Full wwPDB X-ray Structure Validation Report ⓘ

Nov 1, 2021 – 01:45 AM EDT

PDB ID	:	1Z1J
Title	:	Crystal structure of SARS 3CLpro C145A mutant
Authors	:	Hsu, M.F.
Deposited on	:	2005-03-04
Resolution	:	2.80 Å(reported)

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

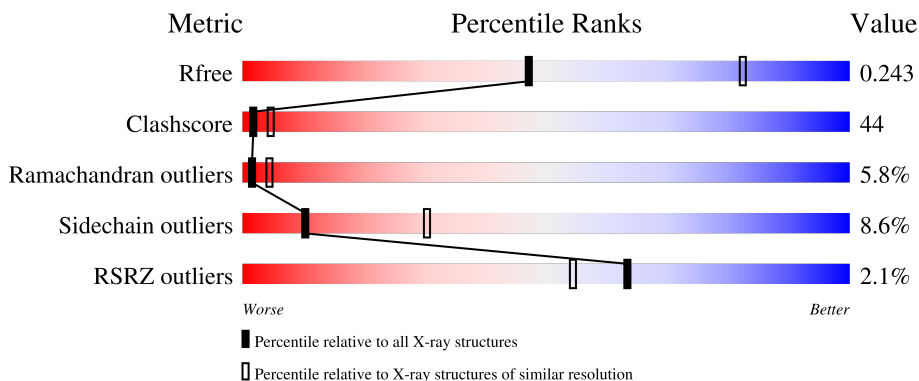|		
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.23.2
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.23.2

1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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	Percentile Ranks	Value
Rfree		0.243
Clashscore		44
Ramachandran outliers		5.8%
Sidechain outliers		8.6%
RSRZ outliers		2.1%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3140 (2.80-2.80)
Clashscore	141614	3569 (2.80-2.80)
Ramachandran outliers	138981	3498 (2.80-2.80)
Sidechain outliers	138945	3500 (2.80-2.80)
RSRZ outliers	127900	3078 (2.80-2.80)

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

Mol	Chain	Length	Quality of chain
1	A	306	% 46% 47% 7%
1	B	306	3% 33% 55% 10% ·

2 Entry composition ⓘ

There are 2 unique types of molecules in this entry. The entry contains 4941 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 3C-like proteinase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	306	Total	C	N	O	S	0	0	0
			2370	1499	405	445	21			
1	B	306	Total	C	N	O	S	0	0	0
			2370	1499	405	445	21			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	145	ALA	CYS	engineered mutation	UNP P59641
B	1145	ALA	CYS	engineered mutation	UNP P59641

- Molecule 2 is water.

| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	108	Total	O	0	0
			108	108		
2	B	93	Total	O	0	0
			93	93		

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 electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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: 3C-like proteinase
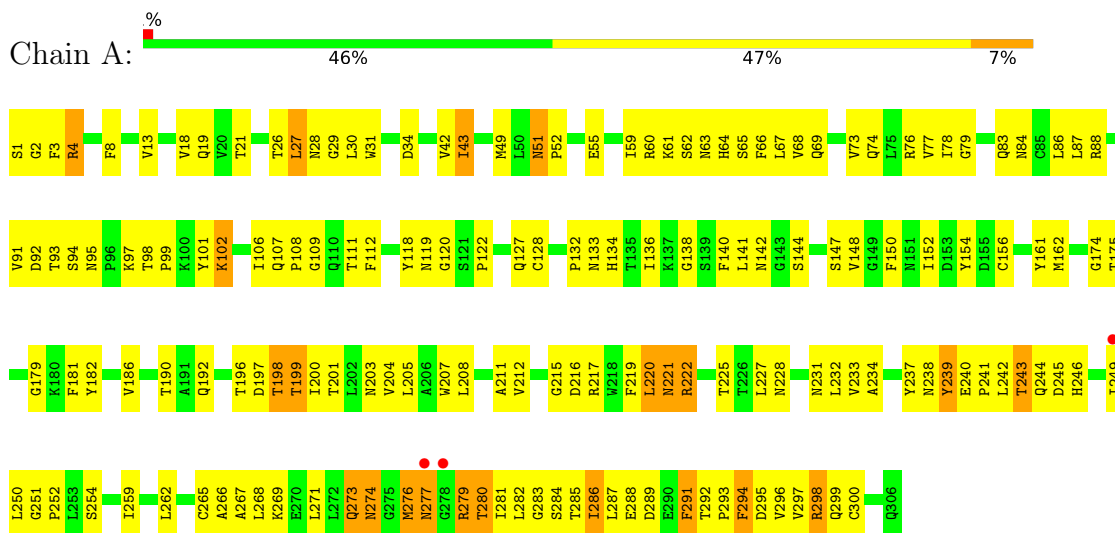
- Molecule 1: 3C-like proteinase
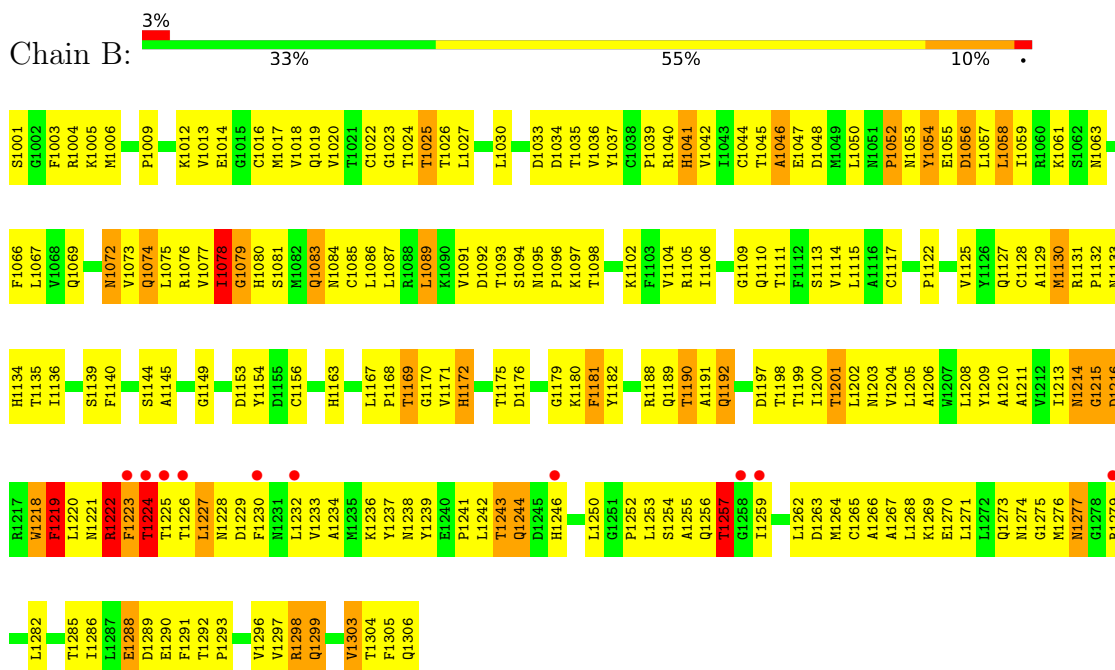
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	125.65Å 80.22Å 63.91Å 90.00° 92.52° 90.00°	Depositor
Resolution (Å)	30.00 – 2.80 45.78 – 2.70	Depositor EDS
% Data completeness (in resolution range)	(Not available) (30.00-2.80) 94.5 (45.78-2.70)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$<I/\sigma(I)>$ [1]	3.06 (at 2.69Å)	Xtriage
Refinement program	unknown	Depositor
R, R_{free}	0.214 , 0.299 0.216 , 0.243	Depositor DCC
R_{free} test set	1734 reflections (9.91%)	wwPDB-VP
Wilson B-factor (Å^2)	40.1	Xtriage
Anisotropy	0.324	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 72.8	EDS
L-test for twinning [2]	$<\|L\|>=0.49$, $<L^2>=0.32$	Xtriage
Estimated twinning fraction	0.029 for -h,-k,l	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	4941	wwPDB-VP
Average B, all atoms (Å^2)	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.72% of the height of the origin peak. No significant pseudotranslation is detected.*

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[1]Intensities estimated from amplitudes.
[2]Theoretical values of $<\|L\|>$, $<L^2>$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

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	0.39	0/2423	0.66	0/3291
1	B	0.36	0/2423	0.63	0/3291
All	All	0.38	0/4846	0.64	0/6582

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2   Too-close contacts (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	2370	0	2322	176	0
1	B	2370	0	2319	243	0
2	A	108	0	0	5	0
2	B	93	0	0	8	1
All	All	4941	0	4641	409	1

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 44.

All (409) 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:B:1175:THR:HG22	1:B:1181:PHE:HA	1.37	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1086:LEU:HD13	1:B:1179:GLY:HA2	1.36	1.05
1:B:1040:ARG:HH21	1:B:1085:CYS:HA	1.19	1.03
1:B:1250:LEU:HA	1:B:1253:LEU:HD23	1.46	0.98
1:B:1199:THR:HG22	1:B:1201:THR:H	1.31	0.96
1:A:222:ARG:HH11	1:A:222:ARG:HB3	1.33	0.93
1:B:1063:ASN:ND2	1:B:1078:ILE:HA	1.82	0.93
1:B:1210:ALA:HB2	1:B:1296:VAL:HG13	1.52	0.92
1:A:283:GLY:HA2	2:A:2578:HOH:O	1.67	0.92
1:B:1222:ARG:HD3	1:B:1223:PHE:H	1.34	0.90
1:B:1192:GLN:H	1:B:1192:GLN:HE21	1.20	0.89
1:A:134:HIS:HB3	1:A:182:TYR:O	1.78	0.84
1:B:1200:ILE:HD12	1:B:1200:ILE:H	1.40	0.83
1:B:1089:LEU:HD23	1:B:1089:LEU:H	1.43	0.82
1:A:19:GLN:NE2	1:A:119:ASN:HB3	1.95	0.81
1:B:1058:LEU:HD23	1:B:1059:ILE:N	1.96	0.81
1:B:1034:ASP:O	1:B:1091:VAL:HG22	1.82	0.80
1:A:217:ARG:HB3	1:A:220:LEU:HD12	1.62	0.80
1:B:1044:CYS:HB3	1:B:1048:ASP:HB2	1.63	0.80
1:B:1086:LEU:CD1	1:B:1179:GLY:HA2	2.13	0.78
1:B:1040:ARG:HH21	1:B:1085:CYS:CA	1.96	0.78
1:B:1040:ARG:NH2	1:B:1085:CYS:HA	1.96	0.78
1:B:1019:GLN:HE21	1:B:1026:THR:HG21	1.48	0.77
1:A:222:ARG:HB3	1:A:222:ARG:NH1	2.00	0.77
1:B:1111:THR:HG22	1:B:1129:ALA:HB2	1.65	0.77
1:B:1230:PHE:HZ	1:B:1268:LEU:HD22	1.50	0.76
1:B:1040:ARG:HH11	1:B:1054:TYR:HD1	1.28	0.76
1:A:95:ASN:HB3	1:A:98:THR:OG1	1.85	0.76
1:A:239:TYR:HD1	1:A:239:TYR:H	1.34	0.76
1:A:201:THR:HG22	1:A:239:TYR:HB3	1.67	0.76
1:B:1063:ASN:HD21	1:B:1078:ILE:HA	1.49	0.75
1:B:1083:GLN:HE21	1:B:1084:ASN:N	1.84	0.75
1:A:175:THR:HG22	1:A:181:PHE:HA	1.67	0.75
1:A:136:ILE:HG22	1:A:138:GLY:H	1.51	0.75
1:A:231:ASN:HD21	1:A:242:LEU:H	1.35	0.75
1:B:1233:VAL:O	1:B:1236:LYS:HB3	1.86	0.74
1:A:86:LEU:HG	1:A:179:GLY:HA2	1.70	0.74
1:A:128:CYS:HB2	1:B:1004:ARG:NH2	2.01	0.74
1:B:1236:LYS:HB2	1:B:1236:LYS:NZ	2.03	0.74
1:B:1083:GLN:HE22	1:B:1084:ASN:ND2	1.85	0.74
1:B:1027:LEU:HD22	1:B:1145:ALA:HB3	1.70	0.73
1:B:1040:ARG:NH1	1:B:1054:TYR:HD1	1.85	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1265:CYS:HA	1:B:1268:LEU:HD13	1.71	0.73
1:A:225:THR:O	1:A:262:LEU:HD22	1.89	0.73
1:B:1175:THR:HG22	1:B:1181:PHE:CA	2.19	0.72
1:B:1269:LYS:HG2	1:B:1273:GLN:NE2	2.05	0.72
1:A:28:ASN:HD21	1:A:120:GLY:H	1.37	0.71
1:B:1130:MET:CE	1:B:1136:ILE:HD11	2.19	0.71
1:B:1222:ARG:HD3	1:B:1223:PHE:N	2.05	0.71
1:A:251:GLY:O	1:A:254:SER:HB3	1.90	0.71
1:A:300:CYS:O	1:A:300:CYS:SG	2.49	0.71
1:A:227:LEU:H	1:A:227:LEU:HD12	1.56	0.70
1:B:1234:ALA:HB1	1:B:1239:TYR:HB2	1.72	0.70
1:B:1140:PHE:HB3	1:B:1144:SER:OG	1.90	0.70
1:A:225:THR:HG22	1:A:266:ALA:HB2	1.72	0.69
1:B:1192:GLN:H	1:B:1192:GLN:NE2	1.89	0.69
1:B:1083:GLN:HE21	1:B:1083:GLN:C	1.93	0.69
1:B:1040:ARG:HD2	1:B:1054:TYR:CD1	2.28	0.69
1:B:1242:LEU:O	1:B:1242:LEU:HD12	1.92	0.69
1:A:205:LEU:HD12	1:A:250:LEU:HD11	1.74	0.69
1:B:1221:ASN:O	1:B:1222:ARG:HB2	1.92	0.69
1:A:243:THR:H	1:A:246:HIS:CD2	2.12	0.68
1:B:1109:GLY:HA2	1:B:1200:ILE:HG12	1.76	0.68
1:A:273:GLN:O	1:A:274:ASN:HB2	1.94	0.68
1:A:227:LEU:HD12	1:A:227:LEU:N	2.10	0.67
1:A:201:THR:HG21	1:A:240:GLU:O	1.95	0.67
1:A:28:ASN:ND2	1:A:120:GLY:H	1.92	0.67
1:A:268:LEU:HA	1:A:271:LEU:HD12	1.76	0.67
1:A:203:ASN:HB2	1:A:289:ASP:O	1.94	0.66
1:A:285:THR:HB	1:B:1285:THR:HG21	1.76	0.66
1:A:19:GLN:HE21	1:A:119:ASN:HB3	1.59	0.66
1:A:233:VAL:HG11	1:A:269:LYS:HG2	1.78	0.66
1:B:1092:ASP:OD1	1:B:1093:THR:N	2.30	0.65
1:B:1199:THR:HG22	1:B:1201:THR:N	2.07	0.65
1:B:1129:ALA:HB3	1:B:1290:GLU:HG2	1.77	0.65
1:A:2:GLY:O	1:B:1139:SER:HB3	1.96	0.64
1:B:1128:CYS:SG	1:B:1136:ILE:HG23	2.36	0.64
1:B:1271:LEU:O	1:B:1275:GLY:HA2	1.98	0.64
1:B:1044:CYS:HB3	1:B:1048:ASP:CB	2.27	0.64
1:B:1105:ARG:HG3	1:B:1182:TYR:OH	1.96	0.64
1:B:1163:HIS:HE1	1:B:1172:HIS:HB3	1.62	0.64
1:B:1130:MET:HE1	1:B:1136:ILE:HD11	1.80	0.64
1:A:233:VAL:O	1:A:237:TYR:HD2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1083:GLN:HE22	1:B:1084:ASN:HD22	1.46	0.63
1:B:1298:ARG:HG2	1:B:1303:VAL:CG2	2.27	0.63
1:A:109:GLY:HA2	1:A:200:ILE:HG12	1.80	0.63
1:B:1072:ASN:OD1	1:B:1073:VAL:HG23	1.98	0.63
1:B:1132:PRO:C	1:B:1134:HIS:H	2.01	0.63
1:A:198:THR:HB	1:A:238:ASN:O	1.99	0.63
1:B:1025:THR:HG21	1:B:1044:CYS:O	1.99	0.63
1:A:69:GLN:HA	1:A:74:GLN:HA	1.80	0.62
1:B:1200:ILE:HD12	1:B:1200:ILE:N	2.13	0.62
1:A:217:ARG:O	1:A:220:LEU:HB2	2.00	0.62
1:A:186:VAL:H	1:A:192:GLN:NE2	1.98	0.62
1:B:1023:GLY:HA3	2:B:2322:HOH:O	2.01	0.61
1:A:63:ASN:HD21	1:A:79:GLY:HA2	1.65	0.61
1:A:219:PHE:O	1:A:267:ALA:HB1	1.99	0.61
1:B:1030:LEU:HB3	1:B:1037:TYR:HB2	1.82	0.61
1:A:30:LEU:HD22	1:A:148:VAL:HG11	1.83	0.61
1:B:1218:TRP:CH2	1:B:1279:ARG:HB2	2.36	0.61
1:A:217:ARG:HB3	1:A:220:LEU:CD1	2.30	0.61
1:B:1079:GLY:O	1:B:1081:SER:N	2.30	0.61
1:B:1293:PRO:O	1:B:1297:VAL:HG23	2.01	0.61
1:A:249:ILE:O	1:A:252:PRO:HD2	2.01	0.60
1:B:1180:LYS:HD2	2:B:2396:HOH:O	2.01	0.60
1:B:1200:ILE:O	1:B:1202:LEU:N	2.32	0.60
1:B:1243:THR:O	1:B:1246:HIS:HB2	2.02	0.60
1:B:1256:GLN:O	1:B:1257:THR:HG23	2.02	0.60
1:A:112:PHE:HZ	1:A:136:ILE:HD11	1.67	0.60
1:B:1133:ASN:HD22	1:B:1197:ASP:HB2	1.67	0.59
1:B:1076:ARG:HB2	1:B:1092:ASP:OD2	2.02	0.59
1:A:204:VAL:HG11	1:A:239:TYR:HE2	1.66	0.59
1:B:1189:GLN:C	1:B:1191:ALA:H	2.06	0.58
1:B:1106:ILE:HD11	1:B:1130:MET:HE3	1.84	0.58
1:A:215:GLY:O	1:A:216:ASP:HB2	2.02	0.58
1:B:1230:PHE:CZ	1:B:1268:LEU:HD22	2.36	0.58
1:A:280:THR:C	1:A:281:ILE:HD12	2.23	0.58
1:B:1268:LEU:HA	1:B:1271:LEU:HB2	1.85	0.58
1:A:76:ARG:HB3	1:A:92:ASP:OD1	2.04	0.58
1:A:106:ILE:HD12	1:A:106:ILE:O	2.03	0.58
1:A:175:THR:HG22	1:A:181:PHE:CA	2.34	0.58
1:A:136:ILE:HG22	1:A:138:GLY:N	2.19	0.58
1:B:1077:VAL:C	1:B:1078:ILE:HG12	2.23	0.58
1:A:200:ILE:O	1:A:204:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1085:CYS:HB3	2:B:2595:HOH:O	2.03	0.57
1:B:1204:VAL:HA	1:B:1288:GLU:O	2.04	0.57
1:A:269:LYS:O	1:A:269:LYS:HD3	2.04	0.57
1:B:1040:ARG:NH1	1:B:1054:TYR:CD1	2.69	0.57
1:B:1044:CYS:SG	1:B:1054:TYR:HE2	2.27	0.57
1:A:239:TYR:N	1:A:239:TYR:CD1	2.69	0.57
1:B:1034:ASP:OD1	1:B:1035:THR:N	2.38	0.57
1:B:1289:ASP:OD2	1:B:1289:ASP:N	2.38	0.57
1:A:243:THR:H	1:A:246:HIS:HD2	1.51	0.57
1:B:1067:LEU:O	1:B:1069:GLN:HG3	2.05	0.57
1:A:268:LEU:HD23	1:A:268:LEU:C	2.26	0.56
1:B:1210:ALA:HB2	1:B:1296:VAL:CG1	2.30	0.56
1:B:1063:ASN:O	1:B:1066:PHE:HB2	2.05	0.56
1:B:1085:CYS:C	1:B:1086:LEU:HD12	2.25	0.56
1:B:1115:LEU:HD11	1:B:1122:PRO:HB3	1.87	0.56
1:B:1106:ILE:HD12	1:B:1106:ILE:O	2.06	0.56
1:B:1222:ARG:HD2	1:B:1266:ALA:HB1	1.86	0.56
1:A:296:VAL:O	1:A:299:GLN:O	2.23	0.56
1:B:1200:ILE:H	1:B:1200:ILE:CD1	2.15	0.56
1:B:1219:PHE:HB2	1:B:1267:ALA:HB1	1.88	0.56
1:B:1095:ASN:HD22	1:B:1096:PRO:HD2	1.71	0.56
1:B:1095:ASN:ND2	1:B:1097:LYS:H	2.04	0.55
1:B:1167:LEU:HB3	1:B:1168:PRO:HD2	1.88	0.55
1:A:201:THR:CG2	1:A:239:TYR:HB3	2.36	0.55
1:B:1085:CYS:CB	2:B:2595:HOH:O	2.53	0.55
1:A:207:TRP:HH2	1:A:284:SER:HB3	1.71	0.55
1:B:1163:HIS:HE1	1:B:1172:HIS:CB	2.20	0.55
1:A:19:GLN:HE21	1:A:119:ASN:CA	2.20	0.55
1:A:207:TRP:CH2	1:A:284:SER:HB3	2.42	0.55
1:B:1252:PRO:HA	1:B:1255:ALA:HB3	1.88	0.55
1:B:1270:GLU:O	1:B:1274:ASN:HB2	2.07	0.55
1:B:1027:LEU:HD13	1:B:1039:PRO:HB2	1.89	0.54
1:A:133:ASN:ND2	1:A:197:ASP:HB2	2.23	0.54
1:A:243:THR:N	1:A:246:HIS:CD2	2.76	0.54
1:B:1014:GLU:C	1:B:1016:CYS:H	2.11	0.54
1:B:1237:TYR:OH	1:B:1273:GLN:HA	2.08	0.54
1:A:19:GLN:HE21	1:A:119:ASN:CB	2.19	0.54
1:B:1304:THR:OG1	1:B:1305:PHE:N	2.39	0.54
1:A:142:ASN:N	1:A:142:ASN:HD22	2.06	0.54
1:A:140:PHE:O	1:B:1001:SER:N	2.41	0.53
1:A:228:ASN:O	1:A:232:LEU:HG	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1047:GLU:O	1:B:1050:LEU:HB3	2.09	0.53
1:B:1077:VAL:O	1:B:1078:ILE:HG23	2.08	0.53
1:B:1135:THR:C	1:B:1136:ILE:HD12	2.29	0.53
1:B:1102:LYS:HG3	1:B:1156:CYS:SG	2.48	0.53
1:A:231:ASN:ND2	1:A:242:LEU:H	2.06	0.53
1:B:1087:LEU:HB3	1:B:1089:LEU:CD2	2.38	0.53
1:B:1214:ASN:N	1:B:1214:ASN:HD22	2.04	0.53
1:B:1269:LYS:HG2	1:B:1273:GLN:HE22	1.72	0.53
1:A:136:ILE:HD12	1:A:161:TYR:CZ	2.43	0.53
1:B:1084:ASN:HB2	1:B:1179:GLY:HA3	1.91	0.53
1:B:1222:ARG:NH1	1:B:1269:LYS:HD2	2.24	0.53
1:B:1237:TYR:O	1:B:1238:ASN:HB3	2.09	0.53
1:A:186:VAL:H	1:A:192:GLN:HE22	1.57	0.53
1:B:1017:MET:HG3	1:B:1117:CYS:SG	2.49	0.53
1:A:211:ALA:HA	1:A:282:LEU:HD21	1.92	0.52
1:A:73:VAL:HG13	1:A:73:VAL:O	2.09	0.52
1:A:132:PRO:HD2	1:A:197:ASP:OD1	2.09	0.52
1:A:243:THR:N	1:A:246:HIS:HD2	2.07	0.52
1:B:1204:VAL:HG23	1:B:1289:ASP:HB3	1.91	0.52
1:B:1305:PHE:O	1:B:1306:GLN:HB2	2.09	0.52
1:A:13:VAL:HG21	1:A:150:PHE:CE2	2.44	0.52
1:B:1072:ASN:OD1	1:B:1073:VAL:N	2.31	0.52
1:B:1084:ASN:CB	1:B:1179:GLY:HA3	2.40	0.52
1:A:101:TYR:O	1:A:102:LYS:HB3	2.08	0.52
1:B:1027:LEU:CD1	1:B:1039:PRO:HB2	2.40	0.52
1:B:1052:PRO:HD2	1:B:1188:ARG:NH2	2.24	0.52
1:B:1267:ALA:O	1:B:1271:LEU:HG	2.10	0.52
1:A:268:LEU:HD23	1:A:268:LEU:O	2.10	0.52
1:A:140:PHE:HB3	1:A:144:SER:OG	2.10	0.52
1:B:1019:GLN:HE21	1:B:1026:THR:CG2	2.21	0.52
1:B:1039:PRO:HB3	1:B:1041:HIS:CE1	2.44	0.52
1:A:242:LEU:HD12	1:A:246:HIS:HB2	1.92	0.51
1:A:277:ASN:C	1:A:279:ARG:H	2.12	0.51
1:B:1033:ASP:O	1:B:1094:SER:HA	2.11	0.51
1:B:1005:LYS:HD3	1:B:1291:PHE:CZ	2.46	0.51
1:B:1128:CYS:SG	1:B:1136:ILE:CG2	2.99	0.51
1:A:212:VAL:HG13	1:A:217:ARG:HG2	1.93	0.51
1:A:34:ASP:HA	1:A:94:SER:HA	1.92	0.51
1:A:51:ASN:C	1:A:51:ASN:HD22	2.13	0.51
1:B:1057:LEU:O	1:B:1061:LYS:HD3	2.09	0.51
1:A:63:ASN:ND2	1:A:79:GLY:HA2	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1206:ALA:O	1:B:1296:VAL:HG21	2.11	0.51
1:B:1276:MET:O	1:B:1277:ASN:C	2.48	0.51
1:A:204:VAL:O	1:A:208:LEU:HG	2.11	0.51
1:A:62:SER:N	1:A:65:SER:OG	2.44	0.51
1:B:1086:LEU:HD13	1:B:1179:GLY:CA	2.24	0.50
1:B:1236:LYS:HB2	1:B:1236:LYS:HZ3	1.74	0.50
1:B:1042:VAL:O	1:B:1042:VAL:HG22	2.10	0.50
1:B:1063:ASN:HD22	1:B:1078:ILE:HA	1.74	0.50
1:A:112:PHE:HB2	1:A:150:PHE:O	2.11	0.50
1:B:1216:ASP:HA	2:B:2525:HOH:O	2.12	0.50
1:B:1013:VAL:O	1:B:1016:CYS:HB2	2.11	0.50
1:B:1236:LYS:HB2	1:B:1236:LYS:HZ2	1.75	0.50
1:A:83:GLN:O	1:A:84:ASN:HB2	2.12	0.50
1:A:63:ASN:OD1	1:A:79:GLY:N	2.45	0.50
1:B:1040:ARG:O	1:B:1042:VAL:N	2.44	0.49
1:B:1198:THR:C	2:B:2580:HOH:O	2.50	0.49
1:A:217:ARG:HH21	1:A:217:ARG:HG3	1.77	0.49
1:A:122:PRO:HB2	1:B:1009:PRO:HG2	1.95	0.49
1:A:43:ILE:HG22	1:A:66:PHE:HE1	1.77	0.49
1:A:111:THR:HG23	1:A:292:THR:HG23	1.95	0.49
1:B:1056:ASP:HA	1:B:1059:ILE:CD1	2.43	0.49
1:A:31:TRP:HZ2	1:A:93:THR:O	1.96	0.49
1:A:274:ASN:OD1	1:A:276:MET:HG2	2.13	0.49
1:B:1209:TYR:OH	1:B:1254:SER:HB2	2.13	0.49
1:A:205:LEU:CD2	1:A:208:LEU:HD12	2.43	0.48
1:A:8:PHE:HE1	1:A:152:ILE:O	1.97	0.48
1:B:1019:GLN:NE2	1:B:1026:THR:HG21	2.22	0.48
1:A:127:GLN:HG3	1:A:128:CYS:N	2.28	0.48
1:A:294:PHE:CD1	1:A:294:PHE:C	2.87	0.48
1:B:1215:GLY:O	1:B:1216:ASP:C	2.52	0.48
1:A:1:SER:N	1:B:1170:GLY:O	2.47	0.48
1:A:207:TRP:CD1	1:A:288:GLU:HB3	2.48	0.48
1:A:220:LEU:HD21	1:A:259:ILE:HD13	1.95	0.48
1:B:1132:PRO:C	1:B:1134:HIS:N	2.66	0.48
1:B:1298:ARG:O	1:B:1303:VAL:HG22	2.13	0.48
1:A:239:TYR:OH	1:A:287:LEU:HD12	2.14	0.48
1:B:1087:LEU:HB3	1:B:1089:LEU:HD23	1.96	0.48
1:B:1203:ASN:CB	1:B:1289:ASP:O	2.62	0.48
1:B:1220:LEU:HD21	1:B:1259:ILE:HG22	1.95	0.48
1:A:231:ASN:HA	1:A:234:ALA:HB2	1.96	0.47
2:A:2488:HOH:O	1:B:1012:LYS:HG3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:244:GLN:NE2	1:A:244:GLN:HA	2.29	0.47
1:A:27:LEU:HD21	1:A:42:VAL:HB	1.95	0.47
1:A:78:ILE:O	1:A:78:ILE:HG13	2.14	0.47
1:B:1056:ASP:HA	1:B:1059:ILE:HD12	1.96	0.47
1:B:1226:THR:HG1	1:B:1229:ASP:H	1.61	0.47
1:A:88:ARG:HH11	1:A:88:ARG:CB	2.28	0.47
1:B:1203:ASN:OD1	1:B:1292:THR:HA	2.15	0.47
1:B:1232:LEU:C	1:B:1232:LEU:HD23	2.34	0.47
1:A:200:ILE:HG21	1:A:203:ASN:ND2	2.30	0.47
1:B:1027:LEU:HD12	1:B:1042:VAL:HB	1.96	0.47
1:A:63:ASN:O	1:A:77:VAL:HB	2.15	0.47
1:B:1040:ARG:C	1:B:1042:VAL:H	2.17	0.47
1:A:21:THR:HB	1:A:26:THR:OG1	2.15	0.47
1:A:55:GLU:O	1:A:59:ILE:HG13	2.14	0.47
1:B:1189:GLN:O	1:B:1191:ALA:N	2.47	0.46
1:B:1305:PHE:O	1:B:1306:GLN:CB	2.63	0.46
1:A:31:TRP:CZ2	1:A:95:ASN:HA	2.51	0.46
1:B:1224:THR:HB	1:B:1263:ASP:OD2	2.15	0.46
1:A:108:PRO:HB3	1:A:132:PRO:HA	1.96	0.46
1:A:297:VAL:O	1:A:298:ARG:O	2.33	0.46
1:B:1270:GLU:HA	1:B:1274:ASN:ND2	2.29	0.46
1:A:285:THR:H	1:B:1285:THR:HG21	1.81	0.46
1:B:1061:LYS:N	1:B:1061:LYS:HD2	2.31	0.46
1:A:43:ILE:O	1:A:43:ILE:HG13	2.16	0.46
1:A:207:TRP:CG	1:A:288:GLU:HB3	2.51	0.46
1:B:1270:GLU:HA	1:B:1274:ASN:HD22	1.81	0.46
1:A:63:ASN:HB3	1:A:77:VAL:O	2.14	0.46
1:A:8:PHE:HD1	1:A:152:ILE:HB	1.80	0.46
1:A:83:GLN:O	1:A:83:GLN:HG2	2.16	0.46
1:B:1303:VAL:O	1:B:1303:VAL:HG23	2.15	0.46
1:A:140:PHE:HD2	1:A:144:SER:HB2	1.81	0.46
1:B:1018:VAL:HB	1:B:1069:GLN:O	2.15	0.46
1:B:1206:ALA:HB2	1:B:1293:PRO:HG3	1.98	0.46
1:A:101:TYR:CD1	1:A:102:LYS:N	2.84	0.46
1:B:1136:ILE:HD12	1:B:1136:ILE:N	2.31	0.46
1:B:1270:GLU:HA	1:B:1273:GLN:HE21	1.81	0.46
1:B:1113:SER:O	1:B:1149:GLY:HA2	2.17	0.45
1:B:1222:ARG:HB3	1:B:1266:ALA:HB3	1.99	0.45
1:A:8:PHE:CD1	1:A:152:ILE:HB	2.51	0.45
1:B:1045:THR:O	1:B:1046:ALA:HB3	2.17	0.45
1:B:1253:LEU:HD21	1:B:1293:PRO:HB3	1.96	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:217:ARG:CB	1:A:220:LEU:HD12	2.39	0.45
1:B:1140:PHE:HB3	1:B:1144:SER:CB	2.45	0.45
1:A:186:VAL:HA	2:A:2410:HOH:O	2.16	0.45
1:A:205:LEU:HD12	1:A:250:LEU:CD1	2.43	0.45
1:B:1169:THR:HG23	1:B:1171:VAL:HG22	1.98	0.45
1:B:1220:LEU:HD11	1:B:1259:ILE:HB	1.98	0.45
1:B:1268:LEU:HD12	1:B:1268:LEU:N	2.31	0.45
1:B:1083:GLN:HE21	1:B:1083:GLN:CA	2.30	0.45
1:B:1253:LEU:HD22	2:B:2588:HOH:O	2.16	0.45
1:A:285:THR:HG22	2:A:2368:HOH:O	2.17	0.45
1:B:1095:ASN:HD22	1:B:1096:PRO:CD	2.29	0.45
1:B:1106:ILE:HD12	1:B:1106:ILE:C	2.37	0.45
1:B:1172:HIS:ND1	1:B:1172:HIS:N	2.64	0.45
1:B:1036:VAL:HG21	1:B:1091:VAL:HG13	1.99	0.45
1:B:1095:ASN:HB3	1:B:1098:THR:OG1	2.16	0.45
1:B:1244:GLN:C	1:B:1246:HIS:H	2.20	0.45
1:A:141:LEU:O	1:A:144:SER:CB	2.65	0.44
1:A:220:LEU:HD11	1:A:259:ILE:CD1	2.47	0.44
1:A:242:LEU:HD22	1:A:265:CYS:SG	2.58	0.44
1:B:1033:ASP:O	1:B:1095:ASN:N	2.41	0.44
1:B:1238:ASN:C	1:B:1239:TYR:HD1	2.20	0.44
1:B:1250:LEU:O	1:B:1253:LEU:HB2	2.17	0.44
1:B:1131:ARG:NH2	1:B:1289:ASP:OD1	2.46	0.44
1:B:1199:THR:N	2:B:2580:HOH:O	2.49	0.44
1:B:1242:LEU:HD12	1:B:1242:LEU:C	2.37	0.44
1:A:227:LEU:N	1:A:227:LEU:CD1	2.80	0.44
1:A:240:GLU:HB2	1:A:241:PRO:CD	2.47	0.44
1:A:242:LEU:CD1	1:A:246:HIS:HB2	2.48	0.44
1:B:1133:ASN:N	1:B:1197:ASP:OD1	2.42	0.44
1:B:1222:ARG:HB3	1:B:1266:ALA:CB	2.48	0.44
1:B:1265:CYS:CA	1:B:1268:LEU:HD13	2.45	0.44
1:A:220:LEU:HD11	1:A:259:ILE:HD11	1.99	0.44
1:A:245:ASP:O	1:A:249:ILE:HG13	2.17	0.44
1:A:19:GLN:O	1:A:68:VAL:HA	2.17	0.43
1:B:1221:ASN:O	1:B:1222:ARG:CB	2.64	0.43
1:A:205:LEU:HD22	1:A:208:LEU:HD12	1.99	0.43
1:A:227:LEU:H	1:A:227:LEU:CD1	2.25	0.43
1:B:1053:ASN:O	1:B:1055:GLU:N	2.51	0.43
1:B:1268:LEU:O	1:B:1271:LEU:N	2.51	0.43
1:A:8:PHE:CE1	1:A:152:ILE:O	2.70	0.43
1:A:203:ASN:CB	1:A:289:ASP:O	2.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:34:ASP:O	1:A:91:VAL:HG22	2.18	0.43
1:A:3:PHE:HE2	1:A:296:VAL:HG13	1.83	0.43
1:A:161:TYR:CE1	1:A:174:GLY:HA3	2.54	0.43
1:B:1077:VAL:HG22	1:B:1078:ILE:N	2.34	0.43
1:B:1079:GLY:C	1:B:1081:SER:H	2.16	0.43
1:B:1176:ASP:OD1	1:B:1180:LYS:HB2	2.18	0.43
1:B:1238:ASN:CG	1:B:1238:ASN:O	2.56	0.43
1:A:21:THR:OG1	1:A:67:LEU:HB3	2.18	0.43
1:A:198:THR:OG1	1:A:199:THR:N	2.52	0.43
1:A:205:LEU:O	1:A:208:LEU:N	2.52	0.43
1:A:293:PRO:O	1:A:297:VAL:HG23	2.19	0.43
1:A:220:LEU:O	1:A:221:ASN:ND2	2.52	0.43
1:B:1188:ARG:HH11	1:B:1190:THR:CG2	2.32	0.43
1:A:285:THR:HB	1:B:1285:THR:CG2	2.48	0.43
1:B:1111:THR:HG23	1:B:1292:THR:HG23	2.00	0.42
1:B:1176:ASP:OD1	1:B:1180:LYS:N	2.52	0.42
1:B:1208:LEU:HD13	1:B:1264:MET:SD	2.59	0.42
1:B:1225:THR:OG1	1:B:1226:THR:N	2.51	0.42
1:A:133:ASN:CG	1:A:197:ASP:HB2	2.40	0.42
1:B:1027:LEU:CD1	1:B:1042:VAL:HB	2.49	0.42
1:B:1036:VAL:CG2	1:B:1091:VAL:HG13	2.49	0.42
1:B:1054:TYR:O	1:B:1057:LEU:N	2.53	0.42
1:B:1074:GLN:OE1	1:B:1075:LEU:N	2.52	0.42
1:B:1083:GLN:NE2	1:B:1084:ASN:N	2.62	0.42
1:B:1188:ARG:HD3	1:B:1190:THR:HG23	2.01	0.42
1:A:295:ASP:O	1:A:298:ARG:HB3	2.20	0.42
1:B:1227:LEU:HD12	1:B:1228:ASN:N	2.34	0.42
1:A:49:MET:C	1:A:52:PRO:HD3	2.39	0.42
1:A:147:SER:O	1:A:162:MET:HA	2.19	0.42
1:B:1209:TYR:O	1:B:1213:ILE:HG13	2.20	0.42
1:A:18:VAL:HG22	1:A:29:GLY:O	2.19	0.42
1:A:291:PHE:HD2	1:A:291:PHE:HA	1.74	0.42
1:B:1208:LEU:O	1:B:1211:ALA:HB3	2.20	0.42
1:A:51:ASN:C	1:A:51:ASN:ND2	2.73	0.42
1:A:118:TYR:HB2	1:B:1304:THR:HG22	2.01	0.42
1:B:1050:LEU:HD12	1:B:1189:GLN:HB3	2.02	0.42
1:B:1110:GLN:HG3	1:B:1111:THR:N	2.34	0.42
1:B:1205:LEU:CD2	1:B:1268:LEU:HD21	2.49	0.42
1:B:1259:ILE:HD12	1:B:1264:MET:HE2	2.01	0.42
1:A:286:ILE:HB	1:A:287:LEU:H	1.66	0.41
1:A:4:ARG:HB2	1:B:1139:SER:OG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:127:GLN:HG3	1:A:128:CYS:H	1.83	0.41
1:A:297:VAL:O	1:A:298:ARG:C	2.57	0.41
1:B:1189:GLN:C	1:B:1191:ALA:N	2.72	0.41
1:A:19:GLN:HE21	1:A:119:ASN:HA	1.85	0.41
1:B:1003:PHE:HB3	1:B:1282:LEU:HD13	2.02	0.41
1:B:1223:PHE:O	1:B:1225:THR:N	2.53	0.41
1:A:67:LEU:HD11	1:A:74:GLN:OE1	2.20	0.41
1:A:152:ILE:HA	1:A:156:CYS:O	2.21	0.41
1:A:207:TRP:CZ3	1:A:287:LEU:HA	2.55	0.41
1:A:242:LEU:HD12	1:A:246:HIS:CB	2.50	0.41
1:B:1004:ARG:O	1:B:1299:GLN:NE2	2.51	0.41
1:B:1209:TYR:CE1	1:B:1259:ILE:HD11	2.55	0.41
1:A:271:LEU:C	1:A:273:GLN:H	2.24	0.41
1:B:1022:CYS:HB3	1:B:1042:VAL:HG22	2.03	0.41
1:B:1262:LEU:O	1:B:1265:CYS:HB2	2.20	0.41
1:A:60:ARG:O	1:A:61:LYS:HG2	2.21	0.41
1:A:279:ARG:HD2	1:A:279:ARG:HA	1.80	0.41
1:B:1114:VAL:O	1:B:1125:VAL:HA	2.20	0.41
1:B:1298:ARG:HG2	1:B:1303:VAL:HG21	2.00	0.41
1:A:281:ILE:HD12	1:A:281:ILE:N	2.36	0.41
1:B:1209:TYR:CZ	1:B:1253:LEU:HB3	2.55	0.41
1:B:1259:ILE:O	1:B:1259:ILE:HG13	2.21	0.41
1:B:1014:GLU:C	1:B:1016:CYS:N	2.74	0.41
1:B:1020:VAL:O	1:B:1020:VAL:HG12	2.21	0.41
1:B:1130:MET:HE2	1:B:1136:ILE:HD11	1.99	0.41
1:B:1218:TRP:HH2	1:B:1276:MET:HB2	1.86	0.41
1:A:294:PHE:HB2	2:A:2331:HOH:O	2.21	0.40
1:A:269:LYS:HD3	1:A:269:LYS:C	2.40	0.40
1:B:1153:ASP:OD2	1:B:1153:ASP:C	2.60	0.40
1:B:1205:LEU:HD23	1:B:1268:LEU:HD21	2.03	0.40
1:A:205:LEU:O	1:A:208:LEU:HB2	2.21	0.40
1:A:274:ASN:CG	1:A:276:MET:HG2	2.41	0.40
1:B:1079:GLY:C	1:B:1081:SER:N	2.74	0.40
1:B:1089:LEU:HD23	1:B:1089:LEU:N	2.23	0.40
1:B:1189:GLN:O	1:B:1189:GLN:HG3	2.22	0.40
1:A:283:GLY:O	1:A:284:SER:C	2.59	0.40
1:B:1079:GLY:O	1:B:1089:LEU:HA	2.21	0.40
1:B:1132:PRO:HD2	1:B:1197:ASP:OD2	2.22	0.40
1:B:1244:GLN:C	1:B:1246:HIS:N	2.75	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2589:HOH:O	2:B:2604:HOH:O[4_546]	2.11	0.09

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	304/306 (99%)	246 (81%)	47 (16%)	11 (4%)	3	11
1	B	304/306 (99%)	230 (76%)	50 (16%)	24 (8%)	1	2
All	All	608/612 (99%)	476 (78%)	97 (16%)	35 (6%)	1	4

All (35) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	274	ASN
1	A	276	MET
1	A	298	ARG
1	B	1054	TYR
1	B	1072	ASN
1	B	1078	ILE
1	B	1154	TYR
1	B	1216	ASP
1	B	1257	THR
1	A	243	THR
1	A	286	ILE
1	B	1041	HIS
1	B	1080	HIS
1	B	1104	VAL
1	B	1190	THR
1	B	1219	PHE
1	B	1222	ARG
1	B	1224	THR
1	B	1277	ASN
1	A	102	LYS

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Mol	Chain	Res	Type
1	A	279	ARG
1	A	280	THR
1	B	1201	THR
1	B	1241	PRO
1	A	277	ASN
1	B	1079	GLY
1	B	1218	TRP
1	B	1046	ALA
1	B	1130	MET
1	B	1223	PHE
1	A	198	THR
1	B	1215	GLY
1	B	1303	VAL
1	A	43	ILE
1	B	1052	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	262/262 (100%)	243 (93%)	19 (7%)	14	38
1	B	262/262 (100%)	236 (90%)	26 (10%)	8	23
All	All	524/524 (100%)	479 (91%)	45 (9%)	10	30

All (45) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	4	ARG
1	A	27	LEU
1	A	51	ASN
1	A	64	HIS
1	A	87	LEU
1	A	97	LYS
1	A	99	PRO
1	A	107	GLN

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Mol	Chain	Res	Type
1	A	154	TYR
1	A	190	THR
1	A	196	THR
1	A	199	THR
1	A	220	LEU
1	A	221	ASN
1	A	222	ARG
1	A	239	TYR
1	A	273	GLN
1	A	291	PHE
1	A	294	PHE
1	B	1006	MET
1	B	1024	THR
1	B	1025	THR
1	B	1056	ASP
1	B	1058	LEU
1	B	1074	GLN
1	B	1078	ILE
1	B	1083	GLN
1	B	1089	LEU
1	B	1127	GLN
1	B	1169	THR
1	B	1172	HIS
1	B	1181	PHE
1	B	1192	GLN
1	B	1214	ASN
1	B	1219	PHE
1	B	1222	ARG
1	B	1224	THR
1	B	1227	LEU
1	B	1243	THR
1	B	1244	GLN
1	B	1257	THR
1	B	1286	ILE
1	B	1288	GLU
1	B	1298	ARG
1	B	1299	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (29) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	19	GLN

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Mol	Chain	Res	Type
1	A	28	ASN
1	A	41	HIS
1	A	51	ASN
1	A	63	ASN
1	A	72	ASN
1	A	107	GLN
1	A	142	ASN
1	A	151	ASN
1	A	192	GLN
1	A	214	ASN
1	A	221	ASN
1	A	228	ASN
1	A	231	ASN
1	A	244	GLN
1	A	246	HIS
1	A	273	GLN
1	B	1019	GLN
1	B	1041	HIS
1	B	1063	ASN
1	B	1083	GLN
1	B	1095	ASN
1	B	1163	HIS
1	B	1189	GLN
1	B	1192	GLN
1	B	1214	ASN
1	B	1238	ASN
1	B	1273	GLN
1	B	1274	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no monosaccharides in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
1	A	306/306 (100%)	-0.33	3 (0%)	82	77	4, 28, 61, 77	0
1	B	306/306 (100%)	-0.08	10 (3%)	46	36	5, 43, 76, 83	0
All	All	612/612 (100%)	-0.21	13 (2%)	63	54	4, 35, 72, 83	0

All (13) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	278	GLY	4.3
1	B	1279	ARG	3.0
1	A	249	ILE	2.8
1	B	1225	THR	2.7
1	A	277	ASN	2.6
1	B	1226	THR	2.5
1	B	1224	THR	2.4
1	B	1232	LEU	2.3
1	B	1223	PHE	2.1
1	B	1258	GLY	2.1
1	B	1230	PHE	2.0
1	B	1259	ILE	2.0
1	B	1246	HIS	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4 Ligands ⓘ

There are no ligands in this entry.

6.5 Other polymers ⓘ

There are no such residues in this entry.