



Full wwPDB NMR Structure Validation Report ⓘ

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PDB ID : 2EYZ / pdb_00002eyz
Title : CT10-Regulated Kinase isoform II
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Deposited on : 2005-11-10

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

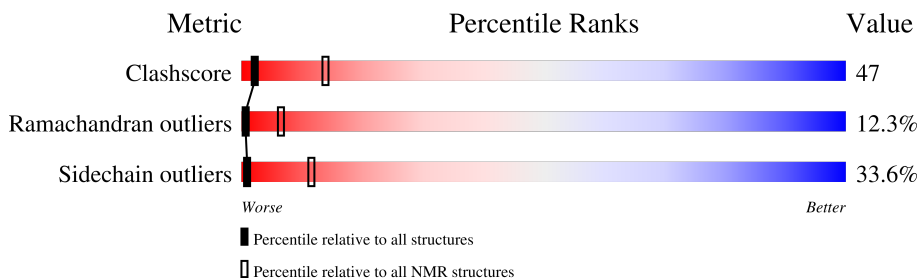
1 Overall quality at a glance

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	304	

2 Ensemble composition and analysis

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

3 Entry composition

There is only 1 type of molecule in this entry. The entry contains 4713 atoms, of which 2319 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called v-crk sarcoma virus CT10 oncogene homolog isoform a.

Mol	Chain	Residues	Atoms						Trace
			Total	C	H	N	O	S	
1	A	304	4713	1504	2319	425	462	3	0

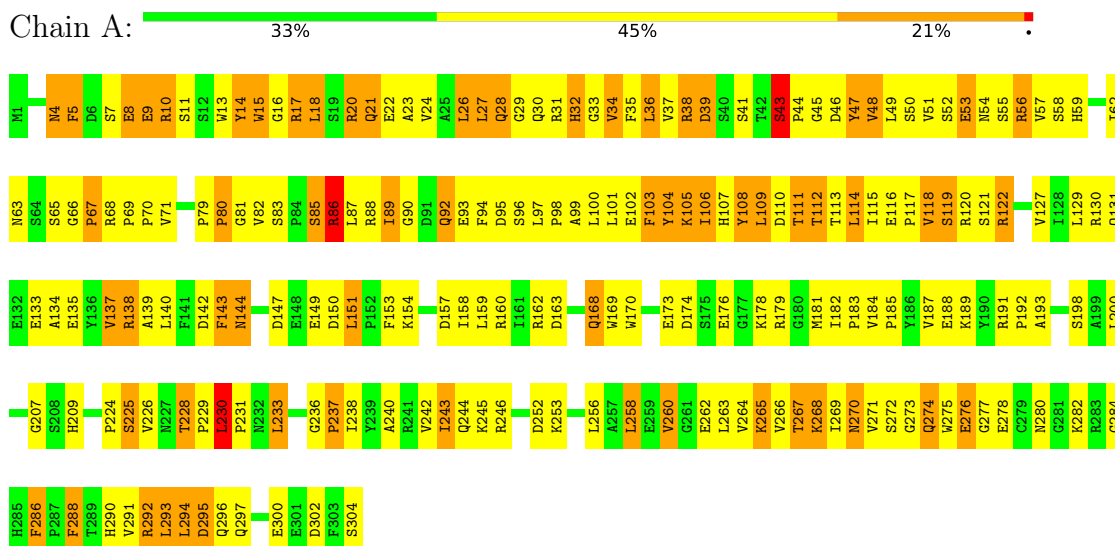
There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	300	GLU	ASP	conflict	UNP Q96HJ0

4 Residue-property plots

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: v-crk sarcoma virus CT10 oncogene homolog isoform a



5 Refinement protocol and experimental data overview

The models were refined using the following method: *torsion angle dynamics*.

Of the 20 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
CYANA	refinement	2.0
CNS	refinement	1.1
XEASY	structure solution	
Olivia	structure solution	
NMRPipe	structure solution	
CYANA	structure solution	2.0

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	2394	2319	2313	219
All	All	2394	2319	2313	219

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 47.

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

Atom-1	Atom-2	Clash(Å)	Distance(Å)
1:A:266:VAL:HG21	1:A:294:LEU:HD12	1.02	1.30
1:A:269:ILE:HG23	1:A:275:TRP:CE2	0.85	2.06
1:A:269:ILE:HG23	1:A:275:TRP:CD2	0.84	2.08
1:A:266:VAL:HG21	1:A:294:LEU:CD1	0.81	2.05
1:A:293:LEU:HD22	1:A:294:LEU:N	0.79	1.92
1:A:35:PHE:HB3	1:A:115:ILE:HD12	0.78	1.54
1:A:116:GLU:OE1	1:A:181:MET:HE3	0.78	1.79
1:A:36:LEU:HD23	1:A:36:LEU:O	0.77	1.78
1:A:71:VAL:HG12	1:A:273:GLY:HA3	0.73	1.60
1:A:150:ASP:HB3	1:A:181:MET:HE2	0.71	1.61
1:A:245:LYS:HB2	1:A:260:VAL:HG12	0.71	1.61
1:A:288:PHE:CD1	1:A:291:VAL:HG21	0.70	2.22
1:A:8:GLU:O	1:A:10:ARG:N	0.68	2.27
1:A:44:PRO:HD3	1:A:82:VAL:HB	0.68	1.65
1:A:151:LEU:HD23	1:A:179:ARG:C	0.67	2.14

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Atom-1	Atom-2	Clash(Å)	Distance(Å)
1:A:270:ASN:HB2	1:A:274:GLN:O	0.66	1.90
1:A:44:PRO:HD3	1:A:82:VAL:CB	0.66	2.19
1:A:184:VAL:HG11	1:A:225:SER:O	0.64	1.91
1:A:36:LEU:HD23	1:A:36:LEU:C	0.64	2.17
1:A:294:LEU:C	1:A:294:LEU:HD22	0.64	2.17
1:A:22:GLU:O	1:A:26:LEU:HD23	0.63	1.93
1:A:258:LEU:HD11	1:A:291:VAL:CG1	0.63	2.23
1:A:94:PHE:CD1	1:A:100:LEU:HD12	0.63	2.28
1:A:258:LEU:HD11	1:A:291:VAL:HG12	0.62	1.71
1:A:293:LEU:C	1:A:293:LEU:HD13	0.62	2.19
1:A:27:LEU:HD23	1:A:36:LEU:HD22	0.62	1.72
1:A:230:LEU:HB3	1:A:231:PRO:CD	0.61	2.25
1:A:53:GLU:OE1	1:A:111:THR:HG21	0.61	1.96
1:A:103:PHE:CE1	1:A:115:ILE:HD11	0.60	2.32
1:A:15:TRP:CH2	1:A:119:SER:O	0.59	2.54
1:A:139:ALA:HA	1:A:187:VAL:HG12	0.59	1.73
1:A:66:GLY:N	1:A:67:PRO:HD2	0.58	2.13
1:A:114:LEU:N	1:A:114:LEU:HD22	0.58	2.14
1:A:103:PHE:CZ	1:A:115:ILE:HD11	0.57	2.33
1:A:129:LEU:N	1:A:129:LEU:HD23	0.57	2.13
1:A:49:LEU:CD1	1:A:51:VAL:HG23	0.57	2.30
1:A:151:LEU:HD23	1:A:179:ARG:O	0.57	1.99
1:A:71:VAL:HG12	1:A:273:GLY:CA	0.57	2.30
1:A:293:LEU:HD13	1:A:293:LEU:O	0.57	1.99
1:A:15:TRP:CH2	1:A:26:LEU:HD13	0.56	2.34
1:A:49:LEU:C	1:A:49:LEU:HD13	0.56	2.26
1:A:109:LEU:HG	1:A:115:ILE:HG12	0.56	1.78
1:A:286:PHE:CE2	1:A:288:PHE:CD1	0.56	2.93
1:A:28:GLN:O	1:A:30:GLN:N	0.56	2.37
1:A:286:PHE:CE2	1:A:288:PHE:CE1	0.55	2.93
1:A:69:PRO:N	1:A:70:PRO:CD	0.55	2.70
1:A:288:PHE:CD1	1:A:291:VAL:CG2	0.55	2.90
1:A:35:PHE:CD1	1:A:35:PHE:C	0.54	2.85
1:A:122:ARG:O	1:A:122:ARG:HG2	0.54	2.02
1:A:68:ARG:C	1:A:70:PRO:CD	0.54	2.81
1:A:100:LEU:O	1:A:103:PHE:CD2	0.53	2.62
1:A:32:HIS:O	1:A:112:THR:CG2	0.53	2.56
1:A:109:LEU:HD23	1:A:115:ILE:HD13	0.53	1.79
1:A:27:LEU:HD22	1:A:36:LEU:HB3	0.53	1.81
1:A:87:LEU:HD22	1:A:96:SER:O	0.53	2.03
1:A:264:VAL:HG21	1:A:286:PHE:CZ	0.53	2.39
1:A:109:LEU:N	1:A:109:LEU:CD1	0.53	2.72

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Atom-1	Atom-2	Clash(Å)	Distance(Å)
1:A:159:LEU:HD23	1:A:173:GLU:O	0.53	2.04
1:A:104:TYR:O	1:A:114:LEU:CD1	0.52	2.57
1:A:233:LEU:N	1:A:233:LEU:HD23	0.52	2.20
1:A:243:ILE:HD13	1:A:290:HIS:O	0.52	2.03
1:A:88:ARG:O	1:A:89:ILE:HB	0.52	2.04
1:A:242:VAL:HG11	1:A:258:LEU:CD1	0.52	2.34
1:A:44:PRO:HD3	1:A:82:VAL:CG2	0.52	2.35
1:A:43:SER:CB	1:A:44:PRO:HD2	0.52	2.35
1:A:32:HIS:O	1:A:112:THR:HG21	0.52	2.05
1:A:228:THR:HG22	1:A:231:PRO:HG2	0.52	1.80
1:A:246:ARG:HB2	1:A:290:HIS:CG	0.51	2.41
1:A:275:TRP:HB2	1:A:288:PHE:CE2	0.51	2.40
1:A:44:PRO:CD	1:A:82:VAL:HG23	0.51	2.36
1:A:263:LEU:HD13	1:A:263:LEU:C	0.51	2.31
1:A:88:ARG:O	1:A:89:ILE:CB	0.51	2.58
1:A:69:PRO:N	1:A:70:PRO:HD3	0.50	2.21
1:A:143:PHE:CA	1:A:153:PHE:O	0.50	2.59
1:A:159:LEU:HD13	1:A:182:ILE:HG21	0.50	1.81
1:A:265:LYS:O	1:A:277:GLY:HA2	0.50	2.06
1:A:26:LEU:HD21	1:A:36:LEU:HD12	0.50	1.84
1:A:230:LEU:CD1	1:A:230:LEU:C	0.50	2.84
1:A:275:TRP:N	1:A:275:TRP:CD1	0.50	2.79
1:A:35:PHE:O	1:A:117:PRO:HA	0.50	2.07
1:A:23:ALA:HA	1:A:36:LEU:HD11	0.50	1.84
1:A:269:ILE:CG2	1:A:275:TRP:CE2	0.50	2.91
1:A:138:ARG:HG3	1:A:158:ILE:HD13	0.49	1.84
1:A:263:LEU:HD22	1:A:264:VAL:N	0.49	2.23
1:A:288:PHE:CE1	1:A:291:VAL:HG21	0.49	2.42
1:A:4:ASN:O	1:A:5:PHE:CG	0.49	2.66
1:A:62:ILE:HG23	1:A:87:LEU:HG	0.49	1.85
1:A:143:PHE:O	1:A:143:PHE:CD1	0.49	2.66
1:A:243:ILE:CD1	1:A:291:VAL:HA	0.49	2.38
1:A:286:PHE:N	1:A:286:PHE:CD1	0.49	2.80
1:A:87:LEU:HD21	1:A:97:LEU:HD22	0.48	1.83
1:A:27:LEU:HD22	1:A:118:VAL:CG2	0.48	2.38
1:A:137:VAL:CG2	1:A:138:ARG:N	0.48	2.76
1:A:104:TYR:HB2	1:A:114:LEU:HD12	0.48	1.85
1:A:87:LEU:HD21	1:A:97:LEU:HA	0.48	1.86
1:A:168:GLN:C	1:A:169:TRP:CD1	0.47	2.92
1:A:170:TRP:CE2	1:A:184:VAL:HG22	0.47	2.44
1:A:48:VAL:CG2	1:A:49:LEU:N	0.47	2.76
1:A:15:TRP:CH2	1:A:26:LEU:CD1	0.47	2.97

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Atom-1	Atom-2	Clash(Å)	Distance(Å)
1:A:109:LEU:HD22	1:A:111:THR:H	0.47	1.69
1:A:111:THR:O	1:A:112:THR:HG23	0.47	2.09
1:A:153:PHE:CE2	1:A:183:PRO:HG3	0.47	2.45
1:A:269:ILE:HG23	1:A:275:TRP:CG	0.47	2.45
1:A:13:TRP:CZ3	1:A:101:LEU:HD11	0.47	2.45
1:A:104:TYR:HB2	1:A:114:LEU:CD1	0.47	2.41
1:A:92:GLN:O	1:A:93:GLU:HG3	0.46	2.10
1:A:267:THR:N	1:A:276:GLU:O	0.46	2.47
1:A:49:LEU:CD1	1:A:51:VAL:CG2	0.46	2.93
1:A:27:LEU:CD2	1:A:36:LEU:HB3	0.46	2.39
1:A:111:THR:O	1:A:112:THR:CB	0.46	2.63
1:A:27:LEU:HD11	1:A:34:VAL:HB	0.46	1.87
1:A:55:SER:O	1:A:56:ARG:O	0.46	2.33
1:A:89:ILE:O	1:A:92:GLN:N	0.46	2.48
1:A:258:LEU:CD1	1:A:291:VAL:CG1	0.46	2.92
1:A:268:LYS:HB3	1:A:276:GLU:HG2	0.46	1.87
1:A:242:VAL:CG1	1:A:244:GLN:O	0.46	2.64
1:A:294:LEU:C	1:A:294:LEU:CD2	0.46	2.89
1:A:57:VAL:HG12	1:A:58:SER:N	0.45	2.25
1:A:230:LEU:HB3	1:A:231:PRO:HD3	0.45	1.88
1:A:43:SER:CB	1:A:44:PRO:CD	0.45	2.93
1:A:106:ILE:HD13	1:A:106:ILE:N	0.45	2.26
1:A:294:LEU:O	1:A:295:ASP:CB	0.45	2.65
1:A:242:VAL:HG11	1:A:258:LEU:HD13	0.45	1.87
1:A:265:LYS:O	1:A:277:GLY:CA	0.45	2.65
1:A:27:LEU:HD22	1:A:118:VAL:HG21	0.45	1.89
1:A:14:TYR:O	1:A:37:VAL:O	0.45	2.35
1:A:33:GLY:CA	1:A:115:ILE:HG22	0.45	2.42
1:A:238:ILE:HG21	1:A:292:ARG:HG2	0.45	1.87
1:A:256:LEU:CD1	1:A:284:GLY:H	0.45	2.25
1:A:271:VAL:HG13	1:A:272:SER:N	0.45	2.26
1:A:44:PRO:HG3	1:A:81:GLY:HA2	0.45	1.88
1:A:18:LEU:HD12	1:A:22:GLU:CB	0.45	2.41
1:A:143:PHE:N	1:A:153:PHE:O	0.45	2.50
1:A:22:GLU:CB	1:A:122:ARG:HB2	0.45	2.42
1:A:109:LEU:N	1:A:109:LEU:HD12	0.45	2.27
1:A:13:TRP:CE2	1:A:101:LEU:HD12	0.44	2.48
1:A:30:GLN:CB	1:A:34:VAL:HG21	0.44	2.42
1:A:111:THR:O	1:A:112:THR:OG1	0.44	2.27
1:A:151:LEU:HD11	1:A:174:ASP:HB2	0.44	1.88
1:A:142:ASP:C	1:A:153:PHE:O	0.44	2.61
1:A:244:GLN:CG	1:A:290:HIS:CD2	0.44	3.01

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Atom-1	Atom-2	Clash(Å)	Distance(Å)
1:A:63:ASN:O	1:A:87:LEU:HD12	0.44	2.12
1:A:233:LEU:N	1:A:233:LEU:CD2	0.44	2.81
1:A:244:GLN:HG2	1:A:290:HIS:CD2	0.44	2.48
1:A:184:VAL:N	1:A:185:PRO:CD	0.43	2.81
1:A:63:ASN:O	1:A:87:LEU:HA	0.43	2.13
1:A:101:LEU:O	1:A:104:TYR:CZ	0.43	2.72
1:A:79:PRO:N	1:A:80:PRO:CD	0.43	2.82
1:A:21:GLN:HA	1:A:24:VAL:CG1	0.43	2.44
1:A:45:GLY:O	1:A:47:TYR:CZ	0.43	2.72
1:A:55:SER:O	1:A:56:ARG:HG3	0.43	2.13
1:A:116:GLU:CB	1:A:169:TRP:NE1	0.43	2.81
1:A:85:SER:O	1:A:86:ARG:O	0.43	2.37
1:A:105:LYS:CD	1:A:229:PRO:O	0.43	2.66
1:A:242:VAL:O	1:A:260:VAL:HG23	0.43	2.13
1:A:184:VAL:HG13	1:A:226:VAL:HG12	0.43	1.91
1:A:68:ARG:C	1:A:70:PRO:HD3	0.43	2.39
1:A:267:THR:O	1:A:268:LYS:HB2	0.43	2.14
1:A:39:ASP:HA	1:A:46:ASP:CB	0.43	2.44
1:A:94:PHE:CE1	1:A:100:LEU:HD12	0.43	2.49
1:A:246:ARG:N	1:A:258:LEU:O	0.43	2.52
1:A:104:TYR:CD2	1:A:115:ILE:O	0.42	2.73
1:A:256:LEU:HD12	1:A:284:GLY:H	0.42	1.73
1:A:294:LEU:HD13	1:A:294:LEU:H	0.42	1.73
1:A:15:TRP:CZ2	1:A:119:SER:O	0.42	2.72
1:A:243:ILE:CD1	1:A:291:VAL:CA	0.42	2.97
1:A:16:GLY:O	1:A:18:LEU:N	0.42	2.53
1:A:44:PRO:HD3	1:A:82:VAL:HG23	0.42	1.91
1:A:256:LEU:HD11	1:A:277:GLY:O	0.42	2.14
1:A:245:LYS:CB	1:A:260:VAL:HG12	0.42	2.38
1:A:292:ARG:CD	1:A:292:ARG:O	0.42	2.68
1:A:293:LEU:HD22	1:A:294:LEU:CA	0.42	2.44
1:A:13:TRP:CZ2	1:A:101:LEU:HD12	0.42	2.49
1:A:114:LEU:N	1:A:114:LEU:CD2	0.42	2.82
1:A:118:VAL:O	1:A:119:SER:O	0.42	2.37
1:A:293:LEU:HD22	1:A:293:LEU:C	0.42	2.39
1:A:8:GLU:C	1:A:9:GLU:CG	0.42	2.92
1:A:89:ILE:O	1:A:90:GLY:C	0.42	2.62
1:A:102:GLU:CB	1:A:105:LYS:HD2	0.42	2.44
1:A:18:LEU:CD1	1:A:22:GLU:HB3	0.42	2.45
1:A:104:TYR:CE2	1:A:115:ILE:O	0.42	2.72
1:A:256:LEU:HG	1:A:284:GLY:N	0.42	2.30
1:A:36:LEU:C	1:A:36:LEU:CD2	0.41	2.88

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Atom-1	Atom-2	Clash(Å)	Distance(Å)
1:A:129:LEU:N	1:A:129:LEU:CD2	0.41	2.82
1:A:236:GLY:O	1:A:237:PRO:O	0.41	2.38
1:A:38:ARG:HG2	1:A:48:VAL:HG11	0.41	1.91
1:A:267:THR:HG22	1:A:277:GLY:HA2	0.41	1.90
1:A:293:LEU:HD22	1:A:294:LEU:C	0.41	2.39
1:A:294:LEU:CD1	1:A:294:LEU:N	0.41	2.83
1:A:26:LEU:HD11	1:A:118:VAL:HG21	0.41	1.92
1:A:35:PHE:CD1	1:A:49:LEU:HD21	0.41	2.50
1:A:44:PRO:CD	1:A:82:VAL:CG2	0.41	2.97
1:A:106:ILE:O	1:A:107:HIS:CG	0.41	2.74
1:A:109:LEU:CD1	1:A:109:LEU:H	0.41	2.29
1:A:170:TRP:NE1	1:A:184:VAL:CG2	0.41	2.84
1:A:89:ILE:HG21	1:A:100:LEU:HD11	0.41	1.93
1:A:137:VAL:HG22	1:A:138:ARG:N	0.41	2.31
1:A:8:GLU:C	1:A:9:GLU:HG2	0.41	2.41
1:A:18:LEU:HG	1:A:22:GLU:CB	0.41	2.45
1:A:26:LEU:HD11	1:A:118:VAL:CG2	0.41	2.46
1:A:27:LEU:O	1:A:28:GLN:O	0.41	2.39
1:A:44:PRO:HG3	1:A:81:GLY:CA	0.41	2.45
1:A:49:LEU:HD11	1:A:51:VAL:CG2	0.41	2.45
1:A:59:HIS:CD2	1:A:59:HIS:O	0.41	2.74
1:A:97:LEU:N	1:A:98:PRO:HD2	0.41	2.30
1:A:107:HIS:C	1:A:108:TYR:CD2	0.41	2.99
1:A:264:VAL:HG21	1:A:286:PHE:HZ	0.41	1.72
1:A:96:SER:OG	1:A:99:ALA:CB	0.41	2.69
1:A:116:GLU:CD	1:A:181:MET:HE3	0.41	2.41
1:A:268:LYS:HB3	1:A:276:GLU:CG	0.41	2.46
1:A:106:ILE:O	1:A:107:HIS:CD2	0.40	2.73
1:A:111:THR:C	1:A:112:THR:HG23	0.40	2.41
1:A:35:PHE:CZ	1:A:117:PRO:HD3	0.40	2.51
1:A:154:LYS:O	1:A:157:ASP:HB2	0.40	2.16
1:A:4:ASN:O	1:A:5:PHE:CD2	0.40	2.74
1:A:105:LYS:CE	1:A:225:SER:HB2	0.40	2.46
1:A:243:ILE:HD13	1:A:291:VAL:HA	0.40	1.94
1:A:102:GLU:HB3	1:A:105:LYS:HD2	0.40	1.94
1:A:231:PRO:CA	1:A:269:ILE:HD12	0.40	2.47

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	302/304 (99%)	206 (68%)	59 (20%)	37 (12%)	1	6
All	All	302/304 (99%)	206 (68%)	59 (20%)	37 (12%)	1	6

All 37 Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type
1	A	4	ASN
1	A	5	PHE
1	A	9	GLU
1	A	14	TYR
1	A	15	TRP
1	A	17	ARG
1	A	20	ARG
1	A	28	GLN
1	A	29	GLY
1	A	31	ARG
1	A	43	SER
1	A	53	GLU
1	A	56	ARG
1	A	67	PRO
1	A	80	PRO
1	A	85	SER
1	A	86	ARG
1	A	89	ILE
1	A	95	ASP
1	A	108	TYR
1	A	112	THR
1	A	114	LEU
1	A	119	SER
1	A	134	ALA
1	A	144	ASN
1	A	192	PRO
1	A	193	ALA

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Mol	Chain	Res	Type
1	A	200	LEU
1	A	207	GLY
1	A	224	PRO
1	A	225	SER
1	A	230	LEU
1	A	233	LEU
1	A	237	PRO
1	A	240	ALA
1	A	268	LYS
1	A	295	ASP

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	262/262 (100%)	174 (66%)	88 (34%)	1	11
All	All	262/262 (100%)	174 (66%)	88 (34%)	1	11

All 88 residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

Mol	Chain	Res	Type
1	A	7	SER
1	A	8	GLU
1	A	10	ARG
1	A	11	SER
1	A	17	ARG
1	A	18	LEU
1	A	20	ARG
1	A	21	GLN
1	A	26	LEU
1	A	27	LEU
1	A	32	HIS
1	A	34	VAL
1	A	36	LEU
1	A	38	ARG
1	A	39	ASP

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Mol	Chain	Res	Type
1	A	41	SER
1	A	43	SER
1	A	47	TYR
1	A	48	VAL
1	A	50	SER
1	A	52	SER
1	A	54	ASN
1	A	65	SER
1	A	83	SER
1	A	86	ARG
1	A	92	GLN
1	A	103	PHE
1	A	104	TYR
1	A	105	LYS
1	A	106	ILE
1	A	109	LEU
1	A	110	ASP
1	A	111	THR
1	A	113	THR
1	A	118	VAL
1	A	120	ARG
1	A	121	SER
1	A	122	ARG
1	A	127	VAL
1	A	130	ARG
1	A	131	GLN
1	A	133	GLU
1	A	135	GLU
1	A	137	VAL
1	A	138	ARG
1	A	140	LEU
1	A	143	PHE
1	A	144	ASN
1	A	147	ASP
1	A	149	GLU
1	A	151	LEU
1	A	160	ARG
1	A	162	ARG
1	A	163	ASP
1	A	168	GLN
1	A	176	GLU
1	A	178	LYS

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Mol	Chain	Res	Type
1	A	188	GLU
1	A	189	LYS
1	A	191	ARG
1	A	198	SER
1	A	209	HIS
1	A	228	THR
1	A	230	LEU
1	A	243	ILE
1	A	252	ASP
1	A	253	LYS
1	A	258	LEU
1	A	260	VAL
1	A	262	GLU
1	A	265	LYS
1	A	267	THR
1	A	270	ASN
1	A	274	GLN
1	A	276	GLU
1	A	278	GLU
1	A	280	ASN
1	A	282	LYS
1	A	286	PHE
1	A	288	PHE
1	A	292	ARG
1	A	293	LEU
1	A	294	LEU
1	A	296	GLN
1	A	297	GLN
1	A	300	GLU
1	A	302	ASP
1	A	304	SER

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