



Full wwPDB EM Validation Report ⓘ

Mar 24, 2026 – 08:12 AM UTC

PDB ID : 8F5P / pdb_00008f5p
EMDB ID : EMD-28867
Title : Structure of Leishmania tarentolae IFT-A (state 2)
Authors : Zhou, H.; Brown, A.
Deposited on : 2022-11-14
Resolution : 3.40 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:

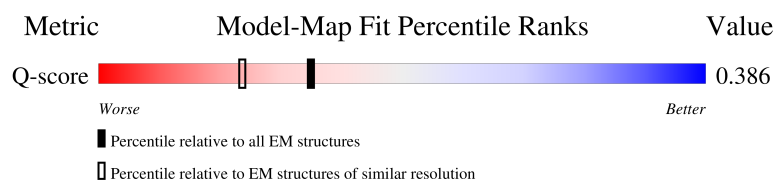
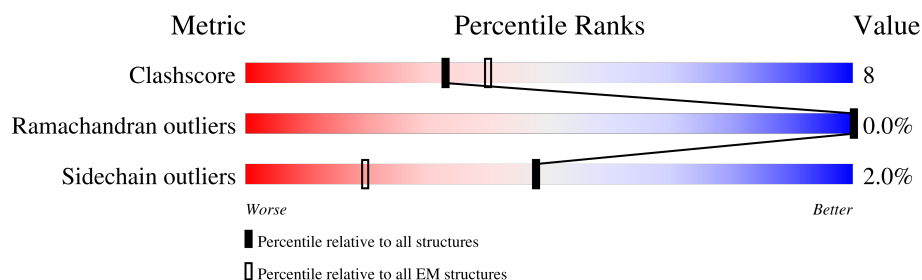
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 3.40 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	14717 (2.90 - 3.90)

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	368	
2	B	1247	
3	C	1292	
4	D	1642	

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Mol	Chain	Length	Quality of chain
5	E	1654	17% 50% 13% 36%
6	F	1376	46% 59% 11% 30%

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 39437 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 NET domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	75	Total	C	N	O	S	0	0
			585	361	97	120	7		

- Molecule 2 is a protein called Intraflagellar transport protein 122B, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	1128	Total	C	N	O	S	0	0
			8917	5645	1557	1652	63		

- Molecule 3 is a protein called Intraflagellar transport protein 122 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	1176	Total	C	N	O	S	0	0
			9337	5918	1619	1732	68		

- Molecule 4 is a protein called TPR_REGION domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	612	Total	C	N	O	S	0	0
			4826	3026	862	912	26		

- Molecule 5 is a protein called WD_REPEATS_REGION domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	E	1057	Total	C	N	O	S	0	0
			8269	5228	1430	1561	50		

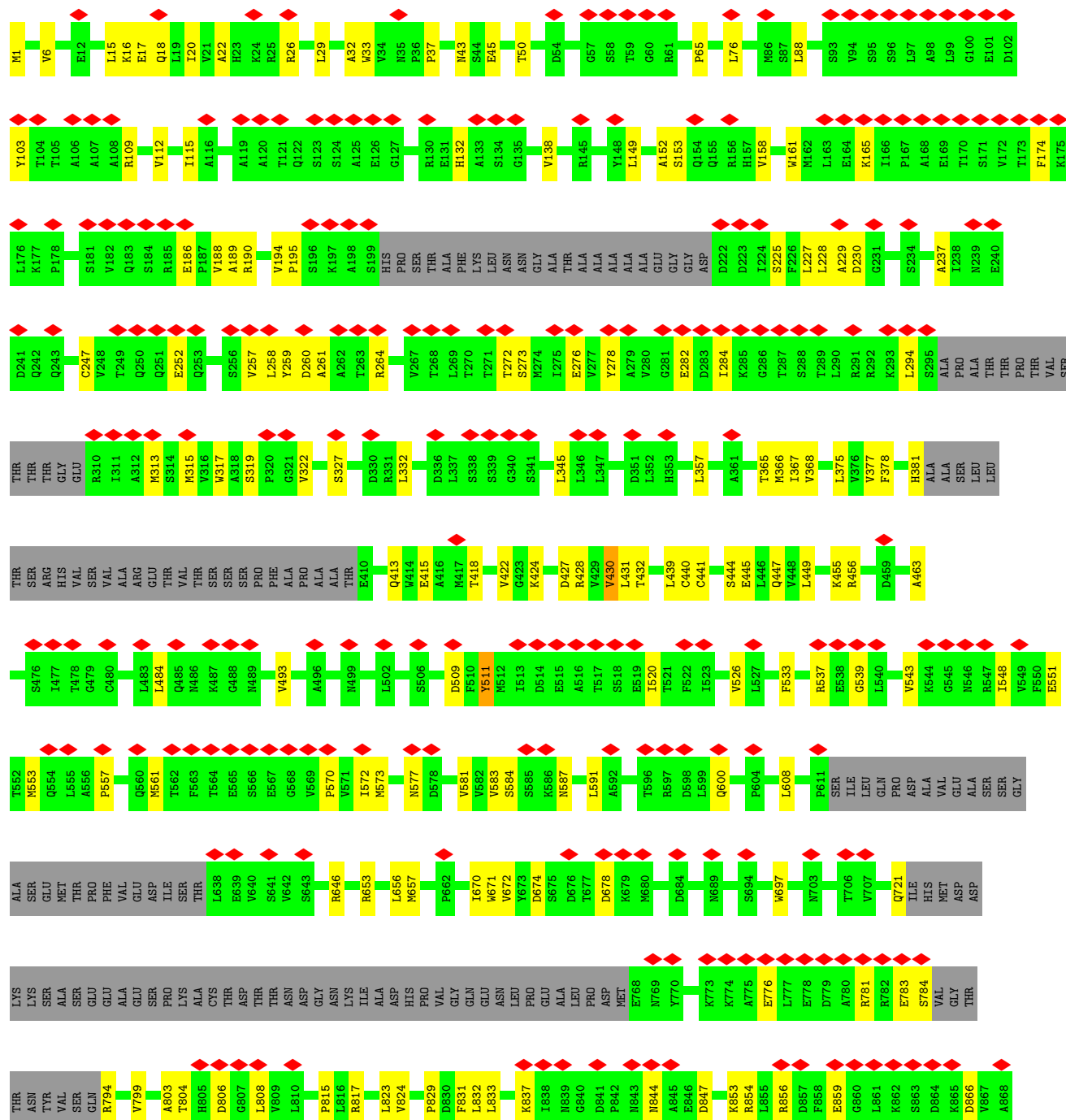
- Molecule 6 is a protein called WD_REPEATS_REGION domain-containing protein.

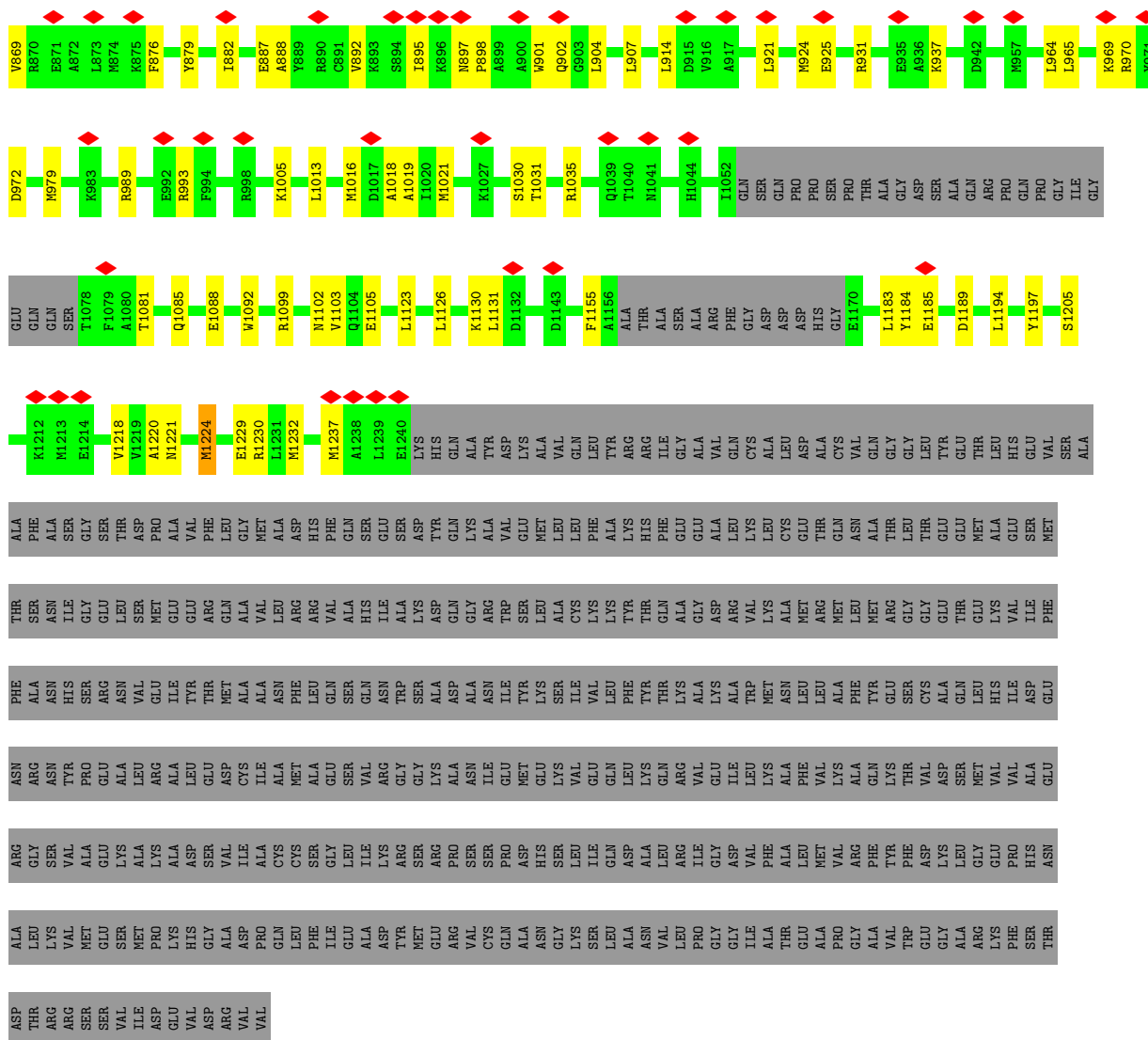
Mol	Chain	Residues	Atoms					AltConf	Trace
6	F	970	Total	C	N	O	S	0	0
			7499	4713	1315	1436	35		

- Molecule 7 is ZINC ION (CCD ID: ZN) (formula: Zn).

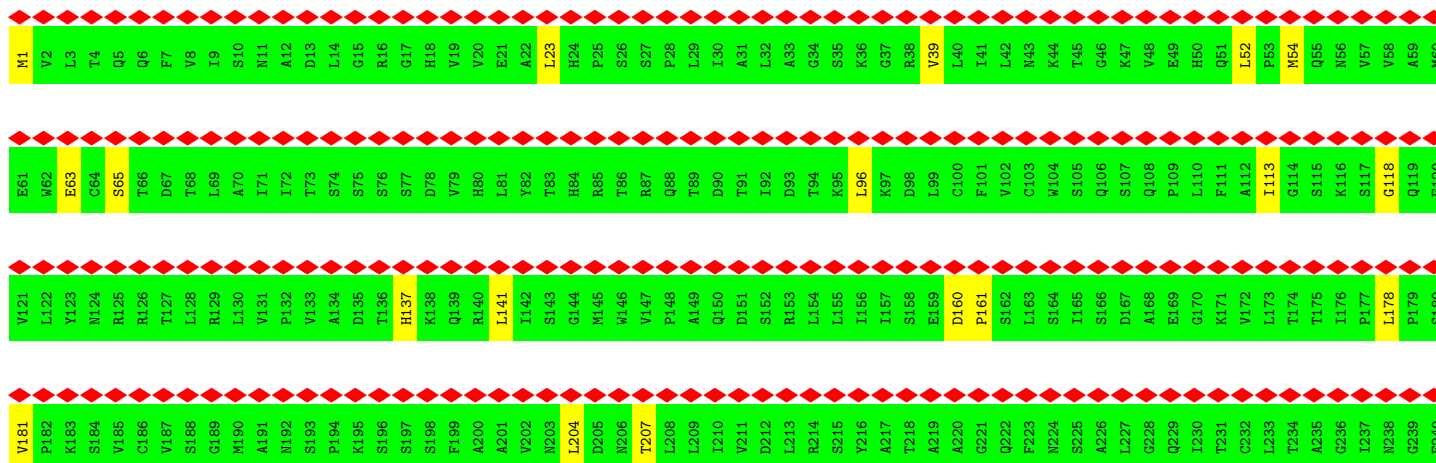
Mol	Chain	Residues	Atoms		AltConf
7	B	2	Total 2	Zn 2	0
7	C	2	Total 2	Zn 2	0







- Molecule 6: WD REPEATS REGION domain-containing protein





ALA
THR
ILE
ASP
ILE
SER
ASN
VAL
ASN
ARG
GLU
THR
ASN
PRO
GLU
LEU
LYS
ALA
LEU
LEU

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	563466	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 ($e^-/\text{\AA}^2$)	57.8	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	74.154	Depositor
Minimum map value	-32.225	Depositor
Average map value	0.007	Depositor
Map value standard deviation	0.778	Depositor
Recommended contour level	7	Depositor
Map size (Å)	514.6, 514.6, 514.6	wwPDB
Map dimensions	620, 620, 620	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	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	0.13	0/592	0.29	0/800
2	B	0.16	0/9108	0.31	0/12341
3	C	0.12	0/9531	0.30	0/12900
4	D	0.16	0/4905	0.34	0/6650
5	E	0.11	0/8429	0.29	0/11438
6	F	0.09	0/7633	0.25	0/10368
All	All	0.13	0/40198	0.30	0/54497

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	585	0	565	22	0
2	B	8917	0	8815	165	0
3	C	9337	0	9275	175	0
4	D	4826	0	4799	107	0
5	E	8269	0	8212	133	0
6	F	7499	0	7503	98	0
7	B	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	C	2	0	0	0	0
All	All	39437	0	39169	661	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 8.

All (661) 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)
5:E:539:GLY:HA3	5:E:551:GLU:O	1.71	0.91
3:C:1061:CYS:HB3	3:C:1064:CYS:SG	2.19	0.82
3:C:62:ILE:HA	3:C:78:GLY:HA2	1.66	0.76
5:E:656:LEU:HB2	5:E:671:TRP:HB2	1.68	0.76
2:B:1174:CYS:HB3	2:B:1177:CYS:SG	2.26	0.75
2:B:920:HIS:HB2	2:B:956:TYR:HB2	1.69	0.74
4:D:1221:ASN:HD22	4:D:1587:VAL:HG13	1.52	0.74
6:F:589:GLU:HG3	6:F:590:LYS:HG3	1.67	0.74
3:C:441:MET:HG2	3:C:452:LEU:HA	1.71	0.72
6:F:730:LYS:O	6:F:734:LEU:HB2	1.89	0.72
5:E:804:THR:HG22	5:E:806:ASP:H	1.55	0.72
3:C:964:ALA:HA	3:C:985:ILE:HD11	1.71	0.71
2:B:826:ILE:HA	2:B:836:MET:HE1	1.73	0.71
2:B:988:ASP:HB2	2:B:1219:ARG:HH22	1.56	0.71
6:F:601:ARG:HA	6:F:734:LEU:HD21	1.74	0.70
2:B:402:PRO:HG2	3:C:561:PRO:HG3	1.75	0.69
2:B:846:VAL:HA	3:C:430:ILE:HD11	1.75	0.69
3:C:1180:ARG:HE	3:C:1181:PRO:HD2	1.58	0.69
4:D:1587:VAL:HG12	4:D:1590:ALA:H	1.59	0.68
2:B:872:VAL:O	3:C:447:ASN:ND2	2.25	0.68
5:E:33:TRP:O	5:E:37:PRO:HA	1.94	0.68
2:B:430:ILE:HG21	2:B:497:MET:HE1	1.75	0.68
3:C:152:THR:HG21	3:C:211:LEU:HD21	1.78	0.66
5:E:17:GLU:HG3	5:E:427:ASP:HB3	1.78	0.66
4:D:1012:ARG:O	4:D:1016:HIS:ND1	2.29	0.66
5:E:1220:ALA:O	5:E:1221:ASN:ND2	2.28	0.66
3:C:414:SER:HB2	3:C:435:LEU:HB3	1.77	0.65
6:F:161:PRO:HB2	6:F:178:LEU:HB2	1.78	0.65
4:D:1223:ASN:ND2	4:D:1256:PRO:O	2.30	0.65
6:F:727:ILE:HG12	6:F:732:LEU:HD22	1.77	0.65
5:E:365:THR:HA	5:E:378:PHE:O	1.96	0.64
4:D:1027:ILE:O	4:D:1031:ARG:NH1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:757:GLY:HA3	3:C:612:THR:HG23	1.79	0.64
2:B:125:CYS:SG	2:B:157:TRP:NE1	2.71	0.64
5:E:829:PRO:O	5:E:854:ARG:NH1	2.31	0.64
4:D:1155:ARG:NH1	4:D:1184:GLN:OE1	2.31	0.64
4:D:1592:PRO:HD3	4:D:1622:HIS:HD2	1.61	0.64
3:C:545:ASN:OD1	3:C:562:HIS:NE2	2.29	0.64
3:C:354:VAL:HB	3:C:371:ALA:HB3	1.80	0.63
5:E:441:CYS:O	5:E:445:GLU:HB3	1.98	0.63
5:E:657:MET:HE1	5:E:670:ILE:HG22	1.81	0.63
6:F:39:VAL:HB	6:F:52:LEU:HB2	1.81	0.63
6:F:570:GLN:HA	6:F:587:ASP:HB3	1.80	0.63
1:A:188:ASP:HB2	2:B:1001:LEU:HD13	1.81	0.63
2:B:485:ASP:HB3	2:B:501:LEU:HD23	1.81	0.63
6:F:573:VAL:HG22	6:F:585:THR:HG22	1.80	0.63
4:D:1117:CYS:SG	4:D:1118:GLU:N	2.72	0.62
3:C:422:VAL:O	3:C:469:ARG:NH1	2.32	0.62
4:D:1311:ILE:HD12	4:D:1339:THR:HG22	1.80	0.62
2:B:146:ARG:NH2	2:B:180:SER:O	2.32	0.62
4:D:1236:PRO:O	4:D:1239:ASN:ND2	2.30	0.62
5:E:18:GLN:OE1	5:E:428:ARG:NH1	2.32	0.62
1:A:171:ARG:NH1	4:D:1320:LEU:O	2.33	0.62
2:B:462:ILE:HD13	2:B:514:LEU:HD21	1.80	0.62
4:D:1541:ASP:N	4:D:1541:ASP:OD1	2.33	0.62
3:C:309:ARG:HE	3:C:312:MET:HA	1.65	0.62
5:E:149:LEU:HB3	5:E:161:TRP:HB2	1.82	0.61
2:B:91:VAL:HG13	2:B:102:GLU:HB3	1.82	0.61
2:B:227:LYS:NZ	2:B:243:ASP:OD2	2.33	0.61
2:B:619:SER:HB3	2:B:676:LYS:HD3	1.82	0.61
3:C:379:CYS:HA	3:C:393:ASN:HB2	1.82	0.61
6:F:331:LEU:HD23	6:F:343:PHE:HB2	1.83	0.61
4:D:1338:ALA:O	4:D:1340:ARG:NH1	2.34	0.61
5:E:672:VAL:HG21	5:E:808:LEU:HD21	1.82	0.61
3:C:524:LYS:NZ	3:C:528:LEU:O	2.34	0.61
6:F:806:LEU:HD11	6:F:847:GLN:HG3	1.82	0.61
4:D:1309:ASP:O	4:D:1313:HIS:ND1	2.33	0.61
2:B:921:ASP:OD1	2:B:921:ASP:N	2.33	0.61
3:C:224:PHE:HB3	3:C:244:ASP:HB2	1.81	0.61
3:C:375:ARG:NH1	3:C:404:GLY:O	2.34	0.61
3:C:866:GLU:OE1	3:C:869:ARG:NH1	2.33	0.60
5:E:1224:MET:SD	5:E:1224:MET:N	2.68	0.60
2:B:723:LEU:O	2:B:727:ASN:ND2	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:795:ALA:HA	3:C:798:PHE:HD2	1.67	0.60
3:C:799:ARG:NH2	3:C:811:TYR:OH	2.33	0.60
3:C:951:GLN:NE2	5:E:1031:THR:O	2.34	0.60
3:C:742:GLU:HG2	3:C:766:MET:HE3	1.83	0.60
4:D:1460:ARG:NH2	4:D:1536:GLU:OE2	2.34	0.60
6:F:350:VAL:HG12	6:F:390:ILE:HG12	1.84	0.60
4:D:1063:LYS:HE3	4:D:1067:ALA:HB2	1.83	0.60
6:F:876:CYS:HB2	6:F:885:ALA:HB2	1.82	0.60
2:B:191:CYS:HB2	2:B:227:LYS:HE3	1.84	0.60
3:C:1043:ARG:NH2	3:C:1048:ASN:OD1	2.34	0.60
5:E:1229:GLU:OE1	5:E:1230:ARG:NH2	2.35	0.60
5:E:931:ARG:NH1	6:F:739:MET:SD	2.75	0.60
6:F:466:VAL:HG21	6:F:494:ILE:HG21	1.82	0.60
2:B:209:TRP:HD1	2:B:218:THR:HG21	1.68	0.59
3:C:621:GLU:HA	3:C:624:LYS:HG2	1.83	0.59
3:C:575:PHE:HB2	3:C:603:ARG:HE	1.66	0.59
1:A:158:ASP:OD2	4:D:1231:ASN:ND2	2.36	0.59
2:B:69:ASP:HB3	2:B:70:LEU:HD12	1.84	0.59
4:D:1437:VAL:HG11	4:D:1466:LEU:HA	1.84	0.59
4:D:1050:PRO:HG3	4:D:1079:ARG:HH11	1.68	0.59
5:E:194:VAL:O	5:E:225:SER:OG	2.21	0.59
5:E:186:GLU:HB2	5:E:230:ASP:HB2	1.84	0.59
6:F:440:ARG:NH2	6:F:471:ILE:O	2.35	0.59
2:B:675:LYS:HE3	2:B:701:CYS:HB2	1.85	0.59
6:F:710:ARG:NH2	6:F:722:GLU:OE2	2.35	0.59
4:D:1179:LEU:HD12	4:D:1188:ALA:HB2	1.84	0.59
4:D:1323:VAL:HA	4:D:1328:ARG:HD2	1.85	0.58
6:F:802:TYR:OH	6:F:849:ARG:NH1	2.36	0.58
3:C:162:VAL:HB	3:C:175:ILE:HB	1.84	0.58
2:B:156:CYS:SG	2:B:157:TRP:N	2.77	0.58
2:B:177:ASP:HB3	2:B:181:GLY:H	1.69	0.58
2:B:1212:TRP:N	2:B:1223:GLU:OE2	2.36	0.58
3:C:507:ASP:HB2	3:C:544:ALA:HB2	1.85	0.58
3:C:629:ARG:O	3:C:629:ARG:NH1	2.30	0.58
2:B:127:THR:HG21	2:B:155:VAL:HG21	1.86	0.58
2:B:579:ARG:HH21	2:B:617:PHE:H	1.50	0.58
3:C:220:ARG:HG3	3:C:254:GLY:HA3	1.86	0.58
5:E:1102:ASN:ND2	5:E:1105:GLU:OE1	2.37	0.58
1:A:191:VAL:O	2:B:1236:HIS:ND1	2.30	0.58
6:F:591:CYS:SG	6:F:621:THR:OG1	2.62	0.58
3:C:505:ASN:ND2	3:C:543:LYS:O	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:1081:THR:O	5:E:1085:GLN:NE2	2.37	0.58
2:B:151:LYS:O	2:B:169:ALA:N	2.37	0.57
2:B:731:ARG:NH2	3:C:615:GLN:O	2.37	0.57
3:C:1224:ARG:NH2	3:C:1226:ASP:OD2	2.37	0.57
3:C:788:VAL:O	3:C:791:ILE:HB	2.03	0.57
2:B:229:GLN:HE21	2:B:239:PRO:HG3	1.69	0.57
5:E:319:SER:HB2	5:E:322:VAL:HB	1.86	0.57
3:C:951:GLN:OE1	5:E:1092:TRP:NE1	2.32	0.57
4:D:1009:LEU:O	4:D:1011:ARG:N	2.38	0.57
2:B:843:LEU:HA	2:B:846:VAL:HG12	1.86	0.57
2:B:142:ARG:HH21	2:B:145:GLY:HA3	1.69	0.56
5:E:892:VAL:HG21	5:E:904:LEU:HD22	1.87	0.56
2:B:383:ARG:NH1	2:B:386:THR:O	2.38	0.56
6:F:590:LYS:HD2	6:F:620:TYR:HB3	1.88	0.56
5:E:20:ILE:HB	5:E:430:VAL:HG21	1.87	0.56
5:E:551:GLU:HG2	5:E:557:PRO:HA	1.87	0.56
5:E:721:GLN:O	5:E:794:ARG:NH1	2.38	0.56
2:B:661:THR:HG23	2:B:664:GLU:H	1.70	0.56
4:D:1326:GLU:OE1	4:D:1329:ARG:NH2	2.37	0.56
6:F:491:LEU:HD23	6:F:505:THR:HG22	1.87	0.56
3:C:685:LEU:HD22	3:C:690:LYS:HB2	1.87	0.56
1:A:181:SER:OG	4:D:1237:ALA:O	2.23	0.56
1:A:211:GLU:HA	1:A:214:LYS:HB2	1.88	0.56
3:C:57:GLY:HA3	3:C:86:TRP:HH2	1.71	0.56
2:B:200:LEU:HA	2:B:223:TYR:HA	1.88	0.55
3:C:516:THR:OG1	3:C:518:ASP:OD1	2.22	0.55
4:D:1584:TRP:NE1	4:D:1589:GLU:HG3	2.22	0.55
5:E:653:ARG:NH1	5:E:803:ALA:O	2.40	0.55
5:E:1013:LEU:HD13	6:F:707:ARG:HE	1.70	0.55
1:A:171:ARG:NH2	1:A:177:SER:OG	2.39	0.55
6:F:958:ARG:HG2	6:F:962:LEU:HD12	1.87	0.55
2:B:310:VAL:HG13	2:B:321:ALA:HB3	1.88	0.55
2:B:63:GLY:O	2:B:88:ARG:NH1	2.40	0.55
2:B:812:ILE:O	2:B:816:ILE:HG13	2.06	0.55
3:C:831:ARG:HD2	5:E:1155:PHE:HE1	1.72	0.55
5:E:456:ARG:HB2	5:E:824:VAL:HG23	1.88	0.55
2:B:214:GLU:OE2	2:B:366:ARG:NH2	2.39	0.55
2:B:237:GLU:OE2	3:C:275:ARG:NH1	2.40	0.55
5:E:831:PHE:HB2	5:E:853:LYS:HG3	1.89	0.55
5:E:1184:TYR:HB3	5:E:1189:ASP:HB2	1.88	0.55
3:C:210:ASN:HD21	3:C:214:THR:HB	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:96:LEU:HD12	6:F:113:ILE:HG13	1.89	0.54
6:F:299:THR:OG1	6:F:302:GLY:O	2.25	0.54
6:F:492:VAL:HG21	6:F:529:LEU:HG	1.87	0.54
3:C:332:GLU:HB2	3:C:348:LEU:HD23	1.90	0.54
2:B:940:LEU:HG	2:B:944:LYS:HE2	1.90	0.54
3:C:44:TYR:HB3	3:C:49:GLY:HA2	1.89	0.54
3:C:40:ARG:NH1	3:C:54:SER:OG	2.41	0.54
3:C:861:PHE:HA	3:C:864:ALA:HB3	1.89	0.54
2:B:72:THR:HG22	2:B:81:THR:HB	1.89	0.54
6:F:271:ASN:ND2	6:F:290:ASP:OD2	2.33	0.54
3:C:183:ALA:HB1	3:C:229:VAL:HG22	1.89	0.54
2:B:245:ASP:OD1	2:B:245:ASP:N	2.41	0.54
3:C:27:SER:HB3	3:C:32:TYR:HB2	1.90	0.54
3:C:6:ARG:NH1	3:C:47:SER:O	2.40	0.54
3:C:576:ASP:OD1	3:C:603:ARG:NH2	2.41	0.53
3:C:907:GLU:HG3	3:C:910:ARG:HD2	1.89	0.53
1:A:167:LEU:HD11	1:A:180:THR:HG21	1.90	0.53
2:B:957:ARG:NH2	2:B:987:LEU:O	2.30	0.53
3:C:67:TYR:HE1	3:C:71:GLY:HA2	1.73	0.53
3:C:711:TYR:HB3	3:C:720:ALA:HB2	1.91	0.53
4:D:1155:ARG:O	4:D:1159:GLU:HG2	2.09	0.53
5:E:381:HIS:ND1	5:E:413:GLN:O	2.41	0.53
6:F:1:MET:SD	6:F:1:MET:N	2.71	0.53
4:D:1341:ARG:HD2	4:D:1344:GLU:HG3	1.90	0.53
2:B:992:ARG:HD3	2:B:1025:TYR:HE1	1.74	0.53
4:D:1312:ARG:HG2	4:D:1316:GLN:HE21	1.73	0.53
2:B:583:ASP:OD1	2:B:583:ASP:N	2.38	0.53
5:E:543:VAL:HG22	5:E:548:ILE:HG22	1.91	0.53
3:C:238:ILE:HG23	3:C:250:PHE:HB2	1.89	0.53
5:E:879:TYR:HA	5:E:882:ILE:HG12	1.90	0.53
6:F:706:ILE:HG23	6:F:718:VAL:HG13	1.91	0.53
5:E:190:ARG:NH1	5:E:257:VAL:O	2.41	0.53
5:E:989:ARG:HB3	5:E:993:ARG:HH12	1.74	0.53
2:B:83:SER:OG	2:B:84:ASP:N	2.42	0.53
2:B:276:ILE:HD12	2:B:314:VAL:HG22	1.91	0.53
2:B:556:LYS:NZ	2:B:562:CYS:SG	2.82	0.53
5:E:484:LEU:HG	5:E:520:ILE:HD13	1.90	0.53
5:E:979:MET:HE3	5:E:1005:LYS:HG2	1.90	0.53
2:B:630:LEU:HG	2:B:641:TYR:HD2	1.74	0.52
4:D:1030:GLN:OE1	4:D:1031:ARG:NH1	2.43	0.52
4:D:1254:LEU:HD12	4:D:1261:LEU:HD11	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:1353:LEU:HD13	4:D:1428:THR:HB	1.91	0.52
2:B:326:ASN:OD1	2:B:326:ASN:N	2.41	0.52
4:D:1523:GLU:OE1	4:D:1523:GLU:N	2.39	0.52
3:C:1069:VAL:HG21	3:C:1080:LEU:HB2	1.91	0.52
1:A:151:LEU:HD11	4:D:1256:PRO:HB3	1.91	0.52
5:E:20:ILE:HD11	5:E:440:CYS:HB2	1.91	0.52
3:C:455:LYS:NZ	3:C:456:GLY:O	2.42	0.52
2:B:156:CYS:HB2	2:B:203:LEU:HG	1.91	0.52
3:C:754:TYR:O	3:C:758:GLY:N	2.41	0.52
2:B:437:ASP:O	2:B:440:THR:OG1	2.28	0.52
2:B:606:GLU:OE2	2:B:651:ARG:NH2	2.43	0.52
2:B:244:ARG:HH21	2:B:279:GLN:HG3	1.76	0.51
5:E:570:PRO:HA	5:E:584:SER:HA	1.92	0.51
5:E:1103:VAL:HG11	5:E:1126:LEU:HD21	1.92	0.51
5:E:1185:GLU:OE1	5:E:1197:TYR:OH	2.24	0.51
2:B:146:ARG:HH12	2:B:182:GLU:HA	1.74	0.51
5:E:22:ALA:HB1	5:E:432:THR:HA	1.92	0.51
3:C:760:TYR:HA	3:C:763:ALA:HB3	1.93	0.51
4:D:1337:MET:HE1	4:D:1448:ILE:HG13	1.93	0.51
5:E:237:ALA:HB2	5:E:247:CYS:HB2	1.92	0.51
5:E:377:VAL:HB	5:E:418:THR:HG22	1.91	0.51
6:F:793:ALA:HA	6:F:796:LEU:HD12	1.92	0.51
3:C:232:PHE:HB3	3:C:237:TYR:HB2	1.92	0.51
3:C:349:GLN:O	3:C:376:ARG:NH1	2.43	0.51
4:D:1006:ALA:HB1	4:D:1034:MET:SD	2.51	0.51
2:B:324:ARG:HG3	2:B:576:TRP:CG	2.46	0.51
5:E:273:SER:HB3	5:E:294:LEU:HB2	1.93	0.51
5:E:1131:LEU:HD12	5:E:1183:LEU:HD23	1.92	0.51
2:B:175:VAL:HG21	2:B:234:ILE:HG23	1.93	0.51
3:C:82:THR:HA	3:C:97:GLN:HA	1.92	0.51
5:E:375:LEU:HD21	5:E:439:LEU:HD21	1.93	0.51
5:E:898:PRO:HA	5:E:901:TRP:HD1	1.76	0.51
3:C:400:TYR:HE1	3:C:406:LYS:HE3	1.76	0.51
3:C:247:VAL:HG23	3:C:260:LEU:HB2	1.93	0.50
3:C:767:MET:HE3	3:C:770:ALA:HB3	1.93	0.50
4:D:957:THR:O	4:D:961:ARG:HG3	2.11	0.50
2:B:15:VAL:HG13	2:B:34:GLU:HG2	1.93	0.50
2:B:461:VAL:HG11	2:B:478:VAL:HG12	1.92	0.50
2:B:114:ASP:OD1	2:B:115:PHE:N	2.45	0.50
2:B:577:ASN:HB3	2:B:591:MET:HB2	1.94	0.50
5:E:189:ALA:N	5:E:229:ALA:O	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:132:HIS:CD2	5:E:153:SER:HB2	2.47	0.50
5:E:815:PRO:HD2	5:E:856:ARG:HH22	1.76	0.50
5:E:837:LYS:HE2	5:E:847:ASP:HA	1.92	0.50
2:B:268:ALA:HB2	2:B:274:PRO:HG3	1.93	0.50
3:C:565:ALA:HB3	3:C:581:VAL:HG11	1.93	0.50
4:D:992:ASP:HA	4:D:1050:PRO:HB3	1.94	0.50
5:E:367:ILE:HG13	5:E:431:LEU:HD11	1.92	0.50
5:E:1030:SER:HB2	5:E:1088:GLU:HB3	1.94	0.50
1:A:169:MET:HE1	2:B:1010:ARG:HE	1.76	0.50
4:D:1331:LEU:HD23	4:D:1334:TYR:HD2	1.77	0.50
3:C:735:ARG:NH2	3:C:754:TYR:OH	2.42	0.50
4:D:1334:TYR:HE1	4:D:1448:ILE:HD11	1.76	0.50
3:C:257:LEU:HD13	3:C:312:MET:HE3	1.94	0.49
4:D:930:VAL:HG13	4:D:961:ARG:HG2	1.93	0.49
1:A:190:ASP:O	2:B:1230:ARG:NH2	2.45	0.49
3:C:1264:GLN:HB2	3:C:1267:ARG:HG3	1.94	0.49
5:E:357:LEU:HD21	5:E:368:VAL:HG22	1.94	0.49
5:E:445:GLU:OE2	5:E:447:GLN:NE2	2.45	0.49
3:C:184:LEU:HD12	3:C:197:LEU:HD21	1.95	0.49
3:C:255:ASN:HD22	3:C:332:GLU:HG2	1.77	0.49
2:B:172:GLU:OE1	2:B:186:GLN:NE2	2.46	0.49
2:B:219:LEU:HD23	2:B:231:MET:HB2	1.95	0.49
3:C:303:ASP:HA	3:C:506:ILE:HD13	1.95	0.49
4:D:957:THR:O	4:D:960:GLU:HG2	2.12	0.49
4:D:1045:CYS:HB2	4:D:1083:ALA:HB2	1.93	0.49
5:E:587:ASN:ND2	5:E:608:LEU:O	2.45	0.49
5:E:876:PHE:HD1	5:E:888:ALA:HB1	1.77	0.49
3:C:84:ILE:HG12	3:C:95:LYS:HG3	1.94	0.49
3:C:163:MET:HB2	3:C:165:LEU:HD13	1.93	0.49
3:C:505:ASN:HB2	3:C:511:ASN:HB3	1.95	0.49
4:D:1044:ARG:O	4:D:1048:SER:OG	2.20	0.49
5:E:76:LEU:HD11	5:E:88:LEU:HD12	1.94	0.49
2:B:74:ASN:HB2	2:B:117:TRP:CE2	2.47	0.49
2:B:785:ASP:OD1	2:B:800:TYR:OH	2.25	0.49
6:F:848:ILE:HG22	6:F:875:LEU:HB2	1.95	0.49
2:B:882:ALA:O	2:B:886:ARG:NH1	2.46	0.49
3:C:99:THR:HG22	3:C:100:GLU:HG2	1.95	0.49
6:F:529:LEU:HD13	6:F:543:TYR:HB2	1.93	0.49
1:A:163:TRP:HH2	2:B:1004:GLN:HB3	1.78	0.49
6:F:389:PHE:HZ	6:F:448:VAL:HB	1.78	0.49
5:E:456:ARG:HG3	5:E:824:VAL:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:1013:LEU:O	6:F:681:ASN:ND2	2.37	0.49
2:B:1006:GLN:NE2	2:B:1200:VAL:O	2.43	0.48
6:F:489:THR:OG1	6:F:490:ARG:N	2.45	0.48
6:F:972:VAL:HG21	6:F:984:VAL:HG21	1.95	0.48
2:B:175:VAL:HG11	2:B:234:ILE:HD13	1.95	0.48
3:C:1056:MET:HE1	3:C:1062:PRO:HA	1.95	0.48
3:C:1080:LEU:HA	3:C:1221:ARG:O	2.13	0.48
5:E:103:TYR:HB3	5:E:109:ARG:HG3	1.95	0.48
5:E:463:ALA:HB1	5:E:824:VAL:HG21	1.96	0.48
2:B:353:TRP:HE1	2:B:358:ASN:HA	1.79	0.48
2:B:1156:ARG:HH22	4:D:914:ARG:HH11	1.61	0.48
3:C:268:TRP:HH2	4:D:1640:LEU:HD21	1.78	0.48
3:C:951:GLN:HE21	5:E:1035:ARG:HB2	1.78	0.48
4:D:1568:GLU:OE1	4:D:1580:TYR:OH	2.30	0.48
5:E:252:GLU:OE1	5:E:272:THR:OG1	2.30	0.48
5:E:572:ILE:HB	5:E:583:VAL:HB	1.95	0.48
5:E:674:ASP:O	5:E:678:ASP:N	2.47	0.48
6:F:473:ASP:OD1	6:F:473:ASP:N	2.46	0.48
3:C:233:ASN:OD1	3:C:277:LYS:NZ	2.46	0.48
3:C:717:TRP:CD2	3:C:737:GLN:HG2	2.49	0.48
6:F:653:THR:OG1	6:F:654:HIS:ND1	2.45	0.48
3:C:369:ASP:OD1	3:C:369:ASP:N	2.43	0.48
4:D:1591:ASP:HB3	4:D:1594:VAL:HG12	1.96	0.48
3:C:181:VAL:HG13	3:C:199:ILE:HG23	1.95	0.48
3:C:240:LEU:HD12	3:C:250:PHE:HE2	1.78	0.48
3:C:1056:MET:HE2	3:C:1056:MET:HB3	1.81	0.48
5:E:537:ARG:NH2	5:E:577:ASN:O	2.46	0.48
5:E:1194:LEU:HD21	5:E:1218:VAL:HG21	1.96	0.48
6:F:857:MET:HG3	6:F:884:GLU:HG2	1.96	0.48
2:B:550:TYR:HA	2:B:566:THR:HA	1.94	0.48
2:B:747:ASP:OD1	2:B:747:ASP:N	2.47	0.48
2:B:741:LYS:HG2	2:B:746:LYS:HD3	1.96	0.48
3:C:66:ASP:OD2	3:C:107:HIS:ND1	2.47	0.48
3:C:229:VAL:HG12	3:C:240:LEU:HD21	1.95	0.48
3:C:791:ILE:HA	3:C:794:CYS:HB3	1.96	0.48
4:D:1239:ASN:OD1	4:D:1242:CYS:N	2.46	0.48
4:D:1087:LEU:HD12	4:D:1107:LEU:HD22	1.96	0.47
4:D:1189:LYS:O	4:D:1189:LYS:NZ	2.45	0.47
3:C:731:LYS:NZ	3:C:732:ASP:OD1	2.45	0.47
3:C:794:CYS:HA	3:C:797:PHE:HD1	1.79	0.47
3:C:951:GLN:HB3	3:C:953:LEU:HD23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:1085:GLU:OE1	4:D:1088:ARG:NH1	2.47	0.47
4:D:1162:LEU:HD12	4:D:1175:TYR:HD2	1.78	0.47
6:F:619:LEU:HD11	6:F:653:THR:HG22	1.96	0.47
2:B:443:ASP:OD1	2:B:443:ASP:N	2.44	0.47
2:B:93:VAL:HG12	2:B:102:GLU:HB2	1.95	0.47
3:C:964:ALA:HB1	3:C:989:LEU:HB2	1.96	0.47
2:B:766:VAL:HG11	2:B:776:LEU:HB2	1.96	0.47
3:C:848:TYR:HB2	3:C:871:ALA:HB2	1.97	0.47
3:C:1190:ALA:HA	3:C:1194:ILE:HD12	1.95	0.47
4:D:1531:TYR:O	4:D:1534:THR:OG1	2.31	0.47
5:E:972:ASP:N	5:E:972:ASP:OD1	2.46	0.47
2:B:118:ASN:OD1	2:B:121:GLY:N	2.48	0.47
3:C:117:VAL:HG21	3:C:144:ALA:HB2	1.96	0.47
4:D:1124:VAL:HA	4:D:1127:MET:HB2	1.97	0.47
4:D:1177:ILE:HG13	4:D:1181:HIS:CE1	2.50	0.47
5:E:422:VAL:O	5:E:424:LYS:NZ	2.47	0.47
5:E:879:TYR:CD2	5:E:887:GLU:HB3	2.50	0.47
6:F:160:ASP:OD1	6:F:160:ASP:N	2.46	0.47
6:F:739:MET:HE2	6:F:763:MET:HB3	1.96	0.47
6:F:903:ILE:HD13	6:F:924:ILE:HG23	1.97	0.47
3:C:1081:VAL:O	3:C:1220:TYR:HA	2.15	0.47
4:D:1147:GLU:HA	4:D:1514:LEU:HD23	1.97	0.47
5:E:895:ILE:HG22	5:E:897:ASN:H	1.79	0.47
2:B:760:PHE:O	2:B:764:ARG:HG2	2.15	0.47
6:F:63:GLU:OE2	6:F:65:SER:OG	2.33	0.47
6:F:387:PRO:HA	6:F:401:VAL:HG13	1.95	0.47
1:A:166:LEU:O	1:A:169:MET:HG2	2.15	0.47
1:A:168:ARG:HB3	4:D:1406:LEU:HD13	1.96	0.47
4:D:1099:ARG:O	4:D:1103:GLU:HG2	2.15	0.47
4:D:1574:LYS:O	4:D:1574:LYS:NZ	2.40	0.47
5:E:646:ARG:HB3	5:E:697:TRP:HD1	1.79	0.47
5:E:859:GLU:OE1	5:E:902:GLN:NE2	2.48	0.47
6:F:465:ARG:HA	6:F:491:LEU:HD12	1.96	0.47
2:B:808:LYS:O	2:B:812:ILE:HG12	2.15	0.46
2:B:854:LYS:HA	2:B:857:ILE:HG12	1.97	0.46
3:C:102:ILE:HA	3:C:118:SER:HA	1.97	0.46
3:C:316:VAL:HG22	3:C:327:VAL:HG22	1.97	0.46
4:D:1105:ALA:HB2	4:D:1127:MET:HE1	1.97	0.46
5:E:415:GLU:HB3	5:E:794:ARG:HH21	1.80	0.46
5:E:533:PHE:HA	5:E:573:MET:HE3	1.97	0.46
1:A:153:ARG:HB3	1:A:156:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:177:ASP:OD2	2:B:180:SER:N	2.42	0.46
2:B:846:VAL:HG13	2:B:848:LEU:HG	1.97	0.46
6:F:533:PHE:CG	6:F:573:VAL:HB	2.50	0.46
3:C:246:LYS:HE2	3:C:262:SER:HB3	1.97	0.46
6:F:394:MET:O	6:F:455:SER:OG	2.29	0.46
2:B:212:ARG:NH1	2:B:345:LYS:O	2.48	0.46
3:C:58:HIS:CE1	3:C:78:GLY:H	2.33	0.46
3:C:240:LEU:HD12	3:C:250:PHE:CE2	2.50	0.46
3:C:622:LEU:HD13	3:C:687:PHE:CG	2.50	0.46
3:C:953:LEU:HD13	3:C:954:PRO:HD2	1.97	0.46
4:D:1259:GLN:HB3	4:D:1263:VAL:HG11	1.97	0.46
4:D:1329:ARG:HG2	4:D:1355:CYS:SG	2.55	0.46
4:D:1446:LEU:O	4:D:1450:LEU:HG	2.16	0.46
4:D:1549:VAL:O	4:D:1553:ASN:N	2.47	0.46
2:B:84:ASP:OD1	2:B:85:VAL:N	2.49	0.46
2:B:993:GLY:HA2	2:B:1028:LEU:HD13	1.96	0.46
3:C:55:LEU:HD12	3:C:55:LEU:H	1.81	0.46
5:E:587:ASN:HD21	5:E:608:LEU:HB2	1.80	0.46
6:F:601:ARG:HB2	6:F:698:HIS:CE1	2.50	0.46
6:F:161:PRO:HD3	6:F:181:VAL:HG22	1.98	0.46
2:B:119:PRO:HG3	2:B:207:PRO:HG3	1.97	0.46
2:B:630:LEU:HD21	2:B:637:PRO:HB3	1.98	0.46
3:C:326:MET:HG2	3:C:365:MET:HE3	1.96	0.46
3:C:1004:ALA:O	3:C:1007:GLU:HG2	2.16	0.46
5:E:195:PRO:HG3	5:E:261:ALA:HB1	1.98	0.46
6:F:118:GLY:HA2	6:F:141:LEU:HD21	1.97	0.46
3:C:250:PHE:HE1	3:C:256:ARG:HG3	1.79	0.46
5:E:914:LEU:HB3	5:E:937:LYS:HZ1	1.81	0.46
1:A:148:GLN:HB2	4:D:1306:GLU:HG2	1.98	0.46
3:C:939:TYR:OH	3:C:978:ILE:O	2.31	0.46
5:E:876:PHE:CD1	5:E:888:ALA:HB1	2.51	0.46
4:D:1085:GLU:HA	4:D:1088:ARG:HG2	1.98	0.46
5:E:553:MET:SD	5:E:553:MET:N	2.89	0.46
5:E:548:ILE:HG12	5:E:561:MET:HG2	1.98	0.45
2:B:5:LEU:HD11	2:B:293:VAL:HG12	1.98	0.45
3:C:796:ASN:HA	3:C:799:ARG:HH21	1.81	0.45
3:C:1028:LEU:HD11	6:F:499:VAL:HG21	1.99	0.45
4:D:1242:CYS:SG	4:D:1243:THR:N	2.89	0.45
2:B:249:HIS:CE1	2:B:265:ALA:H	2.34	0.45
2:B:1016:LEU:O	2:B:1020:MET:HG2	2.15	0.45
3:C:969:GLY:O	3:C:1058:GLY:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:879:VAL:HG11	4:D:911:LEU:HD21	1.99	0.45
4:D:1263:VAL:HG12	4:D:1531:TYR:HE2	1.80	0.45
4:D:1592:PRO:HD3	4:D:1622:HIS:CD2	2.44	0.45
5:E:6:VAL:HG22	5:E:449:LEU:HG	1.99	0.45
5:E:32:ALA:HB1	5:E:65:PRO:HG2	1.98	0.45
6:F:118:GLY:HA3	6:F:137:HIS:HB2	1.98	0.45
6:F:400:GLY:HA3	6:F:405:VAL:HG12	1.99	0.45
6:F:584:ILE:HD11	6:F:591:CYS:HB2	1.99	0.45
6:F:748:GLN:OE1	6:F:764:ARG:NH2	2.34	0.45
5:E:866:ASP:OD1	5:E:866:ASP:N	2.50	0.45
6:F:565:GLY:O	6:F:618:ASN:ND2	2.33	0.45
2:B:127:THR:HG22	2:B:133:VAL:HG13	1.97	0.45
3:C:764:ILE:HD12	3:C:790:LEU:HD22	1.99	0.45
5:E:165:LYS:HE3	5:E:174:PHE:HE1	1.82	0.45
2:B:1231:ASN:HA	2:B:1238:PRO:HA	1.99	0.45
3:C:973:GLU:HA	3:C:1057:ALA:HB1	1.98	0.45
4:D:1334:TYR:HA	4:D:1337:MET:HG2	1.99	0.45
6:F:446:SER:HB2	6:F:462:TYR:HB2	1.97	0.45
3:C:685:LEU:HD13	3:C:693:ASP:HB2	1.99	0.45
5:E:783:GLU:HG2	5:E:817:ARG:HD2	1.99	0.45
3:C:505:ASN:OD1	3:C:508:VAL:N	2.45	0.45
4:D:1318:LEU:HD21	4:D:1332:GLN:HG3	1.98	0.45
1:A:175:ASP:HB2	4:D:1322:PRO:HB3	1.99	0.45
2:B:577:ASN:ND2	2:B:614:LEU:H	2.15	0.45
2:B:630:LEU:HG	2:B:641:TYR:CD2	2.52	0.45
2:B:1188:CYS:SG	2:B:1191:CYS:N	2.87	0.45
3:C:1169:PHE:O	3:C:1172:LEU:HB3	2.17	0.45
5:E:158:VAL:HG21	5:E:228:LEU:HD13	1.98	0.45
6:F:853:ILE:HG13	6:F:881:LYS:HG3	1.99	0.45
2:B:93:VAL:HG13	2:B:95:HIS:CE1	2.52	0.45
2:B:819:TYR:CZ	2:B:846:VAL:HG21	2.52	0.45
2:B:929:GLN:OE1	2:B:933:ARG:NH2	2.50	0.45
4:D:1580:TYR:HB3	4:D:1598:LEU:HD13	1.99	0.45
5:E:194:VAL:HG22	5:E:259:TYR:CZ	2.52	0.45
5:E:600:GLN:N	5:E:600:GLN:OE1	2.50	0.45
6:F:457:LEU:HD23	6:F:468:LEU:HG	1.99	0.45
6:F:806:LEU:HD13	6:F:806:LEU:HA	1.81	0.45
2:B:1006:GLN:HB2	2:B:1015:ALA:HB2	1.99	0.44
3:C:233:ASN:HB2	3:C:236:GLU:HB3	1.99	0.44
3:C:1260:ARG:HE	3:C:1263:LYS:HE3	1.83	0.44
4:D:1584:TRP:CE2	4:D:1589:GLU:HG3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:153:ARG:HG3	4:D:1313:HIS:NE2	2.32	0.44
4:D:1604:ARG:HD3	4:D:1604:ARG:HA	1.81	0.44
6:F:700:LEU:HD21	6:F:734:LEU:HG	1.99	0.44
2:B:391:ARG:HH22	2:B:411:GLU:HG3	1.81	0.44
5:E:260:ASP:HB2	5:E:317:TRP:CZ2	2.52	0.44
5:E:824:VAL:HG12	5:E:832:LEU:HB3	1.99	0.44
6:F:601:ARG:NH1	6:F:738:SER:OG	2.51	0.44
4:D:1513:ILE:HG23	4:D:1523:GLU:HG3	2.00	0.44
6:F:529:LEU:HD21	6:F:532:ALA:HB2	2.00	0.44
2:B:7:LYS:HB3	2:B:320:PHE:HB2	2.00	0.44
3:C:736:GLN:OE1	3:C:739:ARG:NH2	2.44	0.44
4:D:1520:ASP:OD1	4:D:1520:ASP:N	2.50	0.44
4:D:1561:ASN:HD22	4:D:1594:VAL:HB	1.83	0.44
6:F:440:ARG:HD2	6:F:442:VAL:HG22	2.00	0.44
2:B:532:ASN:ND2	2:B:536:THR:OG1	2.48	0.44
4:D:1619:LEU:HD21	4:D:1628:ILE:HG21	1.99	0.44
6:F:860:VAL:HG13	6:F:869:VAL:HG12	1.99	0.44
2:B:76:GLN:NE2	2:B:119:PRO:O	2.51	0.44
2:B:244:ARG:HD2	2:B:281:PHE:HZ	1.83	0.44
2:B:1013:LYS:O	2:B:1017:VAL:HG23	2.18	0.44
3:C:250:PHE:CD1	3:C:256:ARG:HA	2.53	0.44
3:C:458:ALA:HB3	3:C:476:ASP:HB3	2.00	0.44
3:C:726:ASP:O	3:C:729:VAL:HG12	2.17	0.44
3:C:792:THR:HG23	3:C:814:VAL:HG11	1.99	0.44
3:C:953:LEU:HD21	5:E:1092:TRP:NE1	2.32	0.44
3:C:954:PRO:HD3	5:E:1099:ARG:HB2	1.99	0.44
3:C:1064:CYS:SG	3:C:1066:HIS:HB3	2.58	0.44
4:D:1613:ASP:HA	4:D:1616:LYS:HD3	2.00	0.44
5:E:1018:ALA:HA	5:E:1021:MET:HG2	1.99	0.44
6:F:548:SER:HB3	6:F:568:PRO:HB3	2.00	0.44
6:F:765:ARG:NH2	6:F:784:GLU:OE1	2.48	0.44
2:B:579:ARG:HG3	2:B:614:LEU:HB3	2.00	0.44
2:B:599:TYR:CZ	2:B:604:ALA:HB2	2.53	0.44
3:C:998:MET:O	3:C:1002:ALA:N	2.43	0.44
4:D:1176:LEU:HD21	4:D:1192:LEU:HD21	2.00	0.44
2:B:682:ALA:HB2	2:B:697:ALA:HB3	1.99	0.44
3:C:502:VAL:HG23	3:C:514:PHE:HB3	1.99	0.44
3:C:603:ARG:HG2	3:C:606:ILE:HG22	2.00	0.44
5:E:781:ARG:O	5:E:784:SER:OG	2.35	0.44
6:F:553:VAL:HG22	6:F:560:ALA:HA	2.00	0.44
6:F:951:TRP:HA	6:F:954:ALA:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:163:TRP:CH2	2:B:1004:GLN:HB3	2.53	0.43
3:C:783:LEU:HD13	3:C:783:LEU:HA	1.90	0.43
4:D:1575:ASN:OD1	4:D:1575:ASN:N	2.50	0.43
5:E:581:VAL:HG22	5:E:591:LEU:HG	1.99	0.43
5:E:823:LEU:HD13	5:E:833:LEU:HD23	2.00	0.43
6:F:764:ARG:NH1	6:F:769:GLN:OE1	2.49	0.43
6:F:768:MET:HE2	6:F:768:MET:HB3	1.81	0.43
6:F:789:SER:O	6:F:792:TYR:HB3	2.17	0.43
2:B:420:SER:HB3	2:B:436:ARG:NH2	2.33	0.43
4:D:1056:SER:O	4:D:1058:VAL:N	2.51	0.43
5:E:15:LEU:H	5:E:444:SER:HA	1.82	0.43
3:C:824:TYR:HA	3:C:827:LYS:HG2	1.99	0.43
4:D:901:LEU:HD12	4:D:901:LEU:HA	1.90	0.43
2:B:28:TRP:HB2	2:B:73:TRP:CZ2	2.53	0.43
2:B:66:THR:OG1	2:B:84:ASP:OD1	2.28	0.43
3:C:179:ALA:HB3	3:C:201:SER:HB2	2.01	0.43
4:D:974:ASP:O	4:D:995:HIS:NE2	2.51	0.43
5:E:904:LEU:HD12	5:E:907:LEU:HD23	2.00	0.43
6:F:863:SER:OG	6:F:864:SER:N	2.51	0.43
6:F:944:ALA:HA	6:F:947:GLN:HB3	2.00	0.43
2:B:154:LYS:HE3	2:B:154:LYS:HB3	1.88	0.43
3:C:383:CYS:HB3	3:C:421:VAL:HG23	2.01	0.43
6:F:902:TYR:HA	6:F:906:CYS:HB2	2.00	0.43
2:B:416:ASP:OD1	2:B:417:MET:N	2.49	0.43
5:E:29:LEU:HD13	5:E:432:THR:HG22	2.00	0.43
5:E:427:ASP:N	5:E:440:CYS:O	2.51	0.43
2:B:101:GLU:OE1	2:B:101:GLU:N	2.50	0.43
2:B:638:ARG:NH1	2:B:640:ASP:OD1	2.52	0.43
5:E:16:LYS:HA	5:E:16:LYS:HD3	1.77	0.43
5:E:26:ARG:HA	5:E:26:ARG:HD3	1.86	0.43
5:E:313:MET:HG2	5:E:327:SER:HA	2.00	0.43
5:E:844:ASN:HD22	5:E:847:ASP:HB2	1.84	0.43
6:F:23:LEU:HD13	6:F:325:SER:HB3	1.99	0.43
6:F:721:LEU:HD23	6:F:724:ILE:HD11	2.01	0.43
2:B:431:TYR:OH	2:B:433:TRP:HB2	2.18	0.43
2:B:576:TRP:CE3	2:B:577:ASN:HB2	2.54	0.43
5:E:188:VAL:HA	5:E:230:ASP:HA	1.99	0.43
5:E:258:LEU:HD22	5:E:315:MET:HG2	2.01	0.43
2:B:1019:ALA:O	2:B:1022:LEU:HB2	2.19	0.43
3:C:783:LEU:HD12	3:C:787:GLU:HB3	2.01	0.43
6:F:958:ARG:HD2	6:F:971:ILE:HD11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:289:ARG:HA	2:B:289:ARG:HD3	1.85	0.42
2:B:491:CYS:SG	2:B:492:VAL:N	2.92	0.42
2:B:533:CYS:SG	2:B:534:ASN:N	2.91	0.42
3:C:36:SER:HB2	3:C:62:ILE:HB	2.01	0.42
3:C:151:LYS:O	3:C:166:SER:OG	2.30	0.42
3:C:824:TYR:HD1	3:C:827:LYS:HD3	1.84	0.42
4:D:1322:PRO:O	4:D:1325:SER:OG	2.37	0.42
5:E:1:MET:H1	5:E:1:MET:HE2	1.84	0.42
5:E:43:ASN:HD22	5:E:45:GLU:H	1.66	0.42
2:B:244:ARG:NH1	2:B:247:PRO:O	2.43	0.42
3:C:851:TRP:HE3	3:C:1269:MET:HE3	1.83	0.42
3:C:884:LEU:HB3	3:C:900:TYR:CE2	2.55	0.42
3:C:1028:LEU:HD23	3:C:1028:LEU:HA	1.85	0.42
5:E:264:ARG:HH12	5:E:282:GLU:HA	1.83	0.42
2:B:23:ASN:HB2	2:B:73:TRP:CD2	2.54	0.42
5:E:138:VAL:N	5:E:152:ALA:O	2.52	0.42
5:E:921:LEU:HA	5:E:924:MET:HE2	2.00	0.42
6:F:461:VAL:HG22	6:F:466:VAL:HG22	2.01	0.42
3:C:733:LEU:O	3:C:737:GLN:HG3	2.20	0.42
3:C:753:LEU:O	3:C:756:SER:OG	2.31	0.42
3:C:1013:ILE:HD11	6:F:700:LEU:HD23	2.01	0.42
2:B:422:VAL:HG23	2:B:435:PHE:HE2	1.85	0.42
2:B:1182:LYS:HE2	2:B:1182:LYS:HB2	1.88	0.42
2:B:1189:ILE:HG23	2:B:1190:LYS:HE3	2.01	0.42
3:C:240:LEU:HA	3:C:240:LEU:HD23	1.76	0.42
2:B:605:GLU:CD	2:B:648:GLN:HB2	2.44	0.42
3:C:575:PHE:HD2	3:C:603:ARG:HD3	1.84	0.42
4:D:1523:GLU:O	4:D:1527:LEU:HG	2.19	0.42
3:C:917:PRO:HG2	3:C:922:LYS:HE3	2.02	0.42
3:C:1200:ARG:HB3	5:E:1237:MET:HE3	2.01	0.42
5:E:381:HIS:CE1	5:E:415:GLU:HB2	2.55	0.42
5:E:1016:MET:HA	5:E:1019:ALA:HB3	2.02	0.42
5:E:1123:LEU:HD22	5:E:1130:LYS:HB2	2.02	0.42
6:F:535:ASN:OD1	6:F:539:THR:N	2.42	0.42
6:F:761:LEU:HD21	6:F:788:ILE:HD11	2.02	0.42
2:B:333:LYS:HD3	2:B:333:LYS:HA	1.84	0.42
3:C:439:GLN:HE21	3:C:455:LYS:HE2	1.84	0.42
3:C:1245:GLU:OE1	5:E:1205:SER:OG	2.34	0.42
4:D:1178:LEU:HB2	4:D:1516:CYS:SG	2.59	0.42
5:E:112:VAL:HA	5:E:115:ILE:HG22	2.02	0.42
6:F:348:LEU:HD11	6:F:386:ASP:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:352:ALA:HB2	6:F:390:ILE:HG13	2.01	0.42
6:F:621:THR:HG21	6:F:652:GLN:H	1.85	0.42
1:A:154:LEU:HG	4:D:1313:HIS:CD2	2.55	0.42
2:B:378:CYS:SG	2:B:379:VAL:N	2.92	0.42
2:B:493:SER:HB2	2:B:531:VAL:HG11	2.01	0.42
3:C:21:VAL:HG23	3:C:286:GLY:HA2	2.02	0.42
5:E:925:GLU:HA	6:F:767:MET:HE1	2.02	0.42
6:F:327:ASP:HB2	6:F:643:ASN:CG	2.44	0.42
6:F:529:LEU:HD13	6:F:543:TYR:HD2	1.85	0.42
6:F:533:PHE:O	6:F:575:TRP:NE1	2.40	0.41
2:B:4:TYR:CZ	2:B:322:ASN:HB2	2.55	0.41
4:D:919:GLU:O	4:D:923:GLU:HG2	2.20	0.41
5:E:455:LYS:HB3	5:E:493:VAL:HG12	2.02	0.41
6:F:925:ILE:HA	6:F:928:TYR:HB3	2.01	0.41
1:A:163:TRP:CD2	1:A:183:LEU:HD13	2.56	0.41
2:B:405:THR:O	2:B:406:ARG:NH1	2.42	0.41
2:B:844:LEU:HD11	2:B:868:GLY:HA3	2.02	0.41
2:B:1223:GLU:HA	2:B:1226:VAL:HG12	2.02	0.41
3:C:104:ALA:HB3	3:C:117:VAL:HB	2.02	0.41
3:C:839:LYS:HA	3:C:839:LYS:HD3	1.87	0.41
3:C:1046:ARG:HD3	3:C:1064:CYS:HB2	2.02	0.41
4:D:1046:ILE:HD11	4:D:1107:LEU:HB2	2.02	0.41
5:E:194:VAL:HG23	5:E:227:LEU:HD11	2.02	0.41
5:E:276:GLU:OE1	5:E:278:TYR:OH	2.39	0.41
2:B:575:VAL:HG22	2:B:592:GLU:HB3	2.01	0.41
2:B:1066:GLU:OE1	2:B:1149:ARG:NH2	2.35	0.41
3:C:471:ARG:HH22	3:C:512:ILE:HD11	1.85	0.41
4:D:1160:ASP:HA	4:D:1163:ARG:HB2	2.02	0.41
4:D:1318:LEU:HD12	4:D:1321:LEU:HD12	2.02	0.41
6:F:489:THR:HG23	6:F:505:THR:HB	2.02	0.41
2:B:1044:LEU:HD13	2:B:1044:LEU:HA	1.83	0.41
3:C:718:ASP:OD1	3:C:718:ASP:N	2.53	0.41
3:C:731:LYS:HE3	3:C:731:LYS:HB3	1.91	0.41
4:D:1059:MET:HE3	4:D:1059:MET:HB3	1.87	0.41
4:D:1078:SER:HA	4:D:1081:THR:HG22	2.02	0.41
4:D:1312:ARG:O	4:D:1316:GLN:HG3	2.20	0.41
6:F:550:LEU:HD23	6:F:594:PHE:HE2	1.85	0.41
3:C:147:THR:OG1	3:C:152:THR:O	2.38	0.41
5:E:509:ASP:HB3	5:E:511:TYR:CE1	2.56	0.41
2:B:911:ILE:HD13	2:B:927:LEU:HG	2.02	0.41
2:B:1216:VAL:HG21	2:B:1237:THR:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:439:GLN:NE2	3:C:455:LYS:HE2	2.36	0.41
3:C:576:ASP:O	3:C:580:GLU:HG2	2.20	0.41
3:C:699:MET:HE1	3:C:704:GLU:HA	2.03	0.41
2:B:1027:ASP:OD1	2:B:1027:ASP:N	2.54	0.41
3:C:42:LEU:HD22	3:C:51:LEU:HD11	2.03	0.41
5:E:969:LYS:HB3	5:E:969:LYS:HE3	1.70	0.41
2:B:3:VAL:HG21	2:B:280:PHE:CE2	2.55	0.41
2:B:1026:ASP:OD1	2:B:1026:ASP:N	2.53	0.41
4:D:878:LEU:HD11	4:D:886:LYS:HE2	2.02	0.41
2:B:64:HIS:ND1	2:B:84:ASP:HB2	2.36	0.41
2:B:95:HIS:HB2	2:B:100:PHE:CE2	2.55	0.41
2:B:141:ASN:OD1	2:B:141:ASN:N	2.49	0.41
2:B:462:ILE:HD12	2:B:468:VAL:HG21	2.03	0.41
3:C:905:ALA:HB2	3:C:932:CYS:HB2	2.03	0.41
4:D:1181:HIS:HA	4:D:1553:ASN:OD1	2.21	0.41
6:F:535:ASN:CG	6:F:540:ARG:H	2.30	0.41
2:B:365:VAL:HG11	2:B:368:LEU:HD13	2.03	0.40
2:B:398:ALA:HB3	3:C:587:ALA:HB1	2.03	0.40
2:B:886:ARG:HD3	2:B:886:ARG:HA	1.92	0.40
2:B:896:LYS:HE3	2:B:896:LYS:HB3	1.84	0.40
3:C:122:TRP:HE1	3:C:165:LEU:HD23	1.86	0.40
3:C:505:ASN:HB3	3:C:508:VAL:O	2.21	0.40
3:C:593:MET:HE3	3:C:593:MET:HB3	1.98	0.40
3:C:705:LEU:O	3:C:709:GLU:HG2	2.22	0.40
4:D:1152:GLU:OE2	4:D:1156:ASN:ND2	2.53	0.40
2:B:460:ARG:HE	2:B:460:ARG:HB3	1.72	0.40
3:C:107:HIS:CE1	3:C:114:LEU:HD22	2.57	0.40
4:D:1118:GLU:HA	4:D:1122:THR:OG1	2.21	0.40
5:E:332:LEU:HB2	5:E:345:LEU:HB3	2.03	0.40
5:E:776:GLU:OE1	5:E:776:GLU:N	2.53	0.40
5:E:965:LEU:HD22	5:E:970:ARG:HB2	2.03	0.40
6:F:54:MET:HE3	6:F:54:MET:HB3	1.88	0.40
6:F:670:ASN:HB3	6:F:679:SER:HB3	2.03	0.40
1:A:199:LEU:HD23	2:B:915:ARG:HH22	1.85	0.40
2:B:633:ASP:OD1	2:B:633:ASP:N	2.51	0.40
3:C:143:CYS:SG	3:C:144:ALA:N	2.94	0.40
3:C:408:ARG:HD2	3:C:410:TRP:CZ2	2.56	0.40
3:C:433:VAL:O	3:C:440:VAL:HA	2.22	0.40
3:C:531:TYR:HB2	3:C:564:HIS:HD2	1.86	0.40
4:D:1217:GLU:OE1	4:D:1222:ASN:ND2	2.44	0.40
4:D:1255:VAL:HG23	4:D:1259:GLN:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:857:ILE:HG22	2:B:862:PRO:HB3	2.03	0.40
3:C:618:LYS:H	3:C:618:LYS:HD2	1.85	0.40
4:D:1597:LYS:HD2	4:D:1597:LYS:HA	1.83	0.40
5:E:869:VAL:HG13	5:E:895:ILE:HG23	2.02	0.40
6:F:204:LEU:HB2	6:F:207:THR:HB	2.04	0.40
2:B:229:GLN:NE2	2:B:231:MET:HE2	2.37	0.40
2:B:363:LYS:NZ	2:B:400:GLY:O	2.30	0.40
2:B:385:ASP:HB3	2:B:388:GLN:HB3	2.02	0.40
3:C:176:ARG:HA	3:C:176:ARG:HH11	1.86	0.40
3:C:1233:ASN:HB2	3:C:1259:TYR:CZ	2.57	0.40
4:D:1033:VAL:HB	4:D:1034:MET:HE2	2.04	0.40
4:D:1634:ASP:OD1	4:D:1634:ASP:N	2.55	0.40
6:F:367:ILE:HG13	6:F:383:VAL:HG21	2.03	0.40
6:F:853:ILE:O	6:F:857:MET:HG2	2.22	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	73/368 (20%)	69 (94%)	4 (6%)	0	100	100
2	B	1120/1247 (90%)	1070 (96%)	50 (4%)	0	100	100
3	C	1170/1292 (91%)	1133 (97%)	37 (3%)	0	100	100
4	D	596/1642 (36%)	567 (95%)	27 (4%)	2 (0%)	36	65
5	E	1039/1654 (63%)	1001 (96%)	38 (4%)	0	100	100
6	F	966/1376 (70%)	946 (98%)	20 (2%)	0	100	100
All	All	4964/7579 (66%)	4786 (96%)	176 (4%)	2 (0%)	100	100

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	D	1058	VAL
4	D	1057	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	64/288 (22%)	64 (100%)	0	100	100
2	B	956/1046 (91%)	931 (97%)	25 (3%)	40	61
3	C	1012/1094 (92%)	984 (97%)	28 (3%)	38	60
4	D	505/1320 (38%)	495 (98%)	10 (2%)	48	65
5	E	892/1373 (65%)	882 (99%)	10 (1%)	65	74
6	F	822/1177 (70%)	812 (99%)	10 (1%)	63	72
All	All	4251/6298 (68%)	4168 (98%)	83 (2%)	48	65

All (83) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	66	THR
2	B	67	THR
2	B	104	VAL
2	B	112	VAL
2	B	173	VAL
2	B	211	GLU
2	B	310	VAL
2	B	342	VAL
2	B	379	VAL
2	B	415	TYR
2	B	540	VAL
2	B	603	VAL
2	B	630	LEU
2	B	680	LEU
2	B	739	LEU
2	B	743	VAL
2	B	844	LEU

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Mol	Chain	Res	Type
2	B	881	LEU
2	B	894	LEU
2	B	907	LEU
2	B	921	ASP
2	B	1000	LEU
2	B	1044	LEU
2	B	1047	ASN
2	B	1225	VAL
3	C	26	TYR
3	C	120	VAL
3	C	147	THR
3	C	258	ILE
3	C	317	VAL
3	C	322	VAL
3	C	385	THR
3	C	418	LEU
3	C	484	LEU
3	C	511	ASN
3	C	512	ILE
3	C	525	THR
3	C	539	VAL
3	C	606	ILE
3	C	693	ASP
3	C	722	LYS
3	C	730	LEU
3	C	748	VAL
3	C	780	CYS
3	C	783	LEU
3	C	787	GLU
3	C	790	LEU
3	C	792	THR
3	C	999	VAL
3	C	1069	VAL
3	C	1072	PHE
3	C	1073	VAL
3	C	1272	ILE
4	D	972	LEU
4	D	1118	GLU
4	D	1124	VAL
4	D	1255	VAL
4	D	1404	LEU
4	D	1522	ILE

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Mol	Chain	Res	Type
4	D	1541	ASP
4	D	1575	ASN
4	D	1624	THR
4	D	1628	ILE
5	E	50	THR
5	E	284	ILE
5	E	366	MET
5	E	430	VAL
5	E	511	TYR
5	E	526	VAL
5	E	799	VAL
5	E	964	LEU
5	E	1224	MET
5	E	1232	MET
6	F	401	VAL
6	F	584	ILE
6	F	628	THR
6	F	643	ASN
6	F	659	LEU
6	F	695	LYS
6	F	734	LEU
6	F	806	LEU
6	F	823	THR
6	F	863	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (39) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	148	GLN
1	A	213	GLN
2	B	95	HIS
2	B	108	ASN
2	B	206	HIS
2	B	229	GLN
2	B	390	GLN
2	B	394	GLN
2	B	434	GLN
2	B	496	HIS
2	B	648	GLN
2	B	778	GLN
2	B	802	GLN
2	B	824	GLN

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Mol	Chain	Res	Type
2	B	1192	GLN
3	C	103	GLN
3	C	318	HIS
3	C	405	ASN
3	C	417	GLN
3	C	549	ASN
3	C	737	GLN
3	C	815	GLN
3	C	1271	GLN
4	D	1149	ASN
4	D	1221	ASN
4	D	1223	ASN
4	D	1561	ASN
4	D	1570	ASN
4	D	1578	GLN
4	D	1622	HIS
5	E	157	HIS
5	E	499	ASN
5	E	1182	GLN
6	F	137	HIS
6	F	561	ASN
6	F	577	GLN
6	F	687	GLN
6	F	749	ASN
6	F	882	HIS

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 4 ligands modelled in this entry, 4 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.

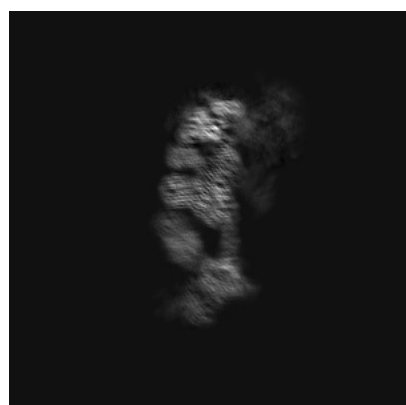
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-28867. These allow visual inspection of the internal detail of the map and identification of artifacts.

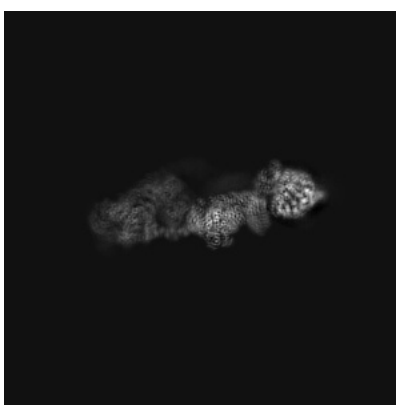
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

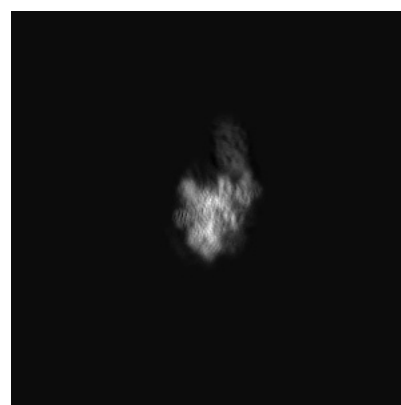
6.1.1 Primary map



X



Y

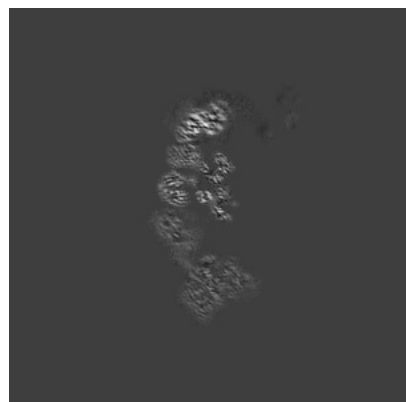


Z

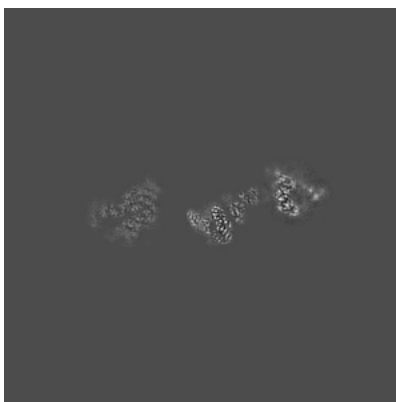
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

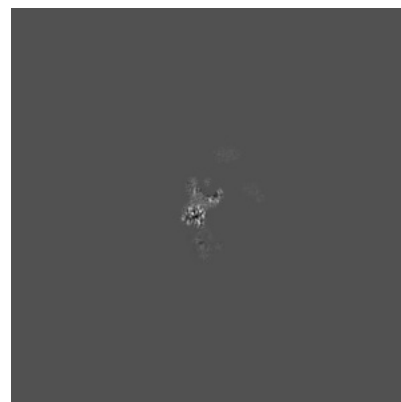
6.2.1 Primary map



X Index: 310



Y Index: 310



Z Index: 310

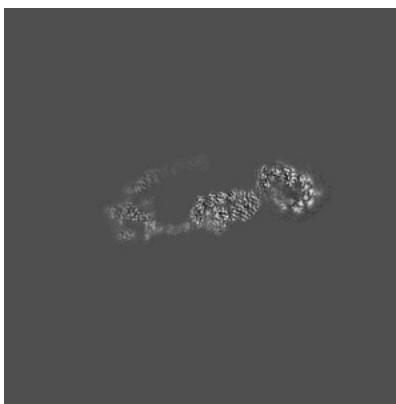
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 306



Y Index: 328

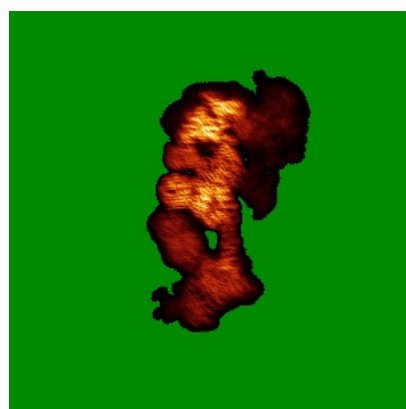


Z Index: 330

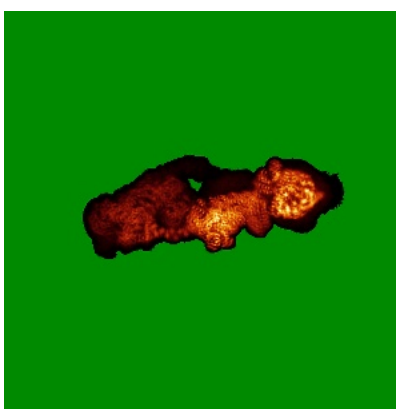
The images above show the largest variance slices of the map in three orthogonal directions.

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

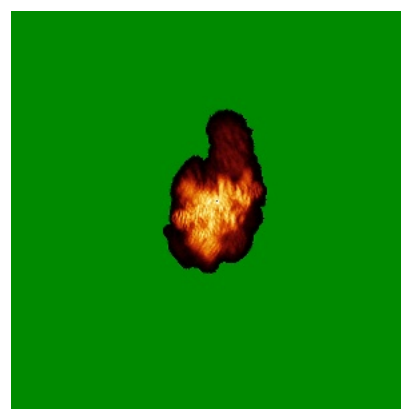
6.4.1 Primary map



X



Y

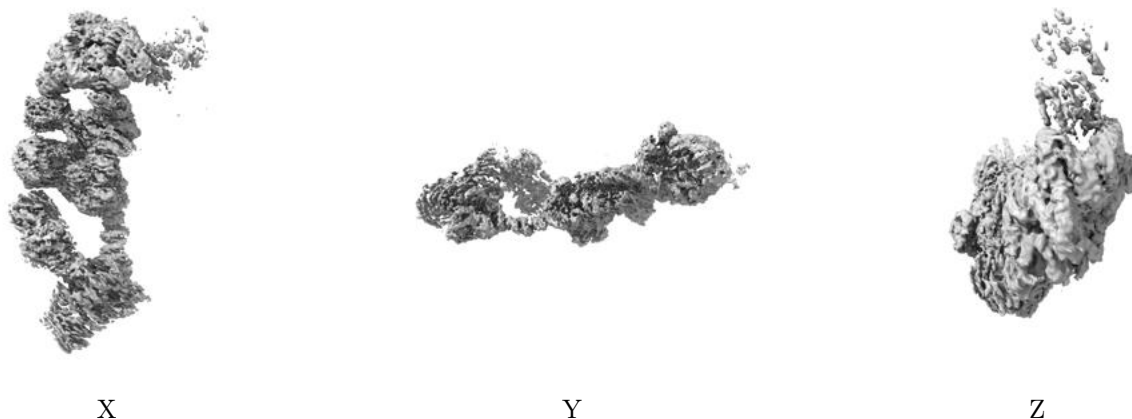


Z

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

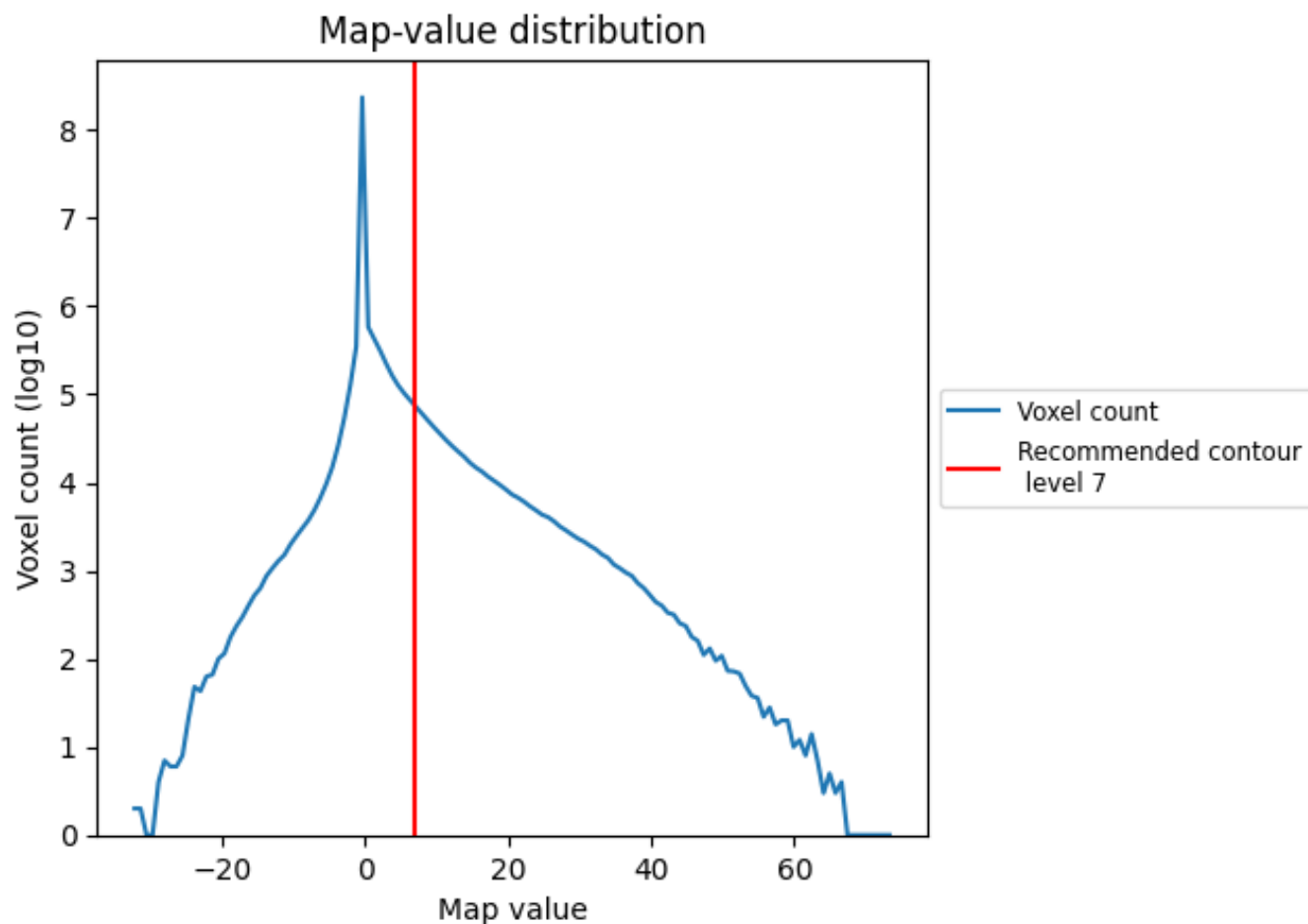
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

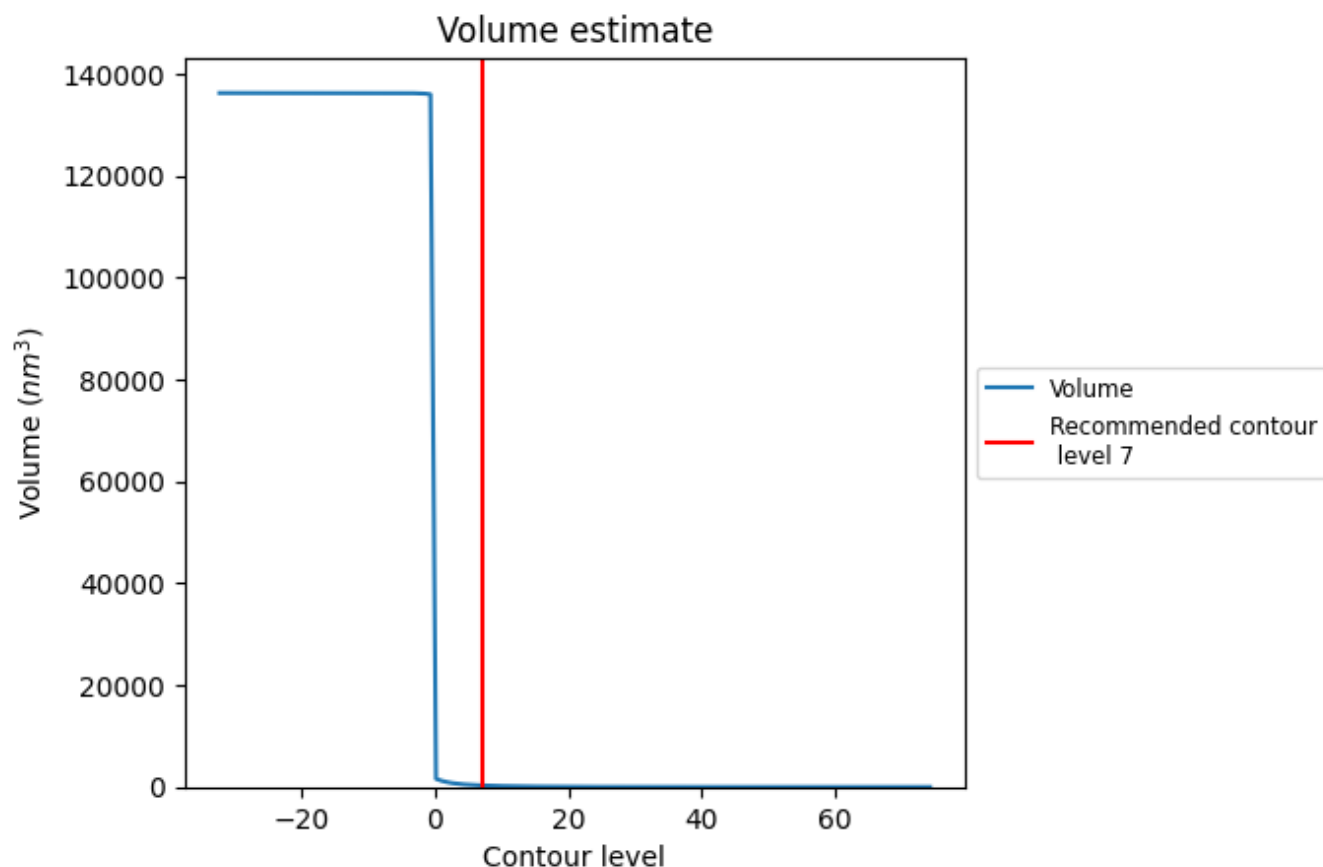
This section contains the results of statistical analysis of the map.

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.

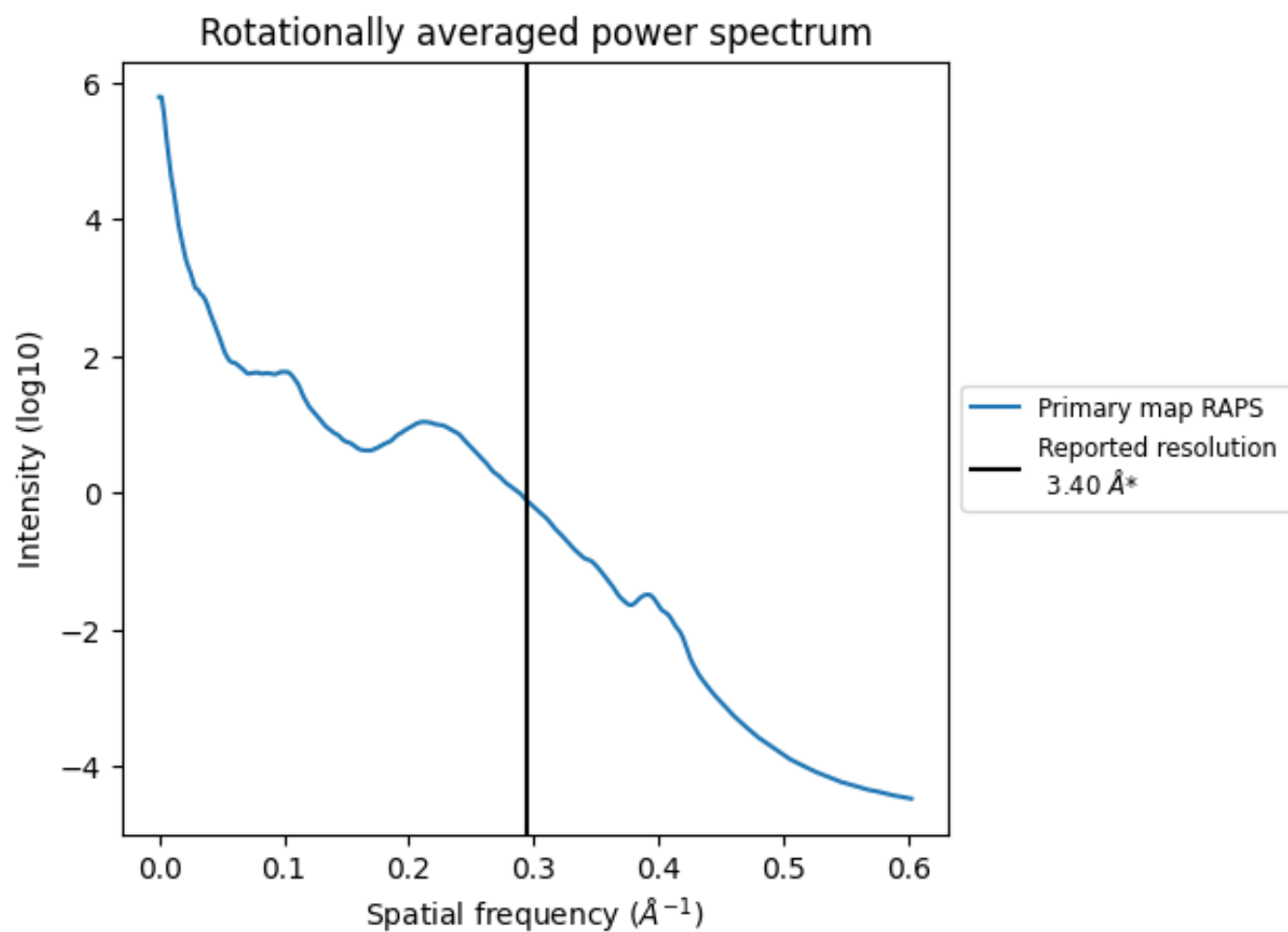
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 303 nm³; this corresponds to an approximate mass of 273 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 0.294 Å⁻¹

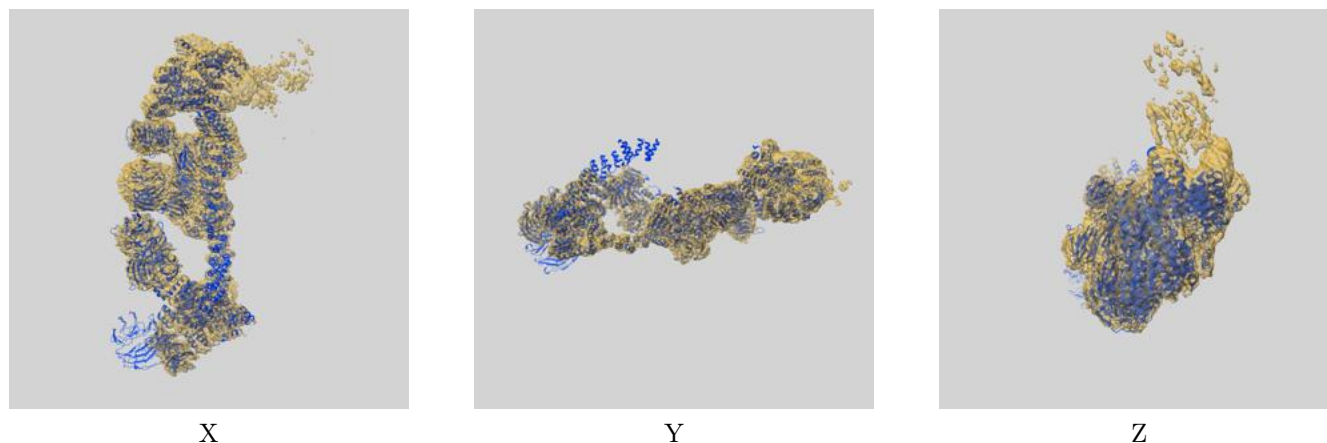
8 Fourier-Shell correlation ⓘ

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

9 Map-model fit [i](#)

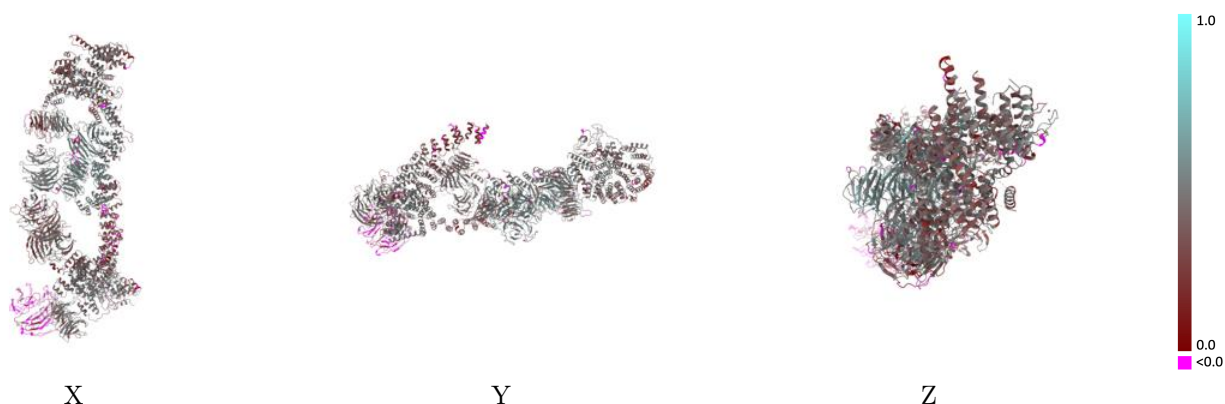
This section contains information regarding the fit between EMDB map EMD-28867 and PDB model 8F5P. Per-residue inclusion information can be found in section [3](#) on page [6](#).

9.1 Map-model overlay [i](#)



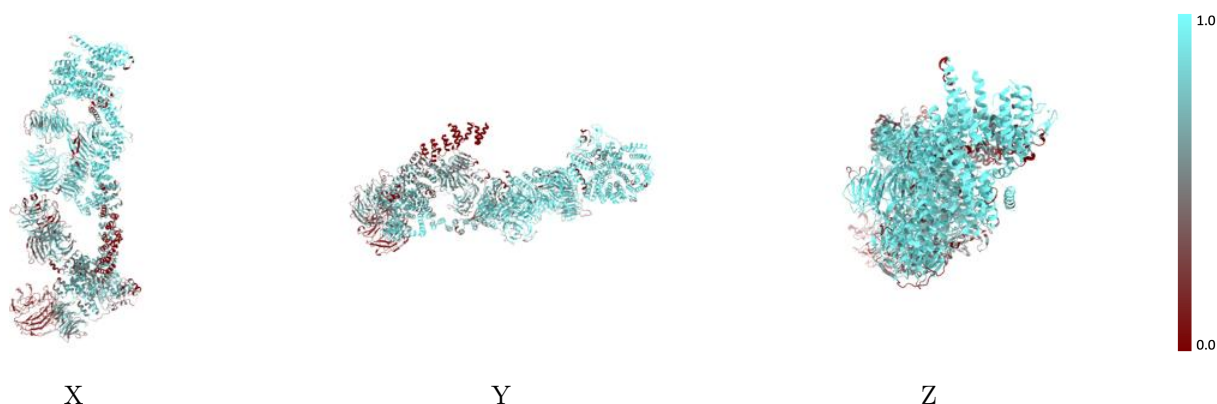
The images above show the 3D surface view of the map at the recommended contour level 7.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



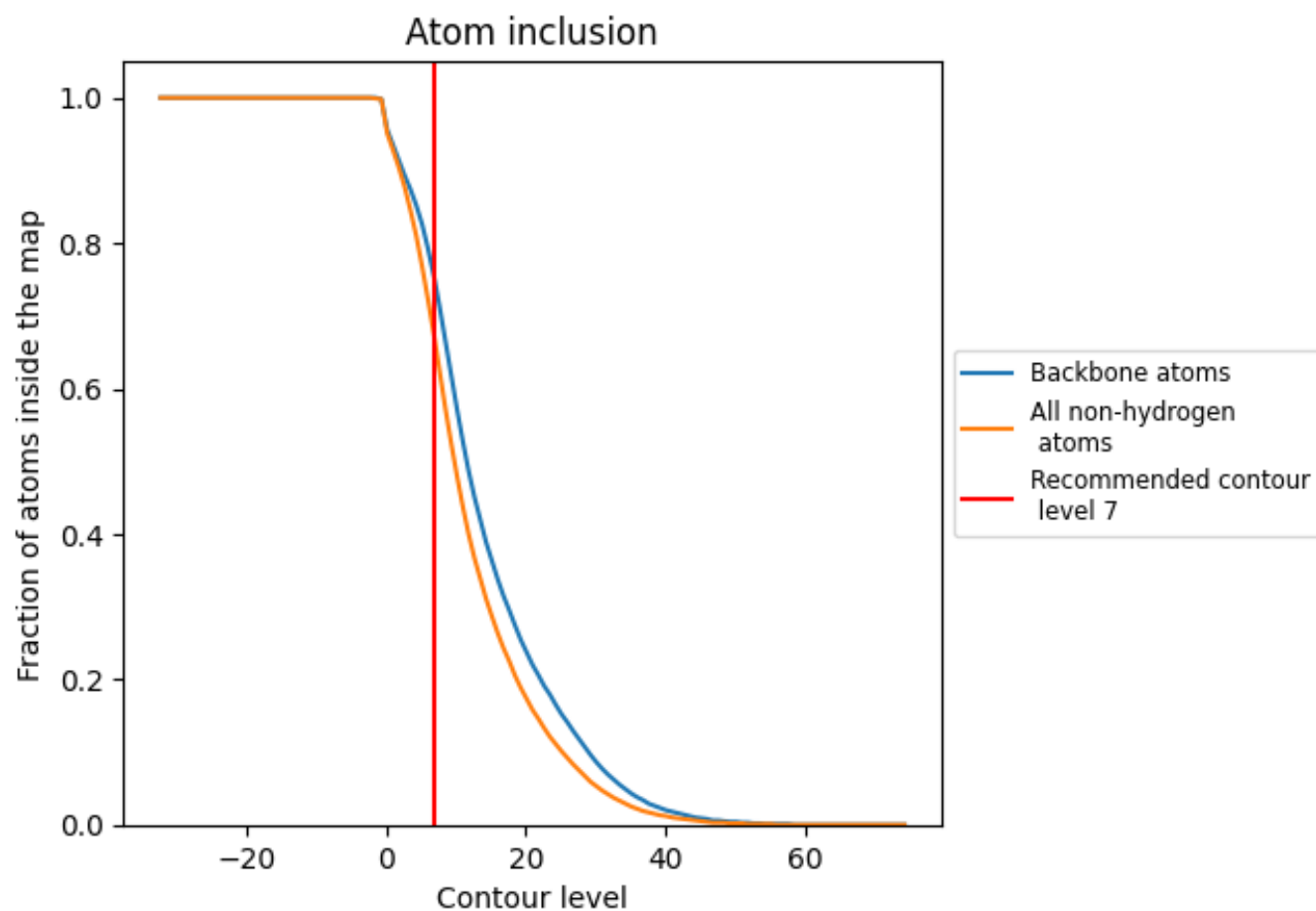
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (7).

9.4 Atom inclusion [i](#)



At the recommended contour level, 75% of all backbone atoms, 67% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (7) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6660	0.3860
A	0.6460	0.3640
B	0.8720	0.4660
C	0.7460	0.4180
D	0.9020	0.3900
E	0.5750	0.3960
F	0.2760	0.2390

1.0

0.0

<0.0