



Full wwPDB EM Validation Report ⓘ

Dec 18, 2025 – 01:01 PM EST

PDB ID : 9ZIS / pdb_00009zis
EMDB ID : EMD-74281
Title : C. elegans PEZO-1 Isoform G
Authors : Bell, B.; Baker, M.L.; Vasquez, V.
Deposited on : 2025-12-04
Resolution : 3.50 Å(reported)
Based on initial model : .

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

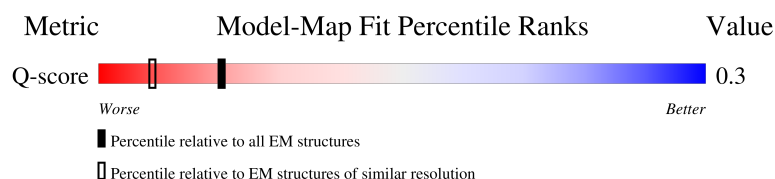
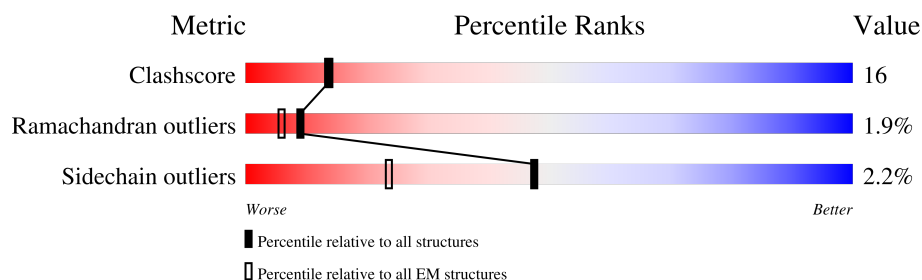
EMDB validation analysis : 0.0.1.dev129
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.47

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 3.50 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	13950 (3.00 - 4.00)

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

Mol	Chain	Length	Quality of chain
1	A	2442	
1	B	2442	
1	C	2442	

2 Entry composition

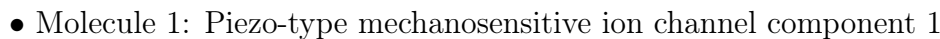
There is only 1 type of molecule in this entry. The entry contains 44505 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Piezo-type mechanosensitive ion channel component 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	1944	Total	C	N	O	S	0	0
			14835	9697	2470	2589	79		
1	B	1944	Total	C	N	O	S	0	0
			14835	9697	2470	2589	79		
1	C	1944	Total	C	N	O	S	0	0
			14835	9697	2470	2589	79		





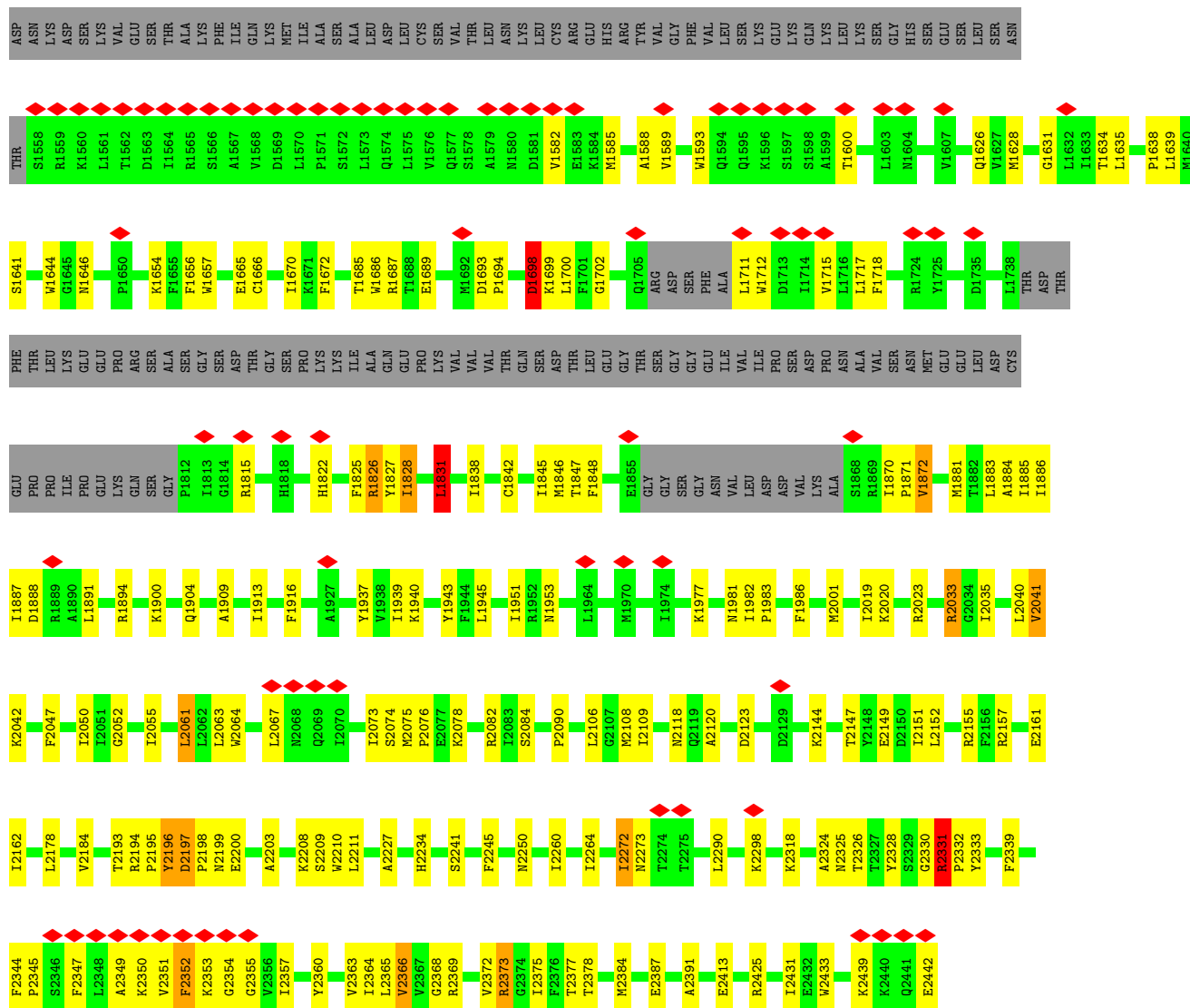
Frequency	Percentage
Very often	30%
Often	57%
Sometimes	20%
Never	20%







ASP	T1369	E1294	Y1149	L1064	L992	GLU	A867	GLY	R734	L873	ALA	P552
PRO	E1295	T1295	D1150	P1065	I993	PRO	D868	ARG	A735	K674	LYS	V553
GLY	A1371	K1296	F1151	P1066	I994	ILE	G869	ALA	I736	E875	PHE	H554
ILE	E1297	E1297	I1152	I1070	D994	MET	T870	HIS	G737	S676		A555
MET	E1374	E1298	D1153	E1071	Y995	LEU	F871	ALA	E738	P677		V556
TYR	R1375	N1299	T1154	E1072	G996	PHE	F871	GLY	S739	R678		I557
ALA	I1300	K1155	K1155	P1073	Y998		F874	ASP	G740	L879		I558
ALA	G1301	K1156	K1156	W1074	K999		M875	THR	G741	Y880		L559
THR	F1302	Y1158	Y1158	W1077	F1001		G876		L742	R621		C560
ALA	D1303	V1159	V1159	I1078	G1001		A877		F743	K622		V561
HIS	V1304	D1160	D1160	P1078	L1002		Y878		L744	F623		Q562
ASP	I1305	P1078	P1078	S1080	T1005		L879		Q745	A624		T563
LEU	A1306	F1081	F1081	Y1081	M1006		V882		L746	A625		L564
ASP	L1307	K1162	K1162	S1082	I1007		S885		L747	F626		L565
LEU	A1384	F1163	F1163	Y1083	A1008		K886		A748	V627		T566
ALA	S1308	S1164	S1164	D1083	A1008		M887		L750	E628		L567
LYS	V1311	H1168	H1168	D1084	G1010				A751	Y629		P568
THR	R1387	L1176	L1176	L1092	I1013		I1111		L752	L630		V569
VAL	D1388	M1176	M1176	N1093	R1016		T1177		F753	S631		F570
GLN	F1389	S1177	S1177	N1094	T952		G1185		V754	K633		L571
VAL	E1390	T1178	T1178	L1095	Y953		T1186		V755	V634		L572
LYS	P1391	L1179	L1179	S1096	R954		S1187		T756	S635		L573
GLY	T1393	H1318	H1318	S1096	A1019					V636		R574
ASP	Y1394	A1180	A1180	G1099	Q955					Y637		R577
THR	Y1321	A1181	A1181	Y1106	R956					F638		R578
ILE	Y1322	G1182	G1182	G1106	A1021					I639		E579
LYS	H1396	I1183	I1183	G1109	A1022					F640		K580
ASP	R1399	A1184	A1184	Y1113	F1026					V641		F581
PRO	M1405	G1185	G1185	G1114	W1027					V642		Y582
ASP		T1186	T1186	L1115	L1033					S643		E583
ARG		S1187	S1187	L1116	L1033					V644		S584
ALA	D1409	A1190	A1190	C1119	R1036					V645		LEU
LEU		L1191	L1191	Q1120	V1037					L646		SER
ILE	N1412	G1192	G1192	L1121	F1038					L647		ASP
ALA	D1413	I1193	I1193	L1121	V1039					V648		TYR
VAL	D1414	F1196	F1196	V1123	R1040					S650		GLU
SER	L1415	T1197	T1197	E1129	R1041					T651		ARG
PRO	V1416	R1203	R1203	D1130	W1043					C652		GLN
GLU	E1417	G1204	G1204	ASN	I1042					S711		ARG
ALA		L1207	L1207	ASP	V1044					F653		ILE
ARG		I1208	I1208	SER	F1045					A654		ASN
VAL		T1209	T1209	ILE	Y1046					P655		SER
PRO		C1273	C1273	TYR	I1047					N656		TYR
VAL		V1274	V1274	ASN	I1046					F657		GLY
ASP		N1275	N1275	ASN	Y1049					Y658		THR
THR				ASP	M1050					N659		THR
PRO		H1279	H1279	GLY	I1051					I660		GLY
GLY		V1280	V1280	ASN	I1052					L661		ALA
ASP		L1281	L1281	PHE	L1056					S719		SER
GLU		K1282	K1282	VAL	F1059					L720		LYS
THR		E1283	E1283	LYS	V1062					F663		THR
TYR		L1284	L1284	PRO	G1063					A664		GLY
ASP				E1145						L665		ALA
ARG		C1291	C1291							W666		GLY
LEU		V1293	V1293							A667		VAL
										L668		ALA
										N669		VAL
										L670		
										I671		
										Y672		



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	77342	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	130000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.545	Depositor
Minimum map value	-0.371	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.009	Depositor
Recommended contour level	0.0561	Depositor
Map size (Å)	483.84003, 483.84003, 483.84003	wwPDB
Map dimensions	448, 448, 448	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.08, 1.08, 1.08	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.67	32/15190 (0.2%)	0.95	95/20664 (0.5%)
1	B	0.67	32/15190 (0.2%)	0.95	95/20664 (0.5%)
1	C	0.67	32/15190 (0.2%)	0.95	95/20664 (0.5%)
All	All	0.67	96/45570 (0.2%)	0.95	285/61992 (0.5%)

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	14
1	B	0	14
1	C	0	14
All	All	0	42

All (96) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	1330	ARG	C-O	13.70	1.41	1.24
1	B	1330	ARG	C-O	13.66	1.41	1.24
1	A	1330	ARG	C-O	13.65	1.41	1.24
1	A	1079	PRO	N-CD	-13.56	1.28	1.47
1	C	1079	PRO	N-CD	-13.53	1.28	1.47
1	B	1079	PRO	N-CD	-13.52	1.28	1.47
1	B	2332	PRO	C-O	-12.45	1.08	1.23
1	A	2332	PRO	C-O	-12.38	1.08	1.23
1	C	2332	PRO	C-O	-12.38	1.08	1.23
1	A	1072	TYR	CA-C	11.71	1.70	1.52
1	C	1072	TYR	CA-C	11.70	1.70	1.52
1	B	1072	TYR	CA-C	11.70	1.70	1.52
1	C	1331	SER	C-O	11.33	1.38	1.24
1	A	1331	SER	C-O	11.32	1.38	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	1331	SER	C-O	11.28	1.38	1.24
1	B	1072	TYR	C-O	11.09	1.38	1.24
1	C	1072	TYR	C-O	11.07	1.38	1.24
1	A	1072	TYR	C-O	11.04	1.38	1.24
1	B	2324	ALA	C-O	-10.65	1.10	1.23
1	A	2324	ALA	C-O	-10.63	1.10	1.23
1	C	2331	ARG	C-O	-10.61	1.12	1.23
1	A	2331	ARG	C-O	-10.58	1.12	1.23
1	B	2331	ARG	C-O	-10.58	1.12	1.23
1	C	2324	ALA	C-O	-10.56	1.11	1.23
1	B	468	SER	CA-C	9.55	1.65	1.52
1	C	468	SER	CA-C	9.54	1.65	1.52
1	A	468	SER	CA-C	9.54	1.65	1.52
1	B	451	ALA	C-O	9.11	1.35	1.24
1	A	451	ALA	C-O	9.09	1.35	1.24
1	C	451	ALA	C-O	9.09	1.35	1.24
1	C	2324	ALA	CA-C	-8.89	1.42	1.52
1	A	2324	ALA	CA-C	-8.87	1.42	1.52
1	B	2324	ALA	CA-C	-8.86	1.42	1.52
1	A	2332	PRO	CA-C	-8.65	1.42	1.52
1	B	2332	PRO	CA-C	-8.62	1.42	1.52
1	C	2332	PRO	CA-C	-8.60	1.42	1.52
1	C	1072	TYR	N-CA	8.23	1.55	1.46
1	A	1072	TYR	N-CA	8.22	1.55	1.46
1	B	1072	TYR	N-CA	8.21	1.55	1.46
1	C	465	HIS	C-O	-7.39	1.15	1.24
1	A	465	HIS	C-O	-7.30	1.15	1.24
1	B	465	HIS	C-O	-7.29	1.15	1.24
1	A	998	TYR	C-O	7.16	1.32	1.24
1	B	998	TYR	C-O	7.16	1.32	1.24
1	C	998	TYR	C-O	7.16	1.32	1.24
1	C	2203	ALA	C-O	-6.80	1.16	1.24
1	B	2203	ALA	C-O	-6.79	1.16	1.24
1	A	2203	ALA	C-O	-6.76	1.16	1.24
1	A	468	SER	N-CA	6.33	1.54	1.46
1	B	468	SER	N-CA	6.32	1.54	1.46
1	C	468	SER	N-CA	6.30	1.54	1.46
1	C	502	THR	CA-C	6.20	1.61	1.52
1	A	502	THR	CA-C	6.18	1.61	1.52
1	B	502	THR	CA-C	6.14	1.60	1.52
1	A	1000	PHE	CA-C	-6.10	1.44	1.52
1	C	1000	PHE	CA-C	-6.10	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	1000	PHE	CA-C	-6.10	1.44	1.52
1	C	2332	PRO	CA-CB	-6.10	1.45	1.53
1	A	2332	PRO	CA-CB	-6.07	1.45	1.53
1	B	2332	PRO	CA-CB	-6.04	1.45	1.53
1	B	999	LYS	C-O	5.88	1.30	1.24
1	C	999	LYS	C-O	5.86	1.30	1.24
1	A	999	LYS	C-O	5.83	1.30	1.24
1	C	1826	ARG	N-CA	-5.80	1.38	1.46
1	A	1826	ARG	N-CA	-5.79	1.38	1.46
1	B	493	THR	C-O	-5.78	1.17	1.24
1	A	493	THR	C-O	-5.76	1.17	1.24
1	B	1826	ARG	N-CA	-5.76	1.38	1.46
1	C	493	THR	C-O	-5.74	1.17	1.24
1	B	2331	ARG	CA-C	-5.62	1.44	1.52
1	A	2331	ARG	CA-C	-5.61	1.44	1.52
1	C	1831	LEU	C-O	-5.61	1.17	1.24
1	C	2331	ARG	CA-C	-5.61	1.44	1.52
1	A	1831	LEU	C-O	-5.60	1.17	1.24
1	B	1831	LEU	C-O	-5.60	1.17	1.24
1	C	1002	LEU	C-O	5.58	1.30	1.24
1	B	1078	ILE	CA-C	5.57	1.57	1.52
1	A	1002	LEU	C-O	5.57	1.30	1.24
1	C	1078	ILE	CA-C	5.57	1.57	1.52
1	B	1002	LEU	C-O	5.55	1.30	1.24
1	A	1078	ILE	CA-C	5.53	1.57	1.52
1	A	525	TYR	C-O	5.50	1.30	1.24
1	B	525	TYR	C-O	5.47	1.30	1.24
1	A	2377	THR	CA-C	-5.47	1.46	1.52
1	C	525	TYR	C-O	5.47	1.30	1.24
1	B	2377	THR	CA-C	-5.45	1.46	1.52
1	C	2377	THR	CA-C	-5.43	1.46	1.52
1	B	1334	ILE	C-O	5.40	1.30	1.24
1	C	1334	ILE	C-O	5.39	1.30	1.24
1	A	1334	ILE	C-O	5.37	1.30	1.24
1	C	2199	ASN	N-CA	-5.25	1.40	1.46
1	A	2199	ASN	N-CA	-5.24	1.40	1.46
1	B	2199	ASN	N-CA	-5.24	1.40	1.46
1	A	1071	GLU	C-N	5.06	1.42	1.33
1	B	1071	GLU	C-N	5.05	1.42	1.33
1	C	1071	GLU	C-N	5.01	1.42	1.33

All (285) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	482	HIS	N-CA-CB	19.06	142.70	110.49
1	B	482	HIS	N-CA-CB	19.05	142.68	110.49
1	C	482	HIS	N-CA-CB	19.03	142.66	110.49
1	C	680	TYR	CB-CA-C	-17.87	82.82	110.88
1	A	680	TYR	CB-CA-C	-17.87	82.82	110.88
1	B	680	TYR	CB-CA-C	-17.86	82.84	110.88
1	B	2330	GLY	N-CA-C	17.02	137.04	114.92
1	A	2330	GLY	N-CA-C	16.81	137.07	115.21
1	C	2330	GLY	N-CA-C	16.78	137.03	115.21
1	C	2196	TYR	N-CA-C	13.20	127.31	111.33
1	B	2196	TYR	N-CA-C	13.19	127.29	111.33
1	A	2196	TYR	N-CA-C	13.17	127.27	111.33
1	A	468	SER	N-CA-C	12.53	127.10	111.69
1	C	468	SER	N-CA-C	12.53	127.10	111.69
1	B	468	SER	N-CA-C	12.50	127.07	111.69
1	A	451	ALA	N-CA-C	-11.44	97.62	111.69
1	C	451	ALA	N-CA-C	-11.43	97.63	111.69
1	B	451	ALA	N-CA-C	-11.41	97.66	111.69
1	B	1077	TRP	CA-C-N	10.98	127.16	120.24
1	B	1077	TRP	C-N-CA	10.98	127.16	120.24
1	A	1077	TRP	CA-C-N	10.97	127.15	120.24
1	A	1077	TRP	C-N-CA	10.97	127.15	120.24
1	C	1077	TRP	CA-C-N	10.90	127.11	120.24
1	C	1077	TRP	C-N-CA	10.90	127.11	120.24
1	B	1078	ILE	N-CA-C	10.80	128.27	112.61
1	C	1078	ILE	N-CA-C	10.77	128.23	112.61
1	A	1078	ILE	N-CA-C	10.77	128.22	112.61
1	C	2197	ASP	CA-C-N	10.74	131.56	119.32
1	C	2197	ASP	C-N-CA	10.74	131.56	119.32
1	A	2197	ASP	CA-C-N	10.72	131.54	119.32
1	A	2197	ASP	C-N-CA	10.72	131.54	119.32
1	B	2197	ASP	CA-C-N	10.71	131.53	119.32
1	B	2197	ASP	C-N-CA	10.71	131.53	119.32
1	C	1072	TYR	CA-C-O	10.58	128.28	119.71
1	A	1072	TYR	CA-C-O	10.55	128.25	119.71
1	B	1072	TYR	CA-C-O	10.54	128.25	119.71
1	C	680	TYR	N-CA-CB	10.08	124.62	110.01
1	A	680	TYR	N-CA-CB	10.05	124.58	110.01
1	B	680	TYR	N-CA-CB	10.05	124.59	110.01
1	C	1080	SER	N-CA-C	9.62	124.73	111.74
1	B	1080	SER	N-CA-C	9.62	124.73	111.74
1	A	1080	SER	N-CA-C	9.61	124.71	111.74
1	B	1330	ARG	O-C-N	-9.21	110.35	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1330	ARG	O-C-N	-9.20	110.35	122.59
1	A	1330	ARG	O-C-N	-9.20	110.36	122.59
1	C	1078	ILE	CA-C-N	8.33	130.25	119.84
1	C	1078	ILE	C-N-CA	8.33	130.25	119.84
1	A	1831	LEU	N-CA-C	8.32	128.51	110.80
1	B	1831	LEU	N-CA-C	8.31	128.51	110.80
1	C	1831	LEU	N-CA-C	8.31	128.50	110.80
1	A	1078	ILE	CA-C-N	8.31	130.22	119.84
1	A	1078	ILE	C-N-CA	8.31	130.22	119.84
1	B	1078	ILE	CA-C-N	8.30	130.21	119.84
1	B	1078	ILE	C-N-CA	8.30	130.21	119.84
1	A	1267	GLN	CA-C-O	-8.19	110.12	119.79
1	B	1267	GLN	CA-C-O	-8.19	110.13	119.79
1	C	1329	TYR	O-C-N	-8.18	113.45	122.12
1	A	1329	TYR	O-C-N	-8.17	113.46	122.12
1	C	1267	GLN	CA-C-O	-8.16	110.16	119.79
1	B	1329	TYR	O-C-N	-8.16	113.47	122.12
1	B	482	HIS	N-CA-C	-8.15	93.44	110.80
1	A	482	HIS	N-CA-C	-8.13	93.48	110.80
1	C	482	HIS	N-CA-C	-8.13	93.49	110.80
1	B	678	ARG	N-CA-C	-8.06	102.47	111.82
1	A	678	ARG	N-CA-C	-8.06	102.47	111.82
1	A	1072	TYR	N-CA-C	8.02	124.31	108.59
1	C	1072	TYR	N-CA-C	8.02	124.31	108.59
1	B	1072	TYR	N-CA-C	8.02	124.31	108.59
1	C	678	ARG	N-CA-C	-8.02	102.52	111.82
1	B	2332	PRO	CB-CA-C	-7.93	101.24	111.39
1	A	2332	PRO	CB-CA-C	-7.91	101.26	111.39
1	C	2332	PRO	CB-CA-C	-7.89	101.29	111.39
1	C	493	THR	CA-C-N	7.86	131.85	120.38
1	C	493	THR	C-N-CA	7.86	131.85	120.38
1	A	493	THR	CA-C-N	7.85	131.85	120.38
1	A	493	THR	C-N-CA	7.85	131.85	120.38
1	B	493	THR	CA-C-N	7.84	131.83	120.38
1	B	493	THR	C-N-CA	7.84	131.83	120.38
1	A	451	ALA	O-C-N	7.67	132.21	122.23
1	C	451	ALA	O-C-N	7.64	132.17	122.23
1	B	451	ALA	O-C-N	7.64	132.16	122.23
1	A	1079	PRO	N-CA-C	7.50	127.91	112.47
1	B	1079	PRO	N-CA-C	7.49	127.91	112.47
1	C	1079	PRO	N-CA-C	7.49	127.89	112.47
1	A	1698	ASP	CA-CB-CG	7.30	119.90	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1698	ASP	CA-CB-CG	7.30	119.90	112.60
1	B	1698	ASP	CA-CB-CG	7.28	119.88	112.60
1	A	998	TYR	CA-C-N	-7.25	110.71	120.79
1	A	998	TYR	C-N-CA	-7.25	110.71	120.79
1	B	998	TYR	CA-C-N	-7.25	110.71	120.79
1	B	998	TYR	C-N-CA	-7.25	110.71	120.79
1	C	998	TYR	CA-C-N	-7.22	110.76	120.79
1	C	998	TYR	C-N-CA	-7.22	110.76	120.79
1	C	1376	TYR	N-CA-CB	7.19	120.81	110.16
1	C	1252	PHE	CA-C-O	-7.18	110.24	120.51
1	B	1376	TYR	N-CA-CB	7.18	120.78	110.16
1	A	1252	PHE	CA-C-O	-7.18	110.25	120.51
1	A	1376	TYR	N-CA-CB	7.17	120.78	110.16
1	B	1252	PHE	CA-C-O	-7.16	110.27	120.51
1	B	456	ILE	N-CA-C	7.11	117.83	110.36
1	A	456	ILE	N-CA-C	7.11	117.82	110.36
1	C	456	ILE	N-CA-C	7.11	117.82	110.36
1	B	2377	THR	N-CA-C	7.01	120.92	109.85
1	A	2377	THR	N-CA-C	7.00	120.90	109.85
1	C	2377	THR	N-CA-C	6.97	120.87	109.85
1	A	1267	GLN	N-CA-C	-6.87	103.57	112.23
1	B	1267	GLN	N-CA-C	-6.87	103.58	112.23
1	C	1071	GLU	CA-C-N	6.86	137.20	122.17
1	C	1071	GLU	C-N-CA	6.86	137.20	122.17
1	A	259	ILE	N-CA-C	6.86	123.61	109.34
1	A	1071	GLU	CA-C-N	6.86	137.19	122.17
1	A	1071	GLU	C-N-CA	6.86	137.19	122.17
1	B	259	ILE	N-CA-C	6.86	123.60	109.34
1	B	1071	GLU	CA-C-N	6.86	137.18	122.17
1	B	1071	GLU	C-N-CA	6.86	137.18	122.17
1	C	259	ILE	N-CA-C	6.86	123.60	109.34
1	C	1267	GLN	N-CA-C	-6.84	103.61	112.23
1	C	2331	ARG	CA-C-N	6.74	126.77	119.89
1	C	2331	ARG	C-N-CA	6.74	126.77	119.89
1	A	2331	ARG	CA-C-N	6.72	126.75	119.89
1	A	2331	ARG	C-N-CA	6.72	126.75	119.89
1	A	1339	GLY	CA-C-N	-6.71	107.90	121.18
1	A	1339	GLY	C-N-CA	-6.71	107.90	121.18
1	B	2331	ARG	CA-C-N	6.70	126.73	119.89
1	B	2331	ARG	C-N-CA	6.70	126.73	119.89
1	C	1339	GLY	CA-C-N	-6.70	107.91	121.18
1	C	1339	GLY	C-N-CA	-6.70	107.91	121.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1339	GLY	CA-C-N	-6.68	107.95	121.18
1	B	1339	GLY	C-N-CA	-6.68	107.95	121.18
1	B	1078	ILE	CB-CA-C	-6.68	107.27	114.35
1	C	1078	ILE	CB-CA-C	-6.67	107.28	114.35
1	A	1078	ILE	CB-CA-C	-6.67	107.28	114.35
1	A	1390	GLU	N-CA-CB	-6.62	98.59	110.37
1	B	1390	GLU	N-CA-CB	-6.61	98.61	110.37
1	C	1390	GLU	N-CA-CB	-6.60	98.62	110.37
1	B	996	GLY	N-CA-C	-6.60	104.50	113.27
1	A	996	GLY	N-CA-C	-6.59	104.51	113.27
1	C	1000	PHE	CA-CB-CG	6.58	120.38	113.80
1	A	1000	PHE	CA-CB-CG	6.56	120.36	113.80
1	C	996	GLY	N-CA-C	-6.55	104.56	113.27
1	B	1000	PHE	CA-CB-CG	6.54	120.34	113.80
1	B	658	TYR	CA-C-O	-6.51	113.91	121.07
1	A	658	TYR	CA-C-O	-6.49	113.94	121.07
1	C	658	TYR	CA-C-O	-6.46	113.96	121.07
1	B	680	TYR	CA-CB-CG	6.37	125.36	113.90
1	A	680	TYR	CA-CB-CG	6.35	125.33	113.90
1	C	680	TYR	CA-CB-CG	6.35	125.33	113.90
1	A	997	PHE	CA-C-N	-6.31	111.85	120.44
1	A	997	PHE	C-N-CA	-6.31	111.85	120.44
1	B	997	PHE	CA-C-N	-6.31	111.86	120.44
1	B	997	PHE	C-N-CA	-6.31	111.86	120.44
1	C	997	PHE	CA-C-N	-6.30	111.87	120.44
1	C	997	PHE	C-N-CA	-6.30	111.87	120.44
1	B	644	VAL	CB-CA-C	-6.29	103.92	111.97
1	A	644	VAL	CB-CA-C	-6.26	103.96	111.97
1	A	1369	THR	N-CA-C	-6.24	104.36	112.23
1	C	1369	THR	N-CA-C	-6.24	104.37	112.23
1	B	1369	THR	N-CA-C	-6.23	104.38	112.23
1	C	644	VAL	CB-CA-C	-6.22	104.00	111.97
1	B	468	SER	CA-C-N	6.20	133.13	121.97
1	B	468	SER	C-N-CA	6.20	133.13	121.97
1	A	684	ALA	N-CA-C	-6.18	104.62	111.36
1	A	468	SER	CA-C-N	6.18	133.09	121.97
1	A	468	SER	C-N-CA	6.18	133.09	121.97
1	A	2332	PRO	N-CA-C	6.17	120.93	111.11
1	B	684	ALA	N-CA-C	-6.17	104.64	111.36
1	C	684	ALA	N-CA-C	-6.17	104.64	111.36
1	B	2332	PRO	N-CA-C	6.16	120.91	111.11
1	C	2332	PRO	N-CA-C	6.16	120.91	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1096	SER	N-CA-C	6.16	118.72	110.35
1	C	1382	ARG	CB-CA-C	6.16	119.72	109.56
1	C	468	SER	CA-C-N	6.15	133.04	121.97
1	C	468	SER	C-N-CA	6.15	133.04	121.97
1	A	1382	ARG	CB-CA-C	6.15	119.71	109.56
1	C	1096	SER	N-CA-C	6.15	118.71	110.35
1	B	1096	SER	N-CA-C	6.15	118.71	110.35
1	B	1382	ARG	CB-CA-C	6.13	119.68	109.56
1	A	651	THR	N-CA-C	6.10	120.34	113.02
1	B	651	THR	N-CA-C	6.09	120.32	113.02
1	C	651	THR	N-CA-C	6.07	120.30	113.02
1	B	973	PHE	CA-CB-CG	6.05	119.85	113.80
1	C	976	PHE	CB-CA-C	6.05	121.51	111.23
1	B	976	PHE	CB-CA-C	6.04	121.51	111.23
1	A	976	PHE	CB-CA-C	6.03	121.48	111.23
1	B	502	THR	N-CA-C	6.01	123.60	110.80
1	A	973	PHE	CA-CB-CG	6.00	119.81	113.80
1	A	502	THR	N-CA-C	5.98	123.54	110.80
1	C	502	THR	N-CA-C	5.98	123.54	110.80
1	B	1251	TRP	N-CA-C	-5.97	103.70	111.71
1	A	1251	TRP	N-CA-C	-5.97	103.71	111.71
1	B	2328	TYR	CA-C-O	-5.96	114.05	121.02
1	C	973	PHE	CA-CB-CG	5.96	119.76	113.80
1	B	1391	PRO	N-CA-C	-5.96	102.88	111.22
1	A	2328	TYR	CA-C-O	-5.95	114.06	121.02
1	C	1251	TRP	N-CA-C	-5.95	103.74	111.71
1	C	2328	TYR	CA-C-O	-5.95	114.06	121.02
1	B	1337	ASN	CA-C-N	-5.94	110.20	121.54
1	B	1337	ASN	C-N-CA	-5.94	110.20	121.54
1	A	1094	ASN	N-CA-C	5.93	119.83	112.47
1	C	1391	PRO	N-CA-C	-5.93	102.91	111.22
1	A	1337	ASN	CA-C-N	-5.93	110.22	121.54
1	A	1337	ASN	C-N-CA	-5.93	110.22	121.54
1	B	1094	ASN	N-CA-C	5.92	119.82	112.47
1	C	1337	ASN	CA-C-N	-5.92	110.23	121.54
1	C	1337	ASN	C-N-CA	-5.92	110.23	121.54
1	A	1391	PRO	N-CA-C	-5.92	102.93	111.22
1	A	452	SER	N-CA-C	-5.92	103.80	111.02
1	C	452	SER	N-CA-C	-5.91	103.81	111.02
1	B	452	SER	N-CA-C	-5.91	103.81	111.02
1	C	1094	ASN	N-CA-C	5.91	119.79	112.47
1	B	485	PHE	N-CA-C	-5.90	104.43	111.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1001	GLY	CA-C-N	-5.90	112.86	120.65
1	C	1001	GLY	C-N-CA	-5.90	112.86	120.65
1	A	1001	GLY	CA-C-N	-5.89	112.88	120.65
1	A	1001	GLY	C-N-CA	-5.89	112.88	120.65
1	B	1001	GLY	CA-C-N	-5.88	112.89	120.65
1	B	1001	GLY	C-N-CA	-5.88	112.89	120.65
1	C	485	PHE	N-CA-C	-5.88	104.46	111.69
1	A	485	PHE	N-CA-C	-5.86	104.48	111.69
1	A	2200	GLU	N-CA-C	5.85	120.58	113.38
1	B	2200	GLU	N-CA-C	5.84	120.56	113.38
1	C	2200	GLU	N-CA-C	5.83	120.55	113.38
1	C	525	TYR	N-CA-CB	-5.82	101.26	110.22
1	A	525	TYR	N-CA-CB	-5.80	101.29	110.22
1	B	525	TYR	N-CA-CB	-5.79	101.31	110.22
1	B	658	TYR	N-CA-C	-5.76	103.99	111.02
1	A	658	TYR	N-CA-C	-5.74	104.02	111.02
1	C	658	TYR	N-CA-C	-5.73	104.02	111.02
1	A	639	ILE	N-CA-C	-5.58	105.08	110.72
1	C	639	ILE	N-CA-C	-5.58	105.09	110.72
1	B	639	ILE	N-CA-C	-5.54	105.12	110.72
1	B	487	LEU	N-CA-C	-5.54	105.14	111.07
1	A	487	LEU	N-CA-C	-5.53	105.15	111.07
1	C	487	LEU	N-CA-C	-5.53	105.15	111.07
1	C	976	PHE	N-CA-CB	-5.52	103.19	111.25
1	B	976	PHE	N-CA-CB	-5.52	103.19	111.25
1	A	976	PHE	N-CA-CB	-5.52	103.20	111.25
1	A	830	ILE	N-CA-C	-5.46	107.50	112.96
1	B	830	ILE	N-CA-C	-5.45	107.51	112.96
1	C	1828	ILE	N-CA-CB	-5.44	106.78	112.06
1	C	830	ILE	N-CA-C	-5.43	107.53	112.96
1	A	1828	ILE	N-CA-CB	-5.43	106.79	112.06
1	B	1828	ILE	N-CA-CB	-5.43	106.79	112.06
1	B	1698	ASP	CA-C-O	-5.42	114.68	120.42
1	C	679	LEU	N-CA-C	-5.41	105.55	111.82
1	A	679	LEU	N-CA-C	-5.41	105.55	111.82
1	B	679	LEU	N-CA-C	-5.40	105.55	111.82
1	A	1698	ASP	CA-C-O	-5.40	114.70	120.42
1	C	1698	ASP	CA-C-O	-5.39	114.71	120.42
1	A	992	LEU	N-CA-C	-5.37	104.84	111.33
1	B	2061	LEU	N-CA-C	-5.36	105.55	112.68
1	C	992	LEU	N-CA-C	-5.36	104.85	111.33
1	B	992	LEU	N-CA-C	-5.35	104.86	111.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2061	LEU	N-CA-C	-5.34	105.58	112.68
1	C	2061	LEU	N-CA-C	-5.34	105.58	112.68
1	A	484	ILE	N-CA-C	-5.33	98.25	109.34
1	C	484	ILE	N-CA-C	-5.33	98.25	109.34
1	B	484	ILE	N-CA-C	-5.32	98.28	109.34
1	C	486	GLY	N-CA-C	-5.27	106.02	112.77
1	B	486	GLY	N-CA-C	-5.25	106.05	112.77
1	A	486	GLY	N-CA-C	-5.25	106.06	112.77
1	B	1698	ASP	CB-CA-C	5.23	119.75	110.85
1	A	1698	ASP	CB-CA-C	5.22	119.72	110.85
1	C	1698	ASP	CB-CA-C	5.22	119.72	110.85
1	C	1268	LEU	N-CA-C	5.16	121.11	114.56
1	C	2375	ILE	N-CA-C	5.16	115.93	110.72
1	A	1268	LEU	N-CA-C	5.15	121.10	114.56
1	A	2349	ALA	CA-C-O	-5.14	113.15	120.51
1	B	2375	ILE	N-CA-C	5.14	115.92	110.72
1	C	2349	ALA	CA-C-O	-5.14	113.15	120.51
1	B	1268	LEU	N-CA-C	5.14	121.09	114.56
1	B	2349	ALA	CA-C-O	-5.13	113.17	120.51
1	A	2375	ILE	N-CA-C	5.13	115.90	110.72
1	B	501	ASP	N-CA-C	-5.13	100.95	109.46
1	C	501	ASP	N-CA-C	-5.12	100.96	109.46
1	A	501	ASP	N-CA-C	-5.11	100.97	109.46
1	C	1376	TYR	CB-CA-C	-5.05	102.26	110.85
1	A	1338	ARG	CA-C-N	-5.04	111.52	121.41
1	A	1338	ARG	C-N-CA	-5.04	111.52	121.41
1	B	1376	TYR	CB-CA-C	-5.04	102.27	110.85
1	A	1376	TYR	CB-CA-C	-5.04	102.28	110.85
1	B	1338	ARG	CA-C-N	-5.04	111.53	121.41
1	B	1338	ARG	C-N-CA	-5.04	111.53	121.41
1	C	1338	ARG	CA-C-N	-5.03	111.54	121.41
1	C	1338	ARG	C-N-CA	-5.03	111.54	121.41

There are no chirality outliers.

All (42) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1071	GLU	Mainchain
1	A	1330	ARG	Sidechain
1	A	1373	ARG	Sidechain
1	A	1375	ARG	Sidechain
1	A	1382	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	A	2033	ARG	Sidechain
1	A	2082	ARG	Sidechain
1	A	2157	ARG	Sidechain
1	A	2369	ARG	Sidechain
1	A	2373	ARG	Sidechain
1	A	285	CYS	Peptide
1	A	493	THR	Mainchain
1	A	503	ARG	Sidechain
1	A	681	ARG	Sidechain
1	B	1071	GLU	Mainchain
1	B	1330	ARG	Sidechain
1	B	1373	ARG	Sidechain
1	B	1375	ARG	Sidechain
1	B	1382	ARG	Sidechain
1	B	2033	ARG	Sidechain
1	B	2082	ARG	Sidechain
1	B	2157	ARG	Sidechain
1	B	2369	ARG	Sidechain
1	B	2373	ARG	Sidechain
1	B	285	CYS	Peptide
1	B	493	THR	Mainchain
1	B	503	ARG	Sidechain
1	B	681	ARG	Sidechain
1	C	1071	GLU	Mainchain
1	C	1330	ARG	Sidechain
1	C	1373	ARG	Sidechain
1	C	1375	ARG	Sidechain
1	C	1382	ARG	Sidechain
1	C	2033	ARG	Sidechain
1	C	2082	ARG	Sidechain
1	C	2157	ARG	Sidechain
1	C	2369	ARG	Sidechain
1	C	2373	ARG	Sidechain
1	C	285	CYS	Peptide
1	C	493	THR	Mainchain
1	C	503	ARG	Sidechain
1	C	681	ARG	Sidechain

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	14835	0	14152	471	0
1	B	14835	0	14152	467	0
1	C	14835	0	14152	466	0
All	All	44505	0	42456	1369	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 16.

All (1369) 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:477:TRP:HH2	1:C:562:GLN:HE21	1.05	0.99
1:A:477:TRP:HH2	1:A:562:GLN:HE21	1.05	0.99
1:B:495:ILE:C	1:B:497:TRP:H	1.71	0.99
1:B:477:TRP:HH2	1:B:562:GLN:HE21	1.05	0.98
1:A:688:TRP:HA	1:A:760:LEU:HD21	1.45	0.97
1:A:495:ILE:C	1:A:497:TRP:H	1.71	0.96
1:A:1871:PRO:HG3	1:C:2064:TRP:CD1	2.01	0.96
1:C:688:TRP:HA	1:C:760:LEU:HD21	1.45	0.96
1:C:495:ILE:C	1:C:497:TRP:H	1.71	0.95
1:B:688:TRP:HA	1:B:760:LEU:HD21	1.45	0.95
1:A:2064:TRP:CD1	1:B:1871:PRO:HG3	2.01	0.95
1:B:2064:TRP:CD1	1:C:1871:PRO:HG3	2.01	0.94
1:A:2352:PHE:HD2	1:A:2355:GLY:H	1.08	0.94
1:B:1380:ILE:HD12	1:B:1405:MET:HA	1.50	0.94
1:C:1380:ILE:HD12	1:C:1405:MET:HA	1.50	0.93
1:B:2352:PHE:HD2	1:B:2355:GLY:H	1.08	0.93
1:A:1259:GLY:HA2	1:A:1262:LEU:HB2	1.52	0.92
1:C:2352:PHE:HD2	1:C:2355:GLY:H	1.08	0.92
1:C:1259:GLY:HA2	1:C:1262:LEU:HB2	1.52	0.91
1:B:1259:GLY:HA2	1:B:1262:LEU:HB2	1.52	0.91
1:B:1016:ARG:NH1	1:B:1106:TYR:HB3	1.87	0.90
1:A:1380:ILE:HD12	1:A:1405:MET:HA	1.50	0.90
1:C:1016:ARG:NH1	1:C:1106:TYR:HB3	1.86	0.90
1:B:1176:MET:HE3	1:B:1179:LEU:HD22	1.52	0.90
1:A:1176:MET:HE3	1:A:1179:LEU:HD22	1.52	0.89
1:A:2352:PHE:CD2	1:A:2355:GLY:N	2.41	0.89
1:B:2352:PHE:CE2	1:B:2354:GLY:HA3	2.08	0.89
1:C:640:PHE:O	1:C:644:VAL:HG23	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1176:MET:HE3	1:C:1179:LEU:HD22	1.52	0.88
1:C:2352:PHE:CD2	1:C:2355:GLY:N	2.41	0.88
1:A:1016:ARG:NH1	1:A:1106:TYR:HB3	1.87	0.88
1:A:460:THR:O	1:A:464:PHE:HD1	1.56	0.88
1:A:2352:PHE:CE2	1:A:2354:GLY:HA3	2.08	0.88
1:C:460:THR:O	1:C:464:PHE:HD1	1.56	0.88
1:B:640:PHE:O	1:B:644:VAL:HG23	1.74	0.87
1:C:2352:PHE:CE2	1:C:2354:GLY:HA3	2.08	0.87
1:A:685:TYR:HA	1:A:688:TRP:HE3	1.39	0.87
1:B:2352:PHE:CD2	1:B:2355:GLY:N	2.41	0.87
1:C:685:TYR:HA	1:C:688:TRP:HE3	1.39	0.87
1:B:460:THR:O	1:B:464:PHE:HD1	1.56	0.87
1:B:1827:TYR:HB2	1:B:1953:ASN:ND2	1.90	0.87
1:A:640:PHE:O	1:A:644:VAL:HG23	1.74	0.86
1:A:2194:ARG:HB3	1:A:2195:PRO:HD2	1.58	0.85
1:B:685:TYR:HA	1:B:688:TRP:HE3	1.39	0.85
1:B:2001:MET:HE2	1:B:2413:GLU:OE2	1.76	0.85
1:C:2194:ARG:HB3	1:C:2195:PRO:HD2	1.58	0.85
1:A:460:THR:HG22	1:A:464:PHE:HE1	1.41	0.85
1:A:687:PHE:HB2	1:A:760:LEU:CD1	2.06	0.85
1:A:1207:LEU:HD12	1:A:1219:HIS:CE1	2.11	0.85
1:A:2001:MET:HE2	1:A:2413:GLU:OE2	1.76	0.85
1:C:1827:TYR:HB2	1:C:1953:ASN:ND2	1.90	0.85
1:A:1827:TYR:HB2	1:A:1953:ASN:ND2	1.90	0.85
1:B:1207:LEU:HD12	1:B:1219:HIS:CE1	2.11	0.85
1:B:2063:LEU:O	1:B:2067:LEU:HG	1.77	0.84
1:C:2001:MET:HE2	1:C:2413:GLU:OE2	1.76	0.84
1:B:2194:ARG:HB3	1:B:2195:PRO:HD2	1.58	0.84
1:C:2063:LEU:O	1:C:2067:LEU:HG	1.77	0.84
1:C:1207:LEU:HD12	1:C:1219:HIS:CE1	2.11	0.84
1:B:687:PHE:HB2	1:B:760:LEU:CD1	2.06	0.84
1:C:460:THR:HG22	1:C:464:PHE:HE1	1.41	0.84
1:C:687:PHE:HB2	1:C:760:LEU:CD1	2.06	0.83
1:A:2063:LEU:O	1:A:2067:LEU:HG	1.77	0.83
1:A:225:THR:HA	1:A:577:ARG:HG3	1.61	0.83
1:A:991:PHE:HA	1:A:994:ASP:HB3	1.61	0.83
1:B:460:THR:HG22	1:B:464:PHE:HE1	1.41	0.82
1:B:991:PHE:HA	1:B:994:ASP:HB3	1.61	0.82
1:B:997:PHE:CZ	1:B:1123:VAL:HG13	2.15	0.82
1:B:225:THR:HA	1:B:577:ARG:HG3	1.61	0.81
1:B:483:SER:OG	1:B:486:GLY:N	2.12	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:494:CYS:O	1:C:497:TRP:HB2	1.80	0.81
1:C:997:PHE:CZ	1:C:1123:VAL:HG13	2.15	0.81
1:A:483:SER:OG	1:A:486:GLY:N	2.12	0.81
1:A:997:PHE:CZ	1:A:1123:VAL:HG13	2.15	0.81
1:C:225:THR:HA	1:C:577:ARG:HG3	1.61	0.81
1:C:477:TRP:CH2	1:C:562:GLN:NE2	2.47	0.81
1:C:483:SER:OG	1:C:486:GLY:N	2.12	0.81
1:B:687:PHE:HB2	1:B:760:LEU:HD11	1.63	0.81
1:B:2352:PHE:HD2	1:B:2355:GLY:N	1.77	0.81
1:C:2352:PHE:HD2	1:C:2355:GLY:N	1.77	0.81
1:A:494:CYS:O	1:A:497:TRP:HB2	1.80	0.81
1:B:1626:GLN:HG3	1:B:1638:PRO:HG3	1.62	0.81
1:C:1626:GLN:HG3	1:C:1638:PRO:HG3	1.62	0.81
1:B:494:CYS:O	1:B:497:TRP:HB2	1.80	0.81
1:B:1095:LEU:HD23	1:B:1096:SER:N	1.96	0.81
1:C:991:PHE:HA	1:C:994:ASP:HB3	1.61	0.81
1:C:1095:LEU:HD23	1:C:1096:SER:N	1.96	0.80
1:A:687:PHE:HB2	1:A:760:LEU:HD11	1.63	0.80
1:A:1095:LEU:HD23	1:A:1096:SER:N	1.96	0.80
1:A:1871:PRO:HG3	1:C:2064:TRP:NE1	1.97	0.80
1:C:687:PHE:HB2	1:C:760:LEU:HD11	1.63	0.79
1:A:644:VAL:O	1:A:648:VAL:HG23	1.82	0.79
1:A:690:THR:O	1:A:692:THR:N	2.16	0.79
1:A:1626:GLN:HG3	1:A:1638:PRO:HG3	1.62	0.79
1:C:690:THR:O	1:C:692:THR:N	2.16	0.79
1:B:644:VAL:O	1:B:648:VAL:HG23	1.82	0.79
1:A:2064:TRP:NE1	1:B:1871:PRO:HG3	1.97	0.79
1:C:644:VAL:O	1:C:648:VAL:HG23	1.82	0.79
1:B:690:THR:O	1:B:692:THR:N	2.16	0.78
1:B:2064:TRP:NE1	1:C:1871:PRO:HG3	1.97	0.78
1:B:483:SER:C	1:B:485:PHE:N	2.35	0.78
1:B:477:TRP:CH2	1:B:562:GLN:NE2	2.47	0.77
1:C:492:LEU:HD23	1:C:492:LEU:O	1.84	0.77
1:A:477:TRP:CH2	1:A:562:GLN:NE2	2.47	0.77
1:B:492:LEU:O	1:B:492:LEU:HD23	1.84	0.76
1:B:1016:ARG:HH12	1:B:1106:TYR:HB3	1.50	0.76
1:A:2352:PHE:HD2	1:A:2355:GLY:N	1.77	0.76
1:A:529:MET:HG2	1:A:548:TRP:HZ3	1.51	0.76
1:B:529:MET:HG2	1:B:548:TRP:HZ3	1.51	0.76
1:C:483:SER:HB2	1:C:485:PHE:HD1	1.51	0.76
1:A:460:THR:O	1:A:464:PHE:CD1	2.39	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:492:LEU:HD23	1:A:492:LEU:O	1.84	0.75
1:C:483:SER:C	1:C:485:PHE:N	2.35	0.75
1:A:1016:ARG:HH12	1:A:1106:TYR:HB3	1.49	0.75
1:A:483:SER:HB2	1:A:485:PHE:HD1	1.51	0.75
1:C:529:MET:HG2	1:C:548:TRP:HZ3	1.51	0.75
1:A:638:PHE:HB2	1:A:763:PHE:HZ	1.52	0.75
1:B:495:ILE:C	1:B:497:TRP:N	2.39	0.75
1:C:1330:ARG:O	1:C:1331:SER:C	2.30	0.75
1:B:1831:LEU:HD12	1:B:1831:LEU:O	1.87	0.74
1:A:649:VAL:HG11	1:A:752:LEU:HD22	1.69	0.74
1:C:649:VAL:HG11	1:C:752:LEU:HD22	1.69	0.74
1:C:1831:LEU:HD12	1:C:1831:LEU:O	1.87	0.74
1:B:638:PHE:HB2	1:B:763:PHE:HZ	1.52	0.73
1:C:1092:LEU:HD13	1:C:1243:ILE:HG13	1.70	0.73
1:A:1330:ARG:O	1:A:1331:SER:C	2.30	0.73
1:A:1831:LEU:HD12	1:A:1831:LEU:O	1.87	0.73
1:A:849:LEU:HD13	1:A:882:VAL:HB	1.71	0.73
1:B:649:VAL:HG11	1:B:752:LEU:HD22	1.70	0.73
1:B:1244:PHE:O	1:B:1247:VAL:HG22	1.88	0.73
1:C:638:PHE:HB2	1:C:763:PHE:HZ	1.52	0.73
1:C:1016:ARG:HH12	1:C:1106:TYR:HB3	1.50	0.73
1:C:460:THR:O	1:C:464:PHE:CD1	2.39	0.73
1:B:849:LEU:HD13	1:B:882:VAL:HB	1.71	0.73
1:C:483:SER:O	1:C:487:LEU:N	2.21	0.73
1:B:483:SER:O	1:B:487:LEU:N	2.22	0.73
1:B:1092:LEU:HD13	1:B:1243:ILE:HG13	1.70	0.73
1:C:849:LEU:HD13	1:C:882:VAL:HB	1.71	0.73
1:A:1092:LEU:HD13	1:A:1243:ILE:HG13	1.70	0.73
1:B:483:SER:HB2	1:B:485:PHE:HD1	1.51	0.73
1:B:1330:ARG:O	1:B:1331:SER:C	2.30	0.72
1:C:1244:PHE:O	1:C:1247:VAL:HG22	1.88	0.72
1:A:1244:PHE:O	1:A:1247:VAL:HG22	1.88	0.72
1:B:460:THR:O	1:B:464:PHE:CD1	2.39	0.72
1:A:495:ILE:C	1:A:497:TRP:N	2.39	0.72
1:B:851:ILE:HD11	1:B:1062:VAL:HG11	1.72	0.72
1:C:1207:LEU:CD1	1:C:1219:HIS:ND1	2.53	0.71
1:A:483:SER:C	1:A:485:PHE:N	2.35	0.71
1:A:1016:ARG:NE	1:A:1020:LEU:HD12	2.05	0.71
1:A:483:SER:O	1:A:487:LEU:N	2.21	0.71
1:A:851:ILE:HD11	1:A:1062:VAL:HG11	1.72	0.71
1:A:638:PHE:HB2	1:A:763:PHE:CZ	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1207:LEU:CD1	1:A:1219:HIS:ND1	2.53	0.71
1:A:2250:ASN:HB2	1:A:2344:PHE:HD1	1.56	0.71
1:C:638:PHE:HB2	1:C:763:PHE:CZ	2.25	0.71
1:C:676:SER:HB3	1:C:679:LEU:HD23	1.73	0.71
1:C:851:ILE:HD11	1:C:1062:VAL:HG11	1.72	0.71
1:B:638:PHE:HB2	1:B:763:PHE:CZ	2.25	0.71
1:B:1207:LEU:CD1	1:B:1219:HIS:ND1	2.53	0.71
1:B:483:SER:O	1:B:486:GLY:N	2.25	0.70
1:B:1016:ARG:NE	1:B:1020:LEU:HD12	2.05	0.70
1:B:2250:ASN:HB2	1:B:2344:PHE:HD1	1.56	0.70
1:C:2250:ASN:HB2	1:C:2344:PHE:HD1	1.56	0.70
1:A:483:SER:O	1:A:486:GLY:N	2.25	0.70
1:C:483:SER:O	1:C:486:GLY:N	2.25	0.70
1:C:495:ILE:C	1:C:497:TRP:N	2.39	0.70
1:C:685:TYR:O	1:C:688:TRP:HB2	1.92	0.70
1:B:495:ILE:O	1:B:497:TRP:N	2.25	0.70
1:A:676:SER:HB3	1:A:679:LEU:HD23	1.73	0.69
1:B:1157:SER:C	1:B:1161:TYR:H	2.00	0.69
1:C:1016:ARG:NE	1:C:1020:LEU:HD12	2.05	0.69
1:B:676:SER:HB3	1:B:679:LEU:HD23	1.73	0.69
1:B:685:TYR:O	1:B:688:TRP:HB2	1.92	0.69
1:C:495:ILE:O	1:C:497:TRP:N	2.25	0.69
1:A:999:LYS:HZ2	1:A:1316:ILE:HD12	1.58	0.69
1:A:1157:SER:C	1:A:1161:TYR:H	2.00	0.69
1:B:2061:LEU:HG	1:B:2360:TYR:OH	1.92	0.69
1:B:647:LEU:O	1:B:651:THR:HG22	1.93	0.69
1:C:203:VAL:HA	1:C:556:VAL:HG22	1.75	0.69
1:C:1977:LYS:O	1:C:1981:ASN:HB2	1.93	0.69
1:C:2061:LEU:HG	1:C:2360:TYR:OH	1.92	0.69
1:A:685:TYR:O	1:A:688:TRP:HB2	1.92	0.69
1:A:2061:LEU:HG	1:A:2360:TYR:OH	1.92	0.68
1:C:647:LEU:O	1:C:651:THR:HG22	1.93	0.68
1:C:999:LYS:HZ2	1:C:1316:ILE:HD12	1.58	0.68
1:A:647:LEU:O	1:A:651:THR:HG22	1.93	0.68
1:B:1977:LYS:O	1:B:1981:ASN:HB2	1.93	0.68
1:A:998:TYR:O	1:A:999:LYS:C	2.37	0.68
1:B:999:LYS:HZ2	1:B:1316:ILE:HD12	1.58	0.68
1:A:1050:MET:HE1	1:A:1113:VAL:HG22	1.76	0.68
1:B:1694:PRO:HA	1:B:1699:LYS:HE2	1.76	0.68
1:C:1694:PRO:HA	1:C:1699:LYS:HE2	1.76	0.68
1:A:495:ILE:O	1:A:497:TRP:N	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1299:ASN:HB2	1:B:1303:ASP:HB2	1.76	0.67
1:C:1157:SER:C	1:C:1161:TYR:H	2.00	0.67
1:A:1977:LYS:O	1:A:1981:ASN:HB2	1.93	0.67
1:B:203:VAL:HA	1:B:556:VAL:HG22	1.75	0.67
1:B:1000:PHE:O	1:B:1001:GLY:C	2.37	0.67
1:C:1307:LEU:O	1:C:1311:VAL:HG22	1.95	0.67
1:A:1307:LEU:O	1:A:1311:VAL:HG22	1.95	0.67
1:A:203:VAL:HA	1:A:556:VAL:HG22	1.75	0.67
1:B:460:THR:HG22	1:B:464:PHE:CE1	2.28	0.67
1:B:1160:ASP:O	1:B:1164:SER:N	2.22	0.67
1:C:477:TRP:HH2	1:C:562:GLN:NE2	1.86	0.67
1:C:1050:MET:HE1	1:C:1113:VAL:HG22	1.76	0.66
1:B:1050:MET:HE1	1:B:1113:VAL:HG22	1.76	0.66
1:B:998:TYR:O	1:B:999:LYS:C	2.37	0.66
1:C:1082:SER:HB2	1:C:1249:LEU:HD22	1.77	0.66
1:A:686:ALA:O	1:A:687:PHE:C	2.38	0.66
1:B:861:ILE:HD12	1:B:861:ILE:H	1.61	0.66
1:C:1207:LEU:CD1	1:C:1219:HIS:CE1	2.79	0.66
1:C:460:THR:HG22	1:C:464:PHE:CE1	2.28	0.66
1:A:1160:ASP:O	1:A:1164:SER:N	2.22	0.66
1:B:1082:SER:HB2	1:B:1249:LEU:HD22	1.77	0.66
1:C:1000:PHE:O	1:C:1001:GLY:C	2.37	0.66
1:A:687:PHE:CB	1:A:760:LEU:CD1	2.74	0.66
1:A:1160:ASP:O	1:A:1161:TYR:C	2.39	0.66
1:B:687:PHE:CB	1:B:760:LEU:CD1	2.74	0.66
1:B:978:HIS:CG	1:B:979:SER:H	2.14	0.66
1:A:1299:ASN:HB2	1:A:1303:ASP:HB2	1.76	0.66
1:B:1207:LEU:CD1	1:B:1219:HIS:CE1	2.79	0.66
1:A:1694:PRO:HA	1:A:1699:LYS:HE2	1.76	0.65
1:A:1827:TYR:CB	1:A:1953:ASN:ND2	2.59	0.65
1:B:686:ALA:O	1:B:689:LEU:N	2.26	0.65
1:B:1409:ASP:HB3	1:B:1412:ASN:HB2	1.79	0.65
1:C:1299:ASN:HB2	1:C:1303:ASP:HB2	1.77	0.65
1:B:1016:ARG:CZ	1:B:1020:LEU:HD12	2.26	0.65
1:B:2210:TRP:C	1:B:2211:LEU:HD12	2.21	0.65
1:C:1016:ARG:CZ	1:C:1020:LEU:HD12	2.26	0.65
1:C:2210:TRP:C	1:C:2211:LEU:HD12	2.21	0.65
1:C:1409:ASP:HB3	1:C:1412:ASN:HB2	1.79	0.65
1:A:1207:LEU:CD1	1:A:1219:HIS:CE1	2.79	0.65
1:B:1307:LEU:O	1:B:1311:VAL:HG22	1.95	0.65
1:C:978:HIS:CG	1:C:979:SER:H	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1333:VAL:O	1:A:1334:ILE:C	2.40	0.65
1:B:686:ALA:O	1:B:687:PHE:C	2.38	0.65
1:C:998:TYR:O	1:C:999:LYS:C	2.37	0.65
1:A:2250:ASN:HB2	1:A:2344:PHE:CD1	2.32	0.65
1:C:1827:TYR:CB	1:C:1953:ASN:ND2	2.59	0.65
1:C:2250:ASN:HB2	1:C:2344:PHE:CD1	2.32	0.65
1:B:477:TRP:HH2	1:B:562:GLN:NE2	1.86	0.65
1:B:685:TYR:HA	1:B:688:TRP:CE3	2.28	0.65
1:C:2272:ILE:HG22	1:C:2273:ASN:H	1.62	0.65
1:A:2210:TRP:C	1:A:2211:LEU:HD12	2.21	0.65
1:A:685:TYR:HA	1:A:688:TRP:CE3	2.28	0.65
1:A:861:ILE:H	1:A:861:ILE:HD12	1.61	0.65
1:A:1249:LEU:HD21	1:A:1281:LEU:HD22	1.79	0.65
1:B:1827:TYR:CB	1:B:1953:ASN:ND2	2.59	0.65
1:B:2250:ASN:HB2	1:B:2344:PHE:CD1	2.32	0.65
1:A:978:HIS:CG	1:A:979:SER:H	2.14	0.64
1:A:982:ASP:O	1:A:983:ARG:C	2.41	0.64
1:C:686:ALA:O	1:C:687:PHE:C	2.38	0.64
1:A:460:THR:HG22	1:A:464:PHE:CE1	2.28	0.64
1:A:483:SER:C	1:A:485:PHE:H	2.05	0.64
1:B:982:ASP:O	1:B:983:ARG:C	2.41	0.64
1:C:687:PHE:CB	1:C:760:LEU:CD1	2.74	0.64
1:A:1082:SER:HB2	1:A:1249:LEU:HD22	1.77	0.64
1:A:1409:ASP:HB3	1:A:1412:ASN:HB2	1.79	0.64
1:C:1160:ASP:O	1:C:1161:TYR:C	2.39	0.64
1:C:483:SER:C	1:C:485:PHE:H	2.05	0.64
1:C:685:TYR:HA	1:C:688:TRP:CE3	2.28	0.64
1:A:1016:ARG:CZ	1:A:1020:LEU:HD12	2.26	0.64
1:A:2352:PHE:CE2	1:A:2354:GLY:CA	2.81	0.64
1:B:1333:VAL:O	1:B:1334:ILE:C	2.40	0.64
1:B:483:SER:C	1:B:485:PHE:H	2.05	0.64
1:B:1641:SER:HA	1:B:1656:PHE:HZ	1.63	0.64
1:C:861:ILE:HD12	1:C:861:ILE:H	1.61	0.64
1:A:997:PHE:CE2	1:A:1123:VAL:HG13	2.33	0.64
1:A:2272:ILE:HG22	1:A:2273:ASN:H	1.62	0.64
1:C:997:PHE:CE2	1:C:1123:VAL:HG13	2.33	0.64
1:A:1000:PHE:O	1:A:1001:GLY:C	2.37	0.64
1:C:1333:VAL:O	1:C:1334:ILE:C	2.40	0.64
1:C:2272:ILE:HG22	1:C:2273:ASN:N	2.13	0.64
1:A:1037:VAL:HG12	1:A:1040:ARG:HE	1.63	0.64
1:A:2272:ILE:HG22	1:A:2273:ASN:N	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2272:ILE:HG22	1:B:2273:ASN:H	1.62	0.64
1:B:2272:ILE:HG22	1:B:2273:ASN:N	2.13	0.64
1:C:1249:LEU:HD21	1:C:1281:LEU:HD22	1.79	0.64
1:B:2352:PHE:CE2	1:B:2354:GLY:CA	2.81	0.63
1:C:982:ASP:O	1:C:983:ARG:C	2.41	0.63
1:B:687:PHE:HD2	1:B:764:HIS:HE2	1.47	0.63
1:B:997:PHE:CE2	1:B:1123:VAL:HG13	2.33	0.63
1:B:1037:VAL:HG12	1:B:1040:ARG:HE	1.63	0.63
1:B:1095:LEU:HD23	1:B:1096:SER:H	1.62	0.63
1:C:1037:VAL:HG12	1:C:1040:ARG:HE	1.63	0.63
1:A:996:GLY:O	1:A:997:PHE:C	2.42	0.63
1:A:1909:ALA:O	1:A:1913:ILE:HG22	1.99	0.63
1:A:477:TRP:HH2	1:A:562:GLN:NE2	1.86	0.63
1:A:490:LEU:C	1:A:490:LEU:HD23	2.24	0.63
1:A:1095:LEU:HD23	1:A:1096:SER:H	1.62	0.63
1:B:1160:ASP:O	1:B:1161:TYR:C	2.39	0.63
1:B:1909:ALA:O	1:B:1913:ILE:HG22	1.99	0.63
1:C:687:PHE:HD2	1:C:764:HIS:HE2	1.47	0.63
1:A:1641:SER:HA	1:A:1656:PHE:HZ	1.63	0.63
1:B:1249:LEU:HD21	1:B:1281:LEU:HD22	1.79	0.63
1:C:1641:SER:HA	1:C:1656:PHE:HZ	1.63	0.63
1:C:996:GLY:O	1:C:997:PHE:C	2.42	0.62
1:C:1005:THR:O	1:C:1009:ILE:HD12	1.99	0.62
1:C:1909:ALA:O	1:C:1913:ILE:HG22	1.99	0.62
1:A:687:PHE:HD2	1:A:764:HIS:HE2	1.47	0.62
1:A:1871:PRO:HG3	1:C:2064:TRP:HE1	1.62	0.62
1:B:996:GLY:O	1:B:997:PHE:C	2.42	0.62
1:B:1888:ASP:HA	1:B:1891:LEU:HD13	1.81	0.62
1:C:483:SER:C	1:C:486:GLY:H	2.07	0.62
1:A:2064:TRP:HE1	1:B:1871:PRO:HG3	1.62	0.62
1:B:483:SER:C	1:B:486:GLY:H	2.07	0.62
1:C:490:LEU:HD23	1:C:490:LEU:C	2.24	0.62
1:C:1686:TRP:CH2	1:C:1698:ASP:HB3	2.35	0.62
1:A:483:SER:C	1:A:486:GLY:H	2.07	0.62
1:A:1207:LEU:HD11	1:A:1219:HIS:CG	2.35	0.62
1:B:1208:TYR:HE1	1:B:1219:HIS:NE2	1.98	0.62
1:C:1095:LEU:HD23	1:C:1096:SER:H	1.62	0.62
1:C:1208:TYR:HE1	1:C:1219:HIS:NE2	1.98	0.62
1:B:1005:THR:O	1:B:1009:ILE:HD12	2.00	0.62
1:B:1207:LEU:HD11	1:B:1219:HIS:CG	2.35	0.62
1:A:1208:TYR:HE1	1:A:1219:HIS:NE2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1207:LEU:HD11	1:C:1219:HIS:CG	2.35	0.62
1:A:1005:THR:O	1:A:1009:ILE:HD12	2.00	0.62
1:B:887:MET:HE3	1:B:887:MET:HA	1.82	0.62
1:A:686:ALA:O	1:A:689:LEU:N	2.26	0.62
1:A:1686:TRP:CZ2	1:A:1698:ASP:HB3	2.35	0.62
1:B:490:LEU:C	1:B:490:LEU:HD23	2.24	0.62
1:C:1005:THR:OG1	1:C:1116:LEU:HB3	2.00	0.62
1:B:1686:TRP:CH2	1:B:1698:ASP:HB3	2.35	0.61
1:C:1888:ASP:HA	1:C:1891:LEU:HD13	1.81	0.61
1:C:2352:PHE:CE2	1:C:2354:GLY:CA	2.81	0.61
1:B:2064:TRP:HE1	1:C:1871:PRO:HG3	1.63	0.61
1:A:2351:VAL:O	1:A:2352:PHE:C	2.43	0.61
1:B:1157:SER:O	1:B:1158:TYR:C	2.44	0.61
1:B:2351:VAL:O	1:B:2352:PHE:C	2.43	0.61
1:C:1157:SER:O	1:C:1158:TYR:C	2.44	0.61
1:C:1686:TRP:CZ2	1:C:1698:ASP:HB3	2.35	0.61
1:A:978:HIS:CG	1:A:979:SER:N	2.68	0.61
1:C:990:GLN:O	1:C:993:ILE:N	2.33	0.61
1:B:1005:THR:OG1	1:B:1116:LEU:HB3	2.00	0.61
1:B:1686:TRP:CZ2	1:B:1698:ASP:HB3	2.35	0.61
1:B:699:ILE:HD11	1:B:749:PRO:HB2	1.83	0.61
1:C:1635:LEU:HG	1:C:1639:LEU:HD12	1.83	0.61
1:A:699:ILE:HD11	1:A:749:PRO:HB2	1.83	0.61
1:A:1635:LEU:HG	1:A:1639:LEU:HD12	1.83	0.61
1:A:1157:SER:O	1:A:1158:TYR:C	2.44	0.61
1:A:2260:ILE:O	1:A:2264:ILE:HG22	2.01	0.61
1:C:699:ILE:HD11	1:C:749:PRO:HB2	1.83	0.61
1:C:887:MET:HE3	1:C:887:MET:HA	1.82	0.61
1:C:978:HIS:CG	1:C:979:SER:N	2.68	0.61
1:A:1686:TRP:CH2	1:A:1698:ASP:HB3	2.35	0.60
1:A:1888:ASP:HA	1:A:1891:LEU:HD13	1.81	0.60
1:C:494:CYS:HA	1:C:497:TRP:HD1	1.66	0.60
1:B:990:GLN:O	1:B:993:ILE:N	2.33	0.60
1:A:494:CYS:HA	1:A:497:TRP:HD1	1.66	0.60
1:A:1005:THR:OG1	1:A:1116:LEU:HB3	2.00	0.60
1:B:1635:LEU:HG	1:B:1639:LEU:HD12	1.83	0.60
1:C:1828:ILE:HG22	1:C:1828:ILE:O	2.01	0.60
1:C:2351:VAL:O	1:C:2352:PHE:C	2.43	0.60
1:A:887:MET:HE3	1:A:887:MET:HA	1.82	0.60
1:A:1828:ILE:HG22	1:A:1828:ILE:O	2.01	0.60
1:B:494:CYS:HA	1:B:497:TRP:HD1	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1871:PRO:O	1:C:1872:VAL:HG22	2.02	0.60
1:B:978:HIS:CG	1:B:979:SER:N	2.68	0.60
1:A:1157:SER:O	1:A:1160:ASP:N	2.34	0.60
1:B:1871:PRO:O	1:B:1872:VAL:HG22	2.02	0.60
1:C:1160:ASP:O	1:C:1164:SER:N	2.22	0.60
1:A:1871:PRO:O	1:A:1872:VAL:HG22	2.02	0.60
1:B:688:TRP:CZ2	1:B:764:HIS:HB3	2.37	0.60
1:B:1828:ILE:O	1:B:1828:ILE:HG22	2.01	0.60
1:B:2147:THR:HG23	1:B:2149:GLU:H	1.66	0.60
1:B:2260:ILE:O	1:B:2264:ILE:HG22	2.01	0.60
1:A:687:PHE:HD2	1:A:764:HIS:NE2	2.00	0.60
1:B:1242:GLN:HB2	1:B:1273:CYS:HA	1.84	0.60
1:B:2210:TRP:O	1:B:2211:LEU:HD12	2.02	0.60
1:C:1157:SER:O	1:C:1160:ASP:N	2.34	0.60
1:C:2147:THR:HG23	1:C:2149:GLU:H	1.66	0.60
1:C:1242:GLN:HB2	1:C:1273:CYS:HA	1.84	0.59
1:A:2210:TRP:O	1:A:2211:LEU:HD12	2.02	0.59
1:C:988:ALA:O	1:C:989:ILE:C	2.45	0.59
1:C:2260:ILE:O	1:C:2264:ILE:HG22	2.01	0.59
1:A:2147:THR:HG23	1:A:2149:GLU:H	1.66	0.59
1:A:688:TRP:CZ2	1:A:764:HIS:HB3	2.37	0.59
1:B:988:ALA:O	1:B:989:ILE:C	2.45	0.59
1:B:1157:SER:O	1:B:1160:ASP:N	2.34	0.59
1:A:1392:VAL:HG23	1:C:2033:ARG:H	1.67	0.59
1:B:1582:VAL:HA	1:B:1585:MET:HG2	1.85	0.59
1:B:2033:ARG:H	1:C:1392:VAL:HG23	1.67	0.59
1:C:1119:CYS:O	1:C:1123:VAL:HG23	2.03	0.59
1:A:1119:CYS:O	1:A:1123:VAL:HG23	2.03	0.59
1:B:1314:ILE:HA	1:B:1317:PHE:HE1	1.68	0.59
1:A:1314:ILE:HA	1:A:1317:PHE:HE1	1.68	0.59
1:A:1582:VAL:HA	1:A:1585:MET:HG2	1.85	0.59
1:C:649:VAL:HG11	1:C:752:LEU:CD2	2.33	0.59
1:C:2210:TRP:O	1:C:2211:LEU:HD12	2.02	0.59
1:B:2350:LYS:HG2	1:B:2353:LYS:HG3	1.84	0.59
1:A:1242:GLN:HB2	1:A:1273:CYS:HA	1.84	0.58
1:A:2033:ARG:H	1:B:1392:VAL:HG23	1.67	0.58
1:B:687:PHE:HD2	1:B:764:HIS:NE2	2.00	0.58
1:B:1119:CYS:O	1:B:1123:VAL:HG23	2.03	0.58
1:C:688:TRP:CZ2	1:C:764:HIS:HB3	2.37	0.58
1:C:1314:ILE:HA	1:C:1317:PHE:HE1	1.67	0.58
1:C:1887:ILE:O	1:C:1891:LEU:HD12	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1190:ALA:HA	1:A:1193:TYR:HD1	1.68	0.58
1:B:649:VAL:HG11	1:B:752:LEU:CD2	2.33	0.58
1:C:529:MET:HG2	1:C:548:TRP:CZ3	2.37	0.58
1:C:687:PHE:HD2	1:C:764:HIS:NE2	2.00	0.58
1:C:1190:ALA:HA	1:C:1193:TYR:HD1	1.68	0.58
1:A:649:VAL:HG11	1:A:752:LEU:CD2	2.33	0.58
1:A:2373:ARG:NH2	1:B:1986:PHE:CD2	2.71	0.58
1:C:1582:VAL:HA	1:C:1585:MET:HG2	1.85	0.58
1:C:2350:LYS:HG2	1:C:2353:LYS:HG3	1.84	0.58
1:B:1847:THR:O	1:B:1848:PHE:C	2.47	0.58
1:A:988:ALA:O	1:A:989:ILE:C	2.45	0.58
1:A:1887:ILE:O	1:A:1891:LEU:HD12	2.03	0.58
1:C:1838:ILE:HG21	1:C:1943:TYR:HB2	1.86	0.58
1:A:566:THR:O	1:A:569:VAL:HG12	2.03	0.58
1:B:1838:ILE:HG21	1:B:1943:TYR:HB2	1.86	0.58
1:A:1077:TRP:C	1:A:1079:PRO:HD2	2.29	0.58
1:A:1838:ILE:HG21	1:A:1943:TYR:HB2	1.86	0.58
1:A:2350:LYS:HG2	1:A:2353:LYS:HG3	1.84	0.58
1:B:566:THR:O	1:B:569:VAL:HG12	2.03	0.58
1:C:1266:ARG:HD2	1:C:1266:ARG:O	2.04	0.58
1:A:1266:ARG:HD2	1:A:1266:ARG:O	2.04	0.57
1:A:2194:ARG:HB3	1:A:2195:PRO:CD	2.33	0.57
1:B:1190:ALA:HA	1:B:1193:TYR:HD1	1.68	0.57
1:B:2387:GLU:HB2	1:C:1399:ARG:HD3	1.86	0.57
1:C:566:THR:O	1:C:569:VAL:HG12	2.03	0.57
1:C:688:TRP:N	1:C:760:LEU:HD11	2.19	0.57
1:C:1077:TRP:C	1:C:1079:PRO:HD2	2.29	0.57
1:B:1077:TRP:C	1:B:1079:PRO:HD2	2.29	0.57
1:B:1887:ILE:O	1:B:1891:LEU:HD12	2.03	0.57
1:C:988:ALA:O	1:C:990:GLN:N	2.38	0.57
1:C:2084:SER:HB3	1:C:2090:PRO:HA	1.87	0.57
1:B:688:TRP:N	1:B:760:LEU:HD11	2.20	0.57
1:C:1626:GLN:HG2	1:C:1634:THR:HG23	1.87	0.57
1:A:1399:ARG:HD3	1:C:2387:GLU:HB2	1.86	0.57
1:A:1986:PHE:CD2	1:C:2373:ARG:NH2	2.71	0.57
1:B:529:MET:HG2	1:B:548:TRP:CZ3	2.37	0.57
1:B:2373:ARG:NH2	1:C:1986:PHE:CD2	2.71	0.57
1:B:2325:ASN:O	1:B:2326:THR:HG22	2.05	0.57
1:C:1847:THR:O	1:C:1848:PHE:C	2.47	0.57
1:A:2325:ASN:O	1:A:2326:THR:HG22	2.05	0.57
1:C:686:ALA:O	1:C:689:LEU:N	2.26	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:688:TRP:N	1:A:760:LEU:HD11	2.20	0.57
1:B:1626:GLN:HG2	1:B:1634:THR:HG23	1.87	0.57
1:A:2387:GLU:HB2	1:B:1399:ARG:HD3	1.86	0.56
1:C:1179:LEU:O	1:C:1183:ILE:HG13	2.05	0.56
1:A:1827:TYR:HB2	1:A:1953:ASN:HD22	1.70	0.56
1:B:939:ILE:O	1:B:943:ILE:HG23	2.05	0.56
1:B:2084:SER:HB3	1:B:2090:PRO:HA	1.87	0.56
1:A:1007:ILE:HG12	1:A:1308:SER:HB2	1.87	0.56
1:A:1831:LEU:O	1:A:1831:LEU:CD1	2.54	0.56
1:B:1007:ILE:HG12	1:B:1308:SER:HB2	1.87	0.56
1:A:558:ILE:HD12	1:A:559:LEU:N	2.21	0.56
1:A:988:ALA:O	1:A:990:GLN:N	2.38	0.56
1:B:558:ILE:HD12	1:B:559:LEU:N	2.21	0.56
1:B:988:ALA:O	1:B:990:GLN:N	2.38	0.56
1:C:2325:ASN:O	1:C:2326:THR:HG22	2.05	0.56
1:B:1266:ARG:HD2	1:B:1266:ARG:O	2.04	0.56
1:C:1007:ILE:HG12	1:C:1308:SER:HB2	1.88	0.56
1:A:939:ILE:O	1:A:943:ILE:HG23	2.05	0.56
1:B:1193:TYR:O	1:B:1197:THR:HG22	2.06	0.56
1:A:1179:LEU:O	1:A:1183:ILE:HG13	2.05	0.56
1:A:1271:ILE:CG1	1:A:1293:VAL:HG13	2.36	0.56
1:C:1271:ILE:CG1	1:C:1293:VAL:HG13	2.36	0.56
1:B:1271:ILE:CG1	1:B:1293:VAL:HG13	2.36	0.56
1:A:1193:TYR:O	1:A:1197:THR:HG22	2.06	0.56
1:A:990:GLN:O	1:A:993:ILE:N	2.33	0.56
1:A:1626:GLN:HG2	1:A:1634:THR:HG23	1.87	0.56
1:C:991:PHE:HD1	1:C:994:ASP:HB3	1.71	0.56
1:C:1193:TYR:O	1:C:1197:THR:HG22	2.06	0.56
1:C:1831:LEU:O	1:C:1831:LEU:CD1	2.54	0.56
1:A:2155:ARG:HD3	1:A:2333:TYR:HD2	1.71	0.55
1:B:1884:ALA:HA	1:B:1887:ILE:HD12	1.88	0.55
1:C:2194:ARG:HB3	1:C:2195:PRO:CD	2.33	0.55
1:A:2084:SER:HB3	1:A:2090:PRO:HA	1.87	0.55
1:B:1827:TYR:HB2	1:B:1953:ASN:HD22	1.70	0.55
1:C:939:ILE:O	1:C:943:ILE:HG23	2.05	0.55
1:C:1827:TYR:HB2	1:C:1953:ASN:HD22	1.70	0.55
1:A:1827:TYR:CB	1:A:1953:ASN:HD22	2.20	0.55
1:B:1693:ASP:OD1	1:B:1699:LYS:HD3	2.07	0.55
1:C:558:ILE:HD12	1:C:559:LEU:N	2.21	0.55
1:C:1884:ALA:HA	1:C:1887:ILE:HD12	1.88	0.55
1:A:1870:ILE:HG22	1:A:1872:VAL:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1179:LEU:O	1:B:1183:ILE:HG13	2.06	0.55
1:B:1831:LEU:O	1:B:1831:LEU:CD1	2.54	0.55
1:B:1870:ILE:HG22	1:B:1872:VAL:H	1.71	0.55
1:C:1266:ARG:NE	1:C:1291:CYS:SG	2.80	0.55
1:A:554:HIS:O	1:A:558:ILE:HG13	2.07	0.55
1:A:996:GLY:O	1:A:999:LYS:N	2.40	0.55
1:B:1870:ILE:CG2	1:B:1871:PRO:HD2	2.37	0.55
1:A:1239:VAL:O	1:A:1242:GLN:HG3	2.06	0.55
1:A:1266:ARG:NE	1:A:1291:CYS:SG	2.80	0.55
1:B:991:PHE:HD1	1:B:994:ASP:HB3	1.71	0.55
1:C:554:HIS:O	1:C:558:ILE:HG13	2.07	0.55
1:C:996:GLY:O	1:C:999:LYS:N	2.40	0.55
1:C:2155:ARG:HD3	1:C:2333:TYR:HD2	1.71	0.55
1:A:529:MET:HG2	1:A:548:TRP:CZ3	2.37	0.55
1:A:1693:ASP:OD1	1:A:1699:LYS:HD3	2.07	0.55
1:B:544:VAL:HG13	1:B:546:ILE:H	1.72	0.55
1:B:1666:CYS:O	1:B:1670:ILE:HG22	2.07	0.55
1:C:1693:ASP:OD1	1:C:1699:LYS:HD3	2.07	0.55
1:C:1870:ILE:HG22	1:C:1872:VAL:H	1.72	0.55
1:A:1870:ILE:CG2	1:A:1871:PRO:HD2	2.37	0.55
1:A:544:VAL:HG13	1:A:546:ILE:H	1.72	0.54
1:A:1884:ALA:HA	1:A:1887:ILE:HD12	1.88	0.54
1:B:224:SER:CB	1:B:573:LEU:HB3	2.37	0.54
1:B:1827:TYR:CB	1:B:1953:ASN:HD22	2.20	0.54
1:B:2155:ARG:HD3	1:B:2333:TYR:HD2	1.71	0.54
1:C:2019:ILE:O	1:C:2023:ARG:HG2	2.07	0.54
1:B:1239:VAL:O	1:B:1242:GLN:HG3	2.06	0.54
1:B:1266:ARG:NE	1:B:1291:CYS:SG	2.80	0.54
1:C:224:SER:CB	1:C:573:LEU:HB3	2.37	0.54
1:A:1847:THR:O	1:A:1848:PHE:C	2.47	0.54
1:A:2019:ILE:O	1:A:2023:ARG:HG2	2.07	0.54
1:B:977:HIS:HB2	1:B:980:HIS:ND1	2.22	0.54
1:C:1239:VAL:O	1:C:1242:GLN:HG3	2.06	0.54
1:A:1654:LYS:HA	1:A:1657:TRP:HD1	1.73	0.54
1:A:991:PHE:HA	1:A:995:TYR:H	1.73	0.54
1:B:554:HIS:O	1:B:558:ILE:HG13	2.07	0.54
1:B:996:GLY:O	1:B:999:LYS:N	2.40	0.54
1:C:977:HIS:HB2	1:C:980:HIS:ND1	2.22	0.54
1:A:1311:VAL:HA	1:A:1314:ILE:HG22	1.90	0.54
1:B:2019:ILE:O	1:B:2023:ARG:HG2	2.07	0.54
1:C:991:PHE:HA	1:C:995:TYR:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1870:ILE:CG2	1:C:1871:PRO:HD2	2.37	0.54
1:A:1666:CYS:O	1:A:1670:ILE:HG22	2.07	0.54
1:B:1654:LYS:HA	1:B:1657:TRP:HD1	1.73	0.54
1:C:1666:CYS:O	1:C:1670:ILE:HG22	2.07	0.54
1:A:224:SER:CB	1:A:573:LEU:HB3	2.37	0.54
1:A:947:PHE:O	1:A:951:VAL:HG22	2.08	0.54
1:A:977:HIS:HB2	1:A:980:HIS:ND1	2.22	0.54
1:A:991:PHE:HD1	1:A:994:ASP:HB3	1.71	0.54
1:B:1211:ASN:HB3	1:B:1330:ARG:HD3	1.90	0.54
1:B:1717:LEU:HD12	1:B:1717:LEU:C	2.33	0.54
1:A:1883:LEU:HA	1:A:1886:ILE:HD12	1.90	0.54
1:B:947:PHE:O	1:B:951:VAL:HG22	2.08	0.54
1:B:991:PHE:HA	1:B:995:TYR:H	1.73	0.54
1:B:1121:LEU:HD13	1:B:1121:LEU:O	2.08	0.54
1:B:2194:ARG:HB3	1:B:2195:PRO:CD	2.33	0.54
1:C:307:TRP:O	1:C:311:ALA:CB	2.56	0.53
1:A:224:SER:O	1:A:577:ARG:HB2	2.09	0.53
1:A:488:ILE:O	1:A:489:LEU:C	2.52	0.53
1:A:1207:LEU:HD11	1:A:1219:HIS:ND1	2.24	0.53
1:C:1827:TYR:CB	1:C:1953:ASN:HD22	2.20	0.53
1:A:526:PHE:C	1:A:528:SER:H	2.16	0.53
1:A:1335:LEU:HD23	1:A:1336:ALA:N	2.23	0.53
1:A:1717:LEU:C	1:A:1717:LEU:HD12	2.33	0.53
1:A:1871:PRO:HG3	1:C:2064:TRP:HD1	1.69	0.53
1:B:224:SER:O	1:B:577:ARG:HB2	2.09	0.53
1:C:1211:ASN:HB3	1:C:1330:ARG:HD3	1.90	0.53
1:C:1654:LYS:HA	1:C:1657:TRP:HD1	1.73	0.53
1:C:1717:LEU:C	1:C:1717:LEU:HD12	2.33	0.53
1:C:1883:LEU:HA	1:C:1886:ILE:HD12	1.90	0.53
1:A:1211:ASN:HB3	1:A:1330:ARG:HD3	1.90	0.53
1:A:307:TRP:O	1:A:311:ALA:CB	2.56	0.53
1:A:1121:LEU:O	1:A:1121:LEU:HD13	2.08	0.53
1:B:1335:LEU:HD23	1:B:1336:ALA:N	2.23	0.53
1:C:544:VAL:HG13	1:C:546:ILE:H	1.72	0.53
1:C:1335:LEU:HD23	1:C:1336:ALA:N	2.23	0.53
1:A:1267:GLN:O	1:A:1268:LEU:HD22	2.08	0.53
1:C:1121:LEU:HD13	1:C:1121:LEU:O	2.08	0.53
1:C:1311:VAL:HA	1:C:1314:ILE:HG22	1.90	0.53
1:B:823:TRP:HE1	1:B:954:ARG:HD2	1.74	0.53
1:C:1267:GLN:O	1:C:1268:LEU:HD22	2.08	0.53
1:B:1207:LEU:CD1	1:B:1219:HIS:CG	2.92	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1215:ARG:HD2	1:A:1218:GLU:HB2	1.91	0.52
1:B:526:PHE:C	1:B:528:SER:H	2.16	0.52
1:B:1311:VAL:HA	1:B:1314:ILE:HG22	1.89	0.52
1:C:224:SER:O	1:C:577:ARG:HB2	2.09	0.52
1:A:484:ILE:O	1:A:488:ILE:HG13	2.10	0.52
1:B:307:TRP:O	1:B:311:ALA:CB	2.56	0.52
1:C:526:PHE:C	1:C:528:SER:H	2.16	0.52
1:C:1250:SER:HB3	1:C:1284:LEU:HD11	1.91	0.52
1:B:516:TYR:CE1	1:B:519:PHE:HE2	2.27	0.52
1:C:947:PHE:O	1:C:951:VAL:HG22	2.08	0.52
1:A:225:THR:HA	1:A:577:ARG:CG	2.38	0.52
1:A:1160:ASP:HA	1:A:1163:LYS:HB2	1.92	0.52
1:B:1267:GLN:O	1:B:1268:LEU:HD22	2.08	0.52
1:C:1215:ARG:HD2	1:C:1218:GLU:HB2	1.91	0.52
1:A:1271:ILE:HG23	1:A:1272:THR:H	1.74	0.52
1:B:680:TYR:OH	1:B:953:TYR:HB3	2.09	0.52
1:C:1207:LEU:HD11	1:C:1219:HIS:ND1	2.24	0.52
1:A:823:TRP:HE1	1:A:954:ARG:HD2	1.74	0.52
1:A:1585:MET:HB2	1:A:1589:VAL:HG13	1.91	0.52
1:A:516:TYR:CE1	1:A:519:PHE:HE2	2.27	0.52
1:C:484:ILE:O	1:C:488:ILE:HG13	2.10	0.52
1:C:1585:MET:HB2	1:C:1589:VAL:HG13	1.91	0.52
1:B:1302:PHE:HA	1:B:1305:ILE:HD11	1.92	0.52
1:C:680:TYR:OH	1:C:953:TYR:HB3	2.09	0.52
1:A:1826:ARG:HB2	1:A:1826:ARG:NH1	2.25	0.52
1:B:224:SER:O	1:B:574:ARG:HA	2.10	0.52
1:B:1271:ILE:HG23	1:B:1272:THR:H	1.74	0.52
1:B:1272:THR:O	1:B:1273:CYS:C	2.53	0.52
1:C:1207:LEU:CD1	1:C:1219:HIS:CG	2.92	0.52
1:B:1883:LEU:HA	1:B:1886:ILE:HD12	1.90	0.51
1:C:516:TYR:CE1	1:C:519:PHE:HE2	2.27	0.51
1:C:1160:ASP:HA	1:C:1163:LYS:HB2	1.92	0.51
1:C:1272:THR:O	1:C:1273:CYS:C	2.53	0.51
1:A:680:TYR:OH	1:A:953:TYR:HB3	2.09	0.51
1:A:1207:LEU:CD1	1:A:1219:HIS:CG	2.92	0.51
1:A:2109:ILE:HG21	1:A:2151:ILE:HB	1.92	0.51
1:B:484:ILE:O	1:B:488:ILE:HG13	2.10	0.51
1:B:1585:MET:HB2	1:B:1589:VAL:HG13	1.91	0.51
1:C:224:SER:O	1:C:574:ARG:HA	2.10	0.51
1:C:1302:PHE:HA	1:C:1305:ILE:HD11	1.92	0.51
1:A:1302:PHE:HA	1:A:1305:ILE:HD11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1842:CYS:HA	1:A:1845:ILE:HG22	1.91	0.51
1:C:1271:ILE:HG23	1:C:1272:THR:H	1.74	0.51
1:A:224:SER:O	1:A:574:ARG:HA	2.10	0.51
1:B:630:LEU:O	1:B:634:VAL:HG23	2.11	0.51
1:B:657:PHE:HD2	1:B:728:ILE:HD13	1.76	0.51
1:C:713:TRP:NE1	1:C:717:ASN:HD21	2.09	0.51
1:C:1380:ILE:CD1	1:C:1405:MET:HA	2.33	0.51
1:B:1160:ASP:HA	1:B:1163:LYS:HB2	1.92	0.51
1:B:1842:CYS:HA	1:B:1845:ILE:HG22	1.91	0.51
1:C:488:ILE:O	1:C:489:LEU:C	2.51	0.51
1:C:2109:ILE:HG21	1:C:2151:ILE:HB	1.92	0.51
1:B:1224:TRP:CZ3	1:B:1314:ILE:HG13	2.46	0.51
1:A:478:ALA:HB2	1:A:489:LEU:HD12	1.92	0.51
1:A:1224:TRP:CZ3	1:A:1314:ILE:HG13	2.46	0.51
1:B:452:SER:O	1:B:453:LYS:C	2.54	0.51
1:B:2109:ILE:HG21	1:B:2151:ILE:HB	1.92	0.51
1:B:2241:SER:HB2	1:B:2290:LEU:HD12	1.93	0.51
1:C:823:TRP:HE1	1:C:954:ARG:HD2	1.74	0.51
1:C:1151:PHE:HD2	1:C:1152:ILE:H	1.59	0.51
1:B:688:TRP:CZ2	1:B:764:HIS:CB	2.94	0.51
1:B:1250:SER:HB3	1:B:1284:LEU:HD11	1.91	0.51
1:C:688:TRP:CZ2	1:C:764:HIS:CB	2.94	0.51
1:C:2241:SER:HB2	1:C:2290:LEU:HD12	1.93	0.51
1:A:688:TRP:CZ2	1:A:764:HIS:CB	2.94	0.51
1:A:1250:SER:HB3	1:A:1284:LEU:HD11	1.92	0.51
1:A:2061:LEU:CG	1:A:2360:TYR:OH	2.59	0.51
1:B:1215:ARG:HD2	1:B:1218:GLU:HB2	1.91	0.51
1:C:1842:CYS:HA	1:C:1845:ILE:HG22	1.91	0.51
1:A:1351:MET:O	1:A:1352:LYS:C	2.54	0.51
1:B:1351:MET:O	1:B:1352:LYS:C	2.54	0.51
1:B:1687:ARG:HH22	1:B:1711:LEU:HD11	1.76	0.51
1:C:478:ALA:HB2	1:C:489:LEU:HD12	1.92	0.51
1:A:995:TYR:C	1:A:997:PHE:N	2.68	0.50
1:A:1644:TRP:NE1	1:A:1815:ARG:HH12	2.09	0.50
1:B:1826:ARG:HB2	1:B:1826:ARG:NH1	2.25	0.50
1:C:1157:SER:H	1:C:1161:TYR:N	2.10	0.50
1:C:1351:MET:O	1:C:1352:LYS:C	2.54	0.50
1:A:657:PHE:HD2	1:A:728:ILE:HD13	1.76	0.50
1:A:713:TRP:NE1	1:A:717:ASN:HD21	2.09	0.50
1:B:478:ALA:HB2	1:B:489:LEU:HD12	1.92	0.50
1:A:1687:ARG:HH22	1:A:1711:LEU:HD11	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:488:ILE:O	1:B:489:LEU:C	2.52	0.50
1:B:631:SER:O	1:B:634:VAL:HB	2.12	0.50
1:B:1822:HIS:CG	1:B:1822:HIS:O	2.65	0.50
1:C:631:SER:O	1:C:634:VAL:HB	2.12	0.50
1:A:630:LEU:O	1:A:634:VAL:HG23	2.11	0.50
1:B:1151:PHE:HD2	1:B:1152:ILE:H	1.59	0.50
1:C:452:SER:O	1:C:453:LYS:C	2.54	0.50
1:C:1826:ARG:NH1	1:C:1826:ARG:HB2	2.25	0.50
1:A:1078:ILE:N	1:A:1079:PRO:HD2	2.27	0.50
1:B:2040:LEU:O	1:B:2041:VAL:C	2.55	0.50
1:C:938:VAL:O	1:C:942:ILE:HG12	2.12	0.50
1:C:1078:ILE:N	1:C:1079:PRO:HD2	2.27	0.50
1:C:1644:TRP:NE1	1:C:1815:ARG:HH12	2.10	0.50
1:C:1687:ARG:HH22	1:C:1711:LEU:HD11	1.76	0.50
1:C:2061:LEU:CG	1:C:2360:TYR:OH	2.59	0.50
1:A:2241:SER:HB2	1:A:2290:LEU:HD12	1.93	0.50
1:B:1982:ILE:HG23	1:B:1983:PRO:HD2	1.93	0.50
1:C:687:PHE:HD2	1:C:764:HIS:CE1	2.30	0.50
1:C:2161:GLU:HG3	1:C:2162:ILE:HG23	1.93	0.50
1:A:938:VAL:O	1:A:942:ILE:HG12	2.12	0.50
1:A:1272:THR:O	1:A:1273:CYS:C	2.53	0.50
1:A:1822:HIS:CG	1:A:1822:HIS:O	2.64	0.50
1:A:1982:ILE:HG23	1:A:1983:PRO:HD2	1.93	0.50
1:A:2040:LEU:O	1:A:2041:VAL:C	2.55	0.50
1:B:687:PHE:HD2	1:B:764:HIS:CE1	2.30	0.50
1:A:690:THR:C	1:A:692:THR:N	2.70	0.50
1:A:1389:PHE:HB3	1:A:1390:GLU:HG3	1.94	0.50
1:A:2047:PHE:HA	1:A:2050:ILE:HD12	1.94	0.50
1:B:1391:PRO:HD2	1:B:1396:HIS:CE1	2.47	0.50
1:B:2196:TYR:CE2	1:B:2198:PRO:HA	2.47	0.50
1:C:526:PHE:O	1:C:528:SER:N	2.45	0.50
1:C:657:PHE:HD2	1:C:728:ILE:HD13	1.76	0.50
1:C:1391:PRO:HD2	1:C:1396:HIS:CE1	2.47	0.50
1:C:1585:MET:HA	1:C:1588:ALA:HB3	1.94	0.50
1:C:1982:ILE:HG23	1:C:1983:PRO:HD2	1.93	0.50
1:A:452:SER:O	1:A:453:LYS:C	2.54	0.50
1:B:483:SER:HB2	1:B:485:PHE:CD1	2.41	0.50
1:B:713:TRP:NE1	1:B:717:ASN:HD21	2.09	0.50
1:B:2074:SER:OG	1:B:2195:PRO:HG3	2.12	0.50
1:C:1224:TRP:CZ3	1:C:1314:ILE:HG13	2.46	0.50
1:C:2040:LEU:O	1:C:2041:VAL:C	2.55	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:687:PHE:HD2	1:A:764:HIS:CE1	2.30	0.49
1:B:852:PRO:HG2	1:B:878:TYR:CZ	2.47	0.49
1:C:630:LEU:O	1:C:634:VAL:HG23	2.11	0.49
1:A:2373:ARG:HH22	1:B:1986:PHE:HD2	1.55	0.49
1:C:852:PRO:HG2	1:C:878:TYR:CZ	2.47	0.49
1:A:1082:SER:CB	1:A:1249:LEU:HD22	2.43	0.49
1:A:1157:SER:H	1:A:1161:TYR:N	2.10	0.49
1:B:2061:LEU:CG	1:B:2360:TYR:OH	2.59	0.49
1:C:677:PHE:HA	1:C:680:TYR:CD1	2.47	0.49
1:A:526:PHE:O	1:A:528:SER:N	2.45	0.49
1:B:643:SER:HB3	1:B:666:TRP:HH2	1.77	0.49
1:B:677:PHE:HA	1:B:680:TYR:CD1	2.48	0.49
1:B:938:VAL:O	1:B:942:ILE:HG12	2.12	0.49
1:B:1157:SER:H	1:B:1161:TYR:N	2.09	0.49
1:B:1389:PHE:HB3	1:B:1390:GLU:HG3	1.94	0.49
1:C:492:LEU:HD23	1:C:492:LEU:C	2.37	0.49
1:C:2227:ALA:HB2	1:C:2234:HIS:HB3	1.95	0.49
1:A:631:SER:O	1:A:634:VAL:HB	2.12	0.49
1:A:1391:PRO:HD2	1:A:1396:HIS:CE1	2.47	0.49
1:B:1078:ILE:N	1:B:1079:PRO:HD2	2.27	0.49
1:A:492:LEU:HD23	1:A:492:LEU:C	2.37	0.49
1:A:551:LEU:HB2	1:A:554:HIS:HB2	1.94	0.49
1:A:1631:GLY:HA3	1:A:1702:GLY:HA2	1.95	0.49
1:B:526:PHE:O	1:B:528:SER:N	2.45	0.49
1:B:1644:TRP:NE1	1:B:1815:ARG:HH12	2.09	0.49
1:C:1881:MET:O	1:C:1885:ILE:HG12	2.12	0.49
1:A:852:PRO:HG2	1:A:878:TYR:CZ	2.47	0.49
1:B:492:LEU:HD23	1:B:492:LEU:C	2.37	0.49
1:B:2161:GLU:HG3	1:B:2162:ILE:HG23	1.93	0.49
1:C:551:LEU:HB2	1:C:554:HIS:HB2	1.94	0.49
1:C:690:THR:C	1:C:692:THR:N	2.70	0.49
1:C:840:ILE:HD12	1:C:841:PHE:N	2.28	0.49
1:C:1314:ILE:HA	1:C:1317:PHE:CE1	2.48	0.49
1:C:1330:ARG:O	1:C:1332:GLU:N	2.46	0.49
1:C:2074:SER:OG	1:C:2195:PRO:HG3	2.12	0.49
1:A:840:ILE:HD12	1:A:841:PHE:N	2.28	0.49
1:A:1084:ASP:OD2	1:A:1279:HIS:HB2	2.12	0.49
1:A:1330:ARG:O	1:A:1332:GLU:N	2.46	0.49
1:B:690:THR:C	1:B:692:THR:N	2.70	0.49
1:B:1330:ARG:O	1:B:1332:GLU:N	2.45	0.49
1:B:2439:LYS:HA	1:B:2442:GLU:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:982:ASP:O	1:C:984:SER:N	2.46	0.49
1:A:643:SER:HB3	1:A:666:TRP:HH2	1.77	0.49
1:A:1179:LEU:HD21	1:A:1227:LEU:HD21	1.95	0.49
1:A:2074:SER:OG	1:A:2195:PRO:HG3	2.12	0.49
1:B:840:ILE:HD12	1:B:841:PHE:N	2.28	0.49
1:C:1179:LEU:HD21	1:C:1227:LEU:HD21	1.95	0.49
1:C:2196:TYR:CE2	1:C:2198:PRO:HA	2.47	0.49
1:A:1881:MET:O	1:A:1885:ILE:HG12	2.12	0.49
1:A:2196:TYR:CE2	1:A:2198:PRO:HA	2.47	0.49
1:A:1314:ILE:HA	1:A:1317:PHE:CE1	2.48	0.48
1:B:982:ASP:O	1:B:984:SER:N	2.46	0.48
1:B:1380:ILE:CD1	1:B:1405:MET:HA	2.33	0.48
1:C:643:SER:HB3	1:C:666:TRP:HH2	1.77	0.48
1:C:1389:PHE:HB3	1:C:1390:GLU:HG3	1.94	0.48
1:C:1631:GLY:HA3	1:C:1702:GLY:HA2	1.95	0.48
1:A:484:ILE:HD13	1:A:544:VAL:HG23	1.96	0.48
1:C:1084:ASP:OD2	1:C:1279:HIS:HB2	2.12	0.48
1:A:995:TYR:O	1:A:996:GLY:C	2.56	0.48
1:B:995:TYR:O	1:B:996:GLY:C	2.56	0.48
1:B:1585:MET:HA	1:B:1588:ALA:HB3	1.94	0.48
1:B:1084:ASP:OD2	1:B:1279:HIS:HB2	2.12	0.48
1:B:1211:ASN:HA	1:B:1326:MET:HE1	1.96	0.48
1:B:1240:CYS:O	1:B:1243:ILE:HG22	2.13	0.48
1:B:1881:MET:O	1:B:1885:ILE:HG12	2.12	0.48
1:C:1082:SER:CB	1:C:1249:LEU:HD22	2.43	0.48
1:C:1240:CYS:O	1:C:1243:ILE:HG22	2.13	0.48
1:A:982:ASP:O	1:A:984:SER:N	2.46	0.48
1:A:1211:ASN:HA	1:A:1326:MET:HE1	1.96	0.48
1:A:2161:GLU:HG3	1:A:2162:ILE:HG23	1.93	0.48
1:B:551:LEU:HB2	1:B:554:HIS:HB2	1.94	0.48
1:B:1382:ARG:C	1:B:1384:ALA:N	2.70	0.48
1:B:2047:PHE:HA	1:B:2050:ILE:HD12	1.94	0.48
1:C:484:ILE:HD13	1:C:544:VAL:HG23	1.96	0.48
1:C:1005:THR:HG22	1:C:1009:ILE:HD11	1.95	0.48
1:A:677:PHE:HA	1:A:680:TYR:CD1	2.48	0.48
1:A:692:THR:HB	1:A:753:PHE:HE1	1.79	0.48
1:A:2353:LYS:O	1:A:2357:ILE:HG12	2.14	0.48
1:B:692:THR:HB	1:B:753:PHE:HE1	1.79	0.48
1:B:1095:LEU:CD2	1:B:1096:SER:H	2.27	0.48
1:A:1585:MET:HA	1:A:1588:ALA:HB3	1.94	0.48
1:B:2196:TYR:O	1:B:2196:TYR:CD1	2.67	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:849:LEU:HD13	1:A:882:VAL:CB	2.42	0.48
1:A:1240:CYS:O	1:A:1243:ILE:HG22	2.13	0.48
1:B:1082:SER:HB3	1:B:1249:LEU:HD13	1.95	0.48
1:C:1211:ASN:HA	1:C:1326:MET:HE1	1.96	0.48
1:C:1828:ILE:N	1:C:1828:ILE:HD12	2.29	0.48
1:C:2047:PHE:HA	1:C:2050:ILE:HD12	1.94	0.48
1:C:2196:TYR:CD1	1:C:2196:TYR:O	2.67	0.48
1:A:526:PHE:C	1:A:528:SER:N	2.72	0.48
1:A:2439:LYS:HA	1:A:2442:GLU:HB3	1.95	0.48
1:B:995:TYR:C	1:B:997:PHE:N	2.68	0.48
1:B:1631:GLY:HA3	1:B:1702:GLY:HA2	1.95	0.48
1:C:1822:HIS:CG	1:C:1822:HIS:O	2.65	0.48
1:B:2197:ASP:HA	1:B:2198:PRO:HD2	1.68	0.48
1:A:1178:THR:HB	1:A:1306:ALA:HA	1.96	0.47
1:B:2353:LYS:O	1:B:2357:ILE:HG12	2.14	0.47
1:C:526:PHE:C	1:C:528:SER:N	2.72	0.47
1:C:692:THR:HB	1:C:753:PHE:HE1	1.79	0.47
1:C:995:TYR:O	1:C:996:GLY:C	2.56	0.47
1:A:1082:SER:HB3	1:A:1249:LEU:HD13	1.95	0.47
1:A:2352:PHE:CE2	1:A:2355:GLY:N	2.82	0.47
1:B:2352:PHE:CE2	1:B:2355:GLY:N	2.82	0.47
1:C:1178:THR:HB	1:C:1306:ALA:HA	1.96	0.47
1:C:2353:LYS:O	1:C:2357:ILE:HG12	2.14	0.47
1:A:483:SER:HB2	1:A:485:PHE:CD1	2.41	0.47
1:A:1005:THR:HG22	1:A:1009:ILE:HD11	1.95	0.47
1:A:1828:ILE:HD12	1:A:1828:ILE:N	2.29	0.47
1:A:2196:TYR:O	1:A:2196:TYR:CD1	2.67	0.47
1:A:2227:ALA:HB2	1:A:2234:HIS:HB3	1.95	0.47
1:B:1207:LEU:HD11	1:B:1219:HIS:ND1	2.24	0.47
1:C:225:THR:HA	1:C:577:ARG:CG	2.38	0.47
1:C:1095:LEU:CD2	1:C:1096:SER:H	2.27	0.47
1:A:1095:LEU:CD2	1:A:1096:SER:H	2.27	0.47
1:B:484:ILE:HD13	1:B:544:VAL:HG23	1.96	0.47
1:B:1179:LEU:HD21	1:B:1227:LEU:HD21	1.95	0.47
1:C:2352:PHE:CE2	1:C:2355:GLY:N	2.82	0.47
1:A:1151:PHE:HD2	1:A:1152:ILE:H	1.59	0.47
1:C:995:TYR:C	1:C:997:PHE:N	2.68	0.47
1:C:1082:SER:HB3	1:C:1249:LEU:HD13	1.95	0.47
1:C:2439:LYS:HA	1:C:2442:GLU:HB3	1.95	0.47
1:A:1375:ARG:NH2	1:A:1379:GLN:OE1	2.48	0.47
1:B:565:LEU:HD23	1:B:565:LEU:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2078:LYS:HB3	1:A:2193:THR:HB	1.97	0.47
1:B:849:LEU:HD13	1:B:882:VAL:CB	2.42	0.47
1:B:1252:PHE:CE1	1:B:1262:LEU:HB3	2.50	0.47
1:B:2227:ALA:HB2	1:B:2234:HIS:HB3	1.95	0.47
1:C:478:ALA:HB2	1:C:489:LEU:CD1	2.45	0.47
1:C:565:LEU:O	1:C:565:LEU:HD23	2.14	0.47
1:A:565:LEU:HD23	1:A:565:LEU:O	2.14	0.47
1:B:1191:LEU:HB2	1:B:1672:PHE:CE2	2.50	0.47
1:B:2431:ILE:HG12	1:C:2425:ARG:CZ	2.45	0.47
1:A:1382:ARG:C	1:A:1384:ALA:N	2.70	0.47
1:B:939:ILE:HD12	1:B:940:VAL:N	2.30	0.47
1:B:1314:ILE:HA	1:B:1317:PHE:CE1	2.48	0.47
1:C:1685:THR:O	1:C:1689:GLU:HG2	2.15	0.47
1:A:686:ALA:C	1:A:688:TRP:N	2.73	0.47
1:A:1252:PHE:CE1	1:A:1262:LEU:HB3	2.50	0.47
1:B:526:PHE:C	1:B:528:SER:N	2.72	0.47
1:C:1382:ARG:C	1:C:1384:ALA:N	2.70	0.47
1:A:688:TRP:CD1	1:A:760:LEU:HG	2.50	0.46
1:A:2271:ARG:HA	1:A:2271:ARG:HD3	1.62	0.46
1:A:2431:ILE:HG12	1:B:2425:ARG:CZ	2.45	0.46
1:B:636:VAL:HG12	1:B:637:TYR:CD1	2.51	0.46
1:A:1986:PHE:HD2	1:C:2373:ARG:HH22	1.55	0.46
1:B:1005:THR:HG22	1:B:1009:ILE:HD11	1.95	0.46
1:B:1685:THR:O	1:B:1689:GLU:HG2	2.15	0.46
1:B:2064:TRP:HD1	1:C:1871:PRO:HG3	1.69	0.46
1:C:636:VAL:HG12	1:C:637:TYR:CD1	2.50	0.46
1:C:939:ILE:HD12	1:C:940:VAL:N	2.30	0.46
1:A:636:VAL:HG12	1:A:637:TYR:CD1	2.51	0.46
1:A:1241:LEU:HD23	1:A:1241:LEU:HA	1.81	0.46
1:B:1271:ILE:HG13	1:B:1293:VAL:HG13	1.98	0.46
1:C:1826:ARG:HB2	1:C:1826:ARG:HH11	1.80	0.46
1:C:2078:LYS:HB3	1:C:2193:THR:HB	1.97	0.46
1:A:990:GLN:C	1:A:992:LEU:N	2.73	0.46
1:A:1646:ASN:ND2	1:A:1945:LEU:HD23	2.31	0.46
1:A:2197:ASP:HA	1:A:2198:PRO:HD2	1.68	0.46
1:B:1346:LEU:O	1:B:1350:GLU:HG2	2.15	0.46
1:B:1826:ARG:HB2	1:B:1826:ARG:HH11	1.80	0.46
1:C:1252:PHE:CE1	1:C:1262:LEU:HB3	2.50	0.46
1:A:1271:ILE:HG13	1:A:1293:VAL:HG13	1.98	0.46
1:A:1846:MET:HE3	1:A:1846:MET:HB2	1.71	0.46
1:A:2196:TYR:O	1:A:2196:TYR:CG	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1052:ILE:O	1:B:1056:LEU:HD22	2.16	0.46
1:C:483:SER:HB2	1:C:485:PHE:CD1	2.41	0.46
1:A:986:LYS:HA	1:A:989:ILE:HB	1.98	0.46
1:A:1826:ARG:HB2	1:A:1826:ARG:HH11	1.80	0.46
1:B:478:ALA:HB2	1:B:489:LEU:CD1	2.45	0.46
1:B:1375:ARG:NH2	1:B:1379:GLN:OE1	2.48	0.46
1:C:688:TRP:CD1	1:C:760:LEU:HG	2.50	0.46
1:C:1052:ILE:O	1:C:1056:LEU:HD22	2.16	0.46
1:C:1346:LEU:O	1:C:1350:GLU:HG2	2.15	0.46
1:A:1346:LEU:O	1:A:1350:GLU:HG2	2.15	0.46
1:B:1646:ASN:ND2	1:B:1945:LEU:HD23	2.31	0.46
1:C:1191:LEU:HB2	1:C:1672:PHE:CE2	2.50	0.46
1:A:494:CYS:HA	1:A:497:TRP:CD1	2.49	0.46
1:B:484:ILE:O	1:B:487:LEU:HB3	2.16	0.46
1:B:1584:LYS:HD2	1:B:1584:LYS:HA	1.74	0.46
1:A:1342:LEU:O	1:A:1343:LYS:C	2.59	0.46
1:A:1380:ILE:CD1	1:A:1405:MET:HA	2.33	0.46
1:A:1693:ASP:HA	1:A:1694:PRO:HD3	1.84	0.46
1:A:1904:GLN:NE2	1:A:1951:ILE:HD12	2.31	0.46
1:B:225:THR:HA	1:B:577:ARG:CG	2.38	0.46
1:B:688:TRP:CD1	1:B:760:LEU:HG	2.51	0.46
1:B:1828:ILE:HD12	1:B:1828:ILE:N	2.29	0.46
1:A:1052:ILE:O	1:A:1056:LEU:HD22	2.16	0.46
1:A:1685:THR:O	1:A:1689:GLU:HG2	2.15	0.46
1:A:2064:TRP:CD1	1:B:1871:PRO:CG	2.89	0.46
1:A:2425:ARG:CZ	1:C:2431:ILE:HG12	2.45	0.46
1:B:986:LYS:HA	1:B:989:ILE:HB	1.98	0.46
1:C:1375:ARG:NH2	1:C:1379:GLN:OE1	2.48	0.46
1:C:1828:ILE:N	1:C:1828:ILE:CD1	2.80	0.46
1:A:484:ILE:O	1:A:487:LEU:HB3	2.16	0.45
1:A:814:LEU:O	1:A:818:THR:HG23	2.17	0.45
1:B:1178:THR:HB	1:B:1306:ALA:HA	1.96	0.45
1:C:471:LEU:O	1:C:475:MET:HG2	2.17	0.45
1:A:1217:PHE:O	1:A:1220:THR:HG22	2.16	0.45
1:B:1269:PHE:O	1:B:1271:ILE:HG22	2.16	0.45
1:C:1158:TYR:CZ	1:C:1600:THR:HG21	2.52	0.45
1:C:1342:LEU:O	1:C:1343:LYS:C	2.59	0.45
1:C:2178:LEU:HD23	1:C:2184:VAL:HG21	1.98	0.45
1:A:939:ILE:HD12	1:A:940:VAL:N	2.30	0.45
1:A:1013:ILE:HD12	1:A:1013:ILE:HA	1.82	0.45
1:A:1191:LEU:HB2	1:A:1672:PHE:CE2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1271:ILE:HG12	1:A:1293:VAL:HG13	1.99	0.45
1:B:2078:LYS:HB3	1:B:2193:THR:HB	1.97	0.45
1:C:1224:TRP:CH2	1:C:1314:ILE:HG13	2.52	0.45
1:C:1269:PHE:O	1:C:1271:ILE:HG22	2.16	0.45
1:C:1904:GLN:NE2	1:C:1951:ILE:HD12	2.31	0.45
1:A:809:LYS:HB3	1:A:809:LYS:HE3	1.73	0.45
1:A:1044:VAL:HG13	1:A:1121:LEU:HD21	1.99	0.45
1:A:1149:TYR:HB3	1:A:1320:TRP:CZ3	2.52	0.45
1:A:1828:ILE:N	1:A:1828:ILE:CD1	2.80	0.45
1:B:471:LEU:O	1:B:475:MET:HG2	2.17	0.45
1:B:1082:SER:CB	1:B:1249:LEU:HD22	2.43	0.45
1:B:1149:TYR:HB3	1:B:1320:TRP:CZ3	2.51	0.45
1:B:1904:GLN:NE2	1:B:1951:ILE:HD12	2.31	0.45
1:C:1646:ASN:ND2	1:C:1945:LEU:HD23	2.31	0.45
1:C:1711:LEU:HB3	1:C:1712:TRP:H	1.55	0.45
1:A:1005:THR:HG22	1:A:1009:ILE:CD1	2.47	0.45
1:A:1641:SER:HA	1:A:1656:PHE:CZ	2.49	0.45
1:B:1342:LEU:O	1:B:1343:LYS:C	2.59	0.45
1:C:483:SER:HG	1:C:486:GLY:N	2.13	0.45
1:C:849:LEU:HD13	1:C:882:VAL:CB	2.42	0.45
1:B:1217:PHE:O	1:B:1220:THR:HG22	2.17	0.45
1:C:760:LEU:HA	1:C:764:HIS:CE1	2.52	0.45
1:C:1005:THR:HG22	1:C:1009:ILE:CD1	2.47	0.45
1:C:1149:TYR:HB3	1:C:1320:TRP:CZ3	2.51	0.45
1:C:484:ILE:O	1:C:487:LEU:HB3	2.16	0.45
1:C:516:TYR:CD1	1:C:519:PHE:HE2	2.35	0.45
1:C:1380:ILE:HD12	1:C:1405:MET:CA	2.35	0.45
1:A:471:LEU:O	1:A:475:MET:HG2	2.17	0.45
1:A:478:ALA:HB2	1:A:489:LEU:CD1	2.45	0.45
1:A:516:TYR:CD1	1:A:519:PHE:HE2	2.35	0.45
1:A:760:LEU:HD12	1:A:764:HIS:CE1	2.52	0.45
1:A:991:PHE:HB3	1:A:995:TYR:HB2	1.99	0.45
1:A:1158:TYR:CZ	1:A:1600:THR:HG21	2.52	0.45
1:A:1224:TRP:CH2	1:A:1314:ILE:HG13	2.52	0.45
1:B:814:LEU:O	1:B:818:THR:HG23	2.17	0.45
1:B:942:ILE:O	1:B:945:LEU:HD23	2.17	0.45
1:B:978:HIS:O	1:B:981:PHE:HB3	2.17	0.45
1:B:2064:TRP:CD1	1:C:1871:PRO:CG	2.89	0.45
1:C:986:LYS:HA	1:C:989:ILE:HB	1.98	0.45
1:A:1269:PHE:O	1:A:1271:ILE:HG22	2.16	0.45
1:B:494:CYS:HA	1:B:497:TRP:CD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1158:TYR:CZ	1:B:1600:THR:HG21	2.52	0.45
1:C:939:ILE:HA	1:C:942:ILE:HG12	1.99	0.45
1:C:1378:LYS:O	1:C:1379:GLN:C	2.60	0.45
1:C:1825:PHE:CD2	1:C:1825:PHE:O	2.70	0.45
1:A:939:ILE:HA	1:A:942:ILE:HG12	1.99	0.45
1:A:1825:PHE:CD2	1:A:1825:PHE:O	2.70	0.45
1:A:1900:LYS:NZ	1:A:1900:LYS:HB3	2.32	0.45
1:B:990:GLN:C	1:B:992:LEU:N	2.73	0.45
1:B:1176:MET:CE	1:B:1179:LEU:HD22	2.36	0.45
1:B:1378:LYS:O	1:B:1379:GLN:C	2.60	0.45
1:B:1828:ILE:N	1:B:1828:ILE:CD1	2.80	0.45
1:B:760:LEU:HD12	1:B:764:HIS:CE1	2.52	0.44
1:B:854:VAL:O	1:B:857:LEU:HB3	2.17	0.44
1:B:2178:LEU:HD23	1:B:2184:VAL:HG21	1.98	0.44
1:C:814:LEU:O	1:C:818:THR:HG23	2.17	0.44
1:C:942:ILE:O	1:C:945:LEU:HD23	2.17	0.44
1:C:1149:TYR:HB2	1:C:1319:SER:OG	2.17	0.44
1:C:1217:PHE:O	1:C:1220:THR:HG22	2.16	0.44
1:C:1271:ILE:HG13	1:C:1293:VAL:HG13	1.98	0.44
1:C:1367:ARG:O	1:C:1371:ALA:N	2.49	0.44
1:C:2365:LEU:O	1:C:2366:VAL:C	2.60	0.44
1:A:807:LEU:O	1:A:807:LEU:HD12	2.17	0.44
1:A:2365:LEU:O	1:A:2366:VAL:C	2.60	0.44
1:B:760:LEU:HA	1:B:764:HIS:CE1	2.52	0.44
1:B:939:ILE:HA	1:B:942:ILE:HG12	1.99	0.44
1:B:1005:THR:HG22	1:B:1009:ILE:CD1	2.47	0.44
1:B:1825:PHE:O	1:B:1825:PHE:CD2	2.70	0.44
1:C:483:SER:C	1:C:486:GLY:N	2.74	0.44
1:C:523:LEU:HA	1:C:526:PHE:CD2	2.52	0.44
1:C:1044:VAL:HG13	1:C:1121:LEU:HD21	1.99	0.44
1:C:1900:LYS:NZ	1:C:1900:LYS:HB3	2.32	0.44
1:C:2052:GLY:O	1:C:2055:ILE:HG13	2.17	0.44
1:A:483:SER:OG	1:A:485:PHE:HB2	2.18	0.44
1:A:942:ILE:O	1:A:945:LEU:HD23	2.17	0.44
1:B:1013:ILE:HD12	1:B:1021:ALA:HB1	2.00	0.44
1:B:1159:VAL:HG23	1:B:1160:ASP:H	1.83	0.44
1:B:1224:TRP:CH2	1:B:1314:ILE:HG13	2.52	0.44
1:B:1641:SER:HA	1:B:1656:PHE:CZ	2.49	0.44
1:C:760:LEU:HD12	1:C:764:HIS:CE1	2.52	0.44
1:C:833:ILE:HG22	1:C:837:ILE:HD13	1.99	0.44
1:C:1240:CYS:HA	1:C:1243:ILE:HG22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:490:LEU:C	1:A:490:LEU:CD2	2.91	0.44
1:A:978:HIS:O	1:A:981:PHE:HB3	2.17	0.44
1:A:1155:LYS:O	1:A:1156:LYS:HB2	2.17	0.44
1:A:1378:LYS:O	1:A:1379:GLN:C	2.60	0.44
1:A:2368:GLY:HA2	1:A:2372:VAL:HB	1.99	0.44
1:A:2378:THR:HG1	1:B:2008:ASN:CG	2.23	0.44
1:B:523:LEU:HA	1:B:526:PHE:CD2	2.52	0.44
1:B:1237:MET:HA	1:B:1240:CYS:SG	2.57	0.44
1:B:1900:LYS:NZ	1:B:1900:LYS:HB3	2.32	0.44
1:B:2196:TYR:O	1:B:2196:TYR:CG	2.68	0.44
1:B:2368:GLY:HA2	1:B:2372:VAL:HB	1.99	0.44
1:C:1221:LEU:HA	1:C:1224:TRP:CD1	2.53	0.44
1:A:523:LEU:HA	1:A:526:PHE:CD2	2.52	0.44
1:A:1237:MET:HA	1:A:1240:CYS:SG	2.57	0.44
1:A:2052:GLY:O	1:A:2055:ILE:HG13	2.17	0.44
1:B:639:ILE:O	1:B:643:SER:OG	2.35	0.44
1:B:807:LEU:HD12	1:B:807:LEU:O	2.17	0.44
1:B:981:PHE:O	1:B:982:ASP:C	2.60	0.44
1:B:1149:TYR:HB2	1:B:1319:SER:OG	2.17	0.44
1:B:1838:ILE:HG23	1:B:1939:ILE:HG23	2.00	0.44
1:C:483:SER:OG	1:C:485:PHE:HB2	2.18	0.44
1:C:807:LEU:HD12	1:C:807:LEU:O	2.17	0.44
1:C:978:HIS:O	1:C:981:PHE:HB3	2.17	0.44
1:A:981:PHE:O	1:A:982:ASP:C	2.60	0.44
1:A:1240:CYS:HA	1:A:1243:ILE:HG22	1.98	0.44
1:A:1347:ILE:O	1:A:1351:MET:HG2	2.17	0.44
1:B:939:ILE:HD12	1:B:940:VAL:H	1.82	0.44
1:B:1044:VAL:HG13	1:B:1121:LEU:HD21	1.99	0.44
1:B:1240:CYS:HA	1:B:1243:ILE:HG22	1.98	0.44
1:C:854:VAL:O	1:C:857:LEU:HB3	2.17	0.44
1:C:1237:MET:HA	1:C:1240:CYS:SG	2.57	0.44
1:C:1317:PHE:HB2	1:C:1322:PHE:CD1	2.53	0.44
1:A:519:PHE:HA	1:A:522:ILE:HD12	2.00	0.44
1:A:1149:TYR:HB2	1:A:1319:SER:OG	2.17	0.44
1:B:516:TYR:CD1	1:B:519:PHE:HE2	2.35	0.44
1:B:981:PHE:CG	1:B:982:ASP:N	2.85	0.44
1:B:1347:ILE:O	1:B:1351:MET:HG2	2.17	0.44
1:B:1367:ARG:O	1:B:1371:ALA:N	2.49	0.44
1:B:2052:GLY:O	1:B:2055:ILE:HG13	2.17	0.44
1:B:2365:LEU:O	1:B:2366:VAL:C	2.60	0.44
1:B:2373:ARG:HH22	1:C:1986:PHE:HD2	1.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:990:GLN:C	1:C:992:LEU:N	2.73	0.44
1:A:679:LEU:HD13	1:A:679:LEU:HA	1.85	0.44
1:A:1159:VAL:HG23	1:A:1160:ASP:H	1.83	0.44
1:A:1317:PHE:HB2	1:A:1322:PHE:CD1	2.53	0.44
1:A:2178:LEU:HD23	1:A:2184:VAL:HG21	1.98	0.44
1:A:2272:ILE:HD13	1:A:2272:ILE:HA	1.80	0.44
1:B:1000:PHE:HB3	1:B:1001:GLY:H	1.32	0.44
1:B:1228:LEU:O	1:B:1232:LEU:HD13	2.18	0.44
1:C:939:ILE:HD12	1:C:940:VAL:H	1.82	0.44
1:C:1271:ILE:HG12	1:C:1293:VAL:HG13	1.99	0.44
1:C:1937:TYR:HD1	1:C:1937:TYR:O	2.01	0.44
1:A:1221:LEU:HA	1:A:1224:TRP:CD1	2.53	0.44
1:B:307:TRP:O	1:B:311:ALA:HB2	2.18	0.44
1:B:529:MET:O	1:B:531:ILE:N	2.49	0.44
1:C:686:ALA:C	1:C:688:TRP:N	2.73	0.44
1:C:1187:SER:O	1:C:1190:ALA:HB3	2.18	0.44
1:C:1870:ILE:HG23	1:C:1871:PRO:HD2	2.00	0.44
1:C:1940:LYS:HD2	1:C:1940:LYS:HA	1.76	0.44
1:C:2076:PRO:HG3	1:C:2194:ARG:HE	1.83	0.44
1:C:2298:LYS:HB3	1:C:2298:LYS:HE2	1.83	0.44
1:A:981:PHE:CG	1:A:982:ASP:N	2.86	0.43
1:A:2076:PRO:HG3	1:A:2194:ARG:NE	2.33	0.43
1:B:519:PHE:HA	1:B:522:ILE:HD12	2.00	0.43
1:B:833:ILE:HG22	1:B:837:ILE:HD13	1.99	0.43
1:B:833:ILE:O	1:B:837:ILE:HG12	2.18	0.43
1:B:1589:VAL:HB	1:B:1593:TRP:NE1	2.33	0.43
1:B:1846:MET:HE3	1:B:1846:MET:HB2	1.71	0.43
1:C:490:LEU:C	1:C:490:LEU:CD2	2.91	0.43
1:C:1013:ILE:HD12	1:C:1021:ALA:HB1	2.00	0.43
1:C:1043:TRP:HA	1:C:1046:TYR:HB3	2.00	0.43
1:A:760:LEU:HA	1:A:764:HIS:CE1	2.52	0.43
1:A:1584:LYS:HD2	1:A:1584:LYS:HA	1.74	0.43
1:A:1838:ILE:HG23	1:A:1939:ILE:HG23	2.00	0.43
1:A:1871:PRO:CG	1:C:2064:TRP:CD1	2.89	0.43
1:A:2076:PRO:HG3	1:A:2194:ARG:HE	1.83	0.43
1:B:483:SER:OG	1:B:485:PHE:HB2	2.18	0.43
1:B:696:SER:O	1:B:700:ILE:HG23	2.18	0.43
1:B:1187:SER:O	1:B:1190:ALA:HB3	2.18	0.43
1:B:1221:LEU:HA	1:B:1224:TRP:CD1	2.53	0.43
1:C:833:ILE:O	1:C:837:ILE:HG12	2.18	0.43
1:A:696:SER:O	1:A:700:ILE:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:854:VAL:O	1:A:857:LEU:HB3	2.17	0.43
1:A:939:ILE:HD12	1:A:940:VAL:H	1.82	0.43
1:A:1065:PRO:HB2	1:A:1066:PRO:HD3	2.00	0.43
1:A:1589:VAL:HB	1:A:1593:TRP:NE1	2.33	0.43
1:B:828:VAL:HG12	1:B:829:HIS:CG	2.53	0.43
1:B:991:PHE:HB3	1:B:995:TYR:HB2	1.99	0.43
1:B:1180:ALA:HA	1:B:1183:ILE:HD12	2.01	0.43
1:C:638:PHE:CB	1:C:763:PHE:CZ	2.99	0.43
1:C:1036:ARG:O	1:C:1040:ARG:HG3	2.19	0.43
1:C:1838:ILE:HG23	1:C:1939:ILE:HG23	2.00	0.43
1:A:1013:ILE:HD12	1:A:1021:ALA:HB1	2.00	0.43
1:A:1228:LEU:O	1:A:1232:LEU:HD13	2.18	0.43
1:B:1155:LYS:O	1:B:1156:LYS:HB2	2.17	0.43
1:B:1634:THR:O	1:B:1638:PRO:HD2	2.18	0.43
1:B:2076:PRO:HG3	1:B:2194:ARG:NE	2.33	0.43
1:B:2076:PRO:HG3	1:B:2194:ARG:HE	1.83	0.43
1:C:2368:GLY:HA2	1:C:2372:VAL:HB	1.99	0.43
1:A:202:ILE:HA	1:A:559:LEU:HD23	2.00	0.43
1:A:833:ILE:O	1:A:837:ILE:HG12	2.18	0.43
1:A:2363:VAL:HG13	1:A:2364:ILE:N	2.33	0.43
1:B:994:ASP:C	1:B:996:GLY:H	2.26	0.43
1:B:1047:VAL:HG21	1:B:1121:LEU:HG	2.01	0.43
1:B:1241:LEU:HD23	1:B:1241:LEU:HA	1.81	0.43
1:B:1271:ILE:HG12	1:B:1293:VAL:HG13	1.99	0.43
1:B:1317:PHE:HB2	1:B:1322:PHE:CD1	2.53	0.43
1:B:2271:ARG:HD3	1:B:2271:ARG:HA	1.62	0.43
1:C:981:PHE:O	1:C:982:ASP:C	2.60	0.43
1:C:1159:VAL:HG23	1:C:1160:ASP:H	1.83	0.43
1:C:2384:MET:H	1:C:2384:MET:HG2	1.57	0.43
1:B:1249:LEU:HD21	1:B:1281:LEU:CD2	2.48	0.43
1:B:1937:TYR:HD1	1:B:1937:TYR:O	2.01	0.43
1:C:981:PHE:CG	1:C:982:ASP:N	2.86	0.43
1:C:991:PHE:HB3	1:C:995:TYR:HB2	1.99	0.43
1:C:1628:MET:HE3	1:C:1718:PHE:CE2	2.54	0.43
1:C:2076:PRO:HG3	1:C:2194:ARG:NE	2.33	0.43
1:C:2363:VAL:HG13	1:C:2364:ILE:N	2.33	0.43
1:A:638:PHE:CB	1:A:763:PHE:CZ	2.99	0.43
1:A:828:VAL:HG12	1:A:829:HIS:CG	2.53	0.43
1:A:833:ILE:HG22	1:A:837:ILE:HD13	2.00	0.43
1:B:1043:TRP:HA	1:B:1046:TYR:HB3	2.00	0.43
1:B:1700:LEU:HD23	1:B:1700:LEU:C	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:696:SER:O	1:C:700:ILE:HG23	2.18	0.43
1:C:1056:LEU:HA	1:C:1059:PHE:HB2	2.01	0.43
1:C:1155:LYS:O	1:C:1156:LYS:HB2	2.17	0.43
1:C:1228:LEU:O	1:C:1232:LEU:HD13	2.18	0.43
1:C:1347:ILE:O	1:C:1351:MET:HG2	2.17	0.43
1:A:653:PHE:CG	1:A:654:ALA:N	2.87	0.43
1:A:1344:ASN:HA	1:A:1347:ILE:HG22	2.01	0.43
1:A:1634:THR:O	1:A:1638:PRO:HD2	2.18	0.43
1:B:2020:LYS:HB2	1:B:2391:ALA:O	2.19	0.43
1:B:2363:VAL:HG13	1:B:2364:ILE:N	2.33	0.43
1:C:307:TRP:O	1:C:311:ALA:HB2	2.18	0.43
1:C:487:LEU:HD13	1:C:703:TYR:HD2	1.84	0.43
1:C:653:PHE:CG	1:C:654:ALA:N	2.87	0.43
1:C:994:ASP:C	1:C:996:GLY:H	2.26	0.43
1:C:1325:CYS:HA	1:C:1328:GLU:HB2	2.00	0.43
1:C:2020:LYS:HB2	1:C:2391:ALA:O	2.19	0.43
1:C:2196:TYR:O	1:C:2196:TYR:CG	2.68	0.43
1:C:2245:PHE:HB3	1:C:2339:PHE:HE2	1.83	0.43
1:A:1187:SER:O	1:A:1190:ALA:HB3	2.18	0.43
1:A:1243:ILE:O	1:A:1247:VAL:HG13	2.19	0.43
1:A:1870:ILE:HG23	1:A:1871:PRO:HD2	2.00	0.43
1:B:2245:PHE:HB3	1:B:2339:PHE:HE2	1.83	0.43
1:C:1020:LEU:HD13	1:C:1024:GLN:HE22	1.84	0.43
1:C:1241:LEU:HD23	1:C:1241:LEU:HA	1.81	0.43
1:A:487:LEU:HD13	1:A:703:TYR:HD2	1.84	0.43
1:B:487:LEU:HD13	1:B:703:TYR:HD2	1.84	0.43
1:B:1628:MET:HE3	1:B:1718:PHE:CE2	2.54	0.43
1:B:2298:LYS:HE2	1:B:2298:LYS:HB3	1.83	0.43
1:C:494:CYS:HA	1:C:497:TRP:CD1	2.49	0.43
1:C:519:PHE:HA	1:C:522:ILE:HD12	2.00	0.43
1:C:826:PHE:O	1:C:830:ILE:HG12	2.19	0.43
1:C:1065:PRO:HB2	1:C:1066:PRO:HD3	2.00	0.43
1:C:1589:VAL:HB	1:C:1593:TRP:NE1	2.33	0.43
1:A:676:SER:O	1:A:679:LEU:HB2	2.19	0.42
1:A:826:PHE:O	1:A:830:ILE:HG12	2.19	0.42
1:A:1349:LYS:O	1:A:1352:LYS:HB3	2.19	0.42
1:A:1686:TRP:CH2	1:A:1698:ASP:CB	3.02	0.42
1:B:989:ILE:O	1:B:992:LEU:HB3	2.19	0.42
1:B:1020:LEU:HD13	1:B:1024:GLN:HE22	1.84	0.42
1:B:1243:ILE:O	1:B:1247:VAL:HG13	2.19	0.42
1:C:454:GLY:O	1:C:455:MET:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1001:GLY:O	1:C:1002:LEU:C	2.62	0.42
1:C:1047:VAL:HG21	1:C:1121:LEU:HG	2.01	0.42
1:C:1381:GLU:O	1:C:1381:GLU:HG2	2.18	0.42
1:C:1634:THR:O	1:C:1638:PRO:HD2	2.19	0.42
1:A:1047:VAL:HG21	1:A:1121:LEU:HG	2.01	0.42
1:A:1325:CYS:HA	1:A:1328:GLU:HB2	2.00	0.42
1:A:1700:LEU:C	1:A:1700:LEU:HD23	2.44	0.42
1:A:2106:LEU:HD11	1:A:2152:LEU:HD21	2.01	0.42
1:A:2123:ASP:OD1	1:A:2123:ASP:C	2.63	0.42
1:B:653:PHE:CG	1:B:654:ALA:N	2.87	0.42
1:B:1344:ASN:HA	1:B:1347:ILE:HG22	2.01	0.42
1:B:1870:ILE:HG23	1:B:1871:PRO:HD2	2.00	0.42
1:B:2106:LEU:HD11	1:B:2152:LEU:HD21	2.01	0.42
1:C:1243:ILE:O	1:C:1247:VAL:HG13	2.19	0.42
1:C:1700:LEU:C	1:C:1700:LEU:HD23	2.44	0.42
1:B:202:ILE:HA	1:B:559:LEU:HD23	2.00	0.42
1:B:494:CYS:CA	1:B:497:TRP:HD1	2.32	0.42
1:B:1325:CYS:HA	1:B:1328:GLU:HB2	2.00	0.42
1:C:202:ILE:HA	1:C:559:LEU:HD23	2.00	0.42
1:C:676:SER:O	1:C:679:LEU:HB2	2.19	0.42
1:C:828:VAL:HG12	1:C:829:HIS:CG	2.53	0.42
1:A:307:TRP:O	1:A:311:ALA:HB2	2.18	0.42
1:A:1036:ARG:O	1:A:1040:ARG:HG3	2.19	0.42
1:A:1043:TRP:HA	1:A:1046:TYR:HB3	2.00	0.42
1:A:1180:ALA:HA	1:A:1183:ILE:HD12	2.01	0.42
1:A:1916:PHE:CE2	1:A:1937:TYR:HE2	2.37	0.42
1:A:1937:TYR:HD1	1:A:1937:TYR:O	2.01	0.42
1:A:2020:LYS:HB2	1:A:2391:ALA:O	2.19	0.42
1:B:1036:ARG:O	1:B:1040:ARG:HG3	2.19	0.42
1:B:1711:LEU:HB3	1:B:1712:TRP:H	1.55	0.42
1:B:2303:LYS:HE3	1:B:2303:LYS:HB2	1.74	0.42
1:C:875:MET:O	1:C:879:LEU:HG	2.20	0.42
1:C:1378:LYS:HD2	1:C:1382:ARG:NH1	2.35	0.42
1:A:989:ILE:O	1:A:992:LEU:HB3	2.19	0.42
1:A:1378:LYS:HD2	1:A:1382:ARG:NH1	2.35	0.42
1:A:2384:MET:H	1:A:2384:MET:HG2	1.57	0.42
1:A:2431:ILE:HG12	1:B:2425:ARG:NH2	2.35	0.42
1:B:676:SER:O	1:B:679:LEU:HB2	2.19	0.42
1:B:686:ALA:C	1:B:688:TRP:N	2.73	0.42
1:B:1001:GLY:O	1:B:1002:LEU:C	2.62	0.42
1:B:1056:LEU:HA	1:B:1059:PHE:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1065:PRO:HB2	1:B:1066:PRO:HD3	2.00	0.42
1:B:1163:LYS:HA	1:B:1163:LYS:HD3	1.69	0.42
1:B:1181:ALA:HB1	1:B:1302:PHE:HD1	1.85	0.42
1:C:639:ILE:O	1:C:643:SER:OG	2.35	0.42
1:A:481:TYR:HD2	1:A:483:SER:HB3	1.85	0.42
1:A:494:CYS:CA	1:A:497:TRP:HD1	2.32	0.42
1:A:994:ASP:C	1:A:996:GLY:H	2.26	0.42
1:B:648:VAL:HA	1:B:651:THR:HG22	2.02	0.42
1:B:826:PHE:O	1:B:830:ILE:HG12	2.19	0.42
1:B:1637:LEU:HD23	1:B:1637:LEU:HA	1.77	0.42
1:C:1916:PHE:CE2	1:C:1937:TYR:HE2	2.37	0.42
1:A:1628:MET:HE3	1:A:1718:PHE:CE2	2.54	0.42
1:A:2245:PHE:HB3	1:A:2339:PHE:HE2	1.83	0.42
1:B:1349:LYS:O	1:B:1352:LYS:HB3	2.19	0.42
1:B:2344:PHE:HA	1:B:2345:PRO:HD3	1.90	0.42
1:C:1344:ASN:HA	1:C:1347:ILE:HG22	2.01	0.42
1:C:1349:LYS:O	1:C:1352:LYS:HB3	2.19	0.42
1:C:2123:ASP:OD1	1:C:2123:ASP:C	2.63	0.42
1:C:2272:ILE:HD13	1:C:2272:ILE:HA	1.80	0.42
1:A:1176:MET:CE	1:A:1179:LEU:HD22	2.36	0.42
1:A:1305:ILE:HD12	1:A:1306:ALA:N	2.34	0.42
1:B:991:PHE:CA	1:B:995:TYR:H	2.33	0.42
1:C:1163:LYS:HA	1:C:1163:LYS:HD3	1.69	0.42
1:A:517:ILE:HD12	1:A:520:LEU:HD12	2.02	0.42
1:A:687:PHE:CD2	1:A:764:HIS:NE2	2.81	0.42
1:A:875:MET:O	1:A:879:LEU:HG	2.20	0.42
1:A:991:PHE:CA	1:A:995:TYR:H	2.33	0.42
1:A:1056:LEU:HA	1:A:1059:PHE:HB2	2.01	0.42
1:A:1249:LEU:HD21	1:A:1281:LEU:CD2	2.48	0.42
1:A:1904:GLN:HE21	1:A:1951:ILE:HD12	1.85	0.42
1:C:449:SER:O	1:C:452:SER:HB3	2.20	0.42
1:C:989:ILE:O	1:C:992:LEU:HB3	2.19	0.42
1:A:1020:LEU:HD13	1:A:1024:GLN:HE22	1.84	0.42
1:A:1381:GLU:O	1:A:1381:GLU:HG2	2.18	0.42
1:A:1939:ILE:HD13	1:A:1939:ILE:HA	1.87	0.42
1:B:690:THR:C	1:B:692:THR:H	2.28	0.42
1:B:875:MET:O	1:B:879:LEU:HG	2.20	0.42
1:B:1152:ILE:HG13	1:B:1153:ASP:H	1.85	0.42
1:B:1305:ILE:HD12	1:B:1306:ALA:N	2.34	0.42
1:B:1343:LYS:HE2	1:B:1343:LYS:HB3	1.86	0.42
1:B:1686:TRP:CH2	1:B:1698:ASP:CB	3.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2123:ASP:OD1	1:B:2123:ASP:C	2.62	0.42
1:C:1181:ALA:HB1	1:C:1302:PHE:HD1	1.85	0.42
1:C:1904:GLN:HE21	1:C:1951:ILE:HD12	1.85	0.42
1:C:2120:ALA:HB2	1:C:2318:LYS:HG2	2.02	0.42
1:A:529:MET:O	1:A:531:ILE:N	2.49	0.41
1:A:2075:MET:HE1	1:A:2108:MET:HE1	2.02	0.41
1:B:449:SER:O	1:B:452:SER:HB3	2.20	0.41
1:B:490:LEU:C	1:B:490:LEU:CD2	2.91	0.41
1:C:1070:ILE:HD12	1:C:1070:ILE:HA	1.84	0.41
1:C:1846:MET:HE3	1:C:1846:MET:HB2	1.71	0.41
1:B:517:ILE:HD12	1:B:520:LEU:HD12	2.02	0.41
1:B:848:ALA:O	1:B:851:ILE:HD12	2.20	0.41
1:B:1148:GLN:H	1:B:1148:GLN:HG2	1.66	0.41
1:B:1378:LYS:HD2	1:B:1382:ARG:NH1	2.35	0.41
1:B:2120:ALA:HB2	1:B:2318:LYS:HG2	2.02	0.41
1:C:494:CYS:CA	1:C:497:TRP:HD1	2.32	0.41
1:C:633:LYS:HA	1:C:633:LYS:HD3	1.63	0.41
1:C:1180:ALA:HA	1:C:1183:ILE:HD12	2.01	0.41
1:C:1281:LEU:HD23	1:C:1284:LEU:HB2	2.02	0.41
1:A:853:LEU:HB2	1:A:878:TYR:HD2	1.86	0.41
1:A:2350:LYS:HG2	1:A:2353:LYS:CG	2.49	0.41
1:C:529:MET:O	1:C:531:ILE:N	2.49	0.41
1:C:648:VAL:HA	1:C:651:THR:HG22	2.02	0.41
1:C:1152:ILE:HG13	1:C:1153:ASP:H	1.85	0.41
1:C:1305:ILE:HD12	1:C:1306:ALA:N	2.34	0.41
1:C:2075:MET:HE1	1:C:2108:MET:HE1	2.02	0.41
1:A:454:GLY:O	1:A:455:MET:C	2.63	0.41
1:A:633:LYS:HD3	1:A:633:LYS:HA	1.63	0.41
1:A:848:ALA:O	1:A:851:ILE:HD12	2.20	0.41
1:A:1181:ALA:HB1	1:A:1302:PHE:HD1	1.85	0.41
1:B:2350:LYS:HG2	1:B:2353:LYS:CG	2.49	0.41
1:B:2431:ILE:HG12	1:C:2425:ARG:NH2	2.35	0.41
1:C:2106:LEU:HD11	1:C:2152:LEU:HD21	2.01	0.41
1:B:1190:ALA:HA	1:B:1193:TYR:CD1	2.53	0.41
1:B:1281:LEU:HD23	1:B:1284:LEU:HB2	2.02	0.41
1:C:517:ILE:HD12	1:C:520:LEU:HD12	2.02	0.41
1:C:853:LEU:HB2	1:C:878:TYR:HD2	1.86	0.41
1:C:1157:SER:O	1:C:1161:TYR:N	2.48	0.41
1:C:1320:TRP:CE3	1:C:1320:TRP:HA	2.56	0.41
1:A:460:THR:CG2	1:A:464:PHE:HE1	2.23	0.41
1:A:1000:PHE:HB3	1:A:1001:GLY:H	1.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1232:LEU:HA	1:A:1235:ILE:HG22	2.03	0.41
1:A:1610:ILE:HD12	1:A:1610:ILE:HA	1.87	0.41
1:A:2425:ARG:NH2	1:C:2431:ILE:HG12	2.35	0.41
1:B:679:LEU:HD13	1:B:679:LEU:HA	1.85	0.41
1:B:1010:GLY:O	1:B:1013:ILE:HG22	2.21	0.41
1:C:1686:TRP:CH2	1:C:1698:ASP:CB	3.02	0.41
1:A:449:SER:O	1:A:452:SER:HB3	2.20	0.41
1:A:833:ILE:HA	1:A:836:VAL:HG12	2.03	0.41
1:A:1157:SER:O	1:A:1159:VAL:N	2.54	0.41
1:A:2064:TRP:HD1	1:B:1871:PRO:HG3	1.69	0.41
1:B:565:LEU:O	1:B:568:PRO:HD2	2.21	0.41
1:B:652:CYS:O	1:B:652:CYS:SG	2.79	0.41
1:B:1232:LEU:HA	1:B:1235:ILE:HG22	2.03	0.41
1:C:690:THR:C	1:C:692:THR:H	2.28	0.41
1:C:833:ILE:HA	1:C:836:VAL:HG12	2.03	0.41
1:C:848:ALA:O	1:C:851:ILE:HD12	2.20	0.41
1:A:652:CYS:O	1:A:652:CYS:SG	2.79	0.41
1:A:1152:ILE:HG13	1:A:1153:ASP:H	1.85	0.41
1:A:1320:TRP:CE3	1:A:1320:TRP:HA	2.56	0.41
1:A:1637:LEU:HD23	1:A:1637:LEU:HA	1.77	0.41
1:B:633:LYS:HA	1:B:633:LYS:HD3	1.63	0.41
1:B:1904:GLN:HE21	1:B:1951:ILE:HD12	1.85	0.41
1:B:1916:PHE:CE2	1:B:1937:TYR:HE2	2.37	0.41
1:C:831:SER:O	1:C:834:VAL:HG22	2.21	0.41
1:C:991:PHE:CA	1:C:995:TYR:H	2.33	0.41
1:A:648:VAL:HA	1:A:651:THR:HG22	2.02	0.41
1:A:830:ILE:HD13	1:A:830:ILE:HA	1.89	0.41
1:A:831:SER:O	1:A:834:VAL:HG22	2.21	0.41
1:A:1191:LEU:O	1:A:1195:ILE:HG12	2.21	0.41
1:A:1711:LEU:HB3	1:A:1712:TRP:H	1.55	0.41
1:A:2008:ASN:OD1	1:C:2378:THR:OG1	2.33	0.41
1:A:2120:ALA:HB2	1:A:2318:LYS:HG2	2.02	0.41
1:B:502:THR:O	1:B:505:SER:OG	2.38	0.41
1:B:699:ILE:O	1:B:702:LEU:HG	2.21	0.41
1:B:836:VAL:O	1:B:840:ILE:HG13	2.21	0.41
1:B:1157:SER:O	1:B:1159:VAL:N	2.54	0.41
1:B:1330:ARG:HH11	1:B:1330:ARG:HB3	1.86	0.41
1:B:2331:ARG:HH11	1:B:2331:ARG:HD3	1.64	0.41
1:C:1016:ARG:NH2	1:C:1020:LEU:HD12	2.36	0.41
1:C:1045:PHE:HB3	1:C:1049:TYR:CZ	2.56	0.41
1:C:1176:MET:CE	1:C:1179:LEU:HD22	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1191:LEU:O	1:C:1195:ILE:HG12	2.21	0.41
1:C:2197:ASP:HA	1:C:2198:PRO:HD2	1.68	0.41
1:A:502:THR:O	1:A:505:SER:OG	2.38	0.41
1:A:1010:GLY:O	1:A:1013:ILE:HG22	2.21	0.41
1:A:1623:ILE:HG13	1:A:1941:SER:OG	2.21	0.41
1:A:1664:THR:O	1:A:1667:VAL:HG12	2.21	0.41
1:A:1940:LYS:HD2	1:A:1940:LYS:HA	1.76	0.41
1:B:1013:ILE:HD12	1:B:1013:ILE:HA	1.81	0.41
1:B:1320:TRP:HA	1:B:1320:TRP:CE3	2.56	0.41
1:C:1022:ALA:O	1:C:1025:CYS:HB2	2.21	0.41
1:A:1045:PHE:HB3	1:A:1049:TYR:CZ	2.56	0.40
1:A:2208:LYS:HG2	1:A:2210:TRP:CZ2	2.56	0.40
1:C:483:SER:HA	1:C:546:ILE:HD11	2.03	0.40
1:C:652:CYS:O	1:C:652:CYS:SG	2.79	0.40
1:A:699:ILE:O	1:A:702:LEU:HG	2.21	0.40
1:A:871:PHE:O	1:A:874:PHE:HB2	2.21	0.40
1:A:1209:VAL:HA	1:A:1329:TYR:HB3	2.03	0.40
1:A:1367:ARG:O	1:A:1371:ALA:N	2.49	0.40
1:B:483:SER:C	1:B:486:GLY:N	2.74	0.40
1:B:521:LEU:H	1:B:521:LEU:HG	1.63	0.40
1:B:871:PHE:O	1:B:874:PHE:HB2	2.21	0.40
1:B:2118:ASN:CG	1:B:2144:LYS:HE3	2.47	0.40
1:C:848:ALA:HA	1:C:851:ILE:HD12	2.03	0.40
1:C:1010:GLY:O	1:C:1013:ILE:HG22	2.21	0.40
1:C:1266:ARG:O	1:C:1266:ARG:CG	2.69	0.40
1:C:1330:ARG:HB3	1:C:1330:ARG:HH11	1.86	0.40
1:C:1641:SER:HA	1:C:1656:PHE:CZ	2.49	0.40
1:C:2208:LYS:HG2	1:C:2210:TRP:CZ2	2.56	0.40
1:A:529:MET:C	1:A:531:ILE:H	2.30	0.40
1:A:848:ALA:HA	1:A:851:ILE:HD12	2.03	0.40
1:A:876:CYS:HA	1:A:879:LEU:HD11	2.04	0.40
1:A:1281:LEU:HD23	1:A:1284:LEU:HB2	2.02	0.40
1:A:1343:LYS:HE2	1:A:1343:LYS:HB3	1.86	0.40
1:B:977:HIS:HB2	1:B:980:HIS:HB2	2.03	0.40
1:B:1191:LEU:O	1:B:1195:ILE:HG12	2.21	0.40
1:B:1212:SER:HB3	1:B:1215:ARG:HB3	2.03	0.40
1:B:1623:ILE:HG13	1:B:1941:SER:OG	2.21	0.40
1:B:1973:MET:O	1:B:1977:LYS:HB2	2.21	0.40
1:C:481:TYR:HD2	1:C:483:SER:HB3	1.85	0.40
1:C:1232:LEU:HA	1:C:1235:ILE:HG22	2.03	0.40
1:C:1321:TYR:O	1:C:1322:PHE:C	2.65	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2118:ASN:CG	1:C:2144:LYS:HE3	2.47	0.40
1:C:2208:LYS:HG3	1:C:2209:SER:N	2.35	0.40
1:C:2331:ARG:HH11	1:C:2331:ARG:HD3	1.64	0.40
1:A:565:LEU:O	1:A:568:PRO:HD2	2.21	0.40
1:A:1021:ALA:HA	1:A:1024:GLN:NE2	2.37	0.40
1:A:1022:ALA:O	1:A:1025:CYS:HB2	2.22	0.40
1:A:1191:LEU:HB2	1:A:1672:PHE:CZ	2.57	0.40
1:A:2208:LYS:HG3	1:A:2209:SER:N	2.35	0.40
1:B:831:SER:O	1:B:834:VAL:HG22	2.21	0.40
1:B:833:ILE:HA	1:B:836:VAL:HG12	2.03	0.40
1:B:1116:LEU:HA	1:B:1116:LEU:HD23	1.86	0.40
1:B:1323:GLN:HE21	1:B:1327:VAL:HG23	1.86	0.40
1:B:1916:PHE:O	1:B:1917:LEU:HD23	2.21	0.40
1:B:2075:MET:HE1	1:B:2108:MET:HE1	2.02	0.40
1:B:2089:PRO:HA	1:B:2090:PRO:HD3	1.98	0.40
1:C:529:MET:C	1:C:531:ILE:H	2.30	0.40
1:C:679:LEU:HA	1:C:679:LEU:HD13	1.85	0.40
1:C:1013:ILE:HD12	1:C:1013:ILE:HA	1.82	0.40
1:C:1191:LEU:HB2	1:C:1672:PHE:CZ	2.57	0.40
1:C:1212:SER:HB3	1:C:1215:ARG:HB3	2.03	0.40
1:C:1249:LEU:HD21	1:C:1281:LEU:CD2	2.48	0.40
1:A:1323:GLN:HE21	1:A:1327:VAL:HG23	1.86	0.40
1:A:1693:ASP:OD1	1:A:1696:SER:HB3	2.22	0.40
1:B:454:GLY:O	1:B:455:MET:C	2.63	0.40
1:B:853:LEU:HB2	1:B:878:TYR:HD2	1.86	0.40
1:B:1016:ARG:NH2	1:B:1020:LEU:HD12	2.36	0.40
1:C:565:LEU:O	1:C:568:PRO:HD2	2.21	0.40
1:C:809:LYS:HB3	1:C:809:LYS:HE3	1.73	0.40
1:C:1021:ALA:HA	1:C:1024:GLN:NE2	2.37	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	1918/2442 (78%)	1711 (89%)	171 (9%)	36 (2%)	6	34
1	B	1918/2442 (78%)	1711 (89%)	171 (9%)	36 (2%)	6	34
1	C	1918/2442 (78%)	1712 (89%)	170 (9%)	36 (2%)	6	34
All	All	5754/7326 (78%)	5134 (89%)	512 (9%)	108 (2%)	9	34

All (108) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	259	ILE
1	A	289	TRP
1	A	482	HIS
1	A	691	LEU
1	A	983	ARG
1	A	989	ILE
1	A	997	PHE
1	A	1079	PRO
1	A	1158	TYR
1	A	1247	VAL
1	A	1253	ASP
1	A	1271	ILE
1	A	1831	LEU
1	B	259	ILE
1	B	289	TRP
1	B	482	HIS
1	B	691	LEU
1	B	983	ARG
1	B	989	ILE
1	B	997	PHE
1	B	1079	PRO
1	B	1158	TYR
1	B	1247	VAL
1	B	1253	ASP
1	B	1271	ILE
1	B	1831	LEU
1	C	259	ILE
1	C	289	TRP
1	C	482	HIS
1	C	691	LEU
1	C	983	ARG
1	C	989	ILE
1	C	997	PHE
1	C	1079	PRO

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Mol	Chain	Res	Type
1	C	1158	TYR
1	C	1247	VAL
1	C	1253	ASP
1	C	1271	ILE
1	C	1831	LEU
1	A	106	ILE
1	A	116	THR
1	A	496	LEU
1	A	985	LEU
1	A	990	GLN
1	A	1000	PHE
1	A	1333	VAL
1	A	1335	LEU
1	A	1379	GLN
1	A	1715	VAL
1	A	1872	VAL
1	A	2347	PHE
1	A	2352	PHE
1	B	106	ILE
1	B	116	THR
1	B	496	LEU
1	B	985	LEU
1	B	990	GLN
1	B	1000	PHE
1	B	1333	VAL
1	B	1335	LEU
1	B	1379	GLN
1	B	1715	VAL
1	B	1872	VAL
1	B	2347	PHE
1	B	2352	PHE
1	C	106	ILE
1	C	116	THR
1	C	496	LEU
1	C	985	LEU
1	C	990	GLN
1	C	1000	PHE
1	C	1333	VAL
1	C	1335	LEU
1	C	1379	GLN
1	C	1715	VAL
1	C	1872	VAL

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Mol	Chain	Res	Type
1	C	2347	PHE
1	C	2352	PHE
1	A	527	LEU
1	A	978	HIS
1	A	1157	SER
1	B	527	LEU
1	B	978	HIS
1	B	1157	SER
1	C	527	LEU
1	C	978	HIS
1	C	1157	SER
1	A	1249	LEU
1	A	1388	ASP
1	A	2272	ILE
1	A	2345	PRO
1	B	1249	LEU
1	B	1388	ASP
1	B	2272	ILE
1	B	2345	PRO
1	C	1249	LEU
1	C	1388	ASP
1	C	2272	ILE
1	C	2345	PRO
1	A	984	SER
1	A	1339	GLY
1	B	984	SER
1	B	1339	GLY
1	C	984	SER
1	C	1339	GLY
1	A	1066	PRO
1	B	1066	PRO
1	C	1066	PRO

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	1449/2141 (68%)	1417 (98%)	32 (2%)	47	70
1	B	1449/2141 (68%)	1418 (98%)	31 (2%)	48	71
1	C	1449/2141 (68%)	1416 (98%)	33 (2%)	45	69
All	All	4347/6423 (68%)	4251 (98%)	96 (2%)	47	70

All (96) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	467	TYR
1	A	521	LEU
1	A	525	TYR
1	A	529	MET
1	A	559	LEU
1	A	949	SER
1	A	1056	LEU
1	A	1078	ILE
1	A	1096	SER
1	A	1115	LEU
1	A	1168	HIS
1	A	1196	PHE
1	A	1249	LEU
1	A	1264	ILE
1	A	1266	ARG
1	A	1267	GLN
1	A	1284	LEU
1	A	1294	GLU
1	A	1296	LYS
1	A	1355	ASN
1	A	1377	GLN
1	A	1386	GLU
1	A	1665	GLU
1	A	1698	ASP
1	A	1894	ARG
1	A	2035	ILE
1	A	2041	VAL
1	A	2042	LYS
1	A	2073	ILE
1	A	2331	ARG
1	A	2366	VAL
1	A	2433	TRP
1	B	467	TYR
1	B	521	LEU

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Mol	Chain	Res	Type
1	B	525	TYR
1	B	529	MET
1	B	559	LEU
1	B	949	SER
1	B	1056	LEU
1	B	1078	ILE
1	B	1096	SER
1	B	1115	LEU
1	B	1168	HIS
1	B	1196	PHE
1	B	1249	LEU
1	B	1264	ILE
1	B	1266	ARG
1	B	1267	GLN
1	B	1284	LEU
1	B	1294	GLU
1	B	1296	LYS
1	B	1355	ASN
1	B	1377	GLN
1	B	1386	GLU
1	B	1665	GLU
1	B	1698	ASP
1	B	1894	ARG
1	B	2035	ILE
1	B	2041	VAL
1	B	2042	LYS
1	B	2331	ARG
1	B	2366	VAL
1	B	2433	TRP
1	C	467	TYR
1	C	521	LEU
1	C	525	TYR
1	C	529	MET
1	C	559	LEU
1	C	941	SER
1	C	949	SER
1	C	1056	LEU
1	C	1078	ILE
1	C	1096	SER
1	C	1115	LEU
1	C	1168	HIS
1	C	1196	PHE

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Mol	Chain	Res	Type
1	C	1249	LEU
1	C	1264	ILE
1	C	1266	ARG
1	C	1267	GLN
1	C	1284	LEU
1	C	1294	GLU
1	C	1296	LYS
1	C	1355	ASN
1	C	1377	GLN
1	C	1386	GLU
1	C	1665	GLU
1	C	1698	ASP
1	C	1894	ARG
1	C	2035	ILE
1	C	2041	VAL
1	C	2042	LYS
1	C	2073	ILE
1	C	2331	ARG
1	C	2366	VAL
1	C	2433	TRP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	2201	ASN
1	B	717	ASN
1	B	1953	ASN
1	B	2201	ASN
1	C	717	ASN
1	C	1931	HIS
1	C	2201	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 [i](#)

There are no oligosaccharides 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.

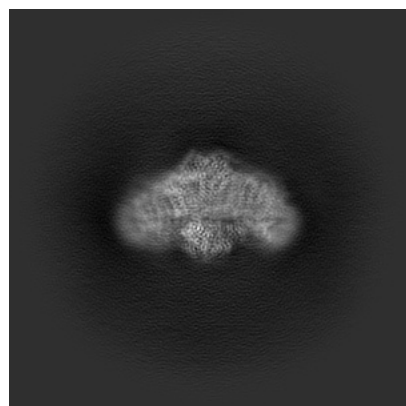
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-74281. These allow visual inspection of the internal detail of the map and identification of artifacts.

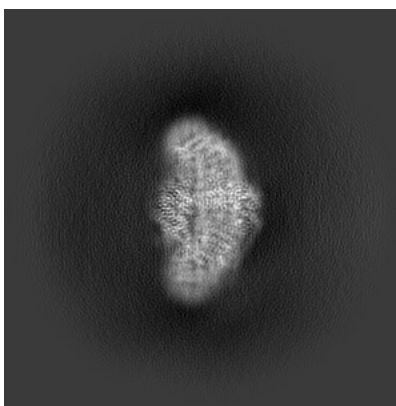
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

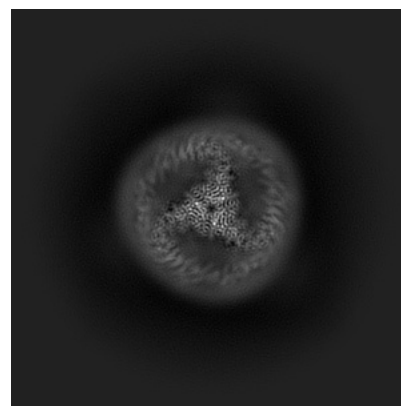
6.1.1 Primary map



X

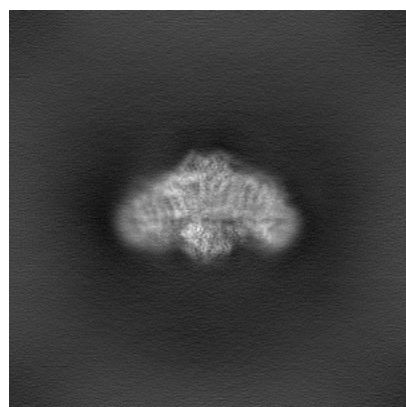


Y

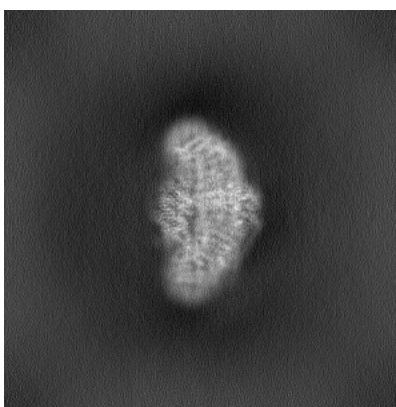


Z

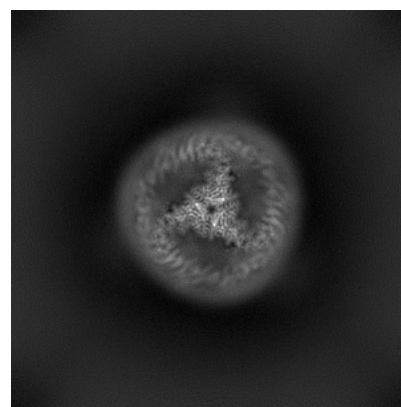
6.1.2 Raw map



X



Y

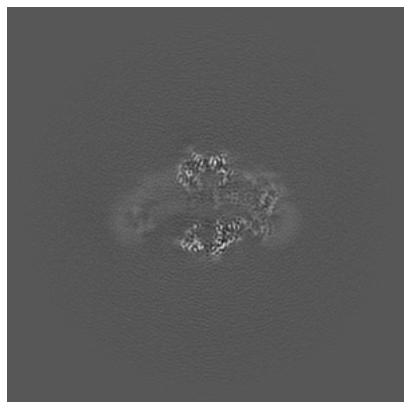


Z

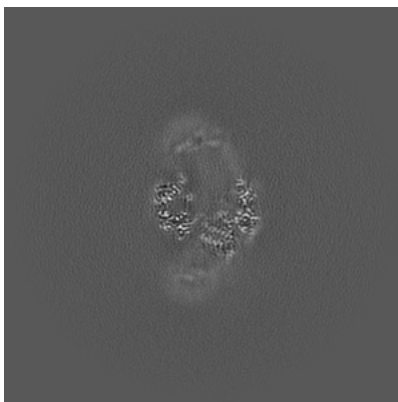
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

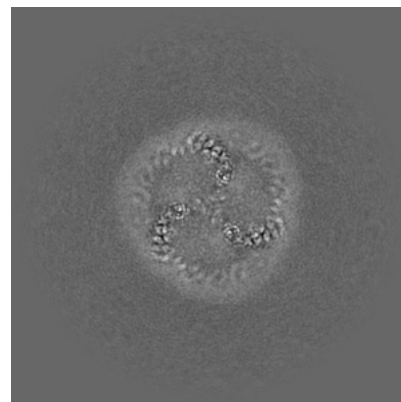
6.2.1 Primary map



X Index: 224

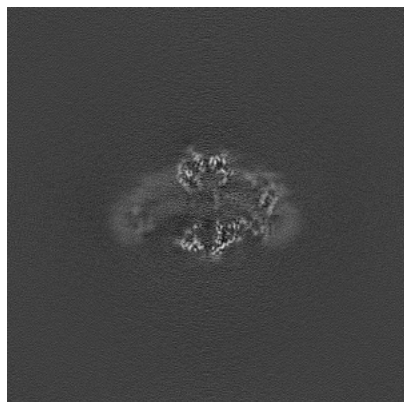


Y Index: 224

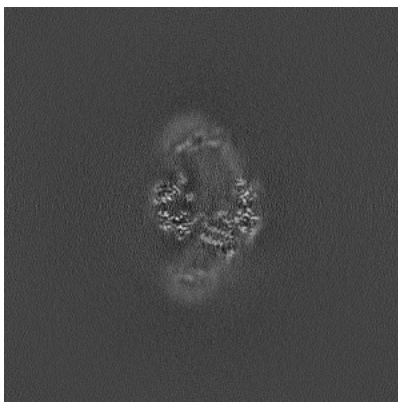


Z Index: 224

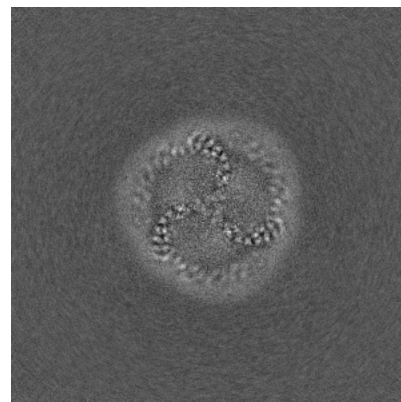
6.2.2 Raw map



X Index: 224



Y Index: 224

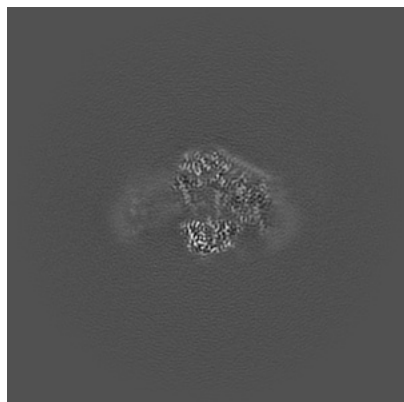


Z Index: 224

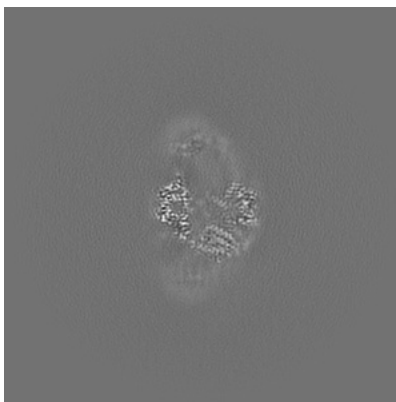
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

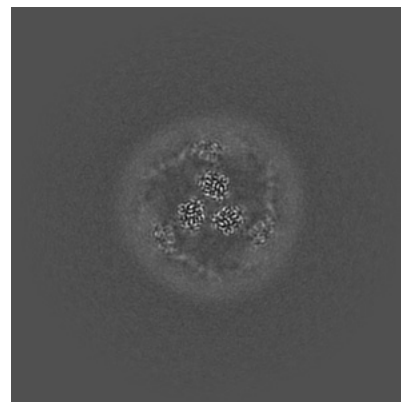
6.3.1 Primary map



X Index: 236

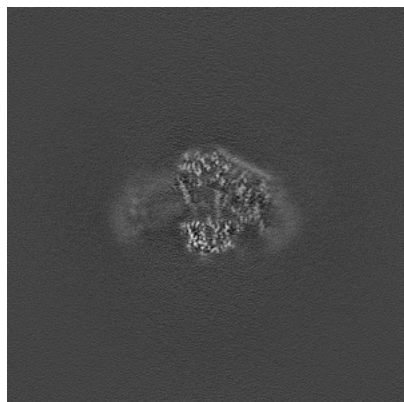


Y Index: 216

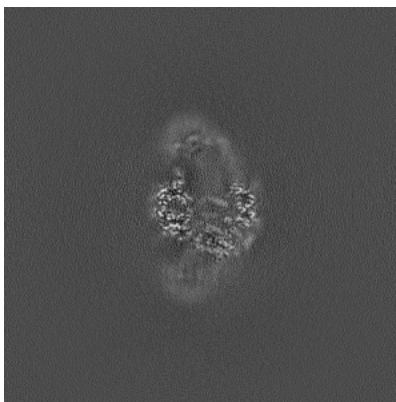


Z Index: 197

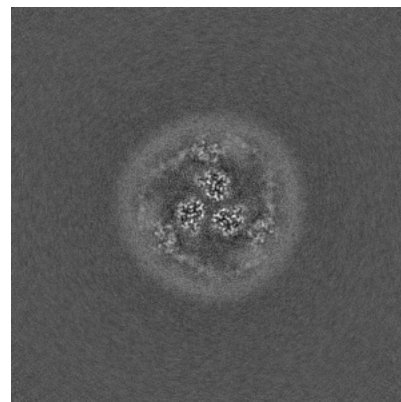
6.3.2 Raw map



X Index: 236



Y Index: 218

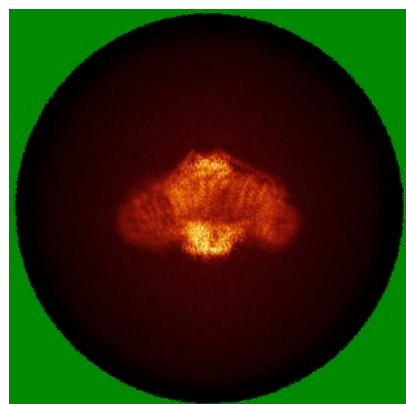


Z Index: 198

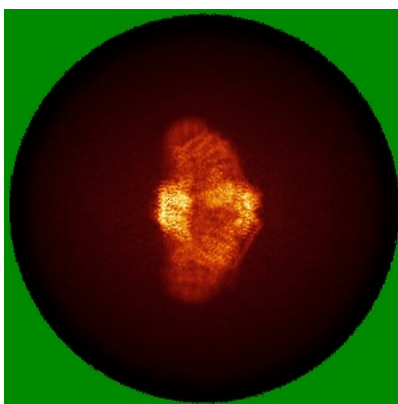
The images above show the largest variance slices of the map in three orthogonal directions.

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

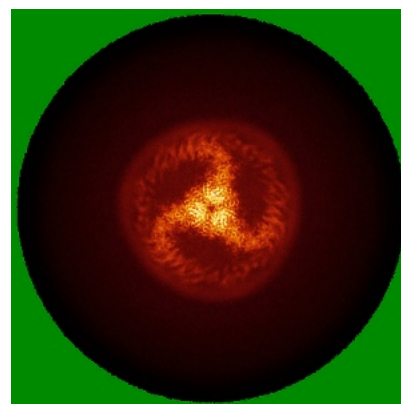
6.4.1 Primary map



X

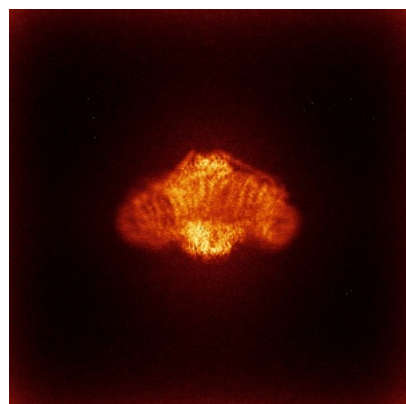


Y

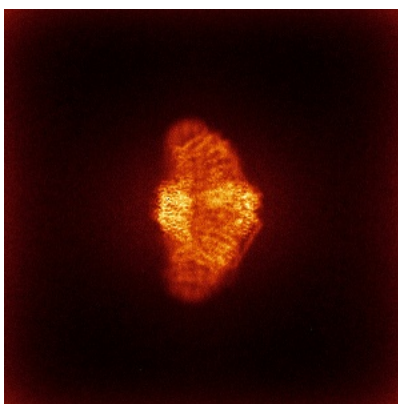


Z

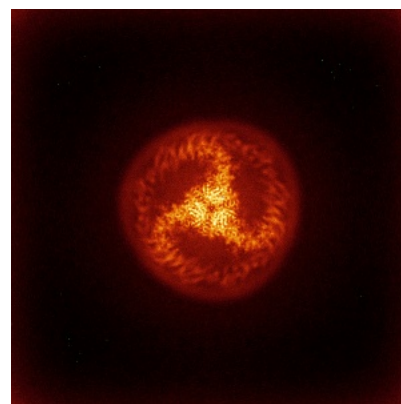
6.4.2 Raw map



X



Y

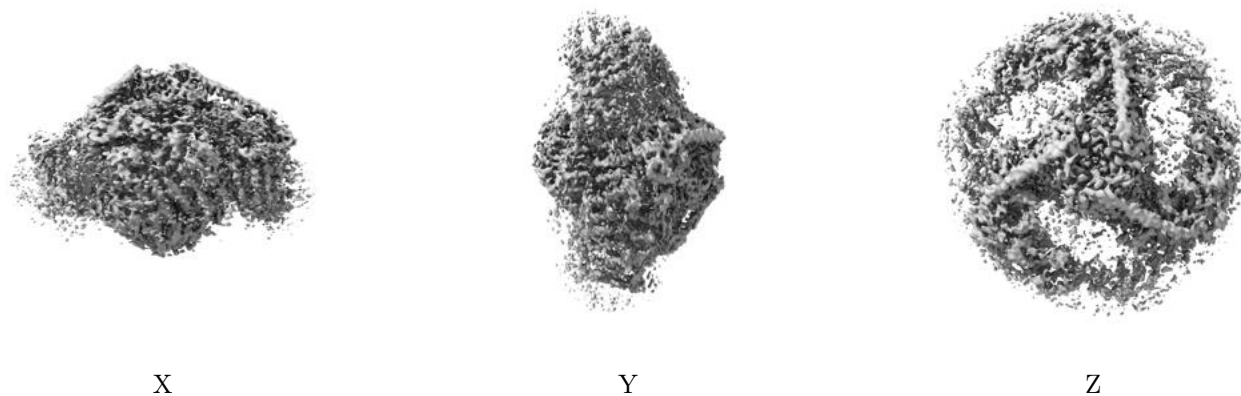


Z

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

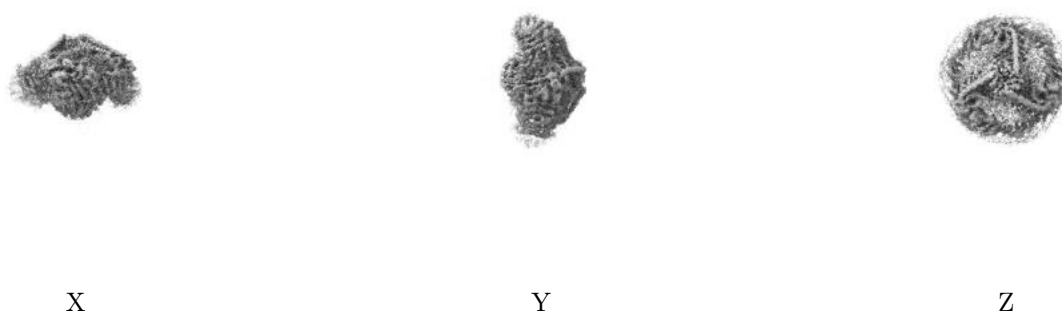
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.0561. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



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

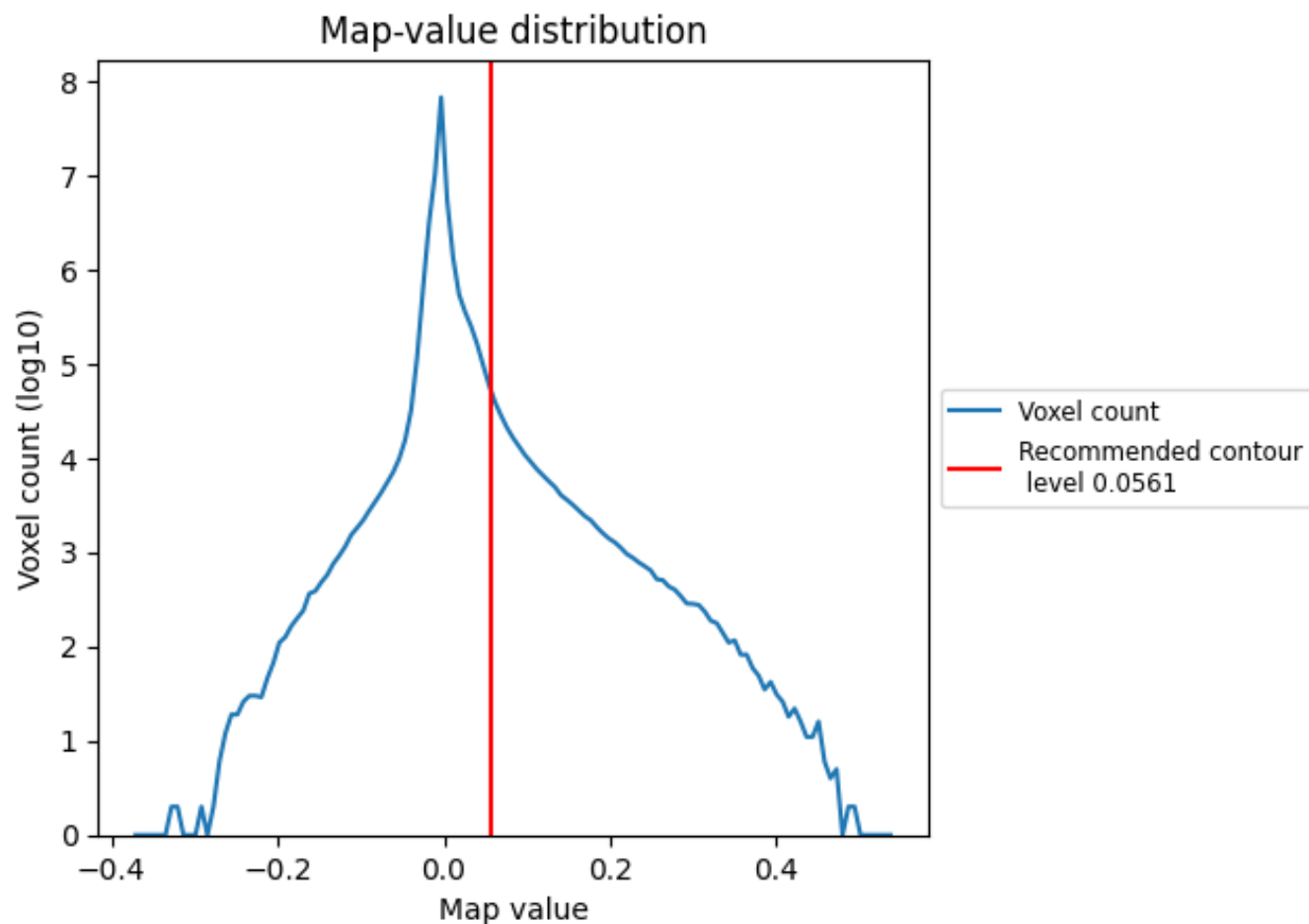
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

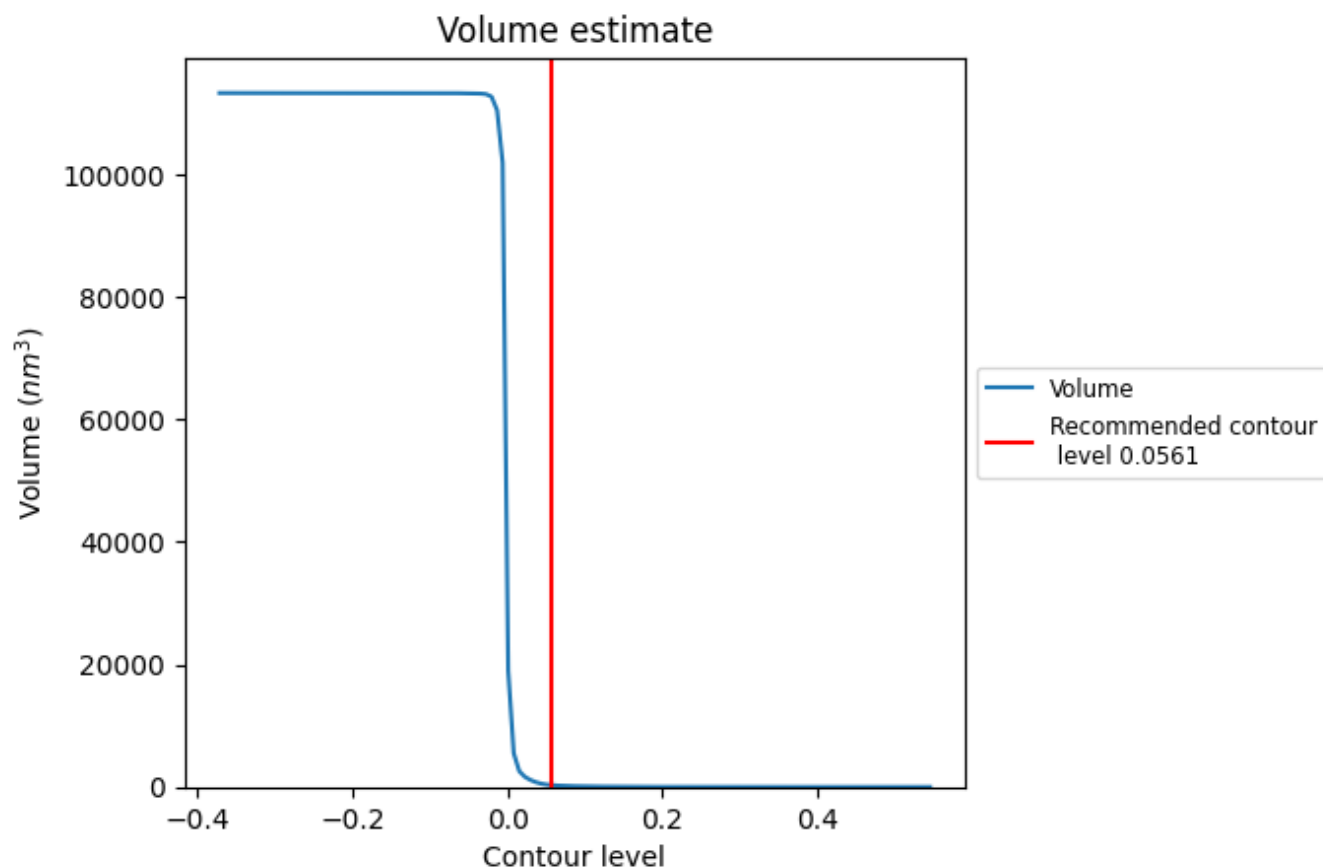
This section contains the results of statistical analysis of the map.

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.

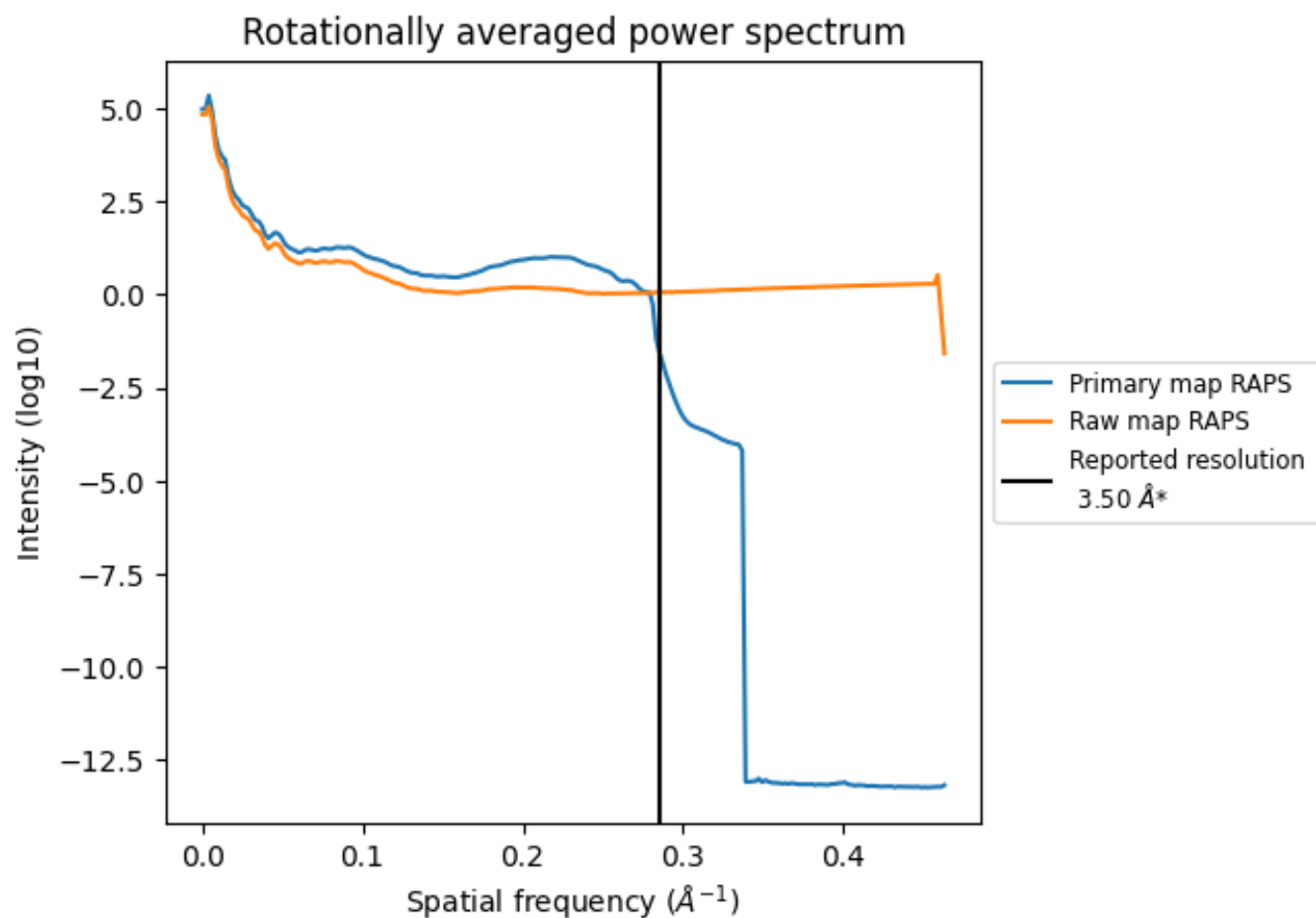
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 305 nm³; this corresponds to an approximate mass of 276 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 ⓘ

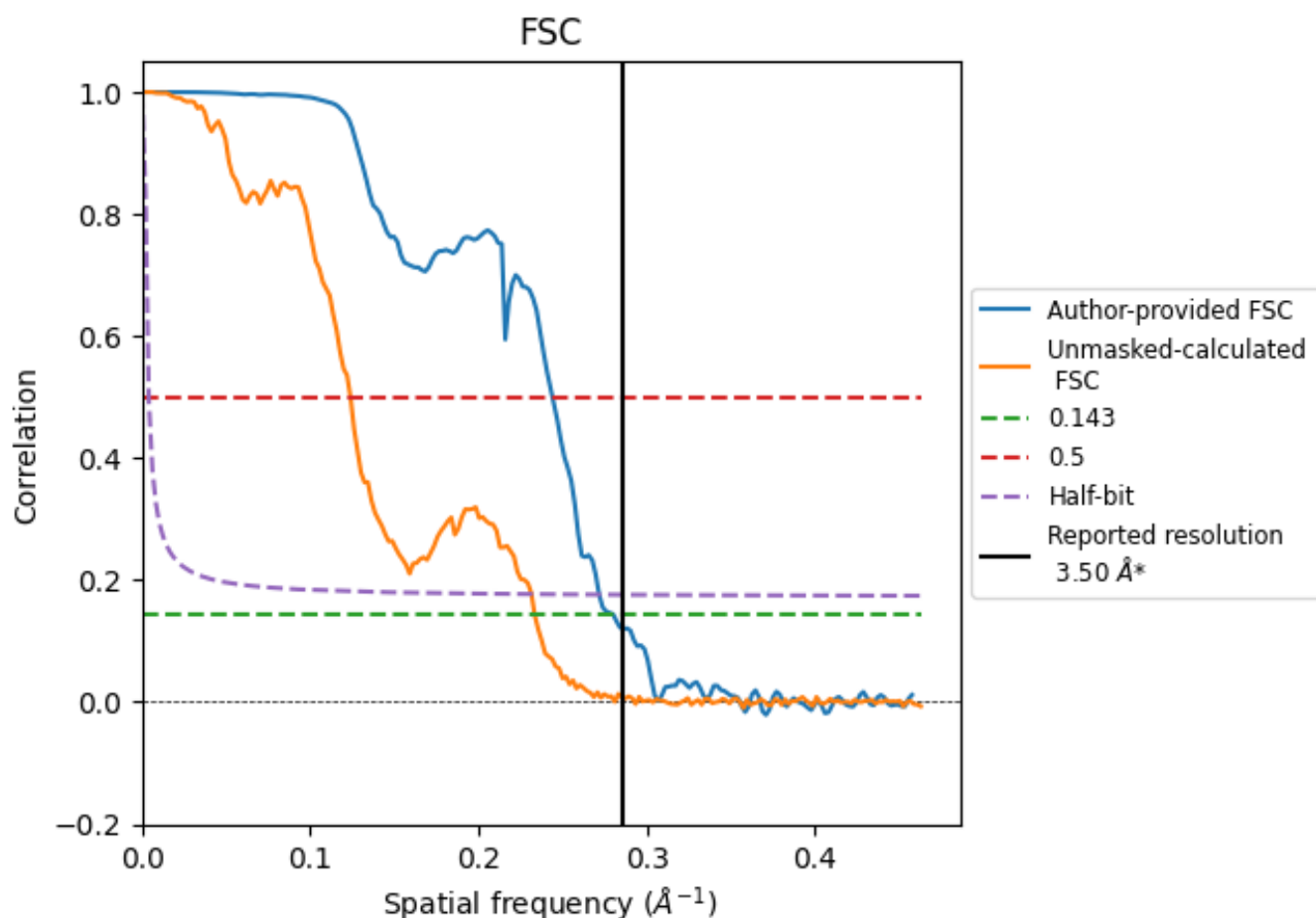


*Reported resolution corresponds to spatial frequency of 0.286 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.286 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

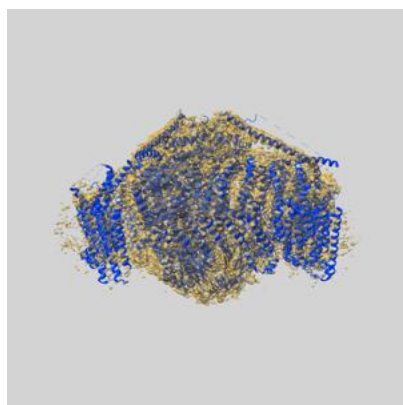
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.50	-	-
Author-provided FSC curve	3.57	4.10	3.68
Unmasked-calculated*	4.28	8.06	4.32

*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 4.28 differs from the reported value 3.5 by more than 10 %

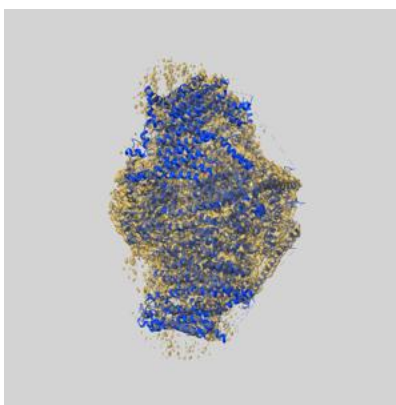
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-74281 and PDB model 9ZIS. Per-residue inclusion information can be found in [section 3](#) on [page 4](#).

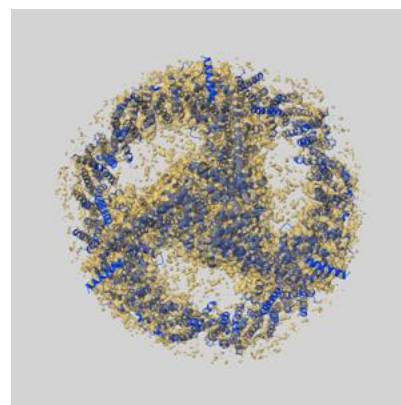
9.1 Map-model overlay [i](#)



X



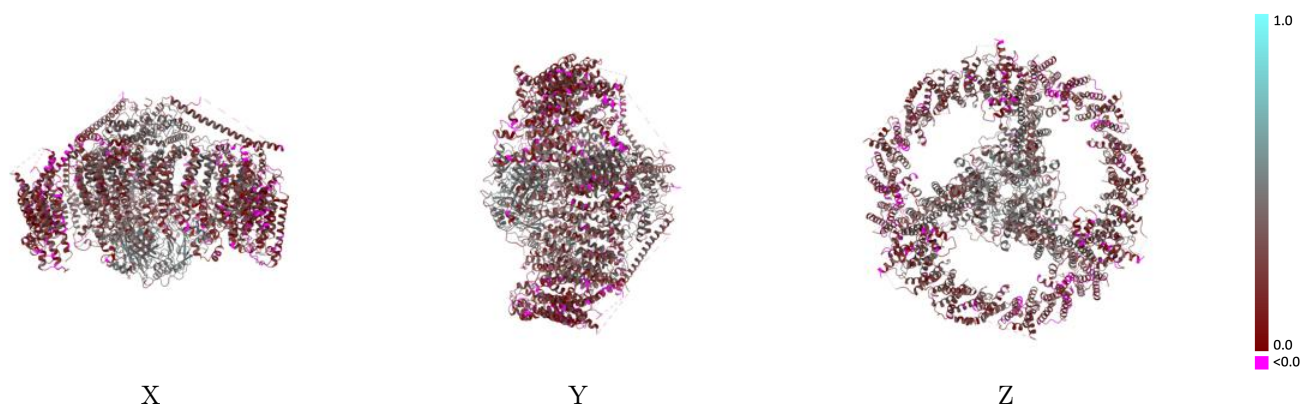
Y



Z

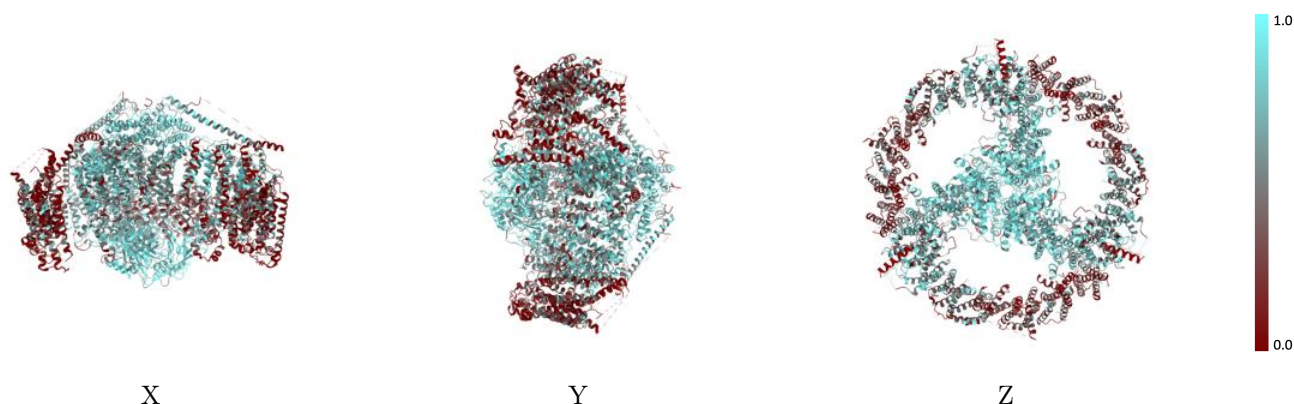
The images above show the 3D surface view of the map at the recommended contour level 0.0561 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



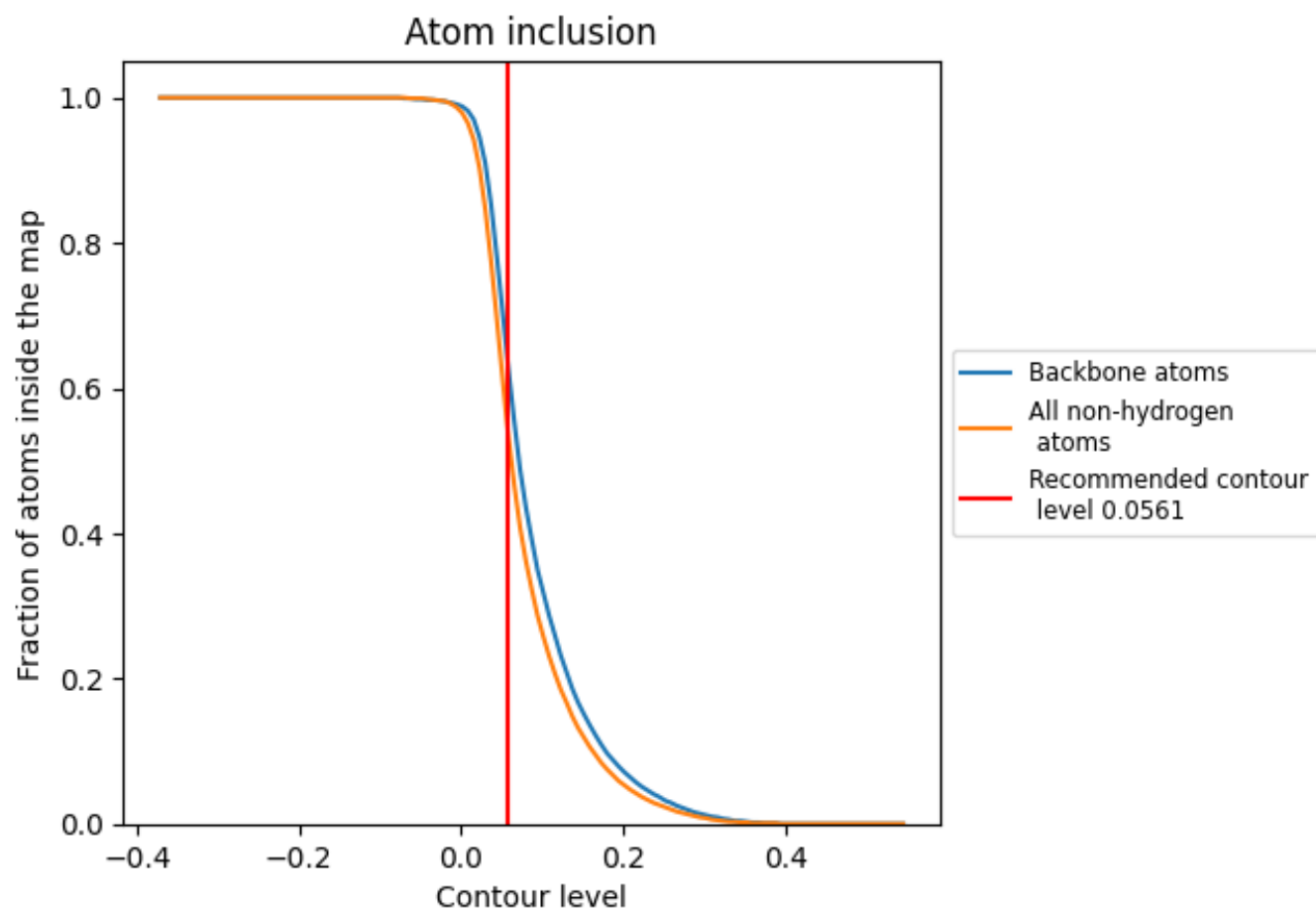
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.0561).

9.4 Atom inclusion [i](#)



At the recommended contour level, 65% of all backbone atoms, 55% 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 (0.0561) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5540	0.3000
A	0.5540	0.2990
B	0.5530	0.3010
C	0.5540	0.3000

