



Full wwPDB EM Validation Report ⓘ

Dec 11, 2022 – 05:59 am GMT

PDB ID : 6RW8
EMDB ID : EMD-10034
Title : Cryo-EM structure of Xenorhabdus nematophila XptA1
Authors : Roderer, D.; Leidreiter, F.; Gatsogiannis, C.; Meusch, D.; Benz, R.; Raunser, S.
Deposited on : 2019-06-04
Resolution : 2.84 Å(reported)
Based on initial model : 1VW1

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.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

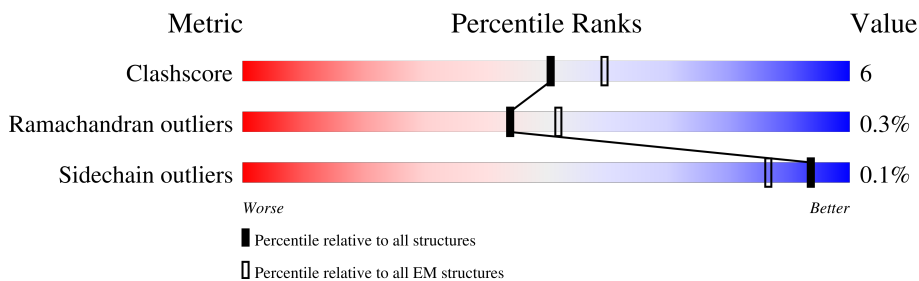
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 2.84 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	2523	
1	B	2523	
1	C	2523	
1	D	2523	
1	E	2523	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 93500 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.

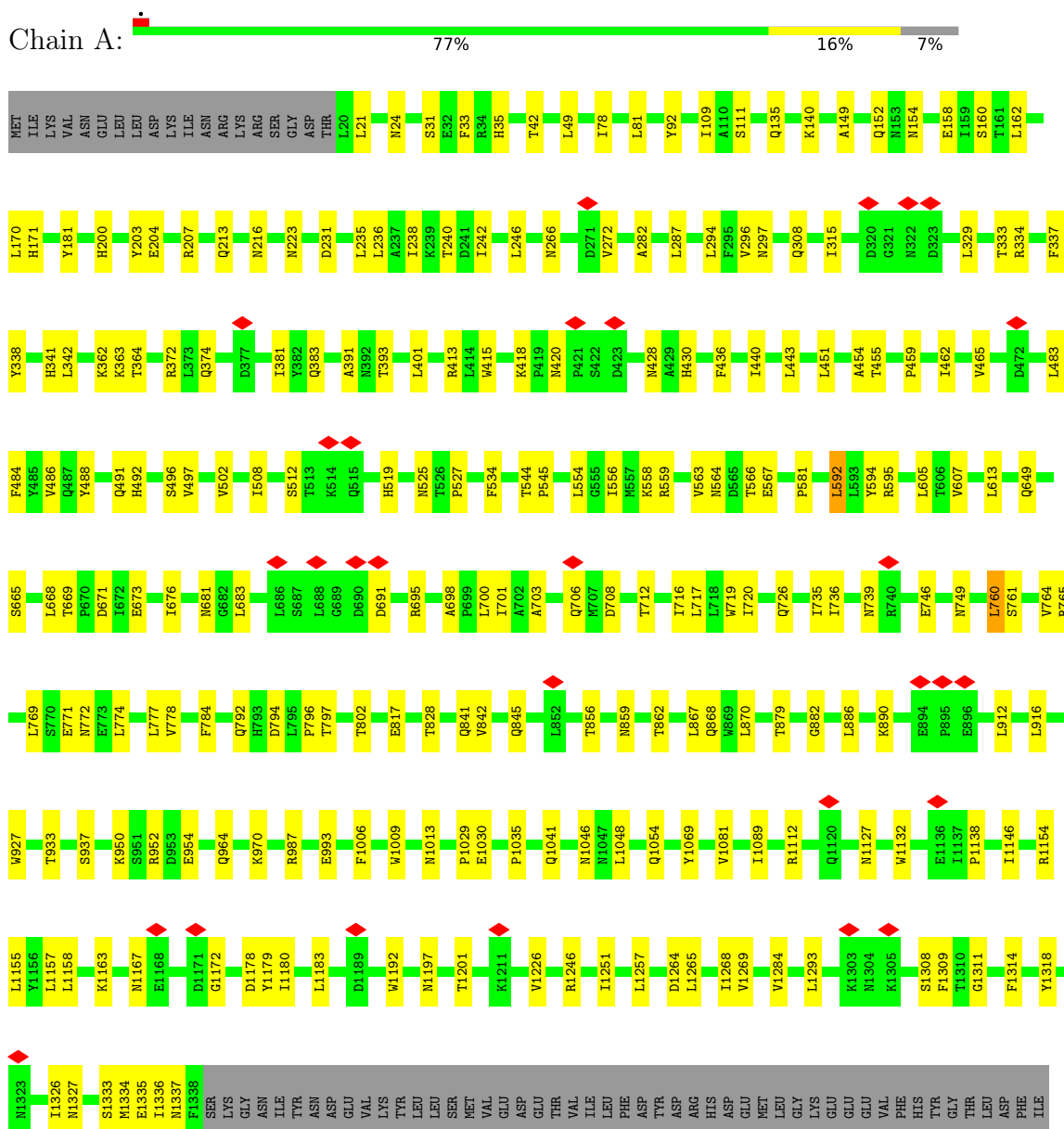
- Molecule 1 is a protein called A component of insecticidal toxin complex (Tc).

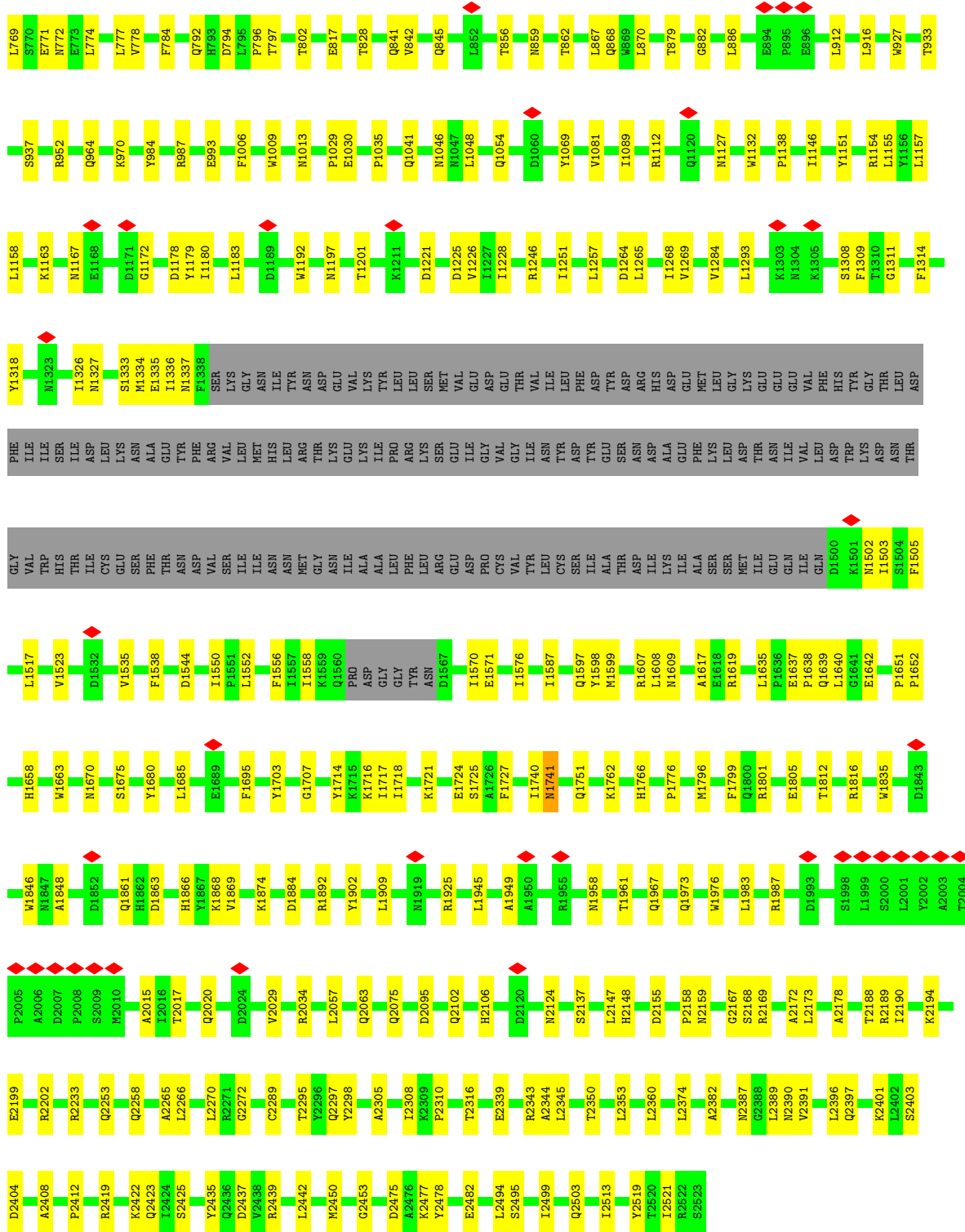
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	2337	18700	11894	3132	3607	67	0	0
1	B	2337	18700	11894	3132	3607	67	0	0
1	C	2337	18700	11894	3132	3607	67	0	0
1	D	2337	18700	11894	3132	3607	67	0	0
1	E	2337	18700	11894	3132	3607	67	0	0

3 Residue-property plots

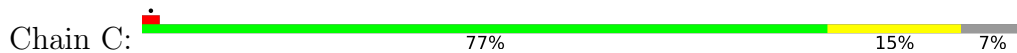
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: A component of insecticidal toxin complex (Tc)

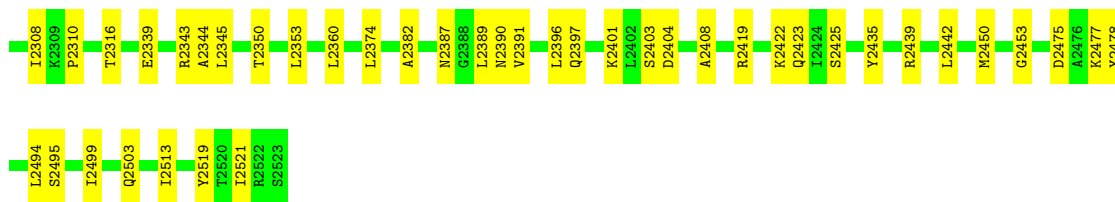




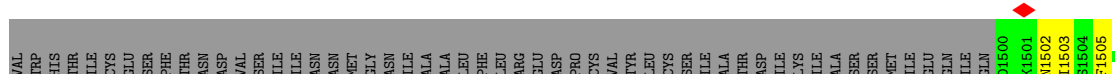
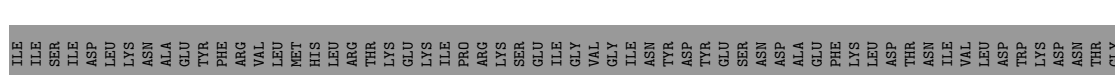
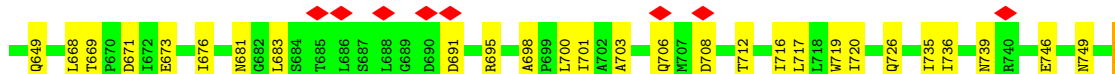
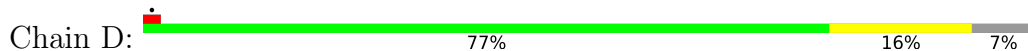
• Molecule 1: A component of insecticidal toxin complex (Tc)

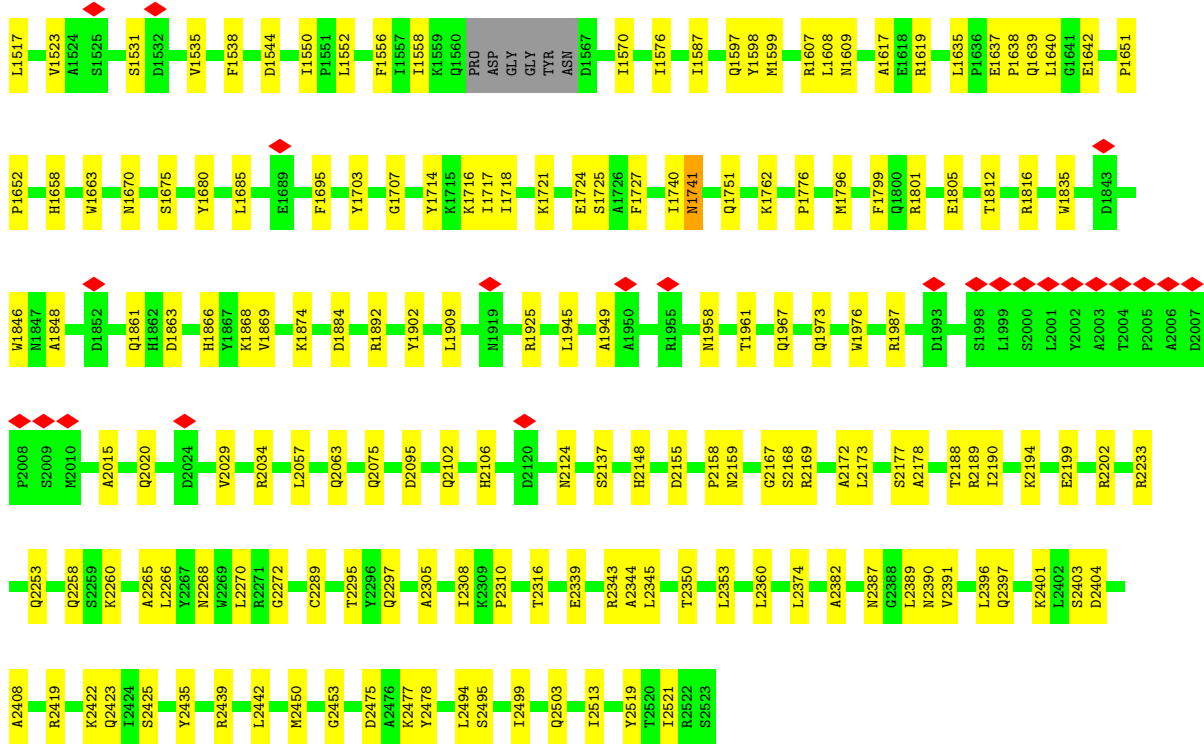


MET	L20	L21	N24	S31	E32	F33	R34	H35	T42	L49	I78	L81	Y92	P106	I109	A110	S111	Q135	K140	T151	Q152	N153	N154	E158	I189	S160	T161	L162
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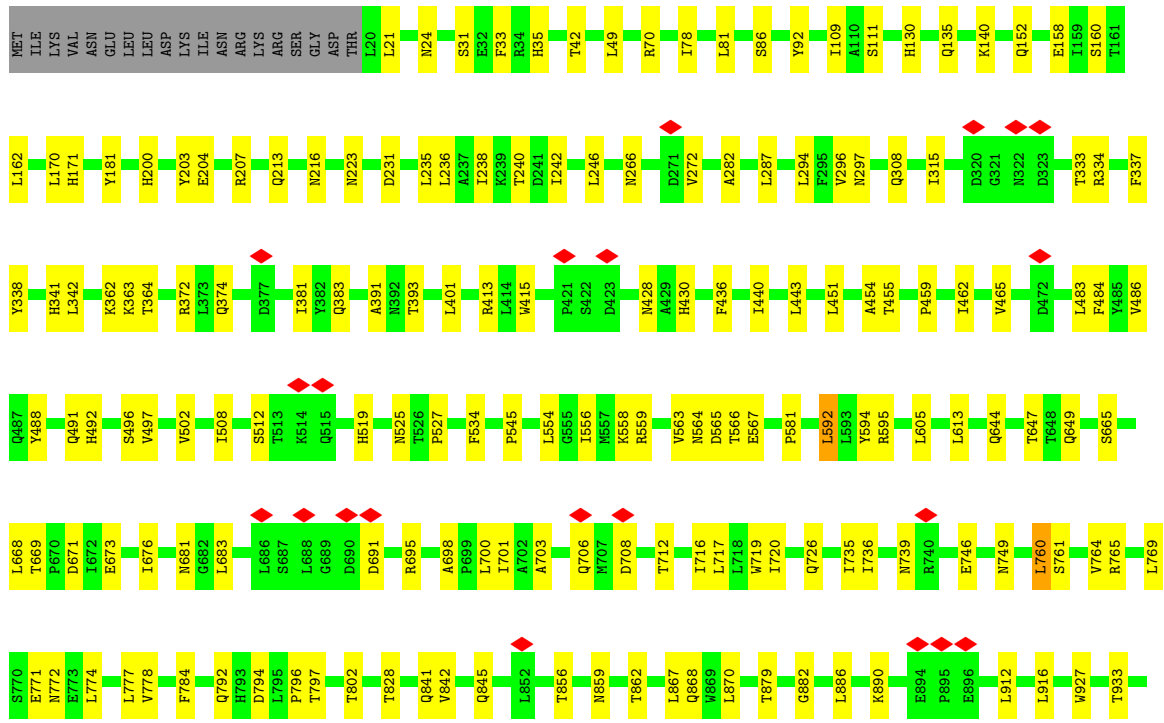
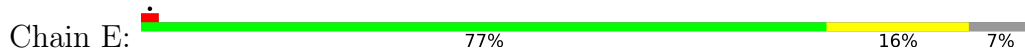


● Molecule 1: A component of insecticidal toxin complex (Tc)





• Molecule 1: A component of insecticidal toxin complex (Tc)



S937	M1167	E1168	Q964	K970	Y984	R987	E993	F1006	M1009	M1013	P1029	E1030	P1035	Q1041	M1046	Q1054	D1060	V1081	I1089	T1096	R1112	H1116	Q1120	M1127	M1132	P1138	I1146	R1154	L1155	L1156	L1157	L1158	K1163																																								
S1333	M1167	E1168	Q964	K970	Y984	R987	E993	F1006	M1009	M1013	P1029	E1030	P1035	Q1041	M1046	Q1054	D1060	V1081	I1089	T1096	R1112	H1116	Q1120	M1127	M1132	P1138	I1146	R1154	L1155	L1156	L1157	L1158	K1163																																								
M1334	E1168	F1338	SER	LYS	GLY	ASN	ASN	THR	GLY	VAL	VAL	VAL	LEU	LEU	LEU	LEU	ASP	ASP	ASP	ASP	ASP	GLY	GLY	GLY	VAL	PHE	HIS	TRP	LYS	GLY	THR	ASN	LEU	ASP	PHE	ILE	THR	HIS	THR	ILE	ASP	LEU																															
LYS	ASN	ALA	GLU	TYR	PHE	ARG	VAL	LEU	LEU	MET	ASN	HIS	ILE	ASN	TYR	ASN	THR	ASP	ASP	ASP	ASP	GLY	GLY	VAL	PHE	HIS	TRP	LYS	GLY	THR	ASN	LEU	ASP	PHE	ILE	THR	HIS	THR	ILE	ASP	LEU																																
GLU	SER	PHE	THR	ASN	ASP	VAL	SER	LYS	ILE	ILE	ILE	ASN	ASN	THR	ASP	PRO	CYS	VAL	THR	GLY	VAL	THR	GLY	GLY	VAL	PHE	LYS	LEU	LEU	LEU	LEU	LEU	GLY	GLN	ILE	ILE	D1500	K1501	M1502	I1503	S1504	F1505	L1517	V1523	A1524	S1525																											
S1531	D1532	V1535	F1538	D1544	I1550	P1551	L1552	F1556	I1557	I1558	K1559	Q1560	PRO	ASP	GLY	GLY	TYR	ASN	D1567	I1570	E1571	I1576	I1587	Q1597	Y1598	M1599	R1607	L1608	N1609	A1617	E1618	R1619	L1635	P1636	E1637	P1638	Q1639	L1640	G1641	E1642	P1651	P1652	H1658	A1663																													
M1670	S1675	Y1680	L1685	E1689	F1695	Y1703	G1707	Y1714	A1715	K1716	I1717	I1718	K1721	E1724	F1727	I1740	M1741	Q1751	K1762	H1766	M1772	P1776	M1796	F1799	E1805	T1812	R1816	W1835	D1843	W1846	M1847	A1848	D1852	H1861	H1862	D1863	H1866	Y1867	K1868	V1869	K1874	D1884	R1892	Y1902	L1909	H1919	R1925	L1945	A1949	A1950	R1955	N1958	T1961	Q1967	Q1973	W1976	R1987	D1983	S1998	L1999	S2000	L2001	Y2002	A2003	T2004	P2005	A2006	D2007	P2008	S2009	M2010		
A2015	T2017	Q2020	V2029	R2034	L2057	Q2063	D2064	Q2075	D2095	Q2102	H2106	D2120	N2124	S2137	L2147	H2148	D2155	P2158	N2159	G2167	R2168	R2169	A2172	L2173	S2177	A2178	T2188	R2189	I2190	K2194	E2199	R2202	R2233	Q2253	Q2258	A2265	L2266	K2269	L2270	R2271	G2272	C2289	T2295	Y2296	Q2297	A2305	T2308	K2309	P2310	T2316	E2339	R2343	A2344	L2345	T2350	L2353	L2360	L2374	A2382	N2387	Q2388	L2389	N2390	V2391	L2396	Q2397	K2401	L2402	S2403	D2404	A2408	P2412	R2419
K2422	I2424	S2425	Y2435	R2439	L2442	M2450	G2453	F2469	D2475	A2476	K2477	Y2478	L2494	S2495	I2499	Q2503	L2513	Y2519	T2520	I2521	R2522	S2523	A2265	A2265	L2266	K2269	L2270	R2271	G2272	C2289	T2295	Y2296	Q2297	A2305	T2308	K2309	P2310	T2316	E2339	R2343	A2344	L2345	T2350	L2353	L2360	L2374	A2382	N2387	Q2388	L2389	N2390	V2391	L2396	Q2397	K2401	L2402	S2403	D2404	A2408	P2412	R2419												

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C5	Depositor
Number of particles used	218992	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.130	Depositor
Minimum map value	-0.040	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.028	Depositor
Map size (Å)	456.0, 456.0, 456.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.14, 1.14, 1.14	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.36	0/19100	0.60	3/25936 (0.0%)
1	B	0.36	0/19100	0.60	3/25936 (0.0%)
1	C	0.36	0/19100	0.60	3/25936 (0.0%)
1	D	0.36	0/19100	0.60	3/25936 (0.0%)
1	E	0.36	0/19100	0.60	3/25936 (0.0%)
All	All	0.36	0/95500	0.60	15/129680 (0.0%)

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	3
1	B	0	3
1	C	0	3
1	D	0	3
1	E	0	3
All	All	0	15

There are no bond length outliers.

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	668	LEU	C-N-CA	10.59	148.18	121.70
1	B	668	LEU	C-N-CA	10.58	148.16	121.70
1	C	668	LEU	C-N-CA	10.58	148.15	121.70
1	D	668	LEU	C-N-CA	10.58	148.15	121.70
1	E	668	LEU	C-N-CA	10.58	148.14	121.70
1	B	760	LEU	CB-CG-CD2	-6.37	100.17	111.00
1	C	760	LEU	CB-CG-CD2	-6.37	100.17	111.00
1	D	760	LEU	CB-CG-CD2	-6.34	100.23	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	760	LEU	CB-CG-CD2	-6.33	100.24	111.00
1	E	760	LEU	CB-CG-CD2	-6.32	100.26	111.00
1	B	592	LEU	CA-CB-CG	5.96	129.00	115.30
1	C	592	LEU	CA-CB-CG	5.96	129.00	115.30
1	E	592	LEU	CA-CB-CG	5.95	128.99	115.30
1	D	592	LEU	CA-CB-CG	5.95	128.97	115.30
1	A	592	LEU	CA-CB-CG	5.93	128.95	115.30

There are no chirality outliers.

All (15) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1741	ASN	Peptide
1	A	2344	ALA	Peptide
1	A	2450	MET	Peptide
1	B	1741	ASN	Peptide
1	B	2344	ALA	Peptide
1	B	2450	MET	Peptide
1	C	1741	ASN	Peptide
1	C	2344	ALA	Peptide
1	C	2450	MET	Peptide
1	D	1741	ASN	Peptide
1	D	2344	ALA	Peptide
1	D	2450	MET	Peptide
1	E	1741	ASN	Peptide
1	E	2344	ALA	Peptide
1	E	2450	MET	Peptide

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	18700	0	18399	248	0
1	B	18700	0	18399	253	0
1	C	18700	0	18399	240	0
1	D	18700	0	18399	246	0
1	E	18700	0	18399	246	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	93500	0	91995	1099	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 6.

All (1099) 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:E:1598:TYR:HB3	1:E:1640:LEU:HD22	1.73	0.70
1:A:1598:TYR:HB3	1:A:1640:LEU:HD22	1.73	0.70
1:C:525:ASN:HD21	1:C:534:PHE:H	1.40	0.70
1:D:525:ASN:HD21	1:D:534:PHE:H	1.39	0.70
1:B:1598:TYR:HB3	1:B:1640:LEU:HD22	1.73	0.69
1:D:1598:TYR:HB3	1:D:1640:LEU:HD22	1.73	0.69
1:B:525:ASN:HD21	1:B:534:PHE:H	1.39	0.69
1:C:374:GLN:HE21	1:C:413:ARG:HD2	1.58	0.69
1:D:374:GLN:HE21	1:D:413:ARG:HD2	1.59	0.68
1:C:1598:TYR:HB3	1:C:1640:LEU:HD22	1.73	0.68
1:E:525:ASN:HD21	1:E:534:PHE:H	1.39	0.68
1:A:525:ASN:HD21	1:A:534:PHE:H	1.39	0.68
1:B:374:GLN:HE21	1:B:413:ARG:HD2	1.58	0.68
1:E:374:GLN:HE21	1:E:413:ARG:HD2	1.58	0.67
1:B:2194:LYS:HD2	1:D:1054:GLN:HE21	1.60	0.67
1:A:374:GLN:HE21	1:A:413:ARG:HD2	1.58	0.66
1:A:2194:LYS:HD2	1:C:1054:GLN:HE21	1.60	0.66
1:C:2194:LYS:HD2	1:E:1054:GLN:HE21	1.60	0.66
1:A:1054:GLN:HE21	1:D:2194:LYS:HD2	1.59	0.65
1:D:216:ASN:HD22	1:D:491:GLN:HE21	1.44	0.65
1:B:372:ARG:HB2	1:B:415:TRP:HB2	1.79	0.65
1:B:1054:GLN:HE21	1:E:2194:LYS:HD2	1.62	0.65
1:E:372:ARG:HB2	1:E:415:TRP:HB2	1.79	0.65
1:C:216:ASN:HD22	1:C:491:GLN:HE21	1.44	0.64
1:A:216:ASN:HD22	1:A:491:GLN:HE21	1.44	0.64
1:A:372:ARG:HB2	1:A:415:TRP:HB2	1.79	0.64
1:D:372:ARG:HB2	1:D:415:TRP:HB2	1.79	0.64
1:C:372:ARG:HB2	1:C:415:TRP:HB2	1.79	0.64
1:E:216:ASN:HD22	1:E:491:GLN:HE21	1.44	0.64
1:B:216:ASN:HD22	1:B:491:GLN:HE21	1.44	0.63
1:E:1607:ARG:NH2	1:E:1638:PRO:O	2.32	0.62
1:A:1607:ARG:NH2	1:A:1638:PRO:O	2.32	0.62
1:D:761:SER:OG	1:D:765:ARG:NH2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:761:SER:OG	1:E:765:ARG:NH2	2.33	0.62
1:B:1607:ARG:NH2	1:B:1638:PRO:O	2.32	0.62
1:E:2020:GLN:H	1:E:2316:THR:HG22	1.64	0.62
1:A:761:SER:OG	1:A:765:ARG:NH2	2.33	0.62
1:A:2020:GLN:H	1:A:2316:THR:HG22	1.64	0.62
1:C:761:SER:OG	1:C:765:ARG:NH2	2.33	0.62
1:C:1607:ARG:NH2	1:C:1638:PRO:O	2.32	0.62
1:D:2020:GLN:H	1:D:2316:THR:HG22	1.64	0.62
1:D:2396:LEU:HB2	1:D:2499:ILE:HD12	1.82	0.61
1:A:1724:GLU:HG2	1:A:1762:LYS:HD2	1.83	0.61
1:B:761:SER:OG	1:B:765:ARG:NH2	2.33	0.61
1:C:2020:GLN:H	1:C:2316:THR:HG22	1.64	0.61
1:A:2258:GLN:HB3	1:B:2015:ALA:HB2	1.82	0.61
1:D:1607:ARG:NH2	1:D:1638:PRO:O	2.32	0.61
1:A:337:PHE:HB3	1:A:341:HIS:HD2	1.65	0.61
1:D:2270:LEU:HD21	1:E:2057:LEU:HD11	1.82	0.61
1:B:1724:GLU:HG2	1:B:1762:LYS:HD2	1.83	0.61
1:E:337:PHE:HB3	1:E:341:HIS:HD2	1.66	0.61
1:E:2396:LEU:HB2	1:E:2499:ILE:HD12	1.82	0.61
1:B:2020:GLN:H	1:B:2316:THR:HG22	1.64	0.61
1:B:2258:GLN:HB3	1:C:2015:ALA:HB2	1.83	0.61
1:E:1724:GLU:HG2	1:E:1762:LYS:HD2	1.83	0.61
1:D:1724:GLU:HG2	1:D:1762:LYS:HD2	1.82	0.61
1:C:2258:GLN:HB3	1:D:2015:ALA:HB2	1.81	0.61
1:C:2396:LEU:HB2	1:C:2499:ILE:HD12	1.82	0.61
1:C:1724:GLU:HG2	1:C:1762:LYS:HD2	1.83	0.61
1:A:1505:PHE:HB3	1:A:1517:LEU:HB2	1.83	0.60
1:C:337:PHE:HB3	1:C:341:HIS:HD2	1.65	0.60
1:E:1505:PHE:HB3	1:E:1517:LEU:HB2	1.83	0.60
1:D:337:PHE:HB3	1:D:341:HIS:HD2	1.65	0.60
1:C:1505:PHE:HB3	1:C:1517:LEU:HB2	1.83	0.60
1:A:2396:LEU:HB2	1:A:2499:ILE:HD12	1.82	0.60
1:D:1607:ARG:HE	1:D:1640:LEU:HD21	1.67	0.60
1:E:1607:ARG:HE	1:E:1640:LEU:HD21	1.67	0.60
1:C:342:LEU:HA	1:C:362:LYS:H	1.67	0.60
1:C:1556:PHE:HB2	1:C:1570:ILE:HB	1.84	0.59
1:B:337:PHE:HB3	1:B:341:HIS:HD2	1.65	0.59
1:B:1505:PHE:HB3	1:B:1517:LEU:HB2	1.83	0.59
1:B:1607:ARG:HE	1:B:1640:LEU:HD21	1.67	0.59
1:A:1607:ARG:HE	1:A:1640:LEU:HD21	1.67	0.59
1:D:342:LEU:HA	1:D:362:LYS:H	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1505:PHE:HB3	1:D:1517:LEU:HB2	1.83	0.59
1:E:342:LEU:HA	1:E:362:LYS:H	1.67	0.59
1:A:342:LEU:HA	1:A:362:LYS:H	1.67	0.59
1:B:2396:LEU:HB2	1:B:2499:ILE:HD12	1.82	0.59
1:C:1607:ARG:HE	1:C:1640:LEU:HD21	1.67	0.59
1:A:1556:PHE:HB2	1:A:1570:ILE:HB	1.84	0.59
1:A:2015:ALA:HB2	1:E:2258:GLN:HB3	1.83	0.59
1:B:342:LEU:HA	1:B:362:LYS:H	1.67	0.59
1:E:1556:PHE:HB2	1:E:1570:ILE:HB	1.84	0.59
1:B:2034:ARG:NH1	1:B:2475:ASP:O	2.36	0.59
1:D:1335:GLU:HG2	1:D:1535:VAL:HG22	1.85	0.59
1:D:2258:GLN:HB3	1:E:2015:ALA:HB2	1.84	0.59
1:A:2034:ARG:NH1	1:A:2475:ASP:O	2.36	0.59
1:B:534:PHE:HB2	1:B:556:ILE:HD13	1.85	0.59
1:B:364:THR:H	1:B:391:ALA:HB2	1.68	0.58
1:C:2034:ARG:NH1	1:C:2475:ASP:O	2.36	0.58
1:E:2034:ARG:NH1	1:E:2475:ASP:O	2.36	0.58
1:A:1246:ARG:HD2	1:A:1269:VAL:HG21	1.86	0.58
1:A:1335:GLU:HG2	1:A:1535:VAL:HG22	1.85	0.58
1:B:1246:ARG:HD2	1:B:1269:VAL:HG21	1.86	0.58
1:E:364:THR:H	1:E:391:ALA:HB2	1.68	0.58
1:A:534:PHE:HB2	1:A:556:ILE:HD13	1.85	0.58
1:B:1335:GLU:HG2	1:B:1535:VAL:HG22	1.85	0.58
1:A:2423:GLN:HE22	1:A:2425:SER:HB3	1.69	0.58
1:C:534:PHE:HB2	1:C:556:ILE:HD13	1.85	0.58
1:B:2423:GLN:HE22	1:B:2425:SER:HB3	1.69	0.58
1:A:987:ARG:NH1	1:A:993:GLU:OE2	2.37	0.58
1:B:987:ARG:NH1	1:B:993:GLU:OE2	2.37	0.58
1:B:1556:PHE:HB2	1:B:1570:ILE:HB	1.84	0.58
1:D:364:THR:H	1:D:391:ALA:HB2	1.68	0.58
1:D:1556:PHE:HB2	1:D:1570:ILE:HB	1.84	0.58
1:A:1703:TYR:HB3	1:A:1707:GLY:HA2	1.86	0.58
1:C:364:THR:H	1:C:391:ALA:HB2	1.68	0.58
1:C:1246:ARG:HD2	1:C:1269:VAL:HG21	1.86	0.58
1:E:1335:GLU:HG2	1:E:1535:VAL:HG22	1.85	0.58
1:A:364:THR:H	1:A:391:ALA:HB2	1.68	0.58
1:E:987:ARG:NH1	1:E:993:GLU:OE2	2.37	0.58
1:E:1246:ARG:HD2	1:E:1269:VAL:HG21	1.86	0.58
1:E:2423:GLN:HE22	1:E:2425:SER:HB3	1.69	0.58
1:C:1703:TYR:HB3	1:C:1707:GLY:HA2	1.86	0.58
1:D:706:GLN:HE22	1:E:2265:ALA:HA	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:987:ARG:NH1	1:D:993:GLU:OE2	2.37	0.58
1:D:2034:ARG:NH1	1:D:2475:ASP:O	2.36	0.58
1:B:1703:TYR:HB3	1:B:1707:GLY:HA2	1.86	0.57
1:C:1335:GLU:HG2	1:C:1535:VAL:HG22	1.85	0.57
1:C:2423:GLN:HE22	1:C:2425:SER:HB3	1.69	0.57
1:D:1703:TYR:HB3	1:D:1707:GLY:HA2	1.86	0.57
1:E:1703:TYR:HB3	1:E:1707:GLY:HA2	1.86	0.57
1:D:1246:ARG:HD2	1:D:1269:VAL:HG21	1.86	0.57
1:E:534:PHE:HB2	1:E:556:ILE:HD13	1.85	0.57
1:B:1327:ASN:ND2	1:B:1544:ASP:OD1	2.37	0.57
1:D:296:VAL:HG13	1:D:315:ILE:HD11	1.86	0.57
1:D:2423:GLN:HE22	1:D:2425:SER:HB3	1.69	0.57
1:E:1639:GLN:NE2	1:E:1642:GLU:O	2.38	0.57
1:A:158:GLU:OE2	1:B:1892:ARG:NH2	2.37	0.57
1:A:2265:ALA:HA	1:E:706:GLN:HE22	1.69	0.57
1:C:1639:GLN:NE2	1:C:1642:GLU:O	2.38	0.57
1:A:828:THR:HG22	1:A:856:THR:HG22	1.87	0.57
1:D:242:ILE:HA	1:D:246:LEU:HD23	1.87	0.57
1:C:987:ARG:NH1	1:C:993:GLU:OE2	2.37	0.57
1:D:534:PHE:HB2	1:D:556:ILE:HD13	1.85	0.57
1:D:2360:LEU:HD11	1:D:2387:ASN:HB3	1.87	0.57
1:A:2057:LEU:HD11	1:E:2270:LEU:HD21	1.87	0.57
1:B:828:THR:HG22	1:B:856:THR:HG22	1.87	0.57
1:B:2270:LEU:HD21	1:C:2057:LEU:HD11	1.85	0.57
1:C:242:ILE:HA	1:C:246:LEU:HD23	1.87	0.57
1:C:333:THR:HB	1:C:430:HIS:HB3	1.87	0.57
1:A:1639:GLN:NE2	1:A:1642:GLU:O	2.38	0.57
1:B:160:SER:HA	1:B:970:LYS:HA	1.87	0.57
1:C:296:VAL:HG13	1:C:315:ILE:HD11	1.86	0.57
1:D:158:GLU:OE2	1:E:1892:ARG:NH2	2.38	0.57
1:D:333:THR:HB	1:D:430:HIS:HB3	1.87	0.57
1:D:1639:GLN:NE2	1:D:1642:GLU:O	2.38	0.57
1:A:296:VAL:HG13	1:A:315:ILE:HD11	1.86	0.56
1:A:1892:ARG:NH2	1:E:158:GLU:OE2	2.38	0.56
1:B:296:VAL:HG13	1:B:315:ILE:HD11	1.86	0.56
1:B:1639:GLN:NE2	1:B:1642:GLU:O	2.38	0.56
1:C:1607:ARG:NH1	1:C:1637:GLU:OE1	2.38	0.56
1:E:1607:ARG:NH1	1:E:1637:GLU:OE1	2.38	0.56
1:D:1670:ASN:ND2	1:D:1675:SER:OG	2.39	0.56
1:E:1327:ASN:ND2	1:E:1544:ASP:OD1	2.37	0.56
1:C:1670:ASN:ND2	1:C:1675:SER:OG	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:649:GLN:NE2	1:D:802:THR:OG1	2.39	0.56
1:D:828:THR:HG22	1:D:856:THR:HG22	1.87	0.56
1:E:649:GLN:NE2	1:E:802:THR:OG1	2.39	0.56
1:A:242:ILE:HA	1:A:246:LEU:HD23	1.87	0.56
1:B:333:THR:HB	1:B:430:HIS:HB3	1.87	0.56
1:D:1607:ARG:NH1	1:D:1637:GLU:OE1	2.38	0.56
1:E:1670:ASN:ND2	1:E:1675:SER:OG	2.39	0.56
1:E:242:ILE:HA	1:E:246:LEU:HD23	1.86	0.56
1:E:333:THR:HB	1:E:430:HIS:HB3	1.87	0.56
1:A:160:SER:HA	1:A:970:LYS:HA	1.87	0.56
1:A:333:THR:HB	1:A:430:HIS:HB3	1.87	0.56
1:B:706:GLN:HE22	1:C:2265:ALA:HA	1.71	0.56
1:E:2442:LEU:HD12	1:E:2494:LEU:HD12	1.88	0.56
1:B:242:ILE:HA	1:B:246:LEU:HD23	1.86	0.56
1:B:649:GLN:NE2	1:B:802:THR:OG1	2.39	0.56
1:A:649:GLN:NE2	1:A:802:THR:OG1	2.39	0.56
1:A:2442:LEU:HD12	1:A:2494:LEU:HD12	1.88	0.56
1:B:2360:LEU:HD11	1:B:2387:ASN:HB3	1.87	0.56
1:B:2442:LEU:HD12	1:B:2494:LEU:HD12	1.88	0.56
1:C:649:GLN:NE2	1:C:802:THR:OG1	2.39	0.56
1:C:2442:LEU:HD12	1:C:2494:LEU:HD12	1.88	0.56
1:D:160:SER:HA	1:D:970:LYS:HA	1.87	0.56
1:E:296:VAL:HG13	1:E:315:ILE:HD11	1.86	0.56
1:A:1607:ARG:NH1	1:A:1637:GLU:OE1	2.38	0.56
1:B:158:GLU:OE2	1:C:1892:ARG:NH2	2.38	0.56
1:B:1607:ARG:NH1	1:B:1637:GLU:OE1	2.38	0.56
1:C:2360:LEU:HD11	1:C:2387:ASN:HB3	1.87	0.56
1:E:160:SER:HA	1:E:970:LYS:HA	1.87	0.56
1:B:1009:TRP:HA	1:B:1013:ASN:HB2	1.88	0.56
1:C:564:ASN:H	1:C:567:GLU:HB3	1.71	0.56
1:C:558:LYS:HA	1:C:563:VAL:HG12	1.88	0.55
1:C:2345:LEU:HB2	1:C:2521:ILE:HB	1.88	0.55
1:D:213:GLN:HE21	1:D:916:LEU:HD23	1.71	0.55
1:A:1670:ASN:ND2	1:A:1675:SER:OG	2.38	0.55
1:C:158:GLU:OE2	1:D:1892:ARG:NH2	2.39	0.55
1:C:706:GLN:HE22	1:D:2265:ALA:HA	1.71	0.55
1:C:1009:TRP:HA	1:C:1013:ASN:HB2	1.89	0.55
1:D:2442:LEU:HD12	1:D:2494:LEU:HD12	1.88	0.55
1:E:828:THR:HG22	1:E:856:THR:HG22	1.87	0.55
1:B:558:LYS:HA	1:B:563:VAL:HG12	1.88	0.55
1:B:719:TRP:HD1	1:B:778:VAL:HG22	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1670:ASN:ND2	1:B:1675:SER:OG	2.38	0.55
1:B:2345:LEU:HB2	1:B:2521:ILE:HB	1.88	0.55
1:D:558:LYS:HA	1:D:563:VAL:HG12	1.88	0.55
1:D:1009:TRP:HA	1:D:1013:ASN:HB2	1.88	0.55
1:D:2345:LEU:HB2	1:D:2521:ILE:HB	1.88	0.55
1:E:558:LYS:HA	1:E:563:VAL:HG12	1.88	0.55
1:A:558:LYS:HA	1:A:563:VAL:HG12	1.88	0.55
1:A:564:ASN:H	1:A:567:GLU:HB3	1.71	0.55
1:A:2345:LEU:HB2	1:A:2521:ILE:HB	1.88	0.55
1:A:2360:LEU:HD11	1:A:2387:ASN:HB3	1.87	0.55
1:C:828:THR:HG22	1:C:856:THR:HG22	1.87	0.55
1:A:605:LEU:HD21	1:A:613:LEU:HD13	1.89	0.55
1:A:1009:TRP:HA	1:A:1013:ASN:HB2	1.88	0.55
1:C:605:LEU:HD21	1:C:613:LEU:HD13	1.89	0.55
1:C:2270:LEU:HD21	1:D:2057:LEU:HD11	1.87	0.55
1:E:564:ASN:H	1:E:567:GLU:HB3	1.71	0.55
1:B:2266:LEU:O	1:B:2270:LEU:HB2	2.07	0.55
1:C:160:SER:HA	1:C:970:LYS:HA	1.87	0.55
1:C:213:GLN:HE21	1:C:916:LEU:HD23	1.71	0.55
1:D:2034:ARG:NH1	1:D:2477:LYS:O	2.40	0.55
1:D:564:ASN:H	1:D:567:GLU:HB3	1.71	0.55
1:D:605:LEU:HD21	1:D:613:LEU:HD13	1.89	0.55
1:D:2266:LEU:O	1:D:2270:LEU:HB2	2.07	0.55
1:E:605:LEU:HD21	1:E:613:LEU:HD13	1.89	0.55
1:C:2169:ARG:HG3	1:C:2172:ALA:HB2	1.89	0.55
1:D:1246:ARG:HG3	1:D:1265:LEU:HD21	1.89	0.55
1:B:605:LEU:HD21	1:B:613:LEU:HD13	1.89	0.55
1:D:2169:ARG:HG3	1:D:2172:ALA:HB2	1.89	0.55
1:E:213:GLN:HE21	1:E:916:LEU:HD23	1.71	0.55
1:A:2169:ARG:HG3	1:A:2172:ALA:HB2	1.89	0.55
1:A:2270:LEU:HD21	1:B:2057:LEU:HD11	1.87	0.55
1:B:564:ASN:H	1:B:567:GLU:HB3	1.71	0.55
1:B:1251:ILE:HG22	1:B:1257:LEU:HA	1.89	0.55
1:B:2169:ARG:HG3	1:B:2172:ALA:HB2	1.89	0.55
1:D:111:SER:OG	1:D:1967:GLN:OE1	2.22	0.55
1:E:719:TRP:HD1	1:E:778:VAL:HG22	1.72	0.55
1:E:1009:TRP:HA	1:E:1013:ASN:HB2	1.89	0.55
1:E:2034:ARG:NH1	1:E:2477:LYS:O	2.40	0.55
1:E:2169:ARG:HG3	1:E:2172:ALA:HB2	1.89	0.55
1:B:213:GLN:HE21	1:B:916:LEU:HD23	1.71	0.54
1:B:1246:ARG:HG3	1:B:1265:LEU:HD21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:719:TRP:HD1	1:C:778:VAL:HG22	1.72	0.54
1:C:1251:ILE:HG22	1:C:1257:LEU:HA	1.89	0.54
1:D:1251:ILE:HG22	1:D:1257:LEU:HA	1.89	0.54
1:E:2360:LEU:HD11	1:E:2387:ASN:HB3	1.87	0.54
1:B:1703:TYR:O	1:B:1751:GLN:NE2	2.36	0.54
1:E:2345:LEU:HB2	1:E:2521:ILE:HB	1.88	0.54
1:C:2034:ARG:NH1	1:C:2477:LYS:O	2.40	0.54
1:A:2435:TYR:HB3	1:B:2350:THR:HG21	1.89	0.54
1:C:2266:LEU:O	1:C:2270:LEU:HB2	2.07	0.54
1:A:1327:ASN:ND2	1:A:1544:ASP:OD1	2.37	0.54
1:D:1327:ASN:ND2	1:D:1544:ASP:OD1	2.37	0.54
1:A:213:GLN:HE21	1:A:916:LEU:HD23	1.71	0.54
1:A:1251:ILE:HG22	1:A:1257:LEU:HA	1.89	0.54
1:A:2266:LEU:O	1:A:2270:LEU:HB2	2.07	0.54
1:C:1246:ARG:HG3	1:C:1265:LEU:HD21	1.89	0.54
1:A:719:TRP:HD1	1:A:778:VAL:HG22	1.72	0.54
1:C:1703:TYR:O	1:C:1751:GLN:NE2	2.36	0.54
1:A:964:GLN:OE1	1:B:1987:ARG:NH1	2.41	0.54
1:D:236:LEU:HB2	1:D:484:PHE:HB2	1.90	0.54
1:D:719:TRP:HD1	1:D:778:VAL:HG22	1.72	0.54
1:E:1251:ILE:HG22	1:E:1257:LEU:HA	1.90	0.54
1:A:1246:ARG:HG3	1:A:1265:LEU:HD21	1.89	0.54
1:B:794:ASP:HB3	1:B:796:PRO:HD2	1.90	0.54
1:C:794:ASP:HB3	1:C:796:PRO:HD2	1.90	0.54
1:A:706:GLN:HE22	1:B:2265:ALA:HA	1.72	0.54
1:A:2350:THR:HG21	1:E:2435:TYR:HB3	1.89	0.54
1:C:701:ILE:HD13	1:C:717:LEU:HD21	1.90	0.54
1:D:1167:ASN:ND2	1:D:1172:GLY:O	2.41	0.54
1:E:1167:ASN:ND2	1:E:1172:GLY:O	2.41	0.54
1:A:236:LEU:HB2	1:A:484:PHE:HB2	1.90	0.53
1:E:2266:LEU:O	1:E:2270:LEU:HB2	2.07	0.53
1:A:701:ILE:HD13	1:A:717:LEU:HD21	1.91	0.53
1:A:1167:ASN:ND2	1:A:1172:GLY:O	2.41	0.53
1:B:2034:ARG:NH1	1:B:2477:LYS:O	2.40	0.53
1:A:1503:ILE:HG22	1:A:1558:ILE:HA	1.91	0.53
1:C:735:ILE:O	1:C:739:ASN:ND2	2.42	0.53
1:D:964:GLN:OE1	1:E:1987:ARG:NH1	2.41	0.53
1:C:1167:ASN:ND2	1:C:1172:GLY:O	2.41	0.53
1:A:2034:ARG:NH1	1:A:2477:LYS:O	2.40	0.53
1:C:111:SER:OG	1:C:1967:GLN:OE1	2.22	0.53
1:B:964:GLN:OE1	1:C:1987:ARG:NH1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1318:TYR:HB2	1:B:1326:ILE:HD11	1.91	0.53
1:D:701:ILE:HD13	1:D:717:LEU:HD21	1.91	0.53
1:D:1503:ILE:HG22	1:D:1558:ILE:HA	1.91	0.53
1:D:1703:TYR:O	1:D:1751:GLN:NE2	2.36	0.53
1:A:1987:ARG:NH1	1:E:964:GLN:OE1	2.41	0.53
1:C:1327:ASN:ND2	1:C:1544:ASP:OD1	2.37	0.53
1:D:1318:TYR:HB2	1:D:1326:ILE:HD11	1.91	0.53
1:A:716:ILE:HG23	1:A:760:LEU:HD13	1.91	0.53
1:A:735:ILE:O	1:A:739:ASN:ND2	2.42	0.53
1:A:2029:VAL:HG11	1:B:2339:GLU:HG2	1.91	0.53
1:B:716:ILE:HG23	1:B:760:LEU:HD13	1.91	0.53
1:B:735:ILE:O	1:B:739:ASN:ND2	2.42	0.53
1:C:964:GLN:OE1	1:D:1987:ARG:NH1	2.42	0.53
1:D:794:ASP:HB3	1:D:796:PRO:HD2	1.90	0.53
1:E:1503:ILE:HG22	1:E:1558:ILE:HA	1.91	0.53
1:A:794:ASP:HB3	1:A:796:PRO:HD2	1.90	0.53
1:C:1158:LEU:HD21	1:C:1183:LEU:HD12	1.91	0.53
1:D:716:ILE:HG23	1:D:760:LEU:HD13	1.91	0.53
1:D:735:ILE:O	1:D:739:ASN:ND2	2.42	0.53
1:A:1311:GLY:HA2	1:A:1334:MET:HA	1.91	0.52
1:B:1503:ILE:HG22	1:B:1558:ILE:HA	1.91	0.52
1:D:1158:LEU:HD21	1:D:1183:LEU:HD12	1.91	0.52
1:C:2029:VAL:HG11	1:D:2339:GLU:HG2	1.91	0.52
1:E:701:ILE:HD13	1:E:717:LEU:HD21	1.90	0.52
1:E:716:ILE:HG23	1:E:760:LEU:HD13	1.91	0.52
1:C:2435:TYR:HB3	1:D:2350:THR:HG21	1.90	0.52
1:D:135:GLN:HA	1:D:140:LYS:HD3	1.92	0.52
1:D:2029:VAL:HG11	1:E:2339:GLU:HG2	1.90	0.52
1:E:1246:ARG:HG3	1:E:1265:LEU:HD21	1.89	0.52
1:E:111:SER:OG	1:E:1967:GLN:OE1	2.22	0.52
1:E:135:GLN:HA	1:E:140:LYS:HD3	1.92	0.52
1:A:135:GLN:HA	1:A:140:LYS:HD3	1.92	0.52
1:B:1158:LEU:HD21	1:B:1183:LEU:HD12	1.91	0.52
1:E:236:LEU:HB2	1:E:484:PHE:HB2	1.90	0.52
1:D:937:SER:OG	1:D:952:ARG:NH1	2.43	0.52
1:E:735:ILE:O	1:E:739:ASN:ND2	2.42	0.52
1:B:393:THR:OG1	1:C:1925:ARG:NH2	2.43	0.52
1:B:2435:TYR:HB3	1:C:2350:THR:HG21	1.90	0.52
1:D:240:THR:OG1	1:D:454:ALA:O	2.28	0.52
1:E:937:SER:OG	1:E:952:ARG:NH1	2.42	0.52
1:E:1680:TYR:OH	1:E:1695:PHE:O	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:236:LEU:HB2	1:B:484:PHE:HB2	1.91	0.52
1:B:937:SER:OG	1:B:952:ARG:NH1	2.42	0.52
1:C:236:LEU:HB2	1:C:484:PHE:HB2	1.90	0.52
1:B:2029:VAL:HG11	1:C:2339:GLU:HG2	1.90	0.52
1:B:701:ILE:HD13	1:B:717:LEU:HD21	1.91	0.52
1:B:2102:GLN:O	1:B:2106:HIS:ND1	2.43	0.52
1:C:240:THR:OG1	1:C:454:ALA:O	2.28	0.52
1:E:794:ASP:HB3	1:E:796:PRO:HD2	1.90	0.52
1:E:1651:PRO:HG2	1:E:1658:HIS:HE1	1.75	0.52
1:A:937:SER:OG	1:A:952:ARG:NH1	2.42	0.51
1:C:170:LEU:HD13	1:C:181:TYR:HE1	1.75	0.51
1:C:1318:TYR:HB2	1:C:1326:ILE:HD11	1.91	0.51
1:C:1651:PRO:HG2	1:C:1658:HIS:HE1	1.75	0.51
1:A:726:GLN:OE1	1:A:749:ASN:ND2	2.42	0.51
1:A:1318:TYR:HB2	1:A:1326:ILE:HD11	1.91	0.51
1:A:1805:GLU:OE2	1:D:2202:ARG:NH2	2.42	0.51
1:C:135:GLN:HA	1:C:140:LYS:HD3	1.92	0.51
1:C:937:SER:OG	1:C:952:ARG:NH1	2.43	0.51
1:D:451:LEU:HD13	1:D:462:ILE:HD11	1.93	0.51
1:A:170:LEU:HD13	1:A:181:TYR:HE1	1.75	0.51
1:A:1651:PRO:HG2	1:A:1658:HIS:HE1	1.75	0.51
1:A:2102:GLN:O	1:A:2106:HIS:ND1	2.43	0.51
1:B:1167:ASN:ND2	1:B:1172:GLY:O	2.41	0.51
1:B:2202:ARG:NH2	1:D:1805:GLU:OE2	2.43	0.51
1:C:716:ILE:HG23	1:C:760:LEU:HD13	1.91	0.51
1:C:2408:ALA:O	1:C:2419:ARG:NH1	2.44	0.51
1:A:451:LEU:HD13	1:A:462:ILE:HD11	1.93	0.51
1:B:170:LEU:HD13	1:B:181:TYR:HE1	1.75	0.51
1:B:1651:PRO:HG2	1:B:1658:HIS:HE1	1.75	0.51
1:B:2408:ALA:O	1:B:2419:ARG:NH1	2.44	0.51
1:E:170:LEU:HD13	1:E:181:TYR:HE1	1.75	0.51
1:E:867:LEU:HD23	1:E:870:LEU:HD12	1.93	0.51
1:E:1158:LEU:HD21	1:E:1183:LEU:HD12	1.91	0.51
1:A:769:LEU:HD13	1:A:774:LEU:HD13	1.93	0.51
1:B:2295:THR:HG1	1:B:2478:TYR:HH	1.57	0.51
1:D:726:GLN:OE1	1:D:749:ASN:ND2	2.42	0.51
1:E:451:LEU:HD13	1:E:462:ILE:HD11	1.93	0.51
1:A:2408:ALA:O	1:A:2419:ARG:NH1	2.44	0.51
1:B:1311:GLY:HA2	1:B:1334:MET:HA	1.91	0.51
1:C:2102:GLN:O	1:C:2106:HIS:ND1	2.43	0.51
1:E:1318:TYR:HB2	1:E:1326:ILE:HD11	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1158:LEU:HD21	1:A:1183:LEU:HD12	1.91	0.51
1:A:2202:ARG:NH2	1:C:1805:GLU:OE2	2.43	0.51
1:C:451:LEU:HD13	1:C:462:ILE:HD11	1.93	0.51
1:C:1680:TYR:OH	1:C:1695:PHE:O	2.25	0.51
1:D:170:LEU:HD13	1:D:181:TYR:HE1	1.75	0.51
1:A:712:THR:HG22	1:A:771:GLU:HB2	1.93	0.51
1:A:2272:GLY:HA3	1:E:703:ALA:HB2	1.92	0.51
1:D:1651:PRO:HG2	1:D:1658:HIS:HE1	1.75	0.51
1:D:2295:THR:OG1	1:D:2478:TYR:OH	2.27	0.51
1:B:78:ILE:HD13	1:B:81:LEU:HD22	1.93	0.51
1:B:135:GLN:HA	1:B:140:LYS:HD3	1.92	0.51
1:C:712:THR:HG22	1:C:771:GLU:HB2	1.93	0.51
1:C:1503:ILE:HG22	1:C:1558:ILE:HA	1.91	0.51
1:C:2095:ASP:OD1	1:C:2233:ARG:NH1	2.44	0.51
1:E:1311:GLY:HA2	1:E:1334:MET:HA	1.92	0.51
1:A:2063:GLN:NE2	1:E:708:ASP:OD1	2.44	0.51
1:A:2095:ASP:OD1	1:A:2233:ARG:NH1	2.44	0.51
1:B:712:THR:HG22	1:B:771:GLU:HB2	1.93	0.51
1:D:712:THR:HG22	1:D:771:GLU:HB2	1.93	0.51
1:D:1311:GLY:HA2	1:D:1334:MET:HA	1.92	0.51
1:D:2199:GLU:OE1	1:E:2124:ASN:ND2	2.43	0.51
1:D:2408:ALA:O	1:D:2419:ARG:NH1	2.44	0.51
1:D:2435:TYR:HB3	1:E:2350:THR:HG21	1.93	0.51
1:A:1835:TRP:CZ2	1:A:1868:LYS:HG3	2.46	0.50
1:C:726:GLN:OE1	1:C:749:ASN:ND2	2.42	0.50
1:D:78:ILE:HD13	1:D:81:LEU:HD22	1.93	0.50
1:D:708:ASP:OD1	1:E:2063:GLN:NE2	2.45	0.50
1:D:1835:TRP:CZ2	1:D:1868:LYS:HG3	2.46	0.50
1:E:792:GLN:HB2	1:E:797:THR:HG21	1.94	0.50
1:A:240:THR:OG1	1:A:454:ALA:O	2.28	0.50
1:A:393:THR:OG1	1:B:1925:ARG:NH2	2.44	0.50
1:B:451:LEU:HD13	1:B:462:ILE:HD11	1.93	0.50
1:C:1311:GLY:HA2	1:C:1334:MET:HA	1.92	0.50
1:A:488:TYR:O	1:A:492:HIS:CB	2.60	0.50
1:E:2102:GLN:O	1:E:2106:HIS:ND1	2.43	0.50
1:A:297:ASN:ND2	1:A:308:GLN:O	2.43	0.50
1:B:488:TYR:O	1:B:492:HIS:CB	2.60	0.50
1:B:792:GLN:HB2	1:B:797:THR:HG21	1.94	0.50
1:B:1127:ASN:ND2	1:B:1848:ALA:O	2.41	0.50
1:B:1835:TRP:CZ2	1:B:1868:LYS:HG3	2.46	0.50
1:B:2295:THR:OG1	1:B:2478:TYR:OH	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2095:ASP:OD1	1:E:2233:ARG:NH1	2.44	0.50
1:B:726:GLN:OE1	1:B:749:ASN:ND2	2.42	0.50
1:C:78:ILE:HD13	1:C:81:LEU:HD22	1.93	0.50
1:C:1835:TRP:CZ2	1:C:1868:LYS:HG3	2.46	0.50
1:E:1308:SER:OG	1:E:1337:ASN:OD1	2.30	0.50
1:E:2408:ALA:O	1:E:2419:ARG:NH1	2.44	0.50
1:A:1308:SER:OG	1:A:1337:ASN:OD1	2.30	0.50
1:A:1680:TYR:OH	1:A:1695:PHE:O	2.26	0.50
1:A:2295:THR:OG1	1:A:2478:TYR:OH	2.27	0.50
1:C:488:TYR:O	1:C:492:HIS:CB	2.60	0.50
1:C:769:LEU:HD13	1:C:774:LEU:HD13	1.93	0.50
1:C:2401:LYS:HE2	1:C:2403:SER:HB3	1.94	0.50
1:E:1835:TRP:CZ2	1:E:1868:LYS:HG3	2.46	0.50
1:A:111:SER:OG	1:A:1967:GLN:OE1	2.22	0.50
1:B:1805:GLU:OE2	1:E:2202:ARG:NH2	2.45	0.50
1:B:2095:ASP:OD1	1:B:2233:ARG:NH1	2.44	0.50
1:B:2401:LYS:HE2	1:B:2403:SER:HB3	1.94	0.50
1:D:769:LEU:HD13	1:D:774:LEU:HD13	1.93	0.50
1:D:867:LEU:HD23	1:D:870:LEU:HD12	1.93	0.50
1:A:78:ILE:HD13	1:A:81:LEU:HD22	1.93	0.50
1:A:1138:PRO:HB2	1:D:2173:LEU:HB3	1.93	0.50
1:A:2401:LYS:HE2	1:A:2403:SER:HB3	1.94	0.50
1:D:393:THR:OG1	1:E:1925:ARG:NH2	2.45	0.50
1:E:78:ILE:HD13	1:E:81:LEU:HD22	1.92	0.50
1:E:488:TYR:O	1:E:492:HIS:CB	2.60	0.50
1:E:712:THR:HG2	1:E:771:GLU:HB2	1.93	0.50
1:B:111:SER:OG	1:B:1967:GLN:OE1	2.22	0.50
1:B:769:LEU:HD13	1:B:774:LEU:HD13	1.93	0.50
1:B:1089:ILE:HD11	1:B:1293:LEU:HD12	1.94	0.50
1:C:1155:LEU:HD22	1:C:1192:TRP:HH2	1.77	0.50
1:D:297:ASN:ND2	1:D:308:GLN:O	2.43	0.50
1:D:1680:TYR:OH	1:D:1695:PHE:O	2.25	0.50
1:E:769:LEU:HD13	1:E:774:LEU:HD13	1.93	0.50
1:C:867:LEU:HD23	1:C:870:LEU:HD12	1.93	0.49
1:C:1308:SER:OG	1:C:1337:ASN:OD1	2.30	0.49
1:D:2253:GLN:HE21	1:E:2075:GLN:NE2	2.09	0.49
1:E:1089:ILE:HD11	1:E:1293:LEU:HD12	1.94	0.49
1:A:867:LEU:HD23	1:A:870:LEU:HD12	1.93	0.49
1:C:1035:PRO:HB3	1:C:1796:MET:HB3	1.94	0.49
1:A:1925:ARG:NH2	1:E:393:THR:OG1	2.44	0.49
1:A:2339:GLU:HG2	1:E:2029:VAL:HG11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:669:THR:HG22	1:C:671:ASP:H	1.78	0.49
1:C:792:GLN:HB2	1:C:797:THR:HG21	1.94	0.49
1:C:1127:ASN:ND2	1:C:1848:ALA:O	2.41	0.49
1:D:716:ILE:HD11	1:D:764:VAL:HG21	1.94	0.49
1:A:1035:PRO:HB3	1:A:1796:MET:HB3	1.94	0.49
1:B:1155:LEU:HD22	1:B:1192:TRP:HH2	1.77	0.49
1:C:1089:ILE:HD11	1:C:1293:LEU:HD12	1.94	0.49
1:C:2297:GLN:NE2	1:C:2305:ALA:O	2.39	0.49
1:D:1714:TYR:H	1:D:1718:ILE:HG22	1.77	0.49
1:E:669:THR:HG22	1:E:671:ASP:H	1.78	0.49
1:A:2253:GLN:HE21	1:B:2075:GLN:NE2	2.10	0.49
1:B:240:THR:OG1	1:B:454:ALA:O	2.28	0.49
1:B:867:LEU:HD23	1:B:870:LEU:HD12	1.93	0.49
1:D:1035:PRO:HB3	1:D:1796:MET:HB3	1.94	0.49
1:D:2095:ASP:OD1	1:D:2233:ARG:NH1	2.44	0.49
1:E:297:ASN:ND2	1:E:308:GLN:O	2.44	0.49
1:A:669:THR:HG22	1:A:671:ASP:H	1.78	0.49
1:A:1703:TYR:O	1:A:1751:GLN:NE2	2.36	0.49
1:B:1035:PRO:HB3	1:B:1796:MET:HB3	1.94	0.49
1:B:2253:GLN:HE21	1:C:2075:GLN:NE2	2.10	0.49
1:D:2297:GLN:NE2	1:D:2305:ALA:O	2.39	0.49
1:A:1155:LEU:HD22	1:A:1192:TRP:HH2	1.77	0.49
1:B:42:THR:OG1	1:B:1571:GLU:OE2	2.31	0.49
1:B:708:ASP:OD1	1:C:2063:GLN:NE2	2.46	0.49
1:C:393:THR:OG1	1:D:1925:ARG:NH2	2.45	0.49
1:C:708:ASP:OD1	1:D:2063:GLN:NE2	2.46	0.49
1:D:1958:ASN:O	1:D:1961:THR:OG1	2.31	0.49
1:E:240:THR:OG1	1:E:454:ALA:O	2.28	0.49
1:A:792:GLN:HB2	1:A:797:THR:HG21	1.94	0.49
1:B:1308:SER:OG	1:B:1337:ASN:OD1	2.30	0.49
1:B:1958:ASN:O	1:B:1961:THR:OG1	2.31	0.49
1:C:2253:GLN:HE21	1:D:2075:GLN:NE2	2.11	0.49
1:D:240:THR:HG21	1:D:455:THR:HG22	1.95	0.49
1:D:488:TYR:O	1:D:492:HIS:CB	2.60	0.49
1:D:2102:GLN:O	1:D:2106:HIS:ND1	2.43	0.49
1:E:1958:ASN:O	1:E:1961:THR:OG1	2.31	0.49
1:C:2202:ARG:NH2	1:E:1805:GLU:OE2	2.45	0.49
1:D:2353:LEU:HD12	1:D:2513:ILE:HB	1.95	0.49
1:E:1714:TYR:H	1:E:1718:ILE:HG22	1.77	0.49
1:E:2401:LYS:HE2	1:E:2403:SER:HB3	1.94	0.49
1:A:1089:ILE:HD11	1:A:1293:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:334:ARG:NH2	1:B:512:SER:OG	2.46	0.49
1:B:2353:LEU:HD12	1:B:2513:ILE:HB	1.95	0.49
1:C:240:THR:HG21	1:C:455:THR:HG22	1.95	0.49
1:C:2353:LEU:HD12	1:C:2513:ILE:HB	1.95	0.49
1:E:42:THR:OG1	1:E:1571:GLU:OE2	2.31	0.49
1:E:726:GLN:OE1	1:E:749:ASN:ND2	2.42	0.49
1:C:2173:LEU:HB3	1:E:1138:PRO:HB2	1.94	0.48
1:D:1155:LEU:HD22	1:D:1192:TRP:HH2	1.77	0.48
1:A:2199:GLU:OE1	1:B:2124:ASN:ND2	2.45	0.48
1:C:297:ASN:ND2	1:C:308:GLN:O	2.43	0.48
1:C:703:ALA:HB2	1:D:2272:GLY:HA3	1.95	0.48
1:D:792:GLN:HB2	1:D:797:THR:HG21	1.94	0.48
1:D:2401:LYS:HE2	1:D:2403:SER:HB3	1.94	0.48
1:B:716:ILE:HD11	1:B:764:VAL:HG21	1.94	0.48
1:B:1680:TYR:OH	1:B:1695:PHE:O	2.25	0.48
1:D:669:THR:HG22	1:D:671:ASP:H	1.78	0.48
1:D:1308:SER:OG	1:D:1337:ASN:OD1	2.30	0.48
1:A:1127:ASN:ND2	1:A:1848:ALA:O	2.41	0.48
1:A:1884:ASP:OD1	1:A:1902:TYR:OH	2.31	0.48
1:A:2173:LEU:HB3	1:C:1138:PRO:HB2	1.94	0.48
1:B:1138:PRO:HB2	1:E:2173:LEU:HB3	1.95	0.48
1:B:1884:ASP:OD1	1:B:1902:TYR:OH	2.31	0.48
1:E:334:ARG:NH2	1:E:512:SER:OG	2.46	0.48
1:A:716:ILE:HD11	1:A:764:VAL:HG21	1.94	0.48
1:A:1958:ASN:O	1:A:1961:THR:OG1	2.31	0.48
1:A:2353:LEU:HD12	1:A:2513:ILE:HB	1.95	0.48
1:E:1035:PRO:HB3	1:E:1796:MET:HB3	1.94	0.48
1:A:334:ARG:NH2	1:A:512:SER:OG	2.46	0.48
1:B:669:THR:HG22	1:B:671:ASP:H	1.77	0.48
1:B:691:ASP:O	1:B:695:ARG:NH2	2.47	0.48
1:C:334:ARG:NH2	1:C:512:SER:OG	2.46	0.48
1:D:879:THR:HG23	1:D:882:GLY:H	1.79	0.48
1:E:1155:LEU:HD22	1:E:1192:TRP:HH2	1.77	0.48
1:D:691:ASP:O	1:D:695:ARG:NH2	2.47	0.48
1:D:1089:ILE:HD11	1:D:1293:LEU:HD12	1.94	0.48
1:E:2297:GLN:NE2	1:E:2305:ALA:O	2.39	0.48
1:E:2353:LEU:HD12	1:E:2513:ILE:HB	1.95	0.48
1:A:708:ASP:OD1	1:B:2063:GLN:NE2	2.47	0.48
1:B:2173:LEU:HB3	1:D:1138:PRO:HB2	1.95	0.48
1:C:462:ILE:HA	1:C:465:VAL:HG22	1.95	0.48
1:C:777:LEU:HD22	1:C:784:PHE:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1030:GLU:HG2	1:C:1869:VAL:HB	1.96	0.48
1:C:1884:ASP:OD1	1:C:1902:TYR:OH	2.31	0.48
1:E:691:ASP:O	1:E:695:ARG:NH2	2.47	0.48
1:A:240:THR:HG21	1:A:455:THR:HG22	1.95	0.48
1:C:673:GLU:HA	1:C:676:ILE:HD12	1.96	0.48
1:D:334:ARG:NH2	1:D:512:SER:OG	2.46	0.48
1:D:1314:PHE:HE2	1:D:1333:SER:HB3	1.79	0.48
1:E:1703:TYR:O	1:E:1751:GLN:NE2	2.36	0.48
1:B:240:THR:HG21	1:B:455:THR:HG22	1.95	0.47
1:B:1029:PRO:HD2	1:B:1866:HIS:CD2	2.49	0.47
1:B:1714:TYR:H	1:B:1718:ILE:HG22	1.77	0.47
1:C:691:ASP:O	1:C:695:ARG:NH2	2.47	0.47
1:D:777:LEU:HD22	1:D:784:PHE:HB2	1.96	0.47
1:D:1029:PRO:HD2	1:D:1866:HIS:CD2	2.49	0.47
1:A:691:ASP:O	1:A:695:ARG:NH2	2.47	0.47
1:A:777:LEU:HD22	1:A:784:PHE:HB2	1.96	0.47
1:A:1714:TYR:H	1:A:1718:ILE:HG22	1.77	0.47
1:A:2422:LYS:H	1:A:2519:TYR:HA	1.80	0.47
1:B:777:LEU:HD22	1:B:784:PHE:HB2	1.96	0.47
1:D:1030:GLU:HG2	1:D:1869:VAL:HB	1.96	0.47
1:E:462:ILE:HA	1:E:465:VAL:HG22	1.95	0.47
1:E:716:ILE:HD11	1:E:764:VAL:HG21	1.94	0.47
1:E:777:LEU:HD22	1:E:784:PHE:HB2	1.96	0.47
1:E:1799:PHE:CE2	1:E:1874:LYS:HB3	2.50	0.47
1:A:1030:GLU:HG2	1:A:1869:VAL:HB	1.96	0.47
1:B:1030:GLU:HG2	1:B:1869:VAL:HB	1.96	0.47
1:C:841:GLN:O	1:C:845:GLN:HB2	2.15	0.47
1:C:1799:PHE:CE2	1:C:1874:LYS:HB3	2.50	0.47
1:D:2189:ARG:HD2	1:E:2190:ILE:HD12	1.97	0.47
1:E:1030:GLU:HG2	1:E:1869:VAL:HB	1.96	0.47
1:A:703:ALA:HB2	1:B:2272:GLY:HA3	1.95	0.47
1:B:879:THR:HG23	1:B:882:GLY:H	1.79	0.47
1:C:1714:TYR:H	1:C:1718:ILE:HG22	1.77	0.47
1:D:673:GLU:HA	1:D:676:ILE:HD12	1.96	0.47
1:D:1550:ILE:HB	1:D:1576:ILE:HB	1.97	0.47
1:E:240:THR:HG21	1:E:455:THR:HG22	1.95	0.47
1:A:462:ILE:HA	1:A:465:VAL:HG22	1.95	0.47
1:A:879:THR:HG23	1:A:882:GLY:H	1.79	0.47
1:A:1799:PHE:CE2	1:A:1874:LYS:HB3	2.50	0.47
1:A:2124:ASN:ND2	1:E:2199:GLU:OE1	2.47	0.47
1:B:462:ILE:HA	1:B:465:VAL:HG22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:703:ALA:HB2	1:C:2272:GLY:HA3	1.96	0.47
1:B:1264:ASP:O	1:B:1268:ILE:HB	2.15	0.47
1:C:716:ILE:HD11	1:C:764:VAL:HG21	1.94	0.47
1:D:462:ILE:HA	1:D:465:VAL:HG22	1.95	0.47
1:E:673:GLU:HA	1:E:676:ILE:HD12	1.96	0.47
1:A:1309:PHE:HD1	1:A:1336:ILE:HG12	1.80	0.47
1:A:1550:ILE:HB	1:A:1576:ILE:HB	1.97	0.47
1:B:736:ILE:HG23	1:B:746:GLU:HG2	1.97	0.47
1:B:2422:LYS:H	1:B:2519:TYR:HA	1.79	0.47
1:D:1652:PRO:O	1:D:1658:HIS:NE2	2.48	0.47
1:D:1799:PHE:CE2	1:D:1874:LYS:HB3	2.50	0.47
1:A:683:LEU:HD12	1:A:700:LEU:HD12	1.97	0.47
1:B:717:LEU:HA	1:B:720:ILE:HG22	1.97	0.47
1:B:1799:PHE:CE2	1:B:1874:LYS:HB3	2.50	0.47
1:C:1029:PRO:HD2	1:C:1866:HIS:CD2	2.49	0.47
1:C:1314:PHE:HE2	1:C:1333:SER:HB3	1.79	0.47
1:C:1652:PRO:O	1:C:1658:HIS:NE2	2.48	0.47
1:D:2387:ASN:ND2	1:D:2404:ASP:OD2	2.40	0.47
1:E:92:TYR:HA	1:E:1945:LEU:HD11	1.97	0.47
1:E:736:ILE:HG23	1:E:746:GLU:HG2	1.97	0.47
1:E:2422:LYS:H	1:E:2519:TYR:HA	1.79	0.47
1:C:717:LEU:HA	1:C:720:ILE:HG22	1.97	0.47
1:C:1309:PHE:HD1	1:C:1336:ILE:HG12	1.80	0.47
1:C:2295:THR:HG1	1:C:2478:TYR:HH	1.58	0.47
1:D:736:ILE:HG23	1:D:746:GLU:HG2	1.97	0.47
1:D:841:GLN:O	1:D:845:GLN:HB2	2.15	0.47
1:E:1264:ASP:O	1:E:1268:ILE:HB	2.15	0.47
1:E:1884:ASP:OD1	1:E:1902:TYR:OH	2.31	0.47
1:E:2387:ASN:ND2	1:E:2404:ASP:OD2	2.40	0.47
1:A:736:ILE:HG23	1:A:746:GLU:HG2	1.97	0.47
1:A:1029:PRO:HD2	1:A:1866:HIS:CD2	2.49	0.47
1:B:841:GLN:O	1:B:845:GLN:HB2	2.15	0.47
1:C:1081:VAL:O	1:C:1597:GLN:NE2	2.48	0.47
1:D:683:LEU:HD12	1:D:700:LEU:HD12	1.97	0.47
1:E:879:THR:HG23	1:E:882:GLY:H	1.79	0.47
1:E:1309:PHE:HD1	1:E:1336:ILE:HG12	1.80	0.47
1:A:92:TYR:HA	1:A:1945:LEU:HD11	1.97	0.47
1:A:673:GLU:HA	1:A:676:ILE:HD12	1.96	0.47
1:A:1284:VAL:HB	1:A:1587:ILE:HB	1.97	0.47
1:B:1550:ILE:HB	1:B:1576:ILE:HB	1.97	0.47
1:C:1958:ASN:O	1:C:1961:THR:OG1	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:223:ASN:HD22	1:E:868:GLN:HG2	1.80	0.47
1:E:1607:ARG:HB2	1:E:1640:LEU:HD11	1.97	0.47
1:A:496:SER:OG	1:A:497:VAL:N	2.48	0.46
1:B:223:ASN:HD22	1:B:868:GLN:HG2	1.80	0.46
1:B:683:LEU:HD12	1:B:700:LEU:HD12	1.97	0.46
1:C:683:LEU:HD12	1:C:700:LEU:HD12	1.97	0.46
1:C:879:THR:HG23	1:C:882:GLY:H	1.79	0.46
1:C:1264:ASP:O	1:C:1268:ILE:HB	2.15	0.46
1:D:717:LEU:HA	1:D:720:ILE:HG22	1.97	0.46
1:D:1607:ARG:HB2	1:D:1640:LEU:HD11	1.97	0.46
1:A:2189:ARG:HD2	1:B:2190:ILE:HD12	1.97	0.46
1:B:92:TYR:HA	1:B:1945:LEU:HD11	1.97	0.46
1:B:1006:PHE:HA	1:B:1009:TRP:HB2	1.97	0.46
1:B:1314:PHE:HE2	1:B:1333:SER:HB3	1.79	0.46
1:C:496:SER:OG	1:C:497:VAL:N	2.48	0.46
1:C:736:ILE:HG23	1:C:746:GLU:HG2	1.97	0.46
1:C:1284:VAL:HB	1:C:1587:ILE:HB	1.97	0.46
1:A:1264:ASP:O	1:A:1268:ILE:HB	2.15	0.46
1:A:1652:PRO:O	1:A:1658:HIS:NE2	2.48	0.46
1:B:1284:VAL:HB	1:B:1587:ILE:HB	1.97	0.46
1:B:1727:PHE:HB3	1:B:1740:ILE:HD12	1.98	0.46
1:C:42:THR:OG1	1:C:1571:GLU:OE2	2.31	0.46
1:C:508:ILE:HG23	1:C:519:HIS:HD2	1.80	0.46
1:D:1284:VAL:HB	1:D:1587:ILE:HB	1.97	0.46
1:E:1284:VAL:HB	1:E:1587:ILE:HB	1.98	0.46
1:E:1314:PHE:HE2	1:E:1333:SER:HB3	1.79	0.46
1:E:1550:ILE:HB	1:E:1576:ILE:HB	1.97	0.46
1:A:81:LEU:HD12	1:A:1835:TRP:HZ2	1.81	0.46
1:B:1607:ARG:HB2	1:B:1640:LEU:HD11	1.97	0.46
1:C:81:LEU:HD12	1:C:1835:TRP:HZ2	1.81	0.46
1:C:1006:PHE:HA	1:C:1009:TRP:HB2	1.97	0.46
1:E:717:LEU:HA	1:E:720:ILE:HG22	1.97	0.46
1:E:1652:PRO:O	1:E:1658:HIS:NE2	2.48	0.46
1:E:1721:LYS:H	1:E:1724:GLU:HB2	1.81	0.46
1:A:665:SER:OG	1:B:817:GLU:OE2	2.25	0.46
1:A:1314:PHE:HE2	1:A:1333:SER:HB3	1.79	0.46
1:A:1721:LYS:H	1:A:1724:GLU:HB2	1.81	0.46
1:B:673:GLU:HA	1:B:676:ILE:HD12	1.96	0.46
1:D:1884:ASP:OD1	1:D:1902:TYR:OH	2.31	0.46
1:B:1652:PRO:O	1:B:1658:HIS:NE2	2.48	0.46
1:C:223:ASN:HD22	1:C:868:GLN:HG2	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2387:ASN:ND2	1:C:2404:ASP:OD2	2.40	0.46
1:D:1180:ILE:HD11	1:D:1197:ASN:HB3	1.98	0.46
1:E:683:LEU:HD12	1:E:700:LEU:HD12	1.97	0.46
1:E:1029:PRO:HD2	1:E:1866:HIS:CD2	2.49	0.46
1:E:1727:PHE:HB3	1:E:1740:ILE:HD12	1.98	0.46
1:A:223:ASN:HD22	1:A:868:GLN:HG2	1.80	0.46
1:A:1727:PHE:HB3	1:A:1740:ILE:HD12	1.98	0.46
1:C:1607:ARG:HB2	1:C:1640:LEU:HD11	1.97	0.46
1:D:508:ILE:HG23	1:D:519:HIS:HD2	1.80	0.46
1:E:496:SER:OG	1:E:497:VAL:N	2.48	0.46
1:E:841:GLN:O	1:E:845:GLN:HB2	2.15	0.46
1:A:841:GLN:O	1:A:845:GLN:HB2	2.15	0.46
1:A:1006:PHE:HA	1:A:1009:TRP:HB2	1.97	0.46
1:A:1081:VAL:O	1:A:1597:GLN:NE2	2.48	0.46
1:B:508:ILE:HG23	1:B:519:HIS:HD2	1.80	0.46
1:B:1180:ILE:HD11	1:B:1197:ASN:HB3	1.98	0.46
1:B:1309:PHE:HD1	1:B:1336:ILE:HG12	1.80	0.46
1:B:2188:THR:HG23	1:C:2137:SER:HB2	1.98	0.46
1:C:2422:LYS:H	1:C:2519:TYR:HA	1.80	0.46
1:D:496:SER:OG	1:D:497:VAL:N	2.48	0.46
1:D:1264:ASP:O	1:D:1268:ILE:HB	2.15	0.46
1:D:1721:LYS:H	1:D:1724:GLU:HB2	1.81	0.46
1:A:842:VAL:HG23	1:E:566:THR:HG21	1.98	0.46
1:A:1523:VAL:HG22	1:A:1538:PHE:HA	1.98	0.46
1:A:2075:GLN:NE2	1:E:2253:GLN:HE21	2.14	0.46
1:A:2382:ALA:HB3	1:A:2389:LEU:HB2	1.98	0.46
1:B:2178:ALA:HB1	1:C:2148:HIS:CE1	2.51	0.46
1:C:1721:LYS:H	1:C:1724:GLU:HB2	1.81	0.46
1:C:1727:PHE:HB3	1:C:1740:ILE:HD12	1.98	0.46
1:D:92:TYR:HA	1:D:1945:LEU:HD11	1.97	0.46
1:D:282:ALA:HA	1:D:287:LEU:HB2	1.97	0.46
1:D:2422:LYS:H	1:D:2519:TYR:HA	1.80	0.46
1:A:2137:SER:HB2	1:E:2188:THR:HG23	1.98	0.46
1:B:282:ALA:HA	1:B:287:LEU:HB2	1.97	0.46
1:B:496:SER:OG	1:B:497:VAL:N	2.48	0.46
1:B:2199:GLU:OE1	1:C:2124:ASN:ND2	2.46	0.46
1:A:508:ILE:HG23	1:A:519:HIS:HD2	1.80	0.45
1:A:817:GLU:OE2	1:E:665:SER:OG	2.22	0.45
1:B:297:ASN:ND2	1:B:308:GLN:O	2.43	0.45
1:B:1721:LYS:H	1:B:1724:GLU:HB2	1.81	0.45
1:C:1550:ILE:HB	1:C:1576:ILE:HB	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:223:ASN:HD22	1:D:868:GLN:HG2	1.80	0.45
1:E:2382:ALA:HB3	1:E:2389:LEU:HB2	1.98	0.45
1:A:282:ALA:HA	1:A:287:LEU:HB2	1.97	0.45
1:A:1607:ARG:HB2	1:A:1640:LEU:HD11	1.97	0.45
1:A:2148:HIS:CE1	1:E:2178:ALA:HB1	2.51	0.45
1:B:2189:ARG:HD2	1:C:2190:ILE:HD12	1.98	0.45
1:B:2382:ALA:HB3	1:B:2389:LEU:HB2	1.98	0.45
1:D:554:LEU:HD23	1:D:558:LYS:HE2	1.99	0.45
1:D:1006:PHE:HA	1:D:1009:TRP:HB2	1.97	0.45
1:D:1081:VAL:O	1:D:1597:GLN:NE2	2.48	0.45
1:E:508:ILE:HG23	1:E:519:HIS:HD2	1.80	0.45
1:B:1523:VAL:HG22	1:B:1538:PHE:HA	1.98	0.45
1:C:1863:ASP:OD1	1:C:1863:ASP:N	2.50	0.45
1:D:81:LEU:HD12	1:D:1835:TRP:HZ2	1.81	0.45
1:E:200:HIS:HB3	1:E:203:TYR:HB3	1.99	0.45
1:E:282:ALA:HA	1:E:287:LEU:HB2	1.98	0.45
1:A:42:THR:OG1	1:A:1571:GLU:OE2	2.31	0.45
1:A:1531:SER:OG	1:B:1766:HIS:NE2	2.36	0.45
1:A:1766:HIS:NE2	1:E:1531:SER:OG	2.36	0.45
1:C:372:ARG:HG2	1:C:383:GLN:HG3	1.99	0.45
1:D:2382:ALA:HB3	1:D:2389:LEU:HB2	1.98	0.45
1:E:372:ARG:HG2	1:E:383:GLN:HG3	1.99	0.45
1:B:200:HIS:HB3	1:B:203:TYR:HB3	1.98	0.45
1:C:92:TYR:HA	1:C:1945:LEU:HD11	1.97	0.45
1:A:717:LEU:HA	1:A:720:ILE:HG22	1.97	0.45
1:B:1597:GLN:HB3	1:B:1609:ASN:HB2	1.99	0.45
1:B:2387:ASN:ND2	1:B:2404:ASP:OD2	2.40	0.45
1:C:200:HIS:HB3	1:C:203:TYR:HB3	1.99	0.45
1:C:282:ALA:HA	1:C:287:LEU:HB2	1.97	0.45
1:D:2188:THR:HG23	1:E:2137:SER:HB2	1.99	0.45
1:E:81:LEU:HD12	1:E:1835:TRP:HZ2	1.81	0.45
1:E:1523:VAL:HG22	1:E:1538:PHE:HA	1.98	0.45
1:A:1863:ASP:OD1	1:A:1863:ASP:N	2.50	0.45
1:B:1799:PHE:HE2	1:B:1874:LYS:HB3	1.82	0.45
1:C:109:ILE:H	1:C:152:GLN:HE22	1.65	0.45
1:C:488:TYR:O	1:C:492:HIS:HB2	2.17	0.45
1:D:1309:PHE:HD1	1:D:1336:ILE:HG12	1.80	0.45
1:E:1006:PHE:HA	1:E:1009:TRP:HB2	1.97	0.45
1:A:2190:ILE:HD12	1:E:2189:ARG:HD2	1.99	0.45
1:B:81:LEU:HD12	1:B:1835:TRP:HZ2	1.81	0.45
1:B:554:LEU:HD23	1:B:558:LYS:HE2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1973:GLN:HA	1:B:1976:TRP:HD1	1.82	0.45
1:C:1523:VAL:HG22	1:C:1538:PHE:HA	1.98	0.45
1:D:1863:ASP:OD1	1:D:1863:ASP:N	2.50	0.45
1:D:2158:PRO:HA	1:D:2168:SER:HB3	1.99	0.45
1:D:2167:GLY:HA2	1:E:2159:ASN:HB3	1.99	0.45
1:A:488:TYR:O	1:A:492:HIS:HB2	2.17	0.45
1:A:1597:GLN:HB3	1:A:1609:ASN:HB2	1.99	0.45
1:C:2188:THR:HG23	1:D:2137:SER:HB2	1.99	0.45
1:C:2382:ALA:HB3	1:C:2389:LEU:HB2	1.99	0.45
1:D:1727:PHE:HB3	1:D:1740:ILE:HD12	1.98	0.45
1:E:2295:THR:OG1	1:E:2478:TYR:OH	2.27	0.45
1:A:2397:GLN:HA	1:A:2495:SER:HA	1.99	0.45
1:B:488:TYR:O	1:B:492:HIS:HB2	2.17	0.45
1:C:1799:PHE:HE2	1:C:1874:LYS:HB3	1.82	0.45
1:E:2158:PRO:HA	1:E:2168:SER:HB3	1.99	0.45
1:C:2178:ALA:HB1	1:D:2148:HIS:CE1	2.52	0.44
1:D:203:TYR:OH	1:D:237:ALA:O	2.30	0.44
1:E:109:ILE:H	1:E:152:GLN:HE22	1.65	0.44
1:E:1180:ILE:HD11	1:E:1197:ASN:HB3	1.98	0.44
1:E:1597:GLN:HB3	1:E:1609:ASN:HB2	1.99	0.44
1:A:1180:ILE:HD11	1:A:1197:ASN:HB3	1.98	0.44
1:A:1973:GLN:HA	1:A:1976:TRP:HD1	1.82	0.44
1:C:525:ASN:ND2	1:C:534:PHE:H	2.12	0.44
1:C:681:ASN:ND2	1:E:2310:PRO:O	2.50	0.44
1:C:2158:PRO:HA	1:C:2168:SER:HB3	1.99	0.44
1:D:33:PHE:HZ	1:D:49:LEU:HD23	1.83	0.44
1:E:488:TYR:O	1:E:492:HIS:HB2	2.17	0.44
1:E:1799:PHE:HE2	1:E:1874:LYS:HB3	1.82	0.44
1:E:2397:GLN:HA	1:E:2495:SER:HA	1.99	0.44
1:A:2188:THR:HG23	1:B:2137:SER:HB2	1.99	0.44
1:C:1041:GLN:NE2	1:C:1046:ASN:OD1	2.51	0.44
1:C:1180:ILE:HD11	1:C:1197:ASN:HB3	1.98	0.44
1:C:1597:GLN:HB3	1:C:1609:ASN:HB2	1.99	0.44
1:C:1625:ASP:OD1	1:C:1817:TYR:OH	2.26	0.44
1:C:2189:ARG:HD2	1:D:2190:ILE:HD12	2.00	0.44
1:D:1973:GLN:HA	1:D:1976:TRP:HD1	1.82	0.44
1:E:698:ALA:HA	1:E:701:ILE:HG22	2.00	0.44
1:A:33:PHE:HZ	1:A:49:LEU:HD23	1.83	0.44
1:A:372:ARG:HG2	1:A:383:GLN:HG3	1.99	0.44
1:A:1909:LEU:HB3	1:A:1976:TRP:CH2	2.53	0.44
1:B:1151:TYR:OH	1:B:1225:ASP:O	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:200:HIS:HB3	1:D:203:TYR:HB3	1.98	0.44
1:D:525:ASN:ND2	1:D:534:PHE:H	2.12	0.44
1:E:1041:GLN:NE2	1:E:1046:ASN:OD1	2.51	0.44
1:A:200:HIS:HB3	1:A:203:TYR:HB3	1.99	0.44
1:A:701:ILE:HG21	1:A:717:LEU:HD11	2.00	0.44
1:A:1550:ILE:HG22	1:A:1552:LEU:HG	2.00	0.44
1:A:1799:PHE:HE2	1:A:1874:LYS:HB3	1.82	0.44
1:A:2178:ALA:HB1	1:B:2148:HIS:CE1	2.53	0.44
1:C:1973:GLN:HA	1:C:1976:TRP:HD1	1.82	0.44
1:D:698:ALA:HA	1:D:701:ILE:HG22	2.00	0.44
1:E:1550:ILE:HG22	1:E:1552:LEU:HG	2.00	0.44
1:A:1163:LYS:HB2	1:A:1178:ASP:HB2	1.99	0.44
1:A:1846:TRP:HB3	1:A:1861:GLN:HB3	2.00	0.44
1:A:2297:GLN:NE2	1:A:2305:ALA:O	2.39	0.44
1:C:1909:LEU:HB3	1:C:1976:TRP:CH2	2.53	0.44
1:D:703:ALA:HB2	1:E:2272:GLY:HA3	1.98	0.44
1:D:1041:GLN:NE2	1:D:1046:ASN:OD1	2.51	0.44
1:D:1909:LEU:HB3	1:D:1976:TRP:CH2	2.53	0.44
1:E:1846:TRP:HB3	1:E:1861:GLN:HB3	2.00	0.44
1:E:1973:GLN:HA	1:E:1976:TRP:HD1	1.82	0.44
1:A:554:LEU:HD23	1:A:558:LYS:HE2	1.99	0.44
1:A:1041:GLN:NE2	1:A:1046:ASN:OD1	2.51	0.44
1:B:1863:ASP:N	1:B:1863:ASP:OD1	2.50	0.44
1:D:109:ILE:H	1:D:152:GLN:HE22	1.65	0.44
1:D:1523:VAL:HG22	1:D:1538:PHE:HA	1.98	0.44
1:D:1597:GLN:HB3	1:D:1609:ASN:HB2	1.99	0.44
1:D:1846:TRP:HB3	1:D:1861:GLN:HB3	2.00	0.44
1:A:2269:TRP:HA	1:E:703:ALA:HB1	2.00	0.44
1:B:372:ARG:HG2	1:B:383:GLN:HG3	1.99	0.44
1:B:1550:ILE:HG22	1:B:1552:LEU:HG	2.00	0.44
1:B:1846:TRP:HB3	1:B:1861:GLN:HB3	2.00	0.44
1:B:2397:GLN:HA	1:B:2495:SER:HA	2.00	0.44
1:C:33:PHE:HZ	1:C:49:LEU:HD23	1.83	0.44
1:C:554:LEU:HD23	1:C:558:LYS:HE2	1.99	0.44
1:D:1550:ILE:HG22	1:D:1552:LEU:HG	2.00	0.44
1:D:2178:ALA:HB1	1:E:2148:HIS:CE1	2.53	0.44
1:E:554:LEU:HD23	1:E:558:LYS:HE2	1.99	0.44
1:E:701:ILE:HG21	1:E:717:LEU:HD11	2.00	0.44
1:E:1863:ASP:N	1:E:1863:ASP:OD1	2.50	0.44
1:A:149:ALA:O	1:A:154:ASN:ND2	2.44	0.44
1:B:701:ILE:HG21	1:B:717:LEU:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1163:LYS:HB2	1:C:1178:ASP:HB2	1.99	0.44
1:D:1163:LYS:HB2	1:D:1178:ASP:HB2	1.99	0.44
1:D:2289:CYS:HB3	1:D:2308:ILE:HD13	2.00	0.44
1:E:436:PHE:HB3	1:E:440:ILE:HG23	2.00	0.44
1:A:698:ALA:HA	1:A:701:ILE:HG22	1.99	0.43
1:D:436:PHE:HB3	1:D:440:ILE:HG23	2.00	0.43
1:D:488:TYR:O	1:D:492:HIS:HB2	2.17	0.43
1:D:2397:GLN:HA	1:D:2495:SER:HA	2.00	0.43
1:A:2158:PRO:HA	1:A:2168:SER:HB3	1.99	0.43
1:A:2167:GLY:HA2	1:B:2159:ASN:HB3	1.99	0.43
1:B:1041:GLN:NE2	1:B:1046:ASN:OD1	2.51	0.43
1:B:2297:GLN:NE2	1:B:2305:ALA:O	2.39	0.43
1:C:701:ILE:HG21	1:C:717:LEU:HD11	2.00	0.43
1:D:372:ARG:HG2	1:D:383:GLN:HG3	1.99	0.43
1:D:1799:PHE:HE2	1:D:1874:LYS:HB3	1.82	0.43
1:E:1127:ASN:ND2	1:E:1848:ALA:O	2.41	0.43
1:A:436:PHE:HB3	1:A:440:ILE:HG23	2.00	0.43
1:A:1146:ILE:HD11	1:A:1157:LEU:HD21	2.01	0.43
1:B:33:PHE:HZ	1:B:49:LEU:HD23	1.83	0.43
1:B:2158:PRO:HA	1:B:2168:SER:HB3	1.99	0.43
1:B:2167:GLY:HA2	1:C:2159:ASN:HB3	2.00	0.43
1:B:2289:CYS:HB3	1:B:2308:ILE:HD13	2.00	0.43
1:B:2310:PRO:O	1:E:681:ASN:ND2	2.52	0.43
1:E:1096:THR:OG1	1:E:1116:HIS:NE2	2.41	0.43
1:E:1909:LEU:HB3	1:E:1976:TRP:CH2	2.53	0.43
1:C:2199:GLU:OE1	1:D:2124:ASN:ND2	2.46	0.43
1:D:701:ILE:HG21	1:D:717:LEU:HD11	2.00	0.43
1:D:1599:MET:HB2	1:D:1608:LEU:HD11	2.01	0.43
1:A:2017:THR:O	1:E:772:ASN:ND2	2.50	0.43
1:B:1163:LYS:HB2	1:B:1178:ASP:HB2	1.99	0.43
1:D:1531:SER:OG	1:E:1766:HIS:NE2	2.37	0.43
1:E:1163:LYS:HB2	1:E:1178:ASP:HB2	1.99	0.43
1:A:2159:ASN:HB3	1:E:2167:GLY:HA2	2.01	0.43
1:B:698:ALA:HA	1:B:701:ILE:HG22	2.00	0.43
1:B:1081:VAL:O	1:B:1597:GLN:NE2	2.48	0.43
1:B:1909:LEU:HB3	1:B:1976:TRP:CH2	2.53	0.43
1:C:1179:TYR:HB2	1:C:1201:THR:HA	2.01	0.43
1:D:334:ARG:HG3	1:D:338:TYR:CG	2.54	0.43
1:D:566:THR:HG21	1:E:842:VAL:HG23	2.01	0.43
1:E:33:PHE:HZ	1:E:49:LEU:HD23	1.83	0.43
1:E:1146:ILE:HD11	1:E:1157:LEU:HD21	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:171:HIS:HD2	1:E:363:LYS:HE2	1.84	0.43
1:C:1550:ILE:HG22	1:C:1552:LEU:HG	2.00	0.43
1:C:1846:TRP:HB3	1:C:1861:GLN:HB3	2.00	0.43
1:C:2397:GLN:HA	1:C:2495:SER:HA	2.00	0.43
1:D:235:LEU:HD23	1:D:238:ILE:HD12	2.01	0.43
1:E:235:LEU:HD23	1:E:238:ILE:HD12	2.01	0.43
1:A:31:SER:O	1:A:35:HIS:ND1	2.41	0.43
1:A:235:LEU:HD23	1:A:238:ILE:HD12	2.01	0.43
1:B:109:ILE:H	1:B:152:GLN:HE22	1.65	0.43
1:C:334:ARG:HG3	1:C:338:TYR:CG	2.54	0.43
1:D:1179:TYR:HB2	1:D:1201:THR:HA	2.01	0.43
1:A:109:ILE:H	1:A:152:GLN:HE22	1.65	0.43
1:A:2289:CYS:HB3	1:A:2308:ILE:HD13	2.00	0.43
1:B:1146:ILE:HD11	1:B:1157:LEU:HD21	2.01	0.43
1:C:698:ALA:HA	1:C:701:ILE:HG22	2.00	0.43
1:E:334:ARG:HG3	1:E:338:TYR:CG	2.54	0.43
1:A:334:ARG:HG3	1:A:338:TYR:CG	2.54	0.43
1:A:1617:ALA:HB2	1:E:1154:ARG:HH21	1.84	0.43
1:A:2346:GLU:HB3	1:E:2469:PHE:CE2	2.54	0.43
1:B:235:LEU:HD23	1:B:238:ILE:HD12	2.01	0.43
1:B:334:ARG:HG3	1:B:338:TYR:CG	2.54	0.43
1:B:566:THR:HG21	1:C:842:VAL:HG23	2.01	0.43
1:B:859:ASN:HB3	1:B:862:THR:HG22	2.01	0.43
1:C:235:LEU:HD23	1:C:238:ILE:HD12	2.01	0.43
1:C:1028:TYR:OH	1:C:1967:GLN:O	2.31	0.43
1:C:2289:CYS:HB3	1:C:2308:ILE:HD13	2.00	0.43
1:D:563:VAL:HG22	1:D:567:GLU:HB3	2.01	0.43
1:E:21:LEU:H	1:E:24:ASN:HD22	1.67	0.43
1:E:1599:MET:HB2	1:E:1608:LEU:HD11	2.01	0.43
1:B:130:HIS:ND1	1:B:984:TYR:OH	2.37	0.42
1:B:527:PRO:O	1:B:559:ARG:NH1	2.52	0.42
1:B:665:SER:OG	1:C:817:GLU:OE2	2.25	0.42
1:C:1154:ARG:HH21	1:D:1617:ALA:HB2	1.83	0.42
1:C:2167:GLY:HA2	1:D:2159:ASN:HB3	2.01	0.42
1:D:266:ASN:HD22	1:D:443:LEU:HD22	1.84	0.42
1:B:1179:TYR:HB2	1:B:1201:THR:HA	2.01	0.42
1:C:527:PRO:O	1:C:559:ARG:NH1	2.52	0.42
1:D:859:ASN:HB3	1:D:862:THR:HG22	2.00	0.42
1:E:413:ARG:HG3	1:E:428:ASN:HB3	2.02	0.42
1:E:2289:CYS:HB3	1:E:2308:ILE:HD13	2.00	0.42
1:A:607:VAL:H	1:A:607:VAL:HG22	1.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:266:ASN:HD22	1:B:443:LEU:HD22	1.84	0.42
1:B:436:PHE:HB3	1:B:440:ILE:HG23	2.00	0.42
1:E:162:LEU:HD11	1:E:933:THR:HG21	2.02	0.42
1:E:527:PRO:O	1:E:559:ARG:NH1	2.52	0.42
1:A:413:ARG:HG3	1:A:428:ASN:HB3	2.02	0.42
1:A:563:VAL:HG22	1:A:567:GLU:HB3	2.01	0.42
1:B:162:LEU:HD11	1:B:933:THR:HG21	2.02	0.42
1:C:21:LEU:H	1:C:24:ASN:HD22	1.67	0.42
1:C:1599:MET:HB2	1:C:1608:LEU:HD11	2.01	0.42
1:E:1179:TYR:HB2	1:E:1201:THR:HA	2.01	0.42
1:A:859:ASN:HB3	1:A:862:THR:HG22	2.01	0.42
1:C:544:THR:HA	1:C:545:PRO:HD3	1.89	0.42
1:E:563:VAL:HG22	1:E:567:GLU:HB3	2.01	0.42
1:A:266:ASN:HD22	1:A:443:LEU:HD22	1.84	0.42
1:A:527:PRO:O	1:A:559:ARG:NH1	2.52	0.42
1:B:703:ALA:HB1	1:C:2269:TRP:HA	2.02	0.42
1:C:266:ASN:HD22	1:C:443:LEU:HD22	1.85	0.42
1:C:413:ARG:HG3	1:C:428:ASN:HB3	2.01	0.42
1:C:859:ASN:HB3	1:C:862:THR:HG22	2.01	0.42
1:D:149:ALA:O	1:D:154:ASN:ND2	2.44	0.42
1:D:703:ALA:HB1	1:E:2269:TRP:HA	2.02	0.42
1:D:1096:THR:OG1	1:D:1116:HIS:NE2	2.41	0.42
1:D:1127:ASN:ND2	1:D:1848:ALA:O	2.41	0.42
1:D:1146:ILE:HD11	1:D:1157:LEU:HD21	2.01	0.42
1:E:859:ASN:HB3	1:E:862:THR:HG22	2.01	0.42
1:A:2387:ASN:ND2	1:A:2404:ASP:OD2	2.40	0.42
1:C:162:LEU:HD11	1:C:933:THR:HG21	2.02	0.42
1:C:436:PHE:HB3	1:C:440:ILE:HG23	2.00	0.42
1:D:502:VAL:HG11	1:D:594:TYR:HD2	1.85	0.42
1:E:1112:ARG:HD2	1:E:1132:TRP:CE2	2.55	0.42
1:A:1599:MET:HB2	1:A:1608:LEU:HD11	2.01	0.42
1:A:2310:PRO:O	1:D:681:ASN:ND2	2.52	0.42
1:B:21:LEU:H	1:B:24:ASN:HD22	1.67	0.42
1:B:363:LYS:HE2	1:C:171:HIS:HD2	1.84	0.42
1:B:483:LEU:HA	1:B:486:VAL:HG22	2.02	0.42
1:B:1179:TYR:H	1:B:1201:THR:HB	1.85	0.42
1:C:315:ILE:HG22	1:C:329:LEU:HB2	2.02	0.42
1:C:502:VAL:HG11	1:C:594:TYR:HD2	1.85	0.42
1:C:1716:LYS:HG2	1:C:1717:ILE:H	1.85	0.42
1:D:363:LYS:HE2	1:E:171:HIS:HD2	1.85	0.42
1:E:31:SER:O	1:E:35:HIS:ND1	2.41	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:204:GLU:HB3	1:A:927:TRP:HZ3	1.85	0.42
1:A:483:LEU:HA	1:A:486:VAL:HG22	2.02	0.42
1:A:1716:LYS:HG2	1:A:1717:ILE:H	1.85	0.42
1:A:1983:LEU:HD23	1:A:1983:LEU:HA	1.92	0.42
1:B:2298:TYR:OH	1:B:2482:GLU:O	2.32	0.42
1:C:563:VAL:HG22	1:C:567:GLU:HB3	2.01	0.42
1:C:1146:ILE:HD11	1:C:1157:LEU:HD21	2.01	0.42
1:D:162:LEU:HD11	1:D:933:THR:HG21	2.02	0.42
1:A:1179:TYR:H	1:A:1201:THR:HB	1.85	0.41
1:E:502:VAL:HG11	1:E:594:TYR:HD2	1.85	0.41
1:B:681:ASN:ND2	1:D:2310:PRO:O	2.53	0.41
1:B:760:LEU:HA	1:B:760:LEU:HD23	1.88	0.41
1:C:2374:LEU:HD23	1:C:2391:VAL:HG23	2.02	0.41
1:D:1112:ARG:HD2	1:D:1132:TRP:CE2	2.55	0.41
1:E:204:GLU:HB3	1:E:927:TRP:HZ3	1.85	0.41
1:E:1716:LYS:HG2	1:E:1717:ILE:H	1.85	0.41
1:A:21:LEU:H	1:A:24:ASN:HD22	1.67	0.41
1:B:203:TYR:CZ	1:B:207:ARG:HD2	2.55	0.41
1:B:413:ARG:HG3	1:B:428:ASN:HB3	2.01	0.41
1:B:886:LEU:HD11	1:B:912:LEU:HD21	2.03	0.41
1:B:952:ARG:HH21	1:B:964:GLN:HG2	1.85	0.41
1:B:1599:MET:HB2	1:B:1608:LEU:HD11	2.01	0.41
1:C:1112:ARG:HD2	1:C:1132:TRP:CE2	2.55	0.41
1:D:315:ILE:HG22	1:D:329:LEU:HB2	2.02	0.41
1:D:1179:TYR:H	1:D:1201:THR:HB	1.85	0.41
1:E:1081:VAL:O	1:E:1597:GLN:NE2	2.48	0.41
1:A:162:LEU:HD11	1:A:933:THR:HG21	2.02	0.41
1:A:2439:ARG:N	1:A:2503:GLN:HE22	2.19	0.41
1:B:149:ALA:O	1:B:154:ASN:ND2	2.44	0.41
1:B:2437:ASP:OD2	1:C:2350:THR:N	2.45	0.41
1:C:483:LEU:HA	1:C:486:VAL:HG22	2.02	0.41
1:D:294:LEU:HB3	1:D:459:PRO:HG2	2.03	0.41
1:D:527:PRO:O	1:D:559:ARG:NH1	2.52	0.41
1:D:1716:LYS:HG2	1:D:1717:ILE:H	1.85	0.41
1:D:2374:LEU:HD23	1:D:2391:VAL:HG23	2.02	0.41
1:E:886:LEU:HD11	1:E:912:LEU:HD21	2.03	0.41
1:E:2374:LEU:HD23	1:E:2391:VAL:HG23	2.02	0.41
1:E:2439:ARG:N	1:E:2503:GLN:HE22	2.19	0.41
1:A:1179:TYR:HB2	1:A:1201:THR:HA	2.01	0.41
1:A:2155:ASP:OD2	1:A:2169:ARG:NH2	2.54	0.41
1:B:294:LEU:HB3	1:B:459:PRO:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2412:PRO:O	1:B:2419:ARG:NH2	2.54	0.41
1:C:566:THR:HG21	1:D:842:VAL:HG23	2.02	0.41
1:C:2155:ASP:OD2	1:C:2169:ARG:NH2	2.54	0.41
1:D:31:SER:O	1:D:35:HIS:ND1	2.41	0.41
1:D:1154:ARG:HH21	1:E:1617:ALA:HB2	1.85	0.41
1:E:952:ARG:HH21	1:E:964:GLN:HG2	1.85	0.41
1:E:1179:TYR:H	1:E:1201:THR:HB	1.85	0.41
1:A:566:THR:HG21	1:B:842:VAL:HG23	2.02	0.41
1:B:1112:ARG:HD2	1:B:1132:TRP:CE2	2.55	0.41
1:C:1619:ARG:HH21	1:C:1635:LEU:HD21	1.85	0.41
1:D:952:ARG:HH21	1:D:964:GLN:HG2	1.85	0.41
1:D:2260:LYS:HE3	1:E:2064:ASP:HB3	2.03	0.41
1:E:2155:ASP:OD2	1:E:2169:ARG:NH2	2.54	0.41
1:A:502:VAL:HG11	1:A:594:TYR:HD2	1.85	0.41
1:A:1112:ARG:HD2	1:A:1132:TRP:CE2	2.55	0.41
1:B:315:ILE:HG22	1:B:329:LEU:HB2	2.02	0.41
1:B:502:VAL:HG11	1:B:594:TYR:HD2	1.85	0.41
1:C:294:LEU:HB3	1:C:459:PRO:HG2	2.03	0.41
1:C:1179:TYR:H	1:C:1201:THR:HB	1.85	0.41
1:E:130:HIS:ND1	1:E:984:TYR:OH	2.37	0.41
1:A:950:LYS:N	1:A:954:GLU:OE1	2.44	0.41
1:A:2412:PRO:O	1:A:2419:ARG:NH2	2.54	0.41
1:B:772:ASN:ND2	1:C:2017:THR:O	2.53	0.41
1:B:1716:LYS:HG2	1:B:1717:ILE:H	1.85	0.41
1:B:1801:ARG:HA	1:B:1801:ARG:HD2	1.88	0.41
1:B:2155:ASP:OD2	1:B:2169:ARG:NH2	2.54	0.41
1:C:2439:ARG:N	1:C:2503:GLN:HE22	2.19	0.41
1:D:413:ARG:HG3	1:D:428:ASN:HB3	2.01	0.41
1:D:2063:GLN:HE21	1:D:2268:ASN:ND2	2.19	0.41
1:D:2439:ARG:N	1:D:2503:GLN:HE22	2.19	0.41
1:E:545:PRO:HB3	1:E:565:ASP:HB3	2.03	0.41
1:A:203:TYR:CZ	1:A:207:ARG:HD2	2.56	0.41
1:A:294:LEU:HB3	1:A:459:PRO:HG2	2.03	0.41
1:A:681:ASN:ND2	1:C:2310:PRO:O	2.53	0.41
1:A:772:ASN:ND2	1:B:2017:THR:O	2.54	0.41
1:A:952:ARG:HH21	1:A:964:GLN:HG2	1.86	0.41
1:A:1663:TRP:HA	1:A:1685:LEU:H	1.86	0.41
1:B:151:THR:HG23	1:B:154:ASN:H	1.86	0.41
1:B:563:VAL:HG22	1:B:567:GLU:HB3	2.01	0.41
1:B:1154:ARG:HH21	1:C:1617:ALA:HB2	1.84	0.41
1:B:2439:ARG:N	1:B:2503:GLN:HE22	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:TYR:CZ	1:C:207:ARG:HD2	2.56	0.41
1:C:952:ARG:HH21	1:C:964:GLN:HG2	1.86	0.41
1:D:70:ARG:HD2	1:D:86:SER:HB3	2.03	0.41
1:D:1318:TYR:HB3	1:D:1328:LEU:HD23	2.03	0.41
1:D:1619:ARG:HH21	1:D:1635:LEU:HD21	1.86	0.41
1:D:2177:SER:HB3	1:E:2147:LEU:HD21	2.03	0.41
1:E:203:TYR:CZ	1:E:207:ARG:HD2	2.56	0.41
1:E:266:ASN:HD22	1:E:443:LEU:HD22	1.85	0.41
1:E:483:LEU:HA	1:E:486:VAL:HG22	2.02	0.41
1:A:315:ILE:HG22	1:A:329:LEU:HB2	2.02	0.41
1:B:1663:TRP:HA	1:B:1685:LEU:H	1.86	0.41
1:C:151:THR:HG23	1:C:154:ASN:H	1.86	0.41
1:C:1221:ASP:HB2	1:C:1228:ILE:HD11	2.03	0.41
1:C:1725:SER:O	1:C:1741:ASN:ND2	2.54	0.41
1:D:204:GLU:HB3	1:D:927:TRP:HZ3	1.85	0.41
1:D:231:ASP:HB2	1:D:890:LYS:HG3	2.03	0.41
1:D:1221:ASP:HB2	1:D:1228:ILE:HD11	2.03	0.41
1:E:294:LEU:HB3	1:E:459:PRO:HG2	2.03	0.41
1:E:1619:ARG:HH21	1:E:1635:LEU:HD21	1.86	0.41
1:E:1663:TRP:HA	1:E:1685:LEU:H	1.86	0.41
1:E:1812:THR:O	1:E:1816:ARG:HG2	2.21	0.41
1:E:2412:PRO:O	1:E:2419:ARG:NH2	2.54	0.41
1:A:381:ILE:HD13	1:A:401:LEU:HD21	2.03	0.40
1:A:1725:SER:O	1:A:1741:ASN:ND2	2.54	0.40
1:B:70:ARG:HD2	1:B:86:SER:HB3	2.03	0.40
1:B:204:GLU:HB3	1:B:927:TRP:HZ3	1.85	0.40
1:B:223:ASN:HB3	1:B:868:GLN:HB3	2.03	0.40
1:B:1048:LEU:HD12	1:B:1069:TYR:HB2	2.03	0.40
1:B:1812:THR:O	1:B:1816:ARG:HG2	2.21	0.40
1:B:2374:LEU:HD23	1:B:2391:VAL:HG23	2.02	0.40
1:D:483:LEU:HA	1:D:486:VAL:HG22	2.02	0.40
1:D:1812:THR:O	1:D:1816:ARG:HG2	2.21	0.40
1:E:381:ILE:HD13	1:E:401:LEU:HD21	2.03	0.40
1:E:1318:TYR:HB3	1:E:1328:LEU:HD23	2.03	0.40
1:A:231:ASP:HB2	1:A:890:LYS:HG3	2.04	0.40
1:A:1154:ARG:HH21	1:B:1617:ALA:HB2	1.85	0.40
1:B:501:LEU:HD23	1:B:501:LEU:HA	1.83	0.40
1:B:525:ASN:ND2	1:B:534:PHE:H	2.12	0.40
1:B:1619:ARG:HH21	1:B:1635:LEU:HD21	1.86	0.40
1:B:1725:SER:O	1:B:1741:ASN:ND2	2.54	0.40
1:C:231:ASP:HB2	1:C:890:LYS:HG3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:363:LYS:HE2	1:D:171:HIS:HD2	1.87	0.40
1:C:418:LYS:HE2	1:C:420:ASN:HB3	2.03	0.40
1:C:1801:ARG:HA	1:C:1801:ARG:HD2	1.88	0.40
1:D:21:LEU:H	1:D:24:ASN:HD22	1.67	0.40
1:D:381:ILE:HD13	1:D:401:LEU:HD21	2.03	0.40
1:D:886:LEU:HD11	1:D:912:LEU:HD21	2.03	0.40
1:D:1725:SER:O	1:D:1741:ASN:ND2	2.54	0.40
1:D:2155:ASP:OD2	1:D:2169:ARG:NH2	2.54	0.40
1:E:70:ARG:HD2	1:E:86:SER:HB3	2.03	0.40
1:A:363:LYS:HE2	1:B:171:HIS:HD2	1.86	0.40
1:A:418:LYS:HE2	1:A:420:ASN:HB3	2.03	0.40
1:A:544:THR:HA	1:A:545:PRO:HD3	1.89	0.40
1:A:886:LEU:HD11	1:A:912:LEU:HD21	2.03	0.40
1:A:2147:LEU:HD21	1:E:2177:SER:HB3	2.03	0.40
1:C:204:GLU:HB3	1:C:927:TRP:HZ3	1.85	0.40
1:D:189:SER:HB2	1:D:200:HIS:HD1	1.87	0.40
1:D:501:LEU:HD23	1:D:501:LEU:HA	1.83	0.40
1:E:231:ASP:HB2	1:E:890:LYS:HG3	2.03	0.40
1:E:644:GLN:HA	1:E:647:THR:HG22	2.04	0.40
1:A:592:LEU:HA	1:A:595:ARG:HB2	2.04	0.40
1:A:1048:LEU:HD12	1:A:1069:TYR:HB2	2.03	0.40
1:A:2374:LEU:HD23	1:A:2391:VAL:HG23	2.02	0.40
1:B:1983:LEU:HD23	1:B:1983:LEU:HA	1.91	0.40
1:C:31:SER:O	1:C:35:HIS:ND1	2.41	0.40
1:C:106:PRO:HG3	1:C:1967:GLN:HE21	1.87	0.40
1:C:381:ILE:HD13	1:C:401:LEU:HD21	2.04	0.40
1:A:1619:ARG:HH21	1:A:1635:LEU:HD21	1.86	0.40
1:A:1878:LEU:O	1:A:1882:ARG:HG2	2.21	0.40
1:A:2177:SER:HB3	1:B:2147:LEU:HD21	2.03	0.40
1:B:418:LYS:HE2	1:B:420:ASN:HB3	2.03	0.40
1:B:544:THR:HA	1:B:545:PRO:HD3	1.89	0.40
1:B:644:GLN:HA	1:B:647:THR:HG22	2.04	0.40
1:B:1221:ASP:HB2	1:B:1228:ILE:HD11	2.03	0.40
1:C:1635:LEU:HA	1:C:1636:PRO:HD3	1.95	0.40
1:D:203:TYR:CZ	1:D:207:ARG:HD2	2.55	0.40
1:D:418:LYS:HE2	1:D:420:ASN:HB3	2.03	0.40
1:D:627:PHE:HE2	1:D:635:LEU:HD13	1.87	0.40
1:D:772:ASN:ND2	1:E:2017:THR:O	2.51	0.40
1:D:1663:TRP:HA	1:D:1685:LEU:H	1.86	0.40
1:D:1801:ARG:HD2	1:D:1801:ARG:HA	1.88	0.40
1:E:592:LEU:HA	1:E:595:ARG:HB2	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	2331/2523 (92%)	2162 (93%)	162 (7%)	7 (0%)	41	61
1	B	2331/2523 (92%)	2162 (93%)	162 (7%)	7 (0%)	41	61
1	C	2331/2523 (92%)	2162 (93%)	162 (7%)	7 (0%)	41	61
1	D	2331/2523 (92%)	2162 (93%)	162 (7%)	7 (0%)	41	61
1	E	2331/2523 (92%)	2162 (93%)	162 (7%)	7 (0%)	41	61
All	All	11655/12615 (92%)	10810 (93%)	810 (7%)	35 (0%)	44	61

All (35) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1949	ALA
1	A	2453	GLY
1	B	1949	ALA
1	B	2453	GLY
1	C	1949	ALA
1	C	2453	GLY
1	D	1949	ALA
1	D	2453	GLY
1	E	1949	ALA
1	E	2453	GLY
1	A	1502	ASN
1	B	1502	ASN
1	C	1502	ASN
1	D	1502	ASN
1	E	1502	ASN
1	A	581	PRO
1	A	2343	ARG
1	B	2343	ARG

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Mol	Chain	Res	Type
1	C	581	PRO
1	C	2343	ARG
1	D	581	PRO
1	D	2343	ARG
1	E	581	PRO
1	E	2343	ARG
1	B	581	PRO
1	A	272	VAL
1	B	272	VAL
1	C	272	VAL
1	D	272	VAL
1	E	272	VAL
1	A	1776	PRO
1	B	1776	PRO
1	C	1776	PRO
1	D	1776	PRO
1	E	1776	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2049/2222 (92%)	2047 (100%)	2 (0%)	93	97
1	B	2049/2222 (92%)	2047 (100%)	2 (0%)	93	97
1	C	2049/2222 (92%)	2047 (100%)	2 (0%)	93	97
1	D	2049/2222 (92%)	2047 (100%)	2 (0%)	93	97
1	E	2049/2222 (92%)	2047 (100%)	2 (0%)	93	97
All	All	10245/11110 (92%)	10235 (100%)	10 (0%)	93	97

All (10) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1226	VAL
1	A	2390	ASN

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Mol	Chain	Res	Type
1	B	1226	VAL
1	B	2390	ASN
1	C	1226	VAL
1	C	2390	ASN
1	D	1226	VAL
1	D	2390	ASN
1	E	1226	VAL
1	E	2390	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (170) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	152	GLN
1	A	171	HIS
1	A	213	GLN
1	A	216	ASN
1	A	223	ASN
1	A	341	HIS
1	A	343	ASN
1	A	374	GLN
1	A	392	ASN
1	A	394	HIS
1	A	519	HIS
1	A	525	ASN
1	A	649	GLN
1	A	706	GLN
1	A	793	HIS
1	A	845	GLN
1	A	1041	GLN
1	A	1046	ASN
1	A	1054	GLN
1	A	1068	ASN
1	A	1121	HIS
1	A	1197	ASN
1	A	1634	ASN
1	A	1670	ASN
1	A	1800	GLN
1	A	1866	HIS
1	A	2063	GLN
1	A	2075	GLN
1	A	2306	HIS
1	A	2314	HIS

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Mol	Chain	Res	Type
1	A	2390	ASN
1	A	2503	GLN
1	A	2516	HIS
1	B	55	GLN
1	B	152	GLN
1	B	171	HIS
1	B	213	GLN
1	B	216	ASN
1	B	223	ASN
1	B	341	HIS
1	B	343	ASN
1	B	374	GLN
1	B	392	ASN
1	B	394	HIS
1	B	519	HIS
1	B	525	ASN
1	B	649	GLN
1	B	706	GLN
1	B	793	HIS
1	B	845	GLN
1	B	1041	GLN
1	B	1046	ASN
1	B	1051	GLN
1	B	1054	GLN
1	B	1121	HIS
1	B	1197	ASN
1	B	1634	ASN
1	B	1670	ASN
1	B	1800	GLN
1	B	1866	HIS
1	B	2063	GLN
1	B	2075	GLN
1	B	2306	HIS
1	B	2314	HIS
1	B	2390	ASN
1	B	2503	GLN
1	B	2516	HIS
1	C	55	GLN
1	C	74	GLN
1	C	152	GLN
1	C	171	HIS
1	C	213	GLN

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Mol	Chain	Res	Type
1	C	216	ASN
1	C	223	ASN
1	C	306	ASN
1	C	341	HIS
1	C	343	ASN
1	C	374	GLN
1	C	392	ASN
1	C	394	HIS
1	C	519	HIS
1	C	525	ASN
1	C	649	GLN
1	C	706	GLN
1	C	793	HIS
1	C	845	GLN
1	C	1041	GLN
1	C	1046	ASN
1	C	1051	GLN
1	C	1054	GLN
1	C	1121	HIS
1	C	1197	ASN
1	C	1634	ASN
1	C	1670	ASN
1	C	1800	GLN
1	C	1866	HIS
1	C	2063	GLN
1	C	2075	GLN
1	C	2306	HIS
1	C	2314	HIS
1	C	2390	ASN
1	C	2503	GLN
1	C	2516	HIS
1	D	55	GLN
1	D	152	GLN
1	D	171	HIS
1	D	213	GLN
1	D	216	ASN
1	D	223	ASN
1	D	341	HIS
1	D	343	ASN
1	D	374	GLN
1	D	392	ASN
1	D	394	HIS

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Mol	Chain	Res	Type
1	D	519	HIS
1	D	525	ASN
1	D	649	GLN
1	D	706	GLN
1	D	793	HIS
1	D	845	GLN
1	D	1041	GLN
1	D	1046	ASN
1	D	1051	GLN
1	D	1054	GLN
1	D	1121	HIS
1	D	1197	ASN
1	D	1634	ASN
1	D	1670	ASN
1	D	1800	GLN
1	D	1866	HIS
1	D	2063	GLN
1	D	2075	GLN
1	D	2306	HIS
1	D	2314	HIS
1	D	2390	ASN
1	D	2503	GLN
1	D	2516	HIS
1	E	55	GLN
1	E	152	GLN
1	E	171	HIS
1	E	213	GLN
1	E	216	ASN
1	E	223	ASN
1	E	341	HIS
1	E	343	ASN
1	E	374	GLN
1	E	392	ASN
1	E	394	HIS
1	E	519	HIS
1	E	525	ASN
1	E	649	GLN
1	E	706	GLN
1	E	793	HIS
1	E	845	GLN
1	E	1041	GLN
1	E	1051	GLN

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Mol	Chain	Res	Type
1	E	1054	GLN
1	E	1121	HIS
1	E	1197	ASN
1	E	1634	ASN
1	E	1670	ASN
1	E	1800	GLN
1	E	1866	HIS
1	E	2063	GLN
1	E	2075	GLN
1	E	2306	HIS
1	E	2314	HIS
1	E	2390	ASN
1	E	2503	GLN
1	E	2516	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

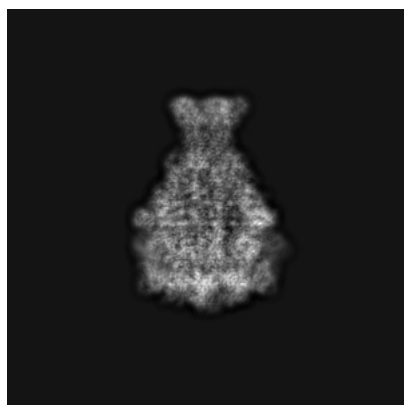
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-10034. These allow visual inspection of the internal detail of the map and identification of artifacts.

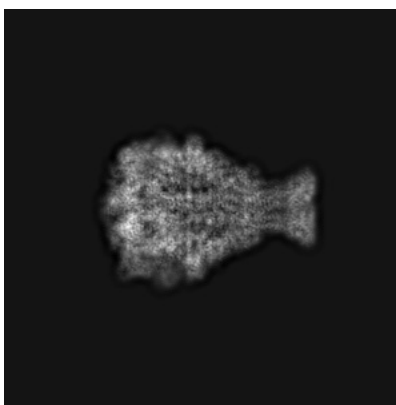
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

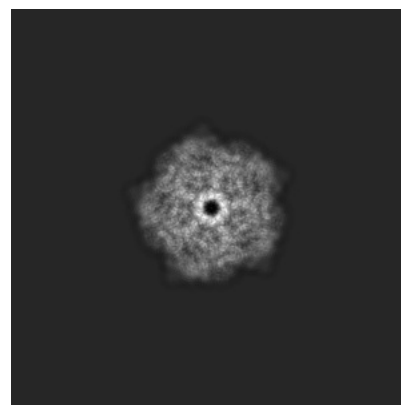
6.1.1 Primary map



X



Y

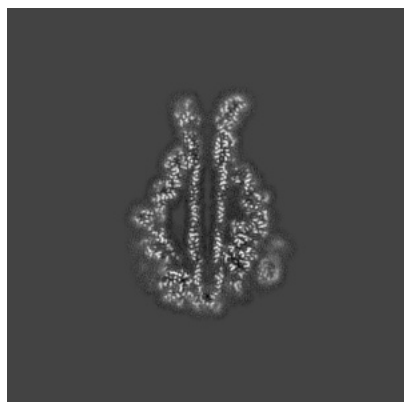


Z

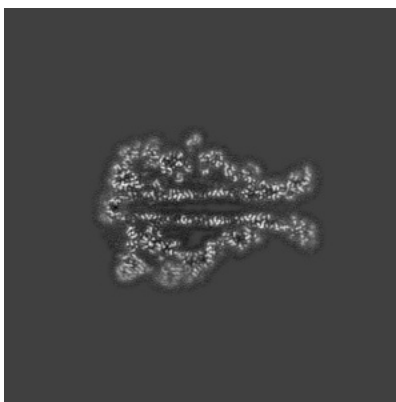
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

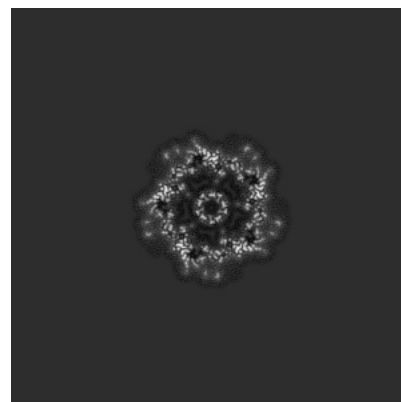
6.2.1 Primary map



X Index: 200



Y Index: 200

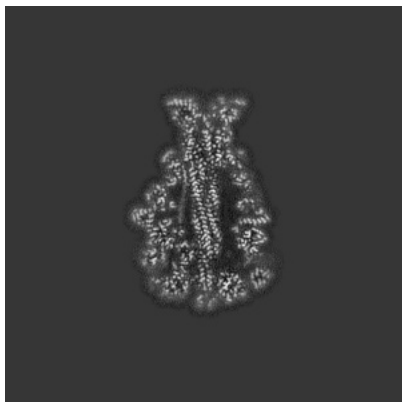


Z Index: 200

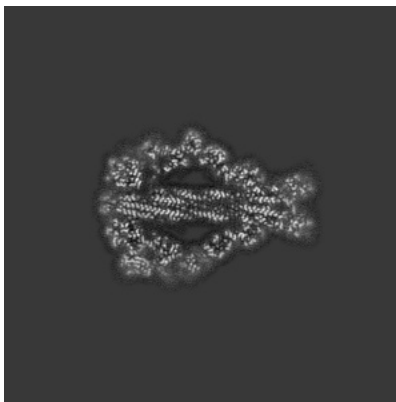
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

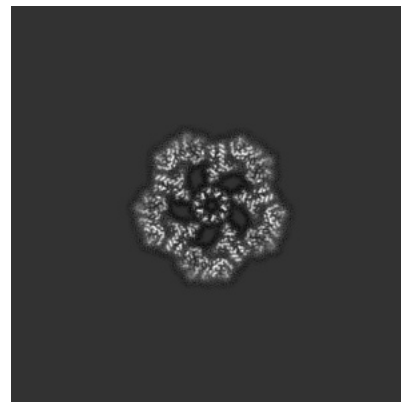
6.3.1 Primary map



X Index: 211



Y Index: 191

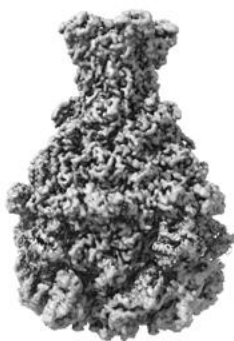


Z Index: 184

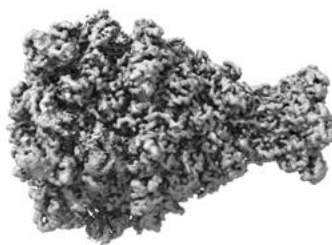
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



X



Y



Z

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

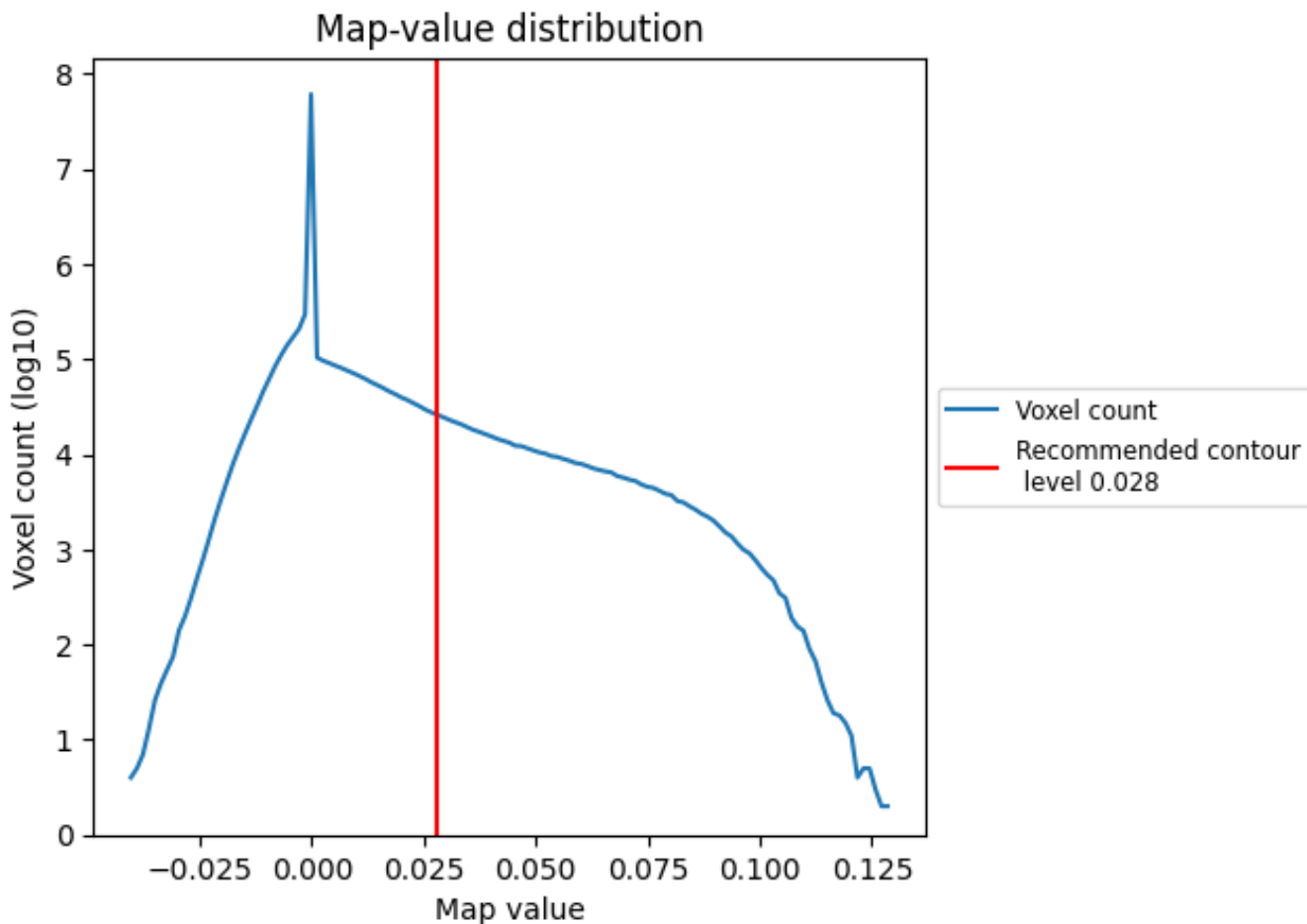
6.5 Mask visualisation

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

7 Map analysis [i](#)

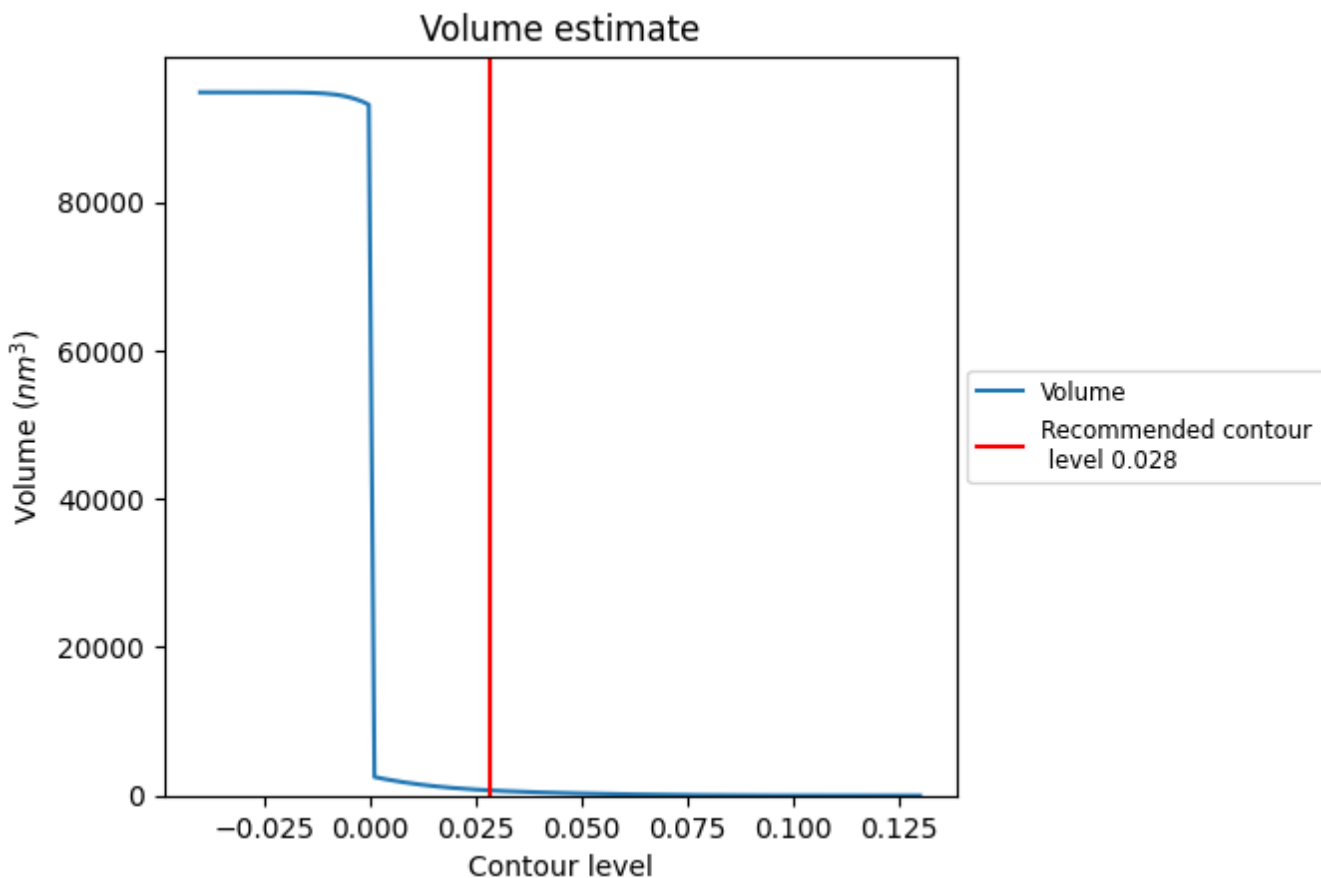
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

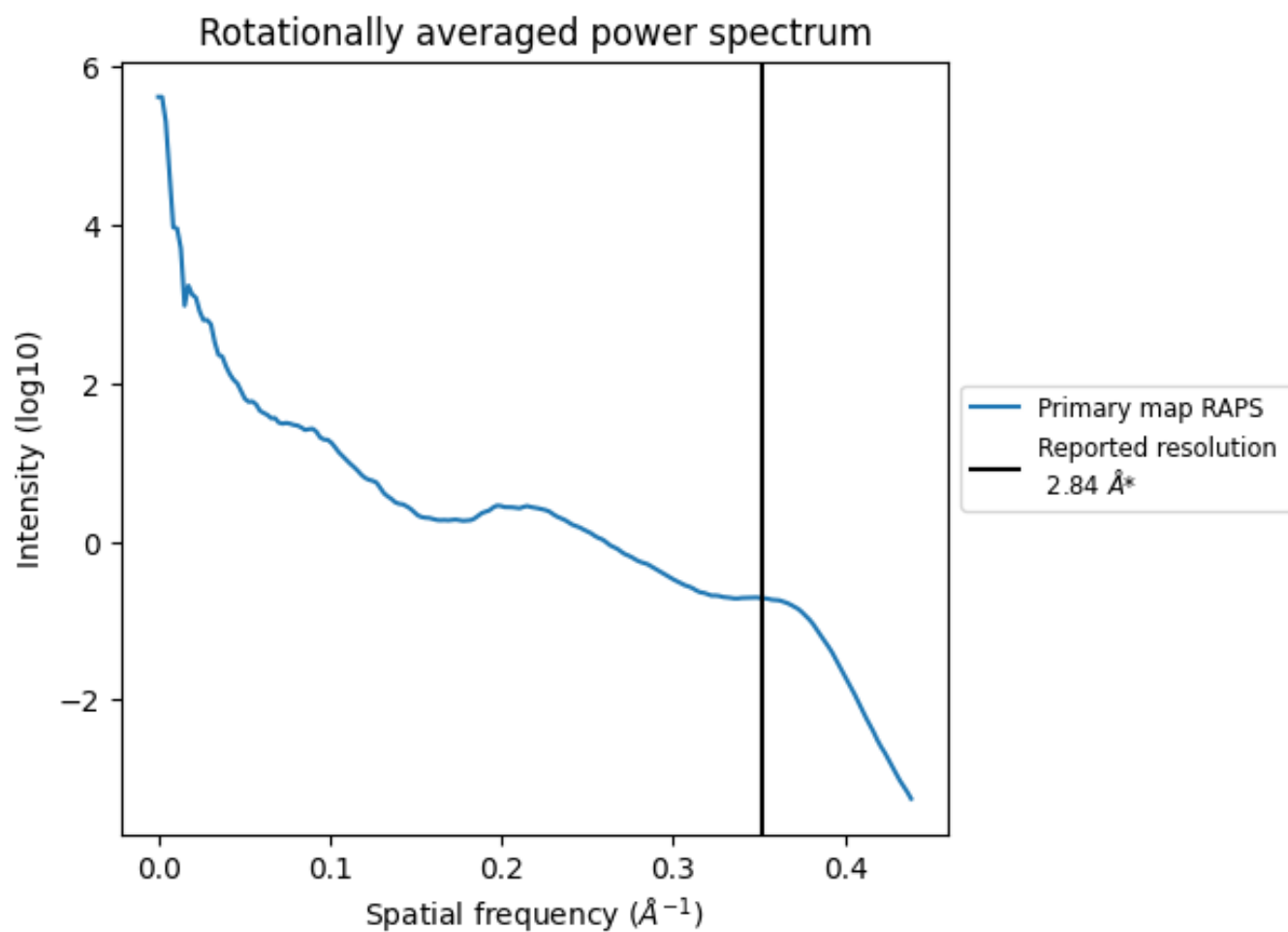
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 708 nm^3 ; this corresponds to an approximate mass of 639 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.352 Å⁻¹

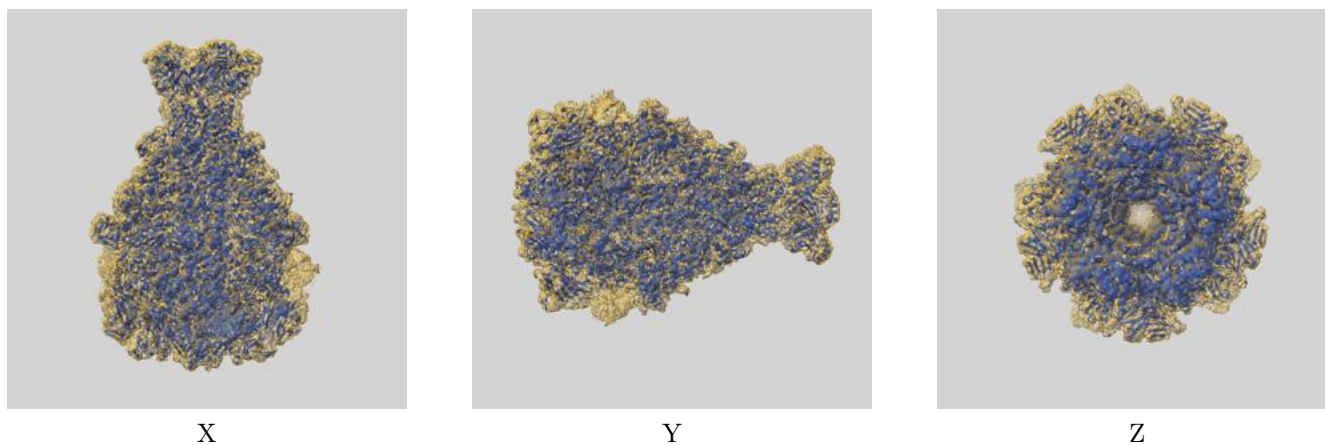
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

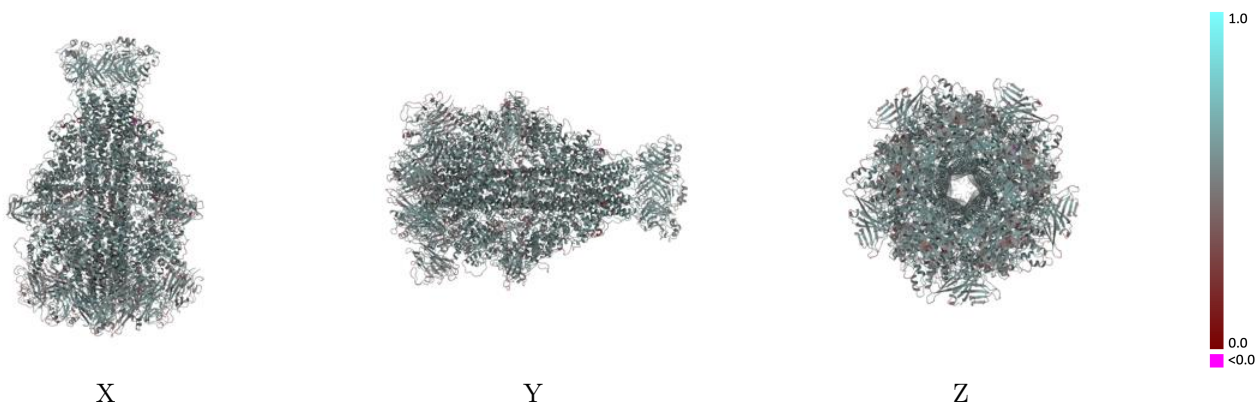
This section contains information regarding the fit between EMDB map EMD-10034 and PDB model 6RW8. Per-residue inclusion information can be found in section 3 on page 4.

9.1 Map-model overlay [i](#)



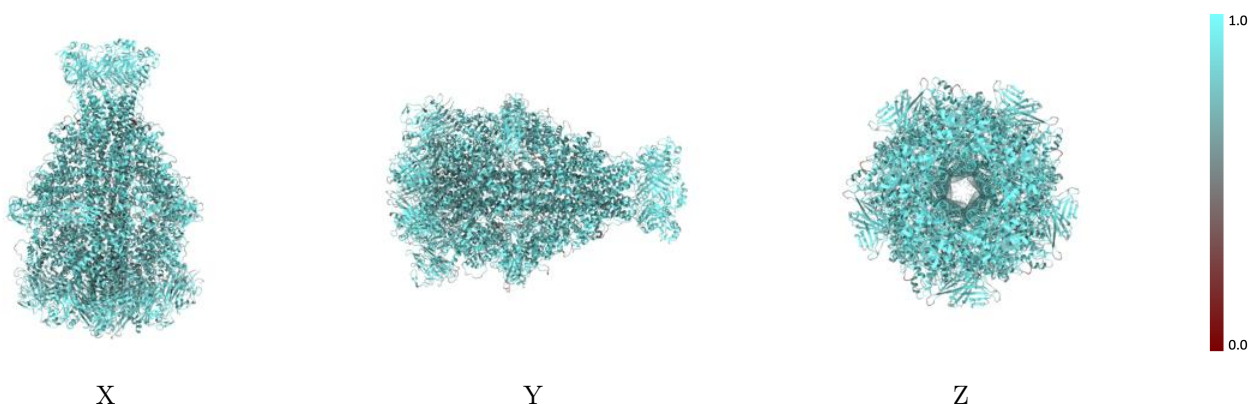
The images above show the 3D surface view of the map at the recommended contour level 0.028 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



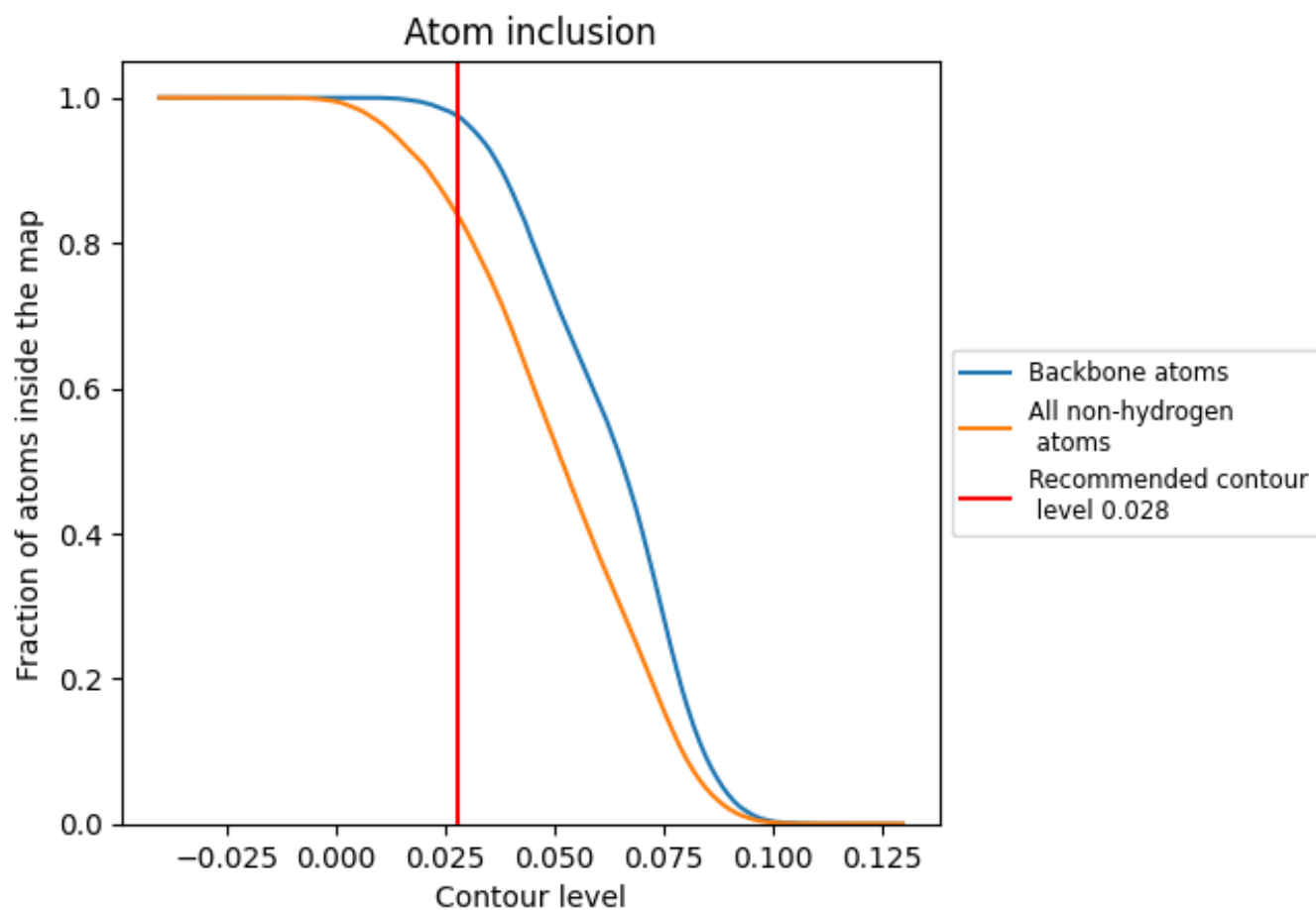
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.028).













9.4 Atom inclusion [i](#)



At the recommended contour level, 97% of all backbone atoms, 84% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

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

Chain	Atom inclusion	Q-score
All	 0.8378	 0.5250
A	 0.8375	 0.5250
B	 0.8377	 0.5240
C	 0.8386	 0.5250
D	 0.8380	 0.5250
E	 0.8370	 0.5250

