Full wwPDB EM Validation Report ⓘ

Jul 14, 2024 – 12:52 pm BST

PDB ID	:	8AT2
EMDB ID	:	EMD-15631
Title	:	Structure of the augmin TIII subcomplex
Authors	:	Zupa, E.; Pfeffer, S.
Deposited on	:	2022-08-22
Resolution	:	7.70 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:

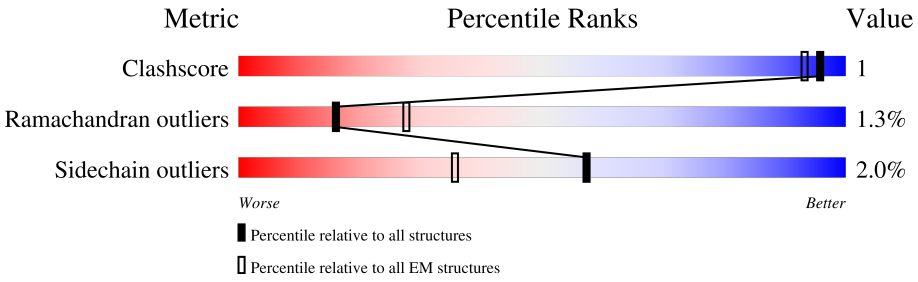
EMDB validation analysis	:	0.0.1.dev92
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

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 7.70 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 <=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	B	286	24% 66% 13% • 20%
2	C	597	22% 49% 14% • 34%
3	D	353	17% 68% 16% • 12%
4	E	666	19% 55% 13% • 30%

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 11362 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 HAUS augmin-like complex subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	B	230	1832	1149	303	369	11	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	156	ARG	GLN	variant	UNP Q3B8L5

- Molecule 2 is a protein called HAUS augmin-like complex subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	C	396	3192	1991	552	634	15	0	0

- Molecule 3 is a protein called HAUS augmin like complex subunit 4 L homeolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	D	309	2514	1569	446	484	15	0	0

- Molecule 4 is a protein called HAUS augmin-like complex subunit 5.

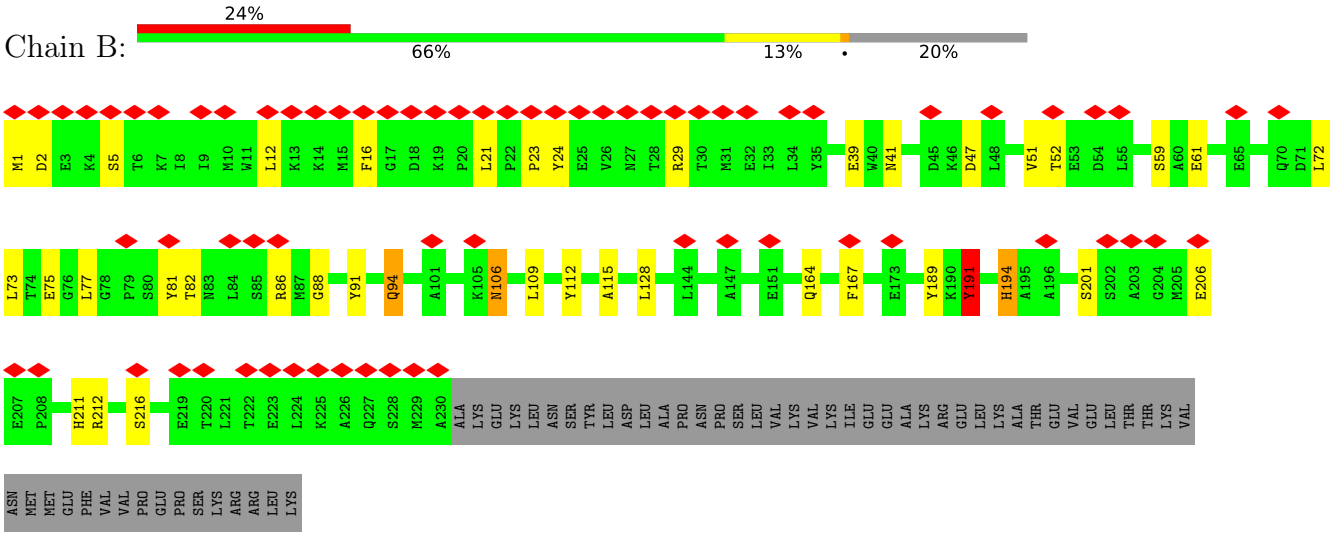
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	E	469	3824	2380	703	721	20	0	0

3 Residue-property plots (i)

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.

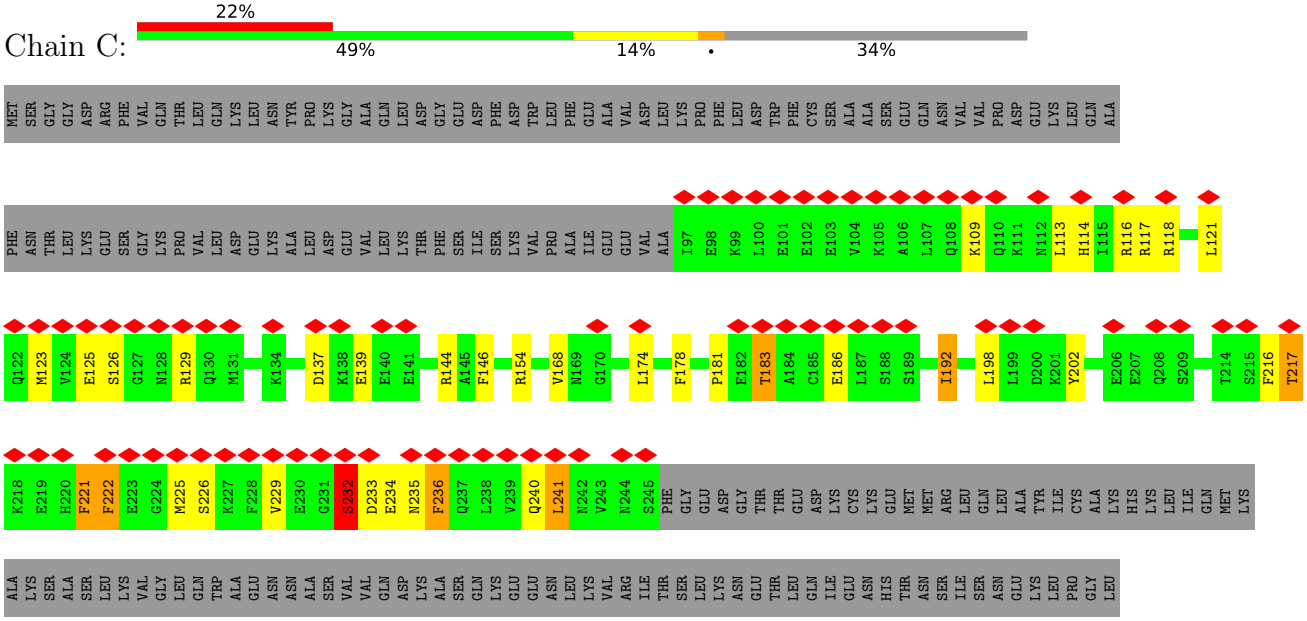
• Molecule 1: HAUS augmin-like complex subunit 1

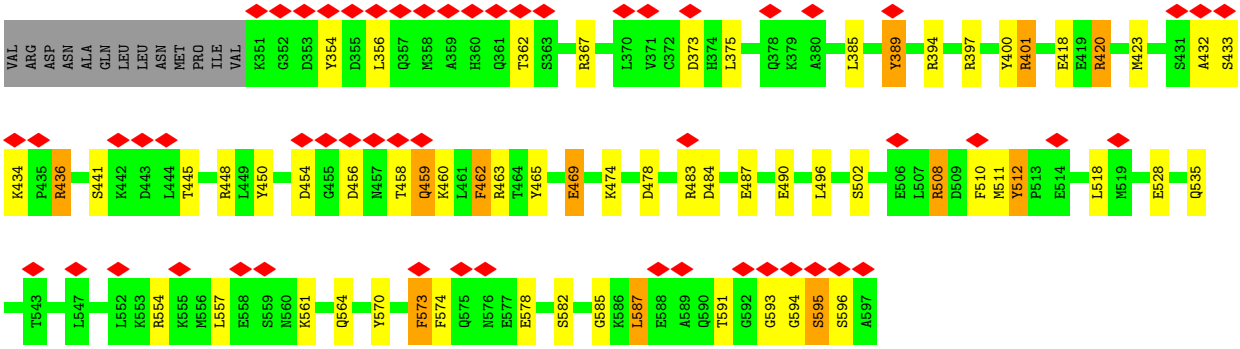
Chain B:



• Molecule 2: HAUS augmin-like complex subunit 3

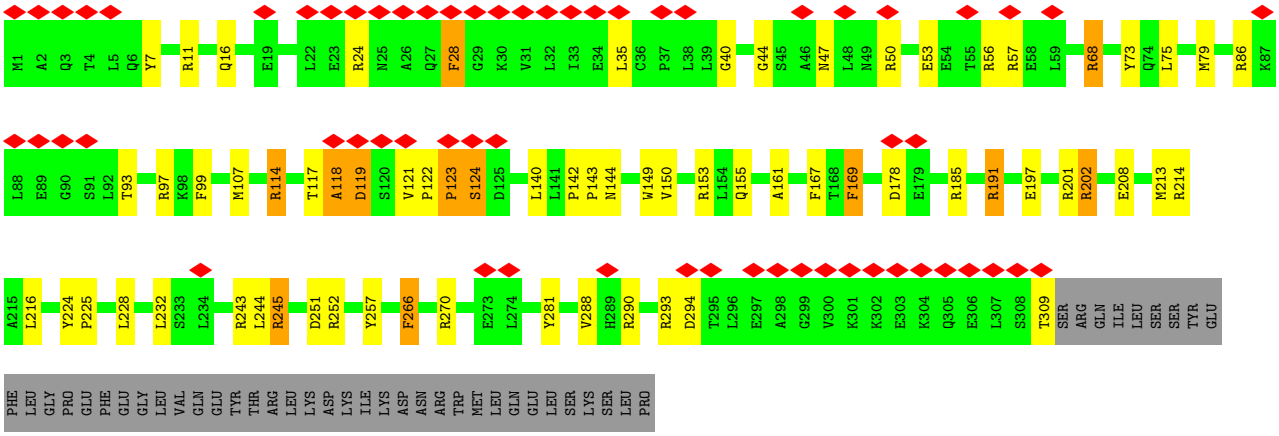
Chain C:





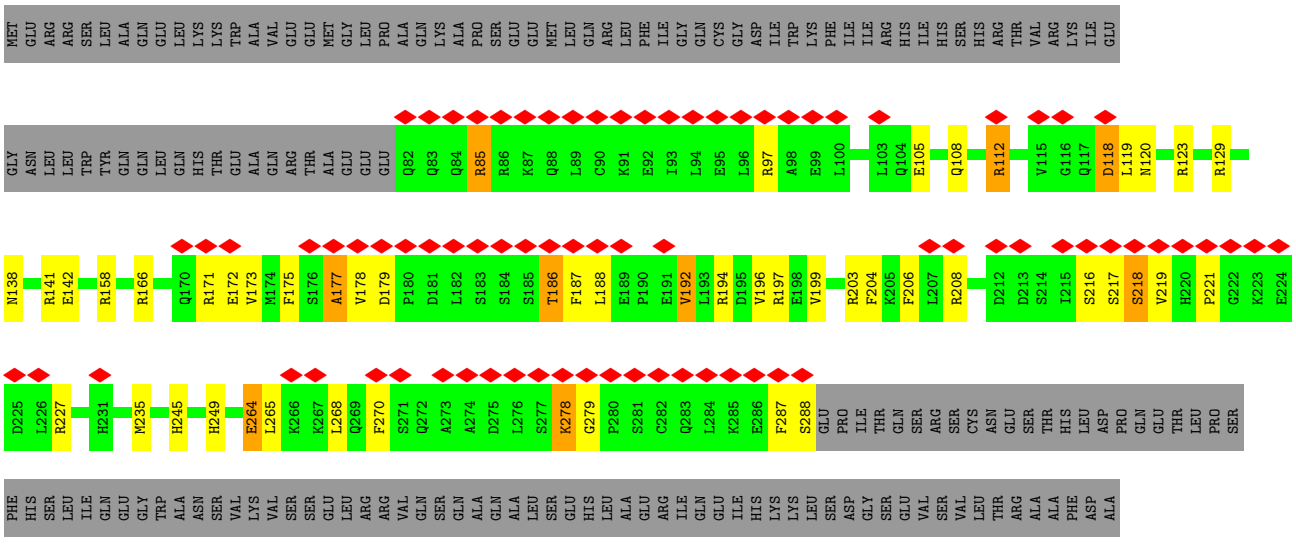
• Molecule 3: HAUS augmin like complex subunit 4 L homeolog

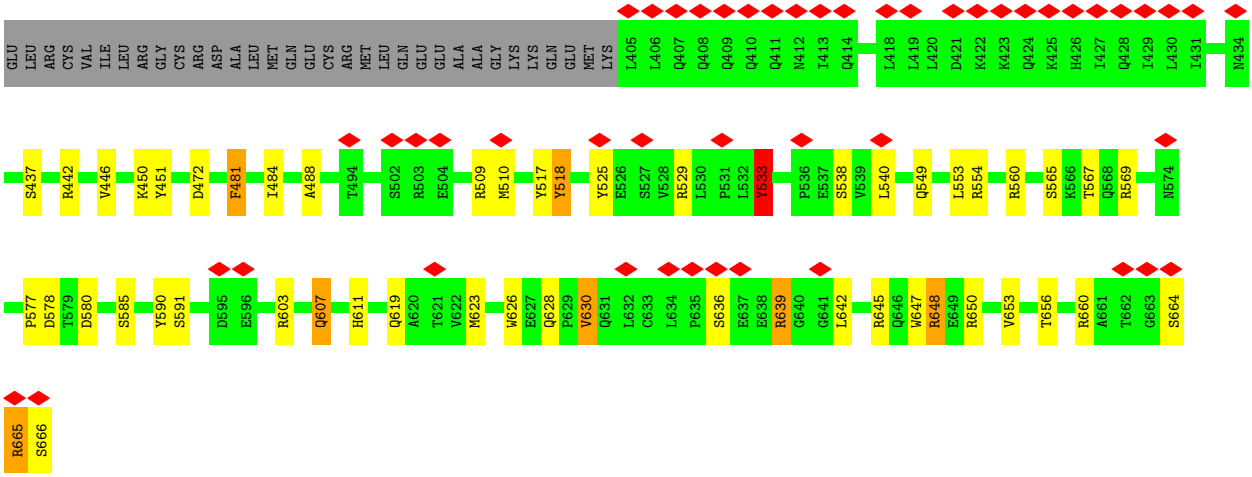
Chain D:



• Molecule 4: HAUS augmin-like complex subunit 5

Chain E:




GLU LEU ARG CYS VAL ILE LEU ARG GLY CYS ARG ASP ALA LEU MET GLN GLU CYS ARG MET LEU GLN GLU GLU ALA ALA GLY LYS LYS GLN GLU MET LYS
L405 L406 Q407 Q408 Q409 Q410 Q411 N412 I413 Q414
L418 L419 L420 D421 K422 K423 Q424 K425 H426 I427 Q428 I429 L430 I431
N434
S437 R442 V446 K450 Y451 D472 F481 I484 A488 T494 S502 R503 E504 R509 M510 Y517 Y518 Y525 E526 S527 Y528 R529 L530 P531 L532 Y533 P536 E537 S538 W539 L540 Q549 L553 R554 R560 S565 K566 T567 Q568 R569 N574
P577 D578 T579 D580 S585 Y590 S591 D595 E596 R603 Q607 H611 Q619 A620 T621 V622 M623 W626 E627 Q628 P629 V630 Q631 L632 C633 L634 P635 S636 E637 E638 R639 G640 G641 L642 R645 Q646 W647 R648 E649 R650 V653 T656 R660 A661 T662 G663 S664
R665 S666

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	82776	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	69	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	81000	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	5.815	Depositor
Minimum map value	-1.974	Depositor
Average map value	-0.004	Depositor
Map value standard deviation	0.098	Depositor
Recommended contour level	1.31	Depositor
Map size (Å)	547.84, 547.84, 547.84	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.14, 2.14, 2.14	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	B	1.71	18/1853 (1.0%)	1.76	24/2489 (1.0%)
2	C	1.68	22/3231 (0.7%)	1.92	72/4328 (1.7%)
3	D	1.67	14/2541 (0.6%)	1.86	62/3416 (1.8%)
4	E	1.71	24/3885 (0.6%)	1.89	91/5223 (1.7%)
All	All	1.69	78/11510 (0.7%)	1.87	249/15456 (1.6%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	5
2	C	0	26
3	D	0	13
4	E	0	18
All	All	0	62

All (78) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	201	SER	CA-CB	7.72	1.64	1.52
2	C	126	SER	CA-CB	7.51	1.64	1.52
2	C	570	TYR	CB-CG	-7.33	1.40	1.51
3	D	224	TYR	CE1-CZ	6.96	1.47	1.38
1	B	164	GLN	CA-CB	6.81	1.69	1.53
3	D	68	ARG	CZ-NH1	6.75	1.41	1.33
4	E	590	TYR	CE2-CZ	6.72	1.47	1.38
3	D	208	GLU	CD-OE2	6.68	1.32	1.25
2	C	114	HIS	CB-CG	6.63	1.61	1.50
3	D	73	TYR	CG-CD1	6.57	1.47	1.39
4	E	509	ARG	CZ-NH1	6.46	1.41	1.33
4	E	172	GLU	CG-CD	6.43	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	E	565	SER	CA-CB	6.41	1.62	1.52
4	E	171	ARG	CD-NE	6.30	1.57	1.46
2	C	118	ARG	CZ-NH1	6.21	1.41	1.33
2	C	448	ARG	CZ-NH1	6.20	1.41	1.33
1	B	112	TYR	CE1-CZ	6.09	1.46	1.38
4	E	203	ARG	NE-CZ	6.09	1.41	1.33
4	E	650	ARG	CD-NE	6.09	1.56	1.46
2	C	117	ARG	CZ-NH1	6.08	1.41	1.33
1	B	5	SER	CA-CB	6.06	1.62	1.52
4	E	129	ARG	NE-CZ	6.06	1.41	1.33
4	E	538	SER	CA-CB	6.04	1.62	1.52
2	C	512	TYR	CE2-CZ	6.01	1.46	1.38
4	E	525	TYR	CG-CD1	6.00	1.47	1.39
4	E	204	PHE	CG-CD2	5.98	1.47	1.38
1	B	194	HIS	CB-CG	5.89	1.60	1.50
1	B	167	PHE	CA-CB	5.87	1.66	1.53
1	B	189	TYR	CG-CD2	5.77	1.46	1.39
1	B	59	SER	CB-OG	5.76	1.49	1.42
3	D	44	GLY	CA-C	-5.76	1.42	1.51
4	E	192	VAL	CB-CG2	5.75	1.65	1.52
4	E	451	TYR	CB-CG	5.72	1.60	1.51
3	D	197	GLU	CD-OE2	5.70	1.31	1.25
1	B	88	GLY	CA-C	-5.64	1.42	1.51
1	B	61	GLU	CD-OE1	5.63	1.31	1.25
2	C	441	SER	CA-CB	5.62	1.61	1.52
2	C	397	ARG	NE-CZ	5.62	1.40	1.33
1	B	59	SER	CA-CB	5.61	1.61	1.52
3	D	191	ARG	CZ-NH1	5.61	1.40	1.33
3	D	86	ARG	CD-NE	5.60	1.55	1.46
3	D	68	ARG	CD-NE	5.60	1.55	1.46
1	B	75	GLU	CD-OE1	5.54	1.31	1.25
4	E	666	SER	CA-CB	5.50	1.61	1.52
1	B	106	ASN	CA-CB	5.46	1.67	1.53
4	E	525	TYR	CE1-CZ	5.44	1.45	1.38
3	D	270	ARG	NE-CZ	5.43	1.40	1.33
3	D	167	PHE	CE1-CZ	5.41	1.47	1.37
2	C	125	GLU	CD-OE2	-5.32	1.19	1.25
4	E	120	ASN	N-CA	-5.30	1.35	1.46
4	E	171	ARG	CZ-NH1	5.29	1.40	1.33
2	C	595	SER	CA-CB	5.27	1.60	1.52
3	D	40	GLY	N-CA	-5.27	1.38	1.46
1	B	206	GLU	CB-CG	5.23	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	585	GLY	CA-C	5.22	1.60	1.51
1	B	41	ASN	N-CA	-5.21	1.35	1.46
2	C	356	LEU	CA-CB	5.20	1.65	1.53
2	C	554	ARG	CD-NE	5.18	1.55	1.46
4	E	437	SER	CB-OG	-5.15	1.35	1.42
4	E	288	SER	CA-CB	-5.14	1.45	1.52
1	B	212	ARG	CZ-NH2	5.13	1.39	1.33
3	D	28	PHE	CB-CG	5.11	1.60	1.51
4	E	177	ALA	N-CA	-5.11	1.36	1.46
4	E	194	ARG	CA-CB	-5.11	1.42	1.53
2	C	139	GLU	CD-OE1	5.09	1.31	1.25
4	E	529	ARG	CZ-NH1	5.08	1.39	1.33
2	C	578	GLU	CG-CD	5.08	1.59	1.51
4	E	208	ARG	NE-CZ	5.08	1.39	1.33
2	C	367	ARG	CD-NE	5.08	1.55	1.46
2	C	578	GLU	CA-CB	5.07	1.65	1.53
4	E	264	GLU	CB-CG	5.05	1.61	1.52
1	B	216	SER	CA-CB	5.05	1.60	1.52
3	D	201	ARG	CZ-NH1	5.05	1.39	1.33
2	C	469	GLU	CD-OE2	5.04	1.31	1.25
2	C	570	TYR	CZ-OH	5.04	1.46	1.37
2	C	118	ARG	CZ-NH2	5.03	1.39	1.33
1	B	39	GLU	CD-OE2	5.01	1.31	1.25
2	C	418	GLU	CA-CB	5.01	1.65	1.53

All (249) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	463	ARG	NE-CZ-NH2	-18.78	110.91	120.30
2	C	118	ARG	NE-CZ-NH1	17.98	129.29	120.30
1	B	212	ARG	NE-CZ-NH2	-17.34	111.63	120.30
2	C	401	ARG	NE-CZ-NH2	-15.61	112.49	120.30
4	E	603	ARG	NE-CZ-NH2	-14.86	112.87	120.30
3	D	270	ARG	NE-CZ-NH2	-14.48	113.06	120.30
4	E	123	ARG	NE-CZ-NH2	-13.85	113.38	120.30
2	C	401	ARG	NE-CZ-NH1	13.78	127.19	120.30
4	E	85	ARG	NE-CZ-NH2	-13.72	113.44	120.30
2	C	118	ARG	NE-CZ-NH2	-13.68	113.46	120.30
4	E	112	ARG	NE-CZ-NH1	13.64	127.12	120.30
2	C	129	ARG	NE-CZ-NH1	13.52	127.06	120.30
4	E	141	ARG	NE-CZ-NH2	-12.88	113.86	120.30
2	C	554	ARG	NE-CZ-NH1	12.77	126.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	E	85	ARG	NE-CZ-NH1	12.34	126.47	120.30
4	E	650	ARG	NE-CZ-NH2	-12.11	114.24	120.30
3	D	245	ARG	NE-CZ-NH2	-12.09	114.25	120.30
2	C	508	ARG	NE-CZ-NH2	-11.82	114.39	120.30
2	C	508	ARG	NE-CZ-NH1	11.81	126.20	120.30
3	D	57	ARG	NE-CZ-NH1	11.56	126.08	120.30
2	C	450	TYR	CB-CG-CD1	-11.49	114.10	121.00
1	B	191	TYR	CB-CG-CD1	-11.16	114.30	121.00
4	E	590	TYR	CB-CG-CD2	-11.06	114.36	121.00
4	E	123	ARG	NE-CZ-NH1	10.95	125.78	120.30
4	E	603	ARG	NE-CZ-NH1	10.82	125.71	120.30
2	C	394	ARG	NE-CZ-NH1	10.71	125.66	120.30
4	E	639	ARG	NE-CZ-NH1	10.69	125.64	120.30
3	D	293	ARG	NE-CZ-NH2	-10.66	114.97	120.30
2	C	420	ARG	NE-CZ-NH2	10.64	125.62	120.30
3	D	68	ARG	NE-CZ-NH2	-10.56	115.02	120.30
3	D	294	ASP	CB-CG-OD2	-10.22	109.10	118.30
2	C	570	TYR	CB-CG-CD2	-10.21	114.87	121.00
4	E	590	TYR	CB-CG-CD1	10.13	127.08	121.00
4	E	665	ARG	NE-CZ-NH1	10.09	125.35	120.30
2	C	436	ARG	NE-CZ-NH2	10.03	125.31	120.30
4	E	569	ARG	NE-CZ-NH1	10.03	125.31	120.30
4	E	509	ARG	NE-CZ-NH2	9.94	125.27	120.30
2	C	510	PHE	CB-CG-CD1	-9.86	113.90	120.80
3	D	202	ARG	NE-CZ-NH1	9.76	125.18	120.30
4	E	158	ARG	NE-CZ-NH1	9.66	125.13	120.30
1	B	212	ARG	NE-CZ-NH1	9.57	125.09	120.30
3	D	243	ARG	NE-CZ-NH2	-9.56	115.52	120.30
2	C	117	ARG	NE-CZ-NH1	9.50	125.05	120.30
2	C	463	ARG	NE-CZ-NH1	9.44	125.02	120.30
1	B	91	TYR	CB-CG-CD1	9.33	126.60	121.00
4	E	208	ARG	NE-CZ-NH2	-9.29	115.65	120.30
2	C	394	ARG	NE-CZ-NH2	-9.16	115.72	120.30
4	E	554	ARG	NE-CZ-NH2	-9.13	115.73	120.30
4	E	129	ARG	NE-CZ-NH2	-8.95	115.83	120.30
3	D	11	ARG	NE-CZ-NH2	-8.86	115.87	120.30
2	C	423	MET	CG-SD-CE	-8.70	86.28	100.20
3	D	290	ARG	NE-CZ-NH2	8.64	124.62	120.30
2	C	554	ARG	NE-CZ-NH2	-8.62	115.99	120.30
4	E	569	ARG	NE-CZ-NH2	-8.56	116.02	120.30
3	D	257	TYR	CB-CG-CD1	-8.50	115.90	121.00
4	E	118	ASP	CB-CG-OD2	-8.34	110.79	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	E	648	ARG	NE-CZ-NH2	-8.33	116.14	120.30
4	E	97	ARG	NE-CZ-NH2	8.21	124.40	120.30
3	D	201	ARG	NE-CZ-NH1	8.20	124.40	120.30
3	D	169	PHE	CB-CG-CD1	8.16	126.51	120.80
2	C	144	ARG	NE-CZ-NH2	-8.15	116.22	120.30
3	D	169	PHE	CB-CG-CD2	-8.13	115.11	120.80
4	E	97	ARG	NE-CZ-NH1	-8.12	116.24	120.30
2	C	574	PHE	CB-CG-CD1	-8.11	115.13	120.80
3	D	7	TYR	CB-CG-CD1	8.09	125.85	121.00
3	D	97	ARG	NE-CZ-NH2	8.04	124.32	120.30
3	D	266	PHE	CB-CG-CD2	-8.04	115.17	120.80
2	C	137	ASP	CB-CG-OD1	8.04	125.53	118.30
2	C	573	PHE	CB-CG-CD2	-7.94	115.24	120.80
2	C	168	VAL	CA-CB-CG2	-7.86	99.11	110.90
4	E	665	ARG	NH1-CZ-NH2	-7.85	110.76	119.40
2	C	217	THR	CA-CB-CG2	-7.84	101.42	112.40
1	B	16	PHE	CB-CG-CD1	-7.78	115.35	120.80
1	B	189	TYR	CB-CG-CD1	7.68	125.61	121.00
3	D	50	ARG	NE-CZ-NH1	7.62	124.11	120.30
3	D	224	TYR	CD1-CE1-CZ	-7.60	112.96	119.80
4	E	481	PHE	CB-CG-CD2	-7.59	115.48	120.80
3	D	243	ARG	NE-CZ-NH1	7.53	124.07	120.30
3	D	191	ARG	NE-CZ-NH2	7.45	124.03	120.30
4	E	204	PHE	CB-CG-CD2	7.45	126.01	120.80
2	C	232	SER	N-CA-CB	7.43	121.65	110.50
4	E	554	ARG	NE-CZ-NH1	7.33	123.96	120.30
2	C	484	ASP	CB-CG-OD1	7.30	124.87	118.30
4	E	442	ARG	NE-CZ-NH1	-7.30	116.65	120.30
3	D	225	PRO	N-CA-CB	7.22	111.97	103.30
1	B	29	ARG	NE-CZ-NH2	7.20	123.90	120.30
2	C	225	MET	CG-SD-CE	7.20	111.71	100.20
3	D	257	TYR	CB-CG-CD2	7.15	125.29	121.00
4	E	518	TYR	CB-CG-CD2	7.12	125.27	121.00
4	E	645	ARG	NE-CZ-NH1	7.11	123.86	120.30
2	C	582	SER	O-C-N	7.08	134.02	122.70
2	C	222	PHE	CB-CG-CD1	7.06	125.74	120.80
4	E	647	TRP	CB-CG-CD2	-7.05	117.43	126.60
4	E	639	ARG	NE-CZ-NH2	-7.04	116.78	120.30
2	C	216	PHE	CB-CG-CD1	-6.97	115.92	120.80
3	D	114	ARG	NE-CZ-NH2	-6.95	116.83	120.30
4	E	665	ARG	NE-CZ-NH2	6.86	123.73	120.30
2	C	123	MET	CG-SD-CE	-6.83	89.27	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	D	68	ARG	NE-CZ-NH1	6.83	123.71	120.30
4	E	451	TYR	CB-CG-CD2	-6.79	116.92	121.00
3	D	185	ARG	NE-CZ-NH1	6.79	123.69	120.30
3	D	97	ARG	NE-CZ-NH1	-6.75	116.93	120.30
4	E	158	ARG	NE-CZ-NH2	-6.74	116.93	120.30
4	E	645	ARG	NE-CZ-NH2	-6.71	116.95	120.30
4	E	197	ARG	NE-CZ-NH2	6.70	123.65	120.30
4	E	525	TYR	CD1-CE1-CZ	-6.70	113.77	119.80
4	E	118	ASP	CB-CG-OD1	6.67	124.30	118.30
2	C	367	ARG	NE-CZ-NH1	-6.66	116.97	120.30
3	D	191	ARG	NE-CZ-NH1	-6.64	116.98	120.30
3	D	7	TYR	CB-CG-CD2	-6.63	117.02	121.00
4	E	175	PHE	CB-CG-CD1	-6.61	116.17	120.80
3	D	79	MET	CG-SD-CE	-6.61	89.63	100.20
2	C	570	TYR	CG-CD1-CE1	-6.61	116.02	121.30
3	D	216	LEU	N-CA-CB	6.59	123.57	110.40
4	E	529	ARG	NE-CZ-NH1	6.59	123.59	120.30
2	C	450	TYR	CG-CD1-CE1	-6.57	116.05	121.30
3	D	24	ARG	NE-CZ-NH2	6.56	123.58	120.30
4	E	481	PHE	CB-CG-CD1	6.55	125.39	120.80
4	E	179	ASP	CB-CG-OD2	-6.55	112.40	118.30
1	B	191	TYR	CB-CG-CD2	6.43	124.86	121.00
3	D	232	LEU	CB-CG-CD1	-6.42	100.09	111.00
4	E	517	TYR	CG-CD2-CE2	-6.35	116.22	121.30
2	C	116	ARG	NE-CZ-NH2	-6.34	117.13	120.30
4	E	268	LEU	N-CA-CB	6.29	122.99	110.40
4	E	517	TYR	CB-CG-CD1	-6.27	117.24	121.00
3	D	121	VAL	N-CA-C	-6.25	94.12	111.00
2	C	420	ARG	NE-CZ-NH1	-6.25	117.17	120.30
4	E	235	MET	CG-SD-CE	-6.20	90.28	100.20
1	B	201	SER	CB-CA-C	6.17	121.83	110.10
4	E	179	ASP	N-CA-CB	6.17	121.70	110.60
2	C	400	TYR	CG-CD1-CE1	6.16	126.22	121.30
2	C	502	SER	N-CA-CB	6.15	119.73	110.50
4	E	175	PHE	CD1-CE1-CZ	6.15	127.48	120.10
4	E	227	ARG	NE-CZ-NH1	-6.04	117.28	120.30
4	E	525	TYR	CB-CG-CD1	-6.03	117.38	121.00
1	B	2	ASP	CB-CA-C	-6.03	98.34	110.40
2	C	146	PHE	CB-CG-CD1	6.03	125.02	120.80
4	E	265	LEU	CB-CG-CD2	6.02	121.23	111.00
4	E	187	PHE	N-CA-C	-5.99	94.82	111.00
2	C	222	PHE	CB-CG-CD2	-5.97	116.62	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	E	533	TYR	CB-CG-CD1	-5.95	117.43	121.00
2	C	362	THR	CA-CB-CG2	5.94	120.72	112.40
4	E	177	ALA	CB-CA-C	-5.93	101.20	110.10
1	B	94	GLN	CA-CB-CG	5.93	126.45	113.40
4	E	194	ARG	NE-CZ-NH1	5.92	123.26	120.30
1	B	72	LEU	CB-CG-CD1	5.88	121.00	111.00
4	E	268	LEU	CB-CA-C	-5.88	99.02	110.20
1	B	2	ASP	CB-CG-OD1	5.88	123.59	118.30
1	B	16	PHE	CB-CG-CD2	5.88	124.92	120.80
4	E	639	ARG	N-CA-CB	5.88	121.18	110.60
2	C	573	PHE	CB-CG-CD1	5.88	124.91	120.80
4	E	509	ARG	NE-CZ-NH1	-5.88	117.36	120.30
2	C	400	TYR	CD1-CE1-CZ	-5.87	114.52	119.80
4	E	660	ARG	NE-CZ-NH1	5.83	123.22	120.30
4	E	177	ALA	N-CA-CB	5.81	118.23	110.10
4	E	650	ARG	NE-CZ-NH1	5.81	123.20	120.30
2	C	240	GLN	C-N-CA	5.79	136.18	121.70
2	C	511	MET	CG-SD-CE	-5.78	90.94	100.20
4	E	249	HIS	O-C-N	-5.78	113.44	122.70
3	D	294	ASP	CB-CG-OD1	5.78	123.50	118.30
3	D	281	TYR	CA-CB-CG	-5.77	102.44	113.40
3	D	251	ASP	CB-CG-OD1	5.75	123.47	118.30
4	E	647	TRP	CB-CG-CD1	5.70	134.41	127.00
2	C	129	ARG	NH1-CZ-NH2	-5.67	113.16	119.40
3	D	149	TRP	CE2-CD2-CG	5.64	111.81	107.30
2	C	202	TYR	CB-CG-CD1	-5.63	117.62	121.00
2	C	198	LEU	N-CA-CB	5.60	121.59	110.40
2	C	178	PHE	N-CA-CB	5.59	120.67	110.60
3	D	281	TYR	CB-CG-CD2	-5.58	117.65	121.00
3	D	224	TYR	CG-CD1-CE1	5.58	125.76	121.30
2	C	174	LEU	CB-CG-CD1	5.57	120.47	111.00
3	D	119	ASP	CB-CG-OD2	5.56	123.31	118.30
3	D	149	TRP	CG-CD2-CE3	-5.53	128.93	133.90
2	C	587	LEU	O-C-N	-5.52	113.87	122.70
4	E	278	LYS	C-N-CA	5.51	133.87	122.30
1	B	21	LEU	CB-CG-CD2	5.50	120.34	111.00
3	D	252	ARG	NE-CZ-NH2	5.49	123.05	120.30
2	C	478	ASP	N-CA-CB	5.48	120.46	110.60
3	D	140	LEU	CB-CG-CD2	5.47	120.30	111.00
2	C	574	PHE	CB-CG-CD2	5.47	124.63	120.80
3	D	50	ARG	NE-CZ-NH2	-5.46	117.57	120.30
4	E	623	MET	CA-CB-CG	5.44	122.55	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	E	287	PHE	CB-CG-CD2	-5.44	116.99	120.80
3	D	124	SER	O-C-N	-5.43	114.00	122.70
2	C	528	GLU	OE1-CD-OE2	5.41	129.80	123.30
4	E	173	VAL	CA-CB-CG1	5.41	119.02	110.90
3	D	309	THR	CA-CB-CG2	-5.41	104.83	112.40
4	E	187	PHE	CB-CG-CD2	-5.39	117.02	120.80
1	B	29	ARG	NH1-CZ-NH2	-5.38	113.48	119.40
3	D	270	ARG	NH1-CZ-NH2	5.37	125.30	119.40
4	E	580	ASP	N-CA-CB	5.34	120.22	110.60
3	D	153	ARG	CG-CD-NE	-5.34	100.58	111.80
3	D	144	ASN	O-C-N	-5.34	114.16	122.70
4	E	196	VAL	O-C-N	-5.33	114.16	122.70
4	E	656	THR	N-CA-CB	5.32	120.42	110.30
1	B	47	ASP	CB-CG-OD1	5.32	123.09	118.30
1	B	128	LEU	CB-CA-C	-5.32	100.09	110.20
2	C	535	GLN	CB-CA-C	-5.32	99.76	110.40
1	B	23	PRO	N-CD-CG	5.31	111.17	103.20
4	E	626	TRP	CB-CG-CD2	-5.31	119.70	126.60
1	B	52	THR	CA-CB-CG2	5.28	119.79	112.40
3	D	107	MET	CA-CB-CG	5.28	122.28	113.30
4	E	591	SER	N-CA-CB	5.27	118.41	110.50
2	C	389	TYR	N-CA-CB	5.27	120.08	110.60
3	D	245	ARG	NH1-CZ-NH2	5.26	125.19	119.40
3	D	201	ARG	NE-CZ-NH2	-5.25	117.67	120.30
4	E	619	GLN	N-CA-CB	5.25	120.05	110.60
3	D	252	ARG	NE-CZ-NH1	5.24	122.92	120.30
1	B	109	LEU	CB-CA-C	-5.22	100.29	110.20
3	D	93	THR	N-CA-CB	5.21	120.21	110.30
2	C	183	THR	CA-CB-CG2	-5.21	105.11	112.40
3	D	228	LEU	N-CA-CB	5.20	120.81	110.40
4	E	112	ARG	NE-CZ-NH2	-5.20	117.70	120.30
4	E	488	ALA	CB-CA-C	-5.19	102.31	110.10
3	D	53	GLU	OE1-CD-OE2	-5.17	117.10	123.30
4	E	488	ALA	N-CA-CB	5.17	117.34	110.10
2	C	375	LEU	CB-CG-CD1	5.16	119.77	111.00
2	C	454	ASP	CB-CG-OD2	-5.15	113.66	118.30
1	B	112	TYR	CB-CG-CD1	-5.14	117.91	121.00
1	B	94	GLN	CG-CD-OE1	-5.14	111.31	121.60
4	E	472	ASP	N-CA-CB	5.13	119.84	110.60
2	C	401	ARG	CD-NE-CZ	-5.12	116.43	123.60
4	E	206	PHE	CD1-CE1-CZ	5.12	126.24	120.10
3	D	213	MET	CG-SD-CE	5.11	108.38	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	D	178	ASP	N-CA-CB	-5.11	101.40	110.60
4	E	567	THR	CA-CB-OG1	5.11	119.73	109.00
2	C	373	ASP	CB-CG-OD2	-5.11	113.70	118.30
2	C	221	PHE	CB-CG-CD2	-5.10	117.23	120.80
3	D	252	ARG	NH1-CZ-NH2	-5.10	113.79	119.40
2	C	496	LEU	O-C-N	-5.09	114.55	122.70
4	E	653	VAL	CA-CB-CG2	-5.09	103.26	110.90
2	C	236	PHE	CB-CG-CD1	-5.08	117.24	120.80
4	E	199	VAL	CG1-CB-CG2	-5.08	102.77	110.90
2	C	450	TYR	CD1-CE1-CZ	5.07	124.36	119.80
2	C	154	ARG	NE-CZ-NH1	-5.07	117.77	120.30
1	B	1	MET	CA-CB-CG	5.06	121.90	113.30
4	E	270	PHE	CG-CD1-CE1	5.06	126.36	120.80
4	E	607	GLN	CG-CD-OE1	-5.06	111.49	121.60
4	E	577	PRO	N-CA-CB	-5.05	97.04	102.60
2	C	234	GLU	O-C-N	5.05	130.78	122.70
2	C	462	PHE	CB-CG-CD1	5.05	124.34	120.80
2	C	385	LEU	C-N-CA	5.04	134.29	121.70
4	E	175	PHE	CZ-CE2-CD2	5.04	126.14	120.10
2	C	573	PHE	CD1-CE1-CZ	-5.02	114.08	120.10
4	E	446	VAL	CA-CB-CG2	-5.02	103.37	110.90
4	E	510	MET	CG-SD-CE	5.02	108.23	100.20
3	D	197	GLU	OE1-CD-OE2	-5.02	117.28	123.30
4	E	450	LYS	N-CA-CB	5.01	119.62	110.60
3	D	288	VAL	CA-CB-CG2	-5.01	103.39	110.90

There are no chirality outliers.

All (62) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	191	TYR	Sidechain
1	B	194	HIS	Sidechain
1	B	24	TYR	Sidechain
1	B	81	TYR	Sidechain
1	B	86	ARG	Sidechain
2	C	181	PRO	Peptide
2	C	183	THR	Peptide
2	C	186	GLU	Peptide
2	C	221	PHE	Mainchain
2	C	232	SER	Peptide
2	C	233	ASP	Peptide
2	C	235	ASN	Peptide

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Mol	Chain	Res	Type	Group
2	C	236	PHE	Peptide
2	C	241	LEU	Peptide
2	C	354	TYR	Sidechain
2	C	389	TYR	Sidechain
2	C	401	ARG	Sidechain
2	C	420	ARG	Sidechain
2	C	432	ALA	Peptide
2	C	433	SER	Peptide
2	C	436	ARG	Sidechain
2	C	456	ASP	Peptide
2	C	458	THR	Peptide
2	C	459	GLN	Mainchain
2	C	465	TYR	Sidechain
2	C	512	TYR	Sidechain
2	C	573	PHE	Sidechain
2	C	593	GLY	Peptide
2	C	594	GLY	Peptide
2	C	595	SER	Peptide
2	C	596	SER	Peptide
3	D	117	THR	Peptide
3	D	118	ALA	Peptide
3	D	119	ASP	Peptide
3	D	122	PRO	Peptide
3	D	123	PRO	Peptide
3	D	169	PHE	Sidechain
3	D	191	ARG	Sidechain
3	D	202	ARG	Sidechain
3	D	214	ARG	Sidechain
3	D	245	ARG	Sidechain
3	D	28	PHE	Sidechain
3	D	56	ARG	Sidechain
3	D	68	ARG	Sidechain
4	E	112	ARG	Sidechain
4	E	119	LEU	Peptide
4	E	177	ALA	Peptide
4	E	178	VAL	Peptide
4	E	186	THR	Peptide
4	E	216	SER	Peptide
4	E	218	SER	Peptide
4	E	219	VAL	Mainchain
4	E	221	PRO	Peptide
4	E	278	LYS	Peptide

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Mol	Chain	Res	Type	Group
4	E	481	PHE	Sidechain
4	E	518	TYR	Sidechain
4	E	533	TYR	Sidechain
4	E	639	ARG	Sidechain
4	E	648	ARG	Sidechain
4	E	664	SER	Peptide
4	E	665	ARG	Peptide
4	E	85	ARG	Sidechain

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	B	1832	0	1877	6	0
2	C	3192	0	3200	6	0
3	D	2514	0	2583	5	0
4	E	3824	0	3867	14	0
All	All	11362	0	11527	21	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 1.

All (21) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:75:LEU:HD22	3:D:161:ALA:HB1	1.77	0.67
3:D:244:LEU:HD11	4:E:585:SER:HB3	1.85	0.58
2:C:460:LYS:HB3	2:C:462:PHE:H	1.79	0.48
4:E:607:GLN:O	4:E:611:HIS:CD2	2.67	0.48
2:C:490:GLU:HA	4:E:560:ARG:HE	1.79	0.48
4:E:138:ASN:O	4:E:142:GLU:HG3	2.16	0.46
1:B:211:HIS:CE1	4:E:628:GLN:HG2	2.50	0.46
1:B:115:ALA:HA	4:E:533:TYR:CZ	2.51	0.45
4:E:642:LEU:HD23	4:E:642:LEU:HA	1.90	0.44
2:C:483:ARG:HG3	4:E:553:LEU:CD1	2.48	0.43
2:C:109:LYS:O	2:C:113:LEU:HD13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:557:LEU:HD22	2:C:564:GLN:HG2	2.00	0.43
4:E:192:VAL:HG13	4:E:245:HIS:CD2	2.53	0.43
3:D:99:PHE:CD2	3:D:150:VAL:HG13	2.54	0.42
1:B:12:LEU:CD2	3:D:35:LEU:HD21	2.49	0.42
1:B:51:VAL:HA	4:E:540:LEU:HD23	2.01	0.42
3:D:266:PHE:HB2	4:E:611:HIS:CE1	2.55	0.41
1:B:73:LEU:HD22	1:B:77:LEU:CD1	2.51	0.41
4:E:105:GLU:HA	4:E:108:GLN:HE21	1.86	0.40
1:B:211:HIS:HA	4:E:630:VAL:HG23	2.02	0.40
2:C:192:ILE:HG13	4:E:166:ARG:HE	1.86	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	B	228/286 (80%)	225 (99%)	2 (1%)	1 (0%)	34 72
2	C	392/597 (66%)	373 (95%)	12 (3%)	7 (2%)	8 40
3	D	307/353 (87%)	296 (96%)	8 (3%)	3 (1%)	15 55
4	E	465/666 (70%)	446 (96%)	12 (3%)	7 (2%)	10 46
All	All	1392/1902 (73%)	1340 (96%)	34 (2%)	18 (1%)	16 48

All (18) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C	229	VAL
2	C	232	SER
2	C	241	LEU
2	C	434	LYS
3	D	118	ALA

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Mol	Chain	Res	Type
4	E	218	SER
4	E	636	SER
1	B	106	ASN
2	C	222	PHE
2	C	459	GLN
4	E	118	ASP
4	E	279	GLY
3	D	123	PRO
3	D	124	SER
4	E	578	ASP
4	E	188	LEU
4	E	217	SER
2	C	192	ILE

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	B	208/260 (80%)	205 (99%)	3 (1%)	67	80
2	C	365/541 (68%)	353 (97%)	12 (3%)	38	61
3	D	284/326 (87%)	278 (98%)	6 (2%)	53	72
4	E	432/605 (71%)	427 (99%)	5 (1%)	71	83
All	All	1289/1732 (74%)	1263 (98%)	26 (2%)	57	74

All (26) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	82	THR
1	B	94	GLN
1	B	191	TYR
2	C	121	LEU
2	C	217	THR
2	C	226	SER
2	C	445	THR
2	C	469	GLU

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Mol	Chain	Res	Type
2	C	474	LYS
2	C	487	GLU
2	C	508	ARG
2	C	518	LEU
2	C	561	LYS
2	C	587	LEU
2	C	591	THR
3	D	16	GLN
3	D	47	ASN
3	D	114	ARG
3	D	142	PRO
3	D	143	PRO
3	D	155	GLN
4	E	186	THR
4	E	264	GLU
4	E	484	ILE
4	E	549	GLN
4	E	630	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (24) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	36	GLN
1	B	94	GLN
2	C	151	HIS
2	C	172	GLN
2	C	208	GLN
2	C	361	GLN
2	C	374	HIS
2	C	378	GLN
2	C	408	GLN
2	C	485	GLN
2	C	568	GLN
3	D	6	GLN
3	D	47	ASN
3	D	104	GLN
3	D	155	GLN
3	D	210	HIS
3	D	305	GLN
4	E	108	GLN
4	E	249	HIS
4	E	263	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	E	409	GLN
4	E	602	GLN
4	E	611	HIS
4	E	631	GLN

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 monosaccharides 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.

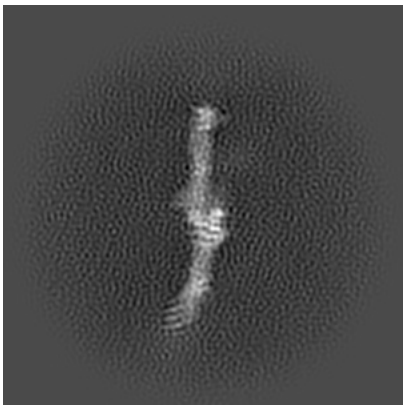
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-15631. These allow visual inspection of the internal detail of the map and identification of artifacts.

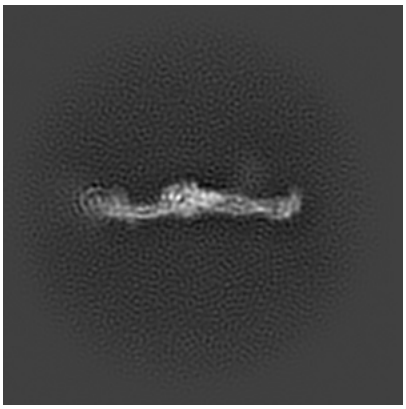
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

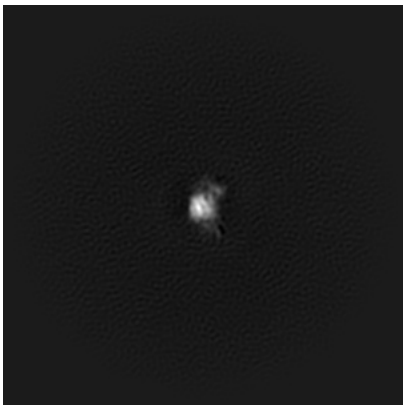
6.1.1 Primary map



X

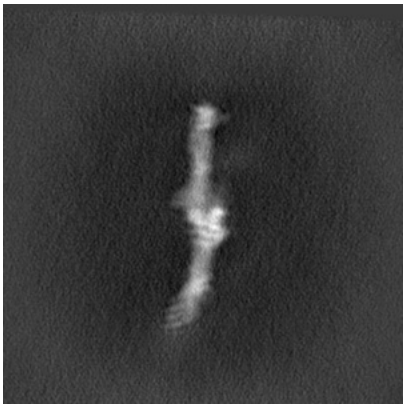


Y

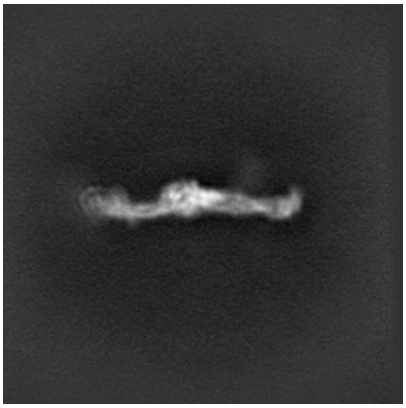


Z

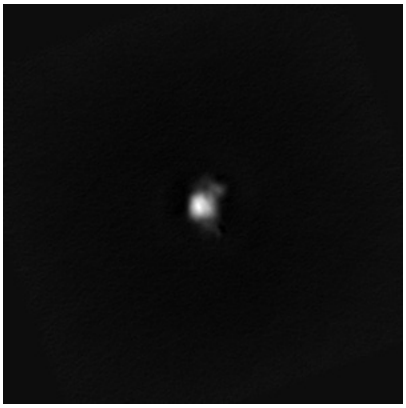
6.1.2 Raw map



X



Y



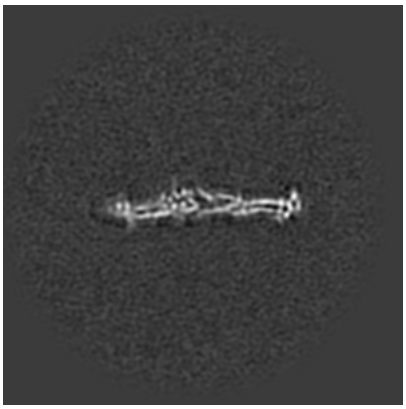
Z

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

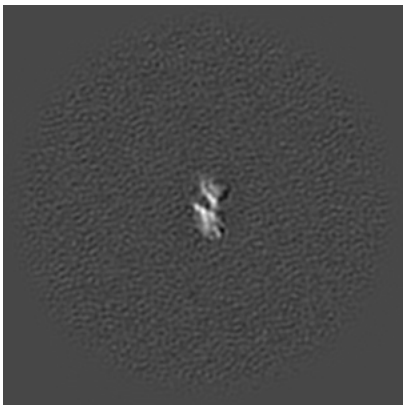
6.2 Central slices (i)

6.2.1 Primary map

X Index: 128

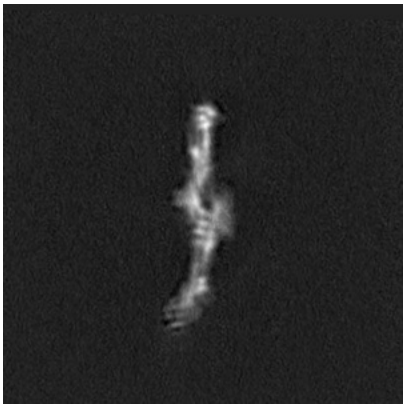


Y Index: 128



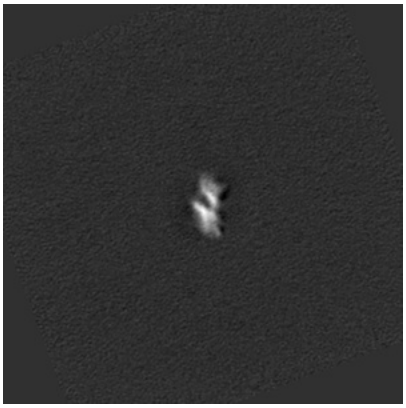
Z Index: 128

6.2.2 Raw map



X Index: 128

Y Index: 128

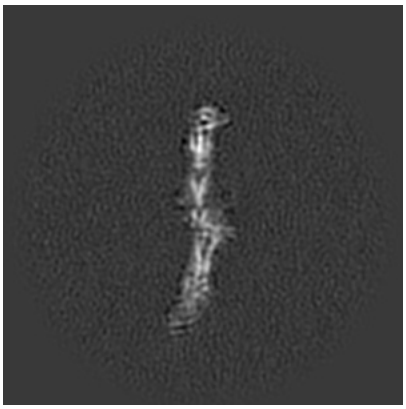


Z Index: 128

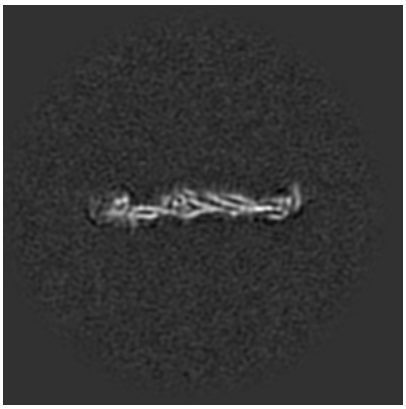
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

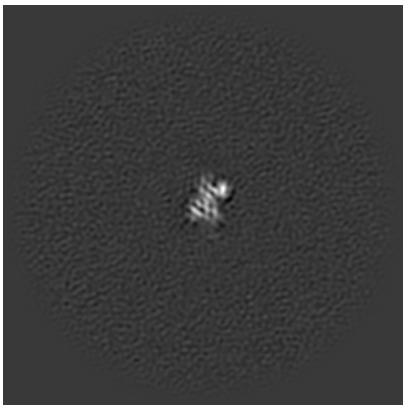
6.3.1 Primary map



X Index: 125



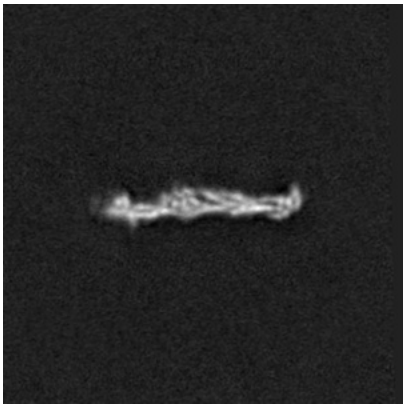
Y Index: 125



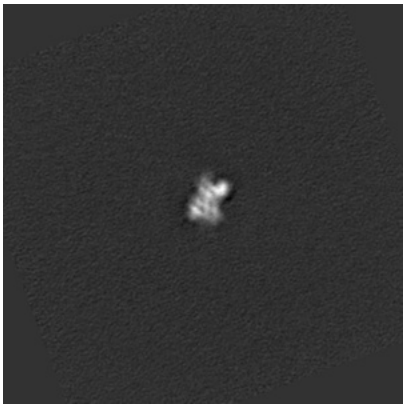
Z Index: 121

6.3.2 Raw map

X Index: 125



Y Index: 126

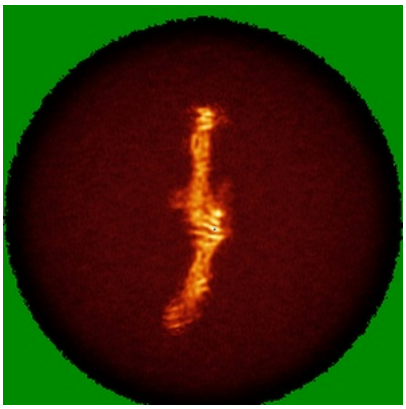


Z Index: 121

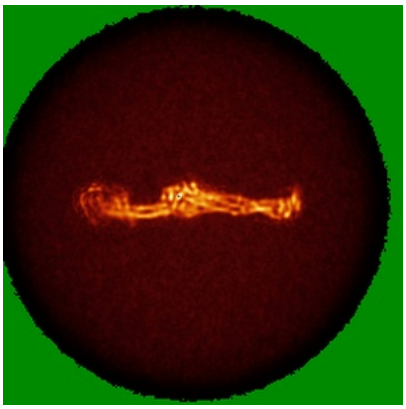
The images above show the largest variance slices of the map in three orthogonal directions.

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

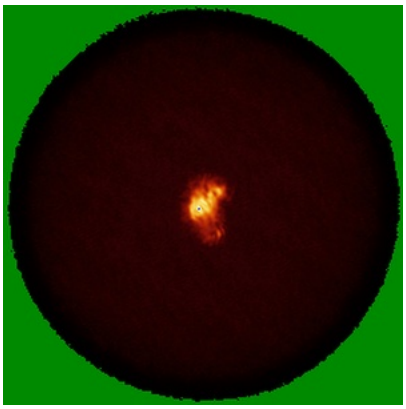
6.4.1 Primary map



X



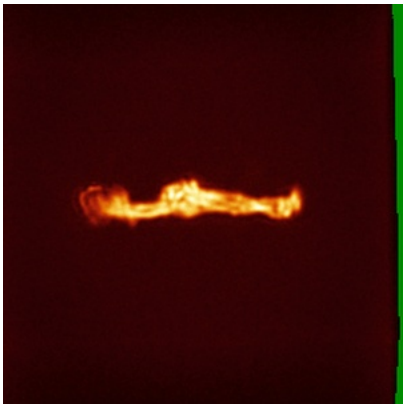
Y



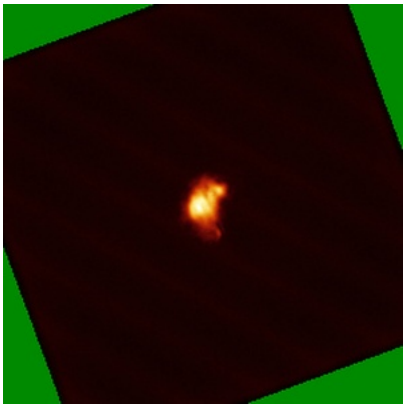
Z

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 (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 1.31. 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.

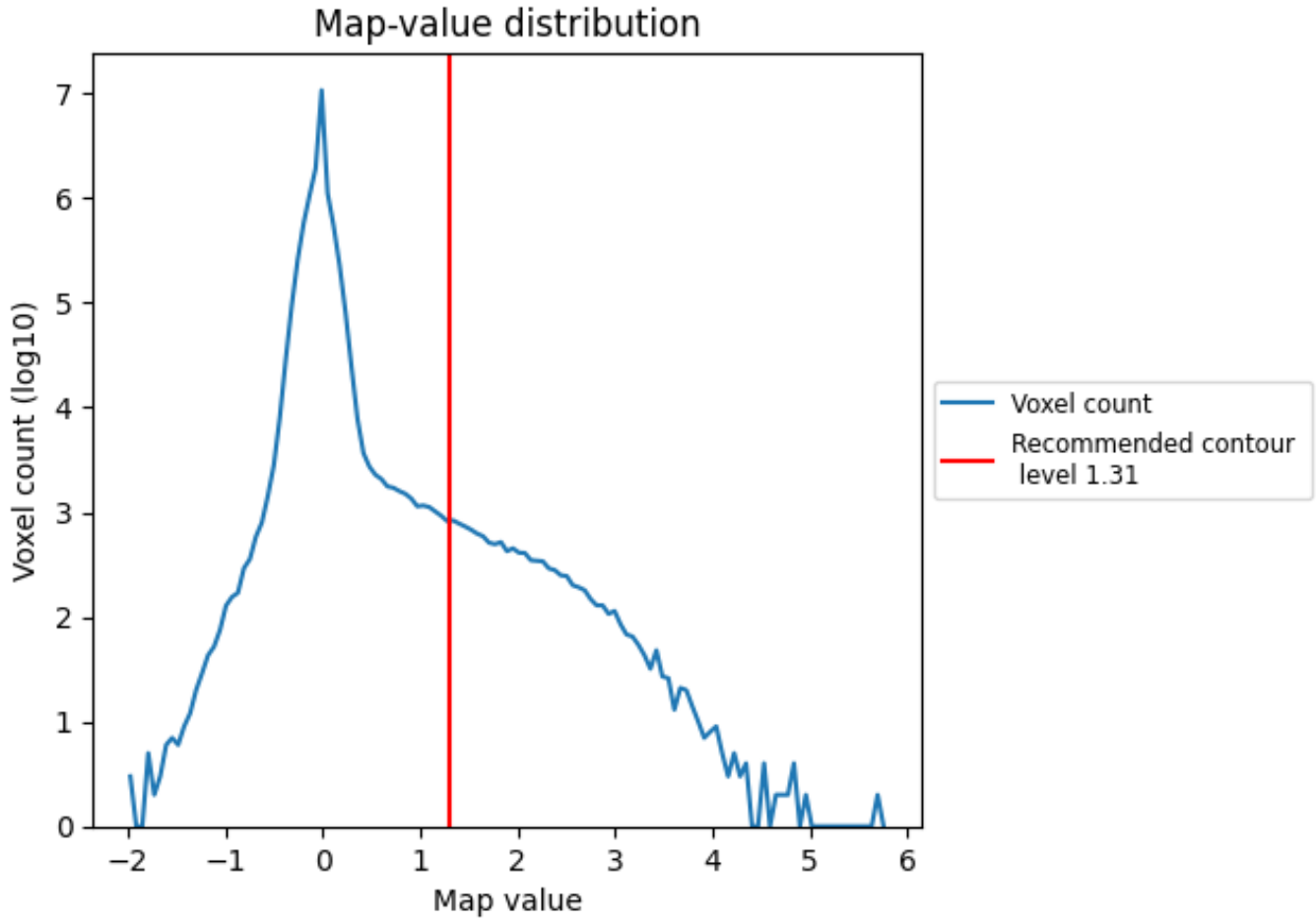
6.6 Mask visualisation (i)

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

7 Map analysis

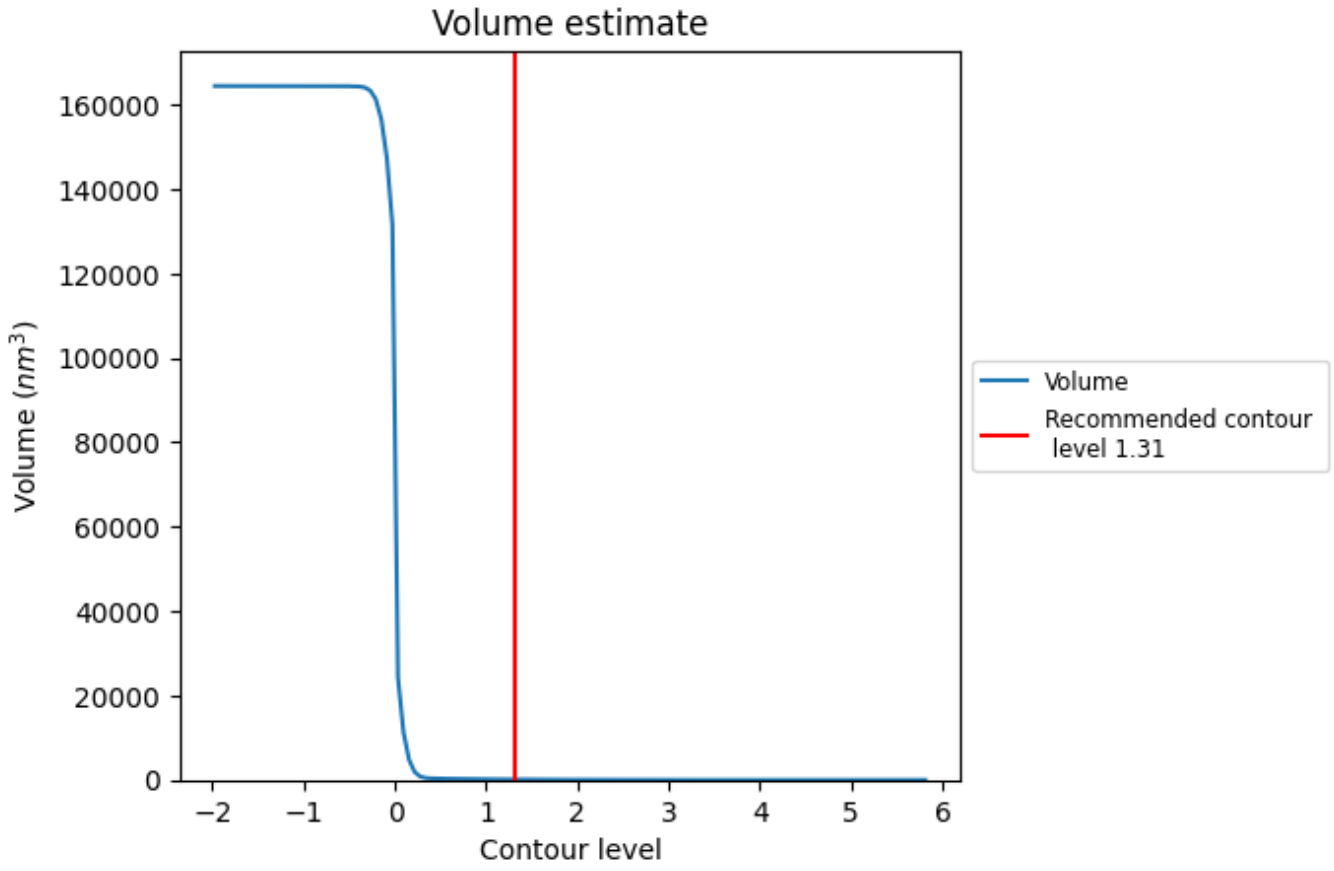
This section contains the results of statistical analysis of the map.

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.

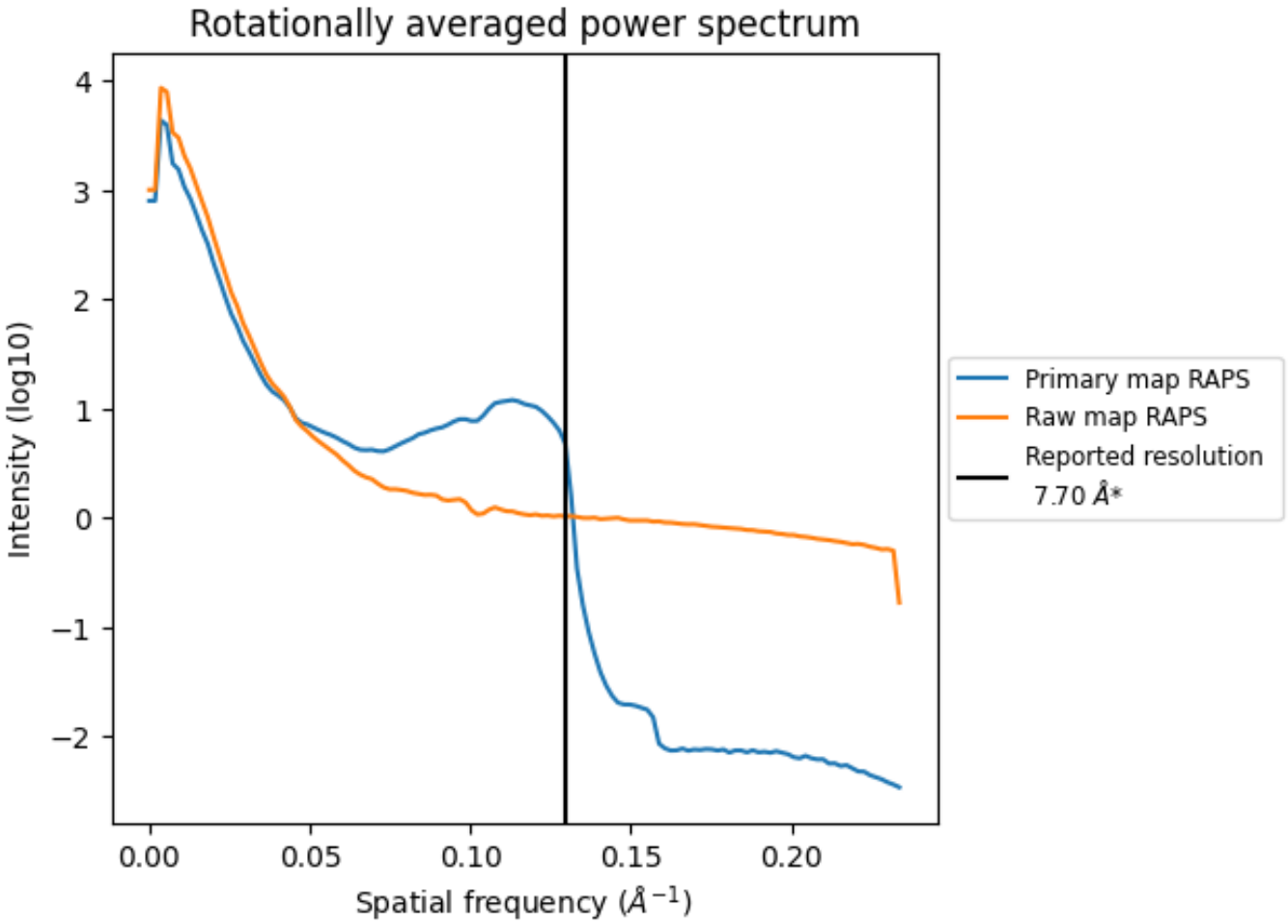
7.2 Volume estimate



The volume at the recommended contour level is 115 nm^3; this corresponds to an approximate mass of 104 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)

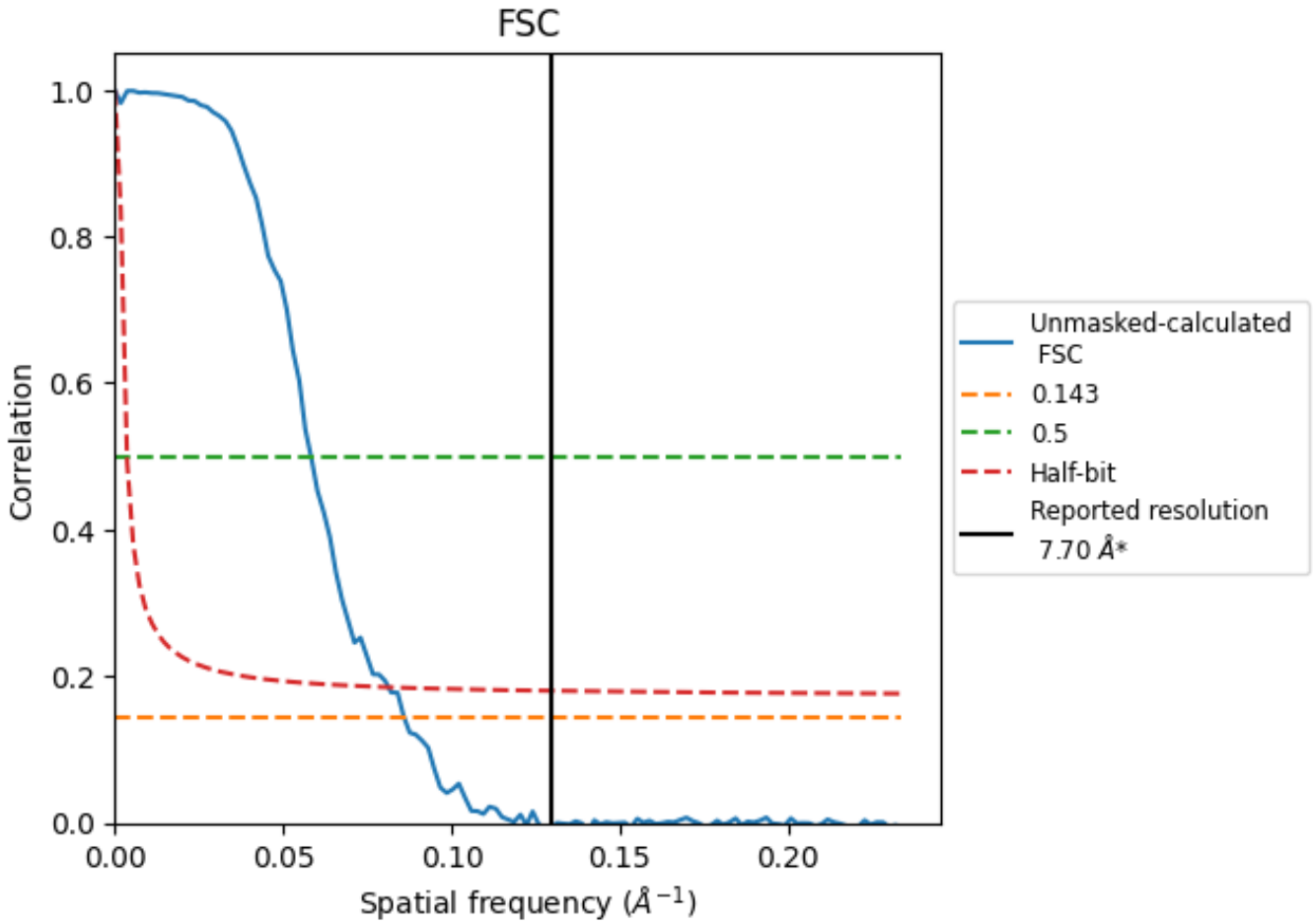


*Reported resolution corresponds to spatial frequency of 0.130 Å^{-1}

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 0.130 Å^{-1}

8.2 Resolution estimates (i)

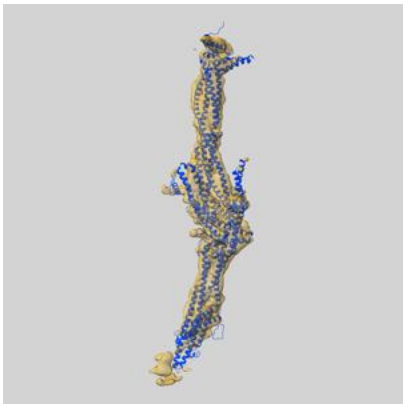
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.70	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	11.63	17.15	12.30

*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 11.63 differs from the reported value 7.7 by more than 10 %

9 Map-model fit

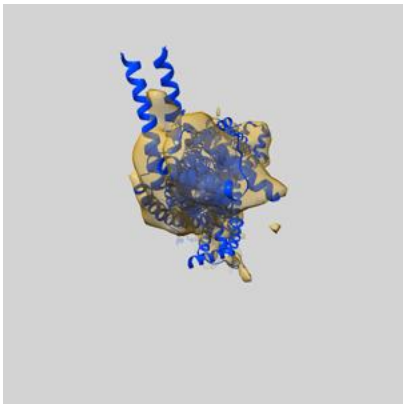
This section contains information regarding the fit between EMDB map EMD-15631 and PDB model 8AT2. Per-residue inclusion information can be found in section 3 on page 4.

9.1 Map-model overlay



X

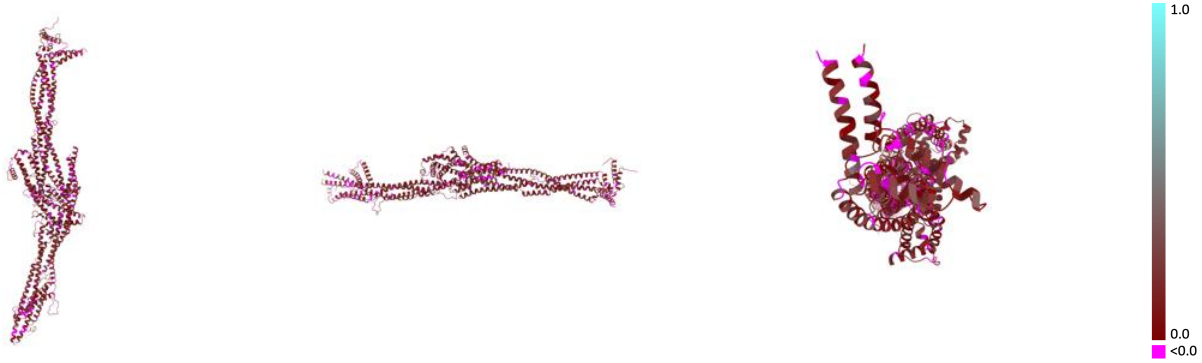
Y



Z

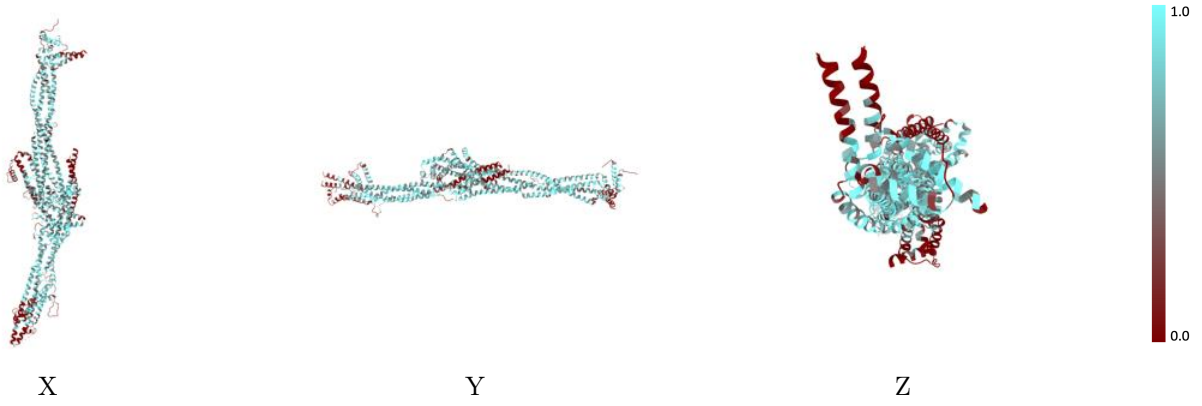
The images above show the 3D surface view of the map at the recommended contour level 1.31 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model



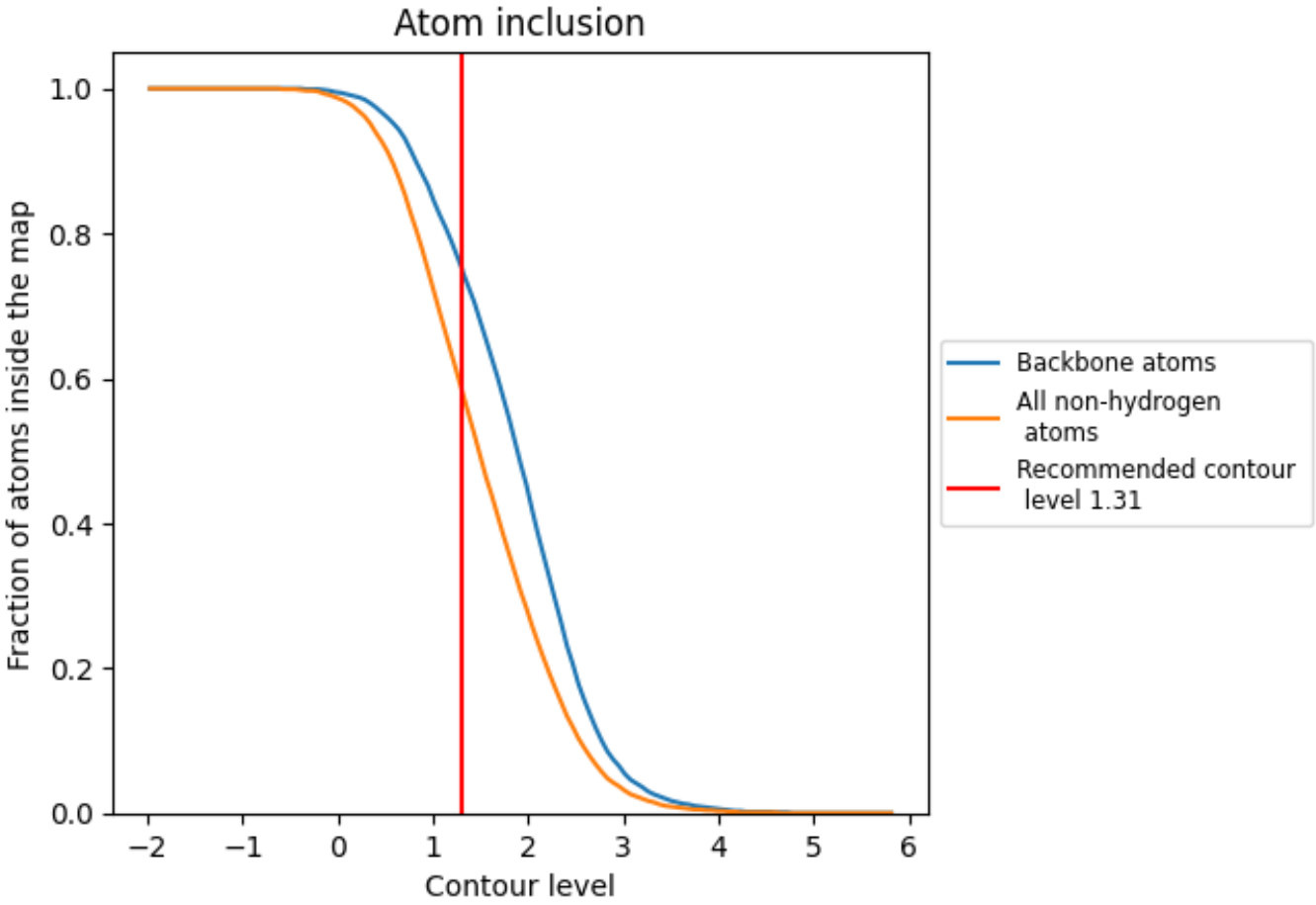
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (1.31).

9.4 Atom inclusion (i)



At the recommended contour level, 75% of all backbone atoms, 58% 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 (1.31) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5810	0.1240
B	0.5620	0.1310
C	0.5320	0.1070
D	0.6310	0.1320
E	0.5980	0.1300