



Full wwPDB EM Validation Report ⓘ

Jul 14, 2024 – 03:30 pm BST

PDB ID : 8ATM
EMDB ID : EMD-15653
Title : Structure of the giant inhibitor of apoptosis, BIRC6 (composite map)
Authors : Dietz, L.; Elliott, P.R.
Deposited on : 2022-08-23
Resolution : 3.30 Å (reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

EMDB validation analysis : 0.0.1.dev92
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1

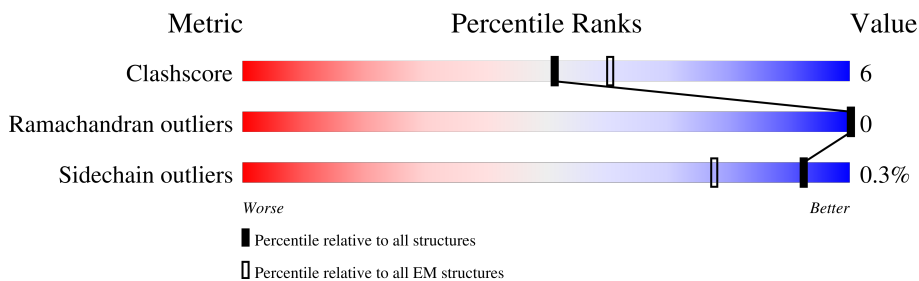
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.30 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	4859	
1	B	4859	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 30885 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 Baculoviral IAP repeat-containing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	2035	Total	C	N	O	S	0	0
			15729	10066	2671	2876	116		
1	B	1963	Total	C	N	O	S	0	0
			15156	9705	2568	2772	111		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-1	GLY	-	expression tag	UNP Q9NR09
A	0	PRO	-	expression tag	UNP Q9NR09
B	-1	GLY	-	expression tag	UNP Q9NR09
B	0	PRO	-	expression tag	UNP Q9NR09

GLU THR
LEU MET
HIS ASP
GLN VAL
LVS VAL
PRO PRO
SER SER
SER SER
LVS LVS
LEU LEU
LEU PRO
SER SER
SER ASP
PHE PHE
GLN GLN
LEU

● Molecule 1: Baculoviral IAP repeat-containing protein 6

Chain B:



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

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	127710	Depositor
Resolution determination method	OTHER	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	49.9	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	105000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	18.896	Depositor
Minimum map value	-7.641	Depositor
Average map value	-0.020	Depositor
Map value standard deviation	0.841	Depositor
Recommended contour level	2.5	Depositor
Map size (\AA)	258.0, 258.0, 258.0	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	0.86, 0.86, 0.86	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.26	0/16012	0.47	0/21743
1	B	0.27	0/15429	0.48	0/20963
All	All	0.26	0/31441	0.47	0/42706

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	15729	0	16117	199	0
1	B	15156	0	15536	177	0
All	All	30885	0	31653	362	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.

All (362) 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)
1:B:1820:TRP:O	1:B:1855:PHE:HB2	1.66	0.96
1:A:2031:LEU:HD22	1:A:2077:HIS:HB3	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1927:ARG:HB3	1:B:1980:LEU:HD11	1.62	0.81
1:A:2332:VAL:HG13	1:A:2358:LEU:HD11	1.68	0.73
1:B:3828:SER:HB3	1:B:4006:VAL:HB	1.71	0.72
1:A:1817:ILE:HB	1:A:1832:VAL:HG12	1.72	0.71
1:A:1795:PHE:HB3	1:A:1799:ILE:HD12	1.73	0.70
1:A:1992:GLN:HA	1:A:1995:LYS:HG2	1.73	0.70
1:A:3421:GLY:HA2	1:B:2165:ILE:HG13	1.74	0.70
1:B:1818:ASP:HB2	1:B:1857:LYS:HB3	1.74	0.68
1:A:3775:PRO:HA	1:A:3778:GLN:HG3	1.75	0.68
1:B:4260:ARG:HE	1:B:4366:GLN:HA	1.57	0.67
1:B:1812:LEU:HA	1:B:1862:GLY:HA2	1.77	0.67
1:B:1406:ARG:NH1	1:B:2576:GLU:OE1	2.27	0.67
1:B:2324:ALA:HB3	1:B:2327:ARG:HD3	1.78	0.66
1:B:3803:ASN:N	1:B:4086:ARG:O	2.27	0.66
1:B:2746:GLU:OE1	1:B:2750:HIS:ND1	2.28	0.66
1:B:4186:ARG:HD2	1:B:4200:ILE:HD11	1.78	0.65
1:A:2733:GLN:NE2	1:A:2735:ASN:OD1	2.29	0.65
1:A:1817:ILE:HD13	1:A:1858:ILE:HG12	1.79	0.65
1:B:1946:PRO:O	1:B:1952:ASN:ND2	2.30	0.64
1:B:2013:ASP:HA	1:B:2016:GLN:HE21	1.62	0.64
1:B:3834:LYS:HD2	1:B:3875:ASP:HB3	1.79	0.64
1:B:2861:GLU:HG2	1:B:2990:ILE:HD11	1.79	0.64
1:A:3716:LEU:HD13	1:A:3788:LEU:HD22	1.79	0.63
1:B:4446:THR:HG22	1:B:4450:ARG:HE	1.64	0.63
1:A:1776:GLN:HG3	1:A:1875:LEU:HD21	1.81	0.63
1:A:2102:GLU:O	1:A:2108:GLN:NE2	2.31	0.63
1:B:2769:THR:HG1	1:B:2772:HIS:HE2	1.43	0.63
1:A:3817:LEU:HD22	1:A:4186:ARG:HG3	1.82	0.62
1:A:2714:THR:OG1	1:A:2719:TRP:NE1	2.30	0.62
1:A:2826:PHE:O	1:A:2915:ARG:NH2	2.32	0.62
1:A:3532:LEU:HD22	1:A:3539:LYS:HB2	1.80	0.62
1:A:4226:LEU:HD11	1:A:4235:ARG:HH21	1.65	0.62
1:B:3816:MET:HE1	1:B:4070:PRO:HB2	1.80	0.62
1:B:1844:LEU:HD21	1:B:1847:LEU:HD21	1.80	0.62
1:A:2120:LEU:O	1:A:2124:ILE:HG12	1.99	0.61
1:B:2714:THR:OG1	1:B:2719:TRP:NE1	2.31	0.61
1:A:1848:ILE:HD12	1:A:1850:PRO:HD3	1.82	0.61
1:B:3301:LEU:HD22	1:B:3308:SER:HB2	1.82	0.61
1:A:1399:SER:HB3	1:A:1403:LYS:HZ1	1.66	0.61
1:B:2733:GLN:OE1	1:B:2735:ASN:ND2	2.32	0.61
1:A:1517:CYS:SG	1:A:1518:LYS:N	2.71	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3632:PRO:HB3	1:B:3702:TRP:HZ2	1.66	0.60
1:B:3708:VAL:HG13	1:B:3711:LEU:HD12	1.83	0.60
1:A:1848:ILE:HD12	1:A:1849:PRO:HA	1.83	0.60
1:A:3709:ASN:HD21	1:A:3780:LEU:HD23	1.67	0.60
1:B:2822:GLU:OE2	1:B:2823:ARG:NH1	2.33	0.60
1:B:1440:PRO:O	1:B:2022:GLN:NE2	2.35	0.59
1:A:1988:HIS:CD2	1:A:1992:GLN:HE22	2.21	0.59
1:B:1848:ILE:HD12	1:B:1849:PRO:HA	1.82	0.59
1:B:3438:LEU:O	1:B:3449:ARG:NH1	2.34	0.59
1:A:2013:ASP:HA	1:A:2016:GLN:HB3	1.85	0.59
1:B:1807:PRO:HD3	1:B:1876:GLY:HA2	1.85	0.59
1:A:1803:ASP:HB3	1:A:1879:TYR:HB2	1.84	0.59
1:B:2104:TYR:OH	1:B:2114:GLN:O	2.20	0.59
1:A:2861:GLU:HG2	1:A:2990:ILE:HD11	1.83	0.59
1:A:1981:GLN:NE2	1:A:1985:ASN:OD1	2.31	0.58
1:A:1777:SER:HB2	1:A:1872:LYS:HE3	1.86	0.58
1:A:1815:LEU:HB2	1:A:1837:ILE:HD13	1.85	0.58
1:A:2071:THR:H	1:A:2074:ILE:HG22	1.68	0.58
1:B:1505:PRO:O	1:B:1981:GLN:NE2	2.28	0.58
1:B:1428:LEU:HD11	1:B:1458:VAL:HG11	1.85	0.58
1:B:4361:LEU:HA	1:B:4411:LEU:HD11	1.86	0.58
1:A:3638:SER:HB3	1:A:3678:ILE:HG13	1.86	0.58
1:B:1812:LEU:HD23	1:B:1837:ILE:HG21	1.85	0.58
1:B:3712:TRP:CD1	1:B:3767:PHE:HE2	2.21	0.58
1:A:4179:LYS:HD2	1:A:4182:GLN:HE21	1.68	0.58
1:A:2139:LEU:HD12	1:A:2331:VAL:HG11	1.85	0.57
1:A:1403:LYS:HD2	1:A:1848:ILE:HG12	1.86	0.57
1:A:1480:GLN:HG2	1:A:2015:ILE:HG12	1.86	0.57
1:B:1797:ARG:NH1	1:B:1798:PRO:O	2.37	0.57
1:B:3774:HIS:CE1	1:B:3776:ASN:HB2	2.39	0.57
1:A:1917:MET:HB3	1:A:1991:VAL:HG22	1.87	0.56
1:A:1819:ILE:HD12	1:A:1853:CYS:HB2	1.87	0.56
1:B:1806:ILE:O	1:B:1841:SER:OG	2.23	0.56
1:A:4235:ARG:NH2	1:A:4330:TYR:O	2.38	0.56
1:B:3517:LEU:HD12	1:B:3552:VAL:HG11	1.88	0.56
1:B:4374:SER:O	1:B:4378:ARG:HB2	2.05	0.56
1:B:1452:PHE:O	1:B:1456:ASN:ND2	2.36	0.56
1:B:1812:LEU:HD11	1:B:1860:VAL:HB	1.88	0.56
1:A:3694:GLY:O	1:A:3769:GLN:NE2	2.39	0.56
1:A:1311:ILE:HG23	1:A:1314:GLU:HG2	1.87	0.55
1:B:2071:THR:HG22	1:B:2074:ILE:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2143:ASP:HB2	1:A:2331:VAL:HG22	1.88	0.55
1:A:3389:SER:OG	1:A:3390:THR:N	2.38	0.55
1:A:4393:ARG:HE	1:A:4488:VAL:HG21	1.72	0.55
1:A:1813:ALA:HB2	1:A:1863:ARG:HA	1.89	0.55
1:B:3779:LYS:HZ3	1:B:4073:VAL:HG13	1.72	0.55
1:A:4364:LEU:HD22	1:A:4369:LEU:HD22	1.89	0.55
1:B:1853:CYS:SG	1:B:1854:ARG:N	2.80	0.54
1:A:3817:LEU:HD21	1:A:4185:LEU:HB3	1.89	0.54
1:A:3687:LEU:HD22	1:A:3762:ALA:HB1	1.89	0.54
1:B:3097:ALA:O	1:B:3101:MET:HG3	2.08	0.54
1:A:3517:LEU:HD12	1:A:3552:VAL:HG11	1.90	0.54
1:A:2031:LEU:CD2	1:A:2077:HIS:HB3	2.35	0.54
1:A:3866:LEU:HD11	1:A:3986:LEU:HD11	1.89	0.54
1:B:2826:PHE:O	1:B:2915:ARG:NH2	2.40	0.53
1:B:1479:ARG:HG3	1:B:1480:GLN:N	2.22	0.53
1:A:1812:LEU:HD13	1:A:1862:GLY:HA2	1.88	0.53
1:A:2915:ARG:NH1	1:B:2772:HIS:HB2	2.24	0.53
1:B:2769:THR:OG1	1:B:2772:HIS:NE2	2.37	0.53
1:B:3532:LEU:HD12	1:B:3533:PRO:HD2	1.91	0.53
1:A:2013:ASP:O	1:A:2017:THR:OG1	2.24	0.53
1:A:1967:ASP:HA	1:A:1970:VAL:HG12	1.91	0.53
1:B:2179:LEU:HA	1:B:2182:VAL:HG12	1.91	0.53
1:A:2018:SER:OG	1:A:2019:SER:N	2.40	0.53
1:B:2021:GLU:N	1:B:2021:GLU:OE1	2.41	0.53
1:A:1313:LYS:HB3	1:A:1316:VAL:HB	1.91	0.53
1:A:2358:LEU:HD23	1:A:2411:MET:SD	2.49	0.53
1:A:2564:SER:O	1:A:2584:LYS:NZ	2.36	0.53
1:A:3614:ALA:HB2	1:A:3689:PHE:HD1	1.73	0.52
1:B:1788:ARG:HD3	1:B:1861:ILE:HG23	1.90	0.52
1:A:1782:ARG:HG2	1:A:1784:HIS:H	1.73	0.52
1:A:3244:SER:HB2	1:A:3250:MET:HG2	1.91	0.52
1:A:4361:LEU:HD13	1:A:4408:MET:HA	1.92	0.52
1:A:3124:SER:OG	1:A:3125:MET:N	2.41	0.52
1:A:3771:ILE:HG21	1:A:3815:LEU:HD21	1.92	0.52
1:A:3488:MET:CE	1:B:2107:GLU:HA	2.40	0.52
1:B:4378:ARG:NH2	1:B:4431:THR:OG1	2.43	0.52
1:A:2004:MET:SD	1:A:2004:MET:N	2.78	0.51
1:A:3634:LEU:HD12	1:A:3676:MET:HG2	1.92	0.51
1:A:3438:LEU:O	1:A:3449:ARG:NH1	2.42	0.51
1:A:2075:ARG:HG2	1:A:2120:LEU:HD22	1.92	0.51
1:A:2636:VAL:HG23	1:A:2637:PRO:HD3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3687:LEU:HA	1:B:3690:LEU:HD12	1.91	0.51
1:A:3834:LYS:HD2	1:A:3875:ASP:HB3	1.92	0.51
1:B:2149:LEU:HD23	1:B:2163:LEU:HD11	1.93	0.51
1:A:1399:SER:HB3	1:A:1403:LYS:NZ	2.26	0.51
1:B:2101:GLN:O	1:B:2105:ASN:HB2	2.10	0.51
1:B:2129:LEU:HD21	1:B:2182:VAL:HB	1.93	0.51
1:B:2031:LEU:HD21	1:B:2077:HIS:HB3	1.94	0.50
1:B:2325:HIS:HB2	1:B:2367:PRO:HG2	1.93	0.50
1:A:3429:ASP:HA	1:A:3432:ILE:HD12	1.92	0.50
1:A:3632:PRO:HB3	1:A:3702:TRP:CZ2	2.45	0.50
1:A:4397:GLU:OE1	1:A:4400:ARG:NH1	2.43	0.50
1:A:2051:GLN:N	1:A:2051:GLN:OE1	2.43	0.50
1:A:2047:PRO:O	1:A:2051:GLN:NE2	2.37	0.50
1:A:1353:LEU:HD11	1:A:1400:ILE:HG23	1.92	0.50
1:A:3760:GLU:OE2	1:B:1929:ASN:ND2	2.45	0.50
1:B:2571:LEU:HD23	1:B:2575:LEU:HD13	1.94	0.50
1:B:3244:SER:HB2	1:B:3250:MET:HG2	1.94	0.50
1:A:4310:LEU:O	1:A:4313:GLN:HG3	2.11	0.50
1:B:2115:ASP:OD1	1:B:2115:ASP:N	2.44	0.49
1:A:1816:SER:HB2	1:A:1859:THR:OG1	2.13	0.49
1:B:3410:ASP:OD1	1:B:3410:ASP:N	2.44	0.49
1:B:3688:ARG:O	1:B:3691:THR:OG1	2.22	0.49
1:B:3816:MET:HG3	1:B:3817:LEU:H	1.77	0.49
1:A:2769:THR:OG1	1:A:2772:HIS:NE2	2.40	0.49
1:B:3632:PRO:HB3	1:B:3702:TRP:CZ2	2.47	0.49
1:A:1817:ILE:HG23	1:A:1856:MET:CE	2.43	0.49
1:A:4226:LEU:HD21	1:A:4235:ARG:HE	1.77	0.49
1:A:2834:ASP:OD1	1:A:2834:ASP:N	2.45	0.49
1:A:2775:ASN:HD21	1:B:2879:SER:HB3	1.78	0.49
1:B:1819:ILE:HG23	1:B:1829:ARG:HB2	1.95	0.49
1:A:1807:PRO:HD3	1:A:1876:GLY:HA2	1.94	0.49
1:A:2366:ARG:HB2	1:A:2367:PRO:HD3	1.95	0.49
1:A:3250:MET:SD	1:A:3279:CYS:HB2	2.53	0.48
1:B:3125:MET:O	1:B:3129:ILE:HG12	2.13	0.48
1:B:2834:ASP:OD1	1:B:2834:ASP:N	2.43	0.48
1:B:3534:CYS:HA	1:B:3539:LYS:HD3	1.94	0.48
1:A:1991:VAL:HG12	1:A:1995:LYS:NZ	2.28	0.48
1:A:2129:LEU:HD21	1:A:2178:LEU:HG	1.94	0.48
1:A:3967:LEU:HD23	1:A:4004:LEU:HD22	1.95	0.48
1:B:3810:ARG:NH1	1:B:3814:GLN:OE1	2.44	0.48
1:A:2382:ARG:NH2	1:B:3414:LEU:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1824:GLU:N	1:B:1824:GLU:OE1	2.46	0.48
1:B:2325:HIS:CD2	1:B:2329:ILE:HD11	2.49	0.48
1:B:4370:ILE:HB	1:B:4371:PRO:HD3	1.95	0.48
1:A:1793:LEU:HB2	1:A:1856:MET:HB3	1.95	0.48
1:B:1492:LEU:HG	1:B:1498:LEU:HB2	1.96	0.48
1:B:3760:GLU:HB2	1:B:3807:PHE:CE1	2.49	0.48
1:B:2115:ASP:O	1:B:2119:MET:HG3	2.13	0.47
1:B:3687:LEU:O	1:B:3691:THR:HG23	2.13	0.47
1:B:1816:SER:HB2	1:B:1859:THR:OG1	2.13	0.47
1:A:1799:ILE:HG22	1:A:1801:LEU:HD12	1.97	0.47
1:A:3963:PRO:HA	1:A:4009:GLY:O	2.13	0.47
1:B:1519:ASN:OD1	1:B:1989:ASN:ND2	2.41	0.47
1:A:2073:LYS:O	1:A:2077:HIS:ND1	2.48	0.47
1:B:1479:ARG:HE	1:B:1479:ARG:HB2	1.51	0.47
1:B:3823:THR:HG22	1:B:3859:HIS:ND1	2.29	0.47
1:A:2587:SER:O	1:A:2590:GLU:HG3	2.15	0.47
1:A:3429:ASP:OD1	1:A:3429:ASP:N	2.48	0.47
1:A:4081:ALA:HB1	1:A:4166:ARG:HH12	1.78	0.47
1:B:4233:LEU:O	1:B:4236:ARG:HD3	2.15	0.47
1:A:4231:GLY:O	1:A:4235:ARG:HG2	2.14	0.47
1:B:1778:ILE:HD11	1:B:1872:LYS:HA	1.97	0.47
1:A:1520:VAL:HG22	1:A:1879:TYR:HB3	1.95	0.47
1:B:2852:SER:OG	1:B:2853:VAL:N	2.48	0.47
1:B:3198:SER:HA	1:B:3291:LEU:O	2.15	0.47
1:A:1820:TRP:O	1:A:1855:PHE:HB2	2.15	0.47
1:B:4402:ILE:HG23	1:B:4408:MET:HG3	1.96	0.46
1:A:3409:SER:HB2	1:A:3418:LEU:HD23	1.97	0.46
1:B:3700:LYS:HA	1:B:3703:LEU:HD12	1.96	0.46
1:A:2840:LEU:HD12	1:A:2918:LEU:HD12	1.98	0.46
1:B:3047:ALA:O	1:B:3048:SER:OG	2.28	0.46
1:B:3819:ASP:OD2	1:B:3863:SER:OG	2.28	0.46
1:A:1939:LEU:HD13	1:A:1970:VAL:HG21	1.96	0.46
1:B:2840:LEU:HD12	1:B:2918:LEU:HD12	1.98	0.46
1:A:2416:LEU:HD12	1:A:2667:LEU:HD22	1.97	0.46
1:A:4374:SER:O	1:A:4378:ARG:HB2	2.16	0.46
1:B:1521:TYR:HB2	1:B:1771:GLN:HG2	1.97	0.46
1:B:2323:LEU:HA	1:B:2327:ARG:NH2	2.31	0.46
1:A:2582:MET:O	1:A:2585:MET:HG3	2.15	0.46
1:A:3810:ARG:HD3	1:B:1926:CYS:O	2.15	0.46
1:B:3610:LEU:HD12	1:B:3689:PHE:CG	2.51	0.45
1:A:1498:LEU:HD13	1:A:1974:TYR:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1819:ILE:HG13	1:B:1853:CYS:SG	2.56	0.45
1:A:1387:ASP:HA	1:A:1390:ARG:HG2	1.99	0.45
1:B:2075:ARG:HG2	1:B:2120:LEU:HD22	1.99	0.45
1:B:2143:ASP:HB2	1:B:2331:VAL:HG22	1.98	0.45
1:B:2325:HIS:NE2	1:B:2329:ILE:HD11	2.32	0.45
1:B:2575:LEU:H	1:B:2575:LEU:HD23	1.82	0.45
1:A:2568:ASP:HB3	1:A:2570:ARG:HH12	1.82	0.45
1:B:1451:TYR:O	1:B:1455:LEU:HD23	2.17	0.45
1:B:3870:LEU:HD21	1:B:3965:PHE:HB2	1.98	0.45
1:A:3809:ARG:HH22	1:B:1923:ASP:HA	1.82	0.45
1:B:3302:THR:OG1	1:B:3307:THR:OG1	2.21	0.45
1:A:2061:GLU:HA	1:A:2064:LYS:HG2	1.99	0.44
1:B:2822:GLU:HG3	1:B:2823:ARG:HG2	1.98	0.44
1:B:1819:ILE:HD11	1:B:1853:CYS:HB2	1.98	0.44
1:B:3813:LEU:HD21	1:B:4191:VAL:HG21	1.99	0.44
1:B:3831:PRO:HB2	1:B:3833:TYR:CZ	2.52	0.44
1:B:4496:ARG:HG3	1:B:4497:GLN:N	2.31	0.44
1:B:1975:GLN:HA	1:B:1978:ILE:HG12	1.99	0.44
1:A:3198:SER:HA	1:A:3291:LEU:O	2.18	0.44
1:A:2976:SER:HA	1:A:2977:PRO:HD3	1.84	0.44
1:B:2030:LEU:O	1:B:2033:THR:OG1	2.30	0.44
1:B:3512:ASP:OD1	1:B:3512:ASP:N	2.45	0.44
1:A:1844:LEU:HD23	1:A:1844:LEU:HA	1.85	0.44
1:B:1788:ARG:HH12	1:B:1864:TYR:HD1	1.66	0.44
1:B:2031:LEU:CD2	1:B:2077:HIS:HB3	2.48	0.44
1:B:3643:CYS:HA	1:B:3718:LEU:HD12	1.98	0.44
1:B:4186:ARG:NE	1:B:4194:ASP:HA	2.33	0.44
1:A:2352:LEU:HD21	1:A:2403:TRP:HB3	2.00	0.44
1:A:4356:LEU:HD12	1:A:4360:LEU:HD23	1.98	0.44
1:A:4363:LEU:O	1:A:4367:SER:HB3	2.17	0.44
1:A:4389:VAL:HG13	1:A:4485:ALA:HB2	2.00	0.44
1:A:1817:ILE:HG22	1:A:1831:LEU:HB2	1.99	0.44
1:A:2731:ASN:OD1	1:A:2795:ARG:NH2	2.47	0.44
1:B:2324:ALA:H	1:B:2327:ARG:CZ	2.31	0.44
1:B:2871:ILE:HD11	1:B:3032:VAL:HG11	2.00	0.44
1:A:1945:PRO:HG2	1:A:1955:TYR:CD2	2.52	0.44
1:A:3560:LEU:O	1:A:3564:MET:HG2	2.18	0.44
1:A:3771:ILE:HD11	1:A:3778:GLN:HA	2.00	0.44
1:B:4310:LEU:O	1:B:4313:GLN:HG3	2.18	0.44
1:B:4369:LEU:HG	1:B:4373:MET:HE2	2.00	0.44
1:A:1473:LEU:HD23	1:A:2030:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2083:VAL:HG23	1:A:2124:ILE:HD12	2.00	0.43
1:A:2165:ILE:HG13	1:B:3421:GLY:HA2	2.00	0.43
1:A:4178:ARG:HH12	1:A:4182:GLN:HB3	1.83	0.43
1:A:4197:GLY:HA2	1:B:1934:ARG:NH2	2.33	0.43
1:B:3518:ASP:OD1	1:B:3519:GLN:N	2.47	0.43
1:A:2055:HIS:ND1	1:A:2056:ALA:O	2.51	0.43
1:A:2049:VAL:O	1:A:2052:SER:OG	2.28	0.43
1:A:2563:VAL:HG11	1:A:2588:THR:HG22	2.00	0.43
1:A:3532:LEU:HD11	1:A:3538:LEU:HD23	1.98	0.43
1:A:3771:ILE:HG13	1:A:3771:ILE:O	2.19	0.43
1:B:1460:ASP:OD1	1:B:1460:ASP:N	2.51	0.43
1:A:3512:ASP:OD1	1:A:3512:ASP:N	2.44	0.43
1:A:3858:LEU:HB3	1:A:3860:LEU:HD23	2.00	0.43
1:B:2669:LEU:HD23	1:B:2669:LEU:HA	1.84	0.43
1:A:1964:VAL:HA	1:A:1967:ASP:OD2	2.18	0.43
1:A:3755:GLN:O	1:A:3759:ILE:HG12	2.18	0.43
1:A:4260:ARG:C	1:A:4366:GLN:HE21	2.22	0.43
1:B:4364:LEU:O	1:B:4367:SER:OG	2.27	0.43
1:B:2731:ASN:OD1	1:B:2795:ARG:NH2	2.46	0.43
1:A:1475:THR:O	1:A:1479:ARG:NH1	2.52	0.43
1:A:2060:GLU:HA	1:A:2095:PHE:HE1	1.84	0.43
1:A:2578:GLN:O	1:A:2582:MET:HG2	2.18	0.43
1:A:1832:VAL:HG23	1:A:2567:LEU:O	2.19	0.43
1:B:4310:LEU:HB3	1:B:4314:ARG:HH21	1.82	0.43
1:A:2399:TRP:HB3	1:A:2405:GLN:OE1	2.19	0.43
1:A:2850:VAL:HG12	1:A:2850:VAL:O	2.19	0.43
1:A:4192:THR:HB	1:A:4199:HIS:CE1	2.54	0.43
1:A:3414:LEU:O	1:B:2382:ARG:NH2	2.49	0.43
1:A:3632:PRO:O	1:A:3636:VAL:HG22	2.18	0.43
1:B:3784:VAL:O	1:B:3787:GLU:HG3	2.18	0.43
1:A:1992:GLN:HG3	1:A:1995:LYS:HZ3	1.84	0.42
1:A:3040:LEU:HD23	1:A:3040:LEU:HA	1.93	0.42
1:A:1402:HIS:CE1	1:A:1846:ASP:HB3	2.52	0.42
1:A:3831:PRO:HB2	1:A:3833:TYR:CZ	2.55	0.42
1:B:1425:GLY:O	1:B:1428:LEU:HG	2.19	0.42
1:B:1470:CYS:SG	1:B:2030:LEU:HG	2.60	0.42
1:A:1924:ILE:HA	1:A:1927:ARG:HE	1.82	0.42
1:A:2089:GLU:HG3	1:A:2091:TRP:NE1	2.35	0.42
1:A:2105:ASN:OD1	1:A:2106:SER:N	2.53	0.42
1:B:1788:ARG:CD	1:B:1861:ILE:HG23	2.49	0.42
1:A:2391:ASP:OD1	1:A:2391:ASP:N	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3809:ARG:NH1	1:B:1923:ASP:OD1	2.44	0.42
1:B:1814:SER:HB3	1:B:1861:ILE:HB	2.02	0.42
1:A:3126:VAL:HG13	1:B:2173:MET:SD	2.60	0.42
1:A:4186:ARG:NE	1:A:4194:ASP:HA	2.35	0.42
1:B:2105:ASN:OD1	1:B:2106:SER:N	2.52	0.42
1:A:2669:LEU:HD23	1:A:2669:LEU:HA	1.82	0.42
1:A:3614:ALA:HB2	1:A:3689:PHE:CD1	2.53	0.42
1:A:4173:VAL:HG12	1:A:4216:VAL:HG23	2.02	0.42
1:A:1817:ILE:HG23	1:A:1856:MET:HE3	2.00	0.41
1:A:1993:ARG:O	1:A:1996:VAL:HG12	2.20	0.41
1:A:3828:SER:HB3	1:A:4006:VAL:HB	2.03	0.41
1:B:1820:TRP:HA	1:B:1829:ARG:HH21	1.84	0.41
1:B:1942:ILE:HD12	1:B:1942:ILE:HA	1.92	0.41
1:B:2923:LEU:HD23	1:B:2923:LEU:HA	1.85	0.41
1:B:4192:THR:HB	1:B:4199:HIS:CE1	2.55	0.41
1:A:2325:HIS:O	1:A:2329:ILE:HG23	2.20	0.41
1:A:3834:LYS:O	1:A:3856:ARG:NH2	2.47	0.41
1:B:2105:ASN:ND2	1:B:2107:GLU:HB2	2.35	0.41
1:B:2762:LEU:HD23	1:B:2762:LEU:HA	1.82	0.41
1:A:1347:HIS:O	1:A:1351:LEU:HG	2.20	0.41
1:B:1827:ASP:OD1	1:B:1827:ASP:N	2.53	0.41
1:B:2122:SER:O	1:B:2126:GLN:HG3	2.20	0.41
1:B:3395:LYS:O	1:B:3399:ILE:HG12	2.21	0.41
1:B:4229:ASP:N	1:B:4229:ASP:OD1	2.54	0.41
1:A:1345:THR:O	1:A:1349:GLN:HG2	2.20	0.41
1:A:2113:PRO:O	1:A:2117:VAL:HG23	2.20	0.41
1:B:1795:PHE:HB3	1:B:1799:ILE:HD12	2.03	0.41
1:B:2092:TRP:NE1	1:B:2128:SER:OG	2.51	0.41
1:B:4389:VAL:HG22	1:B:4482:GLN:HE22	1.85	0.41
1:A:1853:CYS:SG	1:A:1854:ARG:N	2.93	0.41
1:A:2178:LEU:HD12	1:A:2178:LEU:HA	1.96	0.41
1:A:2337:LEU:HD12	1:A:2337:LEU:HA	1.92	0.41
1:B:1518:LYS:HD3	1:B:1519:ASN:H	1.85	0.41
1:B:1812:LEU:HD12	1:B:1862:GLY:HA2	2.02	0.41
1:B:2728:LEU:HD23	1:B:2728:LEU:HA	1.92	0.41
1:B:1935:LEU:HD12	1:B:1935:LEU:HA	1.90	0.41
1:B:3715:LEU:HD23	1:B:3715:LEU:HA	1.91	0.41
1:A:1470:CYS:HB3	1:A:2030:LEU:HD21	2.03	0.41
1:A:3364:ALA:HA	1:A:3422:ARG:NH1	2.36	0.41
1:B:1408:LEU:O	1:B:1412:ILE:HG12	2.20	0.41
1:B:1439:LEU:N	1:B:1440:PRO:HD2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1820:TRP:HB3	1:B:1828:GLY:HA2	2.03	0.41
1:B:3757:THR:HA	1:B:3760:GLU:HG2	2.03	0.41
1:A:1394:PHE:HE2	1:A:1435:ASN:HD21	1.68	0.41
1:A:2071:THR:HG22	1:A:2074:ILE:HG22	2.02	0.41
1:A:3399:ILE:HD13	1:A:3399:ILE:HA	1.91	0.41
1:A:3810:ARG:NH1	1:B:1930:LEU:HA	2.35	0.41
1:B:1803:ASP:HB3	1:B:1879:TYR:HD2	1.86	0.41
1:B:2840:LEU:HD23	1:B:2840:LEU:HA	1.91	0.41
1:B:4324:LEU:HG	1:B:4398:LEU:HD13	2.02	0.41
1:A:1976:ASP:O	1:A:1979:GLN:HG3	2.21	0.41
1:A:1979:GLN:NE2	1:A:1980:LEU:HG	2.36	0.41
1:A:4219:SER:O	1:A:4223:THR:OG1	2.27	0.41
1:A:2165:ILE:HD13	1:A:2165:ILE:HA	1.86	0.40
1:B:2047:PRO:HB2	1:B:2050:LEU:HB3	2.03	0.40
1:B:2629:LEU:HD23	1:B:2629:LEU:HA	1.97	0.40
1:B:4385:MET:HG2	1:B:4392:TYR:CE2	2.56	0.40
1:A:4496:ARG:O	1:A:4500:GLN:HB2	2.21	0.40
1:A:1406:ARG:HG3	1:A:2579:ALA:CB	2.51	0.40
1:A:2852:SER:OG	1:A:2853:VAL:N	2.55	0.40
1:A:2857:SER:O	1:A:2861:GLU:HG3	2.22	0.40
1:A:4252:SER:HB2	1:A:4368:CYS:SG	2.61	0.40
1:B:2062:LEU:HD11	1:B:2066:LEU:HD12	2.04	0.40
1:B:3866:LEU:HD23	1:B:3967:LEU:HD12	2.04	0.40
1:A:1921:GLN:HE22	1:A:1988:HIS:HD2	1.68	0.40
1:A:3353:ALA:N	1:A:3354:PRO:HD2	2.36	0.40
1:B:1396:ALA:HB1	1:B:1400:ILE:HG21	2.03	0.40
1:A:1439:LEU:N	1:A:1440:PRO:HD2	2.37	0.40
1:A:1473:LEU:O	1:A:1477:VAL:HG23	2.22	0.40
1:A:1988:HIS:NE2	1:A:1992:GLN:NE2	2.70	0.40
1:A:4260:ARG:O	1:A:4366:GLN:NE2	2.47	0.40
1:A:4380:ASP:N	1:A:4380:ASP:OD1	2.54	0.40
1:B:4164:PHE:HA	1:B:4167:LEU:HD13	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM

entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1971/4859 (41%)	1901 (96%)	70 (4%)	0	100	100
1	B	1901/4859 (39%)	1835 (96%)	66 (4%)	0	100	100
All	All	3872/9718 (40%)	3736 (96%)	136 (4%)	0	100	100

There are no Ramachandran outliers to report.

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	A	1783/4217 (42%)	1779 (100%)	4 (0%)	93	97
1	B	1717/4217 (41%)	1710 (100%)	7 (0%)	91	95
All	All	3500/8434 (42%)	3489 (100%)	11 (0%)	92	96

All (11) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1337	ARG
1	A	1829	ARG
1	A	1989	ASN
1	A	3994	LYS
1	B	1478	SER
1	B	1479	ARG
1	B	1797	ARG
1	B	1927	ARG
1	B	3193	ARG
1	B	3994	LYS
1	B	4236	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (6) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	1921	GLN
1	B	1480	GLN
1	B	1929	ASN
1	B	2016	GLN
1	B	2022	GLN
1	B	2735	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

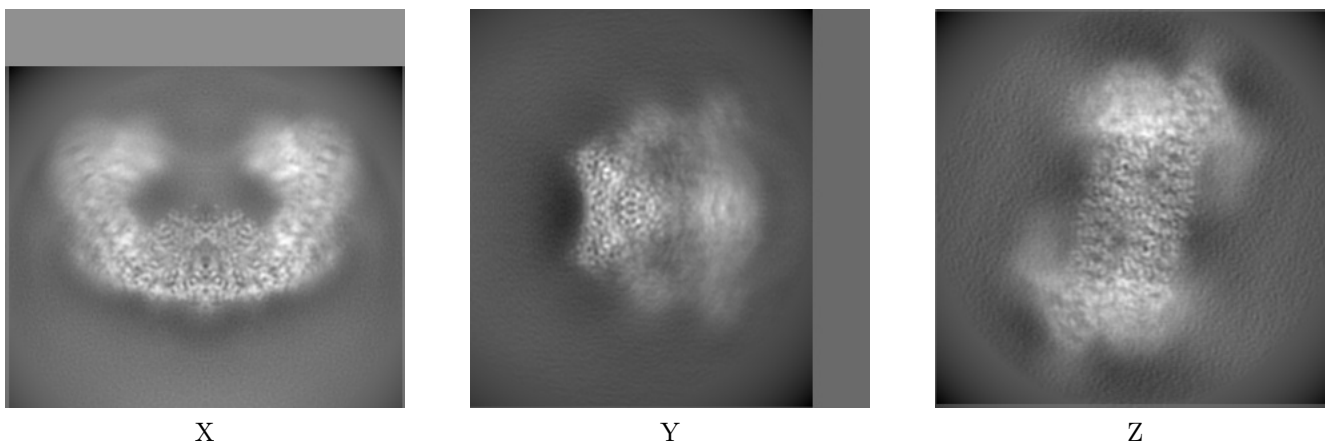
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-15653. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

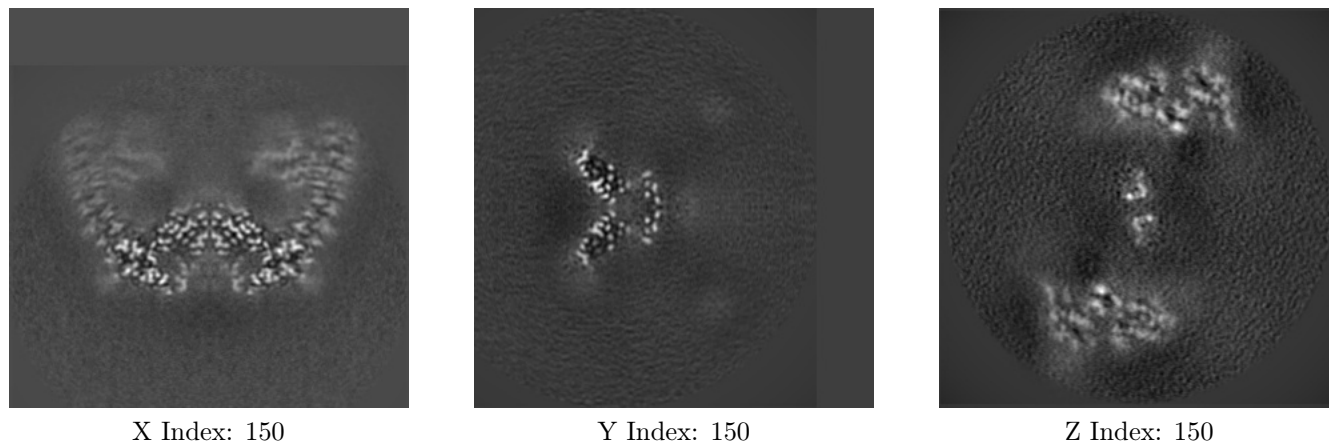
6.1.1 Primary map



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

6.2 Central slices [i](#)

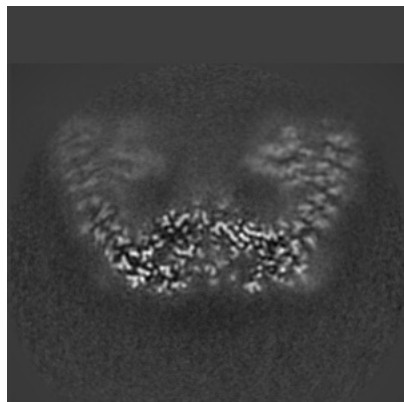
6.2.1 Primary map



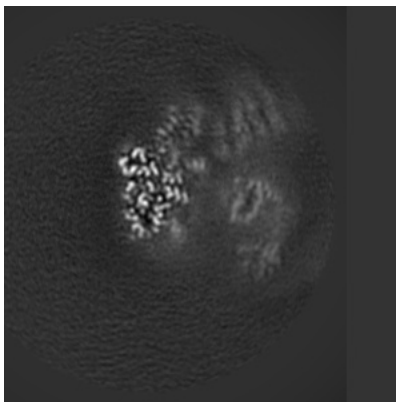
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

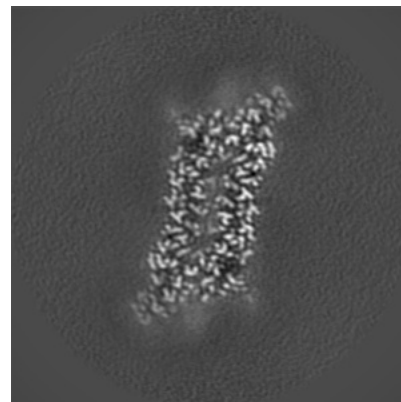
6.3.1 Primary map



X Index: 154



Y Index: 207

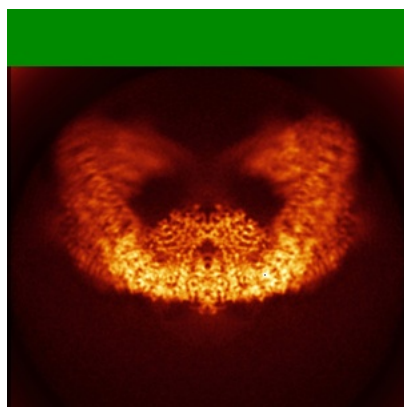


Z Index: 101

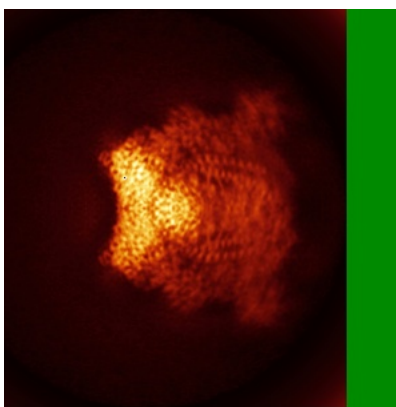
The images above show the largest variance slices of the map in three orthogonal directions.

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

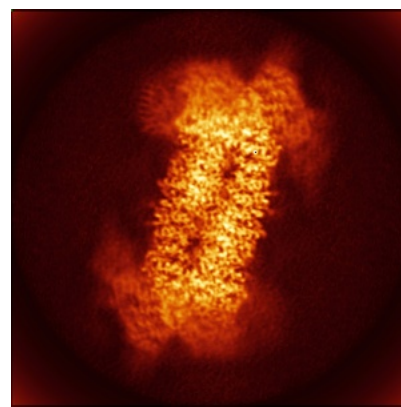
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 2.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

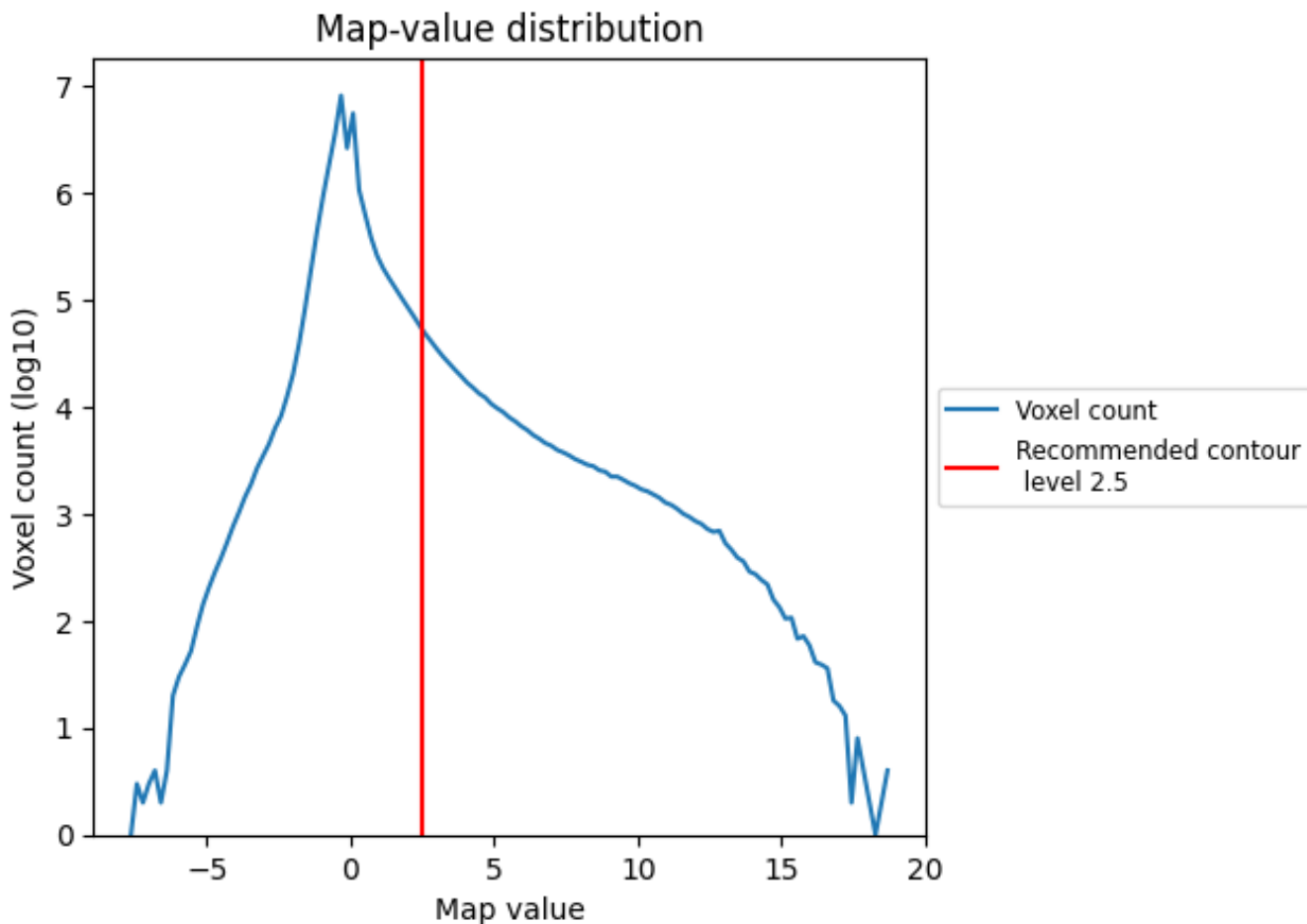
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

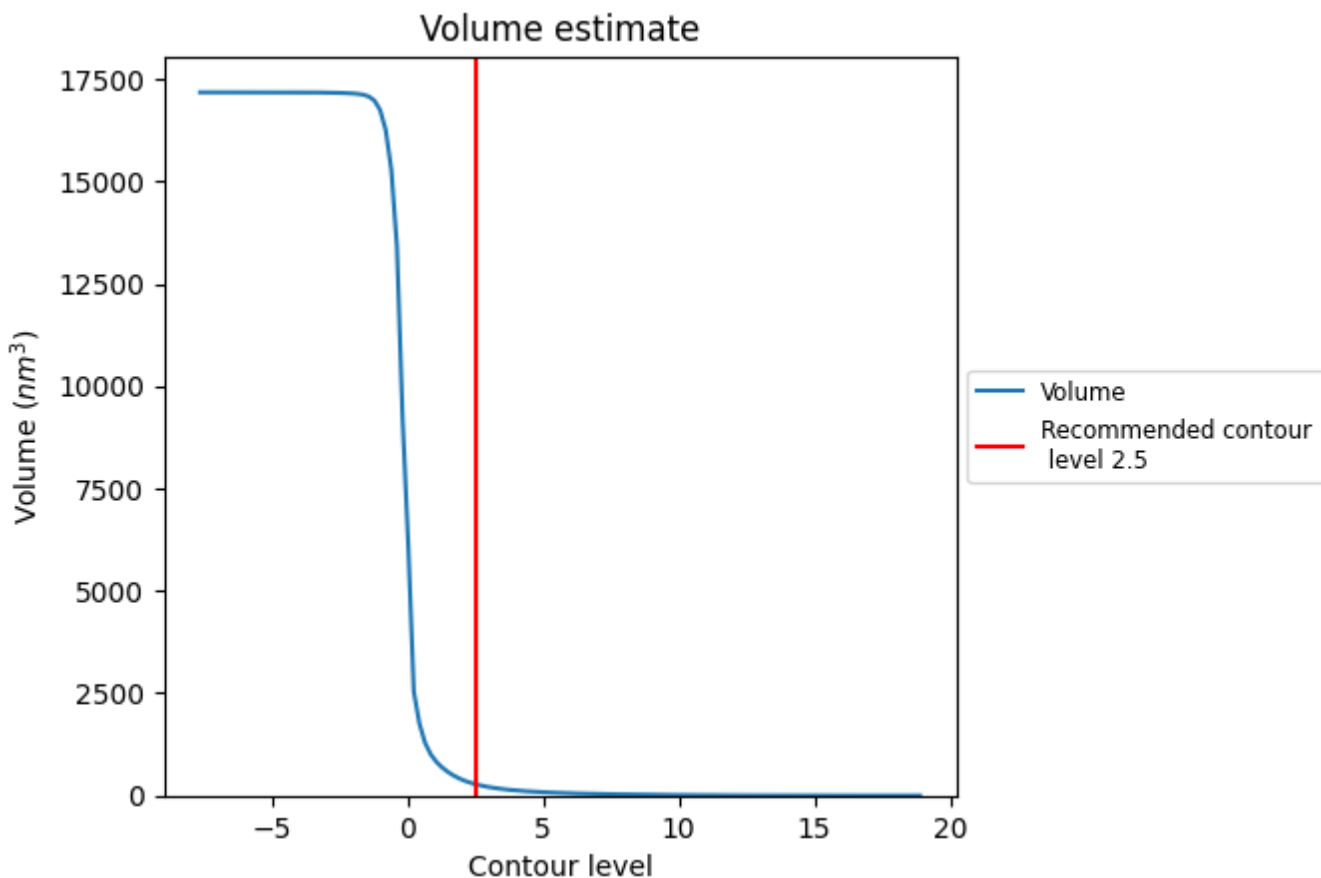
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

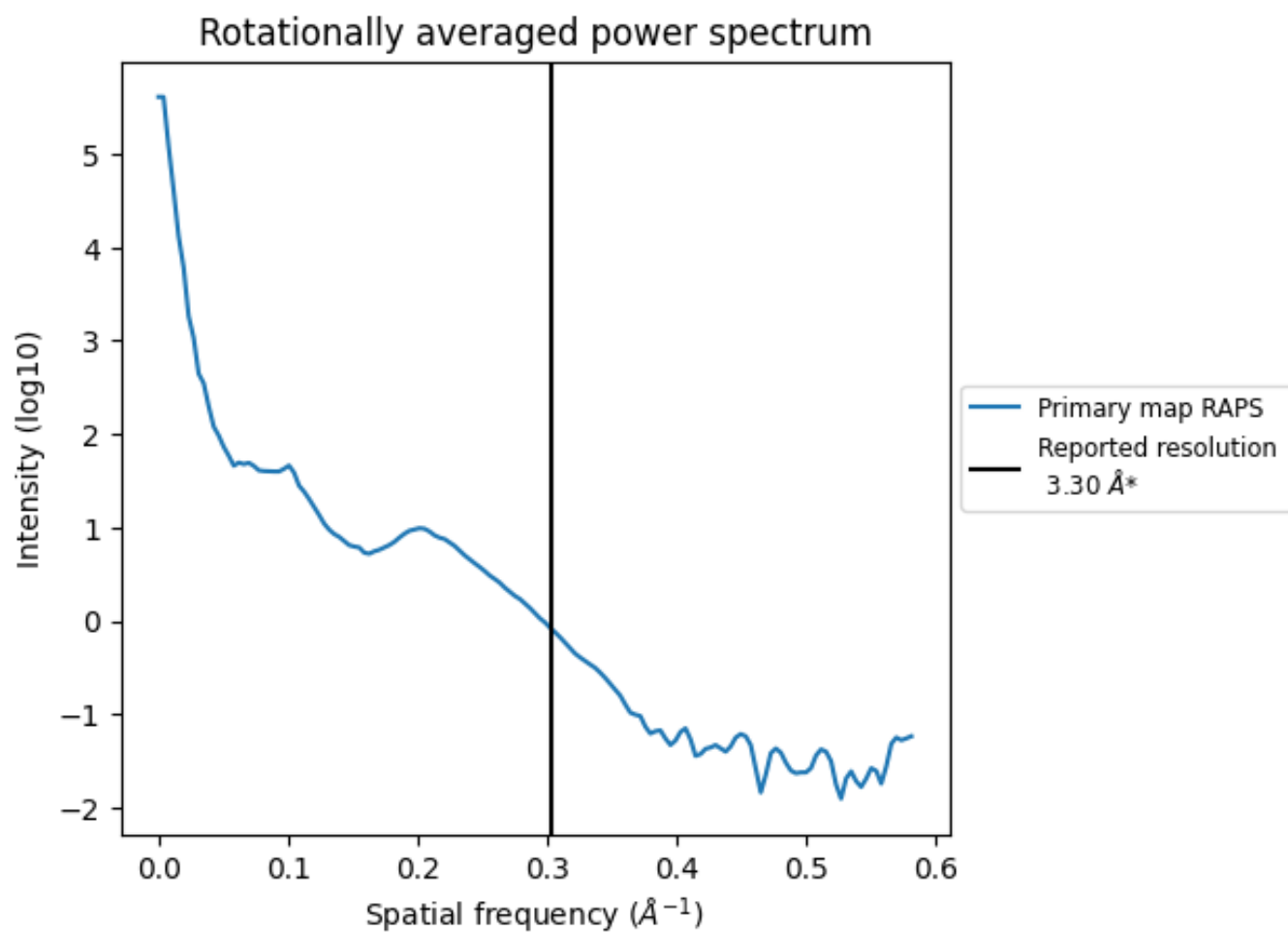
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 279 nm^3 ; this corresponds to an approximate mass of 252 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 [i](#)



*Reported resolution corresponds to spatial frequency of 0.303 Å⁻¹

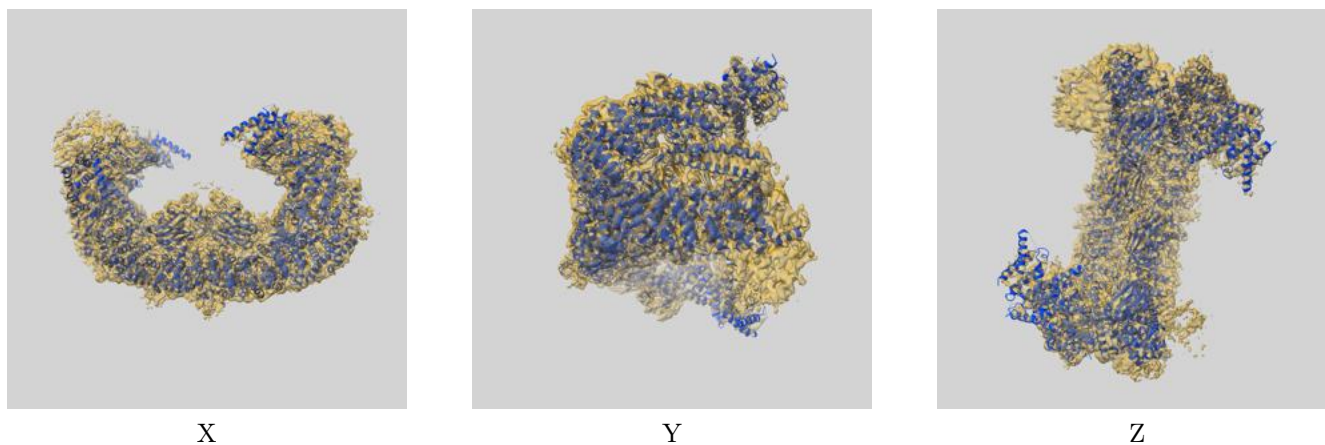
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

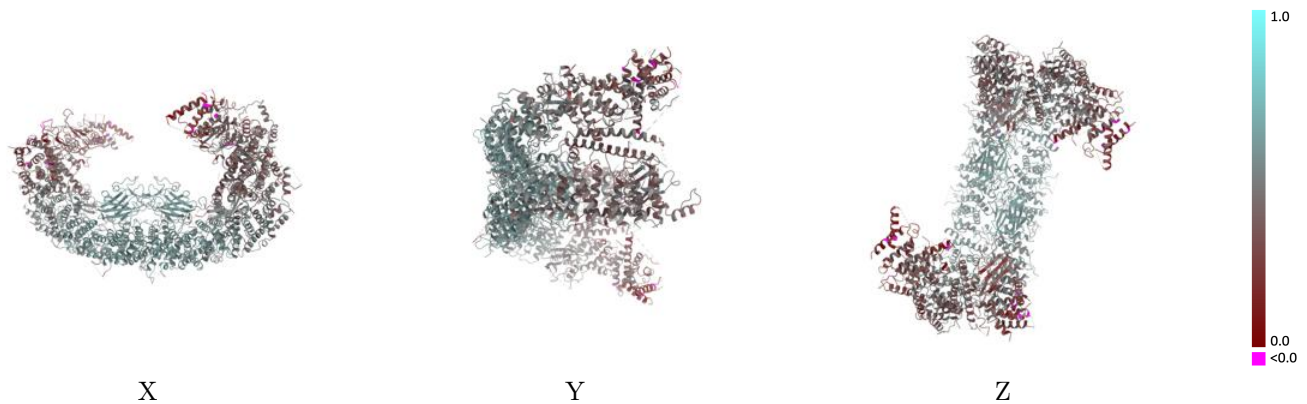
This section contains information regarding the fit between EMDB map EMD-15653 and PDB model 8ATM. Per-residue inclusion information can be found in section [3](#) on page [4](#).

9.1 Map-model overlay [i](#)



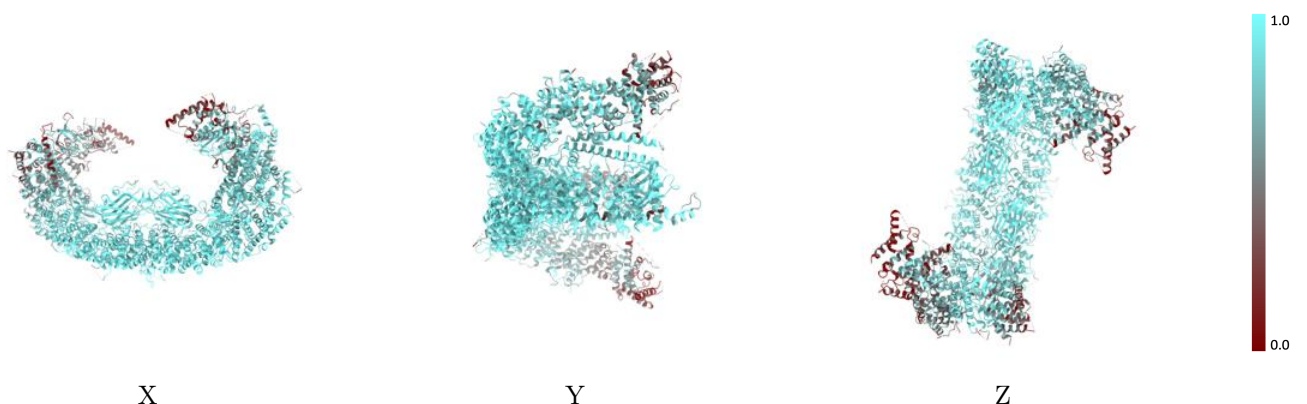
The images above show the 3D surface view of the map at the recommended contour level 2.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



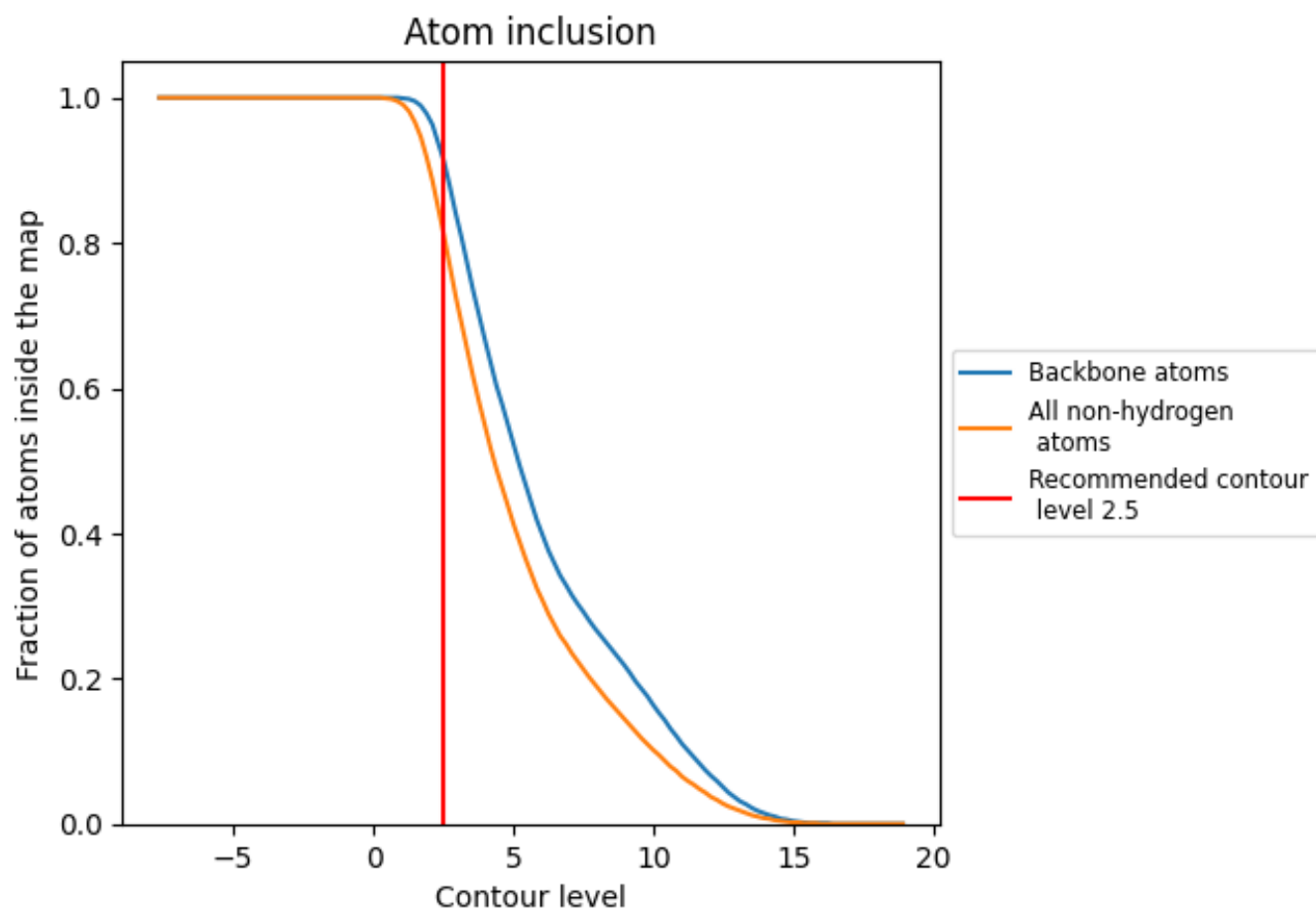
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.5).


9.4 Atom inclusion [i](#)



At the recommended contour level, 92% of all backbone atoms, 81% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (2.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8130	 0.4680
A	 0.8100	 0.4680
B	 0.8170	 0.4670

