Full wwPDB X-ray Structure Validation Report ⓘ

Aug 16, 2021 – 02:17 pm BST

PDB ID	:	7AE4
Title	:	Structure of Sedimentibacter hydroxybenzoicus vanillic acid decarboxylase (ShVdcCD) in closed form
Authors	:	Marshall, S.A.; Leys, D.
Deposited on	:	2020-09-17
Resolution	:	3.31 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 ⓘ symbol.

The following versions of software and data (see references ①) were used in the production of this report:

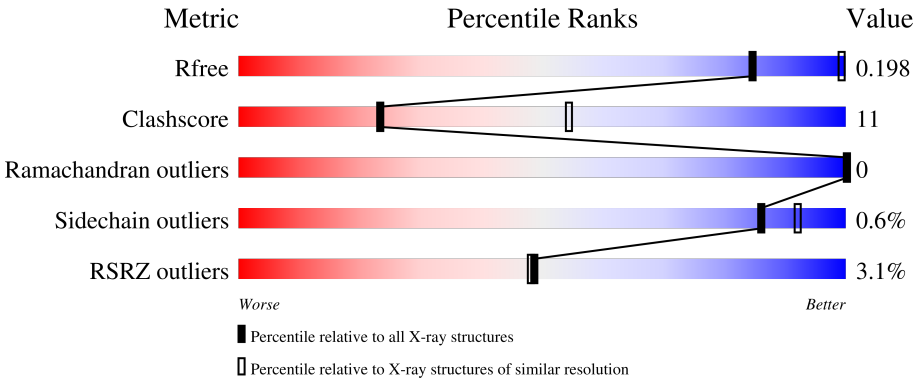
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.23.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.23.1

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 3.31 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}	130704	1089 (3.36-3.28)
Clashscore	141614	1137 (3.36-3.28)
Ramachandran outliers	138981	1115 (3.36-3.28)
Sidechain outliers	138945	1114 (3.36-3.28)
RSRZ outliers	127900	1059 (3.36-3.28)

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	480	2% 71% 28%
1	B	480	3% 74% 25%
1	C	480	5% 74% 25%
1	D	480	2% 75% 24%
1	E	480	% 74% 24%

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Mol	Chain	Length	Quality of chain
1	F	480	8% 73% 26%
2	a	68	97%
2	b	68	99%
2	c	68	97%
2	d	68	99%
2	e	68	97%
2	f	68	97%

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
3	PEG	A	501	-	-	-	X
3	PEG	D	501	-	-	-	X
7	CL	B	506	-	-	-	X
7	CL	D	507	-	-	-	X
8	EDO	E	502	-	-	-	X

2 Entry composition

There are 9 unique types of molecules in this entry. The entry contains 25763 atoms, of which 66 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.

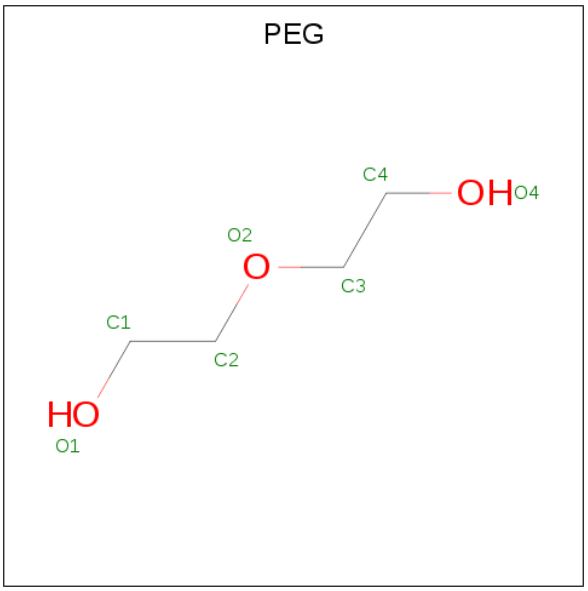
- Molecule 1 is a protein called Phenolic acid decarboxylase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	476	Total	C	N	O	S	0	0	0
			3758	2406	628	709	15			
1	B	476	Total	C	N	O	S	0	0	0
			3737	2393	625	704	15			
1	C	476	Total	C	N	O	S	0	0	0
			3709	2373	621	700	15			
1	D	476	Total	C	N	O	S	0	0	0
			3751	2403	628	705	15			
1	E	475	Total	C	N	O	S	0	0	0
			3753	2403	627	708	15			
1	F	476	Total	C	N	O	S	0	0	0
			3748	2399	627	707	15			

- Molecule 2 is a protein called Protein ShdD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	a	67	Total	C	N	O	S	0	0	0
			522	329	90	94	9			
2	b	67	Total	C	N	O	S	0	0	0
			522	329	90	94	9			
2	c	67	Total	C	N	O	S	0	0	0
			522	329	90	94	9			
2	d	67	Total	C	N	O	S	0	0	0
			522	329	90	94	9			
2	e	67	Total	C	N	O	S	0	0	0
			522	329	90	94	9			
2	f	67	Total	C	N	O	S	0	0	0
			522	329	90	94	9			

- Molecule 3 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula: $C_4H_{10}O_3$).

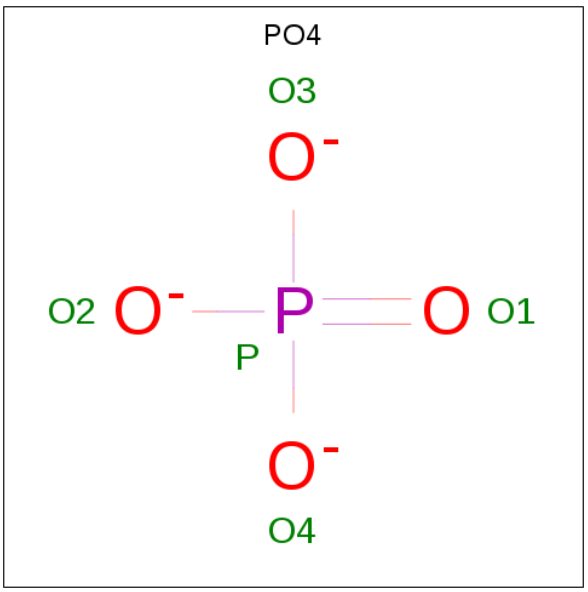


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total C H O 17 4 10 3	0	0
3	C	1	Total C H O 17 4 10 3	0	0
3	D	1	Total C H O 17 4 10 3	0	0
3	E	1	Total C H O 17 4 10 3	0	0
3	E	1	Total C H O 17 4 10 3	0	0
3	F	1	Total C H O 17 4 10 3	0	0

- Molecule 4 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	3	Total Na 3 3	0	0
4	B	3	Total Na 3 3	0	0
4	C	2	Total Na 2 2	0	0
4	D	2	Total Na 2 2	0	0
4	E	3	Total Na 3 3	0	0
4	F	2	Total Na 2 2	0	0

- Molecule 5 is PHOSPHATE ION (three-letter code: PO4) (formula: O_4P).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total O P 5 4 1	0	0
5	B	1	Total O P 5 4 1	0	0
5	C	1	Total O P 5 4 1	0	0
5	D	1	Total O P 5 4 1	0	0
5	E	1	Total O P 5 4 1	0	0
5	F	1	Total O P 5 4 1	0	0

- Molecule 6 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	1	Total Mg 1 1	0	0
6	B	1	Total Mg 1 1	0	0
6	C	1	Total Mg 1 1	0	0
6	D	1	Total Mg 1 1	0	0
6	E	1	Total Mg 1 1	0	0

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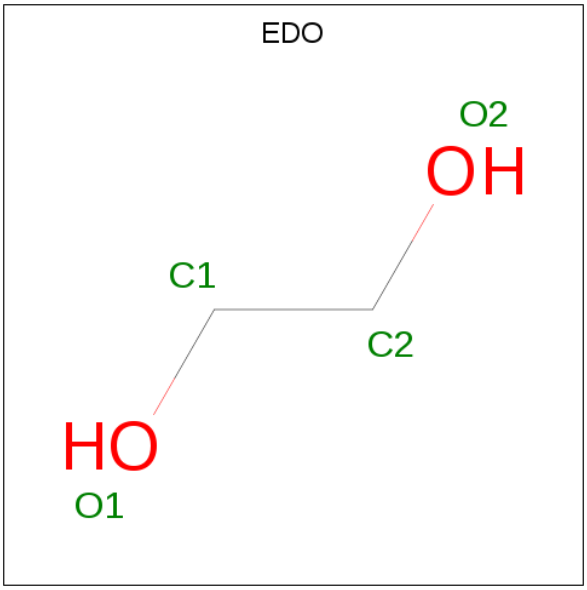
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	F	1	Total Mg 1 1	0	0

- Molecule 7 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	2	Total Cl 2 2	0	0
7	B	1	Total Cl 1 1	0	0
7	C	1	Total Cl 1 1	0	0
7	D	2	Total Cl 2 2	0	0

- Molecule 8 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
8	E	1	Total C H O 10 2 6 2	0	0

- Molecule 9 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	a	1	Total Zn 1 1	0	0

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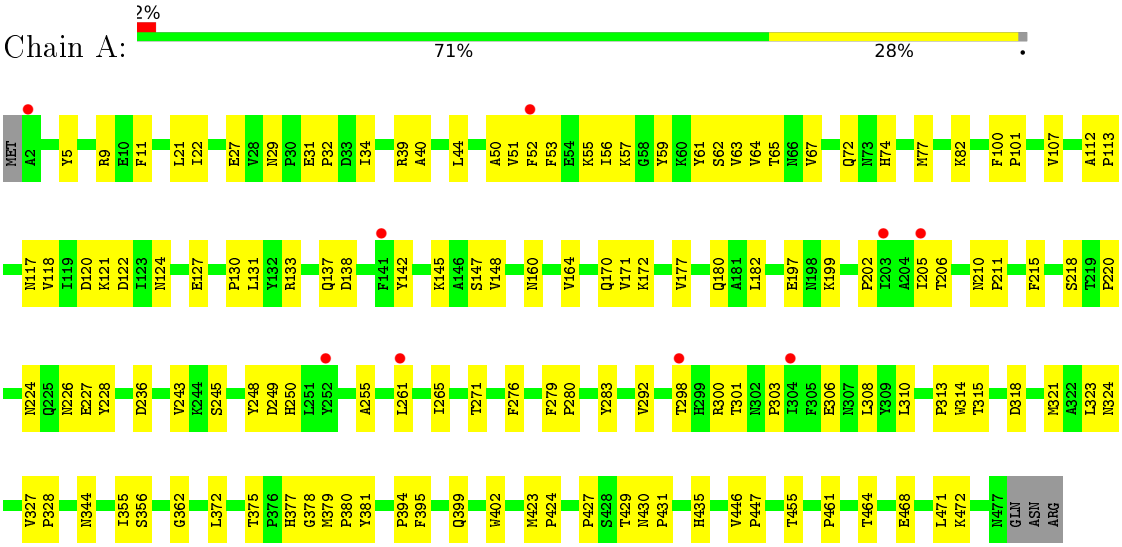
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
9	b	1	Total Zn 1 1	0	0
9	c	1	Total Zn 1 1	0	0
9	d	1	Total Zn 1 1	0	0
9	e	1	Total Zn 1 1	0	0
9	f	1	Total Zn 1 1	0	0

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.

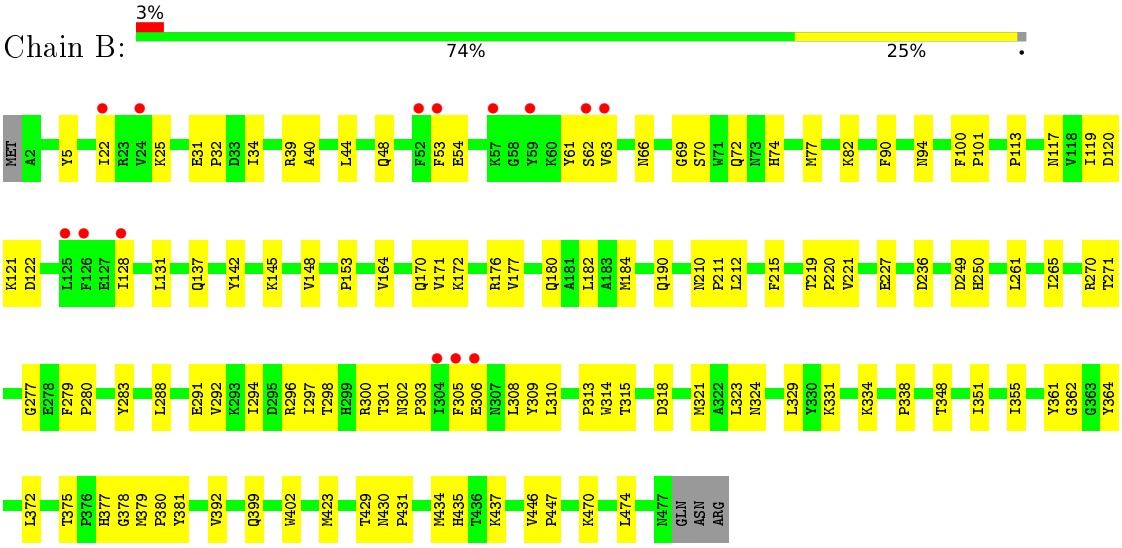
- Molecule 1: Phenolic acid decarboxylase

Chain A:



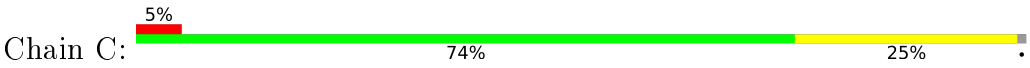
- Molecule 1: Phenolic acid decarboxylase

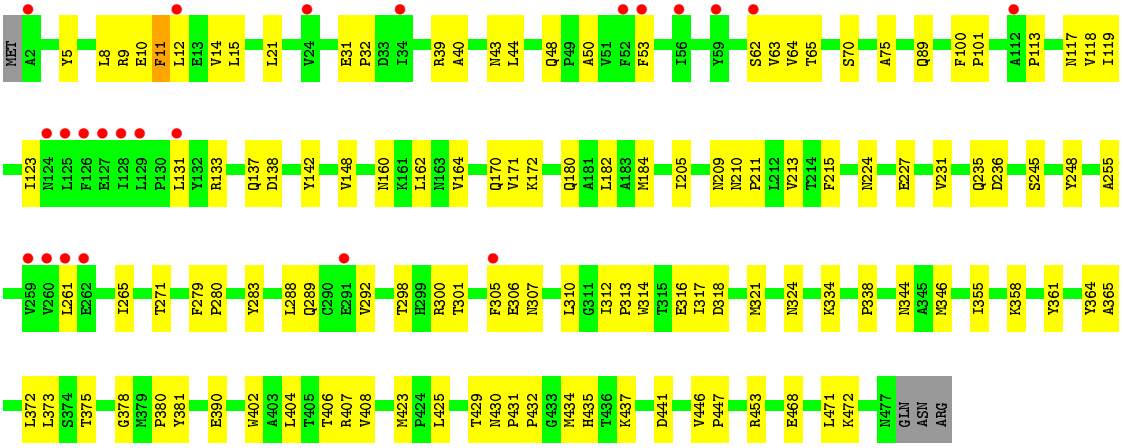
Chain B:



- Molecule 1: Phenolic acid decarboxylase

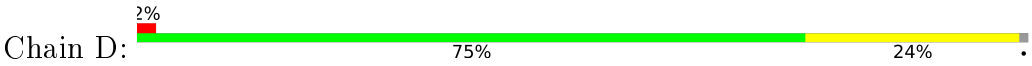
Chain C:

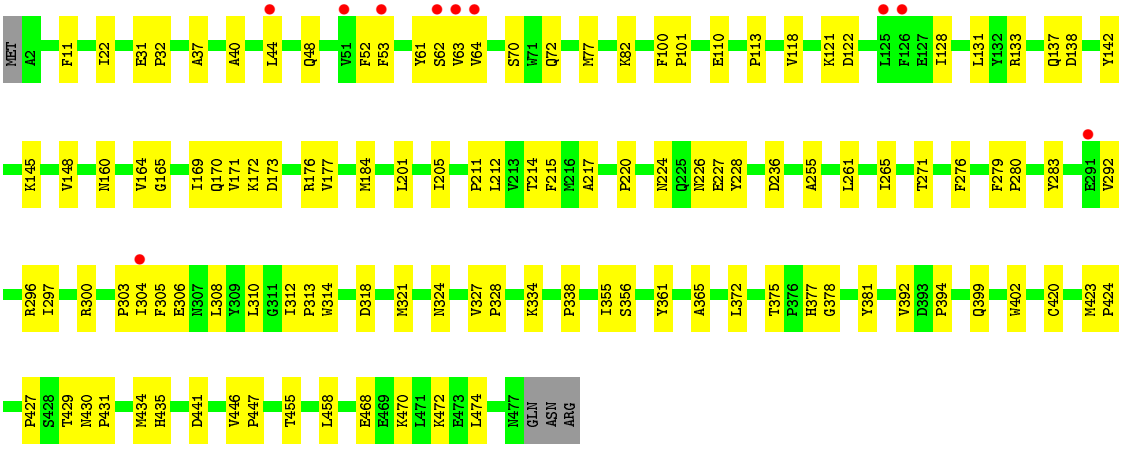




• Molecule 1: Phenolic acid decarboxylase

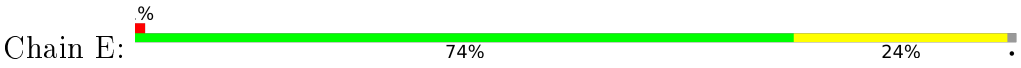
Chain D:

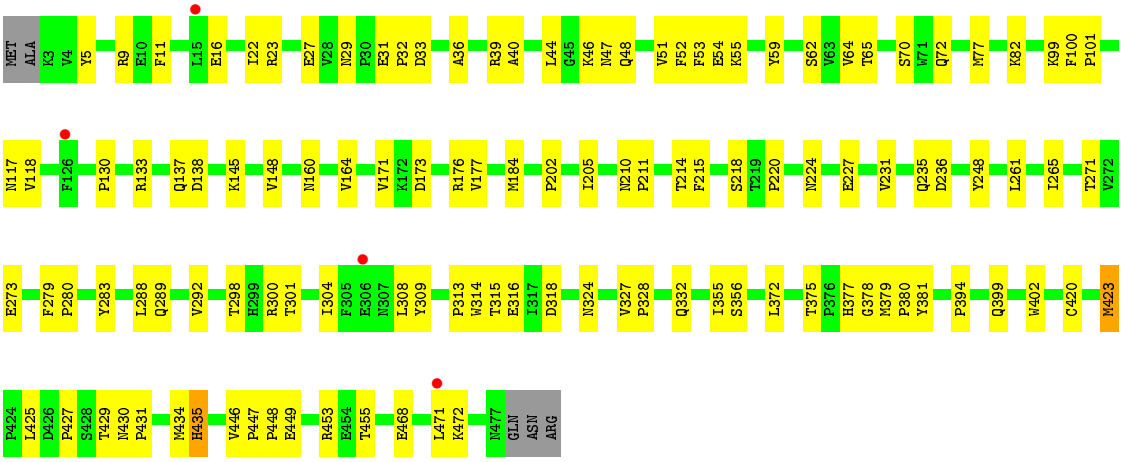




• Molecule 1: Phenolic acid decarboxylase

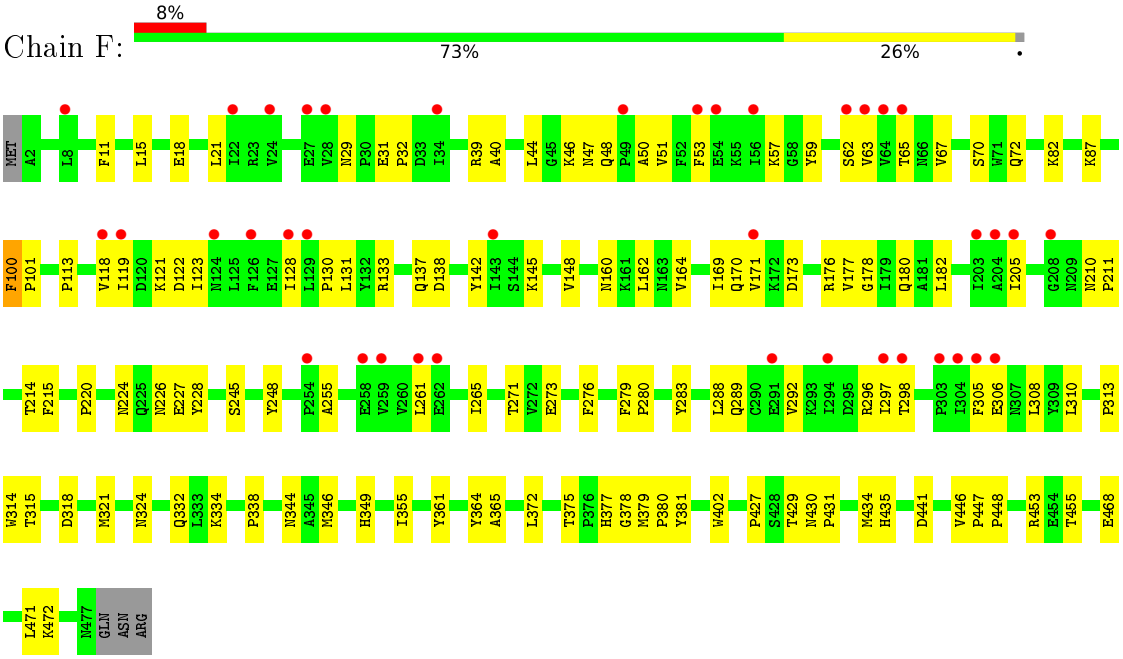
Chain E:





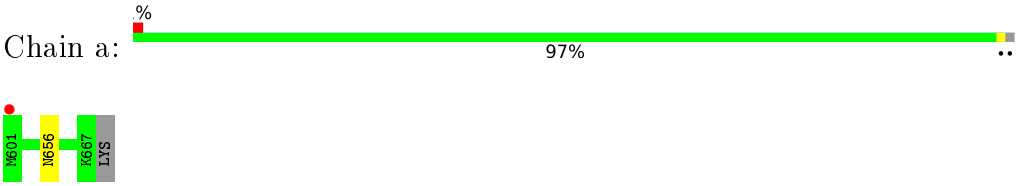
• Molecule 1: Phenolic acid decarboxylase

Chain F:



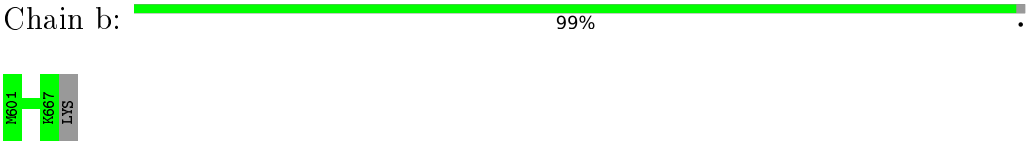
- Molecule 2: Protein ShdD

Chain a:



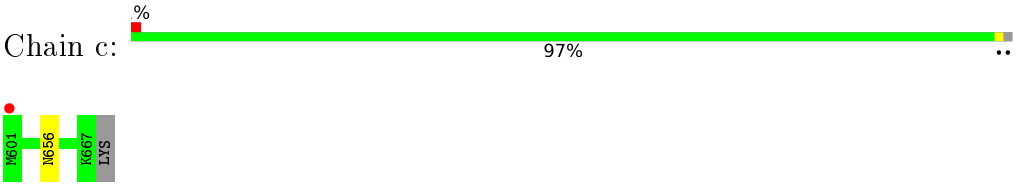
- Molecule 2: Protein ShdD

Chain b:



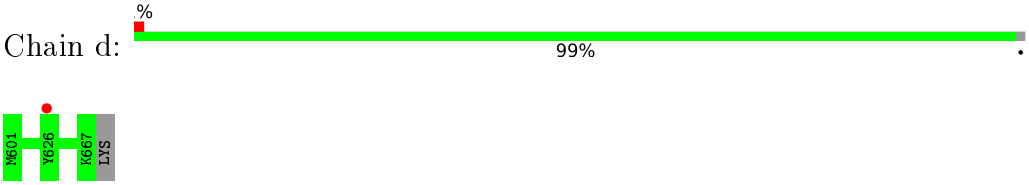
- Molecule 2: Protein ShdD

Chain c:



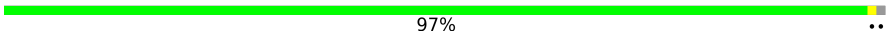
- Molecule 2: Protein ShdD

Chain d:



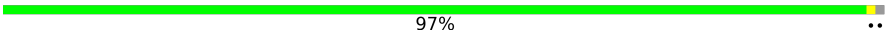
- Molecule 2: Protein ShdD

Chain e:



- Molecule 2: Protein ShdD

Chain f:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	F 2 2 2	Depositor
Cell constants a, b, c, α, β, γ	270.92Å 320.55Å 326.23Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	64.05 – 3.31 72.69 – 3.31	Depositor EDS
% Data completeness (in resolution range)	100.0 (64.05-3.31) 100.0 (72.69-3.31)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.67 (at 3.33Å)	Xtriage
Refinement program	PHENIX 1.19.2_4158	Depositor
R, R_{free}	0.163 , 0.198 0.163 , 0.198	Depositor DCC
R_{free} test set	5121 reflections (4.89%)	wwPDB-VP
Wilson B-factor (Å^2)	125.3	Xtriage
Anisotropy	0.195	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 94.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	0.002 for -h,l,k	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	25763	wwPDB-VP
Average B, all atoms (Å^2)	130.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.00% 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, NA, MG, ZN, PO4, EDO, CL

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	0.28	0/3852	0.50	0/5250
1	B	0.29	0/3831	0.51	0/5226
1	C	0.28	0/3802	0.50	0/5190
1	D	0.29	0/3845	0.51	0/5241
1	E	0.29	0/3847	0.50	0/5243
1	F	0.28	0/3842	0.50	0/5238
2	a	0.27	0/535	0.49	0/725
2	b	0.28	0/535	0.52	0/725
2	c	0.26	0/535	0.53	0/725
2	d	0.27	0/535	0.50	0/725
2	e	0.27	0/535	0.50	0/725
2	f	0.26	0/535	0.47	0/725
All	All	0.28	0/26229	0.50	0/35738

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

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	3758	0	3725	100	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	3737	0	3681	86	0
1	C	3709	0	3633	105	0
1	D	3751	0	3719	82	0
1	E	3753	0	3720	80	0
1	F	3748	0	3703	87	0
2	a	522	0	508	0	0
2	b	522	0	508	0	0
2	c	522	0	508	0	0
2	d	522	0	508	0	0
2	e	522	0	508	0	0
2	f	522	0	508	0	0
3	A	7	10	10	1	0
3	C	7	10	10	0	0
3	D	7	10	10	1	0
3	E	14	20	20	1	0
3	F	7	10	10	0	0
4	A	3	0	0	0	0
4	B	3	0	0	0	0
4	C	2	0	0	0	0
4	D	2	0	0	0	0
4	E	3	0	0	0	0
4	F	2	0	0	0	0
5	A	5	0	0	0	0
5	B	5	0	0	0	0
5	C	5	0	0	0	0
5	D	5	0	0	0	0
5	E	5	0	0	0	0
5	F	5	0	0	0	0
6	A	1	0	0	0	0
6	B	1	0	0	0	0
6	C	1	0	0	0	0
6	D	1	0	0	0	0
6	E	1	0	0	0	0
6	F	1	0	0	0	0
7	A	2	0	0	0	0
7	B	1	0	0	0	0
7	C	1	0	0	0	0
7	D	2	0	0	0	0
8	E	4	6	6	0	0
9	a	1	0	0	0	0
9	b	1	0	0	0	0
9	c	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	d	1	0	0	0	0
9	e	1	0	0	0	0
9	f	1	0	0	0	0
All	All	25697	66	25295	515	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 11.

All (515) 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:A:429:THR:HG22	1:A:435:HIS:HB3	1.49	0.95
1:A:375:THR:HG23	1:A:378:GLY:H	1.36	0.89
1:C:430:ASN:HB3	1:C:431:PRO:HD3	1.57	0.86
1:D:313:PRO:HG2	1:F:402:TRP:CD1	2.10	0.86
1:B:131:LEU:HD21	1:B:171:VAL:HG21	1.58	0.85
1:E:51:VAL:HG22	1:E:65:THR:HG22	1.58	0.85
1:C:11:PHE:CD2	1:C:211:PRO:HG3	2.10	0.84
1:B:375:THR:HG23	1:B:378:GLY:H	1.42	0.84
1:A:313:PRO:HG2	1:E:402:TRP:CD1	2.15	0.82
1:A:112:ALA:HB2	1:A:243:VAL:HG11	1.60	0.82
1:F:63:VAL:HG12	1:F:305:PHE:HB3	1.62	0.82
1:A:51:VAL:HG22	1:A:65:THR:HG22	1.60	0.81
1:F:51:VAL:HG22	1:F:65:THR:HG22	1.62	0.81
1:F:430:ASN:HB3	1:F:431:PRO:HD3	1.63	0.80
1:A:430:ASN:HB3	1:A:431:PRO:HD3	1.64	0.80
1:C:429:THR:HG22	1:C:435:HIS:HB3	1.64	0.79
1:D:131:LEU:HD21	1:D:171:VAL:HG21	1.65	0.78
1:A:402:TRP:CD1	1:E:313:PRO:HG2	2.19	0.78
1:B:402:TRP:CD1	1:C:313:PRO:HG2	2.19	0.78
1:B:313:PRO:HG2	1:C:402:TRP:CD1	2.20	0.77
1:E:429:THR:HG22	1:E:435:HIS:HB3	1.66	0.77
1:E:430:ASN:HB3	1:E:431:PRO:HD3	1.67	0.76
1:B:429:THR:HG22	1:B:435:HIS:HB3	1.69	0.75
1:C:12:LEU:HD21	1:C:64:VAL:HG11	1.67	0.75
1:B:277:GLY:O	1:B:310:LEU:HD11	1.86	0.74
1:C:378:GLY:H	1:C:380:PRO:HD2	1.51	0.74
1:C:117:ASN:HD21	1:C:301:THR:HG23	1.53	0.74
1:F:377:HIS:O	1:F:381:TYR:HB2	1.88	0.74
1:D:100:PHE:HB3	1:D:101:PRO:HD3	1.69	0.73
1:D:375:THR:HG23	1:D:378:GLY:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:39:ARG:NH1	1:B:315:THR:HG22	2.04	0.73
1:C:372:LEU:O	1:C:375:THR:HG22	1.88	0.73
1:D:402:TRP:CD1	1:F:313:PRO:HG2	2.23	0.73
1:A:117:ASN:HD21	1:A:301:THR:HG23	1.54	0.72
1:E:372:LEU:O	1:E:375:THR:HG22	1.89	0.72
1:D:429:THR:HG22	1:D:435:HIS:HB3	1.72	0.72
1:E:100:PHE:HB3	1:E:101:PRO:HD3	1.72	0.72
1:D:430:ASN:HB3	1:D:431:PRO:HD3	1.71	0.71
1:C:381:TYR:CE2	1:C:423:MET:HE2	2.26	0.70
1:C:406:THR:HG23	1:C:407:ARG:HG2	1.72	0.70
1:B:77:MET:HG3	1:B:211:PRO:HB2	1.74	0.69
1:B:100:PHE:HB3	1:B:101:PRO:HD3	1.73	0.69
1:C:11:PHE:CE2	1:C:211:PRO:HG3	2.27	0.69
1:D:372:LEU:O	1:D:375:THR:HG22	1.91	0.69
1:E:377:HIS:O	1:E:381:TYR:HB2	1.91	0.69
1:D:446:VAL:HG13	1:D:447:PRO:HD2	1.75	0.69
1:A:372:LEU:O	1:A:375:THR:HG22	1.92	0.69
1:A:107:VAL:HG22	1:A:243:VAL:HG12	1.75	0.69
1:C:100:PHE:HB3	1:C:101:PRO:HD3	1.73	0.69
1:A:100:PHE:HB3	1:A:101:PRO:HD3	1.75	0.68
1:C:5:TYR:HE2	1:C:14:VAL:HG21	1.59	0.68
1:F:429:THR:HG22	1:F:435:HIS:HB3	1.74	0.68
1:C:210:ASN:OD1	1:C:211:PRO:HD2	1.93	0.67
1:C:5:TYR:O	1:C:210:ASN:ND2	2.27	0.67
1:C:11:PHE:HD2	1:C:211:PRO:HG3	1.57	0.67
1:A:22:ILE:HD11	1:E:471:LEU:HD22	1.77	0.67
1:F:375:THR:HG23	1:F:378:GLY:H	1.60	0.67
1:F:372:LEU:O	1:F:375:THR:HG22	1.96	0.66
1:B:215:PHE:CZ	1:B:324:ASN:HB3	2.31	0.66
1:B:265:ILE:HG12	1:B:292:VAL:HG12	1.78	0.65
1:A:424:PRO:O	1:E:453:ARG:NH2	2.30	0.65
1:D:22:ILE:HD11	1:F:471:LEU:HG	1.79	0.65
1:A:381:TYR:CZ	1:A:423:MET:HE2	2.32	0.65
1:B:372:LEU:O	1:B:375:THR:HG22	1.97	0.64
1:F:265:ILE:HG12	1:F:292:VAL:HG22	1.78	0.64
1:D:172:LYS:NZ	1:D:271:THR:OG1	2.31	0.64
1:B:430:ASN:HB3	1:B:431:PRO:HD3	1.80	0.64
1:C:402:TRP:O	1:C:406:THR:HG22	1.98	0.64
1:A:39:ARG:NH1	1:A:315:THR:HG22	2.14	0.63
1:A:137:GLN:HB2	1:A:283:TYR:CZ	2.33	0.63
1:C:265:ILE:HG12	1:C:292:VAL:HG22	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:375:THR:HG23	1:E:378:GLY:H	1.65	0.62
1:D:169:ILE:HD13	1:D:205:ILE:HD13	1.82	0.62
1:A:51:VAL:CG2	1:A:65:THR:HG22	2.30	0.61
1:F:40:ALA:O	1:F:44:LEU:HD13	2.00	0.61
1:C:31:GLU:HB2	1:C:32:PRO:HD3	1.82	0.61
1:C:205:ILE:HB	1:C:261:LEU:HB2	1.82	0.60
1:C:118:VAL:HG22	1:C:298:THR:HG22	1.83	0.60
1:E:39:ARG:NH1	1:E:315:THR:HG22	2.17	0.60
1:A:172:LYS:NZ	1:A:271:THR:OG1	2.34	0.60
1:B:77:MET:HG2	1:B:212:LEU:CD1	2.31	0.60
1:B:40:ALA:O	1:B:44:LEU:HD13	2.01	0.60
1:D:220:PRO:HB2	1:D:377:HIS:HB2	1.83	0.60
1:C:12:LEU:CD2	1:C:64:VAL:HG11	2.32	0.60
1:E:164:VAL:CG1	1:E:227:GLU:HB2	2.31	0.59
1:F:31:GLU:HB2	1:F:32:PRO:HD3	1.84	0.59
1:A:52:PHE:CD2	1:A:64:VAL:HG22	2.37	0.59
1:D:31:GLU:HB2	1:D:32:PRO:HD3	1.82	0.59
1:B:381:TYR:CZ	1:B:423:MET:HE2	2.37	0.59
1:C:453:ARG:HG2	1:C:453:ARG:HH11	1.67	0.59
1:E:31:GLU:HB2	1:E:32:PRO:HD3	1.85	0.59
1:F:11:PHE:CE2	1:F:15:LEU:HD21	2.37	0.59
1:A:131:LEU:HD21	1:A:171:VAL:HG21	1.85	0.59
1:B:31:GLU:HB2	1:B:32:PRO:HD3	1.84	0.58
1:C:63:VAL:HG12	1:C:305:PHE:HB3	1.84	0.58
1:A:5:TYR:O	1:A:210:ASN:ND2	2.36	0.58
1:A:377:HIS:O	1:A:381:TYR:HB2	2.03	0.58
1:E:52:PHE:CD2	1:E:64:VAL:HG22	2.38	0.58
1:C:48:GLN:HB2	1:C:70:SER:HB3	1.84	0.58
1:F:48:GLN:HB2	1:F:70:SER:HB3	1.85	0.58
1:E:265:ILE:HG12	1:E:292:VAL:HG22	1.85	0.58
1:C:210:ASN:O	1:C:213:VAL:HG22	2.04	0.58
1:B:137:GLN:HB2	1:B:283:TYR:CZ	2.39	0.57
1:D:220:PRO:CB	1:D:377:HIS:HB2	2.34	0.57
1:C:215:PHE:CZ	1:C:324:ASN:HB3	2.38	0.57
1:D:48:GLN:HB2	1:D:70:SER:HB3	1.85	0.57
1:F:67:VAL:HB	1:F:145:LYS:NZ	2.19	0.57
1:B:220:PRO:HB2	1:B:377:HIS:HB2	1.86	0.57
1:C:365:ALA:HB3	1:C:441:ASP:OD2	2.05	0.57
1:B:63:VAL:HG12	1:B:305:PHE:HB3	1.87	0.57
1:E:40:ALA:O	1:E:44:LEU:HD13	2.04	0.57
1:F:131:LEU:HD21	1:F:171:VAL:HG21	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:131:LEU:CD2	1:D:171:VAL:HG21	2.33	0.57
1:B:131:LEU:CD2	1:B:171:VAL:HG21	2.32	0.56
1:B:355:ILE:HD11	1:B:372:LEU:HG	1.87	0.56
1:C:131:LEU:HD21	1:C:171:VAL:HG21	1.86	0.56
1:A:31:GLU:HB2	1:A:32:PRO:HD3	1.86	0.56
1:B:142:TYR:CZ	1:B:170:GLN:HB2	2.40	0.56
1:C:137:GLN:HB2	1:C:283:TYR:CZ	2.40	0.56
1:C:164:VAL:CG1	1:C:227:GLU:HB2	2.35	0.56
1:D:164:VAL:CG1	1:D:227:GLU:HB2	2.35	0.56
1:E:51:VAL:CG2	1:E:65:THR:HG22	2.31	0.56
1:C:310:LEU:HD21	1:C:317:ILE:HD12	1.87	0.56
1:A:53:PHE:O	1:A:62:SER:HB2	2.05	0.56
1:B:446:VAL:HG13	1:B:447:PRO:HD2	1.88	0.56
1:D:128:ILE:HD13	1:D:297:ILE:HG21	1.88	0.56
1:D:63:VAL:HG12	1:D:305:PHE:HB3	1.88	0.55
1:C:8:LEU:HD13	1:C:209:ASN:O	2.06	0.55
1:F:215:PHE:CZ	1:F:324:ASN:HB3	2.40	0.55
1:B:5:TYR:O	1:B:210:ASN:ND2	2.40	0.55
1:A:118:VAL:HG12	1:A:298:THR:HG22	1.88	0.55
1:F:314:TRP:HA	1:F:318:ASP:HB2	1.87	0.55
1:A:77:MET:HG3	1:A:211:PRO:HB2	1.89	0.55
1:C:10:GLU:O	1:C:14:VAL:HG23	2.07	0.55
1:D:377:HIS:O	1:D:381:TYR:HB2	2.07	0.55
1:B:172:LYS:NZ	1:B:271:THR:OG1	2.35	0.55
1:A:72:GLN:HG3	1:A:82:LYS:HG3	1.88	0.55
1:E:100:PHE:CB	1:E:101:PRO:HD3	2.37	0.55
1:F:51:VAL:CG2	1:F:65:THR:HG22	2.34	0.55
1:F:148:VAL:O	1:F:164:VAL:HA	2.07	0.55
1:A:9:ARG:NH2	1:A:300:ARG:HD2	2.22	0.55
1:A:133:ARG:NH1	1:A:138:ASP:O	2.40	0.55
1:B:94:ASN:OD1	1:B:331:LYS:HE2	2.07	0.55
1:B:379:MET:HB3	1:B:380:PRO:HD3	1.89	0.55
1:A:164:VAL:CG1	1:A:227:GLU:HB2	2.37	0.54
1:E:164:VAL:HG12	1:E:227:GLU:HB2	1.89	0.54
1:C:53:PHE:O	1:C:62:SER:HB2	2.08	0.54
1:C:310:LEU:HD21	1:C:317:ILE:CD1	2.37	0.54
1:D:77:MET:HG3	1:D:211:PRO:HB2	1.89	0.54
1:E:5:TYR:O	1:E:210:ASN:ND2	2.40	0.54
1:E:9:ARG:NH2	1:E:300:ARG:HD2	2.22	0.54
1:E:39:ARG:HD2	1:E:309:TYR:CE2	2.43	0.54
1:A:34:ILE:HD11	1:A:56:ILE:HD12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:64:VAL:HG23	1:E:304:ILE:HG22	1.89	0.54
1:A:355:ILE:HD11	1:A:372:LEU:HG	1.89	0.54
1:E:220:PRO:HB2	1:E:377:HIS:HB2	1.90	0.54
1:E:423:MET:HE3	1:E:425:LEU:HB2	1.89	0.54
1:D:100:PHE:CB	1:D:101:PRO:HD3	2.38	0.54
1:B:434:MET:HG3	1:E:448:PRO:HG2	1.90	0.53
1:D:381:TYR:CZ	1:D:423:MET:HE2	2.42	0.53
1:E:137:GLN:HB2	1:E:283:TYR:CZ	2.43	0.53
1:C:164:VAL:HG12	1:C:227:GLU:HB2	1.89	0.53
1:C:11:PHE:HD2	1:C:211:PRO:CG	2.21	0.53
1:B:22:ILE:HD11	1:C:471:LEU:HG	1.90	0.53
1:C:402:TRP:CE2	1:C:406:THR:HG21	2.44	0.53
1:F:11:PHE:CD2	1:F:211:PRO:HG3	2.43	0.53
1:B:277:GLY:O	1:B:310:LEU:CD1	2.55	0.53
1:E:133:ARG:NH1	1:E:138:ASP:O	2.41	0.53
1:C:321:MET:HA	1:C:324:ASN:OD1	2.09	0.53
1:A:455:THR:HG22	1:E:427:PRO:HB2	1.90	0.53
1:C:142:TYR:CZ	1:C:170:GLN:HB2	2.44	0.53
1:D:455:THR:HG22	1:F:427:PRO:HB2	1.91	0.52
1:E:48:GLN:HB2	1:E:70:SER:HB3	1.91	0.52
1:C:430:ASN:HB3	1:C:431:PRO:CD	2.35	0.52
1:F:271:THR:O	1:F:288:LEU:HA	2.08	0.52
1:B:100:PHE:CB	1:B:101:PRO:HD3	2.39	0.52
1:B:279:PHE:CG	1:B:280:PRO:HD3	2.44	0.52
1:D:314:TRP:HA	1:D:318:ASP:HB2	1.91	0.52
1:B:53:PHE:O	1:B:62:SER:HB2	2.09	0.52
1:C:210:ASN:HB3	1:C:213:VAL:HG22	1.91	0.52
1:E:16:GLU:OE2	1:E:23:ARG:NH1	2.42	0.52
1:A:215:PHE:CZ	1:A:324:ASN:HB3	2.45	0.52
1:A:375:THR:CG2	1:A:378:GLY:H	2.15	0.52
1:C:373:LEU:HD22	1:C:437:LYS:HE3	1.92	0.52
1:F:53:PHE:O	1:F:62:SER:HB2	2.10	0.52
1:D:171:VAL:HA	1:D:177:VAL:HG12	1.92	0.51
1:F:220:PRO:HB2	1:F:377:HIS:HB2	1.92	0.51
1:A:164:VAL:HG12	1:A:227:GLU:HB2	1.92	0.51
1:D:308:LEU:C	1:D:308:LEU:HD12	2.31	0.51
1:E:160:ASN:HB3	1:E:224:ASN:O	2.10	0.51
1:A:265:ILE:HG12	1:A:292:VAL:HG22	1.90	0.51
1:A:314:TRP:HA	1:A:318:ASP:HB2	1.92	0.51
1:A:344:ASN:HA	1:A:395:PHE:HE1	1.74	0.51
1:B:148:VAL:O	1:B:164:VAL:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:133:ARG:NH1	1:C:138:ASP:O	2.43	0.51
1:C:310:LEU:CD2	1:C:317:ILE:HG21	2.40	0.51
1:D:137:GLN:HB2	1:D:283:TYR:CZ	2.45	0.51
1:F:365:ALA:HB3	1:F:441:ASP:OD2	2.09	0.51
1:C:180:GLN:HG2	1:C:182:LEU:HG	1.93	0.51
1:C:148:VAL:O	1:C:164:VAL:HA	2.11	0.51
1:F:355:ILE:HD11	1:F:372:LEU:HG	1.93	0.51
1:F:446:VAL:HG13	1:F:447:PRO:HD2	1.92	0.51
1:C:39:ARG:HD3	1:C:39:ARG:O	2.10	0.50
1:E:308:LEU:HD12	1:E:308:LEU:C	2.32	0.50
1:C:215:PHE:CE1	1:C:324:ASN:HB3	2.47	0.50
1:C:213:VAL:HG12	1:C:231:VAL:HG21	1.94	0.50
1:C:310:LEU:HD21	1:C:317:ILE:HG21	1.93	0.50
1:E:145:LYS:HD3	1:E:214:THR:HG21	1.92	0.50
1:A:29:ASN:HA	1:A:57:LYS:HB2	1.94	0.50
1:C:314:TRP:HA	1:C:318:ASP:HB2	1.94	0.50
1:C:355:ILE:HD11	1:C:372:LEU:HG	1.94	0.50
1:F:137:GLN:HB2	1:F:283:TYR:CZ	2.47	0.50
1:A:27:GLU:HA	1:A:55:LYS:HB3	1.94	0.49
1:A:381:TYR:CZ	1:A:423:MET:CE	2.95	0.49
1:C:113:PRO:O	1:C:300:ARG:HG2	2.12	0.49
1:C:468:GLU:O	1:C:472:LYS:HG3	2.12	0.49
1:D:446:VAL:CG1	1:D:447:PRO:HD2	2.42	0.49
1:A:379:MET:HB3	1:A:380:PRO:HD3	1.94	0.49
1:A:399:GLN:HG2	3:A:501:PEG:H41	1.93	0.49
1:D:279:PHE:CG	1:D:280:PRO:HD3	2.47	0.49
1:B:377:HIS:O	1:B:380:PRO:HD2	2.13	0.49
1:C:53:PHE:HB2	1:C:63:VAL:HG22	1.95	0.49
1:A:120:ASP:OD1	1:A:120:ASP:N	2.45	0.49
1:C:334:LYS:HD3	1:C:338:PRO:HA	1.95	0.49
1:B:375:THR:CG2	1:B:378:GLY:H	2.19	0.49
1:C:381:TYR:CZ	1:C:423:MET:CE	2.95	0.49
1:D:420:CYS:O	1:D:434:MET:HE3	2.12	0.49
1:D:424:PRO:O	1:F:453:ARG:NH2	2.40	0.49
1:E:446:VAL:HG13	1:E:447:PRO:HD2	1.94	0.49
1:F:11:PHE:CG	1:F:211:PRO:HG3	2.48	0.49
1:C:40:ALA:O	1:C:44:LEU:HD13	2.13	0.49
1:D:110:GLU:CD	1:D:110:GLU:H	2.16	0.49
1:D:133:ARG:NH1	1:D:138:ASP:O	2.46	0.49
1:F:133:ARG:NH1	1:F:138:ASP:O	2.45	0.49
1:A:148:VAL:O	1:A:164:VAL:HA	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:215:PHE:CE1	1:B:324:ASN:HB3	2.48	0.49
1:E:117:ASN:OD1	1:E:301:THR:HG23	2.13	0.48
1:F:100:PHE:HB3	1:F:101:PRO:HD3	1.94	0.48
1:A:220:PRO:HB2	1:A:377:HIS:HB2	1.94	0.48
1:B:120:ASP:OD2	1:B:296:ARG:NH2	2.46	0.48
1:B:270:ARG:HB3	1:B:288:LEU:HB3	1.95	0.48
1:E:29:ASN:O	1:E:33:ASP:HB2	2.13	0.48
1:F:118:VAL:HG22	1:F:298:THR:HG22	1.94	0.48
1:B:171:VAL:HA	1:B:177:VAL:HG12	1.94	0.48
1:C:381:TYR:CE2	1:C:423:MET:CE	2.97	0.48
1:F:215:PHE:CE1	1:F:324:ASN:HB3	2.48	0.48
1:A:202:PRO:HB3	1:A:248:TYR:CD1	2.49	0.48
1:C:210:ASN:O	1:C:213:VAL:CG2	2.62	0.48
1:A:61:TYR:CD1	1:A:303:PRO:HD2	2.49	0.48
1:C:160:ASN:HB3	1:C:224:ASN:O	2.14	0.48
1:C:434:MET:HG3	1:F:448:PRO:HG2	1.95	0.48
1:D:355:ILE:HD11	1:D:372:LEU:HG	1.94	0.48
1:A:124:ASN:HB3	1:A:127:GLU:HG3	1.95	0.48
1:D:279:PHE:N	1:D:280:PRO:CD	2.76	0.48
1:D:334:LYS:HD3	1:D:338:PRO:HA	1.96	0.48
1:A:100:PHE:CB	1:A:101:PRO:HD3	2.44	0.48
1:F:430:ASN:HB3	1:F:431:PRO:CD	2.38	0.48
1:D:365:ALA:HB3	1:D:441:ASP:OD2	2.13	0.48
1:E:279:PHE:N	1:E:280:PRO:CD	2.77	0.48
1:B:128:ILE:HD13	1:B:297:ILE:HG21	1.96	0.47
1:E:314:TRP:HA	1:E:318:ASP:HB2	1.95	0.47
1:F:276:PHE:CZ	1:F:310:LEU:HD21	2.49	0.47
1:F:279:PHE:CG	1:F:280:PRO:HD3	2.49	0.47
1:A:446:VAL:HG13	1:A:447:PRO:HD2	1.95	0.47
1:F:119:ILE:HG22	1:F:123:ILE:HD13	1.95	0.47
1:A:308:LEU:HD12	1:A:308:LEU:C	2.34	0.47
1:A:430:ASN:HB3	1:A:431:PRO:CD	2.41	0.47
1:C:9:ARG:HH21	1:C:300:ARG:NE	2.12	0.47
1:D:145:LYS:HD3	1:D:214:THR:HG21	1.97	0.47
1:E:11:PHE:CG	1:E:211:PRO:HG3	2.50	0.47
1:E:99:LYS:NZ	1:E:236:ASP:OD1	2.43	0.47
1:E:227:GLU:N	1:E:227:GLU:OE1	2.48	0.47
1:B:310:LEU:C	1:B:310:LEU:HD12	2.35	0.47
1:D:265:ILE:HG12	1:D:292:VAL:HG22	1.96	0.47
1:B:220:PRO:CB	1:B:377:HIS:HB2	2.43	0.47
1:D:52:PHE:CD2	1:D:64:VAL:HG22	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:334:LYS:HD3	1:B:338:PRO:HA	1.96	0.47
1:E:53:PHE:O	1:E:62:SER:HB2	2.14	0.47
1:C:39:ARG:HD2	1:C:43:ASN:ND2	2.29	0.47
1:E:215:PHE:CZ	1:E:324:ASN:HB3	2.49	0.47
1:F:11:PHE:CZ	1:F:15:LEU:HD21	2.50	0.47
1:F:273:GLU:HB3	1:F:289:GLN:HG3	1.96	0.47
1:B:72:GLN:HG3	1:B:82:LYS:HG3	1.97	0.47
1:D:468:GLU:O	1:D:472:LYS:HG3	2.15	0.47
1:F:334:LYS:HD3	1:F:338:PRO:HA	1.97	0.47
1:C:227:GLU:N	1:C:227:GLU:OE1	2.48	0.46
1:A:40:ALA:O	1:A:44:LEU:HD13	2.15	0.46
1:D:201:LEU:HD23	1:D:265:ILE:HD12	1.97	0.46
1:A:464:THR:HG22	1:E:36:ALA:HA	1.96	0.46
1:B:48:GLN:HB2	1:B:70:SER:HB3	1.97	0.46
1:B:392:VAL:HG13	1:B:399:GLN:HB3	1.98	0.46
1:C:100:PHE:CB	1:C:101:PRO:HD3	2.41	0.46
1:D:142:TYR:CZ	1:D:170:GLN:HB2	2.51	0.46
1:E:420:CYS:O	1:E:434:MET:HE3	2.16	0.46
1:D:470:LYS:O	1:D:474:LEU:HD13	2.16	0.46
1:F:321:MET:HA	1:F:324:ASN:OD1	2.16	0.46
1:C:279:PHE:CG	1:C:280:PRO:HD3	2.51	0.46
1:F:205:ILE:HB	1:F:261:LEU:HB2	1.98	0.46
1:A:427:PRO:HB2	1:E:455:THR:HG22	1.98	0.46
1:C:446:VAL:HG13	1:C:447:PRO:HD2	1.98	0.46
1:E:46:LYS:HE2	1:E:47:ASN:HD21	1.79	0.46
1:E:72:GLN:HG3	1:E:82:LYS:HG3	1.98	0.46
1:F:279:PHE:N	1:F:280:PRO:CD	2.79	0.46
1:A:215:PHE:CE1	1:A:324:ASN:HB3	2.51	0.46
1:A:468:GLU:O	1:A:472:LYS:HG3	2.16	0.46
1:C:113:PRO:HD2	1:C:255:ALA:O	2.15	0.46
1:B:113:PRO:O	1:B:300:ARG:HG2	2.15	0.45
1:F:72:GLN:HG3	1:F:82:LYS:HG3	1.97	0.45
1:F:113:PRO:HD2	1:F:255:ALA:O	2.16	0.45
1:A:67:VAL:HB	1:A:145:LYS:NZ	2.31	0.45
1:E:273:GLU:HB3	1:E:289:GLN:HG3	1.98	0.45
1:E:399:GLN:NE2	3:E:503:PEG:H42	2.31	0.45
1:F:29:ASN:HB3	1:F:57:LYS:HD3	1.97	0.45
1:F:332:GLN:OE1	1:F:375:THR:OG1	2.34	0.45
1:A:313:PRO:HG2	1:E:402:TRP:NE1	2.30	0.45
1:B:61:TYR:CD1	1:B:303:PRO:HD2	2.51	0.45
1:B:153:PRO:HD3	1:B:190:GLN:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:65:THR:HA	1:C:307:ASN:O	2.16	0.45
1:D:61:TYR:CD1	1:D:303:PRO:HD2	2.51	0.45
1:F:180:GLN:HG2	1:F:182:LEU:HG	1.98	0.45
1:D:53:PHE:O	1:D:62:SER:HB2	2.17	0.45
1:D:148:VAL:O	1:D:164:VAL:HA	2.15	0.45
1:D:226:ASN:OD1	1:D:228:TYR:HB2	2.17	0.45
1:E:23:ARG:HD3	1:E:54:GLU:OE2	2.15	0.45
1:E:220:PRO:CB	1:E:377:HIS:HB2	2.46	0.45
1:E:355:ILE:HD11	1:E:372:LEU:HD22	1.99	0.45
1:A:321:MET:HA	1:A:324:ASN:OD1	2.16	0.45
1:C:423:MET:HG3	1:C:425:LEU:H	1.80	0.45
1:E:218:SER:HB2	1:E:324:ASN:ND2	2.31	0.45
1:A:147:SER:HB2	1:A:206:THR:OG1	2.17	0.45
1:B:39:ARG:HD2	1:B:309:TYR:CE2	2.51	0.45
1:F:100:PHE:CB	1:F:101:PRO:HD3	2.45	0.45
1:A:279:PHE:CG	1:A:280:PRO:HD3	2.52	0.45
1:B:184:MET:HB2	1:B:380:PRO:HG3	1.99	0.45
1:C:117:ASN:O	1:C:298:THR:HA	2.17	0.45
1:D:427:PRO:HB2	1:F:455:THR:HG22	1.98	0.45
1:C:373:LEU:HD13	1:C:437:LYS:HD2	1.98	0.45
1:F:361:TYR:O	1:F:364:TYR:HB2	2.17	0.45
1:D:215:PHE:CZ	1:D:324:ASN:HB3	2.51	0.45
1:B:164:VAL:CG1	1:B:227:GLU:HB2	2.47	0.45
1:C:21:LEU:HA	1:C:50:ALA:O	2.17	0.45
1:C:162:LEU:C	1:C:162:LEU:HD23	2.37	0.45
1:A:461:PRO:HD2	1:A:464:THR:HG21	1.97	0.44
1:B:279:PHE:N	1:B:280:PRO:CD	2.80	0.44
1:B:377:HIS:O	1:B:381:TYR:HB2	2.17	0.44
1:C:373:LEU:HD22	1:C:437:LYS:CD	2.47	0.44
1:E:171:VAL:HA	1:E:177:VAL:HG12	1.99	0.44
1:A:53:PHE:HB2	1:A:63:VAL:HG22	1.98	0.44
1:B:39:ARG:HH12	1:B:315:THR:HG22	1.76	0.44
1:B:261:LEU:HB3	1:B:294:ILE:HD12	1.99	0.44
1:B:314:TRP:HA	1:B:318:ASP:HB2	1.98	0.44
1:C:180:GLN:HE21	1:C:289:GLN:HE22	1.65	0.44
1:C:404:LEU:O	1:C:408:VAL:HB	2.18	0.44
1:E:327:VAL:N	1:E:328:PRO:HD2	2.32	0.44
1:F:379:MET:HB3	1:F:380:PRO:HD3	1.99	0.44
1:A:21:LEU:HA	1:A:50:ALA:O	2.17	0.44
1:C:11:PHE:CD1	1:C:15:LEU:HG	2.53	0.44
1:C:64:VAL:HG23	1:C:306:GLU:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:344:ASN:OD1	1:F:346:MET:HG2	2.17	0.44
1:A:137:GLN:HB2	1:A:283:TYR:CE2	2.51	0.44
1:B:219:THR:HG22	1:B:221:VAL:HG13	2.00	0.44
1:D:72:GLN:HG3	1:D:82:LYS:HG3	1.98	0.44
1:E:279:PHE:CG	1:E:280:PRO:HD3	2.52	0.44
1:F:18:GLU:HG3	1:F:82:LYS:HD2	1.99	0.44
1:F:128:ILE:HD13	1:F:297:ILE:HG21	1.99	0.44
1:A:107:VAL:CG2	1:A:243:VAL:HG12	2.45	0.44
1:B:308:LEU:C	1:B:308:LEU:HD12	2.37	0.44
1:E:205:ILE:HB	1:E:261:LEU:HB2	2.00	0.44
1:E:430:ASN:HB3	1:E:431:PRO:CD	2.44	0.44
1:F:63:VAL:HG12	1:F:305:PHE:CB	2.42	0.44
1:D:31:GLU:CB	1:D:32:PRO:HD3	2.46	0.44
1:D:215:PHE:CE2	1:D:324:ASN:HB3	2.52	0.44
1:E:173:ASP:CB	1:E:176:ARG:HG2	2.47	0.44
1:F:145:LYS:HD2	1:F:306:GLU:HG2	1.99	0.44
1:A:142:TYR:CZ	1:A:170:GLN:HB2	2.53	0.44
1:A:356:SER:HB2	1:A:394:PRO:HD3	1.99	0.44
1:B:279:PHE:CD1	1:B:280:PRO:HD3	2.53	0.44
1:C:172:LYS:NZ	1:C:271:THR:OG1	2.44	0.44
1:F:226:ASN:OD1	1:F:228:TYR:HB2	2.18	0.44
1:B:176:ARG:HD2	1:B:291:GLU:OE1	2.17	0.44
1:F:142:TYR:CZ	1:F:170:GLN:HB2	2.53	0.43
1:A:210:ASN:OD1	1:A:211:PRO:HD2	2.18	0.43
1:B:121:LYS:O	1:B:122:ASP:C	2.56	0.43
1:B:301:THR:HG22	1:B:302:ASN:ND2	2.32	0.43
1:E:118:VAL:HG22	1:E:298:THR:HG22	2.01	0.43
1:A:362:GLY:O	1:D:434:MET:HE1	2.17	0.43
1:C:453:ARG:HG2	1:C:453:ARG:NH1	2.33	0.43
1:E:145:LYS:NZ	1:E:316:GLU:OE2	2.42	0.43
1:E:231:VAL:O	1:E:235:GLN:HG3	2.17	0.43
1:C:231:VAL:O	1:C:235:GLN:HG3	2.19	0.43
1:D:40:ALA:O	1:D:44:LEU:HD13	2.18	0.43
1:F:164:VAL:CG1	1:F:227:GLU:HB2	2.49	0.43
1:A:279:PHE:N	1:A:280:PRO:CD	2.82	0.43
1:B:321:MET:HA	1:B:324:ASN:OD1	2.18	0.43
1:B:119:ILE:HB	1:B:297:ILE:HB	1.99	0.43
1:B:434:MET:SD	1:E:449:GLU:HB2	2.58	0.43
1:C:245:SER:HB3	1:C:248:TYR:O	2.18	0.43
1:D:113:PRO:O	1:D:300:ARG:HG2	2.19	0.43
1:D:392:VAL:HG13	1:D:399:GLN:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:160:ASN:HB3	1:F:224:ASN:O	2.18	0.43
1:D:77:MET:HG2	1:D:212:LEU:CD1	2.48	0.43
1:D:118:VAL:HG11	1:D:296:ARG:NH1	2.33	0.43
1:A:276:PHE:CZ	1:A:310:LEU:HD21	2.54	0.43
1:B:435:HIS:HE1	1:B:437:LYS:NZ	2.17	0.43
1:C:11:PHE:CD2	1:C:211:PRO:CG	2.91	0.43
1:F:21:LEU:HA	1:F:50:ALA:O	2.18	0.43
1:F:245:SER:HB3	1:F:248:TYR:O	2.18	0.43
1:A:171:VAL:HA	1:A:177:VAL:HG12	2.01	0.43
1:D:113:PRO:HD2	1:D:255:ALA:O	2.19	0.43
1:D:458:LEU:H	1:D:458:LEU:HD23	1.84	0.43
1:B:227:GLU:OE1	1:B:227:GLU:N	2.52	0.43
1:B:34:ILE:H	1:B:34:ILE:HG12	1.72	0.42
1:F:131:LEU:CD2	1:F:171:VAL:HG21	2.50	0.42
1:F:145:LYS:HD3	1:F:214:THR:HG21	2.01	0.42
1:D:356:SER:HB2	1:D:394:PRO:HD3	2.01	0.42
1:F:308:LEU:C	1:F:308:LEU:HD12	2.39	0.42
1:A:11:PHE:CG	1:A:211:PRO:HG3	2.54	0.42
1:B:329:LEU:HD11	1:B:377:HIS:HB3	2.01	0.42
1:C:344:ASN:OD1	1:C:346:MET:HG2	2.19	0.42
1:F:46:LYS:HG2	1:F:47:ASN:ND2	2.34	0.42
1:A:112:ALA:CB	1:A:243:VAL:HG11	2.42	0.42
1:C:131:LEU:CD2	1:C:171:VAL:HG21	2.49	0.42
1:E:202:PRO:HB3	1:E:248:TYR:CD1	2.54	0.42
1:A:197:GLU:HB2	1:A:199:LYS:HE2	2.01	0.42
1:A:245:SER:HB3	1:A:248:TYR:O	2.19	0.42
1:B:180:GLN:HG2	1:B:182:LEU:HG	2.02	0.42
1:D:160:ASN:HB3	1:D:224:ASN:O	2.19	0.42
1:A:113:PRO:HD2	1:A:255:ALA:O	2.19	0.42
1:D:173:ASP:CB	1:D:176:ARG:HG2	2.49	0.42
1:D:327:VAL:N	1:D:328:PRO:HD2	2.34	0.42
1:C:279:PHE:N	1:C:280:PRO:CD	2.81	0.42
1:C:361:TYR:O	1:C:364:TYR:HB2	2.20	0.42
1:D:64:VAL:HG23	1:D:304:ILE:HG22	2.02	0.42
1:E:332:GLN:OE1	1:E:375:THR:OG1	2.38	0.42
1:B:249:ASP:O	1:B:250:HIS:HB2	2.20	0.42
1:E:271:THR:O	1:E:288:LEU:HA	2.20	0.42
1:A:51:VAL:HG22	1:A:65:THR:CG2	2.42	0.42
1:C:39:ARG:HD2	1:C:43:ASN:HD21	1.84	0.42
1:F:87:LYS:HB2	1:F:87:LYS:HE2	1.94	0.42
1:C:271:THR:O	1:C:288:LEU:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:128:ILE:CD1	1:D:297:ILE:HG21	2.50	0.42
1:A:74:HIS:CE1	1:A:323:LEU:HD12	2.55	0.41
1:B:361:TYR:O	1:B:364:TYR:HB2	2.20	0.41
1:D:145:LYS:HD2	1:D:306:GLU:HG2	2.02	0.41
1:E:379:MET:HB3	1:E:380:PRO:HD3	2.02	0.41
1:C:65:THR:O	1:C:316:GLU:OE1	2.38	0.41
1:C:119:ILE:HG22	1:C:123:ILE:HD13	2.01	0.41
1:F:162:LEU:C	1:F:162:LEU:HD23	2.41	0.41
1:F:227:GLU:OE1	1:F:227:GLU:N	2.53	0.41
1:A:59:TYR:CD1	1:A:130:PRO:HA	2.56	0.41
1:B:66:ASN:ND2	1:B:69:GLY:HA3	2.36	0.41
1:B:470:LYS:O	1:B:474:LEU:HD13	2.20	0.41
1:D:121:LYS:O	1:D:122:ASP:C	2.59	0.41
1:E:356:SER:HB2	1:E:394:PRO:HD3	2.02	0.41
1:F:39:ARG:NH2	1:F:315:THR:HG22	2.35	0.41
1:F:169:ILE:HA	1:F:178:GLY:O	2.20	0.41
1:F:220:PRO:CB	1:F:377:HIS:HB2	2.50	0.41
1:B:219:THR:OG1	1:B:324:ASN:HB2	2.21	0.41
1:D:312:ILE:HA	1:D:313:PRO:HD3	1.88	0.41
1:A:423:MET:SD	1:A:424:PRO:HD2	2.60	0.41
1:D:227:GLU:OE1	1:D:227:GLU:N	2.52	0.41
1:D:455:THR:CG2	1:F:427:PRO:HB2	2.49	0.41
1:E:51:VAL:HG22	1:E:65:THR:CG2	2.40	0.41
1:A:61:TYR:CE1	1:A:303:PRO:HD2	2.55	0.41
1:E:77:MET:HG3	1:E:211:PRO:HB2	2.01	0.41
1:A:218:SER:HB2	1:A:324:ASN:ND2	2.35	0.41
1:A:249:ASP:O	1:A:250:HIS:HB2	2.21	0.41
1:A:471:LEU:HG	1:E:22:ILE:HD11	2.02	0.41
1:D:11:PHE:CG	1:D:211:PRO:HG3	2.55	0.41
1:D:173:ASP:HB3	1:D:176:ARG:HG2	2.02	0.41
1:A:121:LYS:O	1:A:122:ASP:C	2.59	0.41
1:A:197:GLU:CB	1:A:199:LYS:HE2	2.49	0.41
1:A:205:ILE:HB	1:A:261:LEU:HB2	2.01	0.41
1:E:468:GLU:O	1:E:472:LYS:HG3	2.21	0.41
1:B:74:HIS:CE1	1:B:323:LEU:HD12	2.56	0.41
1:B:117:ASN:O	1:B:298:THR:HA	2.20	0.41
1:C:31:GLU:CB	1:C:32:PRO:HD3	2.50	0.41
1:C:312:ILE:HA	1:C:313:PRO:HD3	1.96	0.41
1:C:358:LYS:HA	1:C:390:GLU:HG3	2.02	0.41
1:E:59:TYR:CD1	1:E:130:PRO:HA	2.55	0.41
1:E:148:VAL:O	1:E:164:VAL:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:118:VAL:HG11	1:F:296:ARG:NH1	2.36	0.41
1:F:171:VAL:HA	1:F:177:VAL:HG12	2.03	0.41
1:F:431:PRO:HB2	1:F:434:MET:HB3	2.02	0.41
1:A:59:TYR:CG	1:A:130:PRO:HA	2.55	0.41
1:B:145:LYS:HD2	1:B:306:GLU:HG2	2.02	0.41
1:B:429:THR:O	1:C:453:ARG:HD3	2.21	0.41
1:C:430:ASN:O	1:C:432:PRO:HD3	2.21	0.41
1:D:165:GLY:HA2	1:D:217:ALA:O	2.21	0.41
1:E:27:GLU:HA	1:E:55:LYS:HB3	2.01	0.41
1:A:9:ARG:CZ	1:A:300:ARG:HD2	2.51	0.40
1:A:31:GLU:CB	1:A:32:PRO:HD3	2.51	0.40
1:A:145:LYS:HD2	1:A:306:GLU:HG2	2.02	0.40
1:A:180:GLN:HG2	1:A:182:LEU:HG	2.03	0.40
1:B:348:THR:HG22	1:B:351:ILE:HD12	2.03	0.40
1:D:205:ILE:HB	1:D:261:LEU:HB2	2.03	0.40
1:F:59:TYR:CD1	1:F:130:PRO:HA	2.57	0.40
1:F:349:HIS:O	1:F:349:HIS:ND1	2.55	0.40
1:C:75:ALA:HB2	1:C:89:GLN:NE2	2.37	0.40
1:A:160:ASN:HB3	1:A:224:ASN:O	2.20	0.40
1:A:327:VAL:N	1:A:328:PRO:HD2	2.36	0.40
1:B:25:LYS:HD3	1:B:54:GLU:OE1	2.20	0.40
1:D:276:PHE:CZ	1:D:310:LEU:HD21	2.56	0.40
1:D:399:GLN:NE2	3:D:501:PEG:H32	2.37	0.40
1:F:121:LYS:O	1:F:122:ASP:C	2.60	0.40
1:F:210:ASN:OD1	1:F:211:PRO:HD2	2.22	0.40
1:C:11:PHE:HE1	1:C:15:LEU:HD21	1.87	0.40
1:F:173:ASP:CB	1:F:176:ARG:HG2	2.52	0.40
1:F:468:GLU:O	1:F:472:LYS:HG3	2.20	0.40
1:A:226:ASN:OD1	1:A:228:TYR:HB2	2.21	0.40
1:B:90:PHE:HD1	1:B:323:LEU:HD22	1.87	0.40
1:B:362:GLY:O	1:E:434:MET:HE1	2.21	0.40
1:C:435:HIS:CE1	1:C:437:LYS:NZ	2.90	0.40
1:D:37:ALA:CB	1:D:53:PHE:HZ	2.34	0.40
1:D:321:MET:HA	1:D:324:ASN:OD1	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	474/480 (99%)	456 (96%)	18 (4%)	0	100	100
1	B	474/480 (99%)	453 (96%)	21 (4%)	0	100	100
1	C	474/480 (99%)	452 (95%)	22 (5%)	0	100	100
1	D	474/480 (99%)	451 (95%)	23 (5%)	0	100	100
1	E	473/480 (98%)	454 (96%)	19 (4%)	0	100	100
1	F	474/480 (99%)	453 (96%)	21 (4%)	0	100	100
2	a	65/68 (96%)	61 (94%)	4 (6%)	0	100	100
2	b	65/68 (96%)	61 (94%)	4 (6%)	0	100	100
2	c	65/68 (96%)	61 (94%)	4 (6%)	0	100	100
2	d	65/68 (96%)	61 (94%)	4 (6%)	0	100	100
2	e	65/68 (96%)	62 (95%)	3 (5%)	0	100	100
2	f	65/68 (96%)	62 (95%)	3 (5%)	0	100	100
All	All	3233/3288 (98%)	3087 (96%)	146 (4%)	0	100	100

There are no Ramachandran outliers to report.

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	413/419 (99%)	412 (100%)	1 (0%)	93	97
1	B	407/419 (97%)	406 (100%)	1 (0%)	93	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	C	401/419 (96%)	398 (99%)	3 (1%)	84 91
1	D	411/419 (98%)	408 (99%)	3 (1%)	84 91
1	E	413/419 (99%)	410 (99%)	3 (1%)	84 91
1	F	410/419 (98%)	409 (100%)	1 (0%)	93 97
2	a	60/63 (95%)	59 (98%)	1 (2%)	60 79
2	b	60/63 (95%)	60 (100%)	0	100 100
2	c	60/63 (95%)	59 (98%)	1 (2%)	60 79
2	d	60/63 (95%)	60 (100%)	0	100 100
2	e	60/63 (95%)	59 (98%)	1 (2%)	60 79
2	f	60/63 (95%)	59 (98%)	1 (2%)	60 79
All	All	2815/2892 (97%)	2799 (99%)	16 (1%)	86 92

All (16) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	236	ASP
1	B	236	ASP
1	C	11	PHE
1	C	184	MET
1	C	236	ASP
1	D	184	MET
1	D	236	ASP
1	D	361	TYR
1	E	184	MET
1	E	423	MET
1	E	435	HIS
1	F	100	PHE
2	a	656	ASN
2	c	656	ASN
2	e	656	ASN
2	f	656	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (18) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	117	ASN
1	A	135	ASN

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Mol	Chain	Res	Type
1	B	68	HIS
1	B	302	ASN
1	B	435	HIS
1	C	117	ASN
1	C	180	GLN
1	C	235	GLN
1	C	435	HIS
1	D	180	GLN
1	E	20	GLN
1	E	47	ASN
1	E	68	HIS
1	E	180	GLN
1	E	235	GLN
1	F	47	ASN
1	F	135	ASN
1	F	235	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 46 ligands modelled in this entry, 33 are monoatomic - leaving 13 for Mogul analysis.

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	$\#\|Z\|>2$
8	EDO	E	502	-	3,3,3	0.60	0	2,2,2	0.15	0
3	PEG	A	501	-	6,6,6	0.20	0	5,5,5	0.09	0
5	PO4	D	504	6,4	4,4,4	0.87	0	6,6,6	0.48	0
3	PEG	E	501	-	6,6,6	0.19	0	5,5,5	0.06	0
5	PO4	B	504	6,4	4,4,4	0.88	0	6,6,6	0.51	0
5	PO4	C	504	6,4	4,4,4	0.90	0	6,6,6	0.50	0
5	PO4	E	507	6,4	4,4,4	0.93	0	6,6,6	0.38	0
3	PEG	E	503	-	6,6,6	0.23	0	5,5,5	0.06	0
3	PEG	F	501	-	6,6,6	0.20	0	5,5,5	0.05	0
3	PEG	D	501	-	6,6,6	0.23	0	5,5,5	0.07	0
5	PO4	A	505	6,4	4,4,4	0.91	0	6,6,6	0.42	0
5	PO4	F	504	6,4	4,4,4	0.86	0	6,6,6	0.61	0
3	PEG	C	501	-	6,6,6	0.22	0	5,5,5	0.10	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
8	EDO	E	502	-	-	0/1/1/1	-
3	PEG	A	501	-	-	3/4/4/4	-
3	PEG	E	501	-	-	0/4/4/4	-
3	PEG	E	503	-	-	2/4/4/4	-
3	PEG	F	501	-	-	1/4/4/4	-
3	PEG	D	501	-	-	3/4/4/4	-
3	PEG	C	501	-	-	0/4/4/4	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (9) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	E	503	PEG	O1-C1-C2-O2
3	F	501	PEG	O1-C1-C2-O2
3	D	501	PEG	O2-C3-C4-O4
3	A	501	PEG	C4-C3-O2-C2
3	A	501	PEG	O1-C1-C2-O2
3	D	501	PEG	C1-C2-O2-C3

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Mol	Chain	Res	Type	Atoms
3	D	501	PEG	O1-C1-C2-O2
3	E	503	PEG	O2-C3-C4-O4
3	A	501	PEG	C1-C2-O2-C3

There are no ring outliers.

3 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	501	PEG	1	0
3	E	503	PEG	1	0
3	D	501	PEG	1	0

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	476/480 (99%)	0.29	9 (1%) 66 65	85, 128, 163, 179	0
1	B	476/480 (99%)	0.34	14 (2%) 51 51	86, 114, 152, 195	0
1	C	476/480 (99%)	0.43	23 (4%) 30 30	93, 142, 178, 199	0
1	D	476/480 (99%)	0.30	10 (2%) 63 62	88, 127, 158, 188	0
1	E	475/480 (98%)	0.33	4 (0%) 86 87	82, 114, 150, 172	0
1	F	476/480 (99%)	0.53	39 (8%) 11 11	94, 135, 170, 194	0
2	a	67/68 (98%)	-0.07	1 (1%) 73 72	113, 142, 167, 179	0
2	b	67/68 (98%)	0.29	0 100 100	99, 127, 158, 188	0
2	c	67/68 (98%)	0.06	1 (1%) 73 72	117, 156, 185, 205	0
2	d	67/68 (98%)	0.39	1 (1%) 73 72	116, 142, 174, 193	0
2	e	67/68 (98%)	0.02	0 100 100	108, 128, 167, 179	0
2	f	67/68 (98%)	0.09	0 100 100	119, 148, 174, 193	0
All	All	3257/3288 (99%)	0.34	102 (3%) 49 48	82, 128, 169, 205	0

All (102) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	F	305	PHE	3.8
1	C	56	ILE	3.8
1	F	304	ILE	3.8
1	C	53	PHE	3.8
1	C	127	GLU	3.7
1	C	126	PHE	3.7
1	C	2	ALA	3.7
1	F	126	PHE	3.6
1	F	53	PHE	3.6
1	F	297	ILE	3.4
1	B	53	PHE	3.3

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Mol	Chain	Res	Type	RSRZ
1	C	129	LEU	3.3
1	F	203	ILE	3.2
1	F	129	LEU	3.2
1	B	306	GLU	3.2
1	C	125	LEU	3.1
2	d	626	TYR	3.0
1	F	28	VAL	3.0
1	D	53	PHE	3.0
1	C	128	ILE	3.0
1	D	63	VAL	2.9
1	F	205	ILE	2.9
1	F	54	GLU	2.8
1	F	63	VAL	2.8
1	F	27	GLU	2.8
1	A	304	ILE	2.7
1	C	59	TYR	2.7
1	F	294	ILE	2.7
1	F	291	GLU	2.7
1	D	51	VAL	2.6
1	C	262	GLU	2.6
1	F	128	ILE	2.6
1	B	52	PHE	2.6
1	A	205	ILE	2.6
1	C	24	VAL	2.5
1	C	62	SER	2.5
1	F	8	LEU	2.5
1	F	22	ILE	2.5
1	F	303	PRO	2.5
1	C	261	LEU	2.5
1	C	259	VAL	2.5
1	C	260	VAL	2.5
1	C	52	PHE	2.5
1	F	64	VAL	2.4
1	F	65	THR	2.4
1	F	62	SER	2.4
1	F	171	VAL	2.4
1	F	24	VAL	2.4
1	C	112	ALA	2.4
1	C	34	ILE	2.4
2	c	601	MET	2.4
1	F	143	ILE	2.4
1	E	126	PHE	2.4

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Mol	Chain	Res	Type	RSRZ
1	C	131	LEU	2.4
1	B	305	PHE	2.4
1	D	62	SER	2.4
1	F	124	ASN	2.3
1	F	208	GLY	2.3
1	D	126	PHE	2.3
1	C	291	GLU	2.3
1	F	258	GLU	2.3
1	F	49	PRO	2.3
1	F	56	ILE	2.3
1	B	63	VAL	2.3
1	A	298	THR	2.3
1	F	261	LEU	2.3
1	F	34	ILE	2.3
1	D	125	LEU	2.2
1	B	62	SER	2.2
1	F	262	GLU	2.2
1	D	44	LEU	2.2
1	B	59	TYR	2.2
1	B	57	LYS	2.2
1	D	291	GLU	2.2
1	E	306	GLU	2.2
1	A	261	LEU	2.2
1	E	471	LEU	2.2
1	C	12	LEU	2.1
1	B	22	ILE	2.1
1	B	128	ILE	2.1
1	A	252	TYR	2.1
1	D	304	ILE	2.1
1	E	15	LEU	2.1
1	A	141	PHE	2.1
1	F	259	VAL	2.1
1	F	306	GLU	2.1
1	A	2	ALA	2.1
1	B	24	VAL	2.1
1	F	118	VAL	2.1
1	B	126	PHE	2.1
1	C	124	ASN	2.0
1	C	305	PHE	2.0
1	F	204	ALA	2.0
1	F	119	ILE	2.0
1	F	254	PRO	2.0

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Mol	Chain	Res	Type	RSRZ
1	A	52	PHE	2.0
1	A	203	ILE	2.0
1	D	64	VAL	2.0
1	B	125	LEU	2.0
1	B	304	ILE	2.0
1	F	298	THR	2.0
2	a	601	MET	2.0

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 monosaccharides 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	PEG	A	501	7/7	0.68	0.40	124,149,172,172	0
3	PEG	D	501	7/7	0.69	0.40	124,148,177,177	0
3	PEG	E	501	7/7	0.73	0.24	120,150,191,191	0
4	NA	B	503	1/1	0.75	0.11	132,132,132,132	0
7	CL	B	506	1/1	0.75	0.51	88,88,88,88	0
7	CL	D	507	1/1	0.78	0.56	108,108,108,108	0
8	EDO	E	502	4/4	0.79	0.41	134,164,202,202	0
3	PEG	E	503	7/7	0.80	0.37	116,140,167,167	0
3	PEG	C	501	7/7	0.81	0.30	109,132,147,174	0
3	PEG	F	501	7/7	0.83	0.29	131,157,166,188	0
6	MG	D	505	1/1	0.83	0.15	136,136,136,136	0
7	CL	A	508	1/1	0.83	0.54	110,110,110,110	0
4	NA	E	506	1/1	0.84	0.16	139,139,139,139	0
7	CL	C	506	1/1	0.85	0.70	111,111,111,111	0
7	CL	D	506	1/1	0.86	0.47	115,115,115,115	0
4	NA	A	503	1/1	0.89	0.35	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
6	MG	F	505	1/1	0.89	0.10	139,139,139,139	0
4	NA	E	505	1/1	0.89	0.13	87,87,87,87	0
4	NA	B	502	1/1	0.89	0.38	85,85,85,85	0
4	NA	C	503	1/1	0.90	0.33	86,86,86,86	0
7	CL	A	507	1/1	0.90	0.61	99,99,99,99	0
4	NA	E	504	1/1	0.91	0.41	81,81,81,81	0
4	NA	A	504	1/1	0.91	0.09	155,155,155,155	0
4	NA	D	502	1/1	0.92	0.14	110,110,110,110	0
5	PO4	C	504	5/5	0.92	0.15	154,155,189,200	0
5	PO4	F	504	5/5	0.92	0.13	158,171,189,200	0
4	NA	F	503	1/1	0.93	0.44	79,79,79,79	0
5	PO4	A	505	5/5	0.93	0.11	164,168,176,190	0
6	MG	A	506	1/1	0.93	0.10	136,136,136,136	0
5	PO4	E	507	5/5	0.94	0.11	151,152,159,175	0
4	NA	D	503	1/1	0.94	0.40	93,93,93,93	0
5	PO4	D	504	5/5	0.95	0.13	142,154,172,174	0
4	NA	C	502	1/1	0.96	0.12	117,117,117,117	0
4	NA	A	502	1/1	0.97	0.07	103,103,103,103	0
6	MG	B	505	1/1	0.97	0.19	118,118,118,118	0
5	PO4	B	504	5/5	0.97	0.15	122,122,152,153	0
6	MG	E	508	1/1	0.97	0.14	127,127,127,127	0
9	ZN	b	701	1/1	0.97	0.08	148,148,148,148	0
6	MG	C	505	1/1	0.98	0.23	151,151,151,151	0
4	NA	F	502	1/1	0.98	0.09	116,116,116,116	0
4	NA	B	501	1/1	0.98	0.14	88,88,88,88	0
9	ZN	c	701	1/1	0.98	0.12	173,173,173,173	0
9	ZN	d	701	1/1	0.98	0.09	176,176,176,176	0
9	ZN	a	701	1/1	0.99	0.15	163,163,163,163	0
9	ZN	e	701	1/1	0.99	0.12	145,145,145,145	0
9	ZN	f	701	1/1	0.99	0.11	151,151,151,151	0

6.5 Other polymers

There are no such residues in this entry.