



wwPDB X-ray Structure Validation Summary Report ⓘ

Jan 31, 2016 – 06:59 PM GMT

PDB ID : 1DAO
Title : COVALENT ADDUCT OF D-AMINO ACID OXIDASE FROM PIG KIDNEY WITH 3-METHYL-2-OXO-VALERIC ACID
Authors : Todone, F.; Mattevi, A.
Deposited on : 1997-01-16
Resolution : 3.20 Å(reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

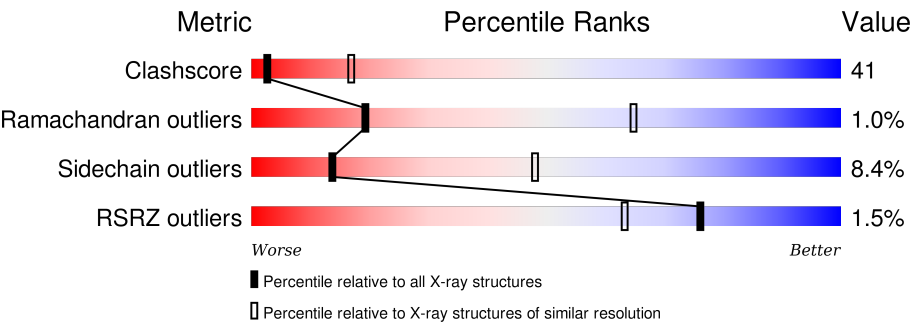
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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))
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RSRZ outliers	91569	1129 (3.24-3.16)

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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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	347	<div><div></div><div>42%42%12%..</div></div>
1	B	347	<div><div>2%</div><div>41%43%12%..</div></div>
1	C	347	<div><div>2%</div><div>40%44%11%..</div></div>
1	D	347	<div><div>2%</div><div>41%45%11%..</div></div>
1	E	347	<div><div>%</div><div>41%44%11%..</div></div>
1	F	347	<div><div>%</div><div>44%41%12%..</div></div>
1	G	347	<div><div>2%</div><div>40%45%11%..</div></div>

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Mol	Chain	Length	Quality of chain
1	H	347	<div><div></div><div>2%</div><div>42%</div><div>43%</div><div>12%</div><div>••</div></div>

2 Entry composition

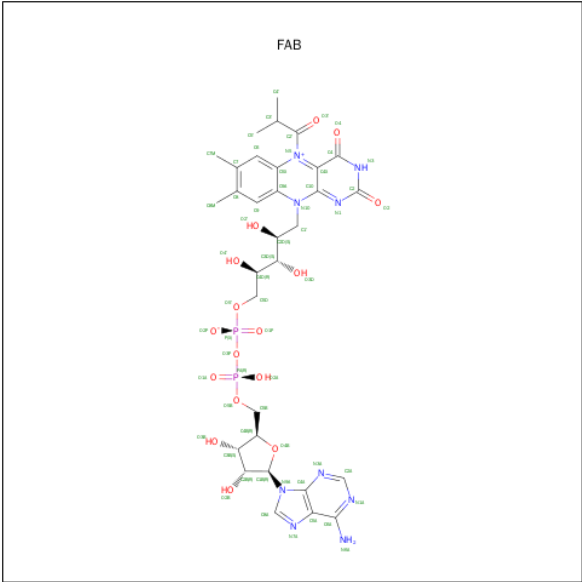
There are 3 unique types of molecules in this entry. The entry contains 22232 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called D-AMINO ACID OXIDASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	339	Total	C	N	O	S	103	0	0
			2720	1749	473	489	9			
1	B	339	Total	C	N	O	S	104	0	0
			2720	1749	473	489	9			
1	C	339	Total	C	N	O	S	109	0	0
			2720	1749	473	489	9			
1	D	339	Total	C	N	O	S	99	0	0
			2720	1749	473	489	9			
1	E	339	Total	C	N	O	S	113	0	0
			2720	1749	473	489	9			
1	F	339	Total	C	N	O	S	111	0	0
			2720	1749	473	489	9			
1	G	339	Total	C	N	O	S	116	0	0
			2720	1749	473	489	9			
1	H	339	Total	C	N	O	S	112	0	0
			2720	1749	473	489	9			

- Molecule 2 is FLAVIN-ADENINE DINUCLEOTIDE-N5-ISOBUTYL KETONE (three-letter code: FAB) (formula: C₃₁H₃₉N₉O₁₆P₂).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	B	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	C	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	D	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	E	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	F	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	G	1	Total	C	N	O	P	0	0
			58	31	9	16	2		
2	H	1	Total	C	N	O	P	0	0
			58	31	9	16	2		

- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	O	0	0
			1	1		
3	B	1	Total	O	0	0
			1	1		
3	C	1	Total	O	0	0
			1	1		
3	D	1	Total	O	0	0
			1	1		

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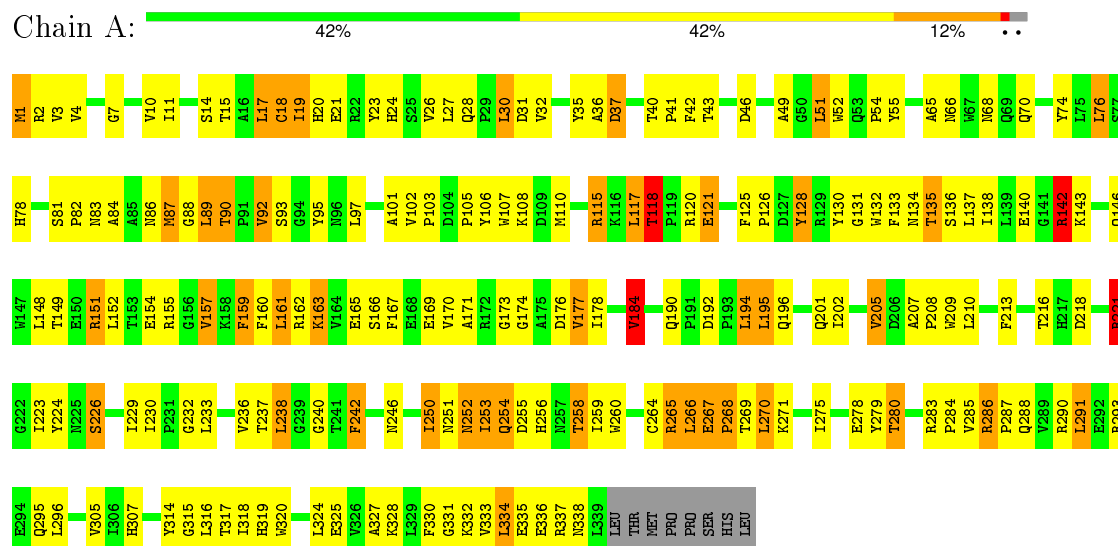
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	E	1	Total 1	O 1	0	0
3	F	1	Total 1	O 1	0	0
3	G	1	Total 1	O 1	0	0
3	H	1	Total 1	O 1	0	0

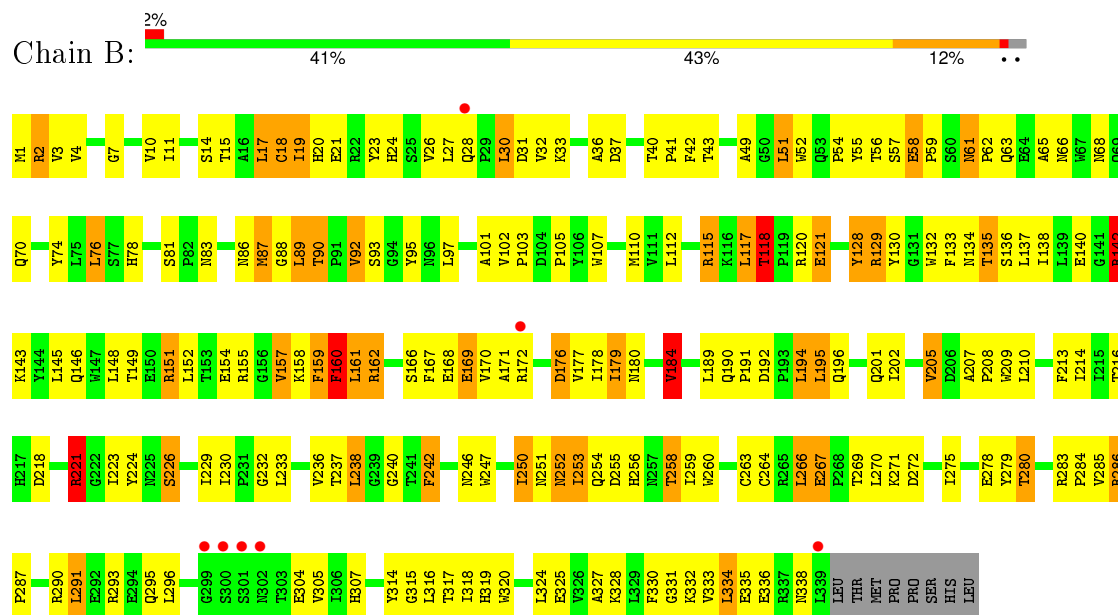
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

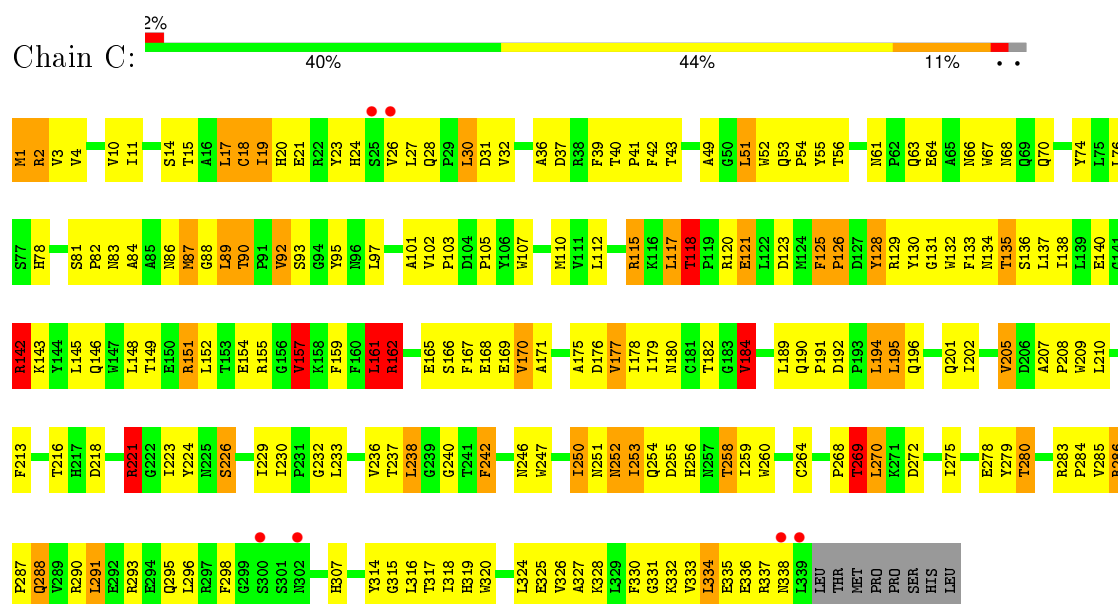
• Molecule 1: D-AMINO ACID OXIDASE



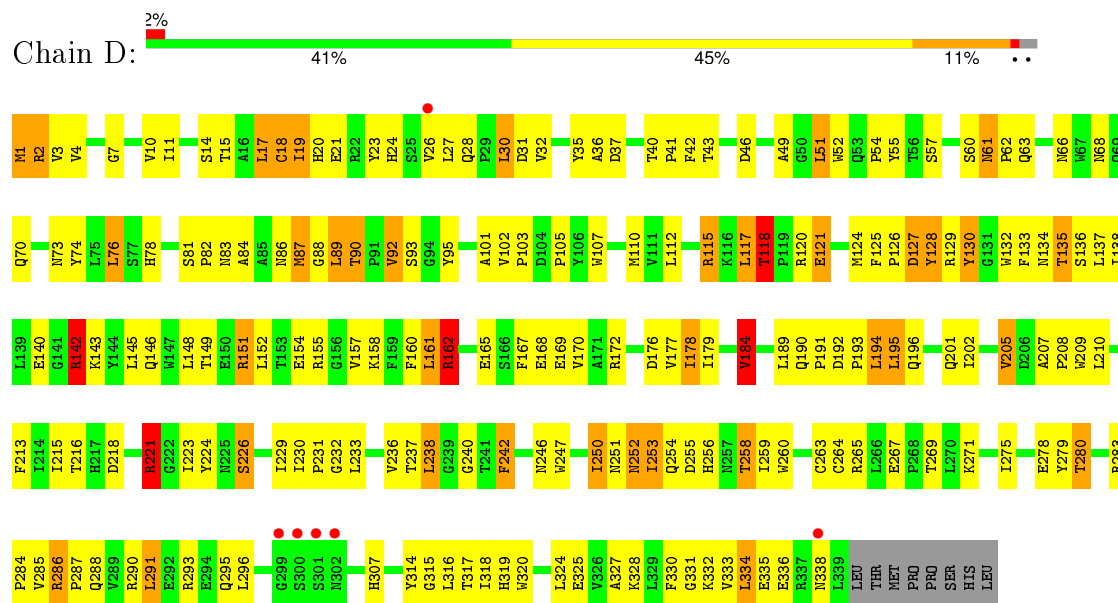
• Molecule 1: D-AMINO ACID OXIDASE



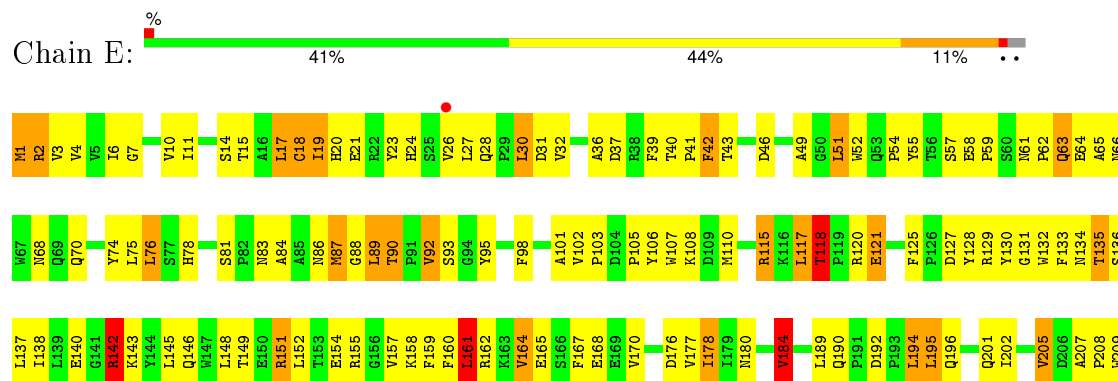
• Molecule 1: D-AMINO ACID OXIDASE

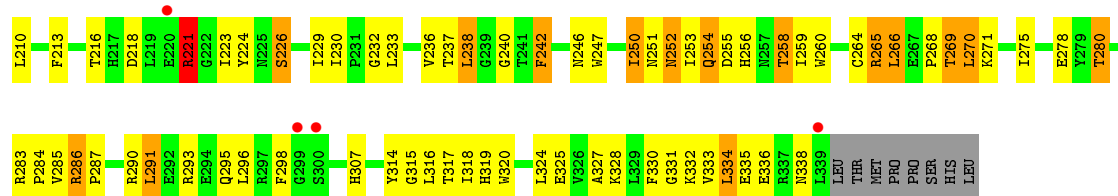


• Molecule 1: D-AMINO ACID OXIDASE

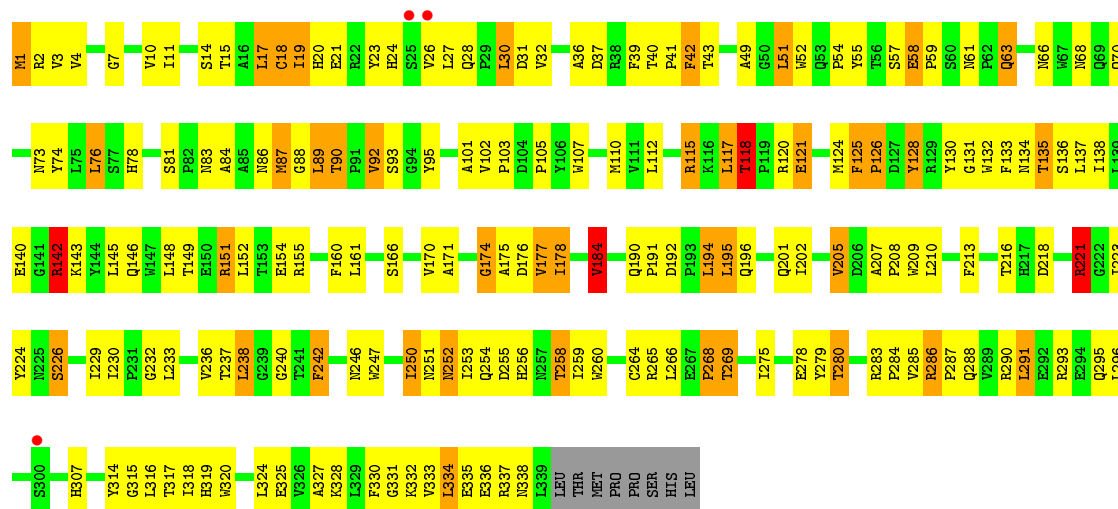


• Molecule 1: D-AMINO ACID OXIDASE

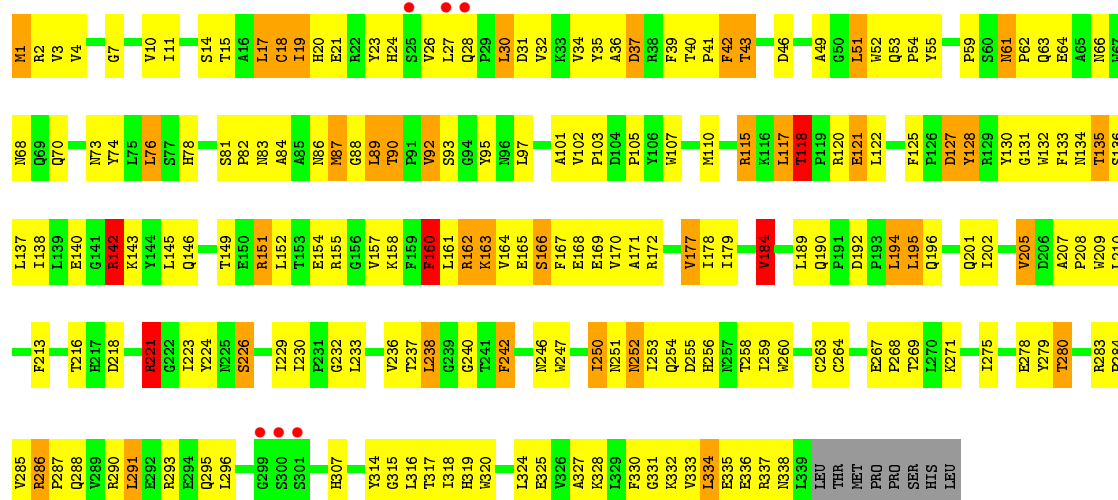




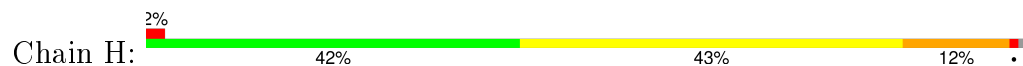
• Molecule 1: D-AMINO ACID OXIDASE

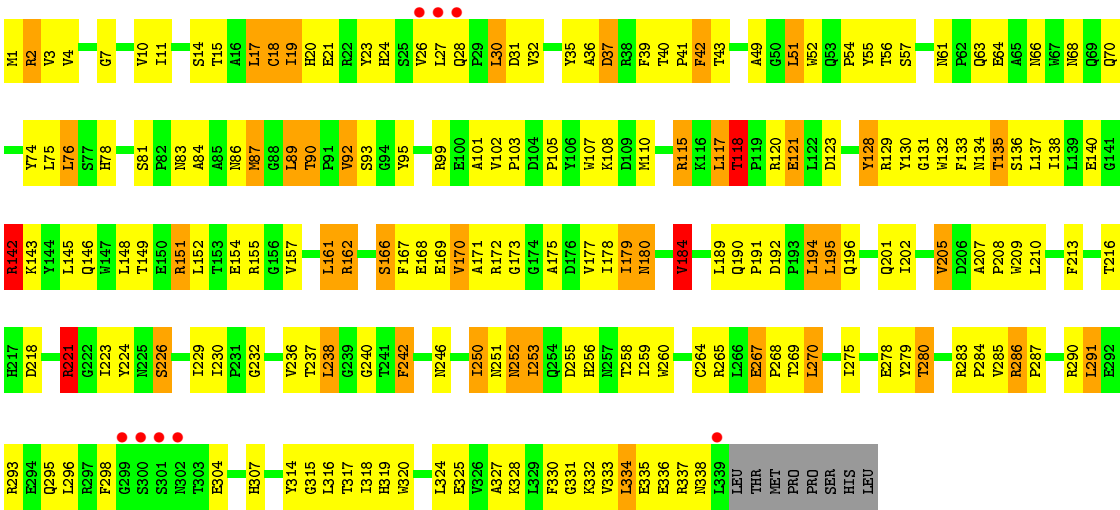


• Molecule 1: D-AMINO ACID OXIDASE



• Molecule 1: D-AMINO ACID OXIDASE





4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	326.40Å 136.90Å 196.50Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	20.00 – 3.20 19.96 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.0 (20.00-3.20) 99.7 (19.96-3.20)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	7.32 (at 3.22Å)	Xtriage
Refinement program	TNT	Depositor
R, R_{free}	0.232 , 0.260 0.249 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	DCC
Wilson B-factor (Å ²)	25.3	Xtriage
Anisotropy	0.319	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 113.3	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.28$, $\langle L^2 \rangle = 0.12$	Xtriage
Outliers	0 of 72258 reflections	Xtriage
F_o, F_c correlation	0.86	EDS
Total number of atoms	22232	wwPDB-VP
Average B, all atoms (Å ²)	23.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.45% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 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: FAB

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	0.83	1/2796 (0.0%)	1.60	48/3808 (1.3%)
1	B	0.80	1/2796 (0.0%)	1.57	49/3808 (1.3%)
1	C	0.81	1/2796 (0.0%)	1.60	46/3808 (1.2%)
1	D	0.83	1/2796 (0.0%)	1.70	50/3808 (1.3%)
1	E	0.80	1/2796 (0.0%)	1.58	48/3808 (1.3%)
1	F	0.82	1/2796 (0.0%)	1.57	42/3808 (1.1%)
1	G	0.86	3/2796 (0.1%)	1.57	45/3808 (1.2%)
1	H	0.81	1/2796 (0.0%)	1.58	45/3808 (1.2%)
All	All	0.82	10/22368 (0.0%)	1.60	373/30464 (1.2%)

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	1
1	C	0	1
1	G	0	1
All	All	0	3

The worst 5 of 10 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	163	LYS	CE-NZ	-15.43	1.10	1.49
1	G	166	SER	CB-OG	-6.10	1.34	1.42
1	C	143	LYS	CE-NZ	5.09	1.61	1.49
1	F	143	LYS	CE-NZ	5.08	1.61	1.49
1	E	143	LYS	CE-NZ	5.07	1.61	1.49

The worst 5 of 373 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	129	ARG	NE-CZ-NH1	-29.91	105.34	120.30
1	D	129	ARG	NE-CZ-NH2	21.15	130.87	120.30
1	D	127	ASP	CB-CG-OD1	-12.02	107.48	118.30
1	E	120	ARG	NE-CZ-NH1	-11.29	114.66	120.30
1	A	120	ARG	NE-CZ-NH1	-11.23	114.68	120.30

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	167	PHE	Sidechain
1	C	125	PHE	Sidechain
1	G	160	PHE	Sidechain

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	2720	0	2675	221	0
1	B	2720	0	2675	218	0
1	C	2720	0	2675	214	3
1	D	2720	0	2675	211	1
1	E	2720	0	2675	234	1
1	F	2720	0	2675	207	1
1	G	2720	0	2675	222	1
1	H	2720	0	2675	208	3
2	A	58	0	38	6	0
2	B	58	0	38	7	0
2	C	58	0	38	5	0
2	D	58	0	38	6	0
2	E	58	0	38	7	0
2	F	58	0	38	7	0
2	G	58	0	38	7	0
2	H	58	0	38	6	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	E	1	0	0	0	0
3	F	1	0	0	0	0
3	G	1	0	0	1	0
3	H	1	0	0	0	0
All	All	22232	0	21704	1695	5

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 41.

The worst 5 of 1695 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:E:61:ASN:ND2	1:E:63:GLN:HG3	1.11	1.38
1:E:61:ASN:ND2	1:E:63:GLN:CG	1.89	1.35
1:E:61:ASN:HD21	1:E:63:GLN:NE2	1.40	1.19
1:A:253:ILE:HG13	1:F:42:PHE:CD1	1.88	1.08
1:B:250:ILE:HD11	1:E:250:ILE:CD1	1.88	1.04

All (5) 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:G:73:ASN:OD1	1:H:2:ARG:NH2[4_565]	1.42	0.78
1:C:2:ARG:NH2	1:D:73:ASN:OD1[3_655]	1.78	0.42
1:C:162:ARG:NH2	1:H:123:ASP:OD1[3_655]	2.01	0.19
1:C:123:ASP:OD1	1:H:162:ARG:NH2[4_565]	2.07	0.13
1:E:247:TRP:NE1	1:F:247:TRP:NE1[7_555]	2.12	0.08

5.3 Torsion angles

5.3.1 Protein backbone

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	337/347 (97%)	311 (92%)	23 (7%)	3 (1%)	21	67
1	B	337/347 (97%)	308 (91%)	26 (8%)	3 (1%)	21	67
1	C	337/347 (97%)	306 (91%)	28 (8%)	3 (1%)	21	67
1	D	337/347 (97%)	310 (92%)	24 (7%)	3 (1%)	21	67
1	E	337/347 (97%)	311 (92%)	23 (7%)	3 (1%)	21	67
1	F	337/347 (97%)	312 (93%)	21 (6%)	4 (1%)	16	60
1	G	337/347 (97%)	310 (92%)	24 (7%)	3 (1%)	21	67
1	H	337/347 (97%)	308 (91%)	25 (7%)	4 (1%)	16	60
All	All	2696/2776 (97%)	2476 (92%)	194 (7%)	26 (1%)	19	65

5 of 26 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	30	LEU
1	B	30	LEU
1	C	30	LEU
1	D	30	LEU
1	E	30	LEU

5.3.2 Protein sidechains ⓘ

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	290/298 (97%)	267 (92%)	23 (8%)	15	53
1	B	290/298 (97%)	261 (90%)	29 (10%)	9	37
1	C	290/298 (97%)	264 (91%)	26 (9%)	12	43
1	D	290/298 (97%)	265 (91%)	25 (9%)	13	46
1	E	290/298 (97%)	266 (92%)	24 (8%)	14	49
1	F	290/298 (97%)	265 (91%)	25 (9%)	13	46
1	G	290/298 (97%)	269 (93%)	21 (7%)	18	57
1	H	290/298 (97%)	268 (92%)	22 (8%)	16	55

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	2320/2384 (97%)	2125 (92%)	195 (8%)	14 48

5 of 195 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	142	ARG
1	E	115	ARG
1	H	142	ARG
1	D	161	LEU
1	D	253	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 90 such sidechains are listed below:

Mol	Chain	Res	Type
1	D	190	GLN
1	E	86	ASN
1	H	96	ASN
1	D	217	HIS
1	D	307	HIS

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 carbohydrates in this entry.

5.6 Ligand geometry [i](#)

8 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
2	FAB	A	348	-	48,63,63	1.33	3 (6%)	54,97,97	3.28	17 (31%)
2	FAB	B	348	-	48,63,63	1.32	3 (6%)	54,97,97	3.28	17 (31%)
2	FAB	C	348	-	48,63,63	1.33	3 (6%)	54,97,97	3.28	17 (31%)
2	FAB	D	348	-	48,63,63	1.33	3 (6%)	54,97,97	3.28	16 (29%)
2	FAB	E	348	-	48,63,63	1.32	3 (6%)	54,97,97	3.29	18 (33%)
2	FAB	F	348	-	48,63,63	1.32	3 (6%)	54,97,97	3.28	17 (31%)
2	FAB	G	348	-	48,63,63	1.32	3 (6%)	54,97,97	3.29	17 (31%)
2	FAB	H	348	-	48,63,63	1.33	3 (6%)	54,97,97	3.29	17 (31%)

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
2	FAB	A	348	-	-	0/34/58/58	0/6/6/6
2	FAB	B	348	-	-	0/34/58/58	0/6/6/6
2	FAB	C	348	-	-	0/34/58/58	0/6/6/6
2	FAB	D	348	-	-	0/34/58/58	0/6/6/6
2	FAB	E	348	-	-	0/34/58/58	0/6/6/6
2	FAB	F	348	-	-	0/34/58/58	0/6/6/6
2	FAB	G	348	-	-	0/34/58/58	0/6/6/6
2	FAB	H	348	-	-	0/34/58/58	0/6/6/6

The worst 5 of 24 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	348	FAB	C10-N10	-2.95	1.35	1.39
2	A	348	FAB	C10-N10	-2.95	1.35	1.39
2	F	348	FAB	C10-N10	-2.93	1.35	1.39
2	G	348	FAB	C10-N10	-2.93	1.35	1.39
2	E	348	FAB	C10-N10	-2.92	1.35	1.39

The worst 5 of 136 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
2	F	348	FAB	C4X-C10-N10	-9.79	114.75	120.52
2	E	348	FAB	C4X-C10-N10	-9.78	114.75	120.52
2	H	348	FAB	C4X-C10-N10	-9.77	114.76	120.52
2	B	348	FAB	C4X-C10-N10	-9.76	114.77	120.52
2	C	348	FAB	C4X-C10-N10	-9.76	114.77	120.52

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

8 monomers are involved in 51 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	348	FAB	6	0
2	B	348	FAB	7	0
2	C	348	FAB	5	0
2	D	348	FAB	6	0
2	E	348	FAB	7	0
2	F	348	FAB	7	0
2	G	348	FAB	7	0
2	H	348	FAB	6	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

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

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th 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	338/347 (97%)	-0.78	0 100 100	2, 15, 63, 100	24 (7%)
1	B	338/347 (97%)	-0.64	7 (2%) 67 52	1, 16, 69, 100	26 (7%)
1	C	338/347 (97%)	-0.66	6 (1%) 71 58	2, 15, 64, 100	27 (7%)
1	D	338/347 (97%)	-0.71	6 (1%) 71 58	2, 15, 64, 100	24 (7%)
1	E	338/347 (97%)	-0.70	5 (1%) 76 63	2, 15, 64, 100	26 (7%)
1	F	338/347 (97%)	-0.74	3 (0%) 85 78	2, 15, 63, 100	27 (7%)
1	G	338/347 (97%)	-0.61	6 (1%) 71 58	2, 16, 65, 100	28 (8%)
1	H	338/347 (97%)	-0.68	8 (2%) 62 47	2, 15, 65, 100	27 (7%)
All	All	2704/2776 (97%)	-0.69	41 (1%) 76 63	1, 15, 65, 100	209 (7%)

The worst 5 of 41 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	26	VAL	4.9
1	D	301	SER	4.9
1	C	300	SER	4.8
1	G	300	SER	4.6
1	H	300	SER	4.6

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th 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	LLDF	B-factors(\AA^2)	Q<0.9
2	FAB	D	348	58/58	0.97	0.13	-0.20	1,6,21,24	0
2	FAB	E	348	58/58	0.97	0.13	-0.38	1,6,21,24	0
2	FAB	H	348	58/58	0.97	0.12	-0.44	1,6,21,24	0
2	FAB	F	348	58/58	0.97	0.13	-0.49	1,6,21,24	0
2	FAB	B	348	58/58	0.97	0.12	-0.54	1,6,21,24	0
2	FAB	A	348	58/58	0.97	0.12	-0.61	1,6,21,24	0
2	FAB	G	348	58/58	0.97	0.11	-0.76	1,6,21,24	0
2	FAB	C	348	58/58	0.97	0.10	-0.86	1,6,21,24	0

6.5 Other polymers [i](#)

There are no such residues in this entry.