



Full wwPDB EM Validation Report ⓘ

Mar 7, 2026 – 03:36 AM UTC

PDB ID : 6TM5 / pdb_00006tm5
EMDB ID : EMD-10518
Title : Cryo-EM structure of the Anaphase-promoting complex/Cyclosome, in complex with the Nek2A substrate at 3.9 angstrom resolution
Authors : Alfieri, C.; Barford, D.
Deposited on : 2019-12-03
Resolution : 3.90 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

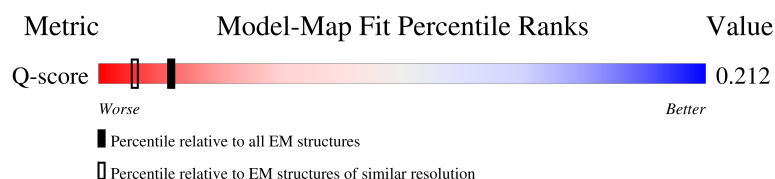
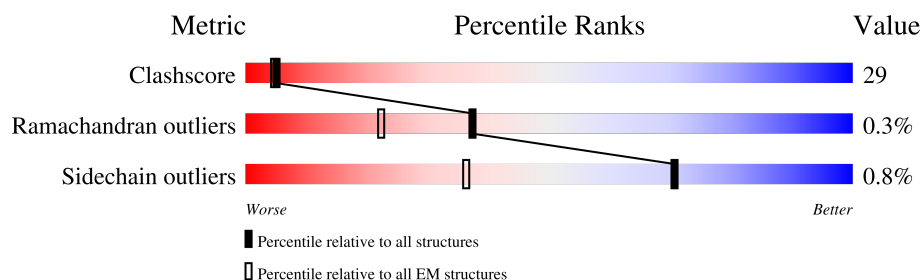
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance

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

The reported resolution of this entry is 3.90 Å.

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



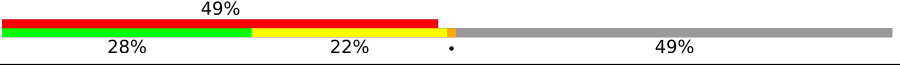
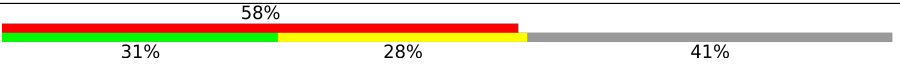
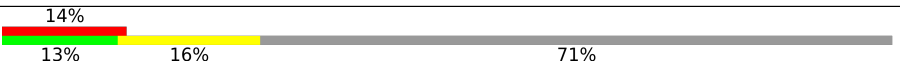
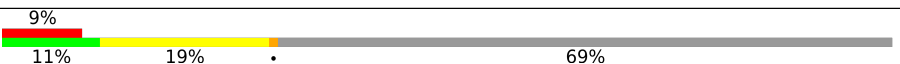
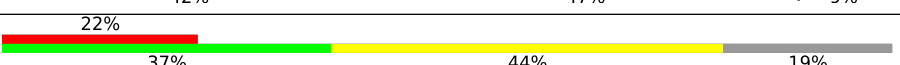
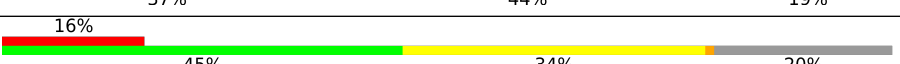
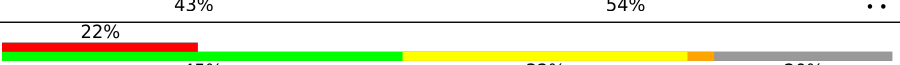
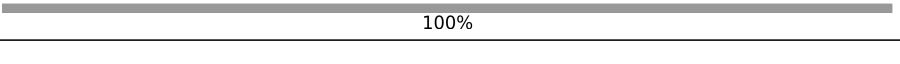
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	8855 (3.40 - 4.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	1944	13% 39% 41% 19%
2	B	84	100% 50% 48%
3	C	597	12% 46% 42% 12%
3	P	597	21% 41% 41% 18%

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Mol	Chain	Length	Quality of chain
4	D	121	
5	E	110	
6	F	824	
6	H	824	
7	G	85	
7	W	85	
8	I	808	
9	J	620	
9	K	620	
10	L	185	
11	M	74	
12	N	822	
13	O	755	
14	T	15	
15	X	599	
15	Y	599	
16	S	445	
17	Q	445	

2 Entry composition [i](#)

There are 18 unique types of molecules in this entry. The entry contains 63885 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 Anaphase-promoting complex subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1569	Total	C	N	O	S	0	0
			11890	7656	2014	2140	80		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	356	PHE	PRO	conflict	UNP Q9H1A4

- Molecule 2 is a protein called Anaphase-promoting complex subunit 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	84	Total	C	N	O	S	1	0
			649	416	117	99	17		

- Molecule 3 is a protein called Cell division cycle protein 23 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	524	Total	C	N	O	S	0	0
			4306	2774	727	781	24		
3	P	492	Total	C	N	O	S	0	0
			4046	2613	679	730	24		

- Molecule 4 is a protein called Anaphase-promoting complex subunit 15.

Mol	Chain	Residues	Atoms				AltConf	Trace
4	D	55	Total	C	N	O	0	0
			436	277	73	86		

- Molecule 5 is a protein called Anaphase-promoting complex subunit 16.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	56	Total	C	N	O	S	0	0
			450	290	74	85	1		

- Molecule 6 is a protein called Cell division cycle protein 27 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	460	Total	C	N	O	S	0	0
			3618	2320	608	666	24		
6	H	488	Total	C	N	O	S	0	0
			3879	2489	655	709	26		

- Molecule 7 is a protein called Anaphase-promoting complex subunit CDC26.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	25	Total	C	N	O	S	0	0
			220	137	41	41	1		
7	W	26	Total	C	N	O	S	0	0
			218	136	41	40	1		

- Molecule 8 is a protein called Anaphase-promoting complex subunit 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	I	736	Total	C	N	O	S	0	0
			5726	3676	957	1059	34		

- Molecule 9 is a protein called Cell division cycle protein 16 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	504	Total	C	N	O	S	0	0
			4053	2604	687	737	25		
9	K	493	Total	C	N	O	S	0	0
			3988	2564	672	728	24		

- Molecule 10 is a protein called Anaphase-promoting complex subunit 10.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	L	182	Total	C	N	O	S	0	0
			1435	898	263	268	6		

- Molecule 11 is a protein called Anaphase-promoting complex subunit 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	M	59	Total	C	N	O	S	0	0
			481	304	79	96	2		

- Molecule 12 is a protein called Anaphase-promoting complex subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	N	676	Total	C	N	O	S	0	0
			5337	3425	943	944	25		

- Molecule 13 is a protein called Anaphase-promoting complex subunit 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	O	688	Total	C	N	O	S	0	0
			5400	3443	940	989	28		

- Molecule 14 is a protein called Apc1 loop.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	T	15	Total	C	N	O	0	0
			79	47	16	16		

- Molecule 15 is a protein called Anaphase-promoting complex subunit 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	X	484	Total	C	N	O	S	0	0
			3767	2390	649	704	24		
15	Y	496	Total	C	N	O	S	0	0
			3862	2446	666	724	26		

- Molecule 16 is a protein called Serine/threonine-protein kinase Nek2.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	S	2	Total	C	N	O	S	0	0
			19	11	5	2	1		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
S	449	ALA	MET	conflict	UNP P51955

- Molecule 17 is a protein called Serine/threonine-protein kinase Nek2.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	3	Total	C	N	O	S	0	0
			23	13	6	3	1		

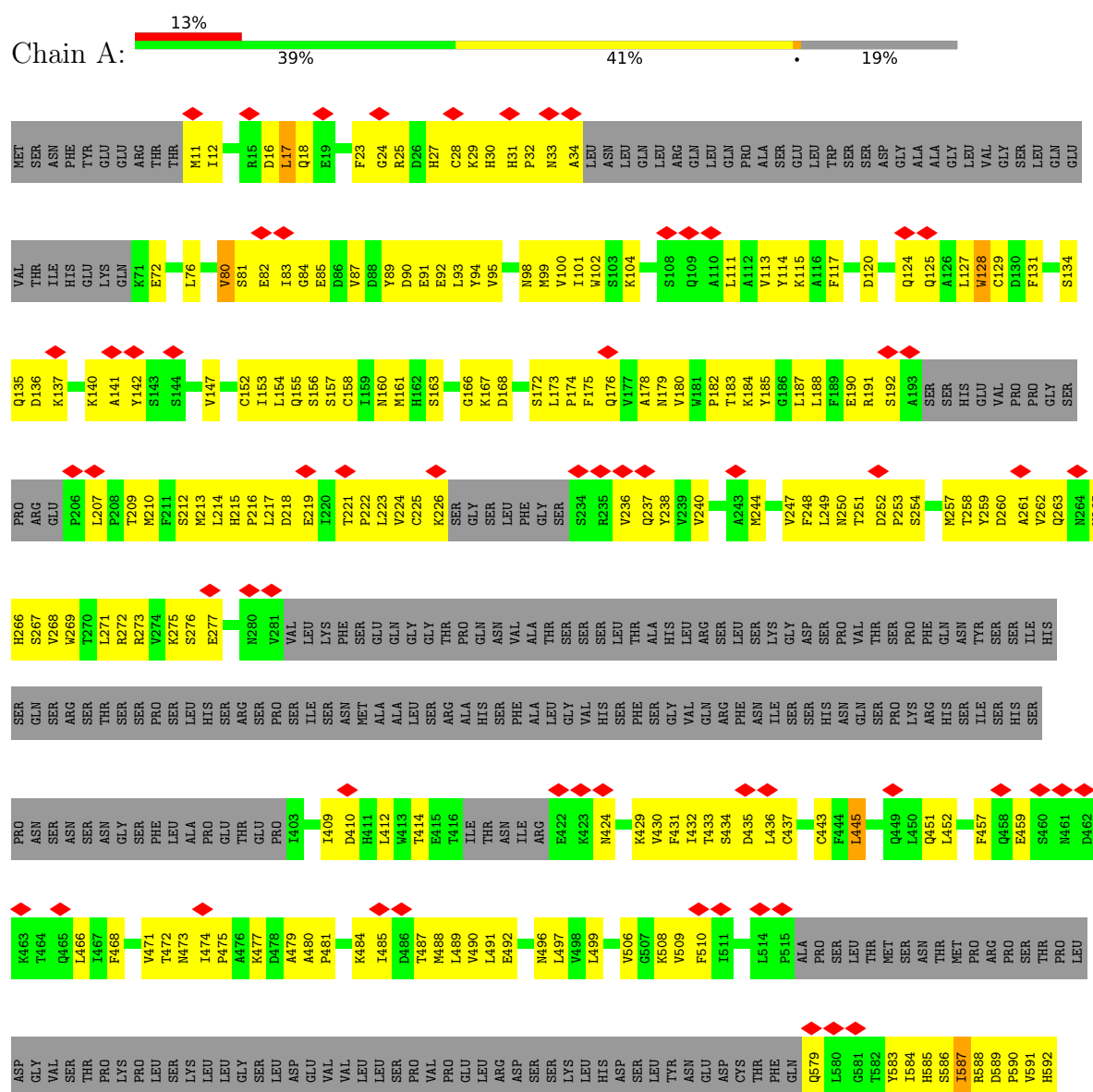
- Molecule 18 is ZINC ION (CCD ID: ZN) (formula: Zn).

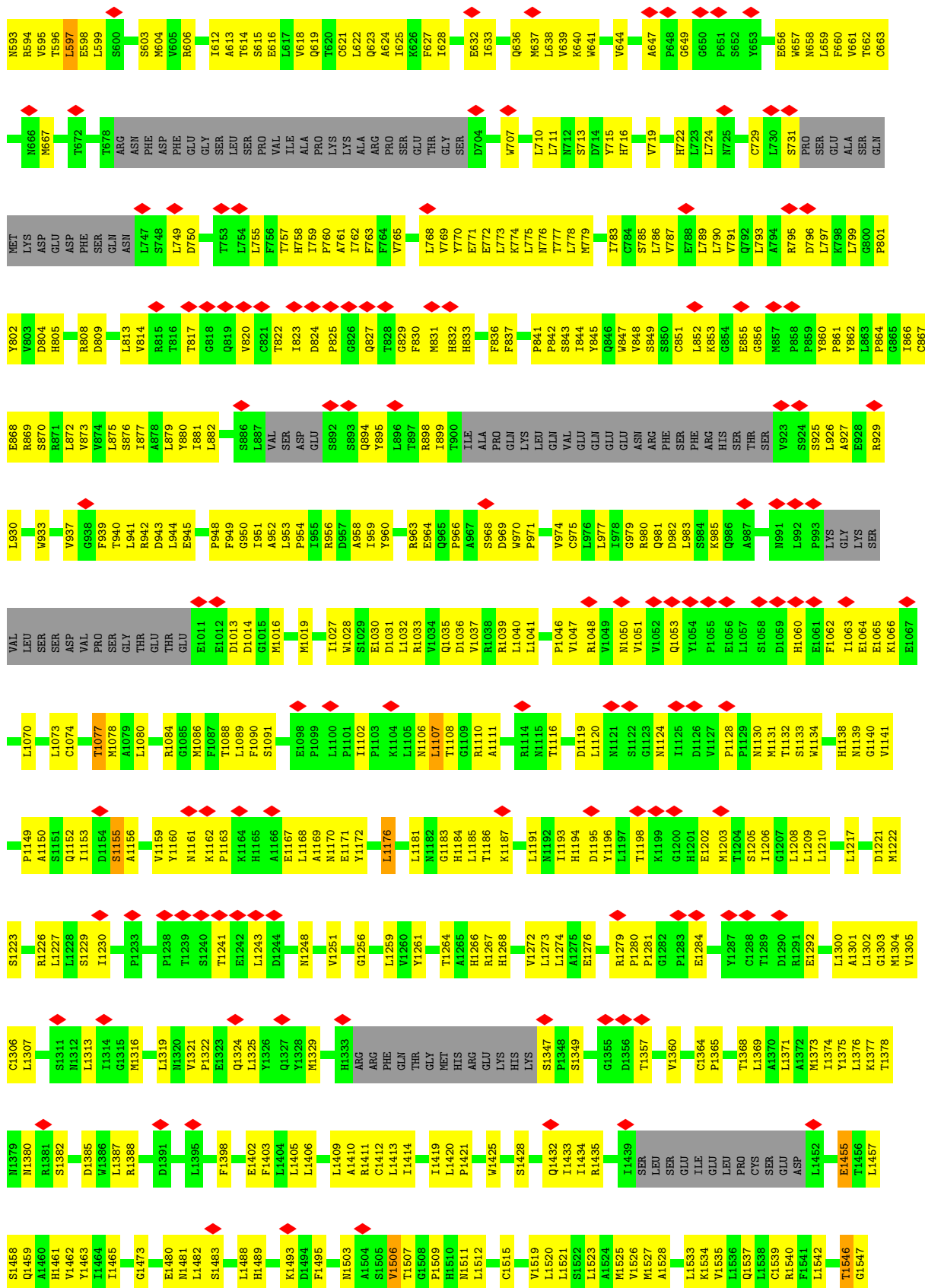
Mol	Chain	Residues	Atoms		AltConf
18	B	3	Total 3	Zn 3	0

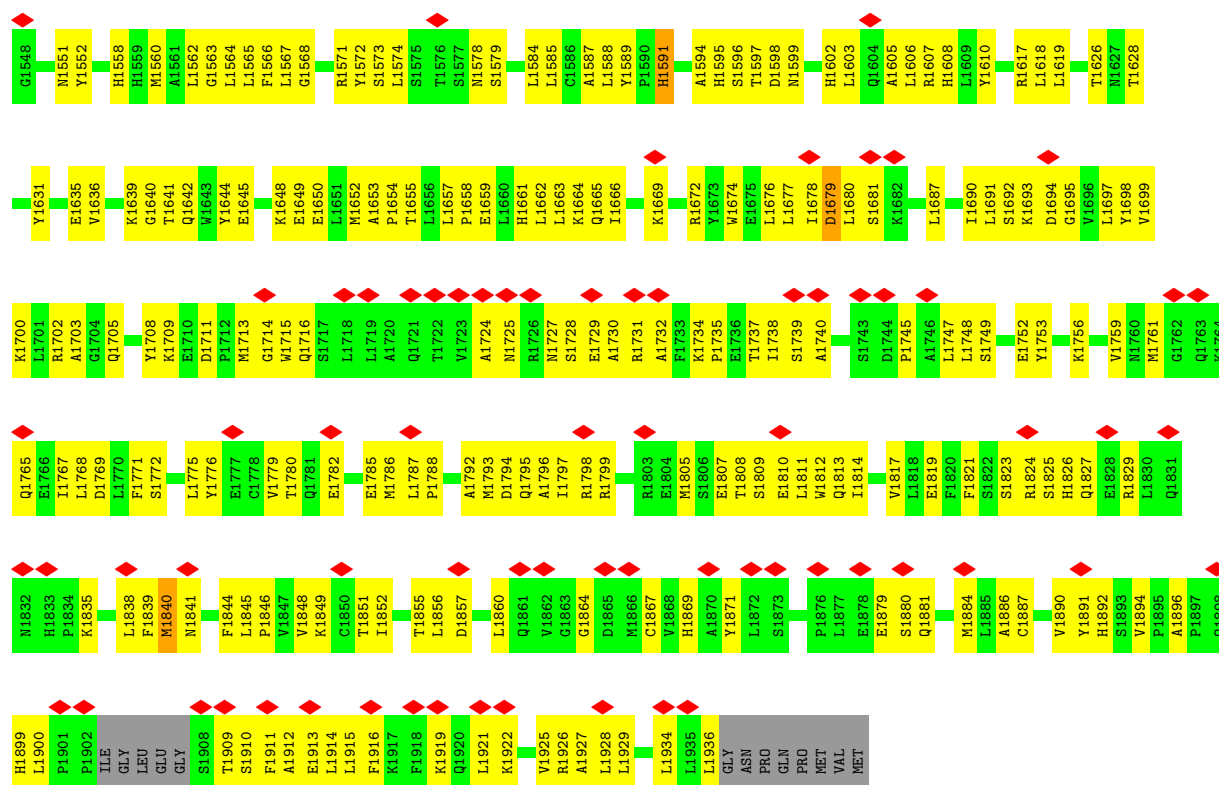
3 Residue-property plots

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

• Molecule 1: Anaphase-promoting complex subunit 1



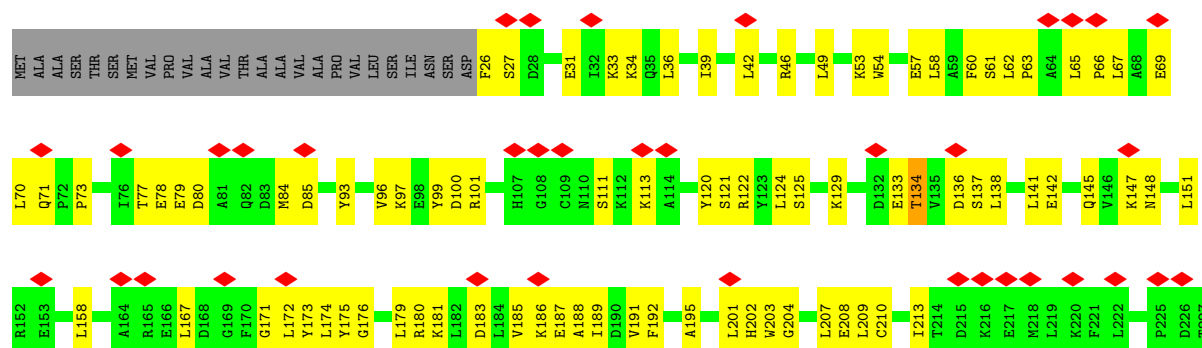




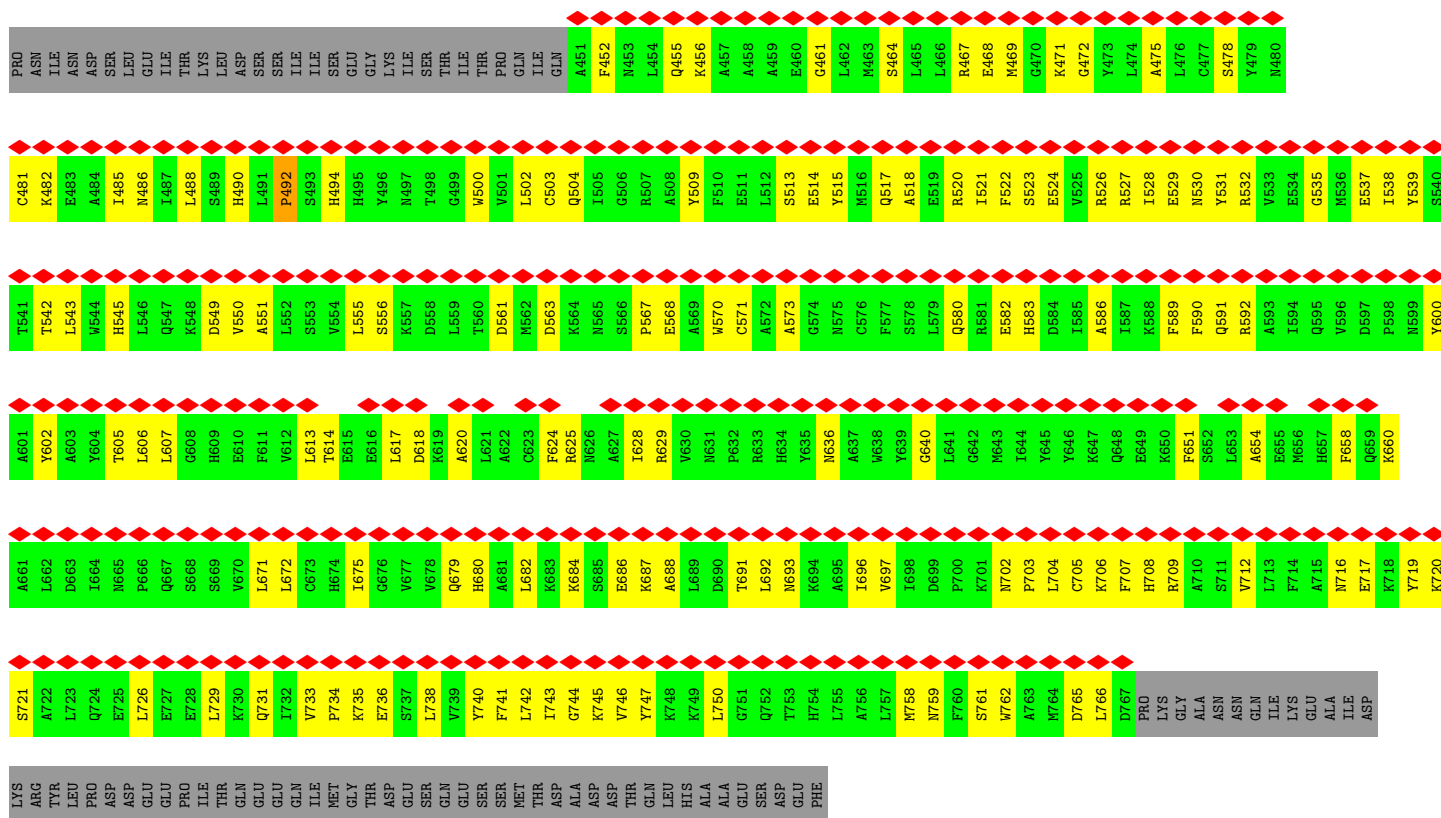
• Molecule 2: Anaphase-promoting complex subunit 11



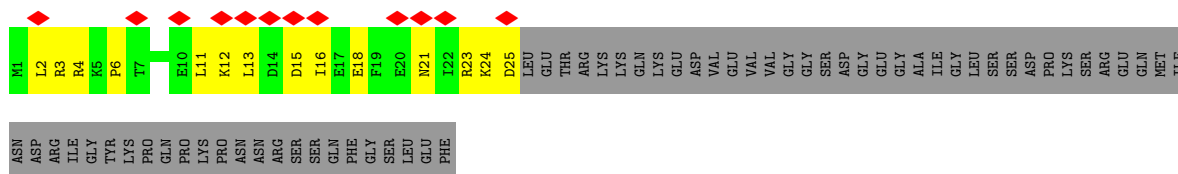
• Molecule 3: Cell division cycle protein 23 homolog







- Molecule 7: Anaphase-promoting complex subunit CDC26

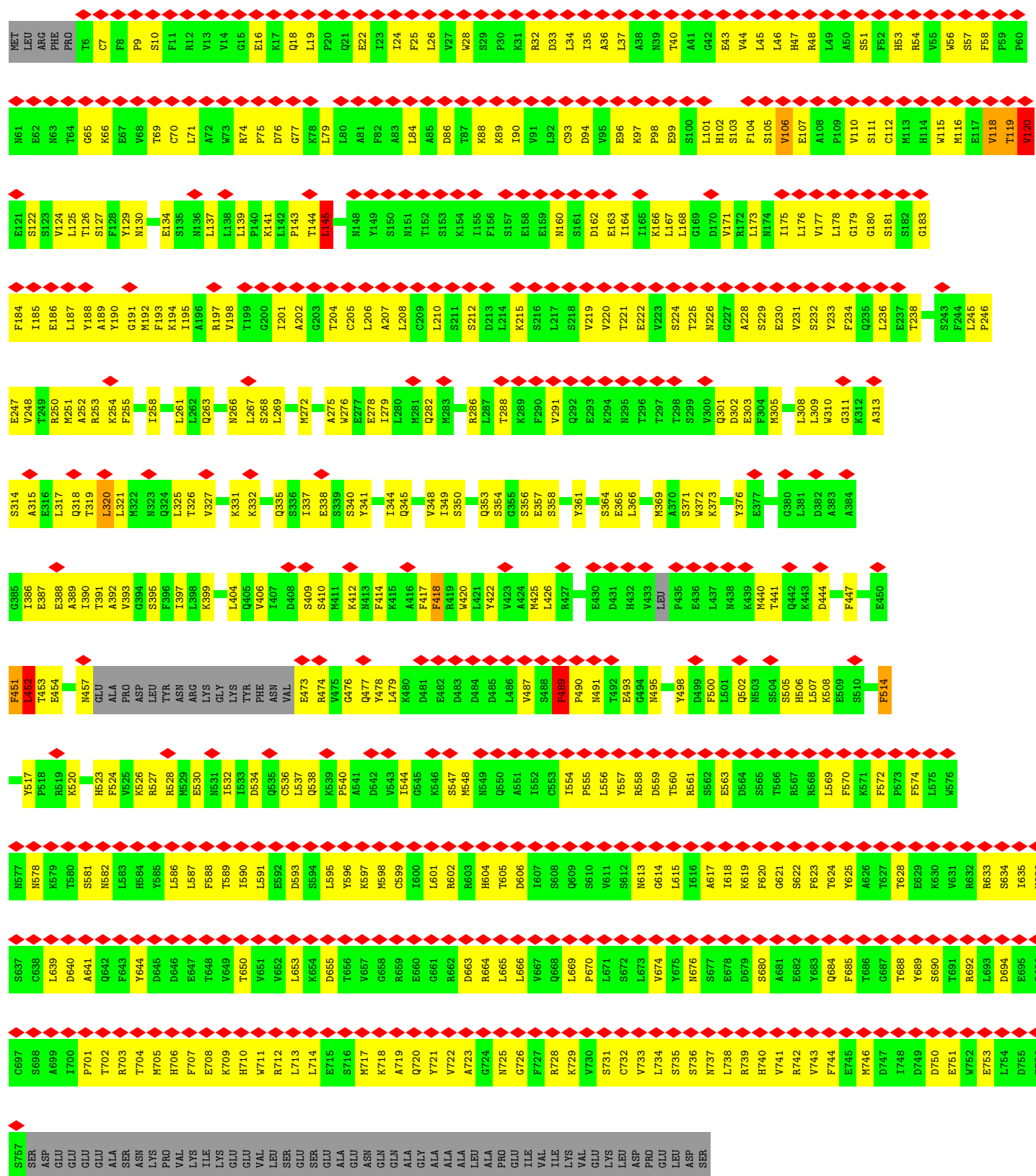


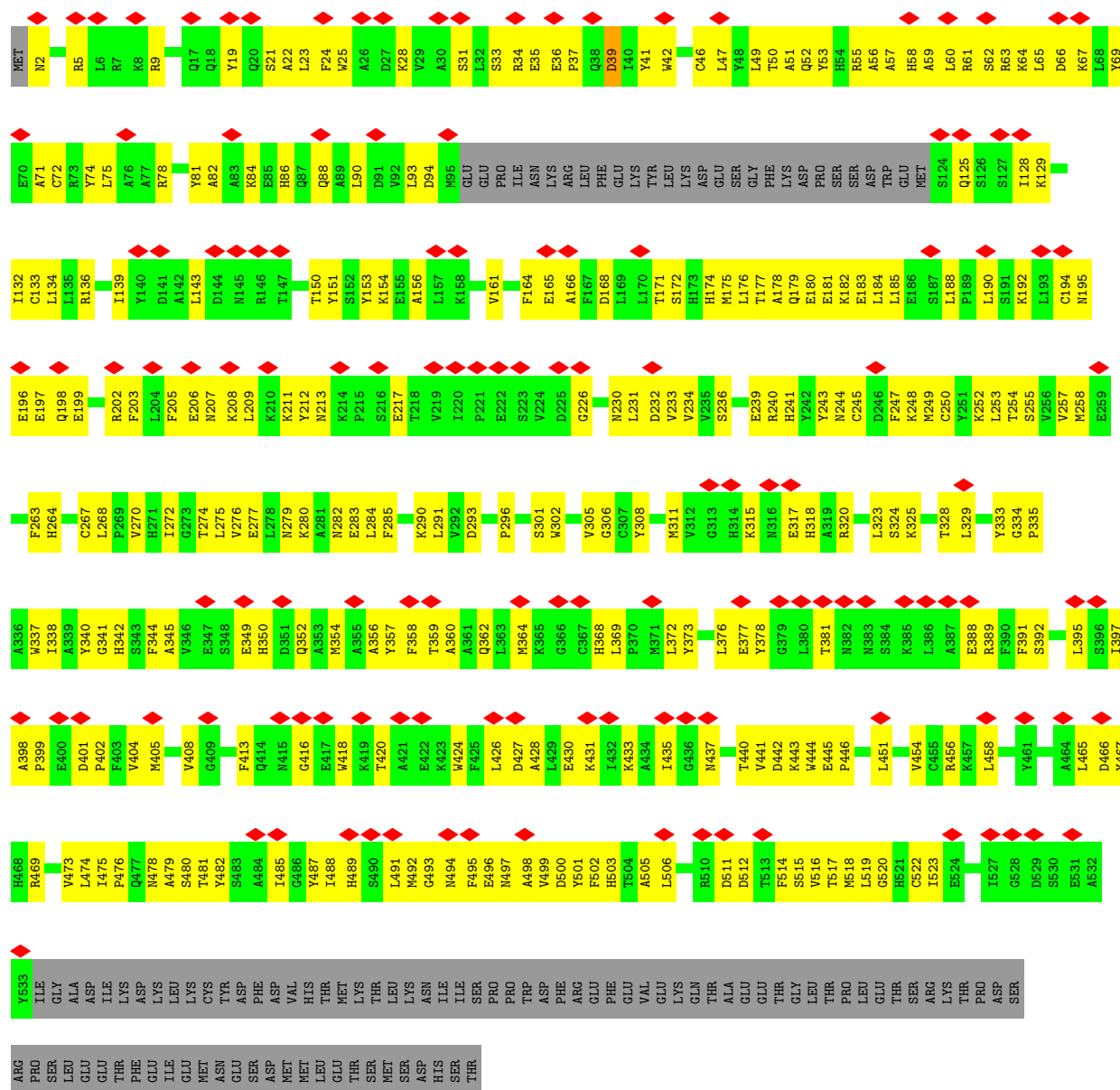
- Molecule 7: Anaphase-promoting complex subunit CDC26



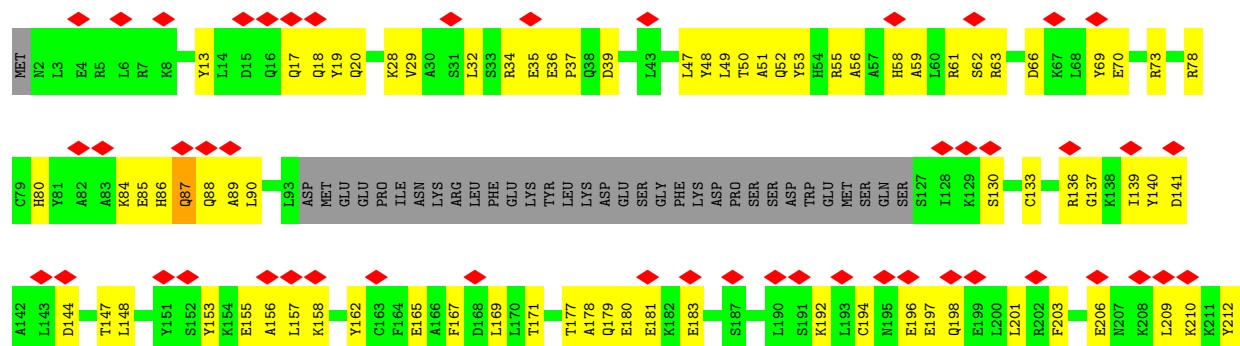
- Molecule 8: Anaphase-promoting complex subunit 4

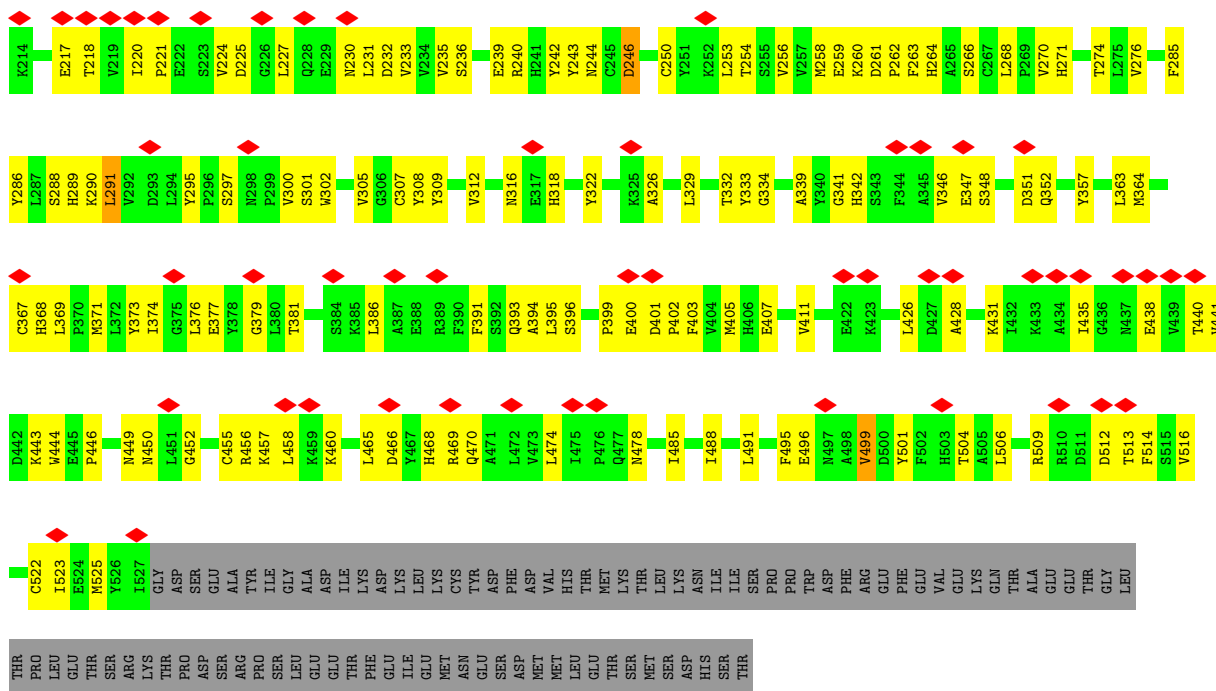




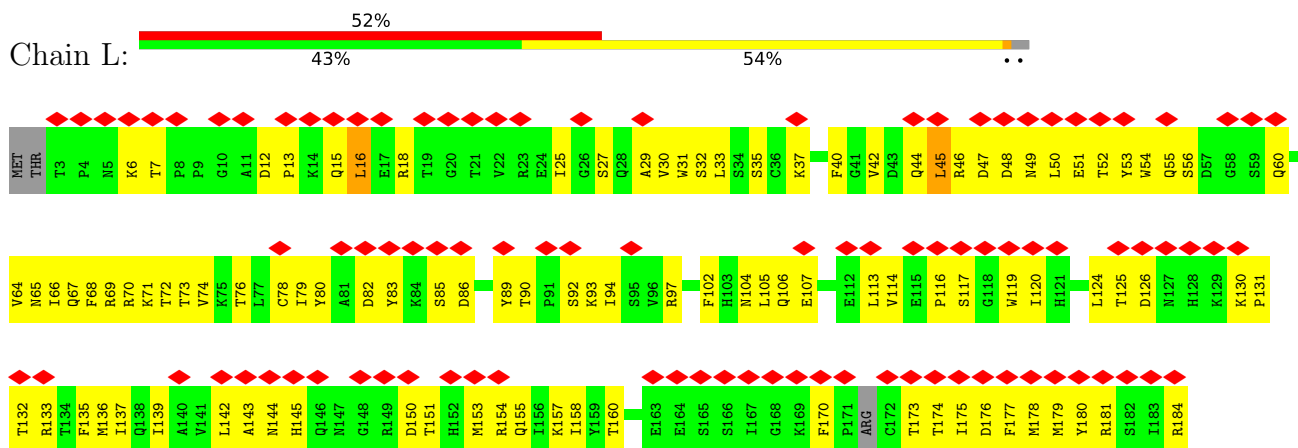


• Molecule 9: Cell division cycle protein 16 homolog

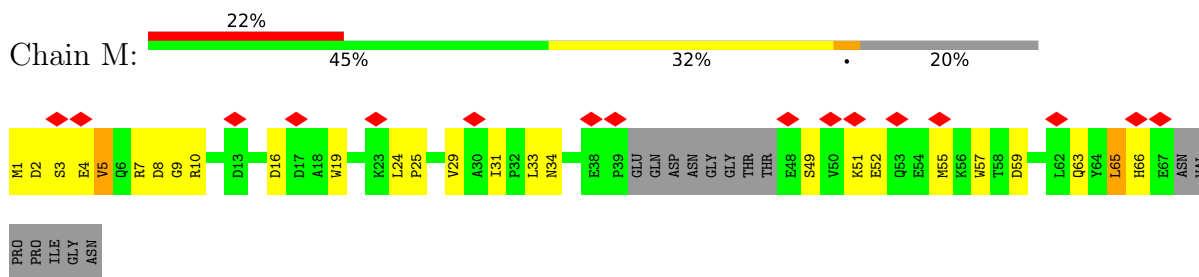




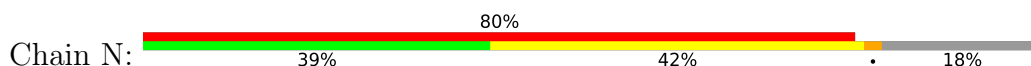
• Molecule 10: Anaphase-promoting complex subunit 10



• Molecule 11: Anaphase-promoting complex subunit 13

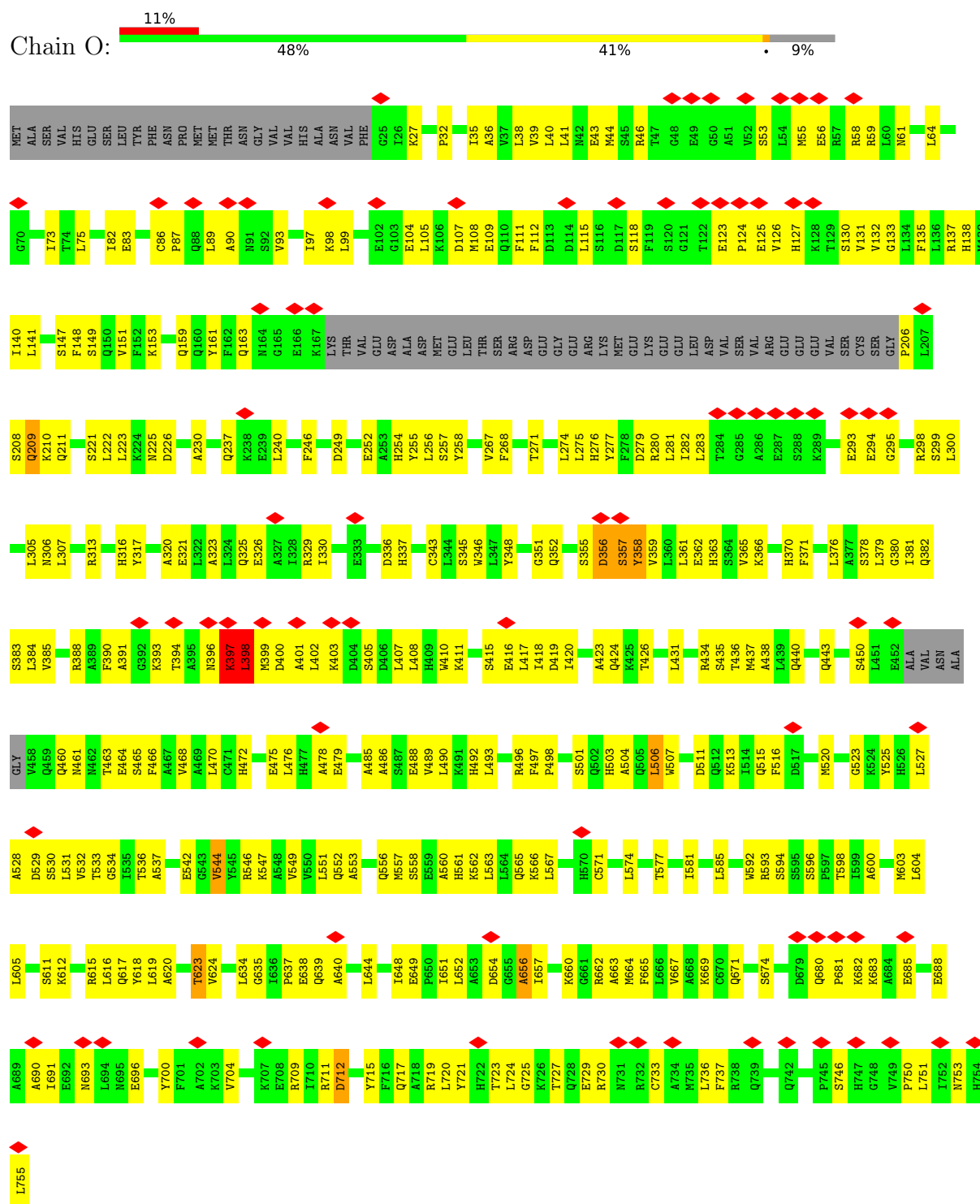


• Molecule 12: Anaphase-promoting complex subunit 2

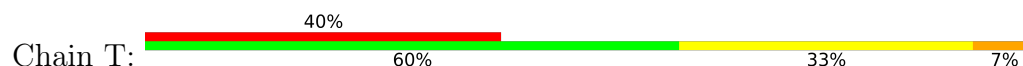


A786	L787	A788	E789	I790	D791	L792	Q793	E794	L795	Q796	G797	Y798	L799	Q800	K801	K802	V803	R804	D805	Q806	Q807	L808	V809	Y810	S811	A812	G813	V814	Y815	R816	L817	P818	LYS	ASN	CYS	SER																							
N726	M727	V728	L729	I730	ASP	SER	ASP	GLU	ASP	ASP	GLY	MET	ALA	SER	GLN	ASP	K747	E748	E749	E750	L751	L752	L753	F754	W755	T756	Y757	V758	Q759	A760	M761	L762	T763	N764	L765	E766	S767	L768	S769	L770	D771	R772	I773	Y774	N775	M776	L777	R778	M779	F780	V781	W782	T783	G784	P785				
I666	L667	L668	Y669	F670	G671	D672	Q673	A674	S675	W676	T677	L678	E679	E680	L681	S682	K683	A684	V685	K686	M687	P688	V689	A690	L691	L692	R693	R694	R695	M696	S697	V698	W699	L700	Q701	Q702	G703	W704	L705	R706	E707	E708	P709	F710	G711	T712	F713	S714	V715	I716	E717	E718	E719	R720	P721	Q722	Q723	R724	D725
D606	E607	K608	L609	E610	V611	P612	E613	D614	I615	R616	A617	A618	L619	E620	A621	Y622	K624	K625	E626	Y627	Q628	L629	K630	A631	M632	R633	T634	L635	S636	W637	K638	H639	T640	L641	G642	L643	V644	T645	M646	H647	V648	E649	L650	A651	D652	R653	T654	L655	S656	V657	A658	E659	T660	P661	V662	Q663	A664	V665	
K546	L547	R548	F549	G550	E551	A552	P553	M554	H555	F556	C557	E558	V559	M560	L561	K562	M564	A565	D566	S567	R568	R569	I570	N571	A572	N573	I574	R575	E576	E577	D578	E579	K580	R581	P582	E583	E584	E585	Q586	P587	P588	F589	G590	V591	Y592	A593	V594	I595	L596	S597	S598	E599	F600	W601	P602	P603	F604	K605	
D486	ALA	ASP	PRO	GLY	SER	SER	LYS	ARG	ARG	SER	S499	D500	I501	I502	M560	S503	L504	L505	V506	S507	I508	Y509	G510	S511	K512	D513	L514	F515	I516	N517	E518	Y519	R520	S521	L522	L523	A524	D525	R526	L527	L528	H529	Q530	F531	S532	F533	S534	P535	E536	R537	E538	I539	R540	N541	E542	V543	L544	L545	
E422	P423	F424	R425	E426	Y427	L428	R429	T430	R431	E432	D433	T434	Y435	R436	Q437	L438	A440	G441	L442	T443	GLY	ASP	SER	ASP	GLY	THR	GLY	GLY	ASP	ALA	VAL	GLU	LEU	SER	LYS	THR	THR	GLY	GLN	ASP	SER	ASP	ASP	S474	W480	V481	P482	D483	P484	W485									
K362	Y363	C364	L365	E366	T367	T368	D369	Q370	R371	Q372	Q373	L374	L375	V376	S377	L378	K379	A380	A381	L382	E383	T384	R385	L386	L387	H388	P389	G390	V391	I392	T393	C394	D395	I396	L397	T398	L399	Y400	I401	S402	A403	I404	K405	A406	L407	R408	V409	L410	D411	P412	S413	M414	V415	I416	E359	D360	V419	A420	C421
K302	V303	F304	LEU	GLN	ASP	GLY	PRO	ALA	ARG	PRO	SER	PRO	GLU	ALA	GLY	N319	T320	L321	R322	R323	W324	R325	C326	H327	V328	Q329	R330	F331	F332	Y333	R334	I335	Y336	A337	S338	L339	R340	I341	E342	E343	L344	F345	S346	I347	V348	R349	D350	F351	P352	D353	S354	R355	P356	A357	M358	I359	E360	L361	
Q242	L243	S244	Q245	V246	L247	H248	R249	L250	S251	L252	E253	E254	R255	V256	S257	A258	R259	A260	V261	T262	T263	T264	H266	Q267	V268	T269	R270	E271	R272	M273	E274	D275	R276	C277	R278	G279	E280	Y281	E282	R283	S284	F285	L286	R287	E288	F289	H290	K291	W292	I293	E294	R295	V296	V297	G298	W299	L300	G301	
V61	L62	R63	G64	H65	G66	L67	H68	S69	V70	L71	E72	E73	W74	F75	V76	L79	Q80	N81	D82	L83	Q84	A85	N86	I87	S88	P89	E90	F91	W92	N93	A94	I95	S96	Q97	C98	E99	N100	S101	A102	D103	E104	P105	Q106	C107	L108	L109	L110	L111	L112	D113	A114	F115	G116	L117	L118	E119	S120	R121	
MET	ALA	ALA	ALA	VAL	VAL	VAL	ALA	GLY	ASP	ASP	SER	SER	R15	P16	G17	Q18	E19	L20	L21	V22	A23	V24	N25	T26	V27	S28	T29	G30	L31	V32	P33	PRO	ALA	ALA	LEU	GLY	LEU	VAL	SER	SER	ARG	THR	SER	GLY	ALA	VAL	PRO	P50	A51	E52	E53	E54	L55	R56	A57	V59	E60		

• Molecule 13: Anaphase-promoting complex subunit 5

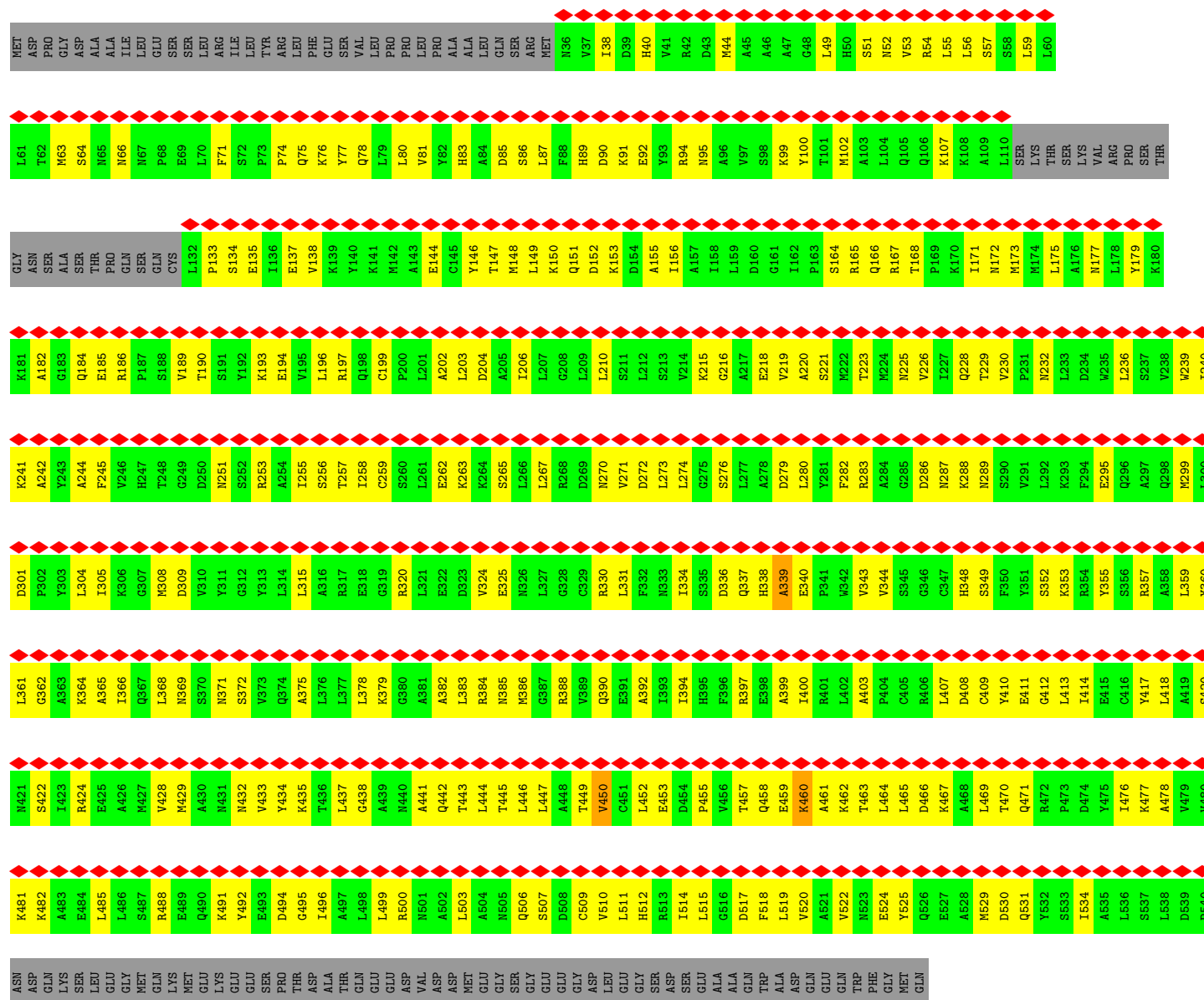
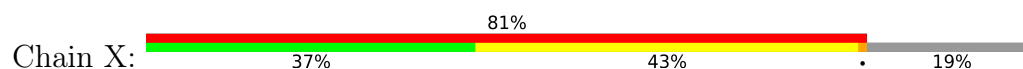


• Molecule 14: Apc1 loop





• Molecule 15: Anaphase-promoting complex subunit 7



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	233840	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	29	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.201	Depositor
Minimum map value	-0.165	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.023	Depositor
Map size (Å)	388.69998, 388.69998, 388.69998	wwPDB
Map dimensions	338, 338, 338	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.15, 1.15, 1.15	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	0.54	0/12168	0.73	4/16587 (0.0%)
2	B	0.28	0/674	0.65	0/913
3	C	0.54	0/4404	0.67	0/5945
3	P	0.43	0/4141	0.60	0/5593
4	D	0.48	0/446	0.69	0/610
5	E	0.44	0/459	0.55	0/619
6	F	0.40	0/3704	0.60	2/5019 (0.0%)
6	H	0.49	0/3969	0.63	0/5366
7	G	0.29	0/221	0.59	0/292
7	W	0.48	0/219	0.80	0/291
8	I	0.48	1/5849 (0.0%)	0.69	7/7937 (0.1%)
9	J	0.41	0/4152	0.60	0/5623
9	K	0.44	0/4086	0.61	0/5533
10	L	0.43	0/1468	0.68	2/1993 (0.1%)
11	M	0.43	0/490	0.71	1/665 (0.2%)
12	N	0.37	0/5442	0.67	5/7376 (0.1%)
13	O	0.58	0/5499	0.71	0/7432
14	T	0.44	0/78	1.16	2/107 (1.9%)
15	X	0.30	0/3827	0.57	2/5180 (0.0%)
15	Y	0.29	0/3922	0.57	0/5304
16	S	0.15	0/18	0.42	0/21
17	Q	0.75	0/22	1.02	0/26
All	All	0.46	1/65258 (0.0%)	0.66	25/88432 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	B	0	2
6	F	0	1
6	H	0	1
8	I	0	4
9	K	0	1
12	N	0	7
13	O	0	7
14	T	0	1
All	All	0	32

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	I	145	LEU	C-N	-5.12	1.29	1.33

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1506	VAL	N-CA-C	-9.15	104.44	112.12
12	N	121	ARG	CA-C-N	9.06	138.00	121.70
12	N	121	ARG	C-N-CA	9.06	138.00	121.70
12	N	704	VAL	N-CA-C	7.92	125.81	109.34
11	M	65	LEU	N-CA-C	-7.24	104.97	114.31
10	L	170	PHE	CA-C-N	6.60	142.84	127.00
10	L	170	PHE	C-N-CA	6.60	142.84	127.00
6	F	96	VAL	CA-C-N	6.55	133.49	121.70
6	F	96	VAL	C-N-CA	6.55	133.49	121.70
8	I	489	PRO	C-N-CD	-6.19	106.97	120.60
12	N	481	VAL	N-CA-C	-6.19	102.21	108.96
8	I	489	PRO	CA-C-N	6.17	141.82	127.00
8	I	489	PRO	C-N-CA	6.17	141.82	127.00
14	T	11	ALA	CA-C-N	6.14	132.75	121.70
14	T	11	ALA	C-N-CA	6.14	132.75	121.70
8	I	487	VAL	CA-C-N	5.68	135.67	121.80
8	I	487	VAL	C-N-CA	5.68	135.67	121.80
15	X	339	ALA	CA-C-N	5.39	127.48	120.26
15	X	339	ALA	C-N-CA	5.39	127.48	120.26
1	A	1030	GLU	N-CA-C	-5.34	107.13	113.38
1	A	1013	ASP	CA-C-N	5.20	131.21	123.05
1	A	1013	ASP	C-N-CA	5.20	131.21	123.05
8	I	118	VAL	CA-C-N	5.06	131.21	121.54
8	I	118	VAL	C-N-CA	5.06	131.21	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	N	163	PHE	N-CA-C	-5.05	107.07	113.23

There are no chirality outliers.

All (32) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	128	TRP	Peptide
1	A	140	LYS	Peptide
1	A	1455	GLU	Peptide
1	A	1679	ASP	Peptide
1	A	424	ASN	Peptide
1	A	824	ASP	Peptide
1	A	855	GLU	Peptide
1	A	856	GLY	Peptide
2	B	14	TRP	Peptide
2	B	15	LEU	Peptide
6	F	96	VAL	Peptide
6	H	101	LYS	Peptide
8	I	119	THR	Peptide
8	I	120	VAL	Peptide
8	I	489	PRO	Peptide
8	I	514	PHE	Peptide
9	K	87	GLN	Peptide
12	N	122	LEU	Peptide
12	N	432	GLU	Peptide
12	N	433	ASP	Peptide
12	N	530	GLN	Peptide
12	N	531	PHE	Peptide
12	N	534	SER	Peptide
12	N	703	GLY	Peptide
13	O	355	SER	Peptide
13	O	356	ASP	Peptide
13	O	357	SER	Peptide
13	O	396	ASN	Peptide
13	O	397	LYS	Peptide
13	O	398	LEU	Peptide
13	O	656	ALA	Peptide
14	T	10	ALA	Peptide

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	11890	0	11565	726	0
2	B	649	0	597	65	0
3	C	4306	0	4275	230	0
3	P	4046	0	3998	253	0
4	D	436	0	396	25	0
5	E	450	0	435	22	0
6	F	3618	0	3452	207	0
6	H	3879	0	3805	215	0
7	G	220	0	233	19	0
7	W	218	0	222	32	0
8	I	5726	0	5594	391	0
9	J	4053	0	3960	242	0
9	K	3988	0	3913	181	0
10	L	1435	0	1382	90	0
11	M	481	0	457	37	0
12	N	5337	0	5257	376	0
13	O	5400	0	5418	297	0
14	T	79	0	77	4	0
15	X	3767	0	3820	244	0
15	Y	3862	0	3915	303	0
16	S	19	0	21	7	0
17	Q	23	0	24	30	0
18	B	3	0	0	0	0
All	All	63885	0	62816	3676	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 29.

All (3676) 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)
3:P:277:ARG:CZ	17:Q:498:MET:HE1	1.28	1.55
3:P:400:ARG:NH1	17:Q:499:ARG:HB2	1.18	1.42
3:P:400:ARG:NH1	17:Q:499:ARG:CB	1.91	1.33
3:P:400:ARG:NH1	17:Q:498:MET:O	1.62	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:277:ARG:NH2	17:Q:498:MET:CE	1.92	1.32
3:P:400:ARG:HH12	17:Q:498:MET:C	1.40	1.30
3:P:400:ARG:CZ	17:Q:499:ARG:HB2	1.69	1.23
3:P:277:ARG:CZ	17:Q:498:MET:CE	2.18	1.19
3:P:277:ARG:NH2	17:Q:498:MET:HE1	1.51	1.16
16:S:498:MET:O	16:S:499:ARG:HG2	1.51	1.10
3:P:400:ARG:HH12	17:Q:499:ARG:N	1.51	1.07
3:P:400:ARG:HH12	17:Q:499:ARG:CA	1.66	1.07
3:P:400:ARG:NH1	17:Q:498:MET:C	2.08	1.06
3:P:277:ARG:NH2	17:Q:498:MET:HE2	1.70	1.03
3:P:400:ARG:NH1	17:Q:499:ARG:CA	2.21	1.01
16:S:498:MET:O	16:S:499:ARG:CG	2.15	0.94
15:Y:393:ILE:HG22	15:Y:397:ARG:HH11	1.33	0.94
2:B:14:TRP:HA	2:B:15:LEU:HG	1.50	0.93
12:N:523:LEU:HD23	12:N:526:ARG:HH12	1.36	0.91
15:Y:383:LEU:HB2	15:Y:392:ALA:HB2	1.52	0.90
15:Y:302:PRO:O	15:Y:330:ARG:NH2	2.05	0.89
3:P:277:ARG:NH1	17:Q:498:MET:HE1	1.87	0.89
3:P:400:ARG:HH11	17:Q:499:ARG:HB2	1.34	0.89
15:X:397:ARG:HA	15:X:400:ILE:HD12	1.52	0.89
13:O:691:ILE:HD11	13:O:717:GLN:HG3	1.54	0.89
13:O:391:ALA:O	13:O:615:ARG:NH1	2.06	0.88
12:N:121:ARG:HB3	12:N:122:LEU:HB2	1.56	0.88
3:P:400:ARG:CZ	17:Q:499:ARG:CB	2.42	0.88
8:I:74:ARG:HA	8:I:115:TRP:HE3	1.39	0.87
13:O:326:GLU:OE1	13:O:329:ARG:NH2	2.08	0.87
15:Y:238:VAL:HA	15:Y:241:LYS:HD2	1.56	0.87
6:H:12:ILE:HG21	6:H:43:LEU:HD21	1.55	0.86
3:C:347:HIS:NE2	3:C:377:GLU:OE1	2.08	0.86
9:K:264:HIS:HD2	9:K:266:SER:H	1.22	0.86
3:P:186:LYS:HA	3:P:189:ILE:HD12	1.58	0.86
12:N:645:THR:HA	12:N:658:ALA:HA	1.58	0.85
6:H:102:SER:O	6:H:105:ASP:N	2.09	0.85
13:O:721:TYR:O	13:O:725:GLY:N	2.09	0.85
6:F:77:LYS:HZ1	6:H:19:TYR:HD2	1.23	0.85
8:I:89:LYS:HA	8:I:105:SER:HA	1.59	0.84
1:A:1191:LEU:HD11	1:A:1196:TYR:HE2	1.42	0.84
3:C:201:LEU:HA	3:C:229:MET:HE3	1.59	0.84
3:C:531:THR:HA	3:C:534:GLN:HE21	1.42	0.84
6:H:526:ARG:NH2	6:H:530:ASN:O	2.10	0.84
1:A:808:ARG:HH22	1:A:1894:VAL:HG13	1.42	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:164:SER:HA	15:X:167:ARG:HE	1.42	0.83
1:A:1455:GLU:H	1:A:1458:SER:H	1.21	0.83
10:L:32:SER:HB2	10:L:65:ASN:HB2	1.61	0.83
1:A:85:GLU:H	13:O:566:LYS:HZ3	1.25	0.83
1:A:809:ASP:O	1:A:1808:THR:OG1	1.96	0.83
3:P:400:ARG:CZ	17:Q:498:MET:O	2.27	0.83
1:A:153:ILE:HB	1:A:160:ASN:HB2	1.60	0.83
15:X:512:HIS:HB3	15:X:531:GLN:HE21	1.44	0.82
15:Y:434:TYR:HA	15:Y:444:LEU:HD13	1.57	0.82
6:F:23:ASP:HB3	6:H:150:SER:H	1.43	0.82
15:X:63:MET:SD	15:Y:235:TRP:NE1	2.52	0.82
8:I:145:LEU:HD21	8:I:267:LEU:HG	1.61	0.82
8:I:51:SER:HB3	12:N:806:GLN:NE2	1.94	0.82
1:A:155:GLN:NE2	1:A:158:CYS:SG	2.52	0.82
1:A:1086:MET:HE1	1:A:1560:MET:HG3	1.61	0.82
1:A:506:VAL:HG13	1:A:639:VAL:HG23	1.61	0.82
1:A:879:LEU:HG	1:A:929:ARG:HH21	1.44	0.82
3:C:305:ASN:HD22	3:C:339:ASN:HD21	1.26	0.82
9:K:478:ASN:HD21	7:W:8:ARG:HH22	1.28	0.82
12:N:250:LEU:HB3	12:N:252:LEU:HD12	1.59	0.81
12:N:621:ALA:HA	12:N:624:LYS:HD2	1.61	0.81
6:H:16:LEU:HD22	6:H:50:ARG:HH11	1.45	0.81
12:N:334:ARG:NH1	12:N:368:THR:OG1	2.13	0.81
16:S:498:MET:C	16:S:499:ARG:HG2	2.05	0.81
2:B:8:TRP:HA	12:N:644:VAL:HG12	1.60	0.81
6:F:554:VAL:HG21	9:K:286:TYR:HB2	1.61	0.81
6:H:660:LYS:NZ	9:K:496:GLU:OE2	2.11	0.81
1:A:1133:SER:OG	1:A:1170:ASN:ND2	2.13	0.81
1:A:1672:ARG:HG3	1:A:1708:TYR:HE1	1.44	0.81
12:N:520:ARG:HA	12:N:523:LEU:HD12	1.63	0.81
1:A:628:ILE:HD13	1:A:765:VAL:HG21	1.62	0.80
13:O:55:MET:HB3	13:O:59:ARG:HH21	1.45	0.80
15:Y:261:LEU:HD22	15:Y:267:LEU:HD22	1.62	0.80
1:A:1573:SER:O	1:A:1617:ARG:NH1	2.13	0.80
15:Y:359:LEU:HD11	15:Y:386:MET:HG3	1.61	0.80
1:A:1388:ARG:HA	1:A:1411:ARG:HD2	1.62	0.80
12:N:392:ASN:ND2	12:N:395:ASP:H	1.79	0.80
11:M:52:GLU:HA	11:M:55:MET:HE2	1.64	0.80
11:M:3:SER:HB3	3:P:180:ARG:HH22	1.46	0.80
1:A:1653:ALA:O	1:A:1655:THR:N	2.15	0.80
1:A:1807:GLU:HG3	1:A:1809:SER:H	1.47	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:61:ARG:NH2	9:J:66:ASP:OD2	2.15	0.80
12:N:392:ASN:HD21	12:N:395:ASP:H	1.30	0.80
2:B:7:CYS:HB3	12:N:645:THR:HG22	1.62	0.79
1:A:1432:GLN:HA	1:A:1435:ARG:HD2	1.65	0.79
8:I:688:THR:HG22	8:I:690:SER:H	1.48	0.79
3:C:73:PRO:HG3	3:P:73:PRO:HG2	1.63	0.79
6:H:693:ASN:OD1	6:H:709:ARG:NH1	2.15	0.79
8:I:524:PHE:HZ	8:I:528:ARG:HH21	1.30	0.79
15:Y:186:ARG:HA	15:Y:189:VAL:HG12	1.64	0.79
1:A:757:THR:O	1:A:758:HIS:ND1	2.16	0.79
1:A:267:SER:OG	1:A:269:TRP:NE1	2.16	0.78
12:N:706:ARG:HB3	12:N:714:SER:HB2	1.65	0.78
12:N:433:ASP:O	12:N:435:VAL:N	2.15	0.78
1:A:137:LYS:HA	1:A:273:ARG:HH21	1.47	0.78
9:J:165:GLU:HG2	9:K:20:GLN:HB2	1.64	0.78
13:O:43:GLU:OE1	13:O:46:ARG:NH2	2.17	0.78
1:A:1495:PHE:HE1	1:A:1515:CYS:HB3	1.48	0.78
7:G:13:LEU:HA	7:G:16:ILE:HG12	1.66	0.78
8:I:205:CYS:HA	8:I:221:THR:HA	1.65	0.78
15:Y:214:VAL:O	15:Y:216:GLY:N	2.17	0.78
15:Y:84:ALA:HA	15:Y:87:LEU:HD12	1.66	0.77
12:N:429:ARG:NH2	12:N:508:ILE:O	2.17	0.77
9:K:136:ARG:NH1	9:K:140:TYR:OH	2.17	0.77
3:P:297:ILE:N	3:P:298:GLU:OE1	2.18	0.77
4:D:31:GLN:OE1	13:O:137:ARG:NH2	2.16	0.77
3:P:425:ALA:HB3	3:P:435:MET:HE2	1.64	0.77
15:X:85:ASP:OD1	15:X:100:TYR:OH	2.02	0.77
1:A:1078:MET:HE1	1:A:1132:THR:HG22	1.65	0.77
6:F:512:LEU:HG	6:F:514:GLU:H	1.50	0.77
15:X:340:GLU:CD	15:X:340:GLU:H	1.93	0.77
6:F:96:VAL:N	6:F:97:PHE:HB2	2.00	0.77
10:L:45:LEU:O	10:L:155:GLN:NE2	2.18	0.77
13:O:511:ASP:OD2	13:O:515:GLN:NE2	2.18	0.77
1:A:1839:PHE:O	1:A:1841:ASN:N	2.17	0.77
12:N:185:MET:HE1	12:N:295:ARG:HD2	1.65	0.77
12:N:527:LEU:HA	12:N:530:GLN:HA	1.65	0.77
10:L:7:THR:HG23	10:L:114:VAL:HG12	1.66	0.76
8:I:625:TYR:HB2	8:I:628:THR:HG22	1.66	0.76
7:G:3:ARG:HH12	9:J:243:TYR:HA	1.49	0.76
12:N:75:PHE:HE2	12:N:129:LEU:HD13	1.50	0.76
7:G:16:ILE:HD12	9:J:514:PHE:CD1	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:162:PHE:HB2	12:N:255:ARG:HH22	1.51	0.76
13:O:357:SER:O	13:O:359:VAL:N	2.18	0.76
3:P:189:ILE:HG23	3:P:209:LEU:HD11	1.66	0.76
1:A:616:GLU:HB2	13:O:556:GLN:HG3	1.67	0.76
6:H:130:ARG:HG2	9:K:469:ARG:HD3	1.66	0.76
9:J:239:GLU:HG2	9:J:270:VAL:HG21	1.67	0.76
1:A:1884:MET:N	1:A:1884:MET:SD	2.59	0.76
8:I:341:TYR:HA	8:I:344:ILE:HD12	1.68	0.76
6:F:77:LYS:NZ	6:H:18:HIS:O	2.18	0.76
13:O:109:GLU:OE2	3:P:346:GLN:NE2	2.19	0.76
3:P:308:TYR:CE2	17:Q:499:ARG:NH1	2.54	0.76
1:A:1292:GLU:OE1	1:A:1292:GLU:N	2.19	0.75
9:J:264:HIS:HD2	9:J:267:CYS:H	1.33	0.75
3:P:400:ARG:HH22	17:Q:499:ARG:HA	1.52	0.75
2:B:44:CYS:HG	2:B:58:HIS:HD1	1.32	0.75
3:C:493:TYR:HH	3:C:509:GLU:N	1.83	0.75
6:H:583:HIS:O	6:H:586:ALA:N	2.19	0.75
1:A:1128:PRO:HD2	1:A:1131:MET:HE3	1.67	0.75
6:F:25:VAL:HG12	6:F:47:CYS:HB3	1.68	0.75
1:A:775:LEU:HD23	1:A:869:ARG:HB3	1.68	0.75
13:O:557:MET:SD	13:O:593:ARG:NH1	2.60	0.75
15:Y:246:VAL:HG13	15:Y:280:LEU:HD21	1.68	0.75
3:P:277:ARG:HH22	17:Q:498:MET:CE	1.94	0.75
14:T:11:ALA:HA	14:T:12:ALA:HB3	1.68	0.75
1:A:459:GLU:HB3	1:A:466:LEU:HD23	1.69	0.75
6:F:112:ASP:OD1	6:F:113:SER:N	2.18	0.75
1:A:715:TYR:HE1	13:O:750:PRO:HD2	1.51	0.74
1:A:830:PHE:O	1:A:833:HIS:N	2.20	0.74
1:A:1574:LEU:O	1:A:1617:ARG:NH1	2.20	0.74
6:H:702:ASN:OD1	6:H:705:CYS:N	2.14	0.74
7:G:3:ARG:NH2	9:J:245:CYS:SG	2.60	0.74
15:Y:356:SER:HA	15:Y:359:LEU:HD12	1.69	0.74
1:A:963:ARG:O	1:A:980:ARG:NH2	2.21	0.74
8:I:93:CYS:SG	8:I:94:ASP:N	2.60	0.74
1:A:134:SER:OG	1:A:136:ASP:N	2.13	0.74
15:X:383:LEU:HB3	15:X:392:ALA:HB2	1.68	0.74
1:A:1672:ARG:HG3	1:A:1708:TYR:CE1	2.23	0.74
6:H:25:VAL:HG13	6:H:48:TYR:HE1	1.51	0.74
6:H:726:LEU:HD21	6:H:742:LEU:HD23	1.68	0.74
12:N:422:GLU:HA	12:N:425:ARG:HD2	1.69	0.74
1:A:431:PHE:HB2	1:A:481:PRO:HG3	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1626:THR:OG1	1:A:1628:THR:OG1	2.04	0.74
9:K:368:HIS:HA	9:K:371:MET:HE3	1.69	0.73
13:O:493:LEU:HD13	13:O:507:TRP:HB2	1.70	0.73
6:F:97:PHE:HB3	6:F:99:LYS:H	1.52	0.73
8:I:578:ASN:OD1	8:I:581:SER:N	2.21	0.73
12:N:553:PRO:HB2	12:N:554:MET:HE2	1.70	0.73
10:L:113:LEU:O	10:L:145:HIS:NE2	2.19	0.73
12:N:386:LEU:HD22	12:N:399:LEU:HD23	1.71	0.73
3:C:96:VAL:H	3:C:97:LYS:HA	1.54	0.73
8:I:666:LEU:HB2	8:I:714:LEU:HD21	1.71	0.73
12:N:63:ARG:NH2	12:N:139:GLY:O	2.22	0.73
13:O:356:ASP:HA	13:O:357:SER:CB	2.19	0.73
13:O:415:SER:HA	13:O:418:ILE:HD12	1.69	0.73
15:X:63:MET:HG2	15:Y:266:LEU:HB3	1.71	0.73
15:X:434:TYR:HA	15:X:444:LEU:HD13	1.69	0.73
15:X:492:TYR:O	15:X:495:GLY:N	2.22	0.73
1:A:433:THR:HG22	1:A:434:SER:H	1.53	0.73
2:B:13:THR:OG1	12:N:605:LYS:NZ	2.21	0.73
9:K:36:GLU:OE2	9:K:39:ASP:N	2.18	0.73
9:K:85:GLU:HB3	9:K:88:GLN:HB2	1.70	0.73
15:Y:179:TYR:O	15:Y:183:GLY:N	2.19	0.73
1:A:774:LYS:NZ	1:A:809:ASP:OD2	2.20	0.73
12:N:431:ARG:O	12:N:434:THR:OG1	2.07	0.73
12:N:545:LEU:O	12:N:549:PHE:N	2.22	0.73
6:F:626:ASN:HA	6:F:629:ARG:HD2	1.71	0.72
7:G:18:GLU:OE1	7:G:21:ASN:ND2	2.20	0.72
11:M:34:ASN:HD22	11:M:51:LYS:HE2	1.54	0.72
6:F:92:LEU:HB2	6:F:121:LEU:HD21	1.69	0.72
13:O:222:LEU:O	13:O:226:ASP:N	2.20	0.72
15:Y:137:GLU:OE1	15:Y:141:LYS:NZ	2.22	0.72
8:I:310:TRP:CD1	13:O:126:VAL:HG22	2.23	0.72
1:A:1753:TYR:O	13:O:639:GLN:NE2	2.23	0.72
4:D:10:PRO:O	13:O:313:ARG:NH2	2.23	0.72
6:F:644:ILE:O	6:F:648:GLN:HB2	1.90	0.72
3:P:400:ARG:NH2	17:Q:499:ARG:HA	2.05	0.72
3:P:511:THR:OG1	3:P:512:ALA:N	2.22	0.72
1:A:966:PRO:HD3	1:A:980:ARG:HH22	1.55	0.72
3:C:390:HIS:CE1	13:O:280:ARG:HH22	2.07	0.72
13:O:133:GLY:O	13:O:137:ARG:HG3	1.90	0.72
13:O:435:SER:N	13:O:654:ASP:OD2	2.19	0.72
5:E:86:VAL:HG22	6:H:589:PHE:HE1	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:19:TYR:OH	6:H:50:ARG:NE	2.22	0.72
15:X:276:SER:O	15:X:280:LEU:HG	1.90	0.72
15:X:459:GLU:HA	15:X:462:LYS:HD3	1.72	0.72
1:A:489:LEU:HD11	1:A:497:LEU:HB3	1.69	0.72
8:I:315:ALA:HA	8:I:318:GLN:HE21	1.55	0.72
12:N:517:ASN:HA	12:N:520:ARG:HG2	1.70	0.72
1:A:1835:LYS:HB2	1:A:1838:LEU:HB2	1.72	0.71
11:M:31:ILE:HG22	11:M:33:LEU:H	1.54	0.71
12:N:500:ASP:O	12:N:503:SER:OG	2.05	0.71
12:N:574:ILE:HG13	12:N:625:LYS:HG2	1.72	0.71
6:F:639:TYR:HD1	6:F:672:LEU:HD13	1.55	0.71
9:J:5:ARG:NH1	9:K:194:CYS:SG	2.63	0.71
12:N:629:LEU:HB3	12:N:633:ARG:HH12	1.55	0.71
13:O:504:ALA:HB1	13:O:507:TRP:HE1	1.55	0.71
5:E:78:ARG:NH2	15:Y:329:CYS:SG	2.63	0.71
8:I:451:PHE:O	8:I:453:THR:N	2.23	0.71
9:J:94:ASP:OD1	9:J:136:ARG:NH1	2.19	0.71
10:L:80:TYR:HD1	10:L:154:ARG:HB2	1.55	0.71
1:A:1032:LEU:H	12:N:483:ASP:CB	2.03	0.71
2:B:14:TRP:HA	2:B:15:LEU:CG	2.20	0.71
8:I:622:SER:H	8:I:706:HIS:HA	1.55	0.71
8:I:653:LEU:O	8:I:665:LEU:N	2.21	0.71
13:O:415:SER:O	13:O:418:ILE:N	2.22	0.71
10:L:78:CYS:SG	10:L:79:ILE:N	2.63	0.71
12:N:762:LEU:O	12:N:766:GLU:N	2.23	0.71
12:N:769:SER:HB2	12:N:772:ARG:HD3	1.71	0.71
6:H:658:PHE:HB3	6:H:675:ILE:HG12	1.71	0.71
15:X:509:CYS:HA	15:X:512:HIS:HD2	1.55	0.71
15:Y:93:TYR:CZ	15:Y:148:MET:HG3	2.26	0.71
1:A:125:GLN:NE2	1:A:179:ASN:OD1	2.24	0.71
8:I:621:GLY:N	8:I:705:MET:O	2.21	0.71
9:K:466:ASP:OD2	9:K:470:GLN:NE2	2.23	0.71
13:O:356:ASP:HA	13:O:357:SER:HB3	1.71	0.71
1:A:710:LEU:O	1:A:713:SER:OG	2.08	0.71
8:I:51:SER:HB3	12:N:806:GLN:HE21	1.55	0.71
8:I:725:ASN:OD1	8:I:726:GLY:N	2.23	0.71
13:O:435:SER:O	13:O:438:ALA:N	2.23	0.71
9:K:376:LEU:HD13	9:K:407:GLU:HB3	1.72	0.71
8:I:717:MET:SD	8:I:742:ARG:NH2	2.64	0.70
12:N:571:ASN:HD21	12:N:593:ALA:H	1.37	0.70
1:A:434:SER:OG	1:A:435:ASP:N	2.23	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:736:GLU:HB2	6:F:739:VAL:HG23	1.72	0.70
9:J:150:THR:HG23	9:J:154:LYS:HZ2	1.55	0.70
13:O:254:HIS:O	13:O:257:SER:OG	2.09	0.70
3:P:222:LEU:HB2	3:P:224:LEU:HD11	1.71	0.70
15:Y:147:THR:HG22	15:Y:178:LEU:HD21	1.74	0.70
1:A:879:LEU:HD21	1:A:929:ARG:HE	1.55	0.70
1:A:1635:GLU:HB2	1:A:1669:LYS:HE2	1.73	0.70
6:F:544:TRP:CD1	6:F:579:LEU:HG	2.26	0.70
6:F:16:LEU:O	6:F:19:TYR:N	2.23	0.70
7:W:13:LEU:H	7:W:13:LEU:HD12	1.56	0.70
8:I:116:MET:HE1	8:I:210:LEU:HD23	1.73	0.70
8:I:372:TRP:HZ3	13:O:664:MET:HE1	1.57	0.70
15:Y:141:LYS:HA	15:Y:144:GLU:HG2	1.72	0.70
1:A:1672:ARG:HD2	1:A:1705:GLN:HB3	1.74	0.70
1:A:1459:GLN:NE2	1:A:1507:THR:O	2.24	0.70
8:I:93:CYS:SG	8:I:99:GLU:N	2.64	0.70
15:Y:248:THR:OG1	15:Y:250:ASP:OD2	2.07	0.70
1:A:1619:LEU:HD21	1:A:1697:LEU:HD23	1.72	0.70
8:I:420:TRP:HB2	8:I:440:MET:HE1	1.74	0.70
9:K:456:ARG:HH22	7:W:11:LEU:HD21	1.57	0.70
3:P:415:PRO:O	3:P:419:LEU:N	2.22	0.70
1:A:1728:SER:HB3	12:N:255:ARG:HG3	1.73	0.70
12:N:577:GLU:HG2	12:N:583:ALA:HB2	1.74	0.70
15:Y:475:TYR:HE2	15:Y:477:LYS:HB3	1.57	0.70
1:A:1060:HIS:HA	1:A:1063:ILE:HD12	1.74	0.69
3:P:477:HIS:HA	3:P:480:LEU:HB2	1.74	0.69
15:X:52:ASN:OD1	15:Y:204:ASP:N	2.22	0.69
15:Y:428:VAL:O	15:Y:432:ASN:ND2	2.20	0.69
15:X:500:ARG:HE	15:X:515:LEU:HD11	1.57	0.69
1:A:1574:LEU:HD23	1:A:1574:LEU:H	1.58	0.69
8:I:74:ARG:O	8:I:77:GLY:N	2.24	0.69
1:A:1799:ARG:NH1	1:A:1810:GLU:OE2	2.24	0.69
1:A:1805:MET:HE3	1:A:1807:GLU:HB3	1.73	0.69
8:I:544:ILE:O	8:I:547:SER:OG	2.09	0.69
8:I:9:PRO:HB2	8:I:712:ARG:HD2	1.75	0.69
8:I:74:ARG:HA	8:I:115:TRP:CE3	2.24	0.69
11:M:8:ASP:OD2	11:M:10:ARG:NH1	2.26	0.69
3:C:449:LEU:O	3:C:452:ALA:N	2.25	0.69
8:I:337:ILE:O	8:I:340:SER:OG	2.10	0.69
1:A:880:TYR:HE1	1:A:958:ALA:HB2	1.56	0.69
9:K:405:MET:HE1	9:K:431:LYS:HE3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:637:PRO:O	13:O:640:ALA:N	2.25	0.69
1:A:795:ARG:NH1	1:A:814:VAL:O	2.25	0.69
1:A:1702:ARG:NE	1:A:1782:GLU:OE2	2.25	0.69
8:I:349:ILE:O	8:I:353:GLN:HB2	1.93	0.69
10:L:73:THR:O	10:L:160:THR:OG1	2.09	0.69
12:N:136:THR:HA	12:N:140:LEU:HB2	1.72	0.69
3:P:277:ARG:NH1	17:Q:498:MET:SD	2.66	0.69
15:Y:87:LEU:HD13	15:Y:96:ALA:HA	1.75	0.69
2:B:15:LEU:HD21	12:N:636:SER:H	1.56	0.69
8:I:124:VAL:O	8:I:127:SER:OG	2.10	0.69
1:A:861:PRO:HB2	1:A:899:ILE:HD11	1.74	0.69
1:A:1128:PRO:HG2	1:A:1131:MET:HB2	1.75	0.69
9:J:19:TYR:O	9:J:22:ALA:N	2.26	0.69
1:A:1084:ARG:NH2	1:A:1139:ASN:OD1	2.27	0.68
6:F:544:TRP:HD1	6:F:579:LEU:HG	1.58	0.68
9:J:47:LEU:HB3	9:J:56:ALA:HB2	1.74	0.68
9:K:35:GLU:OE1	9:K:63:ARG:NH1	2.26	0.68
3:P:348:GLU:N	3:P:348:GLU:OE2	2.25	0.68
6:F:483:GLU:HA	6:F:486:ASN:HD22	1.57	0.68
6:F:695:ALA:HB3	6:F:709:ARG:HH11	1.58	0.68
15:Y:92:GLU:OE2	15:Y:95:ASN:N	2.26	0.68
15:Y:529:MET:HA	15:Y:549:MET:HE1	1.75	0.68
1:A:981:GLN:HG2	1:A:1700:LYS:HZ2	1.59	0.68
9:J:174:HIS:HB2	9:J:364:MET:SD	2.34	0.68
6:F:23:ASP:N	6:F:23:ASP:OD1	2.25	0.68
15:Y:162:ILE:O	15:Y:167:ARG:NH2	2.27	0.68
15:Y:171:ILE:O	15:Y:175:LEU:HB2	1.94	0.68
15:Y:433:VAL:HA	15:Y:436:THR:HG22	1.76	0.68
15:Y:149:LEU:O	15:Y:150:LYS:HG2	1.94	0.68
9:K:261:ASP:OD1	9:K:264:HIS:N	2.26	0.68
13:O:98:LYS:HD2	13:O:99:LEU:HD22	1.75	0.68
8:I:171:VAL:O	8:I:190:TYR:OH	2.08	0.68
3:P:494:ILE:HG21	3:P:516:LEU:HD13	1.75	0.68
1:A:950:GLY:H	1:A:1813:GLN:HE22	1.42	0.68
9:J:236:SER:HA	9:J:239:GLU:OE1	1.93	0.68
1:A:477:LYS:HB2	1:A:491:LEU:HD12	1.76	0.67
12:N:148:GLY:O	12:N:152:GLU:HB2	1.94	0.67
12:N:663:GLN:HE22	12:N:698:VAL:HB	1.59	0.67
13:O:370:HIS:HD2	13:O:371:PHE:H	1.42	0.67
15:X:81:VAL:HG21	15:X:133:PRO:HG2	1.76	0.67
15:X:146:TYR:HB2	15:X:155:ALA:HB2	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:509:CYS:O	15:Y:512:HIS:N	2.26	0.67
1:A:1919:LYS:HD2	12:N:67:LEU:HB3	1.74	0.67
3:C:385:ILE:HG23	3:C:405:LEU:HD11	1.76	0.67
3:P:65:LEU:HD23	3:P:70:LEU:HD12	1.76	0.67
1:A:1813:GLN:O	1:A:1817:VAL:HG23	1.95	0.67
9:J:388:GLU:OE2	9:J:392:SER:OG	2.11	0.67
9:K:236:SER:HA	9:K:239:GLU:CD	2.20	0.67
3:P:99:TYR:CE2	3:P:124:LEU:HB3	2.29	0.67
15:X:204:ASP:OD2	15:Y:51:SER:OG	2.10	0.67
15:Y:321:LEU:O	15:Y:324:VAL:N	2.27	0.67
1:A:894:GLN:OE1	1:A:895:TYR:N	2.26	0.67
6:H:103:HIS:HB2	6:H:140:LYS:HE3	1.76	0.67
8:I:247:GLU:OE1	8:I:247:GLU:N	2.19	0.67
8:I:574:PHE:HB3	8:I:587:LEU:HB2	1.76	0.67
1:A:1792:ALA:HB2	13:O:598:THR:HG21	1.77	0.67
1:A:158:CYS:SG	3:C:427:GLN:NE2	2.67	0.67
9:J:217:GLU:HG3	9:J:240:ARG:HD3	1.75	0.67
12:N:663:GLN:NE2	12:N:695:ARG:O	2.27	0.67
6:H:720:LYS:NZ	6:H:721:SER:OG	2.28	0.67
9:K:446:PRO:HB3	7:W:8:ARG:HB2	1.77	0.67
11:M:5:VAL:O	11:M:7:ARG:NH2	2.27	0.67
1:A:1639:LYS:HB3	1:A:1664:LYS:HB2	1.75	0.67
3:C:536:CYS:O	3:C:542:THR:OG1	2.12	0.67
5:E:99:ILE:HD12	6:H:591:GLN:HG2	1.77	0.67
6:F:88:GLY:HA2	6:F:91:ILE:HD12	1.77	0.67
8:I:514:PHE:H	13:O:443:GLN:HE22	1.41	0.67
3:C:426:HIS:HB2	3:C:435:MET:HB3	1.76	0.67
8:I:18:GLN:HG2	8:I:740:HIS:HD2	1.59	0.67
3:P:409:TYR:HE2	3:P:421:TYR:HE2	1.43	0.67
1:A:443:CYS:SG	1:A:488:MET:HE1	2.35	0.67
1:A:1119:ASP:OD1	1:A:1119:ASP:N	2.27	0.67
8:I:589:THR:HA	8:I:598:MET:HA	1.75	0.67
9:J:378:TYR:O	9:J:381:THR:OG1	2.11	0.67
3:P:255:ILE:HG13	3:P:260:SER:HA	1.77	0.67
1:A:1916:PHE:HD1	12:N:67:LEU:HD23	1.60	0.66
9:K:395:LEU:HD12	9:K:399:PRO:HA	1.78	0.66
6:H:132:ALA:O	6:H:135:SER:OG	2.13	0.66
6:H:761:SER:O	6:H:765:ASP:HB2	1.95	0.66
13:O:388:ARG:NH1	13:O:397:LYS:O	2.28	0.66
13:O:664:MET:HG3	13:O:696:GLU:HG2	1.77	0.66
1:A:134:SER:H	1:A:135:GLN:HA	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:712:ASP:N	13:O:712:ASP:OD1	2.23	0.66
15:Y:376:LEU:HD21	15:Y:398:GLU:HG3	1.75	0.66
1:A:1064:GLU:OE1	1:A:1124:ASN:ND2	2.28	0.66
8:I:669:LEU:HD12	8:I:670:PRO:HD2	1.76	0.66
1:A:1589:TYR:CE2	1:A:1591:HIS:HB2	2.31	0.66
1:A:1434:ILE:HA	1:A:1457:LEU:HD21	1.77	0.66
3:C:80:ASP:O	3:C:84:MET:HB2	1.95	0.66
13:O:504:ALA:HB1	13:O:507:TRP:NE1	2.10	0.66
15:Y:414:ILE:HG23	15:Y:426:ALA:HB1	1.76	0.66
1:A:131:PHE:CD1	1:A:215:HIS:HA	2.31	0.66
2:B:9:ASN:HA	12:N:592:TYR:HB3	1.77	0.66
10:L:49:ASN:O	10:L:52:THR:OG1	2.13	0.66
1:A:91:GLU:OE1	1:A:102:TRP:NE1	2.19	0.66
6:H:85:LEU:O	6:H:88:GLY:N	2.28	0.66
15:Y:170:LYS:HG3	15:Y:171:ILE:HD12	1.76	0.66
15:Y:462:LYS:NZ	15:Y:489:GLU:OE2	2.29	0.66
15:Y:509:CYS:SG	15:Y:510:VAL:N	2.69	0.66
1:A:72:GLU:OE1	1:A:72:GLU:N	2.29	0.65
1:A:641:TRP:HE1	1:A:660:PHE:HA	1.61	0.65
1:A:1089:LEU:O	1:A:1091:SER:OG	2.14	0.65
6:F:159:GLY:O	6:F:161:LYS:NZ	2.28	0.65
8:I:505:SER:OG	13:O:488:GLU:OE2	2.14	0.65
10:L:73:THR:HG1	10:L:133:ARG:HE	1.42	0.65
1:A:1674:TRP:CZ3	1:A:1782:GLU:HG2	2.30	0.65
15:Y:207:LEU:O	15:Y:211:SER:OG	2.13	0.65
1:A:866:ILE:HG13	1:A:867:CYS:N	2.10	0.65
8:I:356:SER:HB2	8:I:397:ILE:HG12	1.77	0.65
15:X:343:VAL:HG22	15:X:375:ALA:HB2	1.78	0.65
15:X:361:LEU:HA	15:X:364:LYS:HD2	1.78	0.65
1:A:1910:SER:OG	1:A:1913:GLU:N	2.27	0.65
9:K:50:THR:O	9:K:52:GLN:NE2	2.29	0.65
3:P:96:VAL:HB	3:P:98:GLU:H	1.62	0.65
1:A:647:ALA:O	1:A:649:GLY:N	2.23	0.65
3:C:358:LEU:HD21	3:C:368:TRP:CE2	2.31	0.65
7:G:24:LYS:HG3	7:G:25:ASP:HB3	1.79	0.65
9:J:52:GLN:OE1	9:J:55:ARG:NE	2.29	0.65
3:P:36:LEU:HD21	3:P:228:TRP:HH2	1.60	0.65
9:K:309:TYR:OH	11:M:59:ASP:OD1	2.07	0.65
11:M:2:ASP:OD1	3:P:48:LEU:HD13	1.97	0.65
15:X:443:THR:O	15:X:447:LEU:HG	1.97	0.65
15:Y:176:ALA:HB2	15:Y:191:SER:OG	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:980:ARG:HG2	1:A:983:LEU:HD12	1.78	0.65
2:B:2:LYS:H	12:N:650:LEU:HD23	1.61	0.65
3:C:286:PHE:HB3	3:C:303:PHE:CD1	2.32	0.65
6:F:7:PRO:HG3	6:H:455:GLN:HG3	1.78	0.65
8:I:115:TRP:HE1	8:I:176:LEU:HB2	1.61	0.65
8:I:139:LEU:HD11	8:I:361:TYR:CG	2.32	0.65
3:P:264:TYR:O	3:P:267:SER:OG	2.13	0.65
1:A:1749:SER:HA	1:A:1752:GLU:HG2	1.78	0.65
6:H:537:GLU:OE2	6:H:600:TYR:OH	2.14	0.65
6:H:568:GLU:N	6:H:568:GLU:OE1	2.30	0.65
9:J:23:LEU:HG	9:J:46:CYS:HB3	1.77	0.65
9:J:161:VAL:HG23	9:J:188:LEU:HD13	1.79	0.65
1:A:1329:MET:HE3	1:A:1371:LEU:HD12	1.79	0.64
1:A:1599:ASN:HB2	1:A:1603:LEU:HA	1.78	0.64
3:C:33:LYS:NZ	3:C:63:PRO:O	2.28	0.64
3:P:277:ARG:HH22	17:Q:498:MET:HE2	1.59	0.64
15:X:196:LEU:HD11	15:X:206:ILE:HG12	1.78	0.64
1:A:187:LEU:HB3	1:A:213:MET:HB3	1.77	0.64
3:C:389:ARG:NH1	13:O:279:ASP:OD2	2.30	0.64
12:N:770:LEU:HA	12:N:773:ILE:HD12	1.79	0.64
13:O:148:PHE:O	13:O:151:VAL:N	2.30	0.64
13:O:382:GLN:NE2	13:O:424:GLN:OE1	2.29	0.64
13:O:551:LEU:HB3	13:O:560:ALA:HB2	1.79	0.64
15:X:203:LEU:HA	15:X:206:ILE:HD12	1.79	0.64
1:A:1036:ASP:OD1	1:A:1039:ARG:NH1	2.30	0.64
3:C:67:LEU:HD12	3:C:70:LEU:HB3	1.78	0.64
6:H:42:PHE:O	6:H:46:THR:HG23	1.97	0.64
8:I:56:TRP:CE3	8:I:98:PRO:HB3	2.33	0.64
8:I:502:GLN:O	8:I:508:LYS:NZ	2.29	0.64
9:J:466:ASP:OD1	9:J:469:ARG:NH2	2.29	0.64
3:C:305:ASN:ND2	3:C:339:ASN:HD21	1.96	0.64
8:I:176:LEU:HB3	8:I:188:TYR:HB2	1.78	0.64
9:J:276:VAL:HA	9:J:311:MET:SD	2.38	0.64
15:X:446:LEU:HD13	15:X:477:LYS:HD2	1.80	0.64
1:A:1540:ARG:HD3	12:N:480:TRP:CE2	2.33	0.64
8:I:219:VAL:HB	8:I:234:PHE:HB2	1.79	0.64
8:I:474:ARG:O	8:I:477:GLN:HG2	1.98	0.64
9:J:35:GLU:OE2	9:J:63:ARG:NH1	2.28	0.64
10:L:25:ILE:O	10:L:27:SER:N	2.30	0.64
3:P:96:VAL:N	3:P:97:LYS:HA	2.12	0.64
15:X:164:SER:HA	15:X:167:ARG:NE	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:446:LEU:O	15:X:481:LYS:NZ	2.30	0.64
1:A:872:LEU:HD21	1:A:937:VAL:HG11	1.79	0.64
8:I:110:VAL:HG22	8:I:111:SER:H	1.63	0.64
6:H:684:LYS:HZ2	6:H:687:LYS:HD3	1.62	0.64
8:I:65:GLY:H	8:I:84:LEU:HD13	1.61	0.64
12:N:385:ARG:O	12:N:388:HIS:NE2	2.31	0.64
15:X:409:CYS:SG	15:X:410:TYR:N	2.71	0.64
1:A:219:GLU:HA	3:C:458:ARG:NH1	2.13	0.64
1:A:1645:GLU:OE1	1:A:1645:GLU:N	2.30	0.64
2:B:44:CYS:SG	2:B:58:HIS:ND1	2.65	0.64
6:F:621:LEU:O	6:F:625:ARG:HG2	1.98	0.64
6:H:79:CYS:O	6:H:84:LYS:N	2.31	0.64
8:I:115:TRP:CD1	8:I:176:LEU:HA	2.33	0.64
13:O:147:SER:OG	3:P:353:TYR:OH	2.12	0.64
12:N:693:ARG:HA	12:N:696:MET:HG2	1.80	0.64
13:O:498:PRO:O	13:O:501:SER:OG	2.14	0.64
15:Y:452:LEU:HD13	15:Y:460:LYS:HB3	1.80	0.64
1:A:715:TYR:O	1:A:719:VAL:HG23	1.97	0.64
2:B:14:TRP:N	12:N:596:LEU:O	2.31	0.64
6:F:49:TYR:OH	6:F:81:ASP:OD2	2.16	0.64
12:N:121:ARG:CB	12:N:122:LEU:HB2	2.27	0.64
12:N:134:LYS:HA	12:N:137:ARG:HH11	1.62	0.64
15:X:407:LEU:HA	15:X:410:TYR:HD2	1.63	0.64
1:A:866:ILE:O	1:A:868:GLU:N	2.30	0.63
9:J:192:LYS:H	9:J:192:LYS:HD2	1.62	0.63
12:N:571:ASN:ND2	12:N:593:ALA:O	2.31	0.63
3:P:341:TYR:CE2	3:P:349:LYS:HB3	2.33	0.63
2:B:15:LEU:HD11	12:N:635:LEU:HA	1.80	0.63
3:C:393:GLU:OE2	13:O:276:HIS:NE2	2.31	0.63
8:I:392:ALA:O	8:I:395:SER:OG	2.17	0.63
12:N:610:GLU:HB2	12:N:685:VAL:HA	1.79	0.63
13:O:394:THR:HG23	13:O:615:ARG:HH22	1.63	0.63
15:Y:271:VAL:HG12	15:Y:300:LEU:HD23	1.80	0.63
1:A:176:GLN:OE1	1:A:176:GLN:N	2.29	0.63
2:B:8:TRP:HB3	12:N:591:VAL:HA	1.79	0.63
9:K:402:PRO:HG3	9:K:435:ILE:HD11	1.80	0.63
15:X:255:ILE:HA	15:X:258:ILE:HG22	1.80	0.63
3:C:36:LEU:HD21	3:C:58:LEU:HB2	1.81	0.63
6:H:452:PHE:O	6:H:456:LYS:HB2	1.99	0.63
9:J:36:GLU:HB2	9:J:39:ASP:OD1	1.99	0.63
9:J:194:CYS:O	9:J:197:GLU:N	2.26	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:L:86:ASP:OD2	10:L:90:THR:OG1	2.17	0.63
10:L:92:SER:HA	10:L:113:LEU:HB2	1.81	0.63
11:M:5:VAL:HB	3:P:124:LEU:HD22	1.81	0.63
12:N:655:LEU:HD21	12:N:721:PRO:HG2	1.80	0.63
13:O:293:GLU:HG2	13:O:295:GLY:H	1.63	0.63
3:P:514:ARG:O	3:P:518:GLN:NE2	2.30	0.63
1:A:163:SER:OG	1:A:167:LYS:N	2.32	0.63
6:H:513:SER:HB2	6:H:515:TYR:HE1	1.64	0.63
9:J:489:HIS:HB3	9:J:498:ALA:HB2	1.80	0.63
9:K:405:MET:HB2	9:K:428:ALA:HB2	1.81	0.63
10:L:93:LYS:HB2	10:L:143:ALA:HB3	1.80	0.63
15:Y:320:ARG:NH2	15:Y:323:ASP:OD1	2.27	0.63
1:A:168:ASP:OD1	1:A:168:ASP:N	2.25	0.63
1:A:950:GLY:H	1:A:1813:GLN:NE2	1.95	0.63
1:A:1891:TYR:O	1:A:1926:ARG:NH2	2.31	0.63
3:C:528:GLU:HA	3:C:531:THR:HG22	1.80	0.63
8:I:536:CYS:O	8:I:540:PRO:HD3	1.99	0.63
9:J:59:ALA:O	9:J:62:SER:OG	2.16	0.63
9:J:317:GLU:OE2	9:J:318:HIS:ND1	2.31	0.63
3:P:298:GLU:OE1	3:P:298:GLU:N	2.32	0.63
15:X:496:ILE:HG13	15:X:518:PHE:HB3	1.80	0.63
15:Y:465:LEU:HD21	15:Y:482:LYS:HB2	1.79	0.63
3:C:77:THR:N	3:C:80:ASP:OD1	2.25	0.63
6:F:164:PRO:HD3	6:F:474:LEU:HD11	1.81	0.63
8:I:74:ARG:HE	8:I:76:ASP:HB3	1.63	0.63
8:I:102:HIS:HE1	8:I:263:GLN:HE22	1.45	0.63
9:J:33:SER:O	9:J:34:ARG:NH1	2.31	0.63
15:X:153:LYS:HA	15:X:156:ILE:HD12	1.80	0.63
2:B:14:TRP:HH2	2:B:42:ASP:H	1.46	0.63
6:F:130:ARG:HH11	15:Y:506:GLN:HB3	1.64	0.63
9:K:376:LEU:O	9:K:379:GLY:N	2.32	0.63
12:N:609:LEU:HD21	12:N:662:VAL:HG22	1.81	0.63
15:X:44:MET:HB3	15:X:49:LEU:HD11	1.81	0.63
15:X:168:THR:O	15:X:172:ASN:ND2	2.32	0.63
15:Y:146:TYR:HE2	15:Y:158:ILE:HG13	1.63	0.63
1:A:127:LEU:HD21	1:A:180:VAL:HG23	1.81	0.62
6:H:629:ARG:HB2	9:K:504:THR:HG23	1.80	0.62
9:J:391:PHE:HB3	9:J:408:VAL:HG12	1.81	0.62
9:K:291:LEU:HB3	9:K:301:SER:OG	1.98	0.62
12:N:414:MET:N	12:N:414:MET:SD	2.72	0.62
12:N:699:TRP:CE3	12:N:704:VAL:HG21	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1919:LYS:NZ	12:N:66:GLY:O	2.32	0.62
8:I:224:SER:OG	8:I:225:THR:N	2.31	0.62
11:M:8:ASP:OD1	11:M:9:GLY:N	2.32	0.62
3:P:199:LEU:HD12	3:P:200:PRO:HD2	1.81	0.62
1:A:29:LYS:HG3	1:A:30:HIS:CD2	2.34	0.62
3:C:301:ASP:OD1	3:C:302:THR:N	2.33	0.62
9:J:180:GLU:OE1	9:J:180:GLU:N	2.32	0.62
9:K:130:SER:OG	9:K:156:ALA:O	2.17	0.62
10:L:71:LYS:NZ	10:L:133:ARG:O	2.32	0.62
15:Y:245:PHE:O	15:Y:248:THR:OG1	2.17	0.62
15:Y:441:ALA:HB3	15:Y:444:LEU:HG	1.80	0.62
1:A:131:PHE:CE1	1:A:216:PRO:HD3	2.34	0.62
1:A:1134:TRP:HD1	1:A:1597:THR:HA	1.63	0.62
1:A:1636:VAL:HB	1:A:1663:LEU:HD11	1.80	0.62
2:B:8:TRP:O	12:N:592:TYR:N	2.31	0.62
9:K:322:TYR:HH	11:M:57:TRP:CD1	2.17	0.62
15:X:446:LEU:O	15:X:449:THR:OG1	2.14	0.62
8:I:186:GLU:OE1	8:I:188:TYR:OH	2.11	0.62
9:J:433:LYS:NZ	9:J:437:ASN:O	2.26	0.62
3:P:277:ARG:NH1	17:Q:498:MET:CE	2.55	0.62
15:X:152:ASP:OD2	15:X:153:LYS:N	2.33	0.62
15:Y:143:ALA:O	15:Y:147:THR:HG23	1.99	0.62
15:Y:532:TYR:HD2	15:Y:545:SER:HA	1.63	0.62
1:A:1191:LEU:HD11	1:A:1196:TYR:CE2	2.30	0.62
1:A:1692:SER:OG	1:A:1693:LYS:N	2.29	0.62
9:J:341:GLY:HA3	9:J:357:TYR:CE1	2.34	0.62
10:L:178:MET:O	10:L:181:ARG:HG2	2.00	0.62
3:C:329:TYR:HE2	3:P:132:ASP:HB3	1.64	0.62
6:F:96:VAL:H	6:F:97:PHE:HB2	1.64	0.62
6:F:583:HIS:ND1	6:F:610:GLU:OE2	2.31	0.62
9:J:230:ASN:O	9:J:233:VAL:HG12	1.99	0.62
12:N:383:GLU:HA	12:N:387:LEU:HB2	1.82	0.62
1:A:1851:THR:O	1:A:1855:THR:HG23	2.00	0.62
3:C:354:PHE:CE2	3:C:370:LEU:HB3	2.35	0.62
9:J:493:GLY:HA2	9:J:495:PHE:CZ	2.35	0.62
12:N:151:GLU:HA	12:N:154:HIS:HD2	1.64	0.62
8:I:388:GLU:O	8:I:391:THR:OG1	2.13	0.62
8:I:474:ARG:HH21	8:I:490:PRO:HA	1.65	0.62
8:I:640:ASP:OD1	8:I:641:ALA:N	2.32	0.62
12:N:109:LEU:HD21	12:N:239:GLN:HG3	1.82	0.62
1:A:588:ARG:O	1:A:596:THR:HG22	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:389:ARG:HH21	13:O:276:HIS:CD2	2.18	0.62
9:J:441:VAL:HG21	9:J:444:TRP:CD1	2.34	0.62
10:L:46:ARG:HH12	10:L:157:LYS:HA	1.63	0.62
15:Y:184:GLN:HB3	15:Y:187:PRO:HG2	1.82	0.62
15:Y:373:VAL:O	15:Y:377:LEU:HG	2.00	0.62
8:I:620:PHE:HD2	8:I:707:PHE:HE1	1.48	0.61
8:I:624:THR:O	8:I:711:TRP:NE1	2.32	0.61
9:J:445:GLU:OE2	9:J:475:ILE:HG21	2.00	0.61
12:N:59:VAL:HA	12:N:62:LEU:HD12	1.82	0.61
13:O:397:LYS:O	13:O:398:LEU:HB2	2.00	0.61
15:Y:73:PRO:HA	15:Y:76:LYS:HD2	1.82	0.61
1:A:178:ALA:HB2	1:A:192:SER:HB3	1.82	0.61
1:A:1376:LEU:HD23	1:A:1377:LYS:HG3	1.82	0.61
3:C:122:ARG:O	3:C:125:SER:OG	2.15	0.61
8:I:302:ASP:OD1	8:I:303:GLU:N	2.33	0.61
9:J:500:ASP:O	9:J:503:HIS:HB2	2.00	0.61
12:N:411:ASP:OD1	12:N:413:SER:OG	2.13	0.61
15:X:203:LEU:HD11	15:X:239:TRP:HZ3	1.63	0.61
3:C:100:ASP:OD1	3:C:100:ASP:N	2.33	0.61
3:C:210:CYS:HA	3:C:237:ILE:HD11	1.82	0.61
6:F:28:ALA:HB1	6:F:44:LEU:HD22	1.82	0.61
8:I:28:TRP:HA	8:I:35:ILE:HD13	1.82	0.61
8:I:734:LEU:HA	8:I:741:VAL:HG12	1.82	0.61
9:K:351:ASP:OD1	9:K:352:GLN:N	2.33	0.61
12:N:509:TYR:H	12:N:510:GLY:HA2	1.64	0.61
1:A:1373:MET:O	1:A:1376:LEU:HB2	2.00	0.61
10:L:85:SER:HB2	10:L:154:ARG:NH2	2.15	0.61
12:N:253:LEU:O	12:N:257:SER:N	2.33	0.61
13:O:727:THR:HA	13:O:730:ARG:HB3	1.82	0.61
1:A:1912:ALA:HA	1:A:1915:LEU:HB3	1.82	0.61
3:C:334:CYS:SG	3:C:357:ALA:HB2	2.41	0.61
3:C:368:TRP:HB3	3:C:391:ALA:HB2	1.82	0.61
6:F:471:LYS:HA	6:F:474:LEU:HD12	1.81	0.61
8:I:115:TRP:HE1	8:I:176:LEU:CB	2.13	0.61
9:J:252:LYS:O	9:J:255:SER:OG	2.19	0.61
9:J:441:VAL:HG21	9:J:444:TRP:HD1	1.65	0.61
10:L:105:LEU:HD11	10:L:136:MET:HE2	1.81	0.61
3:P:228:TRP:CD1	3:P:228:TRP:H	2.16	0.61
15:Y:475:TYR:CE2	15:Y:477:LYS:HB3	2.35	0.61
6:F:47:CYS:O	6:F:51:SER:OG	2.19	0.61
8:I:369:MET:HB3	8:I:376:TYR:CE2	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:51:ALA:HA	9:J:53:TYR:CE1	2.36	0.61
9:J:247:PHE:O	9:J:250:CYS:N	2.34	0.61
10:L:179:MET:HG3	10:L:180:TYR:CD2	2.36	0.61
15:Y:513:ARG:NH1	15:Y:517:ASP:OD2	2.33	0.61
1:A:1102:ILE:HG12	1:A:1171:GLU:OE2	2.01	0.61
12:N:334:ARG:NH1	12:N:369:ASP:OD1	2.34	0.61
3:P:187:GLU:H	3:P:187:GLU:CD	2.08	0.61
1:A:34:ALA:O	13:O:237:GLN:NE2	2.33	0.61
1:A:771:GLU:OE2	1:A:844:ILE:N	2.34	0.61
6:F:559:LEU:HD23	6:F:569:ALA:HA	1.82	0.61
6:F:739:VAL:O	6:F:743:ILE:HG13	2.01	0.61
6:H:712:VAL:HG12	6:H:716:ASN:HD21	1.65	0.61
10:L:49:ASN:HB3	10:L:51:GLU:CD	2.26	0.61
12:N:615:ILE:HG12	12:N:619:LEU:HD12	1.83	0.61
13:O:493:LEU:O	13:O:497:PHE:N	2.32	0.61
15:X:199:CYS:SG	15:X:202:ALA:HB2	2.41	0.61
1:A:124:GLN:HB2	1:A:154:LEU:HG	1.83	0.61
1:A:1734:LYS:O	1:A:1737:THR:OG1	2.19	0.61
8:I:74:ARG:NH1	8:I:166:LYS:O	2.34	0.61
8:I:452:LEU:HD12	8:I:453:THR:N	2.15	0.61
8:I:621:GLY:H	8:I:705:MET:C	2.09	0.61
9:J:125:GLN:HA	9:J:128:ILE:HD12	1.81	0.61
3:P:389:ARG:O	3:P:392:ILE:HG12	2.01	0.61
15:X:63:MET:HE3	15:Y:266:LEU:HD13	1.81	0.61
1:A:1489:HIS:CD2	1:A:1493:LYS:HE3	2.35	0.60
1:A:1658:PRO:HG3	1:A:1663:LEU:HD13	1.83	0.60
3:C:324:CYS:SG	3:C:328:LYS:HE3	2.41	0.60
8:I:309:LEU:HD22	13:O:61:ASN:OD1	2.01	0.60
9:J:442:ASP:HA	9:J:474:LEU:HD21	1.83	0.60
15:X:462:LYS:HG2	15:X:485:LEU:HD21	1.81	0.60
1:A:1433:ILE:HG22	1:A:1457:LEU:HD11	1.82	0.60
3:C:235:ALA:HB1	3:C:251:TYR:CE2	2.36	0.60
6:F:512:LEU:HD12	6:F:513:SER:H	1.66	0.60
6:H:29:GLU:OE2	6:H:48:TYR:OH	2.19	0.60
8:I:622:SER:HB2	8:I:633:ARG:HH21	1.66	0.60
10:L:35:SER:OG	10:L:56:SER:HA	2.00	0.60
12:N:112:LEU:HD21	12:N:243:LEU:HB2	1.84	0.60
12:N:605:LYS:HZ2	12:N:638:LYS:HB2	1.65	0.60
15:X:270:ASN:HB3	15:X:273:LEU:HB2	1.82	0.60
15:X:338:HIS:HB3	15:X:340:GLU:OE1	2.00	0.60
15:Y:260:SER:O	15:Y:264:LYS:NZ	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:174:PRO:HG2	1:A:175:PHE:HD2	1.65	0.60
1:A:1864:GLY:HA2	1:A:1867:CYS:SG	2.41	0.60
3:C:531:THR:O	3:C:535:LYS:HG2	2.01	0.60
9:J:190:LEU:C	9:J:198:GLN:HE22	2.09	0.60
13:O:357:SER:HB2	13:O:358:TYR:CD2	2.36	0.60
6:F:516:MET:N	6:F:516:MET:SD	2.74	0.60
6:H:736:GLU:OE2	10:L:173:THR:N	2.31	0.60
10:L:82:ASP:HA	10:L:117:SER:HA	1.81	0.60
12:N:292:TRP:HE3	12:N:293:ILE:HD13	1.67	0.60
12:N:570:ILE:HA	12:N:573:ASN:ND2	2.17	0.60
12:N:571:ASN:ND2	12:N:593:ALA:H	1.98	0.60
13:O:336:ASP:O	13:O:337:HIS:ND1	2.35	0.60
13:O:547:LYS:HE3	13:O:551:LEU:HD13	1.83	0.60
15:Y:215:LYS:O	15:Y:218:GLU:N	2.34	0.60
1:A:212:SER:OG	1:A:221:THR:OG1	2.13	0.60
8:I:185:ILE:HG12	8:I:201:ILE:HG13	1.83	0.60
12:N:164:SER:N	12:N:165:THR:HA	2.17	0.60
1:A:612:ILE:HG13	1:A:641:TRP:CZ3	2.37	0.60
3:C:228:TRP:CD1	3:C:228:TRP:H	2.19	0.60
5:E:86:VAL:HG22	6:H:589:PHE:CE1	2.37	0.60
12:N:706:ARG:O	12:N:714:SER:N	2.34	0.60
13:O:53:SER:H	13:O:56:GLU:HB2	1.66	0.60
3:P:331:VAL:HG21	3:P:361:ASN:HB2	1.83	0.60
15:X:466:ASP:O	15:X:470:THR:HG23	2.01	0.60
1:A:1725:ASN:C	1:A:1727:ASN:H	2.08	0.60
8:I:207:ALA:HB3	8:I:220:VAL:HB	1.82	0.60
13:O:407:LEU:O	13:O:411:LYS:HB2	2.02	0.60
15:Y:140:TYR:CZ	15:Y:170:LYS:HD3	2.37	0.60
1:A:980:ARG:HG3	1:A:983:LEU:H	1.66	0.60
6:H:165:ASP:OD1	6:H:467:ARG:HD2	2.00	0.60
8:I:361:TYR:HB2	13:O:437:MET:HE1	1.83	0.60
9:J:478:ASN:OD1	9:J:480:SER:N	2.35	0.60
12:N:361:LEU:HD23	12:N:410:LEU:HD11	1.83	0.60
15:Y:143:ALA:HB2	15:Y:159:LEU:HD21	1.82	0.60
15:Y:457:THR:OG1	15:Y:460:LYS:NZ	2.19	0.60
1:A:1785:GLU:OE1	1:A:1785:GLU:N	2.34	0.60
8:I:102:HIS:CE1	8:I:263:GLN:HE22	2.20	0.60
9:K:465:LEU:HB3	9:K:469:ARG:NH1	2.17	0.60
12:N:811:SER:O	12:N:816:ARG:NH2	2.34	0.60
1:A:822:THR:OG1	1:A:823:ILE:N	2.30	0.60
1:A:1462:VAL:HG11	1:A:1512:LEU:HD21	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1589:TYR:HE2	1:A:1591:HIS:HB2	1.67	0.60
3:C:254:LEU:O	3:C:257:VAL:HG12	2.02	0.60
5:E:99:ILE:O	5:E:102:LEU:N	2.35	0.60
6:F:537:GLU:OE1	6:F:537:GLU:N	2.35	0.60
8:I:655:ASP:N	8:I:663:ASP:O	2.22	0.60
9:J:315:LYS:O	9:J:318:HIS:N	2.33	0.60
9:J:476:PRO:HG2	3:P:182:LEU:HG	1.84	0.60
10:L:73:THR:HA	10:L:133:ARG:HA	1.82	0.60
3:C:96:VAL:N	3:C:97:LYS:HA	2.15	0.59
6:H:77:LYS:HZ2	6:H:120:LEU:HD21	1.67	0.59
6:H:590:PHE:HB2	6:H:607:LEU:HD13	1.84	0.59
9:J:469:ARG:O	9:J:473:VAL:HG23	2.02	0.59
15:X:429:MET:HE3	15:X:433:VAL:HB	1.85	0.59
1:A:24:GLY:HA3	1:A:94:TYR:CG	2.37	0.59
9:J:209:LEU:O	9:J:211:LYS:NZ	2.27	0.59
10:L:70:ARG:O	10:L:72:THR:N	2.35	0.59
3:P:476:LEU:O	3:P:480:LEU:N	2.28	0.59
1:A:880:TYR:CE1	1:A:958:ALA:HB2	2.37	0.59
7:G:2:LEU:HD11	9:J:276:VAL:HG21	1.82	0.59
12:N:480:TRP:CE3	12:N:482:PRO:HA	2.38	0.59
13:O:657:ILE:HD12	13:O:700:TYR:HD1	1.67	0.59
13:O:671:GLN:OE1	13:O:693:ASN:ND2	2.35	0.59
1:A:867:CYS:O	1:A:870:SER:OG	2.18	0.59
8:I:186:GLU:HB3	8:I:188:TYR:HE1	1.67	0.59
9:J:66:ASP:OD1	9:J:67:LYS:N	2.35	0.59
13:O:513:LYS:NZ	13:O:542:GLU:OE1	2.27	0.59
3:P:36:LEU:HB3	3:P:59:ALA:HB2	1.84	0.59
1:A:628:ILE:HD12	1:A:761:ALA:HB1	1.84	0.59
1:A:1046:PRO:HD3	1:A:1106:ASN:HD21	1.68	0.59
1:A:1571:ARG:NH2	1:A:1694:ASP:HB2	2.17	0.59
3:C:145:GLN:NE2	13:O:206:PRO:O	2.28	0.59
3:C:550:LEU:HD23	3:C:553:ILE:HD11	1.83	0.59
8:I:56:TRP:CD2	8:I:98:PRO:HB3	2.37	0.59
10:L:44:GLN:HA	10:L:47:ASP:OD1	2.03	0.59
12:N:754:PHE:CZ	12:N:782:VAL:HG22	2.37	0.59
1:A:1571:ARG:NH1	1:A:1694:ASP:O	2.35	0.59
8:I:491:ASN:OD1	8:I:493:GLU:N	2.35	0.59
7:W:25:ASP:H	7:W:26:LEU:HA	1.67	0.59
6:F:625:ARG:HB3	6:F:629:ARG:HH21	1.67	0.59
8:I:90:ILE:N	8:I:104:PHE:O	2.36	0.59
9:K:258:MET:HG3	9:K:271:HIS:CD2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:291:LEU:HD23	9:K:301:SER:HA	1.84	0.59
12:N:612:PRO:O	12:N:616:ARG:HG3	2.02	0.59
15:X:210:LEU:HD12	15:X:244:ALA:HA	1.84	0.59
15:Y:80:LEU:HB3	15:Y:103:ALA:HB2	1.85	0.59
3:C:307:LEU:HD22	3:C:316:LEU:HB2	1.85	0.59
6:H:77:LYS:NZ	6:H:120:LEU:HD21	2.18	0.59
8:I:122:SER:HB3	8:I:125:LEU:HD12	1.85	0.59
12:N:158:ARG:HD3	12:N:255:ARG:HE	1.68	0.59
12:N:560:MET:O	12:N:564:MET:HG2	2.02	0.59
3:P:398:ASP:OD2	3:P:399:TYR:N	2.36	0.59
3:P:400:ARG:CZ	17:Q:499:ARG:CA	2.79	0.59
7:W:12:LYS:O	7:W:15:ASP:N	2.27	0.59
15:X:49:LEU:HD13	15:X:52:ASN:HB2	1.85	0.59
6:F:120:LEU:O	6:F:124:VAL:HG23	2.03	0.59
6:H:482:LYS:HA	6:H:485:ILE:HD12	1.84	0.59
6:H:684:LYS:NZ	6:H:687:LYS:HD3	2.17	0.59
9:J:58:HIS:ND1	9:K:262:PRO:HD3	2.18	0.59
15:Y:54:ARG:HB2	15:Y:86:SER:HB2	1.85	0.59
6:F:85:LEU:N	6:F:87:GLU:OE2	2.36	0.59
8:I:111:SER:OG	8:I:205:CYS:O	2.15	0.59
8:I:725:ASN:ND2	8:I:728:ARG:HB2	2.17	0.59
15:Y:364:LYS:HE2	15:Y:368:LEU:HD11	1.84	0.59
15:Y:405:CYS:N	15:Y:410:TYR:OH	2.35	0.59
15:Y:476:ILE:HG13	15:Y:477:LYS:H	1.68	0.59
2:B:10:GLY:N	12:N:592:TYR:O	2.35	0.58
6:H:712:VAL:O	6:H:716:ASN:ND2	2.35	0.58
9:K:288:SER:HB3	9:K:305:VAL:HG22	1.85	0.58
15:Y:146:TYR:HD1	15:Y:149:LEU:HD12	1.68	0.58
1:A:759:ILE:O	1:A:762:ILE:N	2.35	0.58
1:A:953:LEU:HD22	1:A:1817:VAL:HG13	1.85	0.58
1:A:1595:HIS:NE2	1:A:1598:ASP:HB2	2.18	0.58
6:H:567:PRO:O	6:H:571:CYS:CB	2.50	0.58
8:I:591:LEU:HB3	8:I:596:TYR:CE1	2.39	0.58
8:I:597:LYS:HE2	8:I:617:ALA:HB1	1.85	0.58
13:O:435:SER:OG	13:O:436:THR:N	2.36	0.58
13:O:577:THR:HG22	13:O:581:ILE:HD11	1.86	0.58
3:P:35:GLN:HE21	3:P:201:LEU:HD11	1.67	0.58
15:Y:93:TYR:O	15:Y:97:VAL:HG23	2.02	0.58
9:K:440:THR:HG21	9:K:443:LYS:HD3	1.85	0.58
15:X:384:ARG:NH1	15:X:412:GLY:O	2.36	0.58
1:A:1727:ASN:HB2	12:N:163:PHE:HE2	1.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:97:LYS:HD2	3:C:99:TYR:OH	2.03	0.58
3:C:444:GLU:O	3:C:447:ASN:N	2.30	0.58
6:H:113:SER:O	6:H:117:THR:HG23	2.03	0.58
6:H:651:PHE:O	6:H:654:ALA:N	2.36	0.58
6:H:684:LYS:HZ2	6:H:687:LYS:H	1.51	0.58
12:N:118:LEU:O	12:N:122:LEU:HB3	2.04	0.58
12:N:509:TYR:N	12:N:510:GLY:HA2	2.18	0.58
15:Y:308:MET:HE3	15:Y:330:ARG:NH1	2.18	0.58
1:A:715:TYR:CE1	13:O:750:PRO:HD2	2.35	0.58
9:K:371:MET:SD	9:K:393:GLN:NE2	2.59	0.58
10:L:73:THR:OG1	10:L:133:ARG:NE	2.24	0.58
3:P:299:ASN:O	3:P:301:ASP:N	2.36	0.58
15:X:219:VAL:O	15:X:223:THR:HG23	2.02	0.58
15:Y:311:TYR:HE2	15:Y:327:LEU:HD22	1.68	0.58
1:A:641:TRP:CD1	1:A:663:CYS:HG	2.21	0.58
1:A:1528:ALA:O	1:A:1573:SER:OG	2.20	0.58
6:F:82:LEU:HB3	6:F:84:LYS:HZ2	1.68	0.58
6:F:639:TYR:CD1	6:F:672:LEU:HD13	2.36	0.58
7:G:4:ARG:HH21	9:J:345:ALA:HB1	1.68	0.58
9:J:2:ASN:N	9:K:196:GLU:OE1	2.37	0.58
13:O:274:LEU:HD11	13:O:306:ASN:ND2	2.18	0.58
3:P:243:LEU:HG	3:P:246:GLU:HB3	1.85	0.58
15:X:149:LEU:HB3	15:X:151:GLN:HE21	1.67	0.58
15:X:279:ASP:HA	15:X:282:PHE:HB3	1.85	0.58
1:A:209:THR:OG1	1:A:210:MET:N	2.34	0.58
1:A:1567:LEU:HB3	1:A:1572:TYR:O	2.03	0.58
1:A:1603:LEU:HD23	1:A:1603:LEU:O	2.04	0.58
8:I:45:LEU:HG	8:I:57:SER:HA	1.85	0.58
12:N:411:ASP:C	12:N:413:SER:H	2.10	0.58
13:O:370:HIS:CD2	13:O:371:PHE:H	2.20	0.58
2:B:3:VAL:H	12:N:671:GLN:NE2	2.01	0.58
6:F:148:LEU:HB3	6:F:151:PRO:HG2	1.84	0.58
6:H:12:ILE:HD11	6:H:27:LEU:HB2	1.85	0.58
15:X:225:ASN:O	15:X:229:THR:HG23	2.03	0.58
1:A:1041:LEU:HD21	1:A:1562:LEU:HD23	1.86	0.58
1:A:1378:THR:HG23	1:A:1380:ASN:H	1.68	0.58
3:C:338:GLY:HA3	3:C:354:PHE:CE1	2.39	0.58
3:C:483:SER:HG	3:C:515:TYR:HH	1.51	0.58
4:D:53:PRO:HB3	3:P:385:ILE:HG21	1.85	0.58
6:H:35:VAL:HG12	6:H:37:SER:H	1.67	0.58
8:I:186:GLU:HG3	8:I:197:ARG:HG3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:604:HIS:ND1	8:I:606:ASP:HB3	2.19	0.58
3:P:491:ILE:HB	3:P:519:TYR:CZ	2.38	0.58
1:A:585:HIS:N	1:A:598:GLU:O	2.37	0.58
1:A:951:ILE:O	1:A:954:PRO:HD2	2.04	0.58
1:A:1074:CYS:O	1:A:1078:MET:HG2	2.04	0.58
6:F:82:LEU:HB3	6:F:84:LYS:NZ	2.19	0.58
6:H:549:ASP:OD1	6:H:550:VAL:N	2.37	0.58
6:H:708:HIS:O	6:H:712:VAL:HG23	2.03	0.58
8:I:160:ASN:O	8:I:164:ILE:HD12	2.04	0.58
8:I:272:MET:HE1	8:I:344:ILE:HG23	1.84	0.58
9:K:276:VAL:HG21	7:W:2:LEU:HD21	1.85	0.58
15:X:52:ASN:OD1	15:Y:203:LEU:N	2.37	0.58
15:X:336:ASP:OD1	15:X:337:GLN:N	2.31	0.58
15:X:434:TYR:O	15:X:438:GLY:N	2.37	0.58
1:A:25:ARG:O	1:A:29:LYS:NZ	2.32	0.57
1:A:27:HIS:HB3	1:A:101:ILE:HD13	1.86	0.57
1:A:172:SER:C	1:A:173:LEU:HD22	2.29	0.57
8:I:318:GLN:NE2	8:I:319:THR:HG23	2.18	0.57
8:I:354:SER:HB3	13:O:403:LYS:HZ1	1.69	0.57
8:I:406:VAL:O	8:I:409:SER:OG	2.15	0.57
9:K:13:TYR:HD1	9:K:18:GLN:HB2	1.69	0.57
3:P:441:GLU:O	3:P:445:LYS:HG3	2.04	0.57
15:Y:169:PRO:HA	15:Y:172:ASN:ND2	2.19	0.57
5:E:89:LEU:HD11	6:H:592:ARG:HG2	1.84	0.57
8:I:676:ASN:HB3	8:I:703:ARG:HH12	1.69	0.57
12:N:263:THR:O	12:N:267:GLN:HG3	2.04	0.57
13:O:357:SER:HB2	13:O:358:TYR:HD2	1.69	0.57
15:Y:509:CYS:HA	15:Y:512:HIS:HD2	1.69	0.57
8:I:308:LEU:O	13:O:130:SER:OG	2.22	0.57
9:K:386:LEU:H	9:K:386:LEU:HD12	1.69	0.57
1:A:641:TRP:NE1	1:A:660:PHE:HD1	2.01	0.57
1:A:1221:ASP:OD1	1:A:1223:SER:N	2.35	0.57
1:A:1357:THR:O	10:L:69:ARG:NH2	2.36	0.57
12:N:654:THR:HB	12:N:724:ARG:HH21	1.69	0.57
3:P:214:THR:OG1	3:P:215:ASP:OD1	2.15	0.57
15:Y:338:HIS:O	15:Y:341:PRO:HD2	2.03	0.57
1:A:244:MET:HG3	1:A:258:THR:HG21	1.86	0.57
1:A:1134:TRP:CZ3	1:A:1605:ALA:HB2	2.40	0.57
1:A:1909:THR:H	1:A:1936:LEU:HD22	1.70	0.57
3:C:286:PHE:HB3	3:C:303:PHE:HD1	1.69	0.57
6:H:146:PRO:O	6:H:148:LEU:HG	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:500:TRP:O	6:H:504:GLN:HG2	2.05	0.57
8:I:570:PHE:C	8:I:572:PHE:H	2.11	0.57
9:J:86:HIS:HB2	9:J:143:LEU:HD21	1.87	0.57
9:K:452:GLY:HA3	9:K:468:HIS:CE1	2.40	0.57
10:L:53:TYR:HB3	10:L:154:ARG:HD3	1.86	0.57
13:O:365:VAL:HG21	13:O:381:ILE:HG13	1.86	0.57
13:O:450:SER:HB3	13:O:461:ASN:HB2	1.86	0.57
3:P:409:TYR:CE2	3:P:421:TYR:HE2	2.21	0.57
1:A:799:LEU:HD21	1:A:837:PHE:HZ	1.68	0.57
1:A:949:PHE:HA	1:A:952:ALA:HB3	1.85	0.57
1:A:963:ARG:NH1	1:A:979:GLY:H	2.03	0.57
6:F:80:VAL:HG21	6:F:120:LEU:HD11	1.87	0.57
9:J:456:ARG:HD2	9:J:487:TYR:HD2	1.69	0.57
9:K:455:CYS:SG	9:K:460:LYS:HG3	2.44	0.57
12:N:187:SER:O	12:N:191:GLY:N	2.37	0.57
12:N:558:GLU:O	12:N:561:LEU:HG	2.05	0.57
12:N:806:GLN:O	12:N:806:GLN:HG2	2.04	0.57
15:Y:291:VAL:O	15:Y:295:GLU:HG3	2.04	0.57
3:C:228:TRP:O	3:C:231:GLU:N	2.37	0.57
3:C:474:ALA:HB1	3:C:490:TYR:CE2	2.40	0.57
6:F:15:ALA:O	6:F:19:TYR:N	2.37	0.57
6:H:703:PRO:HG2	6:H:704:LEU:HD12	1.87	0.57
6:H:731:GLN:O	15:X:184:GLN:HG3	2.05	0.57
6:H:758:MET:SD	15:X:432:ASN:ND2	2.78	0.57
8:I:181:SER:H	8:I:204:THR:HA	1.70	0.57
8:I:204:THR:O	8:I:221:THR:OG1	2.23	0.57
9:J:405:MET:HB2	9:J:428:ALA:HB2	1.84	0.57
10:L:60:GLN:NE2	10:L:144:ASN:OD1	2.38	0.57
13:O:249:ASP:HA	13:O:280:ARG:HH21	1.69	0.57
6:F:524:GLU:OE2	6:F:527:ARG:NH2	2.37	0.57
6:H:492:PRO:O	6:H:494:HIS:ND1	2.38	0.57
8:I:389:ALA:O	8:I:393:VAL:HG23	2.05	0.57
15:X:400:ILE:HD11	15:X:413:LEU:HD22	1.85	0.57
1:A:799:LEU:HD21	1:A:837:PHE:CZ	2.39	0.57
4:D:26:GLU:HG3	4:D:27:GLU:H	1.69	0.57
6:H:696:ILE:HD13	6:H:706:LYS:HG2	1.86	0.57
8:I:305:MET:O	8:I:308:LEU:N	2.38	0.57
10:L:125:THR:HA	10:L:126:ASP:HB3	1.86	0.57
12:N:274:GLU:HA	12:N:277:CYS:SG	2.44	0.57
12:N:414:MET:HB3	12:N:418:GLU:HG3	1.87	0.57
12:N:589:PHE:O	12:N:591:VAL:HG13	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:682:LYS:O	13:O:685:GLU:HG2	2.04	0.57
1:A:963:ARG:NH2	1:A:1785:GLU:OE2	2.37	0.57
4:D:11:ARG:HE	4:D:14:GLU:CD	2.12	0.57
9:K:51:ALA:HA	9:K:53:TYR:CZ	2.39	0.57
9:K:212:TYR:OH	9:K:368:HIS:ND1	2.32	0.57
9:K:230:ASN:OD1	9:K:231:LEU:N	2.37	0.57
10:L:175:ILE:HA	10:L:178:MET:HB2	1.86	0.57
13:O:611:SER:OG	13:O:612:LYS:N	2.36	0.57
1:A:597:LEU:HD12	1:A:597:LEU:O	2.05	0.56
1:A:827:GLN:HE21	1:A:829:GLY:H	1.52	0.56
3:C:372:GLY:O	3:C:375:TYR:N	2.38	0.56
3:C:490:TYR:CE1	3:C:512:ALA:HA	2.39	0.56
6:F:737:SER:HA	6:F:740:TYR:HD2	1.70	0.56
8:I:361:TYR:O	8:I:365:GLU:HG2	2.05	0.56
12:N:362:LYS:HB2	12:N:410:LEU:HD23	1.87	0.56
3:P:527:ASP:O	3:P:531:THR:HG23	2.05	0.56
15:Y:499:LEU:HD23	15:Y:515:LEU:HD13	1.87	0.56
6:F:152:PHE:HA	6:F:155:LEU:HD12	1.87	0.56
9:J:153:TYR:HD2	9:J:175:MET:HE1	1.70	0.56
12:N:345:PHE:O	12:N:348:VAL:HG12	2.05	0.56
12:N:345:PHE:CZ	12:N:399:LEU:HD21	2.40	0.56
12:N:520:ARG:HH21	12:N:600:PHE:C	2.12	0.56
3:P:437:VAL:HG12	3:P:441:GLU:OE2	2.04	0.56
7:W:13:LEU:O	7:W:16:ILE:N	2.37	0.56
1:A:127:LEU:HD12	1:A:152:CYS:HB3	1.87	0.56
1:A:215:HIS:O	1:A:217:LEU:N	2.37	0.56
1:A:1563:GLY:O	1:A:1566:PHE:N	2.38	0.56
1:A:1900:LEU:HD12	1:A:1921:LEU:HG	1.87	0.56
3:C:167:LEU:HD23	3:C:172:LEU:HD23	1.88	0.56
7:G:4:ARG:N	9:J:373:TYR:OH	2.27	0.56
6:H:486:ASN:OD1	6:H:490:HIS:NE2	2.38	0.56
8:I:102:HIS:NE2	8:I:104:PHE:HB3	2.21	0.56
9:J:33:SER:OG	9:J:34:ARG:N	2.37	0.56
9:J:474:LEU:HD23	9:J:475:ILE:HG23	1.86	0.56
12:N:162:PHE:CB	12:N:255:ARG:HH12	2.18	0.56
3:P:195:ALA:HA	3:P:198:VAL:HG22	1.87	0.56
3:P:235:ALA:HB1	3:P:251:TYR:CE2	2.40	0.56
3:P:253:ASN:O	3:P:257:VAL:HG23	2.04	0.56
3:P:513:PHE:CD1	3:P:535:LYS:HB3	2.39	0.56
1:A:1659:GLU:OE1	1:A:1661:HIS:NE2	2.37	0.56
2:B:19:ASN:H	2:B:48:TRP:HE1	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:327:ASP:O	3:C:333:THR:HG21	2.05	0.56
6:H:522:PHE:HE2	6:H:538:ILE:HG22	1.70	0.56
8:I:558:ARG:N	8:I:692:ARG:HE	2.02	0.56
9:J:190:LEU:O	9:J:198:GLN:NE2	2.36	0.56
10:L:179:MET:HG3	10:L:180:TYR:HD2	1.69	0.56
12:N:15:ARG:O	12:N:19:GLU:N	2.25	0.56
12:N:567:SER:OG	12:N:595:ILE:N	2.38	0.56
12:N:638:LYS:HE2	12:N:641:LEU:HD12	1.86	0.56
15:X:262:GLU:HA	15:X:267:LEU:O	2.05	0.56
15:X:407:LEU:HD11	15:X:437:LEU:HD21	1.88	0.56
1:A:1141:VAL:HG11	1:A:1608:HIS:CD2	2.40	0.56
2:B:6:LYS:HB3	12:N:645:THR:HG23	1.88	0.56
3:C:403:TYR:HB2	3:C:435:MET:HE1	1.86	0.56
8:I:25:PHE:HE2	8:I:71:LEU:H	1.51	0.56
9:J:270:VAL:O	9:J:274:THR:HG23	2.06	0.56
12:N:629:LEU:HB3	12:N:633:ARG:NH1	2.20	0.56
15:X:495:GLY:HA3	15:X:518:PHE:CE2	2.40	0.56
15:Y:189:VAL:HG22	15:Y:193:LYS:HZ3	1.70	0.56
15:Y:295:GLU:HB3	15:Y:299:MET:HE2	1.87	0.56
15:Y:396:PHE:O	15:Y:400:ILE:HG23	2.06	0.56
15:Y:510:VAL:HG13	15:Y:513:ARG:HH21	1.70	0.56
1:A:451:GLN:HB2	1:A:475:PRO:HA	1.86	0.56
6:F:147:PHE:HE1	6:H:8:VAL:HG12	1.70	0.56
8:I:231:VAL:HG13	8:I:556:LEU:HB2	1.87	0.56
9:K:49:LEU:HD12	9:K:50:THR:HG23	1.88	0.56
9:K:465:LEU:HG	9:K:488:ILE:HG21	1.87	0.56
12:N:422:GLU:OE2	12:N:426:ARG:NE	2.38	0.56
13:O:513:LYS:HG2	13:O:546:ARG:HH21	1.70	0.56
3:P:227:THR:O	3:P:230:LYS:N	2.31	0.56
15:Y:92:GLU:OE1	15:Y:96:ALA:N	2.37	0.56
1:A:1856:LEU:HD13	1:A:1892:HIS:HE1	1.70	0.56
6:F:517:GLN:HA	6:F:520:ARG:HH11	1.71	0.56
8:I:572:PHE:CZ	8:I:588:PHE:HA	2.40	0.56
9:J:24:PHE:O	9:J:28:LYS:HG2	2.05	0.56
9:K:210:LYS:HG2	9:K:213:ASN:HD22	1.71	0.56
13:O:294:GLU:HA	13:O:298:ARG:HH11	1.71	0.56
15:X:168:THR:OG1	15:X:171:ILE:HG12	2.05	0.56
15:X:453:GLU:OE2	15:X:488:ARG:NH1	2.38	0.56
15:Y:394:ILE:HG22	15:Y:397:ARG:NH2	2.21	0.56
1:A:76:LEU:HG	1:A:92:GLU:HB3	1.87	0.56
1:A:1281:PRO:HB2	1:A:1349:SER:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:33:LYS:HD2	3:C:62:LEU:HB2	1.86	0.56
3:C:298:GLU:OE2	3:P:101:ARG:NH2	2.39	0.56
12:N:693:ARG:HA	12:N:696:MET:HE3	1.88	0.56
12:N:704:VAL:HA	12:N:719:GLU:HG2	1.86	0.56
13:O:637:PRO:HB2	13:O:674:SER:OG	2.06	0.56
15:X:51:SER:O	15:X:54:ARG:HB3	2.06	0.56
15:X:413:LEU:HD12	15:X:414:ILE:HG13	1.88	0.56
1:A:275:LYS:O	1:A:277:GLU:N	2.39	0.56
3:C:148:ASN:HB3	3:C:151:LEU:HG	1.87	0.56
9:K:441:VAL:HB	9:K:474:LEU:HD22	1.87	0.56
15:X:383:LEU:HG	15:X:388:ARG:HB2	1.86	0.56
15:Y:287:ASN:O	15:Y:291:VAL:HG23	2.05	0.56
1:A:763:PHE:CD1	1:A:793:LEU:HD22	2.41	0.56
1:A:985:LYS:HD3	1:A:1698:TYR:CZ	2.41	0.56
1:A:1195:ASP:O	1:A:1198:THR:OG1	2.19	0.56
1:A:1631:TYR:HE2	1:A:1709:LYS:HE2	1.72	0.56
3:C:372:GLY:HA3	3:C:388:TYR:CE1	2.41	0.56
6:F:140:LYS:HE3	6:F:144:LEU:HD11	1.87	0.56
8:I:665:LEU:HG	8:I:713:LEU:HG	1.87	0.56
9:K:90:LEU:HB2	9:K:139:ILE:HG21	1.88	0.56
10:L:174:THR:O	10:L:176:ASP:N	2.39	0.56
15:X:194:GLU:HA	15:X:197:ARG:HG2	1.88	0.56
1:A:254:SER:OG	1:A:271:LEU:HB2	2.06	0.55
1:A:975:CYS:SG	1:A:983:LEU:HB3	2.47	0.55
2:B:7:CYS:SG	2:B:8:TRP:N	2.79	0.55
3:C:185:VAL:O	3:C:189:ILE:HG13	2.05	0.55
9:J:333:TYR:O	9:J:337:TRP:HD1	1.88	0.55
9:K:400:GLU:OE2	9:K:431:LYS:NZ	2.28	0.55
12:N:811:SER:OG	12:N:816:ARG:NE	2.29	0.55
3:P:111:SER:OG	3:P:112:LYS:N	2.37	0.55
8:I:168:LEU:HB3	8:I:253:ARG:HH12	1.69	0.55
8:I:317:LEU:HD13	8:I:320:LEU:HD13	1.87	0.55
8:I:619:LYS:HB2	8:I:702:THR:HG22	1.88	0.55
3:P:192:PHE:HB3	3:P:209:LEU:HD22	1.87	0.55
1:A:1167:GLU:HG2	1:A:1168:LEU:H	1.72	0.55
1:A:1641:THR:OG1	1:A:1642:GLN:N	2.36	0.55
15:Y:384:ARG:HG3	15:Y:416:CYS:SG	2.47	0.55
1:A:1849:LYS:HA	1:A:1852:ILE:HD12	1.87	0.55
10:L:126:ASP:OD1	10:L:130:LYS:HB2	2.07	0.55
13:O:525:TYR:CZ	13:O:553:ALA:HB1	2.41	0.55
3:P:477:HIS:CD2	3:P:480:LEU:HD22	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:465:LEU:HG	15:X:482:LYS:HD2	1.87	0.55
3:C:547:LYS:O	3:C:551:ARG:HG2	2.07	0.55
8:I:22:GLU:OE1	8:I:22:GLU:N	2.39	0.55
10:L:82:ASP:OD1	10:L:85:SER:OG	2.21	0.55
3:P:34:LYS:HD2	3:P:71:GLN:CD	2.32	0.55
15:X:331:LEU:HD12	15:X:334:ILE:HD11	1.88	0.55
15:X:375:ALA:HA	15:X:378:LEU:HD12	1.89	0.55
1:A:95:VAL:HG22	1:A:100:VAL:HG22	1.87	0.55
1:A:1155:SER:HB2	1:A:1184:HIS:CE1	2.42	0.55
6:H:567:PRO:O	6:H:571:CYS:HB2	2.06	0.55
8:I:361:TYR:O	8:I:364:SER:OG	2.21	0.55
8:I:750:ASP:OD1	8:I:751:GLU:N	2.38	0.55
12:N:480:TRP:O	12:N:480:TRP:CG	2.59	0.55
3:P:151:LEU:HB3	3:P:182:LEU:HD11	1.89	0.55
15:Y:265:SER:OG	15:Y:268:ARG:NH2	2.39	0.55
1:A:1910:SER:C	1:A:1912:ALA:H	2.14	0.55
4:D:31:GLN:CD	13:O:137:ARG:HH22	2.15	0.55
8:I:202:ALA:O	8:I:221:THR:OG1	2.22	0.55
13:O:516:PHE:CE1	13:O:546:ARG:HD2	2.42	0.55
3:P:167:LEU:HD23	3:P:172:LEU:HD13	1.89	0.55
15:X:443:THR:O	15:X:446:LEU:HG	2.07	0.55
15:Y:532:TYR:CD2	15:Y:545:SER:HA	2.42	0.55
1:A:1063:ILE:HG23	1:A:1066:LYS:HE3	1.88	0.55
4:D:45:ALA:HA	3:P:378:MET:SD	2.47	0.55
5:E:82:LEU:O	5:E:86:VAL:HG23	2.07	0.55
6:H:121:LEU:HB3	6:H:137:CYS:SG	2.47	0.55
12:N:704:VAL:HA	12:N:719:GLU:CG	2.37	0.55
12:N:806:GLN:OE1	16:S:499:ARG:NH1	2.40	0.55
3:P:151:LEU:HD23	3:P:154:LEU:HD13	1.87	0.55
3:P:334:CYS:SG	3:P:357:ALA:HB2	2.47	0.55
15:X:445:THR:O	15:X:449:THR:HG23	2.07	0.55
1:A:183:THR:OG1	1:A:184:LYS:N	2.38	0.55
3:C:78:GLU:OE1	3:C:78:GLU:N	2.37	0.55
6:F:533:VAL:HG12	6:F:559:LEU:HD11	1.88	0.55
6:F:741:PHE:HB3	6:F:745:LYS:HE2	1.89	0.55
8:I:220:VAL:HA	8:I:232:SER:O	2.07	0.55
9:J:232:ASP:OD2	9:K:28:LYS:NZ	2.38	0.55
12:N:162:PHE:HB2	12:N:255:ARG:HH12	1.71	0.55
12:N:687:MET:HE3	12:N:691:LEU:HD23	1.89	0.55
12:N:748:GLU:O	12:N:752:LEU:HD12	2.07	0.55
13:O:435:SER:OG	13:O:654:ASP:OD1	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:152:CYS:HA	1:A:161:MET:HG3	1.88	0.55
2:B:18:ALA:HA	2:B:48:TRP:HZ2	1.72	0.55
3:C:31:GLU:OE1	3:C:34:LYS:NZ	2.36	0.55
9:J:466:ASP:HA	9:J:469:ARG:NH1	2.22	0.55
1:A:769:VAL:HG13	1:A:866:ILE:HD13	1.89	0.54
1:A:1155:SER:OG	1:A:1156:ALA:N	2.36	0.54
8:I:24:ILE:HA	8:I:569:LEU:HD22	1.88	0.54
8:I:720:GLN:N	8:I:734:LEU:O	2.32	0.54
9:J:496:GLU:OE1	9:J:496:GLU:N	2.31	0.54
13:O:73:ILE:O	13:O:161:TYR:OH	2.18	0.54
13:O:390:PHE:HE1	13:O:431:LEU:HD22	1.71	0.54
13:O:750:PRO:O	13:O:751:LEU:HG	2.06	0.54
15:X:530:ASP:O	15:X:534:ILE:HG12	2.07	0.54
1:A:156:SER:OG	1:A:157:SER:N	2.39	0.54
1:A:492:GLU:N	1:A:496:ASN:O	2.37	0.54
1:A:823:ILE:C	1:A:825:PRO:HD3	2.32	0.54
1:A:1463:TYR:HE2	1:A:1511:ASN:HB3	1.70	0.54
1:A:1679:ASP:N	1:A:1679:ASP:OD1	2.36	0.54
2:B:25:ILE:HG12	2:B:74:PRO:HG2	1.89	0.54
3:C:432:ASP:OD1	3:C:434:ARG:NH1	2.41	0.54
8:I:183:GLY:HA2	8:I:201:ILE:O	2.08	0.54
8:I:272:MET:SD	8:I:348:VAL:HG23	2.47	0.54
9:K:221:PRO:O	9:K:225:ASP:N	2.40	0.54
11:M:5:VAL:HG13	11:M:7:ARG:HH21	1.71	0.54
13:O:486:ALA:O	13:O:490:LEU:HG	2.07	0.54
7:W:13:LEU:HA	7:W:16:ILE:HG13	1.89	0.54
15:Y:60:LEU:HD23	15:Y:79:LEU:HD11	1.89	0.54
2:B:12:ALA:HA	12:N:637:TRP:O	2.06	0.54
8:I:33:ASP:OD1	8:I:34:LEU:N	2.40	0.54
8:I:221:THR:HG22	8:I:232:SER:HB3	1.90	0.54
8:I:288:THR:HA	8:I:291:VAL:HG22	1.89	0.54
9:J:90:LEU:HB2	9:J:139:ILE:HG21	1.89	0.54
9:K:514:PHE:HE2	7:W:11:LEU:HD13	1.72	0.54
12:N:392:ASN:OD1	16:S:499:ARG:NH2	2.40	0.54
15:X:76:LYS:O	15:X:80:LEU:HG	2.07	0.54
15:Y:50:HIS:HA	15:Y:53:VAL:HG22	1.88	0.54
15:Y:73:PRO:HB2	15:Y:74:PRO:HD3	1.88	0.54
15:Y:226:VAL:HA	15:Y:229:THR:HG23	1.88	0.54
15:Y:311:TYR:CE2	15:Y:327:LEU:HD22	2.42	0.54
15:Y:532:TYR:CZ	15:Y:548:GLY:HA3	2.43	0.54
1:A:1053:GLN:HB3	1:A:1062:PHE:CD1	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:361:ASN:HD22	3:C:363:ARG:N	2.06	0.54
3:C:392:ILE:HD13	3:C:402:TRP:CE2	2.41	0.54
6:F:655:GLU:OE2	6:F:705:CYS:N	2.40	0.54
8:I:282:GLN:HA	12:N:686:LYS:HE2	1.89	0.54
9:J:23:LEU:HD11	9:J:50:THR:HG21	1.90	0.54
9:K:86:HIS:O	9:K:87:GLN:HB3	2.07	0.54
12:N:292:TRP:CE3	12:N:293:ILE:HD13	2.42	0.54
12:N:564:MET:O	12:N:568:ARG:HG3	2.08	0.54
13:O:274:LEU:HD11	13:O:306:ASN:HD21	1.73	0.54
1:A:586:SER:OG	1:A:587:ILE:N	2.40	0.54
2:B:16:TRP:CZ2	2:B:45:PRO:HB3	2.43	0.54
2:B:26:CYS:HB2	2:B:59:CYS:SG	2.48	0.54
3:C:270:ALA:HB1	3:C:286:PHE:CE2	2.43	0.54
6:F:705:CYS:SG	6:F:706:LYS:N	2.80	0.54
6:H:734:PRO:HG2	6:H:735:LYS:HD2	1.89	0.54
8:I:622:SER:OG	8:I:706:HIS:HB3	2.06	0.54
9:K:236:SER:O	9:K:240:ARG:HG3	2.08	0.54
13:O:665:PHE:CZ	13:O:669:LYS:HD2	2.42	0.54
15:X:147:THR:HB	15:X:148:MET:HE2	1.89	0.54
15:X:353:LYS:O	15:X:355:TYR:N	2.41	0.54
15:Y:475:TYR:HD2	15:Y:478:ALA:H	1.54	0.54
3:C:373:HIS:NE2	3:C:377:GLU:OE2	2.40	0.54
6:F:79:CYS:SG	6:F:87:GLU:HB2	2.47	0.54
6:H:120:LEU:O	6:H:124:VAL:HG23	2.07	0.54
9:J:325:LYS:HZ1	9:J:329:LEU:HB2	1.73	0.54
9:J:514:PHE:HA	9:J:517:THR:HG22	1.89	0.54
9:K:441:VAL:O	9:K:444:TRP:N	2.41	0.54
1:A:489:LEU:HD21	1:A:497:LEU:HD13	1.89	0.54
3:C:513:PHE:HB3	3:C:536:CYS:HB3	1.90	0.54
8:I:168:LEU:HB3	8:I:253:ARG:NH1	2.23	0.54
9:J:482:TYR:HB3	9:J:505:ALA:HB2	1.90	0.54
12:N:811:SER:HG	12:N:816:ARG:HE	1.53	0.54
3:P:239:THR:HG21	3:P:268:GLN:OE1	2.07	0.54
3:P:388:TYR:O	3:P:392:ILE:HG23	2.07	0.54
15:X:399:ALA:O	15:X:403:ALA:N	2.39	0.54
15:X:408:ASP:O	15:X:411:GLU:HG3	2.08	0.54
1:A:1267:ARG:HA	1:A:1316:MET:HE2	1.90	0.54
1:A:1825:SER:O	1:A:1829:ARG:NH2	2.41	0.54
2:B:10:GLY:O	12:N:594:VAL:HG22	2.08	0.54
2:B:56:HIS:HB2	2:B:59:CYS:HB2	1.89	0.54
3:C:141:LEU:HD23	3:C:141:LEU:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:494:ILE:O	3:C:497:ILE:HG22	2.08	0.54
6:H:142:LEU:HD21	6:H:151:PRO:CG	2.38	0.54
8:I:255:PHE:HA	8:I:258:ILE:HD12	1.89	0.54
8:I:639:LEU:HD12	8:I:720:GLN:HE22	1.71	0.54
8:I:713:LEU:HD23	8:I:714:LEU:N	2.22	0.54
3:P:341:TYR:CD2	3:P:349:LYS:HB3	2.43	0.54
1:A:23:PHE:CD1	1:A:111:LEU:HD13	2.43	0.54
1:A:773:LEU:O	1:A:776:ASN:N	2.40	0.54
1:A:773:LEU:HB3	1:A:783:ILE:HD11	1.89	0.54
1:A:1194:HIS:O	1:A:1198:THR:HG23	2.08	0.54
3:C:300:MET:HG3	3:C:323:LEU:HD11	1.90	0.54
7:G:3:ARG:HG2	9:J:369:LEU:HD11	1.89	0.54
8:I:225:THR:OG1	8:I:226:ASN:OD1	2.24	0.54
8:I:523:HIS:HB3	8:I:527:ARG:HH12	1.73	0.54
9:K:300:VAL:HG12	9:K:333:TYR:OH	2.08	0.54
12:N:535:PRO:O	12:N:539:ILE:HG12	2.08	0.54
12:N:670:PHE:HZ	12:N:713:PHE:CD1	2.25	0.54
3:P:376:MET:HA	3:P:376:MET:HE3	1.90	0.54
3:P:450:VAL:HA	3:P:453:LYS:HD2	1.90	0.54
7:W:25:ASP:N	7:W:26:LEU:HA	2.21	0.54
15:Y:99:LYS:HD3	15:Y:102:MET:SD	2.48	0.54
1:A:412:LEU:HD22	1:A:468:PHE:CD1	2.43	0.54
8:I:561:ARG:NH2	8:I:589:THR:O	2.27	0.54
8:I:721:TYR:O	8:I:734:LEU:N	2.31	0.54
10:L:32:SER:O	10:L:33:LEU:HD23	2.08	0.54
3:P:403:TYR:HD1	3:P:435:MET:HE1	1.73	0.54
15:Y:72:SER:N	15:Y:75:GLN:OE1	2.33	0.54
1:A:1273:LEU:O	1:A:1276:GLU:N	2.41	0.53
1:A:1313:LEU:HB2	1:A:1316:MET:HB2	1.89	0.53
3:C:101:ARG:NH1	3:P:293:ASP:OD2	2.41	0.53
4:D:17:TRP:HA	13:O:283:LEU:HD11	1.90	0.53
6:F:653:LEU:HD11	15:Y:552:MET:HE2	1.90	0.53
8:I:56:TRP:HB2	8:I:98:PRO:HG3	1.90	0.53
8:I:116:MET:HE2	8:I:175:ILE:HB	1.89	0.53
8:I:221:THR:O	8:I:232:SER:N	2.31	0.53
9:K:285:PHE:HB2	9:K:308:TYR:CE1	2.43	0.53
12:N:663:GLN:HE21	12:N:699:TRP:CD1	2.25	0.53
15:X:226:VAL:HG22	15:X:236:LEU:HD12	1.89	0.53
15:X:360:TYR:HB3	15:X:364:LYS:NZ	2.23	0.53
15:X:512:HIS:HB3	15:X:531:GLN:NE2	2.20	0.53
1:A:1053:GLN:N	1:A:1053:GLN:OE1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:126:THR:O	8:I:130:ASN:ND2	2.42	0.53
9:J:478:ASN:OD1	9:J:479:ALA:N	2.41	0.53
12:N:531:PHE:HB3	12:N:533:PHE:HA	1.91	0.53
12:N:685:VAL:HB	12:N:687:MET:HG2	1.89	0.53
15:X:499:LEU:HB3	15:X:515:LEU:HD12	1.89	0.53
15:Y:235:TRP:CD2	15:Y:267:LEU:HD21	2.43	0.53
1:A:1523:LEU:HD21	1:A:1535:VAL:HG22	1.89	0.53
6:H:77:LYS:O	6:H:80:VAL:N	2.41	0.53
6:H:149:TRP:O	6:H:153:GLU:HG3	2.09	0.53
8:I:706:HIS:HB2	8:I:708:GLU:OE1	2.08	0.53
9:K:254:THR:HG22	9:K:271:HIS:CD2	2.42	0.53
3:P:513:PHE:HD1	3:P:535:LYS:HB3	1.74	0.53
15:Y:513:ARG:NH2	15:Y:514:ILE:HG12	2.24	0.53
1:A:711:LEU:HA	1:A:716:HIS:ND1	2.23	0.53
1:A:1473:GLY:HA2	1:A:1526:VAL:HG22	1.90	0.53
3:C:129:LYS:NZ	3:P:325:GLU:O	2.36	0.53
6:F:157:GLU:O	6:F:633:ARG:NH1	2.42	0.53
8:I:321:LEU:O	8:I:325:LEU:N	2.41	0.53
8:I:520:LYS:HD3	8:I:524:PHE:CD2	2.43	0.53
15:X:476:ILE:H	15:X:476:ILE:HD12	1.73	0.53
1:A:926:LEU:HD12	1:A:929:ARG:HH22	1.73	0.53
1:A:1047:VAL:HG21	1:A:1073:LEU:HD13	1.90	0.53
6:F:662:LEU:HA	6:F:665:ASN:O	2.09	0.53
8:I:441:THR:HG23	8:I:444:ASP:H	1.73	0.53
9:J:465:LEU:HD13	9:J:492:MET:HE1	1.89	0.53
13:O:225:ASN:ND2	13:O:461:ASN:HD21	2.05	0.53
13:O:419:ASP:OD2	13:O:419:ASP:N	2.42	0.53
3:P:216:LYS:NZ	3:P:242:GLN:HB2	2.24	0.53
15:X:349:SER:OG	15:X:357:ARG:HB3	2.08	0.53
15:Y:77:TYR:HB2	15:Y:106:GLN:HG3	1.91	0.53
15:Y:87:LEU:HD11	15:Y:99:LYS:HG3	1.90	0.53
15:Y:274:LEU:HD23	15:Y:297:ALA:HA	1.91	0.53
15:Y:418:LEU:HD13	15:Y:423:ILE:HG22	1.89	0.53
1:A:435:ASP:N	1:A:435:ASP:OD1	2.41	0.53
1:A:1626:THR:O	1:A:1628:THR:HG23	2.09	0.53
3:C:483:SER:OG	3:C:515:TYR:OH	2.21	0.53
6:H:16:LEU:HD22	6:H:50:ARG:NH1	2.21	0.53
8:I:737:ASN:CG	8:I:739:ARG:H	2.17	0.53
13:O:592:TRP:HB3	13:O:753:ASN:OD1	2.07	0.53
13:O:649:GLU:OE1	13:O:649:GLU:N	2.42	0.53
3:P:449:LEU:O	3:P:452:ALA:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:453:LYS:HE2	3:P:480:LEU:HD11	1.90	0.53
7:W:8:ARG:HG2	7:W:9:LEU:O	2.08	0.53
15:Y:310:VAL:O	15:Y:314:LEU:HG	2.08	0.53
1:A:802:TYR:CZ	1:A:841:PRO:HA	2.43	0.53
1:A:808:ARG:NH2	1:A:1871:TYR:OH	2.33	0.53
6:F:747:TYR:HA	6:F:750:LEU:HB2	1.90	0.53
6:H:600:TYR:HE2	6:H:602:TYR:HB3	1.74	0.53
9:K:230:ASN:HB3	9:K:233:VAL:HG12	1.90	0.53
3:P:361:ASN:HB3	3:P:362:PRO:C	2.34	0.53
3:P:375:TYR:CD2	3:P:383:ALA:HB1	2.43	0.53
15:X:87:LEU:HD12	15:X:92:GLU:HB3	1.91	0.53
15:Y:85:ASP:OD1	15:Y:100:TYR:OH	2.27	0.53
1:A:1852:ILE:O	1:A:1855:THR:OG1	2.24	0.53
3:C:510:SER:O	3:C:513:PHE:N	2.41	0.53
4:D:54:ILE:HG21	3:P:389:ARG:HH12	1.73	0.53
6:F:719:TYR:HB3	6:F:750:LEU:HD21	1.91	0.53
6:H:679:GLN:HA	6:H:682:LEU:HD12	1.91	0.53
8:I:74:ARG:HB2	8:I:79:LEU:HB3	1.91	0.53
8:I:555:PRO:HB2	8:I:692:ARG:HG3	1.91	0.53
9:K:256:VAL:O	9:K:259:GLU:HG2	2.09	0.53
12:N:65:HIS:HB2	12:N:66:GLY:HA2	1.89	0.53
15:X:424:ARG:O	15:X:428:VAL:HG23	2.09	0.53
1:A:435:ASP:OD2	1:A:437:CYS:HB2	2.09	0.53
1:A:1398:PHE:CD1	10:L:70:ARG:HG3	2.44	0.53
1:A:1775:LEU:O	1:A:1779:VAL:HG23	2.08	0.53
3:C:209:LEU:O	3:C:213:ILE:HG12	2.08	0.53
6:H:104:ASP:O	6:H:108:THR:HG23	2.08	0.53
6:H:515:TYR:HB2	10:L:179:MET:HE3	1.91	0.53
6:H:582:GLU:OE2	10:L:18:ARG:HG2	2.09	0.53
9:K:264:HIS:CD2	9:K:266:SER:H	2.13	0.53
9:K:270:VAL:O	9:K:274:THR:HG23	2.09	0.53
10:L:74:VAL:HG11	10:L:158:ILE:HD11	1.90	0.53
12:N:421:CYS:SG	12:N:425:ARG:NH1	2.81	0.53
12:N:703:GLY:HA2	12:N:705:LEU:H	1.72	0.53
12:N:706:ARG:HG2	12:N:707:GLU:N	2.24	0.53
1:A:579:GLN:O	1:A:583:TYR:N	2.42	0.53
6:F:660:LYS:O	6:F:663:ASP:HB3	2.09	0.53
6:H:170:PHE:O	6:H:174:GLN:N	2.42	0.53
6:H:765:ASP:OD2	15:X:397:ARG:NH1	2.40	0.53
9:J:518:MET:HE3	9:J:522:CYS:HB3	1.89	0.53
10:L:53:TYR:HA	10:L:153:MET:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:162:PHE:HB2	12:N:255:ARG:NH2	2.22	0.53
1:A:845:TYR:HB3	1:A:1812:TRP:CH2	2.44	0.52
6:F:147:PHE:CE1	6:H:8:VAL:HG12	2.44	0.52
6:F:645:TYR:HB3	6:F:654:ALA:HB2	1.91	0.52
6:F:737:SER:HA	6:F:740:TYR:CD2	2.44	0.52
6:F:740:TYR:HA	6:F:743:ILE:HD12	1.91	0.52
6:H:461:GLY:O	6:H:464:SER:OG	2.26	0.52
6:H:762:TRP:CD1	15:X:397:ARG:CZ	2.92	0.52
9:J:151:TYR:HA	9:J:154:LYS:HD2	1.91	0.52
9:J:275:LEU:HD11	9:J:283:GLU:HG3	1.91	0.52
9:K:84:LYS:HA	9:K:86:HIS:NE2	2.24	0.52
10:L:31:TRP:CZ3	10:L:66:ILE:HD11	2.44	0.52
12:N:386:LEU:HD22	12:N:399:LEU:CD2	2.37	0.52
12:N:698:VAL:HG13	12:N:728:VAL:HB	1.91	0.52
13:O:663:ALA:O	13:O:667:VAL:HG23	2.09	0.52
1:A:1134:TRP:CH2	1:A:1203:MET:HE1	2.44	0.52
3:C:376:MET:HE1	3:C:411:ILE:HG21	1.92	0.52
6:F:692:LEU:O	6:F:709:ARG:NH2	2.34	0.52
8:I:88:LYS:O	8:I:106:VAL:HG22	2.08	0.52
8:I:193:PHE:CE1	8:I:195:ILE:HA	2.44	0.52
8:I:229:SER:N	8:I:559:ASP:O	2.29	0.52
8:I:602:ARG:HG2	8:I:614:GLY:HA2	1.92	0.52
9:K:203:PHE:HA	9:K:206:GLU:OE2	2.09	0.52
9:K:261:ASP:OD1	9:K:263:PHE:N	2.42	0.52
12:N:272:ARG:HE	12:N:292:TRP:CD1	2.26	0.52
15:X:242:ALA:HA	15:X:257:THR:HG21	1.91	0.52
15:X:390:GLN:O	15:X:394:ILE:HG12	2.08	0.52
15:Y:85:ASP:OD1	15:Y:141:LYS:HD3	2.09	0.52
15:Y:444:LEU:O	15:Y:447:LEU:HG	2.09	0.52
1:A:12:ILE:O	1:A:510:PHE:N	2.42	0.52
1:A:1652:MET:O	1:A:1655:THR:OG1	2.28	0.52
3:C:254:LEU:O	3:C:259:PHE:HB2	2.10	0.52
8:I:266:ASN:ND2	8:I:530:GLU:OE2	2.27	0.52
9:J:268:LEU:O	9:J:272:ILE:HG12	2.10	0.52
9:K:302:TRP:HB2	9:K:326:ALA:HB2	1.90	0.52
10:L:13:PRO:O	10:L:16:LEU:HB3	2.10	0.52
12:N:258:ALA:HA	12:N:261:VAL:HG22	1.92	0.52
15:Y:107:LYS:NZ	15:Y:135:GLU:OE1	2.28	0.52
1:A:749:LEU:HD12	1:A:750:ASP:H	1.75	0.52
1:A:845:TYR:HB3	1:A:1812:TRP:CZ3	2.45	0.52
1:A:848:VAL:HA	1:A:851:CYS:SG	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:849:SER:O	1:A:852:LEU:HG	2.09	0.52
8:I:46:LEU:HD12	8:I:47:HIS:H	1.73	0.52
8:I:116:MET:SD	8:I:210:LEU:HB3	2.49	0.52
9:K:478:ASN:HD21	7:W:8:ARG:NH2	2.04	0.52
12:N:524:ALA:HA	12:N:601:TRP:HZ3	1.75	0.52
3:P:85:ASP:O	3:P:88:THR:OG1	2.27	0.52
15:X:414:ILE:HA	15:X:417:TYR:CD1	2.44	0.52
15:X:450:VAL:HB	15:X:481:LYS:HZ3	1.75	0.52
15:Y:180:LYS:HG2	15:Y:188:SER:OG	2.09	0.52
15:Y:458:GLN:OE1	15:Y:458:GLN:N	2.42	0.52
15:Y:518:PHE:O	15:Y:522:VAL:HG23	2.10	0.52
1:A:1640:GLY:HA2	1:A:1644:TYR:CE2	2.44	0.52
3:C:368:TRP:CE2	3:C:390:HIS:HB3	2.45	0.52
6:F:113:SER:O	6:F:117:THR:HG23	2.08	0.52
6:F:149:TRP:CD1	6:H:26:PHE:CG	2.98	0.52
9:K:217:GLU:O	9:K:218:THR:OG1	2.26	0.52
12:N:131:LEU:HB3	12:N:135:TRP:CZ3	2.45	0.52
12:N:703:GLY:HA2	12:N:705:LEU:N	2.25	0.52
1:A:76:LEU:HD22	1:A:606:ARG:HH12	1.74	0.52
2:B:8:TRP:N	12:N:590:GLY:O	2.43	0.52
6:H:148:LEU:HB2	6:H:151:PRO:HG3	1.91	0.52
9:J:211:LYS:C	9:J:213:ASN:H	2.17	0.52
13:O:123:GLU:N	13:O:124:PRO:HA	2.25	0.52
15:X:53:VAL:HA	15:X:56:LEU:HD12	1.90	0.52
15:X:66:ASN:HD22	15:Y:266:LEU:C	2.18	0.52
15:X:466:ASP:OD1	15:X:482:LYS:NZ	2.33	0.52
15:Y:58:SER:O	15:Y:62:THR:HG23	2.09	0.52
15:Y:510:VAL:CG1	15:Y:513:ARG:HH21	2.23	0.52
16:S:498:MET:C	16:S:499:ARG:CG	2.76	0.52
1:A:1268:HIS:O	1:A:1272:VAL:HG23	2.10	0.52
3:C:550:LEU:HA	3:C:553:ILE:HG12	1.91	0.52
6:F:585:ILE:HG12	11:M:66:HIS:ND1	2.25	0.52
6:H:742:LEU:O	6:H:746:VAL:HG23	2.10	0.52
8:I:719:ALA:HA	8:I:735:SER:HA	1.90	0.52
11:M:1:MET:N	3:P:48:LEU:HD11	2.25	0.52
12:N:414:MET:HG3	12:N:417:LEU:HD13	1.90	0.52
12:N:644:VAL:HG22	12:N:661:PRO:HG3	1.90	0.52
3:P:187:GLU:OE2	3:P:187:GLU:N	2.27	0.52
3:P:244:ILE:HD12	3:P:244:ILE:H	1.74	0.52
15:X:146:TYR:O	15:X:150:LYS:N	2.43	0.52
1:A:215:HIS:N	1:A:218:ASP:OD2	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1184:HIS:O	1:A:1186:THR:N	2.42	0.52
1:A:1261:TYR:O	1:A:1264:THR:HG22	2.10	0.52
1:A:1382:SER:O	1:A:1385:ASP:HB3	2.10	0.52
6:F:526:ARG:NH1	6:F:530:ASN:O	2.42	0.52
6:H:680:HIS:CD2	6:H:712:VAL:HG13	2.44	0.52
8:I:331:LYS:O	8:I:335:GLN:HG2	2.10	0.52
9:J:441:VAL:HG23	9:J:443:LYS:H	1.75	0.52
10:L:68:PHE:N	10:L:135:PHE:O	2.24	0.52
12:N:630:LYS:HB2	12:N:633:ARG:CZ	2.40	0.52
3:P:267:SER:HB2	3:P:299:ASN:ND2	2.25	0.52
15:Y:208:GLY:O	15:Y:212:LEU:HG	2.09	0.52
1:A:941:LEU:HB2	1:A:977:LEU:HD12	1.91	0.52
1:A:1535:VAL:HB	1:A:1565:LEU:HD11	1.91	0.52
6:H:468:GLU:HA	6:H:471:LYS:HD2	1.90	0.52
6:H:514:GLU:OE1	6:H:514:GLU:N	2.43	0.52
6:H:636:ASN:ND2	10:L:184:ARG:O	2.43	0.52
8:I:321:LEU:HD11	8:I:425:MET:SD	2.50	0.52
9:K:465:LEU:HB3	9:K:469:ARG:HH12	1.74	0.52
12:N:663:GLN:NE2	12:N:698:VAL:HB	2.25	0.52
15:X:495:GLY:HA3	15:X:518:PHE:HE2	1.75	0.52
15:X:518:PHE:O	15:X:522:VAL:HG23	2.09	0.52
1:A:477:LYS:HB2	1:A:491:LEU:CD1	2.39	0.52
2:B:2:LYS:H	12:N:650:LEU:CD2	2.22	0.52
3:C:180:ARG:O	3:C:183:ASP:N	2.41	0.52
9:J:335:PRO:O	9:J:338:ILE:HG22	2.10	0.52
10:L:13:PRO:O	10:L:16:LEU:N	2.43	0.52
12:N:530:GLN:OE1	12:N:533:PHE:HE1	1.93	0.52
15:X:463:THR:O	15:X:467:LYS:HG3	2.09	0.52
15:X:519:LEU:HA	15:X:522:VAL:HG23	1.91	0.52
15:Y:97:VAL:HA	15:Y:142:MET:HE1	1.92	0.52
6:F:549:ASP:OD1	6:F:579:LEU:HD13	2.10	0.51
6:H:651:PHE:HB3	6:H:682:LEU:HD21	1.91	0.51
8:I:291:VAL:HG12	8:I:317:LEU:HD12	1.91	0.51
8:I:557:TYR:C	8:I:692:ARG:HE	2.18	0.51
8:I:615:LEU:HB3	8:I:685:PHE:HB2	1.92	0.51
8:I:723:ALA:O	8:I:732:CYS:N	2.33	0.51
9:J:65:LEU:HD12	9:J:65:LEU:H	1.75	0.51
9:J:212:TYR:HB3	9:J:243:TYR:CG	2.45	0.51
12:N:516:ILE:HG21	12:N:553:PRO:HB3	1.92	0.51
13:O:594:SER:O	13:O:594:SER:OG	2.19	0.51
3:P:327:ASP:O	3:P:333:THR:HG21	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:185:GLU:HG3	15:X:186:ARG:H	1.73	0.51
15:X:245:PHE:CD2	15:X:253:ARG:HB3	2.45	0.51
15:X:509:CYS:HA	15:X:512:HIS:CD2	2.41	0.51
15:Y:272:ASP:N	15:Y:272:ASP:OD1	2.38	0.51
1:A:657:TRP:NE1	1:A:785:SER:HB3	2.25	0.51
3:C:180:ARG:NH1	3:C:208:GLU:OE1	2.43	0.51
6:H:469:MET:HG2	6:H:500:TRP:HZ3	1.75	0.51
6:H:712:VAL:HG12	6:H:716:ASN:ND2	2.25	0.51
8:I:9:PRO:HG2	8:I:750:ASP:HB3	1.92	0.51
8:I:115:TRP:NE1	8:I:176:LEU:HD13	2.25	0.51
8:I:593:ASP:HB3	8:I:595:LEU:HG	1.92	0.51
9:J:466:ASP:HA	9:J:469:ARG:HH12	1.74	0.51
9:J:516:VAL:O	9:J:519:LEU:HB3	2.10	0.51
9:K:254:THR:HG22	9:K:271:HIS:HD2	1.74	0.51
10:L:102:PHE:HD1	10:L:136:MET:HE1	1.75	0.51
12:N:132:LEU:HD22	12:N:135:TRP:CZ3	2.46	0.51
12:N:676:TRP:HB3	12:N:681:LEU:HD21	1.91	0.51
3:P:265:ILE:HG13	3:P:266:VAL:N	2.24	0.51
15:Y:295:GLU:O	15:Y:299:MET:HG2	2.10	0.51
2:B:17:VAL:HG11	12:N:634:THR:HG23	1.91	0.51
4:D:25:VAL:HG12	4:D:26:GLU:O	2.10	0.51
6:H:38:GLU:OE2	6:H:66:CYS:HA	2.10	0.51
9:J:164:PHE:HZ	9:J:208:LYS:HG3	1.75	0.51
10:L:97:ARG:HG2	10:L:107:GLU:HA	1.92	0.51
12:N:83:LEU:HA	12:N:87:ILE:HB	1.93	0.51
12:N:411:ASP:O	12:N:413:SER:N	2.39	0.51
12:N:699:TRP:HE3	12:N:704:VAL:HG21	1.74	0.51
3:P:368:TRP:HB2	3:P:391:ALA:HB2	1.92	0.51
1:A:98:ASN:HB3	1:A:120:ASP:H	1.75	0.51
1:A:114:TYR:O	1:A:115:LYS:HG3	2.10	0.51
1:A:457:PHE:HB3	1:A:468:PHE:CE2	2.45	0.51
3:C:39:ILE:HG21	3:C:201:LEU:HB3	1.92	0.51
3:C:58:LEU:HA	3:C:61:SER:HB2	1.92	0.51
3:C:465:VAL:HG23	3:C:466:GLU:CD	2.35	0.51
4:D:45:ALA:O	3:P:380:ASN:ND2	2.26	0.51
9:K:167:PHE:O	9:K:171:THR:HG22	2.10	0.51
10:L:74:VAL:HG21	10:L:137:ILE:HD11	1.92	0.51
11:M:63:GLN:C	11:M:65:LEU:H	2.18	0.51
3:P:368:TRP:CE3	3:P:390:HIS:HB2	2.44	0.51
7:W:23:ARG:HG2	7:W:24:LYS:H	1.75	0.51
15:X:165:ARG:HH21	15:X:166:GLN:HG3	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:180:LYS:HD3	15:Y:212:LEU:HD11	1.91	0.51
1:A:12:ILE:N	1:A:508:LYS:O	2.44	0.51
1:A:966:PRO:HA	1:A:970:TRP:CH2	2.45	0.51
2:B:15:LEU:HD12	12:N:626:TYR:HE2	1.75	0.51
3:C:42:LEU:O	3:C:46:ARG:NH1	2.44	0.51
3:C:147:LYS:HD3	3:C:148:ASN:H	1.76	0.51
3:C:179:LEU:HD13	3:C:187:GLU:HB3	1.92	0.51
6:F:695:ALA:HB3	6:F:709:ARG:NH1	2.24	0.51
6:H:154:SER:O	6:H:158:ILE:HG13	2.11	0.51
8:I:173:LEU:HA	8:I:190:TYR:HE1	1.75	0.51
8:I:572:PHE:HZ	8:I:589:THR:N	2.08	0.51
9:K:391:PHE:CE2	9:K:411:VAL:HG11	2.46	0.51
11:M:4:GLU:OE1	11:M:7:ARG:NH2	2.41	0.51
12:N:156:MET:O	12:N:160:VAL:HG22	2.10	0.51
12:N:184:TYR:OH	12:N:188:LYS:NZ	2.21	0.51
12:N:803:VAL:HG21	12:N:810:TYR:HB2	1.91	0.51
13:O:317:TYR:O	13:O:320:ALA:HB3	2.11	0.51
1:A:24:GLY:HA3	1:A:94:TYR:CD1	2.45	0.51
6:F:570:TRP:HZ3	11:M:65:LEU:HD11	1.75	0.51
8:I:176:LEU:HG	8:I:178:LEU:HG	1.91	0.51
8:I:708:GLU:N	8:I:708:GLU:OE2	2.43	0.51
9:J:372:LEU:O	9:J:376:LEU:HG	2.11	0.51
9:K:368:HIS:NE2	9:K:401:ASP:OD2	2.44	0.51
12:N:502:ILE:H	12:N:502:ILE:HD12	1.75	0.51
12:N:779:MET:HE2	12:N:779:MET:HA	1.93	0.51
3:P:400:ARG:CZ	17:Q:499:ARG:HA	2.40	0.51
15:X:94:ARG:CZ	15:X:151:GLN:HE22	2.23	0.51
1:A:1206:ILE:HD11	1:A:1248:ASN:O	2.11	0.51
6:H:693:ASN:O	6:H:697:VAL:HG23	2.11	0.51
8:I:125:LEU:HB3	8:I:129:TYR:CZ	2.45	0.51
8:I:279:ILE:HD11	8:I:337:ILE:HG23	1.93	0.51
9:J:418:TRP:HB3	9:J:458:LEU:HD21	1.92	0.51
9:J:445:GLU:CD	9:J:475:ILE:HD13	2.36	0.51
13:O:434:ARG:NH2	13:O:617:GLN:OE1	2.43	0.51
3:P:179:LEU:HD22	3:P:184:LEU:HD12	1.92	0.51
15:X:77:TYR:HE1	15:X:107:LYS:HB2	1.75	0.51
15:X:305:ILE:H	15:X:305:ILE:HD12	1.75	0.51
15:Y:244:ALA:O	15:Y:248:THR:HG23	2.10	0.51
15:Y:258:ILE:HG21	15:Y:277:LEU:HB2	1.92	0.51
1:A:479:ALA:CB	1:A:490:VAL:HG12	2.41	0.51
1:A:795:ARG:CZ	1:A:817:THR:H	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:852:LEU:HD12	1:A:853:LYS:HG3	1.92	0.51
1:A:1560:MET:HE1	1:A:1607:ARG:HB3	1.93	0.51
1:A:1677:LEU:HD12	1:A:1678:ILE:H	1.75	0.51
6:F:709:ARG:HA	6:F:712:VAL:HG22	1.93	0.51
6:H:684:LYS:NZ	6:H:687:LYS:H	2.09	0.51
8:I:86:ASP:OD1	8:I:86:ASP:N	2.44	0.51
8:I:302:ASP:HB3	13:O:58:ARG:HD2	1.93	0.51
9:J:293:ASP:O	9:J:296:PRO:HD3	2.10	0.51
10:L:126:ASP:OD2	10:L:130:LYS:N	2.36	0.51
10:L:178:MET:HG2	10:L:181:ARG:HE	1.75	0.51
12:N:121:ARG:HB3	12:N:122:LEU:CB	2.36	0.51
12:N:527:LEU:HD22	12:N:530:GLN:HG2	1.92	0.51
12:N:637:TRP:HE3	12:N:639:HIS:HB2	1.76	0.51
13:O:83:GLU:OE1	13:O:87:PRO:HA	2.11	0.51
13:O:104:GLU:O	13:O:107:ASP:N	2.30	0.51
13:O:385:VAL:HB	13:O:401:ALA:CB	2.41	0.51
3:P:312:MET:HE3	3:P:314:SER:H	1.76	0.51
1:A:1086:MET:CE	1:A:1560:MET:HG3	2.38	0.51
6:F:730:LYS:O	6:F:734:PRO:HA	2.10	0.51
6:H:556:SER:OG	6:H:573:ALA:HA	2.11	0.51
6:H:702:ASN:OD1	6:H:704:LEU:N	2.44	0.51
9:J:192:LYS:HG3	9:J:198:GLN:NE2	2.26	0.51
9:J:305:VAL:CG2	11:M:29:VAL:HG11	2.41	0.51
12:N:433:ASP:C	12:N:435:VAL:H	2.12	0.51
12:N:560:MET:HE2	12:N:600:PHE:HB3	1.93	0.51
13:O:542:GLU:O	13:O:546:ARG:HG2	2.10	0.51
13:O:593:ARG:HG2	13:O:753:ASN:ND2	2.26	0.51
15:X:365:ALA:HA	15:X:368:LEU:HD12	1.93	0.51
1:A:431:PHE:CE1	1:A:443:CYS:HB2	2.46	0.51
1:A:1138:HIS:HD2	1:A:1608:HIS:NE2	2.09	0.51
1:A:1195:ASP:OD2	1:A:1195:ASP:N	2.44	0.51
1:A:1503:ASN:O	1:A:1506:VAL:HG22	2.11	0.51
9:K:285:PHE:HB2	9:K:308:TYR:CZ	2.46	0.51
12:N:82:ASP:O	12:N:87:ILE:HG12	2.10	0.51
12:N:335:ILE:O	12:N:338:SER:OG	2.26	0.51
12:N:660:THR:HG22	12:N:729:LEU:HD23	1.92	0.51
15:X:66:ASN:ND2	15:Y:265:SER:O	2.44	0.51
1:A:31:HIS:CG	1:A:32:PRO:HD2	2.46	0.50
1:A:33:ASN:OD1	1:A:98:ASN:ND2	2.44	0.50
3:C:42:LEU:HD11	3:C:46:ARG:HH22	1.76	0.50
3:C:179:LEU:HB3	3:C:188:ALA:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:186:LYS:HA	3:C:189:ILE:HD12	1.92	0.50
3:C:337:ILE:HD12	11:M:24:LEU:HD21	1.92	0.50
8:I:48:ARG:NH1	12:N:392:ASN:HB3	2.26	0.50
8:I:721:TYR:HD2	8:I:734:LEU:HD23	1.76	0.50
9:J:368:HIS:NE2	9:J:401:ASP:OD2	2.44	0.50
9:K:147:THR:HG23	9:K:148:LEU:HD12	1.92	0.50
12:N:157:LEU:HD21	12:N:161:LEU:HD12	1.92	0.50
13:O:378:SER:OG	13:O:417:LEU:HG	2.11	0.50
13:O:620:ALA:O	13:O:623:THR:HG22	2.11	0.50
13:O:637:PRO:O	13:O:638:GLU:C	2.54	0.50
3:P:98:GLU:OE2	3:P:101:ARG:NH2	2.35	0.50
3:P:333:THR:O	3:P:337:ILE:HG13	2.11	0.50
15:X:38:ILE:HG13	15:X:75:GLN:HG2	1.92	0.50
15:X:206:ILE:O	15:X:210:LEU:HD23	2.12	0.50
1:A:847:TRP:NE1	1:A:860:TYR:HB2	2.26	0.50
1:A:872:LEU:O	1:A:876:SER:OG	2.22	0.50
1:A:1347:SER:O	1:A:1347:SER:OG	2.29	0.50
1:A:1848:VAL:HG12	1:A:1852:ILE:HD11	1.93	0.50
6:F:522:PHE:HA	6:F:525:VAL:HG12	1.93	0.50
6:F:726:LEU:HD13	6:F:742:LEU:HD23	1.93	0.50
6:H:503:CYS:SG	6:H:535:GLY:HA3	2.52	0.50
8:I:176:LEU:HD12	8:I:177:VAL:N	2.25	0.50
8:I:644:TYR:HB2	8:I:650:THR:HG23	1.93	0.50
9:J:334:GLY:H	9:J:335:PRO:HD2	1.76	0.50
12:N:523:LEU:HD23	12:N:526:ARG:NH1	2.18	0.50
1:A:76:LEU:HD22	1:A:606:ARG:NH1	2.27	0.50
1:A:129:CYS:SG	1:A:187:LEU:HD22	2.51	0.50
1:A:1769:ASP:O	1:A:1772:SER:OG	2.26	0.50
3:C:173:TYR:CG	3:C:202:HIS:HE1	2.30	0.50
4:D:46:GLU:HA	3:P:380:ASN:ND2	2.27	0.50
4:D:53:PRO:HD3	3:P:382:SER:HB2	1.92	0.50
5:E:94:TRP:CZ2	6:F:592:ARG:HG3	2.46	0.50
7:G:12:LYS:O	7:G:15:ASP:HB3	2.11	0.50
8:I:526:LYS:HE2	8:I:530:GLU:OE2	2.11	0.50
13:O:382:GLN:O	13:O:385:VAL:HG12	2.11	0.50
13:O:405:SER:O	13:O:408:LEU:N	2.43	0.50
15:X:287:ASN:OD1	15:X:288:LYS:N	2.45	0.50
15:X:360:TYR:O	15:X:364:LYS:HG3	2.12	0.50
15:Y:186:ARG:HA	15:Y:189:VAL:CG1	2.38	0.50
3:C:370:LEU:O	3:C:374:GLU:HG2	2.10	0.50
6:H:125:TYR:O	6:H:128:THR:HB	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:70:CYS:SG	8:I:112:CYS:HA	2.52	0.50
8:I:721:TYR:HB2	8:I:734:LEU:HB3	1.93	0.50
9:J:226:GLY:HA2	9:K:34:ARG:HH12	1.76	0.50
9:K:403:PHE:O	9:K:407:GLU:HG2	2.11	0.50
9:K:506:LEU:HD21	9:K:516:VAL:HG22	1.94	0.50
12:N:151:GLU:HA	12:N:154:HIS:CD2	2.46	0.50
12:N:172:MET:HE3	12:N:176:LEU:HD21	1.93	0.50
12:N:186:GLN:HG2	12:N:190:LYS:NZ	2.27	0.50
12:N:771:ASP:OD1	12:N:772:ARG:HD2	2.12	0.50
13:O:461:ASN:HB3	13:O:466:PHE:HE1	1.76	0.50
15:X:203:LEU:HD11	15:X:239:TRP:CZ3	2.45	0.50
15:Y:192:TYR:HA	15:Y:195:VAL:HG22	1.93	0.50
15:Y:205:ALA:O	15:Y:209:LEU:HG	2.11	0.50
15:Y:447:LEU:HA	15:Y:450:VAL:HG22	1.93	0.50
1:A:640:LYS:O	1:A:644:VAL:HG23	2.11	0.50
6:F:14:GLN:O	6:F:18:HIS:ND1	2.28	0.50
8:I:74:ARG:HE	8:I:76:ASP:CB	2.25	0.50
8:I:619:LYS:HB2	8:I:702:THR:CG2	2.41	0.50
12:N:663:GLN:HG2	12:N:699:TRP:NE1	2.27	0.50
13:O:255:TYR:HD1	13:O:277:TYR:CD2	2.28	0.50
13:O:620:ALA:O	13:O:624:VAL:HG23	2.12	0.50
3:P:496:ASP:O	3:P:500:CYS:N	2.45	0.50
15:Y:340:GLU:O	15:Y:344:VAL:HG23	2.10	0.50
15:Y:455:PRO:O	15:Y:457:THR:N	2.44	0.50
1:A:161:MET:CE	1:A:216:PRO:HB3	2.42	0.50
1:A:225:CYS:N	1:A:237:GLN:O	2.40	0.50
1:A:1107:LEU:HD12	1:A:1107:LEU:O	2.12	0.50
1:A:1316:MET:O	1:A:1319:LEU:N	2.44	0.50
3:C:389:ARG:HH21	13:O:276:HIS:HD2	1.57	0.50
3:C:494:ILE:HG12	3:C:513:PHE:HE1	1.77	0.50
6:H:142:LEU:HD21	6:H:151:PRO:HG3	1.94	0.50
8:I:111:SER:OG	8:I:179:GLY:O	2.28	0.50
8:I:604:HIS:HB3	8:I:606:ASP:O	2.12	0.50
9:K:478:ASN:ND2	7:W:8:ARG:HH22	2.03	0.50
10:L:33:LEU:HG	10:L:42:VAL:HG22	1.93	0.50
12:N:530:GLN:O	12:N:531:PHE:HB2	2.12	0.50
12:N:759:GLN:O	12:N:763:THR:HG23	2.12	0.50
3:P:159:SER:HA	3:P:175:TYR:HE1	1.75	0.50
3:P:248:LEU:HD22	3:P:273:TYR:HE1	1.76	0.50
15:X:91:LYS:HE2	15:Y:338:HIS:CE1	2.47	0.50
15:X:230:VAL:HG12	15:X:232:ASN:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:256:SER:OG	15:X:257:THR:N	2.44	0.50
1:A:894:GLN:HG3	1:A:895:TYR:CD2	2.47	0.50
1:A:1037:VAL:HA	1:A:1040:LEU:HD13	1.93	0.50
2:B:6:LYS:HB2	12:N:647:ASP:HB2	1.94	0.50
3:C:328:LYS:HB3	3:C:329:TYR:CD1	2.47	0.50
3:C:415:PRO:O	3:C:418:CYS:N	2.45	0.50
5:E:56:GLU:HA	5:E:59:PHE:HB3	1.93	0.50
6:F:653:LEU:HD21	15:Y:552:MET:HE2	1.93	0.50
6:F:736:GLU:O	6:F:739:VAL:N	2.45	0.50
6:H:110:PHE:CG	6:H:117:THR:HG21	2.46	0.50
6:H:467:ARG:O	6:H:471:LYS:HG3	2.12	0.50
8:I:75:PRO:HD3	8:I:115:TRP:HB3	1.93	0.50
8:I:251:MET:O	8:I:254:LYS:N	2.44	0.50
9:J:150:THR:HG23	9:J:154:LYS:NZ	2.26	0.50
9:J:416:GLY:HA2	9:J:418:TRP:CZ2	2.47	0.50
12:N:637:TRP:HB3	12:N:639:HIS:HB2	1.93	0.50
15:X:414:ILE:O	15:X:417:TYR:HB2	2.11	0.50
1:A:765:VAL:O	1:A:769:VAL:HG23	2.11	0.50
1:A:925:SER:C	1:A:927:ALA:H	2.18	0.50
1:A:1793:MET:O	1:A:1797:ILE:HG23	2.12	0.50
3:C:176:GLY:HA3	3:C:192:PHE:CE1	2.47	0.50
5:E:67:LEU:HA	5:E:70:VAL:HG22	1.94	0.50
6:H:137:CYS:O	6:H:141:SER:OG	2.28	0.50
6:H:502:LEU:HD12	6:H:521:ILE:HG23	1.93	0.50
6:H:527:ARG:HB3	15:Y:302:PRO:HG3	1.94	0.50
6:H:735:LYS:NZ	15:X:182:ALA:O	2.37	0.50
12:N:264:THR:HA	12:N:267:GLN:HE21	1.76	0.50
12:N:673:GLN:O	12:N:676:TRP:NE1	2.45	0.50
12:N:691:LEU:HD21	12:N:695:ARG:NH1	2.27	0.50
13:O:38:LEU:HD21	13:O:115:LEU:HD22	1.92	0.50
3:P:228:TRP:O	3:P:231:GLU:HB3	2.12	0.50
3:P:361:ASN:HD22	3:P:363:ARG:C	2.20	0.50
3:P:376:MET:SD	3:P:408:THR:OG1	2.67	0.50
3:P:412:LEU:HG	3:P:413:LYS:H	1.76	0.50
15:Y:235:TRP:CD1	15:Y:267:LEU:HD11	2.47	0.50
15:Y:410:TYR:O	15:Y:414:ILE:HG13	2.12	0.50
1:A:1511:ASN:HD21	10:L:104:ASN:ND2	2.10	0.50
1:A:1795:GLN:HB3	1:A:1799:ARG:NH2	2.27	0.50
3:C:136:ASP:OD1	3:C:137:SER:N	2.45	0.50
3:C:381:THR:HG21	3:C:412:LEU:HD11	1.94	0.50
8:I:19:LEU:O	8:I:739:ARG:HB3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:32:ARG:HB3	12:N:388:HIS:CE1	2.47	0.50
9:J:194:CYS:O	9:J:196:GLU:N	2.44	0.50
9:J:254:THR:HA	9:J:257:VAL:HB	1.94	0.50
9:K:55:ARG:O	9:K:58:HIS:HB3	2.12	0.50
10:L:50:LEU:O	10:L:154:ARG:NH1	2.42	0.50
12:N:272:ARG:NH2	12:N:288:GLU:OE1	2.44	0.50
13:O:520:MET:HE2	13:O:549:VAL:HG13	1.92	0.50
15:X:64:SER:HB3	15:X:71:PHE:HE2	1.76	0.50
15:X:204:ASP:H	15:Y:52:ASN:ND2	2.10	0.50
1:A:473:ASN:O	1:A:474:ILE:HD13	2.12	0.49
1:A:776:ASN:OD1	1:A:869:ARG:NH2	2.35	0.49
1:A:778:LEU:HD23	13:O:594:SER:HB2	1.93	0.49
1:A:1674:TRP:HE3	1:A:1702:ARG:HD3	1.76	0.49
3:C:361:ASN:HD22	3:C:363:ARG:H	1.57	0.49
8:I:451:PHE:CG	8:I:452:LEU:N	2.79	0.49
10:L:29:ALA:HB2	10:L:68:PHE:CD2	2.47	0.49
13:O:258:TYR:CE2	13:O:274:LEU:HD12	2.47	0.49
13:O:657:ILE:HB	13:O:700:TYR:CD1	2.47	0.49
3:P:341:TYR:CZ	3:P:349:LYS:HD3	2.47	0.49
3:P:368:TRP:HB3	3:P:387:ALA:O	2.12	0.49
15:X:251:ASN:OD1	15:X:283:ARG:HD2	2.12	0.49
15:X:414:ILE:O	15:X:418:LEU:HG	2.12	0.49
15:X:503:LEU:C	15:X:506:GLN:H	2.20	0.49
1:A:776:ASN:ND2	1:A:778:LEU:HB2	2.27	0.49
3:C:175:TYR:HD2	3:C:191:VAL:HG11	1.76	0.49
4:D:48:ASP:N	4:D:48:ASP:OD1	2.42	0.49
5:E:101:GLN:NE2	5:E:107:PRO:O	2.37	0.49
6:H:741:PHE:O	6:H:745:LYS:HG2	2.11	0.49
8:I:45:LEU:HD22	8:I:54:ARG:CZ	2.42	0.49
8:I:310:TRP:CD1	13:O:126:VAL:HG13	2.47	0.49
9:J:168:ASP:HA	9:J:171:THR:HG22	1.94	0.49
9:J:401:ASP:HB3	9:J:404:VAL:HG22	1.94	0.49
12:N:753:LEU:HA	12:N:756:THR:OG1	2.13	0.49
13:O:127:HIS:ND1	13:O:127:HIS:O	2.45	0.49
15:X:271:VAL:HB	15:X:304:LEU:HD21	1.94	0.49
1:A:771:GLU:OE2	1:A:844:ILE:HG22	2.12	0.49
2:B:34:CYS:HB3	2:B:56:HIS:CG	2.47	0.49
6:F:670:VAL:HA	6:F:673:CYS:SG	2.52	0.49
6:H:103:HIS:O	6:H:107:VAL:HG23	2.12	0.49
6:H:617:LEU:O	6:H:620:ALA:N	2.45	0.49
8:I:310:TRP:HZ3	13:O:61:ASN:ND2	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:444:ASP:O	8:I:447:PHE:HB2	2.12	0.49
8:I:582:ASN:HB3	8:I:605:THR:HG21	1.93	0.49
9:K:203:PHE:HB2	9:K:221:PRO:HG3	1.94	0.49
10:L:83:TYR:N	10:L:116:PRO:O	2.44	0.49
12:N:153:VAL:HG13	12:N:154:HIS:H	1.77	0.49
12:N:235:GLN:O	12:N:239:GLN:HG2	2.11	0.49
12:N:706:ARG:HG2	12:N:707:GLU:H	1.76	0.49
13:O:662:ARG:HD3	13:O:709:ARG:HH12	1.76	0.49
15:X:44:MET:O	15:X:49:LEU:HG	2.13	0.49
1:A:731:SER:O	1:A:731:SER:OG	2.30	0.49
1:A:776:ASN:ND2	1:A:779:MET:HE2	2.28	0.49
1:A:1546:THR:HG23	1:A:1547:GLY:H	1.76	0.49
6:F:568:GLU:OE2	6:F:568:GLU:N	2.31	0.49
8:I:320:LEU:HD23	8:I:321:LEU:N	2.27	0.49
9:J:25:TRP:HA	9:J:28:LYS:HG2	1.94	0.49
9:K:339:ALA:HB2	7:W:2:LEU:HD12	1.94	0.49
10:L:48:ASP:H	10:L:155:GLN:NE2	2.09	0.49
12:N:273:MET:SD	12:N:335:ILE:HG22	2.52	0.49
12:N:409:VAL:HG12	12:N:410:LEU:H	1.77	0.49
3:P:107:HIS:HA	3:P:118:TYR:CE1	2.47	0.49
3:P:293:ASP:HB3	3:P:296:ARG:HB2	1.93	0.49
3:P:520:TYR:CD2	3:P:528:GLU:HB3	2.47	0.49
15:Y:235:TRP:HZ3	15:Y:239:TRP:CD1	2.30	0.49
15:Y:285:GLY:O	15:Y:287:ASN:N	2.46	0.49
1:A:125:GLN:HB2	1:A:154:LEU:HD23	1.93	0.49
1:A:1063:ILE:HA	1:A:1066:LYS:HE2	1.95	0.49
1:A:1840:MET:HB3	1:A:1845:LEU:HD11	1.95	0.49
6:F:500:TRP:CH2	6:F:504:GLN:HG3	2.47	0.49
12:N:333:TYR:CZ	12:N:367:ARG:HG3	2.46	0.49
3:P:189:ILE:O	3:P:193:VAL:HG22	2.13	0.49
3:P:429:ARG:HB3	3:P:432:ASP:CG	2.37	0.49
15:X:286:ASP:OD2	15:X:289:ASN:ND2	2.46	0.49
15:Y:37:VAL:O	15:Y:41:VAL:HG23	2.12	0.49
15:Y:236:LEU:O	15:Y:239:TRP:HB3	2.12	0.49
1:A:773:LEU:HD23	1:A:783:ILE:HG13	1.94	0.49
7:G:3:ARG:NH1	9:J:243:TYR:HD1	2.10	0.49
8:I:422:TYR:CZ	8:I:426:LEU:HD21	2.48	0.49
8:I:602:ARG:NH2	8:I:613:ASN:HB2	2.28	0.49
10:L:37:LYS:HB3	10:L:40:PHE:HD1	1.77	0.49
10:L:175:ILE:O	10:L:178:MET:N	2.45	0.49
12:N:278:ARG:O	12:N:280:GLU:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:663:GLN:HG3	12:N:695:ARG:HB3	1.95	0.49
15:X:507:SER:HB2	15:X:511:LEU:HD21	1.94	0.49
15:Y:153:LYS:HA	15:Y:156:ILE:HB	1.94	0.49
1:A:23:PHE:HB2	1:A:111:LEU:HD22	1.95	0.49
1:A:226:LYS:HD2	1:A:236:VAL:HG13	1.95	0.49
1:A:594:ARG:O	1:A:606:ARG:NH2	2.46	0.49
1:A:1752:GLU:HA	1:A:1756:LYS:HD2	1.95	0.49
8:I:96:GLU:HA	12:N:389:PRO:HG2	1.94	0.49
8:I:269:LEU:O	8:I:272:MET:HB2	2.13	0.49
9:J:41:TYR:HD2	9:J:72:CYS:SG	2.35	0.49
9:J:418:TRP:O	9:J:458:LEU:HD11	2.12	0.49
12:N:260:ALA:O	12:N:264:THR:HG23	2.12	0.49
12:N:352:PRO:O	12:N:355:ARG:HG3	2.12	0.49
12:N:392:ASN:HD22	12:N:392:ASN:C	2.20	0.49
12:N:508:ILE:HG23	12:N:509:TYR:CD2	2.48	0.49
3:P:193:VAL:O	3:P:196:THR:OG1	2.29	0.49
3:P:210:CYS:SG	3:P:236:HIS:HD2	2.34	0.49
15:X:134:SER:O	15:X:137:GLU:HG2	2.11	0.49
15:Y:72:SER:O	15:Y:75:GLN:HB2	2.13	0.49
15:Y:548:GLY:O	15:Y:551:LYS:HE3	2.13	0.49
1:A:862:TYR:CE2	1:A:864:PRO:HG3	2.47	0.49
1:A:940:THR:HG23	1:A:943:ASP:H	1.77	0.49
1:A:1520:LEU:O	1:A:1523:LEU:N	2.45	0.49
1:A:1680:LEU:HG	1:A:1681:SER:N	2.27	0.49
1:A:1765:GLN:OE1	1:A:1768:LEU:HD22	2.13	0.49
6:F:28:ALA:O	6:F:44:LEU:HD21	2.12	0.49
8:I:301:GLN:HE22	8:I:457:ASN:HB2	1.78	0.49
8:I:350:SER:O	8:I:354:SER:OG	2.19	0.49
12:N:92:TRP:HA	12:N:95:ILE:HG22	1.95	0.49
12:N:755:TRP:O	12:N:759:GLN:HG3	2.12	0.49
13:O:254:HIS:CE1	13:O:276:HIS:CE1	3.01	0.49
15:X:44:MET:SD	15:X:49:LEU:HD21	2.52	0.49
15:X:215:LYS:O	15:X:218:GLU:N	2.46	0.49
15:Y:64:SER:HA	15:Y:70:LEU:HD12	1.94	0.49
15:Y:251:ASN:O	15:Y:255:ILE:HG12	2.13	0.49
15:Y:276:SER:HA	15:Y:279:ASP:OD1	2.11	0.49
1:A:248:PHE:C	1:A:249:LEU:HD12	2.38	0.49
1:A:1525:MET:HE2	1:A:1588:LEU:HG	1.95	0.49
1:A:1796:ALA:HA	1:A:1799:ARG:NH1	2.28	0.49
3:C:270:ALA:HB1	3:C:286:PHE:CD2	2.48	0.49
8:I:22:GLU:O	8:I:40:THR:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:180:GLU:HA	9:J:183:GLU:HB3	1.95	0.49
9:K:137:GLY:HA3	9:K:153:TYR:CE1	2.47	0.49
12:N:141:LEU:O	12:N:141:LEU:HD12	2.13	0.49
12:N:392:ASN:ND2	12:N:392:ASN:C	2.70	0.49
13:O:733:CYS:O	13:O:736:LEU:HB2	2.13	0.49
15:X:407:LEU:HA	15:X:410:TYR:CD2	2.46	0.49
1:A:1162:LYS:HG3	1:A:1163:PRO:HD2	1.95	0.49
2:B:12:ALA:O	12:N:596:LEU:HD12	2.13	0.49
4:D:8:LEU:HD11	13:O:424:GLN:HE21	1.78	0.49
6:F:27:LEU:HD21	6:H:147:PHE:O	2.12	0.49
6:F:613:LEU:HB2	6:F:679:GLN:CD	2.38	0.49
6:H:766:LEU:HD23	15:X:394:ILE:HD12	1.93	0.49
8:I:224:SER:HB3	8:I:229:SER:HA	1.94	0.49
8:I:345:GLN:HE21	8:I:404:LEU:HD11	1.78	0.49
8:I:393:VAL:O	8:I:397:ILE:HG13	2.12	0.49
9:K:206:GLU:HA	9:K:209:LEU:HG	1.94	0.49
9:K:440:THR:CG2	9:K:443:LYS:HD3	2.43	0.49
12:N:511:SER:OG	12:N:513:ASP:OD1	2.25	0.49
15:Y:245:PHE:HB3	15:Y:253:ARG:HH11	1.77	0.49
15:Y:267:LEU:HG	15:Y:270:ASN:HD21	1.78	0.49
15:Y:400:ILE:HB	15:Y:410:TYR:HE1	1.77	0.49
1:A:657:TRP:CE2	1:A:785:SER:HB3	2.48	0.48
6:H:475:ALA:O	6:H:478:SER:OG	2.28	0.48
6:H:550:VAL:HG13	6:H:551:ALA:H	1.78	0.48
9:J:199:GLU:HG2	9:J:202:ARG:NH2	2.28	0.48
9:J:502:PHE:HE1	9:J:515:SER:HA	1.77	0.48
12:N:527:LEU:HD12	12:N:601:TRP:HH2	1.78	0.48
13:O:249:ASP:HA	13:O:280:ARG:NH2	2.28	0.48
15:Y:175:LEU:HG	15:Y:179:TYR:CZ	2.48	0.48
1:A:27:HIS:HB3	1:A:101:ILE:CD1	2.44	0.48
1:A:774:LYS:HD3	1:A:845:TYR:CE2	2.48	0.48
1:A:1412:CYS:HG	1:A:1425:TRP:HH2	1.59	0.48
1:A:1509:PRO:HD2	10:L:106:GLN:HE22	1.77	0.48
1:A:1542:LEU:HB3	1:A:1558:HIS:ND1	2.28	0.48
1:A:1821:PHE:HZ	1:A:1839:PHE:HD2	1.60	0.48
3:C:142:GLU:OE2	13:O:209:GLN:HB2	2.14	0.48
3:C:158:LEU:HD11	3:C:174:LEU:HD23	1.95	0.48
3:C:329:TYR:CE2	3:P:132:ASP:HB3	2.47	0.48
3:C:449:LEU:HD23	3:C:449:LEU:HA	1.60	0.48
9:J:320:ARG:O	9:J:324:SER:OG	2.26	0.48
9:J:333:TYR:O	9:J:337:TRP:CD1	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:357:TYR:HB3	9:K:374:ILE:HG13	1.95	0.48
11:M:1:MET:N	3:P:50:HIS:HB2	2.28	0.48
13:O:426:THR:OG1	13:O:438:ALA:O	2.30	0.48
3:P:238:TYR:CE1	3:P:243:LEU:HD23	2.48	0.48
15:Y:54:ARG:NH1	15:Y:87:LEU:HA	2.28	0.48
15:Y:171:ILE:HD12	15:Y:171:ILE:H	1.78	0.48
1:A:584:ILE:HG22	1:A:599:LEU:HD23	1.95	0.48
1:A:722:HIS:O	1:A:724:LEU:N	2.46	0.48
1:A:1086:MET:HE1	1:A:1560:MET:HE2	1.95	0.48
1:A:1141:VAL:HG11	1:A:1608:HIS:CG	2.48	0.48
1:A:1551:ASN:ND2	1:A:1594:ALA:HA	2.28	0.48
1:A:1595:HIS:CE1	1:A:1598:ASP:HB2	2.48	0.48
1:A:1702:ARG:HD2	1:A:1703:ALA:H	1.78	0.48
3:C:409:TYR:HB3	3:C:418:CYS:HB3	1.95	0.48
6:F:570:TRP:HB2	6:F:593:ALA:HB2	1.95	0.48
9:J:9:ARG:HD3	9:K:162:TYR:CD2	2.48	0.48
9:J:291:LEU:HB3	9:J:301:SER:OG	2.13	0.48
9:J:306:GLY:HA3	9:J:323:LEU:CD1	2.43	0.48
9:J:497:ASN:O	9:J:501:TYR:HD2	1.96	0.48
13:O:159:GLN:O	13:O:163:GLN:HG2	2.12	0.48
7:W:13:LEU:C	7:W:15:ASP:N	2.70	0.48
15:X:295:GLU:O	15:X:299:MET:HG2	2.13	0.48
15:Y:214:VAL:C	15:Y:216:GLY:H	2.22	0.48
15:Y:393:ILE:O	15:Y:397:ARG:HD3	2.13	0.48
1:A:23:PHE:HE2	1:A:113:VAL:HB	1.78	0.48
1:A:89:TYR:CD1	13:O:537:ALA:HA	2.49	0.48
1:A:1602:HIS:O	1:A:1606:LEU:HD12	2.13	0.48
3:C:346:GLN:O	3:C:348:GLU:N	2.47	0.48
6:F:583:HIS:O	6:F:587:ILE:HG22	2.13	0.48
6:F:712:VAL:O	6:F:716:ASN:ND2	2.46	0.48
6:H:25:VAL:HG13	6:H:48:TYR:CE1	2.40	0.48
8:I:65:GLY:N	8:I:84:LEU:HD13	2.26	0.48
8:I:145:LEU:HD22	8:I:268:SER:HA	1.95	0.48
9:J:523:ILE:HD11	3:P:420:TYR:CB	2.43	0.48
9:K:369:LEU:HD22	7:W:3:ARG:HG3	1.95	0.48
12:N:337:ALA:HB2	12:N:364:CYS:CB	2.43	0.48
12:N:802:LYS:HA	12:N:807:GLN:NE2	2.27	0.48
13:O:321:GLU:O	13:O:325:GLN:HG2	2.13	0.48
3:P:96:VAL:HG11	3:P:98:GLU:HG3	1.96	0.48
15:X:460:LYS:O	15:X:464:LEU:HG	2.13	0.48
15:X:517:ASP:O	15:X:520:VAL:HG22	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:410:TYR:O	15:Y:413:LEU:HB3	2.13	0.48
1:A:224:VAL:HG12	1:A:238:TYR:HD1	1.79	0.48
1:A:248:PHE:HB2	1:A:430:VAL:HG21	1.96	0.48
1:A:869:ARG:O	1:A:873:VAL:HG12	2.13	0.48
1:A:1279:ARG:HG3	1:A:1280:PRO:HD2	1.96	0.48
3:C:436:LEU:HB3	3:C:459:ALA:HB2	1.96	0.48
3:C:439:LEU:HA	3:C:439:LEU:HD23	1.68	0.48
3:C:490:TYR:CD2	3:C:515:TYR:HD1	2.31	0.48
6:F:97:PHE:CD2	6:F:99:LYS:HG3	2.48	0.48
6:F:520:ARG:O	6:F:523:SER:OG	2.23	0.48
6:F:556:SER:O	6:F:560:THR:HG23	2.13	0.48
6:H:472:GLY:HA3	6:H:488:LEU:HD21	1.96	0.48
6:H:717:GLU:HA	6:H:719:TYR:CE1	2.48	0.48
9:J:325:LYS:HE3	9:J:329:LEU:HB2	1.94	0.48
9:K:458:LEU:HD12	9:K:458:LEU:HA	1.65	0.48
3:P:400:ARG:NH1	17:Q:499:ARG:HA	2.23	0.48
15:X:190:THR:O	15:X:194:GLU:HG2	2.12	0.48
15:Y:237:SER:OG	15:Y:241:LYS:HE3	2.13	0.48
15:Y:250:ASP:OD2	15:Y:253:ARG:NH1	2.46	0.48
15:Y:254:ALA:O	15:Y:258:ILE:HG12	2.14	0.48
1:A:1028:TRP:CH2	1:A:1566:PHE:HD1	2.32	0.48
2:B:13:THR:HB	12:N:598:SER:HB3	1.94	0.48
6:H:522:PHE:CE2	6:H:538:ILE:HG22	2.49	0.48
8:I:560:THR:OG1	8:I:563:GLU:HB2	2.13	0.48
9:J:420:THR:O	9:J:424:TRP:CD1	2.66	0.48
9:K:62:SER:OG	9:K:63:ARG:HD3	2.13	0.48
13:O:470:LEU:HD22	13:O:489:VAL:HG13	1.94	0.48
3:P:32:ILE:O	3:P:36:LEU:HD23	2.13	0.48
3:P:36:LEU:HD21	3:P:228:TRP:CH2	2.46	0.48
15:X:304:LEU:O	15:X:308:MET:HG2	2.14	0.48
15:X:349:SER:HA	15:X:352:SER:OG	2.14	0.48
15:Y:449:THR:HG22	15:Y:461:ALA:HA	1.96	0.48
1:A:1131:MET:HG2	1:A:1132:THR:N	2.28	0.48
1:A:1402:GLU:HA	1:A:1463:TYR:CE1	2.49	0.48
1:A:1892:HIS:HB3	1:A:1927:ALA:HB2	1.96	0.48
3:C:270:ALA:HB2	3:C:285:ILE:HG22	1.95	0.48
3:C:399:TYR:CD1	3:C:400:ARG:N	2.82	0.48
5:E:99:ILE:CD1	6:H:591:GLN:HG2	2.43	0.48
6:F:611:PHE:HB3	6:F:620:ALA:HB2	1.96	0.48
6:H:81:ASP:C	6:H:83:SER:H	2.22	0.48
6:H:520:ARG:O	6:H:523:SER:OG	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:707:PHE:HA	6:H:729:LEU:HD11	1.96	0.48
8:I:44:VAL:C	8:I:45:LEU:HD12	2.38	0.48
8:I:404:LEU:HD21	13:O:410:TRP:NE1	2.28	0.48
9:J:315:LYS:HD2	9:J:318:HIS:ND1	2.29	0.48
9:K:48:TYR:OH	9:K:78:ARG:NH2	2.46	0.48
12:N:435:VAL:HG23	12:N:515:PHE:CE2	2.48	0.48
12:N:538:GLU:OE1	12:N:561:LEU:HD22	2.14	0.48
12:N:676:TRP:O	12:N:713:PHE:HB2	2.14	0.48
13:O:148:PHE:O	13:O:149:SER:C	2.56	0.48
3:P:488:GLN:HA	3:P:491:ILE:HG22	1.95	0.48
15:X:258:ILE:O	15:X:262:GLU:HG2	2.13	0.48
15:Y:520:VAL:HA	15:Y:525:TYR:HE1	1.78	0.48
1:A:659:LEU:O	1:A:662:THR:OG1	2.28	0.48
1:A:1256:GLY:O	1:A:1259:LEU:N	2.47	0.48
1:A:1595:HIS:CD2	1:A:1598:ASP:HB2	2.49	0.48
1:A:1749:SER:HB2	13:O:605:LEU:HD22	1.96	0.48
1:A:1839:PHE:C	1:A:1841:ASN:N	2.71	0.48
3:C:484:GLU:OE2	3:C:488:GLN:NE2	2.47	0.48
6:F:480:ASN:HB3	6:F:483:GLU:CD	2.38	0.48
6:F:584:ASP:OD1	6:F:585:ILE:N	2.44	0.48
8:I:16:GLU:OE2	8:I:740:HIS:NE2	2.41	0.48
8:I:28:TRP:CE3	8:I:35:ILE:HB	2.49	0.48
8:I:184:PHE:O	8:I:185:ILE:HD13	2.14	0.48
8:I:620:PHE:HD2	8:I:707:PHE:CE1	2.29	0.48
12:N:502:ILE:HD11	12:N:548:ARG:HD2	1.96	0.48
12:N:629:LEU:HD23	12:N:633:ARG:HH22	1.79	0.48
13:O:435:SER:HB2	13:O:476:LEU:HD11	1.95	0.48
13:O:681:PRO:O	13:O:682:LYS:HB2	2.13	0.48
15:X:185:GLU:O	15:X:189:VAL:HG23	2.14	0.48
15:Y:193:LYS:HA	15:Y:196:LEU:HG	1.96	0.48
15:Y:350:PHE:O	15:Y:353:LYS:HE2	2.14	0.48
1:A:102:TRP:O	1:A:114:TYR:HB3	2.12	0.48
1:A:131:PHE:O	1:A:147:VAL:HG23	2.14	0.48
1:A:847:TRP:CD1	1:A:860:TYR:HB2	2.49	0.48
1:A:937:VAL:C	1:A:939:PHE:H	2.22	0.48
1:A:1856:LEU:HD12	1:A:1857:ASP:N	2.28	0.48
1:A:1869:HIS:HB2	1:A:1934:LEU:HD13	1.96	0.48
3:C:49:LEU:HD12	3:P:95:ASP:OD2	2.13	0.48
3:C:228:TRP:CD1	3:C:228:TRP:N	2.81	0.48
6:F:618:ASP:O	6:F:621:LEU:N	2.46	0.48
6:H:141:SER:HA	6:H:144:LEU:HD12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:664:ARG:HB3	8:I:714:LEU:HD12	1.96	0.48
8:I:692:ARG:NH2	8:I:694:ASP:OD2	2.46	0.48
9:J:39:ASP:OD2	9:J:39:ASP:N	2.44	0.48
12:N:433:ASP:C	12:N:435:VAL:N	2.70	0.48
3:P:355:GLN:NE2	3:P:375:TYR:OH	2.46	0.48
15:X:44:MET:HE3	15:X:49:LEU:HD11	1.96	0.48
15:Y:236:LEU:O	15:Y:240:ILE:HG13	2.13	0.48
1:A:480:ALA:O	1:A:488:MET:HG3	2.13	0.48
1:A:612:ILE:HG13	1:A:641:TRP:HZ3	1.78	0.48
1:A:1046:PRO:HB3	1:A:1108:THR:OG1	2.13	0.48
1:A:1745:PRO:HA	1:A:1748:LEU:HB2	1.95	0.48
8:I:286:ARG:NH2	8:I:325:LEU:HD13	2.29	0.48
8:I:737:ASN:OD1	8:I:740:HIS:N	2.47	0.48
9:J:241:HIS:CE1	9:J:249:MET:HE2	2.48	0.48
9:K:192:LYS:HB2	9:K:198:GLN:HE21	1.78	0.48
10:L:37:LYS:HG3	10:L:55:GLN:HB3	1.96	0.48
10:L:73:THR:HG22	10:L:131:PRO:HB2	1.94	0.48
12:N:172:MET:O	12:N:176:LEU:HD23	2.14	0.48
12:N:646:MET:HE3	12:N:659:VAL:HG12	1.96	0.48
3:P:109:CYS:C	3:P:110:ASN:HD22	2.22	0.48
3:P:226:ASP:HA	3:P:230:LYS:HE2	1.95	0.48
3:P:396:LYS:HD2	3:P:396:LYS:N	2.29	0.48
3:P:466:GLU:O	3:P:468:MET:HE2	2.14	0.48
3:P:515:TYR:HA	3:P:518:GLN:HG2	1.95	0.48
15:X:315:LEU:CD2	15:X:320:ARG:HE	2.26	0.48
15:Y:190:THR:HA	15:Y:193:LYS:HE2	1.95	0.48
1:A:1159:VAL:HG22	1:A:1160:TYR:O	2.13	0.47
1:A:1635:GLU:OE2	1:A:1648:LYS:HD3	2.13	0.47
1:A:1649:GLU:HG2	1:A:1650:GLU:H	1.79	0.47
1:A:1690:ILE:O	1:A:1695:GLY:HA2	2.13	0.47
2:B:18:ALA:HA	2:B:48:TRP:CZ2	2.48	0.47
6:F:529:GLU:O	6:F:531:TYR:N	2.47	0.47
6:H:44:LEU:HD23	6:H:60:LEU:CD2	2.44	0.47
8:I:66:LYS:N	8:I:86:ASP:OD2	2.26	0.47
9:J:86:HIS:C	9:J:88:GLN:H	2.22	0.47
9:J:217:GLU:OE2	9:J:240:ARG:NH1	2.45	0.47
9:J:389:ARG:HA	9:J:389:ARG:NH1	2.29	0.47
10:L:44:GLN:HA	10:L:47:ASP:CG	2.39	0.47
10:L:89:TYR:HB3	10:L:151:THR:HA	1.96	0.47
12:N:659:VAL:HG23	12:N:728:VAL:HG23	1.97	0.47
15:X:271:VAL:HG23	15:X:272:ASP:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:222:MET:O	15:Y:226:VAL:HG23	2.14	0.47
1:A:82:GLU:O	1:A:84:GLY:N	2.46	0.47
1:A:768:LEU:HA	1:A:768:LEU:HD23	1.59	0.47
1:A:1540:ARG:HH11	12:N:480:TRP:CD1	2.31	0.47
3:C:284:SER:OG	3:C:285:ILE:N	2.47	0.47
6:F:611:PHE:O	6:F:614:THR:N	2.47	0.47
7:G:23:ARG:HG3	7:G:24:LYS:HD3	1.96	0.47
6:H:44:LEU:HD23	6:H:60:LEU:HD21	1.96	0.47
6:H:614:THR:HG22	6:H:614:THR:O	2.14	0.47
8:I:26:LEU:HB3	8:I:37:LEU:HA	1.95	0.47
8:I:34:LEU:H	8:I:34:LEU:HD23	1.79	0.47
8:I:224:SER:HB2	8:I:230:GLU:HB3	1.95	0.47
8:I:393:VAL:HG12	8:I:397:ILE:HD11	1.96	0.47
9:J:258:MET:HE1	9:J:268:LEU:HD23	1.95	0.47
9:J:376:LEU:HD23	9:J:391:PHE:CZ	2.49	0.47
9:K:289:HIS:CE1	11:M:57:TRP:CH2	3.02	0.47
10:L:102:PHE:CD1	10:L:136:MET:HE1	2.49	0.47
15:X:99:LYS:HA	15:X:102:MET:SD	2.54	0.47
15:X:340:GLU:O	15:X:344:VAL:HG22	2.13	0.47
15:X:417:TYR:O	15:X:422:SER:OG	2.32	0.47
15:X:460:LYS:O	15:X:463:THR:OG1	2.26	0.47
15:X:522:VAL:HG12	15:X:524:GLU:OE1	2.13	0.47
15:Y:146:TYR:HA	15:Y:149:LEU:HD12	1.95	0.47
15:Y:400:ILE:HG22	15:Y:409:CYS:SG	2.54	0.47
15:Y:458:GLN:O	15:Y:462:LYS:HG3	2.14	0.47
1:A:632:GLU:O	1:A:636:GLN:NE2	2.47	0.47
1:A:980:ARG:NE	1:A:1674:TRP:HE1	2.11	0.47
1:A:1051:VAL:HG21	1:A:1065:GLU:OE2	2.14	0.47
1:A:1284:GLU:HA	1:A:1349:SER:HA	1.95	0.47
3:C:93:TYR:CE1	3:C:101:ARG:HG2	2.49	0.47
6:F:655:GLU:HG3	6:F:702:ASN:ND2	2.30	0.47
7:G:18:GLU:HA	7:G:21:ASN:ND2	2.29	0.47
6:H:571:CYS:SG	6:H:606:LEU:HD12	2.54	0.47
8:I:37:LEU:HD23	8:I:45:LEU:O	2.14	0.47
8:I:569:LEU:HD12	8:I:721:TYR:CE2	2.50	0.47
9:J:58:HIS:HE1	9:K:260:LYS:O	1.96	0.47
9:J:405:MET:HE2	9:J:427:ASP:HB3	1.97	0.47
9:K:61:ARG:HD2	9:K:66:ASP:OD2	2.14	0.47
12:N:369:ASP:O	12:N:370:GLN:HB3	2.15	0.47
12:N:557:CYS:HA	12:N:560:MET:SD	2.54	0.47
12:N:687:MET:HB2	12:N:691:LEU:HD22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:371:MET:HE3	3:P:375:TYR:HE2	1.79	0.47
15:Y:399:ALA:O	15:Y:402:LEU:N	2.47	0.47
1:A:633:ILE:H	1:A:633:ILE:HD12	1.79	0.47
1:A:1170:ASN:ND2	1:A:1203:MET:HG3	2.29	0.47
1:A:1375:TYR:O	1:A:1414:ILE:HG23	2.14	0.47
1:A:1910:SER:O	1:A:1911:PHE:HB3	2.14	0.47
2:B:4:LYS:NZ	12:N:649:GLU:OE1	2.38	0.47
2:B:31:ASN:OD1	2:B:31:ASN:N	2.47	0.47
3:C:311:SER:O	3:C:311:SER:OG	2.29	0.47
6:F:103:HIS:HA	6:F:106:ILE:HD12	1.96	0.47
6:H:118:LEU:HD12	6:H:118:LEU:HA	1.62	0.47
9:K:376:LEU:CD2	7:W:4:ARG:HH22	2.28	0.47
10:L:93:LYS:HB3	10:L:142:LEU:HB2	1.96	0.47
12:N:355:ARG:O	12:N:359:GLU:HG2	2.15	0.47
13:O:223:LEU:HD23	13:O:223:LEU:HA	1.59	0.47
13:O:561:HIS:O	13:O:565:GLN:HG3	2.14	0.47
15:X:135:GLU:OE2	15:X:135:GLU:N	2.46	0.47
15:Y:175:LEU:HG	15:Y:179:TYR:CE2	2.49	0.47
15:Y:486:LEU:HD13	15:Y:489:GLU:HG3	1.95	0.47
1:A:1306:CYS:HB2	1:A:1374:ILE:HG12	1.97	0.47
1:A:1307:LEU:HD21	1:A:1579:SER:HA	1.96	0.47
1:A:1364:CYS:N	1:A:1365:PRO:HD2	2.29	0.47
1:A:1473:GLY:HA2	1:A:1526:VAL:CG2	2.44	0.47
1:A:1480:GLU:HG2	1:A:1527:MET:SD	2.54	0.47
1:A:1731:ARG:HA	1:A:1732:ALA:HA	1.70	0.47
1:A:1824:ARG:HH21	12:N:142:MET:HA	1.79	0.47
6:F:509:TYR:CE2	6:F:517:GLN:HG3	2.50	0.47
6:F:552:LEU:HD12	6:F:552:LEU:HA	1.62	0.47
6:H:481:CYS:O	6:H:485:ILE:HG13	2.14	0.47
8:I:386:ILE:O	8:I:390:ILE:HG13	2.14	0.47
9:J:84:LYS:HA	9:J:86:HIS:CE1	2.50	0.47
9:J:291:LEU:HD12	9:J:301:SER:HB2	1.95	0.47
9:J:426:LEU:O	9:J:430:GLU:HG2	2.15	0.47
9:K:290:LYS:HD3	9:K:290:LYS:HA	1.58	0.47
10:L:80:TYR:HA	10:L:120:ILE:HD12	1.96	0.47
12:N:248:HIS:O	12:N:248:HIS:ND1	2.47	0.47
12:N:534:SER:O	12:N:537:ARG:HG2	2.14	0.47
13:O:399:MET:O	13:O:399:MET:HG3	2.15	0.47
15:Y:192:TYR:CB	15:Y:209:LEU:HD21	2.44	0.47
15:Y:196:LEU:O	15:Y:200:PRO:HB3	2.14	0.47
1:A:614:THR:HB	1:A:656:GLU:OE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1086:MET:HG3	1:A:1610:TYR:OH	2.14	0.47
1:A:1676:LEU:HD23	1:A:1677:LEU:N	2.29	0.47
1:A:1824:ARG:HD2	1:A:1824:ARG:N	2.29	0.47
2:B:48:TRP:CH2	12:N:632:MET:HG2	2.49	0.47
2:B:63:TRP:CD1	2:B:74:PRO:HG3	2.49	0.47
3:C:316:LEU:HD12	3:C:316:LEU:HA	1.65	0.47
6:F:18:HIS:NE2	6:H:113:SER:OG	2.35	0.47
6:F:609:HIS:HA	6:F:612:VAL:HG22	1.96	0.47
6:H:522:PHE:CD2	6:H:539:TYR:HA	2.49	0.47
8:I:45:LEU:CG	8:I:57:SER:HA	2.45	0.47
8:I:317:LEU:O	8:I:320:LEU:HB3	2.14	0.47
8:I:326:THR:HG22	8:I:327:VAL:H	1.79	0.47
9:K:80:HIS:HB3	9:K:89:ALA:HB2	1.96	0.47
9:K:232:ASP:OD1	9:K:264:HIS:NE2	2.45	0.47
9:K:450:ASN:OD1	7:W:9:LEU:N	2.41	0.47
11:M:16:ASP:C	11:M:16:ASP:OD1	2.58	0.47
12:N:484:PRO:O	12:N:486:ASP:N	2.47	0.47
12:N:613:GLU:HA	12:N:616:ARG:HD2	1.96	0.47
12:N:798:TYR:O	12:N:802:LYS:HG2	2.14	0.47
13:O:357:SER:C	13:O:359:VAL:H	2.15	0.47
1:A:272:ARG:HH12	1:A:275:LYS:HZ2	1.63	0.47
1:A:1035:GLN:HG3	1:A:1039:ARG:HH12	1.80	0.47
1:A:1892:HIS:HA	1:A:1926:ARG:HH22	1.80	0.47
2:B:8:TRP:CH2	2:B:10:GLY:HA3	2.50	0.47
6:F:15:ALA:HA	6:H:116:PHE:CZ	2.50	0.47
6:F:101:LYS:HB3	6:F:105:ASP:OD1	2.15	0.47
8:I:275:ALA:O	8:I:278:GLU:HG3	2.15	0.47
8:I:286:ARG:HH21	8:I:325:LEU:HD13	1.80	0.47
9:J:52:GLN:HB3	9:J:55:ARG:HG3	1.97	0.47
9:J:134:LEU:HD13	9:J:166:ALA:HB2	1.97	0.47
9:J:338:ILE:HG12	9:J:342:HIS:CE1	2.50	0.47
9:J:488:ILE:O	9:J:492:MET:N	2.35	0.47
9:K:141:ASP:C	9:K:144:ASP:H	2.22	0.47
10:L:12:ASP:HB3	10:L:15:GLN:HG2	1.96	0.47
12:N:103:ASP:HA	12:N:104:GLU:HA	1.63	0.47
12:N:345:PHE:CE2	12:N:385:ARG:HD2	2.50	0.47
12:N:562:LYS:NZ	12:N:565:ALA:HB3	2.29	0.47
12:N:702:GLN:HG2	12:N:704:VAL:H	1.80	0.47
13:O:40:LEU:HD13	13:O:82:ILE:HD11	1.97	0.47
13:O:356:ASP:OD1	13:O:356:ASP:N	2.37	0.47
13:O:657:ILE:HD11	13:O:704:VAL:HB	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:187:GLU:O	3:P:191:VAL:HG22	2.14	0.47
15:Y:430:ALA:HB2	15:Y:451:CYS:SG	2.55	0.47
1:A:621:CYS:SG	1:A:622:LEU:N	2.88	0.47
1:A:843:SER:O	1:A:843:SER:OG	2.31	0.47
1:A:851:CYS:O	1:A:882:LEU:HD11	2.14	0.47
1:A:1226:ARG:O	1:A:1229:SER:OG	2.28	0.47
3:C:133:GLU:O	3:C:136:ASP:N	2.47	0.47
6:F:145:ASN:CG	6:F:148:LEU:HD13	2.40	0.47
8:I:176:LEU:O	8:I:187:LEU:HA	2.15	0.47
8:I:197:ARG:HG2	8:I:198:VAL:N	2.29	0.47
9:K:318:HIS:O	9:K:322:TYR:HD1	1.98	0.47
13:O:320:ALA:O	13:O:323:ALA:N	2.48	0.47
13:O:571:CYS:O	13:O:574:LEU:N	2.48	0.47
13:O:715:TYR:HB2	13:O:737:PHE:CE2	2.50	0.47
3:P:318:TYR:HA	3:P:321:HIS:CE1	2.50	0.47
3:P:323:LEU:O	3:P:326:ILE:N	2.46	0.47
3:P:344:ARG:O	3:P:345:SER:OG	2.31	0.47
17:Q:499:ARG:HD2	17:Q:499:ARG:C	2.40	0.47
1:A:926:LEU:CD1	1:A:929:ARG:HH22	2.28	0.47
1:A:1274:LEU:HD13	1:A:1324:GLN:OE1	2.15	0.47
3:C:120:TYR:HD1	3:C:174:LEU:HD13	1.80	0.47
3:C:326:ILE:HD13	3:C:326:ILE:HA	1.72	0.47
6:F:560:THR:OG1	6:F:561:ASP:N	2.47	0.47
6:F:645:TYR:CE1	6:F:653:LEU:HD12	2.50	0.47
8:I:452:LEU:HD12	8:I:453:THR:H	1.80	0.47
9:J:241:HIS:NE2	9:J:249:MET:HE2	2.30	0.47
9:J:285:PHE:HD1	9:J:308:TYR:CZ	2.32	0.47
9:K:438:GLU:OE2	9:K:440:THR:HG22	2.15	0.47
10:L:13:PRO:HG3	10:L:78:CYS:SG	2.55	0.47
12:N:762:LEU:O	12:N:765:LEU:N	2.48	0.47
13:O:299:SER:OG	13:O:300:LEU:N	2.47	0.47
13:O:506:LEU:HD12	13:O:507:TRP:N	2.30	0.47
3:P:116:PHE:O	3:P:117:LEU:C	2.58	0.47
15:X:510:VAL:O	15:X:514:ILE:HG13	2.15	0.47
15:Y:394:ILE:O	15:Y:398:GLU:HG2	2.14	0.47
1:A:24:GLY:HA3	1:A:94:TYR:CD2	2.50	0.47
1:A:90:ASP:N	1:A:90:ASP:OD1	2.47	0.47
1:A:174:PRO:HG2	1:A:175:PHE:CD2	2.49	0.47
1:A:776:ASN:HD21	1:A:778:LEU:HB2	1.80	0.47
1:A:1715:TRP:HB2	1:A:1716:GLN:NE2	2.29	0.47
2:B:1:MET:HA	12:N:650:LEU:HD22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:167:LEU:HG	3:C:171:GLY:HA3	1.97	0.47
3:C:298:GLU:OE1	3:C:298:GLU:N	2.47	0.47
6:H:102:SER:HB2	6:H:105:ASP:HB2	1.96	0.47
8:I:167:LEU:H	8:I:167:LEU:HD12	1.79	0.47
8:I:684:GLN:C	8:I:701:PRO:HG3	2.40	0.47
9:J:177:THR:OG1	9:J:178:ALA:N	2.48	0.47
13:O:493:LEU:HD13	13:O:507:TRP:CB	2.43	0.47
15:Y:191:SER:HA	15:Y:194:GLU:CD	2.40	0.47
15:Y:533:SER:O	15:Y:536:LEU:HB3	2.14	0.47
1:A:484:LYS:CB	1:A:593:ASN:HB2	2.44	0.46
1:A:636:GLN:O	1:A:639:VAL:HG12	2.15	0.46
1:A:772:GLU:OE1	1:A:869:ARG:HB2	2.15	0.46
1:A:1823:SER:O	1:A:1826:HIS:HD2	1.98	0.46
2:B:53:HIS:CE1	2:B:76:CYS:HB3	2.50	0.46
3:C:296:ARG:HE	3:C:298:GLU:HB2	1.80	0.46
3:C:531:THR:HA	3:C:534:GLN:NE2	2.21	0.46
6:F:153:GLU:HA	6:F:473:TYR:CE2	2.50	0.46
6:F:165:ASP:HA	6:F:467:ARG:HD2	1.97	0.46
6:F:498:THR:HG21	6:H:30:ARG:NH2	2.29	0.46
6:H:747:TYR:O	6:H:750:LEU:N	2.48	0.46
8:I:310:TRP:HD1	13:O:126:VAL:HG22	1.77	0.46
9:K:140:TYR:O	9:K:144:ASP:N	2.48	0.46
10:L:33:LEU:HD13	10:L:54:TRP:CD2	2.50	0.46
12:N:132:LEU:HD22	12:N:135:TRP:CE3	2.50	0.46
12:N:366:GLU:N	12:N:366:GLU:OE2	2.47	0.46
12:N:575:ARG:NH2	12:N:592:TYR:HD1	2.13	0.46
13:O:361:LEU:HB2	13:O:384:LEU:HD13	1.97	0.46
13:O:715:TYR:HB2	13:O:737:PHE:CD2	2.49	0.46
3:P:449:LEU:HD13	3:P:476:LEU:HD11	1.97	0.46
15:X:304:LEU:HD23	15:X:304:LEU:HA	1.65	0.46
15:X:379:LYS:NZ	15:X:383:LEU:HD22	2.30	0.46
15:X:496:ILE:CG1	15:X:518:PHE:HB3	2.45	0.46
1:A:1807:GLU:O	1:A:1808:THR:OG1	2.31	0.46
3:C:73:PRO:CG	3:P:73:PRO:HG2	2.39	0.46
3:C:376:MET:SD	3:C:408:THR:OG1	2.66	0.46
6:F:641:LEU:HB3	6:F:657:HIS:CD2	2.49	0.46
6:F:649:GLU:HA	6:F:651:PHE:CE2	2.51	0.46
6:H:509:TYR:O	6:H:513:SER:N	2.48	0.46
9:K:316:ASN:HD21	9:K:346:VAL:HG23	1.80	0.46
10:L:45:LEU:HB2	10:L:54:TRP:HB2	1.97	0.46
12:N:639:HIS:O	12:N:641:LEU:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:320:ALA:O	13:O:321:GLU:C	2.59	0.46
13:O:326:GLU:O	13:O:330:ILE:HG13	2.15	0.46
3:P:162:HIS:HB2	3:P:167:LEU:HD22	1.97	0.46
3:P:475:LYS:O	3:P:479:GLN:NE2	2.48	0.46
15:X:442:GLN:NE2	15:X:443:THR:HG22	2.31	0.46
1:A:628:ILE:HD11	1:A:762:ILE:HD13	1.97	0.46
1:A:763:PHE:CG	1:A:793:LEU:HD22	2.50	0.46
1:A:877:ILE:HG23	1:A:881:ILE:HD13	1.96	0.46
3:C:238:TYR:CD1	3:C:243:LEU:HD12	2.51	0.46
3:C:409:TYR:CE2	3:C:417:TYR:HE2	2.33	0.46
6:F:602:TYR:O	6:F:605:THR:OG1	2.21	0.46
6:F:674:HIS:O	6:F:678:VAL:HG13	2.14	0.46
6:H:150:SER:N	6:H:151:PRO:HD2	2.30	0.46
8:I:47:HIS:HD2	8:I:53:HIS:C	2.23	0.46
8:I:93:CYS:SG	8:I:98:PRO:HA	2.54	0.46
8:I:409:SER:OG	8:I:410:SER:N	2.49	0.46
8:I:676:ASN:O	8:I:680:SER:OG	2.27	0.46
9:J:176:LEU:HD11	9:J:180:GLU:HB2	1.97	0.46
9:J:184:LEU:HA	9:J:184:LEU:HD23	1.70	0.46
9:K:59:ALA:O	9:K:63:ARG:NH2	2.48	0.46
9:K:194:CYS:SG	9:K:197:GLU:HG3	2.55	0.46
12:N:654:THR:HB	12:N:724:ARG:NH2	2.30	0.46
12:N:772:ARG:O	12:N:776:MET:HG2	2.15	0.46
13:O:53:SER:N	13:O:56:GLU:HB2	2.30	0.46
3:P:490:TYR:O	3:P:494:ILE:HD12	2.15	0.46
7:W:13:LEU:HB3	7:W:16:ILE:HD12	1.96	0.46
15:X:435:LYS:HA	15:X:435:LYS:HD2	1.74	0.46
15:X:441:ALA:HB3	15:X:444:LEU:CD1	2.45	0.46
1:A:12:ILE:HB	1:A:509:VAL:HA	1.97	0.46
1:A:436:LEU:HD13	1:A:638:LEU:HD23	1.97	0.46
1:A:452:LEU:N	1:A:474:ILE:O	2.48	0.46
1:A:804:ASP:O	1:A:808:ARG:HG3	2.14	0.46
1:A:1221:ASP:OD1	1:A:1222:MET:N	2.48	0.46
1:A:1248:ASN:OD1	1:A:1603:LEU:HD12	2.16	0.46
2:B:30:PHE:HD1	2:B:46:LEU:HD22	1.80	0.46
3:C:204:GLY:O	3:C:208:GLU:HG2	2.15	0.46
6:F:149:TRP:O	6:F:152:PHE:N	2.43	0.46
6:H:671:LEU:O	6:H:675:ILE:HG13	2.15	0.46
9:J:74:TYR:OH	9:J:78:ARG:NH1	2.48	0.46
9:J:153:TYR:CD2	9:J:175:MET:HE1	2.50	0.46
10:L:49:ASN:HB3	10:L:51:GLU:OE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:233:PHE:O	3:P:237:ILE:HG22	2.15	0.46
3:P:245:GLU:HG2	3:P:246:GLU:N	2.30	0.46
3:P:348:GLU:N	3:P:348:GLU:CD	2.74	0.46
15:X:202:ALA:O	15:X:206:ILE:HG13	2.15	0.46
15:X:496:ILE:H	15:X:496:ILE:HD12	1.80	0.46
15:Y:163:PRO:O	15:Y:167:ARG:HG3	2.16	0.46
15:Y:364:LYS:O	15:Y:368:LEU:HG	2.14	0.46
1:A:591:VAL:O	1:A:592:HIS:C	2.59	0.46
1:A:953:LEU:HB3	1:A:954:PRO:HD3	1.97	0.46
1:A:1771:PHE:HZ	13:O:634:LEU:HD23	1.81	0.46
1:A:1785:GLU:O	1:A:1788:PRO:HD2	2.15	0.46
1:A:1922:LYS:HD3	1:A:1922:LYS:HA	1.68	0.46
3:C:323:LEU:HA	3:C:323:LEU:HD23	1.68	0.46
6:F:469:MET:HE3	6:F:491:LEU:HG	1.97	0.46
6:H:520:ARG:O	6:H:524:GLU:HG3	2.15	0.46
6:H:530:ASN:OD1	6:H:531:TYR:N	2.48	0.46
6:H:716:ASN:C	6:H:717:GLU:HG3	2.41	0.46
8:I:122:SER:OG	8:I:124:VAL:N	2.49	0.46
8:I:441:THR:O	8:I:444:ASP:HB3	2.15	0.46
9:J:93:LEU:HA	9:J:93:LEU:HD23	1.56	0.46
12:N:285:PHE:HB3	12:N:289:PHE:CD1	2.49	0.46
12:N:319:ASN:C	12:N:321:LEU:H	2.24	0.46
12:N:343:GLU:O	12:N:347:ILE:HG12	2.16	0.46
12:N:608:LYS:HD2	12:N:608:LYS:HA	1.74	0.46
13:O:147:SER:OG	13:O:148:PHE:N	2.49	0.46
3:P:35:GLN:O	3:P:38:LEU:HG	2.15	0.46
1:A:117:PHE:HD2	13:O:268:PHE:CE2	2.33	0.46
1:A:191:ARG:HG2	1:A:192:SER:H	1.79	0.46
1:A:259:TYR:HD1	1:A:266:HIS:CE1	2.33	0.46
1:A:431:PHE:CB	1:A:481:PRO:HG3	2.45	0.46
1:A:757:THR:OG1	1:A:758:HIS:N	2.43	0.46
1:A:1111:ALA:HB3	1:A:1116:THR:HB	1.97	0.46
1:A:1169:ALA:O	1:A:1172:TYR:N	2.48	0.46
1:A:1268:HIS:ND1	3:C:545:GLU:HG2	2.31	0.46
6:F:485:ILE:HD12	6:F:509:TYR:CE1	2.51	0.46
8:I:88:LYS:HD2	8:I:107:GLU:O	2.16	0.46
8:I:144:THR:H	8:I:160:ASN:CB	2.29	0.46
8:I:335:GLN:O	8:I:338:GLU:HG3	2.15	0.46
8:I:731:SER:OG	8:I:746:MET:SD	2.71	0.46
9:J:133:CYS:HB2	9:J:156:ALA:HB2	1.97	0.46
9:J:482:TYR:HA	9:J:485:ILE:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:341:GLY:HA3	9:K:357:TYR:CE1	2.51	0.46
12:N:387:LEU:HD23	12:N:387:LEU:HA	1.70	0.46
3:P:262:SER:O	3:P:266:VAL:HG23	2.15	0.46
15:X:452:LEU:HB3	15:X:461:ALA:HB2	1.98	0.46
15:X:455:PRO:O	15:X:457:THR:N	2.49	0.46
15:X:465:LEU:HD21	15:X:482:LYS:HA	1.97	0.46
15:Y:72:SER:OG	15:Y:74:PRO:HD2	2.16	0.46
15:Y:538:LEU:HD23	15:Y:538:LEU:HA	1.64	0.46
1:A:117:PHE:HB3	13:O:268:PHE:CE2	2.51	0.46
1:A:131:PHE:HD1	1:A:214:LEU:O	1.98	0.46
1:A:1387:LEU:HD21	1:A:1410:ALA:HB3	1.97	0.46
1:A:1727:ASN:HB2	12:N:163:PHE:CE2	2.49	0.46
2:B:63:TRP:CD1	2:B:64:LEU:HD22	2.50	0.46
3:C:480:LEU:HD23	3:C:480:LEU:HA	1.65	0.46
6:F:26:PHE:HD2	6:F:27:LEU:HD12	1.78	0.46
6:F:26:PHE:CD1	6:H:149:TRP:CD1	3.03	0.46
6:F:469:MET:HE2	6:F:469:MET:HA	1.98	0.46
6:F:543:LEU:HD23	6:F:543:LEU:HA	1.56	0.46
7:G:23:ARG:HG3	7:G:24:LYS:HB2	1.97	0.46
6:H:509:TYR:CD2	6:H:517:GLN:HG3	2.51	0.46
8:I:723:ALA:HB3	8:I:732:CYS:HB3	1.97	0.46
12:N:148:GLY:O	12:N:152:GLU:CB	2.64	0.46
12:N:716:ILE:HD12	12:N:718:GLU:HB2	1.97	0.46
13:O:276:HIS:CE1	13:O:280:ARG:HG3	2.51	0.46
13:O:529:ASP:O	13:O:532:VAL:HG12	2.15	0.46
3:P:477:HIS:HB3	3:P:486:ALA:HB2	1.98	0.46
15:X:193:LYS:HE2	15:X:193:LYS:HB3	1.83	0.46
15:X:259:CYS:O	15:X:263:LYS:HG2	2.16	0.46
1:A:1364:CYS:O	1:A:1368:THR:HG22	2.15	0.46
1:A:1511:ASN:HD21	10:L:104:ASN:HD21	1.63	0.46
3:C:307:LEU:HD22	3:C:316:LEU:HD13	1.97	0.46
3:C:521:PHE:CD2	3:C:549:LEU:HD11	2.51	0.46
6:F:644:ILE:HA	6:F:644:ILE:HD12	1.79	0.46
6:H:679:GLN:O	6:H:682:LEU:N	2.46	0.46
3:P:54:TRP:CD2	3:P:203:TRP:CD1	3.04	0.46
15:X:173:MET:HG2	15:X:177:ASN:HD21	1.81	0.46
15:Y:446:LEU:O	15:Y:449:THR:OG1	2.28	0.46
1:A:1300:LEU:HD13	1:A:1369:LEU:HD13	1.96	0.46
1:A:1461:HIS:O	1:A:1465:ILE:HG12	2.16	0.46
1:A:1910:SER:OG	1:A:1912:ALA:N	2.46	0.46
1:A:1910:SER:CB	1:A:1913:GLU:H	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:58:LEU:O	3:C:61:SER:N	2.48	0.46
3:C:318:TYR:HD1	9:J:282:ASN:OD1	1.99	0.46
3:C:517:ALA:HA	3:C:532:CYS:SG	2.56	0.46
6:F:23:ASP:O	6:F:27:LEU:HD13	2.16	0.46
6:F:97:PHE:HB3	6:F:99:LYS:HB2	1.97	0.46
6:F:504:GLN:HE22	6:F:507:ARG:NH2	2.12	0.46
8:I:102:HIS:CG	8:I:103:SER:N	2.84	0.46
8:I:523:HIS:HB3	8:I:527:ARG:NH1	2.30	0.46
9:J:488:ILE:O	9:J:492:MET:HG2	2.16	0.46
12:N:180:PHE:HB2	12:N:240:PHE:CE2	2.50	0.46
12:N:392:ASN:HD22	12:N:394:CYS:N	2.14	0.46
12:N:775:ASN:HB3	12:N:776:MET:HE2	1.98	0.46
13:O:380:GLY:O	13:O:383:SER:OG	2.31	0.46
3:P:433:SER:O	3:P:437:VAL:HG23	2.16	0.46
15:Y:383:LEU:CB	15:Y:392:ALA:HB2	2.36	0.46
1:A:217:LEU:HD23	1:A:217:LEU:HA	1.73	0.46
1:A:802:TYR:OH	1:A:842:PRO:HD3	2.16	0.46
1:A:872:LEU:HD23	1:A:933:TRP:HH2	1.81	0.46
1:A:1027:ILE:HG22	1:A:1028:TRP:CD1	2.50	0.46
1:A:1080:LEU:HD23	1:A:1080:LEU:HA	1.70	0.46
1:A:1210:LEU:HD23	1:A:1210:LEU:HA	1.63	0.46
3:C:328:LYS:HB3	3:C:329:TYR:CE1	2.50	0.46
8:I:66:LYS:H	8:I:86:ASP:CG	2.21	0.46
9:J:31:SER:HB2	9:K:227:LEU:HD23	1.98	0.46
9:J:275:LEU:HA	9:J:275:LEU:HD23	1.64	0.46
9:J:324:SER:O	9:J:328:THR:HG22	2.15	0.46
9:J:349:GLU:OE1	9:J:352:GLN:HG3	2.16	0.46
9:J:451:LEU:HG	9:J:467:TYR:CE2	2.51	0.46
9:J:523:ILE:HD11	3:P:420:TYR:HB2	1.98	0.46
10:L:86:ASP:HB2	10:L:89:TYR:HD1	1.81	0.46
12:N:331:PHE:CZ	12:N:335:ILE:HD12	2.51	0.46
12:N:506:VAL:HA	12:N:510:GLY:O	2.16	0.46
12:N:637:TRP:N	12:N:637:TRP:CD1	2.84	0.46
13:O:240:LEU:HD23	13:O:240:LEU:HA	1.80	0.46
3:P:46:ARG:NH2	3:P:113:LYS:HB2	2.31	0.46
15:Y:192:TYR:O	15:Y:195:VAL:HG22	2.16	0.46
1:A:1533:LEU:HD11	12:N:482:PRO:HD3	1.97	0.45
1:A:1585:LEU:HA	1:A:1585:LEU:HD23	1.49	0.45
6:F:466:LEU:HD12	6:F:466:LEU:HA	1.77	0.45
6:F:638:TRP:CD1	6:F:638:TRP:H	2.33	0.45
8:I:357:GLU:O	8:I:358:SER:C	2.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:717:MET:HG3	8:I:719:ALA:HB2	1.96	0.45
10:L:179:MET:HE2	10:L:180:TYR:CE2	2.50	0.45
12:N:293:ILE:O	12:N:297:VAL:HG23	2.16	0.45
12:N:506:VAL:O	12:N:510:GLY:HA3	2.15	0.45
3:P:228:TRP:CD1	3:P:228:TRP:N	2.84	0.45
3:P:372:GLY:HA2	3:P:384:ALA:HA	1.98	0.45
15:X:77:TYR:OH	15:X:107:LYS:HD3	2.16	0.45
15:X:175:LEU:HD11	15:X:179:TYR:CZ	2.51	0.45
15:Y:193:LYS:HA	15:Y:196:LEU:CD2	2.46	0.45
15:Y:390:GLN:O	15:Y:394:ILE:HG23	2.15	0.45
1:A:252:ASP:OD2	1:A:253:PRO:HD3	2.16	0.45
1:A:485:ILE:O	1:A:487:THR:HG23	2.16	0.45
1:A:619:GLN:O	1:A:623:GLN:HG2	2.15	0.45
1:A:852:LEU:HD11	1:A:1819:GLU:HB3	1.98	0.45
1:A:1217:LEU:HD12	1:A:1259:LEU:O	2.16	0.45
1:A:1824:ARG:NH2	12:N:142:MET:HA	2.32	0.45
3:C:399:TYR:HA	3:C:428:LEU:HD12	1.98	0.45
3:C:517:ALA:HB1	3:C:549:LEU:HD23	1.97	0.45
6:F:613:LEU:HB2	6:F:679:GLN:NE2	2.31	0.45
8:I:10:SER:OG	8:I:710:HIS:HA	2.16	0.45
9:J:451:LEU:HD12	9:J:451:LEU:HA	1.49	0.45
9:J:469:ARG:HB3	9:J:469:ARG:CZ	2.46	0.45
12:N:503:SER:HA	12:N:506:VAL:HG22	1.97	0.45
12:N:528:LEU:HD22	12:N:529:HIS:CE1	2.51	0.45
13:O:39:VAL:HG22	13:O:93:VAL:HG23	1.98	0.45
13:O:127:HIS:O	13:O:127:HIS:CG	2.69	0.45
15:X:458:GLN:HE21	15:X:488:ARG:NH2	2.14	0.45
15:Y:74:PRO:O	15:Y:78:GLN:HG3	2.15	0.45
15:Y:515:LEU:O	15:Y:519:LEU:HD13	2.16	0.45
1:A:412:LEU:HD22	1:A:468:PHE:HD1	1.81	0.45
1:A:1844:PHE:O	1:A:1848:VAL:HG23	2.17	0.45
2:B:3:VAL:HB	12:N:671:GLN:OE1	2.17	0.45
2:B:46:LEU:HB2	2:B:48:TRP:CH2	2.52	0.45
6:F:76:ALA:HB2	6:F:92:LEU:HD21	1.98	0.45
6:F:670:VAL:HA	6:F:673:CYS:HG	1.80	0.45
6:H:550:VAL:HG13	6:H:551:ALA:N	2.31	0.45
6:H:617:LEU:O	6:H:618:ASP:C	2.60	0.45
6:H:625:ARG:NH1	9:K:506:LEU:HB3	2.32	0.45
6:H:740:TYR:HA	6:H:743:ILE:HD12	1.98	0.45
8:I:644:TYR:OH	8:I:729:LYS:O	2.26	0.45
8:I:723:ALA:N	8:I:732:CYS:O	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:373:TYR:O	9:K:377:GLU:HG2	2.16	0.45
12:N:699:TRP:O	12:N:703:GLY:N	2.41	0.45
13:O:435:SER:O	13:O:436:THR:C	2.57	0.45
3:P:48:LEU:HD12	3:P:49:LEU:H	1.82	0.45
3:P:286:PHE:HB3	3:P:303:PHE:CD1	2.51	0.45
15:X:491:LYS:HG2	15:X:494:ASP:OD1	2.17	0.45
15:Y:169:PRO:HA	15:Y:172:ASN:HD22	1.79	0.45
15:Y:320:ARG:O	15:Y:324:VAL:HG23	2.16	0.45
15:Y:423:ILE:HG21	15:Y:454:ASP:CG	2.41	0.45
1:A:153:ILE:N	1:A:160:ASN:O	2.49	0.45
1:A:881:ILE:HG23	1:A:1825:SER:HB2	1.97	0.45
1:A:1520:LEU:O	1:A:1521:LEU:C	2.60	0.45
1:A:1584:LEU:HB3	1:A:1588:LEU:HD23	1.99	0.45
1:A:1626:THR:HG1	1:A:1628:THR:HG1	1.51	0.45
1:A:1787:LEU:HD23	1:A:1788:PRO:N	2.31	0.45
6:F:559:LEU:HD12	6:F:559:LEU:HA	1.65	0.45
6:H:102:SER:O	6:H:103:HIS:C	2.59	0.45
6:H:696:ILE:HG12	6:H:705:CYS:SG	2.56	0.45
8:I:500:PHE:CE2	13:O:492:HIS:HB2	2.51	0.45
8:I:557:TYR:HA	8:I:692:ARG:HE	1.82	0.45
8:I:640:ASP:HB3	8:I:722:VAL:HG12	1.97	0.45
9:J:33:SER:O	9:J:34:ARG:HG2	2.17	0.45
9:K:444:TRP:CE3	9:K:444:TRP:HA	2.52	0.45
12:N:55:LEU:HD13	12:N:55:LEU:HA	1.85	0.45
12:N:340:ARG:HA	12:N:340:ARG:HD3	1.81	0.45
12:N:793:GLN:OE1	12:N:793:GLN:N	2.49	0.45
13:O:472:HIS:O	13:O:476:LEU:HD23	2.15	0.45
3:P:451:GLU:H	3:P:451:GLU:CD	2.18	0.45
15:X:137:GLU:HG3	15:X:138:VAL:N	2.30	0.45
15:X:218:GLU:O	15:X:221:SER:OG	2.27	0.45
15:X:339:ALA:O	15:X:343:VAL:HG23	2.15	0.45
15:Y:513:ARG:HH22	15:Y:514:ILE:HG12	1.80	0.45
1:A:226:LYS:HB2	1:A:236:VAL:HG12	1.98	0.45
1:A:637:MET:HG3	1:A:667:MET:SD	2.57	0.45
1:A:777:THR:OG1	1:A:948:PRO:HG3	2.16	0.45
1:A:1301:ALA:HA	1:A:1304:MET:HE3	1.98	0.45
1:A:1649:GLU:HG2	1:A:1650:GLU:N	2.32	0.45
2:B:60:ILE:O	2:B:64:LEU:HD23	2.16	0.45
6:F:154:SER:O	6:F:158:ILE:HG12	2.16	0.45
6:F:579:LEU:HD23	6:F:579:LEU:HA	1.65	0.45
8:I:534:ASP:O	8:I:538:GLN:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:557:TYR:HA	8:I:692:ARG:HG2	1.98	0.45
8:I:625:TYR:OH	8:I:711:TRP:O	2.28	0.45
9:J:37:PRO:HB3	9:J:69:TYR:HE2	1.80	0.45
9:J:356:ALA:O	9:J:359:THR:OG1	2.31	0.45
9:J:369:LEU:HD22	9:J:373:TYR:CE2	2.52	0.45
9:K:253:LEU:HD23	9:K:253:LEU:HA	1.78	0.45
9:K:499:VAL:HG23	9:K:522:CYS:SG	2.56	0.45
12:N:556:PHE:HB3	12:N:560:MET:HE3	1.97	0.45
13:O:690:ALA:HA	13:O:693:ASN:HD22	1.80	0.45
3:P:185:VAL:HG23	3:P:186:LYS:H	1.81	0.45
15:X:152:ASP:O	15:X:156:ILE:HG13	2.16	0.45
15:X:196:LEU:HD23	15:X:196:LEU:HA	1.72	0.45
15:Y:460:LYS:H	15:Y:460:LYS:HE2	1.82	0.45
1:A:16:ASP:OD1	1:A:17:LEU:N	2.49	0.45
1:A:85:GLU:N	13:O:566:LYS:HZ3	2.04	0.45
1:A:1031:ASP:OD2	1:A:1033:ARG:N	2.49	0.45
1:A:1811:LEU:HG	1:A:1887:CYS:HB2	1.99	0.45
1:A:1845:LEU:N	1:A:1846:PRO:HD2	2.32	0.45
1:A:1910:SER:C	1:A:1912:ALA:N	2.74	0.45
3:C:34:LYS:HD2	3:C:71:GLN:HG3	1.98	0.45
6:F:463:MET:HB3	6:F:467:ARG:HH12	1.81	0.45
8:I:206:LEU:HB2	8:I:222:GLU:OE2	2.15	0.45
12:N:299:TRP:O	12:N:303:VAL:HG23	2.17	0.45
12:N:401:ILE:HD11	12:N:504:LEU:HD12	1.98	0.45
13:O:256:LEU:HA	13:O:256:LEU:HD12	1.67	0.45
3:P:251:TYR:OH	3:P:268:GLN:HG2	2.16	0.45
15:X:87:LEU:O	15:X:90:ASP:N	2.50	0.45
15:X:362:GLY:O	15:X:366:ILE:HG13	2.16	0.45
15:Y:78:GLN:HG2	15:Y:133:PRO:HD2	1.98	0.45
1:A:117:PHE:HB3	13:O:268:PHE:CD2	2.52	0.45
1:A:799:LEU:O	1:A:801:PRO:HD2	2.16	0.45
1:A:1574:LEU:HD12	1:A:1584:LEU:HD11	1.98	0.45
2:B:55:PHE:CE1	2:B:75:MET:HG3	2.52	0.45
3:C:136:ASP:OD1	3:C:136:ASP:C	2.59	0.45
5:E:53:PHE:O	5:E:57:SER:OG	2.30	0.45
6:F:77:LYS:NZ	6:H:19:TYR:HD2	2.03	0.45
6:F:474:LEU:O	6:F:478:SER:CB	2.65	0.45
6:H:592:ARG:HD3	6:H:592:ARG:HA	1.67	0.45
8:I:36:ALA:HB2	8:I:46:LEU:HD13	1.98	0.45
8:I:220:VAL:HG12	8:I:222:GLU:OE2	2.16	0.45
8:I:276:TRP:CH2	8:I:476:GLY:HA2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:313:ALA:HA	8:I:314:SER:HA	1.58	0.45
8:I:737:ASN:O	8:I:739:ARG:HG3	2.15	0.45
9:K:157:LEU:HD13	9:K:157:LEU:HA	1.74	0.45
9:K:377:GLU:O	9:K:381:THR:HG22	2.17	0.45
9:K:485:ILE:O	9:K:488:ILE:HB	2.15	0.45
12:N:86:ASN:C	12:N:89:PRO:HD2	2.42	0.45
12:N:153:VAL:HG13	12:N:154:HIS:N	2.32	0.45
12:N:341:ILE:HG12	12:N:374:LEU:HD12	1.99	0.45
13:O:470:LEU:HD13	13:O:493:LEU:HG	1.98	0.45
13:O:680:GLN:HG3	13:O:683:LYS:N	2.32	0.45
1:A:188:LEU:HA	1:A:188:LEU:HD12	1.68	0.45
1:A:624:ALA:O	1:A:627:PHE:N	2.48	0.45
1:A:898:ARG:H	1:A:898:ARG:HD2	1.82	0.45
1:A:1587:ALA:HB3	1:A:1588:LEU:HD22	1.98	0.45
2:B:7:CYS:CB	12:N:645:THR:HG22	2.40	0.45
3:C:203:TRP:HE1	3:C:207:LEU:HD13	1.82	0.45
5:E:94:TRP:CE2	6:F:592:ARG:HG3	2.51	0.45
8:I:236:LEU:HD21	8:I:548:MET:HB2	1.99	0.45
8:I:417:PHE:CD2	8:I:451:PHE:HD2	2.34	0.45
9:J:248:LYS:O	9:J:252:LYS:HG3	2.17	0.45
9:J:442:ASP:OD1	3:P:152:ARG:NH1	2.50	0.45
9:K:495:PHE:CZ	9:K:525:MET:HG2	2.51	0.45
10:L:50:LEU:HD21	10:L:119:TRP:CZ2	2.52	0.45
12:N:585:GLU:CD	12:N:621:ALA:HB1	2.42	0.45
13:O:222:LEU:HD23	13:O:222:LEU:HA	1.65	0.45
13:O:258:TYR:CZ	13:O:274:LEU:HD12	2.52	0.45
13:O:464:GLU:OE2	13:O:503:HIS:HB3	2.17	0.45
13:O:600:ALA:O	13:O:603:MET:N	2.50	0.45
15:X:240:ILE:HG13	15:X:241:LYS:N	2.31	0.45
15:Y:288:LYS:O	15:Y:292:LEU:HG	2.17	0.45
1:A:796:ASP:CG	1:A:820:VAL:HG22	2.42	0.45
1:A:949:PHE:N	1:A:1813:GLN:HE22	2.14	0.45
1:A:1032:LEU:HD12	1:A:1032:LEU:O	2.16	0.45
1:A:1657:LEU:HB3	1:A:1658:PRO:HD2	1.99	0.45
3:C:34:LYS:HE2	3:C:69:GLU:O	2.17	0.45
3:C:53:LYS:HD2	3:P:93:TYR:CE1	2.52	0.45
6:H:515:TYR:O	6:H:518:ALA:HB3	2.17	0.45
8:I:32:ARG:HD3	12:N:388:HIS:ND1	2.32	0.45
8:I:94:ASP:HB2	8:I:97:LYS:O	2.17	0.45
9:J:279:ASN:HA	9:J:311:MET:HE3	1.97	0.45
12:N:708:GLU:OE1	12:N:714:SER:OG	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:533:THR:OG1	13:O:534:GLY:N	2.50	0.45
3:P:122:ARG:HH22	3:P:153:GLU:HG2	1.82	0.45
3:P:122:ARG:HG2	3:P:154:LEU:HD21	1.99	0.45
15:X:467:LYS:O	15:X:471:GLN:HG2	2.16	0.45
15:Y:67:ASN:HB3	15:Y:70:LEU:HD11	1.99	0.45
15:Y:99:LYS:HA	15:Y:102:MET:HG2	1.99	0.45
15:Y:140:TYR:CE2	15:Y:170:LYS:HD3	2.51	0.45
15:Y:218:GLU:O	15:Y:222:MET:HG2	2.17	0.45
1:A:1521:LEU:HA	1:A:1521:LEU:HD23	1.70	0.45
2:B:23:CYS:O	2:B:27:ARG:HD3	2.16	0.45
3:C:46:ARG:NH2	3:C:113:LYS:HE2	2.31	0.45
3:C:235:ALA:HB1	3:C:251:TYR:CZ	2.51	0.45
4:D:51:LEU:O	3:P:382:SER:OG	2.19	0.45
5:E:60:SER:O	5:E:63:VAL:HG12	2.17	0.45
6:F:87:GLU:H	6:F:87:GLU:CD	2.23	0.45
6:F:667:GLN:HG2	6:F:670:VAL:HG12	1.98	0.45
8:I:163:GLU:O	8:I:167:LEU:HD12	2.16	0.45
8:I:318:GLN:HE22	8:I:319:THR:HG23	1.82	0.45
8:I:590:ILE:O	8:I:597:LYS:N	2.47	0.45
13:O:351:GLY:O	13:O:352:GLN:HG2	2.16	0.45
13:O:393:LYS:HD3	13:O:393:LYS:HA	1.74	0.45
3:P:535:LYS:HD3	3:P:535:LYS:HA	1.63	0.45
15:X:324:VAL:CG1	15:X:348:HIS:HB2	2.47	0.45
15:Y:486:LEU:HA	15:Y:489:GLU:HB2	1.99	0.45
1:A:613:ALA:HB1	1:A:619:GLN:HB2	1.99	0.44
1:A:795:ARG:NH1	1:A:817:THR:H	2.15	0.44
1:A:880:TYR:HD1	1:A:930:LEU:HD22	1.83	0.44
2:B:46:LEU:HB2	2:B:48:TRP:CZ3	2.52	0.44
3:C:85:ASP:OD1	3:C:85:ASP:N	2.50	0.44
3:C:137:SER:OG	3:C:138:LEU:N	2.50	0.44
3:C:530:SER:O	3:C:534:GLN:HG2	2.17	0.44
6:F:102:SER:O	6:F:104:ASP:N	2.50	0.44
6:H:13:TRP:HA	6:H:13:TRP:CE3	2.52	0.44
6:H:130:ARG:HG3	9:K:469:ARG:HB3	1.99	0.44
9:J:302:TRP:O	9:J:305:VAL:HG12	2.16	0.44
9:J:364:MET:HB2	9:J:364:MET:HE2	1.68	0.44
9:J:441:VAL:C	9:J:443:LYS:H	2.25	0.44
9:J:476:PRO:HB3	3:P:182:LEU:O	2.18	0.44
12:N:432:GLU:HG3	12:N:432:GLU:O	2.17	0.44
13:O:437:MET:HE3	13:O:437:MET:HB2	1.76	0.44
3:P:29:LEU:O	3:P:32:ILE:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:48:LEU:O	3:P:49:LEU:HD23	2.17	0.44
3:P:331:VAL:HG21	3:P:361:ASN:CB	2.47	0.44
3:P:354:PHE:CE2	3:P:370:LEU:HB3	2.51	0.44
15:X:359:LEU:HD13	15:X:386:MET:HE2	1.98	0.44
1:A:223:LEU:HD21	1:A:409:ILE:HD11	1.98	0.44
1:A:615:SER:O	1:A:618:VAL:N	2.50	0.44
1:A:790:LEU:HA	1:A:790:LEU:HD23	1.66	0.44
1:A:1155:SER:HB2	1:A:1184:HIS:HE1	1.81	0.44
1:A:1747:LEU:O	1:A:1748:LEU:C	2.60	0.44
2:B:16:TRP:HE1	2:B:42:ASP:HA	1.82	0.44
3:C:494:ILE:HG12	3:C:513:PHE:CE1	2.52	0.44
8:I:28:TRP:CZ2	8:I:732:CYS:HB2	2.53	0.44
8:I:110:VAL:HG22	8:I:111:SER:N	2.30	0.44
8:I:601:LEU:HA	8:I:614:GLY:O	2.17	0.44
9:J:75:LEU:HD12	9:J:75:LEU:HA	1.85	0.44
9:K:295:TYR:O	9:K:297:SER:N	2.50	0.44
10:L:89:TYR:CD2	10:L:150:ASP:HB2	2.52	0.44
12:N:612:PRO:HB3	12:N:665:VAL:HG23	1.99	0.44
12:N:663:GLN:HG2	12:N:699:TRP:CE2	2.52	0.44
13:O:44:MET:HB2	13:O:89:LEU:HD21	2.00	0.44
13:O:147:SER:HG	3:P:353:TYR:HH	1.53	0.44
13:O:222:LEU:HB3	13:O:230:ALA:HB2	2.00	0.44
13:O:348:TYR:HB2	13:O:359:VAL:HG11	1.99	0.44
13:O:478:ALA:HB2	13:O:486:ALA:HB2	1.98	0.44
13:O:552:GLN:HB3	13:O:593:ARG:NH2	2.32	0.44
13:O:594:SER:C	13:O:596:SER:H	2.26	0.44
15:Y:443:THR:O	15:Y:446:LEU:HG	2.17	0.44
1:A:185:TYR:CD1	1:A:273:ARG:HD3	2.53	0.44
1:A:894:GLN:HG3	1:A:895:TYR:CG	2.52	0.44
1:A:1767:ILE:HG12	1:A:1798:ARG:CZ	2.47	0.44
1:A:1892:HIS:HA	1:A:1926:ARG:NH2	2.33	0.44
3:C:172:LEU:HD12	3:C:195:ALA:HA	1.98	0.44
3:C:339:ASN:O	3:C:342:SER:HB3	2.17	0.44
3:C:349:LYS:HE2	3:C:349:LYS:HB3	1.54	0.44
6:F:26:PHE:CG	6:H:149:TRP:CD1	3.05	0.44
6:H:515:TYR:HE2	6:H:545:HIS:CD2	2.35	0.44
6:H:688:ALA:O	6:H:692:LEU:HD23	2.17	0.44
6:H:731:GLN:OE1	15:X:186:ARG:NH1	2.50	0.44
8:I:69:THR:HG23	8:I:70:CYS:SG	2.57	0.44
8:I:189:ALA:C	8:I:191:GLY:H	2.26	0.44
9:J:441:VAL:O	9:J:442:ASP:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:268:LEU:HA	9:K:268:LEU:HD23	1.58	0.44
11:M:19:TRP:CD1	11:M:19:TRP:O	2.70	0.44
12:N:542:VAL:HG13	12:N:554:MET:SD	2.58	0.44
13:O:463:THR:O	13:O:465:SER:N	2.50	0.44
15:X:59:LEU:HD13	15:Y:235:TRP:HH2	1.82	0.44
15:Y:413:LEU:HG	15:Y:417:TYR:CE2	2.52	0.44
1:A:104:LYS:HE3	1:A:114:TYR:CD1	2.52	0.44
1:A:267:SER:HA	1:A:414:THR:CB	2.47	0.44
1:A:1036:ASP:O	1:A:1040:LEU:HD12	2.18	0.44
1:A:1879:GLU:O	1:A:1880:SER:OG	2.35	0.44
3:C:304:SER:OG	3:C:336:VAL:HG13	2.18	0.44
6:F:532:ARG:NH1	6:F:534:GLU:HB2	2.31	0.44
8:I:441:THR:HG22	8:I:444:ASP:HB2	2.00	0.44
8:I:495:ASN:HA	13:O:460:GLN:HG2	2.00	0.44
8:I:664:ARG:NE	8:I:719:ALA:O	2.42	0.44
9:J:395:LEU:HD12	9:J:399:PRO:HB3	1.99	0.44
9:K:509:ARG:HD3	9:K:512:ASP:OD1	2.16	0.44
12:N:571:ASN:HA	12:N:574:ILE:HG22	1.99	0.44
12:N:756:THR:O	12:N:759:GLN:HB2	2.18	0.44
13:O:149:SER:O	13:O:153:LYS:HG2	2.16	0.44
15:X:407:LEU:HD11	15:X:437:LEU:CD2	2.47	0.44
15:Y:233:LEU:HD21	15:Y:236:LEU:HB2	1.98	0.44
15:Y:383:LEU:HD22	15:Y:388:ARG:HB2	1.99	0.44
15:Y:532:TYR:CE2	15:Y:548:GLY:HA3	2.53	0.44
1:A:248:PHE:HB2	1:A:430:VAL:CG2	2.47	0.44
1:A:260:ASP:OD1	1:A:262:VAL:HG22	2.18	0.44
1:A:1048:ARG:HH21	1:A:1050:ASN:HD22	1.65	0.44
1:A:1412:CYS:HB3	1:A:1419:ILE:HD11	1.98	0.44
3:C:42:LEU:HD12	3:C:42:LEU:HA	1.75	0.44
3:C:491:ILE:HA	3:C:494:ILE:HG22	1.97	0.44
3:C:516:LEU:HD23	3:C:516:LEU:HA	1.75	0.44
6:F:149:TRP:HB3	6:H:23:ASP:OD2	2.17	0.44
6:H:707:PHE:CD1	6:H:707:PHE:C	2.95	0.44
6:H:716:ASN:O	6:H:717:GLU:HG3	2.16	0.44
8:I:233:TYR:HB3	8:I:554:ILE:O	2.18	0.44
8:I:269:LEU:HD21	8:I:523:HIS:NE2	2.33	0.44
8:I:317:LEU:HA	8:I:320:LEU:HB3	1.98	0.44
8:I:624:THR:OG1	8:I:625:TYR:N	2.50	0.44
9:J:373:TYR:HD1	9:J:376:LEU:HD12	1.82	0.44
9:J:475:ILE:HG13	9:J:475:ILE:O	2.18	0.44
12:N:121:ARG:CA	12:N:122:LEU:HB2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:345:PHE:HZ	12:N:399:LEU:HD21	1.79	0.44
12:N:630:LYS:HE2	12:N:630:LYS:HB3	1.58	0.44
13:O:345:SER:HB3	13:O:376:LEU:HD11	2.00	0.44
3:P:358:LEU:O	3:P:362:PRO:HA	2.18	0.44
15:X:467:LYS:HB3	15:X:471:GLN:HE21	1.82	0.44
1:A:490:VAL:O	1:A:497:LEU:HA	2.18	0.44
1:A:787:VAL:O	1:A:791:VAL:HG12	2.17	0.44
1:A:1150:ALA:HB2	1:A:1183:GLY:C	2.43	0.44
6:H:731:GLN:C	15:X:184:GLN:HG3	2.42	0.44
8:I:309:LEU:HA	13:O:131:VAL:CG2	2.48	0.44
8:I:554:ILE:HG12	8:I:689:TYR:O	2.17	0.44
9:J:81:TYR:HB2	9:J:139:ILE:HD11	2.00	0.44
9:J:211:LYS:O	9:J:213:ASN:N	2.50	0.44
12:N:655:LEU:HD23	12:N:655:LEU:HA	1.75	0.44
12:N:677:THR:O	12:N:680:GLU:HB3	2.18	0.44
12:N:709:PRO:HB3	12:N:712:THR:HG22	1.98	0.44
13:O:635:GLY:C	13:O:637:PRO:HD3	2.43	0.44
13:O:720:LEU:O	13:O:723:THR:OG1	2.31	0.44
3:P:106:LEU:HD12	3:P:106:LEU:HA	1.53	0.44
3:P:478:GLU:HG2	3:P:522:LYS:NZ	2.32	0.44
15:Y:83:HIS:O	15:Y:86:SER:OG	2.26	0.44
15:Y:145:CYS:O	15:Y:149:LEU:HG	2.17	0.44
15:Y:271:VAL:HA	15:Y:274:LEU:HD22	1.99	0.44
15:Y:282:PHE:CD1	15:Y:314:LEU:HD21	2.53	0.44
1:A:1663:LEU:HD12	1:A:1663:LEU:HA	1.80	0.44
1:A:1680:LEU:HG	1:A:1681:SER:H	1.83	0.44
1:A:1725:ASN:C	1:A:1727:ASN:N	2.74	0.44
2:B:27:ARG:HD3	2:B:27:ARG:HA	1.56	0.44
3:C:433:SER:O	3:C:436:LEU:N	2.50	0.44
3:C:473:LEU:HD12	3:C:473:LEU:HA	1.71	0.44
6:F:71:CYS:SG	6:F:72:LYS:N	2.91	0.44
6:F:599:ASN:ND2	6:F:599:ASN:O	2.51	0.44
6:H:152:PHE:CE1	6:H:162:PRO:HG2	2.53	0.44
6:H:526:ARG:HH11	6:H:555:LEU:HD12	1.82	0.44
8:I:422:TYR:O	8:I:426:LEU:HD23	2.18	0.44
8:I:574:PHE:O	8:I:586:LEU:HD12	2.17	0.44
9:J:354:MET:HE3	9:J:377:GLU:HG2	1.99	0.44
9:K:37:PRO:HB3	9:K:69:TYR:CE1	2.53	0.44
9:K:347:GLU:O	9:K:348:SER:OG	2.23	0.44
11:M:31:ILE:HB	11:M:33:LEU:HD12	1.99	0.44
12:N:131:LEU:HD23	12:N:131:LEU:HA	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:N:392:ASN:HD21	12:N:395:ASP:N	2.07	0.44
12:N:659:VAL:HG11	12:N:699:TRP:CH2	2.53	0.44
12:N:660:THR:OG1	12:N:663:GLN:HB2	2.18	0.44
12:N:696:MET:HG3	12:N:697:SER:N	2.32	0.44
13:O:423:ALA:O	13:O:426:THR:N	2.50	0.44
13:O:721:TYR:CE2	13:O:729:GLU:HB3	2.52	0.44
15:X:450:VAL:HB	15:X:481:LYS:NZ	2.32	0.44
15:X:460:LYS:H	15:X:460:LYS:NZ	2.16	0.44
15:Y:37:VAL:HG23	15:Y:38:ILE:HG12	2.00	0.44
15:Y:203:LEU:HD11	15:Y:236:LEU:HD11	1.99	0.44
15:Y:412:GLY:O	15:Y:415:GLU:HG3	2.17	0.44
15:Y:499:LEU:HA	15:Y:499:LEU:HD12	1.71	0.44
1:A:658:ASN:O	1:A:662:THR:HG23	2.17	0.44
1:A:830:PHE:HD1	1:A:830:PHE:HA	1.73	0.44
1:A:831:MET:HA	1:A:832:HIS:HA	1.38	0.44
1:A:1027:ILE:HG12	1:A:1654:PRO:O	2.17	0.44
1:A:1041:LEU:O	1:A:1080:LEU:HD13	2.18	0.44
1:A:1070:LEU:HG	1:A:1120:LEU:HD11	2.00	0.44
6:F:16:LEU:HD12	6:F:50:ARG:HD2	1.99	0.44
6:F:543:LEU:CD2	6:F:548:LYS:HD2	2.47	0.44
6:F:635:TYR:HA	6:F:638:TRP:HD1	1.82	0.44
8:I:188:TYR:OH	8:I:194:LYS:HE2	2.17	0.44
8:I:720:GLN:HB2	8:I:736:SER:OG	2.18	0.44
9:K:180:GLU:HA	9:K:183:GLU:HB2	1.98	0.44
9:K:307:CYS:HB2	7:W:2:LEU:HD11	2.00	0.44
12:N:681:LEU:O	12:N:685:VAL:N	2.51	0.44
13:O:147:SER:O	13:O:151:VAL:HG23	2.17	0.44
3:P:246:GLU:O	3:P:250:LYS:HG2	2.18	0.44
7:W:9:LEU:HD23	7:W:9:LEU:HA	1.83	0.44
15:Y:270:ASN:C	15:Y:274:LEU:HD13	2.43	0.44
1:A:598:GLU:HG2	1:A:604:MET:HG2	1.99	0.44
1:A:1090:PHE:CG	1:A:1149:PRO:HG3	2.52	0.44
1:A:1274:LEU:HD11	1:A:1321:VAL:HG23	2.00	0.44
1:A:1539:CYS:SG	1:A:1562:LEU:HB2	2.58	0.44
1:A:1618:LEU:HD12	1:A:1619:LEU:H	1.82	0.44
1:A:1711:ASP:OD1	1:A:1714:GLY:N	2.51	0.44
1:A:1838:LEU:HD13	1:A:1838:LEU:HA	1.83	0.44
2:B:11:VAL:HA	12:N:594:VAL:HG23	1.99	0.44
3:C:483:SER:O	3:C:486:ALA:HB3	2.18	0.44
6:F:42:PHE:HD1	6:F:71:CYS:HA	1.83	0.44
8:I:47:HIS:CD2	8:I:54:ARG:HA	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:732:CYS:SG	8:I:743:VAL:HB	2.58	0.44
9:J:47:LEU:HD13	9:J:56:ALA:N	2.32	0.44
9:K:262:PRO:HB2	9:K:263:PHE:CD2	2.52	0.44
9:K:332:THR:C	9:K:363:LEU:HD21	2.42	0.44
9:K:457:LYS:HA	9:K:457:LYS:HD3	1.73	0.44
9:K:495:PHE:CE1	9:K:525:MET:HG2	2.53	0.44
11:M:1:MET:H2	3:P:48:LEU:HD11	1.83	0.44
13:O:32:PRO:O	13:O:35:ILE:HG22	2.18	0.44
13:O:271:THR:O	13:O:275:LEU:HD13	2.18	0.44
13:O:379:LEU:HA	13:O:417:LEU:HD11	2.00	0.44
3:P:158:LEU:HD23	3:P:158:LEU:HA	1.70	0.44
3:P:381:THR:O	3:P:385:ILE:HG12	2.18	0.44
15:X:194:GLU:OE2	15:X:197:ARG:HD3	2.18	0.44
15:X:357:ARG:O	15:X:361:LEU:HG	2.17	0.44
15:Y:135:GLU:HG2	15:Y:139:LYS:HE3	1.99	0.44
15:Y:476:ILE:HG13	15:Y:477:LYS:N	2.31	0.44
1:A:1193:ILE:HG23	1:A:1208:LEU:HD21	1.99	0.43
1:A:1737:THR:O	1:A:1740:ALA:N	2.33	0.43
1:A:1925:VAL:O	1:A:1926:ARG:C	2.61	0.43
3:C:286:PHE:CB	3:C:303:PHE:HD1	2.29	0.43
6:F:543:LEU:HD22	6:F:548:LYS:HD2	2.00	0.43
6:H:468:GLU:O	6:H:471:LYS:HB2	2.19	0.43
6:H:567:PRO:O	6:H:571:CYS:HB3	2.17	0.43
8:I:495:ASN:CB	8:I:498:TYR:HD2	2.31	0.43
9:J:413:PHE:CD1	9:J:454:VAL:HG22	2.53	0.43
9:K:165:GLU:O	9:K:169:LEU:HG	2.17	0.43
9:K:426:LEU:HA	9:K:426:LEU:HD23	1.71	0.43
12:N:365:LEU:HD23	12:N:365:LEU:HA	1.64	0.43
12:N:544:LEU:O	12:N:548:ARG:HG2	2.18	0.43
13:O:27:LYS:HG2	13:O:210:LYS:HE3	1.99	0.43
15:X:40:HIS:CD2	15:Y:201:LEU:HD21	2.53	0.43
15:X:324:VAL:HG11	15:X:348:HIS:HB2	2.00	0.43
15:X:469:LEU:HG	15:X:478:ALA:HB1	2.00	0.43
15:Y:519:LEU:HD21	15:Y:527:GLU:HG2	2.00	0.43
1:A:614:THR:O	1:A:614:THR:HG22	2.18	0.43
1:A:1028:TRP:CH2	1:A:1566:PHE:CD1	3.06	0.43
1:A:1186:THR:OG1	1:A:1187:LYS:N	2.51	0.43
1:A:1222:MET:SD	3:C:514:ARG:NH2	2.91	0.43
3:C:124:LEU:HD23	3:C:124:LEU:HA	1.54	0.43
3:C:308:TYR:CD1	3:C:343:LEU:HG	2.53	0.43
3:C:462:VAL:O	3:C:462:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:475:LYS:HD3	3:C:475:LYS:HA	1.72	0.43
6:F:625:ARG:O	6:F:628:ILE:HB	2.18	0.43
6:H:43:LEU:O	6:H:46:THR:OG1	2.27	0.43
6:H:61:LEU:HB3	6:H:75:LEU:HD13	1.99	0.43
6:H:104:ASP:OD1	6:H:105:ASP:N	2.50	0.43
6:H:605:THR:HG21	6:H:636:ASN:HB3	1.98	0.43
8:I:118:VAL:C	8:I:119:THR:HG1	2.23	0.43
8:I:163:GLU:HA	8:I:166:LYS:HD2	2.00	0.43
8:I:279:ILE:CD1	8:I:337:ILE:HG23	2.48	0.43
9:J:9:ARG:HH11	9:K:162:TYR:HD2	1.65	0.43
9:J:372:LEU:HD12	9:J:391:PHE:CE1	2.52	0.43
10:L:125:THR:HA	10:L:126:ASP:CB	2.48	0.43
12:N:333:TYR:OH	12:N:363:TYR:HE1	2.01	0.43
12:N:435:VAL:O	12:N:439:VAL:HG23	2.18	0.43
12:N:538:GLU:O	12:N:542:VAL:HG23	2.19	0.43
13:O:293:GLU:HG2	13:O:295:GLY:N	2.31	0.43
13:O:492:HIS:O	13:O:496:ARG:HB2	2.18	0.43
13:O:585:LEU:HA	13:O:585:LEU:HD13	1.71	0.43
13:O:644:LEU:HD23	13:O:667:VAL:HG22	2.00	0.43
15:X:144:GLU:O	15:X:148:MET:HG2	2.18	0.43
15:Y:192:TYR:HB2	15:Y:209:LEU:HD21	2.00	0.43
15:Y:242:ALA:O	15:Y:246:VAL:HG23	2.17	0.43
15:Y:305:ILE:HG13	15:Y:306:LYS:N	2.33	0.43
16:S:498:MET:O	16:S:499:ARG:HG3	2.10	0.43
1:A:83:ILE:O	1:A:85:GLU:HG2	2.18	0.43
1:A:93:LEU:HD12	1:A:93:LEU:HA	1.88	0.43
1:A:244:MET:N	1:A:244:MET:SD	2.92	0.43
1:A:875:LEU:HD22	1:A:933:TRP:CZ2	2.53	0.43
1:A:942:ARG:HA	1:A:945:GLU:HG3	1.99	0.43
1:A:1074:CYS:HA	1:A:1077:THR:OG1	2.18	0.43
1:A:1303:GLY:HA3	1:A:1373:MET:HG3	2.01	0.43
1:A:1481:ASN:HA	14:T:7:LEU:CB	2.48	0.43
1:A:1562:LEU:O	1:A:1565:LEU:HB2	2.19	0.43
1:A:1749:SER:HA	1:A:1752:GLU:CG	2.46	0.43
1:A:1786:MET:HE2	1:A:1840:MET:HE3	2.00	0.43
3:C:251:TYR:HB3	3:C:269:ILE:HD11	1.98	0.43
4:D:20:LEU:HD12	4:D:20:LEU:HA	1.87	0.43
6:F:125:TYR:HB3	6:F:130:ARG:O	2.18	0.43
6:F:543:LEU:HD22	6:F:548:LYS:HB3	1.99	0.43
6:H:8:VAL:HG23	6:H:31:LEU:HD21	1.99	0.43
6:H:79:CYS:SG	6:H:87:GLU:HG3	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:628:ILE:HD13	6:H:628:ILE:HA	1.86	0.43
8:I:372:TRP:CH2	13:O:667:VAL:HG11	2.53	0.43
9:J:213:ASN:N	9:J:213:ASN:OD1	2.50	0.43
9:J:405:MET:HE1	9:J:431:LYS:HG3	2.01	0.43
9:K:243:TYR:OH	9:K:367:CYS:SG	2.59	0.43
9:K:393:GLN:HG3	9:K:394:ALA:N	2.32	0.43
11:M:34:ASN:O	11:M:49:SER:HB2	2.19	0.43
12:N:121:ARG:HB3	12:N:122:LEU:HD23	2.00	0.43
12:N:173:ILE:HD11	12:N:177:TYR:CE2	2.53	0.43
12:N:355:ARG:O	12:N:358:ILE:HG12	2.18	0.43
13:O:36:ALA:HA	13:O:39:VAL:HG12	2.00	0.43
13:O:267:VAL:O	13:O:271:THR:HG22	2.18	0.43
13:O:283:LEU:O	13:O:283:LEU:HD23	2.18	0.43
3:P:313:LYS:HG2	3:P:343:LEU:HD21	1.99	0.43
15:Y:72:SER:O	15:Y:76:LYS:HG3	2.18	0.43
15:Y:187:PRO:O	15:Y:190:THR:HG22	2.18	0.43
15:Y:338:HIS:HB3	15:Y:340:GLU:OE1	2.18	0.43
15:Y:435:LYS:HD2	15:Y:435:LYS:HA	1.70	0.43
15:Y:513:ARG:HH12	15:Y:514:ILE:HD13	1.83	0.43
1:A:120:ASP:C	1:A:120:ASP:OD1	2.61	0.43
1:A:432:ILE:C	1:A:433:THR:HG1	2.25	0.43
1:A:774:LYS:HD3	1:A:845:TYR:CZ	2.52	0.43
1:A:844:ILE:O	1:A:848:VAL:HG22	2.19	0.43
1:A:1019:MET:HE3	1:A:1019:MET:HB3	1.59	0.43
1:A:1031:ASP:OD2	1:A:1032:LEU:N	2.51	0.43
1:A:1090:PHE:HB2	1:A:1572:TYR:CE2	2.53	0.43
2:B:34:CYS:SG	2:B:58:HIS:HB2	2.58	0.43
3:C:290:ARG:HH22	3:C:322:ASN:ND2	2.17	0.43
4:D:11:ARG:NE	4:D:14:GLU:OE2	2.42	0.43
6:H:112:ASP:C	6:H:114:ALA:H	2.26	0.43
8:I:301:GLN:NE2	8:I:457:ASN:HB2	2.33	0.43
8:I:593:ASP:C	8:I:595:LEU:H	2.27	0.43
8:I:732:CYS:HA	8:I:743:VAL:HA	2.00	0.43
9:J:21:SER:OG	9:K:165:GLU:HG3	2.18	0.43
9:J:209:LEU:HD23	9:J:209:LEU:HA	1.72	0.43
9:J:232:ASP:HB2	9:K:28:LYS:HZ1	1.82	0.43
9:J:249:MET:HE3	9:J:249:MET:HB3	1.76	0.43
9:J:402:PRO:HB2	9:J:444:TRP:CZ2	2.53	0.43
9:K:268:LEU:HD13	9:K:291:LEU:HD21	2.00	0.43
11:M:63:GLN:HA	11:M:66:HIS:O	2.18	0.43
13:O:141:LEU:HD12	13:O:141:LEU:HA	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:O:281:LEU:HD12	13:O:282:ILE:N	2.34	0.43
13:O:528:ALA:O	13:O:531:LEU:N	2.51	0.43
13:O:648:ILE:HG13	13:O:651:ILE:HD12	2.00	0.43
3:P:377:GLU:O	3:P:379:LYS:HD2	2.19	0.43
15:X:506:GLN:HE22	15:X:512:HIS:CE1	2.36	0.43
15:Y:71:PHE:HB3	15:Y:75:GLN:OE1	2.18	0.43
15:Y:102:MET:HE2	15:Y:102:MET:HB3	1.72	0.43
15:Y:219:VAL:O	15:Y:223:THR:HG23	2.19	0.43
1:A:18:GLN:OE1	1:A:18:GLN:N	2.51	0.43
1:A:258:THR:HB	1:A:267:SER:OG	2.17	0.43
1:A:436:LEU:HB3	1:A:638:LEU:HD23	2.00	0.43
1:A:644:VAL:HG12	1:A:659:LEU:HD11	2.01	0.43
1:A:1371:LEU:HD23	1:A:1371:LEU:HA	1.83	0.43
1:A:1759:VAL:C	1:A:1761:MET:H	2.26	0.43
8:I:118:VAL:HA	8:I:212:SER:O	2.18	0.43
8:I:353:GLN:O	8:I:354:SER:C	2.60	0.43
9:J:129:LYS:O	9:J:132:ILE:HG22	2.18	0.43
10:L:30:VAL:HG22	10:L:31:TRP:H	1.83	0.43
10:L:76:THR:HA	10:L:124:LEU:HG	2.00	0.43
12:N:289:PHE:C	12:N:291:LYS:H	2.27	0.43
13:O:225:ASN:HB3	13:O:461:ASN:OD1	2.19	0.43
13:O:605:LEU:HD23	13:O:605:LEU:HA	1.79	0.43
3:P:151:LEU:HD23	3:P:151:LEU:HA	1.78	0.43
15:X:203:LEU:HA	15:X:206:ILE:CD1	2.47	0.43
15:X:251:ASN:O	15:X:255:ILE:HG12	2.18	0.43
15:X:253:ARG:C	15:X:256:SER:HG	2.18	0.43
15:Y:264:LYS:HB2	15:Y:267:LEU:HB2	2.00	0.43
15:Y:512:HIS:HB2	15:Y:535:ALA:HB2	2.00	0.43
1:A:11:MET:HB3	1:A:12:ILE:H	1.58	0.43
1:A:81:SER:OG	1:A:87:VAL:HG22	2.18	0.43
1:A:226:LYS:HD2	1:A:236:VAL:CG1	2.48	0.43
1:A:1014:ASP:OD1	1:A:1014:ASP:C	2.61	0.43
1:A:1088:THR:HG23	1:A:1088:THR:O	2.18	0.43
1:A:1302:LEU:O	1:A:1305:VAL:N	2.50	0.43
1:A:1665:GLN:HB2	1:A:1678:ILE:HA	2.00	0.43
2:B:13:THR:OG1	12:N:636:SER:HB2	2.19	0.43
3:C:236:HIS:O	3:C:239:THR:OG1	2.34	0.43
3:C:326:ILE:HG22	3:C:327:ASP:CG	2.43	0.43
3:C:415:PRO:O	3:C:416:PHE:C	2.60	0.43
4:D:20:LEU:HD13	13:O:252:GLU:HG2	2.00	0.43
6:H:96:VAL:HG12	9:K:470:GLN:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:454:GLU:HG2	8:I:473:GLU:HA	1.99	0.43
9:J:285:PHE:C	9:J:285:PHE:CD2	2.97	0.43
9:J:511:ASP:OD1	9:J:512:ASP:N	2.52	0.43
9:K:334:GLY:HA3	9:K:364:MET:SD	2.59	0.43
12:N:277:CYS:SG	12:N:339:LEU:HD13	2.58	0.43
13:O:688:GLU:O	13:O:691:ILE:HG22	2.18	0.43
3:P:122:ARG:NH2	3:P:153:GLU:HG2	2.34	0.43
3:P:267:SER:OG	3:P:268:GLN:N	2.52	0.43
15:X:165:ARG:HE	15:X:166:GLN:NE2	2.16	0.43
15:X:325:GLU:OE2	15:X:348:HIS:NE2	2.49	0.43
15:X:450:VAL:HG23	15:X:481:LYS:HD3	1.99	0.43
1:A:980:ARG:CD	1:A:1674:TRP:HE1	2.32	0.43
3:C:316:LEU:HD23	3:C:340:TYR:HA	2.00	0.43
3:C:343:LEU:HD23	3:C:343:LEU:HA	1.69	0.43
3:C:409:TYR:CE2	3:C:417:TYR:CE2	3.07	0.43
6:F:14:GLN:HG2	6:F:18:HIS:CE1	2.53	0.43
6:F:94:GLY:O	6:F:101:LYS:HG3	2.18	0.43
6:F:506:GLY:HA3	6:F:522:PHE:CZ	2.54	0.43
6:F:526:ARG:NH2	6:F:558:ASP:OD2	2.52	0.43
6:H:8:VAL:O	6:H:12:ILE:HG12	2.19	0.43
6:H:543:LEU:HA	6:H:543:LEU:HD12	1.60	0.43
8:I:206:LEU:HD13	8:I:222:GLU:CD	2.44	0.43
8:I:728:ARG:HD2	8:I:728:ARG:HA	1.66	0.43
12:N:82:ASP:OD2	12:N:83:LEU:N	2.51	0.43
12:N:551:GLU:HG3	12:N:554:MET:HG3	2.01	0.43
13:O:618:TYR:CD2	13:O:618:TYR:C	2.97	0.43
3:P:170:PHE:O	3:P:173:TYR:HB3	2.19	0.43
3:P:381:THR:HG23	3:P:382:SER:N	2.33	0.43
15:X:95:ASN:O	15:X:99:LYS:HG2	2.18	0.43
15:Y:486:LEU:HD12	15:Y:491:LYS:HB2	2.00	0.43
15:Y:519:LEU:HA	15:Y:522:VAL:HG23	2.01	0.43
1:A:247:VAL:HG22	1:A:257:MET:O	2.19	0.43
1:A:259:TYR:OH	1:A:261:ALA:HA	2.19	0.43
1:A:982:ASP:C	1:A:982:ASP:OD2	2.61	0.43
1:A:1540:ARG:HD3	12:N:480:TRP:CZ2	2.54	0.43
3:C:60:PHE:HB2	3:P:89:LEU:HD23	2.01	0.43
3:C:234:LEU:HA	3:C:234:LEU:HD12	1.80	0.43
6:F:589:PHE:O	6:F:592:ARG:HB3	2.19	0.43
6:F:594:ILE:HD13	6:F:594:ILE:HA	1.88	0.43
6:H:85:LEU:O	6:H:86:ALA:C	2.61	0.43
6:H:469:MET:HG2	6:H:500:TRP:CZ3	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:761:SER:O	6:H:765:ASP:CB	2.65	0.43
8:I:371:SER:O	8:I:373:LYS:N	2.52	0.43
8:I:676:ASN:HB3	8:I:703:ARG:HH22	1.84	0.43
9:J:207:ASN:OD1	9:J:208:LYS:HG2	2.18	0.43
9:J:350:HIS:O	9:J:354:MET:HG2	2.18	0.43
9:J:520:GLY:O	9:J:523:ILE:HG22	2.19	0.43
11:M:9:GLY:HA3	3:P:329:TYR:CD1	2.54	0.43
12:N:546:LYS:HA	12:N:549:PHE:O	2.19	0.43
12:N:550:GLY:HA2	12:N:551:GLU:HA	1.66	0.43
13:O:464:GLU:O	13:O:468:VAL:HG13	2.18	0.43
15:X:40:HIS:CD2	15:Y:201:LEU:HD11	2.54	0.43
15:X:452:LEU:HD21	15:X:460:LYS:HE2	2.01	0.43
15:Y:87:LEU:HD22	15:Y:92:GLU:OE1	2.19	0.43
15:Y:445:THR:HG22	15:Y:464:LEU:HD12	2.01	0.43
1:A:771:GLU:HG2	1:A:860:TYR:OH	2.19	0.43
1:A:968:SER:OG	1:A:969:ASP:N	2.51	0.43
1:A:1046:PRO:CD	1:A:1106:ASN:HD21	2.31	0.43
1:A:1321:VAL:HG13	1:A:1322:PRO:HD3	2.01	0.43
1:A:1534:LYS:HA	1:A:1537:GLN:HE21	1.83	0.43
1:A:1661:HIS:CE1	1:A:1662:LEU:HD23	2.54	0.43
3:C:250:LYS:HD2	3:C:250:LYS:HA	1.75	0.43
3:C:303:PHE:CE2	3:C:307:LEU:HD12	2.54	0.43
3:C:428:LEU:HA	3:C:428:LEU:HD23	1.58	0.43
6:F:594:ILE:HD12	6:F:604:TYR:CZ	2.54	0.43
6:H:613:LEU:HA	6:H:613:LEU:HD12	1.80	0.43
8:I:620:PHE:HB3	8:I:623:PHE:CZ	2.54	0.43
8:I:634:SER:OG	8:I:635:ILE:N	2.51	0.43
9:J:244:ASN:HD22	9:J:435:ILE:HD13	1.83	0.43
9:K:47:LEU:HB3	9:K:56:ALA:HB2	2.00	0.43
12:N:712:THR:O	12:N:712:THR:OG1	2.28	0.43
13:O:527:LEU:O	13:O:530:SER:OG	2.19	0.43
13:O:652:LEU:HA	13:O:660:LYS:HD3	2.00	0.43
3:P:203:TRP:CZ2	3:P:207:LEU:HB2	2.53	0.43
15:Y:305:ILE:HG13	15:Y:306:LYS:H	1.84	0.43
1:A:590:PRO:HA	1:A:595:VAL:HG23	2.01	0.43
1:A:1542:LEU:HD13	1:A:1558:HIS:CE1	2.54	0.43
1:A:1814:ILE:O	1:A:1817:VAL:N	2.52	0.43
3:C:187:GLU:O	3:C:191:VAL:HG23	2.19	0.43
3:C:210:CYS:HA	3:C:237:ILE:CD1	2.47	0.43
3:C:295:TYR:HD2	3:P:101:ARG:HA	1.84	0.43
3:C:305:ASN:O	3:C:308:TYR:N	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:556:LEU:HD23	3:C:556:LEU:HA	1.90	0.43
6:F:513:SER:O	6:F:515:TYR:N	2.51	0.43
6:H:679:GLN:OE1	6:H:688:ALA:N	2.52	0.43
6:H:740:TYR:CE2	6:H:762:TRP:HE3	2.37	0.43
6:H:747:TYR:HD1	6:H:750:LEU:HD12	1.83	0.43
8:I:189:ALA:HB2	8:I:195:ILE:HB	2.01	0.43
8:I:238:THR:HA	8:I:548:MET:SD	2.59	0.43
8:I:311:GLY:HA3	13:O:127:HIS:HB3	2.00	0.43
8:I:636:TYR:CD1	8:I:655:ASP:HA	2.54	0.43
9:J:190:LEU:HB3	9:J:198:GLN:NE2	2.34	0.43
9:K:452:GLY:C	9:K:468:HIS:HE1	2.27	0.43
12:N:362:LYS:HE3	12:N:362:LYS:HB3	1.74	0.43
12:N:563:ASP:HB2	12:N:564:MET:HE2	2.01	0.43
13:O:115:LEU:O	13:O:118:SER:HB3	2.19	0.43
13:O:221:SER:O	13:O:225:ASN:HB2	2.19	0.43
13:O:506:LEU:H	13:O:506:LEU:HG	1.40	0.43
13:O:648:ILE:HA	13:O:651:ILE:HD12	2.01	0.43
13:O:724:LEU:HD23	13:O:724:LEU:HA	1.69	0.43
15:X:369:ASN:HB3	15:X:371:ASN:OD1	2.19	0.43
15:Y:53:VAL:HG23	15:Y:86:SER:HB3	2.00	0.43
15:Y:97:VAL:HG13	15:Y:142:MET:HE1	2.01	0.43
15:Y:167:ARG:HB3	15:Y:172:ASN:OD1	2.19	0.43
1:A:459:GLU:CB	1:A:466:LEU:HD23	2.46	0.42
1:A:768:LEU:HD11	1:A:861:PRO:HG2	2.01	0.42
1:A:971:PRO:HG2	1:A:974:VAL:HG23	2.01	0.42
1:A:1360:VAL:HG23	1:A:1403:PHE:HE2	1.84	0.42
3:C:99:TYR:HB3	3:C:121:SER:OG	2.19	0.42
3:C:307:LEU:HD21	3:C:312:MET:O	2.19	0.42
6:F:88:GLY:O	6:F:91:ILE:HB	2.19	0.42
6:F:581:ARG:HA	6:F:583:HIS:NE2	2.33	0.42
6:F:597:ASP:OD1	6:F:599:ASN:N	2.46	0.42
6:H:696:ILE:HD11	6:H:706:LYS:HA	2.01	0.42
6:H:736:GLU:HG2	10:L:177:PHE:CG	2.55	0.42
8:I:387:GLU:O	8:I:391:THR:HG23	2.18	0.42
9:J:185:LEU:HA	9:J:185:LEU:HD23	1.80	0.42
9:J:413:PHE:CE1	9:J:454:VAL:HG22	2.54	0.42
9:K:244:ASN:HB3	9:K:246:ASP:CG	2.44	0.42
12:N:179:CYS:O	12:N:183:VAL:HG22	2.19	0.42
13:O:41:LEU:HD11	13:O:132:VAL:HG11	2.01	0.42
13:O:135:PHE:O	13:O:138:HIS:HB2	2.18	0.42
13:O:644:LEU:HD12	13:O:644:LEU:HA	1.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:368:TRP:HE3	3:P:387:ALA:HA	1.84	0.42
15:X:54:ARG:HD2	15:X:55:LEU:N	2.34	0.42
15:Y:421:ASN:ND2	15:Y:421:ASN:O	2.52	0.42
1:A:802:TYR:O	1:A:805:HIS:HB3	2.19	0.42
1:A:1037:VAL:O	1:A:1040:LEU:N	2.52	0.42
1:A:1086:MET:HG3	1:A:1610:TYR:CZ	2.54	0.42
1:A:1886:ALA:O	1:A:1890:VAL:HG12	2.19	0.42
3:C:356:ARG:O	3:C:359:LYS:HB3	2.19	0.42
3:C:375:TYR:HD1	3:C:378:MET:SD	2.42	0.42
3:C:543:ARG:C	3:C:545:GLU:H	2.27	0.42
6:F:76:ALA:O	6:F:80:VAL:HG22	2.19	0.42
6:H:62:LYS:O	6:H:62:LYS:HG2	2.19	0.42
6:H:744:GLY:HA2	6:H:759:ASN:HD22	1.83	0.42
8:I:540:PRO:O	8:I:544:ILE:HG13	2.19	0.42
8:I:590:ILE:HD11	8:I:599:CYS:SG	2.59	0.42
9:K:235:VAL:O	9:K:239:GLU:HG3	2.19	0.42
9:K:242:TYR:HB2	9:K:250:CYS:SG	2.59	0.42
12:N:247:LEU:O	12:N:251:SER:N	2.51	0.42
13:O:532:VAL:O	13:O:536:THR:HG22	2.18	0.42
13:O:544:VAL:HG22	13:O:567:LEU:HD12	2.01	0.42
15:Y:37:VAL:HG23	15:Y:38:ILE:N	2.34	0.42
15:Y:413:LEU:HG	15:Y:417:TYR:HE2	1.84	0.42
1:A:1176:LEU:HD22	1:A:1176:LEU:HA	1.79	0.42
1:A:1596:SER:O	1:A:1597:THR:HG22	2.19	0.42
1:A:1674:TRP:O	1:A:1674:TRP:CD1	2.72	0.42
2:B:12:ALA:O	12:N:595:ILE:HA	2.19	0.42
6:F:127:LYS:HD3	6:F:127:LYS:HA	1.80	0.42
6:F:486:ASN:O	6:F:489:SER:OG	2.24	0.42
7:G:23:ARG:HA	7:G:24:LYS:HA	1.68	0.42
8:I:215:LYS:HE3	8:I:215:LYS:HB3	1.82	0.42
8:I:308:LEU:HD23	8:I:308:LEU:HA	1.89	0.42
8:I:309:LEU:HD23	13:O:64:LEU:HD22	2.01	0.42
8:I:505:SER:OG	8:I:507:LEU:N	2.40	0.42
9:K:309:TYR:HD1	9:K:309:TYR:HA	1.61	0.42
12:N:250:LEU:O	12:N:251:SER:OG	2.31	0.42
12:N:758:ILE:O	12:N:762:LEU:HG	2.19	0.42
12:N:766:GLU:OE2	12:N:816:ARG:HG2	2.19	0.42
13:O:86:CYS:SG	13:O:89:LEU:N	2.87	0.42
13:O:299:SER:O	13:O:300:LEU:C	2.62	0.42
13:O:463:THR:O	13:O:464:GLU:C	2.62	0.42
15:X:57:SER:CB	15:X:83:HIS:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:331:LEU:HA	15:Y:331:LEU:HD13	1.79	0.42
15:Y:475:TYR:HB3	15:Y:478:ALA:HB3	2.00	0.42
1:A:80:VAL:N	1:A:87:VAL:HG11	2.34	0.42
1:A:223:LEU:HD12	1:A:223:LEU:HA	1.77	0.42
1:A:661:VAL:HG23	1:A:789:LEU:HD12	2.02	0.42
1:A:827:GLN:HE21	1:A:829:GLY:N	2.15	0.42
1:A:1300:LEU:HA	1:A:1300:LEU:HD12	1.71	0.42
1:A:1455:GLU:N	1:A:1458:SER:H	2.02	0.42
1:A:1856:LEU:O	1:A:1860:LEU:HG	2.19	0.42
7:G:6:PRO:HB2	9:J:446:PRO:HG2	2.01	0.42
6:H:93:SER:HB2	6:H:121:LEU:HD11	2.01	0.42
8:I:225:THR:HG23	8:I:228:ALA:H	1.85	0.42
8:I:560:THR:O	8:I:563:GLU:N	2.52	0.42
9:J:185:LEU:HD21	9:J:205:PHE:HB3	2.01	0.42
9:J:253:LEU:HD23	9:J:253:LEU:HA	1.77	0.42
9:J:488:ILE:HG23	9:J:492:MET:HE2	2.01	0.42
9:K:509:ARG:HG3	9:K:512:ASP:HB2	2.01	0.42
10:L:71:LYS:HG2	10:L:133:ARG:HG2	2.00	0.42
12:N:287:ARG:HD3	12:N:287:ARG:HA	1.85	0.42
12:N:433:ASP:O	12:N:435:VAL:HG12	2.19	0.42
12:N:560:MET:CE	12:N:600:PHE:HB3	2.49	0.42
13:O:435:SER:H	13:O:654:ASP:CG	2.16	0.42
13:O:542:GLU:OE2	13:O:546:ARG:NH2	2.52	0.42
3:P:150:ALA:O	3:P:154:LEU:HD12	2.20	0.42
7:W:12:LYS:O	7:W:14:ASP:N	2.53	0.42
15:X:410:TYR:HD1	15:X:429:MET:HE2	1.84	0.42
15:X:420:SER:HG	15:X:422:SER:HG	1.58	0.42
15:Y:143:ALA:CB	15:Y:159:LEU:HD11	2.50	0.42
15:Y:315:LEU:HD11	15:Y:320:ARG:HB2	2.01	0.42
15:Y:331:LEU:HD12	15:Y:341:PRO:HG3	2.01	0.42
15:Y:459:GLU:O	15:Y:463:THR:HG23	2.18	0.42
1:A:625:ILE:HG22	1:A:637:MET:HE1	2.02	0.42
1:A:1515:CYS:O	1:A:1519:VAL:HG12	2.20	0.42
1:A:1608:HIS:O	1:A:1610:TYR:N	2.53	0.42
3:C:286:PHE:CG	3:C:303:PHE:HD1	2.37	0.42
3:C:544:GLU:HA	3:C:547:LYS:HB2	2.00	0.42
5:E:94:TRP:HH2	6:F:596:VAL:HG22	1.85	0.42
6:F:55:TYR:OH	6:H:563:ASP:OD1	2.36	0.42
8:I:125:LEU:HB3	8:I:129:TYR:OH	2.20	0.42
8:I:272:MET:HE3	8:I:272:MET:HB3	1.56	0.42
8:I:309:LEU:O	8:I:310:TRP:CG	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:I:590:ILE:N	8:I:597:LYS:O	2.36	0.42
9:J:19:TYR:CZ	9:J:49:LEU:HD23	2.55	0.42
9:J:358:PHE:O	9:J:362:GLN:HG2	2.20	0.42
9:J:397:ILE:O	9:J:398:ALA:C	2.63	0.42
9:J:514:PHE:CE1	9:J:518:MET:HB2	2.54	0.42
12:N:667:LEU:HA	12:N:670:PHE:HD2	1.85	0.42
13:O:105:LEU:HD23	3:P:340:TYR:OH	2.19	0.42
13:O:753:ASN:C	13:O:755:LEU:H	2.26	0.42
3:P:52:SER:OG	3:P:53:LYS:N	2.52	0.42
3:P:241:LEU:HD23	3:P:241:LEU:HA	1.75	0.42
15:X:325:GLU:HG2	15:X:348:HIS:CD2	2.55	0.42
15:Y:84:ALA:O	15:Y:87:LEU:HB2	2.19	0.42
1:A:166:GLY:HA2	13:O:316:HIS:ND1	2.34	0.42
1:A:1716:GLN:H	1:A:1716:GLN:CD	2.28	0.42
3:C:263:SER:HA	3:C:292:GLN:HE22	1.83	0.42
6:F:540:SER:OG	6:F:552:LEU:HD11	2.19	0.42
7:G:11:LEU:HD22	7:G:15:ASP:OD2	2.20	0.42
6:H:85:LEU:HD23	6:H:85:LEU:HA	1.81	0.42
8:I:309:LEU:HG	13:O:131:VAL:HG21	2.00	0.42
8:I:399:LYS:HD3	8:I:399:LYS:HA	1.66	0.42
8:I:604:HIS:CE1	8:I:606:ASP:HB3	2.54	0.42
12:N:247:LEU:HD22	12:N:253:LEU:HA	2.01	0.42
12:N:811:SER:C	12:N:816:ARG:HH21	2.27	0.42
13:O:222:LEU:HD22	13:O:226:ASP:HB3	2.01	0.42
3:P:65:LEU:HG	3:P:66:PRO:CD	2.50	0.42
3:P:418:CYS:HG	3:P:422:TYR:HE2	1.63	0.42
15:X:525:TYR:O	15:X:529:MET:HG2	2.19	0.42
15:Y:447:LEU:HD12	15:Y:448:ALA:N	2.35	0.42
15:Y:465:LEU:CD2	15:Y:482:LYS:HB2	2.48	0.42
15:Y:525:TYR:HD1	15:Y:525:TYR:HA	1.72	0.42
1:A:25:ARG:HH22	1:A:604:MET:CE	2.33	0.42
1:A:99:MET:HE3	1:A:99:MET:HB2	1.78	0.42
1:A:942:ARG:HA	1:A:945:GLU:OE2	2.20	0.42
1:A:1110:ARG:HD3	1:A:1110:ARG:HA	1.64	0.42
1:A:1738:ILE:HD11	1:A:1779:VAL:HG11	2.02	0.42
3:C:279:ILE:HG21	3:C:310:ARG:HG3	2.01	0.42
6:F:516:MET:O	6:F:519:GLU:HG3	2.20	0.42
6:H:580:GLN:HB2	6:H:582:GLU:OE1	2.19	0.42
8:I:361:TYR:CD1	8:I:361:TYR:C	2.97	0.42
8:I:418:PHE:HD1	8:I:418:PHE:HA	1.59	0.42
9:J:69:TYR:C	9:J:71:ALA:H	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:M:34:ASN:ND2	11:M:51:LYS:HE2	2.29	0.42
12:N:553:PRO:HB2	12:N:554:MET:CE	2.46	0.42
12:N:610:GLU:OE1	12:N:610:GLU:N	2.53	0.42
13:O:423:ALA:O	13:O:424:GLN:C	2.61	0.42
13:O:470:LEU:HD23	13:O:470:LEU:HA	1.76	0.42
13:O:485:ALA:O	13:O:489:VAL:HG23	2.19	0.42
15:X:437:LEU:HD22	15:X:444:LEU:HD21	2.02	0.42
15:X:449:THR:OG1	15:X:450:VAL:N	2.52	0.42
15:Y:271:VAL:O	15:Y:274:LEU:HB2	2.19	0.42
15:Y:304:LEU:HD21	15:Y:307:GLY:H	1.83	0.42
15:Y:446:LEU:HD22	15:Y:477:LYS:HE3	2.01	0.42
1:A:185:TYR:CE1	1:A:273:ARG:HD3	2.54	0.42
1:A:599:LEU:HB2	1:A:603:SER:O	2.19	0.42
1:A:799:LEU:C	1:A:801:PRO:HD2	2.44	0.42
1:A:960:TYR:O	1:A:964:GLU:HG2	2.20	0.42
1:A:1406:LEU:O	1:A:1409:LEU:HB3	2.19	0.42
1:A:1428:SER:HA	1:A:1435:ARG:HH21	1.84	0.42
1:A:1691:LEU:HA	1:A:1691:LEU:HD23	1.81	0.42
2:B:23:CYS:O	2:B:27:ARG:HA	2.19	0.42
3:C:79:GLU:HB3	3:C:111:SER:HB3	2.02	0.42
3:C:409:TYR:HD1	3:C:409:TYR:HA	1.60	0.42
5:E:69:GLN:HB3	15:Y:357:ARG:HH21	1.85	0.42
6:F:87:GLU:OE2	6:F:87:GLU:N	2.47	0.42
6:F:522:PHE:O	6:F:525:VAL:HG12	2.19	0.42
6:H:142:LEU:O	6:H:146:PRO:HB3	2.19	0.42
6:H:464:SER:HA	6:H:467:ARG:CZ	2.49	0.42
6:H:590:PHE:HB3	6:H:607:LEU:HB2	2.02	0.42
8:I:185:ILE:O	8:I:197:ARG:HA	2.19	0.42
8:I:506:HIS:H	13:O:488:GLU:CD	2.26	0.42
8:I:572:PHE:CE1	8:I:588:PHE:HA	2.54	0.42
9:J:19:TYR:OH	9:J:49:LEU:HD23	2.19	0.42
9:J:37:PRO:HB3	9:J:69:TYR:CE2	2.54	0.42
9:J:340:TYR:CZ	9:J:344:PHE:HE2	2.38	0.42
9:K:177:THR:C	9:K:179:GLN:H	2.28	0.42
10:L:37:LYS:HD2	10:L:37:LYS:HA	1.88	0.42
12:N:567:SER:HB2	12:N:595:ILE:O	2.20	0.42
12:N:705:LEU:HB2	12:N:714:SER:O	2.19	0.42
12:N:769:SER:O	12:N:773:ILE:HG13	2.20	0.42
13:O:307:LEU:HD12	13:O:307:LEU:HA	1.60	0.42
13:O:525:TYR:CE1	13:O:553:ALA:HB1	2.55	0.42
3:P:168:ASP:O	3:P:171:GLY:N	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:330:ARG:O	15:X:334:ILE:HG12	2.20	0.42
15:Y:315:LEU:HG	15:Y:324:VAL:HG22	2.02	0.42
15:Y:394:ILE:HG22	15:Y:397:ARG:HH22	1.84	0.42
15:Y:445:THR:O	15:Y:449:THR:HG23	2.19	0.42
15:Y:509:CYS:SG	15:Y:510:VAL:HG23	2.59	0.42
1:A:128:TRP:O	1:A:182:PRO:HB3	2.20	0.42
1:A:250:ASN:OD1	1:A:253:PRO:HD2	2.20	0.42
1:A:755:LEU:HD23	1:A:755:LEU:HA	1.88	0.42
1:A:1268:HIS:HD1	3:C:545:GLU:HG2	1.85	0.42
1:A:1420:LEU:HA	1:A:1420:LEU:HD23	1.82	0.42
1:A:1540:ARG:HD3	12:N:480:TRP:NE1	2.35	0.42
1:A:1730:ALA:HB2	1:A:1776:TYR:CD2	2.55	0.42
1:A:1735:PRO:O	1:A:1737:THR:N	2.53	0.42
3:C:179:LEU:HD23	3:C:179:LEU:HA	1.65	0.42
5:E:85:LEU:HA	5:E:88:GLU:HG3	2.01	0.42
6:F:133:LYS:HE2	6:F:133:LYS:HB3	1.77	0.42
6:H:45:ALA:HB2	6:H:61:LEU:HD23	2.01	0.42
6:H:158:ILE:HG22	6:H:159:GLY:H	1.85	0.42
6:H:738:LEU:HD12	6:H:738:LEU:HA	1.87	0.42
8:I:7:CYS:O	8:I:753:GLU:HG3	2.20	0.42
8:I:141:LYS:O	8:I:143:PRO:HD3	2.19	0.42
8:I:572:PHE:HZ	8:I:589:THR:H	1.68	0.42
9:J:60:LEU:HD23	9:J:60:LEU:HA	1.81	0.42
9:J:263:PHE:CZ	9:J:290:LYS:HE3	2.55	0.42
9:J:284:LEU:HA	9:J:284:LEU:HD12	1.80	0.42
9:K:332:THR:O	9:K:363:LEU:HD21	2.19	0.42
9:K:449:ASN:HD22	7:W:8:ARG:NE	2.17	0.42
13:O:523:GLY:O	13:O:525:TYR:N	2.53	0.42
3:P:251:TYR:CZ	3:P:268:GLN:HG2	2.54	0.42
15:Y:193:LYS:HE2	15:Y:193:LYS:HB2	1.83	0.42
1:A:24:GLY:O	1:A:28:CYS:HB2	2.20	0.42
1:A:1574:LEU:H	1:A:1574:LEU:CD2	2.30	0.42
1:A:1596:SER:C	1:A:1598:ASP:H	2.28	0.42
1:A:1666:ILE:O	1:A:1677:LEU:HB3	2.20	0.42
1:A:1776:TYR:O	1:A:1780:THR:HG23	2.19	0.42
3:C:248:LEU:HA	3:C:248:LEU:HD23	1.66	0.42
6:F:101:LYS:HB2	6:F:101:LYS:HE3	1.89	0.42
6:H:172:SER:HA	6:H:456:LYS:HE3	2.02	0.42
8:I:120:VAL:HG22	8:I:122:SER:H	1.85	0.42
8:I:676:ASN:CB	8:I:703:ARG:HH12	2.33	0.42
9:J:192:LYS:HD2	9:J:192:LYS:N	2.30	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:J:212:TYR:HB3	9:J:243:TYR:CD1	2.55	0.42
9:J:334:GLY:N	9:J:335:PRO:HD2	2.35	0.42
10:L:33:LEU:HD21	10:L:64:VAL:HG13	2.01	0.42
10:L:126:ASP:N	10:L:132:THR:OG1	2.53	0.42
12:N:253:LEU:O	12:N:257:SER:OG	2.37	0.42
12:N:356:PRO:HA	12:N:359:GLU:HG2	2.02	0.42
12:N:689:VAL:O	12:N:692:LEU:HB3	2.20	0.42
13:O:415:SER:O	13:O:416:GLU:C	2.62	0.42
15:X:253:ARG:O	15:X:256:SER:OG	2.16	0.42
15:X:286:ASP:CG	15:X:289:ASN:HD22	2.27	0.42
15:X:309:ASP:OD1	15:X:340:GLU:HA	2.20	0.42
15:X:467:LYS:HB3	15:X:471:GLN:NE2	2.34	0.42
15:Y:425:GLU:HG2	15:Y:429:MET:HE2	2.01	0.42
15:Y:474:ASP:OD2	15:Y:505:ASN:HB2	2.20	0.42
15:Y:543:GLN:O	15:Y:547:GLU:HG2	2.20	0.42
1:A:141:ALA:O	1:A:142:TYR:C	2.62	0.41
1:A:1070:LEU:HA	1:A:1070:LEU:HD12	1.75	0.41
1:A:1161:ASN:O	1:A:1162:LYS:C	2.63	0.41
1:A:1329:MET:CE	1:A:1371:LEU:HD12	2.49	0.41
1:A:1455:GLU:HB2	1:A:1458:SER:HB2	2.02	0.41
1:A:1785:GLU:H	1:A:1785:GLU:CD	2.26	0.41
1:A:1880:SER:OG	1:A:1881:GLN:OE1	2.28	0.41
2:B:15:LEU:CD1	12:N:626:TYR:HE2	2.33	0.41
2:B:16:TRP:O	2:B:31:ASN:HB3	2.20	0.41
3:C:414:MET:HE3	3:C:414:MET:HB2	1.76	0.41
3:C:532:CYS:SG	3:C:533:ALA:N	2.93	0.41
6:F:43:LEU:HD23	6:F:43:LEU:HA	1.75	0.41
6:F:509:TYR:O	6:F:512:LEU:N	2.52	0.41
6:H:729:LEU:O	6:H:733:VAL:N	2.44	0.41
8:I:251:MET:O	8:I:252:ALA:C	2.62	0.41
9:J:305:VAL:HG23	11:M:29:VAL:HG11	2.01	0.41
9:J:495:PHE:O	9:J:499:VAL:HG13	2.20	0.41
9:K:29:VAL:HA	9:K:32:LEU:HB2	2.01	0.41
9:K:155:GLU:HA	9:K:158:LYS:HD2	2.01	0.41
9:K:244:ASN:HB3	9:K:246:ASP:OD2	2.20	0.41
9:K:393:GLN:O	9:K:396:SER:OG	2.27	0.41
10:L:80:TYR:HB2	10:L:119:TRP:CE3	2.55	0.41
3:P:332:GLU:N	3:P:332:GLU:OE1	2.53	0.41
15:X:44:MET:SD	15:Y:201:LEU:HB2	2.60	0.41
15:X:271:VAL:HG11	15:X:301:ASP:OD2	2.20	0.41
15:X:361:LEU:HD23	15:X:364:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:191:SER:O	15:Y:195:VAL:HG13	2.20	0.41
15:Y:245:PHE:CG	15:Y:253:ARG:HD2	2.55	0.41
15:Y:255:ILE:HA	15:Y:277:LEU:HD11	2.02	0.41
1:A:89:TYR:C	1:A:89:TYR:CD2	2.98	0.41
1:A:179:ASN:HB2	1:A:190:GLU:OE2	2.20	0.41
1:A:191:ARG:HG2	1:A:192:SER:N	2.35	0.41
1:A:259:TYR:CG	1:A:260:ASP:N	2.88	0.41
1:A:429:LYS:HD2	1:A:479:ALA:O	2.19	0.41
1:A:974:VAL:O	1:A:977:LEU:N	2.53	0.41
1:A:1032:LEU:HD23	12:N:485:VAL:HA	2.02	0.41
1:A:1033:ARG:O	1:A:1037:VAL:HG23	2.20	0.41
1:A:1153:ILE:HD12	1:A:1153:ILE:HA	1.92	0.41
1:A:1488:LEU:HD23	1:A:1488:LEU:HA	1.79	0.41
1:A:1520:LEU:HA	1:A:1520:LEU:HD12	1.81	0.41
3:C:54:TRP:O	3:C:57:GLU:HB2	2.20	0.41
3:C:133:GLU:O	3:C:134:THR:C	2.63	0.41
4:D:46:GLU:HA	3:P:380:ASN:HD21	1.84	0.41
5:E:83:ALA:HA	5:E:86:VAL:HG23	2.03	0.41
6:F:541:THR:O	6:F:544:TRP:HB3	2.19	0.41
6:F:617:LEU:H	6:F:617:LEU:HD12	1.84	0.41
6:F:656:MET:HE2	15:Y:526:GLN:HB2	2.01	0.41
8:I:414:PHE:HE2	8:I:418:PHE:CE2	2.38	0.41
8:I:479:LEU:HD23	8:I:479:LEU:HA	1.68	0.41
8:I:591:LEU:HB3	8:I:596:TYR:CD1	2.55	0.41
8:I:717:MET:SD	8:I:740:HIS:CE1	3.13	0.41
9:J:231:LEU:HA	9:J:234:VAL:HG22	2.02	0.41
9:J:478:ASN:HB3	9:J:481:THR:HG22	2.02	0.41
9:K:17:GLN:O	9:K:19:TYR:N	2.53	0.41
9:K:28:LYS:HD3	9:K:28:LYS:HA	1.60	0.41
9:K:440:THR:O	9:K:443:LYS:HB2	2.20	0.41
12:N:131:LEU:HD13	12:N:135:TRP:CH2	2.55	0.41
12:N:292:TRP:CZ3	12:N:296:VAL:HG21	2.54	0.41
12:N:548:ARG:HD3	12:N:548:ARG:HA	1.71	0.41
12:N:768:LEU:HD22	12:N:772:ARG:HB3	2.02	0.41
13:O:38:LEU:O	13:O:41:LEU:HB3	2.19	0.41
13:O:729:GLU:N	13:O:729:GLU:OE1	2.53	0.41
3:P:348:GLU:HA	3:P:378:MET:HE1	2.03	0.41
15:Y:220:ALA:HA	15:Y:223:THR:HG23	2.02	0.41
15:Y:241:LYS:H	15:Y:241:LYS:HG3	1.72	0.41
15:Y:492:TYR:O	15:Y:496:ILE:HG22	2.20	0.41
1:A:769:VAL:HA	1:A:866:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:797:LEU:HD12	1:A:797:LEU:HA	1.74	0.41
1:A:1041:LEU:HD23	1:A:1041:LEU:HA	1.77	0.41
1:A:1376:LEU:HD22	1:A:1578:ASN:OD1	2.19	0.41
1:A:1421:PRO:HB2	1:A:1483:SER:OG	2.19	0.41
1:A:1724:ALA:O	1:A:1728:SER:OG	2.38	0.41
2:B:18:ALA:HB2	2:B:46:LEU:HD13	2.01	0.41
3:C:389:ARG:HG2	13:O:280:ARG:HD3	2.02	0.41
3:C:443:TYR:CD2	3:C:451:GLU:HB3	2.55	0.41
5:E:68:LYS:HG2	5:E:72:HIS:HD2	1.85	0.41
5:E:85:LEU:HD23	6:H:570:TRP:HZ3	1.85	0.41
6:F:105:ASP:OD1	6:F:106:ILE:N	2.53	0.41
6:F:672:LEU:O	6:F:675:ILE:HB	2.20	0.41
8:I:412:LYS:HD2	8:I:447:PHE:CE2	2.54	0.41
9:J:275:LEU:CD2	9:J:280:LYS:HB2	2.49	0.41
9:J:360:ALA:O	9:J:364:MET:N	2.52	0.41
9:K:66:ASP:N	9:K:66:ASP:OD1	2.53	0.41
9:K:402:PRO:HG3	9:K:435:ILE:CD1	2.47	0.41
12:N:118:LEU:HD11	12:N:250:LEU:HG	2.03	0.41
12:N:660:THR:O	12:N:664:ALA:N	2.50	0.41
13:O:90:ALA:O	13:O:93:VAL:HG12	2.20	0.41
13:O:254:HIS:NE2	13:O:276:HIS:CE1	2.89	0.41
15:Y:174:MET:HE3	15:Y:174:MET:HB2	1.87	0.41
15:Y:255:ILE:HG13	15:Y:256:SER:N	2.35	0.41
15:Y:255:ILE:HG22	15:Y:277:LEU:HD11	2.02	0.41
1:A:207:LEU:O	1:A:240:VAL:HG23	2.20	0.41
1:A:219:GLU:HA	3:C:458:ARG:HH11	1.83	0.41
1:A:770:TYR:HB2	1:A:786:LEU:HD22	2.01	0.41
1:A:1073:LEU:HA	1:A:1073:LEU:HD23	1.52	0.41
2:B:16:TRP:HB2	2:B:31:ASN:HA	2.03	0.41
3:C:65:LEU:HA	3:C:66:PRO:HD3	1.92	0.41
6:F:639:TYR:HE1	6:F:708:HIS:NE2	2.17	0.41
6:H:134:GLY:O	6:H:138:TYR:HD2	2.03	0.41
6:H:686:GLU:H	6:H:686:GLU:CD	2.28	0.41
8:I:185:ILE:H	8:I:198:VAL:HG22	1.84	0.41
8:I:528:ARG:O	8:I:532:ILE:HG13	2.20	0.41
8:I:664:ARG:NH1	8:I:718:LYS:HD2	2.36	0.41
9:J:487:TYR:O	9:J:491:LEU:HB2	2.20	0.41
9:J:488:ILE:HD12	9:J:491:LEU:HB3	2.03	0.41
10:L:6:LYS:HA	10:L:114:VAL:HG13	2.01	0.41
10:L:29:ALA:HB1	10:L:67:GLN:O	2.20	0.41
13:O:362:GLU:O	13:O:366:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:195:ALA:O	3:P:199:LEU:N	2.51	0.41
3:P:267:SER:HB2	3:P:299:ASN:HD21	1.85	0.41
3:P:426:HIS:NE2	3:P:430:PRO:O	2.50	0.41
15:X:215:LYS:O	15:X:216:GLY:C	2.63	0.41
15:X:382:ALA:O	15:X:385:ASN:HB2	2.21	0.41
15:Y:146:TYR:O	15:Y:149:LEU:HB2	2.20	0.41
15:Y:214:VAL:O	15:Y:214:VAL:HG12	2.21	0.41
1:A:491:LEU:HB3	1:A:497:LEU:CD2	2.50	0.41
1:A:761:ALA:O	1:A:765:VAL:HG23	2.21	0.41
1:A:1130:ASN:OD1	1:A:1130:ASN:N	2.52	0.41
1:A:1563:GLY:O	1:A:1565:LEU:N	2.54	0.41
4:D:54:ILE:HD13	3:P:389:ARG:HH22	1.86	0.41
6:F:8:VAL:H	6:F:8:VAL:HG22	1.67	0.41
6:F:522:PHE:CD2	6:F:539:TYR:HB2	2.55	0.41
6:F:548:LYS:HG2	6:F:551:ALA:HB3	2.02	0.41
6:F:644:ILE:O	6:F:648:GLN:CB	2.64	0.41
6:H:68:THR:O	6:H:72:LYS:HG3	2.20	0.41
8:I:22:GLU:HB3	8:I:738:LEU:HD12	2.03	0.41
8:I:70:CYS:O	8:I:71:LEU:HD12	2.20	0.41
8:I:350:SER:CB	13:O:403:LYS:HD3	2.50	0.41
8:I:399:LYS:HD2	8:I:478:TYR:CE2	2.55	0.41
8:I:514:PHE:CE2	13:O:440:GLN:HG2	2.55	0.41
8:I:618:ILE:HG23	8:I:705:MET:HE1	2.03	0.41
11:M:49:SER:O	11:M:52:GLU:HG3	2.21	0.41
12:N:247:LEU:HA	12:N:247:LEU:HD23	1.88	0.41
12:N:345:PHE:HE2	12:N:349:ARG:NH2	2.18	0.41
12:N:432:GLU:O	12:N:434:THR:N	2.51	0.41
12:N:799:LEU:HD23	12:N:799:LEU:HA	1.95	0.41
13:O:109:GLU:HB3	3:P:344:ARG:HH21	1.84	0.41
3:P:341:TYR:HD1	3:P:341:TYR:HA	1.68	0.41
15:Y:237:SER:O	15:Y:241:LYS:HG3	2.20	0.41
15:Y:261:LEU:HD23	15:Y:261:LEU:HA	1.71	0.41
15:Y:500:ARG:HD3	15:Y:503:LEU:HD21	2.02	0.41
1:A:27:HIS:CD2	1:A:113:VAL:HG21	2.55	0.41
1:A:445:LEU:HA	1:A:452:LEU:HA	2.02	0.41
1:A:926:LEU:HA	1:A:929:ARG:HH12	1.86	0.41
1:A:1227:LEU:O	1:A:1230:ILE:HG22	2.21	0.41
1:A:1369:LEU:HD23	1:A:1369:LEU:HA	1.60	0.41
1:A:1402:GLU:HA	1:A:1463:TYR:HE1	1.84	0.41
1:A:1413:LEU:HD23	1:A:1413:LEU:HA	1.83	0.41
1:A:1713:MET:HE1	14:T:15:ALA:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:255:ILE:HG23	3:C:260:SER:HA	2.03	0.41
3:C:279:ILE:HD12	3:C:310:ARG:HE	1.85	0.41
4:D:30:LEU:HD11	13:O:138:HIS:CD2	2.55	0.41
6:F:150:SER:OG	6:H:22:ARG:HB3	2.20	0.41
6:H:528:ILE:HG23	6:H:529:GLU:N	2.35	0.41
6:H:538:ILE:HD13	6:H:538:ILE:HA	1.85	0.41
8:I:245:LEU:HB3	8:I:246:PRO:HD3	2.02	0.41
8:I:250:ARG:HB2	8:I:369:MET:HE1	2.01	0.41
8:I:514:PHE:H	13:O:443:GLN:NE2	2.11	0.41
8:I:709:LYS:HE3	8:I:709:LYS:HB3	1.70	0.41
9:J:179:GLN:HA	9:J:182:LYS:HE2	2.01	0.41
9:K:260:LYS:HA	9:K:260:LYS:HE2	2.03	0.41
9:K:309:TYR:O	9:K:312:VAL:HG12	2.20	0.41
9:K:342:HIS:ND1	9:K:357:TYR:OH	2.46	0.41
12:N:109:LEU:HA	12:N:109:LEU:HD23	1.78	0.41
12:N:162:PHE:HB2	12:N:255:ARG:NH1	2.36	0.41
13:O:108:MET:O	13:O:111:PHE:HB3	2.21	0.41
3:P:193:VAL:HG13	3:P:209:LEU:HD21	2.02	0.41
3:P:297:ILE:O	3:P:332:GLU:HG2	2.20	0.41
7:W:2:LEU:HA	7:W:2:LEU:HD23	1.57	0.41
15:X:270:ASN:O	15:X:274:LEU:HG	2.20	0.41
15:X:371:ASN:OD1	15:X:372:SER:N	2.53	0.41
15:X:383:LEU:HD12	15:X:383:LEU:HA	1.79	0.41
15:X:494:ASP:OD1	15:X:494:ASP:N	2.53	0.41
15:Y:211:SER:HA	15:Y:247:HIS:CG	2.56	0.41
15:Y:308:MET:HG3	15:Y:331:LEU:HD21	2.02	0.41
15:Y:417:TYR:O	15:Y:422:SER:N	2.54	0.41
1:A:31:HIS:HB3	1:A:99:MET:SD	2.60	0.41
1:A:1131:MET:HG2	1:A:1132:THR:H	1.85	0.41
1:A:1181:LEU:HA	1:A:1181:LEU:HD13	1.72	0.41
1:A:1727:ASN:C	1:A:1729:GLU:H	2.29	0.41
1:A:1911:PHE:O	1:A:1911:PHE:CG	2.74	0.41
6:F:568:GLU:H	6:F:568:GLU:CD	2.14	0.41
6:H:672:LEU:HD11	6:H:691:THR:HB	2.02	0.41
8:I:134:GLU:O	8:I:137:LEU:HB3	2.19	0.41
8:I:261:LEU:HD23	8:I:261:LEU:HA	1.85	0.41
8:I:517:TYR:HE2	8:I:528:ARG:HD2	1.86	0.41
13:O:336:ASP:C	13:O:336:ASP:OD1	2.63	0.41
13:O:400:ASP:O	13:O:402:LEU:HG	2.20	0.41
13:O:680:GLN:O	13:O:683:LYS:HB3	2.21	0.41
3:P:524:LYS:HA	3:P:524:LYS:HD2	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:X:77:TYR:CZ	15:X:107:LYS:HD3	2.55	0.41
15:X:500:ARG:HD3	15:X:500:ARG:HA	1.60	0.41
1:A:104:LYS:O	13:O:537:ALA:HB1	2.20	0.41
1:A:667:MET:O	1:A:755:LEU:HB3	2.21	0.41
1:A:1209:LEU:HA	1:A:1209:LEU:HD23	1.62	0.41
6:F:625:ARG:CB	6:F:629:ARG:HH21	2.32	0.41
6:F:673:CYS:O	6:F:677:VAL:HG13	2.20	0.41
8:I:572:PHE:CZ	8:I:589:THR:HG22	2.55	0.41
8:I:619:LYS:HD3	8:I:704:THR:HG22	2.02	0.41
8:I:740:HIS:HE1	8:I:742:ARG:HH21	1.69	0.41
9:J:203:PHE:O	9:J:206:GLU:HB3	2.21	0.41
9:J:492:MET:HG3	9:J:494:ASN:HD22	1.86	0.41
12:N:669:TYR:HA	12:N:672:ASP:OD2	2.21	0.41
13:O:558:SER:OG	13:O:562:LYS:HE3	2.21	0.41
13:O:711:ARG:NH2	13:O:746:SER:O	2.54	0.41
3:P:312:MET:HE2	3:P:314:SER:HB3	2.03	0.41
3:P:434:ARG:HD3	17:Q:498:MET:SD	2.60	0.41
15:X:265:SER:O	15:Y:66:ASN:HB3	2.20	0.41
15:X:379:LYS:HA	15:X:379:LYS:HD2	1.81	0.41
15:X:446:LEU:HD12	15:X:447:LEU:N	2.36	0.41
15:Y:321:LEU:HD13	15:Y:321:LEU:HA	1.92	0.41
1:A:76:LEU:HD13	1:A:589:ASP:HB3	2.03	0.41
1:A:173:LEU:HA	1:A:173:LEU:HD13	1.79	0.41
1:A:221:THR:HA	1:A:222:PRO:HD3	1.96	0.41
1:A:254:SER:HG	1:A:271:LEU:HD23	1.86	0.41
1:A:836:PHE:CD1	1:A:899:ILE:HG23	2.56	0.41
1:A:1140:GLY:HA2	1:A:1171:GLU:OE2	2.21	0.41
1:A:1184:HIS:O	1:A:1185:LEU:C	2.63	0.41
1:A:1241:THR:HG22	1:A:1243:LEU:HD23	2.01	0.41
1:A:1677:LEU:HD21	1:A:1687:LEU:HD12	2.02	0.41
1:A:1795:GLN:HB3	1:A:1799:ARG:HH22	1.85	0.41
1:A:1824:ARG:O	1:A:1827:GLN:HB2	2.21	0.41
1:A:1896:ALA:HB3	1:A:1899:HIS:HB3	2.02	0.41
1:A:1928:LEU:HD12	1:A:1928:LEU:HA	1.77	0.41
3:C:356:ARG:NE	11:M:19:TRP:HB2	2.36	0.41
3:C:369:THR:OG1	3:C:370:LEU:N	2.54	0.41
3:C:513:PHE:CE2	3:C:535:LYS:HB3	2.55	0.41
4:D:17:TRP:CD1	4:D:17:TRP:C	2.99	0.41
5:E:97:LYS:HA	5:E:98:PRO:HD3	1.91	0.41
6:F:53:LYS:HD2	6:F:55:TYR:OH	2.21	0.41
6:F:742:LEU:O	6:F:746:VAL:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:H:720:LYS:HE3	6:H:720:LYS:HB3	1.95	0.41
8:I:125:LEU:HD21	8:I:246:PRO:HB3	2.02	0.41
8:I:176:LEU:HD12	8:I:177:VAL:H	1.85	0.41
8:I:226:ASN:OD1	8:I:226:ASN:N	2.51	0.41
8:I:247:GLU:O	8:I:248:VAL:C	2.64	0.41
8:I:332:LYS:HE3	8:I:332:LYS:HB3	1.75	0.41
8:I:674:VAL:O	8:I:703:ARG:NH1	2.52	0.41
8:I:742:ARG:HD2	8:I:744:PHE:CZ	2.56	0.41
9:J:277:GLU:OE2	9:J:277:GLU:HA	2.21	0.41
9:J:333:TYR:CE2	9:J:335:PRO:HG2	2.56	0.41
9:J:392:SER:O	9:J:395:LEU:HB3	2.20	0.41
9:J:506:LEU:HD23	9:J:506:LEU:O	2.21	0.41
9:K:133:CYS:O	9:K:136:ARG:HB2	2.21	0.41
9:K:289:HIS:CE1	11:M:57:TRP:CZ3	3.08	0.41
9:K:485:ILE:HG22	9:K:501:TYR:CD2	2.56	0.41
9:K:514:PHE:CE2	7:W:11:LEU:HD13	2.53	0.41
10:L:94:ILE:HG23	10:L:139:ILE:HG23	2.01	0.41
11:M:3:SER:CB	3:P:180:ARG:HH12	2.33	0.41
11:M:49:SER:H	11:M:52:GLU:CG	2.33	0.41
11:M:65:LEU:HD12	11:M:65:LEU:HA	1.82	0.41
12:N:531:PHE:HD1	12:N:533:PHE:C	2.29	0.41
12:N:703:GLY:O	12:N:719:GLU:HA	2.20	0.41
13:O:208:SER:O	13:O:211:GLN:N	2.53	0.41
13:O:246:PHE:CD1	13:O:246:PHE:N	2.88	0.41
13:O:475:GLU:O	13:O:479:GLU:HG3	2.21	0.41
3:P:44:ARG:HB3	3:P:44:ARG:NH1	2.36	0.41
3:P:67:LEU:HA	3:P:70:LEU:HD13	2.03	0.41
3:P:286:PHE:HD1	3:P:286:PHE:HA	1.74	0.41
3:P:346:GLN:O	3:P:348:GLU:N	2.54	0.41
3:P:369:THR:OG1	3:P:370:LEU:N	2.54	0.41
3:P:409:TYR:HD1	3:P:409:TYR:HA	1.67	0.41
7:W:12:LYS:C	7:W:14:ASP:N	2.79	0.41
7:W:13:LEU:HD23	7:W:16:ILE:HD11	2.01	0.41
15:X:355:TYR:CE2	15:X:385:ASN:HB3	2.56	0.41
15:X:360:TYR:HB3	15:X:364:LYS:HZ3	1.85	0.41
15:Y:279:ASP:HB3	15:Y:283:ARG:HE	1.86	0.41
15:Y:295:GLU:O	15:Y:298:GLN:HG2	2.21	0.41
15:Y:306:LYS:HG3	15:Y:307:GLY:N	2.35	0.41
15:Y:315:LEU:HD21	15:Y:323:ASP:HB3	2.01	0.41
15:Y:475:TYR:O	15:Y:479:VAL:HG22	2.21	0.41
1:A:99:MET:HA	1:A:117:PHE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:707:TRP:NE1	13:O:730:ARG:HD2	2.35	0.41
1:A:1016:MET:HE1	1:A:1041:LEU:HB2	2.02	0.41
1:A:1202:GLU:O	1:A:1205:SER:OG	2.30	0.41
2:B:52:SER:O	2:B:52:SER:OG	2.36	0.41
3:C:26:PHE:CD1	3:C:27:SER:N	2.89	0.41
3:C:375:TYR:HD1	3:C:375:TYR:HA	1.75	0.41
4:D:10:PRO:HG2	13:O:346:TRP:CE2	2.55	0.41
4:D:11:ARG:NH2	4:D:14:GLU:OE1	2.43	0.41
6:F:495:HIS:NE2	6:H:34:GLU:OE2	2.54	0.41
6:H:606:LEU:HD23	6:H:606:LEU:HA	1.68	0.41
8:I:310:TRP:NE1	13:O:126:VAL:HG22	2.36	0.41
8:I:733:VAL:HG12	8:I:742:ARG:O	2.21	0.41
9:J:285:PHE:HD1	9:J:308:TYR:CE2	2.38	0.41
9:J:487:TYR:CD1	9:J:514:PHE:HZ	2.38	0.41
9:J:489:HIS:HA	9:J:492:MET:HG2	2.02	0.41
9:K:192:LYS:HG3	9:K:198:GLN:HG3	2.03	0.41
9:K:233:VAL:O	9:K:236:SER:OG	2.30	0.41
9:K:491:LEU:HD22	7:W:22:ILE:HG21	2.02	0.41
12:N:626:TYR:CE2	12:N:633:ARG:HD3	2.56	0.41
12:N:629:LEU:HD23	12:N:633:ARG:HH12	1.85	0.41
13:O:476:LEU:O	13:O:479:GLU:HB2	2.21	0.41
13:O:604:LEU:HD23	13:O:604:LEU:HA	1.77	0.41
3:P:189:ILE:HG13	3:P:212:LEU:HD13	2.03	0.41
15:X:166:GLN:N	15:X:166:GLN:OE1	2.55	0.41
15:Y:78:GLN:O	15:Y:81:VAL:HG12	2.21	0.41
15:Y:258:ILE:HD12	15:Y:273:LEU:HD11	2.03	0.41
15:Y:534:ILE:HD13	15:Y:534:ILE:HA	1.74	0.41
1:A:250:ASN:CG	1:A:251:THR:N	2.79	0.40
1:A:879:LEU:HG	1:A:929:ARG:NH2	2.23	0.40
1:A:925:SER:C	1:A:927:ALA:N	2.79	0.40
1:A:941:LEU:O	1:A:944:LEU:HB3	2.20	0.40
1:A:956:ARG:O	1:A:959:ILE:HB	2.21	0.40
1:A:1329:MET:HE2	1:A:1368:THR:HA	2.03	0.40
1:A:1794:ASP:O	1:A:1797:ILE:HG12	2.21	0.40
3:C:101:ARG:NH2	3:P:298:GLU:OE2	2.54	0.40
7:G:25:ASP:OD1	7:G:25:ASP:N	2.53	0.40
8:I:163:GLU:O	8:I:166:LYS:HB2	2.21	0.40
8:I:310:TRP:HD1	13:O:126:VAL:HG13	1.86	0.40
8:I:719:ALA:HB1	8:I:733:VAL:HG22	2.03	0.40
9:K:141:ASP:O	9:K:144:ASP:N	2.54	0.40
9:K:201:LEU:HD23	9:K:201:LEU:HA	1.82	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:K:513:THR:HG23	9:K:514:PHE:H	1.86	0.40
12:N:63:ARG:O	12:N:66:GLY:HA3	2.21	0.40
12:N:121:ARG:H	12:N:122:LEU:HB2	1.85	0.40
12:N:587:PRO:HA	12:N:588:PRO:HD3	1.89	0.40
12:N:706:ARG:HE	12:N:708:GLU:HG3	1.86	0.40
12:N:774:TYR:CG	12:N:792:LEU:HD13	2.56	0.40
3:P:185:VAL:HG23	3:P:186:LYS:N	2.36	0.40
3:P:187:GLU:HA	3:P:190:ASP:OD2	2.21	0.40
3:P:200:PRO:C	3:P:202:HIS:H	2.29	0.40
15:X:83:HIS:CE1	15:X:87:LEU:HD23	2.55	0.40
15:X:225:ASN:O	15:X:228:GLN:N	2.54	0.40
15:X:253:ARG:O	15:X:257:THR:HG22	2.21	0.40
15:X:465:LEU:HD21	15:X:482:LYS:CA	2.51	0.40
1:A:215:HIS:HB3	3:C:454:LYS:NZ	2.36	0.40
1:A:263:GLN:HB3	1:A:265:VAL:HG22	2.03	0.40
1:A:596:THR:HA	1:A:606:ARG:HA	2.02	0.40
1:A:707:TRP:CD1	13:O:730:ARG:HD2	2.57	0.40
1:A:787:VAL:HG12	1:A:813:LEU:HD11	2.02	0.40
1:A:1089:LEU:O	1:A:1090:PHE:C	2.64	0.40
1:A:1089:LEU:H	1:A:1568:GLY:HA2	1.86	0.40
1:A:1677:LEU:HD12	1:A:1678:ILE:N	2.36	0.40
1:A:1825:SER:OG	1:A:1829:ARG:NH2	2.33	0.40
2:B:55:PHE:HE1	2:B:75:MET:HG3	1.85	0.40
3:C:79:GLU:H	3:C:79:GLU:HG3	1.69	0.40
6:F:16:LEU:HA	6:F:16:LEU:HD13	1.88	0.40
6:F:165:ASP:HA	6:F:467:ARG:CD	2.52	0.40
6:F:480:ASN:HB3	6:F:483:GLU:OE2	2.22	0.40
6:F:711:SER:O	6:F:714:PHE:N	2.53	0.40
6:H:16:LEU:C	6:H:18:HIS:N	2.79	0.40
8:I:570:PHE:C	8:I:572:PHE:N	2.76	0.40
8:I:617:ALA:O	8:I:618:ILE:HD13	2.21	0.40
9:J:53:TYR:CZ	9:J:82:ALA:HB1	2.56	0.40
9:J:178:ALA:O	9:J:181:GLU:HB3	2.21	0.40
9:J:440:THR:O	9:J:440:THR:OG1	2.36	0.40
12:N:409:VAL:O	12:N:410:LEU:HB2	2.21	0.40
12:N:428:LEU:HD23	12:N:428:LEU:HA	1.71	0.40
13:O:282:ILE:HD13	13:O:282:ILE:HA	1.98	0.40
3:P:93:TYR:CE1	3:P:101:ARG:NE	2.89	0.40
7:W:5:LYS:HZ3	7:W:5:LYS:HG2	1.62	0.40
15:X:86:SER:O	15:X:89:HIS:HB3	2.21	0.40
15:X:442:GLN:O	15:X:445:THR:OG1	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:Y:93:TYR:CE2	15:Y:148:MET:HE2	2.56	0.40
15:Y:153:LYS:HA	15:Y:153:LYS:HD3	1.88	0.40
15:Y:207:LEU:HD13	15:Y:239:TRP:HH2	1.86	0.40
15:Y:443:THR:H	15:Y:443:THR:HG23	1.61	0.40
1:A:591:VAL:HG22	1:A:606:ARG:HH22	1.87	0.40
1:A:966:PRO:HA	1:A:970:TRP:CZ3	2.56	0.40
1:A:1552:TYR:CE2	1:A:1596:SER:HA	2.56	0.40
3:C:181:LYS:HA	3:C:181:LYS:HD3	1.85	0.40
3:C:259:PHE:O	3:C:260:SER:C	2.64	0.40
6:F:161:LYS:HE2	6:F:161:LYS:HB2	1.90	0.40
6:F:733:VAL:HG13	6:F:733:VAL:O	2.22	0.40
6:H:726:LEU:HD23	6:H:729:LEU:HD12	2.03	0.40
8:I:46:LEU:HD23	8:I:56:TRP:NE1	2.36	0.40
8:I:74:ARG:C	8:I:76:ASP:N	2.78	0.40
8:I:110:VAL:C	8:I:180:GLY:HA3	2.45	0.40
8:I:162:ASP:O	8:I:166:LYS:HG3	2.22	0.40
8:I:717:MET:SD	8:I:740:HIS:HE1	2.45	0.40
9:K:220:ILE:O	9:K:224:VAL:HG23	2.20	0.40
9:K:297:SER:O	9:K:329:LEU:HD21	2.21	0.40
12:N:121:ARG:N	12:N:122:LEU:HB2	2.36	0.40
12:N:330:ARG:HE	12:N:330:ARG:HB3	1.63	0.40
12:N:405:LYS:HA	12:N:405:LYS:HD3	1.83	0.40
12:N:632:MET:HE2	12:N:632:MET:HB2	2.00	0.40
13:O:140:ILE:HD13	13:O:140:ILE:HA	1.90	0.40
3:P:297:ILE:HD11	3:P:326:ILE:CG2	2.51	0.40
3:P:361:ASN:HB3	3:P:362:PRO:CA	2.50	0.40
3:P:459:ALA:HB1	3:P:464:ASP:OD1	2.21	0.40
7:W:13:LEU:H	7:W:13:LEU:CD1	2.30	0.40
15:X:263:LYS:HA	15:X:263:LYS:HD3	1.71	0.40
15:Y:140:TYR:O	15:Y:144:GLU:HG2	2.21	0.40
15:Y:182:ALA:HB1	15:Y:184:GLN:HE22	1.86	0.40
15:Y:184:GLN:C	15:Y:187:PRO:HD2	2.46	0.40
1:A:85:GLU:HA	1:A:87:VAL:HG23	2.02	0.40
1:A:268:VAL:C	1:A:269:TRP:CD1	3.00	0.40
1:A:759:ILE:O	1:A:760:PRO:C	2.61	0.40
1:A:778:LEU:HD11	13:O:561:HIS:ND1	2.37	0.40
1:A:1149:PRO:HG2	1:A:1152:GLN:NE2	2.36	0.40
1:A:1217:LEU:HA	1:A:1259:LEU:O	2.21	0.40
1:A:1266:HIS:NE2	3:C:545:GLU:OE2	2.55	0.40
1:A:1325:LEU:HD23	1:A:1325:LEU:HA	1.77	0.40
1:A:1325:LEU:HD13	1:A:1371:LEU:HG	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1482:LEU:H	14:T:7:LEU:CB	2.35	0.40
3:C:233:PHE:CZ	3:C:237:ILE:HG13	2.57	0.40
3:C:341:TYR:OH	11:M:25:PRO:HD3	2.20	0.40
3:C:488:GLN:HA	3:C:491:ILE:HG12	2.03	0.40
6:H:66:CYS:HB3	6:H:71:CYS:SG	2.61	0.40
6:H:624:PHE:CE2	6:H:640:GLY:HA3	2.56	0.40
8:I:36:ALA:HA	8:I:46:LEU:HA	2.02	0.40
8:I:43:GLU:HB2	8:I:58:PHE:O	2.21	0.40
8:I:167:LEU:HB3	8:I:192:MET:SD	2.61	0.40
8:I:366:LEU:HD12	8:I:366:LEU:HA	1.84	0.40
8:I:536:CYS:SG	8:I:537:LEU:N	2.94	0.40
9:J:42:TRP:CE3	9:J:42:TRP:HA	2.56	0.40
9:J:63:ARG:O	9:J:65:LEU:HD12	2.21	0.40
9:J:64:LYS:HA	9:J:64:LYS:HD3	1.81	0.40
9:J:168:ASP:OD1	9:J:172:SER:OG	2.32	0.40
9:K:70:GLU:O	9:K:73:ARG:HB3	2.22	0.40
9:K:178:ALA:HA	9:K:181:GLU:HB2	2.03	0.40
9:K:523:ILE:HD13	9:K:523:ILE:HA	1.91	0.40
12:N:527:LEU:HD12	12:N:601:TRP:CH2	2.57	0.40
12:N:536:GLU:O	12:N:540:ARG:HG2	2.22	0.40
12:N:629:LEU:CB	12:N:633:ARG:HH12	2.30	0.40
12:N:663:GLN:O	12:N:699:TRP:HZ2	2.04	0.40
13:O:225:ASN:CG	13:O:461:ASN:HD21	2.29	0.40
13:O:305:LEU:HD13	13:O:343:CYS:HA	2.03	0.40
13:O:544:VAL:HG23	13:O:563:LEU:HD21	2.04	0.40
13:O:681:PRO:O	13:O:682:LYS:HE2	2.21	0.40
13:O:725:GLY:O	13:O:727:THR:N	2.55	0.40
3:P:46:ARG:NH1	3:P:113:LYS:HD3	2.37	0.40
3:P:54:TRP:CH2	3:P:229:MET:HE1	2.56	0.40
15:X:74:PRO:O	15:X:77:TYR:HB3	2.21	0.40
15:X:220:ALA:O	15:X:223:THR:OG1	2.30	0.40
15:X:349:SER:HA	15:X:352:SER:HG	1.86	0.40
15:Y:213:SER:C	15:Y:215:LYS:H	2.29	0.40
15:Y:282:PHE:HE2	15:Y:406:ARG:NH2	2.18	0.40
1:A:185:TYR:O	1:A:214:LEU:HD23	2.21	0.40
1:A:409:ILE:HG22	1:A:410:ASP:N	2.37	0.40
1:A:471:VAL:HG12	1:A:472:THR:N	2.37	0.40
1:A:499:LEU:HD23	1:A:499:LEU:HA	1.83	0.40
1:A:599:LEU:HD12	1:A:603:SER:OG	2.22	0.40
1:A:729:CYS:HB3	13:O:719:ARG:HH21	1.86	0.40
1:A:1307:LEU:HA	1:A:1307:LEU:HD12	1.73	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1564:LEU:HD12	1:A:1567:LEU:HD13	2.03	0.40
1:A:1699:VAL:O	1:A:1699:VAL:HG23	2.22	0.40
1:A:1737:THR:O	1:A:1739:SER:N	2.55	0.40
1:A:1914:LEU:H	1:A:1914:LEU:HD12	1.86	0.40
1:A:1929:LEU:HA	1:A:1929:LEU:HD13	1.84	0.40
3:C:273:TYR:HB3	3:C:282:ALA:HB2	2.03	0.40
6:F:524:GLU:CD	6:F:527:ARG:HH21	2.28	0.40
6:H:531:TYR:O	6:H:532:ARG:C	2.65	0.40
8:I:99:GLU:O	8:I:101:LEU:N	2.54	0.40
8:I:208:LEU:HD23	8:I:208:LEU:HA	1.87	0.40
8:I:269:LEU:HD21	8:I:523:HIS:CE1	2.56	0.40
8:I:729:LYS:HA	8:I:729:LYS:HD3	1.91	0.40
9:J:57:ALA:O	9:J:61:ARG:HG2	2.21	0.40
9:K:291:LEU:HB3	9:K:301:SER:HG	1.86	0.40
12:N:268:VAL:HA	12:N:271:GLU:OE1	2.21	0.40
13:O:112:PHE:O	13:O:115:LEU:HB3	2.22	0.40
13:O:363:HIS:CD2	13:O:363:HIS:C	3.00	0.40
13:O:616:LEU:HD11	13:O:619:LEU:HB2	2.03	0.40
3:P:234:LEU:HD11	3:P:238:TYR:CZ	2.55	0.40
3:P:236:HIS:CE1	3:P:268:GLN:NE2	2.90	0.40
15:X:78:GLN:HA	15:X:81:VAL:HG22	2.04	0.40
15:X:147:THR:O	15:X:150:LYS:HD3	2.22	0.40
15:Y:335:SER:OG	15:Y:336:ASP:N	2.55	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1539/1944 (79%)	1253 (81%)	283 (18%)	3 (0%)	43	74
2	B	83/84 (99%)	73 (88%)	10 (12%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	C	520/597 (87%)	462 (89%)	58 (11%)	0	100	100
3	P	486/597 (81%)	437 (90%)	49 (10%)	0	100	100
4	D	53/121 (44%)	45 (85%)	8 (15%)	0	100	100
5	E	54/110 (49%)	52 (96%)	2 (4%)	0	100	100
6	F	454/824 (55%)	423 (93%)	30 (7%)	1 (0%)	43	74
6	H	484/824 (59%)	424 (88%)	57 (12%)	3 (1%)	21	55
7	G	23/85 (27%)	23 (100%)	0	0	100	100
7	W	24/85 (28%)	22 (92%)	1 (4%)	1 (4%)	2	20
8	I	732/808 (91%)	620 (85%)	108 (15%)	4 (0%)	24	59
9	J	500/620 (81%)	457 (91%)	42 (8%)	1 (0%)	43	74
9	K	489/620 (79%)	448 (92%)	41 (8%)	0	100	100
10	L	180/185 (97%)	154 (86%)	26 (14%)	0	100	100
11	M	55/74 (74%)	48 (87%)	7 (13%)	0	100	100
12	N	662/822 (80%)	592 (89%)	66 (10%)	4 (1%)	21	55
13	O	682/755 (90%)	588 (86%)	89 (13%)	5 (1%)	18	53
14	T	13/15 (87%)	9 (69%)	3 (23%)	1 (8%)	1	12
15	X	480/599 (80%)	447 (93%)	33 (7%)	0	100	100
15	Y	492/599 (82%)	453 (92%)	37 (8%)	2 (0%)	30	64
17	Q	1/445 (0%)	1 (100%)	0	0	100	100
All	All	8006/10813 (74%)	7031 (88%)	950 (12%)	25 (0%)	37	69

All (25) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	I	452	LEU
12	N	434	THR
12	N	531	PHE
15	Y	215	LYS
1	A	1840	MET
8	I	120	VAL
8	I	451	PHE
13	O	358	TYR
13	O	398	LEU
1	A	1155	SER
6	H	147	PHE

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Mol	Chain	Res	Type
8	I	489	PRO
9	J	195	ASN
12	N	704	VAL
13	O	656	ALA
1	A	276	SER
14	T	9	ALA
7	W	14	ASP
6	F	530	ASN
13	O	125	GLU
13	O	397	LYS
6	H	492	PRO
12	N	485	VAL
15	Y	216	GLY
6	H	146	PRO

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	1243/1720 (72%)	1231 (99%)	12 (1%)	68	75
2	B	65/75 (87%)	65 (100%)	0	100	100
3	C	452/520 (87%)	448 (99%)	4 (1%)	70	75
3	P	422/520 (81%)	420 (100%)	2 (0%)	81	82
4	D	46/115 (40%)	46 (100%)	0	100	100
5	E	47/89 (53%)	46 (98%)	1 (2%)	47	65
6	F	371/727 (51%)	371 (100%)	0	100	100
6	H	408/727 (56%)	405 (99%)	3 (1%)	76	78
7	G	25/77 (32%)	25 (100%)	0	100	100
7	W	23/77 (30%)	23 (100%)	0	100	100
8	I	614/730 (84%)	609 (99%)	5 (1%)	73	77
9	J	425/548 (78%)	424 (100%)	1 (0%)	87	87
9	K	423/548 (77%)	420 (99%)	3 (1%)	76	78

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	L	155/170 (91%)	153 (99%)	2 (1%)	61	71
11	M	52/67 (78%)	51 (98%)	1 (2%)	50	66
12	N	549/724 (76%)	544 (99%)	5 (1%)	70	75
13	O	573/650 (88%)	565 (99%)	8 (1%)	59	71
14	T	1/2 (50%)	1 (100%)	0	100	100
15	X	406/513 (79%)	404 (100%)	2 (0%)	81	82
15	Y	417/513 (81%)	415 (100%)	2 (0%)	81	82
16	S	2/401 (0%)	2 (100%)	0	100	100
17	Q	2/402 (0%)	2 (100%)	0	100	100
All	All	6721/9915 (68%)	6670 (99%)	51 (1%)	70	77

All (51) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	17	LEU
1	A	80	VAL
1	A	445	LEU
1	A	587	ILE
1	A	597	LEU
1	A	1077	THR
1	A	1107	LEU
1	A	1176	LEU
1	A	1251	VAL
1	A	1405	LEU
1	A	1546	THR
1	A	1591	HIS
3	C	134	THR
3	C	239	THR
3	C	285	ILE
3	C	409	TYR
5	E	99	ILE
6	H	141	SER
6	H	542	THR
6	H	561	ASP
8	I	106	VAL
8	I	145	LEU
8	I	320	LEU
8	I	418	PHE
8	I	452	LEU

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Mol	Chain	Res	Type
9	J	39	ASP
9	K	246	ASP
9	K	291	LEU
9	K	499	VAL
10	L	16	LEU
10	L	45	LEU
11	M	5	VAL
12	N	108	LEU
12	N	366	GLU
12	N	386	LEU
12	N	392	ASN
12	N	660	THR
13	O	75	LEU
13	O	97	ILE
13	O	209	GLN
13	O	420	ILE
13	O	506	LEU
13	O	544	VAL
13	O	623	THR
13	O	712	ASP
3	P	341	TYR
3	P	418	CYS
15	X	450	VAL
15	X	460	LYS
15	Y	301	ASP
15	Y	534	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (166) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	30	HIS
1	A	125	GLN
1	A	179	ASN
1	A	411	HIS
1	A	592	HIS
1	A	619	GLN
1	A	623	GLN
1	A	636	GLN
1	A	666	ASN
1	A	827	GLN
1	A	965	GLN
1	A	1115	ASN

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Mol	Chain	Res	Type
1	A	1138	HIS
1	A	1170	ASN
1	A	1184	HIS
1	A	1248	ASN
1	A	1379	ASN
1	A	1489	HIS
1	A	1558	HIS
1	A	1595	HIS
1	A	1795	GLN
1	A	1813	GLN
1	A	1892	HIS
1	A	1899	HIS
2	B	9	ASN
2	B	53	HIS
3	C	202	HIS
3	C	236	HIS
3	C	274	HIS
3	C	292	GLN
3	C	305	ASN
3	C	361	ASN
3	C	427	GLN
3	C	431	ASN
3	C	488	GLN
3	C	534	GLN
3	C	555	GLN
4	D	37	HIS
4	D	38	GLN
5	E	72	HIS
5	E	74	GLN
5	E	75	GLN
6	F	486	ASN
6	F	494	HIS
6	F	504	GLN
6	F	545	HIS
6	F	599	ASN
6	F	702	ASN
6	F	716	ASN
6	H	64	HIS
6	H	123	HIS
6	H	504	GLN
6	H	517	GLN
6	H	545	HIS

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Mol	Chain	Res	Type
6	H	626	ASN
6	H	636	ASN
6	H	648	GLN
6	H	657	HIS
6	H	680	HIS
6	H	716	ASN
6	H	759	ASN
8	I	102	HIS
8	I	130	ASN
8	I	318	GLN
8	I	362	HIS
8	I	413	ASN
8	I	503	ASN
8	I	506	HIS
8	I	523	HIS
8	I	684	GLN
9	J	86	HIS
9	J	198	GLN
9	J	264	HIS
9	J	437	ASN
9	J	494	ASN
9	J	503	HIS
9	K	20	GLN
9	K	54	HIS
9	K	80	HIS
9	K	213	ASN
9	K	241	HIS
9	K	244	ASN
9	K	271	HIS
9	K	279	ASN
9	K	316	ASN
9	K	350	HIS
9	K	352	GLN
9	K	415	ASN
9	K	449	ASN
9	K	468	HIS
9	K	478	ASN
10	L	55	GLN
10	L	101	ASN
10	L	106	GLN
10	L	146	GLN
10	L	155	GLN

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Mol	Chain	Res	Type
11	M	53	GLN
12	N	97	GLN
12	N	170	GLN
12	N	267	GLN
12	N	392	ASN
12	N	529	HIS
12	N	541	ASN
12	N	571	ASN
12	N	671	GLN
12	N	673	GLN
12	N	702	GLN
13	O	69	GLN
13	O	138	HIS
13	O	225	ASN
13	O	306	ASN
13	O	319	GLN
13	O	363	HIS
13	O	370	HIS
13	O	443	GLN
13	O	449	ASN
13	O	460	GLN
13	O	462	ASN
13	O	515	GLN
13	O	552	GLN
13	O	671	GLN
13	O	693	ASN
3	P	35	GLN
3	P	71	GLN
3	P	82	GLN
3	P	110	ASN
3	P	236	HIS
3	P	292	GLN
3	P	299	ASN
3	P	305	ASN
3	P	322	ASN
3	P	347	HIS
3	P	355	GLN
3	P	390	HIS
3	P	427	GLN
3	P	479	GLN
3	P	495	GLN
15	X	65	ASN

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Mol	Chain	Res	Type
15	X	66	ASN
15	X	78	GLN
15	X	151	GLN
15	X	177	ASN
15	X	270	ASN
15	X	289	ASN
15	X	338	HIS
15	X	369	ASN
15	X	395	HIS
15	X	442	GLN
15	X	458	GLN
15	X	471	GLN
15	X	506	GLN
15	X	512	HIS
15	X	531	GLN
15	Y	78	GLN
15	Y	89	HIS
15	Y	106	GLN
15	Y	184	GLN
15	Y	298	GLN
15	Y	338	HIS
15	Y	385	ASN
15	Y	395	HIS
15	Y	421	ASN
15	Y	431	ASN
15	Y	512	HIS
15	Y	523	ASN
15	Y	531	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 3 ligands modelled in this entry, 3 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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

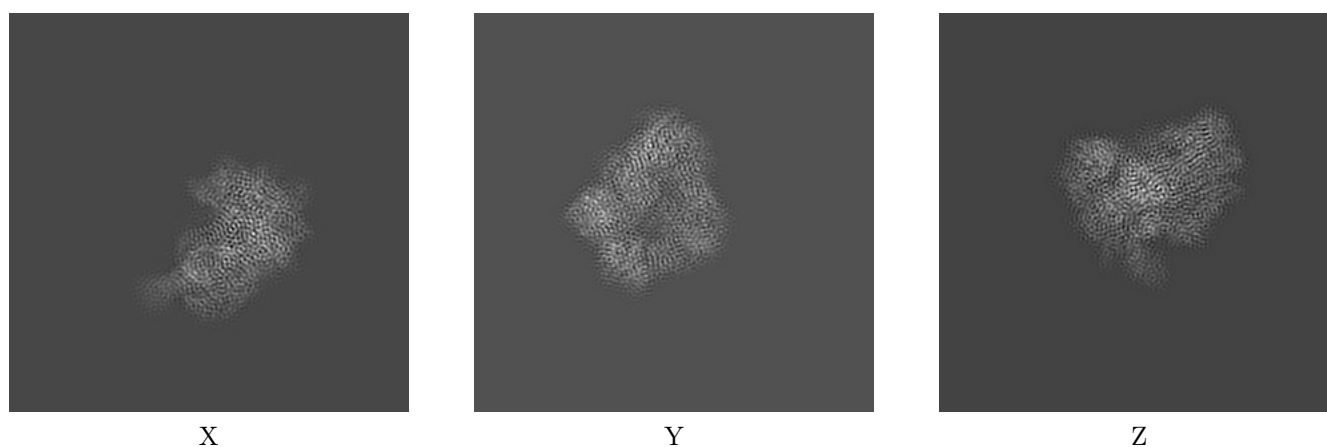
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10518. 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](#)

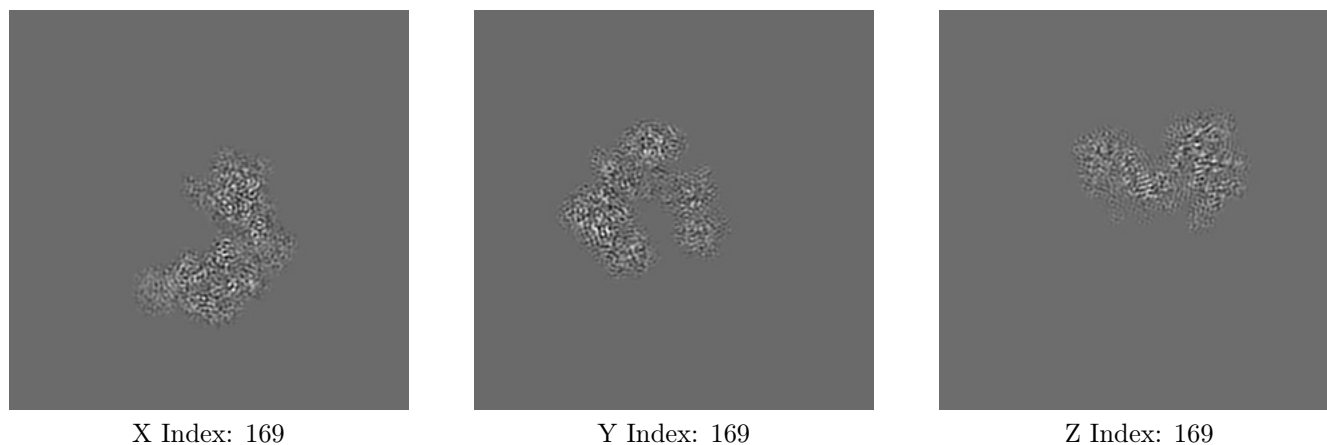
6.1.1 Primary map



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

6.2 Central slices [i](#)

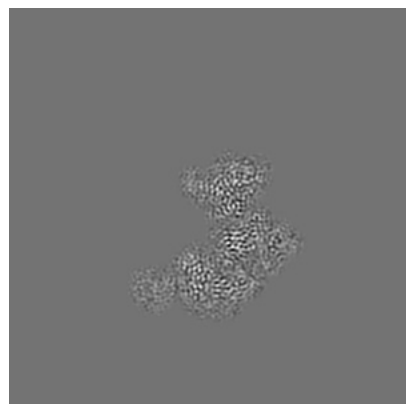
6.2.1 Primary map



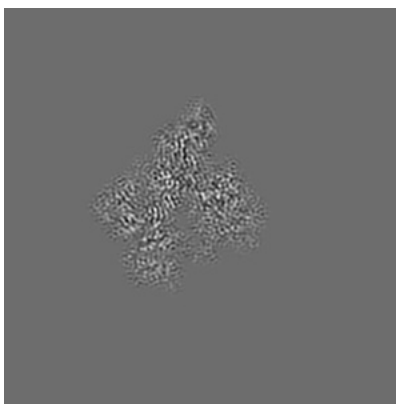
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

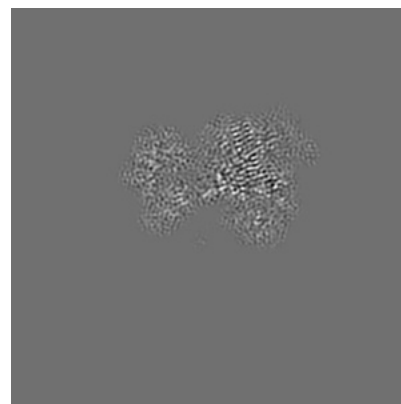
6.3.1 Primary map



X Index: 177



Y Index: 185

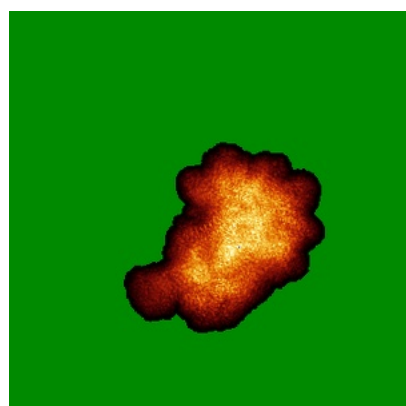


Z Index: 139

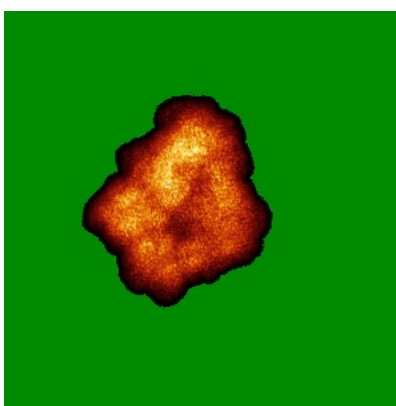
The images above show the largest variance slices of the map in three orthogonal directions.

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

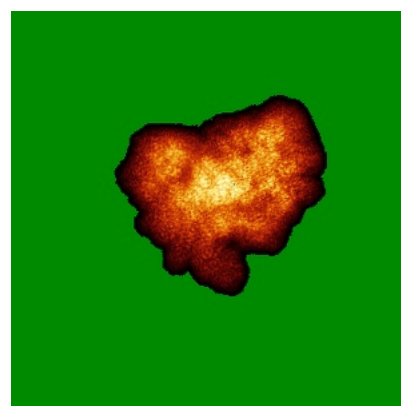
6.4.1 Primary map



X



Y

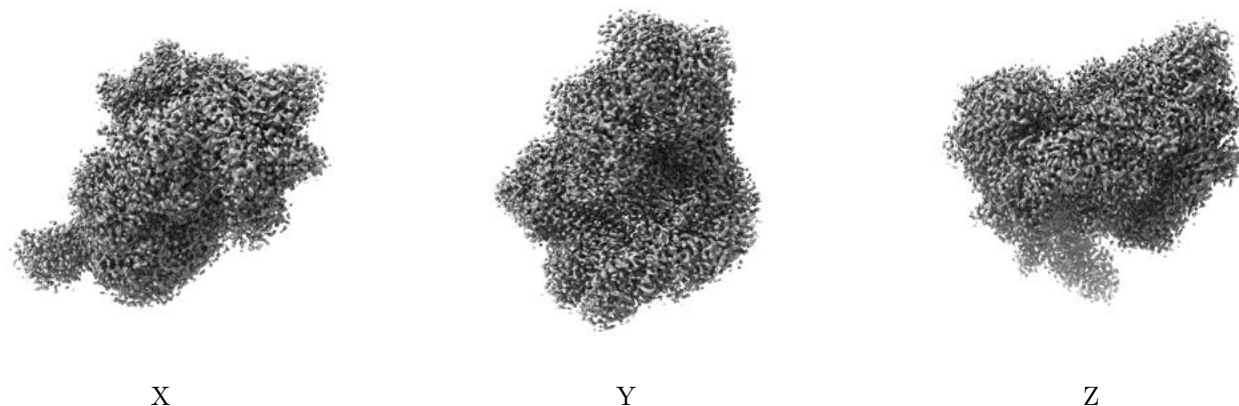


Z

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

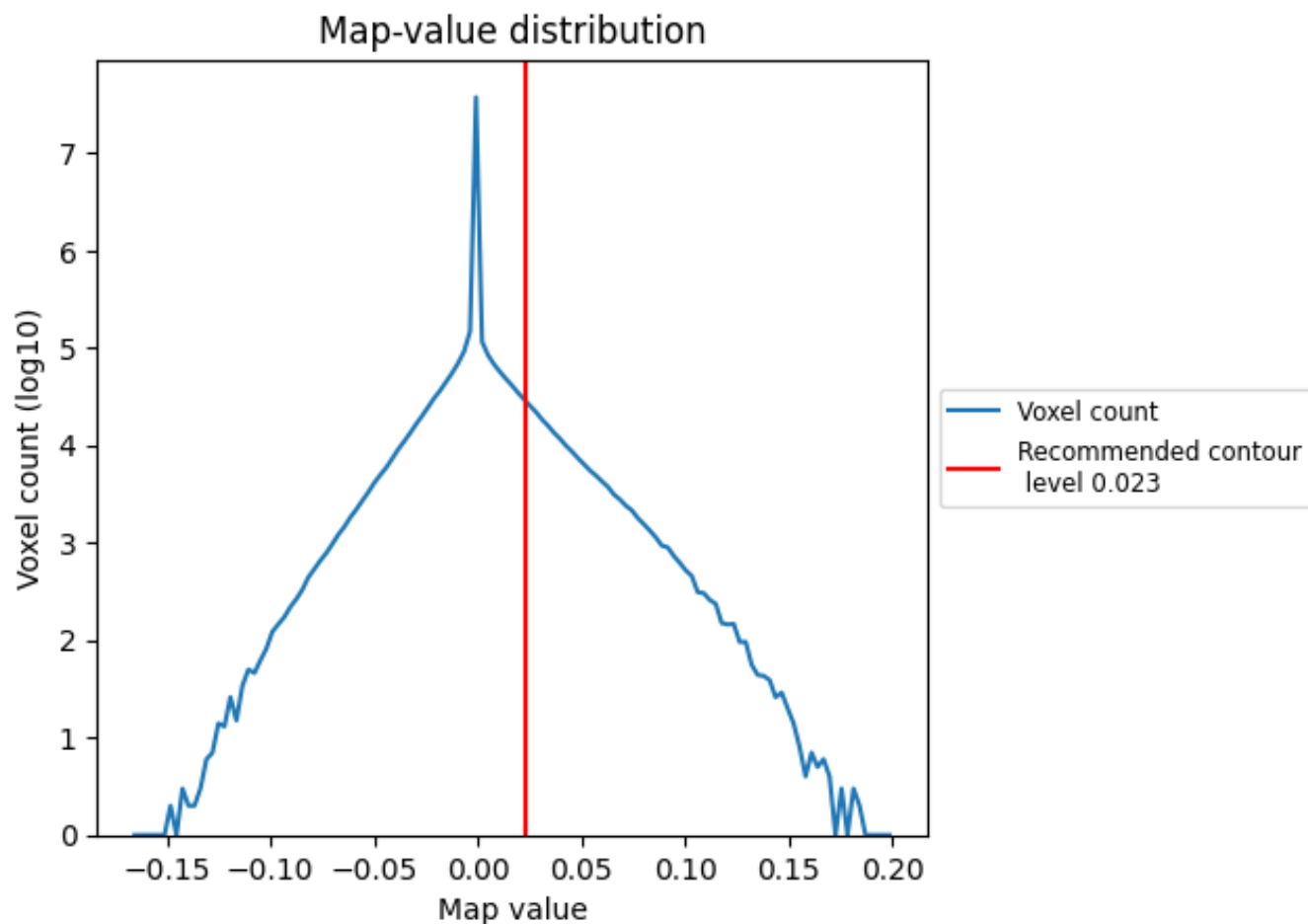
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

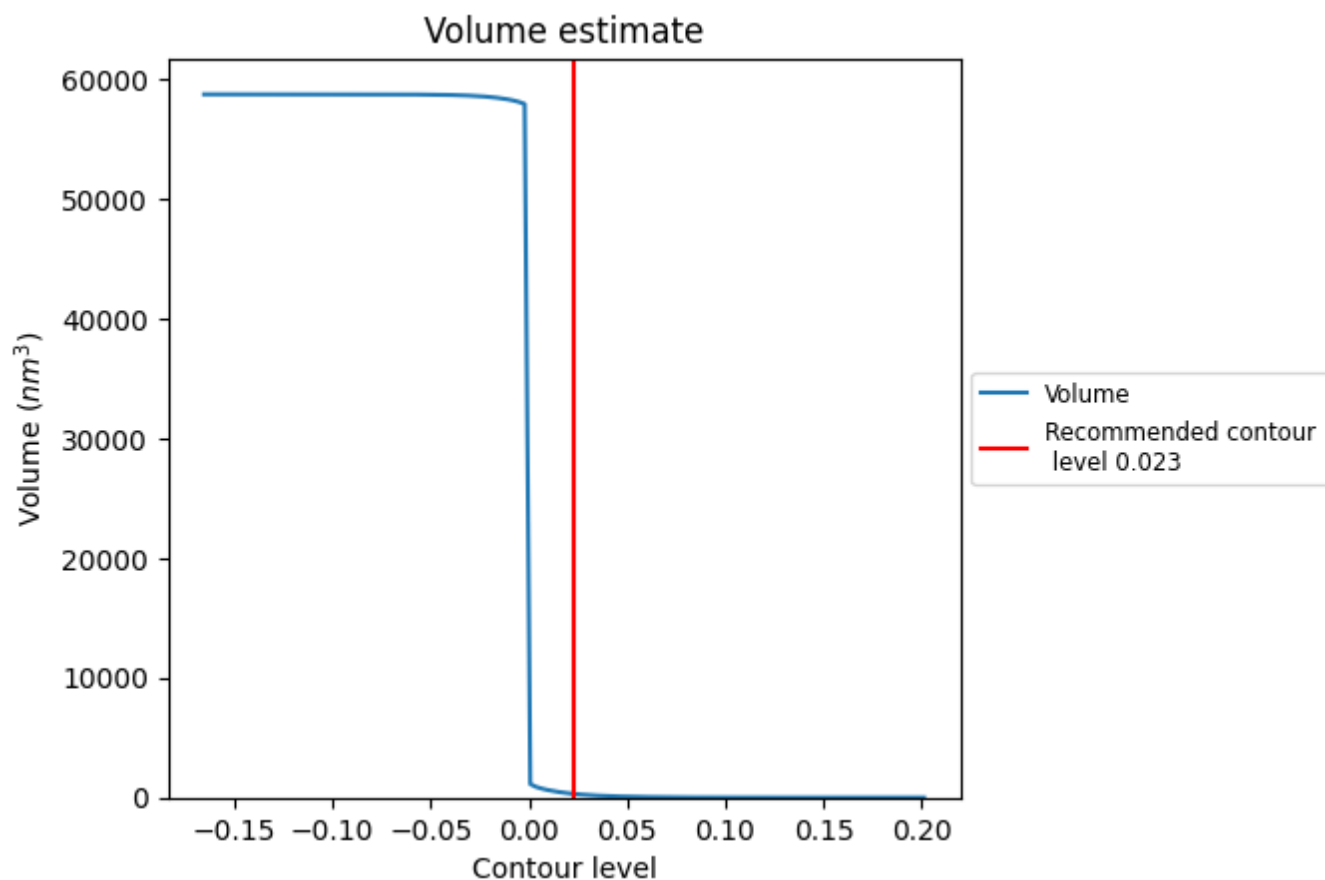
This section contains the results of statistical analysis of the map.

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.

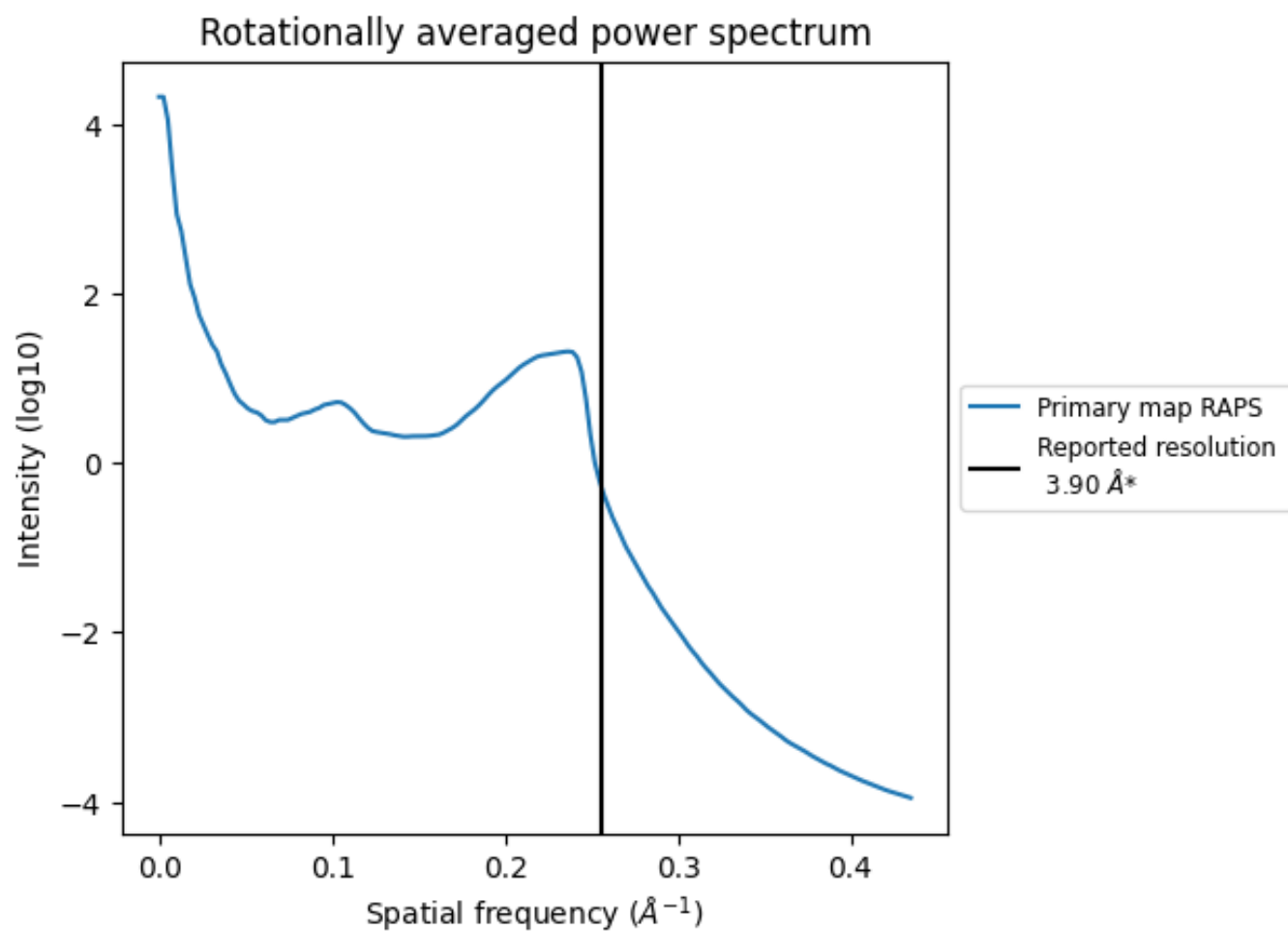
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 308 nm³; this corresponds to an approximate mass of 278 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⁻¹

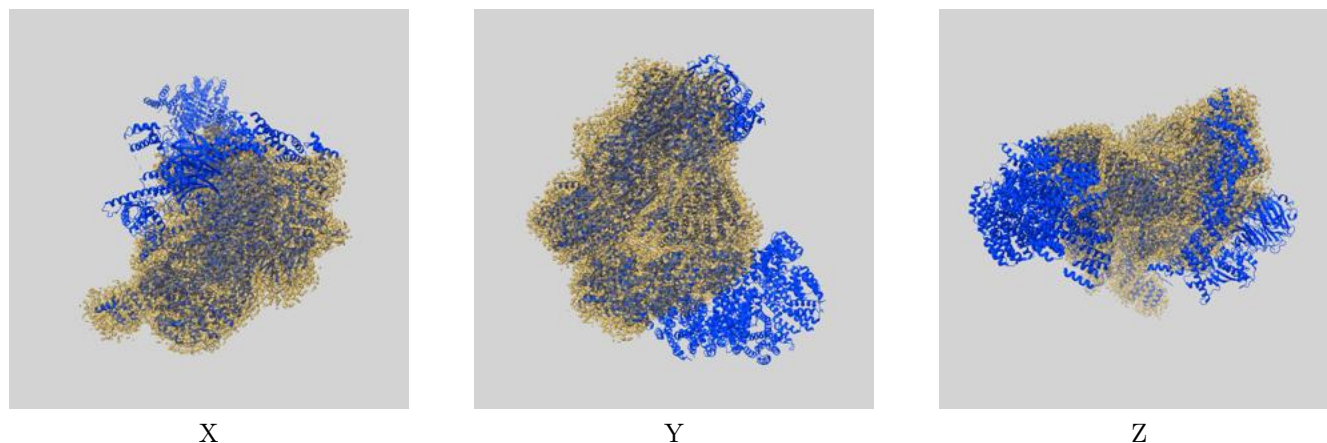
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

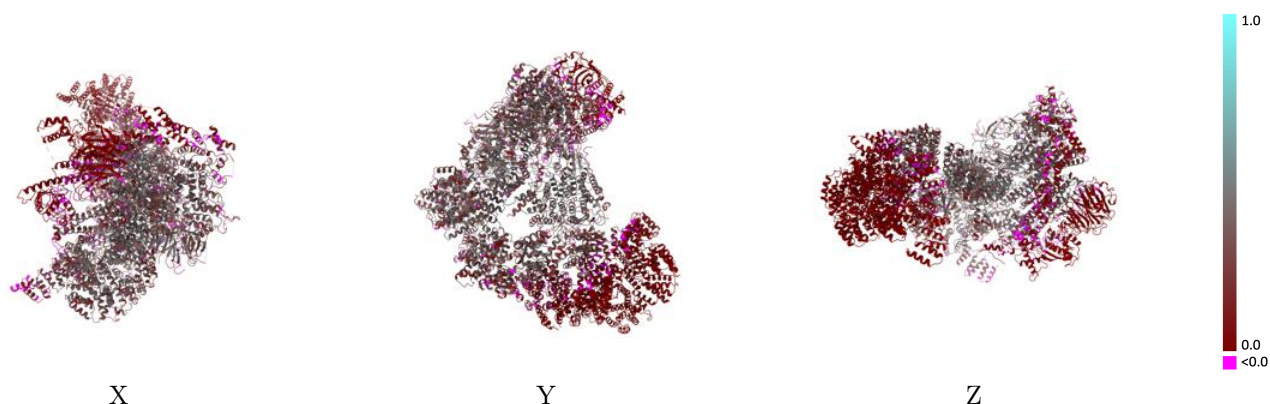
This section contains information regarding the fit between EMDB map EMD-10518 and PDB model 6TM5. Per-residue inclusion information can be found in section [3](#) on page [8](#).

9.1 Map-model overlay [i](#)



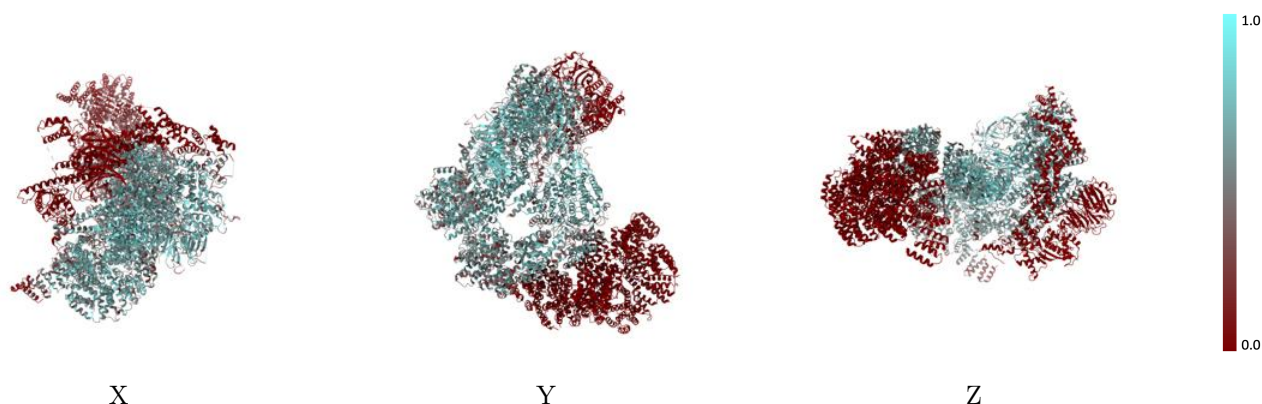
The images above show the 3D surface view of the map at the recommended contour level 0.023 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



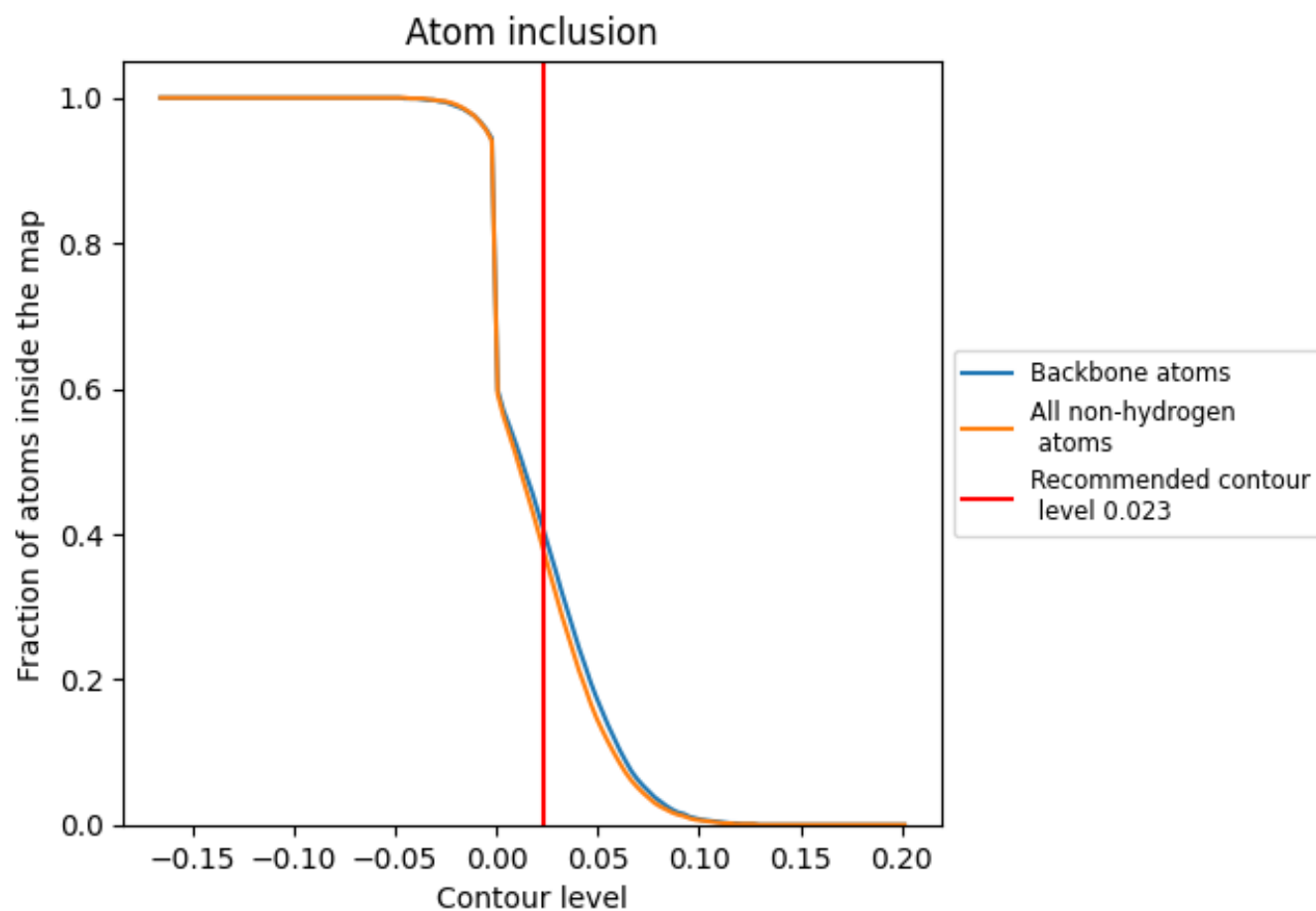
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.023).

9.4 Atom inclusion [i](#)



At the recommended contour level, 41% of all backbone atoms, 38% 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 (0.023) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.3810	 0.2120
A	 0.6490	 0.3470
B	 0.0020	 0.0290
C	 0.6470	 0.3530
D	 0.6390	 0.3260
E	 0.0380	 0.0930
F	 0.0100	 0.0280
G	 0.4100	 0.2260
H	 0.0280	 0.0560
I	 0.2790	 0.1660
J	 0.5620	 0.2910
K	 0.5760	 0.3100
L	 0.3980	 0.2180
M	 0.5460	 0.3010
N	 0.0270	 0.0550
O	 0.6720	 0.3600
P	 0.5690	 0.2900
Q	 0.5710	 0.4260
S	 0.0000	 0.0000
T	 0.5440	 0.2430
W	 0.5480	 0.3010
X	 0.0000	 0.0010
Y	 0.0000	 0.0000

