



Full wwPDB NMR Structure Validation Report ⓘ

Dec 13, 2023 – 06:39 PM EST

PDB ID : 2JQY
Title : Outer Membrane Protein G
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Deposited on : 2007-06-15

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

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<https://www.wwpdb.org/validation/2017/NMRValidationReportHelp>
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:

Cyrange : Kirchner and Güntert (2011)
NmrClust : Kelley et al. (1996)
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
wwPDB-RCI : v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV : Wang et al. (2010)
wwPDB-ShiftChecker : v1.2
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

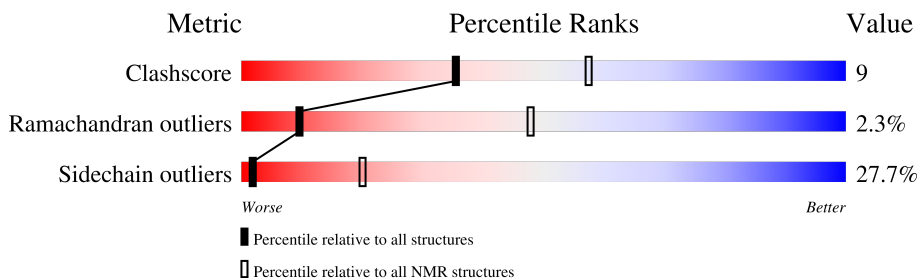
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment was not calculated.

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)	NMR archive (#Entries)
Clashscore	158937	12864
Ramachandran outliers	154571	11451
Sidechain outliers	154315	11428

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and 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 $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	A	280	

2 Ensemble composition and analysis i

This entry contains 10 models. Model 6 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

Well-defined (core) protein residues			
Well-defined core	Residue range (total)	Backbone RMSD (Å)	Medoid model
1	A:5-A:14, A:33-A:52, A:68-A:95, A:106-A:139, A:148-A:176, A:189-A:211, A:236-A:243, A:248-A:254, A:273-A:280 (167)	1.41	6

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 2 clusters and 1 single-model cluster was found.

Cluster number	Models
1	1, 2, 3, 6, 8, 10
2	5, 7, 9
Single-model clusters	4

3 Entry composition

There is only 1 type of molecule in this entry. The entry contains 4402 atoms, of which 2074 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Outer membrane protein G.

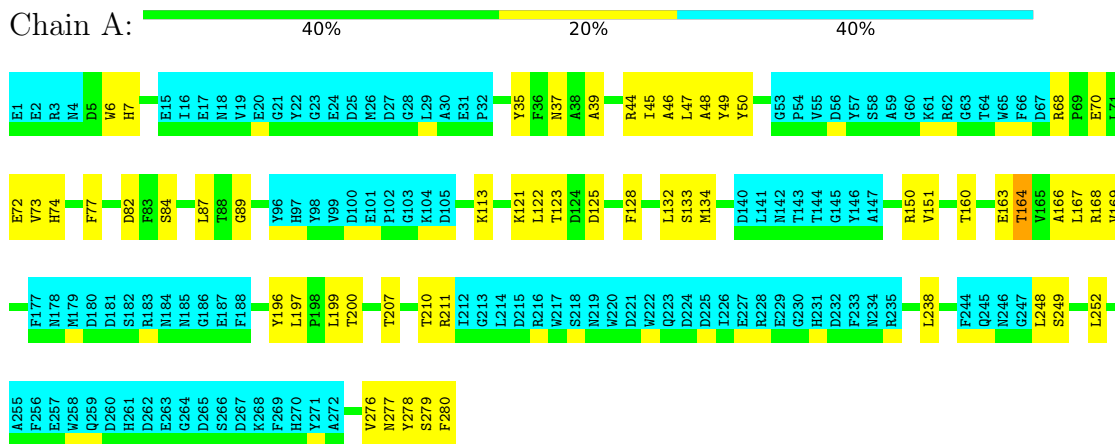
Mol	Chain	Residues	Atoms						Trace
			Total	C	H	N	O	S	
1	A	280	4402	1477	2074	387	459	5	0

4 Residue-property plots i

4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-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. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

- Molecule 1: Outer membrane protein G

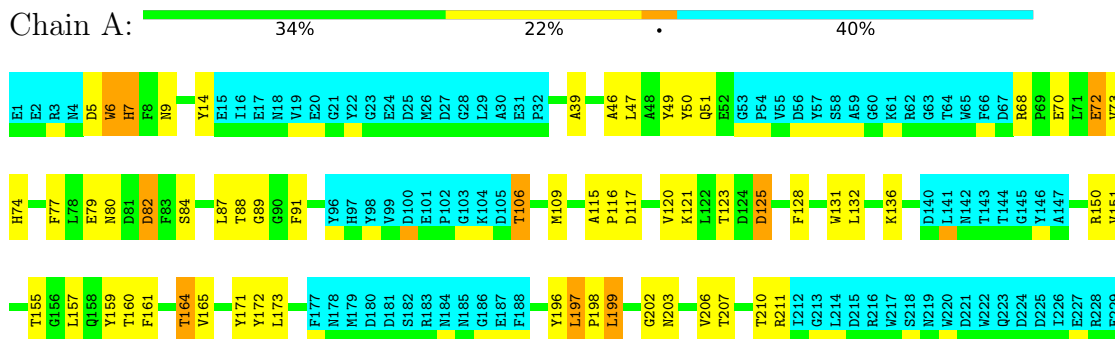


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

- Molecule 1: Outer membrane protein G

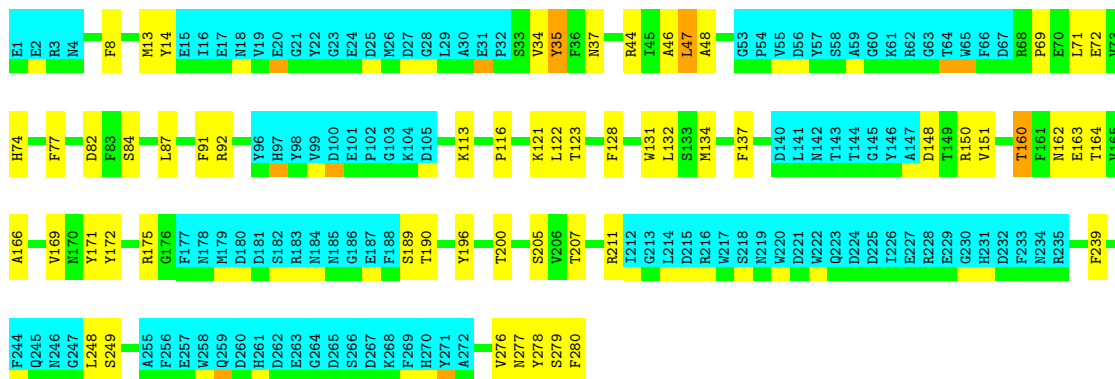




4.2.2 Score per residue for model 2

- Molecule 1: Outer membrane protein G

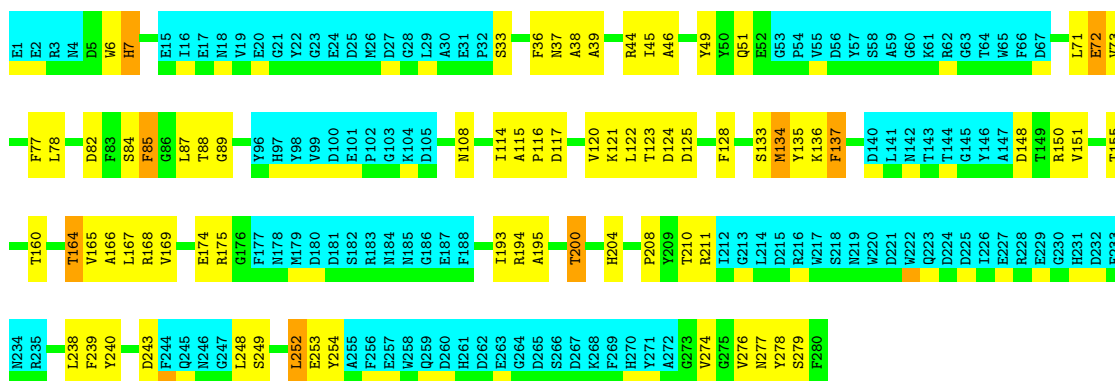
Chain A: 39% 19% 40%



4.2.3 Score per residue for model 3

- Molecule 1: Outer membrane protein G

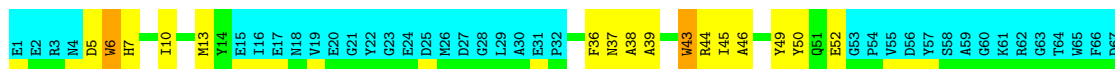
Chain A: 33% 24% 40%

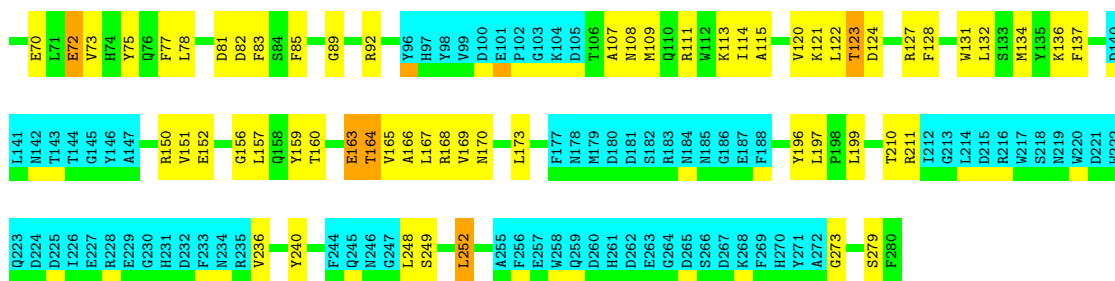


4.2.4 Score per residue for model 4

- Molecule 1: Outer membrane protein G

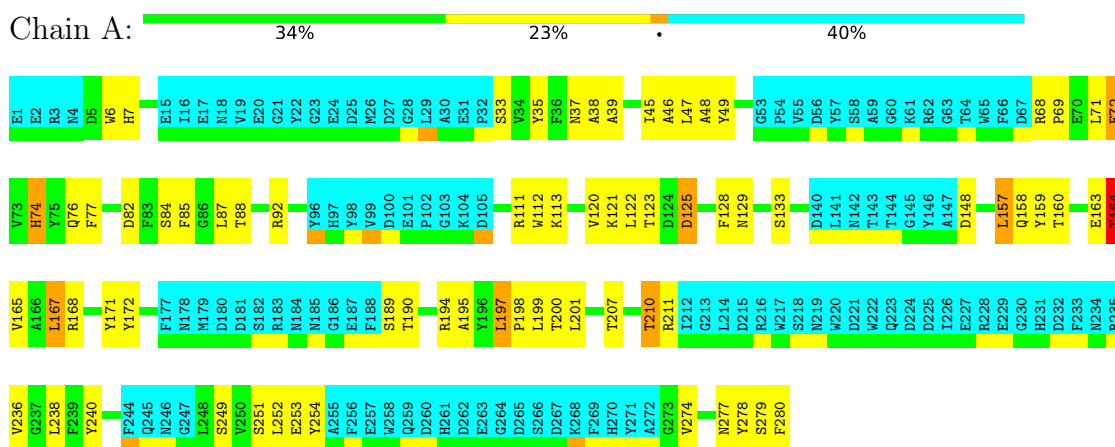
Chain A: 33% 24% 40%





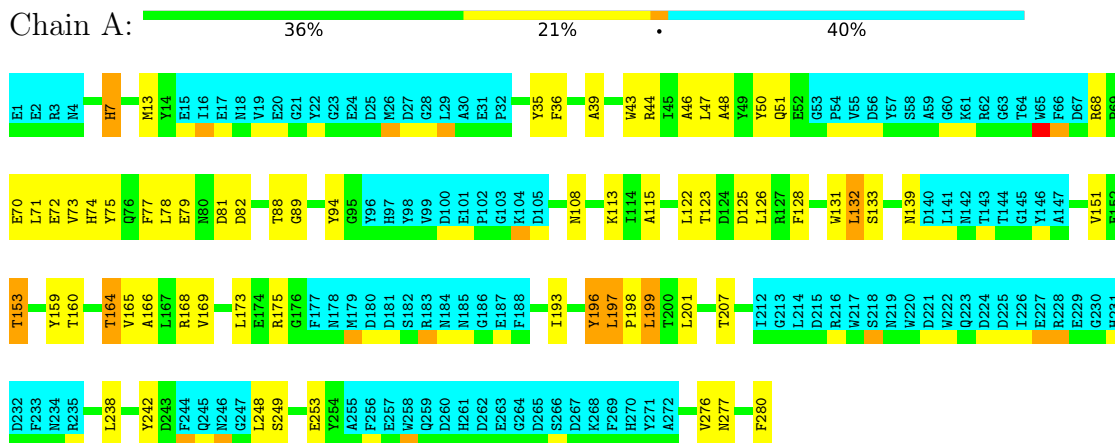
4.2.5 Score per residue for model 5

- Molecule 1: Outer membrane protein G



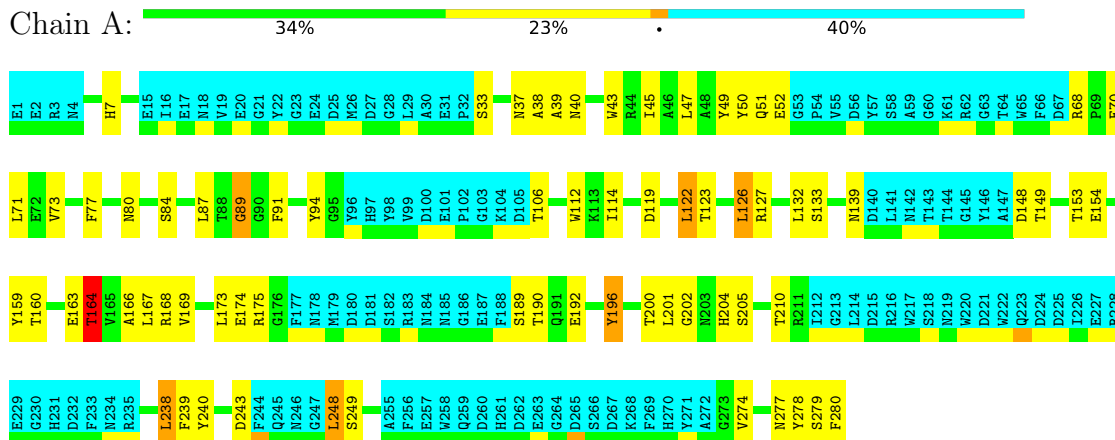
4.2.6 Score per residue for model 6 (medoid)

- Molecule 1: Outer membrane protein G



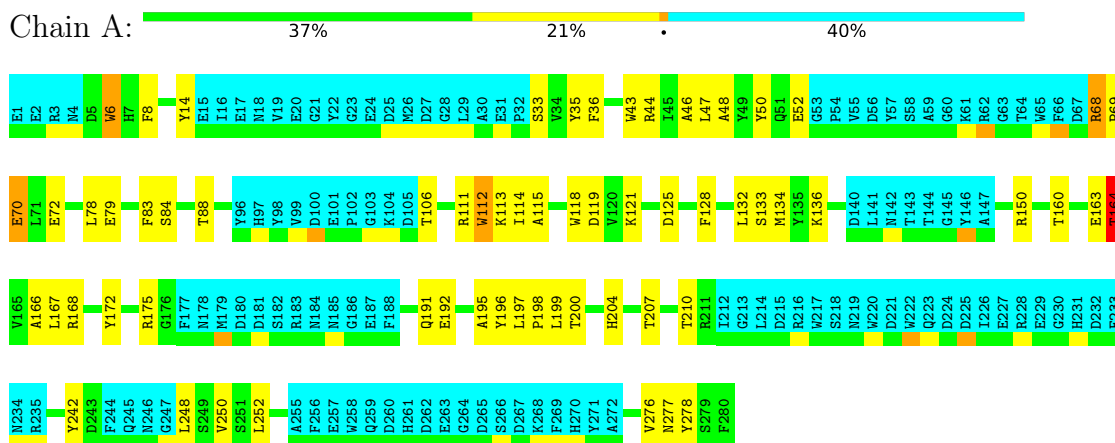
4.2.7 Score per residue for model 7

- Molecule 1: Outer membrane protein G



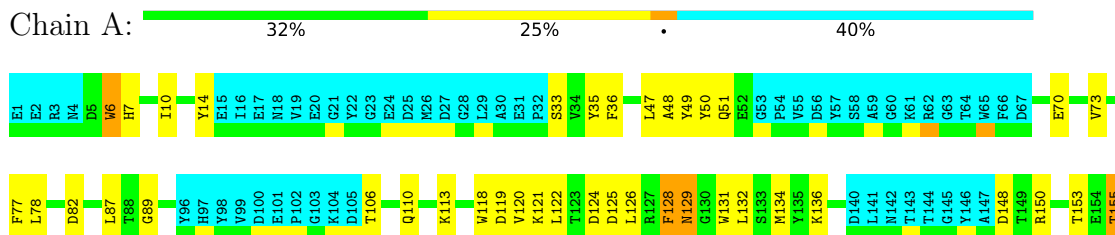
4.2.8 Score per residue for model 8

- Molecule 1: Outer membrane protein G



4.2.9 Score per residue for model 9

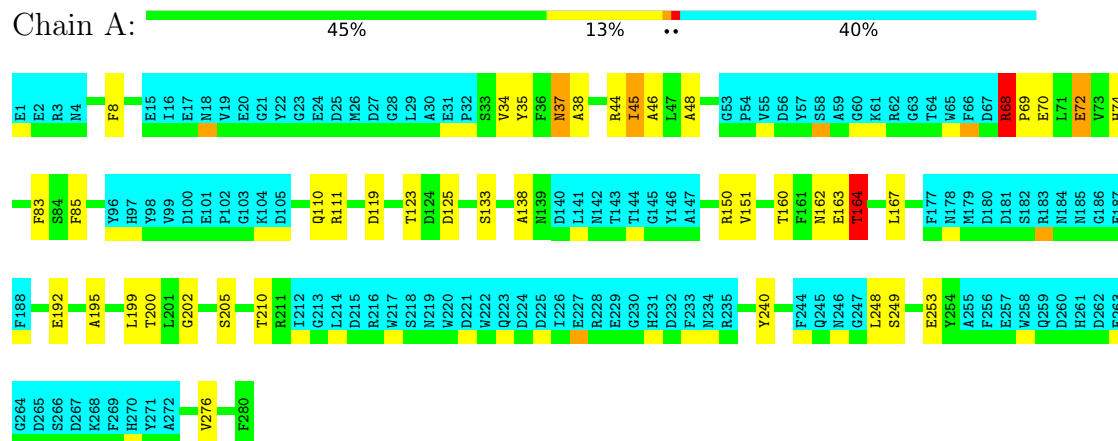
- Molecule 1: Outer membrane protein G





4.2.10 Score per residue for model 10

- Molecule 1: Outer membrane protein G



5 Refinement protocol and experimental data overview

The models were refined using the following method: *simulated annealing*.

Of the 100 calculated structures, 10 were deposited, based on the following criterion: *structures with the lowest energy*.

The following table shows the software used for structure solution, optimisation and refinement.

Software name	Classification	Version
CNS	refinement	

No chemical shift data was provided.

6 Model quality i

6.1 Standard geometry i

There are no covalent bond-length or bond-angle outliers.

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

6.2 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 each 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 averaged over the ensemble.

Mol	Chain	Non-H	H(model)	H(added)	Clashes
1	A	1388	1291	1288	23±5
All	All	13880	12910	12880	231

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 9.

All unique clashes are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:160:THR:HG23	1:A:166:ALA:HB2	0.89	1.45	2	6
1:A:115:ALA:HB3	1:A:132:LEU:O	0.82	1.74	4	1
1:A:87:LEU:HD21	1:A:114:ILE:HG23	0.82	1.49	3	1
1:A:238:LEU:HD22	1:A:240:TYR:CZ	0.79	2.12	7	1
1:A:73:VAL:HG12	1:A:89:GLY:O	0.74	1.82	7	2
1:A:7:HIS:HB2	1:A:39:ALA:HB3	0.73	1.60	5	6
1:A:82:ASP:O	1:A:120:VAL:HG23	0.72	1.84	1	3
1:A:200:THR:HG23	1:A:204:HIS:O	0.72	1.85	8	2
1:A:46:ALA:HB3	1:A:72:GLU:HB3	0.72	1.62	4	6
1:A:73:VAL:HG22	1:A:89:GLY:O	0.71	1.85	3	3
1:A:88:THR:CG2	1:A:115:ALA:HB3	0.71	2.14	1	1
1:A:46:ALA:HB3	1:A:72:GLU:HB2	0.70	1.64	6	2
1:A:160:THR:CG2	1:A:166:ALA:HB2	0.70	2.16	2	7
1:A:88:THR:HG22	1:A:115:ALA:HB3	0.70	1.61	1	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:197:LEU:HD12	1:A:199:LEU:HD11	0.69	1.64	1	1
1:A:160:THR:HG22	1:A:166:ALA:HB2	0.69	1.64	4	1
1:A:198:PRO:HA	1:A:207:THR:HG22	0.67	1.67	6	4
1:A:128:PHE:CE1	1:A:155:THR:HG22	0.67	2.25	9	1
1:A:134:MET:HG3	1:A:151:VAL:HG12	0.66	1.67	4	1
1:A:249:SER:O	1:A:276:VAL:HG13	0.65	1.91	6	3
1:A:112:TRP:CE3	1:A:114:ILE:HD11	0.65	2.26	8	1
1:A:200:THR:HG22	1:A:205:SER:HA	0.64	1.68	2	2
1:A:48:ALA:HB3	1:A:70:GLU:HB3	0.63	1.69	9	2
1:A:195:ALA:HB3	1:A:210:THR:HB	0.63	1.71	8	4
1:A:114:ILE:HG22	1:A:116:PRO:HD3	0.63	1.70	3	1
1:A:38:ALA:HB3	1:A:45:ILE:CG2	0.62	2.23	10	3
1:A:156:GLY:C	1:A:157:LEU:HD22	0.62	2.15	4	1
1:A:38:ALA:HB3	1:A:45:ILE:HB	0.61	1.73	3	2
1:A:200:THR:HG22	1:A:204:HIS:O	0.60	1.96	3	2
1:A:163:GLU:O	1:A:164:THR:HG23	0.60	1.97	9	4
1:A:132:LEU:HD11	1:A:153:THR:HG23	0.60	1.73	6	1
1:A:48:ALA:HB3	1:A:70:GLU:CG	0.59	2.27	8	1
1:A:132:LEU:CD1	1:A:153:THR:HG23	0.59	2.27	6	2
1:A:89:GLY:HA2	1:A:114:ILE:HG22	0.59	1.72	7	2
1:A:248:LEU:HD13	1:A:278:TYR:HB2	0.59	1.74	2	1
1:A:248:LEU:HD12	1:A:248:LEU:N	0.58	2.14	9	1
1:A:37:ASN:ND2	1:A:46:ALA:HB2	0.58	2.14	10	1
1:A:77:PHE:HB3	1:A:78:LEU:HD12	0.58	1.73	4	1
1:A:87:LEU:HD12	1:A:87:LEU:O	0.57	1.99	2	1
1:A:196:TYR:O	1:A:197:LEU:HD23	0.57	1.99	4	1
1:A:248:LEU:HD12	1:A:248:LEU:O	0.57	1.98	6	1
1:A:46:ALA:HB3	1:A:72:GLU:CB	0.57	2.28	4	3
1:A:169:VAL:O	1:A:169:VAL:HG13	0.56	2.00	3	3
1:A:7:HIS:CB	1:A:39:ALA:HB3	0.56	2.30	5	1
1:A:120:VAL:O	1:A:120:VAL:HG13	0.56	2.01	3	2
1:A:198:PRO:CA	1:A:207:THR:HG23	0.55	2.32	8	1
1:A:198:PRO:HA	1:A:207:THR:HG23	0.55	1.77	8	1
1:A:200:THR:O	1:A:201:LEU:HD12	0.54	2.02	9	1
1:A:122:LEU:HD12	1:A:123:THR:OG1	0.54	2.03	5	1
1:A:88:THR:HB	1:A:115:ALA:HB3	0.54	1.78	3	1
1:A:48:ALA:HB3	1:A:70:GLU:HB2	0.53	1.79	6	1
1:A:210:THR:HG22	1:A:236:VAL:HG12	0.53	1.79	9	1
1:A:236:VAL:HG22	1:A:236:VAL:O	0.53	2.03	4	1
1:A:122:LEU:HD12	1:A:123:THR:N	0.53	2.19	5	1
1:A:206:VAL:O	1:A:206:VAL:HG13	0.53	2.04	1	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:120:VAL:CG1	1:A:123:THR:HG21	0.53	2.34	4	1
1:A:208:PRO:HB3	1:A:238:LEU:HD23	0.53	1.80	3	1
1:A:159:TYR:O	1:A:167:LEU:HD12	0.53	2.04	4	1
1:A:169:VAL:HG23	1:A:169:VAL:O	0.53	2.04	9	3
1:A:126:LEU:HD12	1:A:159:TYR:CD1	0.52	2.39	7	1
1:A:134:MET:CG	1:A:151:VAL:HG12	0.52	2.35	4	1
1:A:159:TYR:OH	1:A:167:LEU:HD11	0.52	2.05	5	1
1:A:151:VAL:HG13	1:A:151:VAL:O	0.52	2.04	6	2
1:A:120:VAL:HG23	1:A:128:PHE:HB2	0.52	1.81	5	1
1:A:167:LEU:N	1:A:167:LEU:HD12	0.52	2.19	10	1
1:A:199:LEU:HD23	1:A:200:THR:N	0.51	2.20	5	1
1:A:48:ALA:HB3	1:A:70:GLU:HG3	0.51	1.81	8	1
1:A:250:VAL:HG12	1:A:276:VAL:HG12	0.51	1.82	8	1
1:A:10:ILE:HG23	1:A:36:PHE:CE1	0.51	2.40	4	1
1:A:89:GLY:CA	1:A:114:ILE:HG22	0.50	2.35	4	2
1:A:128:PHE:CZ	1:A:157:LEU:HD11	0.50	2.41	9	1
1:A:193:ILE:O	1:A:193:ILE:HG23	0.50	2.06	6	2
1:A:165:VAL:O	1:A:165:VAL:HG13	0.50	2.06	5	1
1:A:45:ILE:HG22	1:A:47:LEU:HD23	0.49	1.83	5	1
1:A:47:LEU:HD23	1:A:48:ALA:N	0.49	2.22	2	1
1:A:134:MET:HG3	1:A:151:VAL:HG22	0.49	1.84	2	1
1:A:132:LEU:HG	1:A:153:THR:HG23	0.49	1.84	9	2
1:A:128:PHE:CD1	1:A:157:LEU:HD22	0.49	2.43	5	1
1:A:242:TYR:H	1:A:250:VAL:HG23	0.49	1.67	8	1
1:A:43:TRP:CZ2	1:A:75:TYR:CE1	0.49	3.00	6	1
1:A:88:THR:OG1	1:A:115:ALA:HB3	0.49	2.07	8	2
1:A:134:MET:HG2	1:A:151:VAL:HG12	0.49	1.83	3	1
1:A:195:ALA:HB3	1:A:210:THR:OG1	0.49	2.08	9	1
1:A:110:GLN:HB3	1:A:138:ALA:HB3	0.49	1.84	10	1
1:A:248:LEU:HD23	1:A:278:TYR:HD1	0.48	1.67	9	1
1:A:159:TYR:CZ	1:A:167:LEU:HD11	0.48	2.44	5	1
1:A:165:VAL:O	1:A:165:VAL:HG23	0.48	2.08	3	3
1:A:88:THR:HG23	1:A:88:THR:O	0.47	2.09	1	1
1:A:115:ALA:HB3	1:A:132:LEU:C	0.47	2.29	4	1
1:A:238:LEU:HD22	1:A:240:TYR:OH	0.47	2.10	7	1
1:A:248:LEU:HD12	1:A:248:LEU:C	0.47	2.30	6	1
1:A:196:TYR:N	1:A:196:TYR:CD1	0.47	2.82	7	3
1:A:74:HIS:CD2	1:A:88:THR:HG23	0.46	2.46	5	1
1:A:74:HIS:N	1:A:74:HIS:CD2	0.46	2.83	1	1
1:A:151:VAL:HG23	1:A:151:VAL:O	0.46	2.09	10	1
1:A:249:SER:CB	1:A:277:ASN:O	0.46	2.64	5	5

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:120:VAL:HG12	1:A:123:THR:OG1	0.46	2.11	4	1
1:A:165:VAL:HG13	1:A:199:LEU:HG	0.46	1.88	6	1
1:A:128:PHE:CG	1:A:157:LEU:HD22	0.45	2.47	5	1
1:A:248:LEU:HD11	1:A:276:VAL:HG11	0.45	1.89	3	1
1:A:278:TYR:CD1	1:A:279:SER:N	0.45	2.85	7	3
1:A:197:LEU:HD12	1:A:199:LEU:CD1	0.45	2.42	6	1
1:A:68:ARG:CB	1:A:69:PRO:CD	0.45	2.94	8	2
1:A:160:THR:HG22	1:A:166:ALA:CB	0.45	2.38	4	1
1:A:112:TRP:CZ3	1:A:114:ILE:HD11	0.45	2.46	8	1
1:A:128:PHE:CZ	1:A:157:LEU:CD1	0.45	3.00	9	1
1:A:199:LEU:HD12	1:A:206:VAL:O	0.45	2.12	1	1
1:A:252:LEU:CD2	1:A:254:TYR:CE2	0.45	3.00	3	1
1:A:10:ILE:CD1	1:A:36:PHE:CE2	0.45	2.99	9	1
1:A:163:GLU:C	1:A:164:THR:HG22	0.44	2.33	8	1
1:A:240:TYR:CD1	1:A:240:TYR:N	0.44	2.85	7	1
1:A:252:LEU:HD23	1:A:273:GLY:O	0.44	2.12	4	1
1:A:35:TYR:CD1	1:A:35:TYR:N	0.44	2.85	8	1
1:A:129:ASN:ND2	1:A:131:TRP:CE2	0.44	2.85	9	1
1:A:38:ALA:HB3	1:A:45:ILE:HG23	0.44	1.89	10	1
1:A:250:VAL:HA	1:A:276:VAL:HG12	0.44	1.89	1	1
1:A:128:PHE:CD2	1:A:157:LEU:CD1	0.43	3.00	1	1
1:A:195:ALA:HB3	1:A:210:THR:CB	0.43	2.43	5	1
1:A:159:TYR:CD1	1:A:159:TYR:N	0.43	2.87	1	1
1:A:82:ASP:HB3	1:A:120:VAL:HG13	0.43	1.89	4	1
1:A:91:PHE:N	1:A:91:PHE:CD1	0.43	2.86	7	1
1:A:83:PHE:O	1:A:83:PHE:CD1	0.43	2.72	10	1
1:A:248:LEU:HD12	1:A:276:VAL:HG11	0.43	1.89	2	1
1:A:73:VAL:HG13	1:A:73:VAL:O	0.43	2.14	6	1
1:A:128:PHE:CZ	1:A:155:THR:CG2	0.42	3.01	1	1
1:A:114:ILE:O	1:A:115:ALA:HB2	0.42	2.15	4	1
1:A:249:SER:O	1:A:277:ASN:N	0.42	2.52	9	1
1:A:6:TRP:O	1:A:6:TRP:CG	0.42	2.72	8	1
1:A:249:SER:O	1:A:277:ASN:HB3	0.42	2.14	9	1
1:A:120:VAL:HG13	1:A:128:PHE:HB2	0.42	1.90	3	1
1:A:114:ILE:O	1:A:114:ILE:HD12	0.42	2.15	4	1
1:A:126:LEU:CD1	1:A:159:TYR:CD1	0.42	3.03	7	1
1:A:128:PHE:CE1	1:A:155:THR:HG23	0.42	2.49	1	1
1:A:167:LEU:CB	1:A:197:LEU:HD11	0.42	2.45	5	1
1:A:248:LEU:HD12	1:A:248:LEU:H	0.42	1.73	9	1
1:A:68:ARG:CB	1:A:69:PRO:HD3	0.42	2.44	10	1
1:A:277:ASN:O	1:A:278:TYR:CD1	0.41	2.73	9	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:68:ARG:N	1:A:69:PRO:CD	0.41	2.83	5	1
1:A:120:VAL:CG1	1:A:123:THR:CG2	0.41	2.98	4	1
1:A:40:ASN:O	1:A:43:TRP:CD1	0.41	2.73	7	1
1:A:14:TYR:CD1	1:A:14:TYR:N	0.41	2.89	8	1
1:A:248:LEU:HD22	1:A:278:TYR:CG	0.41	2.50	2	1
1:A:43:TRP:CZ3	1:A:75:TYR:CE1	0.41	3.09	4	1
1:A:35:TYR:CE1	1:A:48:ALA:HB2	0.41	2.51	5	1
1:A:73:VAL:HG23	1:A:89:GLY:HA3	0.41	1.92	4	1
1:A:242:TYR:CE2	1:A:243:ASP:O	0.41	2.74	9	1
1:A:252:LEU:HD13	1:A:253:GLU:H	0.41	1.76	1	1
1:A:123:THR:O	1:A:123:THR:HG22	0.41	2.16	7	1
1:A:249:SER:O	1:A:276:VAL:HA	0.40	2.16	1	1
1:A:34:VAL:HG12	1:A:35:TYR:N	0.40	2.32	2	2
1:A:252:LEU:CD2	1:A:274:VAL:HG12	0.40	2.46	5	1
1:A:128:PHE:HE1	1:A:155:THR:HG22	0.40	1.72	9	1
1:A:207:THR:HG23	1:A:207:THR:O	0.40	2.16	2	1
1:A:278:TYR:CD1	1:A:278:TYR:C	0.40	2.94	5	1
1:A:200:THR:HG22	1:A:205:SER:OG	0.40	2.17	10	1
1:A:122:LEU:HD12	1:A:123:THR:CB	0.40	2.46	5	1
1:A:128:PHE:CD1	1:A:128:PHE:N	0.40	2.89	6	1
1:A:159:TYR:O	1:A:159:TYR:CD1	0.40	2.75	6	1
1:A:85:PHE:CD1	1:A:117:ASP:O	0.40	2.75	3	1
1:A:35:TYR:O	1:A:36:PHE:CD1	0.40	2.74	6	1

6.3 Torsion angles [\(i\)](#)

6.3.1 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 NMR 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	166/280 (59%)	148±3 (89±2%)	14±3 (9±2%)	4±2 (2±1%)	9	48
All	All	1660/2800 (59%)	1478 (89%)	144 (9%)	38 (2%)	9	48

All 16 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	164	THR	10
1	A	125	ASP	5
1	A	6	TRP	4
1	A	202	GLY	3
1	A	116	PRO	2
1	A	211	ARG	2
1	A	236	VAL	2
1	A	83	PHE	2
1	A	243	ASP	1
1	A	69	PRO	1
1	A	162	ASN	1
1	A	124	ASP	1
1	A	163	GLU	1
1	A	89	GLY	1
1	A	122	LEU	1
1	A	68	ARG	1

6.3.2 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 NMR 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	143/238 (60%)	103±7 (72±5%)	40±7 (28±5%)	2	20
All	All	1430/2380 (60%)	1034 (72%)	396 (28%)	2	20

All 114 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type	Models (Total)
1	A	164	THR	9
1	A	77	PHE	7
1	A	121	LYS	7
1	A	150	ARG	7
1	A	168	ARG	7
1	A	47	LEU	6
1	A	49	TYR	6
1	A	50	TYR	6
1	A	84	SER	6
1	A	123	THR	6

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Mol	Chain	Res	Type	Models (Total)
1	A	280	PHE	6
1	A	37	ASN	6
1	A	44	ARG	6
1	A	113	LYS	6
1	A	122	LEU	6
1	A	133	SER	6
1	A	6	TRP	5
1	A	51	GLN	5
1	A	68	ARG	5
1	A	72	GLU	5
1	A	136	LYS	5
1	A	196	TYR	5
1	A	197	LEU	5
1	A	199	LEU	5
1	A	239	PHE	5
1	A	252	LEU	5
1	A	71	LEU	5
1	A	148	ASP	5
1	A	175	ARG	5
1	A	33	SER	5
1	A	167	LEU	5
1	A	248	LEU	5
1	A	7	HIS	4
1	A	70	GLU	4
1	A	82	ASP	4
1	A	87	LEU	4
1	A	125	ASP	4
1	A	131	TRP	4
1	A	132	LEU	4
1	A	160	THR	4
1	A	171	TYR	4
1	A	172	TYR	4
1	A	173	LEU	4
1	A	210	THR	4
1	A	279	SER	4
1	A	74	HIS	4
1	A	128	PHE	4
1	A	189	SER	4
1	A	190	THR	4
1	A	211	ARG	4
1	A	78	LEU	4
1	A	85	PHE	4

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Mol	Chain	Res	Type	Models (Total)
1	A	240	TYR	4
1	A	253	GLU	4
1	A	111	ARG	4
1	A	238	LEU	4
1	A	119	ASP	4
1	A	192	GLU	4
1	A	14	TYR	3
1	A	79	GLU	3
1	A	106	THR	3
1	A	8	PHE	3
1	A	13	MET	3
1	A	92	ARG	3
1	A	137	PHE	3
1	A	163	GLU	3
1	A	108	ASN	3
1	A	134	MET	3
1	A	174	GLU	3
1	A	243	ASP	3
1	A	52	GLU	3
1	A	112	TRP	3
1	A	201	LEU	3
1	A	126	LEU	3
1	A	5	ASP	2
1	A	80	ASN	2
1	A	91	PHE	2
1	A	109	MET	2
1	A	254	TYR	2
1	A	35	TYR	2
1	A	36	PHE	2
1	A	124	ASP	2
1	A	155	THR	2
1	A	194	ARG	2
1	A	43	TRP	2
1	A	81	ASP	2
1	A	127	ARG	2
1	A	249	SER	2
1	A	129	ASN	2
1	A	158	GLN	2
1	A	94	TYR	2
1	A	139	ASN	2
1	A	277	ASN	2
1	A	118	TRP	2

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Mol	Chain	Res	Type	Models (Total)
1	A	191	GLN	2
1	A	9	ASN	1
1	A	117	ASP	1
1	A	161	PHE	1
1	A	203	ASN	1
1	A	135	TYR	1
1	A	200	THR	1
1	A	152	GLU	1
1	A	170	ASN	1
1	A	76	GLN	1
1	A	157	LEU	1
1	A	251	SER	1
1	A	153	THR	1
1	A	242	TYR	1
1	A	149	THR	1
1	A	154	GLU	1
1	A	205	SER	1
1	A	110	GLN	1
1	A	45	ILE	1
1	A	162	ASN	1

6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.6 Ligand geometry [i](#)

There are no ligands in this entry.

6.7 Other polymers [i](#)

There are no such molecules in this entry.

6.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

7 Chemical shift validation

No chemical shift data were provided