



Full wwPDB NMR Structure Validation Report ⓘ

Mar 8, 2026 – 01:12 PM UTC

PDB ID : 2IB1 / pdb_00002ib1
Title : Solution structure of p45 Death Domain
Authors : Vilar, M.; Sung, T.C.; Lee, K.F.; Riek, R.
Deposited on : 2006-09-08

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:

MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
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) : 2.49

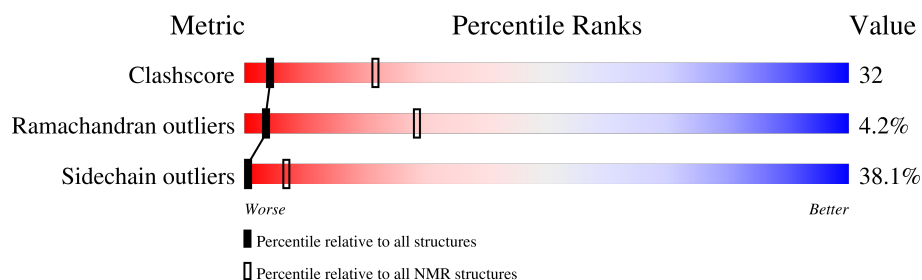
1 Overall quality at a glance

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	229148	14424
Ramachandran outliers	224038	12848
Sidechain outliers	223484	12823

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	91	23% 59% 7% • 10%

2 Ensemble composition and analysis

This entry contains 20 models. Model 4 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:138-A:219 (82)	1.28	4

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 3 clusters and 2 single-model clusters were found.

Cluster number	Models
1	2, 3, 4, 6, 7, 8, 9, 12, 14, 17, 18, 19, 20
2	1, 5, 11
3	13, 16
Single-model clusters	10; 15

3 Entry composition [i](#)

There is only 1 type of molecule in this entry. The entry contains 1378 atoms, of which 681 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Death domain containing membrane protein NRADD.

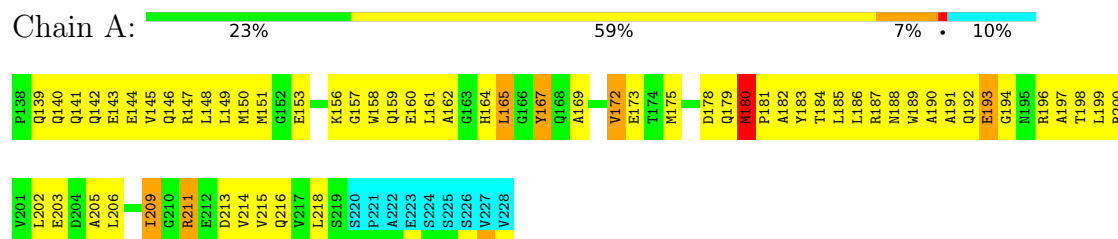
Mol	Chain	Residues	Atoms						Trace
1	A	91	Total	C	H	N	O	S	0
			1378	429	681	123	140	5	

4 Residue-property plots

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: Death domain containing membrane protein NRADD

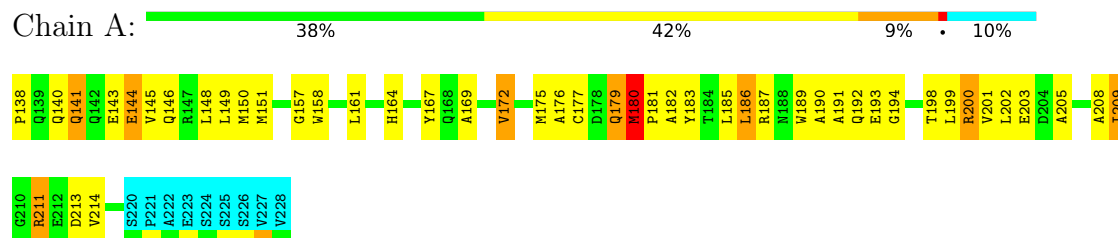


4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

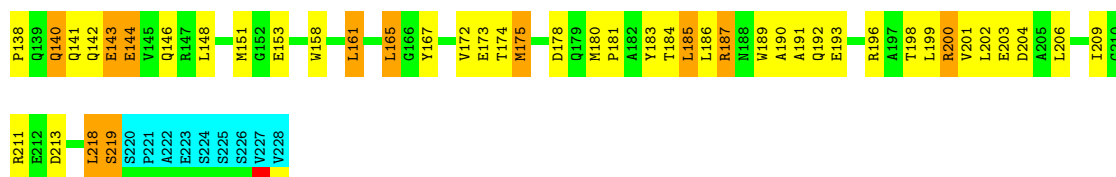
- Molecule 1: Death domain containing membrane protein NRADD



4.2.2 Score per residue for model 2

- Molecule 1: Death domain containing membrane protein NRADD

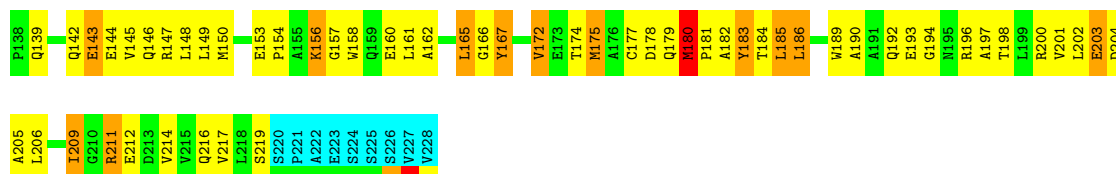




4.2.3 Score per residue for model 3

- Molecule 1: Death domain containing membrane protein NRADD

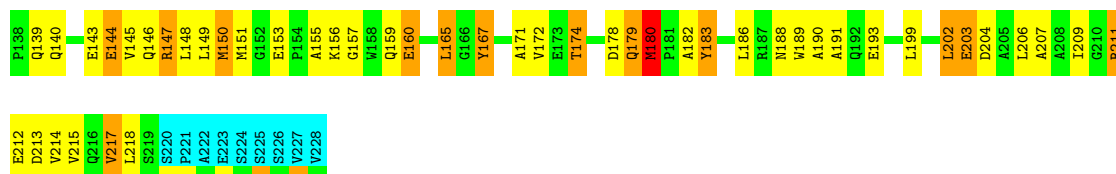
Chain A: 29% 47% 13% 10%



4.2.4 Score per residue for model 4 (medoid)

- Molecule 1: Death domain containing membrane protein NRADD

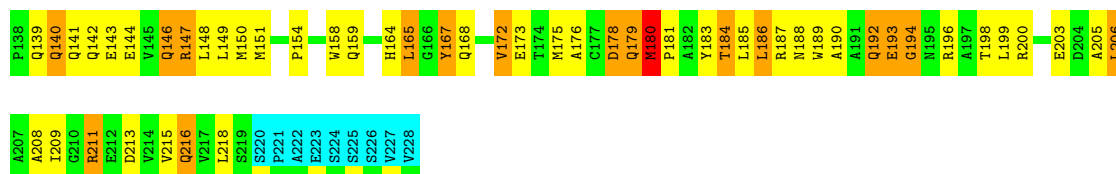
Chain A: 38% 36% 14% 10%



4.2.5 Score per residue for model 5

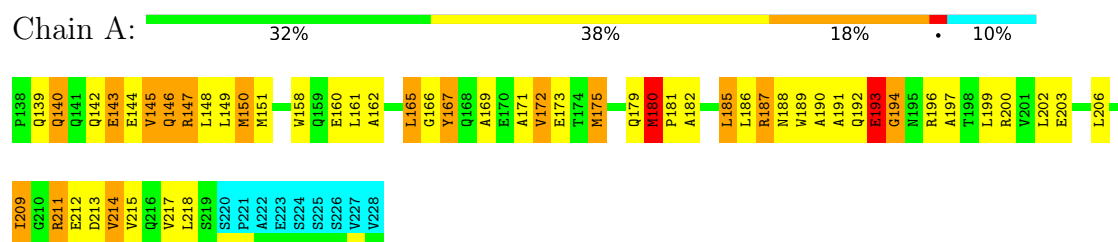
- Molecule 1: Death domain containing membrane protein NRADD

Chain A: 33% 38% 18% 10%



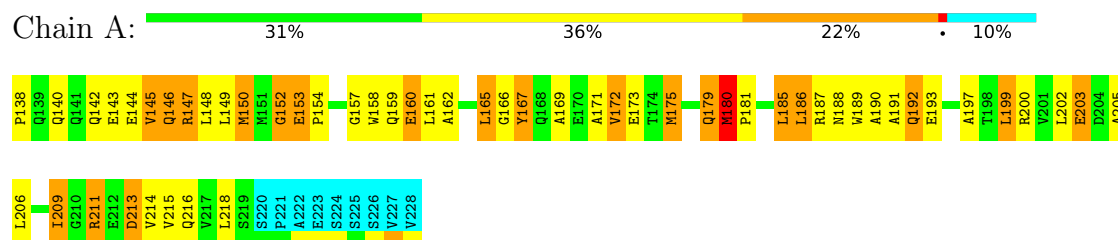
4.2.6 Score per residue for model 6

- Molecule 1: Death domain containing membrane protein NRADD



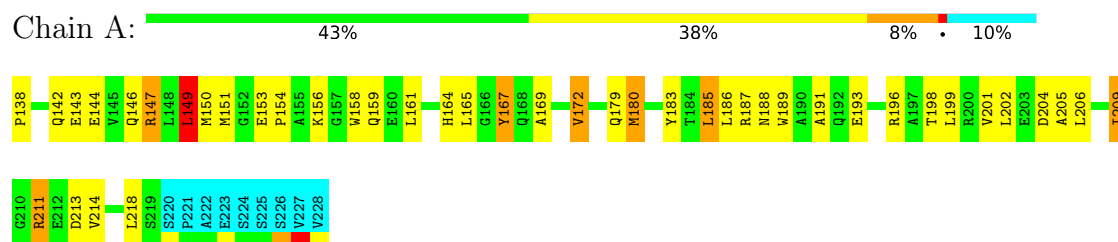
4.2.7 Score per residue for model 7

- Molecule 1: Death domain containing membrane protein NRADD



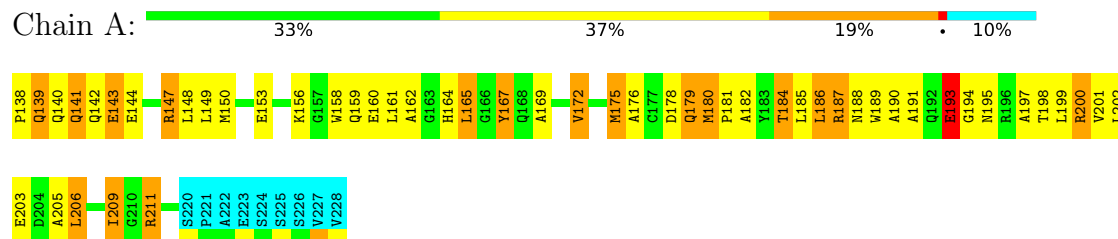
4.2.8 Score per residue for model 8

- Molecule 1: Death domain containing membrane protein NRADD



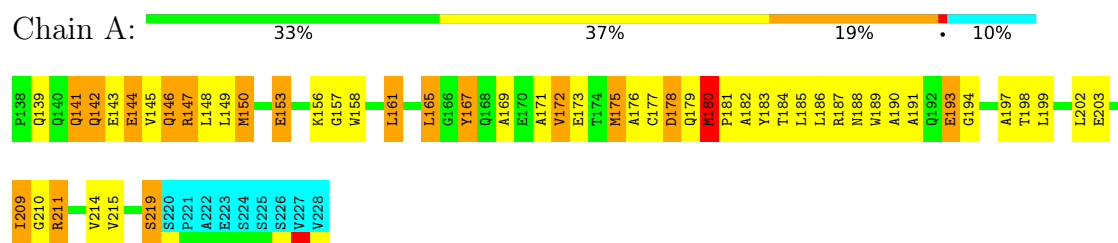
4.2.9 Score per residue for model 9

- Molecule 1: Death domain containing membrane protein NRADD



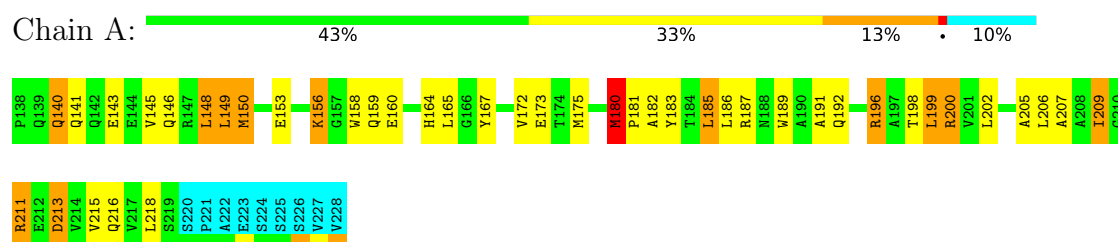
4.2.10 Score per residue for model 10

- Molecule 1: Death domain containing membrane protein NRADD



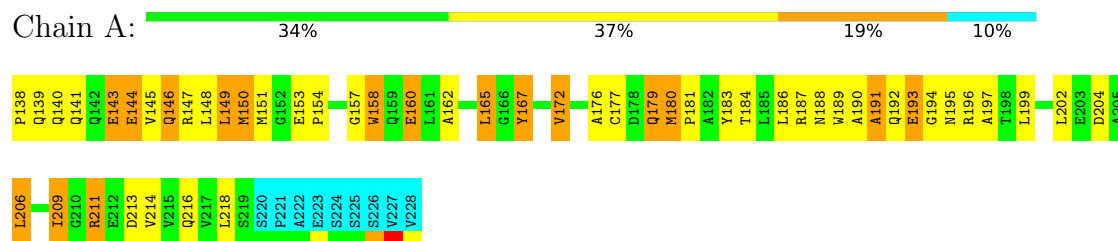
4.2.11 Score per residue for model 11

- Molecule 1: Death domain containing membrane protein NRADD



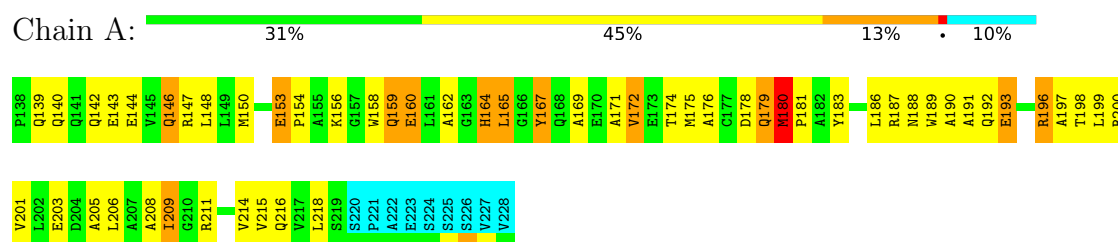
4.2.12 Score per residue for model 12

- Molecule 1: Death domain containing membrane protein NRADD



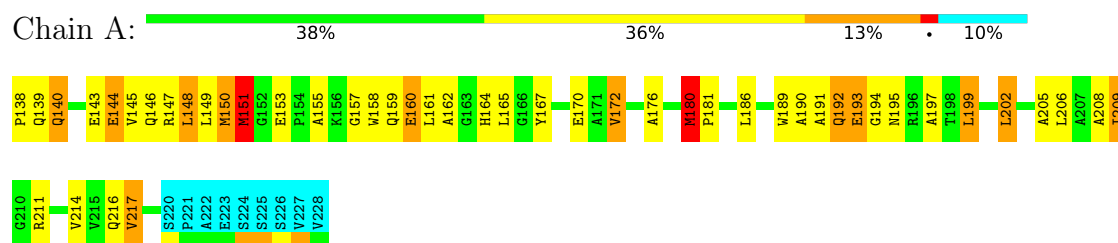
4.2.13 Score per residue for model 13

- Molecule 1: Death domain containing membrane protein NRADD



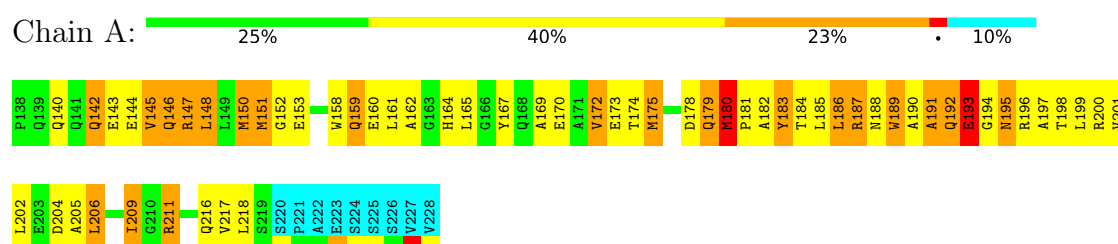
4.2.14 Score per residue for model 14

- Molecule 1: Death domain containing membrane protein NRADD



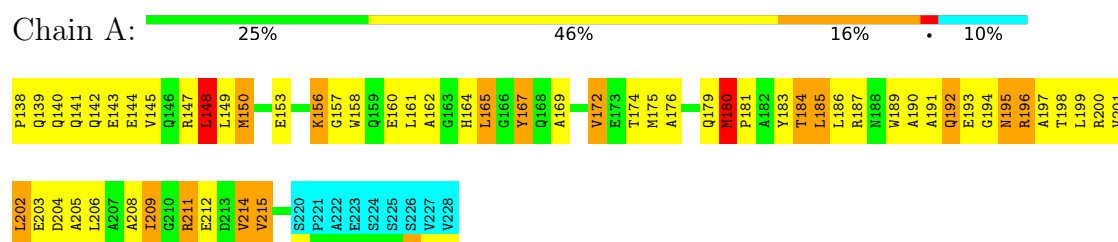
4.2.15 Score per residue for model 15

- Molecule 1: Death domain containing membrane protein NRADD



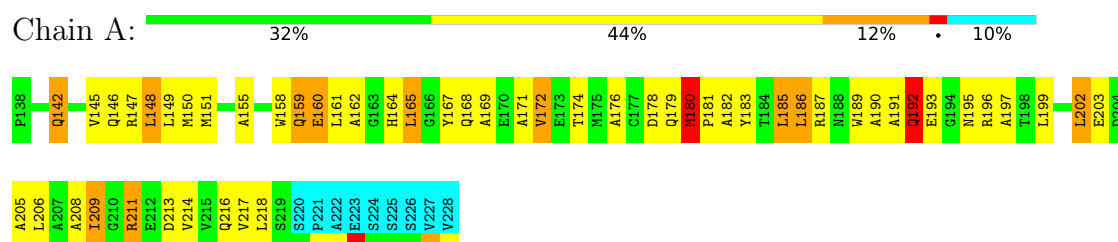
4.2.16 Score per residue for model 16

- Molecule 1: Death domain containing membrane protein NRADD



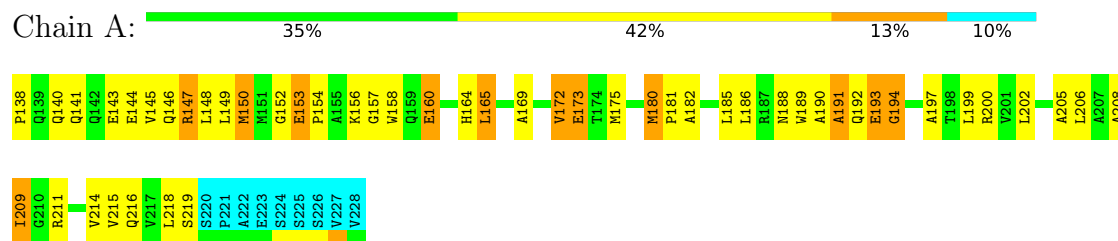
4.2.17 Score per residue for model 17

- Molecule 1: Death domain containing membrane protein NRADD



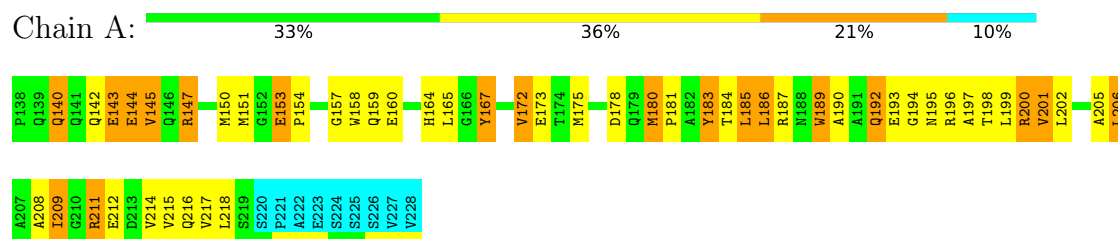
4.2.18 Score per residue for model 18

- Molecule 1: Death domain containing membrane protein NRADD



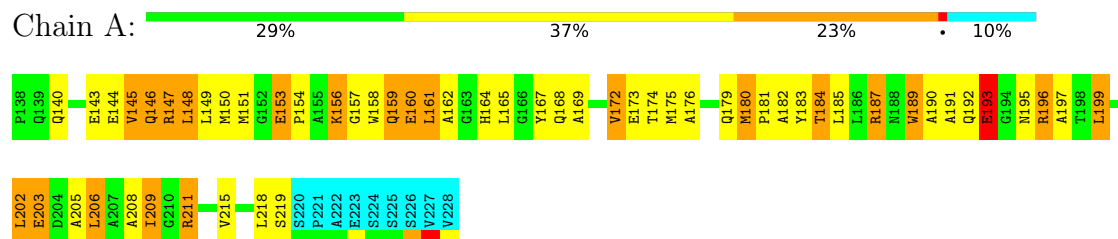
4.2.19 Score per residue for model 19

- Molecule 1: Death domain containing membrane protein NRADD



4.2.20 Score per residue for model 20

- Molecule 1: Death domain containing membrane protein NRADD



5 Refinement protocol and experimental data overview ⓘ

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

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *target function*.

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

Software name	Classification	Version
CYANA	structure solution	
CNS	refinement	

No chemical shift data was provided.

6 Model quality

6.1 Standard geometry

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

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	637	625	622	41±8
All	All	12740	12500	12440	814

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 32.

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

Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:145:VAL:HG23	1:A:218:LEU:HD13	0.91	1.39	17	6
1:A:186:LEU:HD12	1:A:198:THR:HG22	0.88	1.45	13	1
1:A:158:TRP:CH2	1:A:176:ALA:HB2	0.85	2.07	14	8
1:A:165:LEU:HD23	1:A:189:TRP:CD1	0.80	2.12	7	6
1:A:150:MET:SD	1:A:180:MET:HE1	0.80	2.16	16	3
1:A:180:MET:HE3	1:A:181:PRO:HD2	0.79	1.53	10	5
1:A:158:TRP:CZ3	1:A:172:VAL:HG22	0.78	2.13	14	7
1:A:190:ALA:HB2	1:A:194:GLY:HA2	0.77	1.56	5	7
1:A:189:TRP:CE3	1:A:197:ALA:HB2	0.74	2.17	20	2
1:A:145:VAL:CG1	1:A:149:LEU:HD12	0.74	2.11	17	1
1:A:145:VAL:CG2	1:A:218:LEU:HD13	0.74	2.11	17	6
1:A:165:LEU:HD22	1:A:165:LEU:O	0.74	1.83	2	12
1:A:165:LEU:HD12	1:A:189:TRP:CG	0.74	2.18	10	1
1:A:165:LEU:HD12	1:A:167:TYR:CD2	0.73	2.18	20	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:167:TYR:CZ	1:A:175:MET:HE3	0.73	2.18	10	2
1:A:189:TRP:CG	1:A:197:ALA:HB2	0.72	2.18	7	4
1:A:165:LEU:C	1:A:165:LEU:HD13	0.72	2.08	7	15
1:A:185:LEU:HD21	1:A:189:TRP:HE3	0.72	1.45	5	3
1:A:145:VAL:CG1	1:A:149:LEU:HD23	0.72	2.14	12	1
1:A:165:LEU:HD23	1:A:189:TRP:CD2	0.71	2.19	20	1
1:A:149:LEU:HD22	1:A:214:VAL:HG22	0.70	1.62	12	2
1:A:206:LEU:HD13	1:A:214:VAL:HG11	0.70	1.64	6	1
1:A:144:GLU:HA	1:A:147:ARG:HD3	0.70	1.64	5	1
1:A:211:ARG:HD2	1:A:214:VAL:HG23	0.70	1.63	13	1
1:A:167:TYR:CE2	1:A:175:MET:HE3	0.69	2.21	10	2
1:A:189:TRP:CH2	1:A:201:VAL:HG12	0.69	2.22	13	4
1:A:161:LEU:HD23	1:A:206:LEU:HD21	0.69	1.64	6	2
1:A:211:ARG:NE	1:A:211:ARG:HA	0.69	2.02	7	8
1:A:148:LEU:HD22	1:A:217:VAL:HG11	0.69	1.64	6	1
1:A:202:LEU:O	1:A:206:LEU:HD21	0.69	1.88	9	1
1:A:164:HIS:CD2	1:A:205:ALA:HA	0.68	2.23	16	12
1:A:206:LEU:HD13	1:A:215:VAL:HG21	0.68	1.63	18	1
1:A:206:LEU:HD13	1:A:206:LEU:N	0.67	2.05	9	1
1:A:148:LEU:CB	1:A:214:VAL:HG22	0.67	2.19	10	1
1:A:148:LEU:HB3	1:A:214:VAL:HG22	0.67	1.64	10	1
1:A:175:MET:HE1	1:A:185:LEU:HD12	0.67	1.67	3	2
1:A:149:LEU:HD22	1:A:158:TRP:CD1	0.67	2.25	16	1
1:A:206:LEU:HD22	1:A:211:ARG:CG	0.66	2.21	13	1
1:A:194:GLY:HA2	1:A:198:THR:HG21	0.66	1.68	15	1
1:A:145:VAL:HG13	1:A:214:VAL:HG11	0.65	1.68	1	4
1:A:180:MET:HA	1:A:180:MET:HE2	0.65	1.69	17	2
1:A:146:GLN:CD	1:A:182:ALA:HB3	0.64	2.17	10	5
1:A:189:TRP:CZ2	1:A:201:VAL:HG12	0.64	2.27	9	3
1:A:199:LEU:HA	1:A:202:LEU:HD23	0.64	1.70	4	3
1:A:142:GLN:NE2	1:A:186:LEU:HD11	0.64	2.07	17	1
1:A:186:LEU:HD13	1:A:194:GLY:HA3	0.64	1.69	5	1
1:A:165:LEU:HD23	1:A:165:LEU:O	0.64	1.93	14	1
1:A:186:LEU:O	1:A:190:ALA:HB3	0.63	1.92	6	10
1:A:144:GLU:HA	1:A:147:ARG:CD	0.63	2.23	3	2
1:A:167:TYR:CE2	1:A:171:ALA:HB1	0.63	2.28	10	4
1:A:162:ALA:HB1	1:A:167:TYR:HB3	0.63	1.71	13	3
1:A:142:GLN:HB2	1:A:186:LEU:HD11	0.63	1.69	8	2
1:A:165:LEU:HD23	1:A:189:TRP:CE2	0.63	2.28	20	1
1:A:150:MET:SD	1:A:180:MET:HA	0.63	2.34	6	1
1:A:189:TRP:CD2	1:A:197:ALA:HB1	0.62	2.29	13	3

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:161:LEU:HD12	1:A:185:LEU:HD11	0.62	1.71	20	1
1:A:162:ALA:HB1	1:A:167:TYR:CB	0.62	2.24	13	3
1:A:150:MET:HE3	1:A:182:ALA:HB2	0.62	1.68	9	1
1:A:149:LEU:HD11	1:A:214:VAL:HG21	0.62	1.72	18	1
1:A:158:TRP:CZ3	1:A:175:MET:HB3	0.61	2.31	7	4
1:A:146:GLN:CG	1:A:180:MET:HE1	0.61	2.25	14	1
1:A:144:GLU:HA	1:A:147:ARG:HD2	0.61	1.72	3	1
1:A:160:GLU:HB3	1:A:209:ILE:HD12	0.61	1.71	20	7
1:A:161:LEU:HD12	1:A:162:ALA:N	0.61	2.10	7	5
1:A:149:LEU:HD11	1:A:213:ASP:CG	0.61	2.21	7	1
1:A:150:MET:HE3	1:A:181:PRO:HG2	0.60	1.72	5	1
1:A:206:LEU:HD22	1:A:211:ARG:HG2	0.60	1.71	13	1
1:A:206:LEU:HD13	1:A:214:VAL:CG1	0.60	2.27	7	2
1:A:206:LEU:HD22	1:A:211:ARG:NH2	0.60	2.12	16	1
1:A:149:LEU:HD21	1:A:214:VAL:HG22	0.60	1.72	14	1
1:A:186:LEU:HD13	1:A:194:GLY:CA	0.59	2.27	5	1
1:A:206:LEU:CD1	1:A:214:VAL:HG11	0.59	2.26	6	1
1:A:165:LEU:HD12	1:A:185:LEU:HD21	0.59	1.73	8	1
1:A:159:GLN:HB2	1:A:172:VAL:CG2	0.59	2.27	20	2
1:A:209:ILE:HD11	1:A:211:ARG:HB2	0.59	1.74	15	1
1:A:147:ARG:N	1:A:147:ARG:HD3	0.59	2.12	20	1
1:A:206:LEU:HD13	1:A:212:GLU:HA	0.59	1.75	4	1
1:A:139:GLN:HA	1:A:142:GLN:CD	0.59	2.23	13	1
1:A:157:GLY:HA2	1:A:211:ARG:HG2	0.59	1.75	3	2
1:A:153:GLU:HB3	1:A:154:PRO:HD2	0.59	1.74	3	1
1:A:174:THR:HG22	1:A:178:ASP:HB3	0.59	1.74	15	1
1:A:143:GLU:HB3	1:A:183:TYR:CE1	0.58	2.33	10	2
1:A:145:VAL:HG13	1:A:214:VAL:HG22	0.58	1.73	6	1
1:A:145:VAL:HG11	1:A:214:VAL:HG13	0.58	1.75	12	1
1:A:148:LEU:HB3	1:A:217:VAL:HG21	0.58	1.75	4	1
1:A:144:GLU:CA	1:A:147:ARG:HD3	0.58	2.27	5	1
1:A:161:LEU:HA	1:A:209:ILE:CD1	0.58	2.29	15	1
1:A:164:HIS:HD2	1:A:208:ALA:HB3	0.58	1.59	16	6
1:A:149:LEU:C	1:A:149:LEU:HD12	0.58	2.24	12	1
1:A:199:LEU:HD22	1:A:218:LEU:HD21	0.57	1.74	8	1
1:A:206:LEU:CD1	1:A:215:VAL:HG21	0.57	2.29	18	1
1:A:169:ALA:O	1:A:172:VAL:HG12	0.57	1.99	17	6
1:A:146:GLN:HB3	1:A:182:ALA:HB3	0.57	1.74	3	1
1:A:164:HIS:CD2	1:A:208:ALA:HB3	0.57	2.34	16	8
1:A:165:LEU:HG	1:A:189:TRP:CD1	0.57	2.34	8	3
1:A:164:HIS:CG	1:A:205:ALA:HA	0.57	2.35	19	4

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:139:GLN:HA	1:A:186:LEU:HD21	0.57	1.76	9	1
1:A:146:GLN:NE2	1:A:182:ALA:HB3	0.57	2.15	11	3
1:A:197:ALA:HA	1:A:201:VAL:HG11	0.57	1.77	13	3
1:A:145:VAL:HG23	1:A:218:LEU:HD22	0.56	1.76	20	1
1:A:174:THR:HG22	1:A:178:ASP:HB2	0.56	1.75	3	3
1:A:158:TRP:HA	1:A:161:LEU:HD21	0.56	1.78	2	4
1:A:190:ALA:O	1:A:196:ARG:NH2	0.56	2.37	17	1
1:A:206:LEU:HD12	1:A:207:ALA:N	0.56	2.16	4	2
1:A:158:TRP:HH2	1:A:176:ALA:HB2	0.56	1.58	20	2
1:A:148:LEU:HD13	1:A:217:VAL:HG11	0.56	1.76	17	1
1:A:167:TYR:HD2	1:A:171:ALA:HB3	0.56	1.60	17	1
1:A:206:LEU:HD11	1:A:215:VAL:HG23	0.56	1.77	20	1
1:A:156:LYS:O	1:A:211:ARG:NH1	0.56	2.36	16	1
1:A:150:MET:HE3	1:A:150:MET:HA	0.55	1.76	6	1
1:A:199:LEU:CD2	1:A:218:LEU:HD21	0.55	2.30	8	1
1:A:190:ALA:O	1:A:191:ALA:HB3	0.55	2.02	15	15
1:A:162:ALA:CB	1:A:167:TYR:CE1	0.55	2.89	17	1
1:A:143:GLU:HG2	1:A:183:TYR:CE2	0.55	2.37	4	1
1:A:146:GLN:CG	1:A:182:ALA:HB3	0.55	2.31	11	3
1:A:165:LEU:C	1:A:165:LEU:HD23	0.55	2.27	8	3
1:A:206:LEU:HD22	1:A:214:VAL:CG1	0.55	2.32	7	1
1:A:146:GLN:HG2	1:A:150:MET:SD	0.55	2.42	11	1
1:A:158:TRP:CZ2	1:A:176:ALA:HB2	0.54	2.38	10	5
1:A:206:LEU:HD12	1:A:206:LEU:C	0.54	2.28	15	3
1:A:150:MET:SD	1:A:180:MET:HE2	0.54	2.42	4	1
1:A:146:GLN:OE1	1:A:182:ALA:HB2	0.54	2.02	18	1
1:A:202:LEU:HD22	1:A:202:LEU:C	0.54	2.27	16	1
1:A:142:GLN:NE2	1:A:185:LEU:HD22	0.54	2.17	9	1
1:A:160:GLU:C	1:A:209:ILE:HD12	0.54	2.28	7	3
1:A:165:LEU:C	1:A:165:LEU:CD1	0.54	2.81	7	5
1:A:165:LEU:HD22	1:A:167:TYR:HB2	0.54	1.79	8	2
1:A:146:GLN:CD	1:A:180:MET:HE1	0.54	2.27	14	1
1:A:149:LEU:CD2	1:A:214:VAL:HG22	0.53	2.33	14	2
1:A:180:MET:HE3	1:A:180:MET:HA	0.53	1.79	4	3
1:A:196:ARG:O	1:A:201:VAL:HG21	0.53	2.04	3	2
1:A:202:LEU:C	1:A:202:LEU:HD12	0.53	2.28	20	3
1:A:165:LEU:HD12	1:A:167:TYR:HB3	0.53	1.80	17	1
1:A:143:GLU:HG3	1:A:183:TYR:CE2	0.53	2.39	1	1
1:A:165:LEU:HD23	1:A:165:LEU:C	0.53	2.28	14	1
1:A:200:ARG:HD3	1:A:201:VAL:HG23	0.53	1.80	2	1
1:A:144:GLU:O	1:A:147:ARG:HD3	0.53	2.04	5	2

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:161:LEU:HD13	1:A:185:LEU:HD21	0.53	1.81	6	1
1:A:150:MET:SD	1:A:158:TRP:CD1	0.52	3.02	8	1
1:A:186:LEU:HD22	1:A:193:GLU:CD	0.52	2.29	16	1
1:A:145:VAL:HG13	1:A:214:VAL:CG2	0.52	2.34	19	1
1:A:157:GLY:HA2	1:A:211:ARG:CD	0.52	2.34	20	2
1:A:148:LEU:HD12	1:A:214:VAL:HG22	0.52	1.80	1	1
1:A:158:TRP:CZ3	1:A:175:MET:CB	0.52	2.92	7	3
1:A:150:MET:HG2	1:A:180:MET:HE3	0.52	1.81	3	1
1:A:211:ARG:NH2	1:A:213:ASP:HB3	0.52	2.19	4	2
1:A:206:LEU:HD22	1:A:214:VAL:HG11	0.52	1.81	7	1
1:A:159:GLN:NE2	1:A:172:VAL:HG21	0.52	2.20	15	1
1:A:145:VAL:HG11	1:A:149:LEU:HD12	0.52	1.77	17	1
1:A:187:ARG:O	1:A:191:ALA:HA	0.52	2.05	13	7
1:A:189:TRP:CD2	1:A:197:ALA:HB2	0.52	2.40	20	3
1:A:147:ARG:HD3	1:A:148:LEU:N	0.52	2.19	10	2
1:A:161:LEU:HD21	1:A:206:LEU:HG	0.52	1.82	16	1
1:A:197:ALA:HA	1:A:201:VAL:CB	0.52	2.35	19	1
1:A:161:LEU:HD12	1:A:185:LEU:CD1	0.52	2.35	20	1
1:A:181:PRO:HA	1:A:184:THR:HG22	0.51	1.82	2	1
1:A:144:GLU:O	1:A:147:ARG:HD2	0.51	2.05	15	4
1:A:157:GLY:HA2	1:A:211:ARG:HD3	0.51	1.81	10	3
1:A:140:GLN:O	1:A:144:GLU:HB2	0.51	2.05	2	10
1:A:202:LEU:HD12	1:A:206:LEU:HD23	0.51	1.82	4	1
1:A:206:LEU:CD2	1:A:214:VAL:HG11	0.51	2.35	7	1
1:A:165:LEU:HD13	1:A:165:LEU:O	0.51	2.06	15	1
1:A:181:PRO:O	1:A:185:LEU:HB2	0.51	2.05	18	9
1:A:146:GLN:HG2	1:A:150:MET:HB3	0.51	1.82	5	2
1:A:146:GLN:HG2	1:A:150:MET:HB2	0.51	1.83	13	1
1:A:174:THR:CG2	1:A:178:ASP:HB2	0.51	2.35	17	1
1:A:199:LEU:HA	1:A:202:LEU:HD12	0.51	1.83	17	1
1:A:167:TYR:CE2	1:A:171:ALA:CB	0.51	2.94	10	2
1:A:211:ARG:HH21	1:A:214:VAL:HG23	0.51	1.66	17	1
1:A:184:THR:OG1	1:A:187:ARG:NH1	0.51	2.32	20	1
1:A:201:VAL:HG13	1:A:205:ALA:HB2	0.51	1.82	19	1
1:A:178:ASP:O	1:A:184:THR:HB	0.51	2.05	19	2
1:A:199:LEU:HA	1:A:202:LEU:CD2	0.51	2.36	6	2
1:A:160:GLU:HB2	1:A:209:ILE:HD12	0.51	1.81	14	2
1:A:153:GLU:CB	1:A:154:PRO:HD2	0.51	2.36	18	2
1:A:190:ALA:O	1:A:191:ALA:CB	0.50	2.59	18	8
1:A:202:LEU:CD1	1:A:206:LEU:HD23	0.50	2.36	4	1
1:A:167:TYR:CE1	1:A:171:ALA:CB	0.50	2.94	7	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:160:GLU:HB2	1:A:209:ILE:CD1	0.50	2.36	14	1
1:A:198:THR:O	1:A:200:ARG:N	0.50	2.43	9	9
1:A:150:MET:HA	1:A:154:PRO:HG3	0.50	1.81	7	1
1:A:161:LEU:N	1:A:209:ILE:HD12	0.50	2.21	7	1
1:A:203:GLU:HG3	1:A:215:VAL:HG22	0.50	1.83	13	1
1:A:138:PRO:N	1:A:140:GLN:OE1	0.50	2.44	18	4
1:A:193:GLU:O	1:A:194:GLY:C	0.50	2.55	5	1
1:A:189:TRP:CE2	1:A:197:ALA:HB1	0.50	2.41	9	1
1:A:143:GLU:HB3	1:A:183:TYR:CE2	0.50	2.41	11	1
1:A:149:LEU:HD22	1:A:157:GLY:HA3	0.50	1.83	3	2
1:A:206:LEU:CD2	1:A:215:VAL:HG21	0.50	2.37	5	1
1:A:206:LEU:HA	1:A:209:ILE:CD1	0.50	2.37	19	3
1:A:150:MET:HG3	1:A:180:MET:CE	0.49	2.37	10	2
1:A:206:LEU:HD22	1:A:211:ARG:CB	0.49	2.37	13	1
1:A:157:GLY:HA2	1:A:211:ARG:NE	0.49	2.22	19	1
1:A:202:LEU:HD12	1:A:203:GLU:N	0.49	2.23	3	2
1:A:146:GLN:NE2	1:A:180:MET:HB3	0.49	2.22	11	1
1:A:140:GLN:HA	1:A:143:GLU:CG	0.49	2.37	19	4
1:A:161:LEU:O	1:A:165:LEU:N	0.49	2.45	14	3
1:A:206:LEU:HA	1:A:209:ILE:HD13	0.49	1.83	19	3
1:A:159:GLN:CG	1:A:172:VAL:HG21	0.49	2.37	9	1
1:A:201:VAL:O	1:A:205:ALA:N	0.49	2.43	19	1
1:A:149:LEU:HD21	1:A:214:VAL:HG23	0.49	1.85	8	1
1:A:189:TRP:HZ2	1:A:201:VAL:HG12	0.49	1.64	9	1
1:A:149:LEU:HD13	1:A:158:TRP:CD1	0.49	2.43	20	1
1:A:199:LEU:HA	1:A:202:LEU:HD21	0.48	1.84	7	3
1:A:211:ARG:O	1:A:211:ARG:NE	0.48	2.44	16	1
1:A:160:GLU:HB3	1:A:209:ILE:CD1	0.48	2.39	7	3
1:A:206:LEU:H	1:A:206:LEU:HD22	0.48	1.68	9	1
1:A:153:GLU:N	1:A:154:PRO:HD3	0.48	2.23	19	2
1:A:164:HIS:CD2	1:A:208:ALA:CB	0.48	2.96	13	1
1:A:143:GLU:HG2	1:A:183:TYR:CE1	0.48	2.43	8	1
1:A:159:GLN:HG2	1:A:172:VAL:HG21	0.48	1.85	9	1
1:A:189:TRP:O	1:A:196:ARG:NH1	0.48	2.45	16	1
1:A:206:LEU:HD12	1:A:211:ARG:HB3	0.48	1.84	20	1
1:A:190:ALA:CB	1:A:194:GLY:HA2	0.48	2.38	3	6
1:A:202:LEU:HG	1:A:203:GLU:N	0.48	2.22	4	1
1:A:140:GLN:O	1:A:144:GLU:HB3	0.48	2.08	19	2
1:A:180:MET:HB2	1:A:183:TYR:HB2	0.48	1.85	16	2
1:A:141:GLN:HA	1:A:218:LEU:HD11	0.48	1.85	12	1
1:A:206:LEU:HD13	1:A:211:ARG:HB3	0.48	1.85	12	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:144:GLU:O	1:A:147:ARG:HG2	0.48	2.08	6	1
1:A:189:TRP:CE3	1:A:197:ALA:HB1	0.48	2.44	17	2
1:A:179:GLN:O	1:A:180:MET:HB2	0.48	2.09	5	9
1:A:144:GLU:HG2	1:A:147:ARG:NH1	0.48	2.24	12	1
1:A:187:ARG:NH1	1:A:192:GLN:O	0.48	2.47	15	3
1:A:205:ALA:O	1:A:209:ILE:HD13	0.48	2.09	18	4
1:A:153:GLU:CG	1:A:154:PRO:HD2	0.48	2.39	18	2
1:A:147:ARG:CZ	1:A:217:VAL:HG13	0.48	2.39	14	1
1:A:169:ALA:HA	1:A:172:VAL:HG12	0.47	1.85	8	4
1:A:186:LEU:HD23	1:A:193:GLU:O	0.47	2.09	9	1
1:A:165:LEU:HD12	1:A:189:TRP:CD1	0.47	2.44	19	1
1:A:161:LEU:HD21	1:A:206:LEU:HD23	0.47	1.85	8	1
1:A:150:MET:SD	1:A:181:PRO:HD2	0.47	2.49	1	1
1:A:180:MET:HE2	1:A:181:PRO:HD2	0.47	1.86	13	4
1:A:147:ARG:NH1	1:A:148:LEU:HD23	0.47	2.23	12	1
1:A:156:LYS:HA	1:A:159:GLN:HG2	0.47	1.87	20	1
1:A:142:GLN:CD	1:A:186:LEU:HD13	0.47	2.34	3	1
1:A:149:LEU:H	1:A:149:LEU:HD23	0.47	1.70	1	1
1:A:175:MET:O	1:A:181:PRO:HG3	0.47	2.10	15	1
1:A:155:ALA:O	1:A:159:GLN:HB3	0.47	2.10	17	2
1:A:185:LEU:HD21	1:A:189:TRP:CE3	0.47	2.45	15	2
1:A:160:GLU:HB3	1:A:209:ILE:CG1	0.47	2.39	7	1
1:A:150:MET:SD	1:A:154:PRO:HG2	0.47	2.48	8	1
1:A:144:GLU:O	1:A:147:ARG:NH1	0.47	2.44	10	2
1:A:206:LEU:HD11	1:A:215:VAL:CG2	0.47	2.39	20	1
1:A:178:ASP:HB3	1:A:184:THR:HG21	0.47	1.87	5	1
1:A:158:TRP:O	1:A:161:LEU:HG	0.47	2.09	7	2
1:A:139:GLN:HA	1:A:142:GLN:OE1	0.47	2.10	10	1
1:A:140:GLN:HA	1:A:143:GLU:HG2	0.47	1.87	12	7
1:A:139:GLN:HA	1:A:142:GLN:HG2	0.47	1.86	6	1
1:A:139:GLN:O	1:A:142:GLN:HG3	0.47	2.10	16	1
1:A:197:ALA:C	1:A:201:VAL:HB	0.46	2.34	9	2
1:A:203:GLU:HA	1:A:206:LEU:HD21	0.46	1.87	9	1
1:A:160:GLU:HB3	1:A:209:ILE:HG13	0.46	1.86	7	1
1:A:185:LEU:HD23	1:A:189:TRP:CE3	0.46	2.45	3	1
1:A:205:ALA:O	1:A:209:ILE:HG23	0.46	2.11	7	2
1:A:161:LEU:HD11	1:A:185:LEU:HD11	0.46	1.87	3	1
1:A:193:GLU:HA	1:A:198:THR:HG21	0.46	1.87	13	1
1:A:158:TRP:CE3	1:A:175:MET:HE3	0.46	2.46	6	1
1:A:145:VAL:HG21	1:A:218:LEU:HD13	0.46	1.87	7	1
1:A:209:ILE:CG1	1:A:211:ARG:HB2	0.46	2.41	9	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:190:ALA:HB1	1:A:193:GLU:C	0.46	2.36	14	2
1:A:145:VAL:HG12	1:A:149:LEU:HD21	0.46	1.87	4	1
1:A:144:GLU:O	1:A:147:ARG:HG3	0.46	2.10	7	1
1:A:148:LEU:HB3	1:A:214:VAL:HG23	0.46	1.87	16	1
1:A:161:LEU:N	1:A:161:LEU:HD23	0.46	2.26	20	1
1:A:149:LEU:HD12	1:A:149:LEU:O	0.46	2.11	12	1
1:A:165:LEU:HD13	1:A:166:GLY:N	0.46	2.25	3	3
1:A:146:GLN:OE1	1:A:150:MET:HB3	0.46	2.11	14	1
1:A:156:LYS:HA	1:A:159:GLN:CG	0.46	2.41	20	1
1:A:138:PRO:N	1:A:141:GLN:OE1	0.46	2.49	16	4
1:A:147:ARG:NE	1:A:217:VAL:HG13	0.46	2.26	15	1
1:A:164:HIS:ND1	1:A:164:HIS:O	0.46	2.49	17	1
1:A:167:TYR:OH	1:A:172:VAL:HG23	0.46	2.11	17	1
1:A:169:ALA:HA	1:A:172:VAL:CG1	0.45	2.40	20	5
1:A:185:LEU:HG	1:A:189:TRP:HB2	0.45	1.88	7	1
1:A:181:PRO:O	1:A:185:LEU:N	0.45	2.37	11	2
1:A:150:MET:HE1	1:A:154:PRO:HD2	0.45	1.87	12	1
1:A:189:TRP:CZ3	1:A:202:LEU:HA	0.45	2.46	15	1
1:A:206:LEU:HD22	1:A:215:VAL:HG21	0.45	1.87	5	1
1:A:150:MET:HB2	1:A:180:MET:HE3	0.45	1.87	6	1
1:A:199:LEU:N	1:A:202:LEU:HD23	0.45	2.27	9	1
1:A:156:LYS:NZ	1:A:160:GLU:OE2	0.45	2.45	4	4
1:A:158:TRP:HE3	1:A:175:MET:HE3	0.45	1.70	6	1
1:A:211:ARG:CZ	1:A:213:ASP:HB3	0.45	2.42	6	1
1:A:198:THR:OG1	1:A:199:LEU:N	0.45	2.49	11	1
1:A:190:ALA:O	1:A:196:ARG:HD2	0.45	2.11	2	2
1:A:144:GLU:CA	1:A:147:ARG:HD2	0.45	2.41	3	1
1:A:145:VAL:HG12	1:A:146:GLN:N	0.45	2.26	7	1
1:A:150:MET:SD	1:A:181:PRO:CD	0.45	3.05	7	1
1:A:206:LEU:HB3	1:A:211:ARG:HB3	0.45	1.88	8	1
1:A:146:GLN:HG3	1:A:150:MET:HB2	0.45	1.87	1	2
1:A:158:TRP:HA	1:A:161:LEU:CD2	0.45	2.39	2	3
1:A:152:GLY:O	1:A:153:GLU:C	0.45	2.59	7	1
1:A:181:PRO:O	1:A:185:LEU:CB	0.45	2.65	18	3
1:A:209:ILE:HG12	1:A:210:GLY:N	0.45	2.27	10	1
1:A:138:PRO:N	1:A:139:GLN:OE1	0.45	2.49	14	2
1:A:190:ALA:HB1	1:A:194:GLY:N	0.45	2.27	14	2
1:A:181:PRO:O	1:A:185:LEU:HB3	0.45	2.11	10	1
1:A:144:GLU:O	1:A:147:ARG:HB2	0.45	2.11	18	1
1:A:146:GLN:HB3	1:A:180:MET:SD	0.45	2.52	7	1
1:A:162:ALA:HB3	1:A:167:TYR:CE2	0.45	2.47	15	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:206:LEU:HD12	1:A:215:VAL:HG23	0.45	1.89	16	1
1:A:150:MET:HG2	1:A:180:MET:SD	0.45	2.51	17	1
1:A:214:VAL:HG12	1:A:215:VAL:N	0.45	2.27	6	1
1:A:146:GLN:NE2	1:A:150:MET:HB2	0.45	2.27	15	1
1:A:149:LEU:HB3	1:A:157:GLY:HA3	0.44	1.89	14	1
1:A:206:LEU:HD13	1:A:215:VAL:CG2	0.44	2.39	18	2
1:A:149:LEU:O	1:A:158:TRP:NE1	0.44	2.41	6	1
1:A:164:HIS:HB2	1:A:209:ILE:CG2	0.44	2.43	11	1
1:A:189:TRP:CZ2	1:A:205:ALA:HB2	0.44	2.47	16	2
1:A:167:TYR:CD2	1:A:171:ALA:HB3	0.44	2.43	17	1
1:A:165:LEU:HD13	1:A:175:MET:HE1	0.44	1.88	19	1
1:A:150:MET:O	1:A:150:MET:HE3	0.44	2.12	1	1
1:A:189:TRP:CH2	1:A:205:ALA:CB	0.44	3.00	16	2
1:A:180:MET:CE	1:A:181:PRO:HD2	0.44	2.42	20	1
1:A:200:ARG:CZ	1:A:200:ARG:HB2	0.44	2.41	11	1
1:A:185:LEU:HD23	1:A:189:TRP:HE3	0.44	1.73	2	2
1:A:145:VAL:HG23	1:A:218:LEU:HD12	0.44	1.88	6	1
1:A:180:MET:O	1:A:184:THR:HB	0.44	2.13	20	1
1:A:145:VAL:HG13	1:A:214:VAL:CG1	0.44	2.42	1	1
1:A:140:GLN:HA	1:A:143:GLU:CD	0.44	2.37	7	3
1:A:150:MET:HB3	1:A:180:MET:HE1	0.44	1.88	15	1
1:A:146:GLN:CG	1:A:150:MET:HB2	0.44	2.43	1	1
1:A:158:TRP:HA	1:A:161:LEU:CG	0.44	2.42	6	1
1:A:180:MET:HE2	1:A:180:MET:HA	0.44	1.90	13	1
1:A:164:HIS:NE2	1:A:204:ASP:OD1	0.43	2.47	8	2
1:A:153:GLU:HB2	1:A:154:PRO:HD2	0.43	1.89	20	1
1:A:142:GLN:NE2	1:A:186:LEU:HD13	0.43	2.28	3	1
1:A:157:GLY:HA2	1:A:211:ARG:CG	0.43	2.42	7	1
1:A:186:LEU:CD2	1:A:193:GLU:HA	0.43	2.43	15	1
1:A:206:LEU:HD13	1:A:211:ARG:NH2	0.43	2.27	16	1
1:A:189:TRP:HB3	1:A:197:ALA:CB	0.43	2.43	19	1
1:A:167:TYR:CE2	1:A:175:MET:HG3	0.43	2.49	3	1
1:A:191:ALA:C	1:A:192:GLN:HG3	0.43	2.39	11	1
1:A:148:LEU:HA	1:A:151:MET:CG	0.43	2.43	14	1
1:A:150:MET:O	1:A:150:MET:HE2	0.43	2.13	15	1
1:A:143:GLU:O	1:A:147:ARG:NE	0.43	2.50	3	1
1:A:174:THR:O	1:A:178:ASP:N	0.43	2.51	13	2
1:A:150:MET:HG3	1:A:181:PRO:HD2	0.43	1.90	14	1
1:A:162:ALA:O	1:A:165:LEU:HB3	0.43	2.14	15	1
1:A:142:GLN:OE1	1:A:183:TYR:HA	0.43	2.13	3	1
1:A:179:GLN:O	1:A:183:TYR:HB3	0.43	2.13	3	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:147:ARG:NH1	1:A:217:VAL:HG13	0.43	2.29	4	1
1:A:192:GLN:C	1:A:193:GLU:HG3	0.43	2.38	6	1
1:A:150:MET:SD	1:A:180:MET:CE	0.43	2.99	16	2
1:A:214:VAL:CG1	1:A:215:VAL:N	0.43	2.82	7	1
1:A:157:GLY:O	1:A:158:TRP:HB3	0.43	2.14	12	1
1:A:179:GLN:OE1	1:A:187:ARG:NH2	0.43	2.47	13	1
1:A:162:ALA:CB	1:A:167:TYR:CE2	0.43	3.02	15	1
1:A:140:GLN:HA	1:A:143:GLU:HG3	0.43	1.89	13	1
1:A:153:GLU:CD	1:A:154:PRO:HD2	0.43	2.39	13	1
1:A:218:LEU:HD23	1:A:219:SER:N	0.43	2.29	2	1
1:A:167:TYR:CE1	1:A:171:ALA:HB1	0.43	2.48	7	1
1:A:145:VAL:HG13	1:A:214:VAL:HG21	0.43	1.90	19	1
1:A:148:LEU:HD11	1:A:217:VAL:HG11	0.43	1.90	3	1
1:A:142:GLN:HB3	1:A:182:ALA:CB	0.43	2.44	6	1
1:A:178:ASP:O	1:A:184:THR:OG1	0.43	2.35	10	2
1:A:165:LEU:HD22	1:A:165:LEU:C	0.42	2.39	3	2
1:A:149:LEU:C	1:A:149:LEU:CD1	0.42	2.91	12	1
1:A:139:GLN:O	1:A:143:GLU:HG3	0.42	2.13	4	1
1:A:148:LEU:CB	1:A:217:VAL:HG21	0.42	2.42	4	1
1:A:203:GLU:HG3	1:A:215:VAL:HG21	0.42	1.89	6	1
1:A:203:GLU:HA	1:A:206:LEU:HD12	0.42	1.89	7	1
1:A:142:GLN:OE1	1:A:185:LEU:HD22	0.42	2.14	5	1
1:A:192:GLN:OE1	1:A:196:ARG:NH2	0.42	2.45	20	3
1:A:143:GLU:O	1:A:147:ARG:HD3	0.42	2.14	9	1
1:A:150:MET:HE3	1:A:182:ALA:CB	0.42	2.43	9	1
1:A:206:LEU:HD13	1:A:211:ARG:O	0.42	2.15	11	1
1:A:146:GLN:HG2	1:A:180:MET:HE1	0.42	1.89	14	1
1:A:143:GLU:O	1:A:147:ARG:NH1	0.42	2.47	16	1
1:A:162:ALA:HB1	1:A:167:TYR:CE1	0.42	2.49	17	1
1:A:160:GLU:HG3	1:A:209:ILE:HG13	0.42	1.90	12	1
1:A:218:LEU:HD23	1:A:218:LEU:C	0.42	2.39	2	1
1:A:147:ARG:O	1:A:147:ARG:HD3	0.42	2.14	7	1
1:A:192:GLN:O	1:A:193:GLU:CB	0.42	2.67	13	1
1:A:206:LEU:CD1	1:A:215:VAL:HG23	0.42	2.43	20	2
1:A:169:ALA:O	1:A:173:GLU:N	0.42	2.52	18	1
1:A:175:MET:CE	1:A:185:LEU:HD12	0.42	2.42	3	1
1:A:142:GLN:HB3	1:A:182:ALA:HB1	0.42	1.92	6	2
1:A:194:GLY:O	1:A:195:ASN:C	0.42	2.62	16	1
1:A:206:LEU:O	1:A:209:ILE:HG12	0.42	2.15	3	1
1:A:138:PRO:O	1:A:140:GLN:N	0.42	2.53	16	1
1:A:185:LEU:O	1:A:189:TRP:HB2	0.42	2.15	19	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:150:MET:HG2	1:A:180:MET:CE	0.42	2.45	3	1
1:A:206:LEU:N	1:A:206:LEU:CD1	0.41	2.77	9	1
1:A:160:GLU:CB	1:A:209:ILE:HD12	0.41	2.44	11	1
1:A:179:GLN:OE1	1:A:187:ARG:NH1	0.41	2.51	17	1
1:A:147:ARG:HH11	1:A:217:VAL:HG22	0.41	1.75	4	1
1:A:151:MET:O	1:A:153:GLU:N	0.41	2.52	14	2
1:A:189:TRP:CZ3	1:A:201:VAL:HG21	0.41	2.50	19	1
1:A:154:PRO:O	1:A:158:TRP:NE1	0.41	2.43	5	1
1:A:199:LEU:HA	1:A:202:LEU:CG	0.41	2.45	8	1
1:A:165:LEU:HG	1:A:189:TRP:CG	0.41	2.50	14	1
1:A:206:LEU:HD22	1:A:211:ARG:O	0.41	2.15	19	1
1:A:162:ALA:HB1	1:A:167:TYR:HB2	0.41	1.91	20	1
1:A:206:LEU:CD1	1:A:212:GLU:HA	0.41	2.45	4	1
1:A:160:GLU:CD	1:A:211:ARG:HD2	0.41	2.40	12	1
1:A:187:ARG:CD	1:A:187:ARG:C	0.41	2.94	20	1
1:A:155:ALA:O	1:A:159:GLN:CB	0.41	2.68	14	1
1:A:206:LEU:HD13	1:A:214:VAL:HB	0.41	1.93	14	1
1:A:150:MET:HG3	1:A:181:PRO:HG2	0.41	1.92	15	1
1:A:190:ALA:HA	1:A:196:ARG:HD2	0.41	1.93	16	1
1:A:150:MET:O	1:A:152:GLY:N	0.41	2.54	18	1
1:A:189:TRP:CE3	1:A:197:ALA:CB	0.41	2.98	20	1
1:A:185:LEU:O	1:A:189:TRP:N	0.41	2.48	8	1
1:A:141:GLN:O	1:A:145:VAL:HB	0.41	2.16	10	1
1:A:215:VAL:O	1:A:219:SER:N	0.41	2.42	10	1
1:A:162:ALA:HA	1:A:165:LEU:HB3	0.41	1.93	14	1
1:A:146:GLN:HB3	1:A:180:MET:CE	0.41	2.45	6	1
1:A:149:LEU:HD13	1:A:213:ASP:HB3	0.41	1.92	11	1
1:A:144:GLU:OE2	1:A:147:ARG:NH1	0.41	2.54	12	1
1:A:162:ALA:HB3	1:A:167:TYR:CE1	0.41	2.50	17	1
1:A:203:GLU:O	1:A:206:LEU:HD23	0.41	2.15	20	1
1:A:149:LEU:HD11	1:A:211:ARG:NH2	0.41	2.31	6	1
1:A:189:TRP:CH2	1:A:202:LEU:HA	0.41	2.51	6	1
1:A:145:VAL:O	1:A:217:VAL:HG11	0.41	2.16	15	1
1:A:149:LEU:HD11	1:A:157:GLY:HA3	0.41	1.93	16	1
1:A:197:ALA:HA	1:A:201:VAL:HG21	0.41	1.93	19	1
1:A:161:LEU:HD23	1:A:209:ILE:CD1	0.40	2.45	1	1
1:A:147:ARG:CD	1:A:147:ARG:C	0.40	2.94	7	1
1:A:138:PRO:N	1:A:193:GLU:OE2	0.40	2.54	8	1
1:A:189:TRP:CZ2	1:A:205:ALA:CB	0.40	3.04	9	1
1:A:202:LEU:O	1:A:206:LEU:HD11	0.40	2.16	9	1
1:A:160:GLU:CD	1:A:160:GLU:N	0.40	2.79	12	1

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Atom-1	Atom-2	Clash(Å)	Distance(Å)	Models	
				Worst	Total
1:A:160:GLU:HG2	1:A:209:ILE:CD1	0.40	2.45	12	1
1:A:146:GLN:OE1	1:A:182:ALA:N	0.40	2.49	15	1
1:A:150:MET:CE	1:A:180:MET:HE1	0.40	2.46	16	1
1:A:149:LEU:HD22	1:A:214:VAL:HG21	0.40	1.92	1	1
1:A:144:GLU:O	1:A:147:ARG:HB3	0.40	2.16	4	1
1:A:150:MET:HE2	1:A:150:MET:CA	0.40	2.46	9	1
1:A:184:THR:O	1:A:187:ARG:HG2	0.40	2.16	16	1
1:A:157:GLY:N	1:A:160:GLU:HG2	0.40	2.31	4	1
1:A:168:GLN:O	1:A:172:VAL:N	0.40	2.47	5	1
1:A:142:GLN:CG	1:A:186:LEU:HD11	0.40	2.47	7	1
1:A:210:GLY:O	1:A:211:ARG:NE	0.40	2.49	10	1
1:A:158:TRP:CZ3	1:A:159:GLN:HG2	0.40	2.52	11	1
1:A:160:GLU:CG	1:A:209:ILE:HG13	0.40	2.46	12	1
1:A:165:LEU:HD12	1:A:167:TYR:HD2	0.40	1.71	20	1
1:A:198:THR:OG1	1:A:200:ARG:HD2	0.40	2.16	2	1
1:A:167:TYR:CE1	1:A:172:VAL:CG2	0.40	3.04	15	1
1:A:197:ALA:HA	1:A:201:VAL:CG1	0.40	2.46	15	1
1:A:199:LEU:HD23	1:A:199:LEU:C	0.40	2.41	19	1

6.3 Torsion angles ⓘ

6.3.1 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 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	81/91 (89%)	67±2 (82±2%)	11±2 (13±3%)	3±1 (4±2%)	3	28
All	All	1620/1820 (89%)	1335 (82%)	217 (13%)	68 (4%)	3	28

All 14 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	180	MET	20
1	A	193	GLU	13
1	A	156	LYS	6
1	A	192	GLN	6

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Mol	Chain	Res	Type	Models (Total)
1	A	194	GLY	5
1	A	151	MET	3
1	A	195	ASN	3
1	A	148	LEU	3
1	A	191	ALA	3
1	A	152	GLY	2
1	A	149	LEU	1
1	A	153	GLU	1
1	A	158	TRP	1
1	A	199	LEU	1

6.3.2 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 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	64/72 (89%)	39±4 (62±7%)	24±5 (38±7%)	0	7
All	All	1274/1440 (88%)	789 (62%)	485 (38%)	0	7

All 60 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	172	VAL	20
1	A	209	ILE	20
1	A	211	ARG	18
1	A	167	TYR	16
1	A	180	MET	14
1	A	175	MET	13
1	A	186	LEU	13
1	A	165	LEU	13
1	A	147	ARG	13
1	A	199	LEU	12
1	A	202	LEU	12
1	A	148	LEU	12
1	A	153	GLU	12
1	A	179	GLN	11
1	A	193	GLU	11

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Mol	Chain	Res	Type	Models (Total)
1	A	216	GLN	11
1	A	188	ASN	11
1	A	203	GLU	10
1	A	146	GLN	10
1	A	151	MET	10
1	A	173	GLU	10
1	A	183	TYR	10
1	A	187	ARG	10
1	A	192	GLN	10
1	A	160	GLU	10
1	A	150	MET	10
1	A	185	LEU	9
1	A	196	ARG	9
1	A	200	ARG	8
1	A	143	GLU	8
1	A	206	LEU	8
1	A	159	GLN	8
1	A	144	GLU	7
1	A	213	ASP	7
1	A	140	GLN	7
1	A	145	VAL	7
1	A	141	GLN	6
1	A	149	LEU	6
1	A	184	THR	6
1	A	195	ASN	6
1	A	142	GLN	5
1	A	204	ASP	5
1	A	219	SER	5
1	A	177	CYS	4
1	A	161	LEU	4
1	A	218	LEU	4
1	A	212	GLU	4
1	A	139	GLN	3
1	A	156	LYS	3
1	A	174	THR	3
1	A	215	VAL	3
1	A	217	VAL	3
1	A	189	TRP	3
1	A	178	ASP	2
1	A	214	VAL	2
1	A	198	THR	2
1	A	170	GLU	2

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Mol	Chain	Res	Type	Models (Total)
1	A	168	GLN	2
1	A	164	HIS	1
1	A	201	VAL	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 oligosaccharides 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