

# Full wwPDB X-ray Structure Validation Report (i)

#### Oct 25, 2022 – 08:03 PM EDT

PDB ID : 7FJW

Title : PanDDA analysis group deposition – Aar2/RNaseH in complex with fragment

P03H12 from the F2X-Universal Library

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Deposited on : 2022-08-26

Resolution : 1.63 Å(reported)

This is a Full wwPDB X-ray 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/XrayValidationReportHelp with specific help available everywhere you see the (i) 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 (1)) were used in the production of this report:

MolProbity: 4.02b-467

Mogul: 1.8.5 (274361), CSD as541be (2020)

Xtriage (Phenix) : 1.13 EDS : 2.31.2

Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)

 $Refmac \quad : \quad 5.8.0158$ 

CCP4 : 7.0.044 (Gargrove)

Ideal geometry (proteins) : Engh & Huber (2001) Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

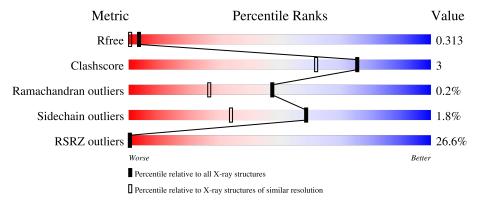
Validation Pipeline (wwPDB-VP) : 2.31.2

## 1 Overall quality at a glance (i)

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

The reported resolution of this entry is 1.63 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive	Similar resolution
Metric	$(\# \mathrm{Entries})$	$(\#  ext{Entries},  ext{ resolution range}( ext{Å}))$
$R_{free}$	130704	3122 (1.66-1.62)
Clashscore	141614	3268 (1.66-1.62)
Ramachandran outliers	138981	3215 (1.66-1.62)
Sidechain outliers	138945	3215 (1.66-1.62)
RSRZ outliers	127900	3079 (1.66-1.62)

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

Mol	Chain	Length	Quality of chain	
			26%	
1	A	258	83%	9% 8%
			25%	
2	В	308	87%	9% • •



# 2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 9213 atoms, of which 4524 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

• Molecule 1 is a protein called Pre-mRNA-splicing factor 8.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace		
1	A	237	Total 4068	C 1287	H 2060	N 336	O 373	S 12	0	21	0

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1833	GLY	-	expression tag	UNP P33334
A	1834	ALA	-	expression tag	UNP P33334
A	1835	MET	-	expression tag	UNP P33334

• Molecule 2 is a protein called A1 cistron-splicing factor AAR2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace		
2	В	300	Total 5044	C 1654	H 2464	N 421	O 485	S 20	22	17	0

There are 20 discrepancies between the modelled and reference sequences:

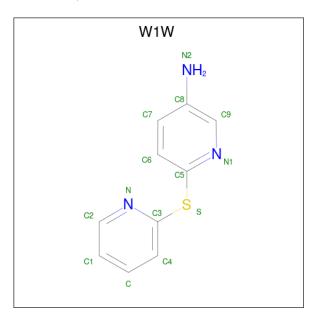
Chain	Residue	Modelled	Actual	Comment	Reference
В	-3	GLY	-	expression tag	UNP P32357
В	-2	ALA	-	expression tag	UNP P32357
В	-1	MET	ı	expression tag	UNP P32357
В	0	ALA	-	expression tag	UNP P32357
В	166	SER	LEU	conflict	UNP P32357
В	167	SER	LYS	conflict	UNP P32357
В	?	-	LEU	deletion	UNP P32357
В	?	-	GLN	deletion	UNP P32357
В	?	-	LYS	deletion	UNP P32357
В	?	-	ALA	deletion	UNP P32357
В	?	-	GLY	deletion	UNP P32357
В	?	-	SER	deletion	UNP P32357
В	?	-	LYS	deletion	UNP P32357



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Chain	Residue	Modelled	Actual	Comment	Reference
В	?	-	MET	deletion	UNP P32357
В	?	-	GLU	deletion	UNP P32357
В	?	-	ALA	deletion	UNP P32357
В	?	-	LYS	deletion	UNP P32357
В	?	-	ASN	deletion	UNP P32357
В	?	-	GLU	deletion	UNP P32357
В	170	SER	ASP	$\operatorname{conflict}$	UNP P32357

 $\bullet$  Molecule 3 is 6-[(pyridin-2-yl)sulfanyl] pyridin-3-amine (three-letter code: W1W) (formula:  $\rm C_{10}H_9N_3S).$ 



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	Λ	1	Total	С	N	S	0	0
3	Λ	1	14	10	3	1	U	

• Molecule 4 is water.

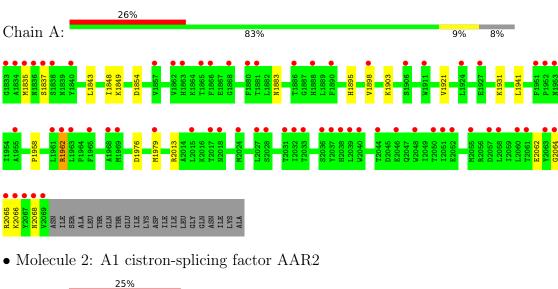
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	48	Total O 48 48	0	0
4	В	39	Total O 39 39	0	0

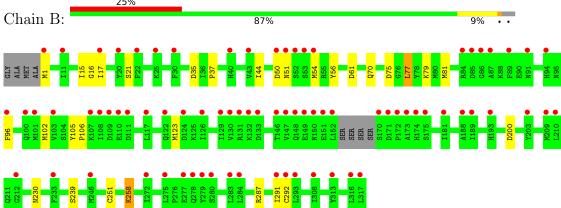


## 3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: Pre-mRNA-splicing factor 8







# 4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants	89.32Å 82.12Å 93.24Å	Donositor
a, b, c, $\alpha$ , $\beta$ , $\gamma$	90.00° 108.31° 90.00°	Depositor
Resolution (Å)	44.78 - 1.63	Depositor
rtesolution (A)	44.78 - 1.63	EDS
% Data completeness	97.8 (44.78-1.63)	Depositor
(in resolution range)	97.9 (44.78-1.63)	EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$< I/\sigma(I) > 1$	0.96 (at 1.63Å)	Xtriage
Refinement program	PHENIX 1.17.1_3660	Depositor
D D.	0.289 , 0.308	Depositor
$R, R_{free}$	0.295 , $0.313$	DCC
$R_{free}$ test set	2096 reflections (2.68%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	44.9	Xtriage
Anisotropy	0.273	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$ , $B_{sol}(Å^2)$	0.38, 60.3	EDS
L-test for twinning <sup>2</sup>	$ < L >=0.51, < L^2>=0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.94	EDS
Total number of atoms	9213	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	91.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 6.07% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>Theoretical values of <|L|>,  $<L^2>$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.



<sup>&</sup>lt;sup>1</sup>Intensities estimated from amplitudes.

## 5 Model quality (i)

### 5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: W1W

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with |Z| > 5 is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain		nd lengths	Bond angles		
IVIOI	Chain	RMSZ	# Z  > 5	RMSZ	# Z  > 5	
1	A	0.74	$2/2149 \ (0.1\%)$	0.77	2/2911 (0.1%)	
2	В	0.74	0/2739	0.74	1/3699 (0.0%)	
All	All	0.74	$2/4888 \; (0.0\%)$	0.76	3/6610 (0.0%)	

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 maintenain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	В	0	1

#### All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	$\mathbf{Z}$	Observed(A)	$\operatorname{Ideal}(\text{\AA})$
1	A	1883	ASN	C-N	9.43	1.52	1.34
1	A	1921	VAL	CB-CG1	-5.73	1.40	1.52

#### All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	$\mathbf{Z}$	$Observed(^o)$	$\operatorname{Ideal}({}^{o})$
2	В	200	ASP	CB-CG-OD1	6.74	124.37	118.30
1	A	1854	ASP	CB-CG-OD1	-5.87	113.02	118.30
1	A	1854	ASP	CB-CG-OD2	5.55	123.29	118.30

There are no chirality outliers.

All (1) planarity outliers are listed below:



	Mol	Chain	Res	Type	Group
ſ	2	В	54[A]	MET	Peptide

#### 5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2008	2060	1974	8	0
2	В	2580	2464	2398	19	0
3	A	14	0	0	0	0
4	A	48	0	0	2	0
4	В	39	0	0	1	0
All	All	4689	4524	4372	28	0

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 3.

All (28) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	$\begin{array}{c} {\rm Interatomic} \\ {\rm distance} \ ({\rm \AA}) \end{array}$	Clash overlap (Å)
2:B:77:LEU:HD21	2:B:79:LYS:HE3	1.69	0.74
1:A:2064:GLY:O	1:A:2068:ASN:N	2.30	0.64
2:B:287:ARG:O	2:B:291:ILE:HD13	1.98	0.63
2:B:1:MET:N	4:B:401:HOH:O	2.34	0.60
2:B:50:ASP:OD1	2:B:51:ASN:N	2.32	0.60
2:B:70:GLN:HB3	2:B:81:MET:HE1	1.85	0.59
1:A:1848:ILE:H	1:A:1931[A]:LYS:HZ3	1.49	0.58
1:A:1843:LEU:HA	1:A:1849:LYS:HD2	1.88	0.55
2:B:96:PHE:HB2	2:B:102:MET:HE3	1.87	0.54
2:B:258:LYS:HD2	2:B:258:LYS:H	1.72	0.54
2:B:230[B]:ASN:ND2	2:B:239:SER:OG	2.40	0.54
2:B:70:GLN:HB3	2:B:81:MET:CE	2.38	0.54
2:B:17:ILE:HD13	2:B:44[B]:ILE:CG1	2.40	0.52
1:A:1895:HIS:O	1:A:1898[A]:VAL:HG22	2.10	0.52
2:B:37:PRO:HD3	2:B:105:TYR:CD1	2.47	0.49
2:B:251:CYS:HG	2:B:292:CYS:HB3	1.80	0.46
1:A:1962:ARG:O	1:A:2013:ARG:NH1	2.49	0.46
1:A:2062:GLU:OE2	1:A:2065:ARG:NH1	2.50	0.45



n previous	paae
	n previous

Atom-1	Atom-2	Interatomic	Clash
Atom-1	Atom-2	$\operatorname{distance}\left(\operatorname{\mathring{A}} ight)$	overlap (Å)
2:B:96:PHE:HB2	2:B:102:MET:CE	2.46	0.45
1:A:1941:LEU:HD11	1:A:1958:PRO:HB3	2.00	0.43
2:B:75:ASP:OD2	2:B:79:LYS:NZ	2.40	0.42
2:B:1:MET:HB3	2:B:35:ASP:HA	2.03	0.41
1:A:1976:ASP:HB3	4:A:2203:HOH:O	2.20	0.41
2:B:15:ILE:O	2:B:21:SER:HA	2.19	0.41
2:B:56:TYR:CZ	2:B:77:LEU:HB2	2.56	0.40

There are no symmetry-related clashes.

#### 5.3 Torsion angles (i)

#### 5.3.1 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 X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Perce	entiles
1	A	258/258 (100%)	254 (98%)	4 (2%)	0	100	100
2	В	315/308 (102%)	300 (95%)	14 (4%)	1 (0%)	41	21
All	All	573/566 (101%)	554 (97%)	18 (3%)	1 (0%)	47	26

#### All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	В	106	PRO

### 5.3.2 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 X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.



Mol	Chain	Analysed	Rotameric	Outliers	Percentiles		
1	A	237/233 (102%)	229 (97%)	8 (3%)	37	11	
2	В	294/284 (104%)	290 (99%)	4 (1%)	67	45	
All	All	531/517 (103%)	519 (98%)	12 (2%)	59	23	

All (12) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1835	MET
1	A	1837	SER
1	A	1903	LYS
1	A	1962	ARG
1	A	1979[A]	MET
1	A	1979[B]	MET
1	A	1979[C]	MET
1	A	2066	LYS
2	В	77	LEU
2	В	123[A]	MET
2	В	123[B]	MET
2	В	258	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	$\operatorname{Res}$	Type
2	В	47	GLN
2	В	51	ASN

#### 5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates (i)

There are no monosaccharides in this entry.



### 5.6 Ligand geometry (i)

1 ligand is modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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| > 2 is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	e Chain	Chain	Chain	Chain	Res	Link	Bo	ond leng	hs	В	ond ang	les
Moi Type	туре		lites	LIIIK	Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2			
3	W1W	A	2101	-	15,15,15	2.49	4 (26%)	19,19,19	1.01	0			

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	W1W	A	2101	-	-	1/4/4/4	0/2/2/2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	$\mathbf{Z}$	$\operatorname{Observed}(\text{\AA})$	Ideal(Å)
3	A	2101	W1W	C3-S	-6.91	1.68	1.77
3	A	2101	W1W	C5-S	4.31	1.82	1.77
3	A	2101	W1W	C7-C8	-2.85	1.33	1.40
3	A	2101	W1W	C3-N	-2.10	1.29	1.34

There are no bond angle outliers.

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	2101	W1W	C6-C5-S-C3

There are no ring outliers.

No monomer is involved in short contacts.



## 5.7 Other polymers (i)

There are no such residues in this entry.

## 5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.



## 6 Fit of model and data (i)

#### 6.1 Protein, DNA and RNA chains (i)

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

Mol	Chain	Analysed	<RSRZ $>$	$\# \mathrm{RSRZ}{>}2$	$OWAB(A^2)$	Q<0.9
1	A	$237/258 \ (91\%)$	1.51	66 (27%) 0 0	38, 73, 145, 319	0
2	В	300/308~(97%)	1.55	77 (25%) 0 0	35, 72, 160, 248	0
All	All	537/566~(94%)	1.54	143 (26%) 0 0	35, 72, 158, 319	0

All (143) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	В	173	ALA	12.6
1	A	2069	VAL	12.6
1	A	2068	ASN	10.2
2	В	1	MET	9.4
1	A	2063	TYR	9.3
2	В	109	ASP	9.2
1	A	2064	GLY	7.9
2	В	108	ILE	7.7
2	В	53	SER	7.6
2	В	172	PRO	7.5
2	В	150	ASN	7.3
2	В	170	SER	6.8
1	A	2060	LEU	6.5
2	В	52	SER	6.2
2	В	283	LEU	6.2
2	В	171	ASP	5.9
2	В	50	ASP	5.6
2	В	151	GLU	5.5
2	В	110	GLU	5.5
2	В	152	LEU	5.5
1	A	2028	SER	5.2
2	В	107	LYS	5.0
1	A	2061	THR	5.0
2	В	174	HIS	4.9



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Mol	Chain	$oxed{\mathbf{Res}}$	$\overline{\text{Type}}$	RSRZ
1	A	1840	TYR	4.9
1	A	1838	SER	4.8
1	A	1962	ARG	4.7
2	В	30	PHE	4.7
1	A	1961[A]	LEU	4.7
2	В	87	ALA	4.6
	В	147	VAL	4.6
1	A	2032	ILE	4.6
1	A	1866	PHE	4.5
1	A	1862	VAL	4.5
2	В	279	TYR	4.4
2	A	2066	LYS	4.3
2	В	103	VAL	4.3
1	A	2065	ARG	4.3
2	В	131	ARG	4.3
1	A	2040	TRP	4.3
2	В	189	ILE	4.3
1	A	1951	PHE	4.1
2	В	126	ILE	4.1
2	В	284	LEU	4.0
2	В	84	ARG	4.0
1	A	2017[A]	THR	4.0
2	В	54[A]	MET	3.9
1	A	1963	LEU	3.8
1	A	2038	HIS	3.7
2	В	122[A]	GLN	3.7
1	A	1979[A]	MET	3.6
2	В	291	ILE	3.6
1	A	1833	GLY	3.6
2	В	111	ASP	3.5
1	A	2024[A]	MET	3.5
2	В	175	SER	3.5
2	В	203[A]	TYR	3.5
1	A	2027	LEU	3.5
1	A	1898[A]	VAL	3.5
2	В	86	GLY	3.4
2	В	246	MET	3.4
2	В	148	GLN	3.4
2	В	292	CYS	3.4
2	В	181	ILE	3.4
1	A	2050	THR	3.4
1	A	1834	ALA	3.3



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Mol	Chain	Res	Type	RSRZ
1	A	2067	TYR	3.3
2	В	316	LEU	3.3
1	A	2048	TRP	3.2
1	A	1865	THR	3.2
1	A	1965	PHE	3.2
1	A	1857	VAL	3.2
1	A	2044	THR	3.1
2	В	89	PHE	3.1
1	A	2039	LEU	3.1
1	A	2057[A]	ASP	3.1
2	В	280	SER	3.1
2	В	96	PHE	3.0
1	A	2015	LEU	3.0
2	В	101	MET	3.0
2	В	94	HIS	2.9
1	A	1888	HIS	2.9
2	В	193	HIS	2.9
2	В	313	TYR	2.9
2	В	132	LYS	2.9
1	A	1955	ALA	2.9
1	A	2058	LEU	2.8
2	В	51	ASN	2.8
2	В	275	LEU	2.8
1	A	2033	THR	2.8
2	В	149	GLU	2.8
1	A	2037	TYR	2.8
1	A	2055	MET	2.8
2	В	20	TYR	2.7
2	В	117	LEU	2.7
1	A	2036	SER	2.7
1	A	1968	ALA	2.6
1	A	1863	HIS	2.6
2	В	11	ILE	2.6
2	В	100	GLN	2.6
2	В	133	ASP	2.6
1	A	1837	SER	2.6
1	A	2018[A]	ASN	2.5
1	A	1835	MET	2.5
2	В	308	ILE	2.5
1	A	1927	GLU	2.5
1	A	2052	GLU	2.5
1	A	1868	GLY	2.5



Continued from previous page...

Mol	Chain	$\overline{\mathrm{Res}}$	Type	RSRZ
2	В	278	GLN	2.5
2	В	293	LEU	2.4
1	A	1836	ASN	2.4
1	A	2046	GLU	2.4
1	A	1924	LEU	2.4
1	A	1881	THR	2.4
1	A	1953	ASN	2.4
2	В	124	ASP	2.4
2	В	43	VAL	2.3
1	A	2051	ILE	2.3
2	В	129	ILE	2.3
2	В	272	ILE	2.3
1	A	2031	THR	2.3
2	В	317	LEU	2.3
2	В	188	ALA	2.3
2	В	17	ILE	2.3
1	A	1880	PHE	2.3
2	В	210	LEU	2.2
2	В	22	PHE	2.2
1	A	1911	TRP	2.2
1	A	1890	PHE	2.2
2	В	209	MET	2.1
2	В	212[A]	GLY	2.1
2	В	146	THR	2.1
2	В	277	GLU	2.1
1	A	1969	MET	2.1
2	В	40	HIS	2.1
2	В	85	ASP	2.1
2	В	233	PHE	2.1
2	В	130	VAL	2.1
2	В	25	LYS	2.1
1	A	1906	SER	2.1
1	A	1886	THR	2.1
1	A	1952	PRO	2.0
2	В	91	ASN	2.0

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

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



### 6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

### 6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median,  $95^{th}$  percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-}\mathbf{factors}(\mathbf{\mathring{A}}^2)$	Q < 0.9
3	W1W	A	2101	14/14	0.78	0.20	20,20,20,20	14

### 6.5 Other polymers (i)

There are no such residues in this entry.

