WORLDWIDE wwPDB PROTEIN DATA BANK

Full wwPDB EM Validation Report ⓘ

Jun 25, 2025 – 03:28 pm BST

PDB ID	:	6ZM1 / pdb_00006zm1
EMDB ID	:	EMD-11277
Title	:	Open-closed state of the Bt1762-Bt1763 levan transport system
Authors	:	White, J.B.R.; van den Berg, B.; Ranson, N.A.
Deposited on	:	2020-07-01
Resolution	:	4.70 Å(reported)
Based on initial models	:	6ZAZ, 6ZLT

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

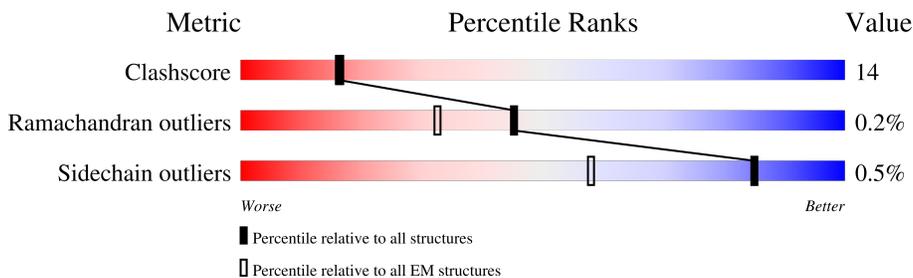|		
EMDB validation analysis	:	0.0.1.dev118
MolProbity	:	4-5-2 with Phenix2.0rc1
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.44

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 4.70 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	Percentile Ranks	Value
Clashscore		14
Ramachandran outliers		0.2%
Sidechain outliers		0.5%

Worse · · · *Better*

▮ Percentile relative to all structures

▯ Percentile relative to all EM structures

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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	580	11% · 81% · 14% · 5%
1	C	580	8% · 73% · 22% ·
2	B	1041	· 74% · 15% · 10%
2	D	1041	14% · 60% · 17% · 23%

2 Entry composition ⓘ

There are 2 unique types of molecules in this entry. The entry contains 22543 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 SusD homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	552	Total 4358	C 2754	N 726	O 860	S 18	0	0
1	C	555	Total 4457	C 2822	N 740	O 874	S 21	0	0

There are 20 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	553	ALA	-	expression tag	UNP Q8A6W4
A	554	ALA	-	expression tag	UNP Q8A6W4
A	555	ALA	-	expression tag	UNP Q8A6W4
A	556	ALA	-	expression tag	UNP Q8A6W4
A	557	HIS	-	expression tag	UNP Q8A6W4
A	558	HIS	-	expression tag	UNP Q8A6W4
A	559	HIS	-	expression tag	UNP Q8A6W4
A	560	HIS	-	expression tag	UNP Q8A6W4
A	561	HIS	-	expression tag	UNP Q8A6W4
A	562	HIS	-	expression tag	UNP Q8A6W4
C	553	ALA	-	expression tag	UNP Q8A6W4
C	554	ALA	-	expression tag	UNP Q8A6W4
C	555	ALA	-	expression tag	UNP Q8A6W4
C	556	ALA	-	expression tag	UNP Q8A6W4
C	557	HIS	-	expression tag	UNP Q8A6W4
C	558	HIS	-	expression tag	UNP Q8A6W4
C	559	HIS	-	expression tag	UNP Q8A6W4
C	560	HIS	-	expression tag	UNP Q8A6W4
C	561	HIS	-	expression tag	UNP Q8A6W4
C	562	HIS	-	expression tag	UNP Q8A6W4

- Molecule 2 is a protein called SusC homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	933	Total	C	N	O	S	0	0
			7335	4629	1258	1427	21		
2	D	804	Total	C	N	O	S	0	0
			6393	4049	1086	1239	19		

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: SusD homolog

Chain A:

- Molecule 1: SusD homolog

Chain C:

L308 V309 N310 A311 F312 K313 F322 L341 V345 K353 N363 D364 D365 K370 S378 L379 K380 E381 C387 D388 K392 S399 V404 I405 L412 M413 E416 L421 N422 D423 I426 I430 N434 R439 A440 M445 L446 I447 Y450

T464 L465 K466 A467 E472 M476 W479 M487 F493 D494 R497 K502 N506 A507 T511 C516 S517 I518 Y519 A522 E526 A554 A555 ALA HIS HIS HIS HIS HIS HIS

• Molecule 2: SusC homolog

Chain B:

74%   15%   10%

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

THR ASP PHE GLY ASN PHE THR LEU SER VAL PRO VAL ASN SER THR LEU LYS ILE THR TYR ILE GLY TYR LYS PRO VAL THR VAL LYS ALA ALA ILE VAL ASN VAL LEU LEU GLU GLU ASP THR GLN MET VAL ASP GLU V84 V85 V86 T91 Q92 R93 K94 A95 D96 L97 T98

G99 A100 V101 D107 E108 I109 Q110 K111 Q112 M128 N129 I130 R145 T149 L150 N151 N152 N153 L156 K165 M168 H169 E170 E177 L182 A185 A186 S187 A188 S189 G192 S193 R194 V199 T203 G207 I212 K213 I214 S221 N233 Q236

Q243 N247 N255 Y259 A267 N270 L278 D292 R301 I305 V312 S313 N314 G315 S316 E317 S324 L325 L331 D338 F339 D340 S343 A344 R345 D354 D355 I356 L357 T358 T364 L365 N366 T380 P385 A392 S393 P410

D419 N420 R421 N434 L435 T436 T446 D450 T460 T469 N470 M471 G472 K473 K485 N489 D504 V505 E514 D515 D516 S517 H518 F519 S520 G521 D525 I528 D532 W535 A538 Y546 G547 Y552 G559 K560 M561 D567 L573 T574 I575

R576 S580 S581 R582 F583 R588 R600 Q603 K608 E609 G626 N627 Q628 E629 I630 L633 I638 N642 D647 S648 F649 G650 Y654 A657 Y658 D659 G665 G666 G667 V668 L669 Q677 N680 E686 T687 K713 T716 D717 I718 V727

E730 R734 N743 E747 R753 N754 Y762 L778 P779 E780 V805 F813 K814 S815 Q816 D817 A823 T824 Q825 E826 R832 I833 R834 H840 N841 G842 V843 I844 D845 E846 Q849 D854 D873 Q882 N901 N906 T918 N921 A926

T932 N933 N934 E935 Q936 R937 S947 F948 L949 P961 I964 M970 L973 R974 Q980 I985 N989 F1016

• Molecule 2: SusC homolog

Chain D:

14%   60%   17%   23%

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

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

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

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	22205	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 $(e^-/\text{Å}^2)$	63.84	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.155	Depositor
Minimum map value	-0.082	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.028	Depositor
Map size (Å)	282.48, 282.48, 282.48	wwPDB
Map dimensions	264, 264, 264	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.07, 1.07, 1.07	Depositor

5   Model quality ⓘ

5.1   Standard geometry ⓘ

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$ >5	RMSZ	#$|Z|$ >5
1	A	0.21	0/4462	0.49	0/6073
1	C	0.36	0/4563	0.57	0/6192
2	B	0.27	0/7509	0.50	0/10180
2	D	0.38	0/6558	0.61	0/8891
All	All	0.31	0/23092	0.55	0/31336

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	4358	0	4039	58	0
1	C	4457	0	4223	370	0
2	B	7335	0	7028	111	0
2	D	6393	0	6052	410	0
All	All	22543	0	21342	614	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 14.

All (614) 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:C:157:TYR:CG	2:D:727:VAL:HG23	1.17	1.65
1:C:5:LEU:HB3	2:D:581:SER:CA	1.24	1.62
1:C:157:TYR:CD2	2:D:727:VAL:CG2	1.77	1.60
1:C:4:PHE:CE2	2:D:553:SER:HB3	1.35	1.57
1:C:157:TYR:HD2	2:D:727:VAL:CB	1.00	1.56
1:C:157:TYR:CD2	2:D:727:VAL:HG23	1.30	1.54
1:C:16:GLY:CA	2:D:637:THR:HG21	1.35	1.51
1:C:157:TYR:CB	2:D:727:VAL:CG2	1.89	1.50
1:C:157:TYR:HB3	2:D:727:VAL:CG2	1.34	1.48
1:C:157:TYR:CB	2:D:727:VAL:HG23	1.42	1.48
1:C:16:GLY:CA	2:D:637:THR:CG2	1.93	1.46
1:C:1:CYS:N	2:D:555:VAL:HG21	1.33	1.43
1:C:392:LYS:NZ	2:D:469:THR:HG23	1.26	1.39
1:C:16:GLY:HA3	2:D:637:THR:CG2	1.51	1.39
1:C:5:LEU:CB	2:D:581:SER:HA	1.51	1.38
1:C:13:ILE:CD1	2:D:638:ILE:HG23	1.52	1.37
1:C:4:PHE:CZ	2:D:512:ASN:O	1.75	1.37
1:C:4:PHE:CZ	2:D:553:SER:HB3	1.61	1.35
1:C:5:LEU:HA	2:D:581:SER:CB	1.57	1.35
1:C:5:LEU:CB	2:D:581:SER:CA	2.02	1.35
1:C:392:LYS:NZ	2:D:469:THR:CG2	1.88	1.34
1:C:13:ILE:HD13	2:D:638:ILE:CG2	1.58	1.32
1:C:4:PHE:CE2	2:D:553:SER:CB	2.10	1.32
1:C:157:TYR:CD2	2:D:727:VAL:CB	1.91	1.32
1:C:157:TYR:CD2	2:D:727:VAL:HB	1.60	1.31
1:C:5:LEU:CA	2:D:581:SER:HB3	1.59	1.31
1:C:1:CYS:CA	2:D:589:TYR:OH	1.80	1.30
1:C:8:GLN:OE1	2:D:552:TYR:CA	1.78	1.29
1:C:14:VAL:HB	2:D:639:TYR:CB	1.62	1.29
1:C:154:PRO:HB3	2:D:728:LEU:CD2	1.62	1.27
1:C:8:GLN:OE1	2:D:552:TYR:HA	1.29	1.26
1:C:16:GLY:N	2:D:637:THR:HG22	1.48	1.26
1:C:19:ILE:HD13	2:D:639:TYR:CD2	1.70	1.26
1:C:16:GLY:N	2:D:637:THR:CG2	1.99	1.25
1:C:158:ASN:ND2	2:D:725:VAL:HG21	1.51	1.25
1:C:5:LEU:CA	2:D:581:SER:CB	2.15	1.23
1:C:4:PHE:HE2	2:D:554:LEU:N	1.35	1.23
1:C:157:TYR:HD2	2:D:727:VAL:CG2	1.23	1.21
1:C:15:THR:CA	2:D:637:THR:O	1.92	1.17
1:C:19:ILE:HG12	2:D:639:TYR:CE2	1.80	1.17
1:C:15:THR:HA	2:D:637:THR:O	1.41	1.16
1:C:154:PRO:HA	2:D:728:LEU:HD13	1.22	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:10:PRO:CB	2:D:633:LEU:HD22	1.76	1.15
1:C:13:ILE:CD1	2:D:638:ILE:HD13	1.75	1.15
1:C:14:VAL:HB	2:D:639:TYR:HB2	1.28	1.14
1:C:5:LEU:HB3	2:D:581:SER:N	1.26	1.14
1:C:554:ALA:O	2:D:847:ARG:HD3	1.46	1.14
1:C:1:CYS:HA	2:D:589:TYR:HH	1.13	1.13
1:C:13:ILE:HD11	2:D:638:ILE:HD13	1.29	1.13
1:C:158:ASN:CG	2:D:725:VAL:HG21	1.73	1.12
1:C:554:ALA:O	2:D:847:ARG:CD	1.98	1.12
1:C:4:PHE:CD2	2:D:553:SER:CB	2.31	1.12
1:C:10:PRO:HA	2:D:633:LEU:HD21	1.30	1.12
1:C:14:VAL:CB	2:D:639:TYR:HB2	1.79	1.11
1:C:8:GLN:NE2	2:D:552:TYR:N	1.97	1.11
1:C:555:ALA:HA	2:D:847:ARG:HG3	1.21	1.11
1:C:555:ALA:HB1	2:D:846:GLU:HG2	1.17	1.11
1:C:15:THR:CB	2:D:637:THR:O	1.98	1.11
1:C:154:PRO:HB3	2:D:728:LEU:HD21	1.28	1.10
1:C:157:TYR:CE2	2:D:727:VAL:O	2.03	1.10
1:C:4:PHE:CD2	2:D:553:SER:HB3	1.85	1.10
1:C:157:TYR:HB3	2:D:727:VAL:HG22	1.11	1.10
1:C:5:LEU:O	2:D:581:SER:CA	1.99	1.10
1:C:4:PHE:CE2	2:D:554:LEU:N	2.20	1.08
1:C:5:LEU:CA	2:D:581:SER:CA	2.32	1.08
1:C:15:THR:HB	2:D:637:THR:O	1.54	1.07
1:C:157:TYR:CD2	2:D:727:VAL:C	2.33	1.07
1:C:554:ALA:O	2:D:847:ARG:CZ	2.02	1.07
1:C:280:TYR:OH	2:D:473:LYS:NZ	1.88	1.06
1:C:4:PHE:HZ	2:D:512:ASN:O	1.11	1.06
1:C:555:ALA:HA	2:D:847:ARG:CG	1.85	1.06
1:C:19:ILE:HD13	2:D:639:TYR:CG	1.89	1.06
1:C:19:ILE:CD1	2:D:639:TYR:CD2	2.39	1.05
1:C:1:CYS:C	2:D:589:TYR:OH	1.97	1.05
1:C:16:GLY:H	2:D:637:THR:CB	1.69	1.04
1:C:154:PRO:HB3	2:D:728:LEU:HD22	1.40	1.04
2:B:528:ILE:HD11	1:C:24:TYR:OH	1.57	1.03
1:C:554:ALA:O	2:D:847:ARG:NE	1.91	1.03
1:C:1:CYS:O	2:D:589:TYR:OH	1.76	1.03
1:C:8:GLN:CD	2:D:551:GLY:C	2.27	1.02
1:C:10:PRO:HA	2:D:633:LEU:CD2	1.90	1.02
1:C:14:VAL:HB	2:D:639:TYR:HB3	1.35	1.02
1:C:5:LEU:C	2:D:581:SER:CB	2.33	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1:CYS:HA	2:D:589:TYR:OH	1.55	1.01
1:C:8:GLN:CD	2:D:552:TYR:N	2.19	1.01
1:C:5:LEU:O	2:D:581:SER:HA	1.55	0.99
1:C:154:PRO:HG3	2:D:728:LEU:HD11	1.44	0.99
1:C:10:PRO:CG	2:D:633:LEU:HD22	1.92	0.99
1:C:4:PHE:CE2	2:D:512:ASN:O	2.16	0.99
1:C:8:GLN:HE22	2:D:552:TYR:N	1.58	0.98
1:C:8:GLN:NE2	2:D:551:GLY:HA3	1.77	0.98
1:C:16:GLY:HA2	2:D:639:TYR:HE1	1.26	0.98
1:C:8:GLN:NE2	2:D:551:GLY:C	2.22	0.98
1:C:1:CYS:CB	2:D:589:TYR:OH	2.12	0.97
1:C:13:ILE:HD13	2:D:638:ILE:CD1	1.93	0.97
2:D:227:SER:HB3	2:D:993:GLU:HB3	1.46	0.96
1:C:1:CYS:CA	2:D:589:TYR:HH	1.62	0.96
1:C:4:PHE:CD2	2:D:553:SER:HB2	2.00	0.96
1:C:82:THR:OG1	2:D:846:GLU:OE1	1.84	0.95
1:C:392:LYS:HZ3	2:D:469:THR:CG2	1.63	0.95
1:C:5:LEU:C	2:D:581:SER:HA	1.91	0.95
1:C:5:LEU:CA	2:D:581:SER:HA	1.94	0.94
1:C:16:GLY:H	2:D:637:THR:CG2	1.70	0.94
2:D:599:TRP:NE1	2:D:601:ILE:HD11	1.82	0.94
1:C:13:ILE:CD1	2:D:638:ILE:CD1	2.46	0.93
1:C:14:VAL:C	2:D:639:TYR:HB2	1.94	0.93
1:C:157:TYR:CE2	2:D:727:VAL:HB	2.04	0.93
1:C:555:ALA:HB1	2:D:846:GLU:CG	1.98	0.93
1:C:8:GLN:HE22	2:D:552:TYR:H	1.17	0.93
1:C:1:CYS:N	2:D:555:VAL:CG2	2.29	0.92
1:C:5:LEU:HB3	2:D:581:SER:HA	1.01	0.92
1:C:555:ALA:CA	2:D:847:ARG:HG3	1.98	0.92
1:C:8:GLN:NE2	2:D:551:GLY:CA	2.32	0.91
1:C:10:PRO:CA	2:D:633:LEU:CD2	2.48	0.91
2:B:538:ALA:HA	2:D:641:PRO:HG2	1.51	0.91
1:C:5:LEU:CB	2:D:581:SER:N	2.00	0.90
1:C:13:ILE:CG1	2:D:638:ILE:HG23	2.01	0.90
1:C:10:PRO:HB3	2:D:633:LEU:HD22	1.53	0.90
1:C:13:ILE:HG22	2:D:640:ALA:HB2	1.53	0.90
1:C:10:PRO:HG3	2:D:633:LEU:HD22	1.51	0.90
1:C:14:VAL:HG21	2:D:673:PHE:CD1	2.06	0.89
1:C:1:CYS:H1	2:D:555:VAL:HG21	1.23	0.89
1:C:19:ILE:CG1	2:D:639:TYR:CE2	2.55	0.89
1:C:27:ASN:HB3	2:D:672:GLY:HA3	1.53	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2:ASP:OD1	2:D:588:ARG:NH1	2.05	0.88
1:C:275:ILE:HD12	1:C:284:LEU:HD21	1.56	0.88
1:C:157:TYR:CB	2:D:727:VAL:HG21	2.01	0.88
1:C:392:LYS:HZ3	2:D:469:THR:HG23	1.14	0.87
1:C:392:LYS:HZ1	2:D:469:THR:CG2	1.64	0.87
1:C:16:GLY:HA2	2:D:639:TYR:CE1	2.09	0.87
1:C:4:PHE:CE2	2:D:553:SER:CA	2.58	0.87
1:C:157:TYR:CE2	2:D:727:VAL:C	2.52	0.87
1:C:158:ASN:ND2	2:D:725:VAL:CG2	2.37	0.86
1:C:1:CYS:H2	2:D:555:VAL:HG21	1.04	0.86
1:C:157:TYR:CD2	2:D:727:VAL:CA	2.59	0.86
1:C:160:LEU:HD12	2:D:727:VAL:HG11	1.57	0.86
1:C:5:LEU:C	2:D:581:SER:CA	2.47	0.86
1:C:555:ALA:CB	2:D:846:GLU:HG2	2.04	0.86
1:C:4:PHE:HE2	2:D:554:LEU:H	0.88	0.85
1:C:13:ILE:HD13	2:D:638:ILE:CB	2.06	0.85
1:C:154:PRO:CA	2:D:728:LEU:HD13	2.05	0.85
1:C:502:LYS:HD3	1:C:526:GLU:HB3	1.58	0.85
1:C:5:LEU:C	2:D:581:SER:HB2	1.99	0.84
1:C:5:LEU:O	2:D:581:SER:CB	2.25	0.84
1:C:8:GLN:OE1	2:D:552:TYR:N	2.08	0.84
1:C:555:ALA:HA	2:D:847:ARG:CD	2.06	0.84
1:C:554:ALA:O	2:D:847:ARG:NH1	2.11	0.84
1:C:13:ILE:HD13	2:D:638:ILE:HG23	0.87	0.84
1:C:1:CYS:C	2:D:589:TYR:HH	1.77	0.84
1:C:157:TYR:CG	2:D:727:VAL:CG2	2.03	0.84
1:C:8:GLN:HE21	2:D:551:GLY:HA3	1.44	0.83
1:C:24:TYR:CD1	2:D:673:PHE:CE2	2.66	0.82
1:C:16:GLY:H	2:D:637:THR:HB	1.43	0.82
1:C:99:THR:HG21	2:D:730:GLU:H	1.43	0.82
1:C:16:GLY:HA2	2:D:637:THR:HG21	1.59	0.82
1:C:19:ILE:HB	2:D:639:TYR:CE1	2.15	0.82
1:C:14:VAL:CG2	2:D:673:PHE:CD1	2.62	0.82
1:C:1:CYS:O	2:D:589:TYR:CZ	2.33	0.81
1:C:10:PRO:CA	2:D:633:LEU:HD22	2.09	0.81
1:C:158:ASN:HD21	2:D:725:VAL:HG21	1.41	0.81
1:C:1:CYS:HB2	2:D:589:TYR:OH	1.78	0.80
1:C:30:ILE:CD1	2:D:660:ILE:HD13	2.11	0.80
2:B:547:GLY:N	2:D:537:ASP:OD1	2.15	0.80
1:C:19:ILE:HG21	2:D:639:TYR:CZ	2.17	0.80
1:C:11:GLN:HG3	2:D:549:GLY:O	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:154:PRO:CB	2:D:728:LEU:CD2	2.55	0.79
1:C:16:GLY:N	2:D:637:THR:CB	2.40	0.79
1:C:4:PHE:CE2	2:D:553:SER:C	2.61	0.78
1:A:283:ASN:HD21	2:B:657:ALA:HB3	1.49	0.78
1:C:13:ILE:HA	2:D:640:ALA:HA	1.66	0.78
1:C:5:LEU:O	2:D:581:SER:HB2	1.84	0.78
1:C:4:PHE:HZ	2:D:512:ASN:C	1.91	0.77
1:C:275:ILE:CD1	1:C:284:LEU:HD21	2.13	0.77
1:C:392:LYS:HZ1	2:D:469:THR:HG23	0.94	0.77
1:C:27:ASN:HB3	2:D:672:GLY:CA	2.14	0.77
1:C:154:PRO:HA	2:D:728:LEU:CD1	2.10	0.77
1:C:158:ASN:HD21	2:D:725:VAL:CG2	1.97	0.76
1:C:154:PRO:CB	2:D:728:LEU:HD21	2.13	0.76
1:C:30:ILE:HG23	2:D:658:TYR:HB3	1.66	0.76
1:C:158:ASN:CG	2:D:725:VAL:CG2	2.56	0.75
1:C:7:ARG:HD2	2:D:513:ARG:NH2	2.01	0.74
1:C:16:GLY:CA	2:D:637:THR:HG22	1.92	0.74
1:C:158:ASN:OD1	2:D:725:VAL:CG2	2.37	0.73
1:C:14:VAL:CA	2:D:639:TYR:HB2	2.18	0.73
1:C:19:ILE:HG12	2:D:639:TYR:CZ	2.22	0.73
1:A:277:ASP:HB2	2:B:669:LEU:HG	1.69	0.72
1:C:14:VAL:CB	2:D:639:TYR:CB	2.45	0.72
1:C:274:SER:HB2	2:D:664:ASN:C	2.14	0.72
1:C:10:PRO:HG3	2:D:633:LEU:CD2	2.19	0.72
1:C:370:LYS:HZ3	2:D:403:GLY:HA3	1.54	0.72
1:C:6:ASP:OD2	2:D:588:ARG:NH1	2.23	0.72
1:C:16:GLY:HA3	2:D:637:THR:CB	2.19	0.72
1:C:29:VAL:HG13	1:C:126:MET:HE3	1.70	0.72
1:C:1:CYS:O	2:D:589:TYR:CE1	2.43	0.72
1:C:1:CYS:CA	2:D:555:VAL:HG21	2.20	0.72
1:C:8:GLN:OE1	2:D:552:TYR:C	2.32	0.72
1:C:8:GLN:NE2	2:D:514:GLU:O	2.22	0.71
1:C:19:ILE:HB	2:D:639:TYR:CD1	2.24	0.71
2:B:535:TRP:HE1	1:C:11:GLN:NE2	1.89	0.71
2:D:709:GLU:HB2	2:D:747:GLU:HB2	1.73	0.71
1:C:4:PHE:CZ	2:D:553:SER:CB	2.56	0.71
1:C:370:LYS:HE3	2:D:256:ALA:O	1.88	0.71
1:C:24:TYR:CD1	2:D:673:PHE:HE2	2.09	0.71
1:C:370:LYS:CE	2:D:256:ALA:O	2.35	0.70
1:C:19:ILE:HG21	2:D:639:TYR:OH	1.92	0.70
1:C:154:PRO:CG	2:D:728:LEU:HD11	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:16:GLY:HA3	2:D:637:THR:HG21	0.71	0.70
1:C:392:LYS:HZ3	2:D:469:THR:HG21	1.56	0.70
1:C:4:PHE:CE1	2:D:553:SER:HB3	2.24	0.69
1:C:99:THR:OG1	2:D:729:GLY:HA3	1.92	0.68
1:C:157:TYR:CD2	2:D:727:VAL:HG21	2.17	0.68
2:D:509:MET:HE2	2:D:557:PHE:HE1	1.58	0.68
1:C:13:ILE:CB	2:D:638:ILE:HG23	2.23	0.68
1:C:45:SER:OG	1:C:47:SER:HB3	1.94	0.68
1:C:27:ASN:ND2	2:D:671:SER:O	2.27	0.68
1:C:280:TYR:CZ	2:D:473:LYS:NZ	2.62	0.68
1:C:363:ASN:HB3	1:C:365:ASP:H	1.59	0.68
1:C:1:CYS:H1	2:D:555:VAL:CG2	1.97	0.67
1:C:16:GLY:CA	2:D:637:THR:CB	2.73	0.67
1:C:370:LYS:NZ	2:D:403:GLY:HA3	2.10	0.67
1:C:13:ILE:HG21	2:D:638:ILE:CG2	2.26	0.66
2:B:469:THR:HG22	2:B:471:ASN:H	1.60	0.66
1:C:157:TYR:CG	2:D:727:VAL:HG21	2.25	0.66
1:C:158:ASN:OD1	2:D:725:VAL:HG21	1.96	0.66
1:C:1:CYS:H2	2:D:555:VAL:CG2	1.95	0.66
2:D:754:ASN:ND2	2:D:755:LYS:O	2.30	0.65
1:C:16:GLY:HA2	2:D:637:THR:CG2	2.17	0.65
1:C:157:TYR:CA	2:D:727:VAL:HG21	2.27	0.65
1:A:275:ILE:O	2:B:665:GLY:HA2	1.97	0.65
1:C:13:ILE:HB	2:D:639:TYR:O	1.98	0.64
1:C:275:ILE:HG22	2:D:664:ASN:HD22	1.63	0.64
2:D:214:ILE:HD11	2:D:310:LEU:HD11	1.80	0.64
2:D:498:VAL:O	2:D:500:LYS:N	2.30	0.64
1:C:15:THR:HA	2:D:637:THR:C	2.21	0.64
2:D:582:ARG:NH1	2:D:632:ASN:OD1	2.31	0.64
1:C:5:LEU:O	2:D:581:SER:C	2.40	0.64
1:C:5:LEU:O	2:D:581:SER:O	2.15	0.64
1:C:30:ILE:CG2	2:D:658:TYR:HB3	2.28	0.64
2:D:462:PRO:HA	2:D:470:ASN:HD22	1.60	0.63
1:C:472:GLU:O	1:C:476:MET:HG3	1.96	0.63
1:C:5:LEU:HD13	2:D:588:ARG:HD2	1.79	0.63
1:C:5:LEU:HA	2:D:581:SER:HB3	0.72	0.63
2:B:485:LYS:HG2	2:B:514:GLU:HG3	1.81	0.63
1:C:30:ILE:HD12	2:D:660:ILE:HB	1.80	0.63
1:C:16:GLY:N	2:D:637:THR:HB	2.06	0.63
2:D:569:TYR:HE1	2:D:599:TRP:HZ3	1.46	0.63
1:C:13:ILE:HD12	2:D:638:ILE:HA	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:599:TRP:CE2	2:D:601:ILE:CD1	2.81	0.62
2:D:599:TRP:CE2	2:D:601:ILE:HD11	2.34	0.62
1:C:19:ILE:CG1	2:D:639:TYR:CD2	2.82	0.62
1:C:66:GLU:OE1	2:D:930:SER:HA	1.99	0.62
2:D:782:VAL:HA	2:D:785:ASN:HB2	1.81	0.62
1:C:273:TYR:O	2:D:664:ASN:OD1	2.17	0.62
2:B:214:ILE:HG21	2:D:352:LEU:HD22	1.80	0.62
1:C:274:SER:HB2	2:D:664:ASN:O	2.00	0.62
2:B:214:ILE:CG2	2:D:352:LEU:HD22	2.29	0.62
1:C:304:PRO:HG2	1:C:345:VAL:HG13	1.81	0.62
1:C:157:TYR:CA	2:D:727:VAL:CG2	2.74	0.61
2:D:587:HIS:CD2	2:D:684:LYS:HB3	2.35	0.61
1:C:276:ASN:O	2:D:666:GLY:HA2	2.00	0.61
2:D:225:TYR:CE2	2:D:228:LYS:HB2	2.35	0.61
1:C:14:VAL:HG21	2:D:673:PHE:CE1	2.35	0.60
2:B:934:ASN:HB3	2:B:937:ARG:HE	1.64	0.60
2:D:434:ASN:HD21	2:D:442:ASN:ND2	1.98	0.60
2:D:346:MET:O	2:D:361:GLN:NE2	2.33	0.60
2:B:514:GLU:HB2	2:B:552:TYR:HB3	1.83	0.60
1:C:33:TYR:HB3	2:D:658:TYR:CE2	2.36	0.60
1:C:13:ILE:CD1	2:D:638:ILE:HA	2.32	0.60
1:C:19:ILE:CB	2:D:639:TYR:CE1	2.84	0.60
1:A:237:THR:HG23	1:A:414:ARG:HH11	1.67	0.59
2:B:538:ALA:HA	2:D:641:PRO:CG	2.27	0.59
1:C:154:PRO:CB	2:D:728:LEU:HD22	2.24	0.59
1:C:14:VAL:CG1	2:D:639:TYR:HB2	2.31	0.59
1:C:14:VAL:HG23	2:D:673:PHE:CD1	2.36	0.58
2:D:232:LEU:HD22	2:D:236:GLN:HB3	1.84	0.58
1:C:60:LYS:HE2	1:C:67:ASP:O	2.02	0.58
2:B:520:SER:OG	2:B:521:GLY:N	2.37	0.58
2:B:547:GLY:N	2:D:537:ASP:CG	2.62	0.58
1:C:13:ILE:CB	2:D:639:TYR:O	2.51	0.58
1:C:275:ILE:HG22	2:D:664:ASN:ND2	2.18	0.58
2:B:642:ASN:ND2	2:B:654:TYR:O	2.36	0.58
1:C:34:ALA:HA	2:D:658:TYR:CD1	2.38	0.58
1:C:502:LYS:O	1:C:506:ASN:HB2	2.04	0.58
1:C:230:LEU:HB2	1:C:421:LEU:HD21	1.85	0.58
1:C:392:LYS:NZ	2:D:469:THR:HG22	2.08	0.58
1:A:13:ILE:HD12	2:B:638:ILE:HD12	1.85	0.57
1:C:16:GLY:H	2:D:637:THR:HG22	1.36	0.57
1:C:79:GLY:HA2	2:D:826:GLU:HG2	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:41:ASP:HB2	2:D:650:GLY:O	2.04	0.57
1:C:392:LYS:HB3	2:D:471:ASN:ND2	2.18	0.57
1:C:96:GLN:NE2	2:D:654:TYR:OH	2.37	0.57
2:D:298:GLU:O	2:D:335:LYS:HE3	2.04	0.57
1:C:19:ILE:CB	2:D:639:TYR:CZ	2.88	0.57
1:A:263:ASN:HD21	1:A:272:GLN:HE22	1.51	0.57
1:C:276:ASN:O	2:D:666:GLY:N	2.36	0.57
1:C:13:ILE:HD13	2:D:638:ILE:CG1	2.35	0.57
1:C:40:ASP:HB2	1:C:45:SER:HA	1.87	0.57
1:A:35:ILE:HG13	1:A:100:ARG:HG3	1.87	0.57
2:B:301:ARG:HH21	2:B:331:LEU:HB3	1.69	0.56
2:D:612:TRP:CD1	2:D:612:TRP:H	2.23	0.56
1:A:253:TYR:H	1:A:443:SER:HB3	1.70	0.56
2:B:535:TRP:HE1	1:C:11:GLN:HE22	1.52	0.56
1:C:14:VAL:CG2	2:D:673:PHE:CE1	2.87	0.56
1:C:292:THR:HB	1:C:296:LEU:HD12	1.87	0.56
2:D:574:THR:HB	2:D:594:SER:HB2	1.88	0.56
1:C:19:ILE:CG2	2:D:639:TYR:CZ	2.88	0.56
1:C:154:PRO:CA	2:D:728:LEU:CD1	2.78	0.56
1:A:324:THR:O	1:A:324:THR:OG1	2.20	0.56
1:A:506:ASN:HD21	1:A:524:PHE:H	1.53	0.56
1:C:13:ILE:CB	2:D:638:ILE:CG2	2.84	0.56
2:B:546:TYR:HA	2:D:537:ASP:OD1	2.06	0.56
1:A:55:SER:O	1:A:55:SER:OG	2.21	0.56
1:C:10:PRO:CG	2:D:633:LEU:CD2	2.73	0.56
1:A:256:ASN:ND2	1:A:266:GLU:OE1	2.38	0.55
1:A:430:ILE:O	1:A:434:ASN:ND2	2.39	0.55
1:C:250:GLU:HG2	1:C:266:GLU:HB2	1.88	0.55
2:B:380:THR:HG22	2:B:410:PRO:HG3	1.89	0.55
1:A:152:MET:HE2	1:A:156:ALA:HB3	1.87	0.55
1:C:430:ILE:N	1:C:430:ILE:HD12	2.21	0.55
2:B:345:ARG:NH2	2:B:364:THR:OG1	2.40	0.55
2:D:493:THR:HG22	2:D:506:MET:HG2	1.89	0.55
1:A:215:GLN:NE2	1:A:219:ASP:O	2.39	0.55
2:B:580:SER:OG	2:B:581:SER:N	2.38	0.55
1:A:277:ASP:HB2	2:B:669:LEU:CG	2.37	0.55
1:C:30:ILE:HD11	2:D:660:ILE:CG1	2.37	0.55
2:D:914:ALA:HA	2:D:924:ILE:HB	1.88	0.55
2:D:789:GLY:O	2:D:791:ASN:N	2.34	0.55
2:B:358:THR:HB	2:B:434:ASN:HB3	1.89	0.55
1:C:277:ASP:HB3	2:D:665:GLY:HA3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:158:ASN:OD1	2:D:725:VAL:HG22	2.06	0.54
1:A:387:CYS:HB3	1:A:389:CYS:H	1.71	0.54
1:C:165:TYR:HB3	1:C:169:GLU:HG3	1.88	0.54
1:A:114:LYS:HE3	1:A:115:THR:HG23	1.89	0.54
2:D:568:ARG:NH1	2:D:603:GLN:O	2.40	0.54
1:C:276:ASN:O	2:D:666:GLY:CA	2.55	0.54
2:B:338:ASP:N	2:B:338:ASP:OD1	2.40	0.54
1:C:4:PHE:CG	2:D:553:SER:CB	2.91	0.54
2:B:949:LEU:HD23	2:B:985:ILE:HD11	1.90	0.54
2:D:458:TYR:HE2	2:D:479:LYS:HD3	1.72	0.54
2:B:145:ARG:NH1	2:B:747:GLU:OE2	2.37	0.54
2:B:313:SER:OG	2:B:314:ASN:N	2.41	0.54
2:D:569:TYR:HE1	2:D:599:TRP:CZ3	2.26	0.54
1:A:127:ARG:HB3	1:A:177:ASP:HB2	1.90	0.54
2:B:538:ALA:HB2	1:C:12:GLY:HA2	1.89	0.54
2:B:583:PHE:O	2:B:588:ARG:NH2	2.41	0.54
1:C:494:ASP:OD1	1:C:497:ARG:NH2	2.41	0.54
2:D:916:SER:OG	2:D:918:THR:HB	2.08	0.54
1:A:51:TYR:O	1:A:54:ARG:NH1	2.41	0.54
2:D:360:GLY:HA3	2:D:432:TYR:CZ	2.42	0.54
2:B:112:GLN:O	2:B:980:GLN:NE2	2.42	0.53
1:C:166:THR:HG22	1:C:169:GLU:CD	2.33	0.53
2:B:713:LYS:HD2	2:B:743:ASN:HD22	1.73	0.53
1:C:19:ILE:CG1	2:D:639:TYR:CZ	2.88	0.53
2:D:462:PRO:HA	2:D:470:ASN:ND2	2.24	0.53
1:C:13:ILE:CD1	2:D:638:ILE:CG2	2.42	0.53
1:C:30:ILE:HD11	2:D:660:ILE:HG12	1.90	0.53
1:C:284:LEU:HD12	1:C:286:TRP:CH2	2.43	0.53
1:C:17:ASP:N	1:C:17:ASP:OD1	2.37	0.53
1:C:10:PRO:CB	2:D:633:LEU:CD2	2.63	0.53
2:D:295:TRP:CD1	2:D:384:ILE:HG23	2.44	0.53
2:D:599:TRP:CE2	2:D:601:ILE:HD13	2.43	0.53
2:B:873:ASP:OD1	2:B:873:ASP:N	2.40	0.52
1:C:1:CYS:HA	2:D:555:VAL:HB	1.91	0.52
2:B:99:GLY:HA3	2:B:187:SER:HB2	1.91	0.52
1:C:30:ILE:HD13	2:D:660:ILE:HD13	1.90	0.52
1:A:248:GLY:H	1:A:265:ALA:HB1	1.74	0.52
2:B:517:SER:OG	2:B:518:HIS:N	2.43	0.52
1:C:1:CYS:HA	2:D:555:VAL:CB	2.39	0.52
2:B:255:ASN:HD21	2:B:259:TYR:HB2	1.74	0.52
1:C:24:TYR:CE1	2:D:673:PHE:CE2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:272:GLN:OE1	1:A:401:ASN:ND2	2.43	0.52
2:B:582:ARG:NH1	2:B:630:ILE:O	2.43	0.52
2:B:331:LEU:HD23	2:B:338:ASP:HB3	1.91	0.52
1:C:4:PHE:CG	2:D:553:SER:HB3	2.42	0.52
1:A:451:LYS:NZ	1:A:456:VAL:O	2.42	0.51
2:D:530:THR:O	2:D:534:MET:HG3	2.09	0.51
2:B:177:GLU:HB3	2:B:203:THR:HG23	1.93	0.51
2:B:505:VAL:HG22	2:B:561:MET:HG3	1.93	0.51
1:C:5:LEU:HD13	2:D:588:ARG:CD	2.41	0.51
1:A:63:SER:HB3	1:A:368:ARG:HD2	1.92	0.51
1:A:277:ASP:HA	2:B:666:GLY:O	2.11	0.51
1:A:503:ASP:OD1	1:A:503:ASP:N	2.43	0.51
2:B:156:LEU:HB3	2:B:199:VAL:HG12	1.93	0.51
2:B:552:TYR:OH	2:B:628:GLN:NE2	2.44	0.51
1:C:516:CYS:SG	1:C:518:ILE:HG12	2.50	0.51
2:D:569:TYR:CE1	2:D:599:TRP:HZ3	2.27	0.51
2:D:585:LYS:HA	2:D:588:ARG:CG	2.41	0.51
1:A:306:GLN:NE2	1:A:310:ASN:OD1	2.41	0.51
2:D:742:LYS:HG2	2:D:776:LEU:HD11	1.91	0.51
1:A:258:LEU:HD12	1:A:259:PRO:HD2	1.92	0.51
2:B:95:ALA:O	2:B:600:ARG:NH2	2.43	0.51
1:A:96:GLN:HG2	2:B:730:GLU:HB2	1.93	0.50
2:B:546:TYR:C	2:D:537:ASP:OD1	2.53	0.50
2:D:633:LEU:HB3	2:D:638:ILE:HD11	1.93	0.50
2:D:690:GLN:HG2	2:D:713:LYS:HB2	1.92	0.50
2:D:383:ASP:HB3	2:D:407:ARG:HG2	1.92	0.50
1:C:19:ILE:CD1	2:D:639:TYR:CE2	2.86	0.50
1:C:16:GLY:H	2:D:637:THR:C	2.19	0.50
2:B:128:MET:HE2	2:B:130:ILE:HD11	1.93	0.50
1:C:152:MET:HG3	1:C:156:ALA:HB3	1.94	0.50
2:B:754:ASN:ND2	2:B:762:TYR:OH	2.41	0.50
1:C:13:ILE:HB	2:D:638:ILE:CG2	2.41	0.50
2:B:151:ASN:OD1	2:B:151:ASN:N	2.43	0.50
1:C:192:LYS:HD3	1:C:263:ASN:HB3	1.94	0.50
1:A:95:TYR:CE2	2:B:727:VAL:HG12	2.46	0.50
1:A:211:LYS:O	1:A:214:ARG:NH1	2.45	0.50
2:B:854:ASP:OD1	2:B:854:ASP:N	2.44	0.50
1:C:399:SER:CB	2:D:664:ASN:HD21	2.25	0.50
2:D:377:ILE:HD12	2:D:378:ILE:N	2.27	0.50
1:A:220:ASN:ND2	1:A:530:GLU:OE1	2.43	0.49
2:D:896:PHE:CE2	2:D:925:PRO:HG2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:213:TYR:OH	1:A:420:GLN:NE2	2.44	0.49
1:C:9:VAL:HG12	2:D:636:TYR:OH	2.12	0.49
1:C:353:LYS:HE3	1:C:379:LEU:O	2.11	0.49
2:D:317:GLU:HG3	2:D:318:LYS:HG2	1.94	0.49
2:B:546:TYR:CA	2:D:537:ASP:OD1	2.61	0.49
2:D:907:LYS:HB3	2:D:911:LEU:HD21	1.94	0.49
2:B:185:ALA:O	2:B:189:SER:HB3	2.13	0.49
1:C:507:ALA:O	1:C:511:THR:HG23	2.12	0.49
2:B:324:SER:OG	2:B:325:LEU:N	2.45	0.49
1:C:554:ALA:HB3	2:D:847:ARG:NH1	2.27	0.49
2:D:214:ILE:HG22	2:D:1016:PHE:HB2	1.95	0.49
2:D:458:TYR:CE2	2:D:479:LYS:HD3	2.47	0.49
1:A:226:ASN:ND2	1:A:229:ASP:OD1	2.45	0.49
2:D:648:SER:OG	2:D:651:GLY:O	2.18	0.48
2:B:221:SER:HB2	2:B:305:ILE:HB	1.95	0.48
2:D:223:SER:O	2:D:303:GLY:N	2.43	0.48
2:D:751:GLY:HA2	2:D:765:ASN:HA	1.94	0.48
2:D:756:THR:HG22	2:D:760:LEU:H	1.78	0.48
2:B:535:TRP:NE1	1:C:11:GLN:NE2	2.58	0.48
1:C:274:SER:HA	2:D:664:ASN:CG	2.38	0.48
2:B:316:SER:OG	2:B:317:GLU:N	2.46	0.48
1:C:30:ILE:CD1	2:D:660:ILE:HB	2.43	0.48
1:A:52:ASP:OD2	1:A:52:ASP:N	2.45	0.48
1:A:149:ASP:OD1	1:A:149:ASP:N	2.42	0.48
1:C:13:ILE:HG21	2:D:638:ILE:HG21	1.96	0.48
2:B:214:ILE:HG23	2:B:1016:PHE:HB2	1.95	0.48
2:B:638:ILE:HG12	2:B:677:GLN:HE21	1.79	0.48
2:B:312:VAL:HG21	2:D:359:ILE:HD12	1.96	0.48
1:C:10:PRO:HD3	2:D:636:TYR:CE2	2.48	0.48
1:C:185:LEU:HD12	1:C:200:ALA:HB2	1.95	0.48
1:C:4:PHE:O	2:D:553:SER:HB2	2.14	0.47
1:C:518:ILE:HG13	1:C:519:TYR:N	2.29	0.47
2:D:282:LEU:HD22	2:D:404:TRP:NE1	2.28	0.47
2:B:149:THR:HG23	2:B:718:ILE:HD12	1.96	0.47
2:B:343:SER:OG	2:B:344:ALA:N	2.48	0.47
1:C:98:ILE:HD11	1:C:133:ALA:HB3	1.95	0.47
1:C:157:TYR:HA	2:D:727:VAL:HG21	1.96	0.47
1:C:426:ILE:O	1:C:430:ILE:HD13	2.14	0.47
1:A:441:ALA:HB2	1:A:460:VAL:HB	1.96	0.47
2:B:419:ASP:OD1	2:B:421:ARG:NH2	2.47	0.47
2:D:641:PRO:HA	2:D:672:GLY:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:392:LYS:HZ2	2:D:469:THR:CG2	2.15	0.47
2:D:338:ASP:O	2:D:370:GLU:HG3	2.14	0.47
2:D:652:GLN:O	2:D:652:GLN:HG3	2.14	0.47
2:B:581:SER:O	2:B:581:SER:OG	2.32	0.47
2:B:86:VAL:HG22	2:B:91:THR:HG22	1.96	0.47
2:D:857:PRO:HB3	2:D:884:VAL:HG13	1.96	0.47
2:D:933:ASN:O	2:D:937:ARG:NH2	2.42	0.47
2:B:233:ASN:ND2	2:B:236:GLN:OE1	2.47	0.47
2:B:626:GLY:HA3	2:B:687:THR:HA	1.97	0.47
2:D:997:ASN:OD1	2:D:1001:SER:HB2	2.14	0.47
1:A:130:ARG:NH1	1:A:148:ASN:O	2.48	0.46
1:C:13:ILE:CG2	2:D:638:ILE:CG2	2.92	0.46
1:C:29:VAL:HG13	1:C:126:MET:CE	2.44	0.46
1:C:24:TYR:HD1	2:D:673:PHE:HE2	1.60	0.46
2:D:394:ASP:OD1	2:D:396:SER:HB3	2.15	0.46
1:C:15:THR:C	2:D:639:TYR:HD1	2.22	0.46
2:D:427:MET:HE2	2:D:451:TYR:HD2	1.80	0.46
1:A:253:TYR:HD1	1:A:439:ARG:HH12	1.61	0.46
1:A:277:ASP:OD2	2:B:669:LEU:HD11	2.15	0.46
2:B:779:PRO:HB2	2:B:780:GLU:HG3	1.96	0.46
2:D:715:ALA:O	2:D:740:ALA:HA	2.15	0.46
1:C:11:GLN:HG3	2:D:549:GLY:C	2.41	0.46
2:D:756:THR:HG23	2:D:758:PHE:H	1.81	0.46
1:C:98:ILE:HD12	1:C:134:HIS:CE1	2.51	0.46
1:C:13:ILE:HB	2:D:638:ILE:HG23	1.97	0.46
1:A:152:MET:HE3	1:A:153:GLU:H	1.81	0.46
1:C:310:ASN:O	1:C:313:LYS:HG3	2.16	0.46
2:B:882:GLN:HA	2:B:947:SER:HB2	1.97	0.45
2:B:446:THR:OG1	2:B:489:ASN:OD1	2.27	0.45
1:C:416:GLU:OE2	1:C:497:ARG:NH1	2.49	0.45
2:B:823:ALA:HB1	2:B:842:GLY:HA2	1.97	0.45
2:B:901:ASN:OD1	2:B:901:ASN:N	2.50	0.45
1:C:34:ALA:HB2	2:D:658:TYR:HB2	1.99	0.45
1:C:154:PRO:CB	2:D:728:LEU:CD1	2.94	0.45
1:C:268:VAL:HB	1:C:405:ILE:O	2.17	0.45
1:C:1:CYS:H1	2:D:555:VAL:HG11	1.81	0.45
1:C:555:ALA:HA	2:D:847:ARG:HD3	1.95	0.45
2:B:687:THR:HG23	2:B:716:THR:HG23	1.99	0.45
2:B:815:SER:OG	2:B:817:ASP:OD1	2.27	0.45
1:C:4:PHE:HE2	2:D:553:SER:C	2.01	0.45
2:D:867:LEU:HD12	2:D:874:LEU:HD23	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:516:CYS:SG	1:A:517:SER:N	2.90	0.45
2:D:585:LYS:HA	2:D:588:ARG:HG3	1.98	0.45
2:B:961:PRO:HG2	2:B:964:ILE:HD13	1.99	0.45
2:B:436:THR:O	2:B:436:THR:OG1	2.35	0.45
2:B:107:ASP:O	2:B:110:GLN:NE2	2.50	0.45
1:C:5:LEU:HB2	2:D:581:SER:HA	1.78	0.45
1:C:554:ALA:C	2:D:847:ARG:CZ	2.87	0.45
2:D:471:ASN:HB3	2:D:472:GLY:H	1.53	0.45
1:A:387:CYS:HB3	1:A:389:CYS:N	2.31	0.44
2:D:242:TRP:HB2	2:D:261:TYR:CE1	2.52	0.44
2:B:156:LEU:HD22	2:B:194:ARG:HG3	1.99	0.44
2:D:973:LEU:HD13	2:D:1014:ILE:HG12	2.00	0.44
1:A:276:ASN:O	2:B:666:GLY:N	2.51	0.44
2:D:680:ASN:OD1	2:D:683:ILE:HG23	2.16	0.44
1:A:77:SER:O	1:A:77:SER:OG	2.30	0.44
2:B:170:GLU:O	2:B:366:ASN:ND2	2.51	0.44
1:C:206:LYS:HG3	1:C:413:MET:SD	2.57	0.44
1:C:430:ILE:N	1:C:430:ILE:CD1	2.81	0.44
2:B:873:ASP:OD2	2:B:974:ARG:NH2	2.50	0.44
1:C:8:GLN:OE1	2:D:551:GLY:C	2.50	0.44
1:C:555:ALA:CA	2:D:847:ARG:CG	2.73	0.44
2:D:370:GLU:HB3	2:D:422:TYR:CE2	2.53	0.44
1:A:114:LYS:HE2	1:A:114:LYS:HB3	1.68	0.44
1:A:249:LEU:HG	1:A:407:TYR:HD2	1.83	0.44
1:C:30:ILE:HD13	1:C:30:ILE:HA	1.75	0.44
2:D:789:GLY:HA3	2:D:796:VAL:HB	2.00	0.44
2:B:270:ASN:HD22	2:B:918:THR:HG22	1.82	0.43
2:B:825:GLN:HA	2:B:844:ILE:HG13	2.00	0.43
1:C:353:LYS:CE	1:C:379:LEU:O	2.66	0.43
2:D:587:HIS:HD2	2:D:684:LYS:HB3	1.79	0.43
1:C:25:VAL:HG23	1:C:107:SER:OG	2.18	0.43
1:C:30:ILE:CD1	2:D:660:ILE:CD1	2.89	0.43
2:D:255:ASN:H	2:D:255:ASN:HD22	1.67	0.43
2:D:307:GLN:HG3	2:D:328:TYR:HD1	1.82	0.43
2:D:874:LEU:HD13	2:D:956:LEU:HD13	2.00	0.43
1:C:56:ASP:OD1	1:C:56:ASP:N	2.50	0.43
1:C:141:PHE:O	1:C:143:LYS:N	2.50	0.43
2:D:578:ASP:O	2:D:589:TYR:HA	2.18	0.43
2:D:823:ALA:HB3	2:D:844:ILE:HG12	2.00	0.43
1:C:4:PHE:CD2	2:D:553:SER:C	2.97	0.43
1:C:19:ILE:HD11	2:D:673:PHE:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:778:LEU:HD23	2:B:778:LEU:HA	1.88	0.43
1:C:27:ASN:HB3	2:D:672:GLY:HA2	1.97	0.43
1:C:231:LYS:HB2	1:C:231:LYS:HE2	1.85	0.43
1:C:139:GLN:HB3	1:C:493:PHE:CE1	2.54	0.43
2:D:613:LEU:HD23	2:D:613:LEU:O	2.17	0.43
2:D:223:SER:HB3	2:D:303:GLY:HA3	2.01	0.43
1:A:277:ASP:C	2:B:667:GLY:HA2	2.44	0.43
1:C:33:TYR:HB3	2:D:658:TYR:CZ	2.54	0.43
2:D:576:ARG:NH1	2:D:578:ASP:OD1	2.52	0.43
2:D:756:THR:HG21	2:D:758:PHE:CZ	2.54	0.43
1:C:48:LEU:HD13	1:C:140:LEU:HD21	2.01	0.42
2:D:501:HIS:N	2:D:501:HIS:CD2	2.86	0.42
1:C:302:HIS:O	1:C:378:SER:HB2	2.19	0.42
1:C:439:ARG:C	1:C:439:ARG:HD2	2.45	0.42
2:B:357:LEU:HD12	2:B:357:LEU:HA	1.86	0.42
2:D:599:TRP:NE1	2:D:601:ILE:CD1	2.66	0.42
2:B:93:ARG:HB2	2:B:96:ASP:HB2	2.01	0.42
2:B:101:VAL:HG22	2:B:182:LEU:HD22	2.00	0.42
2:B:212:ILE:O	2:D:352:LEU:HD23	2.19	0.42
2:B:805:VAL:HG12	2:B:849:GLN:HB3	2.01	0.42
1:C:81:ASN:HB2	1:C:84:ASP:OD1	2.18	0.42
1:C:94:LEU:HD23	1:C:94:LEU:HA	1.80	0.42
2:D:439:LYS:HE2	2:D:439:LYS:HB2	1.90	0.42
1:A:162:ASN:OD1	1:A:162:ASN:N	2.49	0.42
1:A:277:ASP:OD1	1:A:277:ASP:N	2.52	0.42
1:C:4:PHE:CD2	2:D:554:LEU:N	2.81	0.42
2:D:569:TYR:CE1	2:D:599:TRP:CZ3	3.06	0.42
1:C:1:CYS:CA	2:D:555:VAL:HG11	2.49	0.42
1:A:15:THR:OG1	1:A:16:GLY:N	2.42	0.42
2:B:192:GLY:HA2	2:B:576:ARG:NE	2.35	0.42
1:A:457:ASN:OD1	1:A:457:ASN:N	2.51	0.41
2:B:460:THR:HG21	2:B:473:LYS:HE3	2.02	0.41
2:B:970:MET:HE1	2:B:973:LEU:HD13	2.01	0.41
2:B:633:LEU:HB3	2:B:638:ILE:HD11	2.02	0.41
1:C:154:PRO:CG	2:D:728:LEU:CD1	2.96	0.41
1:C:13:ILE:HD13	2:D:638:ILE:HD12	1.92	0.41
1:C:302:HIS:CE1	1:C:487:MET:HE3	2.56	0.41
1:C:447:ILE:HG22	1:C:450:TYR:CZ	2.55	0.41
2:D:563:TYR:CD1	2:D:564:SER:N	2.88	0.41
2:D:683:ILE:HD13	2:D:683:ILE:HG21	1.85	0.41
1:A:25:VAL:HG12	1:A:26:ASP:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:813:PHE:CE1	2:B:834:ARG:HB3	2.55	0.41
2:B:560:LYS:HG3	2:B:574:THR:HG22	2.01	0.41
1:C:322:PHE:HD1	1:C:479:TRP:CD1	2.39	0.41
2:D:282:LEU:CD2	2:D:404:TRP:NE1	2.84	0.41
2:B:535:TRP:CG	2:D:548:ALA:HA	2.55	0.41
2:B:567:ASP:HB3	2:B:603:GLN:HE22	1.86	0.41
1:C:14:VAL:HG21	2:D:673:PHE:CG	2.54	0.41
1:C:19:ILE:CG2	2:D:639:TYR:CE1	3.04	0.41
1:C:421:LEU:O	1:C:423:ASP:N	2.54	0.41
2:D:906:ASN:O	2:D:907:LYS:HD3	2.21	0.41
2:B:243:GLN:O	2:B:247:ASN:ND2	2.38	0.41
2:B:340:ASP:N	2:B:340:ASP:OD1	2.53	0.41
2:B:532:ASP:HB2	1:C:11:GLN:OE1	2.20	0.41
1:C:35:ILE:HG21	1:C:97:CYS:HA	2.03	0.41
2:D:659:ASP:HA	2:D:669:LEU:HD22	2.02	0.41
1:A:480:GLU:HA	1:A:483:VAL:HG12	2.03	0.41
1:C:312:PHE:CG	1:C:341:LEU:HB2	2.56	0.41
2:D:585:LYS:HA	2:D:588:ARG:HG2	2.03	0.41
1:A:331:GLU:HG3	1:A:333:ALA:H	1.86	0.40
1:A:406:ARG:NH1	1:A:488:GLU:OE2	2.54	0.40
2:B:538:ALA:CA	2:D:641:PRO:CG	2.96	0.40
2:B:832:ARG:NH2	2:B:926:ALA:O	2.54	0.40
2:D:255:ASN:C	2:D:257:LEU:H	2.29	0.40
2:D:973:LEU:HD12	2:D:974:ARG:N	2.36	0.40
1:A:249:LEU:HD23	1:A:249:LEU:HA	1.96	0.40
2:B:165:LYS:HE2	2:B:165:LYS:HB3	1.83	0.40
1:C:13:ILE:HD11	2:D:638:ILE:CD1	2.19	0.40
1:C:98:ILE:CD1	1:C:133:ALA:HB3	2.52	0.40
2:B:385:PRO:HA	2:B:906:ASN:HD22	1.86	0.40
1:C:62:GLY:N	1:C:300:ASP:O	2.49	0.40
1:C:445:MET:O	1:C:446:LEU:HB2	2.20	0.40
1:C:502:LYS:HG3	1:C:506:ASN:HD22	1.87	0.40
1:A:256:ASN:OD1	1:A:256:ASN:N	2.55	0.40
2:B:680:ASN:HB3	2:B:734:ARG:HH11	1.87	0.40
1:C:430:ILE:HG22	1:C:434:ASN:HD21	1.86	0.40
2:B:153:ASN:OD1	2:B:153:ASN:N	2.54	0.40
2:B:168:MET:HE3	2:B:168:MET:HB3	1.94	0.40
2:D:568:ARG:HD3	2:D:569:TYR:CZ	2.57	0.40
2:D:870:LYS:HD2	2:D:870:LYS:HA	1.86	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	550/580 (95%)	512 (93%)	38 (7%)	0	100	100
1	C	553/580 (95%)	529 (96%)	22 (4%)	2 (0%)	30	68
2	B	931/1041 (89%)	848 (91%)	83 (9%)	0	100	100
2	D	802/1041 (77%)	757 (94%)	41 (5%)	4 (0%)	25	64
All	All	2836/3242 (88%)	2646 (93%)	184 (6%)	6 (0%)	45	78

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	D	499	GLY
2	D	790	GLY
1	C	142	LYS
2	D	353	ILE
2	D	464	GLN
1	C	422	ASN

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	452/495 (91%)	445 (98%)	7 (2%)	60	75
1	C	473/495 (96%)	473 (100%)	0	100	100
2	B	776/869 (89%)	770 (99%)	6 (1%)	79	85
2	D	674/869 (78%)	674 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	2375/2728 (87%)	2362 (100%)	13 (0%)	85 90

All (13) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	55	SER
1	A	103	THR
1	A	298	CYS
1	A	324	THR
1	A	347	MET
1	A	387	CYS
1	A	428	ASP
2	B	516	ASP
2	B	608	LYS
2	B	716	THR
2	B	826	GLU
2	B	846	GLU
2	B	932	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (53) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	72	ASN
1	A	121	GLN
1	A	134	HIS
1	A	151	ASN
1	A	215	GLN
1	A	263	ASN
1	A	283	ASN
1	A	401	ASN
1	A	420	GLN
1	A	506	ASN
1	A	538	GLN
1	A	543	ASN
2	B	112	GLN
2	B	233	ASN
2	B	236	GLN
2	B	286	ASN
2	B	347	ASN
2	B	362	HIS
2	B	562	ASN

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Mol	Chain	Res	Type
2	B	586	ASN
2	B	587	HIS
2	B	603	GLN
2	B	628	GLN
2	B	677	GLN
2	B	743	ASN
2	B	754	ASN
2	B	773	ASN
2	B	816	GLN
2	B	841	ASN
2	B	864	ASN
2	B	882	GLN
2	B	919	ASN
2	B	999	ASN
1	C	88	ASN
1	C	170	GLN
1	C	179	GLN
1	C	336	ASN
1	C	434	ASN
1	C	470	GLN
1	C	538	GLN
2	D	243	GLN
2	D	255	ASN
2	D	270	ASN
2	D	286	ASN
2	D	442	ASN
2	D	470	ASN
2	D	501	HIS
2	D	642	ASN
2	D	664	ASN
2	D	754	ASN
2	D	816	GLN
2	D	840	HIS
2	D	1013	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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

5.5　Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6　Ligand geometry ⓘ

There are no ligands in this entry.

5.7　Other polymers ⓘ

There are no such residues in this entry.

5.8　Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Map visualisation ⓘ

This section contains visualisations of the EMDB entry EMD-11277. 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 |
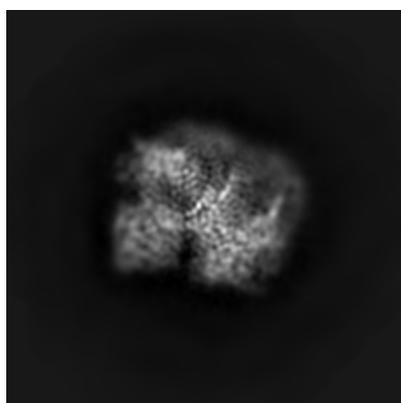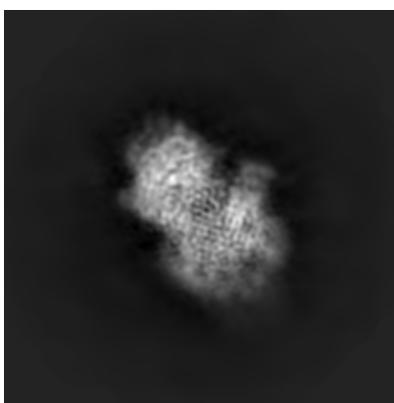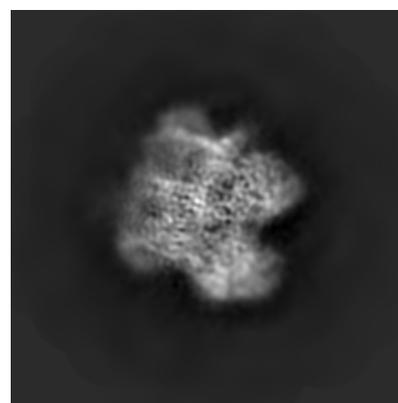
The images above show the map projected in three orthogonal directions.

6.2 Central slices ⓘ
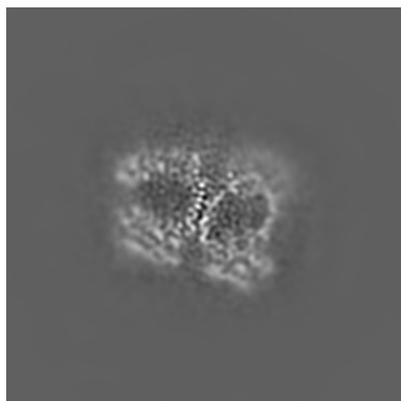
6.2.1 Primary map
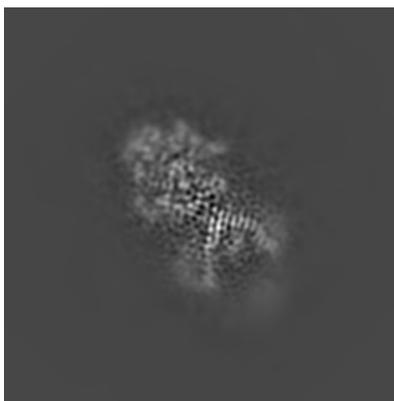
| X Index: 132 | Y Index: 132 | Z Index: 132 |
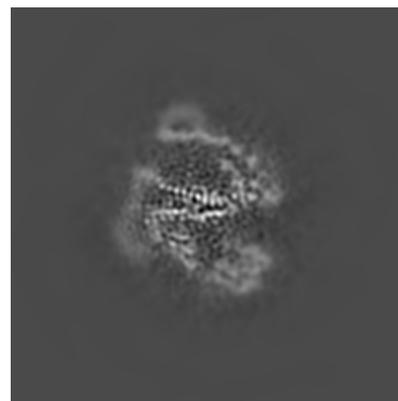
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices ⓘ
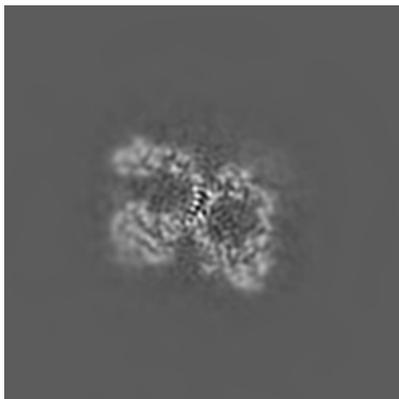
6.3.1 Primary map
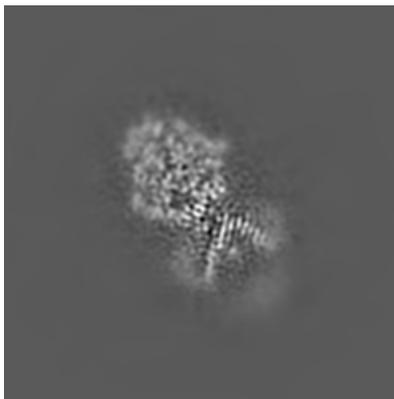
| X Index: 137 | Y Index: 135 | Z Index: 121 |
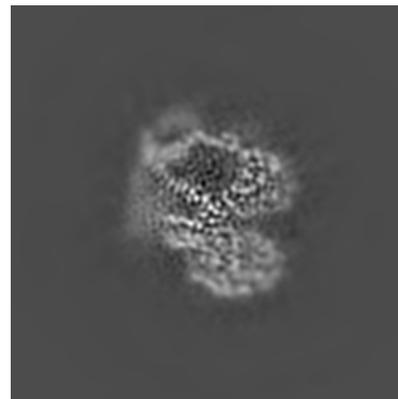
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map

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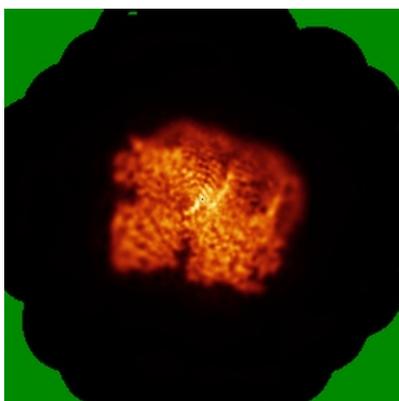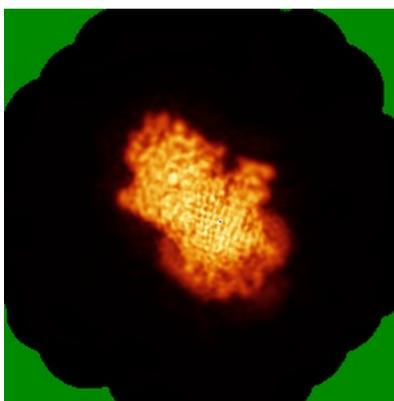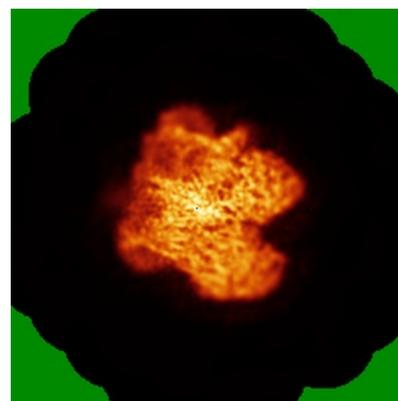
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5　Orthogonal surface views ⓘ

6.5.1　Primary map

X　　　　　　　　　　　　　Y　　　　　　　　　　　　　Z
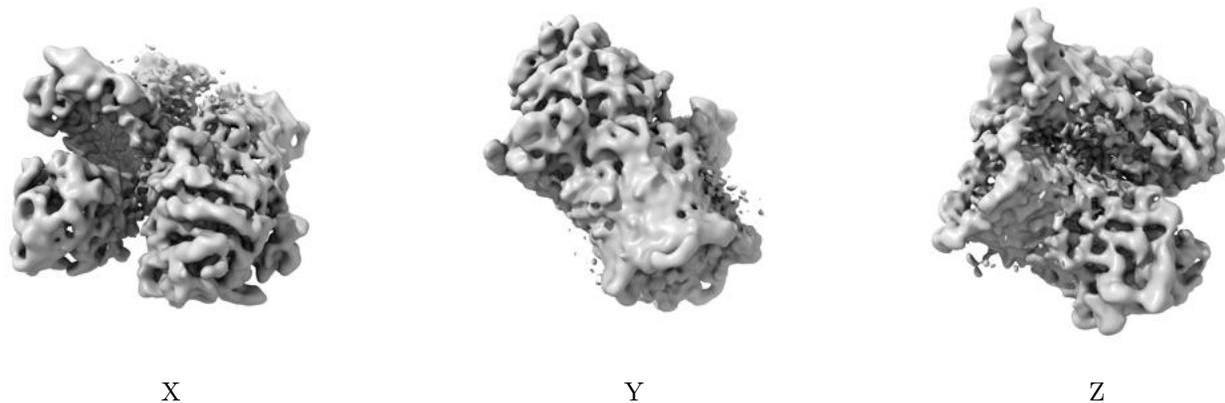
The images above show the 3D surface view of the map at the recommended contour level 0.028. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.6 Mask visualisation ⓘ

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

A mask typically either:

- Encompasses the whole structure

- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

6.6.1 emd_11277_msk_1.map ⓘ

X   Y   Z
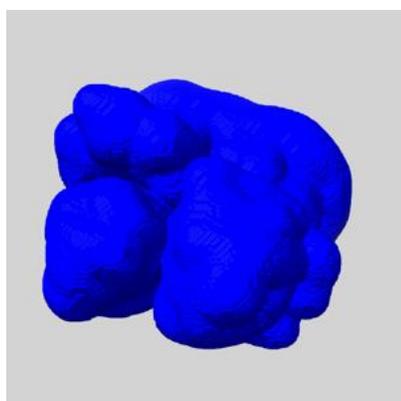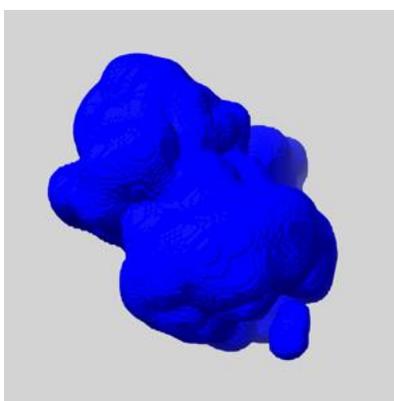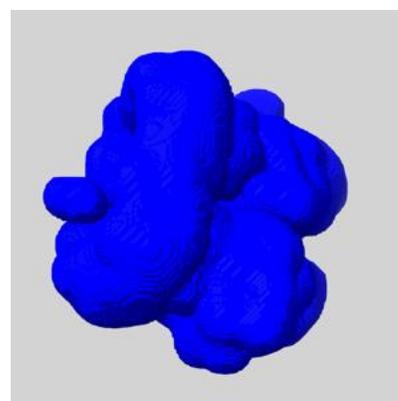
7 Map analysis ⓘ

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 ⓘ
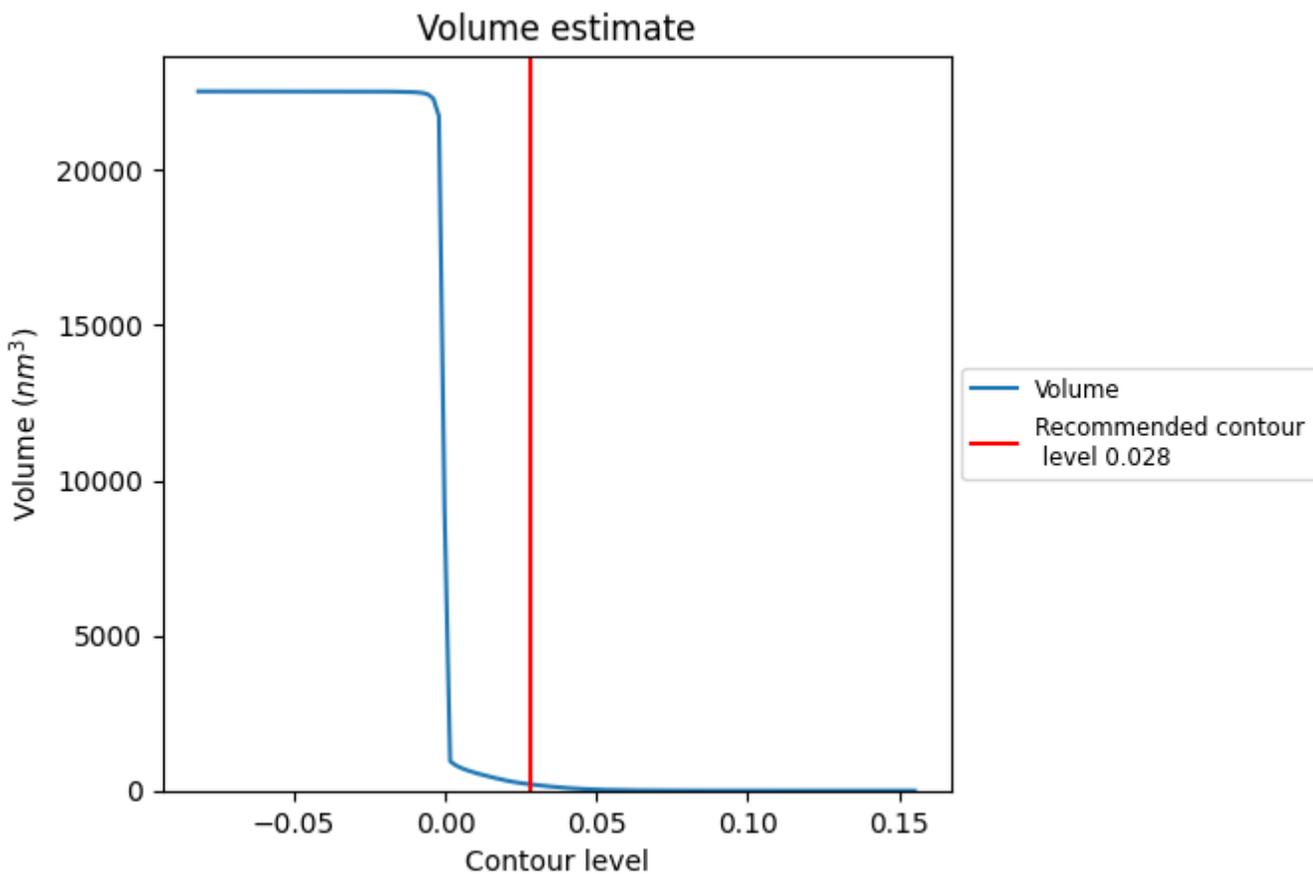
The volume at the recommended contour level is 205 nm^3; this corresponds to an approximate mass of 185 kDa.

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 ⓘ
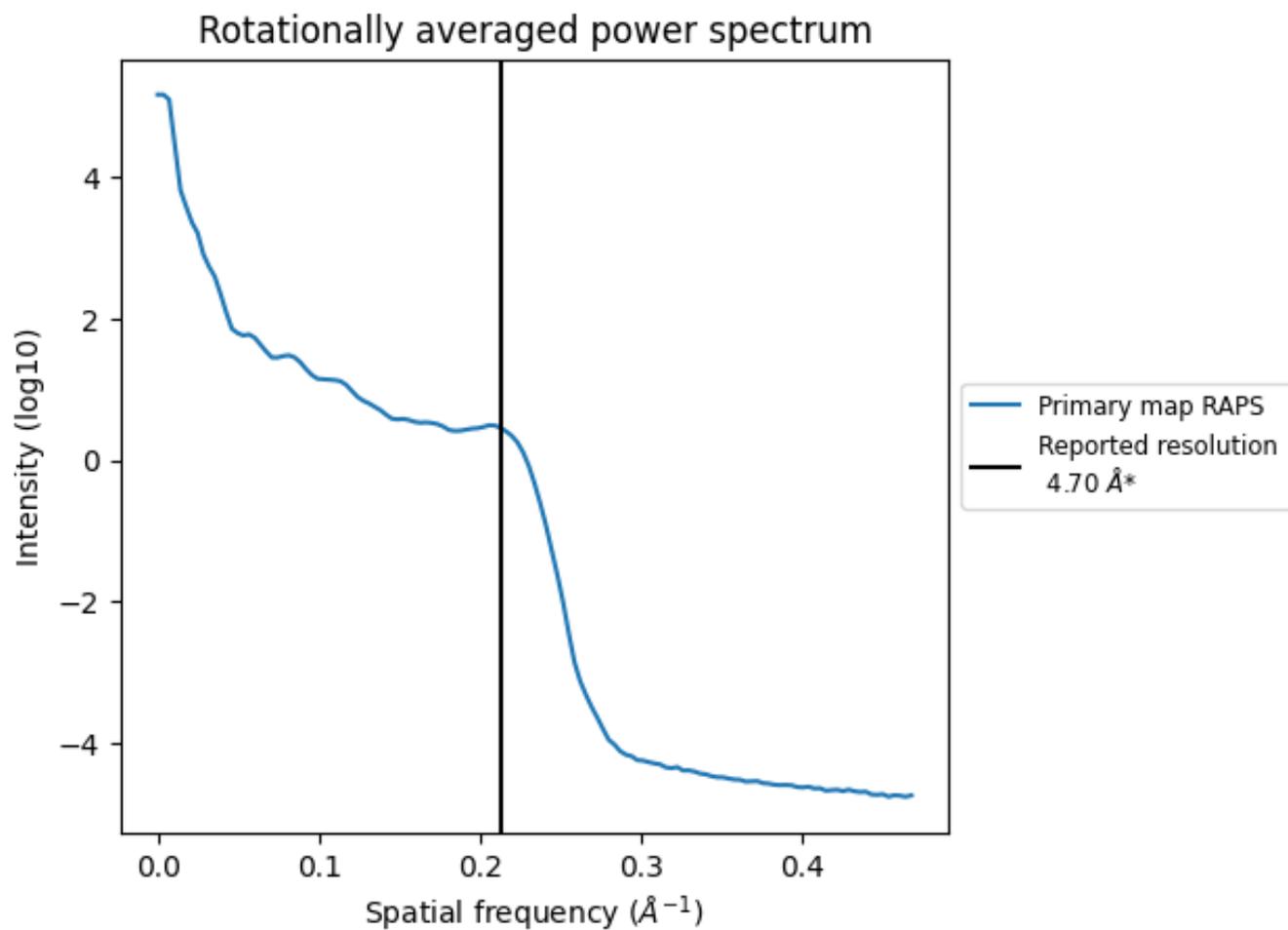
*Reported resolution corresponds to spatial frequency of 0.213 Å^{-1}

8   Fourier-Shell correlation (i)

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 (i)
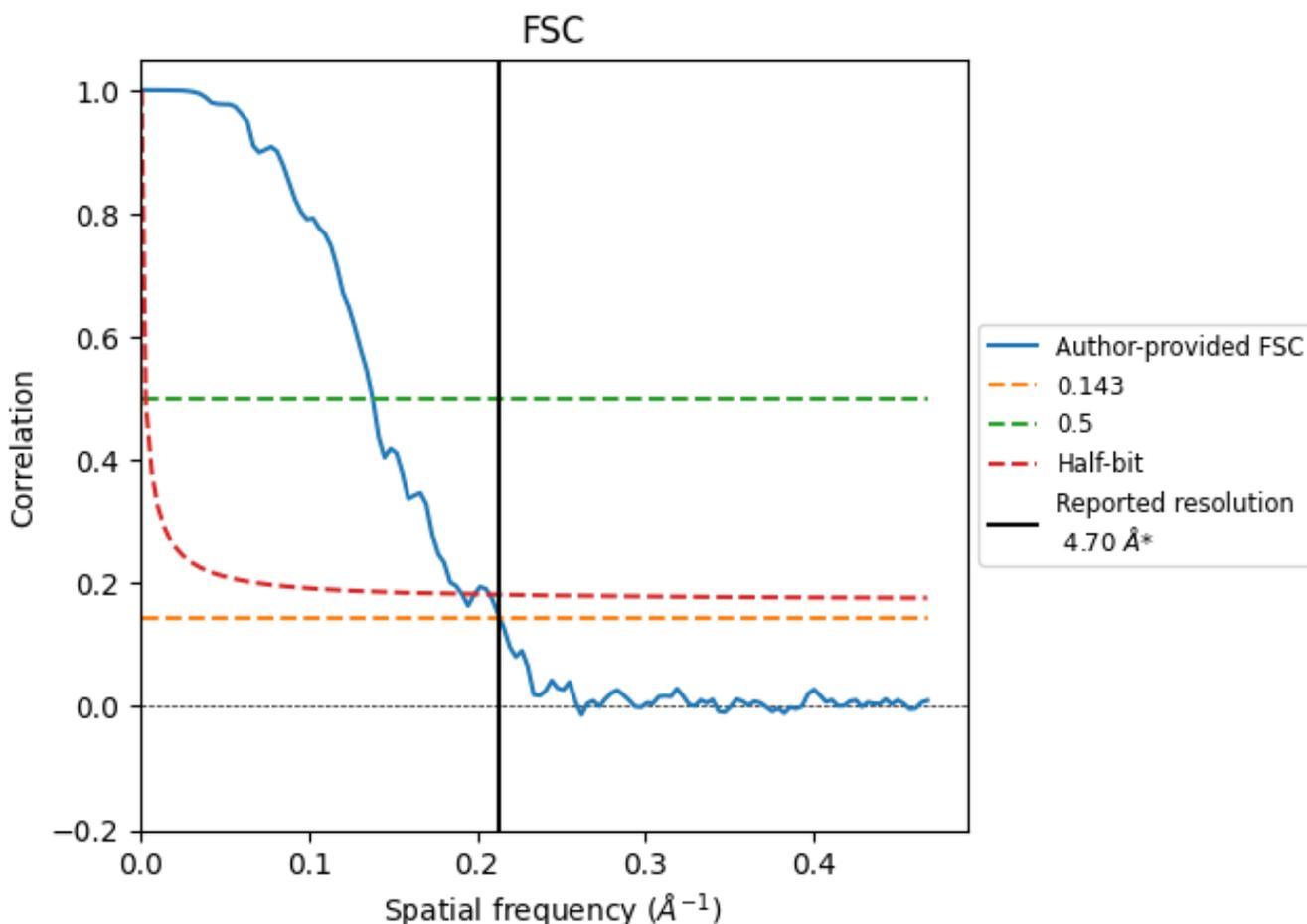
*Reported resolution corresponds to spatial frequency of 0.213 Å^{-1}

8.2　Resolution estimates　ⓘ

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.70	-	-
Author-provided FSC curve	4.68	7.25	5.24
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit ⓘ

This section contains information regarding the fit between EMDB map EMD-11277 and PDB model 6ZM1. Per-residue inclusion information can be found in section 3 on page 5.

## 9.1 Map-model overlay ⓘ

X　　　　　　　　　　　　Y　　　　　　　　　　　　Z
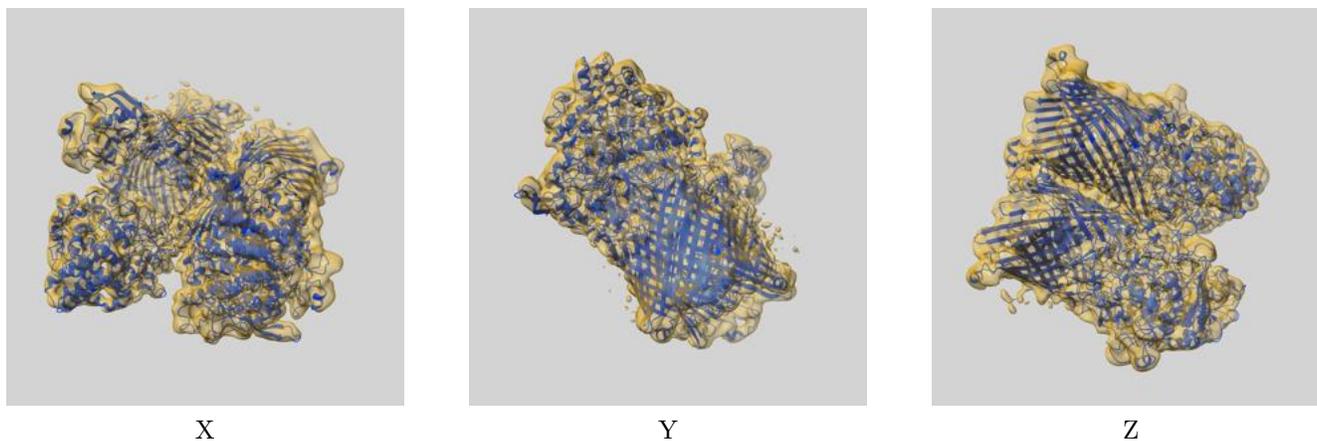
The images above show the 3D surface view of the map at the recommended contour level 0.028 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model ⓘ

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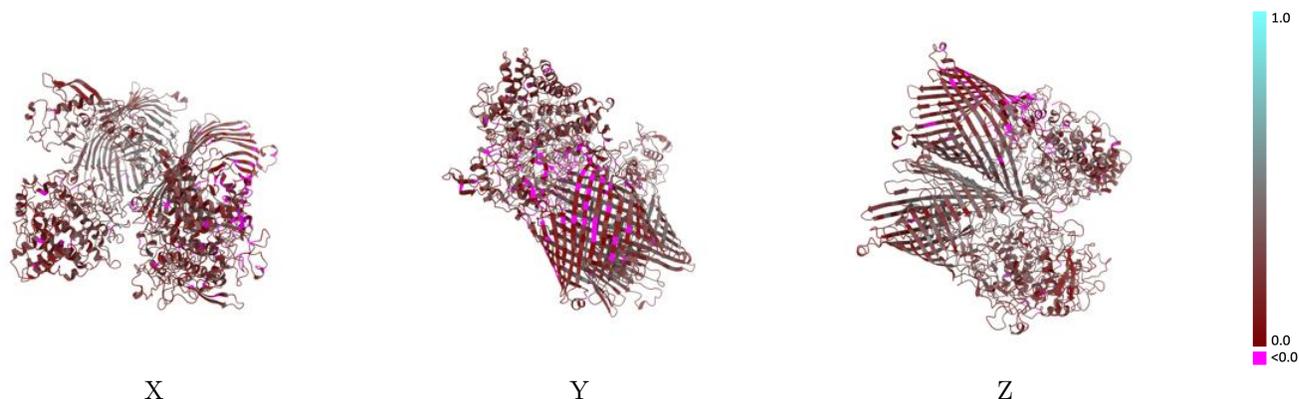
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model ⓘ

X   Y   Z
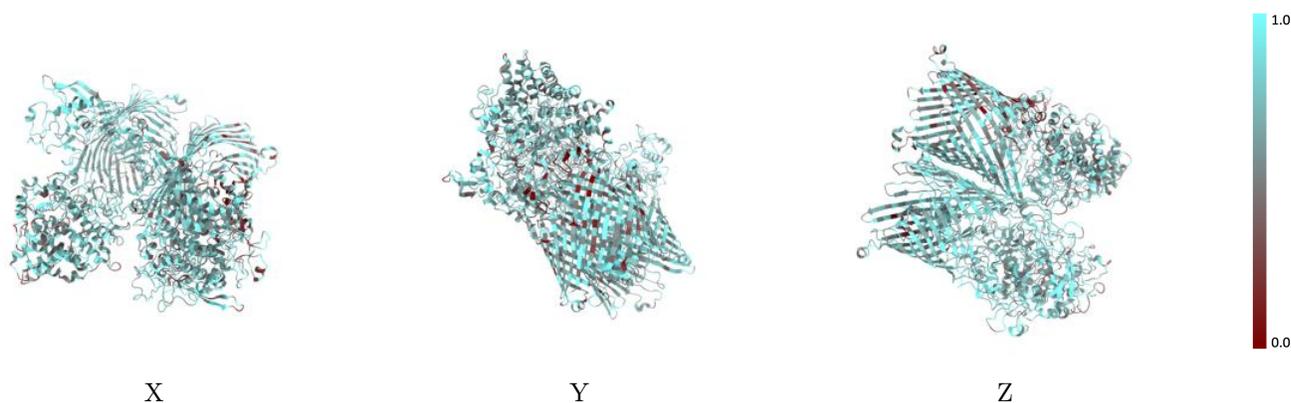
The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.028).

9.4 Atom inclusion ⓘ
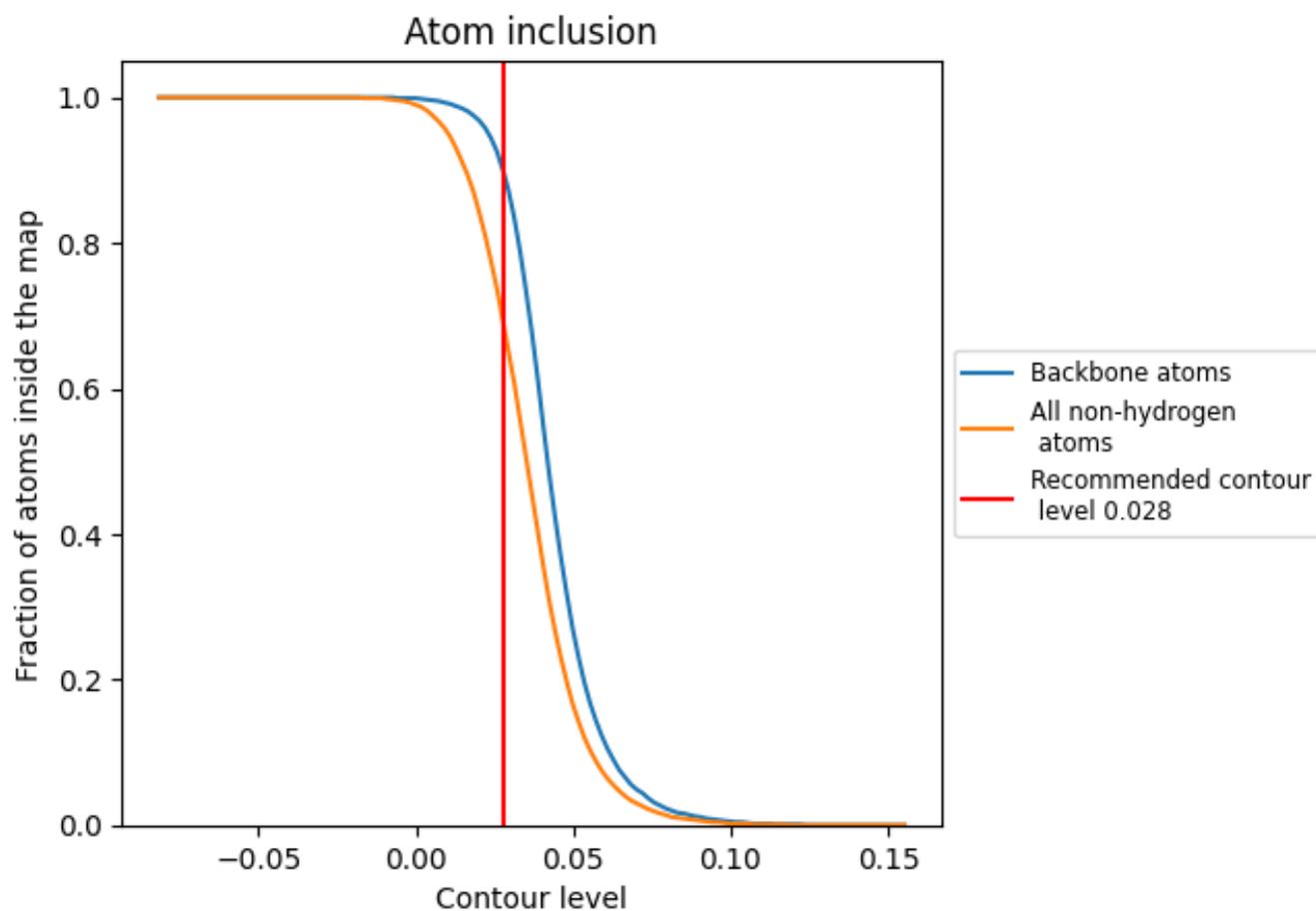
At the recommended contour level, 90% of all backbone atoms, 68% of all non-hydrogen atoms, are inside the map.

9.5   Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.028) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6850	0.2420
A	0.6650	0.2220
B	0.7350	0.3040
C	0.6830	0.2400
D	0.6440	0.1850

1.0

0.0

<0.0