W O R L D W I D E
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PROTEIN DATA BANK

Full wwPDB NMR Structure Validation Report ⓘ

Feb 21, 2018 – 05:08 pm GMT

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 following versions of software and data (see references ⓘ) were used in the production of this report:
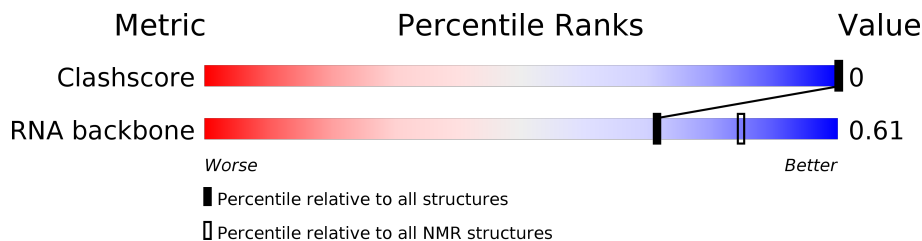
1   Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
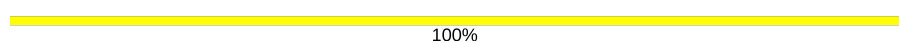*SOLUTION NMR*

The overall completeness of chemical shifts assignment is 19%.

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
Clashscore		0
RNA backbone		0.61

Worse   *Better*

▌Percentile relative to all structures

◻Percentile relative to all NMR structures

Metric	Whole archive (#Entries)	NMR archive (#Entries)
Clashscore	136279	12091
RNA backbone	3744	647

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 <=5%

Mol	Chain	Length	Quality of chain
1	A	9	78% 22%
2	B	7	100%

2 Ensemble composition and analysis ⓘ

This entry contains 1 models. Identification of well-defined residues and clustering analysis are not possible.

3 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 506 atoms, of which 177 are hydrogens and 0 are deuteriums.

- Molecule 1 is a RNA chain called 5'-R(*AP*AP*AP*GP*GP*AP*GP*GP*A)-3'.

Mol	Chain	Residues	Atoms						Trace
1	A	9	Total	C	H	N	O	P	0
			300	90	101	45	56	8	
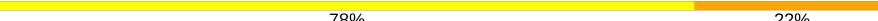
- Molecule 2 is a DNA chain called 5'-D(*CP*CP*UP*CP*CP*UP*U)-3'.

Mol	Chain	Residues	Atoms						Trace
2	B	7	Total	C	H	N	O	P	0
			206	63	76	18	43	6	

4 Residue-property plots ⓘ

These plots are provided for all protein, RNA and DNA 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: 5'-R(*AP*AP*AP*GP*GP*AP*GP*GP*A)-3'

Chain A:

78%   22%

A2 A3 A4 G5 G6 A7 G8 G9 A10
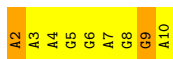
• Molecule 2: 5'-D(*CP*CP*UP*CP*CP*UP*U)-3'

Chain B:

100%

C1 C2 U3 C4 C5 U6 U7
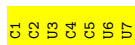
5 Refinement protocol and experimental data overview ⓘ

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

Of the ? calculated structures, 1 were deposited, based on the following criterion: *?*.

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

Software name	Classification	Version
DISCOVER	structure solution	95.0
DISCOVER	refinement	95.0

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

Chemical shift file(s)	BMRB entry 5775
Number of chemical shift lists	2
Total number of shifts	147
Number of shifts mapped to atoms	63
Number of unparsed shifts	0
Number of shifts with mapping errors	84
Number of shifts with mapping warnings	0
Assignment completeness (well-defined parts)	19%

No validations of the models with respect to experimental NMR restraints is performed at this time.

6 Model quality (i)

6.1 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 (average) 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	5.56	39/225 (17.3%)	6.65	90/351 (25.6%)
2	B	5.71	26/143 (18.2%)	3.09	29/216 (13.4%)
All	All	5.62	65/368 (17.7%)	5.57	119/567 (21.0%)

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	Planarity
1	A	0	2
All	All	0	2

All bond outliers are listed below. They are sorted according to the Z-score.

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	1	DC	N1-C6	21.82	1.50	1.37
2	B	5	DC	N1-C6	21.73	1.50	1.37
2	B	2	DC	N1-C6	21.59	1.50	1.37
2	B	4	DC	N1-C6	21.50	1.50	1.37
1	A	2	A	N3-C4	20.35	1.47	1.34
1	A	7	A	N3-C4	20.33	1.47	1.34
1	A	4	A	N3-C4	20.30	1.47	1.34
1	A	10	A	N3-C4	20.23	1.47	1.34
1	A	3	A	N3-C4	20.01	1.46	1.34
2	B	5	DC	C2-N3	14.98	1.47	1.35
2	B	1	DC	C2-N3	14.58	1.47	1.35
2	B	4	DC	C2-N3	14.57	1.47	1.35
2	B	2	DC	C2-N3	14.56	1.47	1.35
1	A	5	G	N3-C4	13.96	1.45	1.35
1	A	9	G	N3-C4	13.69	1.45	1.35
1	A	8	G	N3-C4	13.68	1.45	1.35
1	A	6	G	N3-C4	13.60	1.45	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	7	DU	N1-C6	13.26	1.49	1.38
1	A	8	G	C5-C6	13.25	1.55	1.42
1	A	6	G	C5-C6	13.22	1.55	1.42
2	B	6	DU	C4-C5	13.21	1.55	1.43
2	B	3	DU	N1-C6	13.11	1.49	1.38
1	A	9	G	C5-C6	13.02	1.55	1.42
1	A	5	G	C5-C6	12.99	1.55	1.42
2	B	6	DU	N1-C6	12.99	1.49	1.38
2	B	7	DU	C4-C5	12.91	1.55	1.43
2	B	3	DU	C4-C5	12.78	1.55	1.43
1	A	6	G	C8-N7	11.97	1.38	1.30
1	A	8	G	C8-N7	11.95	1.38	1.30
1	A	9	G	C8-N7	11.88	1.38	1.30
1	A	5	G	N1-C2	11.73	1.47	1.37
1	A	5	G	C8-N7	11.67	1.38	1.30
1	A	9	G	N1-C2	11.60	1.47	1.37
1	A	8	G	N1-C2	11.60	1.47	1.37
1	A	6	G	N1-C2	11.54	1.47	1.37
1	A	2	A	C5-C4	11.07	1.46	1.38
1	A	3	A	C5-C4	11.02	1.46	1.38
1	A	4	A	C5-C4	11.01	1.46	1.38
1	A	10	A	C5-C4	10.74	1.46	1.38
1	A	7	A	C5-C4	10.72	1.46	1.38
1	A	4	A	C8-N7	9.82	1.38	1.31
1	A	3	A	C8-N7	9.77	1.38	1.31
1	A	10	A	C8-N7	9.68	1.38	1.31
1	A	2	A	C8-N7	9.60	1.38	1.31
1	A	7	A	C8-N7	9.41	1.38	1.31
1	A	8	G	C5-C4	8.33	1.44	1.38
1	A	5	G	C5-C4	8.26	1.44	1.38
1	A	6	G	C5-C4	8.24	1.44	1.38
1	A	9	G	C5-C4	8.10	1.44	1.38
2	B	1	DC	C4-N4	8.00	1.41	1.33
2	B	2	DC	C4-N4	7.97	1.41	1.33
2	B	4	DC	C4-N4	7.93	1.41	1.33
2	B	5	DC	C4-N4	7.87	1.41	1.33
2	B	5	DC	C4-C5	-7.21	1.37	1.43
2	B	2	DC	C4-C5	-7.06	1.37	1.43
2	B	1	DC	C4-C5	-6.96	1.37	1.43
2	B	4	DC	C4-C5	-6.94	1.37	1.43
2	B	1	DC	N3-C4	-5.39	1.30	1.33
1	A	5	G	C2-N2	5.36	1.40	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	9	G	C2-N2	5.36	1.40	1.34
2	B	2	DC	N3-C4	-5.26	1.30	1.33
2	B	4	DC	N3-C4	-5.26	1.30	1.33
1	A	8	G	C2-N2	5.23	1.39	1.34
1	A	6	G	C2-N2	5.16	1.39	1.34
2	B	5	DC	N3-C4	-5.16	1.30	1.33

All angle outliers are listed below. They are sorted according to the Z-score.

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	8	G	C2-N3-C4	22.48	123.14	111.90
1	A	5	G	C2-N3-C4	22.41	123.11	111.90
1	A	6	G	C2-N3-C4	22.35	123.08	111.90
1	A	9	G	C2-N3-C4	22.21	123.01	111.90
1	A	5	G	N3-C4-C5	-21.90	117.65	128.60
1	A	8	G	N3-C4-C5	-21.81	117.69	128.60
1	A	9	G	N3-C4-C5	-21.64	117.78	128.60
1	A	6	G	N3-C4-C5	-21.61	117.80	128.60
1	A	5	G	N7-C8-N9	17.64	121.92	113.10
1	A	8	G	N7-C8-N9	17.49	121.84	113.10
1	A	8	G	C8-N9-C4	-17.42	99.43	106.40
1	A	6	G	N7-C8-N9	17.38	121.79	113.10
1	A	9	G	N7-C8-N9	17.38	121.79	113.10
1	A	5	G	C8-N9-C4	-17.35	99.46	106.40
1	A	6	G	C8-N9-C4	-17.30	99.48	106.40
1	A	9	G	C8-N9-C4	-17.28	99.49	106.40
1	A	2	A	N7-C8-N9	17.28	122.44	113.80
1	A	7	A	N7-C8-N9	16.95	122.28	113.80
1	A	3	A	N7-C8-N9	16.73	122.16	113.80
1	A	4	A	N7-C8-N9	16.54	122.07	113.80
1	A	10	A	N7-C8-N9	16.48	122.04	113.80
1	A	2	A	C8-N9-C4	-16.25	99.30	105.80
1	A	7	A	C8-N9-C4	-15.47	99.61	105.80
1	A	4	A	C8-N9-C4	-15.22	99.71	105.80
1	A	10	A	C8-N9-C4	-15.06	99.78	105.80
1	A	3	A	C8-N9-C4	-15.05	99.78	105.80
1	A	9	G	C5-N7-C8	-14.46	97.07	104.30
1	A	5	G	C5-N7-C8	-14.40	97.10	104.30
1	A	8	G	C5-N7-C8	-14.29	97.16	104.30
1	A	6	G	C5-N7-C8	-14.27	97.16	104.30
1	A	5	G	N3-C4-N9	13.92	134.35	126.00
1	A	2	A	N3-C4-C5	-13.48	117.36	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	8	G	N3-C4-N9	13.47	134.08	126.00
1	A	9	G	N3-C4-N9	13.41	134.04	126.00
1	A	6	G	N3-C4-N9	13.35	134.01	126.00
1	A	7	A	N3-C4-C5	-13.24	117.53	126.80
1	A	4	A	N3-C4-C5	-13.23	117.54	126.80
1	A	10	A	N3-C4-C5	-13.19	117.57	126.80
1	A	3	A	C5-N7-C8	-13.11	97.34	103.90
1	A	3	A	N3-C4-C5	-13.07	117.65	126.80
1	A	7	A	C5-N7-C8	-13.04	97.38	103.90
1	A	2	A	C5-N7-C8	-12.80	97.50	103.90
1	A	10	A	C5-N7-C8	-12.79	97.50	103.90
1	A	4	A	C5-N7-C8	-12.75	97.52	103.90
1	A	2	A	C2-N3-C4	10.41	115.80	110.60
1	A	10	A	C2-N3-C4	10.24	115.72	110.60
1	A	4	A	C2-N3-C4	10.21	115.71	110.60
1	A	7	A	C2-N3-C4	10.16	115.68	110.60
1	A	3	A	C2-N3-C4	10.15	115.67	110.60
2	B	7	DU	N1-C2-N3	9.38	120.53	114.90
2	B	3	DU	N1-C2-N3	9.38	120.53	114.90
2	B	6	DU	N1-C2-N3	9.37	120.52	114.90
1	A	2	A	N3-C4-N9	8.77	134.42	127.40
1	A	7	A	N3-C4-N9	8.76	134.41	127.40
1	A	10	A	N3-C4-N9	8.66	134.33	127.40
1	A	4	A	N3-C4-N9	8.59	134.28	127.40
1	A	3	A	N3-C4-N9	8.55	134.24	127.40
2	B	7	DU	N3-C2-O2	-8.40	116.32	122.20
1	A	5	G	C5-C6-O6	-8.37	123.58	128.60
2	B	3	DU	N3-C2-O2	-8.27	116.41	122.20
2	B	6	DU	N3-C2-O2	-8.19	116.47	122.20
1	A	9	G	C5-C6-O6	-8.13	123.72	128.60
1	A	6	G	C5-C6-O6	-7.91	123.85	128.60
1	A	8	G	C5-C6-O6	-7.85	123.89	128.60
2	B	2	DC	C6-N1-C2	-7.82	117.17	120.30
1	A	5	G	C5-C6-N1	7.63	115.31	111.50
2	B	1	DC	C6-N1-C2	-7.43	117.33	120.30
1	A	9	G	C5-C6-N1	7.40	115.20	111.50
2	B	4	DC	C6-N1-C2	-7.29	117.38	120.30
2	B	1	DC	C4-C5-C6	7.26	121.03	117.40
2	B	5	DC	C4-C5-C6	7.22	121.01	117.40
1	A	8	G	C5-C6-N1	7.17	115.08	111.50
2	B	5	DC	C6-N1-C2	-7.17	117.43	120.30
2	B	2	DC	C4-C5-C6	7.15	120.97	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	6	G	C5-C6-N1	7.08	115.04	111.50
2	B	4	DC	C4-C5-C6	7.07	120.94	117.40
1	A	6	G	N9-C4-C5	6.99	108.19	105.40
1	A	8	G	N9-C4-C5	6.98	108.19	105.40
1	A	9	G	N9-C4-C5	6.82	108.13	105.40
2	B	6	DU	OP1-P-OP2	-6.79	109.42	119.60
1	A	10	A	OP1-P-OP2	-6.77	109.44	119.60
2	B	4	DC	OP1-P-OP2	-6.77	109.45	119.60
1	A	4	A	OP1-P-OP2	-6.74	109.49	119.60
1	A	7	A	OP1-P-OP2	-6.74	109.49	119.60
1	A	9	G	OP1-P-OP2	-6.73	109.51	119.60
1	A	8	G	OP1-P-OP2	-6.72	109.53	119.60
2	B	5	DC	OP1-P-OP2	-6.71	109.54	119.60
1	A	5	G	C4-C5-N7	6.71	113.48	110.80
1	A	6	G	OP1-P-OP2	-6.70	109.56	119.60
1	A	5	G	OP1-P-OP2	-6.68	109.58	119.60
2	B	7	DU	OP1-P-OP2	-6.67	109.59	119.60
2	B	3	DU	OP1-P-OP2	-6.66	109.61	119.60
2	B	2	DC	OP1-P-OP2	-6.54	109.78	119.60
1	A	9	G	C4-C5-N7	6.54	113.42	110.80
1	A	5	G	N9-C4-C5	6.44	107.98	105.40
1	A	3	A	OP1-P-OP2	-6.43	109.96	119.60
1	A	6	G	C4-C5-N7	6.33	113.33	110.80
1	A	8	G	C4-C5-N7	6.33	113.33	110.80
2	B	3	DU	C5-C4-O4	-6.25	122.15	125.90
2	B	2	DC	O4'-C1'-N1	6.25	112.37	108.00
1	A	2	A	N9-C4-C5	6.02	108.21	105.80
1	A	5	G	C6-C5-N7	-6.02	126.79	130.40
1	A	4	A	N9-C4-C5	5.97	108.19	105.80
2	B	6	DU	C5-C6-N1	-5.91	119.75	122.70
1	A	9	G	C6-C5-N7	-5.83	126.90	130.40
1	A	3	A	N9-C4-C5	5.77	108.11	105.80
1	A	8	G	C6-C5-N7	-5.76	126.94	130.40
2	B	7	DU	C5-C6-N1	-5.76	119.82	122.70
1	A	10	A	N9-C4-C5	5.75	108.10	105.80
2	B	3	DU	C5-C6-N1	-5.72	119.84	122.70
1	A	6	G	C6-C5-N7	-5.68	126.99	130.40
1	A	7	A	N9-C4-C5	5.65	108.06	105.80
2	B	3	DU	O4'-C1'-N1	5.45	111.81	108.00
2	B	1	DC	O4'-C1'-N1	5.28	111.70	108.00
1	A	2	A	C5-C6-N1	5.24	120.32	117.70
1	A	10	A	C5-C6-N1	5.23	120.31	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	4	DC	O4'-C1'-N1	5.20	111.64	108.00
2	B	7	DU	C5-C4-O4	-5.18	122.79	125.90
1	A	7	A	C5-C6-N1	5.13	120.27	117.70

There are no chirality outliers.

All planar outliers are listed below.

Mol	Chain	Res	Type	Group
1	A	2	A	Sidechain
1	A	9	G	Sidechain

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
All	All	329	177	177	-

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 -.

There are no clashes.

6.3 Torsion angles ⓘ

6.3.1 Protein backbone ⓘ

There are no protein molecules in this entry.

6.3.2 Protein sidechains ⓘ

There are no protein molecules in this entry.

6.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers	Suiteness
1	A	8/9 (89%)	0 (0%)	0 (0%)	0.61
All	All	8/9 (89%)	0 (0%)	0 (0%)	0.61

The overall RNA backbone suiteness is 0.61.

There are no RNA backbone outliers to report.

There are no RNA pucker outliers to report.

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

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

6.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.6 Ligand geometry ⓘ

There are no ligands in this entry.

6.7 Other polymers ⓘ

There are no such molecules in this entry.

6.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

7 Chemical shift validation ⓘ

The completeness of assignment taking into account all chemical shift lists is 19% for the well-defined parts and 19% for the entire structure.

7.1 Chemical shift list 1

File name: BMRB entry 5775

Chemical shift list name: *assigned_ chem_ shift_ list_ 1*

7.1.1 Bookkeeping ⓘ

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

Total number of shifts	63
Number of shifts mapped to atoms	63
Number of unparsed shifts	0
Number of shifts with mapping errors	0
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	0

7.1.2 Chemical shift referencing ⓘ

No chemical shift referencing corrections were calculated (not enough data).

7.1.3 Completeness of resonance assignments ⓘ

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 19%, i.e. 60 atoms were assigned a chemical shift out of a possible 309. 0 out of 0 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Sidechain	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Aromatic	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Overall	60/309 (19%)	60/181 (33%)	0/108 (0%)	0/20 (0%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 19%, i.e. 60 atoms were assigned a chemical shift out of a possible 309. 0 out of 0 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Sidechain	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Aromatic	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Overall	60/309 (19%)	60/181 (33%)	0/108 (0%)	0/20 (0%)

7.1.4 Statistically unusual chemical shifts ⓘ

There are no statistically unusual chemical shifts.

7.1.5 Random Coil Index (RCI) plots ⓘ

No *random coil index* (RCI) plot could be generated from the current chemical shift list (assigned_chem_shift_list_1). RCI is only applicable to proteins.

7.2 Chemical shift list 2

File name: BMRB entry 5775

Chemical shift list name: *assigned_chem_shift_list_2*

7.2.1 Bookkeeping ⓘ

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

Total number of shifts	84
Number of shifts mapped to atoms	0
Number of unparsed shifts	0
Number of shifts with mapping errors	84
Number of shifts with mapping warnings	0
Number of shift outliers (ShiftChecker)	0

The following assigned chemical shifts were not mapped to the molecules present in the coordinate file.

- Chain not found in structure. All 84 occurences are reported below.

Chain	Res	Type	Atom	Shift Data		
				Value	Uncertainty	Ambiguity
UNMAPPED	4	A	H5"	4.12	-1.0	1
UNMAPPED	11	G	H1'	5.58	-1.0	1
UNMAPPED	1	U	H6	7.75	-1.0	1

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Chain	Res	Type	Atom	Shift Data		
				Value	Uncertainty	Ambiguity
UNMAPPED	7	A	H5"	4.12	-1.0	1
UNMAPPED	6	G	H4'	4.48	-1.0	1
UNMAPPED	1	U	H5	5.89	-1.0	1
UNMAPPED	2	A	H3'	4.62	-1.0	1
UNMAPPED	5	G	H5'	4.14	-1.0	1
UNMAPPED	3	A	H2'	4.25	-1.0	1
UNMAPPED	7	A	H4'	4.53	-1.0	1
UNMAPPED	9	G	H5'	4.08	-1.0	1
UNMAPPED	10	A	H5'	4.13	-1.0	1
UNMAPPED	8	G	H8	7.23	-1.0	1
UNMAPPED	6	G	H3'	4.49	-1.0	1
UNMAPPED	5	G	H3'	4.49	-1.0	1
UNMAPPED	10	A	H4'	4.44	-1.0	1
UNMAPPED	2	A	H5"	4.11	-1.0	1
UNMAPPED	11	G	H3'	4.31	-1.0	1
UNMAPPED	6	G	H2'	4.53	-1.0	1
UNMAPPED	8	G	H5"	4.11	-1.0	1
UNMAPPED	6	G	H5'	4.09	-1.0	1
UNMAPPED	8	G	H1'	5.68	-1.0	1
UNMAPPED	5	G	H4'	4.48	-1.0	1
UNMAPPED	11	G	H4'	4.23	-1.0	1
UNMAPPED	10	A	H3'	4.54	-1.0	1
UNMAPPED	2	A	H61	7.72	-1.0	1
UNMAPPED	9	G	H4'	4.46	-1.0	1
UNMAPPED	11	G	H5"	4.06	-1.0	1
UNMAPPED	1	U	H4'	4.34	-1.0	1
UNMAPPED	3	A	H2	7.61	-1.0	1
UNMAPPED	5	G	H5"	4.12	-1.0	1
UNMAPPED	4	A	H1'	5.85	-1.0	1
UNMAPPED	11	G	H8	7.64	-1.0	1
UNMAPPED	4	A	H4'	4.56	-1.0	1
UNMAPPED	3	A	H8	8.12	-1.0	1
UNMAPPED	2	A	H2	7.81	-1.0	1
UNMAPPED	2	A	H5'	4.13	-1.0	1
UNMAPPED	1	U	H1'	5.94	-1.0	1
UNMAPPED	6	G	H8	7.18	-1.0	1
UNMAPPED	9	G	H1'	5.71	-1.0	1
UNMAPPED	10	A	H2'	4.41	-1.0	1
UNMAPPED	5	G	H1'	5.65	-1.0	1
UNMAPPED	8	G	H4'	4.51	-1.0	1
UNMAPPED	9	G	H3'	4.47	-1.0	1

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Chain	Res	Type	Atom	Shift Data		
				Value	Uncertainty	Ambiguity
UNMAPPED	10	A	H8	7.64	-1.0	1
UNMAPPED	11	G	H5'	4.08	-1.0	1
UNMAPPED	11	G	H2'	4.33	-1.0	1
UNMAPPED	7	A	H3'	4.66	-1.0	1
UNMAPPED	4	A	H5'	4.15	-1.0	1
UNMAPPED	3	A	H5'	4.06	-1.0	1
UNMAPPED	5	G	H2'	4.58	-1.0	1
UNMAPPED	1	U	H5"	3.86	-1.0	1
UNMAPPED	10	A	H5"	4.1	-1.0	1
UNMAPPED	2	A	H8	8.12	-1.0	1
UNMAPPED	7	A	H1'	5.99	-1.0	1
UNMAPPED	3	A	H3'	4.61	-1.0	1
UNMAPPED	7	A	H2	7.61	-1.0	1
UNMAPPED	2	A	H2'	4.69	-1.0	1
UNMAPPED	6	G	H1'	5.67	-1.0	1
UNMAPPED	8	G	H2'	4.56	-1.0	1
UNMAPPED	8	G	H3'	4.47	-1.0	1
UNMAPPED	4	A	H2	7.7	-1.0	1
UNMAPPED	10	A	H2	7.75	-1.0	1
UNMAPPED	7	A	H8	7.8	-1.0	1
UNMAPPED	4	A	H8	8.03	-1.0	1
UNMAPPED	3	A	H4'	4.33	-1.0	1
UNMAPPED	1	U	H3'	4.97	-1.0	1
UNMAPPED	2	A	H1'	5.74	-1.0	1
UNMAPPED	9	G	H8	7.12	-1.0	1
UNMAPPED	4	A	H2'	4.68	-1.0	1
UNMAPPED	3	A	H5"	4.04	-1.0	1
UNMAPPED	1	U	H5'	3.94	-1.0	1
UNMAPPED	9	G	H5"	4.06	-1.0	1
UNMAPPED	6	G	H5"	4.07	-1.0	1
UNMAPPED	10	A	H1'	5.91	-1.0	1
UNMAPPED	5	G	H8	7.33	-1.0	1
UNMAPPED	7	A	H2'	4.65	-1.0	1
UNMAPPED	7	A	H5'	4.14	-1.0	1
UNMAPPED	4	A	H3'	4.29	-1.0	1
UNMAPPED	8	G	H5'	4.13	-1.0	1
UNMAPPED	2	A	H4'	4.33	-1.0	1
UNMAPPED	1	U	H2'	5.2	-1.0	1
UNMAPPED	3	A	H1'	5.67	-1.0	1
UNMAPPED	9	G	H2'	4.58	-1.0	1

7.2.2   Chemical shift referencing   ⓘ

No chemical shift referencing corrections were calculated (not enough data).

7.2.3   Completeness of resonance assignments   ⓘ

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 0%, i.e. 0 atoms were assigned a chemical shift out of a possible 309. 0 out of 0 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Sidechain	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Aromatic	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Overall	0/309 (0%)	0/181 (0%)	0/108 (0%)	0/20 (0%)

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 0%, i.e. 0 atoms were assigned a chemical shift out of a possible 309. 0 out of 0 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

	Total	^{1}H	^{13}C	^{15}N
Backbone	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Sidechain	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Aromatic	0/0 (—%)	0/0 (—%)	0/0 (—%)	0/0 (—%)
Overall	0/309 (0%)	0/181 (0%)	0/108 (0%)	0/20 (0%)

7.2.4   Statistically unusual chemical shifts   ⓘ

There are no statistically unusual chemical shifts.

7.2.5   Random Coil Index (RCI) plots   ⓘ

No *random coil index* (RCI) plot could be generated from the current chemical shift list (assigned_chem_shift_list_2). RCI is only applicable to proteins.