W O R L D W I D E

wwPDB

P R O T E I N   D A T A   B A N K

Full wwPDB EM Validation Report (i)

Jan 10, 2023 – 01:14 pm GMT

PDB ID	:	7ZJH
EMDB ID	:	EMD-14748
Title	:	TRPV2-C16+Pro-2
Authors	:	Zhang, L.; Gourdon, P.; Zygmunt, P.M.
Deposited on	:	2022-04-11
Resolution	:	3.39 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (i)) 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)	:	2.31.3

1   Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.39 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		5
Ramachandran outliers		0.1%
Sidechain outliers		2.8%

Worse　　　　　　　　　　　　　　　　　　*Better*

▮ Percentile relative to all structures

▯ Percentile relative to all EM structures
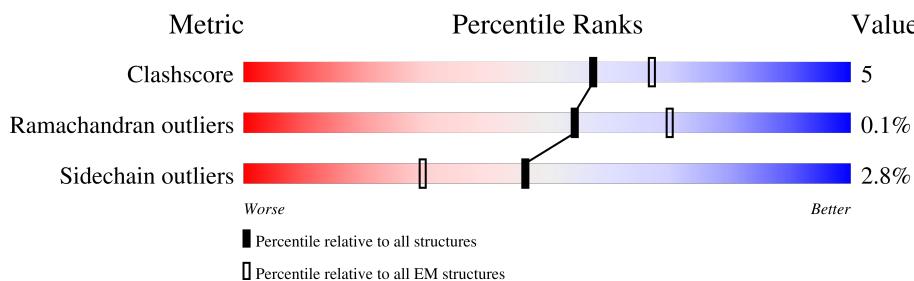
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	1026	13% — 49% / 8% / 43%
1	B	1026	12% — 47% / 10% / 43%
1	C	1026	5% — 49% / 8% / 43%
1	D	1026	9% — 48% / 9% / 43%

2　Entry composition ⓘ

There is only 1 type of molecule in this entry. The entry contains 18984 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 Transient receptor potential cation channel subfamily V member 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	586	Total	C	N	O	S	0	0
			4746	3119	790	809	28		
1	D	586	Total	C	N	O	S	0	0
			4746	3119	790	809	28		
1	C	586	Total	C	N	O	S	0	0
			4746	3119	790	809	28		
1	B	586	Total	C	N	O	S	0	0
			4746	3119	790	809	28		

There are 1072 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	571	SER	ASN	conflict	UNP A0A0G2JSH6
A	572	SER	ASN	conflict	UNP A0A0G2JSH6
A	713	ALA	VAL	conflict	UNP A0A0G2JSH6
A	762	ALA	-	expression tag	UNP A0A0G2JSH6
A	763	ALA	-	expression tag	UNP A0A0G2JSH6
A	764	ALA	-	expression tag	UNP A0A0G2JSH6
A	765	GLY	-	expression tag	UNP A0A0G2JSH6
A	766	LEU	-	expression tag	UNP A0A0G2JSH6
A	767	VAL	-	expression tag	UNP A0A0G2JSH6
A	768	PRO	-	expression tag	UNP A0A0G2JSH6
A	769	ARG	-	expression tag	UNP A0A0G2JSH6
A	770	GLY	-	expression tag	UNP A0A0G2JSH6
A	771	SER	-	expression tag	UNP A0A0G2JSH6
A	772	VAL	-	expression tag	UNP A0A0G2JSH6
A	773	ALA	-	expression tag	UNP A0A0G2JSH6
A	774	ALA	-	expression tag	UNP A0A0G2JSH6
A	775	ALA	-	expression tag	UNP A0A0G2JSH6
A	776	VAL	-	expression tag	UNP A0A0G2JSH6
A	777	SER	-	expression tag	UNP A0A0G2JSH6
A	778	LYS	-	expression tag	UNP A0A0G2JSH6
A	779	GLY	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
A	780	GLU	-	expression tag	UNP A0A0G2JSH6
A	781	GLU	-	expression tag	UNP A0A0G2JSH6
A	782	LEU	-	expression tag	UNP A0A0G2JSH6
A	783	PHE	-	expression tag	UNP A0A0G2JSH6
A	784	THR	-	expression tag	UNP A0A0G2JSH6
A	785	GLY	-	expression tag	UNP A0A0G2JSH6
A	786	VAL	-	expression tag	UNP A0A0G2JSH6
A	787	VAL	-	expression tag	UNP A0A0G2JSH6
A	788	PRO	-	expression tag	UNP A0A0G2JSH6
A	789	ILE	-	expression tag	UNP A0A0G2JSH6
A	790	LEU	-	expression tag	UNP A0A0G2JSH6
A	791	VAL	-	expression tag	UNP A0A0G2JSH6
A	792	GLU	-	expression tag	UNP A0A0G2JSH6
A	793	LEU	-	expression tag	UNP A0A0G2JSH6
A	794	ASP	-	expression tag	UNP A0A0G2JSH6
A	795	GLY	-	expression tag	UNP A0A0G2JSH6
A	796	ASP	-	expression tag	UNP A0A0G2JSH6
A	797	VAL	-	expression tag	UNP A0A0G2JSH6
A	798	ASN	-	expression tag	UNP A0A0G2JSH6
A	799	GLY	-	expression tag	UNP A0A0G2JSH6
A	800	HIS	-	expression tag	UNP A0A0G2JSH6
A	801	LYS	-	expression tag	UNP A0A0G2JSH6
A	802	PHE	-	expression tag	UNP A0A0G2JSH6
A	803	SER	-	expression tag	UNP A0A0G2JSH6
A	804	VAL	-	expression tag	UNP A0A0G2JSH6
A	805	SER	-	expression tag	UNP A0A0G2JSH6
A	806	GLY	-	expression tag	UNP A0A0G2JSH6
A	807	GLU	-	expression tag	UNP A0A0G2JSH6
A	808	GLY	-	expression tag	UNP A0A0G2JSH6
A	809	GLU	-	expression tag	UNP A0A0G2JSH6
A	810	GLY	-	expression tag	UNP A0A0G2JSH6
A	811	ASP	-	expression tag	UNP A0A0G2JSH6
A	812	ALA	-	expression tag	UNP A0A0G2JSH6
A	813	THR	-	expression tag	UNP A0A0G2JSH6
A	814	TYR	-	expression tag	UNP A0A0G2JSH6
A	815	GLY	-	expression tag	UNP A0A0G2JSH6
A	816	LYS	-	expression tag	UNP A0A0G2JSH6
A	817	LEU	-	expression tag	UNP A0A0G2JSH6
A	818	THR	-	expression tag	UNP A0A0G2JSH6
A	819	LEU	-	expression tag	UNP A0A0G2JSH6
A	820	LYS	-	expression tag	UNP A0A0G2JSH6
A	821	PHE	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
A	822	ILE	-	expression tag	UNP A0A0G2JSH6
A	823	CYS	-	expression tag	UNP A0A0G2JSH6
A	824	THR	-	expression tag	UNP A0A0G2JSH6
A	825	THR	-	expression tag	UNP A0A0G2JSH6
A	826	GLY	-	expression tag	UNP A0A0G2JSH6
A	827	LYS	-	expression tag	UNP A0A0G2JSH6
A	828	LEU	-	expression tag	UNP A0A0G2JSH6
A	829	PRO	-	expression tag	UNP A0A0G2JSH6
A	830	VAL	-	expression tag	UNP A0A0G2JSH6
A	831	PRO	-	expression tag	UNP A0A0G2JSH6
A	832	TRP	-	expression tag	UNP A0A0G2JSH6
A	833	PRO	-	expression tag	UNP A0A0G2JSH6
A	834	THR	-	expression tag	UNP A0A0G2JSH6
A	835	LEU	-	expression tag	UNP A0A0G2JSH6
A	836	VAL	-	expression tag	UNP A0A0G2JSH6
A	837	THR	-	expression tag	UNP A0A0G2JSH6
A	838	THR	-	expression tag	UNP A0A0G2JSH6
A	839	LEU	-	expression tag	UNP A0A0G2JSH6
A	840	THR	-	expression tag	UNP A0A0G2JSH6
A	841	TYR	-	expression tag	UNP A0A0G2JSH6
A	842	GLY	-	expression tag	UNP A0A0G2JSH6
A	843	VAL	-	expression tag	UNP A0A0G2JSH6
A	844	GLN	-	expression tag	UNP A0A0G2JSH6
A	845	CYS	-	expression tag	UNP A0A0G2JSH6
A	846	PHE	-	expression tag	UNP A0A0G2JSH6
A	847	SER	-	expression tag	UNP A0A0G2JSH6
A	848	ARG	-	expression tag	UNP A0A0G2JSH6
A	849	TYR	-	expression tag	UNP A0A0G2JSH6
A	850	PRO	-	expression tag	UNP A0A0G2JSH6
A	851	ASP	-	expression tag	UNP A0A0G2JSH6
A	852	HIS	-	expression tag	UNP A0A0G2JSH6
A	853	MET	-	expression tag	UNP A0A0G2JSH6
A	854	LYS	-	expression tag	UNP A0A0G2JSH6
A	855	GLN	-	expression tag	UNP A0A0G2JSH6
A	856	HIS	-	expression tag	UNP A0A0G2JSH6
A	857	ASP	-	expression tag	UNP A0A0G2JSH6
A	858	PHE	-	expression tag	UNP A0A0G2JSH6
A	859	PHE	-	expression tag	UNP A0A0G2JSH6
A	860	LYS	-	expression tag	UNP A0A0G2JSH6
A	861	SER	-	expression tag	UNP A0A0G2JSH6
A	862	ALA	-	expression tag	UNP A0A0G2JSH6
A	863	MET	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
A	864	PRO	-	expression tag	UNP A0A0G2JSH6
A	865	GLU	-	expression tag	UNP A0A0G2JSH6
A	866	GLY	-	expression tag	UNP A0A0G2JSH6
A	867	TYR	-	expression tag	UNP A0A0G2JSH6
A	868	VAL	-	expression tag	UNP A0A0G2JSH6
A	869	GLN	-	expression tag	UNP A0A0G2JSH6
A	870	GLU	-	expression tag	UNP A0A0G2JSH6
A	871	ARG	-	expression tag	UNP A0A0G2JSH6
A	872	THR	-	expression tag	UNP A0A0G2JSH6
A	873	ILE	-	expression tag	UNP A0A0G2JSH6
A	874	PHE	-	expression tag	UNP A0A0G2JSH6
A	875	PHE	-	expression tag	UNP A0A0G2JSH6
A	876	LYS	-	expression tag	UNP A0A0G2JSH6
A	877	ASP	-	expression tag	UNP A0A0G2JSH6
A	878	ASP	-	expression tag	UNP A0A0G2JSH6
A	879	GLY	-	expression tag	UNP A0A0G2JSH6
A	880	ASN	-	expression tag	UNP A0A0G2JSH6
A	881	TYR	-	expression tag	UNP A0A0G2JSH6
A	882	LYS	-	expression tag	UNP A0A0G2JSH6
A	883	THR	-	expression tag	UNP A0A0G2JSH6
A	884	ARG	-	expression tag	UNP A0A0G2JSH6
A	885	ALA	-	expression tag	UNP A0A0G2JSH6
A	886	GLU	-	expression tag	UNP A0A0G2JSH6
A	887	VAL	-	expression tag	UNP A0A0G2JSH6
A	888	LYS	-	expression tag	UNP A0A0G2JSH6
A	889	PHE	-	expression tag	UNP A0A0G2JSH6
A	890	GLU	-	expression tag	UNP A0A0G2JSH6
A	891	GLY	-	expression tag	UNP A0A0G2JSH6
A	892	ASP	-	expression tag	UNP A0A0G2JSH6
A	893	THR	-	expression tag	UNP A0A0G2JSH6
A	894	LEU	-	expression tag	UNP A0A0G2JSH6
A	895	VAL	-	expression tag	UNP A0A0G2JSH6
A	896	ASN	-	expression tag	UNP A0A0G2JSH6
A	897	ARG	-	expression tag	UNP A0A0G2JSH6
A	898	ILE	-	expression tag	UNP A0A0G2JSH6
A	899	GLU	-	expression tag	UNP A0A0G2JSH6
A	900	LEU	-	expression tag	UNP A0A0G2JSH6
A	901	LYS	-	expression tag	UNP A0A0G2JSH6
A	902	GLY	-	expression tag	UNP A0A0G2JSH6
A	903	ILE	-	expression tag	UNP A0A0G2JSH6
A	904	ASP	-	expression tag	UNP A0A0G2JSH6
A	905	PHE	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
A	906	LYS	-	expression tag	UNP A0A0G2JSH6
A	907	GLU	-	expression tag	UNP A0A0G2JSH6
A	908	ASP	-	expression tag	UNP A0A0G2JSH6
A	909	GLY	-	expression tag	UNP A0A0G2JSH6
A	910	ASN	-	expression tag	UNP A0A0G2JSH6
A	911	ILE	-	expression tag	UNP A0A0G2JSH6
A	912	LEU	-	expression tag	UNP A0A0G2JSH6
A	913	GLY	-	expression tag	UNP A0A0G2JSH6
A	914	HIS	-	expression tag	UNP A0A0G2JSH6
A	915	LYS	-	expression tag	UNP A0A0G2JSH6
A	916	LEU	-	expression tag	UNP A0A0G2JSH6
A	917	GLU	-	expression tag	UNP A0A0G2JSH6
A	918	TYR	-	expression tag	UNP A0A0G2JSH6
A	919	ASN	-	expression tag	UNP A0A0G2JSH6
A	920	TYR	-	expression tag	UNP A0A0G2JSH6
A	921	ASN	-	expression tag	UNP A0A0G2JSH6
A	922	SER	-	expression tag	UNP A0A0G2JSH6
A	923	HIS	-	expression tag	UNP A0A0G2JSH6
A	924	ASN	-	expression tag	UNP A0A0G2JSH6
A	925	VAL	-	expression tag	UNP A0A0G2JSH6
A	926	TYR	-	expression tag	UNP A0A0G2JSH6
A	927	ILE	-	expression tag	UNP A0A0G2JSH6
A	928	MET	-	expression tag	UNP A0A0G2JSH6
A	929	ALA	-	expression tag	UNP A0A0G2JSH6
A	930	ASP	-	expression tag	UNP A0A0G2JSH6
A	931	LYS	-	expression tag	UNP A0A0G2JSH6
A	932	GLN	-	expression tag	UNP A0A0G2JSH6
A	933	LYS	-	expression tag	UNP A0A0G2JSH6
A	934	ASN	-	expression tag	UNP A0A0G2JSH6
A	935	GLY	-	expression tag	UNP A0A0G2JSH6
A	936	ILE	-	expression tag	UNP A0A0G2JSH6
A	937	LYS	-	expression tag	UNP A0A0G2JSH6
A	938	VAL	-	expression tag	UNP A0A0G2JSH6
A	939	ASN	-	expression tag	UNP A0A0G2JSH6
A	940	PHE	-	expression tag	UNP A0A0G2JSH6
A	941	LYS	-	expression tag	UNP A0A0G2JSH6
A	942	ILE	-	expression tag	UNP A0A0G2JSH6
A	943	ARG	-	expression tag	UNP A0A0G2JSH6
A	944	HIS	-	expression tag	UNP A0A0G2JSH6
A	945	ASN	-	expression tag	UNP A0A0G2JSH6
A	946	ILE	-	expression tag	UNP A0A0G2JSH6
A	947	GLU	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
A	948	ASP	-	expression tag	UNP A0A0G2JSH6
A	949	GLY	-	expression tag	UNP A0A0G2JSH6
A	950	SER	-	expression tag	UNP A0A0G2JSH6
A	951	VAL	-	expression tag	UNP A0A0G2JSH6
A	952	GLN	-	expression tag	UNP A0A0G2JSH6
A	953	LEU	-	expression tag	UNP A0A0G2JSH6
A	954	ALA	-	expression tag	UNP A0A0G2JSH6
A	955	ASP	-	expression tag	UNP A0A0G2JSH6
A	956	HIS	-	expression tag	UNP A0A0G2JSH6
A	957	TYR	-	expression tag	UNP A0A0G2JSH6
A	958	GLN	-	expression tag	UNP A0A0G2JSH6
A	959	GLN	-	expression tag	UNP A0A0G2JSH6
A	960	ASN	-	expression tag	UNP A0A0G2JSH6
A	961	THR	-	expression tag	UNP A0A0G2JSH6
A	962	PRO	-	expression tag	UNP A0A0G2JSH6
A	963	ILE	-	expression tag	UNP A0A0G2JSH6
A	964	GLY	-	expression tag	UNP A0A0G2JSH6
A	965	ASP	-	expression tag	UNP A0A0G2JSH6
A	966	GLY	-	expression tag	UNP A0A0G2JSH6
A	967	PRO	-	expression tag	UNP A0A0G2JSH6
A	968	VAL	-	expression tag	UNP A0A0G2JSH6
A	969	LEU	-	expression tag	UNP A0A0G2JSH6
A	970	LEU	-	expression tag	UNP A0A0G2JSH6
A	971	PRO	-	expression tag	UNP A0A0G2JSH6
A	972	ASP	-	expression tag	UNP A0A0G2JSH6
A	973	ASN	-	expression tag	UNP A0A0G2JSH6
A	974	HIS	-	expression tag	UNP A0A0G2JSH6
A	975	TYR	-	expression tag	UNP A0A0G2JSH6
A	976	LEU	-	expression tag	UNP A0A0G2JSH6
A	977	SER	-	expression tag	UNP A0A0G2JSH6
A	978	THR	-	expression tag	UNP A0A0G2JSH6
A	979	GLN	-	expression tag	UNP A0A0G2JSH6
A	980	SER	-	expression tag	UNP A0A0G2JSH6
A	981	LYS	-	expression tag	UNP A0A0G2JSH6
A	982	LEU	-	expression tag	UNP A0A0G2JSH6
A	983	SER	-	expression tag	UNP A0A0G2JSH6
A	984	LYS	-	expression tag	UNP A0A0G2JSH6
A	985	ASP	-	expression tag	UNP A0A0G2JSH6
A	986	PRO	-	expression tag	UNP A0A0G2JSH6
A	987	ASN	-	expression tag	UNP A0A0G2JSH6
A	988	GLU	-	expression tag	UNP A0A0G2JSH6
A	989	LYS	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
A	990	ARG	-	expression tag	UNP A0A0G2JSH6
A	991	ASP	-	expression tag	UNP A0A0G2JSH6
A	992	HIS	-	expression tag	UNP A0A0G2JSH6
A	993	MET	-	expression tag	UNP A0A0G2JSH6
A	994	VAL	-	expression tag	UNP A0A0G2JSH6
A	995	LEU	-	expression tag	UNP A0A0G2JSH6
A	996	LEU	-	expression tag	UNP A0A0G2JSH6
A	997	GLU	-	expression tag	UNP A0A0G2JSH6
A	998	PHE	-	expression tag	UNP A0A0G2JSH6
A	999	VAL	-	expression tag	UNP A0A0G2JSH6
A	1000	THR	-	expression tag	UNP A0A0G2JSH6
A	1001	ALA	-	expression tag	UNP A0A0G2JSH6
A	1002	ALA	-	expression tag	UNP A0A0G2JSH6
A	1003	GLY	-	expression tag	UNP A0A0G2JSH6
A	1004	ILE	-	expression tag	UNP A0A0G2JSH6
A	1005	THR	-	expression tag	UNP A0A0G2JSH6
A	1006	LEU	-	expression tag	UNP A0A0G2JSH6
A	1007	GLY	-	expression tag	UNP A0A0G2JSH6
A	1008	MET	-	expression tag	UNP A0A0G2JSH6
A	1009	ASP	-	expression tag	UNP A0A0G2JSH6
A	1010	GLU	-	expression tag	UNP A0A0G2JSH6
A	1011	LEU	-	expression tag	UNP A0A0G2JSH6
A	1012	TYR	-	expression tag	UNP A0A0G2JSH6
A	1013	LYS	-	expression tag	UNP A0A0G2JSH6
A	1014	SER	-	expression tag	UNP A0A0G2JSH6
A	1015	GLY	-	expression tag	UNP A0A0G2JSH6
A	1016	LEU	-	expression tag	UNP A0A0G2JSH6
A	1017	ARG	-	expression tag	UNP A0A0G2JSH6
A	1018	SER	-	expression tag	UNP A0A0G2JSH6
A	1019	HIS	-	expression tag	UNP A0A0G2JSH6
A	1020	HIS	-	expression tag	UNP A0A0G2JSH6
A	1021	HIS	-	expression tag	UNP A0A0G2JSH6
A	1022	HIS	-	expression tag	UNP A0A0G2JSH6
A	1023	HIS	-	expression tag	UNP A0A0G2JSH6
A	1024	HIS	-	expression tag	UNP A0A0G2JSH6
A	1025	HIS	-	expression tag	UNP A0A0G2JSH6
A	1026	HIS	-	expression tag	UNP A0A0G2JSH6
D	571	SER	ASN	conflict	UNP A0A0G2JSH6
D	572	SER	ASN	conflict	UNP A0A0G2JSH6
D	713	ALA	VAL	conflict	UNP A0A0G2JSH6
D	762	ALA	-	expression tag	UNP A0A0G2JSH6
D	763	ALA	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	764	ALA	-	expression tag	UNP A0A0G2JSH6
D	765	GLY	-	expression tag	UNP A0A0G2JSH6
D	766	LEU	-	expression tag	UNP A0A0G2JSH6
D	767	VAL	-	expression tag	UNP A0A0G2JSH6
D	768	PRO	-	expression tag	UNP A0A0G2JSH6
D	769	ARG	-	expression tag	UNP A0A0G2JSH6
D	770	GLY	-	expression tag	UNP A0A0G2JSH6
D	771	SER	-	expression tag	UNP A0A0G2JSH6
D	772	VAL	-	expression tag	UNP A0A0G2JSH6
D	773	ALA	-	expression tag	UNP A0A0G2JSH6
D	774	ALA	-	expression tag	UNP A0A0G2JSH6
D	775	ALA	-	expression tag	UNP A0A0G2JSH6
D	776	VAL	-	expression tag	UNP A0A0G2JSH6
D	777	SER	-	expression tag	UNP A0A0G2JSH6
D	778	LYS	-	expression tag	UNP A0A0G2JSH6
D	779	GLY	-	expression tag	UNP A0A0G2JSH6
D	780	GLU	-	expression tag	UNP A0A0G2JSH6
D	781	GLU	-	expression tag	UNP A0A0G2JSH6
D	782	LEU	-	expression tag	UNP A0A0G2JSH6
D	783	PHE	-	expression tag	UNP A0A0G2JSH6
D	784	THR	-	expression tag	UNP A0A0G2JSH6
D	785	GLY	-	expression tag	UNP A0A0G2JSH6
D	786	VAL	-	expression tag	UNP A0A0G2JSH6
D	787	VAL	-	expression tag	UNP A0A0G2JSH6
D	788	PRO	-	expression tag	UNP A0A0G2JSH6
D	789	ILE	-	expression tag	UNP A0A0G2JSH6
D	790	LEU	-	expression tag	UNP A0A0G2JSH6
D	791	VAL	-	expression tag	UNP A0A0G2JSH6
D	792	GLU	-	expression tag	UNP A0A0G2JSH6
D	793	LEU	-	expression tag	UNP A0A0G2JSH6
D	794	ASP	-	expression tag	UNP A0A0G2JSH6
D	795	GLY	-	expression tag	UNP A0A0G2JSH6
D	796	ASP	-	expression tag	UNP A0A0G2JSH6
D	797	VAL	-	expression tag	UNP A0A0G2JSH6
D	798	ASN	-	expression tag	UNP A0A0G2JSH6
D	799	GLY	-	expression tag	UNP A0A0G2JSH6
D	800	HIS	-	expression tag	UNP A0A0G2JSH6
D	801	LYS	-	expression tag	UNP A0A0G2JSH6
D	802	PHE	-	expression tag	UNP A0A0G2JSH6
D	803	SER	-	expression tag	UNP A0A0G2JSH6
D	804	VAL	-	expression tag	UNP A0A0G2JSH6
D	805	SER	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	806	GLY	-	expression tag	UNP A0A0G2JSH6
D	807	GLU	-	expression tag	UNP A0A0G2JSH6
D	808	GLY	-	expression tag	UNP A0A0G2JSH6
D	809	GLU	-	expression tag	UNP A0A0G2JSH6
D	810	GLY	-	expression tag	UNP A0A0G2JSH6
D	811	ASP	-	expression tag	UNP A0A0G2JSH6
D	812	ALA	-	expression tag	UNP A0A0G2JSH6
D	813	THR	-	expression tag	UNP A0A0G2JSH6
D	814	TYR	-	expression tag	UNP A0A0G2JSH6
D	815	GLY	-	expression tag	UNP A0A0G2JSH6
D	816	LYS	-	expression tag	UNP A0A0G2JSH6
D	817	LEU	-	expression tag	UNP A0A0G2JSH6
D	818	THR	-	expression tag	UNP A0A0G2JSH6
D	819	LEU	-	expression tag	UNP A0A0G2JSH6
D	820	LYS	-	expression tag	UNP A0A0G2JSH6
D	821	PHE	-	expression tag	UNP A0A0G2JSH6
D	822	ILE	-	expression tag	UNP A0A0G2JSH6
D	823	CYS	-	expression tag	UNP A0A0G2JSH6
D	824	THR	-	expression tag	UNP A0A0G2JSH6
D	825	THR	-	expression tag	UNP A0A0G2JSH6
D	826	GLY	-	expression tag	UNP A0A0G2JSH6
D	827	LYS	-	expression tag	UNP A0A0G2JSH6
D	828	LEU	-	expression tag	UNP A0A0G2JSH6
D	829	PRO	-	expression tag	UNP A0A0G2JSH6
D	830	VAL	-	expression tag	UNP A0A0G2JSH6
D	831	PRO	-	expression tag	UNP A0A0G2JSH6
D	832	TRP	-	expression tag	UNP A0A0G2JSH6
D	833	PRO	-	expression tag	UNP A0A0G2JSH6
D	834	THR	-	expression tag	UNP A0A0G2JSH6
D	835	LEU	-	expression tag	UNP A0A0G2JSH6
D	836	VAL	-	expression tag	UNP A0A0G2JSH6
D	837	THR	-	expression tag	UNP A0A0G2JSH6
D	838	THR	-	expression tag	UNP A0A0G2JSH6
D	839	LEU	-	expression tag	UNP A0A0G2JSH6
D	840	THR	-	expression tag	UNP A0A0G2JSH6
D	841	TYR	-	expression tag	UNP A0A0G2JSH6
D	842	GLY	-	expression tag	UNP A0A0G2JSH6
D	843	VAL	-	expression tag	UNP A0A0G2JSH6
D	844	GLN	-	expression tag	UNP A0A0G2JSH6
D	845	CYS	-	expression tag	UNP A0A0G2JSH6
D	846	PHE	-	expression tag	UNP A0A0G2JSH6
D	847	SER	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	848	ARG	-	expression tag	UNP A0A0G2JSH6
D	849	TYR	-	expression tag	UNP A0A0G2JSH6
D	850	PRO	-	expression tag	UNP A0A0G2JSH6
D	851	ASP	-	expression tag	UNP A0A0G2JSH6
D	852	HIS	-	expression tag	UNP A0A0G2JSH6
D	853	MET	-	expression tag	UNP A0A0G2JSH6
D	854	LYS	-	expression tag	UNP A0A0G2JSH6
D	855	GLN	-	expression tag	UNP A0A0G2JSH6
D	856	HIS	-	expression tag	UNP A0A0G2JSH6
D	857	ASP	-	expression tag	UNP A0A0G2JSH6
D	858	PHE	-	expression tag	UNP A0A0G2JSH6
D	859	PHE	-	expression tag	UNP A0A0G2JSH6
D	860	LYS	-	expression tag	UNP A0A0G2JSH6
D	861	SER	-	expression tag	UNP A0A0G2JSH6
D	862	ALA	-	expression tag	UNP A0A0G2JSH6
D	863	MET	-	expression tag	UNP A0A0G2JSH6
D	864	PRO	-	expression tag	UNP A0A0G2JSH6
D	865	GLU	-	expression tag	UNP A0A0G2JSH6
D	866	GLY	-	expression tag	UNP A0A0G2JSH6
D	867	TYR	-	expression tag	UNP A0A0G2JSH6
D	868	VAL	-	expression tag	UNP A0A0G2JSH6
D	869	GLN	-	expression tag	UNP A0A0G2JSH6
D	870	GLU	-	expression tag	UNP A0A0G2JSH6
D	871	ARG	-	expression tag	UNP A0A0G2JSH6
D	872	THR	-	expression tag	UNP A0A0G2JSH6
D	873	ILE	-	expression tag	UNP A0A0G2JSH6
D	874	PHE	-	expression tag	UNP A0A0G2JSH6
D	875	PHE	-	expression tag	UNP A0A0G2JSH6
D	876	LYS	-	expression tag	UNP A0A0G2JSH6
D	877	ASP	-	expression tag	UNP A0A0G2JSH6
D	878	ASP	-	expression tag	UNP A0A0G2JSH6
D	879	GLY	-	expression tag	UNP A0A0G2JSH6
D	880	ASN	-	expression tag	UNP A0A0G2JSH6
D	881	TYR	-	expression tag	UNP A0A0G2JSH6
D	882	LYS	-	expression tag	UNP A0A0G2JSH6
D	883	THR	-	expression tag	UNP A0A0G2JSH6
D	884	ARG	-	expression tag	UNP A0A0G2JSH6
D	885	ALA	-	expression tag	UNP A0A0G2JSH6
D	886	GLU	-	expression tag	UNP A0A0G2JSH6
D	887	VAL	-	expression tag	UNP A0A0G2JSH6
D	888	LYS	-	expression tag	UNP A0A0G2JSH6
D	889	PHE	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	890	GLU	-	expression tag	UNP A0A0G2JSH6
D	891	GLY	-	expression tag	UNP A0A0G2JSH6
D	892	ASP	-	expression tag	UNP A0A0G2JSH6
D	893	THR	-	expression tag	UNP A0A0G2JSH6
D	894	LEU	-	expression tag	UNP A0A0G2JSH6
D	895	VAL	-	expression tag	UNP A0A0G2JSH6
D	896	ASN	-	expression tag	UNP A0A0G2JSH6
D	897	ARG	-	expression tag	UNP A0A0G2JSH6
D	898	ILE	-	expression tag	UNP A0A0G2JSH6
D	899	GLU	-	expression tag	UNP A0A0G2JSH6
D	900	LEU	-	expression tag	UNP A0A0G2JSH6
D	901	LYS	-	expression tag	UNP A0A0G2JSH6
D	902	GLY	-	expression tag	UNP A0A0G2JSH6
D	903	ILE	-	expression tag	UNP A0A0G2JSH6
D	904	ASP	-	expression tag	UNP A0A0G2JSH6
D	905	PHE	-	expression tag	UNP A0A0G2JSH6
D	906	LYS	-	expression tag	UNP A0A0G2JSH6
D	907	GLU	-	expression tag	UNP A0A0G2JSH6
D	908	ASP	-	expression tag	UNP A0A0G2JSH6
D	909	GLY	-	expression tag	UNP A0A0G2JSH6
D	910	ASN	-	expression tag	UNP A0A0G2JSH6
D	911	ILE	-	expression tag	UNP A0A0G2JSH6
D	912	LEU	-	expression tag	UNP A0A0G2JSH6
D	913	GLY	-	expression tag	UNP A0A0G2JSH6
D	914	HIS	-	expression tag	UNP A0A0G2JSH6
D	915	LYS	-	expression tag	UNP A0A0G2JSH6
D	916	LEU	-	expression tag	UNP A0A0G2JSH6
D	917	GLU	-	expression tag	UNP A0A0G2JSH6
D	918	TYR	-	expression tag	UNP A0A0G2JSH6
D	919	ASN	-	expression tag	UNP A0A0G2JSH6
D	920	TYR	-	expression tag	UNP A0A0G2JSH6
D	921	ASN	-	expression tag	UNP A0A0G2JSH6
D	922	SER	-	expression tag	UNP A0A0G2JSH6
D	923	HIS	-	expression tag	UNP A0A0G2JSH6
D	924	ASN	-	expression tag	UNP A0A0G2JSH6
D	925	VAL	-	expression tag	UNP A0A0G2JSH6
D	926	TYR	-	expression tag	UNP A0A0G2JSH6
D	927	ILE	-	expression tag	UNP A0A0G2JSH6
D	928	MET	-	expression tag	UNP A0A0G2JSH6
D	929	ALA	-	expression tag	UNP A0A0G2JSH6
D	930	ASP	-	expression tag	UNP A0A0G2JSH6
D	931	LYS	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	932	GLN	-	expression tag	UNP A0A0G2JSH6
D	933	LYS	-	expression tag	UNP A0A0G2JSH6
D	934	ASN	-	expression tag	UNP A0A0G2JSH6
D	935	GLY	-	expression tag	UNP A0A0G2JSH6
D	936	ILE	-	expression tag	UNP A0A0G2JSH6
D	937	LYS	-	expression tag	UNP A0A0G2JSH6
D	938	VAL	-	expression tag	UNP A0A0G2JSH6
D	939	ASN	-	expression tag	UNP A0A0G2JSH6
D	940	PHE	-	expression tag	UNP A0A0G2JSH6
D	941	LYS	-	expression tag	UNP A0A0G2JSH6
D	942	ILE	-	expression tag	UNP A0A0G2JSH6
D	943	ARG	-	expression tag	UNP A0A0G2JSH6
D	944	HIS	-	expression tag	UNP A0A0G2JSH6
D	945	ASN	-	expression tag	UNP A0A0G2JSH6
D	946	ILE	-	expression tag	UNP A0A0G2JSH6
D	947	GLU	-	expression tag	UNP A0A0G2JSH6
D	948	ASP	-	expression tag	UNP A0A0G2JSH6
D	949	GLY	-	expression tag	UNP A0A0G2JSH6
D	950	SER	-	expression tag	UNP A0A0G2JSH6
D	951	VAL	-	expression tag	UNP A0A0G2JSH6
D	952	GLN	-	expression tag	UNP A0A0G2JSH6
D	953	LEU	-	expression tag	UNP A0A0G2JSH6
D	954	ALA	-	expression tag	UNP A0A0G2JSH6
D	955	ASP	-	expression tag	UNP A0A0G2JSH6
D	956	HIS	-	expression tag	UNP A0A0G2JSH6
D	957	TYR	-	expression tag	UNP A0A0G2JSH6
D	958	GLN	-	expression tag	UNP A0A0G2JSH6
D	959	GLN	-	expression tag	UNP A0A0G2JSH6
D	960	ASN	-	expression tag	UNP A0A0G2JSH6
D	961	THR	-	expression tag	UNP A0A0G2JSH6
D	962	PRO	-	expression tag	UNP A0A0G2JSH6
D	963	ILE	-	expression tag	UNP A0A0G2JSH6
D	964	GLY	-	expression tag	UNP A0A0G2JSH6
D	965	ASP	-	expression tag	UNP A0A0G2JSH6
D	966	GLY	-	expression tag	UNP A0A0G2JSH6
D	967	PRO	-	expression tag	UNP A0A0G2JSH6
D	968	VAL	-	expression tag	UNP A0A0G2JSH6
D	969	LEU	-	expression tag	UNP A0A0G2JSH6
D	970	LEU	-	expression tag	UNP A0A0G2JSH6
D	971	PRO	-	expression tag	UNP A0A0G2JSH6
D	972	ASP	-	expression tag	UNP A0A0G2JSH6
D	973	ASN	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	974	HIS	-	expression tag	UNP A0A0G2JSH6
D	975	TYR	-	expression tag	UNP A0A0G2JSH6
D	976	LEU	-	expression tag	UNP A0A0G2JSH6
D	977	SER	-	expression tag	UNP A0A0G2JSH6
D	978	THR	-	expression tag	UNP A0A0G2JSH6
D	979	GLN	-	expression tag	UNP A0A0G2JSH6
D	980	SER	-	expression tag	UNP A0A0G2JSH6
D	981	LYS	-	expression tag	UNP A0A0G2JSH6
D	982	LEU	-	expression tag	UNP A0A0G2JSH6
D	983	SER	-	expression tag	UNP A0A0G2JSH6
D	984	LYS	-	expression tag	UNP A0A0G2JSH6
D	985	ASP	-	expression tag	UNP A0A0G2JSH6
D	986	PRO	-	expression tag	UNP A0A0G2JSH6
D	987	ASN	-	expression tag	UNP A0A0G2JSH6
D	988	GLU	-	expression tag	UNP A0A0G2JSH6
D	989	LYS	-	expression tag	UNP A0A0G2JSH6
D	990	ARG	-	expression tag	UNP A0A0G2JSH6
D	991	ASP	-	expression tag	UNP A0A0G2JSH6
D	992	HIS	-	expression tag	UNP A0A0G2JSH6
D	993	MET	-	expression tag	UNP A0A0G2JSH6
D	994	VAL	-	expression tag	UNP A0A0G2JSH6
D	995	LEU	-	expression tag	UNP A0A0G2JSH6
D	996	LEU	-	expression tag	UNP A0A0G2JSH6
D	997	GLU	-	expression tag	UNP A0A0G2JSH6
D	998	PHE	-	expression tag	UNP A0A0G2JSH6
D	999	VAL	-	expression tag	UNP A0A0G2JSH6
D	1000	THR	-	expression tag	UNP A0A0G2JSH6
D	1001	ALA	-	expression tag	UNP A0A0G2JSH6
D	1002	ALA	-	expression tag	UNP A0A0G2JSH6
D	1003	GLY	-	expression tag	UNP A0A0G2JSH6
D	1004	ILE	-	expression tag	UNP A0A0G2JSH6
D	1005	THR	-	expression tag	UNP A0A0G2JSH6
D	1006	LEU	-	expression tag	UNP A0A0G2JSH6
D	1007	GLY	-	expression tag	UNP A0A0G2JSH6
D	1008	MET	-	expression tag	UNP A0A0G2JSH6
D	1009	ASP	-	expression tag	UNP A0A0G2JSH6
D	1010	GLU	-	expression tag	UNP A0A0G2JSH6
D	1011	LEU	-	expression tag	UNP A0A0G2JSH6
D	1012	TYR	-	expression tag	UNP A0A0G2JSH6
D	1013	LYS	-	expression tag	UNP A0A0G2JSH6
D	1014	SER	-	expression tag	UNP A0A0G2JSH6
D	1015	GLY	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
D	1016	LEU	-	expression tag	UNP A0A0G2JSH6
D	1017	ARG	-	expression tag	UNP A0A0G2JSH6
D	1018	SER	-	expression tag	UNP A0A0G2JSH6
D	1019	HIS	-	expression tag	UNP A0A0G2JSH6
D	1020	HIS	-	expression tag	UNP A0A0G2JSH6
D	1021	HIS	-	expression tag	UNP A0A0G2JSH6
D	1022	HIS	-	expression tag	UNP A0A0G2JSH6
D	1023	HIS	-	expression tag	UNP A0A0G2JSH6
D	1024	HIS	-	expression tag	UNP A0A0G2JSH6
D	1025	HIS	-	expression tag	UNP A0A0G2JSH6
D	1026	HIS	-	expression tag	UNP A0A0G2JSH6
C	571	SER	ASN	conflict	UNP A0A0G2JSH6
C	572	SER	ASN	conflict	UNP A0A0G2JSH6
C	713	ALA	VAL	conflict	UNP A0A0G2JSH6
C	762	ALA	-	expression tag	UNP A0A0G2JSH6
C	763	ALA	-	expression tag	UNP A0A0G2JSH6
C	764	ALA	-	expression tag	UNP A0A0G2JSH6
C	765	GLY	-	expression tag	UNP A0A0G2JSH6
C	766	LEU	-	expression tag	UNP A0A0G2JSH6
C	767	VAL	-	expression tag	UNP A0A0G2JSH6
C	768	PRO	-	expression tag	UNP A0A0G2JSH6
C	769	ARG	-	expression tag	UNP A0A0G2JSH6
C	770	GLY	-	expression tag	UNP A0A0G2JSH6
C	771	SER	-	expression tag	UNP A0A0G2JSH6
C	772	VAL	-	expression tag	UNP A0A0G2JSH6
C	773	ALA	-	expression tag	UNP A0A0G2JSH6
C	774	ALA	-	expression tag	UNP A0A0G2JSH6
C	775	ALA	-	expression tag	UNP A0A0G2JSH6
C	776	VAL	-	expression tag	UNP A0A0G2JSH6
C	777	SER	-	expression tag	UNP A0A0G2JSH6
C	778	LYS	-	expression tag	UNP A0A0G2JSH6
C	779	GLY	-	expression tag	UNP A0A0G2JSH6
C	780	GLU	-	expression tag	UNP A0A0G2JSH6
C	781	GLU	-	expression tag	UNP A0A0G2JSH6
C	782	LEU	-	expression tag	UNP A0A0G2JSH6
C	783	PHE	-	expression tag	UNP A0A0G2JSH6
C	784	THR	-	expression tag	UNP A0A0G2JSH6
C	785	GLY	-	expression tag	UNP A0A0G2JSH6
C	786	VAL	-	expression tag	UNP A0A0G2JSH6
C	787	VAL	-	expression tag	UNP A0A0G2JSH6
C	788	PRO	-	expression tag	UNP A0A0G2JSH6
C	789	ILE	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	790	LEU	-	expression tag	UNP A0A0G2JSH6
C	791	VAL	-	expression tag	UNP A0A0G2JSH6
C	792	GLU	-	expression tag	UNP A0A0G2JSH6
C	793	LEU	-	expression tag	UNP A0A0G2JSH6
C	794	ASP	-	expression tag	UNP A0A0G2JSH6
C	795	GLY	-	expression tag	UNP A0A0G2JSH6
C	796	ASP	-	expression tag	UNP A0A0G2JSH6
C	797	VAL	-	expression tag	UNP A0A0G2JSH6
C	798	ASN	-	expression tag	UNP A0A0G2JSH6
C	799	GLY	-	expression tag	UNP A0A0G2JSH6
C	800	HIS	-	expression tag	UNP A0A0G2JSH6
C	801	LYS	-	expression tag	UNP A0A0G2JSH6
C	802	PHE	-	expression tag	UNP A0A0G2JSH6
C	803	SER	-	expression tag	UNP A0A0G2JSH6
C	804	VAL	-	expression tag	UNP A0A0G2JSH6
C	805	SER	-	expression tag	UNP A0A0G2JSH6
C	806	GLY	-	expression tag	UNP A0A0G2JSH6
C	807	GLU	-	expression tag	UNP A0A0G2JSH6
C	808	GLY	-	expression tag	UNP A0A0G2JSH6
C	809	GLU	-	expression tag	UNP A0A0G2JSH6
C	810	GLY	-	expression tag	UNP A0A0G2JSH6
C	811	ASP	-	expression tag	UNP A0A0G2JSH6
C	812	ALA	-	expression tag	UNP A0A0G2JSH6
C	813	THR	-	expression tag	UNP A0A0G2JSH6
C	814	TYR	-	expression tag	UNP A0A0G2JSH6
C	815	GLY	-	expression tag	UNP A0A0G2JSH6
C	816	LYS	-	expression tag	UNP A0A0G2JSH6
C	817	LEU	-	expression tag	UNP A0A0G2JSH6
C	818	THR	-	expression tag	UNP A0A0G2JSH6
C	819	LEU	-	expression tag	UNP A0A0G2JSH6
C	820	LYS	-	expression tag	UNP A0A0G2JSH6
C	821	PHE	-	expression tag	UNP A0A0G2JSH6
C	822	ILE	-	expression tag	UNP A0A0G2JSH6
C	823	CYS	-	expression tag	UNP A0A0G2JSH6
C	824	THR	-	expression tag	UNP A0A0G2JSH6
C	825	THR	-	expression tag	UNP A0A0G2JSH6
C	826	GLY	-	expression tag	UNP A0A0G2JSH6
C	827	LYS	-	expression tag	UNP A0A0G2JSH6
C	828	LEU	-	expression tag	UNP A0A0G2JSH6
C	829	PRO	-	expression tag	UNP A0A0G2JSH6
C	830	VAL	-	expression tag	UNP A0A0G2JSH6
C	831	PRO	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	832	TRP	-	expression tag	UNP A0A0G2JSH6
C	833	PRO	-	expression tag	UNP A0A0G2JSH6
C	834	THR	-	expression tag	UNP A0A0G2JSH6
C	835	LEU	-	expression tag	UNP A0A0G2JSH6
C	836	VAL	-	expression tag	UNP A0A0G2JSH6
C	837	THR	-	expression tag	UNP A0A0G2JSH6
C	838	THR	-	expression tag	UNP A0A0G2JSH6
C	839	LEU	-	expression tag	UNP A0A0G2JSH6
C	840	THR	-	expression tag	UNP A0A0G2JSH6
C	841	TYR	-	expression tag	UNP A0A0G2JSH6
C	842	GLY	-	expression tag	UNP A0A0G2JSH6
C	843	VAL	-	expression tag	UNP A0A0G2JSH6
C	844	GLN	-	expression tag	UNP A0A0G2JSH6
C	845	CYS	-	expression tag	UNP A0A0G2JSH6
C	846	PHE	-	expression tag	UNP A0A0G2JSH6
C	847	SER	-	expression tag	UNP A0A0G2JSH6
C	848	ARG	-	expression tag	UNP A0A0G2JSH6
C	849	TYR	-	expression tag	UNP A0A0G2JSH6
C	850	PRO	-	expression tag	UNP A0A0G2JSH6
C	851	ASP	-	expression tag	UNP A0A0G2JSH6
C	852	HIS	-	expression tag	UNP A0A0G2JSH6
C	853	MET	-	expression tag	UNP A0A0G2JSH6
C	854	LYS	-	expression tag	UNP A0A0G2JSH6
C	855	GLN	-	expression tag	UNP A0A0G2JSH6
C	856	HIS	-	expression tag	UNP A0A0G2JSH6
C	857	ASP	-	expression tag	UNP A0A0G2JSH6
C	858	PHE	-	expression tag	UNP A0A0G2JSH6
C	859	PHE	-	expression tag	UNP A0A0G2JSH6
C	860	LYS	-	expression tag	UNP A0A0G2JSH6
C	861	SER	-	expression tag	UNP A0A0G2JSH6
C	862	ALA	-	expression tag	UNP A0A0G2JSH6
C	863	MET	-	expression tag	UNP A0A0G2JSH6
C	864	PRO	-	expression tag	UNP A0A0G2JSH6
C	865	GLU	-	expression tag	UNP A0A0G2JSH6
C	866	GLY	-	expression tag	UNP A0A0G2JSH6
C	867	TYR	-	expression tag	UNP A0A0G2JSH6
C	868	VAL	-	expression tag	UNP A0A0G2JSH6
C	869	GLN	-	expression tag	UNP A0A0G2JSH6
C	870	GLU	-	expression tag	UNP A0A0G2JSH6
C	871	ARG	-	expression tag	UNP A0A0G2JSH6
C	872	THR	-	expression tag	UNP A0A0G2JSH6
C	873	ILE	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	874	PHE	-	expression tag	UNP A0A0G2JSH6
C	875	PHE	-	expression tag	UNP A0A0G2JSH6
C	876	LYS	-	expression tag	UNP A0A0G2JSH6
C	877	ASP	-	expression tag	UNP A0A0G2JSH6
C	878	ASP	-	expression tag	UNP A0A0G2JSH6
C	879	GLY	-	expression tag	UNP A0A0G2JSH6
C	880	ASN	-	expression tag	UNP A0A0G2JSH6
C	881	TYR	-	expression tag	UNP A0A0G2JSH6
C	882	LYS	-	expression tag	UNP A0A0G2JSH6
C	883	THR	-	expression tag	UNP A0A0G2JSH6
C	884	ARG	-	expression tag	UNP A0A0G2JSH6
C	885	ALA	-	expression tag	UNP A0A0G2JSH6
C	886	GLU	-	expression tag	UNP A0A0G2JSH6
C	887	VAL	-	expression tag	UNP A0A0G2JSH6
C	888	LYS	-	expression tag	UNP A0A0G2JSH6
C	889	PHE	-	expression tag	UNP A0A0G2JSH6
C	890	GLU	-	expression tag	UNP A0A0G2JSH6
C	891	GLY	-	expression tag	UNP A0A0G2JSH6
C	892	ASP	-	expression tag	UNP A0A0G2JSH6
C	893	THR	-	expression tag	UNP A0A0G2JSH6
C	894	LEU	-	expression tag	UNP A0A0G2JSH6
C	895	VAL	-	expression tag	UNP A0A0G2JSH6
C	896	ASN	-	expression tag	UNP A0A0G2JSH6
C	897	ARG	-	expression tag	UNP A0A0G2JSH6
C	898	ILE	-	expression tag	UNP A0A0G2JSH6
C	899	GLU	-	expression tag	UNP A0A0G2JSH6
C	900	LEU	-	expression tag	UNP A0A0G2JSH6
C	901	LYS	-	expression tag	UNP A0A0G2JSH6
C	902	GLY	-	expression tag	UNP A0A0G2JSH6
C	903	ILE	-	expression tag	UNP A0A0G2JSH6
C	904	ASP	-	expression tag	UNP A0A0G2JSH6
C	905	PHE	-	expression tag	UNP A0A0G2JSH6
C	906	LYS	-	expression tag	UNP A0A0G2JSH6
C	907	GLU	-	expression tag	UNP A0A0G2JSH6
C	908	ASP	-	expression tag	UNP A0A0G2JSH6
C	909	GLY	-	expression tag	UNP A0A0G2JSH6
C	910	ASN	-	expression tag	UNP A0A0G2JSH6
C	911	ILE	-	expression tag	UNP A0A0G2JSH6
C	912	LEU	-	expression tag	UNP A0A0G2JSH6
C	913	GLY	-	expression tag	UNP A0A0G2JSH6
C	914	HIS	-	expression tag	UNP A0A0G2JSH6
C	915	LYS	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	916	LEU	-	expression tag	UNP A0A0G2JSH6
C	917	GLU	-	expression tag	UNP A0A0G2JSH6
C	918	TYR	-	expression tag	UNP A0A0G2JSH6
C	919	ASN	-	expression tag	UNP A0A0G2JSH6
C	920	TYR	-	expression tag	UNP A0A0G2JSH6
C	921	ASN	-	expression tag	UNP A0A0G2JSH6
C	922	SER	-	expression tag	UNP A0A0G2JSH6
C	923	HIS	-	expression tag	UNP A0A0G2JSH6
C	924	ASN	-	expression tag	UNP A0A0G2JSH6
C	925	VAL	-	expression tag	UNP A0A0G2JSH6
C	926	TYR	-	expression tag	UNP A0A0G2JSH6
C	927	ILE	-	expression tag	UNP A0A0G2JSH6
C	928	MET	-	expression tag	UNP A0A0G2JSH6
C	929	ALA	-	expression tag	UNP A0A0G2JSH6
C	930	ASP	-	expression tag	UNP A0A0G2JSH6
C	931	LYS	-	expression tag	UNP A0A0G2JSH6
C	932	GLN	-	expression tag	UNP A0A0G2JSH6
C	933	LYS	-	expression tag	UNP A0A0G2JSH6
C	934	ASN	-	expression tag	UNP A0A0G2JSH6
C	935	GLY	-	expression tag	UNP A0A0G2JSH6
C	936	ILE	-	expression tag	UNP A0A0G2JSH6
C	937	LYS	-	expression tag	UNP A0A0G2JSH6
C	938	VAL	-	expression tag	UNP A0A0G2JSH6
C	939	ASN	-	expression tag	UNP A0A0G2JSH6
C	940	PHE	-	expression tag	UNP A0A0G2JSH6
C	941	LYS	-	expression tag	UNP A0A0G2JSH6
C	942	ILE	-	expression tag	UNP A0A0G2JSH6
C	943	ARG	-	expression tag	UNP A0A0G2JSH6
C	944	HIS	-	expression tag	UNP A0A0G2JSH6
C	945	ASN	-	expression tag	UNP A0A0G2JSH6
C	946	ILE	-	expression tag	UNP A0A0G2JSH6
C	947	GLU	-	expression tag	UNP A0A0G2JSH6
C	948	ASP	-	expression tag	UNP A0A0G2JSH6
C	949	GLY	-	expression tag	UNP A0A0G2JSH6
C	950	SER	-	expression tag	UNP A0A0G2JSH6
C	951	VAL	-	expression tag	UNP A0A0G2JSH6
C	952	GLN	-	expression tag	UNP A0A0G2JSH6
C	953	LEU	-	expression tag	UNP A0A0G2JSH6
C	954	ALA	-	expression tag	UNP A0A0G2JSH6
C	955	ASP	-	expression tag	UNP A0A0G2JSH6
C	956	HIS	-	expression tag	UNP A0A0G2JSH6
C	957	TYR	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	958	GLN	-	expression tag	UNP A0A0G2JSH6
C	959	GLN	-	expression tag	UNP A0A0G2JSH6
C	960	ASN	-	expression tag	UNP A0A0G2JSH6
C	961	THR	-	expression tag	UNP A0A0G2JSH6
C	962	PRO	-	expression tag	UNP A0A0G2JSH6
C	963	ILE	-	expression tag	UNP A0A0G2JSH6
C	964	GLY	-	expression tag	UNP A0A0G2JSH6
C	965	ASP	-	expression tag	UNP A0A0G2JSH6
C	966	GLY	-	expression tag	UNP A0A0G2JSH6
C	967	PRO	-	expression tag	UNP A0A0G2JSH6
C	968	VAL	-	expression tag	UNP A0A0G2JSH6
C	969	LEU	-	expression tag	UNP A0A0G2JSH6
C	970	LEU	-	expression tag	UNP A0A0G2JSH6
C	971	PRO	-	expression tag	UNP A0A0G2JSH6
C	972	ASP	-	expression tag	UNP A0A0G2JSH6
C	973	ASN	-	expression tag	UNP A0A0G2JSH6
C	974	HIS	-	expression tag	UNP A0A0G2JSH6
C	975	TYR	-	expression tag	UNP A0A0G2JSH6
C	976	LEU	-	expression tag	UNP A0A0G2JSH6
C	977	SER	-	expression tag	UNP A0A0G2JSH6
C	978	THR	-	expression tag	UNP A0A0G2JSH6
C	979	GLN	-	expression tag	UNP A0A0G2JSH6
C	980	SER	-	expression tag	UNP A0A0G2JSH6
C	981	LYS	-	expression tag	UNP A0A0G2JSH6
C	982	LEU	-	expression tag	UNP A0A0G2JSH6
C	983	SER	-	expression tag	UNP A0A0G2JSH6
C	984	LYS	-	expression tag	UNP A0A0G2JSH6
C	985	ASP	-	expression tag	UNP A0A0G2JSH6
C	986	PRO	-	expression tag	UNP A0A0G2JSH6
C	987	ASN	-	expression tag	UNP A0A0G2JSH6
C	988	GLU	-	expression tag	UNP A0A0G2JSH6
C	989	LYS	-	expression tag	UNP A0A0G2JSH6
C	990	ARG	-	expression tag	UNP A0A0G2JSH6
C	991	ASP	-	expression tag	UNP A0A0G2JSH6
C	992	HIS	-	expression tag	UNP A0A0G2JSH6
C	993	MET	-	expression tag	UNP A0A0G2JSH6
C	994	VAL	-	expression tag	UNP A0A0G2JSH6
C	995	LEU	-	expression tag	UNP A0A0G2JSH6
C	996	LEU	-	expression tag	UNP A0A0G2JSH6
C	997	GLU	-	expression tag	UNP A0A0G2JSH6
C	998	PHE	-	expression tag	UNP A0A0G2JSH6
C	999	VAL	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
C	1000	THR	-	expression tag	UNP A0A0G2JSH6
C	1001	ALA	-	expression tag	UNP A0A0G2JSH6
C	1002	ALA	-	expression tag	UNP A0A0G2JSH6
C	1003	GLY	-	expression tag	UNP A0A0G2JSH6
C	1004	ILE	-	expression tag	UNP A0A0G2JSH6
C	1005	THR	-	expression tag	UNP A0A0G2JSH6
C	1006	LEU	-	expression tag	UNP A0A0G2JSH6
C	1007	GLY	-	expression tag	UNP A0A0G2JSH6
C	1008	MET	-	expression tag	UNP A0A0G2JSH6
C	1009	ASP	-	expression tag	UNP A0A0G2JSH6
C	1010	GLU	-	expression tag	UNP A0A0G2JSH6
C	1011	LEU	-	expression tag	UNP A0A0G2JSH6
C	1012	TYR	-	expression tag	UNP A0A0G2JSH6
C	1013	LYS	-	expression tag	UNP A0A0G2JSH6
C	1014	SER	-	expression tag	UNP A0A0G2JSH6
C	1015	GLY	-	expression tag	UNP A0A0G2JSH6
C	1016	LEU	-	expression tag	UNP A0A0G2JSH6
C	1017	ARG	-	expression tag	UNP A0A0G2JSH6
C	1018	SER	-	expression tag	UNP A0A0G2JSH6
C	1019	HIS	-	expression tag	UNP A0A0G2JSH6
C	1020	HIS	-	expression tag	UNP A0A0G2JSH6
C	1021	HIS	-	expression tag	UNP A0A0G2JSH6
C	1022	HIS	-	expression tag	UNP A0A0G2JSH6
C	1023	HIS	-	expression tag	UNP A0A0G2JSH6
C	1024	HIS	-	expression tag	UNP A0A0G2JSH6
C	1025	HIS	-	expression tag	UNP A0A0G2JSH6
C	1026	HIS	-	expression tag	UNP A0A0G2JSH6
B	571	SER	ASN	conflict	UNP A0A0G2JSH6
B	572	SER	ASN	conflict	UNP A0A0G2JSH6
B	713	ALA	VAL	conflict	UNP A0A0G2JSH6
B	762	ALA	-	expression tag	UNP A0A0G2JSH6
B	763	ALA	-	expression tag	UNP A0A0G2JSH6
B	764	ALA	-	expression tag	UNP A0A0G2JSH6
B	765	GLY	-	expression tag	UNP A0A0G2JSH6
B	766	LEU	-	expression tag	UNP A0A0G2JSH6
B	767	VAL	-	expression tag	UNP A0A0G2JSH6
B	768	PRO	-	expression tag	UNP A0A0G2JSH6
B	769	ARG	-	expression tag	UNP A0A0G2JSH6
B	770	GLY	-	expression tag	UNP A0A0G2JSH6
B	771	SER	-	expression tag	UNP A0A0G2JSH6
B	772	VAL	-	expression tag	UNP A0A0G2JSH6
B	773	ALA	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	774	ALA	-	expression tag	UNP A0A0G2JSH6
B	775	ALA	-	expression tag	UNP A0A0G2JSH6
B	776	VAL	-	expression tag	UNP A0A0G2JSH6
B	777	SER	-	expression tag	UNP A0A0G2JSH6
B	778	LYS	-	expression tag	UNP A0A0G2JSH6
B	779	GLY	-	expression tag	UNP A0A0G2JSH6
B	780	GLU	-	expression tag	UNP A0A0G2JSH6
B	781	GLU	-	expression tag	UNP A0A0G2JSH6
B	782	LEU	-	expression tag	UNP A0A0G2JSH6
B	783	PHE	-	expression tag	UNP A0A0G2JSH6
B	784	THR	-	expression tag	UNP A0A0G2JSH6
B	785	GLY	-	expression tag	UNP A0A0G2JSH6
B	786	VAL	-	expression tag	UNP A0A0G2JSH6
B	787	VAL	-	expression tag	UNP A0A0G2JSH6
B	788	PRO	-	expression tag	UNP A0A0G2JSH6
B	789	ILE	-	expression tag	UNP A0A0G2JSH6
B	790	LEU	-	expression tag	UNP A0A0G2JSH6
B	791	VAL	-	expression tag	UNP A0A0G2JSH6
B	792	GLU	-	expression tag	UNP A0A0G2JSH6
B	793	LEU	-	expression tag	UNP A0A0G2JSH6
B	794	ASP	-	expression tag	UNP A0A0G2JSH6
B	795	GLY	-	expression tag	UNP A0A0G2JSH6
B	796	ASP	-	expression tag	UNP A0A0G2JSH6
B	797	VAL	-	expression tag	UNP A0A0G2JSH6
B	798	ASN	-	expression tag	UNP A0A0G2JSH6
B	799	GLY	-	expression tag	UNP A0A0G2JSH6
B	800	HIS	-	expression tag	UNP A0A0G2JSH6
B	801	LYS	-	expression tag	UNP A0A0G2JSH6
B	802	PHE	-	expression tag	UNP A0A0G2JSH6
B	803	SER	-	expression tag	UNP A0A0G2JSH6
B	804	VAL	-	expression tag	UNP A0A0G2JSH6
B	805	SER	-	expression tag	UNP A0A0G2JSH6
B	806	GLY	-	expression tag	UNP A0A0G2JSH6
B	807	GLU	-	expression tag	UNP A0A0G2JSH6
B	808	GLY	-	expression tag	UNP A0A0G2JSH6
B	809	GLU	-	expression tag	UNP A0A0G2JSH6
B	810	GLY	-	expression tag	UNP A0A0G2JSH6
B	811	ASP	-	expression tag	UNP A0A0G2JSH6
B	812	ALA	-	expression tag	UNP A0A0G2JSH6
B	813	THR	-	expression tag	UNP A0A0G2JSH6
B	814	TYR	-	expression tag	UNP A0A0G2JSH6
B	815	GLY	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	816	LYS	-	expression tag	UNP A0A0G2JSH6
B	817	LEU	-	expression tag	UNP A0A0G2JSH6
B	818	THR	-	expression tag	UNP A0A0G2JSH6
B	819	LEU	-	expression tag	UNP A0A0G2JSH6
B	820	LYS	-	expression tag	UNP A0A0G2JSH6
B	821	PHE	-	expression tag	UNP A0A0G2JSH6
B	822	ILE	-	expression tag	UNP A0A0G2JSH6
B	823	CYS	-	expression tag	UNP A0A0G2JSH6
B	824	THR	-	expression tag	UNP A0A0G2JSH6
B	825	THR	-	expression tag	UNP A0A0G2JSH6
B	826	GLY	-	expression tag	UNP A0A0G2JSH6
B	827	LYS	-	expression tag	UNP A0A0G2JSH6
B	828	LEU	-	expression tag	UNP A0A0G2JSH6
B	829	PRO	-	expression tag	UNP A0A0G2JSH6
B	830	VAL	-	expression tag	UNP A0A0G2JSH6
B	831	PRO	-	expression tag	UNP A0A0G2JSH6
B	832	TRP	-	expression tag	UNP A0A0G2JSH6
B	833	PRO	-	expression tag	UNP A0A0G2JSH6
B	834	THR	-	expression tag	UNP A0A0G2JSH6
B	835	LEU	-	expression tag	UNP A0A0G2JSH6
B	836	VAL	-	expression tag	UNP A0A0G2JSH6
B	837	THR	-	expression tag	UNP A0A0G2JSH6
B	838	THR	-	expression tag	UNP A0A0G2JSH6
B	839	LEU	-	expression tag	UNP A0A0G2JSH6
B	840	THR	-	expression tag	UNP A0A0G2JSH6
B	841	TYR	-	expression tag	UNP A0A0G2JSH6
B	842	GLY	-	expression tag	UNP A0A0G2JSH6
B	843	VAL	-	expression tag	UNP A0A0G2JSH6
B	844	GLN	-	expression tag	UNP A0A0G2JSH6
B	845	CYS	-	expression tag	UNP A0A0G2JSH6
B	846	PHE	-	expression tag	UNP A0A0G2JSH6
B	847	SER	-	expression tag	UNP A0A0G2JSH6
B	848	ARG	-	expression tag	UNP A0A0G2JSH6
B	849	TYR	-	expression tag	UNP A0A0G2JSH6
B	850	PRO	-	expression tag	UNP A0A0G2JSH6
B	851	ASP	-	expression tag	UNP A0A0G2JSH6
B	852	HIS	-	expression tag	UNP A0A0G2JSH6
B	853	MET	-	expression tag	UNP A0A0G2JSH6
B	854	LYS	-	expression tag	UNP A0A0G2JSH6
B	855	GLN	-	expression tag	UNP A0A0G2JSH6
B	856	HIS	-	expression tag	UNP A0A0G2JSH6
B	857	ASP	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	858	PHE	-	expression tag	UNP A0A0G2JSH6
B	859	PHE	-	expression tag	UNP A0A0G2JSH6
B	860	LYS	-	expression tag	UNP A0A0G2JSH6
B	861	SER	-	expression tag	UNP A0A0G2JSH6
B	862	ALA	-	expression tag	UNP A0A0G2JSH6
B	863	MET	-	expression tag	UNP A0A0G2JSH6
B	864	PRO	-	expression tag	UNP A0A0G2JSH6
B	865	GLU	-	expression tag	UNP A0A0G2JSH6
B	866	GLY	-	expression tag	UNP A0A0G2JSH6
B	867	TYR	-	expression tag	UNP A0A0G2JSH6
B	868	VAL	-	expression tag	UNP A0A0G2JSH6
B	869	GLN	-	expression tag	UNP A0A0G2JSH6
B	870	GLU	-	expression tag	UNP A0A0G2JSH6
B	871	ARG	-	expression tag	UNP A0A0G2JSH6
B	872	THR	-	expression tag	UNP A0A0G2JSH6
B	873	ILE	-	expression tag	UNP A0A0G2JSH6
B	874	PHE	-	expression tag	UNP A0A0G2JSH6
B	875	PHE	-	expression tag	UNP A0A0G2JSH6
B	876	LYS	-	expression tag	UNP A0A0G2JSH6
B	877	ASP	-	expression tag	UNP A0A0G2JSH6
B	878	ASP	-	expression tag	UNP A0A0G2JSH6
B	879	GLY	-	expression tag	UNP A0A0G2JSH6
B	880	ASN	-	expression tag	UNP A0A0G2JSH6
B	881	TYR	-	expression tag	UNP A0A0G2JSH6
B	882	LYS	-	expression tag	UNP A0A0G2JSH6
B	883	THR	-	expression tag	UNP A0A0G2JSH6
B	884	ARG	-	expression tag	UNP A0A0G2JSH6
B	885	ALA	-	expression tag	UNP A0A0G2JSH6
B	886	GLU	-	expression tag	UNP A0A0G2JSH6
B	887	VAL	-	expression tag	UNP A0A0G2JSH6
B	888	LYS	-	expression tag	UNP A0A0G2JSH6
B	889	PHE	-	expression tag	UNP A0A0G2JSH6
B	890	GLU	-	expression tag	UNP A0A0G2JSH6
B	891	GLY	-	expression tag	UNP A0A0G2JSH6
B	892	ASP	-	expression tag	UNP A0A0G2JSH6
B	893	THR	-	expression tag	UNP A0A0G2JSH6
B	894	LEU	-	expression tag	UNP A0A0G2JSH6
B	895	VAL	-	expression tag	UNP A0A0G2JSH6
B	896	ASN	-	expression tag	UNP A0A0G2JSH6
B	897	ARG	-	expression tag	UNP A0A0G2JSH6
B	898	ILE	-	expression tag	UNP A0A0G2JSH6
B	899	GLU	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	900	LEU	-	expression tag	UNP A0A0G2JSH6
B	901	LYS	-	expression tag	UNP A0A0G2JSH6
B	902	GLY	-	expression tag	UNP A0A0G2JSH6
B	903	ILE	-	expression tag	UNP A0A0G2JSH6
B	904	ASP	-	expression tag	UNP A0A0G2JSH6
B	905	PHE	-	expression tag	UNP A0A0G2JSH6
B	906	LYS	-	expression tag	UNP A0A0G2JSH6
B	907	GLU	-	expression tag	UNP A0A0G2JSH6
B	908	ASP	-	expression tag	UNP A0A0G2JSH6
B	909	GLY	-	expression tag	UNP A0A0G2JSH6
B	910	ASN	-	expression tag	UNP A0A0G2JSH6
B	911	ILE	-	expression tag	UNP A0A0G2JSH6
B	912	LEU	-	expression tag	UNP A0A0G2JSH6
B	913	GLY	-	expression tag	UNP A0A0G2JSH6
B	914	HIS	-	expression tag	UNP A0A0G2JSH6
B	915	LYS	-	expression tag	UNP A0A0G2JSH6
B	916	LEU	-	expression tag	UNP A0A0G2JSH6
B	917	GLU	-	expression tag	UNP A0A0G2JSH6
B	918	TYR	-	expression tag	UNP A0A0G2JSH6
B	919	ASN	-	expression tag	UNP A0A0G2JSH6
B	920	TYR	-	expression tag	UNP A0A0G2JSH6
B	921	ASN	-	expression tag	UNP A0A0G2JSH6
B	922	SER	-	expression tag	UNP A0A0G2JSH6
B	923	HIS	-	expression tag	UNP A0A0G2JSH6
B	924	ASN	-	expression tag	UNP A0A0G2JSH6
B	925	VAL	-	expression tag	UNP A0A0G2JSH6
B	926	TYR	-	expression tag	UNP A0A0G2JSH6
B	927	ILE	-	expression tag	UNP A0A0G2JSH6
B	928	MET	-	expression tag	UNP A0A0G2JSH6
B	929	ALA	-	expression tag	UNP A0A0G2JSH6
B	930	ASP	-	expression tag	UNP A0A0G2JSH6
B	931	LYS	-	expression tag	UNP A0A0G2JSH6
B	932	GLN	-	expression tag	UNP A0A0G2JSH6
B	933	LYS	-	expression tag	UNP A0A0G2JSH6
B	934	ASN	-	expression tag	UNP A0A0G2JSH6
B	935	GLY	-	expression tag	UNP A0A0G2JSH6
B	936	ILE	-	expression tag	UNP A0A0G2JSH6
B	937	LYS	-	expression tag	UNP A0A0G2JSH6
B	938	VAL	-	expression tag	UNP A0A0G2JSH6
B	939	ASN	-	expression tag	UNP A0A0G2JSH6
B	940	PHE	-	expression tag	UNP A0A0G2JSH6
B	941	LYS	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	942	ILE	-	expression tag	UNP A0A0G2JSH6
B	943	ARG	-	expression tag	UNP A0A0G2JSH6
B	944	HIS	-	expression tag	UNP A0A0G2JSH6
B	945	ASN	-	expression tag	UNP A0A0G2JSH6
B	946	ILE	-	expression tag	UNP A0A0G2JSH6
B	947	GLU	-	expression tag	UNP A0A0G2JSH6
B	948	ASP	-	expression tag	UNP A0A0G2JSH6
B	949	GLY	-	expression tag	UNP A0A0G2JSH6
B	950	SER	-	expression tag	UNP A0A0G2JSH6
B	951	VAL	-	expression tag	UNP A0A0G2JSH6
B	952	GLN	-	expression tag	UNP A0A0G2JSH6
B	953	LEU	-	expression tag	UNP A0A0G2JSH6
B	954	ALA	-	expression tag	UNP A0A0G2JSH6
B	955	ASP	-	expression tag	UNP A0A0G2JSH6
B	956	HIS	-	expression tag	UNP A0A0G2JSH6
B	957	TYR	-	expression tag	UNP A0A0G2JSH6
B	958	GLN	-	expression tag	UNP A0A0G2JSH6
B	959	GLN	-	expression tag	UNP A0A0G2JSH6
B	960	ASN	-	expression tag	UNP A0A0G2JSH6
B	961	THR	-	expression tag	UNP A0A0G2JSH6
B	962	PRO	-	expression tag	UNP A0A0G2JSH6
B	963	ILE	-	expression tag	UNP A0A0G2JSH6
B	964	GLY	-	expression tag	UNP A0A0G2JSH6
B	965	ASP	-	expression tag	UNP A0A0G2JSH6
B	966	GLY	-	expression tag	UNP A0A0G2JSH6
B	967	PRO	-	expression tag	UNP A0A0G2JSH6
B	968	VAL	-	expression tag	UNP A0A0G2JSH6
B	969	LEU	-	expression tag	UNP A0A0G2JSH6
B	970	LEU	-	expression tag	UNP A0A0G2JSH6
B	971	PRO	-	expression tag	UNP A0A0G2JSH6
B	972	ASP	-	expression tag	UNP A0A0G2JSH6
B	973	ASN	-	expression tag	UNP A0A0G2JSH6
B	974	HIS	-	expression tag	UNP A0A0G2JSH6
B	975	TYR	-	expression tag	UNP A0A0G2JSH6
B	976	LEU	-	expression tag	UNP A0A0G2JSH6
B	977	SER	-	expression tag	UNP A0A0G2JSH6
B	978	THR	-	expression tag	UNP A0A0G2JSH6
B	979	GLN	-	expression tag	UNP A0A0G2JSH6
B	980	SER	-	expression tag	UNP A0A0G2JSH6
B	981	LYS	-	expression tag	UNP A0A0G2JSH6
B	982	LEU	-	expression tag	UNP A0A0G2JSH6
B	983	SER	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	984	LYS	-	expression tag	UNP A0A0G2JSH6
B	985	ASP	-	expression tag	UNP A0A0G2JSH6
B	986	PRO	-	expression tag	UNP A0A0G2JSH6
B	987	ASN	-	expression tag	UNP A0A0G2JSH6
B	988	GLU	-	expression tag	UNP A0A0G2JSH6
B	989	LYS	-	expression tag	UNP A0A0G2JSH6
B	990	ARG	-	expression tag	UNP A0A0G2JSH6
B	991	ASP	-	expression tag	UNP A0A0G2JSH6
B	992	HIS	-	expression tag	UNP A0A0G2JSH6
B	993	MET	-	expression tag	UNP A0A0G2JSH6
B	994	VAL	-	expression tag	UNP A0A0G2JSH6
B	995	LEU	-	expression tag	UNP A0A0G2JSH6
B	996	LEU	-	expression tag	UNP A0A0G2JSH6
B	997	GLU	-	expression tag	UNP A0A0G2JSH6
B	998	PHE	-	expression tag	UNP A0A0G2JSH6
B	999	VAL	-	expression tag	UNP A0A0G2JSH6
B	1000	THR	-	expression tag	UNP A0A0G2JSH6
B	1001	ALA	-	expression tag	UNP A0A0G2JSH6
B	1002	ALA	-	expression tag	UNP A0A0G2JSH6
B	1003	GLY	-	expression tag	UNP A0A0G2JSH6
B	1004	ILE	-	expression tag	UNP A0A0G2JSH6
B	1005	THR	-	expression tag	UNP A0A0G2JSH6
B	1006	LEU	-	expression tag	UNP A0A0G2JSH6
B	1007	GLY	-	expression tag	UNP A0A0G2JSH6
B	1008	MET	-	expression tag	UNP A0A0G2JSH6
B	1009	ASP	-	expression tag	UNP A0A0G2JSH6
B	1010	GLU	-	expression tag	UNP A0A0G2JSH6
B	1011	LEU	-	expression tag	UNP A0A0G2JSH6
B	1012	TYR	-	expression tag	UNP A0A0G2JSH6
B	1013	LYS	-	expression tag	UNP A0A0G2JSH6
B	1014	SER	-	expression tag	UNP A0A0G2JSH6
B	1015	GLY	-	expression tag	UNP A0A0G2JSH6
B	1016	LEU	-	expression tag	UNP A0A0G2JSH6
B	1017	ARG	-	expression tag	UNP A0A0G2JSH6
B	1018	SER	-	expression tag	UNP A0A0G2JSH6
B	1019	HIS	-	expression tag	UNP A0A0G2JSH6
B	1020	HIS	-	expression tag	UNP A0A0G2JSH6
B	1021	HIS	-	expression tag	UNP A0A0G2JSH6
B	1022	HIS	-	expression tag	UNP A0A0G2JSH6
B	1023	HIS	-	expression tag	UNP A0A0G2JSH6
B	1024	HIS	-	expression tag	UNP A0A0G2JSH6
B	1025	HIS	-	expression tag	UNP A0A0G2JSH6

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Chain	Residue	Modelled	Actual	Comment	Reference
B	1026	HIS	-	expression tag	UNP A0A0G2JSH6

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: Transient receptor potential cation channel subfamily V member 2

LEU PRO ASP ASN HIS TYR LEU THR GLN SER LYS LEU LYS ASP ASN GLU LYS ARG ASP HIS MET VAL LEU LEU GLU PHE VAL THR ALA ALA GLY ILE THR LEU GLY MET ASP LEU TYR LYS SER GLY LEU ARG SER HIS HIS HIS HIS HIS HIS
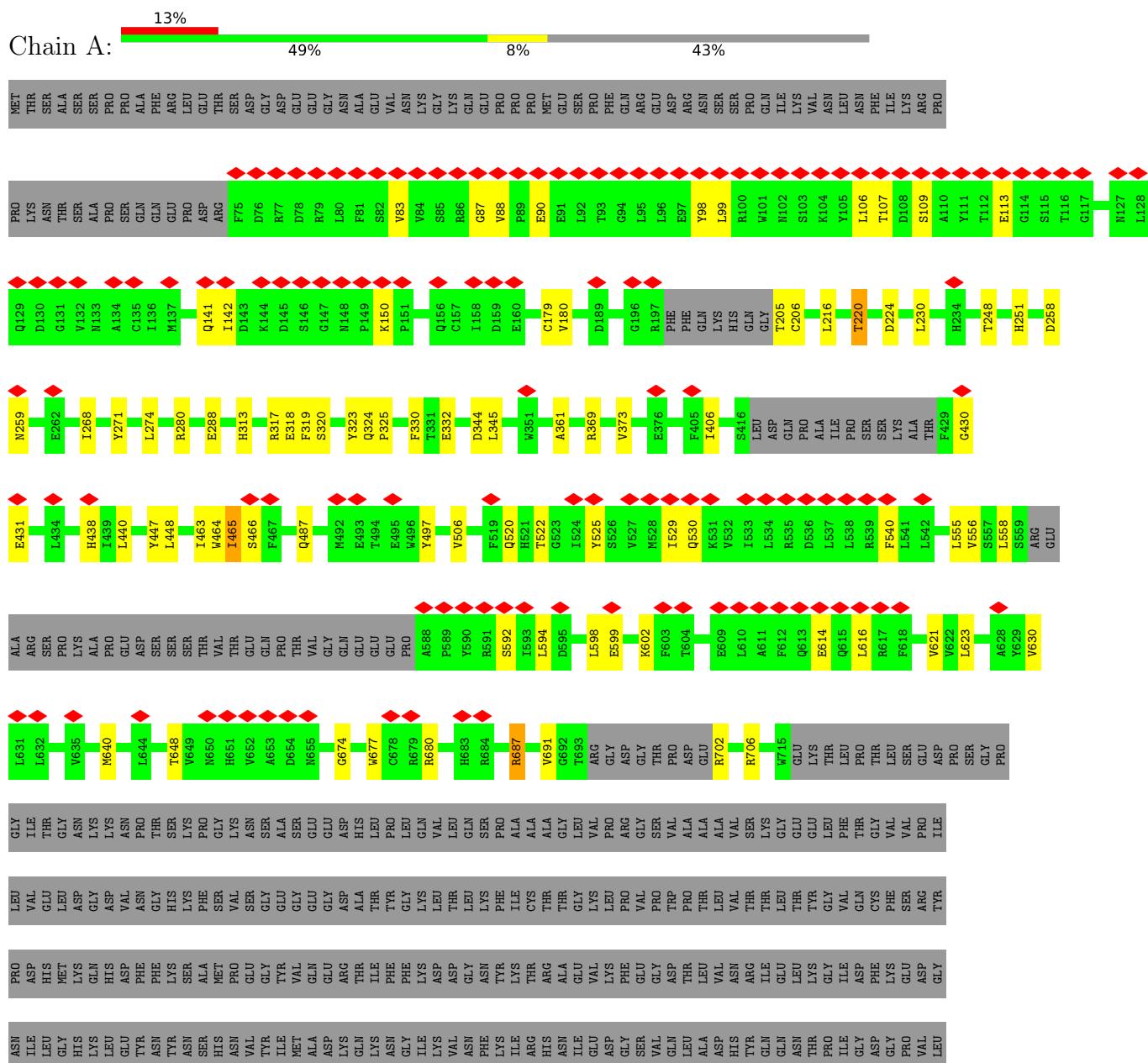
• Molecule 1: Transient receptor potential cation channel subfamily V member 2

Chain D:

9%

48%　　9%　　43%

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

PRO LYS ASN ASN THR SER ALA PRO SER GLN GLN GLU PRO ASP ARG F75 D78 R79 L80 F81 S82 V83 R86 G87 V88 P89 E90 E91 L92 T93 G94 L95 L96 E97 Y98 L99 R100 W101 N102 S103 K104 Y105 L106 T107 D108 S109 A110 Y111 T116 A124 N127 L128 Q129 D130 G131 V132

I136 M137 P138 L139 L140 D143 K144 D145 S146 G147 N148 P149 K150 P151 L152 V153 N154 L168 V180 K181 L182 L183 V184 R197 PHE PHE GLN LYS HIS GLN GLY T205 C206 F207 K221 Q222 W223 D224 V225 V226 L230 P233 H234 T248 H251 D258 N259 L266

M270 H293 R317 L326 S327 R328 V338 R339 V340 S346 S347 V348 D349 V356 A361 R369 L401 F405 P415 S416 LEU ASP GLN PRO ALA ILE PRO SER SER LYS ALA THR F429 L434 L435 L436 G437 I441 L453 W457 R458 R459 F462

I463 W464 I465 S466 F467 M468 D469 F491 M492 E493 T494 E495 W496 V502 F519 Q520 H521 T522 G523 I524 Y525 S526 V527 M528 I529 Q530 K531 V532 I533 L534 R535 D536 L537 L538 R539 L542 V556 S559 ARG GLU ALA ARG SER PRO LYS ALA PRO GLU ASP SER SER SER THR VAL

THR GLU GLN PRO THR VAL GLY GLN GLU GLU GLU PRO A588 P589 Y590 R591 S592 I593 M607 G608 E609 L610 A611 F612 Q613 E614 L616 Q615 R617 F618 R619 L625 A628 L632 N639 I642 S646 V649 N650 H651 V652 A653 S656 W660 K664 E670 T693

ARG GLY ASP GLY THR PRO ASP GLU R702 E708 E709 V710 W715 GLU LYS THR LEU PRO THR LEU SER GLU PRO ASP SER GLY PRO ILE ILE THR GLY ASN LYS LYS ASN PRO THR SER LYS PRO GLY LYS ASN SER ALA SER GLU GLU ASP HIS LEU PRO LEU GLN VAL LEU GLN SER

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

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

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

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

ALA ALA GLY ILE THR LEU GLY MET ASP GLU LEU TYR LYS SER GLY LEU ARG SER HIS HIS HIS HIS HIS HIS HIS

• Molecule 1: Transient receptor potential cation channel subfamily V member 2

Chain C:

5%

49%　　8%　　43%

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

• Molecule 1: Transient receptor potential cation channel subfamily V member 2

Y525 Q530 K531 V532 I533 L534 R535 D536 L537 L538 R539 F540 L541 A554 L555 L558 S559 ARG GLU ALA ARG SER PRO LYS ALA PRO GLU ASP SER SER SER THR VAL THR GLU GLN PRO THR VAL GLY GLN GLU GLU GLU GLU PRO A588 P589 Y590 R591 I605 G608 E609 L610 A611

F612 Q613 E614 Q615 V621 V622 M645 S646 N650 H651 V652 A653 D654 W657 S658 I659 W660 K664 M671 E672 N673 G674 Y675 W676 R680 R684 R687 V691 G692 T693 ARG GLY ASP GLY THR PRO ASP GLU R702 F705 A714 W715 GLU LYS THR LEU PRO THR

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

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

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

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

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

HIS HIS HIS HIS

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	326000	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 $(e^-/\text{Å}^2)$	48.4	Depositor
Minimum defocus (nm)	700	Depositor
Maximum defocus (nm)	2700	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	2.787	Depositor
Minimum map value	-1.536	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.054	Depositor
Recommended contour level	0.3	Depositor
Map size (Å)	304.704, 304.704, 304.704	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.8464, 0.8464, 0.8464	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	0.24	0/4865	0.45	0/6603
1	B	0.25	0/4865	0.45	0/6603
1	C	0.25	0/4865	0.45	0/6603
1	D	0.25	0/4865	0.45	0/6603
All	All	0.25	0/19460	0.45	0/26412

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4746	0	4804	46	0
1	B	4746	0	4804	62	0
1	C	4746	0	4804	44	0
1	D	4746	0	4804	50	0
All	All	18984	0	19216	189	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 5.

All (189) 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:75:PHE:N	1:C:103:SER:HG	1.64	0.93
1:A:525:TYR:O	1:A:529:ILE:HB	1.80	0.82
1:C:124:ALA:O	1:C:133:ASN:ND2	2.25	0.70
1:A:361:ALA:O	1:A:369:ARG:NH2	2.26	0.69
1:C:127:ASN:O	1:C:133:ASN:ND2	2.26	0.68
1:D:531:LYS:HD2	1:D:532:VAL:H	1.59	0.67
1:B:197:ARG:NH1	1:B:206:CYS:SG	2.67	0.67
1:C:334:CYS:SG	1:C:339:ARG:NH1	2.69	0.65
1:A:648:THR:HG21	1:D:642:ILE:HD12	1.79	0.65
1:B:137:MET:HG3	1:B:138:PRO:HD3	1.79	0.64
1:D:530:GLN:O	1:D:530:GLN:NE2	2.29	0.64
1:D:556:VAL:HG11	1:D:593:ILE:HG22	1.78	0.64
1:A:88:VAL:HG22	1:A:90:GLU:H	1.61	0.63
1:A:599:GLU:HA	1:A:602:LYS:HE2	1.81	0.62
1:C:502:VAL:HG13	1:B:554:ALA:HB1	1.82	0.62
1:B:350:SER:O	1:B:684:ARG:NH1	2.31	0.62
1:A:141:GLN:HG3	1:A:142:ILE:HG12	1.81	0.62
1:B:223:TRP:HH2	1:B:273:GLY:HA3	1.65	0.61
1:D:361:ALA:O	1:D:369:ARG:NH2	2.34	0.61
1:D:328:ARG:HH22	1:D:346:SER:HB3	1.66	0.60
1:D:453:LEU:HB3	1:D:457:TRP:HE1	1.65	0.60
1:C:156:GLN:HB3	1:C:164:GLY:HA2	1.83	0.60
1:D:146:SER:O	1:D:148:ASN:ND2	2.34	0.60
1:C:182:LEU:O	1:C:186:ASN:ND2	2.32	0.60
1:D:143:ASP:O	1:D:148:ASN:ND2	2.35	0.59
1:C:229:LEU:O	1:C:232:ASN:ND2	2.35	0.59
1:A:558:LEU:HD21	1:A:621:VAL:HG23	1.85	0.59
1:D:612:PHE:HB3	1:D:619:ARG:HD3	1.84	0.59
1:B:331:THR:OG1	1:B:339:ARG:NH1	2.36	0.58
1:D:464:TRP:O	1:D:466:SER:N	2.36	0.58
1:C:688:LEU:HD13	1:C:704:CYS:HB2	1.85	0.58
1:B:109:SER:HA	1:B:113:GLU:HB2	1.85	0.57
1:B:370:HIS:HB2	1:B:658:SER:HB2	1.86	0.57
1:C:349:ASP:OD1	1:C:385:LYS:NZ	2.38	0.57
1:D:340:VAL:HG22	1:D:708:GLU:HG3	1.86	0.56
1:C:308:ILE:HD11	1:C:368:ASN:HB2	1.86	0.56
1:D:463:ILE:HG12	1:D:465:ILE:H	1.70	0.56
1:B:158:ILE:HA	1:B:163:GLN:HG2	1.87	0.56
1:C:168:LEU:HD11	1:C:180:VAL:HG23	1.88	0.56
1:D:140:LEU:HD11	1:D:182:LEU:HD21	1.89	0.55
1:D:494:THR:HG22	1:D:496:TRP:H	1.72	0.55
1:D:127:ASN:HB2	1:D:132:VAL:HG21	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:595:ASP:OD1	1:C:595:ASP:N	2.40	0.55
1:D:415:PRO:HG3	1:D:434:LEU:HD21	1.89	0.55
1:C:532:VAL:HG23	1:C:644:LEU:HD21	1.89	0.55
1:C:98:TYR:O	1:C:104:LYS:NZ	2.32	0.54
1:B:671:MET:O	1:B:680:ARG:NH2	2.40	0.54
1:A:687:ARG:HH22	1:A:706:ARG:HG3	1.72	0.54
1:D:78:ASP:HA	1:D:81:PHE:HD2	1.71	0.54
1:A:614:GLU:HG3	1:A:616:LEU:HD13	1.89	0.54
1:C:248:THR:HG22	1:C:251:HIS:ND1	2.23	0.54
1:B:460:ARG:HG3	1:B:461:LEU:H	1.73	0.54
1:B:292:ASN:N	1:B:292:ASN:OD1	2.41	0.53
1:A:556:VAL:HG21	1:A:592:SER:HA	1.90	0.53
1:B:328:ARG:HH22	1:B:346:SER:HB2	1.72	0.53
1:B:558:LEU:HD21	1:B:621:VAL:HG23	1.89	0.53
1:B:141:GLN:O	1:B:144:LYS:NZ	2.36	0.53
1:A:271:TYR:OH	1:A:288:GLU:OE2	2.22	0.53
1:B:306:GLY:HA2	1:B:372:MET:HE1	1.91	0.53
1:C:291:SER:HB2	1:C:295:GLY:HA2	1.91	0.52
1:C:442:LEU:HB2	1:C:487:GLN:HG2	1.90	0.52
1:A:248:THR:HG22	1:A:251:HIS:ND1	2.24	0.52
1:A:318:GLU:N	1:A:318:GLU:OE1	2.43	0.52
1:A:529:ILE:HG23	1:A:530:GLN:HG2	1.91	0.51
1:B:674:GLY:HA2	1:B:680:ARG:HE	1.75	0.51
1:A:216:LEU:O	1:A:220:THR:OG1	2.25	0.51
1:B:92:LEU:H	1:B:92:LEU:HD23	1.75	0.51
1:A:205:THR:OG1	1:A:206:CYS:N	2.43	0.51
1:B:673:ASN:OD1	1:B:674:GLY:N	2.43	0.51
1:A:540:PHE:HD2	1:A:640:MET:HG2	1.75	0.51
1:C:652:VAL:HG21	1:B:646:SER:HB2	1.91	0.51
1:B:464:TRP:O	1:B:466:SER:N	2.43	0.51
1:A:506:VAL:HG21	1:D:625:LEU:HD11	1.91	0.51
1:A:106:LEU:HG	1:A:107:THR:HG23	1.93	0.51
1:D:184:VAL:HG11	1:D:233:PRO:HB2	1.93	0.51
1:A:520:GLN:N	1:A:520:GLN:OE1	2.41	0.50
1:D:124:ALA:O	1:D:127:ASN:ND2	2.44	0.50
1:C:469:ASP:OD2	1:C:663:GLN:NE2	2.44	0.50
1:B:83:VAL:HG22	1:B:86:ARG:HE	1.76	0.50
1:D:526:SER:HB2	1:C:539:ARG:HH22	1.76	0.50
1:C:90:GLU:HG2	1:C:93:THR:H	1.77	0.50
1:B:344:ASP:OD1	1:B:345:LEU:N	2.44	0.50
1:B:348:VAL:HG22	1:B:350:SER:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:248:THR:HG22	1:D:251:HIS:ND1	2.27	0.50
1:C:555:LEU:HD12	1:C:600:LEU:HD21	1.93	0.50
1:A:464:TRP:C	1:A:466:SER:H	2.16	0.49
1:D:523:GLY:HA2	1:D:526:SER:HB3	1.93	0.49
1:A:630:VAL:HG21	1:B:605:ILE:HG21	1.95	0.49
1:D:339:ARG:HB2	1:D:709:GLU:HG3	1.94	0.49
1:D:519:PHE:O	1:D:522:THR:OG1	2.23	0.49
1:B:403:TYR:HE1	1:B:444:GLY:HA3	1.77	0.49
1:B:521:HIS:O	1:B:521:HIS:ND1	2.43	0.49
1:C:522:THR:HG22	1:B:539:ARG:HH12	1.78	0.48
1:D:534:LEU:HG	1:D:535:ARG:HH21	1.77	0.48
1:B:166:SER:OG	1:B:167:ALA:N	2.42	0.48
1:A:320:SER:HA	1:A:324:GLN:HA	1.94	0.48
1:B:133:ASN:OD1	1:B:179:CYS:SG	2.71	0.48
1:D:459:ARG:NH2	1:D:670:GLU:OE1	2.45	0.48
1:C:340:VAL:HG22	1:C:708:GLU:HG3	1.94	0.48
1:B:86:ARG:O	1:B:127:ASN:ND2	2.47	0.48
1:C:655:ASN:HB3	1:C:659:ILE:HD11	1.96	0.48
1:C:142:ILE:HA	1:C:145:ASP:HB2	1.97	0.47
1:B:76:ASP:O	1:B:81:PHE:HB3	2.14	0.47
1:C:657:TRP:CZ2	1:C:661:LYS:HD2	2.50	0.47
1:A:438:HIS:ND1	1:A:487:GLN:OE1	2.33	0.47
1:B:482:LEU:HD22	1:B:500:LEU:HD11	1.96	0.47
1:B:674:GLY:HA2	1:B:680:ARG:HH21	1.80	0.47
1:C:499:PRO:HB3	1:B:621:VAL:HG11	1.97	0.47
1:C:109:SER:HG	1:C:144:LYS:HZ2	1.57	0.47
1:B:532:VAL:O	1:B:536:ASP:HB3	2.15	0.47
1:A:83:VAL:HA	1:A:87:GLY:HA3	1.98	0.46
1:D:206:CYS:SG	1:D:207:PHE:N	2.89	0.46
1:B:234:HIS:CD2	1:B:235:GLN:HG2	2.50	0.46
1:A:687:ARG:NH2	1:A:706:ARG:HG3	2.30	0.46
1:D:168:LEU:HD11	1:D:180:VAL:HG23	1.98	0.46
1:D:221:LYS:HD2	1:D:266:LEU:HD13	1.98	0.46
1:B:107:THR:HG22	1:B:111:TYR:HE1	1.81	0.46
1:B:127:ASN:HB3	1:B:132:VAL:HG12	1.97	0.46
1:B:345:LEU:HD11	1:B:705:PHE:HB2	1.98	0.46
1:C:558:LEU:HD21	1:C:621:VAL:HG13	1.97	0.46
1:B:207:PHE:CZ	1:B:209:PHE:HB3	2.50	0.46
1:B:660:TRP:CE2	1:B:664:LYS:HD2	2.52	0.45
1:A:447:TYR:HE1	1:A:677:TRP:HZ3	1.62	0.45
1:C:519:PHE:CD1	1:C:520:GLN:HG3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:674:GLY:HA2	1:A:680:ARG:HD2	1.97	0.45
1:D:258:ASP:OD1	1:D:259:ASN:N	2.46	0.45
1:C:166:SER:OG	1:C:167:ALA:N	2.49	0.45
1:B:347:SER:HB2	1:B:356:VAL:HB	1.99	0.45
1:B:534:LEU:HG	1:B:535:ARG:HG2	1.99	0.45
1:D:502:VAL:HG21	1:C:558:LEU:HD13	1.97	0.45
1:C:458:ARG:NH2	1:C:670:GLU:OE2	2.35	0.44
1:C:517:ARG:NH1	1:C:663:GLN:HB3	2.32	0.44
1:A:179:CYS:SG	1:A:180:VAL:N	2.91	0.44
1:B:555:LEU:HD22	1:B:622:VAL:HG23	1.99	0.44
1:D:151:PRO:HB2	1:D:154:ASN:OD1	2.18	0.44
1:D:137:MET:HB2	1:D:138:PRO:HD3	1.99	0.44
1:C:133:ASN:O	1:C:136:ILE:HG22	2.18	0.44
1:D:223:TRP:HA	1:D:226:VAL:HG12	1.99	0.43
1:C:216:LEU:O	1:C:220:THR:OG1	2.31	0.43
1:C:645:MET:HE1	1:B:645:MET:HG3	2.00	0.43
1:A:594:LEU:HD11	1:D:612:PHE:HZ	1.83	0.43
1:D:136:ILE:O	1:D:140:LEU:HG	2.18	0.43
1:B:136:ILE:HB	1:B:140:LEU:HD23	2.00	0.43
1:D:317:ARG:O	1:D:327:SER:OG	2.34	0.43
1:C:344:ASP:OD1	1:C:345:LEU:N	2.52	0.43
1:B:224:ASP:N	1:B:224:ASP:OD1	2.50	0.43
1:D:338:VAL:HG22	1:D:710:VAL:HG22	1.99	0.43
1:A:268:ILE:HG23	1:A:313:HIS:CD2	2.54	0.43
1:D:224:ASP:OD1	1:D:224:ASP:N	2.51	0.43
1:C:348:VAL:HG22	1:C:350:SER:H	1.82	0.43
1:C:689:LEU:HG	1:C:690:LYS:H	1.83	0.43
1:B:349:ASP:OD1	1:B:349:ASP:N	2.52	0.43
1:B:135:CYS:O	1:B:138:PRO:HD2	2.19	0.42
1:A:598:LEU:HD22	1:D:612:PHE:HE1	1.84	0.42
1:B:80:LEU:HA	1:B:83:VAL:HG12	2.01	0.42
1:A:691:VAL:HG22	1:A:702:ARG:HB2	2.02	0.42
1:D:349:ASP:OD1	1:D:349:ASP:N	2.52	0.42
1:B:131:GLY:O	1:B:134:ALA:HB3	2.20	0.42
1:A:258:ASP:OD1	1:A:259:ASN:N	2.53	0.42
1:A:317:ARG:HG2	1:A:319:PHE:HD1	1.85	0.42
1:A:332:GLU:OE1	1:A:706:ARG:NH1	2.53	0.41
1:A:406:ILE:HG21	1:A:440:LEU:HD22	2.01	0.41
1:D:530:GLN:HA	1:D:533:ILE:HG12	2.03	0.41
1:C:467:PHE:HB3	1:C:468:MET:H	1.52	0.41
1:B:403:TYR:CE1	1:B:444:GLY:HA3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:98:TYR:CD2	1:A:99:LEU:HG	2.55	0.41
1:D:660:TRP:CZ2	1:D:664:LYS:HD2	2.55	0.41
1:B:139:LEU:O	1:B:143:ASP:N	2.51	0.41
1:A:592:SER:HB3	1:B:412:TYR:CE1	2.56	0.41
1:A:324:GLN:N	1:A:325:PRO:HD2	2.35	0.41
1:D:150:LYS:HE3	1:D:150:LYS:HB3	1.92	0.41
1:B:456:PHE:HD1	1:B:456:PHE:HA	1.79	0.41
1:A:447:TYR:HD2	1:A:448:LEU:HD12	1.85	0.41
1:D:150:LYS:H	1:D:150:LYS:HG2	1.70	0.41
1:D:347:SER:HB2	1:D:356:VAL:HB	2.03	0.41
1:D:401:LEU:HD23	1:D:401:LEU:HA	1.89	0.41
1:C:507:LEU:HD12	1:C:507:LEU:HA	1.93	0.41
1:B:77:ARG:HB2	1:B:113:GLU:HG2	2.03	0.41
1:B:315:LEU:HD21	1:B:378:LEU:HD13	2.02	0.41
1:B:404:MET:HG3	1:B:509:TRP:HE3	1.86	0.41
1:B:613:GLN:HG3	1:B:614:GLU:H	1.86	0.41
1:A:430:GLY:O	1:A:431:GLU:HG2	2.20	0.40
1:A:109:SER:HA	1:A:113:GLU:HB2	2.03	0.40
1:A:280:ARG:HH22	1:A:323:TYR:HE1	1.69	0.40
1:A:344:ASP:OD1	1:A:345:LEU:N	2.54	0.40
1:B:660:TRP:CZ2	1:B:664:LYS:HD2	2.56	0.40
1:B:517:ARG:HH11	1:B:518:GLY:HA3	1.86	0.40
1:A:463:ILE:HG22	1:A:465:ILE:H	1.86	0.40
1:D:437:GLY:O	1:D:441:ILE:HG12	2.21	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	576/1026 (56%)	536 (93%)	39 (7%)	1 (0%)	47	78

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	576/1026 (56%)	522 (91%)	53 (9%)	1 (0%)	47	78
1	C	576/1026 (56%)	529 (92%)	47 (8%)	0	100	100
1	D	576/1026 (56%)	542 (94%)	33 (6%)	1 (0%)	47	78
All	All	2304/4104 (56%)	2129 (92%)	172 (8%)	3 (0%)	54	82

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	465	ILE
1	B	691	VAL
1	D	234	HIS

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	513/903 (57%)	501 (98%)	12 (2%)	50	74
1	B	513/903 (57%)	497 (97%)	16 (3%)	40	68
1	C	513/903 (57%)	497 (97%)	16 (3%)	40	68
1	D	513/903 (57%)	500 (98%)	13 (2%)	47	72
All	All	2052/3612 (57%)	1995 (97%)	57 (3%)	46	70

All (57) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	150	LYS
1	A	220	THR
1	A	224	ASP
1	A	230	LEU
1	A	274	LEU
1	A	330	PHE
1	A	373	VAL
1	A	497	TYR

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Mol	Chain	Res	Type
1	A	522	THR
1	A	555	LEU
1	A	623	LEU
1	A	687	ARG
1	D	88	VAL
1	D	152	LEU
1	D	230	LEU
1	D	270	MET
1	D	293	HIS
1	D	326	LEU
1	D	521	HIS
1	D	529	ILE
1	D	530	GLN
1	D	531	LYS
1	D	535	ARG
1	D	539	ARG
1	D	656	SER
1	C	112	THR
1	C	142	ILE
1	C	150	LYS
1	C	161	PHE
1	C	192	LEU
1	C	220	THR
1	C	230	LEU
1	C	245	LEU
1	C	326	LEU
1	C	467	PHE
1	C	472	PHE
1	C	473	GLU
1	C	623	LEU
1	C	638	LEU
1	C	644	LEU
1	C	679	ARG
1	B	83	VAL
1	B	88	VAL
1	B	107	THR
1	B	133	ASN
1	B	165	HIS
1	B	292	ASN
1	B	335	TYR
1	B	407	PHE
1	B	440	LEU

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Mol	Chain	Res	Type
1	B	472	PHE
1	B	491	PHE
1	B	504	SER
1	B	517	ARG
1	B	538	LEU
1	B	590	TYR
1	B	650	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	C	133	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 monosaccharides in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Map visualisation ⓘ

This section contains visualisations of the EMDB entry EMD-14748. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections ⓘ
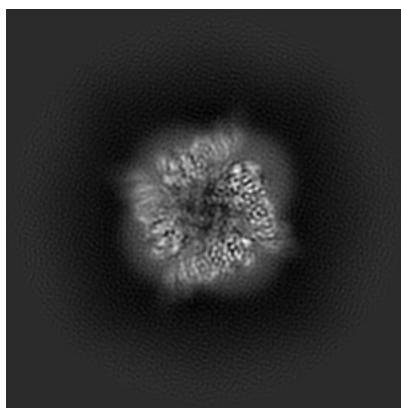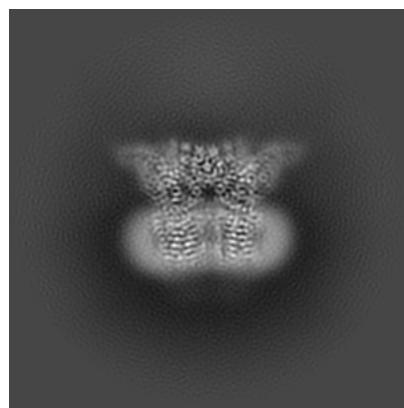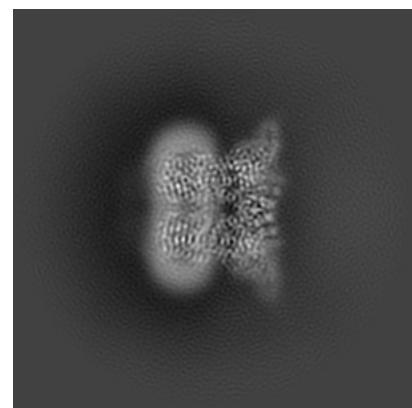
6.1.1 Primary map

X   Y   Z

6.1.2 Raw map

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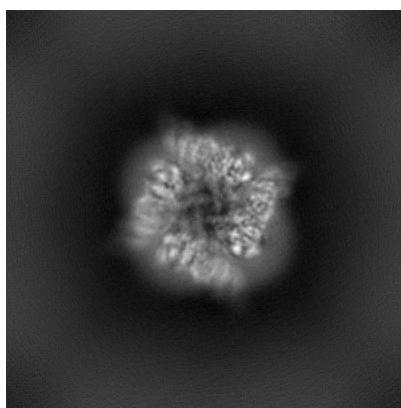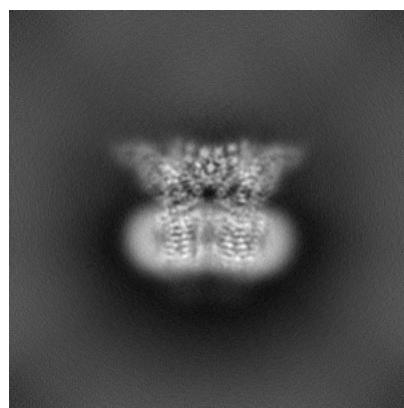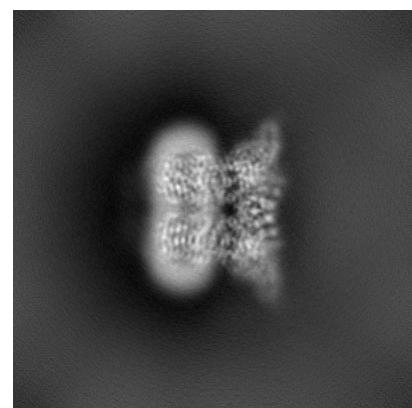
The images above show the map projected in three orthogonal directions.

6.2 Central slices ⓘ
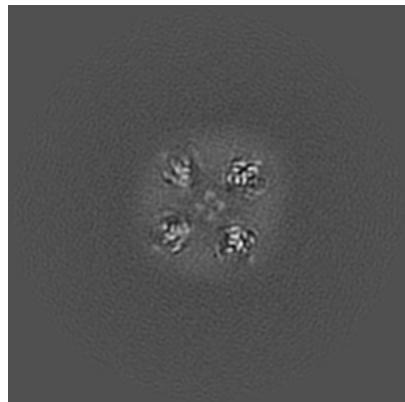
6.2.1 Primary map
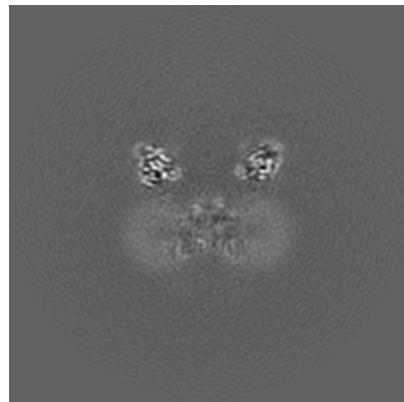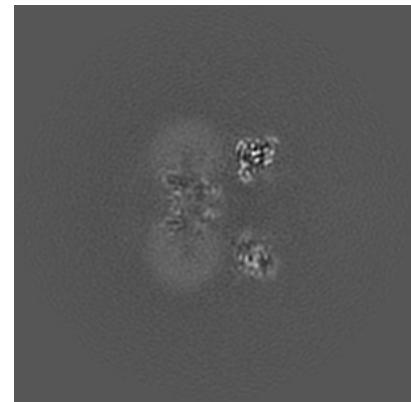
X Index: 180   Y Index: 180   Z Index: 180

6.2.2 Raw map
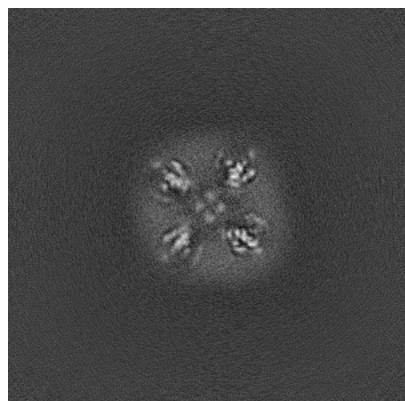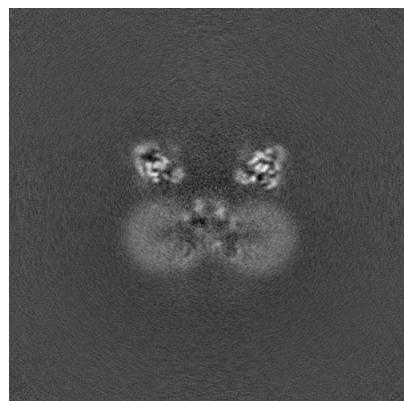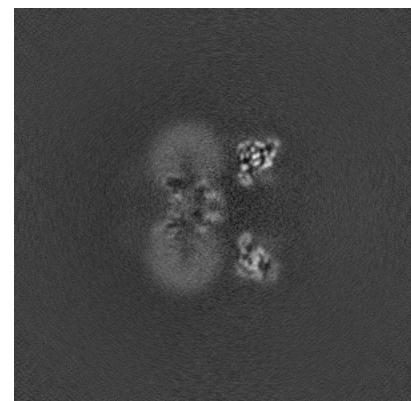
X Index: 180   Y Index: 180   Z Index: 180

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

6.3　Largest variance slices ⓘ
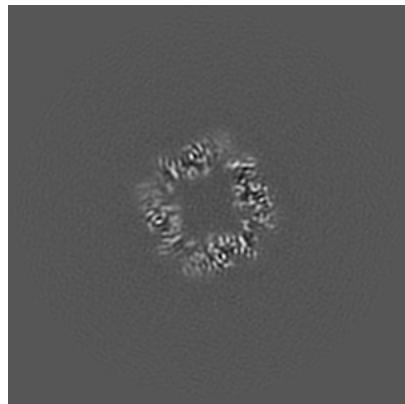
6.3.1　Primary map
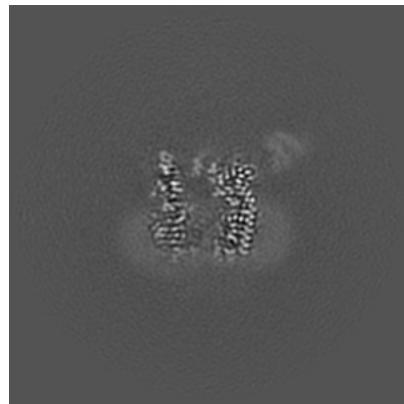
| X Index: 204 | Y Index: 207 | Z Index: 149 |
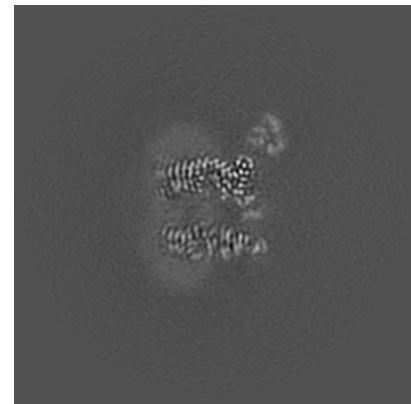
6.3.2　Raw map
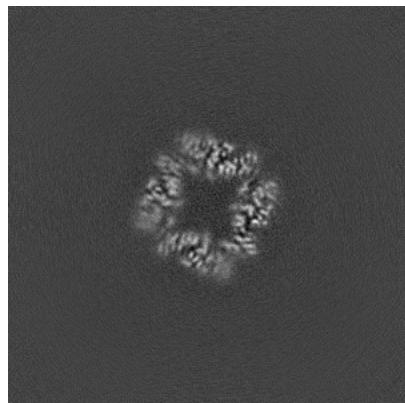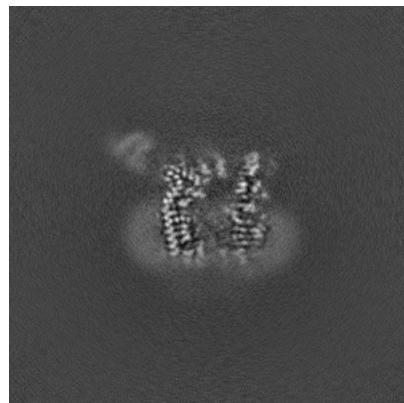
| X Index: 205 | Y Index: 207 | Z Index: 210 |
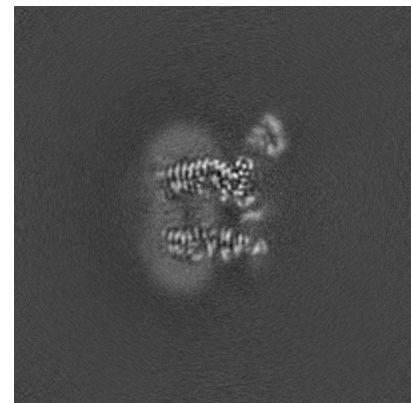
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X   Y   Z
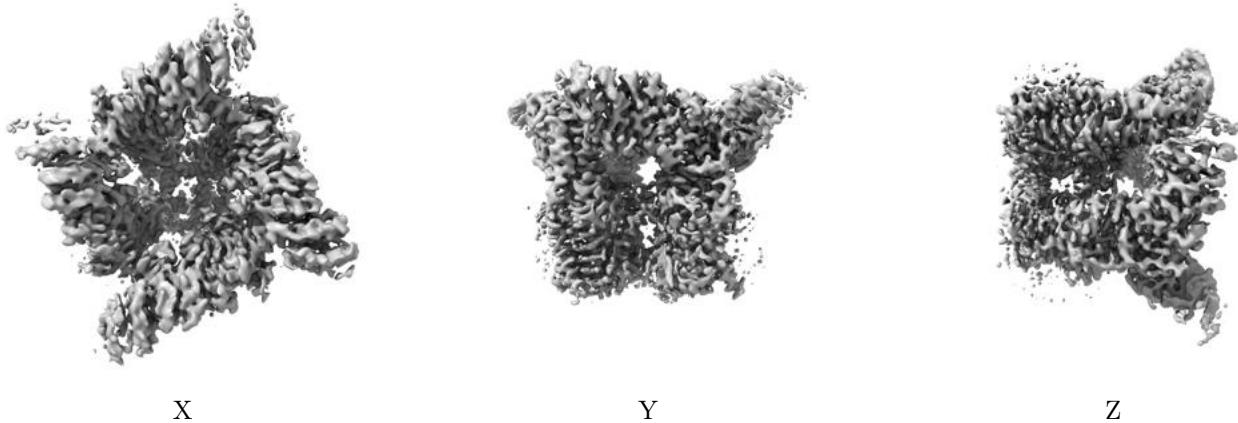
The images above show the 3D surface view of the map at the recommended contour level 0.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map

X   Y   Z
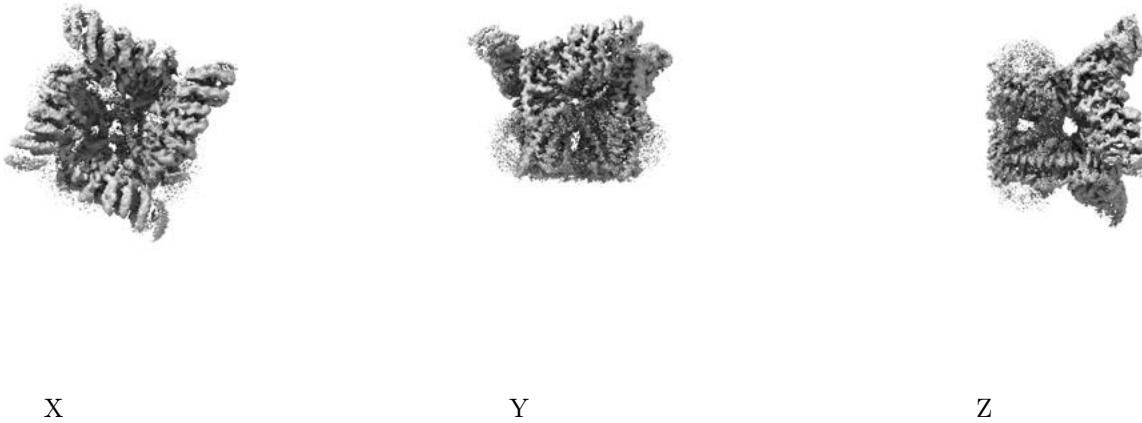
These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

6.5 Mask visualisation (i)

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

7 Map analysis (i)

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

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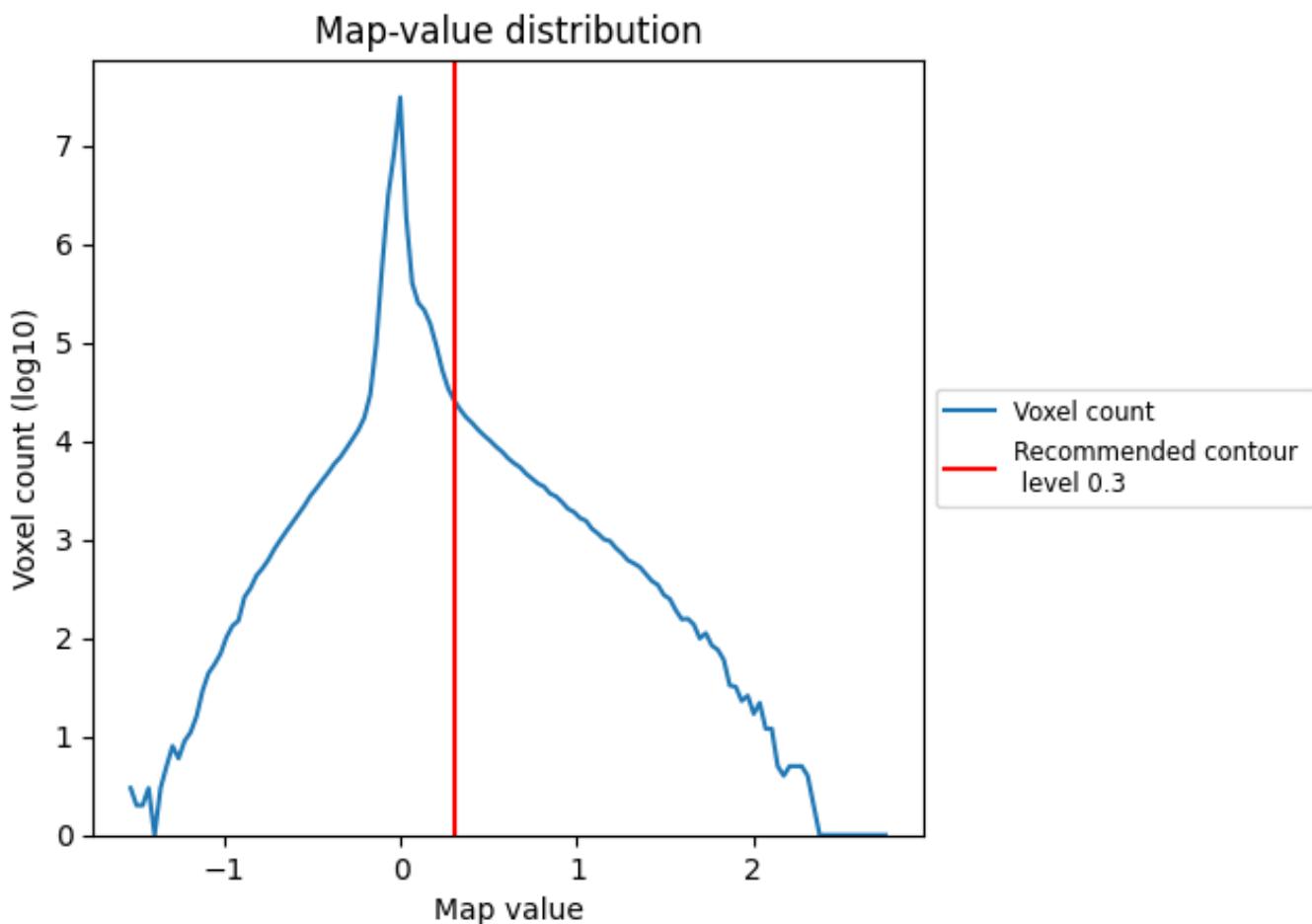
The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2 Volume estimate ⓘ
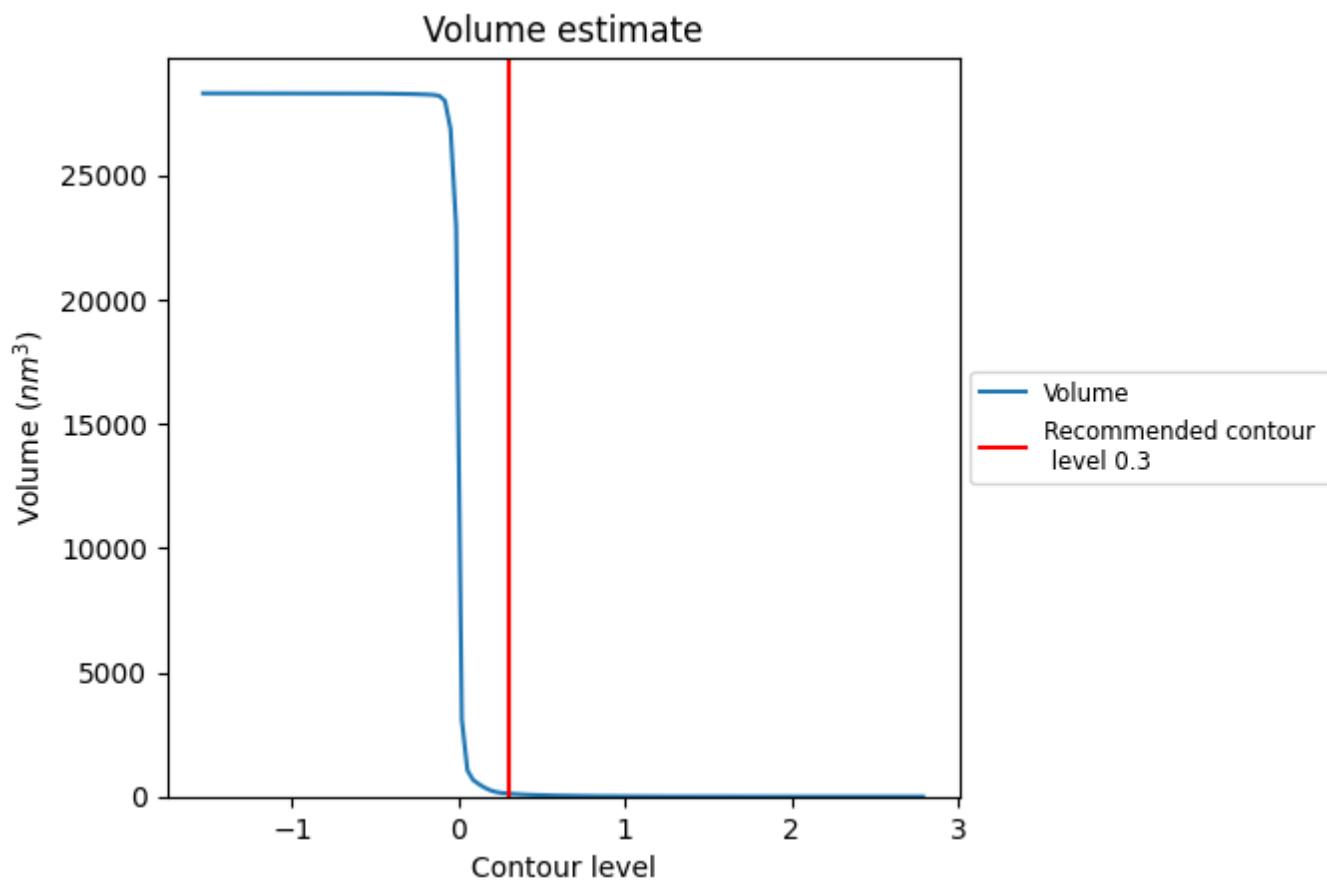
The volume at the recommended contour level is 117 nm^3; this corresponds to an approximate mass of 106 kDa.

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 ⓘ
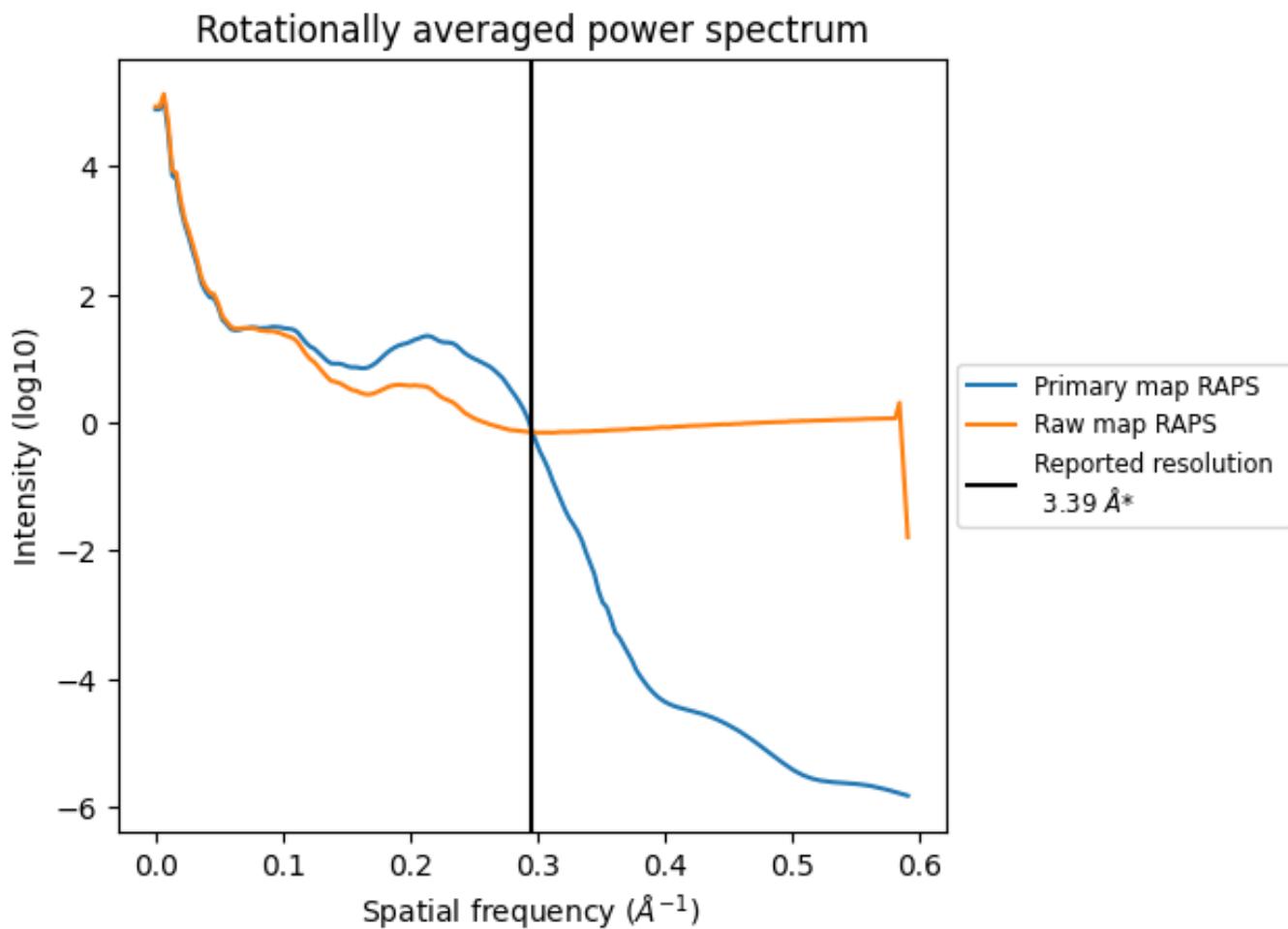
*Reported resolution corresponds to spatial frequency of 0.295 Å^{-1}

8 Fourier-Shell correlation ⓘ

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC ⓘ
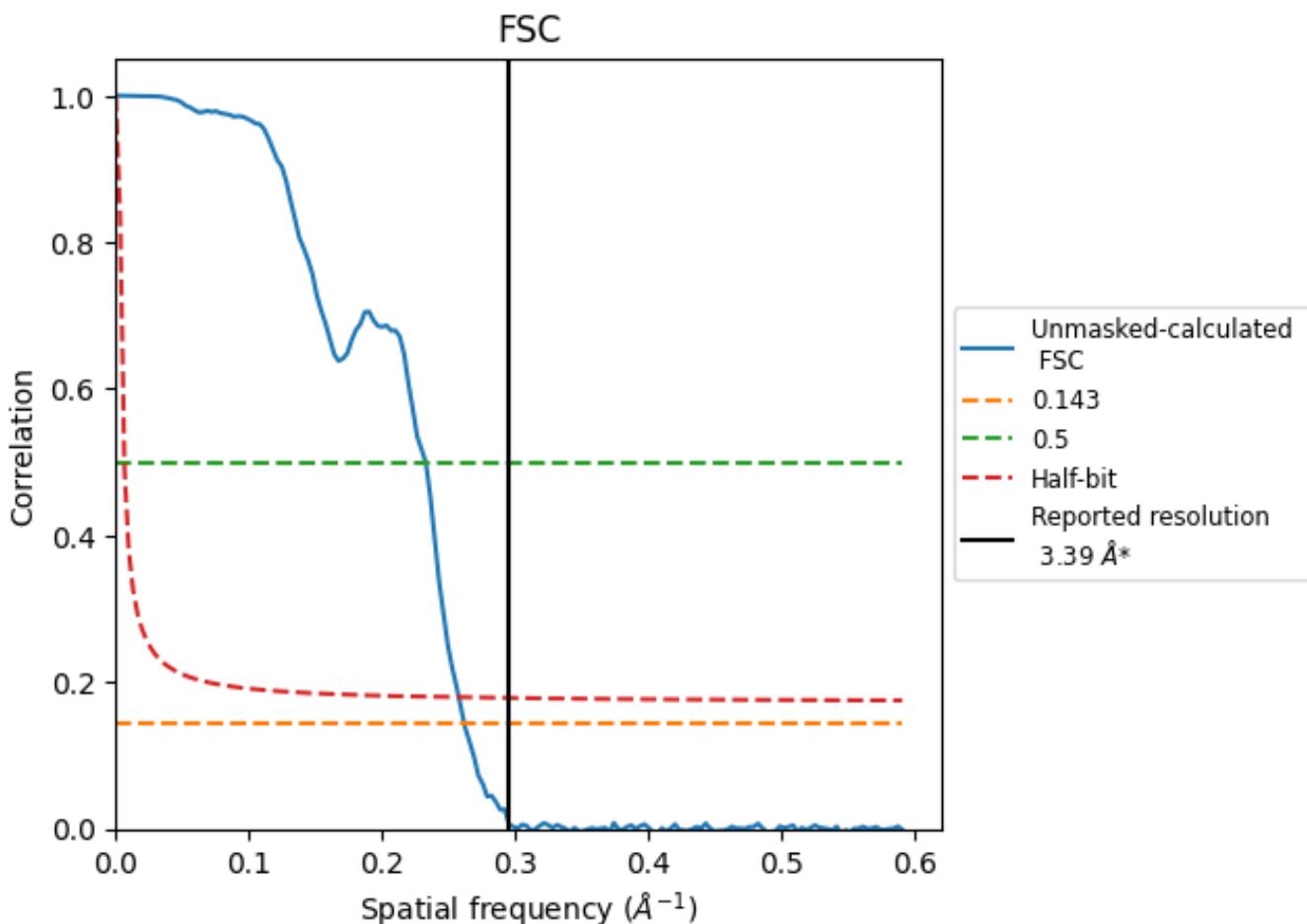
*Reported resolution corresponds to spatial frequency of 0.295 Å^{-1}

8.2 Resolution estimates ⓘ

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.39	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.82	4.30	3.88

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.82 differs from the reported value 3.39 by more than 10 %

9 Map-model fit ⓘ

This section contains information regarding the fit between EMDB map EMD-14748 and PDB model 7ZJH. Per-residue inclusion information can be found in section 3 on page 30.

9.1 Map-model overlay ⓘ

| X | Y | Z |
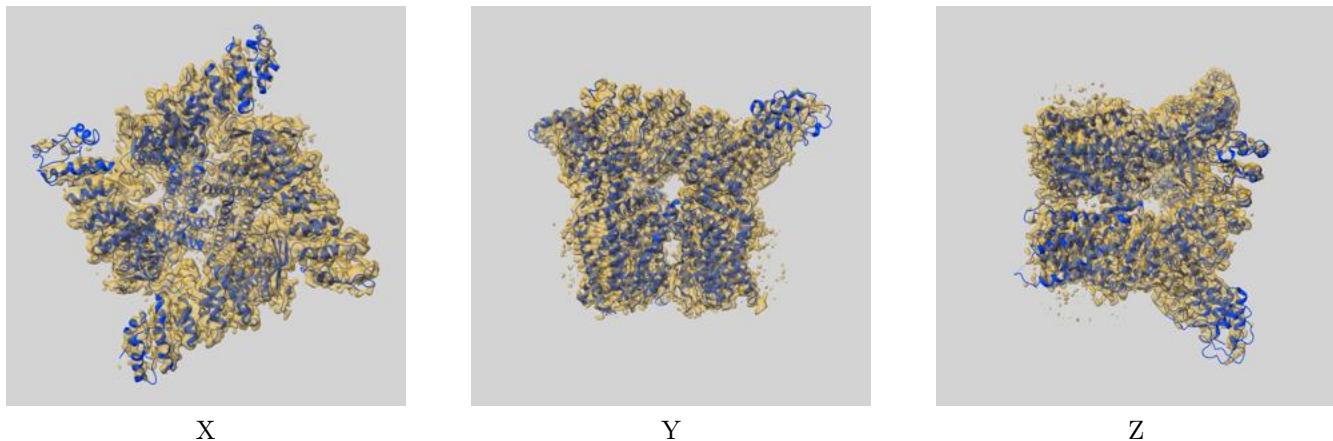
The images above show the 3D surface view of the map at the recommended contour level 0.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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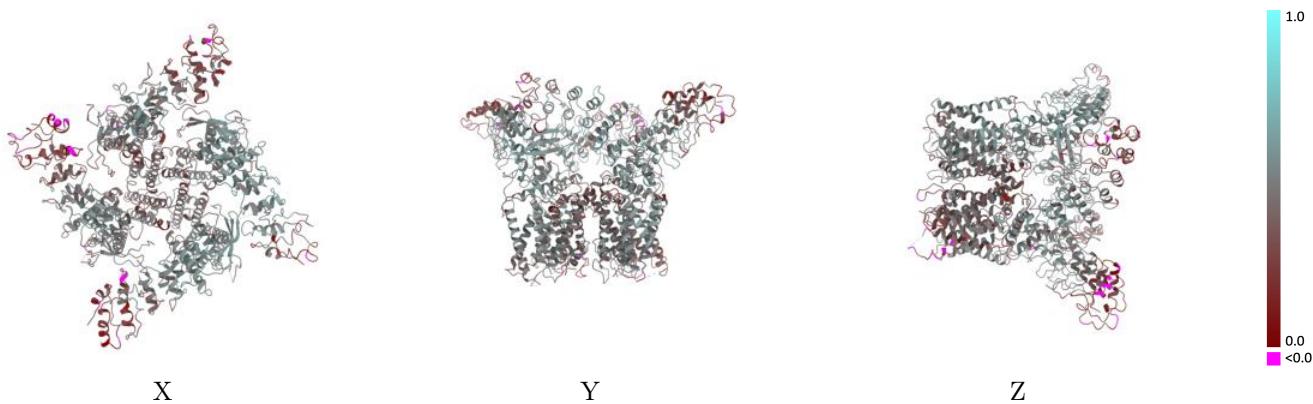
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3   Atom inclusion mapped to coordinate model ⓘ
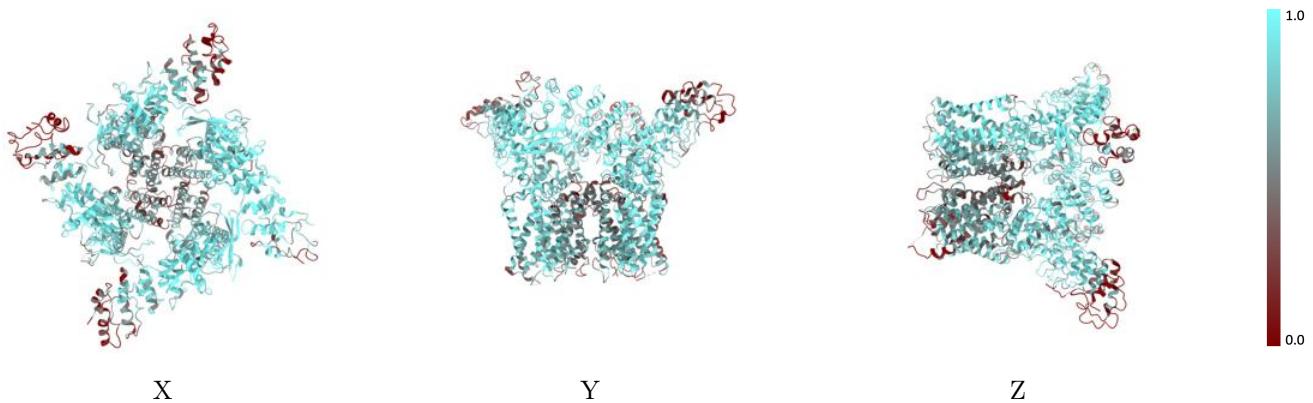
The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.3).

9.4　Atom inclusion (i)
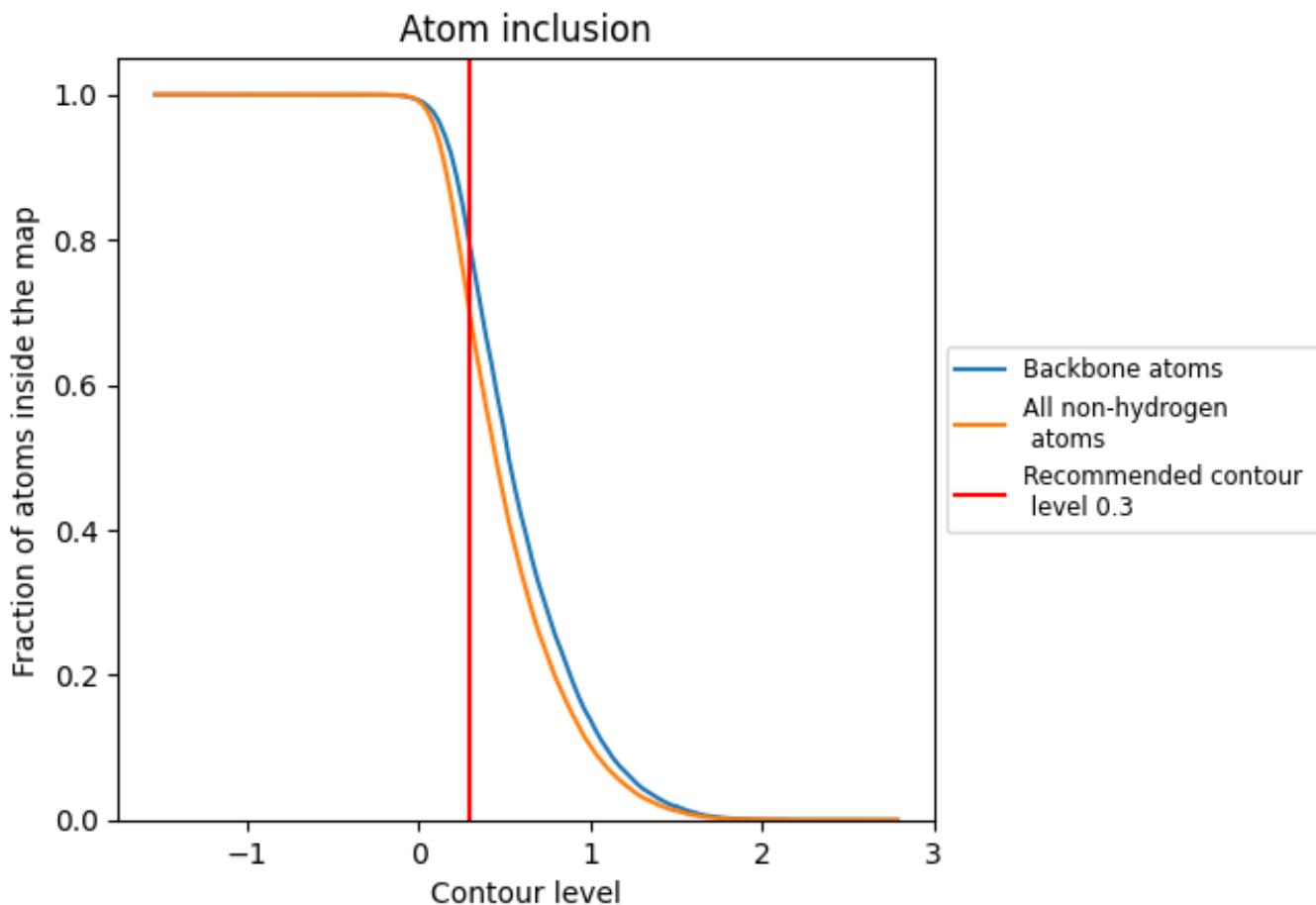
At the recommended contour level, 79% of all backbone atoms, 69% of all non-hydrogen atoms, are inside the map.

9.5   Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.3) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6932	0.4360
A	0.6355	0.4120
B	0.6353	0.4080
C	0.7844	0.4770
D	0.7176	0.4450

1.0

0.0

<0.0