



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 06:00 PM UTC

PDB ID : 7DA5 / pdb_00007da5
EMDB ID : EMD-30623
Title : Cryo-EM structure of the human MCT1 D309N mutant in complex with Basigin-2 in the inward-open conformation.
Authors : Wang, N.; Jiang, X.; Zhang, S.; Zhu, A.; Yuan, Y.; Lei, J.; Yan, C.
Deposited on : 2020-10-14
Resolution : 3.30 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

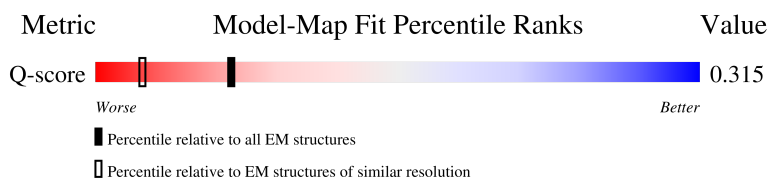
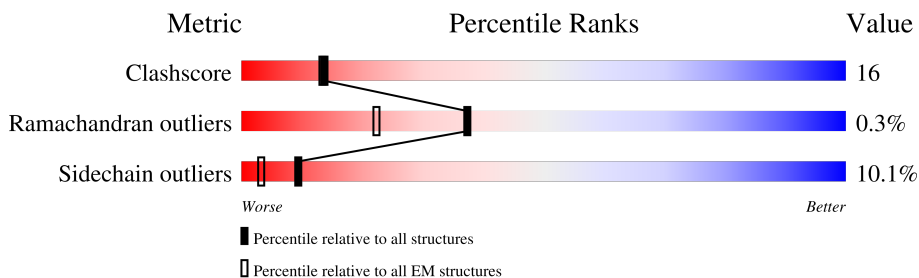
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.30 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	15087 (2.80 - 3.80)

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	500	
2	B	269	

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 4013 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 Monocarboxylate transporter 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	375	Total	C	N	O	S	0	0
			2846	1896	453	472	25		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	309	ASN	ASP	engineered mutation	UNP P53985

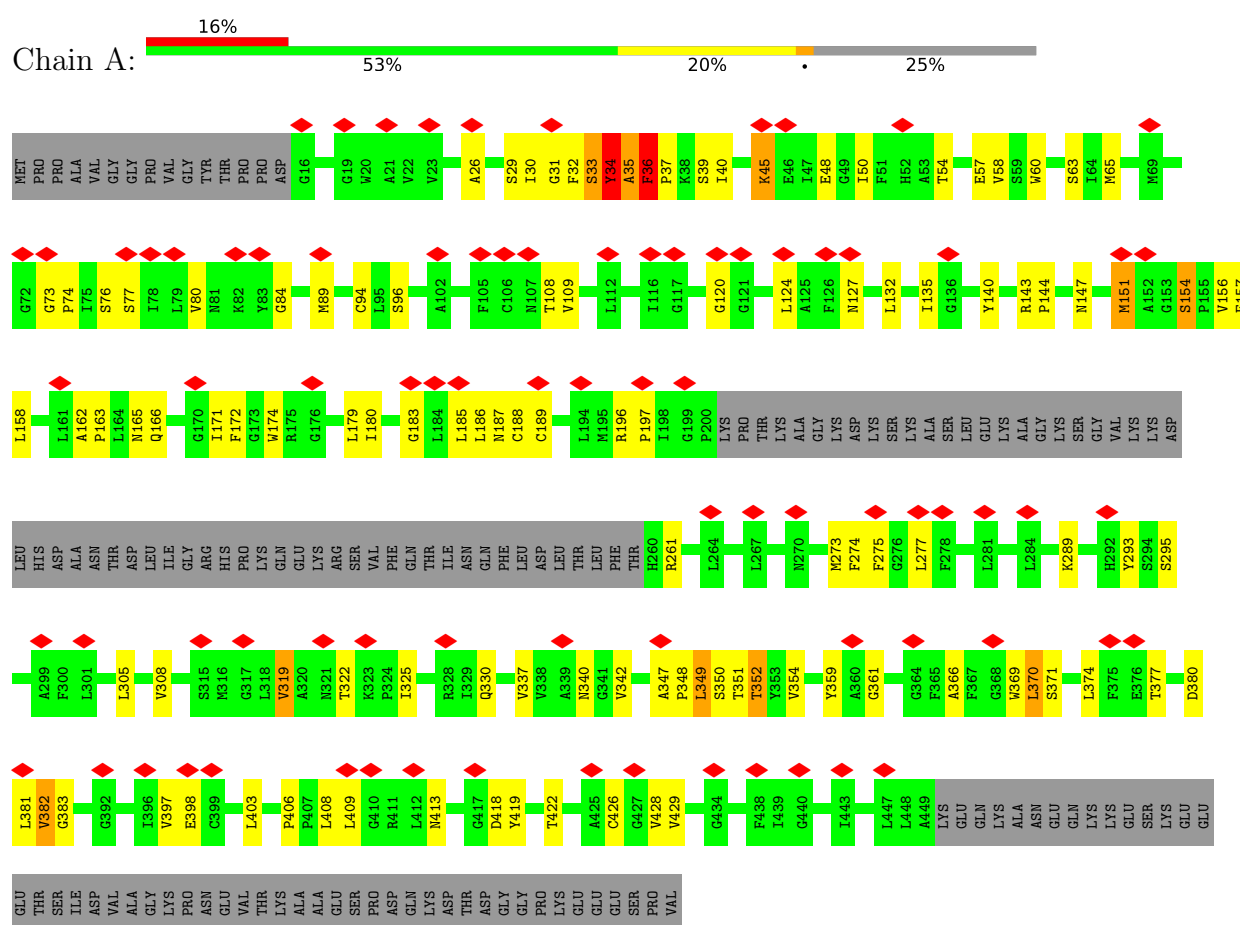
- Molecule 2 is a protein called Basigin.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	B	216	Total	C	N	O	0	0
			1167	715	230	222		

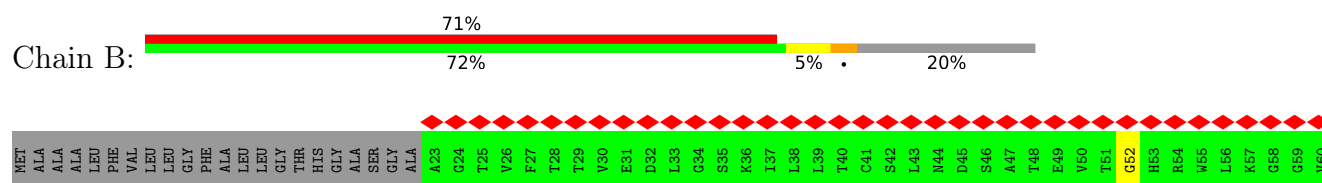
3 Residue-property plots

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

• Molecule 1: Monocarboxylate transporter 1



• Molecule 2: Basigin



ASP	G181	T121	V61
ALA	Q182	A122	L62
GLY	Y183	M123	K63
SER	A184	L124	E64
ALA	C185	V125	D65
PRO	L186	C126	A66
LYS	G187	K127	L67
LYS	T188	S128	P68
SER	S189	E129	G69
GLY	S190	S130	Q70
GLN	K191	V131	K71
GLN	G192	P132	T72
ASN	S193	V134	E73
ASP	D194	T135	F74
LYS	Q195	D136	K75
LYS	A196	W137	V76
ASN	I197	A138	D77
VAL	T198	W139	S78
ARG	T199	I140	D79
GLN	L200	K141	D80
ARG	R201	I142	Q81
ASN	V202	T143	W82
SER	R203	D144	G83
	S204	S145	E84
	H205	S146	Y85
ALA	L206	E147	S86
	A207	K148	C87
	A208	A149	W88
	L209	L150	F89
	W210	M151	L90
	P211	M152	P91
	F212	G153	E92
	L213	S154	P93
	G214	E155	M94
LYS	I215	S156	G95
LYS	A217	R157	T96
ASN	E218	F158	A97
VAL	V219	F159	N98
	L220	V160	I99
	W221	S161	Q100
	L222	S162	L101
ASN	V223	G163	H102
	T224	Q164	L101
	L225	G165	G103
	L226	R166	P104
	F227	S167	P105
	L228	E168	R106
		L169	V107
	R232	H170	K108
	R233	I171	A109
	K234	E172	V110
	P235	N173	K111
	E236	L174	S112
	D237	M175	S113
	V238	M176	E114
LEU	ASP	E177	H115
ASP	ASP	A178	I116
ASP	ASP	D179	N117
		P180	E118
			G119
			F120

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	648305	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	37.6	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	3.375	Depositor
Minimum map value	-1.989	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.066	Depositor
Recommended contour level	0.63	Depositor
Map size ($\text{\AA}$)	215.8848, 215.8848, 215.8848	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	0.8433, 0.8433, 0.8433	Depositor

5 Model quality

5.1 Standard geometry

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	0.37	2/2926 (0.1%)	0.62	4/3972 (0.1%)
2	B	0.85	0/1176	1.31	4/1630 (0.2%)
All	All	0.55	2/4102 (0.0%)	0.88	8/5602 (0.1%)

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	2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	36	PHE	C-O	-7.34	1.14	1.24
1	A	35	ALA	CA-CB	-5.40	1.47	1.53

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	91	PRO	CA-N-CD	-9.65	97.99	111.50
2	B	132	PRO	CA-N-CD	-9.57	98.10	111.50
2	B	93	PRO	CA-N-CD	-8.87	99.08	111.50
1	A	34	TYR	CB-CA-C	8.40	125.90	111.45
1	A	36	PHE	CA-C-N	7.90	129.71	119.84
1	A	36	PHE	C-N-CA	7.90	129.71	119.84
1	A	36	PHE	CA-CB-CG	-5.59	108.21	113.80
2	B	142	ILE	N-CA-C	5.08	114.93	108.12

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	36	PHE	Mainchain,Sidechain

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	2846	0	2903	95	0
2	B	1167	0	690	32	0
All	All	4013	0	3593	121	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 16.

All (121) 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:115:HIS:HB2	2:B:203:ARG:NH1	1.24	1.43
2:B:115:HIS:HB2	2:B:203:ARG:CZ	1.58	1.32
2:B:115:HIS:CB	2:B:203:ARG:NH1	1.94	1.30
1:A:171:ILE:O	2:B:203:ARG:NE	1.67	1.26
2:B:115:HIS:CG	2:B:203:ARG:HH12	1.62	1.15
1:A:54:THR:CG2	1:A:57:GLU:OE2	2.03	1.07
1:A:32:PHE:O	1:A:36:PHE:HB2	1.54	1.04
1:A:54:THR:HG22	1:A:57:GLU:OE2	1.58	1.03
2:B:115:HIS:CG	2:B:203:ARG:NH1	2.29	0.94
2:B:115:HIS:CB	2:B:203:ARG:HH12	1.67	0.94
1:A:32:PHE:CD2	1:A:157:PHE:HE2	1.89	0.90
2:B:115:HIS:HB2	2:B:203:ARG:HH12	1.24	0.89
2:B:206:LEU:O	2:B:210:TRP:CD1	2.26	0.88
1:A:36:PHE:H	1:A:37:PRO:CD	1.86	0.88
1:A:273:MET:HE1	1:A:277:LEU:HD22	1.57	0.87
1:A:127:ASN:ND2	1:A:188:CYS:SG	2.48	0.86
1:A:33:SER:O	1:A:124:LEU:HD23	1.75	0.85
1:A:29:SER:O	1:A:33:SER:HB2	1.77	0.84
1:A:54:THR:HG21	1:A:57:GLU:OE2	1.76	0.84
1:A:31:GLY:HA2	1:A:154:SER:HA	1.58	0.84
1:A:36:PHE:H	1:A:37:PRO:HD2	1.43	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:73:GLY:O	1:A:76:SER:OG	1.96	0.83
1:A:172:PHE:HA	2:B:203:ARG:HD3	1.60	0.83
1:A:196:ARG:NH2	1:A:197:PRO:O	2.16	0.78
1:A:32:PHE:CD2	1:A:157:PHE:CE2	2.72	0.78
1:A:26:ALA:O	1:A:30:ILE:HG13	1.84	0.77
1:A:166:GLN:HG3	1:A:295:SER:O	1.86	0.75
1:A:32:PHE:CE2	1:A:157:PHE:CE2	2.75	0.74
2:B:115:HIS:HB2	2:B:203:ARG:NH2	2.01	0.74
2:B:215:ILE:O	2:B:218:GLU:HG2	1.88	0.73
1:A:330:GLN:NE2	1:A:380:ASP:OD2	2.21	0.73
1:A:171:ILE:O	2:B:203:ARG:CZ	2.37	0.72
1:A:74:PRO:O	1:A:77:SER:OG	2.06	0.72
2:B:209:LEU:O	2:B:212:PHE:N	2.24	0.71
1:A:108:THR:HG22	1:A:109:VAL:H	1.57	0.69
1:A:36:PHE:HB3	1:A:37:PRO:HD3	1.73	0.69
1:A:54:THR:HG22	1:A:57:GLU:CD	2.19	0.67
1:A:32:PHE:CE2	1:A:157:PHE:HE2	2.11	0.67
1:A:39:SER:O	1:A:165:ASN:ND2	2.29	0.66
1:A:31:GLY:CA	1:A:154:SER:HA	2.25	0.66
1:A:63:SER:OG	1:A:403:LEU:O	2.14	0.66
2:B:218:GLU:HG3	2:B:219:VAL:N	2.10	0.65
1:A:340:ASN:OD1	1:A:366:ALA:HB1	1.97	0.65
1:A:80:VAL:HG23	1:A:84:GLY:C	2.21	0.64
2:B:132:PRO:O	2:B:132:PRO:HD2	1.98	0.63
1:A:31:GLY:O	1:A:35:ALA:HB3	1.99	0.62
1:A:54:THR:CG2	1:A:57:GLU:CD	2.72	0.62
1:A:31:GLY:HA2	1:A:154:SER:CA	2.29	0.62
2:B:115:HIS:C	2:B:203:ARG:HH22	2.07	0.61
1:A:162:ALA:HB3	1:A:163:PRO:HD3	1.83	0.61
1:A:54:THR:CG2	1:A:57:GLU:CG	2.79	0.61
1:A:33:SER:O	1:A:124:LEU:CD2	2.47	0.61
1:A:32:PHE:O	1:A:36:PHE:CB	2.41	0.61
1:A:80:VAL:HG23	1:A:84:GLY:O	2.01	0.60
1:A:172:PHE:HA	2:B:203:ARG:CD	2.30	0.59
1:A:96:SER:HB2	1:A:185:LEU:HD13	1.85	0.59
2:B:206:LEU:C	2:B:210:TRP:CD1	2.82	0.58
1:A:36:PHE:O	1:A:36:PHE:CG	2.57	0.57
1:A:36:PHE:N	1:A:37:PRO:CD	2.53	0.57
2:B:115:HIS:C	2:B:203:ARG:NH2	2.62	0.57
1:A:147:ASN:O	1:A:151:MET:HB2	2.05	0.56
2:B:91:PRO:O	2:B:91:PRO:HD2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:31:GLY:HA2	1:A:154:SER:HB2	1.88	0.54
1:A:120:GLY:O	1:A:124:LEU:HD13	2.07	0.54
1:A:308:VAL:HG11	1:A:361:GLY:O	2.08	0.54
1:A:397:VAL:O	1:A:397:VAL:HG12	2.07	0.54
1:A:350:SER:O	1:A:351:THR:HG22	2.09	0.53
1:A:65:MET:HE3	1:A:120:GLY:HA3	1.90	0.53
1:A:186:LEU:O	1:A:189:CYS:N	2.41	0.53
1:A:54:THR:CG2	1:A:57:GLU:HG3	2.38	0.53
1:A:179:LEU:HD12	1:A:179:LEU:O	2.09	0.52
1:A:140:TYR:O	1:A:143:ARG:NH2	2.41	0.52
1:A:48:GLU:HG3	1:A:58:VAL:HG21	1.92	0.52
1:A:31:GLY:HA2	1:A:154:SER:CB	2.40	0.51
1:A:35:ALA:HB1	1:A:158:LEU:HB2	1.92	0.51
1:A:370:LEU:C	1:A:370:LEU:HD23	2.37	0.50
1:A:409:LEU:HD13	1:A:426:CYS:SG	2.52	0.50
1:A:349:LEU:H	1:A:349:LEU:HD23	1.76	0.49
1:A:305:LEU:C	1:A:305:LEU:HD23	2.37	0.49
1:A:330:GLN:OE1	1:A:377:THR:OG1	2.30	0.49
1:A:293:TYR:OH	1:A:352:THR:O	2.23	0.48
1:A:77:SER:O	1:A:80:VAL:HG12	2.15	0.47
2:B:218:GLU:CG	2:B:219:VAL:N	2.78	0.47
2:B:220:LEU:C	2:B:220:LEU:HD23	2.39	0.47
2:B:115:HIS:CB	2:B:203:ARG:CZ	2.54	0.46
1:A:36:PHE:O	1:A:36:PHE:CD2	2.69	0.46
1:A:183:GLY:HA3	2:B:215:ILE:HG21	1.98	0.46
1:A:143:ARG:N	1:A:144:PRO:HD2	2.30	0.46
1:A:34:TYR:CD1	1:A:34:TYR:O	2.69	0.45
1:A:370:LEU:HD23	1:A:371:SER:N	2.31	0.45
2:B:52:GLY:HA3	2:B:65:ASP:HA	1.97	0.45
2:B:206:LEU:O	2:B:209:LEU:HG	2.16	0.45
1:A:33:SER:HA	1:A:124:LEU:HG	1.99	0.45
1:A:418:ASP:OD1	1:A:419:TYR:N	2.41	0.45
1:A:273:MET:SD	1:A:274:PHE:N	2.89	0.45
1:A:180:ILE:O	1:A:183:GLY:N	2.44	0.44
1:A:409:LEU:HB3	1:A:422:THR:HG23	1.99	0.44
1:A:89:MET:HG3	1:A:127:ASN:HA	1.98	0.44
1:A:54:THR:O	1:A:58:VAL:HG23	2.17	0.44
1:A:187:ASN:ND2	2:B:218:GLU:OE1	2.51	0.44
2:B:132:PRO:O	2:B:132:PRO:CD	2.66	0.44
1:A:347:ALA:N	1:A:348:PRO:CD	2.80	0.43
2:B:209:LEU:O	2:B:210:TRP:C	2.62	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:406:PRO:O	1:A:408:LEU:N	2.51	0.43
1:A:261:ARG:HG2	1:A:261:ARG:O	2.18	0.43
1:A:359:TYR:CD2	1:A:359:TYR:C	2.97	0.43
1:A:319:VAL:O	1:A:322:THR:HG22	2.20	0.42
2:B:115:HIS:CD2	2:B:203:ARG:NH1	2.81	0.42
2:B:212:PHE:CD1	2:B:212:PHE:C	2.98	0.42
1:A:350:SER:O	1:A:352:THR:OG1	2.38	0.42
1:A:369:TRP:CD1	1:A:369:TRP:C	2.98	0.41
1:A:348:PRO:HD2	1:A:349:LEU:HD23	2.01	0.41
1:A:63:SER:OG	1:A:403:LEU:HA	2.20	0.41
1:A:382:VAL:CG1	1:A:383:GLY:N	2.83	0.41
1:A:50:ILE:HG21	1:A:174:TRP:CH2	2.55	0.41
1:A:45:LYS:HD2	1:A:45:LYS:HA	1.94	0.40
1:A:132:LEU:O	1:A:135:ILE:HG13	2.21	0.40
1:A:156:VAL:HG13	1:A:157:PHE:N	2.36	0.40
1:A:406:PRO:C	1:A:408:LEU:N	2.79	0.40
1:A:397:VAL:O	1:A:397:VAL:CG1	2.69	0.40
1:A:274:PHE:CE2	1:A:398:GLU:CD	2.99	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	371/500 (74%)	333 (90%)	37 (10%)	1 (0%)	36	65
2	B	214/269 (80%)	197 (92%)	16 (8%)	1 (0%)	24	55
All	All	585/769 (76%)	530 (91%)	53 (9%)	2 (0%)	37	65

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	104	PRO
1	A	36	PHE

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	299/405 (74%)	275 (92%)	24 (8%)	11	36
2	B	29/225 (13%)	20 (69%)	9 (31%)	0	1
All	All	328/630 (52%)	295 (90%)	33 (10%)	9	26

All (33) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	33	SER
1	A	34	TYR
1	A	40	ILE
1	A	45	LYS
1	A	60	TRP
1	A	94	CYS
1	A	151	MET
1	A	154	SER
1	A	275	PHE
1	A	289	LYS
1	A	319	VAL
1	A	325	ILE
1	A	337	VAL
1	A	342	VAL
1	A	349	LEU
1	A	352	THR
1	A	354	VAL
1	A	370	LEU
1	A	374	LEU
1	A	381	LEU
1	A	382	VAL
1	A	413	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	428	VAL
1	A	429	VAL
2	B	115	HIS
2	B	201	ARG
2	B	203	ARG
2	B	206	LEU
2	B	216	VAL
2	B	218	GLU
2	B	219	VAL
2	B	223	VAL
2	B	226	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	81	ASN
1	A	127	ASN
1	A	129	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

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.

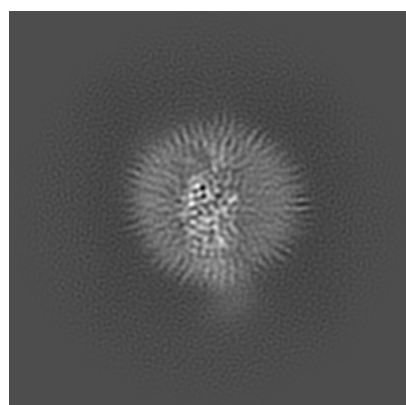
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-30623. These allow visual inspection of the internal detail of the map and identification of artifacts.

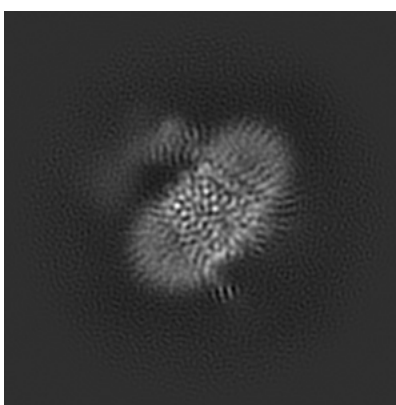
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

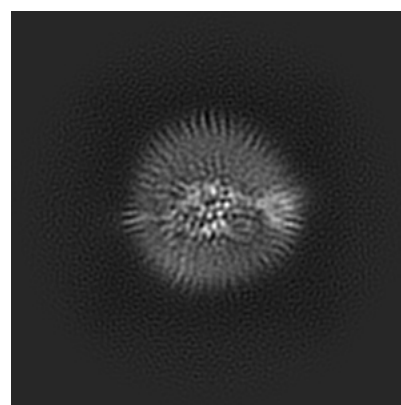
6.1.1 Primary map



X



Y

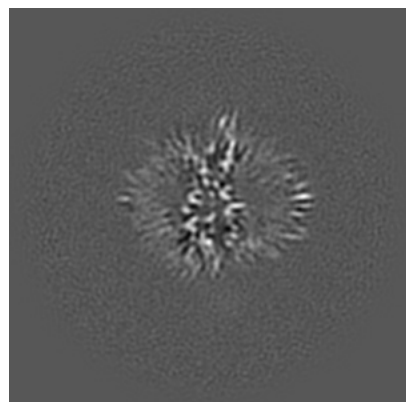


Z

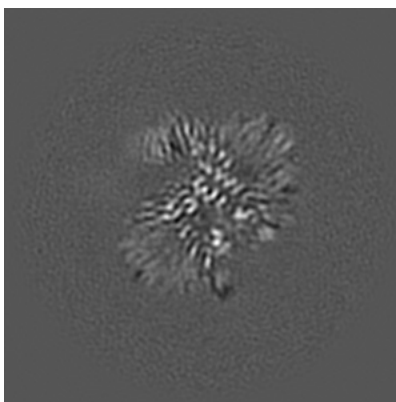
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

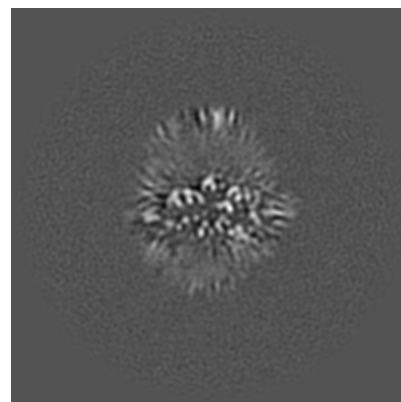
6.2.1 Primary map



X Index: 128



Y Index: 128

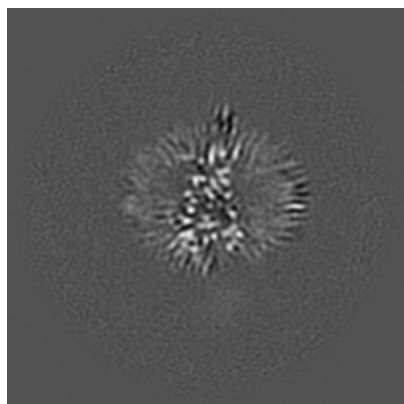


Z Index: 128

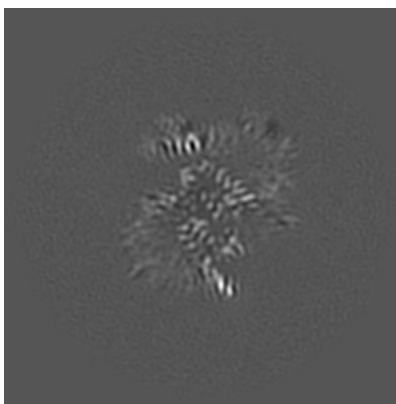
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

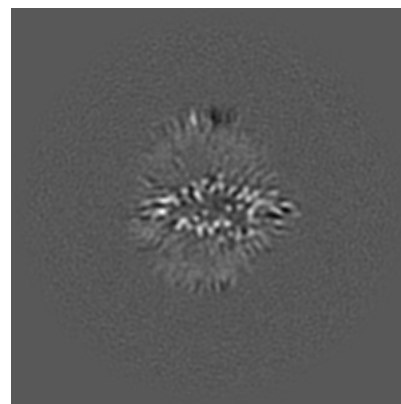
6.3.1 Primary map



X Index: 131



Y Index: 121

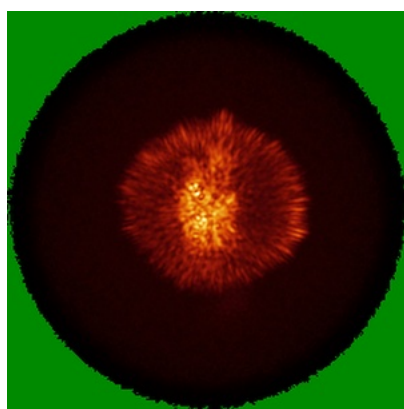


Z Index: 126

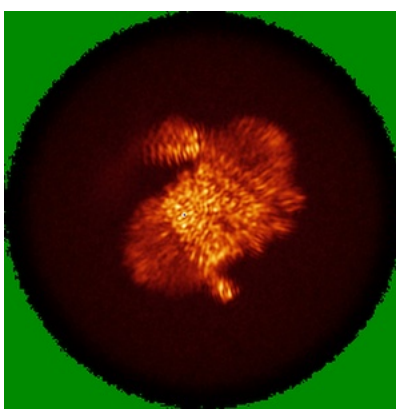
The images above show the largest variance slices of the map in three orthogonal directions.

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

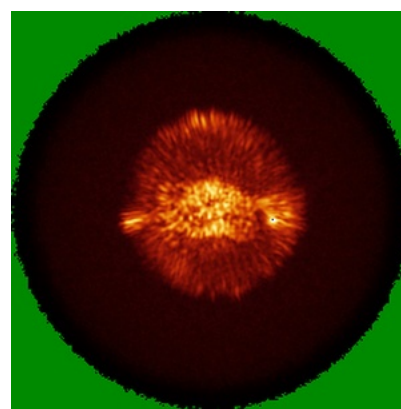
6.4.1 Primary map



X



Y

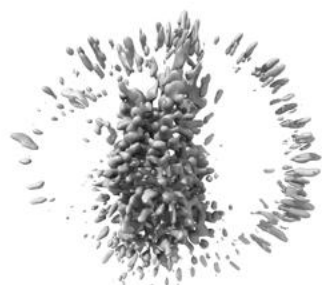


Z

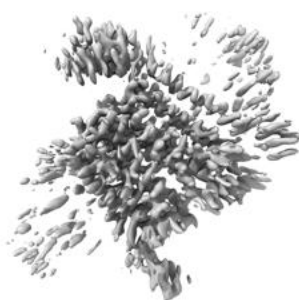
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

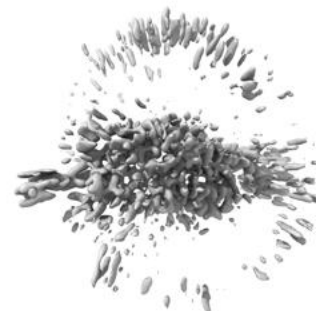
6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.63. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

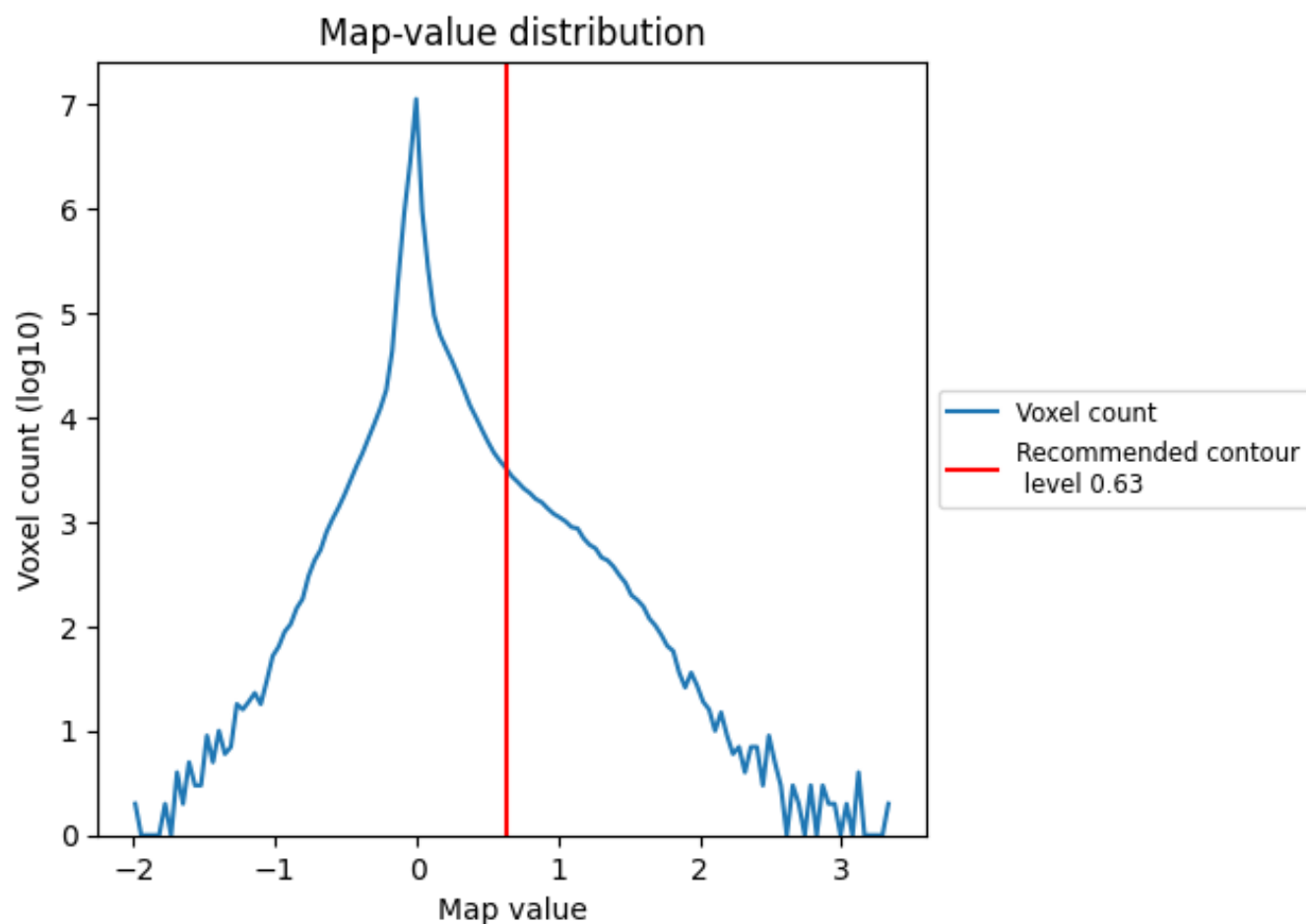
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

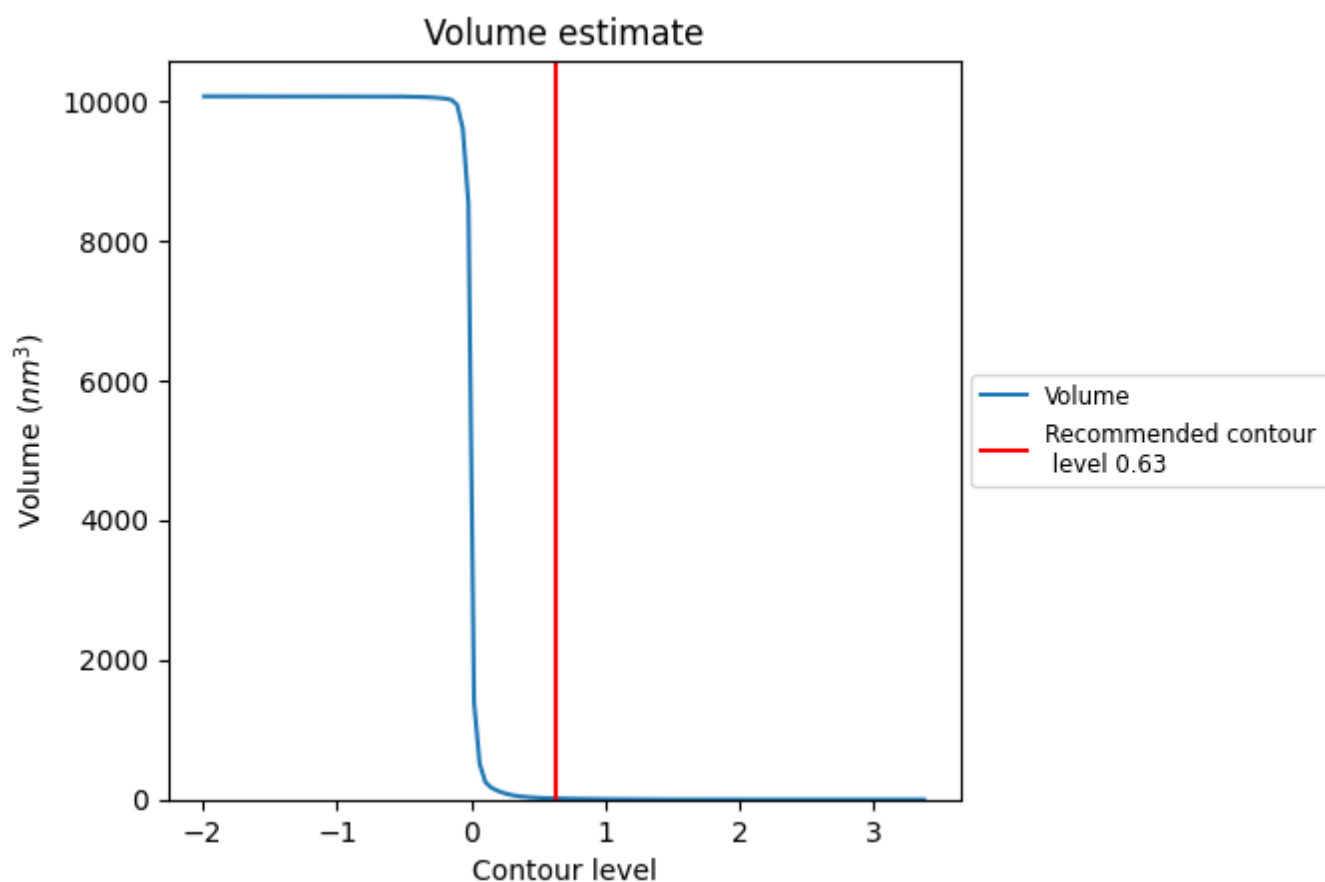
This section contains the results of statistical analysis of the map.

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.

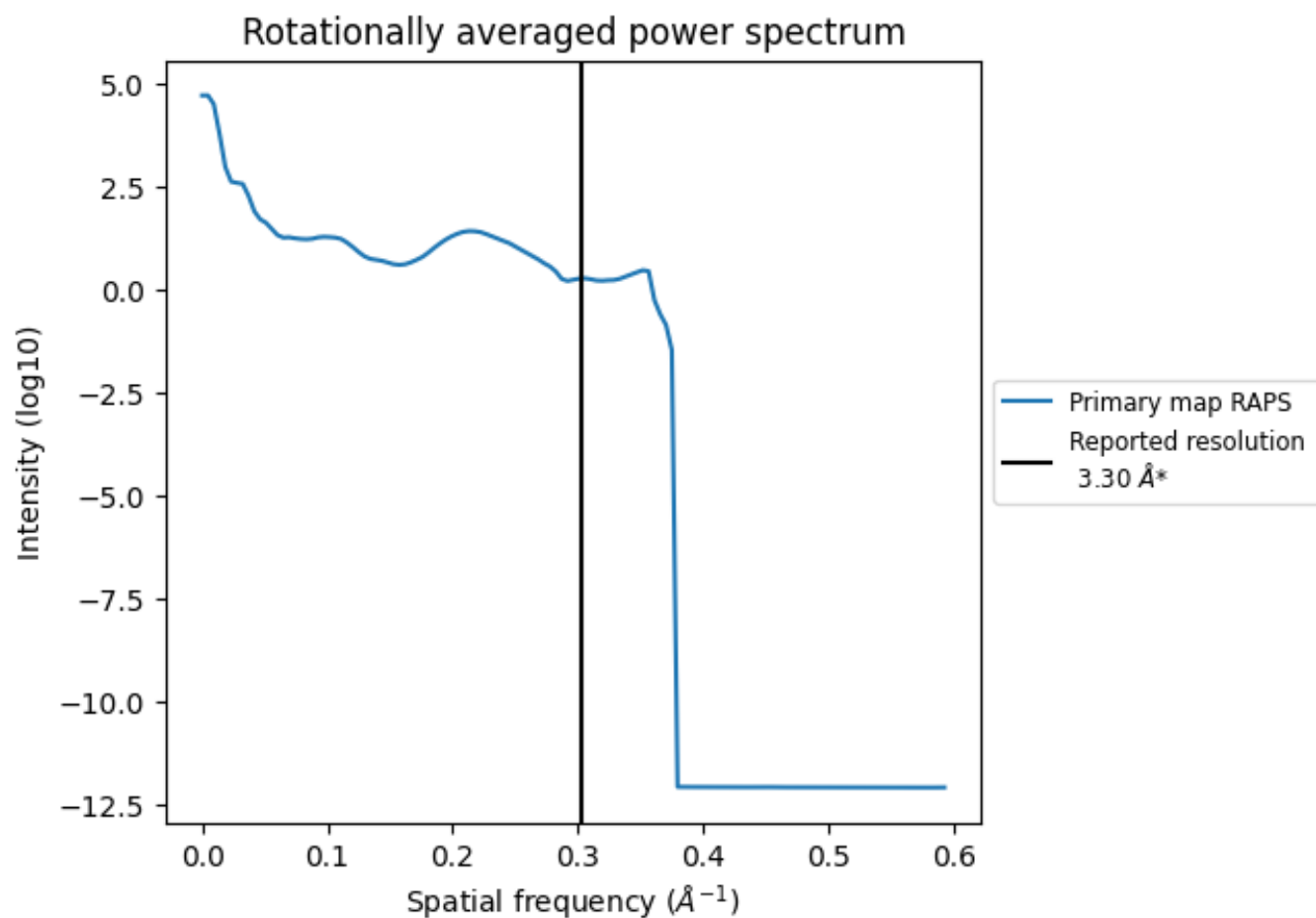
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 16 nm³; this corresponds to an approximate mass of 15 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 0.303 Å⁻¹

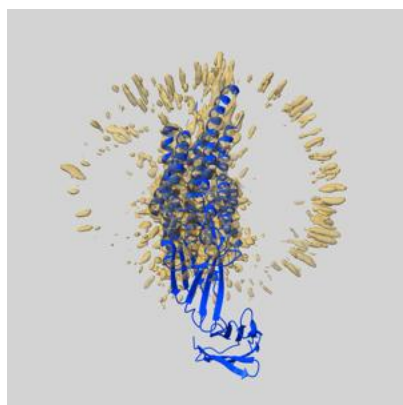
8 Fourier-Shell correlation ⓘ

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

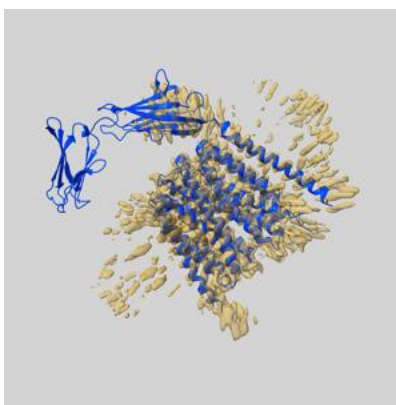
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-30623 and PDB model 7DA5. Per-residue inclusion information can be found in [section 3](#) on [page 4](#).

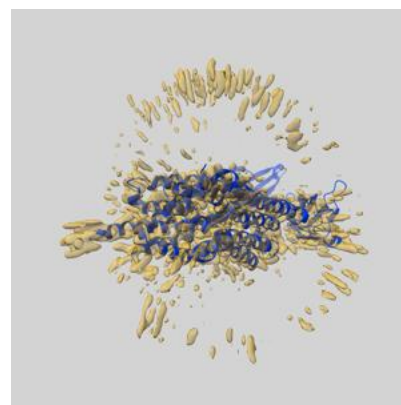
9.1 Map-model overlay [i](#)



X



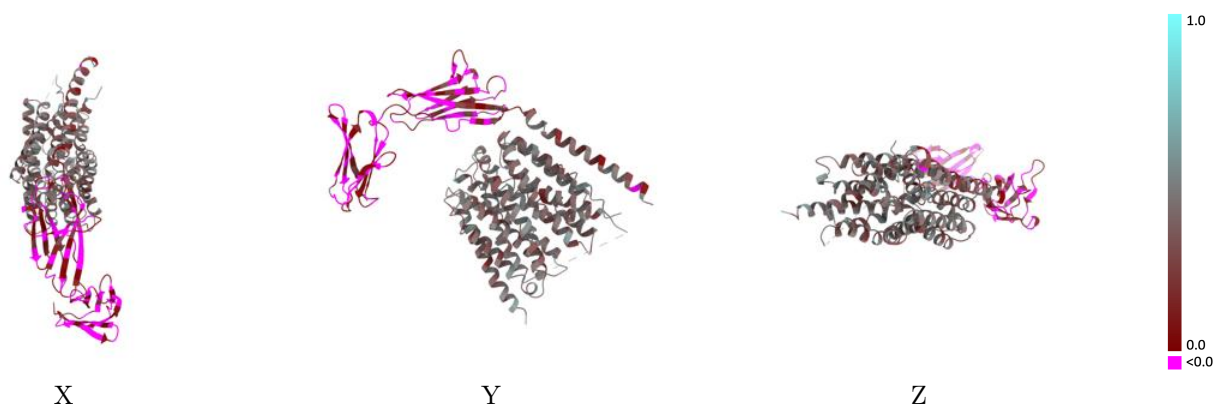
Y



Z

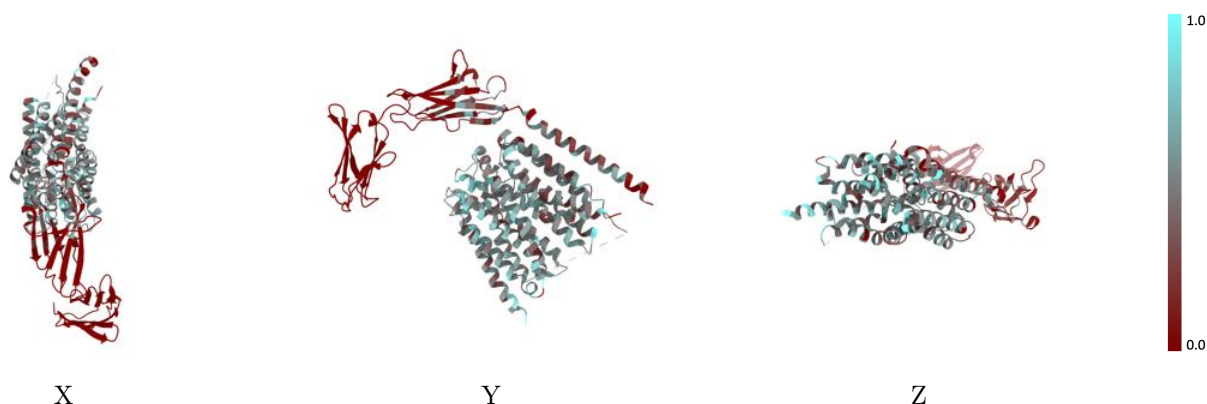
The images above show the 3D surface view of the map at the recommended contour level 0.63 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



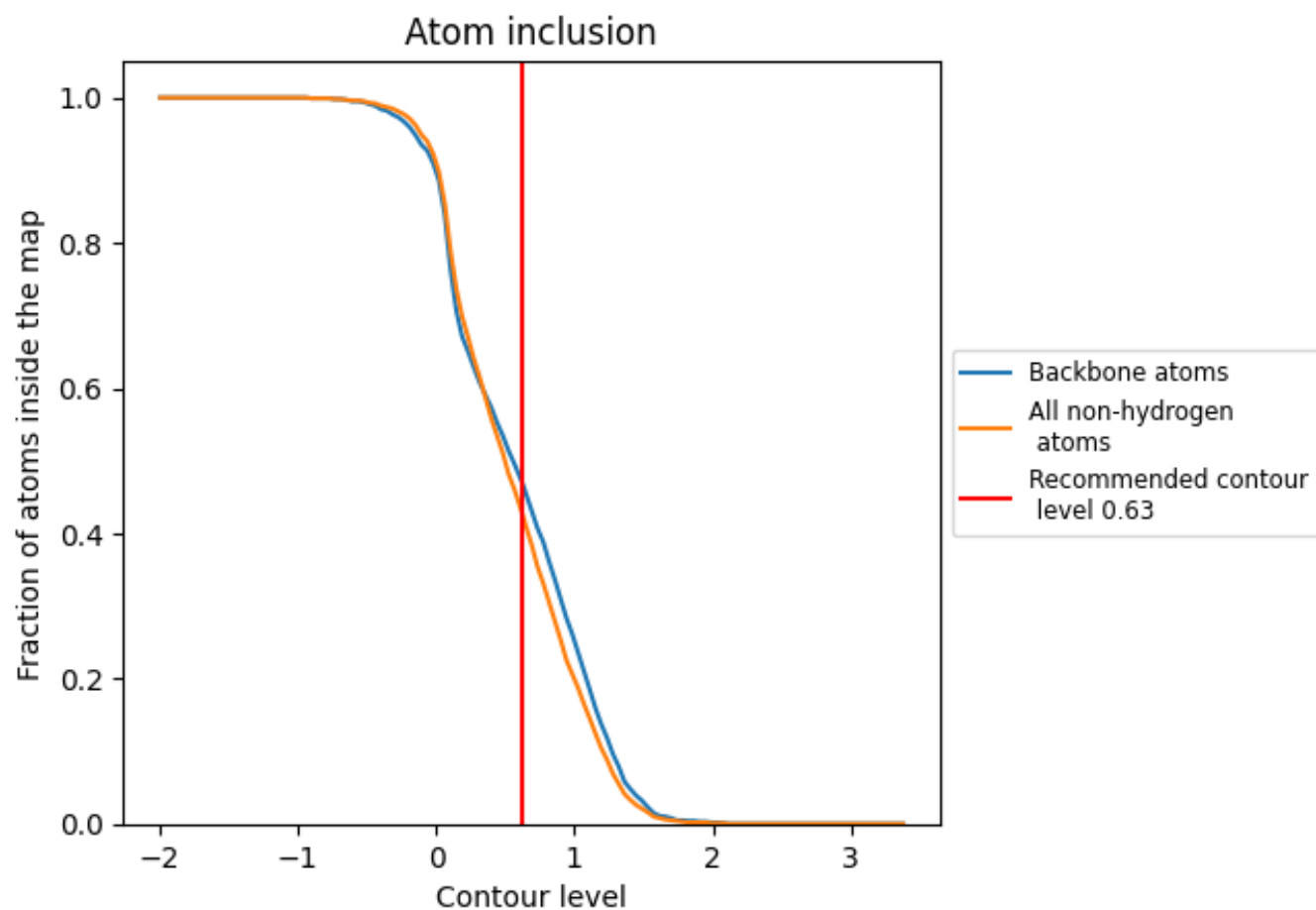
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.63).

9.4 Atom inclusion [i](#)



At the recommended contour level, 47% of all backbone atoms, 42% 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 (0.63) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.4240	0.3150
A	0.5420	0.4150
B	0.1380	0.0700

