

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

#### Nov 16, 2024 - 07:30 PM EST

PDB ID	:	3OSL
Title	:	Structure of bovine thrombin-activatable fibrinolysis inhibitor in complex with
		tick carboxypeptidase inhibitor
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Deposited on	:	2010-09-09
Resolution	:	6.00  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 Xtriage (Phenix) EDS	: : :	4.02b-467 1.20.1 3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber $(2001)$
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

# 1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:  $X\text{-}RAY \, DIFFRACTION$ 

The reported resolution of this entry is 6.00 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		
	$(\# { m Entries})$	$(\# \text{Entries, resolution range}(\text{\AA}))$		
R <sub>free</sub>	164625	$1083 \ (8.00-4.00)$		
Clashscore	180529	1124 (8.00-4.00)		
Ramachandran outliers	177936	1015 (8.00-3.98)		
Sidechain outliers	177891	1019 (8.00-3.96)		
RSRZ outliers	164620	1078 (8.00-4.00)		

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	
1	А	401	12%	65%	8%	26%
1	С	401	15%	65%	8%	26%
2	В	74	12%	89%		11%
2	D	74	19%	93%		7%



# 2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 5980 atoms, of which 0 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 Carboxypeptidase B2.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
1	А	296	Total 2456	C 1579	N 412	O 450	S 15	0	6	0
1	С	296	Total 2456	C 1579	N 412	O 450	S 15	0	6	0

• Molecule 2 is a protein called Carboxypeptidase inhibitor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	В	74	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
2 D	14	533	319	95	107	12	0	0		
9	П	74	Total	С	Ν	Ο	$\mathbf{S}$	0	0	0
2 D	(4	533	319	95	107	12	0	0	0	

• Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	А	1	Total Zn 1 1	0	0
3	С	1	Total Zn 1 1	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: Carboxypeptidase B2

• Molecule 2: Carboxypeptidase inhibitor







# 4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 41 3 2	Depositor
Cell constants	279.10Å 279.10Å 279.10Å	Depositor
a, b, c, $\alpha$ , $\beta$ , $\gamma$	$90.00^{\circ}$ $90.00^{\circ}$ $90.00^{\circ}$	Depositor
Bosolution(Å)	50.00 - 6.00	Depositor
Resolution (A)	50.00 - 6.00	EDS
% Data completeness	99.8 (50.00-6.00)	Depositor
(in resolution range)	99.5 (50.00-6.00)	EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$< I/\sigma(I) > 1$	$10.44 (at 6.13 \text{\AA})$	Xtriage
Refinement program	REFMAC 5.5.0046	Depositor
D D .	0.313 , $0.320$	Depositor
$n, n_{free}$	0.322 , $0.336$	DCC
$R_{free}$ test set	739 reflections $(7.58\%)$	wwPDB-VP
Wilson B-factor $(Å^2)$	168.0	Xtriage
Anisotropy	0.000	Xtriage
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.35, $98.3$	EDS
L-test for $twinning^2$	$ < L >=0.46, < L^2>=0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.77	EDS
Total number of atoms	5980	wwPDB-VP
Average B, all atoms $(Å^2)$	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 3.05% of the height of the origin peak. No significant pseudotranslation is detected.

<sup>&</sup>lt;sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  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: ZN

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).

Mal	Chain	Bond	lengths	Bond angles		
	RMSZ	# Z  > 5	RMSZ	# Z  > 5		
1	А	0.72	0/2555	0.68	0/3450	
1	С	0.72	0/2555	0.68	0/3450	
2	В	0.57	0/539	0.62	0/720	
2	D	0.57	0/539	0.62	0/720	
All	All	0.69	0/6188	0.67	0/8340	

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 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	А	2456	0	2358	21	37
1	С	2456	0	2358	19	36
2	В	533	0	508	5	1
2	D	533	0	508	2	0
3	А	1	0	0	0	0
3	С	1	0	0	0	0
All	All	5980	0	5732	33	44

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.



Atom-1	Atom-2	Interatomic	Clash
		distance $(A)$	overlap (Å)
1:A:375:ASP:O	1:C:262:LYS:HG2	1.46	1.13
1:A:262:LYS:HG2	1:C:375:ASP:O	1.56	1.06
1:A:239:ARG:NH1	2:B:74:LEU:O	2.15	0.78
1:A:264:TRP:CZ3	1:C:301:LYS:HE3	2.33	0.64
1:A:301:LYS:HE3	1:C:264:TRP:CZ3	2.33	0.63
1:A:375:ASP:O	1:C:262:LYS:CG	2.38	0.56
1:A:232:TRP:CZ3	2:B:4:VAL:HG11	2.40	0.56
1:C:171:LYS:HD2	1:C:216:ASP:OD2	2.09	0.53
1:A:171:LYS:HD2	1:A:216:ASP:OD2	2.09	0.52
1:A:375:ASP:HA	1:C:262:LYS:HE2	1.92	0.51
1:C:133:ILE:HG23	1:C:161:LEU:HD21	1.95	0.49
1:A:264:TRP:CZ3	1:C:301:LYS:CE	2.97	0.48
1:A:133:ILE:HG23	1:A:161:LEU:HD21	1.95	0.48
1:C:232:TRP:CZ3	2:D:4:VAL:HG11	2.50	0.46
1:A:232:TRP:CH2	2:B:4:VAL:HG11	2.52	0.46
1:C:379:LYS:HE3	1:C:380:TYR:CZ	2.51	0.46
2:B:57:LEU:HD22	2:B:60:GLU:HG2	1.98	0.45
1:A:171:LYS:O	1:A:171:LYS:HG3	2.17	0.45
1:C:171:LYS:O	1:C:171:LYS:HG3	2.17	0.45
1:A:379:LYS:HE3	1:A:380:TYR:CZ	2.51	0.45
1:A:301:LYS:CE	1:C:264:TRP:CZ3	2.98	0.44
2:D:57:LEU:HD22	2:D:60:GLU:HG2	1.98	0.44
1:A:347:ILE:HD11	1:A:407:GLU:HA	2.00	0.43
1:C:347:ILE:HD11	1:C:407:GLU:HA	2.01	0.43
1:C:309:MET:CE	1:C:386:LEU:HD21	2.49	0.43
1:A:309:MET:CE	1:A:386:LEU:HD21	2.49	0.42
1:C:290:LYS:HA	1:C:290:LYS:HD3	1.93	0.42
1:C:373:ILE:CG1	1:C:378:ILE:HD12	2.50	0.42
1:C:345:GLU:O	1:C:349:ARG:HD3	2.20	0.41
1:A:183:ARG:NH2	2:B:73:TRP:O	2.48	0.41
1:A:345:GLU:O	1:A:349:ARG:HD3	2.21	0.41
1:A:373:ILE:CG1	1:A:378:ILE:HD12	2.50	0.41
1:A:262:LYS:HE2	1:C:375:ASP:HA	2.02	0.40

All (33) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

All (44) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)	
1:A:360:GLU:OE1	1:A:360:GLU:OE1[18_545]	0.49	1.71	



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		Interatomic	Clash
Atom-1	Atom-2	distance $(\text{\AA})$	overlap (Å)
1:C:331:GLU:OE2	1:C:332:GLU:CG[18_545]	0.70	1.50
1:A:154:GLU:OE1	$1:C:246:GLU:OE2[9_555]$	0.75	1.45
1:A:360:GLU:OE2	1:A:360:GLU:OE2[18_545]	0.79	1.41
1:A:246:GLU:OE2	1:C:154:GLU:OE1[9_555]	0.82	1.38
1:A:360:GLU:CD	1:A:360:GLU:CD[18_545]	0.85	1.35
1:A:244:LEU:CD2	1:C:244:LEU:CB[9_555]	0.89	1.31
1:A:244:LEU:CB	1:C:244:LEU:CD2[9_555]	0.96	1.24
1:A:360:GLU:CD	1:A:360:GLU:OE2[18_545]	0.99	1.21
1:A:244:LEU:CG	1:C:244:LEU:CD2[9_555]	1.09	1.11
1:A:244:LEU:CD2	1:C:244:LEU:CG[9_555]	1.10	1.10
1:C:335:LEU:CD1	1:C:335:LEU:CD1[18_545]	1.10	1.10
1:A:246:GLU:CG	1:C:154:GLU:CD[9_555]	1.12	1.08
1:C:331:GLU:CD	1:C:332:GLU:CG[18_545]	1.17	1.03
1:A:154:GLU:CD	1:C:246:GLU:CG[9_555]	1.25	0.95
1:A:244:LEU:CG	1:C:244:LEU:CG[9_555]	1.26	0.94
1:A:360:GLU:CD	1:A:360:GLU:OE1[18_545]	1.26	0.94
1:A:246:GLU:CD	1:C:154:GLU:OE1[9_555]	1.29	0.91
1:A:154:GLU:OE1	1:C:246:GLU:CD[9_555]	1.34	0.86
1:A:246:GLU:CG	1:C:154:GLU:OE2[9_555]	1.37	0.83
1:A:154:GLU:OE2	1:C:246:GLU:CG[9_555]	1.41	0.79
1:C:331:GLU:OE1	1:C:332:GLU:CD[18_545]	1.42	0.78
1:C:331:GLU:OE1	1:C:332:GLU:OE1[18_545]	1.46	0.74
1:A:246:GLU:CD	1:C:154:GLU:CD[9_555]	1.49	0.71
1:A:154:GLU:CD	1:C:246:GLU:CD[9_555]	1.52	0.68
1:A:244:LEU:CD2	1:C:244:LEU:CA[9_555]	1.68	0.52
1:A:244:LEU:CG	1:C:244:LEU:CB[9_555]	1.68	0.52
1:A:154:GLU:CD	1:C:246:GLU:OE2[9_555]	1.71	0.49
1:A:244:LEU:CA	1:C:244:LEU:CD2[9_555]	1.71	0.49
1:A:244:LEU:CB	1:C:244:LEU:CG[9_555]	1.71	0.49
1:C:331:GLU:OE1	1:C:332:GLU:CG[18_545]	1.73	0.47
1:A:246:GLU:OE2	1:C:154:GLU:CD[9_555]	1.74	0.46
1:A:360:GLU:CG	1:A:360:GLU:OE2[18_545]	1.80	0.40
1:C:331:GLU:CD	1:C:332:GLU:CD[18_545]	1.80	0.40
1:A:246:GLU:CG	1:C:154:GLU:OE1[9_555]	1.89	0.31
1:A:246:GLU:CG	1:C:154:GLU:CG[9_555]	1.95	0.25
1:A:246:GLU:CD	1:C:154:GLU:CG[9_555]	1.96	0.24
1:A:154:GLU:OE1	1:C:246:GLU:CG[9_555]	1.97	0.23
1:A:247:LYS:O	1:C:234:LYS:NZ[9_555]	1.99	0.21
1:A:154:GLU:CG	1:C:246:GLU:CD[9_555]	2.05	0.15
1:A:154:GLU:CG	1:C:246:GLU:CG[9_555]	2.07	0.13
1:A:234:LYS:NZ	1:C:247:LYS:O[9_555]	2.07	0.13



Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:338:ARG:NH1	2:B:56:GLU:OE2[18_545]	2.11	0.09
1:A:360:GLU:OE1	1:A:360:GLU:OE2[18_545]	2.17	0.03

#### 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	$\mathbf{ntiles}$
1	А	296/401~(74%)	283~(96%)	12~(4%)	1 (0%)	37	73
1	С	296/401~(74%)	283~(96%)	12~(4%)	1 (0%)	37	73
2	В	72/74~(97%)	70~(97%)	2(3%)	0	100	100
2	D	72/74~(97%)	70~(97%)	2(3%)	0	100	100
All	All	736/950~(78%)	706~(96%)	28~(4%)	2~(0%)	37	73

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	А	313	SER
1	С	313	SER

#### 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	А	269/358~(75%)	264~(98%)	5(2%)	52 69
1	С	269/358~(75%)	264 (98%)	5(2%)	52 69



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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	В	61/61~(100%)	59~(97%)	2(3%)	33 52
2	D	61/61~(100%)	59~(97%)	2(3%)	33 52
All	All	660/838~(79%)	646~(98%)	14 (2%)	47 66

All (14) residues with a non-rotameric sidechain are listed below:

Mol	Chain	$\mathbf{Res}$	Type
1	А	165	LYS
1	А	220	MET
1	А	265	CYS
1	А	376	LEU
1	А	421	LYS
2	В	18	GLN
2	В	19	GLU
1	С	165	LYS
1	С	220	MET
1	С	265	CYS
1	С	376	LEU
1	С	421	LYS
2	D	18	GLN
2	D	19	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (6) such sidechains are listed below:

Mol	Chain	Res	Type
1	А	127	ASN
1	А	248	ASN
2	В	18	GLN
1	С	127	ASN
1	С	248	ASN
2	D	18	GLN

#### 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 oligosaccharides in this entry.

## 5.6 Ligand geometry (i)

Of 2 ligands modelled in this entry, 2 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

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	$\langle RSRZ \rangle$	# <b>RSRZ</b> >	-2	$OWAB(Å^2)$	Q<0.9
1	А	296/401~(73%)	1.00	47 (15%) 6	10	17, 34, 65, 91	6 (2%)
1	С	296/401~(73%)	1.07	60 (20%) 3	8	17, 33, 70, 95	6 (2%)
2	В	74/74~(100%)	0.65	9 (12%) 10	14	17, 23, 30, 36	0
2	D	74/74~(100%)	1.17	14 (18%) 4	8	41, 50, 56, 65	0
All	All	740/950~(77%)	1.01	130 (17%) 4	9	17, 34, 64, 95	12 (1%)

All (130) RSRZ outliers are listed below:

Mol	Chain	$\operatorname{Res}$	Type	RSRZ
1	С	210	ASN	7.8
1	А	210	ASN	7.6
1	А	263	HIS	5.6
1	С	171	LYS	5.6
1	А	244	LEU	5.4
1	С	331	GLU	5.4
1	А	165	LYS	5.3
2	D	73	TRP	5.0
1	С	244	LEU	4.9
1	А	171	LYS	4.9
1	А	204	LYS	4.8
1	С	328	LYS	4.8
1	А	364	LEU	4.7
2	D	41	LYS	4.7
1	С	118	SER	4.6
1	А	360	GLU	4.6
1	А	118	SER	4.5
1	А	389	LYS	4.4
1	А	159	TYR	4.2
1	С	263	HIS	4.2
1	С	165	LYS	4.2



Mol	Chain	Res	Type	RSRZ
1	С	251	VAL	4.1
1	А	267	GLU	4.1
1	С	363	TYR	4.1
1	А	251	VAL	4.0
1	С	246	GLU	3.9
2	D	7	GLY	3.8
2	D	17	PRO	3.7
1	С	226	ASP	3.6
1	А	294	ASP	3.5
1	А	277	ILE	3.5
1	С	389	LYS	3.5
1	А	399	SER	3.5
1	С	332	GLU	3.4
1	С	352	ARG	3.4
1	Α	246	GLU	3.4
1	С	131	SER	3.3
1	С	204	LYS	3.3
1	С	325	SER	3.2
1	С	203	GLY	3.2
1	А	398[A]	GLU	3.2
2	D	5	SER	3.2
2	В	32	CYS	3.1
1	А	298	ARG	3.1
1	С	399	SER	3.1
2	D	24	TYR	3.1
1	С	247	LYS	3.0
1	А	324	ARG	3.0
2	В	53	GLN	3.0
1	A	370	ASP	2.9
1	С	364	LEU	2.9
2	D	14	SER	2.9
1	С	298	ARG	2.9
1	А	242	ARG	2.9
2	В	73	TRP	2.9
1	А	322	TYR	2.9
1	А	249	ALA	2.8
1	С	349	ARG	2.8
1	А	371	ASP	2.8
2	В	36	LYS	2.8
1	С	294	ASP	2.7
2	D	53	GLN	2.7
1	С	354	THR	2.7

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Mol	Chain	Res	Type	RSRZ	
1	С	334	SER	2.7	
1	С	380	TYR	2.6	
2	D	66	LYS	2.6	
1	С	319	PRO	2.6	
1	А	162	LYS	2.6	
1	А	325	SER	2.6	
1	А	226	ASP	2.6	
1	С	242	ARG	2.6	
1	С	248	ASN	2.6	
2	D	1	ASN	2.5	
1	С	127	ASN	2.5	
1	С	379	LYS	2.5	
1	А	247	LYS	2.5	
1	С	257	ARG	2.5	
1	A	145	GLU	2.5	
1	С	245	HIS	2.5	
2	В	13	GLN	2.5	
1	С	122	GLN	2.4	
1	С	414	LYS	2.4	
1	С	350	ASN	2.4	
1	А	309	MET	2.4	
1	А	276	GLU	2.4	
1	С	233	LYS	2.4	
1	С	119	TYR	2.4	
1	С	348	HIS	2.4	
1	С	256	ASN	2.4	
1	А	271	SER	2.4	
1	А	120	TYR	2.3	
1	С	260	ALA	2.3	
1	A	356	GLY	2.3	
1	С	249	ALA	2.3	
1	А	156	TYR	2.3	
1	C	237	MET	2.3	
2	D	58	GLN	2.3	
1	С	183	ARG	2.3	
1	С	342	PHE	2.3	
1	A	245	HIS	2.2	
1	С	123	TYR	2.2	
1	A	148	HIS	2.2	
2	В	19	GLU	2.2	
1	С	301	LYS	2.2	
2	В	67	GLY	2.2	



Mol	Chain	Res	Type	RSRZ	
1	А	123	TYR	2.2	
1	А	328	LYS	2.2	
2	D	25	GLY	2.2	
1	С	290	LYS	2.2	
1	С	272	SER	2.2	
2	D	68	GLN	2.2	
1	А	301	LYS	2.2	
1	С	398[A]	GLU	2.2	
1	С	322	TYR	2.1	
1	А	180	ILE	2.1	
1	С	288	GLU	2.1	
1	С	370	ASP	2.1	
1	А	366	PRO	2.1	
1	А	127	ASN	2.1	
1	С	184	GLU	2.1	
1	С	273	SER	2.1	
1	С	120 7		2.1	
1	С	151	SER	2.0	
1	А	233	LYS	2.0	
2	В	52	ARG	2.0	
1	С	180	ILE	2.0	
1	А	382	PHE	2.0	
2	D	6	LYS	2.0	
2	В	59	ALA	2.0	
1	А	213	LYS	2.0	

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### 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	$\mathbf{B} ext{-factors}(\mathbf{A}^2)$	Q<0.9
3	ZN	А	999	1/1	1.00	0.15	22,22,22,22	0
3	ZN	С	999	1/1	1.00	0.12	20,20,20,20	0

## 6.5 Other polymers (i)

There are no such residues in this entry.

