wwPDB EM Validation Summary Report

Oct 20, 2025 – 01:32 pm BST

PDB ID	:	7NH1 / pdb_00007nh1
EMDB ID	:	EMD-12318
Title	:	Nematocida Huwe1 in closed conformation
Authors	:	Petrova, O.; Grishkovskaya, I.; Grabarczyk, D.B.; Kessler, D.; Haselbach, D.; Clausen, T.
Deposited on	:	2021-02-09
Resolution	:	5.29 Å(reported)

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

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

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

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

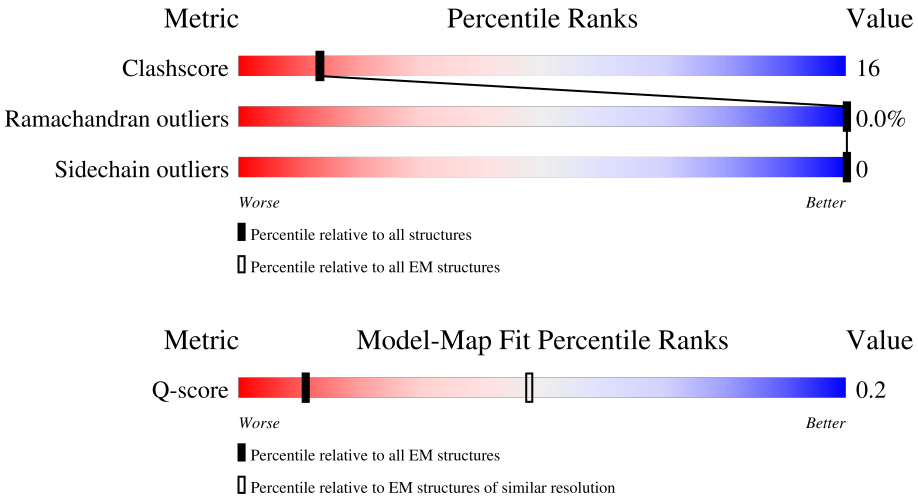
EMDB validation analysis	:	0.0.1.dev129
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.46

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 5.29 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	587 (4.79 - 5.75)

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

Mol	Chain	Length	Quality of chain
1	A	2490	20% 54% 32% 14%

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 17417 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 E3 ubiquitin-protein ligase HUWE1.

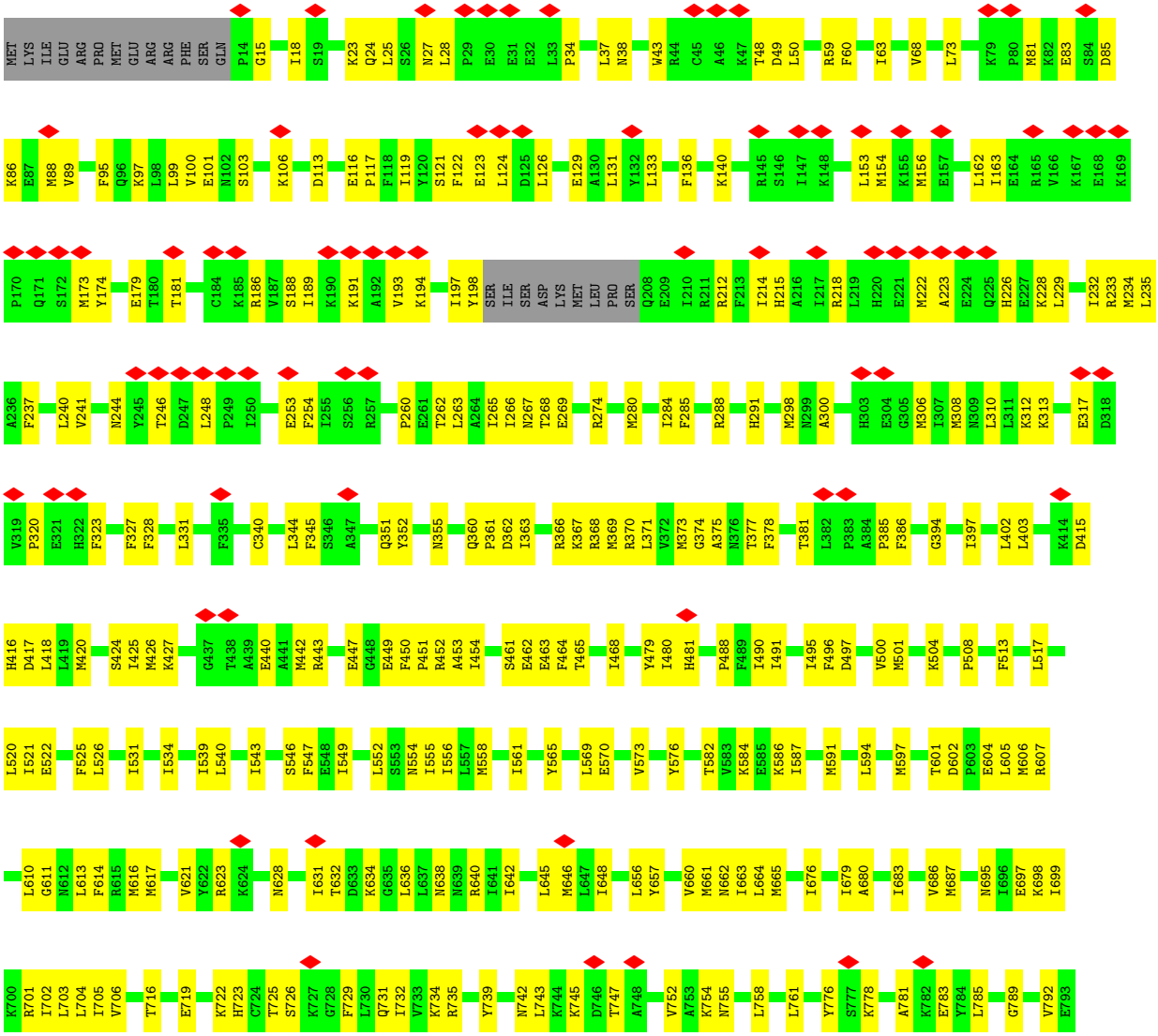
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	2138	17417	11256	2856	3208	97	0	0

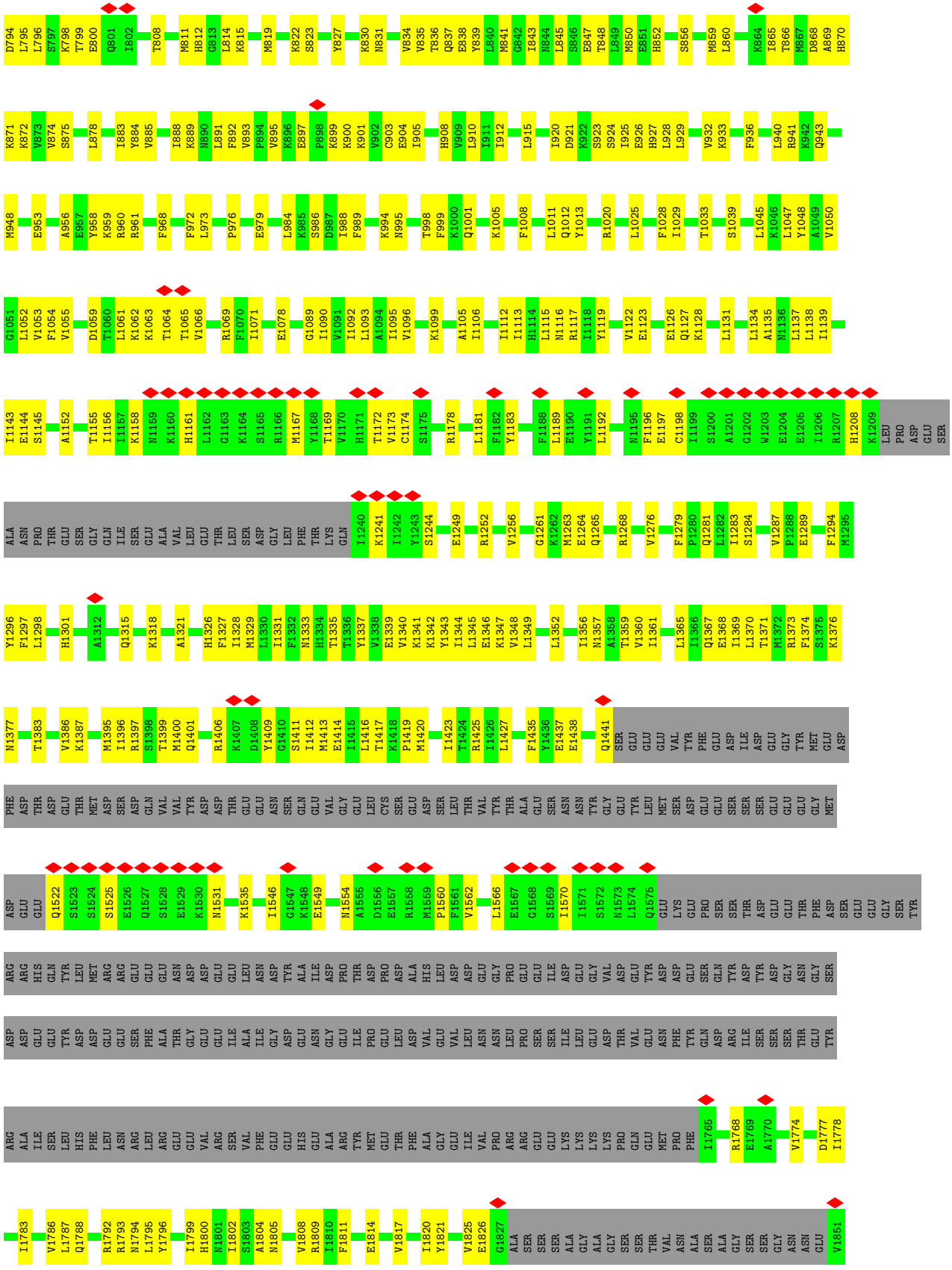
3 Residue-property plots (i)

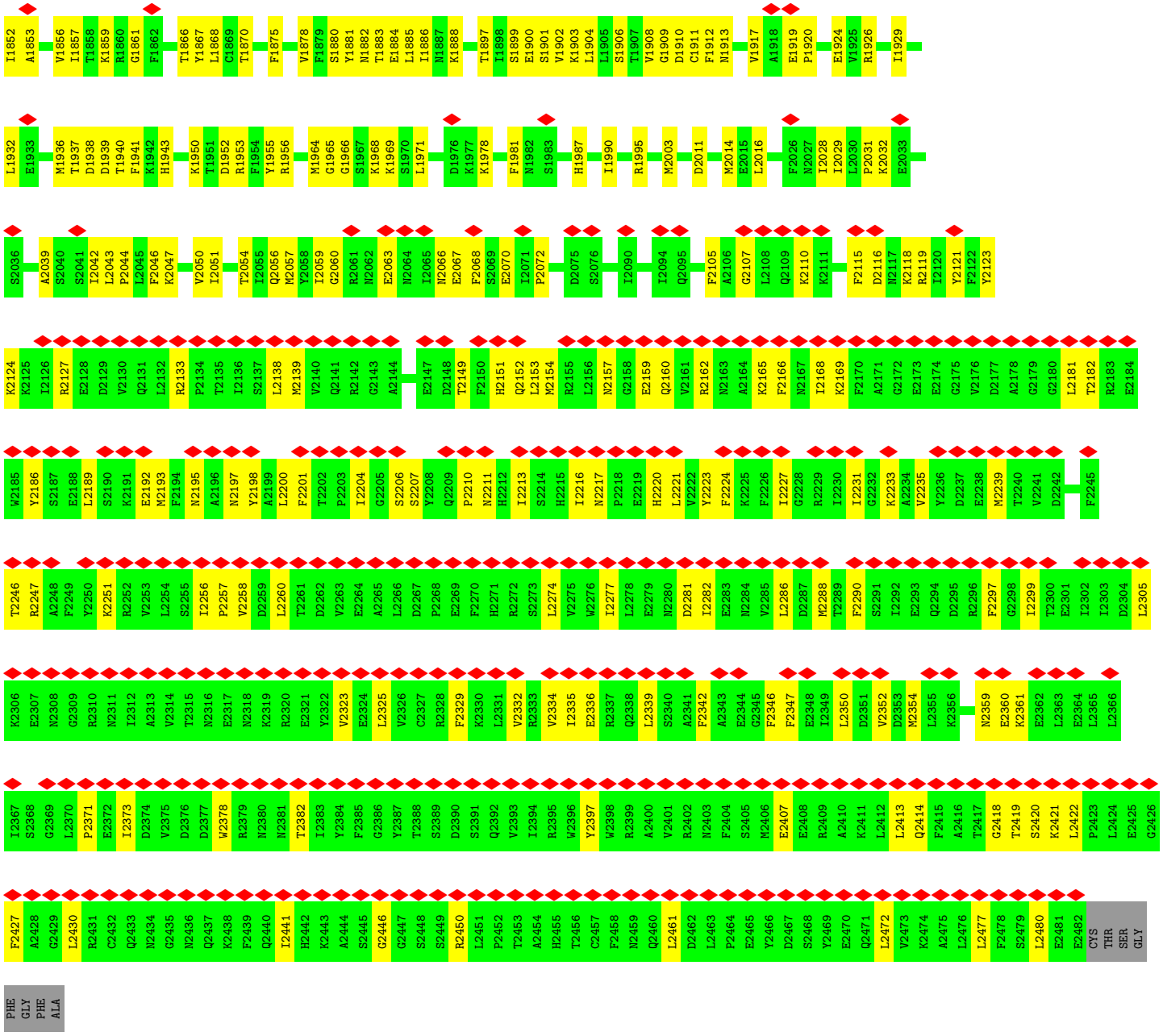
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: E3 ubiquitin-protein ligase HUWE1

Chain A:




D794 L795 L796 S797 K798 T799 E800 Q801 I802 T808 M811 H812 G813 L814 K815 M819 K822 S823 Y827 K830 N831 V834 V835 T836 Q837 E838 Y839 L840 M841 G842 I843 N844 L845 S846 E847 T848 L849 M850 E851 H852 S856 M859 L860 K864 I865 T866 M867 D868 A869 H870
K871 K872 V873 V874 S875 L878 I883 Y884 V885 I888 K889 N890 L891 F892 V893 P894 V895 K896 E897 P898 K899 K900 K901 V902 C903 E904 I905 H908 V909 L910 I911 I912 L915 I920 D921 K922 S923 S924 I925 E926 H927 L928 L929 V932 K933 F936 L940 R941 K942 Q943
M948 E953 A956 E957 Y958 K959 R960 R961 F968 F972 L973 P976 E979 L984 K985 S986 D987 I988 F989 K994 N995 T998 F999 K1000 Q1001 K1005 F1008 L1011 Q1012 Y1013 R1020 L1025 F1028 I1029 T1033 S1039 L1045 K1046 L1047 Y1048 A1049 V1050
G1061 L1052 V1053 F1054 V1055 D1059 T1060 L1061 K1062 K1063 T1064 T1065 V1066 R1069 F1070 I1071 E1078 G1089 I1090 V1091 I1092 L1093 A1094 I1095 V1096 K1099 A1105 I1106 I1112 I1113 H1114 L1115 N1116 R1117 I1118 Y1119 V1122 E1123 E1126 Q1127 K1128 L1131 L1134 A1135 N1136 L1137 L1138 I1139
I1143 E1144 S1145 A1152 T1155 I1156 I1157 K1158 N1159 K1160 H1161 L1162 G1163 K1164 S1165 R1166 M1167 Y1168 T1169 V1170 H1171 T1172 V1173 C1174 S1175 R1178 L1181 F1182 Y1183 F1188 L1189 E1190 Y1191 L1192 N1195 F1196 E1197 C1198 I1199 S1200 A1201 G1202 W1203 E1204 E1205 I1206 R1207 H1208 K1209 LEU PRO ASP GLU SER
ALA ASN PRO THR GLU SER GLY GLN ILE SER GLU ALA VAL LEU GLU THR LEU SER ASP GLY LEU PHE THR LYS GLN I1240 K1241 I1242 Y1243 S1244 E1249 R1252 V1256 G1261 K1262 M1263 E1264 Q1265 R1268 V1276 F1279 P1280 Q1281 L1282 I1283 S1284 V1287 P1288 E1289 F1294 M1296
Y1296 F1297 L1298 H1301 A1312 Q1315 K1318 A1321 H1326 F1327 I1328 M1329 L1330 I1331 F1332 N1333 H1334 I1335 T1336 Y1337 V1338 E1339 V1340 K1341 K1342 Y1343 I1344 L1345 E1346 K1347 V1348 L1349 L1352 I1356 N1357 A1358 T1359 V1360 I1361 L1365 I1366 Q1367 E1368 I1369 L1370 T1371 M1372 R1373 F1374 S1375 K1376
N1377 T1383 V1386 K1387 M1395 I1396 R1397 S1398 T1399 M1400 Q1401 R1406 K1407 D1408 Y1409 G1410 S1411 I1412 M1413 H1414 E1415 L1416 T1417 K1418 P1419 M1420 I1423 T1424 R1425 I1426 L1427 F1435 Y1436 E1437 E1438 Q1441 SER GLU GLU GLU VAL TYR PHE GLU ASP ILE ASP GLU GLY TYR MET GLU ASP
PHE ASP THR ASP GLU THR MET ASP SER ASP GLN VAL VAL TYR ASP ASP THR GLU GLU ASN SER GLN GLU VAL GLY GLU LEU CYS SER GLU ASP SER LEU THR VAL TYR THR ALA GLU SER ASN ASN TYR GLY GLU TYR LEU LEU MET SER ASP GLU GLU SER SER SER GLU GLU GLY MET
ASP GLU GLU Q1522 S1523 S1524 S1525 E1526 Q1527 S1528 E1529 K1530 N1531 K1535 I1546 G1547 K1548 E1549 N1554 A1555 D1556 E1557 R1558 M1559 P1560 F1561 V1562 L1566 E1567 G1568 S1569 I1570 I1571 S1572 N1573 L1574 Q1575 GLU LYS GLU PRO SER SER THR ASP GLU GLU GLU THR PHE ASP SER GLU GLU GLY SER TYR
ARG ARG HIS GLN TYR LEU MET ARG GLU GLU GLU ASN ASP ASP GLU GLU LEU ASN ASP TYR ALA ILE ASP PRO THR ASP PRO ASP ALA HIS LEU ASP ASP GLU GLY PRO GLU GLU VAL ASP GLU TYR ASP ASP GLU SER GLN TYR ASP TYR ASP GLY ARG ILE SER SER GLU THR GLU
ASP ASP GLU GLU TYR ASP ASP GLU GLU PHE ALA THR GLY GLU GLU ILE ALA ILE GLY ASP GLU ASN GLY GLU ILE PRO GLU LEU ASP VAL GLU VAL LEU ASP ASN ASN LEU PRO SER SER ILE LEU GLU ASP THR GLN ASN PHE TYR GLN ASP ARG ILE SER SER SER THR GLU TYR
ARG ALA ILE SER LEU LEU PHE LEU ASN ARG LEU ARG GLU GLU VAL ARG SER VAL PHE GLU GLU HIS GLU ALA ARG TYR MET GLU THR PHE ALA GLY GLU ILE VAL PRO ARG ARG GLU GLU LYS LYS LYS LYS PRO GLN GLU MET PRO PHE I1765 R1768 E1769 A1770 V1774 D1777 I1778
I1783 V1786 L1787 Q1788 R1792 R1793 N1794 L1795 Y1796 I1799 H1800 N1801 I1802 S1803 A1804 N1805 V1808 R1809 I1810 F1811 E1814 V1817 I1820 Y1821 V1825 E1826 G1827 ALA SER SER SER ALA GLY ALA GLY SER SER THR VAL ASN ALA SER ALA GLY SER GLY ASN ASN GLU V1851


I1852 A1853 V1856 I1857 T1858 K1859 R1860 G1861 F1862 T1866 Y1867 L1868 C1869 T1870 F1875 V1878 F1879 S1880 Y1881 N1882 T1883 E1884 L1885 I1886 N1887 K1888 T1897 I1898 S1899 E1900 S1901 V1902 K1903 L1904 L1905 S1906 T1907 V1908 G1909 D1910 C1911 F1912 N1913 V1917 A1918 E1919 P1920 E1924 V1925 R1926 I1929
L1932 E1933 M1936 T1937 D1938 D1939 T1940 F1941 K1942 H1943 K1950 T1951 D1952 R1953 F1954 Y1955 R1956 M1964 G1965 G1966 S1967 K1968 K1969 S1970 L1971 D1976 K1977 K1978 F1981 N1982 S1983 H1987 I1990 R1995 M2003 D2011 M2014 E2015 L2016 F2026 N2027 I2028 I2029 L2030 P2031 K2032 E2033
S2036 A2039 S2040 S2041 I2042 L2043 P2044 L2045 F2046 K2047 V2050 I2051 T2054 I2055 Q2056 M2057 Y2058 I2059 G2060 R2061 N2062 E2063 N2064 I2065 N2066 E2067 F2068 S2069 E2070 I2071 P2072 D2075 S2076 I2090 T2094 Q2095 F2105 A2106 G2107 L2108 Q2109 K2110 K2111 F2115 D2116 N2117 K2118 R2119 I2120 Y2121 F2122 Y2123
K2124 K2125 I2126 R2127 E2128 D2129 V2130 Q2131 L2132 R2133 P2134 T2135 I2136 S2137 L2138 M2139 V2140 Q2141 R2142 G2143 A2144 E2147 D2148 T2149 F2150 H2151 Q2152 L2153 M2154 R2155 L2156 N2157 G2158 E2159 Q2160 V2161 R2162 N2163 A2164 K2165 F2166 N2167 I2168 K2169 F2170 A2171 G2172 E2173 E2174 G2175 V2176 D2177 A2178 G2179 G2180 L2181 T2182 R2183 E2184
W2185 Y2186 S2187 E2188 L2189 S2190 K2191 E2192 M2193 F2194 N2195 A2196 N2197 Y2198 A2199 L2200 F2201 T2202 P2203 I2204 G2205 S2206 S2207 Y2208 Q2209 P2210 N2211 H2212 I2213 S2214 H2215 I2216 N2217 P2218 E2219 H2220 L2221 V2222 Y2223 F2224 K2225 F2226 I2227 G2228 R2229 I2230 I2231 G2232 K2233 A2234 V2235 Y2236 D2237 E2238 M2239 T2240 V2241 D2242 F2245
T2246 R2247 A2248 F2249 Y2250 K2251 R2252 V2253 L2254 S2255 I2256 P2257 V2258 D2259 L2260 T2261 D2262 V2263 E2264 A2265 L2266 D2267 P2268 E2269 P2270 H2271 R2272 S2273 L2274 V2275 W2276 I2277 L2278 E2279 N2280 D2281 I2282 E2283 N2284 V2285 L2286 D2287 M2288 T2289 P2290 S2291 I2292 E2293 Q2294 D2295 R2296 F2297 G2298 I2299 T2300 E2301 I2302 I2303 D2304 L2305
K2306 E2307 N2308 G2309 R2310 N2311 I2312 A2313 V2314 T2315 N2316 E2317 N2318 K2319 R2320 E2321 Y2322 V2323 E2324 L2325 V2326 C2327 R2328 F2329 K2330 L2331 V2332 R2333 V2334 I2335 E2336 R2337 Q2338 L2339 S2340 A2341 F2342 A2343 E2344 G2345 F2346 F2347 E2348 I2349 L2350 D2351 V2352 D2353 M2354 L2355 K2356 N2359 E2360 K2361 E2362 L2363 E2364 L2365 L2366
I2367 S2368 G2369 L2370 P2371 E2372 I2373 D2374 V2375 D2376 D2377 W2378 R2379 N2380 N2381 T2382 I2383 Y2384 F2385 G2386 Y2387 T2388 S2389 D2390 S2391 Q2392 V2393 I2394 R2395 W2396 Y2397 W2398 R2399 A2400 V2401 R2402 N2403 F2404 S2405 M2406 E2407 E2408 R2409 A2410 K2411 L2412 L2413 Q2414 F2415 A2416 T2417 G2418 T2419 S2420 K2421 L2422 P2423 L2424 E2425 G2426
F2427 A2428 G2429 L2430 R2431 C2432 Q2433 N2434 G2435 N2436 Q2437 K2438 F2439 Q2440 I2441 H2442 K2443 A2444 S2445 G2446 G2447 S2448 S2449 R2450 L2451 P2452 T2453 A2454 H2455 T2456 C2457 F2458 N2459 Q2460 L2461 D2462 L2463 P2464 E2465 Y2466 D2467 S2468 Y2469 E2470 Q2471 L2472 V2473 K2474 A2475 L2476 L2477 F2478 S2479 L2480 E2481 E2482 CYS THR SER GLY
PHE GLY PHE ALA

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	56284	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 ($e^-/Å^2$)	60	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.038	Depositor
Minimum map value	-0.014	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.001	Depositor
Recommended contour level	0.00778	Depositor
Map size (Å)	344.0, 344.0, 344.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.86, 0.86, 0.86	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
1	A	0.13	0/17756	0.36	0/23956

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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	17417	0	17697	559	0
All	All	17417	0	17697	559	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 16.

The worst 5 of 559 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:556:ILE:HA	1:A:561:ILE:HD13	1.62	0.79
1:A:591:MET:HE1	1:A:613:LEU:HD11	1.65	0.79
1:A:2286:LEU:HD23	1:A:2288:MET:H	1.45	0.79
1:A:369:MET:HG2	1:A:373:MET:HE1	1.66	0.77
1:A:241:VAL:HG22	1:A:248:LEU:HD21	1.67	0.76

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	2126/2490 (85%)	2035 (96%)	90 (4%)	1 (0%)	100 100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	2297	PHE

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	1951/2267 (86%)	1951 (100%)	0	100 100

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 23 such sidechains are listed below:

Mol	Chain	Res	Type
1	A	1247	ASN
1	A	2131	GLN
1	A	1887	ASN
1	A	2359	ASN
1	A	589	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Map visualisation

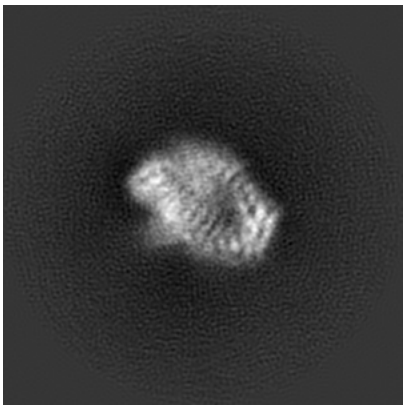
This section contains visualisations of the EMDB entry EMD-12318. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

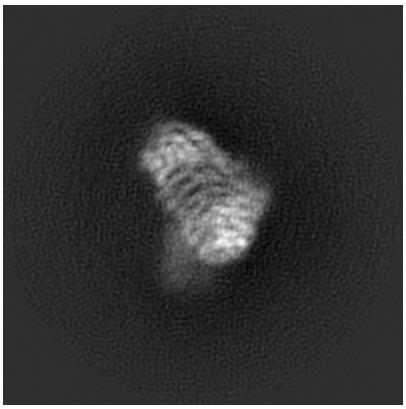
6.1 Orthogonal projections

6.1.1 Primary map

X

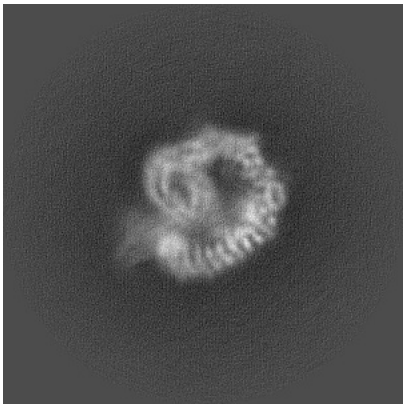


Y

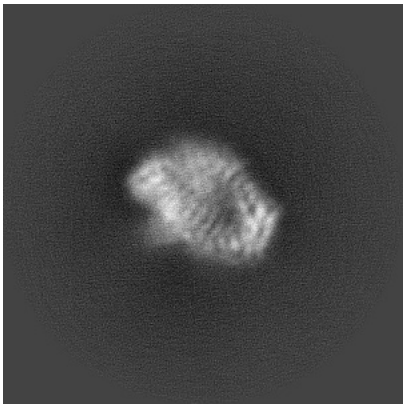


Z

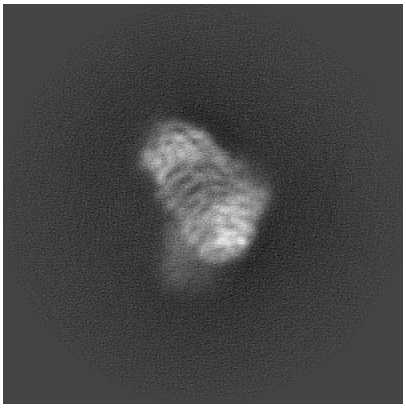
6.1.2 Raw map



X



Y



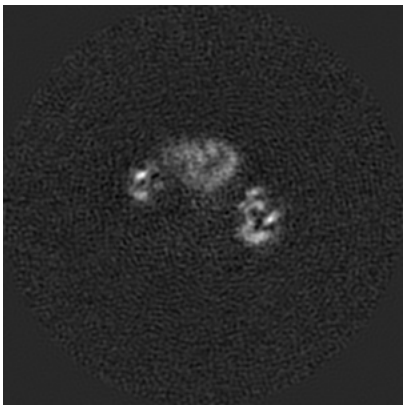
Z

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

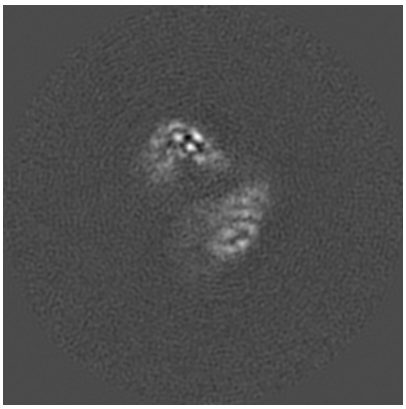
6.2 Central slices (i)

6.2.1 Primary map

X Index: 200

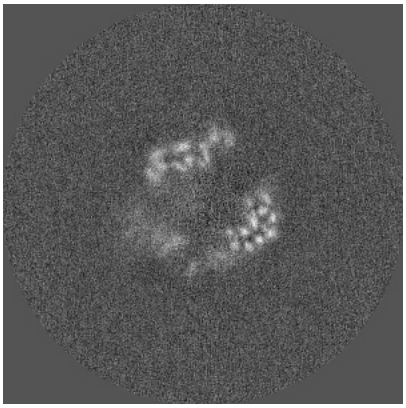


Y Index: 200

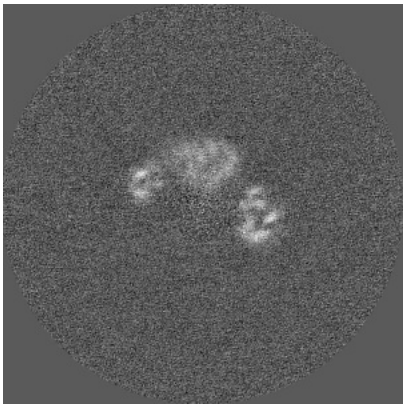


Z Index: 200

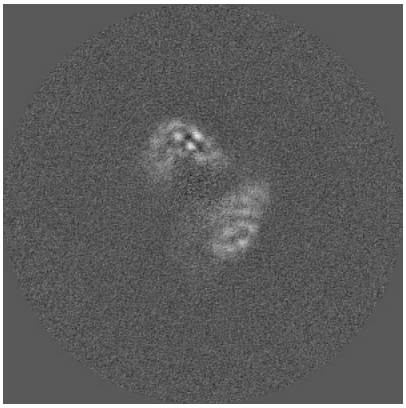
6.2.2 Raw map



X Index: 200



Y Index: 200



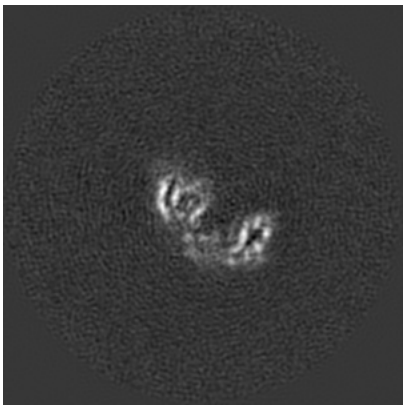
Z Index: 200

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

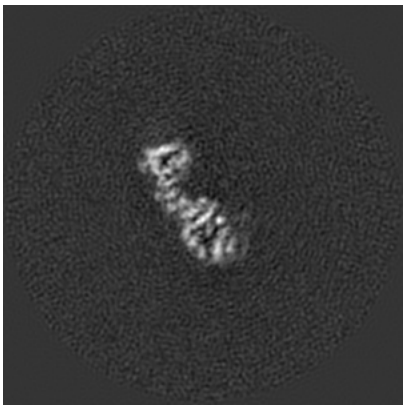
6.3 Largest variance slices (i)

6.3.1 Primary map

X Index: 216

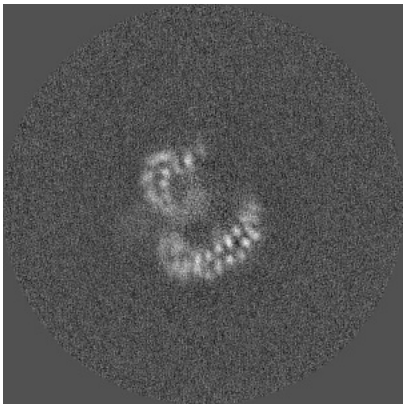


Y Index: 244

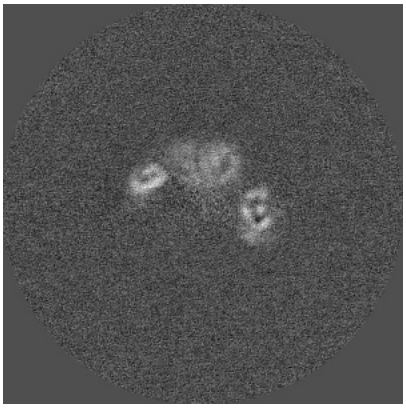


Z Index: 244

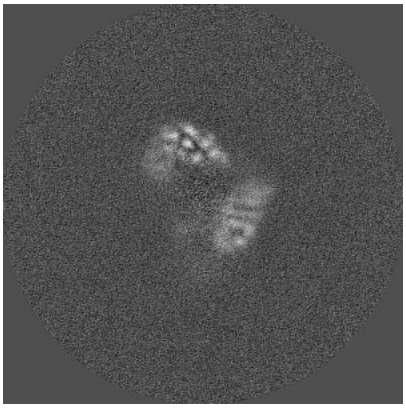
6.3.2 Raw map



X Index: 216



Y Index: 194

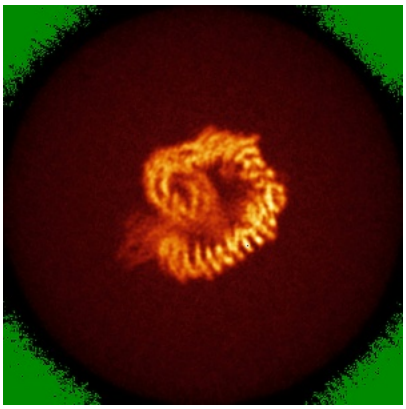


Z Index: 195

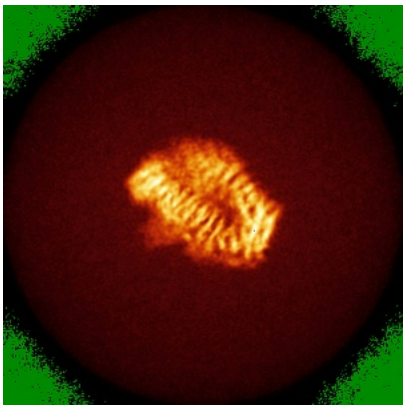
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

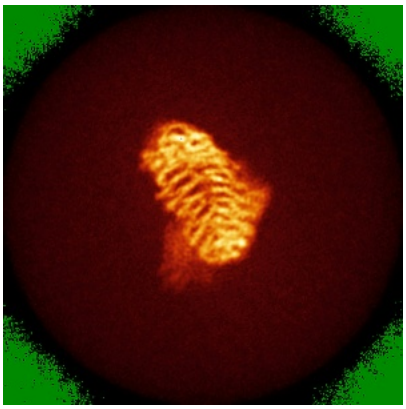
6.4.1 Primary map



X

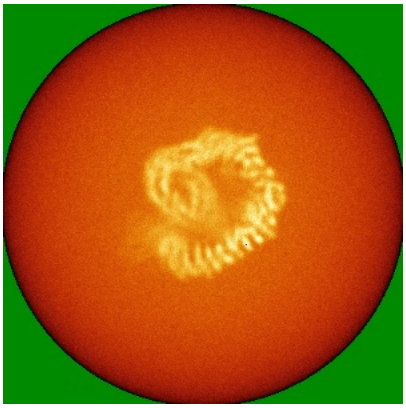


Y

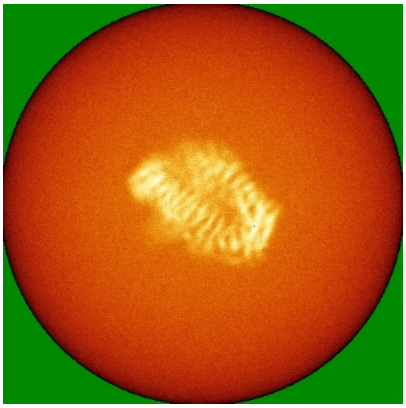


Z

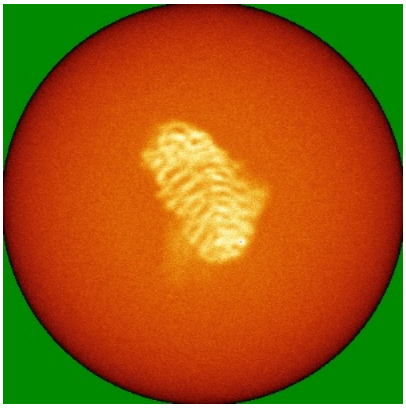
6.4.2 Raw map



X



Y

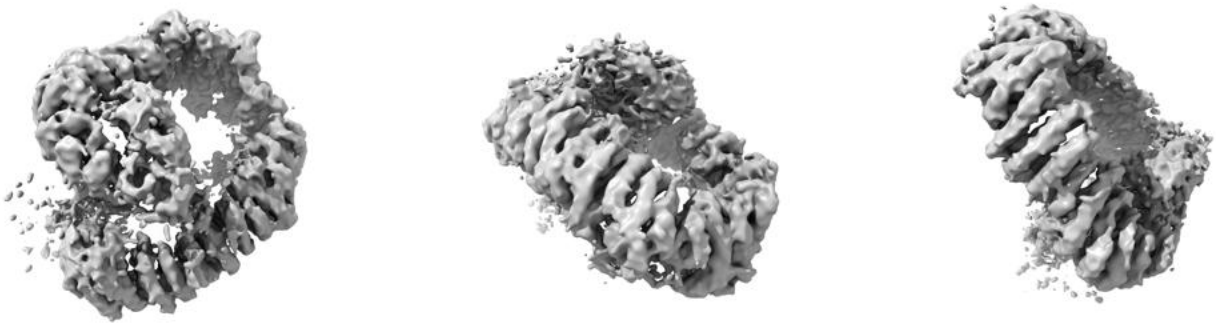


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.00778. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

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

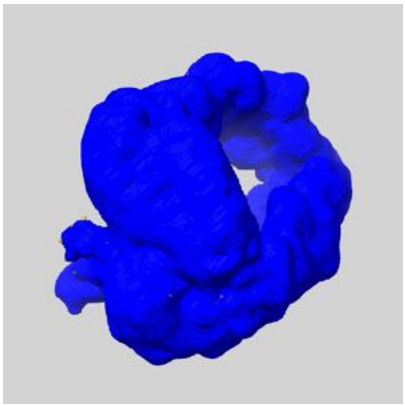
6.6 Mask visualisation

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

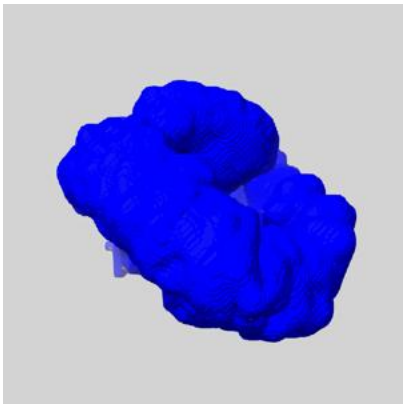
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

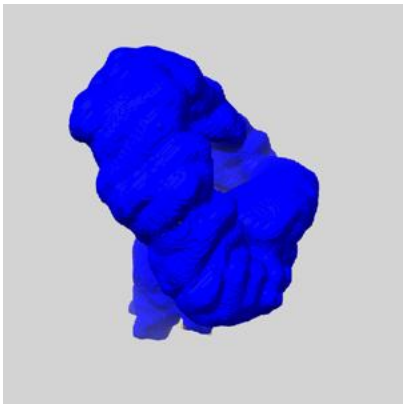
6.6.1 emd_12318_msk_1.map



X



Y

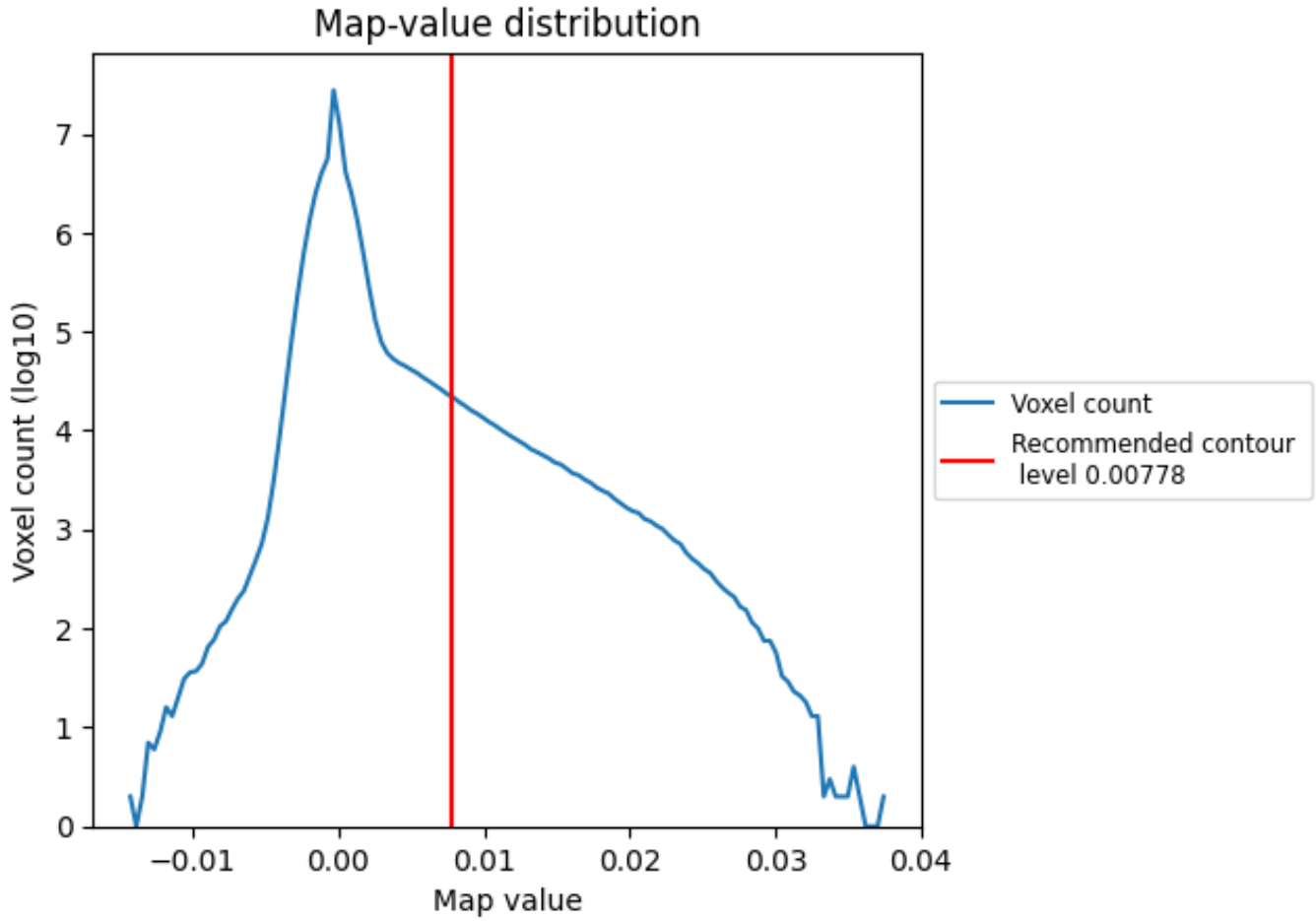


Z

7 Map analysis

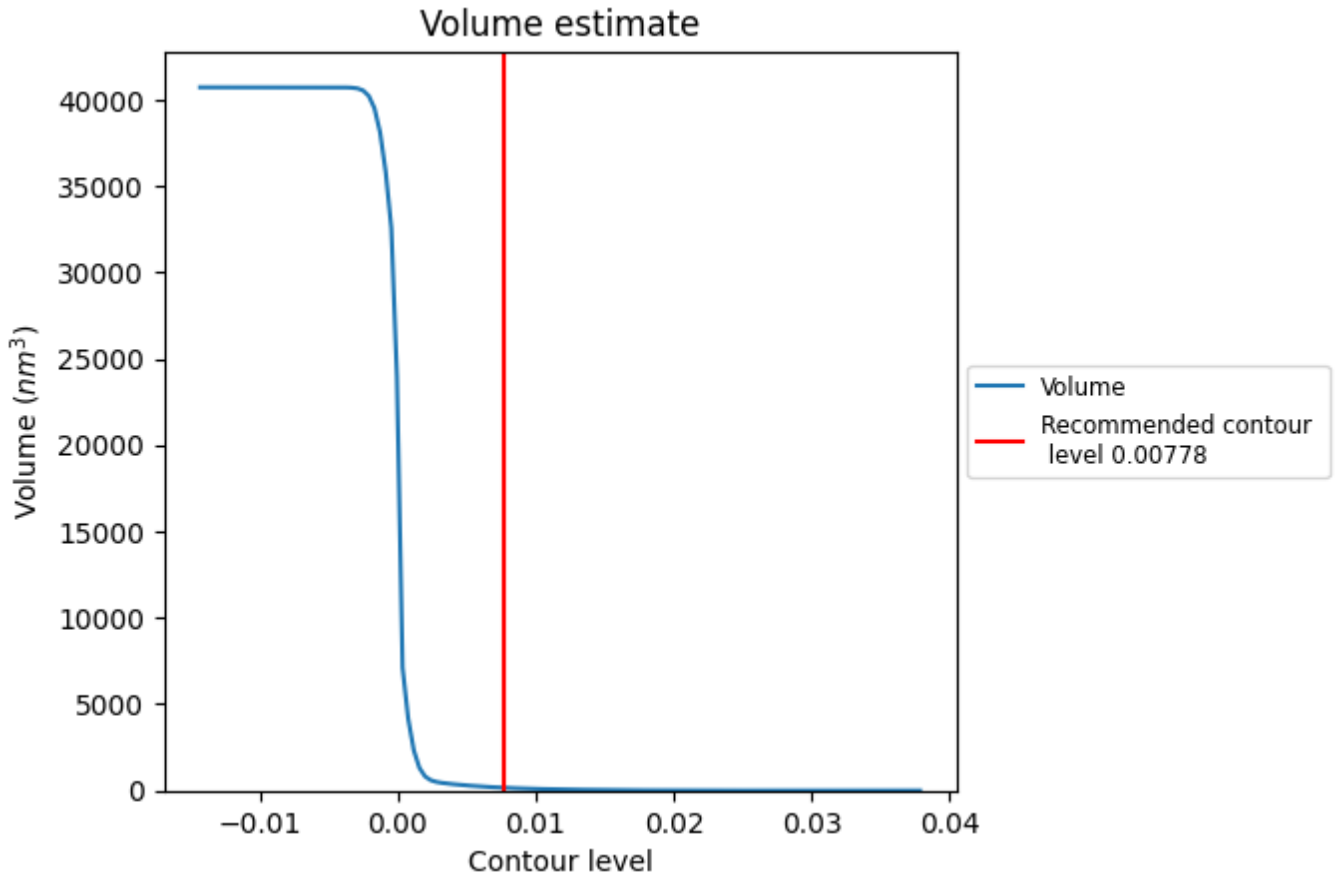
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

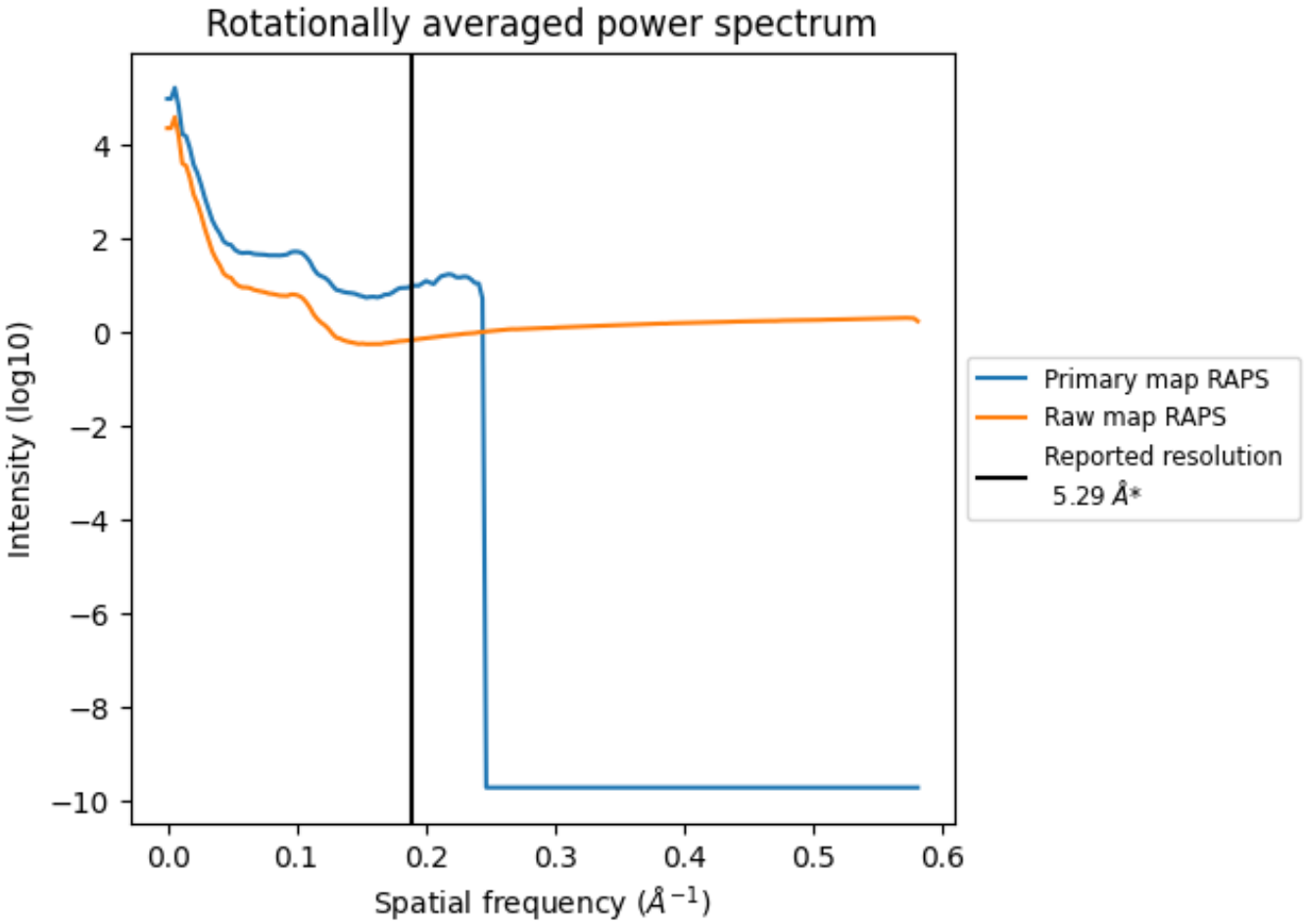
7.2 Volume estimate (i)



The volume at the recommended contour level is 161 nm^3; this corresponds to an approximate mass of 145 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)

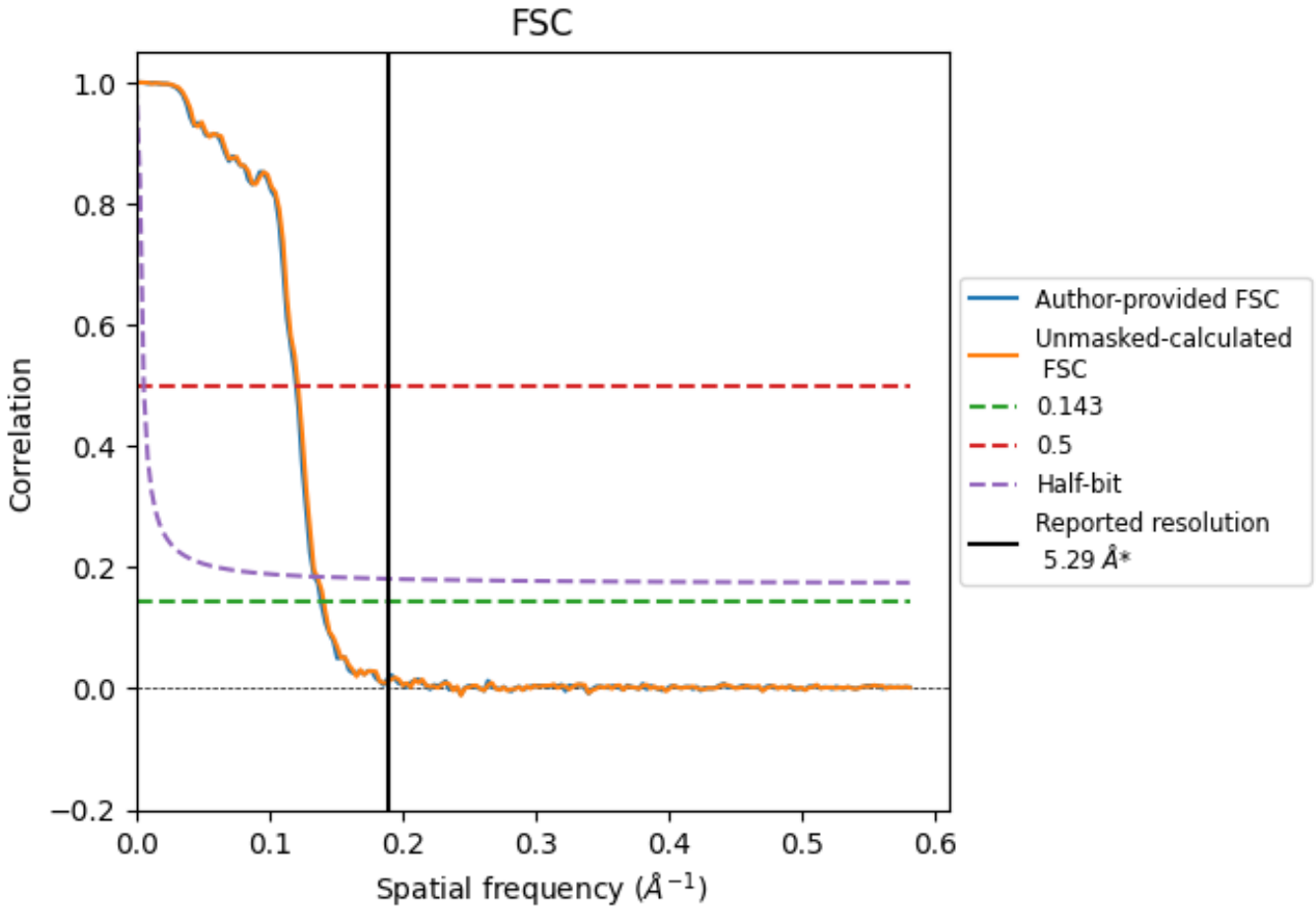


*Reported resolution corresponds to spatial frequency of 0.189 Å^{-1}

8 Fourier-Shell correlation

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

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.189 Å^{-1}

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	5.29	-	-
Author-provided FSC curve	7.19	8.32	7.46
Unmasked-calculated*	7.09	8.22	7.35

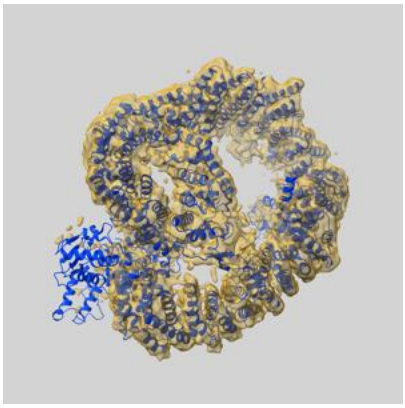
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from author-provided FSC intersecting FSC 0.143 CUT-OFF 7.19 differs from the reported value 5.29 by more than 10 %

The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 7.09 differs from the reported value 5.29 by more than 10 %

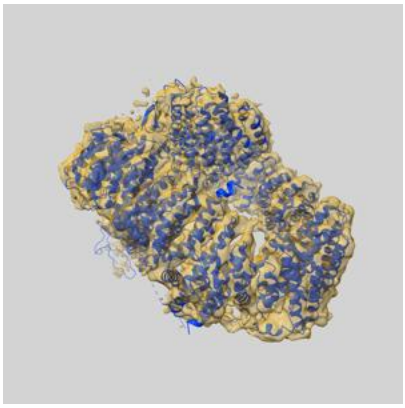
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-12318 and PDB model 7NH1. Per-residue inclusion information can be found in section 3 on page 4.

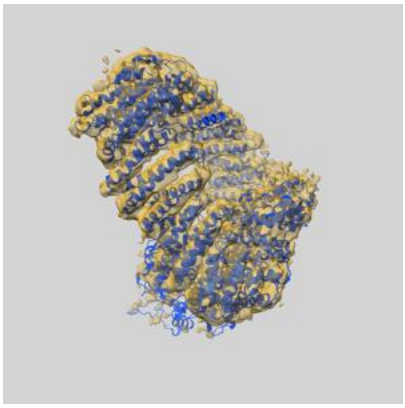
9.1 Map-model overlay



X



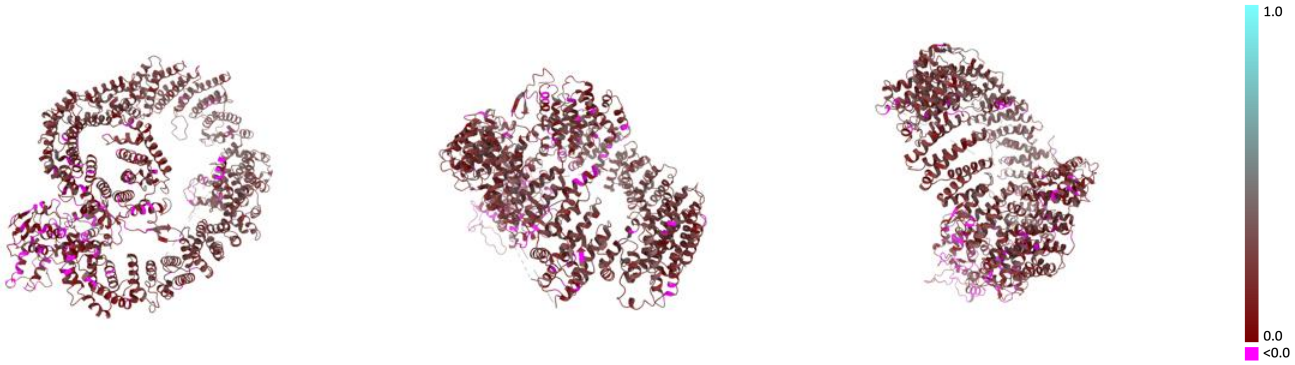
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.00778 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.

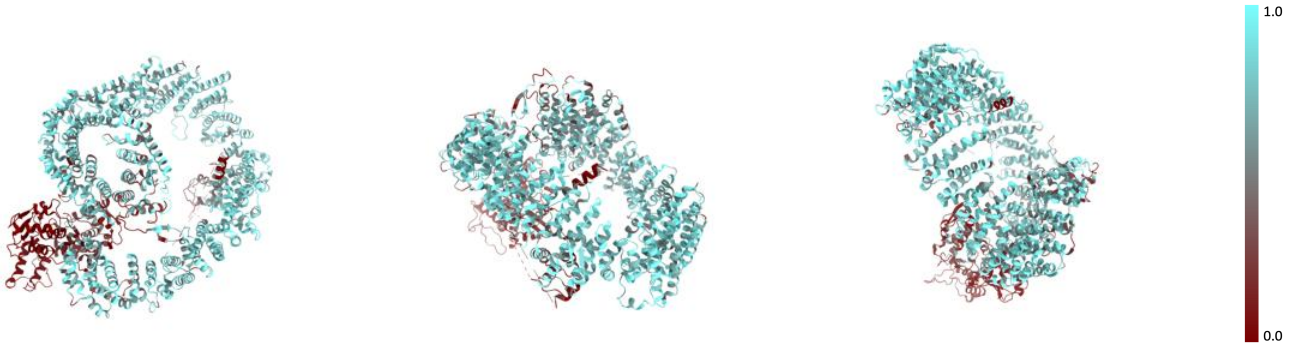
9.2 Q-score mapped to coordinate model



X Y Z

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

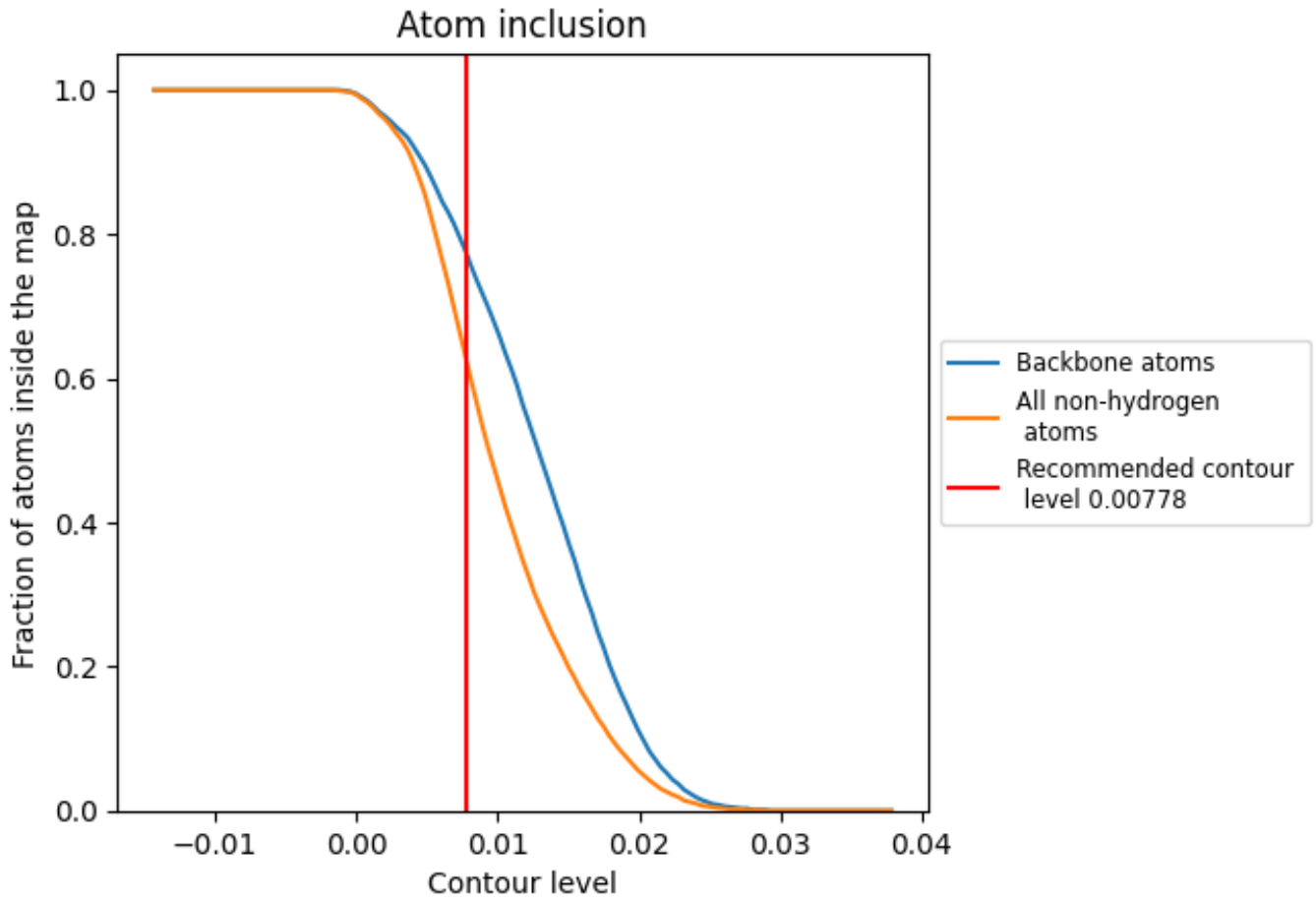
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.00778).

9.4 Atom inclusion (i)



At the recommended contour level, 77% of all backbone atoms, 63% 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 (0.00778) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6260	0.2000
A	0.6260	0.2000