Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 08:31 AM UTC

PDB ID	:	7EGC / pdb_00007egc
EMDB ID	:	EMD-31112
Title	:	p53-bound TFIID-based holo PIC on HDM2 promoter
Authors	:	Chen, X.; Wu, Z.; Hou, H.; Qi, Y.; Wang, X.; Li, J.; Xu, Y.
Deposited on	:	2021-03-24
Resolution	:	3.90 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

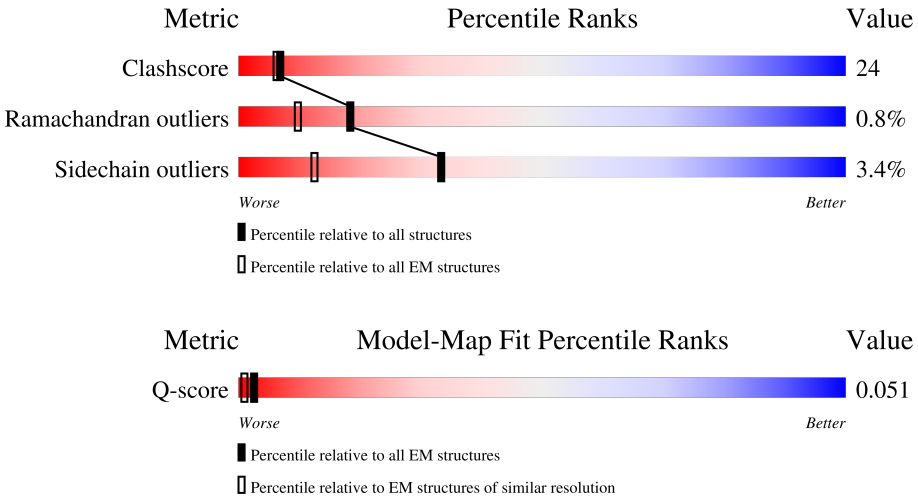
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
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 3.90 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	8855 (3.40 - 4.40)

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 <=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	0	309	20% 63% 12% • 24%
2	1	548	16% 54% 17% • 26%
3	2	395	5% 62% 20% • 16%
4	3	308	6% 61% 23% • 15%

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Mol	Chain	Length	Quality of chain
5	4	462	9% 66% 29%
6	5	71	49% 24% 24%
7	6	782	46% 26% 6% 23%
8	7	760	9% 64% 30%
9	8	346	17% 63% 21% 14%
10	9	323	18% 75% 13% 11%
11	A	1872	22% 5% 71%
12	B	1199	67% 12% 20%
13	D	1085	9% 5% 85%
13	d	1085	7% 12% 85%
14	E	800	52% 14% 32%
14	e	800	12% 59% 8% 33%
15	F	677	34% 23% 40%
15	f	677	10% 45% 13% 40%
16	G	349	10% 35% 5% 58%
17	H	310	45% 20% 33%
18	I	264	33% 10% 55%
18	i	264	8% 40% 6% 54%
19	J	218	26% 15% 59%
19	j	218	24% 38% 6% 56%
20	L	161	16% 23% 7% 53%
20	l	161	16% 54% 12% 34%
21	O	109	9% 41% 37% 11% 11%
22	P	339	7% 33% 15% 48%
23	Q	376	16% 15% 68%

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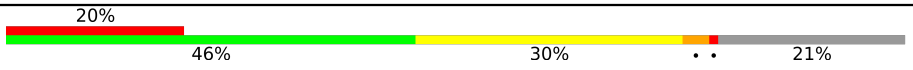
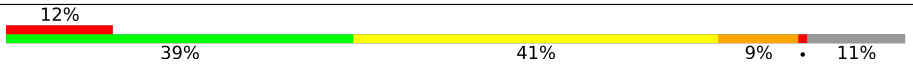
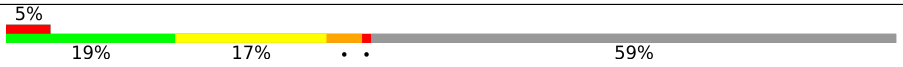
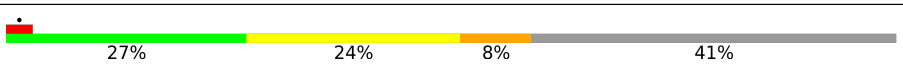
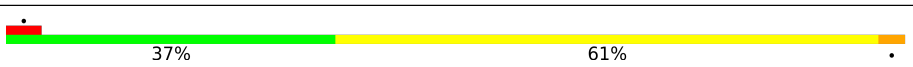
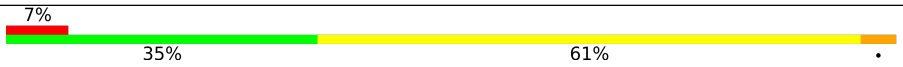
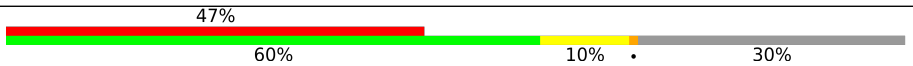
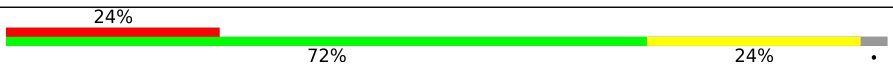
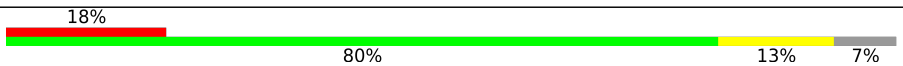
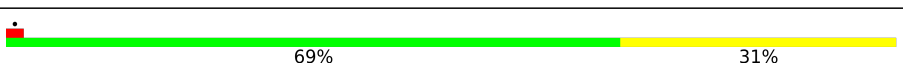
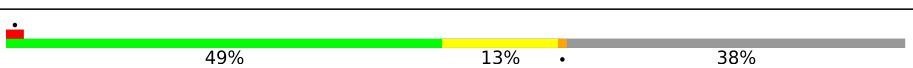
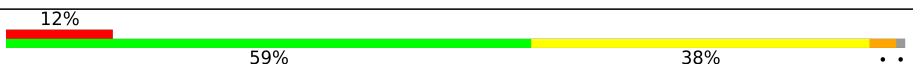
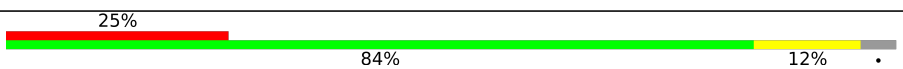
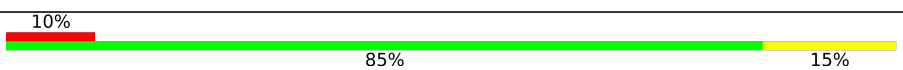
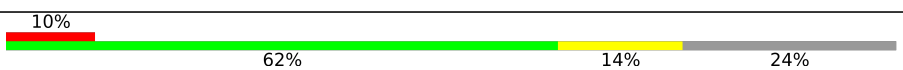
Mol	Chain	Length	Quality of chain
24	R	316	
25	S	517	
26	T	249	
27	U	439	
28	V	291	
29	X	71	
30	Y	71	
31	c	929	
32	k	211	
33	m	124	
34	o	1970	
35	p	1174	
36	q	275	
37	r	142	
38	s	210	
39	t	127	
40	u	172	
41	v	150	
42	w	125	
43	x	67	
44	y	117	
45	z	58	

2 Entry composition

There are 48 unique types of molecules in this entry. The entry contains 113129 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 CDK-activating kinase assembly factor MAT1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	234	Total	C	N	O	S	0	0
			1774	1108	309	347	10		

- Molecule 2 is a protein called General transcription factor IIH subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	1	405	Total	C	N	O	S	0	0
			2634	1640	486	501	7		

- Molecule 3 is a protein called General transcription factor IIH subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	2	331	Total	C	N	O	S	0	0
			2534	1597	441	470	26		

- Molecule 4 is a protein called General transcription factor IIH subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	3	263	Total	C	N	O	S	0	0
			2065	1323	344	379	19		

- Molecule 5 is a protein called General transcription factor IIH subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	4	449	Total	C	N	O	S	0	0
			3579	2303	624	638	14		

- Molecule 6 is a protein called General transcription factor IIH subunit 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	5	54	Total	C	N	O	S	0	0
			428	277	67	82	2		

- Molecule 7 is a protein called General transcription and DNA repair factor IIH helicase subunit XPB.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	6	606	Total	C	N	O	S	0	0
			4880	3117	849	884	30		

- Molecule 8 is a protein called General transcription and DNA repair factor IIH helicase subunit XPD.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	7	734	Total	C	N	O	S	0	0
			5833	3727	1022	1055	29		

- Molecule 9 is a protein called Cyclin-dependent kinase 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	8	298	Total	C	N	O	S	0	0
			2370	1531	404	424	11		

- Molecule 10 is a protein called Cyclin-H.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	9	287	Total	C	N	O	S	0	0
			2334	1493	402	422	17		

- Molecule 11 is a protein called Transcription initiation factor TFIID subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	A	550	Total	C	N	O	S	0	0
			4511	2882	782	820	27		

- Molecule 12 is a protein called Transcription initiation factor TFIID subunit 2.

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

- Molecule 13 is a protein called Transcription initiation factor TFIID subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	D	158	Total	C	N	O	S	0	0
			1322	824	247	248	3		

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Mol	Chain	Residues	Atoms					AltConf	Trace
13	d	158	Total 1307	C 814	N 238	O 252	S 3	0	0

- Molecule 14 is a protein called Transcription initiation factor TFIID subunit 5.

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

- Molecule 15 is a protein called Transcription initiation factor TFIID subunit 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	F	408	Total 3109	C 1970	N 542	O 579	S 18	0	0
15	f	403	Total 3081	C 1954	N 533	O 576	S 18	0	0

- Molecule 16 is a protein called Transcription initiation factor TFIID subunit 7.

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

- Molecule 17 is a protein called Transcription initiation factor TFIID subunit 8.

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

- Molecule 18 is a protein called Transcription initiation factor TFIID subunit 9.

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

- Molecule 19 is a protein called Transcription initiation factor TFIID subunit 10.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	J	90	Total 720	C 466	N 115	O 135	S 4	0	0
19	j	95	Total 759	C 488	N 124	O 143	S 4	0	0

- Molecule 20 is a protein called Transcription initiation factor TFIID subunit 12.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	L	75	Total 614	C 384	N 107	O 120	S 3	0	0
20	l	107	Total 876	C 547	N 158	O 166	S 5	0	0

- Molecule 21 is a protein called Transcription initiation factor IIA subunit 2.

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

- Molecule 22 is a protein called TATA-box-binding protein.

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

- Molecule 23 is a protein called Transcription initiation factor IIA subunit 1.

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

- Molecule 24 is a protein called Transcription initiation factor IIB.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	R	250	Total 1929	C 1209	N 343	O 360	S 17	0	0

- Molecule 25 is a protein called General transcription factor IIF subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	S	108	Total 872	C 558	N 153	O 159	S 2	0	0

- Molecule 26 is a protein called General transcription factor IIF subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	T	222	Total	C	N	O	S	0	0
			1788	1127	320	338	3		

- Molecule 27 is a protein called General transcription factor IIE subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	U	179	Total	C	N	O	S	0	0
			1476	932	261	272	11		

- Molecule 28 is a protein called Transcription initiation factor IIE subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	V	172	Total	C	N	O	S	0	0
			1404	893	243	264	4		

- Molecule 29 is a DNA chain called DNA (71-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
29	X	71	Total	C	N	O	P	0	0
			1464	695	265	433	71		

- Molecule 30 is a DNA chain called DNA (71-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Y	71	Total	C	N	O	P	0	0
			1447	687	270	419	71		

- Molecule 31 is a protein called Transcription initiation factor TFIID subunit 3.

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

- Molecule 32 is a protein called Transcription initiation factor TFIID subunit 11.

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

- Molecule 33 is a protein called Transcription initiation factor TFIID subunit 13.

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

- Molecule 34 is a protein called DNA-directed RNA polymerase II subunit RPB1.

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

- Molecule 35 is a protein called DNA-directed RNA polymerase subunit beta.

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

- Molecule 36 is a protein called DNA-directed RNA polymerase II subunit RPB3.

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

- Molecule 37 is a protein called DNA-directed RNA polymerase II subunit RPB4.

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

- Molecule 38 is a protein called DNA-directed RNA polymerase II subunit E.

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

- Molecule 39 is a protein called DNA-directed RNA polymerase II subunit F.

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

- Molecule 40 is a protein called DNA-directed RNA polymerase II subunit RPB7.

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

- Molecule 41 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

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

- Molecule 42 is a protein called DNA-directed RNA polymerase II subunit RPB9.

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

- Molecule 43 is a protein called RPB10.

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

- Molecule 44 is a protein called RNA_pol_L_2 domain-containing protein.

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

- Molecule 45 is a protein called RPB12.

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

- Molecule 46 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
46	0	2	Total	Zn	0
			2	2	
46	2	3	Total	Zn	0
			3	3	
46	3	1	Total	Zn	0
			1	1	

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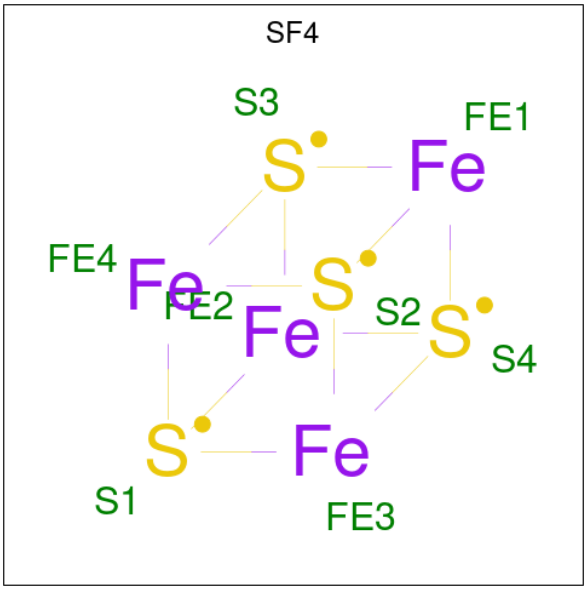
Mol	Chain	Residues	Atoms	AltConf
46	R	1	Total Zn 1 1	0
46	U	1	Total Zn 1 1	0
46	o	2	Total Zn 2 2	0
46	p	1	Total Zn 1 1	0
46	q	1	Total Zn 1 1	0
46	w	2	Total Zn 2 2	0
46	x	1	Total Zn 1 1	0
46	z	1	Total Zn 1 1	0

- Molecule 47 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	AltConf
47	7	1	Total Fe S 8 4 4	0

- Molecule 48 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

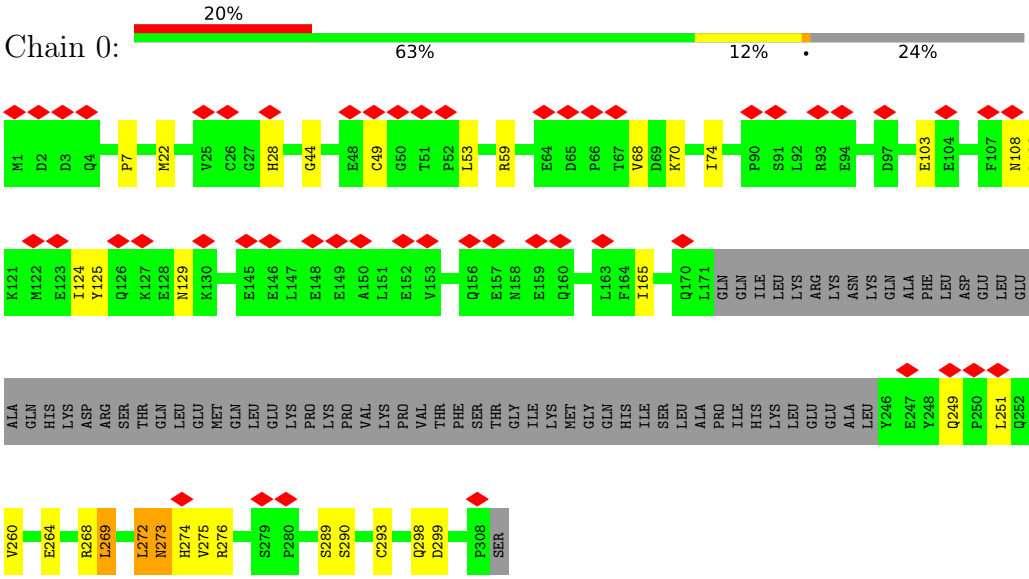
Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
48	o	1	1	1	0

3 Residue-property plots (i)

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.

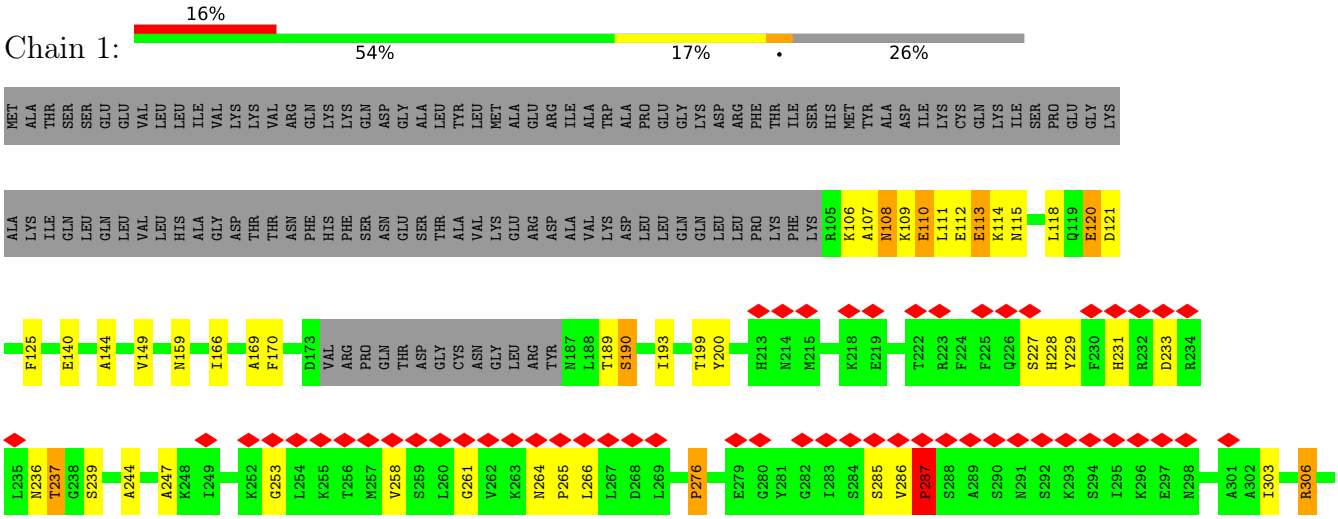
• Molecule 1: CDK-activating kinase assembly factor MAT1

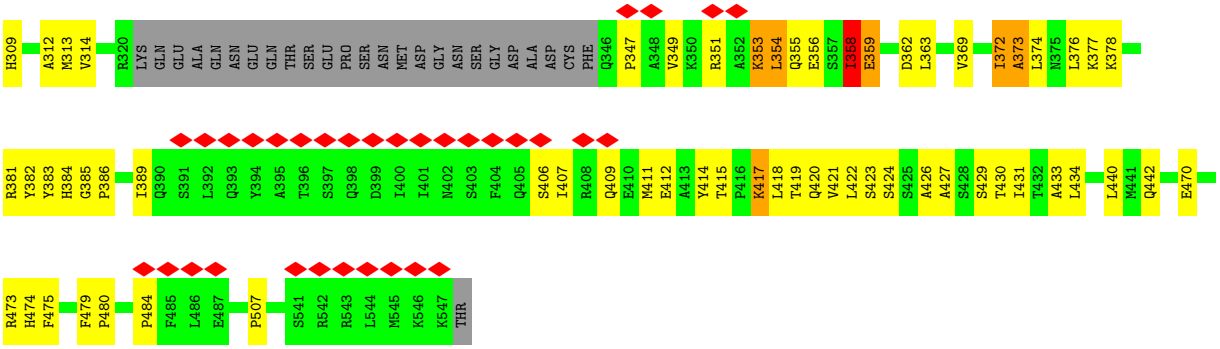
Chain 0:



• Molecule 2: General transcription factor IIH subunit 1

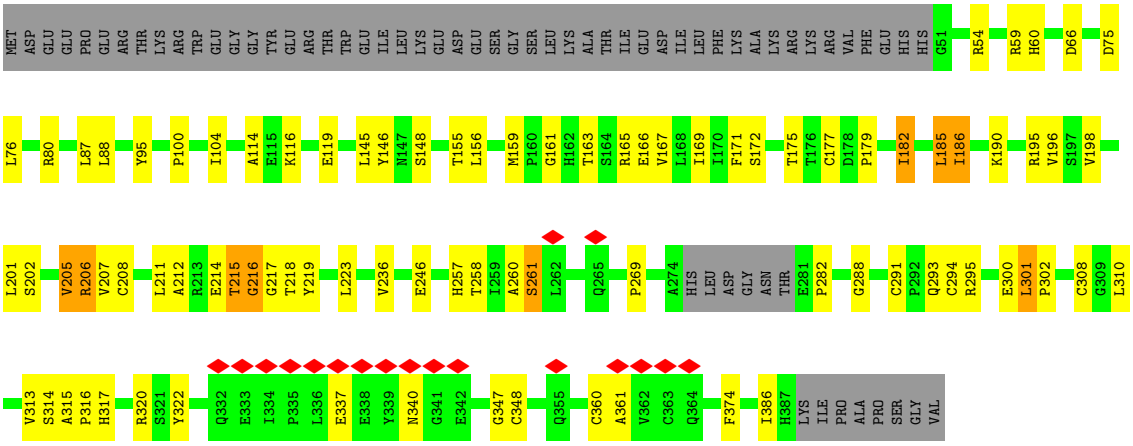
Chain 1:





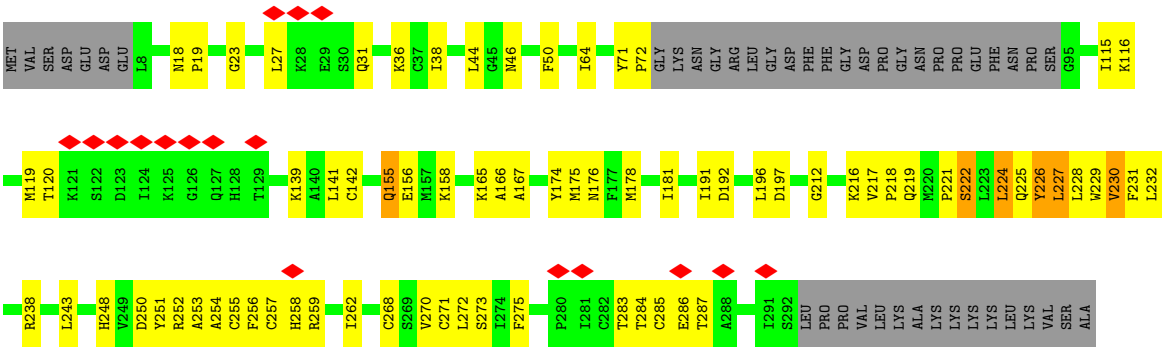
• Molecule 3: General transcription factor IIH subunit 2

Chain 2:



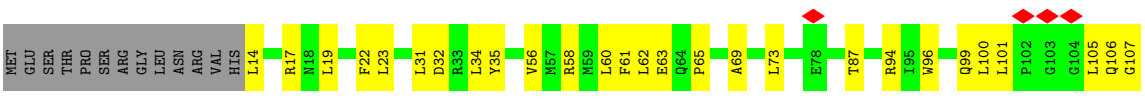
• Molecule 4: General transcription factor IIH subunit 3

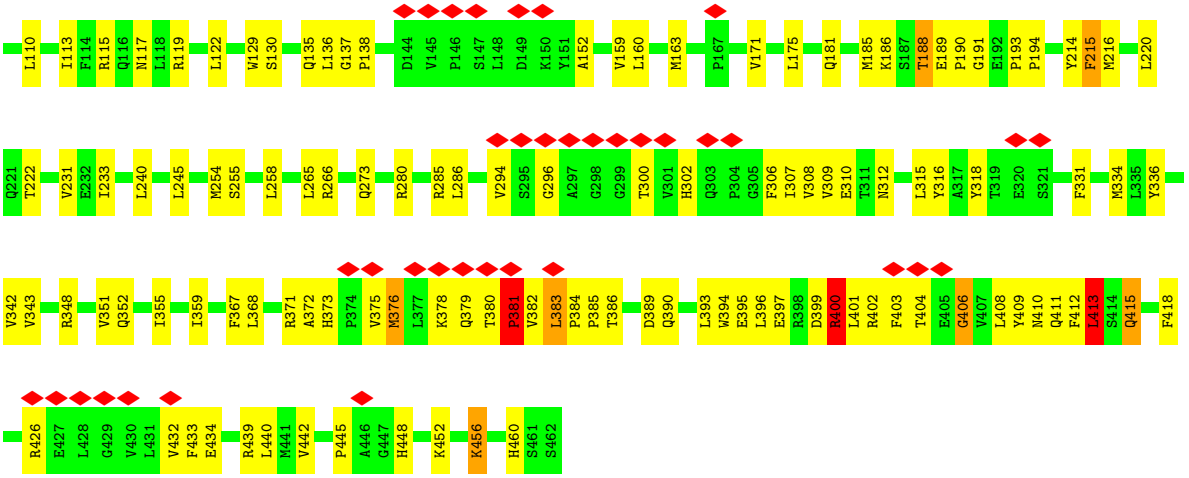
Chain 3:



• Molecule 5: General transcription factor IIH subunit 4

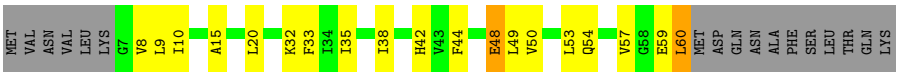
Chain 4:





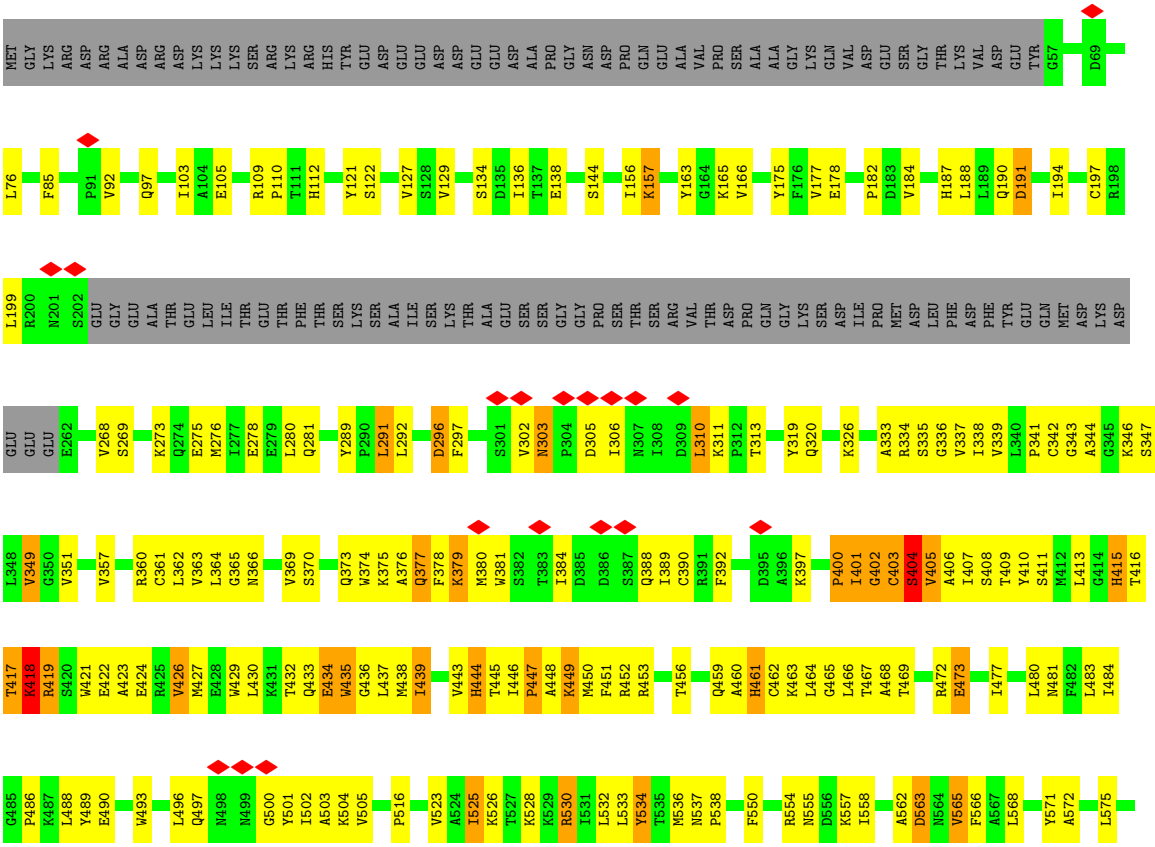
• Molecule 6: General transcription factor IIH subunit 5

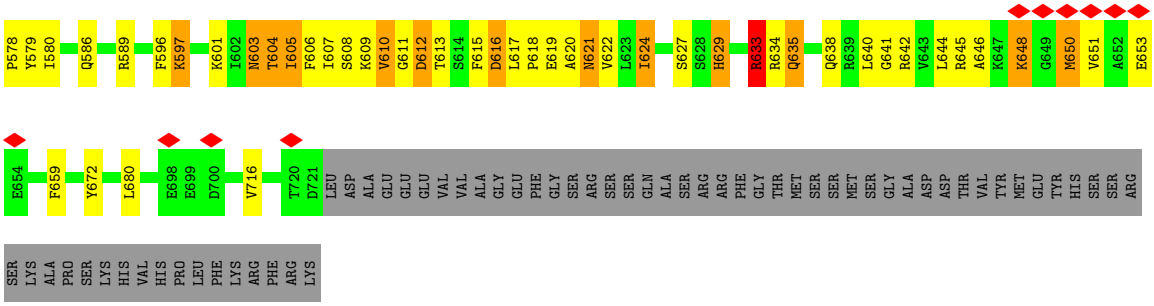
Chain 5:



• Molecule 7: General transcription and DNA repair factor IIH helicase subunit XPB

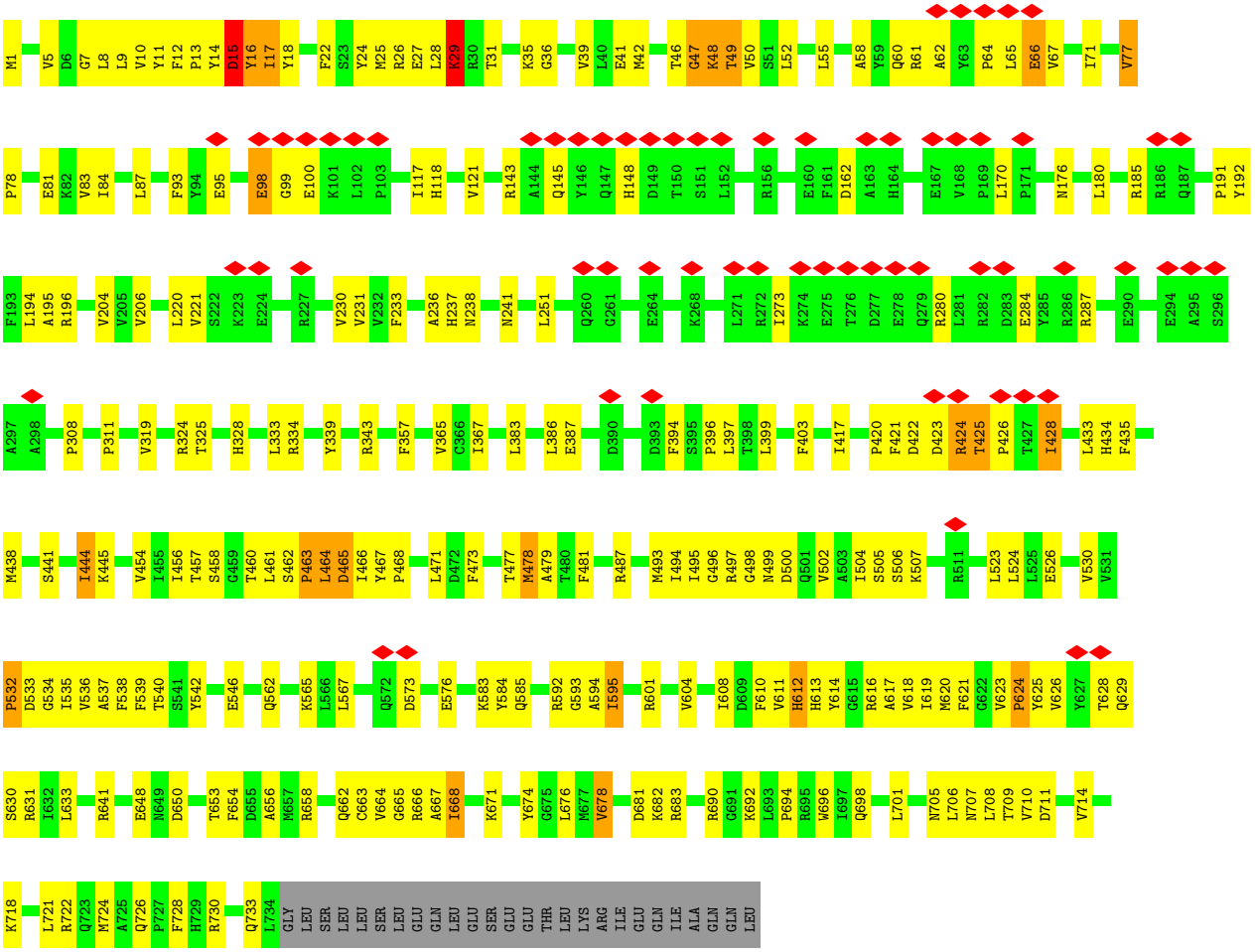
Chain 6:





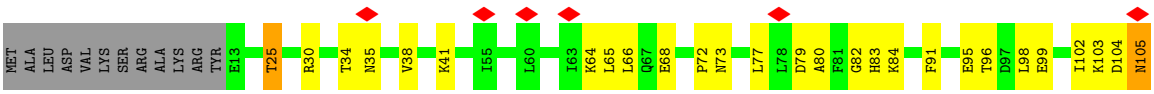
• Molecule 8: General transcription and DNA repair factor IIH helicase subunit XPD

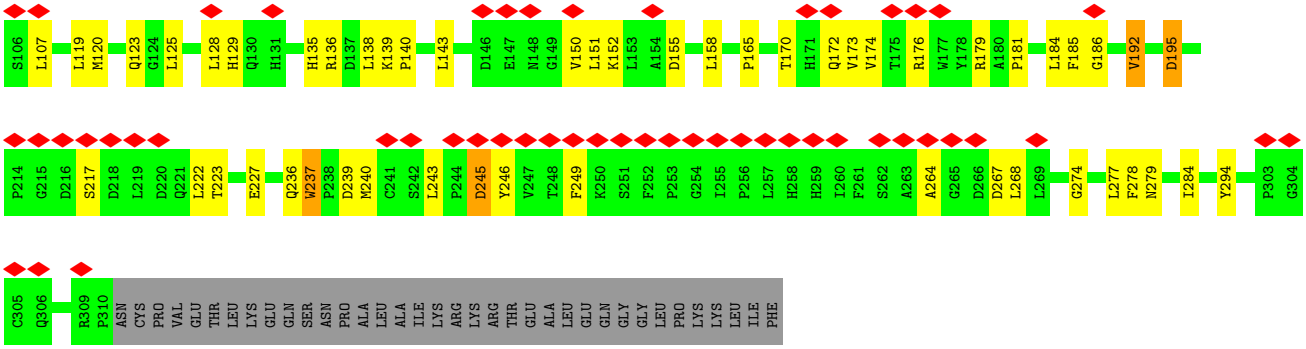
Chain 7:



• Molecule 9: Cyclin-dependent kinase 7

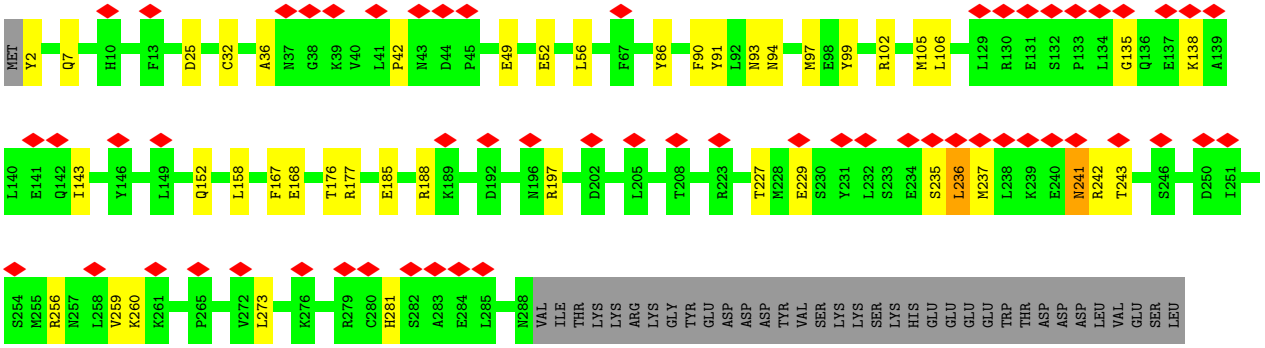
Chain 8:





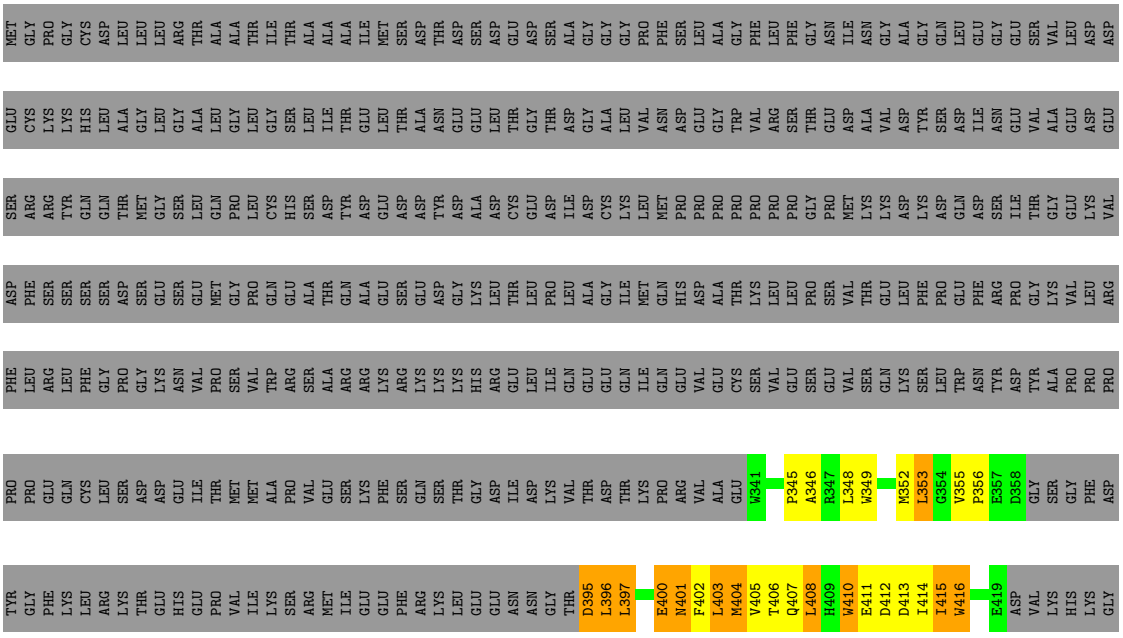
• Molecule 10: Cyclin-H

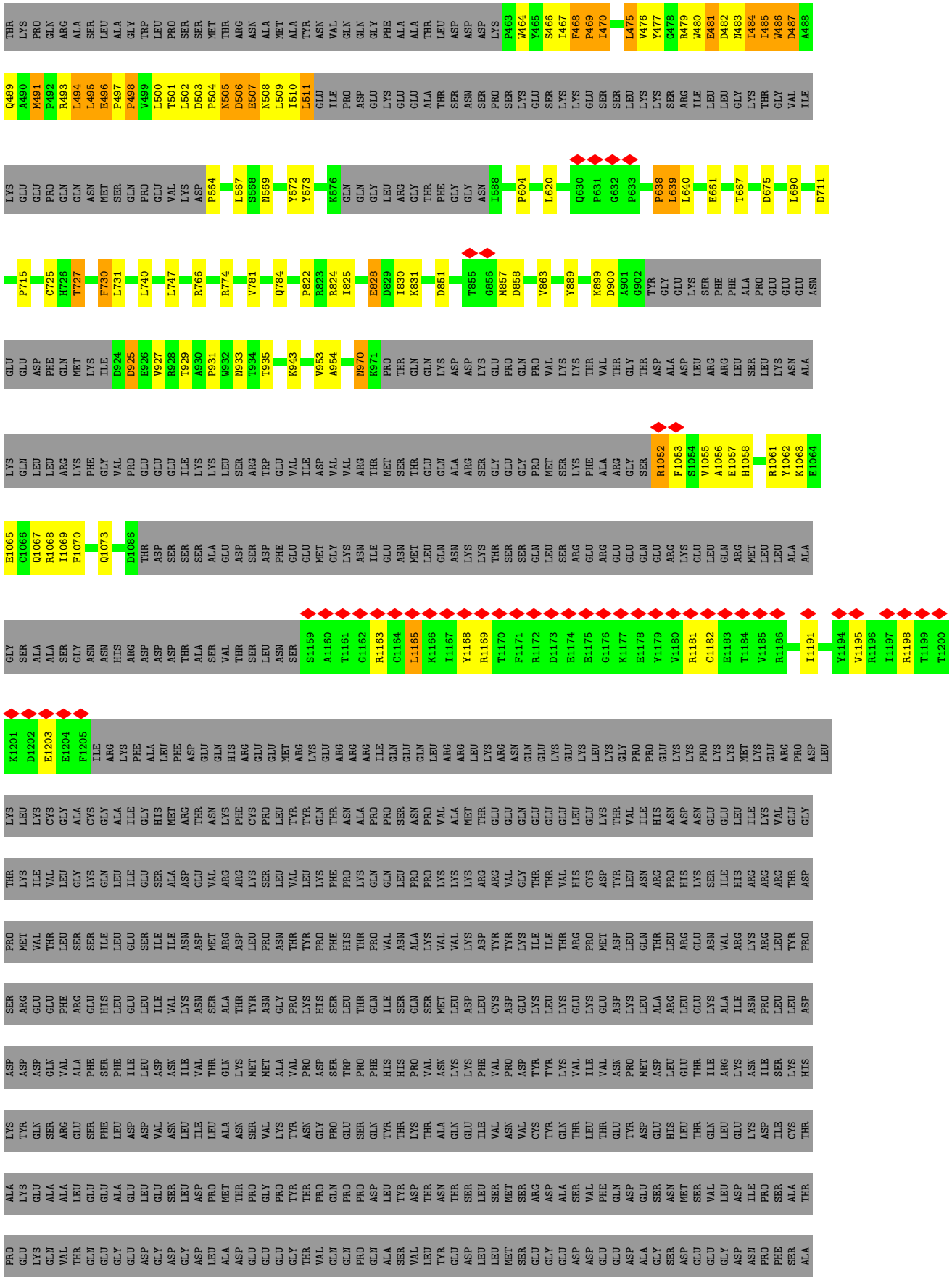
Chain 9:

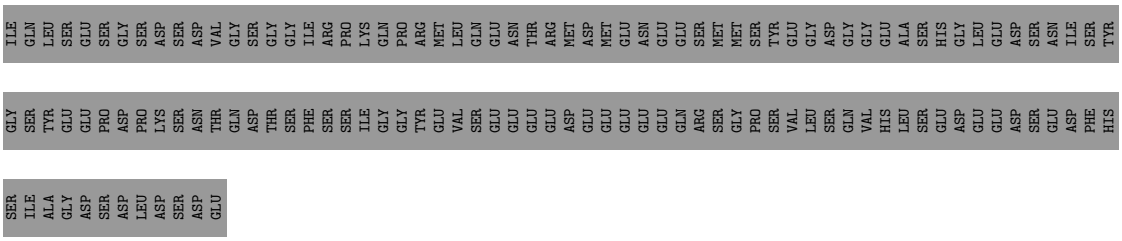


• Molecule 11: Transcription initiation factor TFIID subunit 1

Chain A:

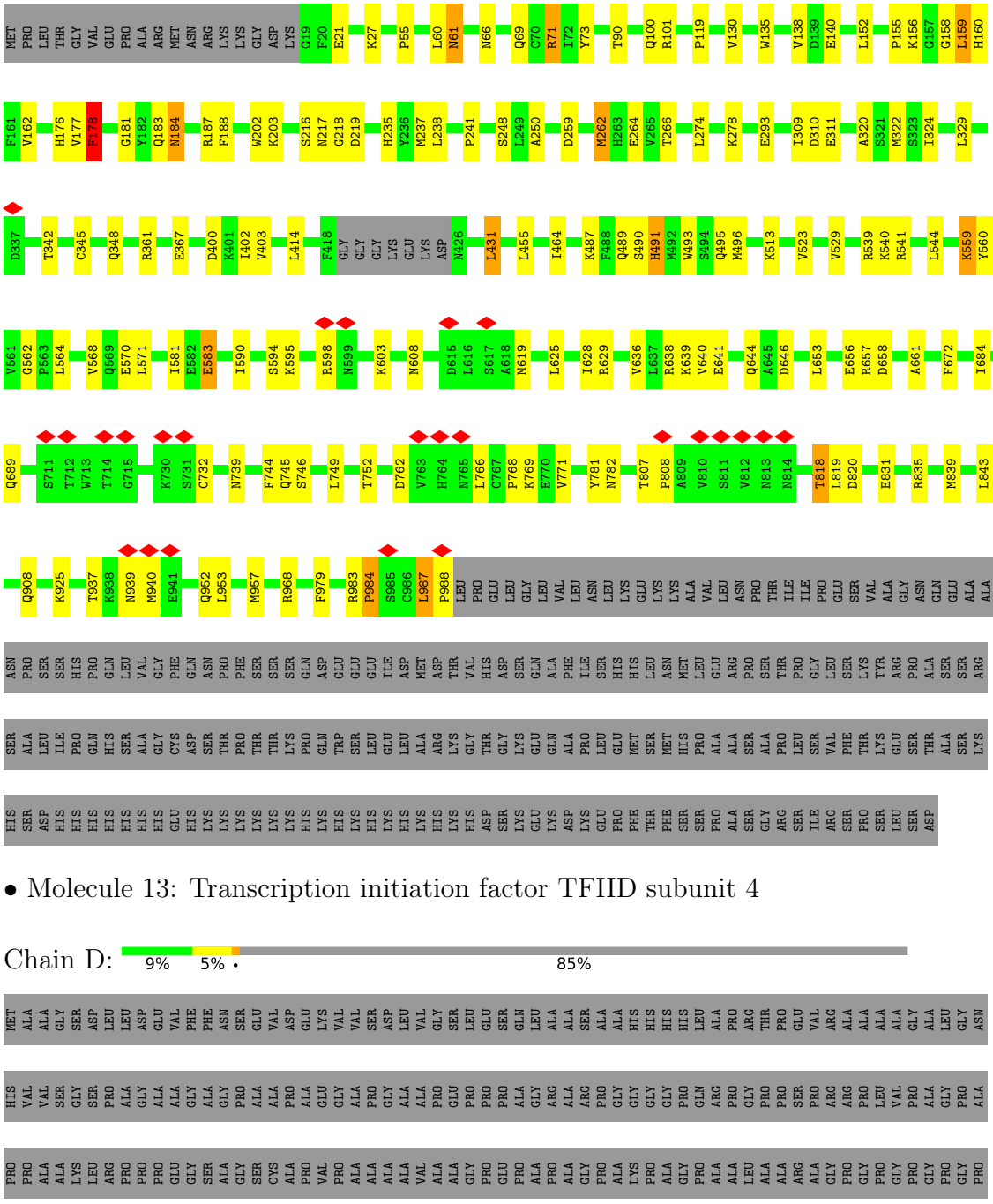






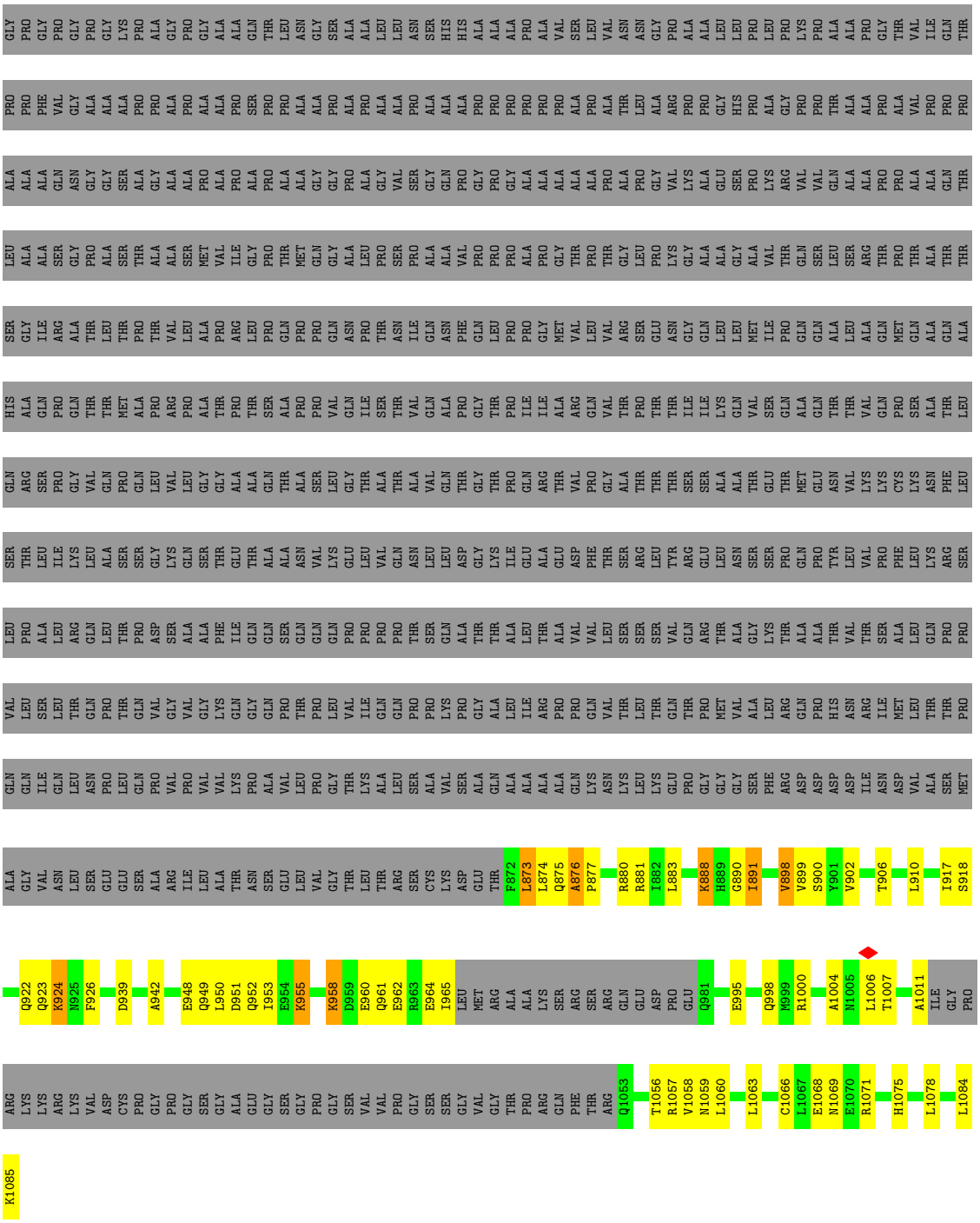
• Molecule 12: Transcription initiation factor TFIID subunit 2

Chain B:

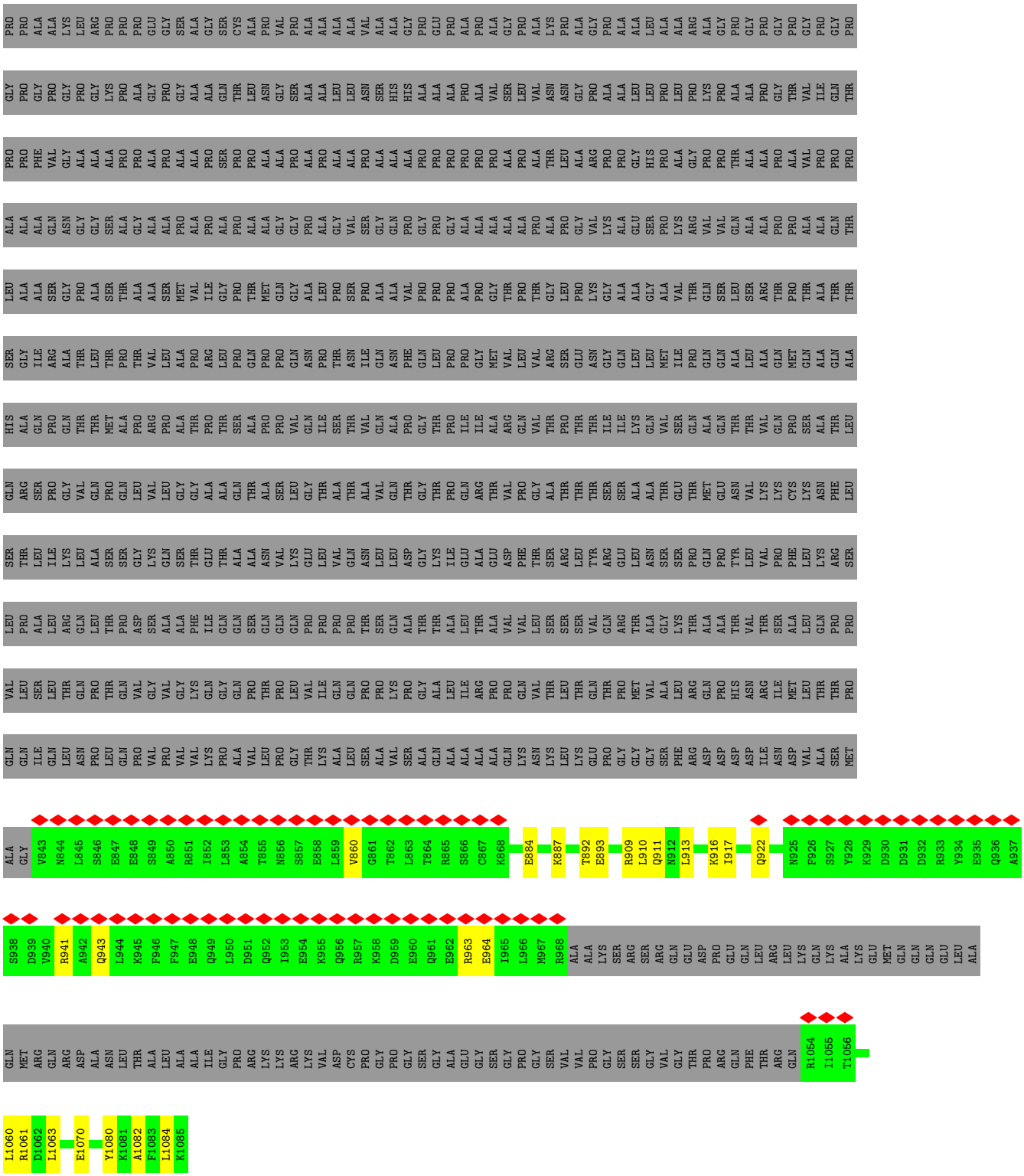


• Molecule 13: Transcription initiation factor TFIID subunit 4

Chain D:

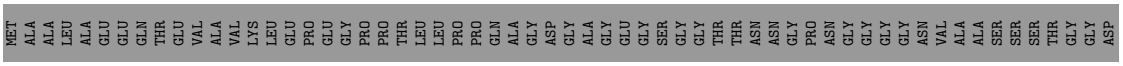


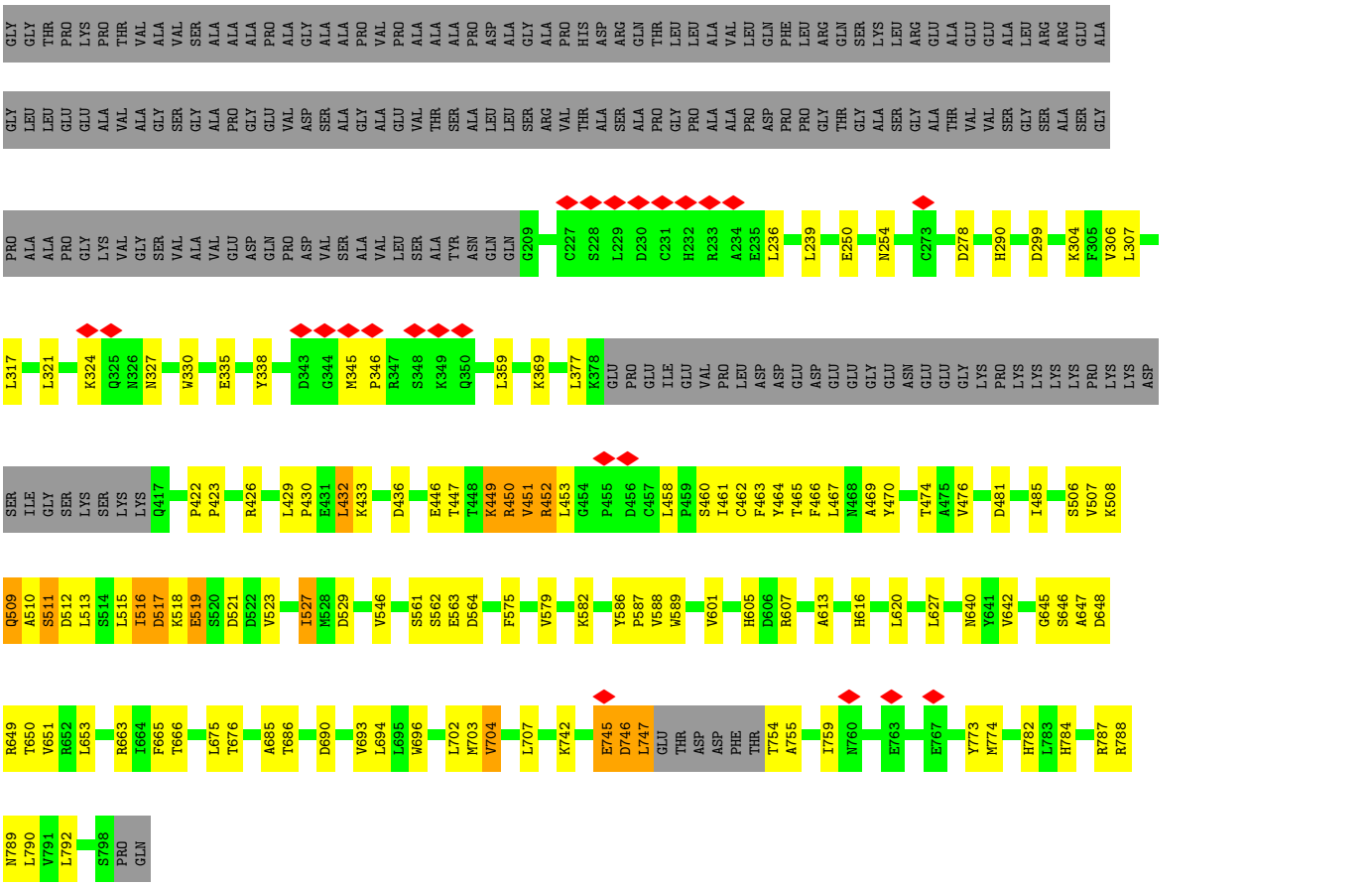
• Molecule 13: Transcription initiation factor TFIID subunit 4



• Molecule 14: Transcription initiation factor TFIID subunit 5

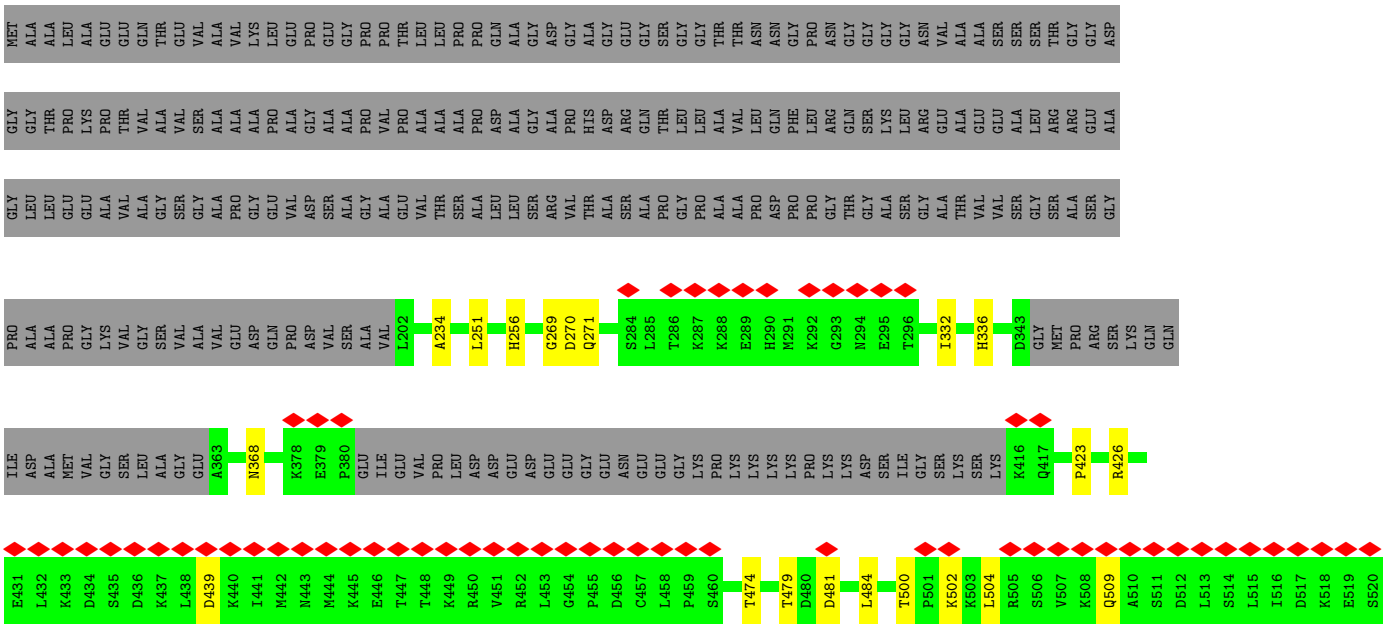
Chain E:

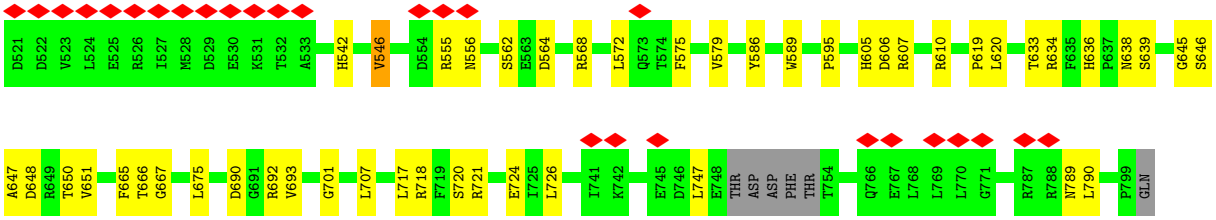




• Molecule 14: Transcription initiation factor TFIID subunit 5

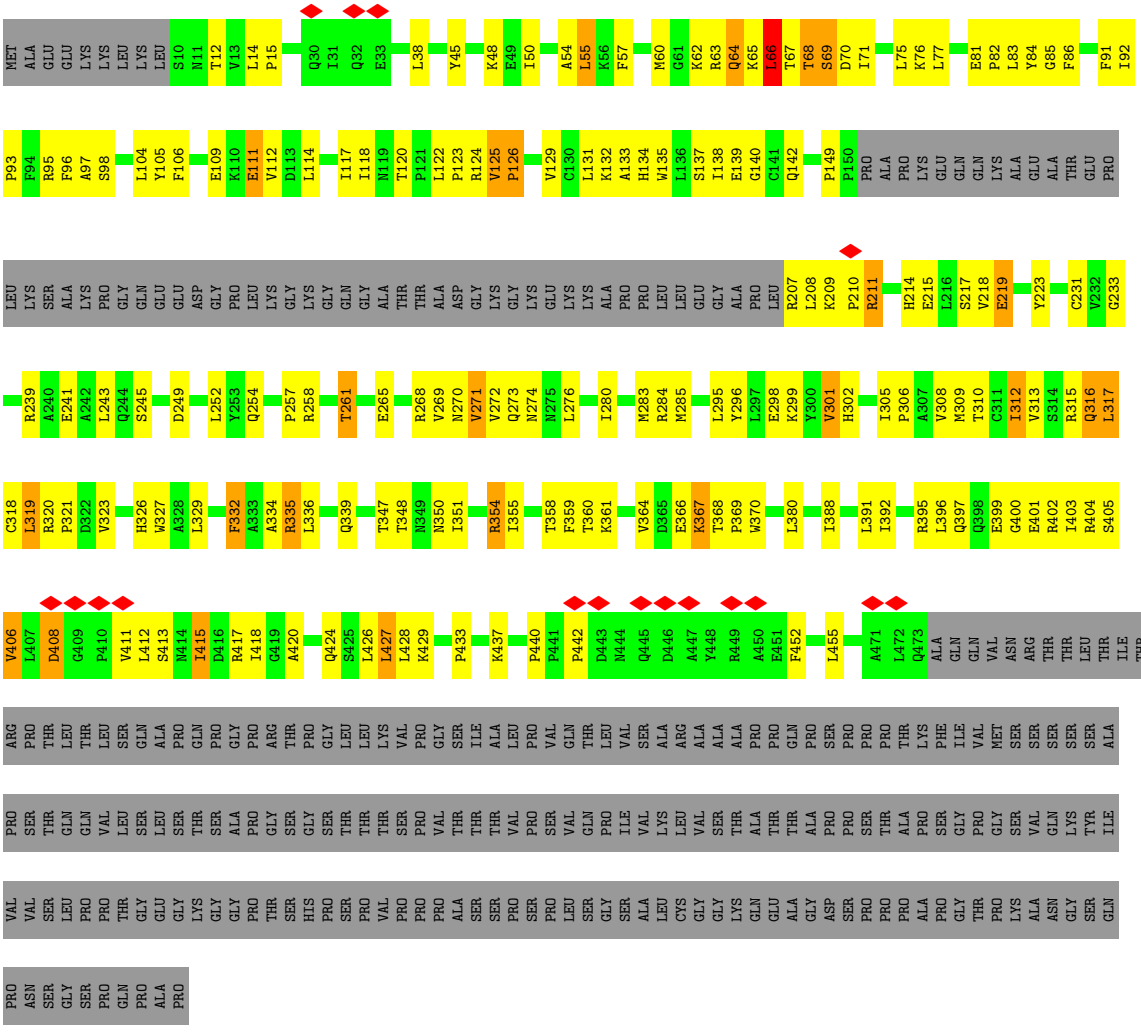
Chain e:





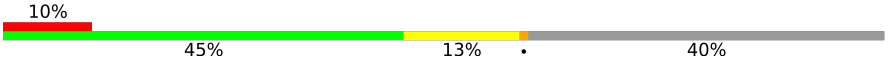
• Molecule 15: Transcription initiation factor TFIID subunit 6

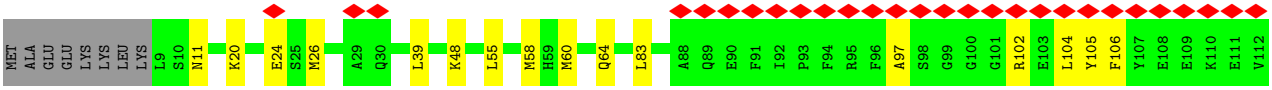
Chain F:

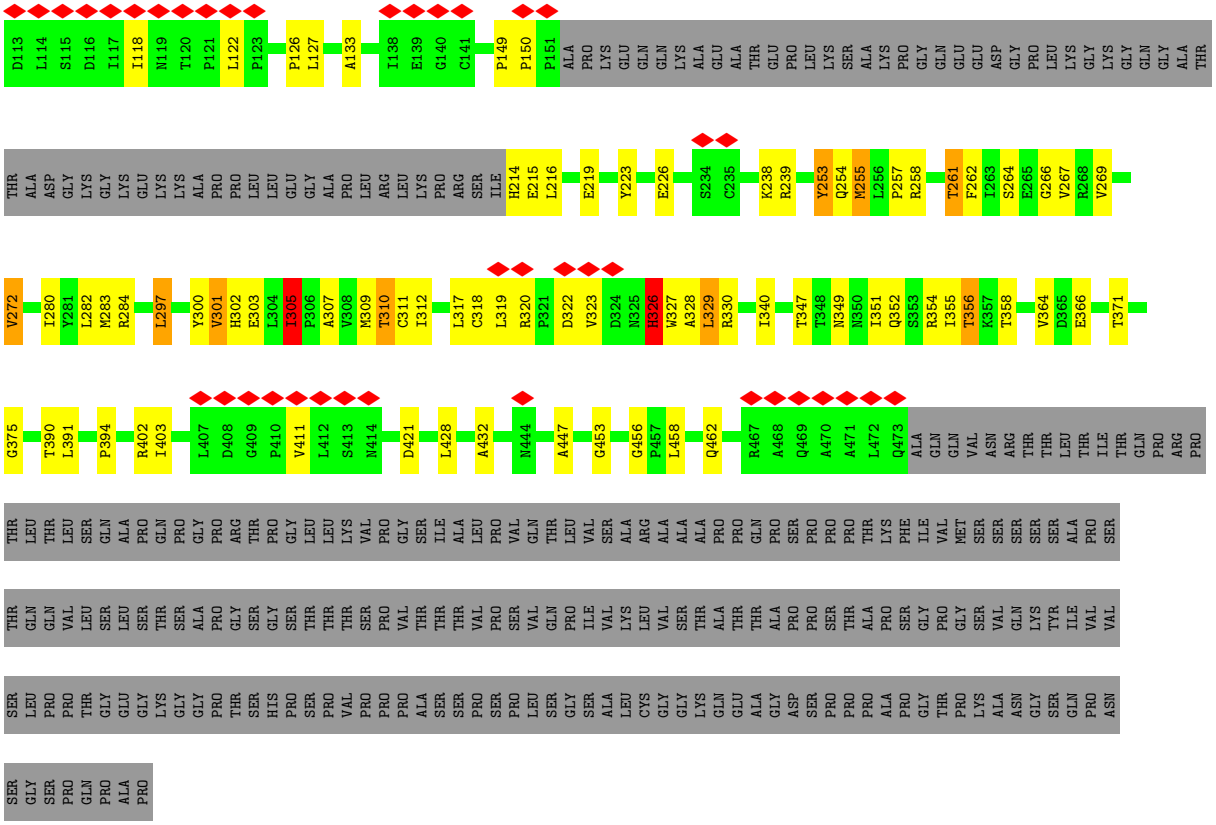


• Molecule 15: Transcription initiation factor TFIID subunit 6

Chain f:

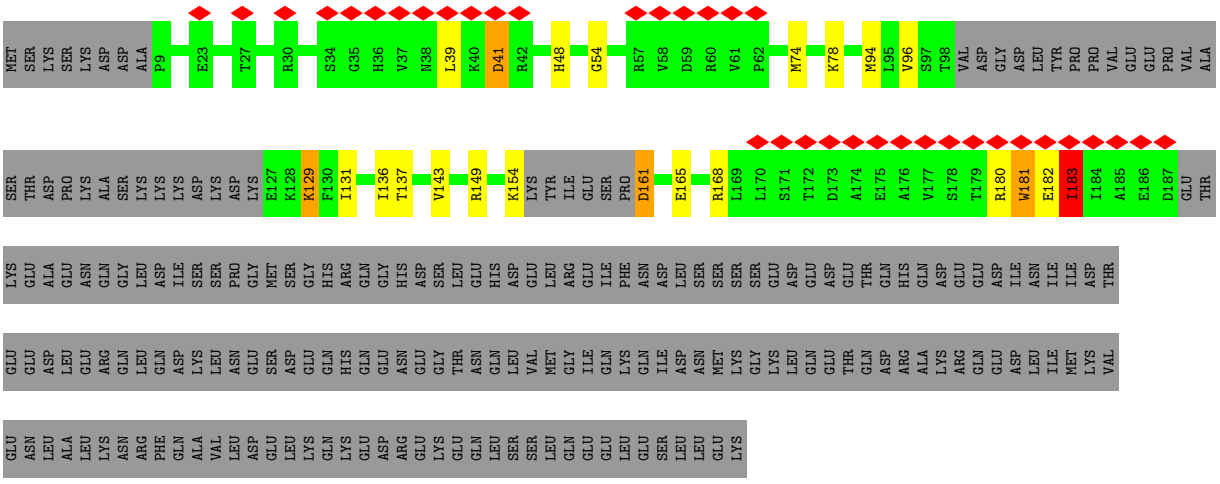






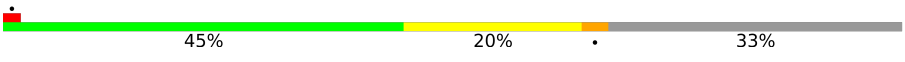
• Molecule 16: Transcription initiation factor TFIID subunit 7

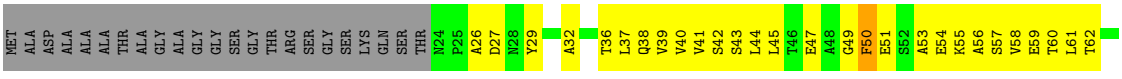
Chain G:

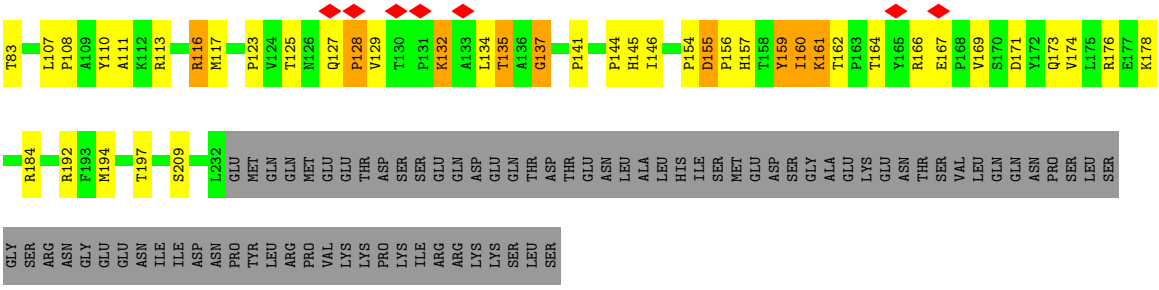


• Molecule 17: Transcription initiation factor TFIID subunit 8

Chain H:

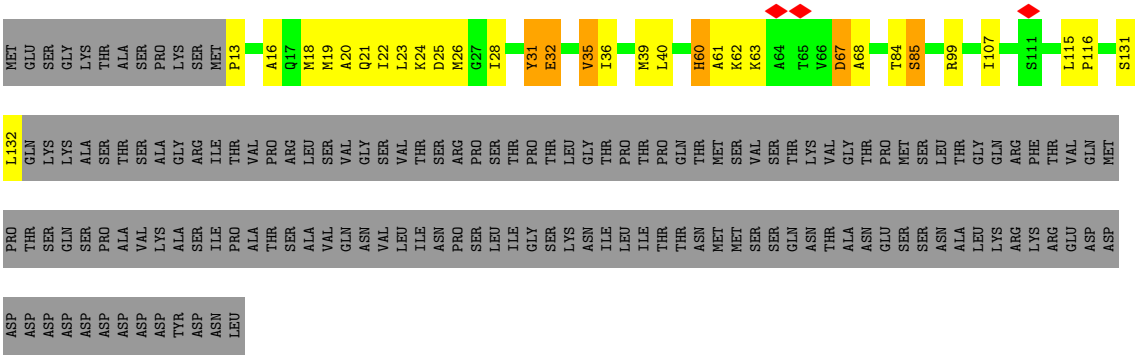






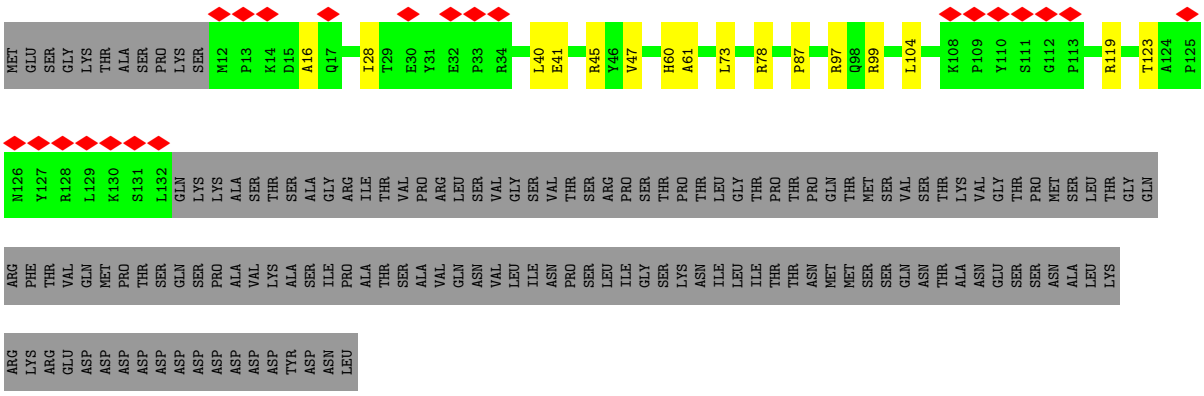
• Molecule 18: Transcription initiation factor TFIID subunit 9

Chain I:



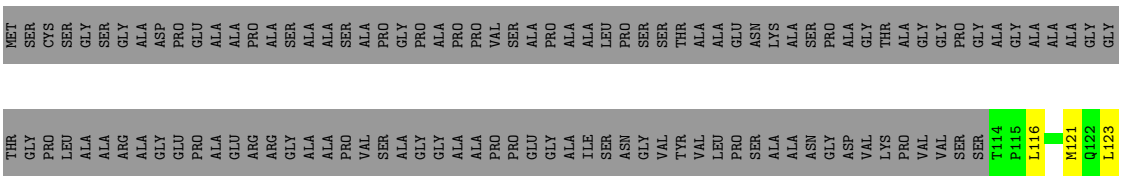
• Molecule 18: Transcription initiation factor TFIID subunit 9

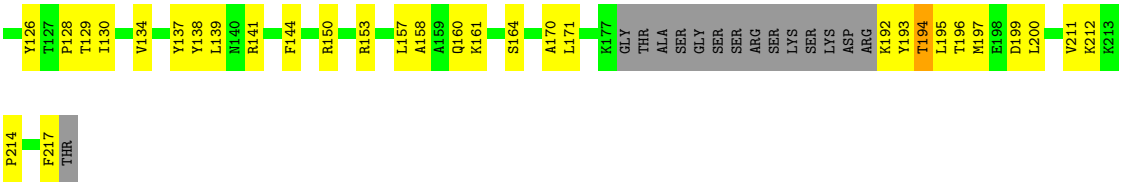
Chain i:



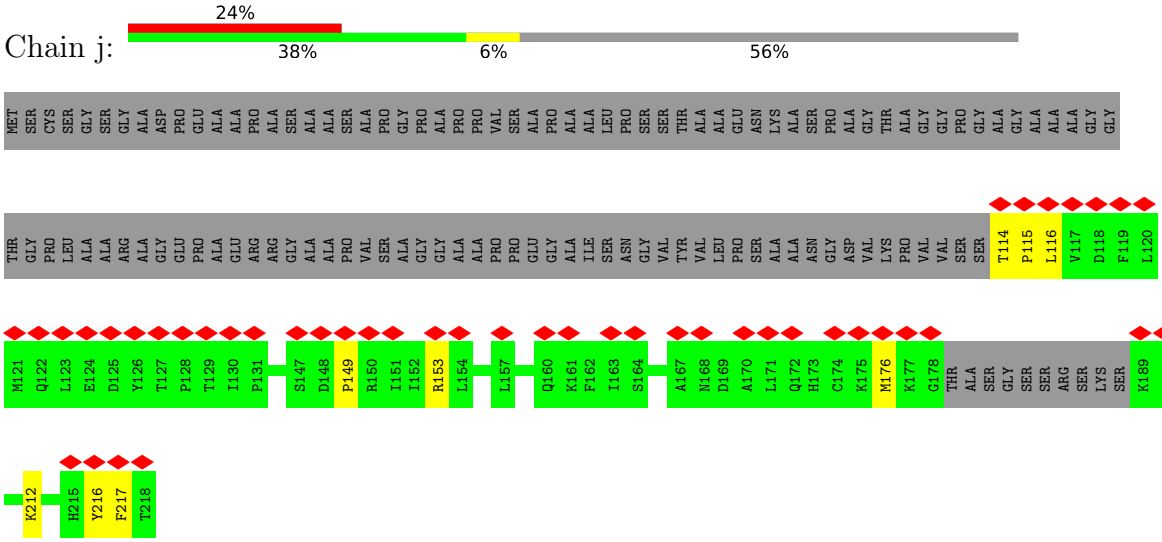
• Molecule 19: Transcription initiation factor TFIID subunit 10

Chain J:

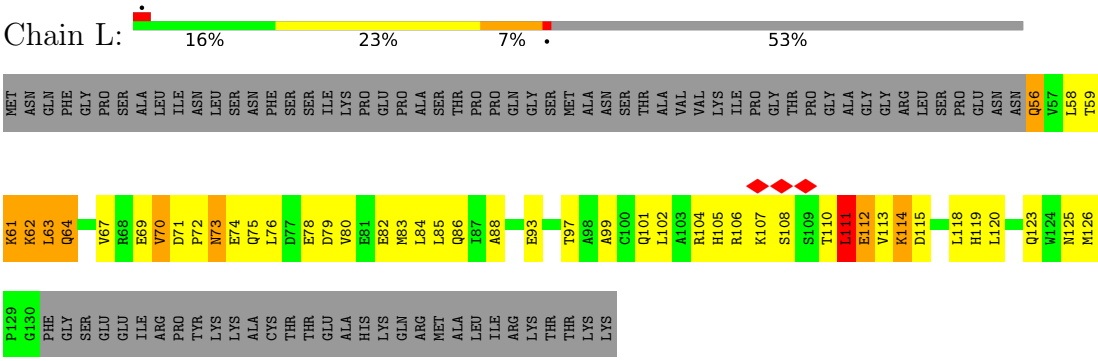




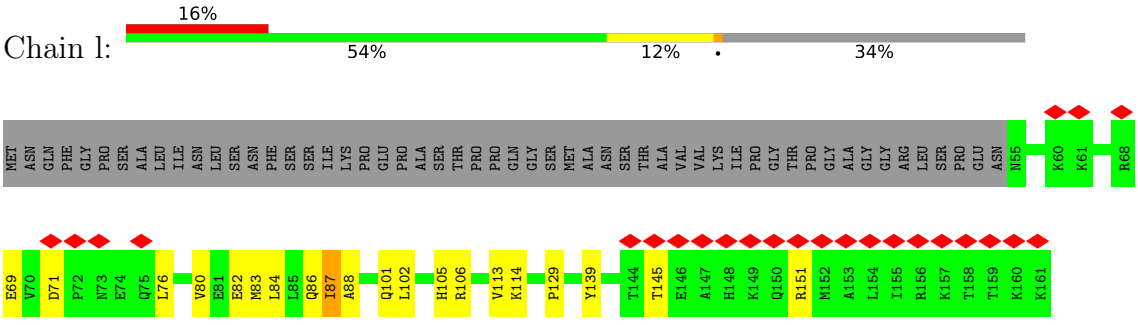
• Molecule 19: Transcription initiation factor TFIID subunit 10



• Molecule 20: Transcription initiation factor TFIID subunit 12

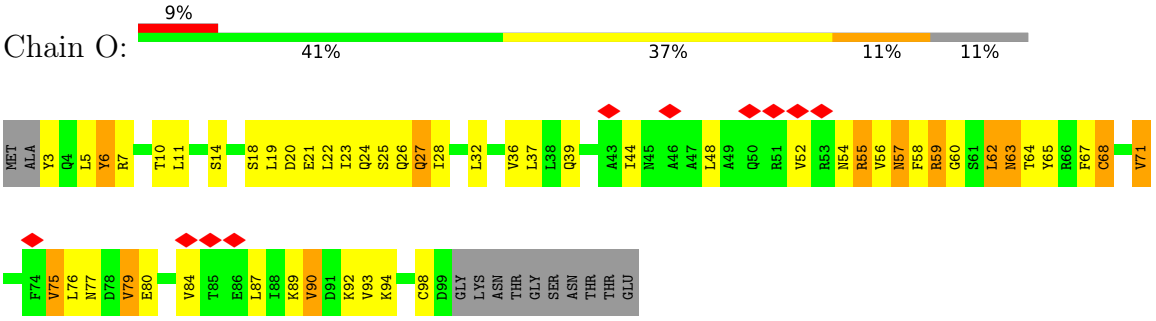


• Molecule 20: Transcription initiation factor TFIID subunit 12



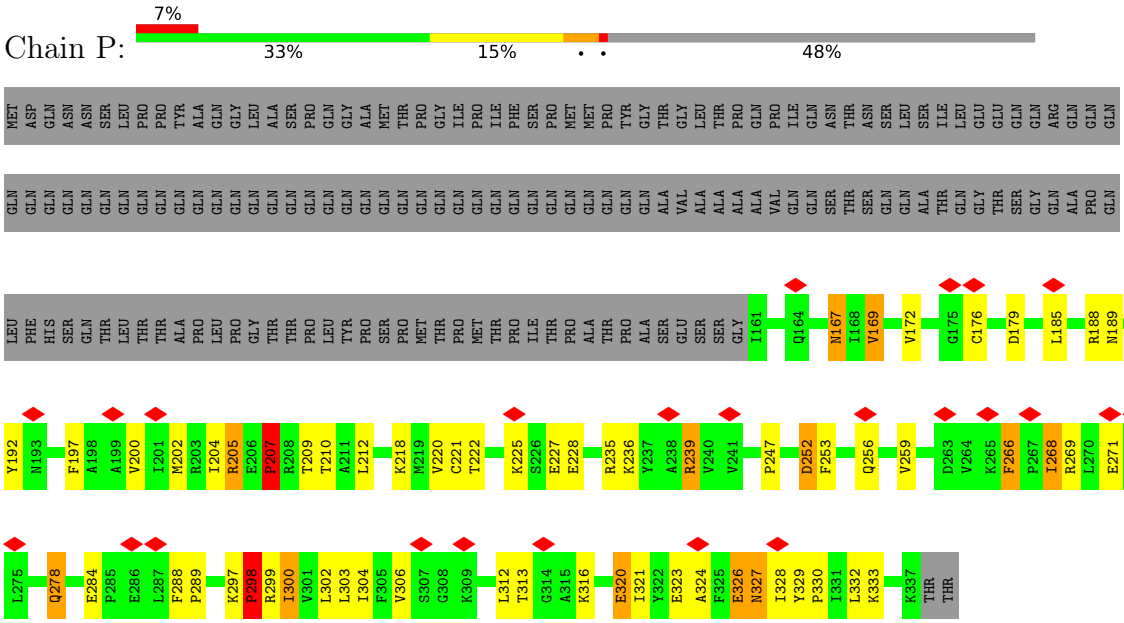
• Molecule 21: Transcription initiation factor IIA subunit 2

Chain O:



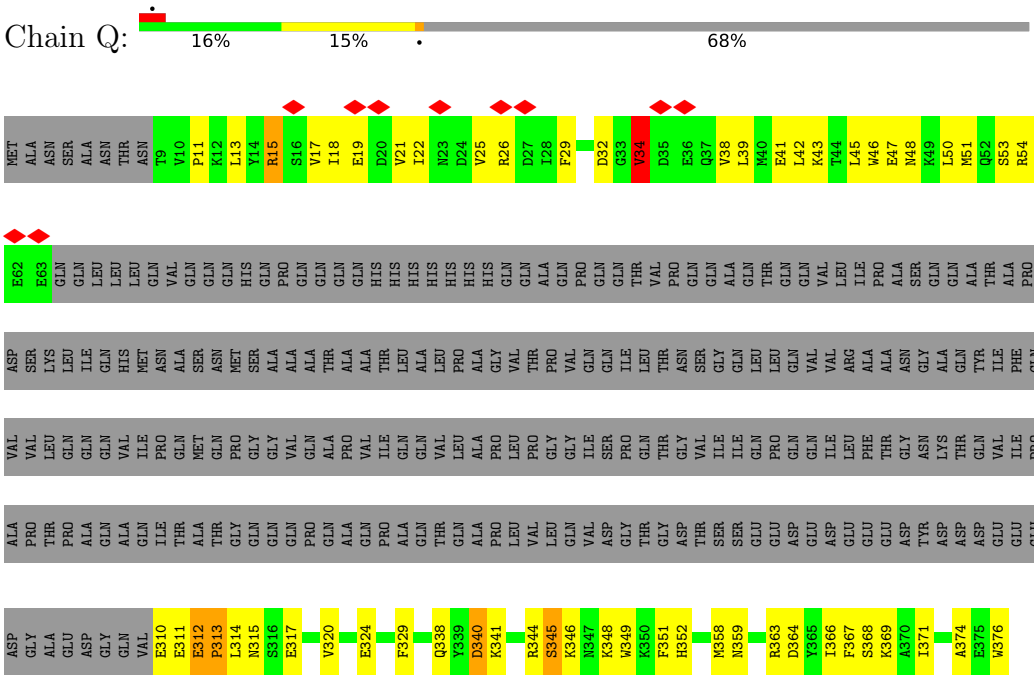
• Molecule 22: TATA-box-binding protein

Chain P:



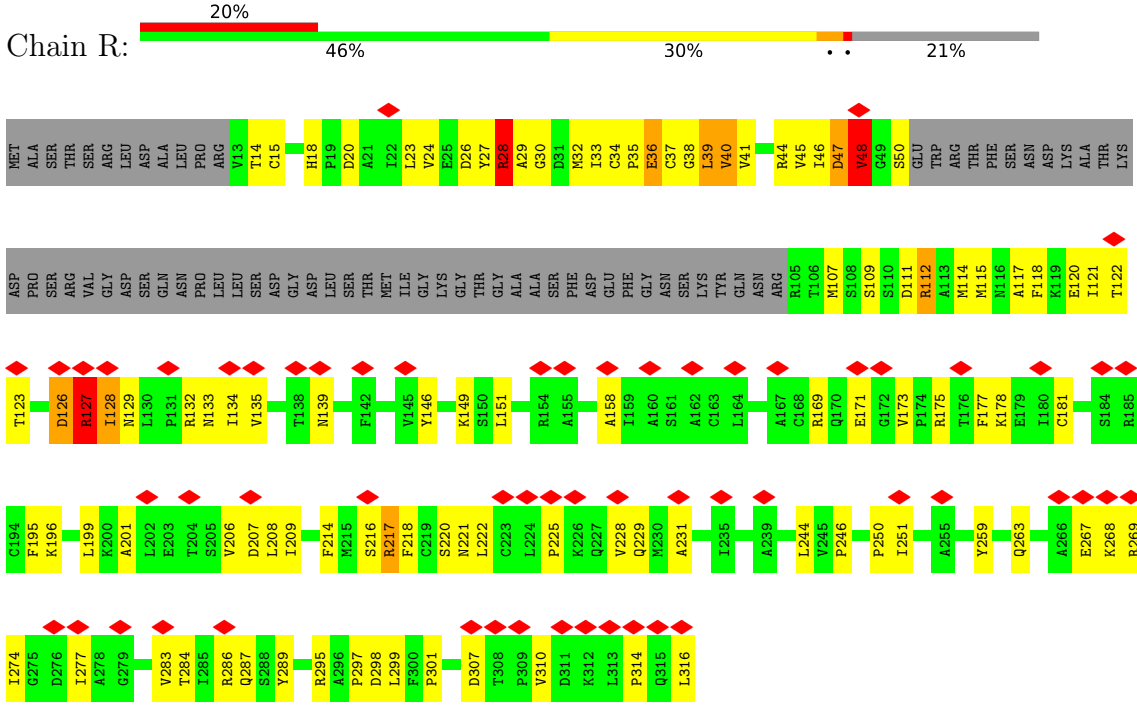
• Molecule 23: Transcription initiation factor IIA subunit 1

Chain Q:



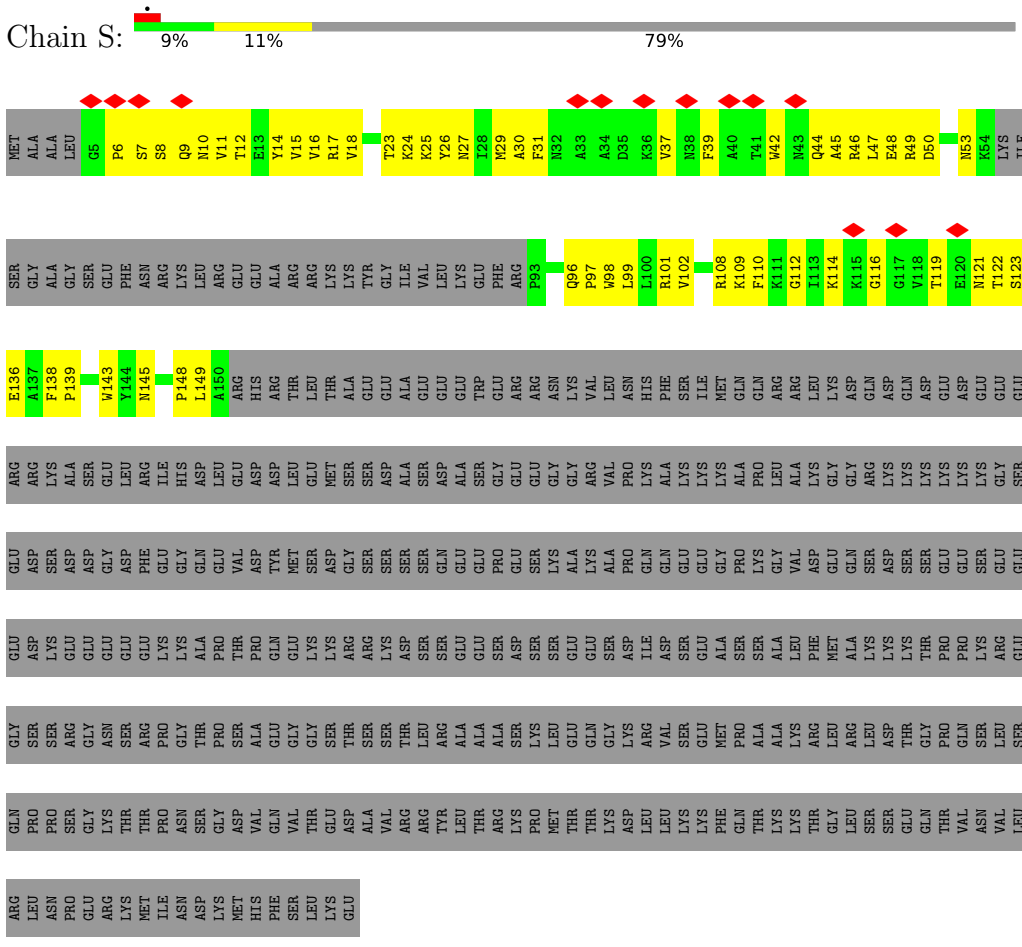
• Molecule 24: Transcription initiation factor IIB

Chain R:



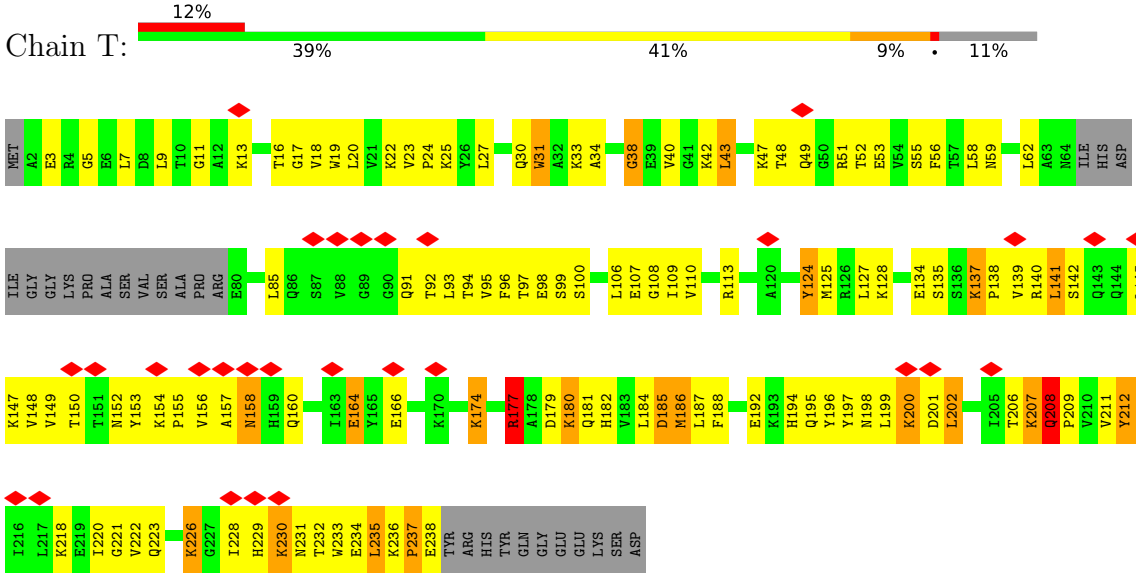
• Molecule 25: General transcription factor IIF subunit 1

Chain S:



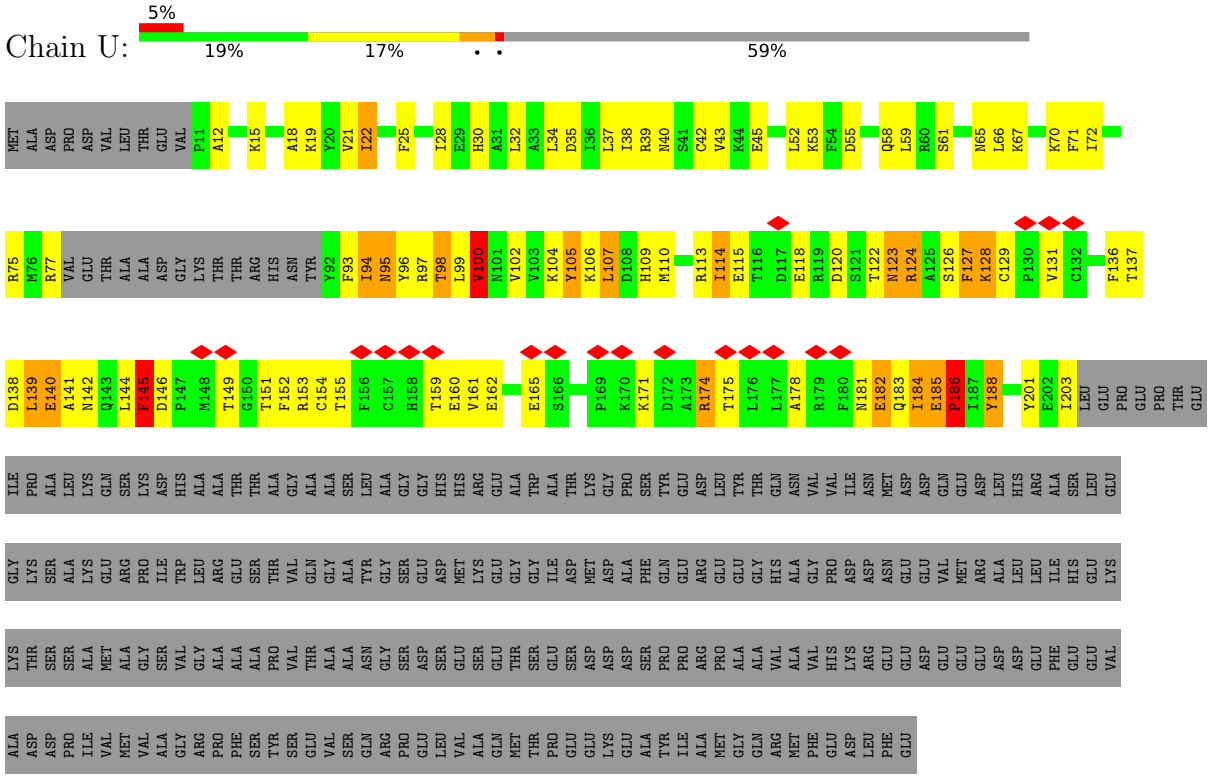
• Molecule 26: General transcription factor IIF subunit 2

Chain T:



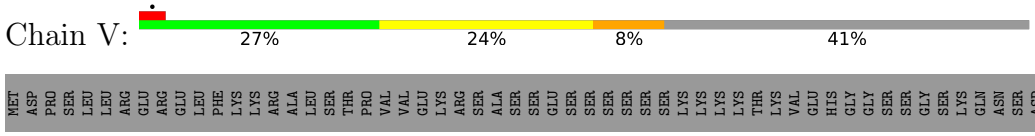
• Molecule 27: General transcription factor IIE subunit 1

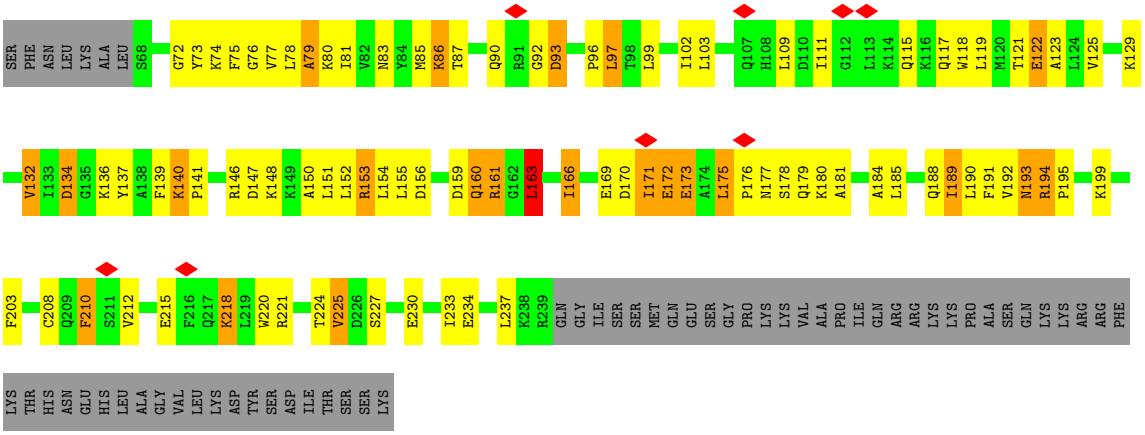
Chain U:



• Molecule 28: Transcription initiation factor IIE subunit beta

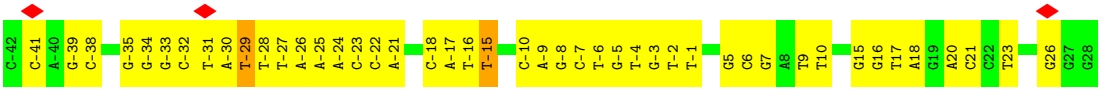
Chain V:





• Molecule 29: DNA (71-MER)

Chain X:

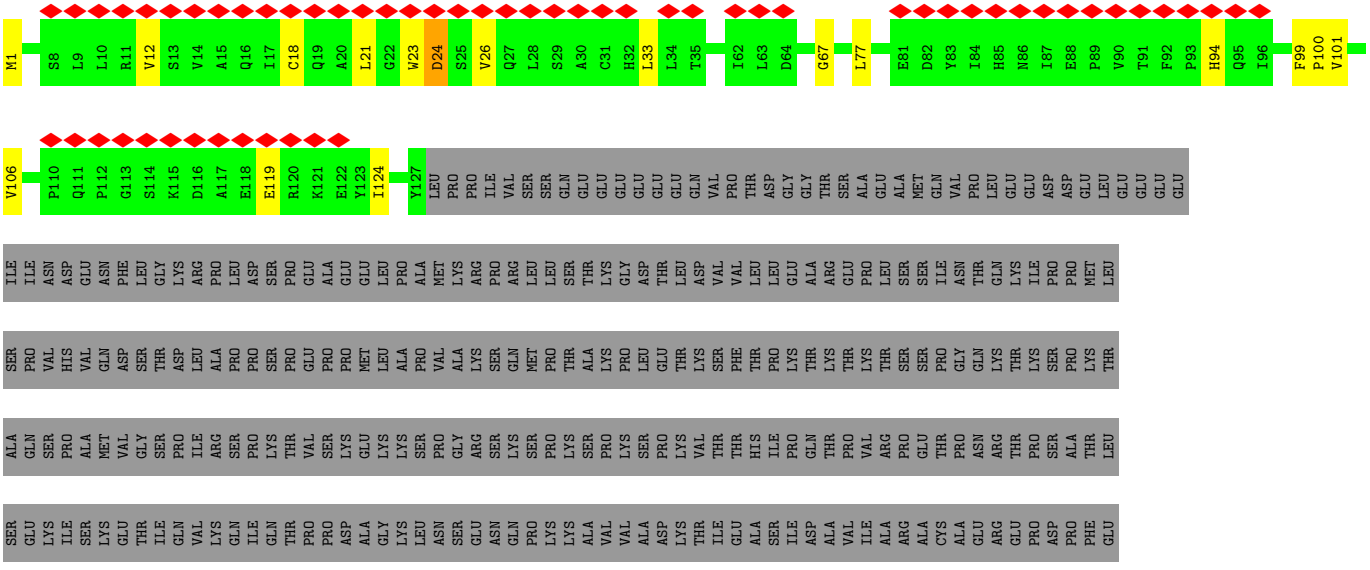


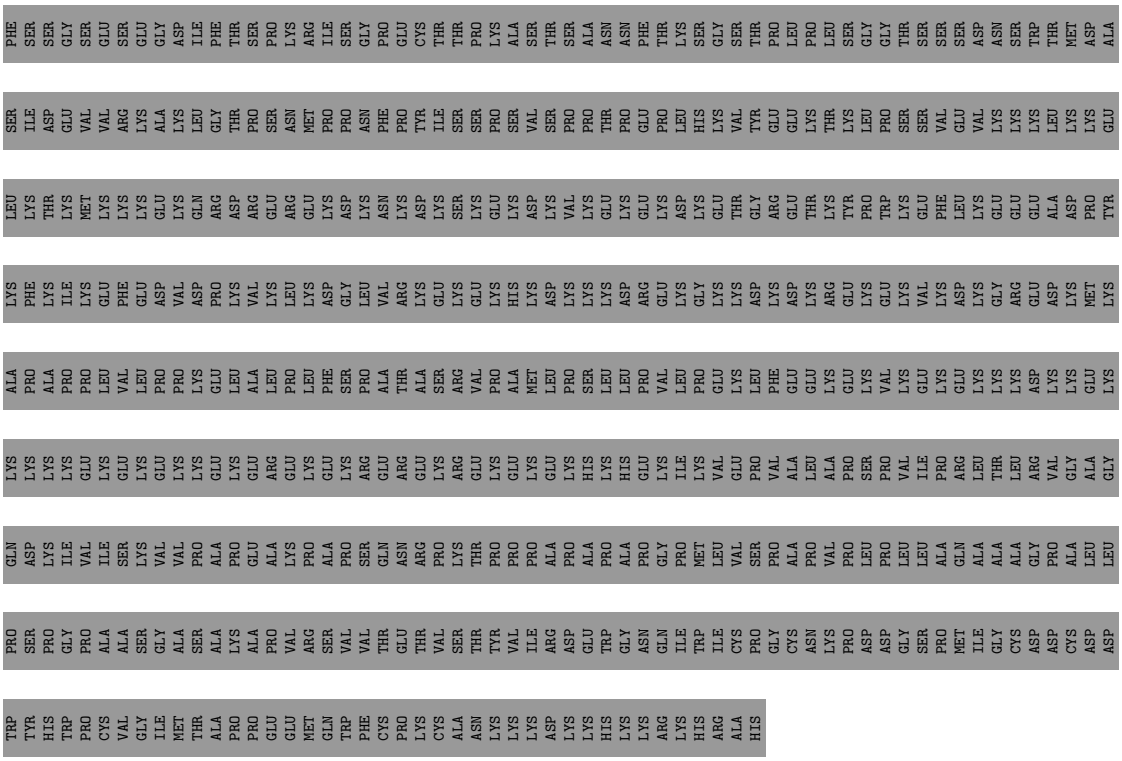
• Molecule 30: DNA (71-MER)

Chain Y:

• Molecule 31: Transcription initiation factor TFIID subunit 3

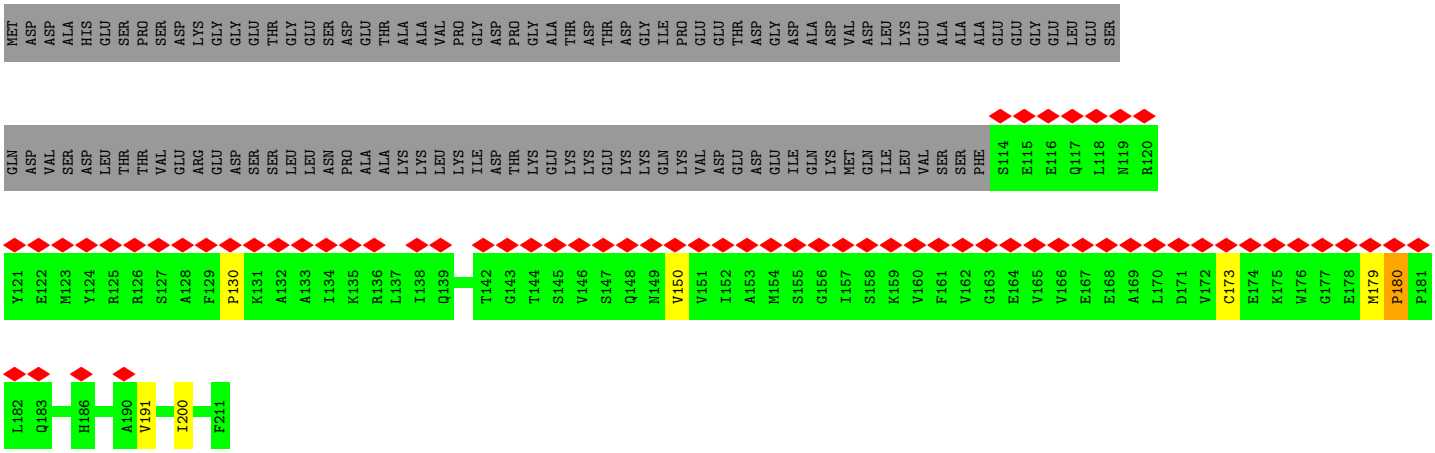
Chain c:





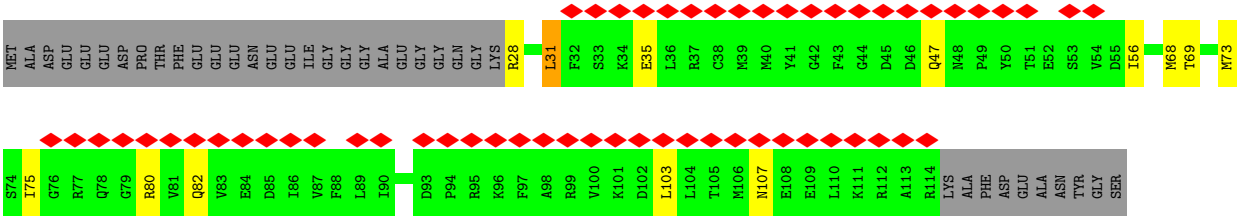
• Molecule 32: Transcription initiation factor TFIID subunit 11

Chain k:



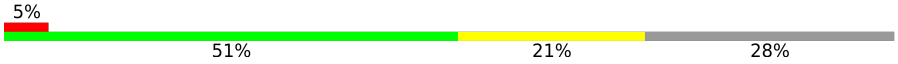
• Molecule 33: Transcription initiation factor TFIID subunit 13

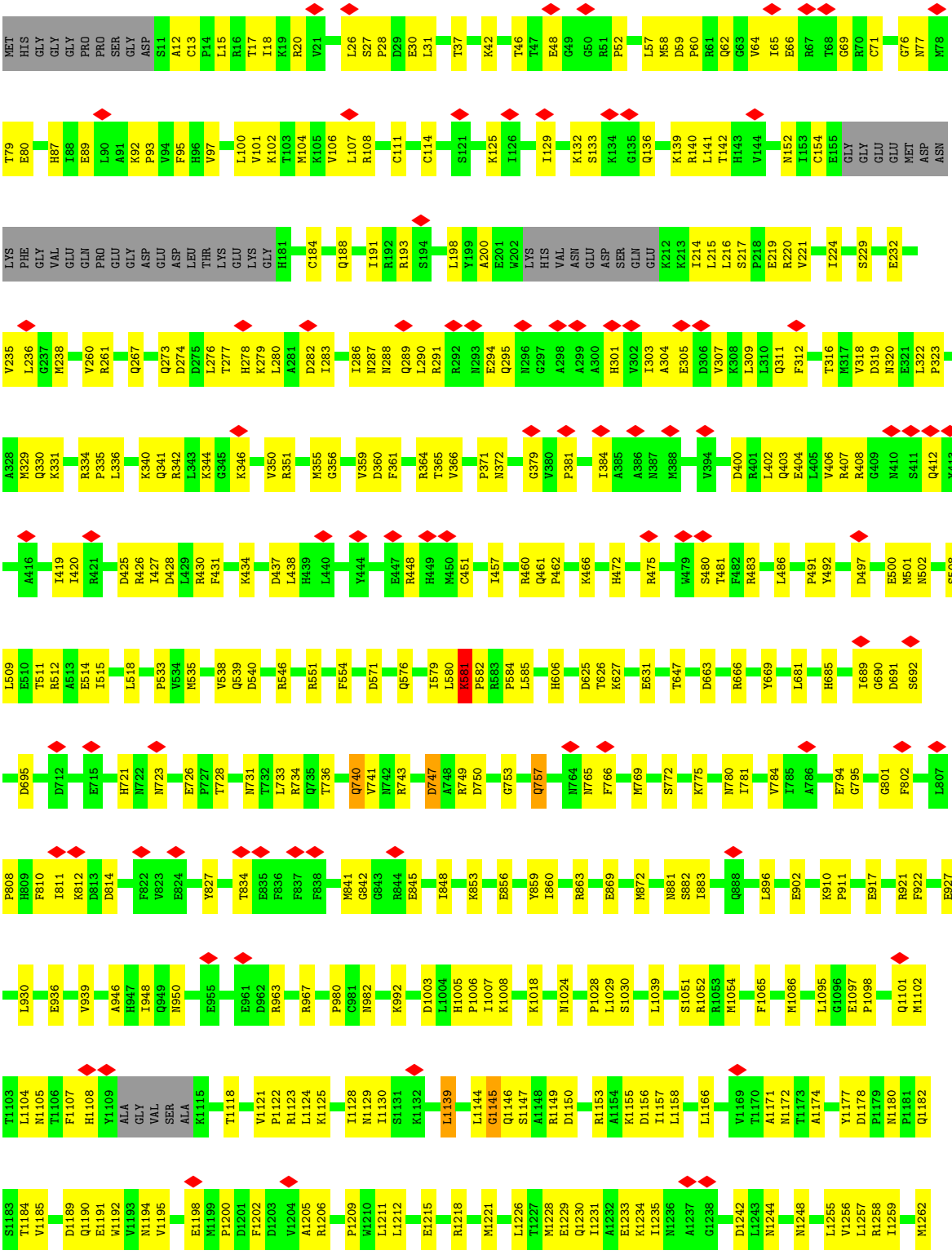
Chain m:

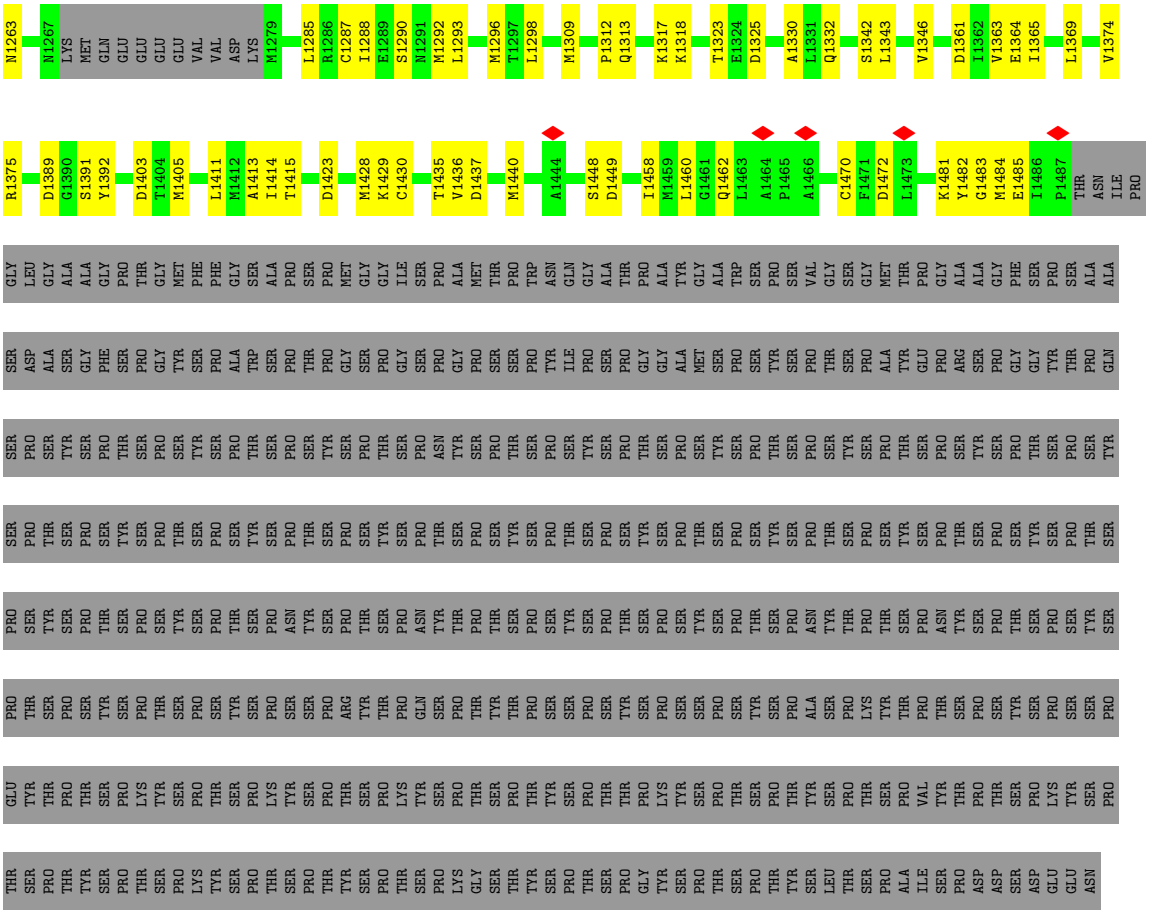


• Molecule 34: DNA-directed RNA polymerase II subunit RPB1

Chain o:

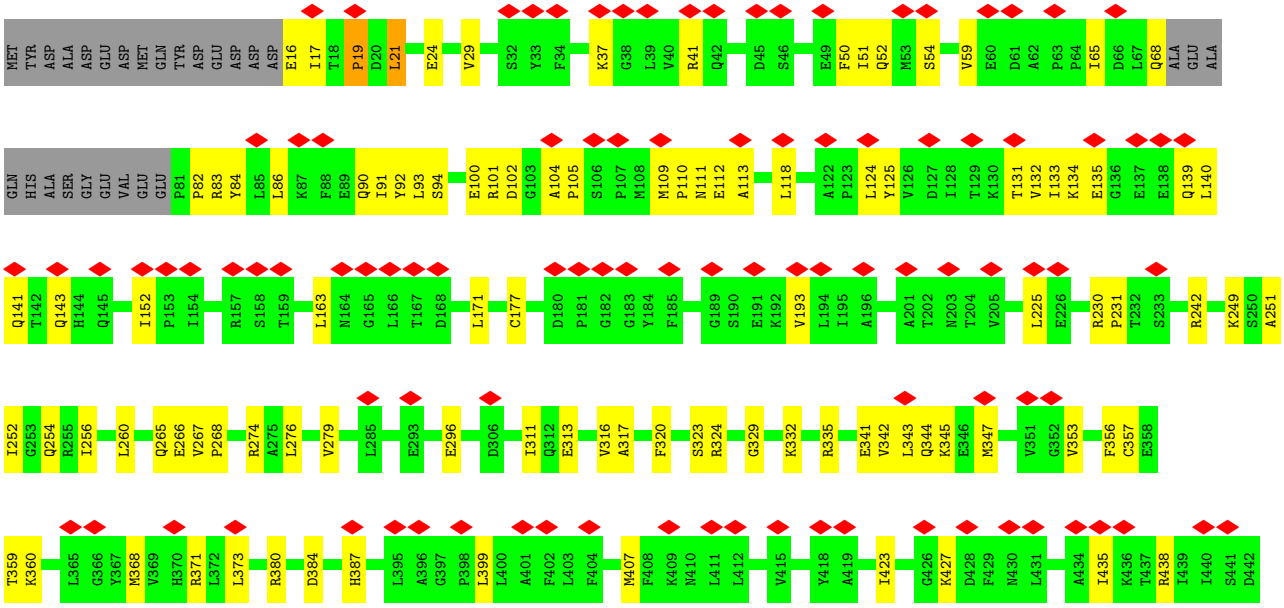


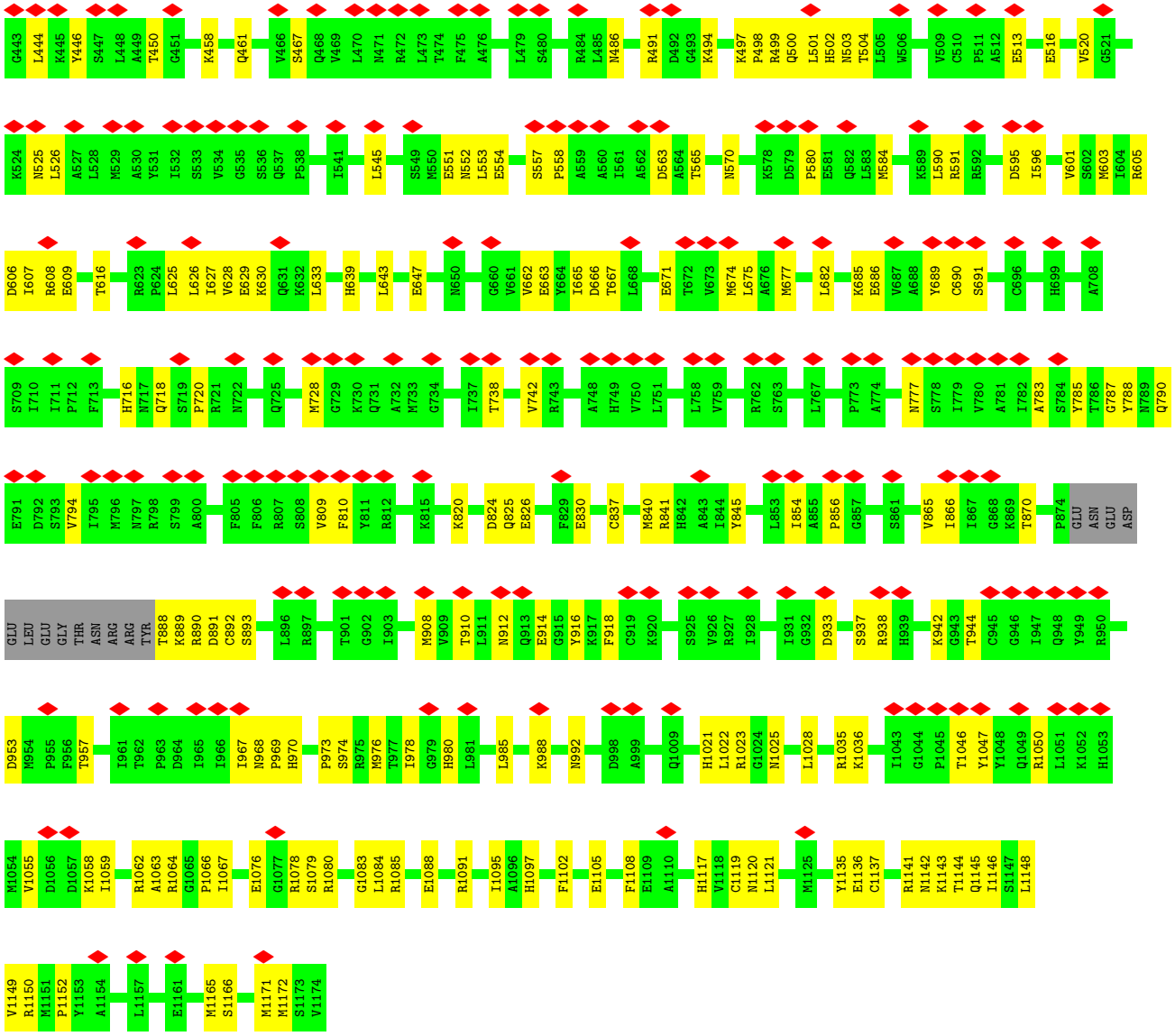




• Molecule 35: DNA-directed RNA polymerase subunit beta

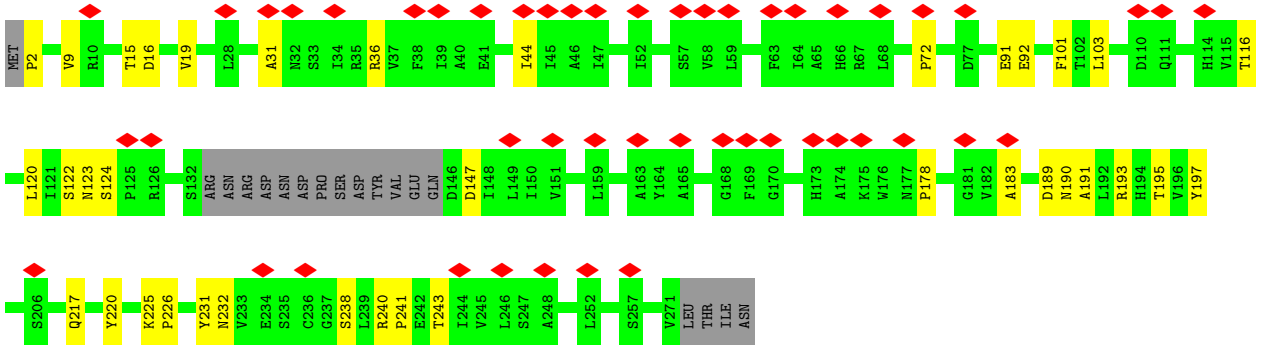
Chain p:





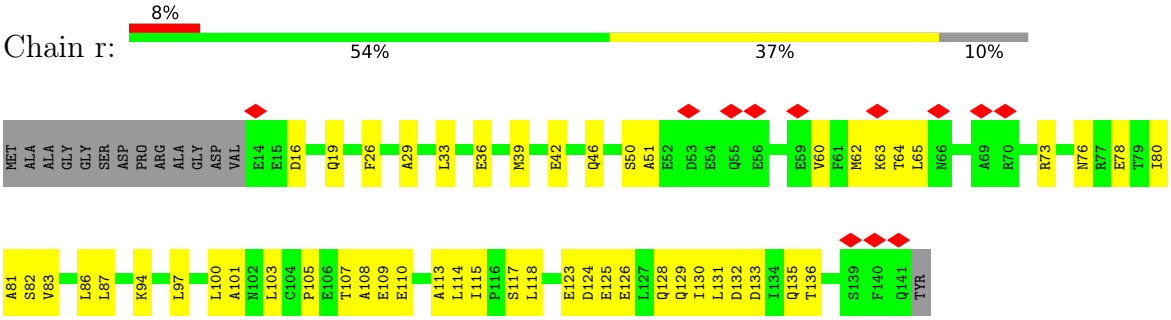
• Molecule 36: DNA-directed RNA polymerase II subunit RPB3

Chain q:



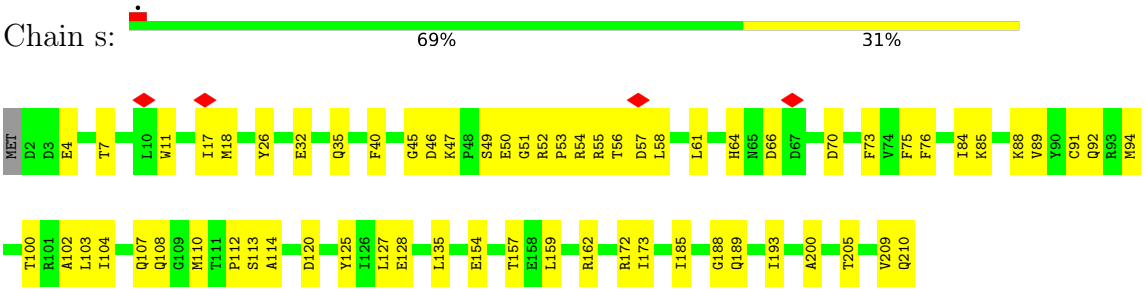
• Molecule 37: DNA-directed RNA polymerase II subunit RPB4

Chain r:



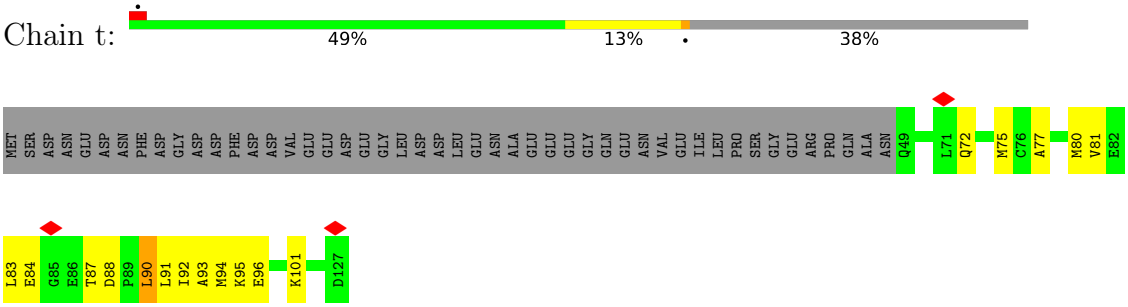
• Molecule 38: DNA-directed RNA polymerase II subunit E

Chain s:



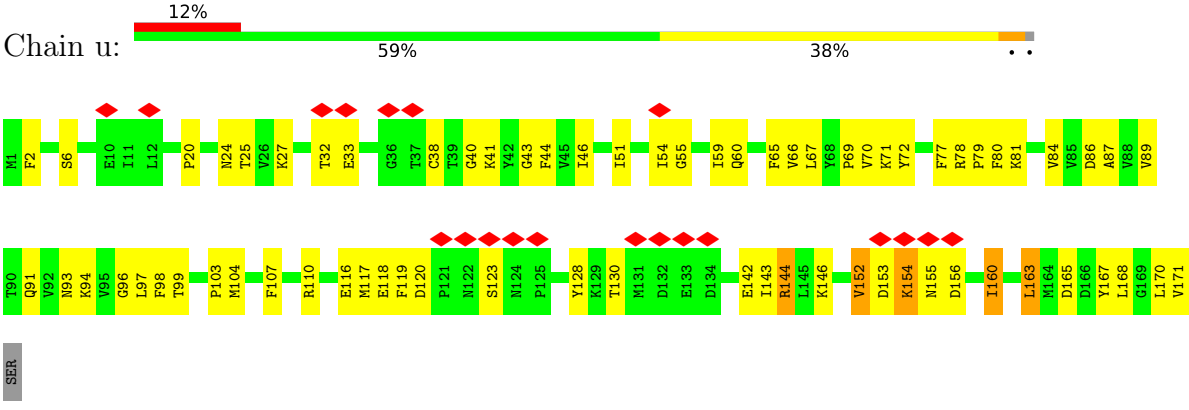
• Molecule 39: DNA-directed RNA polymerase II subunit F

Chain t:



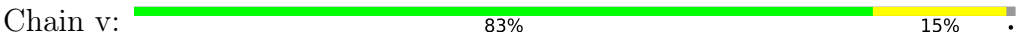
• Molecule 40: DNA-directed RNA polymerase II subunit RPB7

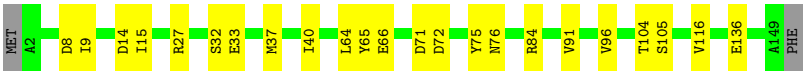
Chain u:



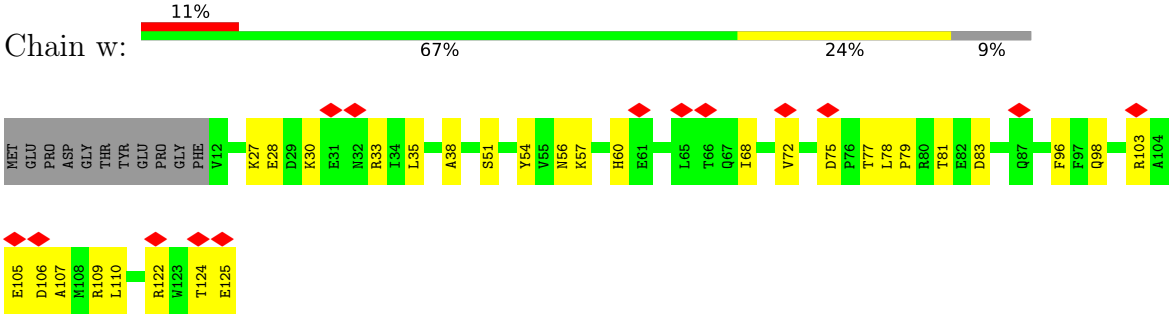
• Molecule 41: DNA-directed RNA polymerases I, II, and III subunit RPABC3

Chain v:

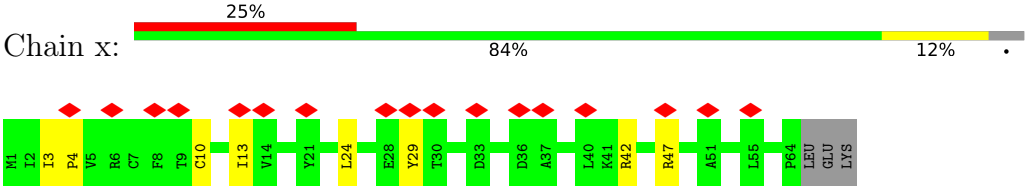




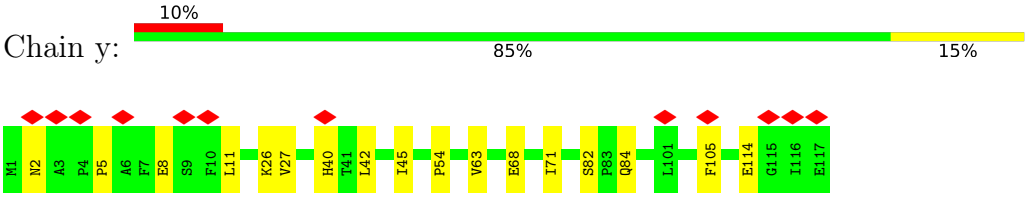
• Molecule 42: DNA-directed RNA polymerase II subunit RPB9



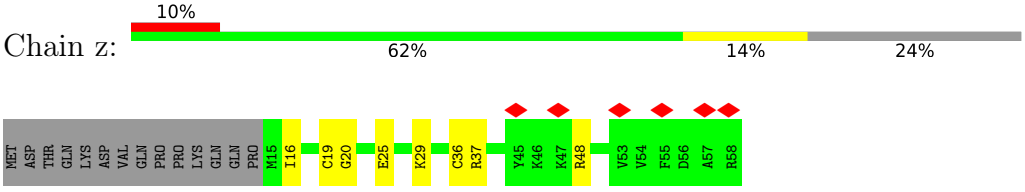
• Molecule 43: RPB10



• Molecule 44: RNA_pol_L_2 domain-containing protein



• Molecule 45: RPB12



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	42939	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 ($e^-/Å^2$)	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	0.212	Depositor
Minimum map value	-0.116	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.0051	Depositor
Map size (Å)	542.72, 542.72, 542.72	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.06, 1.06, 1.06	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: SF4, 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	0	0.35	0/1804	0.68	0/2443
2	1	0.58	1/2674 (0.0%)	1.00	13/3660 (0.4%)
3	2	0.50	0/2588	0.78	6/3509 (0.2%)
4	3	0.46	0/2102	0.73	3/2844 (0.1%)
5	4	0.50	0/3663	0.81	5/4965 (0.1%)
6	5	0.45	0/433	0.73	0/585
7	6	0.58	1/4983 (0.0%)	0.88	15/6731 (0.2%)
8	7	0.49	0/5957	0.81	6/8071 (0.1%)
9	8	0.54	0/2429	0.78	0/3295
10	9	0.49	0/2384	0.69	2/3220 (0.1%)
11	A	0.61	0/4627	0.92	13/6248 (0.2%)
12	B	0.49	1/7993 (0.0%)	0.70	9/10836 (0.1%)
13	D	0.52	0/1335	0.82	2/1784 (0.1%)
13	d	0.21	0/1321	0.44	0/1772
14	E	0.38	0/4469	0.64	5/6050 (0.1%)
14	e	0.29	0/4433	0.52	0/6004
15	F	0.68	1/3167 (0.0%)	1.07	7/4303 (0.2%)
15	f	0.51	0/3140	0.86	8/4268 (0.2%)
16	G	0.70	0/1199	0.94	1/1612 (0.1%)
17	H	0.44	0/1673	0.68	1/2285 (0.0%)
18	I	0.74	0/981	0.98	0/1332
18	i	0.21	0/989	0.40	0/1343
19	J	0.23	0/736	0.44	0/998
19	j	0.22	0/775	0.45	0/1049
20	L	0.59	0/622	0.99	1/841 (0.1%)
20	l	0.44	0/888	0.71	0/1194
21	O	0.77	0/781	1.20	5/1061 (0.5%)
22	P	1.02	3/1438 (0.2%)	1.37	12/1935 (0.6%)
23	Q	0.59	0/1013	1.07	6/1366 (0.4%)
24	R	0.50	0/1957	1.11	10/2643 (0.4%)
25	S	0.35	0/896	0.78	0/1213
26	T	0.76	0/1817	1.26	11/2445 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
27	U	0.81	2/1499 (0.1%)	1.39	16/2012 (0.8%)
28	V	0.69	0/1428	1.10	4/1917 (0.2%)
29	X	0.45	0/1641	0.75	4/2534 (0.2%)
30	Y	0.46	0/1623	0.72	4/2499 (0.2%)
31	c	0.48	0/1035	0.67	0/1406
32	k	0.29	0/799	0.53	1/1070 (0.1%)
33	m	0.30	0/733	0.55	0/977
34	o	0.35	0/11516	0.58	4/15548 (0.0%)
35	p	0.33	0/9243	0.51	2/12475 (0.0%)
36	q	0.32	0/2102	0.44	0/2857
37	r	0.18	0/1019	0.45	0/1374
38	s	0.25	0/1751	0.52	1/2366 (0.0%)
39	t	0.63	0/645	0.92	1/871 (0.1%)
40	u	0.42	0/1382	0.82	3/1874 (0.2%)
41	v	0.28	0/1207	0.47	0/1628
42	w	0.23	0/948	0.45	0/1284
43	x	0.36	0/516	0.44	0/696
44	y	0.30	0/956	0.47	0/1294
45	z	0.28	0/377	0.43	0/500
All	All	0.49	9/115687 (0.0%)	0.77	181/157087 (0.1%)

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	U	183	GLN	C-O	8.28	1.33	1.24
7	6	432	THR	C-N	7.30	1.43	1.33
22	P	326	GLU	C-O	6.92	1.32	1.24
27	U	124	ARG	C-N	6.86	1.42	1.33
22	P	323	GLU	C-O	6.68	1.32	1.24
12	B	61	ASN	C-O	-6.35	1.18	1.24
15	F	395	ARG	C-O	5.88	1.32	1.24
22	P	327	ASN	C-O	5.48	1.30	1.24
2	1	421	VAL	C-O	5.33	1.29	1.24

All (181) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	U	186	PRO	CA-N-CD	-13.20	93.52	112.00
2	1	421	VAL	N-CA-C	-12.30	98.89	110.82
15	F	81	GLU	CA-C-N	10.40	130.60	119.05
15	F	81	GLU	C-N-CA	10.40	130.60	119.05
12	B	491	HIS	N-CA-C	-9.78	100.62	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	Y	36	DC	C2'-C3'-O3'	-9.68	96.98	111.50
7	6	400	PRO	N-CA-C	-9.51	100.31	113.53
27	U	127	PHE	CB-CA-C	9.26	126.58	109.54
24	R	112	ARG	N-CA-C	-9.18	101.28	111.28
15	f	149	PRO	O-C-N	9.08	125.48	121.31
2	1	276	PRO	N-CA-CB	8.97	112.67	103.25
22	P	320	GLU	CA-C-N	-8.54	109.80	120.56
22	P	320	GLU	C-N-CA	-8.54	109.80	120.56
11	A	468	PHE	CA-C-N	8.46	128.44	119.05
11	A	468	PHE	C-N-CA	8.46	128.44	119.05
27	U	138	ASP	N-CA-C	-8.30	102.24	111.28
7	6	447	PRO	N-CA-C	8.20	123.05	111.33
39	t	75	MET	N-CA-C	-8.14	103.44	112.72
11	A	467	ILE	N-CA-C	-8.05	103.40	111.77
27	U	127	PHE	N-CA-C	-8.05	99.15	110.50
15	f	305	ILE	N-CA-CB	7.88	115.47	110.50
4	3	226	TYR	N-CA-C	-7.87	102.70	111.28
11	A	469	PRO	N-CA-C	7.82	124.40	113.53
11	A	356	PRO	N-CA-C	7.82	124.68	114.68
27	U	115	GLU	CA-C-N	-7.80	108.42	122.46
27	U	115	GLU	C-N-CA	-7.80	108.42	122.46
8	7	308	PRO	N-CA-CB	7.67	110.11	103.36
26	T	186	MET	N-CA-C	-7.37	103.24	111.28
11	A	640	LEU	N-CA-C	-7.36	103.39	113.18
22	P	326	GLU	CA-C-N	-7.32	110.93	120.44
22	P	326	GLU	C-N-CA	-7.32	110.93	120.44
5	4	415	GLN	N-CA-C	7.28	119.22	111.28
27	U	98	THR	N-CA-C	7.25	120.90	110.10
11	A	715	PRO	N-CA-C	-7.19	99.96	111.03
27	U	140	GLU	CB-CA-C	-7.16	99.63	110.88
3	2	215	THR	N-CA-C	-7.06	104.39	112.87
12	B	495	GLN	N-CA-C	-7.06	104.67	113.28
15	F	271	VAL	N-CA-C	-7.06	106.13	112.90
8	7	311	PRO	N-CA-CB	7.00	110.60	103.25
21	O	67	PHE	CA-C-N	-6.98	115.66	123.13
21	O	67	PHE	C-N-CA	-6.98	115.66	123.13
8	7	463	PRO	N-CA-C	-6.98	99.88	111.26
3	2	282	PRO	N-CA-CB	6.97	110.57	103.25
2	1	442	GLN	CA-C-O	-6.94	111.44	119.56
14	E	517	ASP	CB-CA-C	-6.94	108.58	116.63
34	o	1144	LEU	N-CA-C	6.94	118.63	111.14
35	p	21	LEU	N-CA-C	-6.92	103.95	112.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	A	396	LEU	N-CA-C	-6.75	104.79	113.16
32	k	180	PRO	N-CA-C	6.71	118.89	110.70
3	2	269	PRO	N-CA-CB	6.70	110.28	103.25
11	A	498	PRO	N-CA-CB	6.69	110.28	103.25
7	6	633	ARG	CB-CA-C	6.67	119.50	111.22
15	f	326	HIS	N-CA-C	-6.67	104.24	112.38
13	D	923	GLN	N-CA-C	-6.65	105.13	113.18
29	X	-15	DT	C4'-C3'-O3'	6.64	119.95	110.00
14	E	704	VAL	N-CA-C	6.61	117.36	110.62
5	4	375	VAL	N-CA-C	-6.60	104.03	113.07
2	1	353	LYS	CB-CA-C	6.57	123.29	110.67
15	f	319	LEU	N-CA-C	-6.51	104.03	112.68
38	s	112	PRO	N-CA-C	-6.47	104.43	113.81
5	4	406	GLY	N-CA-C	6.41	120.11	110.75
14	E	509	GLN	N-CA-C	6.39	118.56	108.79
7	6	424	GLU	N-CA-C	-6.36	104.26	111.07
24	R	127	ARG	N-CA-C	-6.36	104.35	111.28
29	X	-16	DT	C2'-C3'-O3'	-6.35	101.97	111.50
7	6	92	VAL	N-CA-C	-6.29	105.23	111.77
2	1	484	PRO	N-CA-CB	6.29	109.85	103.25
26	T	202	LEU	N-CA-C	-6.25	104.47	111.28
2	1	507	PRO	N-CA-CB	6.24	110.43	103.44
40	u	152	VAL	N-CA-C	6.24	117.73	107.24
2	1	287	PRO	N-CA-CB	6.22	109.78	103.25
7	6	444	HIS	N-CA-C	-6.21	105.53	113.23
24	R	246	PRO	CB-CA-C	-6.20	103.47	111.46
26	T	237	PRO	N-CA-C	-6.16	104.97	113.53
26	T	208	GLN	CB-CA-C	6.14	119.53	109.46
8	7	29	LYS	N-CA-C	-6.11	104.62	111.28
24	R	34	CYS	CA-C-N	6.11	126.00	119.28
24	R	34	CYS	C-N-CA	6.11	126.00	119.28
7	6	379	LYS	CA-C-N	-6.05	111.01	121.66
7	6	379	LYS	C-N-CA	-6.05	111.01	121.66
29	X	-26	DA	C2'-C3'-O3'	6.05	120.57	111.50
11	A	822	PRO	N-CA-C	-6.04	100.03	112.47
24	R	217	ARG	N-CA-C	6.04	117.86	111.28
34	o	750	ASP	CB-CA-C	-6.02	101.38	110.90
15	F	316	GLN	CB-CA-C	6.01	120.40	110.78
29	X	-29	DT	C2'-C3'-O3'	-6.01	102.49	111.50
23	Q	368	SER	N-CA-C	-6.01	105.03	112.90
15	f	255	MET	N-CA-C	-5.96	104.85	114.09
2	1	419	THR	N-CA-C	-5.95	105.20	112.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	B	181	GLY	CA-C-O	-5.90	118.06	122.37
26	T	177	ARG	N-CA-C	-5.90	102.48	110.68
30	Y	13	DA	C2'-C3'-O3'	-5.87	102.70	111.50
2	1	480	PRO	N-CA-CB	5.82	109.36	103.25
23	Q	338	GLN	CA-C-N	-5.81	114.50	122.93
23	Q	338	GLN	C-N-CA	-5.81	114.50	122.93
26	T	138	PRO	N-CA-C	-5.81	102.14	111.38
4	3	224	LEU	N-CA-C	5.80	117.27	111.07
26	T	218	LYS	N-CA-C	-5.78	104.98	111.28
15	f	310	THR	CB-CA-C	-5.78	101.19	110.79
7	6	481	ASN	N-CA-C	5.77	117.57	111.28
30	Y	-26	DC	C2'-C3'-O3'	5.75	120.13	111.50
2	1	354	LEU	N-CA-C	-5.75	105.01	111.28
11	A	470	ILE	N-CA-C	5.72	118.40	108.90
7	6	604	THR	CA-C-O	-5.71	114.55	120.89
28	V	122	GLU	N-CA-C	5.71	120.27	112.68
2	1	265	PRO	N-CA-C	-5.68	105.64	113.53
7	6	477	ILE	N-CA-C	5.65	116.39	110.62
22	P	298	PRO	N-CA-C	-5.63	100.87	112.47
8	7	478	MET	N-CA-C	-5.61	99.23	108.49
27	U	123	ASN	N-CA-C	-5.60	105.18	111.28
21	O	6	TYR	N-CA-C	5.59	119.19	112.93
12	B	583	GLU	CB-CA-C	-5.58	101.52	110.79
28	V	150	ALA	N-CA-C	5.58	119.28	111.74
11	A	638	PRO	CB-CA-C	-5.54	106.36	111.40
20	L	112	GLU	CB-CA-C	-5.53	110.18	116.54
15	f	150	PRO	N-CA-C	5.53	117.45	110.70
24	R	307	ASP	N-CA-C	-5.52	106.91	113.97
26	T	157	ALA	N-CA-C	-5.51	100.20	109.07
7	6	621	ASN	CA-C-O	-5.50	115.56	121.45
14	E	511	SER	N-CA-C	-5.46	106.69	113.19
2	1	265	PRO	N-CA-CB	5.45	109.33	103.33
22	P	324	ALA	CA-C-N	-5.43	113.00	120.28
22	P	324	ALA	C-N-CA	-5.43	113.00	120.28
7	6	404	SER	CA-C-O	-5.42	112.75	120.51
35	p	19	PRO	N-CA-CB	-5.42	97.56	103.25
28	V	153	ARG	N-CA-C	-5.40	105.29	111.07
15	F	126	PRO	N-CA-C	5.39	119.49	111.41
27	U	128	LYS	N-CA-CB	5.39	119.65	110.71
12	B	264	GLU	N-CA-C	-5.38	106.39	113.17
34	o	1145	GLY	CA-C-O	-5.38	116.90	122.28
15	f	329	LEU	N-CA-C	-5.38	106.41	112.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	H	134	LEU	CB-CA-C	-5.37	110.36	116.54
22	P	207	PRO	N-CA-C	-5.37	101.42	112.47
2	1	424	SER	N-CA-C	-5.36	105.52	111.36
5	4	400	ARG	CA-C-O	-5.34	113.03	119.49
34	o	581	LYS	N-CA-C	5.34	121.61	109.81
14	E	449	LYS	N-CA-C	-5.33	106.04	112.54
16	G	183	ILE	N-CA-C	-5.33	102.64	109.30
26	T	207	LYS	N-CA-C	-5.30	106.04	112.88
12	B	491	HIS	CB-CA-C	5.30	119.58	110.79
28	V	163	LEU	N-CA-C	5.29	118.89	111.74
8	7	612	HIS	N-CA-C	-5.28	105.52	111.28
30	Y	-10	DA	C2'-C3'-O3'	5.27	119.41	111.50
22	P	205	ARG	CB-CA-C	-5.24	101.11	110.70
23	Q	345	SER	CA-C-N	-5.23	113.89	122.89
23	Q	345	SER	C-N-CA	-5.23	113.89	122.89
13	D	951	ASP	N-CA-C	-5.23	105.58	111.28
15	F	272	VAL	N-CA-C	-5.22	105.29	110.62
21	O	27	GLN	CA-C-N	-5.22	113.96	122.57
21	O	27	GLN	C-N-CA	-5.22	113.96	122.57
11	A	1067	GLN	CB-CA-C	5.21	119.45	110.79
26	T	31	TRP	N-CA-C	5.21	117.70	111.71
3	2	186	ILE	CA-C-O	-5.21	115.53	120.95
15	F	219	GLU	N-CA-C	-5.19	105.70	111.36
40	u	160	ILE	N-CA-C	5.19	115.95	108.48
5	4	381	PRO	N-CA-C	5.18	123.14	112.47
27	U	100	VAL	N-CA-C	5.17	115.80	107.73
27	U	186	PRO	CA-C-N	-5.17	113.38	120.46
27	U	186	PRO	C-N-CA	-5.17	113.38	120.46
22	P	266	PHE	CA-C-N	5.16	124.92	119.76
22	P	266	PHE	C-N-CA	5.16	124.92	119.76
4	3	227	LEU	N-CA-C	-5.13	105.69	111.28
23	Q	15	ARG	N-CA-C	-5.12	105.59	111.07
3	2	216	GLY	CA-C-N	-5.12	116.63	122.83
3	2	216	GLY	C-N-CA	-5.12	116.63	122.83
10	9	90	PHE	CA-C-N	-5.11	114.10	122.54
10	9	90	PHE	C-N-CA	-5.11	114.10	122.54
24	R	40	VAL	CA-C-O	-5.09	118.20	122.63
7	6	525	ILE	N-CA-C	5.08	115.22	108.11
40	u	96	GLY	N-CA-C	5.07	117.69	110.74
7	6	523	VAL	N-CA-C	5.07	115.79	110.62
12	B	541	ARG	CB-CA-C	-5.06	101.64	110.09
27	U	114	ILE	N-CA-C	-5.05	105.47	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	B	984	PRO	N-CA-C	-5.04	103.26	111.03
12	B	178	PHE	CA-CB-CG	5.03	118.83	113.80
27	U	181	ASN	CA-C-O	-5.03	115.22	120.55
27	U	22	ILE	N-CA-C	-5.02	105.60	110.42
22	P	167	ASN	CB-CA-C	-5.02	101.27	109.80
24	R	251	ILE	N-CA-C	5.01	115.73	110.62
24	R	126	ASP	CB-CA-C	5.00	119.02	110.56
26	T	201	ASP	N-CA-C	-5.00	105.83	111.28

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	1774	0	1601	65	0
2	1	2634	0	2042	285	0
3	2	2534	0	2456	149	0
4	3	2065	0	2098	239	0
5	4	3579	0	3620	239	0
6	5	428	0	434	58	0
7	6	4880	0	4923	542	0
8	7	5833	0	5796	444	0
9	8	2370	0	2391	58	0
10	9	2334	0	2357	60	0
11	A	4511	0	4428	439	0
12	B	7796	0	7751	148	0
13	D	1322	0	1340	110	0
13	d	1307	0	1318	20	0
14	E	4364	0	4244	182	0
14	e	4327	0	4197	43	0
15	F	3109	0	3045	564	0
15	f	3081	0	3012	190	0
16	G	1180	0	1235	19	0
17	H	1633	0	1621	282	0
18	I	959	0	969	77	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	i	967	0	977	46	0
19	J	720	0	719	158	0
19	j	759	0	759	18	0
20	L	614	0	614	84	0
20	l	876	0	891	68	0
21	O	771	0	764	169	0
22	P	1412	0	1506	96	0
23	Q	996	0	926	163	0
24	R	1929	0	1970	185	0
25	S	872	0	848	159	0
26	T	1788	0	1819	261	0
27	U	1476	0	1486	160	0
28	V	1404	0	1423	186	0
29	X	1464	0	802	92	0
30	Y	1447	0	795	102	0
31	c	1011	0	975	24	0
32	k	785	0	818	7	0
33	m	724	0	744	12	0
34	o	11308	0	11428	408	0
35	p	9062	0	9107	314	0
36	q	2059	0	2008	27	0
37	r	1005	0	964	82	0
38	s	1720	0	1737	48	0
39	t	635	0	665	24	0
40	u	1351	0	1358	132	0
41	v	1186	0	1147	15	0
42	w	927	0	859	35	0
43	x	507	0	523	5	0
44	y	937	0	959	14	0
45	z	372	0	379	5	0
46	0	2	0	0	0	0
46	2	3	0	0	0	0
46	3	1	0	0	0	0
46	R	1	0	0	0	0
46	U	1	0	0	0	0
46	o	2	0	0	0	0
46	p	1	0	0	0	0
46	q	1	0	0	0	0
46	w	2	0	0	0	0
46	x	1	0	0	0	0
46	z	1	0	0	0	0
47	7	8	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	o	1	0	0	0	0
All	All	113129	0	110848	5455	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 24.

All (5455) 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)
7:6:557:LYS:HB3	7:6:596:PHE:CZ	1.28	1.69
14:E:507:VAL:CG2	14:E:513:LEU:HD11	1.25	1.65
8:7:5:VAL:HG11	8:7:55:LEU:CD1	1.17	1.64
15:F:412:LEU:CD1	15:F:417:ARG:HD2	1.21	1.62
11:A:410:TRP:HB3	15:F:306:PRO:CD	1.27	1.62
23:Q:344:ARG:HD3	23:Q:349:TRP:CD1	1.27	1.61
21:O:28:ILE:HG22	23:Q:38:VAL:CG1	1.23	1.60
2:1:372:ILE:HG21	3:2:54:ARG:CZ	1.31	1.60
8:7:8:LEU:CD1	8:7:61:ARG:HB3	1.12	1.60
8:7:629:GLN:CG	8:7:633:LEU:HD12	1.27	1.59
17:H:110:TYR:CD2	19:J:161:LYS:HB2	1.33	1.59
17:H:110:TYR:CD1	19:J:161:LYS:HD3	1.36	1.59
15:F:112:VAL:HG11	17:H:55:LYS:CD	1.25	1.58
7:6:411:SER:HB2	7:6:450:MET:SD	1.41	1.57
11:A:396:LEU:CD1	15:f:394:PRO:HG2	1.11	1.57
13:D:942:ALA:HB3	14:E:510:ALA:CB	1.31	1.57
2:1:374:LEU:HD13	4:3:270:VAL:CG1	1.23	1.57
2:1:381:ARG:HB3	4:3:256:PHE:CG	1.38	1.56
13:D:942:ALA:CB	14:E:510:ALA:HB1	1.22	1.56
7:6:557:LYS:HE2	7:6:596:PHE:CE2	1.39	1.56
26:T:192:GLU:HG2	28:V:75:PHE:CE2	1.37	1.56
15:F:112:VAL:CG1	17:H:55:LYS:HD3	1.09	1.55
2:1:374:LEU:CD1	4:3:270:VAL:HG12	1.32	1.55
11:A:396:LEU:HD21	15:f:394:PRO:CD	1.13	1.55
11:A:396:LEU:HD11	15:f:394:PRO:CG	1.30	1.55
11:A:511:LEU:CB	15:f:214:HIS:NE2	1.68	1.55
11:A:1169:ARG:CB	11:A:1181:ARG:NH1	1.69	1.55
15:F:412:LEU:HD13	15:F:417:ARG:CD	1.10	1.55
11:A:511:LEU:CB	15:f:214:HIS:CE1	1.89	1.54
18:i:73:LEU:HD22	20:l:105:HIS:CE1	1.04	1.54
8:7:629:GLN:CD	8:7:633:LEU:CD1	1.80	1.54
7:6:580:ILE:CG1	7:6:607:ILE:HG22	1.23	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:189:THR:CB	2:1:193:ILE:HG21	1.36	1.53
7:6:199:LEU:HD13	7:6:273:LYS:CG	1.36	1.52
8:7:8:LEU:HD11	8:7:61:ARG:CA	1.36	1.52
11:A:410:TRP:CZ3	15:F:355:ILE:HG22	1.44	1.51
6:5:33:PHE:CE1	6:5:49:LEU:HD12	1.44	1.51
4:3:50:PHE:CG	5:4:122:LEU:HD21	1.41	1.51
18:i:60:HIS:CE1	20:l:106:ARG:NH2	1.75	1.51
7:6:503:ALA:HB2	7:6:645:ARG:C	1.36	1.51
21:O:22:LEU:CB	21:O:28:ILE:HG12	1.35	1.50
8:7:8:LEU:HD13	8:7:61:ARG:CB	1.06	1.50
2:1:372:ILE:CG2	3:2:54:ARG:NH2	1.75	1.47
15:F:112:VAL:CG1	17:H:55:LYS:CD	1.78	1.47
24:R:122:THR:HG21	35:p:438:ARG:NH1	1.29	1.47
2:1:381:ARG:CG	4:3:256:PHE:HB3	1.43	1.46
8:7:629:GLN:CD	8:7:633:LEU:HD12	1.30	1.46
11:A:405:VAL:HB	15:F:301:VAL:CG1	1.42	1.46
17:H:110:TYR:CD1	19:J:161:LYS:CD	1.98	1.46
18:i:73:LEU:CD2	20:l:105:HIS:CE1	1.95	1.46
5:4:409:TYR:O	5:4:412:PHE:CE1	1.68	1.45
11:A:410:TRP:CD2	15:F:305:ILE:HG22	1.49	1.45
8:7:9:LEU:CD1	8:7:61:ARG:NH2	1.77	1.45
21:O:28:ILE:CG2	23:Q:38:VAL:CG1	1.93	1.45
17:H:110:TYR:CG	19:J:161:LYS:HD3	1.49	1.44
2:1:189:THR:CB	2:1:193:ILE:CG2	1.94	1.44
14:E:507:VAL:HB	14:E:513:LEU:CD2	1.45	1.44
37:r:60:VAL:HG11	40:u:44:PHE:CZ	1.51	1.44
2:1:374:LEU:CD1	4:3:270:VAL:CG1	1.84	1.43
4:3:50:PHE:CD2	5:4:122:LEU:HD21	1.51	1.43
11:A:410:TRP:CH2	15:F:355:ILE:CG2	2.00	1.43
11:A:396:LEU:CD2	15:f:394:PRO:HD2	1.48	1.43
11:A:410:TRP:C	15:F:306:PRO:HB3	1.44	1.43
27:U:188:TYR:HE2	28:V:218:LYS:NZ	1.14	1.43
26:T:192:GLU:HG2	28:V:75:PHE:CD2	1.50	1.43
8:7:236:ALA:HB3	8:7:456:ILE:CG2	1.46	1.42
15:F:209:LYS:CG	15:F:210:PRO:HD2	1.47	1.42
7:6:618:PRO:HB2	7:6:645:ARG:NH2	1.10	1.41
17:H:110:TYR:CZ	19:J:161:LYS:HA	1.54	1.41
2:1:434:LEU:HD12	5:4:58:ARG:NH1	1.09	1.41
11:A:410:TRP:CA	15:F:306:PRO:HB3	1.50	1.41
15:F:114:LEU:CD2	17:H:45:LEU:HB2	0.93	1.41
23:Q:344:ARG:CD	23:Q:349:TRP:NE1	1.84	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:8:LEU:HD11	8:7:61:ARG:C	1.45	1.41
3:2:223:LEU:HD11	8:7:726:GLN:NE2	1.36	1.40
11:A:410:TRP:CD2	15:F:305:ILE:CG2	2.04	1.40
8:7:610:PHE:CE2	8:7:618:VAL:HG21	1.55	1.40
23:Q:344:ARG:CD	23:Q:349:TRP:CD1	2.04	1.40
8:7:5:VAL:CG1	8:7:55:LEU:HD11	1.52	1.39
7:6:411:SER:CB	7:6:450:MET:SD	2.09	1.39
11:A:511:LEU:HG	15:f:214:HIS:ND1	1.33	1.39
24:R:209:ILE:CD1	24:R:250:PRO:HG2	1.47	1.39
8:7:9:LEU:CD1	8:7:61:ARG:HH22	1.30	1.38
25:S:8:SER:CB	26:T:49:GLN:HA	1.51	1.38
7:6:533:LEU:CD2	7:6:716:VAL:CG1	1.99	1.38
23:Q:47:GLU:OE2	23:Q:60:HIS:CE1	1.75	1.38
2:1:414:TYR:CD2	4:3:116:LYS:HD2	1.56	1.37
5:4:412:PHE:CD1	5:4:439:ARG:O	1.74	1.37
20:L:111:LEU:HA	20:L:114:LYS:NZ	1.39	1.37
11:A:504:PRO:CG	15:F:207:ARG:O	1.71	1.37
18:i:73:LEU:HD22	20:l:105:HIS:NE2	1.39	1.36
2:1:381:ARG:O	4:3:256:PHE:CE1	1.76	1.36
11:A:396:LEU:CG	15:f:394:PRO:HG2	1.50	1.36
23:Q:344:ARG:HD3	23:Q:349:TRP:CG	1.60	1.36
37:r:103:LEU:HD23	40:u:144:ARG:NH1	1.08	1.36
11:A:410:TRP:CZ3	15:F:355:ILE:CG2	2.05	1.36
25:S:8:SER:HB3	26:T:49:GLN:CA	1.51	1.36
40:u:40:GLY:HA2	40:u:152:VAL:CG2	1.54	1.36
8:7:611:VAL:CB	8:7:614:TYR:HB3	1.55	1.35
3:2:156:LEU:CD2	3:2:165:ARG:HD2	1.57	1.35
11:A:1169:ARG:CD	11:A:1181:ARG:HH11	1.37	1.35
11:A:408:LEU:CD1	15:F:302:HIS:CD2	2.09	1.35
15:F:114:LEU:HD22	17:H:45:LEU:CB	0.89	1.34
7:6:275:GLU:CD	7:6:456:THR:HG23	1.49	1.34
7:6:469:THR:CG2	7:6:638:GLN:CG	2.02	1.34
11:A:410:TRP:CE3	15:F:305:ILE:HG22	1.60	1.34
11:A:410:TRP:CB	15:F:306:PRO:CD	2.05	1.34
2:1:414:TYR:CE1	4:3:116:LYS:NZ	1.96	1.33
11:A:410:TRP:HB3	15:F:306:PRO:N	1.41	1.33
15:F:114:LEU:O	17:H:42:SER:CB	1.75	1.33
2:1:414:TYR:CD2	4:3:116:LYS:CD	2.11	1.33
37:r:103:LEU:CD2	40:u:144:ARG:HH11	1.38	1.33
2:1:372:ILE:HB	3:2:54:ARG:NE	1.42	1.32
8:7:5:VAL:CG1	8:7:55:LEU:CD1	2.00	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:Q:344:ARG:HD3	23:Q:349:TRP:NE1	1.33	1.32
2:1:431:ILE:HD12	5:4:58:ARG:NH2	1.45	1.32
11:A:408:LEU:CD1	15:F:302:HIS:HD2	1.42	1.32
7:6:557:LYS:CE	7:6:596:PHE:CD2	2.13	1.32
28:V:148:LYS:O	28:V:180:LYS:HD3	1.16	1.32
11:A:511:LEU:HB2	15:f:214:HIS:CE1	1.55	1.31
7:6:199:LEU:CD1	7:6:273:LYS:HG2	1.58	1.31
7:6:557:LYS:CE	7:6:596:PHE:CE2	2.14	1.31
3:2:208:CYS:HB3	3:2:219:TYR:CD1	1.65	1.31
11:A:396:LEU:HD21	15:f:394:PRO:CG	1.60	1.31
21:O:22:LEU:CB	21:O:28:ILE:CG1	2.09	1.31
7:6:618:PRO:CB	7:6:645:ARG:HH22	1.44	1.30
4:3:50:PHE:CD1	5:4:122:LEU:HD23	1.65	1.30
7:6:533:LEU:CD2	7:6:716:VAL:HG12	1.55	1.30
2:1:377:LYS:N	4:3:284:THR:O	1.65	1.30
8:7:8:LEU:HD11	8:7:62:ALA:N	1.47	1.30
21:O:22:LEU:HB2	21:O:28:ILE:CD1	1.62	1.30
5:4:309:VAL:HG21	5:4:368:LEU:CB	1.62	1.29
7:6:375:LYS:O	7:6:379:LYS:HG3	1.21	1.29
11:A:410:TRP:CG	15:F:306:PRO:HD3	1.65	1.29
26:T:192:GLU:CG	28:V:75:PHE:CD2	2.13	1.29
11:A:511:LEU:CG	15:f:214:HIS:CE1	2.16	1.29
28:V:129:LYS:O	28:V:140:LYS:CB	1.78	1.29
14:E:507:VAL:CG2	14:E:513:LEU:CD1	2.10	1.29
25:S:8:SER:O	26:T:48:THR:HA	1.24	1.29
4:3:50:PHE:CG	5:4:122:LEU:CD2	2.15	1.29
8:7:8:LEU:CG	8:7:62:ALA:N	1.95	1.28
8:7:629:GLN:CD	8:7:633:LEU:CG	2.04	1.28
11:A:410:TRP:CB	15:F:306:PRO:HD3	1.62	1.28
15:F:104:LEU:HB3	19:J:217:PHE:CE2	1.66	1.28
8:7:8:LEU:CD1	8:7:61:ARG:CA	2.05	1.28
23:Q:344:ARG:HD3	23:Q:349:TRP:CE2	1.67	1.28
26:T:197:TYR:N	26:T:232:THR:HG21	1.36	1.28
8:7:9:LEU:HD11	8:7:61:ARG:NH2	0.96	1.28
11:A:396:LEU:CD1	15:f:394:PRO:CG	1.96	1.28
11:A:1169:ARG:CG	11:A:1181:ARG:NH1	1.95	1.28
14:E:507:VAL:HG21	14:E:513:LEU:CD1	1.61	1.28
11:A:410:TRP:CE2	15:F:305:ILE:HG21	1.69	1.28
11:A:469:PRO:CA	15:F:214:HIS:HD2	1.46	1.28
37:r:60:VAL:CG1	40:u:44:PHE:HZ	1.45	1.28
2:1:414:TYR:CZ	4:3:116:LYS:NZ	1.99	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:384:HIS:HD2	4:3:259:ARG:CZ	1.45	1.27
14:E:506:SER:OG	14:E:575:PHE:HD2	1.02	1.27
17:H:51:GLU:OE1	19:J:193:TYR:HB3	1.13	1.27
7:6:557:LYS:HE3	7:6:596:PHE:CD2	1.70	1.26
8:7:629:GLN:OE1	8:7:633:LEU:HG	1.17	1.26
20:L:101:GLN:O	20:L:105:HIS:CD2	1.88	1.26
8:7:8:LEU:CD1	8:7:62:ALA:N	1.97	1.26
11:A:511:LEU:HG	15:f:214:HIS:CE1	1.70	1.26
7:6:443:VAL:O	7:6:472:ARG:NH2	1.66	1.25
15:F:218:VAL:HG12	17:H:162:THR:CB	1.66	1.25
2:1:434:LEU:CD1	5:4:58:ARG:NH1	1.99	1.25
20:l:101:GLN:O	20:l:105:HIS:CD2	1.89	1.25
8:7:8:LEU:HD12	8:7:58:ALA:O	1.24	1.25
11:A:469:PRO:O	15:F:214:HIS:CD2	1.88	1.25
15:F:117:ILE:CG2	17:H:38:GLN:HB3	1.66	1.25
18:i:60:HIS:ND1	20:l:106:ARG:NH2	1.78	1.25
2:1:381:ARG:HD3	4:3:256:PHE:CB	1.66	1.25
20:L:71:ASP:OD2	20:L:74:GLU:HG3	1.33	1.25
7:6:366:ASN:N	7:6:410:TYR:CE2	2.03	1.24
8:7:629:GLN:OE1	8:7:633:LEU:CG	1.83	1.24
11:A:1169:ARG:HD3	11:A:1181:ARG:NH1	1.53	1.24
3:2:223:LEU:CD1	8:7:726:GLN:NE2	2.00	1.24
37:r:103:LEU:CD2	40:u:144:ARG:NH1	1.95	1.24
3:2:114:ALA:CB	3:2:148:SER:OG	1.84	1.24
15:F:112:VAL:HG13	17:H:55:LYS:CB	1.68	1.24
17:H:110:TYR:CZ	19:J:161:LYS:CA	2.18	1.24
27:U:126:SER:CB	27:U:136:PHE:O	1.84	1.24
5:4:315:LEU:CD2	5:4:368:LEU:HD21	1.66	1.24
7:6:568:LEU:HD22	7:6:607:ILE:O	1.33	1.24
11:A:410:TRP:HB3	15:F:306:PRO:CB	1.67	1.24
17:H:110:TYR:CE1	19:J:161:LYS:HA	1.72	1.24
27:U:70:LYS:O	27:U:99:LEU:HB3	1.07	1.24
21:O:54:ASN:OD1	23:Q:366:ILE:O	1.53	1.23
7:6:580:ILE:CG1	7:6:607:ILE:CG2	2.15	1.23
8:7:8:LEU:CD1	8:7:61:ARG:CB	1.80	1.23
8:7:8:LEU:HD21	8:7:61:ARG:C	1.62	1.23
15:F:218:VAL:HG12	17:H:162:THR:OG1	1.31	1.23
5:4:309:VAL:CG2	5:4:368:LEU:HD22	1.68	1.23
18:i:73:LEU:CD2	20:l:105:HIS:NE2	1.96	1.23
2:1:372:ILE:CG2	3:2:54:ARG:CZ	2.08	1.23
11:A:410:TRP:CE3	15:F:305:ILE:CG2	2.20	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:208:CYS:HB3	3:2:219:TYR:CE1	1.72	1.23
8:7:8:LEU:HD21	8:7:61:ARG:O	1.38	1.23
8:7:537:ALA:HB1	8:7:621:PHE:CE2	1.73	1.23
8:7:629:GLN:NE2	8:7:633:LEU:CD1	2.01	1.23
11:A:410:TRP:HB3	15:F:306:PRO:CA	1.68	1.23
15:F:219:GLU:CB	17:H:160:ILE:HG21	1.68	1.23
25:S:8:SER:O	26:T:48:THR:CA	1.85	1.22
8:7:611:VAL:HB	8:7:614:TYR:CB	1.69	1.22
27:U:188:TYR:CE2	28:V:218:LYS:NZ	2.06	1.22
11:A:405:VAL:CB	15:F:301:VAL:HG12	1.69	1.22
11:A:410:TRP:CZ2	15:F:305:ILE:HG21	1.74	1.22
5:4:386:THR:O	5:4:389:ASP:OD1	1.55	1.22
28:V:121:THR:O	28:V:125:VAL:HG21	1.39	1.22
28:V:147:ASP:O	28:V:148:LYS:HG2	1.10	1.22
7:6:557:LYS:CB	7:6:596:PHE:CZ	2.21	1.22
7:6:611:GLY:HA3	30:Y:-12:DC:OP1	1.35	1.22
2:1:381:ARG:CD	4:3:256:PHE:HB3	1.68	1.21
3:2:114:ALA:HB1	3:2:148:SER:OG	1.38	1.21
8:7:9:LEU:HD12	8:7:61:ARG:NH1	1.54	1.21
11:A:405:VAL:CB	15:F:301:VAL:CG1	2.18	1.21
2:1:431:ILE:CD1	5:4:58:ARG:CZ	2.18	1.21
21:O:22:LEU:HB2	21:O:28:ILE:CG1	1.65	1.21
11:A:469:PRO:HA	15:F:214:HIS:CD2	1.75	1.21
4:3:50:PHE:CD1	5:4:122:LEU:CD2	2.23	1.21
6:5:35:ILE:CG2	12:B:540:LYS:HE2	1.71	1.20
2:1:372:ILE:HG21	3:2:54:ARG:NH2	0.90	1.20
25:S:8:SER:HA	26:T:48:THR:O	1.41	1.20
11:A:1169:ARG:CD	11:A:1181:ARG:NH1	1.99	1.20
14:E:506:SER:OG	14:E:575:PHE:CD2	1.90	1.20
28:V:181:ALA:O	28:V:185:LEU:N	1.72	1.20
5:4:409:TYR:O	5:4:412:PHE:CZ	1.94	1.20
7:6:533:LEU:HD23	7:6:716:VAL:CG1	1.62	1.20
8:7:236:ALA:CB	8:7:456:ILE:CG2	2.18	1.20
15:F:114:LEU:HD22	17:H:45:LEU:CG	1.71	1.20
15:F:114:LEU:HD21	17:H:45:LEU:H	1.07	1.20
15:F:366:GLU:OE1	15:F:402:ARG:NH2	1.75	1.20
20:L:106:ARG:O	20:L:108:SER:N	1.74	1.20
24:R:209:ILE:HD11	24:R:250:PRO:CG	1.72	1.20
3:2:208:CYS:CB	3:2:219:TYR:CE1	2.25	1.20
5:4:412:PHE:CE1	5:4:439:ARG:O	1.95	1.20
15:F:85:GLY:O	19:J:212:LYS:HG2	1.36	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:219:GLU:CB	17:H:160:ILE:CG2	2.20	1.19
25:S:31:PHE:O	26:T:92:THR:N	1.73	1.19
11:A:396:LEU:CD2	15:f:394:PRO:CG	2.17	1.19
14:E:694:LEU:HD13	14:E:703:MET:CE	1.72	1.19
26:T:192:GLU:CG	28:V:75:PHE:CE2	2.24	1.19
2:1:381:ARG:HB3	4:3:256:PHE:CB	1.72	1.19
23:Q:344:ARG:CD	23:Q:349:TRP:CE2	2.24	1.19
11:A:410:TRP:CB	15:F:306:PRO:CB	2.19	1.19
11:A:411:GLU:OE2	15:F:358:THR:HG21	1.39	1.19
27:U:70:LYS:O	27:U:99:LEU:CB	1.91	1.19
7:6:503:ALA:HB2	7:6:645:ARG:O	1.42	1.18
17:H:57:SER:HB2	19:J:197:MET:SD	1.83	1.18
21:O:22:LEU:HB3	21:O:28:ILE:HG12	1.21	1.18
28:V:148:LYS:O	28:V:180:LYS:CD	1.88	1.18
7:6:443:VAL:HB	7:6:472:ARG:NH2	1.57	1.18
7:6:362:LEU:HB2	7:6:430:LEU:CD1	1.73	1.18
15:F:114:LEU:O	17:H:42:SER:HB3	1.00	1.18
15:F:320:ARG:HD2	15:F:321:PRO:CD	1.70	1.18
1:0:272:LEU:CD2	1:0:293:CYS:HB3	1.72	1.18
2:1:434:LEU:HB2	5:4:58:ARG:HH22	1.08	1.18
5:4:309:VAL:CG2	5:4:368:LEU:HB3	1.74	1.18
11:A:567:LEU:HD13	12:B:745:GLN:HG2	1.19	1.18
8:7:611:VAL:CG2	8:7:614:TYR:HB3	1.74	1.17
1:0:165:ILE:HD13	8:7:641:ARG:NH1	1.59	1.17
2:1:374:LEU:HD21	4:3:270:VAL:O	1.43	1.17
27:U:61:SER:OG	34:o:301:HIS:CE1	1.97	1.17
2:1:414:TYR:CD1	4:3:116:LYS:NZ	2.08	1.17
7:6:275:GLU:OE2	7:6:456:THR:HG23	1.40	1.17
11:A:511:LEU:HG	15:f:214:HIS:CG	1.80	1.17
22:P:197:PHE:CZ	30:Y:25:DT:O2	1.97	1.17
7:6:335:SER:CA	7:6:463:LYS:H	1.57	1.17
7:6:366:ASN:N	7:6:410:TYR:HE2	1.39	1.16
12:B:160:HIS:CE1	12:B:162:VAL:CG2	2.28	1.16
17:H:110:TYR:CD2	19:J:161:LYS:CB	2.27	1.16
2:1:384:HIS:CD2	4:3:259:ARG:NH1	2.13	1.16
8:7:60:GLN:O	8:7:64:PRO:HB3	1.41	1.16
11:A:1169:ARG:CB	11:A:1181:ARG:CZ	2.22	1.16
15:F:209:LYS:HG2	15:F:210:PRO:HD2	1.24	1.16
18:i:60:HIS:CG	20:l:106:ARG:HH21	1.62	1.16
37:r:103:LEU:HA	40:u:144:ARG:HH12	1.07	1.16
7:6:199:LEU:CD1	7:6:273:LYS:CG	2.19	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:334:ARG:N	7:6:462:CYS:SG	2.19	1.16
7:6:388:GLN:C	7:6:403:CYS:SG	2.29	1.16
11:A:410:TRP:CD1	15:F:306:PRO:HD3	1.78	1.16
23:Q:344:ARG:HD3	23:Q:349:TRP:CD2	1.81	1.15
7:6:389:ILE:N	7:6:403:CYS:SG	2.20	1.15
8:7:236:ALA:CB	8:7:456:ILE:HG23	1.75	1.15
11:A:353:LEU:HG	11:A:495:LEU:HD11	1.21	1.15
11:A:414:ILE:HD11	15:F:306:PRO:O	1.42	1.15
13:D:939:ASP:N	14:E:509:GLN:OE1	1.78	1.15
2:1:381:ARG:CB	4:3:256:PHE:HB3	1.76	1.15
2:1:383:TYR:O	4:3:174:TYR:HB3	1.47	1.15
11:A:410:TRP:HB3	15:F:306:PRO:CG	1.75	1.15
23:Q:344:ARG:NE	23:Q:349:TRP:CE2	2.13	1.15
2:1:381:ARG:HB3	4:3:256:PHE:CD2	1.82	1.15
8:7:5:VAL:HG11	8:7:55:LEU:HD12	1.19	1.15
8:7:9:LEU:CD1	8:7:61:ARG:CZ	2.24	1.15
8:7:610:PHE:HE2	8:7:618:VAL:CG2	1.60	1.15
15:F:209:LYS:HG3	15:F:210:PRO:HD2	1.15	1.15
37:r:103:LEU:HA	40:u:144:ARG:NH1	1.59	1.15
40:u:44:PHE:CE2	40:u:46:ILE:HG13	1.82	1.15
40:u:38:CYS:SG	40:u:44:PHE:HA	1.86	1.15
22:P:167:ASN:HD21	30:Y:28:DA:H1'	1.05	1.14
7:6:618:PRO:CB	7:6:645:ARG:NH2	2.03	1.14
8:7:604:VAL:O	8:7:608:ILE:HD12	1.45	1.14
5:4:308:VAL:HG22	5:4:373:HIS:CB	1.77	1.14
7:6:557:LYS:HZ1	7:6:597:LYS:HD3	1.09	1.14
7:6:618:PRO:HD2	7:6:645:ARG:NH1	1.61	1.14
8:7:610:PHE:CE2	8:7:618:VAL:CG2	2.30	1.14
11:A:405:VAL:CG2	15:F:351:ILE:CD1	2.26	1.14
28:V:151:LEU:CD1	28:V:154:LEU:HB3	1.77	1.14
7:6:335:SER:HA	7:6:463:LYS:H	1.05	1.14
8:7:8:LEU:HD22	8:7:61:ARG:HG2	1.16	1.14
11:A:404:MET:O	15:F:302:HIS:HB3	1.47	1.14
2:1:372:ILE:CB	3:2:54:ARG:NE	2.09	1.14
7:6:580:ILE:HG12	7:6:607:ILE:HG22	1.17	1.14
8:7:16:TYR:OH	8:7:730:ARG:HB3	1.48	1.14
3:2:190:LYS:HD3	3:2:214:GLU:CG	1.79	1.13
7:6:362:LEU:HB2	7:6:430:LEU:HD11	1.29	1.13
7:6:469:THR:CG2	7:6:638:GLN:CD	2.20	1.13
17:H:110:TYR:CE2	19:J:161:LYS:N	2.16	1.13
2:1:414:TYR:CE2	4:3:116:LYS:NZ	2.14	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:199:LEU:HB2	7:6:273:LYS:HG3	1.28	1.13
11:A:353:LEU:CD2	11:A:495:LEU:HD21	1.77	1.13
11:A:353:LEU:HD11	11:A:495:LEU:CG	1.77	1.13
11:A:469:PRO:CA	15:F:214:HIS:CD2	2.27	1.13
15:F:320:ARG:CD	15:F:321:PRO:HD3	1.78	1.13
20:L:83:MET:SD	20:L:86:GLN:OE1	2.06	1.13
24:R:132:ARG:HB3	35:p:914:GLU:CG	1.79	1.13
5:4:308:VAL:CG2	5:4:373:HIS:CB	2.25	1.13
7:6:469:THR:HG23	7:6:638:GLN:CG	1.76	1.12
8:7:604:VAL:O	8:7:608:ILE:CD1	1.97	1.12
11:A:396:LEU:HG	15:f:390:THR:O	1.48	1.13
28:V:151:LEU:HD11	28:V:154:LEU:CB	1.78	1.13
11:A:495:LEU:HG	15:f:272:VAL:HG11	1.28	1.12
25:S:125:TYR:CE2	26:T:31:TRP:CE3	2.37	1.12
3:2:156:LEU:HD23	3:2:165:ARG:HD2	1.26	1.12
14:E:507:VAL:CB	14:E:513:LEU:HD11	1.79	1.12
7:6:533:LEU:HD23	7:6:716:VAL:HG11	1.29	1.12
11:A:408:LEU:HD13	15:F:302:HIS:CD2	1.77	1.12
11:A:481:GLU:OE1	15:f:358:THR:CG2	1.98	1.12
27:U:32:LEU:HD22	28:V:161:ARG:NH2	1.64	1.12
1:0:269:LEU:HD12	1:0:290:SER:CB	1.77	1.12
2:1:382:TYR:OH	4:3:271:CYS:O	1.63	1.12
11:A:396:LEU:HD11	15:f:394:PRO:HG3	1.31	1.12
15:F:118:ILE:HD11	17:H:43:SER:N	1.65	1.12
15:F:219:GLU:HG2	17:H:160:ILE:CG2	1.80	1.12
15:F:83:LEU:HD23	15:F:86:PHE:CZ	1.85	1.11
15:F:112:VAL:HG13	17:H:55:LYS:HB2	1.28	1.11
15:F:428:LEU:HD13	15:F:455:LEU:CB	1.80	1.11
28:V:147:ASP:O	28:V:148:LYS:CG	1.98	1.11
6:5:15:ALA:HA	7:6:516:PRO:HB3	1.13	1.11
7:6:468:ALA:HB3	7:6:638:GLN:HE22	1.08	1.11
11:A:396:LEU:HD23	15:f:391:LEU:O	1.49	1.11
5:4:315:LEU:HD22	5:4:368:LEU:HD21	1.30	1.11
6:5:35:ILE:HG22	12:B:540:LYS:HE2	1.24	1.11
11:A:353:LEU:HD21	11:A:495:LEU:HD21	1.24	1.11
25:S:122:THR:HG22	26:T:24:PRO:HA	1.18	1.11
8:7:14:TYR:O	8:7:15:ASP:HB2	1.49	1.11
8:7:60:GLN:O	8:7:64:PRO:CB	1.98	1.11
18:i:73:LEU:HD22	20:l:105:HIS:ND1	1.66	1.11
40:u:40:GLY:CA	40:u:152:VAL:HG21	1.79	1.11
2:1:384:HIS:HD2	4:3:259:ARG:NH1	1.46	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:410:TRP:CE2	15:F:305:ILE:CG2	2.30	1.10
3:2:190:LYS:HD3	3:2:214:GLU:HG3	1.10	1.10
3:2:223:LEU:HD21	8:7:726:GLN:HE21	1.10	1.10
5:4:318:TYR:CE2	5:4:373:HIS:CE1	2.39	1.10
7:6:447:PRO:CG	29:X:15:DG:H3'	1.80	1.10
8:7:629:GLN:HG2	8:7:633:LEU:HD12	1.22	1.10
11:A:353:LEU:CG	11:A:495:LEU:HD11	1.81	1.10
12:B:160:HIS:HE1	12:B:162:VAL:HG21	1.16	1.10
13:D:876:ALA:O	13:D:880:ARG:HG3	1.50	1.10
15:F:114:LEU:HD23	17:H:45:LEU:HB2	1.29	1.10
8:7:611:VAL:CB	8:7:614:TYR:CB	2.25	1.10
7:6:447:PRO:HG2	29:X:15:DG:C3'	1.81	1.10
22:P:189:ASN:ND2	23:Q:376:TRP:HZ2	1.47	1.10
27:U:118:GLU:HG2	27:U:178:ALA:HA	1.30	1.10
1:0:268:ARG:CZ	10:9:176:THR:HG21	1.81	1.10
6:5:15:ALA:CA	7:6:516:PRO:HB3	1.80	1.09
7:6:469:THR:HG23	7:6:638:GLN:CD	1.74	1.09
8:7:7:GLY:HA3	8:7:62:ALA:HB1	1.34	1.09
11:A:410:TRP:CA	15:F:306:PRO:CB	2.30	1.09
14:E:507:VAL:HG23	14:E:513:LEU:HD11	1.34	1.09
7:6:469:THR:CG2	7:6:638:GLN:HG2	1.72	1.09
11:A:489:GLN:O	11:A:491:MET:HE1	1.52	1.09
27:U:61:SER:CB	34:o:301:HIS:HE1	1.63	1.09
37:r:60:VAL:CG1	40:u:44:PHE:CZ	2.25	1.09
24:R:111:ASP:HB3	24:R:114:MET:HB2	1.26	1.09
5:4:433:PHE:CD2	6:5:38:ILE:HD13	1.87	1.09
11:A:353:LEU:HD11	11:A:495:LEU:HG	1.13	1.09
11:A:353:LEU:HD21	11:A:495:LEU:CD2	1.82	1.09
11:A:511:LEU:HB2	15:f:214:HIS:NE2	0.77	1.09
11:A:1169:ARG:HB3	11:A:1181:ARG:CZ	1.82	1.09
21:O:28:ILE:CG2	23:Q:38:VAL:HG13	1.70	1.09
24:R:111:ASP:CB	24:R:114:MET:HB2	1.82	1.09
28:V:121:THR:O	28:V:125:VAL:CG2	1.99	1.09
40:u:44:PHE:CD2	40:u:46:ILE:HG13	1.85	1.09
3:2:294:CYS:HB3	3:2:308:CYS:SG	1.93	1.09
6:5:33:PHE:CE1	6:5:49:LEU:CD1	2.34	1.09
7:6:419:ARG:HG3	7:6:423:ALA:HB3	1.34	1.09
8:7:526:GLU:OE1	8:7:711:ASP:OD1	1.69	1.09
11:A:353:LEU:HD21	15:f:272:VAL:HG21	1.24	1.09
11:A:410:TRP:CB	15:F:306:PRO:CA	2.31	1.09
11:A:511:LEU:HB2	15:f:214:HIS:CD2	1.88	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:319:TYR:CE1	7:6:320:GLN:HG3	1.88	1.08
28:V:151:LEU:HD11	28:V:154:LEU:CD1	1.82	1.08
2:1:386:PRO:HB2	4:3:253:ALA:HA	1.31	1.08
5:4:31:LEU:HD13	5:4:94:ARG:HG3	1.10	1.08
8:7:8:LEU:HG	8:7:62:ALA:N	1.66	1.08
17:H:110:TYR:CD1	19:J:161:LYS:HD2	1.88	1.08
17:H:110:TYR:CE2	19:J:161:LYS:CA	2.36	1.08
7:6:580:ILE:O	7:6:607:ILE:HA	1.53	1.08
14:E:507:VAL:CB	14:E:513:LEU:HD21	1.83	1.08
24:R:122:THR:CG2	35:p:438:ARG:NH1	2.16	1.08
2:1:384:HIS:CD2	4:3:259:ARG:CZ	2.37	1.08
11:A:405:VAL:HG22	15:F:351:ILE:CD1	1.83	1.08
21:O:22:LEU:HB3	21:O:28:ILE:CG1	1.80	1.08
23:Q:47:GLU:OE2	23:Q:60:HIS:ND1	1.85	1.08
27:U:113:ARG:HB3	28:V:221:ARG:HH12	1.19	1.08
2:1:381:ARG:CB	4:3:256:PHE:CG	2.34	1.08
5:4:308:VAL:HG22	5:4:373:HIS:HB3	1.14	1.08
7:6:447:PRO:HG2	29:X:15:DG:O5'	1.51	1.08
7:6:597:LYS:CB	7:6:618:PRO:HG2	1.84	1.08
8:7:611:VAL:CG2	8:7:614:TYR:CB	2.32	1.08
9:8:104:ASP:O	9:8:105:ASN:O	1.70	1.08
11:A:484:ILE:HG21	15:f:310:THR:HA	1.31	1.08
22:P:167:ASN:HD21	30:Y:28:DA:C1'	1.67	1.08
8:7:537:ALA:HB1	8:7:621:PHE:HE2	1.01	1.07
14:E:696:TRP:CZ3	14:E:703:MET:HB3	1.89	1.07
17:H:110:TYR:CG	19:J:161:LYS:HB2	1.87	1.07
17:H:110:TYR:OH	19:J:160:GLN:C	1.97	1.07
2:1:381:ARG:HD3	4:3:256:PHE:HB2	1.28	1.07
27:U:61:SER:CB	34:o:301:HIS:CE1	2.37	1.07
5:4:401:LEU:HD22	6:5:10:ILE:HD13	1.36	1.07
7:6:447:PRO:CD	29:X:15:DG:OP1	2.03	1.07
7:6:618:PRO:O	7:6:645:ARG:CZ	2.02	1.07
11:A:410:TRP:CB	15:F:306:PRO:HB3	1.82	1.07
31:c:67:GLY:HA3	19:j:116:LEU:CD1	1.85	1.07
11:A:410:TRP:CH2	15:F:355:ILE:HG23	1.84	1.07
20:l:102:LEU:HA	20:l:105:HIS:HD2	1.18	1.07
3:2:156:LEU:HD22	3:2:165:ARG:HD2	1.31	1.07
4:3:44:LEU:HD22	4:3:227:LEU:HB3	1.35	1.07
8:7:629:GLN:CG	8:7:633:LEU:CD1	2.20	1.07
2:1:431:ILE:CD1	5:4:58:ARG:NH2	2.17	1.06
7:6:557:LYS:HE3	7:6:596:PHE:CG	1.89	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:507:VAL:CB	14:E:513:LEU:CD1	2.33	1.06
15:F:117:ILE:HG21	17:H:38:GLN:HB3	1.34	1.06
15:F:219:GLU:CG	17:H:160:ILE:CG2	2.33	1.06
17:H:110:TYR:CE2	19:J:161:LYS:HB2	1.89	1.06
7:6:447:PRO:HG2	29:X:15:DG:H3'	1.11	1.06
7:6:580:ILE:HG13	7:6:607:ILE:CG2	1.82	1.06
8:7:629:GLN:NE2	8:7:633:LEU:HD11	1.67	1.06
15:F:112:VAL:CG1	17:H:55:LYS:HA	1.85	1.06
15:F:114:LEU:HD13	17:H:45:LEU:HD12	1.34	1.06
3:2:386:ILE:HG12	4:3:176:ASN:ND2	1.68	1.06
7:6:199:LEU:CD1	7:6:273:LYS:HE2	1.85	1.06
11:A:1169:ARG:HB3	11:A:1181:ARG:NH1	1.49	1.06
15:F:85:GLY:O	19:J:212:LYS:CG	2.02	1.06
17:H:51:GLU:OE1	19:J:193:TYR:CB	2.03	1.06
5:4:31:LEU:HD13	5:4:94:ARG:CG	1.86	1.06
7:6:533:LEU:HD21	7:6:716:VAL:HG12	1.18	1.06
8:7:8:LEU:HD11	8:7:61:ARG:N	1.68	1.06
11:A:1169:ARG:HB2	11:A:1181:ARG:NH1	1.68	1.06
25:S:31:PHE:HB2	26:T:92:THR:HB	1.08	1.06
27:U:126:SER:HB2	27:U:136:PHE:O	0.89	1.06
1:0:268:ARG:CD	10:9:176:THR:HG21	1.85	1.06
7:6:199:LEU:CB	7:6:273:LYS:HG3	1.85	1.06
29:X:-10:DC:O2	30:Y:10:DG:N2	1.89	1.06
1:0:272:LEU:HD23	1:0:293:CYS:HB3	1.08	1.05
5:4:412:PHE:CE2	5:4:418:PHE:HE1	1.72	1.05
13:D:939:ASP:CA	14:E:509:GLN:OE1	2.03	1.05
25:S:121:ASN:HA	26:T:25:LYS:HE2	1.32	1.05
1:0:268:ARG:CZ	10:9:176:THR:CG2	2.35	1.05
1:0:268:ARG:NE	10:9:176:THR:HG21	1.68	1.05
8:7:236:ALA:HB3	8:7:456:ILE:HG21	1.32	1.05
14:E:507:VAL:HB	14:E:513:LEU:HD21	1.07	1.05
15:F:412:LEU:HD13	15:F:417:ARG:HD3	1.36	1.05
34:o:814:ASP:OD2	35:p:689:TYR:OH	1.74	1.05
5:4:308:VAL:CG2	5:4:373:HIS:HB3	1.87	1.05
11:A:396:LEU:HD23	15:f:391:LEU:C	1.79	1.05
11:A:400:GLU:CD	15:F:347:THR:HG21	1.81	1.05
13:D:942:ALA:HB2	14:E:510:ALA:HB1	1.36	1.05
7:6:611:GLY:CA	30:Y:-12:DC:OP1	2.04	1.05
11:A:396:LEU:CD2	15:f:394:PRO:HG2	1.83	1.05
15:F:118:ILE:HA	17:H:39:VAL:HG13	1.10	1.05
2:1:414:TYR:CD2	4:3:116:LYS:NZ	2.24	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:15:ALA:HA	7:6:516:PRO:CB	1.87	1.05
7:6:447:PRO:CG	29:X:15:DG:O5'	2.04	1.05
7:6:533:LEU:CD2	7:6:716:VAL:HG11	1.77	1.05
7:6:578:PRO:O	7:6:605:ILE:HA	1.54	1.05
24:R:47:ASP:OD1	24:R:47:ASP:O	1.75	1.05
2:1:189:THR:CB	2:1:193:ILE:HG23	1.86	1.04
2:1:431:ILE:HD12	5:4:58:ARG:CZ	1.79	1.04
4:3:50:PHE:CE1	5:4:122:LEU:HD23	1.92	1.04
7:6:366:ASN:CA	7:6:410:TYR:HE2	1.69	1.04
21:O:23:ILE:HA	21:O:28:ILE:O	1.56	1.04
3:2:223:LEU:CD2	8:7:726:GLN:HE21	1.69	1.04
5:4:315:LEU:CD2	5:4:368:LEU:CD2	2.35	1.04
7:6:333:ALA:C	7:6:462:CYS:SG	2.40	1.04
11:A:495:LEU:HB2	15:f:272:VAL:HG13	1.39	1.04
15:F:15:PRO:HD3	18:I:18:MET:HG2	1.34	1.04
15:F:219:GLU:CG	17:H:160:ILE:HG21	1.86	1.04
20:L:111:LEU:O	20:L:114:LYS:HG2	1.54	1.04
8:7:8:LEU:CD2	8:7:61:ARG:C	2.30	1.04
13:D:939:ASP:CB	14:E:509:GLN:OE1	2.05	1.04
6:5:33:PHE:HE1	6:5:49:LEU:CD1	1.67	1.04
8:7:8:LEU:HG	8:7:62:ALA:CA	1.88	1.04
11:A:405:VAL:CG2	15:F:351:ILE:HD13	1.86	1.04
18:I:84:THR:O	18:I:85:SER:O	1.76	1.04
28:V:151:LEU:CD1	28:V:154:LEU:CB	2.36	1.04
28:V:153:ARG:HH11	28:V:153:ARG:HA	1.22	1.04
7:6:447:PRO:N	29:X:15:DG:OP1	1.90	1.04
7:6:618:PRO:CD	7:6:645:ARG:HH12	1.70	1.04
8:7:8:LEU:CD1	8:7:58:ALA:O	2.04	1.04
7:6:613:THR:HB	7:6:642:ARG:HE	1.19	1.03
8:7:5:VAL:HG11	8:7:55:LEU:HD13	1.39	1.03
15:F:117:ILE:HB	17:H:42:SER:OG	1.54	1.03
28:V:181:ALA:HA	28:V:184:ALA:HB3	1.07	1.03
8:7:8:LEU:CD1	8:7:62:ALA:H	1.64	1.03
15:F:114:LEU:CD2	17:H:45:LEU:CA	2.36	1.03
15:F:118:ILE:HD11	17:H:42:SER:C	1.82	1.03
24:R:209:ILE:HD11	24:R:250:PRO:HG2	1.06	1.03
34:o:1287:CYS:HA	35:p:251:ALA:HB2	1.39	1.03
2:1:381:ARG:O	4:3:256:PHE:CZ	2.12	1.03
5:4:309:VAL:HG22	5:4:368:LEU:CD2	1.88	1.03
7:6:503:ALA:CB	7:6:645:ARG:C	2.31	1.03
8:7:629:GLN:CD	8:7:633:LEU:HG	1.76	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:410:TRP:CH2	15:F:305:ILE:HG21	1.94	1.03
21:O:21:GLU:OE2	23:Q:45:LEU:HD22	1.57	1.03
10:9:36:ALA:CB	40:u:20:PRO:HG2	1.89	1.03
24:R:132:ARG:HB3	35:p:914:GLU:HG2	1.38	1.03
26:T:197:TYR:N	26:T:232:THR:CG2	2.21	1.03
28:V:181:ALA:CA	28:V:184:ALA:HB3	1.89	1.03
7:6:188:LEU:O	7:6:194:ILE:HG21	1.58	1.03
17:H:110:TYR:CG	19:J:161:LYS:CD	2.30	1.03
5:4:318:TYR:HE2	5:4:373:HIS:CE1	1.75	1.02
7:6:335:SER:HA	7:6:463:LYS:N	1.74	1.02
11:A:353:LEU:CD1	11:A:495:LEU:CD1	2.37	1.02
11:A:1169:ARG:HB2	11:A:1181:ARG:CZ	1.86	1.02
15:F:209:LYS:CG	15:F:210:PRO:CD	2.36	1.02
25:S:125:TYR:CE2	26:T:31:TRP:CZ3	2.47	1.02
1:0:269:LEU:CD1	1:0:290:SER:CB	2.36	1.02
7:6:199:LEU:HD12	7:6:273:LYS:CE	1.90	1.02
27:U:32:LEU:HD22	28:V:161:ARG:CZ	1.89	1.02
37:r:60:VAL:HG11	40:u:44:PHE:CE1	1.93	1.02
4:3:38:ILE:HG21	4:3:115:ILE:HD13	1.36	1.02
8:7:41:GLU:HB3	8:7:461:LEU:HG	1.37	1.02
8:7:611:VAL:HB	8:7:614:TYR:HB3	1.02	1.02
11:A:410:TRP:CH2	15:F:355:ILE:HG21	1.92	1.02
11:A:410:TRP:O	15:F:306:PRO:HB3	1.60	1.02
15:F:219:GLU:HB3	17:H:160:ILE:CG2	1.89	1.02
26:T:147:LYS:HG3	26:T:148:VAL:H	1.24	1.02
11:A:396:LEU:CD2	15:f:394:PRO:CD	2.09	1.02
24:R:132:ARG:CB	35:p:914:GLU:HG2	1.90	1.02
20:L:106:ARG:C	20:L:108:SER:H	1.67	1.02
25:S:8:SER:O	26:T:48:THR:C	2.02	1.02
7:6:335:SER:CB	7:6:463:LYS:H	1.71	1.01
11:A:402:PHE:HE1	15:f:391:LEU:HD21	1.20	1.01
15:F:112:VAL:HG11	17:H:55:LYS:HD2	1.05	1.01
24:R:26:ASP:OD2	34:o:430:ARG:NH2	1.92	1.01
7:6:199:LEU:CD1	7:6:273:LYS:CE	2.38	1.01
11:A:405:VAL:CG2	15:F:351:ILE:HD11	1.91	1.01
11:A:469:PRO:C	15:F:214:HIS:CD2	2.38	1.01
24:R:40:VAL:HG22	34:o:426:ARG:O	1.57	1.01
28:V:77:VAL:HG21	28:V:111:ILE:HD11	1.41	1.01
4:3:50:PHE:CD2	5:4:122:LEU:CD2	2.39	1.01
7:6:536:MET:HG2	7:6:571:TYR:OH	1.61	1.01
11:A:397:LEU:HD12	15:f:364:VAL:HG21	1.39	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:481:GLU:OE1	15:f:358:THR:HG23	1.61	1.01
15:F:320:ARG:CB	15:F:415:ILE:HD12	1.91	1.01
25:S:31:PHE:N	26:T:92:THR:O	1.92	1.01
8:7:9:LEU:HD12	8:7:61:ARG:HH12	1.12	1.01
14:E:429:LEU:HB3	14:E:430:PRO:HD2	1.41	1.01
15:F:114:LEU:HD21	17:H:45:LEU:N	1.74	1.01
15:F:117:ILE:O	15:F:120:THR:HG22	1.58	1.01
1:0:269:LEU:HD12	1:0:290:SER:HB3	1.38	1.01
5:4:412:PHE:CE2	5:4:418:PHE:CE1	2.49	1.01
7:6:618:PRO:HD2	7:6:645:ARG:HH12	0.85	1.01
15:F:104:LEU:CB	19:J:217:PHE:CE2	2.42	1.01
28:V:181:ALA:HA	28:V:184:ALA:CB	1.90	1.01
4:3:50:PHE:CZ	5:4:122:LEU:HG	1.95	1.00
7:6:378:PHE:HB3	7:6:381:TRP:CZ2	1.90	1.00
7:6:389:ILE:O	7:6:403:CYS:SG	2.19	1.00
11:A:406:THR:HG22	15:F:350:ASN:HD22	1.26	1.00
17:H:110:TYR:CB	19:J:161:LYS:HD3	1.89	1.00
2:1:386:PRO:HB2	4:3:253:ALA:CA	1.91	1.00
3:2:347:GLY:O	4:3:139:LYS:HG2	1.60	1.00
5:4:308:VAL:CG2	5:4:373:HIS:HB2	1.88	1.00
3:2:156:LEU:HD22	3:2:165:ARG:HB3	1.43	1.00
14:E:507:VAL:HB	14:E:513:LEU:CD1	1.91	1.00
15:F:114:LEU:HG	17:H:42:SER:O	1.45	1.00
26:T:192:GLU:CD	28:V:75:PHE:CD2	2.39	1.00
2:1:381:ARG:CG	4:3:256:PHE:CB	2.40	1.00
7:6:568:LEU:CD2	7:6:607:ILE:O	2.09	1.00
8:7:497:ARG:O	8:7:709:THR:HA	1.61	1.00
14:E:507:VAL:CB	14:E:513:LEU:CD2	2.37	1.00
17:H:57:SER:CB	19:J:197:MET:SD	2.49	1.00
26:T:197:TYR:H	26:T:232:THR:CG2	1.72	1.00
28:V:129:LYS:O	28:V:140:LYS:HB2	1.56	1.00
15:F:114:LEU:CD2	17:H:45:LEU:CB	1.75	1.00
11:A:511:LEU:HB3	15:f:214:HIS:CE1	1.90	1.00
21:O:22:LEU:HB2	21:O:28:ILE:HG12	1.23	1.00
28:V:129:LYS:O	28:V:140:LYS:HB3	1.59	1.00
5:4:336:TYR:CZ	7:6:85:PHE:HZ	1.80	1.00
7:6:613:THR:CB	7:6:642:ARG:HE	1.73	1.00
11:A:401:ASN:OD1	15:f:390:THR:OG1	1.80	0.99
7:6:366:ASN:CB	7:6:410:TYR:HE2	1.75	0.99
8:7:9:LEU:HD11	8:7:61:ARG:CZ	1.89	0.99
20:L:111:LEU:CA	20:L:114:LYS:HZ2	1.74	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:405:VAL:HG21	15:F:351:ILE:HD13	1.44	0.99
2:1:372:ILE:CG2	3:2:54:ARG:HH21	1.64	0.99
2:1:434:LEU:CD1	5:4:58:ARG:HH12	1.64	0.99
7:6:364:LEU:HA	7:6:408:SER:O	1.61	0.99
11:A:564:PRO:HB2	12:B:744:PHE:CE2	1.97	0.99
2:1:381:ARG:HG2	4:3:256:PHE:HB3	1.44	0.99
15:F:83:LEU:HD23	15:F:86:PHE:HZ	1.26	0.99
25:S:125:TYR:CD2	26:T:31:TRP:HZ3	1.80	0.99
5:4:315:LEU:HD22	5:4:368:LEU:CD2	1.93	0.99
13:D:1078:LEU:HD21	20:L:83:MET:HE3	1.44	0.99
15:F:114:LEU:CD1	17:H:41:VAL:O	2.07	0.99
27:U:61:SER:HB3	34:o:301:HIS:CE1	1.97	0.99
8:7:494:ILE:HD11	8:7:701:LEU:HD21	1.45	0.99
11:A:353:LEU:CD1	11:A:495:LEU:HD11	1.92	0.98
15:F:209:LYS:HG2	15:F:210:PRO:CD	1.93	0.98
2:1:431:ILE:HD13	5:4:58:ARG:CZ	1.91	0.98
8:7:7:GLY:HA3	8:7:62:ALA:CB	1.93	0.98
14:E:509:GLN:HB3	14:E:512:ASP:OD2	1.63	0.98
24:R:107:MET:HG3	34:o:329:MET:HE3	1.43	0.98
30:Y:22:DG:C4	30:Y:23:DG:N7	2.30	0.98
31:c:77:LEU:CD1	19:j:116:LEU:HD23	1.93	0.98
2:1:414:TYR:CG	4:3:116:LYS:NZ	2.23	0.98
8:7:629:GLN:HG2	8:7:633:LEU:CD1	1.91	0.98
13:D:939:ASP:H	14:E:509:GLN:CD	1.70	0.98
15:F:112:VAL:CG1	17:H:55:LYS:CB	2.36	0.98
27:U:32:LEU:HD22	28:V:161:ARG:NE	1.78	0.98
1:0:272:LEU:HD12	1:0:273:ASN:N	1.78	0.98
7:6:469:THR:HG22	7:6:638:GLN:CG	1.94	0.98
5:4:308:VAL:HG23	5:4:373:HIS:HB2	1.45	0.98
11:A:405:VAL:CG2	15:F:301:VAL:CG1	2.42	0.98
11:A:405:VAL:HG21	15:F:351:ILE:CD1	1.91	0.98
14:E:507:VAL:HG21	14:E:513:LEU:HD11	1.13	0.98
7:6:557:LYS:HD3	7:6:620:ALA:CB	1.94	0.98
7:6:613:THR:HG21	7:6:642:ARG:CD	1.93	0.98
3:2:156:LEU:HD22	3:2:165:ARG:CD	1.91	0.98
7:6:580:ILE:HG13	7:6:607:ILE:HG22	1.00	0.98
20:L:71:ASP:OD2	20:L:74:GLU:CG	2.10	0.98
8:7:11:TYR:HB3	8:7:93:PHE:HE2	1.27	0.98
2:1:381:ARG:O	4:3:256:PHE:CD1	2.17	0.97
14:E:696:TRP:CE3	14:E:703:MET:HB3	1.98	0.97
25:S:124:TYR:HE1	26:T:22:LYS:HG3	1.27	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:408:LEU:HD13	15:F:302:HIS:HD2	1.16	0.97
15:F:219:GLU:HB2	17:H:160:ILE:HG21	1.41	0.97
15:F:412:LEU:CD1	15:F:417:ARG:CD	2.00	0.97
17:H:154:PRO:HD2	17:H:159:TYR:OH	1.63	0.97
23:Q:344:ARG:HG3	23:Q:348:LYS:C	1.90	0.97
11:A:479:ARG:HE	11:A:482:ASP:CG	1.71	0.97
11:A:725:CYS:SG	11:A:725:CYS:O	2.22	0.97
28:V:86:LYS:HA	28:V:139:PHE:HE2	1.26	0.97
18:i:60:HIS:CE1	20:l:106:ARG:CZ	2.47	0.97
11:A:410:TRP:C	15:F:306:PRO:CB	2.37	0.97
27:U:32:LEU:HD22	28:V:161:ARG:HH21	1.22	0.97
15:F:111:GLU:OE1	15:F:111:GLU:C	2.06	0.97
5:4:307:ILE:O	5:4:371:ARG:O	1.81	0.97
11:A:405:VAL:HG22	15:F:351:ILE:HD11	1.46	0.97
15:F:118:ILE:HG13	17:H:42:SER:HB2	1.46	0.97
7:6:373:GLN:O	7:6:377:GLN:NE2	1.98	0.96
7:6:378:PHE:CB	7:6:381:TRP:CZ2	2.48	0.96
7:6:469:THR:HG22	7:6:638:GLN:HG2	1.47	0.96
8:7:611:VAL:HG21	8:7:614:TYR:CB	1.93	0.96
11:A:410:TRP:HH2	15:F:355:ILE:CG2	1.55	0.96
12:B:762:ASP:OD1	12:B:768:PRO:HG3	1.65	0.96
15:F:320:ARG:NH1	15:F:413:SER:O	1.98	0.96
18:I:132:LEU:HD21	19:J:121:MET:HE1	1.48	0.96
20:L:71:ASP:CG	20:L:74:GLU:HG3	1.89	0.96
2:1:200:TYR:OH	2:1:247:ALA:HB2	1.63	0.96
5:4:31:LEU:CD1	5:4:94:ARG:HG3	1.95	0.96
15:F:118:ILE:CA	17:H:39:VAL:HG13	1.95	0.96
7:6:335:SER:HB2	7:6:463:LYS:HG3	1.47	0.96
20:L:111:LEU:CA	20:L:114:LYS:NZ	2.26	0.96
23:Q:47:GLU:CD	23:Q:60:HIS:ND1	2.23	0.96
26:T:197:TYR:H	26:T:232:THR:HG21	1.15	0.96
2:1:229:TYR:CE1	2:1:239:SER:HA	2.00	0.96
14:E:509:GLN:HG3	14:E:511:SER:H	1.30	0.96
25:S:121:ASN:O	26:T:25:LYS:HG3	1.64	0.96
7:6:447:PRO:HD2	29:X:15:DG:OP1	1.62	0.96
8:7:8:LEU:CD1	8:7:61:ARG:C	2.18	0.96
15:F:112:VAL:HG13	17:H:55:LYS:CA	1.94	0.96
7:6:366:ASN:CB	7:6:410:TYR:CE2	2.49	0.96
7:6:443:VAL:O	7:6:472:ARG:CZ	2.12	0.96
25:S:24:LYS:HA	26:T:98:GLU:O	1.66	0.96
7:6:375:LYS:HA	7:6:378:PHE:CE2	2.00	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:110:TYR:CZ	19:J:161:LYS:N	2.31	0.96
7:6:580:ILE:HD11	7:6:607:ILE:HG21	1.46	0.96
7:6:580:ILE:HG23	7:6:605:ILE:HD11	1.47	0.96
22:P:218:LYS:HD2	29:X:-24:DA:OP2	1.65	0.96
11:A:406:THR:HG22	15:F:350:ASN:ND2	1.80	0.96
17:H:50:PHE:CE1	19:J:195:LEU:HD13	2.01	0.96
28:V:152:LEU:HA	28:V:155:LEU:HB3	1.48	0.96
3:2:156:LEU:CD2	3:2:165:ARG:CD	2.43	0.96
3:2:374:PHE:CZ	4:3:141:LEU:HB3	2.01	0.96
8:7:523:LEU:HA	8:7:710:VAL:HG13	1.48	0.96
2:1:372:ILE:CB	3:2:54:ARG:CZ	2.43	0.95
7:6:278:GLU:OE1	7:6:452:ARG:HG3	1.66	0.95
24:R:50:SER:H	35:p:1078:ARG:HH21	1.04	0.95
5:4:315:LEU:HD21	5:4:368:LEU:HD21	1.46	0.95
5:4:400:ARG:CZ	6:5:53:LEU:HD23	1.96	0.95
7:6:275:GLU:OE1	7:6:456:THR:HG23	1.65	0.95
11:A:411:GLU:OE2	15:F:358:THR:CG2	2.12	0.95
5:4:34:LEU:HD13	5:4:231:VAL:HG13	1.44	0.95
14:E:507:VAL:HB	14:E:513:LEU:CG	1.95	0.95
24:R:209:ILE:CD1	24:R:250:PRO:CG	2.38	0.95
25:S:44:GLN:C	26:T:9:LEU:HD11	1.91	0.95
2:1:374:LEU:CD2	4:3:270:VAL:O	2.14	0.95
8:7:585:GLN:HG2	8:7:614:TYR:CE1	2.02	0.95
40:u:38:CYS:N	40:u:155:ASN:OD1	1.98	0.95
15:F:361:LYS:HA	15:F:364:VAL:CG2	1.97	0.95
18:I:28:ILE:HG22	18:I:31:TYR:HD1	1.30	0.95
1:0:272:LEU:HD23	1:0:293:CYS:CB	1.95	0.95
5:4:409:TYR:O	5:4:412:PHE:HE1	1.35	0.95
25:S:23:THR:O	26:T:99:SER:HA	1.67	0.95
1:0:269:LEU:HD11	1:0:290:SER:HB2	1.48	0.95
7:6:443:VAL:HB	7:6:451:PHE:HZ	1.30	0.95
7:6:469:THR:HG22	7:6:638:GLN:CD	1.90	0.95
11:A:408:LEU:HD12	15:F:302:HIS:CD2	1.97	0.95
15:F:112:VAL:CG1	17:H:55:LYS:CG	2.45	0.95
15:F:118:ILE:HG13	17:H:42:SER:CB	1.96	0.95
8:7:538:PHE:O	8:7:621:PHE:N	1.99	0.95
28:V:151:LEU:HD11	28:V:154:LEU:HD13	1.49	0.95
5:4:307:ILE:N	5:4:371:ARG:O	2.00	0.94
21:O:62:LEU:HG	21:O:76:LEU:HD23	1.47	0.94
26:T:149:VAL:HG22	35:p:125:TYR:CZ	2.01	0.94
40:u:40:GLY:CA	40:u:152:VAL:CG2	2.39	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:375:LYS:HA	7:6:378:PHE:CZ	2.01	0.94
7:6:613:THR:HG21	7:6:642:ARG:HD2	1.47	0.94
10:9:25:ASP:HB3	39:t:101:LYS:HZ1	1.28	0.94
24:R:132:ARG:CB	35:p:914:GLU:CG	2.43	0.94
26:T:145:LEU:HB2	35:p:93:LEU:O	1.66	0.94
13:D:948:GLU:O	13:D:952:GLN:NE2	2.00	0.94
31:c:67:GLY:HA3	19:j:116:LEU:HD11	1.48	0.94
27:U:52:LEU:HD23	28:V:161:ARG:NH1	1.82	0.94
3:2:301:LEU:HD12	3:2:301:LEU:O	1.68	0.94
13:D:942:ALA:HB3	14:E:510:ALA:CA	1.97	0.94
18:i:60:HIS:CD2	20:l:106:ARG:HE	1.86	0.94
2:1:381:ARG:CD	4:3:256:PHE:CB	2.34	0.94
13:D:1078:LEU:CD2	20:L:83:MET:CE	2.46	0.94
13:D:1078:LEU:CD2	20:L:83:MET:HE3	1.97	0.94
15:F:361:LYS:HA	15:F:364:VAL:HG22	1.49	0.94
18:i:60:HIS:CD2	20:l:106:ARG:NE	2.36	0.94
34:o:360:ASP:HB3	35:p:1062:ARG:HE	1.30	0.94
2:1:374:LEU:HD11	4:3:270:VAL:HG12	0.95	0.94
2:1:434:LEU:HB2	5:4:58:ARG:NH2	1.82	0.94
7:6:275:GLU:OE2	7:6:456:THR:CG2	2.15	0.94
8:7:8:LEU:HG	8:7:62:ALA:CB	1.97	0.94
8:7:9:LEU:CD1	8:7:61:ARG:NH1	2.31	0.94
17:H:37:LEU:HD11	19:J:138:TYR:CE2	2.02	0.94
21:O:54:ASN:HD22	21:O:55:ARG:N	1.65	0.94
25:S:125:TYR:CE2	26:T:31:TRP:HE3	1.83	0.94
8:7:530:VAL:HG22	8:7:718:LYS:HE3	1.48	0.94
12:B:160:HIS:HE1	12:B:162:VAL:CG2	1.68	0.94
3:2:212:ALA:O	3:2:217:GLY:N	2.00	0.93
4:3:50:PHE:CE2	5:4:122:LEU:HG	2.03	0.93
11:A:410:TRP:CB	15:F:306:PRO:N	2.21	0.93
2:1:407:ILE:HD13	4:3:19:PRO:HA	1.50	0.93
5:4:309:VAL:HG11	5:4:368:LEU:HD13	1.49	0.93
7:6:451:PHE:HZ	7:6:472:ARG:HH22	1.14	0.93
11:A:504:PRO:HG3	15:F:207:ARG:O	0.76	0.93
27:U:151:THR:HB	27:U:160:GLU:OE2	1.68	0.93
1:0:268:ARG:HD3	10:9:176:THR:HG21	1.50	0.93
7:6:199:LEU:HD13	7:6:273:LYS:CD	1.97	0.93
7:6:375:LYS:O	7:6:379:LYS:CG	2.14	0.93
7:6:613:THR:HB	7:6:642:ARG:NE	1.82	0.93
21:O:22:LEU:HB3	21:O:28:ILE:HG23	1.50	0.93
24:R:122:THR:HG21	35:p:438:ARG:HH11	1.30	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:191:ILE:O	4:3:212:GLY:HA3	1.67	0.93
7:6:197:CYS:O	7:6:276:MET:SD	2.27	0.93
15:F:118:ILE:HD11	17:H:43:SER:CA	1.97	0.93
1:0:269:LEU:CD1	1:0:290:SER:HB2	1.99	0.93
7:6:366:ASN:HA	7:6:409:THR:HG23	1.48	0.93
13:D:1006:LEU:HD22	22:P:185:LEU:HD21	1.49	0.93
7:6:597:LYS:HB3	7:6:618:PRO:HG2	1.47	0.93
15:F:219:GLU:HG2	17:H:160:ILE:HG22	1.51	0.93
2:1:434:LEU:HD12	5:4:58:ARG:CZ	1.98	0.93
11:A:1169:ARG:HB3	11:A:1181:ARG:NH2	1.83	0.93
8:7:60:GLN:O	8:7:64:PRO:CG	2.17	0.93
15:F:112:VAL:CG1	17:H:55:LYS:CA	2.46	0.93
21:O:18:SER:O	23:Q:45:LEU:HD13	1.69	0.92
24:R:48:VAL:HG23	35:p:1078:ARG:CZ	1.99	0.92
7:6:447:PRO:HD2	29:X:15:DG:P	2.10	0.92
7:6:557:LYS:NZ	7:6:597:LYS:HD3	1.82	0.92
14:E:446:GLU:OE1	14:E:788:ARG:NE	2.01	0.92
15:F:219:GLU:HG2	17:H:160:ILE:HG21	1.45	0.92
21:O:32:LEU:CD1	23:Q:32:ASP:OD2	2.17	0.92
21:O:54:ASN:HD22	21:O:55:ARG:H	1.06	0.92
17:H:57:SER:OG	19:J:200:LEU:HD12	1.69	0.92
20:L:111:LEU:HA	20:L:114:LYS:HZ2	0.81	0.92
24:R:132:ARG:HB3	35:p:914:GLU:CB	1.98	0.92
5:4:309:VAL:HG22	5:4:368:LEU:HD22	0.93	0.92
7:6:597:LYS:HB2	7:6:618:PRO:HG2	1.51	0.92
15:F:218:VAL:HG11	17:H:162:THR:HG21	1.51	0.92
11:A:489:GLN:O	11:A:491:MET:CE	2.17	0.92
14:E:463:PHE:O	15:F:133:ALA:HA	1.70	0.92
11:A:400:GLU:CG	15:F:347:THR:HG21	2.00	0.92
11:A:410:TRP:O	15:F:306:PRO:CB	2.17	0.92
5:4:331:PHE:CZ	5:4:367:PHE:CD2	2.57	0.92
11:A:397:LEU:CD1	15:f:364:VAL:HG21	2.00	0.92
13:D:1075:HIS:O	18:I:84:THR:HG21	1.70	0.92
15:F:105:TYR:O	19:J:217:PHE:CG	2.23	0.92
21:O:22:LEU:HB3	21:O:28:ILE:CG2	1.99	0.92
2:1:382:TYR:HH	4:3:271:CYS:C	1.77	0.92
11:A:504:PRO:HG3	15:F:207:ARG:C	1.94	0.92
13:D:939:ASP:HB3	14:E:509:GLN:OE1	1.68	0.92
25:S:124:TYR:CE1	26:T:22:LYS:HG3	2.05	0.92
22:P:167:ASN:ND2	30:Y:28:DA:H1'	1.84	0.91
24:R:48:VAL:CG2	24:R:48:VAL:O	2.16	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:45:ALA:HB3	26:T:9:LEU:HD21	1.52	0.91
2:1:107:ALA:O	2:1:109:LYS:N	2.04	0.91
13:D:958:LYS:HD3	13:D:961:GLN:OE1	1.71	0.91
3:2:156:LEU:HD22	3:2:165:ARG:CB	2.00	0.91
27:U:113:ARG:NH1	28:V:218:LYS:HG3	1.85	0.91
8:7:584:TYR:HE2	8:7:614:TYR:CZ	1.88	0.91
11:A:410:TRP:HH2	15:F:355:ILE:HG23	1.17	0.91
8:7:8:LEU:HG	8:7:62:ALA:HB2	1.52	0.91
27:U:145:PHE:CZ	40:u:98:PHE:CE2	2.58	0.91
40:u:38:CYS:SG	40:u:43:GLY:O	2.28	0.91
5:4:309:VAL:CG1	5:4:368:LEU:HD13	2.00	0.91
7:6:366:ASN:HB3	7:6:410:TYR:CE2	2.06	0.91
7:6:443:VAL:CB	7:6:472:ARG:NH2	2.34	0.91
15:F:105:TYR:O	19:J:217:PHE:HB3	1.71	0.91
24:R:132:ARG:HB3	35:p:914:GLU:HB3	1.53	0.91
8:7:11:TYR:HB3	8:7:93:PHE:CE2	2.04	0.91
40:u:40:GLY:HA2	40:u:152:VAL:HG21	0.92	0.91
5:4:336:TYR:CZ	7:6:85:PHE:CZ	2.58	0.91
7:6:613:THR:CB	7:6:642:ARG:NE	2.33	0.91
8:7:8:LEU:HD12	8:7:58:ALA:C	1.96	0.91
8:7:526:GLU:HG2	8:7:714:VAL:HG11	1.52	0.91
5:4:331:PHE:HZ	5:4:367:PHE:CD2	1.88	0.91
8:7:5:VAL:HG12	8:7:55:LEU:HD11	1.53	0.91
13:D:899:VAL:HG13	13:D:900:SER:N	1.82	0.91
24:R:114:MET:SD	24:R:146:TYR:CD1	2.64	0.91
11:A:353:LEU:CD2	15:f:272:VAL:HG21	2.01	0.91
20:L:102:LEU:HA	20:L:105:HIS:HD2	1.35	0.91
7:6:199:LEU:HD12	7:6:273:LYS:HE2	1.51	0.90
8:7:8:LEU:CD2	8:7:61:ARG:HG2	1.99	0.90
11:A:396:LEU:HB3	15:f:391:LEU:HD13	1.53	0.90
15:F:218:VAL:CG1	17:H:162:THR:CB	2.48	0.90
21:O:22:LEU:CB	21:O:28:ILE:CD1	2.42	0.90
7:6:334:ARG:CA	7:6:462:CYS:SG	2.59	0.90
3:2:190:LYS:HB2	3:2:214:GLU:OE2	1.70	0.90
3:2:114:ALA:HB2	3:2:148:SER:OG	1.70	0.90
25:S:45:ALA:CB	26:T:9:LEU:HD21	2.00	0.90
2:1:414:TYR:CG	4:3:116:LYS:CD	2.54	0.90
8:7:41:GLU:O	8:7:481:PHE:HD2	1.55	0.90
11:A:353:LEU:HD11	11:A:495:LEU:CD1	1.99	0.90
17:H:110:TYR:CE2	19:J:161:LYS:CB	2.50	0.90
22:P:189:ASN:ND2	23:Q:376:TRP:CZ2	2.39	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:p:953:ASP:OD1	36:q:36:ARG:NH2	2.03	0.90
5:4:442:VAL:HG21	6:5:44:PHE:HZ	1.35	0.90
8:7:506:SER:OG	8:7:683:ARG:NH1	2.05	0.90
12:B:155:PRO:HG3	12:B:159:LEU:HD21	1.53	0.90
12:B:160:HIS:CE1	12:B:162:VAL:HG23	2.04	0.90
15:F:114:LEU:HD22	17:H:45:LEU:CA	1.99	0.90
11:A:402:PHE:CE1	15:f:391:LEU:HD21	2.07	0.90
17:H:57:SER:CA	19:J:197:MET:SD	2.59	0.90
17:H:60:THR:HG21	19:J:211:VAL:CG2	2.02	0.90
2:1:118:LEU:O	2:1:125:PHE:CB	2.20	0.90
2:1:414:TYR:HD2	4:3:116:LYS:HD2	1.20	0.90
21:O:62:LEU:HG	21:O:76:LEU:CD2	2.00	0.90
1:0:165:ILE:HD13	8:7:641:ARG:HH12	1.23	0.90
7:6:366:ASN:CA	7:6:410:TYR:CE2	2.52	0.90
24:R:122:THR:HG21	35:p:438:ARG:HH12	1.29	0.90
18:i:60:HIS:NE2	20:l:106:ARG:CZ	2.35	0.90
18:I:132:LEU:HG	19:J:121:MET:CE	2.02	0.90
2:1:372:ILE:HB	3:2:54:ARG:CD	2.01	0.89
11:A:410:TRP:CZ3	15:F:305:ILE:CG2	2.55	0.89
15:F:114:LEU:HD13	17:H:45:LEU:CD1	2.00	0.89
21:O:22:LEU:HD12	21:O:28:ILE:HD13	1.52	0.89
35:p:841:ARG:NH2	35:p:1078:ARG:CZ	2.35	0.89
5:4:401:LEU:HB3	6:5:50:VAL:HG22	1.53	0.89
7:6:411:SER:OG	7:6:450:MET:SD	2.30	0.89
21:O:21:GLU:CD	23:Q:45:LEU:HD22	1.96	0.89
13:D:1071:ARG:HB2	15:F:91:PHE:CD2	2.08	0.89
26:T:192:GLU:CD	28:V:75:PHE:HD2	1.78	0.89
27:U:61:SER:HB3	34:o:301:HIS:HE1	1.30	0.89
18:i:60:HIS:CE1	20:l:106:ARG:HH22	1.90	0.89
37:r:103:LEU:HD23	40:u:144:ARG:CZ	2.02	0.89
3:2:156:LEU:HD22	3:2:165:ARG:CG	2.03	0.89
7:6:572:ALA:HB2	7:6:606:PHE:CD2	2.08	0.89
17:H:60:THR:HG21	19:J:211:VAL:HG23	1.53	0.89
21:O:22:LEU:CA	21:O:28:ILE:HG12	2.01	0.89
23:Q:47:GLU:CD	23:Q:60:HIS:CG	2.50	0.89
15:F:219:GLU:HB3	17:H:160:ILE:HG23	1.55	0.89
17:H:110:TYR:HH	19:J:160:GLN:C	1.74	0.89
5:4:309:VAL:CG2	5:4:368:LEU:CD2	2.48	0.89
8:7:236:ALA:CB	8:7:456:ILE:HG21	1.95	0.89
20:l:102:LEU:HA	20:l:105:HIS:CD2	2.08	0.89
34:o:856:GLU:OE2	35:p:494:LYS:NZ	2.06	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:1078:LEU:HD23	20:L:83:MET:CE	2.01	0.89
11:A:511:LEU:CG	15:f:214:HIS:CG	2.55	0.89
23:Q:55:ALA:O	23:Q:56:VAL:HG23	1.71	0.89
7:6:469:THR:CG2	7:6:638:GLN:HG3	2.02	0.89
15:F:112:VAL:HG12	17:H:55:LYS:CD	1.72	0.89
7:6:557:LYS:HB3	7:6:596:PHE:CE1	2.07	0.88
10:9:36:ALA:CB	40:u:20:PRO:CG	2.51	0.88
7:6:362:LEU:HA	7:6:406:ALA:O	1.73	0.88
24:R:209:ILE:CG1	24:R:250:PRO:HG2	2.03	0.88
2:1:170:PHE:CB	2:1:239:SER:CB	2.50	0.88
2:1:414:TYR:CG	4:3:116:LYS:HD3	2.07	0.88
13:D:899:VAL:CG1	13:D:900:SER:H	1.86	0.88
2:1:253:GLY:O	2:1:258:VAL:N	2.04	0.88
7:6:557:LYS:HD3	7:6:620:ALA:HB3	1.54	0.88
17:H:171:ASP:HB3	17:H:174:VAL:HG12	1.54	0.88
2:1:414:TYR:CB	4:3:116:LYS:HD3	2.04	0.88
6:5:15:ALA:HB2	7:6:516:PRO:HD3	1.56	0.88
21:O:28:ILE:CG2	23:Q:38:VAL:HG12	2.04	0.88
21:O:39:GLN:HG2	23:Q:25:VAL:HG12	1.53	0.88
27:U:40:ASN:HD21	27:U:97:ARG:HB3	1.36	0.88
34:o:689:ILE:HD11	35:p:985:LEU:HD22	1.54	0.88
8:7:8:LEU:CD2	8:7:62:ALA:N	2.35	0.88
8:7:496:GLY:C	8:7:707:ASN:OD1	2.17	0.88
14:E:694:LEU:HD13	14:E:703:MET:HE1	1.55	0.88
27:U:30:HIS:NE2	27:U:65:ASN:OD1	2.05	0.88
35:p:841:ARG:HH22	35:p:1078:ARG:CZ	1.87	0.88
11:A:410:TRP:HA	15:F:306:PRO:HG3	1.56	0.88
11:A:511:LEU:H	11:A:511:LEU:HD22	1.37	0.88
2:1:417:LYS:HA	2:1:417:LYS:HE3	1.55	0.88
25:S:125:TYR:HE2	26:T:31:TRP:CE3	1.86	0.88
18:i:73:LEU:HD22	20:l:105:HIS:CD2	2.08	0.88
7:6:469:THR:HG22	7:6:638:GLN:OE1	1.73	0.88
11:A:507:GLU:O	11:A:509:LEU:N	2.07	0.88
15:F:14:LEU:HD21	18:I:19:MET:CE	2.04	0.88
15:F:208:LEU:HD21	15:f:214:HIS:NE2	1.89	0.88
25:S:125:TYR:CD2	26:T:31:TRP:CZ3	2.62	0.88
18:i:73:LEU:HD21	20:l:105:HIS:NE2	1.89	0.88
7:6:199:LEU:HB2	7:6:273:LYS:CG	2.04	0.87
7:6:468:ALA:HB3	7:6:638:GLN:NE2	1.89	0.87
7:6:469:THR:HG23	7:6:638:GLN:HG3	1.53	0.87
15:F:118:ILE:HA	17:H:39:VAL:CG1	2.02	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:R:47:ASP:OD1	24:R:47:ASP:C	2.17	0.87
26:T:16:THR:HG21	26:T:107:GLU:O	1.73	0.87
28:V:117:GLN:HE21	28:V:121:THR:HG23	1.39	0.87
37:r:114:LEU:HD21	40:u:167:TYR:HD2	1.37	0.87
37:r:103:LEU:CA	40:u:144:ARG:HH12	1.85	0.87
15:F:412:LEU:HD13	15:F:417:ARG:CG	2.03	0.87
3:2:223:LEU:HD11	8:7:726:GLN:CD	1.99	0.87
5:4:412:PHE:CD2	5:4:418:PHE:CD1	2.63	0.87
7:6:339:VAL:HA	7:6:467:THR:O	1.75	0.87
25:S:121:ASN:CA	26:T:25:LYS:HE2	2.05	0.87
4:3:268:CYS:HB3	4:3:271:CYS:SG	2.14	0.87
15:F:114:LEU:C	17:H:42:SER:HB3	1.98	0.87
17:H:110:TYR:HD1	19:J:161:LYS:HD3	1.36	0.87
18:I:132:LEU:HG	19:J:121:MET:SD	2.13	0.87
7:6:443:VAL:C	7:6:472:ARG:HH21	1.81	0.87
11:A:469:PRO:C	15:F:214:HIS:HD2	1.75	0.87
11:A:486:TRP:CD1	11:A:486:TRP:H	1.90	0.87
7:6:443:VAL:HB	7:6:472:ARG:CZ	2.04	0.87
7:6:617:LEU:N	7:6:618:PRO:HD3	1.90	0.87
11:A:406:THR:CG2	15:F:350:ASN:HD22	1.86	0.87
15:F:112:VAL:HG22	17:H:54:GLU:C	2.00	0.87
27:U:32:LEU:CD2	28:V:161:ARG:HH21	1.87	0.87
2:1:381:ARG:NH1	4:3:275:PHE:CE1	2.43	0.87
7:6:199:LEU:HD22	7:6:273:LYS:HA	1.56	0.87
15:F:117:ILE:HG23	17:H:38:GLN:HB3	1.54	0.87
25:S:8:SER:HA	26:T:48:THR:C	2.00	0.87
27:U:145:PHE:CZ	40:u:98:PHE:HE2	1.93	0.87
40:u:86:ASP:OD2	40:u:171:VAL:HG21	1.75	0.87
7:6:616:ASP:HB2	7:6:618:PRO:HD3	1.55	0.87
11:A:410:TRP:CG	15:F:306:PRO:CD	2.47	0.87
11:A:1169:ARG:HD3	11:A:1181:ARG:HH11	0.72	0.87
14:E:704:VAL:HG12	14:E:759:ILE:HD13	1.57	0.87
17:H:110:TYR:OH	19:J:160:GLN:O	1.88	0.87
11:A:511:LEU:O	15:f:214:HIS:CD2	2.28	0.86
21:O:28:ILE:CG2	23:Q:38:VAL:HG11	1.82	0.86
23:Q:344:ARG:HD2	23:Q:349:TRP:CD1	2.08	0.86
5:4:400:ARG:HH21	5:4:401:LEU:HB2	1.39	0.86
15:F:335:ARG:HH22	15:F:336:LEU:HD13	1.39	0.86
15:f:311:CYS:HB3	15:f:329:LEU:HG	1.57	0.86
5:4:442:VAL:HG21	6:5:44:PHE:CZ	2.09	0.86
8:7:523:LEU:HA	8:7:710:VAL:CG1	2.06	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:432:LEU:HG	14:E:436:ASP:OD2	1.73	0.86
27:U:52:LEU:CD2	28:V:161:ARG:NH1	2.37	0.86
27:U:188:TYR:HE2	28:V:218:LYS:HZ3	1.13	0.86
2:1:374:LEU:HD13	4:3:270:VAL:HG13	0.88	0.86
7:6:360:ARG:HB3	7:6:405:VAL:HG23	1.56	0.86
5:4:412:PHE:CB	5:4:439:ARG:HB3	2.05	0.86
7:6:447:PRO:HG2	29:X:15:DG:C5'	2.04	0.86
7:6:571:TYR:O	7:6:606:PHE:HE2	1.59	0.86
11:A:400:GLU:OE2	15:F:347:THR:OG1	1.92	0.86
11:A:405:VAL:CG2	15:F:301:VAL:HG11	2.05	0.86
17:H:50:PHE:HB2	19:J:195:LEU:HB2	1.57	0.86
29:X:-10:DC:N3	30:Y:10:DG:N1	2.23	0.86
40:u:44:PHE:CE2	40:u:46:ILE:CG1	2.57	0.86
7:6:443:VAL:O	7:6:472:ARG:NE	2.09	0.86
8:7:8:LEU:HD22	8:7:61:ARG:CG	2.04	0.86
11:A:410:TRP:HA	15:F:306:PRO:CG	2.06	0.86
21:O:18:SER:O	23:Q:45:LEU:CD1	2.23	0.86
37:r:16:ASP:CG	40:u:81:LYS:HZ2	1.84	0.86
7:6:571:TYR:C	7:6:606:PHE:HE2	1.82	0.86
27:U:32:LEU:HD22	28:V:161:ARG:HE	1.37	0.86
7:6:377:GLN:O	7:6:381:TRP:CD1	2.28	0.86
21:O:32:LEU:HD13	23:Q:32:ASP:CB	2.06	0.86
5:4:413:LEU:HD23	12:B:672:PHE:HE1	1.41	0.86
15:F:316:GLN:NE2	15:F:320:ARG:HA	1.91	0.86
21:O:22:LEU:CD1	21:O:28:ILE:HD13	2.06	0.86
21:O:28:ILE:HG22	23:Q:38:VAL:HG11	0.86	0.86
23:Q:344:ARG:NE	23:Q:349:TRP:NE1	2.20	0.86
2:1:382:TYR:CD1	4:3:256:PHE:HE2	1.94	0.85
2:1:406:SER:HB3	4:3:27:LEU:HD11	1.55	0.85
34:o:794:GLU:OE2	35:p:500:GLN:NE2	2.08	0.85
11:A:404:MET:O	15:F:302:HIS:CB	2.23	0.85
17:H:50:PHE:CZ	19:J:170:ALA:C	2.54	0.85
27:U:174:ARG:HD2	27:U:174:ARG:C	2.02	0.85
18:I:28:ILE:HG22	18:I:31:TYR:CD1	2.11	0.85
23:Q:344:ARG:HG3	23:Q:348:LYS:O	1.73	0.85
2:1:109:LYS:O	2:1:111:LEU:N	2.08	0.85
11:A:479:ARG:NH2	11:A:482:ASP:OD1	2.10	0.85
13:D:922:GLN:HG3	13:D:1056:THR:HG21	1.55	0.85
17:H:53:ALA:HA	19:J:195:LEU:O	1.75	0.85
2:1:414:TYR:HB3	4:3:116:LYS:HD3	1.57	0.85
15:F:114:LEU:CD2	17:H:45:LEU:N	2.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:R:122:THR:CG2	35:p:438:ARG:HH11	1.83	0.85
21:O:28:ILE:HG23	23:Q:38:VAL:HG13	1.56	0.85
15:F:412:LEU:CD1	15:F:417:ARG:HB2	2.06	0.85
7:6:580:ILE:CD1	7:6:607:ILE:CG2	2.55	0.85
11:A:410:TRP:CZ3	15:F:355:ILE:HG21	2.08	0.85
15:F:412:LEU:CG	15:F:417:ARG:HD2	2.06	0.85
18:i:73:LEU:CD2	20:l:105:HIS:CD2	2.60	0.85
34:o:689:ILE:CD1	35:p:985:LEU:HD22	2.07	0.85
21:O:22:LEU:O	21:O:28:ILE:N	2.09	0.85
8:7:611:VAL:HG21	8:7:614:TYR:HB2	1.57	0.85
24:R:189:LYS:HE3	29:X:-30:DA:OP2	1.77	0.85
28:V:77:VAL:HG11	28:V:119:LEU:CD1	2.07	0.85
28:V:152:LEU:HG	28:V:156:ASP:HB2	1.57	0.85
3:2:208:CYS:SG	3:2:219:TYR:CE1	2.69	0.84
17:H:50:PHE:HZ	19:J:170:ALA:CB	1.90	0.84
20:L:71:ASP:HB3	20:L:74:GLU:CD	2.02	0.84
24:R:209:ILE:HD11	24:R:250:PRO:CD	2.06	0.84
26:T:49:GLN:OE1	26:T:49:GLN:N	2.09	0.84
25:S:121:ASN:HA	26:T:25:LYS:CE	2.06	0.84
26:T:128:LYS:HB2	35:p:596:ILE:HG12	1.57	0.84
28:V:117:GLN:HE21	28:V:121:THR:CG2	1.90	0.84
1:0:269:LEU:CD1	1:0:290:SER:HB3	2.05	0.84
2:1:381:ARG:HH11	4:3:275:PHE:HE1	1.23	0.84
7:6:617:LEU:N	7:6:618:PRO:CD	2.40	0.84
15:F:114:LEU:CD1	17:H:45:LEU:HD12	2.06	0.84
15:F:124:ARG:HA	17:H:123:PRO:O	1.76	0.84
15:F:218:VAL:CG1	17:H:162:THR:OG1	2.21	0.84
25:S:102:VAL:HB	25:S:108:ARG:HB3	1.59	0.84
28:V:129:LYS:O	28:V:140:LYS:CG	2.25	0.84
37:r:60:VAL:HG12	40:u:44:PHE:HZ	1.42	0.84
2:1:372:ILE:HG13	3:2:54:ARG:HD2	1.58	0.84
7:6:443:VAL:HB	7:6:472:ARG:HH22	1.41	0.84
11:A:396:LEU:CG	15:f:390:THR:O	2.25	0.84
11:A:504:PRO:HG2	15:F:209:LYS:H	1.42	0.84
15:F:104:LEU:CB	19:J:217:PHE:CZ	2.60	0.84
30:Y:22:DG:C6	30:Y:23:DG:C6	2.66	0.84
34:o:108:ARG:HH12	34:o:191:ILE:HB	1.40	0.84
2:1:381:ARG:CB	4:3:256:PHE:CB	2.39	0.84
7:6:580:ILE:CD1	7:6:607:ILE:HG22	2.07	0.84
8:7:584:TYR:CE2	8:7:614:TYR:CZ	2.65	0.84
15:F:114:LEU:CD2	17:H:45:LEU:H	1.91	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:412:LEU:CD1	15:F:417:ARG:CG	2.53	0.84
7:6:469:THR:HG21	7:6:638:GLN:HG2	1.58	0.84
8:7:11:TYR:CB	8:7:93:PHE:HE2	1.90	0.84
15:F:412:LEU:CD1	15:F:417:ARG:CB	2.55	0.84
2:1:382:TYR:CD1	4:3:256:PHE:CE2	2.65	0.84
13:D:899:VAL:CG1	13:D:900:SER:N	2.36	0.84
3:2:223:LEU:CD1	8:7:726:GLN:HE22	1.88	0.84
7:6:291:LEU:HD12	7:6:291:LEU:H	1.42	0.84
15:F:117:ILE:HB	17:H:42:SER:HG	1.42	0.84
15:F:209:LYS:HG3	15:F:210:PRO:CD	2.05	0.84
23:Q:344:ARG:NE	23:Q:349:TRP:CZ2	2.40	0.84
31:c:67:GLY:HA3	19:j:116:LEU:HD13	1.60	0.84
15:F:118:ILE:HD13	17:H:43:SER:OG	1.77	0.84
24:R:127:ARG:HH21	24:R:127:ARG:CG	1.91	0.84
2:1:414:TYR:CD2	4:3:116:LYS:HD3	2.13	0.83
7:6:275:GLU:CD	7:6:456:THR:CG2	2.45	0.83
7:6:363:VAL:O	7:6:407:ILE:HA	1.78	0.83
18:i:61:ALA:HA	20:l:106:ARG:HG2	1.57	0.83
5:4:448:HIS:O	5:4:452:LYS:HG2	1.78	0.83
11:A:400:GLU:HG2	15:F:347:THR:HG21	1.59	0.83
11:A:481:GLU:OE1	15:f:358:THR:HG21	1.77	0.83
20:L:111:LEU:O	20:L:114:LYS:CG	2.27	0.83
2:1:229:TYR:HE1	2:1:239:SER:HA	1.38	0.83
2:1:372:ILE:CG2	3:2:54:ARG:NE	2.39	0.83
7:6:435:TRP:H	7:6:435:TRP:HE3	1.23	0.83
8:7:16:TYR:OH	8:7:730:ARG:CB	2.26	0.83
11:A:410:TRP:CZ3	15:F:305:ILE:HG21	2.13	0.83
13:D:1006:LEU:HD13	21:O:68:CYS:HB3	1.57	0.83
20:L:64:GLN:HA	20:L:67:VAL:HG22	1.60	0.83
18:i:73:LEU:CG	20:l:105:HIS:CE1	2.60	0.83
7:6:335:SER:CB	7:6:463:LYS:N	2.40	0.83
7:6:503:ALA:CB	7:6:645:ARG:O	2.26	0.83
11:A:469:PRO:CB	15:F:214:HIS:HD2	1.90	0.83
11:A:495:LEU:HB2	15:f:272:VAL:CG1	2.08	0.83
15:F:75:LEU:HD12	15:F:84:TYR:OH	1.78	0.83
11:A:410:TRP:HZ3	15:F:355:ILE:CG2	1.65	0.83
15:F:114:LEU:CG	17:H:45:LEU:HB2	2.04	0.83
21:O:22:LEU:HD13	21:O:28:ILE:HG21	1.59	0.83
25:S:8:SER:CA	26:T:48:THR:O	2.27	0.83
15:f:447:ALA:HA	15:f:456:GLY:HA3	1.61	0.83
18:i:60:HIS:CG	20:l:106:ARG:NH2	2.38	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:461:LEU:HD22	8:7:696:TRP:HD1	1.44	0.83
2:1:355:GLN:HA	2:1:358:ILE:HG13	1.61	0.83
15:F:75:LEU:CD1	15:F:84:TYR:OH	2.26	0.83
15:F:104:LEU:HB2	19:J:217:PHE:CZ	2.13	0.83
21:O:22:LEU:C	21:O:28:ILE:HG12	2.02	0.83
26:T:149:VAL:CG2	35:p:125:TYR:CZ	2.61	0.83
14:E:465:THR:N	15:F:132:LYS:O	2.11	0.83
15:F:12:THR:OG1	18:I:25:ASP:OD2	1.97	0.83
2:1:414:TYR:CD2	4:3:116:LYS:CE	2.61	0.83
8:7:425:THR:N	8:7:426:PRO:HD3	1.94	0.83
14:E:696:TRP:CZ3	14:E:703:MET:CB	2.62	0.83
14:E:747:LEU:HD22	14:E:747:LEU:H	1.43	0.83
15:F:14:LEU:HD21	18:I:19:MET:HE1	1.59	0.83
21:O:54:ASN:ND2	21:O:55:ARG:H	1.76	0.83
1:0:268:ARG:NE	10:9:176:THR:CG2	2.41	0.82
2:1:372:ILE:HB	3:2:54:ARG:HE	1.38	0.82
11:A:353:LEU:CD1	11:A:495:LEU:HG	2.05	0.82
11:A:511:LEU:HD21	15:f:214:HIS:N	1.93	0.82
7:6:447:PRO:HD2	29:X:15:DG:H5"	1.60	0.82
8:7:496:GLY:O	8:7:707:ASN:OD1	1.96	0.82
8:7:28:LEU:HB2	8:7:55:LEU:HD23	1.59	0.82
8:7:41:GLU:C	8:7:481:PHE:HD2	1.86	0.82
25:S:44:GLN:HA	26:T:9:LEU:HD12	1.60	0.82
5:4:432:VAL:HG12	6:5:9:LEU:HD22	1.61	0.82
15:F:219:GLU:CG	17:H:160:ILE:HG22	2.05	0.82
5:4:412:PHE:CD2	5:4:418:PHE:CE1	2.68	0.82
7:6:389:ILE:C	7:6:403:CYS:HG	1.85	0.82
7:6:447:PRO:HB2	29:X:15:DG:P	2.19	0.82
8:7:10:VAL:HG21	8:7:58:ALA:HB2	1.61	0.82
21:O:22:LEU:HB2	21:O:28:ILE:HD11	1.62	0.82
24:R:27:TYR:HB3	24:R:28:ARG:HH11	1.41	0.82
7:6:557:LYS:HB3	7:6:596:PHE:HZ	1.06	0.82
8:7:81:GLU:HG2	8:7:176:ASN:OD1	1.79	0.82
15:F:104:LEU:HD13	19:J:217:PHE:HE2	1.44	0.82
37:r:103:LEU:HA	40:u:144:ARG:CZ	2.10	0.82
2:1:372:ILE:HG22	3:2:54:ARG:HH21	1.45	0.82
7:6:580:ILE:HG12	7:6:607:ILE:CG2	1.96	0.82
8:7:8:LEU:HD13	8:7:61:ARG:CG	2.10	0.82
11:A:408:LEU:HD11	15:F:302:HIS:HD2	1.42	0.82
4:3:50:PHE:CE2	5:4:122:LEU:CG	2.63	0.82
17:H:50:PHE:HZ	19:J:170:ALA:C	1.88	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:51:GLU:O	19:J:194:THR:HA	1.80	0.81
24:R:33:ILE:CG2	34:o:431:PHE:HD2	1.93	0.81
27:U:32:LEU:HD13	28:V:161:ARG:NH2	1.94	0.81
27:U:145:PHE:CE2	40:u:98:PHE:CZ	2.68	0.81
4:3:50:PHE:CE1	5:4:122:LEU:CD2	2.56	0.81
5:4:309:VAL:HG21	5:4:368:LEU:HB3	0.84	0.81
11:A:396:LEU:HB3	15:f:391:LEU:HA	1.62	0.81
11:A:400:GLU:CD	15:F:347:THR:CG2	2.53	0.81
7:6:616:ASP:HB2	7:6:618:PRO:CD	2.10	0.81
11:A:495:LEU:HG	15:f:272:VAL:CG1	2.09	0.81
11:A:564:PRO:HG2	12:B:744:PHE:CD2	2.16	0.81
13:D:942:ALA:CB	14:E:510:ALA:CB	2.15	0.81
14:E:696:TRP:CE3	14:E:703:MET:CB	2.63	0.81
17:H:110:TYR:CG	19:J:161:LYS:CB	2.56	0.81
20:L:71:ASP:HB3	20:L:74:GLU:CG	2.10	0.81
30:Y:-15:DC:H2"	30:Y:-14:DC:H5"	1.61	0.81
8:7:10:VAL:CG2	8:7:58:ALA:HB2	2.11	0.81
18:I:132:LEU:HG	19:J:121:MET:HE2	1.62	0.81
22:P:212:LEU:HD11	30:Y:26:DT:O2	1.80	0.81
6:5:32:LYS:HE3	12:B:539:ARG:HH22	1.46	0.81
21:O:54:ASN:ND2	21:O:55:ARG:N	2.28	0.81
25:S:8:SER:CA	26:T:48:THR:C	2.53	0.81
7:6:580:ILE:HD11	7:6:607:ILE:CG2	2.10	0.81
17:H:50:PHE:CZ	19:J:170:ALA:HB3	2.15	0.81
28:V:86:LYS:HA	28:V:139:PHE:CE2	2.12	0.81
8:7:530:VAL:HG22	8:7:718:LYS:CE	2.10	0.81
11:A:1065:GLU:OE1	11:A:1065:GLU:HA	1.78	0.81
20:L:101:GLN:C	20:L:105:HIS:CD2	2.57	0.81
21:O:65:TYR:CE1	22:P:189:ASN:C	2.59	0.81
8:7:495:ILE:HG23	8:7:709:THR:O	1.81	0.81
24:R:127:ARG:HH21	24:R:127:ARG:HG3	1.45	0.81
7:6:502:ILE:HD11	7:6:641:GLY:O	1.81	0.81
11:A:353:LEU:CD1	11:A:495:LEU:CG	2.58	0.81
25:S:24:LYS:HB3	26:T:99:SER:HA	1.62	0.81
7:6:377:GLN:NE2	7:6:377:GLN:H	1.79	0.81
7:6:378:PHE:HB3	7:6:381:TRP:HZ2	1.44	0.81
7:6:557:LYS:HZ1	7:6:597:LYS:CD	1.91	0.81
8:7:9:LEU:HD12	8:7:61:ARG:CZ	1.99	0.81
8:7:236:ALA:HB2	8:7:456:ILE:HG23	1.60	0.81
21:O:18:SER:HB3	23:Q:45:LEU:HB2	1.63	0.81
21:O:65:TYR:CZ	22:P:189:ASN:HA	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:l:101:GLN:C	20:l:105:HIS:CD2	2.59	0.81
25:S:24:LYS:HD3	26:T:97:THR:CB	2.11	0.80
7:6:335:SER:HB2	7:6:463:LYS:CG	2.11	0.80
24:R:217:ARG:NE	35:p:102:ASP:O	2.14	0.80
7:6:447:PRO:HD2	29:X:15:DG:C5'	2.10	0.80
8:7:539:PHE:HA	8:7:621:PHE:HB2	1.63	0.80
11:A:495:LEU:CG	15:f:272:VAL:HG11	2.09	0.80
11:A:511:LEU:CG	15:f:214:HIS:CD2	2.64	0.80
24:R:107:MET:HG3	34:o:329:MET:CE	2.10	0.80
28:V:117:GLN:NE2	28:V:121:THR:HG23	1.96	0.80
7:6:361:CYS:H	7:6:405:VAL:HG22	1.47	0.80
7:6:533:LEU:HD22	7:6:716:VAL:CG1	2.09	0.80
9:8:104:ASP:O	9:8:105:ASN:C	2.25	0.80
17:H:44:LEU:HD23	17:H:47:GLU:OE2	1.81	0.80
24:R:221:ASN:OD1	26:T:150:THR:HG22	1.81	0.80
8:7:530:VAL:HG21	8:7:714:VAL:HG13	1.63	0.80
11:A:353:LEU:HG	11:A:495:LEU:CD1	2.08	0.80
11:A:404:MET:HB2	15:F:302:HIS:CG	2.16	0.80
15:F:218:VAL:HG12	17:H:162:THR:HB	1.62	0.80
17:H:110:TYR:HB2	19:J:161:LYS:HD3	1.62	0.80
25:S:44:GLN:C	26:T:9:LEU:CD1	2.53	0.80
28:V:175:LEU:HD23	28:V:175:LEU:O	1.82	0.80
13:d:1082:ALA:HB2	20:l:83:MET:HE2	1.62	0.80
3:2:223:LEU:CD2	8:7:726:GLN:NE2	2.45	0.80
13:D:1058:VAL:HG21	20:L:76:LEU:HD23	1.64	0.80
22:P:205:ARG:HG2	23:Q:376:TRP:CZ3	2.17	0.80
31:c:77:LEU:HD13	19:j:116:LEU:HD23	1.61	0.80
33:m:31:LEU:HD23	33:m:31:LEU:H	1.47	0.80
35:p:68:GLN:HB3	35:p:83:ARG:HB3	1.64	0.80
7:6:338:ILE:HB	7:6:465:GLY:O	1.82	0.80
10:9:36:ALA:HB1	40:u:20:PRO:HG2	1.61	0.80
11:A:405:VAL:CB	15:F:301:VAL:HG11	2.11	0.80
15:F:117:ILE:O	15:F:120:THR:CG2	2.30	0.80
15:F:117:ILE:HG21	17:H:38:GLN:CB	2.11	0.80
25:S:23:THR:O	26:T:100:SER:N	2.15	0.80
8:7:504:ILE:HG22	8:7:681:ASP:HA	1.63	0.79
14:E:605:HIS:NE2	15:F:77:LEU:HD21	1.97	0.79
17:H:57:SER:HA	19:J:197:MET:SD	2.20	0.79
25:S:24:LYS:HD3	26:T:97:THR:OG1	1.82	0.79
28:V:73:TYR:HB2	28:V:115:GLN:HG2	1.61	0.79
1:0:268:ARG:CZ	10:9:176:THR:HG23	2.11	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:557:LYS:HE2	7:6:596:PHE:CZ	2.15	0.79
8:7:8:LEU:HD21	8:7:62:ALA:N	1.96	0.79
23:Q:358:MET:HE2	23:Q:367:PHE:HD2	1.46	0.79
18:i:60:HIS:NE2	20:l:106:ARG:NH2	2.29	0.79
11:A:414:ILE:HD13	15:F:310:THR:HB	1.62	0.79
17:H:50:PHE:HZ	19:J:170:ALA:HB3	1.48	0.79
25:S:23:THR:O	26:T:99:SER:CA	2.30	0.79
1:0:165:ILE:CD1	8:7:641:ARG:NH1	2.44	0.79
7:6:389:ILE:C	7:6:403:CYS:SG	2.64	0.79
8:7:8:LEU:CD2	8:7:62:ALA:HA	2.12	0.79
10:9:42:PRO:HB3	34:o:1484:MET:HE3	1.62	0.79
13:D:917:ILE:HG22	13:D:1066:CYS:SG	2.22	0.79
15:F:112:VAL:HG12	17:H:55:LYS:HD3	0.79	0.79
1:0:103:GLU:OE1	8:7:328:HIS:CE1	2.35	0.79
2:1:411:MET:HG3	4:3:120:THR:HG23	1.63	0.79
5:4:309:VAL:HG21	5:4:368:LEU:CG	2.12	0.79
17:H:108:PRO:CG	19:J:116:LEU:CD2	2.59	0.79
34:o:461:GLN:HB2	34:o:462:PRO:HD3	1.65	0.79
5:4:415:GLN:HB2	5:4:439:ARG:NH2	1.98	0.79
7:6:199:LEU:HD12	7:6:273:LYS:HE3	1.64	0.79
7:6:336:GLY:N	7:6:463:LYS:O	2.16	0.79
10:9:36:ALA:HB3	40:u:20:PRO:CG	2.13	0.79
37:r:114:LEU:HD21	40:u:167:TYR:CD2	2.18	0.79
7:6:444:HIS:O	7:6:473:GLU:HA	1.83	0.79
7:6:617:LEU:H	7:6:618:PRO:HD3	1.47	0.79
8:7:8:LEU:CD1	8:7:61:ARG:N	2.36	0.79
28:V:151:LEU:HD11	28:V:154:LEU:HB3	1.47	0.79
3:2:223:LEU:HD21	8:7:726:GLN:NE2	1.94	0.79
3:2:301:LEU:HD12	3:2:301:LEU:C	2.06	0.79
7:6:469:THR:HG21	7:6:638:GLN:CG	2.10	0.79
12:B:160:HIS:CE1	12:B:162:VAL:HG21	2.03	0.79
11:A:481:GLU:CB	15:f:358:THR:HG21	2.13	0.79
2:1:377:LYS:HD3	4:3:283:THR:O	1.83	0.79
8:7:610:PHE:HE2	8:7:618:VAL:HG22	1.47	0.79
25:S:6:PRO:O	25:S:10:ASN:CB	2.31	0.79
25:S:31:PHE:O	26:T:91:GLN:HA	1.83	0.79
8:7:585:GLN:CG	8:7:614:TYR:CE1	2.66	0.78
11:A:405:VAL:HB	15:F:301:VAL:HG11	1.62	0.78
14:E:509:GLN:O	14:E:513:LEU:N	2.15	0.78
17:H:50:PHE:CD1	19:J:195:LEU:HD13	2.18	0.78
21:O:65:TYR:CZ	22:P:189:ASN:CA	2.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:U:32:LEU:CD2	28:V:161:ARG:NH2	2.44	0.78
34:o:372:ASN:ND2	35:p:788:TYR:OH	2.15	0.78
2:1:236:ASN:O	2:1:237:THR:CB	2.32	0.78
8:7:629:GLN:CB	8:7:633:LEU:HD12	2.13	0.78
11:A:410:TRP:CA	15:F:306:PRO:CG	2.61	0.78
15:F:105:TYR:O	19:J:217:PHE:CB	2.31	0.78
21:O:62:LEU:HA	21:O:76:LEU:HD23	1.65	0.78
8:7:629:GLN:NE2	8:7:633:LEU:HD12	1.79	0.78
14:E:509:GLN:HG3	14:E:511:SER:N	1.96	0.78
22:P:210:THR:HG21	30:Y:26:DT:O3'	1.83	0.78
26:T:18:VAL:HG21	26:T:95:VAL:HG23	1.66	0.78
40:u:44:PHE:CD2	40:u:46:ILE:CG1	2.65	0.78
2:1:422:LEU:HD11	4:3:31:GLN:CD	2.09	0.78
11:A:396:LEU:CD2	15:f:391:LEU:O	2.29	0.78
15:F:273:GLN:NE2	15:F:273:GLN:H	1.81	0.78
26:T:147:LYS:HG3	26:T:148:VAL:N	1.96	0.78
27:U:145:PHE:CE2	40:u:98:PHE:CE2	2.72	0.78
14:e:747:LEU:HD23	14:e:747:LEU:H	1.47	0.78
1:0:268:ARG:NH2	10:9:177:ARG:HB2	1.99	0.78
3:2:190:LYS:CD	3:2:214:GLU:HG3	2.04	0.78
7:6:374:TRP:C	7:6:377:GLN:NE2	2.41	0.78
13:D:1063:LEU:HD12	20:L:80:VAL:HG13	1.65	0.78
11:A:404:MET:C	15:F:302:HIS:HB3	2.07	0.78
2:1:372:ILE:HG21	3:2:54:ARG:HH22	1.44	0.78
7:6:618:PRO:O	7:6:645:ARG:NE	2.16	0.78
11:A:638:PRO:HB3	16:G:39:LEU:HD23	1.63	0.78
15:F:114:LEU:CG	17:H:42:SER:O	2.30	0.78
17:H:50:PHE:CZ	19:J:170:ALA:CB	2.67	0.78
21:O:28:ILE:HG21	23:Q:38:VAL:CG1	2.13	0.78
26:T:200:LYS:H	26:T:200:LYS:HZ3	1.30	0.78
27:U:120:ASP:HB3	27:U:174:ARG:HG2	1.66	0.78
27:U:128:LYS:O	27:U:162:GLU:N	2.16	0.78
30:Y:35:DC:H1'	30:Y:36:DC:H5'	1.66	0.78
20:l:102:LEU:CA	20:l:105:HIS:HD2	1.95	0.78
2:1:382:TYR:OH	4:3:271:CYS:C	2.27	0.78
7:6:435:TRP:HB2	7:6:461:HIS:HE1	1.49	0.78
15:F:83:LEU:HD11	15:F:97:ALA:O	1.84	0.78
15:F:112:VAL:HG11	17:H:55:LYS:HA	1.54	0.78
15:F:274:ASN:ND2	15:F:316:GLN:HA	1.99	0.78
7:6:97:GLN:HE22	7:6:109:ARG:HH12	1.29	0.78
8:7:27:GLU:HB3	8:7:479:ALA:HB1	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:410:TRP:HZ3	15:F:355:ILE:HG22	0.91	0.78
13:D:1060:LEU:HD13	20:L:79:ASP:HB3	1.65	0.78
26:T:177:ARG:HG3	26:T:177:ARG:O	1.85	0.78
28:V:151:LEU:HD11	28:V:154:LEU:CG	2.12	0.78
5:4:336:TYR:HH	7:6:85:PHE:HZ	1.33	0.77
5:4:413:LEU:HD23	12:B:672:PHE:CE1	2.19	0.77
23:Q:43:LYS:O	23:Q:47:GLU:HG3	1.84	0.77
26:T:16:THR:O	26:T:109:ILE:HD12	1.83	0.77
5:4:401:LEU:HA	6:5:10:ILE:HG23	1.66	0.77
6:5:33:PHE:CZ	6:5:49:LEU:HD12	2.17	0.77
7:6:609:LYS:HZ1	30:Y:-13:DT:H5”	1.50	0.77
17:H:56:ALA:CB	19:J:214:PRO:CG	2.61	0.77
28:V:77:VAL:HG11	28:V:119:LEU:HD11	1.65	0.77
1:0:272:LEU:O	1:0:275:VAL:N	2.16	0.77
8:7:9:LEU:CG	8:7:61:ARG:NH2	2.47	0.77
34:o:834:THR:HG23	35:p:677:MET:HE1	1.65	0.77
7:6:188:LEU:O	7:6:194:ILE:HD13	1.85	0.77
7:6:557:LYS:CE	7:6:596:PHE:O	2.33	0.77
24:R:27:TYR:HB3	24:R:28:ARG:NH1	1.99	0.77
3:2:257:HIS:ND1	4:3:248:HIS:CE1	2.53	0.77
7:6:447:PRO:CD	29:X:15:DG:P	2.71	0.77
11:A:507:GLU:C	11:A:509:LEU:H	1.93	0.77
15:F:111:GLU:OE1	15:F:111:GLU:O	2.02	0.77
21:O:21:GLU:CD	23:Q:45:LEU:CD2	2.57	0.77
24:R:109:SER:O	24:R:112:ARG:HG3	1.85	0.77
25:S:50:ASP:HB3	25:S:97:PRO:HG2	1.66	0.77
34:o:511:THR:HG21	35:p:1105:GLU:OE1	1.84	0.77
11:A:511:LEU:HD23	15:f:214:HIS:CD2	2.18	0.77
21:O:22:LEU:HB3	21:O:28:ILE:CB	2.14	0.77
11:A:416:TRP:HZ2	15:F:313:VAL:CG2	1.98	0.77
7:6:319:TYR:CD1	7:6:320:GLN:HG3	2.19	0.77
5:4:432:VAL:CG1	6:5:9:LEU:HD22	2.15	0.77
7:6:633:ARG:HG2	7:6:633:ARG:O	1.84	0.77
20:L:111:LEU:HA	20:L:114:LYS:HZ1	1.50	0.77
21:O:32:LEU:HD12	23:Q:32:ASP:OD2	1.84	0.77
25:S:25:LYS:N	26:T:98:GLU:O	2.17	0.77
2:1:440:LEU:HD21	4:3:218:PRO:HD3	1.66	0.76
7:6:411:SER:HB2	7:6:450:MET:CE	2.15	0.76
17:H:108:PRO:CG	19:J:116:LEU:HD23	2.14	0.76
5:4:456:LYS:O	5:4:460:HIS:CD2	2.37	0.76
7:6:613:THR:CG2	7:6:642:ARG:HD2	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:V:153:ARG:HA	28:V:153:ARG:NH1	1.99	0.76
20:l:76:LEU:HD13	20:l:84:LEU:HD12	1.67	0.76
8:7:629:GLN:OE1	8:7:633:LEU:CB	2.33	0.76
13:D:1063:LEU:CD1	20:L:80:VAL:HG13	2.15	0.76
27:U:70:LYS:HB3	27:U:99:LEU:HD23	1.68	0.76
37:r:115:ILE:HG22	37:r:117:SER:H	1.48	0.76
2:1:227:SER:HA	2:1:231:HIS:HB2	1.68	0.76
5:4:310:GLU:HG2	7:6:112:HIS:HD2	1.51	0.76
5:4:400:ARG:HG2	5:4:400:ARG:O	1.83	0.76
6:5:35:ILE:HG21	12:B:540:LYS:HE2	1.66	0.76
7:6:392:PHE:CD1	7:6:426:VAL:HA	2.21	0.76
11:A:784:GLN:H	11:A:1073:GLN:NE2	1.82	0.76
1:0:268:ARG:NH1	10:9:176:THR:HG21	1.99	0.76
13:D:1011:ALA:HB2	21:O:94:LYS:HE2	1.66	0.76
15:F:63:ARG:O	15:F:65:LYS:N	2.19	0.76
17:H:49:GLY:O	19:J:171:LEU:HD13	1.84	0.76
2:1:422:LEU:HD11	4:3:31:GLN:CG	2.14	0.76
4:3:46:ASN:O	4:3:50:PHE:HB2	1.86	0.76
5:4:336:TYR:OH	7:6:85:PHE:HZ	1.67	0.76
13:D:961:GLN:O	13:D:965:ILE:HG12	1.84	0.76
15:F:83:LEU:CD2	15:F:86:PHE:CZ	2.67	0.76
25:S:44:GLN:CA	26:T:9:LEU:HD12	2.15	0.76
34:o:834:THR:CG2	35:p:677:MET:HE1	2.15	0.76
17:H:56:ALA:CB	19:J:214:PRO:HG3	2.15	0.76
37:r:73:ARG:HH12	40:u:144:ARG:NH2	1.83	0.76
15:F:360:THR:O	15:F:364:VAL:HG22	1.86	0.76
18:I:132:LEU:CD2	19:J:121:MET:CE	2.64	0.76
20:L:102:LEU:HA	20:L:105:HIS:CD2	2.20	0.76
11:A:410:TRP:HA	15:F:306:PRO:HB3	1.65	0.76
14:E:694:LEU:HD13	14:E:703:MET:HE2	1.63	0.76
17:H:56:ALA:HB1	19:J:214:PRO:HG3	1.68	0.76
24:R:146:TYR:O	24:R:149:LYS:HG3	1.86	0.76
18:i:73:LEU:HD22	20:l:105:HIS:CG	2.21	0.76
2:1:422:LEU:CD1	4:3:31:GLN:OE1	2.32	0.75
18:i:60:HIS:O	20:l:106:ARG:NE	2.19	0.75
2:1:386:PRO:HB2	4:3:253:ALA:CB	2.15	0.75
3:2:257:HIS:ND1	4:3:248:HIS:HE1	1.84	0.75
3:2:257:HIS:HB3	4:3:248:HIS:CE1	2.21	0.75
7:6:443:VAL:C	7:6:472:ARG:NH2	2.39	0.75
28:V:194:ARG:C	28:V:194:ARG:HD3	2.11	0.75
13:D:874:LEU:HD23	13:D:874:LEU:H	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:1071:ARG:HB2	15:F:91:PHE:CG	2.20	0.75
21:O:7:ARG:CZ	21:O:37:LEU:HB3	2.17	0.75
25:S:31:PHE:HB2	26:T:92:THR:CB	2.03	0.75
26:T:149:VAL:CG2	35:p:125:TYR:CE1	2.69	0.75
2:1:382:TYR:HD1	4:3:256:PHE:CE2	2.02	0.75
7:6:447:PRO:CD	29:X:15:DG:H5"	2.15	0.75
11:A:396:LEU:CD2	15:f:394:PRO:CB	2.65	0.75
11:A:1169:ARG:HB3	11:A:1181:ARG:HH22	1.52	0.75
14:E:429:LEU:HB3	14:E:430:PRO:CD	2.16	0.75
28:V:96:PRO:HB2	28:V:136:LYS:HD3	1.66	0.75
29:X:-24:DA:OP1	29:X:-24:DA:H4'	1.85	0.75
8:7:60:GLN:NE2	8:7:67:VAL:HG11	2.01	0.75
8:7:629:GLN:CG	8:7:633:LEU:HB2	2.17	0.75
15:F:68:THR:O	15:F:68:THR:HG22	1.86	0.75
34:o:606:HIS:HB3	34:o:626:THR:HG23	1.69	0.75
15:F:118:ILE:HD11	17:H:43:SER:HA	1.68	0.75
27:U:32:LEU:CD2	28:V:161:ARG:HE	1.99	0.75
8:7:623:VAL:O	8:7:625:TYR:N	2.19	0.75
15:F:118:ILE:CG1	17:H:42:SER:HB2	2.17	0.75
18:I:132:LEU:CG	19:J:121:MET:CE	2.65	0.75
21:O:22:LEU:HB2	21:O:28:ILE:HD13	1.67	0.75
37:r:107:THR:OG1	37:r:110:GLU:CD	2.30	0.75
3:2:208:CYS:CB	3:2:219:TYR:CD1	2.53	0.75
4:3:50:PHE:CZ	5:4:122:LEU:CG	2.68	0.75
8:7:530:VAL:HG13	8:7:718:LYS:HG2	1.69	0.75
15:F:114:LEU:HB2	17:H:45:LEU:HD12	1.68	0.75
15:F:320:ARG:HB2	15:F:415:ILE:HD12	1.67	0.75
24:R:50:SER:N	35:p:1078:ARG:HH21	1.82	0.75
7:6:199:LEU:HD13	7:6:273:LYS:HG2	0.75	0.75
7:6:447:PRO:CA	29:X:15:DG:OP1	2.34	0.75
14:E:359:LEU:HD12	14:E:359:LEU:O	1.87	0.75
7:6:571:TYR:C	7:6:606:PHE:CE2	2.65	0.74
8:7:611:VAL:HG12	8:7:613:HIS:H	1.49	0.74
11:A:396:LEU:HD22	15:f:394:PRO:HB2	1.68	0.74
11:A:410:TRP:CD2	15:F:305:ILE:HG21	1.94	0.74
13:D:949:GLN:HA	13:D:952:GLN:HG2	1.68	0.74
8:7:504:ILE:O	8:7:682:LYS:HB2	1.87	0.74
11:A:410:TRP:HB2	15:F:306:PRO:CA	2.15	0.74
21:O:54:ASN:CG	23:Q:366:ILE:O	2.29	0.74
7:6:366:ASN:HA	7:6:409:THR:CG2	2.16	0.74
7:6:447:PRO:CD	29:X:15:DG:C5'	2.65	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:579:TYR:HA	7:6:606:PHE:H	1.52	0.74
11:A:408:LEU:HD13	15:F:302:HIS:CG	2.22	0.74
11:A:564:PRO:HG2	12:B:744:PHE:CE2	2.23	0.74
11:A:567:LEU:CD1	12:B:745:GLN:HG2	2.11	0.74
25:S:31:PHE:CB	26:T:92:THR:HB	2.04	0.74
2:1:386:PRO:CA	4:3:254:ALA:H	2.00	0.74
7:6:199:LEU:CB	7:6:273:LYS:CG	2.64	0.74
12:B:158:GLY:HA2	12:B:188:PHE:HB3	1.69	0.74
14:E:605:HIS:CE1	15:F:77:LEU:HD21	2.22	0.74
27:U:113:ARG:HH11	28:V:218:LYS:HG3	1.51	0.74
40:u:86:ASP:CG	40:u:171:VAL:HG21	2.10	0.74
3:2:257:HIS:CG	4:3:248:HIS:HE1	2.04	0.74
8:7:41:GLU:O	8:7:481:PHE:CD2	2.39	0.74
8:7:668:ILE:H	8:7:668:ILE:HD12	1.49	0.74
10:9:42:PRO:HB3	34:o:1484:MET:CE	2.17	0.74
11:A:353:LEU:HD23	15:f:269:VAL:HG22	1.67	0.74
11:A:396:LEU:CD1	15:f:394:PRO:CB	2.65	0.74
8:7:8:LEU:CD2	8:7:62:ALA:CA	2.65	0.74
14:E:605:HIS:CE1	15:F:77:LEU:HD11	2.22	0.74
15:F:320:ARG:HD2	15:F:321:PRO:HD3	0.82	0.74
17:H:108:PRO:HG3	19:J:116:LEU:HD23	1.68	0.74
34:o:1125:LYS:HA	34:o:1128:ILE:HB	1.70	0.74
7:6:579:TYR:N	7:6:605:ILE:HG13	2.02	0.74
11:A:405:VAL:HG21	15:F:301:VAL:HG11	1.70	0.74
11:A:511:LEU:CB	15:f:214:HIS:CD2	2.58	0.74
15:F:274:ASN:O	15:F:318:CYS:SG	2.44	0.74
34:o:319:ASP:HB2	34:o:340:LYS:HD3	1.68	0.74
15:F:428:LEU:CD1	15:F:455:LEU:CB	2.64	0.74
3:2:374:PHE:HZ	4:3:141:LEU:HB3	1.52	0.74
9:8:98:LEU:HG	9:8:102:ILE:HG13	1.69	0.74
11:A:511:LEU:CG	15:f:214:HIS:ND1	2.24	0.74
26:T:47:LYS:HG2	26:T:52:THR:HG23	1.68	0.74
27:U:35:ASP:O	27:U:38:ILE:HG12	1.87	0.74
27:U:61:SER:OG	34:o:301:HIS:HE1	1.49	0.74
30:Y:-27:DC:H2"	30:Y:-26:DC:C5	2.22	0.74
34:o:334:ARG:NH1	34:o:335:PRO:O	2.21	0.74
42:w:30:LYS:HA	42:w:33:ARG:HH21	1.52	0.74
2:1:406:SER:CB	4:3:27:LEU:HG	2.18	0.74
10:9:25:ASP:CB	39:t:101:LYS:HZ1	1.99	0.74
11:A:353:LEU:CG	11:A:495:LEU:CD1	2.63	0.74
27:U:127:PHE:HB3	27:U:161:VAL:HB	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:374:TRP:HA	7:6:377:GLN:NE2	2.02	0.73
8:7:494:ILE:HD12	8:7:706:LEU:HD12	1.69	0.73
11:A:495:LEU:HD23	15:f:272:VAL:CG2	2.18	0.73
25:S:24:LYS:CA	26:T:98:GLU:O	2.35	0.73
35:p:274:ARG:HG2	35:p:279:VAL:HA	1.70	0.73
4:3:50:PHE:CE2	5:4:122:LEU:CD2	2.71	0.73
11:A:469:PRO:HA	15:F:214:HIS:NE2	2.03	0.73
24:R:209:ILE:HD12	24:R:250:PRO:HG2	1.66	0.73
29:X:10:DT:O2	30:Y:-10:DA:H2	1.69	0.73
11:A:396:LEU:HG	15:f:390:THR:C	2.13	0.73
14:E:507:VAL:HG21	14:E:513:LEU:HD13	1.66	0.73
24:R:48:VAL:HG23	24:R:48:VAL:O	1.86	0.73
4:3:224:LEU:HD12	4:3:224:LEU:O	1.89	0.73
5:4:307:ILE:C	5:4:371:ARG:O	2.31	0.73
11:A:396:LEU:HD11	15:f:394:PRO:HG2	0.85	0.73
17:H:107:LEU:HD21	19:J:158:ALA:HB2	1.70	0.73
24:R:128:ILE:HG22	26:T:152:ASN:ND2	2.04	0.73
8:7:8:LEU:CG	8:7:62:ALA:CA	2.55	0.73
11:A:410:TRP:CB	15:F:306:PRO:CG	2.49	0.73
18:I:132:LEU:CD2	19:J:121:MET:HE1	2.18	0.73
31:c:77:LEU:HD12	19:j:116:LEU:HD23	1.68	0.73
35:p:344:GLN:NE2	35:p:353:VAL:O	2.22	0.73
5:4:415:GLN:HB2	5:4:439:ARG:HH21	1.52	0.73
8:7:537:ALA:CB	8:7:621:PHE:HE2	1.91	0.73
15:F:126:PRO:HA	17:H:125:THR:HB	1.68	0.73
25:S:26:TYR:CD1	26:T:97:THR:HG22	2.24	0.73
5:4:412:PHE:HB2	5:4:439:ARG:HB3	1.69	0.73
7:6:335:SER:HB2	7:6:463:LYS:CB	2.18	0.73
8:7:611:VAL:HB	8:7:614:TYR:CA	2.18	0.73
10:9:42:PRO:CB	34:o:1484:MET:CE	2.67	0.73
11:A:405:VAL:HB	15:F:301:VAL:HG12	0.75	0.73
15:F:412:LEU:HD12	15:F:417:ARG:HD2	1.58	0.73
27:U:127:PHE:HB3	27:U:161:VAL:CB	2.18	0.73
37:r:107:THR:HG1	37:r:110:GLU:CD	1.96	0.73
7:6:362:LEU:CB	7:6:430:LEU:HD11	2.14	0.73
13:D:1078:LEU:HD21	20:L:83:MET:CE	2.14	0.73
14:E:694:LEU:CD1	14:E:703:MET:CE	2.60	0.73
22:P:197:PHE:CE1	30:Y:25:DT:O2	2.40	0.73
7:6:447:PRO:CD	29:X:15:DG:O5'	2.37	0.73
7:6:447:PRO:CB	29:X:15:DG:P	2.76	0.73
7:6:557:LYS:CB	7:6:596:PHE:CE1	2.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:429:LYS:O	15:F:433:PRO:HD2	1.89	0.73
17:H:110:TYR:CG	19:J:161:LYS:CG	2.71	0.73
28:V:147:ASP:C	28:V:148:LYS:HG2	2.09	0.73
35:p:83:ARG:HG3	35:p:133:ILE:HG23	1.68	0.73
5:4:400:ARG:NH2	6:5:50:VAL:HG13	2.03	0.73
15:F:218:VAL:CG1	17:H:162:THR:HG21	2.18	0.73
17:H:156:PRO:O	17:H:160:ILE:HB	1.88	0.73
24:R:48:VAL:O	24:R:48:VAL:HG22	1.89	0.73
25:S:126:ILE:HB	25:S:138:PHE:HB2	1.70	0.73
26:T:180:LYS:NZ	26:T:180:LYS:HB3	2.02	0.73
3:2:75:ASP:HB3	8:7:722:ARG:HH22	1.53	0.72
3:2:208:CYS:CB	3:2:219:TYR:CZ	2.71	0.72
3:2:386:ILE:HG12	4:3:176:ASN:CG	2.13	0.72
8:7:41:GLU:CB	8:7:461:LEU:HG	2.16	0.72
15:F:217:SER:OG	17:H:162:THR:N	2.19	0.72
15:F:241:GLU:OE2	17:H:135:THR:OG1	2.04	0.72
15:F:404:ARG:NH2	15:F:452:PHE:O	2.20	0.72
24:R:33:ILE:HG21	34:o:431:PHE:CD2	2.24	0.72
27:U:100:VAL:HG13	27:U:102:VAL:HG22	1.70	0.72
37:r:108:ALA:HB2	37:r:128:GLN:HB2	1.71	0.72
7:6:390:CYS:HB2	7:6:403:CYS:HB3	1.71	0.72
11:A:404:MET:HB2	15:F:302:HIS:ND1	2.04	0.72
13:D:939:ASP:O	14:E:510:ALA:HB2	1.88	0.72
2:1:377:LYS:HB3	4:3:283:THR:O	1.89	0.72
2:1:381:ARG:CB	4:3:256:PHE:CD2	2.63	0.72
11:A:400:GLU:CD	15:F:347:THR:CB	2.63	0.72
12:B:241:PRO:HG2	12:B:496:MET:HE1	1.72	0.72
15:F:418:ILE:H	15:F:418:ILE:HD12	1.54	0.72
20:L:61:LYS:NZ	20:L:61:LYS:O	2.21	0.72
25:S:27:ASN:HB2	26:T:96:PHE:CE1	2.25	0.72
2:1:431:ILE:HD13	5:4:58:ARG:NE	2.04	0.72
2:1:433:ALA:HB1	2:1:440:LEU:HD12	1.72	0.72
11:A:481:GLU:CG	15:f:358:THR:HG21	2.18	0.72
12:B:155:PRO:CG	12:B:159:LEU:HD21	2.20	0.72
26:T:141:LEU:CD1	35:p:52:GLN:HG2	2.18	0.72
26:T:145:LEU:CB	35:p:93:LEU:O	2.36	0.72
7:6:435:TRP:HE3	7:6:435:TRP:N	1.86	0.72
8:7:584:TYR:CE2	8:7:614:TYR:CE1	2.77	0.72
11:A:353:LEU:HD21	15:f:272:VAL:CG2	2.13	0.72
15:F:85:GLY:C	19:J:212:LYS:CG	2.61	0.72
24:R:27:TYR:CB	24:R:28:ARG:HH11	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:24:LYS:CA	26:T:99:SER:HA	2.20	0.72
8:7:487:ARG:HB2	8:7:728:PHE:CE1	2.24	0.72
12:B:160:HIS:NE2	12:B:311:GLU:O	2.22	0.72
15:F:241:GLU:CD	17:H:135:THR:OG1	2.32	0.72
21:O:25:SER:C	21:O:27:GLN:H	1.98	0.72
25:S:8:SER:C	26:T:48:THR:C	2.58	0.72
25:S:124:TYR:OH	26:T:22:LYS:HE2	1.89	0.72
8:7:538:PHE:O	8:7:621:PHE:HB2	1.90	0.72
30:Y:22:DG:C6	30:Y:23:DG:O6	2.43	0.72
6:5:15:ALA:CB	7:6:516:PRO:HD3	2.20	0.72
7:6:373:GLN:O	7:6:377:GLN:CD	2.32	0.72
8:7:236:ALA:HB3	8:7:456:ILE:HG22	1.67	0.72
15:F:335:ARG:NH2	15:F:336:LEU:HB2	2.05	0.72
23:Q:344:ARG:HA	23:Q:348:LYS:O	1.89	0.72
25:S:8:SER:HB3	26:T:49:GLN:N	2.05	0.72
26:T:147:LYS:O	35:p:94:SER:HB2	1.90	0.72
34:o:1189:ASP:OD2	34:o:1258:ARG:NH1	2.22	0.72
14:E:507:VAL:HB	14:E:513:LEU:HD22	1.65	0.72
27:U:127:PHE:CD2	27:U:161:VAL:HG21	2.25	0.72
8:7:12:PHE:CZ	8:7:17:ILE:HG23	2.25	0.72
8:7:585:GLN:CG	8:7:614:TYR:HE1	2.01	0.72
11:A:408:LEU:CD1	15:F:302:HIS:CG	2.70	0.72
17:H:110:TYR:HD1	19:J:161:LYS:CD	1.92	0.72
20:L:71:ASP:CB	20:L:74:GLU:HG3	2.19	0.72
21:O:36:VAL:HG22	23:Q:29:PHE:HE1	1.53	0.72
23:Q:344:ARG:HD2	23:Q:349:TRP:NE1	1.99	0.72
27:U:182:GLU:O	27:U:186:PRO:HD2	1.90	0.72
29:X:-3:DG:N2	30:Y:4:DA:C2	2.56	0.72
34:o:60:PRO:HA	34:o:65:ILE:HD11	1.71	0.72
7:6:361:CYS:O	7:6:405:VAL:HA	1.90	0.71
8:7:28:LEU:HB2	8:7:55:LEU:CD2	2.20	0.71
21:O:10:THR:HG22	23:Q:50:LEU:CD2	2.20	0.71
26:T:128:LYS:HG3	35:p:596:ILE:HA	1.72	0.71
29:X:10:DT:O2	30:Y:-10:DA:C2	2.43	0.71
7:6:611:GLY:N	30:Y:-12:DC:OP1	2.23	0.71
8:7:540:THR:HG23	8:7:625:TYR:H	1.55	0.71
11:A:400:GLU:OE1	15:F:347:THR:HG21	1.90	0.71
15:F:114:LEU:O	17:H:42:SER:OG	2.08	0.71
25:S:124:TYR:HE1	26:T:22:LYS:CG	2.01	0.71
35:p:133:ILE:HA	35:p:139:GLN:HE22	1.55	0.71
12:B:762:ASP:OD1	12:B:768:PRO:CG	2.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:H:110:TYR:CZ	19:J:160:GLN:C	2.66	0.71
27:U:188:TYR:HE2	28:V:218:LYS:HZ1	0.92	0.71
1:0:103:GLU:OE1	8:7:328:HIS:ND1	2.23	0.71
2:1:372:ILE:O	2:1:373:ALA:C	2.33	0.71
8:7:465:ASP:O	8:7:468:PRO:HD2	1.90	0.71
28:V:148:LYS:C	28:V:180:LYS:HD3	2.12	0.71
28:V:163:LEU:O	28:V:163:LEU:HD13	1.91	0.71
37:r:87:LEU:HD22	37:r:97:LEU:HB2	1.71	0.71
4:3:50:PHE:CE2	5:4:122:LEU:HD21	2.22	0.71
7:6:533:LEU:HD22	7:6:716:VAL:HG11	1.67	0.71
11:A:349:TRP:CE2	15:f:266:GLY:HA3	2.25	0.71
40:u:110:ARG:NH2	40:u:118:GLU:OE2	2.24	0.71
2:1:377:LYS:H	4:3:284:THR:C	1.95	0.71
7:6:338:ILE:O	7:6:465:GLY:O	2.09	0.71
15:F:104:LEU:HB3	19:J:217:PHE:HE2	1.51	0.71
23:Q:55:ALA:O	23:Q:56:VAL:CG2	2.38	0.71
2:1:382:TYR:CE1	4:3:256:PHE:HE2	2.08	0.71
7:6:199:LEU:HD13	7:6:273:LYS:CE	2.13	0.71
7:6:447:PRO:HG2	29:X:15:DG:C4'	2.21	0.71
9:8:98:LEU:HG	9:8:102:ILE:CG1	2.21	0.71
14:E:506:SER:HG	14:E:575:PHE:HD2	0.71	0.71
20:L:114:LYS:O	20:L:118:LEU:HG	1.91	0.71
26:T:16:THR:CG2	26:T:107:GLU:O	2.37	0.71
7:6:364:LEU:CA	7:6:408:SER:O	2.39	0.71
21:O:27:GLN:NE2	23:Q:41:GLU:HG3	2.05	0.71
5:4:307:ILE:CA	5:4:371:ARG:O	2.38	0.71
7:6:374:TRP:CA	7:6:377:GLN:NE2	2.54	0.71
12:B:159:LEU:N	12:B:159:LEU:HD23	2.05	0.71
13:D:950:LEU:O	13:D:950:LEU:HD13	1.90	0.71
24:R:44:ARG:HD2	35:p:1067:ILE:HG23	1.72	0.71
42:w:81:THR:HG22	42:w:83:ASP:H	1.54	0.71
11:A:396:LEU:HD21	15:f:394:PRO:HD2	0.71	0.71
11:A:410:TRP:HA	15:F:306:PRO:CB	2.17	0.71
21:O:36:VAL:HG22	23:Q:29:PHE:CE1	2.26	0.71
21:O:56:VAL:HG11	23:Q:358:MET:HE1	1.73	0.71
21:O:65:TYR:CE1	22:P:189:ASN:HA	2.26	0.71
24:R:48:VAL:O	35:p:1078:ARG:NE	2.24	0.71
28:V:140:LYS:N	28:V:141:PRO:HD2	2.06	0.71
34:o:538:VAL:HG22	34:o:539:GLN:H	1.54	0.71
5:4:400:ARG:NE	6:5:53:LEU:HD23	2.05	0.70
10:9:52:GLU:HB3	10:9:273:LEU:HD11	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:406:VAL:HG21	34:o:419:ILE:HD11	1.73	0.70
37:r:103:LEU:CG	40:u:144:ARG:NH1	2.54	0.70
7:6:339:VAL:HG13	7:6:467:THR:O	1.90	0.70
11:A:564:PRO:CB	12:B:744:PHE:CE2	2.73	0.70
13:D:1075:HIS:O	18:I:84:THR:CG2	2.37	0.70
15:F:319:LEU:H	15:F:319:LEU:HD23	1.54	0.70
24:R:297:PRO:HB3	24:R:310:VAL:HG21	1.73	0.70
25:S:6:PRO:O	25:S:10:ASN:HB3	1.91	0.70
7:6:597:LYS:HB3	7:6:618:PRO:CG	2.21	0.70
35:p:841:ARG:HH22	35:p:1078:ARG:NH2	1.90	0.70
3:2:198:VAL:HG21	3:2:211:LEU:HD23	1.73	0.70
11:A:481:GLU:CD	15:f:358:THR:HG21	2.16	0.70
11:A:784:GLN:H	11:A:1073:GLN:HE22	1.37	0.70
15:F:85:GLY:C	19:J:212:LYS:HG2	2.17	0.70
15:F:218:VAL:HG12	17:H:162:THR:HG1	1.54	0.70
2:1:306:ARG:HH11	2:1:306:ARG:HG3	1.56	0.70
2:1:353:LYS:N	2:1:353:LYS:HD2	2.07	0.70
7:6:374:TRP:CA	7:6:377:GLN:HE22	2.05	0.70
7:6:618:PRO:CG	7:6:645:ARG:HH22	2.03	0.70
21:O:14:SER:HG	23:Q:46:TRP:CD1	2.10	0.70
25:S:8:SER:HB3	26:T:49:GLN:HA	0.75	0.70
18:i:60:HIS:CD2	20:l:106:ARG:CZ	2.74	0.70
7:6:361:CYS:HA	7:6:434:GLU:HG3	1.72	0.70
7:6:378:PHE:HB2	7:6:381:TRP:CZ2	2.25	0.70
11:A:396:LEU:HD23	15:f:391:LEU:CA	2.21	0.70
11:A:410:TRP:CG	15:F:305:ILE:HG22	2.24	0.70
23:Q:18:ILE:HG12	23:Q:46:TRP:CH2	2.26	0.70
34:o:107:LEU:HD13	34:o:191:ILE:HD12	1.74	0.70
1:0:125:TYR:O	1:0:129:ASN:HB2	1.91	0.70
7:6:419:ARG:HG2	7:6:419:ARG:O	1.92	0.70
18:I:20:ALA:HB2	18:I:36:ILE:HD13	1.73	0.70
37:r:103:LEU:CA	40:u:144:ARG:NH1	2.45	0.70
2:1:386:PRO:O	4:3:253:ALA:HA	1.91	0.70
7:6:365:GLY:O	7:6:409:THR:HG23	1.92	0.70
7:6:644:LEU:HD21	7:6:659:PHE:HB2	1.73	0.70
24:R:146:TYR:O	24:R:149:LYS:CG	2.39	0.70
28:V:151:LEU:CD1	28:V:154:LEU:HB2	2.21	0.70
28:V:151:LEU:CG	28:V:154:LEU:HB3	2.21	0.70
1:0:268:ARG:NH1	10:9:176:THR:CG2	2.53	0.70
11:A:504:PRO:HG2	15:F:209:LYS:N	2.06	0.70
15:F:112:VAL:CG2	17:H:55:LYS:HA	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:P:239:ARG:HB3	22:P:239:ARG:CZ	2.21	0.70
32:k:191:VAL:HG13	32:k:200:ILE:HD13	1.74	0.70
3:2:208:CYS:HB2	3:2:219:TYR:CZ	2.27	0.70
5:4:383:LEU:HD22	5:4:383:LEU:H	1.56	0.70
8:7:8:LEU:CG	8:7:61:ARG:C	2.50	0.70
11:A:410:TRP:CZ2	15:F:305:ILE:HD13	2.26	0.70
11:A:414:ILE:CD1	15:F:306:PRO:O	2.31	0.70
14:E:509:GLN:O	14:E:513:LEU:HG	1.92	0.70
28:V:85:MET:C	28:V:87:THR:H	1.98	0.70
34:o:580:LEU:N	34:o:580:LEU:HD12	2.06	0.70
5:4:32:ASP:HB3	5:4:113:ILE:CD1	2.22	0.69
7:6:443:VAL:HB	7:6:451:PHE:CZ	2.22	0.69
8:7:41:GLU:C	8:7:481:PHE:CD2	2.69	0.69
20:L:60:LYS:O	20:L:60:LYS:NZ	2.19	0.69
27:U:32:LEU:CD2	28:V:161:ARG:NE	2.55	0.69
20:l:106:ARG:HH12	20:l:114:LYS:HG3	1.53	0.69
11:A:495:LEU:HD23	15:f:272:VAL:HG22	1.73	0.69
22:P:197:PHE:CE2	30:Y:25:DT:O2	2.45	0.69
27:U:145:PHE:HZ	40:u:98:PHE:HE2	1.40	0.69
41:v:104:THR:HG22	41:v:105:SER:H	1.57	0.69
1:0:272:LEU:HD12	1:0:272:LEU:C	2.16	0.69
2:1:229:TYR:CE1	2:1:239:SER:CA	2.74	0.69
2:1:306:ARG:HH11	2:1:306:ARG:CG	2.05	0.69
14:E:507:VAL:CA	14:E:513:LEU:HD21	2.21	0.69
11:A:396:LEU:CG	15:f:394:PRO:CG	2.39	0.69
27:U:113:ARG:HB3	28:V:221:ARG:NH1	2.02	0.69
28:V:148:LYS:O	28:V:180:LYS:HD2	1.92	0.69
30:Y:22:DG:C4	30:Y:23:DG:C8	2.80	0.69
38:s:172:ARG:NH2	38:s:210:GLN:O	2.25	0.69
1:0:165:ILE:HD13	8:7:641:ARG:HH11	1.54	0.69
7:6:451:PHE:CZ	7:6:472:ARG:NH2	2.37	0.69
8:7:29:LYS:HA	8:7:29:LYS:HE2	1.74	0.69
8:7:507:LYS:HA	8:7:683:ARG:NH2	2.07	0.69
22:P:235:ARG:HH22	23:Q:311:GLU:HA	1.55	0.69
23:Q:344:ARG:CD	23:Q:349:TRP:CG	2.51	0.69
37:r:16:ASP:CG	40:u:81:LYS:NZ	2.50	0.69
40:u:44:PHE:HE2	40:u:46:ILE:CG1	2.03	0.69
8:7:668:ILE:HD12	8:7:668:ILE:N	2.07	0.69
29:X:-35:DG:H22	30:Y:35:DC:H42	1.40	0.69
5:4:433:PHE:CG	6:5:38:ILE:HD13	2.27	0.69
7:6:199:LEU:CG	7:6:273:LYS:HG2	2.20	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:334:ARG:C	7:6:462:CYS:SG	2.75	0.69
11:A:400:GLU:OE1	15:F:347:THR:CB	2.40	0.69
25:S:24:LYS:CB	26:T:99:SER:HA	2.23	0.69
25:S:45:ALA:N	26:T:9:LEU:HD11	2.07	0.69
25:S:122:THR:HG22	26:T:24:PRO:CA	2.11	0.69
34:o:1102:MET:HE1	34:o:1124:LEU:HD13	1.74	0.69
40:u:38:CYS:SG	40:u:44:PHE:CA	2.75	0.69
40:u:38:CYS:O	40:u:155:ASN:HA	1.93	0.69
7:6:374:TRP:C	7:6:377:GLN:HE22	1.99	0.69
7:6:597:LYS:CB	7:6:618:PRO:CG	2.68	0.69
8:7:536:VAL:O	8:7:619:ILE:N	2.18	0.69
11:A:564:PRO:HG2	12:B:744:PHE:CG	2.28	0.69
11:A:567:LEU:HD22	12:B:745:GLN:HE21	1.57	0.69
15:F:412:LEU:HD11	15:F:417:ARG:HB2	1.72	0.69
17:H:110:TYR:HB2	19:J:161:LYS:CD	2.23	0.69
23:Q:344:ARG:CG	23:Q:348:LYS:O	2.41	0.69
24:R:33:ILE:CG2	34:o:431:PHE:CD2	2.75	0.69
25:S:24:LYS:HB3	26:T:99:SER:CA	2.22	0.69
15:f:447:ALA:CA	15:f:456:GLY:HA3	2.23	0.69
34:o:15:LEU:HA	35:p:1148:LEU:O	1.93	0.69
37:r:16:ASP:OD2	40:u:81:LYS:NZ	2.25	0.69
39:t:81:VAL:HG21	39:t:95:LYS:HG3	1.75	0.69
7:6:291:LEU:HD12	7:6:291:LEU:N	2.08	0.69
22:P:303:LEU:HD11	29:X:-29:DT:O2	1.93	0.69
26:T:145:LEU:N	35:p:93:LEU:O	2.24	0.69
28:V:151:LEU:CD1	28:V:154:LEU:HD13	2.22	0.69
3:2:159:MET:HA	3:2:159:MET:HE2	1.75	0.69
7:6:436:GLY:HA3	7:6:460:ALA:HA	1.74	0.69
8:7:611:VAL:HB	8:7:614:TYR:H	1.58	0.69
13:D:950:LEU:HD13	13:D:950:LEU:C	2.18	0.69
17:H:50:PHE:CB	19:J:195:LEU:HB2	2.23	0.69
20:L:71:ASP:CB	20:L:74:GLU:CD	2.66	0.69
29:X:5:DG:H2"	29:X:6:DC:H5"	1.73	0.69
34:o:1166:LEU:HB3	34:o:1293:LEU:HA	1.73	0.69
7:6:419:ARG:HG3	7:6:423:ALA:CB	2.20	0.68
30:Y:16:DA:H2"	30:Y:17:DT:H71	1.75	0.68
34:o:13:CYS:SG	35:p:1117:HIS:HD2	2.16	0.68
38:s:84:ILE:HD11	38:s:113:SER:HB3	1.75	0.68
5:4:401:LEU:CB	6:5:50:VAL:HG22	2.24	0.68
7:6:363:VAL:N	7:6:406:ALA:O	2.26	0.68
7:6:392:PHE:HE2	7:6:406:ALA:CB	2.06	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:447:PRO:CG	29:X:15:DG:C5'	2.70	0.68
8:7:41:GLU:HB3	8:7:461:LEU:CG	2.21	0.68
11:A:511:LEU:CG	15:f:214:HIS:NE2	2.40	0.68
15:F:104:LEU:CD1	19:J:217:PHE:HE2	2.04	0.68
17:H:56:ALA:HB2	19:J:214:PRO:CG	2.24	0.68
27:U:52:LEU:HD23	28:V:161:ARG:HH12	1.55	0.68
1:0:269:LEU:HD12	1:0:290:SER:CA	2.23	0.68
13:D:1078:LEU:CD2	20:L:83:MET:HE1	2.23	0.68
23:Q:47:GLU:OE2	23:Q:60:HIS:CG	2.45	0.68
30:Y:10:DG:H2"	30:Y:11:DG:C8	2.28	0.68
42:w:105:GLU:HG2	42:w:106:ASP:H	1.59	0.68
5:4:412:PHE:CG	5:4:439:ARG:HB3	2.28	0.68
8:7:530:VAL:CG2	8:7:718:LYS:HE3	2.22	0.68
9:8:98:LEU:O	9:8:102:ILE:HG12	1.94	0.68
11:A:970:ASN:OD1	11:A:970:ASN:N	2.21	0.68
14:E:694:LEU:CD1	14:E:703:MET:HE1	2.21	0.68
20:l:101:GLN:O	20:l:105:HIS:CG	2.47	0.68
34:o:514:GLU:OE2	35:p:1102:PHE:N	2.24	0.68
34:o:1287:CYS:CA	35:p:251:ALA:HB2	2.20	0.68
40:u:38:CYS:O	40:u:155:ASN:OD1	2.12	0.68
2:1:107:ALA:O	2:1:108:ASN:C	2.36	0.68
7:6:373:GLN:O	7:6:377:GLN:OE1	2.11	0.68
15:F:320:ARG:HB2	15:F:415:ILE:CD1	2.23	0.68
17:H:50:PHE:CG	19:J:195:LEU:HB2	2.29	0.68
21:O:56:VAL:HG23	21:O:56:VAL:O	1.93	0.68
28:V:121:THR:O	28:V:125:VAL:HG23	1.91	0.68
34:o:581:LYS:HB2	41:v:91:VAL:HG23	1.73	0.68
7:6:388:GLN:CA	7:6:403:CYS:SG	2.82	0.68
8:7:499:ASN:ND2	8:7:711:ASP:OD2	2.25	0.68
24:R:111:ASP:HB3	24:R:114:MET:CB	2.15	0.68
24:R:286:ARG:HG3	24:R:316:LEU:HG	1.74	0.68
28:V:151:LEU:HD12	28:V:154:LEU:CB	2.24	0.68
39:t:80:MET:N	39:t:96:GLU:OE2	2.24	0.68
40:u:93:ASN:OD1	40:u:94:LYS:N	2.26	0.68
6:5:35:ILE:CG2	12:B:540:LYS:CE	2.63	0.68
7:6:430:LEU:O	7:6:434:GLU:HB3	1.93	0.68
11:A:495:LEU:CD2	15:f:272:VAL:HG21	2.22	0.68
37:r:16:ASP:HB2	40:u:81:LYS:NZ	2.07	0.68
35:p:320:PHE:O	35:p:324:ARG:NH1	2.27	0.68
2:1:406:SER:CB	4:3:27:LEU:CG	2.71	0.68
7:6:468:ALA:CB	7:6:638:GLN:HE22	1.97	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:16:TYR:OH	8:7:730:ARG:HD3	1.94	0.68
14:E:605:HIS:ND1	15:F:77:LEU:HD11	2.08	0.68
15:F:117:ILE:CG2	17:H:38:GLN:CB	2.59	0.68
15:F:117:ILE:CG2	17:H:38:GLN:C	2.66	0.68
18:I:84:THR:C	18:I:85:SER:O	2.36	0.68
21:O:22:LEU:CB	21:O:28:ILE:HD13	2.23	0.68
24:R:114:MET:SD	24:R:146:TYR:CE1	2.87	0.68
34:o:1156:ASP:OD1	34:o:1157:ILE:N	2.27	0.68
7:6:619:GLU:CB	7:6:648:LYS:HA	2.23	0.68
9:8:237:TRP:HE1	9:8:278:PHE:HB3	1.59	0.68
14:E:426:ARG:HH11	14:E:640:ASN:HD22	1.41	0.68
14:E:508:LYS:HB2	14:E:529:ASP:OD2	1.93	0.68
15:F:104:LEU:HB3	19:J:217:PHE:CZ	2.21	0.68
24:R:33:ILE:HD12	34:o:431:PHE:CE2	2.29	0.68
28:V:152:LEU:CD1	28:V:188:GLN:OE1	2.41	0.68
14:e:645:GLY:H	14:e:675:LEU:HD11	1.59	0.68
5:4:331:PHE:HZ	5:4:367:PHE:CE2	2.12	0.67
7:6:411:SER:HB3	7:6:453:ARG:HE	1.59	0.67
13:D:949:GLN:O	13:D:952:GLN:HB2	1.94	0.67
31:c:67:GLY:CA	19:j:116:LEU:CD1	2.70	0.67
2:1:229:TYR:HE1	2:1:239:SER:CA	2.05	0.67
7:6:364:LEU:HB3	7:6:410:TYR:H	1.59	0.67
13:D:942:ALA:HB3	14:E:510:ALA:HB1	0.68	0.67
17:H:50:PHE:HE2	19:J:170:ALA:O	1.77	0.67
21:O:22:LEU:HD21	23:Q:41:GLU:HB3	1.76	0.67
27:U:102:VAL:HA	27:U:105:TYR:HB3	1.77	0.67
28:V:129:LYS:O	28:V:140:LYS:HG2	1.92	0.67
40:u:153:ASP:O	40:u:155:ASN:N	2.27	0.67
8:7:48:LYS:HD2	8:7:457:THR:CG2	2.25	0.67
11:A:466:SER:HB2	15:F:261:THR:HG21	1.76	0.67
15:F:274:ASN:HB2	15:F:317:LEU:H	1.58	0.67
17:H:110:TYR:CE1	19:J:161:LYS:CA	2.63	0.67
18:I:28:ILE:CG2	18:I:31:TYR:CD1	2.76	0.67
25:S:49:ARG:NH1	25:S:96:GLN:O	2.25	0.67
28:V:151:LEU:HD21	28:V:154:LEU:HD13	1.76	0.67
2:1:382:TYR:HE1	4:3:273:SER:HA	1.59	0.67
2:1:406:SER:HB2	4:3:27:LEU:HG	1.76	0.67
7:6:335:SER:CB	7:6:463:LYS:HG3	2.22	0.67
20:L:99:ALA:HB1	20:L:115:ASP:HB3	1.76	0.67
21:O:62:LEU:HD23	21:O:63:ASN:H	1.58	0.67
24:R:39:LEU:HD11	34:o:425:ASP:CG	2.20	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:24:LYS:HD3	26:T:97:THR:HB	1.77	0.67
2:1:407:ILE:HD13	4:3:19:PRO:CA	2.22	0.67
7:6:129:VAL:HG22	7:6:334:ARG:HH12	1.59	0.67
7:6:443:VAL:CA	7:6:472:ARG:NH2	2.58	0.67
7:6:578:PRO:C	7:6:605:ILE:HG13	2.19	0.67
8:7:1:MET:HE2	8:7:17:ILE:HD11	1.74	0.67
15:F:319:LEU:HD23	15:F:319:LEU:N	2.10	0.67
17:H:41:VAL:O	17:H:45:LEU:HG	1.95	0.67
17:H:110:TYR:CE1	19:J:161:LYS:HD2	2.29	0.67
21:O:44:ILE:O	21:O:48:LEU:HG	1.93	0.67
25:S:31:PHE:O	26:T:91:GLN:C	2.36	0.67
13:d:1082:ALA:HB2	20:l:83:MET:CE	2.25	0.67
2:1:431:ILE:CD1	5:4:58:ARG:NE	2.58	0.67
7:6:361:CYS:HA	7:6:434:GLU:CG	2.25	0.67
9:8:245:ASP:OD1	9:8:245:ASP:N	2.27	0.67
11:A:410:TRP:HB2	15:F:306:PRO:HA	1.75	0.67
12:B:608:ASN:HD21	12:B:657:ARG:NH1	1.92	0.67
21:O:65:TYR:CZ	22:P:189:ASN:C	2.72	0.67
23:Q:344:ARG:CD	23:Q:349:TRP:CD2	2.62	0.67
34:o:95:PHE:HB2	34:o:311:GLN:HE22	1.59	0.67
7:6:199:LEU:CG	7:6:273:LYS:CG	2.73	0.67
8:7:585:GLN:HG2	8:7:614:TYR:HE1	1.52	0.67
11:A:484:ILE:CG2	15:f:310:THR:HA	2.17	0.67
13:D:958:LYS:CD	13:D:961:GLN:OE1	2.42	0.67
20:L:102:LEU:CA	20:L:105:HIS:HD2	2.07	0.67
25:S:31:PHE:O	26:T:91:GLN:CA	2.43	0.67
34:o:359:VAL:O	35:p:1083:GLY:HA3	1.95	0.67
40:u:99:THR:HG21	40:u:143:ILE:HD11	1.76	0.67
7:6:362:LEU:CA	7:6:406:ALA:O	2.43	0.67
7:6:537:ASN:OD1	7:6:538:PRO:HD2	1.95	0.67
15:F:138:ILE:HG13	17:H:159:TYR:HE2	1.59	0.67
17:H:56:ALA:HB2	19:J:214:PRO:HG2	1.76	0.67
18:I:31:TYR:HD2	18:I:35:VAL:HB	1.60	0.67
22:P:239:ARG:HB3	22:P:239:ARG:NH1	2.10	0.67
26:T:18:VAL:HG21	26:T:95:VAL:CG2	2.24	0.67
28:V:152:LEU:HD13	28:V:188:GLN:OE1	1.95	0.67
37:r:80:ILE:HA	37:r:83:VAL:HG12	1.75	0.67
11:A:353:LEU:CG	11:A:495:LEU:HD21	2.25	0.67
11:A:475:LEU:HB2	15:f:302:HIS:HB3	1.75	0.67
14:E:359:LEU:HD13	14:E:627:LEU:HD12	1.76	0.67
21:O:62:LEU:HA	21:O:76:LEU:CD2	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:i:60:HIS:CD2	20:l:106:ARG:NH2	2.63	0.67
2:1:372:ILE:O	2:1:373:ALA:O	2.12	0.67
2:1:377:LYS:CA	4:3:284:THR:O	2.43	0.67
7:6:427:MET:HG2	7:6:427:MET:O	1.95	0.67
11:A:408:LEU:CB	15:F:302:HIS:HB2	2.25	0.67
13:D:899:VAL:HG12	13:D:900:SER:H	1.58	0.67
13:D:998:GLN:OE1	26:T:182:HIS:CE1	2.48	0.67
20:L:71:ASP:HB3	20:L:74:GLU:HG3	1.75	0.67
15:f:239:ARG:HD3	15:f:284:ARG:HH11	1.60	0.67
40:u:40:GLY:CA	40:u:152:VAL:HG22	2.22	0.67
7:6:609:LYS:NZ	30:Y:-13:DT:H5"	2.10	0.66
8:7:601:ARG:NH2	8:7:624:PRO:O	2.27	0.66
11:A:397:LEU:CD1	15:f:364:VAL:CG2	2.72	0.66
12:B:490:SER:HA	12:B:493:TRP:HB2	1.78	0.66
13:D:873:LEU:HD12	13:D:873:LEU:N	2.10	0.66
21:O:62:LEU:CG	21:O:76:LEU:CD2	2.73	0.66
24:R:128:ILE:CG2	26:T:152:ASN:ND2	2.58	0.66
26:T:141:LEU:HD11	35:p:52:GLN:HG2	1.77	0.66
34:o:1005:HIS:HD2	34:o:1007:ILE:HG12	1.59	0.66
2:1:411:MET:HG2	4:3:119:MET:HB2	1.76	0.66
5:4:318:TYR:CD2	5:4:373:HIS:CE1	2.82	0.66
6:5:32:LYS:HE3	12:B:539:ARG:NH2	2.09	0.66
7:6:376:ALA:HA	7:6:379:LYS:HD3	1.77	0.66
8:7:604:VAL:O	8:7:608:ILE:CG1	2.42	0.66
15:F:118:ILE:HG13	17:H:42:SER:HB3	1.74	0.66
23:Q:26:ARG:HH21	23:Q:39:LEU:HD23	1.61	0.66
24:R:134:ILE:HG12	24:R:171:GLU:HG3	1.76	0.66
25:S:30:ALA:HA	26:T:92:THR:O	1.93	0.66
35:p:841:ARG:HH12	35:p:1078:ARG:NH2	1.93	0.66
37:r:29:ALA:O	37:r:94:LYS:NZ	2.18	0.66
4:3:227:LEU:O	4:3:232:LEU:N	2.27	0.66
5:4:409:TYR:C	5:4:412:PHE:CE1	2.68	0.66
8:7:611:VAL:HB	8:7:614:TYR:N	2.09	0.66
11:A:479:ARG:NE	11:A:482:ASP:OD2	2.27	0.66
17:H:107:LEU:HD11	19:J:158:ALA:HA	1.78	0.66
26:T:124:TYR:CG	35:p:590:LEU:HD21	2.31	0.66
27:U:70:LYS:HB3	27:U:99:LEU:CD2	2.25	0.66
34:o:626:THR:HG22	34:o:627:LYS:H	1.60	0.66
37:r:103:LEU:HA	40:u:144:ARG:NH2	2.10	0.66
4:3:50:PHE:CZ	5:4:122:LEU:CD2	2.79	0.66
7:6:374:TRP:O	7:6:377:GLN:NE2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:447:PRO:HD2	29:X:15:DG:O5'	1.94	0.66
26:T:177:ARG:NH2	29:X:-22:DC:P	2.68	0.66
20:l:82:GLU:O	20:l:86:GLN:HG3	1.95	0.66
35:p:1120:ASN:HD22	35:p:1145:GLN:HB2	1.60	0.66
40:u:40:GLY:HA2	40:u:152:VAL:HG22	1.66	0.66
40:u:167:TYR:CD2	40:u:167:TYR:O	2.48	0.66
42:w:109:ARG:NH2	42:w:125:GLU:O	2.28	0.66
3:2:190:LYS:CB	3:2:214:GLU:OE2	2.44	0.66
8:7:493:MET:HB2	8:7:708:LEU:HD12	1.78	0.66
11:A:511:LEU:HD22	11:A:511:LEU:N	2.11	0.66
23:Q:48:ASN:HA	23:Q:51:MET:HE2	1.78	0.66
28:V:117:GLN:NE2	28:V:121:THR:CG2	2.55	0.66
7:6:319:TYR:CE1	7:6:320:GLN:CG	2.74	0.66
7:6:377:GLN:O	7:6:381:TRP:HD1	1.77	0.66
8:7:233:PHE:HB2	8:7:456:ILE:HG12	1.78	0.66
15:F:14:LEU:HD23	18:I:22:ILE:CD1	2.25	0.66
15:F:106:PHE:CE1	18:I:13:PRO:HD3	2.30	0.66
22:P:212:LEU:HD21	30:Y:26:DT:H1'	1.77	0.66
28:V:78:LEU:C	28:V:80:LYS:H	2.02	0.66
28:V:96:PRO:HB2	28:V:136:LYS:CD	2.24	0.66
34:o:775:LYS:HD2	35:p:974:SER:HB2	1.76	0.66
3:2:386:ILE:HG23	4:3:176:ASN:OD1	1.96	0.66
20:L:106:ARG:C	20:L:108:SER:N	2.36	0.66
30:Y:-23:DA:H3'	30:Y:-23:DA:OP2	1.96	0.66
35:p:854:ILE:HD12	35:p:866:ILE:HG22	1.77	0.66
8:7:540:THR:CG2	8:7:625:TYR:O	2.44	0.66
18:I:132:LEU:CD1	19:J:121:MET:SD	2.83	0.66
21:O:18:SER:HA	23:Q:45:LEU:HB3	1.78	0.66
14:E:696:TRP:CH2	14:E:703:MET:HE3	2.30	0.66
26:T:200:LYS:H	26:T:200:LYS:NZ	1.94	0.66
35:p:1022:LEU:HD12	35:p:1023:ARG:HG2	1.78	0.66
40:u:32:THR:OG1	40:u:33:GLU:OE1	2.14	0.66
7:6:338:ILE:HG12	7:6:488:LEU:HD22	1.77	0.66
7:6:366:ASN:HB3	7:6:410:TYR:CD2	2.30	0.66
11:A:464:TRP:CG	11:A:464:TRP:O	2.48	0.66
16:G:129:LYS:O	16:G:129:LYS:NZ	2.23	0.66
21:O:32:LEU:HD13	23:Q:32:ASP:OD2	1.95	0.66
24:R:175:ARG:HH22	35:p:102:ASP:HA	1.60	0.66
25:S:24:LYS:HA	26:T:99:SER:HA	1.77	0.66
26:T:16:THR:O	26:T:109:ILE:N	2.24	0.66
30:Y:30:DT:C6	30:Y:30:DT:H5"	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:319:TYR:CD2	7:6:496:LEU:HD21	2.31	0.65
11:A:416:TRP:CZ2	15:F:313:VAL:CG2	2.79	0.65
38:s:17:ILE:HD11	38:s:135:LEU:HD13	1.78	0.65
7:6:618:PRO:CD	7:6:645:ARG:NH1	2.42	0.65
8:7:8:LEU:HD21	8:7:62:ALA:CA	2.26	0.65
11:A:396:LEU:O	15:f:391:LEU:CD1	2.45	0.65
22:P:205:ARG:HG3	23:Q:376:TRP:CH2	2.31	0.65
7:6:557:LYS:HD3	7:6:620:ALA:HB1	1.75	0.65
14:E:463:PHE:HB3	15:F:134:HIS:CD2	2.30	0.65
14:E:773:TYR:OH	15:F:140:GLY:HA2	1.95	0.65
21:O:56:VAL:HG11	23:Q:358:MET:CE	2.26	0.65
25:S:121:ASN:C	26:T:25:LYS:HG3	2.21	0.65
34:o:810:PHE:C	35:p:674:MET:HE1	2.21	0.65
34:o:922:PHE:H	34:o:1052:ARG:HH11	1.43	0.65
35:p:249:LYS:HG2	35:p:252:ILE:HD11	1.77	0.65
37:r:62:MET:HA	37:r:65:LEU:HB3	1.79	0.65
5:4:307:ILE:H	5:4:371:ARG:HB3	1.61	0.65
5:4:400:ARG:HH21	6:5:50:VAL:HG13	1.61	0.65
7:6:360:ARG:HB3	7:6:405:VAL:CG2	2.25	0.65
7:6:557:LYS:HB3	7:6:596:PHE:CE2	2.20	0.65
8:7:532:PRO:HD3	8:7:721:LEU:HD13	1.79	0.65
11:A:400:GLU:CD	15:F:347:THR:OG1	2.40	0.65
11:A:1168:TYR:HB2	16:G:180:ARG:HB3	1.78	0.65
14:E:462:CYS:HA	15:F:134:HIS:O	1.97	0.65
15:F:320:ARG:CG	15:F:415:ILE:HD12	2.25	0.65
21:O:25:SER:OG	21:O:27:GLN:HB2	1.96	0.65
34:o:193:ARG:HA	34:o:198:LEU:HA	1.79	0.65
37:r:87:LEU:HD13	37:r:97:LEU:HD22	1.77	0.65
8:7:530:VAL:HG21	8:7:714:VAL:CG1	2.26	0.65
11:A:567:LEU:HB3	12:B:745:GLN:NE2	2.11	0.65
12:B:402:ILE:HD12	12:B:455:LEU:HD12	1.78	0.65
13:D:939:ASP:O	14:E:510:ALA:CB	2.45	0.65
15:F:83:LEU:HD12	15:F:83:LEU:N	2.11	0.65
22:P:278:GLN:CD	22:P:278:GLN:H	2.04	0.65
23:Q:29:PHE:HD2	23:Q:34:VAL:HG11	1.59	0.65
27:U:67:LYS:HG3	27:U:72:ILE:HD11	1.78	0.65
34:o:13:CYS:SG	35:p:1117:HIS:CD2	2.89	0.65
3:2:156:LEU:HD23	3:2:165:ARG:CD	2.16	0.65
8:7:540:THR:HG22	8:7:625:TYR:O	1.97	0.65
11:A:569:ASN:HD22	12:B:689:GLN:HA	1.61	0.65
25:S:125:TYR:HE2	26:T:31:TRP:CZ3	2.03	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:360:ARG:HH12	7:6:388:GLN:HB3	1.60	0.65
11:A:410:TRP:CD1	15:F:306:PRO:CD	2.69	0.65
15:F:320:ARG:HB3	15:F:415:ILE:HD12	1.76	0.65
17:H:50:PHE:CE2	19:J:170:ALA:O	2.50	0.65
21:O:19:LEU:HA	21:O:28:ILE:HD11	1.78	0.65
24:R:109:SER:HA	24:R:112:ARG:HD2	1.76	0.65
27:U:118:GLU:CG	27:U:178:ALA:HA	2.18	0.65
38:s:51:GLY:O	38:s:54:ARG:NH2	2.29	0.65
7:6:419:ARG:NH2	30:Y:-9:DA:OP1	2.30	0.65
8:7:18:TYR:HD2	8:7:671:LYS:HD2	1.61	0.65
11:A:400:GLU:OE1	15:F:347:THR:CG2	2.45	0.65
15:F:118:ILE:CD1	17:H:42:SER:C	2.67	0.65
18:I:132:LEU:CG	19:J:121:MET:SD	2.83	0.65
28:V:151:LEU:HD11	28:V:154:LEU:HB2	1.74	0.65
2:1:372:ILE:CG1	3:2:54:ARG:CZ	2.74	0.65
4:3:38:ILE:HG21	4:3:115:ILE:CD1	2.22	0.65
8:7:538:PHE:N	8:7:619:ILE:O	2.26	0.65
9:8:104:ASP:C	9:8:105:ASN:O	2.40	0.65
15:F:112:VAL:HG11	17:H:55:LYS:CG	2.16	0.65
26:T:192:GLU:CB	28:V:75:PHE:CD2	2.80	0.65
15:f:320:ARG:NH1	15:f:320:ARG:HB3	2.12	0.65
35:p:677:MET:H	35:p:682:LEU:HD12	1.62	0.65
11:A:564:PRO:CG	12:B:744:PHE:CD2	2.80	0.65
15:F:118:ILE:CD1	17:H:43:SER:OG	2.45	0.65
17:H:51:GLU:HB2	19:J:193:TYR:O	1.97	0.65
22:P:204:ILE:HG13	22:P:207:PRO:HD2	1.78	0.65
28:V:154:LEU:HD23	28:V:154:LEU:C	2.22	0.65
30:Y:22:DG:C2	30:Y:23:DG:C5	2.85	0.65
1:0:269:LEU:HD22	1:0:269:LEU:N	2.12	0.64
2:1:406:SER:HB3	4:3:27:LEU:CD1	2.26	0.64
17:H:57:SER:OG	19:J:200:LEU:CD1	2.43	0.64
26:T:221:GLY:HA2	26:T:236:LYS:HG3	1.78	0.64
36:q:15:THR:HG22	36:q:16:ASP:H	1.61	0.64
1:0:28:HIS:HE1	1:0:49:CYS:SG	2.20	0.64
2:1:386:PRO:CB	4:3:253:ALA:HA	2.20	0.64
2:1:414:TYR:CG	4:3:116:LYS:CE	2.80	0.64
2:1:422:LEU:HD11	4:3:31:GLN:HG3	1.78	0.64
7:6:360:ARG:HB2	7:6:435:TRP:CZ3	2.33	0.64
8:7:7:GLY:CA	8:7:62:ALA:CB	2.73	0.64
13:D:1007:THR:HG22	21:O:71:VAL:HG21	1.79	0.64
17:H:113:ARG:O	17:H:116:ARG:NH1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:126:ILE:N	25:S:138:PHE:O	2.23	0.64
27:U:52:LEU:HD23	28:V:161:ARG:HH11	1.61	0.64
35:p:690:CYS:SG	35:p:691:SER:N	2.69	0.64
37:r:107:THR:OG1	37:r:110:GLU:CG	2.45	0.64
7:6:175:TYR:OH	7:6:459:GLN:HB3	1.97	0.64
9:8:174:VAL:O	9:8:179:ARG:NH1	2.29	0.64
13:D:958:LYS:O	13:D:962:GLU:HG3	1.97	0.64
15:F:218:VAL:CG1	17:H:162:THR:CG2	2.75	0.64
20:l:106:ARG:NH1	20:l:114:LYS:HG3	2.13	0.64
3:2:300:GLU:HG2	3:2:302:PRO:HD2	1.79	0.64
7:6:451:PHE:HZ	7:6:472:ARG:NH2	1.76	0.64
13:D:922:GLN:CG	13:D:1056:THR:HG21	2.26	0.64
15:F:319:LEU:H	15:F:319:LEU:CD2	2.10	0.64
17:H:108:PRO:HG3	19:J:116:LEU:CD2	2.25	0.64
21:O:3:TYR:C	21:O:5:LEU:H	2.04	0.64
26:T:174:LYS:HB3	26:T:209:PRO:HA	1.79	0.64
27:U:141:ALA:HB1	27:U:152:PHE:HB3	1.79	0.64
2:1:109:LYS:O	2:1:110:GLU:C	2.40	0.64
2:1:422:LEU:CD1	4:3:31:GLN:CD	2.71	0.64
7:6:406:ALA:HB3	7:6:430:LEU:HD13	1.78	0.64
10:9:36:ALA:HB3	40:u:20:PRO:HG3	1.80	0.64
11:A:355:VAL:O	11:A:355:VAL:HG23	1.97	0.64
20:L:62:LYS:O	20:L:62:LYS:NZ	2.21	0.64
21:O:14:SER:HG	23:Q:46:TRP:NE1	1.96	0.64
24:R:48:VAL:HA	35:p:1078:ARG:NH2	2.13	0.64
27:U:75:ARG:HG3	27:U:97:ARG:HH12	1.61	0.64
28:V:77:VAL:HG11	28:V:119:LEU:HD13	1.79	0.64
34:o:232:GLU:HA	34:o:235:VAL:HG12	1.80	0.64
34:o:769:MET:SD	35:p:973:PRO:HG3	2.38	0.64
34:o:869:GLU:OE1	35:p:1091:ARG:NH2	2.30	0.64
34:o:1029:LEU:HD11	38:s:159:LEU:HD23	1.79	0.64
3:2:223:LEU:HD13	8:7:726:GLN:HE22	1.60	0.64
8:7:494:ILE:CD1	8:7:701:LEU:HD21	2.26	0.64
15:F:118:ILE:CD1	17:H:43:SER:CA	2.75	0.64
23:Q:47:GLU:OE1	23:Q:60:HIS:ND1	2.30	0.64
34:o:780:ASN:HD22	35:p:976:MET:CE	2.09	0.64
39:t:84:GLU:OE1	39:t:84:GLU:N	2.30	0.64
5:4:401:LEU:HA	6:5:10:ILE:CG2	2.28	0.64
5:4:401:LEU:HD21	6:5:20:LEU:HD11	1.79	0.64
8:7:60:GLN:O	8:7:64:PRO:CD	2.45	0.64
8:7:537:ALA:HA	8:7:619:ILE:HB	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:629:GLN:CD	8:7:633:LEU:CB	2.71	0.64
21:O:65:TYR:CE2	22:P:189:ASN:HA	2.32	0.64
2:1:383:TYR:HD1	4:3:175:MET:HB2	1.62	0.64
5:4:412:PHE:HB2	5:4:439:ARG:CB	2.28	0.64
7:6:557:LYS:HE3	7:6:596:PHE:O	1.96	0.64
11:A:400:GLU:OE1	15:F:347:THR:HB	1.97	0.64
15:F:114:LEU:CB	17:H:45:LEU:HD12	2.28	0.64
17:H:53:ALA:HB2	19:J:195:LEU:HB3	1.80	0.64
24:R:50:SER:C	35:p:841:ARG:NH2	2.56	0.64
36:q:36:ARG:HH12	44:y:40:HIS:HB2	1.63	0.64
13:D:874:LEU:H	13:D:874:LEU:CD2	2.10	0.64
29:X:7:DG:H1	30:Y:-7:DC:H42	1.45	0.64
2:1:422:LEU:HD23	2:1:422:LEU:O	1.98	0.64
7:6:341:PRO:HB2	7:6:344:ALA:HB3	1.79	0.64
7:6:557:LYS:CE	7:6:596:PHE:CZ	2.76	0.64
8:7:7:GLY:CA	8:7:62:ALA:HB1	2.22	0.64
11:A:495:LEU:CB	15:f:272:VAL:CG1	2.76	0.64
11:A:511:LEU:CD2	15:f:214:HIS:CD2	2.81	0.64
15:F:68:THR:HA	18:I:32:GLU:CD	2.23	0.64
34:o:360:ASP:HB3	35:p:1062:ARG:NE	2.06	0.64
34:o:533:PRO:O	34:o:647:THR:OG1	2.15	0.64
35:p:313:GLU:HG3	35:p:316:VAL:HG12	1.79	0.64
1:0:268:ARG:NH1	10:9:176:THR:OG1	2.30	0.63
8:7:467:TYR:CZ	8:7:654:PHE:HZ	2.16	0.63
14:E:451:VAL:O	14:E:453:LEU:N	2.31	0.63
17:H:54:GLU:OE1	19:J:197:MET:HG2	1.98	0.63
28:V:140:LYS:N	28:V:141:PRO:CD	2.61	0.63
30:Y:-4:DC:H2"	30:Y:-3:DA:C8	2.34	0.63
40:u:91:GLN:HB2	40:u:98:PHE:HD2	1.62	0.63
6:5:32:LYS:CE	12:B:539:ARG:NH2	2.62	0.63
8:7:236:ALA:HB3	8:7:456:ILE:HG23	1.37	0.63
11:A:410:TRP:CZ3	15:F:309:MET:HE3	2.33	0.63
34:o:1323:THR:OG1	34:o:1325:ASP:OD1	2.15	0.63
36:q:19:VAL:HG23	36:q:241:PRO:HB2	1.79	0.63
8:7:8:LEU:HD21	8:7:62:ALA:HA	1.80	0.63
8:7:611:VAL:CB	8:7:614:TYR:HB2	2.24	0.63
25:S:125:TYR:HD2	26:T:31:TRP:HZ3	1.40	0.63
27:U:71:PHE:HB2	27:U:100:VAL:HG23	1.80	0.63
28:V:194:ARG:HB3	28:V:195:PRO:HD3	1.80	0.63
34:o:1146:GLN:HB3	34:o:1149:ARG:HH21	1.62	0.63
5:4:307:ILE:CD1	5:4:367:PHE:CE2	2.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:397:GLU:O	5:4:400:ARG:CZ	2.46	0.63
7:6:411:SER:CB	7:6:453:ARG:HE	2.11	0.63
13:D:874:LEU:HD23	13:D:874:LEU:N	2.12	0.63
15:F:392:ILE:O	15:F:392:ILE:HG22	1.99	0.63
28:V:194:ARG:C	28:V:194:ARG:CD	2.71	0.63
34:o:1483:GLY:HA2	39:t:80:MET:HG2	1.81	0.63
14:E:359:LEU:HD11	14:E:648:ASP:HB2	1.80	0.63
14:E:745:GLU:OE1	14:E:745:GLU:HA	1.97	0.63
15:F:106:PHE:CD1	18:I:13:PRO:HD3	2.33	0.63
8:7:461:LEU:HB2	8:7:694:PRO:CB	2.28	0.63
11:A:396:LEU:HD23	15:f:394:PRO:HD2	1.70	0.63
24:R:111:ASP:O	24:R:115:MET:HB2	1.99	0.63
7:6:445:THR:O	7:6:447:PRO:HD3	1.99	0.63
11:A:396:LEU:CD2	15:f:394:PRO:HB2	2.29	0.63
11:A:405:VAL:HG23	15:F:301:VAL:HG13	1.80	0.63
23:Q:344:ARG:HB2	23:Q:349:TRP:CD2	2.34	0.63
24:R:132:ARG:HB2	35:p:914:GLU:CG	2.29	0.63
26:T:145:LEU:HG	35:p:92:TYR:HB3	1.80	0.63
7:6:388:GLN:HA	7:6:403:CYS:SG	2.38	0.63
11:A:567:LEU:HA	12:B:745:GLN:NE2	2.14	0.63
35:p:311:ILE:HD11	35:p:317:ALA:HA	1.81	0.63
8:7:8:LEU:CD1	8:7:61:ARG:H	2.12	0.63
11:A:567:LEU:HB3	12:B:745:GLN:CD	2.24	0.63
18:I:61:ALA:HB3	18:I:63:LYS:HE2	1.81	0.63
7:6:435:TRP:N	7:6:435:TRP:CE3	2.64	0.62
7:6:557:LYS:NZ	7:6:596:PHE:O	2.31	0.62
11:A:396:LEU:O	15:f:391:LEU:HD13	1.99	0.62
12:B:583:GLU:CD	12:B:583:GLU:H	2.06	0.62
25:S:26:TYR:HD1	26:T:97:THR:HG22	1.60	0.62
30:Y:-20:DT:H1'	30:Y:-19:DC:H5'	1.81	0.62
7:6:303:ASN:N	7:6:303:ASN:OD1	2.30	0.62
11:A:414:ILE:HD11	15:F:306:PRO:C	2.23	0.62
15:F:71:ILE:HD11	18:I:35:VAL:HG22	1.81	0.62
23:Q:47:GLU:OE2	23:Q:60:HIS:NE2	2.27	0.62
24:R:48:VAL:HG23	35:p:1078:ARG:NH1	2.14	0.62
26:T:31:TRP:HD1	26:T:62:LEU:HD21	1.62	0.62
26:T:226:LYS:HA	26:T:226:LYS:HE3	1.80	0.62
34:o:327:ARG:NH2	34:o:336:LEU:O	2.30	0.62
7:6:366:ASN:CA	7:6:409:THR:HG23	2.26	0.62
14:E:509:GLN:HA	14:E:509:GLN:HE21	1.65	0.62
25:S:39:PHE:HZ	26:T:92:THR:HG21	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:331:PHE:CZ	5:4:367:PHE:CE2	2.86	0.62
7:6:374:TRP:O	7:6:378:PHE:CE2	2.52	0.62
11:A:410:TRP:CD1	15:F:305:ILE:HB	2.34	0.62
13:D:876:ALA:O	13:D:880:ARG:CG	2.37	0.62
14:E:485:ILE:HD12	15:F:131:LEU:HD21	1.81	0.62
15:F:75:LEU:HD11	15:F:84:TYR:OH	1.99	0.62
24:R:114:MET:HE2	24:R:146:TYR:CG	2.34	0.62
27:U:124:ARG:HH22	27:U:171:LYS:H	1.47	0.62
29:X:-33:DG:N2	30:Y:34:DC:O2	2.33	0.62
18:i:73:LEU:HD13	20:l:105:HIS:CE1	2.34	0.62
3:2:116:LYS:HE2	3:2:119:GLU:HG2	1.80	0.62
5:4:334:MET:HE2	5:4:342:VAL:HG11	1.81	0.62
8:7:95:GLU:OE2	8:7:100:GLU:O	2.17	0.62
15:F:117:ILE:HG22	17:H:38:GLN:C	2.23	0.62
17:H:37:LEU:CD1	19:J:138:TYR:CE2	2.81	0.62
24:R:217:ARG:HH21	35:p:102:ASP:HB2	1.63	0.62
26:T:195:GLN:O	26:T:195:GLN:CD	2.42	0.62
2:1:190:SER:H	2:1:193:ILE:HG22	1.65	0.62
11:A:353:LEU:HD11	15:f:272:VAL:HG11	1.80	0.62
11:A:567:LEU:CA	12:B:745:GLN:NE2	2.62	0.62
24:R:217:ARG:NH2	35:p:102:ASP:O	2.30	0.62
24:R:297:PRO:HA	24:R:310:VAL:HG11	1.82	0.62
25:S:24:LYS:HE2	26:T:99:SER:OG	2.00	0.62
7:6:97:GLN:HE22	7:6:109:ARG:NH1	1.97	0.62
7:6:337:VAL:HA	7:6:465:GLY:HA3	1.82	0.62
11:A:396:LEU:HD21	15:f:394:PRO:CB	2.27	0.62
11:A:410:TRP:CH2	15:F:305:ILE:CG2	2.77	0.62
11:A:410:TRP:O	15:F:306:PRO:HB2	1.97	0.62
11:A:476:VAL:O	15:f:354:ARG:NH2	2.32	0.62
15:F:112:VAL:O	17:H:53:ALA:O	2.17	0.62
15:F:320:ARG:N	15:F:321:PRO:HD2	2.15	0.62
31:c:67:GLY:CA	19:j:116:LEU:HD11	2.25	0.62
34:o:97:VAL:HA	34:o:100:LEU:HD23	1.82	0.62
35:p:111:ASN:HD21	35:p:742:VAL:HG11	1.65	0.62
5:4:307:ILE:HG21	5:4:368:LEU:HD23	1.80	0.62
5:4:309:VAL:CG2	5:4:368:LEU:CB	2.54	0.62
7:6:335:SER:HB3	7:6:462:CYS:HA	1.82	0.62
14:E:509:GLN:HG3	14:E:510:ALA:N	2.15	0.62
21:O:60:GLY:HA2	21:O:79:VAL:HG11	1.81	0.62
29:X:-17:DA:OP2	29:X:-17:DA:H8	1.82	0.62
30:Y:22:DG:C5	30:Y:23:DG:N7	2.68	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:q:193:ARG:HD3	36:q:220:TYR:HD1	1.65	0.62
8:7:498:GLY:O	8:7:709:THR:HG23	1.99	0.62
11:A:573:TYR:CD2	12:B:657:ARG:HD2	2.34	0.62
12:B:361:ARG:HD2	12:B:367:GLU:HB2	1.80	0.62
23:Q:15:ARG:HH21	23:Q:58:GLY:HA2	1.65	0.62
30:Y:-11:DC:H2"	30:Y:-10:DA:H5'	1.80	0.62
15:f:297:LEU:H	15:f:297:LEU:HD12	1.63	0.62
34:o:1029:LEU:HD11	38:s:159:LEU:CD2	2.30	0.62
6:5:15:ALA:HA	7:6:516:PRO:CG	2.30	0.62
11:A:1068:ARG:HD2	11:A:1068:ARG:C	2.25	0.62
15:F:106:PHE:CD1	18:I:13:PRO:HG3	2.35	0.62
21:O:32:LEU:HD13	23:Q:32:ASP:HB2	1.81	0.62
26:T:195:GLN:O	26:T:195:GLN:NE2	2.33	0.62
27:U:70:LYS:O	27:U:99:LEU:CA	2.48	0.62
2:1:430:THR:HG21	4:3:225:GLN:CA	2.30	0.61
5:4:34:LEU:CD1	5:4:231:VAL:HG13	2.25	0.61
7:6:505:VAL:HG13	7:6:644:LEU:CD2	2.30	0.61
8:7:530:VAL:CG2	8:7:714:VAL:HG13	2.30	0.61
10:9:36:ALA:CB	40:u:20:PRO:HG3	2.30	0.61
14:E:613:ALA:HB2	14:E:620:LEU:HD11	1.81	0.61
35:p:407:MET:HE1	35:p:444:LEU:HG	1.81	0.61
11:A:349:TRP:NE1	15:f:262:PHE:O	2.34	0.61
18:I:32:GLU:CB	18:I:35:VAL:HG23	2.31	0.61
21:O:21:GLU:OE2	23:Q:45:LEU:CD2	2.39	0.61
22:P:205:ARG:CG	23:Q:376:TRP:CZ3	2.83	0.61
40:u:24:ASN:HA	40:u:27:LYS:HG3	1.82	0.61
1:0:269:LEU:HD22	1:0:269:LEU:H	1.66	0.61
2:1:229:TYR:CD1	2:1:239:SER:CB	2.83	0.61
5:4:315:LEU:CD2	5:4:368:LEU:HD22	2.27	0.61
7:6:392:PHE:CE2	7:6:406:ALA:CB	2.83	0.61
8:7:65:LEU:HD23	8:7:65:LEU:O	2.00	0.61
8:7:538:PHE:HE2	8:7:618:VAL:HG13	1.64	0.61
9:8:95:GLU:HG2	9:8:96:THR:HG23	1.82	0.61
17:H:54:GLU:OE1	19:J:197:MET:CG	2.48	0.61
17:H:192:ARG:NH1	17:H:209:SER:O	2.34	0.61
18:I:32:GLU:HB2	18:I:35:VAL:HG23	1.81	0.61
21:O:62:LEU:HG	21:O:76:LEU:HD21	1.82	0.61
34:o:784:VAL:HG22	35:p:978:ILE:HD11	1.81	0.61
39:t:83:LEU:HD23	39:t:83:LEU:H	1.65	0.61
5:4:307:ILE:HD12	5:4:371:ARG:HD2	1.80	0.61
8:7:664:VAL:O	8:7:664:VAL:HG12	1.97	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:349:TRP:CZ2	15:f:266:GLY:HA3	2.35	0.61
27:U:110:MET:HE1	27:U:184:ILE:HB	1.81	0.61
3:2:223:LEU:CG	8:7:726:GLN:HE21	2.12	0.61
8:7:463:PRO:HD3	8:7:692:LYS:O	2.00	0.61
14:E:290:HIS:HB3	15:F:45:TYR:CZ	2.36	0.61
26:T:18:VAL:N	26:T:109:ILE:O	2.32	0.61
26:T:192:GLU:CD	28:V:75:PHE:CE2	2.72	0.61
26:T:215:GLU:HA	26:T:215:GLU:OE1	1.99	0.61
18:i:73:LEU:HD21	20:l:105:HIS:CD2	2.33	0.61
35:p:584:MET:HE3	35:p:605:ARG:HB2	1.82	0.61
8:7:9:LEU:CD1	8:7:61:ARG:HH12	1.97	0.61
14:E:704:VAL:CG1	14:E:759:ILE:HD13	2.28	0.61
25:S:121:ASN:O	26:T:25:LYS:HE2	2.01	0.61
26:T:177:ARG:NH2	29:X:-22:DC:OP2	2.34	0.61
15:f:311:CYS:O	15:f:330:ARG:HD3	2.01	0.61
34:o:341:GLN:HA	34:o:344:LYS:HE3	1.82	0.61
2:1:386:PRO:HA	4:3:254:ALA:H	1.64	0.61
2:1:414:TYR:CE2	4:3:116:LYS:HD2	2.29	0.61
3:2:257:HIS:HB3	4:3:248:HIS:HE1	1.63	0.61
10:9:185:GLU:O	10:9:188:ARG:HB3	2.00	0.61
14:E:449:LYS:HG2	17:H:144:PRO:HB2	1.83	0.61
15:F:117:ILE:HG21	17:H:38:GLN:C	2.25	0.61
18:I:60:HIS:CE1	20:L:102:LEU:HB3	2.35	0.61
23:Q:56:VAL:HG12	23:Q:57:ASP:N	2.16	0.61
24:R:111:ASP:CG	24:R:114:MET:HB2	2.25	0.61
24:R:173:VAL:HB	24:R:175:ARG:HH12	1.64	0.61
34:o:1430:CYS:O	34:o:1435:THR:HG22	2.01	0.61
35:p:82:PRO:HB3	35:p:134:LYS:HB3	1.81	0.61
7:6:319:TYR:CD1	7:6:320:GLN:N	2.69	0.61
8:7:8:LEU:CG	8:7:58:ALA:O	2.48	0.61
9:8:223:THR:O	9:8:227:GLU:HB2	2.00	0.61
20:L:111:LEU:O	20:L:114:LYS:HE3	2.01	0.61
21:O:22:LEU:HD13	21:O:28:ILE:CG2	2.28	0.61
24:R:196:LYS:HZ3	29:X:-29:DT:P	2.24	0.61
24:R:289:TYR:OH	24:R:314:PRO:O	2.17	0.61
28:V:103:LEU:HB3	28:V:109:LEU:HA	1.82	0.61
31:c:18:CYS:O	31:c:23:TRP:HB2	2.01	0.61
1:0:264:GLU:HG2	1:0:268:ARG:HB2	1.83	0.61
2:1:383:TYR:HE1	4:3:175:MET:HG2	1.66	0.61
3:2:214:GLU:C	3:2:216:GLY:N	2.57	0.61
5:4:307:ILE:HB	5:4:371:ARG:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:401:LEU:HD23	6:5:10:ILE:HG21	1.82	0.61
11:A:396:LEU:CB	15:f:390:THR:O	2.49	0.61
27:U:136:PHE:HB3	27:U:140:GLU:CB	2.31	0.61
30:Y:15:DA:H2"	30:Y:16:DA:H8	1.65	0.61
34:o:330:GLN:HE22	34:o:336:LEU:HD11	1.65	0.61
35:p:565:THR:HG21	35:p:580:PRO:HG3	1.83	0.61
2:1:407:ILE:HD12	4:3:23:GLY:N	2.15	0.61
3:2:223:LEU:CG	8:7:726:GLN:NE2	2.64	0.61
11:A:405:VAL:HG23	15:F:301:VAL:CG1	2.30	0.61
15:f:330:ARG:HH22	15:f:371:THR:HB	1.66	0.61
34:o:721:HIS:HE1	42:w:98:GLN:HE21	1.48	0.61
34:o:1005:HIS:CD2	34:o:1007:ILE:HG12	2.36	0.61
34:o:1177:TYR:CD2	42:w:35:LEU:HG	2.36	0.61
37:r:16:ASP:OD1	40:u:81:LYS:O	2.19	0.61
1:0:272:LEU:HD22	1:0:293:CYS:HB3	1.77	0.60
7:6:613:THR:CG2	7:6:642:ARG:CD	2.72	0.60
8:7:487:ARG:HE	8:7:724:MET:HG2	1.65	0.60
8:7:530:VAL:HG13	8:7:718:LYS:CG	2.30	0.60
23:Q:324:GLU:CD	23:Q:324:GLU:H	2.09	0.60
27:U:127:PHE:HB3	27:U:161:VAL:CG2	2.31	0.60
28:V:175:LEU:HD23	28:V:175:LEU:C	2.26	0.60
34:o:27:SER:N	34:o:30:GLU:OE1	2.33	0.60
34:o:125:LYS:O	34:o:129:ILE:HG12	2.01	0.60
2:1:384:HIS:HD2	4:3:259:ARG:NH2	1.95	0.60
2:1:407:ILE:CD1	4:3:19:PRO:HA	2.29	0.60
8:7:47:GLY:HA3	8:7:50:VAL:HB	1.83	0.60
24:R:114:MET:HE2	24:R:146:TYR:HB2	1.83	0.60
28:V:154:LEU:HD23	28:V:154:LEU:O	2.00	0.60
3:2:75:ASP:CB	8:7:722:ARG:HH22	2.14	0.60
5:4:433:PHE:CD2	6:5:38:ILE:CD1	2.76	0.60
7:6:362:LEU:HB2	7:6:430:LEU:CG	2.04	0.60
11:A:403:LEU:HD23	15:F:298:GLU:HG3	1.83	0.60
12:B:400:ASP:HA	12:B:403:VAL:HG22	1.83	0.60
15:F:276:LEU:HD13	15:F:323:VAL:HG11	1.82	0.60
25:S:45:ALA:HB2	26:T:9:LEU:HD21	1.82	0.60
28:V:132:VAL:HG23	28:V:137:TYR:CD1	2.36	0.60
13:d:884:GLU:HA	13:d:887:LYS:HE3	1.82	0.60
20:l:76:LEU:HD13	20:l:84:LEU:CD1	2.30	0.60
2:1:109:LYS:O	2:1:112:GLU:N	2.30	0.60
2:1:170:PHE:CB	2:1:239:SER:H	2.13	0.60
2:1:382:TYR:CE1	4:3:273:SER:HB3	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:435:TRP:HB2	7:6:461:HIS:CE1	2.33	0.60
11:A:511:LEU:CD2	15:f:214:HIS:CG	2.84	0.60
12:B:203:LYS:HD3	12:B:237:MET:HE3	1.83	0.60
17:H:137:GLY:HA3	17:H:155:ASP:OD2	2.00	0.60
21:O:75:VAL:O	21:O:75:VAL:HG12	1.99	0.60
25:S:9:GLN:O	25:S:9:GLN:HG2	2.01	0.60
2:1:374:LEU:CD1	4:3:270:VAL:HG13	1.83	0.60
2:1:406:SER:CB	4:3:27:LEU:HD11	2.31	0.60
3:2:314:SER:H	3:2:317:HIS:HD2	1.49	0.60
7:6:579:TYR:CA	7:6:605:ILE:HG13	2.32	0.60
10:9:25:ASP:HB3	39:t:101:LYS:NZ	2.12	0.60
10:9:36:ALA:HB3	40:u:20:PRO:HG2	1.71	0.60
10:9:42:PRO:HB2	34:o:1484:MET:CE	2.31	0.60
15:F:14:LEU:HD23	18:I:22:ILE:HD12	1.84	0.60
27:U:118:GLU:O	27:U:174:ARG:HD3	2.01	0.60
28:V:151:LEU:HD12	28:V:154:LEU:HB3	1.75	0.60
29:X:-27:DT:H3'	29:X:-27:DT:OP2	2.00	0.60
18:i:73:LEU:CD1	20:l:105:HIS:CE1	2.84	0.60
34:o:136:GLN:HG3	34:o:139:LYS:HB3	1.83	0.60
34:o:930:LEU:HG	34:o:939:VAL:HG23	1.83	0.60
2:1:434:LEU:CB	5:4:58:ARG:NH2	2.62	0.60
7:6:188:LEU:O	7:6:194:ILE:CD1	2.49	0.60
7:6:335:SER:HB2	7:6:463:LYS:N	2.17	0.60
8:7:526:GLU:CD	8:7:711:ASP:OD1	2.44	0.60
8:7:617:ALA:HA	8:7:676:LEU:O	2.01	0.60
8:7:629:GLN:HG2	8:7:633:LEU:HB2	1.83	0.60
11:A:410:TRP:CE2	15:F:305:ILE:CB	2.83	0.60
22:P:259:VAL:HG21	30:Y:28:DA:H2	1.65	0.60
34:o:217:SER:OG	34:o:219:GLU:OE1	2.18	0.60
1:0:272:LEU:O	1:0:274:HIS:N	2.35	0.60
7:6:627:SER:HB2	7:6:629:HIS:CE1	2.35	0.60
15:F:320:ARG:HD3	15:F:415:ILE:HG13	1.82	0.60
15:f:309:MET:HA	15:f:312:ILE:HD12	1.84	0.60
34:o:508:SER:OG	34:o:509:LEU:N	2.31	0.60
34:o:801:GLY:HA3	35:p:503:ASN:HB2	1.82	0.60
42:w:35:LEU:HD12	42:w:51:SER:HA	1.83	0.60
2:1:229:TYR:CD1	2:1:239:SER:HA	2.36	0.60
7:6:634:ARG:O	7:6:634:ARG:HD2	2.01	0.60
8:7:504:ILE:O	8:7:682:LYS:CB	2.49	0.60
14:E:463:PHE:O	15:F:134:HIS:N	2.34	0.60
15:F:65:LYS:O	15:F:66:LEU:HB2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:122:LEU:HD22	15:F:122:LEU:H	1.66	0.60
13:d:1082:ALA:CB	20:l:83:MET:HE2	2.31	0.60
36:q:2:PRO:HB3	44:y:54:PRO:HD2	1.83	0.60
7:6:182:PRO:HB3	7:6:268:VAL:HG21	1.83	0.60
7:6:501:TYR:CE1	7:6:650:MET:HE1	2.37	0.60
8:7:84:ILE:HD11	8:7:206:VAL:CG2	2.31	0.60
12:B:431:LEU:O	12:B:431:LEU:HD23	2.02	0.60
15:F:14:LEU:HD11	18:I:19:MET:HE1	1.84	0.60
18:I:132:LEU:CG	19:J:121:MET:HE2	2.30	0.60
25:S:121:ASN:C	26:T:25:LYS:HE2	2.26	0.60
7:6:435:TRP:CB	7:6:461:HIS:HE1	2.15	0.60
7:6:505:VAL:HG22	7:6:644:LEU:CD2	2.32	0.60
8:7:504:ILE:O	8:7:682:LYS:N	2.33	0.60
8:7:585:GLN:HG2	8:7:614:TYR:CD1	2.37	0.60
20:L:56:GLN:NE2	20:L:85:LEU:HD22	2.17	0.60
21:O:18:SER:OG	23:Q:46:TRP:N	2.35	0.60
24:R:27:TYR:CB	24:R:28:ARG:NH1	2.64	0.60
3:2:291:CYS:O	3:2:295:ARG:N	2.29	0.59
8:7:231:VAL:HB	8:7:454:VAL:HG12	1.83	0.59
14:E:447:THR:HA	14:E:450:ARG:HB3	1.84	0.59
14:E:704:VAL:HG12	14:E:759:ILE:CD1	2.31	0.59
18:I:132:LEU:HD21	19:J:121:MET:CE	2.22	0.59
21:O:25:SER:C	21:O:27:GLN:N	2.59	0.59
21:O:36:VAL:CG2	23:Q:29:PHE:CE1	2.85	0.59
25:S:8:SER:OG	26:T:49:GLN:HA	1.99	0.59
37:r:16:ASP:HB3	37:r:19:GLN:HG2	1.83	0.59
2:1:415:THR:O	2:1:415:THR:HG22	2.02	0.59
5:4:60:LEU:O	5:4:119:ARG:NH2	2.35	0.59
7:6:438:MET:O	7:6:464:LEU:HB3	2.02	0.59
8:7:9:LEU:O	8:7:61:ARG:NH1	2.35	0.59
21:O:10:THR:HG22	23:Q:50:LEU:HD21	1.83	0.59
23:Q:26:ARG:NH2	23:Q:39:LEU:CD2	2.65	0.59
25:S:47:LEU:HB3	26:T:7:LEU:HB2	1.82	0.59
27:U:43:VAL:O	27:U:43:VAL:HG12	2.02	0.59
30:Y:9:DT:H2"	30:Y:10:DG:C8	2.36	0.59
2:1:372:ILE:HG13	3:2:54:ARG:CD	2.32	0.59
5:4:307:ILE:N	5:4:371:ARG:HB3	2.17	0.59
5:4:376:MET:HE1	7:6:112:HIS:NE2	2.16	0.59
7:6:105:GLU:HG3	7:6:122:SER:HB3	1.85	0.59
7:6:191:ASP:HB2	7:6:194:ILE:HD12	1.84	0.59
24:R:50:SER:H	35:p:1078:ARG:NH2	1.88	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:400:ARG:O	5:4:401:LEU:HD23	2.01	0.59
6:5:48:GLU:HG3	6:5:49:LEU:HG	1.84	0.59
7:6:618:PRO:HB2	7:6:645:ARG:HH21	1.50	0.59
11:A:349:TRP:CE2	15:f:266:GLY:CA	2.85	0.59
23:Q:15:ARG:HH21	23:Q:58:GLY:CA	2.15	0.59
28:V:118:TRP:NE1	28:V:122:GLU:OE1	2.35	0.59
5:4:380:THR:O	5:4:382:VAL:N	2.35	0.59
5:4:412:PHE:HE1	5:4:440:LEU:HD23	1.66	0.59
7:6:199:LEU:CA	7:6:273:LYS:HG3	2.32	0.59
14:E:432:LEU:HG	14:E:436:ASP:CG	2.28	0.59
21:O:18:SER:HB3	23:Q:45:LEU:CB	2.33	0.59
14:e:562:SER:OG	14:e:564:ASP:OD1	2.21	0.59
18:I:23:LEU:HD12	18:I:31:TYR:CZ	2.37	0.59
20:L:101:GLN:O	20:L:105:HIS:CG	2.52	0.59
21:O:22:LEU:O	21:O:28:ILE:O	2.21	0.59
21:O:65:TYR:CE1	22:P:189:ASN:CA	2.86	0.59
25:S:8:SER:O	26:T:49:GLN:N	2.35	0.59
25:S:102:VAL:O	25:S:108:ARG:N	2.35	0.59
26:T:137:LYS:O	26:T:137:LYS:HD3	2.01	0.59
28:V:181:ALA:C	28:V:184:ALA:HB3	2.27	0.59
31:c:99:PHE:HB2	31:c:100:PRO:HD3	1.83	0.59
34:o:426:ARG:HH11	35:p:1064:ARG:NH2	2.00	0.59
37:r:132:ASP:HA	37:r:135:GLN:HG2	1.85	0.59
2:1:382:TYR:OH	4:3:272:LEU:C	2.45	0.59
7:6:463:LYS:HE2	7:6:484:ILE:O	2.02	0.59
7:6:505:VAL:HG22	7:6:644:LEU:HD23	1.84	0.59
7:6:536:MET:HE3	7:6:571:TYR:HE1	1.67	0.59
9:8:82:GLY:O	10:9:152:GLN:NE2	2.36	0.59
11:A:475:LEU:HG	15:f:302:HIS:HA	1.85	0.59
18:I:23:LEU:CD1	18:I:31:TYR:CZ	2.85	0.59
24:R:48:VAL:C	35:p:1078:ARG:NH2	2.60	0.59
30:Y:-14:DC:H2'	30:Y:-13:DT:H72	1.82	0.59
2:1:389:ILE:HD11	4:3:259:ARG:HG3	1.85	0.59
5:4:401:LEU:CD2	6:5:10:ILE:HG21	2.33	0.59
7:6:333:ALA:O	7:6:462:CYS:SG	2.59	0.59
7:6:406:ALA:CB	7:6:430:LEU:HD13	2.33	0.59
8:7:425:THR:N	8:7:426:PRO:CD	2.65	0.59
11:A:410:TRP:HZ3	15:F:309:MET:HE3	1.67	0.59
15:F:85:GLY:O	19:J:212:LYS:CB	2.50	0.59
21:O:28:ILE:HG22	23:Q:38:VAL:HG13	1.34	0.59
24:R:30:GLY:O	24:R:44:ARG:HA	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:T:180:LYS:HB3	26:T:180:LYS:HZ2	1.67	0.59
34:o:1257:LEU:HD12	34:o:1259:ILE:HD11	1.85	0.59
7:6:320:GLN:HG2	7:6:349:VAL:HG22	1.85	0.59
8:7:610:PHE:HB2	8:7:667:ALA:HA	1.84	0.59
11:A:470:ILE:HD12	11:A:470:ILE:O	2.03	0.59
11:A:511:LEU:CD2	15:f:214:HIS:N	2.65	0.59
15:F:83:LEU:CD2	15:F:86:PHE:HZ	2.09	0.59
25:S:45:ALA:HB3	26:T:9:LEU:CD2	2.29	0.59
26:T:40:VAL:C	26:T:59:ASN:HB2	2.28	0.59
29:X:-2:DT:H2'	29:X:-1:DT:C6	2.38	0.59
15:f:349:ASN:HB3	15:f:351:ILE:HG13	1.84	0.59
34:o:554:PHE:HB3	34:o:585:LEU:HD23	1.85	0.59
2:1:383:TYR:HD1	4:3:175:MET:CB	2.15	0.59
5:4:406:GLY:HA2	5:4:445:PRO:HD3	1.83	0.59
7:6:392:PHE:CE2	7:6:406:ALA:HB1	2.38	0.59
14:E:509:GLN:CG	14:E:510:ALA:N	2.65	0.59
15:F:241:GLU:CD	17:H:135:THR:HG1	2.05	0.59
15:F:335:ARG:HH22	15:F:336:LEU:CD1	2.13	0.59
27:U:120:ASP:OD1	27:U:120:ASP:O	2.21	0.59
27:U:127:PHE:HB3	27:U:161:VAL:HG21	1.85	0.59
30:Y:22:DG:N1	30:Y:23:DG:C6	2.71	0.59
34:o:18:ILE:HB	34:o:1462:GLN:HE22	1.67	0.59
36:q:44:ILE:HD12	36:q:178:PRO:HB3	1.84	0.59
11:A:480:TRP:HH2	15:f:355:ILE:CG1	2.16	0.58
14:E:467:LEU:HD11	15:F:132:LYS:HD3	1.85	0.58
18:I:131:SER:CB	19:J:150:ARG:HH12	2.16	0.58
30:Y:16:DA:C2'	30:Y:17:DT:H71	2.32	0.58
34:o:108:ARG:NH2	34:o:191:ILE:O	2.33	0.58
35:p:841:ARG:HH12	35:p:1078:ARG:HH22	1.52	0.58
7:6:373:GLN:C	7:6:377:GLN:HE22	2.09	0.58
7:6:447:PRO:CB	29:X:15:DG:O5'	2.51	0.58
8:7:333:LEU:HD13	8:7:397:LEU:HD11	1.83	0.58
13:D:1057:ARG:HA	20:L:75:GLN:O	2.02	0.58
13:D:1058:VAL:CG2	20:L:76:LEU:HD23	2.32	0.58
14:E:474:THR:OG1	14:E:546:VAL:O	2.19	0.58
21:O:25:SER:O	21:O:27:GLN:N	2.36	0.58
27:U:131:VAL:HG21	27:U:159:THR:HG21	1.85	0.58
28:V:77:VAL:HG21	28:V:111:ILE:CD1	2.24	0.58
28:V:85:MET:HG3	28:V:97:LEU:HD21	1.84	0.58
34:o:486:LEU:HD21	35:p:790:GLN:HB2	1.84	0.58
5:4:32:ASP:HB3	5:4:113:ILE:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:9:49:GLU:HB2	10:9:52:GLU:HG3	1.84	0.58
11:A:469:PRO:CB	15:F:214:HIS:CD2	2.76	0.58
11:A:1063:LYS:HD3	11:A:1063:LYS:C	2.29	0.58
15:F:112:VAL:HG11	17:H:55:LYS:CA	2.22	0.58
15:F:126:PRO:HD2	17:H:29:TYR:HA	1.85	0.58
25:S:116:GLY:HA2	35:p:356:PHE:HB3	1.85	0.58
27:U:136:PHE:HA	27:U:140:GLU:HG3	1.86	0.58
13:d:909:ARG:HH11	20:l:87:ILE:HD11	1.68	0.58
34:o:17:THR:HG22	34:o:18:ILE:H	1.68	0.58
34:o:361:PHE:CE1	35:p:1063:ALA:HB1	2.38	0.58
34:o:853:LYS:NZ	34:o:1102:MET:O	2.30	0.58
35:p:820:LYS:HE3	35:p:826:GLU:HB2	1.85	0.58
3:2:386:ILE:HD13	4:3:176:ASN:HB3	1.84	0.58
8:7:8:LEU:CD2	8:7:61:ARG:O	2.31	0.58
9:8:30:ARG:NH1	9:8:35:ASN:O	2.36	0.58
11:A:567:LEU:CB	12:B:745:GLN:NE2	2.66	0.58
21:O:58:PHE:HA	21:O:59:ARG:HH21	1.68	0.58
26:T:20:LEU:O	26:T:113:ARG:HA	2.02	0.58
35:p:313:GLU:OE2	35:p:316:VAL:N	2.35	0.58
37:r:107:THR:OG1	37:r:110:GLU:HG3	2.03	0.58
2:1:376:LEU:CD2	4:3:271:CYS:HA	2.34	0.58
11:A:564:PRO:HG2	12:B:744:PHE:CZ	2.39	0.58
12:B:732:CYS:SG	17:H:173:GLN:HB2	2.44	0.58
12:B:769:LYS:O	12:B:769:LYS:HG3	2.03	0.58
15:F:104:LEU:HD13	19:J:217:PHE:CE2	2.33	0.58
25:S:121:ASN:O	26:T:25:LYS:CG	2.47	0.58
2:1:358:ILE:O	2:1:359:GLU:O	2.22	0.58
8:7:16:TYR:OH	8:7:730:ARG:CG	2.51	0.58
9:8:102:ILE:HG22	9:8:102:ILE:O	2.01	0.58
11:A:416:TRP:CZ2	15:F:313:VAL:HG23	2.38	0.58
11:A:475:LEU:HD11	15:f:301:VAL:HG12	1.86	0.58
27:U:124:ARG:HH22	27:U:171:LYS:HB2	1.69	0.58
31:c:21:LEU:HD12	31:c:21:LEU:C	2.29	0.58
18:i:73:LEU:HB2	20:l:105:HIS:HE1	1.66	0.58
35:p:591:ARG:NH1	35:p:601:VAL:O	2.36	0.58
5:4:408:LEU:HD11	5:4:440:LEU:HB3	1.86	0.58
7:6:311:LYS:HD2	7:6:381:TRP:HA	1.86	0.58
7:6:392:PHE:CD2	7:6:406:ALA:HB1	2.39	0.58
7:6:409:THR:O	7:6:409:THR:HG22	2.02	0.58
7:6:447:PRO:HA	7:6:473:GLU:OE1	2.03	0.58
8:7:60:GLN:O	8:7:64:PRO:HG3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:143:ARG:NH2	8:7:162:ASP:OD2	2.37	0.58
14:E:586:TYR:HB3	14:E:605:HIS:HB3	1.85	0.58
15:F:118:ILE:CD1	17:H:43:SER:HA	2.33	0.58
15:F:361:LYS:CA	15:F:364:VAL:HG22	2.31	0.58
22:P:205:ARG:HG2	23:Q:376:TRP:CE3	2.38	0.58
15:f:257:PRO:HG3	15:f:300:TYR:CZ	2.38	0.58
40:u:167:TYR:O	40:u:167:TYR:CG	2.53	0.58
8:7:29:LYS:HE2	8:7:29:LYS:CA	2.34	0.58
15:F:114:LEU:HB2	17:H:45:LEU:CD1	2.34	0.58
24:R:28:ARG:O	35:p:1066:PRO:HD3	2.04	0.58
24:R:127:ARG:HG3	24:R:127:ARG:NH2	2.16	0.58
24:R:193:ARG:HH12	30:Y:23:DG:P	2.27	0.58
27:U:99:LEU:O	27:U:99:LEU:HG	2.04	0.58
27:U:136:PHE:HB3	27:U:140:GLU:HB2	1.85	0.58
37:r:26:PHE:HE2	40:u:80:PHE:HZ	1.50	0.58
2:1:355:GLN:CA	2:1:358:ILE:HG13	2.32	0.58
7:6:497:GLN:HE21	7:6:504:LYS:HA	1.69	0.58
8:7:425:THR:O	8:7:425:THR:OG1	2.19	0.58
11:A:397:LEU:HD11	15:f:364:VAL:CG2	2.34	0.58
11:A:489:GLN:C	11:A:491:MET:CE	2.75	0.58
11:A:564:PRO:CG	12:B:744:PHE:CE2	2.87	0.58
13:D:898:VAL:O	13:D:902:VAL:HG23	2.04	0.58
15:F:118:ILE:HG12	17:H:39:VAL:O	2.04	0.58
21:O:39:GLN:HG2	23:Q:25:VAL:CG1	2.31	0.58
22:P:271:GLU:HG3	24:R:208:LEU:HD13	1.85	0.58
27:U:32:LEU:CD1	28:V:161:ARG:NH2	2.65	0.58
34:o:500:GLU:OE2	35:p:1058:LYS:HD3	2.03	0.58
35:p:16:GLU:OE1	35:p:16:GLU:N	2.37	0.58
2:1:377:LYS:H	4:3:285:CYS:HA	1.68	0.58
7:6:525:ILE:HG13	7:6:530:ARG:HB3	1.85	0.58
8:7:7:GLY:C	8:7:62:ALA:HB2	2.29	0.58
10:9:241:ASN:HD22	10:9:242:ARG:H	1.50	0.58
15:F:112:VAL:HG22	17:H:54:GLU:O	2.04	0.58
17:H:50:PHE:CZ	19:J:171:LEU:N	2.72	0.58
17:H:50:PHE:CE2	19:J:170:ALA:C	2.80	0.58
17:H:137:GLY:O	17:H:155:ASP:CG	2.47	0.58
22:P:227:GLU:OE1	22:P:227:GLU:N	2.37	0.58
27:U:71:PHE:O	27:U:98:THR:HA	2.03	0.58
27:U:127:PHE:CD2	27:U:161:VAL:CG2	2.87	0.58
34:o:1230:GLN:HA	34:o:1233:GLU:CD	2.28	0.58
14:E:703:MET:O	14:E:703:MET:HG3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:75:LEU:HD11	15:F:84:TYR:CE1	2.39	0.57
17:H:108:PRO:CG	19:J:116:LEU:HD21	2.33	0.57
17:H:116:ARG:HG3	19:J:126:TYR:HE1	1.68	0.57
17:H:194:MET:HE1	15:f:226:GLU:HG3	1.86	0.57
24:R:209:ILE:HG13	24:R:250:PRO:HG2	1.84	0.57
31:c:67:GLY:CA	19:j:116:LEU:HD13	2.33	0.57
34:o:267:GLN:HB3	35:p:890:ARG:HH22	1.69	0.57
1:0:249:GLN:NE2	1:0:251:LEU:O	2.37	0.57
2:1:434:LEU:HD13	4:3:229:TRP:CD1	2.39	0.57
3:2:114:ALA:CB	3:2:148:SER:HG	2.13	0.57
7:6:445:THR:O	7:6:445:THR:HG22	2.03	0.57
25:S:125:TYR:HD2	26:T:23:VAL:HG21	1.69	0.57
26:T:30:GLN:NE2	26:T:62:LEU:O	2.27	0.57
29:X:23:DT:O2	29:X:23:DT:H2'	2.01	0.57
7:6:389:ILE:CA	7:6:403:CYS:SG	2.92	0.57
8:7:461:LEU:HB2	8:7:694:PRO:HB2	1.86	0.57
15:F:217:SER:OG	17:H:161:LYS:HA	2.04	0.57
21:O:59:ARG:HE	21:O:59:ARG:N	2.02	0.57
35:p:1144:THR:HG21	40:u:41:LYS:HB2	1.86	0.57
37:r:130:ILE:HA	37:r:133:ASP:HB2	1.86	0.57
2:1:386:PRO:O	4:3:253:ALA:CA	2.53	0.57
5:4:404:THR:HG22	6:5:9:LEU:H	1.69	0.57
14:E:450:ARG:HG3	14:E:789:ASN:ND2	2.19	0.57
15:F:83:LEU:CD1	15:F:83:LEU:H	2.18	0.57
21:O:77:ASN:HD22	21:O:92:LYS:HA	1.68	0.57
24:R:33:ILE:HD12	34:o:431:PHE:HE2	1.68	0.57
39:t:83:LEU:H	39:t:83:LEU:CD2	2.17	0.57
7:6:199:LEU:HA	7:6:273:LYS:HE3	1.84	0.57
7:6:419:ARG:CB	7:6:419:ARG:HH21	2.17	0.57
8:7:728:PHE:HE2	8:7:733:GLN:HE21	1.51	0.57
11:A:475:LEU:HD23	11:A:480:TRP:HE1	1.69	0.57
13:D:939:ASP:N	14:E:509:GLN:CD	2.44	0.57
14:E:432:LEU:HG	14:E:436:ASP:CB	2.34	0.57
14:E:742:LYS:HA	14:E:745:GLU:HG2	1.85	0.57
18:I:67:ASP:N	18:I:67:ASP:OD1	2.38	0.57
24:R:169:ARG:NH1	24:R:207:ASP:O	2.38	0.57
26:T:208:GLN:HG3	26:T:209:PRO:HD2	1.84	0.57
34:o:784:VAL:CG2	35:p:978:ILE:HD11	2.34	0.57
2:1:200:TYR:HE1	2:1:313:MET:HG3	1.69	0.57
3:2:146:TYR:HB2	3:2:179:PRO:HD2	1.87	0.57
3:2:175:THR:HG23	8:7:592:ARG:HE	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:114:LEU:HD11	17:H:41:VAL:O	1.37	0.57
15:f:320:ARG:CB	15:f:320:ARG:HH11	2.18	0.57
35:p:988:LYS:O	35:p:992:ASN:ND2	2.31	0.57
35:p:1046:THR:HG22	35:p:1047:TYR:H	1.70	0.57
2:1:383:TYR:CE1	4:3:175:MET:HG2	2.40	0.57
3:2:257:HIS:CB	4:3:248:HIS:HE1	2.18	0.57
5:4:69:ALA:O	5:4:73:LEU:HB2	2.04	0.57
8:7:5:VAL:CG1	8:7:55:LEU:HD13	2.12	0.57
8:7:11:TYR:CB	8:7:93:PHE:CE2	2.76	0.57
8:7:461:LEU:HD13	8:7:696:TRP:NE1	2.19	0.57
8:7:464:LEU:HD12	8:7:478:MET:HE1	1.86	0.57
20:L:119:HIS:NE2	20:L:123:GLN:OE1	2.38	0.57
21:O:39:GLN:CG	23:Q:25:VAL:HG12	2.32	0.57
34:o:18:ILE:HD12	35:p:1171:MET:HB3	1.86	0.57
34:o:1124:LEU:O	34:o:1128:ILE:N	2.36	0.57
34:o:1184:THR:HG21	34:o:1190:GLN:HB2	1.85	0.57
42:w:105:GLU:HG2	42:w:106:ASP:N	2.19	0.57
3:2:190:LYS:HB2	3:2:214:GLU:CD	2.28	0.57
4:3:166:ALA:HB2	4:3:196:LEU:HD12	1.87	0.57
7:6:374:TRP:HH2	7:6:466:LEU:HD13	1.69	0.57
8:7:463:PRO:HG2	8:7:654:PHE:HD1	1.70	0.57
11:A:353:LEU:HD12	11:A:495:LEU:CD1	2.33	0.57
11:A:408:LEU:HD11	15:F:302:HIS:CD2	2.23	0.57
11:A:480:TRP:O	11:A:483:ASN:HB2	2.04	0.57
12:B:560:TYR:CD2	12:B:581:ILE:HD11	2.39	0.57
17:H:110:TYR:CE1	19:J:164:SER:HB3	2.40	0.57
24:R:295:ARG:HG2	24:R:299:LEU:HG	1.86	0.57
25:S:18:VAL:HG23	26:T:40:VAL:CG2	2.34	0.57
33:m:31:LEU:HD23	33:m:31:LEU:N	2.16	0.57
35:p:124:LEU:HD22	35:p:152:ILE:HD11	1.85	0.57
35:p:387:HIS:NE2	35:p:671:GLU:OE2	2.35	0.57
37:r:16:ASP:CB	40:u:81:LYS:NZ	2.67	0.57
38:s:100:THR:HG23	38:s:125:TYR:H	1.69	0.57
3:2:360:CYS:SG	3:2:361:ALA:N	2.76	0.57
6:5:15:ALA:C	7:6:516:PRO:HB3	2.30	0.57
7:6:447:PRO:CG	29:X:15:DG:P	2.92	0.57
7:6:613:THR:CG2	7:6:642:ARG:NE	2.67	0.57
7:6:629:HIS:CD2	7:6:629:HIS:C	2.81	0.57
8:7:192:TYR:OH	8:7:196:ARG:NH2	2.37	0.57
8:7:339:TYR:OH	8:7:343:ARG:NH2	2.34	0.57
11:A:479:ARG:NE	11:A:482:ASP:OD1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:851:ASP:OD1	11:A:851:ASP:N	2.38	0.57
15:F:114:LEU:CG	17:H:45:LEU:HD12	2.34	0.57
15:F:315:ARG:CZ	15:F:369:PRO:HB3	2.34	0.57
21:O:23:ILE:CA	21:O:28:ILE:O	2.43	0.57
24:R:193:ARG:NH2	30:Y:23:DG:OP2	2.35	0.57
24:R:214:PHE:HB3	24:R:218:PHE:CE2	2.40	0.57
25:S:112:GLY:HA2	25:S:145:ASN:O	2.04	0.57
13:d:917:ILE:HD11	13:d:1063:LEU:HD13	1.87	0.57
34:o:1481:LYS:HD3	40:u:20:PRO:HA	1.86	0.57
40:u:38:CYS:CA	40:u:155:ASN:OD1	2.52	0.57
2:1:376:LEU:HD21	4:3:271:CYS:HA	1.87	0.57
3:2:337:GLU:O	3:2:340:ASN:ND2	2.37	0.57
5:4:378:LYS:O	5:4:378:LYS:HG2	2.04	0.57
5:4:415:GLN:CB	5:4:439:ARG:HH21	2.16	0.57
7:6:319:TYR:HE1	7:6:320:GLN:HG3	1.60	0.57
7:6:557:LYS:NZ	7:6:596:PHE:CD2	2.73	0.57
8:7:526:GLU:HB3	8:7:714:VAL:HG21	1.86	0.57
11:A:396:LEU:HD13	15:f:394:PRO:CB	2.35	0.57
11:A:401:ASN:H	11:A:401:ASN:HD22	1.53	0.57
11:A:489:GLN:C	11:A:491:MET:HE2	2.30	0.57
11:A:1065:GLU:O	11:A:1069:ILE:HG12	2.05	0.57
21:O:22:LEU:C	21:O:28:ILE:H	2.09	0.57
21:O:22:LEU:HD21	23:Q:41:GLU:CB	2.34	0.57
22:P:192:TYR:HB2	22:P:200:VAL:HG22	1.87	0.57
23:Q:55:ALA:C	23:Q:56:VAL:HG23	2.30	0.57
25:S:6:PRO:O	25:S:10:ASN:HB2	2.04	0.57
27:U:71:PHE:CB	27:U:100:VAL:HG23	2.34	0.57
27:U:141:ALA:O	27:U:145:PHE:N	2.36	0.57
14:e:484:LEU:HD21	14:e:504:LEU:HD21	1.85	0.57
34:o:775:LYS:HG3	35:p:974:SER:HB2	1.86	0.57
34:o:1242:ASP:HA	34:o:1262:MET:HE2	1.86	0.57
37:r:78:GLU:HA	37:r:81:ALA:HB3	1.85	0.57
2:1:422:LEU:HD12	4:3:31:GLN:OE1	2.03	0.56
4:3:165:LYS:NZ	4:3:167:ALA:O	2.37	0.56
15:F:15:PRO:HD3	18:I:18:MET:CG	2.23	0.56
15:F:85:GLY:C	19:J:212:LYS:HG3	2.30	0.56
24:R:48:VAL:C	35:p:1078:ARG:CZ	2.78	0.56
25:S:126:ILE:O	25:S:138:PHE:N	2.34	0.56
26:T:30:GLN:HG2	26:T:62:LEU:HG	1.87	0.56
27:U:152:PHE:O	27:U:160:GLU:OE1	2.23	0.56
31:c:12:VAL:HG23	15:f:118:ILE:HA	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:46:THR:HG22	34:o:57:LEU:HB2	1.87	0.56
34:o:267:GLN:OE1	35:p:890:ARG:NH2	2.37	0.56
1:0:268:ARG:CD	10:9:176:THR:CG2	2.74	0.56
2:1:107:ALA:C	2:1:109:LYS:N	2.62	0.56
3:2:146:TYR:CB	3:2:179:PRO:HD2	2.34	0.56
7:6:375:LYS:C	7:6:379:LYS:HG3	2.21	0.56
11:A:929:THR:HG22	11:A:954:ALA:HA	1.86	0.56
17:H:110:TYR:HE1	19:J:164:SER:HB3	1.69	0.56
18:I:132:LEU:CD2	19:J:121:MET:HE2	2.34	0.56
18:I:132:LEU:HD11	19:J:121:MET:SD	2.45	0.56
20:L:113:VAL:HG13	20:L:113:VAL:O	2.06	0.56
21:O:62:LEU:CD1	21:O:76:LEU:HD21	2.35	0.56
22:P:313:THR:HG23	29:X:-28:DT:H5"	1.86	0.56
24:R:27:TYR:CE1	35:p:1078:ARG:HD2	2.40	0.56
24:R:132:ARG:HB2	35:p:914:GLU:HG3	1.85	0.56
29:X:7:DG:H1	30:Y:-7:DC:N4	2.03	0.56
34:o:457:ILE:HD11	34:o:515:ILE:HD12	1.86	0.56
37:r:33:LEU:HD13	37:r:101:ALA:HB1	1.87	0.56
1:0:165:ILE:CD1	8:7:641:ARG:HH11	2.10	0.56
2:1:417:LYS:HE3	2:1:417:LYS:CA	2.30	0.56
5:4:412:PHE:CD2	5:4:418:PHE:HD1	2.20	0.56
7:6:275:GLU:OE1	7:6:456:THR:CG2	2.45	0.56
7:6:469:THR:CG2	7:6:638:GLN:OE1	2.41	0.56
12:B:762:ASP:CG	12:B:766:LEU:O	2.48	0.56
15:F:122:LEU:HD22	15:F:122:LEU:N	2.21	0.56
20:L:93:GLU:O	20:L:97:THR:HG23	2.05	0.56
23:Q:312:GLU:O	23:Q:314:LEU:N	2.37	0.56
26:T:31:TRP:CD1	26:T:62:LEU:HD21	2.39	0.56
27:U:71:PHE:O	27:U:71:PHE:CD1	2.58	0.56
28:V:151:LEU:HG	28:V:154:LEU:HB3	1.86	0.56
30:Y:22:DG:C4	30:Y:23:DG:C5	2.93	0.56
34:o:331:LYS:O	34:o:334:ARG:N	2.34	0.56
34:o:460:ARG:HG2	34:o:461:GLN:H	1.70	0.56
34:o:1389:ASP:OD1	34:o:1389:ASP:N	2.38	0.56
35:p:1144:THR:HG21	40:u:41:LYS:HG3	1.87	0.56
36:q:72:PRO:HG3	43:x:13:ILE:HD11	1.86	0.56
37:r:73:ARG:NH1	40:u:144:ARG:HH22	2.01	0.56
40:u:55:GLY:HA3	40:u:69:PRO:HG2	1.86	0.56
2:1:470:GLU:OE2	2:1:474:HIS:NE2	2.38	0.56
7:6:338:ILE:CB	7:6:465:GLY:O	2.54	0.56
7:6:374:TRP:O	7:6:378:PHE:CD2	2.58	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:404:SER:HB3	7:6:433:GLN:O	2.06	0.56
14:E:773:TYR:HA	15:F:142:GLN:OE1	2.05	0.56
15:F:86:PHE:HA	19:J:212:LYS:NZ	2.21	0.56
15:F:117:ILE:CG2	17:H:38:GLN:O	2.53	0.56
21:O:28:ILE:HG21	23:Q:38:VAL:HG12	1.77	0.56
21:O:65:TYR:CZ	22:P:189:ASN:HB3	2.39	0.56
24:R:48:VAL:O	35:p:1078:ARG:CZ	2.53	0.56
26:T:188:PHE:HE2	28:V:79:ALA:C	2.13	0.56
27:U:145:PHE:CE2	40:u:98:PHE:HZ	2.23	0.56
14:e:636:HIS:HD2	14:e:638:ASN:H	1.53	0.56
35:p:502:HIS:ND1	35:p:504:THR:OG1	2.33	0.56
1:0:108:ASN:OD1	1:0:112:ASN:ND2	2.36	0.56
7:6:339:VAL:CA	7:6:467:THR:O	2.51	0.56
7:6:351:VAL:HB	7:6:381:TRP:CZ2	2.40	0.56
7:6:613:THR:HG21	7:6:642:ARG:NE	2.21	0.56
9:8:72:PRO:O	9:8:152:LYS:NZ	2.32	0.56
11:A:402:PHE:HA	11:A:407:GLN:NE2	2.20	0.56
14:E:507:VAL:CB	14:E:513:LEU:HD13	2.32	0.56
14:E:645:GLY:H	14:E:675:LEU:HD11	1.70	0.56
21:O:32:LEU:O	21:O:36:VAL:HG23	2.05	0.56
25:S:18:VAL:HG23	26:T:40:VAL:HG21	1.86	0.56
25:S:47:LEU:HB2	26:T:7:LEU:HD22	1.87	0.56
27:U:144:LEU:HB3	27:U:153:ARG:O	2.05	0.56
28:V:76:GLY:O	28:V:80:LYS:CB	2.53	0.56
34:o:808:PRO:HG2	35:p:675:LEU:HD12	1.87	0.56
2:1:386:PRO:HB2	4:3:253:ALA:HB1	1.86	0.56
2:1:414:TYR:CE2	4:3:116:LYS:CE	2.87	0.56
3:2:214:GLU:C	3:2:216:GLY:H	2.12	0.56
8:7:461:LEU:C	8:7:694:PRO:HB3	2.31	0.56
8:7:505:SER:HA	8:7:681:ASP:HB2	1.87	0.56
13:D:1075:HIS:HB2	18:I:84:THR:OG1	2.05	0.56
14:E:561:SER:HB2	14:E:588:VAL:HB	1.88	0.56
15:F:418:ILE:HD12	15:F:418:ILE:N	2.21	0.56
21:O:64:THR:HG21	22:P:188:ARG:NE	2.21	0.56
24:R:107:MET:CG	34:o:329:MET:CE	2.82	0.56
30:Y:-14:DC:H2"	30:Y:-13:DT:C6	2.41	0.56
15:f:223:TYR:HD2	15:f:255:MET:HE1	1.71	0.56
37:r:16:ASP:HB2	40:u:81:LYS:HZ1	1.70	0.56
41:v:27:ARG:HD2	41:v:40:ILE:HG23	1.86	0.56
7:6:276:MET:O	7:6:280:LEU:N	2.33	0.56
7:6:364:LEU:HD22	7:6:409:THR:N	1.83	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:8:LEU:CG	8:7:61:ARG:HB3	2.20	0.56
8:7:71:ILE:HB	8:7:231:VAL:HG22	1.88	0.56
11:A:396:LEU:CB	15:f:391:LEU:HA	2.34	0.56
11:A:495:LEU:CD2	15:f:272:VAL:CG2	2.82	0.56
12:B:629:ARG:NH1	12:B:658:ASP:OD2	2.37	0.56
13:D:1011:ALA:CB	21:O:94:LYS:HE2	2.33	0.56
27:U:52:LEU:CD2	28:V:161:ARG:HH12	2.10	0.56
34:o:1435:THR:OG1	34:o:1436:VAL:N	2.38	0.56
2:1:381:ARG:NE	4:3:256:PHE:O	2.37	0.56
5:4:401:LEU:HD12	6:5:50:VAL:HA	1.87	0.56
8:7:494:ILE:HG13	8:7:701:LEU:HD11	1.86	0.56
8:7:538:PHE:O	8:7:621:PHE:CA	2.54	0.56
11:A:1169:ARG:CB	11:A:1181:ARG:NH2	2.52	0.56
14:E:464:TYR:HA	15:F:133:ALA:HA	1.88	0.56
14:E:746:ASP:OD1	14:E:746:ASP:N	2.30	0.56
17:H:108:PRO:HG2	19:J:116:LEU:CD2	2.35	0.56
22:P:169:VAL:HG12	22:P:256:GLN:HB2	1.87	0.56
24:R:33:ILE:HG22	34:o:431:PHE:HD2	1.71	0.56
24:R:48:VAL:HG23	35:p:1078:ARG:NE	2.21	0.56
26:T:149:VAL:HG22	35:p:125:TYR:CE2	2.41	0.56
27:U:124:ARG:HG2	27:U:124:ARG:O	2.05	0.56
28:V:78:LEU:O	28:V:80:LYS:N	2.38	0.56
30:Y:30:DT:C5'	30:Y:30:DT:H6	2.19	0.56
35:p:625:LEU:HD13	35:p:675:LEU:HD21	1.88	0.56
3:2:301:LEU:HD23	3:2:314:SER:HB2	1.87	0.56
5:4:336:TYR:HB2	5:4:343:VAL:HB	1.88	0.56
8:7:67:VAL:HG22	8:7:230:VAL:HG23	1.86	0.56
11:A:400:GLU:CD	15:F:347:THR:HG1	2.09	0.56
13:D:1078:LEU:HD23	20:L:83:MET:HE1	1.84	0.56
14:E:509:GLN:CD	14:E:510:ALA:H	2.13	0.56
25:S:16:VAL:HB	26:T:56:PHE:HE1	1.71	0.56
26:T:177:ARG:HH21	29:X:-22:DC:P	2.28	0.56
30:Y:22:DG:N3	30:Y:23:DG:C8	2.74	0.56
35:p:685:LYS:NZ	35:p:686:GLU:O	2.38	0.56
5:4:35:TYR:O	5:4:117:ASN:ND2	2.38	0.56
10:9:236:LEU:O	10:9:236:LEU:HD23	2.06	0.56
14:E:290:HIS:CD2	15:F:45:TYR:CD2	2.94	0.56
14:E:290:HIS:CG	15:F:45:TYR:CD2	2.94	0.56
15:F:86:PHE:HA	19:J:212:LYS:HZ3	1.70	0.56
21:O:62:LEU:CG	21:O:76:LEU:HD21	2.36	0.56
24:R:173:VAL:O	24:R:175:ARG:NH1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:47:LEU:CB	26:T:7:LEU:HB2	2.35	0.56
28:V:85:MET:C	28:V:87:THR:N	2.63	0.56
34:o:1150:ASP:OD2	34:o:1153:ARG:NH1	2.39	0.56
5:4:255:SER:H	5:4:258:LEU:HD12	1.71	0.55
5:4:396:LEU:HA	5:4:399:ASP:HB3	1.87	0.55
8:7:48:LYS:HD2	8:7:457:THR:HG21	1.88	0.55
11:A:469:PRO:HG3	17:H:166:ARG:NH1	2.21	0.55
11:A:491:MET:HG3	11:A:494:LEU:HD13	1.87	0.55
21:O:18:SER:CB	23:Q:45:LEU:CB	2.83	0.55
18:i:73:LEU:CD1	20:l:105:HIS:NE2	2.70	0.55
37:r:16:ASP:HB2	40:u:81:LYS:CE	2.36	0.55
5:4:307:ILE:HD12	5:4:371:ARG:CD	2.36	0.55
7:6:281:GLN:HG2	7:6:291:LEU:HD22	1.88	0.55
10:9:106:LEU:HB2	10:9:143:ILE:HD11	1.88	0.55
15:F:408:ASP:OD1	15:F:408:ASP:N	2.39	0.55
15:F:412:LEU:HD11	15:F:417:ARG:CB	2.32	0.55
21:O:32:LEU:HD13	23:Q:32:ASP:CG	2.31	0.55
34:o:502:ASN:HB3	35:p:1084:LEU:HD13	1.87	0.55
35:p:438:ARG:HG2	35:p:438:ARG:O	2.05	0.55
7:6:449:LYS:HG2	7:6:453:ARG:HH12	1.72	0.55
7:6:571:TYR:O	7:6:606:PHE:CE2	2.50	0.55
8:7:464:LEU:HD22	8:7:467:TYR:CD2	2.42	0.55
11:A:355:VAL:O	11:A:355:VAL:CG2	2.54	0.55
12:B:61:ASN:O	12:B:130:VAL:HG23	2.06	0.55
12:B:159:LEU:HD23	12:B:159:LEU:H	1.68	0.55
15:F:112:VAL:CG2	17:H:54:GLU:O	2.54	0.55
17:H:108:PRO:HG2	19:J:116:LEU:HD23	1.88	0.55
25:S:46:ARG:NH2	26:T:3:GLU:OE1	2.37	0.55
14:e:610:ARG:HD3	14:e:619:PRO:HG3	1.89	0.55
15:f:253:TYR:O	15:f:254:GLN:HB3	2.06	0.55
34:o:1101:GLN:NE2	34:o:1389:ASP:OD2	2.39	0.55
38:s:56:THR:HG22	38:s:57:ASP:H	1.71	0.55
5:4:312:ASN:HD21	7:6:110:PRO:HB2	1.71	0.55
7:6:580:ILE:N	7:6:606:PHE:O	2.38	0.55
13:D:939:ASP:C	14:E:509:GLN:OE1	2.49	0.55
20:L:58:LEU:HA	20:L:62:LYS:HD2	1.89	0.55
20:L:80:VAL:O	20:L:84:LEU:HG	2.06	0.55
22:P:253:PHE:CD2	22:P:253:PHE:O	2.59	0.55
22:P:271:GLU:HG3	24:R:208:LEU:CD1	2.36	0.55
24:R:214:PHE:O	24:R:218:PHE:HD2	1.89	0.55
25:S:119:THR:HG22	25:S:123:SER:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:V:153:ARG:HA	28:V:156:ASP:HB3	1.89	0.55
30:Y:30:DT:C6	30:Y:30:DT:C5'	2.89	0.55
2:1:227:SER:OG	2:1:228:HIS:CD2	2.60	0.55
2:1:411:MET:C	4:3:120:THR:HG22	2.30	0.55
4:3:225:GLN:HG3	4:3:228:LEU:HB2	1.89	0.55
15:F:118:ILE:HG23	17:H:39:VAL:CG1	2.36	0.55
17:H:50:PHE:CD1	17:H:50:PHE:N	2.73	0.55
23:Q:344:ARG:CA	23:Q:348:LYS:O	2.54	0.55
24:R:107:MET:CG	34:o:329:MET:HE3	2.29	0.55
15:f:280:ILE:O	15:f:284:ARG:HG3	2.05	0.55
18:i:73:LEU:HB2	20:l:105:HIS:CE1	2.42	0.55
34:o:1365:ILE:HG23	34:o:1369:LEU:HD12	1.89	0.55
2:1:475:PHE:O	2:1:479:PHE:HB2	2.06	0.55
7:6:565:VAL:HG13	30:Y:-14:DC:H3'	1.87	0.55
12:B:489:GLN:OE1	12:B:489:GLN:N	2.34	0.55
15:F:412:LEU:CB	15:F:417:ARG:HD2	2.36	0.55
22:P:167:ASN:ND2	30:Y:28:DA:C1'	2.53	0.55
24:R:196:LYS:NZ	29:X:-29:DT:P	2.80	0.55
28:V:72:GLY:HA3	28:V:115:GLN:HG3	1.89	0.55
3:2:205:VAL:C	3:2:207:VAL:N	2.65	0.55
8:7:284:GLU:OE2	8:7:287:ARG:NH2	2.37	0.55
8:7:538:PHE:O	8:7:621:PHE:CB	2.54	0.55
24:R:133:ASN:OD1	35:p:914:GLU:O	2.24	0.55
27:U:129:CYS:SG	27:U:159:THR:OG1	2.62	0.55
28:V:86:LYS:CA	28:V:139:PHE:HE2	2.08	0.55
28:V:220:TRP:CG	28:V:220:TRP:O	2.59	0.55
34:o:139:LYS:HA	34:o:142:THR:HG22	1.88	0.55
34:o:1139:LEU:HD12	34:o:1139:LEU:O	2.07	0.55
7:6:127:VAL:HG11	7:6:163:TYR:HA	1.88	0.55
7:6:537:ASN:OD1	7:6:538:PRO:CD	2.55	0.55
8:7:396:PRO:O	8:7:399:LEU:HB3	2.06	0.55
12:B:259:ASP:HB3	12:B:262:MET:O	2.06	0.55
12:B:571:LEU:HD21	12:B:619:MET:HE1	1.89	0.55
15:F:71:ILE:CD1	18:I:35:VAL:HG22	2.36	0.55
17:H:50:PHE:CZ	19:J:195:LEU:HD13	2.40	0.55
21:O:62:LEU:HD12	21:O:76:LEU:HD21	1.89	0.55
24:R:114:MET:HE2	24:R:146:TYR:CB	2.36	0.55
27:U:34:LEU:HA	27:U:37:LEU:HD12	1.89	0.55
34:o:775:LYS:HD2	35:p:974:SER:CB	2.36	0.55
4:3:285:CYS:SG	4:3:287:THR:OG1	2.64	0.55
5:4:336:TYR:CE2	7:6:85:PHE:CZ	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:325:THR:HB	8:7:328:HIS:HD2	1.72	0.55
11:A:408:LEU:HD12	15:F:302:HIS:CG	2.36	0.55
11:A:675:ASP:OD1	16:G:78:LYS:NZ	2.37	0.55
12:B:248:SER:OG	12:B:322:MET:SD	2.65	0.55
14:E:278:ASP:OD2	14:E:649:ARG:NH2	2.40	0.55
17:H:137:GLY:O	17:H:155:ASP:OD1	2.25	0.55
23:Q:15:ARG:NH2	23:Q:58:GLY:HA3	2.22	0.55
24:R:27:TYR:CD1	35:p:1078:ARG:NH1	2.73	0.55
27:U:137:THR:H	27:U:140:GLU:HG3	1.72	0.55
28:V:180:LYS:O	28:V:184:ALA:N	2.36	0.55
29:X:-27:DT:H3'	29:X:-27:DT:P	2.47	0.55
34:o:535:MET:O	34:o:669:TYR:OH	2.20	0.55
34:o:1172:ASN:HD22	42:w:57:LYS:HE3	1.71	0.55
35:p:627:ILE:HD11	35:p:663:GLU:HB2	1.88	0.55
6:5:33:PHE:HE1	6:5:49:LEU:HD12	0.84	0.55
8:7:238:ASN:HB3	8:7:241:ASN:HB2	1.88	0.55
8:7:523:LEU:HB2	8:7:710:VAL:HG22	1.89	0.55
8:7:650:ASP:OD1	8:7:692:LYS:NZ	2.34	0.55
14:E:466:PHE:CZ	15:F:131:LEU:HD13	2.42	0.55
24:R:128:ILE:HG22	26:T:152:ASN:HD22	1.71	0.55
34:o:364:ARG:NH1	34:o:502:ASN:OD1	2.40	0.55
34:o:1290:SER:OG	35:p:251:ALA:HA	2.07	0.55
3:2:75:ASP:CG	8:7:722:ARG:HH22	2.15	0.54
3:2:80:ARG:NH2	3:2:202:SER:OG	2.40	0.54
7:6:446:ILE:O	7:6:446:ILE:HG22	2.06	0.54
7:6:634:ARG:HD2	7:6:634:ARG:C	2.31	0.54
15:F:106:PHE:CD1	18:I:13:PRO:CG	2.90	0.54
15:F:412:LEU:HD13	15:F:417:ARG:HD2	0.58	0.54
20:L:111:LEU:HB2	20:L:115:ASP:OD2	2.07	0.54
21:O:18:SER:C	23:Q:45:LEU:HD13	2.32	0.54
21:O:57:ASN:H	21:O:57:ASN:HD22	1.54	0.54
28:V:76:GLY:O	28:V:80:LYS:HB3	2.07	0.54
18:i:60:HIS:NE2	20:l:106:ARG:NE	2.50	0.54
34:o:581:LYS:HB2	41:v:91:VAL:CG2	2.36	0.54
34:o:734:ARG:NH1	42:w:107:ALA:O	2.39	0.54
35:p:113:ALA:HA	35:p:118:LEU:HB2	1.89	0.54
3:2:208:CYS:SG	3:2:219:TYR:HE1	2.28	0.54
4:3:197:ASP:O	4:3:216:LYS:NZ	2.39	0.54
7:6:609:LYS:HG2	7:6:611:GLY:H	1.71	0.54
8:7:465:ASP:C	8:7:468:PRO:HD2	2.31	0.54
11:A:416:TRP:HZ2	15:F:313:VAL:HG23	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:639:LEU:HD12	11:A:639:LEU:O	2.06	0.54
15:F:83:LEU:HD12	15:F:83:LEU:H	1.71	0.54
15:F:118:ILE:HD11	17:H:42:SER:O	2.07	0.54
15:F:219:GLU:OE2	17:H:157:HIS:HB3	2.06	0.54
15:F:265:GLU:OE2	15:F:265:GLU:HA	2.06	0.54
21:O:65:TYR:CE2	22:P:189:ASN:HB3	2.42	0.54
24:R:111:ASP:O	24:R:115:MET:CB	2.55	0.54
24:R:284:THR:HG21	30:Y:33:DC:H5"	1.88	0.54
34:o:101:VAL:O	34:o:104:MET:HG3	2.07	0.54
34:o:775:LYS:CG	35:p:974:SER:HB2	2.37	0.54
34:o:1218:ARG:HA	34:o:1221:MET:HB2	1.88	0.54
37:r:110:GLU:O	37:r:114:LEU:N	2.39	0.54
2:1:377:LYS:CD	4:3:283:THR:O	2.55	0.54
7:6:580:ILE:HG13	7:6:607:ILE:CB	2.38	0.54
17:H:56:ALA:CB	19:J:214:PRO:HG2	2.36	0.54
21:O:57:ASN:HD22	21:O:57:ASN:N	2.05	0.54
21:O:76:LEU:O	21:O:93:VAL:HG12	2.07	0.54
22:P:239:ARG:HH21	23:Q:317:GLU:HG3	1.71	0.54
26:T:141:LEU:HD12	35:p:52:GLN:HG2	1.87	0.54
28:V:78:LEU:C	28:V:80:LYS:N	2.62	0.54
34:o:365:THR:OG1	34:o:366:VAL:N	2.40	0.54
34:o:691:ASP:OD2	34:o:765:ASN:ND2	2.32	0.54
36:q:31:ALA:O	36:q:231:TYR:OH	2.23	0.54
38:s:189:GLN:O	38:s:209:VAL:HG12	2.07	0.54
2:1:434:LEU:CD1	5:4:58:ARG:CZ	2.72	0.54
3:2:190:LYS:HD3	3:2:214:GLU:HG2	1.79	0.54
3:2:293:GLN:HB2	3:2:310:LEU:HD22	1.89	0.54
6:5:15:ALA:CB	7:6:516:PRO:CD	2.86	0.54
7:6:380:MET:H	7:6:380:MET:HE2	1.73	0.54
8:7:611:VAL:CB	8:7:614:TYR:H	2.19	0.54
13:D:1068:GLU:OE2	14:E:582:LYS:NZ	2.41	0.54
15:F:219:GLU:CD	17:H:156:PRO:HB2	2.33	0.54
26:T:149:VAL:HG23	35:p:125:TYR:CE1	2.42	0.54
27:U:71:PHE:HB2	27:U:100:VAL:CG2	2.38	0.54
34:o:811:ILE:HD12	42:w:79:PRO:HB3	1.88	0.54
35:p:570:ASN:ND2	35:p:616:THR:OG1	2.39	0.54
2:1:377:LYS:HD2	4:3:286:GLU:HG3	1.88	0.54
7:6:363:VAL:HG22	7:6:439:ILE:HD12	1.89	0.54
8:7:42:MET:HA	8:7:481:PHE:HB2	1.89	0.54
11:A:477:TYR:O	15:f:354:ARG:NH1	2.39	0.54
11:A:564:PRO:HG2	12:B:744:PHE:CD1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:1052:ARG:HD2	11:A:1052:ARG:O	2.07	0.54
14:E:466:PHE:CE2	15:F:131:LEU:HD13	2.43	0.54
15:F:111:GLU:C	15:F:111:GLU:CD	2.74	0.54
15:F:117:ILE:HG21	17:H:38:GLN:O	2.07	0.54
15:F:335:ARG:NH2	15:F:336:LEU:CB	2.70	0.54
17:H:117:MET:O	19:J:129:THR:HA	2.08	0.54
27:U:18:ALA:HA	27:U:21:VAL:HG22	1.90	0.54
34:o:426:ARG:HH11	35:p:1064:ARG:HH21	1.55	0.54
34:o:723:ASN:HD22	42:w:109:ARG:HD3	1.71	0.54
35:p:1136:GLU:HG2	35:p:1143:LYS:HE3	1.89	0.54
37:r:100:LEU:HA	37:r:103:LEU:HB2	1.89	0.54
40:u:59:ILE:HG12	40:u:66:VAL:HG22	1.90	0.54
2:1:382:TYR:CZ	4:3:273:SER:HB3	2.42	0.54
2:1:434:LEU:HD13	4:3:229:TRP:HB3	1.88	0.54
7:6:411:SER:N	7:6:450:MET:SD	2.80	0.54
7:6:534:TYR:CD1	7:6:534:TYR:C	2.85	0.54
8:7:497:ARG:HB2	8:7:707:ASN:OD1	2.07	0.54
12:B:66:ASN:HD21	12:B:119:PRO:HB3	1.73	0.54
14:E:345:MET:HE3	14:E:346:PRO:HD2	1.87	0.54
14:E:463:PHE:HB3	15:F:134:HIS:NE2	2.22	0.54
15:F:406:VAL:HG11	15:F:420:ALA:HB2	1.88	0.54
17:H:159:TYR:N	17:H:159:TYR:CD1	2.75	0.54
25:S:110:PHE:CD1	25:S:148:PRO:HA	2.42	0.54
28:V:194:ARG:O	28:V:194:ARG:NE	2.41	0.54
15:f:390:THR:HG23	15:f:391:LEU:HD22	1.89	0.54
34:o:1030:SER:HB2	38:s:162:ARG:HE	1.73	0.54
35:p:357:CYS:HB2	35:p:360:LYS:HE2	1.89	0.54
4:3:217:VAL:HG23	4:3:226:TYR:CE2	2.42	0.54
10:9:242:ARG:HB3	34:o:1008:LYS:NZ	2.23	0.54
11:A:408:LEU:HB3	15:F:302:HIS:HB2	1.88	0.54
15:F:320:ARG:HG2	15:F:415:ILE:HD12	1.89	0.54
23:Q:43:LYS:NZ	23:Q:60:HIS:HE1	2.06	0.54
23:Q:344:ARG:HB2	23:Q:349:TRP:CE3	2.43	0.54
24:R:267:GLU:OE1	24:R:269:ARG:NH2	2.41	0.54
28:V:81:ILE:HG23	28:V:102:ILE:HG21	1.89	0.54
34:o:1101:GLN:HE22	34:o:1391:SER:HB2	1.73	0.54
35:p:841:ARG:NH2	35:p:1078:ARG:NE	2.56	0.54
40:u:51:ILE:HG22	40:u:72:TYR:HB3	1.90	0.54
40:u:67:LEU:HD12	40:u:67:LEU:O	2.07	0.54
7:6:392:PHE:HE2	7:6:406:ALA:HB2	1.72	0.54
8:7:538:PHE:CE2	8:7:618:VAL:HG13	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:353:LEU:CD2	11:A:495:LEU:CD2	2.59	0.54
11:A:408:LEU:HD13	15:F:302:HIS:HB2	1.90	0.54
11:A:410:TRP:CD2	15:F:305:ILE:CB	2.89	0.54
11:A:567:LEU:CD2	12:B:745:GLN:HE21	2.21	0.54
12:B:544:LEU:HD23	12:B:590:ILE:HD11	1.89	0.54
14:E:463:PHE:O	15:F:133:ALA:CA	2.51	0.54
15:F:403:ILE:O	15:F:406:VAL:HG22	2.08	0.54
21:O:18:SER:CB	23:Q:45:LEU:HB2	2.37	0.54
25:S:25:LYS:O	26:T:97:THR:HA	2.07	0.54
27:U:185:GLU:C	27:U:185:GLU:CD	2.76	0.54
13:d:911:GLN:NE2	20:l:69:GLU:OE2	2.40	0.54
14:e:646:SER:OG	14:e:647:ALA:N	2.40	0.54
15:f:352:GLN:O	15:f:356:THR:OG1	2.24	0.54
34:o:381:PRO:HB3	34:o:480:SER:HA	1.90	0.54
34:o:728:THR:OG1	34:o:731:ASN:OD1	2.25	0.54
2:1:303:ILE:HA	2:1:306:ARG:HD2	1.89	0.54
2:1:422:LEU:HD11	4:3:31:GLN:OE1	2.05	0.54
5:4:394:TRP:CE3	5:4:394:TRP:N	2.76	0.54
7:6:472:ARG:HG3	7:6:472:ARG:O	2.06	0.54
7:6:597:LYS:HB3	7:6:645:ARG:HH22	1.73	0.54
7:6:597:LYS:HB2	7:6:618:PRO:CG	2.33	0.54
10:9:102:ARG:HA	10:9:105:MET:HE2	1.90	0.54
15:F:83:LEU:CD1	15:F:98:SER:HA	2.38	0.54
26:T:223:GLN:O	26:T:223:GLN:CD	2.51	0.54
1:0:269:LEU:H	1:0:269:LEU:CD2	2.20	0.54
1:0:299:ASP:OD1	10:9:2:TYR:N	2.40	0.54
2:1:383:TYR:CD1	4:3:175:MET:CB	2.90	0.54
5:4:412:PHE:HD2	5:4:418:PHE:HD1	1.54	0.54
5:4:415:GLN:CA	5:4:439:ARG:HH21	2.21	0.54
8:7:11:TYR:O	8:7:12:PHE:C	2.51	0.54
11:A:410:TRP:CE3	15:F:305:ILE:HG21	2.16	0.54
17:H:108:PRO:CD	19:J:116:LEU:HD21	2.38	0.54
18:I:16:ALA:HA	18:I:40:LEU:HD11	1.89	0.54
24:R:132:ARG:CG	35:p:914:GLU:HG2	2.38	0.54
29:X:-15:DT:H3	30:Y:15:DA:H2	1.53	0.54
34:o:93:PRO:HG2	34:o:219:GLU:HG3	1.90	0.54
35:p:666:ASP:OD1	35:p:667:THR:N	2.36	0.54
3:2:386:ILE:CG1	4:3:176:ASN:ND2	2.57	0.53
7:6:392:PHE:HB3	7:6:426:VAL:HG22	1.89	0.53
7:6:558:ILE:HD11	7:6:624:ILE:HD11	1.89	0.53
12:B:152:LEU:HD23	12:B:155:PRO:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:71:ASP:O	20:L:73:ASN:N	2.37	0.53
21:O:56:VAL:O	21:O:56:VAL:CG2	2.55	0.53
14:e:368:ASN:ND2	14:e:701:GLY:HA3	2.23	0.53
34:o:356:GLY:C	35:p:1085:ARG:HH12	2.15	0.53
35:p:629:GLU:OE1	35:p:630:LYS:N	2.40	0.53
2:1:382:TYR:CE1	4:3:272:LEU:O	2.61	0.53
2:1:427:ALA:HB1	5:4:61:PHE:HB3	1.91	0.53
5:4:410:ASN:HA	5:4:412:PHE:CE1	2.43	0.53
8:7:463:PRO:HG2	8:7:654:PHE:CD1	2.43	0.53
8:7:611:VAL:HG11	8:7:614:TYR:HB2	1.90	0.53
14:E:653:LEU:HB2	14:E:663:ARG:HB2	1.90	0.53
15:F:241:GLU:OE1	17:H:135:THR:OG1	2.26	0.53
18:I:31:TYR:CD2	18:I:35:VAL:HB	2.41	0.53
22:P:266:PHE:CD1	22:P:266:PHE:C	2.86	0.53
28:V:160:GLN:OE1	28:V:163:LEU:HD23	2.08	0.53
34:o:1212:LEU:HB2	34:o:1285:LEU:HD21	1.90	0.53
35:p:830:GLU:OE2	35:p:870:THR:OG1	2.24	0.53
37:r:125:GLU:HA	37:r:128:GLN:HB3	1.90	0.53
2:1:382:TYR:CE1	4:3:273:SER:CB	2.91	0.53
2:1:384:HIS:CD2	4:3:259:ARG:HH12	2.20	0.53
7:6:488:LEU:HD23	7:6:489:TYR:HB2	1.90	0.53
7:6:557:LYS:NZ	7:6:597:LYS:CD	2.61	0.53
11:A:411:GLU:OE2	15:F:358:THR:CB	2.55	0.53
12:B:808:PRO:HA	12:B:864:ASN:HB3	1.90	0.53
14:E:563:GLU:HG2	14:E:587:PRO:HG3	1.90	0.53
15:F:359:PHE:HB3	15:F:380:LEU:HG	1.91	0.53
15:f:219:GLU:OE1	15:f:219:GLU:N	2.26	0.53
34:o:77:ASN:ND2	34:o:80:GLU:OE2	2.41	0.53
34:o:1229:GLU:OE1	34:o:1229:GLU:N	2.38	0.53
37:r:132:ASP:OD1	37:r:135:GLN:NE2	2.41	0.53
5:4:294:VAL:HG12	5:4:296:GLY:H	1.73	0.53
8:7:7:GLY:HA3	8:7:62:ALA:HB2	1.88	0.53
8:7:52:LEU:CD2	8:7:457:THR:OG1	2.56	0.53
9:8:240:MET:HG2	9:8:246:TYR:HE1	1.74	0.53
14:E:461:ILE:O	15:F:135:TRP:HA	2.08	0.53
23:Q:341:LYS:O	23:Q:352:HIS:HB2	2.08	0.53
27:U:107:LEU:C	27:U:107:LEU:HD12	2.33	0.53
34:o:631:GLU:HG3	34:o:992:LYS:HE3	1.91	0.53
34:o:784:VAL:HG13	35:p:978:ILE:HD13	1.89	0.53
34:o:1374:VAL:HG11	34:o:1411:LEU:HD21	1.90	0.53
45:z:36:CYS:SG	45:z:37:ARG:N	2.82	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:200:TYR:CE1	2:1:313:MET:HG3	2.43	0.53
7:6:310:LEU:HD12	7:6:311:LYS:H	1.73	0.53
8:7:48:LYS:CD	8:7:457:THR:HG21	2.39	0.53
8:7:343:ARG:HG2	8:7:357:PHE:HE1	1.74	0.53
11:A:403:LEU:HD21	15:F:296:TYR:OH	2.09	0.53
11:A:408:LEU:CD1	15:F:302:HIS:HB2	2.38	0.53
12:B:628:ILE:O	12:B:644:GLN:NE2	2.42	0.53
13:D:918:SER:HB3	20:L:74:GLU:CD	2.34	0.53
13:D:1063:LEU:HD13	20:L:80:VAL:HG13	1.91	0.53
21:O:19:LEU:O	21:O:28:ILE:HD11	2.08	0.53
29:X:-41:DC:OP2	29:X:-41:DC:H2'	2.08	0.53
14:e:251:LEU:O	14:e:256:HIS:HB2	2.07	0.53
34:o:1118:THR:HG22	34:o:1123:ARG:HB2	1.90	0.53
34:o:1177:TYR:CE1	34:o:1209:PRO:HB2	2.44	0.53
1:0:28:HIS:CE1	1:0:49:CYS:SG	3.00	0.53
2:1:386:PRO:O	4:3:254:ALA:N	2.41	0.53
7:6:404:SER:O	7:6:405:VAL:C	2.52	0.53
10:9:32:CYS:SG	34:o:1484:MET:HB2	2.49	0.53
13:D:910:LEU:HD11	20:L:88:ALA:HB2	1.90	0.53
14:E:747:LEU:HD22	14:E:747:LEU:N	2.20	0.53
22:P:236:LYS:HG2	22:P:239:ARG:HH22	1.73	0.53
24:R:217:ARG:CZ	35:p:102:ASP:O	2.56	0.53
24:R:218:PHE:HD1	24:R:277:ILE:HG22	1.74	0.53
26:T:94:THR:HG22	26:T:109:ILE:HG23	1.90	0.53
29:X:26:DG:O6	30:Y:-27:DC:N4	2.42	0.53
30:Y:41:DG:H8	30:Y:41:DG:OP2	1.91	0.53
34:o:502:ASN:HB3	35:p:1084:LEU:CD1	2.39	0.53
34:o:911:PRO:O	34:o:963:ARG:NH2	2.42	0.53
34:o:1130:ILE:HD11	34:o:1405:MET:HE2	1.89	0.53
34:o:1174:ALA:HA	42:w:54:TYR:O	2.08	0.53
40:u:119:PHE:HB2	40:u:128:TYR:HE1	1.74	0.53
2:1:470:GLU:OE1	2:1:473:ARG:NH1	2.41	0.53
3:2:205:VAL:C	3:2:207:VAL:H	2.17	0.53
5:4:312:ASN:HD21	7:6:110:PRO:CB	2.21	0.53
7:6:423:ALA:HA	7:6:426:VAL:HG23	1.90	0.53
7:6:505:VAL:HG22	7:6:644:LEU:HB3	1.91	0.53
12:B:183:GLN:HA	12:B:183:GLN:HE21	1.74	0.53
15:F:75:LEU:CD1	15:F:84:TYR:CZ	2.91	0.53
21:O:10:THR:CG2	23:Q:50:LEU:CD2	2.86	0.53
24:R:225:PRO:HG2	24:R:228:VAL:HG23	1.89	0.53
27:U:105:TYR:CD1	27:U:105:TYR:C	2.86	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:U:145:PHE:HE2	40:u:98:PHE:CZ	2.22	0.53
28:V:148:LYS:HB3	28:V:173:GLU:CD	2.34	0.53
34:o:76:GLY:HA2	34:o:80:GLU:HG2	1.91	0.53
34:o:1375:ARG:NE	34:o:1403:ASP:OD1	2.40	0.53
39:t:87:THR:HG22	39:t:87:THR:O	2.09	0.53
39:t:92:ILE:O	39:t:94:MET:N	2.42	0.53
2:1:430:THR:HG21	4:3:225:GLN:N	2.24	0.53
7:6:447:PRO:HB2	29:X:15:DG:OP2	2.08	0.53
8:7:690:ARG:O	8:7:698:GLN:NE2	2.41	0.53
9:8:125:LEU:HD21	9:8:138:LEU:HD11	1.91	0.53
12:B:160:HIS:ND1	12:B:162:VAL:HG23	2.24	0.53
12:B:937:THR:HG23	12:B:939:ASN:H	1.74	0.53
13:D:1069:ASN:O	15:F:95:ARG:HD3	2.08	0.53
14:E:694:LEU:HD13	14:E:703:MET:HE3	1.81	0.53
14:E:774:MET:HG3	15:F:149:PRO:HG3	1.91	0.53
15:F:218:VAL:CG1	17:H:162:THR:HB	2.29	0.53
15:F:329:LEU:HD23	15:F:329:LEU:C	2.34	0.53
20:L:60:LYS:HE3	20:L:60:LYS:H	1.74	0.53
21:O:57:ASN:O	21:O:57:ASN:ND2	2.41	0.53
26:T:27:LEU:HD11	26:T:58:LEU:HD21	1.91	0.53
34:o:775:LYS:CD	35:p:974:SER:HB2	2.38	0.53
37:r:73:ARG:NH1	40:u:144:ARG:NH2	2.55	0.53
41:v:8:ASP:OD1	41:v:9:ILE:N	2.39	0.53
7:6:338:ILE:N	7:6:465:GLY:O	2.41	0.53
7:6:411:SER:CA	7:6:450:MET:SD	2.91	0.53
8:7:48:LYS:HD2	8:7:457:THR:HG22	1.90	0.53
11:A:349:TRP:CD2	15:f:266:GLY:HA2	2.44	0.53
12:B:345:CYS:HA	12:B:348:GLN:HE21	1.73	0.53
13:D:1078:LEU:HD11	20:L:86:GLN:HB3	1.91	0.53
14:E:304:LYS:NZ	14:E:335:GLU:O	2.42	0.53
14:E:702:LEU:HD13	14:E:759:ILE:HG23	1.91	0.53
21:O:11:LEU:CD1	23:Q:46:TRP:HZ2	2.21	0.53
21:O:63:ASN:O	23:Q:376:TRP:NE1	2.42	0.53
24:R:151:LEU:HD11	24:R:201:ALA:HB2	1.90	0.53
27:U:127:PHE:HD2	27:U:161:VAL:CG2	2.22	0.53
15:f:283:MET:HG3	15:f:329:LEU:HD11	1.90	0.53
35:p:242:ARG:HB2	35:p:254:GLN:HE21	1.73	0.53
2:1:200:TYR:CZ	2:1:247:ALA:HB2	2.43	0.53
2:1:420:GLN:HA	2:1:423:SER:HB3	1.90	0.53
7:6:326:LYS:HB2	7:6:488:LEU:HD21	1.90	0.53
8:7:48:LYS:CD	8:7:457:THR:CG2	2.87	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8:104:ASP:OD1	9:8:107:LEU:HD22	2.09	0.53
11:A:466:SER:CB	15:F:261:THR:HG21	2.39	0.53
14:E:423:PRO:HG2	14:E:426:ARG:HB2	1.91	0.53
15:F:104:LEU:HB2	19:J:217:PHE:HZ	1.70	0.53
21:O:18:SER:HA	23:Q:45:LEU:HD13	1.90	0.53
23:Q:18:ILE:HG23	23:Q:46:TRP:CZ3	2.44	0.53
13:d:943:GLN:NE2	14:e:509:GLN:O	2.41	0.53
34:o:486:LEU:CD2	35:p:790:GLN:HB2	2.39	0.53
34:o:812:LYS:HG3	42:w:77:THR:O	2.08	0.53
35:p:892:CYS:SG	35:p:893:SER:N	2.82	0.53
2:1:422:LEU:HD22	4:3:36:LYS:CD	2.39	0.52
3:2:195:ARG:HA	3:2:215:THR:O	2.09	0.52
4:3:192:ASP:OD2	4:3:238:ARG:NH2	2.42	0.52
4:3:230:VAL:HG22	4:3:243:LEU:HD22	1.91	0.52
8:7:9:LEU:CG	8:7:61:ARG:CZ	2.84	0.52
8:7:48:LYS:HE3	8:7:457:THR:HG22	1.91	0.52
11:A:349:TRP:HZ2	15:f:282:LEU:HD21	1.74	0.52
11:A:828:GLU:HA	11:A:831:LYS:HB2	1.91	0.52
15:F:14:LEU:HD23	18:I:22:ILE:HD11	1.91	0.52
15:F:76:LYS:HG3	15:F:96:PHE:HB3	1.91	0.52
19:J:128:PRO:HB2	19:J:160:GLN:HE22	1.74	0.52
21:O:64:THR:HG22	22:P:188:ARG:HD3	1.92	0.52
23:Q:26:ARG:NH2	23:Q:39:LEU:HD21	2.24	0.52
24:R:36:GLU:H	24:R:36:GLU:CD	2.16	0.52
24:R:263:GLN:HA	24:R:268:LYS:HG2	1.91	0.52
25:S:46:ARG:HB2	25:S:101:ARG:HB2	1.91	0.52
31:c:33:LEU:HD13	19:j:197:MET:HE1	1.91	0.52
13:d:963:ARG:NH2	13:d:964:GLU:OE2	2.42	0.52
14:e:747:LEU:HG	14:e:747:LEU:O	2.09	0.52
35:p:841:ARG:HH22	35:p:1078:ARG:NE	2.07	0.52
1:0:113:VAL:O	1:0:117:ASN:ND2	2.42	0.52
5:4:400:ARG:NE	5:4:401:LEU:HG	2.24	0.52
7:6:423:ALA:O	7:6:426:VAL:HB	2.09	0.52
8:7:534:GLY:HA2	8:7:594:ALA:O	2.08	0.52
8:7:629:GLN:CG	8:7:633:LEU:CB	2.87	0.52
10:9:25:ASP:CB	39:t:101:LYS:NZ	2.71	0.52
11:A:395:ASP:OD1	11:A:395:ASP:N	2.41	0.52
11:A:479:ARG:CZ	11:A:482:ASP:OD1	2.57	0.52
11:A:486:TRP:CD1	11:A:486:TRP:N	2.68	0.52
15:F:405:SER:HA	15:F:408:ASP:OD2	2.09	0.52
19:J:130:ILE:HG13	19:J:160:GLN:HE21	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:902:GLU:OE2	34:o:982:ASN:HB2	2.08	0.52
37:r:123:GLU:HG2	37:r:126:GLU:HB2	1.90	0.52
38:s:55:ARG:HH22	38:s:107:GLN:HG3	1.75	0.52
5:4:315:LEU:HD21	5:4:368:LEU:CD2	2.23	0.52
11:A:470:ILE:CG2	15:F:214:HIS:HA	2.39	0.52
23:Q:29:PHE:CD2	23:Q:34:VAL:HG11	2.42	0.52
24:R:217:ARG:NH2	35:p:102:ASP:HB2	2.24	0.52
26:T:142:SER:CB	35:p:51:ILE:O	2.58	0.52
26:T:220:ILE:C	26:T:220:ILE:HD12	2.35	0.52
27:U:124:ARG:NH2	27:U:171:LYS:H	2.06	0.52
14:e:423:PRO:HG2	14:e:426:ARG:HB2	1.91	0.52
39:t:81:VAL:HG22	39:t:96:GLU:HG3	1.90	0.52
3:2:100:PRO:HG3	3:2:320:ARG:HD2	1.91	0.52
7:6:376:ALA:HA	7:6:379:LYS:CD	2.39	0.52
7:6:557:LYS:CB	7:6:596:PHE:HZ	1.93	0.52
7:6:640:LEU:CD2	7:6:680:LEU:HD21	2.39	0.52
8:7:41:GLU:OE2	8:7:464:LEU:HD23	2.09	0.52
10:9:235:SER:C	10:9:237:MET:H	2.18	0.52
11:A:495:LEU:CG	15:f:272:VAL:CG1	2.78	0.52
17:H:50:PHE:HB2	19:J:195:LEU:CB	2.34	0.52
19:J:137:TYR:OH	19:J:141:ARG:NH2	2.43	0.52
23:Q:18:ILE:O	23:Q:22:ILE:HG12	2.10	0.52
15:f:318:CYS:SG	15:f:326:HIS:HB3	2.49	0.52
34:o:20:ARG:HH22	35:p:1172:MET:HE3	1.73	0.52
34:o:581:LYS:O	34:o:582:PRO:C	2.52	0.52
34:o:1343:LEU:HB3	34:o:1364:GLU:OE2	2.09	0.52
38:s:11:TRP:NE1	38:s:35:GLN:O	2.33	0.52
2:1:406:SER:CB	4:3:27:LEU:CD1	2.87	0.52
7:6:342:CYS:HA	7:6:346:LYS:HB2	1.92	0.52
15:F:335:ARG:CZ	15:F:336:LEU:HB2	2.39	0.52
15:F:412:LEU:HD12	15:F:417:ARG:CG	2.36	0.52
21:O:80:GLU:HB3	21:O:89:LYS:HD3	1.90	0.52
15:f:447:ALA:O	15:f:453:GLY:HA2	2.09	0.52
34:o:361:PHE:HA	35:p:1062:ARG:O	2.09	0.52
37:r:128:GLN:O	37:r:132:ASP:N	2.34	0.52
38:s:26:TYR:HD1	38:s:64:HIS:HA	1.75	0.52
40:u:119:PHE:HB2	40:u:128:TYR:CE1	2.44	0.52
2:1:266:LEU:HA	2:1:347:PRO:HG2	1.92	0.52
2:1:377:LYS:N	4:3:285:CYS:HA	2.25	0.52
5:4:245:LEU:HD11	5:4:285:ARG:HD3	1.92	0.52
7:6:278:GLU:OE2	7:6:452:ARG:HA	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:494:ILE:HD12	8:7:706:LEU:CD1	2.39	0.52
8:7:611:VAL:HG23	8:7:614:TYR:HB3	1.83	0.52
12:B:159:LEU:N	12:B:159:LEU:CD2	2.73	0.52
13:D:874:LEU:HG	13:D:877:PRO:HG2	1.91	0.52
13:D:939:ASP:HB3	14:E:510:ALA:HB3	1.92	0.52
14:E:562:SER:OG	14:E:564:ASP:OD1	2.27	0.52
15:F:114:LEU:C	17:H:42:SER:CB	2.71	0.52
21:O:18:SER:CB	23:Q:45:LEU:HB3	2.40	0.52
24:R:48:VAL:CG2	35:p:1078:ARG:HG2	2.40	0.52
26:T:40:VAL:HB	26:T:62:LEU:HD22	1.90	0.52
28:V:210:PHE:N	28:V:210:PHE:CD1	2.77	0.52
34:o:12:ALA:HB3	35:p:1135:TYR:OH	2.10	0.52
34:o:282:ASP:OD1	34:o:283:ILE:N	2.43	0.52
34:o:1288:ILE:O	34:o:1292:MET:HG2	2.10	0.52
42:w:96:PHE:HD2	42:w:110:LEU:HD11	1.75	0.52
2:1:382:TYR:HE1	4:3:273:SER:CA	2.22	0.52
7:6:640:LEU:CD2	7:6:680:LEU:CD2	2.87	0.52
8:7:611:VAL:HG21	8:7:614:TYR:CG	2.42	0.52
9:8:139:LYS:HB3	9:8:140:PRO:HD2	1.91	0.52
9:8:195:ASP:N	9:8:195:ASP:OD1	2.39	0.52
11:A:507:GLU:C	11:A:509:LEU:N	2.59	0.52
16:G:181:TRP:CE3	16:G:181:TRP:O	2.63	0.52
22:P:302:LEU:HD12	22:P:302:LEU:N	2.24	0.52
27:U:34:LEU:HD23	27:U:37:LEU:HD12	1.92	0.52
28:V:181:ALA:O	28:V:184:ALA:C	2.50	0.52
14:e:269:GLY:O	18:i:97:ARG:NH2	2.43	0.52
20:l:106:ARG:HD2	20:l:114:LYS:NZ	2.24	0.52
34:o:220:ARG:O	34:o:224:ILE:HG13	2.10	0.52
37:r:105:PRO:HG2	37:r:131:LEU:HD11	1.92	0.52
3:2:169:ILE:HG22	3:2:171:PHE:HB2	1.91	0.52
5:4:403:PHE:HA	6:5:8:VAL:HG13	1.92	0.52
14:E:601:VAL:HG21	14:E:642:VAL:HG11	1.92	0.52
15:F:273:GLN:H	15:F:273:GLN:CD	2.17	0.52
20:L:111:LEU:HA	20:L:114:LYS:CE	2.36	0.52
14:e:474:THR:OG1	14:e:546:VAL:O	2.28	0.52
3:2:172:SER:HA	3:2:201:LEU:HB2	1.92	0.52
7:6:568:LEU:HD13	7:6:606:PHE:C	2.35	0.52
8:7:48:LYS:HZ3	8:7:48:LYS:HB2	1.75	0.52
10:9:236:LEU:HG	10:9:241:ASN:HB2	1.92	0.52
13:D:873:LEU:CD1	13:D:873:LEU:H	2.23	0.52
14:E:481:ASP:OD1	14:E:481:ASP:N	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:117:ILE:O	17:H:39:VAL:HG22	2.10	0.52
15:F:125:VAL:CG2	15:F:125:VAL:O	2.58	0.52
24:R:29:ALA:O	35:p:1066:PRO:HA	2.09	0.52
27:U:146:ASP:HB3	27:U:149:THR:HG22	1.90	0.52
28:V:140:LYS:HG3	28:V:140:LYS:O	2.09	0.52
3:2:314:SER:H	3:2:317:HIS:CD2	2.26	0.52
7:6:336:GLY:O	7:6:463:LYS:O	2.28	0.52
7:6:563:ASP:N	7:6:563:ASP:OD1	2.42	0.52
8:7:461:LEU:HB2	8:7:694:PRO:HB3	1.91	0.52
12:B:90:THR:O	12:B:968:ARG:NH2	2.43	0.52
26:T:51:ARG:HG2	26:T:52:THR:N	2.25	0.52
26:T:93:LEU:HB2	26:T:110:VAL:HB	1.92	0.52
26:T:145:LEU:HB2	35:p:93:LEU:C	2.34	0.52
28:V:193:ASN:N	28:V:193:ASN:HD22	2.08	0.52
29:X:-27:DT:OP2	29:X:-27:DT:C3'	2.58	0.52
29:X:18:DA:C2	30:Y:-17:DA:C2	2.98	0.52
14:e:595:PRO:HD2	14:e:639:SER:HB3	1.91	0.52
15:f:320:ARG:NH1	15:f:320:ARG:CB	2.73	0.52
34:o:304:ALA:O	34:o:307:VAL:HG12	2.10	0.52
34:o:1192:TRP:HA	34:o:1195:VAL:HG22	1.91	0.52
5:4:410:ASN:O	5:4:411:GLN:HB2	2.10	0.51
11:A:406:THR:CG2	15:F:350:ASN:ND2	2.57	0.51
12:B:274:LEU:HG	12:B:278:LYS:HE2	1.92	0.51
13:D:873:LEU:HD12	13:D:873:LEU:H	1.75	0.51
18:I:23:LEU:HD12	18:I:31:TYR:OH	2.09	0.51
22:P:205:ARG:CG	23:Q:376:TRP:CH2	2.93	0.51
23:Q:26:ARG:NH2	23:Q:39:LEU:HD23	2.23	0.51
24:R:48:VAL:CA	35:p:1078:ARG:NH2	2.73	0.51
26:T:177:ARG:NH2	29:X:-22:DC:OP1	2.43	0.51
27:U:71:PHE:CA	27:U:100:VAL:HG23	2.40	0.51
28:V:77:VAL:O	28:V:81:ILE:HG13	2.09	0.51
28:V:85:MET:O	28:V:87:THR:N	2.43	0.51
14:e:607:ARG:NH1	18:i:87:PRO:O	2.43	0.51
34:o:1172:ASN:ND2	42:w:57:LYS:HE3	2.25	0.51
3:2:75:ASP:HB3	8:7:722:ARG:NH2	2.23	0.51
7:6:389:ILE:N	7:6:403:CYS:HG	2.03	0.51
7:6:536:MET:HG2	7:6:571:TYR:HH	1.69	0.51
7:6:557:LYS:HG2	7:6:596:PHE:CE1	2.44	0.51
11:A:510:ILE:HB	11:A:511:LEU:HD13	1.93	0.51
11:A:1163:ARG:HB3	16:G:183:ILE:HG22	1.91	0.51
12:B:781:TYR:O	17:H:176:ARG:NH2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:754:THR:OG1	14:E:755:ALA:N	2.43	0.51
15:F:412:LEU:HD12	15:F:417:ARG:HB2	1.88	0.51
20:L:71:ASP:CB	20:L:74:GLU:CG	2.79	0.51
29:X:9:DT:H2"	29:X:10:DT:C6	2.45	0.51
35:p:888:THR:HG23	35:p:889:LYS:H	1.76	0.51
38:s:94:MET:HE2	38:s:125:TYR:HD2	1.74	0.51
2:1:159:ASN:CB	3:2:179:PRO:HA	2.40	0.51
5:4:397:GLU:O	5:4:400:ARG:NH1	2.43	0.51
10:9:91:TYR:OH	10:9:99:TYR:O	2.26	0.51
11:A:1068:ARG:HD2	11:A:1068:ARG:O	2.10	0.51
14:E:690:ASP:OD1	14:E:690:ASP:N	2.43	0.51
15:F:82:PRO:HG2	15:F:83:LEU:HD12	1.92	0.51
15:F:257:PRO:O	15:F:261:THR:OG1	2.26	0.51
15:F:299:LYS:HD3	15:f:347:THR:HG22	1.91	0.51
21:O:5:LEU:HD23	21:O:6:TYR:CZ	2.45	0.51
22:P:220:VAL:HG21	29:X:-25:DA:H1'	1.91	0.51
29:X:-34:DG:N2	30:Y:35:DC:N3	2.58	0.51
34:o:1313:GLN:HA	34:o:1332:GLN:HE21	1.74	0.51
38:s:64:HIS:HD2	38:s:66:ASP:H	1.58	0.51
7:6:129:VAL:HG23	7:6:334:ARG:HH22	1.75	0.51
7:6:335:SER:HB2	7:6:463:LYS:HB2	1.91	0.51
8:7:9:LEU:HG	8:7:61:ARG:CZ	2.40	0.51
11:A:479:ARG:HH22	15:f:358:THR:HG22	1.75	0.51
24:R:40:VAL:CG2	34:o:426:ARG:HB3	2.39	0.51
24:R:127:ARG:NH1	35:p:435:ILE:O	2.36	0.51
27:U:144:LEU:HD21	27:U:155:THR:HG22	1.92	0.51
14:e:650:THR:HG22	14:e:666:THR:HG22	1.93	0.51
20:l:106:ARG:CD	20:l:114:LYS:NZ	2.74	0.51
34:o:66:GLU:HG2	34:o:69:GLY:H	1.76	0.51
35:p:134:LYS:O	35:p:135:GLU:HG3	2.10	0.51
37:r:103:LEU:HA	40:u:144:ARG:HH22	1.73	0.51
3:2:301:LEU:C	3:2:301:LEU:CD1	2.79	0.51
7:6:557:LYS:HE3	7:6:596:PHE:CD1	2.44	0.51
10:9:241:ASN:H	10:9:241:ASN:ND2	2.09	0.51
15:F:243:LEU:HD21	15:F:284:ARG:HB3	1.92	0.51
17:H:50:PHE:HZ	19:J:170:ALA:CA	2.22	0.51
34:o:1155:LYS:HA	34:o:1309:MET:HE1	1.93	0.51
2:1:377:LYS:HB3	4:3:284:THR:C	2.36	0.51
2:1:434:LEU:HD12	5:4:58:ARG:HH12	0.71	0.51
7:6:562:ALA:HB3	7:6:568:LEU:HB3	1.93	0.51
8:7:7:GLY:CA	8:7:62:ALA:HB2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:B:66:ASN:OD1	12:B:187:ARG:NH1	2.43	0.51
12:B:656:GLU:HG2	12:B:661:ALA:HB3	1.93	0.51
14:E:299:ASP:OD2	14:E:607:ARG:NH2	2.38	0.51
15:F:14:LEU:CD2	18:I:22:ILE:HD12	2.40	0.51
17:H:32:ALA:O	17:H:36:THR:OG1	2.29	0.51
18:I:131:SER:OG	19:J:150:ARG:NH1	2.44	0.51
23:Q:312:GLU:HB2	23:Q:313:PRO:HD3	1.93	0.51
25:S:127:PHE:O	26:T:19:TRP:HB2	2.11	0.51
27:U:77:ARG:HB2	27:U:93:PHE:HB2	1.93	0.51
27:U:102:VAL:O	27:U:106:LYS:N	2.30	0.51
34:o:340:LYS:HG2	34:o:1436:VAL:HG11	1.93	0.51
34:o:364:ARG:HH22	34:o:461:GLN:CD	2.17	0.51
40:u:54:ILE:HG13	40:u:70:VAL:HG23	1.93	0.51
2:1:406:SER:HB3	4:3:27:LEU:HD21	1.93	0.51
2:1:411:MET:C	4:3:120:THR:CG2	2.84	0.51
5:4:409:TYR:C	5:4:412:PHE:CZ	2.82	0.51
7:6:199:LEU:HB2	7:6:273:LYS:N	2.26	0.51
7:6:557:LYS:CG	7:6:596:PHE:CZ	2.92	0.51
8:7:28:LEU:N	8:7:28:LEU:HD12	2.26	0.51
10:9:241:ASN:ND2	10:9:241:ASN:N	2.58	0.51
14:E:432:LEU:HD21	14:E:436:ASP:HB3	1.91	0.51
15:F:83:LEU:N	15:F:83:LEU:CD1	2.73	0.51
19:J:139:LEU:HB3	19:J:144:PHE:HB3	1.93	0.51
22:P:312:LEU:H	22:P:312:LEU:HD12	1.76	0.51
23:Q:15:ARG:NH2	23:Q:58:GLY:CA	2.73	0.51
24:R:214:PHE:HB3	24:R:218:PHE:HE2	1.75	0.51
25:S:27:ASN:HB2	26:T:96:PHE:CZ	2.44	0.51
26:T:188:PHE:CE2	28:V:79:ALA:C	2.89	0.51
34:o:191:ILE:HG12	34:o:200:ALA:HB2	1.93	0.51
34:o:426:ARG:NH1	35:p:1064:ARG:NE	2.59	0.51
34:o:1129:ASN:ND2	34:o:1415:THR:HB	2.25	0.51
34:o:1205:ALA:O	34:o:1206:ARG:NE	2.38	0.51
37:r:42:GLU:O	37:r:46:GLN:N	2.40	0.51
37:r:103:LEU:HD23	40:u:144:ARG:HH11	0.69	0.51
37:r:115:ILE:HD12	37:r:118:LEU:HD12	1.91	0.51
2:1:434:LEU:HD22	4:3:230:VAL:HG23	1.92	0.51
7:6:443:VAL:CB	7:6:472:ARG:CZ	2.85	0.51
11:A:484:ILE:HG21	15:f:310:THR:CA	2.22	0.51
11:A:504:PRO:CD	15:F:207:ARG:O	2.54	0.51
12:B:202:TRP:HB2	12:B:238:LEU:HB3	1.91	0.51
12:B:608:ASN:HD21	12:B:657:ARG:HH11	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:873:LEU:N	13:D:873:LEU:CD1	2.73	0.51
13:D:922:GLN:HG2	13:D:1056:THR:OG1	2.11	0.51
13:D:1000:ARG:O	13:D:1004:ALA:CB	2.58	0.51
15:F:124:ARG:CB	17:H:125:THR:HA	2.40	0.51
15:F:276:LEU:HD22	15:F:323:VAL:CG2	2.41	0.51
21:O:98:CYS:SG	21:O:98:CYS:O	2.68	0.51
41:v:65:TYR:O	41:v:66:GLU:HG2	2.11	0.51
8:7:584:TYR:CD2	8:7:614:TYR:OH	2.64	0.51
8:7:604:VAL:O	8:7:608:ILE:HG13	2.09	0.51
9:8:143:LEU:HD12	9:8:151:LEU:HD21	1.92	0.51
9:8:172:GLN:HE22	9:8:186:GLY:HA2	1.76	0.51
14:E:324:LYS:HG2	14:E:327:ASN:HD22	1.74	0.51
14:E:324:LYS:O	14:E:327:ASN:ND2	2.44	0.51
14:E:507:VAL:HG11	14:E:513:LEU:HD13	1.93	0.51
26:T:17:GLY:HA2	26:T:109:ILE:O	2.10	0.51
28:V:117:GLN:HE21	28:V:121:THR:HG21	1.72	0.51
34:o:364:ARG:HH22	34:o:461:GLN:NE2	2.08	0.51
34:o:1437:ASP:OD1	34:o:1437:ASP:N	2.41	0.51
36:q:9:VAL:HG11	44:y:105:PHE:HD1	1.75	0.51
40:u:86:ASP:OD1	40:u:143:ILE:O	2.28	0.51
2:1:309:HIS:CD2	2:1:313:MET:HG2	2.46	0.51
2:1:406:SER:HB2	4:3:27:LEU:CG	2.39	0.51
3:2:208:CYS:HB2	3:2:219:TYR:CE1	2.31	0.51
5:4:403:PHE:HA	6:5:8:VAL:CG1	2.41	0.51
7:6:613:THR:OG1	7:6:642:ARG:HB3	2.11	0.51
8:7:464:LEU:O	8:7:466:ILE:N	2.44	0.51
11:A:353:LEU:CG	11:A:495:LEU:CG	2.89	0.51
11:A:396:LEU:HD23	15:f:391:LEU:HA	1.93	0.51
11:A:405:VAL:CG2	15:F:301:VAL:HG13	2.30	0.51
27:U:145:PHE:CD1	27:U:145:PHE:C	2.89	0.51
28:V:90:GLN:C	28:V:92:GLY:H	2.19	0.51
34:o:685:HIS:O	35:p:783:ALA:HA	2.11	0.51
35:p:311:ILE:HG13	35:p:316:VAL:HG13	1.93	0.51
7:6:362:LEU:HA	7:6:406:ALA:H	1.75	0.50
7:6:604:THR:HG22	7:6:605:ILE:H	1.76	0.50
8:7:428:ILE:O	8:7:428:ILE:HG22	2.11	0.50
8:7:585:GLN:HG3	8:7:614:TYR:HE1	1.75	0.50
8:7:658:ARG:O	8:7:662:GLN:HB2	2.09	0.50
12:B:529:VAL:HG11	12:B:560:TYR:HB2	1.92	0.50
13:D:899:VAL:HG13	13:D:900:SER:H	1.54	0.50
14:E:461:ILE:O	15:F:135:TRP:HE3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:111:LEU:O	20:L:114:LYS:CE	2.59	0.50
24:R:111:ASP:O	24:R:115:MET:N	2.33	0.50
27:U:127:PHE:CE2	27:U:152:PHE:CD2	2.99	0.50
33:m:28:ARG:HH21	33:m:31:LEU:HD21	1.75	0.50
34:o:400:ASP:N	34:o:400:ASP:OD1	2.41	0.50
34:o:576:GLN:HA	41:v:75:TYR:HB2	1.92	0.50
34:o:1177:TYR:OH	42:w:28:GLU:OE2	2.24	0.50
37:r:36:GLU:HG3	37:r:39:MET:HE2	1.93	0.50
41:v:14:ASP:OD1	41:v:15:ILE:N	2.43	0.50
5:4:380:THR:N	5:4:381:PRO:HD2	2.26	0.50
7:6:341:PRO:O	7:6:346:LYS:HB2	2.10	0.50
7:6:362:LEU:HD21	7:6:408:SER:HB2	1.93	0.50
7:6:578:PRO:HG2	7:6:604:THR:O	2.10	0.50
7:6:633:ARG:HG3	7:6:672:TYR:CD1	2.46	0.50
8:7:87:LEU:HD22	8:7:204:VAL:HG11	1.93	0.50
9:8:274:GLY:HA3	9:8:284:ILE:HD11	1.94	0.50
11:A:469:PRO:HG3	17:H:166:ARG:HH12	1.76	0.50
12:B:818:THR:OG1	12:B:819:LEU:N	2.45	0.50
12:B:983:ARG:HH11	12:B:983:ARG:HG3	1.76	0.50
13:D:1071:ARG:HB2	15:F:91:PHE:CE2	2.45	0.50
14:E:696:TRP:CH2	14:E:703:MET:CE	2.94	0.50
18:I:23:LEU:HD21	18:I:39:MET:HE1	1.92	0.50
22:P:207:PRO:HD2	22:P:207:PRO:O	2.11	0.50
24:R:35:PRO:C	24:R:37:CYS:H	2.19	0.50
24:R:268:LYS:O	24:R:269:ARG:NH1	2.37	0.50
37:r:132:ASP:O	37:r:136:THR:OG1	2.14	0.50
38:s:46:ASP:OD1	38:s:52:ARG:NH2	2.44	0.50
7:6:319:TYR:CD2	7:6:496:LEU:CD2	2.94	0.50
7:6:338:ILE:CA	7:6:465:GLY:O	2.58	0.50
8:7:417:ILE:HG23	8:7:434:HIS:HB2	1.94	0.50
9:8:98:LEU:O	9:8:102:ILE:CG1	2.60	0.50
14:E:509:GLN:HA	14:E:509:GLN:NE2	2.26	0.50
15:F:319:LEU:N	15:F:319:LEU:CD2	2.74	0.50
20:L:78:GLU:O	20:L:82:GLU:HG3	2.11	0.50
26:T:185:ASP:N	26:T:185:ASP:OD1	2.42	0.50
31:c:77:LEU:HD23	31:c:77:LEU:O	2.12	0.50
14:e:500:THR:HG22	14:e:502:LYS:H	1.76	0.50
35:p:563:ASP:OD1	35:p:563:ASP:N	2.45	0.50
2:1:389:ILE:HD11	4:3:259:ARG:CB	2.41	0.50
5:4:307:ILE:O	5:4:372:ALA:HA	2.11	0.50
9:8:136:ARG:HD3	9:8:173:VAL:HG21	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:B:160:HIS:HE2	12:B:311:GLU:HB2	1.76	0.50
13:D:1071:ARG:HG3	15:F:91:PHE:CE1	2.46	0.50
15:F:273:GLN:CD	15:F:273:GLN:N	2.70	0.50
27:U:137:THR:H	27:U:140:GLU:CG	2.23	0.50
28:V:151:LEU:CD2	28:V:154:LEU:HD13	2.41	0.50
29:X:-25:DA:C5'	29:X:-25:DA:H8	2.25	0.50
13:d:916:LYS:NZ	13:d:1070:GLU:OE2	2.42	0.50
1:0:44:GLY:HA2	1:0:53:LEU:HD22	1.94	0.50
1:0:272:LEU:HD12	1:0:273:ASN:CA	2.41	0.50
2:1:406:SER:CB	4:3:27:LEU:HD21	2.42	0.50
2:1:409:GLN:HA	2:1:412:GLU:OE2	2.11	0.50
5:4:63:GLU:OE2	5:4:115:ARG:NH2	2.45	0.50
5:4:160:LEU:HA	5:4:163:MET:HE3	1.94	0.50
7:6:363:VAL:O	7:6:407:ILE:CA	2.57	0.50
8:7:29:LYS:HA	8:7:29:LYS:CE	2.40	0.50
8:7:220:LEU:HD12	8:7:221:VAL:HG23	1.93	0.50
8:7:464:LEU:HD13	8:7:467:TYR:HB2	1.93	0.50
12:B:160:HIS:CE1	12:B:310:ASP:O	2.64	0.50
12:B:983:ARG:HG3	12:B:983:ARG:NH1	2.26	0.50
17:H:54:GLU:OE1	19:J:197:MET:HB2	2.11	0.50
24:R:109:SER:C	24:R:112:ARG:HG3	2.36	0.50
24:R:169:ARG:HD3	24:R:207:ASP:H	1.77	0.50
24:R:196:LYS:NZ	29:X:-30:DA:O3'	2.44	0.50
26:T:235:LEU:N	26:T:235:LEU:HD12	2.26	0.50
34:o:571:ASP:O	44:y:26:LYS:HD3	2.12	0.50
35:p:230:ARG:HB2	35:p:231:PRO:HD3	1.92	0.50
38:s:120:ASP:OD1	38:s:120:ASP:N	2.44	0.50
4:3:224:LEU:HD12	4:3:224:LEU:C	2.36	0.50
5:4:186:LYS:HE2	5:4:188:THR:HG23	1.92	0.50
5:4:412:PHE:CE1	5:4:440:LEU:HA	2.46	0.50
7:6:76:LEU:HB2	7:6:144:SER:HA	1.92	0.50
7:6:347:SER:HA	7:6:374:TRP:CZ3	2.47	0.50
15:F:320:ARG:HG2	15:F:415:ILE:HB	1.94	0.50
22:P:169:VAL:HG22	22:P:222:THR:HG22	1.93	0.50
23:Q:344:ARG:NH1	23:Q:346:LYS:O	2.45	0.50
26:T:223:GLN:HA	26:T:233:TRP:HA	1.93	0.50
27:U:144:LEU:O	27:U:145:PHE:C	2.55	0.50
28:V:208:CYS:O	28:V:208:CYS:SG	2.68	0.50
29:X:-15:DT:O4	30:Y:15:DA:N1	2.43	0.50
18:i:73:LEU:CB	20:l:105:HIS:CE1	2.94	0.50
20:l:76:LEU:CD1	20:l:84:LEU:HD12	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:m:69:THR:HG23	33:m:80:ARG:HE	1.76	0.50
34:o:64:VAL:HG22	34:o:71:CYS:HB2	1.93	0.50
36:q:190:ASN:O	36:q:193:ARG:NH1	2.42	0.50
37:r:73:ARG:HH12	40:u:144:ARG:HH22	1.50	0.50
39:t:83:LEU:HD23	39:t:83:LEU:N	2.25	0.50
5:4:310:GLU:HG2	7:6:112:HIS:CD2	2.41	0.50
5:4:310:GLU:CG	7:6:112:HIS:HD2	2.23	0.50
7:6:619:GLU:HG3	7:6:619:GLU:O	2.12	0.50
13:D:1085:LYS:NZ	20:L:83:MET:SD	2.85	0.50
14:E:462:CYS:SG	15:F:133:ALA:HB1	2.52	0.50
14:E:676:THR:HG22	14:E:685:ALA:HB3	1.92	0.50
24:R:111:ASP:CA	24:R:114:MET:HB2	2.40	0.50
25:S:25:LYS:CE	26:T:98:GLU:OE1	2.60	0.50
27:U:137:THR:N	27:U:140:GLU:HB2	2.27	0.50
27:U:152:PHE:O	27:U:160:GLU:CD	2.54	0.50
32:k:191:VAL:HG13	32:k:200:ILE:CD1	2.42	0.50
35:p:132:VAL:HG22	35:p:140:LEU:HB3	1.93	0.50
39:t:92:ILE:C	39:t:94:MET:H	2.20	0.50
5:4:307:ILE:H	5:4:371:ARG:C	2.16	0.50
5:4:309:VAL:CG2	5:4:368:LEU:CG	2.79	0.50
11:A:639:LEU:HD11	11:A:774:ARG:HG2	1.93	0.50
12:B:598:ARG:HH11	12:B:619:MET:HE3	1.77	0.50
14:E:509:GLN:HE21	14:E:509:GLN:CA	2.22	0.50
14:E:517:ASP:HB3	14:E:523:VAL:HG12	1.92	0.50
15:F:320:ARG:CD	15:F:415:ILE:HB	2.42	0.50
17:H:27:ASP:OD1	17:H:27:ASP:N	2.45	0.50
21:O:84:VAL:O	21:O:84:VAL:HG12	2.12	0.50
27:U:32:LEU:HD13	28:V:161:ARG:HH22	1.73	0.50
20:l:106:ARG:HH12	20:l:114:LYS:CG	1.82	0.50
35:p:845:TYR:CD1	35:p:865:VAL:HG11	2.47	0.50
35:p:1119:CYS:SG	35:p:1120:ASN:N	2.85	0.50
2:1:372:ILE:CG1	3:2:54:ARG:HD2	2.35	0.50
3:2:348:CYS:HB3	4:3:142:CYS:SG	2.52	0.50
4:3:225:GLN:HA	4:3:228:LEU:HB2	1.93	0.50
5:4:100:LEU:HD23	5:4:106:GLN:HA	1.94	0.50
5:4:393:LEU:O	5:4:396:LEU:HB3	2.11	0.50
7:6:281:GLN:HA	7:6:291:LEU:HD11	1.93	0.50
8:7:611:VAL:CG2	8:7:614:TYR:HB2	2.20	0.50
9:8:34:THR:OG1	9:8:35:ASN:N	2.45	0.50
11:A:564:PRO:HB2	12:B:744:PHE:CD2	2.44	0.50
13:D:998:GLN:HB3	26:T:182:HIS:NE2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:E:449:LYS:O	17:H:145:HIS:HB3	2.12	0.50
14:E:515:LEU:C	14:E:515:LEU:HD12	2.37	0.50
15:F:125:VAL:HG12	17:H:32:ALA:HB1	1.92	0.50
17:H:57:SER:HB2	19:J:197:MET:CG	2.42	0.50
21:O:19:LEU:HD23	23:Q:42:LEU:HD13	1.94	0.50
23:Q:310:GLU:HB3	23:Q:313:PRO:HD2	1.94	0.50
24:R:146:TYR:O	24:R:149:LYS:HG2	2.10	0.50
25:S:125:TYR:CD2	26:T:23:VAL:HG21	2.47	0.50
29:X:-29:DT:H2'	29:X:-29:DT:O5'	2.12	0.50
14:e:693:VAL:HB	14:e:707:LEU:HB2	1.94	0.50
34:o:141:LEU:HB2	34:o:236:LEU:O	2.12	0.50
35:p:497:LYS:HG3	35:p:498:PRO:HD3	1.94	0.50
35:p:647:GLU:H	35:p:647:GLU:CD	2.20	0.50
45:z:16:ILE:HD11	45:z:25:GLU:HB3	1.93	0.50
1:0:22:MET:HA	1:0:59:ARG:O	2.12	0.49
2:1:190:SER:H	2:1:193:ILE:CG2	2.25	0.49
2:1:229:TYR:HD1	2:1:239:SER:CB	2.23	0.49
2:1:430:THR:OG1	4:3:222:SER:O	2.29	0.49
3:2:258:THR:O	3:2:288:GLY:N	2.44	0.49
4:3:229:TRP:CD1	4:3:229:TRP:O	2.65	0.49
7:6:613:THR:CB	7:6:642:ARG:CD	2.90	0.49
7:6:618:PRO:C	7:6:645:ARG:NH2	2.70	0.49
8:7:8:LEU:HD11	8:7:62:ALA:H	1.33	0.49
11:A:410:TRP:NE1	15:F:305:ILE:HB	2.26	0.49
12:B:820:ASP:OD1	12:B:820:ASP:N	2.37	0.49
13:D:1011:ALA:HB2	21:O:94:LYS:CE	2.41	0.49
30:Y:-14:DC:H2'	30:Y:-13:DT:C7	2.42	0.49
34:o:681:LEU:HB3	35:p:785:TYR:O	2.11	0.49
2:1:406:SER:HB3	4:3:27:LEU:CG	2.42	0.49
7:6:505:VAL:HG13	7:6:644:LEU:HD22	1.94	0.49
12:B:739:ASN:ND2	12:B:782:ASN:OD1	2.44	0.49
15:F:114:LEU:HD21	17:H:41:VAL:O	2.11	0.49
15:F:276:LEU:HD22	15:F:323:VAL:HG22	1.94	0.49
16:G:94:MET:HE3	16:G:96:VAL:HG22	1.94	0.49
18:I:28:ILE:CG2	18:I:31:TYR:HD1	2.07	0.49
22:P:225:LYS:NZ	30:Y:28:DA:H4'	2.26	0.49
24:R:231:ALA:HA	24:R:301:PRO:HG3	1.93	0.49
25:S:16:VAL:CG2	26:T:43:LEU:HB2	2.42	0.49
26:T:16:THR:HB	26:T:108:GLY:HA2	1.93	0.49
26:T:43:LEU:HD12	26:T:56:PHE:HB2	1.94	0.49
30:Y:22:DG:C2	30:Y:23:DG:C4	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:111:CYS:SG	34:o:114:CYS:HB3	2.53	0.49
34:o:581:LYS:HB3	34:o:582:PRO:HD3	1.94	0.49
37:r:63:LYS:HE3	40:u:103:PRO:HB3	1.94	0.49
2:1:407:ILE:CD1	4:3:19:PRO:O	2.60	0.49
5:4:309:VAL:HG13	5:4:368:LEU:HD13	1.92	0.49
7:6:339:VAL:CG1	7:6:467:THR:O	2.60	0.49
8:7:16:TYR:OH	8:7:730:ARG:CD	2.59	0.49
11:A:396:LEU:O	15:f:391:LEU:HD11	2.11	0.49
11:A:408:LEU:HD13	15:F:302:HIS:CB	2.42	0.49
11:A:927:VAL:O	11:A:933:ASN:ND2	2.45	0.49
15:F:209:LYS:HG2	15:F:210:PRO:N	2.28	0.49
18:I:32:GLU:HB2	18:I:35:VAL:CG2	2.43	0.49
24:R:295:ARG:NH2	24:R:298:ASP:OD2	2.46	0.49
27:U:145:PHE:HE2	40:u:98:PHE:HZ	1.59	0.49
29:X:-25:DA:H8	29:X:-25:DA:H5”	1.76	0.49
34:o:580:LEU:N	34:o:580:LEU:CD1	2.75	0.49
34:o:1129:ASN:HD21	34:o:1415:THR:HB	1.77	0.49
39:t:84:GLU:O	39:t:84:GLU:HG2	2.12	0.49
2:1:386:PRO:CB	4:3:254:ALA:H	2.25	0.49
3:2:190:LYS:HB2	3:2:214:GLU:CG	2.42	0.49
7:6:464:LEU:HD12	7:6:465:GLY:N	2.28	0.49
8:7:41:GLU:O	8:7:481:PHE:HB2	2.13	0.49
8:7:464:LEU:O	8:7:464:LEU:HD13	2.13	0.49
11:A:564:PRO:HD2	12:B:744:PHE:HB3	1.94	0.49
13:D:1059:ASN:O	20:L:80:VAL:CG2	2.61	0.49
17:H:50:PHE:CD1	19:J:195:LEU:HB2	2.48	0.49
21:O:65:TYR:CE2	22:P:189:ASN:CB	2.95	0.49
22:P:297:LYS:HB3	22:P:298:PRO:HD3	1.95	0.49
26:T:18:VAL:O	26:T:110:VAL:HA	2.12	0.49
27:U:105:TYR:CE2	28:V:230:GLU:HG2	2.46	0.49
31:c:1:MET:HG3	15:f:126:PRO:HB3	1.94	0.49
34:o:104:MET:HA	34:o:107:LEU:HG	1.94	0.49
34:o:721:HIS:CE1	42:w:98:GLN:HE21	2.30	0.49
34:o:1030:SER:HB2	38:s:162:ARG:NE	2.26	0.49
37:r:125:GLU:O	37:r:129:GLN:N	2.39	0.49
2:1:166:ILE:HA	2:1:169:ALA:HB2	1.94	0.49
2:1:377:LYS:CB	4:3:283:THR:O	2.59	0.49
7:6:633:ARG:O	7:6:633:ARG:CG	2.59	0.49
9:8:77:LEU:HD21	9:8:80:ALA:HB2	1.95	0.49
21:O:65:TYR:CZ	22:P:189:ASN:CB	2.95	0.49
25:S:17:ARG:HB3	26:T:38:GLY:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:T:18:VAL:HG23	26:T:110:VAL:HG22	1.94	0.49
14:e:234:ALA:HB2	14:e:648:ASP:HB2	1.94	0.49
34:o:132:LYS:HD2	34:o:133:SER:HB3	1.94	0.49
34:o:784:VAL:HG22	35:p:978:ILE:CD1	2.41	0.49
34:o:860:ILE:HD12	34:o:1124:LEU:HD23	1.93	0.49
7:6:604:THR:O	7:6:605:ILE:HB	2.13	0.49
8:7:65:LEU:C	8:7:66:GLU:HG3	2.37	0.49
8:7:468:PRO:HA	8:7:473:PHE:HB3	1.93	0.49
15:F:82:PRO:HG3	15:F:96:PHE:O	2.13	0.49
15:F:114:LEU:HD23	17:H:45:LEU:CB	2.07	0.49
25:S:39:PHE:CZ	26:T:92:THR:HG21	2.46	0.49
28:V:86:LYS:HG2	28:V:86:LYS:O	2.11	0.49
28:V:154:LEU:C	28:V:154:LEU:CD2	2.86	0.49
14:e:651:VAL:HG13	14:e:665:PHE:HB2	1.95	0.49
15:f:24:GLU:HG2	20:l:145:THR:HG21	1.93	0.49
34:o:795:GLY:HA2	34:o:1108:HIS:NE2	2.28	0.49
34:o:1185:VAL:HG11	42:w:51:SER:OG	2.12	0.49
34:o:1458:ILE:HD12	35:p:1091:ARG:HD2	1.95	0.49
35:p:1137:CYS:HB3	35:p:1142:ASN:HB3	1.95	0.49
37:r:16:ASP:HB2	40:u:81:LYS:HE3	1.95	0.49
3:2:198:VAL:HG21	3:2:211:LEU:CD2	2.41	0.49
4:3:178:MET:HA	4:3:181:ILE:HD12	1.93	0.49
7:6:366:ASN:CG	7:6:410:TYR:CE2	2.90	0.49
7:6:557:LYS:CG	7:6:596:PHE:CE1	2.95	0.49
7:6:618:PRO:C	7:6:645:ARG:CZ	2.80	0.49
8:7:280:ARG:NH2	8:7:387:GLU:OE1	2.29	0.49
8:7:584:TYR:CD2	8:7:614:TYR:CE1	3.00	0.49
9:8:223:THR:HG22	9:8:249:PHE:HE2	1.78	0.49
11:A:410:TRP:CE2	15:F:305:ILE:HB	2.46	0.49
11:A:511:LEU:HD23	15:f:214:HIS:CG	2.46	0.49
14:E:481:ASP:HB3	14:E:787:ARG:HH22	1.77	0.49
14:E:518:LYS:HE2	14:E:518:LYS:HA	1.95	0.49
14:E:693:VAL:HB	14:E:707:LEU:HB2	1.95	0.49
24:R:209:ILE:HD11	24:R:250:PRO:HD2	1.94	0.49
25:S:125:TYR:CZ	26:T:31:TRP:HE3	2.28	0.49
31:c:21:LEU:HD12	31:c:21:LEU:O	2.11	0.49
13:d:910:LEU:HD11	20:l:88:ALA:HB2	1.94	0.49
13:d:1080:TYR:OH	14:e:606:ASP:OD2	2.26	0.49
35:p:607:ILE:HG21	42:w:72:VAL:HA	1.94	0.49
35:p:1080:ARG:HD2	35:p:1080:ARG:O	2.11	0.49
38:s:64:HIS:CD2	38:s:66:ASP:H	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:w:68:ILE:HG13	42:w:122:ARG:HD2	1.95	0.49
5:4:397:GLU:HG2	6:5:57:VAL:HG11	1.95	0.49
8:7:236:ALA:HB1	8:7:456:ILE:HG21	1.91	0.49
13:D:918:SER:HB3	20:L:74:GLU:OE2	2.13	0.49
14:E:463:PHE:N	15:F:134:HIS:O	2.45	0.49
26:T:179:ASP:HB3	26:T:182:HIS:HB3	1.95	0.49
14:e:439:ASP:OD1	14:e:555:ARG:NH2	2.44	0.49
15:f:312:ILE:O	15:f:375:GLY:HA3	2.13	0.49
36:q:189:ASP:O	36:q:191:ALA:N	2.41	0.49
40:u:44:PHE:HD2	40:u:46:ILE:CG1	2.19	0.49
1:0:120:LYS:HE3	1:0:124:ILE:HD11	1.94	0.49
3:2:322:TYR:HE1	4:3:272:LEU:HG	1.78	0.49
8:7:611:VAL:HG12	8:7:613:HIS:N	2.24	0.49
13:D:958:LYS:CE	13:D:961:GLN:OE1	2.61	0.49
13:D:1006:LEU:HD13	21:O:68:CYS:CB	2.36	0.49
14:E:651:VAL:HB	14:E:665:PHE:HB2	1.95	0.49
15:F:366:GLU:O	15:F:367:LYS:HB3	2.13	0.49
21:O:22:LEU:CB	21:O:28:ILE:CG2	2.83	0.49
30:Y:26:DT:H71	30:Y:27:DA:H62	1.78	0.49
14:e:586:TYR:HB3	14:e:605:HIS:HB3	1.94	0.49
14:e:720:SER:OG	14:e:721:ARG:N	2.46	0.49
34:o:1391:SER:OG	34:o:1392:TYR:N	2.46	0.49
37:r:63:LYS:HE3	40:u:103:PRO:HA	1.95	0.49
38:s:56:THR:O	38:s:57:ASP:HB3	2.13	0.49
40:u:44:PHE:HD2	40:u:46:ILE:HG13	1.63	0.49
42:w:27:LYS:HD2	42:w:38:ALA:HB2	1.95	0.49
43:x:10:CYS:SG	43:x:42:ARG:NE	2.86	0.49
3:2:156:LEU:CD2	3:2:165:ARG:CG	2.82	0.49
3:2:156:LEU:CD2	3:2:165:ARG:HB3	2.29	0.49
8:7:601:ARG:HH21	8:7:624:PRO:C	2.21	0.49
9:8:237:TRP:HB3	9:8:240:MET:HB2	1.94	0.49
13:D:1075:HIS:O	18:I:84:THR:CB	2.61	0.49
15:F:106:PHE:HA	19:J:217:PHE:HB3	1.95	0.49
21:O:59:ARG:O	21:O:59:ARG:HG2	2.11	0.49
22:P:176:CYS:SG	22:P:247:PRO:O	2.60	0.49
25:S:124:TYR:CE1	26:T:22:LYS:HE2	2.47	0.49
28:V:177:ASN:O	28:V:179:GLN:N	2.46	0.49
28:V:195:PRO:HD2	28:V:199:LYS:O	2.12	0.49
30:Y:-28:DC:H1'	30:Y:-27:DC:C2	2.48	0.49
14:e:724:GLU:OE1	14:e:789:ASN:ND2	2.46	0.49
15:f:39:LEU:HD22	18:i:47:VAL:HG13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:18:ILE:HD11	35:p:1149:VAL:HG21	1.94	0.49
34:o:426:ARG:NH1	35:p:1064:ARG:HE	2.10	0.49
35:p:841:ARG:NH1	35:p:1078:ARG:NH2	2.60	0.49
37:r:26:PHE:CE2	40:u:80:PHE:HZ	2.30	0.49
7:6:337:VAL:HG23	7:6:484:ILE:O	2.13	0.48
7:6:640:LEU:HD22	7:6:680:LEU:HD21	1.94	0.48
7:6:646:ALA:HB1	7:6:651:VAL:HB	1.94	0.48
8:7:610:PHE:CB	8:7:667:ALA:HA	2.43	0.48
16:G:181:TRP:CD2	16:G:181:TRP:C	2.88	0.48
17:H:53:ALA:CA	19:J:195:LEU:O	2.53	0.48
19:J:126:TYR:HE2	19:J:157:LEU:HD11	1.78	0.48
21:O:7:ARG:NH1	21:O:37:LEU:HD13	2.27	0.48
23:Q:43:LYS:HE2	23:Q:47:GLU:OE2	2.13	0.48
26:T:184:LEU:C	26:T:184:LEU:HD23	2.37	0.48
28:V:151:LEU:HD11	28:V:154:LEU:HD12	1.88	0.48
29:X:-15:DT:C4	30:Y:15:DA:N1	2.81	0.48
14:e:633:THR:O	14:e:634:ARG:NH2	2.45	0.48
34:o:26:LEU:CD2	35:p:1166:SER:HA	2.43	0.48
34:o:795:GLY:HA3	34:o:1107:PHE:HD2	1.78	0.48
35:p:513:GLU:CD	35:p:525:ASN:HD22	2.20	0.48
36:q:183:ALA:HB3	36:q:232:ASN:HB3	1.94	0.48
37:r:103:LEU:CG	40:u:144:ARG:HH12	2.26	0.48
38:s:188:GLY:N	38:s:210:GLN:OE1	2.45	0.48
2:1:372:ILE:CB	3:2:54:ARG:CD	2.80	0.48
3:2:161:GLY:HA3	3:2:246:GLU:OE1	2.13	0.48
5:4:266:ARG:HE	5:4:273:GLN:HB2	1.77	0.48
8:7:461:LEU:HD22	8:7:696:TRP:CD1	2.35	0.48
11:A:410:TRP:HE3	15:F:309:MET:HG3	1.77	0.48
11:A:489:GLN:O	11:A:489:GLN:NE2	2.46	0.48
13:D:924:LYS:HB2	17:H:83:THR:HG22	1.94	0.48
15:F:332:PHE:HA	15:F:335:ARG:HG3	1.95	0.48
22:P:329:TYR:HB3	22:P:330:PRO:HD3	1.95	0.48
23:Q:56:VAL:CG1	23:Q:57:ASP:N	2.76	0.48
26:T:198:ASN:OD1	26:T:199:LEU:N	2.46	0.48
27:U:32:LEU:CG	28:V:161:ARG:NH2	2.76	0.48
28:V:73:TYR:CD2	28:V:74:LYS:HG2	2.47	0.48
15:f:305:ILE:HG23	15:f:340:ILE:HG21	1.95	0.48
34:o:1296:MET:CG	34:o:1298:LEU:HG	2.44	0.48
35:p:359:THR:HG21	35:p:554:GLU:HG3	1.94	0.48
2:1:434:LEU:CD1	4:3:229:TRP:HB3	2.44	0.48
3:2:75:ASP:OD2	3:2:80:ARG:NH2	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:255:CYS:SG	4:3:258:HIS:N	2.70	0.48
22:P:259:VAL:HG21	30:Y:28:DA:C2	2.47	0.48
27:U:127:PHE:CZ	27:U:152:PHE:CE2	3.01	0.48
39:t:88:ASP:HB3	39:t:91:LEU:HB2	1.95	0.48
40:u:97:LEU:HD13	40:u:128:TYR:CD2	2.48	0.48
41:v:32:SER:HB3	41:v:37:MET:H	1.78	0.48
2:1:422:LEU:HD22	4:3:36:LYS:HD3	1.94	0.48
5:4:129:TRP:CG	5:4:130:SER:H	2.30	0.48
7:6:435:TRP:CB	7:6:461:HIS:CE1	2.94	0.48
7:6:436:GLY:O	7:6:460:ALA:HB1	2.13	0.48
8:7:180:LEU:HD21	8:7:195:ALA:HB2	1.95	0.48
11:A:405:VAL:HG22	15:F:351:ILE:CG1	2.42	0.48
11:A:495:LEU:CB	15:f:272:VAL:HG11	2.42	0.48
15:F:125:VAL:C	17:H:125:THR:H	2.20	0.48
22:P:320:GLU:O	22:P:321:ILE:C	2.55	0.48
23:Q:47:GLU:OE2	23:Q:60:HIS:CD2	2.65	0.48
24:R:114:MET:CE	24:R:146:TYR:HB2	2.43	0.48
25:S:24:LYS:CB	26:T:98:GLU:C	2.86	0.48
25:S:45:ALA:HB2	26:T:9:LEU:HD11	1.95	0.48
31:c:119:GLU:HG3	14:e:790:LEU:HD11	1.95	0.48
15:f:311:CYS:HB3	15:f:329:LEU:CG	2.38	0.48
34:o:278:HIS:HD2	34:o:330:GLN:HE21	1.61	0.48
34:o:1318:LYS:HD3	34:o:1330:ALA:HB1	1.94	0.48
5:4:181:GLN:NE2	5:4:222:THR:OG1	2.45	0.48
7:6:319:TYR:HE1	7:6:320:GLN:CG	2.22	0.48
7:6:390:CYS:HB2	7:6:403:CYS:CB	2.43	0.48
8:7:84:ILE:HD11	8:7:206:VAL:HG23	1.94	0.48
12:B:559:LYS:HZ3	12:B:559:LYS:HB2	1.79	0.48
24:R:244:LEU:HD11	24:R:295:ARG:HD3	1.95	0.48
26:T:164:GLU:CD	35:p:427:LYS:HE2	2.38	0.48
28:V:153:ARG:HH11	28:V:153:ARG:CA	2.10	0.48
31:c:26:VAL:HG23	19:j:195:LEU:HB3	1.96	0.48
14:e:747:LEU:H	14:e:747:LEU:CD2	2.22	0.48
34:o:359:VAL:HG22	35:p:1084:LEU:O	2.13	0.48
34:o:802:PHE:CD2	35:p:671:GLU:HG2	2.49	0.48
34:o:896:LEU:HD13	34:o:980:PRO:HG3	1.96	0.48
34:o:1202:PHE:HZ	34:o:1262:MET:HG3	1.78	0.48
35:p:380:ARG:HG2	35:p:608:ARG:HH22	1.78	0.48
2:1:384:HIS:CD2	4:3:259:ARG:NH2	2.76	0.48
5:4:412:PHE:CG	5:4:439:ARG:O	2.55	0.48
7:6:188:LEU:O	7:6:194:ILE:CG2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:461:LEU:HD13	8:7:696:TRP:CD1	2.48	0.48
11:A:953:VAL:O	16:G:149:ARG:NH2	2.47	0.48
12:B:217:ASN:ND2	12:B:320:ALA:O	2.35	0.48
13:D:877:PRO:O	13:D:881:ARG:N	2.46	0.48
22:P:192:TYR:CG	22:P:192:TYR:O	2.65	0.48
24:R:222:LEU:HD22	24:R:269:ARG:HG3	1.95	0.48
34:o:546:ARG:HD3	34:o:772:SER:HB3	1.93	0.48
34:o:1028:PRO:C	34:o:1030:SER:H	2.22	0.48
34:o:1440:MET:HE1	35:p:1165:MET:HB3	1.95	0.48
5:4:390:GLN:HB3	5:4:394:TRP:CZ2	2.49	0.48
5:4:404:THR:O	6:5:8:VAL:HG22	2.14	0.48
7:6:536:MET:HE3	7:6:571:TYR:CE1	2.47	0.48
11:A:468:PHE:O	15:F:258:ARG:NH2	2.46	0.48
11:A:567:LEU:HD22	12:B:745:GLN:CG	2.43	0.48
11:A:569:ASN:HB3	11:A:572:TYR:HD2	1.78	0.48
15:F:317:LEU:N	15:F:317:LEU:CD2	2.77	0.48
20:L:111:LEU:CA	20:L:114:LYS:CE	2.90	0.48
21:O:20:ASP:HA	21:O:23:ILE:HD12	1.94	0.48
22:P:218:LYS:CD	29:X:-24:DA:OP2	2.50	0.48
22:P:288:PHE:CD1	22:P:289:PRO:HD2	2.48	0.48
22:P:299:ARG:C	22:P:300:ILE:HG12	2.39	0.48
27:U:152:PHE:HB2	27:U:161:VAL:CG2	2.44	0.48
15:f:97:ALA:HB2	15:f:106:PHE:HE1	1.77	0.48
15:f:254:GLN:O	15:f:258:ARG:NH2	2.47	0.48
34:o:460:ARG:HB2	34:o:501:MET:HE3	1.96	0.48
38:s:85:LYS:HD2	38:s:88:LYS:HD2	1.96	0.48
7:6:397:LYS:O	7:6:397:LYS:HG2	2.14	0.48
11:A:569:ASN:ND2	12:B:689:GLN:HA	2.27	0.48
12:B:431:LEU:HD23	12:B:431:LEU:C	2.39	0.48
16:G:48:HIS:HD2	16:G:54:GLY:HA2	1.78	0.48
20:L:101:GLN:C	20:L:105:HIS:HD2	2.17	0.48
23:Q:18:ILE:HG12	23:Q:46:TRP:CZ2	2.48	0.48
28:V:152:LEU:HD11	28:V:188:GLN:OE1	2.12	0.48
32:k:173:CYS:SG	32:k:179:MET:O	2.72	0.48
34:o:59:ASP:HB3	34:o:62:GLN:HB2	1.95	0.48
34:o:1184:THR:OG1	34:o:1189:ASP:OD1	2.31	0.48
37:r:129:GLN:O	37:r:133:ASP:N	2.38	0.48
38:s:18:MET:HE2	38:s:32:GLU:HG2	1.95	0.48
39:t:83:LEU:O	39:t:83:LEU:HG	2.14	0.48
43:x:24:LEU:HB3	43:x:29:TYR:HD2	1.79	0.48
1:0:269:LEU:N	1:0:269:LEU:CD2	2.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:60:LEU:C	6:5:60:LEU:HD23	2.39	0.48
7:6:319:TYR:CE2	7:6:496:LEU:CD2	2.97	0.48
7:6:417:THR:O	7:6:418:LYS:C	2.57	0.48
8:7:610:PHE:HZ	8:7:663:CYS:O	1.96	0.48
8:7:611:VAL:CG1	8:7:614:TYR:HB2	2.44	0.48
9:8:25:THR:O	9:8:41:LYS:HA	2.14	0.48
12:B:135:TRP:HA	12:B:138:VAL:HG12	1.95	0.48
15:F:317:LEU:N	15:F:317:LEU:HD23	2.29	0.48
27:U:32:LEU:HB3	28:V:161:ARG:CZ	2.43	0.48
28:V:83:ASN:HA	28:V:86:LYS:HB3	1.95	0.48
14:e:556:ASN:HA	14:e:572:LEU:HB2	1.96	0.48
34:o:1030:SER:CB	38:s:162:ARG:HE	2.27	0.48
34:o:1206:ARG:O	34:o:1263:ASN:ND2	2.46	0.48
37:r:124:ASP:OD1	37:r:125:GLU:N	2.47	0.48
38:s:103:LEU:HG	38:s:128:GLU:HB2	1.95	0.48
5:4:336:TYR:CZ	7:6:85:PHE:CE2	3.00	0.48
7:6:361:CYS:SG	7:6:437:LEU:O	2.72	0.48
8:7:273:ILE:HG21	8:7:386:LEU:HD22	1.96	0.48
8:7:629:GLN:CD	8:7:633:LEU:HB2	2.39	0.48
9:8:128:LEU:HD12	9:8:129:HIS:HD2	1.79	0.48
12:B:27:LYS:HE3	12:B:490:SER:HB3	1.95	0.48
12:B:570:GLU:HA	12:B:625:LEU:HA	1.95	0.48
17:H:60:THR:CG2	19:J:211:VAL:HG23	2.35	0.48
22:P:189:ASN:CG	23:Q:376:TRP:CZ2	2.92	0.48
22:P:288:PHE:CZ	29:X:-30:DA:C2	3.02	0.48
23:Q:359:ASN:HA	23:Q:363:ARG:O	2.14	0.48
25:S:48:GLU:O	25:S:99:LEU:N	2.38	0.48
25:S:122:THR:HB	26:T:23:VAL:O	2.14	0.48
27:U:25:PHE:HA	28:V:215:GLU:OE2	2.14	0.48
28:V:77:VAL:HG13	28:V:81:ILE:HD11	1.96	0.48
28:V:146:ARG:HH21	28:V:173:GLU:CD	2.21	0.48
15:f:102:ARG:HD3	20:l:151:ARG:HG3	1.96	0.48
34:o:221:VAL:HA	34:o:224:ILE:HD12	1.96	0.48
35:p:131:THR:HA	35:p:141:GLN:HA	1.96	0.48
38:s:102:ALA:HB3	38:s:127:LEU:HG	1.95	0.48
3:2:76:LEU:HD23	3:2:80:ARG:HG2	1.96	0.47
5:4:185:MET:HE2	5:4:194:PRO:HB2	1.96	0.47
11:A:480:TRP:HH2	15:f:355:ILE:HG12	1.78	0.47
13:D:890:GLY:O	20:L:104:ARG:NH2	2.47	0.47
13:D:950:LEU:C	13:D:950:LEU:CD1	2.86	0.47
17:H:54:GLU:OE1	19:J:197:MET:CB	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:U:71:PHE:HD2	27:U:100:VAL:HG21	1.79	0.47
27:U:142:ASN:O	27:U:145:PHE:HB3	2.14	0.47
34:o:1312:PRO:HG3	34:o:1317:LYS:HB2	1.96	0.47
38:s:84:ILE:HD11	38:s:113:SER:CB	2.43	0.47
43:x:3:ILE:HD12	43:x:4:PRO:HD2	1.95	0.47
1:0:275:VAL:O	1:0:276:ARG:NE	2.47	0.47
2:1:417:LYS:HG3	2:1:418:LEU:HG	1.96	0.47
7:6:343:GLY:HA2	7:6:615:PHE:CD2	2.49	0.47
7:6:550:PHE:O	7:6:554:ARG:NH1	2.46	0.47
7:6:586:GLN:OE1	7:6:589:ARG:NH2	2.46	0.47
11:A:564:PRO:HG2	12:B:744:PHE:CE1	2.49	0.47
12:B:636:VAL:HG23	12:B:638:ARG:HB3	1.96	0.47
22:P:313:THR:HG23	29:X:-28:DT:C5'	2.43	0.47
23:Q:348:LYS:HA	23:Q:348:LYS:HD3	1.73	0.47
28:V:177:ASN:C	28:V:179:GLN:H	2.22	0.47
29:X:-35:DG:H22	30:Y:35:DC:N4	2.08	0.47
40:u:97:LEU:HD13	40:u:128:TYR:HD2	1.79	0.47
2:1:381:ARG:HG2	4:3:256:PHE:CB	2.31	0.47
3:2:167:VAL:HB	3:2:196:VAL:HG22	1.95	0.47
4:3:257:CYS:SG	4:3:258:HIS:ND1	2.81	0.47
5:4:159:VAL:HG12	5:4:163:MET:HE2	1.96	0.47
5:4:400:ARG:NH1	6:5:54:GLN:OE1	2.48	0.47
8:7:462:SER:O	8:7:463:PRO:C	2.57	0.47
8:7:567:LEU:HA	8:7:595:ILE:HG23	1.97	0.47
12:B:953:LEU:HD12	12:B:979:PHE:HE2	1.79	0.47
15:F:104:LEU:CD1	19:J:217:PHE:CE2	2.91	0.47
28:V:78:LEU:HD13	28:V:123:ALA:HB1	1.94	0.47
28:V:132:VAL:O	28:V:132:VAL:HG12	2.14	0.47
29:X:-39:DG:OP2	29:X:-39:DG:H8	1.97	0.47
29:X:-6:DT:H2"	29:X:-5:DG:C8	2.48	0.47
29:X:-3:DG:C2	30:Y:4:DA:C2	3.02	0.47
15:f:326:HIS:O	15:f:330:ARG:HG2	2.15	0.47
34:o:827:TYR:O	35:p:716:HIS:ND1	2.47	0.47
34:o:946:ALA:O	34:o:950:ASN:ND2	2.47	0.47
36:q:197:TYR:HD2	36:q:217:GLN:HE21	1.62	0.47
41:v:96:VAL:HG22	41:v:116:VAL:HG22	1.96	0.47
5:4:352:GLN:HA	5:4:355:ILE:HB	1.96	0.47
7:6:618:PRO:HB2	7:6:645:ARG:HH22	0.67	0.47
7:6:640:LEU:HD12	7:6:644:LEU:HD13	1.95	0.47
11:A:486:TRP:H	11:A:486:TRP:HD1	1.56	0.47
15:F:388:ILE:HG22	15:F:392:ILE:HG13	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:O:18:SER:CA	23:Q:45:LEU:HD13	2.45	0.47
24:R:126:ASP:C	24:R:129:ASN:H	2.23	0.47
36:q:193:ARG:HD3	36:q:220:TYR:CD1	2.47	0.47
37:r:103:LEU:O	40:u:144:ARG:NH2	2.46	0.47
44:y:114:GLU:OE1	44:y:114:GLU:N	2.40	0.47
1:0:269:LEU:HD12	1:0:290:SER:HA	1.96	0.47
3:2:75:ASP:CG	8:7:722:ARG:NH2	2.72	0.47
5:4:129:TRP:CD1	5:4:130:SER:H	2.32	0.47
8:7:425:THR:H	8:7:426:PRO:HD3	1.73	0.47
8:7:461:LEU:H	8:7:696:TRP:HE1	1.61	0.47
12:B:560:TYR:HD2	12:B:581:ILE:HD11	1.78	0.47
14:E:464:TYR:HA	15:F:132:LYS:O	2.14	0.47
15:F:68:THR:O	15:F:69:SER:HB3	2.13	0.47
20:L:70:VAL:HG12	20:L:74:GLU:OE1	2.14	0.47
26:T:23:VAL:HG21	26:T:31:TRP:CZ3	2.50	0.47
27:U:55:ASP:HB3	27:U:58:GLN:HB2	1.96	0.47
27:U:110:MET:HG3	27:U:188:TYR:CD2	2.49	0.47
34:o:286:ILE:HG13	34:o:289:GLN:HE21	1.79	0.47
34:o:291:ARG:O	34:o:295:GLN:HB2	2.15	0.47
35:p:341:GLU:O	35:p:345:LYS:N	2.41	0.47
35:p:371:ARG:NH1	35:p:609:GLU:OE1	2.47	0.47
41:v:64:LEU:HB3	41:v:84:ARG:HB2	1.96	0.47
3:2:159:MET:HA	3:2:159:MET:CE	2.43	0.47
5:4:394:TRP:C	5:4:396:LEU:N	2.72	0.47
7:6:360:ARG:HB2	7:6:435:TRP:HZ3	1.77	0.47
7:6:463:LYS:HE2	7:6:484:ILE:C	2.40	0.47
7:6:579:TYR:HA	7:6:606:PHE:N	2.26	0.47
8:7:47:GLY:O	8:7:48:LYS:C	2.56	0.47
8:7:464:LEU:O	8:7:465:ASP:C	2.58	0.47
8:7:584:TYR:CD2	8:7:614:TYR:CZ	3.02	0.47
13:D:948:GLU:OE2	13:D:952:GLN:NE2	2.48	0.47
15:F:83:LEU:HD12	15:F:98:SER:HA	1.95	0.47
15:F:335:ARG:HD2	15:F:335:ARG:C	2.38	0.47
15:F:415:ILE:O	15:F:415:ILE:HG12	2.14	0.47
17:H:54:GLU:CD	19:J:197:MET:HG2	2.39	0.47
27:U:182:GLU:O	27:U:186:PRO:CD	2.62	0.47
34:o:766:PHE:HB3	34:o:781:ILE:HD12	1.95	0.47
35:p:37:LYS:O	35:p:41:ARG:HB2	2.14	0.47
38:s:61:LEU:HD12	38:s:73:PHE:HD2	1.79	0.47
1:0:125:TYR:O	1:0:129:ASN:CB	2.60	0.47
2:1:372:ILE:HD12	3:2:54:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:411:MET:O	4:3:120:THR:CG2	2.63	0.47
4:3:219:GLN:HG2	4:3:221:PRO:HD2	1.95	0.47
5:4:56:VAL:HG13	5:4:110:LEU:HD21	1.96	0.47
5:4:412:PHE:CE1	5:4:440:LEU:HD23	2.47	0.47
7:6:121:TYR:HE2	7:6:486:PRO:HA	1.80	0.47
7:6:505:VAL:CG1	7:6:644:LEU:HD22	2.45	0.47
8:7:60:GLN:C	8:7:64:PRO:HB3	2.31	0.47
8:7:467:TYR:CZ	8:7:654:PHE:CZ	3.01	0.47
9:8:68:GLU:OE2	10:9:7:GLN:NE2	2.48	0.47
12:B:184:ASN:N	12:B:184:ASN:ND2	2.63	0.47
15:F:63:ARG:NH2	15:F:70:ASP:OD1	2.41	0.47
15:F:312:ILE:HG22	15:F:313:VAL:HG13	1.94	0.47
15:F:412:LEU:O	15:F:412:LEU:HG	2.15	0.47
22:P:205:ARG:HD3	23:Q:376:TRP:OXT	2.15	0.47
22:P:316:LYS:O	22:P:316:LYS:HD3	2.15	0.47
23:Q:17:VAL:O	23:Q:21:VAL:HG23	2.14	0.47
23:Q:345:SER:O	23:Q:346:LYS:C	2.54	0.47
24:R:33:ILE:HB	34:o:431:PHE:CE2	2.49	0.47
24:R:178:LYS:HE2	26:T:156:VAL:HG22	1.96	0.47
26:T:174:LYS:HB2	29:X:-21:DA:OP1	2.14	0.47
27:U:70:LYS:O	27:U:99:LEU:C	2.58	0.47
30:Y:22:DG:C5	30:Y:23:DG:C5	3.03	0.47
34:o:327:ARG:CZ	34:o:335:PRO:HB2	2.45	0.47
34:o:859:TYR:CZ	34:o:863:ARG:HD2	2.50	0.47
34:o:1086:MET:HG3	35:p:1095:ILE:HG23	1.95	0.47
34:o:1192:TRP:CZ2	34:o:1258:ARG:HD3	2.49	0.47
35:p:276:LEU:HG	35:p:343:LEU:HD21	1.97	0.47
35:p:841:ARG:CZ	35:p:1078:ARG:CZ	2.92	0.47
38:s:75:PHE:HB2	38:s:104:ILE:HG22	1.96	0.47
40:u:120:ASP:OD2	40:u:123:SER:OG	2.28	0.47
2:1:378:LYS:O	4:3:284:THR:HG23	2.15	0.47
2:1:407:ILE:HD13	4:3:19:PRO:O	2.14	0.47
5:4:415:GLN:N	5:4:439:ARG:HH21	2.12	0.47
6:5:32:LYS:HE2	12:B:539:ARG:NH2	2.30	0.47
8:7:530:VAL:CG1	8:7:718:LYS:HG3	2.45	0.47
11:A:900:ASP:HB3	16:G:154:LYS:HD2	1.97	0.47
11:A:1165:LEU:HB2	11:A:1191:ILE:HG12	1.97	0.47
11:A:1195:VAL:HG22	11:A:1198:ARG:HH12	1.80	0.47
12:B:329:LEU:HB3	12:B:342:THR:HG23	1.96	0.47
12:B:564:LEU:HB2	12:B:581:ILE:HD13	1.97	0.47
13:D:924:LYS:C	13:D:926:PHE:H	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:335:ARG:HD2	15:F:336:LEU:N	2.30	0.47
18:I:31:TYR:OH	18:I:36:ILE:HD11	2.15	0.47
22:P:266:PHE:CE2	22:P:333:LYS:HG2	2.49	0.47
25:S:48:GLU:OE2	26:T:5:GLY:HA3	2.15	0.47
25:S:49:ARG:HB3	25:S:96:GLN:HB3	1.95	0.47
28:V:181:ALA:O	28:V:184:ALA:HB3	2.14	0.47
30:Y:5:DC:H2"	30:Y:6:DA:C8	2.49	0.47
13:d:1061:ARG:NH1	18:i:119:ARG:O	2.48	0.47
15:f:257:PRO:O	15:f:261:THR:OG1	2.31	0.47
34:o:408:ARG:HH21	34:o:412:GLN:HB3	1.79	0.47
34:o:842:GLY:O	34:o:845:GLU:HG3	2.14	0.47
35:p:50:PHE:HA	35:p:54:SER:HB3	1.97	0.47
35:p:371:ARG:HH22	35:p:380:ARG:HH22	1.63	0.47
35:p:384:ASP:HB3	35:p:387:HIS:HB2	1.96	0.47
39:t:81:VAL:HG13	39:t:96:GLU:HG2	1.96	0.47
2:1:430:THR:HG21	4:3:225:GLN:C	2.40	0.47
4:3:71:TYR:CD1	4:3:71:TYR:C	2.93	0.47
8:7:461:LEU:O	8:7:694:PRO:HB3	2.15	0.47
8:7:565:LYS:HG2	8:7:593:GLY:HA3	1.97	0.47
8:7:611:VAL:HG12	8:7:612:HIS:N	2.29	0.47
11:A:730:PHE:CD1	11:A:730:PHE:N	2.82	0.47
11:A:824:ARG:HB3	11:A:863:VAL:HG12	1.95	0.47
14:E:461:ILE:O	15:F:135:TRP:CE3	2.68	0.47
14:E:646:SER:OG	14:E:647:ALA:N	2.48	0.47
15:F:67:THR:O	15:F:69:SER:N	2.47	0.47
15:F:320:ARG:CB	15:F:415:ILE:CD1	2.75	0.47
22:P:167:ASN:ND2	30:Y:28:DA:N3	2.63	0.47
23:Q:369:LYS:HE2	23:Q:369:LYS:HB3	1.71	0.47
24:R:132:ARG:CB	35:p:914:GLU:HG3	2.34	0.47
25:S:24:LYS:HB2	26:T:98:GLU:C	2.40	0.47
27:U:127:PHE:CD1	27:U:141:ALA:HB3	2.50	0.47
13:d:922:GLN:NE2	20:l:71:ASP:OD2	2.47	0.47
34:o:551:ARG:NH2	34:o:625:ASP:OD1	2.46	0.47
34:o:1097:GLU:CG	34:o:1098:PRO:HD3	2.45	0.47
37:r:128:GLN:HA	37:r:131:LEU:HB2	1.95	0.47
5:4:152:ALA:HB1	5:4:286:LEU:HG	1.96	0.47
5:4:400:ARG:HD2	6:5:53:LEU:CD2	2.45	0.47
8:7:191:PRO:HA	8:7:194:LEU:HB3	1.97	0.47
8:7:619:ILE:HA	8:7:678:VAL:HG22	1.97	0.47
11:A:505:ASN:HB3	11:A:506:ASP:H	1.53	0.47
14:E:773:TYR:CE1	15:F:137:SER:HB2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:109:LYS:HD2	25:S:149:LEU:HD23	1.97	0.47
29:X:-24:DA:H2"	29:X:-23:DC:H5"	1.97	0.47
14:e:589:TRP:HB3	15:f:60:MET:HE3	1.96	0.47
34:o:154:CYS:SG	34:o:184:CYS:HB3	2.55	0.47
34:o:922:PHE:HB2	34:o:1052:ARG:HB2	1.97	0.47
34:o:1095:LEU:C	34:o:1098:PRO:HD2	2.39	0.47
35:p:265:GLN:HG2	35:p:266:GLU:N	2.29	0.47
35:p:1141:ARG:HE	35:p:1143:LYS:HZ1	1.63	0.47
36:q:91:GLU:HG3	36:q:92:GLU:H	1.80	0.47
36:q:193:ARG:NH2	36:q:217:GLN:OE1	2.48	0.47
41:v:136:GLU:OE1	41:v:136:GLU:N	2.48	0.47
4:3:31:GLN:O	4:3:36:LYS:NZ	2.38	0.46
5:4:394:TRP:N	5:4:394:TRP:CD2	2.83	0.46
7:6:619:GLU:HB3	7:6:648:LYS:HA	1.94	0.46
11:A:857:MET:HE3	11:A:858:ASP:H	1.81	0.46
17:H:50:PHE:CE2	19:J:171:LEU:HA	2.49	0.46
21:O:65:TYR:CD1	22:P:189:ASN:HA	2.50	0.46
24:R:50:SER:C	35:p:841:ARG:HH22	2.23	0.46
24:R:220:SER:HB3	35:p:105:PRO:HD2	1.97	0.46
25:S:42:TRP:CD1	25:S:102:VAL:HG11	2.50	0.46
26:T:30:GLN:O	26:T:62:LEU:HD11	2.15	0.46
28:V:85:MET:O	28:V:139:PHE:HZ	1.98	0.46
29:X:-38:DC:H2'	29:X:-38:DC:OP2	2.16	0.46
30:Y:-12:DC:H2"	30:Y:-11:DC:C5	2.51	0.46
34:o:1129:ASN:HD22	34:o:1413:ALA:HB1	1.80	0.46
35:p:84:TYR:CD2	35:p:132:VAL:HG12	2.50	0.46
35:p:260:LEU:HD22	35:p:347:MET:HE1	1.97	0.46
35:p:809:VAL:HG22	35:p:810:PHE:H	1.80	0.46
38:s:107:GLN:HG2	38:s:108:GLN:OE1	2.15	0.46
39:t:92:ILE:C	39:t:94:MET:N	2.73	0.46
2:1:382:TYR:CZ	4:3:272:LEU:O	2.68	0.46
3:2:80:ARG:HD3	3:2:201:LEU:HD13	1.97	0.46
4:3:250:ASP:HB2	4:3:252:ARG:HG2	1.97	0.46
5:4:397:GLU:O	5:4:400:ARG:HD3	2.15	0.46
11:A:931:PRO:O	11:A:935:THR:OG1	2.25	0.46
15:F:112:VAL:HG21	17:H:55:LYS:HA	1.94	0.46
24:R:177:PHE:O	24:R:181:CYS:N	2.38	0.46
25:S:23:THR:O	26:T:99:SER:C	2.57	0.46
25:S:24:LYS:HB2	26:T:97:THR:HB	1.97	0.46
27:U:12:ALA:O	27:U:15:LYS:HB2	2.15	0.46
13:d:941:ARG:NH2	18:i:123:THR:O	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:278:HIS:CD2	34:o:330:GLN:HE21	2.32	0.46
34:o:872:MET:HE1	34:o:1470:CYS:SG	2.56	0.46
34:o:1039:LEU:HB3	38:s:200:ALA:O	2.15	0.46
34:o:1104:LEU:HG	34:o:1105:ASN:OD1	2.14	0.46
35:p:446:TYR:O	35:p:450:THR:HG22	2.16	0.46
1:0:272:LEU:C	1:0:274:HIS:N	2.71	0.46
2:1:229:TYR:CD1	2:1:239:SER:CA	2.96	0.46
4:3:50:PHE:CD2	5:4:122:LEU:CG	2.93	0.46
8:7:463:PRO:HG3	8:7:692:LYS:HB3	1.97	0.46
8:7:611:VAL:CG2	8:7:614:TYR:CG	2.98	0.46
11:A:511:LEU:HB3	15:f:214:HIS:HE1	1.68	0.46
14:E:464:TYR:CD2	15:F:133:ALA:HB2	2.50	0.46
15:F:14:LEU:CD2	18:I:19:MET:CE	2.88	0.46
21:O:18:SER:CA	23:Q:45:LEU:HB3	2.43	0.46
24:R:15:CYS:HB2	24:R:18:HIS:O	2.15	0.46
24:R:39:LEU:HA	34:o:427:ILE:HA	1.98	0.46
25:S:24:LYS:HA	26:T:99:SER:CA	2.44	0.46
13:d:1084:LEU:HB3	18:i:99:ARG:HH21	1.81	0.46
34:o:426:ARG:NH1	35:p:1064:ARG:NH2	2.63	0.46
35:p:1119:CYS:HA	35:p:1146:ILE:HD13	1.97	0.46
8:7:48:LYS:HE3	8:7:457:THR:CG2	2.45	0.46
15:F:68:THR:HA	18:I:32:GLU:OE1	2.15	0.46
15:F:114:LEU:CD2	17:H:41:VAL:O	2.63	0.46
15:F:329:LEU:HD23	15:F:329:LEU:O	2.15	0.46
16:G:161:ASP:OD1	16:G:161:ASP:N	2.48	0.46
24:R:111:ASP:O	24:R:115:MET:HG3	2.15	0.46
28:V:72:GLY:CA	28:V:115:GLN:HG3	2.46	0.46
34:o:52:PRO:HA	34:o:58:MET:HE1	1.96	0.46
34:o:198:LEU:HG	34:o:216:LEU:HB2	1.98	0.46
34:o:1177:TYR:HE1	34:o:1209:PRO:HB2	1.80	0.46
35:p:626:LEU:HD23	35:p:662:VAL:HG12	1.98	0.46
35:p:1035:ARG:NH1	35:p:1036:LYS:O	2.48	0.46
35:p:1076:GLU:O	35:p:1079:SER:HB3	2.16	0.46
1:0:68:VAL:CG2	8:7:334:ARG:HD3	2.45	0.46
2:1:113:GLU:C	2:1:115:ASN:N	2.73	0.46
3:2:212:ALA:HB1	3:2:218:THR:CA	2.44	0.46
4:3:71:TYR:HB3	4:3:72:PRO:HD3	1.97	0.46
4:3:229:TRP:O	4:3:229:TRP:CG	2.69	0.46
7:6:415:HIS:N	7:6:415:HIS:HD1	2.13	0.46
8:7:49:THR:HG21	8:7:83:VAL:HG22	1.98	0.46
8:7:523:LEU:HA	8:7:710:VAL:HG11	1.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:G:41:ASP:OD1	16:G:41:ASP:N	2.47	0.46
17:H:111:ALA:HB2	19:J:157:LEU:HD13	1.97	0.46
26:T:196:TYR:C	26:T:232:THR:HG21	2.27	0.46
27:U:53:LYS:HE3	28:V:166:ILE:HD11	1.96	0.46
27:U:154:CYS:SG	27:U:155:THR:N	2.88	0.46
20:l:102:LEU:CA	20:l:105:HIS:CD2	2.86	0.46
35:p:551:GLU:OE1	35:p:551:GLU:N	2.44	0.46
35:p:908:MET:HE3	35:p:910:THR:HG22	1.97	0.46
38:s:11:TRP:HB2	38:s:40:PHE:CD2	2.51	0.46
7:6:187:HIS:HD2	7:6:289:TYR:HE2	1.63	0.46
8:7:77:VAL:N	8:7:78:PRO:HD2	2.30	0.46
8:7:526:GLU:HG2	8:7:714:VAL:HG21	1.97	0.46
9:8:135:HIS:NE2	9:8:155:ASP:O	2.49	0.46
10:9:227:THR:OG1	10:9:229:GLU:OE2	2.34	0.46
12:B:568:VAL:HG22	12:B:628:ILE:HG23	1.98	0.46
13:D:1075:HIS:CB	18:I:84:THR:OG1	2.63	0.46
25:S:45:ALA:CB	26:T:9:LEU:HD11	2.46	0.46
27:U:18:ALA:O	27:U:22:ILE:HG23	2.15	0.46
29:X:6:DC:H2'	29:X:7:DG:O4'	2.15	0.46
14:e:717:LEU:HD22	14:e:726:LEU:HD11	1.97	0.46
18:i:73:LEU:CD2	20:l:105:HIS:CG	2.92	0.46
20:l:76:LEU:CD1	20:l:84:LEU:CD1	2.94	0.46
34:o:37:THR:O	34:o:87:HIS:HE1	1.98	0.46
34:o:305:GLU:O	34:o:309:LEU:HD23	2.16	0.46
35:p:777:ASN:HB2	43:x:47:ARG:HD2	1.98	0.46
44:y:5:PRO:HG2	44:y:8:GLU:HG3	1.96	0.46
5:4:240:LEU:HD11	5:4:265:LEU:HD21	1.97	0.46
7:6:339:VAL:CG1	7:6:469:THR:O	2.64	0.46
8:7:14:TYR:O	8:7:15:ASP:CB	2.36	0.46
12:B:177:VAL:O	12:B:250:ALA:HA	2.16	0.46
15:F:125:VAL:HG12	17:H:32:ALA:CB	2.45	0.46
15:F:424:GLN:O	15:F:428:LEU:HG	2.16	0.46
21:O:14:SER:OG	23:Q:46:TRP:CD1	2.67	0.46
24:R:133:ASN:HB2	35:p:916:TYR:CE1	2.50	0.46
26:T:40:VAL:O	26:T:59:ASN:N	2.49	0.46
30:Y:6:DA:H2"	30:Y:7:DG:C8	2.50	0.46
15:f:330:ARG:NH1	15:f:371:THR:O	2.47	0.46
34:o:466:LYS:HE3	35:p:1097:HIS:CD2	2.50	0.46
34:o:1172:ASN:HB3	42:w:57:LYS:HA	1.96	0.46
38:s:47:LYS:O	38:s:51:GLY:HA3	2.16	0.46
7:6:362:LEU:HD13	7:6:406:ALA:HB3	1.01	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:35:LYS:O	8:7:35:LYS:HD2	2.15	0.46
9:8:136:ARG:NH1	9:8:170:THR:OG1	2.49	0.46
11:A:496:GLU:HG3	11:A:497:PRO:HD2	1.98	0.46
12:B:71:ARG:HD3	12:B:73:TYR:CE1	2.51	0.46
14:E:321:LEU:HB3	14:E:330:TRP:HB2	1.97	0.46
14:E:774:MET:O	15:F:142:GLN:NE2	2.49	0.46
15:F:138:ILE:HG13	17:H:159:TYR:CE2	2.46	0.46
17:H:49:GLY:O	19:J:171:LEU:CD1	2.60	0.46
17:H:161:LYS:HB2	17:H:161:LYS:HE3	1.32	0.46
26:T:95:VAL:O	26:T:106:LEU:HD12	2.15	0.46
26:T:192:GLU:OE1	28:V:75:PHE:HD2	1.98	0.46
27:U:141:ALA:HA	27:U:144:LEU:HD12	1.98	0.46
28:V:151:LEU:HG	28:V:151:LEU:O	2.15	0.46
29:X:-3:DG:H2"	29:X:-2:DT:C6	2.50	0.46
35:p:625:LEU:HD12	35:p:665:ILE:HG13	1.97	0.46
42:w:124:THR:OG1	42:w:125:GLU:N	2.49	0.46
5:4:400:ARG:HD2	6:5:53:LEU:HD21	1.97	0.46
8:7:27:GLU:HB3	8:7:479:ALA:CB	2.42	0.46
12:B:27:LYS:CE	12:B:490:SER:HB3	2.46	0.46
15:F:117:ILE:CB	17:H:42:SER:HG	2.23	0.46
15:F:411:VAL:HG13	15:F:411:VAL:O	2.15	0.46
17:H:110:TYR:HB2	19:J:161:LYS:HZ2	1.81	0.46
21:O:11:LEU:HD11	23:Q:46:TRP:CZ2	2.50	0.46
21:O:21:GLU:HB2	23:Q:45:LEU:CD1	2.45	0.46
22:P:202:MET:HE3	22:P:202:MET:HB2	1.85	0.46
22:P:330:PRO:HA	22:P:333:LYS:HE2	1.96	0.46
24:R:133:ASN:CB	35:p:916:TYR:CE1	2.99	0.46
25:S:45:ALA:N	26:T:9:LEU:CD1	2.75	0.46
25:S:124:TYR:HD1	26:T:22:LYS:HA	1.80	0.46
26:T:237:PRO:O	26:T:238:GLU:C	2.58	0.46
27:U:137:THR:H	27:U:140:GLU:HB2	1.81	0.46
27:U:174:ARG:O	27:U:178:ALA:N	2.28	0.46
28:V:220:TRP:O	28:V:220:TRP:CD1	2.68	0.46
29:X:16:DG:H2"	29:X:17:DT:C6	2.50	0.46
15:f:317:LEU:HD12	15:f:329:LEU:HD23	1.98	0.46
19:j:176:MET:HE1	33:m:75:ILE:HD11	1.97	0.46
20:l:83:MET:SD	20:l:86:GLN:OE1	2.74	0.46
34:o:294:GLU:OE2	34:o:303:ILE:HG21	2.16	0.46
34:o:1128:ILE:HG23	34:o:1414:ILE:HD11	1.97	0.46
34:o:1172:ASN:HA	42:w:56:ASN:O	2.16	0.46
35:p:59:VAL:HG11	35:p:91:ILE:HD11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:p:841:ARG:NH2	35:p:1078:ARG:NH2	2.57	0.46
35:p:933:ASP:OD2	35:p:1050:ARG:NH2	2.41	0.46
36:q:123:ASN:OD1	36:q:124:SER:N	2.48	0.46
40:u:116:GLU:O	40:u:130:THR:HA	2.16	0.46
2:1:107:ALA:O	2:1:109:LYS:C	2.58	0.46
2:1:118:LEU:HA	2:1:125:PHE:HA	1.98	0.46
9:8:237:TRP:NE1	9:8:278:PHE:HB3	2.28	0.46
10:9:97:MET:O	10:9:281:HIS:NE2	2.49	0.46
15:F:71:ILE:HD11	18:I:35:VAL:CG2	2.45	0.46
17:H:127:GLN:N	17:H:128:PRO:HD2	2.31	0.46
18:I:131:SER:HA	19:J:150:ARG:HH22	1.81	0.46
21:O:18:SER:O	23:Q:45:LEU:HD12	2.13	0.46
22:P:167:ASN:OD1	30:Y:27:DA:H1'	2.15	0.46
22:P:252:ASP:OD1	22:P:252:ASP:N	2.49	0.46
24:R:35:PRO:C	24:R:37:CYS:N	2.71	0.46
26:T:34:ALA:HB1	26:T:38:GLY:HA2	1.98	0.46
27:U:100:VAL:CG1	27:U:102:VAL:HG22	2.44	0.46
28:V:224:THR:HG22	28:V:227:SER:HB2	1.98	0.46
30:Y:22:DG:C6	30:Y:23:DG:C5	3.05	0.46
34:o:152:ASN:O	34:o:188:GLN:HG2	2.15	0.46
37:r:94:LYS:O	37:r:97:LEU:HG	2.16	0.46
7:6:177:VAL:O	7:6:269:SER:HA	2.16	0.45
7:6:447:PRO:HB2	29:X:15:DG:O5'	2.16	0.45
8:7:403:PHE:HE1	8:7:435:PHE:HB2	1.80	0.45
10:9:135:GLY:HA2	10:9:138:LYS:HG2	1.97	0.45
11:A:480:TRP:HH2	15:f:355:ILE:HD11	1.81	0.45
13:D:960:GLU:O	13:D:964:GLU:HG3	2.16	0.45
15:F:418:ILE:H	15:F:418:ILE:CD1	2.27	0.45
27:U:109:HIS:O	27:U:113:ARG:HG2	2.16	0.45
30:Y:-11:DC:C2'	30:Y:-10:DA:H5'	2.47	0.45
30:Y:38:DG:OP2	30:Y:38:DG:H8	1.99	0.45
34:o:17:THR:HG22	34:o:18:ILE:N	2.31	0.45
34:o:191:ILE:HG12	34:o:200:ALA:CB	2.46	0.45
34:o:346:LYS:HB2	34:o:351:ARG:HH21	1.82	0.45
34:o:540:ASP:HA	35:p:970:HIS:CE1	2.51	0.45
34:o:584:PRO:O	34:o:585:LEU:HD12	2.16	0.45
40:u:165:ASP:HB2	40:u:168:LEU:HD11	1.99	0.45
2:1:170:PHE:CB	2:1:239:SER:N	2.79	0.45
7:6:366:ASN:CG	7:6:410:TYR:HE2	2.21	0.45
11:A:511:LEU:O	15:f:214:HIS:NE2	2.44	0.45
14:E:458:LEU:O	15:F:139:GLU:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:F:106:PHE:CD1	18:I:13:PRO:CD	2.98	0.45
15:F:125:VAL:O	17:H:125:THR:N	2.37	0.45
21:O:11:LEU:CD1	23:Q:46:TRP:CZ2	2.99	0.45
24:R:127:ARG:CG	24:R:127:ARG:NH2	2.61	0.45
27:U:100:VAL:O	27:U:100:VAL:HG12	2.15	0.45
27:U:127:PHE:HD2	27:U:161:VAL:HG23	1.80	0.45
30:Y:10:DG:H2"	30:Y:11:DG:N7	2.30	0.45
15:f:328:ALA:C	15:f:330:ARG:N	2.72	0.45
34:o:540:ASP:HB3	35:p:790:GLN:CD	2.41	0.45
34:o:1166:LEU:HB2	34:o:1296:MET:HB2	1.97	0.45
34:o:1230:GLN:O	34:o:1234:LYS:HG2	2.16	0.45
35:p:591:ARG:NH2	35:p:663:GLU:OE2	2.50	0.45
36:q:190:ASN:HD21	36:q:195:THR:HG23	1.81	0.45
40:u:43:GLY:HA2	40:u:78:ARG:HD3	1.98	0.45
2:1:430:THR:HG21	4:3:226:TYR:N	2.30	0.45
5:4:396:LEU:O	5:4:400:ARG:N	2.47	0.45
7:6:341:PRO:HB3	7:6:493:TRP:CH2	2.52	0.45
7:6:366:ASN:N	7:6:410:TYR:CZ	2.75	0.45
11:A:404:MET:O	11:A:408:LEU:HB2	2.16	0.45
15:F:426:LEU:C	15:F:426:LEU:HD23	2.42	0.45
20:L:83:MET:CE	20:L:86:GLN:OE1	2.64	0.45
22:P:278:GLN:OE1	22:P:278:GLN:N	2.48	0.45
24:R:117:ALA:O	24:R:121:ILE:N	2.46	0.45
26:T:154:LYS:N	26:T:155:PRO:HD3	2.32	0.45
27:U:139:LEU:H	27:U:139:LEU:HG	1.45	0.45
28:V:192:VAL:O	28:V:192:VAL:HG13	2.16	0.45
30:Y:22:DG:O6	30:Y:23:DG:O6	2.34	0.45
15:f:58:MET:HE3	15:f:64:GLN:HA	1.98	0.45
15:f:326:HIS:ND1	15:f:326:HIS:N	2.64	0.45
34:o:747:ASP:C	34:o:747:ASP:OD1	2.59	0.45
38:s:55:ARG:HA	38:s:58:LEU:HD12	1.98	0.45
40:u:6:SER:HB3	40:u:71:LYS:NZ	2.31	0.45
2:1:190:SER:N	2:1:193:ILE:HG22	2.30	0.45
3:2:60:HIS:HD2	3:2:163:THR:HG21	1.80	0.45
7:6:351:VAL:HB	7:6:381:TRP:HZ2	1.82	0.45
7:6:360:ARG:HG3	7:6:435:TRP:CZ3	2.52	0.45
7:6:480:LEU:O	7:6:484:ILE:HG12	2.17	0.45
8:7:18:TYR:CD2	8:7:671:LYS:HD2	2.47	0.45
8:7:48:LYS:CE	8:7:457:THR:HG22	2.46	0.45
8:7:530:VAL:CG1	8:7:718:LYS:CG	2.94	0.45
11:A:410:TRP:CZ2	15:F:305:ILE:CD1	2.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:495:LEU:HG	15:f:272:VAL:HG21	1.96	0.45
12:B:559:LYS:HB2	12:B:559:LYS:NZ	2.31	0.45
13:D:888:LYS:HB2	13:D:888:LYS:NZ	2.32	0.45
14:E:470:TYR:CD1	17:H:26:ALA:HA	2.51	0.45
15:F:92:ILE:HG13	15:F:93:PRO:HD3	1.98	0.45
25:S:24:LYS:CD	26:T:97:THR:HB	2.45	0.45
25:S:26:TYR:CD1	26:T:97:THR:CG2	2.98	0.45
26:T:49:GLN:N	26:T:49:GLN:CD	2.73	0.45
26:T:212:TYR:HD1	26:T:212:TYR:HA	1.47	0.45
28:V:177:ASN:C	28:V:179:GLN:N	2.73	0.45
29:X:-4:DT:H2"	29:X:-3:DG:C8	2.51	0.45
29:X:20:DA:H2"	29:X:21:DC:C6	2.50	0.45
18:i:78:ARG:HD3	18:i:78:ARG:HA	1.78	0.45
34:o:571:ASP:OD1	34:o:571:ASP:N	2.46	0.45
34:o:690:GLY:HA2	35:p:1023:ARG:HD2	1.99	0.45
34:o:1121:VAL:N	34:o:1122:PRO:HD2	2.31	0.45
35:p:329:GLY:HA3	35:p:335:ARG:HG3	1.98	0.45
40:u:84:VAL:HG12	40:u:144:ARG:HD3	1.98	0.45
1:0:272:LEU:O	1:0:273:ASN:C	2.58	0.45
5:4:402:ARG:H	6:5:10:ILE:HG12	1.81	0.45
6:5:15:ALA:HB2	7:6:516:PRO:CD	2.37	0.45
8:7:7:GLY:C	8:7:62:ALA:CB	2.90	0.45
9:8:120:MET:HE1	9:8:150:VAL:HA	1.97	0.45
11:A:511:LEU:O	15:f:214:HIS:HD2	1.93	0.45
15:F:233:GLY:HA2	15:F:239:ARG:HE	1.82	0.45
27:U:127:PHE:CG	27:U:161:VAL:HG21	2.52	0.45
28:V:188:GLN:O	28:V:189:ILE:C	2.58	0.45
34:o:481:THR:HG22	35:p:1055:VAL:HG21	1.98	0.45
34:o:1342:SER:O	34:o:1346:VAL:HG23	2.16	0.45
40:u:24:ASN:OD1	40:u:25:THR:N	2.50	0.45
1:0:260:VAL:HG11	1:0:298:GLN:HG2	1.97	0.45
5:4:396:LEU:O	5:4:400:ARG:HB3	2.16	0.45
7:6:596:PHE:HD2	7:6:597:LYS:HD3	1.81	0.45
11:A:349:TRP:CH2	15:f:282:LEU:HD11	2.52	0.45
12:B:639:LYS:NZ	12:B:641:GLU:OE2	2.42	0.45
14:E:324:LYS:HA	14:E:327:ASN:HB3	1.97	0.45
25:S:26:TYR:HB2	25:S:139:PRO:O	2.16	0.45
26:T:11:GLY:HA3	26:T:106:LEU:O	2.17	0.45
34:o:1290:SER:CB	35:p:251:ALA:HA	2.45	0.45
35:p:1046:THR:HG22	35:p:1047:TYR:N	2.32	0.45
2:1:377:LYS:HD2	4:3:286:GLU:CG	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:386:PRO:CB	4:3:253:ALA:HB1	2.47	0.45
3:2:208:CYS:SG	3:2:219:TYR:CZ	3.10	0.45
8:7:1:MET:CE	8:7:17:ILE:HD11	2.44	0.45
9:8:98:LEU:HG	9:8:102:ILE:HG12	1.95	0.45
9:8:176:ARG:HG2	9:8:217:SER:HA	1.98	0.45
14:E:447:THR:HG23	14:E:450:ARG:HD2	1.98	0.45
15:F:75:LEU:HD11	15:F:84:TYR:CZ	2.51	0.45
15:F:316:GLN:HE22	15:F:320:ARG:HA	1.78	0.45
26:T:51:ARG:NH1	26:T:53:GLU:HB2	2.30	0.45
27:U:37:LEU:HD11	27:U:66:LEU:HD13	1.99	0.45
30:Y:-28:DC:H4'	30:Y:-27:DC:H5'	1.98	0.45
32:k:150:VAL:HG22	33:m:82:GLN:HB3	1.98	0.45
38:s:4:GLU:HA	38:s:7:THR:HG22	1.98	0.45
1:0:70:LYS:NZ	1:0:110:THR:O	2.41	0.45
2:1:113:GLU:O	2:1:115:ASN:N	2.50	0.45
4:3:18:ASN:HD22	4:3:19:PRO:HD2	1.82	0.45
4:3:255:CYS:HB3	4:3:262:ILE:HD11	1.97	0.45
5:4:307:ILE:HG21	5:4:368:LEU:CD2	2.46	0.45
5:4:376:MET:HA	5:4:379:GLN:HB2	1.98	0.45
7:6:366:ASN:ND2	7:6:446:ILE:HD11	2.32	0.45
8:7:533:ASP:HB2	8:7:616:ARG:HG3	1.99	0.45
8:7:628:THR:O	8:7:628:THR:HG22	2.17	0.45
8:7:629:GLN:HG2	8:7:633:LEU:CB	2.44	0.45
10:9:93:ASN:O	10:9:94:ASN:ND2	2.49	0.45
11:A:396:LEU:HB3	15:f:390:THR:O	2.16	0.45
11:A:690:LEU:HD22	11:A:747:LEU:HD22	1.99	0.45
11:A:1053:PHE:HB2	11:A:1057:GLU:HB2	1.99	0.45
14:E:650:THR:HG22	14:E:666:THR:HG22	1.99	0.45
18:I:131:SER:HB2	19:J:150:ARG:HH12	1.80	0.45
21:O:3:TYR:C	21:O:5:LEU:N	2.74	0.45
25:S:143:TRP:NE1	25:S:145:ASN:OD1	2.37	0.45
29:X:6:DC:H2'	29:X:7:DG:C8	2.52	0.45
30:Y:15:DA:H2"	30:Y:16:DA:C8	2.48	0.45
30:Y:30:DT:C6	30:Y:30:DT:C3'	2.99	0.45
34:o:42:LYS:O	34:o:288:ASN:ND2	2.44	0.45
34:o:274:ASP:OD1	34:o:277:THR:N	2.29	0.45
34:o:936:GLU:HA	34:o:939:VAL:HG12	1.99	0.45
35:p:486:ASN:OD1	35:p:491:ARG:NH2	2.50	0.45
35:p:856:PRO:HG2	45:z:48:ARG:HA	1.99	0.45
2:1:376:LEU:HD23	4:3:285:CYS:HB3	1.98	0.45
7:6:419:ARG:HH21	7:6:419:ARG:HB3	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:597:LYS:HB3	7:6:618:PRO:CB	2.47	0.45
11:A:1182:CYS:O	11:A:1182:CYS:SG	2.75	0.45
14:E:250:GLU:O	14:E:254:ASN:ND2	2.50	0.45
15:F:75:LEU:CD1	15:F:84:TYR:CE1	2.99	0.45
15:F:223:TYR:HH	15:F:245:SER:HG	1.64	0.45
20:L:64:GLN:N	20:L:64:GLN:CD	2.75	0.45
22:P:256:GLN:HA	22:P:256:GLN:OE1	2.16	0.45
28:V:129:LYS:HB3	28:V:140:LYS:CG	2.47	0.45
34:o:229:SER:N	34:o:232:GLU:OE2	2.48	0.45
34:o:261:ARG:HB3	34:o:276:LEU:HD11	1.99	0.45
38:s:110:MET:HG2	38:s:114:ALA:HB3	1.97	0.45
1:0:114:ASP:HA	1:0:117:ASN:HD22	1.82	0.45
2:1:118:LEU:HA	2:1:125:PHE:CB	2.47	0.45
2:1:382:TYR:HD1	4:3:256:PHE:CZ	2.34	0.45
3:2:260:ALA:O	3:2:261:SER:C	2.60	0.45
5:4:17:ARG:HH11	5:4:22:PHE:HB3	1.82	0.45
7:6:579:TYR:HA	7:6:605:ILE:HG13	1.98	0.45
12:B:414:LEU:HB2	12:B:523:VAL:HG13	1.99	0.45
21:O:80:GLU:HB2	21:O:87:LEU:HD11	1.99	0.45
26:T:142:SER:HB2	35:p:51:ILE:O	2.17	0.45
29:X:-2:DT:H2'	29:X:-1:DT:C5	2.52	0.45
15:f:26:MET:HE3	15:f:26:MET:HB3	1.77	0.45
15:f:327:TRP:O	15:f:330:ARG:HB2	2.16	0.45
34:o:79:THR:OG1	34:o:80:GLU:OE1	2.34	0.45
34:o:812:LYS:HE3	42:w:77:THR:CG2	2.47	0.45
38:s:70:ASP:OD1	38:s:70:ASP:N	2.49	0.45
40:u:38:CYS:HB2	40:u:44:PHE:CD1	2.51	0.45
42:w:75:ASP:HB3	42:w:78:LEU:HD12	1.99	0.45
2:1:347:PRO:O	2:1:351:ARG:HB2	2.17	0.44
5:4:65:PRO:HB2	5:4:107:GLY:HA3	1.99	0.44
5:4:397:GLU:O	5:4:400:ARG:NE	2.50	0.44
7:6:579:TYR:HA	7:6:605:ILE:CG1	2.47	0.44
8:7:8:LEU:CG	8:7:62:ALA:H	1.92	0.44
10:9:256:ARG:O	10:9:260:LYS:HB2	2.17	0.44
13:D:880:ARG:HA	13:D:883:LEU:HB2	1.99	0.44
14:E:290:HIS:CG	15:F:45:TYR:CE2	3.05	0.44
20:L:111:LEU:N	20:L:114:LYS:NZ	2.64	0.44
21:O:64:THR:HG21	22:P:188:ARG:CZ	2.47	0.44
24:R:29:ALA:O	35:p:1066:PRO:CA	2.64	0.44
25:S:143:TRP:CD1	25:S:143:TRP:C	2.95	0.44
26:T:124:TYR:CD1	35:p:590:LEU:HD21	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:T:142:SER:OG	35:p:51:ILE:O	2.30	0.44
27:U:70:LYS:HB3	27:U:99:LEU:CG	2.47	0.44
30:Y:-18:DT:H4'	30:Y:-18:DT:OP1	2.17	0.44
34:o:111:CYS:SG	34:o:154:CYS:HB2	2.57	0.44
34:o:481:THR:O	34:o:483:ARG:NE	2.50	0.44
34:o:1178:ASP:OD1	34:o:1185:VAL:HG23	2.17	0.44
35:p:65:ILE:HD11	35:p:86:LEU:HD12	1.99	0.44
35:p:787:GLY:HA2	35:p:790:GLN:HE21	1.82	0.44
2:1:285:SER:O	2:1:287:PRO:N	2.50	0.44
2:1:431:ILE:HD12	5:4:58:ARG:HH22	1.62	0.44
4:3:227:LEU:HA	4:3:231:PHE:HB2	1.98	0.44
5:4:171:VAL:HG13	5:4:175:LEU:HB3	1.98	0.44
5:4:307:ILE:HB	5:4:371:ARG:CB	2.47	0.44
8:7:495:ILE:HG23	8:7:709:THR:C	2.42	0.44
11:A:740:LEU:HD22	11:A:1070:PHE:HZ	1.81	0.44
11:A:1063:LYS:HD3	11:A:1063:LYS:O	2.16	0.44
15:F:320:ARG:N	15:F:321:PRO:CD	2.79	0.44
15:F:433:PRO:O	15:F:437:LYS:N	2.33	0.44
19:J:123:LEU:O	19:J:153:ARG:NH1	2.50	0.44
24:R:169:ARG:HD3	24:R:206:VAL:HB	1.99	0.44
25:S:24:LYS:CD	26:T:97:THR:CB	2.91	0.44
27:U:53:LYS:HB3	28:V:199:LYS:HD3	1.99	0.44
30:Y:27:DA:H2"	30:Y:28:DA:H5'	1.99	0.44
13:d:860:VAL:HA	33:m:47:GLN:HG2	1.98	0.44
15:f:83:LEU:HD22	18:i:41:GLU:HG2	1.99	0.44
15:f:223:TYR:CD2	15:f:255:MET:HE1	2.52	0.44
34:o:472:HIS:NE2	34:o:492:TYR:OH	2.47	0.44
34:o:692:SER:O	34:o:692:SER:OG	2.24	0.44
34:o:1198:GLU:C	34:o:1200:PRO:HD3	2.43	0.44
35:p:606:ASP:OD1	35:p:606:ASP:N	2.44	0.44
35:p:1108:PHE:HZ	35:p:1150:ARG:HG2	1.81	0.44
35:p:1144:THR:HG21	40:u:41:LYS:CG	2.47	0.44
36:q:101:PHE:CE1	36:q:122:SER:HB3	2.53	0.44
36:q:116:THR:HB	36:q:147:ASP:HB3	1.99	0.44
1:0:272:LEU:CD2	1:0:293:CYS:CB	2.66	0.44
3:2:114:ALA:HB2	3:2:148:SER:HG	1.79	0.44
7:6:384:ILE:HG23	7:6:388:GLN:HB2	1.99	0.44
7:6:404:SER:HB3	7:6:433:GLN:CB	2.46	0.44
8:7:467:TYR:HB2	8:7:468:PRO:HD3	1.98	0.44
8:7:467:TYR:O	8:7:471:LEU:HG	2.17	0.44
11:A:353:LEU:HG	11:A:495:LEU:HD21	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:567:LEU:HD22	12:B:745:GLN:HG3	1.99	0.44
15:F:14:LEU:CD2	18:I:19:MET:HE1	2.40	0.44
15:F:125:VAL:N	17:H:123:PRO:O	2.44	0.44
29:X:-7:DC:H2"	29:X:-6:DT:C6	2.53	0.44
34:o:356:GLY:C	35:p:1085:ARG:NH1	2.74	0.44
34:o:780:ASN:ND2	35:p:976:MET:HE2	2.32	0.44
34:o:1028:PRO:O	34:o:1029:LEU:HB3	2.18	0.44
34:o:1242:ASP:O	34:o:1262:MET:N	2.41	0.44
35:p:552:ASN:OD1	35:p:553:LEU:N	2.49	0.44
37:r:63:LYS:HE3	40:u:103:PRO:CB	2.48	0.44
40:u:86:ASP:OD1	40:u:87:ALA:N	2.51	0.44
44:y:42:LEU:O	44:y:45:ILE:HG22	2.17	0.44
45:z:19:CYS:SG	45:z:20:GLY:N	2.91	0.44
5:4:308:VAL:HB	5:4:316:TYR:HB2	1.98	0.44
6:5:35:ILE:HG21	12:B:540:LYS:CE	2.39	0.44
7:6:443:VAL:CB	7:6:451:PHE:HZ	2.15	0.44
7:6:578:PRO:C	7:6:605:ILE:HA	2.37	0.44
7:6:613:THR:OG1	7:6:642:ARG:HD2	2.18	0.44
8:7:35:LYS:HD2	8:7:35:LYS:C	2.43	0.44
8:7:118:HIS:CD2	8:7:121:VAL:HG23	2.53	0.44
8:7:460:THR:OG1	8:7:665:GLY:HA3	2.18	0.44
10:9:235:SER:C	10:9:237:MET:N	2.75	0.44
13:D:906:THR:HG21	20:L:88:ALA:HB1	1.99	0.44
15:F:114:LEU:HD22	17:H:45:LEU:CD1	2.40	0.44
15:F:126:PRO:CD	17:H:29:TYR:HA	2.47	0.44
15:F:219:GLU:HB2	17:H:160:ILE:CG2	2.18	0.44
15:F:370:TRP:CZ3	15:F:420:ALA:HA	2.53	0.44
17:H:37:LEU:HD11	19:J:138:TYR:HE2	1.74	0.44
17:H:50:PHE:HB3	19:J:194:THR:C	2.42	0.44
24:R:123:THR:O	24:R:127:ARG:HG2	2.17	0.44
25:S:16:VAL:HG23	26:T:43:LEU:HB2	1.99	0.44
25:S:124:TYR:HE1	26:T:22:LYS:CE	2.30	0.44
26:T:208:GLN:HG3	26:T:209:PRO:CD	2.48	0.44
27:U:32:LEU:CD1	28:V:161:ARG:HH21	2.29	0.44
30:Y:-19:DC:H2"	30:Y:-18:DT:C6	2.52	0.44
14:e:270:ASP:OD1	14:e:271:GLN:NE2	2.41	0.44
34:o:312:PHE:O	34:o:316:THR:OG1	2.27	0.44
34:o:1190:GLN:NE2	34:o:1194:ASN:HB2	2.32	0.44
35:p:628:VAL:HG22	35:p:633:LEU:HD23	2.00	0.44
35:p:794:VAL:HG12	35:p:967:ILE:HG22	1.99	0.44
1:0:272:LEU:C	1:0:272:LEU:CD1	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:426:ALA:HA	2:1:429:SER:OG	2.17	0.44
2:1:433:ALA:HB1	2:1:440:LEU:CD1	2.45	0.44
7:6:401:ILE:O	7:6:401:ILE:HG22	2.16	0.44
8:7:573:ASP:HB2	8:7:576:GLU:HB2	2.00	0.44
11:A:485:ILE:CG2	11:A:485:ILE:O	2.65	0.44
13:D:961:GLN:O	13:D:965:ILE:N	2.48	0.44
14:E:509:GLN:NE2	14:E:509:GLN:CA	2.81	0.44
14:E:784:HIS:HB3	14:E:792:LEU:HB2	2.00	0.44
17:H:59:GLU:HA	17:H:62:THR:HG22	1.99	0.44
20:L:63:LEU:O	20:L:67:VAL:HG13	2.18	0.44
22:P:228:GLU:OE1	22:P:228:GLU:HA	2.16	0.44
26:T:153:TYR:C	26:T:155:PRO:HD3	2.42	0.44
15:f:297:LEU:HD12	15:f:297:LEU:N	2.31	0.44
15:f:317:LEU:HG	15:f:330:ARG:HE	1.83	0.44
20:l:113:VAL:O	20:l:113:VAL:HG22	2.18	0.44
34:o:420:ILE:HD11	34:o:426:ARG:HH21	1.83	0.44
34:o:695:ASP:N	34:o:695:ASP:OD1	2.43	0.44
34:o:1485:GLU:OE2	34:o:1485:GLU:N	2.51	0.44
35:p:171:LEU:HD23	35:p:171:LEU:HA	1.89	0.44
37:r:50:SER:OG	37:r:51:ALA:N	2.50	0.44
38:s:154:GLU:O	38:s:157:THR:HG22	2.17	0.44
40:u:40:GLY:O	40:u:152:VAL:HG11	2.17	0.44
1:0:272:LEU:HD11	1:0:289:SER:HB3	2.00	0.44
2:1:312:ALA:HB2	8:7:583:LYS:HE3	1.98	0.44
3:2:182:ILE:H	3:2:182:ILE:HG13	1.51	0.44
5:4:101:LEU:HB2	5:4:105:LEU:HB2	2.00	0.44
6:5:15:ALA:CB	7:6:516:PRO:HB3	2.44	0.44
7:6:134:SER:O	7:6:138:GLU:HB2	2.18	0.44
8:7:500:ASP:HB2	8:7:502:VAL:HG23	1.99	0.44
8:7:611:VAL:CG1	8:7:614:TYR:N	2.81	0.44
13:D:874:LEU:CD2	13:D:877:PRO:HG2	2.47	0.44
14:E:613:ALA:HB3	14:E:616:HIS:HD2	1.83	0.44
15:F:38:LEU:HD22	18:I:68:ALA:HB1	2.00	0.44
15:F:55:LEU:HD22	15:F:55:LEU:HA	1.73	0.44
15:F:117:ILE:HG21	17:H:38:GLN:CA	2.47	0.44
24:R:216:SER:OG	35:p:104:ALA:HB2	2.17	0.44
25:S:29:MET:HB3	26:T:94:THR:OG1	2.17	0.44
25:S:124:TYR:CZ	26:T:22:LYS:HE2	2.52	0.44
34:o:663:ASP:OD1	34:o:666:ARG:NH1	2.51	0.44
34:o:1171:ALA:HB3	34:o:1215:GLU:HG3	2.00	0.44
34:o:1177:TYR:CG	42:w:35:LEU:HD21	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:1211:LEU:HD11	34:o:1258:ARG:NE	2.33	0.44
2:1:227:SER:OG	2:1:228:HIS:NE2	2.51	0.44
2:1:406:SER:CB	4:3:27:LEU:CD2	2.96	0.44
2:1:406:SER:HB2	4:3:27:LEU:CD2	2.48	0.44
7:6:447:PRO:HG3	29:X:15:DG:H3'	1.85	0.44
7:6:619:GLU:CB	7:6:648:LYS:CA	2.95	0.44
8:7:237:HIS:CE1	8:7:458:SER:HB3	2.52	0.44
14:E:447:THR:HG23	14:E:450:ARG:CZ	2.46	0.44
18:I:20:ALA:HB2	18:I:36:ILE:CD1	2.44	0.44
24:R:193:ARG:NH1	30:Y:23:DG:OP2	2.49	0.44
26:T:145:LEU:CG	35:p:92:TYR:HB3	2.46	0.44
26:T:177:ARG:HB3	29:X:-22:DC:OP1	2.18	0.44
27:U:75:ARG:O	27:U:94:ILE:HA	2.18	0.44
27:U:174:ARG:HD2	27:U:174:ARG:O	2.17	0.44
15:f:267:VAL:HG21	15:f:307:ALA:HB1	2.00	0.44
34:o:514:GLU:O	34:o:518:LEU:HB2	2.18	0.44
35:p:256:ILE:HD11	35:p:373:LEU:HD21	2.00	0.44
40:u:60:GLN:NE2	40:u:65:PHE:HB2	2.32	0.44
40:u:107:PHE:O	40:u:160:ILE:HG13	2.17	0.44
3:2:212:ALA:O	3:2:217:GLY:O	2.35	0.44
7:6:360:ARG:NH1	7:6:388:GLN:HB3	2.31	0.44
8:7:84:ILE:CD1	8:7:206:VAL:HG21	2.48	0.44
8:7:422:ASP:H	8:7:425:THR:HG21	1.82	0.44
8:7:493:MET:HA	8:7:705:ASN:HB3	1.99	0.44
8:7:542:TYR:O	8:7:546:GLU:HB2	2.18	0.44
8:7:664:VAL:O	8:7:664:VAL:CG1	2.63	0.44
11:A:415:ILE:HG12	15:F:268:ARG:HE	1.83	0.44
15:F:118:ILE:HG23	17:H:39:VAL:HG13	2.00	0.44
17:H:37:LEU:HD21	19:J:134:VAL:HG12	1.99	0.44
20:L:111:LEU:N	20:L:114:LYS:HZ1	2.16	0.44
22:P:236:LYS:HA	22:P:239:ARG:NH2	2.33	0.44
23:Q:367:PHE:C	23:Q:367:PHE:CD1	2.95	0.44
18:i:16:ALA:HB2	18:i:40:LEU:HD11	2.00	0.44
34:o:15:LEU:HD12	35:p:1148:LEU:CD2	2.48	0.44
34:o:260:VAL:O	34:o:342:ARG:NH2	2.50	0.44
34:o:726:GLU:OE1	34:o:726:GLU:N	2.51	0.44
34:o:1248:ASN:ND2	34:o:1256:VAL:H	2.15	0.44
2:1:411:MET:HG3	4:3:120:THR:CG2	2.41	0.44
7:6:610:VAL:HG23	7:6:612:ASP:OD2	2.18	0.44
10:9:242:ARG:HG3	34:o:1007:ILE:HD11	2.00	0.44
11:A:401:ASN:HD22	11:A:401:ASN:N	2.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:480:TRP:CH2	15:f:355:ILE:CG1	3.00	0.44
11:A:1052:ARG:O	11:A:1052:ARG:CG	2.66	0.44
12:B:839:MET:HE1	12:B:843:LEU:HD13	2.00	0.44
15:F:270:ASN:HD22	15:F:270:ASN:HA	1.62	0.44
18:I:32:GLU:HB3	18:I:35:VAL:HG23	2.00	0.44
27:U:104:LYS:HA	27:U:107:LEU:HD23	1.99	0.44
30:Y:-12:DC:H2"	30:Y:-11:DC:C6	2.53	0.44
34:o:497:ASP:HB2	35:p:942:LYS:HG3	2.00	0.44
34:o:736:THR:O	34:o:740:GLN:HG2	2.18	0.44
34:o:910:LYS:N	34:o:911:PRO:HD2	2.33	0.44
34:o:1003:ASP:OD1	34:o:1003:ASP:N	2.51	0.44
35:p:368:MET:HE3	35:p:368:MET:HB2	1.85	0.44
37:r:114:LEU:HD11	40:u:167:TYR:CD2	2.53	0.44
38:s:94:MET:HE2	38:s:125:TYR:CD2	2.52	0.44
41:v:71:ASP:O	41:v:72:ASP:HB3	2.17	0.44
44:y:63:VAL:HG22	44:y:71:ILE:HG22	2.00	0.44
2:1:411:MET:HB3	4:3:120:THR:HG22	2.00	0.43
3:2:155:THR:O	3:2:159:MET:HG2	2.18	0.43
5:4:215:PHE:HB3	5:4:216:MET:HE2	1.99	0.43
8:7:52:LEU:HD22	8:7:457:THR:OG1	2.16	0.43
9:8:236:GLN:O	9:8:279:ASN:ND2	2.51	0.43
12:B:594:SER:OG	12:B:595:LYS:N	2.51	0.43
17:H:110:TYR:CB	19:J:161:LYS:CD	2.71	0.43
18:I:23:LEU:HD13	18:I:31:TYR:CZ	2.52	0.43
21:O:10:THR:CG2	23:Q:50:LEU:HD22	2.47	0.43
21:O:21:GLU:HB2	23:Q:45:LEU:HD13	1.99	0.43
22:P:239:ARG:NE	23:Q:317:GLU:O	2.41	0.43
24:R:127:ARG:HH21	24:R:127:ARG:HG2	1.78	0.43
26:T:23:VAL:HG13	26:T:27:LEU:HD23	2.00	0.43
27:U:77:ARG:NH2	27:U:95:ASN:OD1	2.50	0.43
15:f:11:ASN:OD1	15:f:48:LYS:NZ	2.51	0.43
34:o:12:ALA:HB3	35:p:1135:TYR:CE2	2.53	0.43
34:o:26:LEU:HD23	34:o:26:LEU:H	1.82	0.43
34:o:579:ILE:O	34:o:584:PRO:HA	2.18	0.43
35:p:526:LEU:H	35:p:526:LEU:HD23	1.83	0.43
2:1:389:ILE:HD11	4:3:259:ARG:CG	2.47	0.43
6:5:15:ALA:HA	7:6:516:PRO:HG3	2.00	0.43
7:6:427:MET:HE2	7:6:427:MET:HB3	1.72	0.43
11:A:469:PRO:O	15:F:214:HIS:NE2	2.43	0.43
15:F:312:ILE:HG13	15:F:334:ALA:HB3	2.00	0.43
21:O:11:LEU:HD11	23:Q:46:TRP:HZ2	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:O:18:SER:OG	23:Q:45:LEU:C	2.61	0.43
22:P:207:PRO:O	22:P:207:PRO:CD	2.66	0.43
23:Q:315:ASN:C	23:Q:317:GLU:H	2.26	0.43
24:R:128:ILE:HG23	26:T:152:ASN:ND2	2.33	0.43
29:X:-17:DA:OP2	29:X:-17:DA:C8	2.68	0.43
29:X:-9:DA:H2"	29:X:-8:DG:C8	2.53	0.43
31:c:24:ASP:CB	19:j:192:LYS:HD2	2.48	0.43
31:c:101:VAL:HG22	15:f:127:LEU:HA	2.00	0.43
14:e:542:HIS:CE1	14:e:568:ARG:HG3	2.53	0.43
34:o:512:ARG:HE	39:t:90:LEU:HD12	1.82	0.43
34:o:917:GLU:O	34:o:921:ARG:HB2	2.18	0.43
35:p:840:MET:HB3	35:p:891:ASP:OD2	2.18	0.43
13:D:883:LEU:HD23	13:D:883:LEU:HA	1.81	0.43
14:E:485:ILE:CD1	15:F:131:LEU:HD21	2.45	0.43
15:F:283:MET:HE1	15:F:308:VAL:HG12	2.01	0.43
17:H:155:ASP:OD1	17:H:155:ASP:N	2.51	0.43
18:I:115:LEU:HD23	18:I:115:LEU:HA	1.86	0.43
20:L:62:LYS:C	20:L:62:LYS:HD3	2.44	0.43
25:S:11:VAL:O	25:S:12:THR:HG23	2.19	0.43
25:S:44:GLN:CA	26:T:9:LEU:CD1	2.85	0.43
26:T:18:VAL:HG13	26:T:108:GLY:HA3	2.00	0.43
26:T:147:LYS:O	35:p:94:SER:CB	2.64	0.43
26:T:174:LYS:HA	26:T:207:LYS:O	2.17	0.43
28:V:171:ILE:HG12	28:V:177:ASN:H	1.82	0.43
30:Y:-23:DA:H3'	30:Y:-23:DA:P	2.58	0.43
30:Y:-14:DC:C2'	30:Y:-13:DT:C6	3.01	0.43
13:d:913:LEU:HD21	20:l:87:ILE:HD13	1.99	0.43
15:f:320:ARG:HH11	15:f:320:ARG:HB2	1.83	0.43
34:o:1296:MET:HG2	34:o:1298:LEU:HG	2.01	0.43
35:p:628:VAL:HG12	35:p:629:GLU:O	2.18	0.43
37:r:76:ASN:O	37:r:80:ILE:HD12	2.19	0.43
5:4:254:MET:HE2	5:4:258:LEU:HB3	2.01	0.43
8:7:24:TYR:CD1	8:7:24:TYR:C	2.95	0.43
8:7:319:VAL:HG11	8:7:324:ARG:HH21	1.83	0.43
8:7:464:LEU:O	8:7:467:TYR:N	2.49	0.43
8:7:562:GLN:HE21	8:7:567:LEU:HD12	1.84	0.43
8:7:611:VAL:CG1	8:7:614:TYR:H	2.31	0.43
9:8:185:PHE:HB3	9:8:243:LEU:HD13	2.00	0.43
10:9:168:GLU:OE1	10:9:188:ARG:NH2	2.51	0.43
11:A:408:LEU:HB2	15:F:302:HIS:HB2	1.98	0.43
11:A:410:TRP:CG	15:F:306:PRO:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A:481:GLU:HB2	15:f:358:THR:HG21	1.96	0.43
11:A:564:PRO:CB	12:B:744:PHE:CD2	3.00	0.43
13:D:949:GLN:CA	13:D:952:GLN:HG2	2.43	0.43
15:F:400:GLY:O	15:F:404:ARG:HG2	2.18	0.43
17:H:57:SER:N	19:J:197:MET:SD	2.92	0.43
21:O:7:ARG:NH2	21:O:37:LEU:HB3	2.33	0.43
21:O:22:LEU:C	21:O:28:ILE:CG1	2.82	0.43
15:f:105:TYR:O	19:j:217:PHE:N	2.51	0.43
34:o:780:ASN:HD22	35:p:976:MET:HE2	1.81	0.43
34:o:1172:ASN:HD22	42:w:57:LYS:CD	2.31	0.43
34:o:1312:PRO:O	34:o:1332:GLN:NE2	2.51	0.43
35:p:1144:THR:CG2	40:u:41:LYS:HB2	2.47	0.43
38:s:88:LYS:HA	38:s:91:CYS:HB2	1.99	0.43
40:u:94:LYS:O	40:u:110:ARG:HD2	2.18	0.43
2:1:374:LEU:HD22	4:3:270:VAL:O	2.13	0.43
7:6:434:GLU:OE2	7:6:434:GLU:O	2.36	0.43
8:7:1:MET:H3	8:7:12:PHE:HB3	1.84	0.43
8:7:118:HIS:HD2	8:7:121:VAL:HG23	1.84	0.43
8:7:170:LEU:HD21	8:7:194:LEU:HD21	2.01	0.43
8:7:251:LEU:HD22	8:7:433:LEU:HD23	2.00	0.43
8:7:674:TYR:HB3	8:7:724:MET:HE2	2.00	0.43
10:9:86:TYR:OH	10:9:158:LEU:O	2.25	0.43
11:A:1061:ARG:HA	11:A:1061:ARG:HD3	1.63	0.43
15:F:219:GLU:CD	15:F:219:GLU:C	2.87	0.43
15:F:323:VAL:CG2	15:F:326:HIS:HB2	2.49	0.43
24:R:135:VAL:HG12	24:R:139:ASN:ND2	2.34	0.43
25:S:8:SER:C	26:T:48:THR:CA	2.82	0.43
25:S:42:TRP:O	26:T:13:LYS:HD3	2.18	0.43
25:S:121:ASN:O	26:T:25:LYS:CE	2.65	0.43
34:o:111:CYS:SG	34:o:188:GLN:NE2	2.92	0.43
34:o:277:THR:HA	34:o:280:LEU:HD12	1.99	0.43
34:o:322:LEU:HD12	34:o:323:PRO:HD2	2.00	0.43
34:o:434:LYS:NZ	34:o:437:ASP:HB3	2.34	0.43
34:o:1226:LEU:HA	34:o:1230:GLN:NE2	2.34	0.43
35:p:629:GLU:O	35:p:630:LYS:C	2.61	0.43
35:p:937:SER:OG	35:p:938:ARG:N	2.51	0.43
2:1:430:THR:HB	4:3:225:GLN:HB3	2.01	0.43
4:3:268:CYS:CB	4:3:271:CYS:SG	2.90	0.43
5:4:19:LEU:HA	5:4:22:PHE:CZ	2.53	0.43
6:5:9:LEU:HD11	6:5:42:HIS:HD2	1.83	0.43
7:6:472:ARG:NH1	7:6:484:ILE:HD13	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:557:LYS:CD	7:6:620:ALA:CB	2.83	0.43
7:6:613:THR:OG1	7:6:642:ARG:CD	2.67	0.43
8:7:8:LEU:CD2	8:7:61:ARG:CG	2.79	0.43
8:7:365:VAL:O	8:7:367:ILE:N	2.51	0.43
8:7:610:PHE:CE2	8:7:618:VAL:HG22	2.32	0.43
11:A:489:GLN:C	11:A:489:GLN:CD	2.86	0.43
12:B:766:LEU:HA	12:B:807:THR:HG21	2.00	0.43
14:E:377:LEU:HD21	14:E:422:PRO:HG2	2.00	0.43
14:E:507:VAL:HG23	14:E:507:VAL:O	2.19	0.43
15:F:112:VAL:HG22	17:H:55:LYS:N	2.32	0.43
16:G:181:TRP:O	16:G:181:TRP:CD2	2.72	0.43
21:O:21:GLU:CD	23:Q:45:LEU:HD21	2.40	0.43
21:O:22:LEU:HG	23:Q:45:LEU:CD1	2.47	0.43
22:P:304:ILE:HD12	22:P:304:ILE:N	2.33	0.43
23:Q:47:GLU:OE1	23:Q:60:HIS:CG	2.71	0.43
23:Q:366:ILE:HG22	23:Q:367:PHE:N	2.33	0.43
25:S:124:TYR:CE1	26:T:22:LYS:CE	3.02	0.43
25:S:135:PHE:CE2	26:T:43:LEU:HD22	2.53	0.43
26:T:195:GLN:HE22	26:T:234:GLU:CB	2.31	0.43
27:U:52:LEU:CD2	28:V:161:ARG:HH11	2.22	0.43
34:o:379:GLY:HA2	34:o:475:ARG:O	2.19	0.43
34:o:404:GLU:HG3	34:o:407:ARG:NH2	2.34	0.43
35:p:225:LEU:H	35:p:225:LEU:HD23	1.84	0.43
3:2:59:ARG:NH1	3:2:236:VAL:O	2.42	0.43
3:2:66:ASP:OD2	3:2:172:SER:N	2.36	0.43
3:2:145:LEU:HD12	3:2:145:LEU:HA	1.83	0.43
4:3:19:PRO:HD2	4:3:64:ILE:HG23	2.00	0.43
5:4:307:ILE:HD13	5:4:367:PHE:CE2	2.53	0.43
5:4:310:GLU:CG	7:6:112:HIS:CD2	3.01	0.43
8:7:624:PRO:HG2	8:7:656:ALA:O	2.19	0.43
11:A:504:PRO:O	15:F:209:LYS:HB3	2.19	0.43
16:G:165:GLU:HA	16:G:168:ARG:HD2	2.00	0.43
20:L:111:LEU:C	20:L:114:LYS:HE3	2.43	0.43
25:S:47:LEU:HG	25:S:98:TRP:CE3	2.53	0.43
26:T:213:LEU:HD12	26:T:213:LEU:HA	1.81	0.43
28:V:151:LEU:O	28:V:154:LEU:N	2.52	0.43
30:Y:36:DC:H2"	30:Y:37:DA:C8	2.54	0.43
15:f:20:LYS:HB3	15:f:20:LYS:HE2	1.83	0.43
34:o:1097:GLU:HG2	34:o:1098:PRO:HD3	2.00	0.43
34:o:1180:ASN:HB3	34:o:1182:GLN:OE1	2.18	0.43
35:p:458:LYS:NZ	35:p:461:GLN:HB3	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:r:64:THR:OG1	40:u:103:PRO:HD3	2.19	0.43
3:2:60:HIS:CD2	3:2:163:THR:HG21	2.54	0.43
3:2:185:LEU:HD23	3:2:185:LEU:HA	1.76	0.43
5:4:87:THR:HG23	5:4:96:TRP:HZ3	1.84	0.43
7:6:603:ASN:HD22	7:6:603:ASN:HA	1.54	0.43
8:7:24:TYR:HA	8:7:481:PHE:CE1	2.54	0.43
9:8:73:ASN:HD21	9:8:120:MET:HB3	1.84	0.43
11:A:470:ILE:HD12	11:A:470:ILE:C	2.43	0.43
11:A:475:LEU:HD23	11:A:480:TRP:NE1	2.32	0.43
13:D:948:GLU:CD	13:D:948:GLU:C	2.87	0.43
22:P:210:THR:OG1	30:Y:27:DA:OP1	2.36	0.43
23:Q:358:MET:HE2	23:Q:367:PHE:CD2	2.37	0.43
24:R:38:GLY:O	34:o:428:ASP:N	2.48	0.43
25:S:46:ARG:N	25:S:101:ARG:O	2.38	0.43
25:S:47:LEU:HD23	26:T:7:LEU:HD13	2.00	0.43
26:T:135:SER:O	26:T:137:LYS:N	2.51	0.43
30:Y:-9:DA:H2"	30:Y:-8:DT:C6	2.54	0.43
14:e:667:GLY:O	14:e:692:ARG:NH2	2.52	0.43
32:k:179:MET:HB3	32:k:180:PRO:HD2	2.01	0.43
20:l:106:ARG:HD2	20:l:114:LYS:HZ1	1.84	0.43
20:l:139:TYR:HD2	33:m:73:MET:HE3	1.84	0.43
34:o:1429:LYS:HE2	34:o:1429:LYS:HA	2.01	0.43
38:s:49:SER:C	38:s:50:GLU:HG3	2.44	0.43
3:2:212:ALA:O	3:2:217:GLY:C	2.62	0.43
7:6:296:ASP:N	7:6:296:ASP:OD1	2.51	0.43
7:6:613:THR:CB	7:6:642:ARG:HD2	2.49	0.43
9:8:277:LEU:HD23	9:8:277:LEU:HA	1.77	0.43
10:9:197:ARG:NH2	10:9:259:VAL:O	2.51	0.43
10:9:197:ARG:HH21	10:9:259:VAL:HG22	1.84	0.43
11:A:352:MET:HE3	11:A:352:MET:HB3	1.82	0.43
11:A:353:LEU:CG	11:A:495:LEU:CD2	2.95	0.43
14:E:464:TYR:CG	15:F:133:ALA:HB2	2.54	0.43
14:E:516:ILE:HD12	14:E:527:ILE:HA	2.01	0.43
15:F:85:GLY:HA2	19:J:212:LYS:HG3	2.01	0.43
15:F:401:GLU:C	15:F:401:GLU:CD	2.87	0.43
17:H:49:GLY:C	19:J:171:LEU:HD13	2.43	0.43
24:R:128:ILE:HA	26:T:152:ASN:HD21	1.83	0.43
28:V:76:GLY:O	28:V:80:LYS:HB2	2.18	0.43
28:V:175:LEU:HG	28:V:176:PRO:O	2.19	0.43
30:Y:24:DT:H2'	30:Y:25:DT:H5"	2.00	0.43
34:o:273:GLN:OE1	34:o:278:HIS:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:p:110:PRO:HG2	35:p:163:LEU:HD11	2.00	0.43
35:p:912:ASN:HB3	35:p:918:PHE:CD1	2.54	0.43
36:q:9:VAL:HG11	44:y:105:PHE:CD1	2.53	0.43
36:q:103:LEU:HD12	36:q:120:LEU:HD22	1.99	0.43
38:s:173:ILE:O	38:s:209:VAL:HA	2.19	0.43
40:u:86:ASP:OD2	40:u:171:VAL:CG2	2.55	0.43
44:y:26:LYS:HG3	44:y:27:VAL:HG22	2.00	0.43
2:1:427:ALA:CB	5:4:61:PHE:HB3	2.48	0.43
4:3:155:GLN:H	4:3:155:GLN:HG3	1.60	0.43
7:6:134:SER:O	7:6:138:GLU:CB	2.67	0.43
7:6:334:ARG:C	7:6:462:CYS:HB3	2.44	0.43
8:7:630:SER:C	8:7:631:ARG:HG3	2.44	0.43
11:A:487:ASP:OD1	11:A:487:ASP:N	2.49	0.43
11:A:899:LYS:HE3	11:A:899:LYS:HB2	1.82	0.43
12:B:562:GLY:O	12:B:581:ILE:HG12	2.19	0.43
13:D:958:LYS:HD3	13:D:958:LYS:HA	1.53	0.43
20:L:69:GLU:O	20:L:70:VAL:C	2.62	0.43
15:f:257:PRO:HG3	15:f:300:TYR:CE2	2.54	0.43
20:l:129:PRO:HB2	33:m:56:ILE:HG23	2.01	0.43
33:m:103:LEU:O	33:m:107:ASN:ND2	2.51	0.43
35:p:371:ARG:NH2	35:p:380:ARG:HH22	2.16	0.43
36:q:240:ARG:HB2	36:q:243:THR:HG22	1.99	0.43
40:u:2:PHE:CE1	40:u:77:PHE:HB2	2.54	0.43
2:1:109:LYS:C	2:1:111:LEU:N	2.75	0.42
2:1:382:TYR:CZ	4:3:271:CYS:O	2.63	0.42
3:2:322:TYR:CD1	4:3:272:LEU:HD23	2.54	0.42
5:4:220:LEU:HD21	5:4:233:ILE:HG21	2.01	0.42
5:4:426:ARG:NH2	5:4:434:GLU:OE1	2.52	0.42
7:6:199:LEU:CD2	7:6:273:LYS:HG2	2.48	0.42
7:6:400:PRO:O	7:6:402:GLY:N	2.52	0.42
11:A:400:GLU:HG3	11:A:401:ASN:N	2.33	0.42
11:A:410:TRP:CG	15:F:305:ILE:CG2	2.89	0.42
11:A:470:ILE:HG22	15:F:214:HIS:HA	2.01	0.42
15:F:111:GLU:OE1	15:F:112:VAL:N	2.51	0.42
15:F:312:ILE:HG22	15:F:313:VAL:CG1	2.50	0.42
18:I:21:GLN:HE22	18:I:24:LYS:HE2	1.84	0.42
20:L:120:LEU:O	20:L:125:ASN:N	2.52	0.42
23:Q:19:GLU:HA	23:Q:19:GLU:OE1	2.19	0.42
26:T:181:GLN:NE2	26:T:181:GLN:HA	2.34	0.42
14:e:332:ILE:HA	14:e:336:HIS:HD2	1.84	0.42
14:e:721:ARG:HA	14:e:721:ARG:HD3	1.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:948:ILE:HG12	34:o:1007:ILE:HG21	2.01	0.42
34:o:1191:GLU:O	34:o:1195:VAL:HG13	2.19	0.42
34:o:1230:GLN:HB2	34:o:1234:LYS:NZ	2.34	0.42
40:u:38:CYS:C	40:u:155:ASN:OD1	2.62	0.42
42:w:103:ARG:O	42:w:103:ARG:HD3	2.18	0.42
3:2:169:ILE:HB	3:2:198:VAL:HG22	2.00	0.42
7:6:342:CYS:C	7:6:344:ALA:H	2.26	0.42
7:6:401:ILE:HA	7:6:429:TRP:CD2	2.54	0.42
8:7:616:ARG:O	8:7:676:LEU:N	2.51	0.42
8:7:668:ILE:H	8:7:668:ILE:CD1	2.25	0.42
11:A:353:LEU:HD12	11:A:495:LEU:HD11	1.88	0.42
11:A:825:ILE:HD12	11:A:830:ILE:HD11	2.01	0.42
11:A:925:ASP:N	11:A:925:ASP:OD1	2.52	0.42
12:B:653:LEU:HG	12:B:684:ILE:HG13	2.00	0.42
13:D:891:ILE:H	13:D:891:ILE:HD13	1.84	0.42
15:F:125:VAL:O	15:F:125:VAL:HG22	2.19	0.42
15:F:312:ILE:HG13	15:F:334:ALA:CB	2.48	0.42
15:F:402:ARG:O	15:F:406:VAL:HG13	2.19	0.42
18:I:23:LEU:HD22	18:I:28:ILE:HD12	2.01	0.42
21:O:22:LEU:CD1	21:O:28:ILE:HG21	2.41	0.42
22:P:179:ASP:C	22:P:179:ASP:OD1	2.62	0.42
22:P:266:PHE:CD1	22:P:266:PHE:O	2.73	0.42
22:P:268:ILE:HD13	22:P:332:LEU:HD13	1.99	0.42
26:T:185:ASP:O	26:T:186:MET:C	2.62	0.42
27:U:32:LEU:HD13	28:V:161:ARG:HH21	1.81	0.42
27:U:55:ASP:O	27:U:59:LEU:N	2.42	0.42
15:f:447:ALA:CB	15:f:456:GLY:HA3	2.49	0.42
34:o:28:PRO:HA	34:o:31:LEU:HB2	2.01	0.42
34:o:1024:ASN:OD1	34:o:1024:ASN:N	2.52	0.42
2:1:434:LEU:HD13	4:3:229:TRP:CG	2.54	0.42
5:4:300:THR:HG22	5:4:302:HIS:H	1.84	0.42
7:6:303:ASN:HB2	7:6:435:TRP:CE2	2.54	0.42
7:6:347:SER:HA	7:6:374:TRP:CH2	2.54	0.42
8:7:383:LEU:HD12	8:7:383:LEU:HA	1.83	0.42
9:8:83:HIS:CD2	9:8:84:LYS:HG2	2.54	0.42
9:8:240:MET:HG2	9:8:246:TYR:CE1	2.53	0.42
11:A:604:PRO:O	11:A:889:TYR:OH	2.34	0.42
12:B:216:SER:OG	12:B:217:ASN:N	2.52	0.42
12:B:490:SER:O	12:B:491:HIS:C	2.63	0.42
14:E:460:SER:HB3	15:F:135:TRP:CZ3	2.55	0.42
17:H:110:TYR:CD1	19:J:161:LYS:CB	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:P:284:GLU:OE2	24:R:177:PHE:CE2	2.71	0.42
25:S:24:LYS:HA	26:T:98:GLU:C	2.38	0.42
26:T:158:ASN:HD22	26:T:158:ASN:N	2.18	0.42
27:U:174:ARG:C	27:U:174:ARG:CD	2.78	0.42
31:c:124:ILE:HD11	15:f:133:ALA:HB1	2.00	0.42
15:f:301:VAL:HG13	15:f:305:ILE:HG12	2.02	0.42
15:f:432:ALA:HB1	15:f:462:GLN:CB	2.49	0.42
34:o:48:GLU:OE1	34:o:48:GLU:N	2.52	0.42
34:o:402:LEU:HD23	34:o:402:LEU:HA	1.87	0.42
34:o:1244:ASN:O	34:o:1259:ILE:HA	2.19	0.42
34:o:1248:ASN:HD21	34:o:1256:VAL:HB	1.84	0.42
36:q:15:THR:HG22	36:q:16:ASP:N	2.33	0.42
40:u:44:PHE:HE2	40:u:46:ILE:HG12	1.83	0.42
2:1:354:LEU:O	2:1:358:ILE:HG12	2.19	0.42
2:1:372:ILE:CG2	3:2:54:ARG:HE	2.30	0.42
2:1:407:ILE:HB	4:3:23:GLY:CA	2.50	0.42
4:3:255:CYS:SG	4:3:257:CYS:N	2.88	0.42
7:6:445:THR:O	7:6:445:THR:CG2	2.68	0.42
7:6:500:GLY:HA3	7:6:650:MET:HA	2.02	0.42
8:7:494:ILE:O	8:7:707:ASN:CA	2.67	0.42
14:E:509:GLN:CB	14:E:512:ASP:OD2	2.51	0.42
15:F:50:ILE:O	15:F:54:ALA:N	2.47	0.42
15:F:112:VAL:CG2	17:H:54:GLU:C	2.84	0.42
15:F:112:VAL:HG21	17:H:58:VAL:CG2	2.49	0.42
23:Q:344:ARG:HG3	23:Q:349:TRP:N	2.31	0.42
26:T:51:ARG:CG	26:T:52:THR:N	2.82	0.42
45:z:29:LYS:HE2	45:z:29:LYS:HB2	1.95	0.42
7:6:178:GLU:HG2	7:6:269:SER:HB3	2.01	0.42
7:6:568:LEU:HB2	7:6:606:PHE:HB3	2.01	0.42
9:8:129:HIS:CE1	9:8:192:VAL:HG13	2.55	0.42
11:A:485:ILE:O	11:A:485:ILE:HG23	2.20	0.42
21:O:60:GLY:O	23:Q:374:ALA:HA	2.20	0.42
22:P:278:GLN:CD	22:P:278:GLN:N	2.76	0.42
23:Q:340:ASP:N	23:Q:340:ASP:OD1	2.53	0.42
24:R:48:VAL:CG2	35:p:1078:ARG:CZ	2.84	0.42
27:U:19:LYS:O	27:U:22:ILE:HG13	2.19	0.42
27:U:165:GLU:OE1	27:U:165:GLU:HA	2.20	0.42
28:V:148:LYS:HA	28:V:180:LYS:NZ	2.35	0.42
15:f:428:LEU:HD13	15:f:458:LEU:CB	2.50	0.42
35:p:718:GLN:HG2	35:p:720:PRO:HD2	2.01	0.42
38:s:185:ILE:HG22	38:s:209:VAL:HG11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:140:GLU:O	2:1:144:ALA:HB2	2.19	0.42
9:8:264:ALA:HB3	9:8:268:LEU:HD22	2.01	0.42
11:A:491:MET:O	11:A:491:MET:SD	2.78	0.42
11:A:495:LEU:CG	15:f:272:VAL:HG21	2.49	0.42
11:A:727:THR:HG23	11:A:727:THR:O	2.19	0.42
12:B:431:LEU:H	12:B:431:LEU:CD2	2.32	0.42
12:B:431:LEU:CD2	12:B:431:LEU:N	2.82	0.42
15:F:118:ILE:CB	17:H:39:VAL:HG13	2.49	0.42
20:L:61:LYS:HA	20:L:61:LYS:HD2	1.55	0.42
22:P:284:GLU:OE2	24:R:177:PHE:HE2	2.03	0.42
24:R:109:SER:HA	24:R:112:ARG:CD	2.49	0.42
24:R:111:ASP:CG	24:R:114:MET:CB	2.92	0.42
14:e:479:THR:OG1	14:e:481:ASP:O	2.33	0.42
34:o:403:GLN:O	34:o:406:VAL:HG12	2.19	0.42
34:o:491:PRO:HG2	34:o:535:MET:HE2	2.01	0.42
34:o:753:GLY:O	34:o:757:GLN:HG2	2.20	0.42
34:o:1018:LYS:HE3	34:o:1018:LYS:HB2	1.90	0.42
34:o:1460:LEU:O	35:p:1152:PRO:HD3	2.20	0.42
38:s:88:LYS:O	38:s:92:GLN:HG3	2.19	0.42
1:0:113:VAL:HG12	1:0:115:LEU:H	1.84	0.42
2:1:306:ARG:CG	2:1:306:ARG:NH1	2.70	0.42
2:1:386:PRO:C	4:3:253:ALA:HA	2.45	0.42
7:6:418:LYS:HB3	30:Y:-9:DA:H3'	2.01	0.42
8:7:610:PHE:HD1	8:7:666:ARG:C	2.28	0.42
10:9:56:LEU:HD13	10:9:273:LEU:HB3	2.01	0.42
10:9:241:ASN:HD22	10:9:242:ARG:N	2.16	0.42
11:A:408:LEU:CD1	15:F:302:HIS:CB	2.97	0.42
14:E:452:ARG:O	14:E:453:LEU:C	2.63	0.42
14:E:790:LEU:HD13	17:H:146:ILE:HG12	2.00	0.42
24:R:158:ALA:HA	24:R:186:ILE:HG13	2.01	0.42
24:R:216:SER:HA	24:R:229:GLN:NE2	2.35	0.42
26:T:134:GLU:O	26:T:135:SER:C	2.63	0.42
29:X:-18:DC:H2'	29:X:-17:DA:C8	2.55	0.42
31:c:21:LEU:HD11	31:c:23:TRP:CD1	2.54	0.42
15:f:55:LEU:HD13	18:i:28:ILE:HG12	2.01	0.42
34:o:403:GLN:HA	34:o:406:VAL:HG12	2.01	0.42
34:o:460:ARG:HG2	34:o:461:GLN:N	2.33	0.42
35:p:109:MET:HB2	35:p:112:GLU:OE1	2.20	0.42
35:p:323:SER:OG	35:p:324:ARG:NH1	2.48	0.42
35:p:603:MET:HE3	35:p:603:MET:HB2	1.85	0.42
40:u:78:ARG:HG3	40:u:80:PHE:CE1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:136:LEU:HD12	5:4:280:ARG:HH21	1.85	0.42
7:6:306:ILE:HG21	7:6:360:ARG:NE	2.35	0.42
7:6:369:VAL:HG13	7:6:370:SER:N	2.35	0.42
8:7:95:GLU:HG2	8:7:99:GLY:O	2.19	0.42
8:7:461:LEU:HD13	8:7:696:TRP:HE1	1.84	0.42
9:8:181:PRO:HA	9:8:184:LEU:HD12	2.01	0.42
12:B:100:GLN:O	12:B:101:ARG:NH1	2.46	0.42
14:E:369:LYS:HD3	14:E:369:LYS:HA	1.74	0.42
15:F:427:LEU:HD12	15:F:427:LEU:HA	1.72	0.42
28:V:172:GLU:O	28:V:172:GLU:HG3	2.19	0.42
30:Y:-19:DC:O2	30:Y:-18:DT:C2	2.73	0.42
19:j:149:PRO:O	19:j:153:ARG:NH1	2.46	0.42
20:l:80:VAL:O	20:l:84:LEU:HG	2.19	0.42
34:o:1483:GLY:HA2	39:t:80:MET:CG	2.47	0.42
36:q:44:ILE:HD11	36:q:238:SER:CB	2.50	0.42
37:r:109:GLU:O	37:r:113:ALA:N	2.49	0.42
1:0:165:ILE:HG21	8:7:641:ARG:HH12	1.84	0.42
2:1:372:ILE:CG1	3:2:54:ARG:CD	2.96	0.42
8:7:641:ARG:NH2	8:7:648:GLU:OE1	2.52	0.42
8:7:653:THR:HG22	8:7:692:LYS:HD2	2.01	0.42
9:8:222:LEU:HD23	9:8:222:LEU:HA	1.87	0.42
12:B:957:MET:O	12:B:968:ARG:NH1	2.53	0.42
12:B:984:PRO:HG2	12:B:987:LEU:HD22	2.02	0.42
14:E:519:GLU:O	14:E:519:GLU:CD	2.63	0.42
14:E:696:TRP:CE3	14:E:703:MET:HB2	2.54	0.42
21:O:65:TYR:CE2	22:P:189:ASN:CA	3.00	0.42
23:Q:53:SER:O	23:Q:54:ARG:HB2	2.20	0.42
24:R:14:THR:N	24:R:20:ASP:HB3	2.34	0.42
31:c:94:HIS:CD2	15:f:122:LEU:HD22	2.54	0.42
18:i:73:LEU:HD13	20:l:105:HIS:NE2	2.33	0.42
33:m:68:MET:HE3	33:m:68:MET:HB3	1.95	0.42
34:o:89:GLU:O	34:o:287:ASN:ND2	2.51	0.42
34:o:426:ARG:NH1	35:p:1064:ARG:HH21	2.17	0.42
34:o:1098:PRO:O	34:o:1101:GLN:HG2	2.20	0.42
35:p:90:GLN:HG3	35:p:91:ILE:N	2.34	0.42
35:p:100:GLU:HG3	35:p:101:ARG:H	1.85	0.42
35:p:341:GLU:HG2	35:p:342:VAL:N	2.34	0.42
35:p:728:MET:HE2	35:p:942:LYS:HD3	2.02	0.42
35:p:824:ASP:OD1	35:p:825:GLN:N	2.53	0.42
40:u:142:GLU:O	40:u:170:LEU:HA	2.20	0.42
2:1:382:TYR:OH	4:3:273:SER:HB3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:228:LEU:O	4:3:232:LEU:HB3	2.20	0.42
7:6:404:SER:HB3	7:6:433:GLN:HB3	2.00	0.42
7:6:463:LYS:CE	7:6:484:ILE:C	2.93	0.42
9:8:41:LYS:HE2	9:8:91:PHE:HE2	1.85	0.42
10:9:167:PHE:HZ	10:9:188:ARG:HA	1.85	0.42
12:B:176:HIS:CE1	12:B:309:ILE:HB	2.55	0.42
12:B:859:ARG:HA	12:B:859:ARG:HD2	1.81	0.42
13:D:891:ILE:N	13:D:891:ILE:CD1	2.82	0.42
14:E:651:VAL:HG21	14:E:686:THR:HG21	2.01	0.42
15:F:122:LEU:HA	15:F:123:PRO:HD3	1.92	0.42
23:Q:344:ARG:CG	23:Q:349:TRP:CG	3.03	0.42
23:Q:344:ARG:CB	23:Q:349:TRP:HA	2.50	0.42
24:R:48:VAL:HG11	35:p:1066:PRO:HG3	2.02	0.42
24:R:214:PHE:HA	24:R:217:ARG:NH1	2.34	0.42
25:S:6:PRO:O	25:S:10:ASN:N	2.53	0.42
25:S:8:SER:CB	26:T:49:GLN:CA	2.42	0.42
26:T:230:LYS:HE2	26:T:230:LYS:HB3	1.80	0.42
27:U:118:GLU:C	27:U:118:GLU:CD	2.87	0.42
28:V:140:LYS:H	28:V:141:PRO:CD	2.31	0.42
28:V:170:ASP:OD1	28:V:171:ILE:N	2.53	0.42
34:o:320:ASN:HB3	34:o:327:ARG:NE	2.34	0.42
34:o:381:PRO:HB2	44:y:2:ASN:HD21	1.84	0.42
34:o:812:LYS:HE3	42:w:77:THR:HG21	2.01	0.42
34:o:1361:ASP:OD1	34:o:1363:VAL:HG22	2.20	0.42
35:p:143:GLN:N	35:p:143:GLN:OE1	2.52	0.42
39:t:72:GLN:O	39:t:77:ALA:N	2.38	0.42
39:t:80:MET:HB2	39:t:96:GLU:OE2	2.20	0.42
40:u:117:MET:HE1	40:u:163:LEU:HD22	2.02	0.42
2:1:385:GLY:HA2	4:3:256:PHE:HE1	1.85	0.41
8:7:535:ILE:CG2	8:7:619:ILE:HD12	2.50	0.41
8:7:539:PHE:CA	8:7:621:PHE:HB2	2.44	0.41
8:7:610:PHE:HE1	8:7:666:ARG:H	1.68	0.41
14:E:507:VAL:CG1	14:E:513:LEU:HD13	2.50	0.41
15:F:14:LEU:HD21	18:I:19:MET:HE2	1.95	0.41
15:F:66:LEU:HB3	18:I:32:GLU:OE2	2.20	0.41
15:F:75:LEU:HD11	15:F:84:TYR:HE1	1.84	0.41
23:Q:344:ARG:HB2	23:Q:349:TRP:HA	2.01	0.41
24:R:23:LEU:HD11	24:R:32:MET:HB3	2.02	0.41
25:S:53:ASN:HB2	25:S:96:GLN:OE1	2.19	0.41
25:S:114:LYS:HB3	35:p:356:PHE:HE1	1.84	0.41
26:T:33:LYS:O	26:T:34:ALA:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:U:160:GLU:OE1	27:U:160:GLU:HA	2.20	0.41
15:f:402:ARG:HH22	15:f:403:ILE:HD12	1.85	0.41
32:k:179:MET:HB3	32:k:180:PRO:CD	2.50	0.41
34:o:437:ASP:OD1	34:o:438:LEU:N	2.53	0.41
34:o:581:LYS:HA	34:o:581:LYS:HD3	1.91	0.41
34:o:1006:PRO:HB3	34:o:1051:SER:OG	2.20	0.41
35:p:296:GLU:CD	35:p:296:GLU:H	2.27	0.41
40:u:146:LYS:HD3	40:u:165:ASP:OD2	2.21	0.41
40:u:153:ASP:O	40:u:156:ASP:N	2.53	0.41
2:1:111:LEU:O	2:1:115:ASN:CB	2.67	0.41
2:1:378:LYS:NZ	4:3:283:THR:HG21	2.34	0.41
7:6:346:LYS:HE3	7:6:346:LYS:HB3	1.82	0.41
8:7:423:ASP:HB2	8:7:628:THR:CG2	2.50	0.41
8:7:441:SER:HA	8:7:444:ILE:HD12	2.02	0.41
8:7:445:LYS:O	8:7:445:LYS:HD2	2.20	0.41
11:A:410:TRP:CA	15:F:306:PRO:HD3	2.42	0.41
11:A:954:ALA:HA	16:G:149:ARG:HH22	1.85	0.41
12:B:464:ILE:HG12	12:B:513:LYS:HE2	2.02	0.41
12:B:835:ARG:CZ	17:H:184:ARG:HH11	2.33	0.41
12:B:925:LYS:HA	12:B:925:LYS:HD3	1.78	0.41
15:F:67:THR:O	15:F:68:THR:C	2.62	0.41
15:F:114:LEU:CD2	17:H:45:LEU:CG	2.59	0.41
15:F:118:ILE:CD1	17:H:43:SER:N	2.57	0.41
20:L:128:ILE:O	20:L:128:ILE:HG22	2.19	0.41
21:O:64:THR:CG2	22:P:188:ARG:HD3	2.49	0.41
24:R:40:VAL:HG21	34:o:426:ARG:CG	2.50	0.41
24:R:135:VAL:O	24:R:139:ASN:ND2	2.47	0.41
18:i:45:ARG:HG3	19:j:212:LYS:HB3	2.01	0.41
34:o:733:LEU:HB3	42:w:106:ASP:HA	2.02	0.41
34:o:881:ASN:OD1	34:o:882:SER:N	2.40	0.41
35:p:557:SER:HA	35:p:558:PRO:HD3	1.94	0.41
40:u:40:GLY:HA3	40:u:152:VAL:HG22	2.00	0.41
40:u:89:VAL:HA	40:u:99:THR:HA	2.02	0.41
41:v:32:SER:OG	41:v:33:GLU:N	2.52	0.41
2:1:356:GLU:HB3	3:2:206:ARG:HH21	1.85	0.41
4:3:228:LEU:HA	4:3:232:LEU:HB2	2.01	0.41
7:6:568:LEU:HD21	7:6:608:SER:HB3	2.00	0.41
8:7:8:LEU:CD1	8:7:61:ARG:CG	2.84	0.41
8:7:145:GLN:HA	8:7:148:HIS:CE1	2.56	0.41
8:7:506:SER:C	8:7:683:ARG:HH22	2.27	0.41
8:7:537:ALA:HA	8:7:619:ILE:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:538:PHE:HB2	8:7:620:MET:HA	2.03	0.41
9:8:95:GLU:N	9:8:95:GLU:OE1	2.54	0.41
11:A:567:LEU:HA	12:B:745:GLN:HE21	1.85	0.41
11:A:573:TYR:CE2	12:B:657:ARG:CD	3.03	0.41
12:B:831:GLU:OE1	12:B:835:ARG:NH2	2.52	0.41
13:D:1084:LEU:HB3	18:I:99:ARG:HH21	1.84	0.41
14:E:579:VAL:HG11	18:I:116:PRO:HG2	2.01	0.41
14:E:747:LEU:N	14:E:747:LEU:HD13	2.35	0.41
15:F:231:CYS:HB3	15:F:285:MET:HE2	2.02	0.41
17:H:197:THR:HB	15:f:238:LYS:HG2	2.03	0.41
21:O:56:VAL:HG13	23:Q:367:PHE:HB3	2.01	0.41
25:S:16:VAL:HB	26:T:56:PHE:CE1	2.53	0.41
27:U:145:PHE:HD1	27:U:145:PHE:O	2.03	0.41
28:V:96:PRO:CB	28:V:136:LYS:HD3	2.45	0.41
34:o:350:VAL:HG13	34:o:351:ARG:HG3	2.01	0.41
34:o:927:GLU:HG3	34:o:927:GLU:O	2.18	0.41
37:r:82:SER:O	37:r:86:LEU:N	2.51	0.41
37:r:87:LEU:H	37:r:87:LEU:HG	1.64	0.41
2:1:227:SER:C	2:1:228:HIS:CG	2.98	0.41
2:1:372:ILE:CG1	3:2:54:ARG:NE	2.75	0.41
2:1:414:TYR:CE1	4:3:116:LYS:HZ3	1.66	0.41
5:4:99:GLN:O	5:4:107:GLY:N	2.53	0.41
5:4:306:PHE:CZ	5:4:371:ARG:HD3	2.54	0.41
7:6:165:LYS:HB3	7:6:289:TYR:HD1	1.85	0.41
8:7:524:LEU:HD11	8:7:595:ILE:HD11	2.01	0.41
10:9:143:ILE:HD13	10:9:143:ILE:HA	1.90	0.41
11:A:353:LEU:HD21	11:A:495:LEU:CG	2.47	0.41
11:A:620:LEU:HD11	11:A:766:ARG:HD3	2.03	0.41
14:E:476:VAL:HB	14:E:782:HIS:HB2	2.01	0.41
15:F:109:GLU:C	15:F:111:GLU:H	2.29	0.41
24:R:48:VAL:HG23	35:p:1078:ARG:HG2	2.02	0.41
24:R:218:PHE:CD1	24:R:277:ILE:HG22	2.55	0.41
25:S:37:VAL:HG11	25:S:42:TRP:CZ2	2.55	0.41
26:T:195:GLN:CD	26:T:195:GLN:C	2.88	0.41
27:U:95:ASN:HD22	27:U:96:TYR:H	1.68	0.41
27:U:136:PHE:HD1	27:U:140:GLU:CD	2.27	0.41
27:U:201:TYR:C	27:U:203:ILE:H	2.27	0.41
28:V:153:ARG:NH1	28:V:153:ARG:CA	2.76	0.41
13:d:1060:LEU:HD11	20:l:83:MET:HG3	2.02	0.41
15:f:297:LEU:O	15:f:301:VAL:N	2.53	0.41
34:o:140:ARG:HH12	34:o:235:VAL:HA	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:1231:ILE:O	34:o:1235:ILE:HG12	2.20	0.41
3:2:386:ILE:HG23	4:3:176:ASN:CG	2.44	0.41
4:3:222:SER:O	4:3:222:SER:OG	2.31	0.41
5:4:410:ASN:HA	5:4:412:PHE:CD1	2.56	0.41
7:6:648:LYS:HE2	7:6:648:LYS:HB2	1.58	0.41
8:7:24:TYR:HA	8:7:481:PHE:HE1	1.84	0.41
8:7:52:LEU:HD22	8:7:457:THR:CB	2.51	0.41
8:7:117:ILE:HG23	8:7:185:ARG:HE	1.85	0.41
8:7:420:PRO:HG2	8:7:421:PHE:CD1	2.56	0.41
12:B:178:PHE:CD1	12:B:324:ILE:HG21	2.55	0.41
12:B:749:LEU:HA	12:B:752:THR:HG22	2.02	0.41
14:E:469:ALA:HA	15:F:129:VAL:HB	2.02	0.41
16:G:129:LYS:HD2	16:G:129:LYS:HA	1.76	0.41
21:O:19:LEU:O	21:O:23:ILE:HG13	2.20	0.41
24:R:27:TYR:HB3	24:R:28:ARG:CZ	2.50	0.41
27:U:129:CYS:HB2	27:U:154:CYS:HB2	2.02	0.41
30:Y:30:DT:C6	30:Y:30:DT:C4'	3.04	0.41
34:o:215:LEU:H	34:o:215:LEU:HD23	1.86	0.41
34:o:1145:GLY:C	34:o:1147:SER:N	2.78	0.41
34:o:1146:GLN:HA	34:o:1149:ARG:HE	1.84	0.41
35:p:193:VAL:O	35:p:467:SER:HA	2.20	0.41
37:r:36:GLU:OE1	37:r:36:GLU:N	2.53	0.41
40:u:154:LYS:HG3	40:u:155:ASN:H	1.85	0.41
2:1:381:ARG:HG2	4:3:256:PHE:O	2.20	0.41
5:4:442:VAL:HG21	6:5:44:PHE:CE2	2.54	0.41
8:7:16:TYR:HD1	8:7:16:TYR:HA	1.75	0.41
8:7:39:VAL:HG11	8:7:464:LEU:HD11	2.03	0.41
8:7:526:GLU:CB	8:7:714:VAL:HG21	2.49	0.41
9:8:119:LEU:HG	9:8:123:GLN:HE22	1.85	0.41
11:A:476:VAL:C	15:f:354:ARG:NH2	2.78	0.41
11:A:480:TRP:CH2	15:f:355:ILE:HG12	2.54	0.41
11:A:731:LEU:HD23	11:A:731:LEU:HA	1.93	0.41
12:B:55:PRO:HB3	12:B:60:LEU:HD22	2.02	0.41
15:F:114:LEU:CD2	17:H:42:SER:O	2.68	0.41
15:F:211:ARG:HH11	15:F:211:ARG:HG2	1.85	0.41
17:H:61:LEU:HD11	19:J:200:LEU:HD21	2.02	0.41
21:O:90:VAL:HG11	21:O:93:VAL:HB	2.02	0.41
22:P:300:ILE:HD11	22:P:320:GLU:HB3	2.01	0.41
23:Q:15:ARG:HA	23:Q:15:ARG:HD3	1.92	0.41
23:Q:344:ARG:CB	23:Q:349:TRP:CD2	3.04	0.41
24:R:23:LEU:HD12	24:R:33:ILE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:R:118:PHE:HA	24:R:121:ILE:HB	2.02	0.41
27:U:70:LYS:HB3	27:U:99:LEU:HG	2.02	0.41
27:U:152:PHE:HB2	27:U:161:VAL:HG21	2.03	0.41
28:V:93:ASP:OD1	28:V:93:ASP:N	2.53	0.41
14:e:504:LEU:HD22	14:e:575:PHE:HZ	1.85	0.41
32:k:130:PRO:HD3	33:m:35:GLU:HG2	2.02	0.41
34:o:102:LYS:HZ3	34:o:238:MET:CG	2.33	0.41
34:o:330:GLN:O	34:o:331:LYS:HE2	2.20	0.41
34:o:1428:MET:SD	34:o:1429:LYS:HE3	2.61	0.41
34:o:1472:ASP:N	34:o:1472:ASP:OD1	2.53	0.41
35:p:545:LEU:HD23	35:p:545:LEU:HA	1.83	0.41
37:r:36:GLU:HA	37:r:39:MET:HE2	2.02	0.41
40:u:79:PRO:HG3	40:u:104:MET:SD	2.60	0.41
44:y:82:SER:OG	44:y:84:GLN:OE1	2.38	0.41
2:1:244:ALA:HB1	2:1:306:ARG:HB3	2.03	0.41
5:4:307:ILE:H	5:4:371:ARG:CB	2.31	0.41
7:6:448:ALA:HA	7:6:480:LEU:HD11	2.02	0.41
8:7:22:PHE:HD2	8:7:26:ARG:HH21	1.67	0.41
8:7:24:TYR:HE1	8:7:55:LEU:HB2	1.86	0.41
8:7:42:MET:HA	8:7:481:PHE:CB	2.51	0.41
8:7:461:LEU:CB	8:7:694:PRO:HB3	2.51	0.41
8:7:504:ILE:CG2	8:7:681:ASP:HA	2.44	0.41
8:7:523:LEU:CA	8:7:710:VAL:CG1	2.90	0.41
9:8:172:GLN:HA	9:8:179:ARG:HH22	1.86	0.41
11:A:480:TRP:HH2	15:f:355:ILE:CD1	2.32	0.41
11:A:1055:VAL:HG13	11:A:1056:ALA:H	1.85	0.41
12:B:218:GLY:HA2	12:B:238:LEU:HD13	2.03	0.41
12:B:544:LEU:HD22	12:B:625:LEU:HD22	2.02	0.41
13:D:995:GLU:H	13:D:995:GLU:HG3	1.72	0.41
14:E:236:LEU:HD21	14:E:317:LEU:HB2	2.03	0.41
14:E:564:ASP:OD1	14:E:564:ASP:N	2.51	0.41
14:E:589:TRP:HH2	15:F:57:PHE:CE1	2.37	0.41
15:F:215:GLU:O	15:F:254:GLN:NE2	2.38	0.41
15:F:396:LEU:HA	15:F:399:GLU:OE1	2.20	0.41
22:P:312:LEU:HD12	22:P:312:LEU:N	2.36	0.41
22:P:326:GLU:O	22:P:327:ASN:C	2.63	0.41
23:Q:43:LYS:HE2	23:Q:60:HIS:CE1	2.56	0.41
24:R:107:MET:CG	34:o:329:MET:HE1	2.51	0.41
25:S:48:GLU:CG	26:T:5:GLY:HA3	2.50	0.41
26:T:200:LYS:NZ	26:T:200:LYS:N	2.64	0.41
34:o:1054:MET:HE1	34:o:1065:PHE:CE1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:1430:CYS:HA	34:o:1435:THR:HA	2.03	0.41
34:o:1448:SER:OG	34:o:1449:ASP:N	2.52	0.41
35:p:841:ARG:CZ	35:p:1078:ARG:NH1	2.84	0.41
35:p:1088:GLU:OE1	35:p:1091:ARG:NH1	2.53	0.41
35:p:1119:CYS:SG	35:p:1121:LEU:HD23	2.61	0.41
40:u:163:LEU:O	40:u:163:LEU:HD23	2.21	0.41
2:1:120:GLU:O	2:1:121:ASP:C	2.63	0.41
2:1:229:TYR:CE1	2:1:239:SER:CB	3.02	0.41
2:1:349:VAL:HG11	8:7:585:GLN:HB3	2.01	0.41
3:2:87:LEU:HD23	3:2:87:LEU:HA	1.78	0.41
8:7:31:THR:HA	8:7:477:THR:OG1	2.21	0.41
13:D:875:GLN:OE1	13:D:875:GLN:HA	2.19	0.41
14:E:239:LEU:HB3	14:E:307:LEU:HD21	2.03	0.41
21:O:57:ASN:O	21:O:59:ARG:NH2	2.53	0.41
28:V:119:LEU:O	28:V:123:ALA:HB3	2.20	0.41
28:V:151:LEU:HD12	28:V:154:LEU:HB2	1.93	0.41
28:V:190:LEU:HB2	28:V:203:PHE:O	2.21	0.41
28:V:230:GLU:OE2	28:V:230:GLU:HA	2.21	0.41
29:X:-27:DT:H6	29:X:-27:DT:H2'	1.63	0.41
13:d:892:THR:OG1	13:d:893:GLU:OE1	2.33	0.41
14:e:718:ARG:HD3	14:e:718:ARG:HA	1.77	0.41
15:f:216:LEU:HD21	15:f:254:GLN:O	2.21	0.41
34:o:279:LYS:HE3	34:o:279:LYS:HB2	1.92	0.41
34:o:1005:HIS:O	34:o:1008:LYS:HB2	2.20	0.41
34:o:1156:ASP:OD1	34:o:1156:ASP:C	2.64	0.41
35:p:840:MET:HE2	35:p:891:ASP:OD2	2.20	0.41
35:p:1021:HIS:HD2	35:p:1025:ASN:HB2	1.85	0.41
40:u:27:LYS:HD3	40:u:51:ILE:HD11	2.02	0.41
41:v:76:ASN:OD1	41:v:76:ASN:N	2.54	0.41
2:1:199:THR:CG2	2:1:313:MET:HB3	2.51	0.41
3:2:88:LEU:HD23	3:2:88:LEU:HA	1.87	0.41
3:2:166:GLU:HA	3:2:195:ARG:O	2.20	0.41
3:2:314:SER:OG	4:3:251:TYR:CD2	2.71	0.41
5:4:62:LEU:O	5:4:115:ARG:NH2	2.52	0.41
5:4:373:HIS:O	5:4:376:MET:HB2	2.20	0.41
5:4:448:HIS:CD2	5:4:452:LYS:HE3	2.55	0.41
7:6:165:LYS:HB3	7:6:289:TYR:CD1	2.56	0.41
7:6:184:VAL:O	7:6:188:LEU:HB2	2.20	0.41
7:6:613:THR:OG1	7:6:642:ARG:NE	2.53	0.41
7:6:635:GLN:CD	7:6:635:GLN:H	2.29	0.41
8:7:383:LEU:HD11	8:7:394:PHE:CD2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:461:LEU:CA	8:7:694:PRO:HB3	2.51	0.41
8:7:610:PHE:CZ	8:7:663:CYS:O	2.74	0.41
8:7:611:VAL:CG1	8:7:614:TYR:CB	2.92	0.41
9:8:64:LYS:HG3	9:8:65:LEU:HG	2.02	0.41
9:8:99:GLU:O	9:8:103:LYS:HB3	2.21	0.41
9:8:267:ASP:HB2	9:8:294:TYR:HD1	1.85	0.41
11:A:345:PRO:O	11:A:346:ALA:HB3	2.21	0.41
12:B:937:THR:HG22	12:B:940:MET:HG3	2.03	0.41
13:D:955:LYS:HE2	13:D:955:LYS:HB3	1.66	0.41
15:F:219:GLU:OE1	17:H:156:PRO:HB2	2.20	0.41
15:F:249:ASP:HB3	15:F:252:LEU:HB2	2.02	0.41
15:F:396:LEU:HA	15:F:399:GLU:CD	2.46	0.41
17:H:50:PHE:CB	19:J:195:LEU:N	2.84	0.41
17:H:116:ARG:HD2	17:H:116:ARG:H	1.86	0.41
19:J:196:THR:OG1	19:J:199:ASP:OD2	2.39	0.41
20:L:112:GLU:HB3	20:L:113:VAL:H	1.64	0.41
21:O:7:ARG:NH1	21:O:37:LEU:HB3	2.35	0.41
24:R:259:TYR:HD1	24:R:274:ILE:HD12	1.86	0.41
25:S:23:THR:C	26:T:99:SER:HA	2.41	0.41
27:U:145:PHE:CD1	27:U:145:PHE:O	2.74	0.41
28:V:90:GLN:C	28:V:92:GLY:N	2.78	0.41
28:V:181:ALA:O	28:V:184:ALA:CA	2.69	0.41
30:Y:-3:DA:H2"	30:Y:-2:DC:C6	2.56	0.41
15:f:104:LEU:HD22	19:j:216:TYR:HB2	2.02	0.41
34:o:92:LYS:HE2	34:o:290:LEU:HD21	2.03	0.41
34:o:475:ARG:NH2	44:y:68:GLU:OE2	2.54	0.41
34:o:848:ILE:HD13	35:p:499:ARG:HB3	2.03	0.41
34:o:1428:MET:SD	34:o:1429:LYS:HG2	2.61	0.41
35:p:794:VAL:HG22	35:p:944:THR:O	2.20	0.41
38:s:85:LYS:O	38:s:89:VAL:HG23	2.21	0.41
44:y:11:LEU:HD12	44:y:11:LEU:HA	1.93	0.41
3:2:315:ALA:N	3:2:316:PRO:HD2	2.36	0.41
5:4:137:GLY:HA3	5:4:138:PRO:HD2	1.99	0.41
5:4:412:PHE:HE2	5:4:418:PHE:HE1	1.54	0.41
7:6:437:LEU:HA	7:6:437:LEU:HD12	1.81	0.41
7:6:568:LEU:CD2	7:6:607:ILE:C	2.91	0.41
8:7:438:MET:HB3	8:7:438:MET:HE2	1.91	0.41
8:7:464:LEU:HA	8:7:467:TYR:HD2	1.86	0.41
9:8:66:LEU:HD12	9:8:66:LEU:HA	1.88	0.41
11:A:415:ILE:H	11:A:415:ILE:HG13	1.39	0.41
12:B:987:LEU:HG	12:B:988:PRO:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:D:939:ASP:N	14:E:509:GLN:NE2	2.68	0.41
15:F:105:TYR:O	19:J:217:PHE:CD1	2.70	0.41
15:F:122:LEU:H	15:F:122:LEU:CD2	2.33	0.41
15:F:370:TRP:CH2	15:F:402:ARG:HB3	2.56	0.41
17:H:53:ALA:CB	19:J:195:LEU:HB3	2.49	0.41
17:H:132:LYS:HA	17:H:132:LYS:HD2	1.69	0.41
23:Q:329:PHE:O	23:Q:329:PHE:HD1	2.04	0.41
24:R:283:VAL:O	24:R:287:GLN:HG2	2.20	0.41
25:S:14:TYR:O	26:T:43:LEU:N	2.40	0.41
25:S:30:ALA:HB1	26:T:91:GLN:HG2	2.03	0.41
27:U:123:ASN:HD22	27:U:123:ASN:C	2.27	0.41
28:V:77:VAL:HG13	28:V:81:ILE:CD1	2.50	0.41
28:V:148:LYS:HD2	28:V:175:LEU:HD13	2.02	0.41
29:X:-35:DG:C2	29:X:-34:DG:C6	3.09	0.41
14:e:690:ASP:OD1	14:e:690:ASP:N	2.53	0.41
19:j:114:THR:HA	19:j:115:PRO:HD3	1.97	0.41
34:o:448:ARG:NH1	34:o:451:CYS:SG	2.94	0.41
34:o:841:MET:HG2	35:p:501:LEU:HD23	2.02	0.41
34:o:1158:LEU:HD22	34:o:1309:MET:HE3	2.02	0.41
35:p:423:ILE:HD12	35:p:423:ILE:HA	1.91	0.41
36:q:225:LYS:HG3	36:q:226:PRO:HD2	2.02	0.41
37:r:103:LEU:CB	40:u:144:ARG:NH1	2.84	0.41
38:s:45:GLY:HA3	38:s:53:PRO:HD3	2.03	0.41
38:s:55:ARG:O	38:s:76:PHE:HB2	2.21	0.41
38:s:193:ILE:HB	38:s:205:THR:HG23	2.03	0.41
2:1:383:TYR:CD1	4:3:175:MET:HB3	2.55	0.40
3:2:95:TYR:HD2	3:2:104:ILE:HD11	1.85	0.40
5:4:307:ILE:CD1	5:4:371:ARG:HD3	2.51	0.40
7:6:199:LEU:CD1	7:6:273:LYS:CD	2.73	0.40
8:7:48:LYS:CD	8:7:457:THR:HG22	2.50	0.40
8:7:630:SER:O	8:7:631:ARG:HG3	2.20	0.40
12:B:219:ASP:OD1	12:B:219:ASP:N	2.52	0.40
12:B:646:ASP:OD1	12:B:646:ASP:N	2.54	0.40
15:F:114:LEU:HD13	17:H:45:LEU:CG	2.50	0.40
15:F:323:VAL:HG22	15:F:326:HIS:HB2	2.03	0.40
15:F:350:ASN:O	15:F:354:ARG:NH1	2.54	0.40
17:H:40:VAL:HG11	19:J:130:ILE:HG12	2.03	0.40
17:H:116:ARG:HG3	19:J:126:TYR:CE1	2.52	0.40
20:L:120:LEU:HD23	20:L:126:MET:HG3	2.03	0.40
21:O:21:GLU:OE1	23:Q:45:LEU:HD21	2.21	0.40
30:Y:23:DG:H2"	30:Y:24:DT:C5	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:o:371:PRO:HD2	35:p:788:TYR:CZ	2.55	0.40
34:o:384:ILE:HG13	35:p:1059:ILE:HD11	2.03	0.40
35:p:21:LEU:O	35:p:24:GLU:HG3	2.21	0.40
35:p:267:VAL:HG12	35:p:268:PRO:O	2.20	0.40
35:p:438:ARG:O	35:p:438:ARG:CG	2.68	0.40
1:0:74:ILE:HG23	1:0:109:LEU:HD23	2.03	0.40
5:4:351:VAL:O	5:4:355:ILE:N	2.48	0.40
8:7:424:ARG:HE	8:7:424:ARG:HB2	1.41	0.40
9:8:158:LEU:HD23	9:8:158:LEU:HA	1.90	0.40
10:9:32:CYS:SG	34:o:1482:TYR:O	2.73	0.40
11:A:481:GLU:HB3	15:f:358:THR:HG21	2.01	0.40
12:B:69:GLN:NE2	12:B:156:LYS:O	2.47	0.40
15:F:274:ASN:HB2	15:F:317:LEU:N	2.30	0.40
23:Q:11:PRO:O	23:Q:15:ARG:HG2	2.21	0.40
24:R:44:ARG:HH22	35:p:1064:ARG:NE	2.19	0.40
25:S:27:ASN:CB	26:T:96:PHE:CE1	3.01	0.40
26:T:40:VAL:HG23	26:T:56:PHE:CZ	2.57	0.40
27:U:171:LYS:O	27:U:175:THR:N	2.39	0.40
28:V:132:VAL:HG13	28:V:134:ASP:N	2.36	0.40
28:V:237:LEU:O	28:V:237:LEU:HG	2.21	0.40
14:e:620:LEU:HD13	18:i:104:LEU:HD22	2.03	0.40
34:o:286:ILE:HA	34:o:289:GLN:HG3	2.02	0.40
34:o:355:MET:N	34:o:355:MET:SD	2.94	0.40
34:o:723:ASN:HD22	42:w:109:ARG:CD	2.34	0.40
34:o:1123:ARG:HA	34:o:1123:ARG:HD2	1.91	0.40
34:o:1177:TYR:CE1	42:w:28:GLU:OE1	2.74	0.40
35:p:177:CYS:SG	35:p:738:THR:OG1	2.59	0.40
35:p:399:LEU:HD23	35:p:399:LEU:HA	1.89	0.40
35:p:516:GLU:HA	35:p:520:VAL:HG22	2.02	0.40
5:4:348:ARG:NH2	5:4:394:TRP:CD2	2.90	0.40
7:6:423:ALA:HA	7:6:426:VAL:CG2	2.50	0.40
11:A:501:THR:C	11:A:503:ASP:N	2.79	0.40
11:A:511:LEU:N	11:A:511:LEU:HD13	2.36	0.40
11:A:781:VAL:HG22	16:G:137:THR:HG21	2.04	0.40
14:E:306:VAL:HA	14:E:338:TYR:HB3	2.03	0.40
24:R:27:TYR:CD2	24:R:28:ARG:NH1	2.90	0.40
24:R:40:VAL:CG2	34:o:426:ARG:HG2	2.51	0.40
24:R:195:PHE:CZ	24:R:199:LEU:HD11	2.57	0.40
25:S:15:VAL:HA	26:T:42:LYS:HA	2.02	0.40
25:S:48:GLU:OE1	25:S:101:ARG:NH2	2.55	0.40
25:S:110:PHE:HD1	25:S:148:PRO:HA	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:T:125:MET:HB3	35:p:595:ASP:CG	2.46	0.40
26:T:199:LEU:O	26:T:202:LEU:HB2	2.22	0.40
30:Y:25:DT:H6	30:Y:25:DT:H2'	1.60	0.40
34:o:102:LYS:HZ3	34:o:238:MET:HG2	1.86	0.40
35:p:332:LYS:HA	35:p:335:ARG:HH21	1.86	0.40
35:p:837:CYS:HA	35:p:889:LYS:O	2.21	0.40
35:p:957:THR:HG22	35:p:1028:LEU:CD2	2.51	0.40
35:p:968:ASN:OD1	35:p:969:PRO:HD2	2.21	0.40
4:3:257:CYS:SG	4:3:258:HIS:N	2.94	0.40
5:4:389:ASP:OD1	5:4:389:ASP:N	2.54	0.40
7:6:503:ALA:HA	7:6:646:ALA:HA	2.02	0.40
8:7:39:VAL:HG11	8:7:464:LEU:CG	2.52	0.40
15:F:82:PRO:HG2	15:F:83:LEU:CD1	2.50	0.40
16:G:74:MET:HE1	16:G:136:ILE:HD12	2.03	0.40
21:O:62:LEU:CA	21:O:76:LEU:CD2	2.96	0.40
26:T:43:LEU:HG	26:T:55:SER:O	2.21	0.40
14:e:636:HIS:CD2	14:e:638:ASN:H	2.36	0.40
34:o:200:ALA:N	34:o:214:ILE:O	2.54	0.40
34:o:318:VAL:HG23	34:o:319:ASP:N	2.36	0.40
34:o:1228:MET:SD	34:o:1255:LEU:HG	2.61	0.40
42:w:60:HIS:O	42:w:60:HIS:ND1	2.54	0.40
2:1:381:ARG:C	4:3:256:PHE:CZ	2.95	0.40
3:2:104:ILE:HD13	3:2:104:ILE:HG21	1.92	0.40
3:2:190:LYS:HB2	3:2:214:GLU:HG2	2.03	0.40
5:4:14:LEU:HD13	5:4:214:TYR:HD1	1.86	0.40
7:6:103:ILE:HD13	7:6:136:ILE:HG23	2.03	0.40
7:6:157:LYS:N	7:6:157:LYS:HD3	2.34	0.40
7:6:334:ARG:HA	7:6:462:CYS:SG	2.52	0.40
7:6:335:SER:HB3	7:6:463:LYS:N	2.30	0.40
7:6:448:ALA:O	7:6:449:LYS:HB2	2.22	0.40
7:6:504:LYS:NZ	7:6:653:GLU:O	2.54	0.40
8:7:8:LEU:CG	8:7:61:ARG:CB	2.84	0.40
8:7:46:THR:O	8:7:47:GLY:C	2.63	0.40
9:8:79:ASP:OD1	9:8:80:ALA:N	2.55	0.40
12:B:203:LYS:HZ3	12:B:235:HIS:HB3	1.86	0.40
12:B:487:LYS:O	12:B:487:LYS:CG	2.67	0.40
12:B:908:GLN:HE22	12:B:952:GLN:HE22	1.70	0.40
15:F:48:LYS:HE2	18:I:26:MET:HE2	2.04	0.40
17:H:178:LYS:HD3	17:H:178:LYS:HA	1.82	0.40
23:Q:351:PHE:O	23:Q:371:ILE:HA	2.22	0.40
25:S:48:GLU:HG2	26:T:5:GLY:CA	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:S:136:GLU:HG2	25:S:138:PHE:CE1	2.57	0.40
28:V:146:ARG:NH1	28:V:169:GLU:O	2.54	0.40
29:X:-32:DC:H2'	29:X:-31:DT:C6	2.56	0.40
15:f:254:GLN:O	15:f:254:GLN:HG3	2.21	0.40
15:f:264:SER:HB3	15:f:303:GLU:HB3	2.03	0.40
15:f:267:VAL:CG1	15:f:310:THR:HG21	2.51	0.40
34:o:102:LYS:O	34:o:106:VAL:HG13	2.21	0.40
34:o:360:ASP:HA	35:p:1062:ARG:HD3	2.03	0.40
34:o:963:ARG:CZ	34:o:967:ARG:HH21	2.35	0.40
35:p:639:HIS:O	35:p:643:LEU:HB2	2.21	0.40
35:p:980:HIS:ND1	35:p:980:HIS:O	2.55	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	0	230/309 (74%)	199 (86%)	29 (13%)	2 (1%)	14 47
2	1	399/548 (73%)	311 (78%)	70 (18%)	18 (4%)	2 19
3	2	327/395 (83%)	288 (88%)	37 (11%)	2 (1%)	21 55
4	3	259/308 (84%)	243 (94%)	16 (6%)	0	100 100
5	4	447/462 (97%)	399 (89%)	38 (8%)	10 (2%)	5 31
6	5	52/71 (73%)	47 (90%)	4 (8%)	1 (2%)	6 33
7	6	602/782 (77%)	512 (85%)	79 (13%)	11 (2%)	6 34
8	7	732/760 (96%)	649 (89%)	74 (10%)	9 (1%)	10 41
9	8	296/346 (86%)	261 (88%)	33 (11%)	2 (1%)	18 53
10	9	285/323 (88%)	270 (95%)	14 (5%)	1 (0%)	30 64
11	A	534/1872 (28%)	505 (95%)	26 (5%)	3 (1%)	21 55

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	B	959/1199 (80%)	912 (95%)	47 (5%)	0	100	100
13	D	152/1085 (14%)	146 (96%)	5 (3%)	1 (1%)	18	53
13	d	154/1085 (14%)	150 (97%)	4 (3%)	0	100	100
14	E	540/800 (68%)	506 (94%)	33 (6%)	1 (0%)	43	74
14	e	531/800 (66%)	484 (91%)	47 (9%)	0	100	100
15	F	404/677 (60%)	380 (94%)	17 (4%)	7 (2%)	7	35
15	f	399/677 (59%)	378 (95%)	20 (5%)	1 (0%)	36	69
16	G	139/349 (40%)	135 (97%)	4 (3%)	0	100	100
17	H	207/310 (67%)	190 (92%)	13 (6%)	4 (2%)	6	33
18	I	118/264 (45%)	111 (94%)	5 (4%)	2 (2%)	7	35
18	i	119/264 (45%)	115 (97%)	4 (3%)	0	100	100
19	J	86/218 (39%)	82 (95%)	4 (5%)	0	100	100
19	j	91/218 (42%)	89 (98%)	2 (2%)	0	100	100
20	L	73/161 (45%)	64 (88%)	4 (6%)	5 (7%)	1	14
20	l	105/161 (65%)	101 (96%)	4 (4%)	0	100	100
21	O	95/109 (87%)	82 (86%)	8 (8%)	5 (5%)	1	17
22	P	175/339 (52%)	168 (96%)	5 (3%)	2 (1%)	11	43
23	Q	118/376 (31%)	106 (90%)	9 (8%)	3 (2%)	4	29
24	R	246/316 (78%)	234 (95%)	10 (4%)	2 (1%)	16	50
25	S	104/517 (20%)	102 (98%)	2 (2%)	0	100	100
26	T	218/249 (88%)	204 (94%)	11 (5%)	3 (1%)	9	38
27	U	175/439 (40%)	165 (94%)	9 (5%)	1 (1%)	21	55
28	V	170/291 (58%)	144 (85%)	17 (10%)	9 (5%)	1	17
31	c	125/929 (14%)	116 (93%)	9 (7%)	0	100	100
32	k	96/211 (46%)	91 (95%)	5 (5%)	0	100	100
33	m	85/124 (68%)	79 (93%)	6 (7%)	0	100	100
34	o	1417/1970 (72%)	1310 (92%)	106 (8%)	1 (0%)	48	80
35	p	1128/1174 (96%)	1054 (93%)	73 (6%)	1 (0%)	48	80
36	q	253/275 (92%)	225 (89%)	28 (11%)	0	100	100
37	r	126/142 (89%)	119 (94%)	7 (6%)	0	100	100
38	s	207/210 (99%)	195 (94%)	12 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
39	t	77/127 (61%)	73 (95%)	3 (4%)	1 (1%)	9 40
40	u	169/172 (98%)	156 (92%)	12 (7%)	1 (1%)	21 55
41	v	146/150 (97%)	132 (90%)	14 (10%)	0	100 100
42	w	112/125 (90%)	103 (92%)	9 (8%)	0	100 100
43	x	62/67 (92%)	59 (95%)	3 (5%)	0	100 100
44	y	115/117 (98%)	109 (95%)	6 (5%)	0	100 100
45	z	42/58 (72%)	38 (90%)	4 (10%)	0	100 100
All	All	13701/22931 (60%)	12591 (92%)	1001 (7%)	109 (1%)	18 50

All (109) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	1	106	LYS
2	1	108	ASN
2	1	110	GLU
2	1	114	LYS
2	1	120	GLU
2	1	237	THR
2	1	264	ASN
2	1	276	PRO
2	1	287	PRO
2	1	358	ILE
2	1	359	GLU
2	1	373	ALA
3	2	261	SER
5	4	193	PRO
5	4	381	PRO
5	4	395	GLU
6	5	48	GLU
7	6	405	VAL
7	6	418	LYS
7	6	421	TRP
7	6	449	LYS
7	6	605	ILE
7	6	622	VAL
8	7	15	ASP
8	7	624	PRO
9	8	105	ASN
11	A	498	PRO
11	A	508	ASN

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Mol	Chain	Res	Type
13	D	876	ALA
14	E	452	ARG
15	F	68	THR
15	F	69	SER
15	F	442	PRO
17	H	141	PRO
18	I	85	SER
20	L	73	ASN
20	L	107	LYS
23	Q	34	VAL
28	V	212	VAL
39	t	93	ALA
40	u	154	LYS
1	0	273	ASN
2	1	113	GLU
5	4	135	GLN
7	6	401	ILE
7	6	555	ASN
7	6	610	VAL
17	H	129	VAL
20	L	111	LEU
20	L	114	LYS
21	O	26	GLN
26	T	229	HIS
28	V	79	ALA
28	V	171	ILE
28	V	178	SER
35	p	19	PRO
2	1	286	VAL
3	2	206	ARG
5	4	190	PRO
7	6	629	HIS
8	7	465	ASP
10	9	236	LEU
22	P	207	PRO
28	V	134	ASP
1	0	7	PRO
2	1	233	ASP
2	1	261	GLY
2	1	369	VAL
5	4	384	PRO
5	4	413	LEU

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Mol	Chain	Res	Type
8	7	36	GLY
8	7	98	GLU
11	A	505	ASN
15	F	66	LEU
15	F	367	LYS
18	I	62	LYS
21	O	52	VAL
21	O	63	ASN
24	R	28	ARG
26	T	140	ARG
27	U	145	PHE
28	V	86	LYS
28	V	225	VAL
34	o	581	LYS
5	4	385	PRO
15	F	64	GLN
15	F	440	PRO
17	H	137	GLY
20	L	72	PRO
26	T	38	GLY
5	4	191	GLY
8	7	532	PRO
8	7	595	ILE
9	8	165	PRO
22	P	298	PRO
23	Q	312	GLU
24	R	48	VAL
15	f	411	VAL
8	7	13	PRO
7	6	402	GLY
21	O	71	VAL
28	V	189	ILE
5	4	189	GLU
8	7	47	GLY
21	O	75	VAL
28	V	140	LYS
2	1	149	VAL
17	H	128	PRO
23	Q	313	PRO

5.3.2 Protein sidechains (i)

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	0	173/283 (61%)	171 (99%)	2 (1%)	63 72
2	1	176/484 (36%)	168 (96%)	8 (4%)	24 49
3	2	279/352 (79%)	272 (98%)	7 (2%)	42 62
4	3	234/272 (86%)	229 (98%)	5 (2%)	47 65
5	4	387/399 (97%)	378 (98%)	9 (2%)	44 63
6	5	48/64 (75%)	46 (96%)	2 (4%)	26 50
7	6	533/688 (78%)	479 (90%)	54 (10%)	7 27
8	7	616/664 (93%)	598 (97%)	18 (3%)	37 58
9	8	258/299 (86%)	251 (97%)	7 (3%)	39 60
10	9	259/296 (88%)	257 (99%)	2 (1%)	73 77
11	A	488/1665 (29%)	443 (91%)	45 (9%)	8 30
12	B	876/1083 (81%)	859 (98%)	17 (2%)	50 66
13	D	143/815 (18%)	135 (94%)	8 (6%)	19 45
13	d	146/815 (18%)	146 (100%)	0	100 100
14	E	478/657 (73%)	467 (98%)	11 (2%)	44 63
14	e	475/657 (72%)	473 (100%)	2 (0%)	84 83
15	F	324/574 (56%)	294 (91%)	30 (9%)	8 30
15	f	322/574 (56%)	309 (96%)	13 (4%)	28 51
16	G	133/322 (41%)	125 (94%)	8 (6%)	17 44
17	H	181/270 (67%)	170 (94%)	11 (6%)	17 43
18	I	106/235 (45%)	100 (94%)	6 (6%)	18 44
18	i	107/235 (46%)	107 (100%)	0	100 100
19	J	79/154 (51%)	77 (98%)	2 (2%)	42 62
19	j	83/154 (54%)	83 (100%)	0	100 100
20	L	70/141 (50%)	59 (84%)	11 (16%)	2 15
20	l	98/141 (70%)	97 (99%)	1 (1%)	68 75

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
21	O	84/98 (86%)	76 (90%)	8 (10%)	8 29
22	P	153/293 (52%)	140 (92%)	13 (8%)	10 33
23	Q	111/324 (34%)	106 (96%)	5 (4%)	24 49
24	R	212/268 (79%)	200 (94%)	12 (6%)	18 44
25	S	93/448 (21%)	92 (99%)	1 (1%)	65 74
26	T	196/218 (90%)	166 (85%)	30 (15%)	3 15
27	U	163/373 (44%)	144 (88%)	19 (12%)	5 22
28	V	155/261 (59%)	135 (87%)	20 (13%)	4 20
31	c	113/833 (14%)	111 (98%)	2 (2%)	51 67
32	k	87/182 (48%)	87 (100%)	0	100 100
33	m	80/106 (76%)	79 (99%)	1 (1%)	61 71
34	o	1257/1748 (72%)	1247 (99%)	10 (1%)	73 77
35	p	993/1027 (97%)	991 (100%)	2 (0%)	87 87
36	q	234/252 (93%)	234 (100%)	0	100 100
37	r	106/126 (84%)	106 (100%)	0	100 100
38	s	191/192 (100%)	191 (100%)	0	100 100
39	t	69/111 (62%)	68 (99%)	1 (1%)	59 71
40	u	152/153 (99%)	150 (99%)	2 (1%)	61 71
41	v	129/131 (98%)	129 (100%)	0	100 100
42	w	103/112 (92%)	103 (100%)	0	100 100
43	x	53/56 (95%)	53 (100%)	0	100 100
44	y	106/106 (100%)	106 (100%)	0	100 100
45	z	41/55 (74%)	41 (100%)	0	100 100
All	All	11953/19766 (60%)	11548 (97%)	405 (3%)	33 55

All (405) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	0	269	LEU
1	0	272	LEU
2	1	190	SER
2	1	306	ARG
2	1	314	VAL
2	1	358	ILE

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Mol	Chain	Res	Type
2	1	362	ASP
2	1	363	LEU
2	1	372	ILE
2	1	417	LYS
3	2	177	CYS
3	2	182	ILE
3	2	185	LEU
3	2	186	ILE
3	2	205	VAL
3	2	301	LEU
3	2	313	VAL
4	3	155	GLN
4	3	156	GLU
4	3	158	LYS
4	3	222	SER
4	3	230	VAL
5	4	23	LEU
5	4	188	THR
5	4	215	PHE
5	4	359	ILE
5	4	376	MET
5	4	383	LEU
5	4	400	ARG
5	4	413	LEU
5	4	456	LYS
6	5	59	GLU
6	5	60	LEU
7	6	156	ILE
7	6	157	LYS
7	6	166	VAL
7	6	190	GLN
7	6	191	ASP
7	6	291	LEU
7	6	292	LEU
7	6	296	ASP
7	6	297	PHE
7	6	302	VAL
7	6	303	ASN
7	6	305	ASP
7	6	310	LEU
7	6	313	THR
7	6	349	VAL

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Mol	Chain	Res	Type
7	6	357	VAL
7	6	377	GLN
7	6	403	CYS
7	6	404	SER
7	6	413	LEU
7	6	415	HIS
7	6	416	THR
7	6	417	THR
7	6	418	LYS
7	6	419	ARG
7	6	422	GLU
7	6	426	VAL
7	6	434	GLU
7	6	435	TRP
7	6	439	ILE
7	6	461	HIS
7	6	473	GLU
7	6	483	LEU
7	6	490	GLU
7	6	526	LYS
7	6	528	LYS
7	6	530	ARG
7	6	532	LEU
7	6	534	TYR
7	6	563	ASP
7	6	565	VAL
7	6	566	PHE
7	6	575	LEU
7	6	597	LYS
7	6	601	LYS
7	6	603	ASN
7	6	612	ASP
7	6	616	ASP
7	6	621	ASN
7	6	624	ILE
7	6	633	ARG
7	6	635	GLN
7	6	648	LYS
7	6	650	MET
8	7	15	ASP
8	7	16	TYR
8	7	17	ILE

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Mol	Chain	Res	Type
8	7	25	MET
8	7	29	LYS
8	7	48	LYS
8	7	49	THR
8	7	66	GLU
8	7	77	VAL
8	7	98	GLU
8	7	424	ARG
8	7	425	THR
8	7	428	ILE
8	7	444	ILE
8	7	464	LEU
8	7	626	VAL
8	7	668	ILE
8	7	678	VAL
9	8	25	THR
9	8	38	VAL
9	8	192	VAL
9	8	195	ASP
9	8	237	TRP
9	8	239	ASP
9	8	245	ASP
10	9	241	ASN
10	9	243	THR
11	A	348	LEU
11	A	353	LEU
11	A	395	ASP
11	A	397	LEU
11	A	400	GLU
11	A	401	ASN
11	A	403	LEU
11	A	404	MET
11	A	408	LEU
11	A	410	TRP
11	A	412	ASP
11	A	413	ASP
11	A	415	ILE
11	A	416	TRP
11	A	475	LEU
11	A	481	GLU
11	A	484	ILE
11	A	485	ILE

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Mol	Chain	Res	Type
11	A	486	TRP
11	A	487	ASP
11	A	491	MET
11	A	493	ARG
11	A	494	LEU
11	A	495	LEU
11	A	496	GLU
11	A	500	LEU
11	A	502	LEU
11	A	506	ASP
11	A	507	GLU
11	A	511	LEU
11	A	639	LEU
11	A	661	GLU
11	A	667	THR
11	A	711	ASP
11	A	727	THR
11	A	730	PHE
11	A	828	GLU
11	A	925	ASP
11	A	943	LYS
11	A	970	ASN
11	A	1052	ARG
11	A	1058	HIS
11	A	1062	TYR
11	A	1165	LEU
11	A	1203	GLU
12	B	21	GLU
12	B	71	ARG
12	B	140	GLU
12	B	159	LEU
12	B	178	PHE
12	B	184	ASN
12	B	262	MET
12	B	266	THR
12	B	293	GLU
12	B	431	LEU
12	B	559	LYS
12	B	603	LYS
12	B	640	VAL
12	B	746	SER
12	B	771	VAL

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Mol	Chain	Res	Type
12	B	818	THR
12	B	987	LEU
13	D	873	LEU
13	D	888	LYS
13	D	891	ILE
13	D	898	VAL
13	D	924	LYS
13	D	953	ILE
13	D	955	LYS
13	D	958	LYS
14	E	432	LEU
14	E	433	LYS
14	E	450	ARG
14	E	451	VAL
14	E	516	ILE
14	E	519	GLU
14	E	521	ASP
14	E	527	ILE
14	E	745	GLU
14	E	746	ASP
14	E	747	LEU
15	F	55	LEU
15	F	60	MET
15	F	62	LYS
15	F	64	GLN
15	F	66	LEU
15	F	111	GLU
15	F	125	VAL
15	F	211	ARG
15	F	261	THR
15	F	269	VAL
15	F	271	VAL
15	F	280	ILE
15	F	295	LEU
15	F	301	VAL
15	F	312	ILE
15	F	317	LEU
15	F	319	LEU
15	F	327	TRP
15	F	332	PHE
15	F	335	ARG
15	F	339	GLN

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Mol	Chain	Res	Type
15	F	348	THR
15	F	354	ARG
15	F	368	THR
15	F	391	LEU
15	F	397	GLN
15	F	406	VAL
15	F	408	ASP
15	F	415	ILE
15	F	427	LEU
16	G	41	ASP
16	G	129	LYS
16	G	131	ILE
16	G	143	VAL
16	G	161	ASP
16	G	181	TRP
16	G	182	GLU
16	G	183	ILE
17	H	50	PHE
17	H	116	ARG
17	H	132	LYS
17	H	135	THR
17	H	155	ASP
17	H	159	TYR
17	H	160	ILE
17	H	161	LYS
17	H	164	THR
17	H	167	GLU
17	H	169	VAL
18	I	31	TYR
18	I	32	GLU
18	I	35	VAL
18	I	60	HIS
18	I	67	ASP
18	I	107	ILE
19	J	192	LYS
19	J	194	THR
20	L	56	GLN
20	L	59	THR
20	L	60	LYS
20	L	61	LYS
20	L	62	LYS
20	L	63	LEU

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Mol	Chain	Res	Type
20	L	64	GLN
20	L	70	VAL
20	L	110	THR
20	L	111	LEU
20	L	128	ILE
21	O	24	GLN
21	O	55	ARG
21	O	57	ASN
21	O	59	ARG
21	O	62	LEU
21	O	68	CYS
21	O	79	VAL
21	O	90	VAL
22	P	169	VAL
22	P	172	VAL
22	P	209	THR
22	P	221	CYS
22	P	239	ARG
22	P	252	ASP
22	P	268	ILE
22	P	269	ARG
22	P	274	VAL
22	P	278	GLN
22	P	300	ILE
22	P	306	VAL
22	P	328	ILE
23	Q	13	LEU
23	Q	34	VAL
23	Q	320	VAL
23	Q	340	ASP
23	Q	364	ASP
24	R	24	VAL
24	R	28	ARG
24	R	36	GLU
24	R	39	LEU
24	R	41	VAL
24	R	45	VAL
24	R	46	ILE
24	R	47	ASP
24	R	48	VAL
24	R	120	GLU
24	R	127	ARG

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Mol	Chain	Res	Type
24	R	128	ILE
25	S	7	SER
26	T	43	LEU
26	T	85	LEU
26	T	124	TYR
26	T	127	LEU
26	T	137	LYS
26	T	139	VAL
26	T	141	LEU
26	T	158	ASN
26	T	160	GLN
26	T	164	GLU
26	T	166	GLU
26	T	174	LYS
26	T	177	ARG
26	T	180	LYS
26	T	185	ASP
26	T	187	LEU
26	T	194	HIS
26	T	200	LYS
26	T	206	THR
26	T	208	GLN
26	T	211	VAL
26	T	212	TYR
26	T	213	LEU
26	T	215	GLU
26	T	222	VAL
26	T	226	LYS
26	T	228	ILE
26	T	230	LYS
26	T	231	ASN
26	T	235	LEU
27	U	28	ILE
27	U	39	ARG
27	U	42	CYS
27	U	45	GLU
27	U	94	ILE
27	U	95	ASN
27	U	100	VAL
27	U	105	TYR
27	U	107	LEU
27	U	114	ILE

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Mol	Chain	Res	Type
27	U	122	THR
27	U	139	LEU
27	U	145	PHE
27	U	174	ARG
27	U	182	GLU
27	U	184	ILE
27	U	185	GLU
27	U	186	PRO
27	U	188	TYR
28	V	93	ASP
28	V	97	LEU
28	V	99	LEU
28	V	132	VAL
28	V	159	ASP
28	V	160	GLN
28	V	161	ARG
28	V	163	LEU
28	V	166	ILE
28	V	172	GLU
28	V	173	GLU
28	V	175	LEU
28	V	191	PHE
28	V	193	ASN
28	V	194	ARG
28	V	210	PHE
28	V	218	LYS
28	V	225	VAL
28	V	233	ILE
28	V	234	GLU
31	c	24	ASP
31	c	106	VAL
14	e	546	VAL
14	e	579	VAL
15	f	215	GLU
15	f	253	TYR
15	f	261	THR
15	f	272	VAL
15	f	297	LEU
15	f	301	VAL
15	f	305	ILE
15	f	322	ASP
15	f	323	VAL

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Mol	Chain	Res	Type
15	f	326	HIS
15	f	356	THR
15	f	366	GLU
15	f	421	ASP
20	l	87	ILE
33	m	31	LEU
34	o	581	LYS
34	o	740	GLN
34	o	741	VAL
34	o	743	ARG
34	o	747	ASP
34	o	749	ARG
34	o	757	GLN
34	o	883	ILE
34	o	1139	LEU
34	o	1423	ASP
35	p	17	ILE
35	p	29	VAL
39	t	90	LEU
40	u	144	ARG
40	u	163	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (236) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	28	HIS
1	0	117	ASN
1	0	259	HIS
2	1	384	HIS
2	1	524	HIS
3	2	317	HIS
4	3	18	ASN
4	3	108	ASN
4	3	179	ASN
4	3	204	GLN
4	3	225	GLN
4	3	248	HIS
5	4	54	ASN
5	4	181	GLN
5	4	312	ASN
5	4	352	GLN
5	4	366	HIS

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Mol	Chain	Res	Type
5	4	373	HIS
5	4	390	GLN
5	4	424	HIS
5	4	458	GLN
5	4	460	HIS
6	5	36	GLN
6	5	42	HIS
7	6	97	GLN
7	6	112	HIS
7	6	172	HIS
7	6	187	HIS
7	6	320	GLN
7	6	377	GLN
7	6	388	GLN
7	6	444	HIS
7	6	461	HIS
7	6	497	GLN
7	6	551	HIS
7	6	564	ASN
7	6	595	ASN
7	6	621	ASN
7	6	629	HIS
7	6	638	GLN
7	6	665	GLN
7	6	710	GLN
8	7	118	HIS
8	7	201	HIS
8	7	210	HIS
8	7	237	HIS
8	7	238	ASN
8	7	260	GLN
8	7	328	HIS
8	7	348	HIS
8	7	726	GLN
8	7	733	GLN
9	8	36	GLN
9	8	67	GLN
9	8	73	ASN
9	8	259	HIS
10	9	100	HIS
10	9	136	GLN
10	9	153	GLN

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Mol	Chain	Res	Type
10	9	241	ASN
10	9	247	GLN
11	A	489	GLN
11	A	569	ASN
11	A	630	GLN
11	A	693	GLN
11	A	702	ASN
11	A	755	HIS
11	A	802	HIS
11	A	860	ASN
11	A	896	GLN
11	A	1073	GLN
12	B	30	HIS
12	B	36	ASN
12	B	123	ASN
12	B	137	HIS
12	B	160	HIS
12	B	183	GLN
12	B	235	HIS
12	B	272	GLN
12	B	348	GLN
12	B	432	HIS
12	B	439	HIS
12	B	450	GLN
12	B	509	ASN
12	B	577	HIS
12	B	644	GLN
12	B	652	GLN
12	B	662	GLN
12	B	745	GLN
12	B	750	GLN
12	B	813	ASN
12	B	864	ASN
12	B	908	GLN
12	B	912	ASN
12	B	963	HIS
13	D	912	ASN
13	D	936	GLN
13	D	943	GLN
13	D	1053	GLN
13	D	1075	HIS
14	E	254	ASN

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Mol	Chain	Res	Type
14	E	290	HIS
14	E	326	ASN
14	E	327	ASN
14	E	351	GLN
14	E	616	HIS
14	E	640	ASN
14	E	733	ASN
15	F	37	GLN
15	F	119	ASN
15	F	214	HIS
15	F	270	ASN
15	F	273	GLN
15	F	275	ASN
15	F	302	HIS
15	F	316	GLN
16	G	10	HIS
16	G	48	HIS
16	G	142	ASN
17	H	145	HIS
18	I	21	GLN
18	I	38	GLN
18	I	76	GLN
18	I	81	GLN
18	I	98	GLN
19	J	160	GLN
19	J	173	HIS
20	L	105	HIS
20	L	117	GLN
21	O	8	ASN
21	O	13	ASN
21	O	27	GLN
21	O	31	GLN
21	O	39	GLN
21	O	54	ASN
21	O	57	ASN
21	O	63	ASN
21	O	77	ASN
22	P	167	ASN
22	P	189	ASN
23	Q	60	HIS
24	R	18	HIS
24	R	129	ASN

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Mol	Chain	Res	Type
24	R	229	GLN
26	T	14	GLN
26	T	86	GLN
26	T	152	ASN
26	T	158	ASN
26	T	181	GLN
26	T	195	GLN
26	T	208	GLN
26	T	231	ASN
27	U	123	ASN
28	V	95	HIS
28	V	117	GLN
28	V	193	ASN
28	V	209	GLN
31	c	19	GLN
31	c	27	GLN
31	c	50	HIS
13	d	912	ASN
14	e	223	HIS
14	e	256	HIS
14	e	320	HIS
14	e	368	ASN
14	e	424	GLN
14	e	733	ASN
15	f	30	GLN
15	f	119	ASN
15	f	134	HIS
15	f	325	ASN
15	f	350	ASN
18	i	60	HIS
32	k	186	HIS
32	k	205	HIS
20	l	73	ASN
20	l	105	HIS
33	m	107	ASN
34	o	62	GLN
34	o	123	ASN
34	o	278	HIS
34	o	289	GLN
34	o	296	ASN
34	o	301	HIS
34	o	311	GLN

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Mol	Chain	Res	Type
34	o	330	GLN
34	o	372	ASN
34	o	507	GLN
34	o	590	GLN
34	o	620	HIS
34	o	685	HIS
34	o	700	GLN
34	o	721	HIS
34	o	723	ASN
34	o	731	ASN
34	o	739	ASN
34	o	780	ASN
34	o	913	ASN
34	o	950	ASN
34	o	1005	HIS
34	o	1101	GLN
34	o	1129	ASN
34	o	1230	GLN
34	o	1248	ASN
34	o	1332	GLN
34	o	1445	HIS
34	o	1462	GLN
35	p	68	GLN
35	p	111	ASN
35	p	254	GLN
35	p	287	HIS
35	p	370	HIS
35	p	503	ASN
35	p	525	ASN
35	p	570	ASN
35	p	741	HIS
35	p	749	HIS
35	p	755	GLN
35	p	777	ASN
35	p	1021	HIS
35	p	1094	GLN
35	p	1117	HIS
35	p	1120	ASN
36	q	114	HIS
37	r	19	GLN
37	r	129	GLN
38	s	22	HIS

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Mol	Chain	Res	Type
38	s	132	GLN
38	s	133	GLN
40	u	60	GLN
41	v	130	ASN
41	v	131	ASN
42	w	45	GLN
44	y	2	ASN
44	y	29	ASN
44	y	89	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 18 ligands modelled in this entry, 17 are monoatomic - leaving 1 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
47	SF4	7	1000	8	0,12,12	-	-	-		

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns.

'-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
47	SF4	7	1000	8	-	-	0/6/5/5

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.

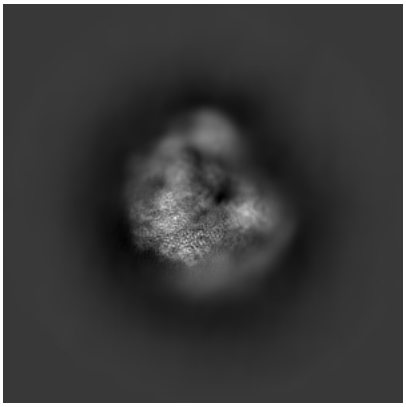
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-31112. These allow visual inspection of the internal detail of the map and identification of artifacts.

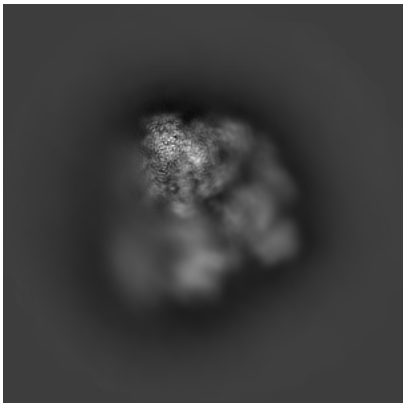
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

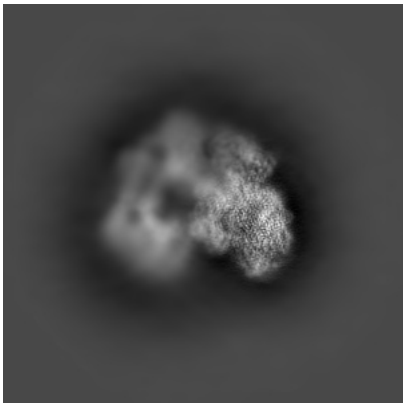
6.1.1 Primary map



X



Y

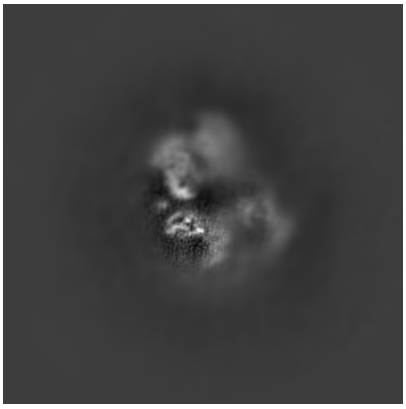


Z

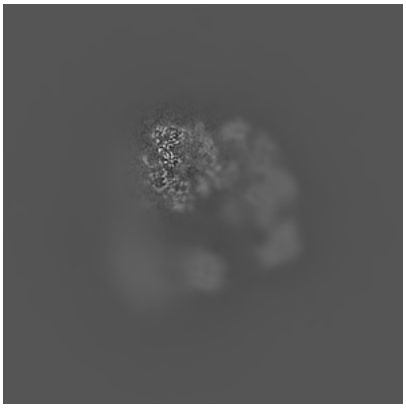
The images above show the map projected in three orthogonal directions.

6.2 Central slices

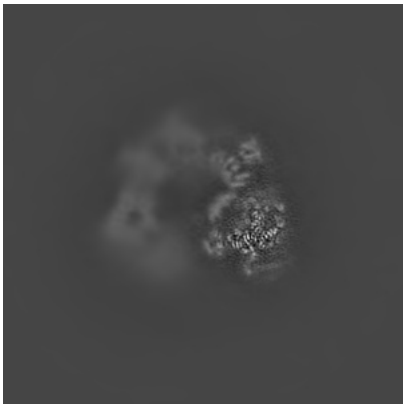
6.2.1 Primary map



X Index: 256



Y Index: 256

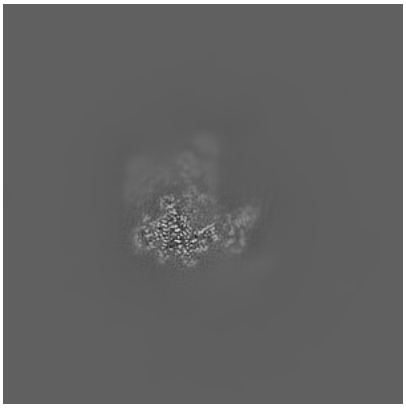


Z Index: 256

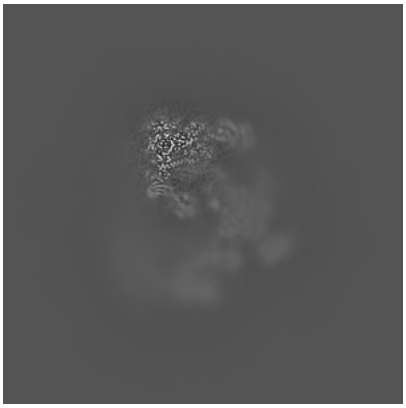
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

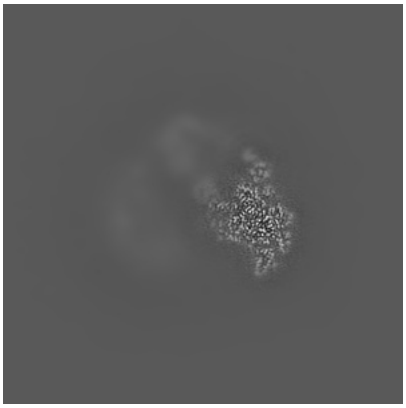
6.3.1 Primary map



X Index: 334



Y Index: 228

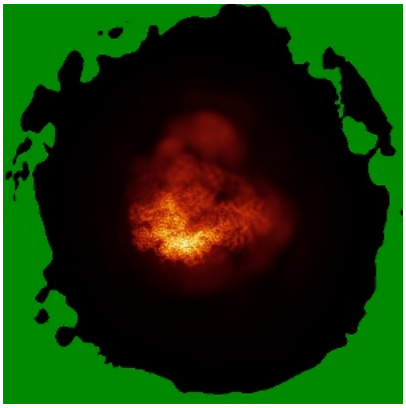


Z Index: 209

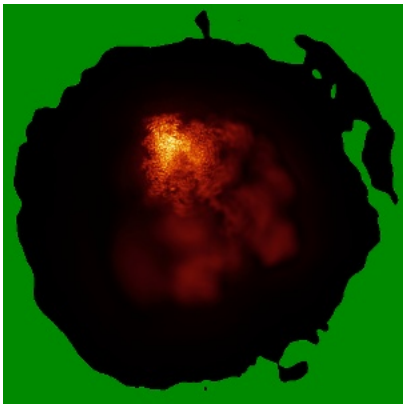
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

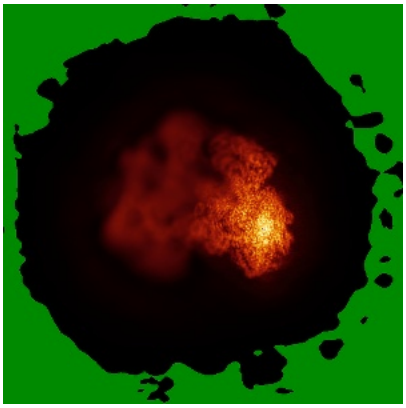
6.4.1 Primary map



X



Y

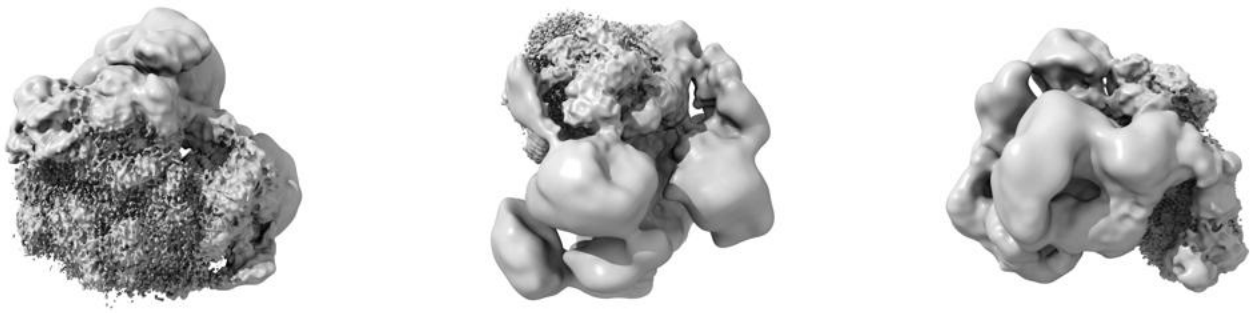


Z

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 0.0051. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

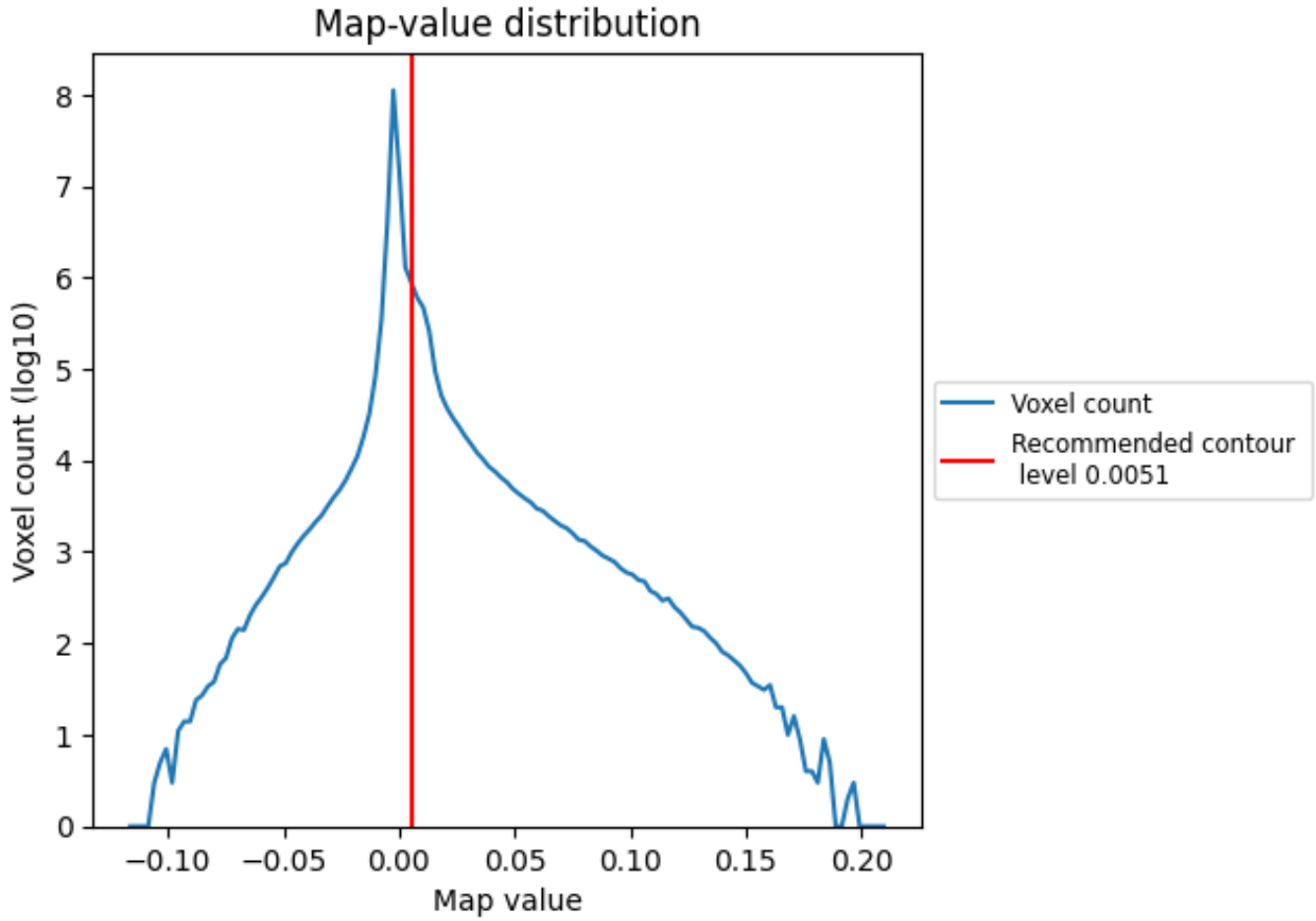
6.6 Mask visualisation (i)

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

7 Map analysis

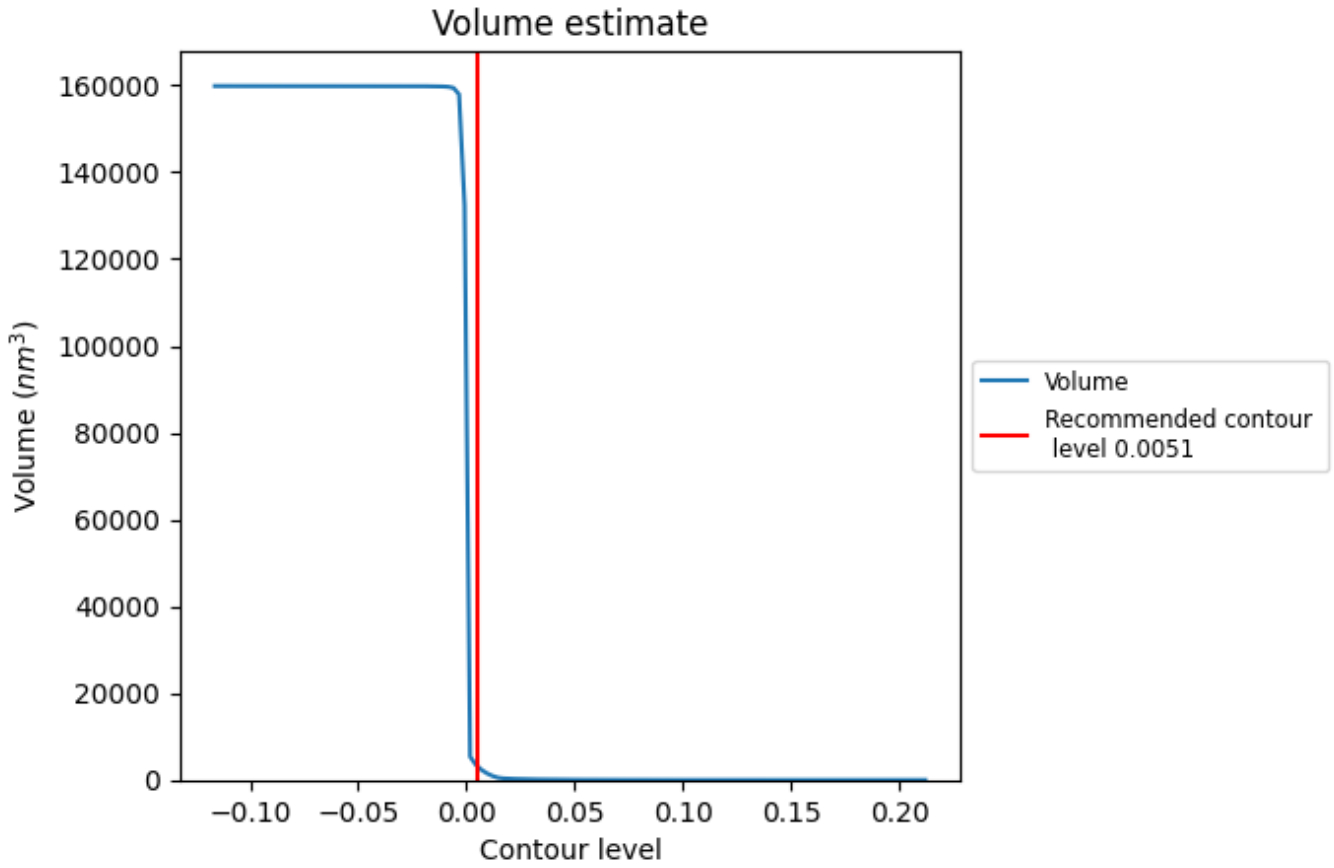
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

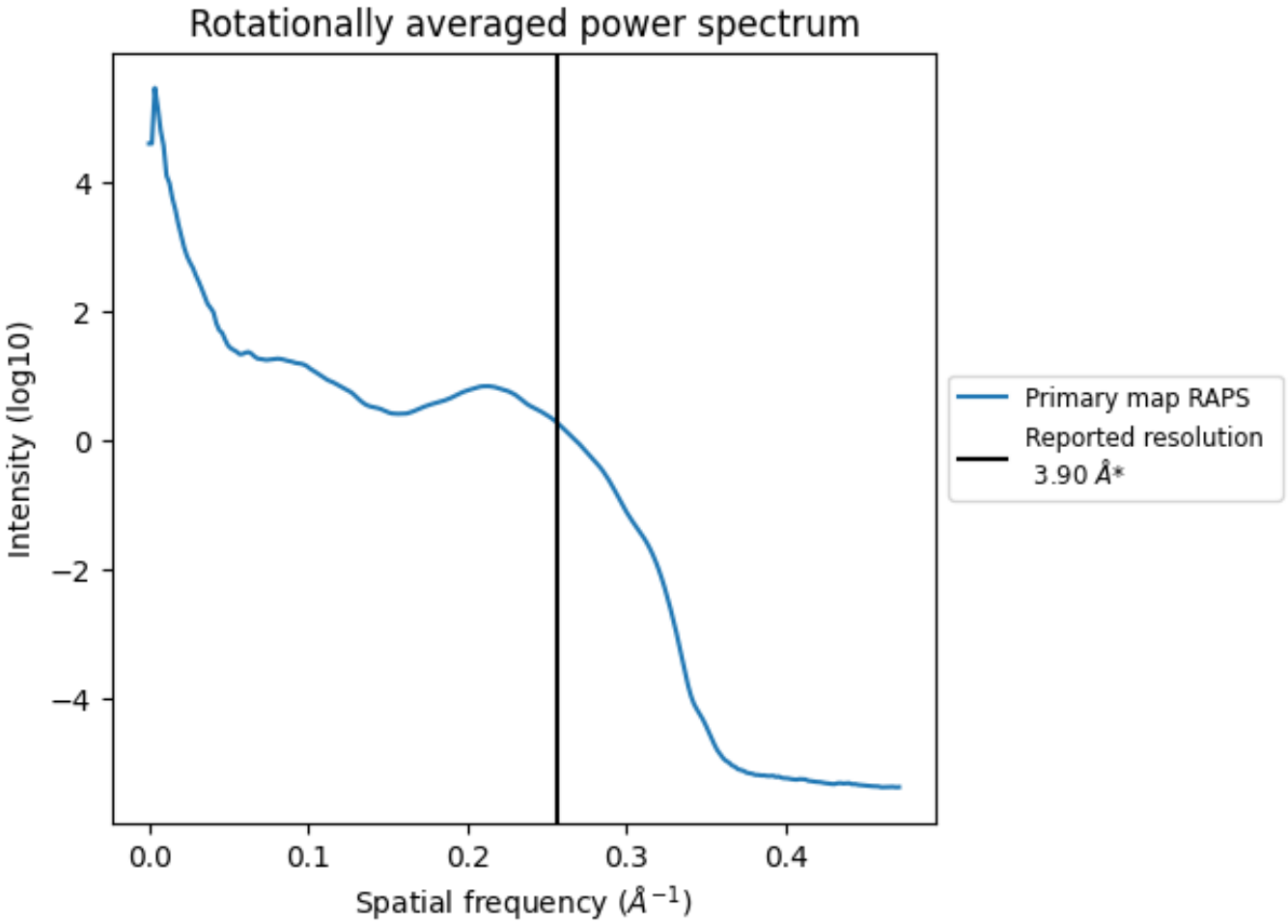
7.2 Volume estimate



The volume at the recommended contour level is 3205 nm^3; this corresponds to an approximate mass of 2895 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.256 Å^{-1}

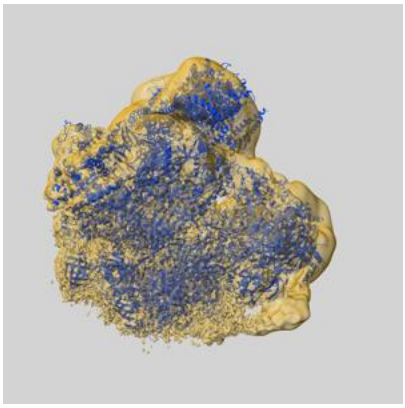
8 Fourier-Shell correlation

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

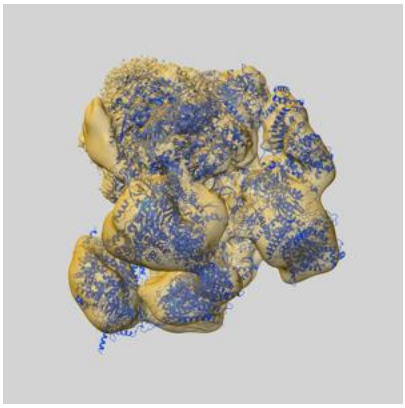
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-31112 and PDB model 7EGC. Per-residue inclusion information can be found in section 3 on page 14.

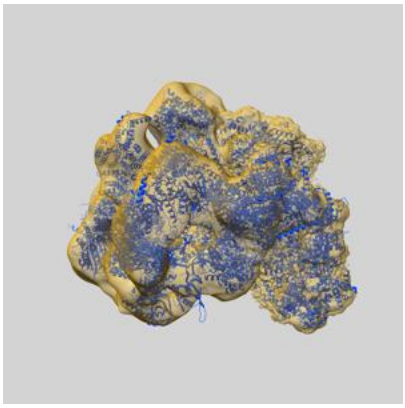
9.1 Map-model overlay



X



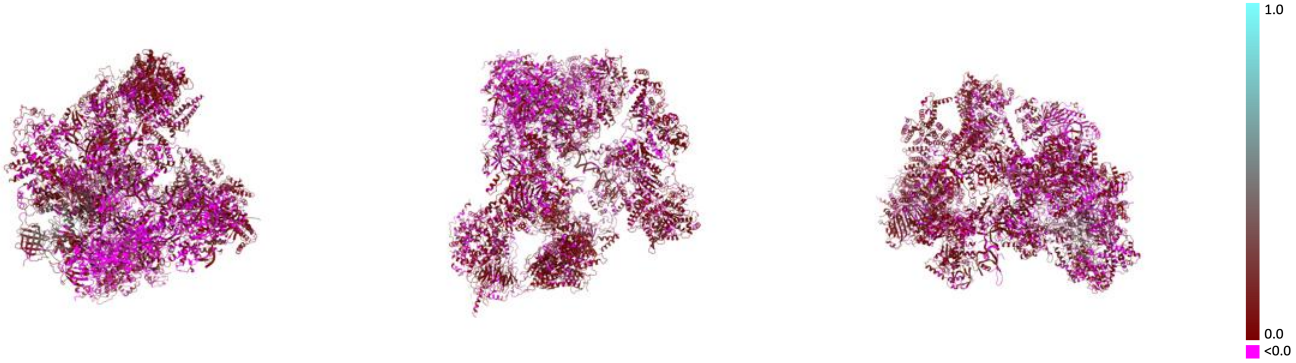
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0051 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.

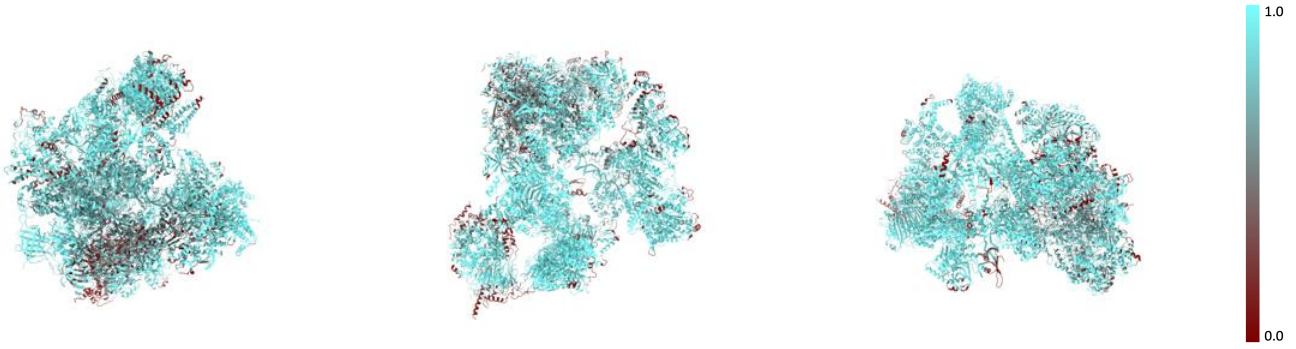
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according 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.

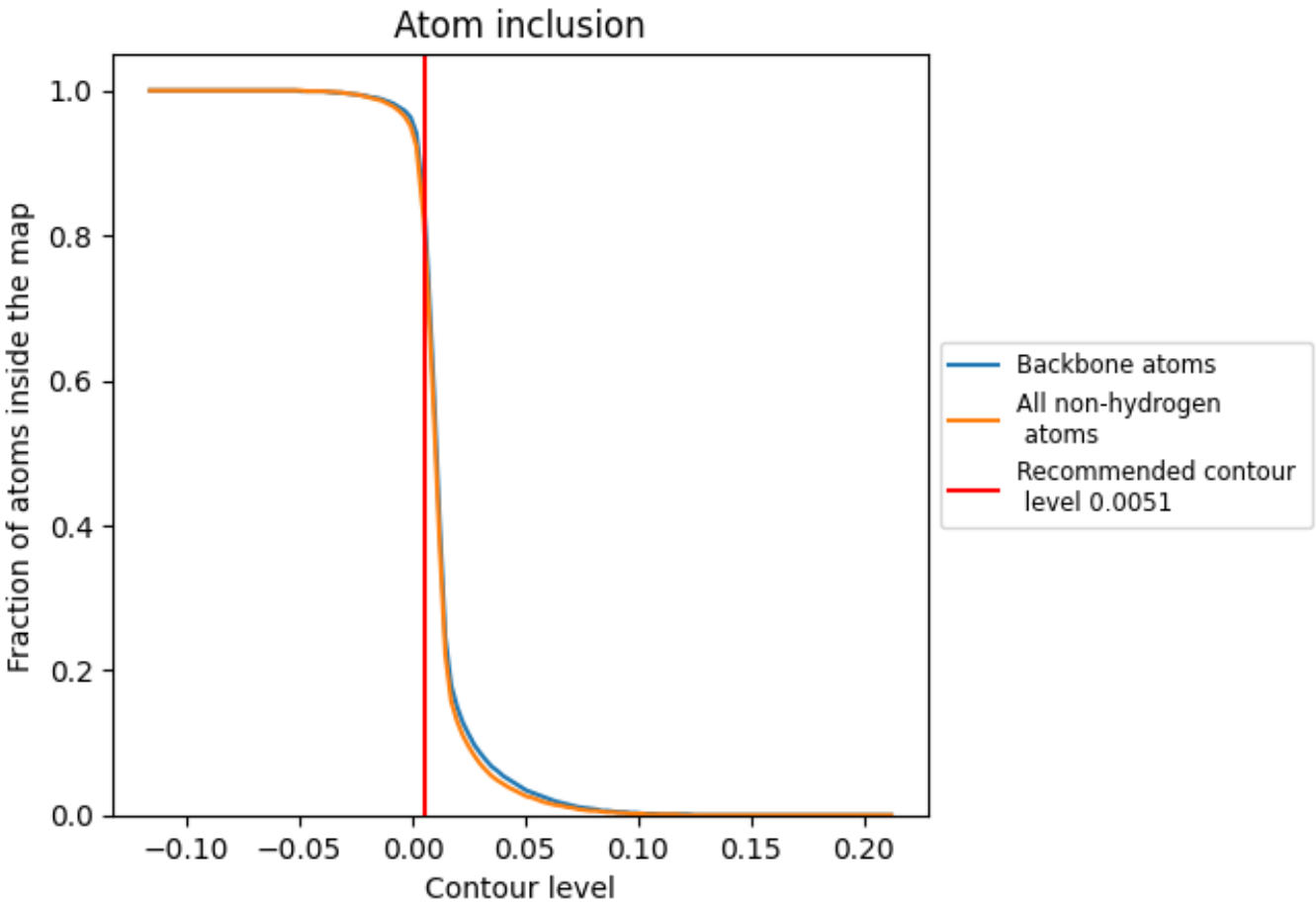
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.0051).

9.4 Atom inclusion (i)



At the recommended contour level, 85% of all backbone atoms, 82% 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 (0.0051) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8210	0.0510
0	0.6780	0.0570
1	0.7750	0.0270
2	0.9400	0.0590
3	0.9280	0.0540
4	0.8880	0.0660
5	0.9290	0.0540
6	0.9350	0.0560
7	0.8980	0.0570
8	0.7650	0.0310
9	0.7140	0.0580
A	0.9050	0.0510
B	0.9610	0.0590
D	0.9570	0.0370
E	0.9470	0.0620
F	0.9620	0.0700
G	0.7490	0.0490
H	0.9540	0.0570
I	0.9500	0.0490
J	1.0000	0.0740
L	0.9600	0.0400
O	0.8670	0.0250
P	0.7910	-0.0350
Q	0.8340	0.0430
R	0.6570	-0.0250
S	0.8680	0.0190
T	0.7950	0.0260
U	0.8710	0.0620
V	0.9120	0.0630
X	0.8320	0.0580
Y	0.8250	0.0620
c	0.5150	0.0220
d	0.5320	0.0350
e	0.8140	0.0440
f	0.8270	0.0520

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Chain	Atom inclusion	Q-score
i	0.7930	0.0320
j	0.4240	0.0270
k	0.2970	0.0090
l	0.7300	0.0210
m	0.3460	0.0180
o	0.8150	0.1210
p	0.6110	-0.0170
q	0.6790	-0.0350
r	0.8940	0.0770
s	0.8650	0.1030
t	0.7920	0.1140
u	0.8390	0.0330
v	0.9310	0.2230
w	0.7750	0.0030
x	0.5760	-0.0350
y	0.7790	0.1080
z	0.6400	-0.0420