



## wwPDB EM Validation Summary Report ⓘ

Nov 19, 2022 – 06:14 pm GMT

PDB ID : 6G2H  
EMDB ID : EMD-4343  
Title : Filament of acetyl-CoA carboxylase and BRCT domains of BRCA1 (ACC-BRCT) core at 4.6 Å resolution  
Authors : Hunkeler, M.; Hagmann, A.; Stutfeld, E.; Chami, M.; Stahlberg, H.; Maier, T.  
Deposited on : 2018-03-23  
Resolution : 4.60 Å (reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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>.

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

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

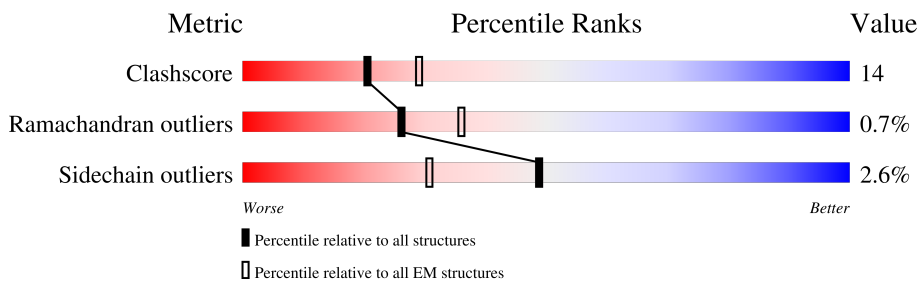
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.60 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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	2407	
1	B	2407	
1	C	2407	
1	D	2407	
1	E	2407	
1	F	2407	

## 2 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 103896 atoms, of which 51852 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 Acetyl-CoA carboxylase 1.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	H	N	O	S		
1	D	1518	24416	7790	12181	2126	2249	70	0	0
1	E	1518	24416	7790	12181	2126	2249	70	0	0
1	C	948	15171	4850	7561	1318	1403	39	0	0
1	F	948	15171	4850	7561	1318	1403	39	0	0
1	B	761	12361	3935	6184	1076	1125	41	0	0
1	A	761	12361	3935	6184	1076	1125	41	0	0

There are 366 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	-60	MET	-	initiating methionine	UNP Q13085
D	-59	ALA	-	expression tag	UNP Q13085
D	-58	HIS	-	expression tag	UNP Q13085
D	-57	HIS	-	expression tag	UNP Q13085
D	-56	HIS	-	expression tag	UNP Q13085
D	-55	HIS	-	expression tag	UNP Q13085
D	-54	HIS	-	expression tag	UNP Q13085
D	-53	HIS	-	expression tag	UNP Q13085
D	-52	HIS	-	expression tag	UNP Q13085
D	-51	HIS	-	expression tag	UNP Q13085
D	-50	HIS	-	expression tag	UNP Q13085
D	-49	HIS	-	expression tag	UNP Q13085
D	-48	GLY	-	expression tag	UNP Q13085
D	-47	SER	-	expression tag	UNP Q13085
D	-46	THR	-	expression tag	UNP Q13085
D	-45	SER	-	expression tag	UNP Q13085
D	-44	GLY	-	expression tag	UNP Q13085
D	-43	SER	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
D	-42	GLY	-	expression tag	UNP Q13085
D	-41	GLU	-	expression tag	UNP Q13085
D	-40	GLN	-	expression tag	UNP Q13085
D	-39	LYS	-	expression tag	UNP Q13085
D	-38	LEU	-	expression tag	UNP Q13085
D	-37	ILE	-	expression tag	UNP Q13085
D	-36	SER	-	expression tag	UNP Q13085
D	-35	GLU	-	expression tag	UNP Q13085
D	-34	GLU	-	expression tag	UNP Q13085
D	-33	ASP	-	expression tag	UNP Q13085
D	-32	LEU	-	expression tag	UNP Q13085
D	-31	GLY	-	expression tag	UNP Q13085
D	-30	SER	-	expression tag	UNP Q13085
D	-29	THR	-	expression tag	UNP Q13085
D	-28	SER	-	expression tag	UNP Q13085
D	-27	GLY	-	expression tag	UNP Q13085
D	-26	SER	-	expression tag	UNP Q13085
D	-25	GLY	-	expression tag	UNP Q13085
D	-24	ASP	-	expression tag	UNP Q13085
D	-23	TYR	-	expression tag	UNP Q13085
D	-22	LYS	-	expression tag	UNP Q13085
D	-21	ASP	-	expression tag	UNP Q13085
D	-20	ASP	-	expression tag	UNP Q13085
D	-19	ASP	-	expression tag	UNP Q13085
D	-18	ASP	-	expression tag	UNP Q13085
D	-17	LYS	-	expression tag	UNP Q13085
D	-16	LEU	-	expression tag	UNP Q13085
D	-15	THR	-	expression tag	UNP Q13085
D	-14	SER	-	expression tag	UNP Q13085
D	-13	LEU	-	expression tag	UNP Q13085
D	-12	TYR	-	expression tag	UNP Q13085
D	-11	LYS	-	expression tag	UNP Q13085
D	-10	LYS	-	expression tag	UNP Q13085
D	-9	ALA	-	expression tag	UNP Q13085
D	-8	GLY	-	expression tag	UNP Q13085
D	-7	LEU	-	expression tag	UNP Q13085
D	-6	GLU	-	expression tag	UNP Q13085
D	-5	ASN	-	expression tag	UNP Q13085
D	-4	LEU	-	expression tag	UNP Q13085
D	-3	TYR	-	expression tag	UNP Q13085
D	-2	PHE	-	expression tag	UNP Q13085
D	-1	GLN	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
D	0	GLY	-	expression tag	UNP Q13085
E	-60	MET	-	initiating methionine	UNP Q13085
E	-59	ALA	-	expression tag	UNP Q13085
E	-58	HIS	-	expression tag	UNP Q13085
E	-57	HIS	-	expression tag	UNP Q13085
E	-56	HIS	-	expression tag	UNP Q13085
E	-55	HIS	-	expression tag	UNP Q13085
E	-54	HIS	-	expression tag	UNP Q13085
E	-53	HIS	-	expression tag	UNP Q13085
E	-52	HIS	-	expression tag	UNP Q13085
E	-51	HIS	-	expression tag	UNP Q13085
E	-50	HIS	-	expression tag	UNP Q13085
E	-49	HIS	-	expression tag	UNP Q13085
E	-48	GLY	-	expression tag	UNP Q13085
E	-47	SER	-	expression tag	UNP Q13085
E	-46	THR	-	expression tag	UNP Q13085
E	-45	SER	-	expression tag	UNP Q13085
E	-44	GLY	-	expression tag	UNP Q13085
E	-43	SER	-	expression tag	UNP Q13085
E	-42	GLY	-	expression tag	UNP Q13085
E	-41	GLU	-	expression tag	UNP Q13085
E	-40	GLN	-	expression tag	UNP Q13085
E	-39	LYS	-	expression tag	UNP Q13085
E	-38	LEU	-	expression tag	UNP Q13085
E	-37	ILE	-	expression tag	UNP Q13085
E	-36	SER	-	expression tag	UNP Q13085
E	-35	GLU	-	expression tag	UNP Q13085
E	-34	GLU	-	expression tag	UNP Q13085
E	-33	ASP	-	expression tag	UNP Q13085
E	-32	LEU	-	expression tag	UNP Q13085
E	-31	GLY	-	expression tag	UNP Q13085
E	-30	SER	-	expression tag	UNP Q13085
E	-29	THR	-	expression tag	UNP Q13085
E	-28	SER	-	expression tag	UNP Q13085
E	-27	GLY	-	expression tag	UNP Q13085
E	-26	SER	-	expression tag	UNP Q13085
E	-25	GLY	-	expression tag	UNP Q13085
E	-24	ASP	-	expression tag	UNP Q13085
E	-23	TYR	-	expression tag	UNP Q13085
E	-22	LYS	-	expression tag	UNP Q13085
E	-21	ASP	-	expression tag	UNP Q13085
E	-20	ASP	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
E	-19	ASP	-	expression tag	UNP Q13085
E	-18	ASP	-	expression tag	UNP Q13085
E	-17	LYS	-	expression tag	UNP Q13085
E	-16	LEU	-	expression tag	UNP Q13085
E	-15	THR	-	expression tag	UNP Q13085
E	-14	SER	-	expression tag	UNP Q13085
E	-13	LEU	-	expression tag	UNP Q13085
E	-12	TYR	-	expression tag	UNP Q13085
E	-11	LYS	-	expression tag	UNP Q13085
E	-10	LYS	-	expression tag	UNP Q13085
E	-9	ALA	-	expression tag	UNP Q13085
E	-8	GLY	-	expression tag	UNP Q13085
E	-7	LEU	-	expression tag	UNP Q13085
E	-6	GLU	-	expression tag	UNP Q13085
E	-5	ASN	-	expression tag	UNP Q13085
E	-4	LEU	-	expression tag	UNP Q13085
E	-3	TYR	-	expression tag	UNP Q13085
E	-2	PHE	-	expression tag	UNP Q13085
E	-1	GLN	-	expression tag	UNP Q13085
E	0	GLY	-	expression tag	UNP Q13085
C	-60	MET	-	initiating methionine	UNP Q13085
C	-59	ALA	-	expression tag	UNP Q13085
C	-58	HIS	-	expression tag	UNP Q13085
C	-57	HIS	-	expression tag	UNP Q13085
C	-56	HIS	-	expression tag	UNP Q13085
C	-55	HIS	-	expression tag	UNP Q13085
C	-54	HIS	-	expression tag	UNP Q13085
C	-53	HIS	-	expression tag	UNP Q13085
C	-52	HIS	-	expression tag	UNP Q13085
C	-51	HIS	-	expression tag	UNP Q13085
C	-50	HIS	-	expression tag	UNP Q13085
C	-49	HIS	-	expression tag	UNP Q13085
C	-48	GLY	-	expression tag	UNP Q13085
C	-47	SER	-	expression tag	UNP Q13085
C	-46	THR	-	expression tag	UNP Q13085
C	-45	SER	-	expression tag	UNP Q13085
C	-44	GLY	-	expression tag	UNP Q13085
C	-43	SER	-	expression tag	UNP Q13085
C	-42	GLY	-	expression tag	UNP Q13085
C	-41	GLU	-	expression tag	UNP Q13085
C	-40	GLN	-	expression tag	UNP Q13085
C	-39	LYS	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
C	-38	LEU	-	expression tag	UNP Q13085
C	-37	ILE	-	expression tag	UNP Q13085
C	-36	SER	-	expression tag	UNP Q13085
C	-35	GLU	-	expression tag	UNP Q13085
C	-34	GLU	-	expression tag	UNP Q13085
C	-33	ASP	-	expression tag	UNP Q13085
C	-32	LEU	-	expression tag	UNP Q13085
C	-31	GLY	-	expression tag	UNP Q13085
C	-30	SER	-	expression tag	UNP Q13085
C	-29	THR	-	expression tag	UNP Q13085
C	-28	SER	-	expression tag	UNP Q13085
C	-27	GLY	-	expression tag	UNP Q13085
C	-26	SER	-	expression tag	UNP Q13085
C	-25	GLY	-	expression tag	UNP Q13085
C	-24	ASP	-	expression tag	UNP Q13085
C	-23	TYR	-	expression tag	UNP Q13085
C	-22	LYS	-	expression tag	UNP Q13085
C	-21	ASP	-	expression tag	UNP Q13085
C	-20	ASP	-	expression tag	UNP Q13085
C	-19	ASP	-	expression tag	UNP Q13085
C	-18	ASP	-	expression tag	UNP Q13085
C	-17	LYS	-	expression tag	UNP Q13085
C	-16	LEU	-	expression tag	UNP Q13085
C	-15	THR	-	expression tag	UNP Q13085
C	-14	SER	-	expression tag	UNP Q13085
C	-13	LEU	-	expression tag	UNP Q13085
C	-12	TYR	-	expression tag	UNP Q13085
C	-11	LYS	-	expression tag	UNP Q13085
C	-10	LYS	-	expression tag	UNP Q13085
C	-9	ALA	-	expression tag	UNP Q13085
C	-8	GLY	-	expression tag	UNP Q13085
C	-7	LEU	-	expression tag	UNP Q13085
C	-6	GLU	-	expression tag	UNP Q13085
C	-5	ASN	-	expression tag	UNP Q13085
C	-4	LEU	-	expression tag	UNP Q13085
C	-3	TYR	-	expression tag	UNP Q13085
C	-2	PHE	-	expression tag	UNP Q13085
C	-1	GLN	-	expression tag	UNP Q13085
C	0	GLY	-	expression tag	UNP Q13085
F	-60	MET	-	initiating methionine	UNP Q13085
F	-59	ALA	-	expression tag	UNP Q13085
F	-58	HIS	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
F	-57	HIS	-	expression tag	UNP Q13085
F	-56	HIS	-	expression tag	UNP Q13085
F	-55	HIS	-	expression tag	UNP Q13085
F	-54	HIS	-	expression tag	UNP Q13085
F	-53	HIS	-	expression tag	UNP Q13085
F	-52	HIS	-	expression tag	UNP Q13085
F	-51	HIS	-	expression tag	UNP Q13085
F	-50	HIS	-	expression tag	UNP Q13085
F	-49	HIS	-	expression tag	UNP Q13085
F	-48	GLY	-	expression tag	UNP Q13085
F	-47	SER	-	expression tag	UNP Q13085
F	-46	THR	-	expression tag	UNP Q13085
F	-45	SER	-	expression tag	UNP Q13085
F	-44	GLY	-	expression tag	UNP Q13085
F	-43	SER	-	expression tag	UNP Q13085
F	-42	GLY	-	expression tag	UNP Q13085
F	-41	GLU	-	expression tag	UNP Q13085
F	-40	GLN	-	expression tag	UNP Q13085
F	-39	LYS	-	expression tag	UNP Q13085
F	-38	LEU	-	expression tag	UNP Q13085
F	-37	ILE	-	expression tag	UNP Q13085
F	-36	SER	-	expression tag	UNP Q13085
F	-35	GLU	-	expression tag	UNP Q13085
F	-34	GLU	-	expression tag	UNP Q13085
F	-33	ASP	-	expression tag	UNP Q13085
F	-32	LEU	-	expression tag	UNP Q13085
F	-31	GLY	-	expression tag	UNP Q13085
F	-30	SER	-	expression tag	UNP Q13085
F	-29	THR	-	expression tag	UNP Q13085
F	-28	SER	-	expression tag	UNP Q13085
F	-27	GLY	-	expression tag	UNP Q13085
F	-26	SER	-	expression tag	UNP Q13085
F	-25	GLY	-	expression tag	UNP Q13085
F	-24	ASP	-	expression tag	UNP Q13085
F	-23	TYR	-	expression tag	UNP Q13085
F	-22	LYS	-	expression tag	UNP Q13085
F	-21	ASP	-	expression tag	UNP Q13085
F	-20	ASP	-	expression tag	UNP Q13085
F	-19	ASP	-	expression tag	UNP Q13085
F	-18	ASP	-	expression tag	UNP Q13085
F	-17	LYS	-	expression tag	UNP Q13085
F	-16	LEU	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
F	-15	THR	-	expression tag	UNP Q13085
F	-14	SER	-	expression tag	UNP Q13085
F	-13	LEU	-	expression tag	UNP Q13085
F	-12	TYR	-	expression tag	UNP Q13085
F	-11	LYS	-	expression tag	UNP Q13085
F	-10	LYS	-	expression tag	UNP Q13085
F	-9	ALA	-	expression tag	UNP Q13085
F	-8	GLY	-	expression tag	UNP Q13085
F	-7	LEU	-	expression tag	UNP Q13085
F	-6	GLU	-	expression tag	UNP Q13085
F	-5	ASN	-	expression tag	UNP Q13085
F	-4	LEU	-	expression tag	UNP Q13085
F	-3	TYR	-	expression tag	UNP Q13085
F	-2	PHE	-	expression tag	UNP Q13085
F	-1	GLN	-	expression tag	UNP Q13085
F	0	GLY	-	expression tag	UNP Q13085
B	-60	MET	-	initiating methionine	UNP Q13085
B	-59	ALA	-	expression tag	UNP Q13085
B	-58	HIS	-	expression tag	UNP Q13085
B	-57	HIS	-	expression tag	UNP Q13085
B	-56	HIS	-	expression tag	UNP Q13085
B	-55	HIS	-	expression tag	UNP Q13085
B	-54	HIS	-	expression tag	UNP Q13085
B	-53	HIS	-	expression tag	UNP Q13085
B	-52	HIS	-	expression tag	UNP Q13085
B	-51	HIS	-	expression tag	UNP Q13085
B	-50	HIS	-	expression tag	UNP Q13085
B	-49	HIS	-	expression tag	UNP Q13085
B	-48	GLY	-	expression tag	UNP Q13085
B	-47	SER	-	expression tag	UNP Q13085
B	-46	THR	-	expression tag	UNP Q13085
B	-45	SER	-	expression tag	UNP Q13085
B	-44	GLY	-	expression tag	UNP Q13085
B	-43	SER	-	expression tag	UNP Q13085
B	-42	GLY	-	expression tag	UNP Q13085
B	-41	GLU	-	expression tag	UNP Q13085
B	-40	GLN	-	expression tag	UNP Q13085
B	-39	LYS	-	expression tag	UNP Q13085
B	-38	LEU	-	expression tag	UNP Q13085
B	-37	ILE	-	expression tag	UNP Q13085
B	-36	SER	-	expression tag	UNP Q13085
B	-35	GLU	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
B	-34	GLU	-	expression tag	UNP Q13085
B	-33	ASP	-	expression tag	UNP Q13085
B	-32	LEU	-	expression tag	UNP Q13085
B	-31	GLY	-	expression tag	UNP Q13085
B	-30	SER	-	expression tag	UNP Q13085
B	-29	THR	-	expression tag	UNP Q13085
B	-28	SER	-	expression tag	UNP Q13085
B	-27	GLY	-	expression tag	UNP Q13085
B	-26	SER	-	expression tag	UNP Q13085
B	-25	GLY	-	expression tag	UNP Q13085
B	-24	ASP	-	expression tag	UNP Q13085
B	-23	TYR	-	expression tag	UNP Q13085
B	-22	LYS	-	expression tag	UNP Q13085
B	-21	ASP	-	expression tag	UNP Q13085
B	-20	ASP	-	expression tag	UNP Q13085
B	-19	ASP	-	expression tag	UNP Q13085
B	-18	ASP	-	expression tag	UNP Q13085
B	-17	LYS	-	expression tag	UNP Q13085
B	-16	LEU	-	expression tag	UNP Q13085
B	-15	THR	-	expression tag	UNP Q13085
B	-14	SER	-	expression tag	UNP Q13085
B	-13	LEU	-	expression tag	UNP Q13085
B	-12	TYR	-	expression tag	UNP Q13085
B	-11	LYS	-	expression tag	UNP Q13085
B	-10	LYS	-	expression tag	UNP Q13085
B	-9	ALA	-	expression tag	UNP Q13085
B	-8	GLY	-	expression tag	UNP Q13085
B	-7	LEU	-	expression tag	UNP Q13085
B	-6	GLU	-	expression tag	UNP Q13085
B	-5	ASN	-	expression tag	UNP Q13085
B	-4	LEU	-	expression tag	UNP Q13085
B	-3	TYR	-	expression tag	UNP Q13085
B	-2	PHE	-	expression tag	UNP Q13085
B	-1	GLN	-	expression tag	UNP Q13085
B	0	GLY	-	expression tag	UNP Q13085
A	-60	MET	-	initiating methionine	UNP Q13085
A	-59	ALA	-	expression tag	UNP Q13085
A	-58	HIS	-	expression tag	UNP Q13085
A	-57	HIS	-	expression tag	UNP Q13085
A	-56	HIS	-	expression tag	UNP Q13085
A	-55	HIS	-	expression tag	UNP Q13085
A	-54	HIS	-	expression tag	UNP Q13085

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Chain	Residue	Modelled	Actual	Comment	Reference
A	-53	HIS	-	expression tag	UNP Q13085
A	-52	HIS	-	expression tag	UNP Q13085
A	-51	HIS	-	expression tag	UNP Q13085
A	-50	HIS	-	expression tag	UNP Q13085
A	-49	HIS	-	expression tag	UNP Q13085
A	-48	GLY	-	expression tag	UNP Q13085
A	-47	SER	-	expression tag	UNP Q13085
A	-46	THR	-	expression tag	UNP Q13085
A	-45	SER	-	expression tag	UNP Q13085
A	-44	GLY	-	expression tag	UNP Q13085
A	-43	SER	-	expression tag	UNP Q13085
A	-42	GLY	-	expression tag	UNP Q13085
A	-41	GLU	-	expression tag	UNP Q13085
A	-40	GLN	-	expression tag	UNP Q13085
A	-39	LYS	-	expression tag	UNP Q13085
A	-38	LEU	-	expression tag	UNP Q13085
A	-37	ILE	-	expression tag	UNP Q13085
A	-36	SER	-	expression tag	UNP Q13085
A	-35	GLU	-	expression tag	UNP Q13085
A	-34	GLU	-	expression tag	UNP Q13085
A	-33	ASP	-	expression tag	UNP Q13085
A	-32	LEU	-	expression tag	UNP Q13085
A	-31	GLY	-	expression tag	UNP Q13085
A	-30	SER	-	expression tag	UNP Q13085
A	-29	THR	-	expression tag	UNP Q13085
A	-28	SER	-	expression tag	UNP Q13085
A	-27	GLY	-	expression tag	UNP Q13085
A	-26	SER	-	expression tag	UNP Q13085
A	-25	GLY	-	expression tag	UNP Q13085
A	-24	ASP	-	expression tag	UNP Q13085
A	-23	TYR	-	expression tag	UNP Q13085
A	-22	LYS	-	expression tag	UNP Q13085
A	-21	ASP	-	expression tag	UNP Q13085
A	-20	ASP	-	expression tag	UNP Q13085
A	-19	ASP	-	expression tag	UNP Q13085
A	-18	ASP	-	expression tag	UNP Q13085
A	-17	LYS	-	expression tag	UNP Q13085
A	-16	LEU	-	expression tag	UNP Q13085
A	-15	THR	-	expression tag	UNP Q13085
A	-14	SER	-	expression tag	UNP Q13085
A	-13	LEU	-	expression tag	UNP Q13085
A	-12	TYR	-	expression tag	UNP Q13085

*Continued on next page...*

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Chain	Residue	Modelled	Actual	Comment	Reference
A	-11	LYS	-	expression tag	UNP Q13085
A	-10	LYS	-	expression tag	UNP Q13085
A	-9	ALA	-	expression tag	UNP Q13085
A	-8	GLY	-	expression tag	UNP Q13085
A	-7	LEU	-	expression tag	UNP Q13085
A	-6	GLU	-	expression tag	UNP Q13085
A	-5	ASN	-	expression tag	UNP Q13085
A	-4	LEU	-	expression tag	UNP Q13085
A	-3	TYR	-	expression tag	UNP Q13085
A	-2	PHE	-	expression tag	UNP Q13085
A	-1	GLN	-	expression tag	UNP Q13085
A	0	GLY	-	expression tag	UNP Q13085



GLY	GLN	CYS	THR	ALA	GLU	ILE	VAL	MET	MET	VAL	MET	THR	LEU	THR	ALA	VAL	GLU	SER	GLY	CYS	ILE	HIS	THR	VAL	LEU	ASP	ASN	PRO	SER	LYS	VAL	GLN	GLN	ALA	ALA	LEU	ASP	ASN	PRO	SER	LYS	VAL	GLN	GLN	ALA	ALA	LEU	H832	T833	G834		
I839	GLN	THR	SER	LEU	ARG	GLY	K848	V852	F853	V856	V863	V864	V865	C868	P870	F873	F874	S875	S876	E897	R898	V899	V900	W881	V882	R883	R884	T888	L889	P892	E898	L899	Q890	D901	I902	M903	T904	R909	N913	V914	E915	K919	K920	E921	M922	A923						
Q824	Y825	A926	T929	T930	L833	C934	Q935	S938	Q939	Q940	N943	I944	S947	A950	T951	L952	N953	K954	K955	S956	E957	R958	E959	W960	F961	F962	M963	N964	T965	Q966	S967	V969	V972	Q973	R974	Y975	R976	I979	R980	G981	V982	V986	V987	M988	D989	L890	L891	R992	Q993			
Y994	L995	R996	E998	T999	Q1000	Y1006	D1007	V1010	Q1016	D1020	M1021	N1022	M1026	S1030	H1031	L1032	R1033	V1034	T1035	K1036	K1037	M1038	T1042	H1043	L1044	I1045	R1051	D1052	P1053	S967	T1054	L1055	L1059	L1060	H1061	I1062	L1063	L1066	T1067	M1074	A1075	K1076	V1077	A1078	L1079	R1080	A1081	R1082				
Q1083	V1084	L1085	I1086	A1087	S1088	H1089	E1090	P1091	S1092	L1095	R1096	Q1099	V1100	E1101	S1102	I1103	F1104	L1105	S1106	A1107	I1108	D1109	M1110	Q1114	I1117	E1118	I1130	V1133	M1136	F1137	F1138	V1144	V1145	L1146	M1147	A1148	A1149	V1154	R1155	R1156	M1164	S1165	V1166	Q1167	H1168	R1169	Q1170	L1171	K1172			
D1173	M1174	T1175	V1178	E1179	F1180	Q1181	P1185	H1188	PRO	ASN	ARG	GLY	ASN	ILE	PRO	THR	LEU	ASN	ARG	GLY	HIS	THR	LEU	HIS	TYR	GLY	MET	THR	HIS	VAL	ALA	VAL	SER	VAL	SER	ASP	L1289	M1290	V1291	A1292	I1293	K1294	D1298	I1299	M1300	D1301	L1304	R1309	M1401	H1402	L1403	A1408
E1243	R1247	I1248	F1249	M1253	F1256	SER	ASP	PRO	PRO	GLN	PRO	GLN	ASN	THR	GLU	PRO	THR	ALA	ALA	GLY	HIS	THR	LEU	ASP	GLU	ASP	VAL	PRO	ARG	ASP	L1284	L1289	M1290	V1291	A1292	I1293	K1294	D1298	I1299	M1300	D1301	L1304	R1309	M1401	H1402	L1403	A1408					
I1324	L1327	A1332	Q1333	LYS	ASP	PHE	ARG	GLN	VAL	THR	ASN	THR	GLU	VAL	THR	ARG	ARG	PHE	HIS	ARG	GLY	F1352	F1358	R1359	A1360	D1367	R1368	R1371	H1372	L1373	E1374	P1375	A1376	L1377	A1378	F1379	Q1380	L1381	M1384	R1385	M1386	R1387	M1388	F1389	K1400	M1401	H1402	L1403	A1408			
V1412	G1413	T1417	D1418	Y1419	R1420	F1421	F1422	V1423	R1424	A1425	I1426	I1427	R1428	H1429	S1430	ASP	LEU	VAL	THR	LYS	A1436	A1437	S1438	Y1441	M1444	E1445	R1448	L1449	L1450	L1457	E1458	V1459	A1460	C1470	M1471	H1472	I1473	F1474	L1475	M1476	F1477	V1478	P1479	T1480	M1483	I1488	E1489	R1493	Y1499			
R1502	L1503	R1507	Q1510	A1511	E1512	I1517	R1518	G1523	K1524	A1525	I1526	P1527	I1528	R1529	F1531	M1534	E1535	Y1539	L1540	D1541	S1542	S1543	L1544	K1545	E1546	E1547	V1548	ASP	SER	ARG	THR	A1554	A1560	T1569	L1597	F1699	S1703	A1706	R1707	I1714	Y1715	V1716	S1717	A1718	M1719	S1720						
T1595	T1596	Y1597	I1598	L1622	S1629	D1630	M1631	L1632	E1636	L1639	D1640	D1641	Q1642	G1643	M1649	V1660	A1661	K1663	M1664	Y1671	D1676	V1679	I1680	G1681	M1682	D1683	I1684	I1688	G1689	E1695	D1696	L1697	F1699	S1703	A1706	R1707	I1714	Y1715	V1716	S1717	A1718	M1719	S1720									
R1723	A1727	E1728	E1729	I1730	R1731	M1732	F1734	H1735	V1736	A1737	M1738	P1741	E1742	Y1745	Y1748	R1749	Y1750	L1751	M1761	S1762	L1764	N1765	S1766	V1767	H1768	C1769	E1770	D1774	R1779	I1782	T1783	D1784	I1785	I1786	K1787	G1788	E1789	E1790	G1791	I1792	M1796	L1797	R1798	I1803	A1804	S1915						
S1808	L1809	M1812	E1813	L1814	I1817	S1818	L1819	V1820	T1821	A1824	A1829	Y1830	L1831	V1832	R1837	T1838	E1842	H1845	L1846	T1849	T1864	S1865	Q1868	L1869	G1870	G1871	I1872	Q1873	M1877	H1882	C1886	E1890	G1891	V1892	V1895	L1896	L1899	K1904	M1914	S1915												





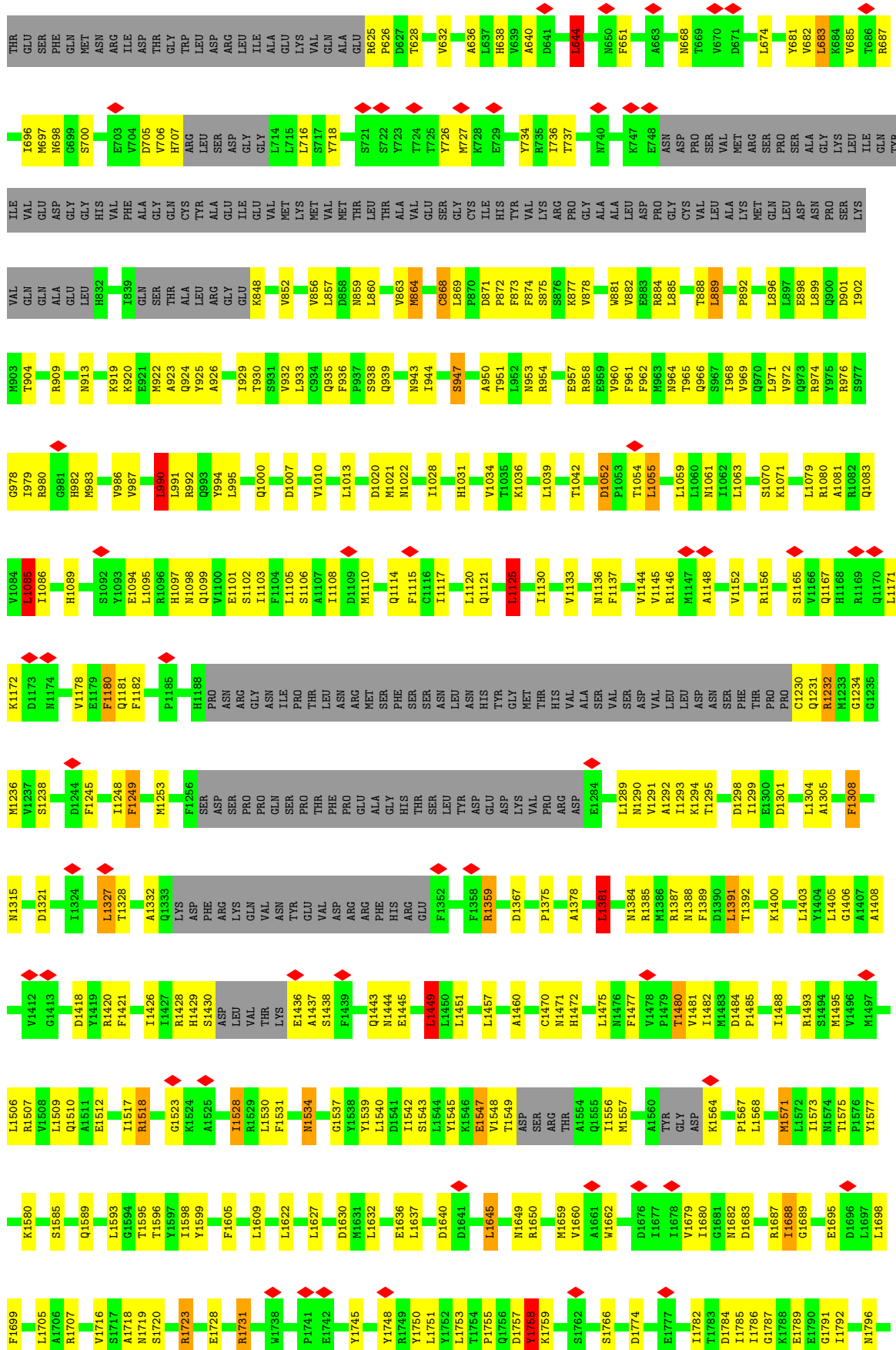








Table with 20 columns representing amino acid residues and 20 rows representing individual residues. Each cell contains a 3-letter amino acid code. The table is color-coded with yellow, green, and red highlights indicating different validation status or categories. Some cells contain red diamond symbols (♦) or red triangles (▲).





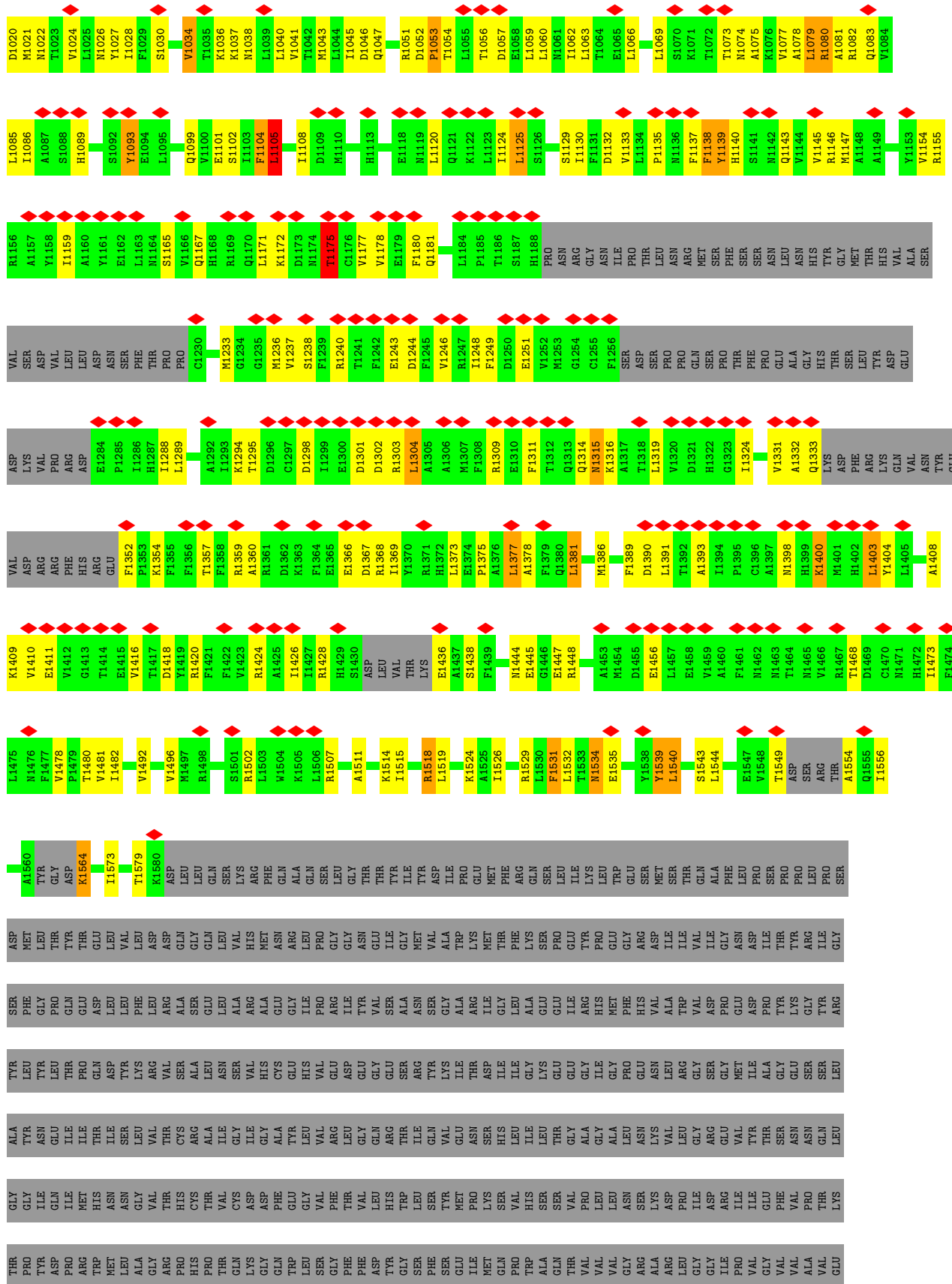


E1284	P1285	I1286	M1282	I1293	K1294	T1295	D1296	C1297	D1298	I1299	E1300	D1301	D1302	R1303	L1304	A1305	A1306	M1307	F1308	A1309	E1310	F1311	T1312	Q1313	Q1314	M1315	K1316	A1317	T1318	L1319	V1320	D1321	H1322	G1323	I1324	R1325	F1329	L1330	A1331	Q1332	Q1333	LYS	ASP	PHE	ARG	LYS	GLN	VAL	ASN	TYR	VAL	ASP	ARG	PHE	HIS					
ARG	GLU	F1352	F1356	T1357	A1360	R1361	D1362	K1363	F1364	E1365	E1366	D1367	R1368	I1369	Y1370	R1371	H1372	L1373	E1374	P1375	A1376	L1377	A1378	F1379	Q1380	L1381	M1386	F1389	D1390	L1391	T1392	A1393	I1394	P1395	C1396	A1397	N1398	H1399	K1400	M1401	H1402	L1403	Y1404	L1405	G1406	A1407	A1408	K1409	V1410	E1411	V1412	G1413	T1414	E1415	V1416					
T1417	D1418	Y1419	F1422	V1423	A1424	A1425	I1426	R1427	R1428	H1429	S1430	ASP	LEU	VAL	THR	I1436	L1442	L1451	E1452	D1455	E1456	L1457	E1458	V1459	A1460	F1461	M1462	M1463	T1464	M1465	V1466	R1467	C1470	M1471	H1472	I1473	F1474	L1475	M1476	T1480	V1481	I1482	K1487	R1493	V1496	M1497	R1498	S1501												
R1502	L1503	M1504	K1505	L1506	K1514	I1517	R1518	L1519	G1523	K1524	A1525	I1526	R1529	L1530	F1531	M1534	E1535	Y1538	Y1539	L1540	S1543	L1544	E1547	V1548	T1549	ASP	SER	ARG	THR	ASP	SER	ARG	GLY	THR	GLN	ASP	GLY	THR	GLN	TYR	GLY	ASP	GLN	LEU	LEU	LEU	GLN	LEU	LEU	LEU	GLN	ASN	GLN							
ALA	GLN	SER	LEU	THR	THR	ILE	TYR	ASP	PRO	GLU	MET	PHE	ARG	GLN	LEU	LYS	TRP	GLY	TRP	GLY	ALA	GLN	PHE	ASP	PRO	ASP	SER	LEU	PRO	THR	GLN	THR	PRO	GLU	ASP	GLY	THR	THR	GLN	ASP	GLY	GLN	GLY	LEU	LEU	VAL	ALA	GLN	GLN	GLN										
ARG	LEU	PRO	GLY	ASN	GLU	ILE	GLY	ASN	MET	VAL	THR	PHE	ARG	LYS	PRO	TYR	ARG	GLY	ASP	ASP	ILE	ILE	VAL	VAL	ILE	ASN	ASP	LEU	ILE	ARG	GLY	TYR	THR	ASP	GLY	ASP	GLY	ASP	GLY	ASP	ALA	ALA	GLY	LEU	LEU	LEU	ALA	GLU	GLU											
GLY	ILE	PRO	ARG	ILE	SER	ALA	ASN	SER	VAL	ALA	ARG	ALA	GLY	GLY	ILE	HIS	TRP	GLY	MET	PHE	HIS	VAL	VAL	PRO	GLY	ASP	VAL	ALA	TYR	ARG	GLY	TYR	ILE	PRO	GLN	ASP	GLY	ASP	GLY	ASP	GLY	ASP	GLY	ASP	GLY	ASP	GLY	GLY	GLY											
GLU	HIS	VAL	GLU	ASP	GLY	THR	LYS	ILE	THR	ASP	ASP	ILE	GLY	LYS	GLU	ILE	GLY	ASN	GLY	ASN	GLY	ASP	GLY	GLY	GLY	ILE	ILE	ILE	ILE	TYR	SER	GLY	LEU	VAL	VAL	VAL	VAL	THR	THR	VAL	CYS	ALA	GLY	LEU	LEU	LEU	VAL	ALA	ALA											
TYR	LEU	VAL	ARG	GLY	GLN	ARG	THR	ILE	VAL	ASN	SER	ILE	LEU	ILE	GLY	ALA	GLY	ASN	ASN	GLY	GLU	GLU	VAL	VAL	VAL	VAL	VAL	GLN	ILE	GLY	GLY	ASN	GLY	VAL	THR	THR	THR	HIS	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	PHE										
GLU	GLY	PHE	THR	VAL	HIS	TRP	LEU	VAL	THR	PRO	SER	HIS	VAL	SER	VAL	PRO	PRO	LEU	ASN	SER	ASP	ASP	ILE	ARG	ILE	VAL	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR									
TRP	LEU	SER	GLY	PHE	ASP	THR	PHE	THR	GLY	ASP	ILE	MET	PRO	THR	ALA	THR	VAL	VAL	ARG	ARG	ALA	ALA	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	LYS						
ILE	ILE	GLN	ALA	GLY	GLN	VAL	TRP	PHE	PRO	ASP	SER	ALA	THR	TYR	GLN	ALA	ILE	ILE	GLY	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP						
GLY	LEU	ARG	GLU	CYS	GLN	PRO	VAL	VAL	VAL	PRO	PRO	PRO	ALA	ALA	ARG	ARG	GLY	GLY	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASP	ARG					
ARG	LYS	ASP	VAL	LYS	THR	MET	ARG	ARG	VAL	THR	VAL	TYR	HIS	ALA	GLU	ARG	LEU	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR			
HIS	ASP	THR	PRO	GLY	ARG	MET	GLN	GLY	VAL	ASP	ILE	SER	LEU	ASP	TRP	LYS	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR			
ARG	TRP	PHE	VAL	VAL	ALA	GLY	THR	VAL	VAL	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR		
ALA	ASN	PRO	GLU	VAL	ALA	MET	ASP	SER	GLY	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR

● Molecule 1: Acetyl-CoA carboxylase 1







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

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

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

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of particles used	48483	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 ( $e^-/\text{\AA}^2$ )	80.0	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	0.091	Depositor
Minimum map value	-0.045	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.014	Depositor
Map size (Å)	397.80798, 397.80798, 397.80798	wwPDB
Map dimensions	376, 376, 376	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.058, 1.058, 1.058	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z  > 5$	RMSZ	# $ Z  > 5$
1	A	0.51	0/6291	1.08	26/8496 (0.3%)
1	B	0.51	0/6291	1.05	24/8496 (0.3%)
1	C	0.64	3/7780 (0.0%)	0.99	13/10540 (0.1%)
1	D	0.65	1/12491 (0.0%)	1.07	53/16905 (0.3%)
1	E	0.64	1/12491 (0.0%)	1.05	48/16905 (0.3%)
1	F	0.64	1/7780 (0.0%)	1.01	24/10540 (0.2%)
All	All	0.62	6/53124 (0.0%)	1.04	188/71882 (0.3%)

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	A	0	12
1	B	0	10
1	C	0	1
1	D	0	16
1	E	0	11
1	F	0	1
All	All	0	51

The worst 5 of 6 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	2018	TRP	CB-CG	-6.72	1.38	1.50
1	D	1895	VAL	CB-CG1	-6.51	1.39	1.52
1	E	2046	TRP	CB-CG	-5.25	1.40	1.50
1	F	2018	TRP	CB-CG	-5.24	1.40	1.50
1	C	2046	TRP	CB-CG	-5.08	1.41	1.50

The worst 5 of 188 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	1503	LEU	CA-CB-CG	11.38	141.47	115.30
1	A	1381	LEU	CA-CB-CG	10.26	138.91	115.30
1	F	1539	TYR	CB-CG-CD2	-10.03	114.98	121.00
1	F	1691	PHE	CB-CG-CD2	-9.57	114.10	120.80
1	E	651	PHE	CB-CG-CD2	-9.28	114.30	120.80

There are no chirality outliers.

5 of 51 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	D	1052	ASP	Peptide
1	D	924	GLN	Peptide
1	D	952	LEU	Peptide
1	D	957	GLU	Peptide
1	D	965	THR	Mainchain

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	6177	6184	6209	190	0
1	B	6177	6184	6209	175	0
1	C	7610	7561	7585	204	0
1	D	12235	12181	12225	363	0
1	E	12235	12181	12225	351	0
1	F	7610	7561	7585	204	0
All	All	52044	51852	52038	1406	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.

The worst 5 of 1406 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:D:1679:VAL:HG22	1:D:1714:ILE:HD11	1.54	0.88
1:C:2067:ILE:HD11	1:C:2095:VAL:HG12	1.54	0.88

*Continued on next page...*



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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:668:ASN:ND2	1:E:868:CYS:SG	2.47	0.87
1:F:1545:TYR:OH	1:F:1567:PRO:O	1.92	0.87
1:E:2139:ARG:NH1	1:F:1734:PHE:O	2.08	0.87

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	741/2407 (31%)	640 (86%)	93 (13%)	8 (1%)	14	52
1	B	741/2407 (31%)	641 (86%)	93 (13%)	7 (1%)	17	56
1	C	940/2407 (39%)	882 (94%)	51 (5%)	7 (1%)	22	62
1	D	1498/2407 (62%)	1367 (91%)	123 (8%)	8 (0%)	29	68
1	E	1498/2407 (62%)	1371 (92%)	117 (8%)	10 (1%)	22	62
1	F	940/2407 (39%)	883 (94%)	51 (5%)	6 (1%)	25	65
All	All	6358/14442 (44%)	5784 (91%)	528 (8%)	46 (1%)	26	62

5 of 46 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	868	CYS
1	D	1304	LEU
1	E	868	CYS
1	E	1304	LEU
1	C	2326	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	A	694/2108 (33%)	675 (97%)	19 (3%)	44	66
1	B	694/2108 (33%)	678 (98%)	16 (2%)	50	70
1	C	830/2108 (39%)	807 (97%)	23 (3%)	43	65
1	D	1354/2108 (64%)	1321 (98%)	33 (2%)	49	69
1	E	1354/2108 (64%)	1310 (97%)	44 (3%)	39	62
1	F	830/2108 (39%)	817 (98%)	13 (2%)	62	79
All	All	5756/12648 (46%)	5608 (97%)	148 (3%)	49	67

5 of 148 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	974	ARG
1	A	1438	SER
1	B	1253	MET
1	A	734	TYR
1	E	1085	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 102 such sidechains are listed below:

Mol	Chain	Res	Type
1	E	2321	HIS
1	F	1796	ASN
1	A	1333	GLN
1	C	1619	GLN
1	C	2076	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

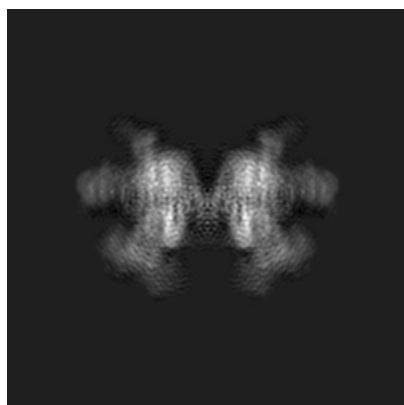
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-4343. These allow visual inspection of the internal detail of the map and identification of artifacts.

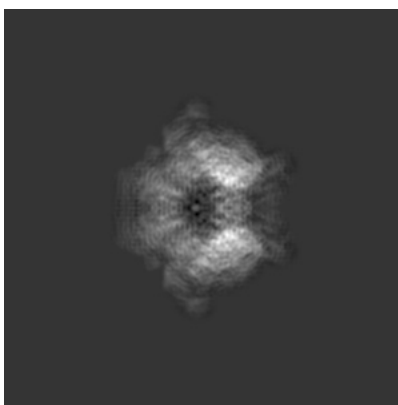
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

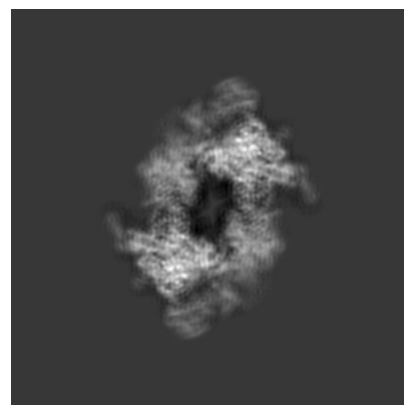
#### 6.1.1 Primary map



X



Y

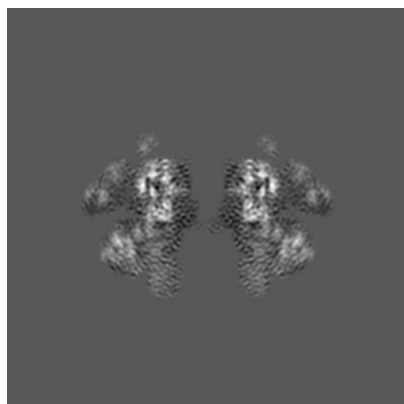


Z

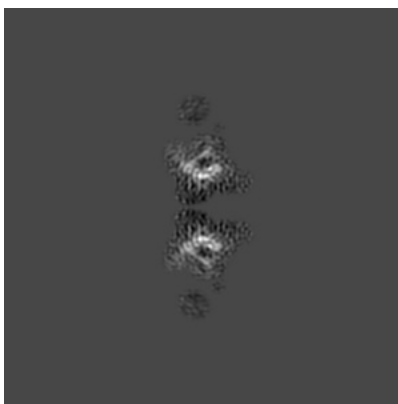
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

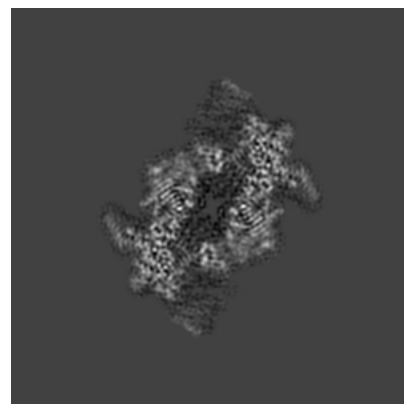
#### 6.2.1 Primary map



X Index: 188



Y Index: 188

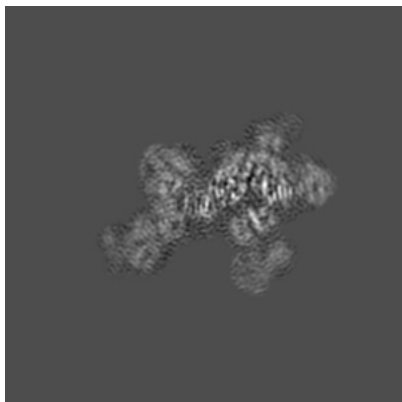


Z Index: 188

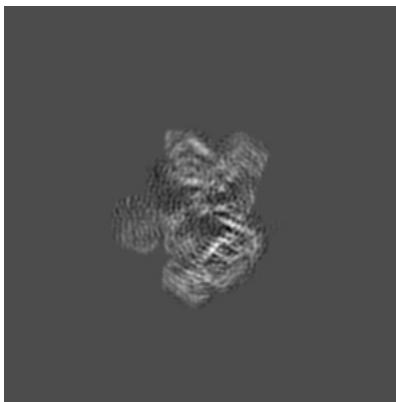
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

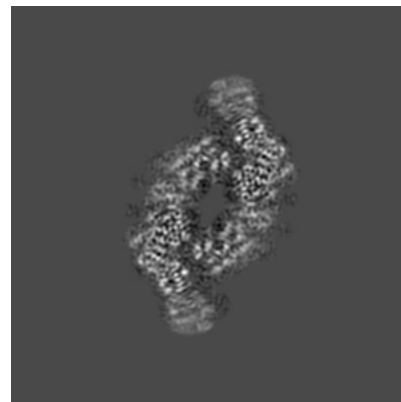
### 6.3.1 Primary map



X Index: 219



Y Index: 153

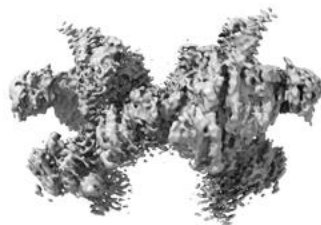


Z Index: 201

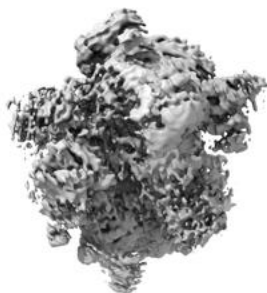
The images above show the largest variance slices of the map in three orthogonal directions.

## 6.4 Orthogonal surface views [i](#)

### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.014. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

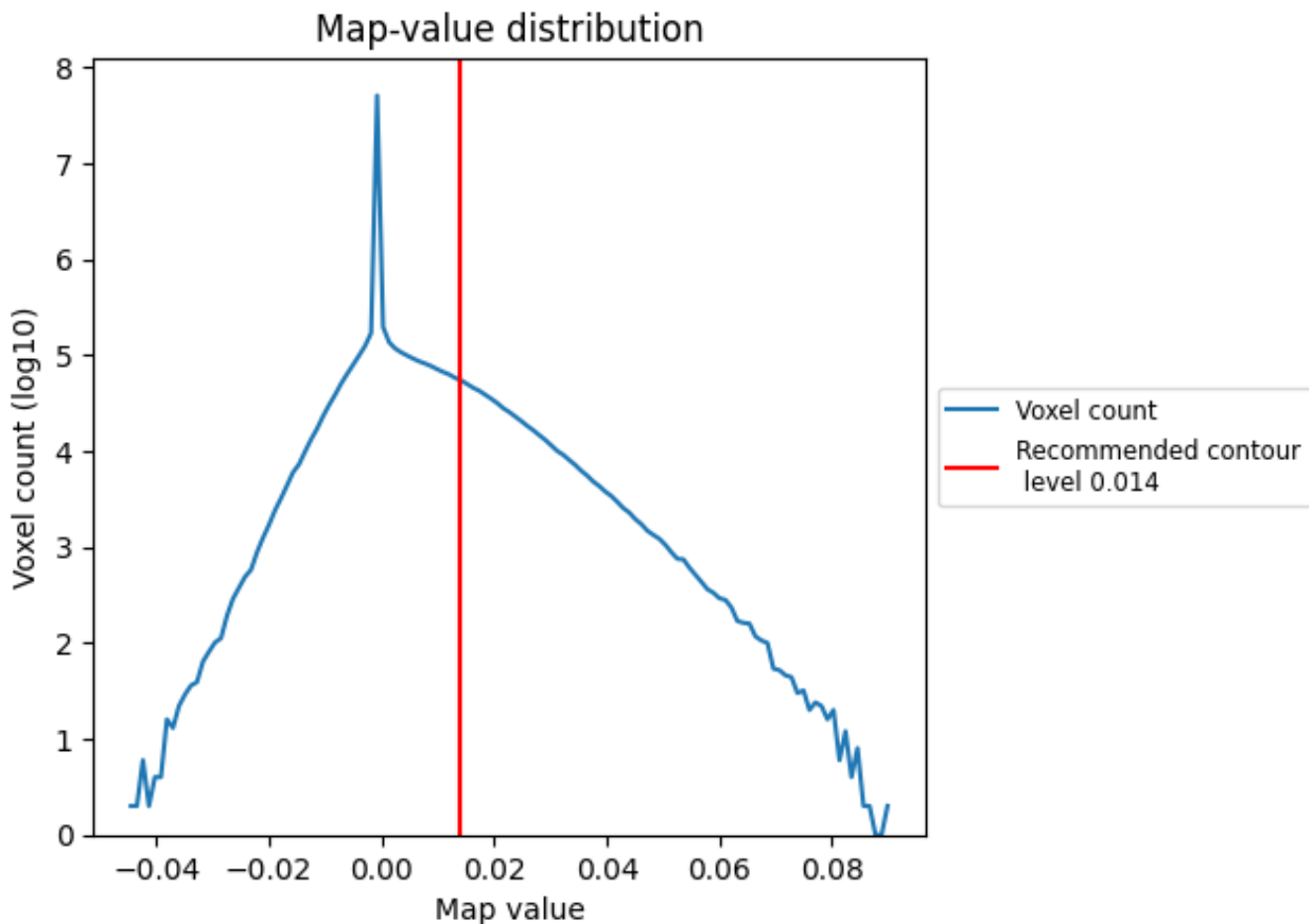
## 6.5 Mask visualisation

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

## 7 Map analysis [i](#)

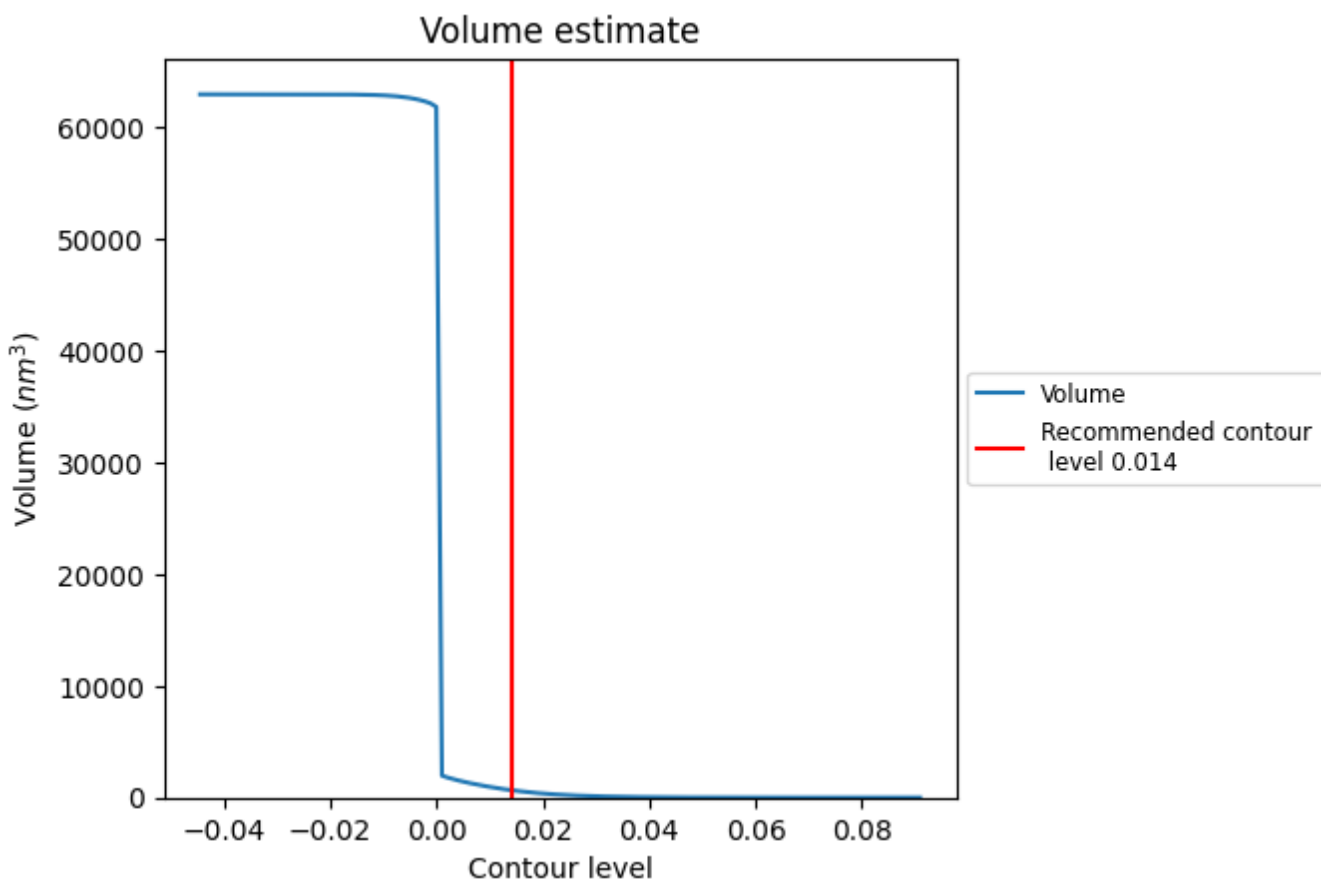
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

## 7.2 Volume estimate [\(i\)](#)

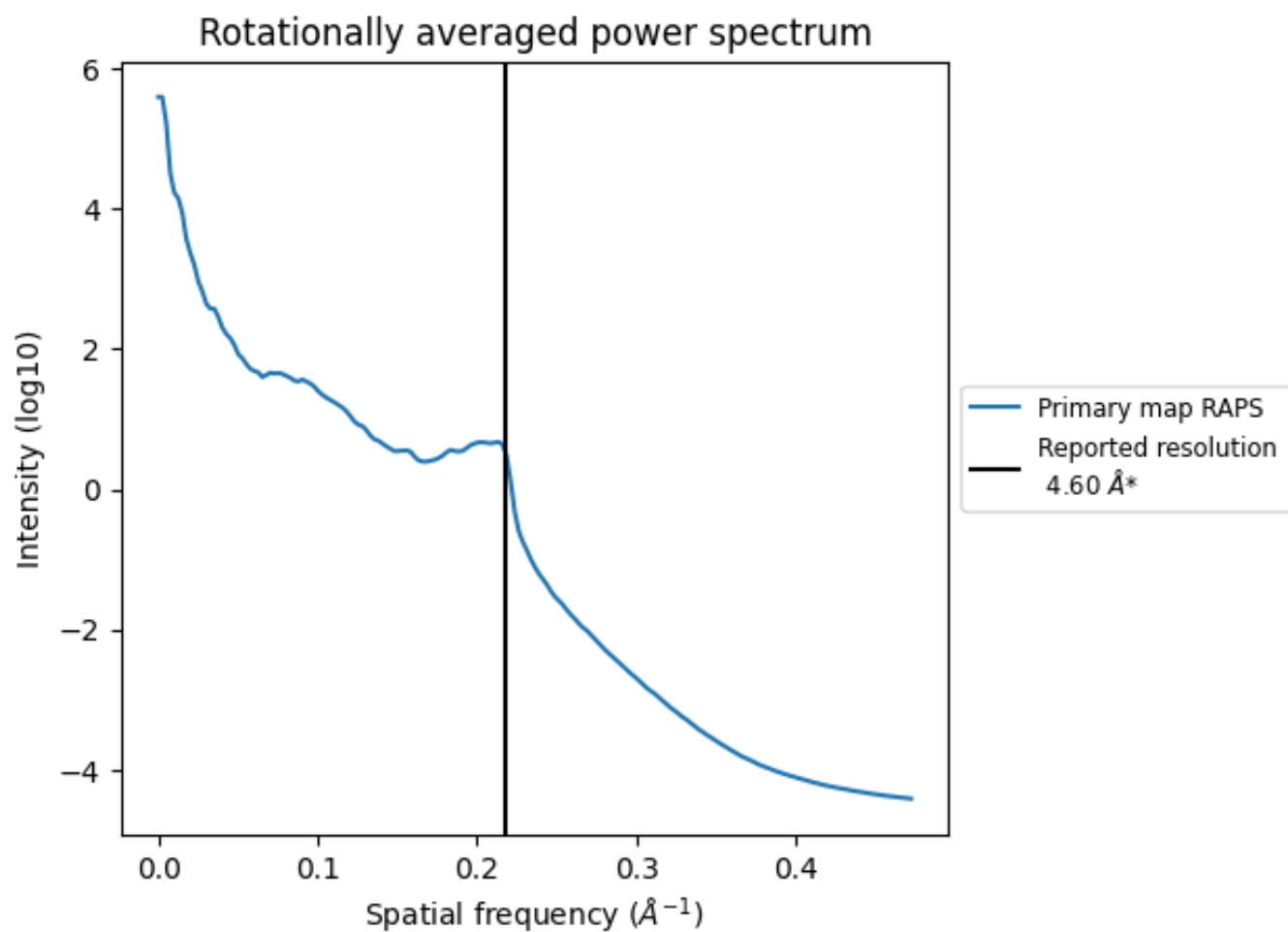


The volume at the recommended contour level is 664  $\text{nm}^3$ ; this corresponds to an approximate mass of 600 kDa.

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  $0.217 \text{\AA}^{-1}$

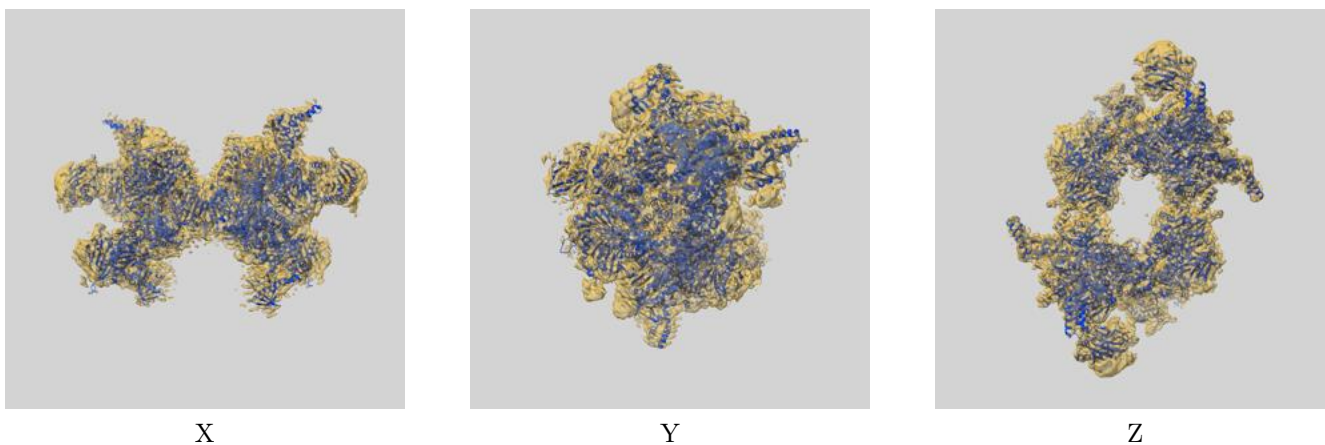
## 8 Fourier-Shell correlation

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

## 9 Map-model fit [i](#)

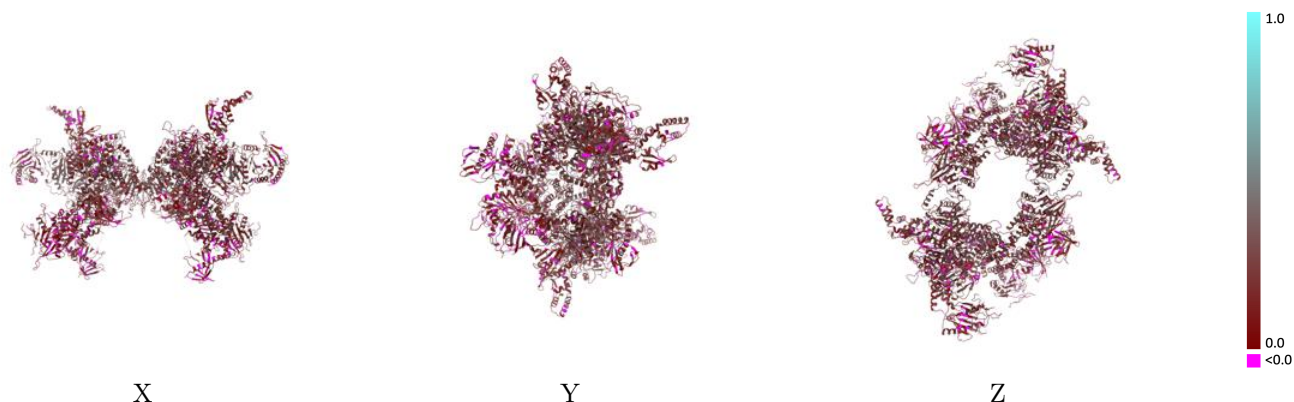
This section contains information regarding the fit between EMDB map EMD-4343 and PDB model 6G2H. Per-residue inclusion information can be found in section 3 on page 13.

### 9.1 Map-model overlay [i](#)



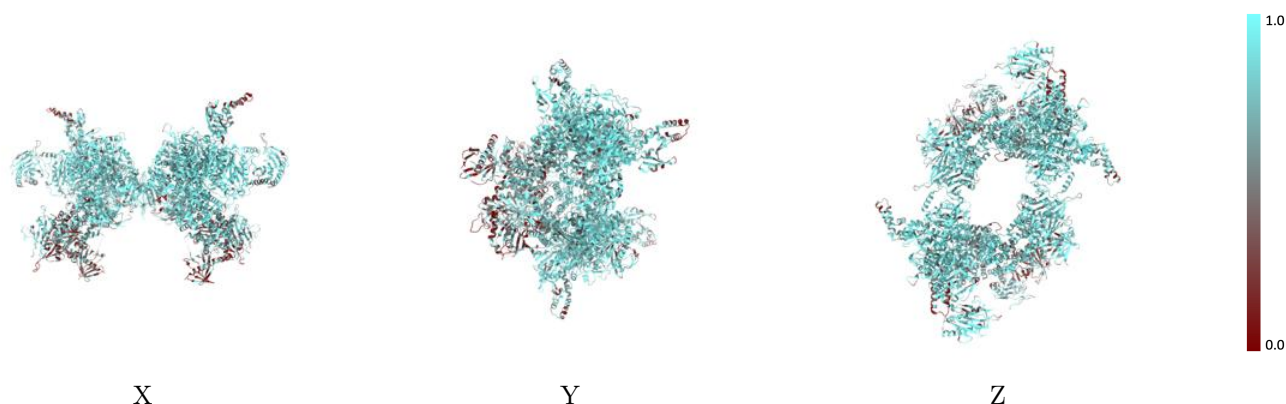
The images above show the 3D surface view of the map at the recommended contour level 0.014 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



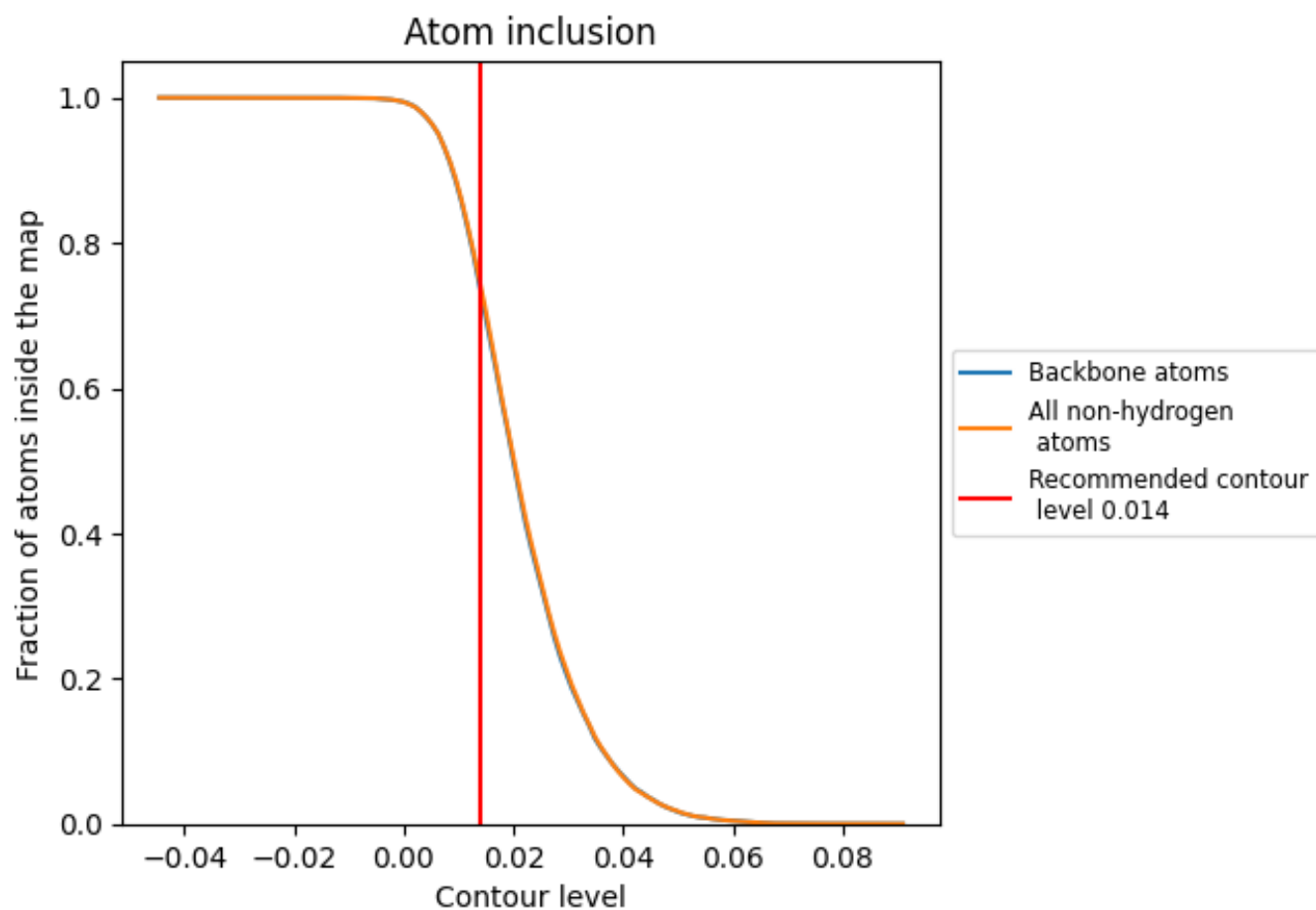
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.014).















## 9.4 Atom inclusion [i](#)



At the recommended contour level, 73% of all backbone atoms, 74% 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 (0.014) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7407	 0.2070
A	 0.5563	 0.1510
B	 0.5518	 0.1490
C	 0.8001	 0.2210
D	 0.8040	 0.2250
E	 0.8041	 0.2280
F	 0.7989	 0.2210

