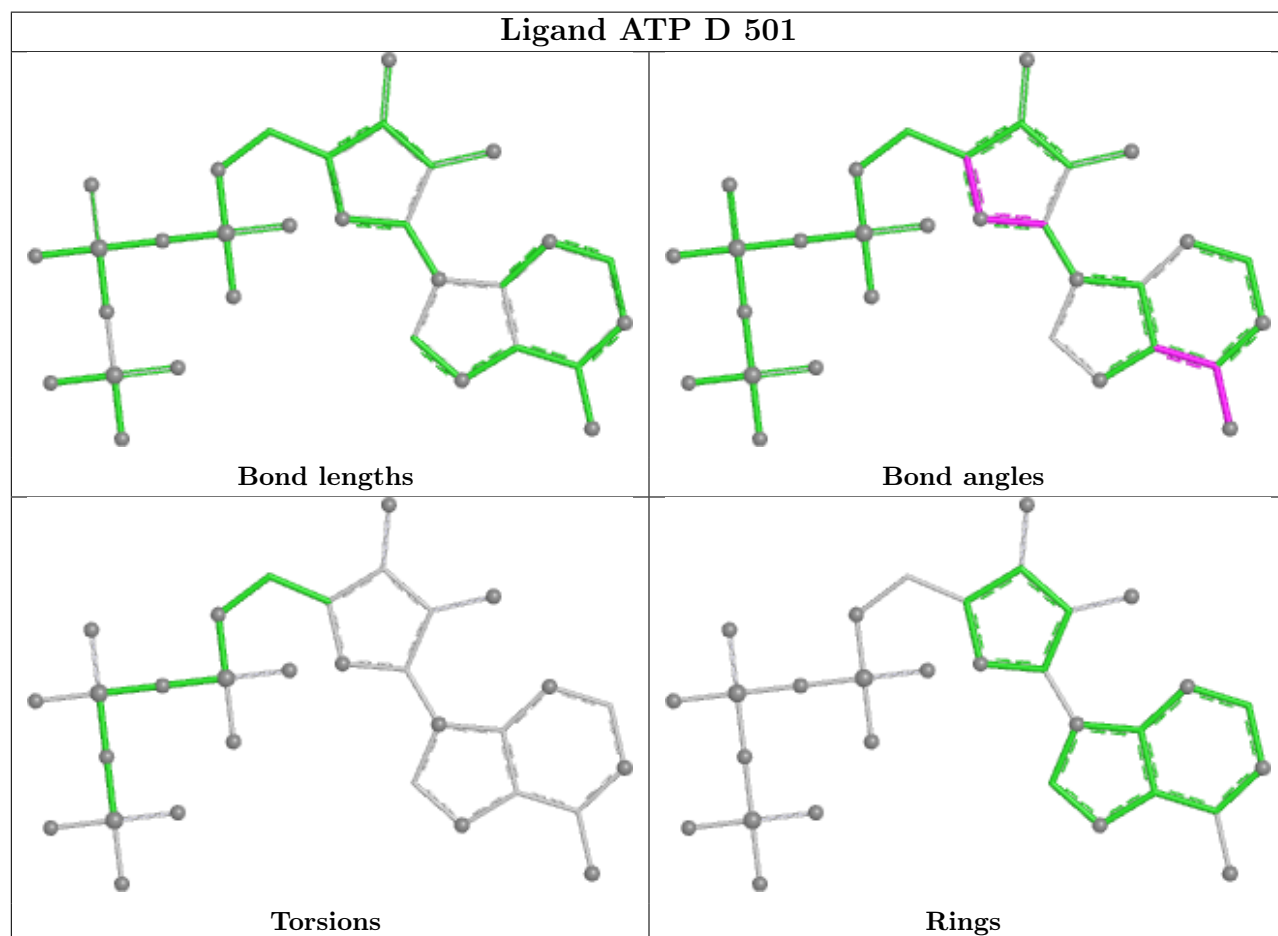
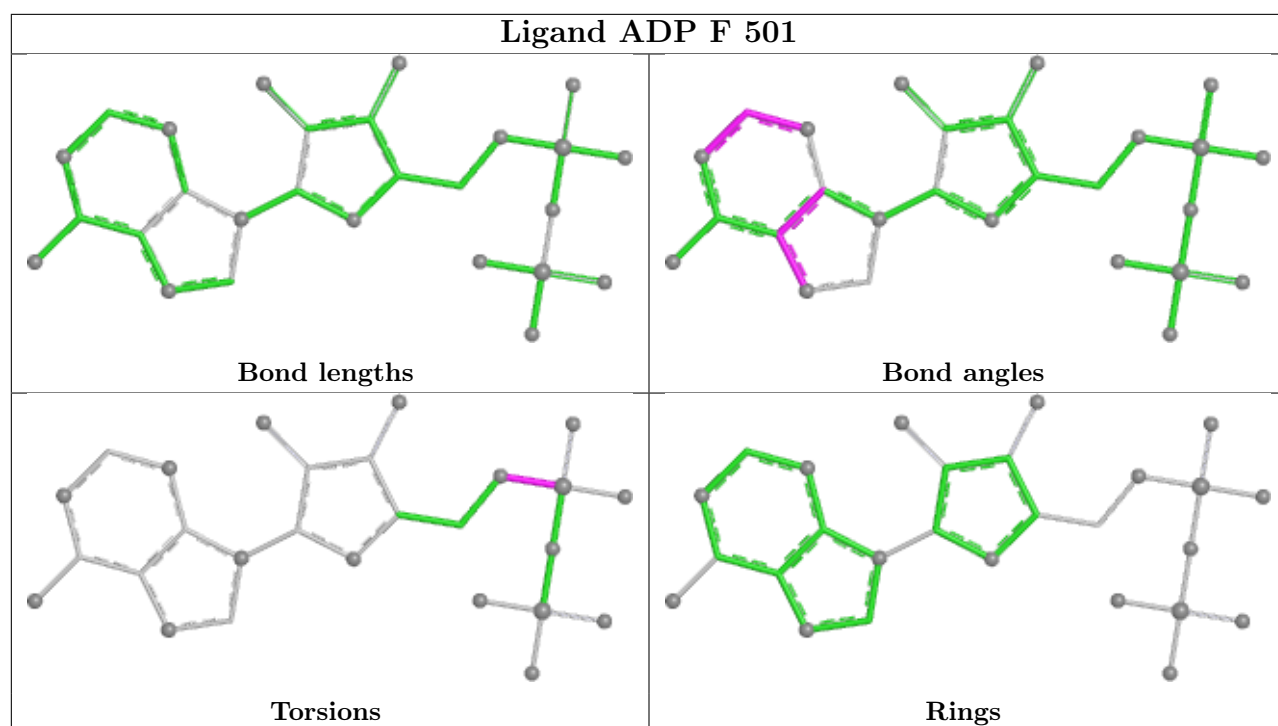
Mol	Chain	Res	Type	Atoms
33	B	501	ATP	C3'-C4'-C5'-O5'
36	o	301	LDZ	N16-C17-C18-C19

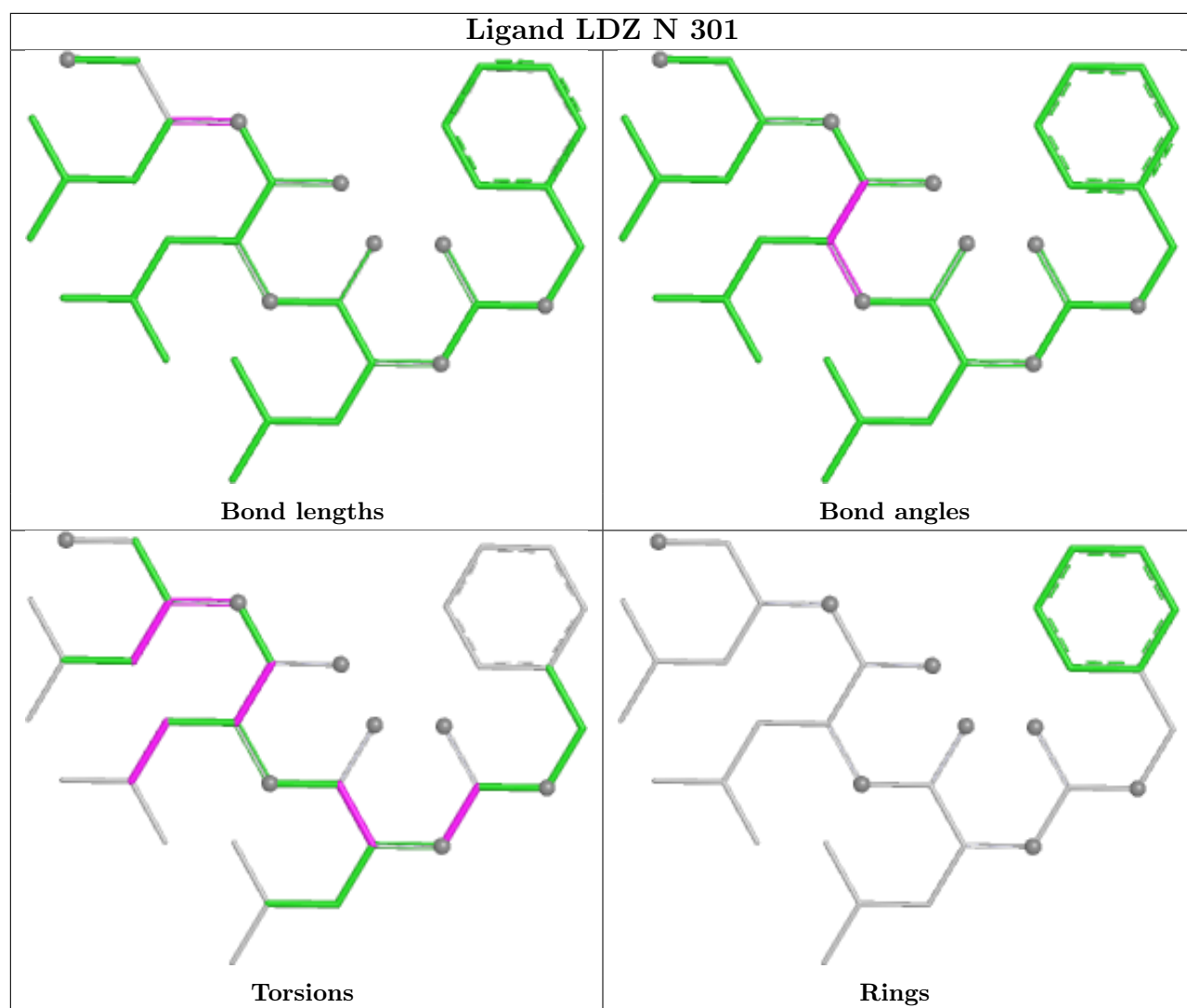
There are no ring outliers.

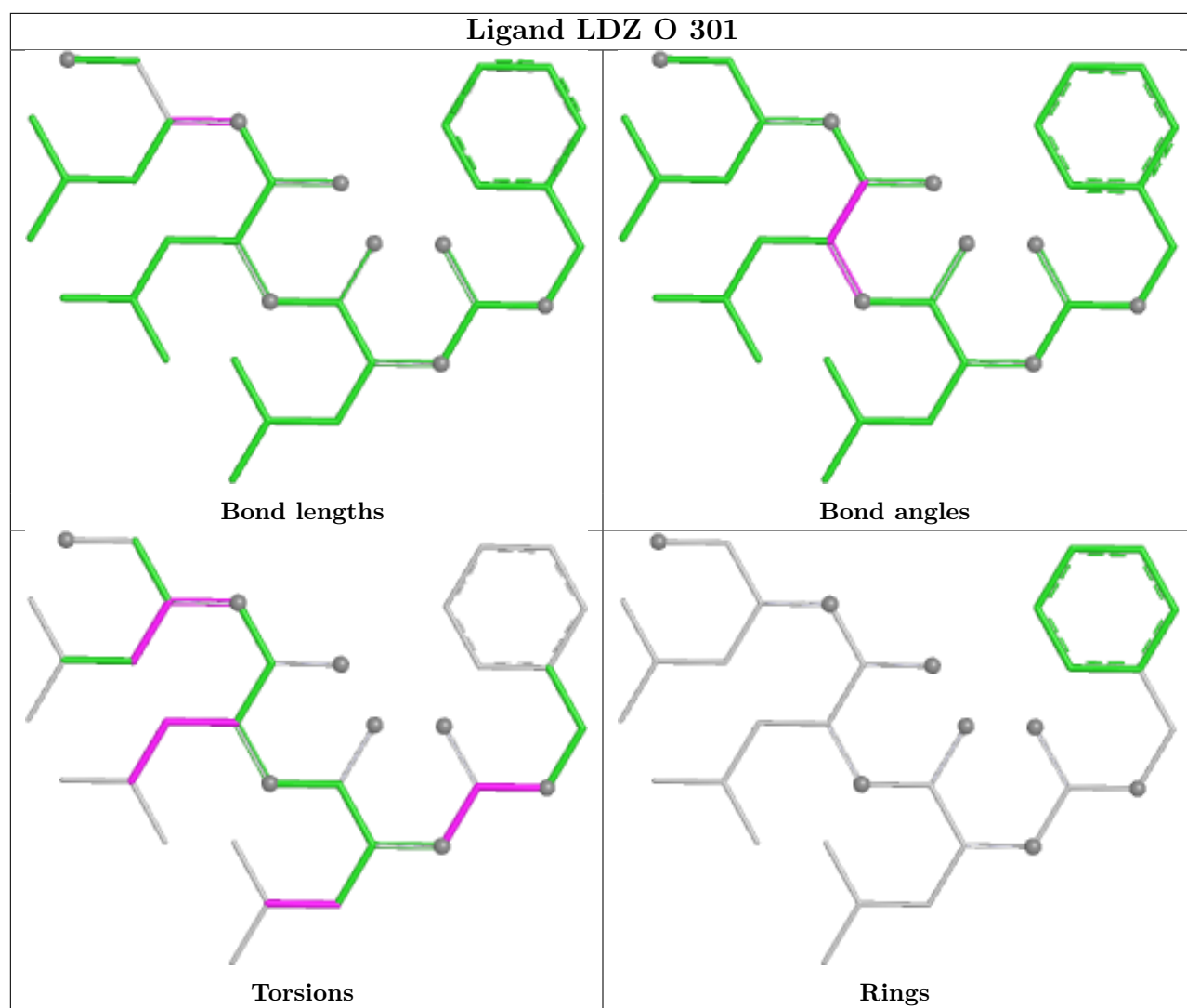
10 monomers are involved in 40 short contacts:

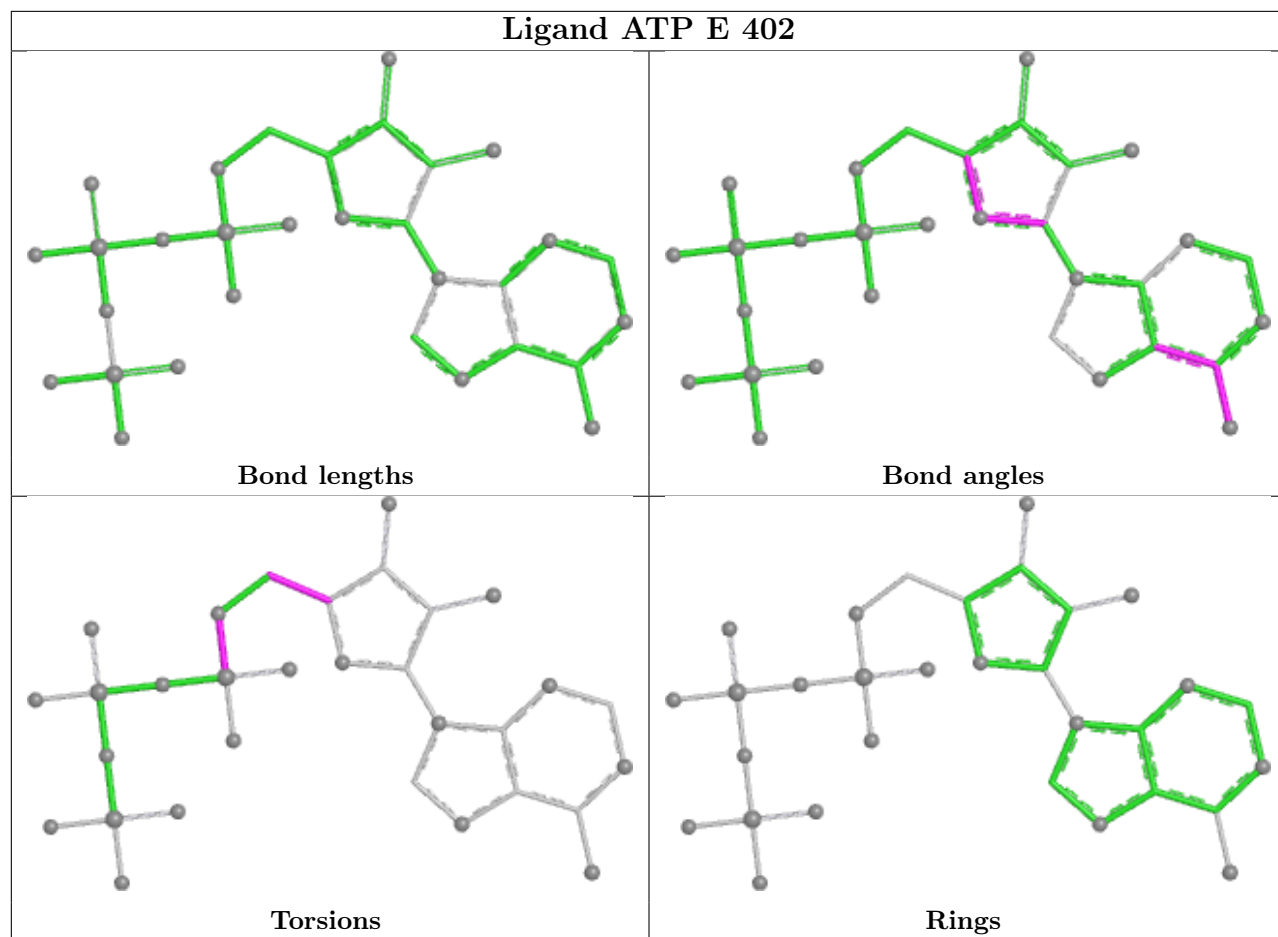
Mol	Chain	Res	Type	Clashes	Symm-Clashes
35	F	501	ADP	2	0
33	D	501	ATP	8	0
36	N	301	LDZ	1	0
33	E	402	ATP	7	0
36	o	301	LDZ	1	0
36	R	301	LDZ	7	0
35	C	501	ADP	4	0
36	n	301	LDZ	3	0
33	A	501	ATP	4	0
33	B	501	ATP	3	0

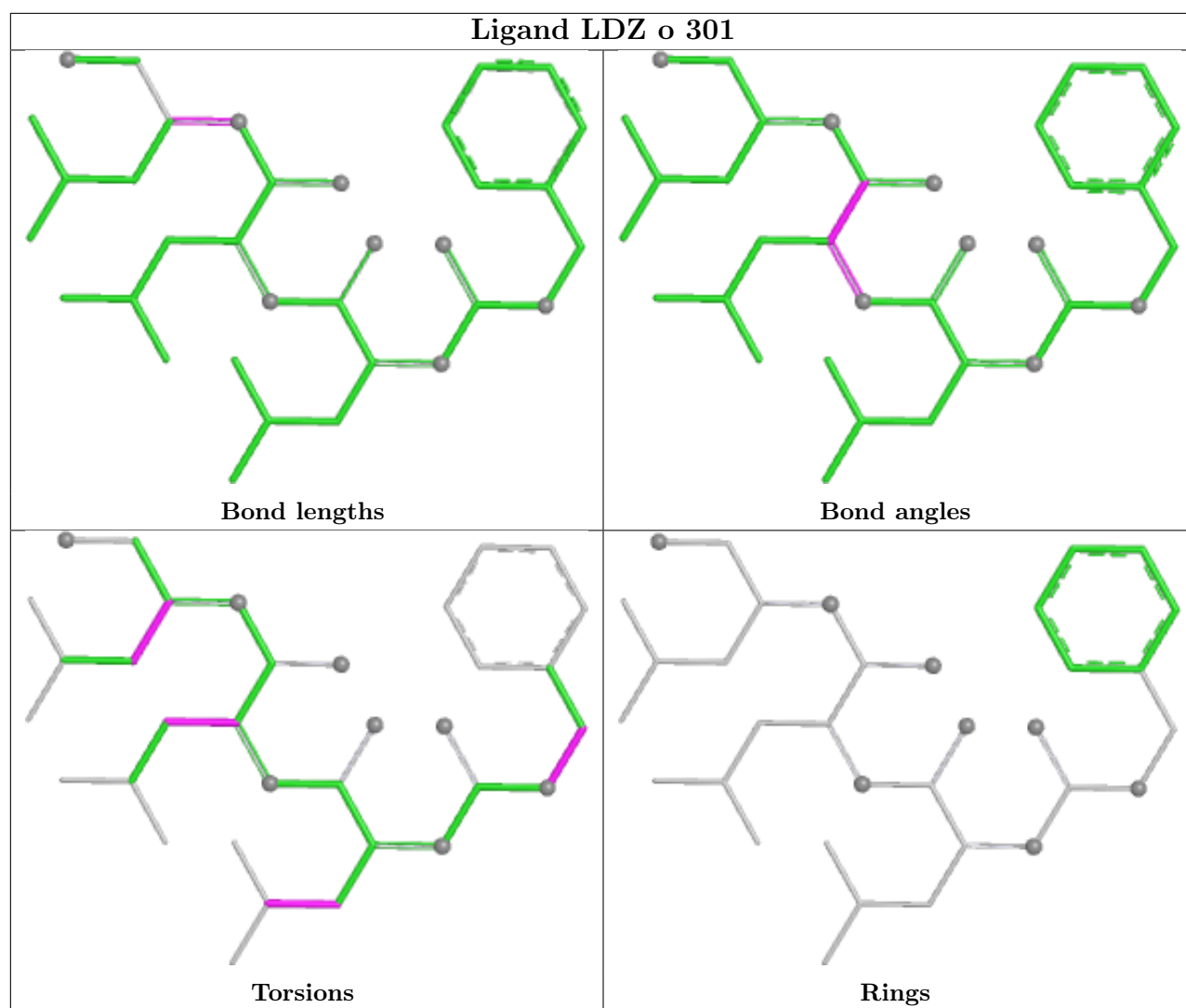
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.

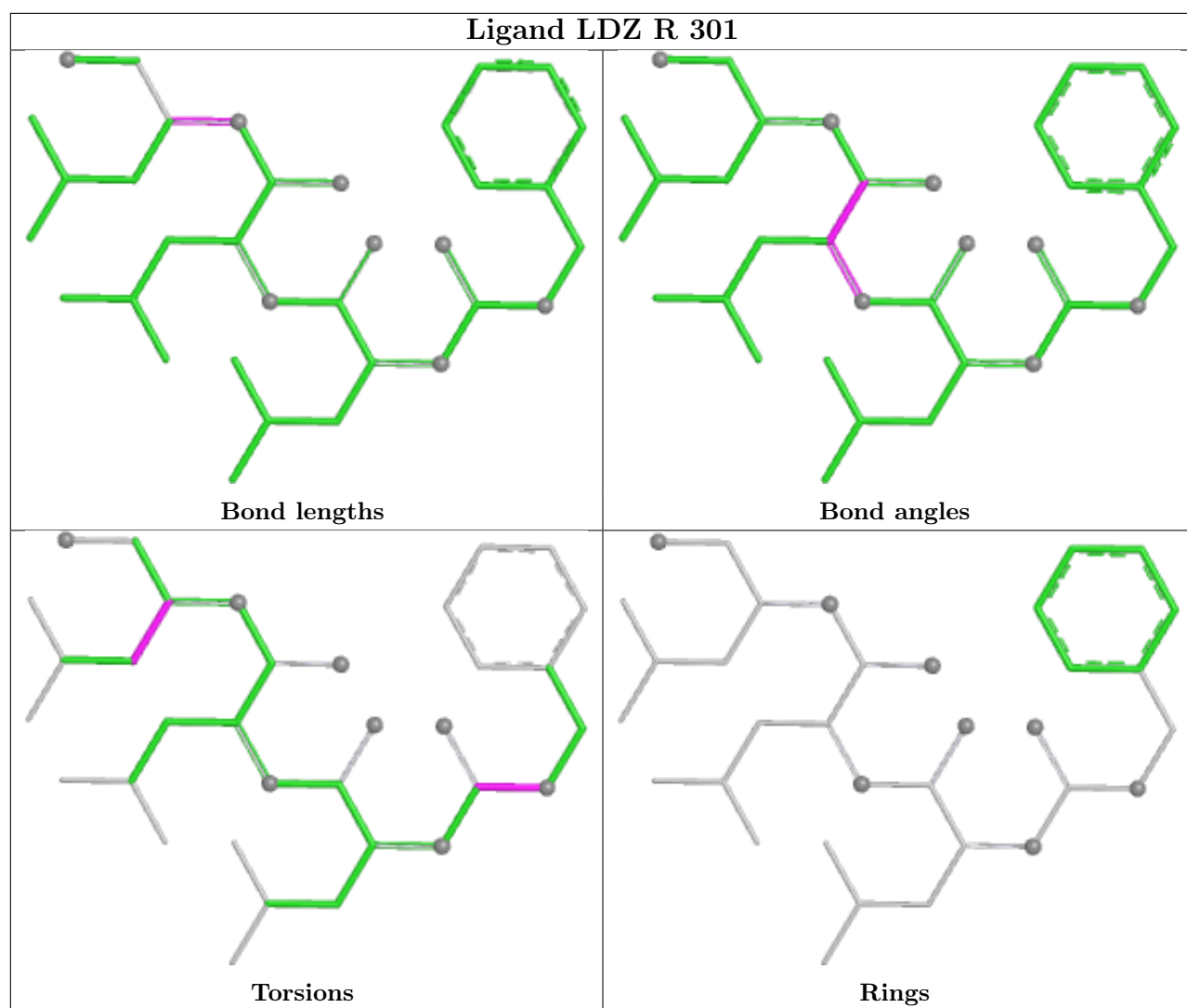




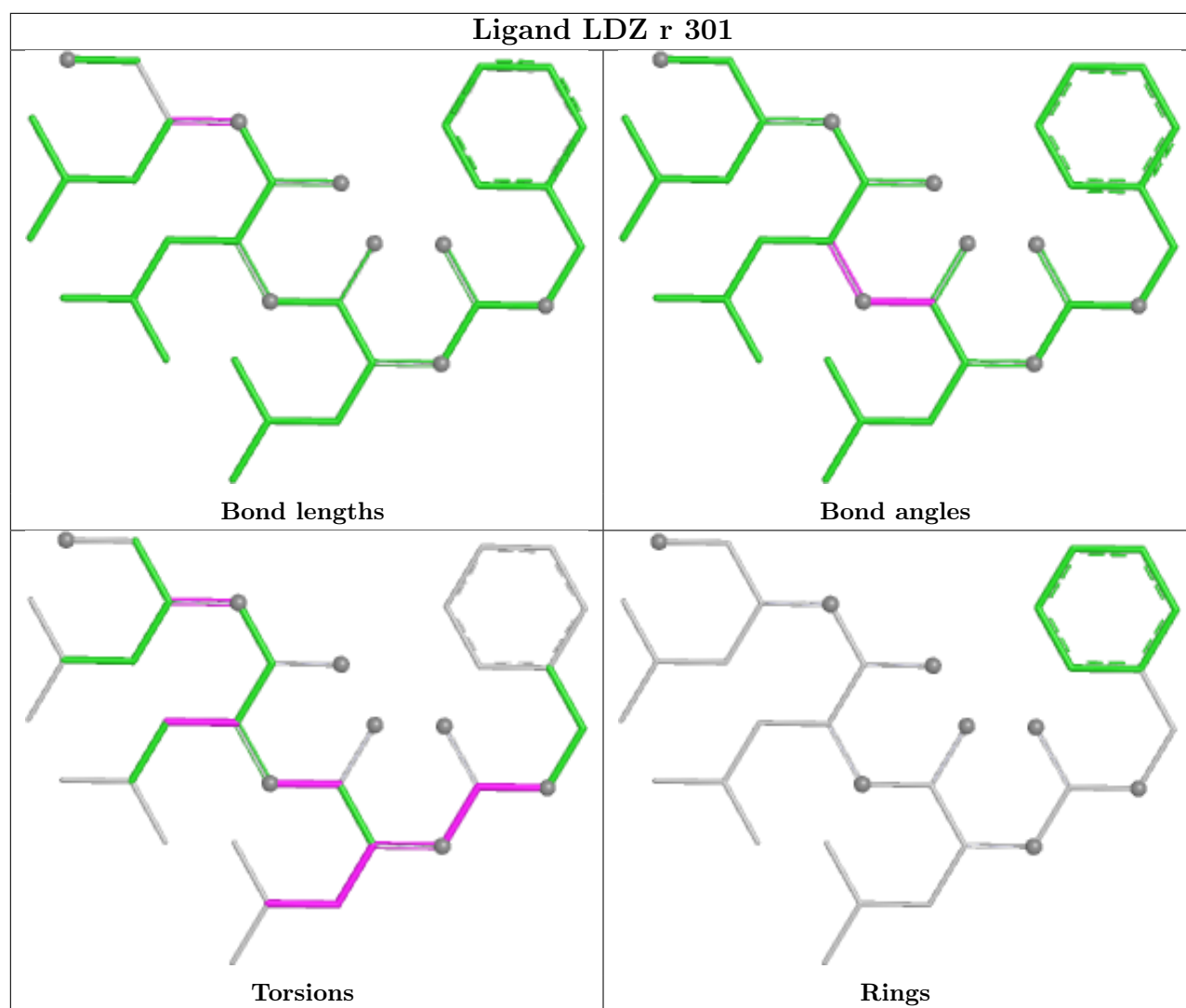


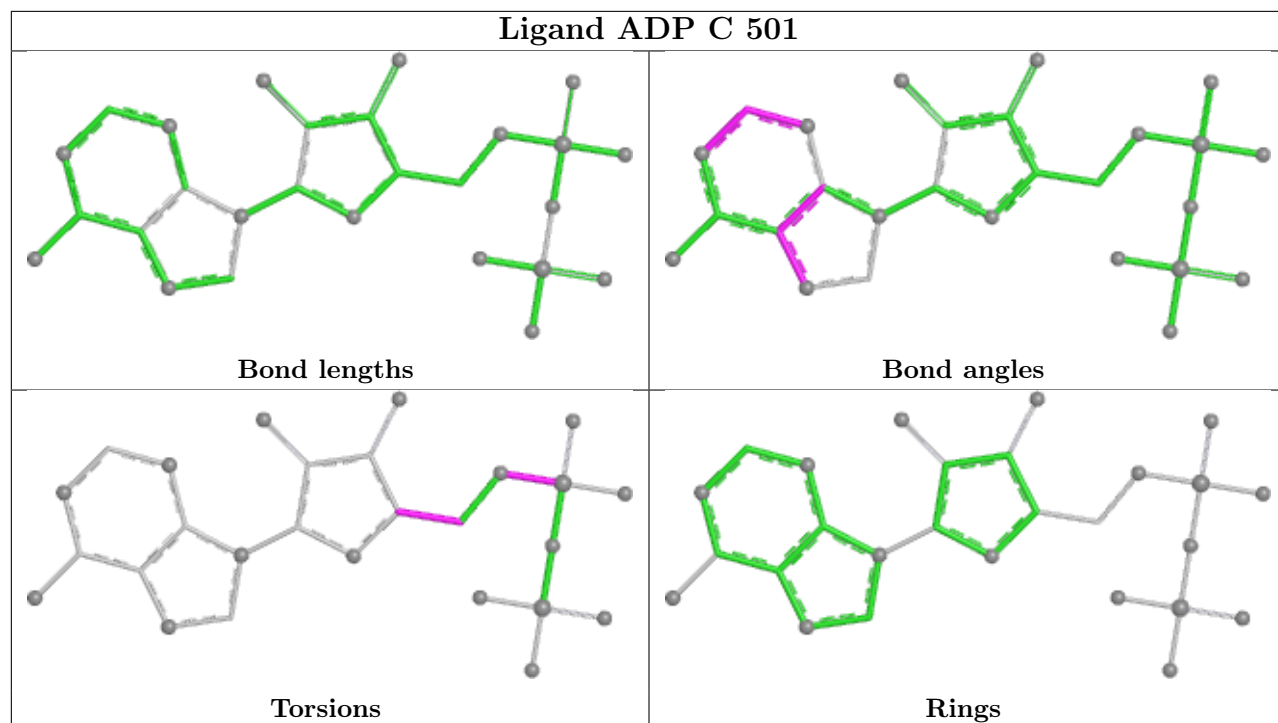


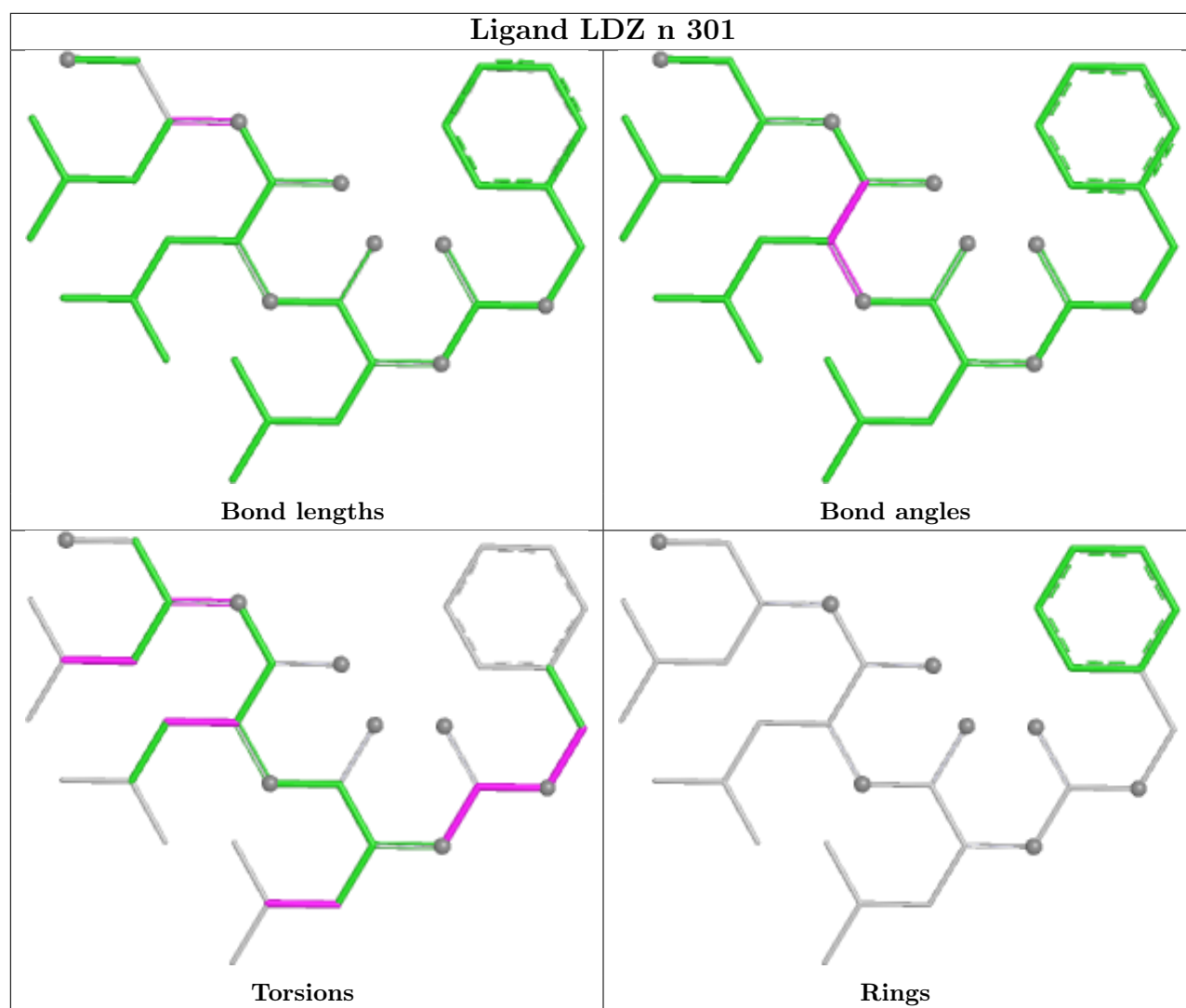


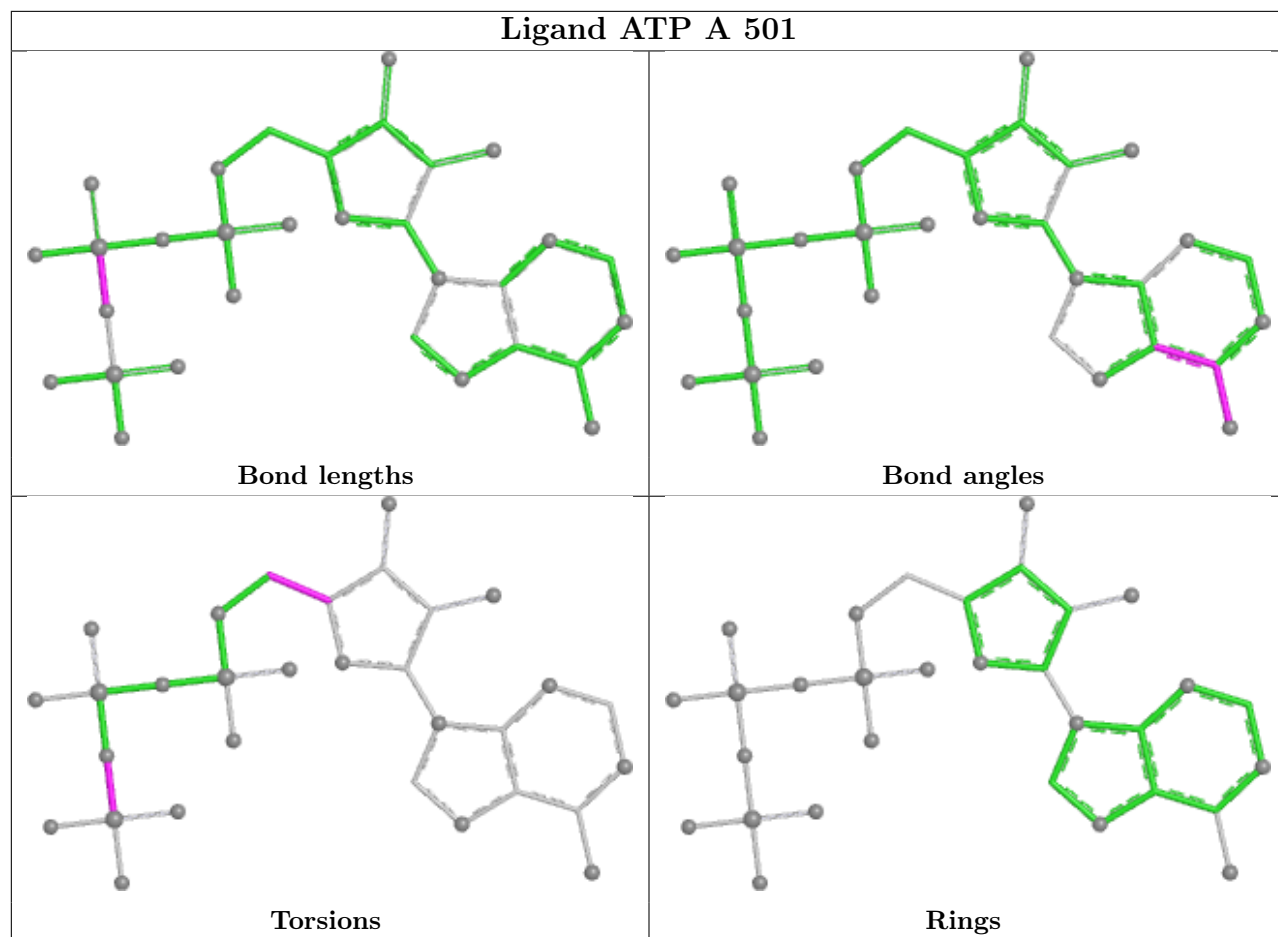


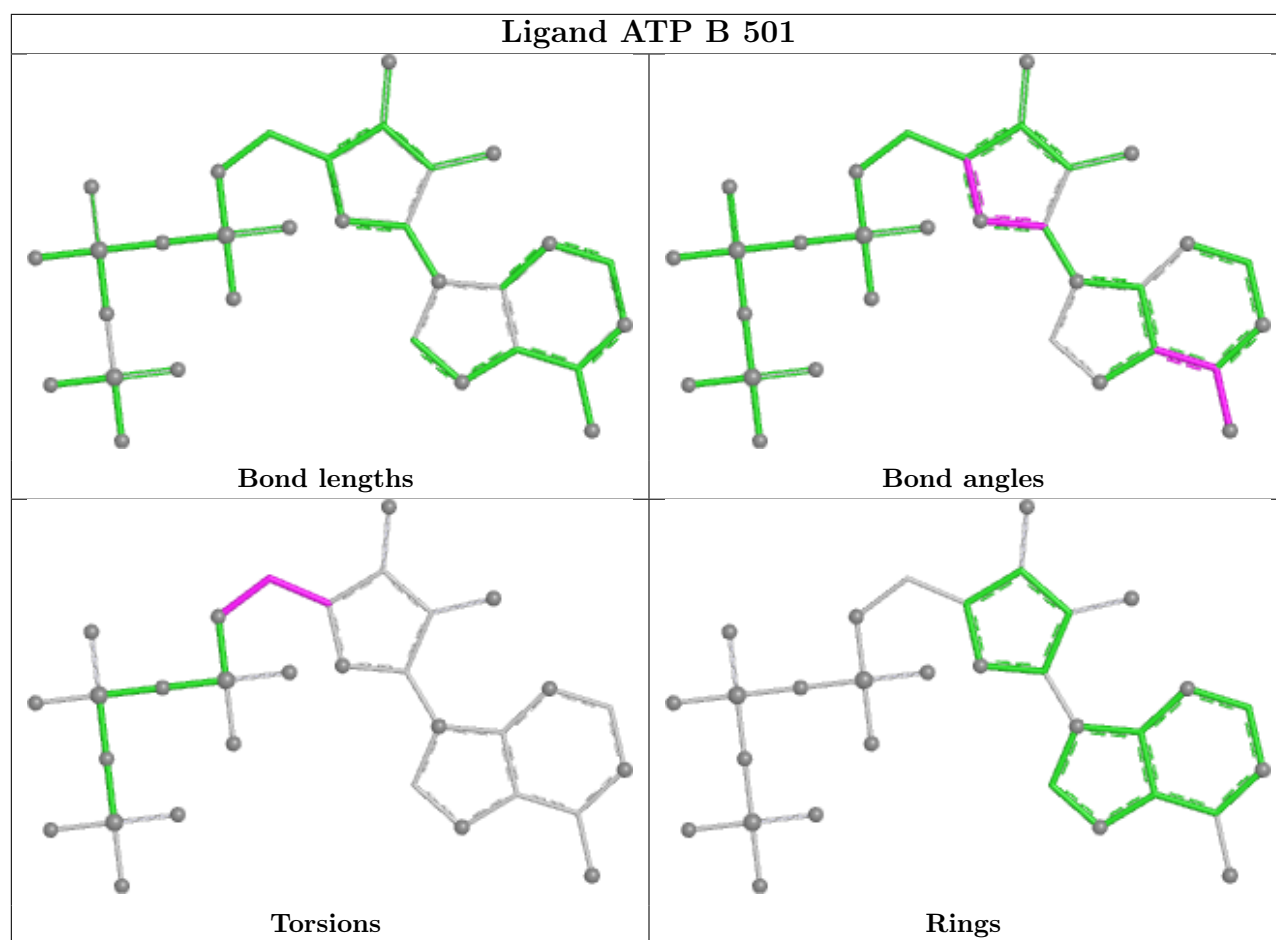












## 5.7 Other polymers [i](#)

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-49507. These allow visual inspection of the internal detail of the map and identification of artifacts.

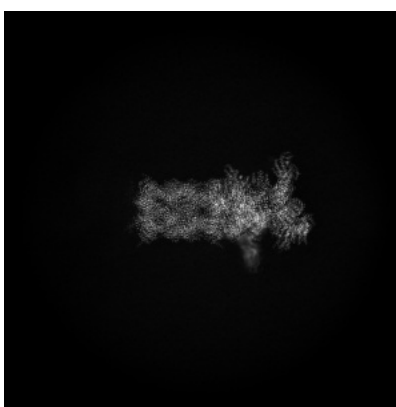
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

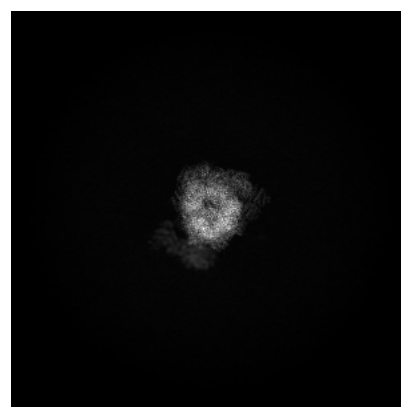
#### 6.1.1 Primary map



X



Y



Z

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

### 6.2 Central slices [i](#)

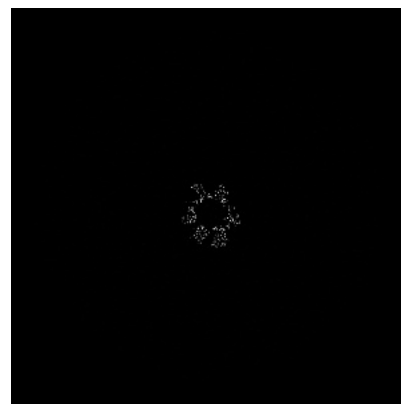
#### 6.2.1 Primary map



X Index: 322



Y Index: 321

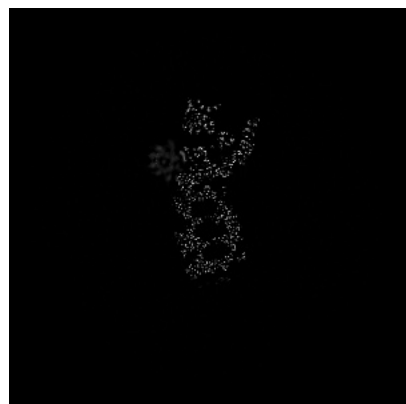


Z Index: 322

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: 309



Y Index: 300



Z Index: 454

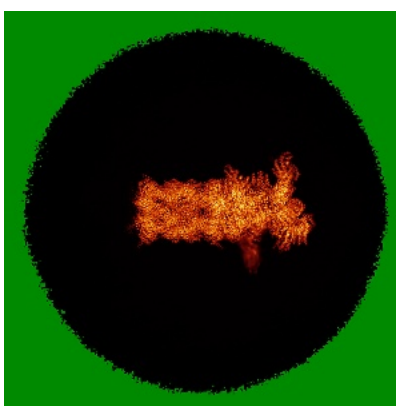
The images above show the largest variance slices of the map in three orthogonal directions.

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

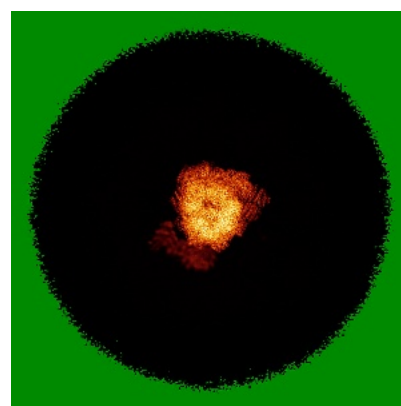
### 6.4.1 Primary map



X



Y



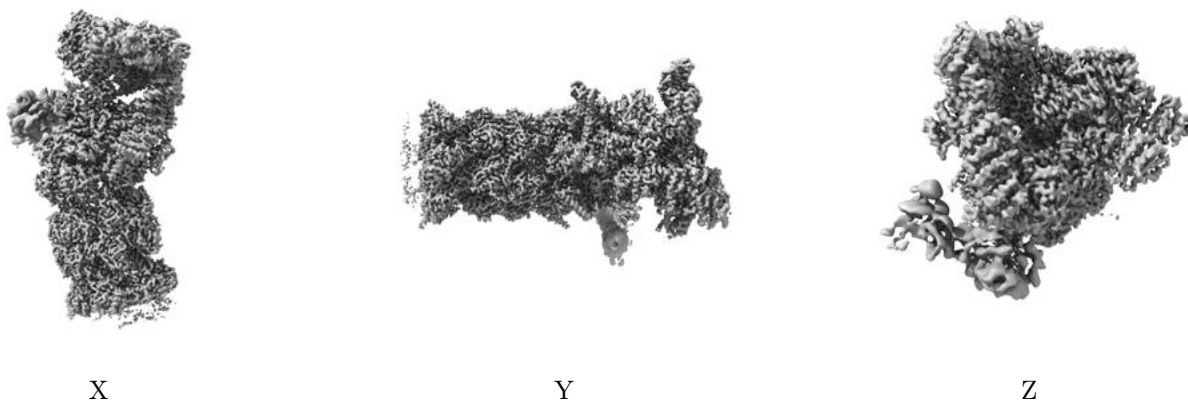
Z

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 0.165. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

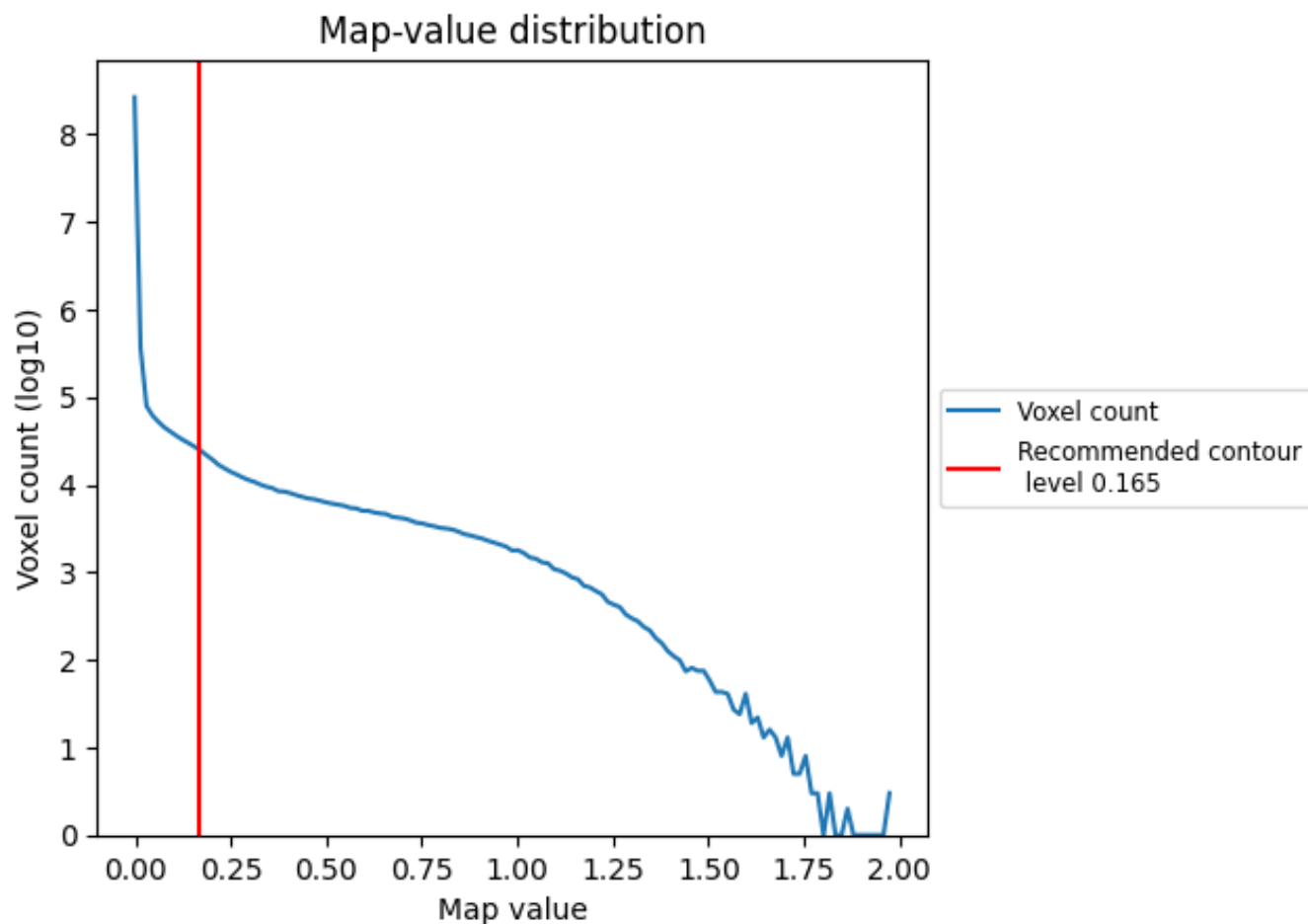
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

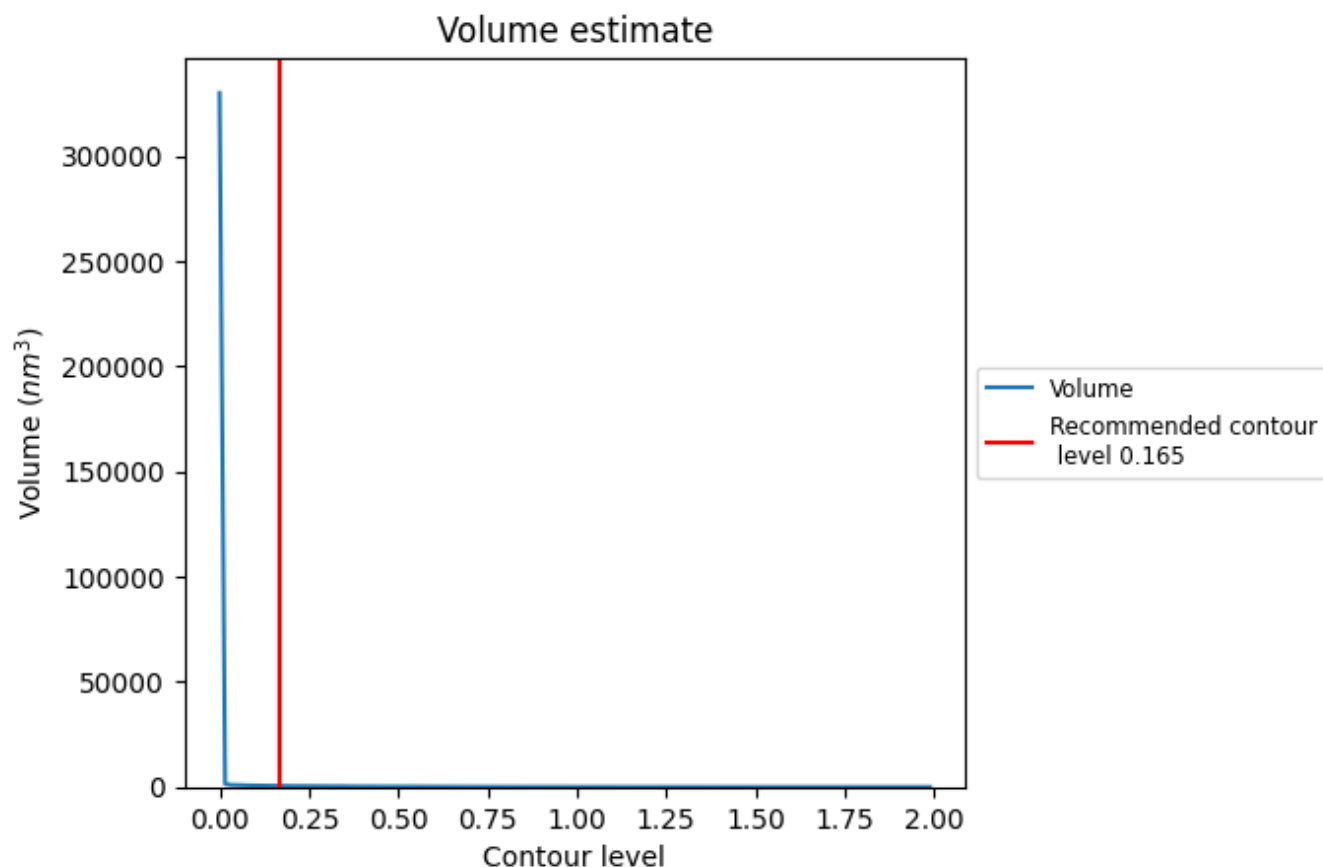
This section contains the results of statistical analysis of the map.

### 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 497 nm<sup>3</sup>; this corresponds to an approximate mass of 449 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 [i](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

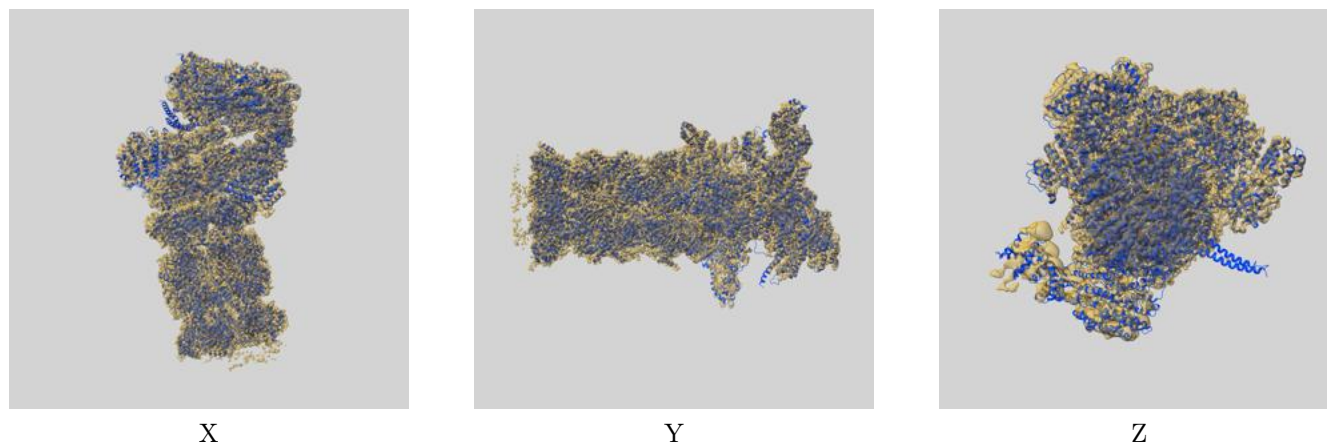
## 8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

## 9 Map-model fit [i](#)

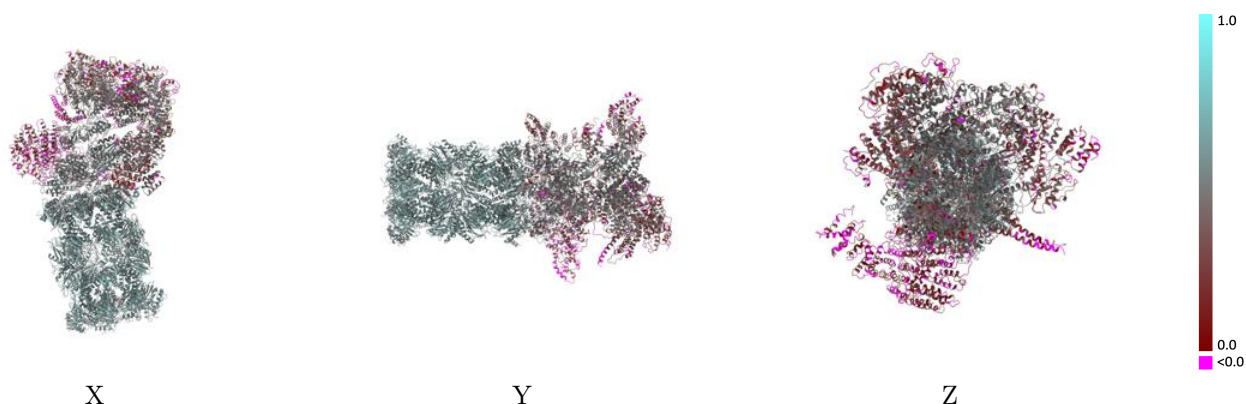
This section contains information regarding the fit between EMDB map EMD-49507 and PDB model 9NKF. Per-residue inclusion information can be found in section 3 on page 13.

### 9.1 Map-model overlay [i](#)



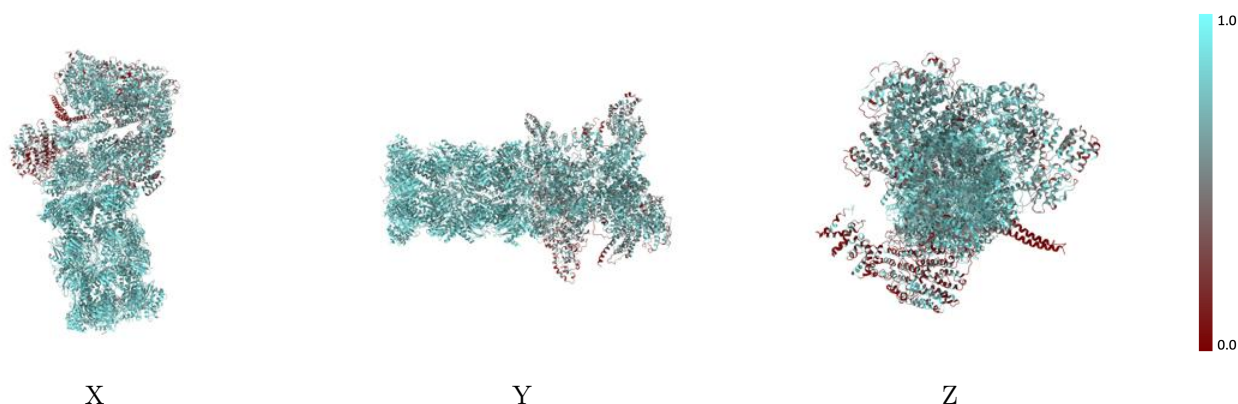
The images above show the 3D surface view of the map at the recommended contour level 0.165 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



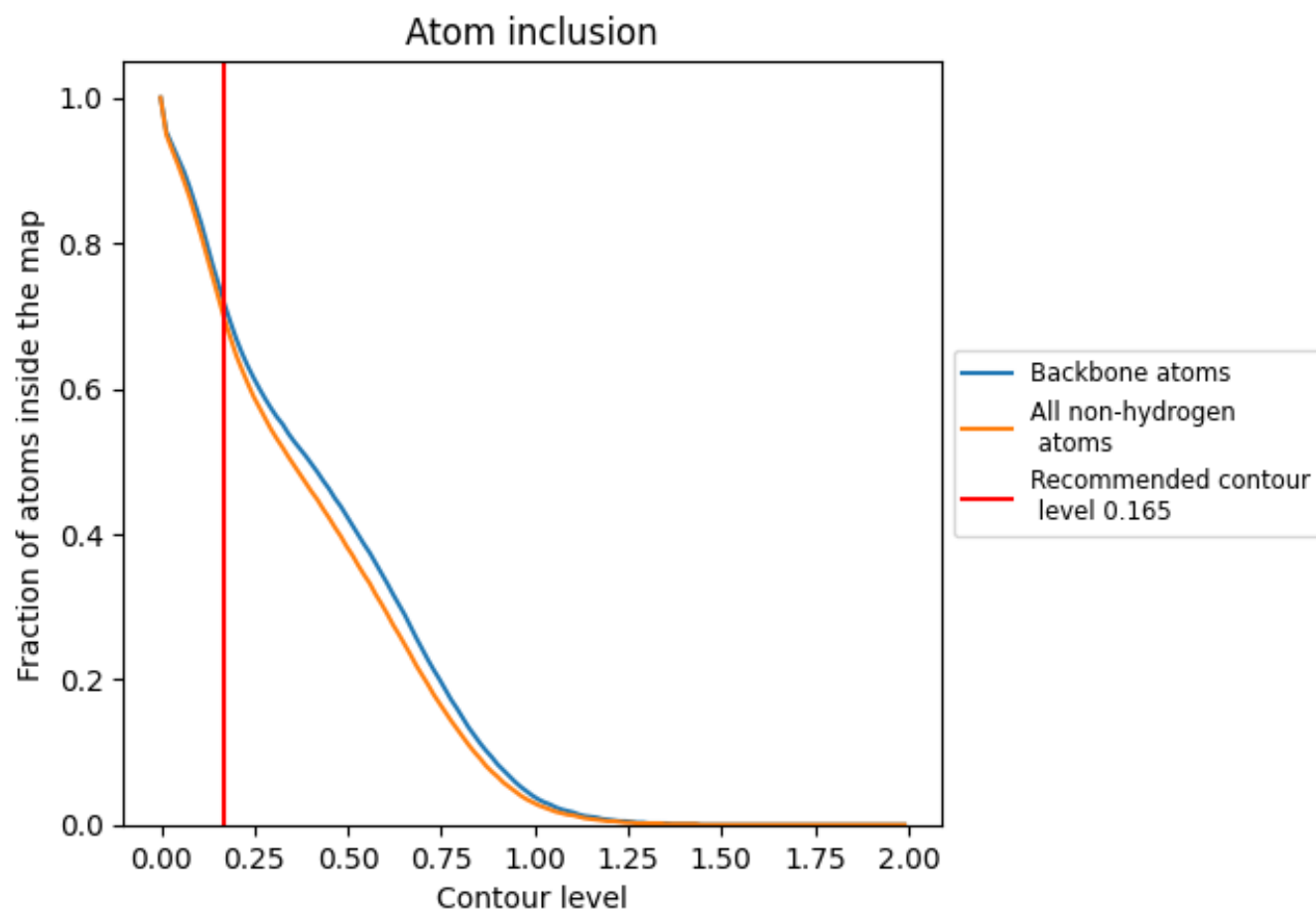
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.165).







































































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 72% of all backbone atoms, 70% 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 (0.165) and Q-score for the entire model and for each chain.

























Chain	Atom inclusion	Q-score
All	 0.7030	 0.4450
A	 0.7920	 0.4600
B	 0.6900	 0.3920
C	 0.7200	 0.4500
D	 0.7410	 0.4630
E	 0.7280	 0.4590
F	 0.7060	 0.4510
G	 0.8350	 0.5330
H	 0.8500	 0.5530
I	 0.8230	 0.5480
J	 0.8520	 0.5590
K	 0.8200	 0.5460
L	 0.8480	 0.5620
M	 0.8290	 0.5430
N	 0.8060	 0.5640
O	 0.7820	 0.5670
P	 0.7960	 0.5650
Q	 0.8280	 0.5750
R	 0.8200	 0.5730
S	 0.8060	 0.5710
T	 0.8260	 0.5700
U	 0.6610	 0.3550
V	 0.5890	 0.3150
W	 0.6160	 0.3330
X	 0.6240	 0.3900
Y	 0.6510	 0.3810
Z	 0.7060	 0.4050
a	 0.6230	 0.3350
b	 0.5920	 0.3200
c	 0.7140	 0.4250
d	 0.5510	 0.2510
e	 0.4560	 0.2660
f	 0.3110	 0.0940
g	 0.7900	 0.5540
h	 0.8220	 0.5660



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Chain	Atom inclusion	Q-score
i	 0.8200	 0.5610
j	 0.8260	 0.5590
k	 0.7850	 0.5530
l	 0.8140	 0.5700
m	 0.7960	 0.5570
n	 0.8120	 0.5720
o	 0.8120	 0.5680
p	 0.8250	 0.5740
q	 0.8260	 0.5820
r	 0.8130	 0.5650
s	 0.8150	 0.5730
t	 0.8400	 0.5750