



# Full wwPDB EM Validation Report ⓘ

Oct 28, 2024 – 12:45 AM EDT

PDB ID : 8TXB  
EMDB ID : EMD-41679  
Title : Characterization of the Chlamydomonas Flagellar Mastigoneme Filament Structure at 3.9Å  
Authors : Yue, W.; Kai, Z.  
Deposited on : 2023-08-23  
Resolution : 3.90 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](mailto: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  
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

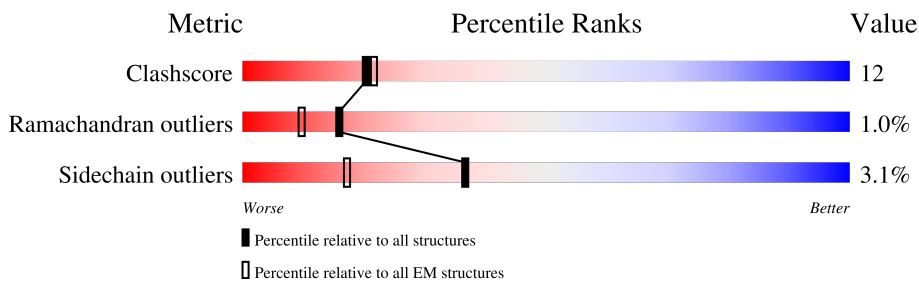
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.90 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  $\geq 3$ , 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	1987	
1	B	1987	
1	C	1987	
1	D	1987	

## 2 Entry composition i

There is only 1 type of molecule in this entry. The entry contains 54748 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 Mastigoneme-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	1894	13687	8643	2234	2727	83	0	0
1	B	1894	13687	8643	2234	2727	83	0	0
1	C	1894	13687	8643	2234	2727	83	0	0
1	D	1894	13687	8643	2234	2727	83	0	0

There are 192 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	141	LEU	VAL	conflict	UNP Q8LRM7
A	142	LEU	THR	conflict	UNP Q8LRM7
A	143	ALA	GLY	conflict	UNP Q8LRM7
A	144	SER	LEU	conflict	UNP Q8LRM7
A	145	LYS	GLU	conflict	UNP Q8LRM7
A	146	THR	ASP	conflict	UNP Q8LRM7
A	147	VAL	GLY	conflict	UNP Q8LRM7
A	149	ILE	HIS	conflict	UNP Q8LRM7
A	150	TYR	LEU	conflict	UNP Q8LRM7
A	151	VAL	CYS	conflict	UNP Q8LRM7
A	517	ARG	LYS	conflict	UNP Q8LRM7
A	530	GLU	GLY	conflict	UNP Q8LRM7
A	619	THR	ALA	conflict	UNP Q8LRM7
A	800	SER	THR	conflict	UNP Q8LRM7
A	820	SER	PHE	conflict	UNP Q8LRM7
A	?	-	GLY	deletion	UNP Q8LRM7
A	?	-	THR	deletion	UNP Q8LRM7
A	?	-	PRO	deletion	UNP Q8LRM7
A	?	-	GLY	deletion	UNP Q8LRM7
A	?	-	PRO	deletion	UNP Q8LRM7
A	?	-	TYR	deletion	UNP Q8LRM7
A	?	-	PHE	deletion	UNP Q8LRM7

*Continued on next page...*

*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
A	?	-	LEU	deletion	UNP Q8LRM7
A	1399	LYS	ARG	conflict	UNP Q8LRM7
A	?	-	PRO	deletion	UNP Q8LRM7
A	?	-	GLU	deletion	UNP Q8LRM7
A	1868	PRO	ALA	conflict	UNP Q8LRM7
A	1897	PRO	GLN	conflict	UNP Q8LRM7
A	1914	PRO	ARG	conflict	UNP Q8LRM7
A	1915	PRO	ARG	conflict	UNP Q8LRM7
A	1917	PRO	HIS	conflict	UNP Q8LRM7
A	1919	SER	ALA	conflict	UNP Q8LRM7
A	1920	PRO	ARG	conflict	UNP Q8LRM7
A	1921	PRO	ARG	conflict	UNP Q8LRM7
A	1924	ASN	THR	conflict	UNP Q8LRM7
A	1925	ARG	ALA	conflict	UNP Q8LRM7
A	1926	SER	LEU	conflict	UNP Q8LRM7
A	1935	SER	PRO	conflict	UNP Q8LRM7
A	1978	ASP	-	expression tag	UNP Q8LRM7
A	1979	ALA	-	expression tag	UNP Q8LRM7
A	1980	GLU	-	expression tag	UNP Q8LRM7
A	1981	MET	-	expression tag	UNP Q8LRM7
A	1982	GLN	-	expression tag	UNP Q8LRM7
A	1983	PRO	-	expression tag	UNP Q8LRM7
A	1984	GLN	-	expression tag	UNP Q8LRM7
A	1985	ASP	-	expression tag	UNP Q8LRM7
A	1986	ASP	-	expression tag	UNP Q8LRM7
A	1987	GLU	-	expression tag	UNP Q8LRM7
B	141	LEU	VAL	conflict	UNP Q8LRM7
B	142	LEU	THR	conflict	UNP Q8LRM7
B	143	ALA	GLY	conflict	UNP Q8LRM7
B	144	SER	LEU	conflict	UNP Q8LRM7
B	145	LYS	GLU	conflict	UNP Q8LRM7
B	146	THR	ASP	conflict	UNP Q8LRM7
B	147	VAL	GLY	conflict	UNP Q8LRM7
B	149	ILE	HIS	conflict	UNP Q8LRM7
B	150	TYR	LEU	conflict	UNP Q8LRM7
B	151	VAL	CYS	conflict	UNP Q8LRM7
B	517	ARG	LYS	conflict	UNP Q8LRM7
B	530	GLU	GLY	conflict	UNP Q8LRM7
B	619	THR	ALA	conflict	UNP Q8LRM7
B	800	SER	THR	conflict	UNP Q8LRM7
B	820	SER	PHE	conflict	UNP Q8LRM7
B	?	-	GLY	deletion	UNP Q8LRM7

*Continued on next page...*

*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
B	?	-	THR	deletion	UNP Q8LRM7
B	?	-	PRO	deletion	UNP Q8LRM7
B	?	-	GLY	deletion	UNP Q8LRM7
B	?	-	PRO	deletion	UNP Q8LRM7
B	?	-	TYR	deletion	UNP Q8LRM7
B	?	-	PHE	deletion	UNP Q8LRM7
B	?	-	LEU	deletion	UNP Q8LRM7
B	1399	LYS	ARG	conflict	UNP Q8LRM7
B	?	-	PRO	deletion	UNP Q8LRM7
B	?	-	GLU	deletion	UNP Q8LRM7
B	1868	PRO	ALA	conflict	UNP Q8LRM7
B	1897	PRO	GLN	conflict	UNP Q8LRM7
B	1914	PRO	ARG	conflict	UNP Q8LRM7
B	1915	PRO	ARG	conflict	UNP Q8LRM7
B	1917	PRO	HIS	conflict	UNP Q8LRM7
B	1919	SER	ALA	conflict	UNP Q8LRM7
B	1920	PRO	ARG	conflict	UNP Q8LRM7
B	1921	PRO	ARG	conflict	UNP Q8LRM7
B	1924	ASN	THR	conflict	UNP Q8LRM7
B	1925	ARG	ALA	conflict	UNP Q8LRM7
B	1926	SER	LEU	conflict	UNP Q8LRM7
B	1935	SER	PRO	conflict	UNP Q8LRM7
B	1978	ASP	-	expression tag	UNP Q8LRM7
B	1979	ALA	-	expression tag	UNP Q8LRM7
B	1980	GLU	-	expression tag	UNP Q8LRM7
B	1981	MET	-	expression tag	UNP Q8LRM7
B	1982	GLN	-	expression tag	UNP Q8LRM7
B	1983	PRO	-	expression tag	UNP Q8LRM7
B	1984	GLN	-	expression tag	UNP Q8LRM7
B	1985	ASP	-	expression tag	UNP Q8LRM7
B	1986	ASP	-	expression tag	UNP Q8LRM7
B	1987	GLU	-	expression tag	UNP Q8LRM7
C	141	LEU	VAL	conflict	UNP Q8LRM7
C	142	LEU	THR	conflict	UNP Q8LRM7
C	143	ALA	GLY	conflict	UNP Q8LRM7
C	144	SER	LEU	conflict	UNP Q8LRM7
C	145	LYS	GLU	conflict	UNP Q8LRM7
C	146	THR	ASP	conflict	UNP Q8LRM7
C	147	VAL	GLY	conflict	UNP Q8LRM7
C	149	ILE	HIS	conflict	UNP Q8LRM7
C	150	TYR	LEU	conflict	UNP Q8LRM7
C	151	VAL	CYS	conflict	UNP Q8LRM7

*Continued on next page...*

*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
C	517	ARG	LYS	conflict	UNP Q8LRM7
C	530	GLU	GLY	conflict	UNP Q8LRM7
C	619	THR	ALA	conflict	UNP Q8LRM7
C	800	SER	THR	conflict	UNP Q8LRM7
C	820	SER	PHE	conflict	UNP Q8LRM7
C	?	-	GLY	deletion	UNP Q8LRM7
C	?	-	THR	deletion	UNP Q8LRM7
C	?	-	PRO	deletion	UNP Q8LRM7
C	?	-	GLY	deletion	UNP Q8LRM7
C	?	-	PRO	deletion	UNP Q8LRM7
C	?	-	TYR	deletion	UNP Q8LRM7
C	?	-	PHE	deletion	UNP Q8LRM7
C	?	-	LEU	deletion	UNP Q8LRM7
C	1399	LYS	ARG	conflict	UNP Q8LRM7
C	?	-	PRO	deletion	UNP Q8LRM7
C	?	-	GLU	deletion	UNP Q8LRM7
C	1868	PRO	ALA	conflict	UNP Q8LRM7
C	1897	PRO	GLN	conflict	UNP Q8LRM7
C	1914	PRO	ARG	conflict	UNP Q8LRM7
C	1915	PRO	ARG	conflict	UNP Q8LRM7
C	1917	PRO	HIS	conflict	UNP Q8LRM7
C	1919	SER	ALA	conflict	UNP Q8LRM7
C	1920	PRO	ARG	conflict	UNP Q8LRM7
C	1921	PRO	ARG	conflict	UNP Q8LRM7
C	1924	ASN	THR	conflict	UNP Q8LRM7
C	1925	ARG	ALA	conflict	UNP Q8LRM7
C	1926	SER	LEU	conflict	UNP Q8LRM7
C	1935	SER	PRO	conflict	UNP Q8LRM7
C	1978	ASP	-	expression tag	UNP Q8LRM7
C	1979	ALA	-	expression tag	UNP Q8LRM7
C	1980	GLU	-	expression tag	UNP Q8LRM7
C	1981	MET	-	expression tag	UNP Q8LRM7
C	1982	GLN	-	expression tag	UNP Q8LRM7
C	1983	PRO	-	expression tag	UNP Q8LRM7
C	1984	GLN	-	expression tag	UNP Q8LRM7
C	1985	ASP	-	expression tag	UNP Q8LRM7
C	1986	ASP	-	expression tag	UNP Q8LRM7
C	1987	GLU	-	expression tag	UNP Q8LRM7
D	141	LEU	VAL	conflict	UNP Q8LRM7
D	142	LEU	THR	conflict	UNP Q8LRM7
D	143	ALA	GLY	conflict	UNP Q8LRM7
D	144	SER	LEU	conflict	UNP Q8LRM7

*Continued on next page...*

*Continued from previous page...*

Chain	Residue	Modelled	Actual	Comment	Reference
D	145	LYS	GLU	conflict	UNP Q8LRM7
D	146	THR	ASP	conflict	UNP Q8LRM7
D	147	VAL	GLY	conflict	UNP Q8LRM7
D	149	ILE	HIS	conflict	UNP Q8LRM7
D	150	TYR	LEU	conflict	UNP Q8LRM7
D	151	VAL	CYS	conflict	UNP Q8LRM7
D	517	ARG	LYS	conflict	UNP Q8LRM7
D	530	GLU	GLY	conflict	UNP Q8LRM7
D	619	THR	ALA	conflict	UNP Q8LRM7
D	800	SER	THR	conflict	UNP Q8LRM7
D	820	SER	PHE	conflict	UNP Q8LRM7
D	?	-	GLY	deletion	UNP Q8LRM7
D	?	-	THR	deletion	UNP Q8LRM7
D	?	-	PRO	deletion	UNP Q8LRM7
D	?	-	GLY	deletion	UNP Q8LRM7
D	?	-	PRO	deletion	UNP Q8LRM7
D	?	-	TYR	deletion	UNP Q8LRM7
D	?	-	PHE	deletion	UNP Q8LRM7
D	?	-	LEU	deletion	UNP Q8LRM7
D	1399	LYS	ARG	conflict	UNP Q8LRM7
D	?	-	PRO	deletion	UNP Q8LRM7
D	?	-	GLU	deletion	UNP Q8LRM7
D	1868	PRO	ALA	conflict	UNP Q8LRM7
D	1897	PRO	GLN	conflict	UNP Q8LRM7
D	1914	PRO	ARG	conflict	UNP Q8LRM7
D	1915	PRO	ARG	conflict	UNP Q8LRM7
D	1917	PRO	HIS	conflict	UNP Q8LRM7
D	1919	SER	ALA	conflict	UNP Q8LRM7
D	1920	PRO	ARG	conflict	UNP Q8LRM7
D	1921	PRO	ARG	conflict	UNP Q8LRM7
D	1924	ASN	THR	conflict	UNP Q8LRM7
D	1925	ARG	ALA	conflict	UNP Q8LRM7
D	1926	SER	LEU	conflict	UNP Q8LRM7
D	1935	SER	PRO	conflict	UNP Q8LRM7
D	1978	ASP	-	expression tag	UNP Q8LRM7
D	1979	ALA	-	expression tag	UNP Q8LRM7
D	1980	GLU	-	expression tag	UNP Q8LRM7
D	1981	MET	-	expression tag	UNP Q8LRM7
D	1982	GLN	-	expression tag	UNP Q8LRM7
D	1983	PRO	-	expression tag	UNP Q8LRM7
D	1984	GLN	-	expression tag	UNP Q8LRM7
D	1985	ASP	-	expression tag	UNP Q8LRM7

*Continued on next page...*

*Continued from previous page...*

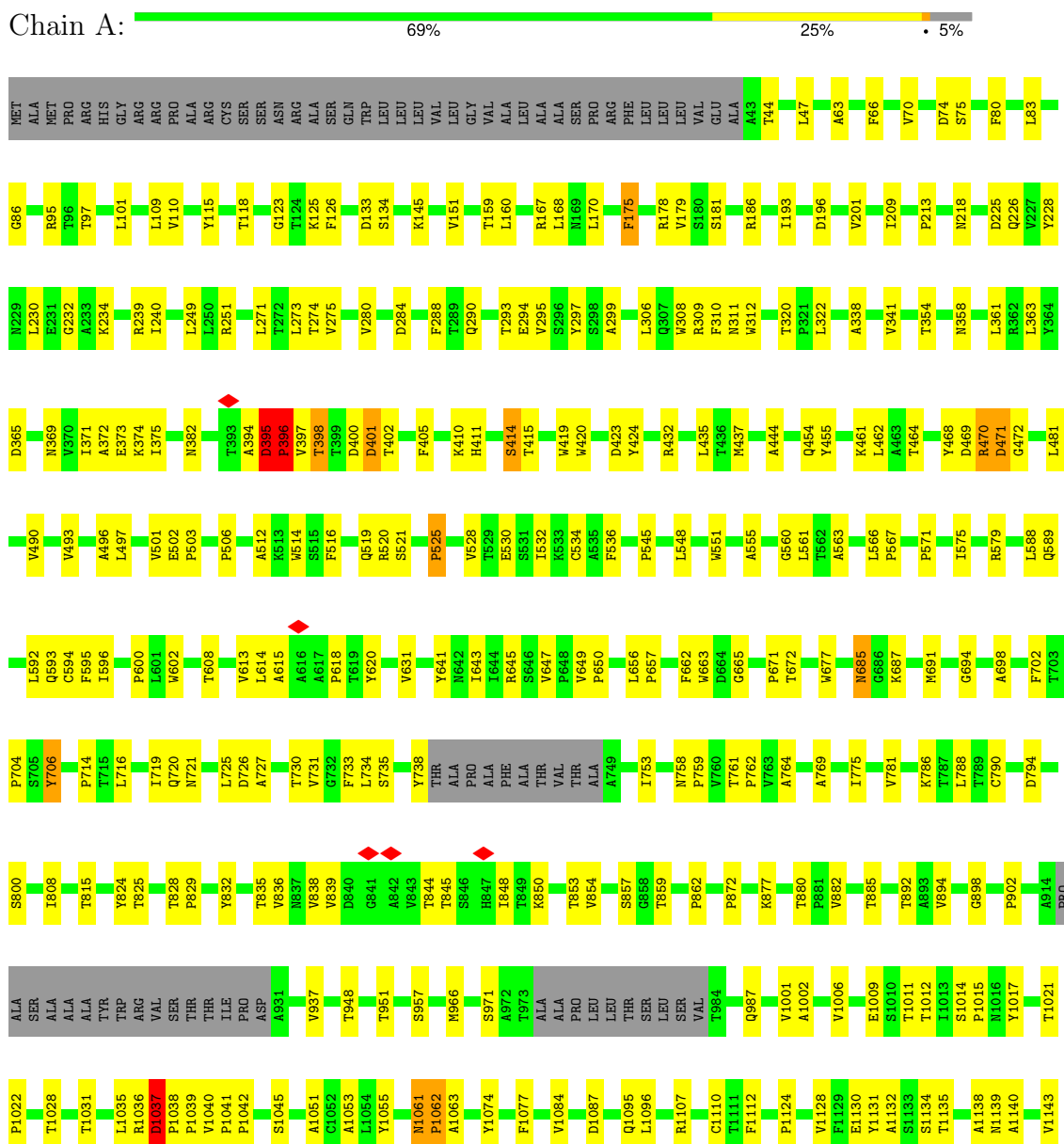
Chain	Residue	Modelled	Actual	Comment	Reference
D	1986	ASP	-	expression tag	UNP Q8LRM7
D	1987	GLU	-	expression tag	UNP Q8LRM7



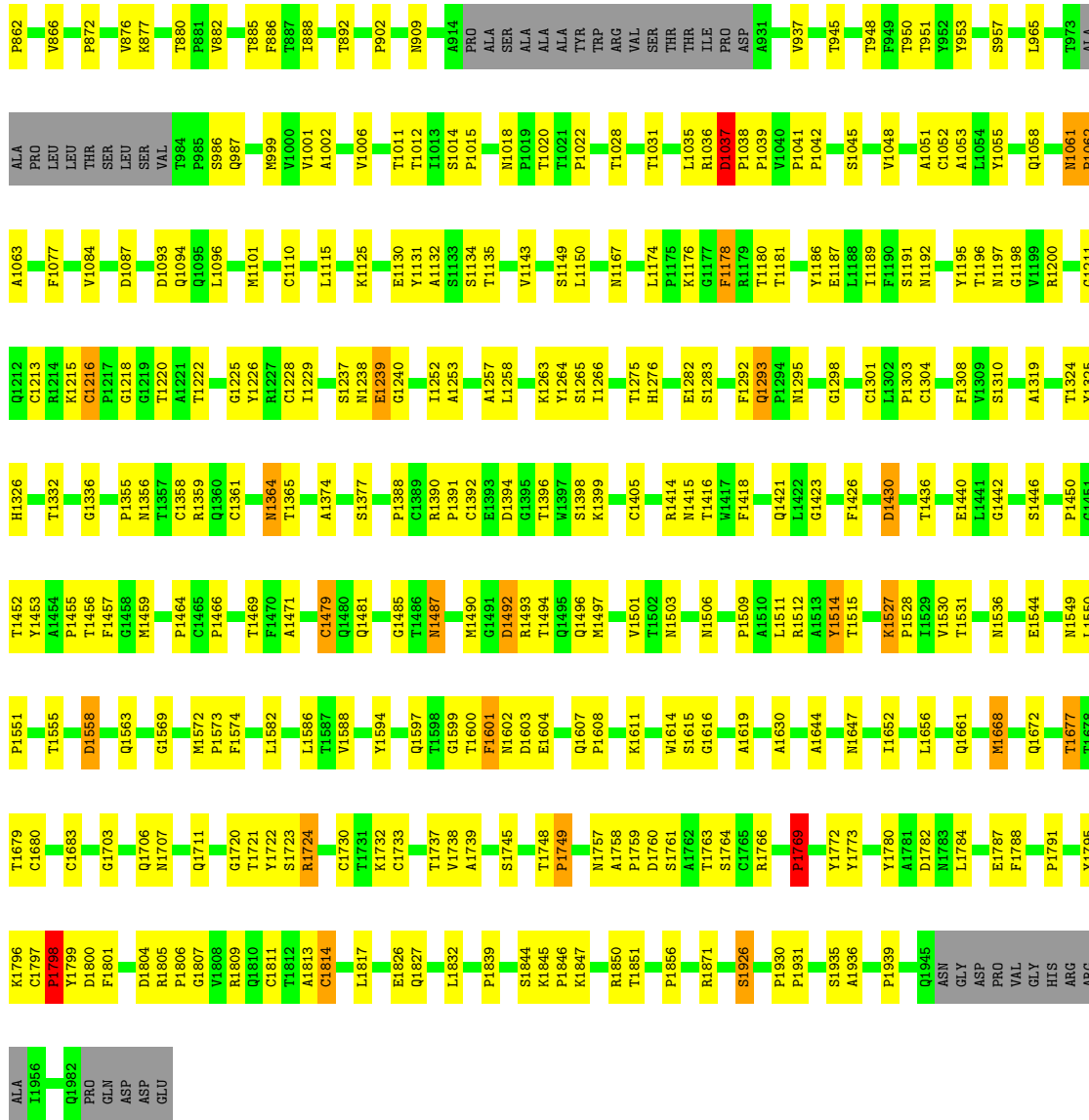
### 3 Residue-property plots

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.

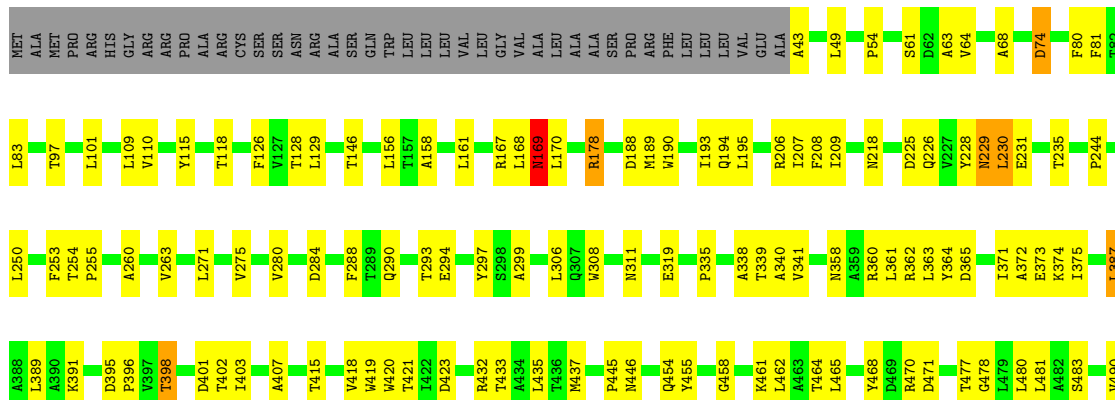
- Molecule 1: Mastigoneme-like protein







• Molecule 1: Mastigoneme-like protein



T491	A615	ALA	D840	A936	P1042	I1189	E1322	G1442	T1555	R1704	R1809
P492	L622	PRO	G841	Y937	S1045	FL190	T1327	S1446	D1558	Y1705	Q1810
A496	P628	ALA	A842	T944	A1051	M1192	D1328	G1559	G1559	Q1706	C1811
L497	P632	ALA	V843	T945	C1052	Y1195	G1329	P1450	P1561	C1714	C1814
V501	T637	THR	T845	C947	A1053	Y1199	A1338	T1452	I1562	K1715	L1819
F504	Y641	ALA	I848	T948	Q1058	R1200	L1341	A1484	Q1563	G1720	M1823
S505	Y642	ALA	K850	F949	N1061	V1203	D1345	A1485	P1565	T1721	E1826
P506	M642	ALA	M851	T951	P1062	V1207	T1346	P1455	C1566	Y1722	G1827
W514	L643	THR	F852	L965	A1063	C1213	F1347	P1462	K1567	S1723	C1828
S515	V649	ALA	L855	Y966	D1071	R1214	I1350	P1466	T1570	R1724	T1829
F516	P654	ALA	A856	Y967	F1077	R1215	Y1351	P1469	P1573	K1732	L1832
Q519	L656	ALA	S857	T973	T1081	K1216	P1352	T1469	F1574	C1733	G1833
R520	P657	ALA	P872	ALA	V1084	D1224	I1353	S1472	D1575	T1737	S1834
I532	L659	ALA	V876	PRO	A1085	G1225	C1361	C1479	L1582	V1738	S1844
K533	P665	ALA	K877	PRO	T1111	I1252	C1361	Q1496	V1588	T1742	K1845
C534	L665	ALA	W878	LEU	T1087	R1227	Q1372	Q1480	P1589	P1749	K1847
A535	L665	ALA	S879	THR	D1087	P1230	A1374	Q1481	Q1589	M1757	R1850
F536	L665	ALA	T880	SER	L1096	P1238	L1367	G1485	C1593	N1787	T1851
P545	L665	ALA	V882	LEU	R1097	M1238	P1368	M1490	C1593	T1763	R1871
A550	L665	ALA	T885	VAL	V1098	I1252	L1369	M1490	F1601	R1766	P1920
W551	L665	ALA	F886	VAL	A1088	A1253	R1370	Q1496	M1602	R1772	P1929
A555	L665	ALA	T887	VAL	T1111	K1254	Q1372	Q1496	D1603	G1774	P1930
G560	L665	ALA	I888	VAL	L1115	K1283	A1373	L1499	E1604	P1775	A1933
P571	L665	ALA	T889	VAL	V1128	I1266	I1375	F1508	F1605	D1782	P1939
I575	L665	ALA	P895	VAL	F1129	I1266	I1375	F1508	S1606	D1786	Q1945
R579	L665	ALA	I899	VAL	E1130	H1272	S1377	R1512	C1610	E1787	ASN
S587	L665	ALA	P902	VAL	N1139	F1273	M1378	A1513	C1610	F1788	GLY
L588	L665	ALA	I903	VAL	A1140	E1282	L1380	Y1514	F1618	E1789	ASP
Q589	L665	ALA	F907	VAL	V1143	K1285	A1382	M1519	F1618	G1790	PRD
L592	L665	ALA	A914	VAL	T1146	K1289	A1382	V1520	A1644	P1791	VAL
F595	L665	ALA	ALA	VAL	F1161	F1282	P1388	A1526	M1647	Y1795	GLY
I596	L665	ALA	ALA	VAL	G1164	C1301	C1389	K1527	I1652	K3796	HIS
P600	L665	ALA	ALA	VAL	G1172	L1302	C1389	P1528	L1656	C1797	ARG
D603	L665	ALA	ALA	VAL	L1174	P1305	Y1413	Y1529	L1656	F1798	ARG
Y606	L665	ALA	ALA	VAL	P1175	F1308	W1417	Y1530	A1660	Y1799	ALA
V610	L665	ALA	ALA	VAL	F1178	F1308	Q1421	M1536	T1664	D1800	I1956
F611	L665	ALA	ALA	VAL	D1184	S1310	L1422	E1544	T1664	F1801	M1960
Q612	L665	ALA	ALA	VAL	G1185	T1311	G1423	E1544	T1679	D1804	Q1982
V613	L665	ALA	ALA	VAL	Y1186	S1312	L1426	M1549	T1679	R1805	PRD
Y738	L665	ALA	ALA	VAL	E1187	A1319	F1426	L1550	T1679	P1806	GLN
L614	L665	ALA	ALA	VAL	L1188	E1440	T1436	G1552	T1679	G1807	ASP
	L665	ALA	ALA	VAL	L1188	L1441	E1440	Y1554	T1679	V1808	
	L665	ALA	ALA	VAL	L1188	L1441	E1440	Y1554	T1679	V1808	
	L665	ALA	ALA	VAL	L1188	L1441	E1440	Y1554	T1679	V1808	

• Molecule 1: Mastigoneme-like protein

Chain D:  70% 24% 5%

MET	A43	L49	T59	S61	D62	A63	A68	D74	S75	T76	F80
ALA		D50									
ARG											
HIS											
GLY											
ARG											
ARG											
PRO											
ALA											
ARG											
CYS											
SER											
SER											
ASN											
ARG											
ALA											
SER											
GLN											
TRP											
LEU											
LEU											
VAL											
LEU											
GLY											
VAL											
ALA											
LEU											
ALA											
ALA											
SER											
PRO											
ARG											
PHE											
LEU											
LEU											
VAL											
GLU											
ALA											
A43											
L49											
D50											
T59											
S61											
D62											
A63											
A68											
D74											
S75											
T76											
F80											

V1808	R1609	Q1810	C1811	T1812	A1813	C1814	P1815	L1816	L1817	D1818	L1819	N1823	L1824	V1825	E1826	T1829	L1832	G1833	S1834	Q1835	P1839	L1842	L1843	P1867	P1868	R1871	P1883	P1902	P1903	P1920	P1921	S1926	S1935	P1939	G1945	ASN	GLY	ASP	PRO	VAL	GLY	HIS	ARG	ARG	ALA			
N1707	S1708	I1709	K1715	M1719	G1720	T1721	Y1722	S1723	R1724	E1728	T1731	K1732	C1733	P1734	T1737	V1738	S1745	G1746	C1747	T1748	P1749	F1754	A1758	P1759	D1760	S1761	R1766	A1767	G1768	P1769	G1771	Y1772	Y1773	D1786	E1787	F1788	K1796	C1797	C1883	A1684	V1685	F1571	G1686	T1687	L1694	R1805	P1806	G1807
C1462	L1463	P1464	C1465	P1466	T1469	C1482	G1485	T1486	M1490	P1608	V1609	C1613	D1614	S1615	G1616	S1617	F1618	C1627	E1628	T1634	F1635	T1636	A1644	T1645	F1646	M1647	I1652	Q1421	L1422	G1423	D1430	T1436	T1439	E1440	S1443	G1444	C1445	P1450	G1451	T1452	Y1453	A1454	P1455	F1456	Q1706	T1578		
T1327	D1328	T1334	I1350	Y1351	C1358	C1361	N1364	T1365	Y1366	R1370	M1379	D1394	W1397	S1398	K1399	C1405	Q1406	A1410	P1410	R1414	M1415	F1418	Q1421	L1422	G1423	D1430	T1436	T1439	E1440	S1443	G1444	C1445	P1450	G1451	T1452	Y1453	A1454	P1455	F1456	Q1706	T1578							
V1201	A1202	G1211	Q1212	R1214	K1215	C1216	T1220	D1224	C1228	I1229	P1230	C1231	E1239	C1247	T1251	I1252	A1253	P1255	A1256	A1257	R1261	H1272	H1276	E1282	K1285	K1286	K1289	F1292	Q1293	P1294	N1295	T1299	V1300	C1304	G1451	T1452	Y1453	A1454	P1455	F1456	Q1706	T1578						
N1059	V1060	R1061	P1062	D1071	F1077	V1080	T1081	T1082	A1083	V1084	A1085	D1087	D1093	L1096	R1097	V1001	A1002	G1110	T1111	F1112	L1115	T1116	T1117	S1118	F1129	E1130	Y1131	A1138	H1139	A1140	V1143	T1148	S1149	L1150	P1165	L1174	P1175	F1178	Y1186	E1187	Y1195	V1199	R1200					
G989	E970	S971	A972	T973	ALA	ALA	PRO	LEU	LEU	THR	SER	LEU	SER	VAL	L988	M999	V1000	V1001	A1002	V1006	E1009	S1010	T1011	T1012	I1013	S1014	P1015	P1022	T1028	T1031	F1032	T1033	L1034	R1036	D1037	P1038	P1041	P1042	S1045	Q1049	Y1050	A1051	C1052	Y1055	Q1058			
P872	V876	K877	T880	P881	V882	T883	T884	T885	P886	T889	V894	P902	I903	G910	A914	PRO	ALA	SER	ALA	ALA	C790	ALA	ALA	TYR	TRP	ARG	VAL	SER	THR	THR	ILE	PRO	ASP	A931	V937	M938	T944	T945	T951	Y952	Y953	S957	F961	L965	F968			
I643	I644	R645	P650	P654	S655	P657	I658	L659	W663	D664	G665	P671	T672	T673	D674	A675	G676	W677	L680	A681	M685	T686	T689	A692	S695	C700	S701	T703	P704	S705	Y706	T713	L716	I719	Q720	F723	T730	V631	D634	Y641	N642							
ALA	PRO	ALA	PHE	THR	VAL	ALA	A749	I753	N758	F759	V760	T761	V763	A764	A769	N909	G910	I773	V774	I775	L788	M685	C790	D794	S800	T814	T828	P829	Y832	V836	V838	V839	G841	T844	T845	H847	V854	L855	A856	S857	G858	T859						
F81	T82	L83	D87	T87	L101	S102	N108	L109	V110	Y115	T118	I122	L129	L132	L141	D153	S154	T155	L161	P166	L167	M168	N169	L170	R178	S182	W190	I193	Q194	L195	F202	I207	N218	P224	D225	Q226	Y228											
E231	K234	P244	F253	T254	P255	V261	L271	V280	D284	F288	T289	Q290	E294	Y297	A299	L306	Q367	W308	N311	E319	A338	V341	R360	L361	R362	L363	Y364	D365	V370	I371	A372	I375	Y385	P389	T393													
V397	T398	D401	A404	F405	S406	A407	K410	T415	S416	Q417	W418	W419	T421	I422	D423	R432	T433	A434	L435	T436	M437	T438	N439	A444	P445	N446	Q454	L462	A463	T464	L465	I467	Y468	D469	R470	D471	G472	G478	L481	S623	V631	A496	L497	F504	S505			

11956  
11962  
PRD  
GLN  
ASP  
ASP  
GLU

## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	70074	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	TFS GLACIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	40	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.733	Depositor
Minimum map value	-0.002	Depositor
Average map value	0.023	Depositor
Map value standard deviation	0.053	Depositor
Recommended contour level	0.0728	Depositor
Map size ( $\text{\AA}$ )	229.8, 229.8, 919.2	wwPDB
Map dimensions	200, 200, 800	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.149, 1.149, 1.149	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	0.38	6/14067 (0.0%)	0.63	15/19393 (0.1%)
1	B	0.49	7/14067 (0.0%)	0.70	26/19393 (0.1%)
1	C	0.41	5/14067 (0.0%)	0.60	16/19393 (0.1%)
1	D	0.41	5/14067 (0.0%)	0.65	18/19393 (0.1%)
All	All	0.42	23/56268 (0.0%)	0.65	75/77572 (0.1%)

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
1	B	0	10
1	C	0	1
1	D	0	2
All	All	0	17

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	396	PRO	CG-CD	-29.39	0.53	1.50
1	C	396	PRO	CG-CD	-27.30	0.60	1.50
1	D	1769	PRO	CG-CD	-21.49	0.79	1.50
1	B	1769	PRO	CG-CD	-20.80	0.82	1.50
1	A	396	PRO	CB-CG	19.42	2.47	1.50
1	D	1883	PRO	CG-CD	-17.76	0.92	1.50
1	B	1769	PRO	CB-CG	17.06	2.35	1.50
1	A	396	PRO	CG-CD	-14.55	1.02	1.50
1	B	396	PRO	CB-CG	13.24	2.16	1.50
1	D	1769	PRO	CB-CG	11.55	2.07	1.50
1	C	396	PRO	CB-CG	11.32	2.06	1.50
1	B	396	PRO	N-CD	9.67	1.61	1.47

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	396	PRO	N-CD	9.06	1.60	1.47
1	B	1062	PRO	CG-CD	-8.80	1.21	1.50
1	A	1062	PRO	CG-CD	-8.78	1.21	1.50
1	C	1062	PRO	CG-CD	-8.74	1.21	1.50
1	D	1062	PRO	CG-CD	-8.61	1.22	1.50
1	D	1883	PRO	N-CD	7.97	1.59	1.47
1	A	396	PRO	N-CA	-5.96	1.37	1.47
1	A	396	PRO	N-CD	5.56	1.55	1.47
1	B	1062	PRO	N-CD	5.22	1.55	1.47
1	A	1062	PRO	N-CD	5.20	1.55	1.47
1	C	1062	PRO	N-CD	5.19	1.55	1.47

All (75) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	396	PRO	CB-CG-CD	-27.30	0.04	106.50
1	D	1769	PRO	N-CD-CG	-26.92	62.81	103.20
1	D	1769	PRO	CA-CB-CG	-20.53	64.99	104.00
1	B	1769	PRO	N-CD-CG	-19.02	74.66	103.20
1	B	1769	PRO	CA-CB-CG	-18.34	69.16	104.00
1	D	1883	PRO	N-CD-CG	-18.03	76.15	103.20
1	B	1769	PRO	CB-CG-CD	-17.83	36.95	106.50
1	C	396	PRO	N-CD-CG	-17.52	76.93	103.20
1	A	396	PRO	CA-N-CD	-15.73	89.48	111.50
1	B	396	PRO	CB-CG-CD	-15.69	45.31	106.50
1	B	1769	PRO	N-CA-CB	-15.30	84.94	103.30
1	B	396	PRO	N-CD-CG	-15.19	80.41	103.20
1	C	1062	PRO	CA-N-CD	-14.47	91.24	111.50
1	A	1062	PRO	CA-N-CD	-14.46	91.26	111.50
1	B	1062	PRO	CA-N-CD	-14.39	91.35	111.50
1	B	1769	PRO	CA-N-CD	-13.86	92.10	111.50
1	B	1061	ASN	C-N-CD	-13.68	90.51	120.60
1	A	1061	ASN	C-N-CD	-13.45	91.02	120.60
1	C	1061	ASN	C-N-CD	-13.38	91.16	120.60
1	D	1769	PRO	N-CA-CB	-13.08	87.60	103.30
1	B	396	PRO	CA-N-CD	-12.65	93.78	111.50
1	A	396	PRO	N-CA-CB	-12.52	88.28	103.30
1	B	394	ALA	C-N-CA	12.45	152.82	121.70
1	A	213	PRO	CA-N-CD	-12.39	94.15	111.50
1	C	396	PRO	CA-N-CD	-11.54	95.34	111.50
1	B	1798	PRO	CA-N-CD	-11.47	95.44	111.50
1	D	829	PRO	CA-N-CD	-11.45	95.47	111.50

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1749	PRO	CA-N-CD	-11.21	95.81	111.50
1	B	1749	PRO	CA-N-CD	-10.91	96.22	111.50
1	D	1749	PRO	CA-N-CD	-10.90	96.24	111.50
1	B	396	PRO	CA-CB-CG	-10.87	83.35	104.00
1	D	1061	ASN	C-N-CD	-10.80	96.84	120.60
1	A	525	PRO	CA-N-CD	-10.60	96.66	111.50
1	D	1883	PRO	CA-CB-CG	-10.47	84.10	104.00
1	C	396	PRO	CA-CB-CG	-10.46	84.13	104.00
1	D	1883	PRO	CA-N-CD	-10.27	97.13	111.50
1	B	396	PRO	N-CA-CB	-9.42	92.00	103.30
1	D	1062	PRO	N-CD-CG	-9.23	89.36	103.20
1	D	1769	PRO	CB-CG-CD	-9.18	70.69	106.50
1	D	1062	PRO	CA-N-CD	-9.16	98.67	111.50
1	B	1062	PRO	N-CD-CG	-9.15	89.47	103.20
1	C	1062	PRO	N-CD-CG	-9.15	89.47	103.20
1	A	1062	PRO	N-CD-CG	-9.13	89.51	103.20
1	D	1769	PRO	CA-N-CD	-8.96	98.96	111.50
1	C	396	PRO	N-CA-CB	-8.85	92.69	103.30
1	C	396	PRO	CB-CG-CD	-8.84	72.02	106.50
1	B	1856	PRO	CA-N-CD	-8.54	99.54	111.50
1	D	1255	PRO	CA-N-CD	-8.01	100.29	111.50
1	A	396	PRO	CA-CB-CG	-7.84	89.10	104.00
1	A	395	ASP	C-N-CD	7.74	144.64	128.40
1	B	105	PRO	CA-N-CD	-7.73	100.68	111.50
1	B	396	PRO	CA-C-N	-7.19	101.38	117.20
1	D	1939	PRO	N-CA-CB	6.61	111.24	103.30
1	B	394	ALA	CB-CA-C	-6.39	100.51	110.10
1	A	1255	PRO	CA-N-CD	-6.37	102.59	111.50
1	C	1749	PRO	N-CD-CG	-6.12	94.01	103.20
1	B	1939	PRO	N-CA-CB	6.05	110.56	103.30
1	C	230	LEU	CA-CB-CG	6.00	129.11	115.30
1	A	213	PRO	N-CD-CG	-5.95	94.27	103.20
1	C	1939	PRO	N-CA-CB	5.88	110.36	103.30
1	A	1939	PRO	N-CA-CB	5.81	110.28	103.30
1	A	1786	ASP	CB-CG-OD2	5.74	123.47	118.30
1	C	1224	ASP	CB-CG-OD2	5.61	123.35	118.30
1	C	632	PRO	CA-N-CD	-5.52	103.77	111.50
1	C	395	ASP	C-N-CD	5.43	139.81	128.40
1	B	109	LEU	CA-CB-CG	5.43	127.78	115.30
1	D	829	PRO	N-CD-CG	-5.41	95.09	103.20
1	C	1062	PRO	CA-CB-CG	-5.34	93.85	104.00
1	B	1062	PRO	CA-CB-CG	-5.34	93.86	104.00

*Continued on next page...*

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1062	PRO	CA-CB-CG	-5.33	93.87	104.00
1	B	394	ALA	N-CA-C	5.32	125.36	111.00
1	D	1749	PRO	N-CD-CG	-5.30	95.25	103.20
1	B	566	LEU	CA-CB-CG	5.13	127.09	115.30
1	D	1627	CYS	CA-CB-SG	5.07	123.12	114.00
1	B	1749	PRO	N-CD-CG	-5.03	95.66	103.20

There are no chirality outliers.

All (17) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1527	LYS	Peptide
1	A	395	ASP	Peptide
1	A	397	VAL	Peptide
1	A	398	THR	Peptide
1	B	1527	LYS	Peptide
1	B	1798	PRO	Peptide
1	B	392	THR	Peptide
1	B	393	THR	Mainchain,Peptide
1	B	394	ALA	Mainchain,Peptide
1	B	395	ASP	Peptide
1	B	396	PRO	Peptide
1	B	398	THR	Peptide
1	C	1527	LYS	Peptide
1	D	1061	ASN	Peptide
1	D	1527	LYS	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	13687	0	13241	358	0
1	B	13687	0	13240	327	0
1	C	13687	0	13241	341	0
1	D	13687	0	13241	307	0
All	All	54748	0	52963	1295	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 12.

All (1295) 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:532:ILE:HD11	1:A:594:CYS:HB3	1.47	0.97
1:A:1515:THR:HG21	1:C:1192:ASN:HD22	1.40	0.85
1:C:659:LEU:HB2	1:C:719:ILE:O	1.76	0.85
1:C:401:ASP:OD1	1:C:402:THR:N	2.10	0.85
1:A:358:ASN:HB3	1:A:375:ILE:HD11	1.58	0.84
1:D:659:LEU:HB2	1:D:719:ILE:O	1.77	0.83
1:B:401:ASP:OD2	1:B:402:THR:N	2.11	0.83
1:A:178:ARG:HD2	1:A:218:ASN:HD22	1.43	0.83
1:A:566:LEU:HD12	1:A:567:PRO:HD2	1.59	0.83
1:C:168:LEU:O	1:C:170:LEU:N	2.12	0.82
1:D:168:LEU:O	1:D:170:LEU:N	2.13	0.81
1:A:829:PRO:HA	1:A:854:VAL:O	1.80	0.81
1:C:1801:PHE:HB3	1:C:1811:CYS:HB3	1.63	0.80
1:B:168:LEU:O	1:B:170:LEU:N	2.14	0.80
1:C:415:THR:HB	1:C:437:MET:HG3	1.63	0.80
1:B:108:ASN:OD1	1:B:109:LEU:N	2.15	0.79
1:B:614:LEU:HD22	1:B:650:PRO:HD2	1.65	0.79
1:C:713:THR:HG21	1:C:737:VAL:H	1.47	0.79
1:B:1805:ARG:O	1:B:1807:GLY:N	2.15	0.78
1:B:755:SER:HB2	1:B:771:TRP:HE1	1.48	0.78
1:B:1493:ARG:NH2	1:B:1549:ASN:O	2.17	0.78
1:C:755:SER:HB2	1:C:771:TRP:HE1	1.49	0.78
1:D:178:ARG:HD2	1:D:218:ASN:HD22	1.49	0.77
1:B:1180:THR:HG23	1:B:1181:THR:HG23	1.66	0.77
1:D:903:ILE:HD11	1:D:938:MET:HB2	1.66	0.77
1:D:506:PRO:HG3	1:D:588:LEU:HD11	1.67	0.77
1:B:166:PRO:HG2	1:B:261:VAL:HG13	1.65	0.77
1:D:1036:ARG:HD3	1:D:1041:PRO:HD3	1.67	0.77
1:D:957:SER:HB3	1:D:1001:VAL:H	1.48	0.76
1:C:83:LEU:HD11	1:C:109:LEU:HD11	1.68	0.76
1:C:1805:ARG:O	1:C:1807:GLY:N	2.19	0.75
1:D:1569:GLY:H	1:D:1602:ASN:HB3	1.51	0.75
1:C:1289:LYS:HG2	1:C:1312:SER:H	1.52	0.75
1:B:1817:LEU:HD21	1:B:1839:PRO:HB3	1.67	0.74
1:B:764:ALA:HA	1:B:825:THR:HB	1.70	0.74
1:C:506:PRO:HG3	1:C:588:LEU:HD11	1.69	0.74
1:B:230:LEU:HB3	1:B:234:LYS:HE2	1.68	0.74

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:228:TYR:HD2	1:A:234:LYS:HE3	1.52	0.73
1:D:1733:CYS:HB3	1:D:1737:THR:HG23	1.71	0.73
1:A:1775:PRO:HA	1:A:1809:ARG:HD3	1.71	0.73
1:C:419:TRP:HB2	1:C:468:TYR:O	1.89	0.73
1:A:1757:ASN:OD1	1:A:1766:ARG:NH2	2.22	0.72
1:D:1051:ALA:HB1	1:D:1096:LEU:HD11	1.71	0.72
1:C:401:ASP:O	1:C:454:GLN:NE2	2.23	0.71
1:D:1289:LYS:HG2	1:D:1312:SER:H	1.53	0.71
1:A:1186:TYR:HA	1:A:1214:ARG:O	1.90	0.71
1:C:1130:GLU:OE2	1:C:1130:GLU:N	2.22	0.71
1:D:762:PRO:HD2	1:D:857:SER:H	1.56	0.71
1:B:1826:GLU:OE2	1:B:1826:GLU:N	2.24	0.71
1:C:506:PRO:HD2	1:C:615:ALA:HA	1.71	0.70
1:C:885:THR:HG22	1:C:948:THR:HG22	1.71	0.70
1:B:506:PRO:HG3	1:B:588:LEU:HD21	1.71	0.70
1:B:1668:MET:SD	1:B:1668:MET:N	2.60	0.70
1:C:588:LEU:HD12	1:C:613:VAL:HB	1.74	0.70
1:A:1466:PRO:HA	1:C:1227:ARG:HB3	1.74	0.70
1:D:1493:ARG:NH2	1:D:1549:ASN:O	2.25	0.70
1:C:168:LEU:HD22	1:C:231:GLU:HB3	1.74	0.70
1:A:1037:ASP:OD1	1:A:1038:PRO:HD2	1.92	0.69
1:D:1239:GLU:OE2	1:D:1239:GLU:N	2.24	0.69
1:A:395:ASP:N	1:A:396:PRO:HG3	2.07	0.69
1:A:1733:CYS:HB3	1:A:1737:THR:HG23	1.74	0.69
1:B:1757:ASN:OD1	1:B:1766:ARG:NH2	2.25	0.69
1:D:1760:ASP:OD1	1:D:1761:SER:N	2.24	0.69
1:A:1826:GLU:N	1:A:1826:GLU:OE2	2.25	0.69
1:A:1709:ILE:HD12	1:A:1709:ILE:H	1.57	0.69
1:D:506:PRO:HD2	1:D:615:ALA:HA	1.75	0.69
1:D:1022:PRO:HB2	1:D:1028:THR:HG21	1.74	0.69
1:C:1826:GLU:OE2	1:C:1826:GLU:N	2.25	0.69
1:C:1338:ALA:HB3	1:C:1353:ILE:HG23	1.74	0.69
1:C:360:ARG:HB3	1:C:375:ILE:HG13	1.73	0.68
1:C:1006:VAL:HG12	1:C:1036:ARG:HA	1.75	0.68
1:B:866:VAL:HG12	1:B:888:ILE:HG13	1.75	0.68
1:B:1174:LEU:HD22	1:B:1178:PHE:HD1	1.59	0.68
1:B:1252:ILE:HD11	1:B:1301:CYS:HB2	1.74	0.68
1:B:790:CYS:HA	1:B:836:VAL:HG13	1.74	0.68
1:D:1421:GLN:HB2	1:D:1436:THR:HB	1.76	0.68
1:A:828:THR:O	1:A:832:TYR:OH	2.11	0.67
1:D:681:ALA:HA	1:D:686:GLY:HA3	1.75	0.67

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1164:GLY:O	1:C:1481:GLN:NE2	2.26	0.67
1:B:1036:ARG:HD3	1:B:1041:PRO:HD3	1.74	0.67
1:C:536:PHE:O	1:C:579:ARG:NH2	2.28	0.67
1:A:181:SER:HG	1:A:186:ARG:HH21	1.42	0.67
1:D:1685:VAL:HG23	1:D:1707:ASN:HA	1.77	0.67
1:A:1563:GLN:OE1	1:A:1563:GLN:N	2.16	0.67
1:B:193:ILE:HD13	1:B:226:GLN:HE21	1.59	0.67
1:A:1537:PHE:HB2	1:C:1189:ILE:HG23	1.77	0.67
1:A:1685:VAL:HG23	1:A:1707:ASN:HA	1.76	0.67
1:B:195:LEU:HD11	1:B:226:GLN:HB2	1.77	0.67
1:B:1130:GLU:OE1	1:B:1130:GLU:N	2.21	0.67
1:B:1195:TYR:HA	1:B:1200:ARG:HA	1.77	0.67
1:B:1706:GLN:HE21	1:B:1711:GLN:HB2	1.59	0.67
1:B:1798:PRO:O	1:B:1800:ASP:N	2.28	0.67
1:D:1084:VAL:HG12	1:D:1087:ASP:HB3	1.78	0.66
1:D:1634:THR:OG1	1:D:1663:PRO:O	2.12	0.66
1:B:1037:ASP:OD1	1:B:1038:PRO:HD2	1.95	0.66
1:B:1757:ASN:ND2	1:B:1763:THR:OG1	2.28	0.66
1:C:63:ALA:HB2	1:C:118:THR:HG22	1.77	0.66
1:B:1364:ASN:N	1:B:1398:SER:OG	2.25	0.66
1:B:1733:CYS:HB3	1:B:1737:THR:HG23	1.77	0.66
1:A:294:GLU:HB3	1:A:338:ALA:HB1	1.78	0.66
1:A:401:ASP:CG	1:A:402:THR:H	1.99	0.66
1:B:1796:LYS:HD2	1:B:1832:LEU:HB3	1.78	0.66
1:A:1690:ASP:OD2	1:A:1691:GLN:N	2.28	0.66
1:D:1805:ARG:O	1:D:1807:GLY:N	2.29	0.66
1:A:193:ILE:HG21	1:A:226:GLN:HE21	1.60	0.66
1:B:1469:THR:HG22	1:B:1481:GLN:HA	1.77	0.66
1:A:1012:THR:OG1	1:A:1031:THR:OG1	2.14	0.65
1:B:109:LEU:HG	1:B:110:VAL:HG23	1.78	0.65
1:B:1471:ALA:HB2	1:B:1479:CYS:HB2	1.77	0.65
1:A:1728:GLU:OE2	1:A:1729:LEU:HG	1.95	0.65
1:C:663:TRP:O	1:C:714:PRO:HA	1.95	0.65
1:D:570:ILE:HD12	1:D:571:PRO:HD2	1.79	0.65
1:D:588:LEU:O	1:D:612:GLN:NE2	2.28	0.65
1:A:1195:TYR:OH	1:A:1200:ARG:NH2	2.28	0.65
1:C:1749:PRO:HD2	1:C:1749:PRO:O	1.96	0.65
1:C:1960:MET:SD	1:C:1960:MET:N	2.69	0.65
1:D:968:PHE:HA	1:D:988:LEU:HD23	1.76	0.65
1:A:506:PRO:HD2	1:A:615:ALA:HA	1.76	0.65
1:A:1817:LEU:HD21	1:A:1839:PRO:HB3	1.79	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:614:LEU:HD22	1:A:650:PRO:HD2	1.78	0.65
1:A:726:ASP:OD2	1:A:727:ALA:N	2.29	0.65
1:A:1562:ILE:HB	1:C:1188:LEU:HD21	1.77	0.65
1:C:757:LEU:HD11	1:C:769:ALA:HB1	1.79	0.65
1:D:1709:ILE:HD12	1:D:1709:ILE:H	1.61	0.65
1:A:109:LEU:HG	1:A:110:VAL:H	1.61	0.64
1:D:1453:TYR:HD1	1:D:1455:PRO:HD3	1.62	0.64
1:D:420:TRP:O	1:D:433:THR:OG1	2.15	0.64
1:B:228:TYR:HD1	1:B:234:LYS:HE3	1.62	0.64
1:D:161:LEU:HD11	1:D:178:ARG:HH22	1.62	0.64
1:A:649:VAL:HB	1:A:694:GLY:H	1.62	0.64
1:B:194:GLN:OE1	1:B:239:ARG:NH2	2.31	0.64
1:A:1414:ARG:NH2	1:A:1445:CYS:SG	2.70	0.64
1:B:662:PHE:HE2	1:B:687:LYS:HG2	1.63	0.64
1:A:1036:ARG:HD3	1:A:1041:PRO:HD3	1.79	0.64
1:D:415:THR:HB	1:D:437:MET:HG3	1.80	0.64
1:A:423:ASP:HB3	1:A:464:THR:HB	1.80	0.64
1:C:470:ARG:HG2	1:C:478:GLY:HA2	1.79	0.64
1:D:1452:THR:HG22	1:D:1464:PRO:HA	1.78	0.64
1:D:1616:GLY:O	1:D:1636:THR:OG1	2.16	0.64
1:C:161:LEU:HD11	1:C:178:ARG:HH22	1.63	0.64
1:C:1706:GLN:HE21	1:C:1714:CYS:HA	1.63	0.64
1:D:828:THR:O	1:D:832:TYR:OH	2.12	0.64
1:D:532:ILE:HG12	1:D:596:ILE:HG12	1.80	0.63
1:D:423:ASP:HB3	1:D:464:THR:HB	1.80	0.63
1:D:1773:TYR:HB2	1:D:1809:ARG:HA	1.79	0.63
1:A:1634:THR:OG1	1:A:1663:PRO:O	2.16	0.63
1:D:401:ASP:O	1:D:454:GLN:NE2	2.31	0.63
1:A:534:CYS:HB3	1:A:592:LEU:HD11	1.79	0.63
1:C:1042:PRO:HG2	1:C:1045:SER:HB2	1.81	0.63
1:C:1301:CYS:N	1:C:1351:TYR:OH	2.30	0.63
1:D:410:LYS:HB3	1:D:444:ALA:HA	1.79	0.63
1:D:1440:GLU:OE1	1:D:1443:SER:N	2.29	0.63
1:A:1130:GLU:OE2	1:A:1130:GLU:N	2.23	0.63
1:A:1340:SER:O	1:A:1344:THR:OG1	2.16	0.63
1:B:516:PHE:HB2	1:B:575:ILE:HG23	1.79	0.63
1:C:1036:ARG:HD3	1:C:1041:PRO:HD3	1.79	0.63
1:A:1721:THR:HG23	1:A:1732:LYS:HA	1.79	0.63
1:B:1749:PRO:HD2	1:B:1749:PRO:O	1.98	0.63
1:A:1184:ASP:OD2	1:A:1184:ASP:N	2.31	0.63
1:A:63:ALA:HB2	1:A:118:THR:HG22	1.81	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:271:LEU:HD22	1:A:295:VAL:HA	1.81	0.62
1:B:536:PHE:O	1:B:579:ARG:NH2	2.32	0.62
1:A:432:ARG:CZ	1:A:472:GLY:HA3	2.29	0.62
1:A:1015:PRO:HG2	1:A:1028:THR:HG22	1.82	0.62
1:B:656:LEU:HB3	1:B:691:MET:HB2	1.81	0.62
1:D:614:LEU:HD22	1:D:650:PRO:HD2	1.81	0.62
1:A:1808:VAL:HG13	1:A:1810:GLN:H	1.65	0.62
1:A:530:GLU:HB3	1:A:596:ILE:HD11	1.82	0.62
1:C:839:VAL:HG13	1:C:844:THR:HG23	1.80	0.62
1:D:1285:LYS:HD3	1:D:1285:LYS:H	1.64	0.62
1:B:1012:THR:OG1	1:B:1031:THR:OG1	2.17	0.62
1:B:402:THR:HG22	1:B:454:GLN:HB2	1.82	0.62
1:B:517:ARG:HH21	1:B:574:ILE:HD11	1.65	0.62
1:B:775:ILE:O	1:B:814:THR:HA	1.98	0.62
1:C:794:ASP:HB2	1:C:800:SER:HB2	1.82	0.62
1:C:1308:PHE:HD2	1:C:1319:ALA:HA	1.65	0.62
1:D:1186:TYR:HB3	1:D:1213:CYS:HB2	1.82	0.62
1:A:83:LEU:HD22	1:A:109:LEU:HD11	1.82	0.62
1:A:1195:TYR:HA	1:A:1200:ARG:HA	1.82	0.62
1:B:828:THR:O	1:B:832:TYR:OH	2.11	0.62
1:A:1171:ARG:NH2	1:A:1966:GLU:OE2	2.33	0.61
1:B:1661:GLN:OE1	1:B:1661:GLN:N	2.22	0.61
1:C:1452:THR:HG22	1:C:1464:PRO:HA	1.82	0.61
1:B:888:ILE:HG22	1:B:945:THR:HB	1.82	0.61
1:C:178:ARG:HD2	1:C:218:ASN:HD22	1.64	0.61
1:C:480:LEU:HD11	1:C:483:SER:HB2	1.82	0.61
1:D:362:ARG:HE	1:D:370:VAL:HG11	1.65	0.61
1:D:470:ARG:HG2	1:D:478:GLY:HA2	1.82	0.61
1:D:1084:VAL:HG13	1:D:1086:THR:H	1.65	0.61
1:A:1188:LEU:HD21	1:C:1562:ILE:HB	1.81	0.61
1:B:1582:LEU:HD22	1:B:1586:LEU:HD11	1.83	0.61
1:A:401:ASP:O	1:A:454:GLN:NE2	2.33	0.61
1:D:762:PRO:HG2	1:D:856:ALA:HA	1.80	0.61
1:B:1721:THR:HG21	1:B:1730:CYS:HB3	1.82	0.61
1:D:1503:ASN:HD22	1:D:1506:ASN:HD22	1.48	0.61
1:A:167:ARG:HD3	1:A:170:LEU:HD13	1.83	0.61
1:B:1573:PRO:HD2	1:B:1588:VAL:HG11	1.80	0.61
1:D:1293:GLN:NE2	1:D:1295:ASN:OD1	2.33	0.61
1:A:1209:PRO:O	1:C:1553:TYR:OH	2.16	0.61
1:C:966:MET:SD	1:C:967:VAL:N	2.74	0.61
1:C:1733:CYS:HB3	1:C:1737:THR:HG23	1.83	0.61

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:496:ALA:HB3	1:A:519:GLN:HB2	1.82	0.61
1:B:649:VAL:HB	1:B:694:GLY:H	1.66	0.61
1:C:43:ALA:N	1:C:74:ASP:OD2	2.34	0.61
1:C:1012:THR:OG1	1:C:1031:THR:OG1	2.17	0.61
1:A:643:ILE:HB	1:A:698:ALA:HB3	1.81	0.60
1:C:1327:THR:OG1	1:C:1328:ASP:N	2.32	0.60
1:A:109:LEU:HG	1:A:110:VAL:HG23	1.82	0.60
1:A:1459:MET:SD	1:A:1459:MET:N	2.74	0.60
1:B:525:PRO:HB2	1:B:528:VAL:HG22	1.82	0.60
1:B:1396:THR:O	1:B:1414:ARG:NH1	2.34	0.60
1:B:1512:ARG:NH2	1:B:1531:THR:O	2.34	0.60
1:C:226:GLN:OE1	1:C:226:GLN:N	2.34	0.60
1:C:229:ASN:O	1:C:230:LEU:HD23	2.01	0.60
1:B:482:ALA:O	1:B:483:SER:OG	2.19	0.60
1:C:496:ALA:HB3	1:C:519:GLN:HB2	1.83	0.60
1:C:1037:ASP:OD1	1:C:1038:PRO:HD2	2.01	0.60
1:C:1819:LEU:HB2	1:C:1823:ASN:HB2	1.84	0.60
1:D:167:ARG:HD3	1:D:371:ILE:HG22	1.83	0.60
1:A:520:ARG:HB2	1:A:571:PRO:HD2	1.83	0.60
1:A:536:PHE:O	1:A:579:ARG:NH2	2.35	0.60
1:A:902:PRO:HB3	1:A:937:VAL:HG12	1.83	0.60
1:B:1282:GLU:OE2	1:B:1282:GLU:N	2.24	0.60
1:A:631:VAL:HG11	1:A:706:TYR:HE1	1.66	0.60
1:B:109:LEU:HG	1:B:110:VAL:H	1.66	0.60
1:D:294:GLU:HB3	1:D:338:ALA:HB1	1.84	0.60
1:D:1012:THR:OG1	1:D:1031:THR:OG1	2.20	0.60
1:A:414:SER:O	1:A:414:SER:OG	2.20	0.60
1:A:764:ALA:HA	1:A:825:THR:HB	1.84	0.60
1:C:687:LYS:HD3	1:C:687:LYS:N	2.17	0.60
1:B:522:LYS:HG2	1:B:523:ALA:H	1.67	0.59
1:C:193:ILE:HD12	1:C:194:GLN:H	1.67	0.59
1:C:1022:PRO:HB2	1:C:1028:THR:HG21	1.83	0.59
1:C:1305:PRO:HG2	1:C:1308:PHE:HD1	1.67	0.59
1:D:166:PRO:HG2	1:D:261:VAL:HG13	1.83	0.59
1:B:460:THR:HG22	1:B:489:THR:HA	1.84	0.59
1:C:1252:ILE:HD13	1:C:1347:PHE:HE2	1.67	0.59
1:C:1282:GLU:OE2	1:C:1282:GLU:N	2.28	0.59
1:D:1220:THR:HA	1:D:1230:PRO:HA	1.83	0.59
1:A:836:VAL:HG23	1:A:850:LYS:HZ3	1.68	0.59
1:A:1186:TYR:HB3	1:A:1213:CYS:HB3	1.84	0.59
1:A:1809:ARG:HG2	1:A:1810:GLN:NE2	2.17	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1503:ASN:ND2	1:B:1506:ASN:HB2	2.18	0.59
1:D:1749:PRO:HD2	1:D:1749:PRO:O	2.02	0.59
1:D:1485:GLY:O	1:D:1555:THR:OG1	2.21	0.59
1:A:588:LEU:HD12	1:A:613:VAL:HB	1.83	0.59
1:A:1616:GLY:O	1:A:1636:THR:OG1	2.20	0.59
1:B:43:ALA:N	1:B:74:ASP:OD2	2.36	0.59
1:D:83:LEU:HD21	1:D:109:LEU:HD11	1.83	0.59
1:D:418:VAL:HB	1:D:435:LEU:HD23	1.84	0.59
1:A:1011:THR:HG21	1:A:1150:LEU:HD21	1.85	0.59
1:B:470:ARG:HB2	1:B:478:GLY:HA2	1.84	0.59
1:C:902:PRO:HA	1:C:937:VAL:HA	1.83	0.59
1:A:839:VAL:HG13	1:A:844:THR:HG23	1.84	0.58
1:C:1453:TYR:HD1	1:C:1455:PRO:HD3	1.67	0.58
1:A:374:LYS:HD3	1:A:374:LYS:N	2.19	0.58
1:A:1724:ARG:NH1	1:A:1745:SER:O	2.36	0.58
1:B:294:GLU:HB3	1:B:338:ALA:HB1	1.85	0.58
1:B:839:VAL:HG13	1:B:844:THR:HG23	1.83	0.58
1:D:63:ALA:HB2	1:D:118:THR:HG22	1.84	0.58
1:C:168:LEU:HG	1:C:169:ASN:OD1	2.02	0.58
1:D:1798:PRO:O	1:D:1800:ASP:N	2.36	0.58
1:B:1604:GLU:N	1:B:1604:GLU:OE2	2.37	0.58
1:A:95:ARG:NH1	1:A:134:SER:O	2.35	0.58
1:A:273:LEU:HG	1:A:275:VAL:HG13	1.86	0.58
1:A:1564:LEU:HD13	1:C:1172:VAL:HG21	1.86	0.58
1:D:468:TYR:HB3	1:D:478:GLY:HA3	1.86	0.58
1:D:829:PRO:HD2	1:D:829:PRO:O	2.02	0.58
1:A:415:THR:HB	1:A:437:MET:HB3	1.85	0.58
1:B:902:PRO:HA	1:B:937:VAL:HA	1.85	0.58
1:B:1006:VAL:HG12	1:B:1036:ARG:HA	1.86	0.58
1:D:1661:GLN:OE1	1:D:1661:GLN:N	2.22	0.58
1:A:502:GLU:N	1:A:502:GLU:OE2	2.35	0.58
1:A:1227:ARG:NH2	1:C:1453:TYR:OH	2.36	0.58
1:B:530:GLU:HB3	1:B:596:ILE:HD11	1.86	0.58
1:B:532:ILE:HG12	1:B:596:ILE:HD13	1.86	0.58
1:B:618:PRO:HB3	1:B:647:VAL:HG12	1.86	0.58
1:D:1466:PRO:O	1:D:1469:THR:OG1	2.17	0.58
1:B:1644:ALA:HB2	1:B:1656:LEU:HB2	1.86	0.58
1:C:1014:SER:OG	1:C:1015:PRO:HD3	2.04	0.58
1:A:1644:ALA:HB2	1:A:1656:LEU:HB2	1.84	0.58
1:B:588:LEU:HD12	1:B:613:VAL:HB	1.85	0.58
1:B:1394:ASP:OD1	1:B:1416:THR:N	2.37	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1801:PHE:HA	1:B:1813:ALA:HA	1.84	0.58
1:C:761:THR:HB	1:C:857:SER:HB3	1.85	0.58
1:C:828:THR:O	1:C:832:TYR:OH	2.16	0.58
1:D:713:THR:HB	1:D:736:PRO:HB3	1.85	0.58
1:C:882:VAL:HB	1:C:951:THR:HG22	1.85	0.57
1:D:168:LEU:HD22	1:D:231:GLU:HB3	1.84	0.57
1:A:109:LEU:HG	1:A:110:VAL:N	2.18	0.57
1:A:761:THR:HG21	1:A:862:PRO:HG3	1.86	0.57
1:A:1493:ARG:NH1	1:A:1549:ASN:O	2.37	0.57
1:B:1459:MET:SD	1:B:1459:MET:N	2.76	0.57
1:D:1609:VAL:HG13	1:D:1656:LEU:HD22	1.86	0.57
1:A:469:ASP:HB2	1:A:481:LEU:HD11	1.85	0.57
1:B:273:LEU:HA	1:B:293:THR:HG22	1.86	0.57
1:C:294:GLU:HB3	1:C:338:ALA:HB1	1.85	0.57
1:D:1006:VAL:HG12	1:D:1036:ARG:HA	1.85	0.57
1:A:1189:ILE:HD11	1:A:1214:ARG:HD3	1.86	0.57
1:C:1721:THR:HG23	1:C:1732:LYS:HA	1.86	0.57
1:C:271:LEU:O	1:C:374:LYS:NZ	2.36	0.57
1:A:872:PRO:HG3	1:A:882:VAL:HA	1.86	0.57
1:A:1378:MET:N	1:C:1328:ASP:OD1	2.33	0.57
1:C:420:TRP:CD1	1:C:435:LEU:HB2	2.40	0.57
1:D:439:ASN:HB2	1:D:446:ASN:HD21	1.70	0.57
1:D:1724:ARG:NH1	1:D:1745:SER:O	2.37	0.57
1:A:1801:PHE:HA	1:A:1813:ALA:HA	1.87	0.57
1:A:1805:ARG:O	1:A:1807:GLY:N	2.31	0.57
1:B:283:ALA:HA	1:B:470:ARG:HH12	1.69	0.57
1:C:128:THR:HG23	1:C:146:THR:HG22	1.85	0.57
1:A:1711:GLN:NE2	1:B:1931:PRO:O	2.38	0.57
1:B:168:LEU:HG	1:B:169:ASN:OD1	2.05	0.57
1:B:618:PRO:HG3	1:B:645:ARG:CZ	2.34	0.57
1:C:1485:GLY:O	1:C:1555:THR:OG1	2.23	0.57
1:A:719:ILE:HG12	1:A:730:THR:HG22	1.87	0.56
1:A:1754:PHE:HA	1:A:1767:ALA:HA	1.85	0.56
1:B:506:PRO:HD2	1:B:615:ALA:HA	1.87	0.56
1:C:877:LYS:HD2	1:C:1002:ALA:HB3	1.87	0.56
1:D:536:PHE:O	1:D:579:ARG:NH2	2.38	0.56
1:A:1773:TYR:HB2	1:A:1809:ARG:HA	1.88	0.56
1:D:178:ARG:HD2	1:D:218:ASN:ND2	2.18	0.56
1:A:525:PRO:HD2	1:A:525:PRO:O	2.05	0.56
1:A:1335:PRO:HB2	1:A:1337:GLU:HG2	1.87	0.56
1:B:1014:SER:OG	1:B:1015:PRO:HD3	2.05	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1487:ASN:HD22	1:B:1549:ASN:HA	1.70	0.56
1:C:1051:ALA:HB1	1:C:1096:LEU:HD11	1.87	0.56
1:A:1192:ASN:ND2	1:A:1193:ASP:OD1	2.39	0.56
1:B:716:LEU:HD12	1:B:734:LEU:HD12	1.86	0.56
1:B:1466:PRO:O	1:B:1469:THR:OG1	2.24	0.56
1:D:49:LEU:HD13	1:D:68:ALA:HB2	1.87	0.56
1:A:1408:CYS:SG	1:A:1414:ARG:NH2	2.79	0.56
1:B:238:LEU:HB3	1:B:253:PHE:HB3	1.87	0.56
1:B:1769:PRO:HB2	1:B:1772:TYR:CD2	2.41	0.56
1:D:43:ALA:N	1:D:74:ASP:OD2	2.38	0.56
1:D:496:ALA:HB3	1:D:519:GLN:HB2	1.86	0.56
1:D:1011:THR:HG21	1:D:1150:LEU:HD21	1.87	0.56
1:C:1186:TYR:HB3	1:C:1213:CYS:HB3	1.86	0.56
1:D:1042:PRO:HG2	1:D:1045:SER:HB2	1.87	0.56
1:A:762:PRO:O	1:A:857:SER:OG	2.24	0.56
1:D:161:LEU:HD11	1:D:178:ARG:HH12	1.71	0.56
1:D:420:TRP:CD1	1:D:435:LEU:HB2	2.41	0.56
1:D:839:VAL:HG13	1:D:844:THR:HG23	1.87	0.56
1:B:752:THR:OG1	1:B:776:THR:OG1	2.24	0.56
1:C:589:GLN:N	1:C:589:GLN:OE1	2.39	0.56
1:C:1084:VAL:HG12	1:C:1087:ASP:HB3	1.88	0.56
1:D:692:ALA:HB3	1:D:695:SER:HB2	1.88	0.56
1:A:1328:ASP:OD2	1:C:1378:MET:N	2.39	0.55
1:B:628:PRO:HD2	1:B:637:THR:HG23	1.88	0.55
1:D:1769:PRO:HB2	1:D:1772:TYR:CE2	2.41	0.55
1:B:459:GLY:O	1:B:461:LYS:NZ	2.23	0.55
1:B:643:ILE:HB	1:B:698:ALA:HB3	1.88	0.55
1:C:877:LYS:HB2	1:C:880:THR:HG21	1.88	0.55
1:C:1810:GLN:N	1:C:1810:GLN:OE1	2.39	0.55
1:B:1430:ASP:O	1:B:1506:ASN:ND2	2.39	0.55
1:C:54:PRO:HD2	1:C:64:VAL:HG12	1.88	0.55
1:C:81:PHE:HB2	1:C:129:LEU:HD11	1.88	0.55
1:C:1544:GLU:N	1:C:1544:GLU:OE1	2.40	0.55
1:B:175:PHE:HB3	1:B:223:ILE:HD12	1.88	0.55
1:B:1293:GLN:NE2	1:B:1298:GLY:HA2	2.22	0.55
1:C:110:VAL:HG22	1:C:115:TYR:HD2	1.72	0.55
1:C:501:VAL:HG13	1:C:504:PHE:HA	1.89	0.55
1:D:306:LEU:HD23	1:D:365:ASP:HB2	1.88	0.55
1:A:1051:ALA:HB1	1:A:1096:LEU:HD11	1.88	0.55
1:A:240:ILE:HD12	1:A:251:ARG:HB3	1.88	0.55
1:D:1721:THR:HG23	1:D:1732:LYS:HA	1.89	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:181:SER:OG	1:A:186:ARG:NH2	2.30	0.55
1:A:618:PRO:HG3	1:A:645:ARG:CZ	2.36	0.55
1:A:734:LEU:HB3	1:C:738:TYR:OH	2.07	0.55
1:C:1037:ASP:CG	1:C:1038:PRO:HD2	2.28	0.55
1:D:790:CYS:HA	1:D:836:VAL:HG13	1.88	0.55
1:A:179:VAL:HG21	1:A:209:ILE:HD12	1.88	0.55
1:B:63:ALA:HB2	1:B:118:THR:HG22	1.89	0.55
1:D:497:LEU:HD11	1:D:516:PHE:HB3	1.89	0.55
1:D:1439:THR:OG1	1:D:1445:CYS:O	2.22	0.55
1:A:74:ASP:OD1	1:A:75:SER:N	2.40	0.55
1:A:1128:VAL:HG13	1:A:1140:ALA:HB3	1.89	0.55
1:B:1597:GLN:O	1:B:1600:THR:OG1	2.24	0.55
1:D:1706:GLN:OE1	1:D:1715:LYS:NZ	2.40	0.55
1:A:1567:LYS:O	1:A:1570:THR:OG1	2.25	0.54
1:B:1051:ALA:HB1	1:B:1096:LEU:HD11	1.89	0.54
1:C:719:ILE:HG12	1:C:730:THR:HG22	1.87	0.54
1:A:1323:GLY:HA2	1:A:1367:LEU:HB2	1.90	0.54
1:A:1611:LYS:HB3	1:A:1643:ASN:HD22	1.72	0.54
1:B:1550:LEU:H	1:B:1563:GLN:HE22	1.55	0.54
1:B:1801:PHE:HB3	1:B:1811:CYS:HB3	1.90	0.54
1:B:167:ARG:HD3	1:B:371:ILE:HG22	1.90	0.54
1:B:872:PRO:HG3	1:B:882:VAL:HA	1.90	0.54
1:C:1374:ALA:HA	1:C:1388:PRO:HD3	1.88	0.54
1:A:663:TRP:O	1:A:714:PRO:HA	2.08	0.54
1:B:1084:VAL:HG12	1:B:1087:ASP:HB3	1.89	0.54
1:D:1423:GLY:HA3	1:D:1450:PRO:HG2	1.89	0.54
1:B:1703:GLY:H	1:B:1723:SER:HB3	1.71	0.54
1:C:801:PRO:HG2	1:C:821:ILE:HG12	1.88	0.54
1:C:1576:THR:HG22	1:C:1588:VAL:H	1.72	0.54
1:A:86:GLY:HA3	1:A:125:LYS:HB3	1.89	0.54
1:B:239:ARG:HG2	1:B:249:LEU:HD11	1.90	0.54
1:D:1061:ASN:HB3	1:D:1062:PRO:HD3	1.90	0.54
1:A:1220:THR:O	1:A:1237:SER:OG	2.25	0.54
1:A:1685:VAL:HG21	1:A:1728:GLU:HG2	1.89	0.54
1:B:109:LEU:HG	1:B:110:VAL:N	2.21	0.54
1:B:1015:PRO:HG2	1:B:1028:THR:HG22	1.90	0.54
1:C:876:VAL:O	1:C:1002:ALA:N	2.39	0.54
1:C:889:THR:HG22	1:C:944:THR:HG22	1.90	0.54
1:C:1672:GLN:NE2	1:C:1679:THR:O	2.41	0.54
1:D:1327:THR:HG22	1:D:1328:ASP:H	1.72	0.54
1:A:877:LYS:HD2	1:A:1002:ALA:HB3	1.89	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1239:GLU:OE2	1:A:1239:GLU:N	2.40	0.54
1:D:1014:SER:OG	1:D:1015:PRO:HD3	2.08	0.54
1:A:1042:PRO:HG2	1:A:1045:SER:HB2	1.90	0.54
1:B:1218:GLY:HA2	1:B:1239:GLU:H	1.72	0.54
1:C:49:LEU:HD13	1:C:68:ALA:HB2	1.88	0.54
1:C:532:ILE:HG12	1:C:596:ILE:HG12	1.90	0.54
1:C:1592:GLN:NE2	1:C:1593:CYS:O	2.40	0.54
1:D:1254:LYS:O	1:D:1285:LYS:NZ	2.40	0.54
1:B:1453:TYR:HD2	1:B:1479:CYS:HB3	1.73	0.53
1:C:1084:VAL:HG13	1:C:1086:THR:H	1.74	0.53
1:D:1364:ASN:HD21	1:D:1414:ARG:NH1	2.06	0.53
1:B:719:ILE:HG12	1:B:730:THR:HG22	1.89	0.53
1:B:1399:LYS:HA	1:B:1399:LYS:HE2	1.90	0.53
1:C:190:TRP:CZ2	1:C:244:PRO:HG3	2.43	0.53
1:C:643:ILE:HB	1:C:698:ALA:HB3	1.90	0.53
1:C:1174:LEU:HB3	1:C:1178:PHE:HB3	1.90	0.53
1:A:239:ARG:HG2	1:A:249:LEU:HD11	1.90	0.53
1:A:1282:GLU:OE2	1:A:1282:GLU:N	2.24	0.53
1:B:280:VAL:HB	1:B:284:ASP:HB2	1.91	0.53
1:B:1647:ASN:HD21	1:B:1652:ILE:HG22	1.73	0.53
1:C:754:SER:HA	1:C:850:LYS:NZ	2.23	0.53
1:C:1128:VAL:HG13	1:C:1140:ALA:HB3	1.90	0.53
1:D:308:TRP:CE2	1:D:341:VAL:HB	2.43	0.53
1:A:1130:GLU:OE1	1:A:1138:ALA:N	2.39	0.53
1:A:1850:ARG:HG2	1:A:1851:THR:N	2.23	0.53
1:B:230:LEU:O	1:B:231:GLU:HG3	2.08	0.53
1:B:1607:GLN:OE1	1:B:1608:PRO:HD2	2.08	0.53
1:C:1573:PRO:HG3	1:C:1582:LEU:HD11	1.90	0.53
1:D:903:ILE:HD13	1:D:945:THR:HG21	1.90	0.53
1:D:1195:TYR:HA	1:D:1200:ARG:HA	1.90	0.53
1:A:1006:VAL:HG12	1:A:1036:ARG:HA	1.90	0.53
1:A:1252:ILE:HD11	1:A:1301:CYS:HB2	1.89	0.53
1:A:1618:PHE:HB3	1:A:1636:THR:HG21	1.90	0.53
1:B:308:TRP:CE2	1:B:341:VAL:HB	2.44	0.53
1:D:555:ALA:HA	1:D:560:GLY:HA3	1.89	0.53
1:D:1037:ASP:HB3	1:D:1038:PRO:HD2	1.90	0.53
1:B:1569:GLY:H	1:B:1602:ASN:HB3	1.74	0.53
1:C:1569:GLY:H	1:C:1602:ASN:HB3	1.74	0.53
1:D:910:GLY:HA3	1:D:961:PHE:HB3	1.91	0.53
1:A:620:TYR:HE2	1:A:731:VAL:HG21	1.74	0.53
1:A:1805:ARG:O	1:A:1805:ARG:HG2	2.08	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:196:ASP:HB3	1:B:201:VAL:HG11	1.91	0.53
1:C:308:TRP:CE2	1:C:341:VAL:HB	2.44	0.53
1:A:1757:ASN:HD22	1:A:1763:THR:HB	1.74	0.53
1:A:592:LEU:HD12	1:A:593:GLN:N	2.24	0.53
1:A:1306:SER:HA	1:C:1375:ILE:HD11	1.91	0.53
1:A:1562:ILE:HD11	1:C:1190:PHE:HD1	1.74	0.53
1:A:1706:GLN:NE2	1:A:1711:GLN:HG3	2.23	0.53
1:B:877:LYS:O	1:B:880:THR:HG22	2.09	0.53
1:B:1178:PHE:HD2	1:B:1211:GLY:H	1.57	0.53
1:D:1527:LYS:HD3	1:D:1527:LYS:N	2.24	0.52
1:A:704:PRO:HG3	1:A:714:PRO:HG2	1.91	0.52
1:A:1390:ARG:HH11	1:C:1302:LEU:HD21	1.74	0.52
1:B:1361:CYS:HB3	1:B:1365:THR:HG23	1.90	0.52
1:C:1350:ILE:HG13	1:C:1351:TYR:CD1	2.45	0.52
1:C:1368:PRO:HG2	1:C:1369:LEU:HD12	1.90	0.52
1:D:844:THR:HG22	1:D:845:THR:HG23	1.90	0.52
1:A:1573:PRO:HD2	1:A:1588:VAL:HG11	1.90	0.52
1:A:1801:PHE:HB3	1:A:1811:CYS:HB3	1.90	0.52
1:B:1332:THR:HG23	1:B:1359:ARG:HE	1.74	0.52
1:C:280:VAL:HB	1:C:284:ASP:HB2	1.91	0.52
1:D:80:PHE:HD1	1:D:97:THR:HA	1.74	0.52
1:D:761:THR:HG22	1:D:894:VAL:HG21	1.91	0.52
1:A:167:ARG:HH12	1:A:369:ASN:HD22	1.56	0.52
1:B:161:LEU:HD11	1:B:178:ARG:HH11	1.74	0.52
1:B:581:TYR:HE1	1:B:588:LEU:HD22	1.74	0.52
1:B:1055:TYR:HD1	1:B:1094:GLN:HB3	1.74	0.52
1:B:1599:GLY:HA2	1:B:1619:ALA:HB3	1.92	0.52
1:B:1850:ARG:HG2	1:B:1851:THR:N	2.25	0.52
1:D:1829:THR:HB	1:D:1834:SER:HB3	1.91	0.52
1:A:1009:GLU:OE2	1:A:1107:ARG:NH1	2.42	0.52
1:A:1053:ALA:HB2	1:A:1096:LEU:HD13	1.91	0.52
1:B:1215:LYS:O	1:B:1216:CYS:HB2	2.08	0.52
1:C:628:PRO:HD2	1:C:637:THR:HG23	1.90	0.52
1:C:1644:ALA:HB2	1:C:1656:LEU:HB2	1.91	0.52
1:D:81:PHE:HB2	1:D:129:LEU:HD11	1.91	0.52
1:A:534:CYS:O	1:A:560:GLY:CA	2.58	0.52
1:A:1014:SER:OG	1:A:1015:PRO:HD3	2.09	0.52
1:B:1293:GLN:OE1	1:B:1295:ASN:N	2.43	0.52
1:D:1769:PRO:HB2	1:D:1772:TYR:CD2	2.45	0.52
1:A:1215:LYS:O	1:A:1216:CYS:HB2	2.10	0.52
1:C:555:ALA:HA	1:C:560:GLY:HA3	1.92	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:109:LEU:HG	1:D:110:VAL:HG23	1.91	0.52
1:D:110:VAL:HG22	1:D:115:TYR:CD2	2.45	0.52
1:D:297:TYR:CZ	1:D:299:ALA:HB3	2.44	0.52
1:D:1187:GLU:HB2	1:D:1228:CYS:HB2	1.91	0.52
1:D:1397:TRP:N	1:D:1406:GLN:O	2.33	0.52
1:A:80:PHE:HD1	1:A:97:THR:HA	1.74	0.52
1:A:363:LEU:HD12	1:A:371:ILE:HD11	1.91	0.52
1:A:1329:GLY:HA3	1:A:1357:THR:HG21	1.92	0.52
1:B:170:LEU:HG	1:C:1203:VAL:HG13	1.91	0.52
1:C:178:ARG:HD2	1:C:218:ASN:HB3	1.91	0.52
1:A:394:ALA:C	1:A:396:PRO:HG3	2.31	0.52
1:A:1130:GLU:H	1:A:1130:GLU:CD	2.12	0.52
1:A:1736:GLY:HA2	1:A:1780:TYR:HB3	1.91	0.52
1:C:1466:PRO:O	1:C:1469:THR:OG1	2.28	0.52
1:D:1644:ALA:HB2	1:D:1656:LEU:HB2	1.91	0.52
1:A:1516:ILE:HD11	1:A:1608:PRO:HD3	1.92	0.51
1:B:1492:ASP:OD2	1:B:1494:THR:N	2.40	0.51
1:A:354:THR:HG21	1:A:382:ASN:HB3	1.91	0.51
1:B:757:LEU:HD11	1:B:769:ALA:HB1	1.91	0.51
1:C:420:TRP:O	1:C:433:THR:OG1	2.26	0.51
1:C:1499:LEU:HD22	1:C:1512:ARG:HG2	1.92	0.51
1:A:790:CYS:HA	1:A:836:VAL:HG13	1.92	0.51
1:A:1515:THR:HA	1:A:1530:VAL:HB	1.92	0.51
1:A:1615:SER:O	1:A:1636:THR:OG1	2.26	0.51
1:A:1669:GLY:H	1:A:1689:ALA:HB3	1.75	0.51
1:C:1199:VAL:O	1:C:1200:ARG:HB3	2.11	0.51
1:D:432:ARG:CZ	1:D:472:GLY:HA3	2.40	0.51
1:D:1515:THR:HG22	1:D:1515:THR:O	2.10	0.51
1:B:902:PRO:HB3	1:B:937:VAL:HG12	1.93	0.51
1:B:1125:LYS:NZ	1:B:1149:SER:OG	2.42	0.51
1:C:758:ASN:HD22	1:C:759:PRO:HA	1.75	0.51
1:D:62:ASP:OD1	1:D:63:ALA:N	2.44	0.51
1:D:1772:TYR:CD1	1:D:1796:LYS:HG2	2.45	0.51
1:A:493:VAL:HG23	1:A:521:SER:HB2	1.93	0.51
1:A:1490:MET:SD	1:A:1536:ASN:HB3	2.51	0.51
1:B:877:LYS:HD2	1:B:1002:ALA:HB3	1.92	0.51
1:C:1195:TYR:OH	1:C:1200:ARG:NH2	2.33	0.51
1:D:1174:LEU:HD13	1:D:1178:PHE:HB3	1.93	0.51
1:D:1773:TYR:CE1	1:D:1797:CYS:HB3	2.46	0.51
1:A:373:GLU:C	1:A:374:LYS:HD3	2.31	0.51
1:C:832:TYR:HB2	1:C:852:PHE:CE2	2.46	0.51

*Continued on next page...*



Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1299:THR:HG23	1:D:1300:VAL:HG22	1.93	0.51
1:D:1722:TYR:HD1	1:D:1747:CYS:SG	2.34	0.51
1:A:1463:LEU:H	1:A:1463:LEU:HD12	1.74	0.51
1:B:1263:LYS:HB2	1:B:1266:ILE:HG22	1.92	0.51
1:B:1720:GLY:HA2	1:B:1739:ALA:HB3	1.92	0.51
1:D:1257:ALA:HA	1:D:1276:HIS:HD2	1.74	0.51
1:D:1453:TYR:CD1	1:D:1455:PRO:HD3	2.45	0.51
1:A:1035:LEU:HG	1:A:1037:ASP:H	1.76	0.51
1:D:228:TYR:HD1	1:D:234:LYS:HE3	1.76	0.51
1:D:957:SER:HB3	1:D:1001:VAL:N	2.21	0.51
1:A:1235:TYR:HD1	1:A:1246:ALA:HA	1.76	0.51
1:C:423:ASP:HB3	1:C:464:THR:HB	1.93	0.51
1:A:1600:THR:HB	1:A:1610:CYS:HB2	1.93	0.51
1:A:1796:LYS:HD2	1:A:1832:LEU:HB3	1.93	0.51
1:C:1015:PRO:HG2	1:C:1028:THR:HG22	1.93	0.51
1:C:1453:TYR:CD1	1:C:1455:PRO:HD3	2.45	0.51
1:C:1520:VAL:HG12	1:C:1529:ILE:HG12	1.92	0.51
1:A:308:TRP:HB2	1:A:361:LEU:HD11	1.91	0.50
1:A:1466:PRO:HB3	1:C:1227:ARG:HD3	1.93	0.50
1:C:534:CYS:HB3	1:C:592:LEU:HD11	1.92	0.50
1:D:689:THR:HG21	1:D:700:CYS:HB2	1.92	0.50
1:C:195:LEU:HD22	1:C:228:TYR:CZ	2.46	0.50
1:C:1647:ASN:HD21	1:C:1652:ILE:HG22	1.76	0.50
1:D:59:THR:N	1:D:62:ASP:OD2	2.42	0.50
1:D:1285:LYS:HD3	1:D:1285:LYS:N	2.27	0.50
1:A:1452:THR:HG22	1:A:1464:PRO:HA	1.93	0.50
1:A:1850:ARG:HG2	1:A:1851:THR:H	1.77	0.50
1:B:1721:THR:HG23	1:B:1732:LYS:HA	1.93	0.50
1:C:1844:SER:HB2	1:C:1847:LYS:HZ1	1.76	0.50
1:A:401:ASP:CG	1:A:402:THR:N	2.63	0.50
1:A:1132:ALA:O	1:A:1135:THR:OG1	2.26	0.50
1:C:1289:LYS:HG2	1:C:1312:SER:N	2.22	0.50
1:C:1289:LYS:HZ3	1:C:1289:LYS:HB2	1.75	0.50
1:C:1724:ARG:HA	1:C:1724:ARG:NE	2.27	0.50
1:D:280:VAL:HB	1:D:284:ASP:HB2	1.94	0.50
1:D:1282:GLU:H	1:D:1282:GLU:CD	2.13	0.50
1:B:293:THR:O	1:B:340:ALA:HA	2.12	0.50
1:D:1199:VAL:O	1:D:1200:ARG:HB3	2.11	0.50
1:D:1255:PRO:HD2	1:D:1255:PRO:O	2.12	0.50
1:B:155:THR:HB	1:B:182:SER:HB3	1.93	0.50
1:B:555:ALA:HA	1:B:560:GLY:HA3	1.94	0.50

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1672:GLN:NE2	1:B:1679:THR:O	2.44	0.50
1:D:110:VAL:HG22	1:D:115:TYR:HD2	1.77	0.50
1:A:1022:PRO:HB2	1:A:1028:THR:HG21	1.92	0.50
1:A:1321:SER:O	1:A:1324:THR:OG1	2.28	0.50
1:A:1844:SER:HB2	1:A:1847:LYS:NZ	2.26	0.50
1:A:506:PRO:HG3	1:A:588:LEU:HD21	1.93	0.50
1:A:1265:SER:C	1:A:1266:ILE:HD13	2.32	0.50
1:D:882:VAL:HB	1:D:951:THR:HG22	1.93	0.50
1:A:47:LEU:HD23	1:A:70:VAL:HG22	1.94	0.49
1:A:721:ASN:HD22	1:A:725:LEU:HD13	1.77	0.49
1:B:761:THR:HB	1:B:857:SER:HB3	1.94	0.49
1:B:1515:THR:HA	1:B:1530:VAL:HB	1.94	0.49
1:C:656:LEU:HD23	1:C:658:ILE:HD11	1.93	0.49
1:B:287:THR:HG22	1:B:348:THR:HG22	1.92	0.49
1:C:470:ARG:NE	1:C:477:THR:O	2.36	0.49
1:D:1289:LYS:HZ3	1:D:1289:LYS:HB2	1.77	0.49
1:D:1379:ASN:OD1	1:D:1379:ASN:N	2.43	0.49
1:D:1816:PRO:HB2	1:D:1824:LEU:HD21	1.93	0.49
1:A:957:SER:HB3	1:A:1001:VAL:O	2.12	0.49
1:A:1481:GLN:NE2	1:C:1164:GLY:O	2.46	0.49
1:B:1392:CYS:SG	1:B:1396:THR:OG1	2.61	0.49
1:B:1757:ASN:HD21	1:B:1764:SER:HB3	1.78	0.49
1:D:659:LEU:HB3	1:D:681:ALA:HB1	1.95	0.49
1:A:702:PHE:HE2	1:A:704:PRO:HB3	1.77	0.49
1:B:161:LEU:HD11	1:B:178:ARG:NH1	2.27	0.49
1:B:625:SER:HB3	1:B:640:THR:HG22	1.93	0.49
1:B:1496:GLN:HA	1:B:1511:LEU:HD11	1.94	0.49
1:B:1672:GLN:HG2	1:B:1677:THR:HG21	1.95	0.49
1:C:189:MET:HE3	1:C:209:ILE:HD11	1.93	0.49
1:A:290:GLN:O	1:A:293:THR:OG1	2.29	0.49
1:A:656:LEU:HB3	1:A:691:MET:HB3	1.95	0.49
1:A:1737:THR:OG1	1:A:1738:VAL:N	2.45	0.49
1:C:516:PHE:HB2	1:C:575:ILE:HG22	1.94	0.49
1:C:545:PRO:HB3	1:C:550:ALA:HB3	1.95	0.49
1:C:781:VAL:HG13	1:C:786:LYS:HE2	1.95	0.49
1:D:1586:LEU:HD13	1:D:1594:TYR:CZ	2.48	0.49
1:B:290:GLN:HG3	1:B:345:ALA:HB3	1.95	0.49
1:B:458:GLY:HA3	1:B:492:PRO:HD3	1.94	0.49
1:B:1192:ASN:OD1	1:B:1192:ASN:N	2.44	0.49
1:B:1844:SER:O	1:B:1847:LYS:HE3	2.12	0.49
1:C:1606:SER:O	1:C:1606:SER:OG	2.25	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1549:ASN:OD1	1:B:1549:ASN:N	2.46	0.49
1:C:1469:THR:HB	1:C:1479:CYS:HB3	1.94	0.49
1:A:470:ARG:NH2	1:A:471:ASP:OD2	2.37	0.49
1:B:517:ARG:HG2	1:B:517:ARG:HH11	1.78	0.49
1:B:1035:LEU:HG	1:B:1037:ASP:H	1.77	0.49
1:B:1440:GLU:OE2	1:B:1442:GLY:N	2.46	0.49
1:C:1195:TYR:HA	1:C:1200:ARG:HA	1.93	0.49
1:C:1850:ARG:HD3	1:C:1851:THR:O	2.13	0.49
1:A:534:CYS:O	1:A:560:GLY:HA2	2.13	0.49
1:A:1421:GLN:HB2	1:A:1436:THR:HB	1.95	0.49
1:B:393:THR:O	1:B:394:ALA:HB2	2.13	0.49
1:B:775:ILE:HB	1:B:815:THR:HG22	1.95	0.49
1:B:1573:PRO:HG2	1:B:1588:VAL:HG21	1.94	0.49
1:C:420:TRP:HD1	1:C:435:LEU:HB2	1.76	0.49
1:A:297:TYR:CZ	1:A:299:ALA:HB3	2.48	0.48
1:A:420:TRP:CD1	1:A:435:LEU:HB2	2.48	0.48
1:B:1042:PRO:HG2	1:B:1045:SER:HB2	1.94	0.48
1:B:1326:HIS:NE2	1:B:1355:PRO:O	2.33	0.48
1:B:1614:TRP:O	1:B:1614:TRP:CD1	2.66	0.48
1:B:274:THR:O	1:B:274:THR:OG1	2.28	0.48
1:C:235:THR:O	1:C:235:THR:OG1	2.30	0.48
1:D:1668:MET:SD	1:D:1668:MET:N	2.68	0.48
1:A:758:ASN:HD22	1:A:759:PRO:HA	1.78	0.48
1:A:1569:GLY:H	1:A:1602:ASN:HB3	1.77	0.48
1:B:420:TRP:CD1	1:B:435:LEU:HB2	2.48	0.48
1:B:1452:THR:HG22	1:B:1464:PRO:HA	1.94	0.48
1:B:1558:ASP:OD1	1:B:1558:ASP:N	2.46	0.48
1:C:167:ARG:HD3	1:C:371:ILE:HG22	1.95	0.48
1:C:1272:HIS:CD2	1:C:1273:PHE:N	2.81	0.48
1:D:618:PRO:HG3	1:D:645:ARG:CZ	2.43	0.48
1:A:519:GLN:HA	1:A:519:GLN:NE2	2.27	0.48
1:A:593:GLN:HE22	1:A:608:THR:HG22	1.78	0.48
1:A:738:TYR:OH	1:C:734:LEU:HB3	2.13	0.48
1:C:1380:LEU:HD23	1:C:1381:ALA:H	1.78	0.48
1:D:1465:CYS:SG	1:D:1469:THR:OG1	2.71	0.48
1:D:1683:CYS:SG	1:D:1687:THR:OG1	2.65	0.48
1:A:877:LYS:HB2	1:A:880:THR:HG21	1.96	0.48
1:A:1809:ARG:HG2	1:A:1810:GLN:HE22	1.78	0.48
1:C:1844:SER:HB2	1:C:1847:LYS:NZ	2.28	0.48
1:D:620:TYR:HA	1:D:644:ILE:O	2.13	0.48
1:B:1798:PRO:HB3	1:B:1832:LEU:HD23	1.96	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:400:ASP:OD1	1:A:401:ASP:N	2.43	0.48
1:B:451:LEU:HD12	1:B:452:SER:N	2.29	0.48
1:B:1324:THR:HB	1:B:1358:CYS:HB3	1.94	0.48
1:C:1425:PRO:HG2	1:C:1426:PHE:CE1	2.49	0.48
1:D:758:ASN:HD21	1:D:988:LEU:HD11	1.78	0.48
1:B:1586:LEU:HD13	1:B:1594:TYR:CZ	2.49	0.48
1:D:1603:ASP:OD1	1:D:1603:ASP:N	2.47	0.48
1:B:1769:PRO:HB2	1:B:1772:TYR:CE2	2.48	0.48
1:C:1081:THR:HB	1:C:1098:VAL:H	1.78	0.48
1:D:517:ARG:HH21	1:D:723:PHE:HB3	1.79	0.48
1:D:673:THR:HG23	1:D:675:ALA:H	1.79	0.48
1:D:889:THR:HG22	1:D:944:THR:HG22	1.95	0.48
1:D:1647:ASN:HD21	1:D:1652:ILE:HG22	1.79	0.48
1:C:445:PRO:C	1:C:446:ASN:HD22	2.17	0.48
1:C:1512:ARG:HB3	1:C:1530:VAL:HG11	1.96	0.48
1:C:1706:GLN:OE1	1:C:1715:LYS:NZ	2.47	0.48
1:D:254:THR:HG22	1:D:255:PRO:HD2	1.96	0.48
1:D:1304:CYS:SG	1:D:1310:SER:HB3	2.54	0.48
1:D:1486:THR:HG22	1:D:1548:THR:HA	1.94	0.48
1:A:1798:PRO:O	1:A:1800:ASP:N	2.47	0.47
1:B:687:LYS:HD3	1:B:687:LYS:N	2.29	0.47
1:C:1791:PRO:O	1:C:1795:TYR:OH	2.22	0.47
1:D:1130:GLU:OE2	1:D:1138:ALA:N	2.46	0.47
1:D:1215:LYS:O	1:D:1216:CYS:HB2	2.14	0.47
1:A:1227:ARG:HB3	1:C:1466:PRO:HA	1.96	0.47
1:A:1671:PHE:HD2	1:A:1696:ALA:HA	1.79	0.47
1:B:1011:THR:HG21	1:B:1150:LEU:HD21	1.94	0.47
1:B:1423:GLY:HA3	1:B:1450:PRO:HG2	1.96	0.47
1:D:1350:ILE:HG12	1:D:1351:TYR:CD1	2.49	0.47
1:D:1803:ALA:O	1:D:1805:ARG:HD3	2.14	0.47
1:B:663:TRP:CZ2	1:B:665:GLY:HA2	2.50	0.47
1:B:1058:GLN:NE2	1:B:1115:LEU:O	2.33	0.47
1:B:1196:THR:O	1:B:1198:GLY:N	2.47	0.47
1:B:1453:TYR:CD2	1:B:1479:CYS:HB3	2.50	0.47
1:D:190:TRP:CZ2	1:D:244:PRO:HG3	2.48	0.47
1:A:1440:GLU:OE1	1:A:1443:SER:HB2	2.14	0.47
1:B:469:ASP:OD2	1:B:470:ARG:HG2	2.15	0.47
1:C:659:LEU:HB3	1:C:681:ALA:HB1	1.95	0.47
1:C:764:ALA:HA	1:C:825:THR:HB	1.94	0.47
1:D:1817:LEU:HD21	1:D:1839:PRO:HB3	1.97	0.47
1:A:762:PRO:HG3	1:A:824:TYR:CZ	2.49	0.47

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:81:PHE:HB2	1:B:129:LEU:HD11	1.97	0.47
1:B:496:ALA:HB3	1:B:519:GLN:HB3	1.96	0.47
1:B:1131:TYR:OH	1:B:1134:SER:HA	2.14	0.47
1:B:1490:MET:SD	1:B:1536:ASN:HB3	2.54	0.47
1:B:1615:SER:OG	1:B:1616:GLY:N	2.46	0.47
1:C:308:TRP:HB2	1:C:361:LEU:HD11	1.96	0.47
1:C:1254:LYS:HB3	1:C:1285:LYS:NZ	2.29	0.47
1:C:1292:PHE:CZ	1:C:1302:LEU:HD23	2.49	0.47
1:C:1772:TYR:OH	1:C:1789:GLU:OE2	2.25	0.47
1:A:536:PHE:HD1	1:A:592:LEU:HB2	1.80	0.47
1:B:392:THR:O	1:B:393:THR:O	2.32	0.47
1:D:517:ARG:HD3	1:D:574:ILE:HG12	1.97	0.47
1:A:159:THR:OG1	1:A:178:ARG:NH1	2.48	0.47
1:A:288:PHE:CE1	1:A:290:GLN:HG2	2.50	0.47
1:A:1192:ASN:HA	1:A:1209:PRO:HA	1.97	0.47
1:A:1326:HIS:HE2	1:A:1356:ASN:HA	1.79	0.47
1:A:1844:SER:HB2	1:A:1847:LYS:HZ1	1.78	0.47
1:B:423:ASP:HB3	1:B:464:THR:HB	1.97	0.47
1:B:1189:ILE:O	1:B:1211:GLY:HA2	2.14	0.47
1:B:1257:ALA:HA	1:B:1276:HIS:HD2	1.79	0.47
1:B:1374:ALA:HA	1:B:1388:PRO:HD3	1.96	0.47
1:C:80:PHE:HD1	1:C:97:THR:HA	1.80	0.47
1:C:455:TYR:CD2	1:C:461:LYS:HD2	2.50	0.47
1:C:755:SER:HB3	1:C:773:ILE:HG12	1.95	0.47
1:C:1018:ASN:HD21	1:C:1020:THR:HB	1.80	0.47
1:C:1551:PRO:HG3	1:C:1574:PHE:HD1	1.79	0.47
1:D:565:ILE:HG23	1:D:571:PRO:HB3	1.96	0.47
1:D:656:LEU:HD23	1:D:658:ILE:HD11	1.97	0.47
1:A:882:VAL:HB	1:A:951:THR:HG22	1.97	0.47
1:A:1139:ASN:ND2	1:A:1146:THR:H	2.12	0.47
1:B:166:PRO:HG3	1:B:172:PHE:CE2	2.49	0.47
1:B:885:THR:HG22	1:B:948:THR:HG22	1.95	0.47
1:B:1031:THR:HA	1:B:1110:CYS:O	2.14	0.47
1:B:1037:ASP:OD2	1:B:1039:PRO:HD2	2.15	0.47
1:D:1492:ASP:OD2	1:D:1494:THR:N	2.46	0.47
1:D:1842:LEU:HB3	1:D:1843:LEU:HD22	1.96	0.47
1:A:44:THR:N	1:A:74:ASP:OD2	2.47	0.47
1:A:1301:CYS:N	1:A:1351:TYR:OH	2.48	0.47
1:B:876:VAL:O	1:B:1002:ALA:N	2.48	0.47
1:C:622:LEU:HD11	1:C:718:LEU:HD13	1.96	0.47
1:A:1527:LYS:HB3	1:A:1528:PRO:HD3	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1647:ASN:HD21	1:A:1652:ILE:HG22	1.80	0.47
1:B:872:PRO:HG2	1:B:882:VAL:HG13	1.96	0.47
1:B:1601:PHE:CE1	1:B:1611:LYS:HB2	2.50	0.47
1:B:1737:THR:OG1	1:B:1738:VAL:N	2.48	0.47
1:C:156:LEU:HD12	1:C:250:LEU:HB3	1.97	0.47
1:C:788:LEU:HG	1:C:808:ILE:HD11	1.97	0.47
1:C:1061:ASN:O	1:C:1063:ALA:N	2.48	0.47
1:D:671:PRO:HD2	1:D:677:TRP:CH2	2.50	0.47
1:D:1035:LEU:HG	1:D:1037:ASP:H	1.79	0.47
1:A:196:ASP:HB3	1:A:201:VAL:HG11	1.97	0.46
1:A:532:ILE:HG23	1:A:563:ALA:HB3	1.96	0.46
1:A:1334:THR:O	1:A:1334:THR:OG1	2.33	0.46
1:B:1186:TYR:HB3	1:B:1213:CYS:HB3	1.97	0.46
1:C:297:TYR:CZ	1:C:299:ALA:HB3	2.50	0.46
1:C:622:LEU:HB2	1:C:734:LEU:HD11	1.98	0.46
1:C:1370:ARG:O	1:C:1372:GLN:NE2	2.48	0.46
1:D:385:TYR:CD2	1:D:481:LEU:HD13	2.50	0.46
1:D:419:TRP:HD1	1:D:432:ARG:HB3	1.80	0.46
1:D:1055:TYR:OH	1:D:1059:ASN:OD1	2.34	0.46
1:A:123:GLY:H	1:A:151:VAL:HB	1.81	0.46
1:A:788:LEU:HD22	1:A:838:VAL:HG13	1.97	0.46
1:B:592:LEU:HD12	1:B:593:GLN:N	2.30	0.46
1:B:1573:PRO:HG3	1:B:1582:LEU:HD11	1.96	0.46
1:C:1724:ARG:HA	1:C:1724:ARG:CZ	2.45	0.46
1:D:195:LEU:HD21	1:D:226:GLN:HG3	1.98	0.46
1:D:1719:MET:SD	1:D:1720:GLY:N	2.89	0.46
1:A:759:PRO:HD2	1:A:769:ALA:HA	1.97	0.46
1:A:1551:PRO:HG3	1:A:1574:PHE:HD1	1.80	0.46
1:B:410:LYS:HD2	1:B:410:LYS:C	2.36	0.46
1:B:1304:CYS:SG	1:B:1310:SER:HB3	2.55	0.46
1:B:1308:PHE:HD1	1:B:1319:ALA:HA	1.80	0.46
1:B:1421:GLN:HB2	1:B:1436:THR:HB	1.96	0.46
1:D:155:THR:HB	1:D:182:SER:HB3	1.97	0.46
1:B:308:TRP:HB2	1:B:361:LEU:HD11	1.97	0.46
1:B:1485:GLY:O	1:B:1555:THR:OG1	2.34	0.46
1:B:1772:TYR:CD1	1:B:1796:LYS:HG2	2.50	0.46
1:B:1801:PHE:CE2	1:B:1813:ALA:HB2	2.51	0.46
1:C:903:ILE:HD12	1:C:903:ILE:HA	1.80	0.46
1:C:1618:PHE:HB2	1:C:1660:ALA:O	2.15	0.46
1:C:1724:ARG:HG2	1:C:1724:ARG:HH11	1.80	0.46
1:D:141:LEU:HD12	1:D:141:LEU:H	1.80	0.46

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:360:ARG:HB3	1:D:375:ILE:HG23	1.97	0.46
1:D:877:LYS:HD2	1:D:1002:ALA:HB3	1.97	0.46
1:D:1615:SER:O	1:D:1636:THR:OG1	2.26	0.46
1:A:193:ILE:HD13	1:A:226:GLN:NE2	2.31	0.46
1:A:308:TRP:CE2	1:A:341:VAL:HB	2.50	0.46
1:C:753:ILE:HG12	1:C:775:ILE:HG12	1.96	0.46
1:D:421:THR:OG1	1:D:466:ARG:O	2.22	0.46
1:D:530:GLU:OE2	1:D:530:GLU:N	2.48	0.46
1:D:595:PHE:CE2	1:D:600:PRO:HB3	2.51	0.46
1:D:1009:GLU:N	1:D:1033:THR:O	2.45	0.46
1:A:1189:ILE:CD1	1:A:1214:ARG:HD3	2.44	0.46
1:B:1721:THR:HG22	1:B:1722:TYR:H	1.80	0.46
1:C:207:ILE:HD12	1:C:208:PHE:H	1.80	0.46
1:C:753:ILE:HG12	1:C:775:ILE:HG23	1.98	0.46
1:C:907:PHE:HB2	1:C:949:PHE:CD2	2.50	0.46
1:D:362:ARG:NE	1:D:370:VAL:HG11	2.31	0.46
1:D:877:LYS:HB2	1:D:880:THR:HG21	1.97	0.46
1:A:1017:TYR:CD1	1:A:1156:GLN:HG3	2.50	0.46
1:A:1061:ASN:O	1:A:1063:ALA:N	2.49	0.46
1:A:1707:ASN:OD1	1:A:1707:ASN:N	2.49	0.46
1:B:545:PRO:HB3	1:B:550:ALA:HB3	1.97	0.46
1:B:620:TYR:HE2	1:B:731:VAL:HG21	1.81	0.46
1:B:1130:GLU:H	1:B:1130:GLU:CD	2.11	0.46
1:C:193:ILE:HD12	1:C:194:GLN:N	2.31	0.46
1:C:1490:MET:O	1:C:1496:GLN:NE2	2.45	0.46
1:A:1084:VAL:HG13	1:A:1087:ASP:HB3	1.98	0.46
1:C:1742:THR:HG21	1:D:1165:PRO:HG2	1.98	0.46
1:D:439:ASN:HB2	1:D:446:ASN:ND2	2.31	0.46
1:D:794:ASP:HB2	1:D:800:SER:HB2	1.97	0.46
1:D:855:LEU:HD11	1:D:894:VAL:HB	1.97	0.46
1:D:1672:GLN:NE2	1:D:1680:CYS:HA	2.30	0.46
1:A:271:LEU:HD13	1:A:295:VAL:HG12	1.97	0.46
1:B:470:ARG:HA	1:B:470:ARG:CZ	2.46	0.46
1:B:497:LEU:HD11	1:B:516:PHE:HB3	1.98	0.46
1:C:110:VAL:HG22	1:C:115:TYR:CD2	2.51	0.46
1:C:1720:GLY:HA2	1:C:1739:ALA:HB3	1.98	0.46
1:D:193:ILE:HD12	1:D:194:GLN:H	1.81	0.46
1:D:641:TYR:CD1	1:D:716:LEU:HD11	2.51	0.46
1:D:902:PRO:HB3	1:D:937:VAL:HG22	1.98	0.46
1:A:514:TRP:CZ3	1:A:613:VAL:HG21	2.51	0.46
1:A:844:THR:HG22	1:A:845:THR:HG23	1.99	0.46

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:306:LEU:HD23	1:B:365:ASP:HB2	1.98	0.46
1:B:520:ARG:HB2	1:B:571:PRO:HD2	1.97	0.46
1:B:1603:ASP:OD1	1:B:1603:ASP:N	2.49	0.46
1:D:1292:PHE:CD2	1:D:1294:PRO:HD3	2.51	0.46
1:D:1826:GLU:OE2	1:D:1826:GLU:N	2.47	0.46
1:A:862:PRO:HB3	1:A:892:THR:HG21	1.97	0.45
1:A:1037:ASP:OD2	1:A:1039:PRO:HD2	2.16	0.45
1:A:1576:THR:HG22	1:A:1588:VAL:H	1.81	0.45
1:A:1667:GLY:HA3	1:B:1936:ALA:O	2.16	0.45
1:B:832:TYR:HB2	1:B:852:PHE:CZ	2.51	0.45
1:B:1187:GLU:OE2	1:B:1228:CYS:HB3	2.16	0.45
1:C:1367:LEU:HA	1:C:1367:LEU:HD23	1.74	0.45
1:A:589:GLN:N	1:A:589:GLN:OE1	2.49	0.45
1:B:821:ILE:HB	1:B:824:TYR:HB2	1.97	0.45
1:C:311:ASN:HB2	1:C:319:GLU:HG3	1.99	0.45
1:C:363:LEU:HD12	1:C:372:ALA:HB3	1.98	0.45
1:C:504:PHE:CZ	1:C:720:GLN:HG2	2.51	0.45
1:C:872:PRO:HG2	1:C:882:VAL:HG13	1.98	0.45
1:C:1341:LEU:HA	1:C:1345:ASP:OD1	2.16	0.45
1:C:1413:TYR:O	1:C:1446:SER:N	2.49	0.45
1:C:1423:GLY:HA3	1:C:1450:PRO:HG2	1.99	0.45
1:C:1441:LEU:H	1:C:1441:LEU:HD23	1.80	0.45
1:C:1770:ARG:NH2	1:C:1804:ASP:O	2.49	0.45
1:C:1786:ASP:O	1:C:1788:PHE:N	2.49	0.45
1:A:555:ALA:HA	1:A:560:GLY:HA3	1.97	0.45
1:A:1417:TRP:CH2	1:C:1254:LYS:HD2	2.51	0.45
1:A:1617:SER:HB2	1:A:1627:CYS:HB3	1.97	0.45
1:A:1782:ASP:O	1:A:1784:LEU:N	2.45	0.45
1:B:411:HIS:HB3	1:B:415:THR:HG22	1.98	0.45
1:A:280:VAL:HB	1:A:284:ASP:HB2	1.99	0.45
1:A:593:GLN:OE1	1:A:602:TRP:HB2	2.17	0.45
1:B:1814:CYS:HB3	1:B:1827:GLN:HB2	1.98	0.45
1:C:663:TRP:CZ2	1:C:665:GLY:HA2	2.52	0.45
1:C:852:PHE:HB2	1:C:899:ILE:HD11	1.98	0.45
1:C:1567:LYS:O	1:C:1570:THR:OG1	2.25	0.45
1:C:1757:ASN:OD1	1:C:1766:ARG:NH1	2.49	0.45
1:D:702:PHE:HE2	1:D:704:PRO:HB3	1.81	0.45
1:D:713:THR:HG21	1:D:737:VAL:H	1.81	0.45
1:D:1573:PRO:HG2	1:D:1588:VAL:HG21	1.98	0.45
1:A:1629:ILE:HD13	1:A:1629:ILE:HA	1.87	0.45
1:B:548:LEU:HD21	1:B:600:PRO:HG3	1.98	0.45

Continued on next page...



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:755:SER:HB2	1:B:771:TRP:NE1	2.24	0.45
1:C:757:LEU:HD22	1:C:771:TRP:CE3	2.51	0.45
1:D:1520:VAL:HG12	1:D:1526:ALA:H	1.82	0.45
1:A:902:PRO:HG2	1:A:971:SER:HB3	1.98	0.45
1:A:1708:SER:OG	1:B:1930:PRO:HB2	2.17	0.45
1:C:275:VAL:HG12	1:C:288:PHE:HA	1.99	0.45
1:C:1053:ALA:HB2	1:C:1096:LEU:HD13	1.99	0.45
1:C:1797:CYS:HB2	1:C:1801:PHE:HB2	1.99	0.45
1:D:1334:THR:O	1:D:1334:THR:OG1	2.32	0.45
1:A:764:ALA:HB3	1:A:859:THR:HG22	1.97	0.45
1:B:1722:TYR:HD2	1:B:1724:ARG:HH11	1.64	0.45
1:C:418:VAL:HB	1:C:435:LEU:HD23	1.98	0.45
1:C:1799:TYR:HA	1:C:1829:THR:OG1	2.17	0.45
1:D:362:ARG:HG3	1:D:364:TYR:CE1	2.51	0.45
1:D:389:LEU:HA	1:D:407:ALA:HA	1.98	0.45
1:A:410:LYS:HB3	1:A:444:ALA:HA	1.99	0.45
1:C:371:ILE:HG13	1:C:372:ALA:N	2.31	0.45
1:C:420:TRP:HB2	1:C:465:LEU:HD11	1.99	0.45
1:D:519:GLN:HA	1:D:519:GLN:OE1	2.17	0.45
1:D:1497:MET:HG3	1:D:1514:TYR:HD2	1.81	0.45
1:A:411:HIS:HB3	1:A:415:THR:HG22	1.98	0.45
1:A:503:PRO:HD2	1:A:512:ALA:HA	1.98	0.45
1:B:424:TYR:CZ	1:B:453:ASN:HB2	2.52	0.45
1:B:1253:ALA:HA	1:B:1283:SER:O	2.17	0.45
1:B:1782:ASP:O	1:B:1784:LEU:N	2.49	0.45
1:A:110:VAL:HG22	1:A:115:TYR:HB2	1.97	0.45
1:B:1132:ALA:O	1:B:1135:THR:OG1	2.31	0.45
1:C:1421:GLN:HB2	1:C:1436:THR:HB	1.98	0.45
1:D:397:VAL:HG13	1:D:491:THR:HG1	1.82	0.45
1:A:525:PRO:HD2	1:A:528:VAL:HB	1.99	0.44
1:A:853:THR:HB	1:A:898:GLY:HA2	1.98	0.44
1:A:1534:ASP:OD2	1:C:1192:ASN:N	2.39	0.44
1:B:1604:GLU:HG2	1:B:1607:GLN:HB2	1.99	0.44
1:C:1071:ASP:HB2	1:C:1129:PHE:HE1	1.82	0.44
1:C:1372:GLN:OE1	1:C:1372:GLN:N	2.50	0.44
1:C:1550:LEU:HD23	1:C:1563:GLN:HE22	1.82	0.44
1:C:1773:TYR:CD1	1:C:1797:CYS:HB3	2.52	0.44
1:D:432:ARG:NH2	1:D:471:ASP:O	2.50	0.44
1:D:533:LYS:HD3	1:D:556:ASN:HA	2.00	0.44
1:D:759:PRO:HD2	1:D:769:ALA:HA	1.98	0.44
1:A:506:PRO:HG3	1:A:588:LEU:HD11	1.98	0.44

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1339:THR:OG1	1:A:1342:ASP:OD2	2.35	0.44
1:B:195:LEU:HD22	1:B:228:TYR:CZ	2.53	0.44
1:B:1022:PRO:HB2	1:B:1028:THR:HG21	1.99	0.44
1:D:497:LEU:HD21	1:D:592:LEU:HD23	1.99	0.44
1:D:764:ALA:HB3	1:D:859:THR:HG22	2.00	0.44
1:B:758:ASN:HD22	1:B:759:PRO:HA	1.83	0.44
1:B:844:THR:HG22	1:B:845:THR:HG23	2.00	0.44
1:C:158:ALA:HA	1:C:178:ARG:O	2.17	0.44
1:C:297:TYR:CE2	1:C:299:ALA:HB3	2.52	0.44
1:D:1694:LEU:HD23	1:D:1694:LEU:HA	1.79	0.44
1:A:309:ARG:HD2	1:A:322:LEU:HG	2.00	0.44
1:A:1370:ARG:O	1:A:1372:GLN:NE2	2.50	0.44
1:A:1467:ALA:HB3	1:C:1226:TYR:HB3	2.00	0.44
1:B:592:LEU:HD12	1:B:593:GLN:H	1.82	0.44
1:B:762:PRO:O	1:B:857:SER:OG	2.32	0.44
1:B:1218:GLY:HA2	1:B:1239:GLU:N	2.32	0.44
1:B:1426:PHE:CE1	1:B:1490:MET:HB2	2.52	0.44
1:B:1616:GLY:O	1:B:1630:ALA:HB2	2.18	0.44
1:C:1573:PRO:HG2	1:C:1588:VAL:HG21	1.98	0.44
1:D:719:ILE:HG12	1:D:730:THR:HG22	2.00	0.44
1:D:1537:PHE:CG	1:D:1537:PHE:O	2.71	0.44
1:D:1549:ASN:ND2	1:D:1555:THR:OG1	2.45	0.44
1:D:1606:SER:O	1:D:1607:GLN:HG2	2.17	0.44
1:D:1722:TYR:HE1	1:D:1734:PRO:HD3	1.83	0.44
1:A:1604:GLU:OE1	1:A:1604:GLU:N	2.51	0.44
1:B:792:MET:HG3	1:B:801:PRO:HD2	1.99	0.44
1:B:862:PRO:HB3	1:B:892:THR:HG21	2.00	0.44
1:C:189:MET:O	1:C:209:ILE:HG12	2.17	0.44
1:C:398:THR:HG21	1:C:492:PRO:HA	1.98	0.44
1:C:514:TRP:CH2	1:C:613:VAL:HG21	2.53	0.44
1:C:1031:THR:HG22	1:C:1111:THR:HG22	1.99	0.44
1:D:1503:ASN:ND2	1:D:1506:ASN:HB2	2.32	0.44
1:A:405:PHE:HZ	1:A:424:TYR:HE1	1.64	0.44
1:D:775:ILE:O	1:D:814:THR:HA	2.18	0.44
1:D:1247:CYS:SG	1:D:1253:ALA:HB2	2.58	0.44
1:D:1361:CYS:HB3	1:D:1365:THR:HG23	1.99	0.44
1:A:1255:PRO:HB2	1:A:1276:HIS:HB3	1.99	0.44
1:A:1355:PRO:HG2	1:C:1375:ILE:HG22	1.99	0.44
1:A:1779:ALA:HB1	1:A:1793:GLY:HA2	2.00	0.44
1:C:288:PHE:CD1	1:C:290:GLN:HG2	2.53	0.44
1:C:1189:ILE:CD1	1:C:1214:ARG:HB2	2.47	0.44

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:561:LEU:HD12	1:A:575:ILE:HD11	1.99	0.44
1:A:1021:THR:HG22	1:A:1153:PHE:HB2	1.99	0.44
1:B:410:LYS:HB3	1:B:444:ALA:O	2.17	0.44
1:C:306:LEU:HD23	1:C:365:ASP:HB2	2.00	0.44
1:C:903:ILE:HG22	1:C:936:ALA:O	2.18	0.44
1:C:1329:GLY:HA3	1:C:1357:THR:HG21	1.99	0.44
1:D:1195:TYR:OH	1:D:1200:ARG:NH2	2.51	0.44
1:D:1399:LYS:O	1:D:1399:LYS:HG3	2.18	0.44
1:D:1415:ASN:OD1	1:D:1418:PHE:N	2.28	0.44
1:A:371:ILE:HG13	1:A:372:ALA:N	2.33	0.44
1:A:753:ILE:HG21	1:A:850:LYS:HE2	2.00	0.44
1:A:1560:LEU:HD23	1:A:1560:LEU:HA	1.89	0.44
1:A:1694:LEU:HD23	1:A:1694:LEU:HA	1.85	0.44
1:B:514:TRP:CZ3	1:B:613:VAL:HG21	2.53	0.44
1:B:593:GLN:HE22	1:B:608:THR:HG22	1.82	0.44
1:C:1453:TYR:CE1	1:C:1463:LEU:HD21	2.53	0.44
1:D:1618:PHE:O	1:D:1628:GLU:N	2.47	0.44
1:A:160:LEU:HD21	1:A:175:PHE:HE1	1.83	0.43
1:A:306:LEU:HD23	1:A:365:ASP:HB2	2.00	0.43
1:B:161:LEU:HD21	1:B:178:ARG:HH12	1.82	0.43
1:C:480:LEU:HD12	1:C:481:LEU:N	2.33	0.43
1:C:1737:THR:OG1	1:C:1738:VAL:N	2.51	0.43
1:D:534:CYS:HB3	1:D:592:LEU:HD11	1.99	0.43
1:D:876:VAL:O	1:D:1002:ALA:N	2.50	0.43
1:D:1569:GLY:N	1:D:1602:ASN:HB3	2.28	0.43
1:D:1737:THR:OG1	1:D:1738:VAL:N	2.50	0.43
1:A:786:LYS:HB2	1:A:808:ILE:HD13	2.00	0.43
1:A:1031:THR:HA	1:A:1110:CYS:O	2.17	0.43
1:A:1265:SER:O	1:A:1266:ILE:HD13	2.18	0.43
1:B:170:LEU:HD23	1:B:170:LEU:HA	1.82	0.43
1:B:455:TYR:CD2	1:B:461:LYS:HE2	2.54	0.43
1:C:595:PHE:CE2	1:C:600:PRO:HB3	2.54	0.43
1:D:762:PRO:O	1:D:857:SER:OG	2.36	0.43
1:D:1770:ARG:HA	1:D:1806:PRO:CD	2.48	0.43
1:A:788:LEU:HD12	1:A:815:THR:HG21	2.00	0.43
1:A:1036:ARG:O	1:A:1037:ASP:HB3	2.18	0.43
1:A:1293:GLN:HE21	1:A:1301:CYS:HA	1.82	0.43
1:A:1413:TYR:O	1:A:1446:SER:N	2.52	0.43
1:A:1819:LEU:HB3	1:A:1823:ASN:HB2	1.99	0.43
1:B:1390:ARG:HA	1:B:1391:PRO:HD3	1.90	0.43
1:B:1501:VAL:HG23	1:B:1509:PRO:HD2	2.00	0.43

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:362:ARG:HB2	1:C:364:TYR:CE1	2.54	0.43
1:C:792:MET:HE3	1:C:801:PRO:HD2	2.00	0.43
1:C:1322:GLU:OE1	1:C:1322:GLU:N	2.41	0.43
1:D:886:PHE:CD2	1:D:965:LEU:HD22	2.53	0.43
1:D:965:LEU:HD12	1:D:965:LEU:HA	1.80	0.43
1:A:775:ILE:HB	1:A:815:THR:HG22	2.01	0.43
1:A:1708:SER:HB2	1:A:1711:GLN:HG3	2.01	0.43
1:B:277:PRO:HB2	1:B:280:VAL:HG13	2.00	0.43
1:B:1453:TYR:HD1	1:B:1455:PRO:HD3	1.83	0.43
1:B:1724:ARG:NH1	1:B:1745:SER:O	2.50	0.43
1:B:1772:TYR:CE1	1:B:1796:LYS:HG2	2.54	0.43
1:C:195:LEU:HD23	1:C:195:LEU:HA	1.76	0.43
1:C:1664:THR:HG23	1:C:1664:THR:O	2.19	0.43
1:D:311:ASN:HB2	1:D:319:GLU:HG3	2.01	0.43
1:A:193:ILE:HD13	1:A:226:GLN:HE22	1.83	0.43
1:A:271:LEU:HG	1:A:374:LYS:HE2	2.00	0.43
1:A:835:THR:HA	1:A:848:ILE:O	2.19	0.43
1:B:686:GLY:C	1:B:687:LYS:HD3	2.39	0.43
1:C:603:ASP:OD1	1:C:606:TYR:HB2	2.18	0.43
1:C:649:VAL:HB	1:C:694:GLY:H	1.82	0.43
1:D:909:ASN:HB2	1:D:953:TYR:CZ	2.53	0.43
1:D:1071:ASP:HB2	1:D:1129:PHE:CE1	2.54	0.43
1:D:1110:CYS:HB3	1:D:1112:PHE:CE2	2.54	0.43
1:D:1754:PHE:HA	1:D:1767:ALA:HA	2.00	0.43
1:A:1037:ASP:CG	1:A:1038:PRO:HD2	2.37	0.43
1:B:882:VAL:HB	1:B:951:THR:HG22	2.00	0.43
1:B:1527:LYS:HG3	1:B:1528:PRO:CD	2.49	0.43
1:D:393:THR:HG23	1:D:404:ALA:HB3	2.01	0.43
1:A:685:ASN:N	1:A:685:ASN:OD1	2.52	0.43
1:A:1148:THR:HG23	1:A:1148:THR:O	2.18	0.43
1:A:1867:PRO:HA	1:A:1868:PRO:HD3	1.91	0.43
1:B:297:TYR:CE2	1:B:299:ALA:HB3	2.54	0.43
1:B:1758:ALA:HB1	1:B:1759:PRO:HD2	2.00	0.43
1:C:774:VAL:HG23	1:C:814:THR:HG23	2.00	0.43
1:C:878:VAL:O	1:C:1039:PRO:HB3	2.18	0.43
1:C:1037:ASP:OD2	1:C:1039:PRO:HD2	2.19	0.43
1:C:1096:LEU:HD12	1:C:1097:ARG:N	2.33	0.43
1:C:1844:SER:O	1:C:1847:LYS:HG2	2.18	0.43
1:D:1819:LEU:HB2	1:D:1823:ASN:HB2	2.01	0.43
1:A:193:ILE:HG21	1:A:226:GLN:NE2	2.32	0.43
1:A:497:LEU:HD11	1:A:516:PHE:HB3	2.01	0.43

Continued on next page...

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1814:CYS:HB3	1:A:1827:GLN:HB2	2.00	0.43
1:B:1239:GLU:CG	1:B:1240:GLY:N	2.80	0.43
1:C:293:THR:O	1:C:340:ALA:HA	2.19	0.43
1:C:514:TRP:CZ3	1:C:613:VAL:HG21	2.54	0.43
1:D:193:ILE:HD12	1:D:194:GLN:N	2.33	0.43
1:D:1499:LEU:HD22	1:D:1512:ARG:HG2	2.00	0.43
1:D:1618:PHE:HB2	1:D:1660:ALA:O	2.17	0.43
1:D:1867:PRO:HA	1:D:1868:PRO:HD3	1.93	0.43
1:A:1131:TYR:OH	1:A:1134:SER:HA	2.18	0.43
1:A:1832:LEU:HD21	1:A:1850:ARG:HD2	1.99	0.43
1:B:1707:ASN:N	1:B:1707:ASN:OD1	2.51	0.43
1:C:170:LEU:HA	1:C:170:LEU:HD23	1.72	0.43
1:C:671:PRO:O	1:C:677:TRP:NE1	2.52	0.43
1:C:1688:TYR:HE2	1:C:1690:ASP:HB2	1.84	0.43
1:C:1775:PRO:HB3	1:C:1809:ARG:HD3	2.01	0.43
1:D:132:TYR:CE2	1:D:141:LEU:HG	2.54	0.43
1:D:673:THR:HG23	1:D:675:ALA:N	2.34	0.43
1:D:999:MET:HE3	1:D:1000:VAL:H	1.83	0.43
1:A:1528:PRO:HG3	1:C:1207:PRO:HA	2.00	0.43
1:B:1237:SER:OG	1:B:1238:ASN:N	2.51	0.43
1:B:1672:GLN:HE21	1:B:1680:CYS:HA	1.84	0.43
1:C:1310:SER:OG	1:C:1311:THR:N	2.52	0.43
1:C:1757:ASN:HD22	1:C:1763:THR:HB	1.84	0.43
1:D:753:ILE:HG23	1:D:773:ILE:HG23	2.00	0.43
1:D:1672:GLN:HE21	1:D:1680:CYS:HA	1.84	0.43
1:A:1461:VAL:HG11	1:C:1230:PRO:HG2	2.00	0.42
1:C:1263:LYS:HE3	1:C:1263:LYS:HA	2.01	0.42
1:D:405:PHE:HE1	1:D:422:ILE:HD11	1.84	0.42
1:A:1770:ARG:CZ	1:A:1806:PRO:HD2	2.49	0.42
1:B:1239:GLU:HG2	1:B:1240:GLY:H	1.84	0.42
1:B:1415:ASN:OD1	1:B:1418:PHE:N	2.34	0.42
1:B:1551:PRO:HG3	1:B:1574:PHE:HD1	1.85	0.42
1:B:1845:LYS:N	1:B:1846:PRO:HD2	2.34	0.42
1:C:1139:ASN:HD21	1:C:1146:THR:H	1.67	0.42
1:D:1722:TYR:HB2	1:D:1745:SER:O	2.19	0.42
1:D:1920:PRO:HA	1:D:1921:PRO:HD3	1.95	0.42
1:A:662:PHE:HE2	1:A:687:LYS:HG2	1.85	0.42
1:A:663:TRP:CZ2	1:A:665:GLY:HA2	2.55	0.42
1:A:902:PRO:HA	1:A:937:VAL:HA	2.01	0.42
1:A:1491:GLY:O	1:A:1496:GLN:NE2	2.52	0.42
1:A:1687:THR:HB	1:A:1697:CYS:HB3	2.00	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:595:PHE:CE2	1:B:600:PRO:HB3	2.54	0.42
1:B:1018:ASN:HD21	1:B:1020:THR:HB	1.84	0.42
1:C:195:LEU:HD13	1:C:228:TYR:CD1	2.53	0.42
1:C:255:PRO:HB3	1:C:260:ALA:HA	2.01	0.42
1:C:1701:GLN:OE1	1:C:1704:ARG:NH1	2.52	0.42
1:C:1829:THR:HB	1:C:1834:SER:HB3	2.00	0.42
1:A:501:VAL:HG13	1:A:503:PRO:O	2.19	0.42
1:A:1162:ILE:HD12	1:C:1481:GLN:HG3	2.02	0.42
1:A:1724:ARG:CZ	1:A:1724:ARG:HA	2.50	0.42
1:A:1772:TYR:HB3	1:A:1794:CYS:HB3	2.02	0.42
1:B:751:TYR:HB2	1:B:848:ILE:HD11	2.00	0.42
1:C:231:GLU:HA	1:C:263:VAL:HB	2.00	0.42
1:C:358:ASN:HB3	1:C:375:ILE:HD11	2.01	0.42
1:C:1920:PRO:HA	1:C:1921:PRO:HD3	1.92	0.42
1:D:1080:VAL:HG12	1:D:1083:ALA:HB2	2.01	0.42
1:D:1128:VAL:HG13	1:D:1140:ALA:HB3	2.00	0.42
1:B:957:SER:HB3	1:B:1001:VAL:O	2.20	0.42
1:B:1220:THR:OG1	1:B:1229:ILE:O	2.29	0.42
1:C:1440:GLU:OE2	1:C:1442:GLY:N	2.52	0.42
1:D:308:TRP:HB2	1:D:361:LEU:HD11	2.02	0.42
1:D:631:VAL:HG11	1:D:706:TYR:CE2	2.55	0.42
1:D:1366:TYR:CG	1:D:1405:CYS:HB3	2.55	0.42
1:A:545:PRO:HD2	1:A:551:TRP:CZ2	2.55	0.42
1:A:618:PRO:HB3	1:A:647:VAL:HB	2.02	0.42
1:A:1279:MET:HE1	1:D:202:PHE:CD2	2.54	0.42
1:A:1902:PRO:HA	1:A:1903:PRO:HD3	1.93	0.42
1:B:621:THR:OG1	1:B:644:ILE:HB	2.20	0.42
1:B:1036:ARG:O	1:B:1037:ASP:HB3	2.17	0.42
1:B:1222:THR:HG22	1:B:1225:GLY:HA2	2.02	0.42
1:B:1672:GLN:NE2	1:B:1680:CYS:HA	2.34	0.42
1:C:497:LEU:HD21	1:C:592:LEU:HD23	2.01	0.42
1:C:613:VAL:HG12	1:C:613:VAL:O	2.18	0.42
1:C:641:TYR:CD2	1:C:716:LEU:HD11	2.54	0.42
1:C:734:LEU:HD23	1:C:734:LEU:HA	1.92	0.42
1:C:1565:PRO:HB2	1:C:1605:PHE:HB3	2.01	0.42
1:D:1574:PHE:HD2	1:D:1578:THR:HG21	1.84	0.42
1:A:1599:GLY:HA2	1:A:1619:ALA:HB3	2.02	0.42
1:B:1497:MET:HG3	1:B:1514:TYR:HD2	1.84	0.42
1:C:206:ARG:NE	1:C:244:PRO:O	2.52	0.42
1:C:887:THR:HG22	1:C:946:THR:HG22	2.01	0.42
1:D:1049:GLN:HG3	1:D:1131:TYR:HB3	2.02	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:310:PHE:N	1:A:320:THR:OG1	2.49	0.42
1:A:1074:TYR:HA	1:A:1077:PHE:CZ	2.55	0.42
1:A:1582:LEU:HD23	1:A:1582:LEU:HA	1.86	0.42
1:B:230:LEU:HG	1:B:232:GLY:N	2.34	0.42
1:B:671:PRO:O	1:B:677:TRP:NE1	2.53	0.42
1:B:1048:VAL:HG13	1:B:1101:MET:HB3	2.01	0.42
1:B:1061:ASN:O	1:B:1063:ALA:N	2.53	0.42
1:B:1759:PRO:O	1:B:1761:SER:N	2.52	0.42
1:C:188:ASP:HB3	1:C:208:PHE:HE1	1.85	0.42
1:C:1189:ILE:HD11	1:C:1214:ARG:HB2	2.01	0.42
1:C:1520:VAL:HG11	1:C:1526:ALA:HB3	2.00	0.42
1:D:288:PHE:CD1	1:D:290:GLN:HG2	2.55	0.42
1:D:1770:ARG:NH2	1:D:1805:ARG:HA	2.35	0.42
1:A:1683:CYS:SG	1:A:1687:THR:OG1	2.68	0.42
1:C:973:THR:O	1:C:973:THR:OG1	2.30	0.42
1:C:1058:GLN:NE2	1:C:1115:LEU:O	2.31	0.42
1:C:1828:CYS:SG	1:C:1845:LYS:HE2	2.59	0.42
1:D:723:PHE:CD1	1:D:723:PHE:N	2.87	0.42
1:D:1201:VAL:HG23	1:D:1202:ALA:N	2.35	0.42
1:D:1453:TYR:O	1:D:1462:CYS:HB2	2.20	0.42
1:D:1512:ARG:HB3	1:D:1530:VAL:HG11	2.02	0.42
1:D:1608:PRO:HG2	1:D:1646:PHE:HE2	1.85	0.42
1:A:47:LEU:O	1:A:145:LYS:HE2	2.20	0.42
1:A:788:LEU:HG	1:A:808:ILE:HD11	2.01	0.42
1:A:1492:ASP:OD1	1:A:1494:THR:OG1	2.37	0.42
1:A:1507:ASP:HB3	1:C:1263:LYS:O	2.20	0.42
1:B:395:ASP:N	1:B:396:PRO:HG3	2.34	0.42
1:B:631:VAL:HG11	1:B:706:TYR:CE1	2.55	0.42
1:B:786:LYS:H	1:B:808:ILE:HD11	1.85	0.42
1:B:1093:ASP:OD1	1:B:1093:ASP:N	2.52	0.42
1:C:446:ASN:HD22	1:C:446:ASN:N	2.16	0.42
1:C:671:PRO:HD2	1:C:677:TRP:CH2	2.54	0.42
1:C:886:PHE:CG	1:C:965:LEU:HD22	2.55	0.42
1:D:50:ASP:N	1:D:50:ASP:OD1	2.52	0.42
1:D:109:LEU:HG	1:D:110:VAL:N	2.35	0.42
1:D:1251:THR:HA	1:D:1286:LYS:HA	2.02	0.42
1:A:230:LEU:HD22	1:A:232:GLY:HA3	2.02	0.41
1:A:1327:THR:HG22	1:A:1359:ARG:HG3	2.02	0.41
1:C:391:LYS:HZ3	1:C:403:ILE:HG23	1.85	0.41
1:C:421:THR:CG2	1:C:432:ARG:HG2	2.50	0.41
1:C:458:GLY:HA2	1:C:490:VAL:HG23	2.02	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:587:SER:HB2	1:C:612:GLN:HE22	1.84	0.41
1:D:1758:ALA:HB1	1:D:1759:PRO:HD2	2.02	0.41
1:A:641:TYR:CG	1:A:716:LEU:HD11	2.56	0.41
1:A:1174:LEU:HD11	1:A:1180:THR:HG23	2.02	0.41
1:B:230:LEU:HG	1:B:232:GLY:H	1.85	0.41
1:B:772:ARG:HH21	1:B:986:SER:HB3	1.85	0.41
1:B:886:PHE:CD2	1:B:965:LEU:HD22	2.56	0.41
1:C:1490:MET:CE	1:C:1536:ASN:HB3	2.50	0.41
1:A:516:PHE:HB2	1:A:575:ILE:HG23	2.02	0.41
1:A:548:LEU:HD21	1:A:600:PRO:HG3	2.01	0.41
1:B:420:TRP:O	1:B:433:THR:OG1	2.38	0.41
1:C:253:PHE:CG	1:C:254:THR:N	2.89	0.41
1:C:401:ASP:CG	1:C:402:THR:N	2.73	0.41
1:C:1372:GLN:N	1:C:1372:GLN:CD	2.74	0.41
1:C:1602:ASN:HB2	1:C:1610:CYS:HB3	2.02	0.41
1:D:504:PHE:CZ	1:D:720:GLN:HG2	2.56	0.41
1:D:788:LEU:HD22	1:D:838:VAL:HG13	2.02	0.41
1:A:595:PHE:CE2	1:A:600:PRO:HB3	2.55	0.41
1:A:761:THR:HG22	1:A:894:VAL:HG21	2.03	0.41
1:A:1376:ALA:HB2	1:C:1376:ALA:HA	2.02	0.41
1:B:1263:LYS:O	1:B:1264:TYR:HB2	2.20	0.41
1:C:902:PRO:HB3	1:C:937:VAL:HG12	2.01	0.41
1:D:87:ASP:OD1	1:D:87:ASP:N	2.54	0.41
1:D:207:ILE:HD13	1:D:224:PRO:HG3	2.01	0.41
1:D:253:PHE:CG	1:D:254:THR:N	2.89	0.41
1:D:612:GLN:O	1:D:654:PRO:HD2	2.20	0.41
1:A:410:LYS:HB3	1:A:444:ALA:O	2.21	0.41
1:A:781:VAL:HG13	1:A:786:LYS:HE2	2.01	0.41
1:A:1282:GLU:H	1:A:1282:GLU:CD	2.14	0.41
1:A:1930:PRO:HA	1:A:1931:PRO:HD3	1.92	0.41
1:B:1456:THR:HG22	1:B:1457:PHE:H	1.85	0.41
1:C:178:ARG:CZ	1:C:178:ARG:HB2	2.50	0.41
1:D:1706:GLN:OE1	1:D:1706:GLN:HA	2.20	0.41
1:A:1254:LYS:HD2	1:C:1417:TRP:CH2	2.55	0.41
1:B:170:LEU:HD23	1:C:1200:ARG:HG2	2.03	0.41
1:B:179:VAL:HG21	1:B:209:ILE:HD12	2.02	0.41
1:B:713:THR:HB	1:B:736:PRO:HB3	2.01	0.41
1:B:882:VAL:O	1:B:950:THR:HA	2.21	0.41
1:C:335:PRO:HG2	1:C:339:THR:HG21	2.02	0.41
1:C:419:TRP:CB	1:C:468:TYR:O	2.64	0.41
1:C:575:ILE:HD12	1:C:575:ILE:HA	1.81	0.41

*Continued on next page...*



Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:PHE:O	1:A:110:VAL:HB	2.20	0.41
1:A:1162:ILE:HG13	1:C:1481:GLN:HB2	2.02	0.41
1:A:1515:THR:HG23	1:A:1530:VAL:O	2.20	0.41
1:B:545:PRO:HD2	1:B:551:TRP:CZ2	2.56	0.41
1:B:909:ASN:HB2	1:B:953:TYR:CZ	2.56	0.41
1:B:1036:ARG:HB2	1:B:1101:MET:HE1	2.03	0.41
1:B:1055:TYR:CD1	1:B:1094:GLN:HB3	2.55	0.41
1:B:1258:LEU:HD12	1:B:1258:LEU:O	2.21	0.41
1:B:1336:GLY:O	1:B:1356:ASN:HB3	2.20	0.41
1:B:1773:TYR:CD1	1:B:1797:CYS:HB3	2.55	0.41
1:C:844:THR:HG22	1:C:845:THR:HG23	2.03	0.41
1:D:167:ARG:CZ	1:D:170:LEU:HD13	2.50	0.41
1:D:999:MET:CE	1:D:1000:VAL:H	2.33	0.41
1:A:168:LEU:C	1:A:170:LEU:H	2.22	0.41
1:A:461:LYS:HE3	1:A:490:VAL:HG21	2.02	0.41
1:A:1187:GLU:OE1	1:A:1187:GLU:N	2.46	0.41
1:A:1305:PRO:HG2	1:A:1308:PHE:CD2	2.56	0.41
1:A:1361:CYS:HB3	1:A:1365:THR:HG23	2.02	0.41
1:C:1773:TYR:CE1	1:C:1797:CYS:HB3	2.56	0.41
1:D:832:TYR:HE2	1:D:854:VAL:HB	1.86	0.41
1:D:1126:PHE:HB3	1:D:1148:THR:HG1	1.86	0.41
1:A:657:PRO:O	1:A:720:GLN:HG3	2.21	0.41
1:A:663:TRP:CH2	1:A:665:GLY:HA2	2.56	0.41
1:B:786:LYS:HG3	1:B:840:ASP:OD2	2.21	0.41
1:B:1053:ALA:HB2	1:B:1096:LEU:HD13	2.03	0.41
1:B:1181:THR:HG22	1:B:1226:TYR:HE2	1.86	0.41
1:B:1503:ASN:HD22	1:B:1506:ASN:HB2	1.86	0.41
1:B:1791:PRO:O	1:B:1795:TYR:OH	2.30	0.41
1:C:362:ARG:HG2	1:C:373:GLU:HB2	2.03	0.41
1:C:545:PRO:HD2	1:C:551:TRP:CZ2	2.56	0.41
1:C:855:LEU:HD11	1:C:895:PRO:HA	2.03	0.41
1:C:1139:ASN:ND2	1:C:1146:THR:H	2.18	0.41
1:C:1254:LYS:HB3	1:C:1285:LYS:HZ1	1.86	0.41
1:D:76:THR:HG22	1:D:102:SER:HA	2.02	0.41
1:D:161:LEU:HD11	1:D:178:ARG:NH2	2.32	0.41
1:D:360:ARG:CZ	1:D:362:ARG:HH11	2.33	0.41
1:D:545:PRO:HD2	1:D:551:TRP:CZ2	2.55	0.41
1:D:663:TRP:CZ2	1:D:665:GLY:HA2	2.56	0.41
1:D:872:PRO:HG2	1:D:882:VAL:HG13	2.02	0.41
1:D:884:TYR:HB3	1:D:886:PHE:CE1	2.56	0.41
1:D:1081:THR:HG23	1:D:1082:THR:HG23	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1178:PHE:HA	1:D:1211:GLY:H	1.85	0.41
1:D:1604:GLU:N	1:D:1604:GLU:OE1	2.54	0.41
1:D:1773:TYR:HE1	1:D:1797:CYS:HB3	1.86	0.41
1:A:225:ASP:OD1	1:A:225:ASP:N	2.54	0.41
1:A:455:TYR:CD2	1:A:461:LYS:HD2	2.56	0.41
1:B:581:TYR:N	1:B:581:TYR:CD2	2.89	0.41
1:B:677:TRP:HB3	1:B:717:GLN:HG2	2.03	0.41
1:B:1275:THR:HG1	1:B:1276:HIS:CE1	2.38	0.41
1:C:225:ASP:OD1	1:C:225:ASP:N	2.54	0.41
1:C:1215:LYS:O	1:C:1216:CYS:HB2	2.21	0.41
1:C:1367:LEU:HD21	1:C:1389:CYS:HA	2.03	0.41
1:C:1782:ASP:N	1:C:1782:ASP:OD2	2.52	0.41
1:D:1081:THR:HA	1:D:1097:ARG:HG2	2.03	0.41
1:A:274:THR:O	1:A:274:THR:OG1	2.35	0.40
1:A:1367:LEU:HD23	1:A:1367:LEU:HA	1.73	0.40
1:A:1844:SER:O	1:A:1847:LYS:NZ	2.49	0.40
1:B:623:SER:O	1:B:641:TYR:HA	2.21	0.40
1:B:777:ARG:HB3	1:B:813:THR:HB	2.03	0.40
1:C:520:ARG:HB2	1:C:571:PRO:HD2	2.02	0.40
1:C:612:GLN:O	1:C:654:PRO:HD2	2.21	0.40
1:C:704:PRO:HG3	1:C:714:PRO:HG2	2.03	0.40
1:D:545:PRO:HD2	1:D:551:TRP:CE2	2.54	0.40
1:D:1062:PRO:HD3	1:D:1093:ASP:OD1	2.20	0.40
1:D:1410:PRO:HD3	1:D:1457:PHE:CD2	2.56	0.40
1:D:1766:ARG:HH11	1:D:1766:ARG:HG2	1.85	0.40
1:D:1902:PRO:HA	1:D:1903:PRO:HD3	1.93	0.40
1:A:520:ARG:NH1	1:A:530:GLU:OE2	2.54	0.40
1:A:1095:GLN:NE2	1:A:1112:PHE:HB3	2.37	0.40
1:B:398:THR:HB	1:B:399:THR:HG23	2.03	0.40
1:B:522:LYS:HG2	1:B:523:ALA:N	2.33	0.40
1:B:561:LEU:HD12	1:B:575:ILE:HD11	2.03	0.40
1:B:832:TYR:HB2	1:B:852:PHE:CE2	2.56	0.40
1:B:1582:LEU:HD23	1:B:1582:LEU:HA	1.93	0.40
1:C:387:LEU:HD22	1:C:465:LEU:HG	2.03	0.40
1:C:389:LEU:HA	1:C:407:ALA:HA	2.03	0.40
1:C:589:GLN:HB3	1:C:610:VAL:HG13	2.03	0.40
1:C:751:TYR:HB2	1:C:848:ILE:HD11	2.02	0.40
1:C:1036:ARG:O	1:C:1037:ASP:HB3	2.21	0.40
1:C:1263:LYS:HB2	1:C:1266:ILE:HG22	2.03	0.40
1:C:1929:PRO:HA	1:C:1930:PRO:HD3	1.91	0.40
1:D:271:LEU:HD11	1:D:372:ALA:HB1	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:970:GLU:N	1:D:970:GLU:OE1	2.55	0.40
1:D:1603:ASP:N	1:D:1604:GLU:OE1	2.54	0.40
1:A:1038:PRO:O	1:A:1040:VAL:N	2.53	0.40
1:A:1055:TYR:O	1:A:1124:PRO:HA	2.22	0.40
1:B:641:TYR:CG	1:B:716:LEU:HD11	2.56	0.40
1:B:1551:PRO:O	1:B:1572:MET:HB3	2.21	0.40
1:C:1285:LYS:HB2	1:C:1285:LYS:HE2	1.81	0.40
1:C:1560:LEU:HD23	1:C:1560:LEU:HA	1.82	0.40
1:D:122:ILE:HD12	1:D:153:ASP:HB2	2.03	0.40
1:D:623:SER:OG	1:D:642:ASN:HB2	2.22	0.40
1:D:764:ALA:N	1:D:858:GLY:O	2.46	0.40
1:D:1058:GLN:NE2	1:D:1115:LEU:O	2.52	0.40
1:D:1786:ASP:O	1:D:1786:ASP:OD2	2.39	0.40
1:A:885:THR:HG22	1:A:948:THR:HG22	2.04	0.40
1:C:1071:ASP:HB2	1:C:1129:PHE:CE1	2.57	0.40
1:D:1805:ARG:O	1:D:1805:ARG:HG2	2.21	0.40
1:A:596:ILE:HD12	1:A:596:ILE:HA	1.96	0.40
1:A:671:PRO:HD2	1:A:677:TRP:CH2	2.57	0.40
1:A:753:ILE:HG12	1:A:775:ILE:HG12	2.03	0.40
1:A:794:ASP:HB2	1:A:800:SER:HB2	2.03	0.40
1:A:1605:PHE:CD1	1:C:1175:PRO:HB3	2.57	0.40
1:A:1799:TYR:O	1:A:1829:THR:HG23	2.21	0.40
1:B:759:PRO:HD2	1:B:769:ALA:HA	2.03	0.40
1:B:808:ILE:CG2	1:B:815:THR:HB	2.51	0.40
1:C:999:MET:CE	1:C:1000:VAL:H	2.34	0.40
1:D:680:LEU:HD11	1:D:685:ASN:HD22	1.87	0.40
1:D:1325:TYR:O	1:D:1358:CYS:HA	2.22	0.40
1:D:1519:MET:SD	1:D:1520:VAL:N	2.93	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	1884/1987 (95%)	1738 (92%)	132 (7%)	14 (1%)	19	54
1	B	1884/1987 (95%)	1725 (92%)	133 (7%)	26 (1%)	9	39
1	C	1884/1987 (95%)	1727 (92%)	139 (7%)	18 (1%)	13	46
1	D	1884/1987 (95%)	1726 (92%)	137 (7%)	21 (1%)	12	45
All	All	7536/7948 (95%)	6916 (92%)	541 (7%)	79 (1%)	16	46

All (79) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	398	THR
1	A	1062	PRO
1	A	1143	VAL
1	B	169	ASN
1	B	393	THR
1	B	394	ALA
1	B	395	ASP
1	B	1062	PRO
1	B	1077	PHE
1	B	1143	VAL
1	B	1197	ASN
1	B	1239	GLU
1	B	1806	PRO
1	C	169	ASN
1	C	1062	PRO
1	C	1143	VAL
1	C	1382	ALA
1	C	1806	PRO
1	D	169	ASN
1	D	1062	PRO
1	D	1077	PHE
1	D	1806	PRO
1	A	1216	CYS
1	A	1393	GLU
1	B	1760	ASP
1	B	1799	TYR
1	B	1935	SER
1	C	398	THR
1	C	1077	PHE
1	C	1832	LEU
1	D	1143	VAL
1	D	1760	ASP
1	D	1799	TYR

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	1832	LEU
1	D	1935	SER
1	A	101	LEU
1	A	1175	PRO
1	A	1814	CYS
1	B	101	LEU
1	B	398	THR
1	B	1176	LYS
1	B	1787	GLU
1	B	1814	CYS
1	C	1175	PRO
1	C	1787	GLU
1	C	1799	TYR
1	C	1933	ALA
1	D	101	LEU
1	D	398	THR
1	D	972	ALA
1	D	1224	ASP
1	A	471	ASP
1	A	1787	GLU
1	B	392	THR
1	B	471	ASP
1	C	101	LEU
1	C	471	ASP
1	C	1926	SER
1	D	1175	PRO
1	D	1787	GLU
1	A	1926	SER
1	B	1325	TYR
1	D	1037	ASP
1	D	1814	CYS
1	A	396	PRO
1	B	1216	CYS
1	B	1926	SER
1	C	1216	CYS
1	D	1606	SER
1	D	1644	ALA
1	C	1814	CYS
1	A	1037	ASP
1	B	396	PRO
1	B	1769	PRO
1	B	1037	ASP

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	C	1037	ASP
1	A	395	ASP
1	D	1769	PRO
1	D	1926	SER

### 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	1488/1571 (95%)	1445 (97%)	43 (3%)	37	59
1	B	1488/1571 (95%)	1437 (97%)	51 (3%)	32	55
1	C	1488/1571 (95%)	1443 (97%)	45 (3%)	36	58
1	D	1488/1571 (95%)	1441 (97%)	47 (3%)	34	56
All	All	5952/6284 (95%)	5766 (97%)	186 (3%)	37	56

All (186) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	126	PHE
1	A	133	ASP
1	A	175	PHE
1	A	311	ASN
1	A	312	TRP
1	A	401	ASP
1	A	414	SER
1	A	419	TRP
1	A	462	LEU
1	A	468	TYR
1	A	470	ARG
1	A	672	THR
1	A	685	ASN
1	A	706	TYR
1	A	733	PHE
1	A	735	SER
1	A	966	MET

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	987	GLN
1	A	1037	ASP
1	A	1184	ASP
1	A	1204	ASP
1	A	1227	ARG
1	A	1292	PHE
1	A	1345	ASP
1	A	1463	LEU
1	A	1490	MET
1	A	1492	ASP
1	A	1508	PHE
1	A	1514	TYR
1	A	1558	ASP
1	A	1604	GLU
1	A	1610	CYS
1	A	1643	ASN
1	A	1683	CYS
1	A	1690	ASP
1	A	1705	TYR
1	A	1731	THR
1	A	1748	THR
1	A	1786	ASP
1	A	1788	PHE
1	A	1805	ARG
1	A	1809	ARG
1	A	1831	ASP
1	B	74	ASP
1	B	126	PHE
1	B	154	SER
1	B	170	LEU
1	B	226	GLN
1	B	290	GLN
1	B	410	LYS
1	B	611	PHE
1	B	612	GLN
1	B	687	LYS
1	B	705	SER
1	B	706	TYR
1	B	723	PHE
1	B	784	SER
1	B	824	TYR
1	B	833	PHE

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	987	GLN
1	B	999	MET
1	B	1037	ASP
1	B	1052	CYS
1	B	1167	ASN
1	B	1178	PHE
1	B	1191	SER
1	B	1265	SER
1	B	1292	PHE
1	B	1293	GLN
1	B	1303	PRO
1	B	1364	ASN
1	B	1377	SER
1	B	1405	CYS
1	B	1430	ASP
1	B	1446	SER
1	B	1479	CYS
1	B	1487	ASN
1	B	1492	ASP
1	B	1514	TYR
1	B	1544	GLU
1	B	1558	ASP
1	B	1601	PHE
1	B	1668	MET
1	B	1677	THR
1	B	1683	CYS
1	B	1724	ARG
1	B	1748	THR
1	B	1769	PRO
1	B	1780	TYR
1	B	1788	PHE
1	B	1804	ASP
1	B	1809	ARG
1	B	1871	ARG
1	B	1926	SER
1	C	61	SER
1	C	74	ASP
1	C	126	PHE
1	C	169	ASN
1	C	178	ARG
1	C	229	ASN
1	C	387	LEU

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	462	LEU
1	C	611	PHE
1	C	687	LYS
1	C	705	SER
1	C	723	PHE
1	C	792	MET
1	C	807	ASP
1	C	999	MET
1	C	1025	ASN
1	C	1037	ASP
1	C	1052	CYS
1	C	1161	PHE
1	C	1184	ASP
1	C	1187	GLU
1	C	1238	ASN
1	C	1301	CYS
1	C	1361	CYS
1	C	1364	ASN
1	C	1380	LEU
1	C	1462	CYS
1	C	1463	LEU
1	C	1472	SER
1	C	1508	PHE
1	C	1514	TYR
1	C	1519	MET
1	C	1539	MET
1	C	1549	ASN
1	C	1558	ASP
1	C	1592	GLN
1	C	1601	PHE
1	C	1604	GLU
1	C	1722	TYR
1	C	1788	PHE
1	C	1804	ASP
1	C	1809	ARG
1	C	1871	ARG
1	C	1926	SER
1	C	1960	MET
1	D	61	SER
1	D	74	ASP
1	D	108	ASN
1	D	225	ASP

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	389	LEU
1	D	405	PHE
1	D	417	GLN
1	D	419	TRP
1	D	462	LEU
1	D	611	PHE
1	D	634	ASP
1	D	723	PHE
1	D	1052	CYS
1	D	1061	ASN
1	D	1178	PHE
1	D	1231	CYS
1	D	1261	ARG
1	D	1272	HIS
1	D	1285	LYS
1	D	1370	ARG
1	D	1394	ASP
1	D	1405	CYS
1	D	1415	ASN
1	D	1430	ASP
1	D	1482	CYS
1	D	1490	MET
1	D	1492	ASP
1	D	1497	MET
1	D	1514	TYR
1	D	1525	TYR
1	D	1544	GLU
1	D	1567	LYS
1	D	1571	PHE
1	D	1613	CYS
1	D	1614	TRP
1	D	1668	MET
1	D	1671	PHE
1	D	1683	CYS
1	D	1728	GLU
1	D	1731	THR
1	D	1769	PRO
1	D	1788	PHE
1	D	1805	ARG
1	D	1811	CYS
1	D	1812	THR
1	D	1835	GLN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	D	1871	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (23) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	218	ASN
1	A	226	GLN
1	A	593	GLN
1	A	758	ASN
1	A	1293	GLN
1	A	1372	GLN
1	A	1810	GLN
1	B	218	ASN
1	B	1212	GLN
1	B	1503	ASN
1	B	1506	ASN
1	B	1563	GLN
1	B	1672	GLN
1	B	1757	ASN
1	C	446	ASN
1	C	758	ASN
1	C	1272	HIS
1	C	1672	GLN
1	D	218	ASN
1	D	446	ASN
1	D	1503	ASN
1	D	1506	ASN
1	D	1672	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](#)

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

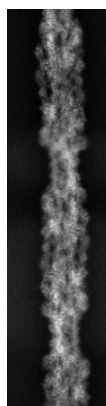
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-41679. These allow visual inspection of the internal detail of the map and identification of artifacts.

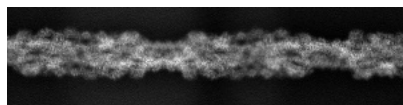
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

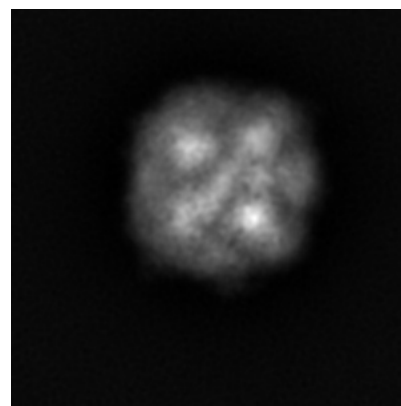
#### 6.1.1 Primary map



X



Y

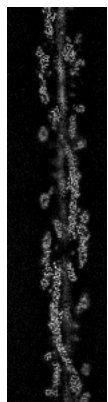


Z

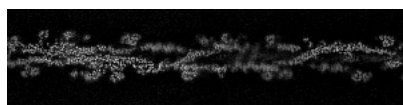
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

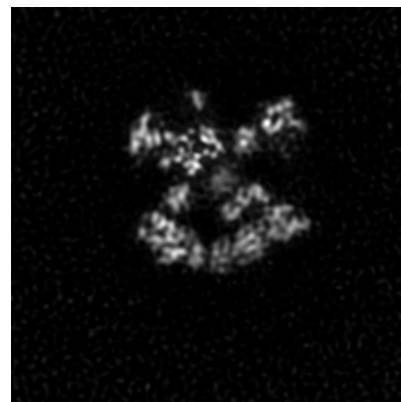
### 6.2.1 Primary map



X Index:  
100



Y Index: 100

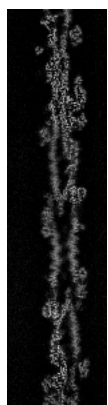


Z Index: 400

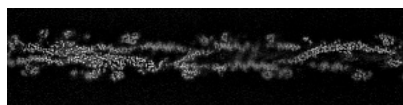
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

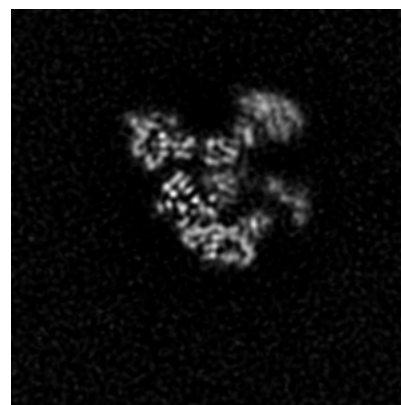
### 6.3.1 Primary map



X Index:  
122



Y Index: 99

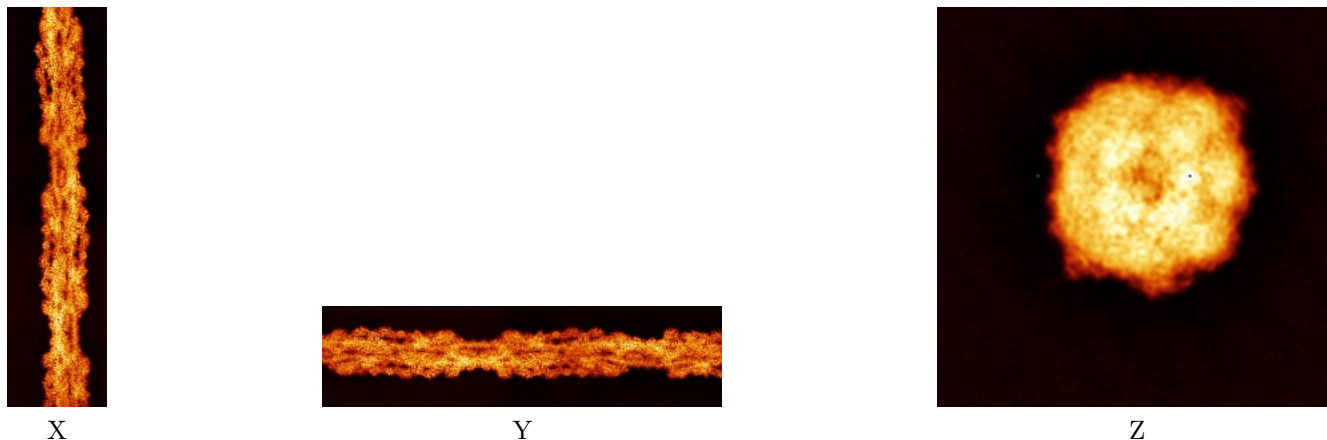


Z Index: 264

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

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

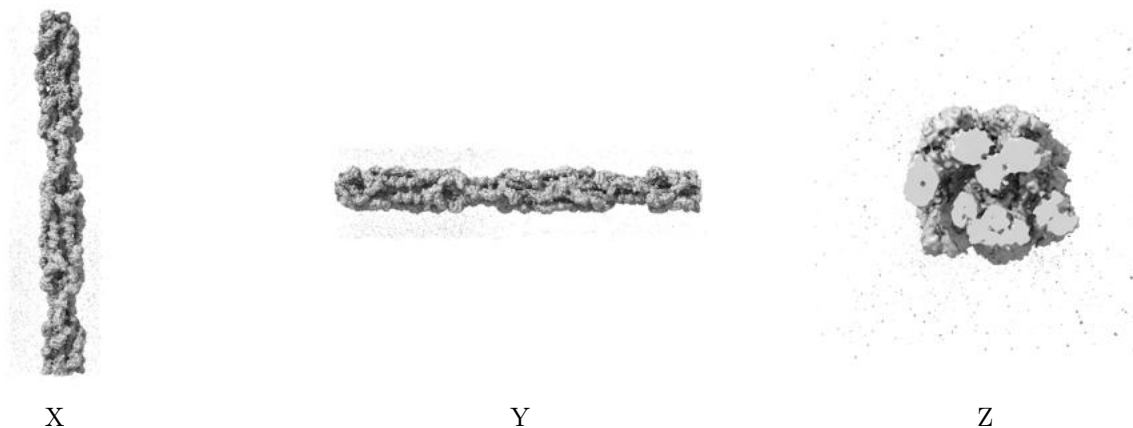
### 6.4.1 Primary map



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 0.0728. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

## 6.6 Mask visualisation

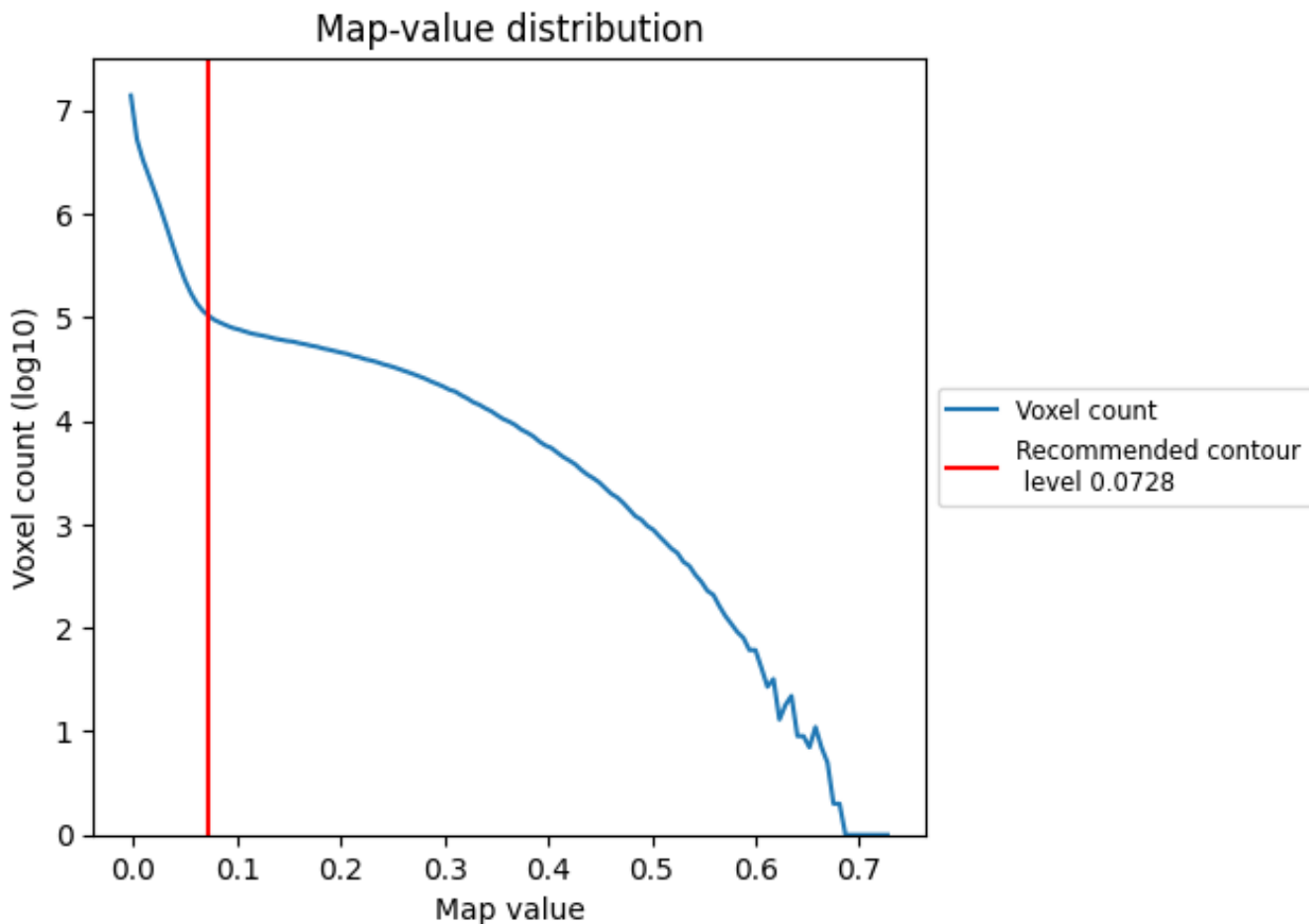
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

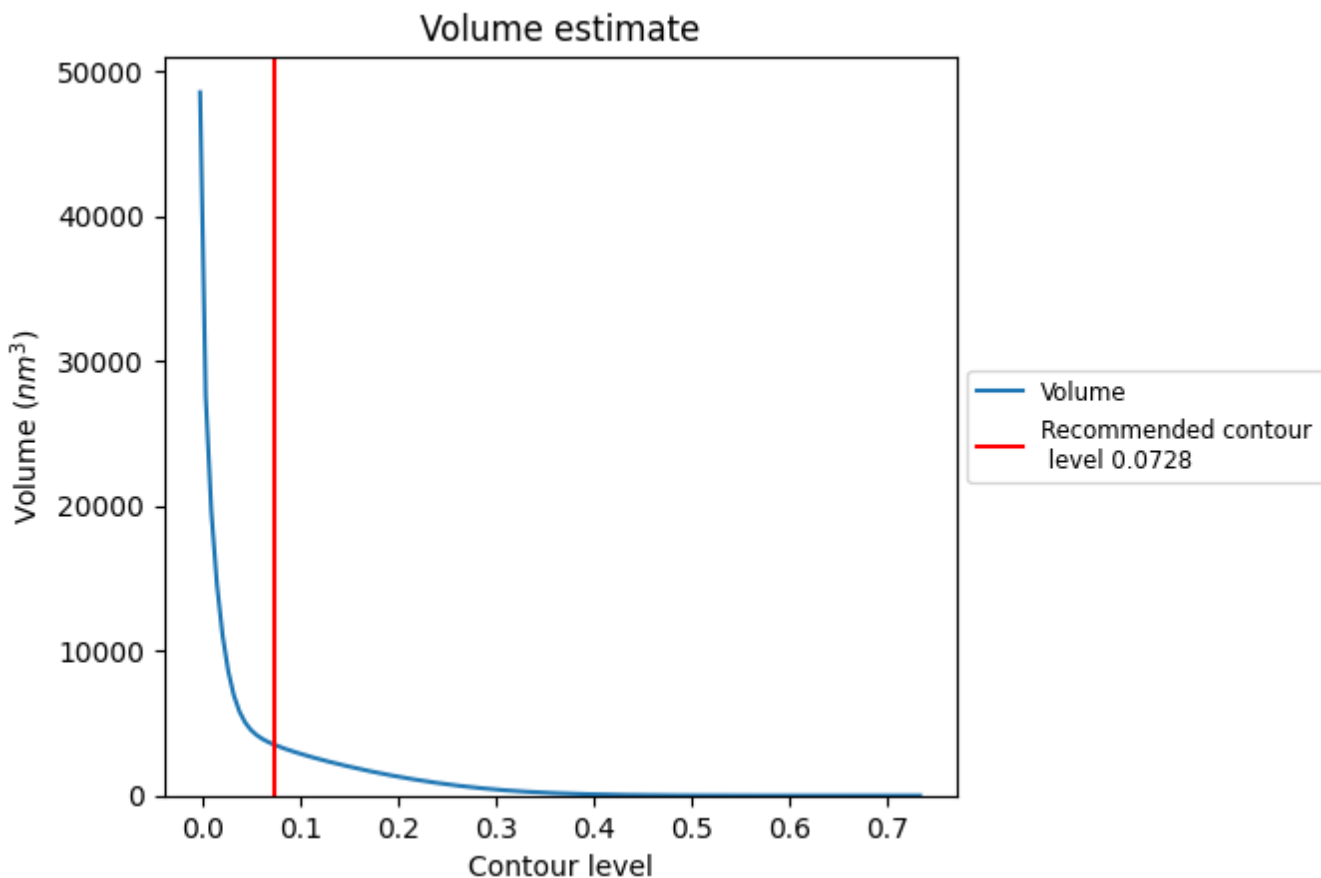
This section contains the results of statistical analysis of the map.

### 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 35333 nm<sup>3</sup>; this corresponds to an approximate mass of 3192 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](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

## 8 Fourier-Shell correlation

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

## 9 Map-model fit [i](#)

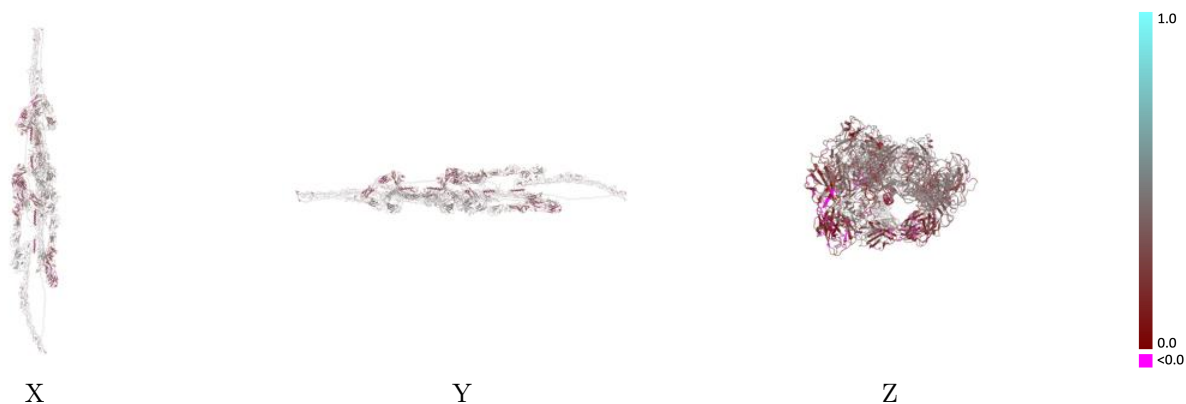
This section contains information regarding the fit between EMDB map EMD-41679 and PDB model 8TXB. Per-residue inclusion information can be found in section 3 on page 9.

### 9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.0728 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 [\(i\)](#)



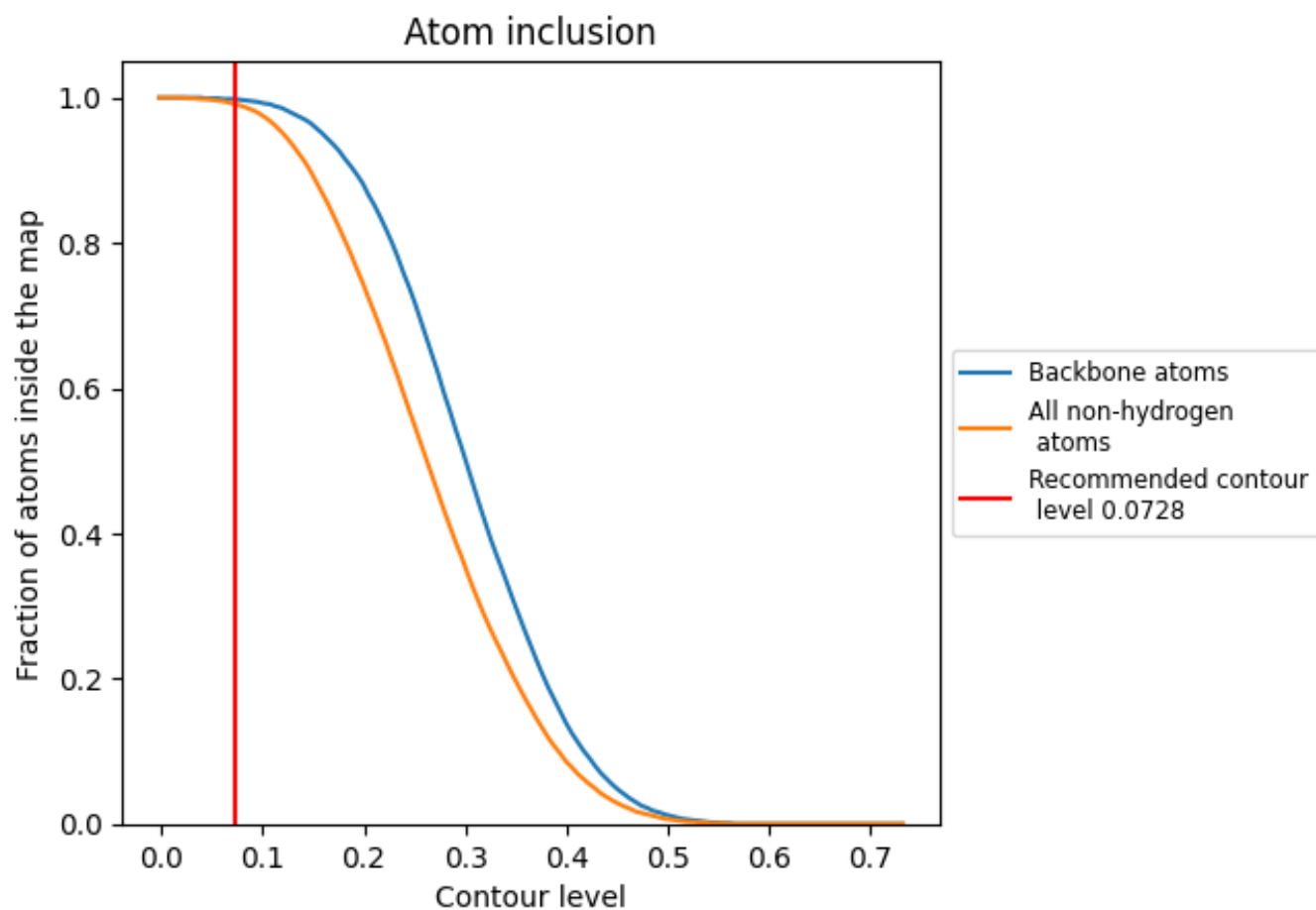
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.0728).










## 9.4 Atom inclusion [i](#)



At the recommended contour level, 100% of all backbone atoms, 99% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.0728) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9910	 0.3500
A	 0.9910	 0.3490
B	 0.9930	 0.3620
C	 0.9930	 0.3500
D	 0.9880	 0.3360

