



Full wwPDB EM Validation Report ⓘ

Mar 24, 2026 – 08:33 AM UTC

PDB ID : 7EDX / pdb_00007edx
EMDB ID : EMD-31075
Title : p53-bound TFIID-based core PIC on HDM2 promoter
Authors : Chen, X.; Qi, Y.; Hou, H.; Wang, X.; Wu, Z.; Li, J.; Xu, Y.
Deposited on : 2021-03-17
Resolution : 4.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

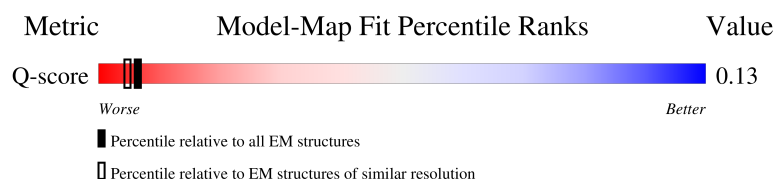
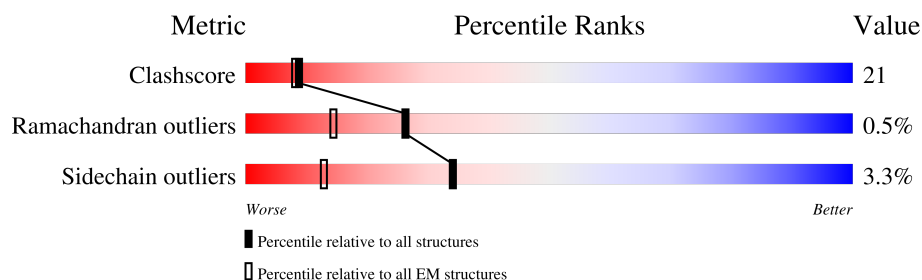
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

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

The reported resolution of this entry is 4.50 Å.

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



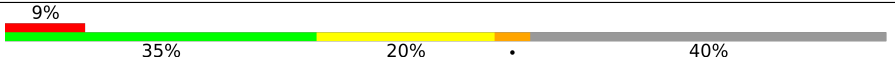
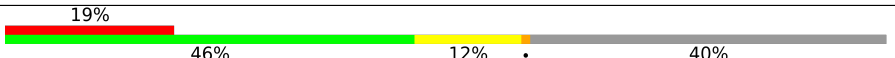
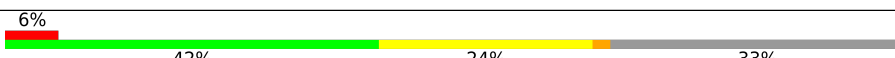
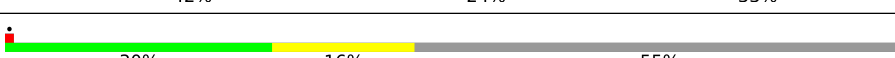
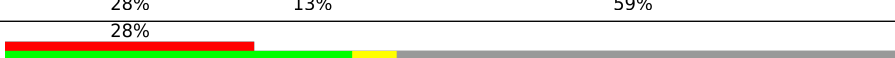
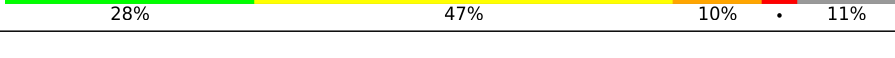
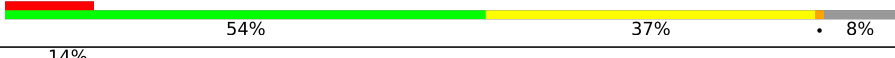
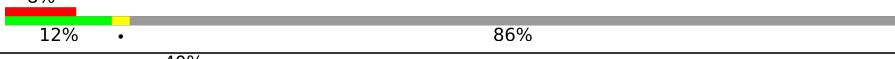
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	2937 (4.00 - 5.00)

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

Mol	Chain	Length	Quality of chain
1	A	1872	8% 21% 9% 68%
2	B	1199	68% 12% 20%
3	D	1085	9% 5% 85%
3	d	1085	10% 12% 85%

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Mol	Chain	Length	Quality of chain
4	E	800	
4	e	800	
5	F	677	
5	f	677	
6	G	349	
7	H	310	
8	I	264	
8	i	264	
9	J	218	
9	j	218	
10	L	161	
10	l	161	
11	O	109	
12	P	339	
13	Q	376	
14	R	316	
15	S	517	
16	T	249	
17	X	84	
18	Y	84	
19	c	929	
20	k	211	
21	m	124	
22	o	1970	
23	p	1174	

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Mol	Chain	Length	Quality of chain
24	q	275	
25	r	142	
26	s	210	
27	t	127	
28	v	150	
29	w	125	
30	x	67	
31	y	117	
32	z	58	
33	u	172	

2 Entry composition

There are 35 unique types of molecules in this entry. The entry contains 81790 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Transcription initiation factor TFIID subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	602	Total	C	N	O	S	0	0
			4927	3142	858	899	28		

- Molecule 2 is a protein called Transcription initiation factor TFIID subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	963	Total	C	N	O	S	0	0
			7796	5011	1315	1412	58		

- Molecule 3 is a protein called Transcription initiation factor TFIID subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	D	165	Total	C	N	O	S	0	0
			1377	858	257	258	4		
3	d	158	Total	C	N	O	S	0	0
			1307	814	238	252	3		

- Molecule 4 is a protein called Transcription initiation factor TFIID subunit 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	E	546	Total	C	N	O	S	0	0
			4364	2766	757	820	21		
4	e	539	Total	C	N	O	S	0	0
			4327	2746	748	814	19		

- Molecule 5 is a protein called Transcription initiation factor TFIID subunit 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	F	404	Total	C	N	O	S	0	0
			3081	1954	537	572	18		
5	f	403	Total	C	N	O	S	0	0
			3081	1954	533	576	18		

- Molecule 6 is a protein called Transcription initiation factor TFIID subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	G	145	Total	C	N	O	S	0	0
			1180	748	217	211	4		

- Molecule 7 is a protein called Transcription initiation factor TFIID subunit 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H	209	Total	C	N	O	S	0	0
			1633	1034	283	311	5		

- Molecule 8 is a protein called Transcription initiation factor TFIID subunit 9.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	I	120	Total	C	N	O	S	0	0
			959	610	166	177	6		
8	i	121	Total	C	N	O	S	0	0
			967	615	167	178	7		

- Molecule 9 is a protein called Transcription initiation factor TFIID subunit 10.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	89	Total	C	N	O	S	0	0
			709	457	114	134	4		
9	j	95	Total	C	N	O	S	0	0
			759	488	124	143	4		

- Molecule 10 is a protein called Transcription initiation factor TFIID subunit 12.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	L	76	Total	C	N	O	S	0	0
			622	388	109	122	3		
10	l	107	Total	C	N	O	S	0	0
			876	547	158	166	5		

- Molecule 11 is a protein called Transcription initiation factor IIA subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	O	97	Total	C	N	O	S	0	0
			771	491	133	145	2		

- Molecule 12 is a protein called TATA-box-binding protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	P	177	Total	C	N	O	S	0	0
			1412	918	249	238	7		

- Molecule 13 is a protein called Transcription initiation factor IIA subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	Q	122	Total	C	N	O	S	0	0
			996	623	162	207	4		

- Molecule 14 is a protein called Transcription initiation factor IIB.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	R	248	Total	C	N	O	S	0	0
			1913	1200	338	358	17		

- Molecule 15 is a protein called General transcription factor IIF subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	S	134	Total	C	N	O	S	0	0
			1101	698	199	202	2		

- Molecule 16 is a protein called General transcription factor IIF subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	T	113	Total	C	N	O	S	0	0
			876	545	160	169	2		

- Molecule 17 is a DNA chain called DNA (84-mer).

Mol	Chain	Residues	Atoms					AltConf	Trace
17	X	77	Total	C	N	O	P	0	0
			1582	752	283	470	77		

- Molecule 18 is a DNA chain called DNA (84-mer).

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Y	77	Total	C	N	O	P	0	0
			1575	747	297	454	77		

- Molecule 19 is a protein called Transcription initiation factor TFIID subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	c	127	Total	C	N	O	S	0	0
			1011	638	174	193	6		

- Molecule 20 is a protein called Transcription initiation factor TFIID subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	k	98	Total	C	N	O	S	0	0
			785	499	142	139	5		

- Molecule 21 is a protein called Transcription initiation factor TFIID subunit 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	m	87	Total	C	N	O	S	0	0
			724	456	131	131	6		

- Molecule 22 is a protein called RPB1.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	o	1427	Total	C	N	O	S	0	0
			11308	7114	2023	2099	72		

- Molecule 23 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	p	1134	Total	C	N	O	S	0	0
			9062	5732	1595	1671	64		

- Molecule 24 is a protein called DNA-directed RNA polymerase II subunit RPB3.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	q	257	Total	C	N	O	S	0	0
			2059	1294	351	408	6		

- Molecule 25 is a protein called DNA-directed RNA polymerase II subunit RPB4.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	r	128	Total	C	N	O	S	0	0
			1005	632	172	197	4		

- Molecule 26 is a protein called DNA-directed RNA polymerase II subunit E.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	s	209	Total	C	N	O	S	0	0
			1720	1089	300	323	8		

- Molecule 27 is a protein called DNA-directed RNA polymerase II subunit F.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	t	79	Total	C	N	O	S	0	0
			635	406	108	116	5		

- Molecule 28 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	v	148	Total	C	N	O	S	0	0
			1186	750	194	237	5		

- Molecule 29 is a protein called DNA-directed RNA polymerase II subunit RPB9.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	w	114	Total	C	N	O	S	0	0
			927	571	166	179	11		

- Molecule 30 is a protein called RPB10.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	x	64	Total	C	N	O	S	0	0
			507	328	86	87	6		

- Molecule 31 is a protein called RNA_pol_L_2 domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	y	117	Total	C	N	O	S	0	0
			937	604	154	177	2		

- Molecule 32 is a protein called RPB12.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	z	44	Total	C	N	O	S	0	0
			372	231	72	63	6		

- Molecule 33 is a protein called DNA-directed RNA polymerase II subunit RPB7.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	u	171	Total	C	N	O	S	0	0
			1351	875	219	249	8		

- Molecule 34 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
34	R	1	Total	Zn	0
			1	1	
34	o	2	Total	Zn	0
			2	2	
34	p	1	Total	Zn	0
			1	1	
34	q	1	Total	Zn	0
			1	1	
34	w	2	Total	Zn	0
			2	2	
34	x	1	Total	Zn	0
			1	1	
34	z	1	Total	Zn	0
			1	1	

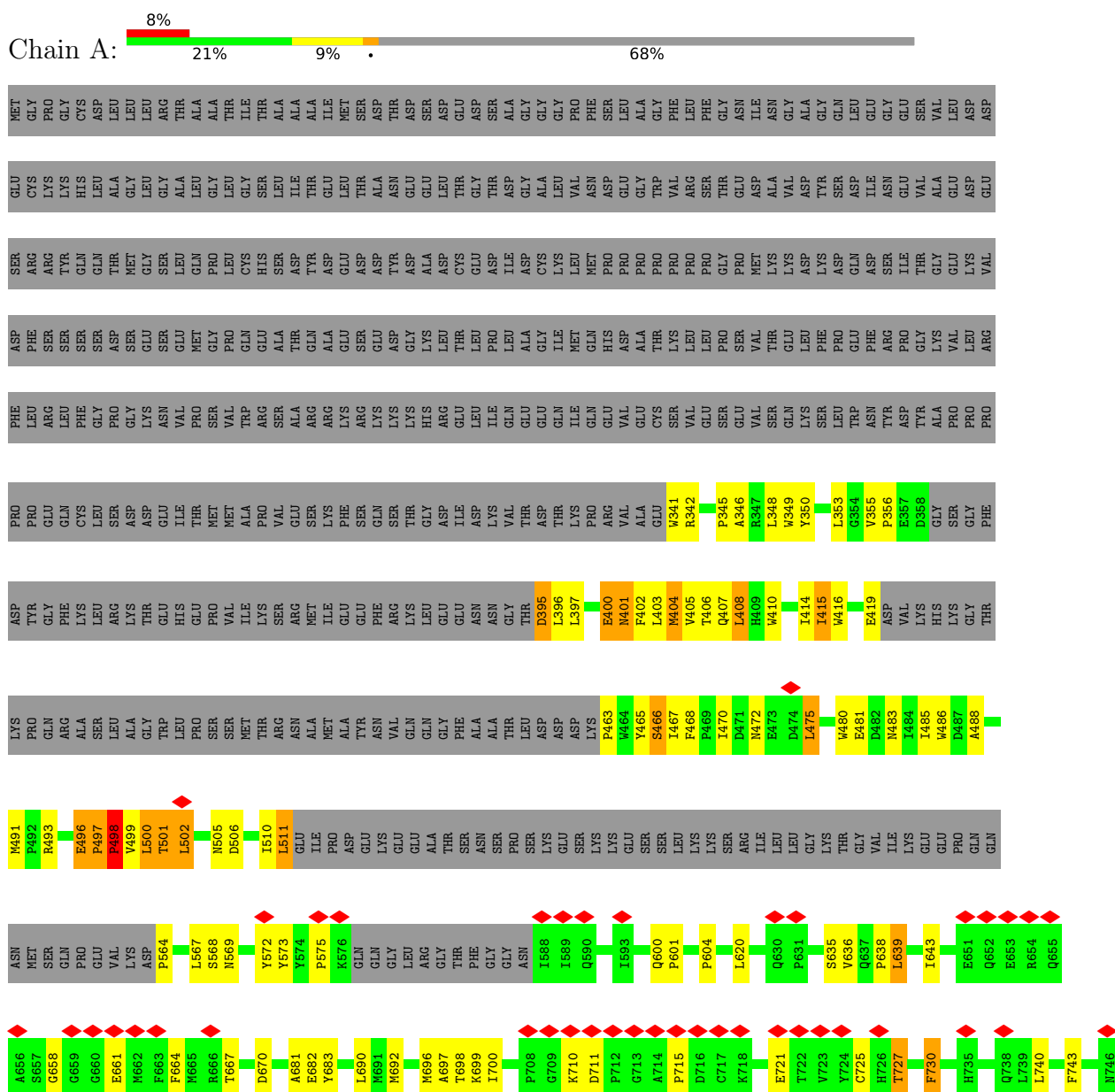
- Molecule 35 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
35	o	1	Total	Mg	0
			1	1	

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.

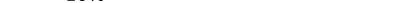
- Molecule 1: Transcription initiation factor TFIID subunit 1





[illegible]

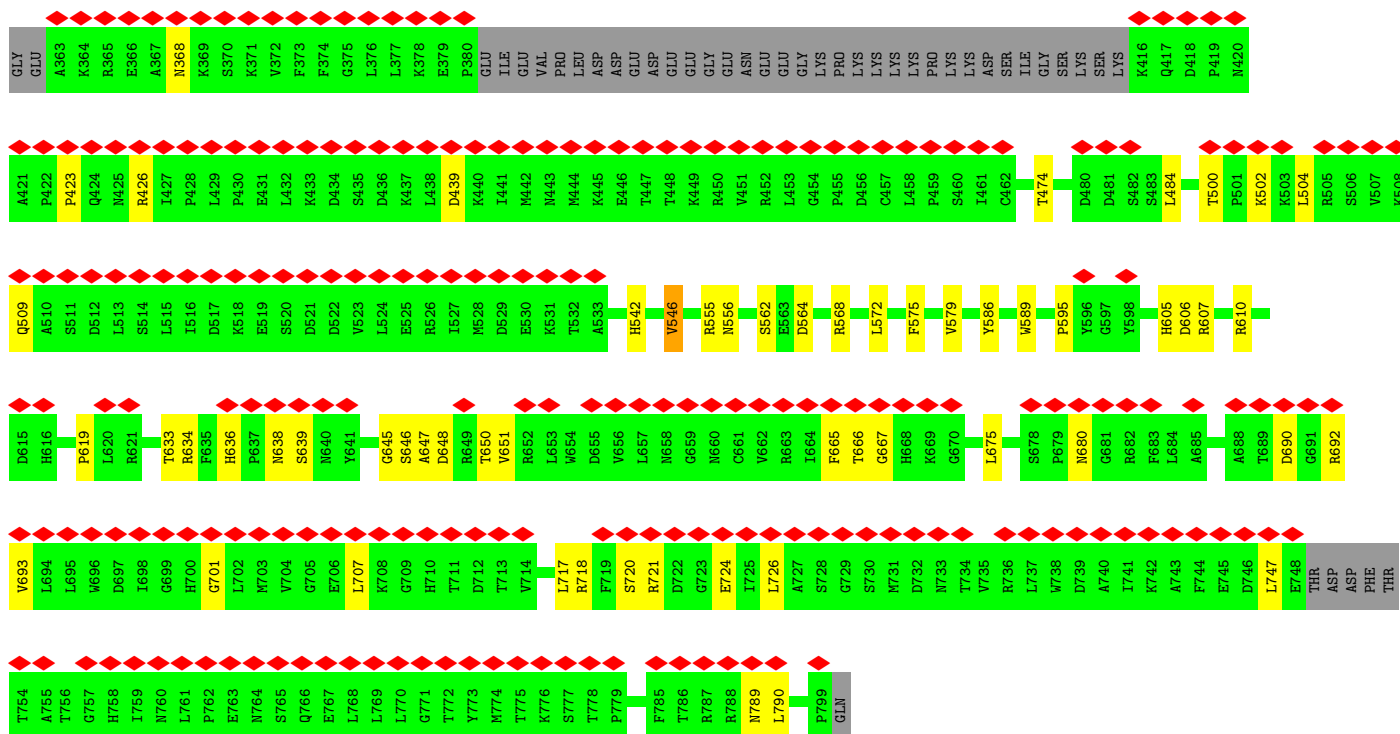
- Molecule 3: Transcription initiation factor TFIID subunit 4

Chain d:  10% 12% 85%

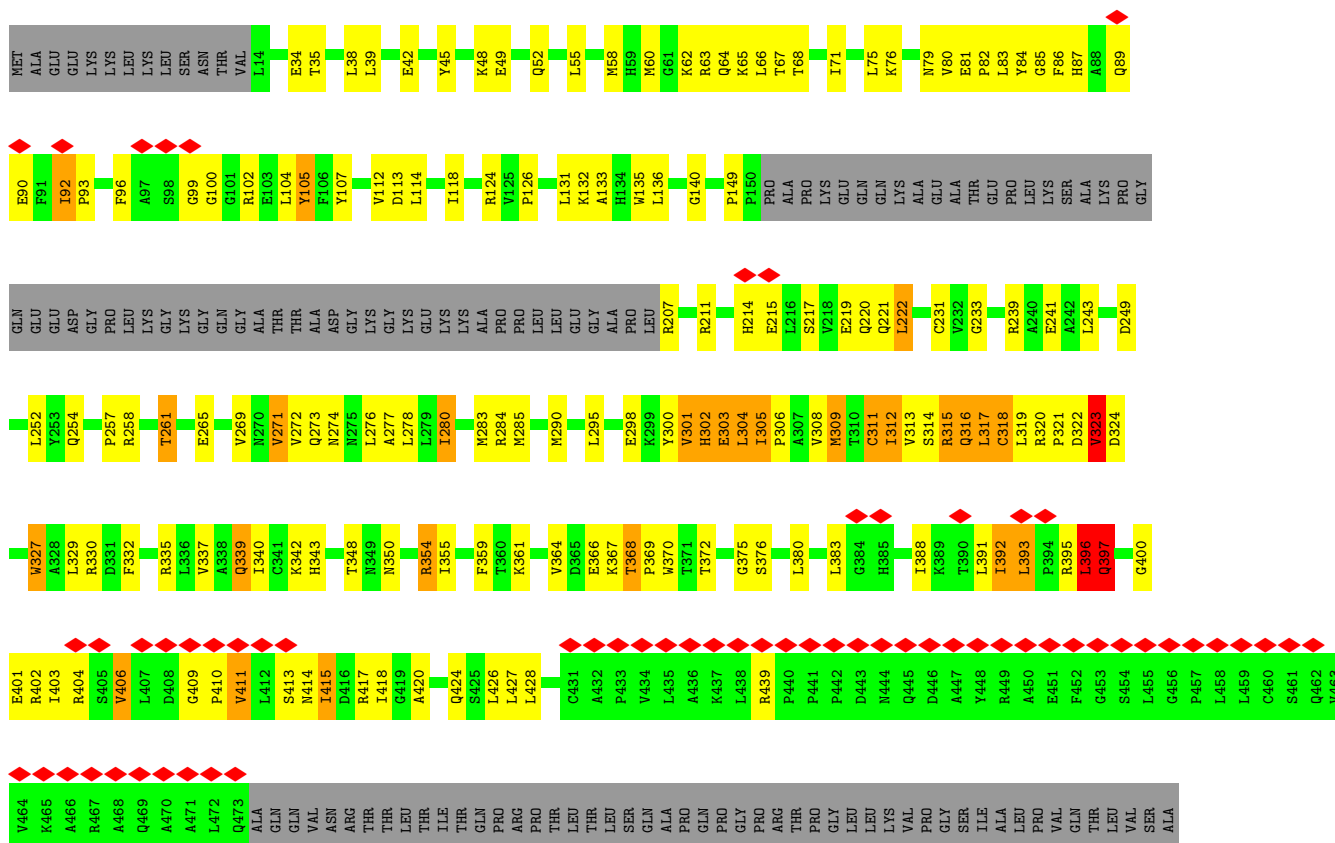
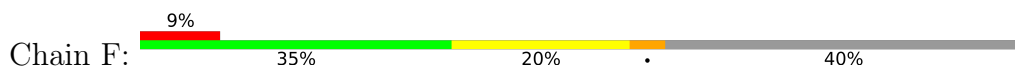
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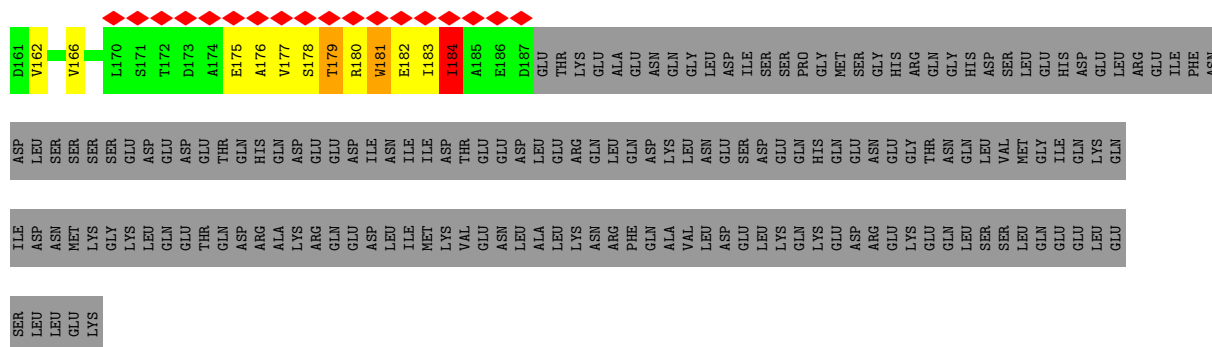




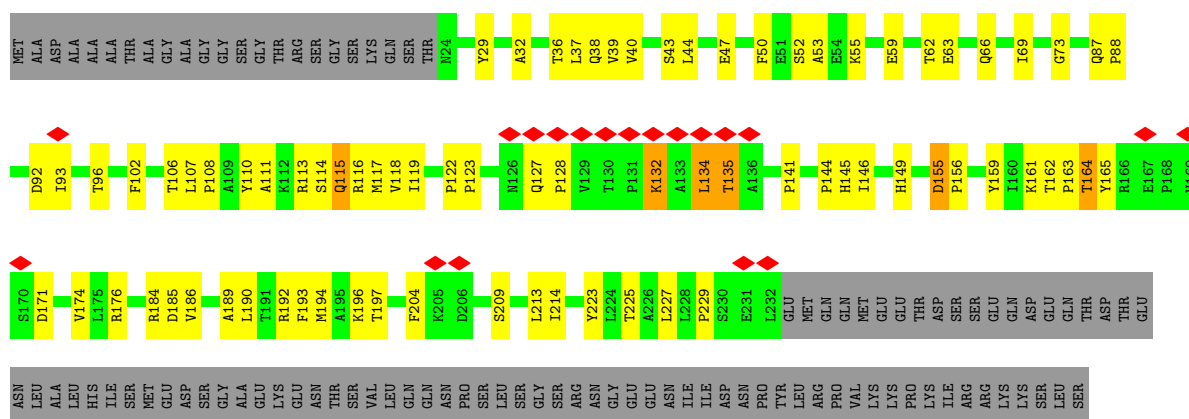


• Molecule 5: Transcription initiation factor TFIID subunit 6

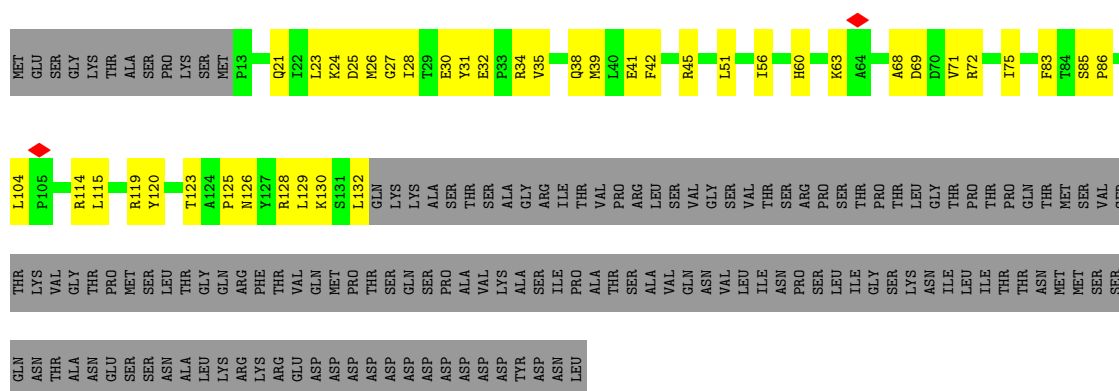
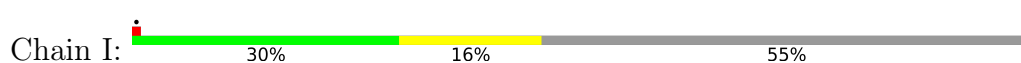




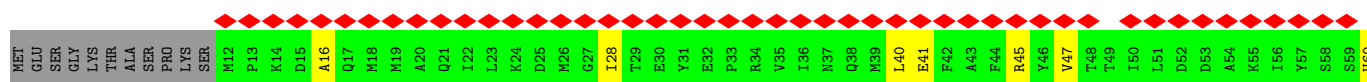
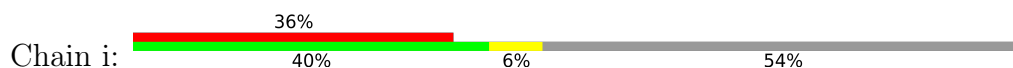
• Molecule 7: Transcription initiation factor TFIID subunit 8

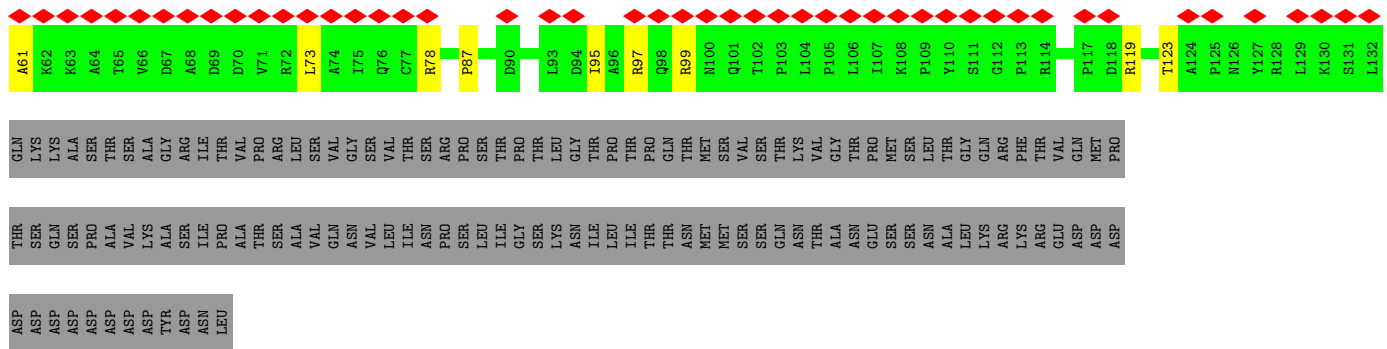


• Molecule 8: Transcription initiation factor TFIID subunit 9

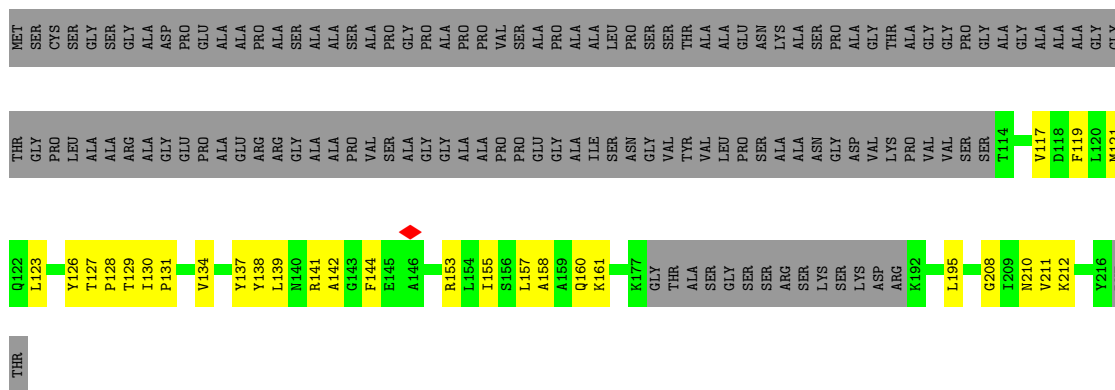


• Molecule 8: Transcription initiation factor TFIID subunit 9

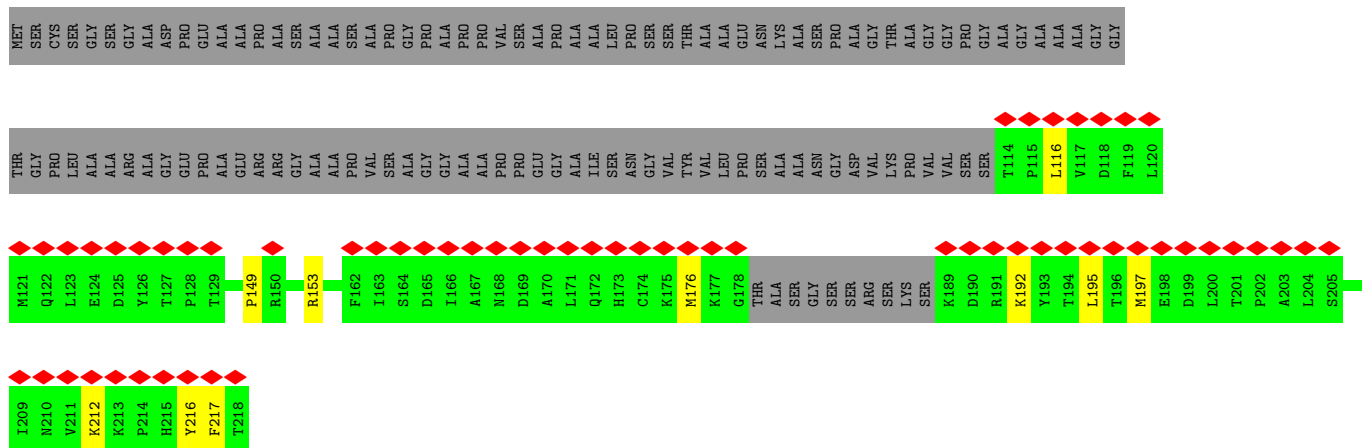
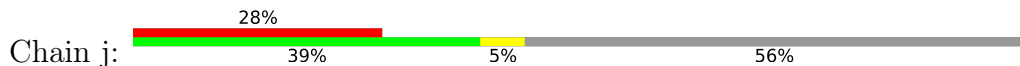




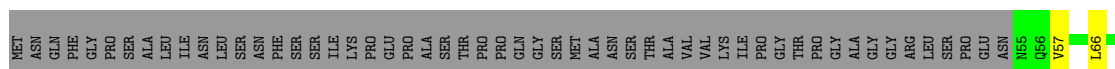
- Molecule 9: Transcription initiation factor TFIID subunit 10



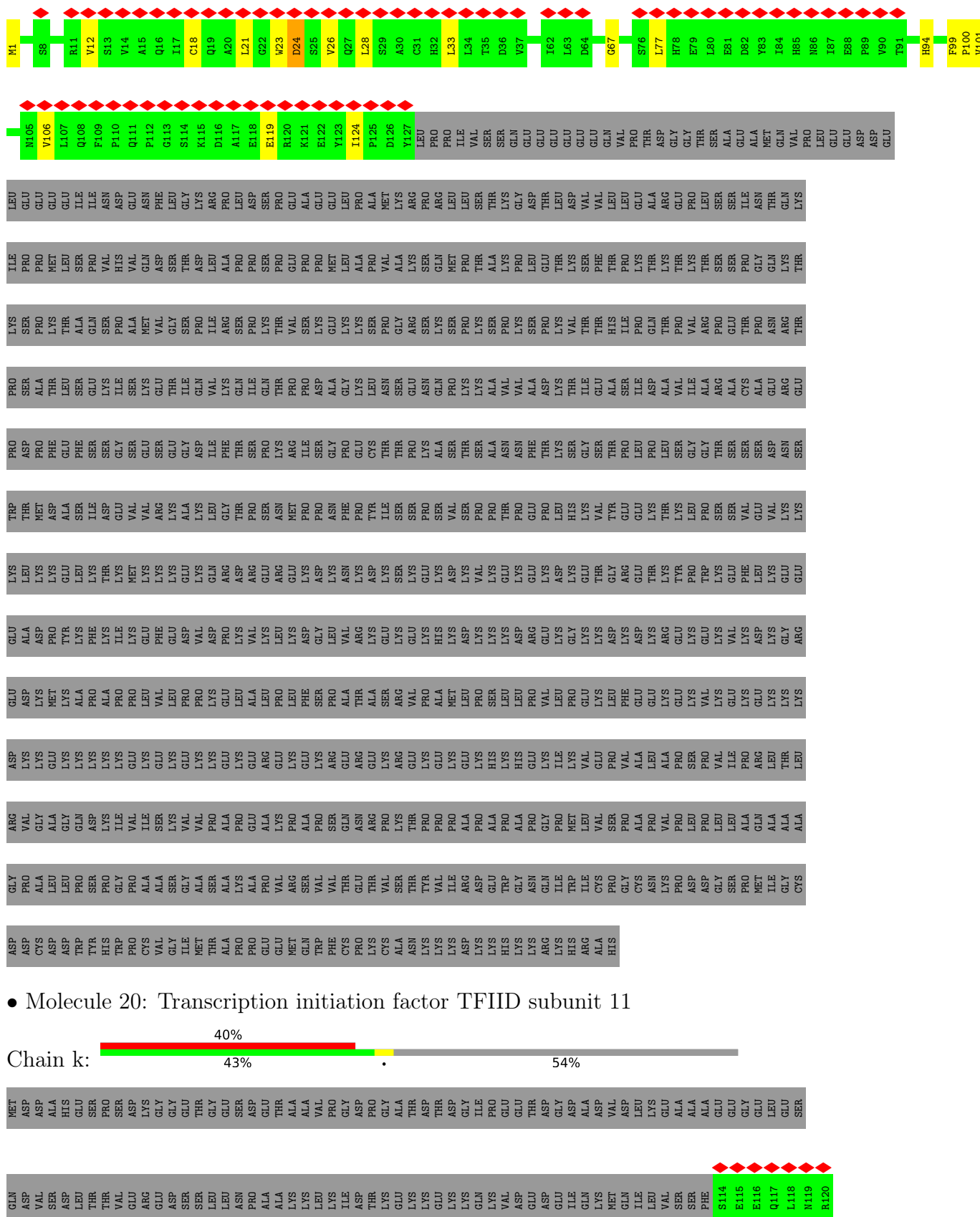
- Molecule 9: Transcription initiation factor TFIID subunit 10



- Molecule 10: Transcription initiation factor TFIID subunit 12

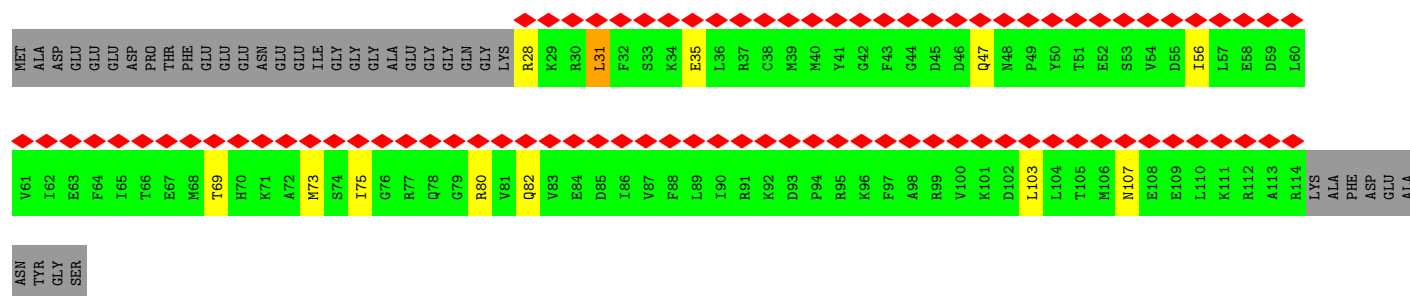




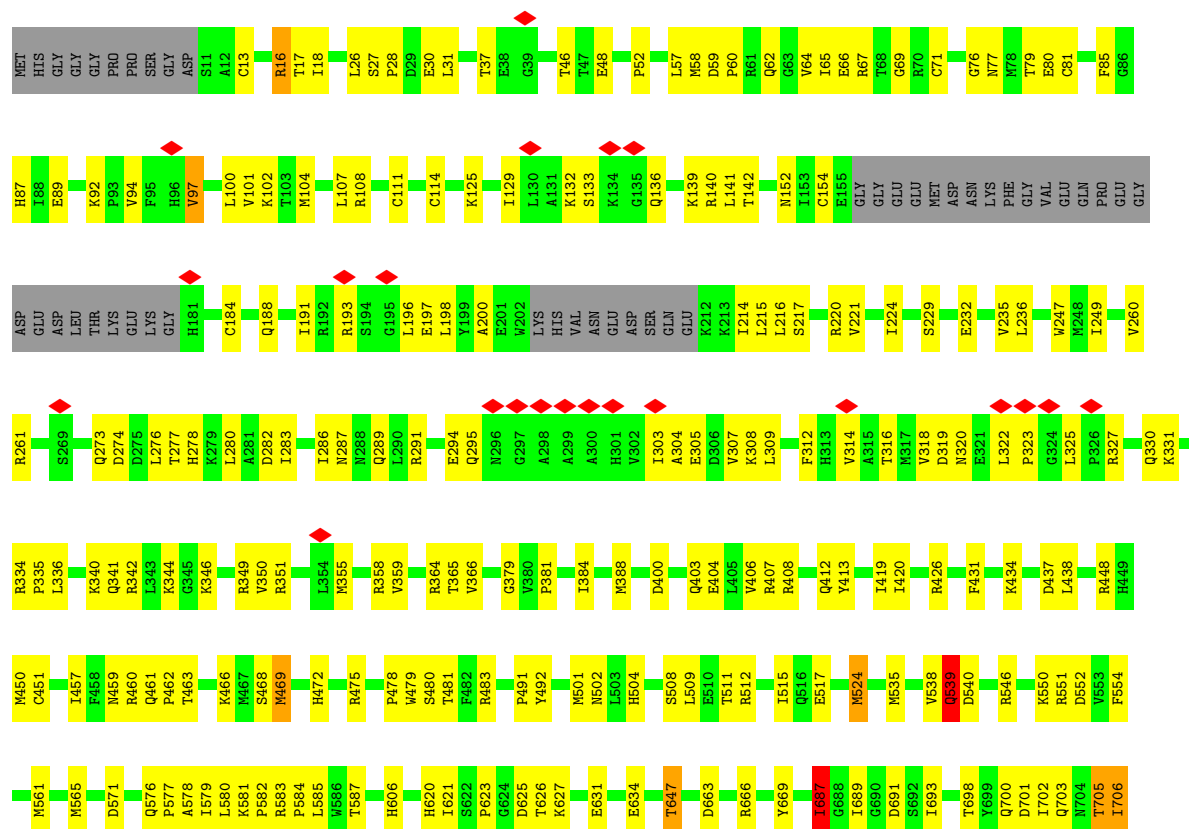




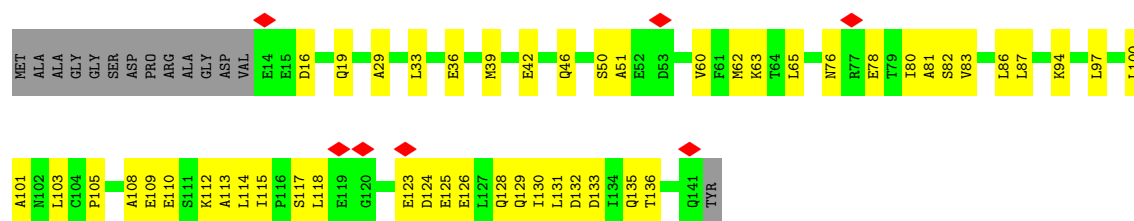
• Molecule 21: Transcription initiation factor TFIID subunit 13



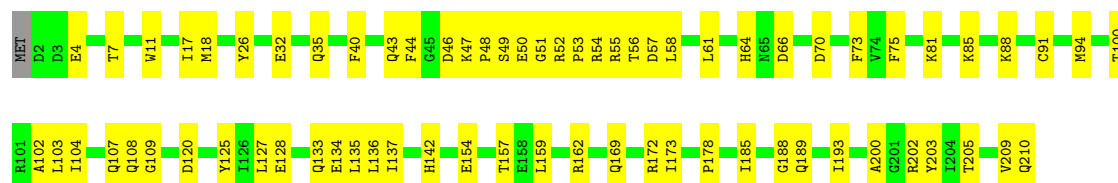
• Molecule 22: RPB1



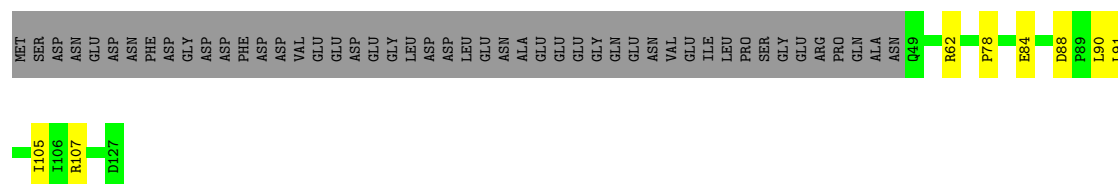




- Molecule 26: DNA-directed RNA polymerase II subunit E



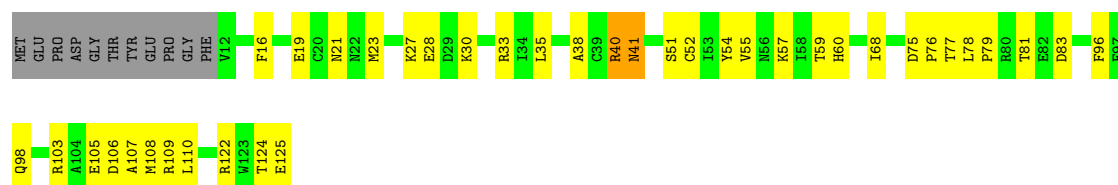
- Molecule 27: DNA-directed RNA polymerase II subunit F



- Molecule 28: DNA-directed RNA polymerases I, II, and III subunit RPABC3



- Molecule 29: DNA-directed RNA polymerase II subunit RPB9



- Molecule 30: RPB10

Chain x:  67% 28% .



- Molecule 31: RNA_pol_L_2 domain-containing protein

Chain y:  84% 16%



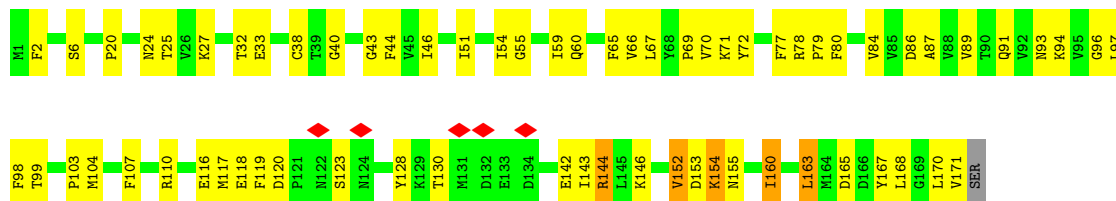
- Molecule 32: RPB12

Chain z:  47% 29% 24%



- Molecule 33: DNA-directed RNA polymerase II subunit RPB7

Chain u:  60% 36% . .



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	99580	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50.0	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.612	Depositor
Minimum map value	-0.877	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.033	Depositor
Recommended contour level	0.15	Depositor
Map size ($\text{\AA}$)	508.8, 508.8, 508.8	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.06, 1.06, 1.06	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.66	0/5046	0.96	10/6810 (0.1%)
2	B	0.47	1/7993 (0.0%)	0.68	5/10836 (0.0%)
3	D	0.72	1/1391 (0.1%)	0.96	2/1859 (0.1%)
3	d	0.26	0/1321	0.48	0/1772
4	E	0.33	0/4469	0.58	3/6050 (0.0%)
4	e	0.28	0/4433	0.53	0/6004
5	F	0.71	0/3139	1.11	9/4264 (0.2%)
5	f	0.46	0/3140	0.80	6/4268 (0.1%)
6	G	0.72	0/1199	1.05	3/1612 (0.2%)
7	H	0.50	0/1673	0.76	3/2285 (0.1%)
8	I	0.21	0/981	0.41	0/1332
8	i	0.21	0/989	0.40	0/1343
9	J	0.28	0/724	0.50	0/982
9	j	0.22	0/775	0.44	0/1049
10	L	0.41	0/630	0.72	0/852
10	l	0.32	0/888	0.61	0/1194
11	O	0.79	1/781 (0.1%)	1.19	10/1061 (0.9%)
12	P	0.94	0/1438	1.30	6/1935 (0.3%)
13	Q	0.60	0/1013	1.12	9/1366 (0.7%)
14	R	0.44	0/1941	1.01	5/2622 (0.2%)
15	S	0.46	0/1130	0.86	1/1528 (0.1%)
16	T	0.36	0/887	0.89	2/1193 (0.2%)
17	X	0.38	0/1772	0.88	2/2735 (0.1%)
18	Y	0.37	0/1768	0.85	0/2724
19	c	0.48	0/1035	0.67	0/1406
20	k	0.29	0/799	0.53	1/1070 (0.1%)
21	m	0.31	0/733	0.55	0/977
22	o	0.46	4/11516 (0.0%)	0.66	10/15548 (0.1%)
23	p	0.39	0/9243	0.59	1/12475 (0.0%)
24	q	0.32	0/2102	0.44	0/2857
25	r	0.17	0/1019	0.45	0/1374
26	s	0.22	0/1751	0.47	0/2366

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
27	t	0.29	0/645	0.47	0/871
28	v	0.28	0/1207	0.47	0/1628
29	w	0.27	0/948	0.50	1/1284 (0.1%)
30	x	0.36	0/516	0.44	0/696
31	y	0.31	0/956	0.47	0/1294
32	z	0.27	0/377	0.43	0/500
33	u	0.43	0/1382	0.82	3/1874 (0.2%)
All	All	0.46	7/83750 (0.0%)	0.74	92/113896 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
23	p	0	1
All	All	0	2

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	o	715	GLU	CA-C	-6.82	1.44	1.52
3	D	1001	GLN	C-O	6.57	1.32	1.24
22	o	702	ILE	CA-CB	-6.34	1.46	1.54
2	B	61	ASN	C-O	-6.19	1.18	1.24
22	o	706	ILE	CA-CB	-5.56	1.47	1.54
22	o	736	THR	N-CA	-5.27	1.40	1.46
11	O	59	ARG	N-CA	5.04	1.52	1.45

All (92) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	P	203	ARG	CB-CA-C	9.62	130.65	111.22
14	R	112	ARG	N-CA-C	-9.21	101.24	111.28
5	f	149	PRO	O-C-N	9.21	125.55	121.31
12	P	202	MET	CA-C-N	-8.50	107.34	123.32
12	P	202	MET	C-N-CA	-8.50	107.34	123.32
22	o	736	THR	N-CA-C	-8.20	101.27	111.11
22	o	735	GLN	O-C-N	8.03	130.38	122.03
1	A	497	PRO	N-CA-C	7.97	120.42	110.70
1	A	356	PRO	N-CA-C	7.85	124.73	114.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	o	717	ILE	CB-CA-C	-7.73	101.70	112.14
1	A	498	PRO	N-CA-CB	7.72	111.36	103.25
22	o	759	SER	N-CA-C	7.62	121.45	107.73
7	H	163	PRO	N-CA-C	7.38	124.03	113.47
5	F	327	TRP	CA-C-N	7.23	130.56	120.29
5	F	327	TRP	C-N-CA	7.23	130.56	120.29
2	B	495	GLN	N-CA-C	-7.13	104.59	113.28
1	A	715	PRO	N-CA-C	-7.09	100.11	111.03
5	F	271	VAL	N-CA-C	-7.02	106.16	112.90
6	G	149	ARG	CA-C-N	-7.00	112.02	122.24
6	G	149	ARG	C-N-CA	-7.00	112.02	122.24
6	G	177	VAL	N-CA-C	-6.99	106.09	111.62
22	o	1144	LEU	N-CA-C	6.96	118.66	111.14
5	F	222	LEU	N-CA-C	-6.82	103.77	111.14
20	k	180	PRO	N-CA-C	6.76	118.95	110.70
5	f	326	HIS	N-CA-C	-6.70	104.21	112.38
1	A	396	LEU	N-CA-C	-6.68	104.88	113.16
3	D	997	ALA	N-CA-C	-6.65	104.43	112.54
5	F	82	PRO	N-CA-C	-6.64	106.04	114.35
5	f	319	LEU	N-CA-C	-6.56	103.96	112.68
7	H	114	SER	N-CA-C	-6.45	105.45	113.38
33	u	152	VAL	N-CA-C	6.24	117.72	107.24
14	R	34	CYS	CA-C-N	6.23	125.97	119.05
14	R	34	CYS	C-N-CA	6.23	125.97	119.05
14	R	217	ARG	N-CA-C	6.12	117.95	111.28
15	S	103	ASN	N-CA-C	6.10	119.84	111.54
11	O	27	GLN	CA-C-N	-6.06	112.58	122.57
11	O	27	GLN	C-N-CA	-6.06	112.58	122.57
13	Q	319	ASP	N-CA-C	6.04	117.30	107.32
11	O	60	GLY	N-CA-C	6.04	120.46	110.55
3	D	1002	ARG	N-CA-C	-6.01	104.73	111.28
22	o	647	THR	CB-CA-C	6.00	120.95	112.07
13	Q	368	SER	N-CA-C	-5.99	105.05	112.90
5	f	255	MET	N-CA-C	-5.97	104.84	114.09
11	O	58	PHE	N-CA-C	5.93	116.42	108.23
1	A	844	LYS	N-CA-C	-5.85	105.98	113.23
22	o	713	VAL	N-CA-CB	5.83	118.48	110.54
13	Q	338	GLN	CA-C-N	-5.83	114.47	122.93
13	Q	338	GLN	C-N-CA	-5.83	114.47	122.93
11	O	61	SER	CA-C-O	-5.83	114.29	121.11
1	A	408	LEU	N-CA-C	5.82	118.26	109.41
5	F	316	GLN	CB-CA-C	5.81	120.26	110.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	181	GLY	CA-C-O	-5.73	118.19	122.37
2	B	583	GLU	CB-CA-C	-5.69	101.35	110.79
12	P	298	PRO	N-CA-C	-5.68	100.78	112.47
22	o	687	ILE	N-CA-CB	5.64	120.61	111.36
2	B	264	GLU	N-CA-C	-5.61	106.10	113.17
11	O	6	TYR	N-CA-C	5.56	119.15	112.93
5	f	150	PRO	N-CA-C	5.55	117.47	110.70
16	T	123	ASN	N-CA-C	5.54	117.32	111.28
4	E	704	VAL	CA-C-N	-5.48	116.87	121.58
4	E	704	VAL	C-N-CA	-5.48	116.87	121.58
13	Q	321	SER	CA-C-N	-5.47	111.69	122.02
13	Q	321	SER	C-N-CA	-5.47	111.69	122.02
17	X	5	DG	C2'-C3'-O3'	-5.41	103.38	111.50
1	A	1056	ALA	N-CA-C	-5.41	106.61	113.43
14	R	307	ASP	N-CA-C	-5.40	107.06	113.97
12	P	207	PRO	N-CA-C	-5.40	101.35	112.47
5	f	329	LEU	N-CA-C	-5.38	106.41	112.87
22	o	1145	GLY	CA-C-O	-5.38	116.90	122.28
1	A	1168	TYR	CA-C-O	-5.36	115.31	121.47
17	X	-25	DA	C5'-C4'-C3'	-5.34	106.88	114.90
5	F	272	VAL	N-CA-C	-5.30	105.22	110.62
16	T	31	TRP	N-CA-C	5.28	117.78	111.71
11	O	55	ARG	N-CA-C	5.27	118.30	110.14
29	w	41	ASN	CA-CB-CG	5.25	117.85	112.60
1	A	845	ARG	N-CA-C	-5.24	106.73	113.23
12	P	205	ARG	CB-CA-C	-5.22	101.14	110.70
13	Q	320	VAL	CA-C-O	-5.18	115.06	120.76
5	F	327	TRP	CA-C-O	-5.18	115.06	120.55
13	Q	321	SER	N-CA-C	-5.17	99.78	110.80
33	u	160	ILE	N-CA-C	5.14	115.88	108.48
5	F	392	ILE	N-CA-C	-5.11	105.72	110.53
23	p	689	TYR	CB-CA-C	-5.10	103.10	110.96
13	Q	15	ARG	N-CA-C	-5.09	105.62	111.07
11	O	60	GLY	CA-C-O	-5.08	116.67	121.60
33	u	96	GLY	N-CA-C	5.07	117.69	110.74
11	O	9	THR	N-CA-C	-5.07	101.71	109.41
11	O	27	GLN	N-CA-C	-5.06	105.04	111.11
2	B	541	ARG	CB-CA-C	-5.05	101.66	110.09
4	E	795	GLY	N-CA-C	5.05	125.14	113.18
7	H	122	PRO	N-CA-C	5.02	115.95	110.58
22	o	705	THR	N-CA-CB	5.00	117.48	110.12

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	821	ARG	Peptide
23	p	1000	THR	Mainchain

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	4927	0	4871	304	0
2	B	7796	0	7751	190	0
3	D	1377	0	1399	293	0
3	d	1307	0	1318	38	0
4	E	4364	0	4244	218	0
4	e	4327	0	4197	45	0
5	F	3081	0	3016	333	0
5	f	3081	0	3012	165	0
6	G	1180	0	1235	103	0
7	H	1633	0	1621	258	0
8	I	959	0	969	122	0
8	i	967	0	977	46	0
9	J	709	0	710	120	0
9	j	759	0	759	17	0
10	L	622	0	620	154	0
10	l	876	0	891	96	0
11	O	771	0	764	221	0
12	P	1412	0	1506	58	0
13	Q	996	0	924	182	0
14	R	1913	0	1956	111	0
15	S	1101	0	1065	90	0
16	T	876	0	884	48	0
17	X	1582	0	870	75	0
18	Y	1575	0	862	59	0
19	c	1011	0	975	25	0
20	k	785	0	818	7	0
21	m	724	0	744	11	0
22	o	11308	0	11427	558	0
23	p	9062	0	9107	450	0
24	q	2059	0	2008	117	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	r	1005	0	962	55	0
26	s	1720	0	1737	58	0
27	t	635	0	665	12	0
28	v	1186	0	1147	73	0
29	w	927	0	859	74	0
30	x	507	0	523	54	0
31	y	937	0	959	23	0
32	z	372	0	379	45	0
33	u	1351	0	1358	93	0
34	R	1	0	0	0	0
34	o	2	0	0	0	0
34	p	1	0	0	0	0
34	q	1	0	0	0	0
34	w	2	0	0	0	0
34	x	1	0	0	0	0
34	z	1	0	0	0	0
35	o	1	0	0	0	0
All	All	81790	0	80089	3399	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 21.

All (3399) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:694:LEU:CD1	4:E:703:MET:HE1	1.30	1.61
8:I:60:HIS:CE1	10:L:118:LEU:HD22	1.36	1.61
8:I:60:HIS:CE1	10:L:118:LEU:CD2	1.83	1.60
23:p:1040:GLN:HG2	24:q:203:TRP:CZ2	1.18	1.60
5:F:320:ARG:HD3	5:F:415:ILE:CB	1.21	1.59
11:O:88:ILE:HG21	13:Q:360:LEU:CB	1.24	1.58
3:D:871:THR:CG2	10:L:66:LEU:HD22	1.31	1.56
3:D:1006:LEU:HD22	13:Q:328:LEU:CD2	1.31	1.55
5:F:320:ARG:CB	5:F:415:ILE:HD12	1.25	1.55
5:F:320:ARG:HB2	5:F:415:ILE:CD1	1.28	1.55
8:i:73:LEU:HD22	10:l:105:HIS:CE1	1.04	1.55
5:F:320:ARG:CD	5:F:415:ILE:HB	1.34	1.54
25:r:63:LYS:NZ	33:u:103:PRO:CA	1.70	1.53
8:i:60:HIS:CE1	10:l:106:ARG:NH2	1.75	1.51
11:O:22:LEU:CB	11:O:28:ILE:HG12	1.35	1.49
10:L:106:ARG:HH11	10:L:114:LYS:NZ	0.99	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:694:LEU:HB3	4:E:703:MET:CE	1.42	1.47
8:i:73:LEU:CD2	10:l:105:HIS:CE1	1.95	1.47
3:D:881:ARG:NH2	10:L:57:VAL:CG2	1.75	1.46
5:F:298:GLU:HA	5:F:301:VAL:CG2	1.44	1.45
7:H:194:MET:HE1	5:f:226:GLU:CG	1.45	1.45
3:D:934:TYR:CZ	8:I:129:LEU:HD21	1.52	1.44
3:D:871:THR:CA	10:L:66:LEU:HD13	1.49	1.43
3:D:881:ARG:NH2	10:L:57:VAL:HG22	1.15	1.43
7:H:194:MET:CE	5:f:226:GLU:HG3	1.47	1.43
10:L:106:ARG:NH1	10:L:114:LYS:HZ3	1.15	1.42
7:H:190:LEU:HA	5:f:223:TYR:CD1	1.54	1.41
7:H:190:LEU:HD13	5:f:223:TYR:CA	1.49	1.41
12:P:188:ARG:NH2	13:Q:326:GLN:HB2	1.36	1.40
13:Q:47:GLU:OE2	13:Q:60:HIS:CE1	1.75	1.40
4:E:315:GLN:HG2	15:S:105:LYS:NZ	1.36	1.40
5:F:320:ARG:HD3	5:F:415:ILE:CG1	1.50	1.40
22:o:196:LEU:HD11	22:o:325:LEU:CD1	1.50	1.40
22:o:18:ILE:CD1	23:p:1171:MET:HB3	1.52	1.39
3:D:943:GLN:CG	4:E:510:ALA:HB2	1.53	1.38
2:B:757:MET:O	2:B:760:LEU:CD2	1.71	1.38
3:D:871:THR:CG2	10:L:66:LEU:CD2	2.00	1.37
33:u:40:GLY:HA2	33:u:152:VAL:CG2	1.54	1.37
4:E:696:TRP:CE3	4:E:703:MET:HB3	1.58	1.36
10:L:106:ARG:HH12	10:L:114:LYS:CD	1.35	1.36
25:r:63:LYS:CE	33:u:103:PRO:HB3	1.54	1.35
5:F:85:GLY:C	9:J:212:LYS:HB2	1.50	1.35
1:A:564:PRO:HG2	2:B:744:PHE:CE2	1.59	1.35
25:r:63:LYS:NZ	33:u:103:PRO:HA	1.04	1.34
8:i:73:LEU:HD22	10:l:105:HIS:NE2	1.39	1.33
11:O:88:ILE:CG2	13:Q:360:LEU:HB3	1.58	1.33
1:A:1189:ALA:CB	6:G:162:VAL:HG11	1.59	1.32
11:O:79:VAL:O	11:O:90:VAL:CG1	1.76	1.32
1:A:1076:VAL:HG11	6:G:147:ARG:NH2	1.45	1.32
4:E:694:LEU:HD13	4:E:703:MET:CE	1.58	1.32
5:F:283:MET:HE1	5:F:308:VAL:CG1	1.59	1.31
11:O:22:LEU:CB	11:O:28:ILE:CG1	2.09	1.30
5:F:283:MET:CE	5:F:308:VAL:HG12	1.60	1.30
7:H:190:LEU:CD1	5:f:223:TYR:HA	1.62	1.30
22:o:581:LYS:HB2	28:v:91:VAL:CG2	1.60	1.30
22:o:840:ALA:HA	23:p:719:SER:OG	1.27	1.30
14:R:132:ARG:CB	23:p:914:GLU:OE2	1.78	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:1040:GLN:CG	24:q:203:TRP:CZ2	2.14	1.29
11:O:22:LEU:HB2	11:O:28:ILE:CD1	1.62	1.29
23:p:1036:LYS:HD3	24:q:195:THR:CG2	1.63	1.29
5:F:311:CYS:O	5:F:327:TRP:CH2	1.86	1.28
10:L:106:ARG:NH1	10:L:114:LYS:HD2	1.48	1.28
22:o:540:ASP:OD2	23:p:790:GLN:NE2	1.67	1.28
23:p:1035:ARG:NH1	24:q:194:HIS:O	1.66	1.28
5:F:298:GLU:CA	5:F:301:VAL:CG2	2.11	1.28
14:R:249:SER:HB2	18:Y:33:DC:OP1	1.32	1.28
17:X:19:DG:N1	18:Y:-19:DC:N3	1.81	1.27
5:F:85:GLY:O	9:J:212:LYS:HB2	1.17	1.27
1:A:697:ALA:HB2	6:G:86:TYR:CE2	1.67	1.27
10:L:101:GLN:O	10:L:105:HIS:CD2	1.87	1.27
5:F:309:MET:CE	5:F:359:PHE:CE1	2.18	1.26
3:D:1006:LEU:CD2	13:Q:328:LEU:HD21	1.64	1.26
5:F:85:GLY:O	9:J:212:LYS:CB	1.83	1.26
4:E:615:ASP:OD1	8:I:114:ARG:HB3	1.10	1.25
22:o:766:PHE:CE1	23:p:973:PRO:HB3	1.69	1.25
1:A:575:PRO:HD3	2:B:608:ASN:ND2	1.52	1.25
10:L:106:ARG:NH1	10:L:114:LYS:CD	1.98	1.25
11:O:17:GLU:OE1	13:Q:49:LYS:NZ	1.66	1.25
11:O:32:LEU:CD1	13:Q:32:ASP:CB	2.14	1.25
10:l:87:ILE:O	10:l:91:PHE:CD2	1.90	1.25
3:D:891:ILE:CG2	10:L:111:LEU:HB2	1.66	1.25
4:E:615:ASP:OD1	8:I:114:ARG:CB	1.85	1.24
4:E:308:ARG:HG3	4:E:362:GLU:O	1.34	1.24
11:O:22:LEU:HB2	11:O:28:ILE:CG1	1.65	1.24
8:i:60:HIS:ND1	10:l:106:ARG:NH2	1.78	1.24
10:l:101:GLN:O	10:l:105:HIS:CD2	1.89	1.24
3:D:881:ARG:HH21	10:L:57:VAL:CG1	1.50	1.24
7:H:190:LEU:CA	5:f:223:TYR:CD1	2.21	1.23
10:l:87:ILE:HB	10:l:91:PHE:CE2	1.72	1.23
15:S:44:GLN:NE2	15:S:104:GLY:HA3	1.50	1.23
25:r:63:LYS:CE	33:u:103:PRO:CB	2.17	1.23
11:O:32:LEU:CD1	13:Q:32:ASP:CG	2.11	1.22
1:A:506:ASP:CG	5:f:299:LYS:HG3	1.65	1.22
15:S:6:PRO:O	15:S:10:ASN:HB2	1.36	1.22
22:o:732:THR:O	22:o:736:THR:HG22	1.07	1.21
15:S:6:PRO:O	15:S:10:ASN:CB	1.86	1.21
3:D:871:THR:N	10:L:66:LEU:CD1	2.03	1.20
11:O:88:ILE:CG2	13:Q:360:LEU:CB	2.17	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:i:73:LEU:CD2	10:l:105:HIS:NE2	1.96	1.19
17:X:31:DC:N4	18:Y:-31:DG:H1	1.38	1.19
1:A:573:TYR:HA	2:B:657:ARG:HD3	1.22	1.19
3:D:889:HIS:HA	10:L:104:ARG:NH2	1.56	1.19
3:D:889:HIS:C	10:L:104:ARG:HH21	1.51	1.19
25:r:63:LYS:HE3	33:u:103:PRO:CB	1.72	1.19
23:p:282:ARG:HD3	29:w:21:ASN:CG	1.68	1.18
4:E:696:TRP:HA	4:E:703:MET:HA	1.24	1.18
11:O:17:GLU:OE1	13:Q:49:LYS:CE	1.92	1.18
8:i:60:HIS:CG	10:l:106:ARG:HH21	1.61	1.18
22:o:732:THR:O	22:o:736:THR:CG2	1.91	1.18
1:A:1076:VAL:HG11	6:G:147:ARG:CZ	1.74	1.18
3:D:934:TYR:CZ	8:I:129:LEU:CD2	2.24	1.18
5:F:89:GLN:OE1	9:J:210:ASN:ND2	1.76	1.18
11:O:32:LEU:HD13	13:Q:32:ASP:CB	1.73	1.18
2:B:819:LEU:HD12	7:H:204:PHE:CZ	1.79	1.17
7:H:193:PHE:CE1	5:f:242:ALA:HB2	1.78	1.17
2:B:762:ASP:OD1	2:B:768:PRO:HG3	1.41	1.17
12:P:287:LEU:CD2	14:R:196:LYS:HE3	1.74	1.17
11:O:32:LEU:HD13	13:Q:32:ASP:HB3	1.25	1.17
17:X:19:DG:N2	18:Y:-19:DC:O2	1.75	1.17
1:A:601:PRO:CG	6:G:10:HIS:HB3	1.73	1.16
14:R:283:VAL:HG11	17:X:-37:DT:C7	1.75	1.16
23:p:803:ARG:O	30:x:8:PHE:HE1	1.28	1.16
11:O:88:ILE:HD12	13:Q:360:LEU:HD12	1.23	1.16
4:E:308:ARG:HD2	4:E:363:ALA:O	1.46	1.16
14:R:283:VAL:CG1	17:X:-37:DT:C7	2.22	1.16
17:X:31:DC:N3	18:Y:-31:DG:N2	1.91	1.16
3:D:1006:LEU:CD2	13:Q:328:LEU:CD2	2.21	1.15
7:H:116:ARG:HD3	9:J:126:TYR:HE1	1.09	1.15
7:H:197:THR:HB	5:f:238:LYS:HG2	1.16	1.15
23:p:924:ARG:HD3	24:q:60:HIS:CD2	1.80	1.15
25:r:63:LYS:NZ	33:u:103:PRO:CB	2.10	1.15
17:X:18:DA:N1	18:Y:-18:DT:N3	1.93	1.15
16:T:83:PHE:CE1	16:T:116:CYS:SG	2.40	1.15
33:u:38:CYS:SG	33:u:44:PHE:HA	1.86	1.14
11:O:22:LEU:HB3	11:O:28:ILE:HG12	1.22	1.14
11:O:88:ILE:HG21	13:Q:360:LEU:HB2	1.15	1.14
11:O:88:ILE:HD13	13:Q:360:LEU:HB2	1.20	1.14
12:P:287:LEU:HD23	14:R:196:LYS:HE3	1.25	1.14
4:E:615:ASP:CG	8:I:114:ARG:HB3	1.70	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1006:LEU:HB3	13:Q:328:LEU:HD11	1.27	1.14
4:E:694:LEU:CB	4:E:703:MET:CE	2.24	1.14
5:F:309:MET:HE1	5:F:359:PHE:CE1	1.83	1.14
23:p:1038:THR:CG2	24:q:196:VAL:HB	1.77	1.14
33:u:44:PHE:CE2	33:u:46:ILE:HG13	1.82	1.13
16:T:22:LYS:HB3	16:T:115:GLU:HG2	1.20	1.13
1:A:575:PRO:HG3	2:B:610:GLU:HG2	1.15	1.13
10:L:106:ARG:NH1	10:L:114:LYS:CE	2.10	1.13
23:p:803:ARG:CD	30:x:7:CYS:O	1.97	1.13
23:p:851:ASP:CG	32:z:15:MET:HE2	1.72	1.13
25:r:63:LYS:CE	33:u:103:PRO:CA	2.25	1.13
1:A:869:ARG:HH21	2:B:582:GLU:HG2	1.10	1.13
14:R:47:ASP:CB	23:p:1069:ILE:HG13	1.78	1.13
3:D:881:ARG:HH22	10:L:57:VAL:CG2	1.47	1.13
3:D:966:LEU:HD13	3:D:983:ARG:HD2	1.28	1.13
3:D:999:MET:HE3	11:O:71:VAL:CG1	1.78	1.13
33:u:40:GLY:CA	33:u:152:VAL:HG21	1.79	1.13
11:O:79:VAL:O	11:O:90:VAL:HG12	1.33	1.12
12:P:188:ARG:HH22	13:Q:326:GLN:CB	1.63	1.12
23:p:1027:VAL:HG23	24:q:203:TRP:CZ3	1.84	1.12
23:p:1038:THR:HG23	24:q:196:VAL:CB	1.79	1.12
14:R:111:ASP:HB3	14:R:114:MET:HB2	1.26	1.12
22:o:18:ILE:HD12	23:p:1171:MET:CB	1.79	1.12
11:O:32:LEU:CD1	13:Q:32:ASP:HB3	1.76	1.12
23:p:803:ARG:O	30:x:8:PHE:CE1	2.03	1.12
11:O:10:THR:CG2	13:Q:50:LEU:HD21	1.78	1.12
3:D:881:ARG:HH21	10:L:57:VAL:HG13	1.06	1.11
5:F:99:GLY:O	7:H:63:GLU:HG3	1.49	1.11
11:O:39:GLN:OE1	13:Q:28:ILE:HD11	1.50	1.11
3:D:934:TYR:CE2	8:I:129:LEU:CD2	2.33	1.11
3:D:966:LEU:CD1	3:D:983:ARG:HD2	1.80	1.11
3:D:943:GLN:HG2	4:E:510:ALA:HB2	1.16	1.11
4:E:315:GLN:CG	15:S:105:LYS:NZ	2.13	1.11
14:R:132:ARG:HB3	23:p:914:GLU:CD	1.75	1.11
2:B:819:LEU:CD1	7:H:204:PHE:CZ	2.33	1.11
3:D:871:THR:HG22	10:L:66:LEU:CD2	1.70	1.11
33:u:44:PHE:CD2	33:u:46:ILE:HG13	1.85	1.11
5:F:315:ARG:HH12	5:F:320:ARG:HG2	1.04	1.10
15:S:44:GLN:HE21	15:S:103:ASN:C	1.58	1.10
5:F:320:ARG:NE	5:F:415:ILE:HB	1.67	1.10
22:o:196:LEU:HD11	22:o:325:LEU:HD13	1.12	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:308:ARG:CG	4:E:362:GLU:O	1.99	1.10
5:F:316:GLN:NE2	5:F:319:LEU:O	1.85	1.10
1:A:1000:LEU:HD21	1:A:1020:LEU:HD12	1.11	1.09
1:A:1076:VAL:CG1	6:G:147:ARG:NH2	2.13	1.09
5:F:320:ARG:HD2	5:F:321:PRO:HD3	1.26	1.09
13:Q:47:GLU:OE2	13:Q:60:HIS:ND1	1.85	1.09
14:R:283:VAL:HG11	17:X:-37:DT:H71	1.34	1.09
22:o:504:HIS:HB3	23:p:1106:ARG:NH1	1.67	1.09
23:p:1036:LYS:HB3	24:q:195:THR:HB	1.15	1.09
1:A:506:ASP:OD1	5:f:299:LYS:HG3	1.51	1.09
14:R:111:ASP:CB	14:R:114:MET:HB2	1.82	1.09
15:S:11:VAL:O	15:S:12:THR:HG23	1.51	1.09
22:o:621:ILE:HG12	28:v:115:TYR:HE2	1.15	1.09
1:A:564:PRO:HG2	2:B:744:PHE:CD2	1.87	1.09
1:A:784:GLN:H	1:A:1073:GLN:NE2	1.51	1.09
2:B:757:MET:C	2:B:760:LEU:HD23	1.78	1.09
17:X:27:DG:N2	18:Y:-27:DC:N3	2.00	1.09
3:D:871:THR:HG23	10:L:66:LEU:CD2	1.78	1.09
1:A:1000:LEU:HD21	1:A:1020:LEU:CD1	1.83	1.08
7:H:185:ASP:CB	5:f:251:GLY:HA3	1.84	1.08
11:O:32:LEU:HD13	13:Q:32:ASP:CG	1.75	1.08
12:P:188:ARG:CZ	13:Q:323:GLU:O	2.00	1.08
8:i:73:LEU:HD22	10:l:105:HIS:ND1	1.66	1.08
22:o:364:ARG:HB2	23:p:1084:LEU:HD11	1.33	1.08
3:D:943:GLN:HG3	4:E:510:ALA:HB2	1.30	1.08
5:F:90:GLU:OE1	9:J:208:GLY:O	1.71	1.08
5:F:298:GLU:C	5:F:301:VAL:HG23	1.78	1.08
11:O:88:ILE:HG23	13:Q:361:ASN:ND2	1.68	1.08
17:X:27:DG:H1	18:Y:-27:DC:N4	1.49	1.08
3:D:1000:ARG:HG2	11:O:5:LEU:HA	1.32	1.08
11:O:39:GLN:HG2	13:Q:28:ILE:HD12	1.13	1.08
1:A:1200:THR:O	1:A:1204:GLU:HG2	1.52	1.08
5:F:320:ARG:CG	5:F:415:ILE:HD12	1.83	1.08
3:D:943:GLN:HG2	4:E:510:ALA:CB	1.84	1.07
3:D:1006:LEU:HD13	13:Q:328:LEU:CD1	1.84	1.07
4:E:311:ARG:HD3	15:S:105:LYS:HG3	1.36	1.07
11:O:39:GLN:CD	13:Q:28:ILE:HD11	1.77	1.07
3:D:917:ILE:CD1	3:D:1058:VAL:HG21	1.84	1.07
4:E:694:LEU:HB3	4:E:703:MET:HE3	1.09	1.07
19:c:67:GLY:HA3	9:j:116:LEU:CD1	1.84	1.07
2:B:838:ASN:HD21	7:H:213:LEU:HD23	1.18	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:87:HIS:HB3	9:J:212:LYS:HZ1	1.04	1.07
5:F:308:VAL:HG11	5:F:337:VAL:CG2	1.85	1.07
15:S:157:ALA:HB2	23:p:316:VAL:HG21	1.31	1.07
23:p:1036:LYS:HD3	24:q:195:THR:HG22	1.20	1.07
5:F:34:GLU:OE2	8:I:72:ARG:NH2	1.87	1.07
14:R:283:VAL:CG1	17:X:-37:DT:H73	1.83	1.07
5:F:71:ILE:HD11	8:I:35:VAL:HG13	1.34	1.06
3:D:871:THR:HA	10:L:66:LEU:HD13	1.17	1.06
3:D:891:ILE:HG21	10:L:111:LEU:HD22	1.31	1.06
25:r:63:LYS:HE3	33:u:103:PRO:HB3	1.22	1.06
11:O:88:ILE:CD1	13:Q:360:LEU:HB2	1.84	1.06
22:o:581:LYS:HB2	28:v:91:VAL:HG23	1.28	1.06
11:O:10:THR:HG22	13:Q:50:LEU:HD21	1.36	1.06
23:p:1040:GLN:HG2	24:q:203:TRP:CH2	1.90	1.06
7:H:185:ASP:HB2	5:f:251:GLY:HA3	1.31	1.06
16:T:22:LYS:CB	16:T:115:GLU:HG2	1.85	1.06
3:D:953:ILE:CG2	4:E:519:GLU:HB3	1.84	1.05
11:O:32:LEU:HD12	13:Q:32:ASP:OD2	1.53	1.05
3:D:1083:PHE:HE2	4:E:585:ASN:ND2	1.54	1.05
11:O:18:SER:HA	13:Q:45:LEU:HD13	1.07	1.05
11:O:22:LEU:HB3	11:O:28:ILE:CG1	1.79	1.05
4:E:280:ARG:HD3	8:I:26:MET:HA	1.35	1.05
5:F:320:ARG:CD	5:F:415:ILE:CG1	2.34	1.05
7:H:116:ARG:HD3	9:J:126:TYR:CE1	1.91	1.05
10:L:106:ARG:HH11	10:L:114:LYS:CE	1.68	1.05
10:l:87:ILE:HB	10:l:91:PHE:HE2	0.88	1.05
3:D:1000:ARG:NH1	11:O:5:LEU:HD12	1.72	1.05
11:O:23:ILE:HA	11:O:28:ILE:O	1.56	1.05
22:o:349:ARG:NH1	23:p:1157:LEU:HD11	1.71	1.05
23:p:851:ASP:N	32:z:15:MET:HE1	1.71	1.05
5:F:342:LYS:HE2	5:F:383:LEU:HA	1.38	1.05
3:D:934:TYR:CE2	8:I:129:LEU:HG	1.91	1.04
3:D:934:TYR:CE1	8:I:129:LEU:HD21	1.92	1.04
3:D:999:MET:HE3	11:O:71:VAL:CB	1.86	1.04
3:d:909:ARG:NE	10:l:91:PHE:CE1	2.24	1.04
10:l:102:LEU:HA	10:l:105:HIS:HD2	1.18	1.04
23:p:282:ARG:CD	29:w:21:ASN:HB3	1.86	1.04
3:D:889:HIS:CA	10:L:104:ARG:NH2	2.20	1.04
7:H:111:ALA:O	9:J:126:TYR:CZ	2.10	1.04
15:S:10:ASN:O	16:T:47:LYS:HB2	1.55	1.04
15:S:44:GLN:HG2	15:S:103:ASN:HA	1.39	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:193:PHE:HE1	5:f:242:ALA:HB2	1.07	1.04
22:o:18:ILE:HD12	23:p:1171:MET:HB3	1.09	1.04
3:D:881:ARG:CG	10:L:57:VAL:HG11	1.87	1.04
3:D:1007:THR:HA	13:Q:330:ASP:OD1	1.57	1.04
23:p:1040:GLN:CG	24:q:203:TRP:HZ2	1.59	1.04
11:O:32:LEU:HD11	13:Q:32:ASP:CB	1.83	1.03
11:O:39:GLN:CG	13:Q:28:ILE:HD12	1.86	1.03
15:S:44:GLN:NE2	15:S:104:GLY:CA	2.20	1.03
1:A:1189:ALA:CB	6:G:162:VAL:CG1	2.36	1.03
1:A:1189:ALA:HB1	6:G:162:VAL:CG1	1.87	1.03
3:D:966:LEU:HB2	3:D:983:ARG:NH1	1.73	1.03
5:F:313:VAL:HG12	5:F:375:GLY:C	1.82	1.03
14:R:47:ASP:HB2	23:p:1069:ILE:CG1	1.87	1.03
22:o:766:PHE:HE1	23:p:973:PRO:CB	1.70	1.03
10:l:87:ILE:CB	10:l:91:PHE:HE2	1.71	1.03
23:p:851:ASP:CG	32:z:15:MET:CE	2.31	1.03
5:F:87:HIS:HB3	9:J:212:LYS:NZ	1.74	1.03
11:O:10:THR:CG2	13:Q:50:LEU:CD2	2.36	1.03
7:H:197:THR:HB	5:f:238:LYS:CG	1.89	1.02
11:O:79:VAL:O	11:O:90:VAL:HG13	1.54	1.02
4:E:694:LEU:CG	4:E:703:MET:HE1	1.90	1.02
22:o:691:ASP:OD2	22:o:765:ASN:HB2	1.59	1.02
1:A:572:TYR:CD2	2:B:689:GLN:HB2	1.93	1.02
22:o:504:HIS:HB3	23:p:1106:ARG:CZ	1.89	1.02
1:A:564:PRO:CG	2:B:744:PHE:CE2	2.42	1.02
3:D:871:THR:CA	10:L:66:LEU:CD1	2.35	1.02
3:d:910:LEU:CD2	10:l:87:ILE:HD11	1.90	1.02
23:p:855:ALA:HB3	32:z:49:THR:HB	1.37	1.02
2:B:838:ASN:ND2	7:H:213:LEU:HD23	1.75	1.01
3:D:941:ARG:NE	8:I:123:THR:O	1.92	1.01
1:A:601:PRO:HG2	6:G:10:HIS:CB	1.89	1.01
11:O:18:SER:CA	13:Q:45:LEU:HD13	1.88	1.01
1:A:575:PRO:CD	2:B:608:ASN:HD22	1.72	1.01
3:D:1006:LEU:HD13	13:Q:328:LEU:HD13	1.04	1.01
5:F:298:GLU:CA	5:F:301:VAL:HG22	1.82	1.01
5:F:320:ARG:CD	5:F:321:PRO:HD3	1.90	1.01
3:D:966:LEU:HD13	3:D:983:ARG:CD	1.90	1.00
11:O:15:LEU:HD12	13:Q:42:LEU:HD11	1.44	1.00
11:O:39:GLN:HG2	13:Q:28:ILE:CD1	1.91	1.00
2:B:819:LEU:HD13	7:H:204:PHE:CE1	1.96	1.00
11:O:39:GLN:CG	13:Q:28:ILE:CD1	2.40	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:830:GLY:HA3	23:p:716:HIS:CE1	1.95	1.00
11:O:10:THR:HG21	13:Q:50:LEU:CD2	1.92	1.00
7:H:197:THR:CB	5:f:238:LYS:HG2	1.92	1.00
3:D:999:MET:HE3	11:O:71:VAL:HG12	1.44	0.99
23:p:803:ARG:HD2	30:x:7:CYS:O	1.60	0.99
10:L:106:ARG:HH12	10:L:114:LYS:HD2	0.82	0.99
23:p:803:ARG:HD3	30:x:7:CYS:O	1.62	0.99
1:A:465:TYR:HD1	7:H:165:TYR:O	1.44	0.99
14:R:132:ARG:HB3	23:p:914:GLU:OE2	0.82	0.99
3:D:953:ILE:HG21	4:E:519:GLU:HB3	0.99	0.99
11:O:32:LEU:CD1	13:Q:32:ASP:OD2	2.07	0.99
25:r:63:LYS:CE	33:u:103:PRO:HA	1.89	0.99
2:B:757:MET:O	2:B:760:LEU:HD23	0.81	0.99
5:F:308:VAL:CG1	5:F:337:VAL:HG21	1.92	0.99
15:S:44:GLN:CG	15:S:103:ASN:HA	1.92	0.99
22:o:581:LYS:CB	28:v:91:VAL:HG23	1.93	0.99
7:H:119:ILE:O	9:J:131:PRO:HG3	1.63	0.98
3:d:910:LEU:HD22	10:l:87:ILE:HD11	1.44	0.98
22:o:26:LEU:CD2	23:p:1166:SER:HA	1.93	0.98
5:F:298:GLU:O	5:F:301:VAL:HG23	1.61	0.98
3:D:871:THR:HG22	10:L:66:LEU:HD22	0.99	0.98
1:A:575:PRO:HG3	2:B:610:GLU:CG	1.94	0.98
19:c:77:LEU:CD1	9:j:116:LEU:HD23	1.93	0.98
4:E:696:TRP:CH2	4:E:703:MET:SD	2.57	0.98
22:o:581:LYS:HB2	28:v:91:VAL:CB	1.93	0.98
1:A:950:VAL:HG11	1:A:1066:CYS:SG	2.04	0.98
1:A:1076:VAL:HG11	6:G:147:ARG:HH21	1.25	0.98
22:o:463:THR:HG21	23:p:1090:GLU:HG3	1.44	0.98
4:E:299:ASP:OD2	4:E:607:ARG:NH1	1.97	0.97
1:A:569:ASN:CG	2:B:689:GLN:HA	1.89	0.97
1:A:601:PRO:HG2	6:G:10:HIS:HB3	1.01	0.97
2:B:819:LEU:CD1	7:H:204:PHE:CE1	2.46	0.97
14:R:33:ILE:HG21	22:o:431:PHE:CE2	1.99	0.97
3:D:891:ILE:HG13	10:L:100:CYS:SG	2.05	0.97
3:D:917:ILE:HD12	3:D:1058:VAL:HG21	1.42	0.97
13:Q:47:GLU:CD	13:Q:60:HIS:ND1	2.23	0.97
1:A:683:TYR:HE1	6:G:75:GLU:CD	1.70	0.97
3:D:889:HIS:O	10:L:104:ARG:NH2	1.98	0.97
3:D:1000:ARG:CZ	11:O:5:LEU:HD12	1.94	0.97
5:F:315:ARG:NH1	5:F:320:ARG:HG2	1.78	0.97
8:i:60:HIS:CE1	10:l:106:ARG:CZ	2.47	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:196:LEU:HD11	22:o:325:LEU:HD12	1.45	0.97
7:H:106:THR:OG1	9:J:161:LYS:NZ	1.98	0.97
33:u:38:CYS:N	33:u:155:ASN:OD1	1.98	0.97
3:D:1006:LEU:CB	13:Q:328:LEU:HD11	1.94	0.97
5:F:308:VAL:HG11	5:F:337:VAL:HG21	1.00	0.96
22:o:756:ALA:HB2	22:o:786:ALA:HB2	1.47	0.96
3:D:901:TYR:CE1	10:L:128:ILE:HB	2.01	0.96
1:A:725:CYS:SG	1:A:725:CYS:O	2.22	0.96
5:F:86:PHE:HA	9:J:212:LYS:HG2	1.46	0.96
7:H:190:LEU:HA	5:f:223:TYR:CE1	1.99	0.96
4:E:598:TYR:HE1	8:I:114:ARG:HD3	1.30	0.96
10:l:87:ILE:O	10:l:91:PHE:HD2	1.36	0.96
22:o:196:LEU:CD1	22:o:325:LEU:HD13	1.95	0.96
8:I:60:HIS:CE1	10:L:118:LEU:HD21	1.97	0.96
22:o:717:ILE:CD1	22:o:815:TYR:HB2	1.96	0.96
2:B:273:LEU:HD11	7:H:223:TYR:CE1	2.00	0.96
5:F:65:LYS:O	8:I:31:TYR:HA	1.66	0.96
5:F:320:ARG:CD	5:F:415:ILE:CB	2.10	0.96
8:I:60:HIS:CE1	10:L:118:LEU:HD23	1.99	0.96
11:O:39:GLN:OE1	13:Q:28:ILE:CD1	2.14	0.96
3:D:1006:LEU:CD1	13:Q:328:LEU:HD13	1.94	0.96
10:L:93:GLU:O	10:L:97:THR:HG23	1.65	0.96
3:D:881:ARG:HB2	10:L:57:VAL:CG1	1.96	0.95
3:D:917:ILE:HD12	3:D:1058:VAL:HG11	1.46	0.95
23:p:1036:LYS:CD	24:q:195:THR:HG22	1.96	0.95
23:p:1036:LYS:HB3	24:q:195:THR:CB	1.95	0.95
3:D:999:MET:HE3	11:O:71:VAL:HB	1.47	0.95
3:D:1000:ARG:CZ	11:O:5:LEU:CD1	2.45	0.95
22:o:18:ILE:HD11	23:p:1171:MET:HB3	1.48	0.95
22:o:721:HIS:CE1	29:w:98:GLN:HE21	1.84	0.95
23:p:282:ARG:CD	29:w:21:ASN:CG	2.37	0.95
4:E:308:ARG:CD	4:E:362:GLU:O	2.13	0.95
3:D:881:ARG:CB	10:L:57:VAL:HG11	1.96	0.95
14:R:249:SER:CB	18:Y:33:DC:OP1	2.14	0.95
3:D:953:ILE:HG21	4:E:519:GLU:CB	1.94	0.95
3:D:999:MET:HG2	11:O:71:VAL:HG11	1.49	0.94
14:R:175:ARG:NH2	23:p:102:ASP:O	1.99	0.94
8:i:60:HIS:CD2	10:l:106:ARG:HE	1.86	0.94
22:o:743:ARG:HH21	22:o:743:ARG:HA	1.32	0.94
22:o:766:PHE:HE1	23:p:973:PRO:HB3	0.81	0.94
3:D:901:TYR:CE1	10:L:128:ILE:O	2.20	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:621:ARG:NH2	8:I:104:LEU:HG	1.81	0.94
5:F:280:ILE:HG13	5:F:330:ARG:HB2	1.50	0.94
3:D:934:TYR:CE2	8:I:129:LEU:CG	2.49	0.94
17:X:20:DA:N1	18:Y:-20:DT:N3	2.15	0.94
22:o:587:THR:HG21	28:v:119:GLY:O	1.66	0.94
12:P:287:LEU:HD23	14:R:196:LYS:CE	1.97	0.94
33:u:40:GLY:CA	33:u:152:VAL:CG2	2.39	0.94
3:D:1006:LEU:HD22	13:Q:328:LEU:HD22	1.46	0.94
19:c:67:GLY:HA3	9:j:116:LEU:HD11	1.48	0.94
5:F:320:ARG:HB2	5:F:415:ILE:HD11	1.49	0.94
15:S:160:ALA:C	23:p:310:VAL:HG21	1.89	0.94
11:O:17:GLU:OE1	13:Q:49:LYS:CD	2.15	0.94
8:i:60:HIS:CD2	10:l:106:ARG:NE	2.35	0.94
4:E:280:ARG:O	8:I:26:MET:HE1	1.68	0.94
3:D:943:GLN:HE21	4:E:510:ALA:H	1.15	0.93
5:F:90:GLU:CD	9:J:208:GLY:HA3	1.93	0.93
15:S:8:SER:O	16:T:48:THR:C	2.11	0.93
3:D:901:TYR:HE1	10:L:128:ILE:O	1.49	0.93
3:D:966:LEU:HD13	3:D:983:ARG:NH1	1.83	0.93
14:R:283:VAL:HG12	17:X:-37:DT:H73	1.48	0.93
5:F:85:GLY:O	9:J:212:LYS:CA	2.17	0.93
11:O:22:LEU:HB3	11:O:28:ILE:CG2	1.99	0.93
17:X:27:DG:H1	18:Y:-27:DC:H42	0.94	0.93
4:E:598:TYR:CE1	8:I:114:ARG:HD3	2.04	0.93
11:O:18:SER:HA	13:Q:45:LEU:CD1	1.98	0.93
7:H:190:LEU:CA	5:f:223:TYR:HD1	1.69	0.93
22:o:840:ALA:HA	23:p:719:SER:HG	1.34	0.93
3:D:891:ILE:HG22	10:L:111:LEU:HB2	1.48	0.93
5:F:319:LEU:H	5:F:319:LEU:HD23	1.31	0.93
23:p:924:ARG:HH11	24:q:62:GLU:HG3	1.34	0.93
3:D:966:LEU:HB2	3:D:983:ARG:CZ	1.98	0.93
14:R:33:ILE:HG21	22:o:431:PHE:CD2	2.04	0.93
23:p:282:ARG:CD	29:w:21:ASN:CB	2.47	0.93
2:B:757:MET:C	2:B:760:LEU:CD2	2.37	0.92
17:X:19:DG:O6	18:Y:-19:DC:N4	2.00	0.92
3:D:871:THR:CG2	10:L:66:LEU:HD13	1.98	0.92
5:F:342:LYS:HE2	5:F:383:LEU:CA	1.98	0.92
23:p:1040:GLN:HE22	24:q:197:TYR:HA	1.33	0.92
3:D:871:THR:HG21	10:L:66:LEU:HD22	1.46	0.92
4:E:295:GLU:CG	8:I:85:SER:HB2	1.98	0.92
11:O:39:GLN:CD	13:Q:28:ILE:CD1	2.42	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:X:-27:DT:H3	18:Y:27:DA:H61	1.14	0.92
22:o:721:HIS:HE1	29:w:98:GLN:NE2	1.67	0.92
16:T:83:PHE:CD1	16:T:116:CYS:SG	2.59	0.92
11:O:88:ILE:HG21	13:Q:360:LEU:HB3	0.94	0.92
22:o:721:HIS:HE1	29:w:98:GLN:HE21	1.15	0.92
1:A:784:GLN:H	1:A:1073:GLN:HE22	0.92	0.92
4:E:315:GLN:CG	15:S:105:LYS:HZ2	1.75	0.92
5:F:85:GLY:C	9:J:212:LYS:CB	2.34	0.92
33:u:38:CYS:SG	33:u:43:GLY:O	2.28	0.92
11:O:22:LEU:HB3	11:O:28:ILE:HG23	1.50	0.92
33:u:40:GLY:HA2	33:u:152:VAL:HG21	0.92	0.92
1:A:869:ARG:NH2	2:B:582:GLU:HG2	1.85	0.91
3:D:871:THR:CG2	10:L:66:LEU:CD1	2.47	0.91
3:D:917:ILE:CD1	3:D:1058:VAL:HG11	2.00	0.91
3:D:917:ILE:HD12	3:D:1058:VAL:CG2	2.00	0.91
7:H:118:VAL:HG21	9:J:127:THR:CG2	2.00	0.91
11:O:56:VAL:HG11	11:O:84:VAL:H	1.34	0.91
14:R:114:MET:SD	14:R:146:TYR:CD1	2.64	0.91
23:p:1036:LYS:HD3	24:q:195:THR:HG21	1.48	0.91
3:D:871:THR:N	10:L:66:LEU:HD13	1.74	0.91
7:H:110:TYR:OH	9:J:160:GLN:HB3	1.70	0.91
7:H:185:ASP:HB3	5:f:251:GLY:N	1.84	0.91
7:H:190:LEU:HB2	5:f:223:TYR:HB2	1.50	0.91
11:O:22:LEU:CB	11:O:28:ILE:CD1	2.42	0.91
7:H:190:LEU:HD13	5:f:223:TYR:CB	1.99	0.91
2:B:757:MET:HA	2:B:760:LEU:HD21	1.50	0.91
23:p:924:ARG:NH1	24:q:62:GLU:HG3	1.85	0.91
5:F:320:ARG:NH2	5:F:415:ILE:HA	1.86	0.91
3:D:881:ARG:NH2	10:L:57:VAL:CG1	2.30	0.91
22:o:1177:TYR:CD2	29:w:35:LEU:HG	2.05	0.91
23:p:282:ARG:HB2	29:w:21:ASN:O	1.70	0.91
23:p:800:ALA:HA	30:x:8:PHE:O	1.70	0.91
3:D:966:LEU:CB	3:D:983:ARG:NH1	2.33	0.90
23:p:282:ARG:HD3	29:w:21:ASN:CB	2.00	0.90
1:A:636:VAL:O	6:G:40:LYS:HA	1.71	0.90
8:i:60:HIS:NE2	10:l:106:ARG:CZ	2.34	0.90
10:L:106:ARG:NH1	10:L:114:LYS:NZ	1.81	0.90
11:O:76:LEU:HB3	11:O:79:VAL:HG21	1.51	0.90
4:E:696:TRP:CE3	4:E:703:MET:CB	2.53	0.90
1:A:1189:ALA:HB1	6:G:162:VAL:HG11	0.92	0.90
3:D:934:TYR:CD2	8:I:129:LEU:HD23	2.06	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1000:ARG:NH1	11:O:5:LEU:CD1	2.32	0.90
5:F:309:MET:HE2	5:F:359:PHE:CE1	2.05	0.90
10:L:102:LEU:HA	10:L:105:HIS:HD2	1.35	0.90
23:p:1035:ARG:CZ	24:q:194:HIS:O	2.19	0.90
23:p:1038:THR:HG23	24:q:196:VAL:HB	0.92	0.90
4:E:694:LEU:CD1	4:E:703:MET:CE	2.25	0.90
3:D:898:VAL:HG22	10:L:113:VAL:HG23	1.50	0.90
22:o:511:THR:HG22	23:p:1101:GLN:HB3	1.53	0.90
23:p:100:GLU:OE2	32:z:42:ARG:HD2	1.71	0.90
11:O:22:LEU:CA	11:O:28:ILE:HG12	2.01	0.90
1:A:488:ALA:HB1	5:f:271:VAL:HG23	1.54	0.90
3:D:917:ILE:HD12	3:D:1058:VAL:CG1	2.02	0.90
7:H:37:LEU:HD11	9:J:138:TYR:CE2	2.07	0.90
10:l:87:ILE:C	10:l:91:PHE:CD2	2.49	0.90
13:Q:55:ALA:O	13:Q:56:VAL:HG23	1.71	0.90
3:d:910:LEU:CD2	10:l:87:ILE:CD1	2.50	0.90
1:A:355:VAL:CG2	1:A:497:PRO:HD3	2.01	0.89
4:E:315:GLN:CG	15:S:105:LYS:HZ3	1.81	0.89
11:O:22:LEU:HD12	11:O:28:ILE:HD13	1.52	0.89
13:Q:47:GLU:CD	13:Q:60:HIS:CG	2.51	0.89
14:R:47:ASP:HB2	23:p:1069:ILE:HG13	0.92	0.89
3:D:917:ILE:HD12	3:D:1058:VAL:CB	2.01	0.89
7:H:193:PHE:CE1	5:f:242:ALA:CB	2.56	0.89
22:o:540:ASP:CG	23:p:790:GLN:NE2	2.31	0.89
5:F:309:MET:SD	5:F:359:PHE:HE1	1.96	0.89
22:o:710:LYS:CG	22:o:817:PRO:HG3	2.03	0.89
3:D:871:THR:N	10:L:66:LEU:HD11	1.85	0.89
5:F:313:VAL:O	5:F:372:THR:HA	1.72	0.89
1:A:683:TYR:CE1	6:G:75:GLU:CD	2.51	0.89
3:D:917:ILE:HB	3:D:1058:VAL:CG1	2.03	0.89
8:I:60:HIS:ND1	10:L:118:LEU:CD2	2.37	0.88
5:F:313:VAL:CG1	5:F:375:GLY:C	2.47	0.88
11:O:17:GLU:OE1	13:Q:49:LYS:HD3	1.72	0.88
2:B:838:ASN:OD1	7:H:213:LEU:HD22	1.72	0.88
10:l:102:LEU:HA	10:l:105:HIS:CD2	2.08	0.88
7:H:190:LEU:HA	5:f:223:TYR:HD1	0.99	0.88
4:E:704:VAL:HG12	4:E:759:ILE:HD13	1.55	0.88
5:F:89:GLN:CD	9:J:210:ASN:HD22	1.81	0.88
8:i:73:LEU:HD22	10:l:105:HIS:CD2	2.08	0.88
23:p:803:ARG:HH11	30:x:8:PHE:C	1.81	0.88
4:E:295:GLU:HG2	8:I:85:SER:HB2	1.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:320:ARG:HD2	5:F:321:PRO:CD	2.03	0.87
12:P:188:ARG:NH2	13:Q:323:GLU:O	2.05	0.87
22:o:18:ILE:CD1	23:p:1171:MET:CB	2.44	0.87
8:i:73:LEU:HD21	10:l:105:HIS:NE2	1.89	0.87
22:o:581:LYS:N	28:v:91:VAL:HB	1.89	0.87
11:O:18:SER:HB3	13:Q:45:LEU:HD12	1.56	0.87
3:D:914:VAL:HG12	10:L:70:VAL:HG11	1.55	0.87
10:l:87:ILE:C	10:l:91:PHE:HD2	1.82	0.87
22:o:540:ASP:HB2	23:p:790:GLN:CD	1.98	0.87
23:p:903:ILE:HD12	24:q:62:GLU:OE2	1.73	0.87
33:u:86:ASP:OD2	33:u:171:VAL:HG21	1.75	0.87
15:S:11:VAL:O	15:S:12:THR:CG2	2.23	0.87
8:i:61:ALA:HA	10:l:106:ARG:HG2	1.57	0.87
22:o:621:ILE:HG12	28:v:115:TYR:CE2	2.07	0.87
25:r:60:VAL:HG21	33:u:44:PHE:CE1	2.08	0.87
2:B:835:ARG:NH1	7:H:184:ARG:HH11	1.73	0.87
3:D:999:MET:SD	11:O:73:THR:OG1	2.33	0.87
5:F:99:GLY:O	7:H:63:GLU:CG	2.21	0.86
5:F:298:GLU:HA	5:F:301:VAL:HG22	0.87	0.86
22:o:540:ASP:CB	23:p:790:GLN:NE2	2.37	0.86
17:X:18:DA:N6	18:Y:-18:DT:O4	2.08	0.86
3:D:889:HIS:HA	10:L:104:ARG:HH22	1.35	0.86
23:p:1021:HIS:HD2	23:p:1025:ASN:HB2	1.40	0.86
1:A:466:SER:HA	5:F:221:GLN:HE22	1.38	0.86
3:D:881:ARG:NH2	10:L:57:VAL:CB	2.38	0.86
3:D:891:ILE:HG23	10:L:111:LEU:HB2	1.57	0.86
5:F:313:VAL:HG12	5:F:376:SER:N	1.88	0.86
7:H:111:ALA:HB1	9:J:126:TYR:CE2	2.11	0.86
33:u:44:PHE:CE2	33:u:46:ILE:CG1	2.57	0.86
3:D:871:THR:HG23	10:L:66:LEU:HD21	1.57	0.86
3:D:889:HIS:C	10:L:104:ARG:NH2	2.32	0.86
4:E:694:LEU:CB	4:E:703:MET:HE3	1.98	0.86
12:P:188:ARG:HH22	13:Q:326:GLN:HB2	0.77	0.86
5:F:290:MET:SD	5:F:340:ILE:HG21	2.16	0.86
7:H:190:LEU:CB	5:f:223:TYR:CD1	2.58	0.86
1:A:1076:VAL:CB	6:G:147:ARG:NH2	2.39	0.85
5:F:309:MET:HE1	5:F:359:PHE:CD1	2.10	0.85
11:O:22:LEU:O	11:O:28:ILE:N	2.09	0.85
23:p:777:ASN:O	30:x:47:ARG:HD2	1.76	0.85
23:p:803:ARG:HH12	30:x:9:THR:C	1.83	0.85
7:H:193:PHE:HZ	5:f:230:ALA:HB2	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:851:ASP:OD2	32:z:15:MET:HE2	1.76	0.85
23:p:924:ARG:CD	24:q:60:HIS:CD2	2.59	0.85
2:B:273:LEU:HD11	7:H:223:TYR:CD1	2.12	0.85
3:D:881:ARG:NH2	10:L:57:VAL:HG13	1.90	0.85
11:O:22:LEU:CD1	11:O:28:ILE:HD13	2.06	0.85
15:S:44:GLN:HG3	15:S:104:GLY:N	1.91	0.85
8:i:73:LEU:CD2	10:l:105:HIS:CD2	2.60	0.85
1:A:784:GLN:N	1:A:1073:GLN:HE22	1.75	0.85
3:D:871:THR:HA	10:L:66:LEU:CD1	2.02	0.85
7:H:193:PHE:HZ	5:f:230:ALA:CB	1.90	0.85
5:F:71:ILE:HB	8:I:38:GLN:HE21	1.40	0.85
8:i:60:HIS:CE1	10:l:106:ARG:HH22	1.90	0.85
1:A:996:ARG:HD3	17:X:2:DG:H4'	1.58	0.84
11:O:22:LEU:C	11:O:28:ILE:HG12	2.02	0.84
3:D:881:ARG:NH2	10:L:57:VAL:HG21	1.92	0.84
3:D:901:TYR:HE1	10:L:128:ILE:C	1.85	0.84
3:D:1007:THR:CA	13:Q:330:ASP:OD1	2.24	0.84
8:I:60:HIS:ND1	10:L:118:LEU:HD21	1.92	0.84
3:D:871:THR:HG23	10:L:66:LEU:CD1	2.07	0.84
4:E:694:LEU:CB	4:E:703:MET:HE1	2.02	0.84
11:O:88:ILE:CG2	13:Q:360:LEU:HB2	1.98	0.84
19:c:67:GLY:HA3	9:j:116:LEU:HD13	1.60	0.84
22:o:580:LEU:CD1	28:v:93:TYR:HB2	2.07	0.84
22:o:710:LYS:HG2	22:o:817:PRO:CG	2.06	0.84
3:D:891:ILE:CG2	10:L:111:LEU:CB	2.54	0.84
3:D:966:LEU:HG	3:D:980:GLU:HG2	1.60	0.84
3:D:871:THR:HG22	10:L:66:LEU:CG	2.08	0.84
3:D:889:HIS:CA	10:L:104:ARG:HH21	1.86	0.84
8:i:73:LEU:CG	10:l:105:HIS:CE1	2.61	0.84
22:o:108:ARG:HH12	22:o:191:ILE:HB	1.40	0.84
3:D:966:LEU:HD13	3:D:983:ARG:HH11	1.39	0.84
7:H:111:ALA:O	9:J:126:TYR:CE1	2.31	0.84
5:F:87:HIS:CB	9:J:212:LYS:NZ	2.41	0.84
23:p:1036:LYS:CB	24:q:195:THR:HB	2.05	0.84
4:E:704:VAL:HG11	4:E:747:LEU:HG	1.57	0.83
23:p:556:ILE:HG12	23:p:576:ILE:HD11	1.58	0.83
11:O:15:LEU:CD1	13:Q:42:LEU:HD11	2.08	0.83
15:S:6:PRO:O	15:S:10:ASN:HB3	1.76	0.83
22:o:621:ILE:CG1	28:v:115:TYR:HE2	1.91	0.83
1:A:1189:ALA:HB3	6:G:162:VAL:CG1	2.09	0.83
4:E:462:CYS:HB2	5:F:135:TRP:CZ3	2.14	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:851:ASP:H	32:z:15:MET:HE1	1.44	0.83
3:D:871:THR:CB	10:L:66:LEU:HD13	2.08	0.83
4:E:315:GLN:HG2	15:S:105:LYS:HZ2	0.97	0.83
4:E:694:LEU:HD13	4:E:703:MET:HE1	0.86	0.83
22:o:687:ILE:HB	23:p:969:PRO:HB2	1.59	0.83
25:r:63:LYS:HE3	33:u:103:PRO:CA	2.00	0.83
3:D:933:ARG:CD	9:J:117:VAL:HG11	2.09	0.83
1:A:567:LEU:HD22	2:B:745:GLN:CG	2.09	0.83
7:H:73:GLY:HA3	9:J:142:ALA:HB3	1.60	0.83
11:O:32:LEU:HD11	13:Q:32:ASP:HB2	1.61	0.83
4:E:747:LEU:HD22	4:E:747:LEU:H	1.44	0.83
22:o:26:LEU:HD21	23:p:1166:SER:HA	1.60	0.83
22:o:769:MET:HE2	23:p:970:HIS:CE1	2.13	0.83
5:F:316:GLN:NE2	5:F:319:LEU:C	2.35	0.82
5:F:368:THR:HG22	5:F:369:PRO:HD2	1.61	0.82
22:o:833:PRO:HG3	23:p:1002:PHE:CG	2.13	0.82
5:F:87:HIS:CB	9:J:212:LYS:HZ1	1.92	0.82
1:A:1076:VAL:HG11	6:G:147:ARG:NE	1.94	0.82
4:E:696:TRP:CD2	4:E:703:MET:HB3	2.13	0.82
5:f:447:ALA:HA	5:f:456:GLY:HA3	1.61	0.82
3:D:917:ILE:HB	3:D:1058:VAL:HG13	1.59	0.82
5:F:67:THR:HA	8:I:32:GLU:HG3	1.61	0.82
15:S:44:GLN:NE2	15:S:103:ASN:C	2.36	0.82
16:T:123:ASN:O	16:T:125:MET:HG3	1.80	0.82
22:o:580:LEU:HB2	28:v:91:VAL:HG12	1.61	0.82
22:o:581:LYS:HB2	28:v:91:VAL:HB	1.61	0.82
22:o:581:LYS:CB	28:v:91:VAL:CG2	2.49	0.82
23:p:282:ARG:HD2	29:w:21:ASN:HB3	1.60	0.82
3:D:937:ALA:HB3	8:I:126:ASN:O	1.80	0.82
22:o:733:LEU:HA	22:o:736:THR:CG2	2.09	0.82
3:D:943:GLN:HG2	4:E:510:ALA:CA	2.08	0.82
5:F:298:GLU:C	5:F:301:VAL:CG2	2.44	0.82
11:O:22:LEU:HD13	11:O:28:ILE:HG21	1.59	0.82
4:E:788:ARG:O	7:H:145:HIS:HB2	1.79	0.82
8:I:132:LEU:HG	9:J:121:MET:HE2	1.61	0.82
1:A:355:VAL:HG21	1:A:497:PRO:HD3	1.59	0.82
10:L:101:GLN:C	10:L:105:HIS:CD2	2.57	0.82
11:O:22:LEU:HB2	11:O:28:ILE:HD11	1.62	0.82
22:o:579:ILE:HA	28:v:92:MET:HA	1.59	0.82
3:D:914:VAL:HG11	10:L:70:VAL:HG21	1.62	0.82
7:H:111:ALA:HB2	9:J:157:LEU:CD1	2.09	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:901:TYR:CE1	10:L:128:ILE:CB	2.62	0.82
23:p:803:ARG:HB2	30:x:8:PHE:HA	1.62	0.82
5:F:85:GLY:O	9:J:212:LYS:N	2.13	0.81
7:H:193:PHE:CG	5:f:227:ILE:HD11	2.14	0.81
15:S:44:GLN:HE21	15:S:104:GLY:N	1.78	0.81
22:o:18:ILE:HD12	23:p:1171:MET:CA	2.08	0.81
23:p:779:ILE:HD13	30:x:43:TYR:CE2	2.15	0.81
3:D:999:MET:HG2	3:D:1000:ARG:NH2	1.95	0.81
5:F:85:GLY:CA	9:J:212:LYS:HB2	2.10	0.81
23:p:302:LYS:NZ	29:w:23:MET:SD	2.52	0.81
1:A:572:TYR:CE2	2:B:689:GLN:HB2	2.15	0.81
4:E:615:ASP:OD1	8:I:114:ARG:CA	2.27	0.81
5:F:90:GLU:OE1	9:J:208:GLY:HA3	1.80	0.81
7:H:197:THR:HG22	5:f:238:LYS:HA	1.62	0.81
11:O:22:LEU:HB2	11:O:28:ILE:HG12	1.23	0.81
22:o:710:LYS:HG2	22:o:817:PRO:HG3	1.59	0.81
3:D:905:ALA:O	10:L:126:MET:HE1	1.80	0.81
3:D:934:TYR:CE1	8:I:129:LEU:CD2	2.59	0.81
5:F:342:LYS:NZ	5:F:383:LEU:O	2.12	0.81
23:p:851:ASP:H	32:z:15:MET:CE	1.94	0.81
11:O:22:LEU:HD13	13:Q:38:VAL:HG13	1.62	0.81
10:l:101:GLN:C	10:l:105:HIS:CD2	2.59	0.81
1:A:1076:VAL:CG1	6:G:147:ARG:HH21	1.88	0.81
2:B:819:LEU:HD13	7:H:204:PHE:CZ	2.10	0.81
2:B:846:TYR:CE1	7:H:227:LEU:HD23	2.14	0.81
1:A:1022:ARG:HH11	1:A:1026:ILE:HD12	1.45	0.81
13:Q:358:MET:HE2	13:Q:367:PHE:HD2	1.46	0.81
22:o:580:LEU:HB2	28:v:91:VAL:CG1	2.11	0.81
4:E:295:GLU:CG	8:I:85:SER:CB	2.59	0.81
22:o:582:PRO:HG3	28:v:89:GLU:O	1.79	0.81
5:F:90:GLU:OE1	9:J:208:GLY:CA	2.29	0.80
15:S:109:LYS:HD2	15:S:149:LEU:CD2	2.10	0.80
22:o:840:ALA:CA	23:p:719:SER:OG	2.23	0.80
7:H:185:ASP:CB	5:f:251:GLY:CA	2.59	0.80
15:S:166:ARG:O	15:S:170:VAL:HG23	1.80	0.80
22:o:540:ASP:CB	23:p:790:GLN:CD	2.54	0.80
22:o:717:ILE:HD13	22:o:815:TYR:HB2	1.62	0.80
23:p:68:GLN:HB3	23:p:83:ARG:HB3	1.64	0.80
2:B:838:ASN:OD1	7:H:213:LEU:CD2	2.28	0.80
2:B:842:LEU:HD21	7:H:214:ILE:HD13	1.63	0.80
3:d:1082:ALA:HB2	10:l:83:MET:HE2	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:O:88:ILE:HG23	13:Q:361:ASN:HD22	1.44	0.80
17:X:20:DA:N6	18:Y:-20:DT:H3	1.79	0.80
7:H:193:PHE:CG	5:f:227:ILE:CD1	2.64	0.80
11:O:28:ILE:CG2	13:Q:38:VAL:HG11	2.12	0.80
22:o:463:THR:HB	23:p:1093:CYS:SG	2.22	0.80
22:o:580:LEU:HD11	28:v:93:TYR:HB2	1.64	0.80
3:D:881:ARG:HG2	10:L:57:VAL:HG11	1.62	0.80
8:I:132:LEU:HG	9:J:121:MET:CE	2.12	0.80
22:o:691:ASP:OD2	22:o:765:ASN:CB	2.30	0.80
2:B:846:TYR:CE1	7:H:227:LEU:CD2	2.65	0.80
3:D:1006:LEU:CD2	13:Q:328:LEU:HD22	2.05	0.80
23:p:850:ASP:HB2	32:z:15:MET:SD	2.21	0.80
1:A:698:THR:O	6:G:85:PHE:N	2.13	0.80
11:O:88:ILE:HD12	13:Q:360:LEU:CD1	2.09	0.80
11:O:22:LEU:HD13	13:Q:38:VAL:CG1	2.11	0.79
19:c:77:LEU:HD13	9:j:116:LEU:HD23	1.61	0.79
7:H:190:LEU:HD13	5:f:223:TYR:HA	0.81	0.79
5:F:90:GLU:OE1	9:J:208:GLY:C	2.26	0.79
1:A:342:ARG:HB2	1:A:497:PRO:HG2	1.63	0.79
3:D:943:GLN:CG	4:E:510:ALA:CB	2.46	0.79
17:X:-27:DT:H3	18:Y:27:DA:N6	1.80	0.79
23:p:1035:ARG:NH2	24:q:194:HIS:HA	1.98	0.79
23:p:1035:ARG:HG3	24:q:194:HIS:ND1	1.97	0.79
1:A:875:GLU:OE1	2:B:580:GLN:NE2	2.16	0.79
4:E:694:LEU:HD12	4:E:703:MET:HE1	1.60	0.79
5:F:298:GLU:HB2	5:F:301:VAL:HG21	1.63	0.79
4:E:315:GLN:HE21	15:S:105:LYS:HD3	1.47	0.79
3:D:891:ILE:CG2	10:L:111:LEU:HD22	2.11	0.79
4:E:280:ARG:CZ	8:I:25:ASP:O	2.31	0.79
5:F:273:GLN:NE2	5:F:273:GLN:H	1.81	0.79
33:u:44:PHE:CD2	33:u:46:ILE:CG1	2.65	0.79
5:F:298:GLU:CB	5:F:301:VAL:HG21	2.13	0.79
22:o:461:GLN:HB2	22:o:462:PRO:HD3	1.65	0.79
22:o:1172:ASN:HD22	29:w:57:LYS:HE3	1.47	0.79
23:p:1021:HIS:CD2	23:p:1025:ASN:HB2	2.17	0.79
2:B:159:LEU:HD23	2:B:159:LEU:H	1.46	0.78
17:X:21:DC:H42	18:Y:-21:DG:H1	1.31	0.78
1:A:575:PRO:HD3	2:B:608:ASN:HD22	0.76	0.78
2:B:762:ASP:CG	2:B:768:PRO:HG3	2.08	0.78
4:e:747:LEU:HD23	4:e:747:LEU:H	1.47	0.78
3:D:957:ARG:NH2	4:E:519:GLU:HA	1.98	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:185:ASP:HB3	5:f:251:GLY:CA	2.12	0.78
10:l:102:LEU:CA	10:l:105:HIS:HD2	1.95	0.78
22:o:388:MET:HG3	23:p:1063:ALA:HB2	1.66	0.78
1:A:697:ALA:HB2	6:G:86:TYR:CZ	2.17	0.78
12:P:305:PHE:HB3	18:Y:31:DA:H5'	1.65	0.78
22:o:587:THR:CG2	28:v:119:GLY:O	2.32	0.78
5:F:274:ASN:O	5:F:318:CYS:SG	2.41	0.78
11:O:88:ILE:HB	13:Q:360:LEU:HD13	1.64	0.78
21:m:31:LEU:HD23	21:m:31:LEU:H	1.47	0.78
3:D:901:TYR:CD1	10:L:128:ILE:HG22	2.19	0.78
4:E:295:GLU:HG2	8:I:85:SER:CB	2.13	0.78
12:P:188:ARG:NH2	13:Q:326:GLN:CB	2.31	0.78
23:p:1036:LYS:CD	24:q:195:THR:CG2	2.54	0.78
25:r:63:LYS:HE2	33:u:103:PRO:HB3	1.62	0.78
23:p:1038:THR:HA	24:q:196:VAL:H	1.49	0.78
1:A:948:LEU:O	1:A:1062:TYR:CE2	2.37	0.78
3:D:962:GLU:HG2	3:D:983:ARG:NH2	1.99	0.78
25:r:115:ILE:HG22	25:r:117:SER:H	1.49	0.78
3:D:1004:ALA:HA	11:O:8:ASN:OD1	1.84	0.77
5:F:298:GLU:CA	5:F:301:VAL:HG21	2.14	0.77
7:H:117:MET:O	9:J:129:THR:HA	1.84	0.77
11:O:22:LEU:HB3	11:O:28:ILE:CB	2.14	0.77
10:l:93:GLU:O	10:l:97:THR:HG23	1.83	0.77
23:p:282:ARG:CB	29:w:21:ASN:HB3	2.14	0.77
2:B:361:ARG:HD2	2:B:367:GLU:HB2	1.67	0.77
3:D:891:ILE:HG21	10:L:111:LEU:CD2	2.11	0.77
5:F:316:GLN:HE21	5:F:319:LEU:C	1.91	0.77
15:S:44:GLN:O	15:S:103:ASN:N	2.16	0.77
3:D:871:THR:CG2	10:L:66:LEU:CG	2.61	0.77
14:R:283:VAL:CG1	17:X:-37:DT:H71	2.00	0.77
1:A:1021:SER:CB	1:A:1024:GLU:HB2	2.14	0.77
15:S:44:GLN:HE21	15:S:104:GLY:CA	1.90	0.77
23:p:853:LEU:HB2	32:z:46:LYS:NZ	1.98	0.77
15:S:6:PRO:C	15:S:10:ASN:HB2	2.10	0.77
17:X:20:DA:N1	18:Y:-20:DT:C2	2.53	0.77
22:o:769:MET:HG2	23:p:970:HIS:NE2	2.00	0.77
5:F:274:ASN:ND2	5:F:316:GLN:HA	1.99	0.77
5:F:320:ARG:HD3	5:F:415:ILE:HG13	1.62	0.77
22:o:479:TRP:HD1	31:y:67:LEU:HD21	1.50	0.77
33:u:86:ASP:CG	33:u:171:VAL:HG21	2.10	0.77
1:A:1076:VAL:HG21	6:G:147:ARG:HH21	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:283:MET:HE1	5:F:308:VAL:CB	2.14	0.77
11:O:82:ARG:HE	11:O:87:LEU:HB2	1.49	0.77
15:S:50:ASP:HB3	15:S:97:PRO:HG2	1.66	0.77
1:A:1165:LEU:HD22	6:G:181:TRP:CD1	2.20	0.76
3:D:999:MET:CE	11:O:71:VAL:HG12	2.16	0.76
14:R:109:SER:O	14:R:112:ARG:HG3	1.85	0.76
4:E:501:PRO:HD3	7:H:149:HIS:HB3	1.68	0.76
5:F:68:THR:OG1	8:I:34:ARG:HB2	1.85	0.76
12:P:188:ARG:NH1	13:Q:322:ASP:OD2	2.16	0.76
1:A:564:PRO:HG2	2:B:744:PHE:CZ	2.20	0.76
3:D:934:TYR:CE2	8:I:129:LEU:HD23	2.15	0.76
22:o:717:ILE:HD11	22:o:815:TYR:CB	2.15	0.76
22:o:717:ILE:HG12	22:o:737:PHE:HZ	1.50	0.76
7:H:102:PHE:CZ	9:J:158:ALA:HA	2.20	0.76
15:S:44:GLN:CG	15:S:103:ASN:C	2.59	0.76
5:F:304:LEU:HD12	5:F:304:LEU:O	1.84	0.76
5:F:313:VAL:HG12	5:F:375:GLY:CA	2.15	0.76
7:H:190:LEU:HD22	5:f:223:TYR:HB2	1.65	0.76
16:T:22:LYS:HB3	16:T:115:GLU:CG	2.10	0.76
23:p:1038:THR:O	24:q:196:VAL:O	2.04	0.76
4:E:280:ARG:HB2	8:I:26:MET:SD	2.25	0.76
22:o:196:LEU:CD1	22:o:325:LEU:CD1	2.47	0.76
1:A:511:LEU:H	1:A:511:LEU:HD22	1.48	0.76
2:B:842:LEU:HD21	7:H:214:ILE:CD1	2.16	0.76
3:D:953:ILE:HG23	4:E:519:GLU:OE1	1.84	0.76
4:E:694:LEU:HB3	4:E:703:MET:HE2	1.60	0.76
5:F:298:GLU:O	5:F:301:VAL:CG2	2.34	0.76
13:Q:43:LYS:O	13:Q:47:GLU:HG3	1.84	0.76
15:S:44:GLN:NE2	15:S:104:GLY:N	2.33	0.76
7:H:36:THR:HG21	9:J:134:VAL:HG21	1.66	0.76
8:i:60:HIS:CG	10:I:106:ARG:NH2	2.38	0.76
1:A:564:PRO:CG	2:B:744:PHE:CD2	2.66	0.75
3:D:934:TYR:CG	8:I:129:LEU:HD23	2.21	0.75
23:p:855:ALA:CB	32:z:49:THR:HB	2.15	0.75
1:A:698:THR:HG22	6:G:85:PHE:O	1.86	0.75
1:A:1021:SER:O	1:A:1025:VAL:HB	1.87	0.75
3:D:933:ARG:HD2	9:J:117:VAL:HG11	1.67	0.75
19:c:77:LEU:HD12	9:j:116:LEU:HD23	1.68	0.75
7:H:190:LEU:HB2	5:f:223:TYR:CB	2.17	0.75
10:L:106:ARG:HH12	10:L:114:LYS:CG	1.98	0.75
11:O:7:ARG:CZ	11:O:37:LEU:HB3	2.17	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:1034:GLY:O	24:q:186:TYR:HE1	1.70	0.75
7:H:190:LEU:HB2	5:f:223:TYR:CD1	2.20	0.75
22:o:830:GLY:CA	23:p:716:HIS:ND1	2.48	0.75
16:T:47:LYS:HG2	16:T:52:THR:HG23	1.69	0.75
22:o:840:ALA:HA	23:p:719:SER:CB	2.16	0.75
11:O:18:SER:CA	13:Q:45:LEU:CD1	2.63	0.75
8:i:73:LEU:HD22	10:l:105:HIS:CG	2.21	0.75
4:E:696:TRP:CZ3	4:E:703:MET:SD	2.80	0.75
11:O:22:LEU:HD21	13:Q:41:GLU:CD	2.12	0.75
14:R:44:ARG:HB3	23:p:1067:ILE:HD11	1.69	0.75
22:o:102:LYS:HZ2	22:o:1445:HIS:CE1	2.05	0.75
1:A:1193:ALA:HB3	6:G:166:VAL:HG21	1.67	0.74
22:o:1125:LYS:HA	22:o:1128:ILE:HB	1.69	0.74
14:R:146:TYR:O	14:R:149:LYS:HG3	1.86	0.74
15:S:10:ASN:HB3	16:T:47:LYS:HD2	1.67	0.74
23:p:735:VAL:HG11	30:x:55:LEU:HD11	1.69	0.74
22:o:517:GLU:HG2	27:t:62:ARG:NH1	2.03	0.74
1:A:697:ALA:CB	6:G:86:TYR:CE2	2.61	0.74
10:l:76:LEU:HD13	10:l:84:LEU:HD12	1.67	0.74
4:E:614:THR:O	8:I:114:ARG:O	2.05	0.74
5:F:320:ARG:HD3	5:F:415:ILE:CD1	2.17	0.74
5:F:361:LYS:HA	5:F:364:VAL:HG22	1.68	0.74
23:p:83:ARG:HG3	23:p:133:ILE:HG23	1.68	0.74
22:o:364:ARG:HB2	23:p:1084:LEU:CD1	2.15	0.74
22:o:388:MET:HA	23:p:1063:ALA:HB1	1.70	0.74
23:p:282:ARG:HD2	29:w:21:ASN:CB	2.16	0.74
23:p:1027:VAL:HG23	24:q:203:TRP:CH2	2.23	0.74
29:w:30:LYS:HA	29:w:33:ARG:HH21	1.53	0.74
3:D:1006:LEU:HD22	13:Q:328:LEU:HD21	0.76	0.74
17:X:18:DA:N1	18:Y:-18:DT:C4	2.56	0.74
3:D:901:TYR:CE1	10:L:128:ILE:HG22	2.22	0.74
4:E:295:GLU:HG3	8:I:85:SER:HB2	1.68	0.74
1:A:465:TYR:CD1	7:H:165:TYR:O	2.36	0.73
5:F:87:HIS:N	9:J:212:LYS:NZ	2.36	0.73
22:o:319:ASP:HB2	22:o:340:LYS:HD3	1.68	0.73
23:p:910:THR:OG1	32:z:42:ARG:O	2.03	0.73
4:E:615:ASP:OD2	8:I:114:ARG:HG2	1.87	0.73
10:L:102:LEU:HA	10:L:105:HIS:CD2	2.21	0.73
1:A:350:TYR:CZ	1:A:497:PRO:HA	2.23	0.73
1:A:506:ASP:OD1	5:f:299:LYS:CG	2.34	0.73
23:p:274:ARG:HG2	23:p:279:VAL:HA	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:812:LYS:HG3	29:w:77:THR:O	1.87	0.73
23:p:100:GLU:CG	32:z:42:ARG:NH1	2.51	0.73
4:E:359:LEU:HD12	4:E:359:LEU:O	1.87	0.73
5:F:320:ARG:HD3	5:F:415:ILE:HB	0.82	0.73
7:H:118:VAL:HG21	9:J:127:THR:HG23	1.67	0.73
8:i:60:HIS:O	10:l:106:ARG:NE	2.19	0.73
5:F:283:MET:HE1	5:F:308:VAL:HG12	0.79	0.73
5:F:309:MET:HE2	5:F:359:PHE:CZ	2.24	0.73
11:O:88:ILE:CG2	13:Q:361:ASN:ND2	2.50	0.73
25:r:87:LEU:HD22	25:r:97:LEU:HB2	1.71	0.73
5:F:320:ARG:NH2	5:F:415:ILE:CA	2.51	0.73
1:A:491:MET:HE2	1:A:491:MET:HA	1.69	0.73
22:o:197:GLU:HB2	22:o:308:LYS:NZ	2.04	0.73
1:A:572:TYR:CE1	2:B:689:GLN:OE1	2.42	0.73
12:P:197:PHE:HZ	17:X:-25:DA:C2	2.06	0.73
4:E:308:ARG:HD2	4:E:363:ALA:C	2.13	0.72
22:o:830:GLY:CA	23:p:716:HIS:CE1	2.71	0.72
23:p:803:ARG:C	30:x:8:PHE:CE1	2.66	0.72
3:D:999:MET:CE	11:O:71:VAL:HB	2.19	0.72
2:B:838:ASN:CG	7:H:213:LEU:HD23	2.14	0.72
22:o:1189:ASP:OD2	22:o:1258:ARG:NH1	2.22	0.72
23:p:344:GLN:NE2	23:p:353:VAL:O	2.22	0.72
4:E:280:ARG:NH1	8:I:27:GLY:N	2.36	0.72
4:E:615:ASP:OD1	8:I:114:ARG:C	2.33	0.72
5:F:92:ILE:HG13	5:F:93:PRO:HD3	1.71	0.72
15:S:44:GLN:CG	15:S:103:ASN:CA	2.68	0.72
22:o:18:ILE:HD12	23:p:1171:MET:C	2.15	0.72
1:A:407:GLN:HA	5:f:390:THR:HG21	1.71	0.72
2:B:241:PRO:HG2	2:B:496:MET:HE1	1.72	0.72
5:F:418:ILE:H	5:F:418:ILE:HD12	1.54	0.72
17:X:31:DC:H42	18:Y:-31:DG:H1	0.75	0.72
22:o:606:HIS:HB3	22:o:626:THR:HG23	1.69	0.72
7:H:189:ALA:C	5:f:223:TYR:CE1	2.67	0.72
22:o:578:ALA:O	28:v:93:TYR:N	2.23	0.72
2:B:834:THR:HG23	7:H:213:LEU:HD21	1.72	0.72
22:o:710:LYS:HG3	22:o:817:PRO:HG3	1.71	0.72
23:p:803:ARG:NH1	30:x:9:THR:C	2.47	0.72
1:A:575:PRO:CG	2:B:610:GLU:HG2	2.09	0.72
3:D:901:TYR:CE1	10:L:128:ILE:CG2	2.73	0.72
15:S:126:ILE:HB	15:S:138:PHE:HB2	1.71	0.72
10:l:106:ARG:HH12	10:l:114:LYS:HG3	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:334:ARG:NH1	22:o:335:PRO:O	2.21	0.72
22:o:743:ARG:HH21	22:o:743:ARG:CA	2.00	0.72
1:A:670:ASP:O	6:G:78:LYS:NZ	2.23	0.72
1:A:1022:ARG:O	1:A:1026:ILE:HD12	1.90	0.72
5:F:86:PHE:CA	9:J:212:LYS:HG2	2.18	0.72
8:I:132:LEU:HD21	9:J:121:MET:HE1	1.72	0.72
4:E:295:GLU:HG3	8:I:85:SER:CB	2.20	0.72
5:F:309:MET:SD	5:F:359:PHE:CE1	2.76	0.72
22:o:1370:GLY:HA2	26:s:178:PRO:HD2	1.70	0.72
1:A:639:LEU:HD11	1:A:774:ARG:HG2	1.70	0.71
3:D:943:GLN:HE21	4:E:510:ALA:N	1.86	0.71
23:p:133:ILE:HA	23:p:139:GLN:HE22	1.55	0.71
7:H:190:LEU:HB2	5:f:223:TYR:CG	2.24	0.71
11:O:28:ILE:HG21	13:Q:38:VAL:HG11	1.71	0.71
11:O:61:SER:H	11:O:79:VAL:HG22	1.55	0.71
14:R:111:ASP:HB3	14:R:114:MET:CB	2.15	0.71
1:A:948:LEU:O	1:A:1062:TYR:HE2	1.72	0.71
22:o:406:VAL:HG21	22:o:419:ILE:HD11	1.72	0.71
4:E:308:ARG:CD	4:E:363:ALA:O	2.34	0.71
5:F:114:LEU:HD13	7:H:53:ALA:HB3	1.71	0.71
7:H:66:GLN:HG3	9:J:138:TYR:CE1	2.25	0.71
16:T:83:PHE:CZ	16:T:116:CYS:SG	2.83	0.71
8:i:60:HIS:CD2	10:l:106:ARG:CZ	2.74	0.71
23:p:1040:GLN:NE2	24:q:197:TYR:HA	2.05	0.71
1:A:1000:LEU:CD2	1:A:1020:LEU:HD12	2.05	0.71
15:S:44:GLN:HG3	15:S:103:ASN:C	2.15	0.71
22:o:388:MET:CG	23:p:1063:ALA:HB2	2.21	0.71
22:o:457:ILE:HG13	23:p:1102:PHE:CZ	2.26	0.71
22:o:717:ILE:CD1	22:o:815:TYR:CB	2.69	0.71
25:r:108:ALA:HB2	25:r:128:GLN:HB2	1.71	0.71
3:D:917:ILE:CB	3:D:1058:VAL:HG11	2.21	0.71
3:D:966:LEU:CD1	3:D:983:ARG:NH1	2.54	0.71
7:H:111:ALA:HB2	9:J:157:LEU:HD11	1.72	0.71
14:R:297:PRO:HB3	14:R:310:VAL:HG21	1.73	0.71
33:u:110:ARG:NH2	33:u:118:GLU:OE2	2.24	0.71
4:E:621:ARG:HH22	8:I:104:LEU:HG	1.55	0.71
5:F:305:ILE:HD13	5:F:305:ILE:N	2.05	0.71
7:H:110:TYR:CZ	9:J:160:GLN:HB3	2.26	0.71
11:O:10:THR:HG21	13:Q:50:LEU:HD22	1.73	0.71
33:u:40:GLY:HA2	33:u:152:VAL:HG22	1.66	0.71
1:A:875:GLU:CD	2:B:580:GLN:NE2	2.49	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1083:PHE:CE2	4:E:585:ASN:ND2	2.43	0.71
4:E:315:GLN:HG3	15:S:105:LYS:HZ3	1.54	0.71
4:E:464:TYR:CE2	5:F:133:ALA:HB2	2.24	0.71
5:F:89:GLN:CD	9:J:210:ASN:ND2	2.45	0.71
11:O:88:ILE:CD1	13:Q:360:LEU:HD12	2.12	0.71
22:o:1166:LEU:HB3	22:o:1293:LEU:HA	1.73	0.71
3:D:881:ARG:HB2	10:L:57:VAL:HG12	1.71	0.71
7:H:189:ALA:HB1	5:f:249:ASP:OD2	1.90	0.71
23:p:282:ARG:NH1	29:w:16:PHE:CD2	2.59	0.71
23:p:803:ARG:HB2	30:x:8:PHE:HD1	1.56	0.71
23:p:853:LEU:HB2	32:z:46:LYS:HZ2	1.55	0.71
1:A:1076:VAL:CB	6:G:147:ARG:HH21	2.03	0.71
3:D:966:LEU:HD13	3:D:983:ARG:CZ	2.20	0.71
11:O:22:LEU:HD21	13:Q:41:GLU:OE1	1.91	0.71
11:O:88:ILE:HG22	13:Q:360:LEU:HB3	1.66	0.71
7:H:119:ILE:HD13	9:J:129:THR:O	1.91	0.70
22:o:60:PRO:HA	22:o:65:ILE:HD11	1.71	0.70
1:A:564:PRO:CB	2:B:744:PHE:CE2	2.74	0.70
2:B:757:MET:CA	2:B:760:LEU:HD21	2.21	0.70
11:O:22:LEU:HB2	11:O:28:ILE:HD13	1.67	0.70
13:Q:55:ALA:O	13:Q:56:VAL:CG2	2.38	0.70
3:D:881:ARG:HB2	10:L:57:VAL:HG11	1.61	0.70
3:D:1085:LYS:HZ3	10:L:83:MET:HE1	1.57	0.70
4:E:280:ARG:HH11	8:I:26:MET:C	2.00	0.70
12:P:300:ILE:HD11	12:P:320:GLU:HB3	1.73	0.70
7:H:194:MET:HE1	5:f:226:GLU:CB	2.21	0.70
1:A:567:LEU:HD22	2:B:745:GLN:HG2	1.72	0.70
3:D:1000:ARG:NE	3:D:1000:ARG:HA	2.06	0.70
7:H:93:ILE:HD13	9:J:155:ILE:HD11	1.72	0.70
11:O:14:SER:HA	13:Q:49:LYS:HD2	1.71	0.70
11:O:58:PHE:CD1	11:O:58:PHE:N	2.57	0.70
22:o:457:ILE:HG13	23:p:1102:PHE:CE1	2.26	0.70
22:o:580:LEU:CD2	28:v:142:TYR:HE2	2.04	0.70
33:u:44:PHE:HE2	33:u:46:ILE:CG1	2.03	0.70
1:A:564:PRO:HB2	2:B:744:PHE:CE2	2.27	0.70
11:O:28:ILE:HG21	13:Q:38:VAL:CG1	2.22	0.70
22:o:107:LEU:HD13	22:o:191:ILE:HD12	1.73	0.70
22:o:577:PRO:O	28:v:93:TYR:HB3	1.90	0.70
5:F:320:ARG:CD	5:F:415:ILE:HD12	2.22	0.70
15:S:44:GLN:HG3	15:S:103:ASN:HA	1.74	0.70
26:s:172:ARG:NH2	26:s:210:GLN:O	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:950:VAL:CG1	1:A:1066:CYS:SG	2.78	0.69
3:D:891:ILE:HG22	10:L:111:LEU:CB	2.20	0.69
5:F:280:ILE:HG13	5:F:330:ARG:HD3	1.74	0.69
5:F:280:ILE:CG1	5:F:330:ARG:HB2	2.22	0.69
7:H:36:THR:CG2	9:J:134:VAL:HG21	2.22	0.69
22:o:756:ALA:HB2	22:o:786:ALA:CB	2.22	0.69
23:p:755:GLN:CG	30:x:51:ALA:O	2.39	0.69
29:w:81:THR:HG22	29:w:83:ASP:H	1.54	0.69
7:H:190:LEU:CD1	5:f:223:TYR:CA	2.41	0.69
8:i:60:HIS:NE2	10:l:106:ARG:NH2	2.29	0.69
25:r:29:ALA:O	25:r:94:LYS:NZ	2.18	0.69
3:D:946:PHE:CZ	4:E:513:LEU:O	2.45	0.69
5:F:38:LEU:HD21	8:I:72:ARG:HG3	1.73	0.69
22:o:721:HIS:HA	29:w:108:MET:O	1.92	0.69
33:u:38:CYS:O	33:u:155:ASN:HA	1.93	0.69
5:F:86:PHE:HB2	9:J:211:VAL:HA	1.73	0.69
5:F:99:GLY:HA3	7:H:63:GLU:HG2	1.75	0.69
5:F:320:ARG:CD	5:F:415:ILE:HG13	2.16	0.69
1:A:784:GLN:N	1:A:1073:GLN:NE2	2.35	0.69
11:O:21:GLU:OE2	13:Q:45:LEU:HD22	1.92	0.69
14:R:146:TYR:O	14:R:149:LYS:CG	2.39	0.69
22:o:540:ASP:HB2	23:p:790:GLN:OE1	1.93	0.69
22:o:691:ASP:OD2	22:o:765:ASN:ND2	2.26	0.69
22:o:733:LEU:O	22:o:736:THR:HG23	1.92	0.69
23:p:753:TYR:HE1	30:x:2:ILE:O	1.74	0.69
1:A:1021:SER:HB2	1:A:1024:GLU:HB2	1.73	0.69
22:o:1102:MET:HE1	22:o:1124:LEU:HD13	1.74	0.69
1:A:355:VAL:HG23	1:A:497:PRO:HD3	1.73	0.69
4:E:464:TYR:CD2	5:F:133:ALA:HB2	2.27	0.69
4:E:694:LEU:CG	4:E:703:MET:CE	2.59	0.69
15:S:157:ALA:HB2	23:p:316:VAL:CG2	2.18	0.69
20:k:191:VAL:HG13	20:k:200:ILE:HD13	1.74	0.69
22:o:102:LYS:NZ	22:o:1445:HIS:CE1	2.61	0.69
1:A:1076:VAL:CG2	6:G:147:ARG:HH21	2.05	0.69
3:D:917:ILE:CG1	3:D:1058:VAL:HG21	2.21	0.69
3:D:1006:LEU:CD1	13:Q:328:LEU:CD1	2.63	0.69
5:F:366:GLU:OE1	5:F:402:ARG:NH2	2.24	0.69
13:Q:47:GLU:OE2	13:Q:60:HIS:CG	2.45	0.69
23:p:1027:VAL:HG23	24:q:203:TRP:CE3	2.27	0.69
25:r:80:ILE:HA	25:r:83:VAL:HG12	1.75	0.69
1:A:681:ALA:HB3	6:G:75:GLU:HG3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:999:MET:HE1	11:O:71:VAL:O	1.92	0.69
23:p:100:GLU:HG2	32:z:42:ARG:NH1	2.08	0.69
28:v:104:THR:HG22	28:v:105:SER:H	1.57	0.69
5:F:71:ILE:HB	8:I:38:GLN:NE2	2.08	0.69
2:B:835:ARG:CZ	7:H:184:ARG:HH11	2.06	0.68
3:D:999:MET:CE	11:O:71:VAL:CG1	2.66	0.68
5:F:320:ARG:NH2	5:F:414:ASN:O	2.27	0.68
5:F:329:LEU:HD23	5:F:329:LEU:C	2.18	0.68
14:R:196:LYS:HZ2	17:X:-30:DA:H5"	1.56	0.68
10:l:87:ILE:CB	10:l:91:PHE:CE2	2.59	0.68
23:p:1040:GLN:NE2	24:q:197:TYR:HD1	1.90	0.68
1:A:638:PRO:HB3	6:G:39:LEU:HD23	1.73	0.68
1:A:1076:VAL:CG1	6:G:147:ARG:CZ	2.59	0.68
3:D:917:ILE:HB	3:D:1058:VAL:HG11	1.75	0.68
4:E:790:LEU:HD13	7:H:146:ILE:HG12	1.75	0.68
5:F:309:MET:CE	5:F:359:PHE:HE1	1.90	0.68
10:L:106:ARG:CZ	10:L:114:LYS:HZ3	2.03	0.68
1:A:349:TRP:CZ2	5:f:266:GLY:HA3	2.28	0.68
2:B:273:LEU:CD1	7:H:223:TYR:CE1	2.74	0.68
5:F:298:GLU:CB	5:F:301:VAL:CG2	2.72	0.68
11:O:55:ARG:HB2	13:Q:369:LYS:HB2	1.73	0.68
5:f:447:ALA:CA	5:f:456:GLY:HA3	2.23	0.68
33:u:38:CYS:O	33:u:155:ASN:OD1	2.12	0.68
33:u:93:ASN:OD1	33:u:94:LYS:N	2.26	0.68
1:A:564:PRO:HB2	2:B:744:PHE:HE2	1.58	0.68
1:A:995:LEU:HB3	1:A:1026:ILE:HG23	1.75	0.68
23:p:320:PHE:O	23:p:324:ARG:NH1	2.27	0.68
1:A:415:ILE:O	5:F:314:SER:HB2	1.92	0.68
8:I:60:HIS:HE1	10:L:118:LEU:HD22	0.92	0.68
6:G:129:LYS:O	6:G:129:LYS:NZ	2.23	0.68
22:o:703:GLN:HA	22:o:703:GLN:NE2	2.07	0.68
23:p:674:MET:SD	29:w:77:THR:HA	2.34	0.68
29:w:105:GLU:HG2	29:w:106:ASP:H	1.59	0.68
4:E:696:TRP:HA	4:E:703:MET:CA	2.13	0.68
10:L:71:ASP:HB2	10:L:74:GLU:HB2	1.76	0.68
23:p:851:ASP:OD1	32:z:15:MET:CE	2.41	0.68
23:p:961:ILE:CD1	30:x:43:TYR:CE1	2.76	0.68
33:u:40:GLY:CA	33:u:152:VAL:HG22	2.22	0.68
1:A:573:TYR:CD2	2:B:657:ARG:HA	2.29	0.68
5:F:305:ILE:HG21	5:F:355:ILE:CG2	2.23	0.68
5:F:320:ARG:CD	5:F:415:ILE:CD1	2.71	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:733:LEU:HA	22:o:736:THR:HG23	1.76	0.68
22:o:1172:ASN:ND2	29:w:57:LYS:HE3	2.08	0.68
23:p:851:ASP:CG	32:z:15:MET:HE1	2.15	0.68
33:u:38:CYS:SG	33:u:44:PHE:CA	2.76	0.68
14:R:196:LYS:NZ	17:X:-30:DA:H5''	2.09	0.68
22:o:85:PHE:CZ	23:p:1164:SER:OG	2.46	0.68
4:E:426:ARG:HH11	4:E:640:ASN:HD22	1.42	0.67
5:F:320:ARG:HH21	5:F:415:ILE:HA	1.60	0.67
7:H:190:LEU:CA	5:f:223:TYR:CE1	2.70	0.67
15:S:10:ASN:O	16:T:47:LYS:CB	2.39	0.67
15:S:49:ARG:NH1	15:S:96:GLN:O	2.25	0.67
3:D:898:VAL:CG2	10:L:113:VAL:HG23	2.22	0.67
5:F:342:LYS:CE	5:F:383:LEU:HA	2.21	0.67
1:A:950:VAL:HG21	1:A:1065:GLU:HG3	1.76	0.67
3:D:1071:ARG:NH2	5:F:80:VAL:HA	2.10	0.67
4:E:308:ARG:HD2	4:E:362:GLU:O	1.93	0.67
14:R:114:MET:SD	14:R:146:TYR:CE1	2.87	0.67
17:X:21:DC:N4	18:Y:-21:DG:H1	1.91	0.67
3:d:1082:ALA:HB2	10:l:83:MET:CE	2.25	0.67
22:o:1005:HIS:HD2	22:o:1007:ILE:HG12	1.59	0.67
3:D:914:VAL:CG1	10:L:70:VAL:HG21	2.24	0.67
18:Y:27:DA:H4'	18:Y:27:DA:OP1	1.93	0.67
23:p:753:TYR:CE1	30:x:2:ILE:O	2.47	0.67
3:D:1000:ARG:HH11	3:D:1000:ARG:CG	2.08	0.67
14:R:173:VAL:HG11	23:p:102:ASP:HB3	1.77	0.67
22:o:1156:ASP:OD1	22:o:1157:ILE:N	2.27	0.67
23:p:908:MET:HB2	32:z:45:TYR:CE1	2.30	0.67
3:D:1006:LEU:CG	13:Q:328:LEU:HD11	2.24	0.67
4:E:359:LEU:HD13	4:E:627:LEU:HD12	1.76	0.67
4:E:788:ARG:HB3	7:H:145:HIS:HA	1.76	0.67
14:R:109:SER:HA	14:R:112:ARG:HD2	1.76	0.67
17:X:27:DG:N2	18:Y:-27:DC:C2	2.52	0.67
4:e:645:GLY:H	4:e:675:LEU:HD11	1.59	0.67
33:u:167:TYR:CD2	33:u:167:TYR:O	2.48	0.67
1:A:601:PRO:CB	6:G:10:HIS:HB3	2.24	0.67
3:D:910:LEU:HB2	10:L:66:LEU:HD21	1.77	0.67
7:H:190:LEU:CB	5:f:223:TYR:HB2	2.24	0.67
11:O:25:SER:C	11:O:27:GLN:H	2.03	0.67
13:Q:47:GLU:OE2	13:Q:60:HIS:NE2	2.27	0.67
11:O:28:ILE:CG2	13:Q:38:VAL:CG1	2.71	0.67
14:R:137:ARG:CZ	14:R:137:ARG:HB3	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:755:GLN:HB3	30:x:51:ALA:O	1.94	0.67
5:F:113:ASP:HA	7:H:52:SER:HA	1.76	0.67
5:F:274:ASN:HB2	5:F:317:LEU:H	1.58	0.67
22:o:26:LEU:CD2	23:p:1166:SER:CA	2.70	0.67
22:o:922:PHE:H	22:o:1052:ARG:HH11	1.43	0.67
23:p:755:GLN:CB	30:x:51:ALA:O	2.42	0.67
1:A:1016:GLU:HA	1:A:1019:LYS:HZ2	1.59	0.66
7:H:108:PRO:HG3	9:J:119:PHE:CG	2.30	0.66
15:S:11:VAL:C	15:S:12:THR:HG23	2.20	0.66
22:o:893:GLU:HG2	26:s:203:TYR:CE2	2.29	0.66
4:E:295:GLU:CD	8:I:86:PRO:O	2.38	0.66
16:T:8:ASP:HB3	16:T:105:SER:HA	1.75	0.66
16:T:123:ASN:O	16:T:125:MET:CG	2.43	0.66
22:o:512:ARG:HE	27:t:90:LEU:HD13	1.59	0.66
23:p:1021:HIS:CE1	24:q:202:GLU:HB2	2.30	0.66
23:p:1035:ARG:NH2	24:q:194:HIS:O	2.28	0.66
5:F:67:THR:HA	8:I:32:GLU:CG	2.24	0.66
5:F:313:VAL:CG1	5:F:376:SER:N	2.57	0.66
7:H:111:ALA:HA	9:J:126:TYR:OH	1.95	0.66
22:o:384:ILE:HG12	23:p:1061:SER:HB2	1.76	0.66
22:o:1474:LEU:HD11	27:t:107:ARG:NH2	2.11	0.66
29:w:109:ARG:NH2	29:w:125:GLU:O	2.28	0.66
33:u:99:THR:HG21	33:u:143:ILE:HD11	1.76	0.66
33:u:153:ASP:O	33:u:155:ASN:N	2.27	0.66
2:B:402:ILE:HD12	2:B:455:LEU:HD12	1.78	0.66
5:F:66:LEU:HD22	8:I:28:ILE:HG21	1.76	0.66
7:H:185:ASP:HB3	5:f:251:GLY:HA3	1.67	0.66
19:c:67:GLY:CA	9:j:116:LEU:CD1	2.70	0.66
22:o:713:VAL:HG22	22:o:741:VAL:HG13	1.78	0.66
25:r:87:LEU:HD13	25:r:97:LEU:HD22	1.77	0.66
1:A:698:THR:O	6:G:84:THR:HA	1.95	0.66
4:E:775:THR:HG23	5:F:136:LEU:HD21	1.76	0.66
7:H:108:PRO:HG3	9:J:119:PHE:CD2	2.30	0.66
7:H:118:VAL:CG2	9:J:127:THR:HG23	2.25	0.66
14:R:47:ASP:HA	23:p:1069:ILE:HD11	1.77	0.66
15:S:44:GLN:HG2	15:S:103:ASN:CA	2.21	0.66
5:f:239:ARG:HD3	5:f:284:ARG:HH11	1.60	0.66
22:o:626:THR:HG22	22:o:627:LYS:H	1.60	0.66
1:A:567:LEU:HA	2:B:745:GLN:NE2	2.10	0.66
7:H:111:ALA:HB2	9:J:157:LEU:HD13	1.76	0.66
22:o:717:ILE:HD11	22:o:815:TYR:HB2	1.74	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:1040:GLN:HG2	24:q:203:TRP:HZ2	0.87	0.66
1:A:572:TYR:CD1	2:B:689:GLN:CD	2.74	0.66
4:E:299:ASP:OD2	4:E:607:ARG:NH2	2.28	0.66
13:Q:26:ARG:HH21	13:Q:39:LEU:HD23	1.61	0.66
14:R:134:ILE:HG12	14:R:171:GLU:HG3	1.76	0.66
17:X:20:DA:N1	18:Y:-20:DT:O2	2.29	0.66
7:H:193:PHE:CD1	5:f:227:ILE:HD13	2.31	0.66
12:P:188:ARG:HD2	13:Q:322:ASP:OD1	1.96	0.66
22:o:1177:TYR:CB	29:w:35:LEU:HD11	2.25	0.66
3:D:1083:PHE:HE2	4:E:585:ASN:HD21	0.76	0.66
22:o:26:LEU:HD22	23:p:1166:SER:HA	1.76	0.66
22:o:517:GLU:HG2	27:t:62:ARG:HH12	1.60	0.66
26:s:51:GLY:O	26:s:54:ARG:NH2	2.29	0.66
1:A:795:ASN:CG	17:X:22:DC:OP1	2.39	0.65
3:D:881:ARG:CZ	10:L:57:VAL:HG22	2.17	0.65
3:D:939:ASP:HA	8:I:125:PRO:HA	1.76	0.65
7:H:107:LEU:HD11	9:J:157:LEU:C	2.21	0.65
12:P:204:ILE:HG13	12:P:207:PRO:HD2	1.78	0.65
8:i:60:HIS:CD2	10:l:106:ARG:NH2	2.63	0.65
23:p:282:ARG:HD3	29:w:21:ASN:ND2	2.10	0.65
4:E:280:ARG:NH1	8:I:26:MET:C	2.54	0.65
7:H:186:VAL:CG2	5:f:255:MET:SD	2.85	0.65
11:O:19:LEU:HA	11:O:28:ILE:HD11	1.78	0.65
23:p:854:ILE:HD12	23:p:866:ILE:HG22	1.77	0.65
24:q:15:THR:HG22	24:q:16:ASP:H	1.61	0.65
25:r:62:MET:HA	25:r:65:LEU:HB3	1.79	0.65
33:u:32:THR:OG1	33:u:33:GLU:OE1	2.14	0.65
1:A:807:LEU:HD21	1:A:842:ILE:HA	1.79	0.65
7:H:193:PHE:HE2	5:f:226:GLU:C	2.04	0.65
11:O:80:GLU:HG2	11:O:89:LYS:HA	1.77	0.65
3:d:913:LEU:HD22	10:l:87:ILE:CD1	2.27	0.65
3:D:941:ARG:CZ	8:I:123:THR:O	2.43	0.65
5:F:320:ARG:N	5:F:321:PRO:HD2	2.10	0.65
5:f:320:ARG:NH1	5:f:320:ARG:HB3	2.12	0.65
10:l:82:GLU:O	10:l:86:GLN:HG3	1.95	0.65
22:o:710:LYS:CG	22:o:817:PRO:CG	2.68	0.65
1:A:342:ARG:N	1:A:497:PRO:HB3	2.11	0.65
1:A:970:ASN:OD1	1:A:970:ASN:N	2.21	0.65
4:E:295:GLU:CG	8:I:85:SER:OG	2.45	0.65
7:H:102:PHE:CE1	9:J:158:ALA:O	2.49	0.65
12:P:278:GLN:CD	12:P:278:GLN:H	2.04	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:S:102:VAL:HG12	15:S:103:ASN:OD1	1.96	0.65
23:p:851:ASP:N	32:z:15:MET:CE	2.50	0.65
2:B:819:LEU:HB2	7:H:204:PHE:CE2	2.32	0.65
4:E:299:ASP:OD2	4:E:607:ARG:CZ	2.44	0.65
11:O:18:SER:CB	13:Q:45:LEU:CD1	2.75	0.65
13:Q:48:ASN:HA	13:Q:51:MET:HE2	1.78	0.65
17:X:27:DG:C2	18:Y:-27:DC:N3	2.64	0.65
23:p:690:CYS:SG	23:p:691:SER:N	2.69	0.65
11:O:22:LEU:CB	11:O:28:ILE:HD13	2.23	0.65
22:o:769:MET:HE2	23:p:970:HIS:NE2	2.11	0.65
2:B:431:LEU:HD22	2:B:431:LEU:H	1.62	0.65
3:D:941:ARG:NH2	8:I:123:THR:O	2.30	0.65
5:F:339:GLN:OE1	5:F:343:HIS:CD2	2.50	0.65
7:H:69:ILE:HG21	9:J:138:TYR:HB2	1.79	0.65
12:P:203:ARG:HB3	12:P:210:THR:HA	1.77	0.65
10:l:101:GLN:O	10:l:105:HIS:CG	2.47	0.65
4:E:463:PHE:HB2	5:F:136:LEU:HG	1.78	0.65
5:F:87:HIS:N	9:J:212:LYS:HZ3	1.95	0.65
5:F:320:ARG:CB	5:F:415:ILE:CD1	2.16	0.65
7:H:193:PHE:CZ	5:f:230:ALA:CB	2.76	0.65
10:L:102:LEU:CA	10:L:105:HIS:HD2	2.08	0.65
23:p:961:ILE:HD13	30:x:43:TYR:CE1	2.32	0.65
7:H:111:ALA:CB	9:J:157:LEU:HD11	2.26	0.65
22:o:197:GLU:HB2	22:o:308:LYS:HZ1	1.62	0.65
23:p:800:ALA:CA	30:x:8:PHE:O	2.44	0.65
11:O:60:GLY:HA2	11:O:79:VAL:HG13	1.78	0.64
13:Q:47:GLU:OE1	13:Q:60:HIS:ND1	2.30	0.64
23:p:282:ARG:HB2	29:w:21:ASN:HB3	1.76	0.64
3:D:901:TYR:CD1	10:L:128:ILE:CG2	2.80	0.64
4:E:695:LEU:O	4:E:703:MET:HA	1.97	0.64
11:O:58:PHE:CD2	11:O:81:PHE:HD2	2.15	0.64
22:o:733:LEU:C	22:o:736:THR:HG23	2.23	0.64
23:p:1027:VAL:CG2	24:q:197:TYR:HE1	2.10	0.64
15:S:44:GLN:HE22	15:S:104:GLY:HA3	1.54	0.64
22:o:193:ARG:HA	22:o:198:LEU:HA	1.79	0.64
22:o:1344:MET:HE2	26:s:134:GLU:HA	1.79	0.64
1:A:355:VAL:HG23	1:A:355:VAL:O	1.97	0.64
15:S:44:GLN:NE2	15:S:103:ASN:O	2.27	0.64
10:l:106:ARG:NH1	10:l:114:LYS:HG3	2.12	0.64
22:o:388:MET:HA	23:p:1063:ALA:CB	2.28	0.64
3:D:934:TYR:HE2	8:I:129:LEU:HG	1.55	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:745:GLU:OE1	4:E:745:GLU:HA	1.98	0.64
5:F:217:SER:OG	7:H:162:THR:N	2.26	0.64
5:F:319:LEU:HD23	5:F:319:LEU:N	2.08	0.64
23:p:961:ILE:HG21	30:x:43:TYR:CZ	2.32	0.64
1:A:575:PRO:HD2	2:B:608:ASN:HB2	1.80	0.64
4:E:293:GLY:O	8:I:85:SER:HB3	1.98	0.64
5:F:315:ARG:NH1	5:F:320:ARG:CG	2.58	0.64
16:T:20:LEU:N	16:T:112:GLN:O	2.28	0.64
33:u:91:GLN:HB2	33:u:98:PHE:HD2	1.62	0.64
4:E:696:TRP:CZ3	4:E:703:MET:HB3	2.26	0.64
11:O:59:ARG:HG3	13:Q:373:ASP:HB2	1.80	0.64
17:X:-45:DT:H2"	17:X:-44:DC:C6	2.31	0.64
19:c:67:GLY:CA	9:j:116:LEU:HD11	2.24	0.64
22:o:232:GLU:HA	22:o:235:VAL:HG12	1.80	0.64
22:o:757:GLN:OE1	22:o:757:GLN:HA	1.97	0.64
22:o:1146:GLN:HB3	22:o:1149:ARG:HH21	1.62	0.64
2:B:490:SER:HA	2:B:493:TRP:HB2	1.80	0.64
3:D:881:ARG:CD	10:L:57:VAL:HG11	2.28	0.64
7:H:186:VAL:HG21	5:f:255:MET:SD	2.37	0.64
11:O:72:TRP:HD1	13:Q:339:TYR:CE2	2.16	0.64
3:d:910:LEU:HD21	10:l:87:ILE:HG13	1.78	0.64
1:A:506:ASP:CB	5:f:299:LYS:HG3	2.27	0.64
1:A:1189:ALA:HB3	6:G:162:VAL:HG13	1.78	0.64
2:B:583:GLU:CD	2:B:583:GLU:H	2.06	0.64
3:D:999:MET:HG2	3:D:1000:ARG:HH22	1.61	0.64
3:D:1002:ARG:O	3:D:1006:LEU:HG	1.97	0.64
15:S:126:ILE:N	15:S:138:PHE:O	2.23	0.64
22:o:721:HIS:CE1	29:w:98:GLN:NE2	2.52	0.64
22:o:17:THR:O	23:p:1173:SER:HA	1.98	0.64
3:D:1000:ARG:HG2	11:O:5:LEU:CA	2.18	0.63
5:F:217:SER:OG	7:H:161:LYS:HA	1.98	0.63
7:H:193:PHE:CD1	5:f:227:ILE:CD1	2.81	0.63
22:o:1177:TYR:CD1	29:w:35:LEU:HD21	2.33	0.63
26:s:17:ILE:HD11	26:s:135:LEU:HD13	1.78	0.63
5:F:90:GLU:CD	9:J:208:GLY:CA	2.69	0.63
5:F:305:ILE:HG21	5:F:355:ILE:HG22	1.79	0.63
8:I:60:HIS:NE2	10:L:118:LEU:CD2	2.54	0.63
15:S:8:SER:HB3	16:T:49:GLN:HA	1.79	0.63
23:p:803:ARG:O	30:x:8:PHE:CD1	2.49	0.63
3:D:933:ARG:HD3	9:J:117:VAL:HG11	1.79	0.63
7:H:193:PHE:CE1	5:f:227:ILE:HD13	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:O:3:TYR:C	11:O:5:LEU:H	2.04	0.63
22:o:893:GLU:HG2	26:s:203:TYR:CD2	2.33	0.63
4:E:359:LEU:HD11	4:E:648:ASP:HB2	1.80	0.63
23:p:961:ILE:CD1	30:x:43:TYR:CD1	2.81	0.63
7:H:132:LYS:HE2	7:H:134:LEU:H	1.62	0.63
1:A:1022:ARG:O	1:A:1022:ARG:NH1	2.31	0.63
2:B:846:TYR:CE1	7:H:227:LEU:HD22	2.33	0.63
3:D:966:LEU:CB	3:D:983:ARG:HH12	2.12	0.63
15:S:44:GLN:CG	15:S:104:GLY:N	2.62	0.63
17:X:21:DC:N3	18:Y:-21:DG:N2	2.44	0.63
22:o:327:ARG:NH2	22:o:336:LEU:O	2.29	0.63
1:A:1076:VAL:HB	6:G:147:ARG:NH2	2.13	0.63
5:F:311:CYS:O	5:F:327:TRP:CZ3	2.47	0.63
11:O:22:LEU:HD13	11:O:28:ILE:CG2	2.28	0.63
22:o:508:SER:OG	22:o:509:LEU:N	2.31	0.63
24:q:9:VAL:HG11	31:y:105:PHE:HD1	1.63	0.63
11:O:39:GLN:CG	13:Q:25:VAL:HG12	2.29	0.63
17:X:20:DA:N6	18:Y:-21:DG:C6	2.66	0.63
23:p:313:GLU:HG3	23:p:316:VAL:HG12	1.79	0.63
2:B:760:LEU:HD22	2:B:760:LEU:N	2.13	0.63
3:D:1074:SER:OG	5:F:79:ASN:OD1	2.17	0.63
4:E:613:ALA:HB2	4:E:620:LEU:HD11	1.81	0.63
5:F:280:ILE:HG13	5:F:330:ARG:CB	2.27	0.63
22:o:733:LEU:HA	22:o:736:THR:HG21	1.80	0.63
24:q:19:VAL:HG23	24:q:241:PRO:HB2	1.79	0.63
1:A:758:PRO:HG2	6:G:136:ILE:HG23	1.80	0.62
3:D:881:ARG:HD3	10:L:57:VAL:CG1	2.29	0.62
5:F:313:VAL:HG12	5:F:375:GLY:HA3	1.79	0.62
14:R:114:MET:HE2	14:R:146:TYR:CG	2.34	0.62
14:R:297:PRO:HA	14:R:310:VAL:HG11	1.82	0.62
22:o:1029:LEU:HD11	26:s:159:LEU:CD2	2.28	0.62
3:D:953:ILE:CG2	4:E:519:GLU:OE1	2.47	0.62
3:D:999:MET:CG	3:D:1000:ARG:NH2	2.62	0.62
5:F:100:GLY:O	8:I:34:ARG:NH2	2.32	0.62
5:F:311:CYS:O	5:F:327:TRP:HH2	1.71	0.62
22:o:580:LEU:HD22	28:v:142:TYR:HE2	1.63	0.62
22:o:830:GLY:HA2	23:p:716:HIS:ND1	2.14	0.62
22:o:1029:LEU:HD21	26:s:159:LEU:HD23	1.79	0.62
23:p:311:ILE:HD11	23:p:317:ALA:HA	1.81	0.62
23:p:988:LYS:O	23:p:992:ASN:ND2	2.31	0.62
1:A:1022:ARG:NH1	1:A:1026:ILE:HD12	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:466:PHE:CE2	5:F:131:LEU:HD13	2.34	0.62
5:F:89:GLN:NE2	9:J:210:ASN:HD22	1.96	0.62
14:R:111:ASP:O	14:R:115:MET:HB2	1.98	0.62
8:i:73:LEU:HD13	10:l:105:HIS:CE1	2.34	0.62
22:o:27:SER:N	22:o:30:GLU:OE1	2.33	0.62
22:o:587:THR:CB	28:v:119:GLY:O	2.47	0.62
7:H:190:LEU:N	5:f:223:TYR:CE1	2.68	0.62
11:O:18:SER:OG	13:Q:45:LEU:CB	2.47	0.62
15:S:8:SER:O	16:T:48:THR:O	2.17	0.62
15:S:44:GLN:HG3	15:S:103:ASN:CA	2.27	0.62
16:T:31:TRP:HD1	16:T:62:LEU:HD21	1.64	0.62
1:A:869:ARG:HH21	2:B:582:GLU:CG	2.00	0.62
5:F:320:ARG:O	5:F:324:ASP:HB2	1.99	0.62
22:o:1030:SER:CB	26:s:162:ARG:HE	2.12	0.62
22:o:1175:ILE:HB	29:w:54:TYR:HB3	1.81	0.62
25:r:60:VAL:HG21	33:u:44:PHE:HE1	1.60	0.62
12:P:188:ARG:NE	13:Q:323:GLU:O	2.32	0.62
3:d:909:ARG:NE	10:l:91:PHE:CZ	2.56	0.62
8:i:73:LEU:HD21	10:l:105:HIS:CD2	2.33	0.62
22:o:540:ASP:CB	23:p:790:GLN:HE22	2.11	0.62
3:D:958:LYS:HE2	3:D:958:LYS:C	2.25	0.62
3:D:966:LEU:CG	3:D:980:GLU:HG2	2.29	0.62
3:D:1000:ARG:HH11	11:O:5:LEU:HD12	1.60	0.62
5:F:66:LEU:O	8:I:35:VAL:HG21	1.99	0.62
7:H:93:ILE:HD11	9:J:144:PHE:HZ	1.65	0.62
22:o:581:LYS:H	28:v:91:VAL:HB	1.64	0.62
3:D:959:ASP:O	3:D:962:GLU:HB3	2.00	0.62
4:E:703:MET:O	4:E:703:MET:HG3	1.99	0.62
11:O:23:ILE:CA	11:O:28:ILE:O	2.43	0.62
1:A:658:GLY:HA3	2:B:475:LYS:HG2	1.81	0.61
3:D:881:ARG:CZ	10:L:57:VAL:CG2	2.70	0.61
5:F:219:GLU:HG2	7:H:156:PRO:HB2	1.82	0.61
7:H:193:PHE:CG	5:f:227:ILE:HD13	2.33	0.61
7:H:193:PHE:CZ	5:f:230:ALA:HB2	2.29	0.61
14:R:173:VAL:HB	14:R:175:ARG:HH12	1.64	0.61
10:l:76:LEU:HD13	10:l:84:LEU:CD1	2.30	0.61
13:Q:15:ARG:HH21	13:Q:58:GLY:HA2	1.65	0.61
19:c:18:CYS:O	19:c:23:TRP:HB2	2.00	0.61
22:o:125:LYS:O	22:o:129:ILE:HG12	2.00	0.61
23:p:111:ASN:HD21	23:p:742:VAL:HG11	1.65	0.61
3:D:1000:ARG:CG	11:O:5:LEU:O	2.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:746:ASP:OD1	4:E:746:ASP:N	2.29	0.61
7:H:108:PRO:HA	9:J:119:PHE:CE1	2.34	0.61
14:R:111:ASP:CG	14:R:114:MET:HB2	2.25	0.61
14:R:289:TYR:OH	14:R:314:PRO:O	2.17	0.61
23:p:407:MET:HE1	23:p:444:LEU:HG	1.81	0.61
23:p:802:ASP:HB3	24:q:174:ALA:HB3	1.80	0.61
23:p:961:ILE:HD13	30:x:43:TYR:CD1	2.35	0.61
3:D:1000:ARG:NE	11:O:5:LEU:HD12	2.15	0.61
14:R:33:ILE:HG21	22:o:431:PHE:HE2	1.59	0.61
22:o:330:GLN:HE22	22:o:336:LEU:HD11	1.65	0.61
23:p:550:MET:HG3	23:p:567:ILE:HD12	1.82	0.61
1:A:996:ARG:HB2	17:X:3:DT:H5"	1.81	0.61
2:B:203:LYS:HD3	2:B:237:MET:HE3	1.83	0.61
1:A:500:LEU:HD22	1:A:501:THR:H	1.64	0.61
7:H:193:PHE:CD2	5:f:227:ILE:CD1	2.84	0.61
1:A:1168:TYR:O	6:G:179:THR:HA	2.00	0.61
29:w:35:LEU:HD12	29:w:51:SER:HA	1.83	0.61
5:F:114:LEU:HD13	7:H:53:ALA:CB	2.29	0.61
7:H:93:ILE:HD11	9:J:144:PHE:CZ	2.36	0.61
22:o:85:PHE:HZ	23:p:1164:SER:OG	1.84	0.61
23:p:82:PRO:HB3	23:p:134:LYS:HB3	1.81	0.61
3:D:881:ARG:HD3	10:L:57:VAL:HG13	1.83	0.61
19:c:99:PHE:HB2	19:c:100:PRO:HD3	1.83	0.61
22:o:1005:HIS:CD2	22:o:1007:ILE:HG12	2.36	0.61
23:p:755:GLN:HG2	30:x:51:ALA:O	2.00	0.61
24:q:154:ARG:HD3	30:x:64:PRO:HD3	1.83	0.61
7:H:102:PHE:HZ	9:J:158:ALA:HA	1.65	0.61
23:p:961:ILE:HD12	30:x:43:TYR:CE1	2.36	0.61
5:F:359:PHE:HB3	5:F:380:LEU:HG	1.83	0.60
22:o:136:GLN:HG3	22:o:139:LYS:HB3	1.83	0.60
23:p:803:ARG:NH1	30:x:8:PHE:O	2.33	0.60
3:D:893:GLU:OE2	10:L:110:THR:OG1	2.18	0.60
3:D:916:LYS:HE2	3:D:1066:CYS:SG	2.41	0.60
7:H:193:PHE:CD2	5:f:227:ILE:HD13	2.35	0.60
13:Q:56:VAL:HG12	13:Q:57:ASP:N	2.16	0.60
13:Q:324:GLU:CD	13:Q:324:GLU:H	2.09	0.60
3:D:881:ARG:CB	10:L:57:VAL:CG1	2.64	0.60
3:D:999:MET:CE	11:O:71:VAL:O	2.49	0.60
5:F:85:GLY:C	9:J:212:LYS:CG	2.74	0.60
11:O:28:ILE:HG22	13:Q:38:VAL:HG11	1.82	0.60
5:f:330:ARG:HH22	5:f:371:THR:HB	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:341:GLN:HA	22:o:344:LYS:HE3	1.82	0.60
22:o:830:GLY:HA3	23:p:716:HIS:ND1	2.16	0.60
1:A:569:ASN:ND2	2:B:689:GLN:HA	2.16	0.60
11:O:18:SER:CB	13:Q:45:LEU:HD12	2.30	0.60
3:d:1082:ALA:CB	10:l:83:MET:HE2	2.31	0.60
22:o:717:ILE:HD11	22:o:815:TYR:HB3	1.82	0.60
23:p:1033:THR:O	24:q:28:LEU:HD21	2.01	0.60
24:q:193:ARG:HD3	24:q:220:TYR:HD1	1.65	0.60
1:A:342:ARG:HB2	1:A:497:PRO:CG	2.31	0.60
1:A:638:PRO:HG3	6:G:36:HIS:O	2.02	0.60
3:D:1085:LYS:NZ	10:L:83:MET:CE	2.65	0.60
4:E:776:LYS:HB2	5:F:149:PRO:HD3	1.83	0.60
7:H:192:ARG:NH1	7:H:209:SER:O	2.34	0.60
7:H:197:THR:CA	5:f:238:LYS:HG2	2.30	0.60
8:I:132:LEU:CG	9:J:121:MET:CE	2.80	0.60
17:X:19:DG:C6	18:Y:-19:DC:N3	2.66	0.60
8:i:73:LEU:HB2	10:l:105:HIS:HE1	1.67	0.60
21:m:31:LEU:HD23	21:m:31:LEU:N	2.16	0.60
22:o:853:LYS:NZ	22:o:1102:MET:O	2.30	0.60
4:E:280:ARG:HD3	8:I:26:MET:SD	2.41	0.60
5:F:87:HIS:CB	9:J:212:LYS:HZ3	2.15	0.60
14:R:126:ASP:OD2	23:p:437:THR:OG1	2.20	0.60
22:o:540:ASP:CB	23:p:790:GLN:OE1	2.50	0.60
22:o:540:ASP:HB3	23:p:790:GLN:NE2	2.17	0.60
22:o:733:LEU:CA	22:o:736:THR:HG23	2.32	0.60
23:p:803:ARG:C	30:x:8:PHE:CD1	2.80	0.60
15:S:47:LEU:HD22	16:T:7:LEU:HD22	1.84	0.60
22:o:1430:CYS:O	22:o:1435:THR:HG22	2.01	0.60
23:p:908:MET:HB2	32:z:45:TYR:HE1	1.66	0.60
1:A:349:TRP:CZ2	5:f:266:GLY:CA	2.84	0.60
1:A:1063:LYS:HD3	1:A:1063:LYS:C	2.26	0.60
3:D:1000:ARG:HG3	11:O:5:LEU:O	2.02	0.60
7:H:193:PHE:CD1	5:f:242:ALA:HA	2.37	0.60
22:o:463:THR:CG2	23:p:1090:GLU:HG3	2.25	0.60
23:p:1023:ARG:C	23:p:1025:ASN:H	2.10	0.60
5:F:68:THR:O	8:I:38:GLN:NE2	2.34	0.60
5:F:320:ARG:CZ	5:F:415:ILE:HB	2.29	0.60
11:O:18:SER:HB3	13:Q:45:LEU:CD1	2.28	0.60
11:O:88:ILE:HB	13:Q:360:LEU:CD1	2.29	0.60
3:d:909:ARG:CZ	10:l:91:PHE:CE1	2.85	0.60
24:q:9:VAL:HG11	31:y:105:PHE:CD1	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:575:PRO:CD	2:B:608:ASN:HB2	2.32	0.59
3:D:946:PHE:CE2	4:E:513:LEU:O	2.55	0.59
23:p:692:THR:OG1	29:w:76:PRO:HA	2.02	0.59
7:H:190:LEU:CB	5:f:223:TYR:HD1	2.04	0.59
13:Q:15:ARG:HH21	13:Q:58:GLY:CA	2.15	0.59
25:r:16:ASP:HB3	25:r:19:GLN:HG2	1.83	0.59
13:Q:26:ARG:NH2	13:Q:39:LEU:CD2	2.65	0.59
3:D:966:LEU:CG	3:D:983:ARG:NH1	2.64	0.59
5:F:67:THR:HB	8:I:32:GLU:CD	2.27	0.59
4:e:562:SER:OG	4:e:564:ASP:OD1	2.21	0.59
23:p:1040:GLN:HE22	24:q:198:PRO:HD3	1.67	0.59
25:r:132:ASP:HA	25:r:135:GLN:HG2	1.85	0.59
1:A:405:VAL:HA	5:F:302:HIS:HB3	1.85	0.59
5:F:319:LEU:H	5:F:319:LEU:CD2	2.10	0.59
11:O:22:LEU:O	11:O:28:ILE:O	2.21	0.59
8:i:73:LEU:CD1	10:l:105:HIS:CE1	2.84	0.59
23:p:856:PRO:O	32:z:48:ARG:HG3	2.02	0.59
2:B:431:LEU:C	2:B:431:LEU:HD23	2.27	0.59
8:I:56:ILE:HG21	10:L:122:ARG:HH21	1.68	0.59
11:O:88:ILE:HD13	13:Q:360:LEU:CB	2.14	0.59
22:o:108:ARG:NH2	22:o:191:ILE:O	2.33	0.59
22:o:552:ASP:HB3	28:v:25:VAL:CG2	2.33	0.59
33:u:24:ASN:HA	33:u:27:LYS:HG3	1.83	0.59
3:D:962:GLU:CG	3:D:983:ARG:NH2	2.66	0.59
4:E:586:TYR:HB3	4:E:605:HIS:HB3	1.85	0.59
8:I:60:HIS:NE2	10:L:118:LEU:HD23	2.16	0.59
22:o:466:LYS:HE3	23:p:1097:HIS:HA	1.85	0.59
22:o:930:LEU:HG	22:o:939:VAL:HG23	1.83	0.59
22:o:1257:LEU:HD12	22:o:1259:ILE:HD11	1.85	0.59
1:A:620:LEU:HD12	6:G:14:SER:OG	2.03	0.59
3:D:1000:ARG:CD	11:O:5:LEU:HD12	2.33	0.59
4:E:501:PRO:HD3	7:H:149:HIS:CB	2.32	0.59
5:F:86:PHE:CB	9:J:211:VAL:HA	2.31	0.59
5:F:207:ARG:HD2	5:F:207:ARG:N	2.18	0.59
7:H:190:LEU:HD22	5:f:219:GLU:O	2.02	0.59
7:H:190:LEU:N	5:f:223:TYR:CD1	2.71	0.59
14:R:48:VAL:O	14:R:48:VAL:HG13	2.01	0.59
15:S:157:ALA:CB	23:p:316:VAL:HG21	2.21	0.59
16:T:20:LEU:O	16:T:114:ALA:N	2.34	0.59
23:p:802:ASP:CB	24:q:174:ALA:HB3	2.33	0.59
23:p:820:LYS:HE3	23:p:826:GLU:HB2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:581:LYS:NZ	28:v:86:ASP:HA	2.18	0.59
22:o:1129:ASN:ND2	22:o:1415:THR:HB	2.18	0.59
23:p:754:PRO:O	30:x:53:VAL:HG12	2.03	0.59
25:r:132:ASP:O	25:r:136:THR:OG1	2.14	0.59
2:B:431:LEU:H	2:B:431:LEU:CD2	2.16	0.59
3:D:1006:LEU:CG	13:Q:328:LEU:CD1	2.81	0.59
5:F:320:ARG:CZ	5:F:414:ASN:C	2.75	0.59
11:O:58:PHE:CG	11:O:81:PHE:CD2	2.91	0.59
14:R:114:MET:HE2	14:R:146:TYR:HB2	1.83	0.59
3:d:913:LEU:HD22	10:l:87:ILE:HD12	1.84	0.59
22:o:733:LEU:CA	22:o:736:THR:CG2	2.80	0.59
22:o:743:ARG:HB2	22:o:743:ARG:NH2	2.17	0.59
23:p:692:THR:O	29:w:76:PRO:HB2	2.03	0.59
2:B:159:LEU:HD23	2:B:159:LEU:N	2.17	0.58
7:H:40:VAL:HG11	9:J:130:ILE:HG12	1.84	0.58
7:H:189:ALA:CB	5:f:249:ASP:OD2	2.49	0.58
7:H:193:PHE:CE2	5:f:226:GLU:C	2.80	0.58
12:P:189:ASN:HB3	13:Q:376:TRP:HE1	1.68	0.58
17:X:20:DA:C2	18:Y:-20:DT:O2	2.56	0.58
24:q:44:ILE:HD12	24:q:178:PRO:HB3	1.84	0.58
4:E:694:LEU:HD13	4:E:703:MET:SD	2.43	0.58
5:F:392:ILE:O	5:F:393:LEU:C	2.45	0.58
8:i:60:HIS:NE2	10:l:106:ARG:NE	2.50	0.58
22:o:1230:GLN:HA	22:o:1233:GLU:CD	2.28	0.58
23:p:903:ILE:CD1	32:z:55:PHE:HE1	2.16	0.58
1:A:929:THR:HG22	1:A:954:ALA:HA	1.86	0.58
5:F:114:LEU:HB2	7:H:52:SER:N	2.18	0.58
22:o:18:ILE:HB	22:o:1462:GLN:HE22	1.68	0.58
33:u:167:TYR:O	33:u:167:TYR:CG	2.54	0.58
7:H:118:VAL:HG21	9:J:127:THR:HG21	1.82	0.58
7:H:193:PHE:CZ	5:f:227:ILE:HD13	2.38	0.58
22:o:17:THR:HG22	22:o:18:ILE:H	1.68	0.58
22:o:540:ASP:HB3	23:p:790:GLN:HE22	1.66	0.58
1:A:635:SER:HB3	6:G:40:LYS:O	2.03	0.58
4:E:615:ASP:CG	8:I:114:ARG:CB	2.56	0.58
4:E:615:ASP:OD2	8:I:114:ARG:CG	2.51	0.58
14:R:175:ARG:NH2	23:p:102:ASP:C	2.61	0.58
22:o:1242:ASP:HA	22:o:1262:MET:HE2	1.86	0.58
1:A:1016:GLU:HA	1:A:1019:LYS:NZ	2.18	0.58
6:G:154:LYS:O	6:G:154:LYS:NZ	2.30	0.58
14:R:283:VAL:HG12	17:X:-37:DT:C7	2.11	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:r:63:LYS:HE3	33:u:103:PRO:N	2.18	0.58
25:r:78:GLU:HA	25:r:81:ALA:HB3	1.85	0.58
2:B:769:LYS:O	2:B:769:LYS:HG3	2.04	0.58
3:D:1007:THR:N	13:Q:330:ASP:OD1	2.28	0.58
7:H:185:ASP:HB3	5:f:251:GLY:H	1.67	0.58
22:o:1177:TYR:CG	29:w:35:LEU:HD21	2.38	0.58
23:p:552:ASN:HB3	23:p:555:GLU:HB3	1.86	0.58
1:A:1022:ARG:O	1:A:1022:ARG:HD2	2.03	0.58
3:D:1071:ARG:HH21	5:F:80:VAL:HA	1.69	0.58
5:F:219:GLU:CG	7:H:156:PRO:HB2	2.34	0.58
7:H:73:GLY:HA3	9:J:142:ALA:CB	2.32	0.58
5:f:349:ASN:HB3	5:f:351:ILE:HG13	1.84	0.58
22:o:621:ILE:CG1	28:v:115:TYR:CE2	2.80	0.58
28:v:27:ARG:HD2	28:v:40:ILE:HG23	1.86	0.58
1:A:1157:ASN:O	1:A:1159:SER:N	2.35	0.58
3:D:914:VAL:HG11	10:L:70:VAL:CG2	2.30	0.58
7:H:193:PHE:CE2	5:f:227:ILE:HD13	2.38	0.58
12:P:188:ARG:HH11	13:Q:322:ASP:CG	2.10	0.58
15:S:112:GLY:HA2	15:S:145:ASN:O	2.04	0.58
19:c:12:VAL:HG23	5:f:118:ILE:HA	1.85	0.58
33:u:55:GLY:HA3	33:u:69:PRO:HG2	1.86	0.58
5:F:66:LEU:HD22	8:I:28:ILE:HD13	1.85	0.58
7:H:171:ASP:HB3	7:H:174:VAL:HG12	1.86	0.58
11:O:18:SER:OG	13:Q:45:LEU:HB3	2.03	0.58
22:o:554:PHE:HB3	22:o:585:LEU:HD23	1.85	0.58
3:D:905:ALA:O	10:L:126:MET:CE	2.51	0.57
22:o:634:GLU:OE2	28:v:95:LYS:HE2	2.04	0.57
22:o:733:LEU:O	22:o:737:PHE:N	2.34	0.57
25:r:130:ILE:HA	25:r:133:ASP:HB2	1.86	0.57
3:D:1000:ARG:HG2	3:D:1000:ARG:HH11	1.68	0.57
4:E:347:ARG:NH2	4:E:362:GLU:OE2	2.36	0.57
4:E:696:TRP:CD2	4:E:703:MET:CB	2.84	0.57
12:P:227:GLU:OE1	12:P:227:GLU:N	2.37	0.57
22:o:538:VAL:HG22	22:o:539:GLN:H	1.68	0.57
23:p:924:ARG:CZ	24:q:60:HIS:HB2	2.34	0.57
23:p:1027:VAL:HG21	24:q:197:TYR:HE1	1.69	0.57
1:A:567:LEU:HD22	2:B:745:GLN:HE21	1.70	0.57
5:F:312:ILE:HD12	5:F:312:ILE:O	2.05	0.57
11:O:21:GLU:OE2	13:Q:45:LEU:CD2	2.52	0.57
14:R:283:VAL:HG11	17:X:-37:DT:H73	1.52	0.57
17:X:-25:DA:H2'	17:X:-24:DA:C8	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:484:LEU:HD21	4:e:504:LEU:HD21	1.86	0.57
5:f:320:ARG:CB	5:f:320:ARG:HH11	2.18	0.57
22:o:1030:SER:HB2	26:s:162:ARG:NE	2.20	0.57
23:p:677:MET:H	23:p:682:LEU:HD12	1.69	0.57
25:r:128:GLN:O	25:r:132:ASP:N	2.34	0.57
2:B:838:ASN:CG	7:H:213:LEU:CD2	2.76	0.57
4:E:449:LYS:CG	7:H:144:PRO:HB2	2.33	0.57
13:Q:29:PHE:HD2	13:Q:34:VAL:HG11	1.69	0.57
14:R:214:PHE:HB3	14:R:218:PHE:CE2	2.40	0.57
14:R:295:ARG:HG2	14:R:299:LEU:HG	1.86	0.57
19:c:21:LEU:HD12	19:c:21:LEU:C	2.29	0.57
22:o:1184:THR:HG21	22:o:1190:GLN:HB2	1.85	0.57
1:A:692:MET:HE3	6:G:87:LYS:HB2	1.87	0.57
3:D:1085:LYS:HZ3	10:L:83:MET:CE	2.18	0.57
4:E:704:VAL:HG11	4:E:747:LEU:CG	2.33	0.57
16:T:12:ALA:HA	16:T:109:ILE:HD11	1.85	0.57
22:o:460:ARG:HG2	22:o:461:GLN:H	1.69	0.57
1:A:636:VAL:HG21	6:G:43:LEU:HD23	1.86	0.57
1:A:997:ARG:H	1:A:997:ARG:HD3	1.70	0.57
1:A:1014:GLU:O	1:A:1018:LYS:HB2	2.04	0.57
3:D:966:LEU:HD13	3:D:983:ARG:NE	2.18	0.57
3:D:1085:LYS:HZ2	10:L:83:MET:HE2	1.69	0.57
5:F:332:PHE:HA	5:F:335:ARG:HE	1.69	0.57
7:H:69:ILE:CG2	9:J:138:TYR:HB2	2.35	0.57
15:S:31:PHE:HB2	16:T:92:THR:HB	1.86	0.57
22:o:358:ARG:HB3	23:p:1073:GLN:HE21	1.70	0.57
23:p:124:LEU:HD22	23:p:152:ILE:HD11	1.85	0.57
23:p:1046:THR:HG22	23:p:1047:TYR:H	1.70	0.57
14:R:47:ASP:CB	23:p:1069:ILE:CG1	2.65	0.57
16:T:22:LYS:HB2	16:T:115:GLU:HG2	1.84	0.57
16:T:30:GLN:NE2	16:T:62:LEU:O	2.28	0.57
23:p:387:HIS:NE2	23:p:671:GLU:OE2	2.35	0.57
23:p:685:LYS:NZ	23:p:686:GLU:O	2.37	0.57
23:p:1040:GLN:CG	24:q:203:TRP:CH2	2.70	0.57
2:B:560:TYR:CD2	2:B:581:ILE:HD11	2.39	0.57
23:p:1027:VAL:HG21	24:q:197:TYR:CE1	2.40	0.57
1:A:402:PHE:HA	1:A:407:GLN:NE2	2.20	0.57
2:B:819:LEU:HD13	7:H:204:PHE:CD1	2.37	0.57
3:D:917:ILE:HG13	3:D:1058:VAL:HG21	1.86	0.57
3:D:934:TYR:CD1	8:I:129:LEU:HD23	2.39	0.57
3:D:953:ILE:CG2	4:E:519:GLU:CB	2.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:P:311:VAL:HG11	18:Y:29:DA:N3	2.20	0.57
15:S:152:HIS:NE2	29:w:19:GLU:OE1	2.37	0.57
22:o:827:TYR:HB3	23:p:978:ILE:HG13	1.86	0.57
5:F:80:VAL:HG12	8:I:45:ARG:HH12	1.69	0.56
7:H:108:PRO:HA	9:J:119:PHE:CZ	2.40	0.56
7:H:190:LEU:CD2	5:f:223:TYR:HB2	2.33	0.56
15:S:126:ILE:O	15:S:138:PHE:N	2.34	0.56
22:o:331:LYS:O	22:o:334:ARG:N	2.34	0.56
22:o:717:ILE:HG12	22:o:737:PHE:CZ	2.36	0.56
1:A:567:LEU:HD22	2:B:745:GLN:NE2	2.19	0.56
2:B:629:ARG:NH1	2:B:658:ASP:OD2	2.37	0.56
5:F:102:ARG:HB2	5:F:104:LEU:HD21	1.87	0.56
14:R:169:ARG:NH1	14:R:207:ASP:O	2.37	0.56
22:o:46:THR:HG22	22:o:57:LEU:HB2	1.87	0.56
23:p:803:ARG:CB	30:x:8:PHE:HD1	2.18	0.56
26:s:100:THR:HG23	26:s:125:TYR:H	1.70	0.56
1:A:681:ALA:O	6:G:75:GLU:HG2	2.04	0.56
3:D:954:GLU:HA	3:D:957:ARG:HD2	1.87	0.56
5:F:367:LYS:O	5:F:367:LYS:HG2	2.04	0.56
11:O:22:LEU:C	11:O:28:ILE:H	2.10	0.56
22:o:457:ILE:HD11	22:o:515:ILE:HD12	1.86	0.56
22:o:1030:SER:HB2	26:s:162:ARG:HE	1.69	0.56
23:p:803:ARG:NE	30:x:11:GLY:HA2	2.21	0.56
29:w:105:GLU:HG2	29:w:106:ASP:N	2.19	0.56
33:u:38:CYS:CA	33:u:155:ASN:OD1	2.52	0.56
5:F:38:LEU:HD21	8:I:72:ARG:CG	2.35	0.56
10:L:80:VAL:O	10:L:84:LEU:HG	2.06	0.56
15:S:109:LYS:HD2	15:S:149:LEU:HD22	1.84	0.56
3:d:917:ILE:HD11	3:d:1063:LEU:HD13	1.87	0.56
22:o:1150:ASP:OD2	22:o:1153:ARG:NH1	2.39	0.56
24:q:31:ALA:O	24:q:231:TYR:OH	2.23	0.56
1:A:410:TRP:HB2	5:F:306:PRO:CG	2.35	0.56
1:A:568:SER:HB2	2:B:389:ASN:HB2	1.88	0.56
1:A:1150:THR:HA	6:G:145:LYS:HD2	1.87	0.56
3:D:871:THR:HG23	10:L:66:LEU:CG	2.33	0.56
4:E:519:GLU:HG3	4:E:519:GLU:O	2.05	0.56
4:E:742:LYS:HA	4:E:745:GLU:HG2	1.86	0.56
8:I:132:LEU:HG	9:J:121:MET:SD	2.45	0.56
22:o:828:LEU:HA	23:p:978:ILE:HG21	1.87	0.56
22:o:1177:TYR:HB3	29:w:35:LEU:HD11	1.86	0.56
23:p:803:ARG:NH1	30:x:8:PHE:C	2.58	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:P:188:ARG:NH1	13:Q:326:GLN:OE1	2.36	0.56
14:R:173:VAL:O	14:R:175:ARG:NH1	2.39	0.56
23:p:851:ASP:OD1	32:z:15:MET:HE2	2.03	0.56
23:p:851:ASP:CA	32:z:15:MET:HE1	2.36	0.56
1:A:575:PRO:CG	2:B:610:GLU:CG	2.77	0.56
1:A:601:PRO:HB3	6:G:10:HIS:O	2.05	0.56
1:A:1169:ARG:HG2	6:G:176:ALA:HB2	1.87	0.56
4:E:308:ARG:HH11	4:E:362:GLU:HG2	1.69	0.56
5:F:87:HIS:H	9:J:212:LYS:NZ	2.02	0.56
5:f:280:ILE:O	5:f:284:ARG:HG3	2.05	0.56
1:A:486:TRP:CD2	1:A:486:TRP:N	2.73	0.56
4:E:788:ARG:HB3	7:H:145:HIS:CA	2.36	0.56
11:O:32:LEU:O	11:O:36:VAL:HG23	2.05	0.56
13:Q:55:ALA:C	13:Q:56:VAL:HG23	2.30	0.56
15:S:127:PHE:HB2	16:T:19:TRP:HB2	1.87	0.56
23:p:830:GLU:OE2	23:p:870:THR:OG1	2.23	0.56
1:A:401:ASN:H	1:A:401:ASN:HD22	1.53	0.56
2:B:259:ASP:HB3	2:B:262:MET:O	2.06	0.56
2:B:757:MET:CA	2:B:760:LEU:CD2	2.81	0.56
12:P:253:PHE:CD2	12:P:253:PHE:O	2.59	0.56
22:o:535:MET:O	22:o:669:TYR:OH	2.20	0.56
22:o:687:ILE:HB	23:p:969:PRO:CB	2.34	0.56
22:o:1139:LEU:HD12	22:o:1139:LEU:O	2.06	0.56
1:A:950:VAL:CG2	1:A:1065:GLU:HG3	2.35	0.56
7:H:196:LYS:HD3	5:f:241:GLU:OE1	2.06	0.56
11:O:82:ARG:HB2	11:O:87:LEU:HD13	1.88	0.56
22:o:1177:TYR:CD2	29:w:35:LEU:CG	2.85	0.56
23:p:100:GLU:HG2	32:z:42:ARG:HH12	1.71	0.56
2:B:158:GLY:HA2	2:B:188:PHE:HB3	1.88	0.55
5:F:406:VAL:HG11	5:F:420:ALA:HB2	1.88	0.55
7:H:110:TYR:CE2	9:J:160:GLN:HB3	2.41	0.55
14:R:111:ASP:O	14:R:115:MET:CB	2.55	0.55
15:S:165:GLU:O	15:S:169:LYS:HG3	2.06	0.55
19:c:67:GLY:CA	9:j:116:LEU:HD13	2.32	0.55
22:o:479:TRP:NE1	31:y:67:LEU:HD11	2.21	0.55
22:o:1124:LEU:O	22:o:1128:ILE:N	2.36	0.55
22:o:1418:GLY:HA2	22:o:1421:ARG:HE	1.71	0.55
23:p:282:ARG:NH1	29:w:16:PHE:CG	2.74	0.55
25:r:33:LEU:HD13	25:r:101:ALA:HB1	1.87	0.55
4:E:474:THR:OG1	4:E:546:VAL:O	2.19	0.55
5:F:322:ASP:C	5:F:324:ASP:H	2.14	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:H:40:VAL:HG21	9:J:130:ILE:HG23	1.88	0.55
7:H:50:PHE:CZ	9:J:195:LEU:HB2	2.42	0.55
10:L:119:HIS:NE2	10:L:123:GLN:OE1	2.38	0.55
11:O:47:ALA:O	11:O:51:ARG:CB	2.54	0.55
14:R:114:MET:HE2	14:R:146:TYR:CB	2.36	0.55
26:s:56:THR:HG22	26:s:57:ASP:H	1.71	0.55
1:A:638:PRO:CB	6:G:39:LEU:HD23	2.37	0.55
1:A:1021:SER:O	1:A:1025:VAL:CB	2.53	0.55
1:A:1190:VAL:HA	6:G:166:VAL:HG22	1.88	0.55
3:D:1000:ARG:CZ	11:O:5:LEU:HD11	2.36	0.55
5:F:342:LYS:HD3	5:F:383:LEU:HD22	1.88	0.55
16:T:31:TRP:CD1	16:T:62:LEU:HD21	2.41	0.55
22:o:1229:GLU:OE1	22:o:1229:GLU:N	2.38	0.55
23:p:625:LEU:HD13	23:p:675:LEU:HD21	1.88	0.55
1:A:410:TRP:HB2	5:F:306:PRO:HG3	1.87	0.55
1:A:575:PRO:CD	2:B:608:ASN:ND2	2.47	0.55
22:o:1365:ILE:HG23	22:o:1369:LEU:HD12	1.89	0.55
23:p:550:MET:HA	23:p:577:HIS:CD2	2.41	0.55
23:p:909:VAL:N	32:z:44:MET:O	2.29	0.55
1:A:355:VAL:CG2	1:A:355:VAL:O	2.54	0.55
1:A:696:MET:O	6:G:86:TYR:HA	2.06	0.55
1:A:1021:SER:O	1:A:1025:VAL:CG2	2.55	0.55
2:B:544:LEU:HD23	2:B:590:ILE:HD11	1.89	0.55
4:E:561:SER:HB2	4:E:588:VAL:HB	1.88	0.55
16:T:30:GLN:HG2	16:T:62:LEU:HG	1.89	0.55
5:f:219:GLU:OE1	5:f:219:GLU:N	2.26	0.55
5:f:223:TYR:HD2	5:f:255:MET:HE1	1.71	0.55
22:o:139:LYS:HA	22:o:142:THR:HG22	1.89	0.55
22:o:1218:ARG:HA	22:o:1221:MET:HB2	1.88	0.55
23:p:1036:LYS:HB3	24:q:195:THR:CG2	2.35	0.55
4:E:788:ARG:HB3	7:H:145:HIS:CB	2.37	0.55
5:F:320:ARG:NH2	5:F:414:ASN:C	2.63	0.55
7:H:111:ALA:HA	9:J:157:LEU:HD21	1.88	0.55
12:P:249:LYS:HG2	13:Q:312:GLU:OE2	2.07	0.55
22:o:1101:GLN:NE2	22:o:1389:ASP:OD2	2.39	0.55
23:p:570:ASN:ND2	23:p:616:THR:OG1	2.39	0.55
26:s:189:GLN:O	26:s:209:VAL:HG12	2.07	0.55
1:A:950:VAL:HG21	1:A:1065:GLU:CG	2.37	0.55
3:D:957:ARG:O	3:D:960:GLU:N	2.36	0.55
3:D:1000:ARG:HH11	3:D:1000:ARG:CB	2.19	0.55
7:H:47:GLU:OE1	7:H:113:ARG:NH2	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:R:214:PHE:O	14:R:218:PHE:HD2	1.90	0.55
1:A:488:ALA:HB1	5:f:271:VAL:CG2	2.34	0.55
3:D:881:ARG:HH21	10:L:57:VAL:CB	1.98	0.55
4:E:695:LEU:O	4:E:703:MET:C	2.49	0.55
4:E:788:ARG:HB2	7:H:145:HIS:O	2.06	0.55
5:F:265:GLU:OE2	5:F:265:GLU:HA	2.06	0.55
11:O:90:VAL:HG22	11:O:92:LYS:H	1.70	0.55
4:e:636:HIS:HD2	4:e:638:ASN:H	1.53	0.55
23:p:627:ILE:HD11	23:p:663:GLU:HB2	1.88	0.55
2:B:762:ASP:OD1	2:B:768:PRO:CG	2.34	0.55
5:F:85:GLY:HA2	9:J:212:LYS:HB2	1.88	0.55
12:P:188:ARG:CD	13:Q:322:ASP:OD1	2.55	0.55
15:S:110:PHE:CD1	15:S:148:PRO:HA	2.42	0.55
5:f:253:TYR:O	5:f:254:GLN:HB3	2.06	0.55
22:o:479:TRP:HE1	31:y:67:LEU:HD11	1.71	0.55
22:o:728:THR:OG1	22:o:731:ASN:OD1	2.25	0.55
1:A:341:TRP:C	1:A:497:PRO:HB3	2.32	0.55
1:A:721:GLU:HB3	6:G:83:LYS:HE3	1.89	0.55
1:A:1168:TYR:HA	1:A:1182:CYS:HA	1.88	0.55
3:D:914:VAL:CG1	10:L:70:VAL:HG11	2.35	0.55
3:D:957:ARG:HH21	4:E:519:GLU:CB	2.20	0.55
4:E:280:ARG:C	8:I:26:MET:HE1	2.32	0.55
5:F:39:LEU:HD11	8:I:51:LEU:HD21	1.89	0.55
5:F:320:ARG:NH1	5:F:413:SER:O	2.38	0.55
7:H:193:PHE:HE1	5:f:242:ALA:CB	1.96	0.55
22:o:365:THR:OG1	22:o:366:VAL:N	2.40	0.55
23:p:1040:GLN:OE1	24:q:198:PRO:CD	2.55	0.55
23:p:1136:GLU:HG2	23:p:1143:LYS:HE3	1.89	0.55
25:r:100:LEU:HA	25:r:103:LEU:HB2	1.89	0.55
33:u:67:LEU:HD12	33:u:67:LEU:O	2.07	0.55
1:A:573:TYR:CD1	2:B:657:ARG:NH1	2.75	0.54
4:E:308:ARG:HD3	4:E:362:GLU:HG2	1.89	0.54
5:F:418:ILE:HD12	5:F:418:ILE:N	2.20	0.54
11:O:25:SER:O	11:O:27:GLN:N	2.40	0.54
15:S:8:SER:O	16:T:48:THR:CA	2.54	0.54
1:A:963:PHE:HZ	1:A:1070:PHE:HB2	1.72	0.54
1:A:1168:TYR:CD1	6:G:180:ARG:HB3	2.42	0.54
2:B:61:ASN:O	2:B:130:VAL:HG23	2.06	0.54
2:B:489:GLN:OE1	2:B:489:GLN:N	2.34	0.54
4:E:280:ARG:CG	8:I:26:MET:SD	2.96	0.54
5:F:403:ILE:O	5:F:406:VAL:HG22	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:S:119:THR:HG22	15:S:123:SER:HA	1.89	0.54
17:X:31:DC:N4	18:Y:-31:DG:N1	2.16	0.54
4:e:368:ASN:ND2	4:e:701:GLY:HA3	2.23	0.54
8:i:73:LEU:CD1	10:l:105:HIS:NE2	2.70	0.54
22:o:515:ILE:HD11	23:p:1102:PHE:CB	2.37	0.54
25:r:63:LYS:HZ3	33:u:103:PRO:CB	2.10	0.54
1:A:567:LEU:CD2	2:B:745:GLN:HE21	2.20	0.54
5:F:35:THR:OG1	8:I:68:ALA:HB2	2.06	0.54
23:p:666:ASP:OD1	23:p:667:THR:N	2.36	0.54
1:A:601:PRO:CG	6:G:10:HIS:CB	2.65	0.54
2:B:819:LEU:HD12	7:H:204:PHE:HZ	1.59	0.54
5:F:55:LEU:HD13	8:I:28:ILE:HG12	1.90	0.54
5:F:99:GLY:CA	7:H:63:GLU:HG2	2.37	0.54
5:F:219:GLU:CD	7:H:156:PRO:HB2	2.32	0.54
6:G:162:VAL:O	6:G:166:VAL:HG23	2.08	0.54
11:O:19:LEU:O	11:O:28:ILE:HD11	2.08	0.54
11:O:25:SER:C	11:O:27:GLN:N	2.64	0.54
14:R:225:PRO:HG2	14:R:228:VAL:HG23	1.90	0.54
22:o:196:LEU:HD22	22:o:312:PHE:HA	1.90	0.54
22:o:463:THR:OG1	23:p:1089:MET:C	2.51	0.54
22:o:1172:ASN:HD22	29:w:57:LYS:CE	2.17	0.54
23:p:803:ARG:NH2	30:x:10:CYS:O	2.40	0.54
1:A:511:LEU:HD22	1:A:511:LEU:N	2.19	0.54
1:A:683:TYR:HE1	6:G:75:GLU:CG	2.21	0.54
2:B:248:SER:OG	2:B:322:MET:SD	2.65	0.54
3:D:957:ARG:HH21	4:E:519:GLU:HA	1.69	0.54
4:E:563:GLU:HG2	4:E:587:PRO:HG3	1.90	0.54
7:H:189:ALA:O	5:f:223:TYR:HE1	1.91	0.54
11:O:39:GLN:HG3	13:Q:25:VAL:HG12	1.89	0.54
14:R:13:VAL:HG22	14:R:13:VAL:O	2.07	0.54
3:d:911:GLN:NE2	10:l:69:GLU:OE2	2.40	0.54
22:o:94:VAL:HG11	22:o:314:VAL:HG21	1.88	0.54
22:o:101:VAL:O	22:o:104:MET:HG3	2.08	0.54
22:o:717:ILE:HA	22:o:737:PHE:CE1	2.43	0.54
7:H:194:MET:SD	5:f:226:GLU:OE2	2.66	0.54
8:i:73:LEU:HB2	10:l:105:HIS:CE1	2.42	0.54
22:o:466:LYS:O	23:p:1097:HIS:CE1	2.61	0.54
22:o:579:ILE:HG12	28:v:92:MET:SD	2.48	0.54
22:o:999:ARG:NH1	28:v:103:GLU:OE2	2.40	0.54
23:p:1021:HIS:CE1	24:q:202:GLU:CB	2.91	0.54
24:q:36:ARG:HH12	31:y:40:HIS:HB2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:295:GLU:HG3	8:I:86:PRO:O	2.08	0.54
5:F:71:ILE:HD13	8:I:39:MET:HG3	1.90	0.54
10:L:101:GLN:O	10:L:105:HIS:CG	2.52	0.54
4:e:646:SER:OG	4:e:647:ALA:N	2.40	0.54
22:o:1130:ILE:HD11	22:o:1405:MET:HE2	1.89	0.54
22:o:1374:VAL:HG11	22:o:1411:LEU:HD21	1.90	0.54
23:p:357:CYS:HB2	23:p:360:LYS:HE2	1.88	0.54
23:p:1035:ARG:HA	24:q:186:TYR:OH	2.07	0.54
5:F:304:LEU:HD12	5:F:304:LEU:C	2.32	0.54
4:e:251:LEU:O	4:e:256:HIS:HB2	2.08	0.54
22:o:717:ILE:HA	22:o:737:PHE:HE1	1.73	0.54
22:o:1101:GLN:HE22	22:o:1391:SER:HB2	1.73	0.54
23:p:282:ARG:CG	29:w:21:ASN:HB3	2.38	0.54
25:r:110:GLU:O	25:r:114:LEU:N	2.39	0.54
1:A:350:TYR:CE2	1:A:497:PRO:HA	2.43	0.54
4:E:280:ARG:NE	8:I:25:ASP:O	2.41	0.54
5:F:324:ASP:HA	5:F:327:TRP:HB3	1.90	0.54
6:G:134:HIS:HB3	6:G:141:LYS:HG3	1.89	0.54
11:O:18:SER:OG	13:Q:45:LEU:HB2	2.07	0.54
13:Q:15:ARG:NH2	13:Q:58:GLY:HA3	2.23	0.54
17:X:-34:DG:C2	17:X:-33:DG:C6	2.96	0.54
2:B:571:LEU:HD21	2:B:619:MET:HE1	1.89	0.54
5:F:114:LEU:HB2	7:H:52:SER:H	1.71	0.54
5:F:395:ARG:O	5:F:397:GLN:N	2.39	0.54
7:H:73:GLY:C	9:J:142:ALA:HB1	2.32	0.54
7:H:118:VAL:CG2	9:J:127:THR:OG1	2.56	0.54
18:Y:41:DG:H8	18:Y:41:DG:OP2	1.91	0.54
22:o:554:PHE:CZ	28:v:121:LEU:HD11	2.42	0.54
22:o:1118:THR:HG22	22:o:1123:ARG:HB2	1.90	0.54
22:o:1474:LEU:HD11	27:t:107:ARG:CZ	2.38	0.54
23:p:629:GLU:OE1	23:p:630:LYS:N	2.40	0.54
23:p:1021:HIS:HB3	23:p:1025:ASN:O	2.07	0.54
25:r:60:VAL:CG2	33:u:44:PHE:CE1	2.84	0.54
2:B:835:ARG:NH1	7:H:184:ARG:NH1	2.53	0.53
13:Q:43:LYS:NZ	13:Q:60:HIS:HE1	2.06	0.53
22:o:358:ARG:H	23:p:1073:GLN:HE21	1.55	0.53
23:p:113:ALA:HA	23:p:118:LEU:HB2	1.89	0.53
23:p:855:ALA:HB3	32:z:49:THR:CB	2.26	0.53
24:q:7:PRO:CG	31:y:101:LEU:HD12	2.37	0.53
2:B:345:CYS:HA	2:B:348:GLN:HE21	1.73	0.53
2:B:808:PRO:HA	2:B:864:ASN:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:891:ILE:HG21	10:L:111:LEU:HB2	1.80	0.53
3:D:1000:ARG:HH11	3:D:1000:ARG:HB2	1.73	0.53
5:F:38:LEU:CD2	8:I:72:ARG:HG3	2.37	0.53
5:F:241:GLU:OE1	7:H:135:THR:HA	2.08	0.53
17:X:18:DA:C2	18:Y:-18:DT:N3	2.58	0.53
22:o:77:ASN:ND2	22:o:80:GLU:OE2	2.41	0.53
22:o:1287:CYS:HB2	23:p:251:ALA:HB2	1.90	0.53
33:u:38:CYS:HG	33:u:44:PHE:HA	1.70	0.53
5:F:342:LYS:HE2	5:F:383:LEU:C	2.34	0.53
7:H:107:LEU:HD11	9:J:157:LEU:O	2.09	0.53
12:P:197:PHE:CZ	17:X:-25:DA:C2	2.94	0.53
17:X:8:DA:N6	18:Y:-9:DA:N6	2.56	0.53
22:o:759:SER:O	22:o:759:SER:OG	2.19	0.53
22:o:1177:TYR:CE2	29:w:35:LEU:HG	2.41	0.53
4:E:696:TRP:CA	4:E:703:MET:HA	2.17	0.53
1:A:342:ARG:CA	1:A:497:PRO:HB3	2.39	0.53
1:A:999:SER:O	1:A:1001:LYS:N	2.41	0.53
2:B:66:ASN:HD21	2:B:119:PRO:HB3	1.73	0.53
4:E:645:GLY:H	4:E:675:LEU:HD11	1.73	0.53
5:F:118:ILE:HA	7:H:39:VAL:HG13	1.91	0.53
7:H:190:LEU:CD1	5:f:223:TYR:HD1	2.21	0.53
3:d:910:LEU:HD23	10:l:87:ILE:CD1	2.36	0.53
22:o:381:PRO:HB3	22:o:480:SER:HA	1.90	0.53
22:o:1175:ILE:N	29:w:54:TYR:O	2.40	0.53
23:p:313:GLU:OE2	23:p:316:VAL:N	2.36	0.53
25:r:132:ASP:OD1	25:r:135:GLN:NE2	2.41	0.53
1:A:404:MET:O	1:A:408:LEU:HB2	2.09	0.53
1:A:414:ILE:HG12	5:F:306:PRO:HA	1.89	0.53
4:E:653:LEU:HB2	4:E:663:ARG:HB2	1.91	0.53
7:H:102:PHE:CZ	9:J:158:ALA:CA	2.91	0.53
7:H:107:LEU:HD11	9:J:157:LEU:HB3	1.90	0.53
15:S:9:GLN:O	15:S:9:GLN:HG2	2.07	0.53
4:e:610:ARG:HD3	4:e:619:PRO:HG3	1.89	0.53
22:o:1435:THR:OG1	22:o:1436:VAL:N	2.38	0.53
25:r:123:GLU:HG2	25:r:126:GLU:HB2	1.90	0.53
2:B:273:LEU:HD21	7:H:223:TYR:HD1	1.74	0.53
5:F:68:THR:HG21	8:I:34:ARG:HB3	1.89	0.53
5:F:76:LYS:HG3	5:F:96:PHE:HB3	1.91	0.53
14:R:267:GLU:OE1	14:R:269:ARG:NH2	2.41	0.53
22:o:631:GLU:HG3	22:o:992:LYS:HE3	1.91	0.53
22:o:1343:LEU:HB3	22:o:1364:GLU:OE2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:1040:GLN:HE21	24:q:197:TYR:HD1	1.55	0.53
32:z:36:CYS:SG	32:z:37:ARG:N	2.82	0.53
1:A:635:SER:CB	6:G:40:LYS:O	2.57	0.53
1:A:1021:SER:HB3	1:A:1024:GLU:HB2	1.89	0.53
3:D:1000:ARG:NH1	3:D:1000:ARG:HB2	2.24	0.53
4:E:340:ASP:OD2	4:E:364:LYS:HA	2.08	0.53
22:o:76:GLY:HA2	22:o:80:GLU:HG2	1.91	0.53
22:o:97:VAL:HA	22:o:100:LEU:HD23	1.91	0.53
26:s:11:TRP:NE1	26:s:35:GLN:O	2.33	0.53
2:B:628:ILE:O	2:B:644:GLN:NE2	2.41	0.53
4:E:295:GLU:CG	8:I:86:PRO:O	2.57	0.53
5:F:316:GLN:NE2	5:F:320:ARG:HA	2.24	0.53
5:F:320:ARG:HD2	5:F:415:ILE:HG13	1.91	0.53
11:O:78:ASP:HA	11:O:91:ASP:HA	1.91	0.53
16:T:94:THR:HG22	16:T:109:ILE:HG23	1.91	0.53
17:X:-41:DC:OP2	17:X:-41:DC:H2'	2.08	0.53
5:f:318:CYS:SG	5:f:326:HIS:HB3	2.49	0.53
5:f:447:ALA:O	5:f:453:GLY:HA2	2.09	0.53
10:l:106:ARG:HD2	10:l:114:LYS:NZ	2.24	0.53
22:o:1192:TRP:HA	22:o:1195:VAL:HG22	1.91	0.53
22:o:1212:LEU:HB2	22:o:1285:LEU:HD21	1.90	0.53
22:o:1389:ASP:OD1	22:o:1389:ASP:N	2.38	0.53
1:A:395:ASP:OD1	1:A:395:ASP:N	2.41	0.53
2:B:66:ASN:OD1	2:B:187:ARG:NH1	2.42	0.53
5:F:273:GLN:H	5:F:273:GLN:CD	2.17	0.53
7:H:37:LEU:CD1	9:J:138:TYR:CE2	2.87	0.53
7:H:196:LYS:HB3	5:f:241:GLU:CG	2.39	0.53
17:X:19:DG:N2	18:Y:-19:DC:C2	2.64	0.53
3:d:963:ARG:NH2	3:d:964:GLU:OE2	2.42	0.53
4:e:747:LEU:HG	4:e:747:LEU:O	2.09	0.53
23:p:1026:GLU:C	24:q:203:TRP:CH2	2.87	0.53
1:A:402:PHE:CE1	5:f:360:THR:HG21	2.44	0.52
2:B:760:LEU:CD2	2:B:760:LEU:H	2.21	0.52
4:E:695:LEU:O	4:E:703:MET:CA	2.56	0.52
5:f:283:MET:HG3	5:f:329:LEU:HD11	1.91	0.52
5:f:352:GLN:O	5:f:356:THR:OG1	2.25	0.52
5:f:390:THR:HG23	5:f:391:LEU:HD22	1.89	0.52
10:l:87:ILE:C	10:l:91:PHE:CE2	2.87	0.52
22:o:364:ARG:NH1	22:o:502:ASN:OD1	2.41	0.52
22:o:1313:GLN:HA	22:o:1332:GLN:HE21	1.74	0.52
22:o:1375:ARG:NE	22:o:1403:ASP:OD1	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:u:51:ILE:HG22	33:u:72:TYR:HB3	1.90	0.52
1:A:636:VAL:HG22	6:G:43:LEU:HB3	1.91	0.52
2:B:273:LEU:HD21	7:H:223:TYR:CD1	2.44	0.52
2:B:937:THR:HG23	2:B:939:ASN:H	1.74	0.52
4:E:304:LYS:NZ	4:E:335:GLU:O	2.42	0.52
15:S:46:ARG:HB2	15:S:101:ARG:HB2	1.91	0.52
3:d:943:GLN:NE2	4:e:509:GLN:O	2.41	0.52
22:o:504:HIS:CB	23:p:1106:ARG:NH1	2.56	0.52
22:o:700:GLN:OE1	22:o:700:GLN:HA	2.08	0.52
22:o:1288:ILE:O	22:o:1292:MET:HG2	2.10	0.52
23:p:242:ARG:HB2	23:p:254:GLN:HE21	1.73	0.52
28:v:8:ASP:OD1	28:v:9:ILE:N	2.39	0.52
14:R:111:ASP:CA	14:R:114:MET:HB2	2.40	0.52
14:R:151:LEU:HD11	14:R:201:ALA:HB2	1.90	0.52
14:R:263:GLN:HA	14:R:268:LYS:HG2	1.92	0.52
22:o:902:GLU:OE2	22:o:982:ASN:HB2	2.09	0.52
22:o:1177:TYR:CE1	22:o:1209:PRO:HB2	2.44	0.52
25:r:125:GLU:HA	25:r:128:GLN:HB3	1.90	0.52
33:u:59:ILE:HG12	33:u:66:VAL:HG22	1.89	0.52
3:D:898:VAL:HG22	10:L:113:VAL:CG2	2.33	0.52
4:E:324:LYS:HG2	4:E:327:ASN:HD22	1.74	0.52
9:J:128:PRO:HB2	9:J:160:GLN:HE22	1.74	0.52
11:O:25:SER:OG	11:O:27:GLN:HB2	2.10	0.52
11:O:76:LEU:HB3	11:O:79:VAL:CG2	2.31	0.52
13:Q:26:ARG:NH2	13:Q:39:LEU:HD21	2.24	0.52
14:R:33:ILE:HG21	22:o:431:PHE:HD2	1.68	0.52
22:o:364:ARG:HD2	23:p:1084:LEU:HD22	1.91	0.52
23:p:1035:ARG:CZ	24:q:194:HIS:HA	2.40	0.52
2:B:202:TRP:HB2	2:B:238:LEU:HB3	1.91	0.52
2:B:735:ILE:HG21	7:H:176:ARG:NH1	2.24	0.52
3:D:871:THR:HG22	10:L:66:LEU:HD13	1.84	0.52
4:E:347:ARG:NH2	4:E:355:MET:SD	2.82	0.52
4:E:562:SER:OG	4:E:564:ASP:OD1	2.28	0.52
7:H:118:VAL:CG2	9:J:127:THR:CG2	2.80	0.52
7:H:186:VAL:HG11	5:f:220:GLN:OE1	2.10	0.52
17:X:18:DA:C6	18:Y:-18:DT:O4	2.61	0.52
4:e:595:PRO:HD2	4:e:639:SER:HB3	1.91	0.52
22:o:581:LYS:HB2	28:v:91:VAL:HG21	1.77	0.52
22:o:911:PRO:O	22:o:963:ARG:NH2	2.42	0.52
3:D:1000:ARG:NH1	3:D:1000:ARG:CB	2.73	0.52
4:E:423:PRO:HG2	4:E:426:ARG:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:87:HIS:O	9:J:210:ASN:HB2	2.09	0.52
5:F:305:ILE:CG2	5:F:355:ILE:CG2	2.87	0.52
7:H:116:ARG:NH1	9:J:126:TYR:CE1	2.75	0.52
14:R:218:PHE:HD1	14:R:277:ILE:HG22	1.74	0.52
22:o:16:ARG:HD2	23:p:1147:SER:HB3	1.90	0.52
23:p:134:LYS:O	23:p:135:GLU:HG3	2.10	0.52
23:p:892:CYS:SG	23:p:893:SER:N	2.82	0.52
23:p:933:ASP:OD2	23:p:1050:ARG:NH2	2.41	0.52
33:u:119:PHE:HB2	33:u:128:TYR:HE1	1.74	0.52
9:J:130:ILE:HG13	9:J:160:GLN:HE21	1.73	0.52
12:P:302:LEU:HD12	12:P:302:LEU:N	2.24	0.52
4:e:607:ARG:NH1	8:i:87:PRO:O	2.43	0.52
22:o:1176:TYR:CD1	29:w:52:CYS:HB3	2.44	0.52
1:A:406:THR:C	5:F:354:ARG:HH22	2.17	0.52
2:B:529:VAL:HG11	2:B:560:TYR:HB2	1.91	0.52
2:B:844:PRO:HG3	7:H:225:THR:OG1	2.10	0.52
3:D:881:ARG:HH22	10:L:57:VAL:HG22	0.54	0.52
3:D:881:ARG:CD	10:L:57:VAL:CG1	2.85	0.52
6:G:181:TRP:CE3	6:G:181:TRP:O	2.63	0.52
15:S:161:GLU:N	23:p:310:VAL:HG21	2.25	0.52
24:q:190:ASN:O	24:q:193:ARG:NH1	2.42	0.52
26:s:64:HIS:HD2	26:s:66:ASP:H	1.58	0.52
1:A:1168:TYR:H	6:G:180:ARG:H	1.57	0.52
7:H:110:TYR:HD2	9:J:157:LEU:HD22	1.75	0.52
22:o:364:ARG:HH22	22:o:461:GLN:CD	2.17	0.52
26:s:26:TYR:HD1	26:s:64:HIS:HA	1.75	0.52
33:u:119:PHE:HB2	33:u:128:TYR:CE1	2.44	0.52
2:B:152:LEU:HD23	2:B:155:PRO:HB3	1.91	0.52
3:D:901:TYR:CZ	10:L:128:ILE:HB	2.44	0.52
4:E:347:ARG:NH1	4:E:362:GLU:OE2	2.41	0.52
15:S:6:PRO:O	15:S:10:ASN:N	2.43	0.52
22:o:1476:ASP:HB3	27:t:105:ILE:HD12	1.92	0.52
1:A:405:VAL:HG11	5:F:301:VAL:HB	1.91	0.51
1:A:472:ASN:ND2	5:f:302:HIS:ND1	2.58	0.51
1:A:1200:THR:C	1:A:1204:GLU:HG2	2.31	0.51
3:D:943:GLN:NE2	4:E:510:ALA:N	2.57	0.51
3:D:966:LEU:CD1	3:D:980:GLU:HG2	2.40	0.51
10:L:76:LEU:HD13	10:L:84:LEU:HD12	1.91	0.51
22:o:769:MET:SD	23:p:970:HIS:CD2	3.03	0.51
23:p:1038:THR:HG23	24:q:196:VAL:CG2	2.38	0.51
25:r:115:ILE:HD12	25:r:118:LEU:HD12	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:573:TYR:O	2:B:657:ARG:HB3	2.10	0.51
2:B:760:LEU:CD2	2:B:760:LEU:N	2.73	0.51
4:E:690:ASP:OD1	4:E:690:ASP:N	2.43	0.51
9:J:137:TYR:OH	9:J:141:ARG:NH2	2.43	0.51
15:S:48:GLU:O	15:S:99:LEU:N	2.38	0.51
17:X:-34:DG:N1	17:X:-33:DG:C6	2.79	0.51
23:p:952:GLU:OE1	24:q:36:ARG:HB3	2.11	0.51
1:A:468:PHE:CE1	5:F:258:ARG:HB3	2.46	0.51
5:F:257:PRO:O	5:F:261:THR:OG1	2.26	0.51
5:F:283:MET:HE1	5:F:308:VAL:HA	1.93	0.51
5:F:396:LEU:C	5:F:397:GLN:HG3	2.34	0.51
14:R:231:ALA:HA	14:R:301:PRO:HG3	1.93	0.51
18:Y:31:DA:H8	18:Y:31:DA:OP2	1.93	0.51
19:c:33:LEU:HD13	9:j:197:MET:HE1	1.91	0.51
4:e:269:GLY:O	8:i:97:ARG:NH2	2.43	0.51
22:o:66:GLU:HG2	22:o:69:GLY:H	1.76	0.51
22:o:1029:LEU:HD11	26:s:159:LEU:HD23	1.90	0.51
2:B:90:THR:O	2:B:968:ARG:NH2	2.43	0.51
7:H:190:LEU:CG	5:f:223:TYR:HB2	2.39	0.51
11:O:14:SER:HB2	13:Q:46:TRP:HA	1.92	0.51
13:Q:18:ILE:O	13:Q:22:ILE:HG12	2.10	0.51
14:R:268:LYS:O	14:R:269:ARG:NH1	2.37	0.51
22:o:220:ARG:O	22:o:224:ILE:HG13	2.10	0.51
22:o:282:ASP:OD1	22:o:283:ILE:N	2.43	0.51
22:o:743:ARG:NH2	22:o:743:ARG:CB	2.73	0.51
22:o:1485:GLU:CD	33:u:20:PRO:CG	2.83	0.51
23:p:800:ALA:HB1	30:x:8:PHE:HB3	1.93	0.51
23:p:1026:GLU:C	24:q:203:TRP:HH2	2.19	0.51
25:r:129:GLN:O	25:r:133:ASP:N	2.38	0.51
33:u:86:ASP:OD1	33:u:143:ILE:O	2.28	0.51
1:A:828:GLU:HA	1:A:831:LYS:HB2	1.92	0.51
1:A:875:GLU:CD	2:B:580:GLN:HE22	2.17	0.51
2:B:217:ASN:ND2	2:B:320:ALA:O	2.35	0.51
5:F:320:ARG:CG	5:F:415:ILE:CD1	2.71	0.51
5:F:388:ILE:O	5:F:392:ILE:HG12	2.10	0.51
7:H:32:ALA:O	7:H:36:THR:OG1	2.29	0.51
13:Q:15:ARG:NH2	13:Q:58:GLY:CA	2.74	0.51
22:o:304:ALA:O	22:o:307:VAL:HG12	2.10	0.51
22:o:400:ASP:N	22:o:400:ASP:OD1	2.41	0.51
23:p:230:ARG:HB2	23:p:231:PRO:HD3	1.92	0.51
23:p:1035:ARG:NH2	24:q:194:HIS:CA	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:r:36:GLU:HG3	25:r:39:MET:HE2	1.93	0.51
25:r:105:PRO:HG2	25:r:131:LEU:HD11	1.92	0.51
26:s:94:MET:HE2	26:s:125:TYR:HD2	1.75	0.51
7:H:116:ARG:NH1	9:J:126:TYR:CD1	2.79	0.51
11:O:5:LEU:HD23	11:O:6:TYR:CZ	2.46	0.51
16:T:93:LEU:HB2	16:T:110:VAL:HB	1.93	0.51
22:o:364:ARG:HH22	22:o:461:GLN:NE2	2.08	0.51
22:o:743:ARG:CA	22:o:743:ARG:NH2	2.73	0.51
32:z:16:ILE:HD11	32:z:25:GLU:HB3	1.93	0.51
33:u:54:ILE:HG13	33:u:70:VAL:HG23	1.93	0.51
3:D:1006:LEU:HD22	13:Q:328:LEU:CG	2.28	0.51
3:D:1085:LYS:NZ	10:L:83:MET:HE2	2.26	0.51
4:E:601:VAL:HG21	4:E:642:VAL:HG11	1.92	0.51
22:o:581:LYS:HB3	28:v:91:VAL:HG23	1.89	0.51
22:o:740:GLN:OE1	22:o:740:GLN:HA	2.11	0.51
23:p:1034:GLY:O	24:q:186:TYR:CE1	2.58	0.51
23:p:1035:ARG:HG3	24:q:194:HIS:CG	2.44	0.51
26:s:55:ARG:HH22	26:s:107:GLN:HG3	1.75	0.51
3:D:897:ASP:OD2	10:L:130:GLY:O	2.29	0.51
8:I:132:LEU:CG	9:J:121:MET:HE2	2.38	0.51
14:R:47:ASP:CA	23:p:1069:ILE:HD11	2.40	0.51
17:X:19:DG:C2	18:Y:-19:DC:O2	2.59	0.51
22:o:581:LYS:CB	28:v:91:VAL:HB	2.36	0.51
22:o:1468:THR:HB	23:p:1100:ALA:HB3	1.93	0.51
23:p:132:VAL:HG22	23:p:140:LEU:HB3	1.93	0.51
1:A:700:ILE:HG13	6:G:85:PHE:CD1	2.46	0.51
1:A:1190:VAL:HA	6:G:166:VAL:CG2	2.41	0.51
11:O:57:ASN:O	11:O:57:ASN:ND2	2.42	0.51
14:R:146:TYR:O	14:R:149:LYS:HG2	2.09	0.51
17:X:31:DC:N3	18:Y:-31:DG:C2	2.74	0.51
4:e:500:THR:HG22	4:e:502:LYS:H	1.76	0.51
22:o:1174:ALA:HA	29:w:54:TYR:O	2.10	0.51
1:A:506:ASP:HA	5:f:299:LYS:HE3	1.93	0.51
1:A:573:TYR:HD2	2:B:657:ARG:HA	1.76	0.51
1:A:700:ILE:HG13	6:G:85:PHE:CE1	2.46	0.51
2:B:983:ARG:HH11	2:B:983:ARG:HG3	1.75	0.51
5:F:84:TYR:HB3	8:I:41:GLU:HB3	1.93	0.51
19:c:21:LEU:HD12	19:c:21:LEU:O	2.11	0.51
4:e:423:PRO:HG2	4:e:426:ARG:HB2	1.91	0.51
22:o:1205:ALA:O	22:o:1206:ARG:NE	2.38	0.51
1:A:506:ASP:CG	5:f:299:LYS:CG	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1076:VAL:HG21	6:G:147:ARG:NH2	2.24	0.50
2:B:656:GLU:HG2	2:B:661:ALA:HB3	1.93	0.50
2:B:739:ASN:ND2	2:B:782:ASN:OD1	2.44	0.50
2:B:820:ASP:OD1	2:B:820:ASP:N	2.37	0.50
7:H:194:MET:CE	5:f:226:GLU:CG	2.37	0.50
9:J:139:LEU:HB3	9:J:144:PHE:HB3	1.93	0.50
12:P:176:CYS:SG	12:P:247:PRO:O	2.60	0.50
14:R:109:SER:C	14:R:112:ARG:HG3	2.36	0.50
4:e:650:THR:HG22	4:e:666:THR:HG22	1.93	0.50
23:p:803:ARG:HD2	30:x:8:PHE:HA	1.92	0.50
25:r:125:GLU:O	25:r:129:GLN:N	2.39	0.50
5:F:114:LEU:H	7:H:52:SER:HA	1.76	0.50
7:H:189:ALA:CB	5:f:249:ASP:CG	2.84	0.50
8:I:132:LEU:CD2	9:J:121:MET:CE	2.89	0.50
11:O:11:LEU:HG	13:Q:46:TRP:HE1	1.77	0.50
19:c:1:MET:HG3	5:f:126:PRO:HB3	1.93	0.50
3:d:910:LEU:HD21	10:l:87:ILE:CG1	2.41	0.50
22:o:64:VAL:HG22	22:o:71:CYS:HB2	1.93	0.50
22:o:104:MET:HA	22:o:107:LEU:HG	1.94	0.50
22:o:469:MET:HE3	23:p:1093:CYS:HB2	1.93	0.50
22:o:580:LEU:HD22	28:v:142:TYR:CE2	2.44	0.50
23:p:282:ARG:HD2	29:w:21:ASN:CG	2.33	0.50
26:s:46:ASP:OD1	26:s:52:ARG:NH2	2.44	0.50
26:s:120:ASP:OD1	26:s:120:ASP:N	2.44	0.50
2:B:983:ARG:HG3	2:B:983:ARG:NH1	2.26	0.50
4:E:324:LYS:O	4:E:327:ASN:ND2	2.44	0.50
12:P:207:PRO:HD2	12:P:207:PRO:O	2.11	0.50
5:f:24:GLU:HG2	10:l:145:THR:HG21	1.93	0.50
10:l:106:ARG:CD	10:l:114:LYS:NZ	2.74	0.50
22:o:191:ILE:HG12	22:o:200:ALA:HB2	1.93	0.50
22:o:459:ASN:HB3	22:o:469:MET:HG3	1.93	0.50
25:r:42:GLU:O	25:r:46:GLN:N	2.40	0.50
1:A:406:THR:HG22	5:F:350:ASN:HD22	1.76	0.50
2:B:818:THR:OG1	2:B:819:LEU:N	2.45	0.50
15:S:31:PHE:O	16:T:92:THR:N	2.44	0.50
2:B:274:LEU:HG	2:B:278:LYS:HE2	1.92	0.50
4:E:788:ARG:CB	7:H:145:HIS:HA	2.42	0.50
8:I:132:LEU:CD2	9:J:121:MET:HE1	2.41	0.50
11:O:88:ILE:CD1	13:Q:360:LEU:CB	2.75	0.50
14:R:214:PHE:HB3	14:R:218:PHE:HE2	1.75	0.50
4:e:693:VAL:HB	4:e:707:LEU:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:m:28:ARG:HH21	21:m:31:LEU:HD21	1.75	0.50
22:o:141:LEU:HB2	22:o:236:LEU:O	2.11	0.50
22:o:860:ILE:HD12	22:o:1124:LEU:HD23	1.93	0.50
23:p:851:ASP:OD1	32:z:15:MET:HE1	2.07	0.50
28:v:65:TYR:O	28:v:66:GLU:HG2	2.11	0.50
1:A:638:PRO:HB3	6:G:39:LEU:CD2	2.41	0.50
3:D:933:ARG:NH1	9:J:117:VAL:HG21	2.26	0.50
5:F:75:LEU:HD21	8:I:42:PHE:CD1	2.47	0.50
5:F:215:GLU:O	5:F:254:GLN:NE2	2.39	0.50
5:F:342:LYS:CE	5:F:383:LEU:O	2.59	0.50
7:H:190:LEU:CD1	5:f:223:TYR:CB	2.83	0.50
8:i:73:LEU:CB	10:l:105:HIS:CE1	2.94	0.50
22:o:1036:ASN:OD1	26:s:202:ARG:HD2	2.12	0.50
23:p:903:ILE:HD12	24:q:62:GLU:CD	2.35	0.50
28:v:14:ASP:OD1	28:v:15:ILE:N	2.43	0.50
29:w:96:PHE:HD2	29:w:110:LEU:HD11	1.75	0.50
5:F:243:LEU:HD21	5:F:284:ARG:HB3	1.92	0.50
22:o:18:ILE:CD1	23:p:1171:MET:O	2.60	0.50
22:o:710:LYS:HG2	22:o:817:PRO:HG2	1.92	0.50
22:o:1155:LYS:HA	22:o:1309:MET:HE1	1.92	0.50
23:p:888:THR:HG23	23:p:889:LYS:H	1.76	0.50
1:A:1163:ARG:HG2	6:G:183:ILE:HG23	1.94	0.50
2:B:560:TYR:HD2	2:B:581:ILE:HD11	1.77	0.50
4:E:295:GLU:OE2	8:I:85:SER:OG	2.29	0.50
4:E:466:PHE:HB2	4:E:796:ALA:HA	1.93	0.50
7:H:189:ALA:HB2	5:f:249:ASP:CG	2.37	0.50
17:X:20:DA:N6	18:Y:-20:DT:C4	2.73	0.50
22:o:132:LYS:HD2	22:o:133:SER:HB3	1.94	0.50
1:A:948:LEU:O	1:A:1062:TYR:CD2	2.64	0.50
2:B:490:SER:C	2:B:492:MET:N	2.65	0.50
4:E:232:HIS:HD1	4:E:313:SER:HG	1.57	0.50
7:H:110:TYR:CE2	9:J:160:GLN:CB	2.95	0.50
10:L:101:GLN:C	10:L:105:HIS:HD2	2.17	0.50
14:R:222:LEU:HD22	14:R:269:ARG:HG3	1.94	0.50
19:c:77:LEU:HD23	19:c:77:LEU:O	2.12	0.50
5:f:39:LEU:HD22	8:i:47:VAL:HG13	1.94	0.50
22:o:349:ARG:HH12	23:p:1157:LEU:HD11	1.71	0.50
22:o:1318:LYS:HD3	22:o:1330:ALA:HB1	1.94	0.50
2:B:766:LEU:HA	2:B:807:THR:HG21	1.93	0.49
3:D:1000:ARG:HH21	11:O:96:VAL:CG1	2.23	0.49
4:E:467:LEU:HD11	5:F:132:LYS:HD3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:273:GLN:CD	5:F:273:GLN:N	2.70	0.49
5:F:320:ARG:CZ	5:F:415:ILE:N	2.75	0.49
11:O:56:VAL:HG11	11:O:84:VAL:N	2.14	0.49
21:m:69:THR:HG23	21:m:80:ARG:HE	1.76	0.49
22:o:340:LYS:HG2	22:o:1436:VAL:HG11	1.93	0.49
22:o:716:VAL:HG12	22:o:737:PHE:CE1	2.47	0.49
23:p:497:LYS:HG3	23:p:498:PRO:HD3	1.94	0.49
6:G:181:TRP:CD2	6:G:181:TRP:C	2.87	0.49
13:Q:47:GLU:OE2	13:Q:60:HIS:CD2	2.65	0.49
14:R:295:ARG:NH2	14:R:298:ASP:OD2	2.45	0.49
16:T:27:LEU:HD11	16:T:58:LEU:HD21	1.93	0.49
17:X:18:DA:N6	18:Y:-19:DC:N4	2.59	0.49
10:l:87:ILE:HG13	10:l:88:ALA:N	2.27	0.49
22:o:26:LEU:HD23	23:p:1166:SER:HB2	1.94	0.49
1:A:510:ILE:HB	1:A:511:LEU:HD13	1.92	0.49
1:A:950:VAL:CG2	1:A:1065:GLU:CG	2.90	0.49
2:B:760:LEU:HD22	2:B:760:LEU:H	1.77	0.49
7:H:50:PHE:CE1	9:J:195:LEU:HB2	2.47	0.49
7:H:189:ALA:CB	5:f:252:LEU:HD21	2.42	0.49
9:J:126:TYR:HE2	9:J:157:LEU:HD11	1.77	0.49
11:O:7:ARG:NH1	11:O:37:LEU:HD13	2.27	0.49
26:s:103:LEU:HG	26:s:128:GLU:HB2	1.95	0.49
4:E:280:ARG:CB	8:I:26:MET:SD	2.98	0.49
4:E:449:LYS:HG2	7:H:144:PRO:HB2	1.95	0.49
4:E:634:ARG:HG3	4:E:675:LEU:HB2	1.94	0.49
7:H:190:LEU:CD2	5:f:219:GLU:O	2.61	0.49
11:O:60:GLY:N	13:Q:373:ASP:O	2.42	0.49
5:f:97:ALA:HB2	5:f:106:PHE:HE1	1.77	0.49
22:o:546:ARG:HD3	22:o:772:SER:HB3	1.93	0.49
22:o:1242:ASP:O	22:o:1262:MET:N	2.42	0.49
22:o:1437:ASP:N	22:o:1437:ASP:OD1	2.41	0.49
24:q:183:ALA:HB3	24:q:232:ASN:HB3	1.94	0.49
4:E:693:VAL:HB	4:E:707:LEU:HB2	1.94	0.49
5:F:305:ILE:CG2	5:F:355:ILE:HG21	2.43	0.49
5:F:320:ARG:NH1	5:F:414:ASN:C	2.70	0.49
7:H:135:THR:HG22	7:H:135:THR:O	2.12	0.49
12:P:259:VAL:HG21	18:Y:28:DA:H2	1.77	0.49
22:o:274:ASP:OD1	22:o:277:THR:N	2.29	0.49
25:r:63:LYS:HE3	33:u:103:PRO:CD	2.41	0.49
3:D:898:VAL:HG23	10:L:113:VAL:HB	1.94	0.49
4:E:754:THR:OG1	4:E:755:ALA:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:788:ARG:CD	7:H:145:HIS:HA	2.42	0.49
5:F:280:ILE:CA	5:F:330:ARG:HD3	2.43	0.49
5:F:319:LEU:N	5:F:319:LEU:CD2	2.73	0.49
11:O:57:ASN:HD22	11:O:57:ASN:N	2.11	0.49
12:P:250:PHE:HB2	13:Q:314:LEU:HD21	1.95	0.49
22:o:196:LEU:CD2	22:o:312:PHE:HA	2.43	0.49
23:p:1119:CYS:SG	23:p:1120:ASN:N	2.85	0.49
23:p:1137:CYS:HB3	23:p:1142:ASN:HB3	1.95	0.49
26:s:188:GLY:N	26:s:210:GLN:OE1	2.45	0.49
29:w:68:ILE:HG13	29:w:122:ARG:HD2	1.95	0.49
1:A:416:TRP:HA	5:F:314:SER:HB2	1.95	0.49
1:A:575:PRO:CG	2:B:610:GLU:OE1	2.60	0.49
3:D:936:GLN:NE2	8:I:125:PRO:HB3	2.28	0.49
3:D:965:ILE:HA	3:D:968:ARG:HH11	1.78	0.49
3:D:1004:ALA:HA	11:O:8:ASN:CG	2.37	0.49
5:F:80:VAL:CG1	8:I:45:ARG:HH12	2.25	0.49
7:H:197:THR:HB	5:f:238:LYS:CB	2.43	0.49
12:P:312:LEU:H	12:P:312:LEU:HD12	1.76	0.49
4:e:234:ALA:HB2	4:e:648:ASP:HB2	1.94	0.49
22:o:111:CYS:SG	22:o:114:CYS:HB3	2.53	0.49
23:p:513:GLU:CD	23:p:525:ASN:HD22	2.20	0.49
23:p:845:TYR:CD1	23:p:865:VAL:HG11	2.48	0.49
29:w:27:LYS:HD2	29:w:38:ALA:HB2	1.95	0.49
1:A:569:ASN:HB3	1:A:572:TYR:HD2	1.78	0.49
1:A:824:ARG:HB3	1:A:863:VAL:HG12	1.95	0.49
2:B:598:ARG:HH11	2:B:619:MET:HE3	1.77	0.49
2:B:757:MET:HA	2:B:760:LEU:CD2	2.31	0.49
4:E:347:ARG:HH12	4:E:362:GLU:CD	2.21	0.49
4:E:773:TYR:OH	5:F:140:GLY:HA2	2.12	0.49
11:O:20:ASP:HA	11:O:23:ILE:HD12	1.95	0.49
12:P:288:PHE:CD1	12:P:289:PRO:HD2	2.48	0.49
15:S:44:GLN:HG3	15:S:104:GLY:H	1.75	0.49
15:S:127:PHE:HB2	16:T:19:TRP:CB	2.42	0.49
5:f:274:ASN:HD21	5:f:316:GLN:HB3	1.77	0.49
24:q:193:ARG:HD3	24:q:220:TYR:CD1	2.47	0.49
26:s:56:THR:O	26:s:57:ASP:HB3	2.13	0.49
3:D:871:THR:HG23	10:L:66:LEU:HD11	1.89	0.49
5:F:68:THR:HG23	8:I:34:ARG:O	2.13	0.49
11:O:39:GLN:OE1	13:Q:28:ILE:HD13	2.09	0.49
14:R:169:ARG:HD3	14:R:207:ASP:H	1.77	0.49
18:Y:30:DT:H5"	18:Y:30:DT:H6	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:320:ARG:NH1	5:f:320:ARG:CB	2.73	0.49
26:s:102:ALA:HB3	26:s:127:LEU:HG	1.95	0.49
5:F:124:ARG:HA	7:H:123:PRO:O	2.13	0.49
7:H:36:THR:HG21	9:J:134:VAL:CG2	2.37	0.49
8:I:56:ILE:HG21	10:L:122:ARG:NH2	2.27	0.49
4:e:586:TYR:HB3	4:e:605:HIS:HB3	1.94	0.49
23:p:311:ILE:HG13	23:p:316:VAL:HG13	1.93	0.49
23:p:647:GLU:H	23:p:647:GLU:CD	2.20	0.49
23:p:674:MET:HG2	29:w:76:PRO:O	2.13	0.49
1:A:342:ARG:HA	1:A:497:PRO:HB3	1.94	0.48
1:A:927:VAL:O	1:A:933:ASN:ND2	2.44	0.48
4:E:290:HIS:HB3	5:F:45:TYR:CE2	2.48	0.48
11:O:54:ASN:O	13:Q:367:PHE:HA	2.13	0.48
4:e:474:THR:OG1	4:e:546:VAL:O	2.28	0.48
22:o:59:ASP:HB3	22:o:62:GLN:HB2	1.95	0.48
1:A:1026:ILE:HA	1:A:1029:VAL:HG12	1.95	0.48
2:B:570:GLU:HA	2:B:625:LEU:HA	1.95	0.48
4:E:481:ASP:HB3	4:E:787:ARG:HH22	1.77	0.48
7:H:185:ASP:CB	5:f:251:GLY:N	2.66	0.48
11:O:5:LEU:HD22	11:O:98:CYS:SG	2.53	0.48
14:R:244:LEU:HD11	14:R:295:ARG:HD3	1.95	0.48
4:e:747:LEU:H	4:e:747:LEU:CD2	2.22	0.48
10:l:106:ARG:HH12	10:l:114:LYS:CG	1.81	0.48
13:Q:348:LYS:HZ2	13:Q:375:GLU:CD	2.21	0.48
4:e:724:GLU:OE1	4:e:789:ASN:ND2	2.46	0.48
22:o:691:ASP:OD2	22:o:765:ASN:CG	2.55	0.48
22:o:766:PHE:HB3	22:o:781:ILE:HD12	1.95	0.48
22:o:795:GLY:HA2	22:o:1108:HIS:NE2	2.28	0.48
22:o:1184:THR:OG1	22:o:1189:ASP:OD1	2.31	0.48
22:o:1202:PHE:HZ	22:o:1262:MET:HG3	1.78	0.48
22:o:1345:ARG:HG2	26:s:133:GLN:HE22	1.78	0.48
31:y:114:GLU:OE1	31:y:114:GLU:N	2.40	0.48
1:A:575:PRO:CB	2:B:610:GLU:CD	2.86	0.48
4:E:308:ARG:CD	4:E:362:GLU:C	2.85	0.48
6:G:94:MET:HE3	6:G:96:VAL:HG22	1.94	0.48
7:H:40:VAL:CG1	9:J:130:ILE:HG12	2.43	0.48
22:o:551:ARG:NH2	22:o:625:ASP:OD1	2.46	0.48
22:o:551:ARG:HH12	28:v:27:ARG:HH21	1.61	0.48
23:p:380:ARG:HG2	23:p:608:ARG:HH22	1.78	0.48
23:p:803:ARG:HD2	30:x:8:PHE:CA	2.43	0.48
3:D:881:ARG:CG	10:L:57:VAL:CG1	2.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:317:LEU:N	5:F:317:LEU:CD2	2.77	0.48
5:F:409:GLY:O	5:F:417:ARG:NH2	2.47	0.48
12:P:269:ARG:HG3	12:P:337:LYS:HE2	1.94	0.48
13:Q:17:VAL:O	13:Q:21:VAL:HG23	2.14	0.48
14:R:114:MET:CE	14:R:146:TYR:HB2	2.43	0.48
15:S:151:ARG:HA	15:S:151:ARG:HD2	1.65	0.48
19:c:119:GLU:HG3	4:e:790:LEU:HD11	1.96	0.48
3:d:910:LEU:HD21	10:l:87:ILE:CD1	2.40	0.48
22:o:580:LEU:HD21	28:v:142:TYR:HE2	1.77	0.48
24:q:2:PRO:HB3	31:y:54:PRO:HD2	1.96	0.48
26:s:64:HIS:CD2	26:s:66:ASP:H	2.31	0.48
1:A:698:THR:O	6:G:84:THR:CA	2.61	0.48
1:A:1068:ARG:HD2	1:A:1068:ARG:C	2.39	0.48
3:D:891:ILE:CG2	10:L:111:LEU:CD2	2.82	0.48
5:F:283:MET:CE	5:F:308:VAL:HA	2.43	0.48
5:f:257:PRO:O	5:f:261:THR:OG1	2.32	0.48
20:k:173:CYS:SG	20:k:179:MET:O	2.72	0.48
22:o:16:ARG:HB2	23:p:1173:SER:OG	2.14	0.48
28:v:32:SER:HB3	28:v:37:MET:H	1.78	0.48
1:A:496:GLU:CD	1:A:496:GLU:N	2.71	0.48
2:B:953:LEU:HD12	2:B:979:PHE:HE2	1.79	0.48
3:D:966:LEU:HB2	3:D:983:ARG:NH2	2.29	0.48
5:F:81:GLU:HB3	5:F:83:LEU:HD13	1.94	0.48
5:F:276:LEU:HD21	5:F:327:TRP:HB2	1.95	0.48
5:F:320:ARG:N	5:F:321:PRO:CD	2.76	0.48
5:F:361:LYS:HA	5:F:364:VAL:CG2	2.42	0.48
6:G:48:HIS:HD2	6:G:54:GLY:HA2	1.78	0.48
11:O:22:LEU:CB	11:O:28:ILE:CG2	2.83	0.48
13:Q:43:LYS:HE2	13:Q:47:GLU:OE2	2.13	0.48
13:Q:56:VAL:CG1	13:Q:57:ASP:N	2.76	0.48
15:S:46:ARG:N	15:S:101:ARG:O	2.38	0.48
17:X:-25:DA:H2''	17:X:-24:DA:H5'	1.96	0.48
17:X:19:DG:N1	18:Y:-19:DC:C2	2.60	0.48
17:X:27:DG:N1	18:Y:-27:DC:N4	2.24	0.48
4:e:270:ASP:OD1	4:e:271:GLN:NE2	2.41	0.48
4:e:651:VAL:HG13	4:e:665:PHE:HB2	1.95	0.48
22:o:795:GLY:HA3	22:o:1107:PHE:HD2	1.78	0.48
22:o:1206:ARG:O	22:o:1263:ASN:ND2	2.47	0.48
23:p:591:ARG:HH21	23:p:603:MET:HE2	1.78	0.48
24:q:189:ASP:O	24:q:191:ALA:N	2.41	0.48
24:q:197:TYR:HD2	24:q:217:GLN:HE21	1.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:x:3:ILE:HD12	30:x:4:PRO:HD2	1.96	0.48
3:D:966:LEU:HB2	3:D:983:ARG:HH12	1.69	0.48
3:D:1003:ASP:N	3:D:1003:ASP:OD1	2.47	0.48
4:E:621:ARG:NH2	8:I:104:LEU:CG	2.66	0.48
7:H:190:LEU:CD1	5:f:223:TYR:CD1	2.97	0.48
7:H:194:MET:SD	5:f:226:GLU:CD	2.97	0.48
12:P:299:ARG:C	12:P:300:ILE:HG12	2.38	0.48
22:o:552:ASP:HB3	28:v:25:VAL:HG21	1.96	0.48
22:o:946:ALA:O	22:o:950:ASN:ND2	2.47	0.48
22:o:1028:PRO:C	22:o:1030:SER:H	2.22	0.48
23:p:131:THR:HA	23:p:141:GLN:HA	1.95	0.48
23:p:265:GLN:HG2	23:p:266:GLU:N	2.29	0.48
26:s:18:MET:HE2	26:s:32:GLU:HG2	1.95	0.48
2:B:135:TRP:HA	2:B:138:VAL:HG12	1.95	0.48
2:B:846:TYR:CZ	7:H:227:LEU:CD2	2.96	0.48
7:H:43:SER:CB	7:H:119:ILE:HD11	2.43	0.48
7:H:196:LYS:HB3	5:f:241:GLU:HB3	1.95	0.48
17:X:31:DC:C2	18:Y:-31:DG:N2	2.66	0.48
4:e:556:ASN:HA	4:e:572:LEU:HB2	1.96	0.48
5:f:254:GLN:O	5:f:258:ARG:NH2	2.47	0.48
22:o:408:ARG:HH21	22:o:412:GLN:HB3	1.79	0.48
22:o:459:ASN:ND2	23:p:1090:GLU:HG2	2.29	0.48
22:o:1296:MET:CG	22:o:1298:LEU:HG	2.44	0.48
22:o:1312:PRO:HG3	22:o:1317:LYS:HB2	1.96	0.48
22:o:1391:SER:OG	22:o:1392:TYR:N	2.46	0.48
22:o:1423:ASP:OD1	22:o:1423:ASP:N	2.44	0.48
23:p:779:ILE:HD13	30:x:43:TYR:HE2	1.72	0.48
23:p:1007:ASN:HB2	23:p:1010:LYS:HG3	1.96	0.48
33:u:44:PHE:HD2	33:u:46:ILE:CG1	2.19	0.48
33:u:97:LEU:HD13	33:u:128:TYR:CD2	2.48	0.48
1:A:797:LYS:HG3	17:X:21:DC:OP1	2.14	0.48
5:F:329:LEU:C	5:F:329:LEU:CD2	2.86	0.48
8:I:63:LYS:NZ	8:I:69:ASP:OD1	2.47	0.48
12:P:297:LYS:HB3	12:P:298:PRO:HD3	1.94	0.48
5:f:102:ARG:HD3	10:l:151:ARG:HG3	1.96	0.48
22:o:812:LYS:HE3	29:w:77:THR:CG2	2.44	0.48
27:t:88:ASP:HB3	27:t:91:LEU:HB2	1.96	0.48
30:x:24:LEU:HB3	30:x:29:TYR:HD2	1.79	0.48
4:E:747:LEU:HD22	4:E:747:LEU:N	2.20	0.47
7:H:73:GLY:CA	9:J:142:ALA:HB3	2.40	0.47
11:O:22:LEU:C	11:O:28:ILE:CG1	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Q:359:ASN:HA	13:Q:363:ARG:O	2.14	0.47
22:o:278:HIS:HD2	22:o:330:GLN:HE21	1.61	0.47
22:o:286:ILE:HG13	22:o:289:GLN:HE21	1.79	0.47
22:o:551:ARG:NH1	28:v:27:ARG:HH21	2.11	0.47
22:o:576:GLN:NE2	28:v:142:TYR:OH	2.47	0.47
1:A:639:LEU:O	1:A:643:ILE:HG13	2.14	0.47
3:D:966:LEU:CD1	3:D:983:ARG:HH11	2.17	0.47
3:D:1000:ARG:HH21	11:O:96:VAL:HG11	1.80	0.47
4:E:651:VAL:HB	4:E:665:PHE:HB2	1.95	0.47
7:H:196:LYS:HB3	5:f:241:GLU:HG3	1.95	0.47
3:d:1080:TYR:OH	4:e:606:ASP:OD2	2.26	0.47
10:l:76:LEU:CD1	10:l:84:LEU:HD12	2.38	0.47
22:o:842:GLY:O	22:o:845:GLU:HG3	2.14	0.47
22:o:922:PHE:HB2	22:o:1052:ARG:HB2	1.96	0.47
22:o:1461:GLY:HA3	23:p:1152:PRO:HD3	1.95	0.47
23:p:961:ILE:HG21	30:x:43:TYR:CE1	2.49	0.47
25:r:128:GLN:HA	25:r:131:LEU:HB2	1.95	0.47
26:s:61:LEU:HD12	26:s:73:PHE:HD2	1.79	0.47
5:F:317:LEU:N	5:F:317:LEU:HD23	2.29	0.47
14:R:111:ASP:O	14:R:115:MET:N	2.33	0.47
4:e:589:TRP:HB3	5:f:60:MET:HE3	1.96	0.47
22:o:743:ARG:HB2	22:o:743:ARG:CZ	2.43	0.47
1:A:997:ARG:HD3	1:A:997:ARG:N	2.29	0.47
1:A:1022:ARG:HH11	1:A:1026:ILE:CD1	2.20	0.47
3:D:1000:ARG:CG	11:O:5:LEU:HA	2.23	0.47
3:D:1057:ARG:NH2	10:L:77:ASP:OD1	2.47	0.47
11:O:58:PHE:CD2	11:O:81:PHE:CD2	2.99	0.47
11:O:97:ALA:HA	13:Q:337:CYS:O	2.13	0.47
13:Q:26:ARG:NH2	13:Q:39:LEU:HD23	2.23	0.47
14:R:117:ALA:O	14:R:121:ILE:N	2.46	0.47
15:S:102:VAL:O	15:S:107:GLY:HA3	2.14	0.47
19:c:26:VAL:HG23	9:j:195:LEU:HB3	1.96	0.47
5:f:328:ALA:C	5:f:330:ARG:N	2.72	0.47
22:o:1347:LEU:HB3	26:s:137:ILE:HD13	1.96	0.47
25:r:124:ASP:OD1	25:r:125:GLU:N	2.47	0.47
31:y:5:PRO:HG2	31:y:8:GLU:HG3	1.96	0.47
33:u:86:ASP:OD2	33:u:171:VAL:CG2	2.55	0.47
1:A:697:ALA:HB2	6:G:86:TYR:CD2	2.38	0.47
1:A:730:PHE:CD1	1:A:730:PHE:N	2.82	0.47
1:A:755:HIS:CE1	6:G:139:PRO:HD3	2.49	0.47
3:D:901:TYR:HE1	10:L:128:ILE:CB	2.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:58:MET:HG3	5:F:66:LEU:H	1.79	0.47
17:X:-34:DG:C2	17:X:-33:DG:C5	3.02	0.47
17:X:18:DA:N1	18:Y:-18:DT:O4	2.47	0.47
3:d:916:LYS:NZ	3:d:1070:GLU:OE2	2.42	0.47
3:d:922:GLN:NE2	10:l:71:ASP:OD2	2.47	0.47
22:o:896:LEU:HD13	22:o:980:PRO:HG3	1.95	0.47
22:o:1095:LEU:C	22:o:1098:PRO:HD2	2.40	0.47
23:p:543:GLU:O	23:p:546:GLU:HG3	2.15	0.47
23:p:606:ASP:OD1	23:p:606:ASP:N	2.44	0.47
26:s:85:LYS:HD2	26:s:88:LYS:HD2	1.96	0.47
33:u:120:ASP:OD2	33:u:123:SER:OG	2.28	0.47
1:A:463:PRO:HD2	5:F:221:GLN:HB3	1.95	0.47
2:B:367:GLU:OE2	2:B:371:LYS:NZ	2.39	0.47
2:B:636:VAL:HG23	2:B:638:ARG:HB3	1.96	0.47
3:D:957:ARG:O	3:D:959:ASP:N	2.48	0.47
3:D:966:LEU:CD1	3:D:983:ARG:CZ	2.92	0.47
5:F:90:GLU:O	5:F:92:ILE:N	2.46	0.47
5:F:280:ILE:HG13	5:F:330:ARG:CD	2.44	0.47
5:F:319:LEU:O	5:F:319:LEU:HG	2.15	0.47
7:H:118:VAL:HG22	9:J:127:THR:OG1	2.15	0.47
14:R:47:ASP:CA	23:p:1069:ILE:HG13	2.41	0.47
4:e:720:SER:OG	4:e:721:ARG:N	2.46	0.47
22:o:358:ARG:H	23:p:1073:GLN:NE2	2.12	0.47
22:o:587:THR:HB	28:v:119:GLY:O	2.14	0.47
22:o:859:TYR:CZ	22:o:863:ARG:HD2	2.50	0.47
22:o:1104:LEU:HG	22:o:1105:ASN:OD1	2.14	0.47
33:u:97:LEU:HD13	33:u:128:TYR:HD2	1.79	0.47
1:A:575:PRO:HD3	2:B:608:ASN:CG	2.32	0.47
2:B:329:LEU:HB3	2:B:342:THR:HG23	1.96	0.47
3:D:961:GLN:HE22	3:D:965:ILE:HG13	1.79	0.47
5:F:105:TYR:C	5:F:107:TYR:H	2.23	0.47
5:F:415:ILE:O	5:F:415:ILE:HG12	2.14	0.47
11:O:79:VAL:N	11:O:90:VAL:O	2.48	0.47
13:Q:358:MET:HE2	13:Q:367:PHE:CD2	2.37	0.47
15:S:49:ARG:HB3	15:S:96:GLN:HB3	1.96	0.47
16:T:22:LYS:HD2	16:T:115:GLU:CD	2.39	0.47
17:X:-39:DG:OP2	17:X:-39:DG:H8	1.97	0.47
22:o:687:ILE:HG13	22:o:765:ASN:CB	2.45	0.47
22:o:756:ALA:CB	22:o:786:ALA:HB2	2.33	0.47
22:o:881:ASN:OD1	22:o:882:SER:N	2.41	0.47
22:o:1129:ASN:HD22	22:o:1413:ALA:HB1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:1479:LYS:HE2	22:o:1482:TYR:HE1	1.80	0.47
23:p:50:PHE:HA	23:p:54:SER:HB3	1.97	0.47
23:p:384:ASP:HB3	23:p:387:HIS:HB2	1.96	0.47
23:p:539:SER:N	23:p:540:PRO:HD2	2.29	0.47
23:p:779:ILE:CD1	30:x:43:TYR:CE2	2.93	0.47
23:p:851:ASP:H	32:z:15:MET:HE3	1.75	0.47
23:p:1021:HIS:HE1	24:q:202:GLU:HB2	1.77	0.47
23:p:1040:GLN:NE2	24:q:198:PRO:HD3	2.29	0.47
24:q:51:GLN:CD	32:z:52:LEU:HD13	2.40	0.47
26:s:107:GLN:HG2	26:s:108:GLN:OE1	2.15	0.47
28:v:64:LEU:HB3	28:v:84:ARG:HB2	1.96	0.47
3:D:898:VAL:CG2	10:L:113:VAL:HA	2.44	0.47
5:F:112:VAL:O	7:H:53:ALA:O	2.33	0.47
15:S:160:ALA:O	23:p:310:VAL:HG11	2.13	0.47
3:d:1061:ARG:NH1	8:i:119:ARG:O	2.48	0.47
4:e:439:ASP:OD1	4:e:555:ARG:NH2	2.44	0.47
22:o:154:CYS:SG	22:o:184:CYS:HB3	2.55	0.47
22:o:511:THR:HA	23:p:1101:GLN:HB3	1.96	0.47
22:o:811:ILE:HD12	29:w:79:PRO:HB3	1.96	0.47
23:p:714:PRO:HD2	23:p:1001:PRO:HA	1.96	0.47
23:p:1040:GLN:CB	24:q:203:TRP:CZ2	2.92	0.47
28:v:136:GLU:OE1	28:v:136:GLU:N	2.48	0.47
1:A:683:TYR:CE1	6:G:75:GLU:OE2	2.67	0.47
20:k:191:VAL:HG13	20:k:200:ILE:CD1	2.42	0.47
22:o:312:PHE:O	22:o:316:THR:OG1	2.27	0.47
22:o:1097:GLU:CG	22:o:1098:PRO:HD3	2.45	0.47
23:p:28:ILE:HD11	23:p:644:LYS:HB3	1.97	0.47
23:p:1023:ARG:O	23:p:1025:ASN:N	2.46	0.47
26:s:75:PHE:HB2	26:s:104:ILE:HG22	1.96	0.47
30:x:10:CYS:SG	30:x:42:ARG:NE	2.86	0.47
31:y:37:LYS:HA	31:y:37:LYS:HD3	1.70	0.47
1:A:467:ILE:H	1:A:467:ILE:HD12	1.79	0.47
1:A:740:LEU:CD2	1:A:1074:ASN:HD21	2.28	0.47
2:B:835:ARG:NH1	7:H:184:ARG:HE	2.13	0.47
4:E:281:VAL:HG22	5:F:52:GLN:HG3	1.97	0.47
4:E:324:LYS:HA	4:E:327:ASN:HB3	1.97	0.47
4:E:579:VAL:CG2	8:I:115:LEU:HD22	2.45	0.47
7:H:186:VAL:HG23	5:f:255:MET:SD	2.55	0.47
11:O:39:GLN:HG2	13:Q:25:VAL:HG12	1.96	0.47
14:R:111:ASP:O	14:R:115:MET:HG3	2.15	0.47
4:e:717:LEU:HD22	4:e:726:LEU:HD11	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:326:HIS:O	5:f:330:ARG:HG2	2.15	0.47
22:o:52:PRO:HA	22:o:58:MET:HE1	1.96	0.47
22:o:1192:TRP:CZ2	22:o:1258:ARG:HD3	2.49	0.47
23:p:59:VAL:HG11	23:p:91:ILE:HD11	1.97	0.47
23:p:804:GLY:CA	30:x:8:PHE:CE1	2.98	0.47
23:p:910:THR:HB	32:z:43:ILE:HA	1.97	0.47
23:p:1036:LYS:CB	24:q:195:THR:CG2	2.93	0.47
23:p:1038:THR:HA	24:q:196:VAL:N	2.25	0.47
3:D:917:ILE:CG1	3:D:1058:VAL:HG11	2.44	0.46
5:F:411:VAL:HG13	5:F:411:VAL:O	2.15	0.46
12:P:236:LYS:HA	12:P:239:ARG:HH12	1.80	0.46
14:R:132:ARG:CG	23:p:914:GLU:OE2	2.58	0.46
14:R:173:VAL:HG11	23:p:102:ASP:CB	2.44	0.46
15:S:152:HIS:CE1	29:w:19:GLU:OE1	2.67	0.46
22:o:152:ASN:O	22:o:188:GLN:HG2	2.15	0.46
23:p:371:ARG:NH1	23:p:609:GLU:OE1	2.47	0.46
23:p:1035:ARG:CZ	24:q:194:HIS:CA	2.93	0.46
3:D:889:HIS:O	10:L:104:ARG:CZ	2.62	0.46
5:F:102:ARG:HG2	7:H:59:GLU:HB3	1.97	0.46
5:F:276:LEU:O	5:F:330:ARG:NH2	2.48	0.46
15:S:26:TYR:HB2	15:S:139:PRO:O	2.16	0.46
3:d:909:ARG:HH11	10:l:91:PHE:HZ	1.63	0.46
3:d:913:LEU:CD2	10:l:87:ILE:CD1	2.93	0.46
22:o:620:HIS:CE1	28:v:98:ARG:HH12	2.33	0.46
23:p:1023:ARG:C	23:p:1025:ASN:N	2.73	0.46
28:v:96:VAL:HG22	28:v:116:VAL:HG22	1.96	0.46
1:A:698:THR:N	6:G:85:PHE:O	2.48	0.46
1:A:827:MET:HE1	1:A:843:ARG:HB3	1.96	0.46
2:B:71:ARG:HD3	2:B:73:TYR:CE1	2.51	0.46
4:E:285:LEU:HD23	5:F:45:TYR:CE1	2.51	0.46
4:E:449:LYS:HG3	7:H:144:PRO:HB2	1.97	0.46
8:I:119:ARG:NH1	8:I:120:TYR:OH	2.48	0.46
11:O:57:ASN:HD22	11:O:57:ASN:H	1.63	0.46
22:o:550:LYS:NZ	28:v:22:PHE:HE1	2.13	0.46
23:p:625:LEU:HD12	23:p:665:ILE:HG13	1.97	0.46
23:p:908:MET:HE3	23:p:910:THR:HG22	1.98	0.46
1:A:743:PHE:CZ	6:G:77:LEU:HD22	2.51	0.46
2:B:334:MET:SD	7:H:229:PRO:HB3	2.56	0.46
2:B:735:ILE:CG2	7:H:176:ARG:NH1	2.78	0.46
4:E:463:PHE:CD2	5:F:136:LEU:HD11	2.50	0.46
4:E:702:LEU:HD22	4:E:757:GLY:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:87:HIS:N	9:J:210:ASN:O	2.41	0.46
7:H:189:ALA:O	5:f:223:TYR:CE1	2.66	0.46
11:O:98:CYS:O	13:Q:338:GLN:HA	2.14	0.46
17:X:-38:DC:H2'	17:X:-38:DC:OP2	2.15	0.46
4:e:633:THR:O	4:e:634:ARG:NH2	2.45	0.46
22:o:37:THR:O	22:o:87:HIS:HE1	1.98	0.46
22:o:221:VAL:HA	22:o:224:ILE:HD12	1.97	0.46
22:o:291:ARG:O	22:o:295:GLN:HB2	2.15	0.46
22:o:584:PRO:O	22:o:585:LEU:HD12	2.16	0.46
23:p:626:LEU:HD23	23:p:662:VAL:HG12	1.98	0.46
23:p:898:THR:OG1	23:p:1079:SER:HA	2.15	0.46
24:q:91:GLU:HG3	24:q:92:GLU:H	1.80	0.46
4:E:369:LYS:HA	4:E:369:LYS:HD3	1.74	0.46
7:H:115:GLN:H	7:H:115:GLN:HG3	1.58	0.46
7:H:197:THR:HB	5:f:238:LYS:HE3	1.97	0.46
12:P:252:ASP:OD1	12:P:252:ASP:N	2.49	0.46
14:R:177:PHE:O	14:R:181:CYS:N	2.38	0.46
17:X:26:DG:H1	18:Y:-26:DC:H42	1.62	0.46
4:e:718:ARG:HD3	4:e:718:ARG:HA	1.77	0.46
22:o:278:HIS:CD2	22:o:330:GLN:HE21	2.32	0.46
22:o:886:VAL:HB	26:s:169:GLN:O	2.15	0.46
23:p:1035:ARG:NH1	23:p:1036:LYS:O	2.48	0.46
23:p:1040:GLN:OE1	24:q:198:PRO:HD3	2.16	0.46
23:p:1141:ARG:HE	23:p:1143:LYS:HZ1	1.63	0.46
25:r:63:LYS:NZ	33:u:103:PRO:C	2.66	0.46
26:s:4:GLU:HA	26:s:7:THR:HG22	1.98	0.46
26:s:47:LYS:O	26:s:51:GLY:HA3	2.16	0.46
1:A:569:ASN:ND2	2:B:689:GLN:CA	2.78	0.46
1:A:575:PRO:CB	2:B:610:GLU:OE1	2.63	0.46
1:A:682:GLU:OE1	6:G:74:MET:HG3	2.16	0.46
1:A:821:ARG:HA	1:A:821:ARG:HD3	1.55	0.46
1:A:837:HIS:HB3	1:A:842:ILE:HB	1.96	0.46
2:B:564:LEU:HB2	2:B:581:ILE:HD13	1.97	0.46
3:D:999:MET:CG	11:O:71:VAL:HG11	2.35	0.46
7:H:110:TYR:HD2	9:J:157:LEU:CD2	2.28	0.46
10:l:106:ARG:HD2	10:l:114:LYS:HZ1	1.80	0.46
22:o:327:ARG:CZ	22:o:335:PRO:HB2	2.45	0.46
22:o:466:LYS:O	23:p:1097:HIS:NE2	2.49	0.46
22:o:1417:HIS:HA	22:o:1420:ASN:HB2	1.98	0.46
23:p:260:LEU:HD22	23:p:347:MET:HE1	1.97	0.46
26:s:11:TRP:HB2	26:s:40:PHE:CD2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:184:ASN:N	2:B:184:ASN:ND2	2.63	0.46
3:D:905:ALA:CB	10:L:120:LEU:HD21	2.46	0.46
11:O:54:ASN:O	13:Q:368:SER:N	2.43	0.46
5:f:327:TRP:O	5:f:330:ARG:HB2	2.16	0.46
22:o:1166:LEU:HB2	22:o:1296:MET:HB2	1.97	0.46
23:p:800:ALA:CB	30:x:8:PHE:O	2.64	0.46
24:q:77:ASP:OD1	24:q:77:ASP:N	2.46	0.46
1:A:1166:LYS:O	6:G:181:TRP:HB2	2.16	0.46
3:D:966:LEU:HD11	3:D:980:GLU:HA	1.97	0.46
6:G:41:ASP:OD1	6:G:41:ASP:N	2.48	0.46
17:X:0:DC:H2"	17:X:1:DA:C8	2.50	0.46
3:d:909:ARG:CZ	10:l:91:PHE:HE1	2.28	0.46
22:o:79:THR:OG1	22:o:80:GLU:OE1	2.34	0.46
22:o:565:MET:HE1	31:y:74:ARG:HD2	1.97	0.46
22:o:565:MET:HE1	31:y:74:ARG:HB2	1.97	0.46
23:p:84:TYR:CD2	23:p:132:VAL:HG12	2.50	0.46
23:p:446:TYR:O	23:p:450:THR:HG22	2.16	0.46
23:p:809:VAL:HG22	23:p:810:PHE:H	1.80	0.46
23:p:952:GLU:HA	24:q:35:ARG:HH12	1.81	0.46
33:u:6:SER:HB3	33:u:71:LYS:NZ	2.31	0.46
1:A:699:LYS:HA	6:G:84:THR:HA	1.98	0.46
4:E:321:LEU:HB3	4:E:330:TRP:HB2	1.97	0.46
4:E:646:SER:OG	4:E:647:ALA:N	2.49	0.46
7:H:189:ALA:HB1	5:f:223:TYR:OH	2.14	0.46
11:O:30:PRO:O	11:O:32:LEU:N	2.45	0.46
12:P:228:GLU:OE1	12:P:228:GLU:HA	2.16	0.46
12:P:256:GLN:HA	12:P:256:GLN:OE1	2.16	0.46
3:d:860:VAL:HA	21:m:47:GLN:HG2	1.98	0.46
3:d:941:ARG:NH2	8:i:123:THR:O	2.48	0.46
3:d:1084:LEU:HB3	8:i:99:ARG:HH21	1.81	0.46
5:f:317:LEU:HD12	5:f:329:LEU:HD23	1.98	0.46
22:o:305:GLU:O	22:o:309:LEU:HD23	2.16	0.46
22:o:460:ARG:HB2	22:o:501:MET:HE3	1.96	0.46
22:o:1128:ILE:HG23	22:o:1414:ILE:HD11	1.97	0.46
23:p:956:PHE:HE2	24:q:184:PHE:O	1.99	0.46
3:D:1004:ALA:CA	11:O:8:ASN:OD1	2.60	0.46
8:i:73:LEU:CD2	10:l:105:HIS:CG	2.92	0.46
9:j:176:MET:HE1	21:m:75:ILE:HD11	1.98	0.46
10:l:83:MET:SD	10:l:86:GLN:OE1	2.74	0.46
22:o:196:LEU:CD1	22:o:325:LEU:HD12	2.29	0.46
22:o:504:HIS:HB3	23:p:1106:ARG:HH11	1.72	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:621:ILE:HD11	28:v:115:TYR:CD2	2.51	0.46
23:p:100:GLU:CD	32:z:42:ARG:NH1	2.73	0.46
26:s:70:ASP:OD1	26:s:70:ASP:N	2.49	0.46
1:A:405:VAL:HB	5:F:302:HIS:N	2.31	0.45
2:B:490:SER:C	2:B:492:MET:H	2.23	0.45
2:B:559:LYS:HB2	2:B:559:LYS:NZ	2.31	0.45
5:F:426:LEU:C	5:F:426:LEU:HD23	2.41	0.45
7:H:116:ARG:HG3	7:H:116:ARG:O	2.16	0.45
11:O:55:ARG:CB	13:Q:369:LYS:HB2	2.43	0.45
14:R:26:ASP:HB2	14:R:33:ILE:CD1	2.46	0.45
5:f:330:ARG:NH1	5:f:371:THR:O	2.48	0.45
22:o:229:SER:N	22:o:232:GLU:OE2	2.48	0.45
22:o:812:LYS:HE3	29:w:77:THR:HG23	1.98	0.45
22:o:833:PRO:HG3	23:p:1002:PHE:CD2	2.51	0.45
22:o:1230:GLN:O	22:o:1234:LYS:HG2	2.17	0.45
22:o:1342:SER:O	22:o:1346:VAL:HG23	2.16	0.45
23:p:276:LEU:HG	23:p:343:LEU:HD21	1.97	0.45
23:p:323:SER:OG	23:p:324:ARG:NH1	2.48	0.45
23:p:1108:PHE:HZ	23:p:1150:ARG:HG2	1.81	0.45
24:q:123:ASN:OD1	24:q:124:SER:N	2.49	0.45
2:B:431:LEU:CD2	2:B:431:LEU:N	2.76	0.45
5:F:80:VAL:HG11	8:I:42:PHE:HE1	1.81	0.45
5:F:87:HIS:H	9:J:212:LYS:HZ2	1.63	0.45
8:I:38:GLN:HA	8:I:41:GLU:HB2	1.98	0.45
16:T:23:VAL:HG21	16:T:31:TRP:CZ3	2.52	0.45
18:Y:38:DG:OP2	18:Y:38:DG:H8	1.99	0.45
22:o:1348:SER:HB3	26:s:136:LEU:HD13	1.98	0.45
23:p:341:GLU:O	23:p:345:LYS:N	2.41	0.45
23:p:739:ASN:HB3	30:x:62:TYR:OH	2.16	0.45
24:q:69:GLY:HA3	32:z:57:ALA:HB1	1.98	0.45
24:q:175:LYS:HZ2	32:z:57:ALA:HB3	1.82	0.45
27:t:84:GLU:O	27:t:84:GLU:HG2	2.16	0.45
29:w:124:THR:OG1	29:w:125:GLU:N	2.49	0.45
1:A:415:ILE:O	5:F:314:SER:CB	2.62	0.45
3:D:871:THR:CG2	10:L:66:LEU:HD21	2.16	0.45
4:E:704:VAL:CG1	4:E:759:ILE:HD13	2.38	0.45
5:F:65:LYS:O	8:I:30:GLU:O	2.34	0.45
7:H:193:PHE:HZ	5:f:230:ALA:HB3	1.79	0.45
11:O:23:ILE:HG23	11:O:30:PRO:HD3	1.98	0.45
14:R:32:MET:SD	14:R:46:ILE:HG21	2.57	0.45
10:l:76:LEU:CD1	10:l:84:LEU:CD1	2.94	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:743:ARG:HH21	22:o:743:ARG:CB	2.29	0.45
22:o:808:PRO:HB2	23:p:675:LEU:HD12	1.97	0.45
22:o:1177:TYR:HE1	22:o:1209:PRO:HB2	1.80	0.45
22:o:1345:ARG:HG2	26:s:133:GLN:NE2	2.32	0.45
24:q:67:ARG:NH1	30:x:2:ILE:HG23	2.32	0.45
33:u:84:VAL:HG12	33:u:144:ARG:HD3	1.98	0.45
1:A:839:GLU:O	1:A:840:SER:C	2.59	0.45
1:A:1165:LEU:HB2	1:A:1191:ILE:HG12	1.97	0.45
2:B:568:VAL:HG22	2:B:628:ILE:HG23	1.98	0.45
3:D:937:ALA:HB2	8:I:128:ARG:HB3	1.98	0.45
5:F:99:GLY:C	7:H:63:GLU:CG	2.89	0.45
5:F:112:VAL:HG11	7:H:55:LYS:HD3	1.98	0.45
5:F:114:LEU:N	7:H:52:SER:HA	2.32	0.45
5:F:283:MET:HE1	5:F:308:VAL:CA	2.47	0.45
7:H:197:THR:HB	5:f:238:LYS:CE	2.46	0.45
17:X:-22:DC:H2"	17:X:-21:DA:C8	2.52	0.45
22:o:734:ARG:NH1	29:w:107:ALA:O	2.41	0.45
23:p:1027:VAL:HG22	24:q:197:TYR:HE1	1.82	0.45
24:q:193:ARG:NH2	24:q:217:GLN:OE1	2.49	0.45
1:A:758:PRO:CG	6:G:136:ILE:HG23	2.46	0.45
4:E:280:ARG:HG3	8:I:26:MET:SD	2.57	0.45
14:R:132:ARG:CB	23:p:914:GLU:CD	2.62	0.45
5:f:58:MET:HE3	5:f:64:GLN:HA	1.98	0.45
5:f:83:LEU:HD22	8:i:41:GLU:HG2	1.99	0.45
22:o:26:LEU:HD23	22:o:26:LEU:H	1.82	0.45
22:o:515:ILE:HD11	23:p:1102:PHE:HB2	1.97	0.45
23:p:371:ARG:HH22	23:p:380:ARG:HH22	1.63	0.45
3:D:901:TYR:HD1	10:L:128:ILE:HG22	1.77	0.45
5:F:39:LEU:HG	8:I:71:VAL:HG11	1.99	0.45
7:H:59:GLU:HA	7:H:62:THR:HG22	1.99	0.45
9:J:123:LEU:O	9:J:153:ARG:NH1	2.50	0.45
11:O:58:PHE:CG	11:O:81:PHE:HD2	2.30	0.45
14:R:189:LYS:HB3	14:R:189:LYS:HE2	1.63	0.45
15:S:116:GLY:HA2	23:p:356:PHE:CD1	2.51	0.45
9:j:149:PRO:O	9:j:153:ARG:NH1	2.46	0.45
22:o:197:GLU:HB2	22:o:308:LYS:HZ3	1.78	0.45
22:o:517:GLU:CG	27:t:62:ARG:HH12	2.29	0.45
23:p:282:ARG:CD	29:w:21:ASN:OD1	2.64	0.45
23:p:951:GLN:OE1	30:x:9:THR:O	2.35	0.45
1:A:475:LEU:HD23	1:A:480:TRP:HE1	1.82	0.45
1:A:931:PRO:O	1:A:935:THR:OG1	2.26	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:934:TYR:CD1	8:I:129:LEU:CD2	2.97	0.45
5:F:303:GLU:CD	5:F:303:GLU:C	2.85	0.45
11:O:53:ARG:CB	13:Q:368:SER:HB3	2.47	0.45
16:T:95:VAL:O	16:T:106:LEU:HD12	2.17	0.45
17:X:-26:DA:H2'	17:X:-25:DA:C8	2.52	0.45
22:o:191:ILE:HG12	22:o:200:ALA:CB	2.46	0.45
22:o:384:ILE:HG12	23:p:1061:SER:CB	2.46	0.45
22:o:554:PHE:HZ	28:v:121:LEU:HD11	1.82	0.45
22:o:1121:VAL:N	22:o:1122:PRO:HD2	2.31	0.45
22:o:1178:ASP:OD1	22:o:1185:VAL:HG23	2.17	0.45
26:s:94:MET:HE2	26:s:125:TYR:CD2	2.52	0.45
1:A:1060:GLU:HA	1:A:1060:GLU:OE1	2.17	0.45
3:D:871:THR:HG22	10:L:66:LEU:CB	2.47	0.45
3:D:1000:ARG:NH1	11:O:5:LEU:HD13	2.25	0.45
5:F:418:ILE:H	5:F:418:ILE:CD1	2.26	0.45
5:F:424:GLN:O	5:F:428:LEU:HG	2.15	0.45
6:G:154:LYS:HA	6:G:154:LYS:HD2	1.57	0.45
7:H:44:LEU:HD11	9:J:160:GLN:HG2	1.99	0.45
22:o:198:LEU:HG	22:o:216:LEU:HB2	1.98	0.45
22:o:294:GLU:OE2	22:o:303:ILE:HG21	2.16	0.45
22:o:872:MET:HE1	22:o:1470:CYS:SG	2.56	0.45
33:u:24:ASN:OD1	33:u:25:THR:N	2.50	0.45
33:u:107:PHE:O	33:u:160:ILE:HG13	2.17	0.45
33:u:116:GLU:O	33:u:130:THR:HA	2.16	0.45
1:A:468:PHE:HB3	5:F:258:ARG:HH21	1.82	0.45
1:A:604:PRO:O	1:A:889:TYR:OH	2.34	0.45
1:A:699:LYS:HA	6:G:83:LYS:O	2.17	0.45
1:A:1065:GLU:OE1	1:A:1065:GLU:HA	2.17	0.45
3:D:901:TYR:CE2	10:L:120:LEU:HD22	2.52	0.45
5:F:320:ARG:CZ	5:F:415:ILE:CA	2.94	0.45
13:Q:29:PHE:CD2	13:Q:34:VAL:HG11	2.52	0.45
22:o:17:THR:HG22	22:o:18:ILE:N	2.31	0.45
22:o:1185:VAL:HG11	29:w:51:SER:OG	2.17	0.45
23:p:855:ALA:HB1	32:z:49:THR:N	2.32	0.45
23:p:1036:LYS:CB	24:q:195:THR:CB	2.81	0.45
24:q:190:ASN:HD21	24:q:195:THR:HG23	1.81	0.45
25:r:94:LYS:O	25:r:97:LEU:HG	2.17	0.45
25:r:109:GLU:O	25:r:113:ALA:N	2.49	0.45
26:s:88:LYS:HA	26:s:91:CYS:HB2	1.99	0.45
33:u:38:CYS:HB2	33:u:44:PHE:CD1	2.51	0.45
2:B:273:LEU:CG	7:H:223:TYR:CE1	2.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:280:ILE:HA	5:F:330:ARG:HD3	1.98	0.45
14:R:169:ARG:HD3	14:R:206:VAL:HB	1.99	0.45
16:T:30:GLN:O	16:T:62:LEU:HD11	2.16	0.45
3:d:913:LEU:CD2	10:l:87:ILE:HD13	2.46	0.45
5:f:223:TYR:CD2	5:f:255:MET:HE1	2.52	0.45
5:f:326:HIS:ND1	5:f:326:HIS:N	2.63	0.45
22:o:481:THR:O	22:o:483:ARG:NE	2.50	0.45
22:o:1248:ASN:ND2	22:o:1256:VAL:H	2.15	0.45
1:A:466:SER:OG	5:F:214:HIS:CD2	2.69	0.44
2:B:414:LEU:HB2	2:B:523:VAL:HG13	1.99	0.44
3:D:917:ILE:CG2	3:D:1058:VAL:HG11	2.46	0.44
3:D:957:ARG:HH21	4:E:519:GLU:CA	2.29	0.44
4:E:340:ASP:CG	4:E:364:LYS:HG2	2.42	0.44
4:E:621:ARG:CZ	8:I:104:LEU:HD21	2.46	0.44
5:F:233:GLY:HA2	5:F:239:ARG:HE	1.82	0.44
7:H:127:GLN:N	7:H:128:PRO:HD2	2.32	0.44
11:O:62:LEU:HD21	11:O:65:TYR:HD2	1.81	0.44
12:P:207:PRO:O	12:P:207:PRO:CD	2.66	0.44
14:R:175:ARG:HH22	23:p:102:ASP:C	2.24	0.44
15:S:143:TRP:C	15:S:143:TRP:CD1	2.95	0.44
22:o:111:CYS:SG	22:o:154:CYS:HB2	2.57	0.44
22:o:502:ASN:CG	23:p:1084:LEU:HD13	2.42	0.44
22:o:1190:GLN:NE2	22:o:1194:ASN:HB2	2.32	0.44
1:A:853:LYS:HD3	1:A:853:LYS:HA	1.52	0.44
1:A:1182:CYS:O	1:A:1182:CYS:SG	2.75	0.44
2:B:639:LYS:NZ	2:B:641:GLU:OE2	2.42	0.44
5:F:62:LYS:HE2	5:F:62:LYS:HB2	1.81	0.44
11:O:22:LEU:CD1	11:O:28:ILE:HG21	2.41	0.44
11:O:61:SER:H	11:O:79:VAL:CG2	2.28	0.44
16:T:17:GLY:HA2	16:T:109:ILE:O	2.17	0.44
5:f:26:MET:HB3	5:f:26:MET:HE3	1.77	0.44
23:p:550:MET:HA	23:p:577:HIS:HD2	1.80	0.44
24:q:116:THR:HB	24:q:147:ASP:HB3	1.99	0.44
1:A:573:TYR:HA	2:B:657:ARG:CD	2.16	0.44
2:B:559:LYS:HB2	2:B:559:LYS:HZ3	1.83	0.44
3:D:881:ARG:CZ	10:L:57:VAL:HG21	2.43	0.44
3:D:934:TYR:O	8:I:130:LYS:HE3	2.17	0.44
4:E:250:GLU:O	4:E:254:ASN:ND2	2.50	0.44
5:F:400:GLY:O	5:F:404:ARG:HG2	2.18	0.44
10:L:106:ARG:HH11	10:L:114:LYS:HZ3	0.45	0.44
10:L:106:ARG:NH1	10:L:114:LYS:CG	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L:106:ARG:CD	10:L:114:LYS:HZ3	2.30	0.44
13:Q:321:SER:O	13:Q:321:SER:OG	2.32	0.44
3:d:910:LEU:HD11	10:l:88:ALA:HB2	1.98	0.44
5:f:105:TYR:O	9:j:217:PHE:N	2.51	0.44
22:o:261:ARG:HB3	22:o:276:LEU:HD11	1.99	0.44
22:o:460:ARG:HG2	22:o:461:GLN:N	2.32	0.44
24:q:101:PHE:CE1	24:q:122:SER:HB3	2.52	0.44
26:s:55:ARG:HA	26:s:58:LEU:HD12	1.98	0.44
26:s:154:GLU:O	26:s:157:THR:HG22	2.17	0.44
31:y:42:LEU:O	31:y:45:ILE:HG22	2.17	0.44
33:u:60:GLN:NE2	33:u:65:PHE:HB2	2.32	0.44
2:B:366:ASP:OD1	2:B:500:THR:OG1	2.34	0.44
4:E:284:SER:HB3	5:F:48:LYS:HD3	1.97	0.44
5:F:309:MET:HA	5:F:312:ILE:HG22	1.99	0.44
5:F:322:ASP:O	5:F:324:ASP:N	2.51	0.44
16:T:44:ARG:HH22	16:T:80:GLU:CD	2.24	0.44
22:o:260:VAL:O	22:o:342:ARG:NH2	2.50	0.44
22:o:1028:PRO:O	22:o:1029:LEU:HB3	2.18	0.44
23:p:787:GLY:HA2	23:p:790:GLN:HE21	1.82	0.44
23:p:976:MET:HE2	23:p:976:MET:HB2	1.79	0.44
24:q:103:LEU:HD12	24:q:120:LEU:HD22	2.00	0.44
29:w:103:ARG:O	29:w:103:ARG:HD3	2.18	0.44
1:A:575:PRO:HB2	2:B:610:GLU:OE1	2.18	0.44
1:A:601:PRO:HG3	6:G:10:HIS:H	1.81	0.44
1:A:843:ARG:HG3	18:Y:-26:DC:OP2	2.18	0.44
3:D:871:THR:HG21	3:D:910:LEU:HD12	1.98	0.44
3:D:943:GLN:NE2	4:E:509:GLN:HA	2.33	0.44
5:F:49:GLU:OE1	8:I:83:PHE:CD2	2.71	0.44
10:L:93:GLU:O	10:L:97:THR:CG2	2.52	0.44
22:o:663:ASP:OD1	22:o:666:ARG:NH1	2.51	0.44
22:o:726:GLU:OE1	22:o:726:GLU:N	2.51	0.44
23:p:924:ARG:HD3	24:q:60:HIS:CG	2.46	0.44
32:z:19:CYS:SG	32:z:20:GLY:N	2.91	0.44
33:u:165:ASP:HB2	33:u:168:LEU:HD11	1.99	0.44
1:A:401:ASN:HD22	1:A:401:ASN:N	2.14	0.44
1:A:807:LEU:HG	1:A:845:ARG:HG3	2.00	0.44
3:D:965:ILE:HD13	3:D:968:ARG:HH11	1.82	0.44
4:E:788:ARG:HB3	7:H:145:HIS:HB2	2.00	0.44
5:F:38:LEU:HD23	8:I:71:VAL:HB	2.00	0.44
5:F:329:LEU:HD23	5:F:329:LEU:O	2.15	0.44
8:I:132:LEU:CD1	9:J:121:MET:SD	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:149:PRO:HA	5:f:150:PRO:HD3	1.83	0.44
8:i:73:LEU:HD13	10:l:105:HIS:NE2	2.33	0.44
22:o:472:HIS:NE2	22:o:492:TYR:OH	2.47	0.44
22:o:1097:GLU:HG2	22:o:1098:PRO:HD3	2.00	0.44
22:o:1211:LEU:HD11	22:o:1258:ARG:NE	2.33	0.44
23:p:65:ILE:HD11	23:p:86:LEU:HD12	1.98	0.44
23:p:329:GLY:HA3	23:p:335:ARG:HG3	1.97	0.44
23:p:628:VAL:HG22	23:p:633:LEU:HD23	2.00	0.44
23:p:794:VAL:HG12	23:p:967:ILE:HG22	1.98	0.44
25:r:63:LYS:HE3	33:u:103:PRO:CG	2.42	0.44
33:u:40:GLY:O	33:u:152:VAL:HG11	2.17	0.44
33:u:43:GLY:HA2	33:u:78:ARG:HD3	1.98	0.44
1:A:899:LYS:HE3	1:A:899:LYS:HB2	1.81	0.44
4:E:308:ARG:HD2	4:E:362:GLU:C	2.42	0.44
7:H:190:LEU:HD22	5:f:223:TYR:CB	2.43	0.44
11:O:36:VAL:HG13	13:Q:29:PHE:HE1	1.82	0.44
12:P:214:PHE:CE1	17:X:-25:DA:H1'	2.52	0.44
13:Q:367:PHE:C	13:Q:367:PHE:CD1	2.95	0.44
14:R:45:VAL:O	14:R:45:VAL:HG22	2.17	0.44
18:Y:24:DT:H2'	18:Y:25:DT:C6	2.52	0.44
20:k:150:VAL:HG22	21:m:82:GLN:HB3	1.98	0.44
22:o:1029:LEU:HD11	26:s:159:LEU:HD21	1.99	0.44
23:p:458:LYS:NZ	23:p:461:GLN:HB3	2.33	0.44
23:p:892:CYS:O	23:p:893:SER:OG	2.32	0.44
23:p:1022:LEU:HD12	23:p:1023:ARG:HG2	1.99	0.44
23:p:1027:VAL:N	24:q:203:TRP:CZ3	2.86	0.44
29:w:75:ASP:HB3	29:w:78:LEU:HD12	1.99	0.44
31:y:63:VAL:HG22	31:y:71:ILE:HG22	2.00	0.44
1:A:761:ASP:HB3	6:G:17:ILE:HG23	2.00	0.44
3:D:966:LEU:HD22	3:D:983:ARG:NH1	2.33	0.44
4:E:613:ALA:HB3	4:E:616:HIS:HD2	1.83	0.44
11:O:7:ARG:NH2	11:O:37:LEU:HB3	2.33	0.44
11:O:10:THR:HG21	13:Q:50:LEU:HD21	1.62	0.44
11:O:39:GLN:CB	13:Q:28:ILE:CD1	2.96	0.44
11:O:89:LYS:N	13:Q:361:ASN:HD21	2.15	0.44
12:P:278:GLN:OE1	12:P:278:GLN:N	2.48	0.44
5:f:11:ASN:OD1	5:f:48:LYS:NZ	2.51	0.44
5:f:317:LEU:HG	5:f:330:ARG:HE	1.83	0.44
8:i:16:ALA:HB2	8:i:40:LEU:HD11	2.00	0.44
21:m:103:LEU:O	21:m:107:ASN:ND2	2.51	0.44
22:o:322:LEU:HD12	22:o:323:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:479:TRP:CD1	31:y:67:LEU:HD11	2.52	0.44
22:o:910:LYS:N	22:o:911:PRO:HD2	2.33	0.44
23:p:282:ARG:CB	29:w:21:ASN:O	2.55	0.44
23:p:486:ASN:OD1	23:p:491:ARG:NH2	2.50	0.44
23:p:526:LEU:H	23:p:526:LEU:HD23	1.83	0.44
23:p:856:PRO:HD2	32:z:48:ARG:HA	1.99	0.44
23:p:1040:GLN:CB	24:q:203:TRP:HZ2	2.24	0.44
1:A:697:ALA:CB	6:G:86:TYR:CZ	2.96	0.44
3:D:917:ILE:HG21	3:D:1058:VAL:HG11	2.00	0.44
12:P:287:LEU:HD23	14:R:196:LYS:NZ	2.32	0.44
15:S:6:PRO:O	15:S:10:ASN:CA	2.62	0.44
19:c:101:VAL:HG22	5:f:127:LEU:HA	2.00	0.44
22:o:346:LYS:HB2	22:o:351:ARG:HH21	1.81	0.44
22:o:349:ARG:HD3	22:o:349:ARG:HA	1.80	0.44
22:o:721:HIS:CD2	29:w:110:LEU:HD13	2.53	0.44
22:o:766:PHE:CE1	23:p:973:PRO:CB	2.62	0.44
23:p:256:ILE:HD11	23:p:373:LEU:HD21	2.00	0.44
23:p:629:GLU:O	23:p:630:LYS:C	2.61	0.44
23:p:851:ASP:HB2	32:z:46:LYS:HZ3	1.83	0.44
1:A:400:GLU:HG3	1:A:401:ASN:N	2.32	0.43
1:A:567:LEU:HD22	2:B:745:GLN:CD	2.43	0.43
1:A:639:LEU:O	1:A:639:LEU:CD1	2.66	0.43
1:A:1076:VAL:HG11	6:G:147:ARG:HE	1.78	0.43
4:E:784:HIS:HB3	4:E:792:LEU:HB2	1.99	0.43
5:F:276:LEU:CD2	5:F:327:TRP:HB2	2.47	0.43
5:F:311:CYS:O	5:F:327:TRP:CZ2	2.58	0.43
14:R:40:VAL:HB	14:R:43:ASP:HB3	2.00	0.43
22:o:550:LYS:HZ2	28:v:22:PHE:HE1	1.65	0.43
22:o:623:PRO:HA	28:v:27:ARG:HH22	1.83	0.43
23:p:371:ARG:NH2	23:p:380:ARG:HH22	2.16	0.43
23:p:628:VAL:HG12	23:p:629:GLU:O	2.18	0.43
23:p:908:MET:HG3	32:z:45:TYR:CE1	2.53	0.43
23:p:1035:ARG:CZ	24:q:194:HIS:C	2.88	0.43
25:r:50:SER:OG	25:r:51:ALA:N	2.50	0.43
3:D:958:LYS:HE2	3:D:958:LYS:O	2.17	0.43
3:D:996:LEU:HD11	11:O:3:TYR:HD1	1.81	0.43
3:D:1071:ARG:NH2	5:F:79:ASN:O	2.51	0.43
5:F:305:ILE:HD13	5:F:305:ILE:H	1.83	0.43
14:R:178:LYS:NZ	18:Y:34:DC:OP1	2.34	0.43
15:S:29:MET:HB2	16:T:96:PHE:CD1	2.52	0.43
16:T:86:GLN:OE1	16:T:86:GLN:HA	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:o:420:ILE:HD11	22:o:426:ARG:HH21	1.83	0.43
22:o:478:PRO:HD2	31:y:67:LEU:HD23	2.00	0.43
22:o:524:MET:HE2	22:o:524:MET:HB3	1.91	0.43
22:o:917:GLU:O	22:o:921:ARG:HB2	2.17	0.43
22:o:936:GLU:HA	22:o:939:VAL:HG12	1.99	0.43
22:o:1171:ALA:HB3	22:o:1215:GLU:HG3	2.00	0.43
23:p:603:MET:HE3	23:p:603:MET:HB2	1.86	0.43
23:p:903:ILE:HD11	32:z:55:PHE:HE1	1.82	0.43
24:q:7:PRO:HG3	31:y:101:LEU:HD12	1.99	0.43
31:y:26:LYS:HG3	31:y:27:VAL:HG22	2.00	0.43
1:A:690:LEU:HD22	1:A:747:LEU:HD22	2.00	0.43
2:B:431:LEU:HD23	2:B:431:LEU:O	2.18	0.43
5:F:368:THR:HG22	5:F:369:PRO:CD	2.41	0.43
5:F:370:TRP:CZ3	5:F:420:ALA:HA	2.53	0.43
8:I:23:LEU:HD22	8:I:28:ILE:HD12	2.01	0.43
11:O:58:PHE:CD2	11:O:82:ARG:O	2.71	0.43
15:S:47:LEU:HG	15:S:98:TRP:CE3	2.53	0.43
19:c:24:ASP:CB	9:j:192:LYS:HD2	2.48	0.43
10:l:113:VAL:O	10:l:113:VAL:HG22	2.18	0.43
22:o:552:ASP:HB3	28:v:25:VAL:HG23	1.99	0.43
22:o:576:GLN:HB3	28:v:93:TYR:CE2	2.53	0.43
22:o:927:GLU:HG3	22:o:927:GLU:O	2.18	0.43
22:o:1172:ASN:CB	29:w:57:LYS:HD2	2.48	0.43
2:B:273:LEU:HG	7:H:223:TYR:HE1	1.82	0.43
4:E:476:VAL:HB	4:E:782:HIS:HB2	2.01	0.43
4:E:650:THR:HG22	4:E:666:THR:HG22	1.99	0.43
17:X:-35:DG:H1	18:Y:35:DC:H42	1.66	0.43
22:o:504:HIS:HB3	23:p:1106:ARG:NE	2.28	0.43
22:o:1180:ASN:HB3	22:o:1182:GLN:OE1	2.18	0.43
23:p:718:GLN:HG2	23:p:720:PRO:HD2	2.01	0.43
3:D:905:ALA:HB2	10:L:120:LEU:HD21	2.00	0.43
3:D:934:TYR:CZ	8:I:129:LEU:CG	2.90	0.43
3:D:943:GLN:HG2	4:E:510:ALA:N	2.33	0.43
5:F:313:VAL:O	5:F:372:THR:CA	2.55	0.43
5:F:320:ARG:NH1	5:F:414:ASN:HA	2.33	0.43
5:F:342:LYS:HE2	5:F:383:LEU:O	2.18	0.43
7:H:92:ASP:O	7:H:96:THR:OG1	2.32	0.43
13:Q:348:LYS:NZ	13:Q:375:GLU:CD	2.76	0.43
15:S:13:GLU:HG3	16:T:44:ARG:HA	2.01	0.43
16:T:21:VAL:HA	16:T:114:ALA:O	2.18	0.43
19:c:21:LEU:HD11	19:c:23:TRP:CD1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:542:HIS:CE1	4:e:568:ARG:HG3	2.53	0.43
22:o:277:THR:HA	22:o:280:LEU:HD12	1.99	0.43
22:o:403:GLN:HA	22:o:406:VAL:HG12	2.01	0.43
22:o:561:MET:CE	31:y:57:LEU:O	2.67	0.43
22:o:863:ARG:HH21	22:o:1415:THR:HA	1.84	0.43
22:o:1038:THR:O	22:o:1042:ASN:ND2	2.46	0.43
22:o:1172:ASN:HB3	29:w:57:LYS:HA	1.99	0.43
24:q:240:ARG:HB2	24:q:243:THR:HG22	1.99	0.43
1:A:488:ALA:O	1:A:491:MET:HB2	2.18	0.43
1:A:957:THR:O	6:G:149:ARG:N	2.52	0.43
3:D:1006:LEU:HG	3:D:1006:LEU:H	1.68	0.43
3:D:1085:LYS:NZ	10:L:83:MET:HE1	2.25	0.43
5:F:339:GLN:HA	5:F:342:LYS:HG2	2.00	0.43
7:H:87:GLN:HA	7:H:88:PRO:HD3	1.82	0.43
11:O:14:SER:HA	13:Q:49:LYS:CD	2.44	0.43
10:l:139:TYR:HD2	21:m:73:MET:HE3	1.83	0.43
22:o:719:LYS:HE2	22:o:719:LYS:HB3	1.77	0.43
22:o:1198:GLU:C	22:o:1200:PRO:HD3	2.43	0.43
25:r:82:SER:O	25:r:86:LEU:N	2.51	0.43
25:r:112:LYS:HB2	25:r:112:LYS:HE3	1.91	0.43
33:u:2:PHE:CE1	33:u:77:PHE:HB2	2.54	0.43
3:D:1006:LEU:HD21	13:Q:328:LEU:HD22	1.93	0.43
11:O:88:ILE:HG12	13:Q:365:TYR:OH	2.19	0.43
12:P:304:ILE:HD12	12:P:304:ILE:N	2.33	0.43
15:S:127:PHE:CB	16:T:19:TRP:HB2	2.48	0.43
5:f:447:ALA:CB	5:f:456:GLY:HA3	2.49	0.43
22:o:434:LYS:NZ	22:o:437:ASP:HB3	2.34	0.43
22:o:1230:GLN:HB2	22:o:1234:LYS:NZ	2.34	0.43
23:p:1046:THR:HG22	23:p:1047:TYR:N	2.32	0.43
33:u:94:LYS:O	33:u:110:ARG:HD2	2.18	0.43
1:A:925:ASP:N	1:A:925:ASP:OD1	2.52	0.43
1:A:1021:SER:N	1:A:1025:VAL:HG23	2.33	0.43
1:A:1168:TYR:O	1:A:1169:ARG:HG3	2.19	0.43
2:B:562:GLY:O	2:B:581:ILE:HG12	2.19	0.43
3:D:910:LEU:HB2	10:L:66:LEU:CD2	2.46	0.43
7:H:43:SER:HB2	7:H:119:ILE:HD11	1.99	0.43
7:H:110:TYR:CD2	9:J:157:LEU:CD2	3.01	0.43
7:H:196:LYS:HB3	5:f:241:GLU:CB	2.49	0.43
12:P:236:LYS:HA	12:P:239:ARG:NH1	2.34	0.43
14:R:135:VAL:HG12	14:R:139:ASN:ND2	2.34	0.43
19:c:124:ILE:HD11	5:f:133:ALA:HB1	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:d:910:LEU:HD23	10:l:87:ILE:HD12	2.01	0.43
4:e:504:LEU:HD23	4:e:504:LEU:HA	1.90	0.43
22:o:28:PRO:HA	22:o:31:LEU:HB2	2.01	0.43
22:o:1179:PRO:HB2	29:w:33:ARG:HB3	2.00	0.43
22:o:1226:LEU:HA	22:o:1230:GLN:NE2	2.34	0.43
22:o:1244:ASN:O	22:o:1259:ILE:HA	2.19	0.43
22:o:1312:PRO:O	22:o:1332:GLN:NE2	2.51	0.43
23:p:143:GLN:N	23:p:143:GLN:OE1	2.52	0.43
1:A:664:PHE:CD2	6:G:80:ILE:HG21	2.53	0.43
7:H:111:ALA:CB	9:J:126:TYR:CE2	2.93	0.43
11:O:58:PHE:CE1	13:Q:370:ALA:HB1	2.54	0.43
14:R:15:CYS:HA	14:R:16:PRO:HD3	1.83	0.43
5:f:411:VAL:O	5:f:417:ARG:NH2	2.51	0.43
22:o:358:ARG:N	23:p:1073:GLN:HE21	2.16	0.43
22:o:491:PRO:HG2	22:o:535:MET:HE2	2.01	0.43
22:o:1172:ASN:HD22	29:w:57:LYS:CD	2.32	0.43
23:p:110:PRO:HG2	23:p:163:LEU:HD11	2.00	0.43
28:v:71:ASP:O	28:v:72:ASP:HB3	2.18	0.43
1:A:1007:LEU:HD22	1:A:1012:VAL:HG21	2.01	0.43
4:E:564:ASP:OD1	4:E:564:ASP:N	2.51	0.43
4:E:702:LEU:HD22	4:E:757:GLY:C	2.44	0.43
5:F:313:VAL:HA	5:F:375:GLY:HA3	2.01	0.43
5:F:402:ARG:O	5:F:406:VAL:HG13	2.19	0.43
11:O:28:ILE:CG2	13:Q:38:VAL:HG13	2.49	0.43
12:P:287:LEU:CD2	14:R:196:LYS:CE	2.64	0.43
13:Q:351:PHE:CD1	13:Q:351:PHE:N	2.87	0.43
14:R:196:LYS:NZ	17:X:-30:DA:C5'	2.79	0.43
17:X:19:DG:C2	18:Y:-19:DC:C2	3.06	0.43
8:i:45:ARG:HG3	9:j:212:LYS:HB3	2.01	0.43
22:o:111:CYS:SG	22:o:188:GLN:NE2	2.92	0.43
22:o:350:VAL:HG13	22:o:351:ARG:HG3	2.01	0.43
22:o:579:ILE:HG23	28:v:92:MET:HG2	2.00	0.43
22:o:687:ILE:HG13	22:o:765:ASN:HB3	2.01	0.43
23:p:1120:ASN:HD22	23:p:1145:GLN:HB2	1.84	0.43
1:A:1193:ALA:HB3	6:G:166:VAL:CG2	2.44	0.42
2:B:159:LEU:N	2:B:159:LEU:CD2	2.81	0.42
2:B:839:MET:HE1	2:B:843:LEU:HD13	2.00	0.42
4:E:651:VAL:HG21	4:E:686:THR:HG21	2.01	0.42
5:F:300:TYR:CD1	5:F:300:TYR:N	2.86	0.42
7:H:155:ASP:OD1	7:H:155:ASP:N	2.51	0.42
11:O:65:TYR:CD1	12:P:191:GLU:HG3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:O:88:ILE:CB	13:Q:360:LEU:HB2	2.48	0.42
12:P:264:VAL:HG23	12:P:266:PHE:H	1.84	0.42
13:Q:51:MET:HG2	13:Q:61:SER:HB3	0.90	0.42
14:R:47:ASP:CA	23:p:1069:ILE:CG1	2.97	0.42
19:c:94:HIS:CD2	5:f:122:LEU:HD22	2.54	0.42
4:e:667:GLY:O	4:e:692:ARG:NH2	2.52	0.42
22:o:733:LEU:O	22:o:737:PHE:CB	2.67	0.42
33:u:86:ASP:OD1	33:u:87:ALA:N	2.51	0.42
1:A:968:ILE:HD12	1:A:968:ILE:HA	1.94	0.42
3:D:957:ARG:C	3:D:959:ASP:N	2.77	0.42
5:F:276:LEU:HD22	5:F:323:VAL:HG13	2.01	0.42
5:F:339:GLN:OE1	5:F:343:HIS:CG	2.72	0.42
10:L:106:ARG:HD2	10:L:114:LYS:NZ	2.33	0.42
11:O:57:ASN:C	11:O:58:PHE:CD1	2.96	0.42
4:e:504:LEU:HD22	4:e:575:PHE:HZ	1.85	0.42
22:o:379:GLY:HA2	22:o:475:ARG:O	2.19	0.42
22:o:581:LYS:HZ1	28:v:86:ASP:HA	1.81	0.42
23:p:225:LEU:H	23:p:225:LEU:HD23	1.84	0.42
23:p:296:GLU:H	23:p:296:GLU:CD	2.27	0.42
23:p:341:GLU:HG2	23:p:342:VAL:N	2.34	0.42
23:p:937:SER:OG	23:p:938:ARG:N	2.51	0.42
24:q:30:VAL:HG22	31:y:45:ILE:HD11	2.00	0.42
28:v:32:SER:OG	28:v:33:GLU:N	2.52	0.42
33:u:38:CYS:C	33:u:155:ASN:OD1	2.62	0.42
1:A:1021:SER:O	1:A:1025:VAL:HG23	2.19	0.42
4:E:481:ASP:OD1	4:E:481:ASP:N	2.41	0.42
5:F:401:GLU:C	5:F:401:GLU:CD	2.87	0.42
10:L:106:ARG:CD	10:L:114:LYS:NZ	2.83	0.42
10:L:120:LEU:O	10:L:125:ASN:N	2.53	0.42
11:O:62:LEU:O	12:P:205:ARG:NH2	2.52	0.42
11:O:66:ARG:HB3	11:O:73:THR:HB	2.01	0.42
13:Q:19:GLU:OE1	13:Q:19:GLU:HA	2.19	0.42
16:T:127:LEU:HD21	23:p:544:PHE:HE1	1.83	0.42
5:f:219:GLU:H	5:f:219:GLU:CD	2.21	0.42
20:k:179:MET:HB3	20:k:180:PRO:CD	2.50	0.42
22:o:404:GLU:HG3	22:o:407:ARG:NH2	2.34	0.42
22:o:540:ASP:CG	23:p:790:GLN:HE22	2.14	0.42
22:o:551:ARG:HG3	28:v:120:GLY:O	2.20	0.42
22:o:571:ASP:OD1	22:o:571:ASP:N	2.46	0.42
22:o:1448:SER:OG	22:o:1449:ASP:N	2.52	0.42
23:p:90:GLN:HG3	23:p:91:ILE:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:s:49:SER:C	26:s:50:GLU:HG3	2.44	0.42
1:A:639:LEU:O	1:A:639:LEU:HD13	2.20	0.42
1:A:681:ALA:O	6:G:75:GLU:CG	2.66	0.42
4:E:284:SER:HG	5:F:45:TYR:HE1	1.63	0.42
6:G:181:TRP:O	6:G:181:TRP:CD2	2.72	0.42
19:c:28:LEU:HD23	19:c:28:LEU:HA	1.89	0.42
22:o:330:GLN:O	22:o:331:LYS:HE2	2.20	0.42
22:o:580:LEU:HB2	28:v:91:VAL:HG11	1.98	0.42
22:o:620:HIS:CD2	28:v:100:GLU:OE2	2.72	0.42
22:o:1361:ASP:OD1	22:o:1363:VAL:HG22	2.20	0.42
23:p:912:ASN:HB3	23:p:918:PHE:CD1	2.54	0.42
2:B:176:HIS:HE1	2:B:310:ASP:H	1.68	0.42
2:B:594:SER:OG	2:B:595:LYS:N	2.51	0.42
5:F:90:GLU:C	5:F:92:ILE:H	2.27	0.42
7:H:111:ALA:HB1	9:J:126:TYR:HE2	1.78	0.42
8:I:21:GLN:HE22	8:I:24:LYS:HE2	1.84	0.42
11:O:58:PHE:N	11:O:58:PHE:HD1	2.13	0.42
13:Q:366:ILE:HG22	13:Q:367:PHE:N	2.33	0.42
14:R:18:HIS:HB2	14:R:19:PRO:HD2	2.01	0.42
5:f:432:ALA:HB1	5:f:462:GLN:CB	2.50	0.42
10:l:80:VAL:O	10:l:84:LEU:HG	2.19	0.42
22:o:620:HIS:CG	28:v:98:ARG:NH1	2.87	0.42
22:o:1003:ASP:OD1	22:o:1003:ASP:N	2.51	0.42
22:o:1146:GLN:HA	22:o:1149:ARG:HE	1.84	0.42
25:r:76:ASN:O	25:r:80:ILE:HD12	2.19	0.42
1:A:345:PRO:HG3	1:A:500:LEU:HG	2.00	0.42
1:A:349:TRP:CE2	5:f:266:GLY:CA	3.03	0.42
1:A:848:LEU:H	1:A:848:LEU:HG	1.61	0.42
2:B:653:LEU:HG	2:B:684:ILE:HG13	2.00	0.42
5:F:283:MET:SD	5:F:311:CYS:SG	3.18	0.42
11:O:17:GLU:OE1	13:Q:49:LYS:HE2	2.02	0.42
14:R:111:ASP:CG	14:R:114:MET:CB	2.92	0.42
3:d:887:LYS:HB3	3:d:887:LYS:HE3	1.50	0.42
22:o:689:ILE:HG22	23:p:981:LEU:HD13	2.01	0.42
22:o:1248:ASN:HD21	22:o:1256:VAL:HB	1.84	0.42
33:u:40:GLY:C	33:u:152:VAL:HG21	2.43	0.42
1:A:569:ASN:CB	2:B:689:GLN:HA	2.49	0.42
1:A:638:PRO:CG	6:G:36:HIS:O	2.67	0.42
2:B:831:GLU:OE1	2:B:835:ARG:NH2	2.52	0.42
3:D:1000:ARG:NE	11:O:5:LEU:CD1	2.79	0.42
3:D:1006:LEU:O	3:D:1009:LEU:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:258:ARG:HD2	5:F:258:ARG:HA	1.82	0.42
5:F:320:ARG:NE	5:F:321:PRO:HD3	2.31	0.42
5:F:322:ASP:C	5:F:324:ASP:N	2.78	0.42
6:G:129:LYS:HA	6:G:129:LYS:HD2	1.77	0.42
11:O:22:LEU:CD2	13:Q:41:GLU:OE1	2.65	0.42
12:P:202:MET:HE3	12:P:202:MET:HB2	1.85	0.42
17:X:17:DT:H3	18:Y:-17:DA:H61	1.68	0.42
3:d:1078:LEU:HD21	10:l:90:ASP:OD2	2.19	0.42
22:o:1185:VAL:HG11	29:w:51:SER:HG	1.84	0.42
23:p:805:PHE:HD1	30:x:8:PHE:CD2	2.37	0.42
24:q:225:LYS:HE2	24:q:225:LYS:HB2	1.92	0.42
25:r:36:GLU:OE1	25:r:36:GLU:N	2.53	0.42
33:u:44:PHE:HE2	33:u:46:ILE:HG12	1.82	0.42
3:D:956:GLN:HA	3:D:956:GLN:NE2	2.34	0.42
7:H:111:ALA:O	9:J:126:TYR:OH	2.33	0.42
12:P:329:TYR:N	12:P:330:PRO:HD2	2.35	0.42
17:X:-29:DT:H3	18:Y:29:DA:H61	1.67	0.42
5:f:320:ARG:HH11	5:f:320:ARG:HB2	1.83	0.42
22:o:273:GLN:OE1	22:o:278:HIS:N	2.52	0.42
22:o:948:ILE:HG12	22:o:1007:ILE:HG21	2.01	0.42
22:o:1005:HIS:O	22:o:1008:LYS:HB2	2.20	0.42
22:o:1006:PRO:HB3	22:o:1051:SER:OG	2.20	0.42
22:o:1485:GLU:OE2	33:u:20:PRO:HG3	2.20	0.42
23:p:368:MET:HE3	23:p:368:MET:HB2	1.85	0.42
23:p:728:MET:HE2	23:p:942:LYS:HD3	2.02	0.42
23:p:1036:LYS:CD	24:q:195:THR:HG21	2.31	0.42
26:s:173:ILE:O	26:s:209:VAL:HA	2.18	0.42
1:A:567:LEU:CD2	2:B:745:GLN:NE2	2.81	0.42
1:A:683:TYR:OH	6:G:75:GLU:OE2	2.37	0.42
1:A:727:THR:HG23	1:A:727:THR:O	2.19	0.42
1:A:1165:LEU:HD22	6:G:181:TRP:HD1	1.81	0.42
2:B:749:LEU:HA	2:B:752:THR:HG22	2.02	0.42
11:O:75:VAL:HG21	13:Q:327:GLU:HG3	2.02	0.42
14:R:33:ILE:CG2	22:o:431:PHE:CD2	2.91	0.42
15:S:37:VAL:HG11	15:S:42:TRP:CZ2	2.55	0.42
5:f:104:LEU:HD22	9:j:216:TYR:HB2	2.02	0.42
22:o:89:GLU:O	22:o:287:ASN:ND2	2.51	0.42
22:o:1191:GLU:O	22:o:1195:VAL:HG13	2.19	0.42
22:o:1355:VAL:O	26:s:142:HIS:NE2	2.53	0.42
22:o:1429:LYS:HE2	22:o:1429:LYS:HA	2.01	0.42
23:p:1027:VAL:CG2	24:q:197:TYR:CE1	2.96	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:q:15:THR:HG22	24:q:16:ASP:N	2.33	0.42
33:u:142:GLU:O	33:u:170:LEU:HA	2.20	0.42
1:A:825:ILE:HD12	1:A:830:ILE:HD11	2.02	0.42
2:B:496:MET:HE3	2:B:496:MET:HB2	1.84	0.42
4:E:290:HIS:CG	5:F:45:TYR:CD2	3.08	0.42
4:E:377:LEU:HD21	4:E:422:PRO:HG2	2.00	0.42
4:E:508:LYS:HB3	4:E:512:ASP:HB2	2.02	0.42
5:F:410:PRO:O	5:F:411:VAL:C	2.62	0.42
10:L:76:LEU:HD13	10:L:84:LEU:CD1	2.50	0.42
12:P:196:ARG:HA	12:P:196:ARG:HD2	1.80	0.42
15:S:53:ASN:HB2	15:S:96:GLN:OE1	2.19	0.42
20:k:179:MET:HB3	20:k:180:PRO:HD2	2.01	0.42
10:l:129:PRO:HB2	21:m:56:ILE:HG23	2.01	0.42
22:o:320:ASN:HB3	22:o:327:ARG:NE	2.34	0.42
22:o:769:MET:HE2	23:p:970:HIS:CD2	2.55	0.42
22:o:1129:ASN:HD21	22:o:1415:THR:HB	1.85	0.42
3:D:999:MET:SD	11:O:71:VAL:HG12	2.60	0.41
3:D:1006:LEU:HD22	13:Q:328:LEU:CD1	2.48	0.41
14:R:158:ALA:HA	14:R:186:ILE:HG13	2.01	0.41
14:R:283:VAL:O	14:R:287:GLN:HG2	2.20	0.41
15:S:44:GLN:CD	15:S:104:GLY:N	2.78	0.41
16:T:22:LYS:CE	16:T:115:GLU:OE2	2.68	0.41
3:d:1060:LEU:HD11	10:l:83:MET:HG3	2.02	0.41
4:e:238:GLN:H	4:e:238:GLN:HG2	1.64	0.41
22:o:581:LYS:HZ2	28:v:86:ASP:HA	1.83	0.41
22:o:1303:GLN:OE1	22:o:1303:GLN:N	2.50	0.41
2:B:27:LYS:CE	2:B:490:SER:HB3	2.50	0.41
5:F:249:ASP:HB3	5:F:252:LEU:HB2	2.02	0.41
11:O:77:ASN:O	11:O:79:VAL:HG23	2.19	0.41
11:O:92:LYS:NZ	13:Q:329:PHE:HB2	2.34	0.41
12:P:179:ASP:OD1	12:P:179:ASP:C	2.62	0.41
20:k:130:PRO:HD3	21:m:35:GLU:HG2	2.02	0.41
22:o:437:ASP:OD1	22:o:438:LEU:N	2.53	0.41
22:o:1156:ASP:OD1	22:o:1156:ASP:C	2.63	0.41
22:o:1296:MET:HG2	22:o:1298:LEU:HG	2.01	0.41
23:p:551:GLU:HB2	23:p:576:ILE:HG13	2.01	0.41
23:p:824:ASP:OD1	23:p:825:GLN:N	2.53	0.41
29:w:40:ARG:HD3	29:w:40:ARG:HA	1.49	0.41
33:u:78:ARG:HG3	33:u:80:PHE:CE1	2.54	0.41
1:A:1169:ARG:HD3	1:A:1181:ARG:NH1	2.34	0.41
2:B:216:SER:OG	2:B:217:ASN:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:957:MET:O	2:B:968:ARG:NH1	2.53	0.41
2:B:984:PRO:HG2	2:B:987:LEU:HD22	2.03	0.41
22:o:1130:ILE:HG23	22:o:1362:ILE:HD11	2.02	0.41
22:o:1177:TYR:CE1	29:w:28:GLU:OE1	2.73	0.41
22:o:1204:VAL:HG23	22:o:1205:ALA:H	1.85	0.41
23:p:36:GLU:OE1	23:p:653:TRP:HB3	2.20	0.41
23:p:334:LYS:HD3	23:p:334:LYS:HA	1.83	0.41
23:p:374:LEU:HD23	23:p:374:LEU:HA	1.85	0.41
23:p:794:VAL:HG22	23:p:944:THR:O	2.20	0.41
23:p:803:ARG:CB	30:x:8:PHE:HA	2.42	0.41
1:A:468:PHE:HB2	5:F:214:HIS:HE2	1.85	0.41
2:B:55:PRO:HB3	2:B:60:LEU:HD22	2.02	0.41
2:B:544:LEU:HD22	2:B:625:LEU:HD22	2.03	0.41
3:D:1071:ARG:HE	5:F:81:GLU:CD	2.29	0.41
11:O:7:ARG:NH1	11:O:37:LEU:HB3	2.35	0.41
11:O:19:LEU:O	11:O:23:ILE:HG13	2.20	0.41
13:Q:43:LYS:HE2	13:Q:60:HIS:CE1	2.56	0.41
13:Q:47:GLU:OE1	13:Q:60:HIS:CG	2.71	0.41
4:e:332:ILE:HA	4:e:336:HIS:HD2	1.84	0.41
4:e:690:ASP:OD1	4:e:690:ASP:N	2.53	0.41
22:o:48:GLU:OE1	22:o:48:GLU:N	2.53	0.41
22:o:140:ARG:HH12	22:o:235:VAL:HA	1.85	0.41
22:o:620:HIS:CE1	28:v:98:ARG:NH1	2.88	0.41
22:o:1231:ILE:O	22:o:1235:ILE:HG12	2.20	0.41
22:o:1355:VAL:O	26:s:142:HIS:CD2	2.74	0.41
22:o:1428:MET:SD	22:o:1429:LYS:HE3	2.61	0.41
22:o:1485:GLU:CD	33:u:20:PRO:HG2	2.45	0.41
24:q:44:ILE:HD11	24:q:238:SER:CB	2.50	0.41
1:A:341:TRP:N	1:A:498:PRO:C	2.79	0.41
2:B:761:ARG:HA	2:B:761:ARG:HD3	1.80	0.41
3:D:881:ARG:NH1	10:L:89:ASP:HA	2.34	0.41
3:D:945:LYS:HE3	3:D:945:LYS:HB3	1.94	0.41
5:f:428:LEU:HD13	5:f:458:LEU:CB	2.50	0.41
22:o:403:GLN:O	22:o:406:VAL:HG12	2.19	0.41
22:o:413:TYR:OH	22:o:450:MET:O	2.37	0.41
22:o:551:ARG:NH2	28:v:122:LEU:HD12	2.36	0.41
22:o:1098:PRO:O	22:o:1101:GLN:HG2	2.20	0.41
22:o:1158:LEU:HD22	22:o:1309:MET:HE3	2.02	0.41
23:p:193:VAL:O	23:p:467:SER:HA	2.20	0.41
23:p:853:LEU:HB2	32:z:46:LYS:HZ1	1.80	0.41
24:q:175:LYS:NZ	32:z:57:ALA:HB3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:u:79:PRO:HG3	33:u:104:MET:SD	2.61	0.41
1:A:697:ALA:HB1	6:G:84:THR:HG22	2.02	0.41
4:E:747:LEU:N	4:E:747:LEU:HD13	2.35	0.41
5:F:370:TRP:CH2	5:F:402:ARG:HB3	2.56	0.41
7:H:193:PHE:CZ	5:f:230:ALA:HB3	2.52	0.41
17:X:20:DA:N6	18:Y:-20:DT:N3	2.46	0.41
3:d:871:THR:O	10:l:62:LYS:NZ	2.42	0.41
5:f:20:LYS:HB3	5:f:20:LYS:HE2	1.83	0.41
8:i:78:ARG:HD3	8:i:78:ARG:HA	1.78	0.41
8:i:95:ILE:HD13	8:i:95:ILE:HA	1.97	0.41
22:o:512:ARG:NE	27:t:90:LEU:HD13	2.32	0.41
22:o:1487:PRO:HD2	27:t:78:PRO:HA	2.02	0.41
23:p:691:SER:O	23:p:691:SER:OG	2.38	0.41
26:s:185:ILE:HG22	26:s:209:VAL:HG11	2.02	0.41
31:y:82:SER:OG	31:y:84:GLN:OE1	2.38	0.41
33:u:117:MET:HE1	33:u:163:LEU:HD22	2.02	0.41
1:A:600:GLN:O	1:A:601:PRO:C	2.63	0.41
1:A:1193:ALA:CB	6:G:166:VAL:HG21	2.44	0.41
4:E:257:GLU:OE2	4:E:287:LYS:NZ	2.48	0.41
5:F:99:GLY:O	7:H:63:GLU:HG2	2.16	0.41
11:O:31:GLN:NE2	11:O:31:GLN:HA	2.33	0.41
12:P:206:GLU:HB3	12:P:207:PRO:HD3	2.03	0.41
14:R:214:PHE:HA	14:R:217:ARG:NH1	2.34	0.41
22:o:561:MET:HE2	31:y:57:LEU:O	2.20	0.41
22:o:1175:ILE:CB	29:w:54:TYR:HB3	2.49	0.41
22:o:1228:MET:SD	22:o:1255:LEU:HG	2.61	0.41
23:p:639:HIS:O	23:p:643:LEU:HB2	2.21	0.41
23:p:752:TYR:CE1	24:q:63:PHE:CE2	3.08	0.41
33:u:27:LYS:HD3	33:u:51:ILE:HD11	2.02	0.41
33:u:40:GLY:HA3	33:u:152:VAL:HG22	2.00	0.41
4:E:704:VAL:HA	4:E:759:ILE:HD11	2.02	0.41
5:F:42:GLU:HG2	8:I:75:ILE:HG12	2.03	0.41
5:F:320:ARG:H	5:F:320:ARG:HG3	1.60	0.41
5:F:342:LYS:HE2	5:F:383:LEU:CB	2.50	0.41
5:F:366:GLU:OE1	5:F:366:GLU:HA	2.21	0.41
14:R:118:PHE:HA	14:R:121:ILE:HB	2.02	0.41
16:T:23:VAL:HG13	16:T:27:LEU:HD23	2.02	0.41
3:d:888:LYS:H	3:d:888:LYS:HG3	1.61	0.41
22:o:355:MET:N	22:o:355:MET:SD	2.94	0.41
22:o:1054:MET:HE1	22:o:1065:PHE:CE1	2.56	0.41
23:p:565:THR:O	23:p:565:THR:OG1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:p:1035:ARG:HG2	24:q:194:HIS:HB3	2.02	0.41
26:s:81:LYS:HA	26:s:109:GLY:O	2.21	0.41
1:A:996:ARG:HA	1:A:996:ARG:HD2	1.85	0.41
2:B:203:LYS:HZ3	2:B:235:HIS:HB3	1.86	0.41
2:B:464:ILE:HG12	2:B:513:LYS:HE2	2.02	0.41
2:B:937:THR:HG22	2:B:940:MET:HG3	2.03	0.41
3:D:891:ILE:HG21	10:L:111:LEU:CG	2.50	0.41
3:D:898:VAL:HG22	10:L:113:VAL:HA	2.01	0.41
3:D:966:LEU:CD1	3:D:980:GLU:HA	2.50	0.41
4:E:236:LEU:HD21	4:E:317:LEU:HB2	2.03	0.41
5:F:231:CYS:HB3	5:F:285:MET:HE2	2.02	0.41
6:G:74:MET:HE1	6:G:136:ILE:HD12	2.02	0.41
7:H:38:GLN:NE2	7:H:59:GLU:OE2	2.54	0.41
7:H:185:ASP:CG	5:f:250:PRO:HB2	2.46	0.41
7:H:193:PHE:CB	5:f:227:ILE:HD11	2.48	0.41
11:O:22:LEU:CB	11:O:28:ILE:HG23	2.36	0.41
11:O:82:ARG:HA	11:O:87:LEU:HA	2.03	0.41
12:P:326:GLU:OE1	12:P:326:GLU:HA	2.21	0.41
14:R:216:SER:HA	14:R:229:GLN:NE2	2.35	0.41
16:T:123:ASN:O	16:T:126:ARG:N	2.53	0.41
3:d:909:ARG:NH1	10:l:91:PHE:CE1	2.89	0.41
4:e:636:HIS:CD2	4:e:638:ASN:H	2.37	0.41
22:o:18:ILE:CG1	23:p:1171:MET:HB3	2.38	0.41
22:o:286:ILE:HA	22:o:289:GLN:HG3	2.02	0.41
22:o:448:ARG:NH1	22:o:451:CYS:SG	2.94	0.41
22:o:621:ILE:CD1	28:v:115:TYR:CE2	3.04	0.41
22:o:710:LYS:CG	22:o:817:PRO:HG2	2.50	0.41
22:o:1171:ALA:O	29:w:59:THR:HG23	2.20	0.41
22:o:1174:ALA:HA	29:w:55:VAL:HA	2.03	0.41
22:o:1304:ILE:O	22:o:1304:ILE:HG13	2.20	0.41
23:p:347:MET:HE3	23:p:347:MET:HB2	1.94	0.41
23:p:968:ASN:OD1	23:p:969:PRO:HD2	2.21	0.41
26:s:193:ILE:HB	26:s:205:THR:HG23	2.03	0.41
29:w:60:HIS:ND1	29:w:60:HIS:O	2.54	0.41
33:u:146:LYS:HD3	33:u:165:ASP:OD2	2.21	0.41
1:A:775:GLU:OE1	6:G:29:ARG:NH1	2.53	0.41
4:E:359:LEU:HD12	4:E:359:LEU:C	2.46	0.41
4:E:788:ARG:CB	7:H:145:HIS:HB2	2.51	0.41
5:F:89:GLN:HE22	9:J:210:ASN:HD22	1.67	0.41
5:F:276:LEU:HD13	5:F:323:VAL:HG11	2.03	0.41
5:F:280:ILE:HG13	5:F:330:ARG:CG	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:O:5:LEU:CD2	11:O:98:CYS:SG	3.09	0.41
12:P:312:LEU:HD12	12:P:312:LEU:N	2.36	0.41
14:R:259:TYR:HD1	14:R:274:ILE:HD12	1.86	0.41
5:f:402:ARG:HH22	5:f:403:ILE:HD12	1.85	0.41
22:o:76:GLY:HA3	22:o:81:CYS:HB2	2.03	0.41
22:o:318:VAL:HG23	22:o:319:ASP:N	2.37	0.41
22:o:583:ARG:NH1	28:v:47:ILE:HD13	2.36	0.41
22:o:584:PRO:C	22:o:585:LEU:HD12	2.46	0.41
22:o:859:TYR:CE2	22:o:863:ARG:HD2	2.56	0.41
23:p:109:MET:HB2	23:p:112:GLU:OE1	2.20	0.41
23:p:267:VAL:HG12	23:p:268:PRO:O	2.20	0.41
23:p:1035:ARG:NH1	24:q:194:HIS:C	2.64	0.41
23:p:1088:GLU:OE1	23:p:1091:ARG:NH1	2.53	0.41
1:A:345:PRO:O	1:A:346:ALA:HB3	2.21	0.40
1:A:710:LYS:HD2	1:A:710:LYS:HA	1.89	0.40
1:A:1020:LEU:O	1:A:1020:LEU:CG	2.69	0.40
1:A:1063:LYS:C	1:A:1063:LYS:CD	2.93	0.40
2:B:77:ILE:HG12	2:B:146:ILE:HG23	2.03	0.40
2:B:218:GLY:HA2	2:B:238:LEU:HD13	2.03	0.40
2:B:463:ARG:HD2	2:B:515:ILE:HG22	2.03	0.40
2:B:487:LYS:O	2:B:487:LYS:CG	2.67	0.40
3:D:951:ASP:OD1	3:D:951:ASP:C	2.65	0.40
3:D:1080:TYR:CD1	4:E:585:ASN:OD1	2.74	0.40
4:E:280:ARG:CD	8:I:26:MET:SD	3.08	0.40
10:L:106:ARG:CZ	10:L:114:LYS:HD2	2.37	0.40
11:O:6:TYR:CZ	11:O:48:LEU:CD1	3.04	0.40
5:f:55:LEU:HD13	8:i:28:ILE:HG12	2.01	0.40
5:f:216:LEU:HD21	5:f:254:GLN:O	2.21	0.40
22:o:17:THR:O	23:p:1173:SER:CA	2.68	0.40
22:o:200:ALA:N	22:o:214:ILE:O	2.54	0.40
22:o:582:PRO:HD3	28:v:90:TYR:HA	2.03	0.40
22:o:1037:ALA:O	26:s:200:ALA:HB1	2.21	0.40
22:o:1430:CYS:HA	22:o:1435:THR:HA	2.03	0.40
23:p:100:GLU:HG3	23:p:101:ARG:H	1.86	0.40
23:p:302:LYS:HG3	29:w:23:MET:HE1	2.03	0.40
23:p:957:THR:HG22	23:p:1028:LEU:CD2	2.51	0.40
23:p:1001:PRO:HB2	23:p:1002:PHE:H	1.56	0.40
33:u:89:VAL:HA	33:u:99:THR:HA	2.03	0.40
1:A:500:LEU:HD23	1:A:500:LEU:HA	1.81	0.40
1:A:958:GLY:HA3	6:G:149:ARG:HA	2.02	0.40
5:F:126:PRO:CD	7:H:29:TYR:HA	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:277:ALA:O	5:F:278:LEU:C	2.64	0.40
5:F:350:ASN:O	5:F:354:ARG:NH1	2.54	0.40
7:H:193:PHE:CE1	5:f:242:ALA:CA	3.04	0.40
11:O:39:GLN:CB	13:Q:28:ILE:HD12	2.47	0.40
15:S:159:GLU:O	15:S:163:GLU:HG3	2.21	0.40
4:e:256:HIS:O	4:e:257:GLU:HB2	2.21	0.40
22:o:247:TRP:C	22:o:249:ILE:H	2.29	0.40
22:o:576:GLN:HG3	22:o:577:PRO:HD2	2.02	0.40
22:o:1233:GLU:HG2	22:o:1234:LYS:N	2.36	0.40
22:o:1472:ASP:OD1	22:o:1472:ASP:N	2.53	0.40
22:o:1476:ASP:HB3	27:t:105:ILE:CD1	2.50	0.40
23:p:851:ASP:HB2	32:z:46:LYS:NZ	2.36	0.40
24:q:225:LYS:HG3	24:q:226:PRO:HD2	2.03	0.40
26:s:48:PRO:HA	26:s:53:PRO:HG2	2.03	0.40
33:u:163:LEU:O	33:u:163:LEU:HD23	2.21	0.40
1:A:408:LEU:HA	1:A:408:LEU:HD23	1.84	0.40
2:B:842:LEU:HD11	7:H:214:ILE:CD1	2.51	0.40
4:E:589:TRP:CE3	5:F:60:MET:HG3	2.56	0.40
4:E:788:ARG:HD3	7:H:144:PRO:O	2.21	0.40
5:F:313:VAL:CG1	5:F:375:GLY:HA3	2.46	0.40
13:Q:11:PRO:O	13:Q:15:ARG:HG2	2.22	0.40
14:R:195:PHE:CZ	14:R:199:LEU:HD11	2.57	0.40
18:Y:19:DC:H2'	18:Y:20:DA:C5	2.57	0.40
5:f:336:LEU:HD12	5:f:336:LEU:HA	1.88	0.40
22:o:215:LEU:HD23	22:o:215:LEU:H	1.85	0.40
22:o:1485:GLU:OE1	33:u:20:PRO:HG2	2.21	0.40
23:p:220:GLU:OE2	23:p:236:TRP:NE1	2.55	0.40
23:p:891:ASP:OD1	23:p:891:ASP:N	2.50	0.40
24:q:70:LEU:HB2	30:x:5:VAL:HG21	2.03	0.40
25:r:36:GLU:HA	25:r:39:MET:HE2	2.02	0.40
26:s:43:GLN:NE2	26:s:44:PHE:CZ	2.90	0.40
33:u:154:LYS:HG3	33:u:155:ASN:N	2.37	0.40
1:A:502:LEU:HD22	1:A:502:LEU:HA	1.79	0.40
1:A:845:ARG:H	1:A:845:ARG:HG2	1.76	0.40
1:A:846:LEU:HD23	1:A:846:LEU:HA	1.80	0.40
2:B:560:TYR:CE2	2:B:581:ILE:HD11	2.56	0.40
4:E:210:ASP:HA	4:E:211:PRO:HD3	1.96	0.40
4:E:239:LEU:HB3	4:E:307:LEU:HD21	2.03	0.40
4:E:466:PHE:HE1	4:E:794:ALA:HB1	1.86	0.40
5:F:211:ARG:HG2	7:H:165:TYR:HD2	1.87	0.40
5:F:233:GLY:CA	5:F:239:ARG:HE	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:313:VAL:CG1	5:F:375:GLY:CA	2.93	0.40
14:R:166:ILE:O	14:R:170:GLN:HG3	2.22	0.40
22:o:358:ARG:HB3	23:p:1073:GLN:NE2	2.37	0.40
22:o:504:HIS:CB	23:p:1106:ARG:HD2	2.52	0.40
22:o:578:ALA:HA	28:v:93:TYR:O	2.21	0.40
22:o:819:SER:O	22:o:819:SER:OG	2.38	0.40
22:o:1068:LEU:O	22:o:1072:ILE:HG12	2.22	0.40
22:o:1145:GLY:C	22:o:1147:SER:N	2.78	0.40
23:p:463:ARG:HE	23:p:463:ARG:HB3	1.62	0.40
23:p:516:GLU:HA	23:p:520:VAL:HG22	2.02	0.40
23:p:1038:THR:HA	24:q:195:THR:HA	2.03	0.40
25:r:60:VAL:HG12	33:u:46:ILE:HG23	2.03	0.40
1:A:1164:CYS:HB2	6:G:184:ILE:HG12	2.02	0.40
4:E:315:GLN:HE21	15:S:105:LYS:CD	2.27	0.40
11:O:14:SER:CA	13:Q:49:LYS:HD2	2.47	0.40
11:O:59:ARG:HA	13:Q:373:ASP:H	1.86	0.40
14:R:151:LEU:CD1	14:R:201:ALA:HB2	2.52	0.40
4:e:291:MET:HE3	4:e:291:MET:HB2	1.92	0.40
4:e:680:ASN:OD1	4:e:680:ASN:N	2.55	0.40
22:o:715:GLU:CA	22:o:715:GLU:OE2	2.68	0.40
22:o:1375:ARG:NH1	22:o:1379:GLU:OE1	2.54	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	584/1872 (31%)	543 (93%)	32 (6%)	9 (2%)	8	38
2	B	959/1199 (80%)	911 (95%)	48 (5%)	0	100	100
3	D	159/1085 (15%)	147 (92%)	9 (6%)	3 (2%)	6	32
3	d	154/1085 (14%)	150 (97%)	4 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	E	540/800 (68%)	505 (94%)	33 (6%)	2 (0%)	30	67
4	e	531/800 (66%)	484 (91%)	47 (9%)	0	100	100
5	F	400/677 (59%)	374 (94%)	18 (4%)	8 (2%)	6	31
5	f	399/677 (59%)	378 (95%)	21 (5%)	0	100	100
6	G	139/349 (40%)	132 (95%)	5 (4%)	2 (1%)	9	39
7	H	207/310 (67%)	189 (91%)	15 (7%)	3 (1%)	9	39
8	I	118/264 (45%)	115 (98%)	3 (2%)	0	100	100
8	i	119/264 (45%)	115 (97%)	4 (3%)	0	100	100
9	J	85/218 (39%)	82 (96%)	3 (4%)	0	100	100
9	j	91/218 (42%)	89 (98%)	2 (2%)	0	100	100
10	L	74/161 (46%)	69 (93%)	5 (7%)	0	100	100
10	l	105/161 (65%)	101 (96%)	4 (4%)	0	100	100
11	O	95/109 (87%)	81 (85%)	10 (10%)	4 (4%)	2	17
12	P	175/339 (52%)	169 (97%)	4 (2%)	2 (1%)	11	45
13	Q	118/376 (31%)	108 (92%)	9 (8%)	1 (1%)	16	53
14	R	244/316 (77%)	235 (96%)	8 (3%)	1 (0%)	30	67
15	S	130/517 (25%)	124 (95%)	4 (3%)	2 (2%)	8	38
16	T	109/249 (44%)	102 (94%)	4 (4%)	3 (3%)	4	24
19	c	125/929 (14%)	116 (93%)	9 (7%)	0	100	100
20	k	96/211 (46%)	91 (95%)	5 (5%)	0	100	100
21	m	85/124 (68%)	79 (93%)	6 (7%)	0	100	100
22	o	1417/1970 (72%)	1305 (92%)	110 (8%)	2 (0%)	48	83
23	p	1128/1174 (96%)	1051 (93%)	75 (7%)	2 (0%)	43	77
24	q	253/275 (92%)	226 (89%)	27 (11%)	0	100	100
25	r	126/142 (89%)	119 (94%)	7 (6%)	0	100	100
26	s	207/210 (99%)	196 (95%)	11 (5%)	0	100	100
27	t	77/127 (61%)	74 (96%)	3 (4%)	0	100	100
28	v	146/150 (97%)	132 (90%)	14 (10%)	0	100	100
29	w	112/125 (90%)	102 (91%)	9 (8%)	1 (1%)	14	49
30	x	62/67 (92%)	59 (95%)	3 (5%)	0	100	100
31	y	115/117 (98%)	109 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	z	42/58 (72%)	38 (90%)	4 (10%)	0	100	100
33	u	169/172 (98%)	157 (93%)	11 (6%)	1 (1%)	21	58
All	All	9695/17897 (54%)	9057 (93%)	592 (6%)	46 (0%)	26	63

All (46) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1000	LEU
1	A	1158	SER
3	D	958	LYS
5	F	323	VAL
5	F	396	LEU
7	H	141	PRO
11	O	52	VAL
13	Q	321	SER
15	S	157	ALA
16	T	124	TYR
23	p	1001	PRO
33	u	154	LYS
1	A	498	PRO
4	E	522	ASP
4	E	704	VAL
5	F	397	GLN
5	F	411	VAL
6	G	152	ALA
6	G	184	ILE
11	O	26	GLN
16	T	121	SER
22	o	539	GLN
23	p	1024	GLY
3	D	936	GLN
3	D	957	ARG
12	P	207	PRO
1	A	823	ARG
1	A	839	GLU
5	F	393	LEU
5	F	439	ARG
11	O	56	VAL
11	O	84	VAL
16	T	38	GLY
1	A	822	PRO

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Mol	Chain	Res	Type
5	F	64	GLN
7	H	134	LEU
7	H	164	THR
15	S	153	ARG
22	o	469	MET
29	w	41	ASN
1	A	838	SER
1	A	840	SER
5	F	318	CYS
12	P	298	PRO
14	R	247	GLY
1	A	1167	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	536/1665 (32%)	473 (88%)	63 (12%)	5	19
2	B	876/1083 (81%)	861 (98%)	15 (2%)	53	67
3	D	149/815 (18%)	133 (89%)	16 (11%)	6	22
3	d	146/815 (18%)	144 (99%)	2 (1%)	59	71
4	E	478/657 (73%)	475 (99%)	3 (1%)	78	80
4	e	475/657 (72%)	473 (100%)	2 (0%)	84	82
5	F	320/574 (56%)	289 (90%)	31 (10%)	8	25
5	f	322/574 (56%)	310 (96%)	12 (4%)	30	51
6	G	133/322 (41%)	118 (89%)	15 (11%)	5	20
7	H	181/270 (67%)	175 (97%)	6 (3%)	33	55
8	I	106/235 (45%)	106 (100%)	0	100	100
8	i	107/235 (46%)	107 (100%)	0	100	100
9	J	78/154 (51%)	78 (100%)	0	100	100
9	j	83/154 (54%)	83 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	L	71/141 (50%)	71 (100%)	0	100	100
10	l	98/141 (70%)	97 (99%)	1 (1%)	68	76
11	O	84/98 (86%)	72 (86%)	12 (14%)	3	15
12	P	153/293 (52%)	138 (90%)	15 (10%)	7	24
13	Q	111/324 (34%)	100 (90%)	11 (10%)	7	24
14	R	211/268 (79%)	197 (93%)	14 (7%)	15	37
15	S	117/448 (26%)	110 (94%)	7 (6%)	17	39
16	T	94/218 (43%)	93 (99%)	1 (1%)	65	74
19	c	113/833 (14%)	111 (98%)	2 (2%)	51	67
20	k	87/182 (48%)	87 (100%)	0	100	100
21	m	80/106 (76%)	79 (99%)	1 (1%)	61	72
22	o	1257/1748 (72%)	1226 (98%)	31 (2%)	42	62
23	p	993/1027 (97%)	970 (98%)	23 (2%)	44	63
24	q	234/252 (93%)	234 (100%)	0	100	100
25	r	106/126 (84%)	106 (100%)	0	100	100
26	s	191/192 (100%)	191 (100%)	0	100	100
27	t	69/111 (62%)	69 (100%)	0	100	100
28	v	129/131 (98%)	129 (100%)	0	100	100
29	w	103/112 (92%)	102 (99%)	1 (1%)	68	76
30	x	53/56 (95%)	53 (100%)	0	100	100
31	y	106/106 (100%)	106 (100%)	0	100	100
32	z	41/55 (74%)	41 (100%)	0	100	100
33	u	152/153 (99%)	150 (99%)	2 (1%)	61	72
All	All	8643/15331 (56%)	8357 (97%)	286 (3%)	34	55

All (286) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	348	LEU
1	A	353	LEU
1	A	395	ASP
1	A	397	LEU
1	A	400	GLU
1	A	401	ASN

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Mol	Chain	Res	Type
1	A	403	LEU
1	A	404	MET
1	A	415	ILE
1	A	419	GLU
1	A	466	SER
1	A	470	ILE
1	A	475	LEU
1	A	481	GLU
1	A	483	ASN
1	A	485	ILE
1	A	493	ARG
1	A	496	GLU
1	A	499	VAL
1	A	500	LEU
1	A	501	THR
1	A	502	LEU
1	A	505	ASN
1	A	511	LEU
1	A	639	LEU
1	A	661	GLU
1	A	667	THR
1	A	711	ASP
1	A	727	THR
1	A	730	PHE
1	A	821	ARG
1	A	828	GLU
1	A	840	SER
1	A	842	ILE
1	A	843	ARG
1	A	844	LYS
1	A	845	ARG
1	A	847	LYS
1	A	848	LEU
1	A	849	CYS
1	A	853	LYS
1	A	855	THR
1	A	925	ASP
1	A	943	LYS
1	A	970	ASN
1	A	971	LYS
1	A	996	ARG
1	A	997	ARG

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Mol	Chain	Res	Type
1	A	1020	LEU
1	A	1021	SER
1	A	1052	ARG
1	A	1053	PHE
1	A	1055	VAL
1	A	1058	HIS
1	A	1082	VAL
1	A	1083	LEU
1	A	1084	SER
1	A	1150	THR
1	A	1165	LEU
1	A	1166	LYS
1	A	1167	ILE
1	A	1169	ARG
1	A	1203	GLU
2	B	21	GLU
2	B	71	ARG
2	B	140	GLU
2	B	184	ASN
2	B	262	MET
2	B	266	THR
2	B	293	GLU
2	B	431	LEU
2	B	559	LYS
2	B	603	LYS
2	B	640	VAL
2	B	746	SER
2	B	771	VAL
2	B	818	THR
2	B	987	LEU
3	D	936	GLN
3	D	948	GLU
3	D	950	LEU
3	D	951	ASP
3	D	958	LYS
3	D	961	GLN
3	D	966	LEU
3	D	968	ARG
3	D	992	GLN
3	D	996	LEU
3	D	998	GLN
3	D	1000	ARG

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Mol	Chain	Res	Type
3	D	1003	ASP
3	D	1054	ARG
3	D	1055	ILE
3	D	1056	THR
4	E	745	GLU
4	E	746	ASP
4	E	747	LEU
5	F	63	ARG
5	F	92	ILE
5	F	105	TYR
5	F	220	GLN
5	F	222	LEU
5	F	261	THR
5	F	269	VAL
5	F	271	VAL
5	F	280	ILE
5	F	295	LEU
5	F	301	VAL
5	F	302	HIS
5	F	303	GLU
5	F	304	LEU
5	F	305	ILE
5	F	309	MET
5	F	311	CYS
5	F	312	ILE
5	F	315	ARG
5	F	317	LEU
5	F	323	VAL
5	F	339	GLN
5	F	348	THR
5	F	354	ARG
5	F	368	THR
5	F	391	LEU
5	F	396	LEU
5	F	397	GLN
5	F	406	VAL
5	F	415	ILE
5	F	427	LEU
6	G	41	ASP
6	G	129	LYS
6	G	131	ILE
6	G	141	LYS

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Mol	Chain	Res	Type
6	G	142	ASN
6	G	143	VAL
6	G	149	ARG
6	G	153	LYS
6	G	154	LYS
6	G	175	GLU
6	G	178	SER
6	G	179	THR
6	G	181	TRP
6	G	182	GLU
6	G	184	ILE
7	H	115	GLN
7	H	132	LYS
7	H	135	THR
7	H	155	ASP
7	H	159	TYR
7	H	164	THR
11	O	11	LEU
11	O	24	GLN
11	O	31	GLN
11	O	52	VAL
11	O	56	VAL
11	O	57	ASN
11	O	58	PHE
11	O	61	SER
11	O	64	THR
11	O	65	TYR
11	O	76	LEU
11	O	84	VAL
12	P	172	VAL
12	P	189	ASN
12	P	191	GLU
12	P	203	ARG
12	P	209	THR
12	P	221	CYS
12	P	252	ASP
12	P	268	ILE
12	P	269	ARG
12	P	274	VAL
12	P	278	GLN
12	P	300	ILE
12	P	306	VAL

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Mol	Chain	Res	Type
12	P	317	VAL
12	P	328	ILE
13	Q	13	LEU
13	Q	34	VAL
13	Q	310	GLU
13	Q	312	GLU
13	Q	314	LEU
13	Q	316	SER
13	Q	317	GLU
13	Q	318	ASP
13	Q	320	VAL
13	Q	346	LYS
13	Q	364	ASP
14	R	27	TYR
14	R	31	ASP
14	R	39	LEU
14	R	40	VAL
14	R	41	VAL
14	R	44	ARG
14	R	46	ILE
14	R	120	GLU
14	R	127	ARG
14	R	128	ILE
14	R	130	LEU
14	R	137	ARG
14	R	189	LYS
14	R	286	ARG
15	S	7	SER
15	S	151	ARG
15	S	152	HIS
15	S	153	ARG
15	S	154	THR
15	S	155	LEU
15	S	156	THR
16	T	123	ASN
19	c	24	ASP
19	c	106	VAL
3	d	887	LYS
3	d	888	LYS
4	e	546	VAL
4	e	579	VAL
5	f	215	GLU

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Mol	Chain	Res	Type
5	f	253	TYR
5	f	261	THR
5	f	272	VAL
5	f	322	ASP
5	f	323	VAL
5	f	326	HIS
5	f	354	ARG
5	f	356	THR
5	f	366	GLU
5	f	411	VAL
5	f	421	ASP
10	l	104	ARG
21	m	31	LEU
22	o	13	CYS
22	o	16	ARG
22	o	67	ARG
22	o	92	LYS
22	o	97	VAL
22	o	217	SER
22	o	359	VAL
22	o	468	SER
22	o	524	MET
22	o	539	GLN
22	o	647	THR
22	o	687	ILE
22	o	693	ILE
22	o	698	THR
22	o	701	ASP
22	o	705	THR
22	o	706	ILE
22	o	714	ILE
22	o	715	GLU
22	o	718	GLU
22	o	719	LYS
22	o	736	THR
22	o	743	ARG
22	o	759	SER
22	o	883	ILE
22	o	1139	LEU
22	o	1322	ILE
22	o	1323	THR
22	o	1421	ARG

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Mol	Chain	Res	Type
22	o	1422	GLN
22	o	1423	ASP
23	p	248	LYS
23	p	541	ILE
23	p	553	LEU
23	p	555	GLU
23	p	581	GLU
23	p	594	MET
23	p	689	TYR
23	p	823	PHE
23	p	841	ARG
23	p	842	HIS
23	p	976	MET
23	p	977	THR
23	p	978	ILE
23	p	1001	PRO
23	p	1002	PHE
23	p	1006	VAL
23	p	1022	LEU
23	p	1078	ARG
23	p	1145	GLN
23	p	1146	ILE
23	p	1147	SER
23	p	1148	LEU
23	p	1149	VAL
29	w	40	ARG
33	u	144	ARG
33	u	163	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (167) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	401	ASN
1	A	409	HIS
1	A	489	GLN
1	A	630	GLN
1	A	693	GLN
1	A	702	ASN
1	A	802	HIS
1	A	860	ASN
1	A	896	GLN
1	A	1073	GLN

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Mol	Chain	Res	Type
1	A	1074	ASN
2	B	30	HIS
2	B	36	ASN
2	B	39	ASN
2	B	160	HIS
2	B	176	HIS
2	B	183	GLN
2	B	235	HIS
2	B	348	GLN
2	B	352	GLN
2	B	439	HIS
2	B	450	GLN
2	B	509	ASN
2	B	577	HIS
2	B	580	GLN
2	B	599	ASN
2	B	644	GLN
2	B	652	GLN
2	B	662	GLN
2	B	745	GLN
2	B	750	GLN
2	B	765	ASN
2	B	813	ASN
2	B	864	ASN
2	B	908	GLN
2	B	912	ASN
2	B	963	HIS
3	D	875	GLN
3	D	925	ASN
3	D	943	GLN
3	D	956	GLN
3	D	1075	HIS
4	E	238	GLN
4	E	254	ASN
4	E	268	HIS
4	E	315	GLN
4	E	326	ASN
4	E	327	ASN
4	E	351	GLN
4	E	468	ASN
4	E	616	HIS
4	E	640	ASN

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Mol	Chain	Res	Type
4	E	733	ASN
5	F	37	GLN
5	F	59	HIS
5	F	87	HIS
5	F	119	ASN
5	F	214	HIS
5	F	220	GLN
5	F	221	GLN
5	F	270	ASN
5	F	273	GLN
5	F	274	ASN
5	F	275	ASN
5	F	302	HIS
5	F	316	GLN
5	F	343	HIS
6	G	10	HIS
6	G	48	HIS
7	H	66	GLN
7	H	142	HIS
7	H	145	HIS
8	I	21	GLN
8	I	60	HIS
8	I	98	GLN
9	J	160	GLN
9	J	173	HIS
9	J	210	ASN
10	L	105	HIS
10	L	117	GLN
11	O	57	ASN
12	P	242	GLN
13	Q	37	GLN
13	Q	60	HIS
13	Q	352	HIS
13	Q	361	ASN
14	R	229	GLN
14	R	271	GLN
15	S	44	GLN
16	T	14	GLN
19	c	19	GLN
19	c	50	HIS
3	d	912	ASN
4	e	223	HIS

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Mol	Chain	Res	Type
4	e	256	HIS
4	e	320	HIS
4	e	368	ASN
4	e	424	GLN
4	e	660	ASN
4	e	733	ASN
5	f	30	GLN
5	f	119	ASN
5	f	134	HIS
5	f	274	ASN
5	f	316	GLN
5	f	325	ASN
8	i	60	HIS
20	k	186	HIS
20	k	205	HIS
10	l	73	ASN
10	l	105	HIS
21	m	107	ASN
22	o	62	GLN
22	o	123	ASN
22	o	278	HIS
22	o	289	GLN
22	o	296	ASN
22	o	330	GLN
22	o	576	GLN
22	o	590	GLN
22	o	620	HIS
22	o	703	GLN
22	o	721	HIS
22	o	731	ASN
22	o	739	ASN
22	o	950	ASN
22	o	1005	HIS
22	o	1129	ASN
22	o	1172	ASN
22	o	1230	GLN
22	o	1248	ASN
22	o	1332	GLN
22	o	1445	HIS
22	o	1462	GLN
23	p	68	GLN
23	p	111	ASN

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Mol	Chain	Res	Type
23	p	254	GLN
23	p	287	HIS
23	p	370	HIS
23	p	525	ASN
23	p	570	ASN
23	p	585	ASN
23	p	593	GLN
23	p	755	GLN
23	p	777	ASN
23	p	790	GLN
23	p	1009	GLN
23	p	1021	HIS
23	p	1073	GLN
23	p	1094	GLN
23	p	1117	HIS
23	p	1120	ASN
23	p	1160	GLN
24	q	5	ASN
24	q	6	GLN
24	q	66	HIS
24	q	83	GLN
25	r	19	GLN
25	r	129	GLN
26	s	132	GLN
26	s	133	GLN
28	v	131	ASN
29	w	45	GLN
29	w	98	GLN
31	y	29	ASN
31	y	89	ASN
33	u	60	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 [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 10 ligands modelled in this entry, 10 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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.

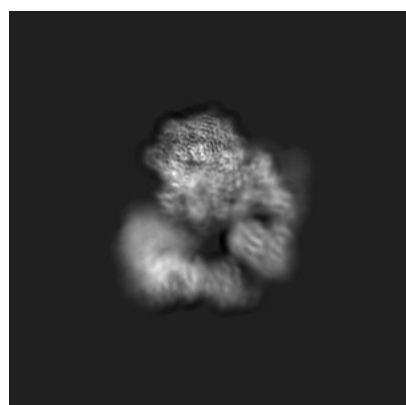
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-31075. These allow visual inspection of the internal detail of the map and identification of artifacts.

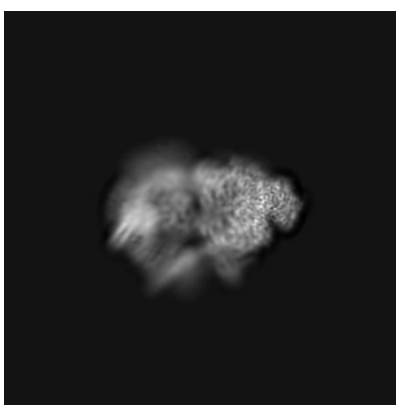
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

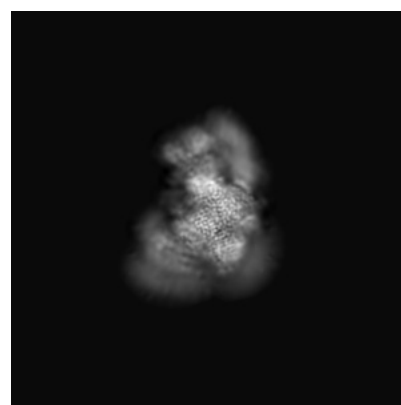
6.1.1 Primary map



X



Y

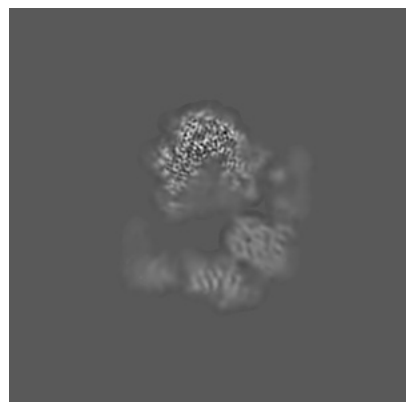


Z

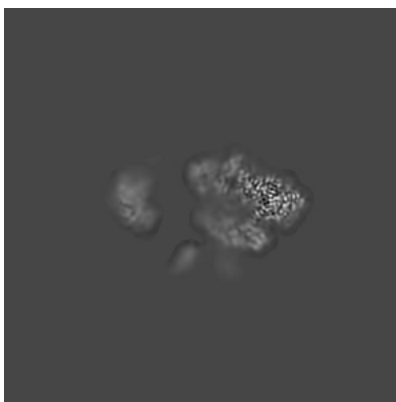
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

6.2.1 Primary map



X Index: 240



Y Index: 240

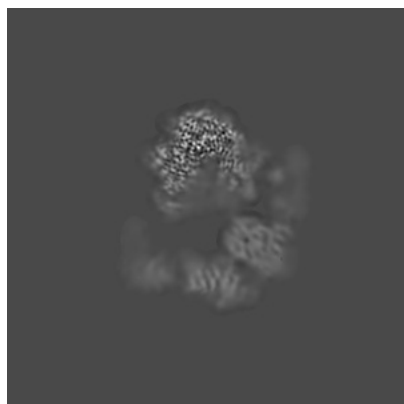


Z Index: 240

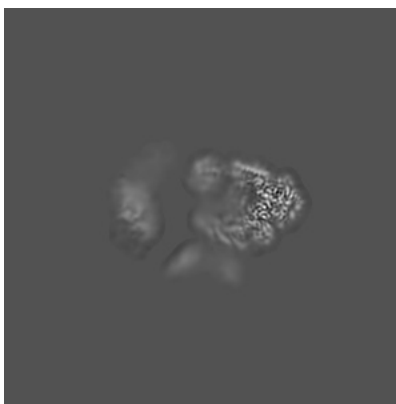
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

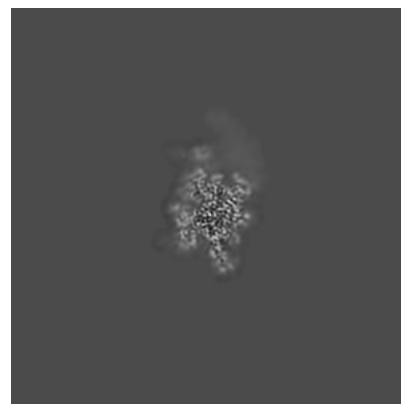
6.3.1 Primary map



X Index: 241



Y Index: 230

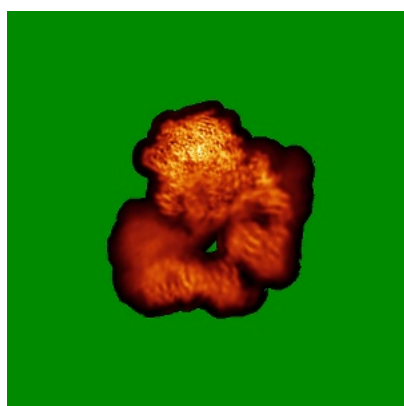


Z Index: 307

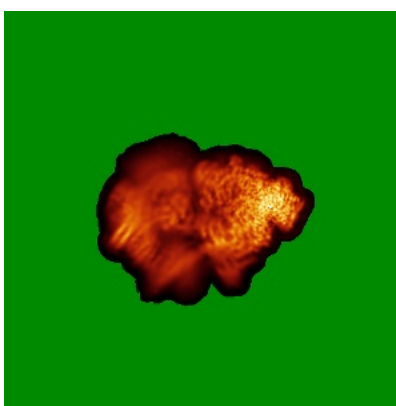
The images above show the largest variance slices of the map in three orthogonal directions.

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

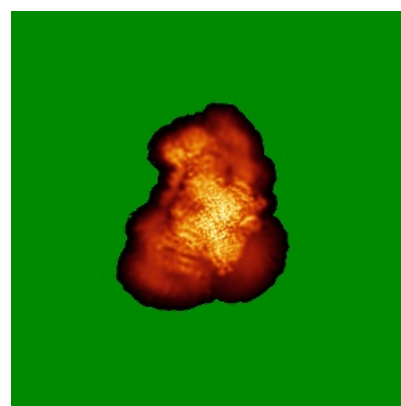
6.4.1 Primary map



X



Y

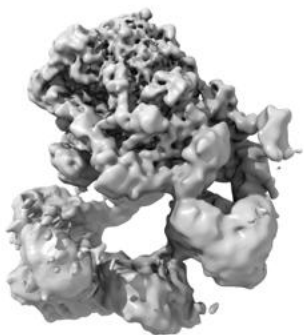


Z

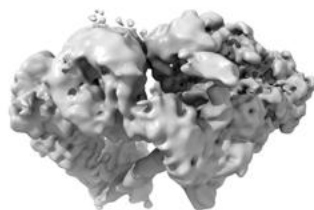
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

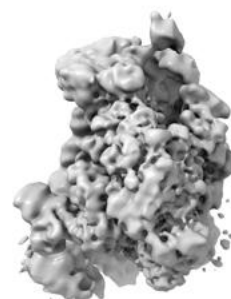
6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.15. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

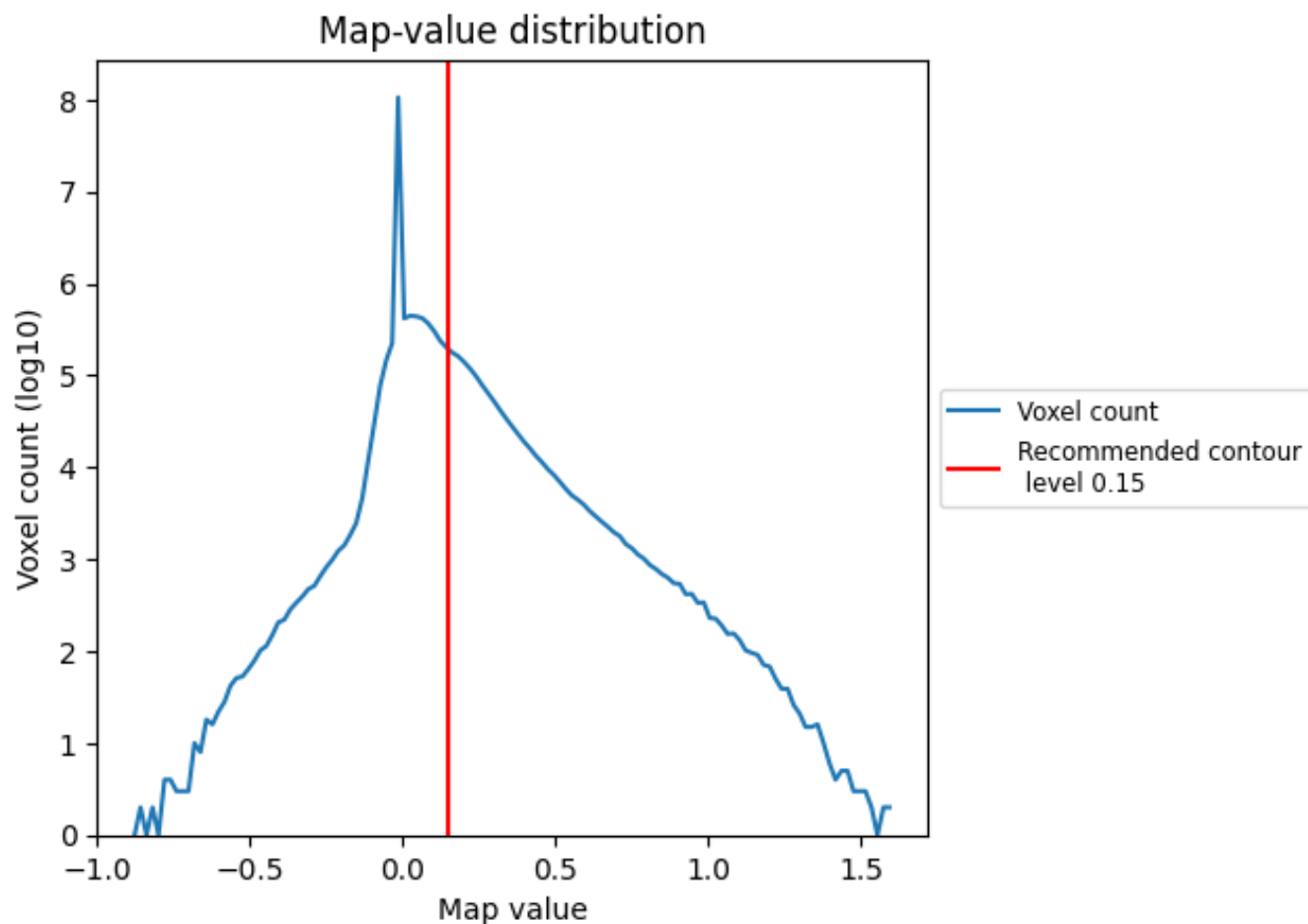
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

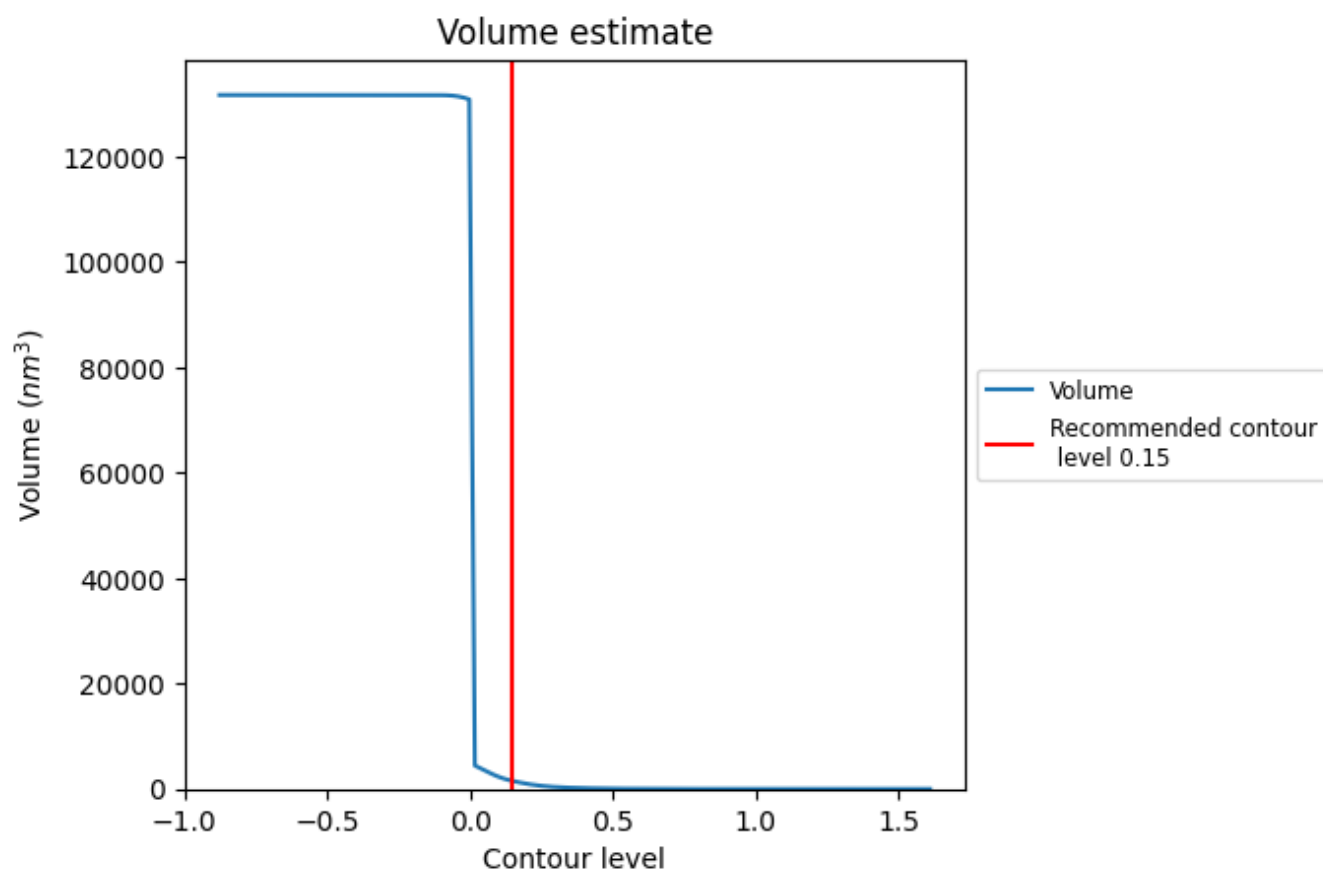
This section contains the results of statistical analysis of the map.

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.

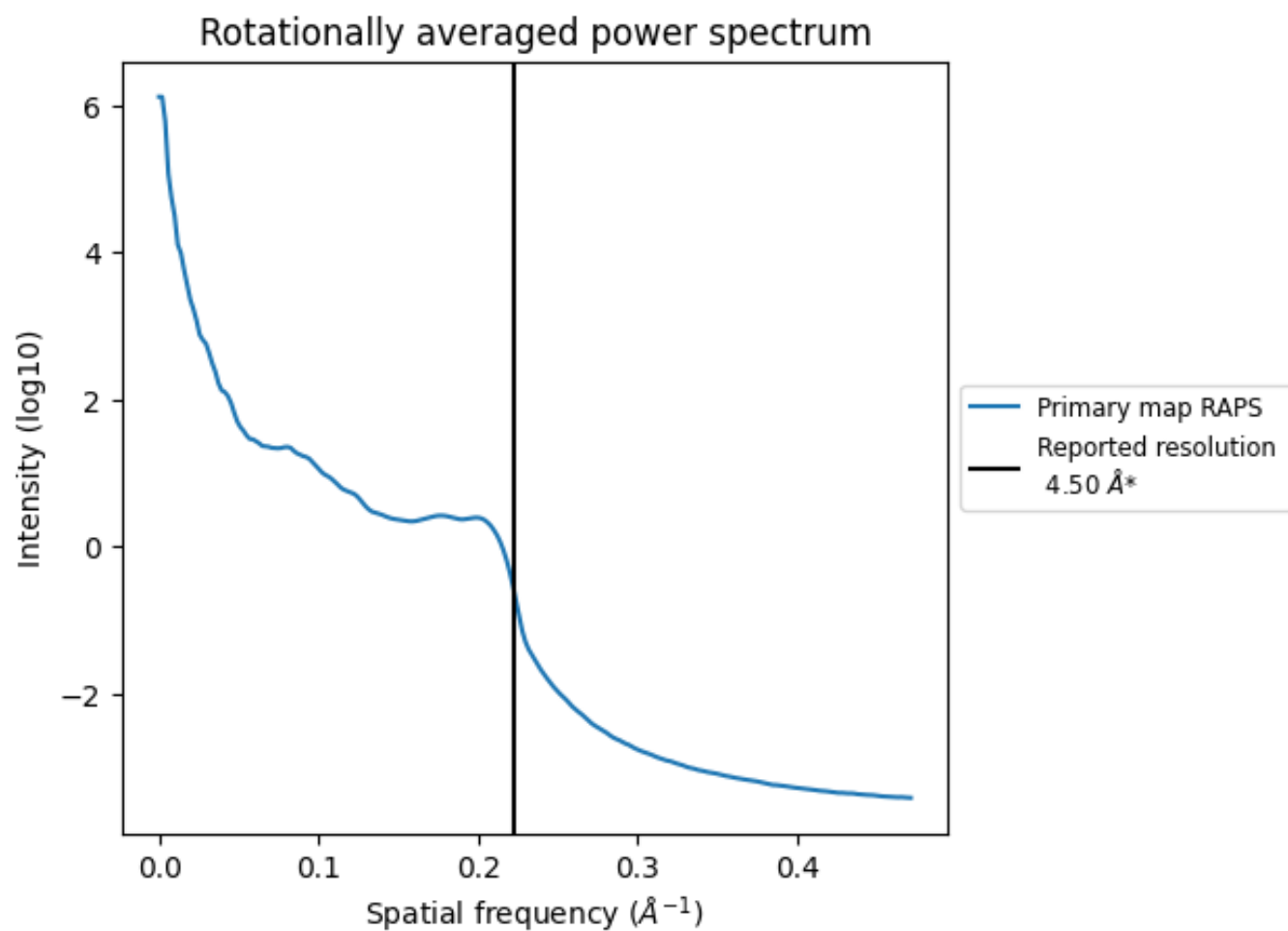
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1509 nm³; this corresponds to an approximate mass of 1363 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.222 Å⁻¹

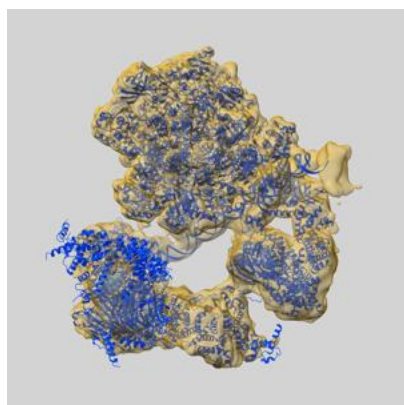
8 Fourier-Shell correlation

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

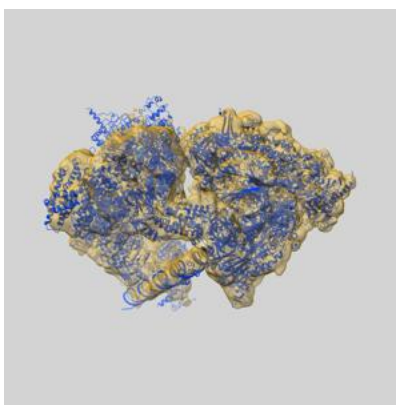
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-31075 and PDB model 7EDX. Per-residue inclusion information can be found in section 3 on page 11.

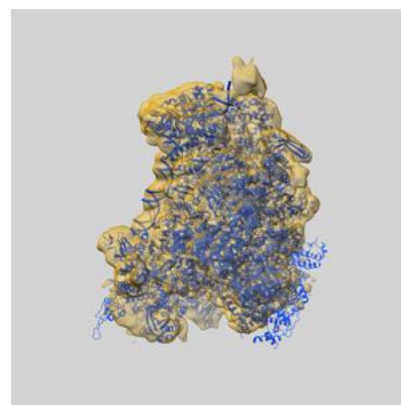
9.1 Map-model overlay [i](#)



X



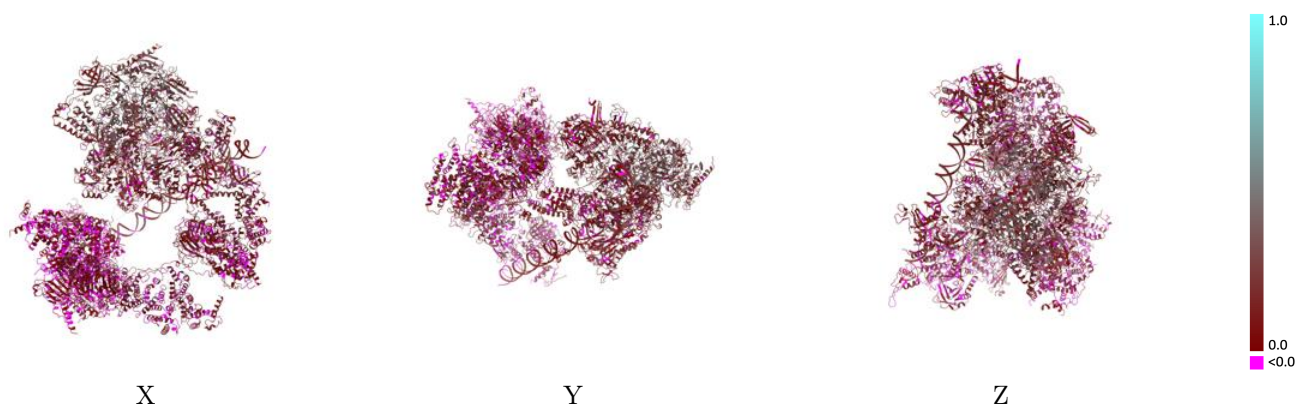
Y



Z

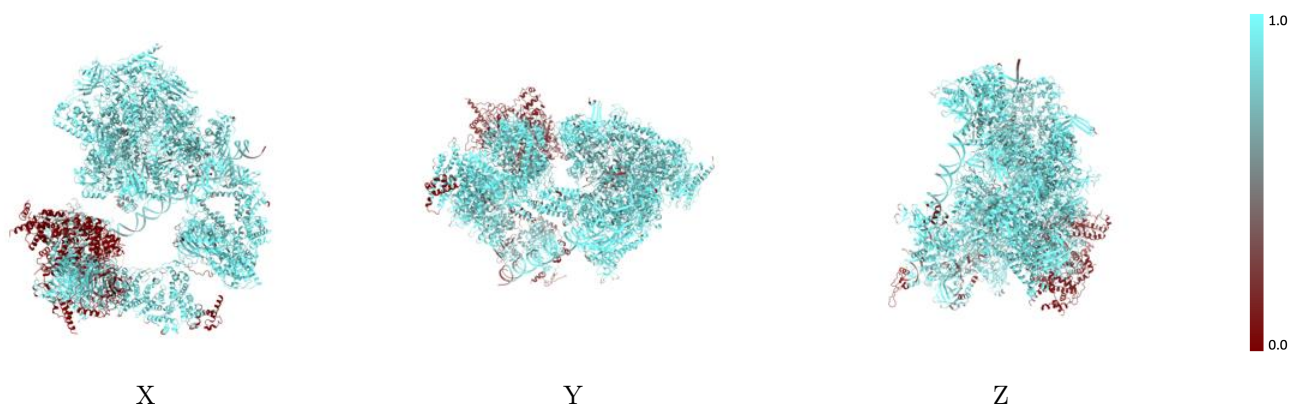
The images above show the 3D surface view of the map at the recommended contour level 0.15 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



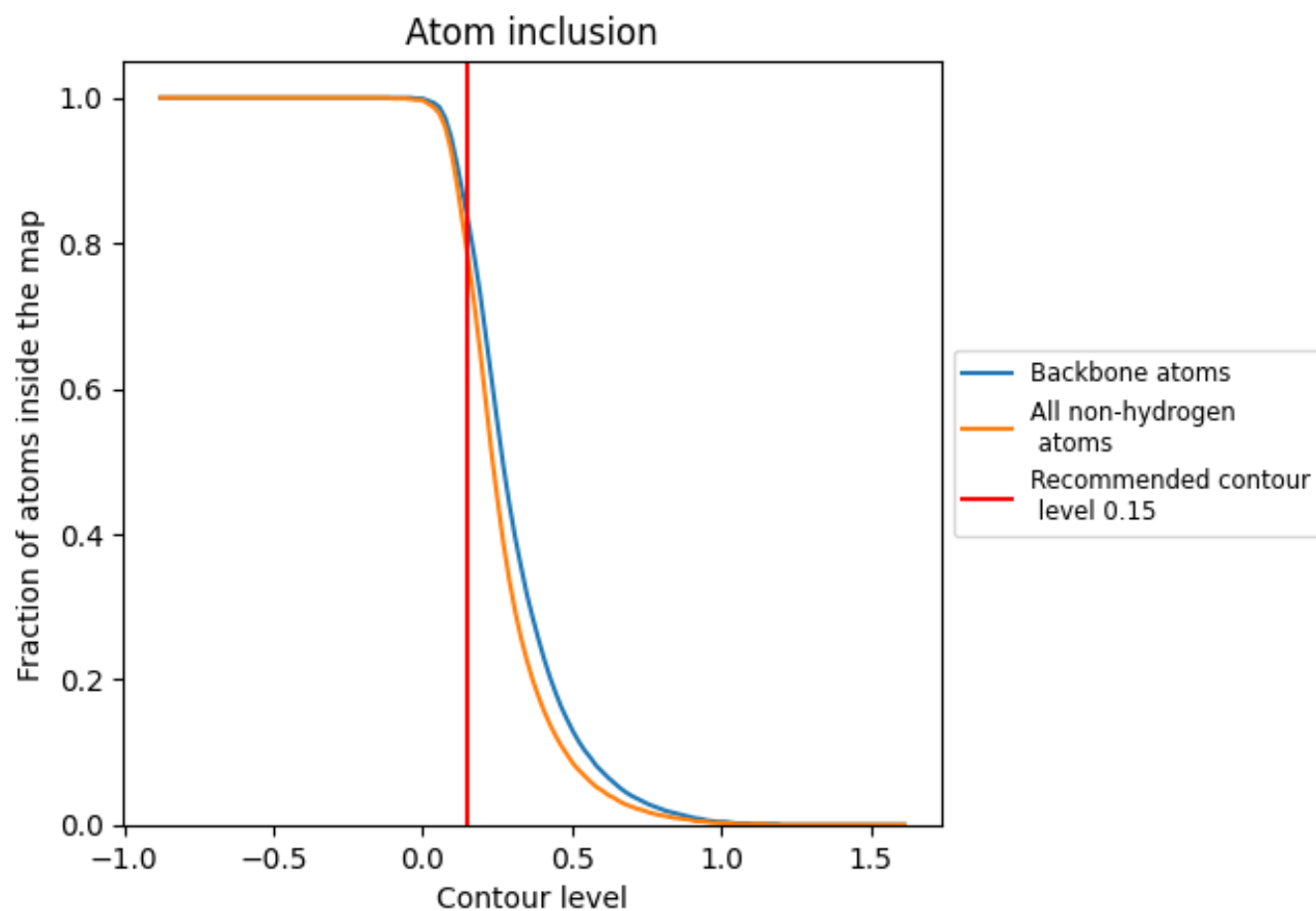
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.15).

9.4 Atom inclusion [i](#)



At the recommended contour level, 84% of all backbone atoms, 78% 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 (0.15) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7850	 0.1300
A	 0.7320	 0.0490
B	 0.8960	 0.0780
D	 0.8660	 0.1150
E	 0.9060	 0.0940
F	 0.8200	 0.0910
G	 0.7500	 0.0360
H	 0.8650	 0.0890
I	 0.9400	 0.0780
J	 0.9680	 0.0620
L	 0.9200	 0.1140
O	 0.9290	 0.1400
P	 0.9700	 0.1270
Q	 0.9280	 0.0970
R	 0.9030	 0.1670
S	 0.8560	 0.0980
T	 0.8910	 0.1130
X	 0.7990	 0.1150
Y	 0.7750	 0.1120
c	 0.4460	 0.0240
d	 0.2820	 0.0290
e	 0.3020	 0.0310
f	 0.6410	 0.0430
i	 0.2250	 0.0250
j	 0.3380	 0.0260
k	 0.1280	 0.0230
l	 0.1280	 0.0200
m	 0.0060	 0.0120
o	 0.8920	 0.2240
p	 0.8560	 0.2220
q	 0.9420	 0.2680
r	 0.8690	 0.1400
s	 0.9300	 0.2020
t	 0.9290	 0.2630
u	 0.9350	 0.1370



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Chain	Atom inclusion	Q-score
v	 0.9080	 0.2410
w	 0.9410	 0.1850
x	 0.9460	 0.3130
y	 0.8930	 0.2800
z	 0.9550	 0.2230