Full wwPDB EM Validation Report (i)

Mar 17, 2026 – 06:17 PM JST

PDB ID	:	9UNW / pdb_00009unw
EMDB ID	:	EMD-64367
Title	:	mouse PDCD5-TRiC complex
Authors	:	Song, Q.Q.; Cong, Y.
Deposited on	:	2025-04-24
Resolution	:	3.55 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 (i) 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 (i)) were used in the production of this report:
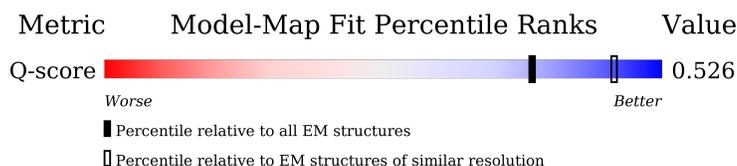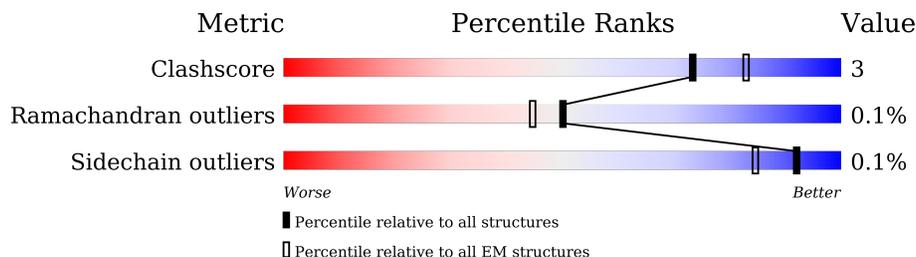
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.48.1

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 3.55 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	Percentile Ranks	Value
Clashscore		3
Ramachandran outliers		0.1%
Sidechain outliers		0.1%

Worse   *Better*

▌Percentile relative to all structures
▯Percentile relative to all EM structures

Metric	Model-Map Fit Percentile Ranks	Value
Q-score		0.526

Worse   *Better*

▌Percentile relative to all EM structures
▯Percentile relative to EM structures of similar resolution

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	-
Q-score	-	25397	12819 (3.05 - 4.05)

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 <=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	C	556	38% 6% · 56%
2	G	535	41% · · 55%
3	H	545	37% 6% · 57%
4	I	539	40% 5% 55%

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Mol	Chain	Length	Quality of chain
5	F	541	40% · 56%
6	A	531	41% · · 54%
7	B	544	39% 5% 56%
8	E	548	39% · 57%
9	D	171	6% 53% · 44%

2 Entry composition ⓘ

There are 9 unique types of molecules in this entry. The entry contains 15218 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 T-complex protein 1 subunit alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	C	247	Total 1862	C 1178	N 320	O 359	S 5	0	0

- Molecule 2 is a protein called T-complex protein 1 subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	G	242	Total 1771	C 1103	N 312	O 346	S 10	0	0

- Molecule 3 is a protein called T-complex protein 1 subunit gamma.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	H	235	Total 1784	C 1115	N 310	O 343	S 16	0	0

- Molecule 4 is a protein called T-complex protein 1 subunit delta.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	I	242	Total 1799	C 1120	N 312	O 358	S 9	0	0

- Molecule 5 is a protein called T-complex protein 1 subunit epsilon.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	F	240	Total 1811	C 1117	N 317	O 359	S 18	0	0

- Molecule 6 is a protein called T-complex protein 1 subunit zeta.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	A	243	Total 1800	C 1138	N 308	O 345	S 9	0	0

- Molecule 7 is a protein called T-complex protein 1 subunit eta.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	B	239	Total 1822	C 1149	N 321	O 345	S 7	0	0

- Molecule 8 is a protein called T-complex protein 1 subunit theta.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E	237	Total 1823	C 1158	N 303	O 352	S 10	0	0

- Molecule 9 is a protein called Programmed cell death protein 5.

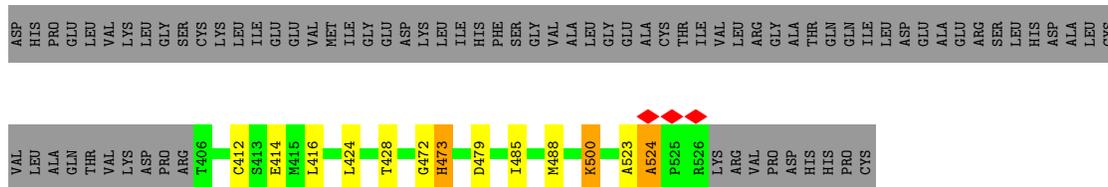| Mol	Chain	Residues	Atoms					AltConf	Trace
9	D	95	Total 746	C 459	N 140	O 145	S 2	0	0

There are 45 discrepancies between the modelled and reference sequences:

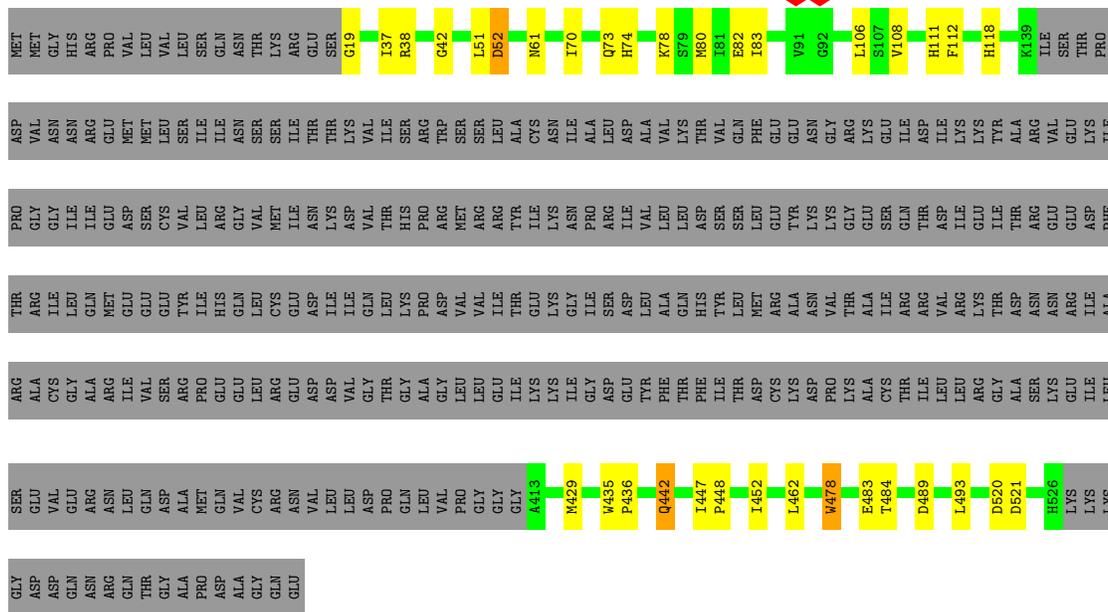| Chain	Residue	Modelled	Actual	Comment	Reference
D	-33	MET	-	initiating methionine	UNP P56812
D	-32	GLY	-	expression tag	UNP P56812
D	-31	SER	-	expression tag	UNP P56812
D	-30	SER	-	expression tag	UNP P56812
D	-29	HIS	-	expression tag	UNP P56812
D	-28	HIS	-	expression tag	UNP P56812
D	-27	HIS	-	expression tag	UNP P56812
D	-26	HIS	-	expression tag	UNP P56812
D	-25	HIS	-	expression tag	UNP P56812
D	-24	HIS	-	expression tag	UNP P56812
D	-23	SER	-	expression tag	UNP P56812
D	-22	SER	-	expression tag	UNP P56812
D	-21	GLY	-	expression tag	UNP P56812
D	-20	LEU	-	expression tag	UNP P56812
D	-19	VAL	-	expression tag	UNP P56812
D	-18	PRO	-	expression tag	UNP P56812
D	-17	ARG	-	expression tag	UNP P56812
D	-16	GLY	-	expression tag	UNP P56812
D	-15	SER	-	expression tag	UNP P56812
D	-14	HIS	-	expression tag	UNP P56812
D	-13	MET	-	expression tag	UNP P56812
D	-12	ALA	-	expression tag	UNP P56812
D	-11	SER	-	expression tag	UNP P56812

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Chain	Residue	Modelled	Actual	Comment	Reference
D	-10	MET	-	expression tag	UNP P56812
D	-9	THR	-	expression tag	UNP P56812
D	-8	GLY	-	expression tag	UNP P56812
D	-7	GLY	-	expression tag	UNP P56812
D	-6	GLN	-	expression tag	UNP P56812
D	-5	GLN	-	expression tag	UNP P56812
D	-4	MET	-	expression tag	UNP P56812
D	-3	GLY	-	expression tag	UNP P56812
D	-2	ARG	-	expression tag	UNP P56812
D	-1	GLY	-	expression tag	UNP P56812
D	0	SER	-	expression tag	UNP P56812
D	127	GLY	-	expression tag	UNP P56812
D	128	SER	-	expression tag	UNP P56812
D	129	GLY	-	expression tag	UNP P56812
D	130	ASP	-	expression tag	UNP P56812
D	131	TYR	-	expression tag	UNP P56812
D	132	LYS	-	expression tag	UNP P56812
D	133	ASP	-	expression tag	UNP P56812
D	134	ASP	-	expression tag	UNP P56812
D	135	ASP	-	expression tag	UNP P56812
D	136	ASP	-	expression tag	UNP P56812
D	137	LYS	-	expression tag	UNP P56812

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: T-complex protein 1 subunit alpha

Chain C:

• Molecule 2: T-complex protein 1 subunit beta

Chain G:

ASP HIS PRO GLU LEU VAL LYS LEU GLY SER CYS LYS LEU ILE ILE GLU GLU VAL MET ILE GLU GLY ASP LYS LEU ILE HIS PHE SER GLY VAL ALA LEU GLY GLU ALA CYS THR ILE VAL LEU ARG GLY ALA THR GLN GLN ILE LEU ASP GLU GLU ARG SER LEU HIS ASP ALA LEU CYS

VAL LEU ALA GLN THR VAL LYS ASP PRO ARG **T406** **C412** **S413** **E414** **M415** **L416** **L424** **T428** **G472** **H473** **D479** **I485** **M488** **K500** **A523** **A524** **P525** **R526** LYS ARG VAL PRO ASP HIS HIS PRO CYS

• Molecule 3: T-complex protein 1 subunit gamma

Chain H: 37% 6% · 57%

MET MET GLY HIS ARG PRO VAL LEU VAL LEU SER GLN ASN THR LYS ARG GLU SER **G19** **I37** **R38** **G42** **L51** **D52** **N61** **I70** **Q73** **H74** **K78** **S79** **M80** **I81** **E82** **I83** **V91** **G92** **L106** **S107** **V108** **H111** **F112** **H118** **K139** ILE SER THR PRO VAL

ASP VAL ASN ASN ARG GLU MET MET LEU SER ILE ILE ASN SER SER ILE THR THR LYS VAL ILE SER ARG TRP SER SER LEU ALA CYS ASN ILE ALA LEU ASP ALA VAL LEU LYS THR VAL GLN PHE GLU GLU ASN GLY LYS ARG LYS GLU ILE ASP LYS LYS TYR ALA ARG VAL GLU LYS ILE

PRO GLY GLY ILE ILE GLU SER SER CYS VAL LEU ARG VAL MET GLY ASN LYS ASP VAL THR HIS PRO ARG MET ARG ARG TYR ILE LYS ASN PRO ARG ILE VAL LEU LEU ASP SER SER LEU GLU TYR LYS GLU GLU ILE ARG GLU ASP PHE

THR ARG ILE LEU GLN MET GLU GLU GLU TYR ILE LEU HIS GLN LEU LEU CYS ASP GLU ILE GLN LEU GLY THR ALA GLY LEU LEU GLU ILE LYS ILE GLY ILE SER ASP ALA ALA GLN HIS TYR LEU MET ARG ALA ASN VAL THR ALA ILE ARG ARG VAL ARG LYS THR ASP ASN ASN ARG ILE ALA

ARG ALA CYS GLY ALA ARG ILE VAL ILE SER ARG PRO GLU LEU LEU ASP ASP ILE GLY THR THR ALA GLY LEU GLU LEU ILE LYS ILE GLY GLY ASP ASP TYR PHE THR ILE THR ASP LYS ALA CYS THR ILE LEU LEU ARG GLY GLY ALA SER LYS GLU ILE LEU

SER GLU VAL GLU ARG ASN LEU GLN ASP ALA MET GLN VAL CYS ARG ASN VAL LEU LEU ASP PRO GLN LEU VAL PRO GLY GLY GLY **A413** **M429** **W435** **P436** **Q442** **I447** **P448** **I452** **L462** **W478** **E483** **T484** **D489** **L493** **D520** **D521** **H526** LYS LYS LYS

GLY ASP ASP GLN ASN ARG GLN GLY THR GLY ALA PRO ASP ALA GLY GLN GLU

• Molecule 4: T-complex protein 1 subunit delta

Chain I: 40% 5% 55%

MET PRO GLU ASN VAL ALA SER ARG SER GLY ALA PRO THR ALA GLY PRO GLY SER ARG GLY SER SER ALA TYR GLN ASP ARG **D28** **K29** **L52** **G53** **D63** **L84** **R89** **L94** **Q98** **V109** **D118** **K122** **H129** **K143** **I147** **D150** MET SER ARG PRO

VAL GLN LEU LEU ASP ARG GLU THR LEU LEU ASN SER ALA THR SER LEU ASN SER LYS VAL VAL GLN TYR SER LEU GLN LEU ASP LYS ALA LYS ILE LEU ARG ASP MET VAL SER VAL ASN ALA VAL MET LYS VAL ILE VAL ASP ALA THR THR ASP VAL ASP LEU ARG ASP ILE LYS ILE LYS LYS LEU

GLY GLY THR ILE ASP ASP CYS GLU LEU VAL GLU GLY LEU VAL LEU THR GLN LYS VAL ALA ASN SER GLY ILE THR ARG VAL GLU LYS ALA LYS ILE GLY LEU ILE GLN PHE CYS LEU SER ALA PRO LYS THR ASP MET ASP ASN GLN ILE VAL VAL SER ASP TYR ALA GLN MET ASP ARG

VAL LEU ARG GLU ARG ALA TYR ILE ASN ASN LEU VAL LYS GLN ILE LYS LYS THR GLY CYS ASN VAL LEU LEU ILE LEU ILE PHE CYS LEU LEU LEU HIS PHE LEU ASN MET LYS THR MET LYS TYR ALA GLY MET ASP ARG

PHE ILE CYS LYS THR ILE GLY THR LYS PRO VAL ALA HIS ILE ILE ASP PHE THR ALA ASP MET LEU GLY SER ALA GLU GLU ILE LEU ALA GLU HIS PHE LEU ASN ILE THR GLY CYS THR LEU SER PRO GLY LYS VAL THR THR VAL VAL VAL ARG GLY SER ASN

LYS LEU VAL ILE GLU GLU ALA GLU ARG SER ILE HIS ASP ALA LEU CYS VAL ILE ARG **L421** **A427** **P428** **L432** **R435** **Y439** **N472** **H484** **N494** **L504** **E505** **E506** **M507** **V508** **R539**

• Molecule 5: T-complex protein 1 subunit epsilon

Chain F:

• Molecule 6: T-complex protein 1 subunit zeta

Chain A:

• Molecule 7: T-complex protein 1 subunit eta

Chain B:

GLN ARG LYS MET LEU GLU LYS CYS ALA MET ALA THR ALA LEU SER SER LYS LEU ILE SER GLN GLN LYS VAL VAL PHE PHE ALA LYS MET VAL VAL ASP ALA VAL MET MET ASP GLU LEU LEU GLN LEU LYS MET ILE GLY ILE LEU LYS LYS VAL GLN GLY GLY ALA LEU GLU GLU GLU SER GLN LEU

VAL ALA GLY VAL ALA PHE LYS LYS THR PHE SER TYR PHE ALA GLY PHE GLU MET GLN PRO LYS LYS TYR LYS ASN PRO LYS ILE ILE ALA LEU LEU ASN VAL GLU LEU GLU LEU LYS ASP ASN ALA ILE ILE ARG VAL HIS THR VAL GLU ASP TYR ALA ILE LEU VAL ASP ALA GLU

TRP ASN ILE LEU TYR ASP LEU GLU ILE HIS SER GLY ALA LYS VAL ILE LEU SER LEU PRO ILE GLY ASP VAL ALA THR GLN TYR PHE ALA ASP ARG ASP MET PHE CYS ALA GLY ARG VAL PRO GLU GLU ASP LYS ARG MET ALA CYS GLY SER ILE

GLN THR SER ASN ALA VAL LEU VAL PRO ASP VAL LEU GLY HIS CYS VAL PHE GLU GLU THR GLN ILE GLY GLY GLU ARG TYR ASN PHE PHE THR GLY CYS PRO LYS ALA LYS THR CYS THR ILE ILE LEU ARG GLY GLY ALA GLN GLN PHE MET GLU GLU THR GLU ARG SER LEU HIS

ASP ALA ILE MET ILE VAL ARG ARG ALA ILE LYS ASN ASP SER VAL VAL ALA GLY GLY GLY `A411` `R421` `D422` `Y423` `I427` `L433` `I445` `P446` `H468` `Y475` `N481` `E482` `N483` `D486` `K521` `R524` SER THR VAL ASP PRO ALA SER ALA ARG GLY ARG

GLY GLN ALA ARG PHE HIS

• Molecule 8: T-complex protein 1 subunit theta

Chain E: 39% · 57%

MET ALA LEU HIS VAL PRO LYS ALA PRO GLY PHE ALA GLN MET LEU LYS ASP GLY ALA LYS HIS PHE SER GLY LEU `E26` PHE LEU ALA `G48` LYS LEU `N58` ALA VAL `E61` TYR `F64` SER CYS `L76` VAL ILE `H80` THR GLU `H91` THR LYS `Q95` GLY `E96` THR VAL `D99` LEU ILE `L119` LYS THR `H140` ALA GLU `L143` `P144` GLU LEU `E145` `L146` MET ASN VAL CYS CYS PHE SER SER ALA LYS LYS GLY GLU ILE

ASN LEU ARG ASP VAL ASP GLU VAL SER LEU SER LEU LEU ARG ASP THR SER ILE MET SER LYS GLN THR TYR GLY SER SER GLU THR PHE LEU ALA ALA LYS LYS ILE ALA VAL LYS TYR SER CYS PRO PHE ASP GLY MET ILE LEU THR GLU THR LYS GLY THR VAL LEU ILE LYS THR ALA GLU GLU LEU MET ASN PHE SER LYS GLY GLU

TYR SER SER VAL LEU GLY MET VAL PHE LYS LYS GLU THR GLY ASP VAL THR SER VAL LYS ASP ALA LYS ILE ALA VAL TYR SER CYS PRO PHE ASP GLY MET ILE THR GLU THR LYS GLY THR VAL LEU ILE LYS THR ALA GLU GLU LEU MET ASN PHE SER LYS GLY GLU

GLU ASN LEU ASP ALA GLN VAL LYS ALA ILE ALA GLY THR GLY ALA ASN VAL ILE VAL THR GLY GLY VAL ASP ASP MET GLY HIS CYS LYS ALA SER VAL GLU ASP TYR LEU THR SER GLU ASP ALA LYS ILE ALA ASP MET ILE THR LEU VAL ARG ASP ALA LEU ASN SER LYS TRP ASP SER LEU ARG ARG LEU CYS THR VAL ALA THR ALA

LEU PRO LYS LEU THR PRO PRO VAL GLN GLU GLU MET GLY HIS CYS ASP SER VAL TYR LEU SER GLU VAL GLY MET THR GLN ASP ALA LYS ILE VAL VAL PHE LYS HIS GLY GLU LYS ASP ALA GLY ALA ILE SER ILE VAL LEU ARG GLY SER THR ASP ASN LEU MET ASP ILE GLU ARG ALA VAL

ASP ASP GLY VAL ASN THR PHE LYS VAL LEU THR ARG ASP LYS ARG VAL LEU PRO GLY GLY GLY `A414` `G479` `L480` `D481` `M492` `K504` `Y505` `W506` `K528` `P529` ALA GLY GLY PRO LYS PRO PRO SER GLY LYS LYS ASP TRP ASP ASP ASP GLN ASN ASP

• Molecule 9: Programmed cell death protein 5

Chain D: 6% / 53% · 44%

MET GLY SER SER HIS HIS HIS HIS HIS HIS SER SER GLY LEU VAL PRO ARG GLY SER HIS MET ALA SER MET THR GLY GLY GLN GLN MET GLY ARG GLY SER MET ALA ASP GLU GLU LEU GLU ALA LEU ARG ARG LYS GLN ARG LEU ALA GLU LEU GLN ALA LYS HIS `G22` `D23` `P24` `G25` `D26`

`A27` `A28` `Q29` `Q30` `E31` `R55` `V62` `K63` `K66` `V116` MET ASP SER ASP GLU ASP ASP ALA ASP ASP TYR GLY SER GLY ASP SER ASP TYR LYS ASP ASP ASP ASP LYS

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	659930	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose $(e^-/\text{Å}^2)$	57	Depositor
Minimum defocus (nm)	9000	Depositor
Maximum defocus (nm)	15000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	15.151	Depositor
Minimum map value	0.000	Depositor
Average map value	0.073	Depositor
Map value standard deviation	0.578	Depositor
Recommended contour level	2.56	Depositor
Map size (Å)	348.0, 348.0, 348.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.87, 0.87, 0.87	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	C	1.66	9/1883 (0.5%)	0.94	11/2552 (0.4%)
2	G	1.65	6/1786 (0.3%)	0.94	8/2413 (0.3%)
3	H	1.68	12/1805 (0.7%)	0.98	8/2440 (0.3%)
4	I	1.62	7/1813 (0.4%)	0.97	9/2449 (0.4%)
5	F	1.69	8/1826 (0.4%)	0.97	13/2458 (0.5%)
6	A	1.67	6/1819 (0.3%)	1.01	10/2462 (0.4%)
7	B	1.68	12/1846 (0.7%)	0.98	11/2502 (0.4%)
8	E	1.61	7/1847 (0.4%)	0.89	7/2498 (0.3%)
9	D	1.54	1/750 (0.1%)	0.89	5/1002 (0.5%)
All	All	1.65	68/15375 (0.4%)	0.96	82/20776 (0.4%)

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	C	0	3
3	H	0	7
4	I	0	3
5	F	0	3
6	A	0	3
7	B	0	2
8	E	0	3
All	All	0	24

All (68) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	74	HIS	CB-CG	-9.21	1.37	1.50
6	A	71	HIS	CB-CG	-8.58	1.38	1.50
4	I	504	LEU	CB-CG	-7.88	1.37	1.53
5	F	147	HIS	CB-CG	-7.48	1.39	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	112	PHE	CB-CG	-7.10	1.34	1.50
8	E	64	PHE	CB-CG	-7.08	1.34	1.50
2	G	473	HIS	CB-CG	-7.03	1.40	1.50
7	B	131	LEU	CB-CG	-6.99	1.39	1.53
3	H	83	ILE	CB-CG1	-6.88	1.39	1.53
5	F	474	MET	CG-SD	-6.88	1.63	1.80
8	E	506	TRP	NE1-CE2	-6.73	1.30	1.37
7	B	423	TYR	CB-CG	-6.73	1.36	1.51
5	F	489	LEU	CB-CG	-6.68	1.40	1.53
4	I	109	VAL	CB-CG2	-6.66	1.30	1.52
7	B	37	ARG	CD-NE	-6.63	1.36	1.46
7	B	32	ILE	CB-CG1	-6.50	1.40	1.53
3	H	452	ILE	CB-CG1	-6.25	1.41	1.53
4	I	484	HIS	CB-CG	-6.24	1.41	1.50
5	F	60	MET	CA-C	-6.16	1.45	1.52
7	B	427	ILE	CB-CG1	-6.07	1.41	1.53
2	G	485	ILE	CB-CG1	-6.06	1.41	1.53
6	A	61	ASN	CB-CG	-6.05	1.36	1.52
2	G	412	CYS	CB-SG	-5.97	1.61	1.81
2	G	424	LEU	CB-CG	-5.94	1.41	1.53
3	H	493	LEU	CB-CG	-5.91	1.41	1.53
4	I	98	GLN	CG-CD	-5.86	1.37	1.52
7	B	475	TYR	CB-CG	-5.84	1.38	1.51
8	E	140	HIS	CB-CG	-5.78	1.42	1.50
1	C	479	GLU	CA-C	-5.74	1.45	1.52
3	H	80	MET	CG-SD	-5.72	1.66	1.80
5	F	427	ILE	CB-CG1	-5.72	1.42	1.53
5	F	132	ARG	CD-NE	-5.70	1.38	1.46
3	H	111	HIS	CB-CG	-5.69	1.42	1.50
2	G	35	ILE	CB-CG1	-5.68	1.42	1.53
1	C	82	GLN	CB-CG	-5.67	1.35	1.52
6	A	114	LEU	CB-CG	-5.67	1.42	1.53
4	I	432	LEU	CB-CG	-5.65	1.42	1.53
1	C	467	LEU	CB-CG	-5.63	1.42	1.53
4	I	94	LEU	CB-CG	-5.58	1.42	1.53
7	B	50	VAL	CA-C	-5.57	1.46	1.52
1	C	470	PHE	CB-CG	-5.46	1.38	1.50
4	I	504	LEU	CA-CB	-5.44	1.46	1.53
7	B	433	LEU	CB-CG	-5.42	1.42	1.53
1	C	123	LEU	CB-CG	-5.40	1.42	1.53
6	A	457	PHE	CB-CG	-5.39	1.38	1.50
1	C	526	ARG	CD-NE	-5.38	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	16	ALA	N-CA	-5.35	1.38	1.45
1	C	483	LEU	CB-CG	-5.31	1.42	1.53
5	F	477	VAL	CA-CB	-5.27	1.47	1.54
7	B	468	HIS	CB-CG	-5.27	1.42	1.50
8	E	91	HIS	CB-CG	-5.27	1.42	1.50
3	H	38	ARG	CD-NE	-5.26	1.38	1.46
3	H	106	LEU	CB-CG	-5.25	1.43	1.53
6	A	459	LEU	CB-CG	-5.22	1.43	1.53
8	E	99	ASP	CB-CG	5.21	1.65	1.52
3	H	37	ILE	CB-CG1	-5.21	1.43	1.53
1	C	43	LYS	CA-C	-5.16	1.46	1.52
9	D	55	ARG	CD-NE	-5.16	1.39	1.46
8	E	80	HIS	CB-CG	-5.13	1.43	1.50
7	B	111	TYR	CB-CG	-5.13	1.40	1.51
7	B	99	LEU	CB-CG	-5.10	1.43	1.53
5	F	503	TYR	CB-CG	-5.10	1.40	1.51
3	H	452	ILE	CA-CB	-5.09	1.48	1.54
3	H	478	TRP	CA-CB	-5.07	1.46	1.53
7	B	58	ILE	CB-CG1	-5.06	1.43	1.53
8	E	64	PHE	CA-C	-5.04	1.46	1.52
1	C	43	LYS	CD-CE	-5.03	1.37	1.52
2	G	95	VAL	CB-CG1	-5.02	1.35	1.52

All (82) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	B	41	GLY	CA-C-N	8.18	127.82	119.56
7	B	41	GLY	C-N-CA	8.18	127.82	119.56
5	F	491	ILE	N-CA-C	-7.98	106.12	113.71
2	G	44	GLY	CA-C-N	7.63	127.27	119.56
2	G	44	GLY	C-N-CA	7.63	127.27	119.56
5	F	53	GLY	CA-C-N	7.58	127.21	119.56
5	F	53	GLY	C-N-CA	7.58	127.21	119.56
3	H	42	GLY	CA-C-N	7.57	127.75	119.87
3	H	42	GLY	C-N-CA	7.57	127.75	119.87
6	A	39	GLY	CA-C-N	7.53	127.17	119.56
6	A	39	GLY	C-N-CA	7.53	127.17	119.56
8	E	48	GLY	CA-C-N	7.48	127.12	119.56
8	E	48	GLY	C-N-CA	7.48	127.12	119.56
1	C	37	GLY	CA-C-N	7.26	127.42	119.87
1	C	37	GLY	C-N-CA	7.26	127.42	119.87
4	I	53	GLY	CA-C-N	7.25	126.96	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	I	53	GLY	C-N-CA	7.25	126.96	119.56
7	B	427	ILE	N-CA-C	6.73	115.55	108.95
4	I	504	LEU	N-CA-C	6.59	118.19	110.41
6	A	428	SER	N-CA-C	-6.55	102.83	113.19
3	H	83	ILE	CB-CA-C	-6.34	103.85	111.97
6	A	525	GLY	N-CA-C	-6.34	106.17	115.30
5	F	469	ASN	CA-C-N	6.18	125.81	119.56
5	F	469	ASN	C-N-CA	6.18	125.81	119.56
2	G	122	HIS	CA-C-N	6.09	126.27	119.32
2	G	122	HIS	C-N-CA	6.09	126.27	119.32
7	B	117	HIS	CA-C-N	6.07	126.24	119.32
7	B	117	HIS	C-N-CA	6.07	126.24	119.32
8	E	80	HIS	CA-C-N	5.96	126.11	119.32
8	E	80	HIS	C-N-CA	5.96	126.11	119.32
4	I	472	ASN	CA-C-N	5.95	125.57	119.56
4	I	472	ASN	C-N-CA	5.95	125.57	119.56
5	F	486	ASN	CA-C-N	5.94	125.91	120.21
5	F	486	ASN	C-N-CA	5.94	125.91	120.21
3	H	442	GLN	CA-C-O	-5.91	114.29	120.55
2	G	428	THR	CA-C-N	5.90	126.41	120.04
2	G	428	THR	C-N-CA	5.90	126.41	120.04
5	F	34	LEU	CA-C-O	-5.86	114.33	120.55
5	F	129	HIS	CA-C-N	5.86	126.27	119.47
5	F	129	HIS	C-N-CA	5.86	126.27	119.47
7	B	73	HIS	CA-C-N	5.83	125.97	119.32
7	B	73	HIS	C-N-CA	5.83	125.97	119.32
8	E	479	GLY	CA-C-O	-5.80	116.15	121.72
4	I	129	HIS	CA-C-N	5.80	126.20	119.47
4	I	129	HIS	C-N-CA	5.80	126.20	119.47
2	G	524	ALA	CA-C-N	5.79	125.70	119.85
2	G	524	ALA	C-N-CA	5.79	125.70	119.85
6	A	485	GLU	CA-C-N	5.74	125.67	119.76
6	A	485	GLU	C-N-CA	5.74	125.67	119.76
3	H	118	HIS	CA-C-N	5.69	126.08	119.47
3	H	118	HIS	C-N-CA	5.69	126.08	119.47
4	I	29	LYS	CA-C-N	5.69	125.37	119.56
4	I	29	LYS	C-N-CA	5.69	125.37	119.56
9	D	63	LYS	CA-C-N	5.66	125.33	119.56
9	D	63	LYS	C-N-CA	5.66	125.33	119.56
1	C	505	GLU	CA-C-N	5.58	125.51	119.76
1	C	505	GLU	C-N-CA	5.58	125.51	119.76
1	C	113	HIS	CA-C-N	5.58	125.94	119.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	113	HIS	C-N-CA	5.58	125.94	119.47
7	B	427	ILE	CA-C-N	5.55	126.02	120.14
7	B	427	ILE	C-N-CA	5.55	126.02	120.14
8	E	143	LEU	CA-C-N	5.46	125.55	119.87
8	E	143	LEU	C-N-CA	5.46	125.55	119.87
9	D	62	VAL	N-CA-CB	-5.41	107.21	111.64
5	F	34	LEU	CA-C-N	-5.39	112.64	120.29
5	F	34	LEU	C-N-CA	-5.39	112.64	120.29
9	D	23	ASP	CA-C-N	5.28	125.21	119.78
9	D	23	ASP	C-N-CA	5.28	125.21	119.78
7	B	109	LYS	CA-C-N	5.25	124.91	119.56
7	B	109	LYS	C-N-CA	5.25	124.91	119.56
5	F	35	LYS	N-CA-C	-5.19	105.70	111.36
1	C	69	HIS	CA-C-N	5.14	125.19	119.32
1	C	69	HIS	C-N-CA	5.14	125.19	119.32
6	A	468	ALA	CA-C-O	-5.14	115.10	120.55
3	H	52	ASP	CA-C-N	5.12	126.25	119.84
3	H	52	ASP	C-N-CA	5.12	126.25	119.84
1	C	477	ASN	CA-C-N	5.11	124.77	119.56
1	C	477	ASN	C-N-CA	5.11	124.77	119.56
6	A	115	HIS	CA-C-N	5.08	124.75	119.56
6	A	115	HIS	C-N-CA	5.08	124.75	119.56
6	A	50	GLY	N-CA-C	-5.05	109.07	115.08
1	C	464	VAL	CA-C-O	-5.05	115.70	120.95

There are no chirality outliers.

All (24) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	A	468	ALA	Mainchain
6	A	484	GLY	Mainchain
6	A	513	THR	Mainchain
7	B	36	VAL	Mainchain,Peptide
1	C	412	GLY	Mainchain,Peptide
1	C	464	VAL	Mainchain
8	E	119	LEU	Mainchain
8	E	479	GLY	Mainchain,Peptide
5	F	34	LEU	Mainchain
5	F	483	LYS	Mainchain,Peptide
3	H	429	MET	Mainchain,Peptide
3	H	442	GLN	Mainchain
3	H	483	GLU	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
3	H	484	THR	Mainchain,Peptide
4	I	28	ASP	Mainchain,Peptide
4	I	52	LEU	Mainchain

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	C	1862	0	1931	20	0
2	G	1771	0	1834	11	0
3	H	1784	0	1838	18	0
4	I	1799	0	1874	12	0
5	F	1811	0	1844	7	0
6	A	1800	0	1870	11	0
7	B	1822	0	1875	9	0
8	E	1823	0	1859	9	0
9	D	746	0	778	0	0
All	All	15218	0	15703	95	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 3.

All (95) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:462:LEU:C	3:H:462:LEU:HD23	2.13	0.73
4:I:504:LEU:HD12	4:I:504:LEU:O	1.89	0.72
6:A:17:GLN:OE1	6:A:17:GLN:N	2.22	0.69
5:F:426:GLU:N	5:F:426:GLU:OE1	2.28	0.66
1:C:416:GLU:N	1:C:416:GLU:OE1	2.25	0.65
7:B:421:ARG:HD3	7:B:421:ARG:C	2.23	0.64
6:A:70:GLN:OE1	6:A:70:GLN:N	2.28	0.61
2:G:500:LYS:HE3	2:G:500:LYS:HA	1.82	0.59
3:H:73:GLN:N	3:H:73:GLN:OE1	2.36	0.59
7:B:119:GLN:HA	7:B:119:GLN:OE1	2.02	0.58
1:C:63:LYS:NZ	1:C:80:ASP:OD1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:80:ASP:OD2	1:C:84:LYS:NZ	2.36	0.58
3:H:73:GLN:N	3:H:73:GLN:CD	2.61	0.58
3:H:462:LEU:HD23	3:H:462:LEU:O	2.04	0.58
1:C:15:GLU:N	1:C:15:GLU:OE1	2.37	0.57
8:E:528:LYS:NZ	8:E:529:PRO:O	2.37	0.56
2:G:414:GLU:N	2:G:414:GLU:OE1	2.36	0.56
6:A:459:LEU:C	6:A:459:LEU:HD23	2.31	0.54
5:F:486:ASN:N	5:F:487:PRO:HD3	2.23	0.53
3:H:447:ILE:HB	3:H:448:PRO:HD3	1.91	0.53
6:A:504:LEU:C	6:A:504:LEU:HD23	2.34	0.52
2:G:57:ARG:HG2	2:G:57:ARG:O	2.09	0.51
6:A:447:ILE:HB	6:A:448:PRO:HD3	1.92	0.51
1:C:448:ILE:HB	1:C:449:PRO:HD3	1.93	0.50
4:I:506:GLU:CD	4:I:506:GLU:H	2.20	0.50
6:A:13:VAL:HG12	6:A:13:VAL:O	2.12	0.49
8:E:143:LEU:N	8:E:144:PRO:HD2	2.27	0.49
4:I:63:ASP:OD1	4:I:63:ASP:C	2.54	0.49
3:H:78:LYS:NZ	3:H:82:GLU:OE2	2.45	0.49
3:H:521:ASP:O	3:H:521:ASP:OD1	2.30	0.49
7:B:445:ILE:HB	7:B:446:PRO:HD3	1.94	0.49
3:H:521:ASP:OD1	3:H:521:ASP:C	2.52	0.49
6:A:70:GLN:H	6:A:70:GLN:CD	2.20	0.49
2:G:95:VAL:HG12	2:G:98:GLY:H	1.77	0.49
8:E:492:MET:HA	8:E:492:MET:HE2	1.95	0.48
4:I:118:ASP:OD2	4:I:122:LYS:NZ	2.46	0.48
3:H:462:LEU:C	3:H:462:LEU:CD2	2.84	0.48
7:B:481:ASN:O	7:B:483:ASN:N	2.47	0.48
1:C:430:MET:HG3	1:C:430:MET:O	2.13	0.47
1:C:43:LYS:NZ	3:H:521:ASP:OD2	2.37	0.47
1:C:464:VAL:O	1:C:467:LEU:N	2.48	0.47
1:C:497:ASP:OD1	1:C:497:ASP:C	2.57	0.47
2:G:54:SER:HB2	2:G:57:ARG:HB2	1.97	0.47
6:A:70:GLN:N	6:A:70:GLN:CD	2.73	0.46
2:G:124:GLN:HA	2:G:124:GLN:OE1	2.14	0.46
3:H:435:TRP:HB2	3:H:436:PRO:HD3	1.96	0.46
7:B:21:GLN:HA	7:B:21:GLN:OE1	2.15	0.46
1:C:482:ASN:C	1:C:482:ASN:OD1	2.59	0.46
4:I:505:GLU:O	4:I:508:VAL:HG22	2.15	0.46
8:E:481:ASP:OD1	8:E:481:ASP:C	2.58	0.46
1:C:489:ASP:OD1	1:C:489:ASP:C	2.59	0.45
5:F:499:ASN:HA	5:F:500:ASP:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:58:ASN:OD1	8:E:58:ASN:C	2.59	0.45
2:G:479:ASP:OD1	2:G:479:ASP:C	2.59	0.45
2:G:488:MET:HA	2:G:488:MET:HE2	1.99	0.45
6:A:480:ASP:OD1	6:A:480:ASP:C	2.59	0.45
5:F:34:LEU:O	5:F:37:HIS:N	2.50	0.44
4:I:504:LEU:O	4:I:504:LEU:CD1	2.63	0.44
3:H:108:VAL:O	3:H:108:VAL:HG12	2.17	0.44
7:B:51:ASP:OD1	7:B:51:ASP:C	2.60	0.43
2:G:523:ALA:O	2:G:524:ALA:C	2.61	0.43
7:B:521:LYS:NZ	8:E:61:GLU:OE2	2.51	0.43
1:C:528:ASP:OD1	1:C:528:ASP:C	2.60	0.43
5:F:492:ASP:O	5:F:493:CYS:C	2.61	0.43
7:B:19:ILE:N	7:B:20:PRO:HD2	2.34	0.43
4:I:84:LEU:O	4:I:89:ARG:NH1	2.52	0.43
2:G:472:GLY:O	2:G:473:HIS:C	2.62	0.43
8:E:95:GLN:O	8:E:96:GLU:HB2	2.18	0.42
3:H:19:GLY:N	3:H:520:ASP:OD2	2.53	0.42
1:C:485:TRP:N	1:C:485:TRP:CD1	2.85	0.42
3:H:435:TRP:CB	3:H:436:PRO:HD3	2.49	0.42
5:F:34:LEU:O	5:F:35:LYS:C	2.61	0.42
6:A:88:THR:HB	6:A:89:GLY:HA2	2.01	0.42
1:C:440:GLU:OE1	1:C:440:GLU:HA	2.19	0.42
1:C:47:ASP:OD1	1:C:48:ASP:N	2.52	0.42
4:I:427:ALA:N	4:I:428:PRO:HD2	2.35	0.42
1:C:430:MET:O	1:C:431:GLY:C	2.62	0.42
4:I:504:LEU:HD12	4:I:504:LEU:C	2.45	0.42
4:I:494:ASN:OD1	4:I:494:ASN:C	2.63	0.42
1:C:528:ASP:OD1	1:C:528:ASP:O	2.38	0.41
3:H:478:TRP:CZ2	3:H:489:ASP:HB2	2.55	0.41
3:H:70:ILE:O	3:H:70:ILE:HG13	2.19	0.41
3:H:61:ASN:OD1	3:H:61:ASN:C	2.63	0.41
4:I:147:ILE:HD13	4:I:435:ARG:HB2	2.02	0.41
8:E:76:LEU:O	8:E:76:LEU:HG	2.20	0.41
3:H:51:LEU:O	3:H:52:ASP:C	2.62	0.41
4:I:143:LYS:HD3	4:I:439:TYR:CG	2.56	0.41
7:B:486:ASP:OD1	7:B:486:ASP:C	2.64	0.41
8:E:504:LYS:HE2	8:E:504:LYS:HB2	1.90	0.41
6:A:16:ALA:C	6:A:18:ALA:N	2.79	0.41
1:C:411:GLY:C	1:C:413:GLY:H	2.29	0.40
1:C:416:GLU:OE2	1:C:510:LYS:NZ	2.38	0.40
1:C:477:ASN:C	1:C:477:ASN:OD1	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:416:LEU:HD23	2:G:416:LEU:HA	1.91	0.40
5:F:426:GLU:N	5:F:426:GLU:CD	2.80	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	C	243/556 (44%)	238 (98%)	5 (2%)	0	100	100
2	G	238/535 (44%)	235 (99%)	3 (1%)	0	100	100
3	H	231/545 (42%)	217 (94%)	14 (6%)	0	100	100
4	I	238/539 (44%)	236 (99%)	2 (1%)	0	100	100
5	F	236/541 (44%)	230 (98%)	5 (2%)	1 (0%)	30	62
6	A	239/531 (45%)	231 (97%)	8 (3%)	0	100	100
7	B	235/544 (43%)	230 (98%)	5 (2%)	0	100	100
8	E	233/548 (42%)	229 (98%)	4 (2%)	0	100	100
9	D	93/171 (54%)	93 (100%)	0	0	100	100
All	All	1986/4510 (44%)	1939 (98%)	46 (2%)	1 (0%)	50	79

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	F	497	GLY

5.3.2 Protein sidechains (i)

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	C	201/463 (43%)	201 (100%)	0	100	100
2	G	185/426 (43%)	184 (100%)	1 (0%)	86	93
3	H	196/471 (42%)	196 (100%)	0	100	100
4	I	199/457 (44%)	199 (100%)	0	100	100
5	F	197/456 (43%)	197 (100%)	0	100	100
6	A	191/441 (43%)	191 (100%)	0	100	100
7	B	194/448 (43%)	194 (100%)	0	100	100
8	E	193/453 (43%)	193 (100%)	0	100	100
9	D	80/141 (57%)	79 (99%)	1 (1%)	65	82
All	All	1636/3756 (44%)	1634 (100%)	2 (0%)	92	97

All (2) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	G	500	LYS
9	D	66	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
7	B	86	GLN
7	B	459	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 ⓘ

This section contains visualisations of the EMDB entry EMD-64367. 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 ⓘ

6.1.1　Primary map

| X | Y | Z |
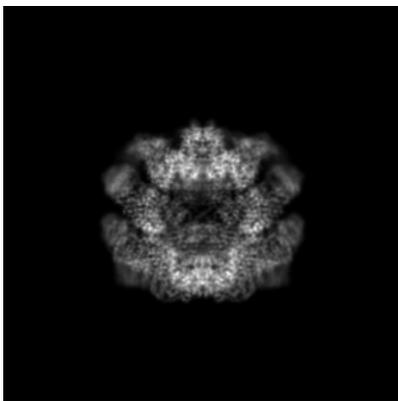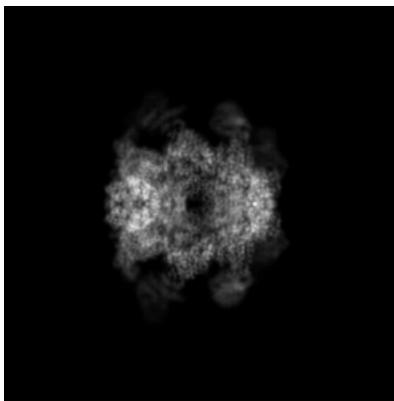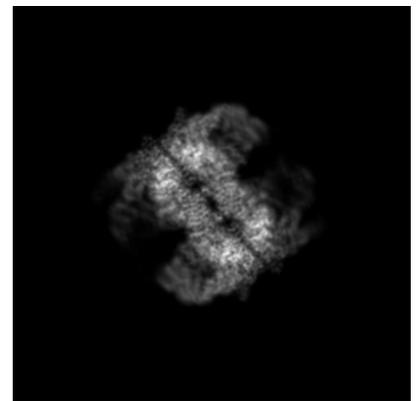
The images above show the map projected in three orthogonal directions.

6.2　Central slices ⓘ
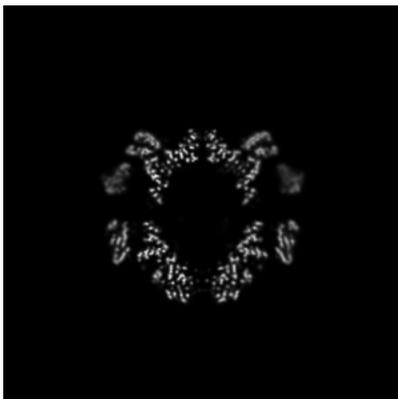
6.2.1　Primary map
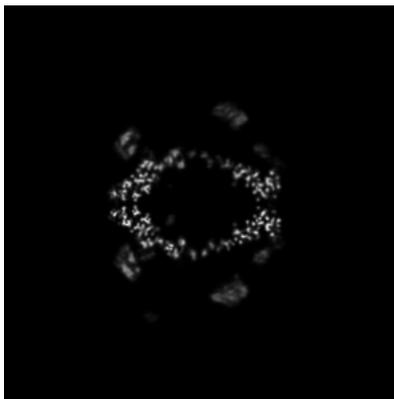
| X Index: 200 | Y Index: 200 | Z Index: 200 |
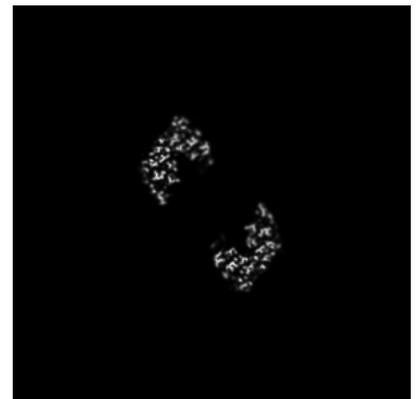
The images above show central slices of the map in three orthogonal directions.

6.3　Largest variance slices ⓘ
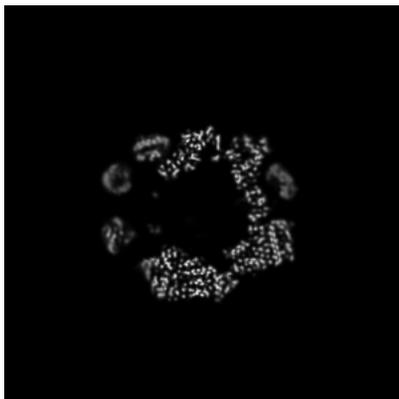
6.3.1　Primary map
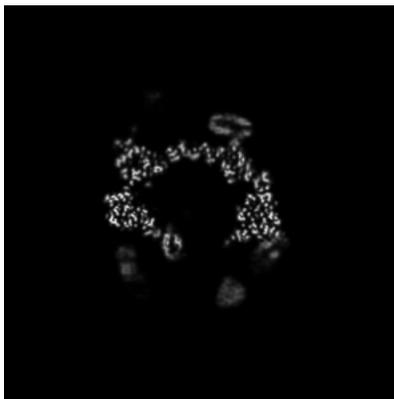
| X Index: 191 | Y Index: 186 | Z Index: 144 |
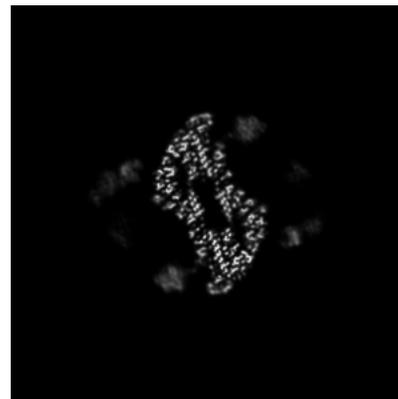
The images above show the largest variance slices of the map in three orthogonal directions.

6.4　Orthogonal standard-deviation projections (False-color) ⓘ

6.4.1　Primary map

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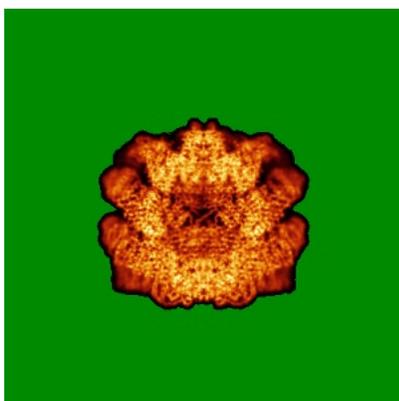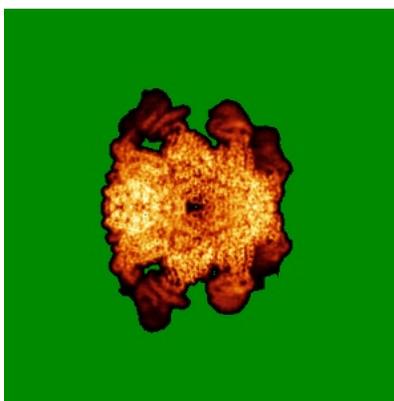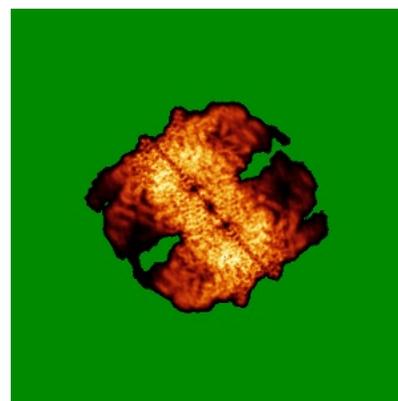
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5   Orthogonal surface views ⓘ

6.5.1   Primary map

X   Y   Z
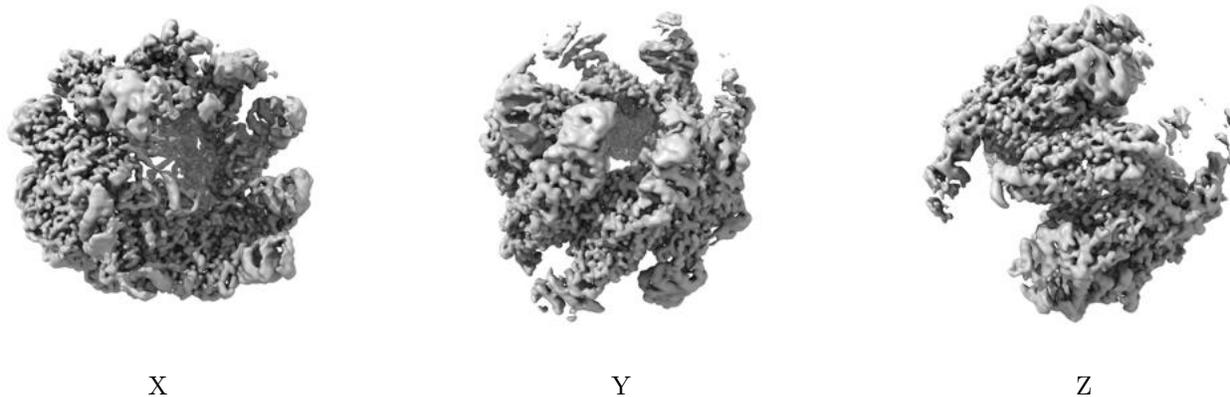
The images above show the 3D surface view of the map at the recommended contour level 2.56. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.6   Mask visualisation ⓘ

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

7 Map analysis ⓘ

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

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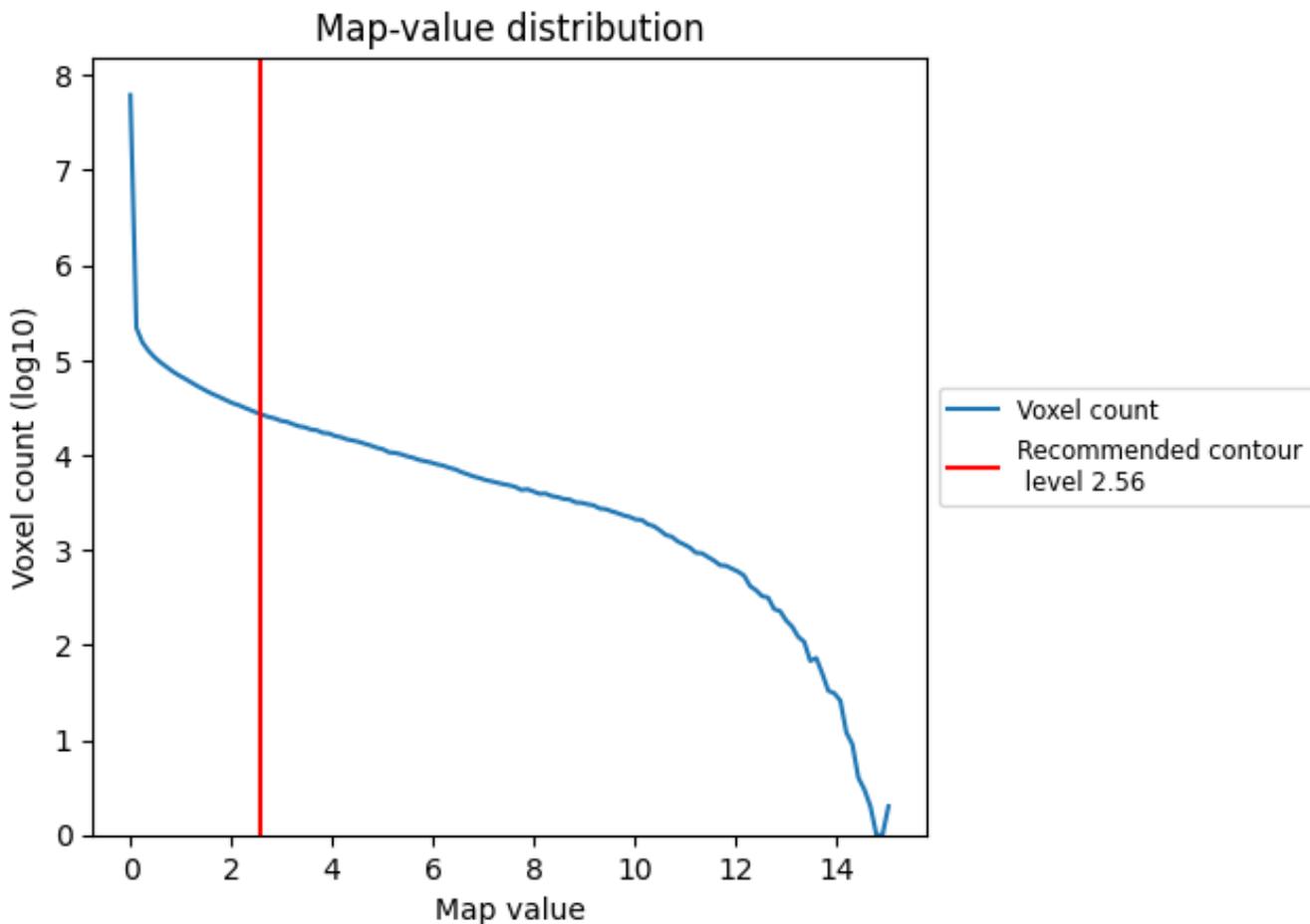
The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2   Volume estimate ⓘ
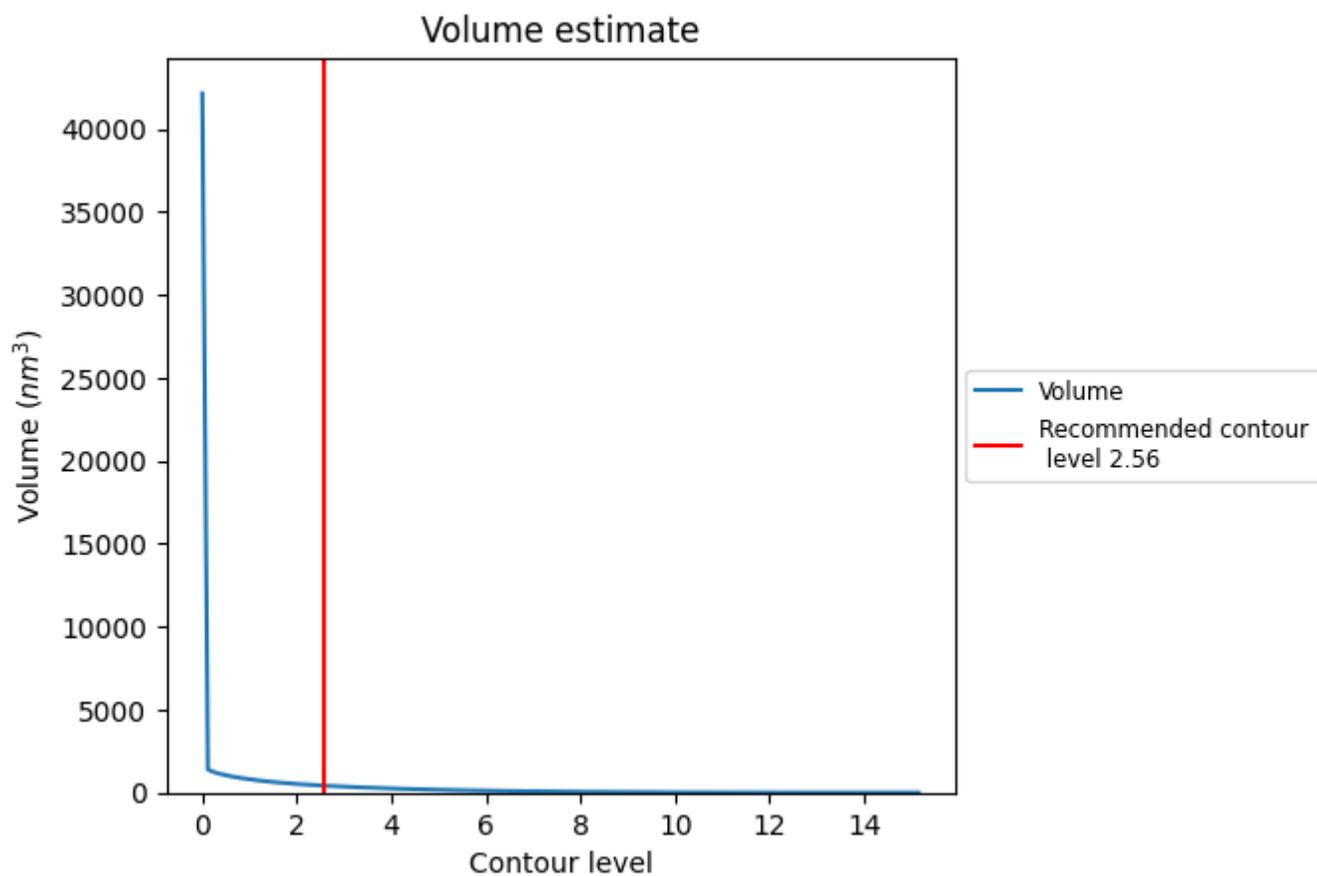
The volume at the recommended contour level is 422 nm^3; this corresponds to an approximate mass of 381 kDa.

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 ⓘ
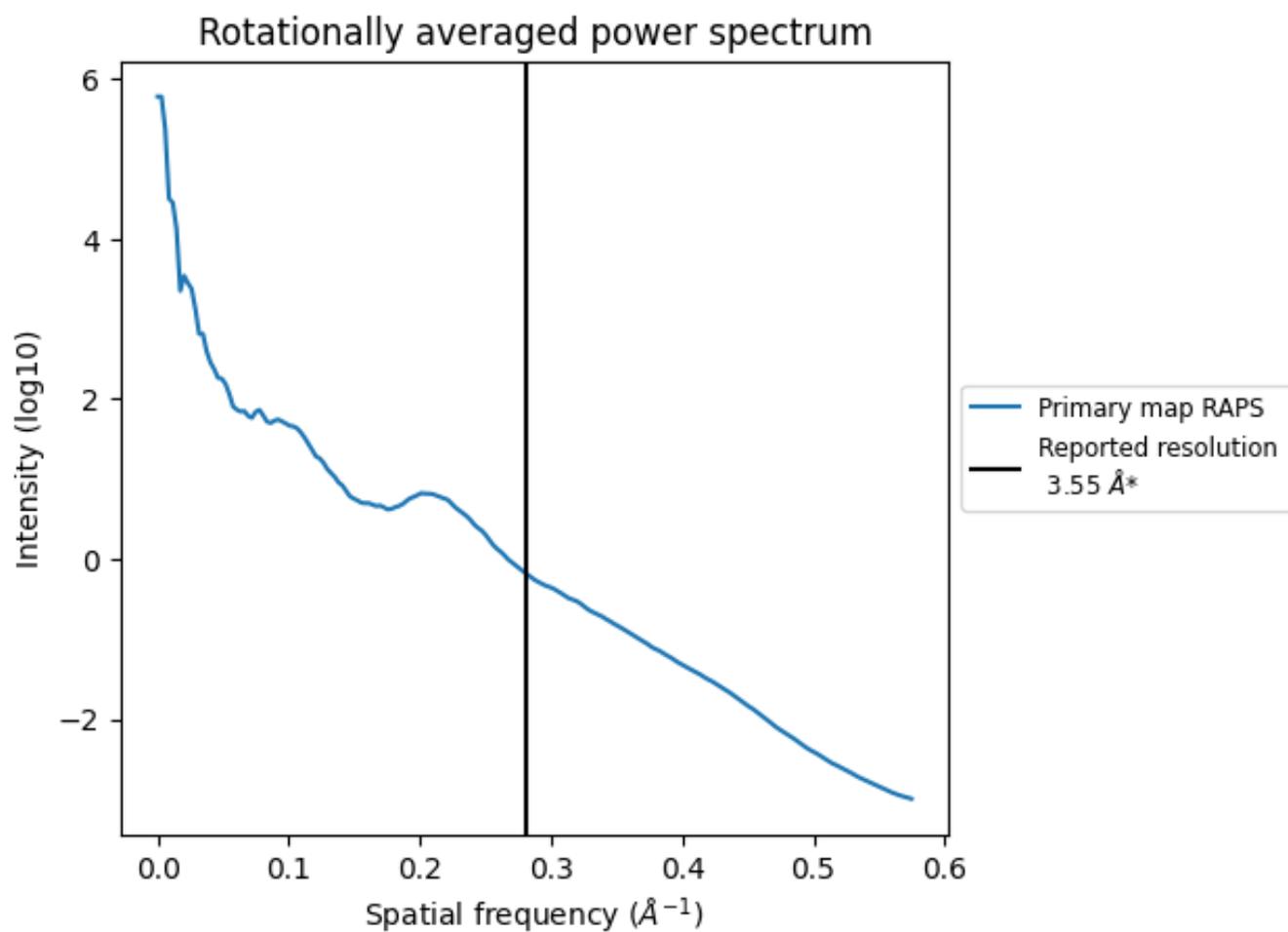
*Reported resolution corresponds to spatial frequency of 0.282 $\mathring{A}^{-1}$

8 Fourier-Shell correlation ⓘ

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

9 Map-model fit ⓘ

This section contains information regarding the fit between EMDB map EMD-64367 and PDB model 9UNW. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay ⓘ

X   Y   Z
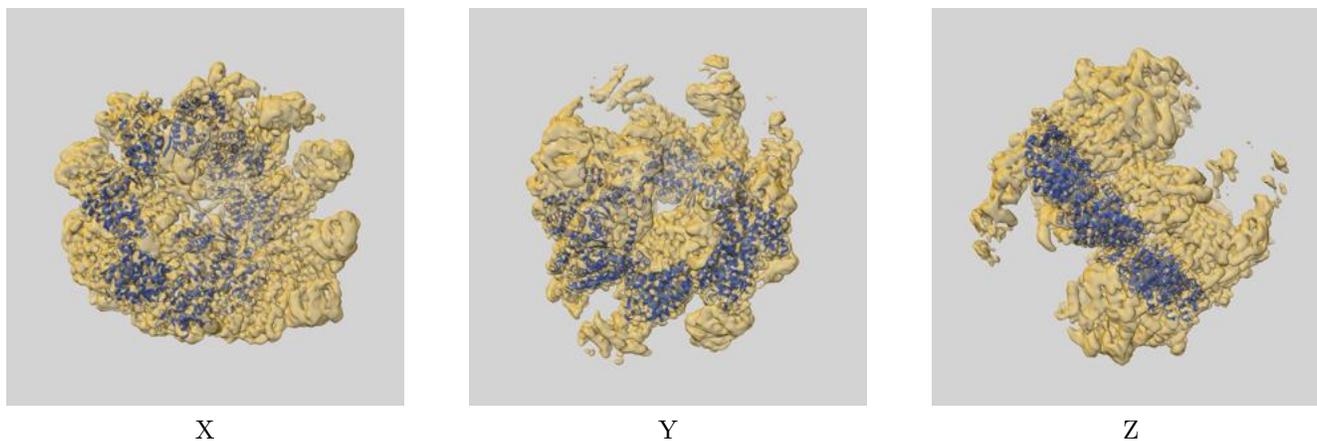
The images above show the 3D surface view of the map at the recommended contour level 2.56 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model ⓘ

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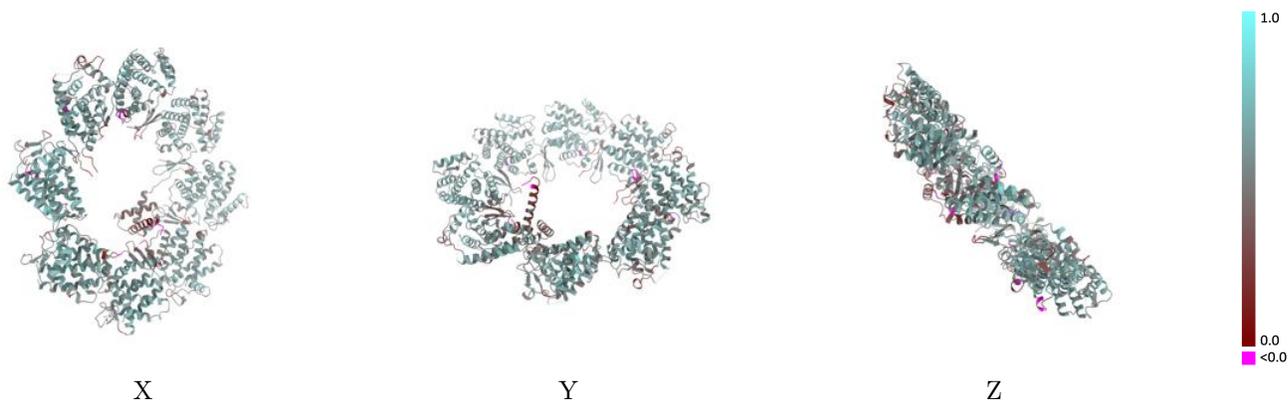
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

X Y Z
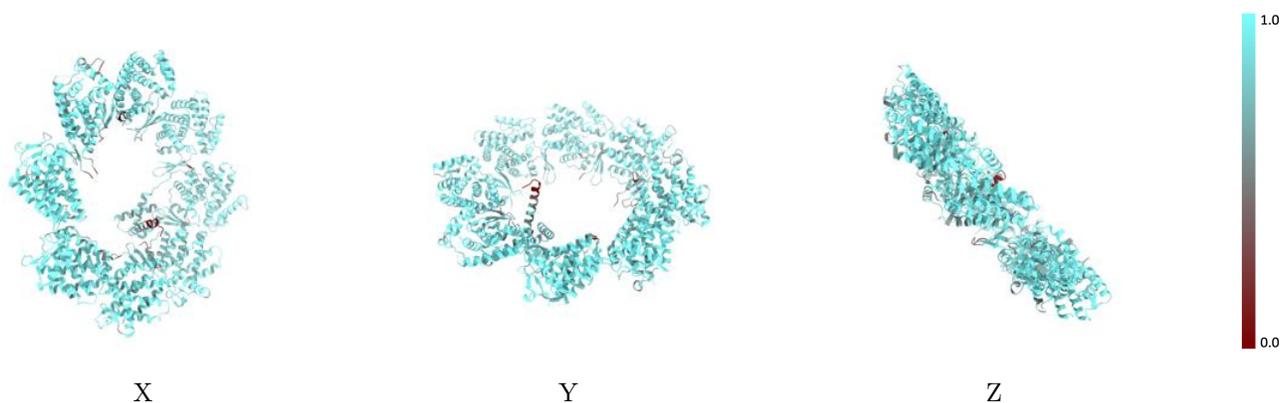
The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.56).

9.4 Atom inclusion ⓘ
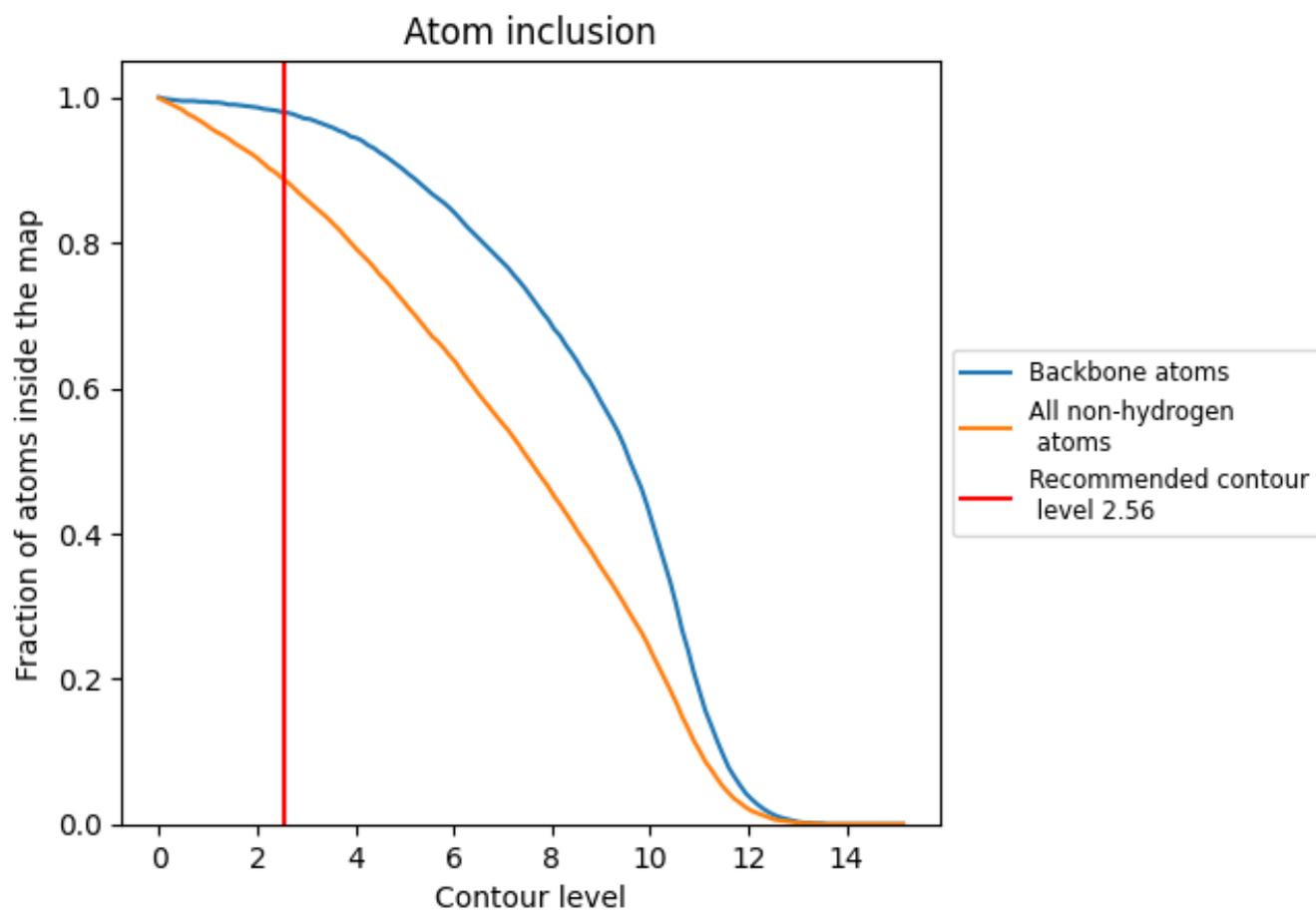
At the recommended contour level, 98% of all backbone atoms, 89% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (2.56) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8860	0.5260
A	0.9120	0.5470
B	0.9180	0.5660
C	0.9060	0.5410
D	0.7080	0.3460
E	0.9070	0.5550
F	0.8590	0.5120
G	0.8740	0.5200
H	0.8860	0.5080
I	0.8940	0.5290

1.0

0.0
<0.0