



## Full wwPDB EM Validation Report ⓘ

Oct 12, 2024 – 02:55 PM EDT

PDB ID : 5W66  
EMDB ID : EMD-8776  
Title : RNA polymerase I Initial Transcribing Complex State 3  
Authors : Han, Y.; He, Y.  
Deposited on : 2017-06-16  
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](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113  
MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

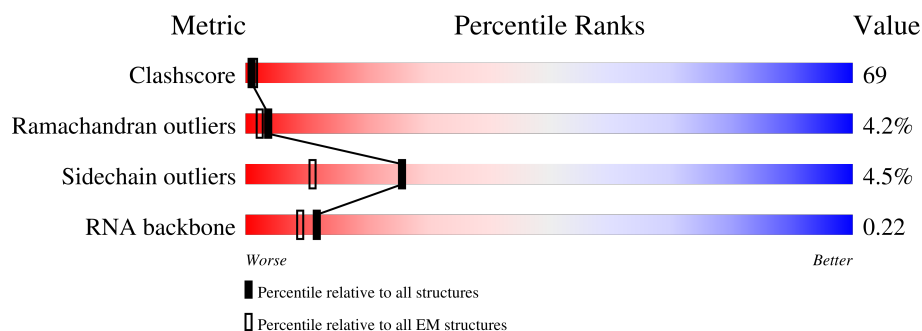
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.90 Å.

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




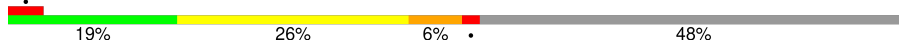
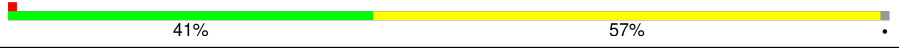
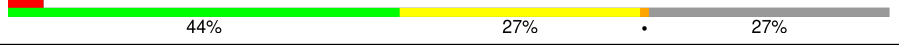
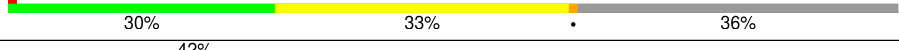
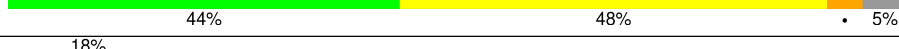
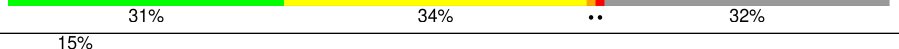
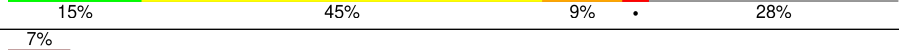
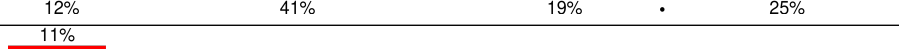
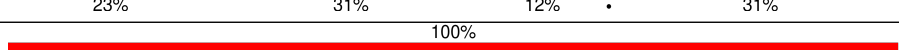
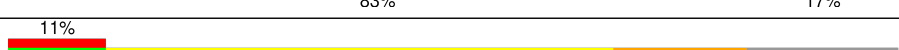
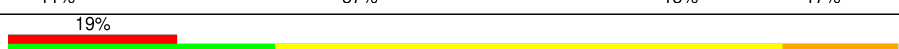
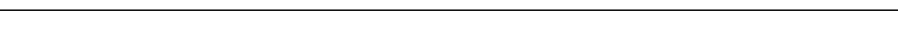
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415
RNA backbone	6643	2191

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

Mol	Chain	Length	Quality of chain
1	A	1664	
2	B	1203	
3	C	335	
4	D	137	
5	E	215	
6	F	155	
7	G	326	

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Mol	Chain	Length	Quality of chain
8	H	146	
9	I	125	
10	J	70	
11	K	142	
12	L	70	
13	M	415	
14	N	233	
15	O	894	
16	P	514	
17	Q	507	
18	R	6	
19	S	54	
20	T	54	

## 2 Entry composition

There are 21 unique types of molecules in this entry. The entry contains 48857 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 DNA-directed RNA polymerase I subunit RPA190.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1461	Total	C	N	O	S	0	0
			11542	7292	2004	2184	62		

- Molecule 2 is a protein called DNA-directed RNA polymerase I subunit RPA135.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1178	Total	C	N	O	S	0	0
			9351	5911	1639	1750	51		

- Molecule 3 is a protein called DNA-directed RNA polymerases I and III subunit RPAC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	306	Total	C	N	O	S	0	0
			2431	1544	417	462	8		

- Molecule 4 is a protein called DNA-directed RNA polymerase I subunit RPA14.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	D	59	Total	C	N	O	0	0
			467	293	80	94		

- Molecule 5 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	215	Total	C	N	O	S	0	0
			1759	1116	310	321	12		

- Molecule 6 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	83	Total	C	N	O	S	0	0
			670	428	114	125	3		

- Molecule 7 is a protein called DNA-directed RNA polymerase I subunit RPA43.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	201	Total	C	N	O	S	0	0
			1592	1022	275	290	5		

- Molecule 8 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC3.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	133	Total	C	N	O	S	0	0
			1070	676	181	209	4		

- Molecule 9 is a protein called DNA-directed RNA polymerase I subunit RPA12.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	65	Total	C	N	O	S	0	0
			479	300	79	96	4		

- Molecule 10 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC5.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	69	Total	C	N	O	S	0	0
			569	362	101	100	6		

- Molecule 11 is a protein called DNA-directed RNA polymerases I and III subunit RPAC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	103	Total	C	N	O	S	0	0
			810	506	132	167	5		

- Molecule 12 is a protein called DNA-directed RNA polymerases I, II, and III subunit RPABC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	45	Total	C	N	O	S	0	0
			358	221	71	62	4		

- Molecule 13 is a protein called DNA-directed RNA polymerase I subunit RPA49.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	M	396	Total	C	N	O	S	0	0
			3131	1997	531	599	4		

- Molecule 14 is a protein called DNA-directed RNA polymerase I subunit RPA34.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	N	158	Total	C	N	O	S	0	0
			1254	799	205	246	4		

- Molecule 15 is a protein called RNA polymerase I-specific transcription initiation factor RRN6.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	640	Total	C	N	O	S	0	0
			5063	3218	872	964	9		

There are 53 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
O	3	UNK	HIS	SEE REMARK 999	UNP P32786
O	4	UNK	PHE	SEE REMARK 999	UNP P32786
O	5	UNK	PHE	SEE REMARK 999	UNP P32786
O	6	UNK	LYS	SEE REMARK 999	UNP P32786
O	7	UNK	LYS	SEE REMARK 999	UNP P32786
O	8	UNK	VAL	SEE REMARK 999	UNP P32786
O	9	UNK	ASP	SEE REMARK 999	UNP P32786
O	10	UNK	VAL	SEE REMARK 999	UNP P32786
O	11	UNK	GLY	SEE REMARK 999	UNP P32786
O	12	UNK	ASN	SEE REMARK 999	UNP P32786
O	13	UNK	ASP	SEE REMARK 999	UNP P32786
O	14	UNK	SER	SEE REMARK 999	UNP P32786
O	15	UNK	MET	SEE REMARK 999	UNP P32786
O	16	UNK	PHE	SEE REMARK 999	UNP P32786
O	17	UNK	GLY	SEE REMARK 999	UNP P32786
O	18	UNK	VAL	SEE REMARK 999	UNP P32786
O	19	UNK	ASN	SEE REMARK 999	UNP P32786
O	20	UNK	CYS	SEE REMARK 999	UNP P32786
O	21	UNK	ASP	SEE REMARK 999	UNP P32786
O	22	UNK	THR	SEE REMARK 999	UNP P32786
O	23	UNK	PRO	SEE REMARK 999	UNP P32786
O	24	UNK	VAL	SEE REMARK 999	UNP P32786
O	25	UNK	SER	SEE REMARK 999	UNP P32786
O	26	UNK	PHE	SEE REMARK 999	UNP P32786
O	27	UNK	GLN	SEE REMARK 999	UNP P32786
O	28	UNK	ASP	SEE REMARK 999	UNP P32786
O	41	UNK	TYR	SEE REMARK 999	UNP P32786
O	42	UNK	ILE	SEE REMARK 999	UNP P32786
O	43	UNK	PRO	SEE REMARK 999	UNP P32786
O	44	UNK	SER	SEE REMARK 999	UNP P32786

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Chain	Residue	Modelled	Actual	Comment	Reference
O	45	UNK	ASP	SEE REMARK 999	UNP P32786
O	46	UNK	LEU	SEE REMARK 999	UNP P32786
O	47	UNK	LEU	SEE REMARK 999	UNP P32786
O	48	UNK	ARG	SEE REMARK 999	UNP P32786
O	49	UNK	ASN	SEE REMARK 999	UNP P32786
O	50	UNK	LEU	SEE REMARK 999	UNP P32786
O	51	UNK	ASP	SEE REMARK 999	UNP P32786
O	52	UNK	ASP	SEE REMARK 999	UNP P32786
O	53	UNK	THR	SEE REMARK 999	UNP P32786
O	54	UNK	LEU	SEE REMARK 999	UNP P32786
O	55	UNK	GLN	SEE REMARK 999	UNP P32786
O	56	UNK	GLU	SEE REMARK 999	UNP P32786
O	57	UNK	SER	SEE REMARK 999	UNP P32786
O	58	UNK	THR	SEE REMARK 999	UNP P32786
O	59	UNK	ASN	SEE REMARK 999	UNP P32786
O	60	UNK	SER	SEE REMARK 999	UNP P32786
O	61	UNK	SER	SEE REMARK 999	UNP P32786
O	62	UNK	ARG	SEE REMARK 999	UNP P32786
O	63	UNK	PRO	SEE REMARK 999	UNP P32786
O	64	UNK	MET	SEE REMARK 999	UNP P32786
O	65	UNK	GLN	SEE REMARK 999	UNP P32786
O	66	UNK	ASP	SEE REMARK 999	UNP P32786
O	67	UNK	ALA	SEE REMARK 999	UNP P32786

- Molecule 16 is a protein called RNA polymerase I-specific transcription initiation factor RRN7.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	P	387	Total	C	N	O	S	0	0
			3238	2105	540	576	17		

- Molecule 17 is a protein called RNA polymerase I-specific transcription initiation factor RRN11.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	349	Total	C	N	O	S	0	0
			2923	1881	513	518	11		

- Molecule 18 is a RNA chain called RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	R	6	Total	C	N	O	P	0	0
			127	58	25	39	5		

- Molecule 19 is a DNA chain called non-template strand DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	S	45	Total	C	N	O	P	0	0
			935	447	174	270	44		

- Molecule 20 is a DNA chain called template strand DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	T	54	Total	C	N	O	P	0	0
			1082	522	177	330	53		

- Molecule 21 is ZINC ION (three-letter code: ZN) (formula: Zn).

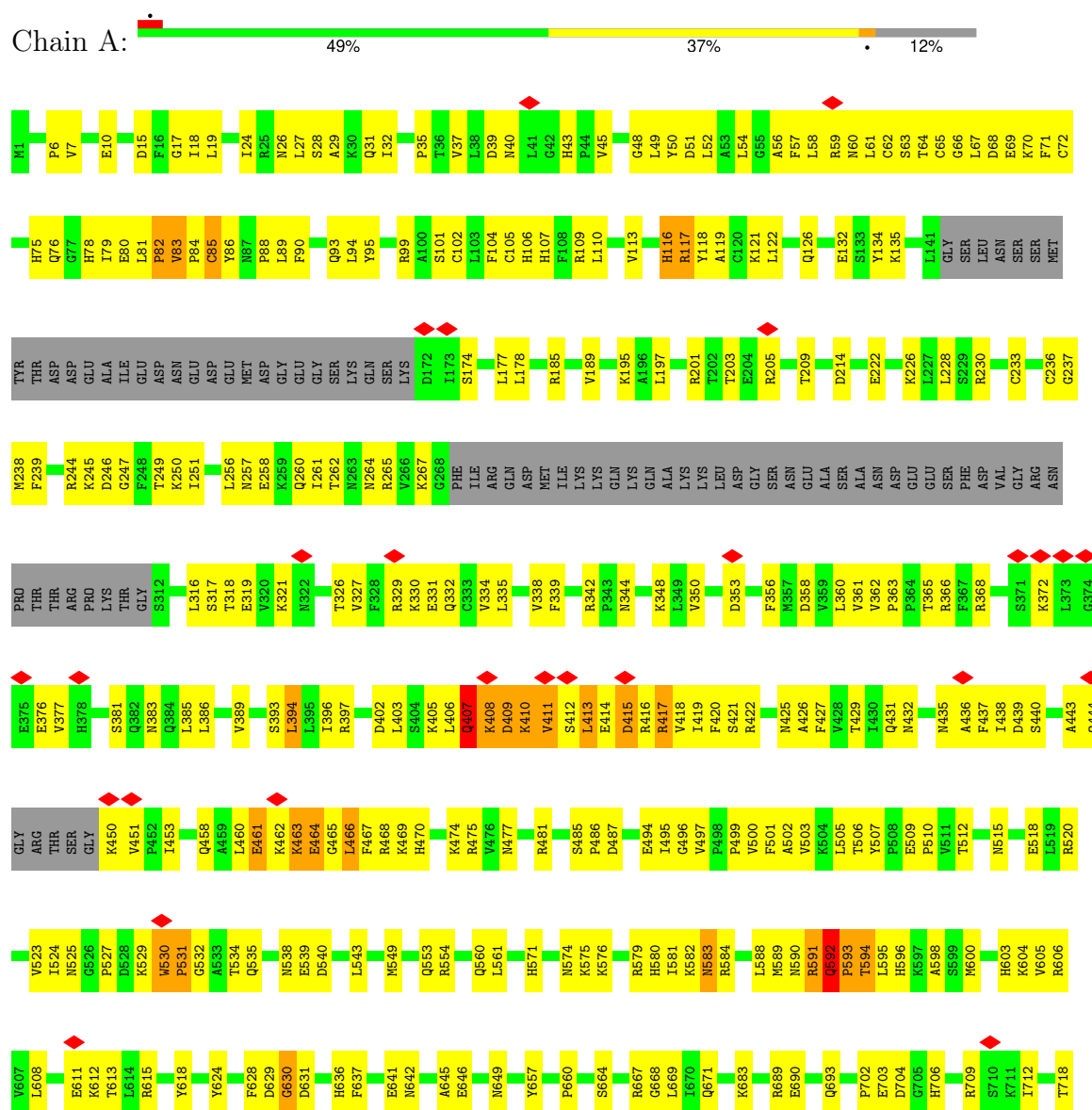
Mol	Chain	Residues	Atoms		AltConf
21	A	2	Total	Zn	0
			2	2	
21	B	1	Total	Zn	0
			1	1	
21	I	1	Total	Zn	0
			1	1	
21	J	1	Total	Zn	0
			1	1	
21	L	1	Total	Zn	0
			1	1	

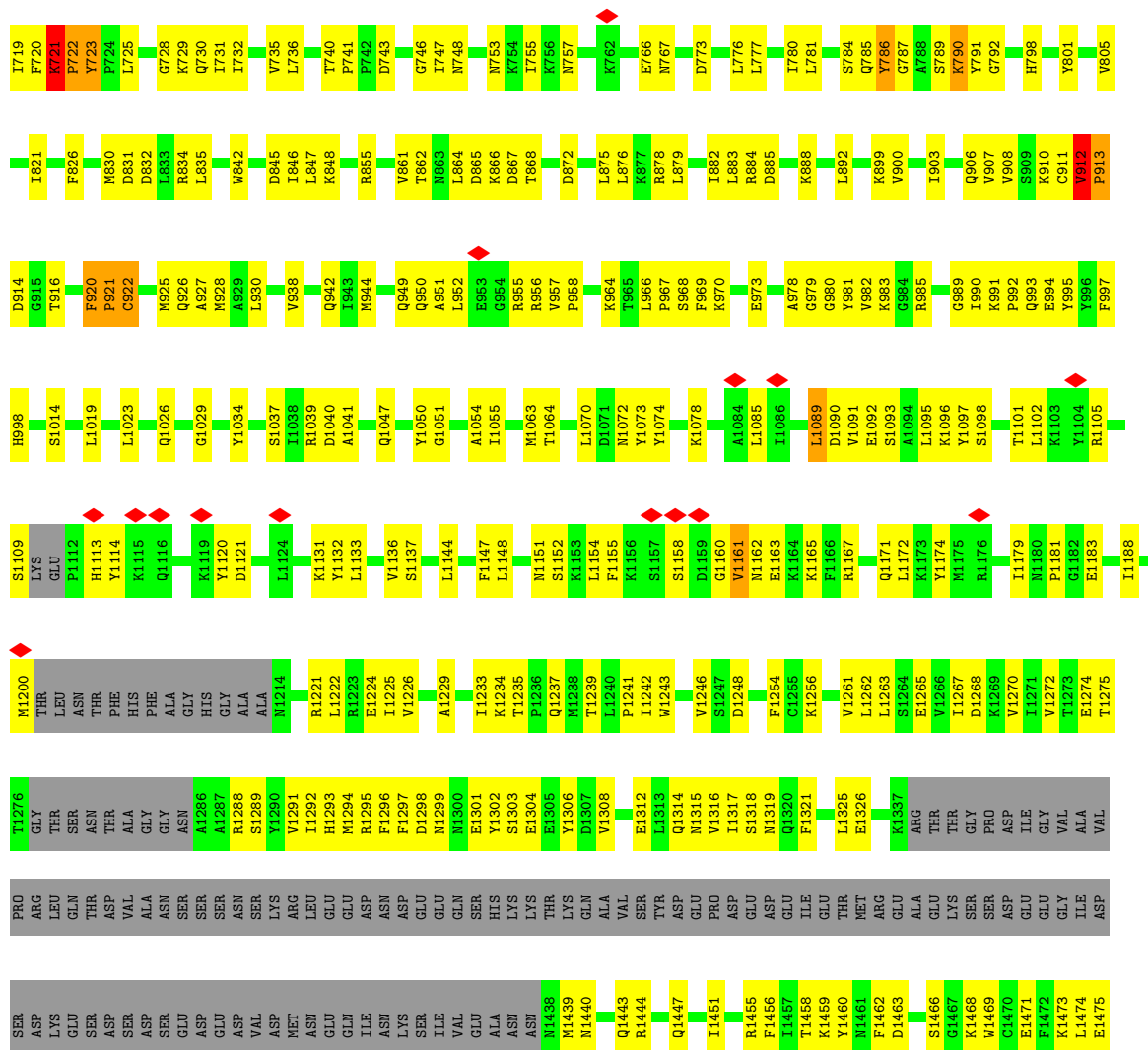


### 3 Residue-property plots [i](#)

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.

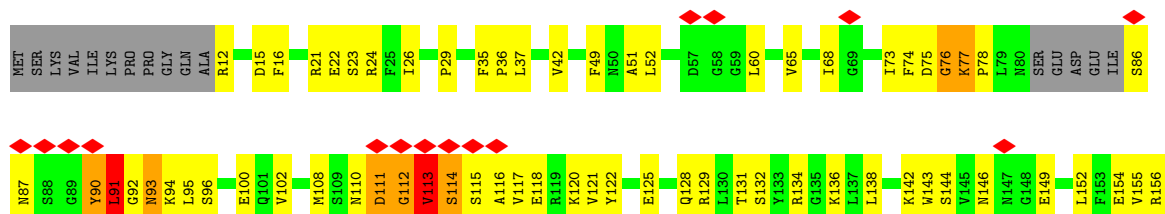
- Molecule 1: DNA-directed RNA polymerase I subunit RPA190

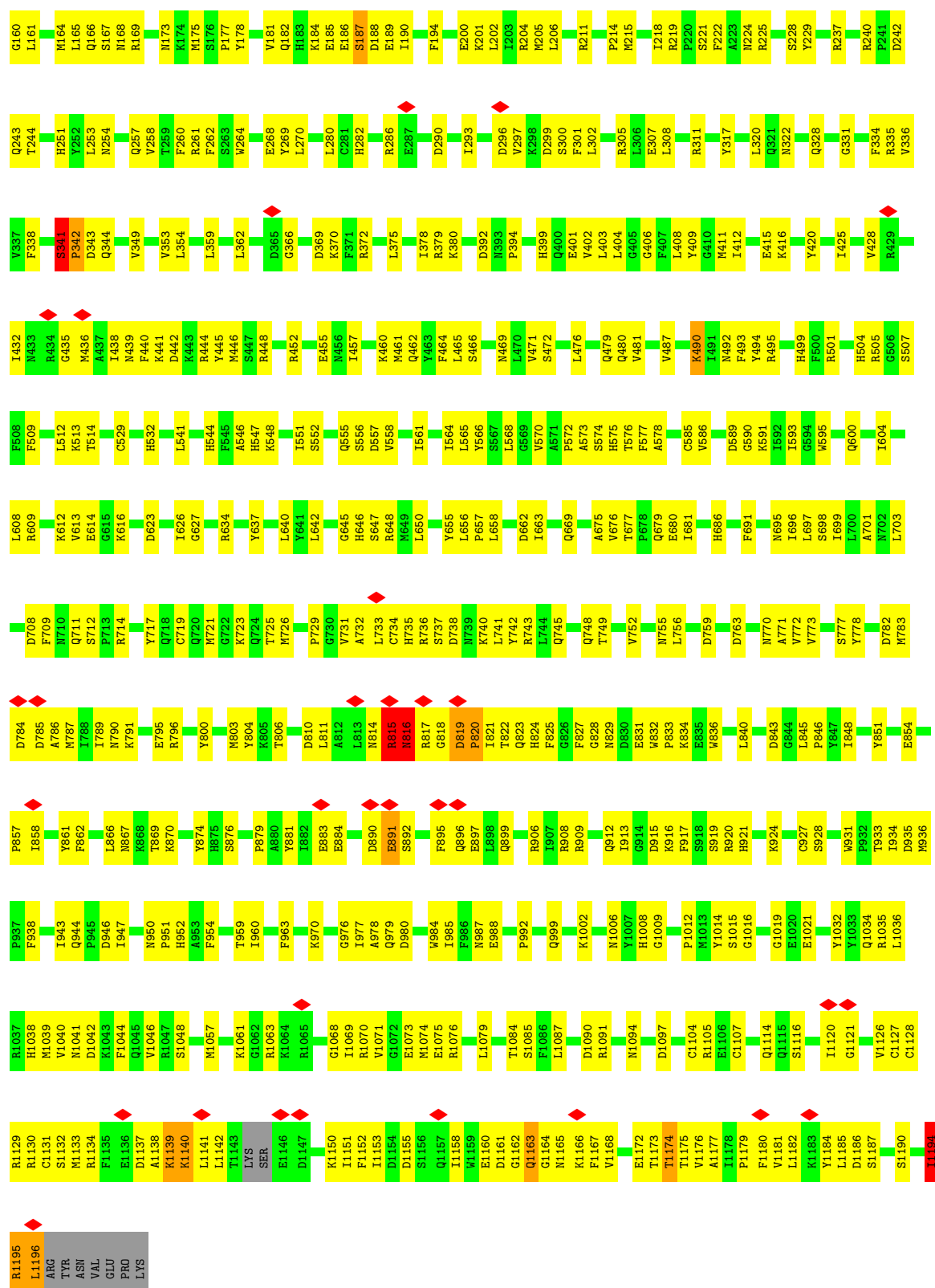




• Molecule 2: DNA-directed RNA polymerase I subunit RPA135

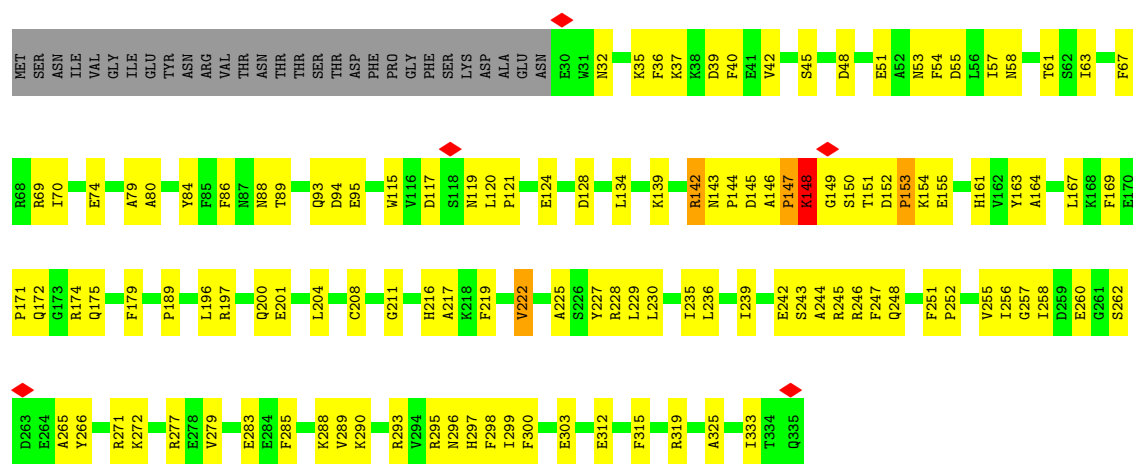
Chain B: 53% 43%



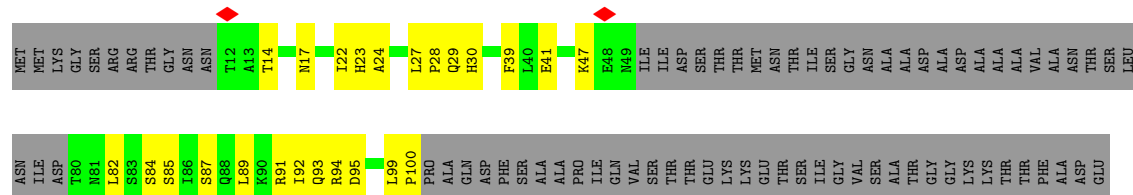


• Molecule 3: DNA-directed RNA polymerases I and III subunit RPAC1

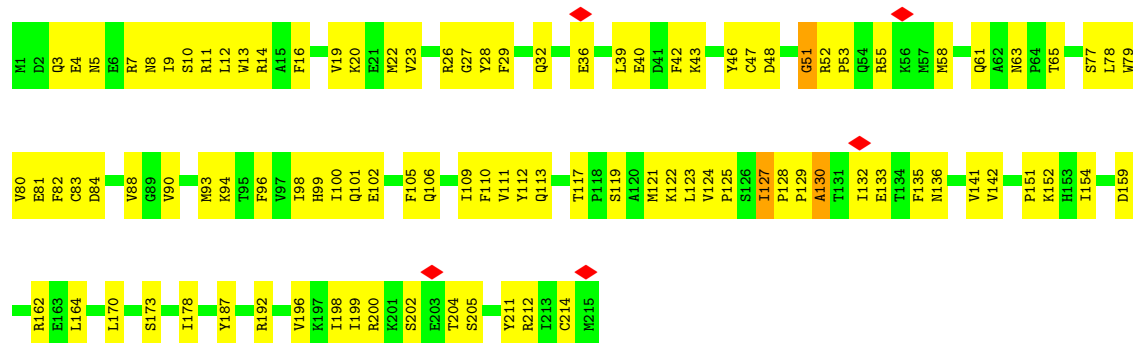
Chain C: 55% 35% 9%



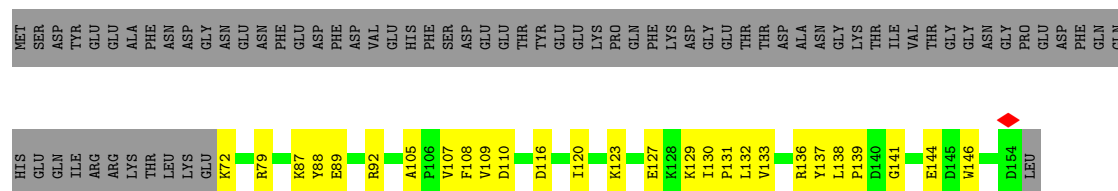
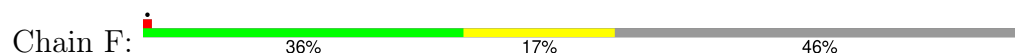
• Molecule 4: DNA-directed RNA polymerase I subunit RPA14



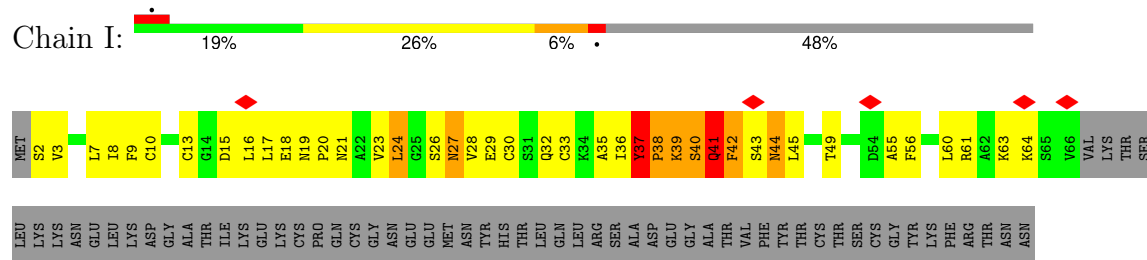
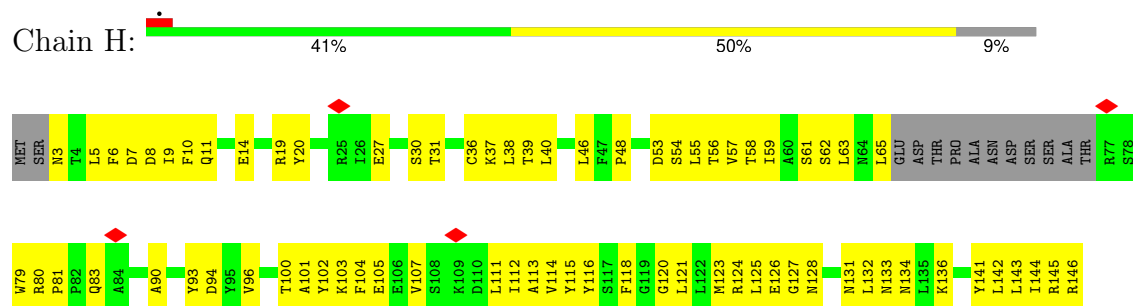
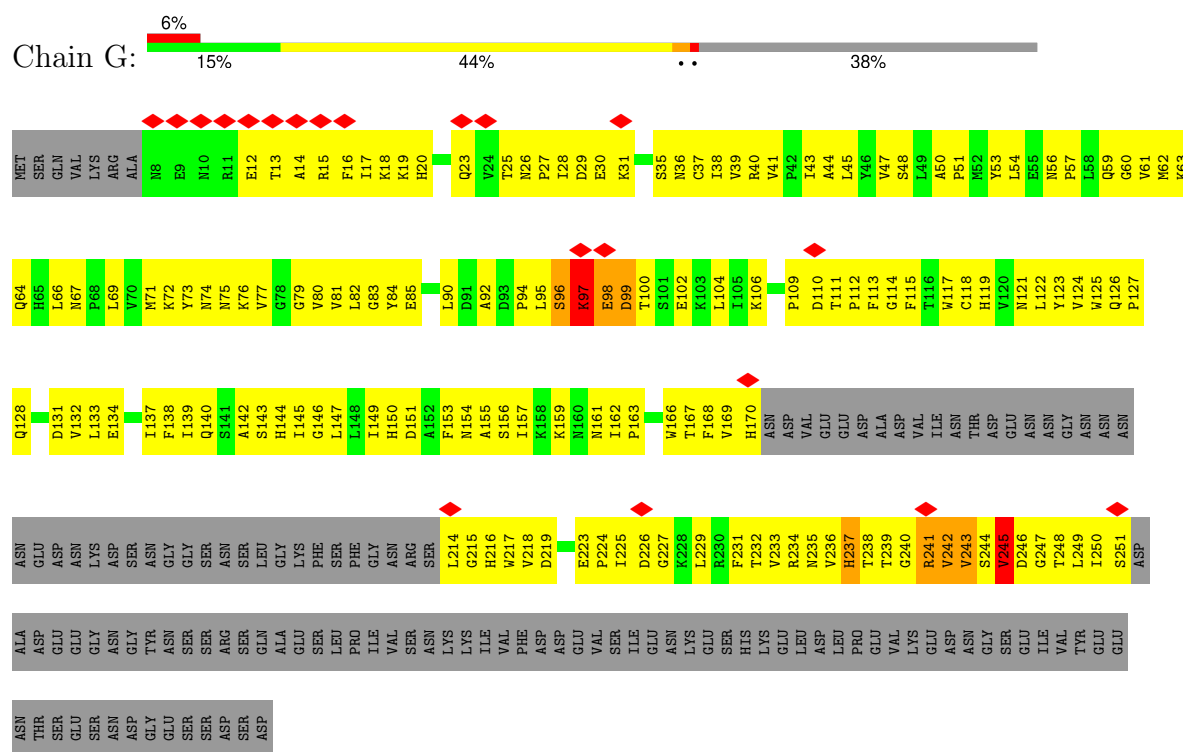
• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1



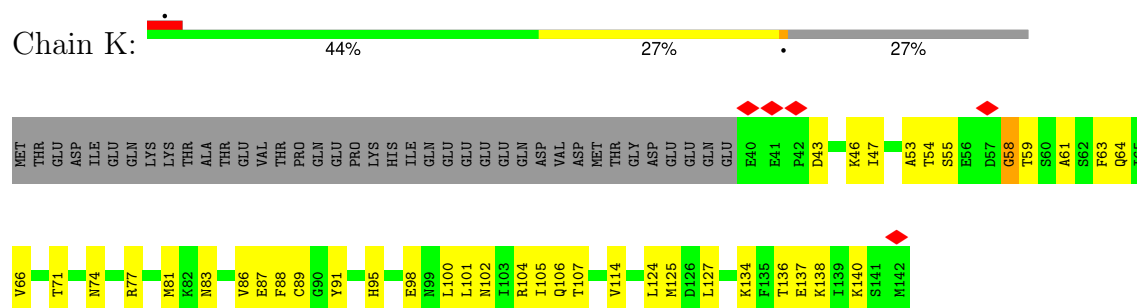
• Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2



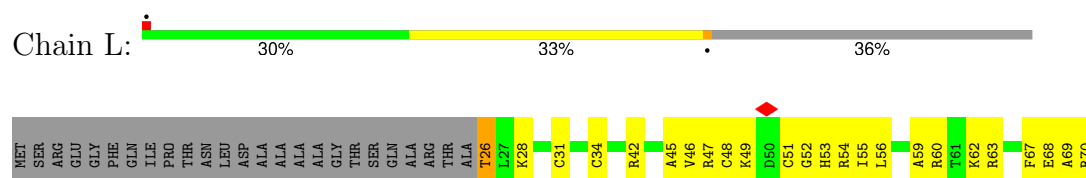
• Molecule 7: DNA-directed RNA polymerase I subunit RPA43



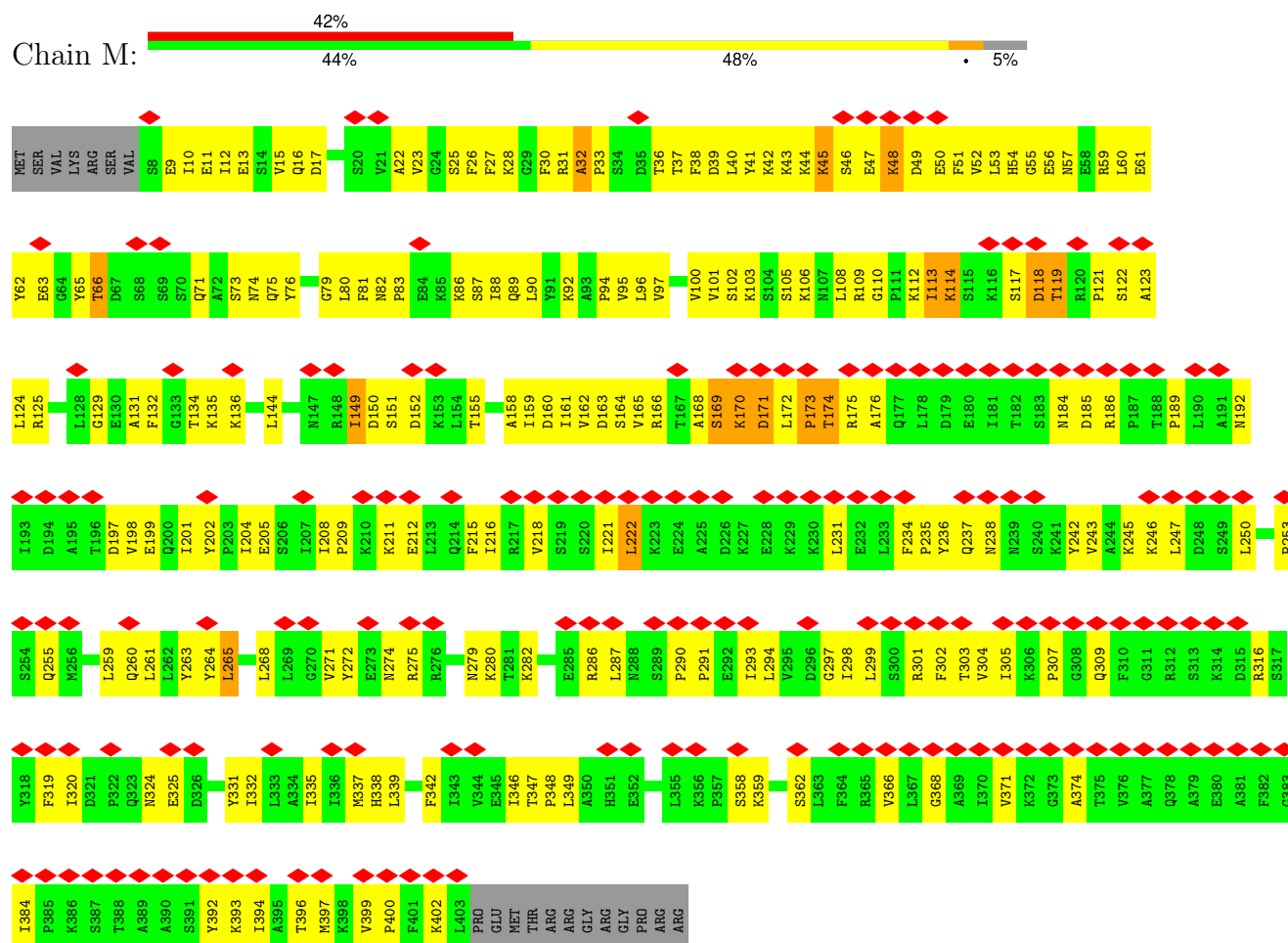
- Molecule 11: DNA-directed RNA polymerases I and III subunit RPAC2



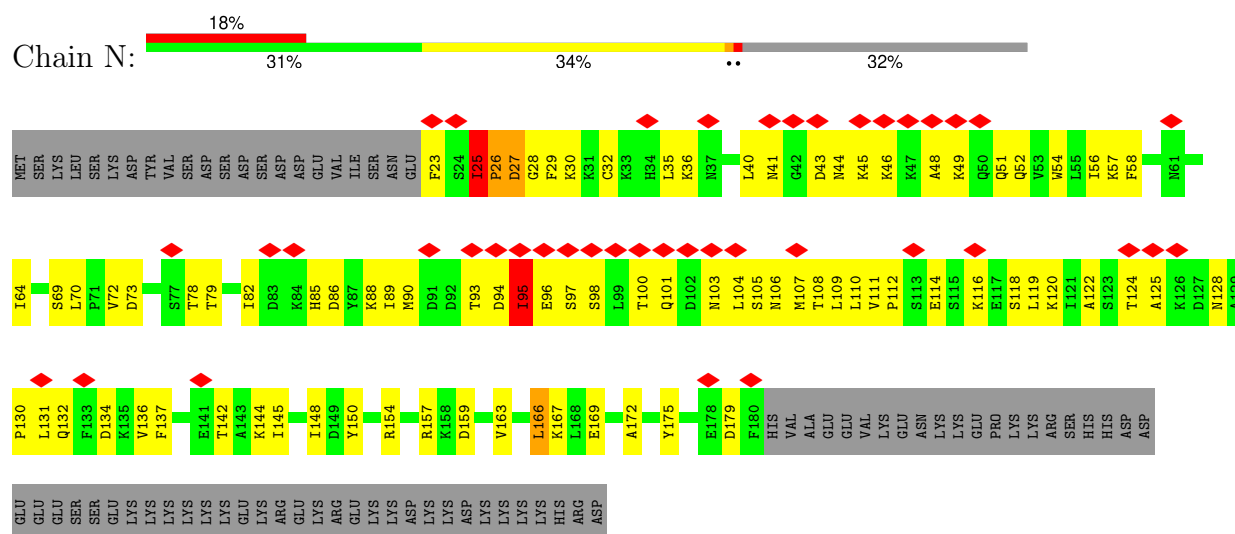
- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4



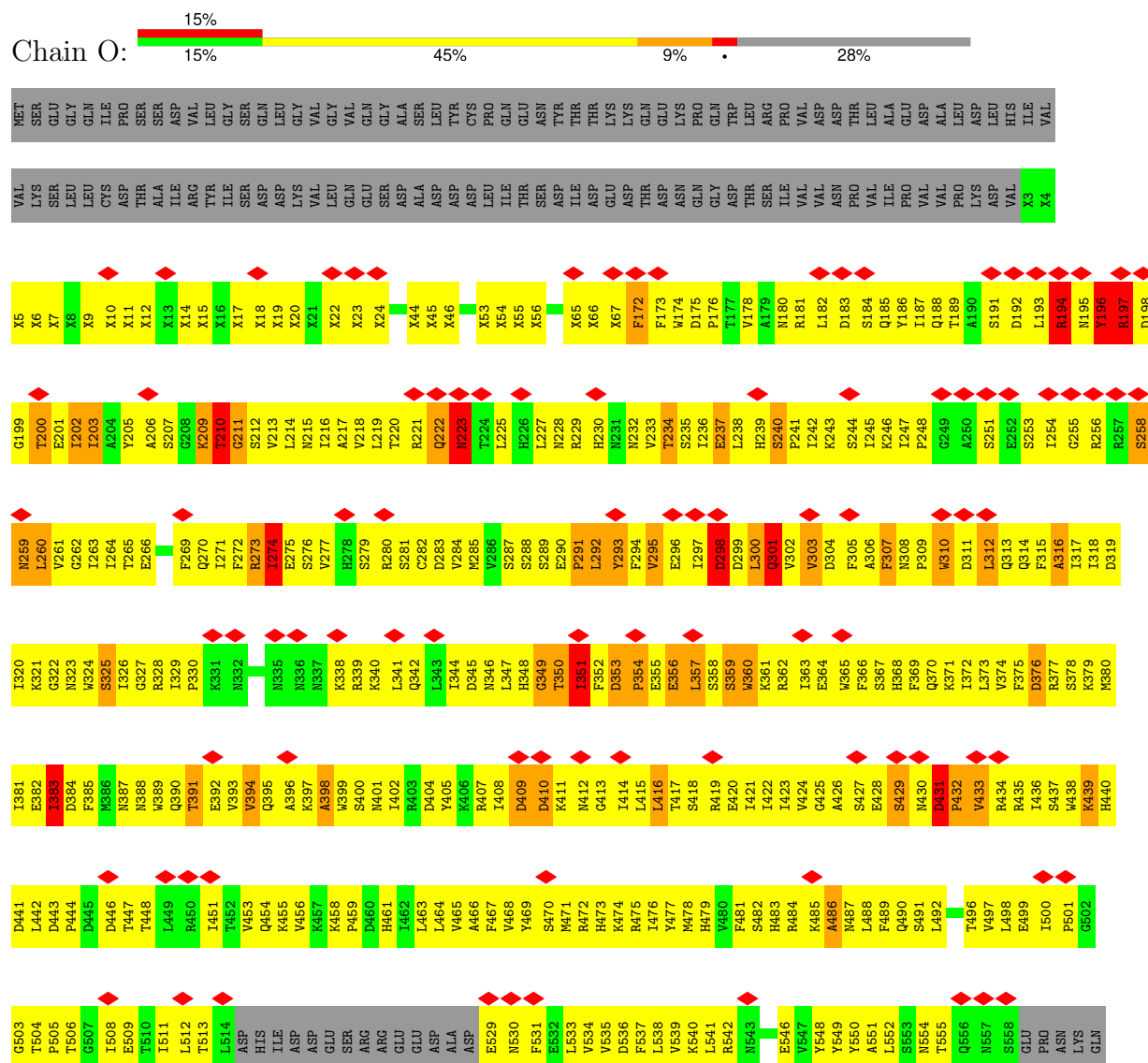
- Molecule 13: DNA-directed RNA polymerase I subunit RPA49



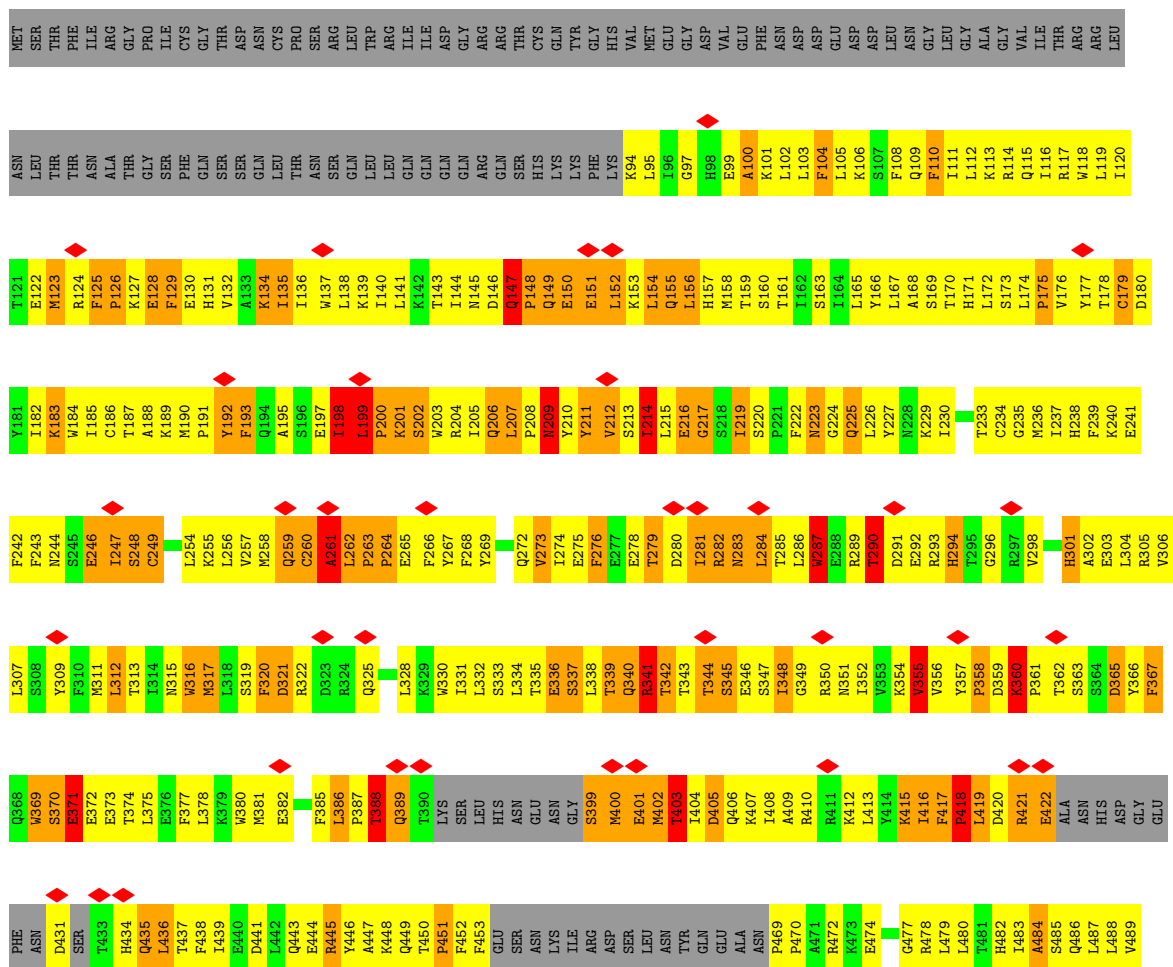
- Molecule 14: DNA-directed RNA polymerase I subunit RPA34



- Molecule 15: RNA polymerase I-specific transcription initiation factor RRN6



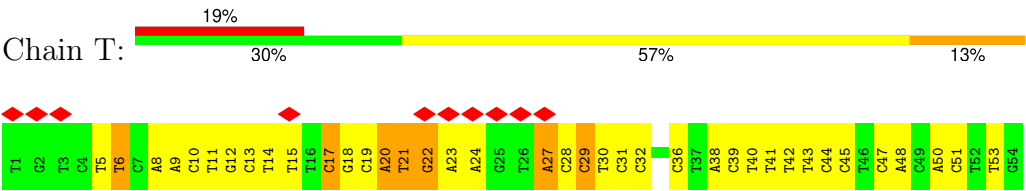
- Molecule 16: RNA polymerase I-specific transcription initiation factor RRN7







● Molecule 20: template strand DNA



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	26913	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY; CTF amplitude correction was performed following 3D auto refinement in relion.	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	56.8	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	22500	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.189	Depositor
Minimum map value	-0.097	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.012	Depositor
Recommended contour level	0.04	Depositor
Map size ( $\text{\AA}$ )	249.59999, 249.59999, 249.59999	wwPDB
Map dimensions	192, 192, 192	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.3, 1.3, 1.3	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:  
ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	A	0.46	0/11752	0.66	3/15870 (0.0%)
2	B	0.55	1/9556 (0.0%)	0.72	4/12916 (0.0%)
3	C	0.46	0/2483	0.68	2/3366 (0.1%)
4	D	0.37	0/473	0.59	0/641
5	E	0.42	0/1795	0.68	1/2416 (0.0%)
6	F	0.44	0/682	0.63	0/922
7	G	0.40	0/1630	0.66	0/2216
8	H	0.46	0/1088	0.70	0/1474
9	I	0.35	0/485	0.94	2/657 (0.3%)
10	J	0.51	0/578	0.79	0/775
11	K	0.42	0/821	0.69	1/1108 (0.1%)
12	L	0.40	0/360	0.66	0/478
13	M	0.36	0/3184	0.65	3/4296 (0.1%)
14	N	0.40	0/1279	0.74	1/1724 (0.1%)
15	O	0.56	0/4902	1.01	32/6641 (0.5%)
16	P	0.46	2/3316 (0.1%)	1.14	36/4477 (0.8%)
17	Q	0.62	0/2990	1.06	13/4030 (0.3%)
18	R	0.58	0/142	1.23	1/220 (0.5%)
19	S	1.03	0/1050	1.23	8/1621 (0.5%)
20	T	1.00	0/1206	1.32	9/1855 (0.5%)
All	All	0.53	3/49772 (0.0%)	0.83	116/67703 (0.2%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	78	PRO	N-CD	-8.11	1.36	1.47
16	P	191	PRO	N-CD	5.63	1.55	1.47
16	P	418	PRO	N-CD	5.48	1.55	1.47

All (116) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	O	172	PHE	N-CA-CB	12.73	133.52	110.60
16	P	209	ASN	CB-CA-C	-10.16	90.09	110.40
15	O	617	HIS	N-CA-C	-8.98	86.75	111.00
16	P	290	THR	N-CA-CB	8.89	127.19	110.30
16	P	199	LEU	N-CA-C	-8.86	87.07	111.00
16	P	248	SER	N-CA-C	-8.85	87.10	111.00
9	I	40	SER	N-CA-CB	8.80	123.70	110.50
20	T	22	DG	P-O3'-C3'	8.78	130.23	119.70
9	I	39	LYS	N-CA-C	-8.67	87.60	111.00
17	Q	145	SER	N-CA-CB	8.29	122.94	110.50
2	B	76	GLY	N-CA-C	-8.00	93.10	113.10
1	A	394	LEU	CA-CB-CG	-8.00	96.90	115.30
13	M	176	ALA	N-CA-CB	-7.85	99.11	110.10
16	P	321	ASP	N-CA-C	-7.67	90.29	111.00
3	C	142	ARG	C-N-CA	-7.64	102.59	121.70
2	B	816	ASN	N-CA-C	7.64	131.62	111.00
16	P	261	ALA	CB-CA-C	-7.57	98.75	110.10
15	O	654	LEU	N-CA-C	7.34	130.83	111.00
16	P	100	ALA	N-CA-CB	7.26	120.26	110.10
16	P	128	GLU	N-CA-C	7.22	130.50	111.00
15	O	429	SER	N-CA-CB	-7.20	99.70	110.50
16	P	156	LEU	N-CA-CB	-7.17	96.05	110.40
11	K	58	GLY	N-CA-C	7.07	130.77	113.10
15	O	657	SER	N-CA-C	6.95	129.75	111.00
15	O	301	GLN	N-CA-C	-6.93	92.28	111.00
15	O	705	HIS	N-CA-C	-6.92	92.30	111.00
15	O	383	ILE	N-CA-C	6.91	129.65	111.00
16	P	202	SER	N-CA-CB	-6.86	100.22	110.50
17	Q	217	THR	N-CA-C	6.76	129.24	111.00
17	Q	18	LYS	N-CA-CB	6.73	122.71	110.60
16	P	294	HIS	CB-CA-C	-6.72	96.95	110.40
16	P	246	GLU	N-CA-C	6.64	128.92	111.00
20	T	21	DT	C1'-O4'-C4'	-6.63	103.47	110.10
19	S	21	DT	C1'-O4'-C4'	-6.59	103.51	110.10
16	P	403	THR	N-CA-C	6.51	128.58	111.00
15	O	486	ALA	N-CA-C	-6.50	93.46	111.00
20	T	29	DC	O4'-C4'-C3'	-6.49	101.90	104.50
15	O	209	LYS	N-CA-C	-6.47	93.53	111.00
20	T	17	DC	C1'-O4'-C4'	-6.46	103.64	110.10
15	O	298	ASP	N-CA-CB	-6.46	98.98	110.60
16	P	134	LYS	N-CA-C	6.45	128.42	111.00
20	T	27	DA	O4'-C1'-N9	-6.37	103.54	108.00
15	O	694	ILE	N-CA-C	6.36	128.17	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	Q	302	ARG	N-CA-C	-6.32	93.93	111.00
16	P	484	ALA	N-CA-CB	6.32	118.95	110.10
15	O	210	THR	N-CA-C	-6.28	94.03	111.00
17	Q	216	LEU	N-CA-C	6.21	127.77	111.00
15	O	575	ALA	N-CA-CB	-6.19	101.43	110.10
16	P	193	PHE	N-CA-C	6.19	127.70	111.00
16	P	209	ASN	CA-C-N	-6.14	103.70	117.20
15	O	606	ARG	NE-CZ-NH1	5.99	123.30	120.30
15	O	196	TYR	N-CA-C	5.99	127.18	111.00
15	O	642	GLN	N-CA-CB	5.96	121.33	110.60
16	P	217	GLY	N-CA-C	5.96	128.00	113.10
16	P	110	PHE	N-CA-C	5.94	127.05	111.00
17	Q	441	ARG	NE-CZ-NH1	5.94	123.27	120.30
16	P	506	LYS	N-CA-CB	5.93	121.28	110.60
16	P	135	ILE	CB-CA-C	-5.92	99.76	111.60
16	P	211	TYR	N-CA-CB	-5.82	100.12	110.60
16	P	493	ILE	N-CA-C	5.78	126.61	111.00
15	O	656	HIS	N-CA-C	5.74	126.49	111.00
15	O	670	ALA	N-CA-C	-5.71	95.58	111.00
13	M	265	LEU	CA-CB-CG	-5.71	102.17	115.30
17	Q	302	ARG	N-CA-CB	5.69	120.85	110.60
19	S	19	DG	O4'-C1'-N9	-5.68	104.03	108.00
1	A	408	LYS	N-CA-C	-5.63	95.79	111.00
16	P	505	ILE	CB-CA-C	-5.63	100.34	111.60
15	O	705	HIS	N-CA-CB	5.62	120.72	110.60
15	O	657	SER	N-CA-CB	-5.59	102.11	110.50
17	Q	17	ARG	NE-CZ-NH2	5.55	123.08	120.30
14	N	166	LEU	CA-CB-CG	5.55	128.06	115.30
1	A	407	GLN	N-CA-C	5.53	125.94	111.00
15	O	356	GLU	N-CA-CB	-5.53	100.64	110.60
15	O	739	ASP	CB-CG-OD2	-5.53	113.32	118.30
19	S	24	DG	C1'-O4'-C4'	-5.51	104.59	110.10
15	O	429	SER	N-CA-C	5.50	125.86	111.00
16	P	403	THR	N-CA-CB	-5.50	99.84	110.30
20	T	20	DA	O4'-C1'-N9	-5.45	104.19	108.00
19	S	11	DG	C1'-O4'-C4'	-5.45	104.65	110.10
19	S	6	DG	O4'-C1'-N9	-5.45	104.19	108.00
16	P	316	TRP	N-CA-CB	5.42	120.36	110.60
3	C	167	LEU	CA-CB-CG	-5.42	102.84	115.30
17	Q	257	ILE	N-CA-CB	5.41	123.25	110.80
2	B	78	PRO	CA-N-CD	5.40	119.26	111.70
16	P	498	LEU	N-CA-CB	5.39	121.18	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	M	222	LEU	CA-CB-CG	5.36	127.63	115.30
16	P	125	PHE	C-N-CD	-5.36	108.81	120.60
15	O	620	ASP	N-CA-CB	5.35	120.23	110.60
17	Q	30	ARG	NE-CZ-NH2	5.34	122.97	120.30
15	O	583	GLU	N-CA-CB	-5.34	100.99	110.60
16	P	191	PRO	N-CA-C	-5.32	98.28	112.10
15	O	222	GLN	N-CA-C	-5.30	96.68	111.00
18	R	5	G	C8-N9-C4	-5.30	104.28	106.40
2	B	1174	THR	CA-CB-CG2	-5.29	105.00	112.40
15	O	416	LEU	CA-CB-CG	-5.26	103.19	115.30
17	Q	325	GLU	N-CA-C	5.25	125.16	111.00
15	O	736	ILE	CB-CA-C	-5.22	101.15	111.60
20	T	22	DG	C4'-C3'-O3'	-5.22	96.64	109.70
5	E	51	GLY	C-N-CA	-5.21	108.67	121.70
16	P	192	TYR	N-CA-C	5.21	125.06	111.00
15	O	391	THR	N-CA-CB	-5.18	100.46	110.30
16	P	104	PHE	N-CA-C	-5.18	97.02	111.00
16	P	500	ASP	CB-CG-OD2	5.18	122.96	118.30
17	Q	361	ASP	CB-CG-OD2	5.17	122.96	118.30
16	P	200	PRO	C-N-CA	-5.17	108.78	121.70
16	P	402	MET	CA-C-N	-5.14	105.88	117.20
16	P	510	LEU	CB-CA-C	-5.14	100.44	110.20
17	Q	171	ARG	NE-CZ-NH1	5.11	122.85	120.30
16	P	405	ASP	CB-CG-OD2	5.06	122.85	118.30
20	T	6	DT	O4'-C1'-N1	-5.06	104.46	108.00
19	S	8	DG	O4'-C1'-N9	5.06	111.54	108.00
15	O	694	ILE	CB-CA-C	-5.03	101.53	111.60
19	S	29	DT	C1'-O4'-C4'	-5.03	105.07	110.10
19	S	40	DT	OP1-P-O3'	5.01	116.22	105.20
15	O	655	SER	N-CA-C	-5.01	97.48	111.00
20	T	24	DA	O4'-C1'-N9	-5.01	104.50	108.00

There are no chirality outliers.

There are no planarity outliers.

## 5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	11542	0	11624	832	0
2	B	9351	0	9242	619	0
3	C	2431	0	2418	134	0
4	D	467	0	468	26	0
5	E	1759	0	1788	96	0
6	F	670	0	690	22	0
7	G	1592	0	1599	174	0
8	H	1070	0	1045	99	0
9	I	479	0	479	149	0
10	J	569	0	585	41	0
11	K	810	0	801	39	0
12	L	358	0	381	29	0
13	M	3131	0	3240	263	0
14	N	1254	0	1266	125	0
15	O	5063	0	4795	2214	0
16	P	3238	0	3263	1614	0
17	Q	2923	0	2964	1102	0
18	R	127	0	67	9	0
19	S	935	0	513	135	0
20	T	1082	0	615	121	0
21	A	2	0	0	1	0
21	B	1	0	0	0	0
21	I	1	0	0	0	0
21	J	1	0	0	0	0
21	L	1	0	0	0	0
All	All	48857	0	47843	6650	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 69.

All (6650) 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)
15:O:351:ILE:HG22	17:Q:157:MET:SD	1.17	1.70
16:P:101:LYS:CD	16:P:152:LEU:HD12	1.23	1.67
15:O:436:ILE:HG21	17:Q:141:TRP:CE3	1.28	1.66
2:B:1104:CYS:HB3	2:B:1107:CYS:SG	1.34	1.65
1:A:781:LEU:HB3	1:A:786:TYR:CE1	1.16	1.65
16:P:284:LEU:HD13	16:P:302:ALA:CB	1.27	1.65
15:O:702:LEU:HG	16:P:125:PHE:CZ	1.14	1.64
17:Q:27:ILE:CD1	17:Q:169:PRO:HG2	1.25	1.64
15:O:214:LEU:CB	15:O:236:ILE:HG21	1.17	1.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:263:PRO:HB2	16:P:266:PHE:CD2	1.31	1.63
15:O:214:LEU:HB2	15:O:236:ILE:CG2	1.20	1.62
16:P:257:VAL:CG1	16:P:262:LEU:HD12	1.27	1.62
15:O:722:TRP:CE3	16:P:264:PRO:HG3	1.17	1.62
16:P:104:PHE:HB2	16:P:211:TYR:CD1	1.29	1.61
15:O:436:ILE:HG21	17:Q:141:TRP:CZ3	1.24	1.61
16:P:366:TYR:CE1	17:Q:215:THR:HA	1.34	1.61
15:O:669:PHE:CE1	15:O:738:LYS:HE2	1.28	1.60
15:O:722:TRP:CZ3	16:P:264:PRO:HD3	1.11	1.60
17:Q:356:PRO:HG2	17:Q:357:PRO:CD	1.28	1.60
16:P:118:TRP:HH2	16:P:189:LYS:CD	1.12	1.60
15:O:702:LEU:HD23	16:P:123:MET:SD	1.41	1.59
15:O:421:ILE:HD11	17:Q:138:PHE:CD2	1.34	1.59
15:O:472:ARG:CZ	17:Q:200:THR:CG2	1.75	1.59
15:O:353:ASP:CB	17:Q:28:SER:HA	1.21	1.58
16:P:118:TRP:CH2	16:P:189:LYS:HD3	1.34	1.58
17:Q:356:PRO:CG	17:Q:357:PRO:HD3	1.21	1.58
9:I:42:PHE:CZ	9:I:44:ASN:HA	1.36	1.58
17:Q:381:ARG:HA	17:Q:384:VAL:CG2	1.25	1.58
15:O:771:ILE:CG2	16:P:109:GLN:HE22	1.17	1.57
17:Q:294:VAL:CG2	17:Q:295:PRO:HD3	1.35	1.57
15:O:722:TRP:CH2	16:P:262:LEU:HG	1.06	1.57
16:P:143:THR:CG2	16:P:236:MET:HE1	1.18	1.57
17:Q:247:ILE:CG2	17:Q:278:TYR:HE2	1.13	1.56
15:O:307:PHE:CD1	15:O:315:PHE:HE2	1.18	1.56
5:E:127:ILE:HD11	5:E:132:ILE:CG1	1.34	1.56
16:P:208:PRO:HB2	16:P:213:SER:CB	1.34	1.56
16:P:247:ILE:CD1	16:P:286:LEU:HA	1.31	1.56
15:O:433:VAL:HB	17:Q:144:VAL:CG1	1.33	1.55
15:O:641:TRP:CD1	15:O:653:SER:HB3	1.37	1.55
16:P:284:LEU:HD13	16:P:302:ALA:CA	1.34	1.55
17:Q:247:ILE:HG13	17:Q:298:GLN:CG	1.08	1.54
17:Q:354:LEU:CD1	17:Q:359:MET:HA	1.33	1.54
1:A:921:PRO:HG3	8:H:19:ARG:CG	1.17	1.54
15:O:722:TRP:CZ3	16:P:264:PRO:CD	1.83	1.54
15:O:314:GLN:CG	15:O:329:ILE:N	1.69	1.54
15:O:715:TYR:CE1	15:O:734:LYS:HE2	1.42	1.54
17:Q:354:LEU:HG	17:Q:359:MET:CA	1.26	1.54
15:O:205:TYR:CB	15:O:215:ASN:HB2	1.35	1.54
17:Q:245:VAL:CG1	17:Q:250:LEU:CD1	1.78	1.54
1:A:912:VAL:HB	1:A:913:PRO:CD	1.35	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:421:ILE:CD1	17:Q:138:PHE:CD2	1.89	1.53
1:A:781:LEU:CB	1:A:786:TYR:HE1	1.22	1.53
17:Q:245:VAL:HG11	17:Q:250:LEU:CD1	1.30	1.53
15:O:421:ILE:HD11	17:Q:138:PHE:CE2	1.38	1.52
17:Q:283:ARG:HA	17:Q:302:ARG:CB	1.08	1.52
15:O:14:UNK:CB	15:O:438:TRP:HB2	1.37	1.52
15:O:194:ARG:CA	15:O:197:ARG:NH2	1.70	1.52
1:A:530:TRP:HB3	1:A:531:PRO:CD	1.33	1.52
2:B:341:SER:HB3	2:B:342:PRO:CD	1.11	1.51
2:B:155:VAL:HG21	17:Q:359:MET:SD	1.49	1.51
15:O:205:TYR:HB2	15:O:215:ASN:CB	1.36	1.51
14:N:25:ILE:HB	14:N:26:PRO:CD	1.19	1.50
17:Q:355:THR:C	17:Q:359:MET:HG3	1.18	1.50
9:I:27:ASN:HB2	9:I:36:ILE:CA	1.40	1.50
17:Q:354:LEU:CG	17:Q:359:MET:HA	1.37	1.50
15:O:771:ILE:CG2	16:P:109:GLN:NE2	1.73	1.49
15:O:314:GLN:HG3	15:O:328:ARG:C	1.20	1.49
17:Q:245:VAL:CG1	17:Q:250:LEU:CG	1.88	1.49
15:O:307:PHE:CD1	15:O:315:PHE:CE2	1.96	1.49
15:O:722:TRP:CH2	16:P:262:LEU:CG	1.94	1.49
16:P:284:LEU:CD1	16:P:302:ALA:HA	1.41	1.49
15:O:655:SER:CB	16:P:244:ASN:HB3	1.38	1.49
15:O:658:LYS:C	15:O:659:LEU:HD13	1.22	1.48
17:Q:247:ILE:CD1	17:Q:248:LYS:H	1.21	1.48
17:Q:277:ILE:HG13	17:Q:278:TYR:CD1	1.44	1.48
15:O:722:TRP:CE3	16:P:264:PRO:CG	1.97	1.48
17:Q:354:LEU:CG	17:Q:359:MET:CA	1.90	1.47
16:P:263:PRO:CB	16:P:266:PHE:CD2	1.97	1.47
15:O:298:ASP:CG	17:Q:158:THR:HA	1.31	1.47
15:O:581:ALA:HB1	15:O:585:GLU:CB	1.45	1.46
15:O:188:GLN:HB2	15:O:199:GLY:CA	1.43	1.46
16:P:247:ILE:CG2	16:P:302:ALA:HB3	1.44	1.46
15:O:768:TYR:CE2	16:P:145:ASN:OD1	1.69	1.46
1:A:781:LEU:CB	1:A:786:TYR:CE1	1.96	1.46
3:C:151:THR:HG21	3:C:155:GLU:CD	1.26	1.45
15:O:702:LEU:CD2	16:P:123:MET:SD	2.01	1.45
15:O:586:LYS:NZ	16:P:322:ARG:HH22	1.11	1.45
16:P:354:LYS:HG2	16:P:362:THR:CG2	1.46	1.45
15:O:715:TYR:CE1	15:O:734:LYS:CE	1.98	1.44
16:P:104:PHE:CZ	16:P:215:LEU:HD21	1.49	1.44
17:Q:277:ILE:CG1	17:Q:278:TYR:CE1	2.01	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:472:ARG:CZ	17:Q:200:THR:HG23	1.01	1.44
16:P:101:LYS:NZ	16:P:152:LEU:CD1	1.80	1.44
14:N:25:ILE:CB	14:N:26:PRO:HD2	1.38	1.43
15:O:656:HIS:CB	15:O:747:LEU:C	1.83	1.43
17:Q:27:ILE:CD1	17:Q:169:PRO:CG	1.97	1.43
17:Q:355:THR:C	17:Q:359:MET:CG	1.83	1.43
16:P:247:ILE:HD12	16:P:286:LEU:CA	1.46	1.43
17:Q:283:ARG:CA	17:Q:302:ARG:HB2	1.48	1.43
9:I:27:ASN:HA	9:I:37:TYR:N	1.34	1.43
15:O:353:ASP:HB2	17:Q:28:SER:CA	0.95	1.43
15:O:583:GLU:CD	15:O:584:ARG:HG2	1.37	1.43
16:P:104:PHE:CB	16:P:211:TYR:CD1	2.02	1.43
16:P:280:ASP:C	16:P:281:ILE:HD13	1.35	1.43
15:O:260:LEU:HD13	15:O:261:VAL:N	1.25	1.42
15:O:314:GLN:CG	15:O:328:ARG:HA	1.48	1.42
15:O:771:ILE:HG21	16:P:109:GLN:NE2	1.20	1.42
15:O:715:TYR:CZ	15:O:734:LYS:CE	2.01	1.42
1:A:721:LYS:HB3	1:A:722:PRO:CD	1.16	1.42
1:A:668:GLY:HA3	1:A:787:GLY:CA	1.47	1.42
15:O:472:ARG:NH2	17:Q:200:THR:HG23	1.22	1.42
15:O:423:ILE:HG21	17:Q:141:TRP:CH2	1.50	1.41
16:P:118:TRP:CH2	16:P:189:LYS:CG	2.01	1.41
17:Q:245:VAL:CG1	17:Q:250:LEU:HD11	1.38	1.41
16:P:104:PHE:CD1	16:P:211:TYR:HB2	1.52	1.41
16:P:139:LYS:NZ	16:P:242:PHE:CD2	1.82	1.41
1:A:592:GLN:HB3	1:A:593:PRO:CD	1.48	1.41
16:P:247:ILE:HG21	16:P:302:ALA:CB	1.50	1.40
15:O:656:HIS:HB2	15:O:747:LEU:C	1.07	1.40
17:Q:354:LEU:HG	17:Q:359:MET:N	1.16	1.40
16:P:104:PHE:HZ	16:P:155:GLN:NE2	1.20	1.40
16:P:235:GLY:HA2	16:P:289:ARG:CB	0.93	1.40
15:O:653:SER:CB	15:O:748:GLU:O	1.68	1.40
16:P:354:LYS:CG	16:P:362:THR:HG21	1.52	1.39
1:A:912:VAL:CB	1:A:913:PRO:HD3	1.51	1.39
15:O:351:ILE:CG2	17:Q:157:MET:SD	2.08	1.39
17:Q:381:ARG:CA	17:Q:384:VAL:HG21	1.48	1.39
9:I:28:VAL:HG23	9:I:38:PRO:CD	1.51	1.39
15:O:358:SER:OG	17:Q:194:GLY:CA	1.71	1.39
15:O:581:ALA:CB	15:O:585:GLU:CB	1.99	1.39
15:O:583:GLU:CG	15:O:584:ARG:H	1.27	1.39
15:O:722:TRP:HZ3	16:P:264:PRO:CD	1.21	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:768:TYR:CD2	16:P:145:ASN:OD1	1.75	1.39
17:Q:247:ILE:CG2	17:Q:278:TYR:CE2	2.03	1.39
17:Q:285:VAL:HG23	17:Q:302:ARG:CZ	1.53	1.39
17:Q:355:THR:CA	17:Q:359:MET:CG	2.01	1.39
15:O:210:THR:O	15:O:212:SER:N	1.56	1.38
15:O:436:ILE:CG2	17:Q:141:TRP:CZ3	2.02	1.38
15:O:641:TRP:NE1	15:O:653:SER:CB	1.84	1.38
16:P:118:TRP:CH2	16:P:189:LYS:CD	1.92	1.38
17:Q:27:ILE:HD13	17:Q:169:PRO:CG	1.52	1.38
15:O:24:UNK:HA	17:Q:314:TRP:CH2	1.59	1.38
2:B:814:ASN:O	2:B:816:ASN:N	1.58	1.37
16:P:341:ARG:NH1	16:P:445:ARG:HH21	0.95	1.37
16:P:143:THR:CG2	16:P:236:MET:CE	1.81	1.37
16:P:143:THR:HG21	16:P:236:MET:CE	0.91	1.37
16:P:294:HIS:HB2	20:T:48:DA:N6	1.07	1.37
17:Q:245:VAL:HG11	17:Q:250:LEU:CG	1.50	1.37
1:A:668:GLY:CA	1:A:787:GLY:HA2	1.55	1.37
15:O:23:UNK:O	17:Q:314:TRP:CZ3	1.78	1.37
15:O:309:PRO:HG2	15:O:365:TRP:NE1	1.38	1.37
16:P:151:GLU:OE2	16:P:154:LEU:CD1	1.71	1.37
17:Q:381:ARG:CA	17:Q:384:VAL:CG2	1.98	1.37
17:Q:355:THR:CB	17:Q:356:PRO:HD3	1.51	1.36
15:O:18:UNK:CB	17:Q:253:ILE:HD13	1.54	1.36
15:O:702:LEU:CG	16:P:125:PHE:CZ	2.07	1.36
2:B:341:SER:CB	2:B:342:PRO:HD2	1.54	1.36
16:P:154:LEU:O	16:P:156:LEU:CD1	1.72	1.36
1:A:921:PRO:CG	8:H:19:ARG:CG	2.02	1.36
15:O:768:TYR:CZ	16:P:145:ASN:OD1	1.76	1.36
17:Q:27:ILE:HD13	17:Q:169:PRO:CB	1.54	1.36
15:O:586:LYS:NZ	16:P:322:ARG:NH2	1.69	1.35
15:O:722:TRP:CZ3	16:P:262:LEU:O	1.79	1.35
16:P:210:TYR:CB	20:T:43:DT:H4'	1.54	1.35
16:P:223:ASN:ND2	16:P:224:GLY:H	1.24	1.35
16:P:208:PRO:CB	16:P:213:SER:HB3	1.53	1.35
16:P:494:SER:OG	16:P:497:GLN:CB	1.74	1.35
15:O:298:ASP:OD2	17:Q:158:THR:CA	1.73	1.35
15:O:351:ILE:HG22	17:Q:157:MET:CE	1.36	1.35
16:P:239:PHE:CE1	16:P:246:GLU:HG2	1.61	1.35
15:O:768:TYR:CD2	16:P:145:ASN:CG	2.00	1.35
15:O:656:HIS:HB2	15:O:747:LEU:CA	1.54	1.34
17:Q:355:THR:CA	17:Q:359:MET:HG2	1.57	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:347:LEU:CB	17:Q:152:ILE:HA	1.54	1.34
1:A:668:GLY:HA3	1:A:787:GLY:C	1.47	1.34
15:O:431:ASP:CB	15:O:432:PRO:HD3	1.49	1.34
16:P:284:LEU:CG	16:P:305:ARG:HH11	1.38	1.34
16:P:354:LYS:NZ	16:P:362:THR:HG22	1.41	1.34
16:P:469:PRO:HB2	16:P:470:PRO:CD	1.52	1.34
17:Q:246:GLN:O	17:Q:247:ILE:HD13	1.23	1.34
3:C:151:THR:CG2	3:C:155:GLU:OE1	1.74	1.34
15:O:422:ILE:O	15:O:439:LYS:HB2	1.20	1.34
16:P:123:MET:HB3	16:P:125:PHE:CE2	1.61	1.34
16:P:344:THR:HG22	16:P:436:LEU:O	1.22	1.34
17:Q:285:VAL:CG2	17:Q:302:ARG:CZ	2.07	1.33
17:Q:354:LEU:CG	17:Q:359:MET:N	1.84	1.33
15:O:237:GLU:OE2	15:O:239:HIS:CE1	1.81	1.33
17:Q:352:TRP:CE3	17:Q:357:PRO:HG2	1.63	1.33
17:Q:247:ILE:O	17:Q:250:LEU:HB2	1.23	1.33
7:G:96:SER:O	7:G:99:ASP:N	1.58	1.33
16:P:287:TRP:CZ3	16:P:290:THR:HG22	1.63	1.33
14:N:95:ILE:CD1	14:N:136:VAL:HG21	1.56	1.33
15:O:672:ILE:HD12	15:O:734:LYS:NZ	1.42	1.33
16:P:101:LYS:NZ	16:P:152:LEU:HD13	1.01	1.33
1:A:530:TRP:CB	1:A:531:PRO:HD2	1.60	1.32
15:O:314:GLN:HE21	15:O:328:ARG:CB	1.42	1.32
16:P:280:ASP:O	16:P:281:ILE:HD13	1.25	1.32
16:P:287:TRP:HZ3	16:P:290:THR:CG2	1.41	1.32
16:P:341:ARG:NH1	16:P:445:ARG:NH2	1.73	1.32
17:Q:355:THR:N	17:Q:359:MET:CG	1.92	1.32
9:I:27:ASN:CA	9:I:37:TYR:H	1.40	1.32
16:P:118:TRP:CZ3	16:P:189:LYS:HB3	1.62	1.32
17:Q:383:PHE:CZ	17:Q:398:ASP:OD1	1.82	1.32
1:A:461:GLU:OE2	1:A:1618:THR:N	1.62	1.32
15:O:188:GLN:N	15:O:199:GLY:HA3	1.42	1.32
16:P:263:PRO:CB	16:P:266:PHE:HD2	1.34	1.32
17:Q:245:VAL:CG1	17:Q:250:LEU:HG	1.55	1.32
15:O:307:PHE:HB3	15:O:315:PHE:CE1	1.64	1.31
16:P:155:GLN:CB	20:T:44:DC:O3'	1.77	1.31
9:I:3:VAL:HG21	9:I:43:SER:CB	1.59	1.31
15:O:188:GLN:CB	15:O:199:GLY:HA2	1.58	1.31
2:B:1104:CYS:CB	2:B:1107:CYS:SG	2.17	1.31
14:N:25:ILE:CB	14:N:26:PRO:CD	2.00	1.31
15:O:176:PRO:CD	17:Q:196:GLU:O	1.76	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:341:SER:CB	2:B:342:PRO:CD	2.03	1.31
15:O:314:GLN:CG	15:O:328:ARG:CA	2.06	1.31
15:O:358:SER:CB	17:Q:194:GLY:HA2	1.58	1.30
15:O:706:GLU:HG3	16:P:438:PHE:CB	1.61	1.30
15:O:307:PHE:CG	15:O:315:PHE:CE2	1.95	1.30
15:O:347:LEU:CD2	17:Q:152:ILE:HA	1.62	1.30
15:O:433:VAL:CB	17:Q:144:VAL:CG1	2.09	1.30
15:O:393:VAL:CG1	17:Q:144:VAL:HG22	1.61	1.30
15:O:686:TYR:CD2	15:O:692:THR:HG21	1.65	1.30
16:P:247:ILE:HD11	16:P:286:LEU:CD1	1.61	1.30
17:Q:247:ILE:CG1	17:Q:298:GLN:HG2	1.42	1.30
15:O:421:ILE:CD1	17:Q:138:PHE:HD2	1.34	1.30
15:O:658:LYS:O	15:O:659:LEU:HD13	1.16	1.30
15:O:740:ILE:O	15:O:744:LEU:CD1	1.79	1.30
17:Q:354:LEU:CD1	17:Q:359:MET:CA	2.07	1.30
1:A:461:GLU:OE2	1:A:1618:THR:CB	1.79	1.29
16:P:235:GLY:CA	16:P:289:ARG:HB2	0.82	1.29
17:Q:25:ASN:O	17:Q:29:ARG:CG	1.77	1.29
5:E:127:ILE:CD1	5:E:132:ILE:HG13	1.63	1.29
15:O:433:VAL:CG1	17:Q:144:VAL:HG12	1.63	1.29
16:P:223:ASN:CG	16:P:224:GLY:H	1.26	1.29
17:Q:283:ARG:CA	17:Q:302:ARG:CB	2.04	1.29
15:O:314:GLN:NE2	15:O:328:ARG:HB3	1.45	1.29
15:O:747:LEU:O	15:O:748:GLU:HG2	1.15	1.29
1:A:721:LYS:CB	1:A:722:PRO:CD	2.09	1.28
15:O:11:UNK:O	15:O:436:ILE:HG12	1.32	1.28
15:O:353:ASP:CB	17:Q:28:SER:CA	1.88	1.28
16:P:184:TRP:NE1	16:P:190:MET:HB2	1.47	1.28
16:P:187:THR:OG1	16:P:189:LYS:HG3	1.29	1.28
15:O:590:GLY:HA2	16:P:320:PHE:CZ	1.68	1.28
15:O:314:GLN:HG3	15:O:329:ILE:N	0.97	1.28
16:P:287:TRP:CZ2	16:P:298:VAL:HG11	1.66	1.28
9:I:37:TYR:HB3	9:I:38:PRO:CD	1.56	1.28
15:O:275:GLU:HB3	15:O:285:MET:O	1.29	1.27
15:O:592:LEU:CD1	16:P:512:ARG:HH21	1.45	1.27
15:O:698:LYS:HB3	16:P:125:PHE:CE1	1.67	1.27
16:P:362:THR:C	16:P:365:ASP:OD1	1.73	1.27
15:O:194:ARG:HG2	15:O:197:ARG:NH1	1.47	1.27
15:O:346:ASN:O	15:O:347:LEU:HG	1.17	1.27
15:O:715:TYR:OH	15:O:734:LYS:HD2	1.19	1.27
17:Q:363:GLU:O	17:Q:367:ILE:HG22	1.10	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:475:ARG:HG3	15:O:497:VAL:O	1.11	1.27
15:O:581:ALA:CB	15:O:585:GLU:HB2	1.59	1.27
15:O:768:TYR:CE1	16:P:145:ASN:OD1	1.88	1.27
16:P:210:TYR:HB2	20:T:43:DT:C4'	1.62	1.27
17:Q:294:VAL:HG23	17:Q:295:PRO:CD	1.63	1.27
16:P:147:GLN:O	16:P:151:GLU:HB3	1.32	1.27
16:P:366:TYR:HE1	17:Q:215:THR:CA	1.48	1.27
17:Q:349:ILE:HD13	17:Q:368:TYR:CD1	1.68	1.27
2:B:1121:GLY:O	7:G:239:THR:O	1.53	1.27
15:O:583:GLU:CD	15:O:584:ARG:H	1.35	1.27
15:O:592:LEU:HD12	16:P:512:ARG:NH2	1.49	1.27
15:O:715:TYR:OH	15:O:734:LYS:CD	1.83	1.27
16:P:122:GLU:OE1	16:P:123:MET:HG2	1.24	1.27
17:Q:25:ASN:O	17:Q:29:ARG:HG3	1.26	1.27
17:Q:355:THR:N	17:Q:359:MET:HG2	0.96	1.27
16:P:151:GLU:OE2	16:P:154:LEU:HD13	1.25	1.26
16:P:378:LEU:HD11	17:Q:234:LYS:C	1.55	1.26
17:Q:266:SER:O	17:Q:268:LEU:N	1.66	1.26
17:Q:298:GLN:O	17:Q:299:THR:HG22	1.32	1.26
15:O:260:LEU:CD1	15:O:261:VAL:H	1.45	1.26
15:O:701:HIS:HE1	16:P:122:GLU:O	1.07	1.26
15:O:768:TYR:CG	16:P:145:ASN:OD1	1.87	1.26
16:P:101:LYS:CD	16:P:152:LEU:CD1	2.14	1.26
16:P:369:TRP:HH2	16:P:377:PHE:CD1	1.51	1.26
17:Q:208:TYR:O	17:Q:211:ARG:HG2	1.28	1.26
17:Q:247:ILE:HD13	17:Q:248:LYS:N	1.46	1.26
17:Q:355:THR:O	17:Q:359:MET:HG3	1.13	1.26
15:O:423:ILE:CG2	17:Q:141:TRP:HH2	1.47	1.26
16:P:155:GLN:HB3	20:T:45:DC:P	1.74	1.26
17:Q:158:THR:O	17:Q:160:HIS:N	1.67	1.26
15:O:12:UNK:CB	15:O:439:LYS:NZ	1.98	1.26
16:P:362:THR:O	16:P:365:ASP:OD1	1.54	1.26
15:O:309:PRO:HD2	15:O:365:TRP:CG	1.70	1.25
15:O:771:ILE:CG2	16:P:109:GLN:CD	2.04	1.25
15:O:686:TYR:CG	15:O:692:THR:HG21	1.71	1.25
16:P:294:HIS:CB	20:T:48:DA:N6	1.99	1.25
9:I:27:ASN:N	9:I:39:LYS:HB2	1.50	1.25
9:I:42:PHE:CE2	9:I:44:ASN:HA	1.69	1.25
16:P:223:ASN:ND2	16:P:224:GLY:N	1.85	1.25
16:P:366:TYR:OH	17:Q:214:VAL:O	1.53	1.25
15:O:353:ASP:HB2	17:Q:28:SER:C	1.45	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:771:ILE:HG23	16:P:109:GLN:OE1	1.34	1.25
17:Q:294:VAL:CG2	17:Q:295:PRO:CD	2.15	1.25
15:O:353:ASP:CA	17:Q:28:SER:HA	1.66	1.25
17:Q:277:ILE:HG13	17:Q:278:TYR:CE1	1.65	1.25
17:Q:355:THR:HB	17:Q:356:PRO:CD	1.67	1.25
17:Q:380:SER:O	17:Q:384:VAL:HG13	1.14	1.25
15:O:353:ASP:OD1	17:Q:31:PHE:HD2	1.19	1.24
16:P:139:LYS:NZ	16:P:242:PHE:CE2	2.05	1.24
16:P:199:LEU:H	16:P:200:PRO:CD	1.25	1.24
16:P:258:MET:N	16:P:262:LEU:HD13	1.52	1.24
16:P:330:TRP:CH2	16:P:334:LEU:HD11	1.70	1.24
19:S:28:DT:O4	20:T:27:DA:N1	1.68	1.24
16:P:104:PHE:CZ	16:P:155:GLN:NE2	1.91	1.24
15:O:736:ILE:HD13	15:O:739:ASP:OD2	1.35	1.24
16:P:284:LEU:CD1	16:P:302:ALA:CA	2.02	1.24
15:O:433:VAL:CB	17:Q:144:VAL:HG11	1.68	1.24
15:O:214:LEU:O	15:O:236:ILE:HB	1.38	1.24
16:P:357:TYR:OH	17:Q:203:SER:CA	1.85	1.24
15:O:768:TYR:CD2	16:P:145:ASN:ND2	2.05	1.23
14:N:95:ILE:CD1	14:N:136:VAL:CG2	2.16	1.23
15:O:260:LEU:CD2	15:O:273:ARG:CA	2.13	1.23
16:P:195:ALA:O	16:P:198:ILE:HD11	1.12	1.23
16:P:357:TYR:CZ	17:Q:203:SER:HA	1.74	1.23
17:Q:380:SER:C	17:Q:384:VAL:HG13	1.57	1.23
16:P:357:TYR:OH	17:Q:203:SER:CB	1.87	1.23
17:Q:277:ILE:CD1	17:Q:278:TYR:CE1	2.22	1.23
1:A:406:LEU:HD12	1:A:407:GLN:N	1.53	1.23
15:O:475:ARG:NH2	15:O:496:THR:HG23	1.54	1.23
15:O:659:LEU:O	15:O:663:LEU:CG	1.85	1.23
16:P:200:PRO:CB	16:P:203:TRP:HB2	1.69	1.22
15:O:578:PHE:CZ	16:P:312:LEU:HD12	1.73	1.22
2:B:111:ASP:OD1	2:B:116:ALA:HB1	1.34	1.22
15:O:740:ILE:O	15:O:744:LEU:HD11	1.31	1.22
16:P:146:ASP:C	16:P:148:PRO:HD3	1.58	1.22
15:O:348:HIS:CD2	15:O:349:GLY:H	1.55	1.22
2:B:1137:ASP:O	2:B:1140:LYS:HG2	1.39	1.22
15:O:314:GLN:HG3	15:O:328:ARG:CA	1.63	1.22
15:O:715:TYR:CZ	15:O:734:LYS:HE3	1.67	1.21
16:P:494:SER:CB	16:P:497:GLN:HB3	1.68	1.21
15:O:214:LEU:C	15:O:236:ILE:CG1	2.06	1.21
15:O:727:PRO:CG	16:P:265:GLU:OE2	1.88	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:768:TYR:CD1	16:P:145:ASN:OD1	1.93	1.21
16:P:119:LEU:HD11	16:P:165:LEU:CD1	1.69	1.21
16:P:257:VAL:HG12	16:P:262:LEU:CD1	1.69	1.21
15:O:353:ASP:OD1	17:Q:31:PHE:CD2	1.93	1.21
17:Q:277:ILE:HD11	17:Q:278:TYR:CE1	1.75	1.21
16:P:494:SER:HB3	16:P:497:GLN:OE1	1.39	1.21
15:O:398:ALA:CB	17:Q:134:PRO:HG3	1.70	1.20
15:O:431:ASP:HB2	15:O:432:PRO:CD	1.64	1.20
15:O:307:PHE:HB3	15:O:315:PHE:CZ	1.35	1.20
17:Q:353:VAL:CA	17:Q:358:PHE:CD1	1.85	1.20
14:N:94:ASP:O	14:N:96:GLU:N	1.73	1.20
15:O:6:UNK:O	17:Q:425:ALA:CA	1.89	1.20
15:O:176:PRO:HD2	17:Q:196:GLU:O	1.05	1.20
15:O:323:ASN:O	15:O:348:HIS:HB2	1.42	1.20
15:O:669:PHE:CE1	15:O:738:LYS:CE	2.23	1.20
1:A:668:GLY:HA3	1:A:787:GLY:O	1.41	1.20
15:O:248:PRO:HD2	15:O:307:PHE:CZ	1.77	1.20
15:O:436:ILE:CG2	17:Q:141:TRP:CE3	2.18	1.20
17:Q:279:SER:O	17:Q:301:SER:HB2	1.03	1.20
15:O:347:LEU:HB3	17:Q:152:ILE:CA	1.71	1.20
15:O:583:GLU:CG	15:O:584:ARG:N	1.95	1.20
17:Q:277:ILE:CG1	17:Q:278:TYR:CD1	2.20	1.20
19:S:28:DT:O4	20:T:27:DA:C6	1.93	1.20
1:A:116:HIS:HE1	1:A:185:ARG:CB	1.53	1.19
15:O:12:UNK:CB	15:O:439:LYS:HZ3	1.53	1.19
1:A:417:ARG:NH1	1:A:420:PHE:CG	2.07	1.19
15:O:260:LEU:HD23	15:O:273:ARG:CA	1.72	1.19
15:O:347:LEU:CB	17:Q:152:ILE:CA	2.20	1.19
16:P:101:LYS:HD2	16:P:152:LEU:CD1	1.70	1.19
15:O:641:TRP:HE1	15:O:653:SER:CB	1.46	1.19
15:O:659:LEU:O	15:O:663:LEU:HG	1.01	1.19
16:P:147:GLN:O	16:P:151:GLU:CB	1.89	1.19
16:P:294:HIS:CB	20:T:48:DA:H61	1.51	1.19
17:Q:247:ILE:HG21	17:Q:278:TYR:CE2	1.73	1.19
17:Q:356:PRO:CG	17:Q:357:PRO:CD	1.98	1.19
17:Q:208:TYR:HA	17:Q:211:ARG:CD	1.73	1.19
9:I:42:PHE:CZ	9:I:44:ASN:CA	2.24	1.18
15:O:10:UNK:CB	17:Q:142:ARG:HA	1.73	1.18
15:O:351:ILE:CG2	17:Q:157:MET:CE	2.02	1.18
15:O:375:PHE:CZ	15:O:405:TYR:HB3	1.78	1.18
15:O:665:ASN:O	15:O:667:ASP:N	1.74	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:460:LEU:O	1:A:465:GLY:HA2	1.41	1.18
7:G:154:ASN:O	7:G:245:VAL:HG11	1.41	1.18
15:O:650:LEU:HB2	16:P:242:PHE:HE2	1.08	1.18
17:Q:380:SER:O	17:Q:384:VAL:CG1	1.90	1.18
15:O:384:ASP:HB3	15:O:389:TRP:HB3	1.21	1.18
16:P:235:GLY:HA3	16:P:289:ARG:HB2	1.26	1.18
17:Q:143:THR:O	17:Q:144:VAL:HG23	1.41	1.18
15:O:314:GLN:HB3	15:O:329:ILE:HG13	1.20	1.18
15:O:356:GLU:HG2	15:O:377:ARG:NH2	1.56	1.18
15:O:650:LEU:CB	16:P:242:PHE:CE2	2.27	1.18
16:P:263:PRO:CG	16:P:266:PHE:CD2	2.27	1.18
16:P:369:TRP:CH2	16:P:377:PHE:CD1	2.29	1.18
17:Q:361:ASP:OD1	17:Q:362:ALA:N	1.75	1.18
16:P:101:LYS:NZ	16:P:151:GLU:O	1.74	1.17
1:A:464:GLU:O	1:A:468:ARG:HB2	1.40	1.17
15:O:433:VAL:HB	17:Q:144:VAL:CB	1.72	1.17
15:O:715:TYR:CE1	15:O:734:LYS:CD	2.26	1.17
17:Q:246:GLN:O	17:Q:248:LYS:N	1.78	1.17
17:Q:285:VAL:HG23	17:Q:302:ARG:NE	1.58	1.17
17:Q:354:LEU:HD12	17:Q:358:PHE:O	1.41	1.17
9:I:38:PRO:HA	9:I:40:SER:O	1.41	1.17
9:I:38:PRO:CA	9:I:40:SER:O	1.93	1.17
15:O:186:TYR:HE2	15:O:512:LEU:CD2	1.55	1.17
15:O:375:PHE:HZ	15:O:405:TYR:HB3	1.05	1.17
15:O:581:ALA:CB	15:O:585:GLU:HB3	1.68	1.17
16:P:157:HIS:NE2	16:P:158:MET:HG2	1.59	1.17
19:S:28:DT:C4	20:T:27:DA:N1	2.12	1.17
15:O:421:ILE:CD1	17:Q:138:PHE:CE2	2.11	1.17
15:O:655:SER:OG	16:P:244:ASN:HB3	1.45	1.17
15:O:771:ILE:CG2	16:P:109:GLN:OE1	1.90	1.17
16:P:363:SER:O	16:P:366:TYR:HB3	1.42	1.17
16:P:492:ALA:C	16:P:493:ILE:HD12	1.65	1.17
15:O:658:LYS:O	15:O:659:LEU:CD1	1.93	1.16
16:P:178:THR:OG1	16:P:490:ASP:HB3	1.42	1.16
1:A:417:ARG:NH1	1:A:420:PHE:CD2	2.14	1.16
1:A:461:GLU:OE2	1:A:1618:THR:CA	1.93	1.16
15:O:188:GLN:CB	15:O:199:GLY:CA	2.20	1.16
15:O:641:TRP:CD1	15:O:653:SER:CB	2.25	1.16
15:O:657:SER:CB	15:O:746:ARG:HD3	1.76	1.16
16:P:287:TRP:CZ3	16:P:290:THR:CG2	2.24	1.16
16:P:341:ARG:HH11	16:P:341:ARG:HG2	0.99	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:14:UNK:O	15:O:439:LYS:O	1.64	1.16
15:O:347:LEU:CD2	17:Q:152:ILE:HG12	1.74	1.16
15:O:347:LEU:HD13	17:Q:151:PRO:O	1.45	1.16
16:P:208:PRO:HB2	16:P:213:SER:CA	1.76	1.16
15:O:428:GLU:HB3	15:O:432:PRO:O	1.45	1.16
15:O:442:LEU:HD13	15:O:444:PRO:HD2	1.28	1.16
15:O:715:TYR:CZ	15:O:734:LYS:CD	2.28	1.16
16:P:119:LEU:CD1	16:P:165:LEU:HD12	1.74	1.16
9:I:27:ASN:CB	9:I:36:ILE:HA	1.76	1.16
16:P:262:LEU:O	16:P:264:PRO:HD3	1.40	1.16
1:A:117:ARG:HG3	1:A:185:ARG:CZ	1.76	1.15
1:A:784:SER:O	1:A:789:SER:HB2	1.46	1.15
15:O:352:PHE:C	15:O:354:PRO:HD2	1.65	1.15
16:P:147:GLN:N	16:P:148:PRO:HD3	1.41	1.15
16:P:334:LEU:O	16:P:338:LEU:HG	1.46	1.15
1:A:921:PRO:CG	8:H:19:ARG:HG3	1.69	1.15
15:O:12:UNK:HA	15:O:436:ILE:HD11	1.23	1.15
17:Q:136:LYS:HB3	17:Q:304:HIS:CD2	1.75	1.15
15:O:186:TYR:CE2	15:O:512:LEU:HD22	1.81	1.15
17:Q:247:ILE:CD1	17:Q:248:LYS:N	2.04	1.15
1:A:85:CYS:SG	1:A:86:TYR:N	2.15	1.15
15:O:641:TRP:CE3	15:O:644:THR:O	1.98	1.15
15:O:658:LYS:C	15:O:659:LEU:CD1	2.15	1.15
16:P:257:VAL:CG1	16:P:262:LEU:CD1	2.23	1.15
16:P:357:TYR:OH	17:Q:203:SER:HA	1.42	1.15
17:Q:25:ASN:O	17:Q:29:ARG:CD	1.95	1.15
1:A:85:CYS:CB	1:A:431:GLN:OE1	1.91	1.15
2:B:75:ASP:HB3	2:B:77:LYS:HD2	1.20	1.15
15:O:214:LEU:C	15:O:236:ILE:HG13	1.64	1.15
15:O:715:TYR:CZ	15:O:734:LYS:HD2	1.81	1.15
16:P:146:ASP:C	16:P:148:PRO:CD	2.14	1.15
17:Q:277:ILE:HD11	17:Q:278:TYR:HE1	1.02	1.15
5:E:127:ILE:HD11	5:E:132:ILE:CD1	1.75	1.14
17:Q:245:VAL:HG12	17:Q:250:LEU:CD1	1.65	1.14
16:P:104:PHE:CD1	16:P:211:TYR:CB	2.30	1.14
16:P:287:TRP:HZ2	16:P:298:VAL:CG1	1.60	1.14
16:P:344:THR:HG22	16:P:436:LEU:C	1.44	1.14
17:Q:247:ILE:CG1	17:Q:298:GLN:CG	1.88	1.14
9:I:30:CYS:CB	9:I:33:CYS:SG	2.33	1.14
15:O:422:ILE:HB	15:O:440:HIS:CE1	1.81	1.14
16:P:155:GLN:HG2	20:T:44:DC:H4'	1.16	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:195:ALA:O	16:P:198:ILE:CD1	1.95	1.14
17:Q:137:SER:O	17:Q:296:PRO:HG3	1.48	1.14
15:O:298:ASP:OD2	17:Q:158:THR:HA	0.97	1.14
15:O:393:VAL:HG11	17:Q:144:VAL:CG2	1.76	1.14
15:O:399:TRP:NE1	17:Q:134:PRO:HG2	1.61	1.14
15:O:701:HIS:CE1	16:P:122:GLU:O	2.00	1.14
16:P:417:PHE:CE2	17:Q:236:PHE:HE2	1.66	1.14
17:Q:26:TYR:CA	17:Q:29:ARG:HD3	1.69	1.14
15:O:694:ILE:HD11	15:O:698:LYS:HD2	1.15	1.14
15:O:727:PRO:HG2	16:P:265:GLU:OE2	0.99	1.14
16:P:118:TRP:CH2	16:P:189:LYS:CB	2.30	1.14
16:P:344:THR:CG2	16:P:436:LEU:O	1.96	1.14
17:Q:247:ILE:HG22	17:Q:278:TYR:HE2	1.06	1.14
19:S:28:DT:O2	19:S:29:DT:N3	1.79	1.14
3:C:151:THR:CG2	3:C:155:GLU:CD	2.14	1.13
15:O:475:ARG:CG	15:O:497:VAL:O	1.96	1.13
15:O:568:ILE:CG2	15:O:570:ASP:HB2	1.77	1.13
15:O:592:LEU:HD11	16:P:512:ARG:NE	1.62	1.13
15:O:669:PHE:O	15:O:738:LYS:NZ	1.80	1.13
1:A:592:GLN:CB	1:A:593:PRO:HD3	1.76	1.13
2:B:1139:LYS:O	2:B:1141:LEU:N	1.81	1.13
9:I:3:VAL:HG21	9:I:43:SER:OG	1.47	1.13
15:O:273:ARG:HG3	15:O:274:ILE:H	1.01	1.13
15:O:654:LEU:CD1	15:O:748:GLU:HG3	1.76	1.13
17:Q:26:TYR:CA	17:Q:29:ARG:CD	2.26	1.13
1:A:116:HIS:CE1	1:A:185:ARG:CB	2.30	1.13
15:O:214:LEU:O	15:O:236:ILE:CB	1.95	1.13
15:O:590:GLY:HA2	16:P:320:PHE:CE1	1.84	1.13
1:A:921:PRO:CG	8:H:19:ARG:HG2	1.72	1.13
15:O:221:ARG:HG2	15:O:227:LEU:CD2	1.79	1.13
16:P:106:LYS:HE2	16:P:203:TRP:CH2	1.82	1.13
14:N:26:PRO:O	14:N:28:GLY:N	1.80	1.13
15:O:10:UNK:O	17:Q:141:TRP:CB	1.96	1.12
15:O:324:TRP:CD1	15:O:348:HIS:HB2	1.82	1.12
16:P:238:HIS:CE1	16:P:289:ARG:CZ	2.32	1.13
15:O:186:TYR:HE2	15:O:512:LEU:HD22	1.01	1.12
15:O:194:ARG:O	15:O:196:TYR:CD2	2.02	1.12
15:O:376:ASP:OD1	15:O:378:SER:N	1.81	1.12
15:O:431:ASP:CB	15:O:432:PRO:CD	2.24	1.12
15:O:583:GLU:HG2	15:O:584:ARG:N	1.51	1.12
15:O:698:LYS:HE2	16:P:126:PRO:CD	1.77	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:104:PHE:CD1	16:P:211:TYR:HD1	1.67	1.12
16:P:257:VAL:CB	16:P:262:LEU:HD12	1.79	1.12
16:P:494:SER:HB3	16:P:497:GLN:CD	1.68	1.12
7:G:154:ASN:O	7:G:245:VAL:CG1	1.97	1.12
15:O:15:UNK:O	15:O:20:UNK:CB	1.97	1.12
15:O:314:GLN:HG2	15:O:328:ARG:CA	1.76	1.12
15:O:590:GLY:CA	16:P:320:PHE:CZ	2.32	1.12
17:Q:248:LYS:HD2	17:Q:298:GLN:HE22	1.03	1.12
1:A:463:LYS:O	1:A:468:ARG:NH1	1.82	1.12
1:A:785:GLN:O	1:A:789:SER:OG	1.68	1.12
15:O:6:UNK:O	17:Q:425:ALA:HA	0.96	1.12
15:O:592:LEU:HD11	16:P:512:ARG:HE	1.09	1.12
15:O:655:SER:HB3	16:P:244:ASN:CB	1.78	1.12
16:P:155:GLN:HB3	20:T:44:DC:O3'	0.96	1.12
19:S:28:DT:H1'	19:S:29:DT:C6	1.85	1.12
15:O:415:LEU:HD13	15:O:453:VAL:HG11	1.30	1.12
15:O:705:HIS:NE2	15:O:707:ASP:HB2	1.62	1.12
16:P:118:TRP:CH2	16:P:189:LYS:HB3	1.82	1.12
16:P:119:LEU:CD1	16:P:165:LEU:CD1	2.27	1.12
17:Q:279:SER:O	17:Q:301:SER:CB	1.96	1.12
1:A:920:PHE:HB3	1:A:921:PRO:CD	1.80	1.11
7:G:96:SER:O	7:G:98:GLU:N	1.81	1.11
15:O:650:LEU:CB	16:P:242:PHE:HE2	1.63	1.11
15:O:722:TRP:HZ3	16:P:262:LEU:O	1.19	1.11
15:O:772:ILE:CD1	16:P:138:LEU:HD21	1.79	1.11
15:O:780:ILE:C	16:P:199:LEU:CD2	2.18	1.11
16:P:104:PHE:CD1	16:P:211:TYR:CD1	2.38	1.11
9:I:27:ASN:CB	9:I:36:ILE:CA	2.27	1.11
15:O:194:ARG:O	15:O:196:TYR:HD2	1.31	1.11
17:Q:24:ILE:O	17:Q:28:SER:OG	1.67	1.11
17:Q:296:PRO:HB3	17:Q:304:HIS:CE1	1.85	1.11
5:E:3:GLN:O	5:E:7:ARG:HB2	1.49	1.11
15:O:655:SER:HB3	16:P:244:ASN:HB3	1.19	1.11
17:Q:356:PRO:CD	17:Q:357:PRO:CD	2.28	1.11
17:Q:381:ARG:CA	17:Q:384:VAL:HG22	1.81	1.11
2:B:77:LYS:HE2	2:B:93:ASN:HB3	1.21	1.11
16:P:122:GLU:OE1	16:P:123:MET:CG	1.97	1.11
16:P:284:LEU:HD11	16:P:302:ALA:HA	1.16	1.11
1:A:116:HIS:CE1	1:A:185:ARG:CD	2.33	1.11
1:A:461:GLU:OE2	1:A:1618:THR:HB	1.42	1.11
1:A:668:GLY:CA	1:A:787:GLY:O	1.99	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:472:ARG:NE	17:Q:200:THR:CG2	2.12	1.11
15:O:641:TRP:NE1	15:O:653:SER:HB3	1.54	1.11
17:Q:381:ARG:C	17:Q:384:VAL:HG22	1.71	1.11
15:O:358:SER:CB	17:Q:194:GLY:CA	2.24	1.10
16:P:147:GLN:N	16:P:148:PRO:CD	2.14	1.10
16:P:200:PRO:HB3	16:P:203:TRP:HB2	1.27	1.10
17:Q:27:ILE:HD12	17:Q:169:PRO:HG2	1.11	1.10
2:B:155:VAL:CG2	17:Q:359:MET:SD	2.38	1.10
15:O:347:LEU:HD23	17:Q:152:ILE:HG12	1.21	1.10
15:O:388:ASN:HB3	17:Q:150:GLN:NE2	1.65	1.10
16:P:284:LEU:CD1	16:P:302:ALA:CB	2.23	1.10
17:Q:158:THR:CG2	17:Q:161:ASN:HB2	1.82	1.10
9:I:27:ASN:CA	9:I:37:TYR:N	2.04	1.10
9:I:27:ASN:HB3	9:I:36:ILE:HB	1.30	1.10
15:O:633:ALA:HB3	15:O:662:LEU:HD13	1.34	1.10
15:O:422:ILE:CB	15:O:440:HIS:CE1	2.34	1.10
16:P:284:LEU:HD13	16:P:302:ALA:HB1	1.24	1.10
15:O:347:LEU:CG	17:Q:152:ILE:HA	1.80	1.10
15:O:358:SER:OG	17:Q:194:GLY:O	1.69	1.10
15:O:358:SER:HB2	17:Q:194:GLY:HA2	1.13	1.10
15:O:592:LEU:CD1	16:P:512:ARG:NH2	2.08	1.10
15:O:603:ARG:NH2	16:P:268:PHE:CD1	2.20	1.10
15:O:656:HIS:CB	15:O:747:LEU:O	2.00	1.10
15:O:686:TYR:HA	15:O:689:GLN:HG2	1.33	1.10
16:P:101:LYS:HZ3	16:P:152:LEU:CD1	1.55	1.10
15:O:10:UNK:O	17:Q:141:TRP:HB3	1.49	1.09
15:O:275:GLU:O	15:O:284:VAL:HG13	1.52	1.09
15:O:651:SER:O	15:O:749:LYS:HE2	1.32	1.09
17:Q:248:LYS:H	17:Q:298:GLN:NE2	1.49	1.09
7:G:237:HIS:O	7:G:244:SER:HB2	1.49	1.09
15:O:273:ARG:NH1	15:O:274:ILE:HG23	1.68	1.09
16:P:155:GLN:C	20:T:45:DC:OP1	1.90	1.09
16:P:356:VAL:HG13	16:P:358:PRO:HG3	1.31	1.09
16:P:419:LEU:CD1	17:Q:237:ALA:CB	2.29	1.09
15:O:18:UNK:O	17:Q:256:GLU:HB2	1.50	1.09
15:O:327:GLY:HA3	15:O:340:LYS:HD2	1.32	1.09
15:O:577:LEU:HD13	16:P:502:ILE:HG21	1.33	1.09
15:O:702:LEU:HG	16:P:125:PHE:CE2	1.86	1.09
17:Q:124:GLU:CD	17:Q:289:ASN:HD21	1.56	1.09
15:O:260:LEU:HD23	15:O:273:ARG:HA	1.15	1.09
15:O:399:TRP:O	15:O:419:ARG:NH2	1.84	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:422:ILE:HG21	15:O:440:HIS:CE1	1.88	1.09
16:P:108:PHE:HE2	16:P:137:TRP:CZ3	1.70	1.09
16:P:183:LYS:HD3	16:P:189:LYS:NZ	1.66	1.09
17:Q:354:LEU:HD11	17:Q:359:MET:HA	1.17	1.09
1:A:116:HIS:CE1	1:A:185:ARG:HD3	1.88	1.09
15:O:422:ILE:CG2	15:O:440:HIS:CE1	2.35	1.09
15:O:650:LEU:HB3	16:P:242:PHE:CE2	1.87	1.09
15:O:706:GLU:HG3	16:P:438:PHE:HB2	1.09	1.09
15:O:19:UNK:CB	17:Q:255:VAL:HG23	1.82	1.08
15:O:421:ILE:HD12	17:Q:138:PHE:CD2	1.80	1.08
15:O:422:ILE:O	15:O:439:LYS:CB	2.00	1.08
15:O:472:ARG:NE	17:Q:200:THR:HG21	1.68	1.08
16:P:366:TYR:CE1	17:Q:215:THR:CA	2.27	1.08
16:P:219:ILE:HG12	17:Q:206:ARG:HG3	1.33	1.08
5:E:127:ILE:CD1	5:E:132:ILE:CG1	2.22	1.08
15:O:11:UNK:O	15:O:436:ILE:CG1	2.01	1.08
15:O:194:ARG:HA	15:O:197:ARG:NH2	0.76	1.08
15:O:215:ASN:N	15:O:236:ILE:HG13	1.67	1.08
15:O:314:GLN:CB	15:O:329:ILE:N	2.16	1.08
15:O:358:SER:OG	17:Q:194:GLY:C	1.91	1.08
15:O:654:LEU:HD11	15:O:748:GLU:HG3	1.36	1.08
16:P:155:GLN:O	20:T:45:DC:OP1	1.71	1.08
15:O:440:HIS:ND1	15:O:481:PHE:HZ	1.49	1.08
15:O:653:SER:HB2	15:O:748:GLU:O	0.91	1.08
16:P:246:GLU:O	16:P:285:THR:HA	1.51	1.08
15:O:663:LEU:HD23	15:O:742:TRP:HH2	1.11	1.08
17:Q:388:LYS:HD2	17:Q:393:ILE:HB	1.36	1.08
15:O:399:TRP:CD1	17:Q:134:PRO:CG	2.36	1.07
15:O:693:PHE:CB	15:O:746:ARG:O	2.00	1.07
15:O:724:LEU:HD12	16:P:443:GLN:HG2	1.35	1.07
16:P:284:LEU:CG	16:P:305:ARG:NH1	2.16	1.07
17:Q:363:GLU:O	17:Q:367:ILE:CG2	2.01	1.07
2:B:1151:ILE:HA	2:B:1160:GLU:O	1.54	1.07
9:I:27:ASN:H	9:I:39:LYS:CB	1.66	1.07
15:O:14:UNK:CB	15:O:438:TRP:CB	2.32	1.07
15:O:347:LEU:O	15:O:347:LEU:HD12	1.54	1.07
15:O:390:GLN:HB2	17:Q:151:PRO:HG3	1.31	1.07
15:O:648:SER:O	15:O:649:ILE:O	1.72	1.07
15:O:655:SER:CB	16:P:244:ASN:CB	2.29	1.07
16:P:143:THR:HG21	16:P:236:MET:HE2	1.10	1.07
16:P:399:SER:O	16:P:407:LYS:HE3	1.53	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:96:SER:O	7:G:97:LYS:C	1.92	1.07
15:O:390:GLN:OE1	17:Q:151:PRO:CD	2.02	1.07
15:O:399:TRP:CD1	17:Q:134:PRO:HG2	1.88	1.07
16:P:104:PHE:HB2	16:P:211:TYR:CE1	1.89	1.07
16:P:287:TRP:CH2	16:P:298:VAL:HG21	1.89	1.07
17:Q:26:TYR:HA	17:Q:29:ARG:CD	1.82	1.07
17:Q:283:ARG:HA	17:Q:302:ARG:HB3	1.07	1.07
9:I:17:LEU:HD21	9:I:37:TYR:CE2	1.90	1.07
15:O:275:GLU:CB	15:O:285:MET:O	2.01	1.07
15:O:475:ARG:HH21	15:O:496:THR:HG23	0.95	1.07
15:O:657:SER:HB2	15:O:746:ARG:HD3	1.29	1.07
16:P:340:GLN:HG3	16:P:341:ARG:N	1.68	1.07
15:O:768:TYR:CG	16:P:145:ASN:ND2	2.21	1.07
16:P:385:PHE:HE2	17:Q:212:HIS:CD2	1.73	1.07
2:B:341:SER:HB3	2:B:342:PRO:HD3	1.08	1.06
15:O:260:LEU:CD1	15:O:261:VAL:N	2.10	1.06
15:O:273:ARG:HB2	15:O:287:SER:OG	1.56	1.06
16:P:184:TRP:CD1	16:P:190:MET:HB2	1.90	1.06
17:Q:302:ARG:HG3	17:Q:303:THR:H	1.11	1.06
15:O:569:VAL:HG21	16:P:478:ARG:N	1.70	1.06
15:O:616:SER:HA	15:O:620:ASP:H	1.17	1.06
16:P:193:PHE:O	16:P:217:GLY:HA3	1.52	1.06
16:P:372:GLU:O	16:P:375:LEU:N	1.88	1.06
17:Q:25:ASN:O	17:Q:29:ARG:HD3	1.52	1.06
17:Q:134:PRO:O	17:Q:135:GLU:O	1.71	1.06
15:O:307:PHE:CG	15:O:315:PHE:CZ	2.43	1.06
15:O:623:LEU:HD12	15:O:668:SER:HB2	1.34	1.06
16:P:247:ILE:O	16:P:284:LEU:O	1.71	1.06
16:P:385:PHE:CE2	17:Q:212:HIS:CD2	2.42	1.06
2:B:341:SER:O	2:B:343:ASP:N	1.88	1.06
15:O:214:LEU:O	15:O:236:ILE:CG1	2.03	1.06
15:O:358:SER:OG	17:Q:194:GLY:HA3	1.53	1.06
15:O:772:ILE:HD12	16:P:138:LEU:HD21	1.37	1.06
16:P:340:GLN:CG	16:P:341:ARG:H	1.66	1.06
19:S:28:DT:O2	19:S:29:DT:C2	2.08	1.06
3:C:151:THR:HG21	3:C:155:GLU:OE1	1.41	1.06
9:I:28:VAL:N	9:I:37:TYR:HB2	1.70	1.06
15:O:10:UNK:CB	17:Q:142:ARG:CA	2.33	1.06
15:O:650:LEU:HB2	16:P:242:PHE:CE2	1.88	1.06
16:P:106:LYS:HE2	16:P:203:TRP:HH2	0.93	1.06
16:P:154:LEU:O	16:P:156:LEU:N	1.88	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:340:GLN:HG3	16:P:341:ARG:H	0.90	1.06
16:P:494:SER:OG	16:P:497:GLN:HB3	1.42	1.06
17:Q:125:ARG:HH12	19:S:19:DG:H4'	0.90	1.06
17:Q:355:THR:CA	17:Q:359:MET:HG3	1.77	1.06
15:O:354:PRO:CB	17:Q:131:TYR:OH	2.03	1.05
15:O:436:ILE:CB	17:Q:141:TRP:CZ3	2.39	1.05
15:O:771:ILE:HG22	16:P:109:GLN:NE2	1.67	1.05
17:Q:208:TYR:O	17:Q:211:ARG:CG	2.04	1.05
17:Q:310:ILE:HG21	17:Q:363:GLU:OE1	1.55	1.05
19:S:28:DT:N3	20:T:27:DA:N1	2.05	1.05
2:B:111:ASP:OD1	2:B:116:ALA:CB	2.05	1.05
16:P:154:LEU:O	16:P:156:LEU:HD12	0.90	1.05
1:A:921:PRO:HG3	8:H:19:ARG:HG3	1.13	1.05
15:O:421:ILE:HG21	15:O:439:LYS:HG3	1.35	1.05
15:O:422:ILE:HD11	15:O:442:LEU:HD23	1.37	1.05
15:O:656:HIS:HB2	15:O:747:LEU:O	1.54	1.05
15:O:768:TYR:CB	16:P:145:ASN:HD21	1.70	1.05
16:P:101:LYS:HZ2	16:P:152:LEU:CA	1.69	1.05
17:Q:26:TYR:HA	17:Q:29:ARG:HD2	1.31	1.05
1:A:83:VAL:HG21	1:A:427:PHE:CE2	1.91	1.05
15:O:353:ASP:HB3	17:Q:31:PHE:HB3	1.38	1.05
16:P:284:LEU:HG	16:P:305:ARG:HH11	1.19	1.05
1:A:721:LYS:O	1:A:723:TYR:N	1.90	1.04
1:A:785:GLN:C	1:A:789:SER:OG	1.96	1.04
15:O:440:HIS:ND1	15:O:481:PHE:CZ	2.25	1.04
17:Q:153:ASN:O	17:Q:156:LYS:HE3	1.54	1.04
19:S:28:DT:N3	20:T:27:DA:C2	2.23	1.04
1:A:592:GLN:CB	1:A:593:PRO:CD	2.33	1.04
5:E:127:ILE:CD1	5:E:132:ILE:CD1	2.35	1.04
15:O:395:GLN:HG2	15:O:397:LYS:H	0.88	1.04
15:O:599:LYS:HD3	16:P:272:GLN:NE2	1.70	1.04
15:O:693:PHE:HB2	15:O:746:ARG:O	1.56	1.04
16:P:118:TRP:CZ3	16:P:189:LYS:HD3	1.92	1.04
17:Q:264:SER:O	17:Q:265:SER:OG	1.76	1.04
1:A:406:LEU:HD22	1:A:416:ARG:HG3	1.05	1.04
15:O:10:UNK:CB	17:Q:141:TRP:C	2.25	1.04
15:O:178:VAL:HG22	15:O:360:TRP:HB3	1.38	1.04
15:O:581:ALA:HB3	15:O:585:GLU:CB	1.83	1.04
1:A:464:GLU:HG3	1:A:469:LYS:HD3	1.37	1.04
2:B:1121:GLY:O	7:G:239:THR:CB	2.05	1.04
15:O:436:ILE:HG21	17:Q:141:TRP:CH2	1.92	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:747:LEU:O	15:O:748:GLU:CG	2.05	1.04
16:P:239:PHE:HE1	16:P:246:GLU:CG	1.70	1.04
16:P:387:PRO:O	16:P:389:GLN:N	1.91	1.04
16:P:419:LEU:HD12	17:Q:237:ALA:HB1	1.35	1.04
19:S:28:DT:C2	19:S:29:DT:C4	2.45	1.04
9:I:28:VAL:H	9:I:37:TYR:HB2	1.19	1.04
15:O:205:TYR:CZ	15:O:229:ARG:NH1	2.24	1.04
15:O:324:TRP:HD1	15:O:348:HIS:CG	1.75	1.04
15:O:780:ILE:C	16:P:199:LEU:HD21	1.76	1.04
16:P:183:LYS:HD3	16:P:189:LYS:HZ2	0.90	1.04
16:P:247:ILE:CD1	16:P:286:LEU:HD12	1.86	1.04
16:P:257:VAL:CB	16:P:262:LEU:CD1	2.35	1.04
16:P:343:THR:HB	16:P:347:SER:H	1.22	1.04
16:P:344:THR:CG2	16:P:436:LEU:C	2.26	1.04
17:Q:247:ILE:HG22	17:Q:278:TYR:CE2	1.80	1.04
1:A:117:ARG:HG3	1:A:185:ARG:NH2	1.71	1.03
15:O:307:PHE:CB	15:O:315:PHE:CZ	2.13	1.03
15:O:375:PHE:CZ	15:O:405:TYR:CB	2.41	1.03
15:O:433:VAL:HG11	17:Q:144:VAL:O	1.58	1.03
15:O:472:ARG:NH2	17:Q:200:THR:H	1.55	1.03
16:P:340:GLN:O	16:P:341:ARG:HB2	1.56	1.03
17:Q:298:GLN:O	17:Q:299:THR:CG2	2.06	1.03
1:A:721:LYS:HB3	1:A:722:PRO:HD3	1.03	1.03
2:B:117:VAL:CG2	17:Q:276:GLN:HG3	1.87	1.03
9:I:43:SER:O	9:I:45:LEU:N	1.90	1.03
15:O:433:VAL:CG1	17:Q:144:VAL:CG1	2.34	1.03
15:O:599:LYS:HB3	16:P:272:GLN:HE22	1.20	1.03
15:O:604:ILE:HG12	15:O:732:LEU:CD2	1.87	1.03
16:P:235:GLY:CA	16:P:289:ARG:CB	1.75	1.03
16:P:369:TRP:CH2	16:P:377:PHE:CG	2.45	1.03
17:Q:247:ILE:CG1	17:Q:248:LYS:H	1.71	1.03
15:O:324:TRP:CD1	15:O:348:HIS:CB	2.42	1.03
16:P:118:TRP:CH2	16:P:189:LYS:HG2	1.92	1.03
16:P:205:ILE:C	16:P:207:LEU:H	1.58	1.03
16:P:370:SER:OG	16:P:373:GLU:CD	1.97	1.03
16:P:399:SER:OG	16:P:402:MET:HG3	1.58	1.03
16:P:403:THR:O	16:P:405:ASP:N	1.92	1.03
17:Q:125:ARG:NH1	19:S:19:DG:H4'	1.72	1.03
17:Q:356:PRO:HD2	17:Q:357:PRO:CD	1.87	1.03
15:O:592:LEU:HD12	16:P:512:ARG:HH21	0.96	1.03
16:P:101:LYS:CE	16:P:152:LEU:CD1	2.34	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:183:LYS:CD	16:P:189:LYS:HZ2	1.70	1.03
16:P:258:MET:HG2	16:P:262:LEU:HD22	1.36	1.03
16:P:341:ARG:HH11	16:P:341:ARG:CG	1.71	1.03
16:P:354:LYS:HZ2	16:P:362:THR:CG2	1.72	1.03
16:P:284:LEU:CD2	16:P:305:ARG:NH1	2.21	1.03
16:P:494:SER:OG	16:P:497:GLN:CG	2.07	1.03
17:Q:27:ILE:CD1	17:Q:169:PRO:CB	2.30	1.03
17:Q:380:SER:C	17:Q:384:VAL:CG1	2.24	1.03
15:O:669:PHE:C	15:O:671:SER:H	1.62	1.02
17:Q:247:ILE:CG1	17:Q:248:LYS:N	2.21	1.02
14:N:95:ILE:HD13	14:N:136:VAL:HG21	1.39	1.02
15:O:623:LEU:CD1	15:O:668:SER:C	2.27	1.02
16:P:187:THR:OG1	16:P:189:LYS:CG	2.06	1.02
16:P:210:TYR:CG	20:T:43:DT:H4'	1.94	1.02
16:P:219:ILE:HD13	17:Q:207:ASN:HA	1.40	1.02
16:P:284:LEU:HG	16:P:305:ARG:NH1	1.71	1.02
17:Q:247:ILE:HD13	17:Q:248:LYS:H	0.87	1.02
15:O:184:SER:N	15:O:509:GLU:OE2	1.90	1.02
15:O:380:MET:HB3	15:O:394:VAL:HG21	1.38	1.02
15:O:696:PHE:HB3	15:O:711:LEU:HD12	1.34	1.02
16:P:108:PHE:CE2	16:P:137:TRP:CH2	2.47	1.02
16:P:284:LEU:HD21	16:P:305:ARG:NH1	1.74	1.02
16:P:335:THR:HA	16:P:338:LEU:HD12	1.39	1.02
16:P:469:PRO:CB	16:P:470:PRO:CD	2.37	1.02
17:Q:356:PRO:HD2	17:Q:357:PRO:HD2	1.41	1.02
17:Q:383:PHE:CE2	17:Q:388:LYS:HG2	1.94	1.02
20:T:22:DG:H2'	20:T:23:DA:C8	1.93	1.02
15:O:12:UNK:HA	15:O:436:ILE:CD1	1.88	1.02
17:Q:350:SER:O	17:Q:353:VAL:HG23	1.59	1.02
15:O:214:LEU:C	15:O:236:ILE:CB	2.27	1.02
15:O:422:ILE:HG13	15:O:440:HIS:NE2	1.75	1.02
15:O:472:ARG:CZ	17:Q:200:THR:HG21	1.88	1.02
15:O:583:GLU:OE2	15:O:584:ARG:HG2	1.57	1.02
15:O:722:TRP:CZ2	16:P:262:LEU:HD21	1.93	1.02
15:O:722:TRP:CZ2	16:P:262:LEU:HG	1.94	1.02
16:P:235:GLY:HA2	16:P:289:ARG:HB3	1.38	1.02
16:P:287:TRP:CZ2	16:P:298:VAL:CG1	2.38	1.02
17:Q:208:TYR:C	17:Q:211:ARG:HG2	1.79	1.02
17:Q:245:VAL:HG11	17:Q:250:LEU:CD2	1.89	1.02
17:Q:248:LYS:HD2	17:Q:298:GLN:NE2	1.73	1.02
1:A:406:LEU:HD22	1:A:416:ARG:CG	1.89	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:260:LEU:CD2	15:O:273:ARG:C	2.28	1.01
15:O:421:ILE:HD12	17:Q:138:PHE:HD2	1.18	1.01
15:O:654:LEU:CG	15:O:748:GLU:HG3	1.88	1.01
15:O:658:LYS:HG3	15:O:660:LYS:HE2	1.39	1.01
16:P:101:LYS:CE	16:P:152:LEU:HD12	1.88	1.01
16:P:280:ASP:C	16:P:281:ILE:CD1	2.28	1.01
16:P:362:THR:HA	16:P:365:ASP:OD2	1.60	1.01
17:Q:302:ARG:CG	17:Q:303:THR:H	1.73	1.01
15:O:316:ALA:O	15:O:340:LYS:NZ	1.94	1.01
15:O:347:LEU:HB3	17:Q:152:ILE:HA	1.29	1.01
15:O:581:ALA:HB1	15:O:585:GLU:HB2	1.06	1.01
16:P:139:LYS:NZ	16:P:242:PHE:CG	2.27	1.01
16:P:235:GLY:HA2	16:P:289:ARG:CG	1.89	1.01
16:P:494:SER:O	16:P:496:GLU:N	1.93	1.01
1:A:85:CYS:HB2	1:A:431:GLN:OE1	1.24	1.01
1:A:464:GLU:CB	1:A:469:LYS:HB3	1.91	1.01
15:O:472:ARG:NH1	17:Q:200:THR:HG23	1.75	1.01
15:O:596:ILE:HG23	16:P:317:MET:HE1	1.37	1.01
15:O:669:PHE:CD1	15:O:738:LYS:HE2	1.95	1.01
15:O:686:TYR:HB3	15:O:692:THR:HG23	1.41	1.01
16:P:103:LEU:HD23	16:P:106:LYS:HD3	1.41	1.01
17:Q:247:ILE:O	17:Q:250:LEU:CB	2.07	1.01
15:O:309:PRO:HG2	15:O:365:TRP:CE2	1.94	1.01
15:O:346:ASN:O	15:O:347:LEU:CG	2.09	1.01
15:O:395:GLN:HG2	15:O:397:LYS:N	1.73	1.01
15:O:722:TRP:CZ2	16:P:262:LEU:CG	2.43	1.01
16:P:118:TRP:CZ3	16:P:189:LYS:CB	2.43	1.01
16:P:178:THR:OG1	16:P:490:ASP:CB	2.07	1.01
16:P:469:PRO:HB2	16:P:470:PRO:HD3	1.02	1.01
9:I:28:VAL:HG23	9:I:38:PRO:HD2	1.03	1.01
15:O:583:GLU:CD	15:O:584:ARG:N	2.11	1.01
17:Q:350:SER:O	17:Q:352:TRP:N	1.94	1.01
1:A:722:PRO:HB2	8:H:46:LEU:HD23	1.40	1.00
15:O:194:ARG:HA	15:O:197:ARG:CZ	1.89	1.00
16:P:118:TRP:CZ2	16:P:189:LYS:HG2	1.96	1.00
17:Q:154:LYS:C	17:Q:156:LYS:H	1.59	1.00
17:Q:296:PRO:HB3	17:Q:304:HIS:HE1	1.16	1.00
1:A:406:LEU:CD2	1:A:416:ARG:HG3	1.91	1.00
1:A:721:LYS:HB3	1:A:722:PRO:HD2	1.03	1.00
15:O:19:UNK:CB	17:Q:255:VAL:CG2	2.38	1.00
15:O:214:LEU:C	15:O:236:ILE:HB	1.81	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:421:ILE:CG2	15:O:439:LYS:CG	2.38	1.00
16:P:104:PHE:CZ	16:P:215:LEU:CD2	2.43	1.00
16:P:257:VAL:HB	16:P:262:LEU:CD1	1.92	1.00
16:P:258:MET:CG	16:P:262:LEU:HD22	1.91	1.00
16:P:378:LEU:CD1	17:Q:234:LYS:HB3	1.91	1.00
16:P:431:ASP:C	16:P:434:HIS:HA	1.81	1.00
17:Q:21:TYR:CE2	17:Q:124:GLU:HG3	1.95	1.00
16:P:184:TRP:CZ2	16:P:192:TYR:HD2	1.79	1.00
15:O:423:ILE:HD13	17:Q:141:TRP:CH2	1.96	1.00
15:O:436:ILE:HG21	17:Q:141:TRP:CD2	1.95	1.00
15:O:694:ILE:HG13	15:O:695:GLY:H	1.23	1.00
1:A:784:SER:C	1:A:789:SER:HB3	1.81	1.00
1:A:1098:SER:O	1:A:1102:LEU:HB3	1.58	1.00
15:O:414:ILE:HD12	15:O:425:GLY:HA3	1.44	1.00
16:P:354:LYS:NZ	16:P:362:THR:CG2	2.24	1.00
17:Q:127:PHE:CE1	17:Q:131:TYR:CE2	2.48	1.00
16:P:123:MET:HB3	16:P:125:PHE:CD2	1.97	1.00
17:Q:285:VAL:HG21	17:Q:302:ARG:NH2	1.75	1.00
1:A:721:LYS:CB	1:A:722:PRO:HD2	1.81	0.99
3:C:151:THR:HG21	3:C:155:GLU:CG	1.90	0.99
15:O:221:ARG:HG2	15:O:227:LEU:HD23	1.40	0.99
15:O:328:ARG:O	15:O:340:LYS:HA	1.62	0.99
15:O:347:LEU:HD23	17:Q:152:ILE:CG1	1.92	0.99
16:P:104:PHE:CG	16:P:211:TYR:CD1	2.50	0.99
19:S:28:DT:H4'	19:S:29:DT:H5'	1.42	0.99
9:I:28:VAL:CG2	9:I:38:PRO:HD2	1.92	0.99
15:O:194:ARG:CG	15:O:197:ARG:NH1	2.25	0.99
15:O:388:ASN:HB3	17:Q:150:GLN:CD	1.80	0.99
15:O:727:PRO:HG2	16:P:265:GLU:CD	1.83	0.99
2:B:822:THR:O	2:B:824:HIS:CE1	2.15	0.99
15:O:260:LEU:CD2	15:O:273:ARG:O	2.11	0.99
15:O:347:LEU:CD2	17:Q:152:ILE:CA	2.39	0.99
15:O:353:ASP:OD1	15:O:354:PRO:HD3	1.62	0.99
16:P:200:PRO:HB3	16:P:203:TRP:CB	1.93	0.99
17:Q:5:PRO:HB2	17:Q:244:GLY:O	1.60	0.99
15:O:10:UNK:CB	17:Q:141:TRP:O	2.10	0.99
15:O:583:GLU:OE1	15:O:584:ARG:N	1.95	0.99
17:Q:296:PRO:CB	17:Q:304:HIS:CE1	2.45	0.99
9:I:27:ASN:HA	9:I:37:TYR:CA	1.92	0.99
15:O:653:SER:O	15:O:748:GLU:HB2	1.63	0.99
2:B:117:VAL:HG21	17:Q:276:GLN:HG3	1.39	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:436:ILE:CG2	17:Q:141:TRP:CH2	2.46	0.99
15:O:376:ASP:OD2	15:O:379:LYS:HG2	1.61	0.99
15:O:398:ALA:HB3	17:Q:134:PRO:HG3	1.44	0.99
16:P:239:PHE:HE1	16:P:246:GLU:HG2	0.83	0.99
2:B:113:VAL:O	2:B:114:SER:HB2	1.60	0.99
15:O:499:GLU:HG3	15:O:500:ILE:H	1.24	0.99
19:S:28:DT:H3	20:T:27:DA:H2	1.07	0.99
15:O:260:LEU:HD11	15:O:272:PHE:H	1.26	0.99
15:O:366:PHE:HE2	15:O:432:PRO:HA	1.28	0.99
15:O:583:GLU:HG2	15:O:584:ARG:H	1.10	0.99
16:P:378:LEU:CD1	17:Q:234:LYS:CB	2.39	0.99
17:Q:302:ARG:NH2	17:Q:303:THR:CG2	2.26	0.99
17:Q:154:LYS:O	17:Q:156:LYS:N	1.94	0.98
16:P:158:MET:O	16:P:192:TYR:HE1	1.46	0.98
16:P:258:MET:HG2	16:P:262:LEU:CD2	1.92	0.98
15:O:352:PHE:HB3	15:O:354:PRO:HG2	1.46	0.98
15:O:672:ILE:CD1	15:O:734:LYS:NZ	2.26	0.98
16:P:210:TYR:CB	20:T:43:DT:C4'	2.31	0.98
15:O:314:GLN:CB	15:O:329:ILE:HG13	1.94	0.98
15:O:722:TRP:CZ3	16:P:262:LEU:HG	1.98	0.98
15:O:724:LEU:O	15:O:725:VAL:HG12	1.63	0.98
1:A:668:GLY:CA	1:A:787:GLY:CA	2.26	0.98
15:O:578:PHE:HZ	16:P:312:LEU:HD12	1.26	0.98
16:P:284:LEU:CD2	16:P:305:ARG:HH11	1.74	0.98
17:Q:383:PHE:CE2	17:Q:398:ASP:OD1	2.17	0.98
15:O:715:TYR:HH	15:O:734:LYS:HD2	1.22	0.98
1:A:416:ARG:HD2	1:A:419:ILE:HG12	1.44	0.98
15:O:18:UNK:CB	17:Q:253:ILE:CD1	2.42	0.98
15:O:247:ILE:HG12	15:O:261:VAL:HG22	1.44	0.98
15:O:722:TRP:CZ3	16:P:264:PRO:CG	2.31	0.98
2:B:118:GLU:OE2	17:Q:281:LYS:NZ	1.97	0.98
15:O:353:ASP:N	15:O:354:PRO:HD2	1.78	0.98
15:O:353:ASP:N	15:O:354:PRO:CD	2.26	0.98
17:Q:246:GLN:C	17:Q:247:ILE:HD13	1.84	0.98
17:Q:277:ILE:CD1	17:Q:278:TYR:CD1	2.45	0.98
17:Q:302:ARG:HG3	17:Q:303:THR:N	1.78	0.98
7:G:245:VAL:CG2	7:G:246:ASP:N	2.27	0.97
9:I:28:VAL:CG2	9:I:38:PRO:CD	2.41	0.97
15:O:298:ASP:OD2	17:Q:157:MET:O	1.81	0.97
15:O:421:ILE:HG21	15:O:439:LYS:CG	1.93	0.97
1:A:781:LEU:HB2	1:A:786:TYR:OH	1.63	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:95:ILE:HD12	14:N:136:VAL:HG21	1.43	0.97
14:N:96:GLU:OE2	14:N:105:SER:HB3	1.63	0.97
15:O:275:GLU:O	15:O:284:VAL:CG1	2.12	0.97
16:P:211:TYR:CD1	16:P:212:VAL:HG23	1.99	0.97
15:O:353:ASP:C	17:Q:28:SER:HA	1.84	0.97
15:O:569:VAL:HG22	16:P:478:ARG:HA	1.47	0.97
15:O:651:SER:O	15:O:653:SER:N	1.97	0.97
15:O:722:TRP:CE3	16:P:264:PRO:CD	2.37	0.97
16:P:210:TYR:HB2	20:T:43:DT:H4'	0.99	0.97
17:Q:152:ILE:O	17:Q:154:LYS:N	1.97	0.97
17:Q:296:PRO:CB	17:Q:304:HIS:HE1	1.75	0.97
1:A:668:GLY:C	1:A:787:GLY:HA2	1.85	0.97
15:O:568:ILE:HG22	15:O:570:ASP:HB2	1.45	0.97
9:I:27:ASN:CB	9:I:37:TYR:H	1.76	0.97
15:O:298:ASP:CG	17:Q:158:THR:CA	2.25	0.97
15:O:780:ILE:C	16:P:199:LEU:HD22	1.85	0.97
16:P:119:LEU:CD2	16:P:165:LEU:HD11	1.95	0.97
1:A:460:LEU:O	1:A:465:GLY:CA	2.13	0.97
1:A:464:GLU:HB2	1:A:469:LYS:HB3	1.43	0.97
15:O:421:ILE:CG2	15:O:439:LYS:HG3	1.94	0.97
15:O:583:GLU:CD	15:O:584:ARG:CG	2.33	0.97
15:O:433:VAL:HG12	17:Q:144:VAL:HG12	1.47	0.97
15:O:475:ARG:HD3	16:P:367:PHE:CZ	2.00	0.97
15:O:583:GLU:OE1	15:O:584:ARG:HG2	1.64	0.97
1:A:920:PHE:HB3	1:A:921:PRO:HD3	1.45	0.97
2:B:155:VAL:CG2	17:Q:359:MET:CE	2.43	0.97
9:I:37:TYR:HB3	9:I:38:PRO:HD3	1.43	0.97
15:O:298:ASP:OD1	17:Q:158:THR:HA	1.65	0.97
15:O:433:VAL:HB	17:Q:144:VAL:HG11	1.00	0.97
15:O:248:PRO:HD2	15:O:307:PHE:HZ	1.17	0.97
17:Q:136:LYS:CB	17:Q:304:HIS:CD2	2.41	0.97
1:A:920:PHE:O	1:A:922:CYS:N	1.97	0.96
14:N:95:ILE:HD11	14:N:136:VAL:CG2	1.94	0.96
16:P:280:ASP:O	16:P:281:ILE:CD1	2.11	0.96
15:O:586:LYS:HZ3	16:P:322:ARG:NH2	1.36	0.96
15:O:704:LEU:C	15:O:706:GLU:H	1.55	0.96
9:I:37:TYR:HB3	9:I:38:PRO:HD2	1.46	0.96
15:O:348:HIS:CD2	15:O:349:GLY:N	2.31	0.96
3:C:151:THR:HG23	3:C:155:GLU:OE1	1.63	0.96
13:M:45:LYS:HE2	13:M:49:ASP:N	1.41	0.96
16:P:262:LEU:O	16:P:264:PRO:CD	2.13	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:496:GLU:O	16:P:500:ASP:N	1.97	0.96
15:O:14:UNK:CB	15:O:439:LYS:H	1.76	0.96
15:O:356:GLU:HG2	15:O:377:ARG:HH22	1.29	0.96
15:O:390:GLN:OE1	17:Q:151:PRO:HD2	1.62	0.96
15:O:663:LEU:HD23	15:O:742:TRP:CH2	2.01	0.96
17:Q:158:THR:HG23	17:Q:161:ASN:H	1.30	0.96
17:Q:277:ILE:CD1	17:Q:278:TYR:HE1	1.65	0.96
1:A:104:PHE:HB2	1:A:238:MET:HG3	1.48	0.96
5:E:127:ILE:CD1	5:E:132:ILE:HD11	1.96	0.96
15:O:472:ARG:NH2	17:Q:200:THR:CG2	2.00	0.96
15:O:475:ARG:CD	16:P:367:PHE:CE2	2.49	0.96
17:Q:310:ILE:CG2	17:Q:363:GLU:OE1	2.13	0.96
2:B:77:LYS:HE2	2:B:93:ASN:CB	1.95	0.96
15:O:394:VAL:HA	17:Q:141:TRP:HD1	1.30	0.96
15:O:771:ILE:HD13	16:P:105:LEU:HD22	1.48	0.96
16:P:340:GLN:CG	16:P:341:ARG:N	2.23	0.96
15:O:604:ILE:HA	15:O:732:LEU:HD22	1.48	0.96
15:O:722:TRP:CZ2	16:P:262:LEU:CD2	2.46	0.96
16:P:412:LYS:O	16:P:415:LYS:HB3	1.65	0.96
16:P:469:PRO:CB	16:P:470:PRO:HD3	1.95	0.96
2:B:1121:GLY:O	7:G:239:THR:C	2.03	0.96
15:O:24:UNK:CA	17:Q:314:TRP:CH2	2.48	0.96
15:O:194:ARG:CG	15:O:197:ARG:HH12	1.77	0.96
15:O:722:TRP:CE3	16:P:264:PRO:HD3	2.00	0.96
16:P:116:ILE:HA	16:P:119:LEU:HD12	1.45	0.96
16:P:289:ARG:O	16:P:291:ASP:OD1	1.84	0.96
19:S:28:DT:O4	20:T:27:DA:N6	1.98	0.96
13:M:129:GLY:HA2	13:M:136:LYS:HD2	1.47	0.96
15:O:309:PRO:CG	15:O:365:TRP:NE1	2.29	0.96
9:I:37:TYR:O	9:I:40:SER:O	1.82	0.95
15:O:650:LEU:HB3	16:P:242:PHE:CD2	2.01	0.95
16:P:157:HIS:CE1	16:P:158:MET:HG2	1.98	0.95
16:P:184:TRP:HE1	16:P:190:MET:HB2	1.24	0.95
16:P:315:ASN:O	16:P:319:SER:CB	2.14	0.95
17:Q:295:PRO:C	17:Q:297:PHE:H	1.65	0.95
15:O:351:ILE:CG2	17:Q:157:MET:HE1	1.95	0.95
16:P:497:GLN:HG2	16:P:498:LEU:N	1.81	0.95
9:I:27:ASN:H	9:I:39:LYS:HB2	0.79	0.95
15:O:273:ARG:HH12	15:O:274:ILE:HG23	1.30	0.95
15:O:440:HIS:CE1	15:O:481:PHE:CE1	2.55	0.95
17:Q:294:VAL:HG22	17:Q:295:PRO:HD3	1.43	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:781:LEU:CB	1:A:786:TYR:CZ	2.49	0.95
9:I:30:CYS:HB3	9:I:33:CYS:SG	2.03	0.95
14:N:25:ILE:CG2	14:N:26:PRO:HD3	1.96	0.95
16:P:104:PHE:CE1	16:P:211:TYR:HB2	2.00	0.95
16:P:104:PHE:HD1	16:P:211:TYR:CD1	1.83	0.95
16:P:143:THR:CB	16:P:236:MET:CE	2.44	0.95
17:Q:282:SER:N	17:Q:301:SER:O	1.99	0.95
7:G:245:VAL:HG22	7:G:246:ASP:N	1.78	0.95
16:P:104:PHE:CG	16:P:211:TYR:HB2	2.01	0.95
16:P:219:ILE:CD1	17:Q:207:ASN:HA	1.94	0.95
2:B:76:GLY:C	2:B:91:LEU:HD21	1.86	0.95
2:B:77:LYS:CG	2:B:93:ASN:HB2	1.97	0.95
15:O:221:ARG:CG	15:O:227:LEU:HD22	1.97	0.95
15:O:347:LEU:HD22	17:Q:152:ILE:CA	1.97	0.95
16:P:366:TYR:OH	17:Q:215:THR:O	1.85	0.95
16:P:375:LEU:HD12	17:Q:231:LEU:HD21	1.49	0.95
1:A:116:HIS:CE1	1:A:185:ARG:HB3	1.99	0.95
15:O:319:ASP:OD1	15:O:348:HIS:CE1	2.19	0.95
15:O:347:LEU:CD2	17:Q:152:ILE:CG1	2.44	0.95
15:O:585:GLU:O	15:O:588:SER:N	1.99	0.95
15:O:347:LEU:HB3	17:Q:152:ILE:C	1.86	0.95
15:O:569:VAL:CG2	16:P:478:ARG:HA	1.95	0.95
15:O:663:LEU:H	15:O:663:LEU:HD12	1.30	0.95
15:O:768:TYR:CG	16:P:145:ASN:CG	2.30	0.95
16:P:337:SER:HA	16:P:448:LYS:HE2	1.46	0.95
16:P:343:THR:CB	16:P:347:SER:H	1.78	0.95
1:A:1163:GLU:O	1:A:1167:ARG:HB3	1.67	0.94
2:B:77:LYS:HG3	2:B:93:ASN:HB2	1.48	0.94
10:J:10:CYS:HB3	10:J:45:CYS:SG	2.07	0.94
15:O:260:LEU:HD11	15:O:272:PHE:N	1.81	0.94
15:O:299:ASP:HB3	17:Q:159:TYR:HB2	1.45	0.94
16:P:263:PRO:CB	16:P:266:PHE:CE2	2.49	0.94
15:O:440:HIS:CE1	15:O:481:PHE:CZ	2.55	0.94
15:O:706:GLU:CG	16:P:438:PHE:CB	2.45	0.94
15:O:727:PRO:CG	16:P:265:GLU:CD	2.34	0.94
16:P:419:LEU:HD11	17:Q:237:ALA:HB3	1.46	0.94
17:Q:352:TRP:HB2	17:Q:358:PHE:CZ	1.78	0.94
16:P:157:HIS:NE2	16:P:158:MET:HE3	1.82	0.94
1:A:784:SER:O	1:A:789:SER:CB	2.16	0.94
15:O:421:ILE:HA	15:O:441:ASP:HA	1.49	0.94
16:P:106:LYS:CE	16:P:203:TRP:HH2	1.78	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:257:VAL:C	16:P:262:LEU:HD13	1.88	0.94
17:Q:362:ALA:O	17:Q:364:VAL:N	2.00	0.94
1:A:721:LYS:HG2	8:H:94:ASP:O	1.66	0.94
15:O:323:ASN:O	15:O:348:HIS:CB	2.15	0.94
15:O:757:GLN:O	15:O:760:ILE:HG23	1.67	0.94
17:Q:383:PHE:HZ	17:Q:398:ASP:OD1	1.34	0.94
16:P:101:LYS:HZ1	16:P:151:GLU:C	1.71	0.94
16:P:263:PRO:HB2	16:P:266:PHE:CE2	2.01	0.94
17:Q:354:LEU:HG	17:Q:359:MET:H	1.31	0.94
15:O:446:ASP:OD1	15:O:447:THR:N	2.01	0.94
15:O:573:GLU:HG2	15:O:574:TRP:H	1.33	0.94
15:O:648:SER:O	15:O:649:ILE:C	2.05	0.94
15:O:662:LEU:HD23	15:O:662:LEU:H	1.27	0.94
16:P:104:PHE:CE1	16:P:215:LEU:HD21	2.02	0.94
16:P:108:PHE:CE2	16:P:137:TRP:CZ3	2.56	0.94
13:M:15:VAL:HG22	13:M:90:LEU:HD12	1.49	0.94
13:M:45:LYS:HE3	13:M:48:LYS:HB3	1.46	0.94
15:O:273:ARG:HB3	15:O:287:SER:H	1.32	0.94
15:O:309:PRO:HD2	15:O:365:TRP:CD2	2.03	0.94
15:O:614:GLU:OE2	15:O:668:SER:O	1.86	0.94
16:P:101:LYS:NZ	16:P:151:GLU:C	2.20	0.94
16:P:104:PHE:HD1	16:P:212:VAL:N	1.66	0.94
16:P:200:PRO:HB3	16:P:203:TRP:CD1	2.02	0.94
16:P:494:SER:OG	16:P:497:GLN:CA	2.16	0.94
17:Q:352:TRP:CZ3	17:Q:357:PRO:HG2	2.02	0.94
15:O:194:ARG:HG2	15:O:197:ARG:HH12	1.01	0.94
15:O:768:TYR:HB2	16:P:145:ASN:HD21	1.29	0.94
15:O:369:PHE:CZ	15:O:431:ASP:HA	2.03	0.93
16:P:184:TRP:CD1	16:P:190:MET:CB	2.51	0.93
16:P:378:LEU:HD13	17:Q:234:LYS:CB	1.98	0.93
17:Q:200:THR:O	17:Q:203:SER:OG	1.84	0.93
17:Q:285:VAL:HG21	17:Q:302:ARG:CZ	1.94	0.93
15:O:323:ASN:OD1	17:Q:155:GLN:CG	2.15	0.93
15:O:698:LYS:HE2	16:P:126:PRO:HD2	1.51	0.93
16:P:104:PHE:CG	16:P:211:TYR:HD1	1.86	0.93
9:I:17:LEU:HD21	9:I:37:TYR:HE2	1.33	0.93
15:O:347:LEU:HD22	17:Q:152:ILE:HA	1.47	0.93
1:A:781:LEU:HB2	1:A:786:TYR:CZ	2.03	0.93
9:I:28:VAL:HG23	9:I:38:PRO:HD3	1.48	0.93
15:O:214:LEU:HD13	15:O:263:ILE:HD13	1.48	0.93
15:O:588:SER:HB3	16:P:512:ARG:NH1	1.81	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:641:TRP:NE1	15:O:653:SER:CA	2.31	0.93
16:P:357:TYR:CE2	17:Q:203:SER:HA	2.02	0.93
15:O:291:PRO:O	15:O:292:LEU:HD23	1.69	0.93
1:A:116:HIS:HE1	1:A:185:ARG:CD	1.77	0.93
15:O:390:GLN:HB2	17:Q:151:PRO:CG	1.98	0.93
15:O:393:VAL:O	15:O:394:VAL:HG22	1.67	0.93
15:O:604:ILE:HG12	15:O:732:LEU:HD21	1.51	0.93
15:O:715:TYR:CD1	15:O:734:LYS:HE2	2.03	0.93
15:O:722:TRP:CH2	16:P:262:LEU:O	2.22	0.93
17:Q:372:HIS:CE1	17:Q:407:HIS:CD2	2.57	0.93
15:O:586:LYS:HZ1	16:P:322:ARG:HH22	1.07	0.93
15:O:696:PHE:CB	15:O:711:LEU:CD1	2.32	0.93
17:Q:245:VAL:HG13	17:Q:250:LEU:HG	0.95	0.93
17:Q:277:ILE:HG12	17:Q:278:TYR:CE1	2.03	0.93
1:A:416:ARG:CD	1:A:419:ILE:HG12	1.98	0.93
15:O:475:ARG:HD3	16:P:367:PHE:CE2	2.03	0.93
1:A:1298:ASP:HB3	1:A:1301:GLU:HG3	1.50	0.93
15:O:399:TRP:HE1	17:Q:134:PRO:HG2	1.29	0.93
15:O:693:PHE:HD2	15:O:746:ARG:N	1.66	0.93
15:O:12:UNK:CB	15:O:439:LYS:HZ2	1.75	0.93
15:O:440:HIS:HD1	15:O:481:PHE:HZ	0.94	0.93
15:O:593:VAL:HB	16:P:320:PHE:CD2	2.04	0.93
15:O:693:PHE:CD2	15:O:746:ARG:N	2.36	0.93
16:P:104:PHE:HB2	16:P:211:TYR:CG	2.03	0.93
16:P:337:SER:O	16:P:341:ARG:NH2	2.01	0.93
5:E:100:ILE:HG23	5:E:105:PHE:HD2	1.33	0.92
15:O:322:GLY:HA3	17:Q:157:MET:HG3	1.51	0.92
1:A:417:ARG:NH1	1:A:420:PHE:CB	2.31	0.92
2:B:819:ASP:OD1	2:B:820:PRO:HD3	1.68	0.92
15:O:511:ILE:HG22	15:O:513:THR:H	1.32	0.92
15:O:704:LEU:C	15:O:706:GLU:N	2.22	0.92
17:Q:207:ASN:ND2	19:S:13:DA:OP1	2.01	0.92
15:O:471:MET:SD	15:O:542:ARG:NH1	2.41	0.92
15:O:475:ARG:HH21	15:O:496:THR:CG2	1.81	0.92
16:P:294:HIS:HB2	20:T:48:DA:H62	1.29	0.92
1:A:530:TRP:CB	1:A:531:PRO:CD	2.22	0.92
7:G:245:VAL:CG2	7:G:246:ASP:H	1.81	0.92
15:O:298:ASP:OD2	17:Q:157:MET:C	2.05	0.92
15:O:590:GLY:CA	16:P:320:PHE:CE1	2.49	0.92
16:P:371:GLU:O	16:P:374:THR:HB	1.68	0.92
17:Q:208:TYR:HA	17:Q:211:ARG:HD3	1.48	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:102:CYS:CB	1:A:105:CYS:SG	2.58	0.92
15:O:353:ASP:CB	17:Q:28:SER:C	2.15	0.92
15:O:581:ALA:HB1	15:O:585:GLU:HB3	1.32	0.92
16:P:344:THR:OG1	16:P:438:PHE:N	1.93	0.92
13:M:371:VAL:HA	13:M:394:ILE:O	1.69	0.92
15:O:23:UNK:C	17:Q:314:TRP:CZ3	2.52	0.92
15:O:309:PRO:CD	15:O:365:TRP:CD2	2.53	0.92
15:O:398:ALA:HA	17:Q:128:TRP:CH2	2.04	0.92
16:P:419:LEU:CD1	17:Q:237:ALA:HB3	2.00	0.92
17:Q:349:ILE:CD1	17:Q:368:TYR:CD1	2.52	0.92
1:A:721:LYS:CB	1:A:722:PRO:HD3	1.83	0.92
15:O:214:LEU:CD1	15:O:263:ILE:HD13	1.98	0.92
15:O:698:LYS:HB3	16:P:125:PHE:CD1	2.04	0.92
9:I:3:VAL:CG2	9:I:43:SER:OG	2.17	0.92
15:O:205:TYR:CE2	15:O:229:ARG:NH1	2.38	0.92
16:P:369:TRP:HH2	16:P:377:PHE:CE1	1.87	0.92
8:H:111:LEU:HD23	8:H:128:ASN:HB3	1.52	0.92
15:O:659:LEU:C	15:O:663:LEU:HG	1.87	0.92
16:P:143:THR:HG23	16:P:236:MET:HE1	1.49	0.92
16:P:354:LYS:CG	16:P:362:THR:CG2	2.28	0.92
16:P:378:LEU:CD2	17:Q:234:LYS:HB3	2.00	0.92
1:A:464:GLU:O	1:A:468:ARG:CB	2.18	0.92
15:O:298:ASP:OD1	17:Q:159:TYR:N	2.03	0.92
16:P:155:GLN:CG	20:T:44:DC:H4'	1.99	0.92
16:P:235:GLY:N	16:P:289:ARG:HB2	1.85	0.92
9:I:37:TYR:CB	9:I:38:PRO:CD	2.46	0.91
15:O:24:UNK:HA	17:Q:314:TRP:HH2	1.14	0.91
15:O:309:PRO:CG	15:O:365:TRP:CE2	2.52	0.91
15:O:586:LYS:HZ2	16:P:322:ARG:NH2	1.68	0.91
16:P:205:ILE:O	16:P:207:LEU:N	2.02	0.91
15:O:216:ILE:N	15:O:234:THR:OG1	2.03	0.91
15:O:395:GLN:CG	15:O:397:LYS:H	1.82	0.91
15:O:401:ASN:H	15:O:419:ARG:HG2	1.36	0.91
15:O:653:SER:O	15:O:748:GLU:CB	2.17	0.91
17:Q:274:MET:O	17:Q:277:ILE:HG23	1.70	0.91
17:Q:353:VAL:HA	17:Q:358:PHE:CD1	1.18	0.91
17:Q:381:ARG:O	17:Q:384:VAL:CG2	2.18	0.91
1:A:591:ARG:HH21	1:A:631:ASP:CG	1.74	0.91
15:O:186:TYR:CE2	15:O:512:LEU:CD2	2.47	0.91
15:O:298:ASP:OD2	17:Q:158:THR:N	2.02	0.91
15:O:394:VAL:HA	17:Q:141:TRP:CD1	2.05	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:399:TRP:CD1	17:Q:134:PRO:CB	2.53	0.91
16:P:235:GLY:N	16:P:289:ARG:CB	2.33	0.91
16:P:378:LEU:CD1	17:Q:234:LYS:C	2.39	0.91
17:Q:354:LEU:CB	17:Q:359:MET:N	2.33	0.91
17:Q:383:PHE:CZ	17:Q:388:LYS:HG2	2.04	0.91
9:I:28:VAL:H	9:I:37:TYR:CB	1.82	0.91
15:O:269:PHE:CZ	15:O:292:LEU:HD11	2.05	0.91
15:O:768:TYR:CE2	16:P:145:ASN:CG	2.34	0.91
1:A:591:ARG:NH2	1:A:631:ASP:CG	2.24	0.91
15:O:358:SER:HB2	17:Q:194:GLY:CA	1.95	0.91
15:O:641:TRP:HD1	15:O:653:SER:HB3	1.29	0.91
15:O:725:VAL:HG13	15:O:726:SER:H	1.35	0.91
1:A:530:TRP:CE3	1:A:531:PRO:HD3	2.05	0.91
1:A:669:LEU:N	1:A:787:GLY:HA2	1.85	0.91
15:O:323:ASN:OD1	17:Q:155:GLN:HG3	1.69	0.91
15:O:722:TRP:CH2	16:P:262:LEU:CD1	2.53	0.91
16:P:247:ILE:HD11	16:P:286:LEU:HD12	0.93	0.91
17:Q:24:ILE:O	17:Q:28:SER:CB	2.19	0.91
16:P:284:LEU:CD1	16:P:305:ARG:HH11	1.84	0.91
13:M:80:LEU:O	13:M:88:ILE:HA	1.69	0.91
15:O:217:ALA:HB3	15:O:229:ARG:NH1	1.85	0.91
16:P:154:LEU:C	16:P:156:LEU:HD12	1.92	0.91
16:P:356:VAL:CG1	16:P:358:PRO:HG3	2.01	0.91
2:B:819:ASP:H	2:B:820:PRO:HD3	1.36	0.91
15:O:206:ALA:HA	15:O:214:LEU:HD23	1.53	0.91
15:O:348:HIS:HD2	15:O:349:GLY:H	1.13	0.91
16:P:246:GLU:O	16:P:285:THR:CA	2.18	0.91
17:Q:279:SER:C	17:Q:301:SER:HB2	1.91	0.91
15:O:760:ILE:HG12	16:P:138:LEU:HB3	1.53	0.90
15:O:273:ARG:HG3	15:O:274:ILE:N	1.84	0.90
15:O:659:LEU:HB2	15:O:742:TRP:CZ2	2.06	0.90
16:P:100:ALA:HB1	16:P:211:TYR:HE2	1.34	0.90
16:P:101:LYS:NZ	16:P:152:LEU:CA	2.34	0.90
16:P:385:PHE:CE2	17:Q:212:HIS:HD2	1.83	0.90
16:P:494:SER:C	16:P:496:GLU:H	1.66	0.90
17:Q:21:TYR:CE2	17:Q:124:GLU:CG	2.54	0.90
17:Q:381:ARG:C	17:Q:384:VAL:CG2	2.32	0.90
15:O:740:ILE:O	15:O:744:LEU:HD13	1.69	0.90
16:P:104:PHE:CZ	16:P:155:GLN:CD	2.45	0.90
1:A:464:GLU:CG	1:A:469:LYS:HD3	2.00	0.90
15:O:221:ARG:CG	15:O:227:LEU:CD2	2.49	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:344:ILE:HD12	15:O:346:ASN:H	1.37	0.90
16:P:207:LEU:C	16:P:209:ASN:H	1.75	0.90
1:A:406:LEU:HD23	1:A:416:ARG:NE	1.87	0.90
1:A:461:GLU:CD	1:A:1618:THR:HB	1.90	0.90
16:P:211:TYR:CE1	16:P:212:VAL:HG23	2.05	0.90
13:M:45:LYS:HE3	13:M:48:LYS:CB	2.02	0.90
15:O:472:ARG:HH22	17:Q:200:THR:H	1.14	0.90
15:O:592:LEU:HD11	16:P:512:ARG:CZ	2.00	0.90
15:O:623:LEU:HD12	15:O:668:SER:CB	2.01	0.90
16:P:113:LYS:O	16:P:116:ILE:HG13	1.71	0.90
16:P:419:LEU:CD1	17:Q:237:ALA:HB1	1.99	0.90
17:Q:280:SER:HG	17:Q:300:GLY:C	1.75	0.90
1:A:15:ASP:HB2	2:B:1190:SER:HB2	1.53	0.90
1:A:721:LYS:NZ	8:H:93:TYR:O	2.05	0.90
15:O:700:LEU:HD11	15:O:711:LEU:HA	1.51	0.90
16:P:247:ILE:CG2	16:P:302:ALA:CB	2.26	0.90
16:P:369:TRP:CZ3	17:Q:219:LEU:HD11	2.07	0.90
17:Q:200:THR:OG1	17:Q:203:SER:OG	1.90	0.90
2:B:341:SER:HB3	2:B:342:PRO:HD2	0.91	0.90
2:B:479:GLN:HG3	19:S:39:DT:O2	1.70	0.90
2:B:1139:LYS:O	2:B:1142:LEU:N	2.03	0.90
15:O:378:SER:HB3	15:O:397:LYS:HG2	1.54	0.90
16:P:184:TRP:CZ2	16:P:192:TYR:CD2	2.59	0.90
16:P:341:ARG:NH1	16:P:341:ARG:HG2	1.81	0.90
16:P:357:TYR:HE2	17:Q:203:SER:C	1.75	0.90
15:O:722:TRP:HH2	16:P:262:LEU:CD1	1.84	0.90
16:P:100:ALA:HB1	16:P:211:TYR:CE2	2.07	0.90
16:P:148:PRO:O	16:P:151:GLU:N	2.05	0.90
16:P:200:PRO:CB	16:P:203:TRP:CB	2.48	0.90
16:P:417:PHE:CE2	17:Q:236:PHE:CE2	2.57	0.90
17:Q:247:ILE:HG21	17:Q:278:TYR:CD2	2.07	0.90
1:A:920:PHE:HE1	1:A:927:ALA:HA	1.37	0.90
15:O:181:ARG:O	15:O:182:LEU:HG	1.73	0.90
15:O:324:TRP:CD1	15:O:348:HIS:CG	2.59	0.90
15:O:702:LEU:CD2	16:P:125:PHE:CE2	2.55	0.90
1:A:668:GLY:N	1:A:787:GLY:O	2.05	0.89
15:O:10:UNK:O	17:Q:141:TRP:HB2	1.71	0.89
16:P:239:PHE:CE1	16:P:246:GLU:CG	2.51	0.89
1:A:116:HIS:CE1	1:A:185:ARG:HB2	2.03	0.89
15:O:694:ILE:HG13	15:O:695:GLY:N	1.88	0.89
16:P:146:ASP:C	16:P:148:PRO:HD2	1.93	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:378:LEU:HD13	17:Q:234:LYS:HB2	1.51	0.89
1:A:62:CYS:HB3	1:A:65:CYS:SG	2.12	0.89
15:O:203:ILE:O	15:O:216:ILE:HA	1.73	0.89
15:O:589:ILE:HG23	16:P:316:TRP:HE3	1.35	0.89
16:P:104:PHE:CD1	16:P:212:VAL:N	2.40	0.89
17:Q:396:ASP:O	17:Q:397:ARG:HG3	1.72	0.89
15:O:10:UNK:CB	17:Q:142:ARG:N	2.36	0.89
16:P:157:HIS:NE2	16:P:158:MET:CG	2.33	0.89
16:P:200:PRO:HB2	16:P:203:TRP:HB2	1.51	0.89
17:Q:158:THR:O	17:Q:159:TYR:C	2.11	0.89
15:O:574:TRP:CH2	16:P:484:ALA:HB1	2.07	0.89
15:O:590:GLY:HA2	16:P:320:PHE:CE2	2.08	0.89
15:O:715:TYR:HE1	15:O:734:LYS:CD	1.85	0.89
16:P:101:LYS:HG3	16:P:210:TYR:OH	1.71	0.89
16:P:136:ILE:HD12	16:P:168:ALA:HB2	1.54	0.89
16:P:154:LEU:HD13	16:P:154:LEU:H	1.37	0.89
17:Q:25:ASN:C	17:Q:29:ARG:HD3	1.93	0.89
1:A:912:VAL:CG1	1:A:913:PRO:HD3	2.03	0.89
15:O:222:GLN:C	15:O:223:ASN:OD1	2.10	0.89
16:P:104:PHE:HZ	16:P:215:LEU:HD21	1.14	0.89
16:P:498:LEU:O	16:P:502:ILE:HG12	1.73	0.89
1:A:406:LEU:HD12	1:A:407:GLN:H	1.32	0.89
9:I:27:ASN:HA	9:I:37:TYR:H	0.91	0.89
16:P:258:MET:HA	16:P:262:LEU:HB2	1.55	0.89
17:Q:21:TYR:HE2	17:Q:124:GLU:CD	1.76	0.89
17:Q:133:LYS:HB3	17:Q:134:PRO:HD2	1.55	0.89
17:Q:355:THR:O	17:Q:359:MET:CG	2.05	0.89
15:O:301:GLN:O	15:O:320:ILE:CG1	2.20	0.89
15:O:693:PHE:HB3	15:O:746:ARG:O	1.72	0.89
1:A:784:SER:C	1:A:789:SER:CB	2.40	0.88
3:C:151:THR:CG2	3:C:155:GLU:HB3	2.03	0.88
15:O:260:LEU:CD2	15:O:273:ARG:HA	1.89	0.88
15:O:672:ILE:HD12	15:O:734:LYS:HZ1	1.00	0.88
15:O:746:ARG:HH21	16:P:173:SER:CB	1.87	0.88
16:P:419:LEU:HG	17:Q:237:ALA:HB2	1.56	0.88
16:P:492:ALA:O	16:P:493:ILE:HD12	1.71	0.88
17:Q:352:TRP:HE3	17:Q:357:PRO:HG2	1.04	0.88
15:O:202:ILE:H	15:O:202:ILE:HD12	1.34	0.88
15:O:604:ILE:HA	15:O:732:LEU:CD2	2.04	0.88
15:O:736:ILE:CD1	15:O:739:ASP:OD2	2.20	0.88
16:P:246:GLU:O	16:P:286:LEU:N	2.07	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:363:SER:O	16:P:366:TYR:CB	2.21	0.88
2:B:155:VAL:HG21	17:Q:354:LEU:CD2	2.02	0.88
5:E:3:GLN:O	5:E:7:ARG:CB	2.22	0.88
15:O:442:LEU:CD1	15:O:444:PRO:HD2	2.04	0.88
16:P:115:GLN:HG3	16:P:190:MET:SD	2.14	0.88
16:P:340:GLN:HE22	16:P:370:SER:HB3	1.36	0.88
17:Q:245:VAL:HG12	17:Q:250:LEU:HD12	1.53	0.88
15:O:573:GLU:HG2	15:O:574:TRP:N	1.89	0.88
16:P:101:LYS:NZ	16:P:152:LEU:HA	1.88	0.88
16:P:119:LEU:HD11	16:P:165:LEU:HD12	0.90	0.88
16:P:343:THR:O	16:P:345:SER:N	2.07	0.88
16:P:485:SER:O	16:P:489:VAL:HG23	1.74	0.88
17:Q:201:SER:O	17:Q:204:GLU:OE1	1.92	0.88
1:A:1655:ASP:OD2	7:G:106:LYS:NZ	2.07	0.88
9:I:27:ASN:N	9:I:39:LYS:CB	2.30	0.88
15:O:194:ARG:HA	15:O:197:ARG:HH21	1.33	0.88
15:O:307:PHE:HD1	15:O:315:PHE:HE2	0.98	0.88
15:O:347:LEU:CB	17:Q:152:ILE:C	2.40	0.88
17:Q:158:THR:HG22	17:Q:161:ASN:HB2	1.55	0.88
17:Q:302:ARG:NH2	17:Q:303:THR:HG23	1.87	0.88
1:A:530:TRP:O	1:A:532:GLY:N	2.06	0.88
15:O:400:SER:HA	15:O:419:ARG:HD3	1.54	0.88
15:O:573:GLU:HG3	16:P:495:LYS:HE2	1.55	0.88
16:P:101:LYS:HZ2	16:P:152:LEU:CB	1.85	0.88
16:P:157:HIS:CD2	16:P:158:MET:HG2	2.08	0.88
17:Q:216:LEU:HB3	17:Q:239:LEU:HD13	1.56	0.88
17:Q:348:LYS:O	17:Q:352:TRP:CD1	2.27	0.88
7:G:74:ASN:HB3	7:G:77:VAL:HG22	1.54	0.88
16:P:330:TRP:CH2	16:P:334:LEU:CD1	2.57	0.88
17:Q:348:LYS:O	17:Q:352:TRP:NE1	2.06	0.88
15:O:508:ILE:HG12	15:O:539:VAL:HG12	1.53	0.88
15:O:702:LEU:CG	16:P:125:PHE:CE2	2.52	0.88
16:P:421:ARG:C	16:P:422:GLU:OE1	2.12	0.88
1:A:406:LEU:HB3	1:A:416:ARG:CZ	2.04	0.88
15:O:314:GLN:HG2	15:O:328:ARG:HA	0.89	0.88
15:O:415:LEU:HD21	15:O:451:ILE:HD13	1.56	0.88
16:P:155:GLN:HG2	20:T:44:DC:C4'	2.01	0.88
16:P:187:THR:HG1	16:P:189:LYS:HG3	1.29	0.88
16:P:315:ASN:OD1	16:P:319:SER:HB2	1.74	0.88
16:P:367:PHE:CZ	17:Q:1:MET:SD	2.68	0.88
15:O:187:ILE:C	15:O:199:GLY:HA3	1.94	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:326:ILE:O	15:O:342:GLN:HG3	1.73	0.87
15:O:352:PHE:C	15:O:354:PRO:CD	2.42	0.87
16:P:184:TRP:HD1	16:P:190:MET:H	1.18	0.87
16:P:209:ASN:CG	16:P:210:TYR:N	2.16	0.87
16:P:287:TRP:HH2	16:P:298:VAL:HG21	1.34	0.87
13:M:45:LYS:H	13:M:45:LYS:HD3	1.37	0.87
15:O:696:PHE:HB3	15:O:711:LEU:CD1	1.99	0.87
16:P:199:LEU:N	16:P:200:PRO:CD	2.02	0.87
16:P:247:ILE:HG13	16:P:286:LEU:HB2	1.54	0.87
16:P:431:ASP:O	16:P:434:HIS:O	1.91	0.87
1:A:406:LEU:CD1	1:A:407:GLN:N	2.36	0.87
1:A:789:SER:O	1:A:792:GLY:N	2.08	0.87
7:G:237:HIS:O	7:G:244:SER:CB	2.23	0.87
9:I:27:ASN:CB	9:I:36:ILE:CB	2.52	0.87
15:O:347:LEU:HB2	17:Q:152:ILE:CA	2.04	0.87
15:O:641:TRP:CZ3	15:O:644:THR:O	2.26	0.87
16:P:362:THR:CA	16:P:365:ASP:OD1	2.21	0.87
16:P:184:TRP:CD1	16:P:190:MET:CG	2.57	0.87
17:Q:248:LYS:HA	17:Q:248:LYS:CE	2.03	0.87
15:O:214:LEU:O	15:O:236:ILE:HG12	1.75	0.87
15:O:422:ILE:HB	15:O:440:HIS:ND1	1.89	0.87
16:P:274:ILE:O	16:P:278:GLU:HB3	1.74	0.87
1:A:102:CYS:HB3	1:A:105:CYS:SG	2.14	0.87
1:A:116:HIS:HE1	1:A:185:ARG:CG	1.87	0.87
9:I:27:ASN:CB	9:I:37:TYR:N	2.33	0.87
15:O:686:TYR:HB3	15:O:692:THR:CG2	2.04	0.87
17:Q:285:VAL:CG2	17:Q:302:ARG:NE	2.30	0.87
15:O:262:GLY:O	15:O:263:ILE:HG13	1.74	0.87
15:O:438:TRP:HE1	15:O:489:PHE:HB3	1.39	0.87
15:O:568:ILE:CG2	15:O:570:ASP:CB	2.52	0.87
13:M:45:LYS:NZ	13:M:49:ASP:C	2.28	0.87
15:O:14:UNK:CB	15:O:439:LYS:N	2.37	0.87
15:O:324:TRP:HE1	15:O:348:HIS:HA	1.39	0.87
15:O:779:ASP:C	16:P:199:LEU:HD21	1.95	0.87
2:B:513:LYS:NZ	19:S:43:DC:OP1	2.08	0.87
9:I:27:ASN:CB	9:I:36:ILE:HB	2.05	0.87
13:M:16:GLN:HB3	13:M:90:LEU:O	1.74	0.87
16:P:223:ASN:CG	16:P:224:GLY:N	2.00	0.87
16:P:287:TRP:HZ3	16:P:290:THR:HG22	0.71	0.87
17:Q:182:LYS:N	19:S:10:DG:OP1	2.07	0.87
15:O:18:UNK:O	17:Q:256:GLU:CB	2.22	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:352:PHE:CA	15:O:354:PRO:HD2	2.05	0.86
16:P:123:MET:HB3	16:P:125:PHE:HE2	1.05	0.86
16:P:257:VAL:HG12	16:P:262:LEU:HA	1.57	0.86
17:Q:25:ASN:HA	17:Q:28:SER:OG	1.75	0.86
17:Q:388:LYS:NZ	17:Q:392:LEU:O	2.07	0.86
8:H:115:TYR:HE1	8:H:124:ARG:HG3	1.40	0.86
15:O:273:ARG:NH1	15:O:274:ILE:CG2	2.38	0.86
15:O:326:ILE:HB	15:O:344:ILE:HG21	1.57	0.86
15:O:693:PHE:HB3	15:O:747:LEU:HD22	1.56	0.86
16:P:421:ARG:O	16:P:422:GLU:C	2.13	0.86
1:A:785:GLN:N	1:A:789:SER:HB3	1.91	0.86
2:B:1121:GLY:O	7:G:239:THR:HB	1.73	0.86
7:G:14:ALA:O	7:G:18:LYS:HB2	1.74	0.86
15:O:309:PRO:HD2	15:O:365:TRP:CD1	2.10	0.86
15:O:369:PHE:HZ	15:O:431:ASP:HA	1.38	0.86
15:O:421:ILE:CG2	15:O:439:LYS:HG2	2.03	0.86
15:O:500:ILE:HG23	15:O:501:PRO:HD2	1.57	0.86
16:P:116:ILE:O	16:P:119:LEU:HB2	1.75	0.86
16:P:118:TRP:CZ3	16:P:122:GLU:HG3	2.10	0.86
1:A:721:LYS:CG	8:H:94:ASP:O	2.22	0.86
1:A:781:LEU:HB2	1:A:786:TYR:CE1	2.06	0.86
15:O:438:TRP:HH2	15:O:491:SER:HB2	1.41	0.86
15:O:600:GLU:OE1	16:P:269:TYR:CE1	2.28	0.86
16:P:287:TRP:HZ2	16:P:298:VAL:HG11	0.75	0.86
17:Q:247:ILE:HG12	17:Q:248:LYS:N	1.90	0.86
1:A:116:HIS:HE1	1:A:185:ARG:HB3	1.35	0.86
1:A:1098:SER:O	1:A:1102:LEU:CB	2.24	0.86
9:I:27:ASN:HB3	9:I:36:ILE:CB	2.06	0.86
16:P:341:ARG:HH12	16:P:445:ARG:NH2	1.49	0.86
16:P:417:PHE:HE2	17:Q:236:PHE:HE2	1.20	0.86
1:A:530:TRP:HE3	1:A:531:PRO:HD3	1.41	0.86
15:O:17:UNK:C	15:O:19:UNK:H	1.89	0.86
16:P:422:GLU:OE1	16:P:422:GLU:N	2.08	0.86
17:Q:354:LEU:HA	17:Q:359:MET:H	1.40	0.86
1:A:912:VAL:O	1:A:914:ASP:N	2.08	0.86
15:O:369:PHE:CZ	15:O:431:ASP:CA	2.59	0.86
16:P:143:THR:CB	16:P:236:MET:HE1	2.05	0.86
16:P:153:LYS:O	16:P:153:LYS:NZ	2.07	0.86
16:P:399:SER:O	16:P:407:LYS:CE	2.23	0.86
16:P:494:SER:HB2	16:P:497:GLN:HB3	1.55	0.86
13:M:170:LYS:O	13:M:172:LEU:N	2.08	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:101:LYS:HZ2	16:P:152:LEU:CD1	1.63	0.86
1:A:67:LEU:HB2	1:A:72:CYS:HB2	1.58	0.86
1:A:464:GLU:HG3	1:A:469:LYS:CD	2.06	0.86
1:A:1476:LEU:HB3	1:A:1480:THR:HG21	1.57	0.86
13:M:150:ASP:OD1	13:M:150:ASP:O	1.94	0.86
15:O:736:ILE:HG22	16:P:267:TYR:HE1	1.41	0.86
16:P:157:HIS:NE2	16:P:158:MET:CE	2.37	0.86
16:P:289:ARG:HG3	16:P:291:ASP:OD1	1.75	0.86
16:P:369:TRP:CE3	17:Q:219:LEU:HD11	2.11	0.86
15:O:273:ARG:CG	15:O:274:ILE:H	1.86	0.86
15:O:475:ARG:HD2	16:P:367:PHE:CE2	2.11	0.86
16:P:155:GLN:CA	20:T:45:DC:OP1	2.23	0.86
17:Q:248:LYS:N	17:Q:298:GLN:NE2	2.19	0.86
17:Q:281:LYS:C	17:Q:301:SER:O	2.13	0.86
17:Q:393:ILE:O	17:Q:395:LEU:CG	2.22	0.86
2:B:76:GLY:O	2:B:91:LEU:HD21	1.76	0.85
13:M:211:LYS:HG2	13:M:293:ILE:HD11	1.55	0.85
15:O:314:GLN:HE21	15:O:328:ARG:HB3	0.70	0.85
15:O:546:GLU:OE1	15:O:548:TYR:OH	1.93	0.85
15:O:725:VAL:HB	16:P:450:THR:OG1	1.74	0.85
16:P:137:TRP:HH2	16:P:156:LEU:CD2	1.88	0.85
16:P:183:LYS:HG3	16:P:189:LYS:HZ1	1.40	0.85
16:P:200:PRO:HB3	16:P:203:TRP:CG	2.10	0.85
16:P:494:SER:CB	16:P:497:GLN:OE1	2.24	0.85
17:Q:280:SER:O	17:Q:301:SER:O	1.85	0.85
17:Q:349:ILE:CD1	17:Q:368:TYR:CE1	2.59	0.85
19:S:23:DG:N1	20:T:32:DC:N3	2.24	0.85
1:A:372:LYS:HA	1:A:376:GLU:O	1.76	0.85
3:C:242:GLU:OE2	3:C:245:ARG:NH2	2.10	0.85
9:I:3:VAL:HG11	9:I:43:SER:OG	1.76	0.85
15:O:188:GLN:CA	15:O:199:GLY:HA3	2.05	0.85
15:O:702:LEU:HD13	16:P:174:LEU:CB	2.06	0.85
16:P:106:LYS:O	16:P:109:GLN:HB2	1.77	0.85
15:O:568:ILE:HG21	15:O:570:ASP:HB2	1.56	0.85
15:O:669:PHE:C	15:O:671:SER:N	2.28	0.85
16:P:103:LEU:HD22	16:P:203:TRP:CZ3	2.10	0.85
7:G:96:SER:O	7:G:98:GLU:C	2.15	0.85
15:O:358:SER:HG	17:Q:194:GLY:C	1.72	0.85
15:O:366:PHE:CE2	15:O:432:PRO:HA	2.11	0.85
15:O:394:VAL:O	15:O:395:GLN:HB2	1.74	0.85
15:O:736:ILE:HG22	16:P:267:TYR:CE1	2.12	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:155:GLN:HE22	16:P:215:LEU:HD21	1.41	0.85
16:P:158:MET:HB2	16:P:192:TYR:OH	1.76	0.85
13:M:166:ARG:O	13:M:169:SER:OG	1.94	0.85
13:M:174:THR:O	13:M:175:ARG:HG2	1.77	0.85
13:M:399:VAL:HB	13:M:400:PRO:CD	2.07	0.85
15:O:422:ILE:HG21	15:O:440:HIS:HE1	1.35	0.85
15:O:433:VAL:HB	17:Q:144:VAL:HB	1.59	0.85
15:O:686:TYR:CG	15:O:692:THR:CG2	2.56	0.85
16:P:169:SER:O	16:P:173:SER:N	2.09	0.85
16:P:330:TRP:CZ2	16:P:334:LEU:HD11	2.11	0.85
2:B:479:GLN:HB3	19:S:39:DT:H3	1.40	0.85
13:M:45:LYS:CE	13:M:48:LYS:HB3	2.06	0.85
15:O:363:ILE:HG22	15:O:374:VAL:HG13	1.58	0.85
15:O:399:TRP:NE1	17:Q:134:PRO:CG	2.36	0.85
16:P:419:LEU:HD12	17:Q:237:ALA:CB	1.99	0.85
17:Q:27:ILE:HD11	17:Q:169:PRO:CG	2.06	0.85
1:A:233:CYS:HB3	1:A:238:MET:N	1.92	0.85
3:C:45:SER:HB2	3:C:53:ASN:O	1.77	0.85
14:N:25:ILE:CB	14:N:26:PRO:HD3	2.06	0.85
15:O:312:LEU:HD23	15:O:315:PHE:HE1	1.41	0.85
1:A:406:LEU:CD1	1:A:407:GLN:H	1.90	0.85
1:A:912:VAL:CB	1:A:913:PRO:CD	2.23	0.85
2:B:75:ASP:CB	2:B:77:LYS:HD2	2.06	0.85
2:B:77:LYS:CB	2:B:93:ASN:HB2	2.07	0.85
15:O:383:ILE:HG23	15:O:390:GLN:HE21	1.40	0.85
15:O:389:TRP:O	15:O:390:GLN:CD	2.14	0.85
15:O:654:LEU:HG	15:O:748:GLU:HG3	1.56	0.85
16:P:111:ILE:HG12	16:P:216:GLU:OE2	1.77	0.85
2:B:555:GLN:HE21	2:B:558:VAL:HG11	1.40	0.85
15:O:301:GLN:HB3	15:O:321:LYS:HZ3	1.42	0.85
15:O:705:HIS:O	15:O:706:GLU:HB2	1.75	0.85
16:P:208:PRO:CB	16:P:213:SER:CA	2.54	0.85
16:P:287:TRP:CZ2	16:P:298:VAL:CB	2.60	0.85
19:S:39:DT:H6	19:S:39:DT:H5''	1.39	0.85
2:B:1131:CYS:O	2:B:1163:GLN:N	2.09	0.85
16:P:165:LEU:HD13	16:P:190:MET:HE1	1.57	0.85
16:P:183:LYS:CD	16:P:189:LYS:NZ	2.32	0.85
16:P:336:GLU:O	16:P:339:THR:HG23	1.75	0.85
17:Q:294:VAL:HG22	17:Q:295:PRO:CD	2.02	0.85
3:C:120:LEU:HD13	3:C:124:GLU:HB2	1.59	0.84
15:O:205:TYR:OH	15:O:229:ARG:NH1	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:352:PHE:HB3	15:O:354:PRO:CG	2.07	0.84
15:O:698:LYS:CB	16:P:125:PHE:CE1	2.58	0.84
16:P:101:LYS:HZ2	16:P:152:LEU:CG	1.90	0.84
1:A:668:GLY:HA3	1:A:787:GLY:HA2	1.14	0.84
12:L:31:CYS:HB3	12:L:34:CYS:SG	2.16	0.84
15:O:431:ASP:CG	15:O:432:PRO:CD	2.45	0.84
16:P:362:THR:HA	16:P:365:ASP:CG	1.97	0.84
15:O:382:GLU:OE1	17:Q:144:VAL:CG1	2.25	0.84
17:Q:211:ARG:NH1	17:Q:212:HIS:CE1	2.45	0.84
17:Q:283:ARG:HA	17:Q:302:ARG:HB2	0.84	0.84
15:O:715:TYR:HE1	15:O:734:LYS:CG	1.90	0.84
16:P:147:GLN:NE2	16:P:147:GLN:H	1.75	0.84
16:P:222:PHE:HE2	17:Q:206:ARG:CD	1.91	0.84
16:P:274:ILE:HA	16:P:278:GLU:HB2	1.60	0.84
16:P:289:ARG:O	16:P:291:ASP:N	2.10	0.84
16:P:341:ARG:CB	16:P:445:ARG:HH22	1.89	0.84
17:Q:380:SER:O	17:Q:384:VAL:HG22	1.75	0.84
1:A:921:PRO:HG3	8:H:19:ARG:HG2	0.84	0.84
15:O:309:PRO:CD	15:O:365:TRP:CG	2.59	0.84
15:O:604:ILE:HG12	15:O:732:LEU:HD23	1.57	0.84
17:Q:354:LEU:HD12	17:Q:358:PHE:C	1.97	0.84
7:G:218:VAL:HA	7:G:224:PRO:HA	1.56	0.84
15:O:383:ILE:O	15:O:383:ILE:HG22	1.75	0.84
15:O:655:SER:OG	16:P:244:ASN:CB	2.25	0.84
15:O:656:HIS:HB3	15:O:747:LEU:C	1.92	0.84
15:O:686:TYR:HD1	15:O:689:GLN:HG3	1.39	0.84
16:P:344:THR:CB	16:P:436:LEU:O	2.25	0.84
16:P:356:VAL:HA	17:Q:211:ARG:HE	1.40	0.84
17:Q:283:ARG:CB	17:Q:302:ARG:HB2	2.06	0.84
2:B:75:ASP:C	2:B:77:LYS:N	2.23	0.84
13:M:304:VAL:HG23	13:M:324:ASN:HD21	1.43	0.84
15:O:176:PRO:HD2	17:Q:196:GLU:C	1.97	0.84
16:P:247:ILE:CD1	16:P:286:LEU:CD1	2.50	0.84
17:Q:154:LYS:C	17:Q:156:LYS:N	2.30	0.84
7:G:56:ASN:O	7:G:60:GLY:N	2.11	0.84
16:P:372:GLU:O	16:P:373:GLU:C	2.16	0.84
15:O:293:TYR:HD1	15:O:295:VAL:HG23	1.43	0.84
15:O:393:VAL:HG11	17:Q:144:VAL:HG22	0.86	0.84
15:O:405:TYR:CE2	15:O:414:ILE:HG23	2.11	0.84
16:P:198:ILE:HG21	16:P:203:TRP:HB2	1.57	0.84
16:P:357:TYR:N	16:P:358:PRO:HD3	1.89	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:491:PHE:O	16:P:493:ILE:N	2.10	0.84
17:Q:211:ARG:HH12	17:Q:212:HIS:CE1	1.94	0.84
15:O:321:LYS:O	15:O:348:HIS:CE1	2.30	0.84
16:P:185:ILE:HD12	17:Q:208:TYR:OH	1.78	0.84
2:B:1152:PHE:HB2	2:B:1163:GLN:HE21	1.43	0.83
5:E:127:ILE:HD13	5:E:132:ILE:HD11	1.58	0.83
9:I:17:LEU:HD13	9:I:28:VAL:HG11	1.58	0.83
15:O:307:PHE:HB3	15:O:315:PHE:CD1	2.00	0.83
15:O:309:PRO:HG2	15:O:365:TRP:CD1	2.13	0.83
16:P:494:SER:CB	16:P:497:GLN:CD	2.46	0.83
15:O:329:ILE:HD12	15:O:330:PRO:O	1.77	0.83
15:O:722:TRP:HH2	16:P:262:LEU:HG	1.02	0.83
16:P:184:TRP:HZ2	16:P:192:TYR:HD2	1.24	0.83
17:Q:27:ILE:CD1	17:Q:169:PRO:HB2	2.05	0.83
17:Q:349:ILE:HD13	17:Q:368:TYR:CE1	2.13	0.83
15:O:423:ILE:HD13	17:Q:141:TRP:CZ2	2.14	0.83
15:O:599:LYS:HB3	16:P:272:GLN:NE2	1.92	0.83
16:P:104:PHE:HD1	16:P:212:VAL:H	1.25	0.83
16:P:487:LEU:HD11	16:P:498:LEU:HD11	1.60	0.83
1:A:417:ARG:HA	1:A:417:ARG:NE	1.90	0.83
7:G:245:VAL:HG23	7:G:246:ASP:H	1.41	0.83
13:M:299:LEU:HB3	13:M:305:ILE:HD11	1.58	0.83
15:O:302:VAL:HA	15:O:320:ILE:CG1	2.08	0.83
15:O:422:ILE:C	15:O:439:LYS:HB2	1.99	0.83
15:O:423:ILE:HG21	17:Q:141:TRP:HH2	0.70	0.83
15:O:433:VAL:HG11	17:Q:144:VAL:HG12	1.58	0.83
15:O:627:GLY:HA2	15:O:630:LEU:HD21	1.60	0.83
16:P:386:LEU:H	16:P:387:PRO:HD2	1.42	0.83
17:Q:285:VAL:CG2	17:Q:302:ARG:NH2	2.35	0.83
17:Q:298:GLN:C	17:Q:299:THR:HG22	1.98	0.83
1:A:920:PHE:C	1:A:922:CYS:H	1.80	0.83
15:O:298:ASP:OD1	17:Q:158:THR:CA	2.25	0.83
15:O:611:ILE:CG2	15:O:731:LEU:HD23	2.09	0.83
16:P:118:TRP:CE3	16:P:189:LYS:HB3	2.12	0.83
16:P:351:ASN:O	16:P:355:VAL:HG22	1.79	0.83
1:A:1147:PHE:O	1:A:1151:ASN:ND2	2.12	0.83
2:B:77:LYS:HG3	2:B:93:ASN:CB	2.07	0.83
9:I:3:VAL:HG21	9:I:43:SER:HB2	1.57	0.83
16:P:343:THR:OG1	16:P:348:ILE:N	2.11	0.83
17:Q:248:LYS:CD	17:Q:298:GLN:HE22	1.88	0.83
9:I:30:CYS:HB2	9:I:33:CYS:SG	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:45:LYS:HZ3	13:M:50:GLU:HG3	1.41	0.83
13:M:56:GLU:OE2	14:N:23:PHE:HE2	1.62	0.83
16:P:176:VAL:CG1	16:P:179:CYS:HB3	2.09	0.83
17:Q:158:THR:HG23	17:Q:161:ASN:N	1.93	0.83
9:I:27:ASN:HB2	9:I:36:ILE:C	1.98	0.83
15:O:389:TRP:CH2	17:Q:147:GLN:O	2.31	0.83
16:P:362:THR:O	16:P:365:ASP:CG	2.17	0.83
17:Q:360:GLU:O	17:Q:361:ASP:HB3	1.76	0.83
15:O:23:UNK:O	17:Q:314:TRP:CE3	2.31	0.83
15:O:174:TRP:O	17:Q:198:LEU:HG	1.79	0.83
15:O:214:LEU:H	15:O:236:ILE:HB	1.42	0.83
15:O:619:GLU:HA	15:O:622:TYR:HD2	1.42	0.83
16:P:205:ILE:C	16:P:207:LEU:N	2.29	0.83
2:B:814:ASN:C	2:B:816:ASN:N	2.31	0.82
9:I:27:ASN:HB2	9:I:36:ILE:HA	0.84	0.82
13:M:44:LYS:HE2	14:N:30:LYS:HD2	1.59	0.82
15:O:312:LEU:O	15:O:312:LEU:HD13	1.79	0.82
15:O:432:PRO:O	15:O:433:VAL:HG22	1.79	0.82
15:O:456:VAL:HB	15:O:463:LEU:CD1	2.09	0.82
15:O:569:VAL:CG2	16:P:478:ARG:CA	2.56	0.82
16:P:357:TYR:OH	17:Q:203:SER:HB3	1.77	0.82
17:Q:24:ILE:C	17:Q:28:SER:HG	1.81	0.82
17:Q:283:ARG:HA	17:Q:302:ARG:CA	2.08	0.82
17:Q:362:ALA:O	17:Q:365:TRP:N	2.12	0.82
1:A:233:CYS:HB3	1:A:238:MET:H	1.44	0.82
15:O:17:UNK:O	15:O:19:UNK:N	2.12	0.82
15:O:421:ILE:HD11	17:Q:138:PHE:HE2	1.34	0.82
15:O:702:LEU:HD21	16:P:123:MET:SD	2.17	0.82
16:P:155:GLN:CG	20:T:44:DC:O3'	2.27	0.82
16:P:166:TYR:HD2	16:P:167:LEU:HD12	1.42	0.82
19:S:23:DG:O6	20:T:31:DC:N4	2.11	0.82
15:O:214:LEU:HG	15:O:242:ILE:HD13	1.60	0.82
15:O:260:LEU:HD22	15:O:273:ARG:O	1.76	0.82
16:P:357:TYR:CZ	17:Q:203:SER:CA	2.54	0.82
16:P:172:LEU:HD23	16:P:172:LEU:O	1.78	0.82
16:P:274:ILE:HA	16:P:278:GLU:CB	2.10	0.82
17:Q:139:GLU:O	17:Q:141:TRP:N	2.12	0.82
17:Q:245:VAL:HG13	17:Q:250:LEU:CG	1.73	0.82
3:C:151:THR:CG2	3:C:155:GLU:CB	2.58	0.82
13:M:43:LYS:O	13:M:49:ASP:HA	1.79	0.82
1:A:468:ARG:O	2:B:1070:ARG:NH2	2.11	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:5:UNK:CB	15:O:24:UNK:CB	2.58	0.82
16:P:399:SER:OG	16:P:402:MET:CG	2.28	0.82
16:P:490:ASP:HB3	16:P:491:PHE:CE1	2.13	0.82
17:Q:246:GLN:O	17:Q:247:ILE:C	2.16	0.82
17:Q:266:SER:OG	17:Q:268:LEU:HB2	1.79	0.82
17:Q:388:LYS:CD	17:Q:393:ILE:HB	2.09	0.82
2:B:111:ASP:OD2	2:B:116:ALA:HB2	1.80	0.82
9:I:27:ASN:N	9:I:39:LYS:N	2.20	0.82
15:O:422:ILE:CG2	15:O:440:HIS:HE1	1.91	0.82
16:P:186:CYS:SG	16:P:349:GLY:HA2	2.19	0.82
17:Q:274:MET:HA	17:Q:277:ILE:CG2	2.10	0.82
17:Q:349:ILE:O	17:Q:358:PHE:CZ	2.33	0.82
15:O:269:PHE:HE1	15:O:339:ARG:HD2	1.44	0.82
16:P:315:ASN:O	16:P:319:SER:HB3	1.77	0.82
17:Q:246:GLN:O	17:Q:247:ILE:CD1	2.18	0.82
17:Q:294:VAL:H	17:Q:295:PRO:HD2	1.44	0.82
13:M:38:PHE:H	14:N:118:SER:HB3	1.44	0.82
15:O:345:ASP:O	15:O:346:ASN:OD1	1.96	0.82
15:O:353:ASP:CB	17:Q:31:PHE:HB3	2.10	0.82
15:O:736:ILE:CG2	16:P:267:TYR:HE1	1.92	0.82
15:O:772:ILE:HD12	16:P:138:LEU:CD2	2.09	0.82
17:Q:356:PRO:CD	17:Q:357:PRO:HD2	2.03	0.82
14:N:94:ASP:C	14:N:96:GLU:H	1.82	0.82
15:O:580:ASN:HB3	16:P:506:LYS:NZ	1.94	0.82
15:O:659:LEU:HD22	15:O:659:LEU:N	1.95	0.82
15:O:384:ASP:OD2	15:O:387:ASN:HB2	1.79	0.81
16:P:193:PHE:O	16:P:217:GLY:CA	2.28	0.81
16:P:257:VAL:HG12	16:P:262:LEU:HD12	0.83	0.81
16:P:378:LEU:HD11	17:Q:234:LYS:CB	2.07	0.81
17:Q:295:PRO:C	17:Q:297:PHE:N	2.32	0.81
1:A:527:PRO:HB3	1:A:534:THR:HA	1.60	0.81
15:O:431:ASP:CG	15:O:432:PRO:HD3	1.99	0.81
15:O:603:ARG:HH22	16:P:268:PHE:HD1	1.27	0.81
2:B:1120:ILE:HB	13:M:309:GLN:HG2	1.62	0.81
4:D:47:LYS:NZ	7:G:84:TYR:OH	2.11	0.81
15:O:214:LEU:N	15:O:236:ILE:HB	1.96	0.81
15:O:382:GLU:O	15:O:383:ILE:HG13	1.79	0.81
15:O:446:ASP:OD2	15:O:448:THR:HG22	1.81	0.81
15:O:474:LYS:HA	15:O:505:PRO:HD3	1.62	0.81
15:O:694:ILE:CG1	15:O:695:GLY:H	1.92	0.81
15:O:756:ILE:O	15:O:760:ILE:HG22	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:100:ALA:O	16:P:211:TYR:CZ	2.33	0.81
16:P:226:LEU:HD23	16:P:226:LEU:O	1.80	0.81
16:P:362:THR:CA	16:P:365:ASP:OD2	2.28	0.81
16:P:494:SER:OG	16:P:497:GLN:N	2.13	0.81
1:A:83:VAL:HG21	1:A:427:PHE:HE2	1.40	0.81
1:A:912:VAL:HB	1:A:913:PRO:HD2	1.59	0.81
16:P:104:PHE:CD1	16:P:211:TYR:CG	2.68	0.81
16:P:148:PRO:O	16:P:150:GLU:N	2.14	0.81
16:P:469:PRO:HB2	16:P:470:PRO:HD2	1.61	0.81
17:Q:264:SER:O	17:Q:265:SER:CB	2.27	0.81
1:A:62:CYS:CB	1:A:65:CYS:SG	2.69	0.81
1:A:119:ALA:HB2	1:A:334:VAL:HG23	1.63	0.81
2:B:1137:ASP:O	2:B:1140:LYS:CG	2.26	0.81
15:O:702:LEU:HG	16:P:125:PHE:HZ	1.00	0.81
16:P:357:TYR:CE2	17:Q:203:SER:C	2.54	0.81
1:A:117:ARG:HB3	1:A:117:ARG:CZ	2.10	0.81
1:A:590:ASN:ND2	2:B:1075:GLU:OE2	2.13	0.81
15:O:293:TYR:CD1	15:O:295:VAL:HG23	2.16	0.81
15:O:313:GLN:C	15:O:314:GLN:OE1	2.18	0.81
15:O:772:ILE:CD1	16:P:138:LEU:CD2	2.58	0.81
16:P:119:LEU:CD1	16:P:165:LEU:HD11	2.07	0.81
16:P:158:MET:O	16:P:192:TYR:CE1	2.32	0.81
16:P:343:THR:CB	16:P:347:SER:N	2.41	0.81
15:O:326:ILE:HB	15:O:344:ILE:CG2	2.10	0.81
15:O:623:LEU:HD12	15:O:668:SER:C	1.98	0.81
15:O:715:TYR:HE1	15:O:734:LYS:HG3	1.44	0.81
16:P:193:PHE:HB3	17:Q:208:TYR:CE2	2.16	0.81
2:B:341:SER:C	2:B:343:ASP:H	1.81	0.81
3:C:242:GLU:O	3:C:246:ARG:HB2	1.80	0.81
15:O:390:GLN:CG	17:Q:151:PRO:HG2	2.11	0.81
15:O:660:LYS:N	15:O:663:LEU:HD21	1.79	0.81
16:P:257:VAL:HG12	16:P:262:LEU:CA	2.10	0.81
19:S:19:DG:N2	20:T:36:DC:N3	2.25	0.81
1:A:1315:ASN:OD1	1:A:1319:ASN:ND2	2.14	0.81
2:B:415:GLU:HG2	2:B:472:SER:HB2	1.63	0.81
3:C:230:LEU:HB2	3:C:297:HIS:HD2	1.43	0.81
15:O:398:ALA:HA	17:Q:128:TRP:HH2	1.40	0.81
15:O:596:ILE:CG2	16:P:317:MET:HE1	2.09	0.81
17:Q:354:LEU:CB	17:Q:358:PHE:C	2.48	0.81
1:A:116:HIS:ND1	1:A:185:ARG:HD3	1.97	0.80
13:M:170:LYS:HA	13:M:170:LYS:CE	2.10	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:94:LYS:N	16:P:206:GLN:C	2.35	0.80
16:P:101:LYS:HD3	16:P:152:LEU:HD12	1.54	0.80
15:O:316:ALA:CB	15:O:340:LYS:HD3	2.11	0.80
15:O:771:ILE:HG22	16:P:109:GLN:CD	1.92	0.80
16:P:357:TYR:CE2	17:Q:203:SER:CA	2.64	0.80
17:Q:27:ILE:HD13	17:Q:169:PRO:HB2	1.59	0.80
17:Q:212:HIS:O	17:Q:215:THR:N	2.14	0.80
15:O:23:UNK:O	17:Q:314:TRP:HZ3	1.59	0.80
15:O:273:ARG:HB3	15:O:287:SER:N	1.97	0.80
15:O:657:SER:OG	15:O:746:ARG:NH1	2.14	0.80
15:O:750:PRO:O	15:O:752:LEU:N	2.15	0.80
16:P:284:LEU:CD1	16:P:302:ALA:HB1	2.00	0.80
15:O:323:ASN:C	15:O:348:HIS:CB	2.50	0.80
15:O:324:TRP:NE1	15:O:348:HIS:HA	1.97	0.80
16:P:219:ILE:HG13	16:P:220:SER:H	1.46	0.80
15:O:310:TRP:HA	15:O:368:HIS:NE2	1.95	0.80
15:O:422:ILE:CD1	15:O:442:LEU:HD23	2.11	0.80
15:O:653:SER:OG	15:O:749:LYS:HG2	1.81	0.80
17:Q:266:SER:C	17:Q:268:LEU:H	1.84	0.80
2:B:819:ASP:OD2	13:M:358:SER:N	2.15	0.80
15:O:596:ILE:HG23	16:P:317:MET:CE	2.11	0.80
15:O:214:LEU:CA	15:O:236:ILE:HB	2.11	0.80
15:O:656:HIS:CB	15:O:748:GLU:N	2.45	0.80
16:P:263:PRO:HG2	16:P:266:PHE:HB2	1.62	0.80
16:P:367:PHE:HZ	17:Q:1:MET:SD	2.05	0.80
2:B:297:VAL:HG11	14:N:101:GLN:HE22	1.46	0.80
15:O:354:PRO:HB2	17:Q:131:TYR:OH	1.82	0.80
15:O:627:GLY:HA2	15:O:630:LEU:CD2	2.12	0.80
16:P:344:THR:O	16:P:345:SER:CB	2.30	0.80
1:A:592:GLN:HB3	1:A:593:PRO:HD3	0.80	0.80
1:A:998:HIS:HE1	2:B:711:GLN:HA	1.47	0.80
15:O:275:GLU:HB3	15:O:285:MET:HG3	1.63	0.80
15:O:463:LEU:HD12	15:O:463:LEU:O	1.82	0.80
17:Q:125:ARG:HH12	19:S:19:DG:C4'	1.85	0.80
1:A:58:LEU:N	1:A:69:GLU:OE2	2.15	0.80
1:A:507:TYR:OH	1:A:641:GLU:OE2	2.00	0.80
1:A:721:LYS:C	1:A:723:TYR:H	1.84	0.80
13:M:10:ILE:HG13	14:N:73:ASP:HB2	1.64	0.80
13:M:45:LYS:NZ	13:M:50:GLU:HG3	1.97	0.80
15:O:196:TYR:CD1	15:O:197:ARG:N	2.50	0.80
15:O:216:ILE:O	15:O:234:THR:OG1	2.00	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:638:LEU:HD23	15:O:748:GLU:OE2	1.82	0.80
7:G:236:VAL:HA	7:G:245:VAL:HA	1.64	0.79
9:I:27:ASN:HD22	9:I:36:ILE:HG22	1.45	0.79
13:M:151:SER:O	13:M:155:THR:OG1	1.99	0.79
15:O:421:ILE:CD1	17:Q:138:PHE:HE2	1.82	0.79
16:P:176:VAL:HG13	16:P:179:CYS:HB3	1.63	0.79
16:P:183:LYS:CG	16:P:189:LYS:NZ	2.44	0.79
17:Q:380:SER:O	17:Q:384:VAL:CB	2.30	0.79
2:B:237:ARG:NH1	2:B:401:GLU:OE2	2.13	0.79
2:B:819:ASP:N	2:B:820:PRO:CD	2.45	0.79
15:O:247:ILE:HG12	15:O:261:VAL:CG2	2.12	0.79
15:O:433:VAL:CG2	17:Q:144:VAL:HB	2.13	0.79
17:Q:8:LEU:O	17:Q:9:THR:C	2.20	0.79
17:Q:247:ILE:C	17:Q:250:LEU:HB2	2.01	0.79
17:Q:349:ILE:O	17:Q:358:PHE:HZ	1.64	0.79
19:S:10:DG:N1	20:T:45:DC:N3	2.26	0.79
1:A:1026:GLN:HE22	1:A:1603:MET:HB2	1.47	0.79
2:B:299:ASP:OD1	2:B:301:PHE:HB3	1.82	0.79
15:O:260:LEU:CD1	15:O:272:PHE:H	1.95	0.79
15:O:351:ILE:HG12	17:Q:162:PHE:CE1	2.17	0.79
15:O:380:MET:HB3	15:O:394:VAL:CG2	2.12	0.79
15:O:569:VAL:HG21	16:P:478:ARG:CA	2.13	0.79
15:O:599:LYS:HD3	16:P:272:GLN:HE21	1.45	0.79
16:P:105:LEU:CD2	16:P:109:GLN:NE2	2.45	0.79
16:P:143:THR:CG2	16:P:236:MET:HE2	1.79	0.79
1:A:460:LEU:C	1:A:465:GLY:HA2	2.03	0.79
15:O:672:ILE:HD12	15:O:734:LYS:HZ3	1.43	0.79
16:P:193:PHE:HB3	17:Q:208:TYR:HE2	1.46	0.79
16:P:259:GLN:NE2	16:P:259:GLN:O	2.13	0.79
17:Q:208:TYR:HA	17:Q:211:ARG:HD2	1.62	0.79
1:A:406:LEU:HD23	1:A:416:ARG:CD	2.11	0.79
1:A:709:ARG:NH1	1:A:740:THR:O	2.15	0.79
14:N:25:ILE:CG2	14:N:26:PRO:CD	2.55	0.79
15:O:183:ASP:HB3	15:O:247:ILE:HD12	1.64	0.79
15:O:399:TRP:HD1	17:Q:134:PRO:CG	1.93	0.79
16:P:487:LEU:HD12	16:P:488:LEU:N	1.97	0.79
17:Q:280:SER:OG	17:Q:300:GLY:C	2.21	0.79
19:S:18:DA:H2'	19:S:19:DG:C8	2.18	0.79
2:B:155:VAL:HG23	17:Q:359:MET:CE	2.12	0.79
5:E:127:ILE:HD11	5:E:132:ILE:HG13	0.79	0.79
15:O:307:PHE:C	15:O:315:PHE:CB	2.50	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:398:ALA:HB1	17:Q:134:PRO:HG3	1.63	0.79
15:O:686:TYR:CD2	15:O:692:THR:CG2	2.59	0.79
16:P:386:LEU:H	16:P:387:PRO:CD	1.95	0.79
17:Q:216:LEU:HD22	17:Q:242:ILE:HD12	1.63	0.79
17:Q:273:TRP:O	17:Q:277:ILE:HG22	1.80	0.79
15:O:180:ASN:O	15:O:244:SER:HA	1.82	0.79
15:O:596:ILE:HA	16:P:272:GLN:NE2	1.97	0.79
15:O:654:LEU:HD11	15:O:748:GLU:CG	2.11	0.79
15:O:702:LEU:HD22	16:P:123:MET:SD	2.22	0.79
15:O:750:PRO:C	15:O:752:LEU:H	1.85	0.79
16:P:222:PHE:CE2	17:Q:206:ARG:CD	2.66	0.79
16:P:419:LEU:HG	17:Q:237:ALA:CB	2.13	0.79
17:Q:21:TYR:HD2	17:Q:124:GLU:HB2	1.48	0.79
13:M:15:VAL:HA	13:M:90:LEU:HB2	1.63	0.79
16:P:108:PHE:HE2	16:P:137:TRP:CH2	1.94	0.79
16:P:208:PRO:CG	16:P:213:SER:HB3	2.12	0.79
16:P:354:LYS:HZ2	16:P:362:THR:HG22	0.76	0.79
17:Q:283:ARG:CA	17:Q:302:ARG:HB3	1.92	0.79
15:O:264:ILE:HG13	15:O:305:PHE:CE2	2.18	0.79
15:O:353:ASP:HB2	17:Q:28:SER:N	1.96	0.79
15:O:657:SER:HB2	15:O:746:ARG:CD	2.11	0.79
16:P:431:ASP:O	16:P:431:ASP:OD1	2.01	0.79
17:Q:143:THR:C	17:Q:144:VAL:HG23	2.03	0.79
17:Q:245:VAL:HG11	17:Q:250:LEU:HD21	1.65	0.79
17:Q:294:VAL:HG23	17:Q:295:PRO:HD3	0.79	0.79
9:I:3:VAL:CB	9:I:43:SER:OG	2.31	0.79
16:P:123:MET:CB	16:P:125:PHE:CD2	2.66	0.79
16:P:184:TRP:CD1	16:P:190:MET:HG2	2.15	0.79
17:Q:142:ARG:HG3	17:Q:142:ARG:HH11	1.47	0.79
17:Q:201:SER:O	17:Q:204:GLU:CD	2.21	0.79
15:O:54:UNK:HA	15:O:554:ASN:OD1	1.82	0.78
15:O:218:VAL:O	15:O:229:ARG:HG2	1.84	0.78
15:O:307:PHE:O	15:O:315:PHE:CB	2.31	0.78
15:O:596:ILE:CG2	16:P:317:MET:CE	2.61	0.78
16:P:151:GLU:OE2	16:P:154:LEU:HD11	1.82	0.78
16:P:362:THR:CA	16:P:365:ASP:CG	2.52	0.78
16:P:488:LEU:O	16:P:493:ILE:HG23	1.83	0.78
17:Q:354:LEU:CD2	17:Q:359:MET:HA	2.13	0.78
17:Q:354:LEU:HA	17:Q:359:MET:N	1.97	0.78
13:M:38:PHE:HE2	14:N:110:LEU:HD22	1.46	0.78
13:M:118:ASP:OD1	13:M:119:THR:N	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:353:ASP:CG	15:O:354:PRO:HD3	2.03	0.78
15:O:722:TRP:HE3	16:P:264:PRO:HG3	0.96	0.78
16:P:104:PHE:CE1	16:P:215:LEU:CG	2.66	0.78
17:Q:124:GLU:CD	17:Q:289:ASN:ND2	2.37	0.78
17:Q:380:SER:O	17:Q:384:VAL:CG2	2.31	0.78
1:A:417:ARG:CZ	1:A:420:PHE:HB3	2.12	0.78
16:P:248:SER:O	16:P:249:CYS:HB2	1.84	0.78
17:Q:266:SER:O	17:Q:267:GLY:C	2.20	0.78
15:O:324:TRP:O	15:O:325:SER:OG	2.02	0.78
15:O:656:HIS:CA	15:O:747:LEU:O	2.30	0.78
15:O:736:ILE:HG22	15:O:736:ILE:O	1.82	0.78
16:P:150:GLU:O	16:P:152:LEU:CD2	2.31	0.78
16:P:494:SER:CB	16:P:497:GLN:CB	2.46	0.78
17:Q:208:TYR:CA	17:Q:211:ARG:HG2	2.13	0.78
17:Q:363:GLU:HA	17:Q:366:PHE:HB3	1.62	0.78
20:T:22:DG:H2'	20:T:23:DA:H8	1.49	0.78
13:M:39:ASP:HB2	13:M:54:HIS:O	1.83	0.78
16:P:366:TYR:CZ	17:Q:215:THR:HA	2.14	0.78
17:Q:380:SER:HB2	17:Q:438:PHE:CZ	2.19	0.78
1:A:722:PRO:O	1:A:723:TYR:CB	2.31	0.78
2:B:311:ARG:HH12	9:I:18:GLU:HA	1.49	0.78
15:O:176:PRO:HD3	17:Q:196:GLU:O	1.80	0.78
16:P:247:ILE:CD1	16:P:286:LEU:CA	2.25	0.78
16:P:386:LEU:O	16:P:388:THR:HG23	1.82	0.78
17:Q:266:SER:O	17:Q:269:ASP:OD1	2.00	0.78
1:A:410:LYS:O	1:A:413:LEU:HG	1.83	0.78
2:B:155:VAL:HB	17:Q:359:MET:HE2	1.65	0.78
7:G:97:LYS:H	7:G:97:LYS:HD2	1.47	0.78
9:I:13:CYS:SG	9:I:32:GLN:HB3	2.23	0.78
15:O:344:ILE:HD12	15:O:346:ASN:N	1.97	0.78
15:O:623:LEU:CD1	15:O:668:SER:HB2	2.14	0.78
16:P:104:PHE:CE1	16:P:215:LEU:CD2	2.65	0.78
16:P:341:ARG:HH11	16:P:445:ARG:NH2	1.79	0.78
17:Q:245:VAL:HG11	17:Q:250:LEU:HD11	0.94	0.78
17:Q:354:LEU:HD11	17:Q:359:MET:CA	1.94	0.78
19:S:24:DG:N2	20:T:31:DC:O2	2.16	0.78
2:B:296:ASP:OD2	2:B:379:ARG:NH2	2.17	0.78
9:I:28:VAL:H	9:I:38:PRO:HD2	1.49	0.78
15:O:214:LEU:CA	15:O:236:ILE:CB	2.62	0.78
15:O:414:ILE:N	15:O:425:GLY:O	2.16	0.78
16:P:155:GLN:O	20:T:45:DC:H5''	1.84	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:204:GLU:CD	17:Q:205:VAL:N	2.37	0.78
1:A:1288:ARG:N	1:A:1476:LEU:O	2.16	0.78
7:G:16:PHE:O	7:G:20:HIS:HB2	1.84	0.78
15:O:17:UNK:C	15:O:19:UNK:N	2.45	0.78
15:O:722:TRP:CD2	16:P:264:PRO:HG3	2.13	0.78
17:Q:127:PHE:O	17:Q:131:TYR:HD2	1.65	0.78
17:Q:246:GLN:C	17:Q:247:ILE:CD1	2.53	0.78
19:S:28:DT:O2	19:S:29:DT:C4	2.34	0.78
1:A:361:VAL:HG22	2:B:1184:TYR:HD1	1.49	0.77
9:I:27:ASN:N	9:I:39:LYS:H	1.53	0.77
9:I:42:PHE:CZ	9:I:44:ASN:CB	2.67	0.77
15:O:12:UNK:CA	15:O:436:ILE:HD11	2.11	0.77
16:P:495:LYS:HD3	16:P:496:GLU:OE2	1.84	0.77
17:Q:158:THR:HG23	17:Q:161:ASN:HB2	1.63	0.77
9:I:28:VAL:HG23	9:I:37:TYR:HB3	1.66	0.77
15:O:667:ASP:N	15:O:667:ASP:OD1	2.13	0.77
16:P:208:PRO:CB	16:P:213:SER:CB	2.29	0.77
16:P:263:PRO:HG2	16:P:266:PHE:CD2	2.18	0.77
16:P:332:LEU:HD12	16:P:333:SER:N	1.98	0.77
16:P:366:TYR:CE2	17:Q:218:ASP:HB2	2.19	0.77
17:Q:354:LEU:CG	17:Q:358:PHE:C	2.53	0.77
3:C:151:THR:HG22	3:C:155:GLU:HB3	1.63	0.77
15:O:248:PRO:HD2	15:O:307:PHE:CE2	2.17	0.77
15:O:358:SER:CB	17:Q:194:GLY:C	2.50	0.77
15:O:581:ALA:O	15:O:585:GLU:HB3	1.82	0.77
17:Q:266:SER:C	17:Q:268:LEU:N	2.31	0.77
3:C:32:ASN:OD1	3:C:35:LYS:N	2.15	0.77
15:O:247:ILE:O	15:O:247:ILE:HG22	1.82	0.77
16:P:108:PHE:CE2	16:P:156:LEU:HD23	2.20	0.77
15:O:205:TYR:HD2	15:O:215:ASN:HB3	1.49	0.77
15:O:499:GLU:HG3	15:O:500:ILE:HD12	1.64	0.77
16:P:158:MET:HB2	16:P:192:TYR:CZ	2.19	0.77
16:P:167:LEU:HD11	16:P:230:ILE:HG23	1.66	0.77
17:Q:212:HIS:O	17:Q:215:THR:HB	1.83	0.77
15:O:260:LEU:HD11	15:O:272:PHE:CA	2.04	0.77
15:O:316:ALA:HB3	15:O:340:LYS:HD3	1.65	0.77
15:O:611:ILE:HG21	15:O:731:LEU:HD23	1.65	0.77
16:P:340:GLN:O	16:P:341:ARG:CB	2.33	0.77
17:Q:381:ARG:O	17:Q:384:VAL:HG22	1.78	0.77
1:A:855:ARG:NH2	1:A:867:ASP:OD1	2.16	0.77
1:A:1288:ARG:HB3	1:A:1476:LEU:HB2	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:88:ASN:ND2	3:C:94:ASP:OD1	2.17	0.77
8:H:56:THR:HB	8:H:145:ARG:HB3	1.65	0.77
13:M:45:LYS:HZ1	13:M:49:ASP:C	1.86	0.77
17:Q:208:TYR:CD1	17:Q:211:ARG:HD3	2.20	0.77
17:Q:410:TYR:CE2	17:Q:414:PHE:HZ	2.03	0.77
15:O:214:LEU:HG	15:O:242:ILE:CD1	2.15	0.77
15:O:727:PRO:HG3	16:P:265:GLU:CD	2.04	0.77
16:P:101:LYS:HD2	16:P:152:LEU:HD12	0.77	0.77
19:S:39:DT:H5"	19:S:39:DT:C6	2.19	0.77
1:A:1632:GLU:HG3	1:A:1634:LEU:H	1.50	0.77
3:C:172:GLN:OE1	3:C:175:GLN:NE2	2.17	0.77
14:N:25:ILE:HG22	14:N:26:PRO:HD3	1.65	0.77
14:N:78:THR:OG1	14:N:89:ILE:O	2.02	0.77
15:O:724:LEU:O	15:O:725:VAL:CG1	2.33	0.77
16:P:137:TRP:HH2	16:P:156:LEU:HD21	1.49	0.77
16:P:340:GLN:NE2	16:P:370:SER:HB3	1.99	0.77
16:P:369:TRP:CZ3	16:P:377:PHE:CG	2.73	0.77
16:P:399:SER:N	16:P:410:ARG:NH1	2.33	0.77
16:P:431:ASP:C	16:P:434:HIS:CA	2.53	0.77
17:Q:352:TRP:CE3	17:Q:357:PRO:CG	2.58	0.77
1:A:721:LYS:HD3	8:H:96:VAL:HG23	1.67	0.77
1:A:1270:VAL:HG11	1:A:1489:VAL:HG11	1.66	0.77
2:B:1012:PRO:HG3	3:C:277:ARG:HH12	1.50	0.77
5:E:10:SER:HA	5:E:39:LEU:HD11	1.67	0.77
9:I:37:TYR:C	9:I:40:SER:O	2.23	0.77
13:M:45:LYS:CE	13:M:49:ASP:N	2.35	0.77
15:O:323:ASN:C	15:O:348:HIS:HB2	2.04	0.77
15:O:354:PRO:HB3	17:Q:131:TYR:OH	1.85	0.77
15:O:421:ILE:CG1	17:Q:138:PHE:HE2	1.98	0.77
16:P:200:PRO:CA	16:P:203:TRP:HD1	1.97	0.77
17:Q:143:THR:O	17:Q:144:VAL:CG2	2.29	0.77
1:A:1040:ASP:OD1	1:A:1041:ALA:N	2.17	0.76
7:G:96:SER:O	7:G:98:GLU:CA	2.32	0.76
15:O:586:LYS:HZ2	16:P:322:ARG:HH22	1.21	0.76
15:O:592:LEU:CD1	16:P:512:ARG:CZ	2.61	0.76
15:O:694:ILE:HD11	15:O:698:LYS:CD	2.08	0.76
16:P:385:PHE:CZ	17:Q:212:HIS:CD2	2.73	0.76
1:A:920:PHE:CZ	1:A:930:LEU:HD23	2.20	0.76
15:O:422:ILE:CG1	15:O:440:HIS:NE2	2.47	0.76
15:O:656:HIS:CB	15:O:747:LEU:CA	2.44	0.76
17:Q:355:THR:H	17:Q:359:MET:CG	1.76	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:25:DT:O4	20:T:30:DT:N3	2.18	0.76
2:B:1152:PHE:HB2	2:B:1163:GLN:NE2	2.00	0.76
15:O:211:GLY:O	15:O:242:ILE:HD12	1.85	0.76
15:O:357:LEU:HD12	15:O:377:ARG:CZ	2.15	0.76
15:O:656:HIS:CD2	15:O:747:LEU:N	2.53	0.76
16:P:222:PHE:CE2	17:Q:206:ARG:HD2	2.20	0.76
16:P:284:LEU:HD11	16:P:305:ARG:HE	1.50	0.76
16:P:330:TRP:CE3	16:P:331:ILE:HD13	2.20	0.76
17:Q:26:TYR:N	17:Q:29:ARG:HD3	1.99	0.76
17:Q:410:TYR:CE2	17:Q:414:PHE:CZ	2.74	0.76
1:A:1272:VAL:O	9:I:49:THR:OG1	2.03	0.76
2:B:117:VAL:HG21	17:Q:276:GLN:CG	2.15	0.76
15:O:571:HIS:HB3	15:O:573:GLU:OE1	1.85	0.76
15:O:578:PHE:CE1	16:P:312:LEU:HD12	2.20	0.76
15:O:757:GLN:O	15:O:760:ILE:CG2	2.32	0.76
16:P:104:PHE:CB	16:P:211:TYR:HD1	1.73	0.76
16:P:208:PRO:HB2	16:P:213:SER:HB3	0.77	0.76
16:P:402:MET:O	16:P:406:GLN:HB2	1.85	0.76
1:A:1531:ASP:OD1	5:E:7:ARG:NH2	2.19	0.76
15:O:309:PRO:HG2	15:O:365:TRP:HE1	1.50	0.76
15:O:384:ASP:HB3	15:O:389:TRP:CB	2.09	0.76
15:O:499:GLU:OE1	15:O:499:GLU:HA	1.86	0.76
16:P:315:ASN:HB2	16:P:480:LEU:HD11	1.68	0.76
1:A:27:LEU:O	2:B:1129:ARG:NE	2.17	0.76
2:B:77:LYS:CE	2:B:93:ASN:HB3	2.11	0.76
15:O:472:ARG:NH1	17:Q:203:SER:CB	2.48	0.76
15:O:702:LEU:HD23	16:P:123:MET:CE	2.15	0.76
16:P:137:TRP:CH2	16:P:156:LEU:CD2	2.68	0.76
16:P:238:HIS:CE1	16:P:289:ARG:NH2	2.53	0.76
1:A:403:LEU:HA	1:A:406:LEU:HG	1.66	0.76
2:B:118:GLU:CD	17:Q:281:LYS:NZ	2.38	0.76
16:P:94:LYS:HA	16:P:207:LEU:HB2	1.68	0.76
17:Q:142:ARG:HG3	17:Q:142:ARG:NH1	2.00	0.76
17:Q:216:LEU:CD2	17:Q:242:ILE:HD12	2.15	0.76
17:Q:352:TRP:HE3	17:Q:357:PRO:CG	1.91	0.76
3:C:152:ASP:O	3:C:154:LYS:N	2.19	0.76
15:O:354:PRO:O	15:O:355:GLU:C	2.24	0.76
15:O:582:ASP:O	15:O:586:LYS:CB	2.34	0.76
1:A:964:LYS:NZ	1:A:969:PHE:O	2.19	0.76
15:O:24:UNK:CB	17:Q:366:PHE:HE2	1.99	0.76
15:O:210:THR:C	15:O:212:SER:N	2.39	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:214:LEU:CA	15:O:236:ILE:HG21	2.11	0.76
15:O:347:LEU:CD1	17:Q:151:PRO:O	2.31	0.76
15:O:353:ASP:HB3	17:Q:27:ILE:O	1.86	0.76
16:P:378:LEU:HD11	17:Q:234:LYS:HB3	1.66	0.76
17:Q:204:GLU:CD	17:Q:205:VAL:H	1.90	0.76
17:Q:393:ILE:O	17:Q:395:LEU:HG	1.85	0.76
13:M:54:HIS:HD2	13:M:63:GLU:HG2	1.51	0.76
15:O:220:THR:OG1	15:O:228:ASN:O	2.03	0.76
15:O:380:MET:CB	15:O:394:VAL:HG21	2.15	0.76
15:O:623:LEU:CD1	15:O:668:SER:O	2.33	0.76
15:O:650:LEU:HD22	16:P:139:LYS:HD2	1.68	0.76
15:O:706:GLU:HG3	16:P:438:PHE:HB3	1.64	0.76
17:Q:127:PHE:CD1	17:Q:131:TYR:CE2	2.73	0.76
9:I:3:VAL:CG2	9:I:43:SER:CB	2.53	0.75
15:O:301:GLN:O	15:O:320:ILE:HG13	1.85	0.75
15:O:347:LEU:HB3	17:Q:152:ILE:O	1.85	0.75
16:P:263:PRO:O	16:P:266:PHE:N	2.18	0.75
16:P:419:LEU:CG	17:Q:237:ALA:CB	2.64	0.75
1:A:385:LEU:HD13	1:A:437:PHE:HA	1.67	0.75
2:B:155:VAL:HG23	17:Q:359:MET:HE1	1.68	0.75
15:O:702:LEU:HA	16:P:123:MET:CE	2.17	0.75
16:P:95:LEU:O	16:P:100:ALA:HB2	1.86	0.75
16:P:344:THR:O	16:P:345:SER:HB2	1.84	0.75
19:S:45:DG:N2	20:T:10:DC:O2	2.17	0.75
3:C:230:LEU:HB2	3:C:297:HIS:CD2	2.21	0.75
15:O:351:ILE:HG12	17:Q:162:PHE:CD1	2.21	0.75
15:O:404:ASP:OD1	15:O:405:TYR:N	2.18	0.75
15:O:655:SER:HB3	16:P:244:ASN:HB2	1.68	0.75
16:P:104:PHE:CA	16:P:211:TYR:CD1	2.69	0.75
16:P:177:TYR:CZ	16:P:226:LEU:CD2	2.67	0.75
16:P:257:VAL:O	16:P:262:LEU:CA	2.35	0.75
2:B:815:ARG:NH2	19:S:26:DT:H5"	2.01	0.75
15:O:390:GLN:CB	17:Q:151:PRO:HG3	2.13	0.75
15:O:659:LEU:O	15:O:663:LEU:CD2	2.35	0.75
15:O:356:GLU:CG	15:O:377:ARG:HH22	1.99	0.75
15:O:593:VAL:CG1	16:P:320:PHE:HD2	2.00	0.75
15:O:771:ILE:HG21	16:P:109:GLN:HE22	0.69	0.75
16:P:118:TRP:CZ2	16:P:189:LYS:CG	2.58	0.75
16:P:246:GLU:OE1	16:P:246:GLU:N	2.19	0.75
16:P:378:LEU:CD1	17:Q:235:ILE:N	2.48	0.75
16:P:417:PHE:HE2	17:Q:236:PHE:CE2	1.99	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:591:ARG:NH2	1:A:631:ASP:OD2	2.18	0.75
1:A:1163:GLU:O	1:A:1167:ARG:CB	2.34	0.75
7:G:80:VAL:HG22	7:G:243:VAL:HG11	1.69	0.75
15:O:491:SER:C	15:O:492:LEU:HD12	2.07	0.75
15:O:499:GLU:CG	15:O:500:ILE:H	2.00	0.75
17:Q:283:ARG:C	17:Q:302:ARG:HE	1.90	0.75
17:Q:354:LEU:HB2	17:Q:358:PHE:C	2.05	0.75
17:Q:355:THR:H	17:Q:359:MET:HG2	0.93	0.75
17:Q:410:TYR:CZ	17:Q:414:PHE:CZ	2.74	0.75
1:A:116:HIS:CE1	1:A:185:ARG:HD2	2.22	0.75
1:A:464:GLU:C	1:A:468:ARG:HB2	2.07	0.75
2:B:75:ASP:C	2:B:77:LYS:H	1.85	0.75
2:B:479:GLN:HA	19:S:39:DT:O2	1.86	0.75
11:K:86:VAL:HA	11:K:107:THR:HG22	1.68	0.75
14:N:172:ALA:HB3	14:N:175:TYR:HD2	1.51	0.75
15:O:662:LEU:HD23	15:O:662:LEU:N	2.02	0.75
15:O:669:PHE:O	15:O:669:PHE:CD1	2.40	0.75
16:P:116:ILE:HA	16:P:119:LEU:CD1	2.15	0.75
16:P:123:MET:CB	16:P:125:PHE:CE2	2.56	0.75
16:P:211:TYR:O	16:P:214:ILE:N	2.20	0.75
16:P:378:LEU:HD11	17:Q:234:LYS:CA	2.16	0.75
17:Q:355:THR:CB	17:Q:356:PRO:CD	2.37	0.75
20:T:22:DG:H5''	20:T:22:DG:H8	1.52	0.75
1:A:403:LEU:HA	1:A:406:LEU:CD2	2.16	0.75
2:B:29:PRO:HB2	2:B:177:PRO:HG2	1.68	0.75
12:L:31:CYS:CB	12:L:34:CYS:SG	2.71	0.75
15:O:241:PRO:HG2	15:O:266:GLU:OE1	1.87	0.75
15:O:347:LEU:O	15:O:347:LEU:CD1	2.35	0.75
15:O:641:TRP:CE2	15:O:653:SER:HA	2.22	0.75
16:P:104:PHE:CE1	16:P:215:LEU:HG	2.22	0.75
16:P:198:ILE:HD13	16:P:198:ILE:N	2.02	0.75
16:P:431:ASP:OD1	16:P:434:HIS:O	2.05	0.75
2:B:819:ASP:H	2:B:820:PRO:CD	1.99	0.75
5:E:4:GLU:O	5:E:8:ASN:ND2	2.19	0.75
15:O:431:ASP:HB2	15:O:432:PRO:HD3	0.78	0.75
15:O:433:VAL:CB	17:Q:144:VAL:HB	2.15	0.75
16:P:357:TYR:OH	17:Q:203:SER:HB2	1.87	0.75
17:Q:393:ILE:O	17:Q:395:LEU:HD23	1.87	0.75
4:D:30:HIS:HB3	7:G:36:ASN:ND2	2.02	0.74
15:O:248:PRO:HB2	15:O:307:PHE:CE2	2.21	0.74
15:O:314:GLN:HG2	15:O:314:GLN:O	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:698:LYS:HE2	16:P:126:PRO:CG	2.17	0.74
16:P:150:GLU:O	16:P:152:LEU:HD22	1.86	0.74
16:P:354:LYS:HB3	16:P:362:THR:HB	1.67	0.74
19:S:45:DG:N1	20:T:10:DC:N3	2.31	0.74
2:B:819:ASP:N	2:B:820:PRO:HD3	2.02	0.74
15:O:398:ALA:CB	17:Q:134:PRO:CG	2.60	0.74
15:O:693:PHE:CB	15:O:747:LEU:HD22	2.16	0.74
1:A:998:HIS:CE1	2:B:712:SER:H	2.04	0.74
2:B:604:ILE:O	2:B:608:LEU:HB2	1.86	0.74
2:B:1138:ALA:C	2:B:1140:LYS:H	1.91	0.74
11:K:88:PHE:HB3	11:K:106:GLN:HG2	1.69	0.74
13:M:399:VAL:HB	13:M:400:PRO:HD3	1.67	0.74
15:O:399:TRP:HE1	17:Q:134:PRO:CG	1.96	0.74
15:O:414:ILE:HB	15:O:425:GLY:CA	2.18	0.74
15:O:650:LEU:HD21	16:P:135:ILE:HD13	1.67	0.74
15:O:702:LEU:HD21	16:P:125:PHE:CE2	2.20	0.74
16:P:108:PHE:CD2	16:P:137:TRP:CH2	2.75	0.74
2:B:111:ASP:CG	2:B:116:ALA:CB	2.55	0.74
2:B:1016:GLY:O	3:C:69:ARG:NH2	2.19	0.74
15:O:188:GLN:N	15:O:199:GLY:CA	2.37	0.74
15:O:352:PHE:HB3	15:O:354:PRO:HD2	1.68	0.74
15:O:599:LYS:CD	16:P:272:GLN:NE2	2.51	0.74
15:O:744:LEU:HD13	15:O:744:LEU:N	2.02	0.74
16:P:157:HIS:CG	16:P:158:MET:H	2.05	0.74
16:P:352:ILE:O	16:P:355:VAL:HG23	1.87	0.74
1:A:1039:ARG:HD2	6:F:139:PRO:HG2	1.70	0.74
15:O:409:ASP:O	15:O:411:LYS:N	2.20	0.74
15:O:433:VAL:CB	17:Q:144:VAL:CB	2.56	0.74
15:O:442:LEU:HD13	15:O:444:PRO:CD	2.13	0.74
16:P:115:GLN:CG	16:P:190:MET:SD	2.76	0.74
16:P:337:SER:HA	16:P:448:LYS:CE	2.17	0.74
16:P:483:ILE:HG22	16:P:487:LEU:HD23	1.69	0.74
1:A:690:GLU:HA	11:K:81:MET:HE2	1.70	0.74
7:G:169:VAL:HG23	7:G:216:HIS:HB3	1.70	0.74
15:O:578:PHE:CE1	16:P:312:LEU:HA	2.23	0.74
16:P:152:LEU:HD22	16:P:152:LEU:N	2.02	0.74
17:Q:393:ILE:HD11	17:Q:395:LEU:O	1.88	0.74
1:A:921:PRO:O	1:A:922:CYS:SG	2.45	0.74
2:B:1002:LYS:HG2	14:N:166:LEU:HD12	1.67	0.74
15:O:241:PRO:HG2	15:O:266:GLU:CD	2.08	0.74
15:O:298:ASP:OD1	17:Q:158:THR:C	2.25	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:420:GLU:O	15:O:421:ILE:HG13	1.88	0.74
15:O:571:HIS:CB	15:O:573:GLU:OE2	2.35	0.74
15:O:698:LYS:CE	16:P:126:PRO:CD	2.62	0.74
16:P:219:ILE:HG13	16:P:220:SER:N	2.03	0.74
16:P:315:ASN:O	16:P:319:SER:N	2.21	0.74
17:Q:395:LEU:HD23	17:Q:395:LEU:N	2.01	0.74
19:S:42:DG:N2	20:T:13:DC:O2	2.20	0.74
1:A:381:SER:HB3	1:A:453:ILE:HB	1.70	0.74
1:A:596:HIS:HD2	1:A:598:ALA:HB3	1.53	0.74
15:O:580:ASN:HB3	16:P:506:LYS:HZ1	1.51	0.74
15:O:669:PHE:HE1	15:O:738:LYS:HE2	0.93	0.74
17:Q:383:PHE:HZ	17:Q:398:ASP:CG	1.91	0.74
1:A:789:SER:O	1:A:790:LYS:C	2.25	0.74
1:A:1296:PHE:N	1:A:1468:LYS:O	2.20	0.74
2:B:77:LYS:CE	2:B:93:ASN:CB	2.65	0.74
2:B:479:GLN:HB3	19:S:39:DT:N3	2.03	0.74
2:B:1104:CYS:SG	2:B:1128:CYS:CB	2.75	0.74
15:O:703:PHE:CZ	16:P:254:LEU:HD21	2.22	0.74
16:P:115:GLN:OE1	16:P:161:THR:CG2	2.36	0.74
16:P:183:LYS:CG	16:P:189:LYS:HZ1	1.99	0.74
16:P:387:PRO:O	16:P:388:THR:C	2.25	0.74
1:A:912:VAL:C	1:A:914:ASP:H	1.92	0.74
15:O:279:SER:O	15:O:282:CYS:N	2.21	0.74
15:O:423:ILE:CG2	17:Q:141:TRP:CH2	2.38	0.74
16:P:108:PHE:CZ	16:P:156:LEU:HD23	2.23	0.74
1:A:348:LYS:NZ	1:A:1629:ASN:OD1	2.21	0.73
1:A:468:ARG:NE	2:B:1073:GLU:OE2	2.19	0.73
15:O:347:LEU:HD23	17:Q:152:ILE:CB	2.18	0.73
17:Q:208:TYR:HA	17:Q:211:ARG:CG	2.18	0.73
17:Q:289:ASN:O	20:T:38:DA:H5"	1.88	0.73
1:A:363:PRO:O	1:A:368:ARG:NH1	2.16	0.73
1:A:912:VAL:HB	1:A:913:PRO:HD3	0.75	0.73
7:G:96:SER:C	7:G:98:GLU:N	2.38	0.73
15:O:297:ILE:O	15:O:297:ILE:HG22	1.88	0.73
15:O:657:SER:O	15:O:658:LYS:HG2	1.88	0.73
17:Q:380:SER:CB	17:Q:438:PHE:CZ	2.71	0.73
3:C:151:THR:HG22	3:C:155:GLU:CB	2.18	0.73
5:E:90:VAL:HB	5:E:119:SER:HB2	1.69	0.73
5:E:128:PRO:HB2	5:E:129:PRO:HD3	1.70	0.73
15:O:580:ASN:CB	16:P:506:LYS:NZ	2.52	0.73
15:O:604:ILE:CG1	15:O:732:LEU:CD2	2.66	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:659:LEU:HB2	15:O:742:TRP:HZ2	1.51	0.73
19:S:13:DA:N6	20:T:42:DT:O4	2.17	0.73
19:S:28:DT:H1'	19:S:29:DT:C5	2.22	0.73
1:A:403:LEU:HG	1:A:406:LEU:HD11	1.70	0.73
1:A:403:LEU:O	1:A:406:LEU:HG	1.89	0.73
1:A:721:LYS:HD3	8:H:96:VAL:CG2	2.19	0.73
2:B:77:LYS:HB3	2:B:93:ASN:HB2	1.69	0.73
2:B:985:ILE:O	14:N:157:ARG:NH2	2.19	0.73
17:Q:143:THR:OG1	17:Q:144:VAL:N	2.20	0.73
7:G:170:HIS:HA	7:G:215:GLY:HA3	1.71	0.73
15:O:217:ALA:HB3	15:O:229:ARG:CZ	2.17	0.73
15:O:430:ASN:OD1	15:O:431:ASP:N	2.21	0.73
15:O:456:VAL:HB	15:O:463:LEU:HD11	1.70	0.73
15:O:592:LEU:HD11	16:P:512:ARG:NH2	1.97	0.73
15:O:672:ILE:CD1	15:O:734:LYS:CE	2.67	0.73
16:P:151:GLU:CD	16:P:154:LEU:CD1	2.57	0.73
16:P:400:MET:O	16:P:401:GLU:HB2	1.88	0.73
16:P:496:GLU:O	16:P:499:LYS:HB2	1.88	0.73
17:Q:149:LYS:O	17:Q:151:PRO:HD3	1.89	0.73
1:A:944:MET:O	1:A:985:ARG:NH1	2.22	0.73
2:B:1195:ARG:NH2	7:G:117:TRP:CH2	2.55	0.73
15:O:309:PRO:O	15:O:310:TRP:HB3	1.89	0.73
15:O:344:ILE:HD11	15:O:346:ASN:HB3	1.70	0.73
15:O:663:LEU:H	15:O:663:LEU:CD1	2.00	0.73
17:Q:248:LYS:HZ3	17:Q:248:LYS:CA	2.02	0.73
2:B:341:SER:HB2	2:B:342:PRO:HD2	1.65	0.73
15:O:376:ASP:OD2	15:O:379:LYS:CG	2.36	0.73
15:O:616:SER:CA	15:O:620:ASP:H	1.80	0.73
15:O:722:TRP:CZ3	16:P:264:PRO:N	2.57	0.73
15:O:775:TRP:NE1	16:P:113:LYS:HB2	2.03	0.73
16:P:338:LEU:O	16:P:340:GLN:N	2.22	0.73
1:A:1047:GLN:NE2	1:A:1587:ASP:OD2	2.19	0.73
2:B:311:ARG:HH22	9:I:19:ASN:H	1.36	0.73
15:O:22:UNK:O	17:Q:314:TRP:CD2	2.41	0.73
17:Q:294:VAL:N	17:Q:295:PRO:HD2	1.99	0.73
17:Q:410:TYR:CZ	17:Q:414:PHE:HZ	2.06	0.73
15:O:248:PRO:CD	15:O:307:PHE:CZ	2.67	0.73
15:O:440:HIS:CE1	15:O:481:PHE:HE1	2.01	0.73
15:O:620:ASP:HA	15:O:674:GLU:OE1	1.88	0.73
15:O:623:LEU:HD11	15:O:669:PHE:N	2.03	0.73
16:P:118:TRP:HH2	16:P:189:LYS:HD3	0.72	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:356:PRO:CD	17:Q:357:PRO:N	2.49	0.73
1:A:413:LEU:HD12	1:A:413:LEU:O	1.89	0.73
2:B:1107:CYS:HA	2:B:1130:ARG:NH2	2.04	0.73
14:N:25:ILE:HB	14:N:26:PRO:HD3	1.57	0.73
15:O:186:TYR:HA	15:O:201:GLU:HG3	1.71	0.73
15:O:307:PHE:O	15:O:315:PHE:CG	2.42	0.73
15:O:383:ILE:HG13	15:O:390:GLN:CG	2.19	0.73
15:O:433:VAL:CA	17:Q:144:VAL:HG11	2.19	0.73
17:Q:303:THR:HG23	17:Q:304:HIS:H	1.54	0.73
19:S:24:DG:N1	20:T:31:DC:N3	2.37	0.73
19:S:28:DT:H4'	19:S:29:DT:C5'	2.17	0.73
1:A:10:GLU:HB2	1:A:1645:LYS:NZ	2.04	0.72
2:B:187:SER:OG	10:J:59:LYS:NZ	2.20	0.72
15:O:53:UNK:O	15:O:554:ASN:ND2	2.22	0.72
15:O:193:LEU:O	15:O:194:ARG:O	2.05	0.72
16:P:258:MET:HA	16:P:262:LEU:HD22	1.71	0.72
16:P:284:LEU:HB3	16:P:302:ALA:HB1	1.70	0.72
16:P:370:SER:HG	16:P:373:GLU:CD	1.90	0.72
19:S:25:DT:H2'	19:S:26:DT:H71	1.69	0.72
1:A:757:ASN:OD1	1:A:766:GLU:N	2.20	0.72
5:E:5:ASN:HD21	5:E:51:GLY:HA3	1.54	0.72
13:M:45:LYS:H	13:M:45:LYS:CD	2.02	0.72
15:O:273:ARG:CB	15:O:287:SER:OG	2.37	0.72
15:O:307:PHE:HD1	15:O:315:PHE:CE2	1.71	0.72
15:O:312:LEU:HD23	15:O:315:PHE:CE1	2.22	0.72
15:O:414:ILE:HB	15:O:425:GLY:C	2.08	0.72
16:P:341:ARG:HB3	16:P:445:ARG:HH22	1.51	0.72
2:B:155:VAL:HG21	17:Q:359:MET:CE	2.14	0.72
13:M:45:LYS:CE	13:M:48:LYS:CB	2.66	0.72
15:O:390:GLN:CB	17:Q:151:PRO:CG	2.68	0.72
15:O:686:TYR:CB	15:O:692:THR:CG2	2.66	0.72
16:P:186:CYS:SG	16:P:349:GLY:CA	2.77	0.72
16:P:258:MET:H	16:P:262:LEU:HD13	1.53	0.72
17:Q:26:TYR:CA	17:Q:29:ARG:HD2	2.05	0.72
17:Q:245:VAL:CG1	17:Q:250:LEU:CD2	2.57	0.72
9:I:24:LEU:N	9:I:24:LEU:HD23	2.05	0.72
15:O:275:GLU:CG	15:O:285:MET:CG	2.67	0.72
15:O:352:PHE:CB	15:O:354:PRO:HD2	2.20	0.72
15:O:568:ILE:HG22	15:O:570:ASP:H	1.53	0.72
15:O:659:LEU:O	15:O:742:TRP:HZ2	1.72	0.72
19:S:28:DT:C1'	19:S:29:DT:C6	2.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:571:HIS:HE2	7:G:53:TYR:HH	1.36	0.72
10:J:7:CYS:HB3	10:J:10:CYS:SG	2.29	0.72
13:M:114:LYS:HE3	13:M:114:LYS:C	2.10	0.72
15:O:299:ASP:HB3	17:Q:159:TYR:CB	2.19	0.72
15:O:364:GLU:OE2	15:O:407:ARG:HD2	1.89	0.72
15:O:655:SER:CA	16:P:244:ASN:HB3	2.17	0.72
15:O:722:TRP:HE3	16:P:264:PRO:CG	1.66	0.72
16:P:238:HIS:NE2	16:P:289:ARG:NE	2.38	0.72
16:P:365:ASP:OD1	16:P:365:ASP:N	2.16	0.72
17:Q:27:ILE:HD11	17:Q:169:PRO:HG2	1.58	0.72
17:Q:247:ILE:O	17:Q:250:LEU:N	2.22	0.72
15:O:309:PRO:CD	15:O:365:TRP:CE2	2.71	0.72
15:O:375:PHE:CZ	15:O:405:TYR:HB2	2.23	0.72
17:Q:258:LEU:HD22	17:Q:265:SER:HB2	1.72	0.72
2:B:1121:GLY:C	7:G:239:THR:O	2.27	0.72
2:B:1133:MET:HB2	2:B:1161:ASP:HB3	1.70	0.72
3:C:152:ASP:O	3:C:155:GLU:N	2.19	0.72
15:O:242:ILE:HA	15:O:265:THR:HG22	1.71	0.72
15:O:412:ASN:HA	15:O:427:SER:OG	1.90	0.72
15:O:461:HIS:CB	15:O:484:ARG:HG2	2.19	0.72
15:O:663:LEU:HD12	15:O:663:LEU:N	2.03	0.72
16:P:155:GLN:CB	20:T:45:DC:P	2.64	0.72
16:P:200:PRO:CB	16:P:203:TRP:CD1	2.72	0.72
17:Q:5:PRO:CB	17:Q:244:GLY:O	2.38	0.72
17:Q:153:ASN:O	17:Q:154:LYS:CB	2.36	0.72
19:S:25:DT:H2"	19:S:26:DT:C6	2.24	0.72
2:B:795:GLU:OE1	3:C:217:ALA:N	2.20	0.72
2:B:1035:ARG:NH2	2:B:1039:MET:SD	2.62	0.72
8:H:14:GLU:HB2	8:H:27:GLU:HB2	1.71	0.72
15:O:214:LEU:CA	15:O:236:ILE:CG2	2.67	0.72
15:O:353:ASP:C	17:Q:28:SER:CA	2.58	0.72
15:O:430:ASN:OD1	15:O:431:ASP:OD1	2.06	0.72
16:P:105:LEU:O	16:P:109:GLN:HG3	1.89	0.72
16:P:158:MET:SD	16:P:219:ILE:O	2.48	0.72
16:P:287:TRP:CH2	16:P:298:VAL:CG2	2.71	0.72
16:P:343:THR:C	16:P:345:SER:H	1.93	0.72
17:Q:21:TYR:CE2	17:Q:124:GLU:CD	2.60	0.72
17:Q:124:GLU:OE2	17:Q:289:ASN:ND2	2.21	0.72
1:A:781:LEU:CB	1:A:786:TYR:OH	2.37	0.72
15:O:11:UNK:O	15:O:436:ILE:CD1	2.38	0.72
15:O:174:TRP:C	17:Q:198:LEU:HG	2.09	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:307:PHE:O	15:O:315:PHE:HB3	1.90	0.72
15:O:314:GLN:HB3	15:O:329:ILE:CG1	2.10	0.72
15:O:362:ARG:NH1	15:O:364:GLU:OE1	2.20	0.72
15:O:383:ILE:HG13	15:O:390:GLN:HG3	1.71	0.72
15:O:431:ASP:OD1	15:O:432:PRO:HD2	1.89	0.72
16:P:294:HIS:HB2	20:T:48:DA:H61	0.90	0.72
17:Q:269:ASP:OD1	17:Q:269:ASP:N	2.11	0.72
1:A:417:ARG:NH1	1:A:420:PHE:HB3	2.03	0.72
2:B:204:ARG:NH1	18:R:3:G:OP1	2.23	0.72
15:O:264:ILE:HG21	15:O:302:VAL:HB	1.71	0.72
15:O:314:GLN:HE21	15:O:328:ARG:CG	2.02	0.72
15:O:352:PHE:HB3	15:O:354:PRO:CD	2.19	0.72
15:O:581:ALA:HB3	15:O:585:GLU:HB3	1.54	0.72
15:O:672:ILE:N	15:O:673:PRO:CD	2.53	0.72
16:P:105:LEU:HD23	16:P:109:GLN:NE2	2.05	0.72
16:P:137:TRP:CH2	16:P:156:LEU:HD21	2.24	0.72
16:P:235:GLY:CA	16:P:289:ARG:CA	2.66	0.72
16:P:257:VAL:C	16:P:262:LEU:CD1	2.58	0.72
16:P:487:LEU:CD1	16:P:498:LEU:HD11	2.20	0.72
17:Q:21:TYR:CD2	17:Q:124:GLU:HB2	2.25	0.72
17:Q:158:THR:O	17:Q:161:ASN:N	2.23	0.72
17:Q:354:LEU:CA	17:Q:359:MET:H	2.03	0.72
2:B:814:ASN:O	2:B:814:ASN:ND2	2.22	0.71
9:I:27:ASN:ND2	9:I:36:ILE:HG22	2.04	0.71
15:O:194:ARG:C	15:O:197:ARG:NH2	2.43	0.71
15:O:308:ASN:O	15:O:310:TRP:CD1	2.43	0.71
15:O:599:LYS:NZ	16:P:275:GLU:CD	2.43	0.71
16:P:101:LYS:CE	16:P:152:LEU:HD13	2.06	0.71
16:P:235:GLY:O	16:P:289:ARG:HD2	1.89	0.71
16:P:257:VAL:O	16:P:262:LEU:HA	1.90	0.71
15:O:638:LEU:HD23	15:O:748:GLU:CD	2.10	0.71
15:O:656:HIS:HB3	15:O:748:GLU:N	2.05	0.71
15:O:658:LYS:CA	15:O:659:LEU:HD13	2.18	0.71
15:O:769:GLN:O	15:O:772:ILE:HG23	1.89	0.71
16:P:94:LYS:HA	16:P:207:LEU:CB	2.20	0.71
17:Q:127:PHE:CD1	17:Q:131:TYR:HE2	2.06	0.71
17:Q:277:ILE:HD12	17:Q:277:ILE:O	1.90	0.71
2:B:791:LYS:NZ	2:B:795:GLU:OE2	2.23	0.71
15:O:436:ILE:HB	17:Q:141:TRP:CZ3	2.26	0.71
16:P:122:GLU:CD	16:P:123:MET:HG2	2.11	0.71
16:P:212:VAL:HA	16:P:215:LEU:HG	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1105:ARG:O	2:B:1196:LEU:HD21	1.89	0.71
15:O:269:PHE:HE1	15:O:339:ARG:CD	2.03	0.71
15:O:310:TRP:HB2	15:O:368:HIS:CE1	2.24	0.71
15:O:382:GLU:OE1	15:O:433:VAL:HG12	1.89	0.71
15:O:438:TRP:HE1	15:O:489:PHE:CB	2.03	0.71
16:P:154:LEU:HD13	16:P:154:LEU:N	2.05	0.71
16:P:278:GLU:HA	16:P:309:TYR:OH	1.89	0.71
16:P:282:ARG:HB3	16:P:282:ARG:CZ	2.18	0.71
4:D:41:GLU:OE1	4:D:93:GLN:NE2	2.23	0.71
16:P:119:LEU:HD22	16:P:165:LEU:HD11	1.71	0.71
16:P:123:MET:O	16:P:124:ARG:HB2	1.89	0.71
16:P:207:LEU:C	16:P:209:ASN:N	2.41	0.71
17:Q:133:LYS:HB3	17:Q:134:PRO:CD	2.21	0.71
1:A:920:PHE:HB3	1:A:921:PRO:HD2	1.70	0.71
1:A:968:SER:OG	1:A:993:GLN:NE2	2.23	0.71
13:M:291:PRO:HD2	13:M:294:LEU:HD12	1.73	0.71
15:O:188:GLN:CA	15:O:199:GLY:CA	2.67	0.71
15:O:214:LEU:CG	15:O:242:ILE:HD13	2.20	0.71
15:O:310:TRP:CB	15:O:368:HIS:CE1	2.74	0.71
15:O:356:GLU:HG2	15:O:377:ARG:HH21	1.51	0.71
15:O:424:VAL:HG23	15:O:437:SER:OG	1.90	0.71
15:O:437:SER:HB2	15:O:489:PHE:CD2	2.24	0.71
15:O:600:GLU:OE2	16:P:268:PHE:HB2	1.90	0.71
19:S:28:DT:H4'	19:S:29:DT:O4'	1.90	0.71
9:I:3:VAL:CG1	9:I:43:SER:OG	2.38	0.71
15:O:474:LYS:HD2	15:O:499:GLU:H	1.54	0.71
15:O:499:GLU:HG2	15:O:550:TYR:OH	1.90	0.71
15:O:583:GLU:OE2	15:O:584:ARG:CG	2.34	0.71
16:P:119:LEU:HD13	16:P:165:LEU:CD1	2.20	0.71
17:Q:388:LYS:HD2	17:Q:393:ILE:CB	2.18	0.71
14:N:95:ILE:CD1	14:N:136:VAL:CB	2.68	0.71
15:O:358:SER:CB	17:Q:194:GLY:O	2.38	0.71
17:Q:247:ILE:HG13	17:Q:298:GLN:CB	2.15	0.71
19:S:10:DG:O6	20:T:45:DC:N4	2.19	0.71
1:A:39:ASP:OD1	1:A:40:ASN:N	2.23	0.71
3:C:151:THR:HG21	3:C:155:GLU:CB	2.19	0.71
15:O:215:ASN:N	15:O:236:ILE:CG1	2.41	0.71
15:O:352:PHE:HB2	15:O:355:GLU:CB	2.21	0.71
15:O:604:ILE:CG1	15:O:732:LEU:HD21	2.20	0.71
15:O:658:LYS:HB3	15:O:660:LYS:HG2	1.72	0.71
15:O:703:PHE:CZ	16:P:254:LEU:CD2	2.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:155:GLN:O	20:T:45:DC:C5'	2.39	0.71
1:A:1478:ALA:CB	9:I:21:ASN:HD21	2.03	0.71
2:B:211:ARG:NH2	2:B:243:GLN:OE1	2.23	0.71
2:B:572:PRO:HB2	2:B:575:HIS:HD2	1.55	0.71
5:E:47:CYS:HB3	5:E:51:GLY:HA2	1.72	0.71
9:I:37:TYR:CB	9:I:38:PRO:HD2	2.14	0.71
15:O:260:LEU:HD12	15:O:271:ILE:HG23	1.72	0.71
15:O:375:PHE:HB3	15:O:380:MET:HG3	1.73	0.71
15:O:534:VAL:HA	15:O:552:LEU:O	1.91	0.71
16:P:179:CYS:HB2	16:P:255:LYS:HD3	1.72	0.71
17:Q:381:ARG:O	17:Q:384:VAL:HG23	1.91	0.71
15:O:221:ARG:CD	15:O:227:LEU:HD22	2.21	0.70
15:O:266:GLU:OE1	15:O:266:GLU:N	2.24	0.70
15:O:529:GLU:N	15:O:529:GLU:OE1	2.24	0.70
15:O:573:GLU:HG3	16:P:495:LYS:CE	2.20	0.70
15:O:702:LEU:CD1	16:P:125:PHE:CZ	2.73	0.70
16:P:146:ASP:CA	16:P:148:PRO:HD3	2.21	0.70
16:P:193:PHE:CB	17:Q:208:TYR:CE2	2.74	0.70
16:P:389:GLN:OE1	16:P:389:GLN:HA	1.89	0.70
17:Q:358:PHE:HD1	17:Q:365:TRP:CH2	2.09	0.70
1:A:503:VAL:O	1:A:580:HIS:CE1	2.43	0.70
2:B:154:GLU:HB2	2:B:446:MET:HE2	1.73	0.70
2:B:261:ARG:NH2	2:B:268:GLU:OE1	2.23	0.70
2:B:915:ASP:OD2	2:B:1035:ARG:NE	2.23	0.70
9:I:26:SER:O	9:I:38:PRO:HB2	1.91	0.70
15:O:593:VAL:HB	16:P:320:PHE:HD2	1.55	0.70
16:P:118:TRP:CZ3	16:P:189:LYS:CD	2.64	0.70
16:P:154:LEU:N	16:P:154:LEU:HD22	2.05	0.70
2:B:819:ASP:OD1	2:B:819:ASP:N	2.24	0.70
14:N:95:ILE:HD11	14:N:136:VAL:CB	2.21	0.70
15:O:273:ARG:HB2	15:O:287:SER:HG	1.55	0.70
16:P:106:LYS:HA	16:P:109:GLN:OE1	1.91	0.70
16:P:247:ILE:CG1	16:P:286:LEU:HA	2.18	0.70
1:A:417:ARG:HH22	1:A:420:PHE:HD2	1.39	0.70
1:A:920:PHE:CE1	1:A:927:ALA:HA	2.25	0.70
2:B:286:ARG:NH1	2:B:290:ASP:OD1	2.24	0.70
15:O:408:ILE:CD1	15:O:464:LEU:HD13	2.21	0.70
15:O:529:GLU:HG2	15:O:530:ASN:N	2.05	0.70
15:O:698:LYS:CE	16:P:126:PRO:HD2	2.20	0.70
15:O:706:GLU:CG	16:P:438:PHE:HB3	2.20	0.70
16:P:344:THR:HA	16:P:436:LEU:O	1.90	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:295:PRO:O	17:Q:297:PHE:N	2.24	0.70
17:Q:380:SER:O	17:Q:383:PHE:C	2.29	0.70
1:A:403:LEU:HG	1:A:406:LEU:HD21	1.74	0.70
2:B:656:LEU:HD21	2:B:681:ILE:HD13	1.74	0.70
2:B:822:THR:O	2:B:824:HIS:ND1	2.23	0.70
13:M:11:GLU:H	13:M:86:LYS:HE2	1.56	0.70
15:O:323:ASN:OD1	17:Q:155:GLN:HG2	1.91	0.70
15:O:428:GLU:CB	15:O:432:PRO:O	2.33	0.70
15:O:656:HIS:HD2	15:O:746:ARG:C	1.95	0.70
15:O:672:ILE:HD12	15:O:734:LYS:CE	2.20	0.70
16:P:104:PHE:CZ	16:P:155:GLN:OE1	2.45	0.70
1:A:1241:PRO:HA	1:A:1518:VAL:HG12	1.73	0.70
2:B:1042:ASP:OD2	2:B:1063:ARG:NH1	2.24	0.70
13:M:45:LYS:HZ3	13:M:50:GLU:N	1.89	0.70
15:O:307:PHE:C	15:O:315:PHE:HB2	2.12	0.70
15:O:617:HIS:O	15:O:618:ASP:CG	2.30	0.70
16:P:160:SER:HB3	16:P:229:LYS:HE2	1.72	0.70
16:P:494:SER:HG	16:P:497:GLN:N	1.90	0.70
17:Q:356:PRO:HD2	17:Q:357:PRO:N	2.05	0.70
2:B:77:LYS:HD3	2:B:440:PHE:CZ	2.26	0.70
15:O:207:SER:OG	15:O:215:ASN:ND2	2.25	0.70
15:O:685:TYR:CD1	15:O:689:GLN:OE1	2.36	0.70
15:O:702:LEU:CD1	16:P:174:LEU:CB	2.70	0.70
16:P:104:PHE:CA	16:P:211:TYR:CE1	2.73	0.70
16:P:114:ARG:NH1	16:P:197:GLU:OE2	2.24	0.70
16:P:152:LEU:HA	16:P:154:LEU:HD21	1.73	0.70
16:P:185:ILE:CD1	17:Q:208:TYR:OH	2.40	0.70
16:P:354:LYS:CD	16:P:362:THR:CG2	2.68	0.70
17:Q:247:ILE:HG23	17:Q:278:TYR:HE2	1.45	0.70
17:Q:356:PRO:CB	17:Q:357:PRO:HD3	2.14	0.70
13:M:56:GLU:OE2	14:N:23:PHE:CE2	2.45	0.70
15:O:275:GLU:CA	15:O:285:MET:O	2.38	0.70
15:O:714:PHE:CZ	15:O:718:LEU:HD22	2.27	0.70
16:P:115:GLN:O	16:P:119:LEU:HG	1.90	0.70
19:S:23:DG:N2	20:T:32:DC:O2	2.13	0.70
1:A:594:THR:HB	2:B:1074:MET:HB3	1.74	0.70
2:B:1132:SER:HB2	2:B:1160:GLU:HB3	1.73	0.70
3:C:128:ASP:OD1	3:C:174:ARG:NH2	2.18	0.70
14:N:79:THR:HG22	14:N:88:LYS:HG2	1.73	0.70
15:O:221:ARG:CD	15:O:227:LEU:CD2	2.70	0.70
15:O:248:PRO:CD	15:O:307:PHE:CE2	2.75	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:314:GLN:NE2	15:O:328:ARG:CB	2.26	0.70
15:O:382:GLU:OE1	17:Q:144:VAL:HG11	1.91	0.70
15:O:415:LEU:HD21	15:O:451:ILE:CD1	2.21	0.70
15:O:454:GLN:OE1	15:O:535:VAL:HG23	1.91	0.70
15:O:715:TYR:CE1	15:O:734:LYS:HD2	2.05	0.70
15:O:780:ILE:N	16:P:199:LEU:HD21	2.06	0.70
17:Q:247:ILE:HD11	17:Q:248:LYS:HD2	1.73	0.70
1:A:417:ARG:HH12	1:A:420:PHE:CB	1.91	0.70
1:A:721:LYS:HB2	8:H:96:VAL:H	1.56	0.70
2:B:219:ARG:NH2	19:S:41:DT:OP1	2.25	0.70
9:I:42:PHE:CE2	9:I:44:ASN:CA	2.61	0.70
12:L:47:ARG:HD3	16:P:405:ASP:OD1	1.92	0.70
15:O:580:ASN:OD1	15:O:581:ALA:N	2.24	0.70
15:O:623:LEU:CD1	15:O:669:PHE:N	2.55	0.70
15:O:722:TRP:HH2	16:P:262:LEU:CG	1.61	0.70
16:P:359:ASP:C	16:P:361:PRO:HD3	2.12	0.70
16:P:479:LEU:C	16:P:479:LEU:HD23	2.12	0.70
17:Q:360:GLU:O	17:Q:361:ASP:CB	2.40	0.70
1:A:406:LEU:CD2	1:A:416:ARG:CD	2.69	0.69
7:G:143:SER:O	7:G:159:LYS:N	2.24	0.69
15:O:472:ARG:HH12	17:Q:203:SER:CB	2.05	0.69
1:A:113:VAL:O	1:A:185:ARG:NH1	2.24	0.69
2:B:552:SER:OG	2:B:648:ARG:N	2.24	0.69
15:O:262:GLY:HA2	15:O:271:ILE:HA	1.74	0.69
15:O:301:GLN:O	15:O:320:ILE:HG12	1.91	0.69
15:O:328:ARG:N	15:O:340:LYS:HB2	2.07	0.69
15:O:582:ASP:O	15:O:586:LYS:HB2	1.91	0.69
15:O:589:ILE:HG23	16:P:316:TRP:CE3	2.23	0.69
15:O:686:TYR:CD1	15:O:689:GLN:HG3	2.24	0.69
16:P:154:LEU:C	16:P:156:LEU:CD1	2.55	0.69
16:P:263:PRO:HG2	16:P:266:PHE:CG	2.28	0.69
16:P:494:SER:CB	16:P:497:GLN:CG	2.71	0.69
2:B:513:LYS:NZ	19:S:42:DG:H4'	2.06	0.69
7:G:82:LEU:N	7:G:123:TYR:O	2.24	0.69
8:H:100:THR:O	8:H:116:TYR:HA	1.91	0.69
15:O:307:PHE:CB	15:O:315:PHE:CE1	2.60	0.69
15:O:365:TRP:CZ2	15:O:407:ARG:CD	2.76	0.69
15:O:571:HIS:HB2	15:O:573:GLU:OE2	1.92	0.69
15:O:596:ILE:HG21	16:P:317:MET:HE2	1.75	0.69
15:O:705:HIS:NE2	15:O:707:ASP:CB	2.50	0.69
17:Q:280:SER:OG	17:Q:301:SER:HB3	1.79	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:29:PHE:N	5:E:63:ASN:O	2.20	0.69
15:O:341:LEU:HD12	15:O:341:LEU:O	1.91	0.69
15:O:433:VAL:HG23	15:O:434:ARG:N	2.08	0.69
15:O:436:ILE:CG1	17:Q:141:TRP:CZ3	2.75	0.69
16:P:101:LYS:HZ2	16:P:152:LEU:N	1.90	0.69
16:P:204:ARG:O	16:P:208:PRO:HD3	1.93	0.69
2:B:1104:CYS:CB	2:B:1107:CYS:HG	2.04	0.69
14:N:26:PRO:C	14:N:28:GLY:N	2.46	0.69
15:O:464:LEU:N	15:O:481:PHE:O	2.22	0.69
15:O:653:SER:HB3	15:O:748:GLU:O	1.83	0.69
15:O:669:PHE:HE1	15:O:738:LYS:CE	1.81	0.69
16:P:493:ILE:HD12	16:P:493:ILE:N	2.07	0.69
17:Q:27:ILE:HD13	17:Q:169:PRO:HB3	1.70	0.69
17:Q:345:LEU:O	17:Q:349:ILE:HG12	1.90	0.69
17:Q:361:ASP:O	17:Q:364:VAL:CG2	2.40	0.69
1:A:921:PRO:HG2	8:H:19:ARG:CG	2.18	0.69
1:A:1478:ALA:HA	9:I:21:ASN:HD21	1.57	0.69
8:H:37:LYS:HB2	8:H:126:GLU:HB3	1.75	0.69
8:H:104:PHE:HB3	8:H:112:ILE:HD11	1.75	0.69
15:O:430:ASN:CG	15:O:431:ASP:OD1	2.31	0.69
15:O:438:TRP:NE1	15:O:489:PHE:HB3	2.07	0.69
15:O:619:GLU:HA	15:O:622:TYR:CD2	2.27	0.69
15:O:656:HIS:CD2	15:O:747:LEU:HA	2.28	0.69
15:O:698:LYS:HD3	16:P:125:PHE:HA	1.75	0.69
16:P:378:LEU:HD11	17:Q:235:ILE:N	2.08	0.69
1:A:18:ILE:HG23	2:B:1186:ASP:OD2	1.92	0.69
2:B:555:GLN:NE2	2:B:589:ASP:OD2	2.24	0.69
5:E:9:ILE:HG21	5:E:43:LYS:HG2	1.74	0.69
15:O:220:THR:N	15:O:228:ASN:O	2.26	0.69
15:O:314:GLN:CB	15:O:329:ILE:CG1	2.67	0.69
16:P:484:ALA:O	16:P:488:LEU:HB3	1.92	0.69
17:Q:140:ILE:HG22	17:Q:142:ARG:CD	2.23	0.69
17:Q:247:ILE:CB	17:Q:298:GLN:HG2	2.20	0.69
1:A:403:LEU:CG	1:A:406:LEU:HD21	2.23	0.69
2:B:1121:GLY:O	7:G:239:THR:CA	2.40	0.69
7:G:97:LYS:HA	7:G:97:LYS:HE3	1.74	0.69
8:H:6:PHE:O	8:H:59:ILE:N	2.20	0.69
15:O:275:GLU:HB3	15:O:285:MET:CG	2.22	0.69
15:O:323:ASN:CA	15:O:348:HIS:HB3	2.22	0.69
15:O:357:LEU:HD12	15:O:377:ARG:NH2	2.08	0.69
15:O:581:ALA:HB3	15:O:585:GLU:CG	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:641:TRP:HE1	15:O:653:SER:HG	0.71	0.69
15:O:659:LEU:O	15:O:742:TRP:CZ2	2.46	0.69
15:O:693:PHE:HD2	15:O:746:ARG:H	0.82	0.69
16:P:150:GLU:N	16:P:150:GLU:OE1	2.26	0.69
16:P:330:TRP:HE3	16:P:331:ILE:HD13	1.57	0.69
16:P:415:LYS:C	16:P:417:PHE:H	1.93	0.69
17:Q:154:LYS:O	17:Q:154:LYS:HG2	1.93	0.69
17:Q:355:THR:C	17:Q:359:MET:CB	2.62	0.69
17:Q:388:LYS:CE	17:Q:392:LEU:O	2.41	0.69
1:A:105:CYS:SG	21:A:1701:ZN:ZN	1.81	0.69
9:I:26:SER:HA	9:I:38:PRO:HB2	1.74	0.69
13:M:45:LYS:HE2	13:M:49:ASP:CA	2.22	0.69
15:O:746:ARG:NH2	16:P:173:SER:CB	2.56	0.69
16:P:219:ILE:HD13	17:Q:207:ASN:CA	2.16	0.69
16:P:284:LEU:HD13	16:P:302:ALA:HB2	1.63	0.69
16:P:289:ARG:O	16:P:290:THR:C	2.29	0.69
16:P:344:THR:OG1	16:P:438:PHE:CA	2.40	0.69
17:Q:385:ASN:O	17:Q:389:ASN:O	2.10	0.69
9:I:2:SER:O	9:I:9:PHE:N	2.26	0.69
15:O:475:ARG:CZ	15:O:496:THR:HG23	2.23	0.69
15:O:649:ILE:N	15:O:649:ILE:HD13	2.07	0.69
16:P:258:MET:CA	16:P:262:LEU:HD22	2.23	0.69
17:Q:212:HIS:O	17:Q:215:THR:CB	2.41	0.69
17:Q:285:VAL:HG23	17:Q:302:ARG:NH1	2.06	0.69
19:S:40:DT:H4'	19:S:41:DT:OP1	1.90	0.69
1:A:990:ILE:O	2:B:984:TRP:NE1	2.22	0.68
2:B:501:ARG:NH2	2:B:546:ALA:O	2.25	0.68
2:B:749:THR:OG1	2:B:763:ASP:OD1	2.11	0.68
12:L:48:CYS:HB3	12:L:51:CYS:SG	2.33	0.68
15:O:202:ILE:HG22	15:O:216:ILE:HG23	1.74	0.68
15:O:435:ARG:HG3	15:O:435:ARG:O	1.93	0.68
16:P:479:LEU:HD23	16:P:479:LEU:O	1.92	0.68
17:Q:393:ILE:O	17:Q:395:LEU:CD2	2.40	0.68
1:A:571:HIS:NE2	7:G:53:TYR:OH	2.20	0.68
2:B:912:GLN:OE1	2:B:1041:ASN:ND2	2.26	0.68
3:C:57:ILE:HG12	3:C:297:HIS:ND1	2.08	0.68
15:O:275:GLU:N	15:O:285:MET:O	2.26	0.68
15:O:290:GLU:HB3	15:O:338:LYS:O	1.93	0.68
15:O:390:GLN:O	15:O:391:THR:OG1	2.11	0.68
15:O:725:VAL:HG13	15:O:726:SER:N	2.09	0.68
16:P:246:GLU:O	16:P:285:THR:C	2.31	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:354:LEU:CD1	17:Q:359:MET:N	2.45	0.68
1:A:1478:ALA:CB	9:I:21:ASN:ND2	2.55	0.68
2:B:1138:ALA:O	2:B:1140:LYS:N	2.25	0.68
9:I:10:CYS:N	9:I:15:ASP:O	2.25	0.68
15:O:305:PHE:HA	15:O:317:ILE:O	1.93	0.68
15:O:686:TYR:HD1	15:O:689:GLN:CG	2.04	0.68
16:P:183:LYS:HD2	16:P:189:LYS:HD2	1.75	0.68
16:P:257:VAL:CG1	16:P:262:LEU:HA	2.21	0.68
1:A:52:LEU:HD11	1:A:60:ASN:HB3	1.75	0.68
1:A:722:PRO:CB	8:H:46:LEU:HD23	2.20	0.68
7:G:45:LEU:HD13	7:G:47:VAL:HG13	1.76	0.68
15:O:186:TYR:HE2	15:O:512:LEU:HD21	1.56	0.68
15:O:400:SER:HA	15:O:419:ARG:HH21	1.57	0.68
15:O:438:TRP:CH2	15:O:491:SER:HB2	2.25	0.68
15:O:624:GLN:HA	15:O:678:LEU:HD21	1.75	0.68
15:O:638:LEU:HD23	15:O:748:GLU:OE1	1.93	0.68
15:O:690:ASP:OD2	15:O:750:PRO:HD3	1.93	0.68
15:O:725:VAL:HG22	15:O:726:SER:N	2.08	0.68
16:P:157:HIS:CG	16:P:158:MET:N	2.61	0.68
16:P:165:LEU:HD23	16:P:165:LEU:C	2.14	0.68
16:P:381:MET:HE3	16:P:385:PHE:HD2	1.58	0.68
17:Q:25:ASN:CA	17:Q:28:SER:OG	2.40	0.68
17:Q:298:GLN:O	17:Q:299:THR:CB	2.42	0.68
15:O:178:VAL:O	15:O:243:LYS:HE2	1.93	0.68
15:O:470:SER:O	15:O:504:THR:HG22	1.93	0.68
15:O:600:GLU:OE1	16:P:269:TYR:HE1	1.70	0.68
15:O:649:ILE:HD13	15:O:649:ILE:H	1.58	0.68
16:P:119:LEU:HD21	16:P:165:LEU:CD1	2.23	0.68
2:B:111:ASP:O	2:B:112:GLY:O	2.12	0.68
15:O:388:ASN:C	17:Q:150:GLN:OE1	2.31	0.68
15:O:414:ILE:HD12	15:O:425:GLY:CA	2.20	0.68
15:O:651:SER:C	15:O:653:SER:H	1.97	0.68
15:O:715:TYR:CE2	15:O:734:LYS:HE3	2.27	0.68
16:P:115:GLN:OE1	16:P:161:THR:HG21	1.93	0.68
17:Q:267:GLY:O	17:Q:271:LEU:N	2.25	0.68
17:Q:354:LEU:CD1	17:Q:358:PHE:C	2.61	0.68
17:Q:394:GLY:O	17:Q:396:ASP:N	2.27	0.68
14:N:106:ASN:O	14:N:108:THR:N	2.27	0.68
15:O:593:VAL:CB	16:P:320:PHE:HD2	2.06	0.68
16:P:359:ASP:CG	16:P:361:PRO:HD3	2.13	0.68
17:Q:355:THR:HB	17:Q:356:PRO:HD3	0.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:216:ILE:O	13:M:260:GLN:NE2	2.18	0.68
15:O:428:GLU:HG3	15:O:433:VAL:HG23	1.75	0.68
15:O:475:ARG:CD	16:P:367:PHE:HE2	2.01	0.68
16:P:115:GLN:NE2	16:P:190:MET:SD	2.67	0.68
16:P:224:GLY:C	16:P:226:LEU:H	1.97	0.68
2:B:77:LYS:HD3	2:B:440:PHE:CE2	2.28	0.68
15:O:354:PRO:CA	17:Q:131:TYR:OH	2.42	0.68
16:P:330:TRP:CZ3	16:P:334:LEU:HD11	2.29	0.68
17:Q:354:LEU:CD1	17:Q:359:MET:C	2.62	0.68
1:A:530:TRP:HE3	1:A:531:PRO:CD	2.05	0.68
2:B:822:THR:O	2:B:823:GLN:C	2.33	0.68
15:O:724:LEU:CD1	16:P:443:GLN:HG2	2.19	0.68
16:P:146:ASP:O	16:P:148:PRO:HD2	1.94	0.68
16:P:200:PRO:HB2	16:P:203:TRP:CB	2.20	0.68
16:P:328:LEU:HD13	16:P:472:ARG:HB3	1.76	0.68
16:P:371:GLU:O	16:P:374:THR:CB	2.42	0.68
1:A:618:TYR:CE1	2:B:783:MET:HB2	2.29	0.67
2:B:1121:GLY:O	7:G:239:THR:OG1	2.11	0.67
13:M:54:HIS:NE2	13:M:61:GLU:OE2	2.17	0.67
15:O:431:ASP:CG	15:O:432:PRO:HD2	2.15	0.67
15:O:442:LEU:C	15:O:442:LEU:HD12	2.15	0.67
15:O:686:TYR:CB	15:O:692:THR:HG21	2.24	0.67
3:C:93:GLN:NE2	3:C:95:GLU:OE1	2.20	0.67
4:D:22:ILE:HG23	7:G:43:ILE:HD12	1.75	0.67
11:K:83:ASN:HB3	11:K:86:VAL:HG23	1.74	0.67
13:M:112:LYS:HG3	13:M:114:LYS:H	1.59	0.67
15:O:205:TYR:CD2	15:O:215:ASN:HB3	2.29	0.67
15:O:339:ARG:HG3	15:O:340:LYS:N	2.09	0.67
15:O:399:TRP:CD1	17:Q:134:PRO:HB3	2.29	0.67
15:O:725:VAL:CB	16:P:450:THR:HA	2.23	0.67
16:P:344:THR:CA	16:P:436:LEU:O	2.42	0.67
16:P:378:LEU:HD12	17:Q:235:ILE:HD13	1.75	0.67
1:A:1026:GLN:HG3	1:A:1598:PHE:HD1	1.58	0.67
2:B:75:ASP:HB3	2:B:77:LYS:CD	2.12	0.67
2:B:221:SER:HB3	19:S:40:DT:H3'	1.77	0.67
2:B:817:ARG:HA	19:S:27:DT:OP1	1.94	0.67
3:C:164:ALA:HB3	3:C:189:PRO:HA	1.76	0.67
15:O:22:UNK:O	17:Q:314:TRP:CE2	2.47	0.67
15:O:620:ASP:HA	15:O:674:GLU:CD	2.15	0.67
16:P:119:LEU:HD21	16:P:165:LEU:HD11	1.75	0.67
17:Q:21:TYR:CD2	17:Q:124:GLU:CB	2.78	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:158:THR:CG2	17:Q:161:ASN:CB	2.67	0.67
17:Q:245:VAL:HG12	17:Q:250:LEU:HD11	1.40	0.67
14:N:95:ILE:HD11	14:N:136:VAL:HB	1.75	0.67
14:N:95:ILE:HD11	14:N:136:VAL:HG23	1.77	0.67
15:O:174:TRP:HD1	17:Q:199:LYS:HB2	1.59	0.67
15:O:378:SER:HB3	15:O:397:LYS:CG	2.21	0.67
15:O:419:ARG:NH1	15:O:420:GLU:OE1	2.28	0.67
15:O:760:ILE:HG21	16:P:138:LEU:HD13	1.75	0.67
16:P:177:TYR:CZ	16:P:226:LEU:HD22	2.29	0.67
16:P:356:VAL:HA	17:Q:211:ARG:NE	2.08	0.67
16:P:381:MET:HE3	16:P:385:PHE:CD2	2.29	0.67
16:P:491:PHE:C	16:P:493:ILE:H	1.98	0.67
1:A:525:ASN:HB3	1:A:529:LYS:HB3	1.76	0.67
1:A:921:PRO:CG	8:H:19:ARG:CD	2.72	0.67
13:M:9:GLU:HA	14:N:73:ASP:HB3	1.76	0.67
15:O:396:ALA:CB	17:Q:140:ILE:HD12	2.25	0.67
16:P:144:ILE:C	16:P:147:GLN:NE2	2.48	0.67
16:P:222:PHE:HE2	17:Q:206:ARG:HD3	1.60	0.67
16:P:386:LEU:N	16:P:387:PRO:CD	2.53	0.67
2:B:305:ARG:HA	2:B:308:LEU:HD12	1.77	0.67
3:C:42:VAL:O	11:K:138:LYS:NZ	2.23	0.67
7:G:98:GLU:OE1	7:G:98:GLU:HA	1.94	0.67
15:O:415:LEU:CD2	15:O:451:ILE:HD13	2.24	0.67
15:O:656:HIS:HB2	15:O:747:LEU:N	2.08	0.67
2:B:1139:LYS:C	2:B:1141:LEU:N	2.48	0.67
15:O:260:LEU:HD21	15:O:273:ARG:O	1.90	0.67
15:O:653:SER:O	15:O:748:GLU:HB3	1.94	0.67
15:O:654:LEU:HG	15:O:748:GLU:CG	2.25	0.67
16:P:119:LEU:CD2	16:P:165:LEU:CD1	2.70	0.67
16:P:208:PRO:HB2	16:P:213:SER:HA	1.75	0.67
16:P:334:LEU:O	16:P:338:LEU:CG	2.35	0.67
16:P:403:THR:C	16:P:405:ASP:H	1.94	0.67
19:S:28:DT:C2	19:S:29:DT:N3	2.55	0.67
13:M:280:LYS:HB2	13:M:316:ARG:HB3	1.77	0.67
15:O:657:SER:CB	15:O:746:ARG:CD	2.64	0.67
17:Q:363:GLU:C	17:Q:367:ILE:HG22	2.10	0.67
4:D:24:ALA:HA	7:G:43:ILE:HA	1.77	0.67
9:I:38:PRO:HA	9:I:41:GLN:O	1.95	0.67
14:N:96:GLU:O	14:N:132:GLN:OE1	2.13	0.67
15:O:9:UNK:C	15:O:11:UNK:N	2.53	0.67
15:O:194:ARG:HB3	15:O:194:ARG:CZ	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:482:SER:OG	15:O:490:GLN:HB2	1.95	0.67
15:O:656:HIS:HD2	15:O:747:LEU:N	1.89	0.67
16:P:169:SER:OG	16:P:175:PRO:CD	2.43	0.67
16:P:263:PRO:HG2	16:P:266:PHE:CB	2.24	0.67
16:P:385:PHE:C	16:P:388:THR:HG22	2.14	0.67
17:Q:304:HIS:O	17:Q:305:THR:O	2.12	0.67
17:Q:363:GLU:O	17:Q:367:ILE:N	2.26	0.67
17:Q:365:TRP:HA	17:Q:365:TRP:CE3	2.29	0.67
17:Q:386:ASP:O	17:Q:390:ASN:HA	1.95	0.67
1:A:1297:PHE:HE1	9:I:64:LYS:HD2	1.59	0.67
2:B:143:TRP:HB3	2:B:152:LEU:HB2	1.78	0.67
2:B:906:ARG:NH1	3:C:93:GLN:HG3	2.10	0.67
7:G:162:ILE:HG12	7:G:249:LEU:HD12	1.76	0.67
9:I:26:SER:CA	9:I:38:PRO:HB2	2.24	0.67
13:M:27:PHE:O	14:N:106:ASN:ND2	2.28	0.67
16:P:263:PRO:HB2	16:P:266:PHE:HD2	0.57	0.67
16:P:357:TYR:HE2	17:Q:204:GLU:N	1.92	0.67
17:Q:204:GLU:OE1	17:Q:204:GLU:N	2.28	0.67
17:Q:393:ILE:HG13	17:Q:400:LYS:NZ	2.10	0.67
1:A:1090:ASP:OD2	1:A:1093:SER:N	2.24	0.66
13:M:12:ILE:HG23	13:M:88:ILE:HD11	1.77	0.66
14:N:26:PRO:C	14:N:28:GLY:H	1.98	0.66
14:N:94:ASP:C	14:N:95:ILE:HG13	2.15	0.66
15:O:189:THR:HG21	15:O:259:ASN:ND2	2.09	0.66
15:O:381:ILE:HG23	15:O:391:THR:O	1.95	0.66
15:O:436:ILE:HG12	17:Q:141:TRP:CE3	2.30	0.66
15:O:538:LEU:HD12	15:O:538:LEU:O	1.94	0.66
15:O:616:SER:HA	15:O:619:GLU:N	2.09	0.66
17:Q:21:TYR:HE2	17:Q:124:GLU:CG	2.04	0.66
17:Q:248:LYS:CA	17:Q:298:GLN:HE22	2.08	0.66
17:Q:274:MET:O	17:Q:277:ILE:CG2	2.41	0.66
1:A:95:TYR:CZ	1:A:99:ARG:HD2	2.31	0.66
2:B:789:ILE:HD11	2:B:917:PHE:CE2	2.30	0.66
2:B:822:THR:O	2:B:824:HIS:CG	2.49	0.66
9:I:26:SER:O	9:I:38:PRO:CB	2.43	0.66
15:O:232:ASN:HD21	15:O:283:ASP:HA	1.59	0.66
15:O:346:ASN:OD1	15:O:347:LEU:N	2.27	0.66
16:P:334:LEU:CD2	16:P:449:GLN:OE1	2.43	0.66
17:Q:181:THR:HA	19:S:10:DG:P	2.34	0.66
17:Q:388:LYS:HE3	17:Q:393:ILE:HA	1.76	0.66
3:C:139:LYS:NZ	3:C:201:GLU:OE1	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:43:ILE:HD13	7:G:122:LEU:HD11	1.78	0.66
15:O:174:TRP:CD1	17:Q:199:LYS:HD3	2.30	0.66
15:O:382:GLU:C	15:O:383:ILE:HD12	2.16	0.66
15:O:568:ILE:HG22	15:O:570:ASP:CB	2.24	0.66
15:O:635:ASN:ND2	15:O:685:TYR:CE1	2.62	0.66
15:O:698:LYS:HE2	16:P:126:PRO:HD3	1.76	0.66
15:O:771:ILE:HG22	16:P:109:GLN:OE1	1.92	0.66
16:P:200:PRO:HB2	16:P:203:TRP:H	1.60	0.66
16:P:360:LYS:N	16:P:361:PRO:CD	2.58	0.66
2:B:822:THR:O	2:B:824:HIS:CD2	2.48	0.66
13:M:37:THR:O	13:M:62:TYR:OH	2.13	0.66
14:N:46:LYS:NZ	14:N:124:THR:O	2.26	0.66
15:O:15:UNK:C	15:O:20:UNK:CB	2.74	0.66
15:O:214:LEU:CB	15:O:236:ILE:CG2	2.11	0.66
15:O:214:LEU:HD12	15:O:238:LEU:HD12	1.78	0.66
15:O:414:ILE:CD1	15:O:425:GLY:HA3	2.24	0.66
15:O:529:GLU:HG2	15:O:530:ASN:H	1.61	0.66
16:P:222:PHE:CE2	17:Q:206:ARG:HD3	2.29	0.66
1:A:463:LYS:HD2	1:A:463:LYS:C	2.16	0.66
1:A:1248:ASP:OD1	1:A:1509:HIS:NE2	2.27	0.66
2:B:479:GLN:CB	19:S:39:DT:H3	2.08	0.66
2:B:1015:SER:HB3	2:B:1019:GLY:H	1.60	0.66
2:B:1063:ARG:NH2	20:T:20:DA:OP1	2.28	0.66
9:I:56:PHE:HB2	9:I:61:ARG:HH21	1.59	0.66
15:O:456:VAL:HB	15:O:463:LEU:HD12	1.77	0.66
15:O:603:ARG:NH2	16:P:268:PHE:HD1	1.84	0.66
16:P:494:SER:OG	16:P:497:GLN:HG2	1.92	0.66
17:Q:154:LYS:O	17:Q:155:GLN:NE2	2.29	0.66
1:A:335:LEU:HA	1:A:338:VAL:HB	1.77	0.66
1:A:464:GLU:HB2	1:A:469:LYS:CB	2.24	0.66
1:A:1298:ASP:OD1	1:A:1299:ASN:N	2.28	0.66
2:B:366:GLY:O	2:B:370:LYS:N	2.23	0.66
7:G:236:VAL:HG13	7:G:244:SER:O	1.95	0.66
15:O:247:ILE:N	15:O:248:PRO:HD3	2.11	0.66
15:O:347:LEU:HD23	17:Q:152:ILE:HA	1.71	0.66
15:O:353:ASP:O	17:Q:28:SER:HB3	1.95	0.66
15:O:472:ARG:HH22	17:Q:200:THR:N	1.91	0.66
15:O:472:ARG:CD	17:Q:200:THR:CG2	2.73	0.66
15:O:623:LEU:HD22	15:O:674:GLU:OE1	1.96	0.66
16:P:167:LEU:HD21	16:P:234:CYS:SG	2.36	0.66
16:P:177:TYR:CE1	16:P:226:LEU:HD21	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:354:LYS:CE	16:P:362:THR:HG22	2.26	0.66
1:A:214:ASP:HB2	1:A:1605:THR:HG23	1.77	0.66
15:O:275:GLU:O	15:O:285:MET:N	2.29	0.66
15:O:771:ILE:HG21	16:P:109:GLN:CD	1.93	0.66
16:P:200:PRO:HB2	16:P:203:TRP:N	2.11	0.66
16:P:258:MET:CG	16:P:262:LEU:CD2	2.61	0.66
17:Q:154:LYS:HB3	17:Q:156:LYS:HG3	1.76	0.66
1:A:529:LYS:O	1:A:530:TRP:O	2.13	0.66
3:C:197:ARG:N	3:C:200:GLN:OE1	2.28	0.66
7:G:144:HIS:HA	7:G:157:ILE:O	1.96	0.66
11:K:89:CYS:SG	11:K:105:ILE:HG13	2.36	0.66
15:O:202:ILE:HD12	15:O:202:ILE:N	2.09	0.66
15:O:691:VAL:O	15:O:747:LEU:HD11	1.96	0.66
17:Q:365:TRP:CD1	17:Q:417:ILE:HG13	2.31	0.66
1:A:406:LEU:CD2	1:A:416:ARG:CG	2.63	0.66
1:A:1299:ASN:HA	1:A:1302:TYR:CZ	2.31	0.66
2:B:740:LYS:HA	2:B:804:TYR:O	1.96	0.66
2:B:935:ASP:OD1	3:C:69:ARG:NH1	2.21	0.66
15:O:237:GLU:OE2	15:O:239:HIS:HE1	1.66	0.66
15:O:590:GLY:O	16:P:320:PHE:CE2	2.49	0.66
16:P:330:TRP:NE1	16:P:452:PHE:HD1	1.93	0.66
1:A:403:LEU:HA	1:A:406:LEU:CG	2.25	0.66
3:C:143:ASN:O	3:C:145:ASP:N	2.28	0.66
10:J:3:VAL:HG21	10:J:18:TRP:HB2	1.77	0.66
13:M:192:ASN:N	13:M:201:ILE:O	2.27	0.66
15:O:590:GLY:HA3	16:P:320:PHE:CE1	2.31	0.66
15:O:768:TYR:CB	16:P:145:ASN:ND2	2.49	0.66
1:A:416:ARG:HD3	1:A:419:ILE:HG12	1.77	0.65
2:B:51:ALA:HB1	2:B:60:LEU:HD13	1.77	0.65
2:B:822:THR:O	2:B:824:HIS:NE2	2.30	0.65
7:G:15:ARG:O	7:G:19:LYS:HB2	1.95	0.65
13:M:242:TYR:OH	13:M:246:LYS:NZ	2.22	0.65
15:O:428:GLU:HA	15:O:435:ARG:CD	2.25	0.65
15:O:499:GLU:HG3	15:O:500:ILE:N	2.07	0.65
16:P:158:MET:CB	16:P:192:TYR:OH	2.43	0.65
16:P:341:ARG:HH12	16:P:445:ARG:HH21	0.67	0.65
17:Q:140:ILE:HG22	17:Q:142:ARG:HD3	1.78	0.65
2:B:987:ASN:OD1	2:B:988:GLU:N	2.29	0.65
13:M:261:LEU:HD11	13:M:335:ILE:HG12	1.77	0.65
15:O:669:PHE:O	15:O:671:SER:N	2.24	0.65
16:P:362:THR:HA	16:P:365:ASP:OD1	1.91	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:246:GLN:HG2	17:Q:248:LYS:HG2	1.78	0.65
1:A:417:ARG:NH2	1:A:420:PHE:HB3	2.11	0.65
1:A:581:ILE:HD11	1:A:605:VAL:HG21	1.78	0.65
1:A:1478:ALA:CA	9:I:21:ASN:HD21	2.10	0.65
2:B:111:ASP:CG	2:B:116:ALA:HB2	2.16	0.65
2:B:1182:LEU:HA	2:B:1185:LEU:HB2	1.78	0.65
15:O:264:ILE:CG2	15:O:302:VAL:HB	2.27	0.65
15:O:275:GLU:CB	15:O:285:MET:HG3	2.25	0.65
15:O:302:VAL:O	15:O:303:VAL:HB	1.96	0.65
15:O:339:ARG:HG3	15:O:340:LYS:H	1.62	0.65
15:O:353:ASP:CB	17:Q:27:ILE:O	2.43	0.65
15:O:451:ILE:HG13	15:O:467:PHE:O	1.95	0.65
16:P:315:ASN:O	16:P:319:SER:HB2	1.96	0.65
15:O:264:ILE:HG13	15:O:305:PHE:HE2	1.62	0.65
15:O:380:MET:H	15:O:394:VAL:CG2	2.10	0.65
15:O:395:GLN:NE2	15:O:397:LYS:HA	2.10	0.65
15:O:707:ASP:C	15:O:709:PRO:HD3	2.17	0.65
16:P:247:ILE:HD11	16:P:286:LEU:HD13	1.74	0.65
16:P:287:TRP:CZ2	16:P:298:VAL:HB	2.30	0.65
16:P:354:LYS:HG2	16:P:362:THR:CB	2.24	0.65
1:A:69:GLU:O	1:A:366:ARG:NH2	2.30	0.65
1:A:530:TRP:CE3	1:A:531:PRO:CD	2.79	0.65
1:A:1256:LYS:O	1:A:1499:ARG:NH2	2.29	0.65
1:A:1440:ASN:OD1	1:A:1443:GLN:N	2.21	0.65
2:B:16:PHE:CE1	2:B:978:ALA:HB2	2.31	0.65
2:B:114:SER:O	2:B:116:ALA:N	2.29	0.65
13:M:231:LEU:O	13:M:237:GLN:NE2	2.29	0.65
15:O:390:GLN:CD	17:Q:151:PRO:HG2	2.17	0.65
15:O:638:LEU:CD2	15:O:748:GLU:OE2	2.45	0.65
15:O:669:PHE:CD1	15:O:675:PHE:HB2	2.30	0.65
15:O:738:LYS:HG2	15:O:739:ASP:N	2.10	0.65
15:O:740:ILE:C	15:O:744:LEU:HD11	2.16	0.65
17:Q:266:SER:CB	17:Q:268:LEU:HD12	2.27	0.65
1:A:68:ASP:OD1	1:A:69:GLU:N	2.29	0.65
1:A:689:ARG:NH2	11:K:87:GLU:O	2.30	0.65
2:B:94:LYS:HB3	2:B:146:ASN:HA	1.79	0.65
9:I:20:PRO:HB3	9:I:38:PRO:HG3	1.78	0.65
13:M:165:VAL:O	13:M:169:SER:N	2.20	0.65
15:O:302:VAL:O	15:O:320:ILE:HG13	1.97	0.65
15:O:372:ILE:O	15:O:373:LEU:HD23	1.95	0.65
15:O:396:ALA:O	15:O:397:LYS:HB2	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:408:ILE:O	15:O:409:ASP:HB2	1.95	0.65
15:O:599:LYS:CB	16:P:272:GLN:HE22	2.05	0.65
17:Q:248:LYS:HA	17:Q:298:GLN:HE22	1.58	0.65
2:B:214:PRO:O	2:B:380:LYS:NZ	2.30	0.65
2:B:1070:ARG:N	20:T:18:DG:OP1	2.25	0.65
3:C:196:LEU:O	3:C:197:ARG:NH1	2.30	0.65
9:I:38:PRO:C	9:I:40:SER:O	2.34	0.65
15:O:437:SER:HB2	15:O:489:PHE:CE2	2.32	0.65
15:O:569:VAL:HG21	16:P:477:GLY:C	2.16	0.65
15:O:593:VAL:HG11	16:P:320:PHE:O	1.96	0.65
16:P:104:PHE:CE1	16:P:211:TYR:C	2.70	0.65
16:P:263:PRO:CG	16:P:266:PHE:CG	2.80	0.65
17:Q:354:LEU:C	17:Q:359:MET:HG2	2.06	0.65
5:E:100:ILE:HG23	5:E:105:PHE:CD2	2.25	0.65
15:O:421:ILE:HG22	15:O:439:LYS:CG	2.24	0.65
16:P:234:CYS:O	16:P:238:HIS:N	2.29	0.65
17:Q:350:SER:O	17:Q:351:GLU:C	2.35	0.65
1:A:406:LEU:HD23	1:A:416:ARG:HE	1.62	0.65
1:A:592:GLN:NE2	1:A:592:GLN:HA	2.12	0.65
1:A:1014:SER:HB3	20:T:15:DT:H5''	1.77	0.65
8:H:80:ARG:NH2	8:H:83:GLN:OE1	2.30	0.65
9:I:38:PRO:N	9:I:40:SER:O	2.30	0.65
2:B:770:ASN:HD21	2:B:1032:TYR:HD1	1.45	0.65
2:B:814:ASN:O	2:B:816:ASN:CA	2.45	0.65
2:B:1139:LYS:O	2:B:1140:LYS:C	2.35	0.65
15:O:178:VAL:HG22	15:O:360:TRP:CB	2.22	0.65
15:O:367:SER:O	15:O:368:HIS:HB3	1.95	0.65
16:P:202:SER:O	16:P:206:GLN:HG2	1.97	0.65
16:P:256:LEU:O	16:P:259:GLN:HB3	1.97	0.65
16:P:416:ILE:O	16:P:417:PHE:CD1	2.50	0.65
17:Q:372:HIS:CE1	17:Q:407:HIS:NE2	2.65	0.65
19:S:19:DG:H1	20:T:36:DC:H42	1.44	0.65
4:D:27:LEU:HD11	7:G:23:GLN:HB3	1.79	0.64
9:I:27:ASN:CA	9:I:39:LYS:HB2	2.27	0.64
15:O:273:ARG:HH11	15:O:274:ILE:CG2	2.08	0.64
15:O:294:PHE:O	15:O:295:VAL:C	2.36	0.64
15:O:301:GLN:HG2	15:O:321:LYS:NZ	2.13	0.64
15:O:391:THR:CG2	15:O:393:VAL:HG13	2.27	0.64
15:O:578:PHE:CZ	16:P:312:LEU:CD1	2.67	0.64
16:P:200:PRO:HA	16:P:203:TRP:HD1	1.62	0.64
16:P:210:TYR:HB2	20:T:43:DT:O4'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1039:ARG:HH21	5:E:170:LEU:HD23	1.61	0.64
1:A:1070:LEU:HD23	1:A:1154:LEU:HD21	1.79	0.64
13:M:59:ARG:HB2	13:M:60:LEU:HD12	1.79	0.64
15:O:274:ILE:HG23	15:O:274:ILE:O	1.97	0.64
15:O:302:VAL:HA	15:O:320:ILE:HG13	1.79	0.64
15:O:309:PRO:CD	15:O:365:TRP:CD1	2.78	0.64
15:O:410:ASP:O	15:O:411:LYS:HB2	1.96	0.64
15:O:472:ARG:NH1	17:Q:203:SER:OG	2.30	0.64
15:O:475:ARG:HG3	15:O:497:VAL:C	2.12	0.64
2:B:442:ASP:HB3	2:B:445:TYR:HB2	1.78	0.64
2:B:772:VAL:O	2:B:946:ASP:N	2.31	0.64
15:O:377:ARG:HG3	15:O:378:SER:N	2.13	0.64
15:O:616:SER:HA	15:O:620:ASP:N	2.01	0.64
16:P:257:VAL:O	16:P:262:LEU:HB2	1.96	0.64
16:P:341:ARG:NH1	16:P:341:ARG:CG	2.42	0.64
16:P:399:SER:CB	16:P:402:MET:HG3	2.26	0.64
17:Q:148:ASN:OD1	17:Q:149:LYS:N	2.31	0.64
20:T:29:DC:H2'	20:T:30:DT:C6	2.32	0.64
2:B:789:ILE:HD11	2:B:917:PHE:HE2	1.62	0.64
13:M:374:ALA:HB2	13:M:392:TYR:HD2	1.63	0.64
15:O:173:PHE:O	17:Q:198:LEU:HD11	1.96	0.64
15:O:375:PHE:CB	15:O:380:MET:HA	2.27	0.64
16:P:158:MET:C	16:P:192:TYR:HE1	1.99	0.64
16:P:167:LEU:HD23	16:P:239:PHE:CD2	2.33	0.64
16:P:494:SER:C	16:P:496:GLU:N	2.41	0.64
17:Q:349:ILE:HD11	17:Q:368:TYR:CE1	2.30	0.64
17:Q:355:THR:CG2	17:Q:356:PRO:HD3	2.24	0.64
7:G:85:GLU:HB2	7:G:123:TYR:HE1	1.63	0.64
10:J:7:CYS:HA	10:J:49:MET:HE3	1.80	0.64
13:M:199:GLU:HG2	13:M:342:PHE:HE2	1.63	0.64
13:M:265:LEU:HB2	13:M:335:ILE:HG21	1.79	0.64
15:O:365:TRP:NE1	15:O:407:ARG:NE	2.46	0.64
15:O:399:TRP:NE1	17:Q:134:PRO:CB	2.60	0.64
15:O:412:ASN:O	15:O:426:ALA:HB1	1.97	0.64
15:O:420:GLU:HA	15:O:442:LEU:HD11	1.79	0.64
15:O:768:TYR:HA	15:O:771:ILE:HD12	1.79	0.64
16:P:177:TYR:CZ	16:P:226:LEU:HD21	2.32	0.64
17:Q:2:PHE:HD1	17:Q:218:ASP:OD1	1.81	0.64
17:Q:155:GLN:O	17:Q:157:MET:N	2.31	0.64
17:Q:354:LEU:HG	17:Q:359:MET:CB	2.02	0.64
19:S:39:DT:C2'	19:S:40:DT:OP1	2.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:28:LYS:HZ1	14:N:104:LEU:HD12	1.61	0.64
15:O:175:ASP:HB3	17:Q:195:LEU:HB3	1.78	0.64
15:O:227:LEU:HD12	15:O:549:TYR:CE1	2.32	0.64
15:O:436:ILE:HG12	17:Q:141:TRP:CZ3	2.33	0.64
15:O:474:LYS:HE2	15:O:498:LEU:HG	1.79	0.64
15:O:775:TRP:CZ3	16:P:134:LYS:HG3	2.32	0.64
16:P:104:PHE:HA	16:P:211:TYR:CD1	2.32	0.64
17:Q:264:SER:C	17:Q:265:SER:OG	2.36	0.64
1:A:24:ILE:O	1:A:28:SER:N	2.31	0.64
1:A:1092:GLU:O	1:A:1096:LYS:N	2.29	0.64
15:O:239:HIS:O	15:O:240:SER:OG	2.11	0.64
15:O:383:ILE:HG23	15:O:390:GLN:NE2	2.10	0.64
15:O:747:LEU:C	15:O:748:GLU:HG2	2.12	0.64
16:P:198:ILE:HD13	16:P:198:ILE:H	1.63	0.64
16:P:386:LEU:N	16:P:387:PRO:HD2	2.10	0.64
16:P:490:ASP:C	16:P:491:PHE:CD1	2.71	0.64
17:Q:136:LYS:HB3	17:Q:304:HIS:HD2	1.53	0.64
17:Q:277:ILE:HD12	17:Q:277:ILE:C	2.17	0.64
19:S:17:DT:H2''	19:S:18:DA:C8	2.33	0.64
19:S:28:DT:C4'	19:S:29:DT:H5'	2.25	0.64
1:A:316:LEU:HD12	13:M:161:ILE:HG21	1.80	0.64
1:A:477:ASN:ND2	2:B:1048:SER:O	2.30	0.64
2:B:455:GLU:OE1	2:B:455:GLU:N	2.29	0.64
2:B:509:PHE:HA	2:B:512:LEU:HG	1.80	0.64
7:G:97:LYS:HD2	7:G:97:LYS:N	2.12	0.64
15:O:202:ILE:CG2	15:O:216:ILE:HG23	2.27	0.64
15:O:215:ASN:HA	15:O:236:ILE:HG12	1.80	0.64
15:O:244:SER:OG	15:O:264:ILE:HD12	1.98	0.64
15:O:254:ILE:HG22	15:O:255:GLY:N	2.12	0.64
15:O:422:ILE:HG13	15:O:440:HIS:CD2	2.33	0.64
15:O:511:ILE:O	15:O:512:LEU:HB3	1.98	0.64
16:P:219:ILE:CD1	17:Q:207:ASN:CA	2.70	0.64
1:A:414:GLU:O	1:A:417:ARG:HB2	1.98	0.64
1:A:439:ASP:OD1	1:A:458:GLN:NE2	2.30	0.64
1:A:949:GLN:HA	1:A:981:TYR:HA	1.79	0.64
15:O:454:GLN:O	15:O:465:VAL:HG22	1.98	0.64
15:O:641:TRP:NE1	15:O:653:SER:HA	2.12	0.64
1:A:417:ARG:CZ	1:A:420:PHE:CD2	2.81	0.64
13:M:268:LEU:HD12	13:M:335:ILE:HD11	1.80	0.64
16:P:147:GLN:O	16:P:151:GLU:HB2	1.95	0.64
17:Q:10:ASN:O	17:Q:10:ASN:ND2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:355:THR:HA	17:Q:359:MET:CG	2.19	0.64
1:A:195:LYS:HG3	1:A:201:ARG:HH21	1.63	0.63
2:B:796:ARG:HD2	10:J:8:PHE:HA	1.80	0.63
8:H:102:TYR:CZ	8:H:115:TYR:HB3	2.33	0.63
14:N:26:PRO:O	14:N:27:ASP:C	2.36	0.63
15:O:588:SER:HB3	16:P:512:ARG:HH12	1.61	0.63
16:P:119:LEU:HD21	16:P:190:MET:CE	2.28	0.63
16:P:147:GLN:O	16:P:151:GLU:CG	2.45	0.63
16:P:209:ASN:CG	16:P:210:TYR:H	1.62	0.63
16:P:337:SER:CB	16:P:448:LYS:HD3	2.27	0.63
1:A:258:GLU:HA	1:A:261:ILE:HB	1.80	0.63
1:A:921:PRO:HG2	8:H:19:ARG:HD2	1.80	0.63
15:O:212:SER:O	15:O:242:ILE:HD11	1.98	0.63
15:O:271:ILE:HB	15:O:289:SER:OG	1.97	0.63
15:O:356:GLU:OE2	15:O:397:LYS:HD2	1.98	0.63
15:O:704:LEU:O	15:O:704:LEU:HG	1.99	0.63
16:P:219:ILE:HG12	17:Q:206:ARG:CG	2.22	0.63
16:P:378:LEU:HD21	17:Q:234:LYS:HB3	1.79	0.63
17:Q:21:TYR:HE2	17:Q:291:ARG:NH2	1.96	0.63
1:A:417:ARG:O	1:A:417:ARG:HD3	1.97	0.63
1:A:1200:MET:HG2	1:A:1573:TYR:CD2	2.34	0.63
15:O:357:LEU:HB2	15:O:377:ARG:HE	1.62	0.63
15:O:620:ASP:HB3	15:O:674:GLU:HG2	1.78	0.63
15:O:702:LEU:CD1	16:P:125:PHE:CE1	2.82	0.63
15:O:714:PHE:CE2	15:O:718:LEU:HD22	2.33	0.63
15:O:746:ARG:O	15:O:747:LEU:HD22	1.99	0.63
16:P:359:ASP:OD1	16:P:361:PRO:HD3	1.98	0.63
1:A:372:LYS:HD2	1:A:377:VAL:HG22	1.81	0.63
1:A:865:ASP:OD1	1:A:866:LYS:N	2.31	0.63
2:B:251:HIS:HE1	2:B:261:ARG:HD3	1.62	0.63
8:H:104:PHE:CE1	8:H:114:VAL:HG13	2.34	0.63
13:M:272:TYR:O	13:M:275:ARG:NH1	2.31	0.63
15:O:261:VAL:HG12	15:O:262:GLY:N	2.14	0.63
15:O:352:PHE:HB2	15:O:355:GLU:HB2	1.81	0.63
15:O:380:MET:HE1	15:O:394:VAL:HG11	1.80	0.63
15:O:599:LYS:HZ3	16:P:275:GLU:CD	2.00	0.63
16:P:372:GLU:O	16:P:374:THR:N	2.32	0.63
17:Q:384:VAL:N	17:Q:388:LYS:O	2.32	0.63
1:A:416:ARG:HD2	1:A:419:ILE:CG1	2.24	0.63
1:A:518:GLU:OE2	1:A:582:LYS:NZ	2.25	0.63
1:A:667:ARG:C	1:A:787:GLY:O	2.36	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1640:ARG:HD2	1:A:1647:ASN:HA	1.81	0.63
2:B:576:THR:HG21	2:B:595:TRP:CD1	2.33	0.63
2:B:811:LEU:HB2	2:B:899:GLN:HB3	1.80	0.63
7:G:140:GLN:OE1	7:G:216:HIS:ND1	2.31	0.63
15:O:237:GLU:O	15:O:238:LEU:HD23	1.98	0.63
15:O:365:TRP:CZ2	15:O:407:ARG:HD3	2.32	0.63
15:O:574:TRP:CH2	16:P:484:ALA:CB	2.81	0.63
15:O:672:ILE:N	15:O:673:PRO:HD2	2.13	0.63
16:P:104:PHE:HE1	16:P:215:LEU:HG	1.64	0.63
16:P:184:TRP:CH2	16:P:192:TYR:CD2	2.86	0.63
16:P:343:THR:OG1	16:P:347:SER:N	2.30	0.63
1:A:406:LEU:HD12	1:A:407:GLN:CA	2.27	0.63
1:A:406:LEU:CG	1:A:407:GLN:H	2.12	0.63
1:A:1299:ASN:HA	1:A:1302:TYR:CE2	2.34	0.63
8:H:48:PRO:O	8:H:146:ARG:NH1	2.32	0.63
15:O:351:ILE:HG23	17:Q:157:MET:HE1	1.80	0.63
15:O:610:LEU:HD21	15:O:614:GLU:OE2	1.98	0.63
16:P:122:GLU:OE1	16:P:123:MET:HG3	1.97	0.63
16:P:179:CYS:SG	16:P:255:LYS:NZ	2.70	0.63
16:P:354:LYS:HB3	16:P:362:THR:CB	2.28	0.63
16:P:378:LEU:HD22	17:Q:234:LYS:HD3	1.81	0.63
17:Q:134:PRO:C	17:Q:135:GLU:O	2.37	0.63
1:A:63:SER:O	2:B:1155:ASP:HB3	1.99	0.63
1:A:464:GLU:CG	1:A:469:LYS:HB3	2.29	0.63
1:A:530:TRP:HB3	1:A:531:PRO:HD2	0.64	0.63
1:A:1037:SER:OG	1:A:1039:ARG:NH1	2.32	0.63
2:B:225:ARG:NH1	2:B:225:ARG:O	2.31	0.63
2:B:576:THR:HG22	2:B:578:ALA:H	1.64	0.63
5:E:83:CYS:HB3	5:E:112:TYR:HA	1.81	0.63
15:O:276:SER:HA	15:O:284:VAL:HA	1.81	0.63
15:O:303:VAL:HG12	15:O:361:LYS:O	1.99	0.63
15:O:347:LEU:HD22	17:Q:152:ILE:CG1	2.26	0.63
15:O:347:LEU:HB2	17:Q:151:PRO:O	1.99	0.63
15:O:347:LEU:HB2	17:Q:152:ILE:C	2.13	0.63
15:O:390:GLN:OE1	17:Q:151:PRO:HD3	1.96	0.63
16:P:483:ILE:O	16:P:487:LEU:HG	1.99	0.63
2:B:1039:MET:HG2	2:B:1041:ASN:HB3	1.81	0.63
8:H:5:LEU:O	8:H:133:ASN:ND2	2.32	0.63
15:O:309:PRO:CG	15:O:365:TRP:CD1	2.77	0.63
15:O:604:ILE:HG23	15:O:732:LEU:CD2	2.29	0.63
15:O:613:HIS:NE2	15:O:619:GLU:HG3	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:247:ILE:HG22	16:P:302:ALA:CB	2.28	0.63
16:P:341:ARG:HB2	16:P:445:ARG:HH22	1.64	0.63
17:Q:283:ARG:C	17:Q:302:ARG:HB2	2.18	0.63
17:Q:354:LEU:CA	17:Q:359:MET:N	2.51	0.63
1:A:1638:SER:HA	1:A:1641:ILE:HD12	1.81	0.63
7:G:69:LEU:HD12	7:G:72:LYS:HD3	1.80	0.63
11:K:58:GLY:O	11:K:59:THR:CG2	2.47	0.63
13:M:57:ASN:HD21	13:M:60:LEU:HB2	1.64	0.63
13:M:261:LEU:HG	13:M:335:ILE:HG23	1.81	0.63
15:O:440:HIS:CE1	15:O:481:PHE:HZ	2.02	0.63
15:O:489:PHE:O	15:O:490:GLN:HG2	1.98	0.63
15:O:578:PHE:CZ	16:P:312:LEU:HA	2.32	0.63
15:O:627:GLY:O	15:O:630:LEU:HG	1.98	0.63
16:P:176:VAL:HG22	16:P:177:TYR:N	2.14	0.63
16:P:360:LYS:HG3	16:P:363:SER:HB3	1.79	0.63
19:S:4:DG:N1	20:T:51:DC:O2	2.30	0.63
19:S:25:DT:H2'	19:S:26:DT:C7	2.28	0.63
20:T:22:DG:C2'	20:T:23:DA:C8	2.79	0.63
15:O:366:PHE:HB2	15:O:373:LEU:CD1	2.29	0.62
15:O:656:HIS:HB3	15:O:748:GLU:HB2	1.80	0.62
15:O:779:ASP:O	16:P:199:LEU:HD21	1.99	0.62
16:P:198:ILE:O	16:P:199:LEU:HB2	1.99	0.62
16:P:210:TYR:CD1	20:T:43:DT:H4'	2.34	0.62
19:S:6:DG:H22	20:T:50:DA:H1'	1.64	0.62
1:A:864:LEU:HD11	1:A:878:ARG:HD2	1.79	0.62
1:A:1019:LEU:HD21	1:A:1222:LEU:HD23	1.81	0.62
14:N:56:ILE:HG23	14:N:137:PHE:HB2	1.80	0.62
15:O:178:VAL:CG2	15:O:360:TRP:HB3	2.22	0.62
15:O:194:ARG:CG	15:O:197:ARG:CZ	2.76	0.62
15:O:296:GLU:OE1	15:O:296:GLU:N	2.20	0.62
15:O:414:ILE:HB	15:O:425:GLY:O	1.99	0.62
15:O:577:LEU:HD22	16:P:502:ILE:CG2	2.29	0.62
15:O:657:SER:O	15:O:658:LYS:CG	2.47	0.62
16:P:120:ILE:O	16:P:124:ARG:N	2.31	0.62
16:P:494:SER:OG	16:P:498:LEU:N	2.33	0.62
17:Q:173:MET:HA	17:Q:173:MET:CE	2.29	0.62
17:Q:302:ARG:CG	17:Q:303:THR:N	2.42	0.62
17:Q:393:ILE:HG12	17:Q:395:LEU:HB2	1.80	0.62
2:B:811:LEU:HD12	2:B:899:GLN:HA	1.81	0.62
15:O:270:GLN:OE1	15:O:291:PRO:HB3	1.99	0.62
16:P:118:TRP:HH2	16:P:189:LYS:CE	2.03	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:200:PRO:HG2	16:P:204:ARG:HG3	1.81	0.62
16:P:328:LEU:CD1	16:P:472:ARG:HB3	2.29	0.62
16:P:341:ARG:CB	16:P:445:ARG:NH2	2.62	0.62
16:P:354:LYS:CG	16:P:362:THR:CB	2.77	0.62
16:P:367:PHE:HZ	17:Q:1:MET:CE	2.12	0.62
1:A:65:CYS:HB3	1:A:75:HIS:HE2	1.62	0.62
1:A:506:THR:HA	1:A:579:ARG:O	1.99	0.62
1:A:591:ARG:HH21	1:A:631:ASP:CB	2.11	0.62
2:B:74:PHE:HE2	2:B:343:ASP:HB2	1.65	0.62
7:G:242:VAL:O	7:G:243:VAL:O	2.17	0.62
13:M:42:LYS:O	14:N:30:LYS:N	2.32	0.62
15:O:571:HIS:HB3	15:O:573:GLU:CD	2.19	0.62
15:O:590:GLY:HA2	16:P:320:PHE:CD1	2.34	0.62
16:P:113:LYS:HA	16:P:116:ILE:HG12	1.81	0.62
16:P:246:GLU:C	16:P:286:LEU:H	2.03	0.62
16:P:332:LEU:HD12	16:P:332:LEU:C	2.18	0.62
16:P:369:TRP:CZ3	17:Q:219:LEU:CD1	2.82	0.62
16:P:419:LEU:CA	17:Q:233:TYR:OH	2.47	0.62
17:Q:280:SER:OG	17:Q:301:SER:CB	2.47	0.62
17:Q:354:LEU:HD12	17:Q:359:MET:CA	2.16	0.62
20:T:8:DA:H2"	20:T:9:DA:C8	2.34	0.62
1:A:596:HIS:CD2	1:A:598:ALA:HB3	2.35	0.62
15:O:347:LEU:CD2	17:Q:152:ILE:CB	2.77	0.62
15:O:433:VAL:HG12	17:Q:144:VAL:CG1	2.17	0.62
15:O:499:GLU:CG	15:O:500:ILE:HD12	2.29	0.62
16:P:137:TRP:CD1	16:P:141:LEU:HD11	2.34	0.62
16:P:154:LEU:H	16:P:154:LEU:HD22	1.64	0.62
16:P:419:LEU:HA	17:Q:233:TYR:OH	1.99	0.62
17:Q:158:THR:HG23	17:Q:161:ASN:CB	2.27	0.62
17:Q:248:LYS:N	17:Q:298:GLN:HE22	1.97	0.62
17:Q:362:ALA:C	17:Q:364:VAL:N	2.53	0.62
1:A:233:CYS:O	1:A:237:GLY:HA2	2.00	0.62
1:A:721:LYS:CG	1:A:722:PRO:HD3	2.29	0.62
2:B:202:LEU:HD21	2:B:499:HIS:HB3	1.81	0.62
13:M:222:LEU:HD13	13:M:253:PRO:HA	1.82	0.62
15:O:304:ASP:OD2	15:O:363:ILE:HG13	2.00	0.62
15:O:469:TYR:HB3	15:O:476:ILE:CD1	2.30	0.62
15:O:683:PHE:CE1	15:O:692:THR:OG1	2.53	0.62
16:P:101:LYS:NZ	16:P:152:LEU:N	2.46	0.62
16:P:101:LYS:CE	16:P:152:LEU:HA	2.30	0.62
16:P:137:TRP:NE1	16:P:141:LEU:HD21	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:257:VAL:HB	16:P:262:LEU:HD13	1.80	0.62
17:Q:369:ALA:O	17:Q:372:HIS:N	2.32	0.62
1:A:1097:TYR:OH	1:A:1121:ASP:O	2.14	0.62
15:O:291:PRO:HA	15:O:339:ARG:HH21	1.64	0.62
15:O:461:HIS:HB3	15:O:484:ARG:HG2	1.81	0.62
15:O:686:TYR:O	15:O:690:ASP:O	2.18	0.62
15:O:706:GLU:HG3	16:P:438:PHE:CG	2.32	0.62
16:P:108:PHE:CE2	16:P:156:LEU:CD2	2.82	0.62
16:P:150:GLU:O	16:P:152:LEU:HD21	1.99	0.62
17:Q:29:ARG:NH1	17:Q:29:ARG:HB2	2.15	0.62
19:S:39:DT:H73	19:S:41:DT:H73	1.82	0.62
1:A:463:LYS:O	1:A:463:LYS:HD2	1.98	0.62
2:B:341:SER:CB	2:B:342:PRO:HD3	1.96	0.62
9:I:40:SER:O	9:I:41:GLN:O	2.17	0.62
9:I:43:SER:O	9:I:45:LEU:HG	1.99	0.62
13:M:81:PHE:HA	13:M:87:SER:O	1.99	0.62
15:O:472:ARG:NH2	17:Q:200:THR:HG22	2.11	0.62
17:Q:8:LEU:O	17:Q:10:ASN:N	2.33	0.62
20:T:21:DT:H2''	20:T:22:DG:O5'	1.98	0.62
2:B:415:GLU:HG2	2:B:472:SER:CB	2.29	0.62
8:H:115:TYR:CE1	8:H:124:ARG:HG3	2.28	0.62
15:O:326:ILE:HG12	15:O:344:ILE:HD13	1.82	0.62
15:O:329:ILE:HG22	15:O:340:LYS:N	2.15	0.62
15:O:405:TYR:HE2	15:O:414:ILE:HG23	1.61	0.62
15:O:433:VAL:HG21	17:Q:144:VAL:HB	1.81	0.62
15:O:580:ASN:CB	16:P:506:LYS:HZ1	2.12	0.62
15:O:659:LEU:C	15:O:663:LEU:CD2	2.68	0.62
15:O:705:HIS:NE2	15:O:709:PRO:HD3	2.14	0.62
15:O:771:ILE:HG21	16:P:105:LEU:CD2	2.30	0.62
16:P:113:LYS:O	16:P:116:ILE:CG1	2.47	0.62
16:P:156:LEU:CD1	16:P:156:LEU:H	2.12	0.62
16:P:222:PHE:O	16:P:225:GLN:HB2	1.99	0.62
16:P:284:LEU:HD11	16:P:305:ARG:HH11	1.65	0.62
17:Q:361:ASP:CG	17:Q:362:ALA:N	2.53	0.62
2:B:1038:HIS:CE1	18:R:5:G:H5'	2.35	0.62
3:C:152:ASP:O	3:C:153:PRO:C	2.37	0.62
5:E:128:PRO:CB	5:E:129:PRO:HD3	2.29	0.62
15:O:274:ILE:CD1	15:O:284:VAL:HG11	2.30	0.62
15:O:506:THR:HG22	15:O:540:LYS:O	2.00	0.62
15:O:582:ASP:O	15:O:586:LYS:HB3	1.99	0.62
16:P:155:GLN:HB2	20:T:44:DC:H5''	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:223:ASN:HA	16:P:492:ALA:O	2.00	0.62
16:P:258:MET:CB	16:P:262:LEU:HD22	2.28	0.62
17:Q:29:ARG:HB2	17:Q:29:ARG:CZ	2.29	0.62
17:Q:385:ASN:HD22	17:Q:385:ASN:H	1.48	0.62
1:A:1295:ARG:HA	1:A:1469:TRP:HB3	1.81	0.61
2:B:840:LEU:HD11	2:B:857:PRO:HB2	1.81	0.61
5:E:94:LYS:HD3	5:E:123:LEU:HD22	1.82	0.61
15:O:194:ARG:HB3	15:O:194:ARG:NH1	2.14	0.61
15:O:351:ILE:HG13	15:O:351:ILE:O	1.99	0.61
15:O:407:ARG:HH11	15:O:411:LYS:HG2	1.65	0.61
15:O:440:HIS:HE1	15:O:481:PHE:CE1	2.15	0.61
15:O:620:ASP:HB3	15:O:674:GLU:CG	2.30	0.61
15:O:653:SER:CB	15:O:749:LYS:HG2	2.29	0.61
15:O:660:LYS:CB	15:O:663:LEU:HD21	2.08	0.61
15:O:750:PRO:C	15:O:752:LEU:N	2.52	0.61
16:P:113:LYS:HA	16:P:116:ILE:CG1	2.30	0.61
16:P:172:LEU:HD23	16:P:172:LEU:C	2.20	0.61
17:Q:302:ARG:HH21	17:Q:303:THR:HG23	1.61	0.61
1:A:789:SER:O	1:A:790:LYS:O	2.18	0.61
2:B:613:VAL:HB	2:B:658:LEU:HD12	1.82	0.61
2:B:977:ILE:HD12	2:B:978:ALA:O	2.00	0.61
9:I:3:VAL:HG21	9:I:43:SER:HB3	1.73	0.61
13:M:231:LEU:HA	13:M:234:PHE:HD2	1.65	0.61
15:O:214:LEU:H	15:O:236:ILE:CB	2.12	0.61
15:O:325:SER:O	15:O:326:ILE:HD13	2.00	0.61
15:O:353:ASP:CG	17:Q:31:PHE:HD2	2.02	0.61
15:O:421:ILE:HG13	17:Q:138:PHE:HE2	1.65	0.61
15:O:596:ILE:HG21	16:P:317:MET:CE	2.29	0.61
16:P:136:ILE:HD12	16:P:168:ALA:CB	2.29	0.61
16:P:257:VAL:CB	16:P:262:LEU:HD13	2.28	0.61
16:P:292:GLU:OE1	16:P:294:HIS:NE2	2.27	0.61
16:P:497:GLN:O	16:P:501:CYS:N	2.21	0.61
17:Q:246:GLN:O	17:Q:248:LYS:HB2	1.99	0.61
17:Q:350:SER:C	17:Q:352:TRP:N	2.50	0.61
17:Q:358:PHE:HD1	17:Q:365:TRP:CZ3	2.18	0.61
1:A:1527:GLN:HG3	1:A:1530:TRP:CZ3	2.35	0.61
2:B:623:ASP:O	2:B:648:ARG:NH1	2.27	0.61
2:B:825:PHE:O	12:L:42:ARG:NH2	2.34	0.61
3:C:244:ALA:HB1	3:C:265:ALA:HB2	1.82	0.61
4:D:89:LEU:HA	4:D:92:ILE:HD12	1.82	0.61
14:N:95:ILE:HD13	14:N:136:VAL:CG2	2.10	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:698:LYS:HE3	16:P:124:ARG:O	2.00	0.61
15:O:698:LYS:O	16:P:125:PHE:CZ	2.52	0.61
15:O:715:TYR:CE1	15:O:734:LYS:CG	2.75	0.61
16:P:330:TRP:CZ3	16:P:334:LEU:CD1	2.84	0.61
16:P:354:LYS:HZ3	16:P:362:THR:CG2	2.13	0.61
16:P:372:GLU:C	16:P:374:THR:N	2.52	0.61
1:A:332:GLN:HE22	1:A:350:VAL:H	1.48	0.61
1:A:1070:LEU:HD12	1:A:1073:TYR:HB2	1.82	0.61
2:B:748:GLN:OE1	2:B:770:ASN:N	2.22	0.61
2:B:815:ARG:NH2	19:S:26:DT:C5'	2.63	0.61
3:C:272:LYS:HA	14:N:175:TYR:CE2	2.35	0.61
15:O:389:TRP:CE3	17:Q:148:ASN:O	2.48	0.61
15:O:391:THR:HG22	15:O:392:GLU:N	2.15	0.61
15:O:657:SER:HB2	15:O:746:ARG:HA	1.83	0.61
15:O:660:LYS:HB3	15:O:663:LEU:HD21	1.82	0.61
16:P:104:PHE:HD1	16:P:211:TYR:HD1	1.22	0.61
17:Q:142:ARG:HH11	17:Q:142:ARG:CG	2.14	0.61
17:Q:266:SER:OG	17:Q:268:LEU:HD12	2.01	0.61
2:B:1177:ALA:O	2:B:1180:PHE:HB3	2.00	0.61
8:H:56:THR:O	8:H:144:ILE:HA	2.00	0.61
15:O:223:ASN:OD1	15:O:223:ASN:N	2.33	0.61
15:O:395:GLN:CD	15:O:397:LYS:HA	2.21	0.61
15:O:725:VAL:HG11	16:P:450:THR:HA	1.83	0.61
15:O:780:ILE:CA	16:P:199:LEU:HD21	2.31	0.61
16:P:447:ALA:O	16:P:450:THR:HG22	2.01	0.61
17:Q:206:ARG:HG3	17:Q:206:ARG:O	2.01	0.61
1:A:117:ARG:HH11	1:A:117:ARG:CG	2.14	0.61
1:A:1603:MET:HG2	1:A:1612:LYS:HG2	1.83	0.61
2:B:146:ASN:HB3	2:B:149:GLU:HB2	1.83	0.61
15:O:14:UNK:CB	15:O:438:TRP:HE3	2.14	0.61
2:B:770:ASN:ND2	2:B:1032:TYR:HD1	1.97	0.61
3:C:70:ILE:HG23	3:C:74:GLU:HB2	1.81	0.61
15:O:275:GLU:HG2	15:O:285:MET:CG	2.31	0.61
15:O:301:GLN:HG2	15:O:321:LYS:HZ1	1.63	0.61
15:O:427:SER:O	15:O:435:ARG:HD3	2.01	0.61
2:B:742:TYR:CE1	2:B:803:MET:HG3	2.36	0.61
4:D:85:SER:HB3	7:G:71:MET:HG3	1.81	0.61
13:M:113:ILE:O	13:M:113:ILE:HD13	2.01	0.61
15:O:195:ASN:O	15:O:196:TYR:HB3	2.01	0.61
16:P:200:PRO:CB	16:P:203:TRP:HD1	2.11	0.61
16:P:497:GLN:HG2	16:P:498:LEU:H	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:4:VAL:HG21	17:Q:214:VAL:HG22	1.82	0.61
17:Q:302:ARG:NH2	17:Q:303:THR:HG21	2.16	0.61
17:Q:380:SER:HB2	17:Q:438:PHE:HZ	1.64	0.61
1:A:908:VAL:HG12	1:A:912:VAL:HG21	1.82	0.61
15:O:54:UNK:HA	15:O:554:ASN:CG	2.20	0.61
15:O:344:ILE:HG13	15:O:345:ASP:H	1.66	0.61
15:O:398:ALA:HB1	17:Q:134:PRO:CG	2.28	0.61
15:O:665:ASN:O	15:O:666:SER:C	2.36	0.61
16:P:166:TYR:CD2	16:P:230:ILE:HD13	2.36	0.61
16:P:340:GLN:NE2	16:P:370:SER:CB	2.64	0.61
17:Q:280:SER:HG	17:Q:301:SER:HB3	1.65	0.61
1:A:920:PHE:C	1:A:922:CYS:N	2.49	0.61
1:A:985:ARG:O	1:A:989:GLY:N	2.34	0.61
7:G:28:ILE:HB	7:G:31:LYS:HA	1.83	0.61
15:O:275:GLU:CG	15:O:285:MET:HG3	2.31	0.61
15:O:596:ILE:HA	16:P:272:GLN:HE22	1.65	0.61
16:P:151:GLU:CD	16:P:154:LEU:HD11	2.20	0.61
16:P:238:HIS:HE1	16:P:289:ARG:NH2	1.99	0.61
16:P:247:ILE:HG13	16:P:286:LEU:CB	2.28	0.61
16:P:257:VAL:HG11	16:P:262:LEU:HD12	1.64	0.61
16:P:431:ASP:O	16:P:434:HIS:CA	2.49	0.61
17:Q:133:LYS:CB	17:Q:134:PRO:CD	2.76	0.61
1:A:1183:GLU:OE1	6:F:88:TYR:OH	2.17	0.60
1:A:1262:LEU:HD23	1:A:1497:ILE:HG22	1.81	0.60
3:C:88:ASN:O	12:L:60:ARG:NH1	2.33	0.60
7:G:40:ARG:HA	7:G:122:LEU:O	2.01	0.60
7:G:50:ALA:H	7:G:64:GLN:HE22	1.47	0.60
7:G:237:HIS:C	7:G:244:SER:HB2	2.20	0.60
13:M:80:LEU:HB3	13:M:89:GLN:HG2	1.82	0.60
15:O:383:ILE:CG1	15:O:390:GLN:HG3	2.31	0.60
15:O:568:ILE:HG22	15:O:570:ASP:N	2.15	0.60
16:P:104:PHE:CB	16:P:211:TYR:CE1	2.64	0.60
16:P:200:PRO:CB	16:P:203:TRP:H	2.14	0.60
16:P:334:LEU:CD2	16:P:449:GLN:CD	2.70	0.60
16:P:366:TYR:HE2	17:Q:218:ASP:OD2	1.83	0.60
1:A:549:MET:O	1:A:554:ARG:NH1	2.34	0.60
1:A:785:GLN:N	1:A:789:SER:CB	2.63	0.60
15:O:214:LEU:HD13	15:O:263:ILE:CD1	2.26	0.60
15:O:472:ARG:NH1	17:Q:200:THR:CG2	2.44	0.60
15:O:537:PHE:HE1	15:O:552:LEU:HD11	1.66	0.60
15:O:541:LEU:HD12	15:O:541:LEU:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:669:PHE:CD1	15:O:738:LYS:CE	2.71	0.60
16:P:147:GLN:H	16:P:147:GLN:CD	1.98	0.60
16:P:369:TRP:CZ3	16:P:377:PHE:CD2	2.90	0.60
17:Q:21:TYR:CD2	17:Q:124:GLU:CG	2.84	0.60
17:Q:202:THR:HG22	17:Q:202:THR:O	2.00	0.60
17:Q:213:ILE:HA	17:Q:216:LEU:HB2	1.83	0.60
17:Q:304:HIS:O	17:Q:305:THR:C	2.39	0.60
1:A:45:VAL:HG13	1:A:48:GLY:HA3	1.83	0.60
1:A:117:ARG:HH11	1:A:117:ARG:HG2	1.66	0.60
1:A:1478:ALA:HB2	9:I:21:ASN:OD1	2.01	0.60
2:B:117:VAL:CG2	17:Q:276:GLN:CG	2.72	0.60
2:B:827:PHE:CD2	2:B:869:THR:HG21	2.37	0.60
7:G:62:MET:HA	7:G:66:LEU:HB2	1.81	0.60
15:O:214:LEU:CB	15:O:236:ILE:CB	2.77	0.60
16:P:167:LEU:HB3	16:P:239:PHE:CE2	2.37	0.60
16:P:488:LEU:O	16:P:491:PHE:O	2.19	0.60
17:Q:153:ASN:O	17:Q:154:LYS:HB3	1.99	0.60
17:Q:411:VAL:HG13	17:Q:412:ARG:N	2.16	0.60
19:S:28:DT:C4'	19:S:29:DT:O4'	2.50	0.60
19:S:39:DT:H6	19:S:39:DT:C5'	2.11	0.60
1:A:420:PHE:HZ	13:M:158:ALA:HB3	1.67	0.60
1:A:1261:VAL:O	1:A:1498:ILE:N	2.33	0.60
2:B:155:VAL:CB	17:Q:359:MET:HE2	2.32	0.60
7:G:44:ALA:HA	7:G:118:CYS:O	2.01	0.60
13:M:23:VAL:HG12	13:M:95:VAL:HG13	1.83	0.60
15:O:180:ASN:OD1	15:O:181:ARG:N	2.34	0.60
15:O:200:THR:HB	15:O:218:VAL:HG13	1.82	0.60
15:O:214:LEU:HB2	15:O:236:ILE:CB	2.23	0.60
15:O:214:LEU:CD1	15:O:242:ILE:HD13	2.31	0.60
15:O:217:ALA:O	15:O:229:ARG:NH2	2.34	0.60
15:O:398:ALA:HA	17:Q:128:TRP:CZ3	2.37	0.60
15:O:423:ILE:HG21	17:Q:141:TRP:CZ2	2.25	0.60
15:O:585:GLU:HG3	15:O:589:ILE:HG13	1.83	0.60
15:O:630:LEU:HD12	15:O:631:SER:N	2.16	0.60
16:P:360:LYS:HB2	16:P:360:LYS:NZ	2.16	0.60
16:P:431:ASP:O	16:P:434:HIS:C	2.39	0.60
17:Q:352:TRP:CZ3	17:Q:357:PRO:CG	2.82	0.60
1:A:722:PRO:O	1:A:723:TYR:HB2	2.01	0.60
1:A:785:GLN:CA	1:A:789:SER:CB	2.80	0.60
2:B:268:GLU:HB2	13:M:132:PHE:HZ	1.67	0.60
2:B:513:LYS:HZ3	19:S:42:DG:H4'	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:104:PHE:HE1	8:H:114:VAL:HG13	1.64	0.60
15:O:313:GLN:O	15:O:314:GLN:CD	2.39	0.60
16:P:263:PRO:HB3	16:P:266:PHE:CE2	2.33	0.60
16:P:399:SER:CB	16:P:402:MET:CG	2.80	0.60
17:Q:278:TYR:HB2	17:Q:308:PHE:HZ	1.67	0.60
17:Q:283:ARG:O	17:Q:302:ARG:NE	2.25	0.60
17:Q:372:HIS:ND1	17:Q:407:HIS:NE2	2.48	0.60
17:Q:390:ASN:O	17:Q:391:ASP:C	2.39	0.60
1:A:612:LYS:H	2:B:913:ILE:HD11	1.66	0.60
3:C:247:PHE:HB2	3:C:285:PHE:CE1	2.35	0.60
9:I:27:ASN:CB	9:I:39:LYS:HB2	2.31	0.60
15:O:319:ASP:HB2	15:O:363:ILE:HG12	1.84	0.60
15:O:657:SER:OG	15:O:746:ARG:HD3	2.01	0.60
15:O:768:TYR:O	15:O:772:ILE:HG22	2.02	0.60
1:A:344:ASN:HD21	1:A:348:LYS:N	1.98	0.60
1:A:406:LEU:O	1:A:408:LYS:N	2.32	0.60
1:A:1628:ASP:HB2	1:A:1630:GLU:HG2	1.83	0.60
2:B:726:MET:HG3	2:B:742:TYR:HB3	1.84	0.60
2:B:825:PHE:HA	2:B:861:TYR:HA	1.84	0.60
2:B:832:TRP:CZ3	2:B:834:LYS:HA	2.36	0.60
13:M:25:SER:HB3	13:M:97:VAL:HA	1.84	0.60
16:P:152:LEU:HB3	20:T:44:DC:OP1	2.01	0.60
16:P:182:ILE:HD11	16:P:350:ARG:N	2.17	0.60
16:P:214:ILE:HG23	16:P:214:ILE:O	2.00	0.60
1:A:80:GLU:O	1:A:397:ARG:NH2	2.34	0.60
2:B:1121:GLY:HA3	7:G:239:THR:OG1	2.01	0.60
6:F:138:LEU:O	6:F:141:GLY:N	2.34	0.60
7:G:69:LEU:HG	7:G:81:VAL:HG21	1.84	0.60
15:O:7:UNK:O	17:Q:424:PHE:HB2	2.02	0.60
15:O:10:UNK:C	17:Q:141:TRP:HB3	2.27	0.60
15:O:275:GLU:C	15:O:284:VAL:HG13	2.21	0.60
15:O:421:ILE:HG22	15:O:422:ILE:N	2.16	0.60
16:P:248:SER:O	16:P:249:CYS:CB	2.49	0.60
16:P:258:MET:CA	16:P:262:LEU:HB2	2.30	0.60
16:P:381:MET:CE	16:P:385:PHE:CD2	2.84	0.60
17:Q:411:VAL:CG1	17:Q:412:ARG:N	2.65	0.60
1:A:594:THR:HG22	1:A:594:THR:O	2.02	0.60
1:A:718:THR:N	1:A:725:LEU:O	2.35	0.60
3:C:95:GLU:HG3	12:L:67:PHE:HE2	1.66	0.60
13:M:368:GLY:HA3	13:M:402:LYS:HD3	1.84	0.60
14:N:172:ALA:HB3	14:N:175:TYR:CD2	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:202:ILE:H	15:O:202:ILE:CD1	2.11	0.60
15:O:623:LEU:HD13	15:O:668:SER:O	2.01	0.60
16:P:378:LEU:HD22	17:Q:234:LYS:HB3	1.84	0.60
17:Q:261:LEU:HD21	17:Q:264:SER:H	1.67	0.60
17:Q:350:SER:C	17:Q:352:TRP:H	2.05	0.60
1:A:65:CYS:CB	1:A:75:HIS:HE2	2.12	0.60
10:J:10:CYS:SG	10:J:11:GLY:N	2.74	0.60
15:O:248:PRO:CB	15:O:307:PHE:CE2	2.84	0.60
15:O:282:CYS:O	15:O:284:VAL:HG23	2.01	0.60
15:O:316:ALA:HB1	15:O:340:LYS:HD3	1.84	0.60
15:O:350:THR:HG1	15:O:352:PHE:HE1	1.49	0.60
15:O:380:MET:CE	15:O:394:VAL:HG11	2.32	0.60
15:O:746:ARG:NH2	16:P:173:SER:HB2	2.17	0.60
16:P:278:GLU:HG2	16:P:309:TYR:CE2	2.37	0.60
16:P:335:THR:O	16:P:338:LEU:HB2	2.02	0.60
16:P:436:LEU:H	16:P:436:LEU:HD12	1.67	0.60
17:Q:245:VAL:CG1	17:Q:250:LEU:HD21	2.30	0.60
2:B:349:VAL:O	2:B:353:VAL:HG23	2.01	0.59
13:M:347:THR:HB	13:M:348:PRO:HD3	1.82	0.59
15:O:309:PRO:O	15:O:310:TRP:CB	2.49	0.59
15:O:318:ILE:HD12	15:O:324:TRP:HA	1.83	0.59
16:P:356:VAL:C	16:P:358:PRO:HD3	2.21	0.59
17:Q:127:PHE:O	17:Q:131:TYR:CD2	2.52	0.59
3:C:147:PRO:HD2	3:C:155:GLU:OE2	2.02	0.59
8:H:104:PHE:CE2	8:H:136:LYS:HB3	2.36	0.59
15:O:389:TRP:CH2	17:Q:147:GLN:C	2.76	0.59
17:Q:216:LEU:HD23	17:Q:239:LEU:HA	1.84	0.59
19:S:39:DT:C6	19:S:39:DT:C5'	2.86	0.59
1:A:417:ARG:NH2	1:A:420:PHE:HD2	2.00	0.59
9:I:43:SER:HB2	9:I:45:LEU:CD2	2.33	0.59
13:M:42:LYS:HG3	13:M:51:PHE:HE1	1.67	0.59
13:M:122:SER:O	13:M:125:ARG:HB2	2.02	0.59
14:N:70:LEU:HG	14:N:72:VAL:HG13	1.83	0.59
15:O:384:ASP:CB	15:O:389:TRP:HB3	2.13	0.59
15:O:400:SER:OG	17:Q:139:GLU:OE1	2.18	0.59
15:O:577:LEU:HD22	16:P:502:ILE:HG22	1.83	0.59
15:O:775:TRP:HZ3	16:P:134:LYS:HE2	1.66	0.59
16:P:258:MET:HG2	16:P:262:LEU:HD21	1.84	0.59
16:P:441:ASP:O	16:P:445:ARG:HG2	2.02	0.59
1:A:722:PRO:O	1:A:723:TYR:HB3	2.01	0.59
5:E:106:GLN:O	5:E:130:ALA:HB1	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:95:ILE:CD1	14:N:136:VAL:HG23	2.23	0.59
15:O:18:UNK:CB	17:Q:252:GLY:O	2.51	0.59
15:O:216:ILE:CA	15:O:234:THR:OG1	2.50	0.59
15:O:428:GLU:HG3	15:O:433:VAL:CG2	2.32	0.59
15:O:454:GLN:H	15:O:465:VAL:HG23	1.67	0.59
16:P:101:LYS:HD3	16:P:152:LEU:CD1	2.21	0.59
16:P:201:LYS:HG3	16:P:202:SER:N	2.17	0.59
16:P:246:GLU:O	16:P:247:ILE:HB	2.01	0.59
17:Q:310:ILE:HG23	17:Q:363:GLU:OE1	2.03	0.59
17:Q:380:SER:CB	17:Q:438:PHE:CE1	2.85	0.59
17:Q:393:ILE:O	17:Q:393:ILE:HG12	2.01	0.59
1:A:56:ALA:HB2	1:A:67:LEU:O	2.02	0.59
1:A:65:CYS:HB3	1:A:75:HIS:NE2	2.16	0.59
1:A:88:PRO:HG2	1:A:438:ILE:HG13	1.85	0.59
1:A:499:PRO:O	1:A:503:VAL:HG22	2.01	0.59
1:A:1151:ASN:HB3	1:A:1154:LEU:HB3	1.83	0.59
1:A:1243:TRP:HB2	1:A:1246:VAL:HG23	1.84	0.59
2:B:96:SER:N	2:B:144:SER:O	2.29	0.59
7:G:143:SER:HA	7:G:159:LYS:HB2	1.83	0.59
9:I:17:LEU:HD13	9:I:28:VAL:CG1	2.29	0.59
13:M:170:LYS:C	13:M:172:LEU:H	2.05	0.59
14:N:96:GLU:OE2	14:N:132:GLN:NE2	2.28	0.59
15:O:348:HIS:CG	15:O:349:GLY:N	2.70	0.59
15:O:623:LEU:HD12	15:O:668:SER:O	1.98	0.59
15:O:659:LEU:HD13	15:O:659:LEU:N	2.06	0.59
16:P:176:VAL:HG11	16:P:179:CYS:HB3	1.82	0.59
16:P:224:GLY:O	16:P:226:LEU:N	2.35	0.59
19:S:26:DT:H2"	19:S:27:DT:C6	2.37	0.59
1:A:1638:SER:OG	2:B:1076:ARG:NH1	2.36	0.59
3:C:80:ALA:HA	3:C:208:CYS:HA	1.85	0.59
3:C:197:ARG:HG2	10:J:61:LEU:HD22	1.85	0.59
14:N:157:ARG:NH1	14:N:159:ASP:OD1	2.35	0.59
14:N:163:VAL:O	14:N:166:LEU:HD23	2.01	0.59
15:O:195:ASN:N	15:O:197:ARG:HH12	2.01	0.59
15:O:381:ILE:HG22	15:O:382:GLU:N	2.17	0.59
15:O:468:VAL:HG22	15:O:477:TYR:HB3	1.83	0.59
15:O:511:ILE:HD13	15:O:536:ASP:CG	2.22	0.59
15:O:775:TRP:CE2	16:P:113:LYS:HB2	2.37	0.59
16:P:174:LEU:CB	16:P:175:PRO:HD3	2.32	0.59
16:P:362:THR:CB	16:P:365:ASP:OD2	2.50	0.59
17:Q:174:GLU:O	17:Q:177:LEU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:266:SER:HB2	17:Q:268:LEU:HD12	1.84	0.59
1:A:781:LEU:C	1:A:786:TYR:HH	2.06	0.59
3:C:242:GLU:O	3:C:246:ARG:CB	2.48	0.59
15:O:414:ILE:HB	15:O:425:GLY:N	2.17	0.59
15:O:573:GLU:CG	16:P:495:LYS:NZ	2.65	0.59
15:O:583:GLU:OE1	15:O:583:GLU:N	2.36	0.59
15:O:708:VAL:O	15:O:708:VAL:HG12	2.01	0.59
16:P:219:ILE:CG1	17:Q:206:ARG:HG3	2.21	0.59
16:P:235:GLY:CA	16:P:289:ARG:HB3	2.08	0.59
2:B:733:LEU:HD22	2:B:741:LEU:HD13	1.85	0.59
7:G:138:PHE:N	7:G:146:GLY:O	2.36	0.59
15:O:277:VAL:HG22	15:O:283:ASP:O	2.03	0.59
15:O:391:THR:HG21	15:O:393:VAL:HG13	1.84	0.59
15:O:436:ILE:HD12	15:O:436:ILE:O	2.02	0.59
16:P:386:LEU:O	16:P:388:THR:CG2	2.49	0.59
1:A:1447:GLN:HE21	1:A:1459:LYS:HA	1.67	0.59
13:M:76:TYR:OH	14:N:57:LYS:HE2	2.02	0.59
15:O:187:ILE:HG12	15:O:258:SER:OG	2.01	0.59
15:O:408:ILE:HG22	15:O:413:GLY:O	2.01	0.59
15:O:581:ALA:HB3	15:O:585:GLU:HG2	1.83	0.59
15:O:659:LEU:C	15:O:663:LEU:HD21	2.22	0.59
16:P:284:LEU:HD22	16:P:302:ALA:HB2	1.83	0.59
2:B:155:VAL:HG21	17:Q:354:LEU:HD21	1.75	0.59
2:B:334:PHE:HB3	2:B:338:PHE:CD1	2.38	0.59
2:B:495:ARG:HH11	2:B:723:LYS:HE2	1.68	0.59
2:B:1138:ALA:C	2:B:1140:LYS:N	2.56	0.59
5:E:13:TRP:HB2	5:E:42:PHE:CD2	2.38	0.59
15:O:203:ILE:HG12	15:O:217:ALA:O	2.03	0.59
15:O:270:GLN:NE2	15:O:339:ARG:HH22	2.01	0.59
15:O:388:ASN:CB	17:Q:150:GLN:CD	2.63	0.59
15:O:467:PHE:CD1	15:O:478:MET:HG2	2.37	0.59
15:O:705:HIS:O	15:O:706:GLU:CB	2.46	0.59
15:O:705:HIS:CE1	15:O:707:ASP:OD2	2.55	0.59
17:Q:278:TYR:HB2	17:Q:308:PHE:CZ	2.38	0.59
17:Q:380:SER:HB3	17:Q:438:PHE:CE1	2.37	0.59
1:A:37:VAL:HG12	1:A:49:LEU:HD13	1.85	0.58
9:I:38:PRO:C	9:I:40:SER:N	2.47	0.58
15:O:181:ARG:HD2	15:O:206:ALA:HB1	1.83	0.58
15:O:301:GLN:O	15:O:320:ILE:HG23	2.03	0.58
15:O:329:ILE:HG23	15:O:340:LYS:HB3	1.84	0.58
15:O:392:GLU:HG2	15:O:392:GLU:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:408:ILE:HD11	15:O:464:LEU:HD22	1.84	0.58
15:O:573:GLU:CG	15:O:574:TRP:H	2.10	0.58
16:P:151:GLU:OE1	16:P:153:LYS:N	2.29	0.58
16:P:257:VAL:O	16:P:262:LEU:CB	2.51	0.58
16:P:386:LEU:C	16:P:388:THR:HG22	2.23	0.58
16:P:417:PHE:CE1	17:Q:258:LEU:HD11	2.38	0.58
17:Q:248:LYS:HA	17:Q:248:LYS:HE2	1.84	0.58
1:A:264:ASN:HA	1:A:267:LYS:HB2	1.84	0.58
1:A:781:LEU:O	1:A:786:TYR:OH	2.20	0.58
2:B:77:LYS:HG3	2:B:93:ASN:O	2.03	0.58
7:G:90:LEU:HD13	7:G:119:HIS:HE1	1.66	0.58
13:M:10:ILE:HD12	14:N:72:VAL:HG23	1.85	0.58
13:M:40:LEU:HB3	14:N:32:CYS:SG	2.43	0.58
15:O:233:VAL:HG12	15:O:234:THR:N	2.18	0.58
15:O:585:GLU:HA	15:O:588:SER:HB2	1.85	0.58
15:O:610:LEU:CD1	15:O:614:GLU:HG3	2.32	0.58
15:O:611:ILE:HG12	15:O:731:LEU:CD2	2.34	0.58
15:O:702:LEU:HA	16:P:123:MET:HE2	1.84	0.58
16:P:273:VAL:O	16:P:276:PHE:HB3	2.03	0.58
1:A:1136:VAL:HG12	1:A:1174:TYR:CD1	2.39	0.58
7:G:97:LYS:HA	7:G:97:LYS:CE	2.33	0.58
13:M:54:HIS:CE1	14:N:23:PHE:CD2	2.91	0.58
15:O:275:GLU:CG	15:O:285:MET:HG2	2.32	0.58
15:O:420:GLU:O	15:O:421:ILE:CG1	2.51	0.58
15:O:583:GLU:OE1	15:O:584:ARG:CG	2.44	0.58
15:O:703:PHE:HZ	16:P:258:MET:SD	2.26	0.58
15:O:760:ILE:O	15:O:760:ILE:HD12	2.03	0.58
16:P:165:LEU:HD23	16:P:165:LEU:O	2.02	0.58
17:Q:354:LEU:HD11	17:Q:359:MET:C	2.20	0.58
17:Q:397:ARG:NH1	17:Q:398:ASP:O	2.36	0.58
19:S:1:DC:N4	20:T:53:DT:H3	2.02	0.58
1:A:582:LYS:HD2	1:A:584:ARG:HE	1.67	0.58
1:A:1314:GLN:NE2	1:A:1460:TYR:OH	2.36	0.58
5:E:7:ARG:O	5:E:11:ARG:HB2	2.03	0.58
5:E:80:VAL:HA	5:E:109:ILE:HB	1.84	0.58
9:I:27:ASN:HB3	9:I:39:LYS:CB	2.33	0.58
13:M:45:LYS:HZ3	13:M:50:GLU:CG	2.12	0.58
15:O:307:PHE:CB	15:O:315:PHE:CD1	2.77	0.58
15:O:318:ILE:O	15:O:324:TRP:HB2	2.03	0.58
15:O:589:ILE:CG2	16:P:316:TRP:CE3	2.86	0.58
15:O:704:LEU:HD22	16:P:183:LYS:NZ	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:281:ILE:O	16:P:281:ILE:HG12	2.02	0.58
17:Q:390:ASN:O	17:Q:392:LEU:N	2.36	0.58
2:B:755:ASN:ND2	2:B:980:ASP:OD2	2.37	0.58
3:C:325:ALA:HB2	11:K:124:LEU:HD23	1.83	0.58
15:O:299:ASP:CB	17:Q:159:TYR:HB2	2.25	0.58
15:O:378:SER:HB3	15:O:397:LYS:CD	2.32	0.58
16:P:102:LEU:O	16:P:105:LEU:HB3	2.03	0.58
16:P:110:PHE:CZ	16:P:199:LEU:HB2	2.38	0.58
16:P:258:MET:N	16:P:262:LEU:CD1	2.46	0.58
16:P:287:TRP:CZ3	16:P:290:THR:HG23	2.31	0.58
16:P:319:SER:O	16:P:320:PHE:HB2	2.04	0.58
16:P:360:LYS:O	16:P:360:LYS:HG2	2.04	0.58
1:A:117:ARG:NH1	1:A:121:LYS:HE3	2.18	0.58
1:A:721:LYS:HG3	8:H:94:ASP:O	2.04	0.58
15:O:195:ASN:H	15:O:197:ARG:HH12	1.50	0.58
15:O:658:LYS:HG3	15:O:660:LYS:CE	2.26	0.58
19:S:13:DA:H2''	19:S:14:DA:C8	2.39	0.58
20:T:14:DT:H4'	20:T:15:DT:O5'	2.03	0.58
1:A:106:HIS:HB3	1:A:327:VAL:HG22	1.85	0.58
1:A:403:LEU:CA	1:A:406:LEU:HG	2.33	0.58
1:A:432:ASN:HD21	1:A:444:GLN:H	1.50	0.58
1:A:474:LYS:NZ	2:B:1172:GLU:OE1	2.28	0.58
1:A:1456:PHE:HB3	1:A:1474:LEU:HD21	1.84	0.58
14:N:95:ILE:HD12	14:N:136:VAL:CG2	2.11	0.58
15:O:185:GLN:HB2	15:O:187:ILE:HD11	1.86	0.58
15:O:263:ILE:HG22	15:O:264:ILE:N	2.18	0.58
15:O:512:LEU:HD23	15:O:512:LEU:O	2.03	0.58
15:O:665:ASN:C	15:O:667:ASP:N	2.55	0.58
15:O:706:GLU:OE2	16:P:346:GLU:CD	2.41	0.58
15:O:707:ASP:OD2	16:P:439:ILE:CG1	2.52	0.58
16:P:102:LEU:O	16:P:106:LYS:HG3	2.04	0.58
16:P:115:GLN:OE1	16:P:161:THR:HG22	2.04	0.58
16:P:284:LEU:HD11	16:P:305:ARG:NE	2.17	0.58
1:A:588:LEU:HD22	2:B:1087:LEU:HD21	1.86	0.58
1:A:982:VAL:HG13	1:A:994:GLU:OE1	2.04	0.58
1:A:1447:GLN:NE2	1:A:1459:LYS:HA	2.19	0.58
1:A:1512:PRO:HB3	1:A:1517:ARG:HA	1.85	0.58
1:A:1640:ARG:HG2	1:A:1645:LYS:HB2	1.86	0.58
7:G:95:LEU:HD12	7:G:95:LEU:C	2.23	0.58
8:H:93:TYR:CD1	8:H:145:ARG:HB2	2.39	0.58
14:N:23:PHE:HB3	14:N:25:ILE:HD11	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:347:LEU:HD22	17:Q:152:ILE:N	2.19	0.58
15:O:424:VAL:HG23	15:O:424:VAL:O	2.03	0.58
15:O:620:ASP:HB3	15:O:674:GLU:CD	2.24	0.58
16:P:338:LEU:O	16:P:339:THR:C	2.42	0.58
1:A:105:CYS:O	1:A:106:HIS:HB2	2.04	0.58
1:A:883:LEU:HD23	1:A:884:ARG:HH12	1.69	0.58
2:B:86:SER:O	2:B:90:TYR:HB3	2.04	0.58
15:O:329:ILE:CG2	15:O:340:LYS:HB3	2.34	0.58
15:O:506:THR:CG2	15:O:540:LYS:HG2	2.34	0.58
15:O:511:ILE:HD12	15:O:537:PHE:HA	1.85	0.58
15:O:554:ASN:O	15:O:555:THR:HG23	2.04	0.58
15:O:672:ILE:CD1	15:O:734:LYS:HE2	2.34	0.58
16:P:378:LEU:HD11	17:Q:234:LYS:O	2.02	0.58
16:P:496:GLU:HA	16:P:499:LYS:HB2	1.85	0.58
17:Q:380:SER:OG	17:Q:384:VAL:CG1	2.52	0.58
1:A:611:GLU:OE2	1:A:613:THR:OG1	2.18	0.58
1:A:748:ASN:OD1	1:A:773:ASP:N	2.28	0.58
1:A:1640:ARG:HD3	1:A:1646:LEU:O	2.04	0.58
2:B:152:LEU:HD23	2:B:446:MET:SD	2.44	0.58
2:B:547:HIS:CE1	2:B:548:LYS:HD3	2.39	0.58
2:B:679:GLN:N	2:B:679:GLN:OE1	2.33	0.58
2:B:782:ASP:O	2:B:950:ASN:ND2	2.35	0.58
7:G:140:GLN:NE2	7:G:225:ILE:HG13	2.19	0.58
14:N:58:PHE:CD2	14:N:64:ILE:HG13	2.38	0.58
15:O:324:TRP:HD1	15:O:348:HIS:CD2	2.17	0.58
15:O:329:ILE:HB	15:O:330:PRO:HD2	1.85	0.58
15:O:610:LEU:HD11	15:O:614:GLU:HG3	1.86	0.58
15:O:725:VAL:CG1	15:O:726:SER:H	2.10	0.58
16:P:143:THR:HG21	16:P:236:MET:HE1	0.63	0.58
16:P:247:ILE:CD1	16:P:286:LEU:CB	2.82	0.58
1:A:451:VAL:O	1:A:451:VAL:HG12	2.03	0.57
1:A:529:LYS:HG2	1:A:530:TRP:H	1.69	0.57
1:A:530:TRP:O	1:A:580:HIS:HD2	1.87	0.57
2:B:12:ARG:HA	2:B:15:ASP:OD1	2.04	0.57
2:B:892:SER:O	12:L:54:ARG:NH1	2.33	0.57
2:B:1071:VAL:HA	2:B:1075:GLU:OE1	2.04	0.57
15:O:273:ARG:NH1	15:O:274:ILE:O	2.38	0.57
15:O:366:PHE:HZ	15:O:426:ALA:O	1.87	0.57
15:O:491:SER:OG	15:O:492:LEU:N	2.37	0.57
9:I:42:PHE:CE1	9:I:44:ASN:HB2	2.38	0.57
15:O:194:ARG:CA	15:O:197:ARG:CZ	2.64	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:309:PRO:HD3	15:O:365:TRP:CD2	2.37	0.57
17:Q:247:ILE:O	17:Q:250:LEU:CA	2.53	0.57
17:Q:362:ALA:C	17:Q:364:VAL:H	2.08	0.57
19:S:10:DG:N2	20:T:45:DC:O2	2.24	0.57
19:S:16:DG:O6	20:T:38:DA:N6	2.37	0.57
1:A:464:GLU:CA	1:A:468:ARG:HB2	2.34	0.57
1:A:753:ASN:N	1:A:767:ASN:OD1	2.31	0.57
2:B:290:ASP:HB3	2:B:577:PHE:HE1	1.68	0.57
3:C:333:ILE:HG13	11:K:114:VAL:HG13	1.85	0.57
10:J:44:TYR:HA	10:J:47:ARG:HB2	1.86	0.57
13:M:170:LYS:HA	13:M:170:LYS:HE3	1.86	0.57
14:N:111:VAL:O	14:N:120:LYS:N	2.36	0.57
15:O:6:UNK:C	17:Q:425:ALA:HA	2.11	0.57
15:O:222:GLN:HG2	15:O:225:LEU:HB2	1.86	0.57
15:O:260:LEU:HD23	15:O:273:ARG:C	2.08	0.57
15:O:353:ASP:OD1	15:O:354:PRO:CD	2.47	0.57
15:O:500:ILE:HG23	15:O:501:PRO:CD	2.32	0.57
16:P:283:ASN:OD1	16:P:283:ASN:N	2.32	0.57
16:P:399:SER:HB2	16:P:402:MET:HG2	1.85	0.57
1:A:62:CYS:O	1:A:66:GLY:N	2.28	0.57
1:A:721:LYS:HG2	8:H:94:ASP:C	2.23	0.57
2:B:960:ILE:HA	2:B:963:PHE:HD2	1.69	0.57
15:O:362:ARG:NH1	15:O:364:GLU:HB2	2.20	0.57
15:O:369:PHE:O	15:O:370:GLN:HB2	2.04	0.57
16:P:200:PRO:CA	16:P:203:TRP:CD1	2.85	0.57
19:S:17:DT:H2"	19:S:18:DA:H8	1.70	0.57
3:C:283:GLU:H	3:C:283:GLU:CD	2.05	0.57
11:K:95:HIS:HB3	11:K:98:GLU:HG3	1.86	0.57
15:O:216:ILE:C	15:O:234:THR:HG1	2.05	0.57
15:O:353:ASP:OD1	15:O:353:ASP:N	2.36	0.57
16:P:208:PRO:CB	16:P:213:SER:HA	2.32	0.57
17:Q:266:SER:OG	17:Q:269:ASP:OD1	2.13	0.57
17:Q:388:LYS:CE	17:Q:393:ILE:HB	2.33	0.57
1:A:62:CYS:HB2	1:A:72:CYS:SG	2.44	0.57
1:A:1612:LYS:HB3	1:A:1621:PHE:CG	2.40	0.57
2:B:186:GLU:O	2:B:188:ASP:N	2.38	0.57
7:G:96:SER:HB3	7:G:99:ASP:N	2.20	0.57
10:J:9:SER:HB2	10:J:45:CYS:HB2	1.87	0.57
15:O:369:PHE:CZ	15:O:431:ASP:C	2.77	0.57
15:O:540:LYS:C	15:O:541:LEU:HD12	2.25	0.57
15:O:651:SER:C	15:O:653:SER:N	2.50	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:135:ILE:O	16:P:139:LYS:HG3	2.05	0.57
16:P:154:LEU:O	16:P:156:LEU:HD13	1.94	0.57
17:Q:381:ARG:C	17:Q:383:PHE:H	2.07	0.57
8:H:112:ILE:CG2	8:H:131:ASN:HD22	2.18	0.57
13:M:45:LYS:NZ	13:M:50:GLU:N	2.51	0.57
13:M:45:LYS:O	13:M:47:GLU:N	2.37	0.57
15:O:422:ILE:HG12	15:O:440:HIS:O	2.04	0.57
15:O:571:HIS:HB3	15:O:573:GLU:OE2	2.03	0.57
16:P:127:LYS:HB3	16:P:131:HIS:CE1	2.39	0.57
16:P:154:LEU:CD1	16:P:154:LEU:H	2.02	0.57
16:P:154:LEU:O	16:P:155:GLN:C	2.42	0.57
16:P:263:PRO:HG3	16:P:266:PHE:CD2	2.35	0.57
1:A:549:MET:HG2	1:A:553:GLN:OE1	2.04	0.57
2:B:479:GLN:N	2:B:479:GLN:OE1	2.36	0.57
7:G:80:VAL:CG2	7:G:243:VAL:HG11	2.34	0.57
15:O:529:GLU:HB2	15:O:531:PHE:HE2	1.68	0.57
15:O:611:ILE:HD13	15:O:731:LEU:HB3	1.87	0.57
15:O:736:ILE:CG2	16:P:267:TYR:CE1	2.78	0.57
15:O:747:LEU:HD12	15:O:748:GLU:H	1.70	0.57
15:O:769:GLN:O	15:O:772:ILE:CG2	2.53	0.57
16:P:155:GLN:HE22	16:P:215:LEU:CD2	2.15	0.57
16:P:259:GLN:HE21	16:P:259:GLN:C	2.06	0.57
16:P:367:PHE:CE1	17:Q:1:MET:SD	2.97	0.57
17:Q:21:TYR:HE2	17:Q:124:GLU:OE2	1.86	0.57
17:Q:302:ARG:CZ	17:Q:303:THR:CG2	2.82	0.57
19:S:27:DT:H2''	19:S:28:DT:H5'	1.86	0.57
1:A:437:PHE:HE2	2:B:1184:TYR:CZ	2.22	0.57
1:A:801:TYR:HB3	1:A:805:VAL:HG21	1.86	0.57
2:B:200:GLU:CD	2:B:736:ARG:HH22	2.08	0.57
2:B:572:PRO:HB2	2:B:575:HIS:CD2	2.38	0.57
2:B:843:ASP:O	12:L:42:ARG:NH2	2.37	0.57
15:O:200:THR:CB	15:O:218:VAL:HG13	2.34	0.57
15:O:221:ARG:HD3	15:O:227:LEU:CD2	2.35	0.57
15:O:368:HIS:ND1	15:O:368:HIS:O	2.38	0.57
15:O:382:GLU:O	15:O:383:ILE:CG1	2.52	0.57
15:O:428:GLU:OE1	15:O:428:GLU:O	2.23	0.57
15:O:669:PHE:CZ	15:O:738:LYS:HG3	2.40	0.57
16:P:238:HIS:NE2	16:P:289:ARG:CZ	2.66	0.57
1:A:712:ILE:HB	11:K:106:GLN:NE2	2.20	0.57
1:A:755:ILE:HD13	1:A:780:ILE:HD11	1.87	0.57
9:I:27:ASN:N	9:I:39:LYS:CA	2.62	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:31:CYS:HB2	12:L:48:CYS:SG	2.45	0.57
15:O:474:LYS:HD2	15:O:499:GLU:O	2.05	0.57
15:O:698:LYS:O	16:P:125:PHE:HZ	1.87	0.57
15:O:715:TYR:CE1	15:O:734:LYS:HG3	2.33	0.57
16:P:97:GLY:O	16:P:210:TYR:OH	2.22	0.57
16:P:367:PHE:CZ	17:Q:1:MET:CE	2.88	0.57
1:A:1578:SER:HB3	1:A:1581:HIS:CD2	2.40	0.56
7:G:47:VAL:HG21	7:G:61:VAL:HG13	1.87	0.56
9:I:42:PHE:CE1	9:I:44:ASN:CA	2.85	0.56
15:O:536:ASP:HB2	15:O:549:TYR:CE1	2.39	0.56
15:O:656:HIS:CD2	15:O:746:ARG:HB3	2.39	0.56
16:P:284:LEU:CD1	16:P:302:ALA:C	2.73	0.56
16:P:370:SER:OG	16:P:373:GLU:OE1	2.22	0.56
16:P:415:LYS:O	16:P:417:PHE:N	2.32	0.56
17:Q:211:ARG:HG3	17:Q:212:HIS:H	1.69	0.56
17:Q:302:ARG:HG3	17:Q:303:THR:CG2	2.35	0.56
1:A:68:ASP:OD2	1:A:70:LYS:NZ	2.38	0.56
13:M:174:THR:O	13:M:175:ARG:CG	2.50	0.56
15:O:313:GLN:C	15:O:314:GLN:CD	2.63	0.56
15:O:319:ASP:HA	15:O:324:TRP:HA	1.87	0.56
15:O:533:LEU:HD12	15:O:533:LEU:O	2.05	0.56
15:O:706:GLU:CB	16:P:438:PHE:HB3	2.35	0.56
15:O:714:PHE:CZ	15:O:741:ILE:HD11	2.40	0.56
16:P:137:TRP:HE1	16:P:141:LEU:HD21	1.70	0.56
19:S:40:DT:H1'	19:S:41:DT:H2'	1.88	0.56
1:A:879:LEU:HA	1:A:882:ILE:HD12	1.87	0.56
1:A:967:PRO:HG3	2:B:669:GLN:HE21	1.70	0.56
1:A:1090:ASP:HB3	1:A:1132:TYR:CD1	2.40	0.56
2:B:251:HIS:HE1	2:B:261:ARG:CD	2.17	0.56
2:B:269:TYR:HD1	13:M:131:ALA:HB2	1.68	0.56
2:B:290:ASP:HB3	2:B:577:PHE:CE1	2.41	0.56
3:C:257:GLY:O	3:C:266:TYR:N	2.37	0.56
5:E:48:ASP:OD1	5:E:52:ARG:N	2.38	0.56
8:H:40:LEU:HD13	8:H:123:MET:HB2	1.87	0.56
8:H:105:GLU:OE1	8:H:115:TYR:OH	2.12	0.56
9:I:26:SER:O	9:I:38:PRO:CD	2.53	0.56
13:M:59:ARG:O	13:M:103:LYS:HG2	2.05	0.56
14:N:78:THR:HB	14:N:89:ILE:HB	1.87	0.56
15:O:323:ASN:C	15:O:348:HIS:HB3	2.21	0.56
15:O:389:TRP:O	15:O:390:GLN:CG	2.53	0.56
15:O:415:LEU:CD1	15:O:453:VAL:HG11	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:436:ILE:CG2	17:Q:141:TRP:CD2	2.71	0.56
15:O:705:HIS:O	15:O:705:HIS:CG	2.59	0.56
15:O:715:TYR:OH	15:O:734:LYS:HE3	1.99	0.56
16:P:118:TRP:CZ2	16:P:189:LYS:CB	2.87	0.56
16:P:156:LEU:CD1	16:P:156:LEU:N	2.68	0.56
16:P:188:ALA:HB1	16:P:193:PHE:CE2	2.40	0.56
16:P:235:GLY:N	16:P:289:ARG:CA	2.68	0.56
16:P:320:PHE:CD2	16:P:320:PHE:O	2.58	0.56
16:P:386:LEU:C	16:P:388:THR:CG2	2.73	0.56
16:P:408:ILE:HG22	16:P:412:LYS:HE3	1.87	0.56
17:Q:208:TYR:CA	17:Q:211:ARG:CG	2.79	0.56
20:T:18:DG:H2'	20:T:19:DC:C6	2.39	0.56
1:A:397:ARG:HE	13:M:170:LYS:HB2	1.69	0.56
1:A:1501:ILE:HB	1:A:1504:ILE:HB	1.88	0.56
7:G:13:THR:O	7:G:17:ILE:HG12	2.05	0.56
15:O:275:GLU:HG3	15:O:285:MET:HG2	1.88	0.56
15:O:363:ILE:CG2	15:O:374:VAL:HG13	2.32	0.56
15:O:428:GLU:HA	15:O:435:ARG:HG2	1.87	0.56
15:O:641:TRP:HB2	15:O:654:LEU:HD23	1.87	0.56
16:P:150:GLU:O	16:P:150:GLU:CG	2.53	0.56
16:P:313:THR:O	16:P:317:MET:HB2	2.05	0.56
16:P:386:LEU:HB3	16:P:387:PRO:HD3	1.86	0.56
16:P:488:LEU:C	16:P:493:ILE:HG23	2.25	0.56
1:A:49:LEU:HD21	1:A:386:LEU:HD22	1.87	0.56
1:A:1647:ASN:HB3	2:B:1085:SER:HB3	1.88	0.56
2:B:118:GLU:CD	17:Q:281:LYS:HZ1	2.09	0.56
2:B:742:TYR:HE1	2:B:803:MET:HG3	1.71	0.56
15:O:230:HIS:HB3	15:O:280:ARG:HH22	1.69	0.56
15:O:254:ILE:O	15:O:256:ARG:N	2.39	0.56
15:O:422:ILE:O	15:O:439:LYS:CA	2.52	0.56
15:O:424:VAL:HG23	15:O:437:SER:HG	1.71	0.56
16:P:123:MET:CB	16:P:125:PHE:HE2	1.97	0.56
16:P:126:PRO:O	16:P:127:LYS:C	2.43	0.56
16:P:155:GLN:HB3	20:T:45:DC:OP1	2.05	0.56
16:P:209:ASN:OD1	16:P:210:TYR:N	2.39	0.56
16:P:247:ILE:CG1	16:P:286:LEU:CA	2.81	0.56
1:A:618:TYR:CE1	1:A:628:PHE:HE2	2.23	0.56
2:B:122:TYR:HE2	2:B:175:MET:HE1	1.69	0.56
8:H:101:ALA:HB2	8:H:116:TYR:HE1	1.71	0.56
9:I:43:SER:HB2	9:I:45:LEU:HD21	1.88	0.56
13:M:88:ILE:HD12	13:M:90:LEU:HD21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:186:ARG:HH11	13:M:366:VAL:HG21	1.70	0.56
15:O:197:ARG:O	15:O:199:GLY:N	2.38	0.56
15:O:206:ALA:HA	15:O:214:LEU:CD2	2.31	0.56
15:O:291:PRO:C	15:O:292:LEU:HD23	2.25	0.56
15:O:375:PHE:HB3	15:O:380:MET:HA	1.86	0.56
15:O:574:TRP:CZ3	16:P:484:ALA:HB1	2.41	0.56
15:O:780:ILE:HG12	16:P:199:LEU:HD11	1.88	0.56
16:P:287:TRP:CZ2	16:P:298:VAL:HG21	2.37	0.56
16:P:417:PHE:O	16:P:418:PRO:C	2.44	0.56
3:C:95:GLU:HG3	12:L:67:PHE:CE2	2.39	0.56
7:G:232:THR:OG1	7:G:251:SER:O	2.21	0.56
8:H:96:VAL:HA	8:H:142:LEU:O	2.06	0.56
13:M:45:LYS:O	13:M:45:LYS:HG2	2.06	0.56
15:O:303:VAL:CG1	15:O:361:LYS:H	2.19	0.56
15:O:359:SER:HA	15:O:361:LYS:NZ	2.21	0.56
15:O:611:ILE:CD1	15:O:731:LEU:HG	2.35	0.56
16:P:149:GLN:HB2	16:P:150:GLU:OE1	2.06	0.56
16:P:497:GLN:HA	16:P:500:ASP:HB3	1.86	0.56
17:Q:1:MET:N	17:Q:218:ASP:OD2	2.39	0.56
17:Q:200:THR:HG1	17:Q:203:SER:CB	2.15	0.56
1:A:475:ARG:NH1	2:B:1068:GLY:O	2.28	0.56
1:A:496:GLY:HA3	1:A:615:ARG:HB2	1.88	0.56
1:A:1640:ARG:CG	1:A:1645:LYS:HB2	2.36	0.56
2:B:815:ARG:HH21	19:S:26:DT:H5"	1.68	0.56
7:G:75:ASN:OD1	7:G:76:LYS:N	2.38	0.56
8:H:8:ASP:O	8:H:57:VAL:N	2.39	0.56
8:H:113:ALA:HA	8:H:125:LEU:O	2.06	0.56
15:O:174:TRP:HA	17:Q:198:LEU:HD11	1.87	0.56
15:O:469:TYR:HB3	15:O:476:ILE:HD12	1.88	0.56
15:O:656:HIS:CD2	15:O:747:LEU:CA	2.89	0.56
16:P:118:TRP:CZ3	16:P:122:GLU:CG	2.88	0.56
16:P:169:SER:OG	16:P:175:PRO:HD2	2.06	0.56
17:Q:296:PRO:HB2	17:Q:304:HIS:CE1	2.38	0.56
1:A:921:PRO:CB	8:H:19:ARG:HG3	2.34	0.56
2:B:469:ASN:HA	2:B:481:VAL:O	2.06	0.56
5:E:81:GLU:N	5:E:109:ILE:O	2.39	0.56
5:E:128:PRO:HB2	5:E:129:PRO:CD	2.34	0.56
7:G:166:TRP:HZ3	7:G:225:ILE:HG21	1.70	0.56
13:M:42:LYS:HG3	13:M:51:PHE:CE1	2.40	0.56
13:M:392:TYR:CE2	13:M:394:ILE:HD11	2.41	0.56
14:N:94:ASP:O	14:N:95:ILE:HG13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:14:UNK:CB	15:O:438:TRP:CE3	2.89	0.56
15:O:324:TRP:CZ2	15:O:346:ASN:O	2.59	0.56
15:O:433:VAL:HG23	15:O:434:ARG:H	1.70	0.56
15:O:436:ILE:HG22	17:Q:141:TRP:CH2	2.37	0.56
15:O:454:GLN:HE22	15:O:513:THR:HG22	1.71	0.56
15:O:586:LYS:NZ	16:P:322:ARG:HH21	1.91	0.56
15:O:593:VAL:CB	16:P:320:PHE:CD2	2.79	0.56
15:O:718:LEU:HD21	15:O:737:VAL:HG11	1.86	0.56
16:P:211:TYR:O	16:P:213:SER:N	2.39	0.56
16:P:258:MET:HA	16:P:262:LEU:CB	2.34	0.56
17:Q:152:ILE:O	17:Q:152:ILE:HG22	2.04	0.56
17:Q:302:ARG:HG3	17:Q:303:THR:HG22	1.87	0.56
17:Q:408:ILE:O	17:Q:411:VAL:HG12	2.06	0.56
1:A:52:LEU:HB2	1:A:63:SER:OG	2.06	0.56
1:A:67:LEU:HB2	1:A:72:CYS:CB	2.33	0.56
2:B:215:MET:HE3	2:B:394:PRO:HG3	1.87	0.56
2:B:819:ASP:CG	2:B:820:PRO:HD3	2.26	0.56
2:B:896:GLN:OE1	12:L:46:VAL:N	2.36	0.56
5:E:40:GLU:HA	5:E:43:LYS:HD3	1.86	0.56
15:O:401:ASN:O	15:O:419:ARG:N	2.39	0.56
15:O:438:TRP:CZ2	15:O:481:PHE:HD2	2.24	0.56
15:O:440:HIS:CD2	15:O:479:HIS:CD2	2.94	0.56
16:P:256:LEU:HD21	16:P:307:LEU:HD23	1.88	0.56
17:Q:274:MET:CA	17:Q:277:ILE:CG2	2.83	0.56
17:Q:277:ILE:CD1	17:Q:278:TYR:HD1	2.11	0.56
17:Q:346:ILE:O	17:Q:349:ILE:HG13	2.06	0.56
1:A:174:SER:HB3	1:A:177:LEU:HD13	1.88	0.55
1:A:485:SER:O	1:A:615:ARG:HA	2.07	0.55
1:A:1647:ASN:ND2	2:B:1085:SER:OG	2.38	0.55
5:E:14:ARG:HH22	5:E:141:VAL:HG13	1.71	0.55
14:N:93:THR:O	14:N:93:THR:HG22	2.06	0.55
14:N:114:GLU:HG3	14:N:116:LYS:H	1.71	0.55
15:O:311:ASP:OD1	15:O:313:GLN:HB2	2.06	0.55
16:P:158:MET:C	16:P:192:TYR:CE1	2.78	0.55
16:P:381:MET:CE	16:P:385:PHE:HD2	2.19	0.55
16:P:491:PHE:CD1	16:P:491:PHE:N	2.72	0.55
2:B:786:ALA:HB1	2:B:928:SER:HB3	1.88	0.55
2:B:906:ARG:HH11	3:C:93:GLN:HG3	1.71	0.55
15:O:623:LEU:HD13	15:O:669:PHE:HA	1.88	0.55
15:O:722:TRP:CZ2	16:P:262:LEU:HD11	2.41	0.55
16:P:485:SER:O	16:P:489:VAL:CG2	2.52	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:488:LEU:C	16:P:488:LEU:HD23	2.25	0.55
17:Q:27:ILE:HD11	17:Q:169:PRO:HB2	1.88	0.55
18:R:4:C:HO2'	18:R:5:G:H8	1.54	0.55
1:A:431:GLN:O	1:A:435:ASN:ND2	2.39	0.55
1:A:781:LEU:C	1:A:786:TYR:OH	2.45	0.55
2:B:895:PHE:CZ	2:B:899:GLN:HB2	2.42	0.55
2:B:908:ARG:NH2	12:L:70:ARG:O	2.36	0.55
15:O:363:ILE:HD12	15:O:363:ILE:O	2.06	0.55
15:O:396:ALA:HB3	17:Q:140:ILE:HD12	1.88	0.55
16:P:137:TRP:HA	16:P:140:ILE:HD12	1.87	0.55
16:P:257:VAL:HG12	16:P:262:LEU:CG	2.34	0.55
16:P:447:ALA:HA	16:P:450:THR:HB	1.88	0.55
1:A:560:GLN:O	1:A:575:LYS:NZ	2.29	0.55
1:A:842:TRP:CD2	1:A:910:LYS:HE3	2.42	0.55
2:B:505:ARG:HG3	2:B:509:PHE:HD2	1.71	0.55
3:C:175:GLN:HB2	3:C:179:PHE:CE2	2.41	0.55
5:E:83:CYS:HB2	5:E:110:PHE:CZ	2.42	0.55
9:I:3:VAL:HA	9:I:8:ILE:HA	1.89	0.55
9:I:28:VAL:CG2	9:I:38:PRO:HD3	2.26	0.55
15:O:422:ILE:CG1	15:O:440:HIS:CD2	2.90	0.55
15:O:691:VAL:O	15:O:691:VAL:HG22	2.06	0.55
16:P:135:ILE:HD11	16:P:243:PHE:HZ	1.71	0.55
16:P:207:LEU:HG	16:P:209:ASN:CA	2.37	0.55
16:P:351:ASN:O	16:P:355:VAL:CG2	2.53	0.55
17:Q:137:SER:O	17:Q:296:PRO:CG	2.39	0.55
2:B:1063:ARG:N	20:T:19:DC:OP1	2.39	0.55
2:B:1139:LYS:C	2:B:1141:LEU:H	2.09	0.55
13:M:33:PRO:HD2	13:M:36:THR:HB	1.89	0.55
15:O:369:PHE:CE2	15:O:431:ASP:C	2.80	0.55
15:O:420:GLU:HA	15:O:442:LEU:CD1	2.37	0.55
15:O:580:ASN:CB	16:P:506:LYS:HZ3	2.18	0.55
15:O:607:VAL:HG21	15:O:735:GLU:OE1	2.07	0.55
15:O:706:GLU:OE2	16:P:346:GLU:OE2	2.25	0.55
15:O:736:ILE:HA	15:O:739:ASP:OD2	2.06	0.55
1:A:1254:PHE:HE1	1:A:1532:GLN:OE1	1.90	0.55
9:I:37:TYR:O	9:I:38:PRO:C	2.44	0.55
15:O:23:UNK:C	17:Q:314:TRP:CE3	2.89	0.55
15:O:275:GLU:O	15:O:284:VAL:HG12	2.03	0.55
15:O:275:GLU:HG2	15:O:285:MET:HG3	1.89	0.55
15:O:390:GLN:HG2	17:Q:151:PRO:HG2	1.87	0.55
15:O:400:SER:O	15:O:401:ASN:ND2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:421:ILE:HG22	15:O:439:LYS:HG3	1.84	0.55
16:P:222:PHE:CD2	17:Q:206:ARG:HD2	2.41	0.55
1:A:257:ASN:OD1	1:A:258:GLU:N	2.40	0.55
1:A:464:GLU:OE1	1:A:464:GLU:N	2.38	0.55
1:A:786:TYR:N	1:A:786:TYR:CD1	2.72	0.55
1:A:1051:GLY:HA3	1:A:1580:ARG:HG2	1.89	0.55
5:E:83:CYS:SG	5:E:88:VAL:HG22	2.47	0.55
13:M:163:ASP:HA	13:M:166:ARG:HG2	1.88	0.55
15:O:9:UNK:O	15:O:11:UNK:N	2.39	0.55
15:O:351:ILE:CD1	17:Q:162:PHE:HE1	2.19	0.55
15:O:483:HIS:CG	15:O:489:PHE:HE1	2.25	0.55
15:O:578:PHE:HZ	16:P:312:LEU:CD1	2.08	0.55
15:O:604:ILE:HG23	15:O:732:LEU:HD23	1.87	0.55
15:O:655:SER:OG	16:P:244:ASN:CA	2.55	0.55
16:P:497:GLN:O	16:P:498:LEU:C	2.45	0.55
17:Q:248:LYS:HA	17:Q:248:LYS:NZ	2.21	0.55
17:Q:282:SER:O	17:Q:302:ARG:HB3	2.07	0.55
17:Q:345:LEU:O	17:Q:349:ILE:CG1	2.54	0.55
17:Q:346:ILE:O	17:Q:349:ILE:CD1	2.55	0.55
1:A:203:THR:HG23	1:A:205:ARG:H	1.71	0.55
2:B:576:THR:HG21	2:B:595:TRP:HB2	1.88	0.55
2:B:858:ILE:HD11	2:B:874:TYR:HB2	1.88	0.55
4:D:30:HIS:HB3	7:G:36:ASN:HD22	1.70	0.55
15:O:200:THR:HB	15:O:218:VAL:CG1	2.36	0.55
15:O:323:ASN:HA	15:O:348:HIS:HB3	1.89	0.55
15:O:390:GLN:CG	17:Q:151:PRO:CG	2.84	0.55
16:P:137:TRP:CZ3	16:P:140:ILE:HG21	2.42	0.55
16:P:330:TRP:NE1	16:P:452:PHE:CD1	2.75	0.55
16:P:337:SER:HB3	16:P:448:LYS:HD3	1.87	0.55
16:P:378:LEU:CG	17:Q:234:LYS:HB3	2.36	0.55
20:T:10:DC:C2'	20:T:11:DT:H71	2.36	0.55
1:A:246:ASP:OD1	1:A:247:GLY:N	2.40	0.55
1:A:785:GLN:C	1:A:789:SER:CB	2.75	0.55
2:B:96:SER:HB2	2:B:144:SER:HB2	1.89	0.55
2:B:697:LEU:HB3	2:B:701:ALA:HB3	1.89	0.55
2:B:800:TYR:OH	2:B:908:ARG:NE	2.34	0.55
9:I:37:TYR:C	9:I:39:LYS:N	2.60	0.55
14:N:96:GLU:CG	14:N:132:GLN:HB3	2.36	0.55
15:O:195:ASN:N	15:O:197:ARG:NH1	2.55	0.55
15:O:275:GLU:CB	15:O:285:MET:CG	2.85	0.55
15:O:383:ILE:CG1	15:O:390:GLN:CG	2.85	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:413:GLY:HA2	15:O:426:ALA:CB	2.36	0.55
15:O:513:THR:HG23	15:O:513:THR:O	2.07	0.55
15:O:725:VAL:HB	16:P:450:THR:HA	1.88	0.55
15:O:736:ILE:CG2	15:O:736:ILE:O	2.54	0.55
16:P:113:LYS:C	16:P:116:ILE:HG13	2.27	0.55
16:P:184:TRP:HZ2	16:P:192:TYR:CD2	2.12	0.55
16:P:356:VAL:HG13	16:P:358:PRO:CG	2.21	0.55
17:Q:181:THR:HA	19:S:10:DG:OP1	2.07	0.55
17:Q:283:ARG:C	17:Q:302:ARG:NE	2.60	0.55
1:A:10:GLU:HB2	1:A:1645:LYS:HZ1	1.71	0.55
1:A:40:ASN:HB3	1:A:43:HIS:HD2	1.71	0.55
1:A:1568:ASN:O	1:A:1572:ARG:HG2	2.07	0.55
2:B:479:GLN:CG	19:S:39:DT:O2	2.48	0.55
5:E:79:TRP:HB2	5:E:105:PHE:CD2	2.42	0.55
7:G:94:PRO:O	7:G:95:LEU:HB3	2.07	0.55
8:H:10:PHE:CD1	8:H:30:SER:HA	2.42	0.55
15:O:188:GLN:HB2	15:O:199:GLY:HA2	0.62	0.55
15:O:314:GLN:O	15:O:327:GLY:O	2.25	0.55
15:O:373:LEU:CD2	15:O:382:GLU:HG3	2.37	0.55
15:O:423:ILE:HA	15:O:439:LYS:HB3	1.88	0.55
15:O:431:ASP:OD1	15:O:432:PRO:CD	2.53	0.55
15:O:473:HIS:O	15:O:504:THR:HG23	2.07	0.55
15:O:657:SER:O	15:O:658:LYS:CD	2.55	0.55
15:O:725:VAL:CG1	16:P:450:THR:HA	2.37	0.55
17:Q:207:ASN:O	17:Q:211:ARG:N	2.19	0.55
17:Q:396:ASP:O	17:Q:397:ARG:CG	2.52	0.55
1:A:342:ARG:NH1	1:A:1629:ASN:O	2.38	0.54
1:A:1229:ALA:HB3	1:A:1597:ALA:HB2	1.88	0.54
2:B:874:TYR:CZ	2:B:876:SER:HB3	2.42	0.54
2:B:934:ILE:HB	3:C:69:ARG:HG3	1.88	0.54
3:C:142:ARG:NH2	10:J:67:GLU:OE2	2.38	0.54
3:C:147:PRO:HG2	3:C:155:GLU:OE2	2.07	0.54
5:E:88:VAL:HG12	5:E:93:MET:HB2	1.89	0.54
11:K:58:GLY:O	11:K:59:THR:HG22	2.07	0.54
15:O:318:ILE:HG23	15:O:340:LYS:NZ	2.22	0.54
15:O:359:SER:O	15:O:360:TRP:CD1	2.61	0.54
15:O:419:ARG:CZ	15:O:420:GLU:OE1	2.55	0.54
15:O:428:GLU:HG2	15:O:435:ARG:HB3	1.88	0.54
15:O:511:ILE:O	15:O:512:LEU:CB	2.56	0.54
15:O:725:VAL:HB	16:P:450:THR:CB	2.36	0.54
16:P:104:PHE:CG	16:P:211:TYR:CB	2.79	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:184:TRP:NE1	16:P:190:MET:CB	2.40	0.54
16:P:238:HIS:CE1	16:P:289:ARG:NE	2.71	0.54
17:Q:245:VAL:HG21	17:Q:250:LEU:HD21	1.89	0.54
17:Q:388:LYS:HE3	17:Q:393:ILE:HB	1.89	0.54
19:S:28:DT:C2	19:S:29:DT:C5	2.95	0.54
1:A:17:GLY:O	2:B:1187:SER:HA	2.06	0.54
1:A:65:CYS:O	1:A:67:LEU:HG	2.07	0.54
1:A:642:ASN:O	1:A:646:GLU:HG3	2.06	0.54
1:A:911:CYS:O	1:A:912:VAL:O	2.24	0.54
1:A:1297:PHE:CE1	9:I:64:LYS:HD2	2.42	0.54
2:B:1150:LYS:HB3	2:B:1162:GLY:H	1.72	0.54
3:C:227:TYR:HB3	3:C:300:PHE:CE1	2.42	0.54
7:G:90:LEU:HD13	7:G:119:HIS:CE1	2.43	0.54
12:L:31:CYS:HA	12:L:56:LEU:HD23	1.88	0.54
13:M:279:ASN:ND2	13:M:282:LYS:HD3	2.22	0.54
15:O:312:LEU:CD2	15:O:315:PHE:HE1	2.16	0.54
15:O:315:PHE:O	15:O:317:ILE:N	2.40	0.54
15:O:599:LYS:CB	16:P:272:GLN:NE2	2.66	0.54
15:O:653:SER:HB2	15:O:749:LYS:CG	2.38	0.54
15:O:771:ILE:O	15:O:774:SER:HB2	2.07	0.54
16:P:103:LEU:HD23	16:P:106:LYS:CD	2.28	0.54
16:P:137:TRP:NE1	16:P:141:LEU:HD11	2.21	0.54
16:P:233:THR:O	16:P:237:ILE:HG13	2.07	0.54
16:P:402:MET:O	16:P:406:GLN:CB	2.55	0.54
17:Q:352:TRP:CB	17:Q:358:PHE:CZ	2.46	0.54
17:Q:380:SER:CA	17:Q:384:VAL:HG13	2.37	0.54
1:A:50:TYR:OH	1:A:383:ASN:ND2	2.40	0.54
1:A:52:LEU:O	1:A:63:SER:N	2.39	0.54
1:A:116:HIS:ND1	1:A:185:ARG:CD	2.60	0.54
1:A:615:ARG:NH2	2:B:928:SER:O	2.35	0.54
2:B:1131:CYS:HB2	2:B:1163:GLN:HA	1.89	0.54
5:E:78:LEU:HD21	5:E:109:ILE:HG12	1.89	0.54
5:E:83:CYS:O	5:E:113:GLN:HG3	2.06	0.54
13:M:31:ARG:HH21	14:N:128:ASN:HD22	1.56	0.54
15:O:264:ILE:HG22	15:O:265:THR:N	2.22	0.54
17:Q:247:ILE:HG13	17:Q:298:GLN:HG2	0.55	0.54
1:A:19:LEU:HD12	2:B:1186:ASP:HA	1.88	0.54
1:A:385:LEU:HG	1:A:453:ILE:HD11	1.88	0.54
1:A:411:VAL:HG13	1:A:412:SER:N	2.22	0.54
1:A:1144:LEU:O	1:A:1148:LEU:HG	2.08	0.54
1:A:1179:ILE:HD11	1:A:1183:GLU:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1233:ILE:HG22	1:A:1235:THR:H	1.71	0.54
5:E:22:MET:HA	5:E:187:TYR:CZ	2.42	0.54
7:G:48:SER:HA	7:G:114:GLY:O	2.06	0.54
7:G:97:LYS:H	7:G:97:LYS:CD	2.17	0.54
7:G:97:LYS:CE	7:G:97:LYS:CA	2.86	0.54
15:O:65:UNK:O	15:O:66:UNK:C	2.56	0.54
15:O:463:LEU:HA	15:O:482:SER:HA	1.89	0.54
15:O:656:HIS:CG	15:O:747:LEU:CA	2.90	0.54
16:P:294:HIS:CG	20:T:48:DA:H61	2.23	0.54
16:P:369:TRP:CH2	16:P:377:PHE:CE1	2.79	0.54
16:P:417:PHE:HE1	17:Q:258:LEU:HD11	1.72	0.54
19:S:21:DT:H2''	19:S:22:DG:O4'	2.06	0.54
1:A:757:ASN:OD1	1:A:767:ASN:N	2.36	0.54
1:A:916:THR:HG21	1:A:926:GLN:NE2	2.23	0.54
1:A:1267:ILE:HG12	1:A:1296:PHE:HE1	1.73	0.54
13:M:103:LYS:HA	13:M:106:LYS:HD2	1.88	0.54
15:O:303:VAL:O	15:O:304:ASP:HB2	2.07	0.54
15:O:325:SER:HA	15:O:344:ILE:HD11	1.90	0.54
15:O:659:LEU:HB2	15:O:742:TRP:CE2	2.40	0.54
16:P:104:PHE:CE1	16:P:215:LEU:HD11	2.42	0.54
16:P:154:LEU:H	16:P:154:LEU:CD2	2.20	0.54
16:P:274:ILE:CA	16:P:278:GLU:CB	2.85	0.54
16:P:274:ILE:HG23	16:P:278:GLU:OE1	2.07	0.54
16:P:417:PHE:N	16:P:418:PRO:CD	2.70	0.54
1:A:591:ARG:HB2	1:A:624:TYR:CD1	2.42	0.54
1:A:885:ASP:OD2	1:A:888:LYS:N	2.20	0.54
3:C:134:LEU:HD23	3:C:169:PHE:HA	1.90	0.54
5:E:110:PHE:O	5:E:135:PHE:N	2.36	0.54
9:I:43:SER:O	9:I:45:LEU:CG	2.56	0.54
14:N:95:ILE:CD1	14:N:136:VAL:HB	2.33	0.54
15:O:604:ILE:CA	15:O:732:LEU:CD2	2.83	0.54
15:O:623:LEU:HD11	15:O:668:SER:C	2.18	0.54
15:O:653:SER:HB2	15:O:749:LYS:HG3	1.88	0.54
15:O:715:TYR:OH	15:O:734:LYS:CE	2.29	0.54
16:P:157:HIS:CE1	16:P:158:MET:CE	2.90	0.54
2:B:479:GLN:CA	19:S:39:DT:O2	2.55	0.54
7:G:97:LYS:H	7:G:97:LYS:NZ	2.06	0.54
9:I:28:VAL:N	9:I:38:PRO:HD2	2.22	0.54
13:M:45:LYS:CE	13:M:49:ASP:CA	2.85	0.54
13:M:51:PHE:HD2	13:M:94:PRO:HG3	1.72	0.54
13:M:170:LYS:HE3	13:M:170:LYS:CA	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:213:VAL:HG13	15:O:236:ILE:O	2.07	0.54
15:O:326:ILE:N	15:O:344:ILE:HD13	2.22	0.54
15:O:356:GLU:CD	15:O:397:LYS:HD2	2.28	0.54
15:O:722:TRP:CZ2	16:P:262:LEU:CD1	2.86	0.54
16:P:272:GLN:O	16:P:275:GLU:HB3	2.08	0.54
16:P:303:GLU:O	16:P:306:VAL:N	2.40	0.54
16:P:352:ILE:C	16:P:355:VAL:HG23	2.27	0.54
17:Q:27:ILE:HD11	17:Q:169:PRO:CB	2.32	0.54
19:S:8:DG:N2	20:T:47:DC:O2	2.40	0.54
2:B:221:SER:HB3	19:S:40:DT:C3'	2.38	0.54
9:I:2:SER:N	9:I:9:PHE:O	2.40	0.54
13:M:38:PHE:CE2	14:N:110:LEU:HD22	2.34	0.54
15:O:351:ILE:HG12	17:Q:162:PHE:HE1	1.69	0.54
15:O:569:VAL:CG2	16:P:478:ARG:N	2.56	0.54
15:O:768:TYR:HB2	16:P:145:ASN:ND2	2.10	0.54
17:Q:29:ARG:CD	17:Q:29:ARG:H	2.20	0.54
17:Q:158:THR:O	17:Q:160:HIS:CA	2.52	0.54
17:Q:283:ARG:C	17:Q:302:ARG:CB	2.74	0.54
1:A:406:LEU:CD2	1:A:416:ARG:NE	2.67	0.54
1:A:720:PHE:CD2	8:H:63:LEU:HD11	2.43	0.54
2:B:110:ASN:O	2:B:111:ASP:O	2.26	0.54
6:F:72:LYS:HD2	6:F:141:GLY:C	2.28	0.54
8:H:101:ALA:HB2	8:H:116:TYR:CE1	2.43	0.54
15:O:270:GLN:CD	15:O:339:ARG:HH22	2.11	0.54
17:Q:133:LYS:HG3	17:Q:286:GLN:CG	2.38	0.54
17:Q:158:THR:HG22	17:Q:161:ASN:CB	2.32	0.54
17:Q:285:VAL:HG22	17:Q:302:ARG:HD3	1.90	0.54
1:A:1097:TYR:CE1	1:A:1101:THR:HG21	2.42	0.54
2:B:895:PHE:CE1	2:B:899:GLN:HB2	2.42	0.54
2:B:1167:PHE:CG	2:B:1168:VAL:N	2.75	0.54
3:C:61:THR:H	3:C:295:ARG:NH2	2.06	0.54
7:G:167:THR:O	7:G:218:VAL:N	2.25	0.54
9:I:28:VAL:HG23	9:I:37:TYR:CB	2.36	0.54
12:L:26:THR:HB	12:L:28:LYS:HE2	1.88	0.54
15:O:194:ARG:CZ	15:O:194:ARG:CB	2.86	0.54
15:O:408:ILE:HD11	15:O:464:LEU:HD13	1.90	0.54
15:O:511:ILE:CD1	15:O:537:PHE:HA	2.38	0.54
15:O:599:LYS:HZ1	16:P:275:GLU:CD	2.10	0.54
16:P:151:GLU:OE2	16:P:154:LEU:HD12	1.92	0.54
16:P:360:LYS:N	16:P:361:PRO:HD3	2.22	0.54
1:A:101:SER:O	1:A:109:ARG:NH1	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1288:ARG:NE	1:A:1480:THR:OG1	2.39	0.53
3:C:251:PHE:CE1	3:C:279:VAL:HB	2.43	0.53
11:K:88:PHE:HB3	11:K:106:GLN:CG	2.37	0.53
13:M:236:TYR:CE2	13:M:238:ASN:HB3	2.43	0.53
14:N:111:VAL:HG23	14:N:120:LYS:HB2	1.89	0.53
15:O:246:LYS:HB3	15:O:248:PRO:HD3	1.90	0.53
15:O:499:GLU:CG	15:O:500:ILE:N	2.69	0.53
16:P:120:ILE:HD11	16:P:130:GLU:HB2	1.90	0.53
16:P:123:MET:CB	16:P:125:PHE:HD2	2.17	0.53
16:P:158:MET:HE1	16:P:219:ILE:HG23	1.89	0.53
16:P:260:CYS:O	16:P:262:LEU:N	2.34	0.53
1:A:365:THR:OG1	1:A:368:ARG:NH2	2.41	0.53
1:A:645:ALA:O	1:A:649:ASN:ND2	2.31	0.53
2:B:114:SER:C	2:B:116:ALA:H	2.10	0.53
2:B:392:ASP:HB3	2:B:399:HIS:CE1	2.43	0.53
2:B:881:TYR:HB2	2:B:906:ARG:HE	1.74	0.53
2:B:1114:GLN:H	2:B:1166:LYS:HE2	1.73	0.53
3:C:152:ASP:C	3:C:154:LYS:N	2.62	0.53
4:D:95:ASP:CG	7:G:150:HIS:HA	2.29	0.53
8:H:39:THR:HB	8:H:124:ARG:HB3	1.90	0.53
8:H:80:ARG:HG2	8:H:81:PRO:O	2.09	0.53
13:M:168:ALA:O	13:M:169:SER:O	2.26	0.53
15:O:394:VAL:HG12	17:Q:141:TRP:NE1	2.23	0.53
15:O:650:LEU:CD2	16:P:139:LYS:HD2	2.36	0.53
16:P:104:PHE:HA	16:P:211:TYR:CE1	2.42	0.53
17:Q:246:GLN:NE2	17:Q:246:GLN:H	2.07	0.53
17:Q:381:ARG:N	17:Q:384:VAL:CG2	2.70	0.53
1:A:486:PRO:HB3	1:A:628:PHE:CE2	2.43	0.53
1:A:499:PRO:HA	1:A:502:ALA:HB3	1.91	0.53
1:A:1074:TYR:O	1:A:1078:LYS:HG2	2.08	0.53
15:O:319:ASP:OD1	15:O:348:HIS:HE1	1.85	0.53
15:O:389:TRP:C	15:O:390:GLN:OE1	2.46	0.53
15:O:683:PHE:CD1	15:O:692:THR:OG1	2.61	0.53
15:O:703:PHE:CZ	16:P:254:LEU:HD23	2.43	0.53
16:P:112:LEU:HD13	16:P:161:THR:HG23	1.90	0.53
16:P:274:ILE:CA	16:P:278:GLU:HB3	2.39	0.53
17:Q:124:GLU:CG	17:Q:289:ASN:HD21	2.21	0.53
1:A:464:GLU:HG3	1:A:469:LYS:HB3	1.89	0.53
2:B:504:HIS:HE1	2:B:541:LEU:HB3	1.74	0.53
15:O:214:LEU:N	15:O:236:ILE:CG2	2.71	0.53
15:O:291:PRO:HA	15:O:339:ARG:NH2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:353:ASP:C	17:Q:28:SER:HB3	2.29	0.53
15:O:651:SER:O	15:O:749:LYS:CE	2.23	0.53
16:P:155:GLN:CB	20:T:45:DC:OP1	2.54	0.53
16:P:356:VAL:CG1	16:P:358:PRO:CG	2.83	0.53
17:Q:147:GLN:OE1	17:Q:147:GLN:N	2.40	0.53
17:Q:174:GLU:O	17:Q:175:ILE:C	2.46	0.53
17:Q:285:VAL:CG2	17:Q:302:ARG:CD	2.86	0.53
17:Q:354:LEU:CD1	17:Q:358:PHE:O	2.34	0.53
19:S:25:DT:C2'	19:S:26:DT:H71	2.38	0.53
1:A:117:ARG:CG	1:A:185:ARG:NH2	2.60	0.53
1:A:1029:GLY:O	1:A:1041:ALA:N	2.41	0.53
3:C:150:SER:O	3:C:151:THR:C	2.46	0.53
6:F:79:ARG:HA	6:F:144:GLU:OE2	2.08	0.53
13:M:53:LEU:HB2	13:M:96:LEU:HD13	1.91	0.53
13:M:170:LYS:CE	13:M:170:LYS:CA	2.86	0.53
15:O:174:TRP:HA	17:Q:198:LEU:CD1	2.39	0.53
15:O:270:GLN:NE2	15:O:289:SER:H	2.06	0.53
15:O:307:PHE:CD1	15:O:307:PHE:N	2.73	0.53
15:O:314:GLN:HB2	15:O:329:ILE:CG1	2.38	0.53
15:O:324:TRP:NE1	15:O:348:HIS:CA	2.70	0.53
15:O:409:ASP:OD2	15:O:455:LYS:NZ	2.40	0.53
16:P:101:LYS:HZ2	16:P:152:LEU:HD13	1.14	0.53
16:P:129:PHE:O	16:P:129:PHE:HD1	1.92	0.53
16:P:183:LYS:CG	16:P:189:LYS:CE	2.86	0.53
16:P:494:SER:HG	16:P:498:LEU:H	1.55	0.53
17:Q:24:ILE:O	17:Q:28:SER:HB3	2.04	0.53
17:Q:133:LYS:HE3	17:Q:134:PRO:CD	2.38	0.53
17:Q:278:TYR:CD1	17:Q:278:TYR:N	2.73	0.53
17:Q:383:PHE:C	17:Q:388:LYS:HA	2.29	0.53
20:T:19:DC:H2''	20:T:20:DA:O4'	2.08	0.53
1:A:721:LYS:HB2	8:H:96:VAL:N	2.23	0.53
1:A:1055:ILE:HD11	1:A:1174:TYR:CE2	2.43	0.53
1:A:1317:ILE:HA	1:A:1321:PHE:HB3	1.89	0.53
1:A:1617:THR:HG22	20:T:12:DG:H5''	1.89	0.53
2:B:293:ILE:HG13	2:B:296:ASP:HB3	1.89	0.53
2:B:627:GLY:O	2:B:640:LEU:HD12	2.09	0.53
13:M:212:GLU:HG2	13:M:293:ILE:HG12	1.90	0.53
15:O:181:ARG:HD2	15:O:206:ALA:CB	2.38	0.53
15:O:262:GLY:C	15:O:263:ILE:HG13	2.27	0.53
15:O:390:GLN:OE1	17:Q:151:PRO:CG	2.55	0.53
15:O:408:ILE:O	15:O:408:ILE:HG12	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:693:PHE:CD2	15:O:746:ARG:HB2	2.43	0.53
16:P:104:PHE:CG	16:P:211:TYR:CG	2.94	0.53
16:P:183:LYS:HG2	16:P:189:LYS:CE	2.39	0.53
16:P:369:TRP:HZ3	16:P:377:PHE:CD2	2.26	0.53
17:Q:266:SER:O	17:Q:268:LEU:CA	2.53	0.53
17:Q:396:ASP:C	17:Q:397:ARG:CG	2.76	0.53
1:A:15:ASP:HB2	2:B:1190:SER:CB	2.33	0.53
1:A:107:HIS:CE1	1:A:330:LYS:HB3	2.44	0.53
2:B:416:LYS:HG3	2:B:461:MET:CE	2.39	0.53
2:B:810:ASP:OD1	2:B:811:LEU:N	2.41	0.53
5:E:9:ILE:HG12	5:E:47:CYS:SG	2.49	0.53
15:O:221:ARG:HD3	15:O:227:LEU:HD21	1.89	0.53
15:O:260:LEU:HD12	15:O:271:ILE:CG2	2.39	0.53
15:O:307:PHE:CD1	15:O:315:PHE:CD2	2.83	0.53
15:O:422:ILE:CB	15:O:440:HIS:NE2	2.65	0.53
15:O:455:LYS:O	15:O:455:LYS:HG3	2.08	0.53
15:O:472:ARG:NH1	17:Q:203:SER:HB3	2.23	0.53
15:O:475:ARG:HD2	16:P:367:PHE:HE2	1.63	0.53
15:O:539:VAL:HG23	15:O:539:VAL:O	2.08	0.53
15:O:701:HIS:ND1	16:P:123:MET:HA	2.24	0.53
16:P:104:PHE:CD1	16:P:211:TYR:C	2.82	0.53
1:A:32:ILE:HG13	1:A:54:LEU:HD11	1.90	0.53
1:A:1263:LEU:O	1:A:1267:ILE:HG13	2.09	0.53
4:D:28:PRO:HB3	7:G:41:VAL:HB	1.91	0.53
8:H:7:ASP:HA	8:H:58:THR:HA	1.91	0.53
15:O:12:UNK:HA	15:O:436:ILE:HD13	1.87	0.53
15:O:186:TYR:CD2	15:O:512:LEU:HD22	2.41	0.53
15:O:396:ALA:HB2	17:Q:140:ILE:HD12	1.91	0.53
15:O:703:PHE:CE2	16:P:254:LEU:HD21	2.44	0.53
16:P:103:LEU:CD2	16:P:203:TRP:CZ3	2.89	0.53
16:P:171:HIS:CE1	16:P:243:PHE:CD1	2.97	0.53
16:P:219:ILE:CG1	16:P:220:SER:H	2.17	0.53
17:Q:283:ARG:CA	17:Q:302:ARG:HA	2.39	0.53
20:T:22:DG:H5'	20:T:22:DG:C8	2.38	0.53
1:A:102:CYS:O	1:A:106:HIS:HA	2.08	0.53
1:A:416:ARG:C	1:A:418:VAL:N	2.63	0.53
1:A:464:GLU:HA	1:A:468:ARG:HB2	1.90	0.53
2:B:23:SER:HA	2:B:26:ILE:HG22	1.89	0.53
3:C:45:SER:OG	3:C:271:ARG:NH2	2.39	0.53
5:E:98:ILE:HD12	5:E:101:GLN:HB3	1.91	0.53
7:G:74:ASN:HB3	7:G:77:VAL:CG2	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:128:ASN:O	14:N:130:PRO:HD3	2.09	0.53
16:P:178:THR:HG23	16:P:179:CYS:N	2.24	0.53
16:P:224:GLY:C	16:P:226:LEU:N	2.62	0.53
1:A:669:LEU:H	1:A:787:GLY:HA2	1.70	0.53
1:A:831:ASP:OD1	1:A:832:ASP:N	2.42	0.53
2:B:1132:SER:HB3	2:B:1163:GLN:HB3	1.89	0.53
5:E:112:TYR:OH	5:E:136:ASN:HB2	2.09	0.53
7:G:27:PRO:O	7:G:35:SER:HA	2.08	0.53
15:O:235:SER:O	15:O:236:ILE:HD13	2.09	0.53
15:O:344:ILE:HG13	15:O:345:ASP:N	2.23	0.53
15:O:393:VAL:HG12	17:Q:144:VAL:HG22	1.78	0.53
15:O:589:ILE:CG2	16:P:316:TRP:HE3	2.12	0.53
15:O:590:GLY:C	16:P:320:PHE:CZ	2.82	0.53
15:O:611:ILE:HD11	15:O:731:LEU:HG	1.90	0.53
15:O:656:HIS:CG	15:O:747:LEU:HA	2.44	0.53
16:P:233:THR:HG22	16:P:237:ILE:CD1	2.39	0.53
16:P:281:ILE:HD13	16:P:281:ILE:N	2.10	0.53
16:P:311:MET:SD	16:P:487:LEU:HD21	2.49	0.53
1:A:469:LYS:HG3	1:A:470:HIS:CD2	2.43	0.52
1:A:510:PRO:HB2	1:A:574:ASN:HD21	1.74	0.52
1:A:1133:LEU:HD11	1:A:1172:LEU:HA	1.91	0.52
5:E:151:PRO:HB3	5:E:200:ARG:HA	1.92	0.52
6:F:127:GLU:HB3	6:F:129:LYS:HD3	1.92	0.52
15:O:270:GLN:NE2	15:O:289:SER:HB2	2.24	0.52
15:O:434:ARG:H	17:Q:144:VAL:HG21	1.73	0.52
15:O:446:ASP:OD1	15:O:448:THR:N	2.34	0.52
15:O:474:LYS:HE2	15:O:498:LEU:CG	2.40	0.52
15:O:623:LEU:HB3	15:O:674:GLU:OE1	2.09	0.52
15:O:696:PHE:CE1	15:O:711:LEU:HD21	2.20	0.52
15:O:725:VAL:HG21	16:P:450:THR:HA	1.91	0.52
16:P:155:GLN:HB3	20:T:44:DC:C3'	2.22	0.52
16:P:207:LEU:O	16:P:209:ASN:N	2.42	0.52
16:P:208:PRO:CB	16:P:213:SER:N	2.72	0.52
16:P:294:HIS:CE1	16:P:296:GLY:H	2.27	0.52
1:A:18:ILE:HA	2:B:1186:ASP:O	2.08	0.52
1:A:417:ARG:NH2	1:A:420:PHE:CD2	2.77	0.52
1:A:1158:SER:HB2	1:A:1161:VAL:HG23	1.91	0.52
13:M:302:PHE:O	13:M:324:ASN:HB3	2.08	0.52
15:O:301:GLN:CB	15:O:321:LYS:HZ3	2.18	0.52
15:O:362:ARG:HB3	15:O:375:PHE:CE1	2.44	0.52
15:O:414:ILE:HG22	15:O:415:LEU:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:577:LEU:HD13	16:P:502:ILE:CG2	2.23	0.52
15:O:617:HIS:O	15:O:618:ASP:OD1	2.27	0.52
15:O:656:HIS:HB3	15:O:748:GLU:CB	2.39	0.52
15:O:657:SER:O	15:O:658:LYS:HD3	2.09	0.52
16:P:136:ILE:CD1	16:P:168:ALA:HB2	2.34	0.52
16:P:238:HIS:CE1	16:P:289:ARG:NH1	2.76	0.52
16:P:262:LEU:HG	16:P:262:LEU:O	2.08	0.52
1:A:107:HIS:ND1	1:A:331:GLU:OE2	2.32	0.52
1:A:702:PRO:HG3	1:A:712:ILE:HD11	1.91	0.52
1:A:845:ASP:O	1:A:848:LYS:HB2	2.08	0.52
3:C:84:TYR:O	3:C:204:LEU:HA	2.09	0.52
7:G:63:LYS:HA	7:G:67:ASN:ND2	2.24	0.52
7:G:137:ILE:HA	7:G:147:LEU:HD23	1.91	0.52
7:G:169:VAL:HG22	7:G:218:VAL:HG23	1.91	0.52
13:M:74:ASN:HD21	14:N:57:LYS:HB3	1.74	0.52
14:N:95:ILE:HD13	14:N:136:VAL:CB	2.37	0.52
15:O:201:GLU:HB2	15:O:219:LEU:HB2	1.90	0.52
16:P:119:LEU:HD21	16:P:190:MET:HE1	1.91	0.52
16:P:274:ILE:C	16:P:278:GLU:HB3	2.29	0.52
16:P:415:LYS:C	16:P:417:PHE:N	2.62	0.52
1:A:52:LEU:C	1:A:63:SER:H	2.12	0.52
1:A:1531:ASP:OD2	1:A:1532:GLN:NE2	2.42	0.52
2:B:1006:ASN:OD1	2:B:1008:HIS:N	2.42	0.52
3:C:229:LEU:HB2	3:C:293:ARG:HD3	1.91	0.52
5:E:88:VAL:HG21	5:E:110:PHE:HE2	1.74	0.52
15:O:360:TRP:C	15:O:361:LYS:HG3	2.30	0.52
15:O:468:VAL:CG2	15:O:477:TYR:HB3	2.39	0.52
15:O:568:ILE:CG2	15:O:570:ASP:CG	2.78	0.52
15:O:603:ARG:NH2	16:P:268:PHE:CG	2.76	0.52
16:P:239:PHE:C	16:P:239:PHE:CD1	2.83	0.52
16:P:246:GLU:O	16:P:247:ILE:O	2.28	0.52
16:P:301:HIS:HB2	16:P:304:LEU:HD13	1.92	0.52
16:P:357:TYR:HH	17:Q:203:SER:CB	2.17	0.52
17:Q:277:ILE:HD11	17:Q:278:TYR:CD1	2.28	0.52
17:Q:355:THR:H	17:Q:359:MET:H	1.57	0.52
2:B:585:CYS:HB2	2:B:595:TRP:CZ3	2.45	0.52
2:B:726:MET:HG3	2:B:742:TYR:CB	2.38	0.52
2:B:829:ASN:C	2:B:831:GLU:H	2.13	0.52
5:E:55:ARG:NE	5:E:113:GLN:HE21	2.07	0.52
9:I:43:SER:O	9:I:45:LEU:HD23	2.09	0.52
13:M:275:ARG:HA	13:M:320:ILE:HD12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:214:LEU:CG	15:O:236:ILE:HG21	2.23	0.52
15:O:312:LEU:CD2	15:O:315:PHE:CE1	2.92	0.52
15:O:390:GLN:CD	17:Q:151:PRO:CG	2.78	0.52
15:O:567:ILE:N	16:P:478:ARG:NH1	2.58	0.52
15:O:659:LEU:HD22	15:O:659:LEU:H	1.71	0.52
16:P:143:THR:HG21	16:P:236:MET:SD	2.33	0.52
16:P:182:ILE:HD11	16:P:350:ARG:CA	2.40	0.52
16:P:420:ASP:O	16:P:421:ARG:HB2	2.08	0.52
19:S:5:DT:H6	19:S:5:DT:H5''	1.74	0.52
1:A:497:VAL:HG21	1:A:605:VAL:HG13	1.92	0.52
1:A:1580:ARG:NH2	5:E:204:THR:OG1	2.42	0.52
3:C:272:LYS:HG2	14:N:175:TYR:CZ	2.43	0.52
7:G:169:VAL:O	7:G:216:HIS:N	2.43	0.52
9:I:37:TYR:O	9:I:39:LYS:N	2.40	0.52
13:M:342:PHE:O	13:M:396:THR:HA	2.10	0.52
14:N:23:PHE:HB3	14:N:25:ILE:CD1	2.40	0.52
15:O:269:PHE:CE1	15:O:339:ARG:HD2	2.35	0.52
15:O:354:PRO:HB3	17:Q:131:TYR:HH	1.72	0.52
15:O:436:ILE:HG21	17:Q:141:TRP:CE2	2.42	0.52
15:O:529:GLU:CG	15:O:530:ASN:H	2.23	0.52
15:O:604:ILE:CB	15:O:732:LEU:CD2	2.87	0.52
15:O:649:ILE:N	15:O:649:ILE:CD1	2.73	0.52
15:O:672:ILE:CD1	15:O:734:LYS:HZ3	2.08	0.52
16:P:104:PHE:CE1	16:P:212:VAL:N	2.78	0.52
16:P:157:HIS:CE1	16:P:158:MET:CG	2.85	0.52
16:P:176:VAL:CG2	16:P:177:TYR:N	2.73	0.52
16:P:287:TRP:CZ2	16:P:298:VAL:CG2	2.92	0.52
16:P:359:ASP:OD2	16:P:361:PRO:HG3	2.08	0.52
16:P:399:SER:HB2	16:P:402:MET:CG	2.39	0.52
16:P:482:HIS:O	16:P:485:SER:HB2	2.10	0.52
1:A:117:ARG:HB3	1:A:117:ARG:NH1	2.25	0.52
1:A:416:ARG:HH21	1:A:416:ARG:HG2	1.75	0.52
1:A:949:GLN:HE22	1:A:980:GLY:HA3	1.74	0.52
1:A:1101:THR:O	1:A:1105:ARG:HB2	2.09	0.52
1:A:1242:ILE:HD11	1:A:1517:ARG:HB3	1.91	0.52
2:B:479:GLN:HA	19:S:39:DT:C2	2.45	0.52
2:B:782:ASP:HA	2:B:786:ALA:O	2.09	0.52
2:B:916:LYS:NZ	18:R:5:G:O3'	2.43	0.52
2:B:1153:ILE:HA	2:B:1158:ILE:O	2.10	0.52
13:M:31:ARG:NH2	14:N:128:ASN:HB3	2.25	0.52
15:O:383:ILE:CA	15:O:390:GLN:HG3	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:388:ASN:O	17:Q:150:GLN:OE1	2.27	0.52
15:O:611:ILE:HG23	15:O:731:LEU:HD23	1.91	0.52
15:O:746:ARG:HG3	16:P:172:LEU:O	2.10	0.52
16:P:139:LYS:CE	16:P:242:PHE:CE2	2.90	0.52
1:A:1326:GLU:OE2	1:A:1455:ARG:N	2.43	0.52
2:B:307:GLU:HB2	9:I:7:LEU:HD11	1.91	0.52
3:C:239:ILE:CG2	3:C:288:LYS:HD2	2.40	0.52
9:I:27:ASN:CB	9:I:36:ILE:C	2.65	0.52
13:M:62:TYR:HB3	13:M:100:VAL:HG22	1.92	0.52
15:O:436:ILE:HD12	15:O:436:ILE:C	2.29	0.52
15:O:506:THR:HG22	15:O:540:LYS:C	2.30	0.52
15:O:653:SER:CB	15:O:749:LYS:CG	2.88	0.52
15:O:660:LYS:CB	15:O:663:LEU:CD2	2.63	0.52
15:O:706:GLU:CG	16:P:438:PHE:CG	2.91	0.52
15:O:744:LEU:HD22	15:O:744:LEU:H	1.73	0.52
15:O:775:TRP:HD1	16:P:109:GLN:C	2.13	0.52
16:P:227:TYR:CE2	16:P:304:LEU:HD11	2.44	0.52
16:P:235:GLY:HA2	16:P:289:ARG:CD	2.40	0.52
17:Q:133:LYS:HG2	17:Q:286:GLN:OE1	2.09	0.52
17:Q:134:PRO:O	17:Q:135:GLU:C	2.45	0.52
17:Q:383:PHE:CD2	17:Q:388:LYS:HB3	2.45	0.52
1:A:76:GLN:HE21	1:A:361:VAL:HB	1.74	0.52
1:A:403:LEU:HD22	13:M:162:VAL:HG11	1.91	0.52
2:B:251:HIS:CE1	2:B:261:ARG:CD	2.92	0.52
2:B:462:GLN:O	2:B:466:SER:HB2	2.09	0.52
2:B:719:CYS:O	2:B:723:LYS:HB3	2.09	0.52
2:B:737:SER:HB3	2:B:806:THR:HG21	1.91	0.52
4:D:23:HIS:O	7:G:44:ALA:N	2.36	0.52
10:J:36:LEU:HD11	10:J:51:LEU:HD13	1.92	0.52
15:O:698:LYS:HB3	16:P:125:PHE:HE1	1.54	0.52
15:O:746:ARG:HH21	16:P:173:SER:HB3	1.70	0.52
16:P:157:HIS:CD2	16:P:158:MET:CG	2.85	0.52
16:P:360:LYS:NZ	16:P:360:LYS:CB	2.73	0.52
16:P:412:LYS:O	16:P:415:LYS:CB	2.49	0.52
17:Q:21:TYR:CE2	17:Q:291:ARG:NH2	2.76	0.52
17:Q:133:LYS:HG3	17:Q:286:GLN:HG2	1.91	0.52
17:Q:257:ILE:O	17:Q:261:LEU:HB2	2.10	0.52
1:A:403:LEU:HG	1:A:406:LEU:CD1	2.37	0.52
1:A:460:LEU:HD11	1:A:467:PHE:CE2	2.45	0.52
1:A:487:ASP:HB2	1:A:615:ARG:HD2	1.92	0.52
2:B:21:ARG:HD3	2:B:763:ASP:OD2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:73:ILE:HD13	2:B:428:VAL:HB	1.92	0.52
3:C:235:ILE:HA	3:C:289:VAL:HG23	1.91	0.52
4:D:91:ARG:HG2	4:D:94:ARG:NH2	2.24	0.52
7:G:97:LYS:N	7:G:97:LYS:CD	2.73	0.52
8:H:101:ALA:HA	8:H:116:TYR:HD1	1.75	0.52
13:M:45:LYS:HD3	13:M:45:LYS:N	2.15	0.52
15:O:214:LEU:N	15:O:236:ILE:CB	2.69	0.52
15:O:271:ILE:HG22	15:O:272:PHE:N	2.25	0.52
15:O:276:SER:OG	15:O:277:VAL:N	2.43	0.52
15:O:472:ARG:HD2	17:Q:200:THR:CG2	2.40	0.52
17:Q:248:LYS:HA	17:Q:298:GLN:NE2	2.25	0.52
17:Q:248:LYS:CA	17:Q:248:LYS:NZ	2.73	0.52
17:Q:279:SER:OG	17:Q:281:LYS:HG3	2.10	0.52
17:Q:358:PHE:CD1	17:Q:365:TRP:CZ3	2.97	0.52
1:A:57:PHE:O	1:A:60:ASN:N	2.43	0.51
1:A:1291:VAL:HG22	1:A:1473:LYS:HG3	1.92	0.51
2:B:74:PHE:C	2:B:76:GLY:H	2.13	0.51
2:B:1185:LEU:O	2:B:1186:ASP:HB3	2.10	0.51
9:I:28:VAL:HB	9:I:37:TYR:CD2	2.45	0.51
13:M:158:ALA:HA	13:M:161:ILE:HD12	1.92	0.51
15:O:222:GLN:HG3	15:O:225:LEU:HD12	1.92	0.51
15:O:273:ARG:HH11	15:O:274:ILE:HG22	1.75	0.51
15:O:315:PHE:HB2	15:O:317:ILE:CD1	2.40	0.51
15:O:366:PHE:CE1	15:O:414:ILE:HD11	2.45	0.51
15:O:529:GLU:CG	15:O:530:ASN:N	2.73	0.51
15:O:705:HIS:CE1	15:O:707:ASP:HB2	2.39	0.51
16:P:151:GLU:CD	16:P:153:LYS:H	2.11	0.51
16:P:343:THR:C	16:P:345:SER:N	2.57	0.51
1:A:406:LEU:HB3	1:A:416:ARG:NH1	2.24	0.51
1:A:1092:GLU:HA	1:A:1095:LEU:HB3	1.92	0.51
2:B:76:GLY:O	2:B:77:LYS:C	2.49	0.51
5:E:88:VAL:HG21	5:E:110:PHE:CE2	2.46	0.51
7:G:125:TRP:CH2	7:G:127:PRO:HG3	2.45	0.51
13:M:38:PHE:HD2	14:N:119:LEU:HB2	1.74	0.51
15:O:175:ASP:HA	17:Q:196:GLU:O	2.11	0.51
15:O:232:ASN:ND2	15:O:283:ASP:HA	2.23	0.51
15:O:314:GLN:CD	15:O:329:ILE:N	2.56	0.51
15:O:326:ILE:HG22	15:O:327:GLY:N	2.25	0.51
15:O:473:HIS:C	15:O:504:THR:HG23	2.30	0.51
15:O:590:GLY:O	16:P:320:PHE:CZ	2.62	0.51
15:O:654:LEU:HG	15:O:748:GLU:CB	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:259:GLN:NE2	16:P:259:GLN:CA	2.73	0.51
17:Q:380:SER:C	17:Q:384:VAL:HG11	2.23	0.51
1:A:40:ASN:ND2	13:M:362:SER:OG	2.43	0.51
2:B:113:VAL:O	2:B:114:SER:CB	2.43	0.51
5:E:26:ARG:NH2	5:E:187:TYR:O	2.40	0.51
9:I:42:PHE:CE1	9:I:44:ASN:CB	2.93	0.51
10:J:32:GLU:CD	10:J:32:GLU:H	2.13	0.51
13:M:82:ASN:O	13:M:86:LYS:N	2.42	0.51
14:N:150:TYR:O	14:N:154:ARG:HG2	2.10	0.51
15:O:188:GLN:O	15:O:196:TYR:CE1	2.63	0.51
15:O:253:SER:O	15:O:254:ILE:HG13	2.10	0.51
15:O:314:GLN:CG	15:O:328:ARG:CB	2.84	0.51
15:O:650:LEU:HD22	16:P:242:PHE:CD2	2.45	0.51
16:P:210:TYR:HB3	20:T:43:DT:H5'	1.92	0.51
16:P:259:GLN:NE2	16:P:259:GLN:HA	2.26	0.51
16:P:278:GLU:CG	16:P:309:TYR:CE2	2.93	0.51
16:P:450:THR:CG2	16:P:451:PRO:HD3	2.40	0.51
17:Q:385:ASN:HD22	17:Q:385:ASN:N	2.07	0.51
1:A:406:LEU:HB3	1:A:416:ARG:NE	2.25	0.51
2:B:194:PHE:CD2	2:B:465:LEU:HD21	2.45	0.51
2:B:676:VAL:HB	2:B:680:GLU:OE2	2.10	0.51
2:B:823:GLN:HA	2:B:862:PHE:O	2.11	0.51
2:B:874:TYR:CE2	2:B:876:SER:HB3	2.46	0.51
2:B:1090:ASP:HA	2:B:1094:ASN:ND2	2.25	0.51
3:C:248:GLN:NE2	3:C:256:ILE:O	2.43	0.51
15:O:306:ALA:O	15:O:315:PHE:HD2	1.89	0.51
15:O:365:TRP:HE1	15:O:407:ARG:CZ	2.23	0.51
15:O:440:HIS:HE1	15:O:481:PHE:HE1	1.52	0.51
16:P:337:SER:OG	16:P:448:LYS:CD	2.59	0.51
1:A:403:LEU:HG	1:A:406:LEU:CD2	2.40	0.51
1:A:420:PHE:CE2	13:M:155:THR:HG23	2.45	0.51
1:A:646:GLU:OE1	2:B:1087:LEU:N	2.43	0.51
2:B:155:VAL:CG2	17:Q:359:MET:HE2	2.33	0.51
2:B:338:PHE:CE2	2:B:353:VAL:HG22	2.46	0.51
2:B:1162:GLY:O	2:B:1164:GLY:N	2.38	0.51
3:C:48:ASP:HB3	3:C:51:GLU:HG2	1.93	0.51
5:E:19:VAL:HG11	5:E:80:VAL:HG11	1.92	0.51
13:M:39:ASP:O	13:M:53:LEU:HD12	2.11	0.51
13:M:49:ASP:HB3	13:M:51:PHE:CE1	2.45	0.51
13:M:304:VAL:HG23	13:M:324:ASN:ND2	2.21	0.51
15:O:274:ILE:HD11	15:O:284:VAL:HG11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:420:GLU:C	15:O:421:ILE:HG13	2.31	0.51
15:O:472:ARG:HD2	17:Q:200:THR:HG22	1.92	0.51
16:P:226:LEU:HD23	16:P:226:LEU:C	2.30	0.51
17:Q:380:SER:O	17:Q:383:PHE:O	2.29	0.51
1:A:117:ARG:NH1	1:A:117:ARG:CB	2.73	0.51
1:A:326:THR:HG23	1:A:329:ARG:HH22	1.76	0.51
1:A:396:ILE:HG12	1:A:426:ALA:HB1	1.91	0.51
4:D:82:LEU:HD22	7:G:67:ASN:HB3	1.91	0.51
7:G:133:LEU:N	7:G:231:PHE:O	2.35	0.51
11:K:58:GLY:C	11:K:59:THR:HG23	2.31	0.51
13:M:81:PHE:HB2	13:M:88:ILE:HG22	1.91	0.51
15:O:408:ILE:HD13	15:O:464:LEU:HD13	1.92	0.51
15:O:663:LEU:CD2	15:O:742:TRP:HH2	2.02	0.51
16:P:155:GLN:NE2	16:P:215:LEU:HD21	2.18	0.51
16:P:247:ILE:HG21	16:P:302:ALA:HB3	0.61	0.51
16:P:284:LEU:CD2	16:P:305:ARG:HH12	2.20	0.51
17:Q:294:VAL:HG22	17:Q:295:PRO:HD2	1.86	0.51
19:S:22:DG:O6	20:T:32:DC:N4	2.43	0.51
1:A:416:ARG:C	1:A:418:VAL:H	2.12	0.51
2:B:251:HIS:O	2:B:258:VAL:HA	2.10	0.51
7:G:157:ILE:HD13	7:G:249:LEU:HG	1.92	0.51
13:M:242:TYR:CD2	13:M:265:LEU:HD23	2.45	0.51
15:O:369:PHE:CZ	15:O:431:ASP:CB	2.93	0.51
15:O:416:LEU:HD12	15:O:417:THR:N	2.26	0.51
15:O:533:LEU:HD12	15:O:533:LEU:C	2.30	0.51
15:O:583:GLU:OE2	15:O:584:ARG:CD	2.58	0.51
15:O:585:GLU:CD	15:O:588:SER:HB2	2.30	0.51
15:O:713:ILE:CG2	15:O:717:LYS:HE2	2.40	0.51
17:Q:153:ASN:O	17:Q:154:LYS:HB2	2.11	0.51
17:Q:246:GLN:O	17:Q:248:LYS:CB	2.59	0.51
17:Q:248:LYS:HZ3	17:Q:248:LYS:C	2.14	0.51
17:Q:285:VAL:HG22	17:Q:302:ARG:CD	2.41	0.51
1:A:245:LYS:HB3	1:A:251:ILE:HD13	1.93	0.51
1:A:591:ARG:HB2	1:A:624:TYR:HD1	1.74	0.51
1:A:1262:LEU:HB2	1:A:1265:GLU:HG3	1.93	0.51
15:O:205:TYR:CD2	15:O:215:ASN:CB	2.93	0.51
15:O:205:TYR:O	15:O:215:ASN:N	2.43	0.51
15:O:312:LEU:C	15:O:312:LEU:HD22	2.30	0.51
15:O:583:GLU:OE1	15:O:583:GLU:C	2.48	0.51
15:O:706:GLU:HB2	16:P:438:PHE:HB3	1.93	0.51
15:O:736:ILE:HA	15:O:739:ASP:CG	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:171:HIS:CG	16:P:243:PHE:CG	2.99	0.51
16:P:200:PRO:HA	16:P:203:TRP:CD1	2.42	0.51
16:P:369:TRP:CE3	17:Q:219:LEU:CD1	2.90	0.51
17:Q:158:THR:C	17:Q:160:HIS:N	2.54	0.51
17:Q:362:ALA:O	17:Q:363:GLU:C	2.48	0.51
19:S:39:DT:C6	19:S:39:DT:C3'	2.93	0.51
1:A:81:LEU:O	1:A:82:PRO:O	2.29	0.51
1:A:629:ASP:HB3	2:B:785:ASP:OD2	2.11	0.51
1:A:1463:ASP:OD2	1:A:1466:SER:OG	2.20	0.51
1:A:1527:GLN:HA	1:A:1530:TRP:CE3	2.46	0.51
2:B:111:ASP:O	2:B:112:GLY:C	2.49	0.51
2:B:976:GLY:O	10:J:32:GLU:HG3	2.11	0.51
8:H:93:TYR:HE1	8:H:145:ARG:NH1	2.09	0.51
11:K:91:TYR:HB2	11:K:101:LEU:HD21	1.92	0.51
11:K:136:THR:O	11:K:140:LYS:HG3	2.11	0.51
13:M:121:PRO:O	13:M:124:LEU:HB3	2.11	0.51
15:O:314:GLN:HB2	15:O:329:ILE:N	2.20	0.51
15:O:613:HIS:CD2	15:O:619:GLU:HG3	2.45	0.51
15:O:727:PRO:CG	16:P:265:GLU:OE1	2.58	0.51
1:A:35:PRO:HD3	1:A:394:LEU:CD1	2.41	0.51
1:A:660:PRO:HB2	1:A:1188:ILE:HG23	1.93	0.51
1:A:1274:GLU:HA	1:A:1289:SER:O	2.11	0.51
1:A:1504:ILE:HD11	1:A:1525:ASN:HB3	1.93	0.51
1:A:1647:ASN:O	1:A:1652:GLY:HA3	2.10	0.51
2:B:168:ASN:O	2:B:169:ARG:NH1	2.42	0.51
2:B:733:LEU:HD12	2:B:743:ARG:HE	1.75	0.51
2:B:1127:CYS:N	2:B:1166:LYS:HE3	2.26	0.51
9:I:43:SER:O	9:I:45:LEU:CD2	2.59	0.51
10:J:18:TRP:CZ2	10:J:22:LEU:HD11	2.45	0.51
13:M:45:LYS:CE	13:M:49:ASP:C	2.79	0.51
15:O:194:ARG:CB	15:O:197:ARG:HH12	2.23	0.51
15:O:470:SER:O	15:O:504:THR:CG2	2.59	0.51
15:O:730:GLU:HG2	15:O:733:THR:HB	1.93	0.51
17:Q:310:ILE:HG21	17:Q:363:GLU:CD	2.28	0.51
1:A:62:CYS:CB	1:A:72:CYS:SG	2.99	0.50
2:B:42:VAL:HG21	2:B:190:ILE:HB	1.93	0.50
7:G:154:ASN:O	7:G:245:VAL:HG12	2.03	0.50
13:M:55:GLY:HA3	13:M:62:TYR:CZ	2.46	0.50
15:O:298:ASP:O	15:O:299:ASP:OD1	2.29	0.50
15:O:327:GLY:HA2	15:O:342:GLN:HB3	1.93	0.50
15:O:488:LEU:HD21	15:O:490:GLN:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:535:VAL:O	15:O:552:LEU:N	2.44	0.50
15:O:571:HIS:CB	15:O:573:GLU:CD	2.79	0.50
15:O:578:PHE:CB	16:P:315:ASN:ND2	2.74	0.50
15:O:656:HIS:HA	15:O:747:LEU:O	2.11	0.50
16:P:104:PHE:CE2	16:P:155:GLN:CD	2.84	0.50
16:P:151:GLU:O	16:P:151:GLU:HG3	2.11	0.50
16:P:274:ILE:HA	16:P:278:GLU:HB3	1.92	0.50
16:P:354:LYS:CD	16:P:362:THR:HG22	2.37	0.50
17:Q:212:HIS:O	17:Q:215:THR:CA	2.58	0.50
1:A:1478:ALA:HA	9:I:21:ASN:ND2	2.26	0.50
2:B:717:TYR:O	2:B:721:MET:HG2	2.11	0.50
3:C:171:PRO:HA	3:C:175:GLN:HE21	1.76	0.50
13:M:208:ILE:HG12	13:M:264:TYR:CD1	2.46	0.50
15:O:271:ILE:H	15:O:289:SER:HB2	1.76	0.50
15:O:302:VAL:CA	15:O:320:ILE:HG13	2.40	0.50
15:O:344:ILE:O	15:O:345:ASP:HB3	2.12	0.50
15:O:722:TRP:CZ3	16:P:264:PRO:CA	2.95	0.50
16:P:150:GLU:CD	16:P:150:GLU:C	2.70	0.50
16:P:219:ILE:CG1	16:P:220:SER:N	2.74	0.50
16:P:378:LEU:HD12	17:Q:235:ILE:N	2.26	0.50
17:Q:247:ILE:HG23	17:Q:278:TYR:CE2	2.32	0.50
17:Q:282:SER:C	17:Q:301:SER:O	2.49	0.50
1:A:18:ILE:HG22	1:A:19:LEU:O	2.11	0.50
1:A:582:LYS:HD2	1:A:584:ARG:NE	2.26	0.50
1:A:722:PRO:HB3	8:H:46:LEU:HB3	1.92	0.50
1:A:1275:THR:O	1:A:1289:SER:HB2	2.11	0.50
2:B:858:ILE:CG1	2:B:874:TYR:HB2	2.41	0.50
2:B:1105:ARG:O	2:B:1196:LEU:CD2	2.57	0.50
15:O:216:ILE:H	15:O:234:THR:HG1	1.50	0.50
15:O:290:GLU:HG2	15:O:338:LYS:HA	1.92	0.50
15:O:389:TRP:CZ3	17:Q:147:GLN:O	2.64	0.50
15:O:458:LYS:HB3	15:O:459:PRO:HD2	1.92	0.50
15:O:471:MET:O	15:O:504:THR:HB	2.11	0.50
15:O:573:GLU:CB	16:P:495:LYS:HZ3	2.24	0.50
15:O:724:LEU:C	15:O:725:VAL:HG12	2.28	0.50
16:P:94:LYS:HG3	16:P:94:LYS:O	2.11	0.50
16:P:101:LYS:HE3	16:P:152:LEU:HA	1.92	0.50
17:Q:275:CYS:SG	17:Q:309:ALA:HA	2.51	0.50
17:Q:388:LYS:HE3	17:Q:393:ILE:CA	2.41	0.50
1:A:411:VAL:CG1	1:A:412:SER:N	2.74	0.50
2:B:1104:CYS:SG	2:B:1128:CYS:HB2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:55:ARG:HD2	5:E:84:ASP:HA	1.93	0.50
5:E:88:VAL:O	5:E:117:THR:OG1	2.19	0.50
6:F:87:LYS:HE3	6:F:88:TYR:CZ	2.47	0.50
15:O:290:GLU:C	15:O:339:ARG:HH21	2.14	0.50
15:O:308:ASN:HA	15:O:365:TRP:HB3	1.91	0.50
15:O:323:ASN:N	15:O:348:HIS:ND1	2.58	0.50
15:O:390:GLN:CD	17:Q:151:PRO:HD2	2.31	0.50
15:O:422:ILE:HB	15:O:440:HIS:CG	2.46	0.50
15:O:580:ASN:HB2	16:P:506:LYS:NZ	2.26	0.50
16:P:95:LEU:O	16:P:100:ALA:CB	2.57	0.50
16:P:144:ILE:HA	16:P:147:GLN:OE1	2.11	0.50
16:P:210:TYR:HB3	20:T:43:DT:C4'	2.37	0.50
16:P:366:TYR:CZ	17:Q:218:ASP:HB2	2.46	0.50
1:A:40:ASN:ND2	13:M:186:ARG:HH12	2.10	0.50
1:A:109:ARG:C	1:A:230:ARG:HG3	2.32	0.50
1:A:425:ASN:O	1:A:429:THR:OG1	2.17	0.50
1:A:718:THR:OG1	1:A:730:GLN:NE2	2.44	0.50
3:C:312:GLU:HA	3:C:315:PHE:HD2	1.76	0.50
5:E:151:PRO:HB2	5:E:199:ILE:O	2.11	0.50
9:I:27:ASN:HB3	9:I:39:LYS:HB2	1.93	0.50
15:O:11:UNK:O	15:O:436:ILE:HD11	2.11	0.50
15:O:214:LEU:HD11	15:O:242:ILE:HD13	1.92	0.50
15:O:400:SER:HA	15:O:419:ARG:CD	2.34	0.50
16:P:136:ILE:HD11	16:P:243:PHE:HE2	1.76	0.50
16:P:340:GLN:HE22	16:P:370:SER:CB	2.15	0.50
17:Q:393:ILE:HG12	17:Q:395:LEU:CB	2.41	0.50
17:Q:395:LEU:N	17:Q:395:LEU:CD2	2.73	0.50
1:A:10:GLU:HB2	1:A:1645:LYS:HZ3	1.77	0.50
1:A:403:LEU:HG	1:A:406:LEU:CG	2.41	0.50
1:A:920:PHE:CB	1:A:921:PRO:CD	2.60	0.50
2:B:479:GLN:CA	19:S:39:DT:H3	2.24	0.50
2:B:1176:VAL:O	2:B:1179:PRO:HD2	2.11	0.50
7:G:162:ILE:HD13	7:G:217:TRP:CZ3	2.46	0.50
13:M:346:ILE:HB	13:M:393:LYS:HB2	1.94	0.50
15:O:23:UNK:C	17:Q:314:TRP:CH2	2.95	0.50
15:O:360:TRP:O	15:O:361:LYS:HG3	2.12	0.50
15:O:401:ASN:N	15:O:419:ARG:HG2	2.17	0.50
15:O:474:LYS:CD	15:O:499:GLU:O	2.60	0.50
15:O:656:HIS:CB	15:O:747:LEU:N	2.72	0.50
15:O:721:CYS:HA	16:P:443:GLN:HG3	1.92	0.50
15:O:740:ILE:O	15:O:744:LEU:CD2	2.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:400:MET:HA	16:P:407:LYS:NZ	2.27	0.50
17:Q:133:LYS:HE3	17:Q:134:PRO:HD3	1.94	0.50
17:Q:178:LEU:HD23	17:Q:179:HIS:CG	2.46	0.50
1:A:332:GLN:NE2	1:A:350:VAL:H	2.08	0.50
1:A:646:GLU:OE1	2:B:1087:LEU:HB2	2.12	0.50
1:A:925:MET:HA	1:A:928:MET:HE3	1.92	0.50
2:B:406:GLY:O	2:B:409:TYR:HB3	2.11	0.50
2:B:585:CYS:HB2	2:B:595:TRP:CH2	2.46	0.50
2:B:1138:ALA:HB3	2:B:1140:LYS:HE2	1.94	0.50
4:D:91:ARG:HB3	7:G:151:ASP:OD2	2.11	0.50
13:M:212:GLU:OE2	13:M:297:GLY:HA3	2.12	0.50
13:M:261:LEU:HD23	13:M:339:LEU:HG	1.93	0.50
15:O:262:GLY:O	15:O:263:ILE:CG1	2.54	0.50
15:O:389:TRP:C	15:O:390:GLN:CD	2.70	0.50
15:O:650:LEU:HD22	16:P:242:PHE:HD2	1.77	0.50
17:Q:365:TRP:HA	17:Q:365:TRP:HE3	1.72	0.50
1:A:249:THR:HG21	1:A:432:ASN:HB2	1.93	0.50
1:A:921:PRO:HG2	8:H:19:ARG:CD	2.36	0.50
1:A:1152:SER:HA	1:A:1155:PHE:HB2	1.93	0.50
1:A:1241:PRO:O	1:A:1536:ILE:HG23	2.12	0.50
2:B:134:ARG:HB3	2:B:160:GLY:HA3	1.93	0.50
2:B:154:GLU:HB2	2:B:446:MET:CE	2.42	0.50
2:B:495:ARG:CZ	2:B:499:HIS:CE1	2.94	0.50
15:O:194:ARG:O	15:O:196:TYR:CE2	2.60	0.50
15:O:317:ILE:HG22	15:O:363:ILE:HD11	1.92	0.50
15:O:351:ILE:HG21	17:Q:157:MET:SD	2.34	0.50
15:O:537:PHE:HE1	15:O:552:LEU:CD1	2.24	0.50
15:O:610:LEU:HD11	15:O:614:GLU:OE2	2.12	0.50
16:P:278:GLU:OE1	16:P:278:GLU:O	2.30	0.50
16:P:354:LYS:CB	16:P:362:THR:CB	2.90	0.50
17:Q:248:LYS:CA	17:Q:298:GLN:NE2	2.70	0.50
1:A:403:LEU:HD23	13:M:166:ARG:NH2	2.26	0.50
1:A:464:GLU:HG2	1:A:469:LYS:HD3	1.90	0.50
1:A:594:THR:HG21	2:B:1075:GLU:HA	1.94	0.50
1:A:952:LEU:N	1:A:955:ARG:O	2.28	0.50
2:B:161:LEU:HG	2:B:409:TYR:OH	2.12	0.50
2:B:253:LEU:HD12	2:B:257:GLN:HB3	1.94	0.50
2:B:924:LYS:NZ	18:R:6:A:OP2	2.40	0.50
3:C:252:PRO:HB2	3:C:255:VAL:HG23	1.93	0.50
7:G:234:ARG:HB2	7:G:248:THR:HB	1.94	0.50
14:N:41:ASN:OD1	14:N:44:ASN:HB3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:327:GLY:HA3	15:O:340:LYS:CD	2.23	0.50
15:O:430:ASN:ND2	15:O:431:ASP:OD1	2.45	0.50
15:O:504:THR:H	15:O:542:ARG:HB3	1.77	0.50
15:O:573:GLU:CG	16:P:495:LYS:CE	2.90	0.50
15:O:655:SER:C	16:P:244:ASN:HD22	2.16	0.50
15:O:722:TRP:HZ2	16:P:262:LEU:HD21	1.64	0.50
16:P:362:THR:HG22	16:P:365:ASP:OD2	2.12	0.50
16:P:385:PHE:O	16:P:388:THR:HG22	2.12	0.50
18:R:2:U:H2'	18:R:3:G:O4'	2.12	0.50
1:A:704:ASP:OD2	1:A:706:HIS:NE2	2.45	0.49
1:A:835:LEU:HD23	1:A:916:THR:HA	1.94	0.49
2:B:186:GLU:CD	2:B:731:VAL:H	2.14	0.49
2:B:218:ILE:HG13	2:B:218:ILE:O	2.12	0.49
2:B:297:VAL:HG21	14:N:101:GLN:NE2	2.26	0.49
2:B:494:TYR:HE1	2:B:703:LEU:HD13	1.76	0.49
2:B:833:PRO:HD2	2:B:836:TRP:CZ2	2.47	0.49
2:B:1150:LYS:O	2:B:1161:ASP:HA	2.12	0.49
3:C:63:ILE:HG22	3:C:67:PHE:CE2	2.47	0.49
3:C:315:PHE:HB3	3:C:319:ARG:NH1	2.27	0.49
7:G:163:PRO:HG3	7:G:250:ILE:HG22	1.93	0.49
8:H:93:TYR:HB2	8:H:143:LEU:HB3	1.94	0.49
12:L:48:CYS:CB	12:L:51:CYS:SG	2.99	0.49
13:M:42:LYS:HB3	14:N:30:LYS:HB2	1.93	0.49
13:M:51:PHE:CD2	13:M:94:PRO:HG3	2.47	0.49
14:N:144:LYS:O	14:N:145:ILE:HG13	2.12	0.49
15:O:247:ILE:CG1	15:O:261:VAL:HG13	2.42	0.49
15:O:366:PHE:HB2	15:O:373:LEU:HG	1.94	0.49
16:P:115:GLN:HE21	16:P:190:MET:CE	2.25	0.49
16:P:343:THR:OG1	16:P:347:SER:CA	2.59	0.49
17:Q:25:ASN:CA	17:Q:28:SER:HG	2.20	0.49
19:S:24:DG:N3	19:S:25:DT:N3	2.60	0.49
1:A:246:ASP:CG	1:A:250:LYS:H	2.16	0.49
1:A:992:PRO:HA	2:B:984:TRP:CZ2	2.47	0.49
5:E:5:ASN:ND2	5:E:51:GLY:HA3	2.23	0.49
12:L:47:ARG:CD	16:P:405:ASP:OD1	2.58	0.49
13:M:60:LEU:HA	13:M:102:SER:HA	1.94	0.49
15:O:183:ASP:CB	15:O:247:ILE:HD12	2.38	0.49
15:O:194:ARG:CB	15:O:197:ARG:NH2	2.68	0.49
15:O:214:LEU:CB	15:O:236:ILE:HG13	2.42	0.49
15:O:215:ASN:CA	15:O:236:ILE:CG1	2.89	0.49
15:O:260:LEU:HD21	15:O:273:ARG:C	2.09	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:155:GLN:O	17:Q:156:LYS:C	2.49	0.49
17:Q:380:SER:C	17:Q:384:VAL:HG22	2.32	0.49
19:S:7:DT:C2	20:T:48:DA:H2	2.31	0.49
1:A:499:PRO:HD3	1:A:608:LEU:O	2.12	0.49
1:A:1089:LEU:HB2	1:A:1131:LYS:O	2.11	0.49
1:A:1293:HIS:HE1	1:A:1469:TRP:CD2	2.31	0.49
2:B:164:MET:HB2	2:B:194:PHE:HE1	1.77	0.49
2:B:1180:PHE:HD2	2:B:1181:VAL:HG13	1.77	0.49
9:I:8:ILE:HD11	9:I:37:TYR:CE1	2.47	0.49
9:I:26:SER:C	9:I:38:PRO:HB2	2.31	0.49
15:O:200:THR:OG1	15:O:218:VAL:HG13	2.13	0.49
15:O:291:PRO:CA	15:O:339:ARG:HH21	2.25	0.49
15:O:414:ILE:CG2	15:O:415:LEU:N	2.75	0.49
15:O:438:TRP:HH2	15:O:491:SER:CB	2.20	0.49
16:P:156:LEU:N	16:P:156:LEU:HD12	2.26	0.49
16:P:170:THR:O	16:P:171:HIS:C	2.47	0.49
16:P:183:LYS:HG2	16:P:189:LYS:HE3	1.94	0.49
16:P:315:ASN:OD1	16:P:319:SER:CB	2.55	0.49
17:Q:204:GLU:OE1	17:Q:205:VAL:HG23	2.13	0.49
1:A:406:LEU:CG	1:A:407:GLN:N	2.73	0.49
1:A:438:ILE:CD1	2:B:1184:TYR:HE2	2.26	0.49
1:A:790:LYS:HG3	1:A:791:TYR:CD2	2.46	0.49
1:A:921:PRO:CD	8:H:19:ARG:HG2	2.39	0.49
1:A:956:ARG:HH11	1:A:979:GLY:HA2	1.77	0.49
2:B:77:LYS:CG	2:B:93:ASN:CB	2.75	0.49
2:B:165:LEU:HB3	2:B:166:GLN:OE1	2.13	0.49
2:B:369:ASP:OD2	2:B:591:LYS:NZ	2.45	0.49
5:E:14:ARG:NH1	5:E:141:VAL:O	2.46	0.49
7:G:125:TRP:CZ3	7:G:127:PRO:HG3	2.47	0.49
7:G:226:ASP:OD1	7:G:227:GLY:N	2.46	0.49
15:O:302:VAL:HA	15:O:320:ILE:CD1	2.41	0.49
15:O:312:LEU:HD13	15:O:312:LEU:C	2.32	0.49
15:O:363:ILE:CG2	15:O:374:VAL:HG22	2.42	0.49
15:O:371:LYS:CD	15:O:432:PRO:HG3	2.42	0.49
15:O:434:ARG:HB3	17:Q:144:VAL:HG21	1.94	0.49
15:O:504:THR:O	15:O:542:ARG:HB2	2.13	0.49
16:P:123:MET:HB2	16:P:125:PHE:HD2	1.76	0.49
16:P:450:THR:HG23	16:P:451:PRO:HD3	1.94	0.49
17:Q:29:ARG:NE	17:Q:29:ARG:N	2.60	0.49
17:Q:362:ALA:O	17:Q:364:VAL:HG23	2.12	0.49
17:Q:385:ASN:N	17:Q:385:ASN:ND2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:908:VAL:HG12	1:A:912:VAL:CG2	2.41	0.49
2:B:404:LEU:HD21	2:B:551:ILE:HG21	1.94	0.49
3:C:55:ASP:HA	3:C:298:PHE:O	2.12	0.49
3:C:258:ILE:HG12	3:C:265:ALA:HA	1.92	0.49
7:G:240:GLY:O	7:G:241:ARG:C	2.51	0.49
13:M:163:ASP:O	13:M:166:ARG:HB2	2.13	0.49
15:O:181:ARG:HB2	15:O:245:ILE:HD12	1.95	0.49
15:O:247:ILE:HG12	15:O:261:VAL:HG13	1.94	0.49
15:O:314:GLN:OE1	15:O:314:GLN:N	2.44	0.49
15:O:367:SER:O	15:O:368:HIS:CB	2.60	0.49
15:O:420:GLU:CA	15:O:442:LEU:HD11	2.41	0.49
16:P:336:GLU:O	16:P:337:SER:C	2.50	0.49
19:S:25:DT:C2'	19:S:26:DT:C6	2.95	0.49
1:A:321:LYS:HD2	1:A:353:ASP:OD1	2.12	0.49
1:A:982:VAL:HG22	1:A:994:GLU:HB3	1.94	0.49
2:B:185:GLU:O	10:J:63:TYR:OH	2.15	0.49
2:B:201:LYS:NZ	2:B:466:SER:O	2.46	0.49
2:B:492:ASN:OD1	2:B:493:PHE:N	2.45	0.49
2:B:851:TYR:CE1	2:B:879:PRO:HB2	2.46	0.49
3:C:40:PHE:HD2	11:K:134:LYS:HD2	1.76	0.49
3:C:236:LEU:HD11	3:C:290:LYS:HG3	1.95	0.49
5:E:99:HIS:O	5:E:102:GLU:HB3	2.12	0.49
15:O:390:GLN:CD	17:Q:151:PRO:CD	2.80	0.49
16:P:183:LYS:CD	16:P:189:LYS:HD2	2.42	0.49
16:P:284:LEU:CD1	16:P:305:ARG:NH1	2.65	0.49
16:P:284:LEU:HD11	16:P:305:ARG:NH1	2.26	0.49
17:Q:283:ARG:HA	17:Q:302:ARG:HA	1.94	0.49
1:A:593:PRO:C	1:A:595:LEU:H	2.16	0.49
1:A:995:TYR:CE1	2:B:708:ASP:HA	2.47	0.49
1:A:1527:GLN:HA	1:A:1530:TRP:CD2	2.48	0.49
1:A:1610:PHE:HB2	1:A:1639:ALA:HB2	1.94	0.49
2:B:117:VAL:HG21	17:Q:276:GLN:CB	2.43	0.49
2:B:299:ASP:HB3	2:B:302:LEU:HB3	1.95	0.49
2:B:328:GLN:HE22	13:M:108:LEU:HB2	1.78	0.49
2:B:679:GLN:H	2:B:679:GLN:CD	2.16	0.49
5:E:10:SER:O	5:E:14:ARG:HG3	2.12	0.49
8:H:38:LEU:HD11	8:H:123:MET:SD	2.52	0.49
15:O:376:ASP:OD1	15:O:378:SER:CA	2.58	0.49
15:O:428:GLU:HA	15:O:435:ARG:CG	2.41	0.49
15:O:434:ARG:N	17:Q:144:VAL:HG21	2.28	0.49
15:O:436:ILE:CG2	17:Q:141:TRP:CZ2	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:208:PRO:CA	16:P:213:SER:N	2.75	0.49
16:P:210:TYR:CB	20:T:43:DT:C5'	2.88	0.49
17:Q:353:VAL:CG2	17:Q:358:PHE:CZ	2.93	0.49
1:A:117:ARG:CG	1:A:117:ARG:NH1	2.73	0.49
1:A:590:ASN:HB2	1:A:600:MET:HG3	1.95	0.49
2:B:118:GLU:OE1	17:Q:281:LYS:NZ	2.43	0.49
2:B:773:VAL:HA	2:B:947:ILE:O	2.12	0.49
7:G:218:VAL:HG13	7:G:223:GLU:C	2.33	0.49
13:M:218:VAL:HG21	13:M:259:LEU:HB3	1.93	0.49
13:M:287:LEU:HD13	13:M:290:PRO:HG3	1.95	0.49
15:O:183:ASP:OD2	15:O:245:ILE:HG22	2.13	0.49
15:O:216:ILE:HB	15:O:234:THR:HG21	1.93	0.49
15:O:578:PHE:HE1	16:P:312:LEU:HA	1.74	0.49
15:O:703:PHE:C	15:O:703:PHE:CD1	2.85	0.49
16:P:352:ILE:HA	16:P:355:VAL:CG2	2.43	0.49
17:Q:173:MET:HG3	17:Q:188:PHE:CZ	2.48	0.49
17:Q:274:MET:HA	17:Q:277:ILE:HG22	1.92	0.49
20:T:17:DC:H2''	20:T:18:DG:C8	2.47	0.49
1:A:1200:MET:HG2	1:A:1573:TYR:CE2	2.47	0.49
2:B:795:GLU:HB3	3:C:216:HIS:CE1	2.47	0.49
8:H:111:LEU:HA	8:H:127:GLY:O	2.13	0.49
8:H:118:PHE:HD1	8:H:121:LEU:O	1.96	0.49
15:O:270:GLN:HE21	15:O:289:SER:HB2	1.77	0.49
15:O:353:ASP:C	17:Q:28:SER:CB	2.81	0.49
15:O:356:GLU:OE1	15:O:397:LYS:HD2	2.13	0.49
15:O:440:HIS:CG	15:O:479:HIS:CD2	3.01	0.49
15:O:611:ILE:CG2	15:O:731:LEU:CD2	2.89	0.49
15:O:611:ILE:HG23	15:O:731:LEU:CD2	2.43	0.49
15:O:714:PHE:CD1	15:O:714:PHE:C	2.85	0.49
16:P:100:ALA:HB3	16:P:210:TYR:OH	2.13	0.49
16:P:101:LYS:HE3	16:P:154:LEU:HD21	1.94	0.49
16:P:366:TYR:HE2	17:Q:218:ASP:CB	2.25	0.49
16:P:490:ASP:C	16:P:491:PHE:HD1	2.17	0.49
17:Q:127:PHE:CE1	17:Q:131:TYR:CZ	2.99	0.49
17:Q:248:LYS:HZ3	17:Q:248:LYS:CB	2.25	0.49
1:A:949:GLN:NE2	1:A:950:GLN:O	2.34	0.49
2:B:146:ASN:HB3	2:B:149:GLU:CB	2.42	0.49
2:B:186:GLU:OE2	2:B:732:ALA:N	2.31	0.49
2:B:815:ARG:HH21	19:S:26:DT:C5'	2.25	0.49
3:C:115:TRP:HZ3	3:C:211:GLY:HA2	1.78	0.49
3:C:247:PHE:HB2	3:C:285:PHE:CZ	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:80:LEU:HD12	14:N:52:GLN:O	2.13	0.49
15:O:299:ASP:O	15:O:300:LEU:HD12	2.13	0.49
15:O:302:VAL:HA	15:O:320:ILE:HD11	1.94	0.49
15:O:366:PHE:CE2	15:O:432:PRO:CA	2.89	0.49
15:O:405:TYR:HE2	15:O:414:ILE:CG2	2.24	0.49
15:O:408:ILE:O	15:O:409:ASP:CB	2.59	0.49
15:O:772:ILE:HD13	16:P:138:LEU:CD2	2.41	0.49
16:P:152:LEU:CD2	16:P:152:LEU:N	2.73	0.49
16:P:234:CYS:C	16:P:289:ARG:HB3	2.33	0.49
16:P:330:TRP:HE1	16:P:452:PHE:HD1	1.61	0.49
16:P:355:VAL:HG12	17:Q:215:THR:OG1	2.13	0.49
16:P:419:LEU:HA	17:Q:233:TYR:CE2	2.47	0.49
16:P:505:ILE:HG23	16:P:506:LYS:N	2.27	0.49
17:Q:132:GLU:OE1	17:Q:132:GLU:HA	2.12	0.49
1:A:81:LEU:HB2	1:A:358:ASP:O	2.12	0.48
1:A:361:VAL:CG2	2:B:1184:TYR:HD1	2.24	0.48
1:A:618:TYR:CZ	2:B:783:MET:HB2	2.47	0.48
3:C:239:ILE:HG22	3:C:288:LYS:HD2	1.95	0.48
15:O:214:LEU:HD12	15:O:238:LEU:CD1	2.43	0.48
15:O:247:ILE:N	15:O:248:PRO:CD	2.75	0.48
15:O:399:TRP:NE1	17:Q:134:PRO:HB2	2.27	0.48
15:O:414:ILE:O	15:O:424:VAL:HB	2.12	0.48
15:O:438:TRP:CH2	15:O:481:PHE:CD2	3.01	0.48
15:O:669:PHE:CE1	15:O:738:LYS:CD	2.95	0.48
15:O:714:PHE:CZ	15:O:718:LEU:CD2	2.95	0.48
15:O:727:PRO:HG3	16:P:265:GLU:OE1	2.13	0.48
16:P:147:GLN:O	16:P:151:GLU:HG2	2.13	0.48
16:P:256:LEU:O	16:P:259:GLN:CB	2.60	0.48
17:Q:208:TYR:O	17:Q:211:ARG:HG3	2.06	0.48
1:A:403:LEU:HA	1:A:406:LEU:HD23	1.92	0.48
2:B:228:SER:O	2:B:254:ASN:N	2.38	0.48
2:B:328:GLN:HE22	13:M:109:ARG:N	2.10	0.48
2:B:479:GLN:HG3	19:S:39:DT:C2	2.43	0.48
2:B:938:PHE:CZ	2:B:1014:TYR:HB2	2.49	0.48
13:M:202:TYR:HB2	13:M:338:HIS:NE2	2.28	0.48
15:O:371:LYS:HD2	15:O:432:PRO:HG3	1.95	0.48
15:O:704:LEU:HD23	16:P:179:CYS:SG	2.54	0.48
16:P:104:PHE:CE1	16:P:215:LEU:CD1	2.96	0.48
16:P:260:CYS:SG	16:P:261:ALA:N	2.85	0.48
16:P:282:ARG:HH11	16:P:282:ARG:HG3	1.78	0.48
17:Q:346:ILE:O	17:Q:349:ILE:HD11	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:17:DC:H2"	20:T:18:DG:H8	1.77	0.48
1:A:58:LEU:O	1:A:59:ARG:HB2	2.13	0.48
1:A:461:GLU:HA	1:A:465:GLY:HA2	1.95	0.48
1:A:502:ALA:O	1:A:580:HIS:HB3	2.13	0.48
1:A:1477:ALA:O	1:A:1480:THR:OG1	2.24	0.48
2:B:22:GLU:OE2	10:J:58:GLU:HG3	2.13	0.48
2:B:74:PHE:CD1	2:B:92:GLY:O	2.65	0.48
2:B:110:ASN:HB2	2:B:116:ALA:HB3	1.95	0.48
2:B:866:LEU:HD12	2:B:870:LYS:HD2	1.94	0.48
2:B:1121:GLY:C	7:G:239:THR:OG1	2.52	0.48
3:C:172:GLN:N	3:C:175:GLN:HE21	2.11	0.48
5:E:48:ASP:OD1	5:E:51:GLY:N	2.45	0.48
7:G:37:CYS:O	7:G:126:GLN:N	2.24	0.48
15:O:19:UNK:CB	17:Q:255:VAL:HG21	2.40	0.48
15:O:275:GLU:HB3	15:O:285:MET:C	2.21	0.48
15:O:390:GLN:CB	17:Q:151:PRO:HG2	2.40	0.48
15:O:573:GLU:HB3	16:P:495:LYS:NZ	2.27	0.48
15:O:577:LEU:CD1	16:P:502:ILE:HG21	2.22	0.48
16:P:118:TRP:CE3	16:P:122:GLU:HB2	2.48	0.48
16:P:341:ARG:HH11	16:P:341:ARG:CB	2.26	0.48
16:P:378:LEU:O	16:P:378:LEU:HD23	2.13	0.48
17:Q:280:SER:OG	17:Q:301:SER:N	2.46	0.48
18:R:1:A:H2	20:T:22:DG:N2	2.11	0.48
19:S:1:DC:H41	20:T:53:DT:H3	1.60	0.48
1:A:520:ARG:HG2	1:A:561:LEU:HD12	1.95	0.48
2:B:12:ARG:N	2:B:977:ILE:HD13	2.29	0.48
2:B:336:VAL:HG21	13:M:124:LEU:HA	1.94	0.48
2:B:412:ILE:O	2:B:416:LYS:HG2	2.13	0.48
7:G:168:PHE:HD1	7:G:217:TRP:CD1	2.31	0.48
8:H:93:TYR:HD1	8:H:145:ARG:HB2	1.79	0.48
13:M:55:GLY:HA3	13:M:62:TYR:CE2	2.48	0.48
15:O:66:UNK:O	15:O:67:UNK:C	2.61	0.48
15:O:215:ASN:CA	15:O:236:ILE:HG12	2.42	0.48
15:O:264:ILE:CG2	15:O:265:THR:N	2.77	0.48
15:O:299:ASP:OD1	15:O:300:LEU:N	2.46	0.48
15:O:365:TRP:CE2	15:O:407:ARG:NE	2.81	0.48
15:O:498:LEU:HD23	15:O:499:GLU:N	2.28	0.48
15:O:616:SER:HB2	15:O:621:LYS:N	2.28	0.48
15:O:619:GLU:O	15:O:619:GLU:CD	2.52	0.48
16:P:188:ALA:HB1	16:P:193:PHE:CZ	2.48	0.48
16:P:356:VAL:HG23	17:Q:211:ARG:HE	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:380:SER:C	17:Q:384:VAL:CG2	2.81	0.48
19:S:28:DT:H4'	19:S:29:DT:C4'	2.43	0.48
20:T:18:DG:C6	20:T:19:DC:N4	2.81	0.48
1:A:1023:LEU:HD23	1:A:1226:VAL:HG11	1.95	0.48
2:B:359:LEU:O	2:B:370:LYS:HE2	2.13	0.48
3:C:303:GLU:OE2	10:J:43:ARG:NH2	2.46	0.48
13:M:52:VAL:HG22	13:M:65:TYR:HB2	1.94	0.48
15:O:56:UNK:HA	15:O:551:ALA:O	2.14	0.48
15:O:205:TYR:O	15:O:214:LEU:HA	2.14	0.48
15:O:351:ILE:CG1	17:Q:162:PHE:CE1	2.93	0.48
15:O:655:SER:C	16:P:244:ASN:ND2	2.66	0.48
16:P:116:ILE:HA	16:P:119:LEU:CG	2.43	0.48
16:P:137:TRP:CD1	16:P:141:LEU:CD1	2.96	0.48
16:P:155:GLN:O	20:T:45:DC:P	2.69	0.48
16:P:337:SER:OG	16:P:448:LYS:HE3	2.13	0.48
16:P:382:GLU:O	16:P:382:GLU:CD	2.52	0.48
16:P:399:SER:OG	16:P:402:MET:CB	2.62	0.48
17:Q:153:ASN:N	17:Q:153:ASN:ND2	2.60	0.48
17:Q:177:LEU:O	17:Q:185:LYS:HE2	2.14	0.48
17:Q:294:VAL:HG23	17:Q:295:PRO:N	2.24	0.48
19:S:9:DA:C6	19:S:10:DG:C6	3.01	0.48
1:A:26:ASN:OD1	2:B:1134:ARG:NH1	2.47	0.48
2:B:783:MET:HA	2:B:950:ASN:HD22	1.79	0.48
2:B:829:ASN:O	2:B:831:GLU:N	2.45	0.48
5:E:82:PHE:HD1	5:E:111:VAL:HB	1.79	0.48
6:F:107:VAL:HG12	6:F:109:VAL:H	1.77	0.48
7:G:97:LYS:N	7:G:97:LYS:NZ	2.60	0.48
8:H:11:GLN:HB2	8:H:31:THR:HG22	1.94	0.48
11:K:74:ASN:HA	11:K:77:ARG:HG2	1.96	0.48
15:O:310:TRP:CA	15:O:368:HIS:NE2	2.73	0.48
15:O:506:THR:HG21	15:O:540:LYS:HG2	1.95	0.48
15:O:508:ILE:HG12	15:O:539:VAL:CG1	2.36	0.48
15:O:630:LEU:HD12	15:O:630:LEU:C	2.33	0.48
15:O:693:PHE:C	15:O:693:PHE:CD1	2.87	0.48
15:O:700:LEU:HD11	15:O:711:LEU:CA	2.34	0.48
15:O:704:LEU:HB3	16:P:255:LYS:NZ	2.29	0.48
15:O:725:VAL:HB	16:P:450:THR:CA	2.43	0.48
16:P:104:PHE:CE1	16:P:211:TYR:CB	2.82	0.48
16:P:200:PRO:HB2	16:P:203:TRP:CA	2.43	0.48
16:P:200:PRO:HB2	16:P:204:ARG:H	1.78	0.48
16:P:490:ASP:CB	16:P:491:PHE:CE1	2.89	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:140:ILE:HG22	17:Q:142:ARG:HD2	1.95	0.48
19:S:16:DG:N2	20:T:40:DT:C2	2.82	0.48
1:A:402:ASP:O	1:A:405:LYS:HB3	2.14	0.48
1:A:1325:LEU:HB2	1:A:1492:ILE:HG21	1.95	0.48
2:B:372:ARG:NH2	2:B:574:SER:HB3	2.29	0.48
2:B:480:GLN:OE1	2:B:480:GLN:N	2.46	0.48
2:B:675:ALA:HB2	2:B:686:HIS:CG	2.49	0.48
2:B:729:PRO:HG2	2:B:733:LEU:HD11	1.96	0.48
7:G:131:ASP:O	7:G:233:VAL:N	2.41	0.48
9:I:7:LEU:HB3	9:I:16:LEU:HD11	1.96	0.48
13:M:274:ASN:CG	13:M:286:ARG:HG3	2.34	0.48
15:O:314:GLN:HB3	15:O:329:ILE:N	2.21	0.48
15:O:344:ILE:HD12	15:O:346:ASN:CA	2.44	0.48
15:O:395:GLN:NE2	15:O:397:LYS:CA	2.77	0.48
15:O:471:MET:C	15:O:504:THR:HG21	2.34	0.48
15:O:472:ARG:CD	17:Q:200:THR:HG21	2.38	0.48
15:O:655:SER:OG	16:P:244:ASN:N	2.47	0.48
15:O:657:SER:OG	15:O:745:ALA:O	2.27	0.48
16:P:101:LYS:HZ3	16:P:152:LEU:HD13	0.65	0.48
16:P:237:ILE:HG22	16:P:239:PHE:CA	2.44	0.48
16:P:375:LEU:HD23	16:P:375:LEU:C	2.34	0.48
16:P:403:THR:C	16:P:405:ASP:N	2.54	0.48
17:Q:8:LEU:H	17:Q:8:LEU:HD22	1.79	0.48
17:Q:266:SER:OG	17:Q:268:LEU:CB	2.58	0.48
17:Q:424:PHE:CD2	17:Q:424:PHE:N	2.80	0.48
2:B:95:LEU:HB2	2:B:440:PHE:CD2	2.49	0.48
2:B:555:GLN:HB2	2:B:645:GLY:HA2	1.96	0.48
2:B:614:GLU:OE2	2:B:616:LYS:HE3	2.14	0.48
2:B:1121:GLY:CA	7:G:239:THR:OG1	2.62	0.48
7:G:110:ASP:CG	7:G:111:THR:HG23	2.34	0.48
15:O:202:ILE:CG2	15:O:216:ILE:CG2	2.91	0.48
15:O:364:GLU:OE2	15:O:365:TRP:CZ3	2.66	0.48
15:O:604:ILE:HG23	15:O:732:LEU:HD22	1.96	0.48
15:O:703:PHE:O	15:O:704:LEU:HB3	2.14	0.48
16:P:144:ILE:CA	16:P:147:GLN:NE2	2.77	0.48
16:P:301:HIS:ND1	16:P:304:LEU:HD22	2.29	0.48
17:Q:356:PRO:N	17:Q:359:MET:HB2	2.29	0.48
1:A:523:VAL:HG21	1:A:561:LEU:HD11	1.95	0.48
1:A:721:LYS:C	1:A:723:TYR:N	2.52	0.48
1:A:746:GLY:HA3	1:A:773:ASP:C	2.34	0.48
2:B:460:LYS:O	2:B:464:PHE:HD2	1.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:600:GLN:O	2:B:604:ILE:HG13	2.14	0.48
3:C:120:LEU:HD13	3:C:124:GLU:CB	2.39	0.48
7:G:62:MET:HG2	7:G:66:LEU:HD12	1.95	0.48
7:G:237:HIS:O	7:G:244:SER:CA	2.62	0.48
13:M:55:GLY:O	13:M:61:GLU:HG3	2.13	0.48
14:N:56:ILE:HA	14:N:137:PHE:O	2.13	0.48
14:N:82:ILE:O	14:N:85:HIS:HB2	2.13	0.48
15:O:354:PRO:HG2	15:O:355:GLU:H	1.79	0.48
15:O:359:SER:O	15:O:360:TRP:O	2.31	0.48
15:O:382:GLU:OE1	15:O:433:VAL:HA	2.14	0.48
15:O:383:ILE:HA	15:O:390:GLN:HG3	1.95	0.48
15:O:436:ILE:CG1	17:Q:141:TRP:HZ3	2.25	0.48
15:O:483:HIS:HE1	15:O:487:ASN:HA	1.78	0.48
16:P:233:THR:HG22	16:P:237:ILE:HD12	1.96	0.48
16:P:366:TYR:CZ	17:Q:214:VAL:O	2.60	0.48
17:Q:29:ARG:CZ	17:Q:29:ARG:CB	2.91	0.48
17:Q:158:THR:O	17:Q:158:THR:HG23	2.14	0.48
17:Q:355:THR:N	17:Q:356:PRO:CD	2.77	0.48
1:A:440:SER:N	1:A:458:GLN:HE22	2.12	0.48
2:B:129:ARG:HD3	2:B:890:ASP:OD2	2.13	0.48
2:B:709:PHE:HE2	2:B:992:PRO:HG3	1.79	0.48
13:M:204:ILE:HG13	13:M:208:ILE:HD12	1.96	0.48
15:O:312:LEU:O	15:O:312:LEU:CD1	2.55	0.48
15:O:318:ILE:HG23	15:O:340:LYS:HZ3	1.78	0.48
15:O:370:GLN:O	15:O:385:PHE:CE1	2.67	0.48
15:O:388:ASN:O	17:Q:148:ASN:ND2	2.47	0.48
15:O:436:ILE:CB	17:Q:141:TRP:HZ3	2.18	0.48
15:O:455:LYS:HA	15:O:464:LEU:HD23	1.95	0.48
15:O:568:ILE:HG21	15:O:570:ASP:CB	2.33	0.48
15:O:775:TRP:CZ3	16:P:134:LYS:HE2	2.48	0.48
16:P:104:PHE:CE2	16:P:155:GLN:NE2	2.70	0.48
16:P:105:LEU:HD21	16:P:109:GLN:NE2	2.26	0.48
16:P:166:TYR:CD2	16:P:167:LEU:HD12	2.34	0.48
16:P:193:PHE:HB2	17:Q:208:TYR:CE2	2.47	0.48
16:P:219:ILE:HD13	17:Q:207:ASN:OD1	2.13	0.48
16:P:402:MET:O	16:P:406:GLN:CG	2.62	0.48
16:P:484:ALA:O	16:P:488:LEU:CB	2.62	0.48
17:Q:274:MET:CA	17:Q:277:ILE:HG22	2.44	0.48
17:Q:283:ARG:CA	17:Q:302:ARG:CA	2.83	0.48
20:T:19:DC:C4	20:T:20:DA:C6	3.02	0.48
1:A:509:GLU:O	1:A:576:LYS:HA	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:136:LYS:HD2	2:B:138:LEU:HD11	1.94	0.47
4:D:85:SER:HB3	7:G:71:MET:CG	2.44	0.47
5:E:14:ARG:NH2	5:E:141:VAL:HG13	2.29	0.47
9:I:42:PHE:HZ	9:I:44:ASN:CG	2.17	0.47
11:K:58:GLY:C	11:K:59:THR:CG2	2.82	0.47
13:M:198:VAL:HG11	13:M:397:MET:O	2.14	0.47
15:O:233:VAL:CG1	15:O:234:THR:N	2.76	0.47
15:O:273:ARG:HH12	15:O:274:ILE:CG2	2.12	0.47
15:O:573:GLU:HG3	16:P:495:LYS:NZ	2.28	0.47
15:O:658:LYS:O	15:O:659:LEU:HD12	2.04	0.47
16:P:111:ILE:HG12	16:P:216:GLU:CD	2.34	0.47
16:P:315:ASN:O	16:P:315:ASN:OD1	2.31	0.47
1:A:789:SER:HB2	1:A:792:GLY:HA3	1.95	0.47
3:C:257:GLY:N	3:C:266:TYR:O	2.45	0.47
8:H:116:TYR:HD2	8:H:123:MET:HE2	1.79	0.47
13:M:26:PHE:H	14:N:106:ASN:HB3	1.79	0.47
13:M:28:LYS:NZ	14:N:104:LEU:HD12	2.29	0.47
13:M:268:LEU:HD12	13:M:335:ILE:CD1	2.44	0.47
15:O:364:GLU:HG3	15:O:365:TRP:N	2.29	0.47
15:O:573:GLU:CD	16:P:495:LYS:HZ1	2.16	0.47
15:O:604:ILE:HA	15:O:732:LEU:HD21	1.90	0.47
16:P:103:LEU:HD22	16:P:203:TRP:HZ3	1.72	0.47
16:P:169:SER:OG	16:P:175:PRO:HD3	2.13	0.47
16:P:246:GLU:C	16:P:286:LEU:N	2.64	0.47
16:P:284:LEU:HD22	16:P:285:THR:O	2.14	0.47
16:P:354:LYS:CB	16:P:362:THR:HB	2.40	0.47
17:Q:204:GLU:O	17:Q:205:VAL:C	2.51	0.47
2:B:129:ARG:HG2	2:B:131:THR:HG23	1.96	0.47
2:B:129:ARG:HD2	2:B:891:GLU:HG3	1.96	0.47
2:B:221:SER:O	2:B:224:ASN:N	2.48	0.47
2:B:577:PHE:CG	2:B:577:PHE:O	2.67	0.47
2:B:909:ARG:HD2	2:B:1039:MET:SD	2.54	0.47
7:G:133:LEU:HB2	7:G:231:PHE:CE1	2.49	0.47
8:H:9:ILE:HA	8:H:56:THR:HA	1.96	0.47
13:M:305:ILE:O	13:M:307:PRO:HD3	2.14	0.47
14:N:110:LEU:HB3	14:N:119:LEU:HB3	1.95	0.47
15:O:189:THR:O	15:O:192:ASP:N	2.46	0.47
15:O:391:THR:HG22	15:O:393:VAL:H	1.78	0.47
15:O:442:LEU:HD12	15:O:442:LEU:O	2.14	0.47
15:O:469:TYR:CD2	15:O:508:ILE:HD12	2.49	0.47
15:O:475:ARG:HA	15:O:498:LEU:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:611:ILE:CD1	15:O:731:LEU:CG	2.93	0.47
16:P:94:LYS:HA	16:P:207:LEU:HB3	1.93	0.47
16:P:118:TRP:CH2	16:P:122:GLU:HG3	2.49	0.47
16:P:341:ARG:NH1	16:P:341:ARG:CB	2.77	0.47
16:P:492:ALA:C	16:P:493:ILE:CD1	2.59	0.47
19:S:39:DT:H2'	19:S:40:DT:OP1	2.14	0.47
1:A:84:PRO:O	1:A:317:SER:OG	2.17	0.47
1:A:464:GLU:HB2	1:A:469:LYS:N	2.29	0.47
1:A:505:LEU:HD23	2:B:1048:SER:OG	2.14	0.47
1:A:729:LYS:HE2	8:H:120:GLY:HA3	1.95	0.47
2:B:650:LEU:HB3	2:B:663:ILE:CG2	2.45	0.47
2:B:756:LEU:HA	2:B:759:ASP:HB2	1.96	0.47
13:M:45:LYS:NZ	13:M:50:GLU:CG	2.73	0.47
13:M:337:MET:CG	13:M:342:PHE:HA	2.43	0.47
15:O:172:PHE:CD1	15:O:172:PHE:O	2.68	0.47
15:O:421:ILE:HG23	15:O:439:LYS:HG2	1.94	0.47
16:P:171:HIS:CE1	16:P:243:PHE:CE1	3.03	0.47
16:P:201:LYS:CG	16:P:202:SER:N	2.77	0.47
16:P:211:TYR:O	16:P:214:ILE:HG22	2.14	0.47
16:P:274:ILE:HG23	16:P:278:GLU:CD	2.34	0.47
16:P:366:TYR:CZ	17:Q:215:THR:CA	2.86	0.47
17:Q:296:PRO:CA	17:Q:304:HIS:HE1	2.27	0.47
17:Q:396:ASP:C	17:Q:397:ARG:HG3	2.33	0.47
1:A:94:LEU:HD22	1:A:356:PHE:HE1	1.78	0.47
1:A:501:PHE:HZ	2:B:1044:PHE:HB2	1.80	0.47
2:B:420:TYR:HB2	2:B:457:ILE:HD11	1.95	0.47
2:B:950:ASN:OD1	2:B:952:HIS:N	2.38	0.47
3:C:293:ARG:HH11	3:C:293:ARG:HG3	1.79	0.47
15:O:350:THR:CG2	17:Q:156:LYS:HB2	2.44	0.47
15:O:382:GLU:HG2	15:O:383:ILE:N	2.30	0.47
15:O:391:THR:CG2	15:O:392:GLU:N	2.78	0.47
15:O:702:LEU:HD13	16:P:174:LEU:CA	2.44	0.47
15:O:753:PHE:CE1	16:P:131:HIS:HB2	2.50	0.47
16:P:155:GLN:N	20:T:45:DC:OP1	2.47	0.47
16:P:157:HIS:CE1	16:P:158:MET:HE2	2.50	0.47
16:P:163:SER:O	16:P:167:LEU:HD13	2.14	0.47
16:P:183:LYS:NZ	16:P:183:LYS:CB	2.77	0.47
1:A:339:PHE:O	1:A:1629:ASN:ND2	2.48	0.47
1:A:1221:ARG:O	1:A:1225:ILE:HG13	2.15	0.47
1:A:1268:ASP:HB3	1:A:1295:ARG:O	2.15	0.47
2:B:403:LEU:HD21	2:B:408:LEU:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:96:PHE:CZ	5:E:100:ILE:HD11	2.50	0.47
8:H:112:ILE:HG22	8:H:131:ASN:HD22	1.79	0.47
9:I:26:SER:O	9:I:38:PRO:CG	2.63	0.47
12:L:28:LYS:HB2	12:L:59:ALA:HB3	1.95	0.47
15:O:254:ILE:CG2	15:O:255:GLY:N	2.78	0.47
15:O:302:VAL:HA	15:O:320:ILE:HG12	1.92	0.47
15:O:318:ILE:HD13	15:O:320:ILE:CD1	2.44	0.47
15:O:458:LYS:HD2	15:O:463:LEU:HD21	1.97	0.47
15:O:461:HIS:CG	15:O:484:ARG:HG2	2.50	0.47
15:O:569:VAL:HG11	16:P:477:GLY:CA	2.44	0.47
15:O:599:LYS:HD3	16:P:272:GLN:CD	2.34	0.47
15:O:671:SER:C	15:O:673:PRO:HD2	2.35	0.47
15:O:725:VAL:CG2	16:P:450:THR:HA	2.43	0.47
16:P:103:LEU:CD2	16:P:203:TRP:HZ3	2.28	0.47
16:P:211:TYR:CE1	16:P:212:VAL:CG2	2.90	0.47
16:P:400:MET:HA	16:P:407:LYS:HZ1	1.78	0.47
1:A:117:ARG:CZ	1:A:121:LYS:HE3	2.45	0.47
1:A:185:ARG:O	1:A:189:VAL:HG23	2.13	0.47
1:A:326:THR:HG23	1:A:329:ARG:NH2	2.30	0.47
1:A:332:GLN:HE22	1:A:350:VAL:N	2.13	0.47
1:A:469:LYS:HE3	1:A:470:HIS:CD2	2.49	0.47
1:A:532:GLY:H	1:A:580:HIS:HD2	1.62	0.47
1:A:951:ALA:O	1:A:952:LEU:HD12	2.14	0.47
1:A:1034:TYR:HA	1:A:1181:PRO:HB3	1.97	0.47
1:A:1229:ALA:CB	1:A:1597:ALA:HB2	2.45	0.47
1:A:1463:ASP:HB2	1:A:1469:TRP:NE1	2.30	0.47
1:A:1661:PRO:HA	7:G:102:GLU:HG2	1.96	0.47
2:B:362:LEU:HD21	2:B:590:GLY:O	2.14	0.47
2:B:861:TYR:CZ	2:B:870:LYS:HB2	2.50	0.47
3:C:272:LYS:HA	14:N:175:TYR:HE2	1.75	0.47
4:D:99:LEU:HD12	4:D:100:PRO:HD2	1.95	0.47
6:F:89:GLU:OE2	6:F:136:ARG:NE	2.46	0.47
7:G:17:ILE:HG13	7:G:18:LYS:N	2.30	0.47
9:I:27:ASN:HB3	9:I:39:LYS:HB3	1.95	0.47
10:J:10:CYS:HB2	10:J:43:ARG:HH21	1.79	0.47
11:K:63:PHE:O	11:K:102:ASN:HA	2.14	0.47
13:M:114:LYS:HD2	13:M:114:LYS:HA	1.57	0.47
13:M:168:ALA:O	13:M:169:SER:C	2.53	0.47
14:N:45:LYS:HB2	14:N:48:ALA:HB3	1.97	0.47
15:O:314:GLN:CG	15:O:328:ARG:C	2.15	0.47
15:O:328:ARG:O	15:O:340:LYS:CA	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:338:LYS:O	15:O:339:ARG:HB2	2.14	0.47
15:O:378:SER:O	15:O:397:LYS:HG2	2.15	0.47
15:O:382:GLU:C	15:O:383:ILE:CG1	2.83	0.47
15:O:436:ILE:HG21	17:Q:141:TRP:CZ2	2.45	0.47
15:O:669:PHE:CD1	15:O:738:LYS:NZ	2.82	0.47
16:P:150:GLU:O	16:P:150:GLU:HG2	2.14	0.47
16:P:152:LEU:HD22	16:P:152:LEU:H	1.77	0.47
16:P:282:ARG:HH11	16:P:282:ARG:CG	2.28	0.47
17:Q:282:SER:CA	17:Q:301:SER:O	2.62	0.47
1:A:530:TRP:C	1:A:532:GLY:N	2.68	0.47
1:A:845:ASP:HA	1:A:848:LYS:HD2	1.96	0.47
1:A:1312:GLU:O	1:A:1316:VAL:HG12	2.15	0.47
14:N:167:LYS:NZ	14:N:169:GLU:OE2	2.33	0.47
15:O:315:PHE:O	15:O:316:ALA:C	2.52	0.47
15:O:369:PHE:CE1	15:O:431:ASP:CB	2.97	0.47
15:O:665:ASN:C	15:O:667:ASP:H	2.16	0.47
15:O:760:ILE:CG2	16:P:138:LEU:HD13	2.44	0.47
17:Q:381:ARG:HA	17:Q:384:VAL:HG21	0.52	0.47
1:A:500:VAL:HG13	1:A:501:PHE:N	2.30	0.47
1:A:1026:GLN:HG3	1:A:1598:PHE:CD1	2.45	0.47
2:B:572:PRO:CB	2:B:575:HIS:HD2	2.27	0.47
2:B:626:ILE:HA	2:B:642:LEU:HD23	1.96	0.47
3:C:89:THR:HG1	3:C:201:GLU:H	1.61	0.47
5:E:7:ARG:HG2	5:E:11:ARG:NE	2.30	0.47
8:H:39:THR:O	8:H:123:MET:HA	2.14	0.47
13:M:337:MET:HG2	13:M:342:PHE:HA	1.96	0.47
15:O:247:ILE:O	15:O:247:ILE:CG2	2.51	0.47
15:O:475:ARG:HE	15:O:496:THR:CG2	2.27	0.47
15:O:641:TRP:CD1	15:O:653:SER:CA	2.92	0.47
15:O:641:TRP:HA	15:O:644:THR:OG1	2.14	0.47
15:O:707:ASP:C	15:O:709:PRO:CD	2.83	0.47
16:P:237:ILE:CG2	16:P:239:PHE:HB2	2.45	0.47
16:P:257:VAL:C	16:P:262:LEU:HA	2.36	0.47
16:P:366:TYR:OH	17:Q:215:THR:C	2.52	0.47
16:P:370:SER:OG	16:P:373:GLU:OE2	2.28	0.47
16:P:505:ILE:HD12	16:P:508:ALA:HB3	1.97	0.47
1:A:222:GLU:OE2	1:A:226:LYS:HE2	2.15	0.47
1:A:360:LEU:HD11	2:B:1184:TYR:OH	2.15	0.47
1:A:722:PRO:CB	8:H:46:LEU:HB3	2.45	0.47
1:A:728:GLY:HA2	1:A:731:ILE:HD12	1.97	0.47
1:A:1097:TYR:CZ	1:A:1101:THR:HG21	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1237:GLN:H	1:A:1544:ASN:CG	2.18	0.47
2:B:128:GLN:HE21	2:B:735:HIS:HA	1.79	0.47
2:B:178:TYR:O	2:B:182:GLN:HG2	2.15	0.47
2:B:492:ASN:ND2	2:B:494:TYR:HB2	2.30	0.47
2:B:495:ARG:NH1	2:B:723:LYS:HE2	2.30	0.47
2:B:917:PHE:CE1	2:B:1035:ARG:HG3	2.50	0.47
7:G:73:TYR:HA	7:G:79:GLY:O	2.15	0.47
7:G:147:LEU:HD11	7:G:229:LEU:HD23	1.97	0.47
13:M:45:LYS:N	13:M:48:LYS:O	2.46	0.47
15:O:188:GLN:O	15:O:196:TYR:HE1	1.98	0.47
15:O:194:ARG:C	15:O:196:TYR:CD2	2.86	0.47
15:O:201:GLU:O	15:O:219:LEU:N	2.35	0.47
15:O:263:ILE:CG2	15:O:264:ILE:N	2.78	0.47
15:O:269:PHE:CE2	15:O:292:LEU:HD11	2.48	0.47
15:O:356:GLU:OE1	15:O:356:GLU:N	2.48	0.47
15:O:366:PHE:CD1	15:O:373:LEU:HD11	2.50	0.47
15:O:382:GLU:C	15:O:383:ILE:CD1	2.84	0.47
15:O:442:LEU:O	15:O:443:ASP:OD1	2.32	0.47
15:O:478:MET:HE2	15:O:497:VAL:HG22	1.97	0.47
15:O:573:GLU:CB	16:P:495:LYS:NZ	2.78	0.47
15:O:596:ILE:CG2	16:P:317:MET:HE2	2.33	0.47
15:O:735:GLU:HA	15:O:738:LYS:HD2	1.95	0.47
16:P:111:ILE:HG23	16:P:112:LEU:N	2.29	0.47
16:P:155:GLN:HG2	20:T:44:DC:O3'	2.15	0.47
16:P:281:ILE:CD1	16:P:281:ILE:N	2.73	0.47
16:P:334:LEU:HD23	16:P:449:GLN:OE1	2.14	0.47
19:S:2:DA:H2'	19:S:3:DA:C8	2.50	0.47
19:S:49:DA:N1	20:T:6:DT:C4	2.83	0.47
1:A:1463:ASP:HB2	1:A:1469:TRP:CD1	2.50	0.46
5:E:16:PHE:O	5:E:20:LYS:HG3	2.15	0.46
13:M:149:ILE:O	13:M:150:ASP:C	2.54	0.46
13:M:189:PRO:HG3	13:M:331:TYR:CD1	2.49	0.46
13:M:209:PRO:HG3	13:M:301:ARG:NH2	2.30	0.46
15:O:55:UNK:O	15:O:552:LEU:HD22	2.15	0.46
15:O:217:ALA:HB3	15:O:229:ARG:HH11	1.76	0.46
15:O:302:VAL:O	15:O:303:VAL:CB	2.64	0.46
15:O:303:VAL:HB	15:O:319:ASP:O	2.15	0.46
15:O:366:PHE:CG	15:O:373:LEU:HD11	2.50	0.46
15:O:511:ILE:HD13	15:O:536:ASP:OD1	2.15	0.46
16:P:158:MET:CG	16:P:192:TYR:OH	2.63	0.46
16:P:210:TYR:HB3	20:T:43:DT:C5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:262:LEU:HD23	16:P:446:TYR:CE2	2.50	0.46
16:P:330:TRP:CZ3	16:P:331:ILE:HD13	2.50	0.46
16:P:337:SER:CA	16:P:448:LYS:CE	2.91	0.46
16:P:386:LEU:CB	16:P:387:PRO:HD3	2.45	0.46
17:Q:385:ASN:O	17:Q:389:ASN:C	2.53	0.46
1:A:319:GLU:OE2	13:M:161:ILE:HD11	2.15	0.46
1:A:611:GLU:HG3	1:A:613:THR:H	1.80	0.46
1:A:1090:ASP:O	1:A:1132:TYR:HA	2.15	0.46
1:A:1458:THR:OG1	1:A:1473:LYS:O	2.24	0.46
2:B:240:ARG:HB2	2:B:242:ASP:OD1	2.15	0.46
2:B:1126:VAL:HB	2:B:1166:LYS:HE3	1.96	0.46
3:C:55:ASP:OD1	3:C:299:ILE:HA	2.15	0.46
15:O:294:PHE:HB3	15:O:300:LEU:HD13	1.42	0.46
15:O:319:ASP:HA	15:O:324:TRP:HB3	1.97	0.46
15:O:356:GLU:O	15:O:357:LEU:HB2	2.16	0.46
15:O:391:THR:HG22	15:O:393:VAL:HG13	1.97	0.46
15:O:478:MET:CE	15:O:497:VAL:HG13	2.46	0.46
15:O:574:TRP:CZ3	16:P:484:ALA:CB	2.98	0.46
15:O:620:ASP:CB	15:O:674:GLU:CD	2.84	0.46
15:O:685:TYR:CG	15:O:689:GLN:OE1	2.68	0.46
16:P:122:GLU:OE2	16:P:123:MET:HE3	2.15	0.46
17:Q:143:THR:C	17:Q:144:VAL:CG2	2.77	0.46
1:A:406:LEU:HD23	1:A:416:ARG:HD2	1.95	0.46
1:A:422:ARG:O	1:A:426:ALA:CB	2.63	0.46
1:A:862:THR:HG21	1:A:875:LEU:HD12	1.97	0.46
1:A:872:ASP:HB3	1:A:875:LEU:HB3	1.96	0.46
1:A:1095:LEU:O	1:A:1098:SER:HB2	2.15	0.46
2:B:65:VAL:HG11	2:B:102:VAL:HG21	1.96	0.46
2:B:328:GLN:NE2	13:M:108:LEU:HB2	2.31	0.46
2:B:331:GLY:O	2:B:335:ARG:HB2	2.15	0.46
2:B:529:CYS:HB2	2:B:698:SER:HB3	1.97	0.46
3:C:169:PHE:CE2	3:C:171:PRO:HB3	2.50	0.46
7:G:159:LYS:HA	7:G:162:ILE:HD12	1.97	0.46
7:G:235:ASN:O	7:G:246:ASP:N	2.49	0.46
13:M:79:GLY:HA3	13:M:90:LEU:HD23	1.96	0.46
13:M:271:VAL:HG21	13:M:298:ILE:HG21	1.97	0.46
13:M:274:ASN:OD1	13:M:286:ARG:HG3	2.16	0.46
15:O:270:GLN:OE1	15:O:291:PRO:CB	2.63	0.46
15:O:352:PHE:HB2	15:O:355:GLU:HB3	1.95	0.46
15:O:554:ASN:C	15:O:555:THR:HG23	2.36	0.46
15:O:615:ASN:OD1	15:O:617:HIS:NE2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:246:GLU:HB3	16:P:286:LEU:HB3	1.97	0.46
16:P:337:SER:OG	16:P:448:LYS:HD3	2.15	0.46
1:A:1478:ALA:HB1	9:I:21:ASN:ND2	2.30	0.46
1:A:1637:PRO:O	1:A:1641:ILE:HG13	2.15	0.46
2:B:35:PHE:N	2:B:36:PRO:HD3	2.30	0.46
3:C:36:PHE:CZ	3:C:40:PHE:HB2	2.50	0.46
3:C:222:VAL:HG21	3:C:225:ALA:HB2	1.96	0.46
10:J:23:ASN:O	10:J:27:GLU:N	2.46	0.46
11:K:53:ALA:HB1	11:K:104:ARG:NH1	2.30	0.46
15:O:44:UNK:O	15:O:45:UNK:O	2.33	0.46
15:O:302:VAL:O	15:O:319:ASP:O	2.33	0.46
15:O:428:GLU:CG	15:O:433:VAL:CG2	2.93	0.46
16:P:104:PHE:HA	16:P:211:TYR:HD1	1.77	0.46
16:P:156:LEU:H	16:P:156:LEU:HD13	1.81	0.46
16:P:409:ALA:O	16:P:413:LEU:HG	2.16	0.46
1:A:669:LEU:N	1:A:787:GLY:CA	2.70	0.46
1:A:1229:ALA:HB1	1:A:1595:TYR:CE2	2.50	0.46
1:A:1478:ALA:CB	9:I:21:ASN:OD1	2.63	0.46
1:A:1654:PHE:HA	6:F:137:TYR:HD2	1.81	0.46
2:B:375:LEU:HA	2:B:378:ILE:HD12	1.96	0.46
8:H:90:ALA:HA	8:H:143:LEU:HD23	1.96	0.46
9:I:36:ILE:CD1	9:I:40:SER:HB2	2.46	0.46
15:O:248:PRO:CB	15:O:307:PHE:HE2	2.27	0.46
15:O:344:ILE:HD11	15:O:346:ASN:CB	2.44	0.46
15:O:347:LEU:CB	17:Q:152:ILE:O	2.54	0.46
15:O:410:ASP:O	15:O:411:LYS:CB	2.59	0.46
15:O:713:ILE:H	15:O:713:ILE:HD12	1.81	0.46
15:O:725:VAL:CG1	16:P:446:TYR:O	2.63	0.46
16:P:95:LEU:HD22	16:P:99:GLU:HB2	1.97	0.46
16:P:166:TYR:CE2	16:P:230:ILE:HD13	2.50	0.46
16:P:287:TRP:CE3	16:P:290:THR:CG2	2.93	0.46
17:Q:310:ILE:CG2	17:Q:363:GLU:CD	2.82	0.46
19:S:45:DG:H2'	19:S:46:DT:C6	2.50	0.46
1:A:747:ILE:HA	1:A:1072:ASN:OD1	2.15	0.46
2:B:655:TYR:CE1	2:B:657:PRO:HD2	2.50	0.46
3:C:86:PHE:O	12:L:63:ARG:N	2.47	0.46
7:G:163:PRO:HD2	7:G:166:TRP:CD1	2.50	0.46
8:H:48:PRO:HG2	8:H:146:ARG:HH22	1.81	0.46
9:I:2:SER:OG	9:I:9:PHE:HB2	2.16	0.46
9:I:41:GLN:HB2	9:I:42:PHE:H	1.53	0.46
14:N:27:ASP:C	14:N:29:PHE:H	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:248:PRO:N	15:O:307:PHE:HE2	2.14	0.46
15:O:251:SER:HB3	15:O:411:LYS:HD3	1.98	0.46
15:O:342:GLN:HB2	15:O:344:ILE:CG2	2.46	0.46
15:O:352:PHE:HB2	15:O:355:GLU:H	1.81	0.46
16:P:94:LYS:N	16:P:206:GLN:CA	2.79	0.46
16:P:184:TRP:HD1	16:P:190:MET:N	1.98	0.46
16:P:293:ARG:O	20:T:47:DC:N4	2.38	0.46
16:P:342:THR:O	16:P:343:THR:CG2	2.64	0.46
19:S:39:DT:C6	19:S:39:DT:C4'	2.99	0.46
1:A:721:LYS:HD2	1:A:721:LYS:HA	1.78	0.46
1:A:912:VAL:C	1:A:914:ASP:N	2.59	0.46
2:B:787:MET:O	2:B:927:CYS:HA	2.15	0.46
7:G:162:ILE:HD13	7:G:217:TRP:HZ3	1.80	0.46
10:J:21:TYR:CE2	10:J:25:LEU:HD11	2.50	0.46
15:O:569:VAL:HG11	16:P:477:GLY:HA3	1.98	0.46
16:P:137:TRP:O	16:P:141:LEU:HG	2.16	0.46
16:P:408:ILE:CG2	16:P:412:LYS:HE3	2.45	0.46
17:Q:283:ARG:HB2	17:Q:302:ARG:HB2	1.96	0.46
1:A:122:LEU:HD13	1:A:338:VAL:HA	1.98	0.46
1:A:246:ASP:OD2	1:A:249:THR:OG1	2.14	0.46
1:A:998:HIS:HE1	2:B:712:SER:H	1.61	0.46
2:B:74:PHE:CE1	2:B:94:LYS:HA	2.50	0.46
3:C:128:ASP:HB3	3:C:172:GLN:HB2	1.96	0.46
7:G:69:LEU:O	7:G:72:LYS:HB3	2.16	0.46
8:H:36:CYS:HA	8:H:126:GLU:O	2.16	0.46
13:M:45:LYS:HE2	13:M:48:LYS:HB3	1.93	0.46
14:N:78:THR:O	14:N:89:ILE:HG13	2.15	0.46
15:O:698:LYS:CE	16:P:126:PRO:HD3	2.40	0.46
16:P:257:VAL:HG12	16:P:262:LEU:C	2.36	0.46
16:P:496:GLU:O	16:P:499:LYS:CB	2.62	0.46
17:Q:365:TRP:CE3	17:Q:365:TRP:CA	2.98	0.46
17:Q:377:ASP:O	17:Q:380:SER:N	2.47	0.46
1:A:239:PHE:HB3	1:A:256:LEU:HD13	1.98	0.46
1:A:394:LEU:HD21	13:M:172:LEU:HD21	1.97	0.46
1:A:464:GLU:O	1:A:468:ARG:N	2.49	0.46
1:A:629:ASP:OD1	1:A:630:GLY:N	2.49	0.46
2:B:108:MET:SD	2:B:120:LYS:HA	2.56	0.46
2:B:166:GLN:NE2	2:B:189:GLU:O	2.49	0.46
2:B:341:SER:O	2:B:344:GLN:N	2.49	0.46
2:B:1079:LEU:O	2:B:1084:THR:HG22	2.16	0.46
2:B:1195:ARG:NH2	7:G:117:TRP:CZ2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:54:PHE:CE2	3:C:300:PHE:HD2	2.33	0.46
5:E:32:GLN:O	5:E:36:GLU:N	2.29	0.46
7:G:75:ASN:OD1	7:G:76:LYS:HG2	2.16	0.46
14:N:103:ASN:HA	14:N:132:GLN:NE2	2.31	0.46
15:O:270:GLN:HE21	15:O:289:SER:H	1.64	0.46
15:O:470:SER:OG	15:O:471:MET:N	2.49	0.46
15:O:593:VAL:HG11	16:P:320:PHE:HD2	1.77	0.46
15:O:599:LYS:NZ	16:P:275:GLU:OE1	2.44	0.46
15:O:693:PHE:CG	15:O:746:ARG:HB2	2.51	0.46
16:P:94:LYS:N	16:P:206:GLN:HA	2.31	0.46
16:P:100:ALA:O	16:P:211:TYR:CE1	2.69	0.46
16:P:113:LYS:O	16:P:116:ILE:CD1	2.64	0.46
16:P:125:PHE:HA	16:P:126:PRO:HD2	1.40	0.46
16:P:315:ASN:OD1	16:P:315:ASN:C	2.54	0.46
16:P:399:SER:C	16:P:407:LYS:CE	2.82	0.46
1:A:89:LEU:HD23	1:A:90:PHE:CZ	2.51	0.46
1:A:719:ILE:HB	1:A:725:LEU:HB2	1.98	0.46
1:A:1239:THR:N	1:A:1542:THR:O	2.45	0.46
2:B:719:CYS:O	2:B:723:LYS:CB	2.64	0.46
6:F:110:ASP:HB3	6:F:123:LYS:HZ3	1.80	0.46
8:H:48:PRO:CD	8:H:146:ARG:HH12	2.29	0.46
14:N:86:ASP:HB3	14:N:142:THR:HB	1.97	0.46
15:O:196:TYR:CG	15:O:197:ARG:N	2.79	0.46
15:O:319:ASP:HB2	15:O:363:ILE:HG21	1.98	0.46
15:O:381:ILE:CG2	15:O:382:GLU:N	2.79	0.46
15:O:499:GLU:OE2	15:O:500:ILE:HD12	2.16	0.46
15:O:713:ILE:CG2	15:O:717:LYS:CE	2.94	0.46
16:P:119:LEU:HD13	16:P:165:LEU:HD11	1.87	0.46
16:P:178:THR:CG2	16:P:179:CYS:N	2.78	0.46
16:P:186:CYS:O	16:P:380:TRP:NE1	2.49	0.46
16:P:493:ILE:O	16:P:498:LEU:HB2	2.16	0.46
1:A:409:ASP:O	1:A:410:LYS:C	2.54	0.45
1:A:1494:ARG:NH1	9:I:55:ALA:O	2.49	0.45
1:A:1567:ASN:ND2	1:A:1579:PHE:HE1	2.14	0.45
2:B:586:VAL:O	2:B:593:ILE:HG13	2.15	0.45
2:B:1105:ARG:HB2	2:B:1165:ASN:O	2.16	0.45
3:C:148:LYS:H	3:C:148:LYS:HG3	1.46	0.45
3:C:172:GLN:H	3:C:175:GLN:HE21	1.64	0.45
5:E:23:VAL:HG12	5:E:28:TYR:HB2	1.97	0.45
7:G:163:PRO:HD2	7:G:166:TRP:NE1	2.29	0.45
15:O:301:GLN:O	15:O:320:ILE:CG2	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:475:ARG:HD3	16:P:367:PHE:HZ	1.72	0.45
15:O:703:PHE:CE1	16:P:254:LEU:HD23	2.51	0.45
16:P:104:PHE:HE1	16:P:211:TYR:C	2.18	0.45
16:P:247:ILE:CG1	16:P:286:LEU:CB	2.94	0.45
16:P:355:VAL:C	17:Q:211:ARG:NH2	2.69	0.45
19:S:39:DT:C7	19:S:41:DT:H73	2.46	0.45
19:S:42:DG:N2	20:T:13:DC:C2	2.84	0.45
1:A:335:LEU:HD22	1:A:339:PHE:HE2	1.81	0.45
1:A:821:ILE:HG22	2:B:778:TYR:HA	1.98	0.45
1:A:1478:ALA:HB2	9:I:21:ASN:ND2	2.32	0.45
2:B:75:ASP:H	2:B:77:LYS:CD	2.30	0.45
2:B:132:SER:OG	2:B:462:GLN:NE2	2.49	0.45
2:B:155:VAL:CB	17:Q:359:MET:CE	2.92	0.45
3:C:227:TYR:HB3	3:C:300:PHE:HE1	1.81	0.45
3:C:246:ARG:HH11	3:C:246:ARG:HG3	1.80	0.45
5:E:178:ILE:HG23	5:E:214:CYS:HA	1.97	0.45
7:G:38:ILE:HA	7:G:124:VAL:O	2.15	0.45
7:G:63:LYS:HA	7:G:67:ASN:HD22	1.80	0.45
10:J:41:LEU:CD2	10:J:46:CYS:HB3	2.46	0.45
12:L:51:CYS:SG	12:L:53:HIS:HB2	2.56	0.45
13:M:42:LYS:O	14:N:29:PHE:HA	2.16	0.45
13:M:76:TYR:CE2	14:N:57:LYS:HG2	2.51	0.45
13:M:197:ASP:OD2	13:M:199:GLU:HB2	2.16	0.45
15:O:324:TRP:CD1	15:O:348:HIS:CA	2.99	0.45
15:O:351:ILE:CD1	17:Q:162:PHE:CE1	2.98	0.45
15:O:529:GLU:O	15:O:531:PHE:HD2	1.99	0.45
15:O:641:TRP:CE2	15:O:653:SER:CA	2.88	0.45
16:P:146:ASP:N	16:P:148:PRO:HD3	2.30	0.45
17:Q:298:GLN:C	17:Q:299:THR:CG2	2.70	0.45
19:S:40:DT:O2	19:S:41:DT:H72	2.16	0.45
1:A:1101:THR:HG22	1:A:1120:TYR:CG	2.51	0.45
1:A:1239:THR:HB	1:A:1542:THR:OG1	2.16	0.45
2:B:1194:ILE:HB	2:B:1195:ARG:H	1.63	0.45
7:G:25:THR:HA	7:G:128:GLN:OE1	2.16	0.45
12:L:31:CYS:CB	12:L:48:CYS:SG	3.04	0.45
13:M:66:THR:HB	13:M:71:GLN:HG3	1.99	0.45
14:N:90:MET:O	14:N:137:PHE:HA	2.17	0.45
15:O:194:ARG:CG	15:O:197:ARG:NH2	2.80	0.45
15:O:317:ILE:HG22	15:O:363:ILE:CD1	2.46	0.45
16:P:105:LEU:HD23	16:P:109:GLN:CD	2.36	0.45
16:P:171:HIS:HB2	16:P:243:PHE:CD2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:257:VAL:CA	16:P:262:LEU:HD13	2.47	0.45
16:P:355:VAL:O	17:Q:211:ARG:NH2	2.49	0.45
1:A:132:GLU:HA	1:A:135:LYS:HB2	1.98	0.45
1:A:437:PHE:CE2	2:B:1184:TYR:CZ	3.05	0.45
1:A:530:TRP:CD2	1:A:531:PRO:HD3	2.50	0.45
1:A:777:LEU:O	8:H:120:GLY:HA2	2.15	0.45
2:B:264:TRP:HB3	2:B:269:TYR:CE2	2.51	0.45
2:B:1127:CYS:HA	2:B:1163:GLN:O	2.16	0.45
2:B:1139:LYS:O	2:B:1141:LEU:CA	2.62	0.45
8:H:48:PRO:HD2	8:H:146:ARG:HH12	1.81	0.45
15:O:351:ILE:CG1	17:Q:162:PHE:HE1	2.28	0.45
15:O:479:HIS:CE1	15:O:491:SER:HG	2.33	0.45
15:O:483:HIS:ND1	15:O:489:PHE:CE1	2.85	0.45
15:O:578:PHE:O	15:O:579:ASN:ND2	2.49	0.45
15:O:611:ILE:HD13	15:O:731:LEU:HD23	1.99	0.45
15:O:775:TRP:CD1	16:P:109:GLN:C	2.90	0.45
1:A:116:HIS:NE2	1:A:185:ARG:HB2	2.31	0.45
1:A:847:LEU:HD22	1:A:983:LYS:HG2	1.98	0.45
1:A:938:VAL:O	1:A:942:GLN:HG3	2.16	0.45
1:A:957:VAL:HG12	1:A:958:PRO:O	2.17	0.45
8:H:107:VAL:HB	8:H:111:LEU:HB3	1.98	0.45
8:H:116:TYR:OH	8:H:134:ASN:OD1	2.33	0.45
13:M:152:ASP:O	13:M:155:THR:HB	2.15	0.45
13:M:189:PRO:HG3	13:M:331:TYR:CE1	2.52	0.45
13:M:199:GLU:HA	13:M:342:PHE:CZ	2.51	0.45
15:O:46:UNK:CB	15:O:491:SER:HB3	2.45	0.45
15:O:183:ASP:OD2	15:O:246:LYS:CA	2.64	0.45
15:O:183:ASP:OD2	15:O:246:LYS:HA	2.15	0.45
15:O:375:PHE:HB3	15:O:380:MET:CG	2.44	0.45
15:O:424:VAL:CG2	15:O:437:SER:OG	2.63	0.45
15:O:438:TRP:NE1	15:O:489:PHE:CB	2.73	0.45
15:O:604:ILE:CA	15:O:732:LEU:HD22	2.33	0.45
15:O:615:ASN:HB3	15:O:617:HIS:CD2	2.52	0.45
15:O:698:LYS:CD	16:P:124:ARG:O	2.65	0.45
16:P:134:LYS:O	16:P:138:LEU:HG	2.16	0.45
16:P:223:ASN:ND2	16:P:224:GLY:CA	2.75	0.45
17:Q:248:LYS:HB3	17:Q:249:SER:H	1.44	0.45
17:Q:349:ILE:HG13	17:Q:349:ILE:H	1.61	0.45
1:A:70:LYS:HG3	1:A:71:PHE:CD2	2.51	0.45
1:A:921:PRO:CG	8:H:19:ARG:HD2	2.44	0.45
1:A:998:HIS:CE1	2:B:711:GLN:HA	2.39	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:906:ARG:HD2	3:C:93:GLN:CD	2.36	0.45
2:B:979:GLN:NE2	2:B:999:GLN:HE22	2.15	0.45
12:L:51:CYS:SG	12:L:52:GLY:N	2.90	0.45
15:O:472:ARG:HH11	17:Q:203:SER:HB3	1.80	0.45
15:O:585:GLU:O	15:O:586:LYS:C	2.54	0.45
15:O:658:LYS:C	15:O:659:LEU:CG	2.79	0.45
15:O:660:LYS:CB	15:O:663:LEU:HD22	2.43	0.45
15:O:723:VAL:O	15:O:725:VAL:N	2.50	0.45
15:O:775:TRP:CD1	16:P:109:GLN:O	2.70	0.45
16:P:103:LEU:HA	16:P:106:LYS:HB2	1.97	0.45
16:P:208:PRO:HG2	16:P:213:SER:HB3	1.97	0.45
16:P:340:GLN:HG2	16:P:341:ARG:N	2.22	0.45
17:Q:280:SER:C	17:Q:282:SER:H	2.20	0.45
17:Q:396:ASP:O	17:Q:397:ARG:C	2.55	0.45
19:S:6:DG:C8	19:S:7:DT:C4	3.04	0.45
1:A:403:LEU:O	1:A:407:GLN:HB3	2.16	0.45
1:A:481:ARG:HD2	2:B:1069:ILE:HG21	1.98	0.45
1:A:921:PRO:HG2	8:H:19:ARG:HG3	1.80	0.45
1:A:1162:ASN:OD1	1:A:1165:LYS:N	2.38	0.45
1:A:1224:GLU:OE2	1:A:1234:LYS:N	2.44	0.45
1:A:1288:ARG:NH2	1:A:1481:GLU:O	2.50	0.45
1:A:1306:TYR:O	1:A:1308:VAL:HG13	2.16	0.45
2:B:269:TYR:HD1	13:M:131:ALA:CB	2.29	0.45
2:B:782:ASP:O	2:B:950:ASN:HB2	2.16	0.45
3:C:272:LYS:HE3	3:C:272:LYS:HB3	1.68	0.45
12:L:49:LYS:HE3	12:L:49:LYS:HB2	1.75	0.45
13:M:13:GLU:HG2	13:M:87:SER:HB2	1.99	0.45
13:M:332:ILE:HA	13:M:335:ILE:HD12	1.99	0.45
15:O:270:GLN:HG3	15:O:271:ILE:N	2.32	0.45
15:O:271:ILE:HB	15:O:289:SER:CB	2.47	0.45
15:O:306:ALA:HB1	15:O:365:TRP:HE3	1.81	0.45
15:O:399:TRP:HD1	17:Q:134:PRO:CB	2.14	0.45
15:O:399:TRP:HD1	17:Q:134:PRO:HB3	1.78	0.45
15:O:585:GLU:OE1	15:O:588:SER:HB2	2.17	0.45
15:O:614:GLU:CD	15:O:670:ALA:H	2.18	0.45
15:O:653:SER:O	15:O:654:LEU:HG	2.16	0.45
16:P:238:HIS:CD2	16:P:289:ARG:CD	3.00	0.45
16:P:246:GLU:HB3	16:P:286:LEU:CB	2.46	0.45
17:Q:390:ASN:N	17:Q:390:ASN:ND2	2.60	0.45
19:S:48:DG:C6	19:S:49:DA:C6	3.05	0.45
1:A:84:PRO:CG	1:A:318:THR:HG22	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:417:ARG:HA	1:A:417:ARG:CZ	2.47	0.45
1:A:781:LEU:CA	1:A:786:TYR:CE1	2.90	0.45
1:A:920:PHE:CB	1:A:921:PRO:HD2	2.40	0.45
1:A:1105:ARG:O	1:A:1109:SER:N	2.49	0.45
2:B:811:LEU:HD11	2:B:825:PHE:CZ	2.52	0.45
2:B:916:LYS:HZ2	18:R:6:A:P	2.38	0.45
5:E:22:MET:O	5:E:26:ARG:HG3	2.17	0.45
8:H:62:SER:HA	8:H:141:TYR:CE1	2.51	0.45
13:M:75:GLN:HE21	14:N:64:ILE:HG12	1.81	0.45
14:N:43:ASP:O	14:N:49:LYS:HG3	2.17	0.45
14:N:101:GLN:OE1	14:N:104:LEU:HD13	2.17	0.45
15:O:353:ASP:O	17:Q:28:SER:CA	2.64	0.45
16:P:155:GLN:CB	20:T:44:DC:C3'	2.85	0.45
16:P:195:ALA:HA	16:P:216:GLU:HG3	1.17	0.45
16:P:287:TRP:CE3	16:P:290:THR:HG23	2.51	0.45
16:P:487:LEU:HD12	16:P:487:LEU:C	2.37	0.45
17:Q:209:ARG:HG3	17:Q:210:THR:N	2.32	0.45
20:T:40:DT:H2'	20:T:41:DT:H71	1.98	0.45
1:A:406:LEU:HG	1:A:407:GLN:H	1.82	0.45
1:A:588:LEU:HB3	1:A:636:HIS:HB2	1.98	0.45
1:A:781:LEU:C	1:A:786:TYR:CZ	2.91	0.45
1:A:1447:GLN:HB2	1:A:1460:TYR:HB3	1.99	0.45
1:A:1497:ILE:HD12	1:A:1497:ILE:O	2.17	0.45
7:G:134:GLU:HA	7:G:229:LEU:O	2.17	0.45
10:J:17:LYS:HD3	10:J:39:LEU:HB3	1.99	0.45
15:O:293:TYR:CD1	15:O:295:VAL:CG2	2.96	0.45
15:O:363:ILE:HG22	15:O:374:VAL:CG1	2.40	0.45
15:O:367:SER:HB2	15:O:369:PHE:CD2	2.52	0.45
15:O:437:SER:O	15:O:438:TRP:HB3	2.17	0.45
15:O:705:HIS:CD2	15:O:705:HIS:C	2.89	0.45
16:P:210:TYR:CD1	20:T:43:DT:O3'	2.70	0.45
16:P:282:ARG:HB3	16:P:282:ARG:NH1	2.32	0.45
16:P:284:LEU:CD1	16:P:305:ARG:HE	2.26	0.45
16:P:378:LEU:HD12	17:Q:235:ILE:CD1	2.44	0.45
17:Q:355:THR:CA	17:Q:359:MET:SD	3.02	0.45
19:S:40:DT:O4'	19:S:41:DT:C6	2.70	0.45
1:A:79:ILE:HB	1:A:360:LEU:HB3	1.98	0.45
1:A:113:VAL:HG21	1:A:178:LEU:HD22	1.99	0.45
2:B:21:ARG:O	2:B:24:ARG:N	2.49	0.45
2:B:311:ARG:NH2	9:I:19:ASN:H	2.10	0.45
2:B:731:VAL:HG12	10:J:60:PHE:CZ	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:931:TRP:HB3	2:B:936:MET:SD	2.57	0.45
2:B:1121:GLY:CA	7:G:239:THR:O	2.64	0.45
3:C:161:HIS:HD2	10:J:19:GLU:OE2	2.00	0.45
5:E:112:TYR:CZ	5:E:136:ASN:HB2	2.53	0.45
13:M:38:PHE:CD2	14:N:119:LEU:HB2	2.51	0.45
15:O:217:ALA:HB2	15:O:233:VAL:HA	1.99	0.45
15:O:352:PHE:C	15:O:354:PRO:N	2.70	0.45
15:O:362:ARG:HH12	15:O:364:GLU:HB2	1.81	0.45
16:P:208:PRO:O	16:P:213:SER:OG	2.27	0.45
16:P:211:TYR:CD2	16:P:211:TYR:N	2.85	0.45
19:S:14:DA:N6	20:T:40:DT:O4	2.50	0.45
20:T:18:DG:H2'	20:T:19:DC:H6	1.81	0.45
1:A:1533:GLU:OE1	5:E:14:ARG:NH1	2.50	0.44
2:B:532:HIS:HB3	2:B:544:HIS:HB2	1.99	0.44
3:C:70:ILE:HG12	3:C:74:GLU:OE1	2.17	0.44
3:C:247:PHE:HE1	3:C:279:VAL:HG21	1.81	0.44
15:O:184:SER:O	15:O:185:GLN:HG3	2.17	0.44
15:O:232:ASN:O	15:O:233:VAL:HG23	2.17	0.44
15:O:322:GLY:HA2	15:O:349:GLY:O	2.16	0.44
15:O:458:LYS:HB3	15:O:459:PRO:CD	2.47	0.44
15:O:471:MET:HA	15:O:504:THR:HG22	1.99	0.44
15:O:707:ASP:OD2	16:P:439:ILE:HG12	2.17	0.44
16:P:119:LEU:CG	16:P:165:LEU:HD11	2.43	0.44
16:P:211:TYR:CG	16:P:212:VAL:N	2.85	0.44
16:P:385:PHE:CZ	17:Q:212:HIS:NE2	2.84	0.44
16:P:469:PRO:HG2	16:P:470:PRO:HD2	1.98	0.44
17:Q:144:VAL:HG12	17:Q:144:VAL:O	2.18	0.44
19:S:28:DT:N3	20:T:27:DA:H2	1.86	0.44
1:A:52:LEU:HD13	1:A:61:LEU:O	2.18	0.44
1:A:414:GLU:OE1	1:A:417:ARG:HG2	2.17	0.44
1:A:539:GLU:OE1	1:A:539:GLU:N	2.34	0.44
1:A:951:ALA:C	1:A:952:LEU:HD12	2.38	0.44
1:A:970:LYS:HE2	1:A:973:GLU:OE1	2.17	0.44
1:A:1478:ALA:HB2	9:I:21:ASN:HD21	1.79	0.44
1:A:1559:ARG:NH2	1:A:1583:ASP:OD1	2.38	0.44
2:B:771:ALA:HB1	2:B:946:ASP:HB2	1.98	0.44
2:B:934:ILE:HD12	3:C:69:ARG:NH1	2.32	0.44
3:C:89:THR:OG1	3:C:201:GLU:N	2.38	0.44
5:E:40:GLU:O	5:E:43:LYS:HB2	2.16	0.44
8:H:103:LYS:HE3	8:H:115:TYR:CE2	2.52	0.44
13:M:38:PHE:HB3	13:M:53:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:172:LEU:HB2	13:M:173:PRO:HD2	1.98	0.44
15:O:186:TYR:O	15:O:186:TYR:CD1	2.70	0.44
15:O:248:PRO:CD	15:O:307:PHE:HE2	2.29	0.44
15:O:294:PHE:O	15:O:294:PHE:CG	2.71	0.44
15:O:365:TRP:CE2	15:O:407:ARG:CD	3.00	0.44
15:O:414:ILE:CD1	15:O:434:ARG:HE	2.30	0.44
15:O:437:SER:CB	15:O:489:PHE:CE2	3.00	0.44
15:O:473:HIS:O	15:O:473:HIS:ND1	2.50	0.44
15:O:530:ASN:O	15:O:531:PHE:CG	2.70	0.44
15:O:585:GLU:O	15:O:588:SER:CA	2.64	0.44
15:O:663:LEU:HB3	15:O:666:SER:HB3	1.98	0.44
15:O:702:LEU:HA	16:P:123:MET:HE1	1.95	0.44
15:O:747:LEU:O	15:O:748:GLU:CB	2.62	0.44
16:P:112:LEU:HD12	16:P:112:LEU:O	2.18	0.44
17:Q:247:ILE:CA	17:Q:250:LEU:HB2	2.48	0.44
1:A:262:THR:HA	1:A:265:ARG:CG	2.47	0.44
1:A:466:LEU:HA	1:A:469:LYS:HE2	2.00	0.44
1:A:683:LYS:HD2	8:H:20:TYR:CE2	2.53	0.44
1:A:720:PHE:HE2	8:H:141:TYR:HE2	1.66	0.44
1:A:1294:MET:O	1:A:1469:TRP:HA	2.18	0.44
2:B:142:LYS:HE2	2:B:144:SER:OG	2.17	0.44
2:B:1127:CYS:HB3	2:B:1163:GLN:HB2	2.00	0.44
3:C:39:ASP:OD2	3:C:58:ASN:HB3	2.18	0.44
3:C:197:ARG:CZ	10:J:61:LEU:HD13	2.47	0.44
9:I:42:PHE:CD1	9:I:42:PHE:O	2.70	0.44
11:K:59:THR:HB	11:K:107:THR:OG1	2.17	0.44
13:M:114:LYS:HE3	13:M:114:LYS:O	2.17	0.44
13:M:185:ASP:OD1	13:M:186:ARG:N	2.50	0.44
15:O:232:ASN:HB2	15:O:281:SER:O	2.18	0.44
15:O:251:SER:CB	15:O:411:LYS:HZ3	2.28	0.44
15:O:306:ALA:O	15:O:317:ILE:HD13	2.17	0.44
15:O:329:ILE:HB	15:O:330:PRO:CD	2.47	0.44
15:O:347:LEU:HD22	17:Q:151:PRO:C	2.38	0.44
15:O:390:GLN:C	15:O:391:THR:OG1	2.55	0.44
15:O:569:VAL:HG11	16:P:477:GLY:C	2.38	0.44
16:P:146:ASP:CA	16:P:148:PRO:CD	2.88	0.44
16:P:284:LEU:CB	16:P:302:ALA:HB1	2.43	0.44
16:P:343:THR:HB	16:P:347:SER:N	2.04	0.44
17:Q:266:SER:O	17:Q:266:SER:OG	2.26	0.44
17:Q:347:ASP:O	17:Q:350:SER:HB2	2.17	0.44
17:Q:352:TRP:N	17:Q:352:TRP:CD1	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:5:DT:H3	20:T:50:DA:H2	1.63	0.44
1:A:385:LEU:HG	1:A:453:ILE:CD1	2.47	0.44
1:A:436:ALA:HB2	1:A:443:ALA:HB2	1.99	0.44
1:A:593:PRO:O	1:A:595:LEU:N	2.41	0.44
1:A:1262:LEU:HA	1:A:1497:ILE:HA	1.98	0.44
1:A:1654:PHE:CZ	6:F:89:GLU:HA	2.52	0.44
2:B:280:LEU:HD23	2:B:354:LEU:HD23	1.99	0.44
2:B:609:ARG:NH1	2:B:662:ASP:OD2	2.50	0.44
4:D:84:SER:O	4:D:87:SER:HB2	2.18	0.44
9:I:24:LEU:N	9:I:24:LEU:CD2	2.73	0.44
11:K:59:THR:O	11:K:106:GLN:HA	2.17	0.44
14:N:93:THR:C	14:N:97:SER:HG	2.21	0.44
15:O:289:SER:HB3	15:O:339:ARG:NH1	2.33	0.44
15:O:369:PHE:CE1	15:O:431:ASP:HB3	2.53	0.44
16:P:143:THR:OG1	16:P:236:MET:CE	2.65	0.44
16:P:235:GLY:N	16:P:289:ARG:HB3	2.27	0.44
16:P:342:THR:C	16:P:343:THR:HG23	2.38	0.44
16:P:435:GLN:H	16:P:435:GLN:HG3	1.38	0.44
17:Q:34:ILE:HD12	17:Q:34:ILE:HA	1.83	0.44
1:A:214:ASP:HB2	1:A:1605:THR:CG2	2.47	0.44
1:A:594:THR:OG1	2:B:1075:GLU:HG3	2.17	0.44
1:A:1085:LEU:HD21	1:A:1172:LEU:HD21	1.99	0.44
1:A:1090:ASP:HB3	1:A:1132:TYR:CE1	2.52	0.44
1:A:1478:ALA:CB	9:I:21:ASN:CG	2.85	0.44
1:A:1612:LYS:HB3	1:A:1621:PHE:CD1	2.53	0.44
5:E:32:GLN:HG3	5:E:36:GLU:HG3	2.00	0.44
7:G:242:VAL:HG23	7:G:243:VAL:N	2.32	0.44
13:M:118:ASP:CG	13:M:119:THR:N	2.71	0.44
15:O:656:HIS:CG	15:O:747:LEU:N	2.86	0.44
15:O:733:THR:HG21	16:P:264:PRO:HB3	1.98	0.44
16:P:120:ILE:O	16:P:124:ARG:CA	2.65	0.44
16:P:419:LEU:HD13	16:P:420:ASP:H	1.81	0.44
17:Q:383:PHE:O	17:Q:383:PHE:CD1	2.70	0.44
19:S:26:DT:C6	19:S:27:DT:N3	2.85	0.44
1:A:78:HIS:NE2	1:A:80:GLU:OE2	2.51	0.44
1:A:102:CYS:SG	1:A:238:MET:HB2	2.57	0.44
1:A:729:LYS:CE	8:H:120:GLY:HA3	2.48	0.44
2:B:513:LYS:HG3	2:B:514:THR:N	2.31	0.44
2:B:944:GLN:OE1	2:B:944:GLN:N	2.51	0.44
6:F:79:ARG:HB3	6:F:146:TRP:CZ2	2.53	0.44
15:O:214:LEU:HD12	15:O:263:ILE:HD13	1.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:274:ILE:CD1	15:O:284:VAL:CG1	2.94	0.44
15:O:384:ASP:OD2	15:O:387:ASN:CB	2.57	0.44
15:O:610:LEU:HD11	15:O:614:GLU:CG	2.47	0.44
16:P:315:ASN:O	16:P:319:SER:CA	2.64	0.44
16:P:341:ARG:HB2	16:P:445:ARG:NH2	2.29	0.44
17:Q:207:ASN:HD21	19:S:13:DA:P	2.30	0.44
1:A:846:ILE:HD13	1:A:906:GLN:HG3	2.00	0.44
1:A:1314:GLN:O	1:A:1318:SER:OG	2.30	0.44
2:B:186:GLU:C	2:B:188:ASP:H	2.21	0.44
2:B:205:MET:O	2:B:206:LEU:HD12	2.18	0.44
5:E:61:GLN:HE21	5:E:77:SER:HG	1.61	0.44
5:E:159:ASP:OD1	5:E:162:ARG:NH2	2.51	0.44
8:H:6:PHE:HB3	8:H:59:ILE:HD12	1.98	0.44
13:M:199:GLU:HA	13:M:342:PHE:CE2	2.52	0.44
15:O:306:ALA:O	15:O:317:ILE:HB	2.18	0.44
15:O:314:GLN:HB2	15:O:329:ILE:HG23	2.00	0.44
15:O:356:GLU:O	15:O:377:ARG:NH2	2.49	0.44
15:O:471:MET:CG	15:O:542:ARG:NH1	2.80	0.44
16:P:158:MET:HG3	16:P:192:TYR:OH	2.17	0.44
16:P:240:LYS:HG3	16:P:241:GLU:N	2.33	0.44
16:P:334:LEU:HD22	16:P:449:GLN:OE1	2.16	0.44
16:P:490:ASP:HB3	16:P:491:PHE:CD1	2.51	0.44
17:Q:393:ILE:CG1	17:Q:395:LEU:HB2	2.47	0.44
17:Q:422:GLY:O	17:Q:424:PHE:CE2	2.71	0.44
19:S:46:DT:H2'	19:S:47:DT:C7	2.48	0.44
1:A:469:LYS:HA	2:B:1070:ARG:HH22	1.82	0.44
1:A:582:LYS:HG3	1:A:584:ARG:HG2	1.99	0.44
1:A:732:ILE:HA	1:A:735:VAL:HG22	1.99	0.44
1:A:872:ASP:HB3	1:A:875:LEU:CB	2.48	0.44
1:A:1026:GLN:NE2	1:A:1603:MET:HB2	2.24	0.44
2:B:65:VAL:O	2:B:68:ILE:HG12	2.18	0.44
2:B:86:SER:O	2:B:90:TYR:CB	2.65	0.44
2:B:1116:SER:HB3	2:B:1127:CYS:SG	2.58	0.44
2:B:1162:GLY:C	2:B:1164:GLY:H	2.21	0.44
3:C:196:LEU:HD23	3:C:196:LEU:HA	1.79	0.44
10:J:32:GLU:HG2	10:J:33:GLY:H	1.83	0.44
12:L:68:GLU:O	12:L:70:ARG:N	2.48	0.44
15:O:216:ILE:C	15:O:234:THR:OG1	2.54	0.44
15:O:289:SER:O	15:O:290:GLU:HB3	2.17	0.44
15:O:326:ILE:H	15:O:344:ILE:HG12	1.83	0.44
15:O:345:ASP:O	15:O:346:ASN:CG	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:389:TRP:HH2	17:Q:147:GLN:O	1.93	0.44
15:O:393:VAL:O	15:O:394:VAL:CG2	2.53	0.44
15:O:537:PHE:CE1	15:O:552:LEU:HD11	2.49	0.44
16:P:104:PHE:HZ	16:P:215:LEU:CD2	2.02	0.44
16:P:309:TYR:O	16:P:313:THR:OG1	2.23	0.44
16:P:369:TRP:HZ3	17:Q:219:LEU:CD1	2.31	0.44
17:Q:245:VAL:CG2	17:Q:250:LEU:HD21	2.48	0.44
17:Q:274:MET:HA	17:Q:277:ILE:HG21	1.92	0.44
17:Q:296:PRO:HB2	17:Q:304:HIS:NE2	2.33	0.44
17:Q:354:LEU:HD12	17:Q:359:MET:C	2.37	0.44
1:A:43:HIS:NE2	13:M:186:ARG:CZ	2.81	0.44
1:A:326:THR:HA	1:A:329:ARG:NH1	2.32	0.44
1:A:372:LYS:CD	1:A:377:VAL:HG22	2.45	0.44
1:A:1050:TYR:HB3	1:A:1054:ALA:HA	2.00	0.44
1:A:1460:TYR:CE1	1:A:1462:PHE:HB2	2.53	0.44
2:B:75:ASP:CB	2:B:77:LYS:CD	2.85	0.44
2:B:815:ARG:CZ	19:S:26:DT:H5"	2.45	0.44
2:B:823:GLN:O	2:B:899:GLN:NE2	2.45	0.44
2:B:1120:ILE:HA	13:M:309:GLN:H	1.82	0.44
5:E:90:VAL:O	5:E:94:LYS:HB3	2.18	0.44
5:E:164:LEU:HD21	5:E:211:TYR:CD2	2.53	0.44
6:F:144:GLU:HB3	6:F:146:TRP:NE1	2.33	0.44
7:G:56:ASN:OD1	7:G:59:GLN:HB3	2.17	0.44
7:G:95:LEU:HD12	7:G:96:SER:N	2.33	0.44
13:M:161:ILE:O	13:M:164:SER:HB2	2.18	0.44
13:M:245:LYS:HE3	13:M:246:LYS:HE3	2.00	0.44
14:N:52:GLN:HA	14:N:134:ASP:OD2	2.18	0.44
15:O:326:ILE:HB	15:O:344:ILE:CB	2.48	0.44
15:O:347:LEU:HD23	17:Q:152:ILE:HG23	1.99	0.44
15:O:354:PRO:HB2	17:Q:131:TYR:CZ	2.51	0.44
15:O:475:ARG:CB	16:P:367:PHE:HE2	2.30	0.44
15:O:539:VAL:HG21	15:O:550:TYR:CE2	2.53	0.44
15:O:669:PHE:CG	15:O:675:PHE:HB2	2.52	0.44
16:P:113:LYS:HE3	16:P:117:ARG:HH22	1.83	0.44
16:P:165:LEU:CD1	16:P:190:MET:HE1	2.39	0.44
16:P:172:LEU:C	16:P:172:LEU:CD2	2.85	0.44
1:A:6:PRO:HD3	7:G:113:PHE:CE2	2.52	0.43
1:A:31:GLN:HA	1:A:78:HIS:O	2.18	0.43
1:A:403:LEU:C	1:A:406:LEU:HG	2.39	0.43
1:A:481:ARG:NH2	1:A:592:GLN:OE1	2.51	0.43
1:A:966:LEU:HB2	1:A:969:PHE:CD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:341:SER:C	2:B:343:ASP:N	2.51	0.43
2:B:800:TYR:HE1	2:B:908:ARG:HH21	1.60	0.43
2:B:938:PHE:CE1	2:B:1014:TYR:HD2	2.36	0.43
15:O:5:UNK:O	15:O:6:UNK:CB	2.66	0.43
15:O:24:UNK:N	17:Q:314:TRP:CH2	2.86	0.43
15:O:186:TYR:CE2	15:O:512:LEU:HD21	2.41	0.43
15:O:264:ILE:CG1	15:O:305:PHE:CE2	2.96	0.43
15:O:315:PHE:HB2	15:O:317:ILE:HD13	2.00	0.43
15:O:344:ILE:CD1	15:O:346:ASN:CA	2.96	0.43
15:O:347:LEU:HD23	17:Q:152:ILE:CG2	2.48	0.43
15:O:435:ARG:O	15:O:435:ARG:CG	2.65	0.43
15:O:616:SER:HB2	15:O:621:LYS:H	1.83	0.43
15:O:659:LEU:N	15:O:659:LEU:CD2	2.61	0.43
16:P:144:ILE:HG23	16:P:154:LEU:HD12	2.00	0.43
16:P:207:LEU:HD23	16:P:209:ASN:ND2	2.33	0.43
16:P:336:GLU:O	16:P:339:THR:N	2.50	0.43
17:Q:380:SER:O	17:Q:384:VAL:N	2.51	0.43
20:T:40:DT:C2'	20:T:41:DT:H71	2.47	0.43
1:A:67:LEU:CB	1:A:72:CYS:HB2	2.38	0.43
1:A:637:PHE:C	2:B:1091:ARG:HH22	2.22	0.43
1:A:1612:LYS:HB3	1:A:1621:PHE:CD2	2.53	0.43
2:B:21:ARG:NH1	10:J:54:VAL:HA	2.33	0.43
2:B:100:GLU:HG2	2:B:142:LYS:HB2	2.00	0.43
2:B:167:SER:C	2:B:169:ARG:H	2.21	0.43
2:B:372:ARG:NH1	2:B:573:ALA:HB3	2.33	0.43
2:B:416:LYS:HG3	2:B:461:MET:HE3	1.99	0.43
2:B:931:TRP:CD1	2:B:936:MET:SD	3.11	0.43
3:C:163:TYR:HB3	3:C:189:PRO:O	2.18	0.43
5:E:12:LEU:HG	5:E:58:MET:HE1	1.99	0.43
8:H:103:LYS:HB3	8:H:115:TYR:HD2	1.83	0.43
9:I:10:CYS:CB	9:I:13:CYS:SG	3.06	0.43
10:J:6:ARG:HG2	10:J:13:VAL:HA	2.00	0.43
13:M:109:ARG:HG2	13:M:110:GLY:N	2.33	0.43
13:M:205:GLU:HA	13:M:208:ILE:O	2.17	0.43
14:N:41:ASN:HA	14:N:44:ASN:HB3	1.99	0.43
15:O:56:UNK:CB	15:O:552:LEU:HD23	2.48	0.43
15:O:193:LEU:O	15:O:194:ARG:C	2.57	0.43
15:O:269:PHE:HE2	15:O:294:PHE:HD1	1.66	0.43
15:O:698:LYS:CE	16:P:124:ARG:O	2.66	0.43
16:P:103:LEU:HA	16:P:106:LYS:HD3	1.99	0.43
16:P:104:PHE:HA	16:P:212:VAL:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:378:LEU:HD23	16:P:378:LEU:C	2.39	0.43
17:Q:247:ILE:CD1	17:Q:248:LYS:HD2	2.44	0.43
17:Q:277:ILE:HG13	17:Q:278:TYR:CG	2.30	0.43
17:Q:380:SER:HB3	17:Q:438:PHE:CZ	2.49	0.43
1:A:957:VAL:HG11	1:A:997:PHE:CE1	2.53	0.43
2:B:311:ARG:NH1	9:I:18:GLU:HA	2.25	0.43
2:B:505:ARG:CZ	2:B:509:PHE:HE2	2.30	0.43
2:B:743:ARG:HD2	2:B:745:GLN:OE1	2.18	0.43
2:B:919:SER:C	2:B:921:HIS:H	2.21	0.43
2:B:1120:ILE:O	13:M:309:GLN:HB2	2.19	0.43
8:H:53:ASP:OD1	8:H:54:SER:N	2.51	0.43
13:M:43:LYS:O	13:M:49:ASP:CA	2.61	0.43
15:O:314:GLN:C	15:O:316:ALA:N	2.65	0.43
15:O:394:VAL:O	15:O:395:GLN:CB	2.47	0.43
15:O:432:PRO:O	15:O:433:VAL:CG2	2.58	0.43
15:O:474:LYS:HG3	15:O:475:ARG:N	2.34	0.43
15:O:506:THR:HG21	15:O:540:LYS:NZ	2.33	0.43
15:O:662:LEU:N	15:O:662:LEU:CD2	2.73	0.43
16:P:116:ILE:CA	16:P:119:LEU:HD12	2.31	0.43
16:P:247:ILE:HD12	16:P:286:LEU:HA	0.51	0.43
16:P:260:CYS:C	16:P:262:LEU:H	2.20	0.43
16:P:354:LYS:HG2	16:P:362:THR:HG21	0.58	0.43
17:Q:204:GLU:OE2	17:Q:205:VAL:N	2.52	0.43
1:A:736:LEU:HD23	1:A:736:LEU:HA	1.85	0.43
1:A:861:VAL:HG21	1:A:892:LEU:HA	1.99	0.43
1:A:1113:HIS:CE1	1:A:1114:TYR:HD2	2.35	0.43
1:A:1292:ILE:O	1:A:1471:GLU:HA	2.19	0.43
2:B:317:TYR:HB3	2:B:320:LEU:HG	2.00	0.43
2:B:336:VAL:HG11	13:M:123:ALA:HB3	2.00	0.43
2:B:479:GLN:CB	19:S:39:DT:N3	2.72	0.43
2:B:479:GLN:CB	19:S:39:DT:O2	2.67	0.43
2:B:561:ILE:O	2:B:564:ILE:HG22	2.18	0.43
5:E:77:SER:O	5:E:106:GLN:N	2.52	0.43
7:G:69:LEU:HD12	7:G:69:LEU:HA	1.83	0.43
7:G:92:ALA:HB3	7:G:104:LEU:HD23	1.98	0.43
9:I:18:GLU:O	9:I:28:VAL:HG11	2.19	0.43
10:J:16:ASP:OD1	10:J:17:LYS:HG3	2.19	0.43
13:M:212:GLU:O	13:M:216:ILE:HG13	2.18	0.43
13:M:264:TYR:CD2	13:M:335:ILE:HD11	2.53	0.43
15:O:205:TYR:N	15:O:215:ASN:O	2.34	0.43
15:O:213:VAL:HG12	15:O:214:LEU:N	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:247:ILE:HG12	15:O:261:VAL:CG1	2.48	0.43
15:O:254:ILE:C	15:O:256:ARG:H	2.21	0.43
15:O:264:ILE:CD1	15:O:302:VAL:CG1	2.96	0.43
15:O:353:ASP:CA	17:Q:28:SER:CA	2.60	0.43
15:O:421:ILE:HG12	15:O:441:ASP:HB3	2.01	0.43
15:O:604:ILE:CG2	15:O:732:LEU:CD2	2.97	0.43
15:O:744:LEU:CD1	15:O:744:LEU:N	2.72	0.43
16:P:263:PRO:O	16:P:265:GLU:N	2.50	0.43
16:P:439:ILE:H	16:P:439:ILE:HG13	1.62	0.43
17:Q:380:SER:HB3	17:Q:438:PHE:HE1	1.84	0.43
1:A:52:LEU:HB3	1:A:63:SER:H	1.84	0.43
1:A:1091:VAL:HG12	1:A:1133:LEU:HB3	2.01	0.43
1:A:1655:ASP:OD1	1:A:1656:VAL:N	2.52	0.43
2:B:897:GLU:H	2:B:897:GLU:CD	2.19	0.43
4:D:91:ARG:HG2	4:D:94:ARG:HH21	1.82	0.43
7:G:145:ILE:O	7:G:156:SER:HA	2.18	0.43
10:J:17:LYS:HB3	10:J:39:LEU:HD13	2.00	0.43
11:K:47:ILE:HD11	11:K:63:PHE:HB3	2.00	0.43
13:M:235:PRO:HD3	13:M:263:TYR:CE1	2.54	0.43
13:M:250:LEU:HA	13:M:255:GLN:OE1	2.19	0.43
14:N:52:GLN:HG2	14:N:134:ASP:OD2	2.19	0.43
15:O:55:UNK:O	15:O:552:LEU:CD2	2.66	0.43
15:O:339:ARG:CG	15:O:340:LYS:N	2.79	0.43
15:O:350:THR:OG1	15:O:352:PHE:HE1	2.00	0.43
15:O:354:PRO:HB2	17:Q:131:TYR:CE1	2.54	0.43
15:O:393:VAL:C	15:O:394:VAL:HG13	2.38	0.43
15:O:475:ARG:HE	15:O:496:THR:HG21	1.84	0.43
15:O:623:LEU:HD13	15:O:669:PHE:CA	2.48	0.43
16:P:104:PHE:CE2	16:P:155:GLN:OE1	2.71	0.43
16:P:143:THR:CB	16:P:236:MET:HE3	2.43	0.43
16:P:401:GLU:O	16:P:402:MET:HE1	2.19	0.43
16:P:474:GLU:OE1	16:P:474:GLU:HA	2.18	0.43
17:Q:211:ARG:HG3	17:Q:212:HIS:N	2.33	0.43
17:Q:251:TRP:CD1	17:Q:298:GLN:OE1	2.72	0.43
17:Q:356:PRO:CA	17:Q:359:MET:HB2	2.49	0.43
20:T:13:DC:O3'	20:T:14:DT:H73	2.19	0.43
1:A:76:GLN:HG3	1:A:362:VAL:O	2.18	0.43
1:A:417:ARG:NH1	13:M:155:THR:HG23	2.34	0.43
1:A:417:ARG:NH1	13:M:155:THR:CG2	2.82	0.43
1:A:826:PHE:HB3	2:B:777:SER:OG	2.18	0.43
1:A:830:MET:HE2	2:B:963:PHE:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:87:ASN:O	2:B:91:LEU:HA	2.18	0.43
2:B:164:MET:CB	2:B:194:PHE:HE1	2.32	0.43
2:B:322:ASN:HB3	13:M:105:SER:HA	2.00	0.43
2:B:416:LYS:HG3	2:B:461:MET:HE1	1.99	0.43
7:G:37:CYS:SG	7:G:127:PRO:HA	2.59	0.43
8:H:107:VAL:N	8:H:111:LEU:O	2.51	0.43
14:N:40:LEU:O	14:N:44:ASN:HB2	2.18	0.43
15:O:436:ILE:CD1	15:O:436:ILE:O	2.67	0.43
15:O:473:HIS:H	15:O:504:THR:HG21	1.83	0.43
15:O:627:GLY:HA2	15:O:630:LEU:CG	2.49	0.43
15:O:736:ILE:HG21	16:P:267:TYR:HE1	1.79	0.43
16:P:95:LEU:CD2	16:P:99:GLU:HB2	2.49	0.43
16:P:332:LEU:C	16:P:332:LEU:CD1	2.87	0.43
16:P:354:LYS:HD3	16:P:365:ASP:OD2	2.19	0.43
16:P:357:TYR:HH	17:Q:203:SER:HB3	1.77	0.43
17:Q:245:VAL:CB	17:Q:250:LEU:HD11	2.31	0.43
1:A:51:ASP:OD1	1:A:52:LEU:N	2.52	0.43
1:A:530:TRP:CB	1:A:531:PRO:HD3	2.37	0.43
1:A:719:ILE:HD12	1:A:725:LEU:HD12	2.00	0.43
1:A:956:ARG:HD2	1:A:979:GLY:HA3	1.99	0.43
2:B:74:PHE:HD1	2:B:92:GLY:O	2.01	0.43
2:B:177:PRO:O	2:B:181:VAL:HG23	2.19	0.43
2:B:311:ARG:HH12	9:I:18:GLU:CA	2.24	0.43
2:B:916:LYS:HB3	2:B:1036:LEU:HD12	1.99	0.43
6:F:105:ALA:HB2	7:G:51:PRO:HB2	2.00	0.43
13:M:41:TYR:HB2	13:M:52:VAL:O	2.19	0.43
14:N:43:ASP:HB3	14:N:51:GLN:HE22	1.83	0.43
15:O:183:ASP:HB3	15:O:247:ILE:CD1	2.41	0.43
15:O:272:PHE:CD1	15:O:288:SER:HA	2.54	0.43
15:O:344:ILE:CD1	15:O:346:ASN:N	2.74	0.43
15:O:418:SER:OG	15:O:419:ARG:O	2.24	0.43
15:O:665:ASN:O	15:O:667:ASP:CA	2.59	0.43
16:P:234:CYS:C	16:P:289:ARG:CB	2.87	0.43
16:P:246:GLU:CB	16:P:286:LEU:HB3	2.48	0.43
16:P:294:HIS:ND1	16:P:296:GLY:N	2.66	0.43
16:P:356:VAL:CA	17:Q:211:ARG:HE	2.21	0.43
1:A:900:VAL:HA	1:A:903:ILE:HG12	2.01	0.43
2:B:49:PHE:CE1	2:B:409:TYR:CE2	3.07	0.43
2:B:121:VAL:HG13	2:B:125:GLU:OE1	2.18	0.43
2:B:262:PHE:CZ	2:B:269:TYR:HB2	2.54	0.43
2:B:464:PHE:HE1	2:B:471:VAL:HG22	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:576:THR:HG22	2:B:578:ALA:N	2.33	0.43
7:G:157:ILE:HG12	7:G:247:GLY:C	2.39	0.43
9:I:43:SER:HB2	9:I:45:LEU:HD23	2.00	0.43
9:I:56:PHE:HB2	9:I:61:ARG:NH2	2.29	0.43
13:M:242:TYR:CE2	13:M:246:LYS:HG3	2.54	0.43
15:O:324:TRP:CE3	15:O:325:SER:N	2.87	0.43
15:O:324:TRP:CH2	15:O:346:ASN:O	2.72	0.43
15:O:366:PHE:CZ	15:O:426:ALA:O	2.70	0.43
15:O:704:LEU:HD22	16:P:183:LYS:HZ2	1.83	0.43
16:P:129:PHE:C	16:P:129:PHE:CD1	2.91	0.43
16:P:147:GLN:H	16:P:148:PRO:HD3	1.61	0.43
16:P:158:MET:HB2	16:P:192:TYR:CE1	2.53	0.43
16:P:184:TRP:CD1	16:P:190:MET:N	2.81	0.43
16:P:207:LEU:HG	16:P:209:ASN:H	1.83	0.43
16:P:258:MET:HA	16:P:262:LEU:CD2	2.43	0.43
17:Q:147:GLN:CD	17:Q:147:GLN:H	2.20	0.43
17:Q:248:LYS:NZ	17:Q:248:LYS:CB	2.82	0.43
17:Q:355:THR:HA	17:Q:359:MET:SD	2.58	0.43
1:A:664:SER:HA	1:A:790:LYS:HD3	2.00	0.43
1:A:1299:ASN:O	1:A:1303:SER:OG	2.14	0.43
2:B:448:ARG:O	2:B:452:ARG:HG3	2.19	0.43
2:B:854:GLU:HA	2:B:874:TYR:HD2	1.83	0.43
4:D:89:LEU:HD12	4:D:92:ILE:HD12	2.00	0.43
6:F:108:PHE:HZ	7:G:54:LEU:HD23	1.82	0.43
6:F:127:GLU:CB	6:F:129:LYS:HD3	2.49	0.43
7:G:166:TRP:CE3	7:G:219:ASP:HA	2.54	0.43
10:J:6:ARG:HD3	10:J:11:GLY:O	2.18	0.43
13:M:261:LEU:HB3	13:M:339:LEU:HD21	2.00	0.43
15:O:205:TYR:CB	15:O:215:ASN:CB	2.29	0.43
15:O:352:PHE:CB	15:O:355:GLU:H	2.31	0.43
15:O:366:PHE:HB2	15:O:373:LEU:HD11	1.99	0.43
15:O:567:ILE:N	16:P:478:ARG:HH12	2.17	0.43
15:O:669:PHE:HB2	15:O:674:GLU:HB2	2.01	0.43
16:P:137:TRP:NE1	16:P:141:LEU:CG	2.82	0.43
16:P:207:LEU:CD2	16:P:209:ASN:ND2	2.82	0.43
16:P:256:LEU:HD21	16:P:307:LEU:CD2	2.48	0.43
16:P:380:TRP:O	16:P:380:TRP:CG	2.71	0.43
16:P:399:SER:C	16:P:407:LYS:HE2	2.40	0.43
16:P:403:THR:O	16:P:403:THR:HG22	2.19	0.43
1:A:397:ARG:HE	13:M:170:LYS:CB	2.31	0.43
1:A:583:ASN:OD1	1:A:606:ARG:HA	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1288:ARG:CZ	1:A:1481:GLU:O	2.67	0.43
2:B:677:THR:N	2:B:680:GLU:OE2	2.52	0.43
2:B:796:ARG:HE	10:J:11:GLY:HA2	1.84	0.43
5:E:53:PRO:HG2	5:E:55:ARG:CZ	2.49	0.43
6:F:144:GLU:HB3	6:F:146:TRP:HE1	1.84	0.43
11:K:53:ALA:O	11:K:61:ALA:HA	2.18	0.43
11:K:54:THR:HG22	11:K:55:SER:O	2.19	0.43
15:O:194:ARG:HG3	15:O:197:ARG:CZ	2.49	0.43
15:O:207:SER:O	15:O:213:VAL:HB	2.19	0.43
15:O:253:SER:C	15:O:254:ILE:HG13	2.39	0.43
15:O:273:ARG:CG	15:O:274:ILE:N	2.57	0.43
15:O:301:GLN:CG	15:O:321:LYS:NZ	2.80	0.43
15:O:353:ASP:O	17:Q:28:SER:CB	2.63	0.43
15:O:389:TRP:HH2	17:Q:147:GLN:C	2.21	0.43
15:O:405:TYR:CE2	15:O:414:ILE:CG2	2.93	0.43
15:O:443:ASP:O	17:Q:2:PHE:HA	2.19	0.43
15:O:623:LEU:CD1	15:O:669:PHE:CA	2.97	0.43
16:P:212:VAL:HA	16:P:215:LEU:CG	2.45	0.43
16:P:223:ASN:HD22	16:P:225:GLN:H	1.67	0.43
16:P:237:ILE:HG21	16:P:239:PHE:HB2	2.01	0.43
17:Q:305:THR:HG21	17:Q:310:ILE:HG13	2.01	0.43
19:S:10:DG:C6	19:S:11:DG:C5	3.07	0.43
19:S:10:DG:C6	19:S:11:DG:C6	3.06	0.43
19:S:39:DT:H6	19:S:39:DT:C3'	2.32	0.43
19:S:46:DT:H2'	19:S:47:DT:H71	2.00	0.43
1:A:109:ARG:HB3	1:A:233:CYS:HA	2.00	0.42
1:A:729:LYS:HG2	1:A:776:LEU:HD23	2.01	0.42
1:A:980:GLY:HA2	1:A:997:PHE:CD2	2.54	0.42
1:A:1151:ASN:O	1:A:1155:PHE:N	2.44	0.42
1:A:1455:ARG:HG3	1:A:1456:PHE:CD1	2.54	0.42
2:B:184:LYS:HE3	2:B:735:HIS:CE1	2.54	0.42
3:C:58:ASN:HA	3:C:296:ASN:OD1	2.19	0.42
3:C:115:TRP:CZ3	3:C:211:GLY:HA2	2.53	0.42
3:C:260:GLU:HG2	3:C:262:SER:OG	2.19	0.42
3:C:293:ARG:HG3	3:C:293:ARG:NH1	2.33	0.42
7:G:97:LYS:H	7:G:97:LYS:HZ3	1.67	0.42
13:M:208:ILE:HG21	13:M:216:ILE:HD12	2.01	0.42
13:M:260:GLN:O	13:M:263:TYR:HB3	2.19	0.42
13:M:274:ASN:ND2	13:M:286:ARG:HG3	2.34	0.42
14:N:43:ASP:HB3	14:N:51:GLN:NE2	2.34	0.42
15:O:234:THR:HG1	15:O:234:THR:H	1.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:381:ILE:HG22	15:O:382:GLU:O	2.19	0.42
15:O:415:LEU:HD13	15:O:453:VAL:CG1	2.21	0.42
15:O:416:LEU:HD12	15:O:417:THR:H	1.84	0.42
15:O:474:LYS:CE	15:O:498:LEU:HD21	2.48	0.42
15:O:568:ILE:HG23	15:O:570:ASP:CG	2.39	0.42
15:O:703:PHE:CD1	15:O:703:PHE:O	2.72	0.42
15:O:707:ASP:O	15:O:709:PRO:HD3	2.18	0.42
15:O:709:PRO:O	15:O:710:GLY:C	2.57	0.42
16:P:129:PHE:HD1	16:P:129:PHE:C	2.22	0.42
16:P:354:LYS:HD3	16:P:362:THR:HB	2.01	0.42
16:P:469:PRO:CB	16:P:470:PRO:HD2	2.32	0.42
1:A:244:ARG:NH2	13:M:144:LEU:HG	2.34	0.42
1:A:579:ARG:NH1	1:A:582:LYS:HG2	2.34	0.42
1:A:920:PHE:CE2	1:A:930:LEU:HD23	2.52	0.42
1:A:1063:MET:HG3	1:A:1064:THR:HG23	2.01	0.42
1:A:1634:LEU:HD21	1:A:1645:LYS:HG3	2.01	0.42
2:B:37:LEU:H	2:B:37:LEU:HD12	1.83	0.42
2:B:251:HIS:CE1	2:B:261:ARG:HD2	2.54	0.42
2:B:438:ILE:HG23	2:B:445:TYR:CE1	2.54	0.42
2:B:896:GLN:HB3	12:L:45:ALA:HA	2.01	0.42
3:C:86:PHE:HB3	12:L:62:LYS:HG2	2.01	0.42
3:C:117:ASP:OD2	3:C:119:ASN:ND2	2.52	0.42
5:E:8:ASN:O	5:E:12:LEU:CB	2.67	0.42
5:E:121:MET:HA	5:E:124:VAL:HG23	2.00	0.42
6:F:92:ARG:NH2	7:G:109:PRO:HA	2.33	0.42
10:J:21:TYR:HB2	10:J:39:LEU:CD1	2.50	0.42
13:M:346:ILE:HG13	13:M:371:VAL:HG13	2.01	0.42
13:M:384:ILE:HG21	13:M:392:TYR:CE1	2.53	0.42
15:O:306:ALA:O	15:O:317:ILE:CD1	2.67	0.42
15:O:344:ILE:O	15:O:345:ASP:CB	2.68	0.42
15:O:356:GLU:C	15:O:377:ARG:HH21	2.22	0.42
15:O:357:LEU:CD1	15:O:377:ARG:NH2	2.80	0.42
15:O:469:TYR:O	15:O:469:TYR:CD1	2.72	0.42
15:O:741:ILE:HA	15:O:744:LEU:HD21	0.75	0.42
16:P:165:LEU:C	16:P:165:LEU:CD2	2.85	0.42
17:Q:27:ILE:HD11	17:Q:169:PRO:CD	2.49	0.42
17:Q:211:ARG:NH1	17:Q:212:HIS:NE2	2.66	0.42
17:Q:248:LYS:N	17:Q:298:GLN:CD	2.70	0.42
17:Q:372:HIS:CG	17:Q:407:HIS:NE2	2.87	0.42
1:A:29:ALA:HA	2:B:1129:ARG:NH2	2.34	0.42
1:A:361:VAL:HG22	2:B:1184:TYR:CD1	2.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:403:LEU:CD1	1:A:406:LEU:HD21	2.49	0.42
1:A:1612:LYS:HD2	1:A:1621:PHE:CE1	2.54	0.42
2:B:293:ILE:HB	2:B:302:LEU:HD22	2.00	0.42
2:B:565:LEU:HB3	2:B:570:VAL:HG21	2.01	0.42
2:B:840:LEU:HA	2:B:846:PRO:HA	2.02	0.42
2:B:1041:ASN:O	2:B:1044:PHE:HD1	2.02	0.42
3:C:69:ARG:HD3	11:K:71:THR:OG1	2.19	0.42
4:D:27:LEU:O	4:D:29:GLN:NE2	2.49	0.42
7:G:132:VAL:HA	7:G:232:THR:HA	2.00	0.42
7:G:161:ASN:O	7:G:250:ILE:HG23	2.19	0.42
9:I:18:GLU:O	9:I:28:VAL:CG1	2.68	0.42
10:J:41:LEU:HD22	10:J:46:CYS:HB3	2.00	0.42
15:O:318:ILE:HD12	15:O:318:ILE:C	2.39	0.42
15:O:573:GLU:C	16:P:499:LYS:HE3	2.40	0.42
15:O:663:LEU:O	15:O:664:GLU:HB3	2.19	0.42
16:P:344:THR:HB	16:P:437:THR:HA	1.05	0.42
17:Q:147:GLN:N	17:Q:147:GLN:CD	2.73	0.42
17:Q:150:GLN:HE21	17:Q:152:ILE:HG13	1.84	0.42
17:Q:242:ILE:O	17:Q:244:GLY:N	2.41	0.42
17:Q:353:VAL:O	17:Q:353:VAL:HG12	2.19	0.42
18:R:4:C:O2'	18:R:5:G:H8	2.02	0.42
1:A:40:ASN:HB2	13:M:185:ASP:OD2	2.20	0.42
2:B:52:LEU:HD11	2:B:406:GLY:O	2.20	0.42
4:D:89:LEU:HA	4:D:89:LEU:HD12	1.82	0.42
15:O:246:LYS:HB3	15:O:248:PRO:CD	2.49	0.42
15:O:382:GLU:CD	15:O:433:VAL:HA	2.40	0.42
15:O:489:PHE:C	15:O:490:GLN:HG2	2.39	0.42
15:O:568:ILE:C	15:O:570:ASP:H	2.22	0.42
15:O:693:PHE:CZ	16:P:172:LEU:HD21	2.54	0.42
16:P:385:PHE:HZ	17:Q:212:HIS:NE2	2.17	0.42
17:Q:29:ARG:NE	17:Q:29:ARG:CA	2.81	0.42
1:A:385:LEU:O	1:A:389:VAL:HG23	2.19	0.42
1:A:419:ILE:O	1:A:422:ARG:HB2	2.20	0.42
1:A:464:GLU:N	1:A:464:GLU:CD	2.73	0.42
1:A:1267:ILE:HG12	1:A:1296:PHE:CE1	2.52	0.42
1:A:1639:ALA:O	1:A:1642:VAL:HB	2.19	0.42
1:A:1643:VAL:HG12	1:A:1643:VAL:O	2.19	0.42
2:B:282:HIS:CD2	13:M:101:VAL:HG12	2.54	0.42
2:B:479:GLN:CB	19:S:39:DT:C2	3.02	0.42
7:G:37:CYS:O	7:G:126:GLN:HG2	2.19	0.42
8:H:10:PHE:N	8:H:55:LEU:O	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:349:LEU:HD12	13:M:349:LEU:HA	1.77	0.42
15:O:54:UNK:HA	15:O:554:ASN:ND2	2.34	0.42
15:O:308:ASN:O	15:O:310:TRP:HD1	1.98	0.42
15:O:382:GLU:CD	15:O:433:VAL:HG12	2.40	0.42
15:O:619:GLU:CD	15:O:619:GLU:C	2.76	0.42
15:O:653:SER:OG	15:O:752:LEU:HD22	2.19	0.42
15:O:707:ASP:OD2	16:P:439:ILE:HG13	2.19	0.42
16:P:234:CYS:O	16:P:289:ARG:HB3	2.19	0.42
16:P:303:GLU:O	16:P:304:LEU:C	2.58	0.42
16:P:330:TRP:CZ3	16:P:334:LEU:HD12	2.54	0.42
16:P:354:LYS:CG	16:P:362:THR:HB	2.50	0.42
17:Q:17:ARG:HA	17:Q:20:LYS:HB3	2.00	0.42
17:Q:397:ARG:NH1	17:Q:398:ASP:C	2.73	0.42
19:S:43:DC:C2	20:T:12:DG:N2	2.86	0.42
1:A:363:PRO:HB3	2:B:1180:PHE:CD1	2.54	0.42
1:A:414:GLU:O	1:A:417:ARG:CB	2.66	0.42
1:A:469:LYS:HA	2:B:1070:ARG:NH2	2.35	0.42
1:A:884:ARG:HB3	2:B:634:ARG:HD2	2.02	0.42
1:A:1439:MET:HG3	1:A:1444:ARG:CZ	2.49	0.42
2:B:138:LEU:HA	2:B:156:ARG:O	2.19	0.42
2:B:229:TYR:CE2	2:B:253:LEU:HD21	2.55	0.42
2:B:627:GLY:O	2:B:640:LEU:HA	2.20	0.42
12:L:68:GLU:C	12:L:70:ARG:H	2.23	0.42
14:N:54:TRP:CZ3	14:N:72:VAL:HG21	2.54	0.42
15:O:324:TRP:CD1	15:O:348:HIS:HA	2.53	0.42
15:O:350:THR:O	15:O:352:PHE:CD1	2.72	0.42
15:O:368:HIS:C	15:O:370:GLN:H	2.23	0.42
15:O:411:LYS:HB2	15:O:411:LYS:HE3	1.65	0.42
15:O:468:VAL:O	15:O:468:VAL:HG23	2.20	0.42
15:O:488:LEU:HD23	15:O:489:PHE:N	2.34	0.42
15:O:679:LEU:HD22	15:O:683:PHE:HE2	1.85	0.42
16:P:132:VAL:O	16:P:135:ILE:HG13	2.19	0.42
16:P:356:VAL:HB	17:Q:211:ARG:HH21	1.85	0.42
16:P:380:TRP:O	16:P:380:TRP:CD2	2.73	0.42
17:Q:204:GLU:OE1	17:Q:205:VAL:N	2.33	0.42
19:S:18:DA:C2	20:T:38:DA:C2	3.08	0.42
1:A:52:LEU:HD21	1:A:60:ASN:HB2	2.01	0.42
1:A:209:THR:HG21	5:E:173:SER:OG	2.20	0.42
1:A:228:LEU:HA	1:A:228:LEU:HD23	1.76	0.42
1:A:494:GLU:HA	1:A:604:LYS:O	2.20	0.42
1:A:502:ALA:HA	1:A:581:ILE:CG2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:864:LEU:HD12	1:A:875:LEU:HD13	2.01	0.42
2:B:186:GLU:OE1	2:B:731:VAL:HG22	2.20	0.42
2:B:677:THR:OG1	2:B:680:GLU:HG2	2.19	0.42
2:B:691:PHE:HB2	2:B:695:ASN:HD21	1.85	0.42
2:B:1175:THR:O	2:B:1179:PRO:HD3	2.20	0.42
3:C:272:LYS:NZ	14:N:179:ASP:OD2	2.32	0.42
4:D:95:ASP:OD2	7:G:150:HIS:HA	2.19	0.42
8:H:131:ASN:OD1	8:H:132:LEU:N	2.52	0.42
10:J:51:LEU:HD12	10:J:51:LEU:HA	1.90	0.42
13:M:23:VAL:O	13:M:96:LEU:N	2.51	0.42
13:M:160:ASP:O	13:M:163:ASP:HB2	2.19	0.42
15:O:271:ILE:CG2	15:O:272:PHE:N	2.81	0.42
15:O:319:ASP:HA	15:O:324:TRP:CB	2.49	0.42
15:O:342:GLN:HB2	15:O:344:ILE:HG23	2.01	0.42
15:O:570:ASP:O	15:O:571:HIS:C	2.57	0.42
15:O:583:GLU:HG2	15:O:584:ARG:CA	2.41	0.42
15:O:722:TRP:HH2	16:P:262:LEU:HD12	1.79	0.42
16:P:185:ILE:HA	16:P:185:ILE:HD13	1.83	0.42
16:P:208:PRO:HA	16:P:212:VAL:HB	2.01	0.42
16:P:237:ILE:HG22	16:P:239:PHE:N	2.35	0.42
16:P:337:SER:OG	16:P:448:LYS:CE	2.68	0.42
17:Q:144:VAL:O	17:Q:145:SER:OG	2.34	0.42
17:Q:277:ILE:C	17:Q:278:TYR:HD1	2.22	0.42
1:A:61:LEU:HB3	1:A:66:GLY:HA2	2.01	0.42
1:A:95:TYR:CE2	1:A:99:ARG:HD2	2.54	0.42
2:B:328:GLN:HE22	13:M:109:ARG:H	1.68	0.42
2:B:409:TYR:O	2:B:412:ILE:HG22	2.19	0.42
2:B:432:ILE:HA	2:B:436:MET:HA	2.01	0.42
5:E:23:VAL:CG1	5:E:28:TYR:HB2	2.50	0.42
8:H:30:SER:HB3	8:H:36:CYS:HB3	2.01	0.42
13:M:112:LYS:HE2	13:M:112:LYS:HB3	1.88	0.42
15:O:205:TYR:CG	15:O:215:ASN:HB2	2.35	0.42
15:O:274:ILE:HD12	15:O:284:VAL:CG1	2.50	0.42
15:O:475:ARG:HG2	15:O:496:THR:OG1	2.19	0.42
15:O:618:ASP:O	15:O:621:LYS:HB2	2.20	0.42
16:P:155:GLN:HG2	20:T:44:DC:C3'	2.48	0.42
16:P:208:PRO:O	16:P:213:SER:N	2.43	0.42
16:P:385:PHE:O	16:P:388:THR:CG2	2.68	0.42
17:Q:212:HIS:HA	17:Q:215:THR:OG1	2.20	0.42
19:S:28:DT:C1'	19:S:29:DT:C5	2.96	0.42
20:T:29:DC:H2''	20:T:30:DT:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:122:LEU:O	1:A:126:GLN:HG3	2.19	0.42
1:A:591:ARG:HH21	1:A:631:ASP:HB3	1.83	0.42
1:A:594:THR:HB	2:B:1074:MET:CB	2.48	0.42
1:A:903:ILE:O	1:A:907:VAL:HG23	2.20	0.42
2:B:260:PHE:O	2:B:270:LEU:HD12	2.19	0.42
2:B:442:ASP:OD2	2:B:444:ARG:NE	2.52	0.42
2:B:556:SER:O	2:B:558:VAL:N	2.53	0.42
3:C:228:ARG:HG2	3:C:299:ILE:HB	2.01	0.42
6:F:133:VAL:HB	7:G:104:LEU:HD11	2.02	0.42
9:I:17:LEU:CD2	9:I:37:TYR:CE2	2.82	0.42
10:J:39:LEU:HD23	10:J:39:LEU:HA	1.73	0.42
13:M:74:ASN:OD1	13:M:75:GLN:N	2.53	0.42
14:N:94:ASP:HB3	14:N:95:ILE:H	1.60	0.42
15:O:233:VAL:HG12	15:O:234:THR:O	2.20	0.42
15:O:474:LYS:HE3	15:O:498:LEU:HD21	2.02	0.42
16:P:155:GLN:CG	20:T:44:DC:C4'	2.80	0.42
16:P:171:HIS:CD2	16:P:243:PHE:HB3	2.54	0.42
16:P:279:THR:O	16:P:279:THR:OG1	2.27	0.42
16:P:417:PHE:HD1	16:P:417:PHE:HA	1.67	0.42
17:Q:247:ILE:O	17:Q:248:LYS:C	2.56	0.42
17:Q:361:ASP:O	17:Q:362:ALA:HB3	2.20	0.42
17:Q:388:LYS:HE3	17:Q:393:ILE:CB	2.48	0.42
17:Q:394:GLY:O	17:Q:395:LEU:C	2.58	0.42
19:S:39:DT:C6	19:S:39:DT:H3'	2.55	0.42
1:A:538:ASN:HB2	1:A:540:ASP:OD1	2.20	0.42
1:A:1641:ILE:HD13	2:B:1076:ARG:HD2	2.02	0.42
2:B:442:ASP:O	2:B:445:TYR:HB3	2.19	0.42
2:B:734:CYS:HB2	2:B:884:GLU:OE2	2.20	0.42
4:D:39:PHE:CE2	7:G:83:GLY:HA3	2.55	0.42
7:G:29:ASP:C	7:G:31:LYS:H	2.23	0.42
7:G:149:ILE:HB	7:G:153:PHE:HB2	2.02	0.42
9:I:28:VAL:CA	9:I:37:TYR:HB2	2.44	0.42
9:I:60:LEU:O	9:I:63:LYS:HB2	2.20	0.42
12:L:53:HIS:CD2	12:L:55:ILE:HB	2.55	0.42
15:O:705:HIS:CD2	15:O:709:PRO:HD3	2.55	0.42
16:P:104:PHE:N	16:P:211:TYR:CE1	2.88	0.42
16:P:198:ILE:HG22	16:P:203:TRP:CD1	2.54	0.42
16:P:291:ASP:OD1	16:P:291:ASP:N	2.52	0.42
16:P:505:ILE:CG2	16:P:506:LYS:N	2.82	0.42
17:Q:133:LYS:HE3	17:Q:134:PRO:HD2	2.02	0.42
17:Q:354:LEU:C	17:Q:354:LEU:HD23	2.39	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:10:DC:H2'	20:T:11:DT:H71	2.02	0.42
20:T:38:DA:C2	20:T:39:DC:C2	3.08	0.42
1:A:422:ARG:O	1:A:426:ALA:HB2	2.19	0.41
1:A:512:THR:N	1:A:515:ASN:OD1	2.33	0.41
1:A:703:GLU:HB3	11:K:53:ALA:HB2	2.02	0.41
1:A:720:PHE:HE2	8:H:141:TYR:CE2	2.38	0.41
1:A:899:LYS:O	1:A:903:ILE:HG12	2.20	0.41
2:B:699:ILE:H	2:B:699:ILE:HG13	1.66	0.41
2:B:938:PHE:HA	2:B:943:ILE:O	2.20	0.41
3:C:243:SER:HA	3:C:246:ARG:HB3	2.01	0.41
5:E:10:SER:HA	5:E:39:LEU:CD1	2.45	0.41
5:E:90:VAL:O	5:E:123:LEU:HD11	2.20	0.41
7:G:40:ARG:NH1	7:G:121:ASN:OD1	2.49	0.41
8:H:80:ARG:NE	8:H:83:GLN:OE1	2.53	0.41
11:K:100:LEU:HD23	11:K:100:LEU:HA	1.88	0.41
13:M:221:ILE:CG2	13:M:259:LEU:HD21	2.50	0.41
14:N:109:LEU:HB3	14:N:122:ALA:HB2	2.02	0.41
14:N:109:LEU:HD23	14:N:122:ALA:HB2	2.01	0.41
15:O:14:UNK:C	15:O:439:LYS:O	2.56	0.41
15:O:24:UNK:O	17:Q:366:PHE:CZ	2.73	0.41
15:O:215:ASN:CA	15:O:236:ILE:HG13	2.47	0.41
15:O:276:SER:CB	15:O:284:VAL:HG22	2.50	0.41
15:O:353:ASP:N	15:O:354:PRO:HD3	2.28	0.41
15:O:365:TRP:HE1	15:O:407:ARG:NE	2.14	0.41
15:O:393:VAL:HG23	15:O:394:VAL:HG13	2.00	0.41
15:O:473:HIS:N	15:O:504:THR:HG21	2.35	0.41
15:O:597:LYS:HE3	16:P:325:GLN:OE1	2.20	0.41
15:O:610:LEU:HG	15:O:614:GLU:CD	2.41	0.41
15:O:701:HIS:CE1	16:P:123:MET:HA	2.54	0.41
15:O:722:TRP:CH2	16:P:262:LEU:CD2	2.75	0.41
17:Q:21:TYR:CD2	17:Q:124:GLU:HG3	2.47	0.41
17:Q:246:GLN:N	17:Q:246:GLN:CD	2.73	0.41
17:Q:352:TRP:HB3	17:Q:358:PHE:CD2	2.41	0.41
17:Q:365:TRP:HB3	17:Q:418:CYS:HB2	2.02	0.41
1:A:88:PRO:HG3	1:A:435:ASN:OD1	2.20	0.41
1:A:413:LEU:C	1:A:415:ASP:H	2.23	0.41
1:A:520:ARG:O	1:A:524:ILE:HG13	2.19	0.41
1:A:1440:ASN:O	1:A:1444:ARG:N	2.46	0.41
2:B:29:PRO:O	2:B:177:PRO:HB2	2.20	0.41
2:B:204:ARG:HD2	2:B:504:HIS:HB2	2.02	0.41
2:B:714:ARG:HA	2:B:714:ARG:HD3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:848:ILE:HD11	2:B:883:GLU:O	2.20	0.41
7:G:38:ILE:HG23	7:G:82:LEU:HD12	2.01	0.41
10:J:48:ARG:HG3	10:J:49:MET:N	2.35	0.41
13:M:12:ILE:HG13	14:N:69:SER:HA	2.01	0.41
15:O:181:ARG:O	15:O:182:LEU:CG	2.56	0.41
15:O:319:ASP:HA	15:O:324:TRP:CA	2.49	0.41
15:O:454:GLN:H	15:O:465:VAL:CG2	2.32	0.41
15:O:692:THR:HB	15:O:747:LEU:HD23	1.71	0.41
16:P:235:GLY:N	16:P:289:ARG:HA	2.35	0.41
16:P:334:LEU:HD21	16:P:449:GLN:CD	2.40	0.41
17:Q:29:ARG:H	17:Q:29:ARG:NE	2.18	0.41
17:Q:354:LEU:HD11	17:Q:359:MET:O	2.19	0.41
17:Q:381:ARG:C	17:Q:383:PHE:N	2.72	0.41
17:Q:384:VAL:C	17:Q:388:LYS:O	2.58	0.41
1:A:134:TYR:CD2	5:E:192:ARG:HD3	2.56	0.41
1:A:239:PHE:CG	1:A:260:GLN:HB3	2.54	0.41
1:A:403:LEU:HD12	1:A:406:LEU:HD21	2.03	0.41
2:B:90:TYR:O	2:B:91:LEU:C	2.59	0.41
2:B:677:THR:O	2:B:680:GLU:HG3	2.19	0.41
7:G:131:ASP:O	7:G:233:VAL:HG23	2.20	0.41
11:K:43:ASP:OD2	11:K:46:LYS:N	2.46	0.41
11:K:46:LYS:HA	11:K:66:VAL:HG22	2.02	0.41
11:K:47:ILE:HA	11:K:64:GLN:O	2.20	0.41
13:M:17:ASP:HA	13:M:92:LYS:HD3	2.02	0.41
13:M:173:PRO:HB2	13:M:174:THR:H	1.67	0.41
13:M:186:ARG:HH21	13:M:359:LYS:NZ	2.18	0.41
13:M:211:LYS:O	13:M:215:PHE:HD2	2.02	0.41
13:M:279:ASN:HD21	13:M:282:LYS:HD3	1.85	0.41
15:O:472:ARG:NH2	17:Q:198:LEU:O	2.53	0.41
16:P:159:THR:CG2	16:P:226:LEU:HG	2.50	0.41
16:P:256:LEU:HA	16:P:259:GLN:HB2	2.02	0.41
16:P:469:PRO:CG	16:P:470:PRO:HD2	2.50	0.41
17:Q:216:LEU:H	17:Q:216:LEU:HD12	1.86	0.41
17:Q:353:VAL:HG23	17:Q:358:PHE:CZ	2.55	0.41
17:Q:355:THR:O	17:Q:359:MET:CB	2.65	0.41
19:S:6:DG:H22	20:T:50:DA:C1'	2.31	0.41
1:A:109:ARG:O	1:A:230:ARG:HG3	2.21	0.41
1:A:497:VAL:CG2	1:A:605:VAL:HG13	2.50	0.41
1:A:589:MET:HG3	1:A:603:HIS:HD2	1.86	0.41
2:B:307:GLU:O	2:B:311:ARG:HB2	2.21	0.41
2:B:495:ARG:HH11	2:B:723:LYS:CE	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:951:PRO:O	2:B:954:PHE:HD1	2.03	0.41
13:M:81:PHE:CE2	13:M:83:PRO:HA	2.56	0.41
13:M:243:VAL:O	13:M:247:LEU:HB2	2.20	0.41
14:N:35:LEU:HD12	14:N:114:GLU:O	2.21	0.41
14:N:94:ASP:C	14:N:96:GLU:N	2.47	0.41
15:O:214:LEU:H	15:O:236:ILE:CG2	2.31	0.41
15:O:216:ILE:O	15:O:234:THR:N	2.53	0.41
15:O:264:ILE:HD13	15:O:302:VAL:CG1	2.49	0.41
15:O:317:ILE:N	15:O:317:ILE:HD12	2.35	0.41
15:O:420:GLU:H	15:O:442:LEU:HD11	1.85	0.41
15:O:466:ALA:O	15:O:467:PHE:HD1	2.03	0.41
15:O:500:ILE:CG2	15:O:501:PRO:HD2	2.40	0.41
15:O:535:VAL:CG1	15:O:552:LEU:HB2	2.51	0.41
15:O:657:SER:HG	15:O:746:ARG:HH11	1.65	0.41
16:P:137:TRP:NE1	16:P:141:LEU:CD2	2.82	0.41
16:P:213:SER:C	16:P:215:LEU:H	2.23	0.41
17:Q:261:LEU:CD2	17:Q:264:SER:H	2.32	0.41
17:Q:354:LEU:HD12	17:Q:359:MET:N	2.23	0.41
19:S:52:DA:H2'	19:S:53:DC:C6	2.55	0.41
20:T:28:DC:C4	20:T:29:DC:C4	3.08	0.41
1:A:535:GLN:OE1	1:A:543:LEU:HD21	2.21	0.41
1:A:720:PHE:HE1	8:H:79:TRP:HE1	1.68	0.41
1:A:865:ASP:O	1:A:868:THR:OG1	2.20	0.41
1:A:1256:LYS:NZ	1:A:1304:GLU:O	2.49	0.41
1:A:1636:SER:HB3	1:A:1639:ALA:CB	2.51	0.41
2:B:380:LYS:HE3	2:B:637:TYR:HB3	2.03	0.41
2:B:1012:PRO:HB3	2:B:1021:GLU:OE2	2.21	0.41
3:C:257:GLY:HA3	3:C:266:TYR:CE1	2.55	0.41
7:G:26:ASN:OD1	7:G:126:GLN:HG3	2.21	0.41
13:M:12:ILE:H	14:N:69:SER:HA	1.84	0.41
15:O:512:LEU:O	15:O:513:THR:C	2.59	0.41
15:O:611:ILE:CG1	15:O:731:LEU:HD23	2.51	0.41
15:O:614:GLU:OE2	15:O:668:SER:C	2.55	0.41
16:P:155:GLN:CB	20:T:44:DC:C4'	2.99	0.41
16:P:335:THR:HG22	16:P:479:LEU:HG	2.02	0.41
17:Q:181:THR:HA	19:S:10:DG:OP2	2.20	0.41
17:Q:353:VAL:CG2	17:Q:358:PHE:CE1	3.03	0.41
1:A:101:SER:OG	1:A:327:VAL:HG11	2.20	0.41
1:A:344:ASN:HD21	1:A:348:LYS:H	1.66	0.41
1:A:420:PHE:HZ	13:M:158:ALA:CB	2.32	0.41
1:A:834:ARG:HH11	2:B:1008:HIS:CE1	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1267:ILE:HA	1:A:1296:PHE:HD1	1.85	0.41
2:B:138:LEU:HD23	2:B:155:VAL:CG1	2.50	0.41
2:B:244:THR:HA	2:B:411:MET:CE	2.50	0.41
2:B:1014:TYR:HD1	2:B:1021:GLU:HA	1.86	0.41
2:B:1105:ARG:HD3	2:B:1167:PHE:HB2	2.02	0.41
3:C:37:LYS:O	11:K:134:LYS:HE3	2.21	0.41
4:D:14:THR:H	4:D:17:ASN:HD21	1.68	0.41
4:D:29:GLN:N	7:G:40:ARG:O	2.34	0.41
5:E:46:TYR:CD1	5:E:58:MET:HG3	2.55	0.41
5:E:110:PHE:N	5:E:133:GLU:O	2.45	0.41
7:G:138:PHE:CD2	7:G:139:ILE:HG23	2.56	0.41
11:K:77:ARG:O	11:K:81:MET:HG2	2.20	0.41
13:M:75:GLN:NE2	14:N:64:ILE:HG12	2.36	0.41
13:M:149:ILE:O	13:M:151:SER:N	2.54	0.41
13:M:184:ASN:OD1	13:M:184:ASN:N	2.54	0.41
13:M:303:THR:HG22	13:M:320:ILE:HG12	2.02	0.41
15:O:363:ILE:HG22	15:O:374:VAL:HG22	2.03	0.41
15:O:421:ILE:HG22	15:O:422:ILE:H	1.85	0.41
16:P:148:PRO:HB2	16:P:149:GLN:H	1.62	0.41
16:P:227:TYR:HB3	16:P:301:HIS:CD2	2.55	0.41
16:P:358:PRO:HB2	16:P:359:ASP:H	1.54	0.41
16:P:360:LYS:HG3	16:P:363:SER:CB	2.48	0.41
16:P:417:PHE:O	16:P:419:LEU:HB2	2.20	0.41
17:Q:274:MET:C	17:Q:277:ILE:CG2	2.89	0.41
17:Q:346:ILE:O	17:Q:349:ILE:CG1	2.67	0.41
1:A:197:LEU:HA	1:A:197:LEU:HD23	1.79	0.41
1:A:1233:ILE:HG22	1:A:1235:THR:N	2.35	0.41
1:A:1588:MET:SD	1:A:1591:ARG:HD3	2.61	0.41
2:B:76:GLY:C	2:B:91:LEU:CD2	2.74	0.41
3:C:86:PHE:O	12:L:62:LYS:HA	2.20	0.41
7:G:79:GLY:HA3	7:G:125:TRP:O	2.20	0.41
9:I:19:ASN:O	9:I:21:ASN:N	2.53	0.41
13:M:399:VAL:CB	13:M:400:PRO:CD	2.82	0.41
15:O:299:ASP:OD1	15:O:299:ASP:C	2.59	0.41
15:O:357:LEU:HB2	15:O:377:ARG:NE	2.29	0.41
15:O:375:PHE:HB3	15:O:380:MET:CB	2.50	0.41
15:O:436:ILE:CB	17:Q:141:TRP:CH2	2.97	0.41
15:O:437:SER:HB2	15:O:489:PHE:HD2	1.81	0.41
15:O:483:HIS:ND1	15:O:489:PHE:HE1	2.19	0.41
15:O:506:THR:HG22	15:O:540:LYS:HG2	2.02	0.41
15:O:580:ASN:HB2	16:P:506:LYS:HZ3	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:641:TRP:CB	15:O:654:LEU:HD23	2.49	0.41
15:O:663:LEU:CD2	15:O:742:TRP:CH2	2.87	0.41
15:O:713:ILE:O	15:O:714:PHE:C	2.58	0.41
16:P:256:LEU:HA	16:P:256:LEU:HD12	1.95	0.41
16:P:332:LEU:HD12	16:P:333:SER:CA	2.51	0.41
16:P:370:SER:OG	16:P:373:GLU:CG	2.68	0.41
16:P:498:LEU:O	16:P:501:CYS:HB2	2.20	0.41
17:Q:27:ILE:HD12	17:Q:27:ILE:HA	1.65	0.41
17:Q:261:LEU:CD2	17:Q:264:SER:N	2.84	0.41
1:A:7:VAL:O	7:G:115:PHE:HE2	2.04	0.41
1:A:61:LEU:HG	13:M:319:PHE:HZ	1.84	0.41
1:A:725:LEU:HD23	1:A:725:LEU:HA	1.79	0.41
1:A:876:LEU:HD23	1:A:876:LEU:HA	1.90	0.41
1:A:1288:ARG:O	1:A:1475:GLU:HA	2.21	0.41
1:A:1460:TYR:CZ	1:A:1462:PHE:HB2	2.56	0.41
1:A:1530:TRP:CD1	5:E:142:VAL:HG21	2.55	0.41
2:B:167:SER:O	2:B:173:ASN:HB3	2.21	0.41
2:B:375:LEU:HD23	2:B:378:ILE:HD12	2.03	0.41
2:B:612:LYS:HE3	2:B:662:ASP:OD1	2.21	0.41
2:B:890:ASP:C	2:B:892:SER:H	2.24	0.41
2:B:1175:THR:O	2:B:1179:PRO:CD	2.69	0.41
3:C:150:SER:O	3:C:150:SER:OG	2.32	0.41
5:E:94:LYS:O	5:E:98:ILE:HG22	2.20	0.41
10:J:30:LEU:HG	10:J:31:ASP:H	1.85	0.41
10:J:36:LEU:HB2	10:J:47:ARG:NH1	2.35	0.41
13:M:59:ARG:CB	13:M:60:LEU:HD12	2.49	0.41
13:M:122:SER:HA	13:M:125:ARG:HD2	2.03	0.41
15:O:230:HIS:CB	15:O:280:ARG:HH22	2.30	0.41
15:O:364:GLU:OE2	15:O:365:TRP:CH2	2.74	0.41
15:O:442:LEU:H	15:O:442:LEU:HG	1.44	0.41
15:O:446:ASP:CG	15:O:448:THR:HG22	2.40	0.41
15:O:503:GLY:O	15:O:504:THR:OG1	2.37	0.41
15:O:541:LEU:N	15:O:541:LEU:CD1	2.82	0.41
15:O:585:GLU:O	15:O:587:GLU:N	2.53	0.41
15:O:650:LEU:CD2	16:P:242:PHE:HD2	2.32	0.41
15:O:725:VAL:HG22	15:O:726:SER:H	1.85	0.41
16:P:220:SER:CB	16:P:356:VAL:HG21	2.50	0.41
16:P:365:ASP:O	16:P:366:TYR:C	2.58	0.41
17:Q:280:SER:HG	17:Q:301:SER:N	2.16	0.41
1:A:110:LEU:HD12	1:A:230:ARG:NH2	2.35	0.41
1:A:233:CYS:CB	1:A:236:CYS:SG	2.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:414:GLU:OE2	1:A:414:GLU:HA	2.21	0.41
1:A:418:VAL:O	1:A:421:SER:OG	2.16	0.41
1:A:432:ASN:O	1:A:435:ASN:HB2	2.21	0.41
1:A:475:ARG:NH2	2:B:1061:LYS:HG3	2.36	0.41
1:A:657:TYR:CD2	1:A:798:HIS:CD2	3.09	0.41
1:A:721:LYS:HD3	8:H:96:VAL:HG21	2.00	0.41
1:A:1478:ALA:CA	9:I:21:ASN:ND2	2.82	0.41
2:B:77:LYS:CE	2:B:93:ASN:HB2	2.48	0.41
2:B:244:THR:HG22	2:B:411:MET:HG2	2.03	0.41
2:B:566:TYR:CD2	13:M:73:SER:HB2	2.56	0.41
2:B:725:THR:HG21	2:B:1034:GLN:HB2	2.03	0.41
2:B:738:ASP:O	2:B:806:THR:OG1	2.26	0.41
2:B:1057:MET:HG3	2:B:1173:THR:HG21	2.02	0.41
2:B:1069:ILE:HD12	2:B:1069:ILE:O	2.20	0.41
2:B:1097:ASP:OD2	2:B:1172:GLU:HB2	2.21	0.41
3:C:119:ASN:OD1	3:C:120:LEU:HB3	2.21	0.41
3:C:172:GLN:O	3:C:175:GLN:HG2	2.20	0.41
5:E:27:GLY:O	5:E:65:THR:HG23	2.21	0.41
5:E:119:SER:O	5:E:122:LYS:HB2	2.21	0.41
6:F:130:ILE:HG22	6:F:132:LEU:H	1.85	0.41
7:G:57:PRO:O	7:G:61:VAL:HG23	2.21	0.41
9:I:17:LEU:CD2	9:I:37:TYR:HE2	2.18	0.41
13:M:27:PHE:CZ	13:M:30:PHE:HA	2.56	0.41
13:M:90:LEU:HD23	13:M:90:LEU:HA	1.81	0.41
13:M:134:THR:HG23	13:M:135:LYS:N	2.36	0.41
15:O:186:TYR:C	15:O:187:ILE:HG13	2.40	0.41
15:O:188:GLN:CD	15:O:196:TYR:HB2	2.41	0.41
15:O:214:LEU:HD11	15:O:263:ILE:HG21	2.02	0.41
15:O:318:ILE:HD13	15:O:320:ILE:HD12	2.03	0.41
15:O:323:ASN:O	15:O:324:TRP:CD1	2.74	0.41
15:O:478:MET:HE1	15:O:497:VAL:CG1	2.50	0.41
15:O:500:ILE:CG2	15:O:501:PRO:CD	2.99	0.41
15:O:578:PHE:HB3	16:P:315:ASN:ND2	2.36	0.41
15:O:581:ALA:C	15:O:585:GLU:HB3	2.41	0.41
15:O:588:SER:CB	16:P:512:ARG:NH1	2.68	0.41
15:O:597:LYS:CE	16:P:325:GLN:OE1	2.69	0.41
15:O:599:LYS:CD	16:P:272:GLN:HE21	2.22	0.41
15:O:610:LEU:HD11	15:O:614:GLU:CD	2.40	0.41
15:O:711:LEU:HD23	15:O:711:LEU:C	2.42	0.41
16:P:118:TRP:CZ2	16:P:189:LYS:HB3	2.42	0.41
16:P:119:LEU:HD21	16:P:190:MET:HE2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:206:GLN:O	16:P:207:LEU:HB3	2.20	0.41
16:P:257:VAL:CA	16:P:262:LEU:CD1	2.98	0.41
16:P:274:ILE:O	16:P:275:GLU:C	2.58	0.41
16:P:479:LEU:C	16:P:479:LEU:CD2	2.82	0.41
16:P:486:GLN:HE21	16:P:486:GLN:HB3	1.66	0.41
16:P:497:GLN:O	16:P:500:ASP:N	2.54	0.41
17:Q:248:LYS:O	17:Q:251:TRP:CD1	2.74	0.41
17:Q:277:ILE:HD12	17:Q:278:TYR:HD1	1.81	0.41
17:Q:376:ALA:HB2	17:Q:407:HIS:CE1	2.56	0.41
20:T:11:DT:H2''	20:T:12:DG:C8	2.56	0.41
20:T:27:DA:C6	20:T:28:DC:N4	2.88	0.41
2:B:211:ARG:NH2	2:B:646:HIS:HB2	2.35	0.41
2:B:439:ASN:ND2	2:B:441:LYS:HB3	2.36	0.41
2:B:657:PRO:HG3	14:N:148:ILE:CG1	2.51	0.41
2:B:946:ASP:OD1	10:J:9:SER:OG	2.27	0.41
2:B:1084:THR:O	2:B:1084:THR:HG23	2.21	0.41
2:B:1137:ASP:HB3	2:B:1138:ALA:H	1.69	0.41
3:C:79:ALA:HB3	3:C:219:PHE:CE1	2.56	0.41
6:F:116:ASP:O	6:F:120:ILE:HG13	2.21	0.41
7:G:12:GLU:OE1	7:G:15:ARG:NH2	2.53	0.41
7:G:111:THR:HB	7:G:112:PRO:HD2	2.03	0.41
11:K:137:GLU:O	11:K:140:LYS:HB2	2.21	0.41
13:M:30:PHE:CZ	13:M:32:ALA:HB2	2.55	0.41
14:N:36:LYS:O	14:N:112:PRO:HG2	2.21	0.41
15:O:183:ASP:OD2	15:O:247:ILE:N	2.54	0.41
15:O:241:PRO:O	15:O:265:THR:HB	2.20	0.41
15:O:342:GLN:N	15:O:342:GLN:OE1	2.55	0.41
15:O:383:ILE:O	15:O:385:PHE:N	2.54	0.41
15:O:434:ARG:O	17:Q:143:THR:O	2.39	0.41
15:O:446:ASP:OD1	15:O:446:ASP:C	2.54	0.41
15:O:630:LEU:HB2	15:O:662:LEU:HG	1.56	0.41
15:O:711:LEU:HD23	15:O:711:LEU:O	2.21	0.41
16:P:135:ILE:C	16:P:135:ILE:HD12	2.41	0.41
16:P:148:PRO:O	16:P:151:GLU:HB3	2.21	0.41
16:P:269:TYR:CD1	16:P:317:MET:HE3	2.55	0.41
16:P:497:GLN:HA	16:P:500:ASP:CB	2.51	0.41
17:Q:133:LYS:HA	17:Q:134:PRO:HD3	1.49	0.41
17:Q:181:THR:CA	19:S:10:DG:OP1	2.69	0.41
17:Q:277:ILE:C	17:Q:278:TYR:CD1	2.94	0.41
17:Q:361:ASP:O	17:Q:364:VAL:HG22	2.18	0.41
17:Q:377:ASP:O	17:Q:378:THR:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:24:DG:C4	19:S:25:DT:C4	3.09	0.41
20:T:10:DC:H2"	20:T:11:DT:H71	2.03	0.41
1:A:93:GLN:HG3	1:A:1627:LEU:HD11	2.02	0.40
1:A:469:LYS:HE3	1:A:470:HIS:NE2	2.36	0.40
1:A:693:GLN:HB3	11:K:88:PHE:CE1	2.56	0.40
1:A:1097:TYR:O	1:A:1101:THR:OG1	2.17	0.40
1:A:1243:TRP:CZ3	1:A:1537:ASP:HB2	2.56	0.40
2:B:73:ILE:HB	2:B:425:ILE:CD1	2.51	0.40
2:B:476:LEU:HD23	2:B:476:LEU:HA	1.83	0.40
2:B:790:ASN:HD21	2:B:933:THR:HG23	1.86	0.40
2:B:845:LEU:HD23	2:B:845:LEU:HA	1.83	0.40
5:E:198:ILE:HD11	5:E:212:ARG:HB2	2.02	0.40
7:G:162:ILE:HA	7:G:163:PRO:HD3	1.99	0.40
7:G:237:HIS:ND1	7:G:237:HIS:N	2.66	0.40
13:M:159:ILE:O	13:M:162:VAL:HB	2.21	0.40
15:O:324:TRP:CD1	15:O:348:HIS:CD2	3.01	0.40
15:O:352:PHE:O	15:O:353:ASP:C	2.58	0.40
15:O:354:PRO:O	15:O:355:GLU:O	2.39	0.40
15:O:383:ILE:CB	15:O:390:GLN:HG3	2.51	0.40
15:O:654:LEU:CD1	15:O:748:GLU:CG	2.68	0.40
16:P:122:GLU:HG3	16:P:189:LYS:HD3	2.03	0.40
16:P:321:ASP:OD1	16:P:321:ASP:N	2.52	0.40
16:P:386:LEU:N	16:P:388:THR:HG22	2.35	0.40
17:Q:295:PRO:HA	17:Q:296:PRO:HD2	1.97	0.40
17:Q:383:PHE:CZ	17:Q:398:ASP:CG	2.71	0.40
1:A:64:THR:HB	1:A:75:HIS:CD2	2.57	0.40
1:A:1559:ARG:HH22	1:A:1583:ASP:CG	2.23	0.40
2:B:222:PHE:O	2:B:229:TYR:HB3	2.20	0.40
2:B:372:ARG:HH21	2:B:574:SER:HB3	1.85	0.40
2:B:490:LYS:HG2	2:B:490:LYS:O	2.21	0.40
2:B:814:ASN:CG	2:B:816:ASN:HB2	2.42	0.40
9:I:29:GLU:HA	9:I:35:ALA:O	2.22	0.40
11:K:127:LEU:HD12	11:K:127:LEU:HA	1.84	0.40
13:M:22:ALA:HA	13:M:94:PRO:HD2	2.02	0.40
13:M:114:LYS:C	13:M:114:LYS:CE	2.86	0.40
15:O:353:ASP:OD1	17:Q:32:ASP:OD1	2.39	0.40
15:O:380:MET:HE2	15:O:393:VAL:HG23	2.03	0.40
15:O:426:ALA:O	15:O:427:SER:C	2.57	0.40
15:O:438:TRP:CZ2	15:O:490:GLN:O	2.74	0.40
16:P:104:PHE:CE1	16:P:211:TYR:CA	3.04	0.40
16:P:282:ARG:CG	16:P:282:ARG:NH1	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:29:DC:C4	20:T:30:DT:C4	3.09	0.40
1:A:15:ASP:OD1	1:A:1631:ARG:NE	2.24	0.40
1:A:393:SER:HB3	1:A:397:ARG:NH1	2.37	0.40
1:A:969:PHE:CE2	1:A:978:ALA:HA	2.55	0.40
1:A:1137:SER:HB2	5:E:205:SER:O	2.22	0.40
2:B:253:LEU:HD23	2:B:253:LEU:HA	1.76	0.40
2:B:328:GLN:NE2	13:M:109:ARG:H	2.19	0.40
2:B:568:LEU:HD23	2:B:568:LEU:HA	1.91	0.40
2:B:655:TYR:CD1	2:B:657:PRO:HD2	2.56	0.40
2:B:862:PHE:CZ	2:B:867:ASN:HA	2.56	0.40
5:E:152:LYS:HG3	5:E:154:ILE:HG13	2.02	0.40
7:G:12:GLU:O	7:G:15:ARG:HB3	2.22	0.40
13:M:81:PHE:CE1	13:M:86:LYS:HA	2.57	0.40
15:O:388:ASN:CB	17:Q:150:GLN:NE2	2.58	0.40
15:O:402:ILE:HG23	15:O:416:LEU:HD11	2.03	0.40
15:O:573:GLU:HB3	16:P:495:LYS:HZ3	1.85	0.40
15:O:590:GLY:HA2	16:P:320:PHE:CD2	2.53	0.40
16:P:104:PHE:HA	16:P:212:VAL:CG2	2.51	0.40
16:P:184:TRP:CE3	16:P:185:ILE:HG12	2.56	0.40
16:P:187:THR:OG1	16:P:189:LYS:HG2	2.13	0.40
16:P:366:TYR:HE2	17:Q:218:ASP:HB2	1.72	0.40
17:Q:142:ARG:CG	17:Q:142:ARG:O	2.70	0.40
17:Q:356:PRO:N	17:Q:359:MET:CG	2.70	0.40
17:Q:386:ASP:O	17:Q:390:ASN:CA	2.67	0.40
19:S:51:DG:N2	20:T:5:DT:C2	2.90	0.40
1:A:410:LYS:O	1:A:413:LEU:CG	2.62	0.40
1:A:991:LYS:HB3	1:A:991:LYS:HE3	1.93	0.40
1:A:1019:LEU:HD12	1:A:1019:LEU:HA	1.73	0.40
1:A:1133:LEU:HD11	1:A:1171:GLN:C	2.42	0.40
1:A:1636:SER:HB3	1:A:1639:ALA:HB3	2.02	0.40
2:B:402:VAL:H	2:B:647:SER:HB3	1.86	0.40
2:B:752:VAL:HB	2:B:920:ARG:HH22	1.87	0.40
2:B:1126:VAL:HB	2:B:1166:LYS:CE	2.52	0.40
2:B:1181:VAL:HG23	2:B:1182:LEU:N	2.36	0.40
3:C:121:PRO:HD2	3:C:124:GLU:OE1	2.22	0.40
3:C:146:ALA:O	3:C:147:PRO:C	2.60	0.40
3:C:325:ALA:HB3	11:K:125:MET:HG3	2.03	0.40
7:G:142:ALA:O	7:G:217:TRP:HZ2	2.05	0.40
8:H:6:PHE:CZ	8:H:8:ASP:HB2	2.56	0.40
13:M:54:HIS:HE1	14:N:23:PHE:CD2	2.38	0.40
13:M:275:ARG:HD2	13:M:325:GLU:HG2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:49:LYS:HA	14:N:49:LYS:HD2	1.88	0.40
15:O:183:ASP:HA	15:O:509:GLU:OE1	2.22	0.40
15:O:191:SER:O	15:O:192:ASP:HB2	2.21	0.40
15:O:251:SER:OG	15:O:253:SER:HB3	2.21	0.40
15:O:302:VAL:C	15:O:320:ILE:HG13	2.41	0.40
15:O:314:GLN:NE2	15:O:328:ARG:CG	2.74	0.40
15:O:382:GLU:O	15:O:390:GLN:HA	2.21	0.40
15:O:433:VAL:CG2	15:O:434:ARG:H	2.31	0.40
15:O:436:ILE:CG1	15:O:436:ILE:O	2.70	0.40
15:O:713:ILE:HG21	15:O:717:LYS:HE2	2.03	0.40
16:P:100:ALA:HB3	16:P:210:TYR:CE2	2.56	0.40
16:P:184:TRP:CH2	16:P:192:TYR:HD2	2.23	0.40
16:P:246:GLU:HB2	16:P:286:LEU:H	1.87	0.40
17:Q:133:LYS:HB3	17:Q:133:LYS:HE3	1.77	0.40
1:A:495:ILE:HD12	1:A:495:ILE:HA	1.90	0.40
1:A:741:PRO:HB2	1:A:743:ASP:OD1	2.21	0.40
1:A:1014:SER:CB	20:T:15:DT:H5"	2.47	0.40
1:A:1155:PHE:CZ	1:A:1163:GLU:HG2	2.57	0.40
1:A:1451:ILE:HD11	1:A:1458:THR:O	2.21	0.40
2:B:129:ARG:HG2	2:B:131:THR:CG2	2.51	0.40
2:B:505:ARG:CZ	2:B:509:PHE:CE2	3.05	0.40
2:B:733:LEU:HD12	2:B:743:ARG:NE	2.36	0.40
2:B:970:LYS:NZ	2:B:1009:GLY:O	2.54	0.40
3:C:288:LYS:HE2	3:C:288:LYS:HB3	1.95	0.40
7:G:155:ALA:HA	7:G:245:VAL:CG1	2.51	0.40
8:H:3:ASN:N	8:H:61:SER:OG	2.54	0.40
8:H:19:ARG:HG3	8:H:19:ARG:O	2.22	0.40
8:H:112:ILE:HG21	8:H:131:ASN:HD22	1.84	0.40
13:M:10:ILE:HD12	14:N:72:VAL:CG2	2.50	0.40
14:N:98:SER:HB3	14:N:100:THR:OG1	2.21	0.40
15:O:214:LEU:CB	15:O:236:ILE:CG1	3.00	0.40
15:O:346:ASN:C	15:O:347:LEU:HG	2.20	0.40
15:O:354:PRO:C	15:O:355:GLU:O	2.58	0.40
15:O:392:GLU:O	15:O:392:GLU:CG	2.68	0.40
16:P:137:TRP:CE2	16:P:141:LEU:HD21	2.56	0.40
16:P:199:LEU:H	16:P:200:PRO:HD3	1.08	0.40
16:P:496:GLU:HA	16:P:499:LYS:HD3	2.03	0.40
17:Q:354:LEU:HD21	17:Q:359:MET:HA	2.01	0.40
19:S:10:DG:C4	19:S:11:DG:C8	3.10	0.40
19:S:25:DT:O4	20:T:30:DT:C4	2.74	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1445/1664 (87%)	1341 (93%)	78 (5%)	26 (2%)	7	35
2	B	1172/1203 (97%)	1077 (92%)	70 (6%)	25 (2%)	5	33
3	C	304/335 (91%)	284 (93%)	15 (5%)	5 (2%)	8	37
4	D	55/137 (40%)	51 (93%)	4 (7%)	0	100	100
5	E	213/215 (99%)	203 (95%)	9 (4%)	1 (0%)	25	60
6	F	81/155 (52%)	73 (90%)	7 (9%)	1 (1%)	11	43
7	G	197/326 (60%)	172 (87%)	19 (10%)	6 (3%)	3	27
8	H	129/146 (88%)	122 (95%)	7 (5%)	0	100	100
9	I	63/125 (50%)	50 (79%)	8 (13%)	5 (8%)	1	12
10	J	67/70 (96%)	60 (90%)	6 (9%)	1 (2%)	8	39
11	K	101/142 (71%)	94 (93%)	7 (7%)	0	100	100
12	L	43/70 (61%)	38 (88%)	4 (9%)	1 (2%)	5	31
13	M	394/415 (95%)	367 (93%)	20 (5%)	7 (2%)	7	35
14	N	156/233 (67%)	127 (81%)	23 (15%)	6 (4%)	2	23
15	O	581/894 (65%)	414 (71%)	109 (19%)	58 (10%)	0	8
16	P	378/514 (74%)	281 (74%)	46 (12%)	51 (14%)	0	3
17	Q	343/507 (68%)	241 (70%)	55 (16%)	47 (14%)	0	3
All	All	5722/7151 (80%)	4995 (87%)	487 (8%)	240 (4%)	4	21

All (240) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	82	PRO
1	A	407	GLN
1	A	466	LEU
1	A	530	TRP
1	A	531	PRO

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Mol	Chain	Res	Type
1	A	592	GLN
1	A	721	LYS
1	A	722	PRO
1	A	723	TYR
1	A	912	VAL
1	A	920	PHE
2	B	111	ASP
2	B	112	GLY
2	B	114	SER
2	B	115	SER
2	B	341	SER
2	B	342	PRO
2	B	815	ARG
2	B	820	PRO
2	B	1139	LYS
2	B	1140	LYS
2	B	1163	GLN
3	C	147	PRO
7	G	97	LYS
7	G	241	ARG
7	G	243	VAL
9	I	37	TYR
9	I	41	GLN
9	I	44	ASN
13	M	117	SER
13	M	169	SER
13	M	171	ASP
14	N	25	ILE
14	N	26	PRO
14	N	27	ASP
14	N	95	ILE
15	O	194	ARG
15	O	198	ASP
15	O	211	GLY
15	O	273	ARG
15	O	274	ILE
15	O	303	VAL
15	O	310	TRP
15	O	316	ALA
15	O	360	TRP
15	O	394	VAL
15	O	429	SER

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Mol	Chain	Res	Type
15	O	431	ASP
15	O	486	ALA
15	O	574	TRP
15	O	649	ILE
15	O	656	HIS
15	O	666	SER
15	O	691	VAL
15	O	707	ASP
15	O	748	GLU
15	O	751	SER
16	P	126	PRO
16	P	148	PRO
16	P	149	GLN
16	P	155	GLN
16	P	175	PRO
16	P	199	LEU
16	P	201	LYS
16	P	206	GLN
16	P	209	ASN
16	P	212	VAL
16	P	225	GLN
16	P	262	LEU
16	P	276	PHE
16	P	290	THR
16	P	320	PHE
16	P	339	THR
16	P	341	ARG
16	P	344	THR
16	P	358	PRO
16	P	370	SER
16	P	388	THR
16	P	416	ILE
16	P	421	ARG
16	P	492	ALA
16	P	493	ILE
16	P	495	LYS
17	Q	135	GLU
17	Q	140	ILE
17	Q	144	VAL
17	Q	151	PRO
17	Q	153	ASN
17	Q	154	LYS

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Mol	Chain	Res	Type
17	Q	155	GLN
17	Q	156	LYS
17	Q	159	TYR
17	Q	243	PRO
17	Q	247	ILE
17	Q	265	SER
17	Q	267	GLY
17	Q	299	THR
17	Q	304	HIS
17	Q	305	THR
17	Q	351	GLU
17	Q	355	THR
17	Q	356	PRO
17	Q	363	GLU
17	Q	394	GLY
17	Q	395	LEU
1	A	411	VAL
1	A	671	GLN
1	A	790	LYS
1	A	1479	ASP
2	B	816	ASN
2	B	818	GLY
2	B	1194	ILE
3	C	148	LYS
7	G	96	SER
7	G	245	VAL
9	I	27	ASN
13	M	46	SER
14	N	125	ALA
15	O	196	TYR
15	O	223	ASN
15	O	295	VAL
15	O	351	ILE
15	O	410	ASP
15	O	432	PRO
15	O	617	HIS
15	O	618	ASP
15	O	652	GLY
15	O	653	SER
15	O	706	GLU
15	O	710	GLY
15	O	724	LEU

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Mol	Chain	Res	Type
15	O	726	SER
16	P	128	GLU
16	P	198	ILE
16	P	336	GLU
16	P	345	SER
17	Q	9	THR
17	Q	137	SER
17	Q	387	ASN
17	Q	391	ASP
1	A	462	LYS
1	A	583	ASN
1	A	594	THR
1	A	913	PRO
1	A	921	PRO
1	A	922	CYS
2	B	93	ASN
2	B	435	GLY
2	B	784	ASP
2	B	828	GLY
2	B	891	GLU
3	C	149	GLY
9	I	38	PRO
15	O	291	PRO
15	O	298	ASP
15	O	301	GLN
15	O	325	SER
15	O	354	PRO
15	O	357	LEU
15	O	433	VAL
15	O	615	ASN
15	O	693	PHE
15	O	725	VAL
16	P	216	GLU
16	P	260	CYS
16	P	287	TRP
16	P	342	THR
16	P	371	GLU
16	P	415	LYS
17	Q	146	SER
17	Q	216	LEU
17	Q	302	ARG
17	Q	339	ASN

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Mol	Chain	Res	Type
1	A	410	LYS
1	A	593	PRO
2	B	91	LEU
2	B	187	SER
2	B	490	LYS
2	B	557	ASP
3	C	144	PRO
5	E	130	ALA
12	L	69	ALA
13	M	149	ILE
13	M	173	PRO
15	O	197	ARG
15	O	258	SER
15	O	383	ILE
15	O	398	ALA
15	O	409	ASP
15	O	659	LEU
15	O	664	GLU
16	P	247	ILE
16	P	249	CYS
16	P	261	ALA
16	P	337	SER
16	P	355	VAL
17	Q	134	PRO
17	Q	283	ARG
17	Q	354	LEU
17	Q	357	PRO
17	Q	388	LYS
1	A	409	ASP
1	A	630	GLY
2	B	77	LYS
3	C	153	PRO
14	N	107	MET
15	O	240	SER
15	O	569	VAL
16	P	147	GLN
16	P	207	LEU
16	P	264	PRO
17	Q	132	GLU
17	Q	204	GLU
17	Q	215	THR
17	Q	248	LYS

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Mol	Chain	Res	Type
17	Q	287	ASN
17	Q	295	PRO
17	Q	296	PRO
17	Q	340	ASP
17	Q	383	PHE
7	G	30	GLU
10	J	42	LYS
15	O	359	SER
16	P	404	ILE
16	P	418	PRO
17	Q	384	VAL
15	O	349	GLY
16	P	214	ILE
16	P	219	ILE
16	P	263	PRO
16	P	360	LYS
17	Q	293	ILE
6	F	131	PRO
13	M	32	ALA
2	B	113	VAL
15	O	713	ILE
15	O	766	GLY
16	P	451	PRO
17	Q	277	ILE
1	A	1160	GLY

### 5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1292/1465 (88%)	1272 (98%)	20 (2%)	60	74
2	B	1030/1053 (98%)	1012 (98%)	18 (2%)	56	72
3	C	270/296 (91%)	268 (99%)	2 (1%)	81	86
4	D	56/116 (48%)	56 (100%)	0	100	100
5	E	197/197 (100%)	193 (98%)	4 (2%)	50	68

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	F	73/137 (53%)	73 (100%)	0	100	100
7	G	179/291 (62%)	169 (94%)	10 (6%)	17	43
8	H	117/128 (91%)	116 (99%)	1 (1%)	75	83
9	I	57/110 (52%)	52 (91%)	5 (9%)	8	29
10	J	64/65 (98%)	64 (100%)	0	100	100
11	K	93/130 (72%)	93 (100%)	0	100	100
12	L	40/57 (70%)	39 (98%)	1 (2%)	42	62
13	M	354/371 (95%)	344 (97%)	10 (3%)	38	59
14	N	146/220 (66%)	143 (98%)	3 (2%)	48	67
15	O	545/778 (70%)	492 (90%)	53 (10%)	6	25
16	P	362/476 (76%)	307 (85%)	55 (15%)	2	14
17	Q	331/474 (70%)	278 (84%)	53 (16%)	2	13
All	All	5206/6364 (82%)	4971 (96%)	235 (4%)	26	48

All (235) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	83	VAL
1	A	85	CYS
1	A	116	HIS
1	A	117	ARG
1	A	118	TYR
1	A	407	GLN
1	A	413	LEU
1	A	415	ASP
1	A	417	ARG
1	A	450	LYS
1	A	461	GLU
1	A	463	LYS
1	A	464	GLU
1	A	591	ARG
1	A	592	GLN
1	A	721	LYS
1	A	786	TYR
1	A	912	VAL
1	A	1089	LEU
1	A	1161	VAL
2	B	90	TYR

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Mol	Chain	Res	Type
2	B	91	LEU
2	B	113	VAL
2	B	300	SER
2	B	341	SER
2	B	487	VAL
2	B	507	SER
2	B	696	ILE
2	B	815	ARG
2	B	819	ASP
2	B	821	ILE
2	B	959	THR
2	B	1040	VAL
2	B	1046	VAL
2	B	1174	THR
2	B	1194	ILE
2	B	1195	ARG
2	B	1196	LEU
3	C	148	LYS
3	C	222	VAL
5	E	125	PRO
5	E	127	ILE
5	E	196	VAL
5	E	202	SER
7	G	39	VAL
7	G	97	LYS
7	G	98	GLU
7	G	99	ASP
7	G	100	THR
7	G	214	LEU
7	G	237	HIS
7	G	238	THR
7	G	242	VAL
7	G	245	VAL
8	H	65	LEU
9	I	23	VAL
9	I	24	LEU
9	I	37	TYR
9	I	41	GLN
9	I	42	PHE
12	L	26	THR
13	M	45	LYS
13	M	48	LYS

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Mol	Chain	Res	Type
13	M	66	THR
13	M	113	ILE
13	M	114	LYS
13	M	118	ASP
13	M	119	THR
13	M	170	LYS
13	M	171	ASP
13	M	174	THR
14	N	25	ILE
14	N	95	ILE
14	N	131	LEU
15	O	194	ARG
15	O	197	ARG
15	O	200	THR
15	O	202	ILE
15	O	203	ILE
15	O	209	LYS
15	O	210	THR
15	O	223	ASN
15	O	234	THR
15	O	237	GLU
15	O	259	ASN
15	O	260	LEU
15	O	274	ILE
15	O	292	LEU
15	O	293	TYR
15	O	300	LEU
15	O	307	PHE
15	O	312	LEU
15	O	350	THR
15	O	351	ILE
15	O	353	ASP
15	O	376	ASP
15	O	431	ASP
15	O	439	LYS
15	O	485	LYS
15	O	568	ILE
15	O	583	GLU
15	O	615	ASN
15	O	620	ASP
15	O	649	ILE
15	O	650	LEU

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Mol	Chain	Res	Type
15	O	655	SER
15	O	659	LEU
15	O	661	ASN
15	O	662	LEU
15	O	665	ASN
15	O	666	SER
15	O	667	ASP
15	O	671	SER
15	O	672	ILE
15	O	689	GLN
15	O	691	VAL
15	O	705	HIS
15	O	712	ASP
15	O	714	PHE
15	O	726	SER
15	O	738	LYS
15	O	744	LEU
15	O	747	LEU
15	O	760	ILE
15	O	772	ILE
15	O	779	ASP
15	O	780	ILE
16	P	123	MET
16	P	129	PHE
16	P	147	GLN
16	P	150	GLU
16	P	151	GLU
16	P	152	LEU
16	P	154	LEU
16	P	179	CYS
16	P	180	ASP
16	P	183	LYS
16	P	198	ILE
16	P	199	LEU
16	P	214	ILE
16	P	223	ASN
16	P	259	GLN
16	P	273	VAL
16	P	279	THR
16	P	281	ILE
16	P	282	ARG
16	P	283	ASN

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Mol	Chain	Res	Type
16	P	284	LEU
16	P	287	TRP
16	P	301	HIS
16	P	312	LEU
16	P	317	MET
16	P	340	GLN
16	P	341	ARG
16	P	348	ILE
16	P	355	VAL
16	P	360	LYS
16	P	365	ASP
16	P	367	PHE
16	P	369	TRP
16	P	371	GLU
16	P	386	LEU
16	P	388	THR
16	P	389	GLN
16	P	399	SER
16	P	400	MET
16	P	401	GLU
16	P	403	THR
16	P	417	PHE
16	P	419	LEU
16	P	422	GLU
16	P	435	GLN
16	P	436	LEU
16	P	444	GLU
16	P	445	ARG
16	P	453	PHE
16	P	490	ASP
16	P	491	PHE
16	P	493	ILE
16	P	495	LYS
16	P	497	GLN
16	P	510	LEU
17	Q	4	VAL
17	Q	8	LEU
17	Q	9	THR
17	Q	10	ASN
17	Q	27	ILE
17	Q	29	ARG
17	Q	123	GLU

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Mol	Chain	Res	Type
17	Q	132	GLU
17	Q	135	GLU
17	Q	138	PHE
17	Q	139	GLU
17	Q	142	ARG
17	Q	145	SER
17	Q	147	GLN
17	Q	148	ASN
17	Q	149	LYS
17	Q	150	GLN
17	Q	153	ASN
17	Q	155	GLN
17	Q	160	HIS
17	Q	168	ILE
17	Q	178	LEU
17	Q	180	CYS
17	Q	200	THR
17	Q	203	SER
17	Q	204	GLU
17	Q	208	TYR
17	Q	246	GLN
17	Q	247	ILE
17	Q	248	LYS
17	Q	269	ASP
17	Q	272	GLN
17	Q	277	ILE
17	Q	279	SER
17	Q	292	SER
17	Q	293	ILE
17	Q	298	GLN
17	Q	303	THR
17	Q	305	THR
17	Q	317	LEU
17	Q	342	LEU
17	Q	349	ILE
17	Q	364	VAL
17	Q	365	TRP
17	Q	382	GLN
17	Q	384	VAL
17	Q	385	ASN
17	Q	388	LYS
17	Q	390	ASN

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Mol	Chain	Res	Type
17	Q	391	ASP
17	Q	392	LEU
17	Q	393	ILE
17	Q	397	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (90) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	40	ASN
1	A	60	ASN
1	A	116	HIS
1	A	336	GLN
1	A	340	HIS
1	A	344	ASN
1	A	432	ASN
1	A	559	ASN
1	A	580	HIS
1	A	596	HIS
1	A	730	GLN
1	A	785	GLN
1	A	993	GLN
1	A	998	HIS
1	A	1020	GLN
1	A	1026	GLN
1	A	1293	HIS
1	A	1314	GLN
1	A	1315	ASN
1	A	1319	ASN
1	A	1447	GLN
1	A	1453	HIS
1	A	1647	ASN
2	B	39	GLN
2	B	93	ASN
2	B	101	GLN
2	B	128	GLN
2	B	168	ASN
2	B	248	ASN
2	B	295	ASN
2	B	462	GLN
2	B	499	HIS
2	B	555	GLN
2	B	575	HIS

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Mol	Chain	Res	Type
2	B	683	ASN
2	B	770	ASN
2	B	814	ASN
2	B	979	GLN
2	B	1008	HIS
2	B	1010	ASN
2	B	1163	GLN
3	C	161	HIS
3	C	175	GLN
5	E	61	GLN
5	E	113	GLN
7	G	20	HIS
7	G	64	GLN
7	G	119	HIS
7	G	126	GLN
9	I	21	ASN
9	I	27	ASN
13	M	75	GLN
13	M	323	GLN
13	M	324	ASN
14	N	101	GLN
14	N	128	ASN
14	N	132	GLN
14	N	170	HIS
15	O	215	ASN
15	O	230	HIS
15	O	232	ASN
15	O	239	HIS
15	O	267	ASN
15	O	301	GLN
15	O	314	GLN
15	O	348	HIS
15	O	401	ASN
15	O	461	HIS
15	O	479	HIS
15	O	490	GLN
15	O	556	GLN
15	O	579	ASN
15	O	635	ASN
15	O	656	HIS
15	O	701	HIS
16	P	109	GLN

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Mol	Chain	Res	Type
16	P	145	ASN
16	P	155	GLN
16	P	171	HIS
16	P	223	ASN
16	P	225	GLN
16	P	272	GLN
16	P	340	GLN
16	P	486	GLN
17	Q	155	GLN
17	Q	212	HIS
17	Q	221	HIS
17	Q	289	ASN
17	Q	385	ASN
17	Q	390	ASN

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
18	R	5/6 (83%)	0	0

There are no RNA backbone outliers to report.

There are no RNA pucker outliers to report.

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

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

## 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 6 ligands modelled in this entry, 6 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
15	O	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	O	67:UNK	C	172:PHE	N	31.28
1	O	28:UNK	C	41:UNK	N	6.55

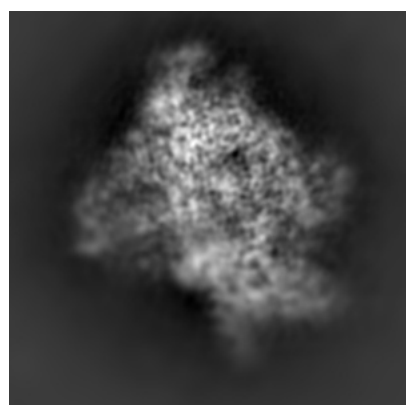
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-8776. These allow visual inspection of the internal detail of the map and identification of artifacts.

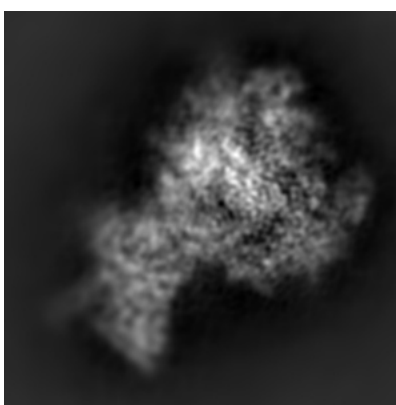
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

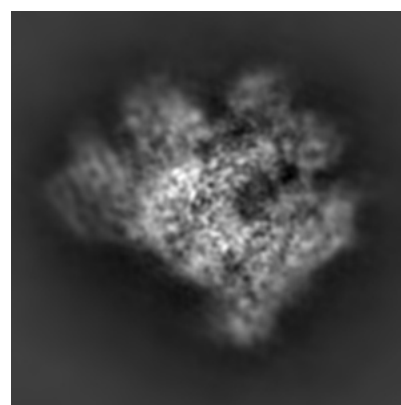
#### 6.1.1 Primary map



X



Y

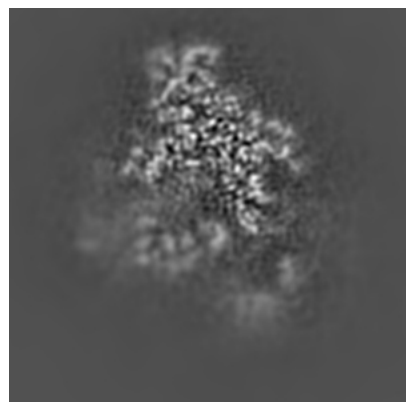


Z

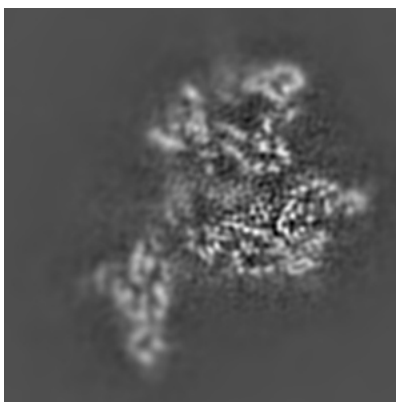
The images above show the map projected in three orthogonal directions.

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

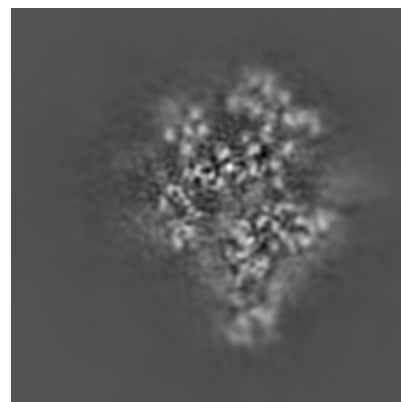
#### 6.2.1 Primary map



X Index: 96



Y Index: 96

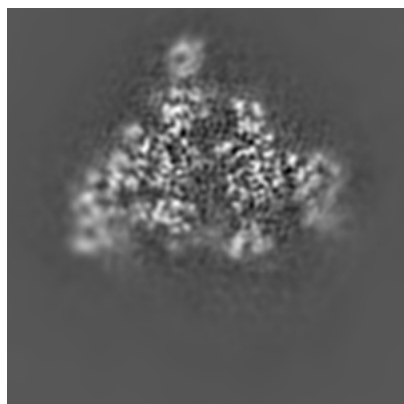


Z Index: 96

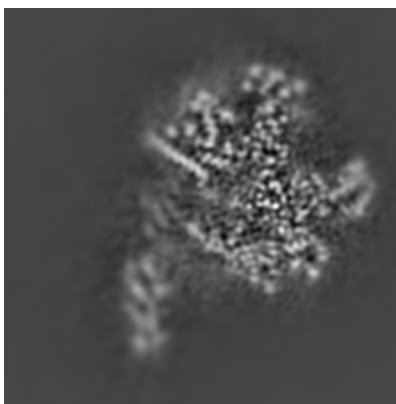
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

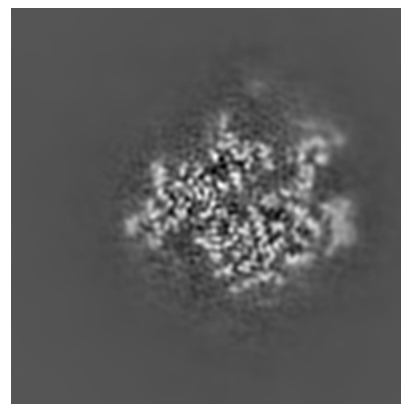
### 6.3.1 Primary map



X Index: 110



Y Index: 88

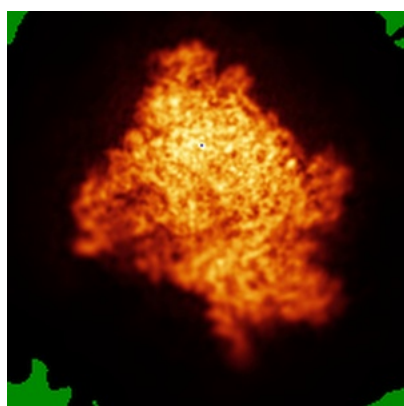


Z Index: 127

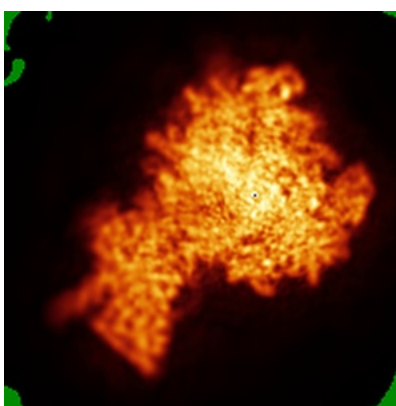
The images above show the largest variance slices of the map in three orthogonal directions.

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

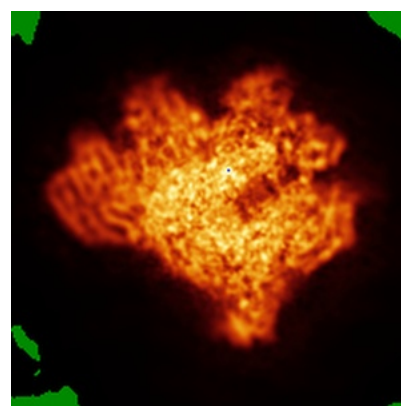
### 6.4.1 Primary map



X



Y



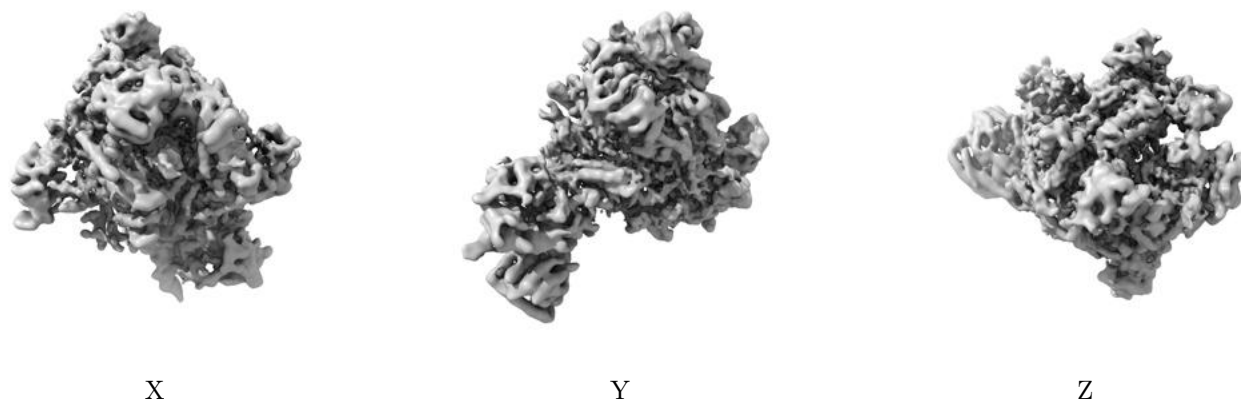
Z

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



## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

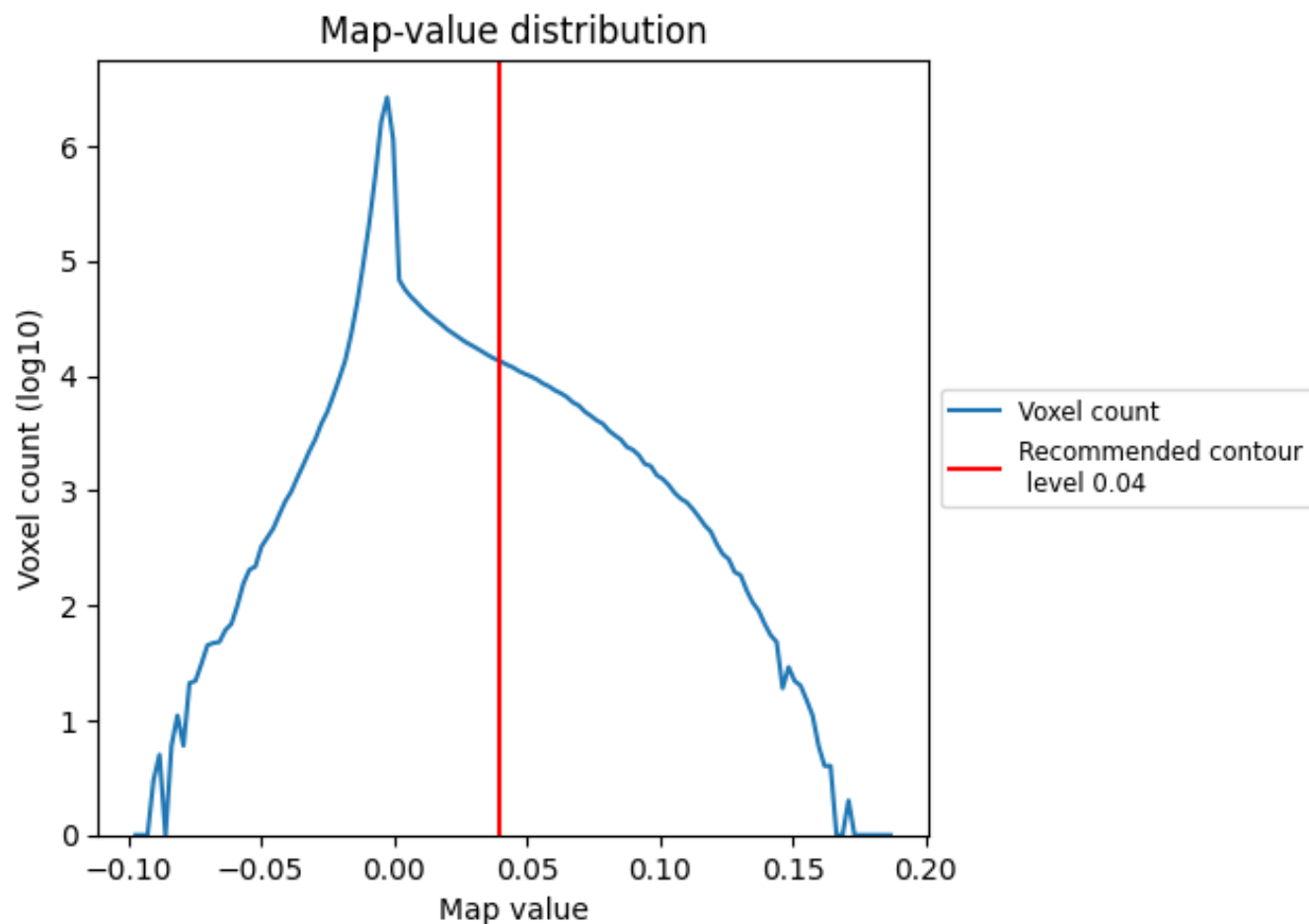
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

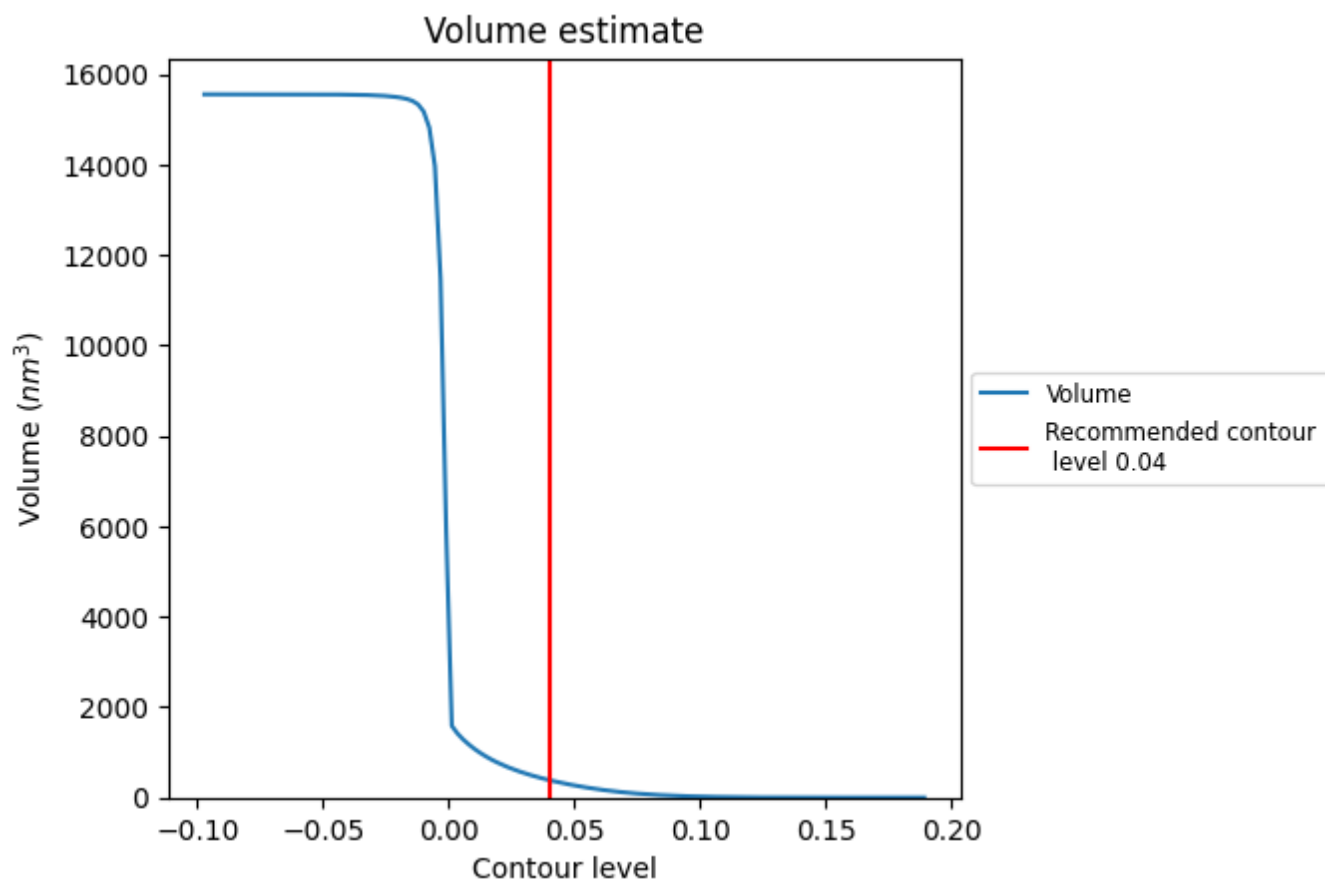
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

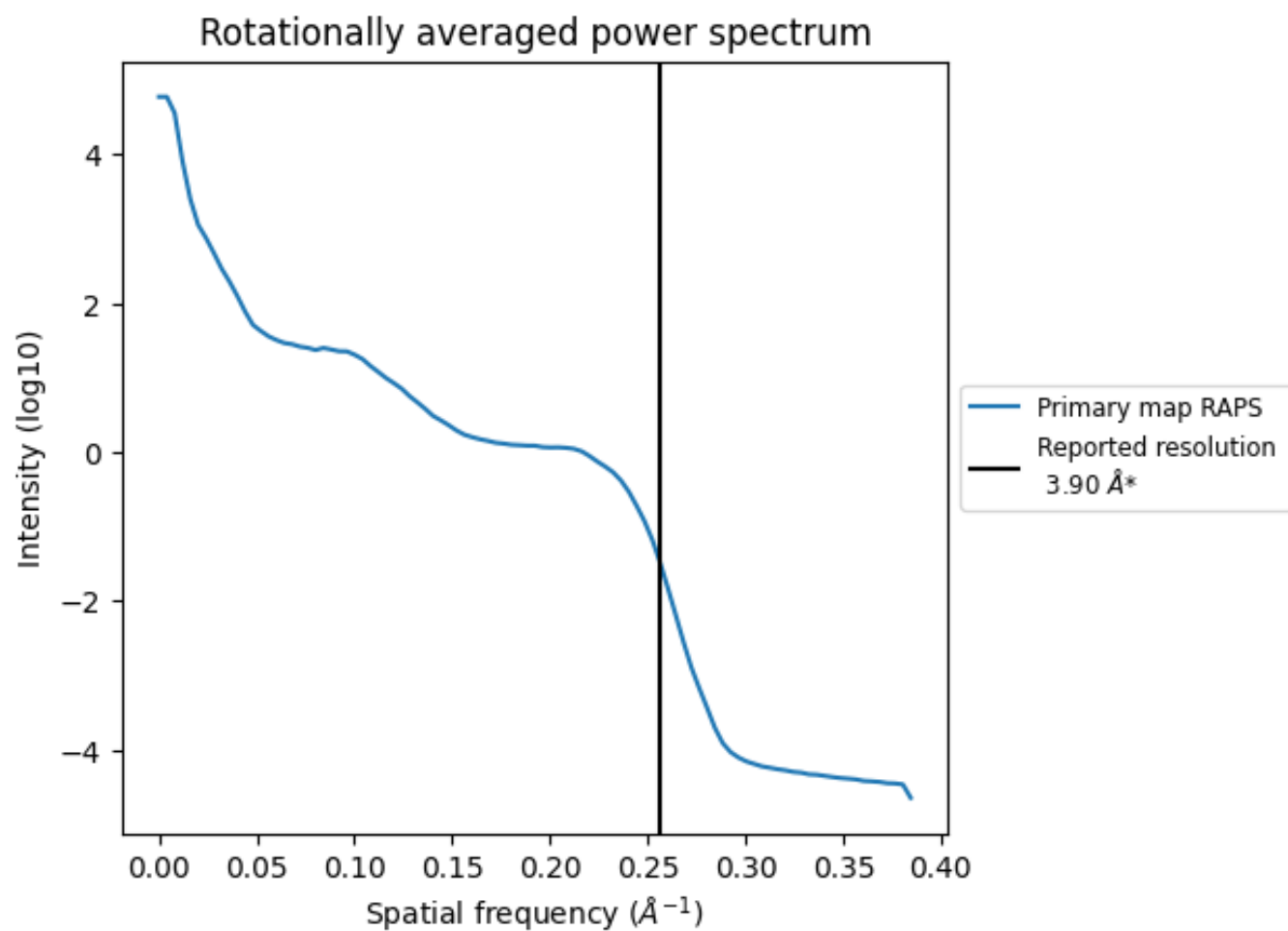
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 387 nm<sup>3</sup>; this corresponds to an approximate mass of 349 kDa.

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

### 7.3 Rotationally averaged power spectrum ⓘ

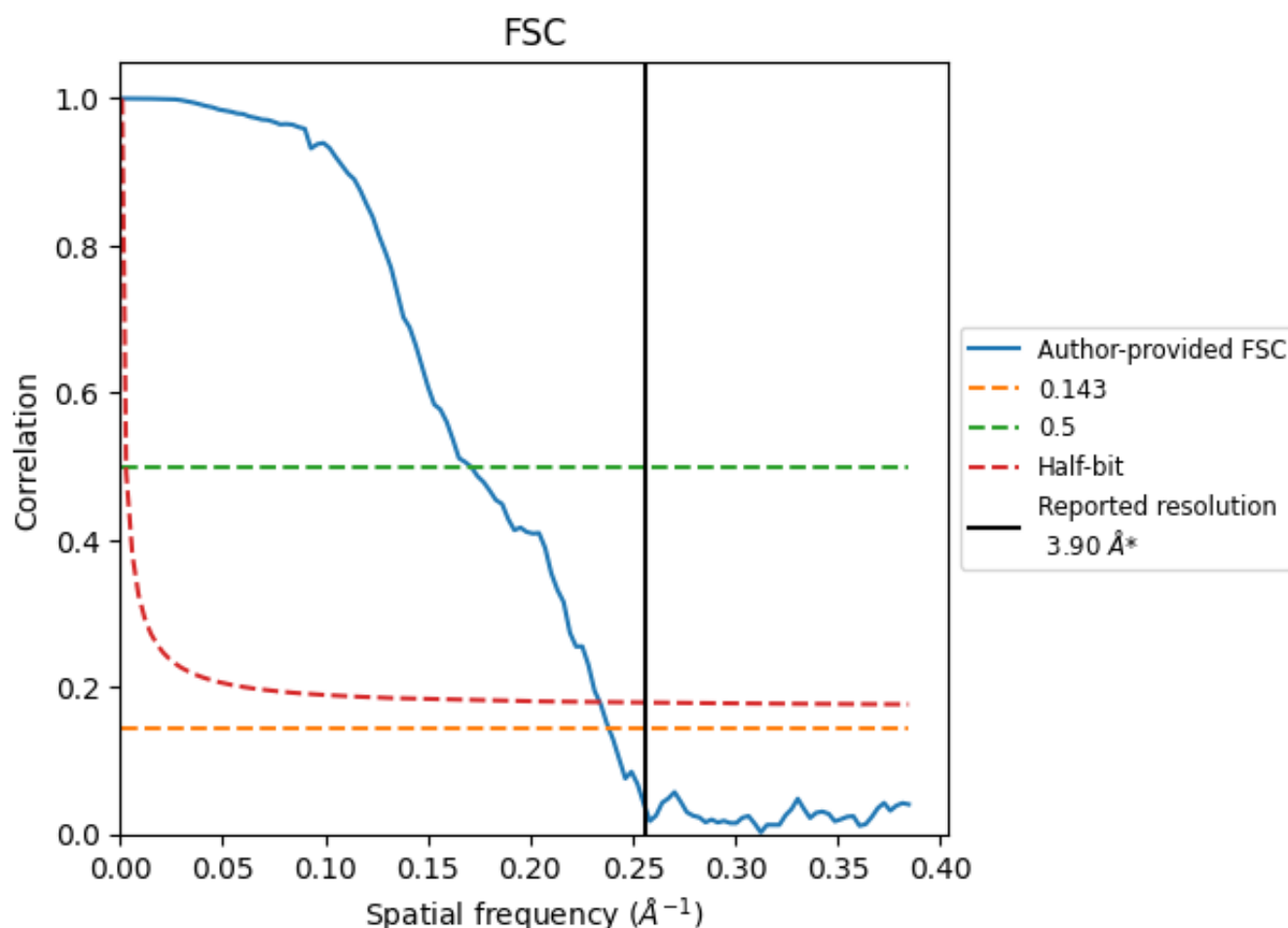


\*Reported resolution corresponds to spatial frequency of 0.256 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.256 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

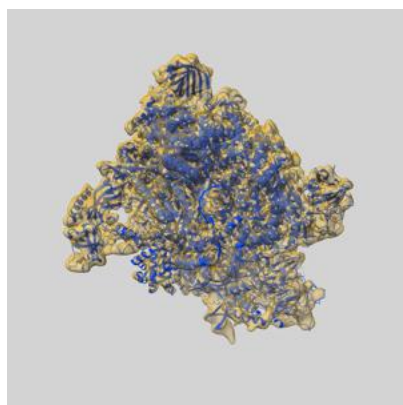
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.90	-	-
Author-provided FSC curve	4.19	5.85	4.28
Unmasked-calculated*	-	-	-

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

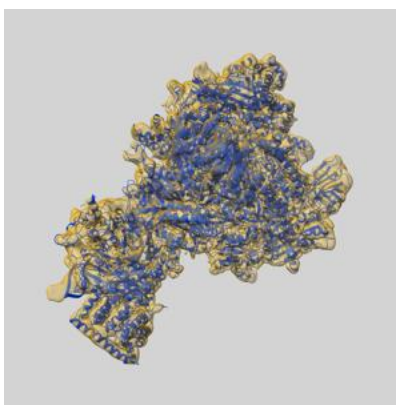
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-8776 and PDB model 5W66. Per-residue inclusion information can be found in section [3](#) on page [9](#).

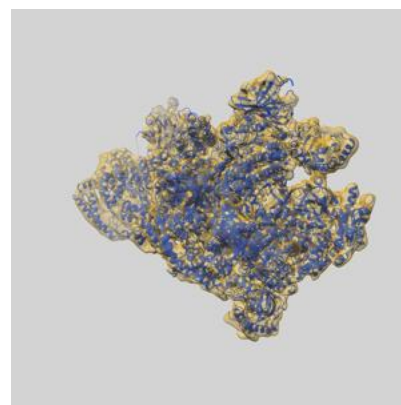
### 9.1 Map-model overlay [i](#)



X



Y

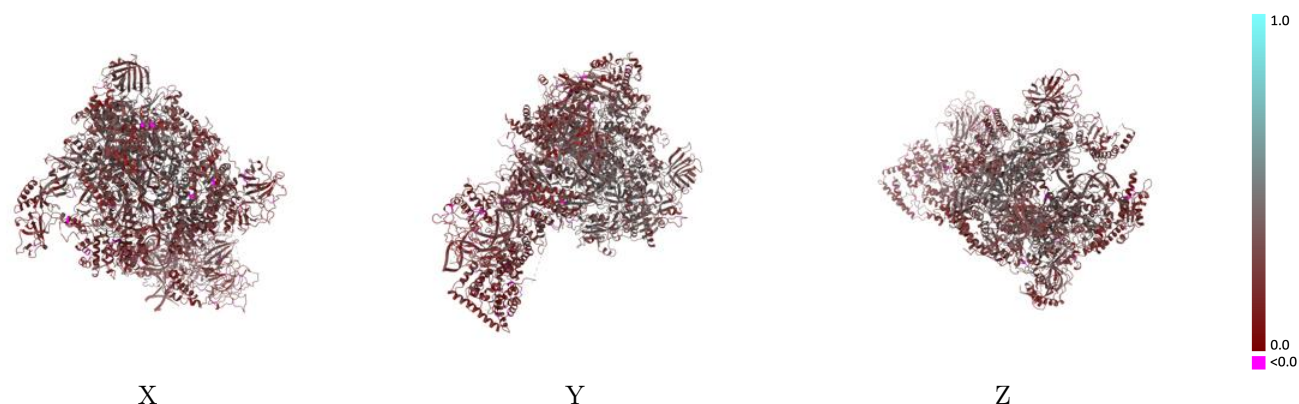


Z

The images above show the 3D surface view of the map at the recommended contour level 0.04 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

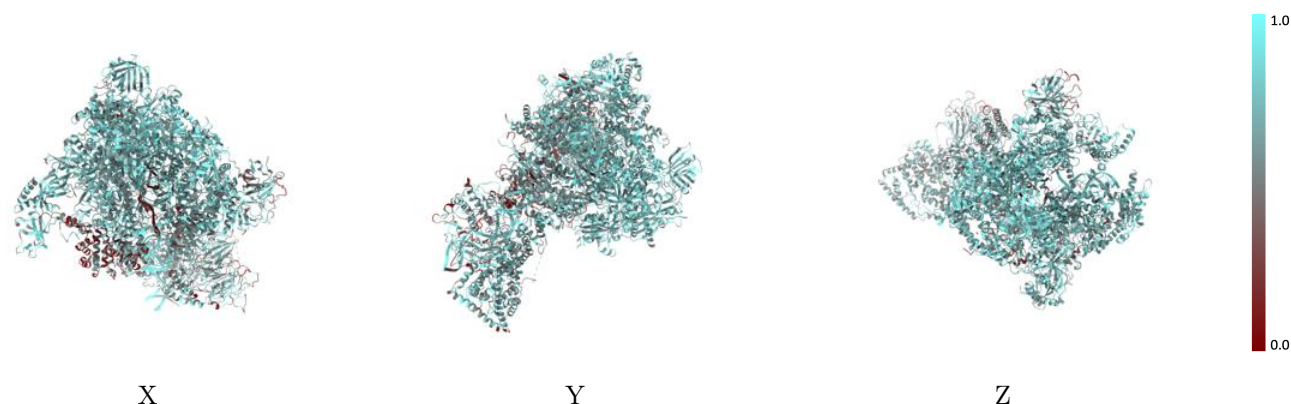


## 9.2 Q-score mapped to coordinate model [i](#)



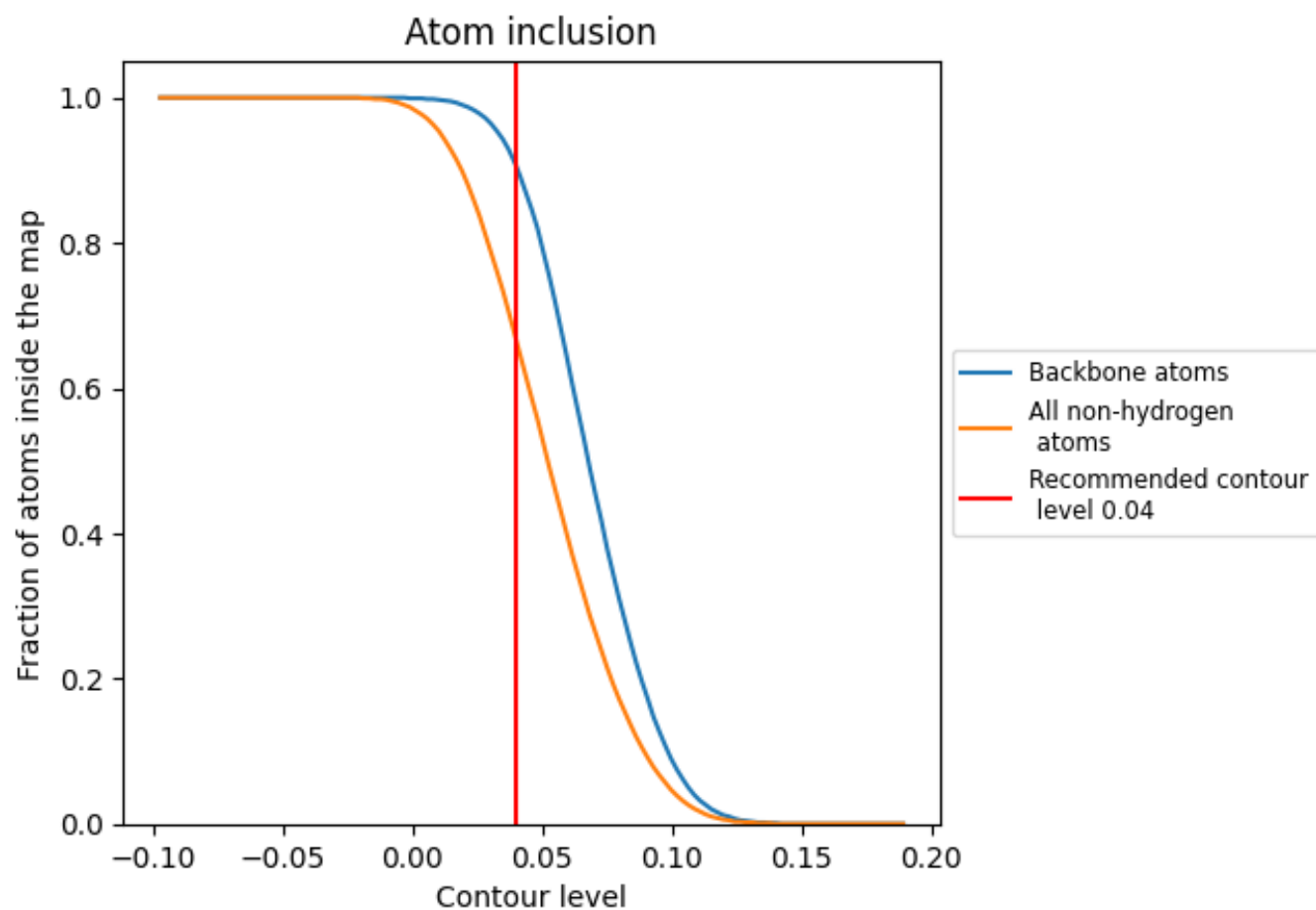
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.04).











































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 67% 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 (0.04) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6660	 0.2860
A	 0.7170	 0.3240
B	 0.7160	 0.3640
C	 0.7520	 0.3290
D	 0.6820	 0.2400
E	 0.7260	 0.2720
F	 0.7440	 0.3350
G	 0.6720	 0.2370
H	 0.7440	 0.2970
I	 0.6980	 0.2870
J	 0.7810	 0.3650
K	 0.7050	 0.3130
L	 0.7370	 0.3640
M	 0.4040	 0.2060
N	 0.5580	 0.2460
O	 0.5960	 0.2060
P	 0.6160	 0.1900
Q	 0.5880	 0.2170
R	 0.1970	 0.2090
S	 0.7670	 0.2810
T	 0.6930	 0.2580

