



Full wwPDB EM Validation Report ⓘ

Dec 10, 2025 – 07:07 pm GMT

PDB ID : 7AOE / pdb_00007aoe
EMDB ID : EMD-11842
Title : Schizosaccharomyces pombe RNA polymerase I (elongation complex)
Authors : Heiss, F.; Daiss, J.; Becker, P.; Engel, C.
Deposited on : 2020-10-14
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:

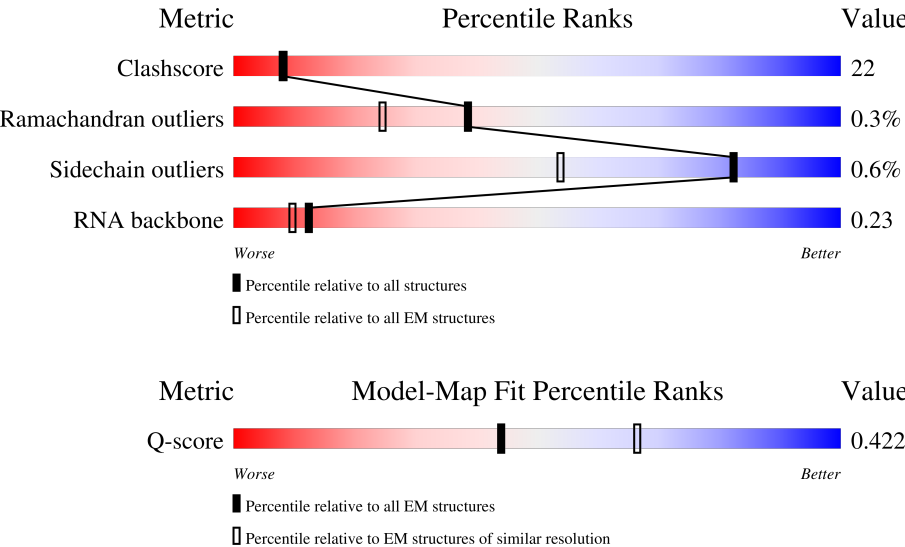
EMDB validation analysis : 0.0.1.dev129
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.47

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	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
RNA backbone	6643	2191	-
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	1689	
2	B	1174	
3	C	348	

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Mol	Chain	Length	Quality of chain
4	D	147	
5	E	210	
6	F	142	
7	G	173	
8	H	125	
9	I	119	
10	J	71	
11	K	125	
12	L	63	
13	U	39	
14	T	39	
15	R	20	

2 Entry composition

There are 16 unique types of molecules in this entry. The entry contains 30828 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-directed RNA polymerase I subunit rpa1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1401	Total	C	N	O	S	0	0
			11102	7039	1918	2086	59		

- Molecule 2 is a protein called Probable DNA-directed RNA polymerase I subunit RPA2.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1174	Total	C	N	O	S	0	0
			9254	5867	1618	1710	59		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	317	Total	C	N	O	S	0	0
			2533	1621	430	475	7		

- Molecule 4 is a protein called DNA-directed RNA polymerase I subunit rpa14.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	39	Total	C	N	O	S	0	0
			322	203	57	61	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	207	Total	C	N	O	S	0	0
			1663	1050	301	306	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	82	Total	C	N	O	S	0	0
			650	413	111	123	3		

- Molecule 7 is a protein called DNA-directed RNA polymerase I subunit rpa43.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	160	Total	C	N	O	S	0	0
			1267	817	210	236	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	123	Total	C	N	O	S	0	0
			990	628	166	193	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	57	Total	C	N	O	S	0	0
			431	269	69	89	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	68	Total	C	N	O	S	0	0
			550	350	93	100	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	95	Total	C	N	O	S	0	0
			745	472	123	146	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	45	Total	C	N	O	S	0	0
			368	225	74	61	8		

- Molecule 13 is a DNA chain called non-template DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	U	14	Total	C	N	O	P	0	0
			285	138	51	83	13		

- Molecule 14 is a DNA chain called template DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	T	25	Total	C	N	O	P	0	0
			509	244	95	146	24		

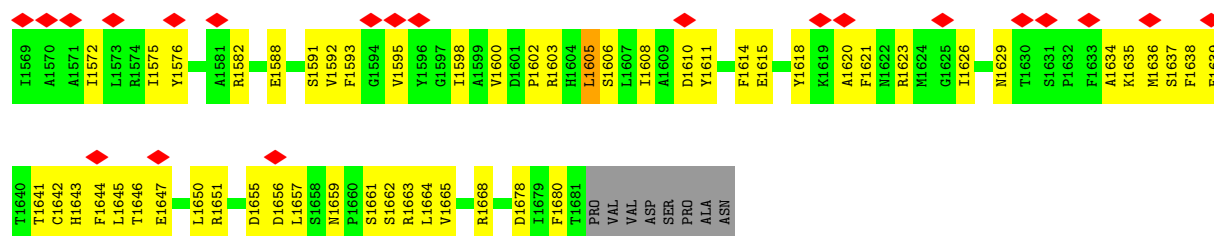
- Molecule 15 is a RNA chain called RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	R	7	Total	C	N	O	P	0	0
			153	68	31	47	7		

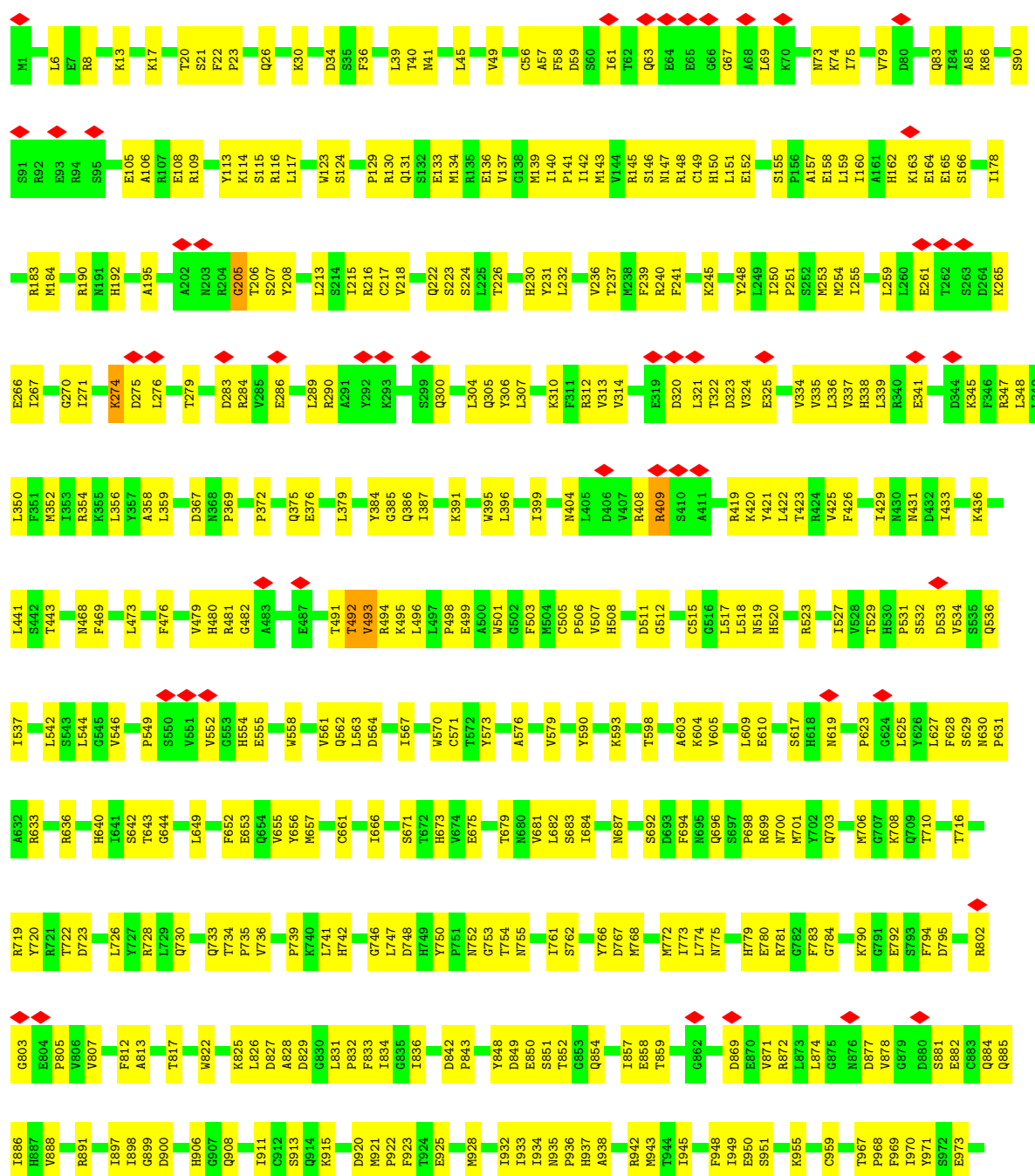
- Molecule 16 is ZINC ION (CCD ID: ZN) (formula: Zn).

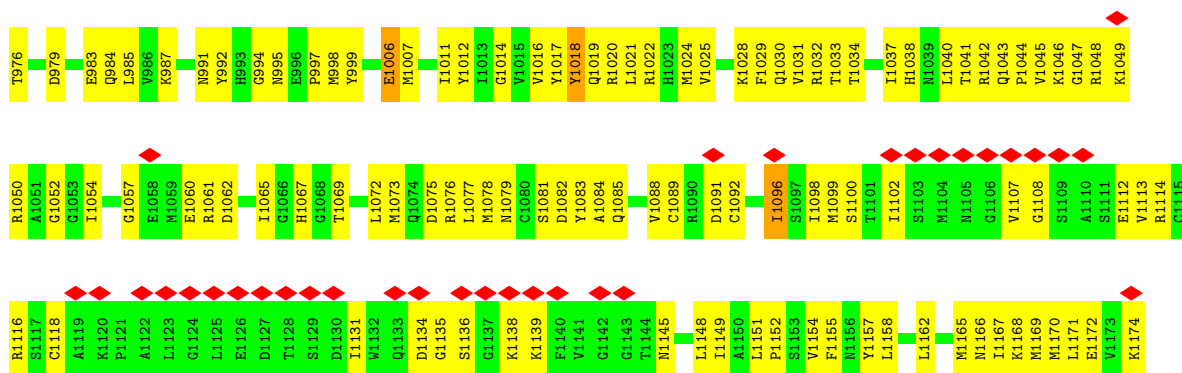
Mol	Chain	Residues	Atoms		AltConf
16	A	2	Total	Zn	0
			2	2	
16	B	1	Total	Zn	0
			1	1	
16	I	1	Total	Zn	0
			1	1	
16	J	1	Total	Zn	0
			1	1	
16	L	1	Total	Zn	0
			1	1	

V1506	ASP	F1524	F1263	S1193	P1118	K1038	R968	S983	E790	A715	M632
S1507	PHE	S1525	C1264	V1194	Y1119	H1039	R969	P884	L791	L716	H633
L1508	ASN	N1326	K1285	L1197	K1120	L1040	V970	I885	L792	K717	Y634
V1509	ASP	N1327	K1286	L1198	Y1121	E1041	P971	N891	C793	E720	A635
E1510	ARG	F1328	V1287	S1199	D1122	G1042	L972	L892	L795	E721	N636
A1512	ASN	L1329	N1268	Q1200	P1123	V1045	M973	E893	L796	T722	Y640
C1513	GLU	K1330	K1269	E1204	S1131	Y1047	S975	E894	L797	M723	F644
S1514	ASN	I1331	K1289	P1205	G1136	D1048	K977	V896	K798	Y724	F644
E1515	LEU	L1270	L1271	M1209	S1137	H1049	P980	R897	S800	G725	G646
T1516	VAL	L1272	V1272	T1210	G1136	T1050	S981	D898	S804	G726	D647
V1517	ARG	S1273	S1273	L1211	S1138	V1051	F982	L902	H810	T727	E648
I1518	SER	E1274	V1275	L1212	E1139	D1052	P983	Q903	S811	T728	M649
H1519	GLN	V1276	V1276	L1213	K1140	D1053	P984	G904	L730	T729	H652
E1520	HIS	Q1277	Q1277	PHE	F1141	S1054	P985	L905	Q903	L731	F653
E1520	ALA	R1278	R1278	T1213	Q1142	D1055	Y985	D906	H812	P732	F653
I1521	SER	V1279	V1279	HIS	R1143	D1056	G992	A907	H813	A733	T657
F1522	TTR	R1280	R1280	PHE	A1144	S1057	I995	K910	E814	I734	N658
T1525	GLU	V1281	V1281	ALA	V1145	I1058	A996	M913	L823	I735	A659
R1526	GLY	T1282	T1282	GLY	D1146	Q1060	S997	T917	L824	T742	R660
C1527	ASP	E1283	E1283	GLY	E1147	H1062	R998	M913	L825	T743	S661
F1528	ALA	K1284	K1284	ALA	K1151	Y1063	P999	T925	S826	T744	E662
S1529	ASP	ILE	ILE	LYS	D1154	G1064	I1000	I925	S829	T746	Q664
V1530	VAL	GLN	GLN	GLN	K1155	E1065	G1002	I925	R830	I747	N668
P1531	ILE	GLY	GLY	GLY	L1156	D1066	I1003	I921	R830	T748	T669
PRO	LEU	GLY	GLY	GLY	I1157	S1067	A1004	I921	L831	T748	L674
ASP	LEU	ASP	SER	SER	A1158	L1068	P1005	I925	M838	P676	P676
SER	GLN	ASP	ASP	ASP	SER	D1069	Y1008	I925	T842	L752	R683
ALA	LEU	GLU	GLU	GLU	LYS	V1070	Y1009	I925	C843	L752	G684
LEU	THR	GLN	GLN	GLN	LYS	T1071	F1010	I925	R844	N753	G684
D1537	VAL	VAL	VAL	VAL	E1162	Q1072	H1011	I925	D847	R759	I685
V1538	PRO	PRO	SER	SER	S1163	K1073	M1012	I925	D851	G761	I686
V1539	ASN	GLU	GLU	GLU	K1164	H1074	M1013	I925	D851	L762	Q687
F1540	VAL	VAL	VAL	VAL	D1166	K1075	G1015	I925	D851	L762	D688
K1541	ASP	VAL	VAL	VAL	D1167	A1083	R1016	I925	D851	N763	H689
V1542	ASP	ALA	ALA	ALA	L1168	K1084	I1020	I925	D851	A768	M692
I1543	VAL	LEU	LEU	LEU	L1169	N1085	D1021	I925	D851	G693	G693
T1544	ASN	LEU	LEU	LEU	L1170	Y1086	T1022	I925	D851	V694	V694
E1545	MET	ASP	ASP	ASP	M1171	K1087	A1023	I925	D851	V695	V695
L1549	GLU	GLU	GLU	GLU	K1174	S1088	V1024	I925	D851	L696	L696
K1550	GLU	ASP	ASP	ASP	F1175	K1092	K1025	I925	D851	T697	T697
A1551	ASP	ASP	ASP	ASP	L1175	K1094	V1026	I925	D851	V770	V770
V1552	GLU	ASP	ASP	ASP	L1176	V1093	A1026	I925	D851	S775	S775
E1553	GLY	ALA	ALA	ALA	M1179	S1095	V1026	I925	D851	S779	S779
E1554	PHE	LEU	LEU	LEU	Q1180	V1098	A1028	I925	D851	E781	E781
F1555	LEU	LEU	LEU	LEU	Y1183	S1100	G1030	I925	D851	G782	G782
V1556	GLU	GLU	GLU	GLU	L1178	A1101	G1031	I925	D851	S783	S783
N1557	ASP	GLY	GLY	GLY	M1179	S1108	L1032	I925	D851	L785	L785
E1558	GLU	GLY	GLY	GLY	Q1180	S1108	L1033	I925	D851	V787	V787
V1559	VAL	GLN	GLN	GLN	Y1183	K1113	C1035	I925	D851	S880	S880
T1560	ALA	ALA	ALA	ALA	S1186	K1117	M1037	I925	D851	G789	G789
E1561	LEU	LEU	LEU	LEU	L1187	K1117	M1037	I925	D851		
M1562	SER	GLU	GLU	GLU	L1188	K1117	M1037	I925	D851		
L1563	VAL	GLN	GLN	GLN	L1189	K1117	M1037	I925	D851		
T1564	SER	ASP	ASP	ASP	P1190	K1117	M1037	I925	D851		
Y1565	GLU	ASP	ASP	ASP	G1191	K1117	M1037	I925	D851		
T1566	GLU	ASP	ASP	ASP	E1192	K1117	M1037	I925	D851		
N1567	GLU	ASP	ASP	ASP		K1117	M1037	I925	D851		
D1568	ASP	ASP	ASP	ASP		K1117	M1037	I925	D851		



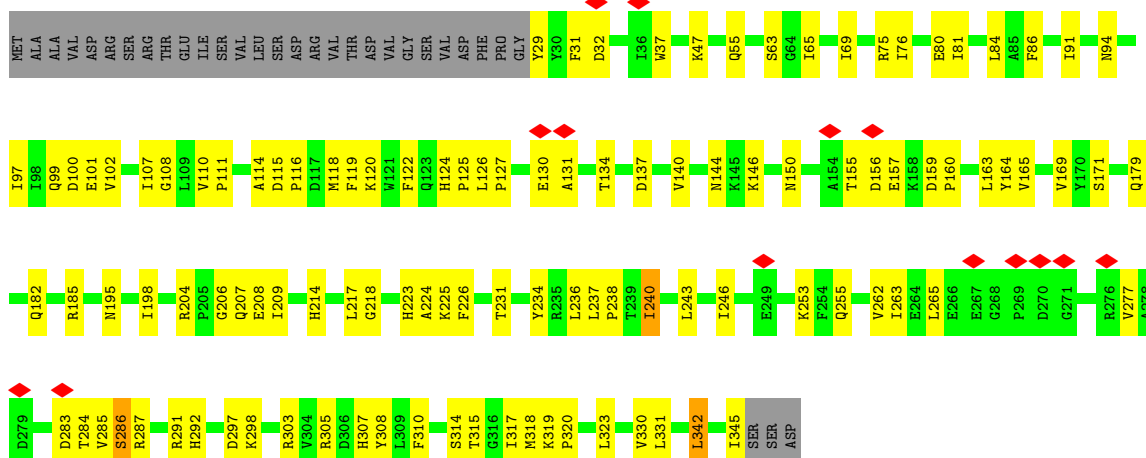
• Molecule 2: Probable DNA-directed RNA polymerase I subunit RPA2





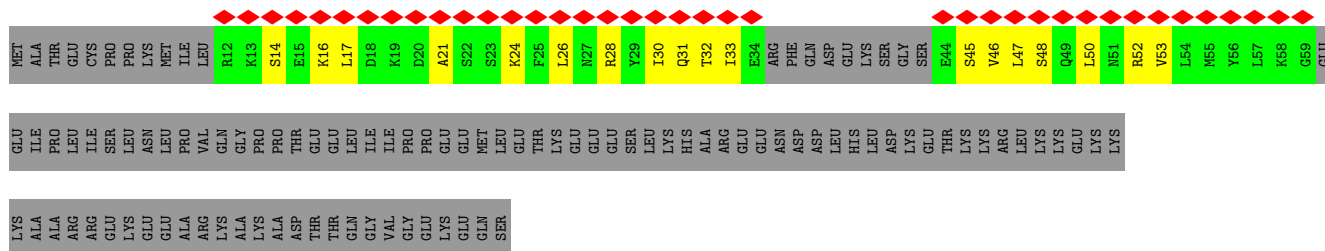
• Molecule 3: DNA-directed RNA polymerases I and III subunit RPAC1

Chain C: 59% 31% 9%



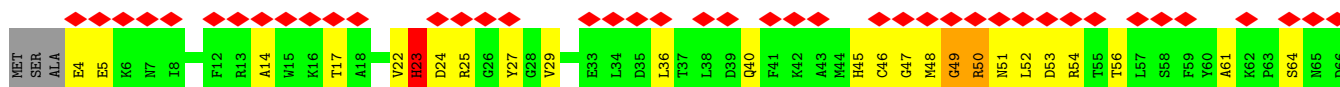
• Molecule 4: DNA-directed RNA polymerase I subunit rpa14

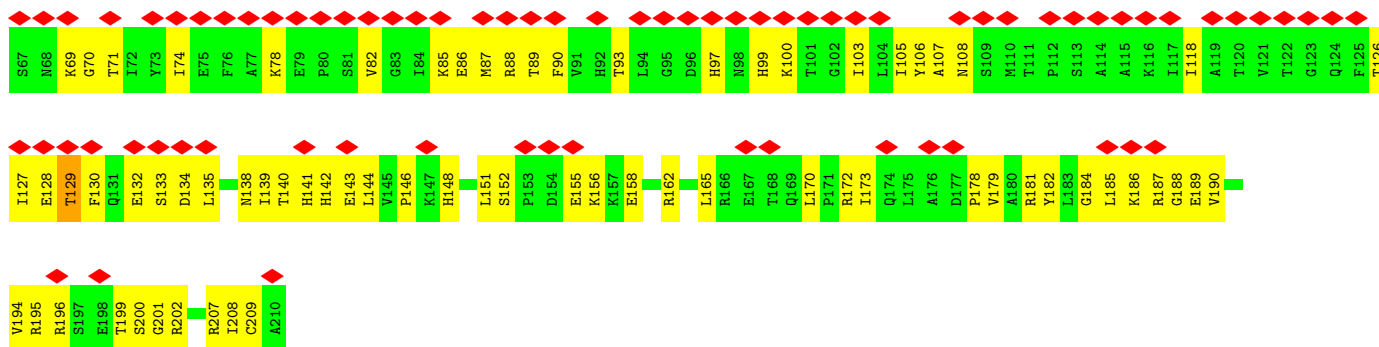
Chain D: 27% 14% 12% 73%



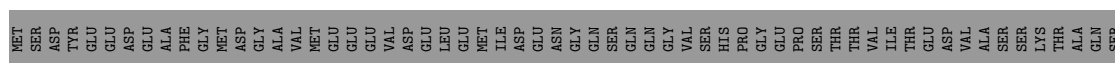
• Molecule 5: DNA-directed RNA polymerases I, II, and III subunit RPABC1

Chain E: 55% 53% 44%

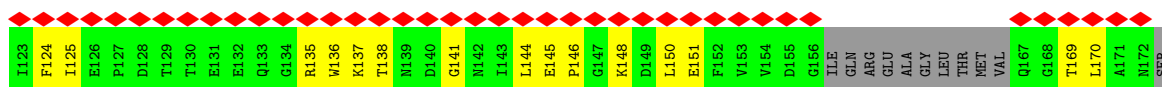
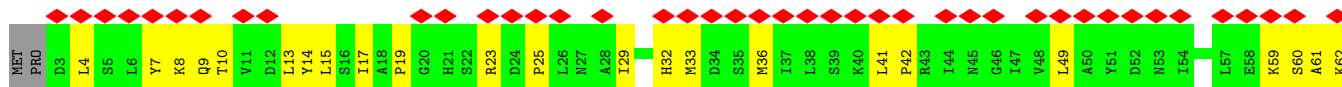
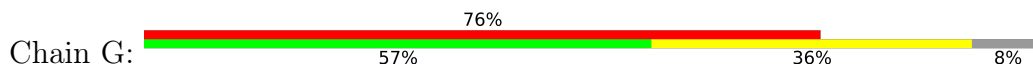




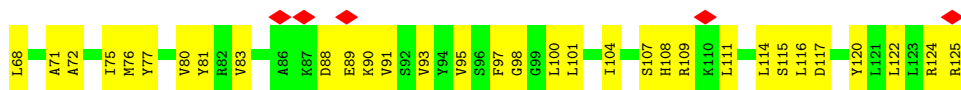
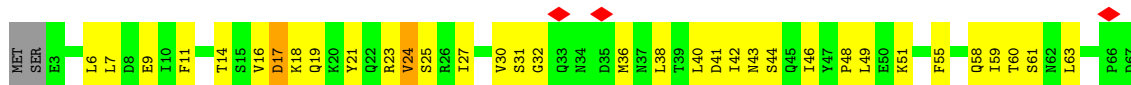
- Molecule 6: DNA-directed RNA polymerases I, II, and III subunit RPABC2



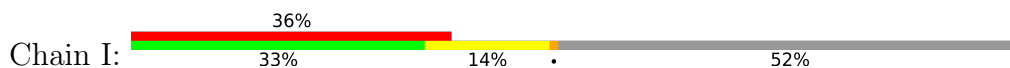
- Molecule 7: DNA-directed RNA polymerase I subunit rpa43

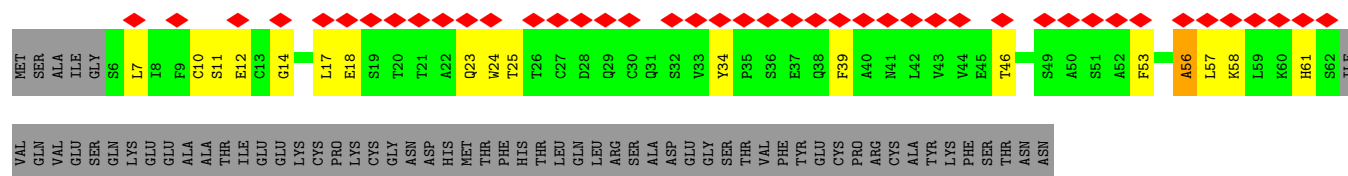


- Molecule 8: DNA-directed RNA polymerases I, II, and III subunit RPABC3



- Molecule 9: DNA-directed RNA polymerase I subunit RPA12

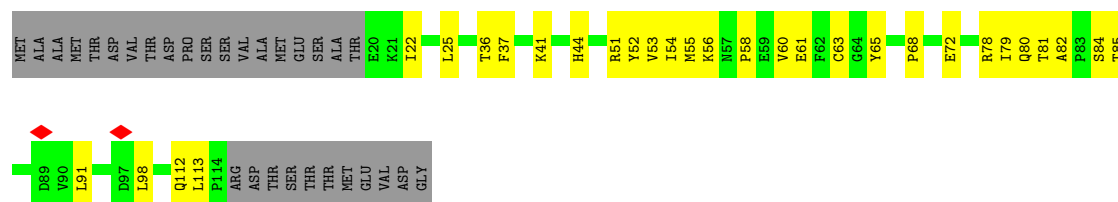




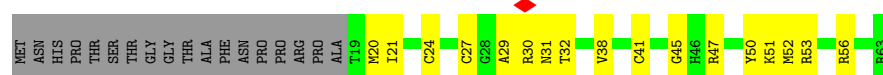
- Molecule 10: DNA-directed RNA polymerases I, II, and III subunit RPABC5



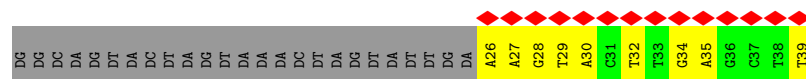
- Molecule 11: DNA-directed RNA polymerases I and III subunit RPAC2



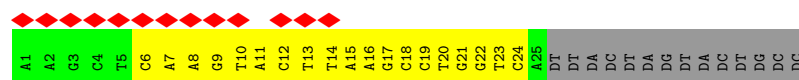
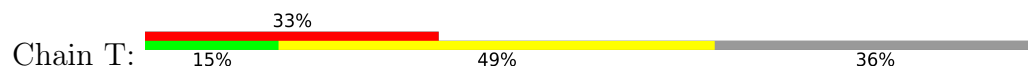
- Molecule 12: DNA-directed RNA polymerases I, II, and III subunit RPABC4



- Molecule 13: non-template DNA



- Molecule 14: template DNA



- Molecule 15: RNA



U	A	U	C	U	G	C	C	A	U	G	U	A	G13	A14	C15	C16	A17	G18	G19	C
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4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	61954	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	88.28	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.371	Depositor
Minimum map value	-0.231	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.015	Depositor
Recommended contour level	0.06	Depositor
Map size ($\text{\AA}$)	272.256, 272.256, 272.256	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.0635, 1.0635, 1.0635	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	0.33	0/11323	0.57	4/15297 (0.0%)
2	B	0.38	0/9463	0.56	0/12794
3	C	0.35	0/2588	0.51	0/3505
4	D	0.14	0/323	0.40	0/427
5	E	0.24	0/1695	0.60	4/2287 (0.2%)
6	F	0.30	0/660	0.44	0/893
7	G	0.23	0/1295	0.48	0/1755
8	H	0.33	0/1004	0.64	2/1355 (0.1%)
9	I	0.20	0/439	0.47	1/596 (0.2%)
10	J	0.43	0/558	0.60	0/751
11	K	0.36	0/759	0.54	2/1030 (0.2%)
12	L	0.34	0/371	0.57	0/491
13	U	0.23	0/319	0.43	0/491
14	T	0.31	0/571	0.44	0/879
15	R	0.30	0/171	0.48	0/265
All	All	0.34	0/31539	0.55	13/42816 (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	7
2	B	0	5
5	E	0	3
All	All	0	15

There are no bond length outliers.

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1065	GLU	CA-C-N	6.50	133.95	121.54
1	A	1065	GLU	C-N-CA	6.50	133.95	121.54
11	K	112	GLN	CA-C-N	-6.40	108.87	123.15
11	K	112	GLN	C-N-CA	-6.40	108.87	123.15
5	E	49	GLY	CA-C-N	5.90	132.32	121.70
5	E	49	GLY	C-N-CA	5.90	132.32	121.70
8	H	17	ASP	CA-C-N	5.75	132.04	121.70
8	H	17	ASP	C-N-CA	5.75	132.04	121.70
1	A	1067	SER	CA-C-N	5.24	131.55	121.54
1	A	1067	SER	C-N-CA	5.24	131.55	121.54
5	E	23	HIS	CA-C-N	5.09	130.86	121.70
5	E	23	HIS	C-N-CA	5.09	130.86	121.70
9	I	56	ALA	N-CA-C	-5.01	108.20	114.56

There are no chirality outliers.

All (15) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1068	LEU	Peptide
1	A	1566	THR	Peptide
1	A	1656	ASP	Peptide
1	A	246	ILE	Peptide
1	A	6	PRO	Peptide
1	A	686	ILE	Peptide
1	A	84	ILE	Peptide
2	B	205	GLY	Peptide
2	B	274	LYS	Peptide
2	B	320	ASP	Peptide
2	B	409	ARG	Peptide
2	B	498	PRO	Peptide
5	E	129	THR	Peptide
5	E	23	HIS	Peptide
5	E	50	ARG	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	11102	0	11105	575	0
2	B	9254	0	9225	469	0
3	C	2533	0	2540	99	0
4	D	322	0	338	19	0
5	E	1663	0	1684	79	0
6	F	650	0	674	31	0
7	G	1267	0	1278	55	0
8	H	990	0	1001	56	0
9	I	431	0	410	16	0
10	J	550	0	566	34	0
11	K	745	0	745	27	0
12	L	368	0	377	21	0
13	U	285	0	161	8	0
14	T	509	0	283	20	0
15	R	153	0	78	3	0
16	A	2	0	0	0	0
16	B	1	0	0	0	0
16	I	1	0	0	0	0
16	J	1	0	0	0	0
16	L	1	0	0	0	0
All	All	30828	0	30465	1328	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 22.

All (1328) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1092:CYS:HB3	2:B:1118:CYS:SG	1.94	1.08
1:A:1297:TYR:HB3	1:A:1494:LEU:O	1.61	1.00
1:A:466:GLN:O	1:A:470:LYS:HB2	1.63	0.96
1:A:1297:TYR:OH	1:A:1505:MET:SD	2.24	0.94
5:E:23:HIS:HA	5:E:25:ARG:H	1.34	0.93
1:A:1135:GLY:HA2	1:A:1180:GLN:HE21	1.33	0.92
2:B:802:ARG:HE	2:B:803:GLY:H	1.18	0.91
1:A:1664:LEU:HD11	2:B:1077:LEU:HD12	1.53	0.91
1:A:1324:PHE:O	1:A:1328:PHE:HB3	1.71	0.90
2:B:630:ASN:O	2:B:633:ARG:NH1	2.07	0.88
1:A:1228:ILE:HG13	1:A:1229:PRO:HD3	1.55	0.87
1:A:114:VAL:HG11	1:A:175:ALA:HB1	1.57	0.87
1:A:56:PRO:HG3	1:A:63:CYS:HB3	1.57	0.87
2:B:728:ARG:NH2	2:B:730:GLN:OE1	2.09	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1068:LEU:HD13	1:A:1072:LYS:HB2	1.57	0.85
7:G:61:ALA:HB2	7:G:72:ILE:HD12	1.58	0.84
2:B:1025:VAL:HA	2:B:1028:LYS:HG2	1.58	0.83
5:E:196:ARG:HA	5:E:202:ARG:HB2	1.61	0.83
1:A:842:THR:HG21	2:B:1011:ILE:HA	1.58	0.83
1:A:1312:GLU:HB2	9:I:57:LEU:HD21	1.60	0.83
2:B:767:ASP:O	2:B:935:ASN:ND2	2.12	0.82
2:B:687:ASN:HD21	2:B:741:LEU:HD12	1.42	0.81
2:B:761:ILE:HD12	2:B:1011:ILE:HD13	1.61	0.81
1:A:491:VAL:O	1:A:629:THR:OG1	1.97	0.81
1:A:826:SER:OG	1:A:830:ARG:NH1	2.12	0.81
2:B:555:GLU:HB2	2:B:558:TRP:HD1	1.46	0.81
1:A:1036:LEU:O	1:A:1199:SER:OG	2.00	0.80
1:A:723:MET:SD	1:A:823:ARG:NH2	2.56	0.79
5:E:93:THR:O	5:E:97:HIS:ND1	2.14	0.79
2:B:348:LEU:HD12	2:B:562:GLN:HE22	1.47	0.79
10:J:44:CYS:SG	10:J:45:CYS:N	2.56	0.78
5:E:190:VAL:HG22	5:E:208:ILE:HG22	1.66	0.78
8:H:17:ASP:HA	8:H:18:LYS:HB2	1.64	0.78
1:A:1320:ILE:O	1:A:1324:PHE:HB3	1.84	0.78
1:A:373:ARG:HB3	1:A:385:ASN:HD21	1.49	0.77
2:B:906:HIS:NE2	2:B:950:GLU:OE1	2.17	0.77
1:A:619:HIS:NE2	1:A:640:TYR:OH	2.11	0.77
8:H:24:VAL:HG12	8:H:43:ASN:HA	1.66	0.77
1:A:613:LYS:HD3	1:A:676:PRO:HG2	1.65	0.77
2:B:636:ARG:NH2	2:B:675:GLU:OE2	2.14	0.77
1:A:977:LYS:HE2	1:A:980:PRO:HA	1.67	0.76
2:B:190:ARG:HD3	2:B:218:VAL:HG11	1.67	0.76
11:K:36:THR:HG22	11:K:78:ARG:HD3	1.67	0.76
3:C:234:TYR:HB3	3:C:310:PHE:CD1	2.20	0.76
1:A:1068:LEU:HD23	1:A:1069:ASP:H	1.51	0.75
1:A:1063:TYR:HB3	1:A:1066:ASP:HB3	1.67	0.75
10:J:35:LEU:HA	10:J:38:LEU:HD13	1.68	0.75
2:B:239:PHE:N	2:B:250:ILE:O	2.16	0.75
1:A:1336:ILE:HG22	1:A:1508:LEU:HD13	1.68	0.75
1:A:497:ASN:ND2	2:B:766:TYR:OH	2.20	0.74
1:A:700:ASP:OD2	8:H:23:ARG:NH1	2.20	0.74
2:B:322:THR:HG21	2:B:325:GLU:HB2	1.69	0.74
2:B:653:GLU:N	2:B:653:GLU:OE1	2.20	0.74
1:A:859:ARG:NH1	2:B:973:GLU:OE1	2.21	0.73
2:B:852:THR:HG23	2:B:854:GLN:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:PHE:HE2	1:A:323:MET:HB2	1.53	0.73
2:B:1024:MET:SD	2:B:1024:MET:N	2.62	0.73
1:A:1205:PRO:HB3	1:A:1598:ILE:HD12	1.69	0.73
5:E:61:ALA:O	5:E:71:THR:OG1	2.06	0.73
2:B:768:MET:SD	2:B:935:ASN:ND2	2.61	0.73
2:B:781:ARG:NH1	10:J:10:CYS:O	2.22	0.73
1:A:920:ILE:HD11	1:A:959:LEU:HD13	1.71	0.72
1:A:1001:THR:HG23	2:B:976:THR:HG22	1.70	0.72
1:A:893:GLU:OE2	2:B:617:SER:OG	2.06	0.72
2:B:265:LYS:HZ3	9:I:14:GLY:HA2	1.53	0.72
2:B:728:ARG:HH22	3:C:99:GLN:NE2	1.87	0.72
1:A:540:GLY:O	1:A:596:HIS:ND1	2.23	0.72
2:B:762:SER:HB2	2:B:768:MET:HE1	1.72	0.72
1:A:445:ILE:HG23	2:B:1165:MET:HE2	1.69	0.72
1:A:700:ASP:O	8:H:23:ARG:NH1	2.23	0.72
2:B:1046:LYS:NZ	14:T:19:DC:OP1	2.18	0.72
1:A:731:PRO:O	1:A:745:GLN:NE2	2.21	0.72
2:B:231:TYR:OH	2:B:284:ARG:NH2	2.22	0.72
1:A:28:SER:OG	1:A:79:HIS:ND1	2.18	0.72
2:B:259:LEU:HD21	2:B:345:LYS:HB2	1.72	0.71
2:B:1037:ILE:HD12	2:B:1042:ARG:HG3	1.70	0.71
8:H:41:ASP:OD2	8:H:101:LEU:N	2.22	0.71
3:C:223:HIS:HD2	3:C:225:LYS:HG2	1.55	0.71
2:B:270:GLY:HA3	2:B:350:LEU:HD13	1.71	0.71
1:A:1066:ASP:C	1:A:1068:LEU:H	1.99	0.71
1:A:1140:LYS:HB2	5:E:201:GLY:H	1.56	0.71
1:A:610:THR:HG23	1:A:615:SER:HB3	1.73	0.71
1:A:826:SER:HG	1:A:830:ARG:HH12	1.37	0.71
1:A:12:LYS:HE3	2:B:1174:LYS:HB3	1.73	0.71
2:B:755:ASN:O	10:J:47:ARG:NH1	2.24	0.71
1:A:1549:LEU:HD13	1:A:1575:ILE:HD11	1.72	0.70
7:G:105:ILE:HG23	7:G:109:PHE:HB2	1.73	0.70
1:A:494:PRO:HG3	1:A:644:PHE:CD1	2.27	0.70
1:A:1479:HIS:HB3	1:A:1493:GLU:HB3	1.74	0.70
2:B:1099:MET:HE3	2:B:1116:ARG:HD2	1.73	0.70
7:G:10:THR:HG22	7:G:77:ASP:HB3	1.72	0.70
8:H:11:PHE:HB2	8:H:55:PHE:HB2	1.73	0.70
3:C:234:TYR:HB3	3:C:310:PHE:HD1	1.56	0.70
7:G:117:SER:HB3	7:G:169:THR:HA	1.74	0.70
2:B:511:ASP:OD1	2:B:512:GLY:N	2.25	0.70
1:A:1050:THR:HG23	1:A:1061:PHE:HA	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:578:SER:HB2	1:A:584:SER:HB2	1.73	0.69
1:A:470:LYS:O	1:A:471:LYS:HG2	1.91	0.69
1:A:936:ASN:OD1	1:A:939:GLN:N	2.22	0.69
7:G:33:MET:HE3	7:G:76:VAL:HG21	1.73	0.69
1:A:781:GLU:O	1:A:783:SER:N	2.25	0.69
2:B:753:GLY:N	2:B:1017:TYR:OH	2.20	0.69
1:A:498:ILE:HG13	1:A:499:GLU:H	1.58	0.68
2:B:1091:ASP:OD1	2:B:1145:ASN:ND2	2.26	0.68
1:A:1038:LYS:HB2	1:A:1638:PHE:CE2	2.28	0.68
1:A:1034:ARG:NH1	14:T:15:DA:OP1	2.27	0.68
2:B:147:ASN:O	2:B:148:ARG:NH1	2.27	0.68
1:A:1477:CYS:HA	1:A:1494:LEU:HD22	1.75	0.68
2:B:734:THR:HG1	10:J:51:THR:HG1	1.35	0.68
1:A:1038:LYS:HE2	1:A:1626:ILE:HG23	1.75	0.67
8:H:48:PRO:O	8:H:125:ARG:NH2	2.27	0.67
1:A:685:LEU:HD21	1:A:829:SER:HB2	1.75	0.67
2:B:149:CYS:SG	2:B:150:HIS:N	2.67	0.67
2:B:34:ASP:HB3	2:B:529:THR:HG21	1.76	0.67
1:A:1521:ILE:HG21	1:A:1551:ALA:HB2	1.76	0.67
12:L:31:ASN:HD21	12:L:41:CYS:HA	1.59	0.67
2:B:794:PHE:HB2	2:B:886:ILE:HG22	1.76	0.67
1:A:1020:ILE:HD11	2:B:491:THR:HG23	1.77	0.67
1:A:476:ARG:HH22	1:A:1034:ARG:CZ	2.08	0.67
1:A:479:MET:HE1	2:B:1158:LEU:HD22	1.77	0.67
2:B:231:TYR:HD1	2:B:237:THR:HG22	1.59	0.67
2:B:643:THR:HG22	2:B:644:GLY:H	1.60	0.67
3:C:240:ILE:HB	3:C:277:VAL:HG11	1.77	0.67
2:B:20:THR:OG1	2:B:26:GLN:NE2	2.28	0.67
3:C:204:ARG:H	3:C:207:GLN:HE21	1.43	0.67
1:A:603:LEU:HD22	1:A:621:ALA:HB2	1.78	0.66
4:D:30:ILE:HG23	4:D:47:LEU:HD11	1.78	0.66
11:K:55:MET:HE2	11:K:63:CYS:HB3	1.78	0.66
1:A:1052:ARG:HG2	1:A:1058:ILE:HD13	1.77	0.66
2:B:90:SER:HB2	2:B:878:VAL:HB	1.77	0.66
6:F:76:THR:OG1	6:F:79:GLU:OE1	2.09	0.66
2:B:734:THR:HG23	10:J:53:VAL:HG23	1.78	0.66
3:C:317:ILE:HG22	3:C:318:MET:HG3	1.78	0.66
2:B:164:GLU:N	2:B:164:GLU:OE2	2.29	0.66
2:B:719:ARG:O	2:B:872:ARG:NH2	2.29	0.66
6:F:121:PRO:HB2	6:F:122:LEU:HD12	1.77	0.65
5:E:134:ASP:OD1	5:E:135:LEU:N	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:607:ARG:HB2	1:A:649:MET:HG2	1.79	0.65
1:A:1634:ALA:HB2	1:A:1659:ASN:ND2	2.12	0.65
3:C:146:LYS:HG3	3:C:208:GLU:HB2	1.78	0.65
6:F:72:THR:O	6:F:126:ARG:NH1	2.23	0.65
1:A:1238:ALA:HB1	1:A:1618:TYR:HE2	1.60	0.65
1:A:736:ARG:HG3	8:H:75:ILE:HD12	1.79	0.65
2:B:555:GLU:HB2	2:B:558:TRP:CD1	2.29	0.65
3:C:47:LYS:HG3	3:C:63:SER:HB2	1.78	0.65
6:F:93:MET:HG3	7:G:68:PRO:HG3	1.78	0.65
1:A:687:GLN:HB3	2:B:937:HIS:CD2	2.32	0.65
3:C:150:ASN:HB2	3:C:165:VAL:HG13	1.79	0.65
8:H:14:THR:O	8:H:51:LYS:NZ	2.30	0.65
1:A:52:LEU:HG	1:A:64:ALA:HB2	1.78	0.64
15:R:13:G:H2'	15:R:14:A:H8	1.62	0.64
1:A:1037:MET:HE3	2:B:1061:ARG:HH22	1.62	0.64
1:A:89:PRO:HG2	1:A:445:ILE:HB	1.78	0.64
1:A:1645:LEU:HD11	2:B:1162:LEU:HD11	1.79	0.64
2:B:433:ILE:HA	2:B:436:LYS:HD2	1.79	0.64
6:F:123:LEU:HD12	6:F:135:ASP:HB2	1.80	0.64
2:B:216:ARG:NH2	2:B:224:SER:OG	2.30	0.64
2:B:347:ARG:HB3	2:B:567:ILE:HD12	1.80	0.64
2:B:780:GLU:OE2	3:C:224:ALA:N	2.30	0.64
2:B:849:ASP:OD1	2:B:850:GLU:N	2.31	0.64
2:B:1047:GLY:H	2:B:1052:GLY:HA3	1.63	0.64
2:B:998:MET:HB2	2:B:1011:ILE:HD12	1.79	0.64
2:B:205:GLY:O	2:B:207:SER:N	2.31	0.64
1:A:688:ASP:HB2	2:B:768:MET:SD	2.38	0.64
2:B:192:HIS:HB2	2:B:628:PHE:HZ	1.62	0.64
2:B:395:TRP:HE3	2:B:396:LEU:HD12	1.63	0.64
5:E:74:ILE:HA	5:E:103:ILE:HG12	1.79	0.64
1:A:732:PRO:HG2	1:A:735:GLN:HG2	1.79	0.64
2:B:312:ARG:NH2	2:B:322:THR:O	2.24	0.64
2:B:133:GLU:OE2	2:B:419:ARG:NH2	2.30	0.64
15:R:13:G:H2'	15:R:14:A:C8	2.32	0.64
2:B:399:ILE:HG22	2:B:429:ILE:HG21	1.79	0.63
2:B:696:GLN:HG2	2:B:698:PRO:HD2	1.79	0.63
2:B:692:SER:OG	2:B:700:ASN:ND2	2.31	0.63
5:E:151:LEU:HD22	5:E:155:GLU:HB3	1.79	0.63
1:A:697:THR:HG21	1:A:796:LEU:HG	1.81	0.63
7:G:118:ILE:HG12	7:G:170:LEU:HD13	1.81	0.63
1:A:247:PHE:CE2	1:A:323:MET:HB2	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:744:LYS:NZ	1:A:781:GLU:OE1	2.30	0.63
1:A:211:ARG:HD3	1:A:1651:ARG:NH2	2.14	0.63
1:A:736:ARG:NH1	8:H:72:ALA:O	2.31	0.63
1:A:1041:GLU:N	1:A:1041:GLU:OE1	2.30	0.63
14:T:6:DC:H2'	14:T:7:DA:C8	2.32	0.63
2:B:160:ILE:HD11	2:B:166:SER:HB3	1.80	0.63
9:I:10:CYS:SG	9:I:11:SER:N	2.71	0.63
1:A:248:GLU:HG2	1:A:249:ILE:H	1.64	0.62
1:A:517:GLU:OE1	1:A:595:ARG:NE	2.30	0.62
1:A:896:TYR:HB3	1:A:902:LEU:HD21	1.80	0.62
1:A:1135:GLY:HA2	1:A:1180:GLN:NE2	2.11	0.62
1:A:1610:ASP:OD1	5:E:195:ARG:NH1	2.32	0.62
1:A:1623:ARG:HA	1:A:1626:ILE:HD12	1.81	0.62
2:B:494:ARG:HD2	2:B:515:CYS:O	1.99	0.62
9:I:58:LYS:HA	9:I:61:HIS:HB2	1.81	0.62
1:A:501:ASN:HA	1:A:669:THR:HG21	1.82	0.62
1:A:1281:VAL:HG11	1:A:1505:MET:HB3	1.81	0.62
2:B:426:PHE:O	2:B:431:ASN:ND2	2.31	0.62
2:B:531:PRO:HB3	2:B:631:PRO:HD3	1.81	0.62
1:A:487:ALA:HB1	2:B:1054:ILE:HD11	1.82	0.62
2:B:1089:CYS:CB	2:B:1092:CYS:SG	2.85	0.62
3:C:63:SER:OG	3:C:307:HIS:ND1	2.32	0.62
1:A:99:LEU:O	1:A:102:THR:OG1	2.13	0.62
1:A:720:GLU:N	1:A:720:GLU:OE2	2.32	0.62
1:A:1297:TYR:HD2	1:A:1494:LEU:HB2	1.65	0.62
2:B:404:ASN:OD1	2:B:408:ARG:NH1	2.33	0.62
2:B:13:LYS:NZ	3:C:159:ASP:O	2.30	0.62
2:B:871:VAL:HG12	2:B:888:VAL:HG13	1.80	0.62
2:B:158:GLU:O	2:B:162:HIS:ND1	2.31	0.62
2:B:1007:MET:HG3	2:B:1011:ILE:HD11	1.80	0.62
2:B:184:MET:HB2	2:B:479:VAL:HG12	1.80	0.61
1:A:127:ASP:OD2	1:A:345:ARG:NH1	2.32	0.61
1:A:1193:SER:OG	2:B:1065:ILE:O	2.17	0.61
1:A:1638:PHE:HB3	1:A:1639:GLU:OE2	1.99	0.61
2:B:473:LEU:O	2:B:476:PHE:N	2.32	0.61
1:A:1154:ASP:OD1	1:A:1155:LYS:N	2.32	0.61
2:B:492:THR:O	2:B:494:ARG:N	2.32	0.61
6:F:125:ARG:NH2	7:G:60:SER:OG	2.33	0.61
14:T:20:DT:H2'	14:T:21:DG:H8	1.65	0.61
4:D:16:LYS:HZ1	7:G:4:LEU:HD22	1.66	0.61
4:D:14:SER:HB3	7:G:9:GLN:HE21	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:88:HIS:N	1:A:360:PHE:O	2.26	0.61
1:A:730:LEU:HD11	1:A:752:LEU:HD13	1.83	0.61
2:B:146:SER:OG	2:B:147:ASN:N	2.30	0.61
1:A:606:ASN:ND2	2:B:1060:GLU:OE1	2.34	0.61
2:B:920:ASP:OD1	3:C:75:ARG:NH2	2.33	0.61
2:B:716:THR:HG21	10:J:58:LYS:HD3	1.83	0.61
2:B:900:ASP:OD1	2:B:1020:ARG:NH2	2.31	0.61
2:B:141:PRO:HG2	2:B:441:LEU:HD12	1.82	0.61
1:A:131:LEU:O	1:A:134:SER:OG	2.18	0.60
2:B:1151:LEU:HD12	2:B:1152:PRO:HD2	1.82	0.60
1:A:634:TYR:HB3	1:A:686:ILE:HD11	1.82	0.60
5:E:49:GLY:HA3	5:E:51:ASN:H	1.66	0.60
1:A:515:TYR:OH	1:A:595:ARG:NH1	2.34	0.60
2:B:323:ASP:N	2:B:323:ASP:OD1	2.32	0.60
1:A:726:ARG:HA	11:K:78:ARG:HH21	1.66	0.60
1:A:962:GLN:NE2	1:A:992:GLY:O	2.31	0.60
5:E:49:GLY:HA2	5:E:50:ARG:HB2	1.82	0.60
8:H:80:VAL:HB	8:H:95:VAL:HG22	1.82	0.60
1:A:500:THR:HG23	1:A:826:SER:HB2	1.84	0.60
1:A:1563:ASP:HB2	1:A:1565:TYR:HE1	1.67	0.60
12:L:21:ILE:HG23	12:L:30:ARG:HG3	1.81	0.60
1:A:706:ASP:HB3	11:K:51:ARG:HH12	1.66	0.60
2:B:959:CYS:O	10:J:46:ARG:NH2	2.32	0.60
1:A:528:ARG:O	1:A:532:ILE:HG12	2.02	0.60
1:A:812:VAL:HG11	1:A:824:LEU:HD13	1.84	0.60
1:A:891:ASN:O	1:A:895:VAL:HG23	2.01	0.60
1:A:111:LEU:HD22	1:A:115:LYS:HD2	1.83	0.60
1:A:965:LEU:HD11	1:A:971:PRO:HD3	1.84	0.60
1:A:1068:LEU:HD23	1:A:1069:ASP:N	2.16	0.60
1:A:1238:ALA:HB1	1:A:1618:TYR:CE2	2.36	0.60
2:B:747:LEU:O	2:B:750:TYR:N	2.26	0.60
2:B:1041:THR:HB	2:B:1154:VAL:HG22	1.84	0.60
1:A:372:PHE:HE1	2:B:1157:TYR:HA	1.66	0.59
1:A:627:GLU:N	1:A:627:GLU:OE1	2.34	0.59
1:A:977:LYS:NZ	2:B:657:MET:O	2.35	0.59
2:B:773:ILE:HG22	2:B:774:LEU:H	1.67	0.59
2:B:923:PHE:CE1	2:B:999:TYR:HB2	2.37	0.59
1:A:390:LEU:HD22	1:A:444:LEU:HB2	1.83	0.59
1:A:87:TYR:HA	1:A:361:PHE:HA	1.84	0.59
6:F:64:VAL:HB	6:F:134:GLU:HG3	1.85	0.59
8:H:17:ASP:N	8:H:17:ASP:OD1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:118:LEU:HB2	1:A:182:ARG:CZ	2.33	0.59
2:B:784:GLY:O	2:B:1020:ARG:NH1	2.36	0.59
7:G:13:LEU:HD21	7:G:33:MET:HE1	1.85	0.59
1:A:770:VAL:HG11	1:A:795:ILE:HD11	1.83	0.59
1:A:1269:LYS:HE2	1:A:1517:VAL:HG21	1.85	0.59
2:B:1049:LYS:HG3	2:B:1050:ARG:HG3	1.83	0.59
5:E:22:VAL:HG11	5:E:29:VAL:HG23	1.84	0.59
1:A:404:LEU:HD21	1:A:429:LEU:HG	1.84	0.58
2:B:61:ILE:O	2:B:69:LEU:HB2	2.02	0.58
5:E:107:ALA:HB2	5:E:132:GLU:HG3	1.85	0.58
1:A:597:VAL:HG23	1:A:623:ILE:HD11	1.83	0.58
1:A:612:HIS:CD2	1:A:614:PRO:HD2	2.38	0.58
5:E:71:THR:HG23	5:E:99:HIS:HD2	1.68	0.58
1:A:1309:TYR:O	1:A:1313:TYR:HB2	2.02	0.58
2:B:59:ASP:OD2	2:B:73:ASN:ND2	2.31	0.58
2:B:991:ASN:OD1	2:B:992:TYR:N	2.36	0.58
11:K:37:PHE:CE2	11:K:91:LEU:HD22	2.38	0.58
6:F:91:ILE:HA	6:F:95:ALA:HB3	1.85	0.58
13:U:28:DG:N2	14:T:13:DT:H3	2.01	0.58
1:A:704:THR:HG22	1:A:705:ARG:H	1.67	0.58
1:A:1171:ASN:HB3	1:A:1174:LYS:HB2	1.86	0.58
2:B:152:GLU:N	2:B:152:GLU:OE1	2.36	0.58
2:B:1089:CYS:HB3	2:B:1092:CYS:SG	2.44	0.58
4:D:26:LEU:HD11	4:D:50:LEU:HD22	1.86	0.58
5:E:155:GLU:HA	5:E:158:GLU:CD	2.29	0.58
1:A:372:PHE:CE1	2:B:1157:TYR:HA	2.39	0.58
5:E:152:SER:N	5:E:155:GLU:OE1	2.27	0.58
8:H:7:LEU:HB2	8:H:59:ILE:HG12	1.84	0.58
11:K:25:LEU:HB2	11:K:36:THR:OG1	2.04	0.58
1:A:1066:ASP:C	1:A:1068:LEU:N	2.61	0.58
3:C:255:GLN:HB2	3:C:265:LEU:HD21	1.85	0.58
2:B:1081:SER:OG	2:B:1082:ASP:OD1	2.21	0.57
4:D:14:SER:HA	7:G:9:GLN:HG3	1.86	0.57
2:B:730:GLN:NE2	3:C:102:VAL:HG11	2.19	0.57
2:B:997:PRO:HG2	3:C:285:VAL:HB	1.87	0.57
1:A:463:GLY:O	1:A:467:ILE:HG23	2.03	0.57
2:B:83:GLN:HE22	2:B:134:MET:HE2	1.68	0.57
8:H:31:SER:OG	8:H:32:GLY:N	2.33	0.57
1:A:541:ALA:HA	1:A:595:ARG:HA	1.85	0.57
3:C:86:PHE:HB2	3:C:108:GLY:HA2	1.86	0.57
1:A:960:LEU:HD21	1:A:999:PHE:CE1	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:205:GLY:O	2:B:208:TYR:N	2.37	0.57
1:A:13:SER:OG	2:B:1172:GLU:OE2	2.22	0.57
1:A:1277:ARG:HB3	1:A:1302:ASP:HB3	1.85	0.57
3:C:231:THR:HG21	10:J:42:ARG:HH22	1.70	0.57
7:G:103:LEU:HD21	7:G:150:LEU:HB3	1.87	0.57
1:A:1270:LEU:HD21	1:A:1518:ILE:HB	1.86	0.57
1:A:11:ILE:O	1:A:1668:ARG:NH1	2.38	0.57
2:B:683:SER:OG	2:B:684:ILE:N	2.34	0.57
3:C:99:GLN:NE2	3:C:99:GLN:H	2.03	0.57
5:E:165:LEU:HD13	5:E:170:LEU:HG	1.86	0.57
10:J:7:CYS:HB3	10:J:14:ILE:HD13	1.87	0.57
1:A:100:ARG:NH2	1:A:238:PHE:O	2.22	0.57
2:B:123:TRP:CZ2	2:B:422:LEU:HD22	2.39	0.57
3:C:223:HIS:CD2	3:C:225:LYS:HG2	2.39	0.57
3:C:285:VAL:HG21	3:C:303:ARG:HH21	1.70	0.57
7:G:115:ARG:HA	7:G:118:ILE:HD12	1.86	0.57
2:B:261:GLU:OE2	2:B:300:GLN:NE2	2.37	0.56
1:A:474:LEU:HD23	1:A:478:HIS:HB2	1.86	0.56
1:A:1016:ARG:NE	2:B:496:LEU:HD23	2.20	0.56
4:D:17:LEU:HD22	7:G:79:LEU:HD22	1.86	0.56
5:E:146:PRO:HB3	5:E:194:VAL:O	2.04	0.56
1:A:26:LYS:O	2:B:1116:ARG:NH2	2.37	0.56
1:A:519:VAL:HG21	1:A:569:LEU:HD21	1.87	0.56
1:A:784:VAL:HA	1:A:794:GLY:HA3	1.87	0.56
2:B:155:SER:OG	2:B:158:GLU:OE2	2.18	0.56
2:B:1033:THR:HG23	2:B:1034:THR:H	1.70	0.56
5:E:156:LYS:NZ	5:E:188:GLY:O	2.30	0.56
7:G:93:ILE:HG22	7:G:103:LEU:HG	1.87	0.56
1:A:481:GLY:HA3	2:B:1057:GLY:HA3	1.87	0.56
1:A:1066:ASP:OD1	1:A:1067:SER:N	2.39	0.56
2:B:869:ASP:OD1	2:B:891:ARG:NE	2.34	0.56
12:L:31:ASN:ND2	12:L:41:CYS:HA	2.21	0.56
1:A:853:GLN:HA	1:A:856:ASN:HD21	1.70	0.56
1:A:1046:GLN:HG3	6:F:129:PRO:HB3	1.87	0.56
2:B:230:HIS:CD2	2:B:240:ARG:HB2	2.40	0.56
2:B:813:ALA:HB2	2:B:848:TYR:CG	2.40	0.56
1:A:543:HIS:HB2	1:A:553:SER:HA	1.87	0.56
1:A:1678:ASP:HB2	6:F:127:TYR:HE2	1.71	0.56
4:D:24:LYS:O	4:D:28:ARG:HG2	2.05	0.56
1:A:925:ILE:HG22	1:A:958:CYS:SG	2.45	0.56
1:A:998:ARG:NE	1:A:1001:THR:OG1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1131:SER:HB2	6:F:72:THR:HB	1.88	0.56
6:F:89:LEU:O	6:F:92:SER:OG	2.20	0.56
8:H:19:GLN:OE1	8:H:19:GLN:N	2.39	0.56
1:A:1655:ASP:OD1	1:A:1655:ASP:N	2.38	0.56
5:E:23:HIS:HA	5:E:25:ARG:N	2.14	0.56
1:A:1086:TYR:HD1	1:A:1178:LEU:HD22	1.71	0.55
1:A:114:VAL:O	1:A:182:ARG:NH1	2.39	0.55
1:A:1045:VAL:HG23	1:A:1190:PRO:HA	1.88	0.55
2:B:518:LEU:H	2:B:518:LEU:HD23	1.70	0.55
3:C:195:ASN:ND2	10:J:16:ASP:OD2	2.39	0.55
1:A:612:HIS:HA	1:A:1200:GLN:HG2	1.89	0.55
1:A:1039:HIS:HB3	1:A:1611:TYR:HE2	1.71	0.55
1:A:1476:ASN:O	1:A:1478:LYS:NZ	2.38	0.55
2:B:780:GLU:HB2	3:C:223:HIS:CE1	2.41	0.55
2:B:129:PRO:C	2:B:130:ARG:HD3	2.31	0.55
2:B:1168:LYS:HZ1	2:B:1170:MET:HE2	1.72	0.55
3:C:231:THR:HG21	10:J:42:ARG:HH12	1.72	0.55
5:E:142:HIS:CD2	5:E:144:LEU:H	2.23	0.55
1:A:598:ARG:N	1:A:601:ASP:OD2	2.24	0.55
1:A:877:VAL:HG21	1:A:891:ASN:HB3	1.88	0.55
1:A:1156:LEU:HA	1:A:1170:LEU:HD13	1.89	0.55
2:B:266:GLU:HG2	2:B:552:VAL:HG21	1.88	0.55
2:B:739:PRO:O	2:B:742:HIS:N	2.31	0.55
12:L:45:GLY:O	12:L:47:ARG:NH1	2.40	0.55
1:A:705:ARG:NH1	11:K:60:VAL:O	2.37	0.55
2:B:1082:ASP:OD1	2:B:1082:ASP:N	2.39	0.55
7:G:94:ASN:OD1	7:G:95:LEU:N	2.39	0.55
2:B:105:GLU:CD	12:L:47:ARG:HH21	2.15	0.55
7:G:89:LEU:HD23	7:G:105:ILE:HD13	1.88	0.55
2:B:1022:ARG:HA	2:B:1024:MET:HE1	1.89	0.55
1:A:346:LEU:HB3	1:A:347:TYR:CD1	2.42	0.55
1:A:1137:VAL:HG12	1:A:1183:TYR:CD2	2.42	0.55
1:A:1510:GLU:HG2	9:I:53:PHE:CE1	2.41	0.55
1:A:1526:ARG:HB3	1:A:1545:GLU:HB2	1.89	0.55
1:A:1602:PRO:O	1:A:1606:SER:OG	2.20	0.55
12:L:30:ARG:HH21	12:L:52:MET:HE1	1.72	0.55
2:B:505:CYS:SG	2:B:683:SER:N	2.80	0.54
7:G:124:PHE:HB2	7:G:136:TRP:CZ3	2.42	0.54
1:A:83:PRO:C	1:A:85:PRO:HD3	2.33	0.54
1:A:532:ILE:HD12	1:A:563:THR:HG22	1.89	0.54
1:A:1168:SER:O	1:A:1169:LEU:HD23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:843:PRO:HA	2:B:859:THR:HA	1.89	0.54
3:C:157:GLU:O	3:C:157:GLU:HG2	2.07	0.54
1:A:372:PHE:HD1	2:B:1157:TYR:HD1	1.55	0.54
1:A:1057:SER:HB3	1:A:1614:PHE:HZ	1.73	0.54
1:A:1559:ILE:HG12	1:A:1561:MET:H	1.71	0.54
8:H:60:THR:OG1	8:H:61:SER:N	2.40	0.54
10:J:3:ILE:HD12	10:J:3:ILE:H	1.72	0.54
1:A:748:SER:OG	1:A:790:GLU:HA	2.07	0.54
1:A:1052:ARG:NH1	1:A:1056:GLY:O	2.40	0.54
11:K:52:TYR:OH	11:K:56:LYS:NZ	2.32	0.54
1:A:437:LEU:HA	1:A:440:ASP:OD1	2.07	0.54
1:A:717:LYS:NZ	11:K:68:PRO:HA	2.23	0.54
1:A:868:PHE:HB3	1:A:913:MET:HE1	1.88	0.54
1:A:1055:ASP:OD1	1:A:1056:GLY:N	2.41	0.54
1:A:1279:VAL:HG11	1:A:1509:VAL:HG11	1.90	0.54
2:B:8:ARG:HD2	2:B:748:ASP:HB3	1.89	0.54
1:A:1063:TYR:CE1	1:A:1194:VAL:HG11	2.43	0.54
1:A:568:GLN:O	1:A:591:LYS:NZ	2.40	0.54
1:A:1277:ARG:HG2	1:A:1278:GLN:H	1.72	0.54
1:A:1575:ILE:C	5:E:178:PRO:HG2	2.33	0.54
2:B:421:TYR:O	2:B:425:VAL:HG23	2.07	0.54
2:B:703:GLN:HE22	2:B:1019:GLN:NE2	2.05	0.54
2:B:1092:CYS:CB	2:B:1118:CYS:SG	2.72	0.54
5:E:82:VAL:HG13	5:E:86:GLU:HB3	1.90	0.54
1:A:1041:GLU:HG3	1:A:1659:ASN:HB3	1.89	0.54
1:A:1270:LEU:HD22	1:A:1519:HIS:CE1	2.43	0.54
2:B:137:VAL:HG12	2:B:433:ILE:HG12	1.89	0.54
2:B:279:THR:OG1	9:I:46:THR:HG23	2.08	0.54
1:A:79:HIS:CD2	1:A:364:ASN:HD21	2.26	0.54
1:A:1108:SER:HB2	1:A:1180:GLN:HE22	1.72	0.54
8:H:43:ASN:OD1	8:H:46:ILE:N	2.26	0.54
1:A:1615:GLU:OE2	5:E:172:ARG:NH1	2.40	0.53
8:H:25:SER:OG	8:H:44:SER:OG	2.07	0.53
1:A:132:ASN:CG	5:E:187:ARG:HB2	2.34	0.53
2:B:142:ILE:HD13	2:B:148:ARG:HB3	1.90	0.53
1:A:1281:VAL:HG23	1:A:1299:ILE:HG13	1.89	0.53
7:G:93:ILE:HG12	7:G:148:LYS:HA	1.90	0.53
1:A:405:SER:O	1:A:409:THR:HG23	2.08	0.53
1:A:1657:LEU:HG	1:A:1663:ARG:HE	1.74	0.53
2:B:195:ALA:HB1	2:B:359:LEU:HD22	1.89	0.53
2:B:253:MET:HE1	2:B:267:ILE:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:503:ILE:HD12	1:A:605:LEU:HD11	1.90	0.53
1:A:610:THR:HG23	1:A:615:SER:CB	2.38	0.53
1:A:799:SER:HA	1:A:804:SER:HB3	1.91	0.53
1:A:1237:THR:HG22	1:A:1239:SER:HB2	1.91	0.53
1:A:1297:TYR:CD2	1:A:1494:LEU:HB2	2.44	0.53
2:B:271:ILE:O	2:B:354:ARG:HD3	2.09	0.53
3:C:320:PRO:HA	3:C:323:LEU:HD23	1.91	0.53
8:H:63:LEU:HD22	8:H:120:TYR:HB3	1.90	0.53
1:A:1139:GLU:OE2	5:E:202:ARG:NH1	2.42	0.53
1:A:31:GLN:HG2	1:A:33:VAL:HG13	1.90	0.53
1:A:762:LEU:HD22	1:A:786:PHE:CE2	2.44	0.53
2:B:190:ARG:HD2	2:B:630:ASN:HD22	1.72	0.53
1:A:1066:ASP:O	1:A:1068:LEU:N	2.33	0.53
1:A:1297:TYR:HE2	1:A:1494:LEU:HD12	1.74	0.53
2:B:443:THR:HG22	14:T:24:DC:H4'	1.91	0.53
5:E:132:GLU:O	5:E:133:SER:OG	2.20	0.53
8:H:6:LEU:HB2	8:H:59:ILE:HG13	1.89	0.53
1:A:443:SER:HB2	1:A:450:ASN:HD22	1.73	0.53
2:B:544:LEU:HD23	2:B:579:VAL:HG22	1.91	0.53
2:B:710:THR:HG21	2:B:752:ASN:HB3	1.90	0.53
1:A:84:ILE:HD12	1:A:84:ILE:H	1.74	0.53
1:A:1100:SER:OG	1:A:1101:ALA:N	2.42	0.53
2:B:733:GLN:HE21	2:B:755:ASN:H	1.56	0.53
5:E:173:ILE:HB	5:E:209:CYS:SG	2.49	0.53
1:A:1634:ALA:O	1:A:1637:SER:N	2.41	0.52
5:E:173:ILE:HG12	5:E:207:ARG:HD3	1.91	0.52
13:U:26:DA:H1'	13:U:27:DA:H5'	1.91	0.52
8:H:30:VAL:HA	8:H:36:MET:O	2.10	0.52
8:H:19:GLN:HG2	8:H:19:GLN:O	2.08	0.52
1:A:33:VAL:HA	1:A:395:LEU:HD11	1.90	0.52
2:B:367:ASP:O	2:B:369:PRO:HD3	2.09	0.52
3:C:81:ILE:HG22	3:C:330:VAL:HG21	1.90	0.52
1:A:210:GLU:O	1:A:214:VAL:HG13	2.10	0.52
1:A:1041:GLU:HG2	1:A:1042:GLY:H	1.73	0.52
2:B:145:ARG:HH21	2:B:159:LEU:HD11	1.73	0.52
1:A:1:MET:HB2	2:B:1079:ASN:CG	2.35	0.52
1:A:762:LEU:HD23	1:A:763:ASN:N	2.25	0.52
1:A:977:LYS:HE3	1:A:982:PHE:O	2.10	0.52
1:A:1635:LYS:HB3	1:A:1644:PHE:CD2	2.43	0.52
2:B:1047:GLY:N	2:B:1052:GLY:HA3	2.24	0.52
5:E:105:ILE:HD12	5:E:132:GLU:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:185:LEU:HD13	5:E:209:CYS:SG	2.49	0.52
7:G:93:ILE:HD11	7:G:145:GLU:HA	1.91	0.52
1:A:733:ALA:N	1:A:745:GLN:HE22	2.08	0.52
1:A:1041:GLU:HG2	1:A:1042:GLY:N	2.24	0.52
1:A:1478:LYS:NZ	1:A:1495:VAL:H	2.08	0.52
2:B:22:PHE:CD2	2:B:746:GLY:HA3	2.45	0.52
3:C:171:SER:HB3	3:C:198:ILE:HB	1.91	0.52
5:E:129:THR:HG21	5:E:181:ARG:HB2	1.91	0.52
6:F:135:ASP:OD1	6:F:135:ASP:N	2.33	0.52
1:A:722:GLY:O	1:A:723:MET:HG2	2.10	0.52
1:A:744:LYS:NZ	1:A:794:GLY:H	2.08	0.52
2:B:1149:ILE:HD11	2:B:1151:LEU:HD22	1.92	0.52
7:G:15:LEU:HD13	7:G:32:HIS:CE1	2.44	0.52
1:A:2:ASN:HD21	1:A:545:GLN:HE22	1.55	0.52
1:A:219:TYR:HA	1:A:222:ILE:HG12	1.92	0.52
1:A:662:GLU:OE2	2:B:1072:LEU:HB2	2.10	0.52
1:A:1015:GLY:HA3	2:B:698:PRO:HD3	1.91	0.52
1:A:1095:VAL:HA	1:A:1098:VAL:HG12	1.91	0.52
2:B:6:LEU:HD11	10:J:25:LEU:C	2.35	0.52
2:B:36:PHE:O	2:B:39:LEU:HB2	2.09	0.52
2:B:970:ILE:HB	2:B:971:TYR:CD2	2.45	0.52
2:B:1102:ILE:HD13	2:B:1135:GLY:HA2	1.92	0.52
3:C:101:GLU:OE1	3:C:101:GLU:N	2.37	0.52
6:F:95:ALA:HB1	6:F:96:PRO:HD2	1.92	0.52
1:A:498:ILE:HG13	1:A:499:GLU:N	2.25	0.51
2:B:999:TYR:HA	2:B:1006:GLU:HA	1.92	0.51
3:C:76:ILE:HG12	3:C:80:GLU:CD	2.36	0.51
3:C:122:PHE:HE2	3:C:125:PRO:HD3	1.75	0.51
11:K:54:ILE:HD13	11:K:79:ILE:HD11	1.92	0.51
1:A:688:ASP:HA	2:B:937:HIS:CE1	2.45	0.51
1:A:1142:GLN:HA	1:A:1145:VAL:HG12	1.91	0.51
7:G:19:PRO:HD3	7:G:69:PHE:HB3	1.92	0.51
8:H:88:ASP:HB3	8:H:90:LYS:HB2	1.91	0.51
1:A:121:CYS:HB3	1:A:186:VAL:HG21	1.92	0.51
1:A:1009:TYR:O	1:A:1013:MET:HG3	2.11	0.51
1:A:1521:ILE:HD13	1:A:1551:ALA:HB1	1.92	0.51
2:B:8:ARG:NH2	10:J:53:VAL:HA	2.26	0.51
6:F:109:GLN:HA	6:F:112:MET:HE3	1.91	0.51
10:J:53:VAL:HG12	10:J:55:LEU:HB2	1.92	0.51
1:A:102:THR:HG22	1:A:335:LEU:HD22	1.93	0.51
1:A:768:ALA:HB1	1:A:797:ASP:OD1	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:844:ARG:HD2	2:B:995:ASN:OD1	2.11	0.51
2:B:590:TYR:HE1	2:B:603:ALA:HA	1.74	0.51
2:B:736:VAL:HG23	2:B:755:ASN:ND2	2.25	0.51
4:D:48:SER:O	4:D:52:ARG:HG3	2.11	0.51
1:A:646:GLY:N	2:B:911:ILE:HD11	2.25	0.51
2:B:610:GLU:OE2	2:B:633:ARG:NE	2.44	0.51
3:C:115:ASP:HB2	3:C:118:MET:HE2	1.92	0.51
8:H:91:VAL:HG23	8:H:111:LEU:HD23	1.92	0.51
1:A:1:MET:HE3	2:B:1079:ASN:OD1	2.11	0.51
1:A:810:HIS:ND1	1:A:1075:HIS:HE1	2.08	0.51
2:B:1030:GLN:OE1	2:B:1048:ARG:HB2	2.10	0.51
2:B:1040:LEU:HD23	2:B:1157:TYR:CZ	2.46	0.51
3:C:206:GLY:HA3	10:J:65:LEU:HD13	1.92	0.51
3:C:314:SER:OG	3:C:315:THR:N	2.44	0.51
14:T:9:DG:H2'	14:T:10:DT:H71	1.92	0.51
1:A:1645:LEU:HD21	2:B:1167:ILE:HD11	1.93	0.51
2:B:217:CYS:SG	2:B:337:VAL:HG22	2.51	0.51
2:B:537:ILE:HD11	2:B:605:VAL:HG22	1.92	0.51
3:C:169:VAL:HG21	3:C:209:ILE:HD12	1.92	0.51
1:A:1308:GLU:HA	1:A:1311:ASP:HB2	1.92	0.51
2:B:872:ARG:HE	12:L:50:TYR:HE1	1.59	0.51
1:A:705:ARG:O	1:A:709:GLN:HG2	2.11	0.51
2:B:117:LEU:HD22	2:B:140:ILE:HG21	1.93	0.51
8:H:60:THR:HG21	8:H:63:LEU:HD13	1.92	0.51
1:A:23:ASP:N	1:A:23:ASP:OD1	2.37	0.50
1:A:204:THR:HG22	1:A:205:THR:H	1.76	0.50
1:A:508:VAL:HG23	1:A:509:PHE:CD2	2.46	0.50
1:A:531:VAL:HG21	1:A:544:ILE:HD11	1.93	0.50
1:A:1038:LYS:HZ1	1:A:1629:ASN:HB2	1.77	0.50
1:A:555:MET:HB2	1:A:556:PRO:HD3	1.94	0.50
1:A:1210:THR:HG22	1:A:1228:ILE:HG12	1.92	0.50
2:B:610:GLU:OE1	2:B:633:ARG:NH2	2.45	0.50
2:B:858:GLU:OE2	2:B:859:THR:N	2.45	0.50
2:B:922:PRO:HB2	2:B:998:MET:HE2	1.93	0.50
4:D:28:ARG:NH1	4:D:31:GLN:OE1	2.44	0.50
1:A:68:LEU:HD13	1:A:72:TYR:HB2	1.94	0.50
1:A:796:LEU:HD22	1:A:800:SER:OG	2.10	0.50
1:A:1189:ASP:OD2	6:F:77:LYS:N	2.43	0.50
2:B:884:GLN:O	2:B:885:GLN:HG3	2.12	0.50
2:B:1042:ARG:NH2	2:B:1084:ALA:HB2	2.26	0.50
3:C:29:TYR:OH	11:K:58:PRO:O	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:85:LYS:NZ	5:E:88:ARG:HH21	2.09	0.50
1:A:471:LYS:HE3	14:T:14:DT:H3'	1.93	0.50
1:A:504:GLY:N	1:A:631:ARG:O	2.33	0.50
1:A:1189:ASP:OD1	6:F:76:THR:HB	2.12	0.50
1:A:1231:LEU:HA	1:A:1234:ILE:HG22	1.93	0.50
2:B:114:LYS:HB2	2:B:139:MET:HB3	1.93	0.50
5:E:148:HIS:CE1	5:E:179:VAL:HG11	2.47	0.50
1:A:386:ILE:HG13	1:A:387:GLN:N	2.26	0.50
1:A:1001:THR:HG21	2:B:973:GLU:HG3	1.93	0.50
1:A:1269:LYS:HD3	1:A:1525:THR:HB	1.94	0.50
2:B:703:GLN:HE22	2:B:1019:GLN:HE22	1.58	0.50
2:B:843:PRO:HB3	2:B:857:ILE:HD11	1.94	0.50
5:E:48:MET:SD	5:E:48:MET:N	2.84	0.50
6:F:128:LEU:HG	6:F:129:PRO:HD2	1.94	0.50
7:G:25:PRO:O	7:G:29:ILE:HG13	2.11	0.50
9:I:10:CYS:HB2	9:I:17:LEU:HD21	1.93	0.50
1:A:664:GLN:O	1:A:668:ASN:HB3	2.12	0.50
1:A:699:LYS:NZ	8:H:21:TYR:OH	2.44	0.50
1:A:1011:HIS:HE2	2:B:696:GLN:HA	1.76	0.50
1:A:1267:VAL:HG13	1:A:1527:CYS:SG	2.52	0.50
2:B:561:VAL:HG23	2:B:625:LEU:HD23	1.93	0.50
3:C:157:GLU:OE1	3:C:157:GLU:N	2.45	0.50
1:A:1086:TYR:CD1	1:A:1178:LEU:HD22	2.47	0.50
1:A:1147:GLU:O	1:A:1151:LYS:CB	2.59	0.50
1:A:1517:VAL:HG21	1:A:1520:GLU:HB2	1.94	0.50
3:C:65:ILE:HG23	3:C:69:ILE:HB	1.94	0.50
3:C:122:PHE:HA	3:C:137:ASP:OD1	2.11	0.50
10:J:10:CYS:SG	10:J:42:ARG:NH1	2.85	0.50
1:A:3:ILE:O	7:G:67:SER:OG	2.30	0.50
1:A:507:PRO:HG2	1:A:626:GLY:H	1.77	0.50
1:A:1270:LEU:HD21	1:A:1518:ILE:HD12	1.94	0.50
1:A:92:PHE:CZ	1:A:244:ALA:HA	2.47	0.50
2:B:116:ARG:NH1	2:B:136:GLU:OE2	2.45	0.50
2:B:593:LYS:O	2:B:598:THR:OG1	2.30	0.50
1:A:77:PHE:CD1	1:A:368:PRO:HA	2.47	0.49
1:A:174:ASP:O	1:A:177:THR:OG1	2.27	0.49
1:A:743:GLY:O	1:A:746:ILE:N	2.44	0.49
2:B:754:THR:OG1	2:B:755:ASN:N	2.45	0.49
2:B:812:PHE:CG	2:B:817:THR:HG21	2.47	0.49
3:C:155:THR:OG1	3:C:156:ASP:N	2.45	0.49
3:C:284:THR:C	3:C:286:SER:H	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1039:HIS:HB3	1:A:1611:TYR:CE2	2.47	0.49
1:A:1317:GLN:HA	1:A:1320:ILE:HD12	1.94	0.49
2:B:286:GLU:HG2	9:I:7:LEU:HD21	1.93	0.49
2:B:805:PRO:O	2:B:807:VAL:HG23	2.12	0.49
5:E:142:HIS:CG	5:E:143:GLU:N	2.80	0.49
8:H:71:ALA:HA	8:H:124:ARG:HD3	1.93	0.49
11:K:81:THR:OG1	11:K:82:ALA:N	2.45	0.49
14:T:20:DT:H2'	14:T:21:DG:C8	2.46	0.49
1:A:118:LEU:O	1:A:122:ARG:HG3	2.12	0.49
1:A:1680:PHE:CE1	6:F:125:ARG:HD2	2.48	0.49
1:A:378:MET:HB3	1:A:381:GLU:OE1	2.12	0.49
2:B:473:LEU:HD13	2:B:684:ILE:HG21	1.94	0.49
3:C:126:LEU:HD12	3:C:127:PRO:O	2.12	0.49
1:A:708:TYR:CE1	1:A:746:ILE:HG12	2.47	0.49
1:A:1045:VAL:HG23	1:A:1191:GLY:H	1.77	0.49
1:A:1559:ILE:HG23	1:A:1562:ASN:H	1.77	0.49
3:C:234:TYR:HB3	3:C:310:PHE:CE1	2.47	0.49
1:A:1238:ALA:HB3	1:A:1620:ALA:HB2	1.93	0.49
1:A:1575:ILE:HA	5:E:178:PRO:HG2	1.93	0.49
2:B:420:LYS:HA	2:B:423:THR:HG22	1.95	0.49
1:A:465:LYS:HG3	1:A:1642:CYS:SG	2.52	0.49
1:A:776:SER:HB2	1:A:779:SER:HB2	1.93	0.49
1:A:853:GLN:HA	1:A:856:ASN:ND2	2.27	0.49
1:A:975:SER:HB2	2:B:656:TYR:CE2	2.46	0.49
2:B:1067:HIS:HB3	2:B:1069:THR:HG23	1.95	0.49
2:B:1078:MET:HE2	2:B:1083:TYR:CE2	2.47	0.49
1:A:336:PHE:HZ	1:A:360:PHE:HE2	1.59	0.49
1:A:538:TRP:NE1	1:A:623:ILE:HD13	2.28	0.49
1:A:595:ARG:NH2	1:A:598:ARG:HG2	2.27	0.49
2:B:190:ARG:HG3	2:B:376:GLU:OE1	2.13	0.49
2:B:908:GLN:HG2	2:B:934:ILE:HD11	1.94	0.49
3:C:91:ILE:O	3:C:91:ILE:HG13	2.11	0.49
8:H:38:LEU:HD12	8:H:104:ILE:HD13	1.95	0.49
1:A:622:ARG:NH2	11:K:72:GLU:OE2	2.46	0.49
1:A:968:ARG:HG3	1:A:969:ARG:H	1.78	0.49
2:B:468:ASN:HD21	2:B:752:ASN:ND2	2.10	0.49
2:B:955:LYS:NZ	2:B:994:GLY:O	2.44	0.49
1:A:1309:TYR:CE2	1:A:1320:ILE:HD11	2.48	0.49
2:B:232:LEU:HD11	2:B:236:VAL:HB	1.95	0.49
2:B:1024:MET:HG2	2:B:1025:VAL:H	1.78	0.49
5:E:27:TYR:HA	5:E:64:SER:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:31:GLN:HB2	1:A:79:HIS:CE1	2.47	0.48
1:A:234:PHE:O	1:A:251:LEU:HD21	2.13	0.48
2:B:239:PHE:HB3	2:B:250:ILE:HG13	1.95	0.48
2:B:640:HIS:CE1	2:B:642:SER:HB2	2.48	0.48
2:B:687:ASN:ND2	2:B:741:LEU:HD12	2.21	0.48
2:B:795:ASP:OD1	2:B:795:ASP:N	2.45	0.48
2:B:833:PHE:HE2	12:L:56:ARG:HD3	1.77	0.48
3:C:236:LEU:HD21	3:C:308:TYR:CZ	2.48	0.48
1:A:1063:TYR:HE1	1:A:1194:VAL:HG21	1.77	0.48
3:C:84:LEU:HD12	3:C:114:ALA:HB3	1.94	0.48
1:A:721:THR:HB	1:A:823:ARG:HH12	1.78	0.48
1:A:855:ASP:OD1	1:A:856:ASN:N	2.46	0.48
2:B:967:THR:HB	2:B:970:ILE:HD11	1.95	0.48
7:G:59:LYS:HD3	7:G:73:TRP:CD1	2.49	0.48
10:J:19:ASP:OD1	10:J:19:ASP:N	2.43	0.48
1:A:1320:ILE:O	1:A:1324:PHE:CB	2.58	0.48
1:A:1582:ARG:HE	1:A:1610:ASP:CG	2.21	0.48
2:B:108:GLU:HA	2:B:722:THR:HG21	1.94	0.48
5:E:45:HIS:ND1	5:E:56:THR:HG23	2.29	0.48
8:H:16:VAL:HG22	8:H:27:ILE:HG22	1.95	0.48
11:K:44:HIS:ND1	11:K:65:TYR:OH	2.33	0.48
1:A:885:ILE:HD12	1:A:885:ILE:H	1.78	0.48
1:A:1147:GLU:O	1:A:1151:LYS:HB2	2.14	0.48
3:C:150:ASN:HB3	3:C:163:LEU:O	2.14	0.48
15:R:14:A:H2'	15:R:15:C:C6	2.49	0.48
1:A:652:HIS:HB3	2:B:1076:ARG:NH2	2.27	0.48
1:A:1179:MET:HE2	1:A:1179:MET:HA	1.95	0.48
2:B:640:HIS:HE1	2:B:642:SER:HB2	1.77	0.48
5:E:158:GLU:O	5:E:162:ARG:HG2	2.14	0.48
11:K:53:VAL:HG21	11:K:98:LEU:HD13	1.96	0.48
1:A:627:GLU:HG3	1:A:631:ARG:NE	2.28	0.48
7:G:17:ILE:O	7:G:69:PHE:HB2	2.14	0.48
8:H:83:VAL:HG22	8:H:93:VAL:HG22	1.95	0.48
1:A:720:GLU:OE1	11:K:68:PRO:HG3	2.14	0.48
1:A:906:ASP:OD1	1:A:907:ALA:N	2.46	0.48
1:A:1123:PRO:HG3	5:E:202:ARG:NH1	2.28	0.48
2:B:274:LYS:HG3	2:B:275:ASP:HB3	1.96	0.48
6:F:89:LEU:HG	7:G:68:PRO:HB3	1.95	0.48
7:G:15:LEU:HD22	7:G:32:HIS:CE1	2.48	0.48
8:H:88:ASP:OD1	8:H:89:GLU:N	2.47	0.48
13:U:29:DT:H2'	13:U:30:DA:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:653:GLU:HB3	2:B:657:MET:SD	2.54	0.48
2:B:1131:ILE:HB	2:B:1139:LYS:HD2	1.96	0.48
1:A:604:ILE:O	1:A:605:LEU:HD23	2.14	0.48
1:A:604:ILE:HD13	2:B:1072:LEU:HD21	1.96	0.48
1:A:1016:ARG:HH12	2:B:495:LYS:HG3	1.78	0.48
1:A:1024:VAL:HG21	2:B:494:ARG:HH21	1.79	0.48
3:C:342:LEU:HD13	11:K:91:LEU:HD23	1.95	0.48
8:H:11:PHE:HA	8:H:31:SER:CB	2.44	0.48
11:K:37:PHE:CD2	11:K:91:LEU:HD22	2.49	0.48
1:A:205:THR:HG23	1:A:206:LEU:H	1.79	0.47
1:A:910:LYS:NZ	1:A:964:GLU:OE1	2.41	0.47
2:B:261:GLU:HB3	2:B:300:GLN:HE21	1.79	0.47
2:B:267:ILE:O	2:B:271:ILE:HG13	2.13	0.47
2:B:1134:ASP:N	2:B:1138:LYS:O	2.46	0.47
3:C:84:LEU:HD11	3:C:119:PHE:CE2	2.49	0.47
3:C:179:GLN:H	3:C:182:GLN:NE2	2.11	0.47
1:A:14:VAL:HA	2:B:1171:LEU:HA	1.96	0.47
1:A:786:PHE:HB3	1:A:791:LEU:HA	1.96	0.47
1:A:921:ILE:HG13	1:A:925:ILE:HG21	1.95	0.47
1:A:1025:LYS:HD2	1:A:1025:LYS:C	2.40	0.47
1:A:1235:ILE:HD11	1:A:1608:ILE:HG21	1.94	0.47
2:B:694:PHE:CD2	2:B:949:ILE:HG13	2.49	0.47
2:B:900:ASP:OD1	2:B:1024:MET:HB3	2.14	0.47
3:C:291:ARG:HH21	3:C:292:HIS:CE1	2.32	0.47
8:H:43:ASN:CG	8:H:46:ILE:HG22	2.39	0.47
1:A:952:ASN:OD1	2:B:943:MET:HE2	2.14	0.47
2:B:30:LYS:O	2:B:34:ASP:HB2	2.14	0.47
2:B:313:VAL:HG23	2:B:314:VAL:HG23	1.96	0.47
2:B:375:GLN:NE2	2:B:481:ARG:HE	2.12	0.47
3:C:182:GLN:HA	3:C:185:ARG:HB2	1.97	0.47
4:D:17:LEU:HB2	7:G:8:LYS:HB2	1.95	0.47
8:H:97:PHE:HB2	8:H:100:LEU:HB2	1.96	0.47
13:U:27:DA:H1'	13:U:28:DG:H5'	1.95	0.47
1:A:58:LEU:O	1:A:59:LYS:HB2	2.13	0.47
1:A:427:PHE:O	1:A:431:ILE:HG12	2.15	0.47
1:A:1189:ASP:CG	6:F:76:THR:HB	2.40	0.47
2:B:1081:SER:OG	2:B:1082:ASP:N	2.48	0.47
3:C:140:VAL:HG12	3:C:214:HIS:ND1	2.30	0.47
8:H:42:ILE:HD13	8:H:49:LEU:HD12	1.95	0.47
1:A:79:HIS:HD2	1:A:364:ASN:HD21	1.61	0.47
1:A:1274:GLU:HB3	9:I:56:ALA:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:335:VAL:HG13	2:B:336:LEU:H	1.80	0.47
2:B:379:LEU:HD21	2:B:527:ILE:HG21	1.97	0.47
2:B:542:LEU:HA	2:B:546:VAL:O	2.14	0.47
2:B:629:SER:O	2:B:629:SER:OG	2.29	0.47
2:B:983:GLU:O	2:B:987:LYS:HG2	2.15	0.47
5:E:89:THR:HG23	5:E:90:PHE:CD1	2.49	0.47
9:I:10:CYS:SG	9:I:12:GLU:N	2.87	0.47
14:T:8:DA:H2"	14:T:9:DG:H8	1.80	0.47
1:A:71:ARG:HD2	1:A:72:TYR:CZ	2.50	0.47
1:A:362:LEU:HD12	1:A:362:LEU:O	2.15	0.47
1:A:542:SER:N	1:A:594:TYR:O	2.26	0.47
1:A:692:MET:HE3	1:A:692:MET:HB3	1.72	0.47
1:A:760:PRO:HG2	1:A:1087:LYS:HB3	1.95	0.47
1:A:893:GLU:HA	1:A:985:TYR:HE1	1.79	0.47
1:A:1038:LYS:HG2	1:A:1626:ILE:HG12	1.96	0.47
1:A:1053:ASP:OD1	1:A:1054:SER:N	2.48	0.47
1:A:1069:ASP:N	1:A:1188:VAL:HG22	2.30	0.47
2:B:58:PHE:HB3	2:B:74:LYS:HA	1.96	0.47
2:B:123:TRP:HE3	2:B:131:GLN:O	1.98	0.47
2:B:251:PRO:HG2	2:B:254:MET:HB2	1.97	0.47
2:B:549:PRO:HD3	2:B:570:TRP:CD1	2.50	0.47
2:B:643:THR:HG22	2:B:644:GLY:N	2.30	0.47
2:B:925:GLU:OE1	2:B:997:PRO:HB2	2.15	0.47
3:C:204:ARG:HG3	10:J:60:LEU:HB3	1.96	0.47
5:E:128:GLU:OE1	5:E:184:GLY:HA2	2.15	0.47
7:G:36:MET:HB2	7:G:36:MET:HE3	1.68	0.47
9:I:23:GLN:HG3	9:I:24:TRP:H	1.80	0.47
13:U:32:DT:H3	14:T:8:DA:H61	1.62	0.47
1:A:252:SER:OG	1:A:255:ASN:OD1	2.32	0.47
1:A:489:ARG:NH2	1:A:648:GLU:OE2	2.48	0.47
1:A:698:CYS:O	1:A:701:THR:HG22	2.14	0.47
1:A:1588:GLU:O	1:A:1592:VAL:HG23	2.15	0.47
5:E:138:ASN:HD22	5:E:141:HIS:CE1	2.32	0.47
1:A:1051:VAL:HG12	1:A:1060:GLN:O	2.15	0.47
1:A:1263:PHE:O	1:A:1267:VAL:HG12	2.15	0.47
2:B:56:CYS:SG	2:B:57:ALA:N	2.88	0.47
7:G:14:TYR:CZ	7:G:71:PHE:HB3	2.50	0.47
1:A:113:LYS:O	1:A:116:VAL:HG12	2.14	0.47
1:A:1064:GLY:C	1:A:1066:ASP:H	2.23	0.47
1:A:1337:LYS:O	1:A:1337:LYS:HD3	2.15	0.47
1:A:1643:HIS:O	1:A:1646:THR:HG22	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:479:VAL:O	2:B:518:LEU:HB2	2.15	0.47
2:B:767:ASP:N	2:B:767:ASP:OD1	2.48	0.47
3:C:94:ASN:H	12:L:53:ARG:HH11	1.62	0.47
4:D:32:THR:HG22	4:D:33:ILE:HG12	1.96	0.47
1:A:543:HIS:CB	1:A:553:SER:HA	2.45	0.46
1:A:744:LYS:HB3	1:A:791:LEU:HB3	1.96	0.46
1:A:847:ASP:OD2	1:A:938:MET:N	2.48	0.46
1:A:1297:TYR:CE2	1:A:1494:LEU:HD12	2.49	0.46
1:A:1634:ALA:O	1:A:1638:PHE:HD1	1.98	0.46
1:A:1643:HIS:O	1:A:1647:GLU:HG2	2.15	0.46
2:B:468:ASN:OD1	2:B:469:PHE:N	2.49	0.46
2:B:1028:LYS:HG3	2:B:1029:PHE:HD2	1.80	0.46
3:C:246:ILE:HG22	3:C:298:LYS:HD3	1.96	0.46
5:E:103:ILE:HA	5:E:128:GLU:O	2.15	0.46
7:G:62:LYS:O	7:G:71:PHE:N	2.44	0.46
1:A:384:GLU:H	1:A:384:GLU:HG2	1.49	0.46
1:A:1068:LEU:HD12	1:A:1186:SER:C	2.40	0.46
2:B:391:LYS:NZ	2:B:436:LYS:HB3	2.30	0.46
2:B:881:SER:OG	2:B:882:GLU:N	2.49	0.46
10:J:51:THR:O	10:J:51:THR:OG1	2.29	0.46
1:A:3:ILE:HD13	6:F:89:LEU:HD11	1.97	0.46
1:A:23:ASP:HA	1:A:26:LYS:HB2	1.97	0.46
1:A:895:VAL:HG12	1:A:902:LEU:CD2	2.46	0.46
1:A:1003:ILE:HD11	1:A:1008:TYR:CD2	2.50	0.46
1:A:1016:ARG:NH1	2:B:496:LEU:H	2.13	0.46
1:A:1025:LYS:HG3	1:A:1210:THR:OG1	2.15	0.46
1:A:1045:VAL:HG12	1:A:1051:VAL:HB	1.96	0.46
1:A:1070:VAL:HA	1:A:1073:GLN:HG2	1.98	0.46
1:A:1113:LYS:HE3	1:A:1121:TYR:CE1	2.50	0.46
1:A:1325:SER:OG	1:A:1326:ASN:N	2.48	0.46
2:B:1088:VAL:HG21	2:B:1171:LEU:HD11	1.97	0.46
3:C:126:LEU:HB2	3:C:127:PRO:HD2	1.97	0.46
5:E:173:ILE:N	5:E:208:ILE:O	2.48	0.46
12:L:51:LYS:HG2	12:L:52:MET:N	2.29	0.46
1:A:243:PHE:HB3	1:A:439:HIS:HE1	1.81	0.46
1:A:465:LYS:HG2	1:A:466:GLN:NE2	2.31	0.46
2:B:532:SER:OG	2:B:533:ASP:N	2.48	0.46
5:E:87:MET:HB3	5:E:118:ILE:HG12	1.98	0.46
1:A:85:PRO:HB3	1:A:362:LEU:O	2.14	0.46
1:A:965:LEU:HD12	1:A:965:LEU:O	2.16	0.46
1:A:977:LYS:HB3	1:A:984:PRO:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:640:HIS:HA	2:B:673:HIS:CD2	2.51	0.46
2:B:735:PRO:HG3	2:B:1017:TYR:CE1	2.50	0.46
2:B:779:HIS:CE1	2:B:915:LYS:HD2	2.50	0.46
3:C:130:GLU:CD	3:C:130:GLU:H	2.23	0.46
3:C:171:SER:N	3:C:198:ILE:O	2.49	0.46
10:J:67:LYS:NZ	12:L:29:ALA:HA	2.30	0.46
1:A:1:MET:HG2	1:A:2:ASN:N	2.31	0.46
1:A:386:ILE:HD13	1:A:462:PRO:HD2	1.98	0.46
1:A:917:THR:O	1:A:921:ILE:HG22	2.15	0.46
2:B:571:CYS:SG	2:B:576:ALA:HB2	2.55	0.46
2:B:921:MET:HE1	2:B:933:ILE:HG13	1.95	0.46
5:E:130:PHE:HA	5:E:181:ARG:HH21	1.80	0.46
1:A:685:LEU:HD22	1:A:689:HIS:ND1	2.31	0.46
1:A:759:ARG:NH2	1:A:1088:SER:O	2.49	0.46
1:A:1641:THR:OG1	1:A:1642:CYS:N	2.49	0.46
2:B:205:GLY:HA3	2:B:208:TYR:CD2	2.51	0.46
2:B:248:TYR:OH	2:B:314:VAL:HG21	2.16	0.46
2:B:1021:LEU:HD23	2:B:1021:LEU:HA	1.76	0.46
2:B:1043:GLN:NE2	2:B:1154:VAL:HG21	2.31	0.46
8:H:80:VAL:HG12	8:H:117:ASP:O	2.16	0.46
14:T:16:DA:H2'	14:T:17:DG:C8	2.51	0.46
1:A:533:ASN:ND2	1:A:539:PRO:HD2	2.30	0.46
1:A:1281:VAL:HG21	1:A:1505:MET:HG2	1.97	0.46
1:A:1659:ASN:OD1	1:A:1659:ASN:N	2.48	0.46
2:B:108:GLU:OE2	12:L:50:TYR:OH	2.28	0.46
2:B:1107:VAL:HG23	2:B:1108:GLY:H	1.81	0.46
5:E:106:TYR:H	5:E:132:GLU:H	1.63	0.46
1:A:77:PHE:CD2	2:B:1096:ILE:HG21	2.50	0.46
1:A:228:CYS:HB3	1:A:231:CYS:H	1.81	0.46
1:A:445:ILE:HG22	1:A:446:ASP:OD2	2.16	0.46
1:A:634:TYR:OH	2:B:766:TYR:O	2.33	0.46
1:A:1659:ASN:OD1	1:A:1662:SER:HB3	2.16	0.46
2:B:208:TYR:CD1	2:B:232:LEU:HB3	2.51	0.46
2:B:241:PHE:CD1	2:B:334:VAL:HG11	2.51	0.46
2:B:610:GLU:O	2:B:610:GLU:HG2	2.15	0.46
5:E:69:LYS:C	5:E:100:LYS:HE3	2.41	0.46
5:E:107:ALA:HA	5:E:108:ASN:HA	1.56	0.46
7:G:124:PHE:HD1	7:G:136:TRP:HE3	1.62	0.46
8:H:9:GLU:HB2	8:H:11:PHE:CE2	2.50	0.46
10:J:56:ILE:HG12	10:J:60:LEU:HG	1.98	0.46
9:I:24:TRP:NE1	9:I:34:TYR:O	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1063:TYR:HE1	1:A:1194:VAL:HG11	1.80	0.45
2:B:640:HIS:HA	2:B:673:HIS:HD2	1.79	0.45
2:B:1016:VAL:HG12	2:B:1017:TYR:H	1.81	0.45
2:B:1158:LEU:O	2:B:1162:LEU:HB2	2.16	0.45
1:A:89:PRO:HB2	1:A:446:ASP:OD2	2.16	0.45
1:A:925:ILE:O	1:A:929:LEU:HD22	2.15	0.45
1:A:1327:ARG:NH2	1:A:1517:VAL:O	2.39	0.45
1:A:1493:GLU:C	1:A:1494:LEU:HD23	2.41	0.45
2:B:265:LYS:NZ	9:I:14:GLY:HA2	2.28	0.45
2:B:842:ASP:CG	2:B:843:PRO:HD2	2.41	0.45
2:B:898:ILE:HD12	2:B:898:ILE:H	1.81	0.45
2:B:984:GLN:O	2:B:987:LYS:HB2	2.16	0.45
1:A:100:ARG:HA	1:A:100:ARG:HD3	1.81	0.45
1:A:1680:PHE:HD2	7:G:60:SER:O	1.98	0.45
2:B:335:VAL:HG13	2:B:336:LEU:N	2.31	0.45
8:H:7:LEU:O	8:H:58:GLN:HA	2.15	0.45
1:A:687:GLN:HB3	2:B:937:HIS:CG	2.51	0.45
2:B:554:HIS:HE1	2:B:570:TRP:CZ3	2.34	0.45
2:B:932:ILE:HD12	2:B:1018:TYR:HD2	1.81	0.45
2:B:1006:GLU:CD	3:C:303:ARG:HH11	2.25	0.45
8:H:63:LEU:HD12	8:H:63:LEU:HA	1.83	0.45
1:A:3:ILE:HB	1:A:592:LYS:HE3	1.98	0.45
1:A:619:HIS:HE1	1:A:636:ASN:ND2	2.14	0.45
1:A:973:MET:SD	2:B:655:VAL:HG12	2.56	0.45
1:A:1066:ASP:C	1:A:1603:ARG:HE	2.23	0.45
1:A:1302:ASP:OD2	1:A:1303:LEU:N	2.50	0.45
2:B:56:CYS:SG	2:B:74:LYS:HG3	2.56	0.45
2:B:123:TRP:O	2:B:130:ARG:HA	2.16	0.45
2:B:354:ARG:NH1	2:B:358:ALA:HB2	2.31	0.45
2:B:1062:ASP:HA	2:B:1065:ILE:HG12	1.97	0.45
7:G:15:LEU:HD13	7:G:32:HIS:ND1	2.32	0.45
8:H:108:HIS:O	8:H:108:HIS:ND1	2.50	0.45
14:T:12:DC:H1'	14:T:13:DT:C4	2.52	0.45
1:A:102:THR:O	1:A:110:LYS:HE2	2.17	0.45
1:A:902:LEU:HD22	1:A:902:LEU:HA	1.61	0.45
1:A:1069:ASP:O	1:A:1071:THR:N	2.49	0.45
2:B:881:SER:O	12:L:38:VAL:HA	2.16	0.45
2:B:1032:ARG:CZ	2:B:1044:PRO:HB3	2.46	0.45
12:L:20:MET:O	12:L:32:THR:HA	2.16	0.45
1:A:1297:TYR:CB	1:A:1494:LEU:O	2.49	0.45
2:B:1028:LYS:HG3	2:B:1029:PHE:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:653:PHE:C	2:B:1076:ARG:HH22	2.25	0.45
1:A:727:ILE:N	11:K:80:GLN:OE1	2.50	0.45
1:A:1204:GLU:HB3	1:A:1205:PRO:HD3	1.98	0.45
1:A:1255:VAL:HG21	1:A:1557:ASN:HB3	1.99	0.45
2:B:17:LYS:HG2	2:B:157:ALA:HB2	1.98	0.45
2:B:231:TYR:HB2	2:B:356:LEU:HD21	1.99	0.45
1:A:133:GLU:OE1	1:A:133:GLU:N	2.34	0.45
1:A:465:LYS:NZ	1:A:469:GLU:OE1	2.48	0.45
1:A:880:SER:O	1:A:883:SER:OG	2.22	0.45
2:B:699:ARG:HH21	2:B:942:ARG:HG2	1.82	0.45
2:B:825:LYS:HG3	2:B:842:ASP:OD2	2.16	0.45
2:B:1024:MET:C	2:B:1028:LYS:HZ2	2.23	0.45
7:G:135:ARG:HD2	7:G:137:LYS:HD3	1.99	0.45
1:A:120:PHE:CZ	1:A:124:LYS:HD2	2.52	0.45
1:A:474:LEU:HD11	2:B:1157:TYR:CE2	2.52	0.45
2:B:723:ASP:HB3	2:B:726:LEU:HD21	1.99	0.45
2:B:762:SER:O	2:B:762:SER:OG	2.30	0.45
2:B:1016:VAL:HG12	2:B:1017:TYR:N	2.32	0.45
3:C:37:TRP:HB2	11:K:56:LYS:HB3	1.98	0.45
5:E:70:GLY:N	5:E:100:LYS:HE3	2.32	0.45
11:K:84:SER:OG	11:K:85:THR:HG23	2.16	0.45
14:T:18:DC:C2	14:T:19:DC:C5	3.05	0.45
1:A:685:LEU:HD23	1:A:685:LEU:HA	1.65	0.44
1:A:775:TRP:CZ3	8:H:21:TYR:HE2	2.35	0.44
1:A:1065:GLU:HB2	5:E:200:SER:OG	2.18	0.44
14:T:22:DG:H2''	14:T:23:DT:H5'	1.98	0.44
1:A:481:GLY:CA	2:B:1057:GLY:HA3	2.46	0.44
1:A:604:ILE:HD11	2:B:1072:LEU:HD11	1.98	0.44
1:A:728:LYS:O	1:A:753:ASN:ND2	2.50	0.44
1:A:825:LEU:HD12	1:A:825:LEU:HA	1.81	0.44
1:A:1046:GLN:HB3	6:F:129:PRO:HD3	1.99	0.44
1:A:1189:ASP:OD2	6:F:76:THR:HB	2.16	0.44
2:B:86:LYS:HB3	2:B:150:HIS:CE1	2.52	0.44
2:B:274:LYS:O	2:B:276:LEU:N	2.50	0.44
2:B:733:GLN:HE21	2:B:755:ASN:HB2	1.82	0.44
5:E:127:ILE:O	5:E:127:ILE:HG13	2.17	0.44
10:J:23:THR:HA	10:J:26:GLN:HB3	1.99	0.44
1:A:118:LEU:HB2	1:A:182:ARG:NH1	2.32	0.44
1:A:205:THR:HG23	1:A:206:LEU:N	2.32	0.44
1:A:508:VAL:HG23	1:A:509:PHE:HD2	1.81	0.44
1:A:792:LEU:HD13	8:H:81:TYR:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1251:LEU:HD11	1:A:1255:VAL:O	2.18	0.44
1:A:1259:ARG:HA	1:A:1259:ARG:HD2	1.85	0.44
2:B:8:ARG:HD2	2:B:748:ASP:CB	2.47	0.44
2:B:734:THR:OG1	10:J:51:THR:OG1	2.11	0.44
2:B:831:LEU:HB2	12:L:51:LYS:NZ	2.33	0.44
3:C:130:GLU:HG2	3:C:131:ALA:N	2.32	0.44
3:C:207:GLN:H	3:C:207:GLN:HG2	1.62	0.44
1:A:759:ARG:HH22	1:A:1092:LYS:HB2	1.82	0.44
1:A:1066:ASP:O	1:A:1603:ARG:NE	2.37	0.44
1:A:1083:ALA:HB2	1:A:1175:PHE:CE1	2.53	0.44
2:B:833:PHE:CE2	12:L:56:ARG:HD3	2.51	0.44
2:B:1024:MET:HG2	2:B:1025:VAL:HG12	2.00	0.44
3:C:283:ASP:OD1	3:C:284:THR:N	2.51	0.44
4:D:16:LYS:HA	4:D:16:LYS:HD2	1.83	0.44
1:A:1:MET:HG2	1:A:2:ASN:O	2.18	0.44
2:B:85:ALA:O	2:B:115:SER:OG	2.25	0.44
2:B:123:TRP:CE2	2:B:422:LEU:HD22	2.52	0.44
2:B:842:ASP:N	2:B:859:THR:OG1	2.51	0.44
2:B:891:ARG:NH1	3:C:101:GLU:OE1	2.50	0.44
2:B:934:ILE:HG12	2:B:935:ASN:H	1.81	0.44
2:B:1075:ASP:HA	2:B:1079:ASN:HD22	1.81	0.44
8:H:76:MET:HE3	8:H:97:PHE:CG	2.52	0.44
1:A:494:PRO:HG3	1:A:644:PHE:HD1	1.80	0.44
1:A:1593:PHE:CD1	1:A:1600:VAL:HG21	2.53	0.44
2:B:891:ARG:HD2	3:C:99:GLN:HG3	1.98	0.44
3:C:124:HIS:CG	3:C:125:PRO:HD2	2.52	0.44
1:A:333:ARG:O	1:A:337:VAL:HG23	2.17	0.44
1:A:732:PRO:HA	1:A:741:TRP:CD1	2.53	0.44
1:A:744:LYS:HZ3	1:A:794:GLY:H	1.64	0.44
1:A:763:ASN:ND2	1:A:1084:LYS:HG3	2.33	0.44
1:A:1009:TYR:CE2	2:B:506:PRO:HB3	2.53	0.44
1:A:1158:ALA:HB1	1:A:1162:GLU:HB3	2.00	0.44
1:A:1602:PRO:HB2	5:E:199:THR:HG21	2.00	0.44
2:B:165:GLU:HA	10:J:62:TYR:OH	2.18	0.44
2:B:384:TYR:O	2:B:387:ILE:HG22	2.18	0.44
2:B:517:LEU:O	2:B:519:ASN:ND2	2.49	0.44
2:B:733:GLN:NE2	2:B:755:ASN:HB2	2.33	0.44
2:B:1134:ASP:OD1	2:B:1136:SER:N	2.39	0.44
3:C:315:THR:HG21	10:J:6:ARG:NH2	2.32	0.44
6:F:117:GLN:HB3	6:F:119:LYS:HE2	1.99	0.44
1:A:498:ILE:O	1:A:499:GLU:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:971:PRO:HD2	1:A:1013:MET:HE1	2.00	0.44
1:A:1038:LYS:HD2	1:A:1038:LYS:O	2.18	0.44
1:A:1041:GLU:CG	1:A:1042:GLY:H	2.31	0.44
1:A:1163:SER:HA	1:A:1166:ASP:OD2	2.18	0.44
2:B:6:LEU:HD23	2:B:6:LEU:HA	1.79	0.44
2:B:505:CYS:HB2	2:B:683:SER:HB2	2.00	0.44
2:B:564:ASP:HB3	2:B:628:PHE:HA	2.00	0.44
2:B:573:TYR:HE1	2:B:623:PRO:HB2	1.83	0.44
2:B:828:ALA:HB3	12:L:20:MET:HE2	2.00	0.44
2:B:834:ILE:HG21	12:L:53:ARG:HB2	1.98	0.44
2:B:899:GLY:HA2	2:B:911:ILE:HG23	2.00	0.44
3:C:91:ILE:HD13	3:C:100:ASP:CG	2.43	0.44
7:G:145:GLU:HB3	7:G:146:PRO:HD3	1.99	0.44
1:A:109:PHE:CE2	1:A:116:VAL:HG21	2.52	0.43
1:A:957:SER:O	1:A:998:ARG:HD2	2.18	0.43
1:A:1273:SER:HA	1:A:1276:VAL:HG12	1.99	0.43
2:B:22:PHE:CE2	2:B:746:GLY:HA3	2.53	0.43
2:B:733:GLN:HE21	2:B:755:ASN:N	2.15	0.43
1:A:1038:LYS:NZ	1:A:1629:ASN:HD22	2.16	0.43
2:B:304:LEU:HD23	2:B:304:LEU:HA	1.83	0.43
7:G:92:LYS:HD2	7:G:148:LYS:HB3	2.00	0.43
1:A:1058:ILE:HG21	1:A:1061:PHE:CZ	2.53	0.43
2:B:23:PRO:HA	2:B:26:GLN:NE2	2.33	0.43
2:B:45:LEU:O	2:B:49:VAL:HG22	2.18	0.43
2:B:985:LEU:HD23	2:B:985:LEU:HA	1.83	0.43
3:C:218:GLY:HA3	3:C:226:PHE:CD1	2.53	0.43
3:C:285:VAL:O	3:C:287:ARG:N	2.50	0.43
5:E:139:ILE:HG13	5:E:140:THR:N	2.33	0.43
7:G:125:ILE:HG21	7:G:135:ARG:NH2	2.33	0.43
8:H:75:ILE:HG12	8:H:122:LEU:HD22	2.01	0.43
1:A:119:PHE:CE1	1:A:218:PHE:HB2	2.54	0.43
1:A:1636:MET:CE	1:A:1645:LEU:HD12	2.48	0.43
4:D:50:LEU:HA	4:D:53:VAL:HG12	2.00	0.43
14:T:16:DA:H2'	14:T:17:DG:H8	1.83	0.43
1:A:1047:TYR:OH	6:F:79:GLU:OE2	2.29	0.43
2:B:79:VAL:HG23	2:B:396:LEU:HD21	2.00	0.43
2:B:213:LEU:HD22	2:B:352:MET:SD	2.58	0.43
2:B:951:SER:OG	2:B:1014:GLY:HA3	2.19	0.43
3:C:29:TYR:HD1	11:K:61:GLU:HG3	1.83	0.43
4:D:21:ALA:O	4:D:24:LYS:HG3	2.18	0.43
5:E:97:HIS:HB3	5:E:99:HIS:ND1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:82:ARG:HH22	7:G:65:TYR:HD2	1.67	0.43
8:H:58:GLN:HE21	8:H:124:ARG:HH21	1.67	0.43
9:I:25:THR:HG21	9:I:39:PHE:CE2	2.53	0.43
14:T:18:DC:H2'	14:T:19:DC:C6	2.54	0.43
1:A:763:ASN:OD1	1:A:1085:ASN:HB3	2.19	0.43
1:A:1330:LYS:HA	1:A:1330:LYS:HD3	1.76	0.43
2:B:261:GLU:O	2:B:261:GLU:HG2	2.18	0.43
2:B:468:ASN:HD21	2:B:752:ASN:HD21	1.65	0.43
2:B:508:HIS:CE1	2:B:520:HIS:CD2	3.06	0.43
10:J:7:CYS:HB2	10:J:48:MET:HG3	2.01	0.43
1:A:218:PHE:O	1:A:222:ILE:HG12	2.19	0.43
1:A:1582:ARG:CZ	5:E:195:ARG:HD2	2.49	0.43
2:B:21:SER:O	2:B:23:PRO:HD3	2.18	0.43
2:B:321:LEU:HD23	2:B:321:LEU:HA	1.88	0.43
2:B:523:ARG:N	2:B:682:LEU:O	2.48	0.43
2:B:590:TYR:CE1	2:B:603:ALA:HA	2.54	0.43
2:B:1045:VAL:HG22	2:B:1046:LYS:N	2.33	0.43
3:C:116:PRO:O	3:C:217:LEU:HD11	2.19	0.43
7:G:49:LEU:HD21	7:G:109:PHE:HZ	1.84	0.43
8:H:17:ASP:HA	8:H:18:LYS:CB	2.41	0.43
1:A:476:ARG:HH22	1:A:1034:ARG:NH1	2.17	0.43
1:A:1028:ARG:C	1:A:1030:GLY:H	2.27	0.43
2:B:178:ILE:O	2:B:178:ILE:HG13	2.18	0.43
2:B:692:SER:HB3	2:B:968:PRO:HG3	2.01	0.43
4:D:45:SER:O	4:D:48:SER:OG	2.23	0.43
5:E:142:HIS:HD2	5:E:144:LEU:HB2	1.84	0.43
8:H:115:SER:OG	8:H:116:LEU:N	2.52	0.43
1:A:488:ALA:HB2	2:B:1031:VAL:HG23	2.01	0.43
1:A:632:MET:CE	1:A:636:ASN:HB2	2.48	0.43
1:A:1038:LYS:HD3	1:A:1638:PHE:CE1	2.54	0.43
1:A:1272:LEU:HD21	1:A:1324:PHE:HD1	1.84	0.43
1:A:1550:LYS:HA	1:A:1553:TRP:CD1	2.54	0.43
1:A:1664:LEU:HD12	2:B:1073:MET:SD	2.59	0.43
2:B:372:PRO:HA	2:B:375:GLN:HB2	2.00	0.43
2:B:480:HIS:CE1	2:B:482:GLY:H	2.36	0.43
2:B:1045:VAL:HG22	2:B:1046:LYS:H	1.84	0.43
2:B:1048:ARG:H	2:B:1052:GLY:H	1.66	0.43
3:C:204:ARG:HB2	10:J:63:ASN:HD21	1.84	0.43
5:E:70:GLY:H	5:E:100:LYS:HB2	1.84	0.43
7:G:90:GLU:HB3	7:G:151:GLU:OE1	2.18	0.43
1:A:77:PHE:CE1	1:A:368:PRO:HA	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:478:HIS:O	2:B:1043:GLN:NE2	2.40	0.43
1:A:674:LEU:HD12	1:A:1071:THR:O	2.19	0.43
1:A:787:ASP:OD1	1:A:788:ASP:N	2.52	0.43
1:A:903:GLN:HA	1:A:906:ASP:OD2	2.18	0.43
1:A:1511:LYS:HE3	1:A:1511:LYS:HB3	1.82	0.43
1:A:1511:LYS:HE3	1:A:1515:GLU:OE2	2.19	0.43
1:A:1567:ASN:HB3	1:A:1588:GLU:HG3	1.99	0.43
2:B:151:LEU:HD11	2:B:164:GLU:OE1	2.19	0.43
2:B:536:GLN:OE1	2:B:604:LYS:HD3	2.19	0.43
2:B:692:SER:O	2:B:700:ASN:ND2	2.52	0.43
2:B:826:LEU:HA	2:B:832:PRO:HA	2.01	0.43
3:C:76:ILE:HD11	3:C:331:LEU:HD13	2.00	0.43
3:C:195:ASN:HB3	3:C:198:ILE:HG13	1.99	0.43
5:E:4:GLU:HB2	5:E:5:GLU:H	1.68	0.43
1:A:377:LYS:HD3	1:A:382:VAL:HG22	2.00	0.42
1:A:694:VAL:HG13	1:A:795:ILE:HD12	2.01	0.42
2:B:75:ILE:HA	2:B:124:SER:O	2.19	0.42
2:B:245:LYS:O	2:B:245:LYS:HG3	2.18	0.42
2:B:338:HIS:CD2	2:B:339:LEU:HG	2.53	0.42
2:B:772:MET:O	2:B:913:SER:HB3	2.17	0.42
2:B:790:LYS:NZ	2:B:792:GLU:OE1	2.45	0.42
2:B:900:ASP:OD2	2:B:1020:ARG:NE	2.52	0.42
3:C:262:VAL:HG23	3:C:263:ILE:HG12	2.01	0.42
6:F:96:PRO:HG3	7:G:23:ARG:HD3	2.00	0.42
7:G:75:ARG:HE	7:G:75:ARG:HB2	1.57	0.42
1:A:842:THR:HB	2:B:1011:ILE:HG23	2.01	0.42
2:B:163:LYS:HG2	2:B:720:TYR:CD2	2.54	0.42
2:B:1089:CYS:HA	2:B:1145:ASN:O	2.19	0.42
1:A:852:GLU:HA	1:A:855:ASP:OD2	2.19	0.42
2:B:40:THR:HG21	2:B:147:ASN:HB3	2.00	0.42
2:B:216:ARG:HA	2:B:226:THR:HG22	2.00	0.42
2:B:503:PHE:CE1	2:B:636:ARG:HD3	2.54	0.42
3:C:305:ARG:HD3	3:C:305:ARG:HA	1.87	0.42
5:E:46:CYS:SG	5:E:47:GLY:N	2.92	0.42
8:H:59:ILE:HD11	8:H:114:LEU:HD21	2.01	0.42
13:U:34:DG:H2"	13:U:35:DA:C8	2.54	0.42
1:A:1572:ILE:O	1:A:1576:TYR:N	2.51	0.42
2:B:39:LEU:HD21	2:B:385:GLY:HA3	2.01	0.42
2:B:218:VAL:CG2	2:B:222:GLN:HA	2.49	0.42
2:B:290:ARG:NH2	9:I:18:GLU:OE1	2.40	0.42
2:B:877:ASP:HB3	2:B:878:VAL:H	1.69	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:705:ARG:HA	1:A:741:TRP:CZ3	2.54	0.42
1:A:739:ILE:HD13	3:C:32:ASP:HB2	2.02	0.42
1:A:814:GLU:HG3	1:A:1075:HIS:CE1	2.53	0.42
2:B:537:ILE:HG21	2:B:563:LEU:HD13	2.01	0.42
5:E:186:LYS:HB2	5:E:189:GLU:OE2	2.19	0.42
7:G:138:THR:HG23	7:G:141:GLY:H	1.84	0.42
10:J:9:SER:HB2	10:J:44:CYS:SG	2.59	0.42
14:T:20:DT:H2'	14:T:21:DG:H5''	2.01	0.42
1:A:203:LEU:HG	1:A:204:THR:H	1.84	0.42
1:A:867:SER:O	1:A:868:PHE:C	2.62	0.42
1:A:897:ARG:HB3	2:B:619:ASN:HD22	1.84	0.42
2:B:40:THR:HG23	2:B:41:ASN:H	1.85	0.42
2:B:109:ARG:HA	2:B:874:LEU:HG	2.01	0.42
2:B:501:TRP:HZ2	2:B:661:CYS:SG	2.42	0.42
2:B:979:ASP:OD1	2:B:992:TYR:OH	2.36	0.42
2:B:1098:ILE:O	2:B:1098:ILE:HG13	2.17	0.42
3:C:94:ASN:H	12:L:53:ARG:NH1	2.17	0.42
5:E:14:ALA:HA	5:E:17:THR:HG22	2.00	0.42
7:G:59:LYS:HD3	7:G:73:TRP:HD1	1.85	0.42
1:A:20:ASP:O	1:A:24:VAL:HG13	2.19	0.42
1:A:79:HIS:HD2	1:A:81:VAL:HG22	1.85	0.42
1:A:119:PHE:CZ	1:A:218:PHE:HB2	2.55	0.42
1:A:657:THR:HA	1:A:660:ARG:HG2	2.02	0.42
1:A:920:ILE:HD11	1:A:959:LEU:HD22	2.02	0.42
1:A:1028:ARG:HA	1:A:1028:ARG:HD3	1.71	0.42
1:A:1143:ARG:O	1:A:1147:GLU:HG2	2.20	0.42
1:A:1255:VAL:HG13	1:A:1259:ARG:HB3	2.01	0.42
1:A:1605:LEU:HD12	1:A:1605:LEU:HA	1.82	0.42
1:A:1662:SER:O	1:A:1665:VAL:HG12	2.20	0.42
2:B:289:LEU:HD23	2:B:289:LEU:HA	1.74	0.42
2:B:1061:ARG:O	2:B:1065:ILE:HG12	2.20	0.42
3:C:243:LEU:HD12	3:C:297:ASP:O	2.19	0.42
1:A:495:ASP:O	1:A:633:HIS:HA	2.20	0.42
2:B:261:GLU:H	2:B:261:GLU:CD	2.28	0.42
2:B:666:ILE:HG23	2:B:671:SER:OG	2.19	0.42
2:B:936:PRO:C	2:B:938:ALA:H	2.27	0.42
5:E:86:GLU:HG3	5:E:90:PHE:CE1	2.55	0.42
13:U:39:DT:H6	13:U:39:DT:H2'	1.73	0.42
1:A:122:ARG:O	1:A:126:LEU:HD23	2.20	0.42
1:A:470:LYS:C	1:A:472:GLU:H	2.26	0.42
1:A:515:TYR:HB3	1:A:653:PHE:CE2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:815:LEU:HD21	1:A:1085:ASN:ND2	2.35	0.42
1:A:1231:LEU:HA	1:A:1231:LEU:HD12	1.88	0.42
1:A:1659:ASN:ND2	1:A:1661:SER:OG	2.53	0.42
2:B:63:GLN:HB2	2:B:67:GLY:H	1.84	0.42
2:B:106:ALA:HB2	2:B:113:TYR:HD1	1.84	0.42
2:B:274:LYS:HE2	2:B:275:ASP:HB3	2.01	0.42
2:B:350:LEU:HD23	2:B:350:LEU:HA	1.75	0.42
2:B:1038:HIS:HB2	2:B:1043:GLN:O	2.20	0.42
3:C:31:PHE:O	3:C:32:ASP:HB3	2.19	0.42
3:C:55:GLN:NE2	3:C:319:LYS:HE2	2.35	0.42
3:C:253:LYS:HB2	3:C:253:LYS:HE2	1.92	0.42
3:C:342:LEU:O	3:C:345:ILE:HG12	2.19	0.42
5:E:54:ARG:HB3	5:E:78:LYS:HD3	2.01	0.42
11:K:41:LYS:HE2	11:K:41:LYS:HB2	1.82	0.42
13:U:30:DA:N1	14:T:11:DA:N1	2.68	0.42
14:T:10:DT:C2	14:T:11:DA:C8	3.08	0.42
1:A:373:ARG:HB3	1:A:385:ASN:ND2	2.26	0.42
1:A:1193:SER:O	1:A:1197:LEU:HD23	2.19	0.42
1:A:1551:ALA:O	1:A:1555:PHE:HD2	2.03	0.42
2:B:145:ARG:NH2	2:B:159:LEU:HD11	2.34	0.42
1:A:172:ALA:HB3	1:A:175:ALA:HB3	2.02	0.41
1:A:390:LEU:O	1:A:390:LEU:HD23	2.19	0.41
1:A:595:ARG:CZ	1:A:598:ARG:HE	2.33	0.41
1:A:815:LEU:HD21	1:A:1085:ASN:HD22	1.84	0.41
1:A:1005:PRO:HG3	2:B:969:PHE:CG	2.54	0.41
2:B:306:TYR:O	2:B:310:LYS:HG2	2.19	0.41
2:B:773:ILE:HG22	2:B:774:LEU:N	2.33	0.41
2:B:1100:SER:HA	2:B:1113:VAL:HA	2.02	0.41
3:C:285:VAL:O	3:C:285:VAL:HG12	2.20	0.41
5:E:130:PHE:HZ	5:E:182:TYR:HA	1.85	0.41
7:G:49:LEU:HD12	7:G:79:LEU:O	2.20	0.41
1:A:1045:VAL:HG23	1:A:1191:GLY:N	2.34	0.41
1:A:1085:ASN:OD1	1:A:1085:ASN:N	2.46	0.41
2:B:492:THR:OG1	2:B:493:VAL:N	2.46	0.41
2:B:1112:GLU:HG2	2:B:1114:ARG:HH12	1.85	0.41
3:C:160:PRO:HB2	3:C:164:TYR:CD2	2.54	0.41
6:F:66:LYS:HG3	6:F:69:ARG:NH2	2.35	0.41
8:H:27:ILE:HD12	8:H:55:PHE:HZ	1.85	0.41
1:A:474:LEU:C	1:A:476:ARG:H	2.29	0.41
1:A:960:LEU:HB2	1:A:995:ILE:HG13	2.02	0.41
1:A:1050:THR:O	1:A:1052:ARG:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:441:LEU:HD23	2:B:441:LEU:HA	1.76	0.41
2:B:507:VAL:HG13	2:B:508:HIS:N	2.35	0.41
2:B:534:VAL:O	2:B:537:ILE:HB	2.20	0.41
2:B:536:GLN:OE1	2:B:604:LYS:HA	2.21	0.41
2:B:822:TRP:CE2	2:B:857:ILE:HD12	2.56	0.41
3:C:107:ILE:O	3:C:110:VAL:HG22	2.21	0.41
6:F:108:LEU:HD23	6:F:112:MET:HE2	2.03	0.41
2:B:920:ASP:OD1	3:C:75:ARG:NH1	2.53	0.41
2:B:1042:ARG:HH21	2:B:1084:ALA:HB2	1.86	0.41
2:B:1078:MET:HE2	2:B:1083:TYR:HE2	1.85	0.41
4:D:26:LEU:O	4:D:30:ILE:HG13	2.20	0.41
5:E:152:SER:N	5:E:155:GLU:HB2	2.36	0.41
7:G:77:ASP:OD1	7:G:77:ASP:N	2.44	0.41
12:L:24:CYS:SG	12:L:27:CYS:N	2.90	0.41
1:A:18:ILE:HD13	1:A:359:MET:HG2	2.03	0.41
1:A:220:HIS:O	1:A:224:SER:OG	2.37	0.41
1:A:511:THR:O	1:A:596:HIS:NE2	2.54	0.41
1:A:636:ASN:OD1	1:A:683:ARG:NH1	2.52	0.41
1:A:903:GLN:HE21	1:A:968:ARG:HH21	1.67	0.41
1:A:1312:GLU:HB2	9:I:57:LEU:CD2	2.41	0.41
2:B:123:TRP:CE3	2:B:131:GLN:HG2	2.56	0.41
2:B:783:PHE:O	2:B:784:GLY:C	2.63	0.41
2:B:897:ILE:HD12	2:B:897:ILE:HA	1.86	0.41
2:B:1011:ILE:HG22	2:B:1012:TYR:N	2.34	0.41
3:C:323:LEU:HD13	3:C:323:LEU:HA	1.81	0.41
4:D:17:LEU:HB3	7:G:7:TYR:HA	2.02	0.41
5:E:53:ASP:HB2	5:E:54:ARG:HH11	1.84	0.41
7:G:122:TRP:CD1	7:G:122:TRP:N	2.88	0.41
8:H:63:LEU:HG	8:H:68:LEU:HD12	2.02	0.41
8:H:77:TYR:HE1	8:H:120:TYR:CZ	2.39	0.41
11:K:63:CYS:SG	11:K:79:ILE:HG12	2.60	0.41
1:A:204:THR:HB	1:A:207:LEU:HD13	2.02	0.41
1:A:248:GLU:HG2	1:A:249:ILE:HG12	2.02	0.41
1:A:519:VAL:HG22	1:A:527:MET:HG3	2.02	0.41
1:A:726:ARG:HA	11:K:78:ARG:NH2	2.33	0.41
1:A:742:THR:HG21	8:H:98:GLY:O	2.20	0.41
1:A:1005:PRO:HG3	2:B:969:PHE:CD1	2.55	0.41
1:A:1242:ILE:HD13	1:A:1567:ASN:OD1	2.20	0.41
2:B:609:LEU:HD23	2:B:610:GLU:N	2.35	0.41
2:B:733:GLN:HB2	10:J:51:THR:O	2.21	0.41
2:B:829:ASP:HB3	2:B:831:LEU:HG	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:928:MET:HE3	2:B:928:MET:HB3	1.96	0.41
2:B:945:ILE:HD12	2:B:948:PHE:HD2	1.86	0.41
7:G:122:TRP:HZ3	7:G:144:LEU:HD21	1.85	0.41
1:A:88:HIS:HB3	1:A:91:PHE:HD2	1.85	0.41
1:A:122:ARG:HB3	1:A:122:ARG:HH21	1.86	0.41
1:A:602:MET:HG3	1:A:618:ALA:HB1	2.03	0.41
1:A:815:LEU:HB3	1:A:816:TYR:CD1	2.56	0.41
1:A:1140:LYS:H	5:E:201:GLY:CA	2.33	0.41
1:A:1255:VAL:HG13	1:A:1259:ARG:HG3	2.03	0.41
1:A:1539:VAL:O	1:A:1541:LYS:HG3	2.20	0.41
1:A:1592:VAL:O	1:A:1595:VAL:HG22	2.20	0.41
2:B:183:ARG:HH12	2:B:480:HIS:CG	2.39	0.41
2:B:208:TYR:HA	2:B:232:LEU:HA	2.03	0.41
2:B:305:GLN:NE2	2:B:324:VAL:HG22	2.36	0.41
2:B:775:ASN:HD22	2:B:921:MET:HG3	1.85	0.41
2:B:1061:ARG:O	2:B:1065:ILE:HG23	2.21	0.41
3:C:144:ASN:HA	3:C:209:ILE:O	2.21	0.41
3:C:218:GLY:HA3	3:C:226:PHE:CE1	2.56	0.41
5:E:47:GLY:HA3	5:E:52:LEU:HB3	2.02	0.41
5:E:165:LEU:HD23	5:E:165:LEU:HA	1.89	0.41
6:F:77:LYS:HE3	6:F:77:LYS:HB2	1.76	0.41
8:H:107:SER:C	8:H:109:ARG:H	2.29	0.41
1:A:487:ALA:CB	2:B:1054:ILE:HD11	2.51	0.41
1:A:503:ILE:HG12	1:A:504:GLY:O	2.21	0.41
1:A:606:ASN:HD22	1:A:616:MET:HB2	1.86	0.41
1:A:717:LYS:HZ1	11:K:68:PRO:HA	1.86	0.41
1:A:936:ASN:OD1	1:A:938:MET:N	2.53	0.41
1:A:936:ASN:O	1:A:940:THR:OG1	2.34	0.41
1:A:1049:HIS:CE1	1:A:1187:LEU:HD12	2.56	0.41
2:B:701:MET:HE3	2:B:701:MET:HB2	1.69	0.41
7:G:25:PRO:O	7:G:29:ILE:N	2.48	0.41
10:J:67:LYS:HD3	10:J:67:LYS:HA	1.75	0.41
1:A:247:PHE:HD1	1:A:247:PHE:HA	1.66	0.41
1:A:697:THR:HB	1:A:795:ILE:HA	2.03	0.41
1:A:715:ALA:CB	1:A:831:LEU:HB2	2.50	0.41
1:A:1024:VAL:HG21	2:B:494:ARG:NH2	2.35	0.41
1:A:1331:ILE:O	1:A:1335:ILE:HG12	2.21	0.41
1:A:1591:SER:O	1:A:1595:VAL:HG13	2.21	0.41
2:B:232:LEU:HG	2:B:236:VAL:O	2.21	0.41
2:B:283:ASP:OD1	2:B:284:ARG:N	2.53	0.41
2:B:604:LYS:HE2	2:B:604:LYS:HB2	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:694:PHE:CE2	2:B:949:ILE:HG13	2.56	0.41
2:B:1155:PHE:HE1	2:B:1169:MET:HE2	1.85	0.41
2:B:1165:MET:O	2:B:1166:ASN:HB3	2.21	0.41
3:C:110:VAL:HA	3:C:111:PRO:HD3	1.93	0.41
4:D:46:VAL:O	4:D:50:LEU:HG	2.21	0.41
5:E:25:ARG:NH2	5:E:128:GLU:OE1	2.54	0.41
5:E:156:LYS:HE3	5:E:190:VAL:HG23	2.03	0.41
7:G:41:LEU:HA	7:G:42:PRO:HD3	1.90	0.41
7:G:61:ALA:HB1	7:G:71:PHE:O	2.21	0.41
11:K:113:LEU:H	11:K:113:LEU:HD23	1.86	0.41
1:A:715:ALA:HB2	1:A:831:LEU:HD13	2.02	0.41
1:A:763:ASN:HB3	1:A:787:ASP:OD1	2.20	0.41
1:A:964:GLU:HB2	1:A:967:GLY:O	2.20	0.41
1:A:1650:LEU:HD23	1:A:1650:LEU:HA	1.86	0.41
2:B:649:LEU:HD12	2:B:653:GLU:HB2	2.02	0.41
2:B:822:TRP:CZ2	2:B:857:ILE:HB	2.56	0.41
2:B:836:ILE:HD13	12:L:56:ARG:HE	1.85	0.41
2:B:908:GLN:HE22	2:B:942:ARG:HD2	1.86	0.41
3:C:120:LYS:O	3:C:217:LEU:HD12	2.20	0.41
3:C:134:THR:HG23	3:C:137:ASP:HB2	2.02	0.41
1:A:141:SER:O	1:A:142:LEU:HD12	2.21	0.40
1:A:687:GLN:H	1:A:687:GLN:HG3	1.44	0.40
1:A:744:LYS:HZ3	1:A:794:GLY:N	2.19	0.40
1:A:862:LEU:HA	1:A:862:LEU:HD23	1.72	0.40
1:A:1137:VAL:HG12	1:A:1183:TYR:CG	2.56	0.40
2:B:143:MET:HE3	2:B:143:MET:HB2	1.92	0.40
2:B:223:SER:HA	2:B:386:GLN:NE2	2.36	0.40
2:B:307:LEU:HD12	2:B:307:LEU:HA	1.95	0.40
2:B:499:GLU:N	2:B:499:GLU:OE2	2.54	0.40
2:B:1018:TYR:HD1	2:B:1018:TYR:HA	1.69	0.40
2:B:1112:GLU:CG	2:B:1114:ARG:HH12	2.34	0.40
10:J:21:TYR:HB2	10:J:38:LEU:HD21	2.03	0.40
1:A:30:LYS:HG3	1:A:31:GLN:H	1.86	0.40
1:A:84:ILE:HD11	1:A:401:ILE:HG21	2.02	0.40
1:A:502:GLU:OE1	1:A:622:ARG:HB2	2.21	0.40
1:A:658:ASN:O	1:A:661:SER:OG	2.35	0.40
1:A:941:MET:HE3	2:B:937:HIS:HA	2.02	0.40
1:A:1603:ARG:HH12	5:E:199:THR:HB	1.86	0.40
1:A:1621:PHE:HD1	1:A:1621:PHE:HA	1.76	0.40
1:A:1664:LEU:HD12	2:B:1073:MET:HE3	2.03	0.40
2:B:255:ILE:HD11	2:B:335:VAL:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:341:GLU:O	2:B:345:LYS:HG3	2.21	0.40
2:B:563:LEU:HD12	2:B:627:LEU:O	2.21	0.40
2:B:609:LEU:HG	2:B:628:PHE:O	2.21	0.40
2:B:708:LYS:HB3	2:B:708:LYS:HE2	1.90	0.40
2:B:851:SER:OG	2:B:852:THR:N	2.54	0.40
2:B:921:MET:HE3	2:B:921:MET:HB3	1.84	0.40
2:B:1024:MET:HG2	2:B:1025:VAL:N	2.36	0.40
5:E:36:LEU:HD22	5:E:40:GLN:HG2	2.02	0.40
1:A:240:LYS:HA	1:A:246:ILE:HA	2.02	0.40
1:A:362:LEU:HD13	1:A:365:ILE:HG23	2.03	0.40
1:A:489:ARG:O	2:B:1029:PHE:HA	2.21	0.40
1:A:694:VAL:HG21	1:A:944:SER:OG	2.21	0.40
1:A:952:ASN:HA	2:B:943:MET:HE1	2.03	0.40
1:A:1170:LEU:HD23	1:A:1170:LEU:HA	1.84	0.40
1:A:1277:ARG:HG3	1:A:1304:TYR:OH	2.22	0.40
2:B:148:ARG:HD3	2:B:148:ARG:HA	1.82	0.40
2:B:283:ASP:OD1	2:B:284:ARG:HG2	2.21	0.40
2:B:822:TRP:CZ2	2:B:857:ILE:HD12	2.56	0.40
3:C:237:LEU:HD12	3:C:238:PRO:HD2	2.03	0.40
3:C:318:MET:HB2	3:C:323:LEU:HD21	2.03	0.40
5:E:178:PRO:HA	5:E:181:ARG:HD3	2.02	0.40
1:A:634:TYR:CE1	2:B:768:MET:HB2	2.57	0.40
1:A:949:SER:OG	1:A:950:ASN:N	2.54	0.40
2:B:699:ARG:HA	2:B:699:ARG:HD3	1.83	0.40
2:B:1085:GLN:HB3	2:B:1148:LEU:HD21	2.02	0.40
3:C:97:ILE:HG13	10:J:60:LEU:HD23	2.03	0.40
4:D:26:LEU:HD12	4:D:26:LEU:HA	1.96	0.40
5:E:23:HIS:N	5:E:24:ASP:HB2	2.36	0.40
8:H:42:ILE:CD1	8:H:49:LEU:HB2	2.51	0.40
8:H:63:LEU:HG	8:H:68:LEU:CD1	2.51	0.40
1:A:55:GLY:HA2	1:A:56:PRO:HD3	1.97	0.40
1:A:695:TRP:HZ2	1:A:934:PRO:O	2.05	0.40
1:A:715:ALA:HB2	1:A:831:LEU:HB2	2.03	0.40
1:A:742:THR:HG23	1:A:745:GLN:HB2	2.04	0.40
1:A:838:MET:HE2	1:A:838:MET:HB3	1.84	0.40
1:A:851:ASP:OD2	1:A:852:GLU:N	2.54	0.40
1:A:857:TRP:O	1:A:861:LEU:HG	2.22	0.40
1:A:960:LEU:HD13	1:A:997:SER:O	2.21	0.40
1:A:1171:ASN:HB3	1:A:1174:LYS:CB	2.52	0.40
2:B:468:ASN:ND2	2:B:710:THR:HB	2.36	0.40
2:B:679:THR:C	2:B:681:VAL:H	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:706:MET:HE3	2:B:706:MET:HB3	1.96	0.40
8:H:38:LEU:HD21	8:H:40:LEU:HD22	2.03	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	1377/1689 (82%)	1229 (89%)	143 (10%)	5 (0%)	30	65
2	B	1172/1174 (100%)	1022 (87%)	145 (12%)	5 (0%)	30	65
3	C	315/348 (90%)	290 (92%)	24 (8%)	1 (0%)	37	70
4	D	35/147 (24%)	33 (94%)	2 (6%)	0	100	100
5	E	205/210 (98%)	178 (87%)	27 (13%)	0	100	100
6	F	80/142 (56%)	71 (89%)	9 (11%)	0	100	100
7	G	156/173 (90%)	143 (92%)	13 (8%)	0	100	100
8	H	121/125 (97%)	92 (76%)	28 (23%)	1 (1%)	16	51
9	I	55/119 (46%)	50 (91%)	5 (9%)	0	100	100
10	J	66/71 (93%)	46 (70%)	20 (30%)	0	100	100
11	K	93/125 (74%)	88 (95%)	5 (5%)	0	100	100
12	L	43/63 (68%)	41 (95%)	2 (5%)	0	100	100
All	All	3718/4386 (85%)	3283 (88%)	423 (11%)	12 (0%)	38	70

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1067	SER
2	B	493	VAL

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Mol	Chain	Res	Type
2	B	206	THR
1	A	782	GLY
3	C	286	SER
2	B	492	THR
1	A	1068	LEU
1	A	1568	ASP
2	B	409	ARG
2	B	827	ASP
1	A	85	PRO
8	H	24	VAL

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	1239/1484 (84%)	1231 (99%)	8 (1%)	84	88
2	B	1013/1013 (100%)	1008 (100%)	5 (0%)	86	90
3	C	281/308 (91%)	279 (99%)	2 (1%)	81	86
4	D	37/134 (28%)	37 (100%)	0	100	100
5	E	182/184 (99%)	181 (100%)	1 (0%)	86	90
6	F	70/121 (58%)	70 (100%)	0	100	100
7	G	143/154 (93%)	143 (100%)	0	100	100
8	H	112/114 (98%)	112 (100%)	0	100	100
9	I	51/105 (49%)	51 (100%)	0	100	100
10	J	63/66 (96%)	61 (97%)	2 (3%)	34	56
11	K	86/111 (78%)	85 (99%)	1 (1%)	67	78
12	L	39/53 (74%)	39 (100%)	0	100	100
All	All	3316/3847 (86%)	3297 (99%)	19 (1%)	82	88

All (19) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	77	PHE
1	A	346	LEU
1	A	362	LEU
1	A	616	MET
1	A	724	TYR
1	A	868	PHE
1	A	902	LEU
1	A	1605	LEU
2	B	215	ILE
2	B	652	PHE
2	B	1006	GLU
2	B	1018	TYR
2	B	1096	ILE
3	C	240	ILE
3	C	342	LEU
5	E	126	THR
10	J	50	LEU
10	J	65	LEU
11	K	22	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (91) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	43	HIS
1	A	107	HIS
1	A	108	HIS
1	A	132	ASN
1	A	232	GLN
1	A	257	GLN
1	A	330	ASN
1	A	331	HIS
1	A	364	ASN
1	A	439	HIS
1	A	450	ASN
1	A	466	GLN
1	A	497	ASN
1	A	543	HIS
1	A	545	GLN
1	A	606	ASN
1	A	608	GLN
1	A	612	HIS
1	A	652	HIS
1	A	710	GLN

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Mol	Chain	Res	Type
1	A	735	GLN
1	A	860	GLN
1	A	963	GLN
1	A	1062	HIS
1	A	1075	HIS
1	A	1078	GLN
1	A	1152	ASN
1	A	1180	GLN
1	A	1252	ASN
1	A	1345	GLN
1	A	1486	ASN
1	A	1499	ASN
1	A	1557	ASN
1	A	1562	ASN
1	A	1629	ASN
2	B	26	GLN
2	B	32	HIS
2	B	83	GLN
2	B	126	ASN
2	B	150	HIS
2	B	192	HIS
2	B	203	ASN
2	B	227	ASN
2	B	300	GLN
2	B	305	GLN
2	B	374	HIS
2	B	386	GLN
2	B	468	ASN
2	B	508	HIS
2	B	520	HIS
2	B	554	HIS
2	B	562	GLN
2	B	640	HIS
2	B	673	HIS
2	B	687	ASN
2	B	695	ASN
2	B	700	ASN
2	B	703	GLN
2	B	733	GLN
2	B	742	HIS
2	B	861	HIS
2	B	876	ASN

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Mol	Chain	Res	Type
2	B	908	GLN
2	B	1005	GLN
2	B	1038	HIS
2	B	1039	ASN
2	B	1043	GLN
2	B	1145	ASN
3	C	99	GLN
3	C	124	HIS
3	C	150	ASN
3	C	182	GLN
3	C	207	GLN
3	C	223	HIS
3	C	292	HIS
4	D	27	ASN
5	E	7	ASN
5	E	65	ASN
5	E	99	HIS
5	E	138	ASN
5	E	142	HIS
7	G	9	GLN
8	H	45	GLN
8	H	58	GLN
8	H	118	HIS
9	I	15	ASN
10	J	63	ASN
11	K	48	ASN
11	K	76	ASN
11	K	112	GLN
12	L	31	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
15	R	6/20 (30%)	2 (33%)	0

All (2) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
15	R	15	C
15	R	17	A

There are no RNA pucker outliers to report.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

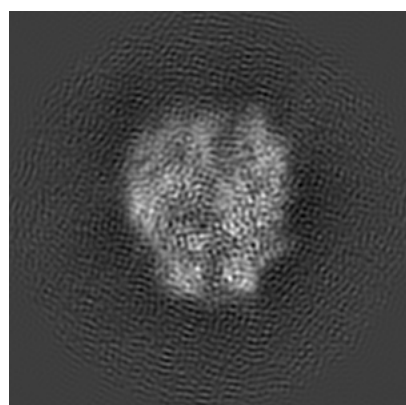
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11842. These allow visual inspection of the internal detail of the map and identification of artifacts.

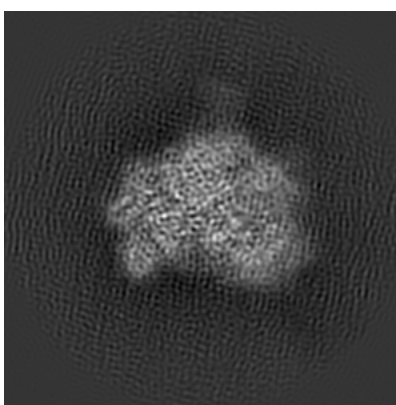
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

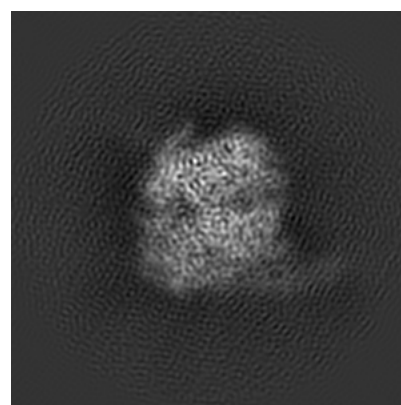
6.1.1 Primary map



X



Y

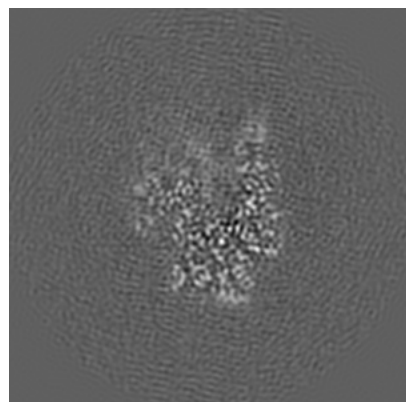


Z

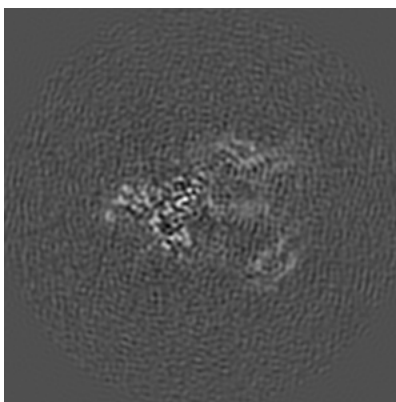
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

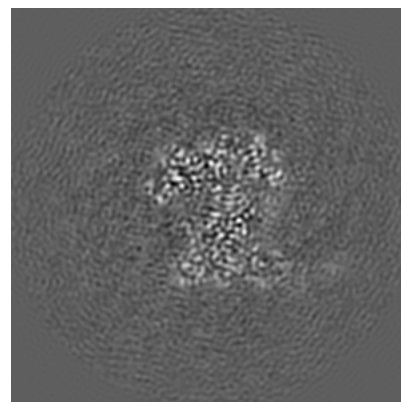
6.2.1 Primary map



X Index: 128



Y Index: 128

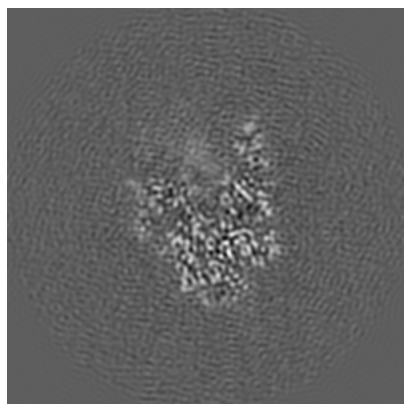


Z Index: 128

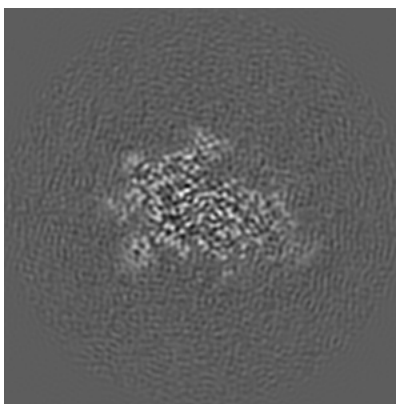
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

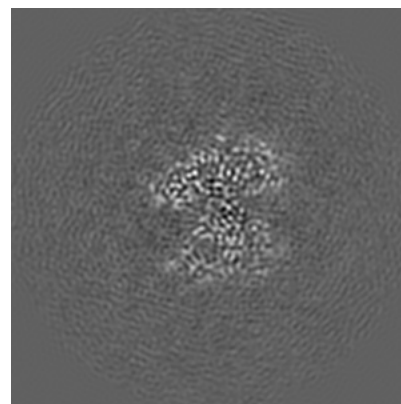
6.3.1 Primary map



X Index: 125



Y Index: 151

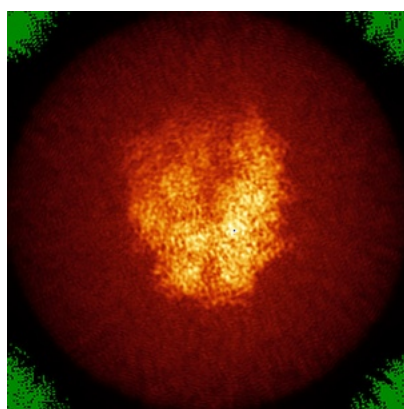


Z Index: 118

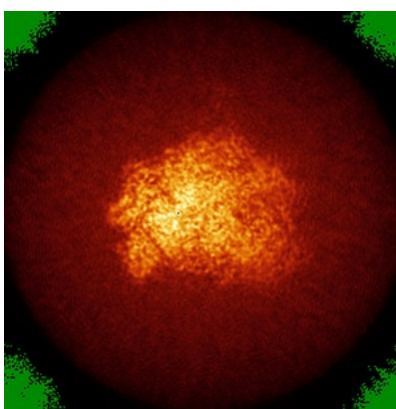
The images above show the largest variance slices of the map in three orthogonal directions.

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

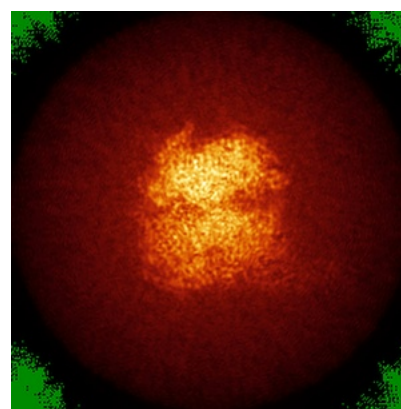
6.4.1 Primary map



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

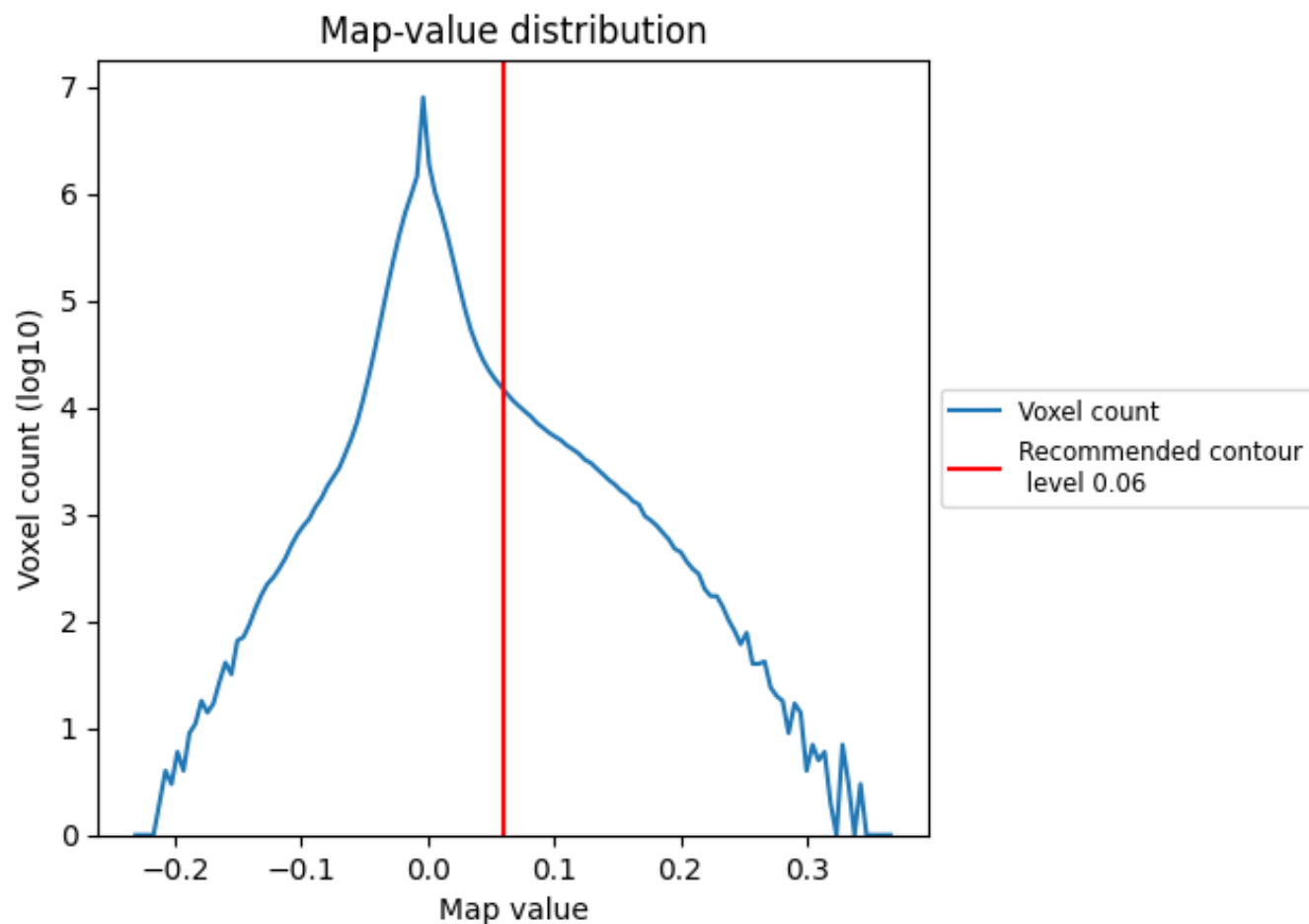
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

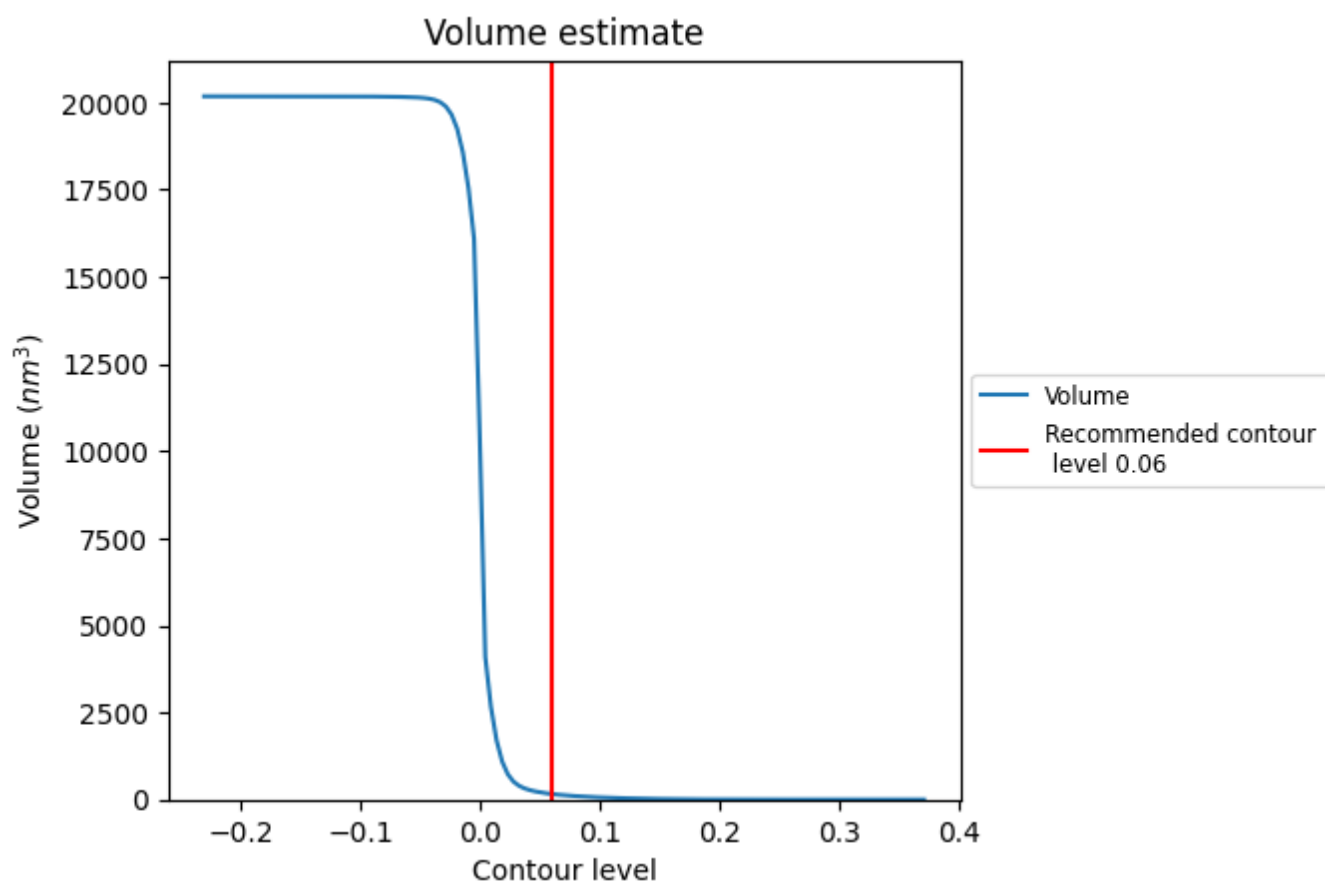
This section contains the results of statistical analysis of the map.

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.

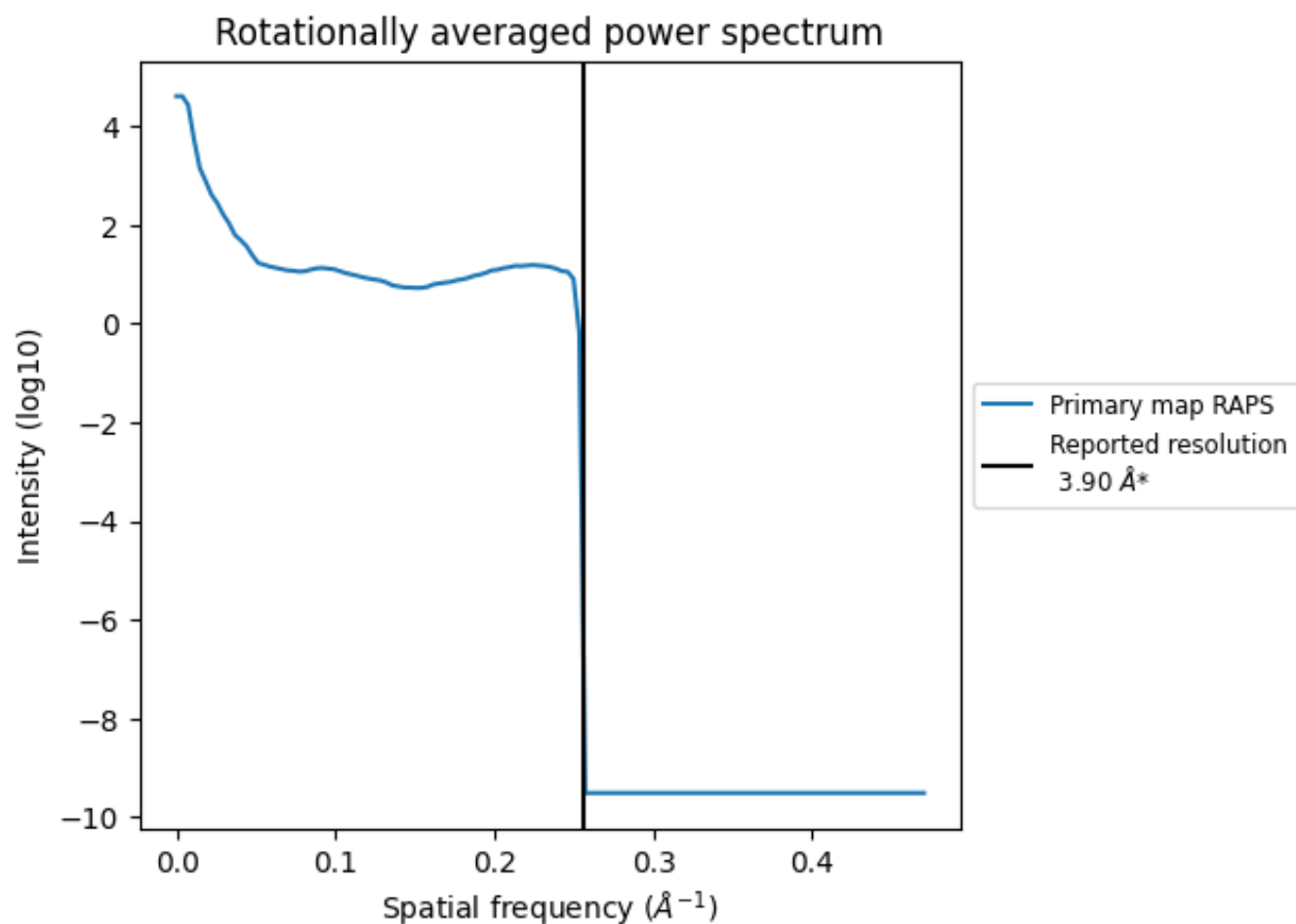
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 159 nm³; this corresponds to an approximate mass of 144 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

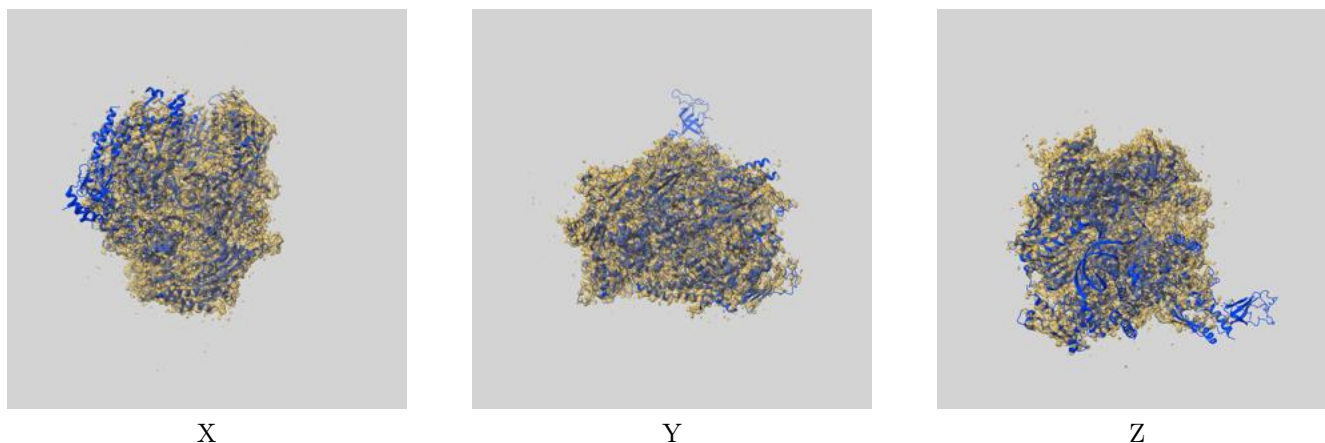
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

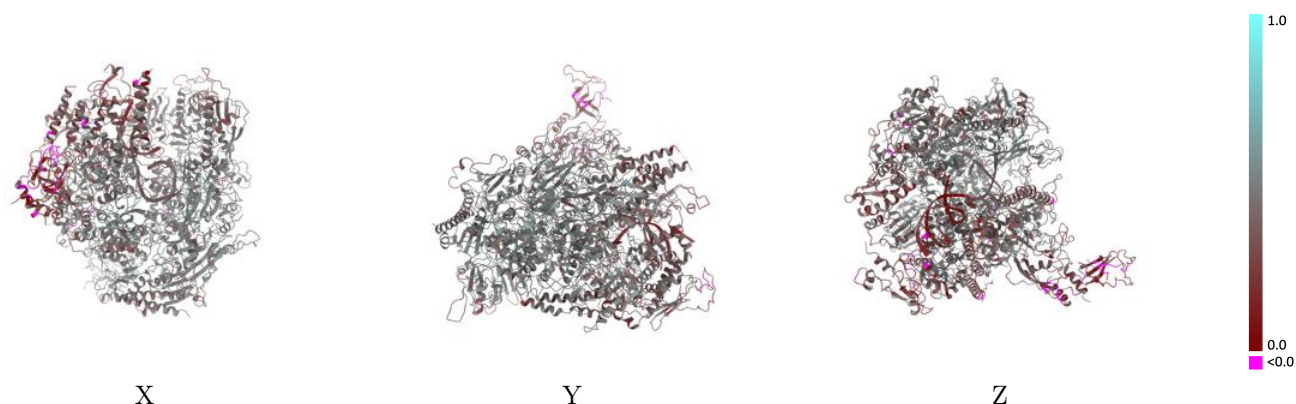
This section contains information regarding the fit between EMDB map EMD-11842 and PDB model 7AOE. Per-residue inclusion information can be found in section [3](#) on page [7](#).

9.1 Map-model overlay [i](#)



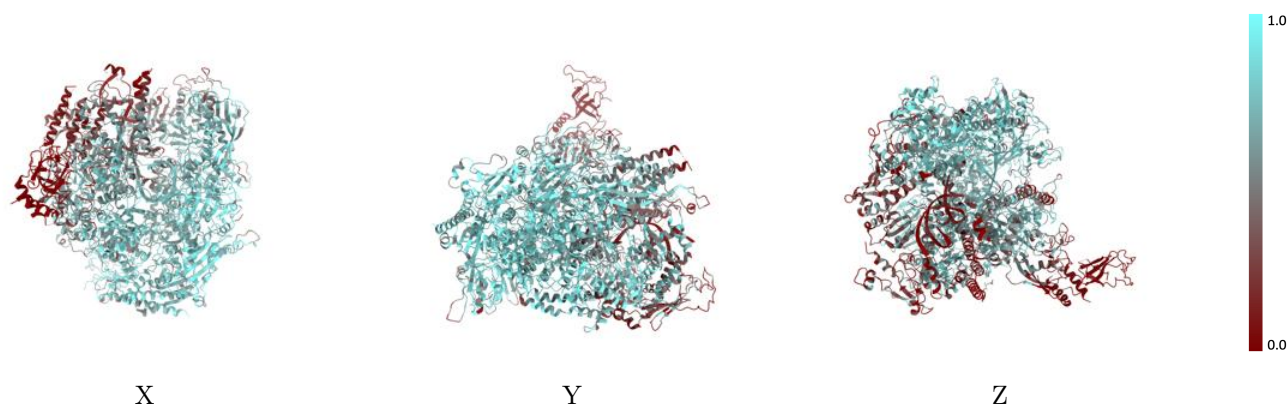
The images above show the 3D surface view of the map at the recommended contour level 0.06 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



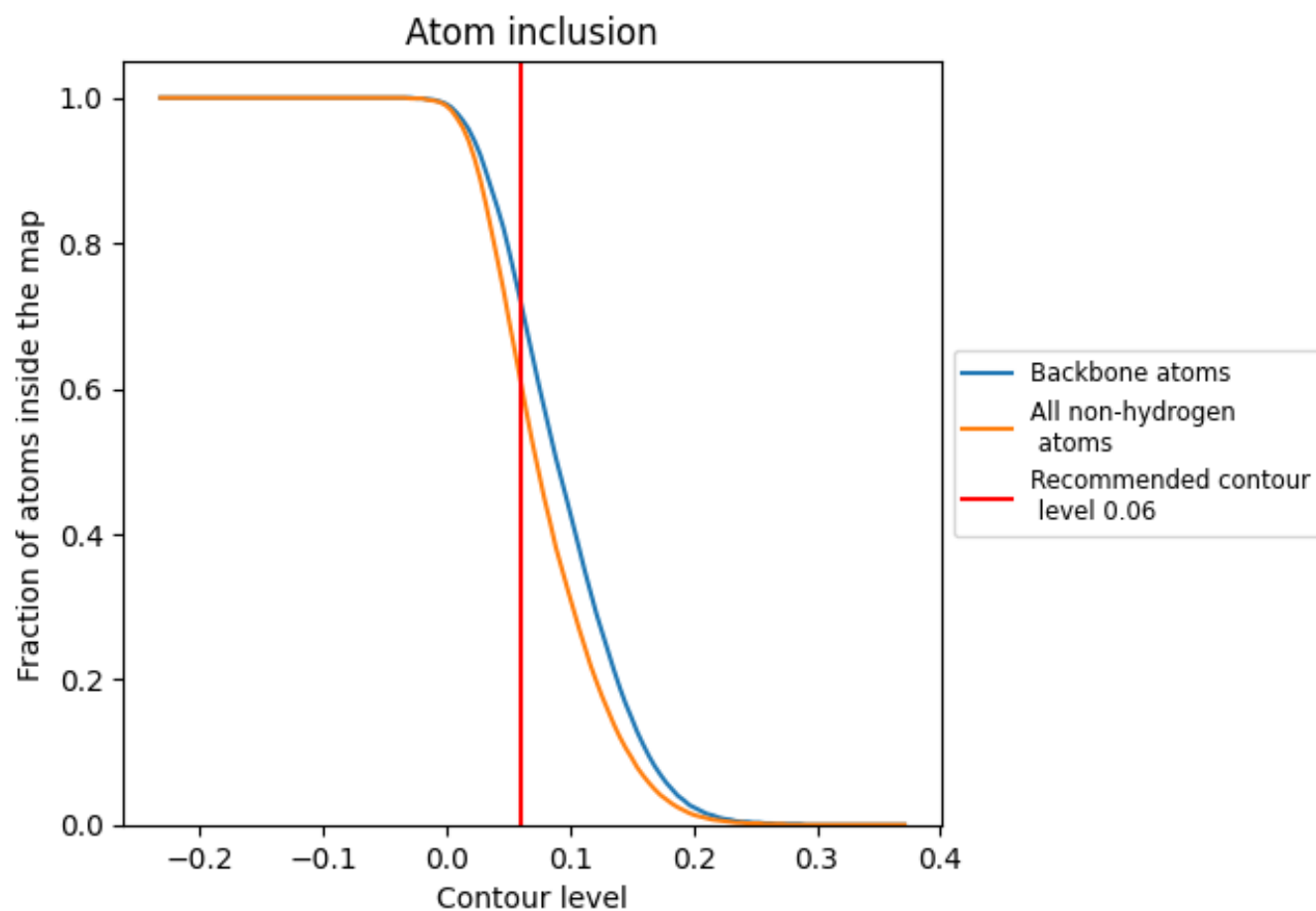
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.06).

9.4 Atom inclusion [i](#)



At the recommended contour level, 72% of all backbone atoms, 61% 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 (0.06) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6120	0.4220
A	0.5750	0.4190
B	0.7330	0.4630
C	0.7480	0.4580
D	0.0030	0.2100
E	0.3790	0.3490
F	0.6750	0.4550
G	0.1760	0.2540
H	0.7400	0.4640
I	0.2160	0.3490
J	0.8220	0.4870
K	0.7920	0.4730
L	0.7850	0.4680
R	0.8100	0.4310
T	0.4070	0.2750
U	0.0910	0.1450

1.0

0.0

<0.0