



Full wwPDB EM Validation Report ⓘ

Oct 5, 2024 – 04:48 PM EDT

PDB ID : 6CMX
EMDB ID : EMD-7526
Title : Human Teneurin 2 extra-cellular region
Authors : Shalev-Benami, M.; Li, J.; Sudhof, T.; Skiniotis, G.; Arac, D.
Deposited on : 2018-03-06
Resolution : 3.10 Å (reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ 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.dev113
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4.02b-467
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.39

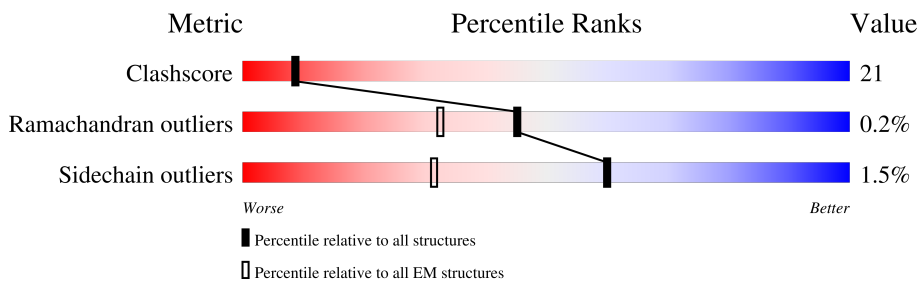
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.10 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	1999	
2	B	3	
3	C	2	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	NAG	B	1	X	-	-	-
4	NAG	A	2704	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	NAG	A	2708	X	-	-	-

2 Entry composition [i](#)

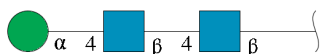
There are 5 unique types of molecules in this entry. The entry contains 10139 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Teneurin-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	1300	9919	6354	1729	1803	33	0	0

- Molecule 2 is an oligosaccharide called alpha-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	B	3	39	22	2	15	0	0

- Molecule 3 is an oligosaccharide called alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose.



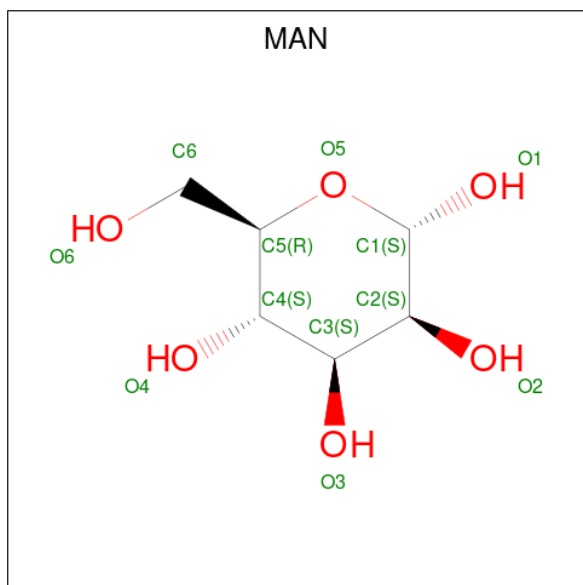
Mol	Chain	Residues	Atoms			AltConf	Trace
			Total	C	O		
3	C	2	22	12	10	0	0

- Molecule 4 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: C₈H₁₅NO₆).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
4	A	1	Total	C	N	O	0
			14	8	1	5	
4	A	1	Total	C	N	O	0
			14	8	1	5	
4	A	1	Total	C	N	O	0
			14	8	1	5	
4	A	1	Total	C	N	O	0
			14	8	1	5	
4	A	1	Total	C	N	O	0
			14	8	1	5	
4	A	1	Total	C	N	O	0
			14	8	1	5	
4	A	1	Total	C	N	O	0
			14	8	1	5	

- Molecule 5 is alpha-D-mannopyranose (three-letter code: MAN) (formula: C₆H₁₂O₆).

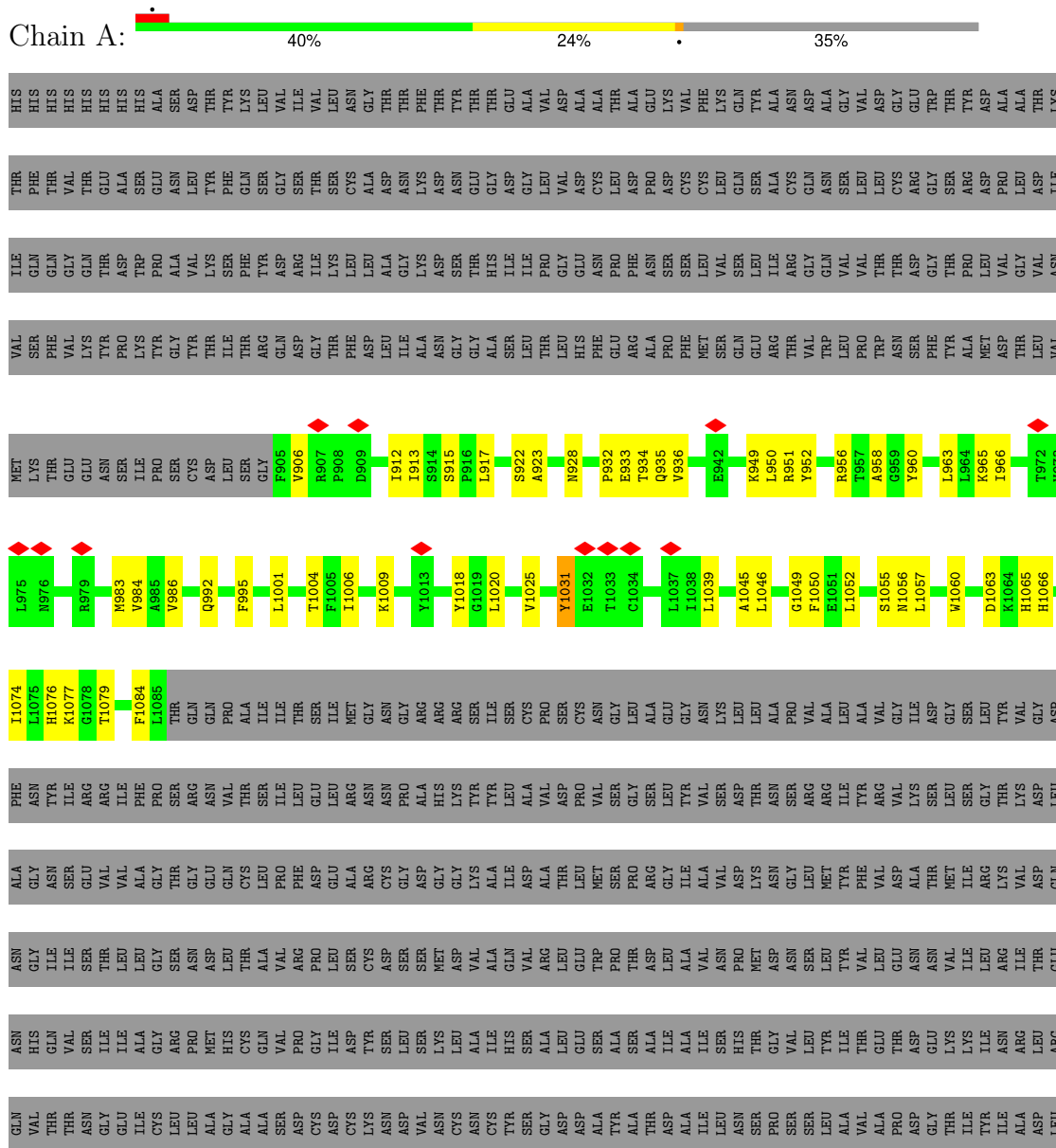


Mol	Chain	Residues	Atoms			AltConf
5	A	1	Total	C	O	0
			11	6	5	
5	A	1	Total	C	O	0
			11	6	5	
5	A	1	Total	C	O	0
			11	6	5	

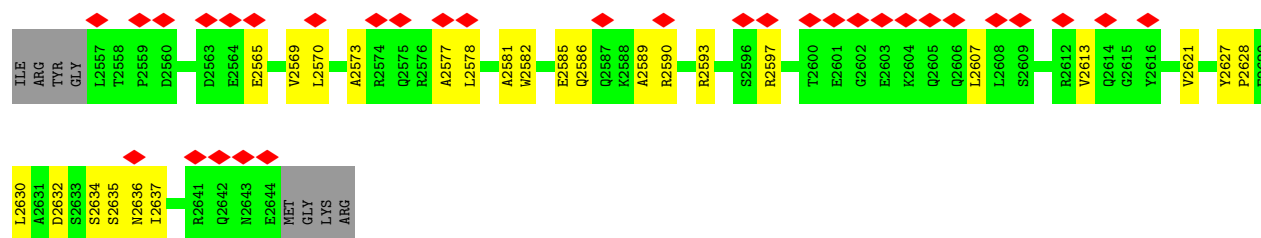
3 Residue-property plots [i](#)

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: Teneurin-2



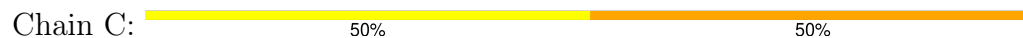
H2493	G1518	R1614	P1686	L1775	M1968	W2056	D2150	Y2240	G2323	A2410	H2483
F2494	L1523	V1618	M1686	A1776	V1959	G2067	I2151	Y2241	A2327	F2411	T2494
VAL	G1689	T1619	G1689	L1778	M1960	R2058	I2151	A2242	P2328	M2412	T2494
ILE	P1526	T1620	L1690	Q1779	Y1965	V2059	Y2154	S2243	F2329	A2413	VAL
ARG	I1531	I1621	L1531	Q1780	D1969	K2061	N2155	N2244	N2330	L2414	ILE
ALA	K1542	I1622	I1693	S1784	N1970	R2062	S2156	T2246	L2331	E2415	GLY
VAL	T1534	S1626	E1694	E1785	I1974	L2066	K2157	G2247	Y2332	G2416	SER
SER	V1535	V1627	W1695	R1786	I1789	L2069	W2170	T2248	L2340	Q2417	ASP
LYS	L1541	S1630	R1696	R1787	L1977	Y2077	W2171	P2249	L2344	Y2419	ASP
ASN	V1543	Y1631	L1697	D1788	I1979	G2080	V2172	L2250	L2345	T2420	ASP
LYS	T1546	T1632	R1698	I1789	K1978	G2081	R2176	K2261	L2346	K2421	VAL
PRO	L1553	G1633	L1542	K1791	P1979	G2082	G2178	Q2262	L2263	K2422	VAL
LEU	M1554	V1634	K1542	I1792	V1980	G2083	G2178	Q2264	K2347	R2423	THR
LEU	T1555	V1634	K1542	K1793	I1981	G2084	G2180	T2265	N2348	L2423	LEU
ALA	G1561	Q1635	K1542	R1794	T1984	V2088	G2180	T2266	Y2349	H2424	GLY
F1470	K1566	D1636	E1694	I1795	P1985	W2096	S2184	A2267	W2350	A2425	THR
M1471	S1567	Q1637	R1698	V1796	P1987	W2097	Y2185	Y2268	T2351	S2426	THR
A1472	D1568	V1638	R1698	S1797	P1987	W2098	K2186	E2270	W2356	G2432	GLY
H1476	E1569	V1639	R1698	R1799	D1988	Y2098	T2187	I2271	L2357	A2431	ARG
Y1477	L1572	R1643	F1709	M1799	L1990	D2101	T2187	F2279	W2357	G2432	LYS
Y1478	T1573	L1643	G1710	F1800	L1902	L2102	Y2185	L2283	F2360	A2432	LYS
Y1479	T1574	L1644	R1711	A1801	E1904	N2106	K2186	Q2283	F2360	A2433	VAL
V1480	F1575	C1645	R1711	A1801	I1905	L2106	K2186	F2285	Q2363	I2442	GLU
S1481	E1578	M1646	H1716	A1801	V1906	W2110	N2188	H2286	L2364	G2444	SER
T1484	G1582	M1647	H1716	D1802	V1907	F2111	N2188	H2286	L2364	G2445	GLY
Y1487	R1583	M1647	L1720	G1803	S1907	F2112	N2189	F2286	L2364	G2446	VAL
L1488	L1584	M1647	D1726	K1804	S1907	N2113	H2192	F2286	L2364	G2447	VAL
Y1489	T1585	M1647	Y1726	G1804	E2001	N2113	H2192	G2287	L2364	G2448	ASN
M1490	V1585	M1647	D1726	K1804	V2008	N2113	H2192	G2287	L2364	G2449	THR
F1491	T1588	M1647	R1730	G1804	E1995	N2113	H2192	G2287	L2364	G2450	VAL
T1495	P1589	M1647	T1731	K1804	I1996	N2113	H2192	G2287	L2364	G2451	GLN
V1499	T1591	M1647	I1731	G1804	S1997	N2113	H2192	G2287	L2364	G2452	PRO
T1500	L1594	M1647	I1731	I1825	S1997	N2113	H2192	G2287	L2364	G2453	THR
L1502	T1594	M1647	I1731	Y1826	H2027	N2113	H2192	G2287	L2364	G2454	THR
I1503	T1595	M1647	I1731	L1826	R2033	N2113	H2192	G2287	L2364	G2455	THR
M1505	S1596	M1647	I1731	L1826	E2036	N2113	H2192	G2287	L2364	G2456	ARG
M1506	R1599	M1647	I1731	L1826	Y2039	N2113	H2192	G2287	L2364	G2457	ARG
G1507	L1605	M1647	I1731	L1826	R2043	N2113	H2192	G2287	L2364	G2458	PHE
M1508	T1606	M1647	I1731	L1826	S2044	N2113	H2192	G2287	L2364	G2459	THR
K1511	L1607	M1647	I1731	L1826	L2045	N2113	H2192	G2287	L2364	G2460	THR
I1512	D1608	M1647	I1731	L1826	M2046	N2113	H2192	G2287	L2364	G2461	THR
R1513	L1609	M1647	I1731	L1826	W2047	N2113	H2192	G2287	L2364	G2462	LEU
R1514	M1609	M1647	I1731	L1826	W2048	N2113	H2192	G2287	L2364	G2463	LEU
		M1647	I1731	L1826	M2049	N2113	H2192	G2287	L2364	G2464	LEU
		M1647	I1731	L1826	Y2053	N2113	H2192	G2287	L2364	G2465	SER
		M1647	I1731	L1826	D2054	N2113	H2192	G2287	L2364	G2466	
		M1647	I1731	L1826	S2055	N2113	H2192	G2287	L2364	G2467	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2468	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2469	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2470	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2471	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2472	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2473	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2474	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2475	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2476	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2477	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2478	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2479	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2480	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2481	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2482	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2483	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2484	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2485	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2486	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2487	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2488	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2489	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2490	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2491	
		M1647	I1731	L1826		N2113	H2192	G2287	L2364	G2492	



- Molecule 2: alpha-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 3: alpha-D-mannopyranose-(1-6)-alpha-D-mannopyranose



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	426107	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 ($e^-/\text{\AA}^2$)	44	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.373	Depositor
Minimum map value	-0.250	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.010	Depositor
Recommended contour level	0.06	Depositor
Map size (Å)	260.0, 260.0, 260.0	wwPDB
Map dimensions	260, 260, 260	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0, 1.0, 1.0	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: MAN, NAG

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	0.38	0/10159	0.55	2/13820 (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	4

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	986	VAL	CG1-CB-CG2	7.40	122.75	110.90
1	A	2053	TYR	CA-CB-CG	5.10	123.09	113.40

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1907	TYR	Peptide
1	A	2012	ASP	Peptide
1	A	2137	LYS	Peptide
1	A	2432	GLY	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	9919	0	9403	400	0
2	B	39	0	34	2	0
3	C	22	0	19	1	0
4	A	126	0	115	14	0
5	A	33	0	30	2	0
All	All	10139	0	9601	410	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 21.

All (410) 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:A:1646:ASN:O	4:A:2705:NAG:C1	1.97	1.11
1:A:2128:ILE:HD11	1:A:2310:ARG:HD2	1.50	0.91
1:A:1888:THR:OG1	1:A:2141:ASP:OD2	1.89	0.88
1:A:1577:ASP:HB2	1:A:1586:ASN:OD1	1.74	0.88
1:A:933:GLU:HG2	1:A:1620:VAL:HG11	1.57	0.85
1:A:1573:THR:OG1	1:A:2444:LYS:O	1.94	0.84
1:A:960:TYR:O	1:A:1009:LYS:NZ	2.11	0.83
4:A:2706:NAG:H3	4:A:2706:NAG:H82	1.61	0.83
1:A:2126:ASP:O	1:A:2310:ARG:NH2	2.11	0.82
1:A:1732:GLU:OE2	1:A:1747:TYR:OH	1.98	0.81
1:A:1917:ASP:OD2	1:A:1920:THR:OG1	1.98	0.81
1:A:2012:ASP:O	1:A:2014:ASN:N	2.12	0.79
1:A:2284:GLY:N	1:A:2288:GLY:O	2.16	0.78
1:A:1835:LEU:HD11	1:A:2323:GLY:HA3	1.68	0.76
1:A:1491:PHE:CE1	1:A:1502:LEU:HD13	2.21	0.76
1:A:933:GLU:OE2	1:A:2400:VAL:HG12	1.86	0.75
1:A:2349:TYR:O	1:A:2422:LYS:NZ	2.20	0.75
1:A:1555:THR:OG1	1:A:1565:THR:OG1	2.03	0.75
1:A:1886:LEU:N	1:A:1886:LEU:HD23	2.01	0.74
1:A:1756:TRP:NE1	1:A:2351:THR:O	2.22	0.73
1:A:1904:GLU:OE1	1:A:2627:TYR:OH	2.07	0.73
1:A:1585:THR:HB	4:A:2704:NAG:H82	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:952:TYR:OH	1:A:1561:GLY:O	2.07	0.71
1:A:2573:ALA:HB1	1:A:2632:ASP:CB	2.20	0.71
1:A:1476:HIS:NE2	1:A:1479:THR:OG1	2.24	0.70
1:A:2245:ASN:ND2	1:A:2340:LEU:O	2.24	0.70
1:A:1799:MET:HB3	1:A:1805:VAL:HG23	1.72	0.70
4:A:2705:NAG:O7	4:A:2705:NAG:O3	2.05	0.69
1:A:2062:ARG:HH22	1:A:2340:LEU:HD22	1.58	0.69
1:A:2172:VAL:HG22	1:A:2187:THR:HG22	1.74	0.69
1:A:2261:LYS:NZ	1:A:2279:PHE:O	2.24	0.69
1:A:1596:SER:HB2	4:A:2704:NAG:H83	1.75	0.68
1:A:2223:ASP:OD1	1:A:2224:LEU:N	2.26	0.68
5:A:2717:MAN:H3	3:C:2:MAN:O3	1.94	0.68
2:B:1:NAG:O3	2:B:1:NAG:H82	1.93	0.68
1:A:2228:LEU:HD22	1:A:2283:ILE:HD12	1.76	0.68
1:A:2310:ARG:NH2	1:A:2332:TYR:CD2	2.62	0.67
1:A:1568:ASP:OD1	1:A:1569:GLU:N	2.26	0.67
1:A:1645:CYS:SG	1:A:1646:ASN:N	2.67	0.67
1:A:934:THR:O	1:A:936:VAL:N	2.27	0.67
1:A:2248:THR:HB	1:A:2285:PHE:O	1.94	0.66
1:A:1775:LEU:HD21	1:A:2422:LYS:HA	1.77	0.66
1:A:1856:TYR:HB3	1:A:1881:LEU:HD12	1.77	0.66
1:A:1481:SER:HG	1:A:1484:THR:HG1	1.40	0.66
1:A:2128:ILE:HD11	1:A:2310:ARG:CD	2.25	0.65
1:A:1762:LEU:HD11	1:A:2360:PHE:HE1	1.59	0.65
1:A:1531:ILE:HG12	1:A:1546:THR:HG22	1.78	0.65
1:A:2001:GLU:HA	1:A:2008:VAL:HG22	1.79	0.65
1:A:1614:ARG:HH12	1:A:1881:LEU:HD21	1.62	0.64
1:A:1846:HIS:ND1	1:A:1861:TYR:OH	2.28	0.64
4:A:2706:NAG:H82	4:A:2706:NAG:C3	2.24	0.64
1:A:2565:GLU:O	1:A:2569:VAL:N	2.30	0.63
1:A:1646:ASN:O	1:A:1647:ASN:HB2	1.99	0.63
1:A:1780:ARG:NH2	1:A:2348:ASN:O	2.32	0.62
1:A:1886:LEU:CD1	1:A:2489:GLY:HA2	2.29	0.62
1:A:2304:TYR:CE1	1:A:2309:GLY:O	2.52	0.62
1:A:2077:TYR:HD1	1:A:2088:VAL:HG22	1.64	0.62
1:A:1693:ILE:HG22	1:A:1715:VAL:HG13	1.81	0.62
1:A:1505:ASN:OD1	1:A:1506:ASN:N	2.32	0.62
1:A:932:PRO:O	1:A:1607:ILE:HD13	2.00	0.61
1:A:1953:PHE:N	1:A:1960:ASN:OD1	2.31	0.61
1:A:1734:ILE:HG22	1:A:1741:PHE:HE2	1.65	0.61
1:A:2011:TYR:O	1:A:2012:ASP:O	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1553:LEU:O	1:A:1567:SER:N	2.32	0.61
1:A:1679:ARG:NH1	1:A:1679:ARG:HG2	2.15	0.61
1:A:1020:LEU:HG	1:A:1046:LEU:HD11	1.82	0.60
1:A:1787:THR:HB	1:A:1795:ILE:HD11	1.83	0.60
1:A:949:LYS:O	1:A:1063:ASP:N	2.32	0.60
1:A:1609:ILE:O	1:A:1609:ILE:HG22	2.00	0.60
1:A:1776:ALA:HB1	1:A:1787:THR:OG1	2.02	0.60
1:A:1020:LEU:HB2	1:A:1074:ILE:HD11	1.84	0.60
1:A:1679:ARG:HH11	1:A:1679:ARG:CG	2.14	0.60
1:A:965:LYS:HD2	1:A:1004:THR:HG22	1.82	0.60
1:A:1471:ASN:O	1:A:1472:ALA:HB3	2.02	0.60
1:A:1784:SER:OG	1:A:1801:ALA:HB2	2.02	0.60
1:A:1948:LYS:HE2	1:A:1950:ILE:HD11	1.84	0.60
1:A:2105:ASN:O	1:A:2122:TYR:OH	2.16	0.60
1:A:1535:VAL:HA	1:A:1541:LEU:HA	1.84	0.59
1:A:1756:TRP:HZ3	1:A:1767:VAL:CG2	2.15	0.59
1:A:1906:VAL:HG12	1:A:2630:LEU:HD21	1.85	0.59
1:A:2244:ASP:OD1	1:A:2246:THR:OG1	2.15	0.59
1:A:2080:ASP:OD1	1:A:2081:GLY:N	2.34	0.58
1:A:1074:ILE:HG21	1:A:1076:HIS:CE1	2.39	0.58
1:A:1555:THR:O	1:A:1565:THR:OG1	2.21	0.58
1:A:1756:TRP:CZ3	1:A:1767:VAL:CG2	2.87	0.58
1:A:2203:PRO:O	1:A:2204:THR:OG1	2.15	0.58
1:A:2206:ILE:HD13	1:A:2289:LEU:HD21	1.85	0.58
1:A:1846:HIS:HD1	1:A:1861:TYR:HH	1.47	0.58
1:A:1958:MET:SD	1:A:2194:GLN:OE1	2.62	0.58
1:A:2015:GLN:OE1	1:A:2225:GLN:NE2	2.37	0.58
1:A:923:ALA:HB2	1:A:2406:ARG:HH21	1.69	0.58
1:A:1958:MET:SD	1:A:2184:SER:OG	2.62	0.57
1:A:1720:LEU:HD21	1:A:2367:ILE:HG21	1.84	0.57
1:A:2634:SER:O	1:A:2637:ILE:HG22	2.04	0.57
1:A:2011:TYR:O	1:A:2014:ASN:ND2	2.37	0.57
1:A:2245:ASN:OD1	1:A:2246:THR:N	2.37	0.57
1:A:2014:ASN:HD22	1:A:2014:ASN:C	2.08	0.56
1:A:2066:LEU:HD13	1:A:2262:GLN:OE1	2.05	0.56
1:A:1480:VAL:HG22	1:A:1487:TYR:CD1	2.40	0.56
1:A:2088:VAL:HB	1:A:2096:TRP:HB2	1.87	0.56
1:A:1575:PHE:HE2	1:A:2459:VAL:H	1.53	0.56
1:A:1638:VAL:HG21	1:A:1899:LEU:HD21	1.86	0.56
1:A:2390:ALA:O	1:A:2393:ASN:ND2	2.39	0.56
1:A:2485:TYR:OH	1:A:2628:PRO:O	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:965:LYS:CD	1:A:1004:THR:HG22	2.36	0.56
1:A:1679:ARG:HD3	1:A:1679:ARG:H	1.70	0.56
1:A:1756:TRP:CZ3	1:A:1767:VAL:HG21	2.40	0.56
1:A:2101:ASP:OD1	1:A:2102:LEU:N	2.38	0.56
1:A:2491:ASP:OD1	1:A:2491:ASP:N	2.27	0.56
1:A:1899:LEU:O	1:A:2395:GLN:NE2	2.38	0.55
1:A:917:LEU:HD13	1:A:1084:PHE:CE2	2.41	0.55
1:A:2304:TYR:CZ	1:A:2309:GLY:O	2.59	0.55
1:A:2364:LEU:O	1:A:2368:ILE:N	2.38	0.55
1:A:1730:ARG:NH2	1:A:1748:ASP:O	2.40	0.55
1:A:2179:VAL:HG12	1:A:2179:VAL:O	2.06	0.55
1:A:1996:ILE:O	1:A:1997:SER:OG	2.17	0.55
1:A:1039:LEU:HG	1:A:1039:LEU:O	2.07	0.54
1:A:1906:VAL:HG21	1:A:2627:TYR:CE1	2.43	0.54
1:A:1664:SER:OG	1:A:1677:ILE:O	2.26	0.54
1:A:1679:ARG:HG2	1:A:1679:ARG:HH11	1.72	0.54
1:A:2266:THR:OG1	1:A:2269:GLY:O	2.17	0.54
1:A:1893:PHE:CE2	1:A:2630:LEU:HD23	2.42	0.54
1:A:2077:TYR:CD1	1:A:2088:VAL:HG22	2.42	0.54
1:A:1770:PHE:CE2	1:A:1789:ILE:HD12	2.42	0.54
1:A:2014:ASN:ND2	1:A:2014:ASN:O	2.26	0.54
1:A:2119:PRO:C	1:A:2120:LEU:HD12	2.28	0.54
1:A:1854:ILE:HD12	1:A:2493:HIS:CB	2.38	0.54
1:A:2222:TYR:OH	1:A:2283:ILE:HD11	2.07	0.53
1:A:1787:THR:CB	1:A:1795:ILE:HD11	2.38	0.53
1:A:1487:TYR:HB3	1:A:1490:ASN:HD21	1.73	0.53
1:A:1588:THR:HG22	1:A:1594:VAL:HG13	1.91	0.53
1:A:1789:ILE:HG22	1:A:1791:LYS:H	1.74	0.53
1:A:1912:VAL:HG22	1:A:1928:LEU:HD12	1.91	0.53
1:A:1690:LEU:HD12	1:A:1970:ASN:OD1	2.08	0.53
1:A:1584:LEU:HD11	1:A:1587:VAL:HG22	1.90	0.53
1:A:1679:ARG:HA	1:A:1694:GLU:HB3	1.91	0.53
1:A:1755:LEU:CD1	1:A:1757:LEU:HB2	2.39	0.53
1:A:2120:LEU:HG	1:A:2131:LEU:HD12	1.90	0.52
1:A:2138:ILE:HG23	1:A:2143:TYR:O	2.09	0.52
1:A:1875:SER:HB3	1:A:1881:LEU:HD21	1.91	0.52
1:A:1936:THR:O	1:A:1951:TYR:HA	2.09	0.52
1:A:1838:VAL:HG11	1:A:2329:PHE:HZ	1.74	0.52
1:A:2582:TRP:CH2	1:A:2613:VAL:HG12	2.44	0.52
1:A:952:TYR:HB2	1:A:1060:TRP:CD2	2.44	0.52
1:A:1886:LEU:N	1:A:1886:LEU:CD2	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1476:HIS:HD2	1:A:1491:PHE:CE2	2.27	0.52
1:A:1491:PHE:CZ	1:A:1502:LEU:HD13	2.44	0.52
1:A:2630:LEU:HB3	1:A:2636:ASN:HD22	1.75	0.52
1:A:1565:THR:HA	1:A:1575:PHE:CD1	2.45	0.51
1:A:2135:GLN:OE1	1:A:2136:TYR:O	2.26	0.51
1:A:2154:TYR:OH	1:A:2312:THR:HG21	2.10	0.51
1:A:1711:ARG:NH1	1:A:2415:GLU:O	2.37	0.51
1:A:1720:LEU:HD11	1:A:2367:ILE:HG21	1.90	0.51
1:A:984:VAL:HG22	1:A:1025:VAL:HG22	1.93	0.51
1:A:2346:LEU:HB3	1:A:2422:LYS:HD3	1.92	0.51
1:A:2483:MET:SD	1:A:2570:LEU:HD11	2.51	0.51
4:A:2702:NAG:O4	5:A:2703:MAN:O5	2.29	0.51
1:A:1534:THR:HB	1:A:1543:VAL:HB	1.93	0.51
1:A:1006:ILE:HG13	1:A:1006:ILE:O	2.11	0.51
1:A:1775:LEU:HD12	1:A:1776:ALA:N	2.26	0.51
1:A:1979:PRO:HG2	1:A:1986:LEU:HB2	1.93	0.51
1:A:906:VAL:N	1:A:1031:TYR:OH	2.38	0.51
1:A:2194:GLN:HG2	1:A:2212:HIS:NE2	2.25	0.51
1:A:1775:LEU:HD12	1:A:1776:ALA:H	1.75	0.51
1:A:1977:ILE:HG22	1:A:1979:PRO:HD3	1.92	0.51
1:A:2049:MET:SD	1:A:2244:ASP:HA	2.51	0.51
1:A:2211:ASN:N	1:A:2216:GLU:O	2.44	0.50
1:A:2197:TYR:CE1	1:A:2206:ILE:HG12	2.47	0.50
1:A:2462:ILE:HG22	1:A:2462:ILE:O	2.12	0.50
1:A:1576:TYR:HD1	1:A:1587:VAL:HG22	1.77	0.50
1:A:1935:CYS:SG	1:A:1936:THR:N	2.85	0.50
1:A:1566:LYS:O	1:A:1573:THR:O	2.30	0.50
1:A:2054:ASP:HB3	1:A:2060:ILE:HD12	1.94	0.50
1:A:1468:TYR:HD1	1:A:1479:THR:HG1	1.60	0.49
1:A:1756:TRP:HZ3	1:A:1767:VAL:HG23	1.77	0.49
1:A:2136:TYR:CE1	1:A:2147:ARG:HG3	2.47	0.49
1:A:1778:LEU:HD12	1:A:1778:LEU:H	1.77	0.49
1:A:2210:TYR:HD1	1:A:2217:ILE:HD13	1.77	0.49
1:A:1069:ASN:OD1	1:A:1076:HIS:NE2	2.44	0.49
1:A:2105:ASN:ND2	1:A:2126:ASP:OD1	2.44	0.49
1:A:1756:TRP:CZ3	1:A:1767:VAL:HG23	2.48	0.49
1:A:2045:LEU:HD11	1:A:2048:TRP:HB2	1.94	0.49
1:A:2214:ASN:O	1:A:2216:GLU:N	2.43	0.49
1:A:1787:THR:HG22	1:A:1798:ARG:HG3	1.95	0.49
1:A:1730:ARG:HH22	1:A:1749:GLN:HA	1.77	0.49
1:A:1578:TYR:HB3	1:A:1582:GLY:HA2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2014:ASN:HB2	1:A:2027:HIS:HA	1.95	0.49
1:A:1686:MET:HB3	1:A:1942:ILE:HD11	1.95	0.48
1:A:2410:ALA:HA	1:A:2414:LEU:HD12	1.94	0.48
1:A:1652:VAL:N	1:A:1660:ILE:O	2.42	0.48
1:A:958:ALA:HB2	1:A:1050:PHE:HE1	1.78	0.48
1:A:1594:VAL:CG2	1:A:2449:ALA:HB1	2.43	0.48
1:A:1630:SER:HA	1:A:1643:GLN:HA	1.94	0.48
1:A:1826:ILE:HB	1:A:1839:THR:HB	1.96	0.48
4:A:2706:NAG:C3	4:A:2706:NAG:C8	2.90	0.48
1:A:2175:ARG:HB2	1:A:2184:SER:HB2	1.95	0.48
1:A:2586:GLN:HE21	1:A:2590:ARG:HE	1.61	0.48
1:A:1503:ILE:HG21	4:A:2701:NAG:H83	1.94	0.48
1:A:1799:MET:O	1:A:1799:MET:HG2	2.13	0.48
1:A:1908:ASP:CB	1:A:2635:SER:HB3	2.43	0.48
1:A:2151:ILE:HG23	1:A:2593:ARG:NH2	2.28	0.48
1:A:922:SER:OG	1:A:928:ASN:O	2.26	0.48
1:A:906:VAL:CB	1:A:974:PRO:HG2	2.44	0.48
1:A:2047:TYR:CD2	1:A:2242:ALA:HB1	2.49	0.48
1:A:1456:GLN:HB2	1:A:1470:PHE:O	2.14	0.48
1:A:1808:TYR:CE1	1:A:1817:LEU:HD13	2.49	0.48
1:A:2480:LEU:N	1:A:2480:LEU:HD23	2.29	0.48
1:A:2630:LEU:O	1:A:2636:ASN:ND2	2.47	0.48
1:A:1695:TRP:HD1	1:A:2411:PHE:CE1	2.32	0.48
1:A:1716:HIS:O	1:A:1716:HIS:ND1	2.47	0.48
1:A:1591:THR:O	1:A:1854:ILE:O	2.31	0.47
1:A:912:ILE:HG22	1:A:966:ILE:HG12	1.96	0.47
1:A:2395:GLN:O	1:A:2401:GLN:HB3	2.14	0.47
1:A:2110:ASN:HB3	1:A:2117:LEU:HD23	1.95	0.47
1:A:2297:VAL:HG23	1:A:2306:VAL:HG23	1.97	0.47
1:A:1066:HIS:ND1	1:A:1077:LYS:HA	2.30	0.47
1:A:1756:TRP:O	1:A:1758:PRO:HD3	2.14	0.47
1:A:1770:PHE:CE2	1:A:1776:ALA:CB	2.97	0.47
1:A:2585:GLU:O	1:A:2589:ALA:N	2.45	0.47
1:A:1608:ASP:OD1	1:A:1619:THR:HG23	2.13	0.47
1:A:1750:VAL:HG12	1:A:1751:GLY:N	2.30	0.47
1:A:1789:ILE:HG23	1:A:1793:GLY:O	2.14	0.47
1:A:1720:LEU:HD11	1:A:2367:ILE:CG2	2.45	0.47
1:A:1777:GLY:HA2	1:A:1786:ARG:HA	1.96	0.47
1:A:1928:LEU:HD13	1:A:2178:GLY:HA2	1.96	0.47
1:A:2127:ARG:HB3	1:A:2138:ILE:HB	1.96	0.47
1:A:1514:ARG:NH2	1:A:1518:GLY:O	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1553:LEU:HB3	1:A:1567:SER:HB3	1.96	0.47
1:A:2350:VAL:HG12	1:A:2356:TRP:CD1	2.49	0.47
4:A:2706:NAG:H3	4:A:2706:NAG:C8	2.32	0.46
1:A:1906:VAL:CG1	1:A:2630:LEU:HD11	2.46	0.46
1:A:2112:GLY:O	1:A:2113:ASN:OD1	2.32	0.46
1:A:1585:THR:HB	4:A:2704:NAG:C8	2.44	0.46
1:A:2098:TYR:HD1	1:A:2106:LEU:HD11	1.81	0.46
1:A:1905:ILE:HB	1:A:1912:VAL:HB	1.97	0.46
1:A:1907:TYR:HB2	1:A:2156:SER:HB2	1.98	0.46
1:A:2265:TYR:CE1	1:A:2271:ILE:HG22	2.50	0.46
1:A:1057:LEU:O	1:A:1541:LEU:HD23	2.16	0.46
1:A:1796:VAL:O	1:A:1808:TYR:N	2.42	0.46
1:A:1066:HIS:CD2	1:A:1468:TYR:CE1	3.02	0.46
1:A:1575:PHE:CZ	1:A:2445:GLY:O	2.68	0.46
4:A:2701:NAG:O4	4:A:2702:NAG:C1	2.64	0.46
1:A:1800:PHE:HB3	1:A:2056:MET:SD	2.56	0.46
1:A:1864:PRO:CG	1:A:2125:ARG:HG2	2.46	0.46
1:A:2585:GLU:HB3	1:A:2607:LEU:HD21	1.97	0.46
1:A:1508:ASN:OD1	1:A:1526:PRO:CB	2.64	0.46
1:A:2033:ARG:HH21	1:A:2057:GLY:HA2	1.81	0.46
1:A:2286:HIS:HB3	1:A:2299:PHE:CZ	2.51	0.46
1:A:1576:TYR:CE1	1:A:1587:VAL:HG13	2.51	0.45
1:A:2181:ARG:HE	1:A:2197:TYR:HD2	1.64	0.45
1:A:1874:TYR:CE1	1:A:1880:ILE:HG12	2.52	0.45
1:A:2181:ARG:NH1	1:A:2385:LEU:HD13	2.32	0.45
1:A:2261:LYS:CE	1:A:2279:PHE:O	2.65	0.45
1:A:1655:ALA:HB1	1:A:1920:THR:HA	1.99	0.45
1:A:1986:LEU:HD11	1:A:2217:ILE:HG21	1.97	0.45
1:A:2249:PRO:HD3	1:A:2283:ILE:HG22	1.98	0.45
1:A:2297:VAL:HG23	1:A:2306:VAL:CG2	2.46	0.45
1:A:2059:VAL:O	1:A:2077:TYR:HB2	2.15	0.45
1:A:2270:GLU:H	1:A:2306:VAL:CG1	2.30	0.45
1:A:1060:TRP:NE1	1:A:1554:MET:SD	2.82	0.45
1:A:1605:ILE:HG22	1:A:1607:ILE:HG13	1.99	0.45
1:A:1633:VAL:HG11	1:A:2401:GLN:NE2	2.31	0.45
1:A:1657:GLY:HA3	1:A:1685:PRO:HG3	1.98	0.45
1:A:1680:CYS:HB2	1:A:2411:PHE:CZ	2.51	0.45
1:A:1950:ILE:HG22	1:A:1952:ARG:HG2	1.97	0.45
1:A:2184:SER:OG	1:A:2194:GLN:OE1	2.32	0.45
1:A:1065:HIS:CE1	1:A:1499:VAL:HG21	2.52	0.45
1:A:1871:ILE:HD12	1:A:1886:LEU:HD21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:906:VAL:CB	1:A:974:PRO:CG	2.95	0.45
1:A:1468:TYR:HB3	1:A:1476:HIS:CE1	2.52	0.45
1:A:1471:ASN:O	1:A:1472:ALA:CB	2.65	0.45
1:A:1543:VAL:HG22	1:A:1553:LEU:HD13	1.97	0.45
1:A:1886:LEU:HD13	1:A:2489:GLY:HA2	1.99	0.45
1:A:2096:TRP:HA	1:A:2110:ASN:HD21	1.82	0.45
1:A:2377:TYR:CD2	1:A:2381:PRO:HD3	2.52	0.45
1:A:2181:ARG:HB3	1:A:2197:TYR:HE2	1.82	0.44
1:A:2205:ARG:HG3	1:A:2222:TYR:CE2	2.52	0.44
1:A:2482:LYS:O	1:A:2482:LYS:HG3	2.16	0.44
2:B:2:NAG:H4	2:B:3:MAN:H2	1.43	0.44
1:A:1574:THR:O	1:A:1574:THR:HG23	2.17	0.44
1:A:1902:LEU:HD21	1:A:1905:ILE:HD11	1.98	0.44
1:A:1946:VAL:HB	1:A:2200:LEU:HD11	1.99	0.44
1:A:1620:VAL:CG2	1:A:2398:THR:HG21	2.47	0.44
1:A:1656:ASN:HB3	1:A:1943:GLY:HA2	2.00	0.44
1:A:1697:LEU:HD11	1:A:1709:PHE:CE1	2.53	0.44
1:A:1864:PRO:HG2	1:A:2125:ARG:HG2	1.99	0.44
1:A:2581:ALA:HB2	1:A:2637:ILE:HG21	1.99	0.44
1:A:1683:SER:HA	1:A:1689:GLY:O	2.17	0.44
1:A:1928:LEU:O	1:A:1934:SER:HA	2.18	0.44
1:A:1018:TYR:CG	1:A:1052:LEU:HD21	2.53	0.44
1:A:1594:VAL:HG21	1:A:2449:ALA:HB1	1.99	0.44
1:A:1766:ASN:HB2	1:A:1779:GLN:HG2	2.00	0.44
1:A:2211:ASN:OD1	4:A:2712:NAG:H2	2.18	0.44
1:A:2263:LEU:HD22	1:A:2265:TYR:HE1	1.82	0.44
1:A:983:MET:H	1:A:992:GLN:HA	1.83	0.44
1:A:2261:LYS:HD3	1:A:2263:LEU:HG	1.99	0.44
1:A:912:ILE:HG13	1:A:912:ILE:O	2.18	0.44
1:A:1965:TYR:CD1	1:A:1977:ILE:HG12	2.53	0.44
1:A:2192:HIS:ND1	1:A:2212:HIS:CD2	2.86	0.44
1:A:2447:MET:H	1:A:2458:GLY:HA3	1.83	0.44
1:A:1658:MET:HA	1:A:1683:SER:O	2.18	0.44
1:A:917:LEU:HD13	1:A:1084:PHE:HE2	1.83	0.43
1:A:950:LEU:HG	1:A:1060:TRP:HB3	2.00	0.43
1:A:2219:SER:N	1:A:2232:GLU:O	2.50	0.43
1:A:1489:TYR:HA	1:A:1503:ILE:O	2.18	0.43
1:A:1856:TYR:HB2	1:A:1874:TYR:O	2.18	0.43
1:A:1981:ILE:O	1:A:1984:THR:OG1	2.17	0.43
1:A:1787:THR:HG22	1:A:1798:ARG:CB	2.49	0.43
1:A:2105:ASN:OD1	1:A:2126:ASP:OD1	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2314:PRO:HG3	1:A:2332:TYR:CE1	2.54	0.43
1:A:1056:ASN:O	1:A:1514:ARG:NH2	2.38	0.43
1:A:1682:ILE:HD12	1:A:2369:PRO:CG	2.49	0.43
1:A:1726:ASP:O	1:A:1730:ARG:N	2.49	0.43
1:A:1909:SER:HB2	1:A:2621:VAL:HG11	2.01	0.43
1:A:2217:ILE:O	1:A:2218:THR:OG1	2.24	0.43
1:A:2314:PRO:HG2	1:A:2316:TYR:CZ	2.53	0.43
1:A:2442:ILE:O	1:A:2446:ILE:HG12	2.18	0.43
1:A:915:SER:N	1:A:963:LEU:O	2.48	0.43
1:A:2248:THR:HG23	1:A:2250:LEU:CD1	2.48	0.43
1:A:1596:SER:HB2	4:A:2704:NAG:C8	2.47	0.43
1:A:1599:ARG:HG2	1:A:1607:ILE:HG12	2.00	0.43
1:A:2146:GLN:O	1:A:2146:GLN:HG2	2.18	0.43
1:A:2318:MET:O	1:A:2322:VAL:HG13	2.18	0.43
1:A:1825:TYR:CE1	1:A:1841:PRO:HD3	2.54	0.43
1:A:2008:VAL:HG12	1:A:2017:ILE:HG12	1.99	0.43
1:A:2478:TYR:O	1:A:2495:PHE:CD2	2.72	0.43
1:A:1747:TYR:CE1	1:A:1753:PRO:HB3	2.54	0.43
1:A:1817:LEU:HB3	1:A:1825:TYR:HB2	2.00	0.43
1:A:2170:TRP:HB2	1:A:2293:LEU:HD21	2.01	0.43
1:A:913:ILE:HG13	1:A:913:ILE:O	2.18	0.43
1:A:1009:LYS:HD2	1:A:1049:GLY:HA2	2.01	0.43
1:A:1860:ILE:HG12	1:A:1871:ILE:HG12	2.00	0.43
1:A:2147:ARG:O	1:A:2150:ASP:N	2.48	0.43
1:A:2270:GLU:OE1	1:A:2307:LEU:HD23	2.18	0.43
1:A:2578:LEU:HD12	1:A:2582:TRP:HE1	1.83	0.43
1:A:1659:GLY:O	1:A:1682:ILE:HA	2.19	0.42
1:A:956:ARG:NH2	1:A:1077:LYS:O	2.42	0.42
1:A:1618:VAL:HG21	1:A:2397:ILE:HD13	2.01	0.42
1:A:1974:ILE:HD11	1:A:2200:LEU:HD23	2.00	0.42
1:A:2365:SER:HA	1:A:2371:PHE:HB3	2.01	0.42
1:A:1942:ILE:HB	1:A:1947:ASP:OD2	2.18	0.42
1:A:1477:GLN:O	1:A:1478:TYR:HB3	2.19	0.42
1:A:2105:ASN:O	1:A:2122:TYR:CZ	2.73	0.42
1:A:995:PHE:HE1	1:A:1001:LEU:HD21	1.84	0.42
1:A:1620:VAL:HG12	1:A:1620:VAL:O	2.19	0.42
1:A:1622:THR:HB	1:A:1631:TYR:CD1	2.54	0.42
1:A:1794:ARG:HG2	1:A:1810:TYR:CE1	2.54	0.42
1:A:2144:LEU:HD21	1:A:2147:ARG:HB2	2.01	0.42
1:A:2179:VAL:HG11	1:A:2385:LEU:HD13	2.01	0.42
1:A:2317:THR:O	1:A:2320:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:951:ARG:NH2	1:A:1079:THR:HG22	2.34	0.42
1:A:1020:LEU:CG	1:A:1046:LEU:HD11	2.49	0.42
1:A:1697:LEU:HD12	1:A:1698:ARG:N	2.35	0.42
1:A:1768:SER:OG	1:A:1768:SER:O	2.30	0.42
1:A:2157:LYS:O	1:A:2157:LYS:HG2	2.19	0.42
1:A:1577:ASP:CB	1:A:1586:ASN:OD1	2.57	0.42
1:A:1499:VAL:O	1:A:1514:ARG:NE	2.47	0.42
1:A:1644:LEU:HD23	1:A:1650:LEU:HA	2.01	0.42
1:A:1873:ASP:O	1:A:1881:LEU:N	2.38	0.42
1:A:2188:ASN:OD1	1:A:2189:LEU:HD12	2.20	0.42
1:A:2286:HIS:O	1:A:2286:HIS:CD2	2.73	0.42
1:A:2396:LEU:HD21	1:A:2405:GLU:HG2	2.01	0.42
1:A:2577:ALA:O	1:A:2581:ALA:N	2.50	0.42
1:A:1508:ASN:OD1	1:A:1526:PRO:HG3	2.20	0.42
1:A:1584:LEU:HD11	1:A:1587:VAL:CG2	2.50	0.42
1:A:2053:TYR:HD2	1:A:2057:GLY:C	2.22	0.42
1:A:2131:LEU:HD22	1:A:2136:TYR:OH	2.19	0.42
1:A:1636:ASP:CB	1:A:1898:LYS:HD2	2.49	0.42
1:A:2185:TYR:O	1:A:2192:HIS:HA	2.19	0.42
1:A:2267:ALA:O	1:A:2268:TYR:HB2	2.20	0.42
1:A:1988:VAL:HG12	1:A:1990:LEU:HG	2.01	0.41
1:A:2286:HIS:O	1:A:2286:HIS:CG	2.73	0.41
1:A:995:PHE:CE1	1:A:1001:LEU:HD21	2.55	0.41
1:A:1769:TYR:HA	1:A:1775:LEU:HA	2.02	0.41
1:A:1835:LEU:HD12	1:A:1835:LEU:H	1.85	0.41
1:A:2304:TYR:OH	1:A:2309:GLY:O	2.38	0.41
1:A:1500:THR:O	1:A:1511:LYS:HA	2.21	0.41
1:A:1512:ILE:HG12	1:A:1523:LEU:HD13	2.02	0.41
1:A:1846:HIS:HB3	1:A:1861:TYR:HE1	1.86	0.41
1:A:2036:GLU:OE2	1:A:2048:TRP:NE1	2.50	0.41
1:A:2363:GLN:OE1	1:A:2373:ARG:NH1	2.53	0.41
1:A:2479:TYR:HE1	1:A:2493:HIS:HB3	1.86	0.41
1:A:935:GLN:NE2	1:A:1599:ARG:HG3	2.35	0.41
1:A:1574:THR:HA	1:A:1589:ARG:HA	2.02	0.41
1:A:1756:TRP:HH2	1:A:2420:THR:HG21	1.86	0.41
1:A:2204:THR:HG22	1:A:2300:THR:HG21	2.03	0.41
1:A:1020:LEU:HD21	1:A:1046:LEU:HD21	2.03	0.41
1:A:1770:PHE:CE2	1:A:1776:ALA:HB2	2.55	0.41
1:A:2039:TYR:OH	1:A:2240:TYR:HB3	2.21	0.41
1:A:2636:ASN:OD1	1:A:2636:ASN:C	2.59	0.41
1:A:1917:ASP:OD1	1:A:1921:GLY:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1951:TYR:O	1:A:1952:ARG:C	2.59	0.41
1:A:2017:ILE:HD11	1:A:2223:ASP:OD1	2.20	0.41
1:A:2137:LYS:HB2	1:A:2138:ILE:HA	2.03	0.41
1:A:912:ILE:HD12	1:A:1045:ALA:HB2	2.02	0.40
1:A:1055:SER:HB3	1:A:1065:HIS:ND1	2.36	0.40
1:A:1750:VAL:HG12	1:A:1751:GLY:H	1.86	0.40
1:A:1779:GLN:HB2	1:A:1784:SER:HB3	2.03	0.40
1:A:1800:PHE:CB	1:A:2056:MET:SD	3.10	0.40
1:A:1821:SER:O	1:A:1823:ARG:N	2.54	0.40
1:A:2305:ASP:O	1:A:2308:ALA:O	2.38	0.40
1:A:2327:ALA:HB1	1:A:2328:PRO:HD2	2.03	0.40
1:A:2062:ARG:NH2	1:A:2340:LEU:HD13	2.36	0.40
1:A:2126:ASP:OD2	1:A:2330:ASN:CG	2.60	0.40
1:A:1634:VAL:HG13	1:A:1639:ARG:NH1	2.37	0.40
1:A:2058:ARG:O	1:A:2059:VAL:C	2.60	0.40
1:A:2128:ILE:CD1	1:A:2310:ARG:HD2	2.36	0.40
1:A:1568:ASP:HB3	1:A:1572:TRP:HB3	2.03	0.40
1:A:1575:PHE:CD2	1:A:2447:MET:CB	3.04	0.40
1:A:2354:LYS:HA	1:A:2357:LEU:HD12	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	1292/1999 (65%)	1165 (90%)	124 (10%)	3 (0%)	44 74

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2012	ASP
1	A	2013	ILE

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Mol	Chain	Res	Type
1	A	1868	ALA

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	991/1735 (57%)	976 (98%)	15 (2%)	60 80

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1031	TYR
1	A	1679	ARG
1	A	1694	GLU
1	A	1752	ARG
1	A	1778	LEU
1	A	1779	GLN
1	A	1786	ARG
1	A	1799	MET
1	A	1886	LEU
1	A	2014	ASN
1	A	2126	ASP
1	A	2211	ASN
1	A	2310	ARG
1	A	2491	ASP
1	A	2597	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	935	GLN
1	A	2586	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

5 monosaccharides are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	NAG	B	1	2,1	14,14,15	2.46	1 (7%)	17,19,21	2.16	6 (35%)
2	NAG	B	2	2	14,14,15	0.90	1 (7%)	17,19,21	2.09	5 (29%)
2	MAN	B	3	2	11,11,12	2.00	3 (27%)	15,15,17	1.08	1 (6%)
3	MAN	C	1	3	11,11,12	1.87	3 (27%)	15,15,17	1.58	3 (20%)
3	MAN	C	2	3	11,11,12	1.73	3 (27%)	15,15,17	0.87	1 (6%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	B	1	2,1	1/1/5/7	2/6/23/26	0/1/1/1
2	NAG	B	2	2	-	2/6/23/26	0/1/1/1
2	MAN	B	3	2	-	2/2/19/22	0/1/1/1
3	MAN	C	1	3	-	2/2/19/22	0/1/1/1
3	MAN	C	2	3	-	0/2/19/22	0/1/1/1

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	1	NAG	C1-C2	8.91	1.64	1.52
2	B	3	MAN	O5-C1	4.41	1.51	1.43
3	C	1	MAN	O5-C1	4.19	1.50	1.43
3	C	2	MAN	O5-C1	3.75	1.50	1.43
2	B	3	MAN	C2-C3	-3.27	1.47	1.52
3	C	1	MAN	C2-C3	-2.88	1.48	1.52
3	C	2	MAN	C2-C3	-2.86	1.48	1.52
2	B	3	MAN	O5-C5	2.76	1.48	1.43
3	C	1	MAN	O5-C5	2.53	1.48	1.43
2	B	2	NAG	O4-C4	2.37	1.48	1.43
3	C	2	MAN	O5-C5	2.21	1.47	1.43

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	2	NAG	C4-C3-C2	6.12	119.98	111.02
2	B	1	NAG	O5-C1-C2	-5.60	102.62	111.29
2	B	1	NAG	C1-O5-C5	4.07	117.65	112.19
2	B	1	NAG	C4-C3-C2	-3.28	106.21	111.02
2	B	2	NAG	C2-N2-C7	-3.18	118.63	122.90
3	C	1	MAN	C3-C4-C5	3.16	115.95	110.23
3	C	1	MAN	C2-C3-C4	2.95	116.04	110.86
2	B	2	NAG	O5-C1-C2	-2.85	106.89	111.29
2	B	1	NAG	O4-C4-C5	2.39	115.21	109.32
2	B	2	NAG	O4-C4-C3	2.37	115.97	110.38
2	B	1	NAG	O5-C5-C4	2.18	116.13	110.83
2	B	3	MAN	C1-O5-C5	2.11	115.02	112.19
3	C	2	MAN	C1-O5-C5	-2.10	109.37	112.19
2	B	2	NAG	O3-C3-C2	-2.06	105.11	109.40
2	B	1	NAG	C2-N2-C7	-2.02	120.19	122.90
3	C	1	MAN	C1-C2-C3	2.01	112.56	109.64

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	B	1	NAG	C1

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	2	NAG	C8-C7-N2-C2
2	B	2	NAG	O7-C7-N2-C2
2	B	1	NAG	C8-C7-N2-C2

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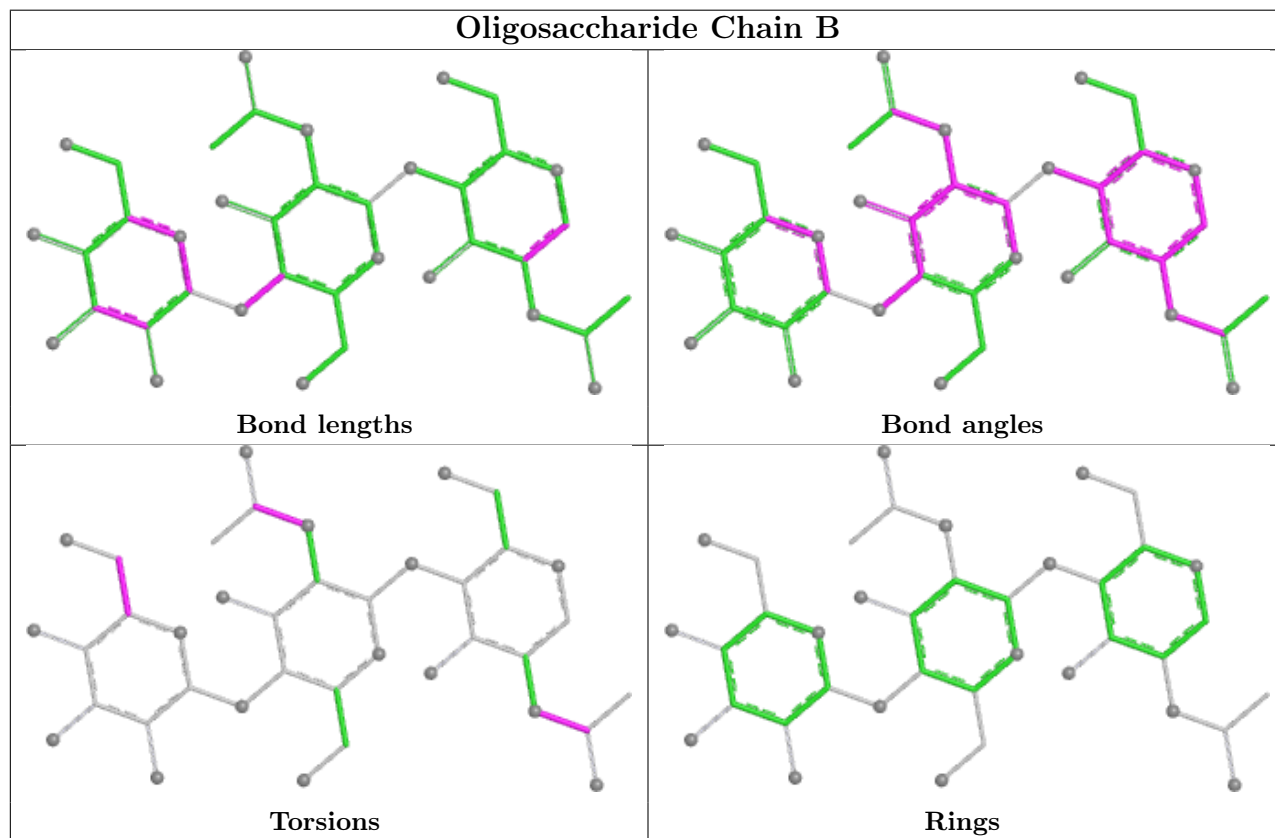
Mol	Chain	Res	Type	Atoms
3	C	1	MAN	C4-C5-C6-O6
2	B	3	MAN	O5-C5-C6-O6
2	B	1	NAG	O7-C7-N2-C2
3	C	1	MAN	O5-C5-C6-O6
2	B	3	MAN	C4-C5-C6-O6

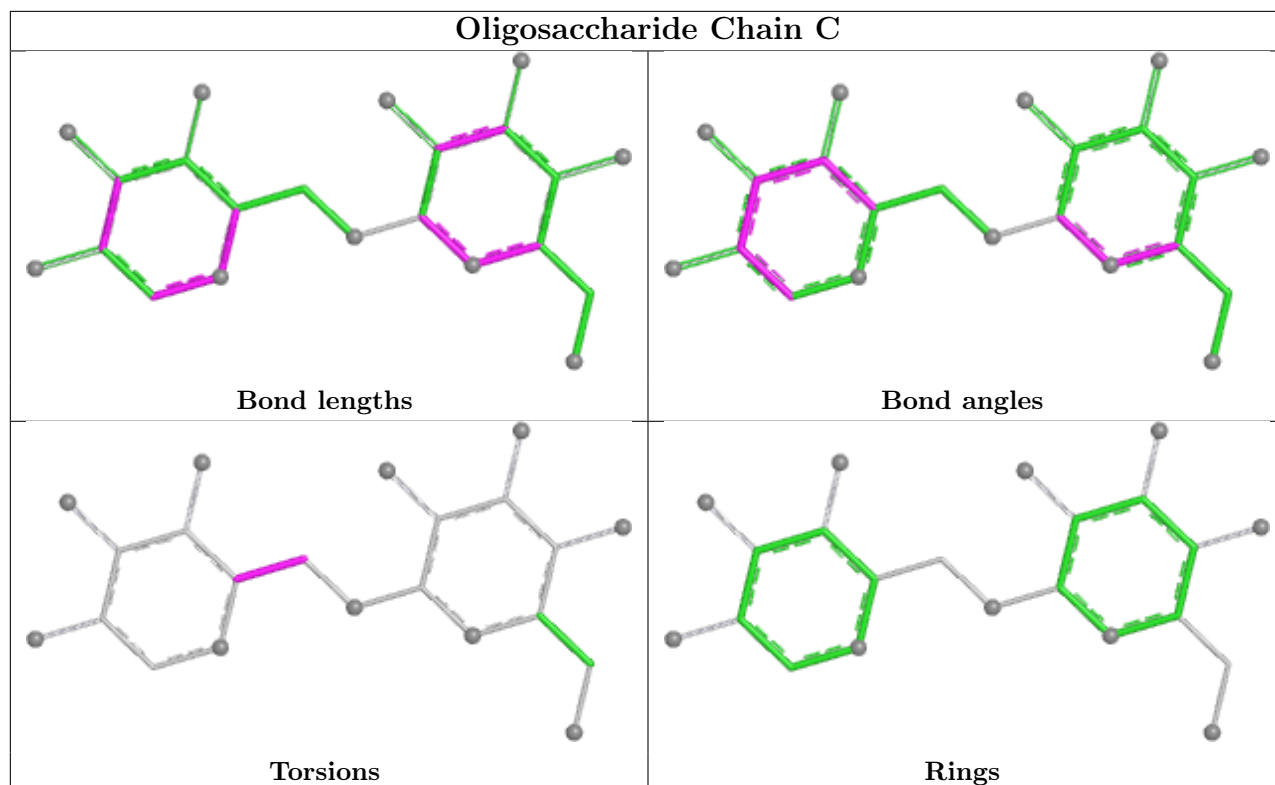
There are no ring outliers.

4 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	3	MAN	1	0
3	C	2	MAN	1	0
2	B	1	NAG	1	0
2	B	2	NAG	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.





5.6 Ligand geometry [i](#)

12 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	MAN	A	2717	-	11,11,12	0.25	0	15,15,17	0.73	0
5	MAN	A	2716	-	11,11,12	1.93	3 (27%)	15,15,17	1.08	1 (6%)
5	MAN	A	2703	-	11,11,12	1.97	3 (27%)	15,15,17	1.05	0
4	NAG	A	2712	-	14,14,15	1.99	5 (35%)	17,19,21	1.87	5 (29%)
4	NAG	A	2702	-	14,14,15	1.83	3 (21%)	17,19,21	1.56	3 (17%)
4	NAG	A	2704	1	14,14,15	2.15	1 (7%)	17,19,21	3.01	3 (17%)
4	NAG	A	2706	-	14,14,15	0.41	0	17,19,21	0.98	1 (5%)
4	NAG	A	2705	-	14,14,15	0.35	0	17,19,21	0.63	0
4	NAG	A	2701	1	14,14,15	1.91	4 (28%)	17,19,21	1.79	3 (17%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	NAG	A	2707	-	14,14,15	0.33	0	17,19,21	0.83	1 (5%)
4	NAG	A	2713	-	14,14,15	1.80	3 (21%)	17,19,21	1.57	3 (17%)
4	NAG	A	2708	1	14,14,15	2.28	1 (7%)	17,19,21	2.03	1 (5%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	MAN	A	2717	-	-	0/2/19/22	1/1/1/1
5	MAN	A	2716	-	-	2/2/19/22	1/1/1/1
5	MAN	A	2703	-	-	0/2/19/22	1/1/1/1
4	NAG	A	2712	-	-	1/6/23/26	0/1/1/1
4	NAG	A	2702	-	-	0/6/23/26	0/1/1/1
4	NAG	A	2704	1	1/1/5/7	2/6/23/26	0/1/1/1
4	NAG	A	2706	-	-	6/6/23/26	0/1/1/1
4	NAG	A	2705	-	-	4/6/23/26	0/1/1/1
4	NAG	A	2701	1	-	4/6/23/26	0/1/1/1
4	NAG	A	2707	-	-	4/6/23/26	0/1/1/1
4	NAG	A	2713	-	-	3/6/23/26	0/1/1/1
4	NAG	A	2708	1	1/1/5/7	5/6/23/26	0/1/1/1

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	2708	NAG	C1-C2	8.48	1.63	1.52
4	A	2704	NAG	C1-C2	7.74	1.62	1.52
5	A	2703	MAN	O5-C1	4.58	1.51	1.43
5	A	2716	MAN	O5-C1	4.30	1.50	1.43
4	A	2712	NAG	O5-C1	3.99	1.50	1.43
4	A	2701	NAG	O5-C1	3.95	1.50	1.43
4	A	2702	NAG	O5-C1	3.83	1.50	1.43
4	A	2713	NAG	O5-C1	3.66	1.49	1.43
4	A	2702	NAG	C7-N2	3.56	1.45	1.34
4	A	2701	NAG	C7-N2	3.54	1.45	1.34
4	A	2712	NAG	C7-N2	3.49	1.45	1.34
4	A	2713	NAG	C7-N2	3.43	1.45	1.34
5	A	2716	MAN	C2-C3	-3.10	1.47	1.52
5	A	2703	MAN	C2-C3	-2.86	1.48	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	2712	NAG	O5-C5	2.78	1.48	1.43
5	A	2703	MAN	O5-C5	2.62	1.48	1.43
4	A	2701	NAG	O5-C5	2.61	1.48	1.43
5	A	2716	MAN	O5-C5	2.60	1.48	1.43
4	A	2712	NAG	C3-C2	-2.41	1.47	1.52
4	A	2702	NAG	C2-N2	2.23	1.49	1.46
4	A	2712	NAG	C2-N2	2.22	1.49	1.46
4	A	2701	NAG	C2-N2	2.19	1.49	1.46
4	A	2713	NAG	O5-C5	2.11	1.47	1.43

All (21) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	2704	NAG	O5-C1-C2	-11.11	94.10	111.29
4	A	2708	NAG	O5-C1-C2	-7.76	99.29	111.29
4	A	2701	NAG	C1-O5-C5	-4.57	106.07	112.19
4	A	2704	NAG	C1-O5-C5	-4.46	106.21	112.19
4	A	2712	NAG	C3-C4-C5	3.98	117.44	110.23
4	A	2701	NAG	C3-C4-C5	3.40	116.40	110.23
4	A	2702	NAG	C2-N2-C7	-3.14	118.69	122.90
4	A	2712	NAG	C1-O5-C5	2.91	116.09	112.19
4	A	2713	NAG	C3-C4-C5	2.90	115.50	110.23
4	A	2702	NAG	C8-C7-N2	2.90	120.93	116.12
4	A	2712	NAG	C2-N2-C7	-2.78	119.17	122.90
4	A	2701	NAG	C8-C7-N2	2.76	120.70	116.12
4	A	2712	NAG	O5-C5-C4	2.76	117.55	110.83
4	A	2704	NAG	C2-N2-C7	-2.72	119.25	122.90
4	A	2702	NAG	C3-C4-C5	2.72	115.17	110.23
4	A	2712	NAG	C8-C7-N2	2.66	120.52	116.12
4	A	2707	NAG	C2-N2-C7	-2.51	119.53	122.90
4	A	2713	NAG	C2-N2-C7	-2.49	119.56	122.90
4	A	2706	NAG	C4-C3-C2	2.45	114.61	111.02
4	A	2713	NAG	C8-C7-N2	2.21	119.79	116.12
5	A	2716	MAN	C6-C5-C4	-2.01	108.08	113.02

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	A	2704	NAG	C1
4	A	2708	NAG	C1

All (31) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	2704	NAG	C8-C7-N2-C2
4	A	2704	NAG	O7-C7-N2-C2
4	A	2705	NAG	C3-C2-N2-C7
4	A	2706	NAG	C8-C7-N2-C2
4	A	2707	NAG	C1-C2-N2-C7
4	A	2708	NAG	C1-C2-N2-C7
4	A	2708	NAG	C8-C7-N2-C2
4	A	2708	NAG	O7-C7-N2-C2
4	A	2713	NAG	O5-C5-C6-O6
4	A	2706	NAG	O7-C7-N2-C2
4	A	2713	NAG	C4-C5-C6-O6
4	A	2708	NAG	O5-C5-C6-O6
4	A	2701	NAG	C4-C5-C6-O6
4	A	2706	NAG	C4-C5-C6-O6
5	A	2716	MAN	O5-C5-C6-O6
4	A	2701	NAG	O5-C5-C6-O6
4	A	2706	NAG	O5-C5-C6-O6
4	A	2701	NAG	C8-C7-N2-C2
4	A	2701	NAG	O7-C7-N2-C2
4	A	2705	NAG	C8-C7-N2-C2
4	A	2708	NAG	C4-C5-C6-O6
4	A	2705	NAG	O5-C5-C6-O6
4	A	2705	NAG	O7-C7-N2-C2
5	A	2716	MAN	C4-C5-C6-O6
4	A	2707	NAG	C4-C5-C6-O6
4	A	2707	NAG	O5-C5-C6-O6
4	A	2712	NAG	C4-C5-C6-O6
4	A	2706	NAG	C3-C2-N2-C7
4	A	2706	NAG	C1-C2-N2-C7
4	A	2713	NAG	C1-C2-N2-C7
4	A	2707	NAG	C3-C2-N2-C7

All (3) ring outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	2716	MAN	C1-C2-C3-C4-C5-O5
5	A	2717	MAN	C1-C2-C3-C4-C5-O5
5	A	2703	MAN	C1-C2-C3-C4-C5-O5

8 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	A	2717	MAN	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	A	2703	MAN	1	0
4	A	2712	NAG	1	0
4	A	2702	NAG	2	0
4	A	2704	NAG	4	0
4	A	2706	NAG	4	0
4	A	2705	NAG	2	0
4	A	2701	NAG	2	0

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.

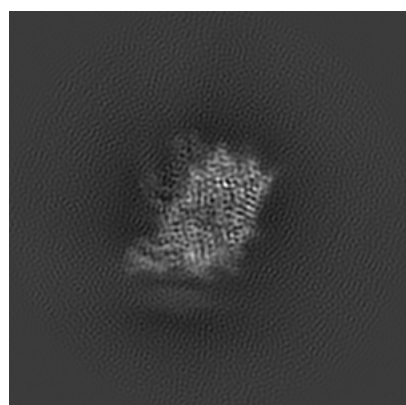
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-7526. These allow visual inspection of the internal detail of the map and identification of artifacts.

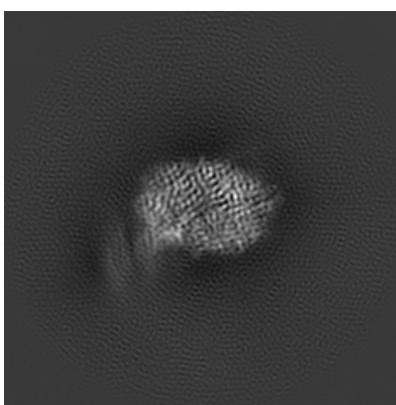
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

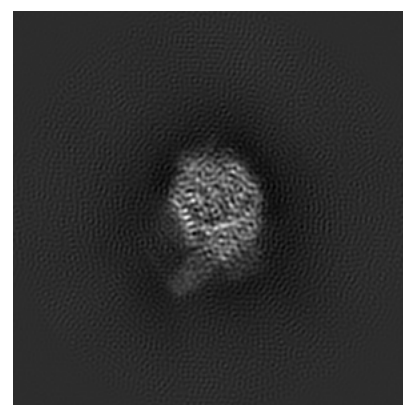
6.1.1 Primary map



X



Y

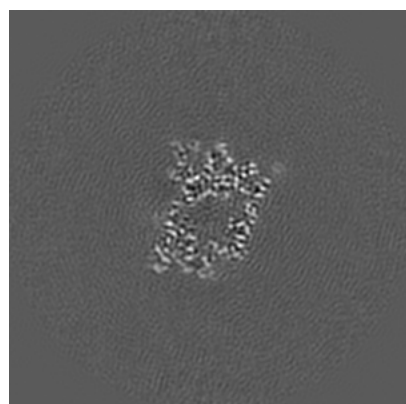


Z

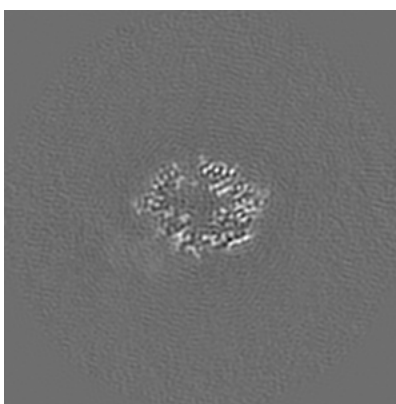
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

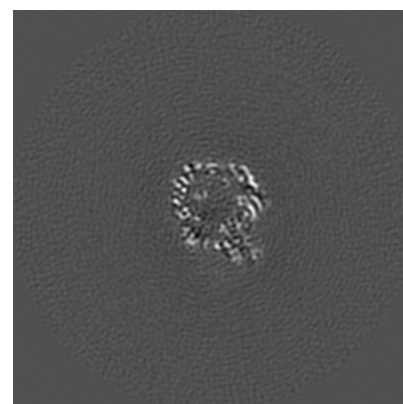
6.2.1 Primary map



X Index: 130



Y Index: 130

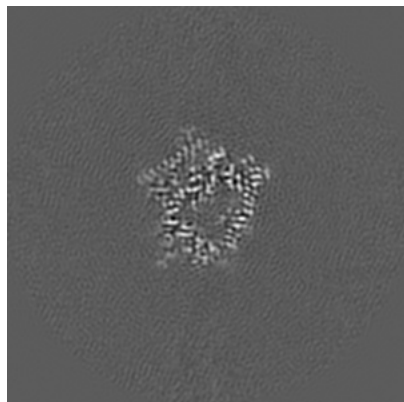


Z Index: 130

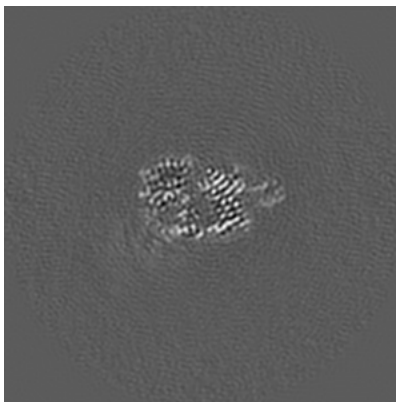
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

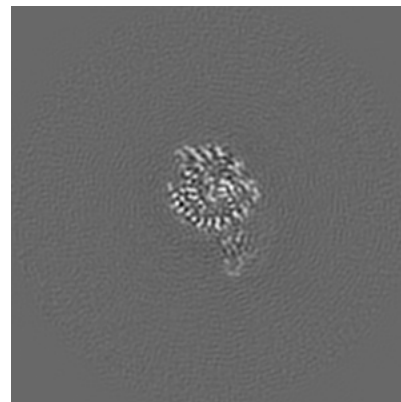
6.3.1 Primary map



X Index: 141



Y Index: 121

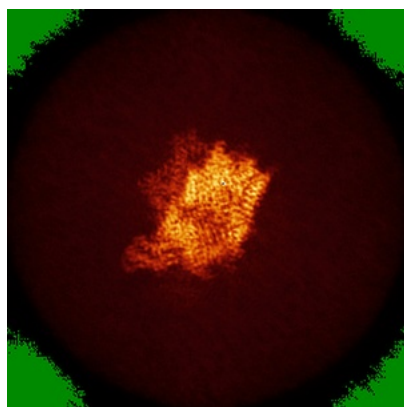


Z Index: 146

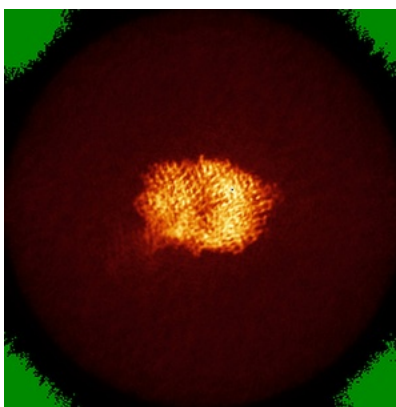
The images above show the largest variance slices of the map in three orthogonal directions.

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

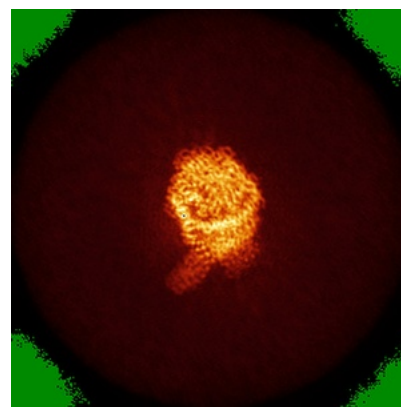
6.4.1 Primary map



X



Y

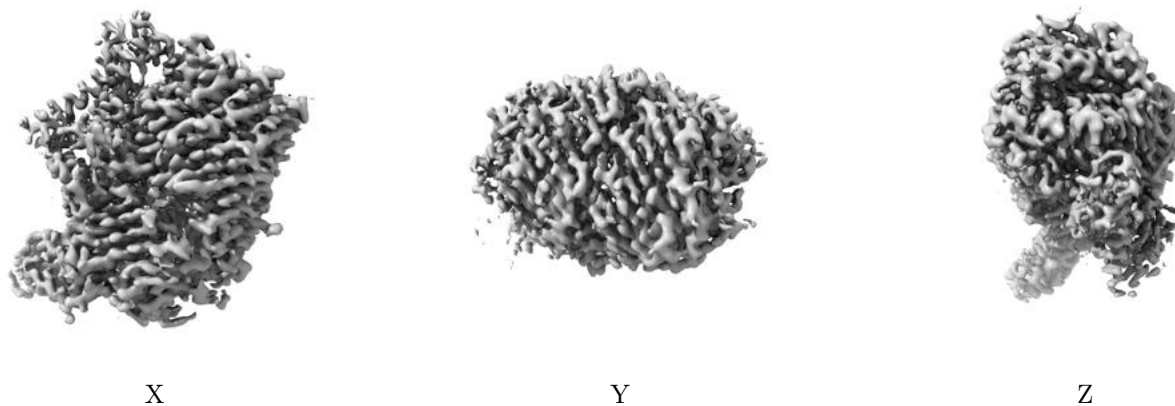


Z

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 0.06. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

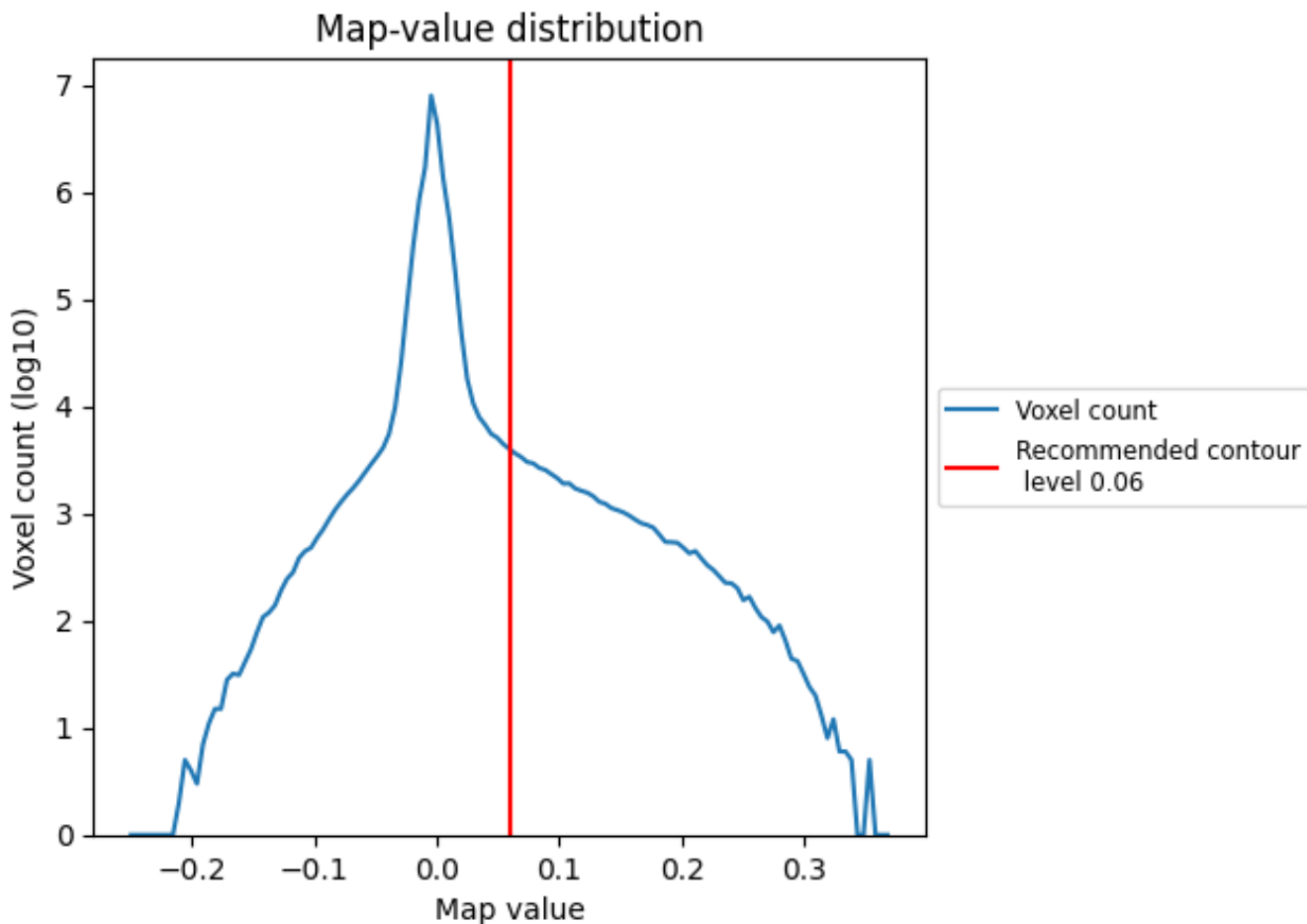
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

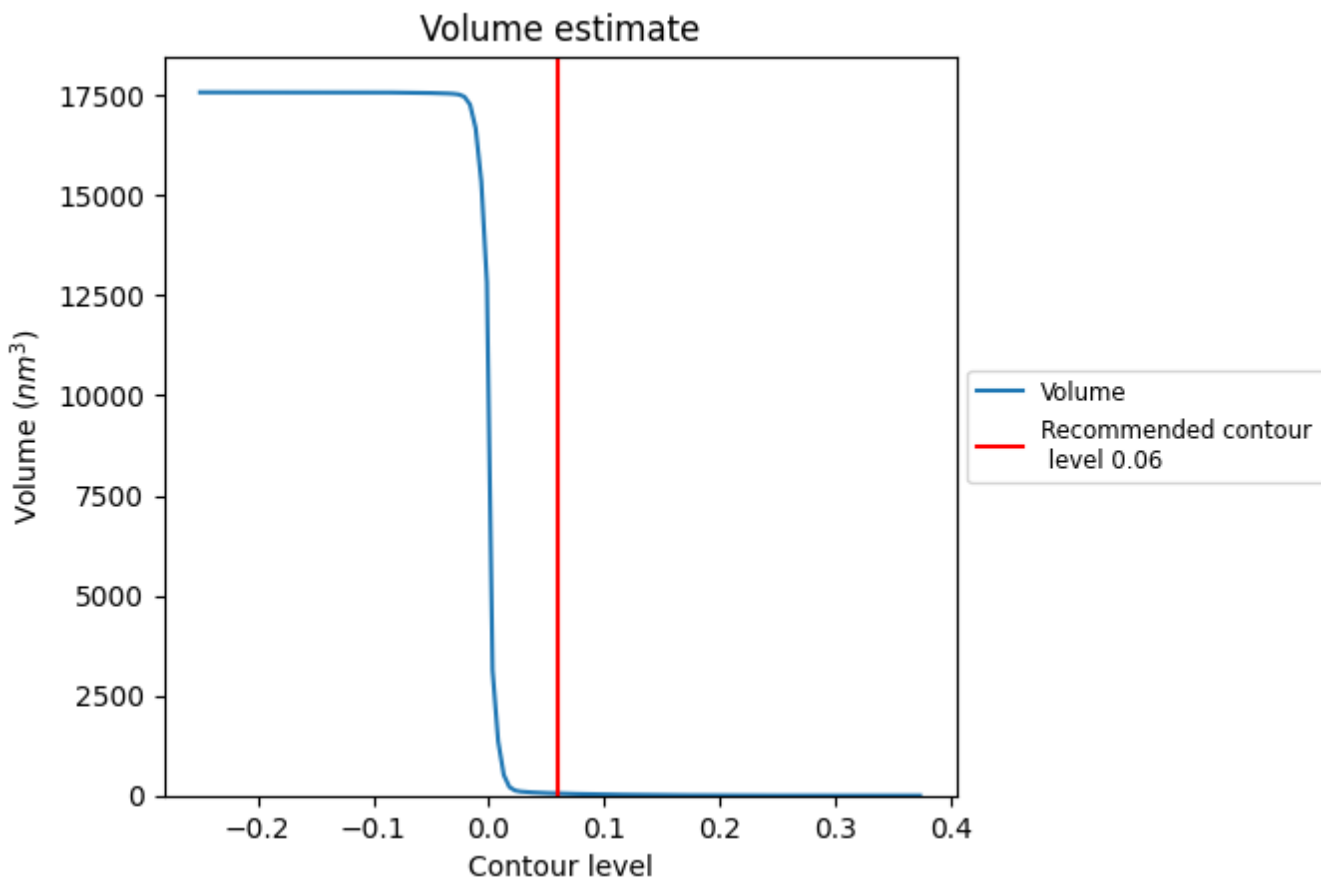
This section contains the results of statistical analysis of the map.

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.

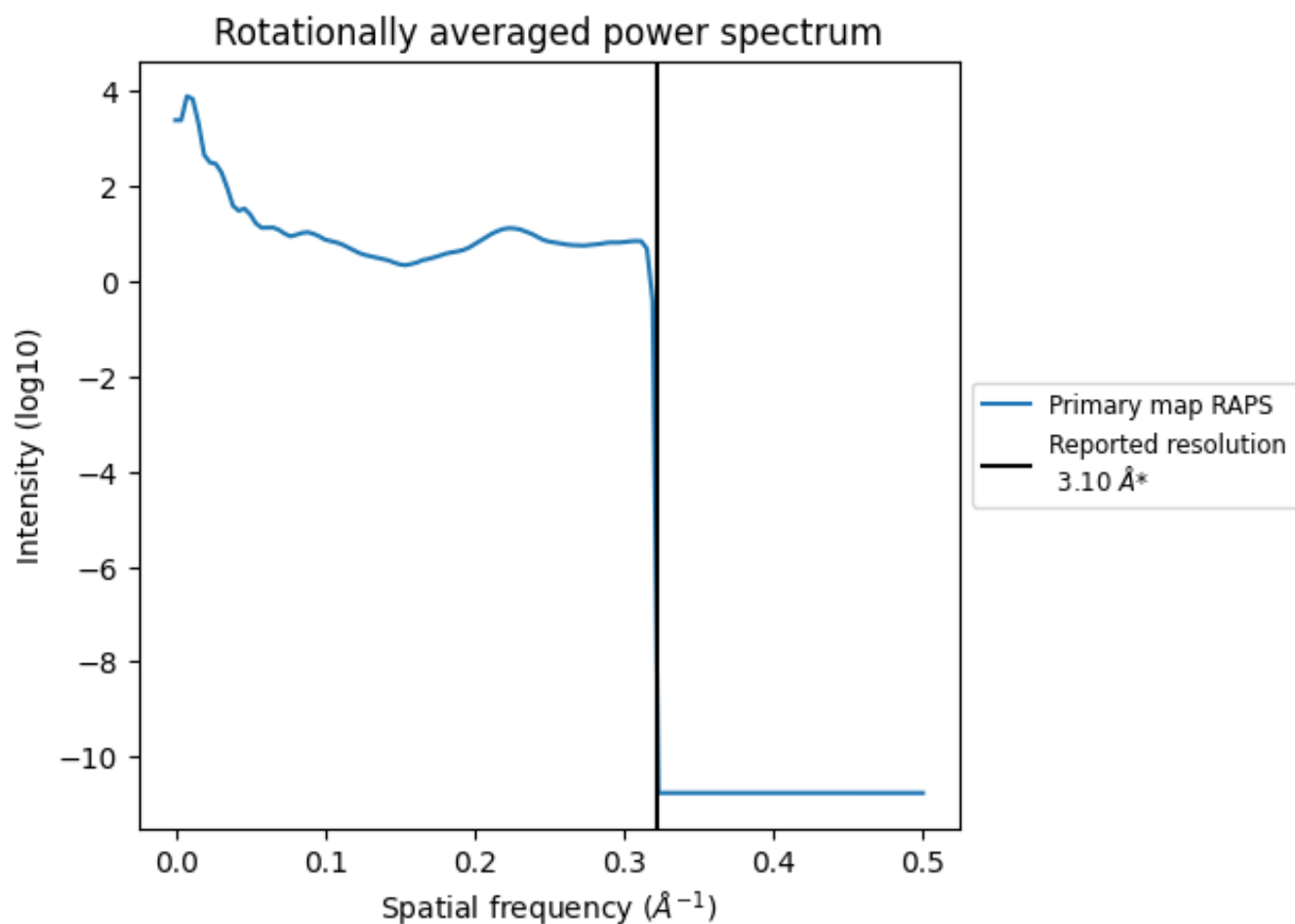
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 53 nm³; this corresponds to an approximate mass of 48 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 0.323\AA^{-1}

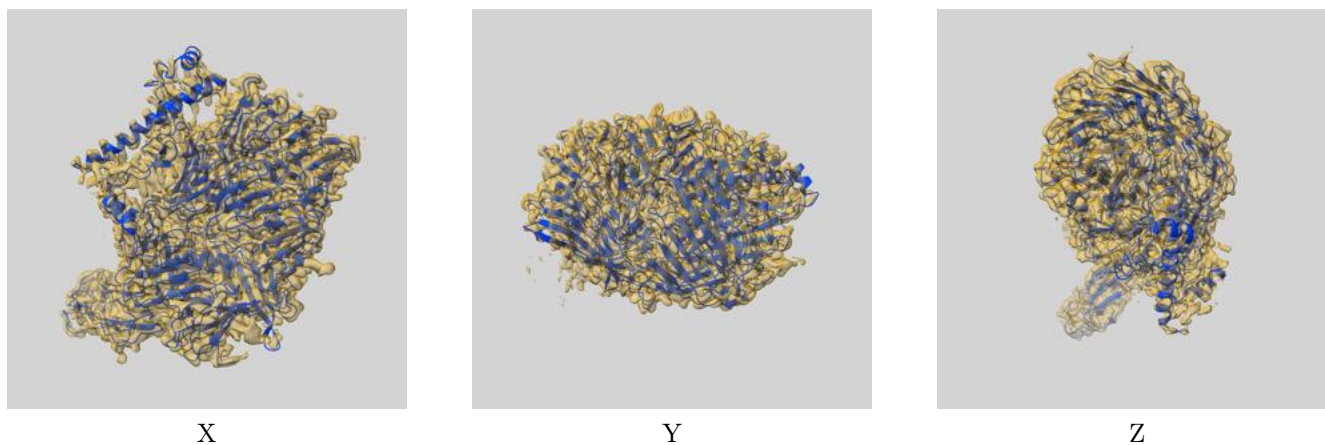
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

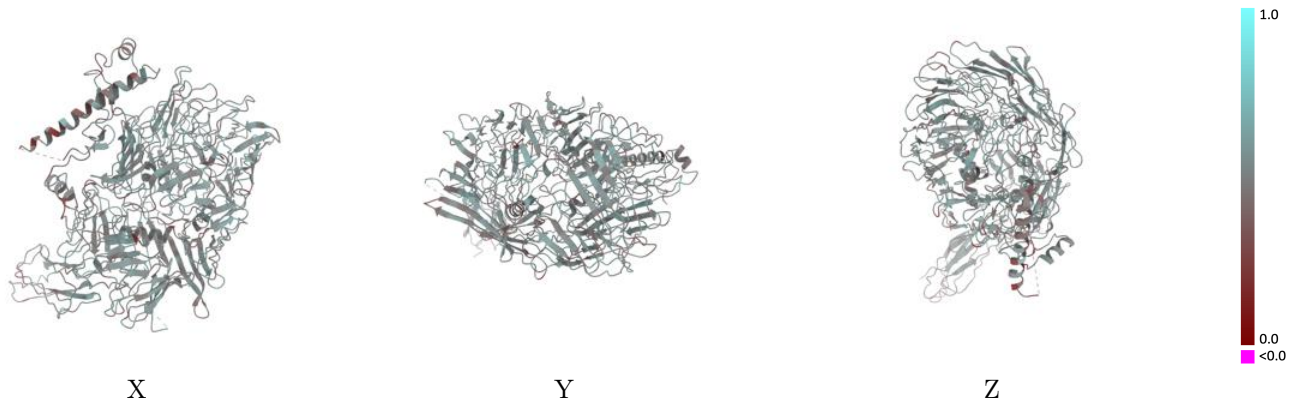
This section contains information regarding the fit between EMDB map EMD-7526 and PDB model 6CMX. Per-residue inclusion information can be found in section [3](#) on page [7](#).

9.1 Map-model overlay [i](#)



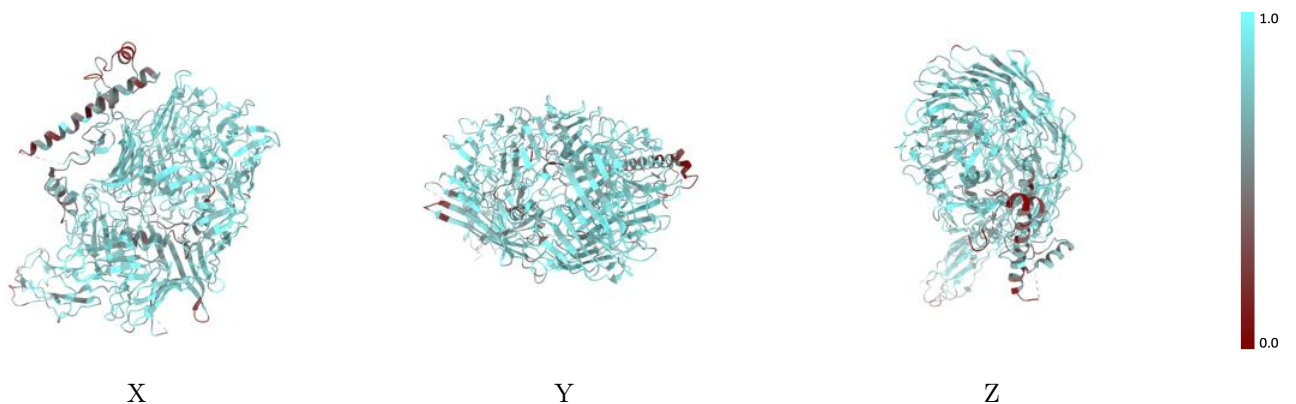
The images above show the 3D surface view of the map at the recommended contour level 0.06 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



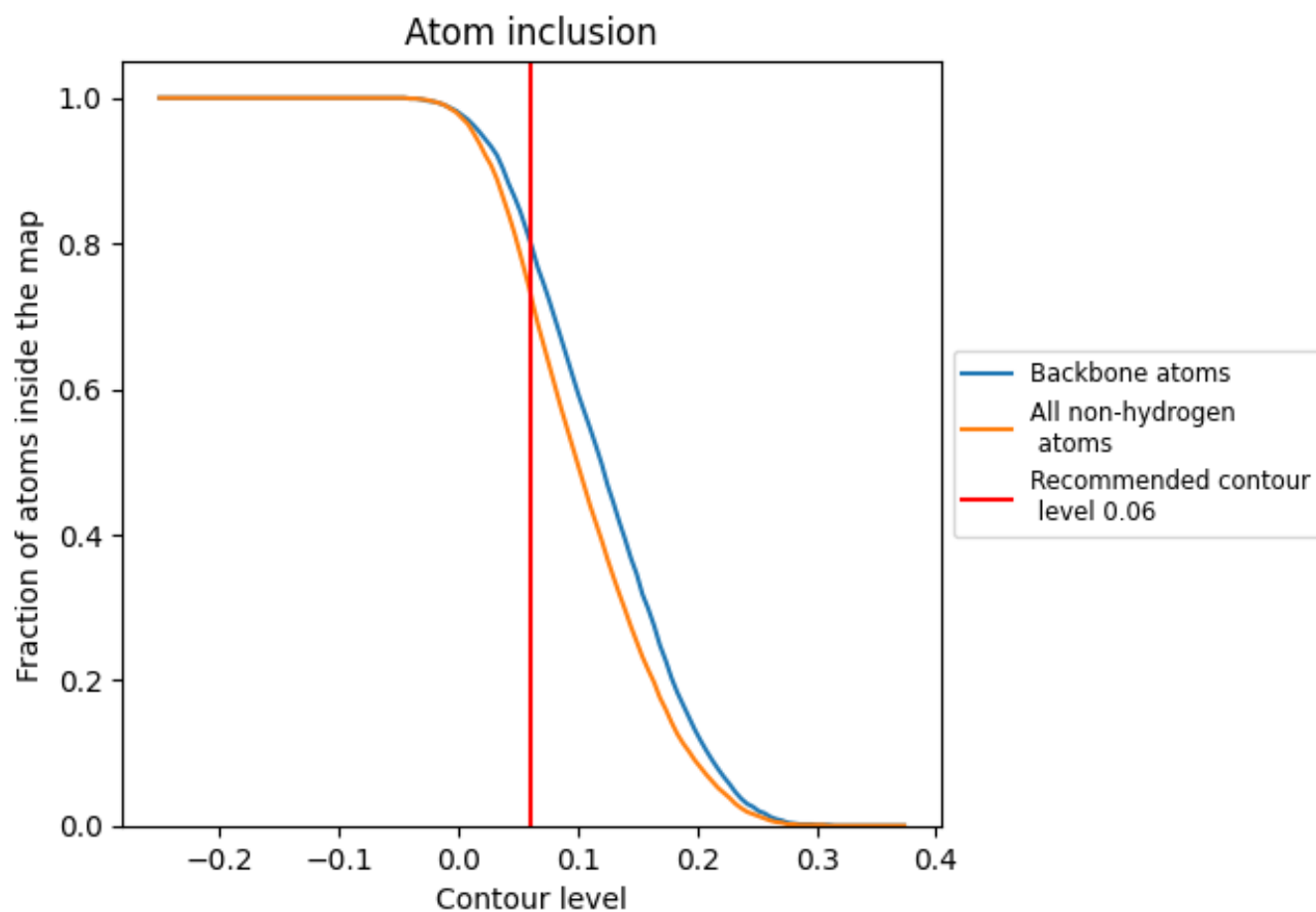
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.06).









9.4 Atom inclusion [i](#)



At the recommended contour level, 80% of all backbone atoms, 74% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.06) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7350	 0.4970
A	 0.7360	 0.4980
B	 0.4360	 0.4000
C	 0.5000	 0.3700

