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 (i)

Dec 15, 2022 – 12:07 PM EST

PDB ID	:	8GZ3
EMDB ID	:	EMD-34389
Title	:	Structure of human phagocyte NADPH oxidase in the resting state
Authors	:	Chen, L.; Liu, R.
Deposited on	:	2022-09-24
Resolution	:	3.30 Å(reported)

The following versions of software and data (see references (i)) were used in the production of this report:

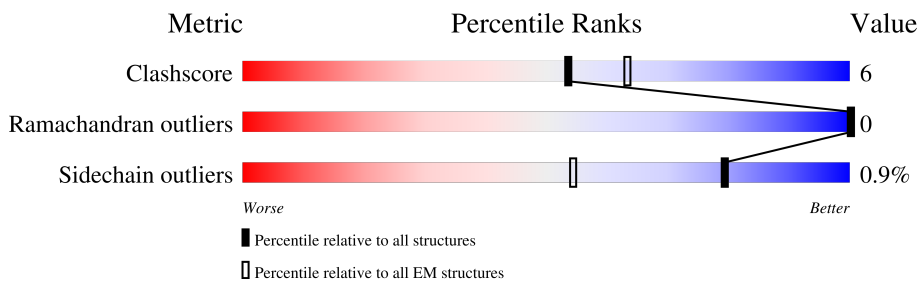|		
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

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	Percentile Ranks	Value
Clashscore		6
Ramachandran outliers		0
Sidechain outliers		0.9%

Worse   *Better*

▌ Percentile relative to all structures

▯ Percentile relative to all EM structures

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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	195	• 57% 11% 31%
2	B	570	7% 81% 12% 7%
3	L	211	• 96% •
4	H	215	8% 100%
5	N	414	• 25% 5% 70%
6	C	3	67% 100%

2   Entry composition (i)

There are 11 unique types of molecules in this entry. The entry contains 8542 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 Cytochrome b-245 light chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	134	1030	681	171	173	5	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	174	ALA	VAL	variant	UNP P13498

- Molecule 2 is a protein called Cytochrome b-245 heavy chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	529	4187	2753	702	709	23	0	0

- Molecule 3 is a protein called 7D5 Fab light chain.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
3	L	211	1055	633	211	211	0	0

- Molecule 4 is a protein called 7D5 Fab heavy chain.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
4	H	214	1070	642	214	214	0	0

- Molecule 5 is a protein called Green Fluorescent Protein, Anti-Fab (kappa) nanobody[TP1170] chimera.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	N	126	945	596	165	179	5	0	0

- Molecule 6 is an oligosaccharide called beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.
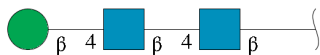
Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
6	C	3	39	22	2	15	0	0

- Molecule 7 is FLAVIN-ADENINE DINUCLEOTIDE (three-letter code: FAD) (formula: $C_{27}H_{33}N_9O_{15}P_2$).

FAD
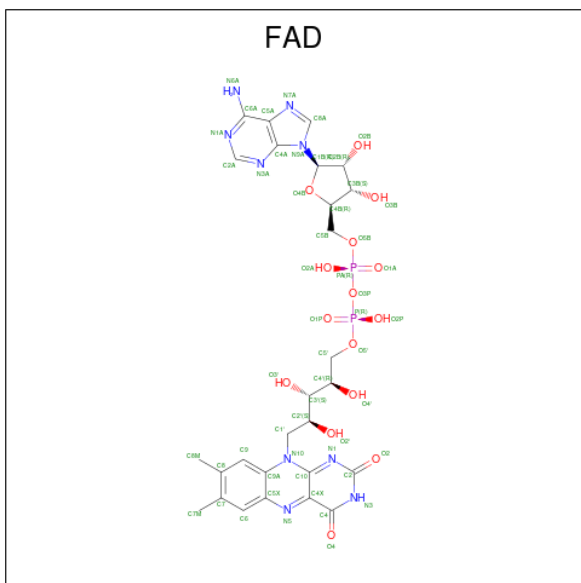
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
7	B	1	53	27	9	15	2	0

- Molecule 8 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).

HEM

Mol	Chain	Residues	Atoms					AltConf
8	B	1	Total	C	Fe	N	O	0
			86	68	2	8	8	
8	B	1	Total	C	Fe	N	O	0
			86	68	2	8	8	

- Molecule 9 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).

NAG

Mol	Chain	Residues	Atoms				AltConf
9	B	1	Total	C	N	O	0
			28	16	2	10	

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Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
9	B	1	28	16	2	10	0

- Molecule 10 is 1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine (three-letter code: LBN) (formula: $C_{42}H_{82}NO_8P$).

LBN
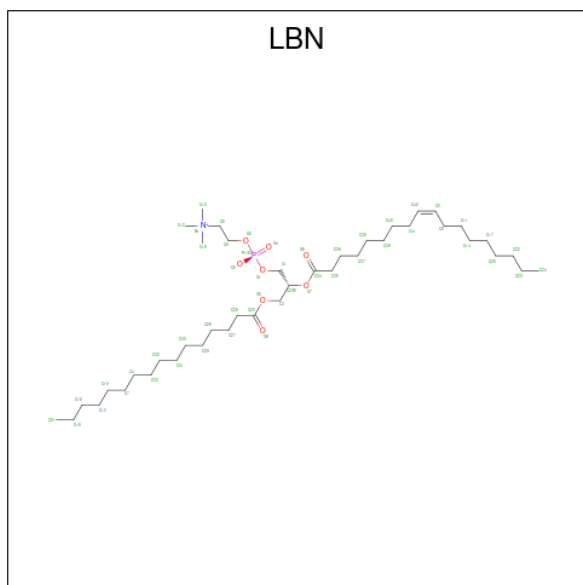
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
10	B	1	48	38	1	8	1	0

- Molecule 11 is water.

Mol	Chain	Residues	Atoms		AltConf
			Total	O	
11	B	1	1	1	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.
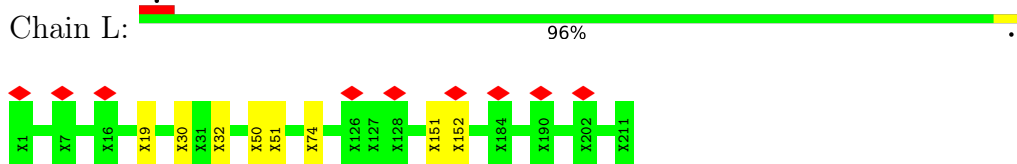
• Molecule 1: Cytochrome b-245 light chain
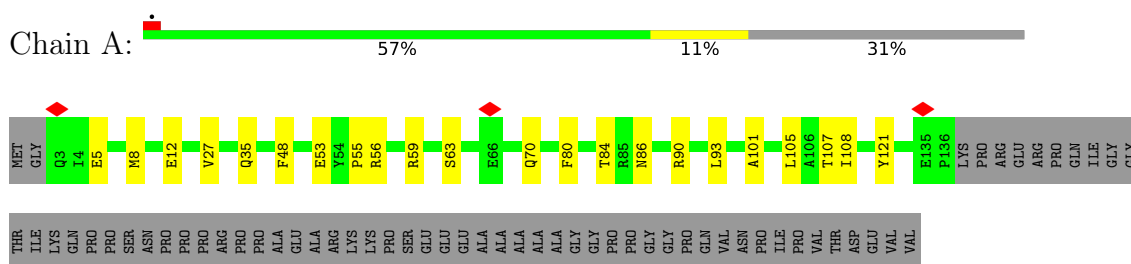
Chain A:

• Molecule 2: Cytochrome b-245 heavy chain
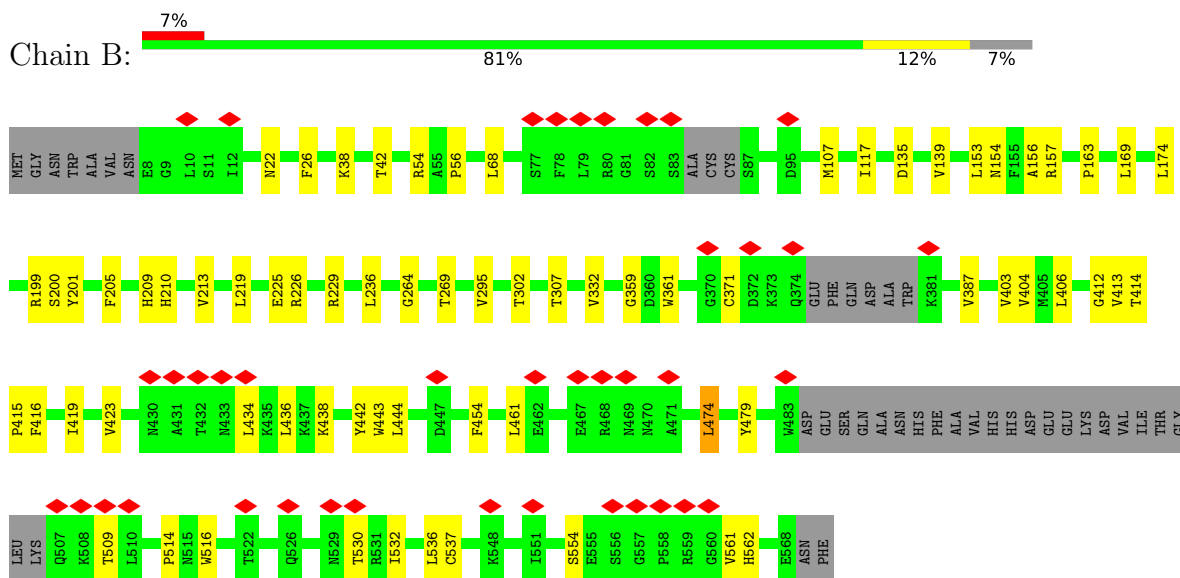
Chain B:

• Molecule 3: 7D5 Fab light chain

Chain L:

• Molecule 4: 7D5 Fab heavy chain

Chain H:

8%

100%

X1 X15 X75 X76 X112 X133 X139 X140 X167 X168 X192 X193 X194 X195 X196 X197 X198 X218 X219 UNK

• Molecule 5: Green Fluorescent Protein, Anti-Fab (kappa) nanobody[TP1170] chimera

Chain N:

25% 5% 70%

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

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

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

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

GLY LEU VAL PRO ARG GLY SER GLY TRP SER HIS PRO GLN PHE GLU LYS GLY SER GLY ASP TYR LYS ASP ASP ASP ASP LYS SER GLY TRP SER HIS PRO GLN PHE GLU LYS GLY LEU GLU VAL LEU PHE GLN GLY PRO GLU PHE Q1 V5 E6 G10 L18 A23 S30

D31 T32 A33 M34 M35 V48 T53 V64 R72 K76 L79 M83 L86 Y94 S106 V110 A111 N112 T116 G119 T120 S126

• Molecule 6: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-ac
etamido-2-deoxy-beta-D-glucopyranose

Chain C:

67%

100%

NAG1 NAG2 BMA3

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	84035	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 $(e^-/\text{Å}^2)$	37.6	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	11.911	Depositor
Minimum map value	-7.850	Depositor
Average map value	-0.007	Depositor
Map value standard deviation	0.191	Depositor
Recommended contour level	1.3	Depositor
Map size (Å)	295.56, 295.56, 295.56	wwPDB
Map dimensions	280, 280, 280	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0555714, 1.0555714, 1.0555714	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: HEM, FAD, LBN, BMA, NAG

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	0.40	0/1058	0.60	0/1443
2	B	0.58	0/4304	0.68	0/5848
5	N	0.44	0/967	0.68	0/1313
All	All	0.54	0/6329	0.67	0/8604

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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	1030	0	1041	14	0
2	B	4187	0	4159	53	0
3	L	1055	0	225	4	0
4	H	1070	0	227	0	0
5	N	945	0	899	13	0
6	C	39	0	34	0	0
7	B	53	0	31	3	0
8	B	86	0	60	3	0
9	B	28	0	26	0	0
10	B	48	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	B	1	0	0	1	0
All	All	8542	0	6702	84	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 6.

The worst 5 of 84 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:406:LEU:HD23	2:B:416:PHE:CD1	1.59	1.36
2:B:42:THR:HG22	2:B:153:LEU:HD11	1.33	1.05
2:B:406:LEU:CD2	2:B:416:PHE:CD1	2.48	0.95
2:B:406:LEU:CD2	2:B:416:PHE:HD1	1.82	0.93
2:B:42:THR:CG2	2:B:153:LEU:HD11	2.06	0.86

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	132/195 (68%)	131 (99%)	1 (1%)	0	100	100
2	B	521/570 (91%)	510 (98%)	11 (2%)	0	100	100
5	N	124/414 (30%)	122 (98%)	2 (2%)	0	100	100
All	All	777/1179 (66%)	763 (98%)	14 (2%)	0	100	100

There are no Ramachandran outliers to report.

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	100/150 (67%)	99 (99%)	1 (1%)	76	86
2	B	440/498 (88%)	435 (99%)	5 (1%)	73	85
5	N	93/350 (27%)	93 (100%)	0	100	100
All	All	633/998 (63%)	627 (99%)	6 (1%)	79	87

5 of 6 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	474	LEU
2	B	509	THR
2	B	530	THR
2	B	307	THR
1	A	86	ASN

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

Mol	Chain	Res	Type
2	B	22	ASN
2	B	527	HIS
5	N	103	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 (i)

3 monosaccharides are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
6	NAG	C	1	6,2	14,14,15	0.39	0	17,19,21	0.55	0
6	NAG	C	2	6	14,14,15	0.22	0	17,19,21	0.31	0
6	BMA	C	3	6	11,11,12	0.73	0	15,15,17	0.71	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
6	NAG	C	1	6,2	-	<mark>2/6/23/26</mark>	0/1/1/1
6	NAG	C	2	6	-	0/6/23/26	0/1/1/1
6	BMA	C	3	6	-	0/2/19/22	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	C	1	NAG	O5-C5-C6-O6
6	C	1	NAG	C4-C5-C6-O6

There are no ring outliers.

No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.

Oligosaccharide Chain C

Bond lengths

Bond angles

Torsions

Rings
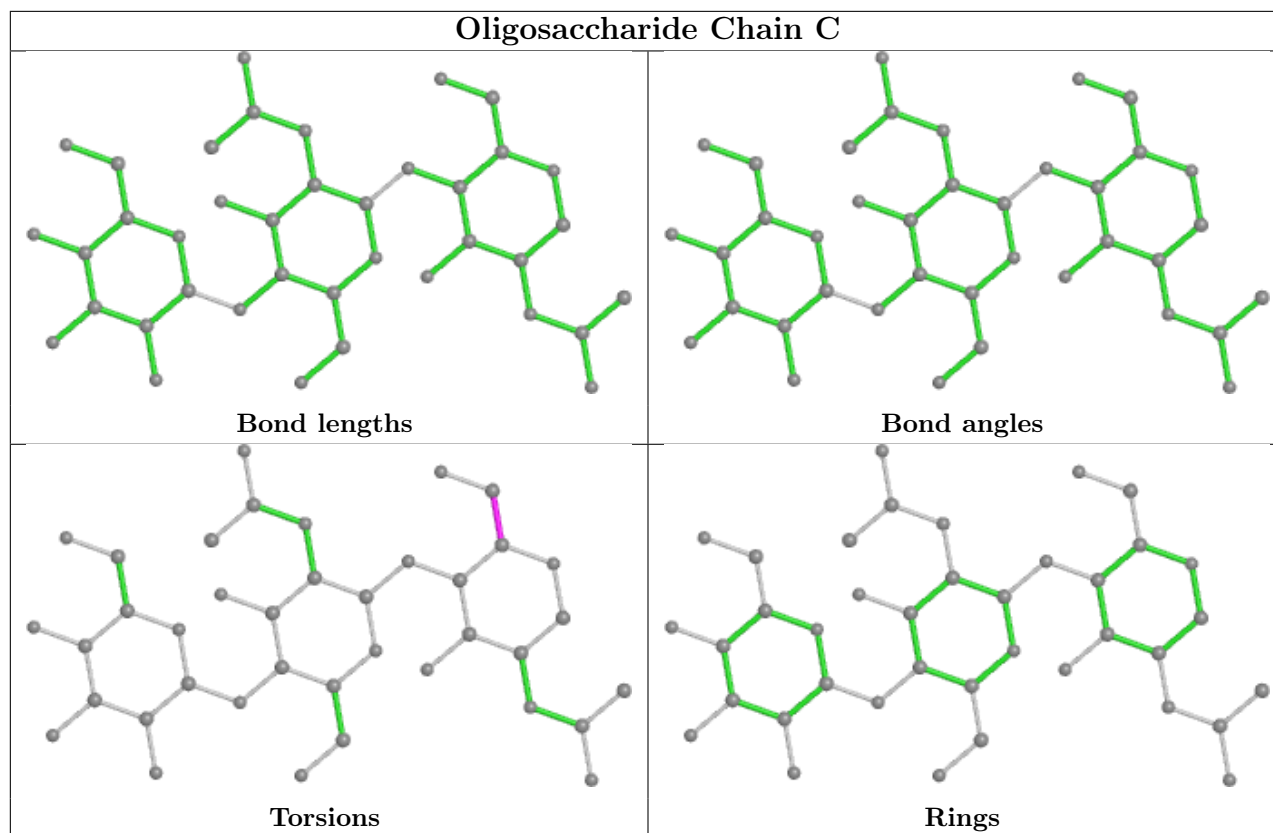
5.6 Ligand geometry ⓘ

6 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
9	NAG	B	604	2	14,14,15	0.27	0	17,19,21	0.48	0
7	FAD	B	601	-	53,58,58	1.25	7 (13%)	68,89,89	1.35	10 (14%)
10	LBN	B	606	-	47,47,51	0.38	0	53,55,59	0.46	0
9	NAG	B	605	2	14,14,15	0.37	0	17,19,21	0.46	0
8	HEM	B	602	2	41,50,50	1.47	8 (19%)	45,82,82	2.04	14 (31%)
8	HEM	B	603	2	41,50,50	1.37	5 (12%)	45,82,82	1.88	14 (31%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the

Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
9	NAG	B	604	2	-	2/6/23/26	0/1/1/1
7	FAD	B	601	-	-	10/30/50/50	0/6/6/6
10	LBN	B	606	-	-	8/51/51/55	-
9	NAG	B	605	2	-	0/6/23/26	0/1/1/1
8	HEM	B	602	2	-	3/12/54/54	-
8	HEM	B	603	2	-	4/12/54/54	-

The worst 5 of 20 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	B	601	FAD	C9A-C5X	4.60	1.48	1.41
8	B	602	HEM	C1B-NB	-3.72	1.33	1.40
8	B	603	HEM	C1B-NB	-3.52	1.34	1.40
8	B	602	HEM	C4D-ND	-3.48	1.34	1.40
8	B	603	HEM	C4D-ND	-3.45	1.34	1.40

The worst 5 of 38 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	B	602	HEM	CBA-CAA-C2A	-5.73	102.84	112.62
8	B	602	HEM	CHD-C1D-ND	4.54	129.37	124.43
8	B	603	HEM	CHD-C1D-ND	4.37	129.18	124.43
8	B	603	HEM	C1B-NB-C4B	4.30	109.51	105.07
8	B	602	HEM	CHB-C1B-NB	4.08	129.43	124.38

There are no chirality outliers.

5 of 27 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
7	B	601	FAD	C5B-O5B-PA-O1A
7	B	601	FAD	C5B-O5B-PA-O2A
7	B	601	FAD	C2'-C1'-N10-C10
7	B	601	FAD	O4'-C4'-C5'-O5'
9	B	604	NAG	C4-C5-C6-O6

There are no ring outliers.

3 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	B	601	FAD	3	0
8	B	602	HEM	2	0
8	B	603	HEM	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand FAD B 601

Bond lengths   Bond angles

Torsions   Rings

Ligand LBN B 606

Bond lengths

Bond angles

Torsions

Rings

Ligand HEM B 602

Bond lengths

Bond angles

Torsions

Rings

Ligand HEM B 603

Bond lengths

Bond angles

Torsions

Rings
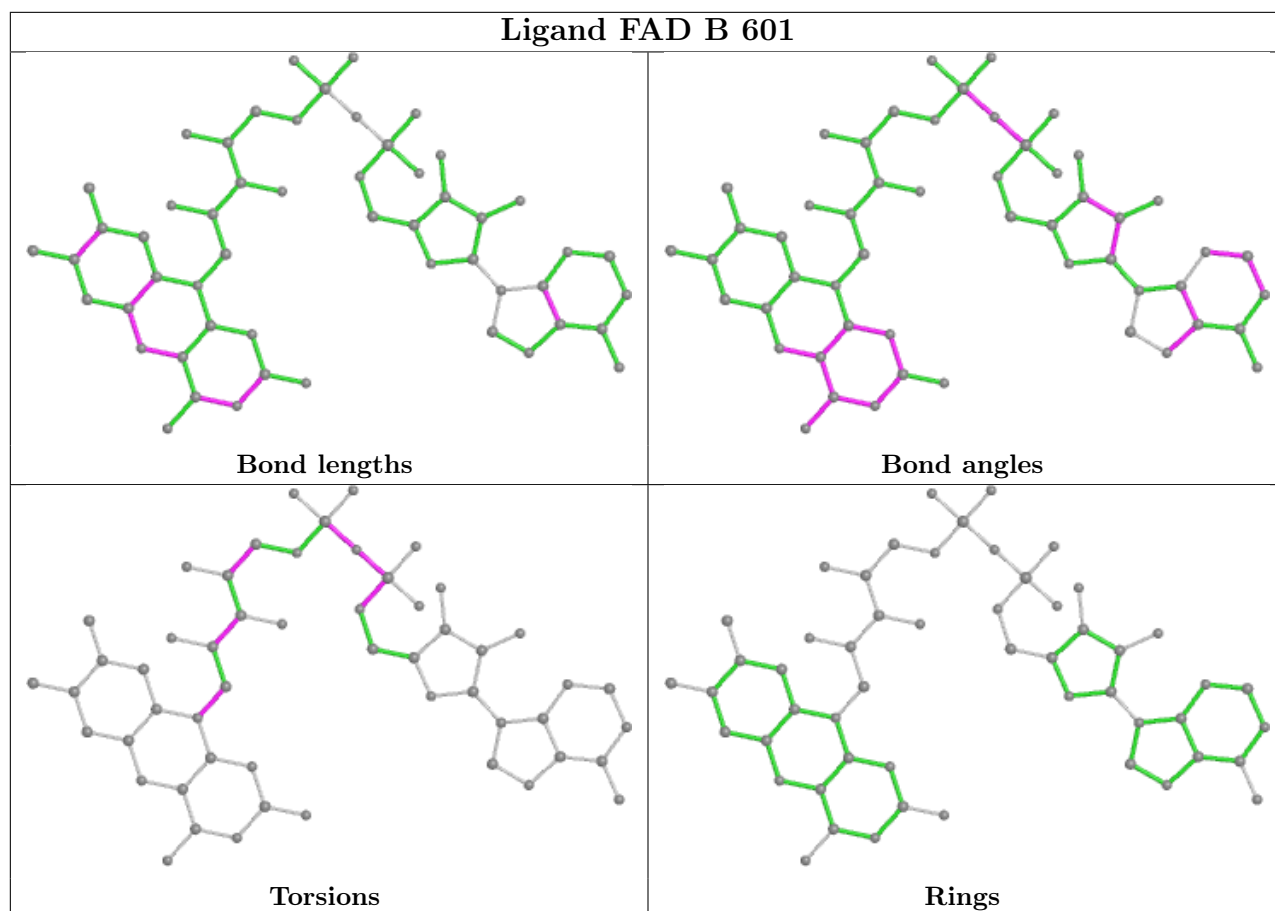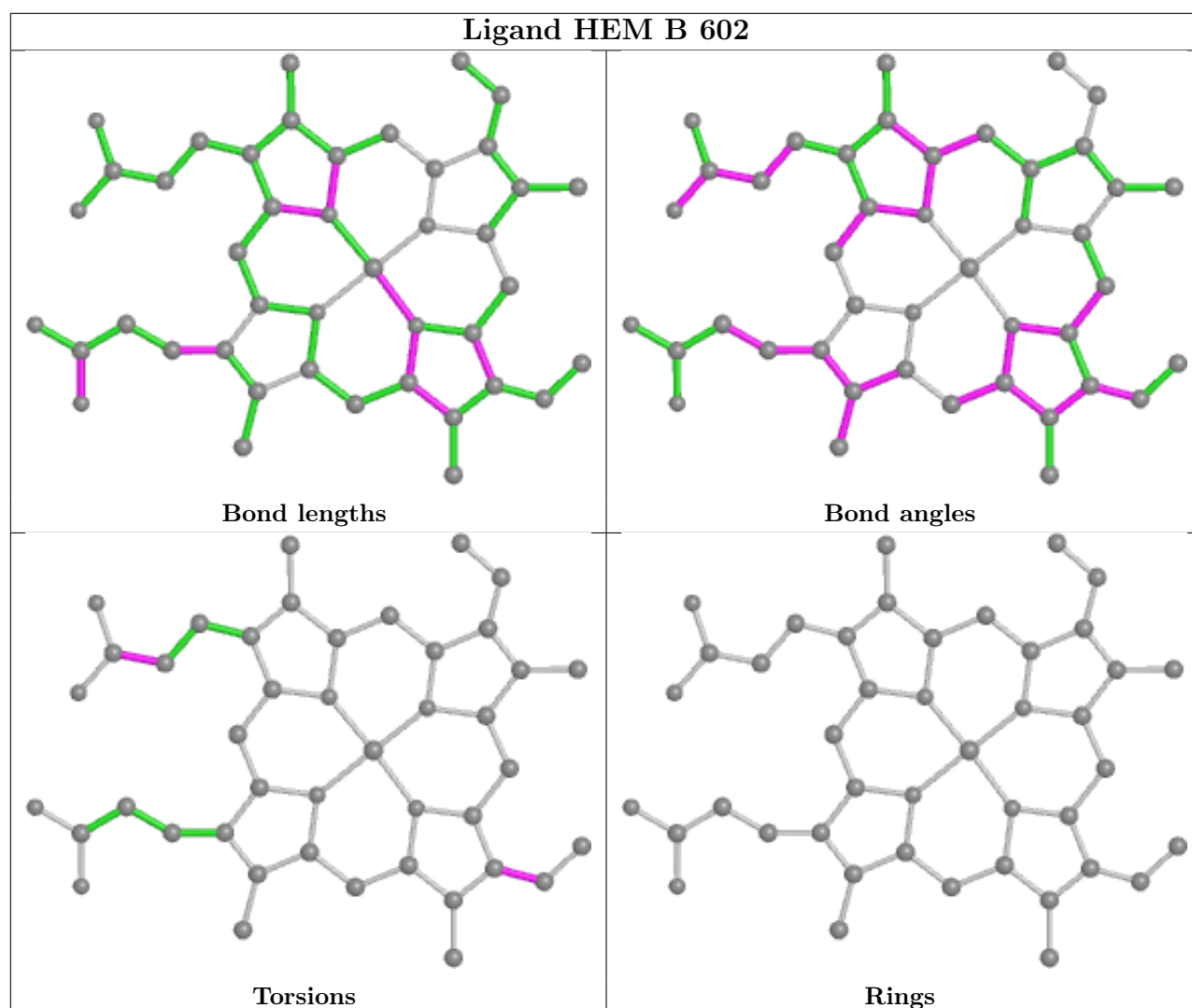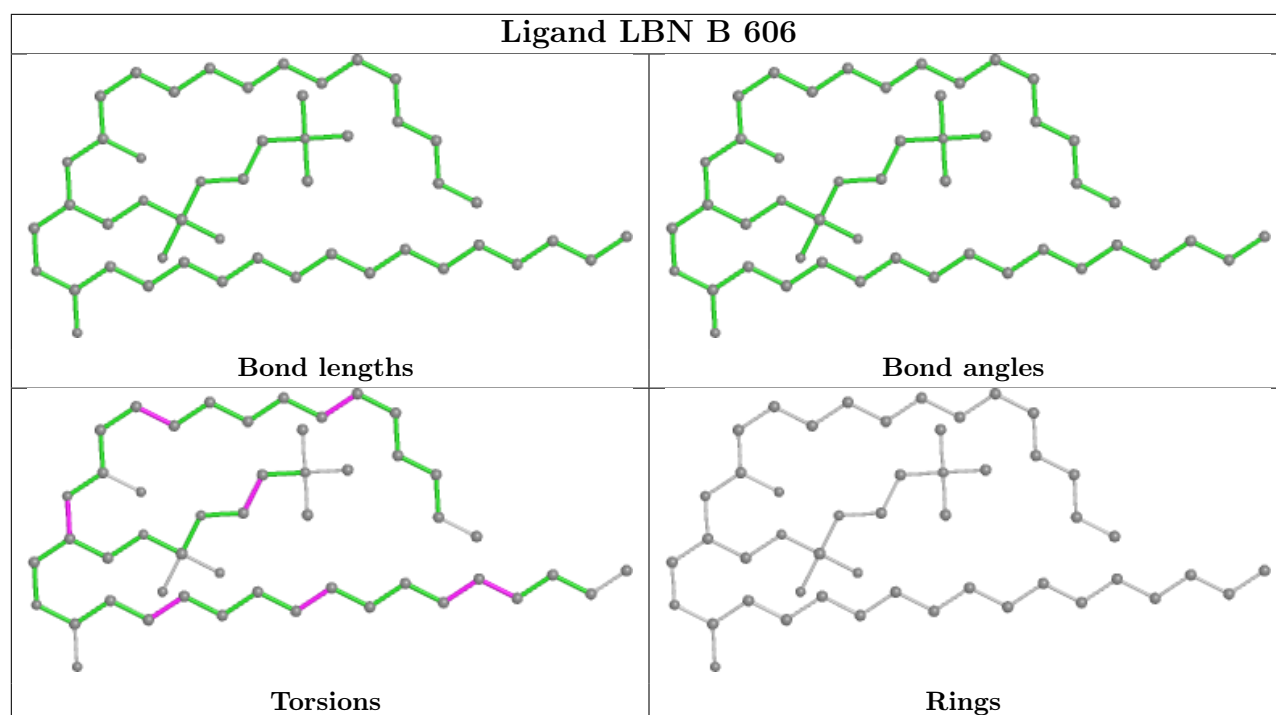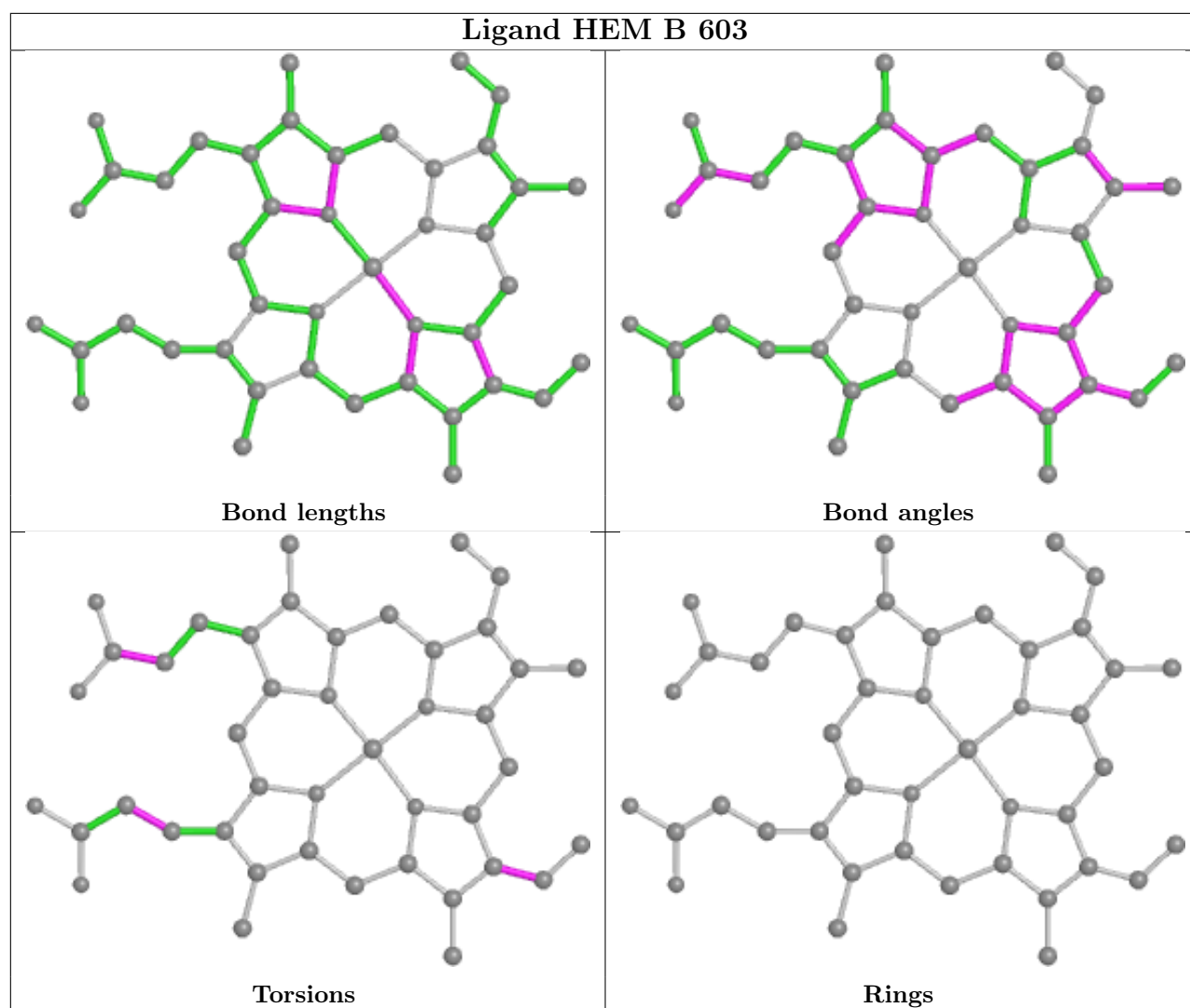
5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
4	H	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	H	133:UNK	C	139:UNK	N	10.36

6   Map visualisation ⓘ

This section contains visualisations of the EMDB entry EMD-34389. 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 |
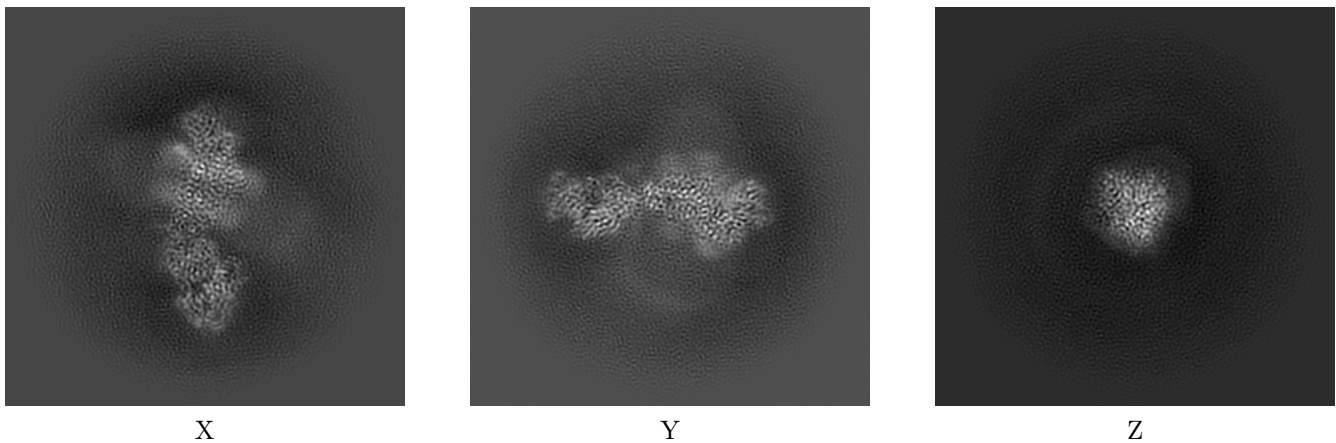
The images above show the map projected in three orthogonal directions.

6.2   Central slices ⓘ

6.2.1   Primary map

| X Index: 140 | Y Index: 140 | Z Index: 140 |
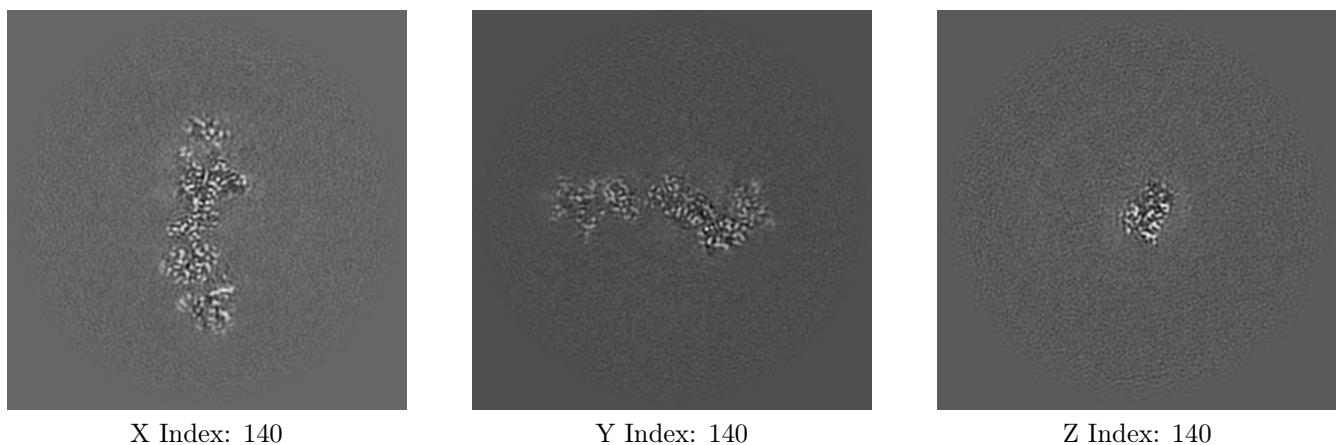
The images above show central slices of the map in three orthogonal directions.

6.3   Largest variance slices ⓘ
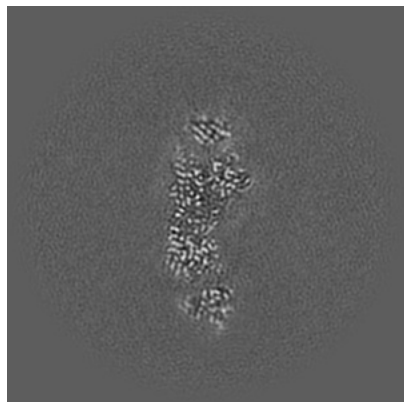
6.3.1   Primary map
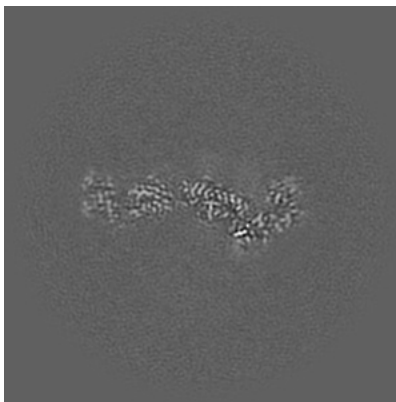
| X Index: 145 | Y Index: 135 | Z Index: 164 |
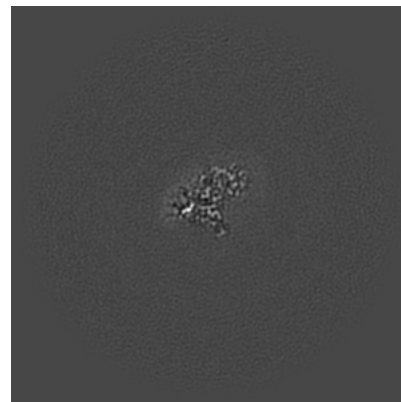
The images above show the largest variance slices of the map in three orthogonal directions.

6.4   Orthogonal surface views ⓘ

6.4.1   Primary map

| X | Y | Z |
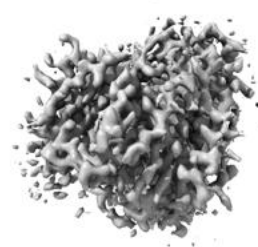
The images above show the 3D surface view of the map at the recommended contour level 1.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5 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)
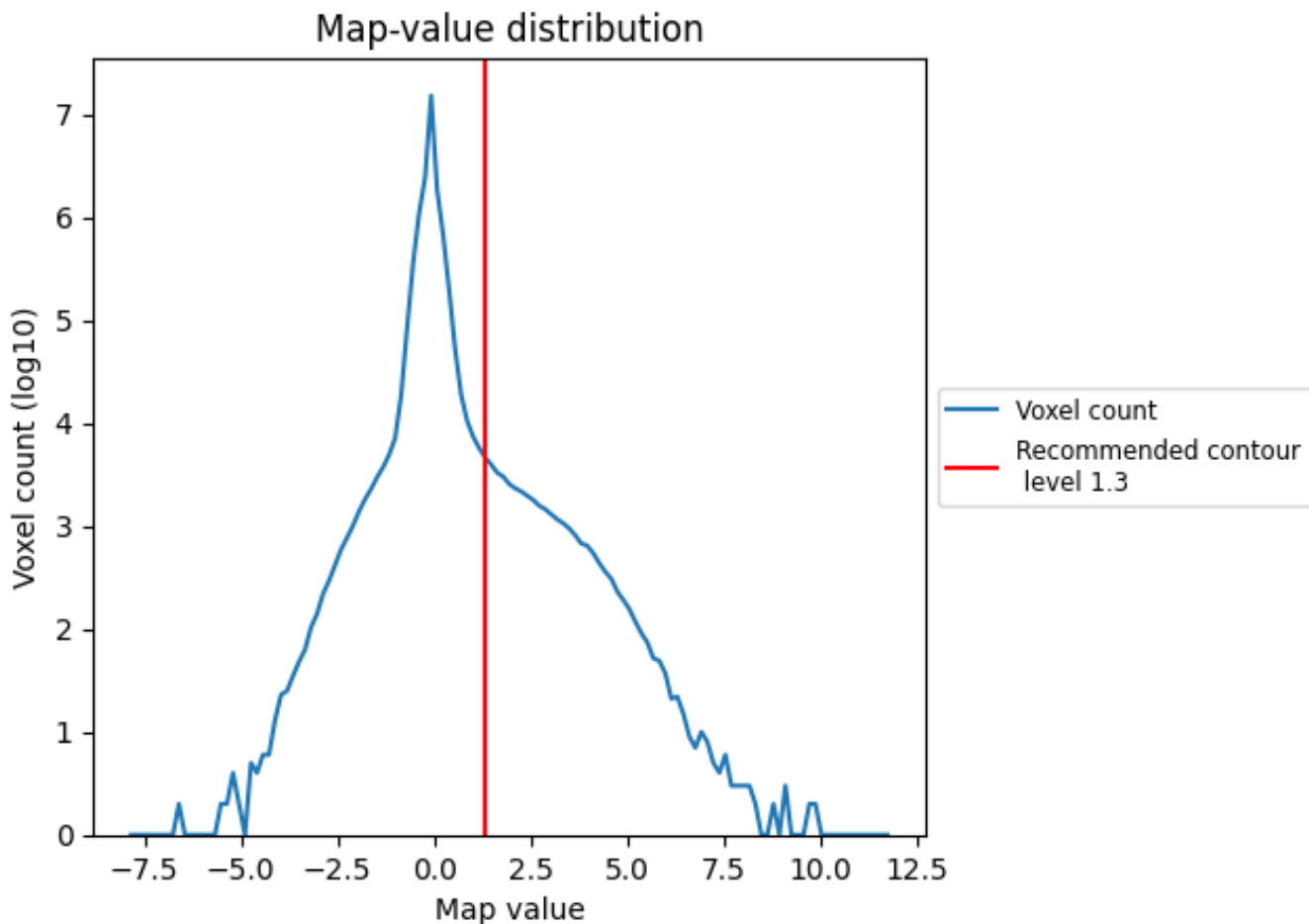
The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2 Volume estimate ⓘ
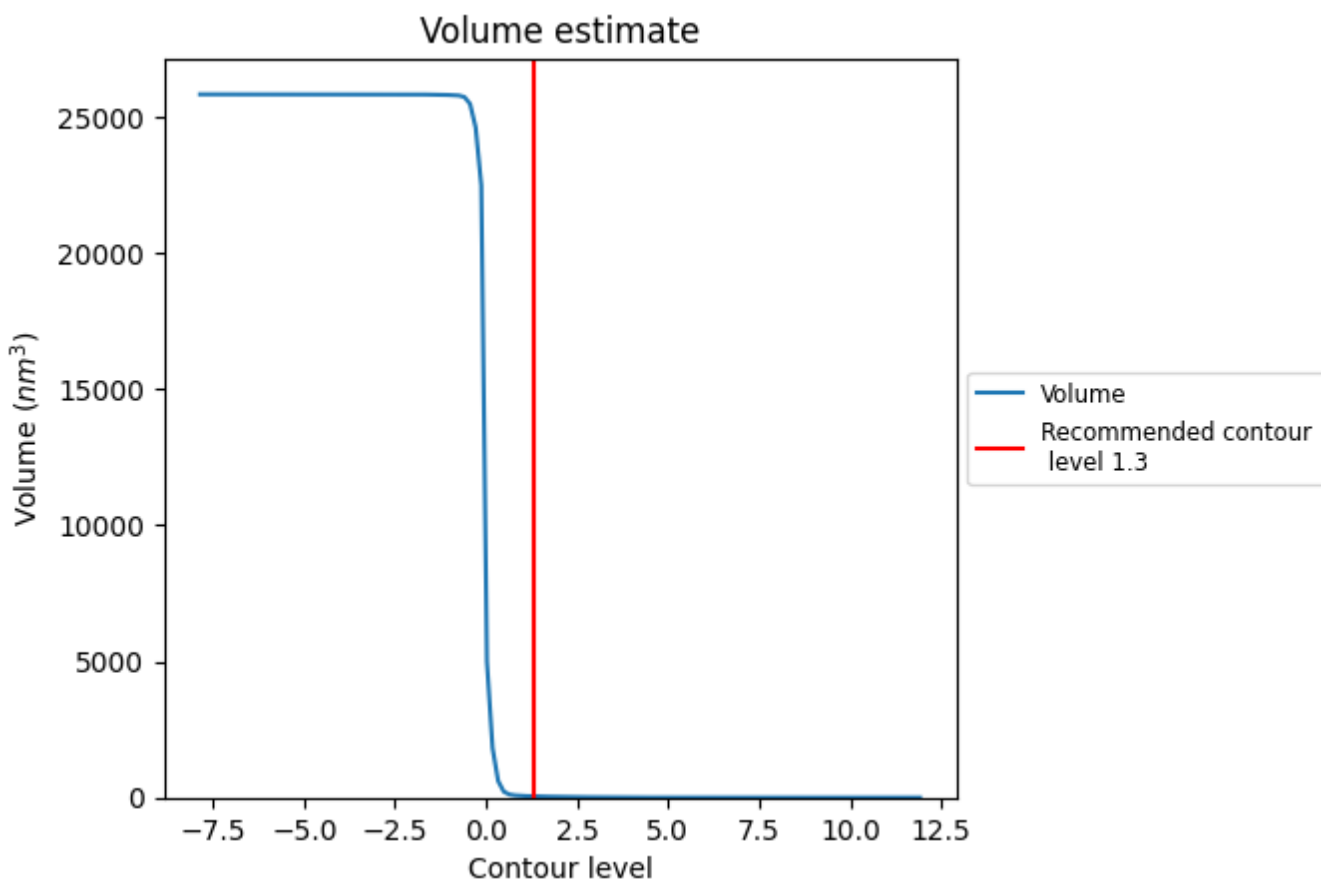
The volume at the recommended contour level is 46 nm^3; this corresponds to an approximate mass of 42 kDa.

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 ⓘ
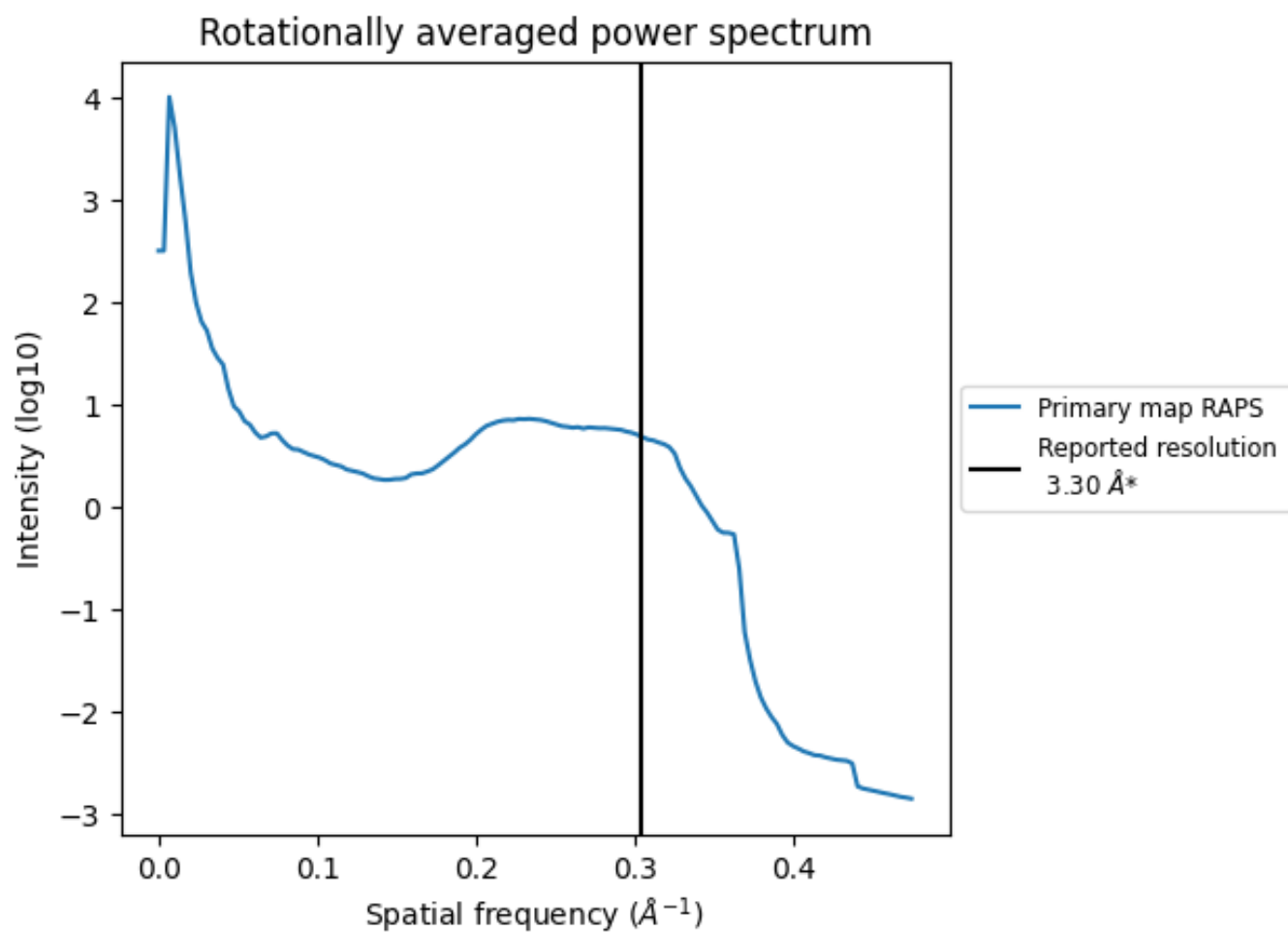
*Reported resolution corresponds to spatial frequency of 0.303 Å^{-1}

8 Fourier-Shell correlation (i)

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-34389 and PDB model 8GZ3. Per-residue inclusion information can be found in section 3 on page 7.

9.1   Map-model overlay (i)

X	Y	Z
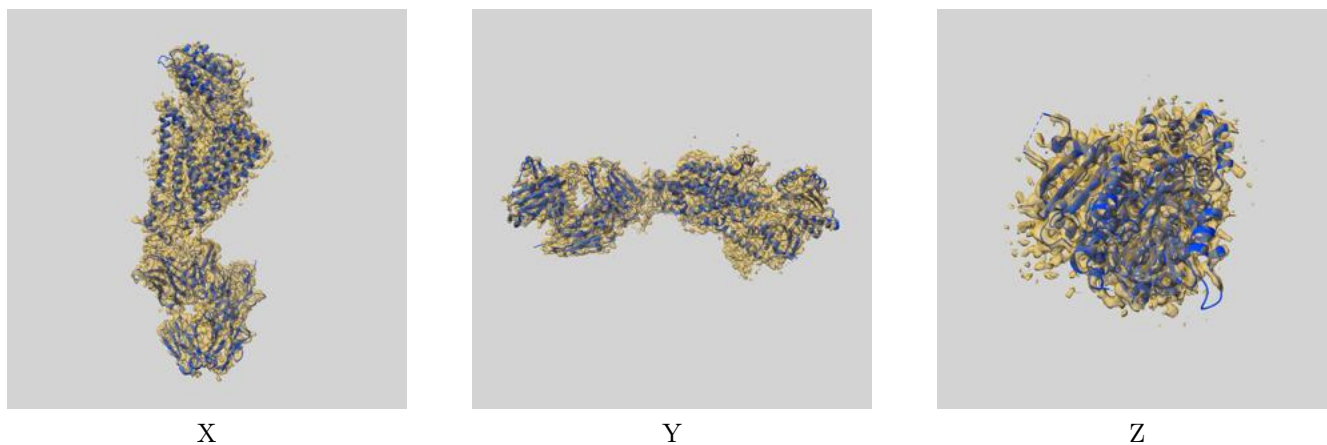
The images above show the 3D surface view of the map at the recommended contour level 1.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2   Q-score mapped to coordinate model   ⓘ
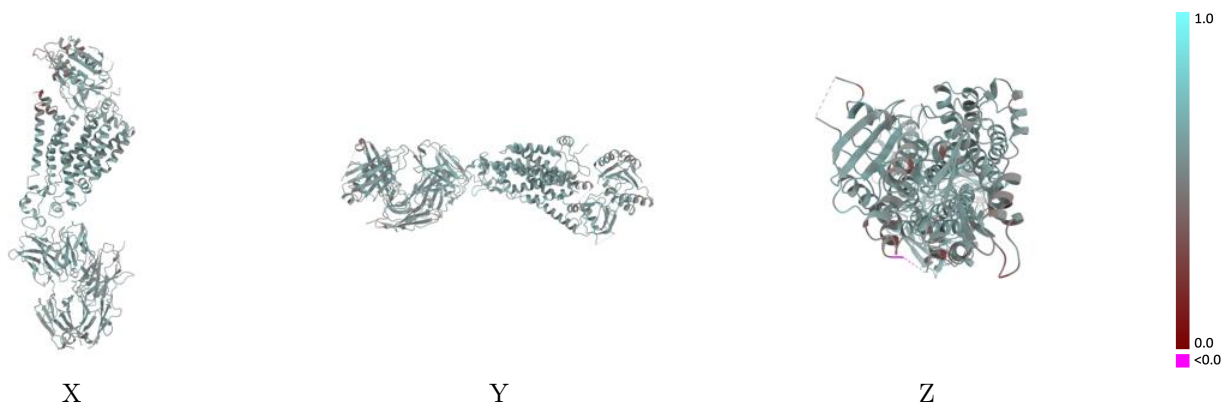
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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   ⓘ
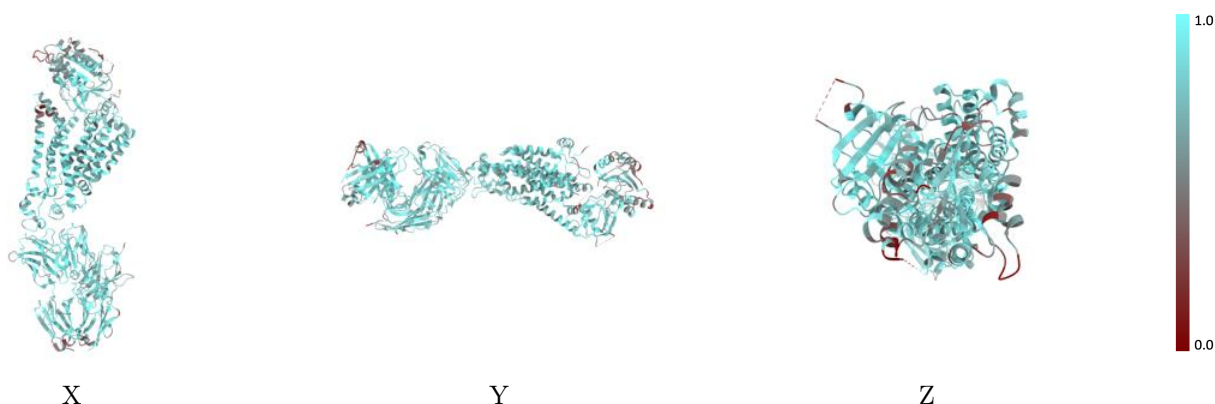
The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.3).

9.4 Atom inclusion ⓘ
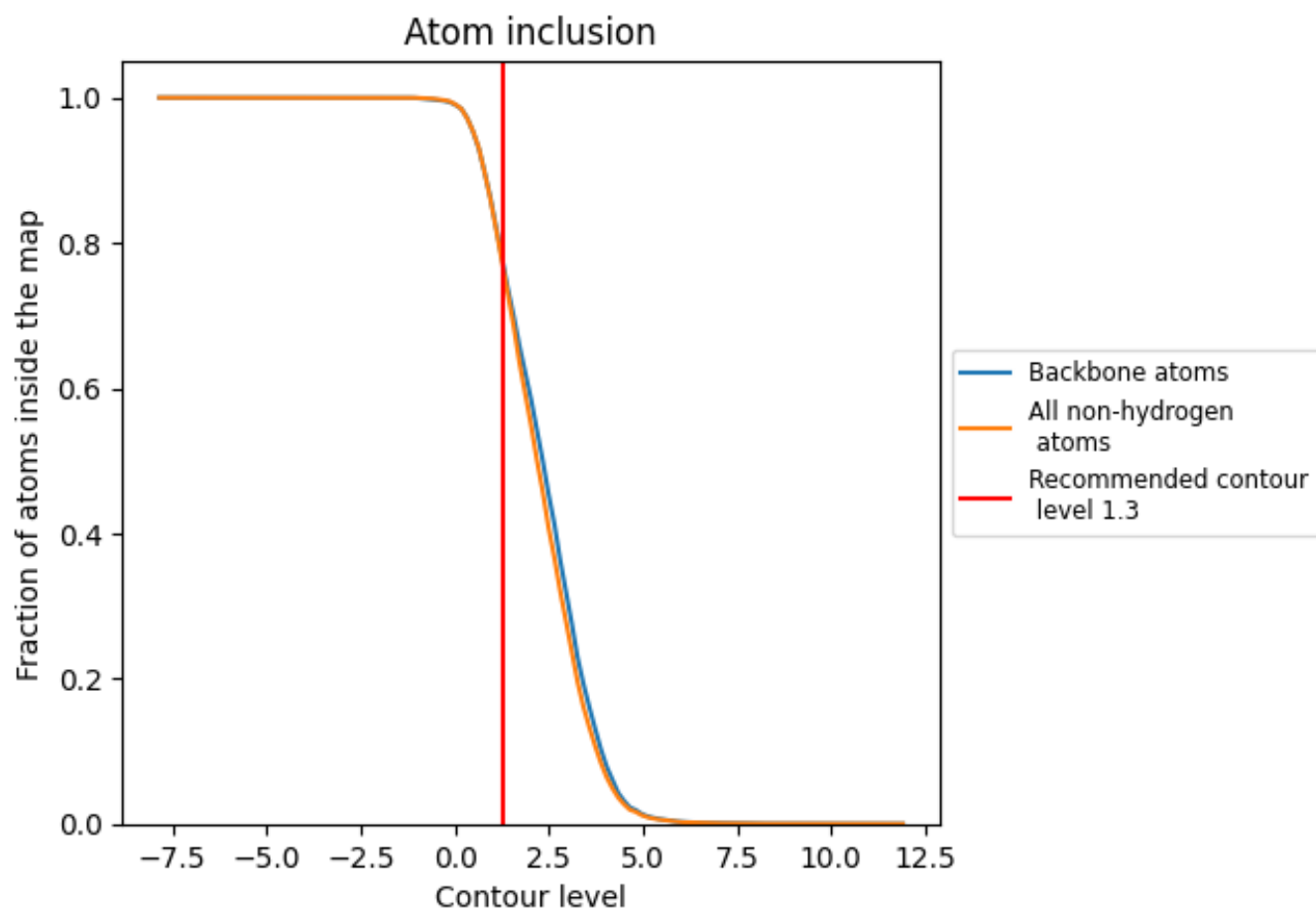
At the recommended contour level, 77% of all backbone atoms, 76% of all non-hydrogen atoms, are inside the map.

9.5   Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (1.3) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7617	0.5590
A	0.7590	0.5660
B	0.7549	0.5670
C	0.3333	0.4990
H	0.7804	0.5480
L	0.7877	0.5560
N	0.7743	0.5360

1.0

0.0
<0.0