W O R L D W I D E

wwPDB

P R O T E I N   D A T A   B A N K

wwPDB EM Validation Summary Report ⓘ

Jan 14, 2025 – 02:25 PM JST

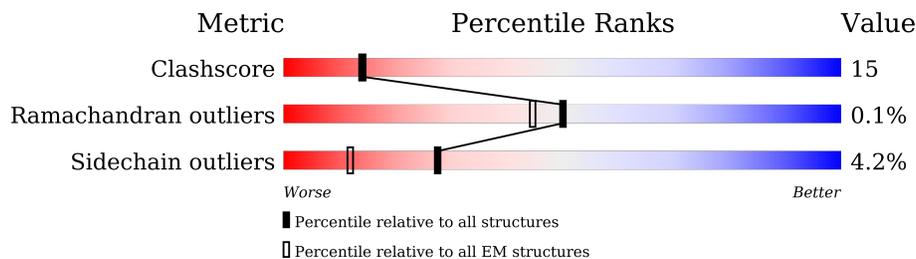|		
PDB ID	:	8Z7J
EMDB ID	:	EMD-39816
Title	:	Cryo-EM structure of APJR-Gi complex with agonistic antibody
Authors	:	Yue, Y.; Liu, L.E.; Wu, L.J.; Xu, F.
Deposited on	:	2024-04-20
Resolution	:	3.12 Å(reported)

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 3.12 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		15
Ramachandran outliers		0.1%
Sidechain outliers		4.2%

Worse   *Better*

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

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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	A	356	18% / 40% 23% · 37%
2	B	340	9% / 67% 31% ·
3	C	71	35% / 73% 10% · 14%
4	R	477	25% / 36% 26% · 36%
5	S	259	11% / 65% 24% · 10%
6	N	130	59% / 57% 41% ··

2   Entry composition   (i)

There are 6 unique types of molecules in this entry. The entry contains 10089 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 Guanine nucleotide-binding protein G(i) subunit alpha-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	226	Total	C	N	O	S	0	0
			1819	1156	301	348	14		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-1	GLY	-	expression tag	UNP P63096
A	0	SER	-	expression tag	UNP P63096

- Molecule 2 is a protein called Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	339	Total	C	N	O	S	0	0
			2607	1607	468	511	21		

- Molecule 3 is a protein called Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	61	Total	C	N	O	S	0	0
			457	284	80	90	3		

- Molecule 4 is a protein called Soluble cytochrome b562,Apelin receptor.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	R	303	Total	C	N	O	S	0	0
			2435	1612	392	410	21		

There are 45 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
R	-146	MET	-	initiating methionine	UNP P0ABE7

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Chain	Residue	Modelled	Actual	Comment	Reference
R	-145	LYS	-	expression tag	UNP P0ABE7
R	-144	THR	-	expression tag	UNP P0ABE7
R	-143	ILE	-	expression tag	UNP P0ABE7
R	-142	ILE	-	expression tag	UNP P0ABE7
R	-141	ALA	-	expression tag	UNP P0ABE7
R	-140	LEU	-	expression tag	UNP P0ABE7
R	-139	SER	-	expression tag	UNP P0ABE7
R	-138	TYR	-	expression tag	UNP P0ABE7
R	-137	ILE	-	expression tag	UNP P0ABE7
R	-136	PHE	-	expression tag	UNP P0ABE7
R	-135	CYS	-	expression tag	UNP P0ABE7
R	-134	LEU	-	expression tag	UNP P0ABE7
R	-133	VAL	-	expression tag	UNP P0ABE7
R	-132	PHE	-	expression tag	UNP P0ABE7
R	-131	ALA	-	expression tag	UNP P0ABE7
R	-130	ASP	-	expression tag	UNP P0ABE7
R	-129	TYR	-	expression tag	UNP P0ABE7
R	-128	LYS	-	expression tag	UNP P0ABE7
R	-127	ASP	-	expression tag	UNP P0ABE7
R	-126	ASP	-	expression tag	UNP P0ABE7
R	-125	ASP	-	expression tag	UNP P0ABE7
R	-124	ASP	-	expression tag	UNP P0ABE7
R	-123	LYS	-	expression tag	UNP P0ABE7
R	-122	HIS	-	expression tag	UNP P0ABE7
R	-121	HIS	-	expression tag	UNP P0ABE7
R	-120	HIS	-	expression tag	UNP P0ABE7
R	-119	HIS	-	expression tag	UNP P0ABE7
R	-118	HIS	-	expression tag	UNP P0ABE7
R	-117	HIS	-	expression tag	UNP P0ABE7
R	-116	HIS	-	expression tag	UNP P0ABE7
R	-115	HIS	-	expression tag	UNP P0ABE7
R	-114	HIS	-	expression tag	UNP P0ABE7
R	-113	HIS	-	expression tag	UNP P0ABE7
R	-112	LEU	-	expression tag	UNP P0ABE7
R	-111	GLU	-	expression tag	UNP P0ABE7
R	-110	VAL	-	expression tag	UNP P0ABE7
R	-109	LEU	-	expression tag	UNP P0ABE7
R	-108	PHE	-	expression tag	UNP P0ABE7
R	-107	GLN	-	expression tag	UNP P0ABE7
R	-106	GLY	-	expression tag	UNP P0ABE7
R	-105	PRO	-	expression tag	UNP P0ABE7
R	-98	TRP	MET	conflict	UNP P0ABE7

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Chain	Residue	Modelled	Actual	Comment	Reference
R	-3	ILE	HIS	conflict	UNP P0ABE7
R	1	LEU	-	linker	UNP P0ABE7

- Molecule 5 is a protein called scfv16.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	S	234	1800	1141	298	351	10	0	0

- Molecule 6 is a protein called agonistic antibody.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	N	130	971	596	171	195	9	0	0

3   Residue-property plots ⓘ

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

• Molecule 1: Guanine nucleotide-binding protein G(i) subunit alpha-1

• Molecule 2: Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1

V276 L284 L285 D290 L308 R314 V315 S316 C317 L318 G319 V320 V327 A328 T329 W332 L336 W339 N340

• Molecule 3: Guanine nucleotide-binding protein G(I)/G(S)/G(O) subunit gamma-2

Chain C:

35%
73%   10% • 14%

MET ALA S34 N35 N36 T37 A38 S39 I40 A41 Q42 A43 R44 K45 L46 V47 E48 Q49 L50 K51 M52 N55 I56 D57 R58 I59 K60 A65 A66 D67 D79 L82 T83 P84 A87 S88 E89 N90 E94 LYS LYS PHE CYS ALA ILE LEU

• Molecule 4: Soluble cytochrome b562,Apelin receptor

Chain R:

25%
36%   26% • 36%

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

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

ALA ASN GLU GLY LYS VAL LYS GLU ALA GLN ALA ALA GLU GLN LEU LYS THR THR ARG ASN ALA TYR ILE GLN LYS TYR LEU GLU GLU GLY ASP PHE ASP ASN TYR TYR GLY ALA ASP ASN GLN SER GLU C19 E20 Y21 T22 D23 W24 K25 S26 S27 G28 A29 L30 I31 P32 A33

I34 Y35 M36 L37 V38 F39 L40 L41 T44 G45 N46 G47 L48 V49 L50 W51 T52 V53 F54 R55 S56 S57 R58 E59 K60 R61 R62 S63 A64 D65 I66 F67 I68 A69 A72 D75 L76 T77 F78 V79 V80 T81 L82 P83 L84 W85 A86 T87 Y88 T89 Y90 R91 D92 Y93 D94 W95 P96

F97 G98 T99 F100 F101 C102 K103 L108 I109 N112 V117 T121 G122 L123 S124 F125 D126 R127 Y128 L129 A130 I131 V132 R133 P134 V135 A136 N137 A138 R139 L140 R141 L142 R143 V144 S145 G146 A147 V148 A149 T150 A151 V152 L153 W154 V155 L156 L159 L160 V164 M165 V166 L167 R168

T169 D172 L173 E174 N175 V179 Q180 M183 D184 Y185 S186 M187 E194 W195 A196 W197 G202 V212 T215 I216 M217 L218 F222 T227 H231 F232 R233 K234 E235 R236 I237 E238 G239 L240 R241 K242 R243 R244 R245 I249 I250 V251 V252 L253 V254 V255 T256 F257 A258

L259 C260 W261 M262 P263 Y264 H265 L266 V267 L270 Y271 M272 L273 G274 S275 L276 L277 H278 W279 P280 C281 D282 F283 D284 L285 F286 L287 M288 N289 I290 Y293 C294 T295 C296 Y299 V300 N301 S302 N305 P306 F307 L308 V309 A310 F311 F312 D313 P314 R315 F316 R317 Q318 A319 C320 T321 SER

MET LEU CYS GLY GLN SER ARG

• Molecule 5: scfv16

Chain S:

11%
65%   24% • 10%

D1 V2 Q3 L4 V5 E6 G9 G10 L11 V12 Q13 G16 S17 R18 K19 C22 S23 A24 S25 F32 W36 V37 R38 Q39 A40 P41 E42 K43 V48 T57 I58 Y59 Y60 A61 D62 T63 V64 K65 G66 R67 F68 T69 I70 K76 N77 T78 Q82 T91 A92 M93

I100 Y101 Y102 D109 F110 T115 T116 S121 GLY GLY GLY GLY SER GLY GLY GLY GLY SER GLY GLY GLY GLY S136 D137 M140 A143 T144 S145 S146 V147 P148 V149 T150 P151 S154 V155 S156 R160 S161 Y173 L174 L178 Q179 R180 L188 I189 Y190 R191 M192

S197 P200 D201 R202 G207 F212 T215 I216 S217 R218 L219 E220 A221 E222 D223 Y227 Y228 C229 M230 Q231 E234 Y235 E246 L247 K248 ALA ALA HIS HIS HIS HIS HIS HIS HIS HIS

• Molecule 6: agonistic antibody

Chain N:

59%

57% 41%

Q1 V2 V5 E6 S7 G8 G9 G10 S11 V12 Q13 S14 G15 G16 S17 L18 T19 L20 S21 C22 A23 A24 S25 G26 S27 T28 Y29 S30 S31 H32 C33 M34 G35 W36 F37 R38 Q39 A40 P41 G42 K43 E44 R45 V48 A49 L50 R53 S54 R55 G56 A60 D61 S62 V63 K64 G65

R66 F67 T68 I69 S70 Q71 D72 N73 T74 K75 N76 I77 L78 Y79 L80 Q81 M82 N83 S84 L85 K86 P87 E88 D89 T90 A91 M92 Y93 Y94 C95 A96 P99 R100 I103 E104 A108 K111 W112 N113 M114 K115 D116 W120 G121 Q122 G123 T124 Q125 V126 T127 V128 S129 S130

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	65206	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose $(e^-/\text{Å}^2)$	60	Depositor
Minimum defocus (nm)	700	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.869	Depositor
Minimum map value	-0.002	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.024	Depositor
Recommended contour level	0.2	Depositor
Map size (Å)	266.24, 266.24, 266.24	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.04, 1.04, 1.04	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	0.25	0/1849	0.48	0/2481
2	B	0.27	0/2654	0.57	2/3597 (0.1%)
3	C	0.24	0/463	0.40	0/627
4	R	0.27	0/2505	0.55	0/3417
5	S	0.27	0/1844	0.51	0/2499
6	N	0.27	0/989	0.61	0/1333
All	All	0.26	0/10304	0.54	2/13954 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	38	ASP	CB-CG-OD1	5.90	123.61	118.30
2	B	254	ASP	CB-CG-OD1	5.53	123.28	118.30

There are no chirality outliers.

There are no planarity outliers.

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	1819	0	1808	64	0
2	B	2607	0	2510	72	0
3	C	457	0	456	8	0
4	R	2435	0	2459	95	0
5	S	1800	0	1739	38	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	N	971	0	930	52	0
All	All	10089	0	9902	308	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 15.

The worst 5 of 308 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)
4:R:77:THR:HG21	4:R:108:LEU:HD11	1.57	0.85
4:R:77:THR:CG2	4:R:108:LEU:HD11	2.08	0.81
4:R:262:MET:O	4:R:266:LEU:HB3	1.81	0.81
5:S:140:MET:HE3	5:S:231:GLN:HB3	1.64	0.77
6:N:12:VAL:HB	6:N:85:LEU:HD12	1.67	0.77

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	222/356 (62%)	215 (97%)	7 (3%)	0	100	100
2	B	337/340 (99%)	326 (97%)	11 (3%)	0	100	100
3	C	59/71 (83%)	57 (97%)	2 (3%)	0	100	100
4	R	301/477 (63%)	293 (97%)	8 (3%)	0	100	100
5	S	230/259 (89%)	214 (93%)	16 (7%)	0	100	100
6	N	128/130 (98%)	117 (91%)	10 (8%)	1 (1%)	16	46
All	All	1277/1633 (78%)	1222 (96%)	54 (4%)	1 (0%)	50	78

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	N	55	ARG

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	201/306 (66%)	194 (96%)	7 (4%)	31	59
2	B	282/283 (100%)	273 (97%)	9 (3%)	34	61
3	C	48/58 (83%)	46 (96%)	2 (4%)	25	54
4	R	265/411 (64%)	249 (94%)	16 (6%)	16	42
5	S	199/209 (95%)	191 (96%)	8 (4%)	27	56
6	N	104/104 (100%)	100 (96%)	4 (4%)	28	57
All	All	1099/1371 (80%)	1053 (96%)	46 (4%)	27	54

5 of 46 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	R	261	TRP
5	S	67	ARG
4	R	264	TYR
4	R	313	ASP
5	S	160	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	331	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-39816. These allow visual inspection of the internal detail of the map and identification of artifacts.

Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1　Orthogonal projections ⓘ
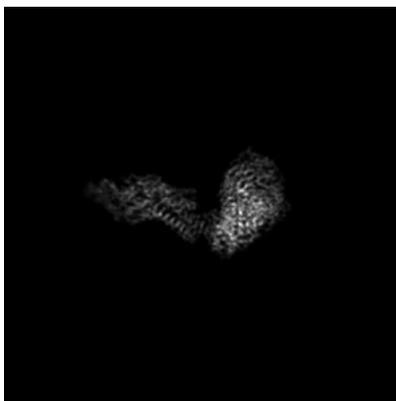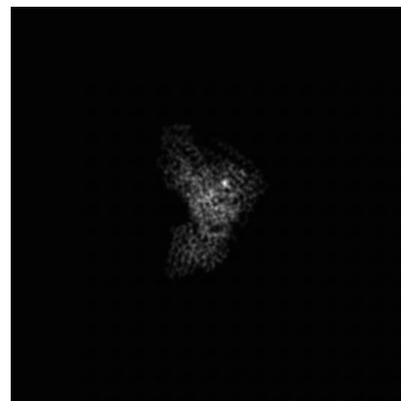
6.1.1　Primary map

X　　　　　　　　　Y　　　　　　　　　Z

6.1.2　Raw map

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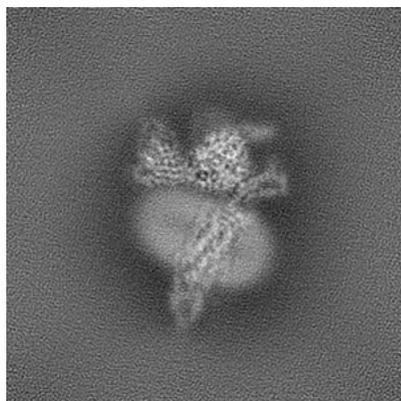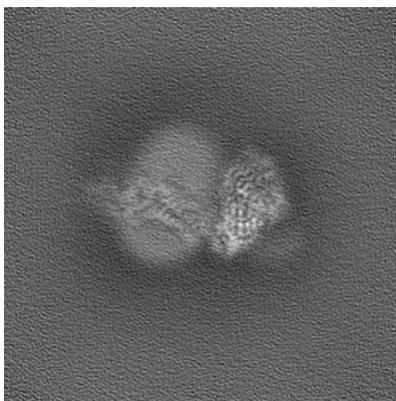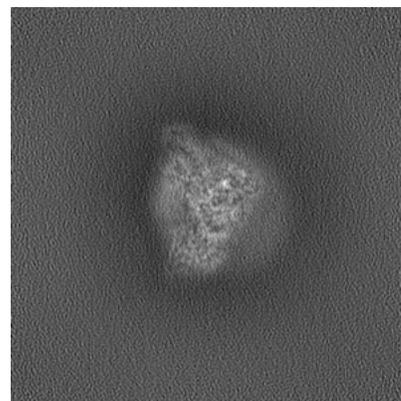
The images above show the map projected in three orthogonal directions.

6.2   Central slices ⓘ

6.2.1   Primary map
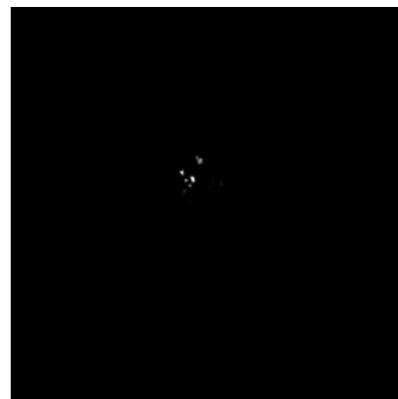
X Index: 128   Y Index: 128   Z Index: 128

6.2.2   Raw map
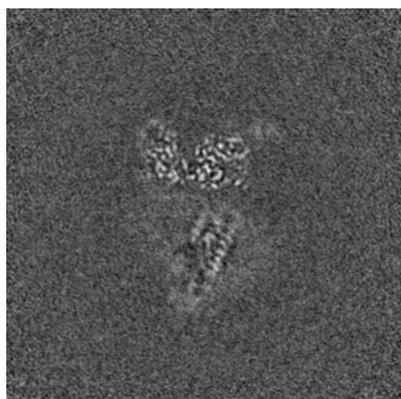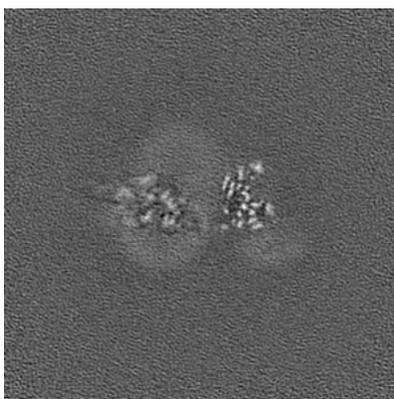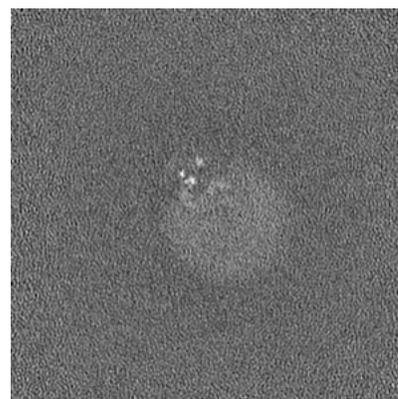
X Index: 128   Y Index: 128   Z Index: 128

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: 129	Y Index: 134	Z Index: 151

6.3.2 Raw map
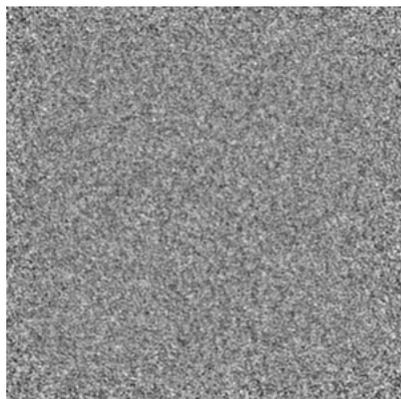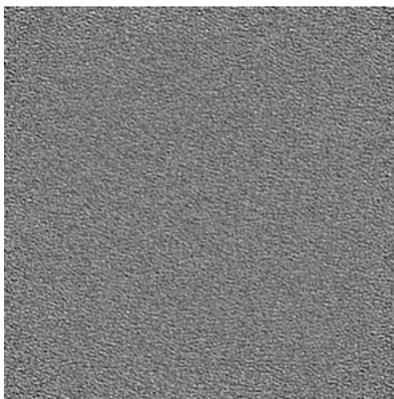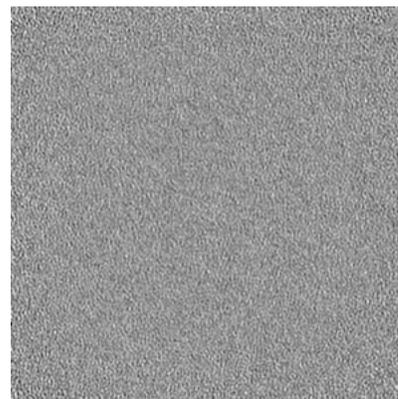
X Index: 0	Y Index: 0	Z Index: 0

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
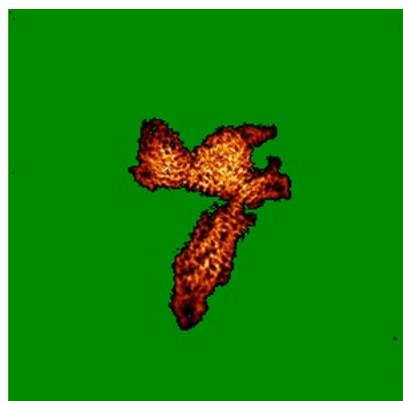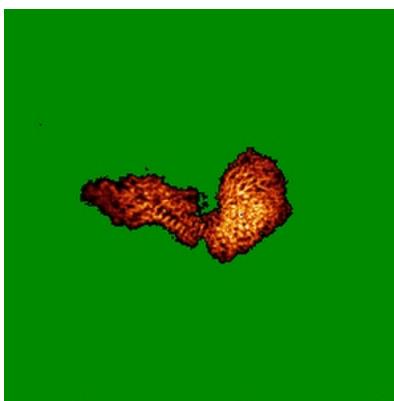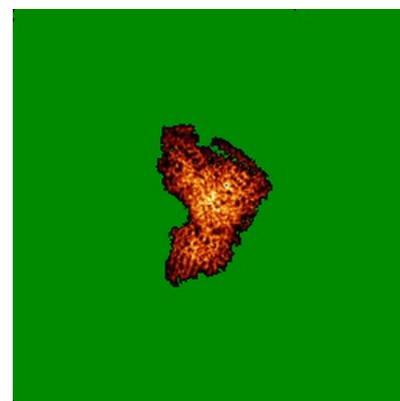
| X | Y | Z |

6.4.2 Raw map

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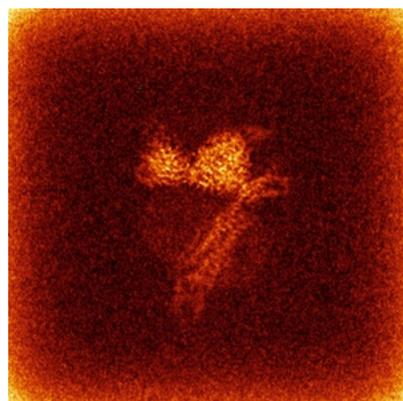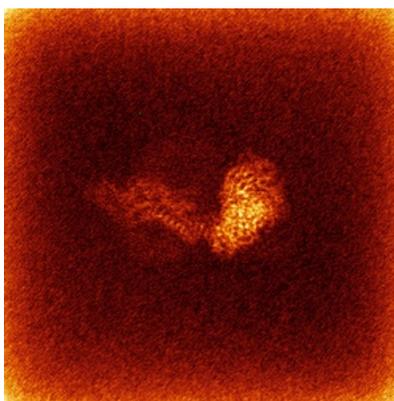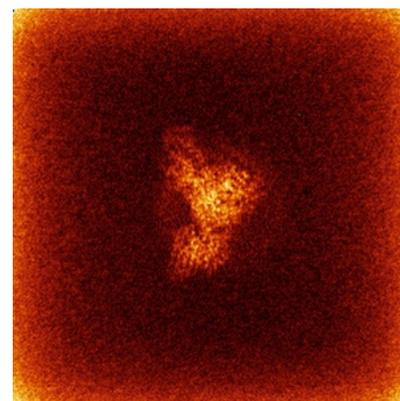
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5   Orthogonal surface views ⓘ

6.5.1   Primary map

| X | Y | Z |
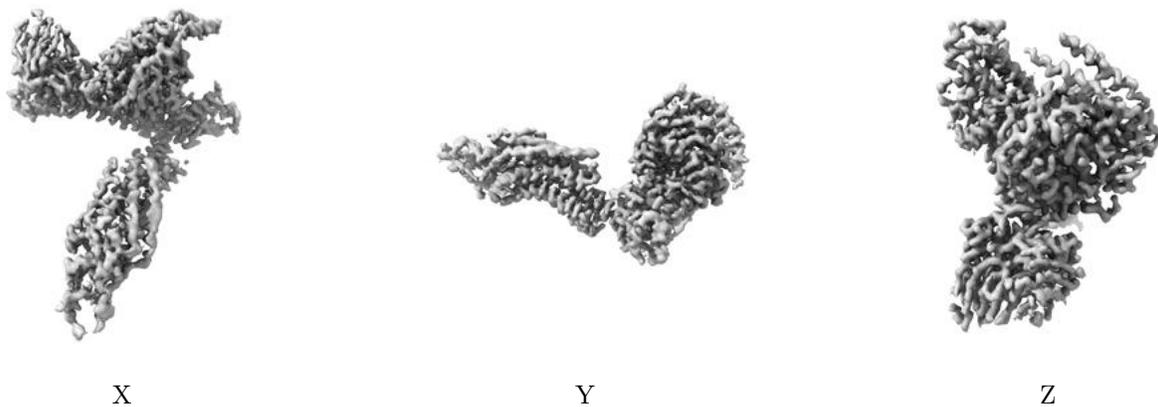
The images above show the 3D surface view of the map at the recommended contour level 0.2. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2   Raw map

| X | Y | Z |
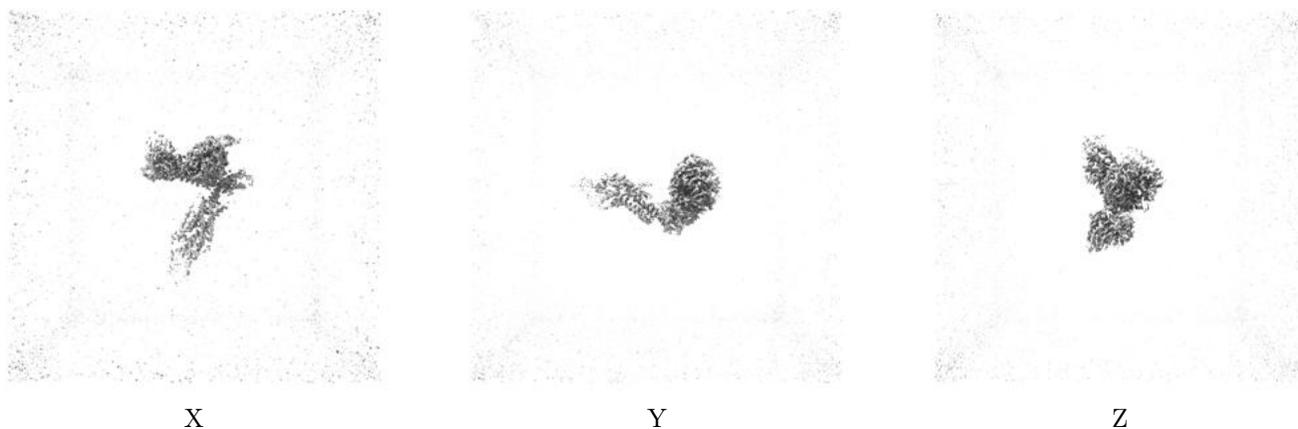
These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

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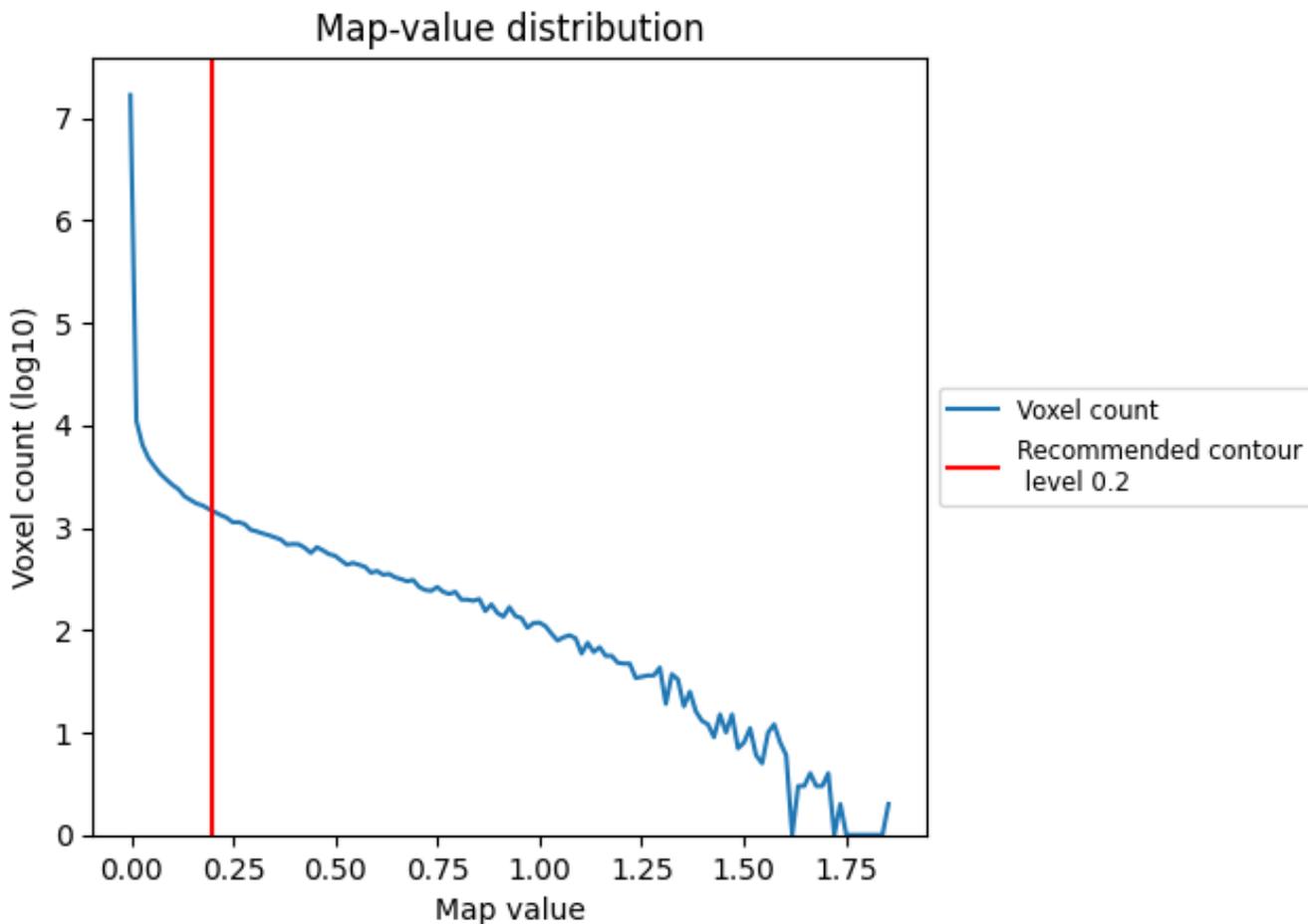
The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2   Volume estimate ⓘ
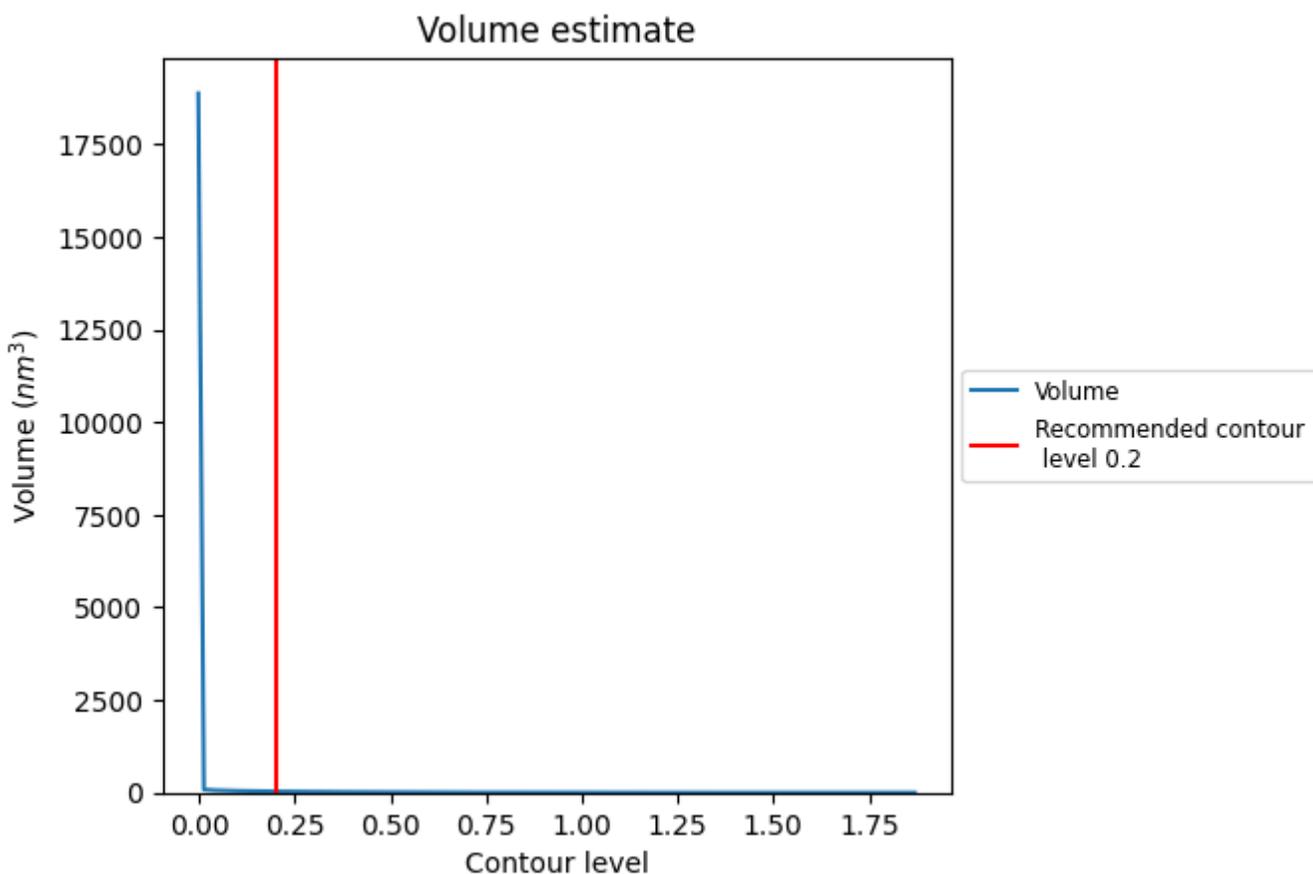
The volume at the recommended contour level is 32 nm^3; this corresponds to an approximate mass of 29 kDa.

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 ⓘ
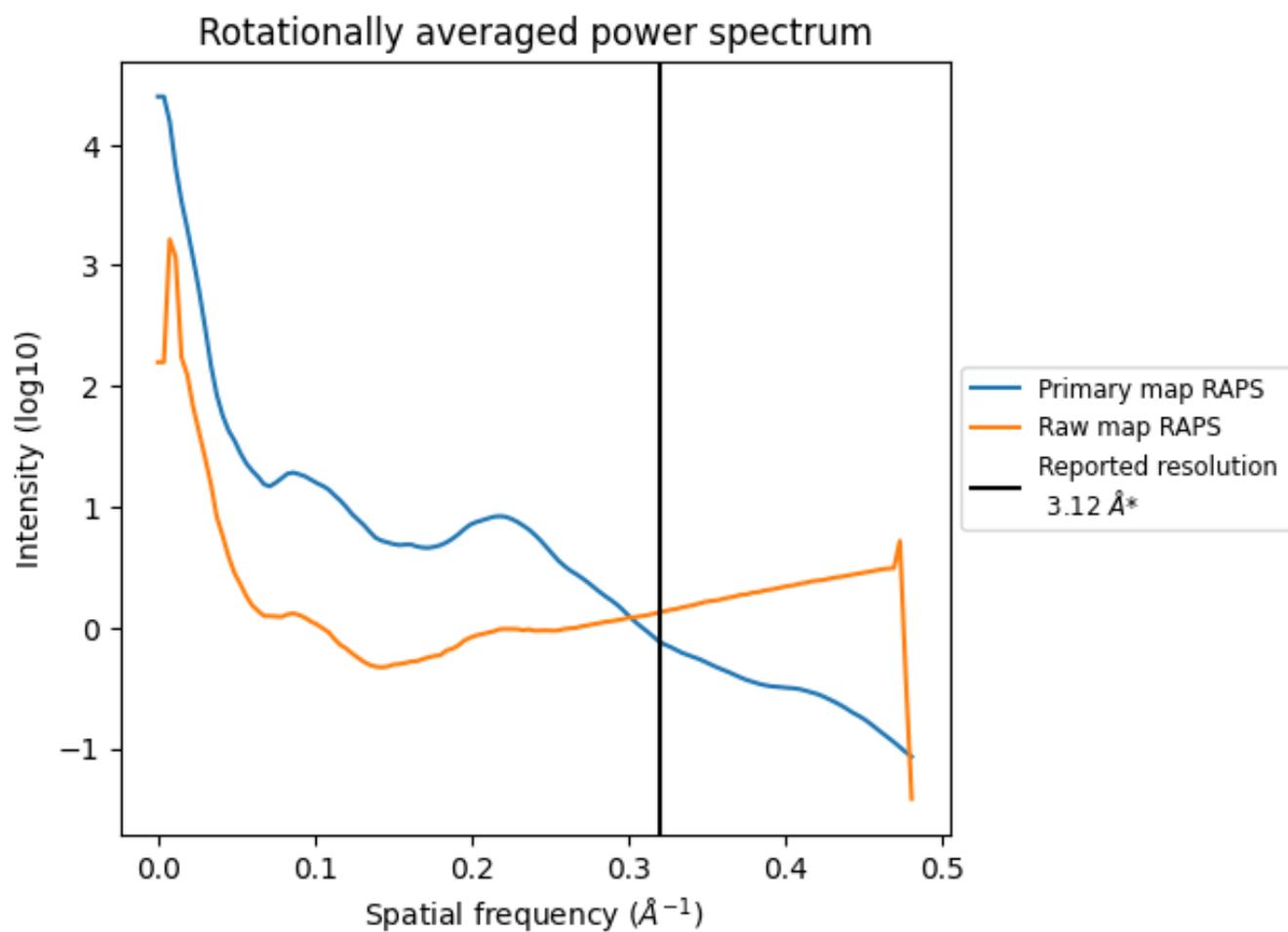
*Reported resolution corresponds to spatial frequency of 0.321 Å^{-1}

8　Fourier-Shell correlation ⓘ

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1　FSC ⓘ
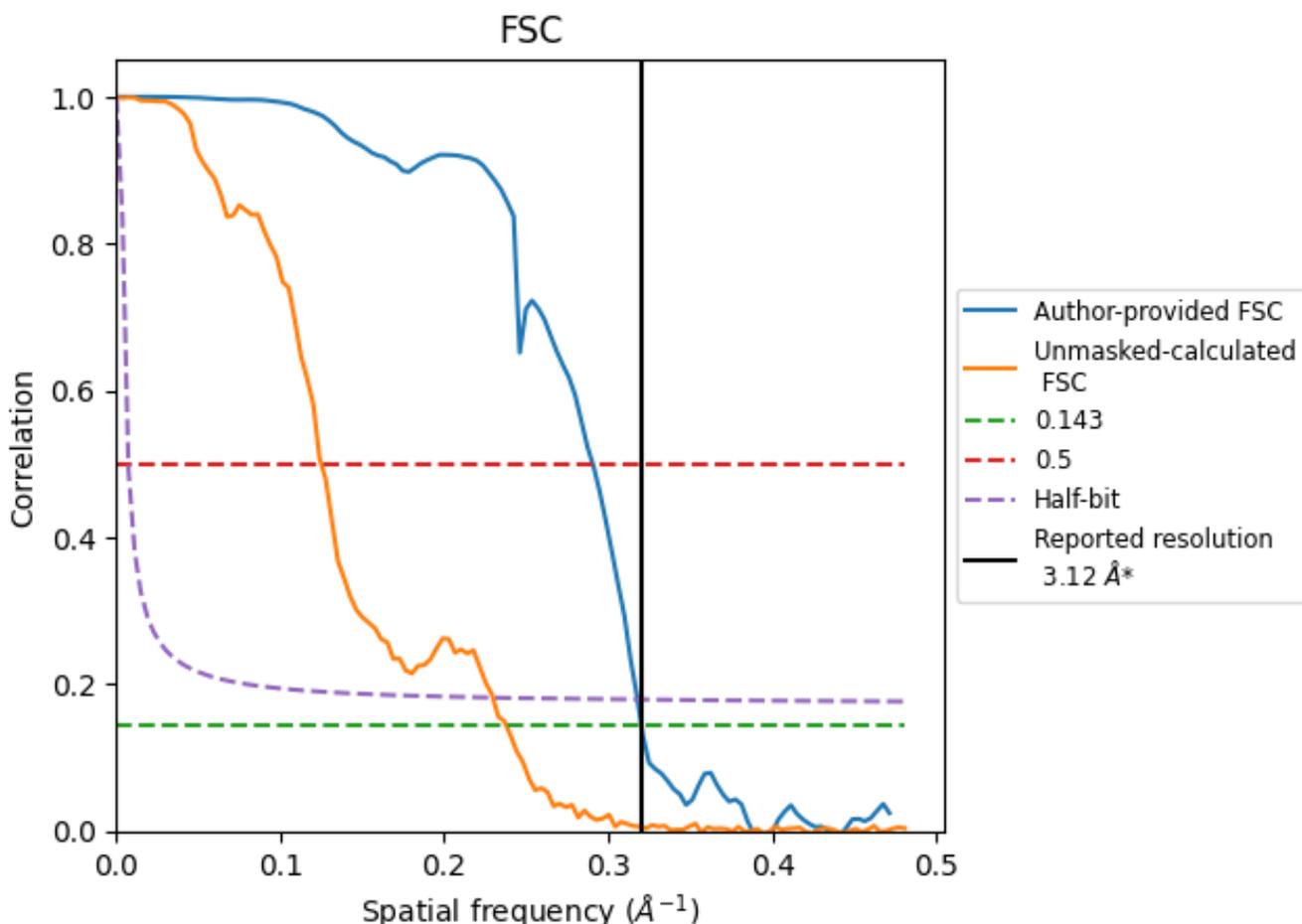
*Reported resolution corresponds to spatial frequency of 0.321 Å^{-1}

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.12	-	-
Author-provided FSC curve	3.12	3.44	3.15
Unmasked-calculated*	4.21	8.00	4.35

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.21 differs from the reported value 3.12 by more than 10 %

9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-39816 and PDB model 8Z7J. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlay (i)


X　　　　　　　　　　　　Y　　　　　　　　　　　　Z
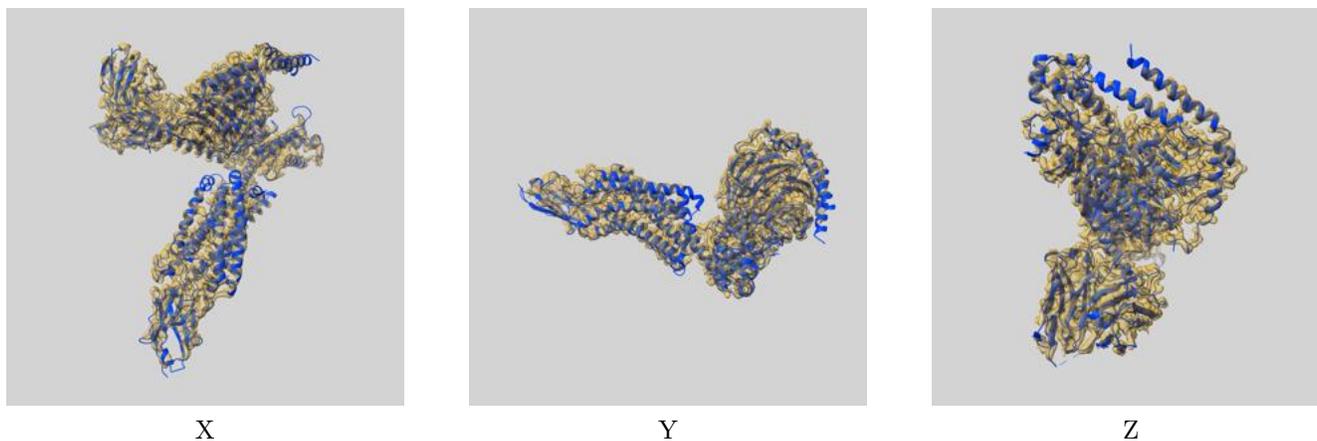
The images above show the 3D surface view of the map at the recommended contour level 0.2 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model ⓘ
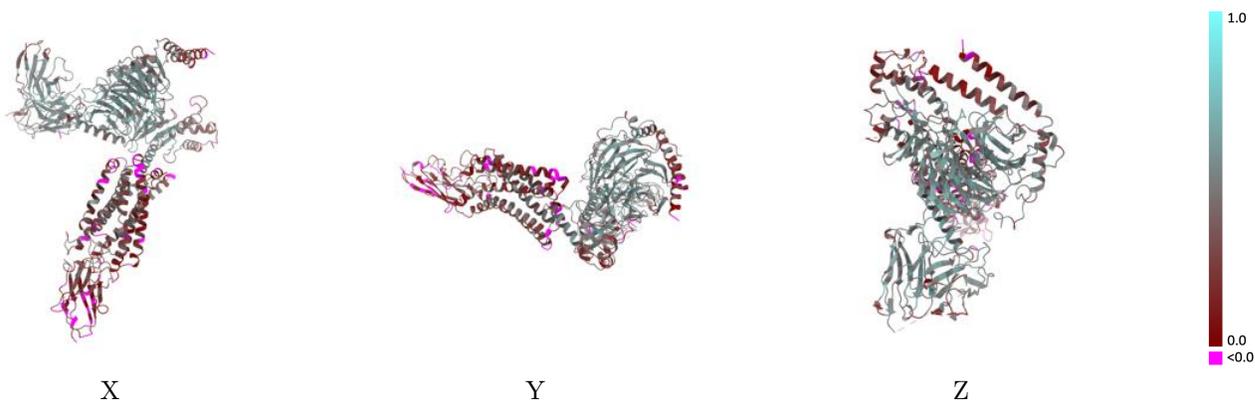
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 ⓘ
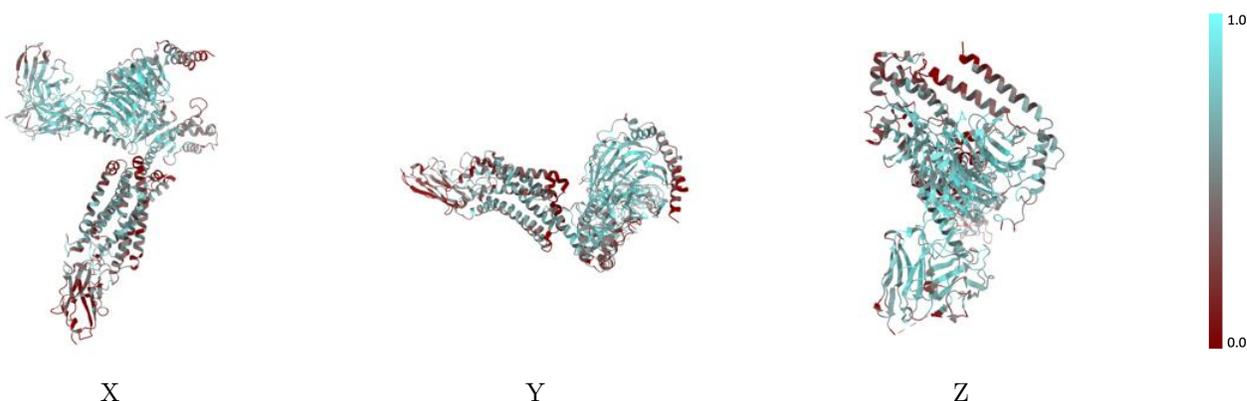
The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.2).

9.4 Atom inclusion ⓘ
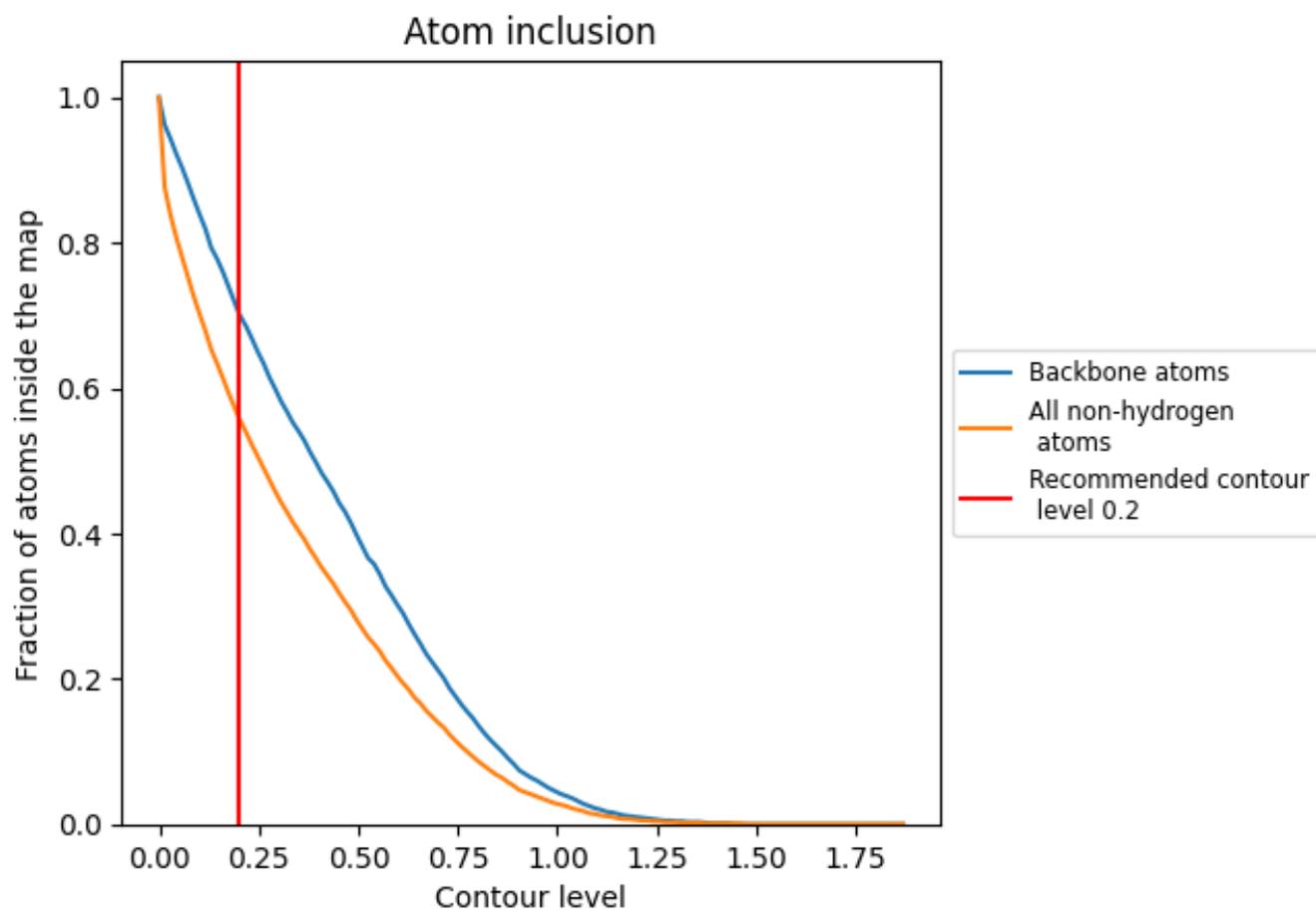
At the recommended contour level, 70% of all backbone atoms, 56% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5580	0.3880
A	0.5410	0.4160
B	0.7010	0.5070
C	0.4600	0.3670
N	0.3290	0.1720
R	0.4620	0.2590
S	0.6490	0.4840

1.0

0.0
<0.0