Full wwPDB X-ray Structure Validation Report (i)

Mar 6, 2026 – 02:33 PM UTC

PDB ID	:	9XYL / pdb_00009xyl
Title	:	Human prolyl endopeptidase (PREP) - complex with S17092
Authors	:	Fucci, I.J.; Yoo, E.; Monteiro, D.C.F.
Deposited on	:	2025-08-26
Resolution	:	1.81 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 (i)) were used in the production of this report:

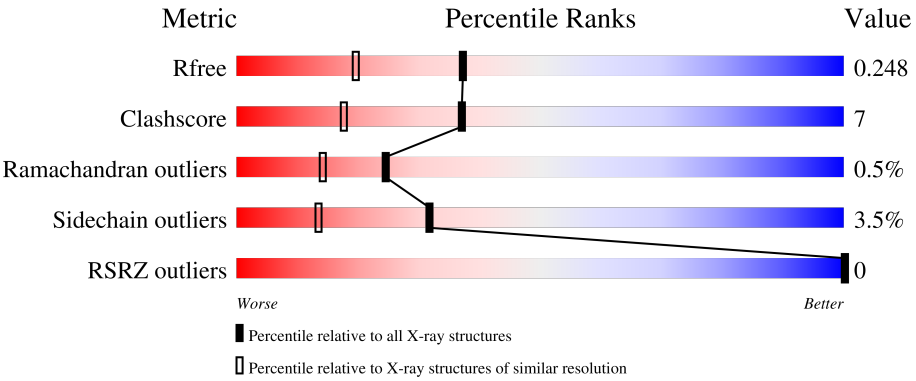
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal 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 (i)

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

The reported resolution of this entry is 1.81 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 (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1112 (1.82-1.82)
Clashscore	190562	1148 (1.82-1.82)
Ramachandran outliers	187476	1140 (1.82-1.82)
Sidechain outliers	187428	1140 (1.82-1.82)
RSRZ outliers	180081	1112 (1.82-1.82)

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	A	711	77% 19% • ••
1	B	711	75% 20% • ••
1	C	711	76% 20% • ••
1	D	711	74% 22% • ••
1	E	711	72% 23% 5% ••

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Mol	Chain	Length	Quality of chain
1	F	711	74% 21%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	SCN	A	805	-	-	X	-
4	SCN	C	805	-	-	X	-

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 69507 atoms, of which 33414 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.

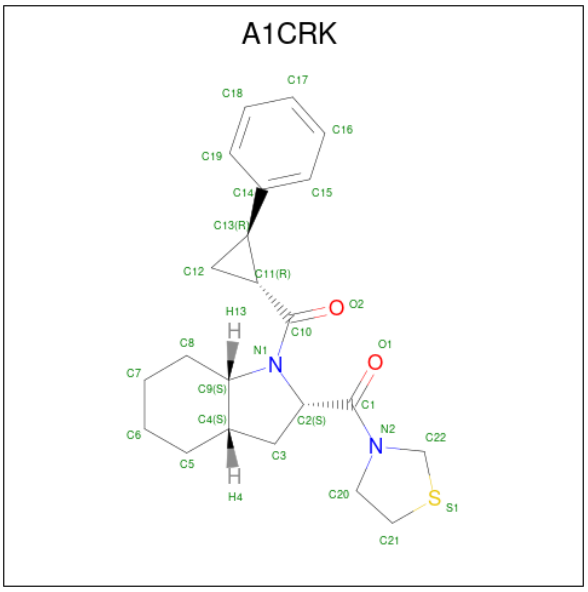
- Molecule 1 is a protein called Prolyl endopeptidase.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	707	Total	C	H	N	O	S	178	3	0
			11229	3651	5538	943	1070	27			
1	B	707	Total	C	H	N	O	S	177	0	0
			11187	3639	5514	941	1066	27			
1	C	707	Total	C	H	N	O	S	177	0	0
			11187	3639	5514	941	1066	27			
1	D	707	Total	C	H	N	O	S	177	1	0
			11199	3643	5520	941	1068	27			
1	E	707	Total	C	H	N	O	S	177	0	0
			11187	3639	5514	941	1066	27			
1	F	707	Total	C	H	N	O	S	177	0	0
			11187	3639	5514	941	1066	27			

There are 6 discrepancies between the modelled and reference sequences:

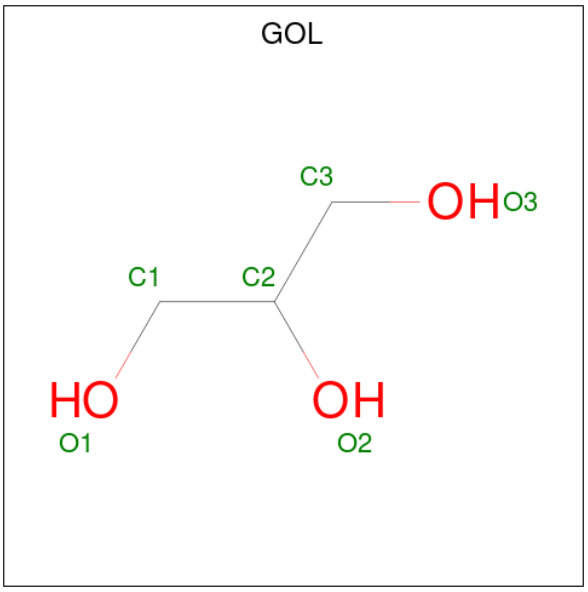
Chain	Residue	Modelled	Actual	Comment	Reference
A	1	GLY	-	expression tag	UNP P48147
B	1	GLY	-	expression tag	UNP P48147
C	1	GLY	-	expression tag	UNP P48147
D	1	GLY	-	expression tag	UNP P48147
E	1	GLY	-	expression tag	UNP P48147
F	1	GLY	-	expression tag	UNP P48147

- Molecule 2 is {(2S,3aS,7aS)-1-[(1R,2R)-2-phenylcyclopropane-1-carbonyl]octahydro-1H-indol-2-yl}(1,3-thiazolidin-3-yl)methanone (CCD ID: A1CRK) (formula: $C_{22}H_{28}N_2O_2S$) (labeled as "Ligand of Interest" by depositor).



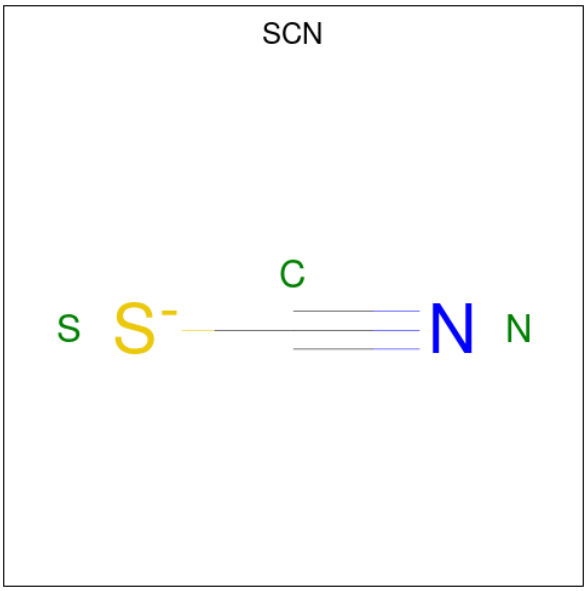
Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
2	A	1	Total	C	H	N	O	S	0	0
			55	22	28	2	2	1		
2	B	1	Total	C	H	N	O	S	0	0
			55	22	28	2	2	1		
2	C	1	Total	C	H	N	O	S	0	0
			55	22	28	2	2	1		
2	D	1	Total	C	H	N	O	S	0	0
			55	22	28	2	2	1		
2	E	1	Total	C	H	N	O	S	0	0
			55	22	28	2	2	1		
2	F	1	Total	C	H	N	O	S	0	0
			55	22	28	2	2	1		

- Molecule 3 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



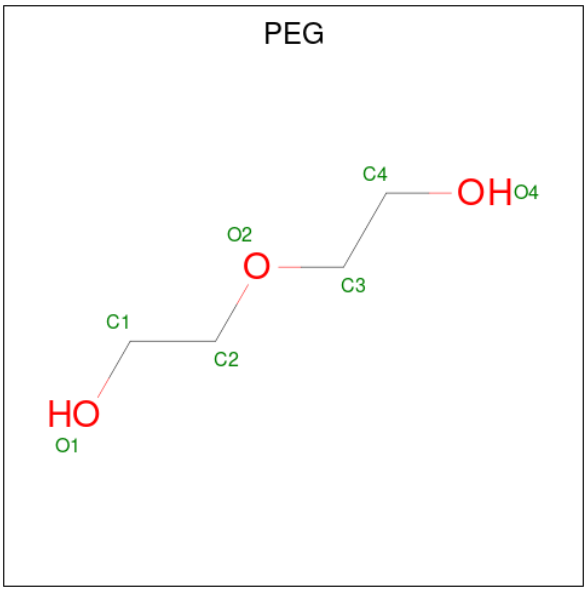
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	H	O	3	0
			14	3	8	3		
3	A	1	Total	C	H	O	3	0
			14	3	8	3		
3	A	1	Total	C	H	O	3	0
			14	3	8	3		
3	A	1	Total	C	H	O	3	0
			14	3	8	3		
3	B	1	Total	C	H	O	3	0
			14	3	8	3		
3	B	1	Total	C	H	O	3	0
			14	3	8	3		
3	B	1	Total	C	H	O	3	0
			14	3	8	3		
3	C	1	Total	C	H	O	3	0
			14	3	8	3		
3	C	1	Total	C	H	O	3	0
			14	3	8	3		
3	D	1	Total	C	H	O	3	0
			14	3	8	3		
3	E	1	Total	C	H	O	3	0
			14	3	8	3		
3	E	1	Total	C	H	O	3	0
			14	3	8	3		

- Molecule 4 is THIOCYANATE ION (CCD ID: SCN) (formula: CNS).



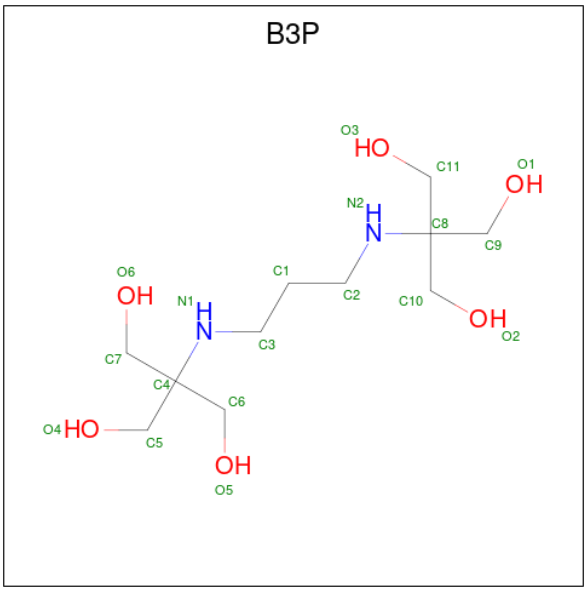
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C N S 3 1 1 1	0	0
4	B	1	Total C N S 3 1 1 1	0	0
4	C	1	Total C N S 3 1 1 1	0	0
4	C	1	Total C N S 3 1 1 1	0	0
4	D	1	Total C N S 3 1 1 1	0	0
4	E	1	Total C N S 3 1 1 1	0	0
4	E	1	Total C N S 3 1 1 1	0	0

- Molecule 5 is DI(HYDROXYETHYL)ETHER (CCD ID: PEG) (formula: $C_4H_{10}O_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	H	O		
5	A	1	17	4	10	3	2	0

- Molecule 6 is 2-[3-(2-HYDROXY-1,1-DIHYDROXYMETHYL-ETHYLAMINO)-PROPYLAMINO]-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (CCD ID: B3P) (formula: $C_{11}H_{26}N_2O_6$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	H	N	O		
6	C	1	45	11	26	2	6	8	0

- Molecule 7 is water.

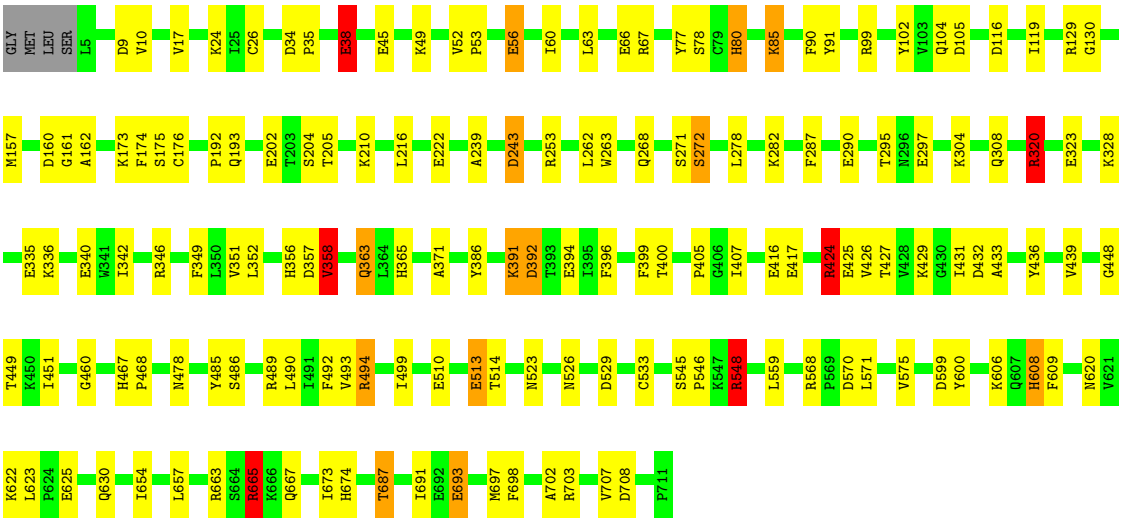
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	343	Total O 345 345	0	2
7	B	328	Total O 328 328	0	0
7	C	325	Total O 325 325	0	0
7	D	246	Total O 246 246	0	0
7	E	226	Total O 226 226	0	0
7	F	279	Total O 280 280	0	1

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.

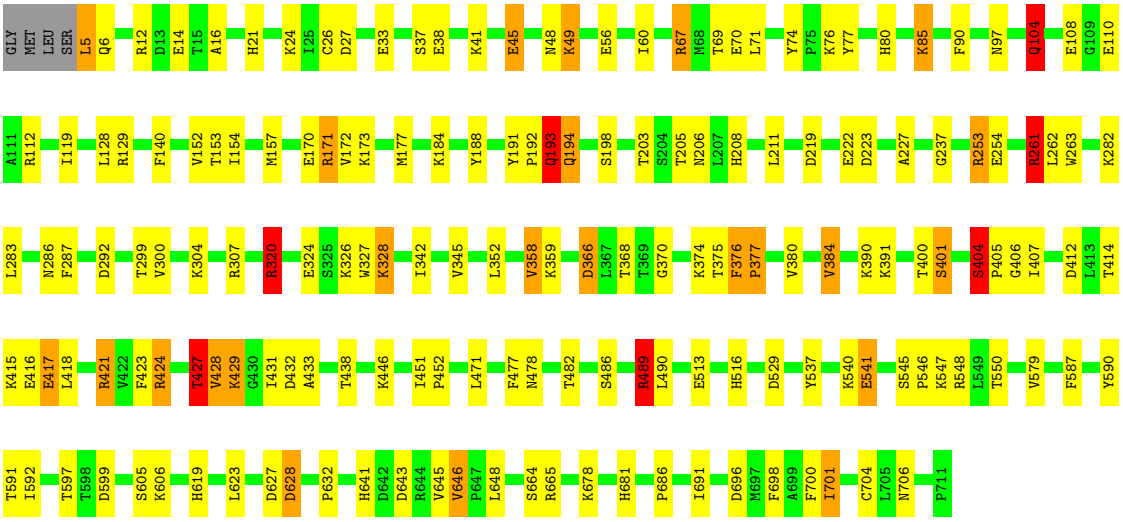
• Molecule 1: Prolyl endopeptidase

Chain A:



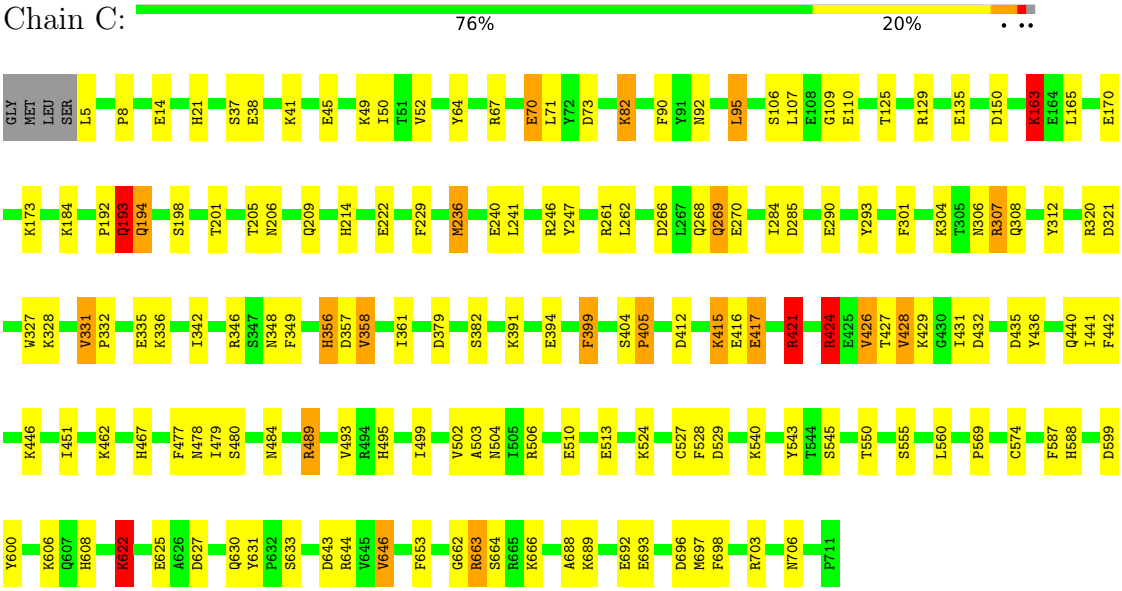
• Molecule 1: Prolyl endopeptidase

Chain B:



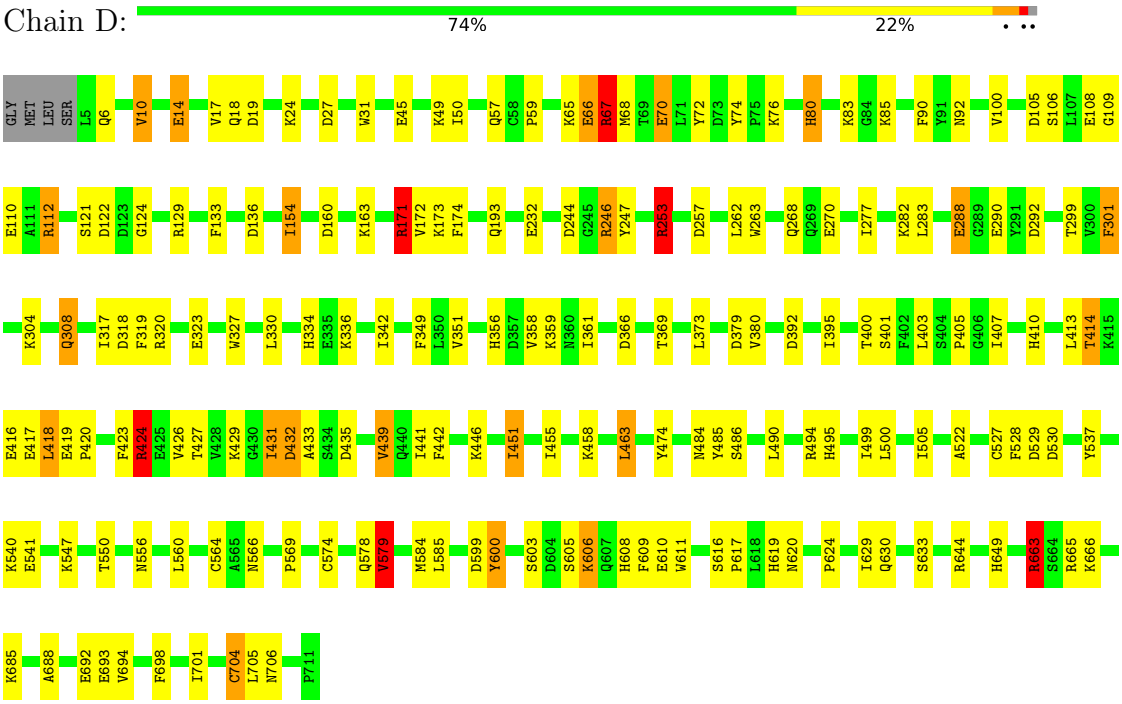
• Molecule 1: Prolyl endopeptidase

Chain C:



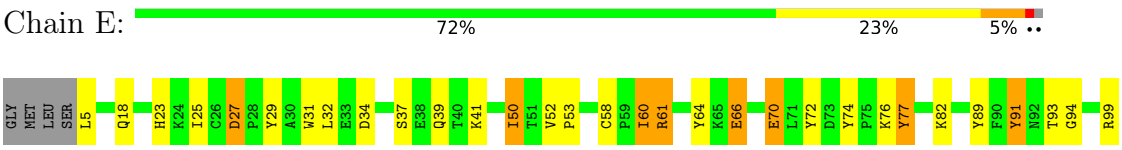
• Molecule 1: Prolyl endopeptidase

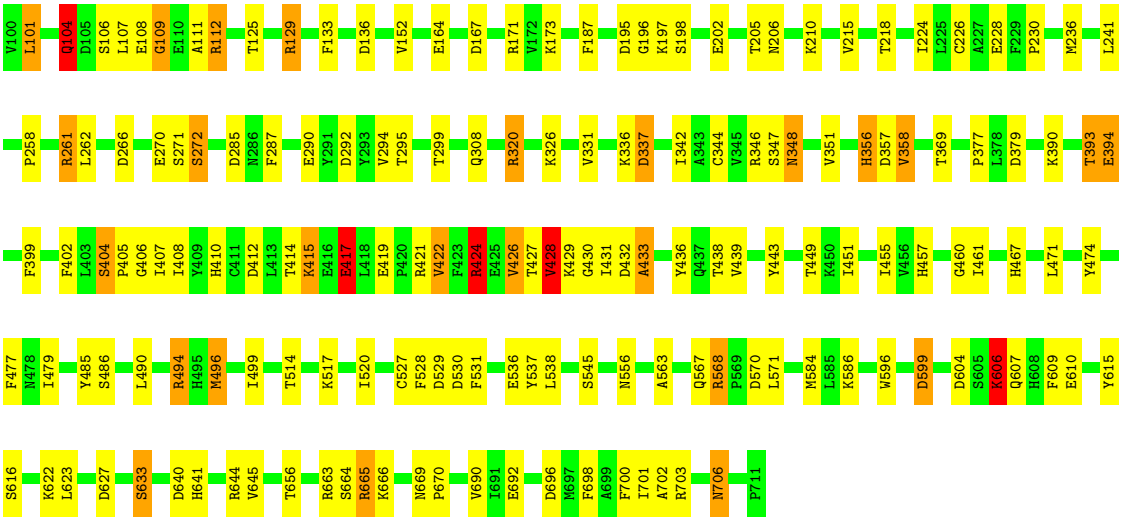
Chain D:



• Molecule 1: Prolyl endopeptidase

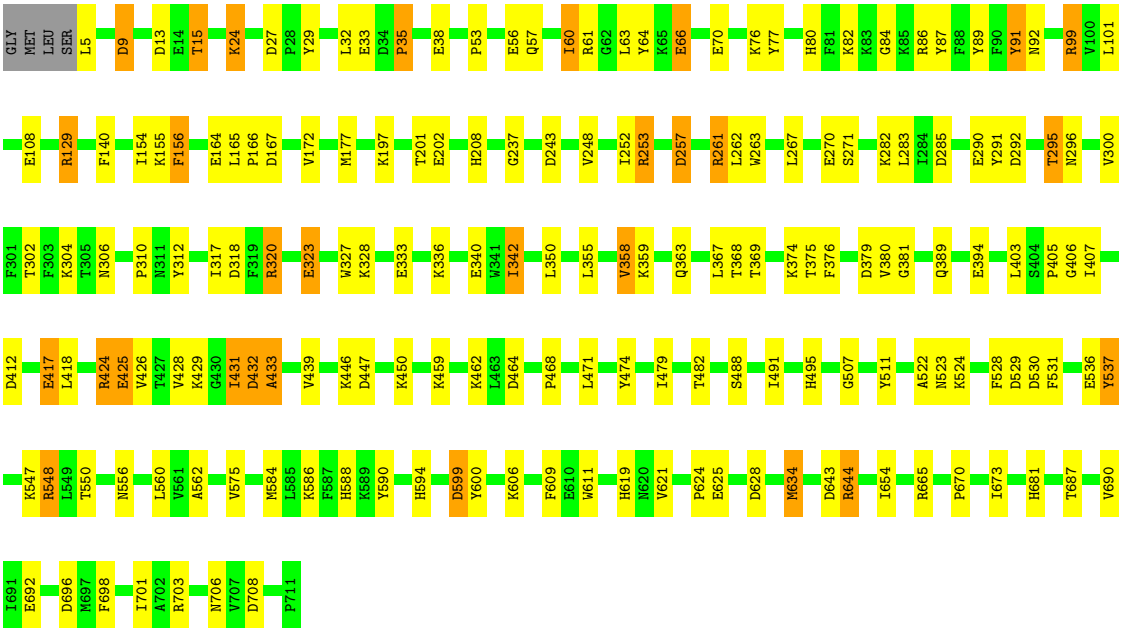
Chain E:





• Molecule 1: Prolyl endopeptidase

Chain F:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	67.19Å 105.73Å 155.67Å 81.78° 89.79° 89.70°	Depositor
Resolution (Å)	29.68 – 1.81 29.68 – 1.81	Depositor EDS
% Data completeness (in resolution range)	74.1 (29.68-1.81) 74.1 (29.68-1.81)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.83 (at 1.82Å)	Xtriage
Refinement program	REFMAC 5.8.0430 (refmacat 0.4.100)	Depositor
R, R_{free}	0.191 , 0.249 0.190 , 0.248	Depositor DCC
R_{free} test set	16444 reflections (5.06%)	wwPDB-VP
Wilson B-factor (Å^2)	22.1	Xtriage
Anisotropy	0.185	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.46 , 29.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	0.135 for h,-k,-l	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	69507	wwPDB-VP
Average B, all atoms (Å^2)	26.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 7.89% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] 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.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PEG, GOL, SCN, B3P, A1CRK

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	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	1.08	3/5849 (0.1%)	1.62	69/7929 (0.9%)
1	B	1.12	5/5825 (0.1%)	1.68	96/7897 (1.2%)
1	C	1.07	6/5825 (0.1%)	1.67	85/7897 (1.1%)
1	D	1.00	4/5834 (0.1%)	1.63	68/7909 (0.9%)
1	E	0.98	4/5825 (0.1%)	1.63	86/7897 (1.1%)
1	F	1.02	3/5825 (0.1%)	1.67	95/7897 (1.2%)
All	All	1.04	25/34983 (0.1%)	1.65	499/47426 (1.1%)

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 outliers	#Planarity outliers
1	A	0	8
1	B	0	8
1	C	0	7
1	D	0	8
1	E	0	8
1	F	0	5
All	All	0	44

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	401	SER	CA-CB	-7.53	1.43	1.53
1	B	681	HIS	CE1-NE2	-7.48	1.25	1.32
1	D	649	HIS	ND1-CE1	7.01	1.39	1.32
1	A	467	HIS	CG-CD2	6.97	1.43	1.35
1	C	480	SER	CA-CB	-6.84	1.43	1.53
1	E	633	SER	CA-CB	-6.38	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	681	HIS	CG-CD2	-6.13	1.29	1.35
1	B	16	ALA	CA-CB	-5.97	1.45	1.53
1	B	471	LEU	C-O	-5.97	1.17	1.24
1	F	588	HIS	CG-CD2	-5.86	1.29	1.35
1	F	479	ILE	CB-CG1	-5.71	1.42	1.53
1	A	674	HIS	CG-CD2	-5.58	1.29	1.35
1	D	395	ILE	C-O	-5.39	1.18	1.24
1	C	502	VAL	C-O	-5.31	1.18	1.24
1	E	514	THR	C-O	-5.28	1.17	1.24
1	E	224	ILE	C-O	-5.27	1.17	1.24
1	A	363	GLN	C-O	-5.26	1.17	1.23
1	C	503	ALA	CA-CB	-5.26	1.46	1.53
1	C	513	GLU	C-O	-5.22	1.17	1.24
1	D	253	ARG	NE-CZ	5.12	1.38	1.33
1	E	294	VAL	C-O	-5.11	1.18	1.24
1	C	608	HIS	CG-CD2	-5.08	1.30	1.35
1	F	261	ARG	NE-CZ	-5.08	1.27	1.33
1	D	330	LEU	C-O	-5.01	1.17	1.24
1	C	633	SER	CA-CB	-5.01	1.45	1.53

All (499) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	193	GLN	N-CA-CB	-13.77	87.80	109.69
1	B	193	GLN	CB-CA-C	12.26	134.83	110.42
1	A	548	ARG	CG-CD-NE	-10.81	88.22	112.00
1	D	424	ARG	CB-CA-C	-10.71	92.44	110.43
1	D	193	GLN	CB-CA-C	10.51	126.63	109.70
1	A	513	GLU	CB-CG-CD	9.61	128.93	112.60
1	E	419	GLU	CB-CA-C	9.43	119.51	110.17
1	C	331	VAL	CA-C-O	9.14	124.69	119.94
1	C	495	HIS	CA-CB-CG	-9.04	104.76	113.80
1	B	194	GLN	CB-CA-C	9.01	124.75	109.53
1	D	19	ASP	CA-CB-CG	9.01	121.61	112.60
1	D	163	LYS	CB-CA-C	8.99	125.04	110.29
1	B	529	ASP	CA-CB-CG	8.54	121.14	112.60
1	D	70	GLU	CB-CG-CD	8.49	127.04	112.60
1	A	513	GLU	N-CA-CB	8.49	123.30	110.22
1	C	38	GLU	CB-CG-CD	8.47	127.01	112.60
1	F	687	THR	CA-CB-OG1	-8.47	96.90	109.60
1	D	400	THR	CA-CB-OG1	-8.46	96.90	109.60
1	F	24	LYS	CB-CA-C	8.45	123.82	109.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	293	TYR	CB-CA-C	-8.44	96.39	109.89
1	F	35	PRO	CB-CA-C	-8.43	98.71	111.44
1	A	665	ARG	N-CA-CB	8.41	122.73	110.20
1	E	428	VAL	N-CA-CB	-8.34	101.44	110.53
1	E	615	TYR	N-CA-CB	8.31	122.35	110.88
1	B	157	MET	CG-SD-CE	-8.28	82.69	100.90
1	B	643	ASP	CA-CB-CG	8.22	120.82	112.60
1	B	253	ARG	CB-CG-CD	8.20	130.17	111.30
1	A	66	GLU	CB-CG-CD	8.16	126.47	112.60
1	B	424	ARG	CB-CA-C	-8.11	91.57	109.56
1	C	489	ARG	NE-CZ-NH1	-8.09	113.41	121.50
1	B	328	LYS	N-CA-CB	8.06	123.66	110.69
1	F	66	GLU	CB-CG-CD	8.04	126.27	112.60
1	F	708	ASP	CB-CA-C	8.00	124.18	109.46
1	F	507	GLY	O-C-N	7.91	130.21	122.77
1	F	381	GLY	CA-C-O	-7.85	115.49	120.91
1	F	417	GLU	CB-CG-CD	-7.81	99.33	112.60
1	F	295	THR	CA-CB-OG1	-7.74	97.99	109.60
1	D	14	GLU	CB-CA-C	7.74	124.67	110.36
1	D	292	ASP	CA-CB-CG	7.71	120.31	112.60
1	A	340	GLU	CB-CA-C	-7.68	97.88	110.79
1	C	399	PHE	CA-CB-CG	7.68	121.48	113.80
1	A	56	GLU	CB-CA-C	-7.67	97.65	110.68
1	D	423	PHE	N-CA-CB	-7.66	99.28	110.47
1	B	400	THR	CA-CB-OG1	7.66	121.09	109.60
1	E	133	PHE	CA-CB-CG	7.64	121.44	113.80
1	F	368	THR	CA-CB-OG1	-7.64	98.15	109.60
1	D	27	ASP	CA-CB-CG	7.63	120.23	112.60
1	C	184	LYS	CA-CB-CG	-7.62	98.86	114.10
1	E	514	THR	CA-CB-OG1	-7.53	98.30	109.60
1	B	261	ARG	CG-CD-NE	-7.53	95.43	112.00
1	E	164	GLU	CB-CA-C	-7.52	96.82	109.53
1	F	202	GLU	CB-CG-CD	7.51	125.37	112.60
1	D	160	ASP	CB-CA-C	-7.51	99.25	110.67
1	C	229	PHE	O-C-N	-7.48	114.68	121.34
1	C	428	VAL	N-CA-CB	7.44	119.05	110.49
1	E	609	PHE	CA-CB-CG	-7.41	106.39	113.80
1	E	61	ARG	N-CA-CB	7.38	120.94	109.94
1	A	494	ARG	N-CA-CB	-7.33	99.28	110.13
1	C	321	ASP	CA-CB-CG	7.33	119.93	112.60
1	C	489	ARG	CD-NE-CZ	-7.32	114.16	124.40
1	D	706	ASN	CB-CA-C	-7.29	101.46	112.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	125	THR	CA-CB-OG1	-7.25	98.72	109.60
1	A	698	PHE	CA-CB-CG	-7.24	106.56	113.80
1	E	93	THR	CA-CB-OG1	-7.21	98.78	109.60
1	A	424	ARG	N-CA-CB	7.20	124.93	111.53
1	C	336	LYS	CB-CA-C	7.20	118.86	109.28
1	E	236	MET	CG-SD-CE	-7.19	85.09	100.90
1	C	417	GLU	CB-CG-CD	7.18	124.81	112.60
1	C	504	ASN	CA-CB-CG	-7.15	105.45	112.60
1	F	599	ASP	CA-CB-CG	7.15	119.75	112.60
1	F	108	GLU	CB-CA-C	-7.15	95.05	109.99
1	B	627	ASP	CA-CB-CG	7.12	119.72	112.60
1	F	257	ASP	CA-CB-CG	7.11	119.71	112.60
1	A	427	THR	CA-CB-OG1	-7.11	98.94	109.60
1	F	424	ARG	CB-CA-C	-7.11	97.23	111.17
1	B	27	ASP	CA-CB-CG	7.11	119.71	112.60
1	D	288	GLU	CB-CG-CD	7.11	124.69	112.60
1	E	641	HIS	CB-CG-CD2	-7.09	121.98	131.20
1	B	665	ARG	CG-CD-NE	-7.09	96.39	112.00
1	F	424	ARG	N-CA-CB	7.07	122.35	111.46
1	C	229	PHE	N-CA-CB	-7.05	99.85	110.99
1	A	492	PHE	CA-CB-CG	7.04	120.84	113.80
1	C	643	ASP	CA-CB-CG	7.03	119.63	112.60
1	F	537	TYR	CB-CA-C	7.03	121.91	110.88
1	B	416	GLU	CB-CG-CD	-6.96	100.76	112.60
1	C	421	ARG	CG-CD-NE	-6.96	96.68	112.00
1	D	6	GLN	CB-CA-C	-6.96	97.48	109.65
1	E	369	THR	CA-CB-OG1	-6.96	99.17	109.60
1	D	432	ASP	CA-CB-CG	6.91	119.51	112.60
1	C	335	GLU	N-CA-CB	-6.91	99.96	110.12
1	E	129	ARG	NE-CZ-NH1	-6.90	114.60	121.50
1	A	625	GLU	CB-CG-CD	6.88	124.31	112.60
1	C	493	VAL	N-CA-CB	6.86	118.58	110.55
1	A	222	GLU	CG-CD-OE2	-6.83	102.68	118.40
1	A	205	THR	CA-CB-OG1	-6.81	99.39	109.60
1	D	424	ARG	N-CA-CB	6.79	121.88	111.56
1	F	425	GLU	CA-C-N	-6.78	113.70	123.06
1	F	425	GLU	C-N-CA	-6.78	113.70	123.06
1	B	424	ARG	CG-CD-NE	-6.78	97.09	112.00
1	D	698	PHE	CA-CB-CG	-6.78	107.02	113.80
1	E	74	TYR	O-C-N	-6.76	115.99	121.80
1	E	287	PHE	CA-CB-CG	6.75	120.55	113.80
1	F	507	GLY	CA-C-N	6.74	129.82	121.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	507	GLY	C-N-CA	6.74	129.82	121.06
1	B	300	VAL	N-CA-CB	-6.71	103.03	111.41
1	F	237	GLY	CA-C-N	6.71	128.26	122.29
1	F	237	GLY	C-N-CA	6.71	128.26	122.29
1	B	38	GLU	CB-CA-C	-6.70	99.45	110.85
1	C	706	ASN	CB-CA-C	-6.69	101.79	112.09
1	C	90	PHE	CA-CB-CG	6.68	120.48	113.80
1	B	416	GLU	CG-CD-OE1	-6.67	103.05	118.40
1	D	290	GLU	N-CA-CB	6.67	121.52	110.52
1	B	646	VAL	CB-CA-C	6.66	118.34	110.68
1	B	366	ASP	CB-CA-C	-6.65	99.00	109.84
1	B	438	THR	CA-CB-OG1	-6.65	99.63	109.60
1	E	164	GLU	N-CA-CB	6.62	120.06	110.06
1	B	38	GLU	N-CA-CB	6.62	119.96	110.16
1	A	243	ASP	CB-CA-C	-6.62	98.38	110.63
1	B	377	PRO	CA-C-O	-6.61	113.18	120.92
1	C	45	GLU	CB-CA-C	6.61	121.77	110.79
1	F	328	LYS	CG-CD-CE	-6.58	96.16	111.30
1	D	85	LYS	CB-CA-C	-6.58	96.86	109.95
1	B	632	PRO	CB-CA-C	-6.56	102.66	111.12
1	C	21	HIS	CA-CB-CG	-6.55	107.25	113.80
1	B	423	PHE	N-CA-CB	-6.54	100.51	110.26
1	A	10	VAL	O-C-N	6.54	128.85	122.97
1	A	308	GLN	CB-CA-C	-6.53	101.19	111.51
1	B	69	THR	CA-CB-OG1	-6.53	99.80	109.60
1	F	619	HIS	CB-CG-CD2	-6.52	122.72	131.20
1	B	587	PHE	N-CA-CB	6.52	119.84	110.06
1	E	82	LYS	CB-CA-C	6.52	120.50	109.75
1	E	261	ARG	CG-CD-NE	-6.51	97.68	112.00
1	C	14	GLU	CB-CG-CD	6.49	123.64	112.60
1	F	369	THR	CA-CB-OG1	6.49	119.34	109.60
1	F	706	ASN	CB-CA-C	-6.48	100.92	112.27
1	D	427	THR	CA-CB-OG1	6.48	119.32	109.60
1	F	459	LYS	CB-CA-C	-6.48	99.79	109.90
1	B	287	PHE	CA-CB-CG	6.47	120.27	113.80
1	C	478	ASN	CB-CA-C	-6.46	100.83	111.36
1	C	95	LEU	N-CA-CB	-6.46	100.76	111.49
1	C	214	HIS	CB-CA-C	-6.45	99.74	110.19
1	D	334	HIS	CB-CA-C	6.45	121.32	109.46
1	C	506	ARG	NE-CZ-NH1	-6.42	115.08	121.50
1	E	422	VAL	N-CA-CB	6.42	117.53	110.53
1	E	692	GLU	N-CA-CB	6.42	119.56	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	136	ASP	CA-CB-CG	6.40	119.00	112.60
1	C	349	PHE	N-CA-CB	6.39	120.70	110.85
1	E	326	LYS	CB-CA-C	6.39	120.77	110.09
1	B	237	GLY	CA-C-O	-6.39	115.31	120.81
1	D	65	LYS	CB-CA-C	-6.39	98.81	110.63
1	F	665	ARG	NE-CZ-NH2	6.39	124.95	119.20
1	A	287	PHE	CA-CB-CG	6.38	120.18	113.80
1	A	392	ASP	CA-CB-CG	6.37	118.97	112.60
1	D	171	ARG	CG-CD-NE	-6.35	98.04	112.00
1	B	548	ARG	CG-CD-NE	-6.34	98.05	112.00
1	B	645	VAL	N-CA-CB	-6.33	103.69	111.67
1	E	187	PHE	N-CA-CB	6.33	119.91	110.29
1	B	628	ASP	CA-CB-CG	-6.32	106.28	112.60
1	F	548	ARG	NE-CZ-NH1	-6.32	115.18	121.50
1	F	208	HIS	CA-CB-CG	6.31	120.11	113.80
1	C	346	ARG	NE-CZ-NH2	6.31	124.88	119.20
1	B	108	GLU	CB-CA-C	6.30	120.83	111.06
1	C	696	ASP	CA-CB-CG	6.29	118.89	112.60
1	F	302	THR	CA-CB-OG1	-6.29	100.17	109.60
1	A	130	GLY	CA-C-O	-6.28	117.89	122.23
1	E	698	PHE	CA-CB-CG	-6.27	107.53	113.80
1	C	569	PRO	CB-CA-C	6.27	120.75	111.85
1	E	205	THR	CA-CB-OG1	-6.27	100.20	109.60
1	F	412	ASP	CB-CA-C	6.27	120.34	110.19
1	A	708	ASP	CB-CA-C	-6.25	99.21	109.53
1	F	164	GLU	CB-CG-CD	-6.25	101.97	112.60
1	B	193	GLN	N-CA-CB	-6.25	99.94	110.49
1	B	49	LYS	CB-CG-CD	6.24	125.66	111.30
1	D	67	ARG	CG-CD-NE	-6.23	98.29	112.00
1	D	270	GLU	CB-CG-CD	6.23	123.19	112.60
1	A	346	ARG	N-CA-CB	-6.22	99.98	110.49
1	A	271	SER	CA-C-N	-6.22	113.91	123.17
1	A	271	SER	C-N-CA	-6.22	113.91	123.17
1	C	510	GLU	CG-CD-OE2	-6.20	104.14	118.40
1	A	38	GLU	CB-CG-CD	6.18	123.10	112.60
1	E	606	LYS	N-CA-C	-6.16	104.49	111.14
1	F	323	GLU	CB-CA-C	-6.16	99.78	109.70
1	E	449	THR	CA-CB-OG1	-6.15	100.38	109.60
1	E	104	GLN	CB-CA-C	-6.14	97.20	109.79
1	E	622	LYS	CB-CA-C	6.12	120.24	109.89
1	F	375	THR	CA-CB-OG1	-6.12	100.41	109.60
1	A	608	HIS	CA-CB-CG	6.11	119.91	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	67	ARG	NE-CZ-NH2	6.11	124.70	119.20
1	D	529	ASP	CA-CB-CG	6.10	118.70	112.60
1	F	665	ARG	CD-NE-CZ	6.09	132.93	124.40
1	C	82	LYS	CB-CA-C	-6.09	99.25	109.48
1	F	590	TYR	CA-C-O	-6.09	114.28	121.16
1	B	597	THR	OG1-CB-CG2	6.07	121.45	109.30
1	A	130	GLY	N-CA-C	-6.07	105.50	112.29
1	C	222	GLU	CB-CG-CD	-6.07	102.29	112.60
1	F	536	GLU	CB-CG-CD	6.06	122.91	112.60
1	D	416	GLU	CB-CG-CD	6.05	122.89	112.60
1	F	140	PHE	CA-CB-CG	6.05	119.85	113.80
1	B	628	ASP	O-C-N	-6.05	115.08	122.34
1	E	70	GLU	CB-CG-CD	6.04	122.86	112.60
1	C	627	ASP	CB-CA-C	-6.03	99.09	110.67
1	B	421	ARG	CA-C-O	-6.02	114.30	121.11
1	D	67	ARG	NE-CZ-NH1	-6.01	115.49	121.50
1	B	477	PHE	N-CA-CB	-6.01	103.01	112.08
1	B	541	GLU	CB-CG-CD	6.01	122.81	112.60
1	F	447	ASP	CA-CB-CG	6.00	118.60	112.60
1	B	254	GLU	CB-CA-C	-6.00	102.71	111.23
1	A	335	GLU	CG-CD-OE2	-5.99	104.62	118.40
1	B	128	LEU	N-CA-CB	-5.99	100.79	109.83
1	E	369	THR	OG1-CB-CG2	5.99	121.28	109.30
1	E	438	THR	CA-CB-OG1	-5.99	100.62	109.60
1	C	290	GLU	CB-CA-C	-5.99	99.42	109.48
1	A	687	THR	CA-CB-OG1	-5.96	100.66	109.60
1	B	203	THR	CA-CB-OG1	-5.95	100.68	109.60
1	B	686	PRO	O-C-N	5.95	130.38	123.06
1	B	12	ARG	CD-NE-CZ	5.93	132.70	124.40
1	B	424	ARG	N-CA-CB	5.93	122.55	111.53
1	A	349	PHE	CA-CB-CG	5.91	119.71	113.80
1	D	163	LYS	N-CA-CB	-5.91	100.23	109.87
1	B	307	ARG	CD-NE-CZ	5.90	132.66	124.40
1	B	48	ASN	OD1-CG-ND2	-5.90	116.70	122.60
1	F	464	ASP	CA-CB-CG	5.90	118.50	112.60
1	D	136	ASP	CA-CB-CG	5.90	118.50	112.60
1	E	34	ASP	CA-CB-CG	5.89	118.49	112.60
1	E	337	ASP	CA-CB-CG	5.88	118.48	112.60
1	F	91	TYR	N-CA-CB	-5.88	100.60	111.13
1	F	99	ARG	CG-CD-NE	-5.88	99.07	112.00
1	E	295	THR	CA-CB-OG1	-5.87	100.79	109.60
1	B	489	ARG	NE-CZ-NH2	5.87	124.48	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	166	PRO	CB-CA-C	5.87	121.24	111.56
1	D	253	ARG	CB-CA-C	5.85	120.86	109.33
1	C	110	GLU	CB-CA-C	5.85	119.65	109.65
1	B	45	GLU	CB-CA-C	5.84	120.62	110.68
1	B	698	PHE	CA-CB-CG	-5.84	107.96	113.80
1	C	426	VAL	CA-C-N	5.83	132.06	121.97
1	C	426	VAL	C-N-CA	5.83	132.06	121.97
1	E	424	ARG	CB-CA-C	-5.83	97.91	110.45
1	B	320	ARG	CG-CD-NE	-5.83	99.18	112.00
1	B	292	ASP	CA-CB-CG	5.82	118.42	112.60
1	B	628	ASP	N-CA-CB	-5.82	102.07	110.56
1	F	177	MET	CG-SD-CE	5.81	113.69	100.90
1	B	417	GLU	CB-CA-C	5.80	120.86	109.72
1	D	564	CYS	CB-CA-C	5.79	120.40	110.79
1	D	80	HIS	CA-CB-CG	-5.79	108.01	113.80
1	E	270	GLU	CB-CG-CD	5.79	122.44	112.60
1	C	125	THR	CA-CB-OG1	-5.78	100.93	109.60
1	E	66	GLU	CB-CG-CD	5.77	122.42	112.60
1	A	335	GLU	CB-CG-CD	5.77	122.42	112.60
1	F	530	ASP	CA-CB-CG	5.77	118.37	112.60
1	A	657	LEU	N-CA-CB	-5.77	101.65	110.01
1	B	222	GLU	CG-CD-OE1	-5.77	105.13	118.40
1	E	696	ASP	CA-CB-CG	5.77	118.37	112.60
1	D	685	LYS	O-C-N	-5.76	116.17	121.30
1	E	527	CYS	CB-CA-C	-5.76	101.23	110.79
1	A	104	GLN	CG-CD-NE2	-5.75	107.77	116.40
1	B	304	LYS	CD-CE-NZ	5.75	130.30	111.90
1	C	356	HIS	CB-CG-ND1	-5.75	114.08	122.70
1	A	278	LEU	N-CA-CB	-5.73	101.74	110.45
1	A	606	LYS	O-C-N	5.73	127.97	122.07
1	A	510	GLU	CB-CG-CD	5.73	122.34	112.60
1	B	691	ILE	O-C-N	5.73	127.73	121.83
1	D	417	GLU	CB-CA-C	-5.72	101.18	110.79
1	C	600	TYR	N-CA-CB	-5.72	102.98	110.59
1	C	307	ARG	CD-NE-CZ	5.71	132.40	124.40
1	E	644	ARG	CB-CA-C	5.71	120.28	110.86
1	D	610	GLU	CB-CG-CD	5.70	122.30	112.60
1	B	205	THR	OG1-CB-CG2	-5.70	97.90	109.30
1	E	640	ASP	CA-CB-CG	5.70	118.30	112.60
1	E	27	ASP	CA-CB-CG	5.70	118.30	112.60
1	B	45	GLU	CG-CD-OE2	-5.69	105.31	118.40
1	D	66	GLU	CB-CA-C	5.69	121.11	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	690	VAL	N-CA-CB	5.68	116.82	110.62
1	E	412	ASP	CB-CA-C	5.68	119.71	110.22
1	C	415	LYS	N-CA-CB	5.68	119.94	110.85
1	C	440	GLN	OE1-CD-NE2	-5.68	116.92	122.60
1	E	402	PHE	CA-C-O	-5.68	114.53	120.55
1	F	621	VAL	N-CA-CB	5.67	117.30	110.95
1	A	268	GLN	N-CA-CB	5.67	118.95	110.22
1	B	619	HIS	CA-CB-CG	-5.67	108.13	113.80
1	C	698	PHE	CA-CB-CG	-5.66	108.14	113.80
1	E	490	LEU	N-CA-CB	5.66	119.06	110.28
1	F	507	GLY	CA-C-O	-5.66	114.63	119.56
1	B	375	THR	OG1-CB-CG2	-5.66	97.99	109.30
1	A	529	ASP	CA-CB-CG	5.65	118.25	112.60
1	E	50	ILE	CB-CA-C	-5.64	104.62	112.02
1	E	394	GLU	CB-CG-CD	5.64	122.19	112.60
1	D	122	ASP	CB-CA-C	-5.64	101.19	110.72
1	D	566	ASN	CA-CB-CG	5.63	118.23	112.60
1	C	689	LYS	N-CA-CB	5.62	118.96	110.30
1	A	56	GLU	CG-CD-OE2	-5.62	105.47	118.40
1	F	529	ASP	CA-CB-CG	5.62	118.22	112.60
1	F	698	PHE	CA-CB-CG	-5.61	108.19	113.80
1	F	625	GLU	N-CA-CB	5.61	118.47	110.16
1	D	495	HIS	CB-CA-C	5.61	119.41	109.65
1	F	129	ARG	CB-CA-C	-5.60	104.09	111.82
1	E	663	ARG	CD-NE-CZ	5.60	132.24	124.40
1	A	620	ASN	CA-CB-CG	-5.59	107.01	112.60
1	C	646	VAL	N-CA-CB	5.59	117.20	110.33
1	B	400	THR	OG1-CB-CG2	-5.59	98.13	109.30
1	B	374	LYS	N-CA-CB	-5.58	101.14	111.13
1	F	56	GLU	CB-CA-C	-5.58	101.19	110.68
1	B	140	PHE	CA-CB-CG	5.58	119.38	113.80
1	F	462	LYS	CB-CA-C	-5.58	100.08	109.50
1	E	414	THR	OG1-CB-CG2	-5.57	98.16	109.30
1	D	620	ASN	CA-CB-CG	-5.57	107.03	112.60
1	B	153	THR	CA-C-N	-5.57	115.92	122.93
1	B	153	THR	C-N-CA	-5.57	115.92	122.93
1	F	537	TYR	N-CA-CB	-5.56	101.94	110.01
1	A	193	GLN	CB-CA-C	-5.56	99.66	109.62
1	A	297	GLU	CB-CG-CD	5.56	122.06	112.60
1	C	606	LYS	N-CA-C	-5.56	105.13	111.14
1	F	562	ALA	N-CA-C	5.56	117.14	111.14
1	C	625	GLU	CB-CA-C	-5.55	101.41	110.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	438	THR	OG1-CB-CG2	5.55	120.40	109.30
1	C	49	LYS	CB-CG-CD	5.55	124.06	111.30
1	E	538	LEU	N-CA-CB	5.54	118.27	110.12
1	B	67	ARG	NE-CZ-NH1	-5.54	115.96	121.50
1	A	335	GLU	CG-CD-OE1	5.54	131.14	118.40
1	A	514	THR	CA-CB-OG1	-5.54	101.29	109.60
1	C	266	ASP	CA-CB-CG	5.54	118.14	112.60
1	B	696	ASP	CA-CB-CG	5.54	118.14	112.60
1	C	356	HIS	CB-CG-CD2	5.53	138.39	131.20
1	E	690	VAL	CA-C-O	-5.53	115.37	121.29
1	E	331	VAL	N-CA-CB	5.53	118.95	111.21
1	A	216	LEU	N-CA-CB	-5.53	101.61	109.85
1	C	706	ASN	CA-CB-CG	-5.52	107.08	112.60
1	A	396	PHE	CA-CB-CG	-5.52	108.28	113.80
1	D	301	PHE	N-CA-CB	-5.51	101.81	110.69
1	F	665	ARG	NE-CZ-NH1	-5.51	115.99	121.50
1	A	340	GLU	N-CA-CB	5.50	118.28	110.13
1	F	53	PRO	CB-CA-C	5.50	120.14	112.11
1	E	72	TYR	N-CA-C	-5.49	106.42	113.23
1	D	369	THR	OG1-CB-CG2	5.49	120.28	109.30
1	F	368	THR	CA-CB-CG2	5.49	119.83	110.50
1	C	236	MET	CG-SD-CE	5.49	112.98	100.90
1	C	184	LYS	CG-CD-CE	-5.49	98.68	111.30
1	B	412	ASP	CA-CB-CG	5.48	118.08	112.60
1	E	568	ARG	NE-CZ-NH1	-5.48	116.02	121.50
1	F	304	LYS	CB-CA-C	-5.48	100.90	109.84
1	D	610	GLU	CG-CD-OE1	5.48	131.01	118.40
1	C	301	PHE	CA-CB-CG	-5.48	108.32	113.80
1	A	80	HIS	CB-CG-CD2	-5.47	124.08	131.20
1	F	318	ASP	CA-CB-CG	5.47	118.08	112.60
1	B	320	ARG	CB-CA-C	-5.47	100.17	110.01
1	F	482	THR	CA-C-N	5.46	125.47	119.90
1	F	482	THR	C-N-CA	5.46	125.47	119.90
1	B	427	THR	CA-CB-OG1	-5.46	101.42	109.60
1	B	482	THR	N-CA-CB	-5.46	103.50	109.72
1	B	104	GLN	N-CA-CB	5.45	121.00	111.13
1	B	108	GLU	CB-CG-CD	5.45	121.86	112.60
1	B	170	GLU	N-CA-CB	-5.45	101.74	110.51
1	F	670	PRO	CB-CA-C	-5.44	104.27	111.23
1	D	414	THR	OG1-CB-CG2	-5.44	98.42	109.30
1	D	419	GLU	CB-CA-C	5.43	119.01	110.71
1	C	201	THR	OG1-CB-CG2	-5.42	98.45	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	91	TYR	CB-CA-C	5.42	119.05	109.89
1	A	290	GLU	CG-CD-OE2	-5.42	105.93	118.40
1	A	533	CYS	CA-C-O	-5.42	113.74	119.97
1	D	244	ASP	CA-CB-CG	5.42	118.02	112.60
1	E	196	GLY	O-C-N	5.42	127.56	122.90
1	C	662	GLY	O-C-N	-5.42	116.56	122.84
1	A	606	LYS	CA-C-N	5.41	127.79	120.38
1	A	606	LYS	C-N-CA	5.41	127.79	120.38
1	B	326	LYS	CG-CD-CE	5.41	123.74	111.30
1	A	513	GLU	CB-CA-C	-5.40	100.64	110.63
1	B	198	SER	CA-CB-OG	-5.40	100.30	111.10
1	B	432	ASP	CA-CB-CG	5.39	117.99	112.60
1	C	135	GLU	N-CA-CB	-5.38	102.20	110.12
1	F	129	ARG	CA-CB-CG	-5.38	103.33	114.10
1	B	191	TYR	CB-CA-C	5.37	115.81	109.47
1	D	704	CYS	O-C-N	-5.37	116.03	122.15
1	E	393	THR	CA-CB-OG1	5.37	117.65	109.60
1	E	226	CYS	CB-CA-C	5.37	118.09	109.07
1	C	163	LYS	CB-CA-C	-5.36	100.90	109.75
1	F	594	HIS	CB-CG-CD2	-5.36	124.23	131.20
1	A	160	ASP	CA-CB-CG	5.35	117.95	112.60
1	B	90	PHE	CA-CB-CG	5.34	119.14	113.80
1	D	663	ARG	CB-CG-CD	5.34	123.59	111.30
1	C	240	GLU	CG-CD-OE2	-5.33	106.14	118.40
1	F	300	VAL	N-CA-CB	5.33	118.08	111.41
1	C	270	GLU	CG-CD-OE2	-5.33	106.15	118.40
1	E	570	ASP	CB-CA-C	-5.33	99.31	110.17
1	B	416	GLU	N-CA-CB	-5.32	101.55	110.39
1	C	424	ARG	CD-NE-CZ	-5.32	116.95	124.40
1	C	484	ASN	CA-CB-CG	-5.32	107.28	112.60
1	F	92	ASN	CA-C-O	-5.31	114.48	120.32
1	D	600	TYR	N-CA-CB	-5.31	103.53	110.59
1	F	363	GLN	N-CA-CB	-5.30	101.67	111.53
1	F	376	PHE	CA-C-O	5.30	123.24	119.32
1	F	548	ARG	CG-CD-NE	-5.30	100.35	112.00
1	A	493	VAL	O-C-N	-5.29	116.40	121.90
1	D	59	PRO	N-CA-C	-5.29	106.83	114.18
1	A	568	ARG	CD-NE-CZ	5.28	131.79	124.40
1	F	156	PHE	CA-CB-CG	5.28	119.08	113.80
1	C	415	LYS	CB-CA-C	-5.28	99.72	109.37
1	C	606	LYS	O-C-N	5.28	127.79	122.09
1	E	656	THR	O-C-N	5.27	127.78	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	600	TYR	N-CA-CB	-5.26	102.79	110.53
1	E	167	ASP	CA-CB-CG	5.26	117.86	112.60
1	F	15	THR	CA-CB-OG1	-5.26	101.71	109.60
1	F	619	HIS	CA-CB-CG	-5.26	108.54	113.80
1	E	210	LYS	CB-CA-C	-5.25	99.76	109.37
1	E	706	ASN	CA-CB-CG	-5.25	107.35	112.60
1	E	299	THR	CA-C-N	-5.25	116.18	122.90
1	E	299	THR	C-N-CA	-5.25	116.18	122.90
1	E	494	ARG	CG-CD-NE	-5.25	100.45	112.00
1	B	368	THR	CA-CB-OG1	-5.25	101.73	109.60
1	C	70	GLU	N-CA-C	-5.24	105.48	111.14
1	C	462	LYS	CB-CA-C	5.24	118.40	109.80
1	A	460	GLY	CA-C-N	-5.24	113.46	120.95
1	A	460	GLY	C-N-CA	-5.24	113.46	120.95
1	D	349	PHE	CB-CA-C	-5.24	99.00	109.33
1	D	527	CYS	CB-CA-C	-5.24	102.42	110.81
1	F	624	PRO	CB-CA-C	-5.24	104.70	111.46
1	E	706	ASN	CB-CA-C	-5.24	104.46	112.11
1	F	692	GLU	CB-CA-C	-5.24	102.66	110.88
1	F	342	ILE	CA-C-O	-5.24	115.30	120.90
1	A	575	VAL	CA-C-N	-5.23	116.14	123.10
1	A	575	VAL	C-N-CA	-5.23	116.14	123.10
1	C	446	LYS	N-CA-CB	-5.23	101.25	109.78
1	B	56	GLU	CB-CA-C	-5.22	100.98	110.63
1	C	653	PHE	N-CA-CB	5.22	117.57	110.01
1	F	155	LYS	CB-CA-C	5.22	120.05	110.24
1	F	696	ASP	CA-CB-CG	5.22	117.82	112.60
1	C	170	GLU	CG-CD-OE1	-5.21	106.43	118.40
1	F	548	ARG	CD-NE-CZ	-5.21	117.11	124.40
1	C	52	VAL	N-CA-CB	5.20	114.51	110.45
1	D	414	THR	CA-CB-OG1	5.20	117.40	109.60
1	C	129	ARG	CB-CG-CD	5.20	123.26	111.30
1	E	356	HIS	CA-CB-CG	5.20	119.00	113.80
1	E	529	ASP	CA-CB-CG	5.20	117.80	112.60
1	E	530	ASP	CA-CB-CG	5.20	117.80	112.60
1	E	528	PHE	CA-CB-CG	5.20	119.00	113.80
1	C	194	GLN	CA-C-O	-5.19	115.09	120.70
1	A	340	GLU	CB-CG-CD	-5.19	103.78	112.60
1	D	685	LYS	CA-C-O	5.19	124.63	119.75
1	F	529	ASP	N-CA-C	-5.19	105.52	111.07
1	A	400	THR	OG1-CB-CG2	-5.18	98.93	109.30
1	E	377	PRO	CB-CA-C	5.18	118.11	111.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	415	LYS	CB-CA-C	-5.18	99.45	109.76
1	D	579	VAL	N-CA-CB	-5.17	102.69	111.23
1	A	202	GLU	CA-C-N	-5.17	114.53	122.60
1	A	202	GLU	C-N-CA	-5.17	114.53	122.60
1	F	375	THR	OG1-CB-CG2	-5.16	98.97	109.30
1	F	379	ASP	CA-CB-CG	5.16	117.76	112.60
1	C	269	GLN	N-CA-CB	-5.16	103.11	110.80
1	B	404	SER	CB-CA-C	-5.16	103.63	110.34
1	D	154	ILE	N-CA-C	5.15	116.00	108.58
1	E	195	ASP	CB-CA-C	5.15	121.42	110.19
1	B	85	LYS	N-CA-CB	5.15	119.05	110.91
1	E	101	LEU	O-C-N	5.15	129.09	123.22
1	E	417	GLU	CB-CA-C	-5.15	102.14	110.79
1	B	706	ASN	CA-CB-CG	-5.14	107.46	112.60
1	F	488	SER	N-CA-C	-5.13	105.81	111.71
1	C	348	ASN	CA-CB-CG	5.13	117.73	112.60
1	D	92	ASN	CB-CA-C	5.13	118.98	109.70
1	C	92	ASN	CB-CA-C	5.13	118.67	110.16
1	E	125	THR	OG1-CB-CG2	5.13	119.56	109.30
1	C	205	THR	CA-CB-OG1	-5.12	101.91	109.60
1	F	643	ASP	CA-CB-CG	5.12	117.72	112.60
1	F	394	GLU	N-CA-CB	-5.10	102.03	111.52
1	F	690	VAL	N-CA-CB	5.10	117.48	110.54
1	D	451	ILE	CA-C-O	5.09	122.84	119.38
1	D	500	LEU	O-C-N	-5.09	117.25	123.16
1	F	634	MET	CG-SD-CE	-5.09	89.70	100.90
1	A	320	ARG	CA-CB-CG	-5.09	103.92	114.10
1	C	477	PHE	CA-CB-CG	-5.09	108.71	113.80
1	F	270	GLU	CB-CG-CD	5.08	121.24	112.60
1	F	340	GLU	CG-CD-OE2	-5.08	106.71	118.40
1	F	304	LYS	N-CA-CB	5.08	117.83	109.95
1	B	97	ASN	CA-CB-CG	-5.08	107.53	112.60
1	D	318	ASP	CA-CB-CG	5.07	117.67	112.60
1	D	171	ARG	N-CA-C	-5.07	105.95	113.40
1	E	112	ARG	N-CA-CB	-5.07	102.74	110.85
1	F	687	THR	N-CA-CB	-5.07	102.46	110.06
1	B	641	HIS	CA-CB-CG	5.07	118.86	113.80
1	B	701	ILE	N-CA-C	-5.06	105.56	110.42
1	B	328	LYS	CB-CG-CD	5.06	122.94	111.30
1	B	219	ASP	O-C-N	-5.06	117.29	123.16
1	A	272	SER	N-CA-CB	5.05	118.63	111.25
1	B	292	ASP	CB-CA-C	-5.05	102.55	110.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	663	ARG	CG-CD-NE	-5.05	100.88	112.00
1	E	112	ARG	CB-CA-C	5.05	118.61	109.37
1	C	163	LYS	N-CA-CB	5.05	118.66	110.43
1	E	308	GLN	CA-C-N	-5.05	117.84	122.28
1	E	308	GLN	C-N-CA	-5.05	117.84	122.28
1	F	606	LYS	N-CA-CB	5.05	117.46	109.94
1	A	451	ILE	O-C-N	-5.05	116.01	121.11
1	D	50	ILE	N-CA-C	-5.04	106.76	111.45
1	C	543	TYR	N-CA-CB	5.03	117.61	110.16
1	D	600	TYR	CA-CB-CG	5.03	122.95	113.90
1	D	18	GLN	CA-C-N	5.03	129.37	122.84
1	D	18	GLN	C-N-CA	5.03	129.37	122.84
1	B	489	ARG	NE-CZ-NH1	-5.02	116.48	121.50
1	E	645	VAL	N-CA-CB	-5.01	105.35	111.67
1	F	9	ASP	N-CA-CB	5.01	117.34	109.97
1	E	394	GLU	CG-CD-OE1	5.01	129.92	118.40
1	C	622	LYS	CG-CD-CE	5.01	122.81	111.30
1	D	349	PHE	N-CA-CB	5.01	119.64	111.08

There are no chirality outliers.

All (44) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	129	ARG	Sidechain
1	A	239	ALA	Peptide
1	A	253	ARG	Sidechain
1	A	320	ARG	Sidechain
1	A	548	ARG	Sidechain
1	A	663	ARG	Sidechain
1	A	665	ARG	Sidechain
1	A	703	ARG	Sidechain
1	B	112	ARG	Sidechain
1	B	253	ARG	Sidechain
1	B	261	ARG	Sidechain
1	B	320	ARG	Sidechain
1	B	376	PHE	Mainchain
1	B	384	VAL	Mainchain
1	B	427	THR	Peptide
1	B	489	ARG	Sidechain
1	C	320	ARG	Sidechain
1	C	421	ARG	Sidechain
1	C	424	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	C	489	ARG	Sidechain
1	C	644	ARG	Sidechain
1	C	663	ARG	Sidechain
1	C	703	ARG	Sidechain
1	D	112	ARG	Sidechain
1	D	129	ARG	Sidechain
1	D	171	ARG	Sidechain
1	D	246	ARG	Sidechain
1	D	424	ARG	Sidechain
1	D	494	ARG	Sidechain
1	D	644	ARG	Sidechain
1	D	663	ARG	Sidechain
1	E	129	ARG	Sidechain
1	E	171	ARG	Sidechain
1	E	320	ARG	Sidechain
1	E	421	ARG	Sidechain
1	E	424	ARG	Sidechain
1	E	703	ARG	Sidechain
1	E	77	TYR	Peptide
1	E	99	ARG	Sidechain
1	F	129	ARG	Sidechain
1	F	253	ARG	Sidechain
1	F	320	ARG	Sidechain
1	F	644	ARG	Sidechain
1	F	703	ARG	Sidechain

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	5691	5538	5515	72	0
1	B	5673	5514	5491	69	0
1	C	5673	5514	5491	71	1
1	D	5679	5520	5497	81	0
1	E	5673	5514	5491	107	0
1	F	5673	5514	5491	85	1
2	A	27	28	0	0	0
2	B	27	28	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	C	27	28	0	1	0
2	D	27	28	0	0	0
2	E	27	28	0	2	0
2	F	27	28	0	0	0
3	A	24	32	32	3	0
3	B	18	24	24	1	0
3	C	12	16	16	3	0
3	D	6	8	8	3	0
3	E	12	16	16	0	0
4	A	3	0	0	2	0
4	B	3	0	0	0	0
4	C	6	0	0	2	0
4	D	3	0	0	0	0
4	E	6	0	0	1	0
5	A	7	10	10	3	0
6	C	19	26	26	0	0
7	A	345	0	0	10	0
7	B	328	0	0	6	0
7	C	325	0	0	7	0
7	D	246	0	0	5	0
7	E	226	0	0	7	0
7	F	280	0	0	7	0
All	All	36093	33414	33108	478	1

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 7.

All (478) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:67:ARG:HD2	7:C:1090:HOH:O	1.50	1.12
1:E:58:CYS:HB3	7:E:1059:HOH:O	1.55	1.05
1:B:85:LYS:HB2	7:B:1085:HOH:O	1.63	0.98
1:C:67:ARG:CD	7:C:1090:HOH:O	2.09	0.91
1:E:346:ARG:HH21	1:E:348:ASN:HD21	1.17	0.90
1:C:192:PRO:O	1:C:193:GLN:C	2.12	0.90
1:E:405:PRO:HG2	1:E:426:VAL:O	1.71	0.89
1:D:24:LYS:NZ	7:D:901:HOH:O	1.91	0.86
1:F:429:LYS:O	1:F:431:ILE:HD12	1.75	0.86
1:C:391:LYS:HD3	7:C:1198:HOH:O	1.75	0.84
1:D:630:GLN:O	3:D:802:GOL:H11	1.77	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:432:ASP:O	1:A:433:ALA:HB3	1.80	0.81
1:E:432:ASP:O	1:E:433:ALA:CB	2.30	0.79
1:E:606:LYS:HE3	1:E:610:GLU:OE2	1.81	0.79
1:C:192:PRO:O	1:C:193:GLN:O	2.01	0.78
1:F:432:ASP:O	1:F:433:ALA:HB2	1.83	0.78
1:C:261:ARG:NH1	1:C:285:ASP:OD1	2.17	0.77
1:E:60:ILE:C	1:E:60:ILE:HD12	2.10	0.77
1:E:405:PRO:CG	1:E:426:VAL:O	2.36	0.74
1:F:432:ASP:O	1:F:433:ALA:CB	2.35	0.73
1:C:173:LYS:NZ	1:C:206:ASN:HD21	1.86	0.73
1:C:424:ARG:HG2	1:C:424:ARG:HH21	1.54	0.73
1:E:346:ARG:NH2	1:E:348:ASN:HD21	1.87	0.73
1:C:424:ARG:HG2	1:C:424:ARG:NH2	2.04	0.72
1:E:379:ASP:O	7:E:902:HOH:O	2.07	0.72
1:A:665:ARG:O	1:A:665:ARG:HG3	1.90	0.71
1:F:243:ASP:OD2	1:F:295:THR:OG1	2.07	0.71
1:F:374:LYS:NZ	1:F:418:LEU:O	2.23	0.70
1:E:428:VAL:HG23	1:E:485:TYR:OH	1.92	0.69
1:F:261:ARG:NH1	1:F:285:ASP:OD1	2.25	0.69
1:E:215:VAL:O	1:E:218:THR:OG1	2.08	0.69
1:E:346:ARG:HH21	1:E:348:ASN:ND2	1.90	0.69
1:B:129:ARG:HD2	1:B:152:VAL:CG2	2.23	0.69
1:F:167:ASP:O	7:F:901:HOH:O	2.09	0.69
1:E:429:LYS:O	1:E:431:ILE:N	2.26	0.68
1:B:173:LYS:NZ	1:B:206:ASN:HD21	1.91	0.68
1:C:524:LYS:HD2	1:C:527:CYS:SG	2.33	0.68
1:E:432:ASP:O	1:E:433:ALA:HB3	1.95	0.67
1:A:263:TRP:CZ2	1:A:282:LYS:HE2	2.31	0.66
1:D:405:PRO:HB2	1:D:426:VAL:HG23	1.77	0.66
1:D:246:ARG:HD2	1:D:268:GLN:NE2	2.11	0.65
1:C:246:ARG:HG2	1:C:247:TYR:CE2	2.31	0.65
1:B:376:PHE:HB3	1:B:377:PRO:HD2	1.78	0.65
1:E:76:LYS:O	1:E:91:TYR:HA	1.96	0.65
1:B:427:THR:OG1	1:B:428:VAL:HG12	1.97	0.65
1:F:450:LYS:HE3	7:F:1040:HOH:O	1.96	0.65
1:A:45:GLU:O	1:A:49:LYS:HG3	1.96	0.64
1:D:121:SER:OG	1:D:124:GLY:N	2.29	0.64
1:F:403:LEU:O	1:F:428:VAL:CG2	2.46	0.64
1:A:80:HIS:HE1	1:A:424:ARG:NH1	1.96	0.64
1:C:173:LYS:HZ2	1:C:206:ASN:HD21	1.43	0.64
1:C:8:PRO:HD3	1:C:50:ILE:CD1	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:198:SER:HA	1:E:202:GLU:CD	2.24	0.63
1:F:38:GLU:CD	7:F:909:HOH:O	2.41	0.63
1:B:628:ASP:OD1	1:B:628:ASP:N	2.16	0.63
1:A:432:ASP:O	1:A:433:ALA:CB	2.46	0.62
1:D:578:GLN:NE2	1:D:693:GLU:OE2	2.31	0.62
1:C:412:ASP:OD2	1:C:415:LYS:HE2	1.98	0.62
1:D:413:LEU:HA	1:D:418:LEU:HD21	1.79	0.62
1:E:393:THR:OG1	7:E:901:HOH:O	2.04	0.62
1:B:14:GLU:OE2	7:B:902:HOH:O	2.16	0.62
1:C:82:LYS:HB2	4:C:805:SCN:S	2.39	0.62
1:D:606:LYS:HE3	1:F:57:GLN:OE1	1.99	0.62
1:E:415:LYS:HB3	1:E:417:GLU:HG2	1.82	0.62
1:C:630:GLN:CG	3:C:803:GOL:H12	2.31	0.61
1:D:441:ILE:HD12	1:D:441:ILE:C	2.25	0.61
1:E:173:LYS:NZ	1:E:206:ASN:HD21	1.98	0.61
1:A:693:GLU:O	1:A:697:MET:HG3	2.00	0.61
1:E:27:ASP:OD2	1:E:586:LYS:NZ	2.28	0.61
1:F:86:ARG:HG3	1:F:86:ARG:HH11	1.65	0.61
1:B:263:TRP:HZ3	3:B:805:GOL:H2	1.65	0.60
1:D:277:ILE:HD12	7:D:1099:HOH:O	2.01	0.60
1:E:173:LYS:HZ1	1:E:206:ASN:HD21	1.49	0.60
1:D:288:GLU:OE1	1:F:70:GLU:OE1	2.19	0.60
1:B:74:TYR:CE1	1:B:76:LYS:HE3	2.37	0.60
1:B:405:PRO:HG2	1:B:428:VAL:H	1.66	0.60
1:C:424:ARG:NH2	1:C:424:ARG:CG	2.61	0.60
1:A:63:LEU:HD21	1:E:607:GLN:NE2	2.17	0.59
1:A:210:LYS:NZ	7:A:905:HOH:O	2.35	0.59
1:A:439:VAL:HB	5:A:807:PEG:H22	1.82	0.59
1:B:177:MET:HE3	7:B:1119:HOH:O	2.02	0.59
1:A:78:SER:HB3	1:A:90:PHE:HB2	1.85	0.59
1:B:417:GLU:OE1	1:B:417:GLU:N	2.34	0.59
1:B:359:LYS:HG2	1:B:380:VAL:HG13	1.84	0.58
1:C:479:ILE:HD11	2:C:802:A1CRK:C5	2.33	0.58
1:B:391:LYS:HG3	7:B:1147:HOH:O	2.02	0.58
1:E:666:LYS:O	7:E:903:HOH:O	2.17	0.58
1:A:328:LYS:HE3	7:A:918:HOH:O	2.02	0.58
1:B:45:GLU:OE2	1:B:49:LYS:NZ	2.33	0.58
1:D:253:ARG:HB3	1:D:253:ARG:CZ	2.32	0.58
1:D:74:TYR:CZ	1:D:76:LYS:HE3	2.39	0.58
1:A:99:ARG:HG2	7:A:983:HOH:O	2.03	0.58
1:C:467:HIS:HB2	1:C:499:ILE:HD12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:688:ALA:O	1:D:692:GLU:HG2	2.04	0.58
1:A:175:SER:OG	1:A:176:CYS:O	2.22	0.57
1:A:161:GLY:O	1:A:162:ALA:C	2.44	0.57
5:A:807:PEG:H31	1:B:414:THR:O	2.05	0.56
1:D:629:ILE:HG23	3:D:802:GOL:H12	1.87	0.56
1:F:253:ARG:NH1	1:F:257:ASP:O	2.38	0.56
1:A:365:HIS:HA	1:A:371:ALA:O	2.06	0.56
1:D:105:ASP:OD2	1:D:112:ARG:NH2	2.39	0.56
1:D:263:TRP:CZ2	1:D:282:LYS:HE3	2.40	0.56
1:A:336:LYS:NZ	7:A:901:HOH:O	2.09	0.56
1:A:665:ARG:CG	1:A:665:ARG:HH11	2.19	0.56
1:A:665:ARG:HH11	1:A:665:ARG:HB3	1.71	0.56
1:F:252:ILE:HB	1:F:261:ARG:HB2	1.88	0.56
1:E:358:VAL:HG12	1:E:358:VAL:O	2.05	0.56
1:F:248:VAL:CG2	1:F:267:LEU:HD11	2.35	0.56
1:E:404:SER:O	1:E:405:PRO:C	2.44	0.56
1:F:428:VAL:HG12	1:F:431:ILE:HD13	1.88	0.55
1:B:415:LYS:O	1:B:418:LEU:HD23	2.05	0.55
1:E:596:TRP:CZ2	2:E:801:A1CRK:C20	2.90	0.55
1:F:82:LYS:HE2	1:F:84:GLY:O	2.06	0.55
1:A:45:GLU:OE2	1:A:49:LYS:NZ	2.33	0.55
1:F:474:TYR:CE1	1:F:556:ASN:HB3	2.42	0.55
1:E:112:ARG:HG3	1:E:112:ARG:HH11	1.72	0.55
1:D:68:MET:HE2	1:D:694:VAL:HG21	1.88	0.55
1:D:431:ILE:HG22	1:D:431:ILE:O	2.07	0.55
1:C:405:PRO:HD3	1:C:428:VAL:HG23	1.89	0.55
1:A:399:PHE:CD1	1:A:399:PHE:C	2.85	0.55
1:C:630:GLN:HG3	3:C:803:GOL:H12	1.89	0.55
1:B:192:PRO:O	1:B:194:GLN:N	2.41	0.54
1:D:401:SER:O	1:D:485:TYR:HB2	2.08	0.54
1:F:550:THR:HG21	1:F:701:ILE:CD1	2.38	0.54
1:B:37:SER:O	1:B:41:LYS:HG3	2.06	0.54
1:C:67:ARG:HD3	7:C:1090:HOH:O	1.91	0.54
1:C:71:LEU:CD1	1:C:431:ILE:HD11	2.37	0.54
1:A:622:LYS:HE3	1:A:623:LEU:O	2.06	0.54
1:B:80:HIS:NE2	1:B:104:GLN:NE2	2.56	0.54
1:B:67:ARG:HH11	1:B:71:LEU:HD21	1.73	0.54
1:B:623:LEU:HD21	1:B:664:SER:HB3	1.88	0.54
1:C:529:ASP:OD2	7:C:901:HOH:O	2.18	0.54
1:F:33:GLU:O	1:F:35:PRO:HD3	2.07	0.54
1:D:463:LEU:HD13	1:D:541:GLU:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:665:ARG:HH11	1:A:665:ARG:CB	2.20	0.53
1:C:405:PRO:HB2	1:C:426:VAL:O	2.08	0.53
1:D:283:LEU:HD22	1:D:319:PHE:CE1	2.43	0.53
1:F:248:VAL:HG23	1:F:267:LEU:HD11	1.90	0.53
1:D:173:LYS:HD3	1:D:174:PHE:CE2	2.43	0.53
1:B:401:SER:OG	1:B:404:SER:HB2	2.08	0.53
1:C:587:PHE:CD1	1:C:588:HIS:N	2.76	0.53
1:D:171:ARG:NH1	7:D:903:HOH:O	2.41	0.53
1:D:366:ASP:HB2	1:D:373:LEU:HD11	1.90	0.53
1:F:262:LEU:HD13	1:F:262:LEU:C	2.33	0.53
1:C:630:GLN:HG2	3:C:803:GOL:H12	1.91	0.53
1:D:283:LEU:HD22	1:D:319:PHE:HE1	1.74	0.52
1:D:392:ASP:HA	7:D:1041:HOH:O	2.09	0.52
1:A:323:GLU:HB3	7:A:1057:HOH:O	2.09	0.52
1:B:173:LYS:HZ2	1:B:206:ASN:HD21	1.55	0.52
1:E:320:ARG:HA	7:E:1052:HOH:O	2.08	0.52
1:A:52:VAL:HB	1:A:53:PRO:HD3	1.91	0.52
1:F:471:LEU:HG	1:F:531:PHE:CZ	2.44	0.52
1:F:628:ASP:HA	7:F:1099:HOH:O	2.08	0.52
1:E:5:LEU:HD11	1:E:50:ILE:HG23	1.92	0.52
1:A:468:PRO:HA	1:A:548:ARG:HB3	1.92	0.52
1:D:528:PHE:HD1	1:D:560:LEU:HD12	1.74	0.52
1:D:550:THR:HG21	1:D:701:ILE:HD11	1.90	0.52
1:C:391:LYS:CD	7:C:1198:HOH:O	2.46	0.51
1:B:328:LYS:HE2	1:B:328:LYS:HA	1.92	0.51
1:F:359:LYS:CD	1:F:380:VAL:HG13	2.40	0.51
1:E:271:SER:OG	1:E:272:SER:N	2.43	0.51
1:E:346:ARG:O	1:E:347:SER:HB2	2.11	0.51
1:E:496:MET:HE3	1:E:702:ALA:HB2	1.92	0.51
1:A:665:ARG:O	1:A:665:ARG:CG	2.56	0.51
1:C:262:LEU:C	1:C:262:LEU:HD13	2.35	0.51
1:E:60:ILE:HG12	1:E:702:ALA:CB	2.40	0.51
1:D:80:HIS:HE1	1:D:424:ARG:NH1	2.07	0.51
1:D:603:SER:OG	7:D:902:HOH:O	2.18	0.51
1:F:86:ARG:HG3	1:F:86:ARG:NH1	2.26	0.51
1:B:154:ILE:HD11	1:B:172:VAL:HG11	1.92	0.51
1:E:31:TRP:CZ3	1:E:39:GLN:HB3	2.45	0.51
1:F:355:LEU:HD21	1:F:358:VAL:HA	1.91	0.51
1:F:358:VAL:HG12	1:F:358:VAL:O	2.11	0.51
1:B:192:PRO:O	1:B:193:GLN:C	2.52	0.51
1:A:328:LYS:NZ	7:A:918:HOH:O	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:64:TYR:CD1	1:C:64:TYR:C	2.88	0.51
1:E:563:ALA:O	1:E:567:GLN:HG3	2.10	0.51
1:A:687:THR:O	1:A:691:ILE:HG13	2.11	0.50
1:F:575:VAL:HB	1:F:634:MET:HG2	1.93	0.50
1:C:67:ARG:NH2	1:C:71:LEU:HD21	2.26	0.50
1:E:64:TYR:CD1	1:E:64:TYR:C	2.90	0.50
1:E:76:LYS:NZ	1:E:94:GLY:O	2.45	0.50
1:E:439:VAL:HG23	1:E:455:ILE:HB	1.94	0.50
1:A:630:GLN:HB2	1:A:667:GLN:OE1	2.12	0.50
1:C:306:ASN:HB3	1:C:312:TYR:CE2	2.47	0.50
1:D:299:THR:HG21	1:D:320:ARG:NE	2.26	0.50
1:E:633:SER:OG	1:E:670:PRO:HD2	2.10	0.50
1:F:407:ILE:HA	1:F:425:GLU:HA	1.94	0.50
1:C:528:PHE:HD1	1:C:560:LEU:HD12	1.77	0.50
1:E:228:GLU:HG3	1:E:230:PRO:HD3	1.94	0.50
1:F:15:THR:HG22	1:F:15:THR:O	2.12	0.50
1:B:192:PRO:HD3	1:B:208:HIS:O	2.10	0.50
1:C:467:HIS:CB	1:C:499:ILE:HD12	2.42	0.50
1:F:27:ASP:OD2	1:F:586:LYS:NZ	2.21	0.50
1:B:45:GLU:HG3	1:B:49:LYS:HE3	1.93	0.50
1:B:404:SER:O	1:B:405:PRO:C	2.54	0.49
1:F:528:PHE:HD1	1:F:560:LEU:HD12	1.77	0.49
1:C:664:SER:OG	1:C:666:LYS:HG2	2.11	0.49
1:D:112:ARG:HG3	1:D:112:ARG:HH11	1.77	0.49
1:D:342:ILE:HA	1:D:351:VAL:O	2.12	0.49
1:A:80:HIS:CE1	1:A:424:ARG:NH1	2.80	0.49
1:D:537:TYR:CD1	1:D:537:TYR:C	2.90	0.49
1:A:351:VAL:C	1:A:352:LEU:HD12	2.37	0.49
1:B:590:TYR:O	1:B:591:THR:C	2.55	0.49
1:A:363:GLN:NE2	3:A:804:GOL:H32	2.28	0.49
1:E:61:ARG:NH1	7:E:918:HOH:O	2.45	0.49
1:B:486:SER:HB3	1:B:489:ARG:HD2	1.95	0.49
1:C:432:ASP:HB3	1:C:435:ASP:CG	2.38	0.49
1:A:320:ARG:HD3	7:A:1175:HOH:O	2.11	0.48
1:C:71:LEU:HD13	1:C:431:ILE:HD11	1.95	0.48
1:E:479:ILE:HD13	1:E:479:ILE:N	2.28	0.48
1:F:407:ILE:HG23	1:F:425:GLU:HB2	1.96	0.48
1:E:241:LEU:N	1:E:241:LEU:HD22	2.27	0.48
1:E:394:GLU:CD	1:E:410:HIS:HE2	2.21	0.48
1:F:584:MET:HE1	1:F:600:TYR:CD2	2.49	0.48
1:C:8:PRO:HD3	1:C:50:ILE:HD11	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:404:SER:O	1:E:406:GLY:N	2.47	0.48
1:B:545:SER:O	1:B:546:PRO:C	2.56	0.48
1:D:301:PHE:CE1	1:D:319:PHE:CE2	3.02	0.48
1:E:104:GLN:HG2	1:E:111:ALA:HB2	1.95	0.48
1:E:431:ILE:O	1:E:431:ILE:HG22	2.13	0.48
1:E:60:ILE:HD12	1:E:60:ILE:O	2.13	0.48
1:F:29:TYR:HB3	1:F:32:LEU:HD12	1.94	0.48
1:D:403:LEU:HB3	1:D:433:ALA:HB1	1.95	0.48
1:D:522:ALA:HB2	1:D:611:TRP:CE2	2.49	0.48
1:D:584:MET:HE1	1:D:600:TYR:CD2	2.49	0.48
1:E:261:ARG:HD3	1:E:285:ASP:OD1	2.14	0.48
1:E:700:PHE:O	1:E:701:ILE:C	2.54	0.48
1:D:263:TRP:CE2	1:D:282:LYS:HG2	2.49	0.47
1:E:108:GLU:C	1:E:109:GLY:O	2.57	0.47
1:A:407:ILE:HG12	1:A:425:GLU:HG3	1.95	0.47
1:A:262:LEU:HD13	1:A:262:LEU:C	2.39	0.47
1:B:173:LYS:HZ3	1:B:206:ASN:HD21	1.61	0.47
1:D:17:VAL:HG23	1:D:17:VAL:O	2.14	0.47
1:D:247:TYR:CD2	1:D:301:PHE:HZ	2.32	0.47
1:D:569:PRO:O	3:D:802:GOL:H2	2.15	0.47
1:E:379:ASP:HB3	1:E:399:PHE:CZ	2.49	0.47
1:F:417:GLU:O	1:F:418:LEU:HB2	2.15	0.47
1:C:269:GLN:NE2	7:C:928:HOH:O	2.48	0.47
1:D:10:VAL:HG12	1:D:31:TRP:HZ2	1.79	0.47
1:D:45:GLU:O	1:D:49:LYS:HG3	2.13	0.47
1:D:121:SER:OG	1:D:124:GLY:CA	2.62	0.47
1:F:248:VAL:HG23	1:F:267:LEU:CD1	2.44	0.47
1:A:328:LYS:CE	7:A:918:HOH:O	2.61	0.47
1:A:391:LYS:HD3	7:A:1093:HOH:O	2.13	0.47
1:A:570:ASP:HA	3:A:803:GOL:H12	1.95	0.47
1:B:478:ASN:HD22	1:B:516:HIS:HB2	1.80	0.47
1:C:106:SER:OG	1:C:109:GLY:N	2.48	0.47
1:C:405:PRO:HD3	1:C:428:VAL:CG2	2.44	0.47
1:F:76:LYS:O	1:F:91:TYR:HA	2.14	0.47
1:B:417:GLU:H	1:B:417:GLU:CD	2.23	0.47
1:F:154:ILE:HG13	1:F:172:VAL:HG21	1.96	0.47
1:A:173:LYS:NZ	7:A:915:HOH:O	2.47	0.47
1:B:184:LYS:HD3	7:B:1214:HOH:O	2.14	0.47
1:B:623:LEU:HD21	1:B:664:SER:CB	2.45	0.47
1:E:266:ASP:OD1	1:E:266:ASP:C	2.57	0.47
1:C:379:ASP:HB2	1:C:399:PHE:CZ	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:442:PHE:HA	1:C:451:ILE:O	2.14	0.46
1:D:439:VAL:HG22	1:D:455:ILE:HB	1.97	0.46
1:E:152:VAL:O	4:E:803:SCN:N	2.48	0.46
1:F:80:HIS:HE1	1:F:424:ARG:HH11	1.62	0.46
1:F:405:PRO:HD3	1:F:428:VAL:HG22	1.96	0.46
1:D:72:TYR:O	1:D:76:LYS:NZ	2.47	0.46
1:C:356:HIS:HB2	1:C:361:ILE:HD12	1.95	0.46
1:E:37:SER:O	1:E:41:LYS:HG3	2.15	0.46
1:F:13:ASP:OD1	1:F:15:THR:HB	2.16	0.46
1:F:403:LEU:O	1:F:428:VAL:HG21	2.16	0.46
1:A:433:ALA:HA	1:A:436:TYR:HD2	1.80	0.46
1:B:550:THR:HG21	1:B:701:ILE:HD11	1.97	0.46
1:E:106:SER:O	1:E:108:GLU:N	2.49	0.46
1:E:428:VAL:CG2	1:E:485:TYR:OH	2.61	0.46
1:F:80:HIS:HE1	1:F:424:ARG:NH1	2.14	0.46
1:A:386:TYR:CD2	1:A:386:TYR:C	2.94	0.46
1:D:336:LYS:O	1:D:336:LYS:HG2	2.14	0.46
1:E:415:LYS:CB	1:E:417:GLU:HG2	2.45	0.46
1:B:33:GLU:HG2	1:B:648:LEU:HD22	1.97	0.45
1:D:253:ARG:NH1	1:D:257:ASP:O	2.44	0.45
1:D:608:HIS:O	1:D:609:PHE:C	2.56	0.45
1:E:60:ILE:C	1:E:60:ILE:CD1	2.83	0.45
1:E:77:TYR:CG	1:E:424:ARG:HD2	2.50	0.45
1:A:357:ASP:C	1:A:358:VAL:HG23	2.41	0.45
1:E:467:HIS:HB2	1:E:499:ILE:HD12	1.97	0.45
1:C:173:LYS:HZ3	1:C:206:ASN:HD21	1.64	0.45
1:D:106:SER:HB3	1:E:379:ASP:OD1	2.17	0.45
1:E:342:ILE:HA	1:E:351:VAL:O	2.16	0.45
1:B:188:TYR:OH	1:B:223:ASP:OD2	2.33	0.45
1:C:107:LEU:HD23	1:C:107:LEU:HA	1.70	0.45
1:A:394:GLU:OE2	4:A:805:SCN:S	2.75	0.45
1:D:323:GLU:OE1	1:F:77:TYR:OH	2.33	0.45
1:E:405:PRO:HD3	1:E:428:VAL:HB	1.99	0.45
1:E:536:GLU:O	1:E:537:TYR:C	2.56	0.45
1:C:70:GLU:OE2	1:C:429:LYS:NZ	2.37	0.45
1:D:304:LYS:HD3	1:D:342:ILE:HG22	1.99	0.45
1:E:344:CYS:SG	1:E:390:LYS:HG3	2.56	0.45
1:F:263:TRP:CD1	1:F:282:LYS:HA	2.51	0.45
1:A:157:MET:CE	1:A:162:ALA:HB1	2.47	0.45
1:E:336:LYS:HD3	1:E:337:ASP:OD1	2.17	0.45
1:E:379:ASP:HB3	1:E:399:PHE:HZ	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:60:ILE:O	1:F:61:ARG:C	2.59	0.45
1:F:336:LYS:HE3	1:F:511:TYR:HE1	1.81	0.45
1:A:77:TYR:CD1	1:A:424:ARG:CZ	3.00	0.45
1:C:192:PRO:C	1:C:193:GLN:O	2.58	0.45
1:C:357:ASP:C	1:C:358:VAL:HG23	2.41	0.45
1:C:467:HIS:HB2	1:C:499:ILE:CD1	2.47	0.45
1:E:77:TYR:CG	1:E:424:ARG:CD	3.00	0.45
1:F:156:PHE:HB3	1:F:165:LEU:HD12	1.99	0.45
1:A:192:PRO:HG3	1:A:210:LYS:HE2	1.97	0.44
1:B:451:ILE:HA	1:B:452:PRO:HD3	1.88	0.44
1:E:23:HIS:CD2	1:E:25:ILE:HD11	2.53	0.44
1:A:34:ASP:HA	1:A:35:PRO:HD3	1.74	0.44
1:B:45:GLU:OE2	1:B:49:LYS:HE3	2.17	0.44
1:E:623:LEU:HD11	1:E:664:SER:CB	2.48	0.44
1:F:310:PRO:HD2	1:F:333:GLU:OE2	2.17	0.44
1:F:468:PRO:HA	1:F:548:ARG:O	2.18	0.44
1:B:24:LYS:HE3	1:B:26:CYS:SG	2.57	0.44
1:C:327:TRP:C	1:C:328:LYS:HD3	2.43	0.44
1:C:693:GLU:O	1:C:697:MET:HG3	2.18	0.44
1:D:90:PHE:HA	1:D:100:VAL:O	2.18	0.44
1:D:442:PHE:HA	1:D:451:ILE:O	2.17	0.44
1:E:474:TYR:CZ	1:E:556:ASN:HB3	2.52	0.44
1:E:665:ARG:HH11	1:E:665:ARG:HB3	1.81	0.44
1:F:429:LYS:O	1:F:431:ILE:CD1	2.56	0.44
1:A:52:VAL:O	1:A:56:GLU:HG3	2.17	0.44
1:B:5:LEU:HD12	1:B:6:GLN:N	2.32	0.44
1:B:261:ARG:NH2	1:B:286:ASN:HA	2.33	0.44
1:E:471:LEU:HG	1:E:531:PHE:CZ	2.52	0.44
1:F:317:ILE:HG12	1:F:327:TRP:CD1	2.53	0.44
1:F:417:GLU:O	1:F:418:LEU:CB	2.65	0.44
1:B:415:LYS:HD3	1:B:415:LYS:HA	1.81	0.44
1:C:246:ARG:HG2	1:C:247:TYR:CD2	2.53	0.44
1:D:474:TYR:CZ	1:D:556:ASN:HB3	2.52	0.44
1:E:429:LYS:C	1:E:431:ILE:H	2.26	0.44
1:A:243:ASP:OD2	1:A:295:THR:OG1	2.23	0.44
1:A:304:LYS:HD3	1:A:342:ILE:HG22	1.98	0.44
1:F:306:ASN:HB3	1:F:312:TYR:CE2	2.53	0.44
1:B:70:GLU:OE2	1:B:429:LYS:NZ	2.50	0.44
1:B:282:LYS:O	1:B:283:LEU:C	2.61	0.44
1:C:431:ILE:HG22	1:C:436:TYR:HE2	1.83	0.44
1:E:494:ARG:HD2	1:E:494:ARG:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:491:ILE:O	1:F:495:HIS:HB2	2.18	0.44
1:A:702:ALA:HA	1:A:707:VAL:HB	2.00	0.43
1:C:73:ASP:HB2	1:C:95:LEU:HD11	2.00	0.43
1:E:5:LEU:HA	1:E:5:LEU:HD12	1.72	0.43
1:E:584:MET:HB2	1:E:616:SER:HB2	1.99	0.43
1:F:261:ARG:NH1	1:F:285:ASP:CG	2.75	0.43
1:F:282:LYS:O	1:F:283:LEU:C	2.60	0.43
1:B:77:TYR:CD1	1:B:424:ARG:HD2	2.53	0.43
1:D:253:ARG:CZ	1:D:253:ARG:CB	2.96	0.43
1:A:448:GLY:O	1:A:449:THR:C	2.59	0.43
1:D:154:ILE:HD11	1:D:172:VAL:HG11	2.00	0.43
1:D:414:THR:O	1:E:460:GLY:CA	2.66	0.43
1:A:486:SER:HB3	1:A:489:ARG:HD2	2.01	0.43
1:B:21:HIS:HB3	1:B:606:LYS:HE2	2.00	0.43
1:E:443:TYR:CZ	1:E:451:ILE:HB	2.52	0.43
1:B:171:ARG:NH2	1:B:194:GLN:O	2.50	0.43
1:B:324:GLU:HA	1:B:327:TRP:CE2	2.53	0.43
1:C:550:THR:OG1	1:C:574:CYS:HB3	2.19	0.43
1:D:431:ILE:O	1:D:432:ASP:C	2.61	0.43
1:E:436:TYR:OH	1:E:494:ARG:HD3	2.18	0.43
1:E:571:LEU:HD23	1:E:571:LEU:HA	1.90	0.43
1:A:405:PRO:HG3	1:A:485:TYR:CE2	2.54	0.43
1:A:571:LEU:HD23	1:A:571:LEU:HA	1.95	0.43
1:B:342:ILE:HD12	1:B:352:LEU:HD11	2.00	0.43
1:D:616:SER:HA	1:D:617:PRO:HD3	1.83	0.43
1:E:173:LYS:NZ	1:E:206:ASN:ND2	2.67	0.43
1:E:404:SER:C	1:E:406:GLY:N	2.76	0.43
1:F:257:ASP:HB2	7:F:1046:HOH:O	2.18	0.43
1:D:262:LEU:HD22	1:D:262:LEU:HA	1.93	0.43
1:C:173:LYS:NZ	1:C:206:ASN:ND2	2.60	0.43
1:E:494:ARG:O	1:E:494:ARG:NH1	2.47	0.43
1:A:392:ASP:HA	4:A:805:SCN:N	2.34	0.43
1:C:688:ALA:O	1:C:692:GLU:HG2	2.18	0.43
1:D:528:PHE:CD1	1:D:560:LEU:HD12	2.53	0.43
1:A:545[B]:SER:O	1:A:546:PRO:C	2.62	0.42
1:D:505:ILE:HG22	1:D:530:ASP:HB3	2.01	0.42
1:E:70:GLU:HG2	7:E:1022:HOH:O	2.19	0.42
1:F:537:TYR:CD1	1:F:537:TYR:C	2.95	0.42
1:E:633:SER:OG	1:E:669:ASN:HB3	2.18	0.42
1:A:665:ARG:HH11	1:A:665:ARG:HG2	1.84	0.42
1:C:394:GLU:OE2	4:C:805:SCN:S	2.77	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:608:HIS:O	1:A:609:PHE:C	2.60	0.42
1:D:574:CYS:HA	1:D:633:SER:O	2.19	0.42
1:F:474:TYR:CZ	1:F:556:ASN:HB3	2.54	0.42
1:A:63:LEU:HD21	1:E:607:GLN:CD	2.44	0.42
1:D:232:GLU:HA	1:D:232:GLU:OE1	2.20	0.42
1:D:578:GLN:C	1:D:579:VAL:HG22	2.43	0.42
1:F:197:LYS:HE3	1:F:201:THR:OG1	2.19	0.42
1:F:295:THR:OG1	1:F:296:ASN:N	2.52	0.42
1:F:584:MET:HE1	1:F:600:TYR:CG	2.54	0.42
1:A:363:GLN:HE22	3:A:804:GOL:C3	2.33	0.42
1:B:405:PRO:CG	1:B:428:VAL:H	2.31	0.42
1:B:431:ILE:CD1	1:B:490:LEU:HB3	2.50	0.42
1:E:29:TYR:HB3	1:E:32:LEU:HD12	2.02	0.42
1:C:622:LYS:O	1:C:631:TYR:HE1	2.02	0.42
1:D:67:ARG:HD2	1:D:67:ARG:HA	1.77	0.42
1:E:258:PRO:O	1:E:290:GLU:HB2	2.20	0.42
1:E:408:ILE:HD12	1:E:424:ARG:HB2	2.01	0.42
1:F:586:LYS:HE3	7:F:980:HOH:O	2.18	0.42
1:A:431:ILE:HG12	1:A:494:ARG:HG2	2.02	0.42
1:B:377:PRO:O	1:B:377:PRO:HG2	2.20	0.42
1:D:83:LYS:HG3	1:D:133:PHE:CD1	2.54	0.42
1:D:379:ASP:CG	1:D:380:VAL:H	2.28	0.42
1:E:106:SER:O	1:E:109:GLY:N	2.53	0.42
1:E:477:PHE:CE1	1:E:599:ASP:HB2	2.54	0.42
1:B:129:ARG:HD2	1:B:152:VAL:HG23	2.01	0.42
1:B:446:LYS:HE2	1:B:446:LYS:HB2	1.79	0.42
1:F:290:GLU:HG2	1:F:292:ASP:OD1	2.20	0.42
1:C:307:ARG:HG3	1:C:308:GLN:HG3	2.01	0.41
1:A:356:HIS:O	1:A:357:ASP:C	2.63	0.41
1:A:523:ASN:O	1:A:526:ASN:HB2	2.19	0.41
1:E:417:GLU:HG2	1:E:417:GLU:H	1.69	0.41
1:A:116:ASP:O	1:A:119:ILE:HG12	2.20	0.41
1:D:317:ILE:HG12	1:D:327:TRP:CD1	2.55	0.41
1:E:89:TYR:O	1:E:101:LEU:HD12	2.20	0.41
1:E:356:HIS:O	1:E:357:ASP:C	2.62	0.41
1:F:522:ALA:HB2	1:F:611:TRP:CE2	2.56	0.41
1:B:513:GLU:OE1	7:B:903:HOH:O	2.22	0.41
1:C:587:PHE:CD1	1:C:587:PHE:C	2.98	0.41
1:D:246:ARG:HD2	1:D:268:GLN:CD	2.45	0.41
1:D:624:PRO:O	1:D:666:LYS:NZ	2.52	0.41
1:E:52:VAL:HB	1:E:53:PRO:HD3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:89:TYR:O	1:F:101:LEU:HD12	2.20	0.41
1:B:406:GLY:C	1:B:407:ILE:HG13	2.45	0.41
1:C:241:LEU:HD13	1:C:241:LEU:HA	1.97	0.41
1:C:382:SER:O	1:C:399:PHE:HA	2.21	0.41
1:D:356:HIS:HB2	1:D:361:ILE:HD12	2.03	0.41
1:E:18:GLN:O	1:E:25:ILE:N	2.52	0.41
1:E:606:LYS:CE	1:E:610:GLU:OE2	2.62	0.41
1:A:439:VAL:CB	5:A:807:PEG:H22	2.50	0.41
1:C:304:LYS:HB3	1:C:304:LYS:HE3	1.98	0.41
1:E:457:HIS:HB3	1:E:499:ILE:HG12	2.03	0.41
1:A:173:LYS:HD3	1:A:174:PHE:CE2	2.56	0.41
1:D:359:LYS:HD3	1:D:380:VAL:HG13	2.02	0.41
1:E:429:LYS:C	1:E:431:ILE:N	2.78	0.41
1:F:350:LEU:HD21	1:F:367:LEU:HD13	2.02	0.41
1:B:171:ARG:NH1	1:B:171:ARG:HG3	2.36	0.41
1:D:432:ASP:HB3	1:D:435:ASP:OD2	2.21	0.41
1:D:704:CYS:C	1:D:705:LEU:HD23	2.46	0.41
1:E:517:LYS:HA	1:E:520:ILE:HG12	2.02	0.41
1:E:568:ARG:HH11	1:E:568:ARG:HD3	1.51	0.41
1:F:644:ARG:HB3	1:F:681:HIS:HB2	2.01	0.41
1:B:299:THR:HG21	1:B:320:ARG:NH2	2.35	0.41
1:B:537:TYR:CZ	1:B:541:GLU:HG3	2.56	0.41
1:B:700:PHE:O	1:B:704:CYS:HB2	2.20	0.41
1:C:150:ASP:HB2	1:C:173:LYS:HE2	2.03	0.41
1:D:585:LEU:HD12	1:D:619:HIS:CE1	2.56	0.41
1:E:406:GLY:O	1:E:426:VAL:HG23	2.21	0.41
1:F:82:LYS:HD2	1:F:87:TYR:CZ	2.55	0.41
1:F:262:LEU:C	1:F:262:LEU:CD1	2.94	0.41
1:F:406:GLY:O	1:F:425:GLU:HA	2.21	0.41
1:F:523:ASN:O	1:F:524:LYS:C	2.64	0.41
1:F:609:PHE:CD1	1:F:609:PHE:C	2.99	0.41
1:A:38:GLU:H	1:A:38:GLU:HG2	1.59	0.41
1:B:646:VAL:HG23	1:B:648:LEU:HG	2.03	0.41
1:C:163:LYS:HE2	1:C:165:LEU:HD23	2.02	0.41
1:C:441:ILE:HD12	1:C:441:ILE:C	2.45	0.41
1:D:431:ILE:HG21	1:D:490:LEU:HD13	2.03	0.41
1:F:60:ILE:HA	1:F:63:LEU:HD12	2.03	0.41
1:F:291:TYR:CD1	1:F:291:TYR:N	2.89	0.41
1:F:431:ILE:HD12	1:F:431:ILE:H	1.86	0.41
1:F:550:THR:HG21	1:F:701:ILE:HD13	2.03	0.41
1:B:211:LEU:HB3	1:B:227:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:15:THR:O	1:F:15:THR:CG2	2.69	0.40
1:F:64:TYR:CD1	1:F:64:TYR:C	2.99	0.40
1:B:415:LYS:O	1:B:418:LEU:CD2	2.69	0.40
1:C:37:SER:O	1:C:41:LYS:HG3	2.21	0.40
1:C:209:GLN:OE1	1:C:236:MET:HB3	2.20	0.40
1:D:410:HIS:O	1:D:420:PRO:HA	2.21	0.40
1:A:91:TYR:HB3	1:A:102:TYR:CE1	2.56	0.40
1:B:366:ASP:O	1:B:370:GLY:HA2	2.21	0.40
1:E:197:LYS:O	1:E:198:SER:C	2.64	0.40
1:F:323:GLU:HG2	7:F:1105:HOH:O	2.20	0.40
1:F:654:ILE:HG21	1:F:673:ILE:HG21	2.03	0.40
1:A:654:ILE:HG21	1:A:673:ILE:HG21	2.03	0.40
1:C:331:VAL:HA	1:C:332:PRO:HD3	1.87	0.40
1:E:457:HIS:CG	1:E:461:ILE:HD11	2.55	0.40
1:E:596:TRP:CE2	2:E:801:A1CRK:C20	3.04	0.40

All (1) 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:C:198:SER:HG	1:F:24:LYS:HZ3[1_636]	1.31	0.29

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	Percentiles
1	A	708/711 (100%)	680 (96%)	27 (4%)	1 (0%)	48 38
1	B	705/711 (99%)	680 (96%)	21 (3%)	4 (1%)	21 11
1	C	705/711 (99%)	672 (95%)	29 (4%)	4 (1%)	21 11
1	D	706/711 (99%)	669 (95%)	32 (4%)	5 (1%)	18 8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	E	705/711 (99%)	664 (94%)	37 (5%)	4 (1%)	21 11
1	F	705/711 (99%)	671 (95%)	31 (4%)	3 (0%)	30 19
All	All	4234/4266 (99%)	4036 (95%)	177 (4%)	21 (0%)	24 14

All (21) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	428	VAL
1	C	193	GLN
1	E	109	GLY
1	F	433	ALA
1	B	358	VAL
1	C	358	VAL
1	D	109	GLY
1	E	430	GLY
1	E	433	ALA
1	F	432	ASP
1	D	308	GLN
1	D	418	LEU
1	C	405	PRO
1	C	555	SER
1	E	358	VAL
1	F	358	VAL
1	B	433	ALA
1	A	358	VAL
1	B	579	VAL
1	D	431	ILE
1	D	579	VAL

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	617/617 (100%)	589 (96%)	28 (4%)	24 8
1	B	614/617 (100%)	593 (97%)	21 (3%)	32 14

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	C	614/617 (100%)	597 (97%)	17 (3%)	38 21
1	D	615/617 (100%)	588 (96%)	27 (4%)	25 9
1	E	614/617 (100%)	590 (96%)	24 (4%)	28 11
1	F	614/617 (100%)	599 (98%)	15 (2%)	43 27
All	All	3688/3702 (100%)	3556 (96%)	132 (4%)	32 13

All (132) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	9	ASP
1	A	17	VAL
1	A	24	LYS
1	A	26	CYS
1	A	38	GLU
1	A	60	ILE
1	A	67	ARG
1	A	85[A]	LYS
1	A	85[B]	LYS
1	A	105	ASP
1	A	204	SER
1	A	272	SER
1	A	358	VAL
1	A	391	LYS
1	A	416[A]	GLU
1	A	416[B]	GLU
1	A	417	GLU
1	A	424	ARG
1	A	426	VAL
1	A	429	LYS
1	A	478	ASN
1	A	490	LEU
1	A	499	ILE
1	A	513	GLU
1	A	559	LEU
1	A	599	ASP
1	A	665	ARG
1	A	693	GLU
1	B	5	LEU
1	B	60	ILE
1	B	104	GLN
1	B	110	GLU

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Mol	Chain	Res	Type
1	B	119	ILE
1	B	171	ARG
1	B	193	GLN
1	B	262	LEU
1	B	345	VAL
1	B	358	VAL
1	B	384	VAL
1	B	390	LYS
1	B	404	SER
1	B	421	ARG
1	B	429	LYS
1	B	540	LYS
1	B	547	LYS
1	B	592	ILE
1	B	599	ASP
1	B	605	SER
1	B	678	LYS
1	C	5	LEU
1	C	163	LYS
1	C	193	GLN
1	C	194	GLN
1	C	268	GLN
1	C	284	ILE
1	C	342	ILE
1	C	404	SER
1	C	416	GLU
1	C	417	GLU
1	C	421	ARG
1	C	427	THR
1	C	540	LYS
1	C	545	SER
1	C	599	ASP
1	C	622	LYS
1	C	646	VAL
1	D	10	VAL
1	D	14	GLU
1	D	57	GLN
1	D	66	GLU
1	D	67	ARG
1	D	70	GLU
1	D	108	GLU
1	D	110	GLU

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Mol	Chain	Res	Type
1	D	253	ARG
1	D	308	GLN
1	D	358	VAL
1	D	407	ILE
1	D	429	LYS
1	D	439	VAL
1	D	446	LYS
1	D	458	LYS
1	D	463	LEU
1	D	484	ASN
1	D	486	SER
1	D	499	ILE
1	D	540	LYS
1	D	547	LYS
1	D	599	ASP
1	D	605	SER
1	D	606	LYS
1	D	663	ARG
1	D	665	ARG
1	E	60	ILE
1	E	66	GLU
1	E	104	GLN
1	E	107	LEU
1	E	262	LEU
1	E	272	SER
1	E	292	ASP
1	E	348	ASN
1	E	404	SER
1	E	407	ILE
1	E	417	GLU
1	E	422	VAL
1	E	426	VAL
1	E	427	THR
1	E	428	VAL
1	E	486	SER
1	E	496	MET
1	E	545	SER
1	E	599	ASP
1	E	604	ASP
1	E	606	LYS
1	E	627	ASP
1	E	665	ARG

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Mol	Chain	Res	Type
1	E	706	ASN
1	F	5	LEU
1	F	9	ASP
1	F	60	ILE
1	F	66	GLU
1	F	99	ARG
1	F	271	SER
1	F	320	ARG
1	F	342	ILE
1	F	389	GLN
1	F	426	VAL
1	F	431	ILE
1	F	439	VAL
1	F	446	LYS
1	F	547	LYS
1	F	599	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (42) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	104	GLN
1	A	206	ASN
1	A	363	GLN
1	A	478	ASN
1	B	104	GLN
1	B	206	ASN
1	B	208	HIS
1	B	389	GLN
1	B	478	ASN
1	B	484	ASN
1	B	525	GLN
1	B	532	GLN
1	B	567	GLN
1	B	607	GLN
1	C	104	GLN
1	C	206	ASN
1	C	268	GLN
1	C	269	GLN
1	C	308	GLN
1	C	398	GLN
1	C	525	GLN
1	C	532	GLN

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Mol	Chain	Res	Type
1	C	552	ASN
1	C	567	GLN
1	D	206	ASN
1	D	268	GLN
1	D	437	GLN
1	D	504	ASN
1	D	552	ASN
1	D	556	ASN
1	E	6	GLN
1	E	104	GLN
1	E	194	GLN
1	E	206	ASN
1	E	348	ASN
1	E	478	ASN
1	E	532	GLN
1	F	80	HIS
1	F	308	GLN
1	F	552	ASN
1	F	556	ASN
1	F	578	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)

27 ligands are 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	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
3	GOL	A	806	-	5,5,5	0.19	0	5,5,5	0.45	0
3	GOL	E	804	-	5,5,5	0.23	0	5,5,5	0.55	0
2	A1CRK	B	801	-	31,31,31	0.87	1 (3%)	42,45,45	1.27	8 (19%)
3	GOL	C	804	-	5,5,5	0.60	0	5,5,5	1.28	1 (20%)
3	GOL	B	805	-	5,5,5	0.30	0	5,5,5	0.47	0
2	A1CRK	A	801	-	31,31,31	0.77	0	42,45,45	1.04	2 (4%)
3	GOL	E	805	-	5,5,5	0.31	0	5,5,5	0.61	0
3	GOL	C	803	-	5,5,5	0.70	0	5,5,5	1.87	1 (20%)
4	SCN	E	802	-	1,2,2	0.59	0	0,1,1	-	-
3	GOL	A	803	-	5,5,5	0.48	0	5,5,5	0.82	0
4	SCN	B	803	-	1,2,2	2.95	1 (100%)	0,1,1	-	-
4	SCN	D	803	-	1,2,2	0.78	0	0,1,1	-	-
3	GOL	A	802	-	5,5,5	0.29	0	5,5,5	0.46	0
2	A1CRK	D	801	-	31,31,31	0.90	1 (3%)	42,45,45	1.50	7 (16%)
6	B3P	C	801	-	18,18,18	0.96	1 (5%)	23,23,23	0.94	2 (8%)
4	SCN	A	805	-	1,2,2	0.45	0	0,1,1	-	-
2	A1CRK	E	801	-	31,31,31	0.90	1 (3%)	42,45,45	1.40	6 (14%)
4	SCN	E	803	-	1,2,2	0.13	0	0,1,1	-	-
4	SCN	C	806	-	1,2,2	0.63	0	0,1,1	-	-
2	A1CRK	C	802	-	31,31,31	1.22	4 (12%)	42,45,45	1.84	7 (16%)
3	GOL	D	802	-	5,5,5	0.21	0	5,5,5	0.34	0
5	PEG	A	807	-	6,6,6	1.06	1 (16%)	5,5,5	0.76	0
3	GOL	B	804	-	5,5,5	0.12	0	5,5,5	0.32	0
2	A1CRK	F	801	-	31,31,31	1.23	2 (6%)	42,45,45	1.29	4 (9%)
3	GOL	A	804	-	5,5,5	0.33	0	5,5,5	0.93	0
3	GOL	B	802	-	5,5,5	0.26	0	5,5,5	0.61	0
4	SCN	C	805	-	1,2,2	0.20	0	0,1,1	-	-

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	GOL	A	806	-	-	2/4/4/4	-
3	GOL	E	804	-	-	0/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	A1CRK	B	801	-	-	0/20/55/55	0/5/5/5
3	GOL	C	804	-	-	4/4/4/4	-
3	GOL	B	805	-	-	3/4/4/4	-
2	A1CRK	A	801	-	-	0/20/55/55	0/5/5/5
3	GOL	E	805	-	-	4/4/4/4	-
3	GOL	C	803	-	-	3/4/4/4	-
3	GOL	A	803	-	-	2/4/4/4	-
3	GOL	A	802	-	-	2/4/4/4	-
2	A1CRK	D	801	-	-	0/20/55/55	0/5/5/5
6	B3P	C	801	-	-	3/28/28/28	-
2	A1CRK	E	801	-	-	4/20/55/55	0/5/5/5
2	A1CRK	C	802	-	-	1/20/55/55	0/5/5/5
3	GOL	D	802	-	-	2/4/4/4	-
5	PEG	A	807	-	-	4/4/4/4	-
3	GOL	B	804	-	-	2/4/4/4	-
2	A1CRK	F	801	-	-	0/20/55/55	0/5/5/5
3	GOL	A	804	-	-	2/4/4/4	-
3	GOL	B	802	-	-	0/4/4/4	-

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	801	A1CRK	O1-C1	5.04	1.31	1.22
2	C	802	A1CRK	C21-C20	-4.19	1.39	1.51
2	F	801	A1CRK	O2-C10	-3.02	1.17	1.22
4	B	803	SCN	C-N	2.95	1.25	1.15
2	C	802	A1CRK	O2-C10	2.78	1.27	1.22
2	C	802	A1CRK	O1-C1	2.66	1.27	1.22
2	B	801	A1CRK	O1-C1	2.31	1.26	1.22
6	C	801	B3P	C5-C4	2.29	1.56	1.53
5	A	807	PEG	C2-C1	2.22	1.61	1.49
2	E	801	A1CRK	C21-C20	-2.19	1.45	1.51
2	D	801	A1CRK	C14-C13	-2.13	1.48	1.51
2	C	802	A1CRK	C12-C13	2.04	1.53	1.50

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	802	A1CRK	S1-C22-N2	-7.23	96.20	105.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	802	A1CRK	C20-N2-C1	-4.86	107.16	124.03
2	F	801	A1CRK	C6-C7-C8	-4.49	102.19	111.42
2	E	801	A1CRK	S1-C22-N2	-4.44	99.79	105.51
2	D	801	A1CRK	C21-C20-N2	3.90	114.90	107.13
2	D	801	A1CRK	S1-C22-N2	-3.76	100.66	105.51
2	D	801	A1CRK	C6-C7-C8	3.61	118.83	111.42
2	D	801	A1CRK	C12-C11-C10	3.54	123.02	117.25
2	A	801	A1CRK	C8-C9-C4	3.27	117.16	113.09
2	E	801	A1CRK	C8-C9-C4	3.04	116.88	113.09
2	C	802	A1CRK	C14-C13-C11	2.98	126.49	120.67
2	C	802	A1CRK	C13-C11-C10	-2.98	108.35	117.40
3	C	803	GOL	C3-C2-C1	-2.92	101.09	111.80
2	B	801	A1CRK	C6-C5-C4	2.82	116.92	111.89
2	B	801	A1CRK	C12-C11-C10	-2.75	112.77	117.25
2	F	801	A1CRK	S1-C22-N2	-2.63	102.12	105.51
2	B	801	A1CRK	C12-C13-C14	2.59	127.12	122.27
2	D	801	A1CRK	C20-C21-S1	-2.55	100.11	105.66
2	C	802	A1CRK	C21-C20-N2	2.55	112.21	107.13
2	C	802	A1CRK	C11-C10-N1	-2.53	114.74	118.84
2	F	801	A1CRK	C2-C1-N2	-2.52	114.77	118.47
2	B	801	A1CRK	O2-C10-C11	-2.51	117.41	121.85
2	E	801	A1CRK	C2-C1-N2	-2.44	114.89	118.47
2	E	801	A1CRK	C3-C4-C5	-2.41	110.48	116.73
2	F	801	A1CRK	C21-C20-N2	2.36	111.84	107.13
2	A	801	A1CRK	C11-C10-N1	-2.33	115.06	118.84
2	E	801	A1CRK	O2-C10-N1	-2.28	118.17	121.63
2	B	801	A1CRK	C6-C7-C8	-2.25	106.79	111.42
2	B	801	A1CRK	C20-C21-S1	2.21	110.46	105.66
2	D	801	A1CRK	C14-C13-C11	2.19	124.95	120.67
2	C	802	A1CRK	C12-C13-C11	-2.19	57.64	59.65
2	B	801	A1CRK	O2-C10-N1	2.18	124.92	121.63
3	C	804	GOL	O1-C1-C2	-2.13	100.78	110.38
2	B	801	A1CRK	C12-C13-C11	-2.11	57.72	59.65
2	E	801	A1CRK	C20-N2-C1	-2.10	116.73	124.03
6	C	801	B3P	C3-N1-C4	2.05	119.17	116.17
2	D	801	A1CRK	O2-C10-N1	-2.05	118.52	121.63
6	C	801	B3P	C11-C8-C10	-2.04	105.55	110.02

There are no chirality outliers.

All (38) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	C	802	A1CRK	O1-C1-N2-C22
2	E	801	A1CRK	O1-C1-N2-C20
2	E	801	A1CRK	O1-C1-N2-C22
2	E	801	A1CRK	C2-C1-N2-C20
2	E	801	A1CRK	C2-C1-N2-C22
3	A	803	GOL	C1-C2-C3-O3
3	A	804	GOL	C1-C2-C3-O3
3	C	803	GOL	C1-C2-C3-O3
3	E	805	GOL	O1-C1-C2-C3
3	E	805	GOL	C1-C2-C3-O3
6	C	801	B3P	C6-C4-N1-C3
3	A	803	GOL	O2-C2-C3-O3
3	A	804	GOL	O2-C2-C3-O3
5	A	807	PEG	O1-C1-C2-O2
3	A	802	GOL	O1-C1-C2-C3
3	A	806	GOL	C1-C2-C3-O3
3	B	804	GOL	O1-C1-C2-C3
3	B	805	GOL	O1-C1-C2-C3
3	C	804	GOL	O1-C1-C2-C3
3	C	804	GOL	C1-C2-C3-O3
3	C	804	GOL	O1-C1-C2-O2
3	E	805	GOL	O1-C1-C2-O2
3	E	805	GOL	O2-C2-C3-O3
5	A	807	PEG	O2-C3-C4-O4
3	A	802	GOL	O1-C1-C2-O2
3	C	803	GOL	O2-C2-C3-O3
6	C	801	B3P	C7-C4-N1-C3
3	C	803	GOL	O1-C1-C2-C3
3	A	806	GOL	O2-C2-C3-O3
3	C	804	GOL	O2-C2-C3-O3
3	B	804	GOL	O1-C1-C2-O2
3	B	805	GOL	O1-C1-C2-O2
3	B	805	GOL	O2-C2-C3-O3
5	A	807	PEG	C4-C3-O2-C2
6	C	801	B3P	C5-C4-N1-C3
3	D	802	GOL	O1-C1-C2-C3
3	D	802	GOL	O2-C2-C3-O3
5	A	807	PEG	C1-C2-O2-C3

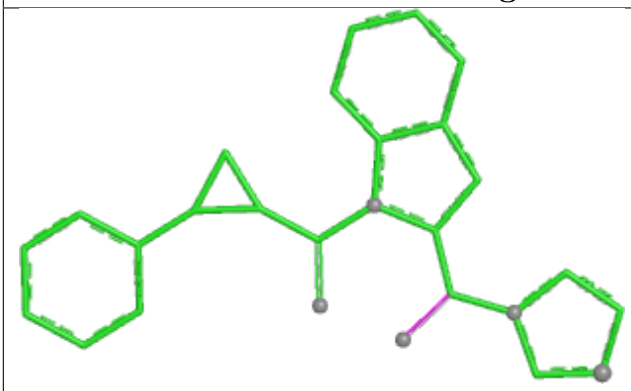
There are no ring outliers.

11 monomers are involved in 21 short contacts:

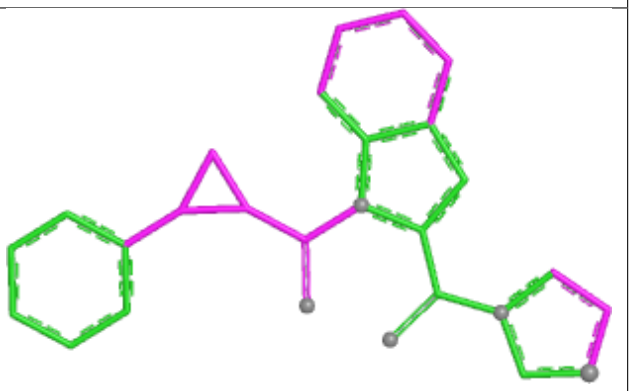
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	805	GOL	1	0
3	C	803	GOL	3	0
3	A	803	GOL	1	0
4	A	805	SCN	2	0
2	E	801	A1CRK	2	0
4	E	803	SCN	1	0
2	C	802	A1CRK	1	0
3	D	802	GOL	3	0
5	A	807	PEG	3	0
3	A	804	GOL	2	0
4	C	805	SCN	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

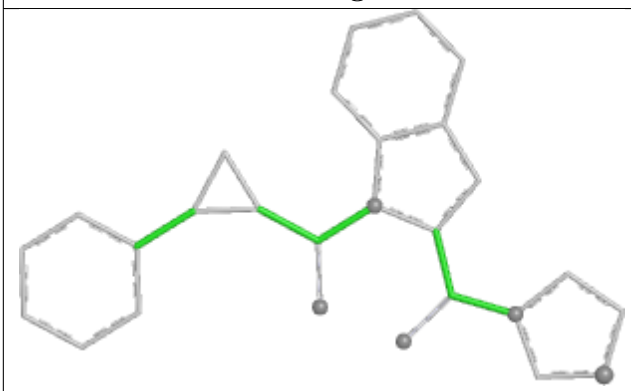
Ligand A1CRK B 801



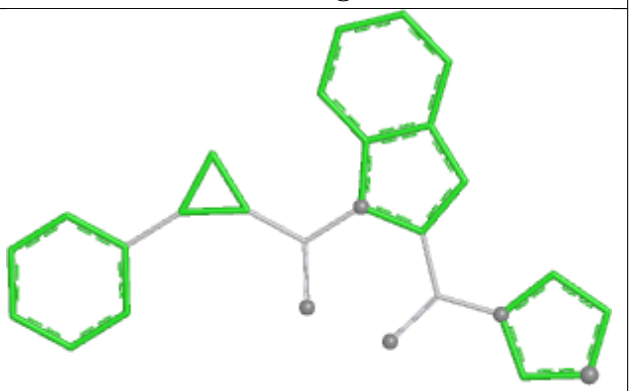
Bond lengths



Bond angles

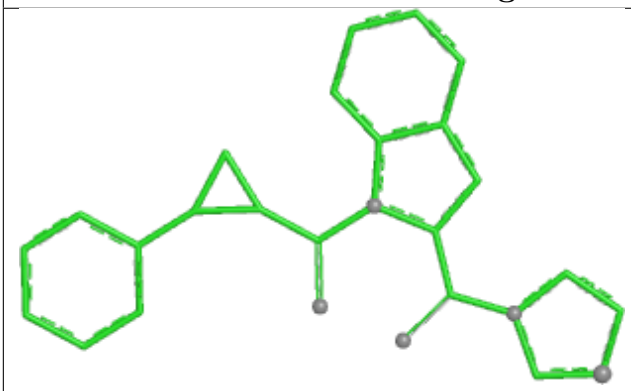


Torsions

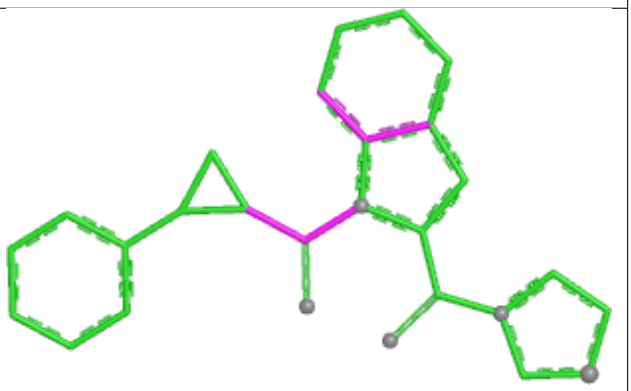


Rings

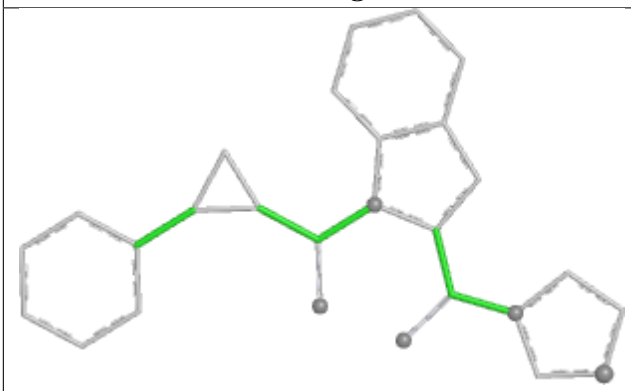
Ligand A1CRK A 801



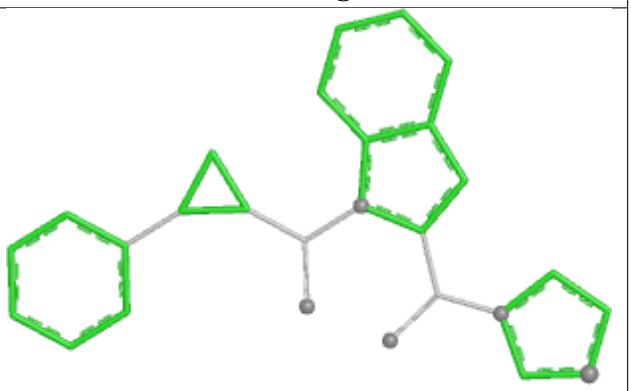
Bond lengths



Bond angles

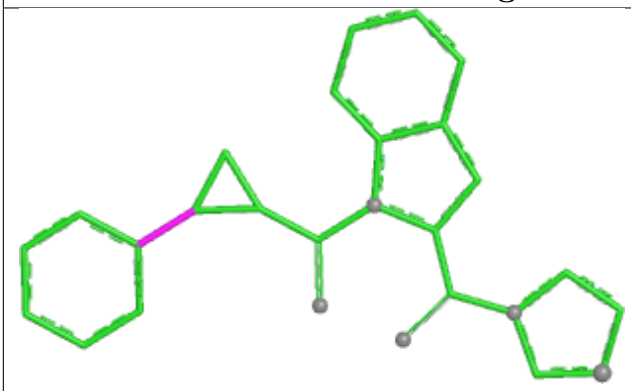


Torsions

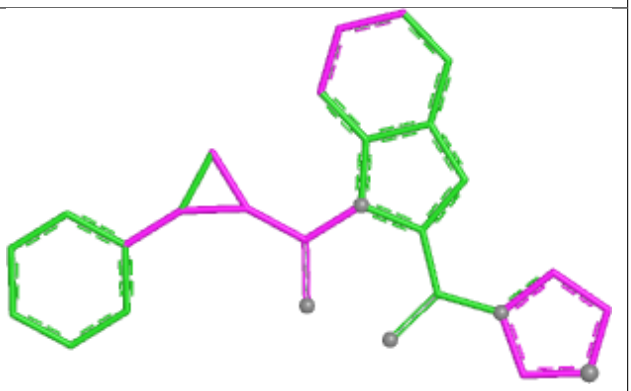


Rings

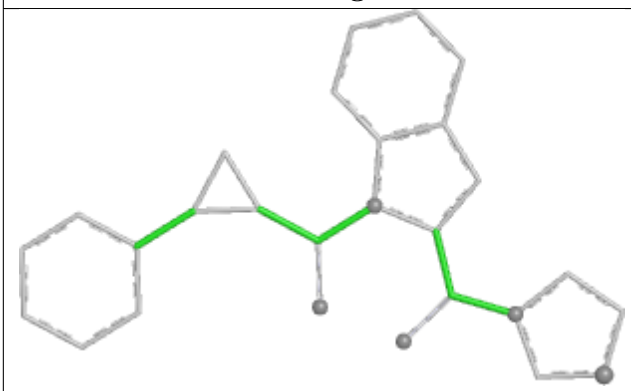
Ligand A1CRK D 801



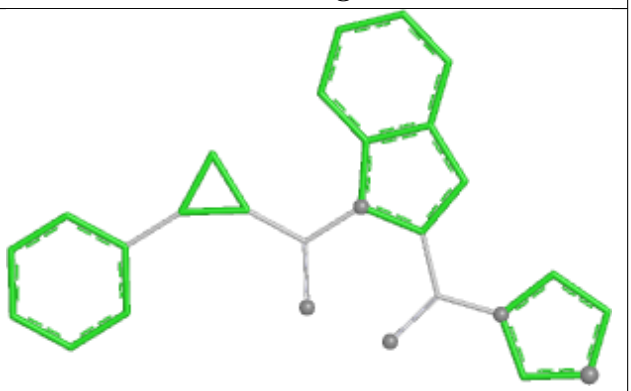
Bond lengths



Bond angles

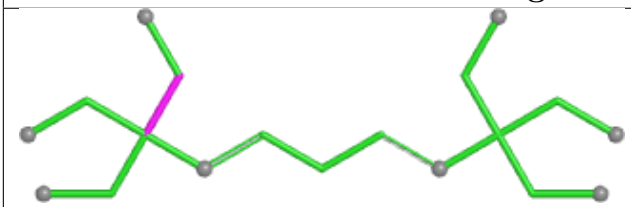


Torsions

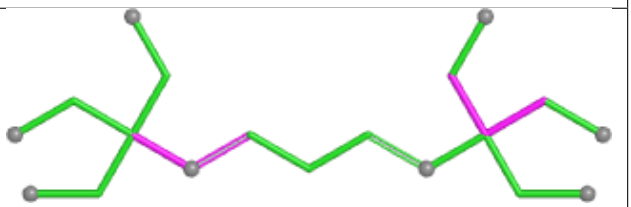


Rings

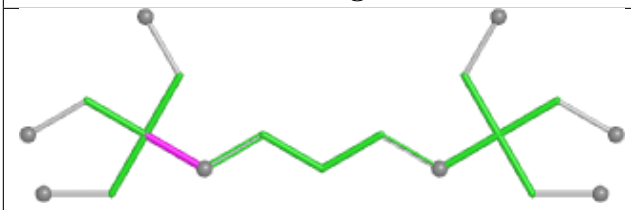
Ligand B3P C 801



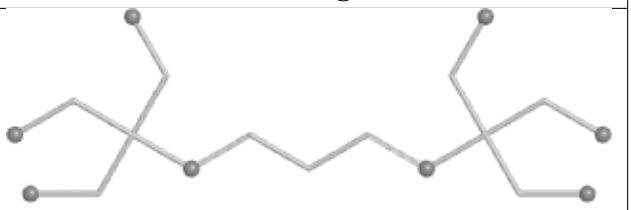
Bond lengths



Bond angles

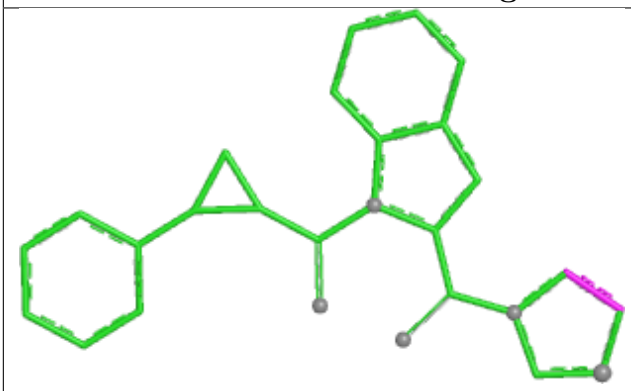


Torsions

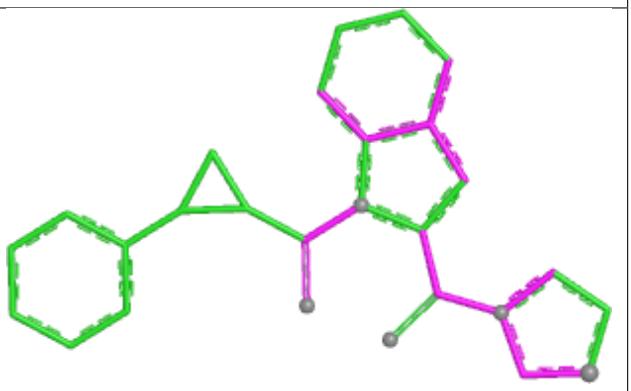


Rings

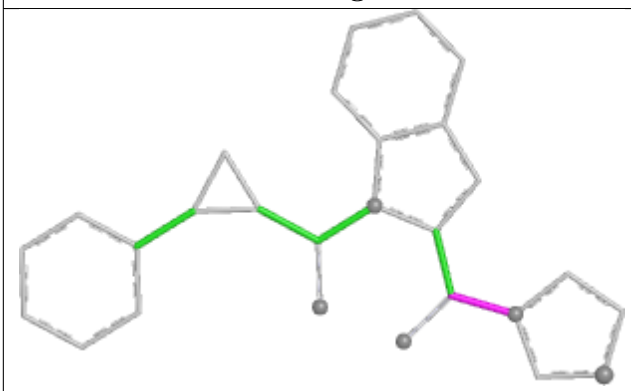
Ligand A1CRK E 801



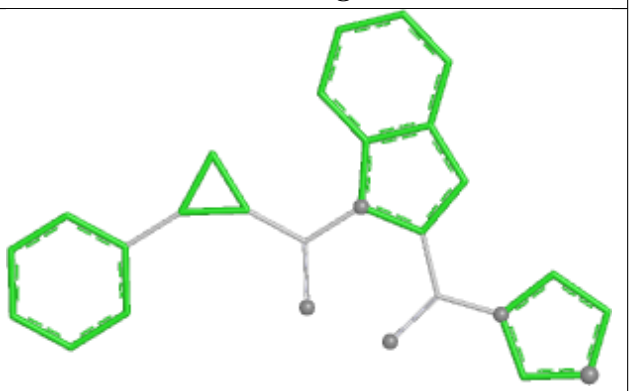
Bond lengths



Bond angles

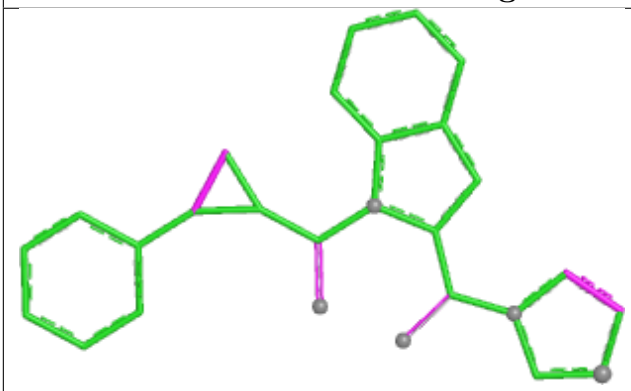


Torsions

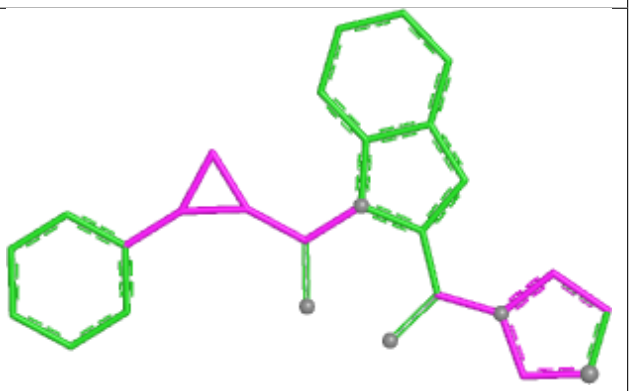


Rings

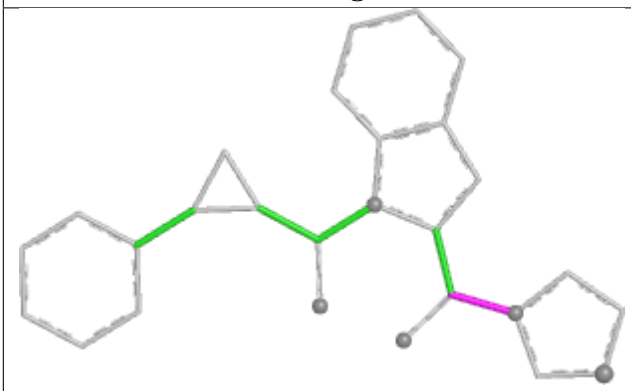
Ligand A1CRK C 802



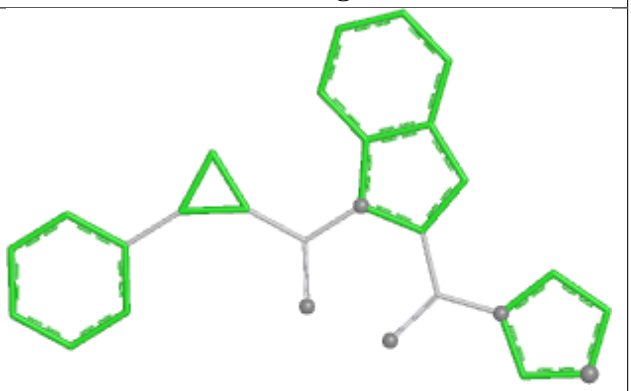
Bond lengths



Bond angles

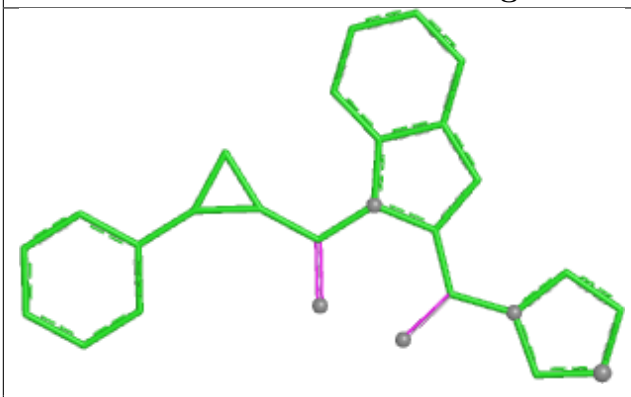


Torsions

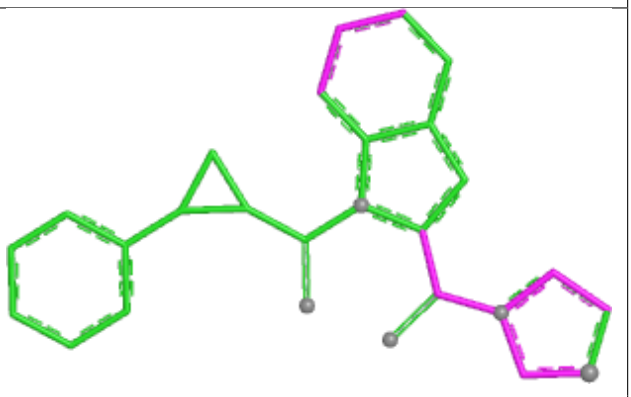


Rings

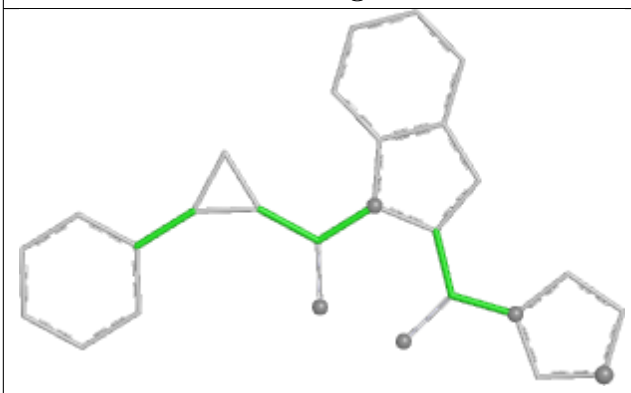
Ligand A1CRK F 801



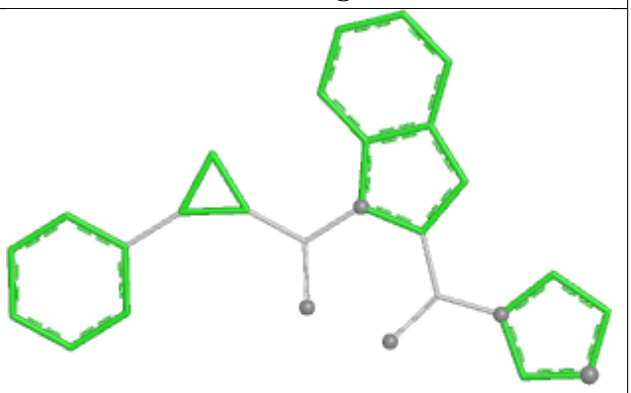
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	707/711 (99%)	-1.38	0	100	100	10, 21, 34, 50	3 (0%)
1	B	707/711 (99%)	-1.38	0	100	100	12, 21, 36, 57	0
1	C	707/711 (99%)	-1.36	0	100	100	13, 22, 37, 57	0
1	D	707/711 (99%)	-1.28	0	100	100	16, 26, 43, 65	1 (0%)
1	E	707/711 (99%)	-1.25	0	100	100	17, 27, 46, 71	0
1	F	707/711 (99%)	-1.32	0	100	100	15, 24, 41, 63	0
All	All	4242/4266 (99%)	-1.33	0	100	100	10, 24, 40, 71	4 (0%)

There are no RSRZ outliers to report.

6.2 Non-standard residues in protein, DNA, RNA chains

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

6.3 Carbohydrates

There are no oligosaccharides in this entry.

6.4 Ligands

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	B-factors(Å^2)	Q<0.9
3	GOL	B	802	6/6	0.98	0.04	27,32,39,42	3

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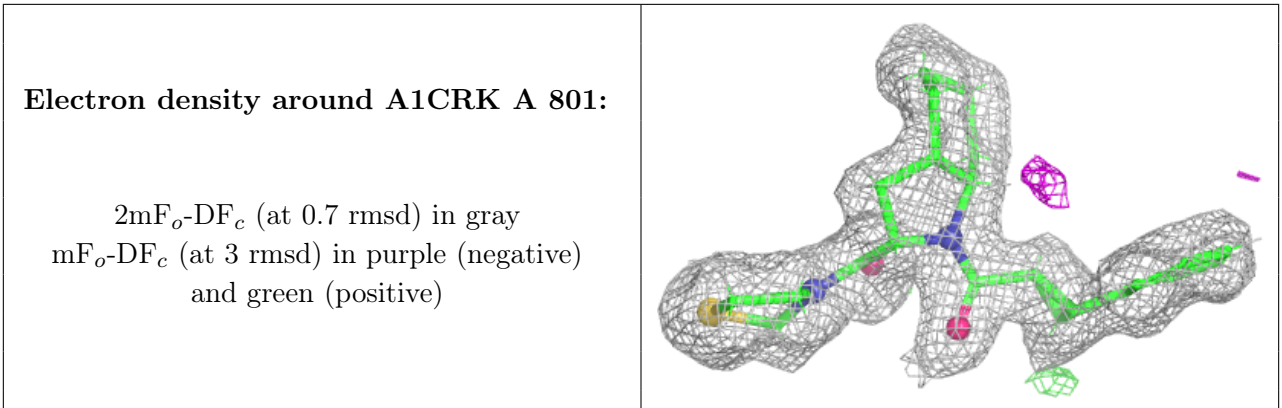
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	GOL	B	804	6/6	0.98	0.04	22,31,39,43	3
3	GOL	B	805	6/6	0.98	0.11	15,19,39,39	14
3	GOL	C	804	6/6	0.98	0.04	18,22,39,39	3
3	GOL	D	802	6/6	0.98	0.04	27,35,39,39	3
3	GOL	E	805	6/6	0.98	0.10	16,20,39,39	14
4	SCN	C	805	3/3	0.98	0.06	36,36,41,46	0
4	SCN	D	803	3/3	0.98	0.07	35,35,41,49	0
4	SCN	E	802	3/3	0.98	0.04	26,26,40,56	0
5	PEG	A	807	7/7	0.98	0.05	25,36,41,41	2
2	A1CRK	A	801	27/27	0.99	0.03	14,19,25,28	0
2	A1CRK	B	801	27/27	0.99	0.03	12,17,31,32	0
2	A1CRK	C	802	27/27	0.99	0.03	16,20,25,29	0
3	GOL	C	803	6/6	0.99	0.03	21,28,39,39	3
2	A1CRK	D	801	27/27	0.99	0.04	17,21,28,31	0
2	A1CRK	E	801	27/27	0.99	0.03	17,24,28,31	0
3	GOL	E	804	6/6	0.99	0.04	21,32,39,41	3
2	A1CRK	F	801	27/27	0.99	0.03	16,22,26,29	0
4	SCN	A	805	3/3	0.99	0.03	24,24,25,45	0
4	SCN	B	803	3/3	0.99	0.04	17,17,27,38	0
3	GOL	A	802	6/6	0.99	0.03	21,25,39,39	3
4	SCN	C	806	3/3	0.99	0.03	33,33,39,44	0
3	GOL	A	803	6/6	0.99	0.04	30,39,43,45	3
3	GOL	A	804	6/6	0.99	0.04	27,33,39,39	3
4	SCN	E	803	3/3	0.99	0.04	48,48,51,53	0
3	GOL	A	806	6/6	0.99	0.04	24,39,41,46	3
6	B3P	C	801	19/19	0.99	0.03	14,21,39,39	8

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

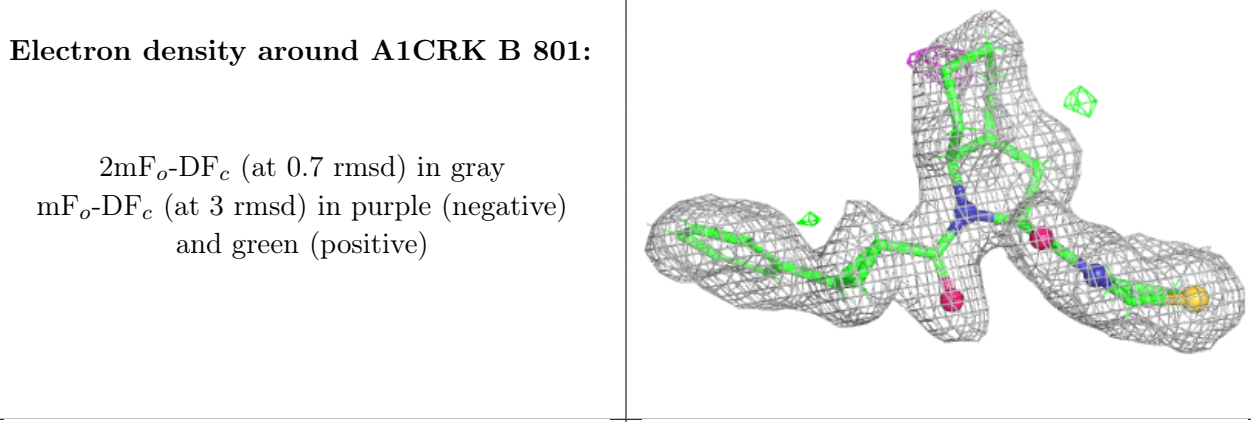
Electron density around A1CRK A 801:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



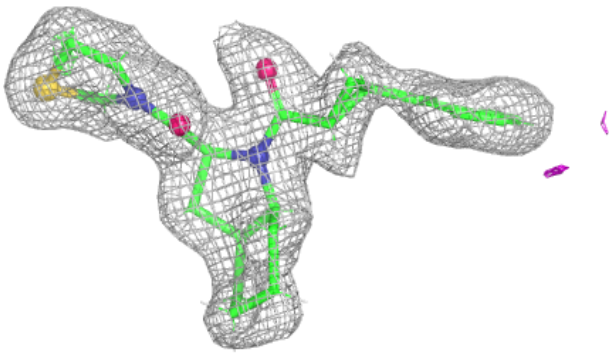
Electron density around A1CRK B 801:

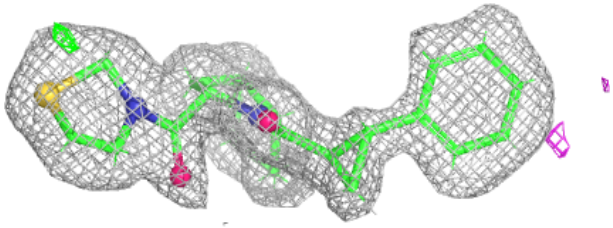
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

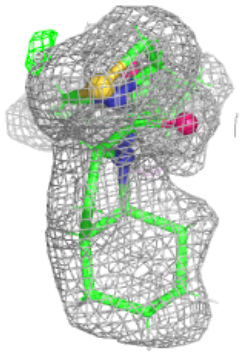


Electron density around A1CRK C 802:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

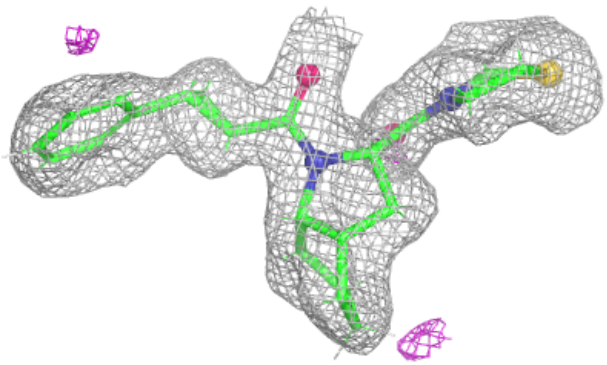


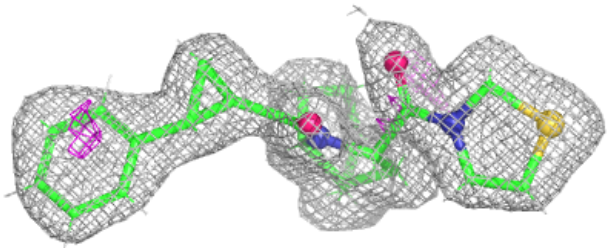


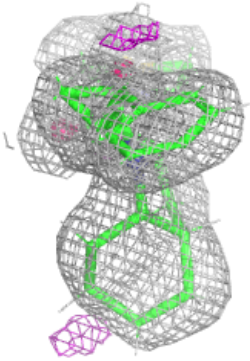


Electron density around A1CRK D 801:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

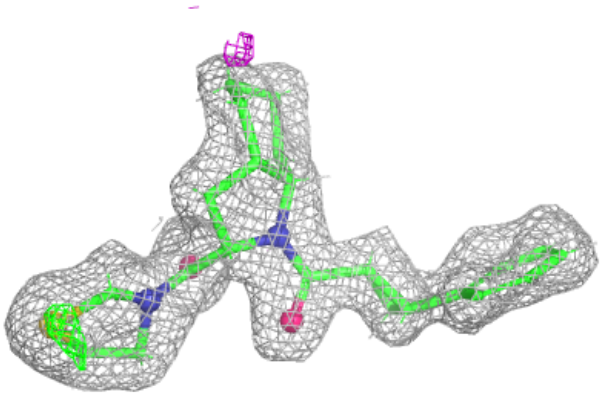


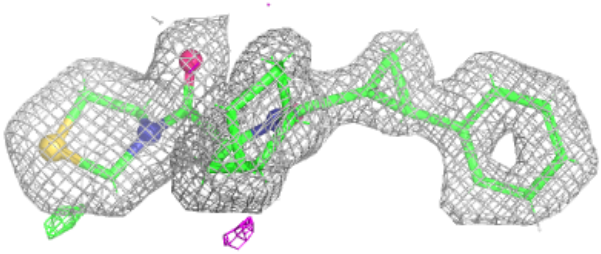


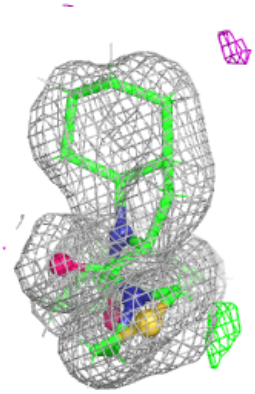


Electron density around A1CRK E 801:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

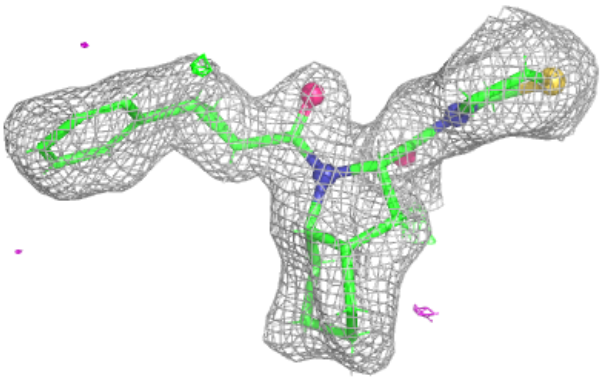


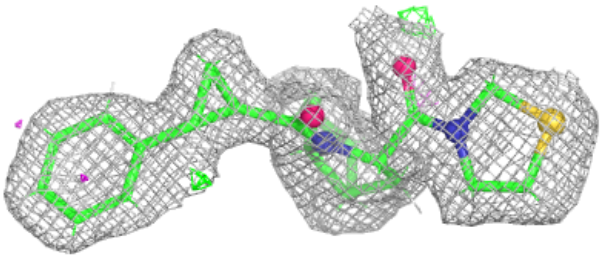


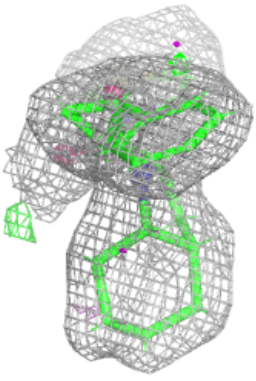


Electron density around A1CRK F 801:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

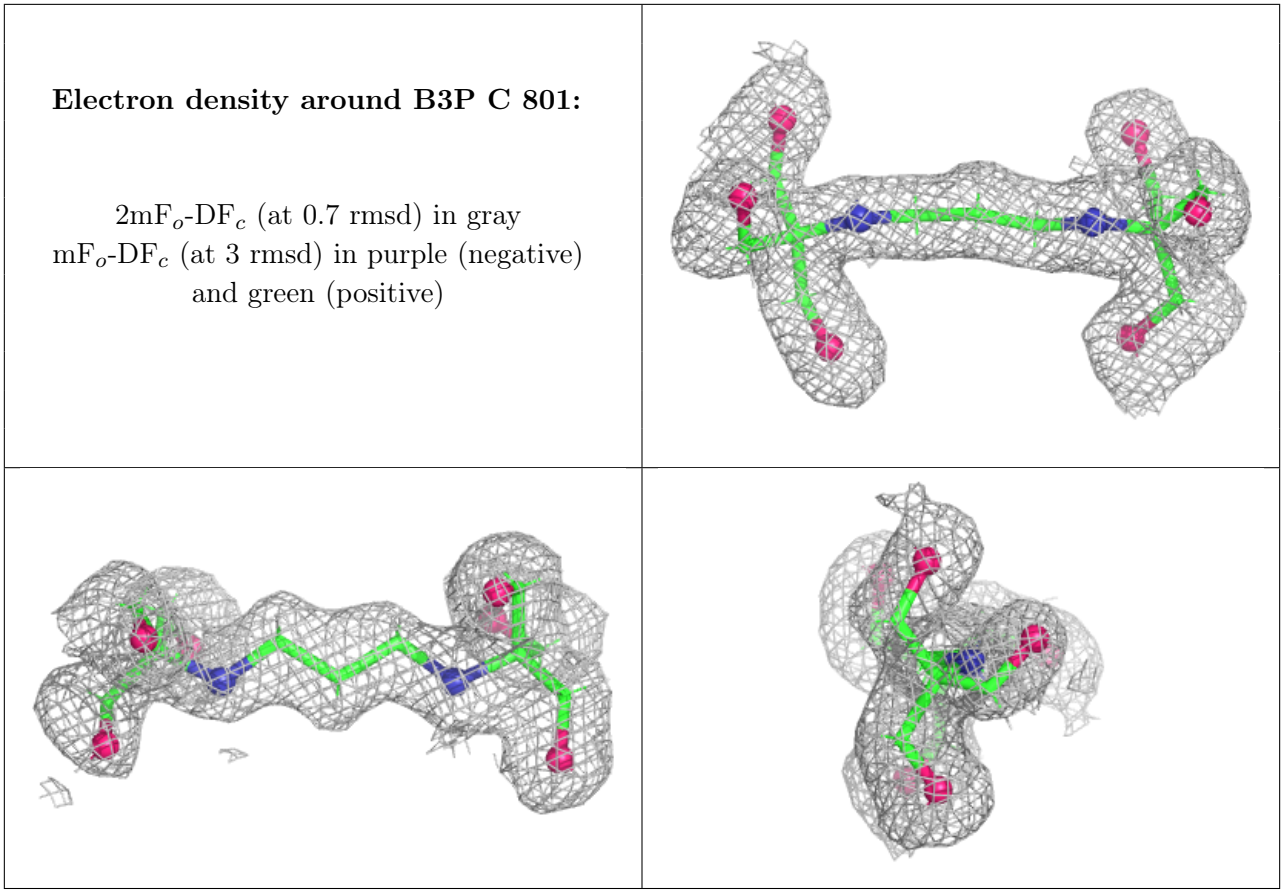






Electron density around B3P C 801:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers

There are no such residues in this entry.