



Full wwPDB X-ray Structure Validation Report ⓘ

Sep 17, 2023 – 07:26 PM EDT

PDB ID : 4ZKT
Title : Crystal structure of the progenitor M complex of Clostridium botulinum type E neurotoxin
Authors : Eswaramoorthy, S.; Swaminathan, S.
Deposited on : 2015-04-30
Resolution : 3.05 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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.13
EDS : 2.35.1
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) : 2.35.1

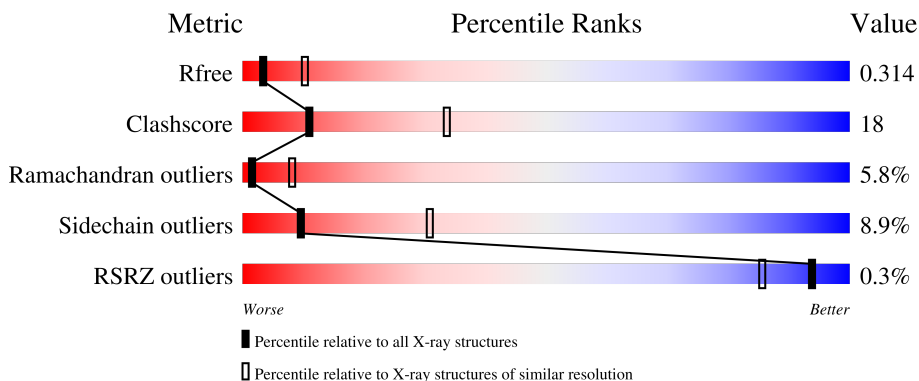
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.05 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.



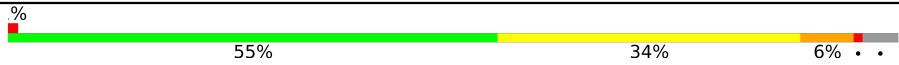
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1754 (3.10-3.02)
Clashscore	141614	1864 (3.10-3.02)
Ramachandran outliers	138981	1794 (3.10-3.02)
Sidechain outliers	138945	1793 (3.10-3.02)
RSRZ outliers	127900	1713 (3.10-3.02)

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 $\leq 5\%$. 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	1252	
1	C	1252	
1	E	1252	
2	B	1163	
2	D	1163	

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Mol	Chain	Length	Quality of chain
2	F	1163	 <p>A horizontal bar chart representing the quality of chain. The bar is divided into three segments: a green segment on the left labeled '55%', a yellow segment in the middle labeled '34%', and a red segment on the right labeled '6%'. There are two small black dots at the end of the red segment. A '%' symbol is located at the top left of the bar.</p>

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 56952 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 Bontoxilysin A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	1235	9978	6351	1665	1940	22	0	0	0
1	C	1235	9978	6351	1665	1940	22	0	0	0
1	E	1235	9978	6351	1665	1940	22	0	0	0

- Molecule 2 is a protein called Botulinum neurotoxin type E, nontoxic-nonhemagglutinin component, NTNH.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	1114	9005	5804	1451	1726	24	0	0	0
2	D	1114	9005	5804	1451	1726	24	0	0	0
2	F	1114	9005	5804	1451	1726	24	0	0	0

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

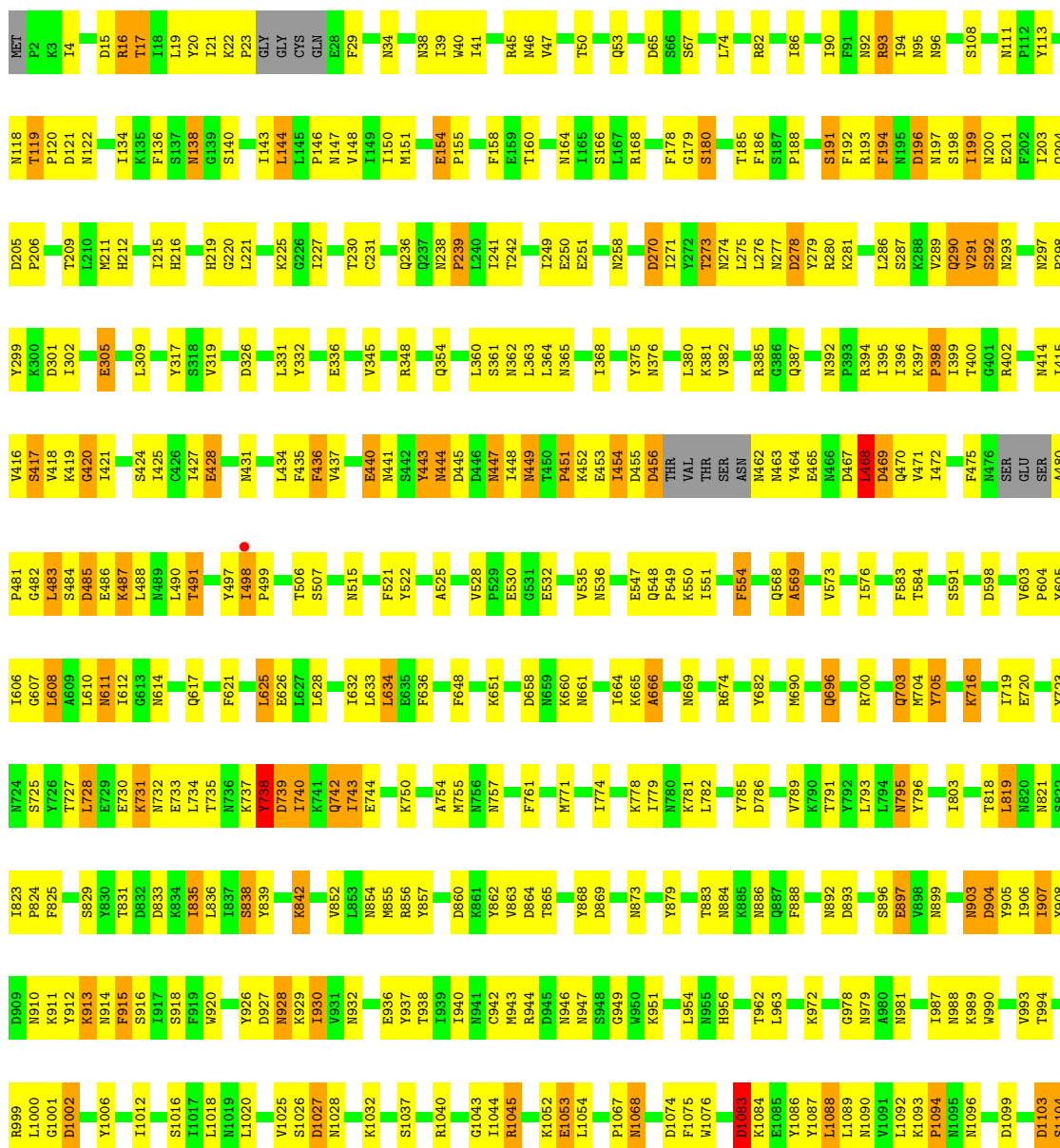
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	Zn	0	0
			1	1		
3	C	1	Total	Zn	0	0
			1	1		
3	E	1	Total	Zn	0	0
			1	1		

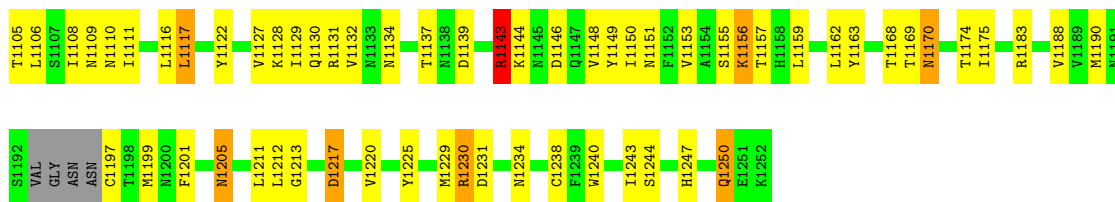
3 Residue-property plots

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: Bontoxilysin A

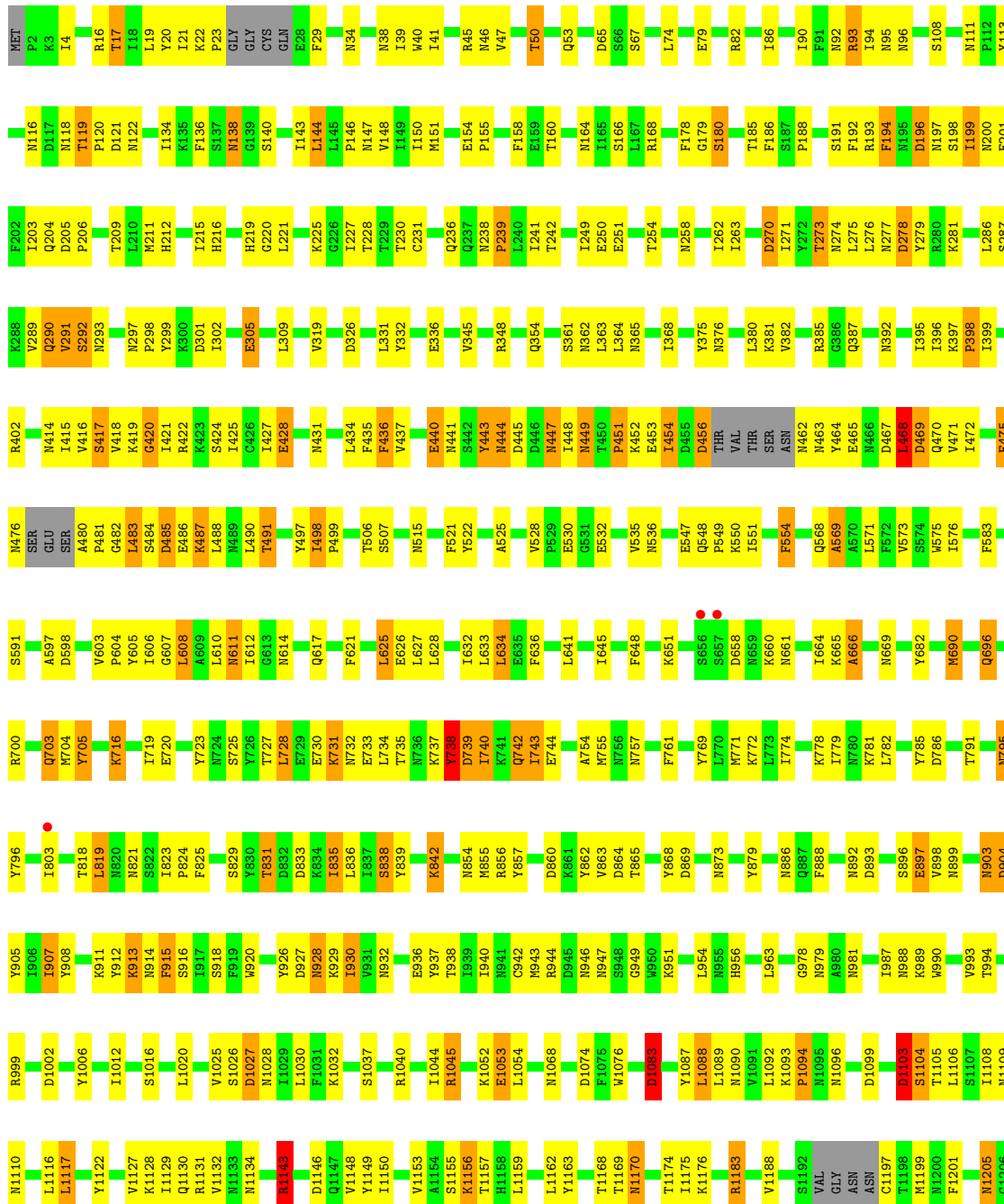
Chain A: 





● Molecule 1: Bontoxilysin A

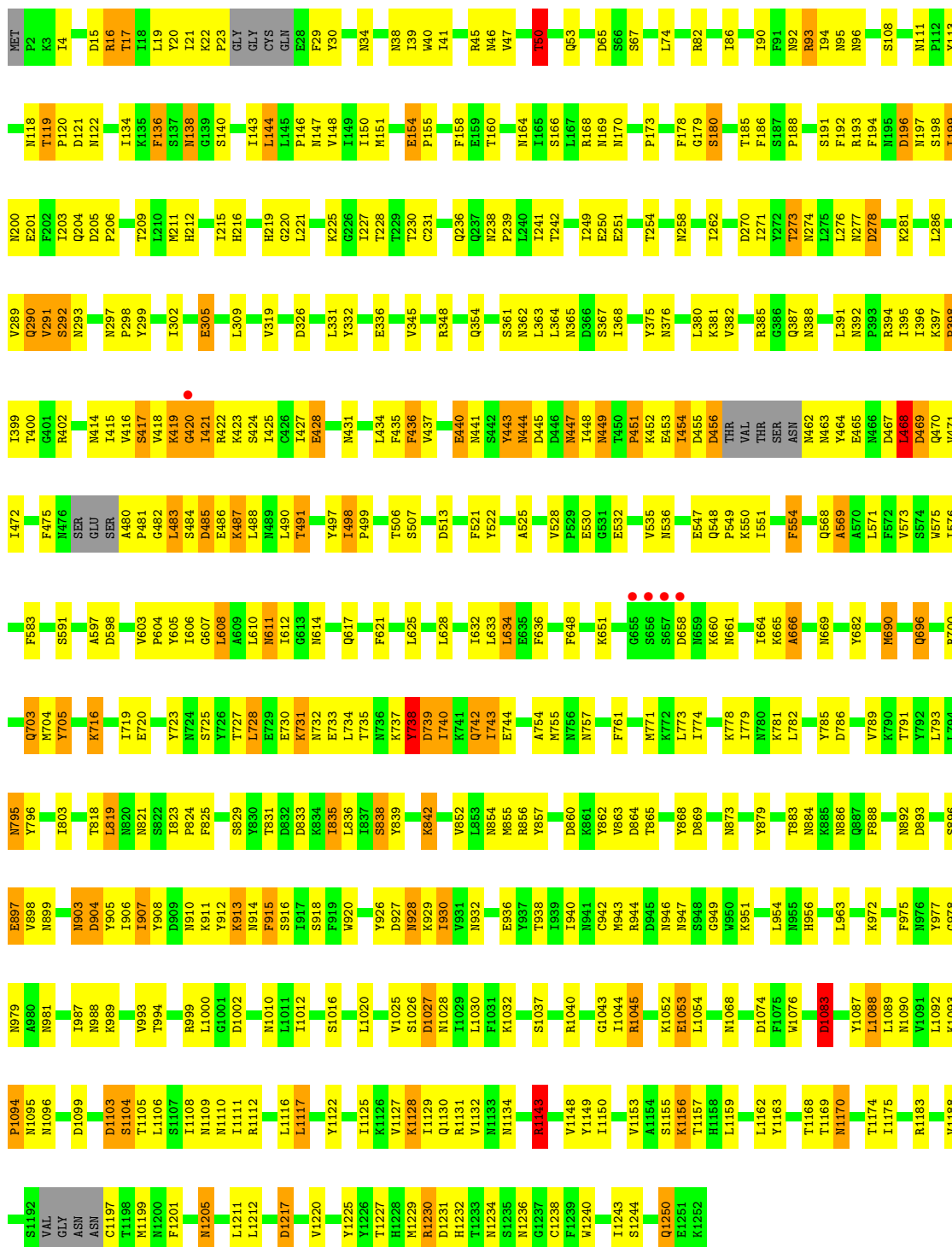
Chain C: 60% 32% 7%



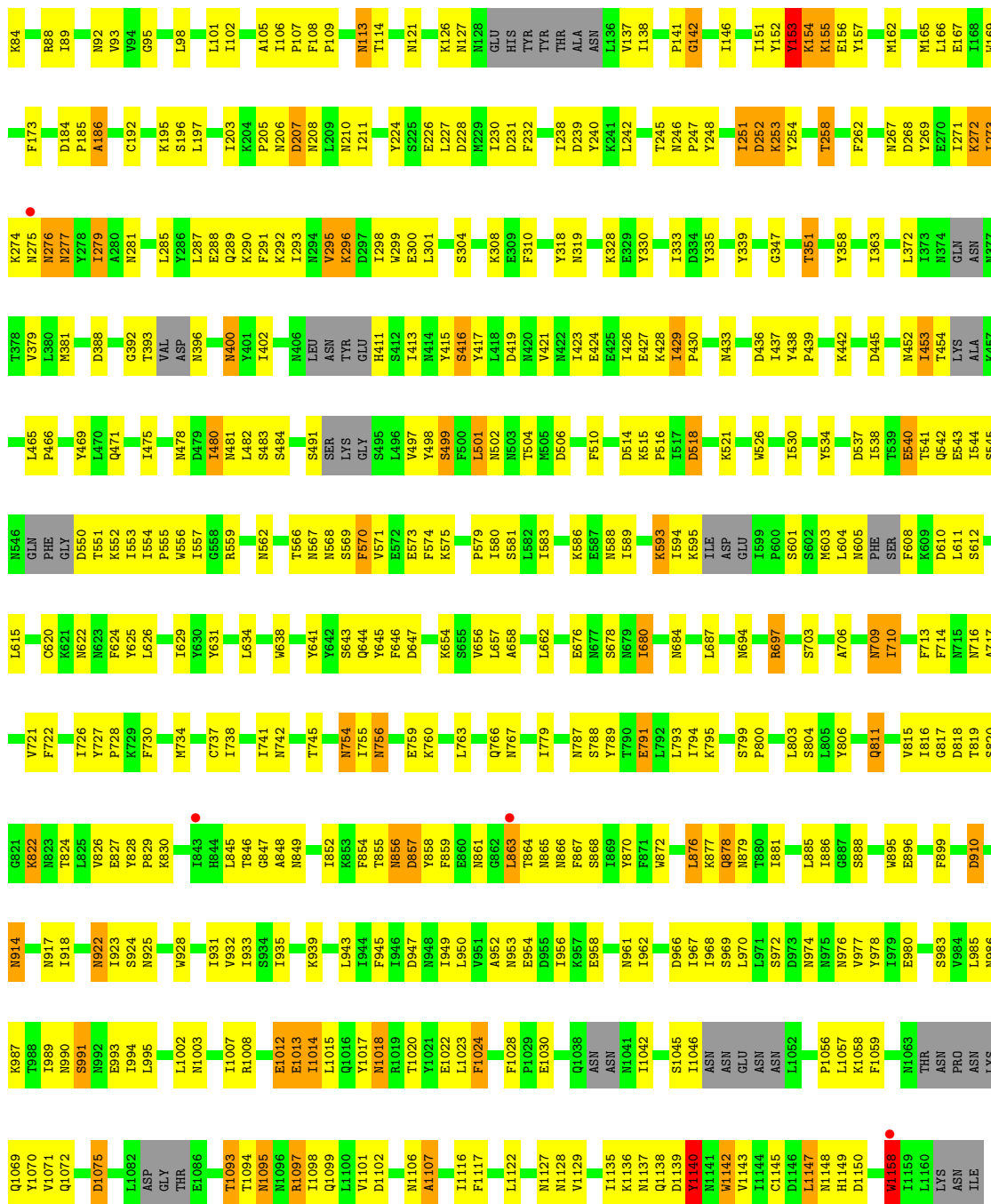


• Molecule 1: Bontoxilysin A

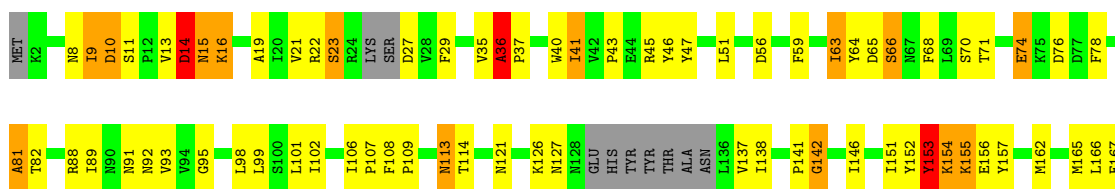
Chain E: 59% 32% 7%



• Molecule 2: Botulinum neurotoxin type E, nontoxic-nonhemagglutinin component, NTNH



● Molecule 2: Botulinum neurotoxin type E, nontoxic-nonhemagglutinin component, NTNH



ASN	L168	N267	Y356	P439	F539	F608	I726	T819	F889	L985	ASN
LYS	W169	D268	Y358	K442	E540	R609	Y727	S820	E900	N986	LYS
Q1069	E270	E289	I363	R442	T541	D610	P728	G821	N901	N987	Q1069
V1071	E271	E290	L372	D445	G542	L611	P729	K822	D910	T988	V1071
Q1072	I271	E291	L373	D445	E543	S612	K730	N823	D910	N989	Q1072
D1075	K272	E292	R374	R452	E544	L615	T731	T824	N814	S991	D1075
L1082	W183	E293	R374	R453	E545	L616	W734	L825	N814	R992	L1082
ASP	D184	E294	GLN	R454	GLN	C620	E827	V826	N922	E993	ASP
GLY	P185	E295	LYS	R454	PHE	F624	E735	Y828	I923	I994	GLY
THR	A186	E296	ASN	ALA	GLY	V625	Q736	K830	S924	L995	THR
E1086	L187	E297	T378	K457	T551	L626	C737	D831	N925	L1002	E1086
T1093	E188	E298	W379	L465	K552	W638	I738	I832	W928	M1003	T1093
M1095	K195	E299	R381	P466	L653	W639	N740	I843	I931	I1007	M1095
M1096	S196	E300	R388	P469	L654	Y630	I741	H844	V932	R1008	M1096
R1097	L197	E301	P388	Y469	P555	Y631	N742	L845	I933	M1098	R1097
I1098	I203	E302	G392	L470	W556	L634	T745	T846	S934	E1012	I1098
Q1099	R204	E303	T393	Q471	L557	W638	T745	G847	I935	E1013	Q1099
V1101	I206	E304	VAL	I475	G558	W639	N754	A848	K939	I1014	V1101
D1102	D207	E305	R400	N478	M562	Y641	I755	I852	L943	L1015	D1102
A1107	N208	E306	Y401	N478	N562	Y642	N756	K853	I944	Q1016	A1107
I1116	L209	E307	L402	D479	T566	S643	E759	F854	I944	M1017	I1116
F1117	L210	E308	L402	L480	S667	Q644	K760	T855	F945	E1018	F1117
L1122	I211	E309	L406	L482	S669	Y645	L763	N856	I946	R1019	L1122
M1127	Y224	E310	LEU	S484	V571	W656	Q766	E861	D947	Y1021	M1127
M1128	S225	E311	ASN	S491	S572	L657	N767	G862	I948	E1022	M1128
V1129	E226	E312	TYR	S491	E573	A658	N767	M861	I949	L1023	V1129
K1136	E227	E313	GLU	S491	F574	W658	N767	G862	L950	F1024	K1136
Q1138	L228	E314	H411	S491	F574	L662	L772	L863	A951	E1030	Q1138
D1139	M229	E315	S304	S491	K575	E676	I779	T864	A952	M1036	D1139
M1141	I230	E316	S412	S491	K575	E677	Q780	N865	E953	E1037	M1141
W1142	D231	E317	S412	S491	K575	N877	Q780	N866	N954	Q1038	W1142
V1143	F232	E318	S412	S491	K575	N878	Q780	N866	D955	ASN	V1143
C1145	F232	E319	S412	S491	K575	N879	Q780	N867	I956	ASN	C1145
D1146	F232	E320	S412	S491	K575	N879	Q780	N868	K957	ASN	D1146
L1147	F232	E321	S412	S491	K575	N880	Q780	N868	E958	L1052	L1147
M1148	F232	E322	S412	S491	K575	N881	Q780	N868	I958	L1052	M1148
H1149	F232	E323	S412	S491	K575	N882	Q780	N868	N961	P1056	H1149
D1150	F232	E324	S412	S491	K575	N883	Q780	N868	I962	L1057	D1150
W1159	F232	E325	S412	S491	K575	N884	Q780	N868	N961	K1058	W1159
L1160	F232	E326	S412	S491	K575	N885	Q780	N868	I962	F1059	L1160
LYS	F232	E327	S412	S491	K575	N886	Q780	N868	N961	THR	LYS
ASN	F232	E328	S412	S491	K575	N887	Q780	N868	I962	ASN	ASN
ILE	F232	E329	S412	S491	K575	N888	Q780	N868	N961	PRO	ILE

4 Data and refinement statistics

Property	Value	Source
Space group	P 31	Depositor
Cell constants a, b, c, α , β , γ	192.60Å 192.60Å 286.54Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	49.30 – 3.05 49.25 – 3.05	Depositor EDS
% Data completeness (in resolution range)	59.7 (49.30-3.05) 59.8 (49.25-3.05)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.46 (at 3.07Å)	Xtrriage
Refinement program	REFMAC 5.7.0032	Depositor
R, R_{free}	0.243 , 0.321 0.247 , 0.314	Depositor DCC
R_{free} test set	1334 reflections (0.99%)	wwPDB-VP
Wilson B-factor (Å ²)	110.6	Xtrriage
Anisotropy	0.154	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 110.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.36$, $\langle L^2 \rangle = 0.19$	Xtrriage
Estimated twinning fraction	0.135 for -h,-k,l 0.196 for h,-h-k,-l 0.137 for -k,-h,-l	Xtrriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	56952	wwPDB-VP
Average B, all atoms (Å ²)	134.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.18% 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, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.58	0/10176	0.74	2/13800 (0.0%)
1	C	0.56	0/10176	0.73	1/13800 (0.0%)
1	E	0.54	0/10176	0.72	2/13800 (0.0%)
2	B	0.64	2/9182 (0.0%)	0.75	0/12454
2	D	0.60	1/9182 (0.0%)	0.74	0/12454
2	F	0.58	1/9182 (0.0%)	0.73	0/12454
All	All	0.58	4/58074 (0.0%)	0.73	5/78762 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	B	0	1
2	D	0	1
2	F	0	2
All	All	0	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	1158	TRP	CB-CG	-7.00	1.37	1.50
2	D	1158	TRP	CB-CG	-5.84	1.39	1.50
2	F	1158	TRP	CB-CG	-5.69	1.40	1.50
2	B	116	ASP	C-O	5.60	1.33	1.23

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1143	ARG	NE-CZ-NH2	7.34	123.97	120.30
1	E	1143	ARG	NE-CZ-NH2	7.21	123.90	120.30
1	A	394	ARG	NE-CZ-NH2	-6.68	116.96	120.30
1	C	1143	ARG	NE-CZ-NH2	6.28	123.44	120.30
1	E	394	ARG	NE-CZ-NH2	-5.63	117.48	120.30

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	B	36	ALA	Peptide
2	D	36	ALA	Peptide
2	F	1138	GLN	Peptide
2	F	36	ALA	Peptide

5.2 Too-close contacts [\(i\)](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	9978	0	9735	338	1
1	C	9978	0	9735	348	1
1	E	9978	0	9735	352	0
2	B	9005	0	8666	361	0
2	D	9005	0	8666	344	0
2	F	9005	0	8666	356	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
All	All	56952	0	55203	2034	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 18.

All (2034) 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)
2:D:885:LEU:HG	2:D:886:ILE:HD12	1.33	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:885:LEU:HG	2:F:886:ILE:HD12	1.32	1.09
2:B:436:ASP:HA	2:B:437:ILE:HB	1.34	1.08
2:B:885:LEU:HG	2:B:886:ILE:HD12	1.29	1.08
2:D:436:ASP:HA	2:D:437:ILE:HB	1.35	1.05
2:F:436:ASP:HA	2:F:437:ILE:HB	1.37	1.03
2:B:818:ASP:OD2	2:B:820:SER:OG	1.79	0.99
2:F:818:ASP:OD2	2:F:820:SER:OG	1.80	0.98
2:D:818:ASP:OD2	2:D:820:SER:OG	1.80	0.98
1:C:1130:GLN:O	1:C:1148:VAL:HG23	1.63	0.98
1:A:1130:GLN:O	1:A:1148:VAL:HG23	1.66	0.96
1:E:1130:GLN:O	1:E:1148:VAL:HG23	1.66	0.95
1:C:628:LEU:HB2	1:E:419:LYS:HE3	1.48	0.95
1:A:289:VAL:HB	1:A:290:GLN:HA	1.49	0.91
2:B:879:ASN:HB3	2:B:881:ILE:HG22	1.54	0.89
1:C:289:VAL:HB	1:C:290:GLN:HA	1.53	0.89
2:D:879:ASN:HB3	2:D:881:ILE:HG22	1.55	0.89
1:E:289:VAL:HB	1:E:290:GLN:HA	1.53	0.88
1:C:227:ILE:HD11	1:C:274:ASN:HB2	1.57	0.86
1:A:289:VAL:HB	1:A:290:GLN:CA	2.06	0.86
2:D:1045:SER:OG	2:D:1046:ILE:N	2.09	0.86
1:C:855:MET:O	1:C:856:ARG:HD3	1.76	0.85
1:E:238:ASN:CG	1:E:239:PRO:HD2	1.96	0.85
2:F:879:ASN:HB3	2:F:881:ILE:HG22	1.58	0.85
1:A:227:ILE:HD11	1:A:274:ASN:HB2	1.59	0.84
1:A:855:MET:O	1:A:856:ARG:HD3	1.77	0.84
1:E:227:ILE:HD11	1:E:274:ASN:HB2	1.58	0.84
1:A:238:ASN:CG	1:A:239:PRO:HD2	1.98	0.84
2:F:1045:SER:OG	2:F:1046:ILE:N	2.07	0.84
1:C:289:VAL:HB	1:C:290:GLN:CA	2.09	0.83
1:E:855:MET:O	1:E:856:ARG:HD3	1.79	0.83
1:E:289:VAL:HB	1:E:290:GLN:CA	2.09	0.83
2:D:1137:ASN:HB3	2:D:1142:TRP:HE1	1.46	0.81
2:B:1045:SER:OG	2:B:1046:ILE:N	2.12	0.81
1:A:1155:SER:O	1:A:1157:THR:N	2.13	0.81
1:A:522:TYR:CE2	1:A:611:ASN:HB2	2.16	0.81
1:A:897:GLU:HG2	1:A:1032:LYS:HB2	1.61	0.81
1:E:1155:SER:O	1:E:1157:THR:N	2.13	0.81
1:E:522:TYR:CE2	1:E:611:ASN:HB2	2.17	0.80
1:C:238:ASN:CG	1:C:239:PRO:HD2	2.03	0.80
1:C:1155:SER:O	1:C:1157:THR:N	2.14	0.80
2:B:1137:ASN:HB3	2:B:1142:TRP:HE1	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:421:ILE:HD11	2:D:510:PHE:CD1	2.17	0.79
1:E:513:ASP:OD1	2:D:521:LYS:NZ	2.16	0.79
1:C:627:LEU:HB3	1:E:419:LYS:HE2	1.65	0.79
1:C:522:TYR:CE2	1:C:611:ASN:HB2	2.17	0.78
1:E:897:GLU:HG2	1:E:1032:LYS:HB2	1.65	0.77
2:F:1137:ASN:HB3	2:F:1142:TRP:HE1	1.48	0.77
2:F:603:MET:O	2:F:605:ASN:N	2.17	0.76
1:A:199:ILE:HA	1:A:705:TYR:HE2	1.50	0.76
1:C:897:GLU:HG2	1:C:1032:LYS:HB2	1.67	0.76
2:B:815:VAL:O	2:B:816:ILE:HG13	1.87	0.74
2:D:526:TRP:CE2	2:D:530:ILE:HD11	2.23	0.74
1:E:728:LEU:HA	1:E:731:LYS:HB2	1.68	0.74
2:F:108:PHE:HB3	2:F:162:MET:HG3	1.70	0.73
2:B:108:PHE:HB3	2:B:162:MET:HG3	1.69	0.73
1:A:836:LEU:HD11	2:B:945:PHE:CD1	2.24	0.73
2:B:603:MET:O	2:B:605:ASN:N	2.22	0.73
2:B:526:TRP:CE2	2:B:530:ILE:HD11	2.24	0.73
1:C:836:LEU:HB2	2:D:995:LEU:HD11	1.69	0.73
1:A:728:LEU:HA	1:A:731:LYS:HB2	1.70	0.73
1:C:728:LEU:HA	1:C:731:LYS:HB2	1.69	0.73
2:D:603:MET:O	2:D:605:ASN:N	2.21	0.73
2:B:1127:ASN:O	2:B:1129:VAL:N	2.22	0.72
2:F:556:TRP:HA	2:F:559:ARG:HD3	1.71	0.72
1:A:227:ILE:HD12	1:A:271:ILE:HA	1.72	0.72
2:D:815:VAL:O	2:D:816:ILE:HG13	1.89	0.72
2:F:436:ASP:HA	2:F:437:ILE:CB	2.16	0.72
2:D:108:PHE:HB3	2:D:162:MET:HG3	1.72	0.72
2:F:815:VAL:O	2:F:816:ILE:HG13	1.90	0.71
1:C:199:ILE:HA	1:C:705:TYR:HE2	1.53	0.71
2:D:469:TYR:CZ	2:D:562:ASN:HB2	2.25	0.71
2:B:59:PHE:HB2	2:B:452:ASN:ND2	2.06	0.71
2:D:63:ILE:HD12	2:D:358:TYR:HB3	1.72	0.71
2:F:469:TYR:CZ	2:F:562:ASN:HB2	2.26	0.71
1:C:118:ASN:HA	1:C:119:THR:HB	1.74	0.70
1:E:738:TYR:HA	1:E:743:ILE:HG13	1.73	0.70
1:A:238:ASN:ND2	1:A:239:PRO:HD2	2.06	0.70
2:F:626:LEU:HA	2:F:629:ILE:HD12	1.74	0.70
2:B:876:LEU:O	2:B:877:LYS:HB2	1.92	0.70
2:B:63:ILE:HD12	2:B:358:TYR:HB3	1.73	0.70
1:E:199:ILE:HA	1:E:705:TYR:HE2	1.56	0.70
2:F:21:VAL:HG13	2:F:121:ASN:HA	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:436:PHE:C	1:C:436:PHE:HD1	1.96	0.69
2:F:526:TRP:CE2	2:F:530:ILE:HD11	2.27	0.69
1:E:238:ASN:ND2	1:E:239:PRO:HD2	2.07	0.69
2:B:556:TRP:HA	2:B:559:ARG:HD3	1.75	0.69
2:D:121:ASN:CB	2:D:127:ASN:HA	2.22	0.69
2:F:59:PHE:HB2	2:F:452:ASN:ND2	2.08	0.69
1:A:118:ASN:HA	1:A:119:THR:HB	1.74	0.69
1:C:944:ARG:HG2	1:C:1026:SER:HA	1.72	0.69
2:F:224:TYR:O	2:F:392:GLY:HA2	1.93	0.69
2:D:867:PHE:HB2	2:D:985:LEU:O	1.93	0.68
1:C:227:ILE:HD12	1:C:271:ILE:HA	1.75	0.68
2:D:224:TYR:O	2:D:392:GLY:HA2	1.93	0.68
2:F:876:LEU:O	2:F:877:LYS:HB2	1.93	0.68
2:B:21:VAL:HG13	2:B:121:ASN:HA	1.75	0.68
1:E:436:PHE:HD1	1:E:436:PHE:C	1.96	0.68
2:D:626:LEU:HA	2:D:629:ILE:HD12	1.76	0.68
2:B:626:LEU:HA	2:B:629:ILE:HD12	1.74	0.68
2:F:63:ILE:HD12	2:F:358:TYR:HB3	1.76	0.68
1:C:449:ASN:O	1:C:451:PRO:HD3	1.94	0.68
2:D:556:TRP:HA	2:D:559:ARG:HD3	1.76	0.68
2:B:469:TYR:CZ	2:B:562:ASN:HB2	2.28	0.68
1:E:944:ARG:HG2	1:E:1026:SER:HA	1.75	0.67
2:D:1149:HIS:CG	2:D:1150:ASP:N	2.62	0.67
1:E:449:ASN:O	1:E:451:PRO:HD3	1.94	0.67
1:E:836:LEU:HB2	2:F:995:LEU:HD11	1.75	0.67
1:E:227:ILE:HD12	1:E:271:ILE:HA	1.76	0.67
1:E:436:PHE:C	1:E:436:PHE:CD1	2.67	0.67
1:A:738:TYR:HA	1:A:743:ILE:HG13	1.76	0.67
1:C:1207:ASN:OD1	2:D:811:GLN:N	2.28	0.67
2:D:876:LEU:O	2:D:877:LYS:HB2	1.94	0.67
2:D:59:PHE:HB2	2:D:452:ASN:ND2	2.08	0.67
2:D:423:ILE:HG23	2:D:423:ILE:O	1.94	0.67
1:A:436:PHE:C	1:A:436:PHE:HD1	1.97	0.67
2:B:1149:HIS:CG	2:B:1150:ASP:N	2.62	0.67
1:C:436:PHE:C	1:C:436:PHE:CD1	2.66	0.67
1:C:738:TYR:HA	1:C:743:ILE:HG13	1.76	0.67
1:A:449:ASN:O	1:A:451:PRO:HD3	1.94	0.67
2:D:1127:ASN:O	2:D:1129:VAL:N	2.27	0.66
1:A:20:TYR:HB3	1:A:29:PHE:HB3	1.77	0.66
1:E:904:ASP:HA	1:E:907:ILE:HD11	1.75	0.66
2:B:393:THR:HG1	2:B:396:ASN:N	1.92	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1127:ASN:O	2:F:1129:VAL:N	2.27	0.66
2:B:295:VAL:O	2:B:298:ILE:N	2.29	0.66
1:A:436:PHE:C	1:A:436:PHE:CD1	2.68	0.66
2:B:436:ASP:HA	2:B:437:ILE:CB	2.12	0.66
2:F:423:ILE:O	2:F:423:ILE:HG23	1.94	0.66
2:F:867:PHE:HB2	2:F:985:LEU:O	1.95	0.66
2:B:423:ILE:HG23	2:B:423:ILE:O	1.93	0.66
1:A:944:ARG:HG2	1:A:1026:SER:HA	1.76	0.66
2:F:1149:HIS:CG	2:F:1150:ASP:N	2.64	0.66
2:B:877:LYS:HB3	2:B:878:GLN:HB3	1.78	0.66
1:E:154:GLU:HB2	1:E:155:PRO:HD2	1.78	0.66
1:C:154:GLU:HB2	1:C:155:PRO:HD2	1.77	0.65
2:D:21:VAL:HG13	2:D:121:ASN:HA	1.77	0.65
2:F:877:LYS:HB3	2:F:878:GLN:HB3	1.78	0.65
1:C:628:LEU:CB	1:E:419:LYS:HE3	2.25	0.65
2:D:877:LYS:HB3	2:D:878:GLN:HB3	1.78	0.65
1:E:118:ASN:HA	1:E:119:THR:HB	1.77	0.65
1:E:928:ASN:HB3	1:E:930:ILE:HG22	1.77	0.65
2:B:867:PHE:HB2	2:B:985:LEU:O	1.97	0.65
2:D:1013:GLU:O	2:D:1014:ILE:HB	1.97	0.65
2:F:121:ASN:CB	2:F:127:ASN:HA	2.27	0.65
1:C:238:ASN:ND2	1:C:239:PRO:HD2	2.11	0.65
2:B:121:ASN:CB	2:B:127:ASN:HA	2.26	0.65
1:E:771:MET:HA	1:E:774:ILE:HG22	1.79	0.64
1:A:928:ASN:HB3	1:A:930:ILE:HG22	1.79	0.64
1:C:415:ILE:HD12	1:C:425:ILE:HD12	1.78	0.64
1:C:836:LEU:HD11	2:D:945:PHE:CD1	2.32	0.64
1:E:236:GLN:HB3	1:E:241:ILE:HD13	1.79	0.64
1:E:926:TYR:HB3	1:E:1250:GLN:CG	2.28	0.64
1:A:216:HIS:NE2	1:A:251:GLU:OE1	2.30	0.64
1:A:289:VAL:CB	1:A:290:GLN:HA	2.23	0.64
1:A:771:MET:HA	1:A:774:ILE:HG22	1.79	0.64
1:A:926:TYR:HB3	1:A:1250:GLN:CG	2.28	0.64
1:E:216:HIS:NE2	1:E:251:GLU:OE1	2.31	0.64
2:B:1013:GLU:O	2:B:1014:ILE:HB	1.97	0.64
1:A:415:ILE:HD12	1:A:425:ILE:HD12	1.79	0.64
1:A:468:LEU:O	1:A:470:GLN:N	2.31	0.64
1:E:836:LEU:HD11	2:F:945:PHE:CD1	2.33	0.64
2:B:1137:ASN:HB3	2:B:1142:TRP:NE1	2.13	0.64
2:D:552:LYS:O	2:D:713:PHE:HD1	1.81	0.64
2:B:35:VAL:HG12	2:B:36:ALA:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:35:VAL:HG12	2:D:36:ALA:H	1.63	0.64
2:F:1013:GLU:O	2:F:1014:ILE:HB	1.98	0.64
1:E:415:ILE:HD12	1:E:425:ILE:HD12	1.79	0.64
1:A:705:TYR:CD1	1:A:705:TYR:C	2.72	0.63
1:E:468:LEU:O	1:E:470:GLN:N	2.30	0.63
1:A:904:ASP:HA	1:A:907:ILE:HD11	1.79	0.63
2:B:13:VAL:HG12	2:B:14:ASP:N	2.14	0.63
2:B:1122:LEU:HD21	2:B:1158:TRP:CZ2	2.33	0.63
1:C:365:ASN:O	1:C:368:ILE:HG22	1.97	0.63
2:B:224:TYR:O	2:B:392:GLY:HA2	1.97	0.63
1:E:454:ILE:HD13	1:E:666:ALA:HA	1.79	0.63
2:B:608:PHE:O	2:B:612:SER:N	2.31	0.63
2:D:1122:LEU:HD21	2:D:1158:TRP:CZ2	2.33	0.63
2:D:1137:ASN:HB3	2:D:1142:TRP:NE1	2.12	0.63
2:F:269:TYR:OH	2:F:288:GLU:HB2	1.98	0.63
1:A:154:GLU:HB2	1:A:155:PRO:HD2	1.79	0.63
1:C:926:TYR:HB3	1:C:1250:GLN:CG	2.29	0.63
2:B:856:ASN:HB3	2:B:859:PHE:CE2	2.34	0.63
1:C:857:TYR:CZ	1:C:860:ASP:HA	2.33	0.63
2:D:608:PHE:O	2:D:612:SER:N	2.32	0.63
2:F:1122:LEU:HD21	2:F:1158:TRP:CZ2	2.33	0.63
1:A:926:TYR:HB3	1:A:1250:GLN:HG3	1.80	0.63
1:C:444:ASN:OD1	1:C:445:ASP:N	2.33	0.62
1:C:928:ASN:HB3	1:C:930:ILE:HG22	1.80	0.62
2:F:961:ASN:OD1	2:F:962:ILE:N	2.33	0.62
1:C:754:ALA:O	1:C:757:ASN:HB2	1.99	0.62
2:B:910:ASP:HB3	2:B:914:ASN:HB2	1.81	0.62
2:B:962:ILE:O	2:B:962:ILE:HG22	1.99	0.62
2:D:295:VAL:O	2:D:298:ILE:N	2.31	0.62
2:F:429:ILE:N	2:F:430:PRO:CD	2.63	0.62
1:C:216:HIS:NE2	1:C:251:GLU:OE1	2.33	0.62
1:C:771:MET:HA	1:C:774:ILE:HG22	1.82	0.62
1:E:219:HIS:ND1	1:E:250:GLU:OE2	2.27	0.62
2:B:552:LYS:O	2:B:713:PHE:HD1	1.83	0.62
2:D:269:TYR:OH	2:D:288:GLU:HB2	1.98	0.62
2:F:295:VAL:O	2:F:298:ILE:N	2.32	0.62
1:A:914:ASN:O	1:A:915:PHE:HB3	1.99	0.62
1:C:926:TYR:HB3	1:C:1250:GLN:HG3	1.81	0.62
2:B:268:ASP:HA	2:B:271:ILE:HG22	1.80	0.62
2:B:429:ILE:N	2:B:430:PRO:CD	2.63	0.62
2:D:268:ASP:HA	2:D:271:ILE:HG22	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:962:ILE:O	2:F:962:ILE:HG22	2.00	0.62
1:E:926:TYR:HB3	1:E:1250:GLN:HG3	1.80	0.62
2:D:910:ASP:HB3	2:D:914:ASN:HB2	1.82	0.62
2:D:962:ILE:O	2:D:962:ILE:HG22	2.00	0.62
2:F:35:VAL:HG12	2:F:36:ALA:H	1.65	0.62
2:F:608:PHE:O	2:F:612:SER:N	2.32	0.62
1:A:365:ASN:O	1:A:368:ILE:HG22	2.00	0.62
1:E:414:ASN:HA	1:E:424:SER:HA	1.81	0.62
1:A:236:GLN:HB3	1:A:241:ILE:HD13	1.82	0.61
1:C:20:TYR:HB3	1:C:29:PHE:HB3	1.81	0.61
1:C:454:ILE:HD13	1:C:666:ALA:HA	1.81	0.61
1:E:119:THR:H	1:E:120:PRO:CD	2.14	0.61
2:D:1093:THR:HG23	2:D:1095:ASN:H	1.65	0.61
2:F:268:ASP:HA	2:F:271:ILE:HG22	1.82	0.61
1:A:380:LEU:HA	1:A:385:ARG:HB3	1.82	0.61
1:E:857:TYR:CZ	1:E:860:ASP:HA	2.36	0.61
2:B:1149:HIS:CE1	2:B:1150:ASP:HB3	2.35	0.61
2:D:961:ASN:OD1	2:D:962:ILE:N	2.33	0.61
2:F:1023:LEU:HD13	2:F:1158:TRP:HZ3	1.66	0.61
2:F:1137:ASN:HB3	2:F:1142:TRP:NE1	2.14	0.61
1:C:414:ASN:HA	1:C:424:SER:HA	1.82	0.61
2:F:184:ASP:OD1	2:F:185:PRO:HD2	2.01	0.61
2:F:910:ASP:HB3	2:F:914:ASN:HB2	1.83	0.61
1:C:1131:ARG:HD2	1:C:1132:VAL:N	2.16	0.61
2:F:393:THR:HG1	2:F:396:ASN:N	1.99	0.61
1:C:236:GLN:HB3	1:C:241:ILE:HD13	1.83	0.61
1:A:454:ILE:HD13	1:A:666:ALA:HA	1.82	0.61
1:C:468:LEU:O	1:C:470:GLN:N	2.33	0.61
1:C:705:TYR:CD1	1:C:705:TYR:C	2.74	0.61
2:D:552:LYS:HB2	2:D:713:PHE:HE1	1.65	0.61
2:D:956:ILE:HG22	2:D:956:ILE:O	2.00	0.61
1:E:981:ASN:HD21	2:F:414:ASN:HB3	1.64	0.61
2:D:856:ASN:HB3	2:D:859:PHE:CE2	2.36	0.61
1:C:289:VAL:CB	1:C:290:GLN:HA	2.27	0.60
2:B:184:ASP:OD1	2:B:185:PRO:HD2	2.00	0.60
1:A:754:ALA:O	1:A:757:ASN:HB2	1.99	0.60
1:A:854:ASN:HB2	1:A:865:THR:HG22	1.82	0.60
1:A:1131:ARG:HD2	1:A:1132:VAL:N	2.15	0.60
1:C:427:ILE:CD1	1:C:521:PHE:HA	2.31	0.60
2:F:956:ILE:HG22	2:F:956:ILE:O	2.00	0.60
1:C:914:ASN:O	1:C:915:PHE:HB3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:904:ASP:HA	1:C:907:ILE:HD11	1.82	0.60
1:E:365:ASN:O	1:E:368:ILE:HG22	2.00	0.60
2:F:856:ASN:HB3	2:F:859:PHE:CE2	2.36	0.60
1:C:219:HIS:ND1	1:C:250:GLU:OE2	2.28	0.60
1:E:380:LEU:HA	1:E:385:ARG:HB3	1.84	0.60
2:D:184:ASP:OD1	2:D:185:PRO:HD2	2.02	0.60
1:E:427:ILE:CD1	1:E:521:PHE:HA	2.31	0.60
1:E:914:ASN:O	1:E:915:PHE:HB3	2.01	0.60
2:B:269:TYR:OH	2:B:288:GLU:HB2	2.01	0.60
2:B:552:LYS:HB2	2:B:713:PHE:HE1	1.65	0.60
2:D:13:VAL:HG12	2:D:14:ASP:N	2.16	0.60
2:D:246:ASN:ND2	2:D:413:ILE:O	2.34	0.60
2:D:429:ILE:N	2:D:430:PRO:CD	2.65	0.60
2:D:1023:LEU:HD13	2:D:1158:TRP:HZ3	1.67	0.60
2:F:246:ASN:ND2	2:F:413:ILE:O	2.34	0.60
2:F:465:LEU:HB3	2:F:466:PRO:HD2	1.84	0.60
2:F:465:LEU:HB3	2:F:466:PRO:CD	2.32	0.60
2:F:552:LYS:O	2:F:713:PHE:HD1	1.83	0.60
2:B:605:ASN:HA	2:B:754:ASN:HB2	1.83	0.60
2:F:989:ILE:HG22	2:F:994:ILE:HG13	1.82	0.60
1:C:1211:LEU:HD12	1:C:1225:TYR:HB3	1.83	0.60
1:E:754:ALA:O	1:E:757:ASN:HB2	2.01	0.60
1:A:414:ASN:HA	1:A:424:SER:HA	1.84	0.60
1:C:143:ILE:HD13	1:C:491:THR:HG23	1.83	0.59
1:C:779:ILE:O	1:C:779:ILE:HG22	2.02	0.59
2:B:544:ILE:HD12	2:B:553:ILE:HD12	1.83	0.59
1:A:987:ILE:C	1:A:989:LYS:H	2.06	0.59
2:D:544:ILE:HD12	2:D:553:ILE:HD12	1.82	0.59
1:C:417:SER:OG	1:C:418:VAL:N	2.33	0.59
2:B:411:HIS:HA	2:B:624:PHE:HE1	1.66	0.59
1:A:857:TYR:CZ	1:A:860:ASP:HA	2.36	0.59
1:C:836:LEU:CB	2:D:995:LEU:HD11	2.31	0.59
2:B:498:TYR:OH	2:B:559:ARG:O	2.21	0.59
2:D:989:ILE:HG22	2:D:994:ILE:HG13	1.84	0.59
2:F:544:ILE:HD12	2:F:553:ILE:HD12	1.83	0.59
1:A:417:SER:OG	1:A:418:VAL:N	2.34	0.59
1:E:705:TYR:C	1:E:705:TYR:CD1	2.75	0.59
2:D:605:ASN:HA	2:D:754:ASN:HB2	1.84	0.59
1:A:219:HIS:ND1	1:A:250:GLU:OE2	2.28	0.59
2:B:961:ASN:OD1	2:B:962:ILE:N	2.35	0.59
2:D:552:LYS:O	2:D:713:PHE:CD1	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:427:ILE:CD1	1:A:521:PHE:HA	2.33	0.59
1:E:854:ASN:HB2	1:E:865:THR:HG22	1.85	0.59
2:B:543:GLU:HA	2:B:552:LYS:HA	1.83	0.59
2:B:552:LYS:O	2:B:713:PHE:CD1	2.56	0.59
2:B:956:ILE:O	2:B:956:ILE:HG22	2.03	0.59
2:B:1142:TRP:N	2:B:1142:TRP:CD1	2.70	0.59
1:A:368:ILE:HD11	1:A:395:ILE:HA	1.84	0.59
1:A:462:ASN:HB3	1:A:463:ASN:HA	1.85	0.59
2:B:1093:THR:HG23	2:B:1095:ASN:H	1.66	0.59
2:F:9:ILE:HG23	2:F:10:ASP:H	1.67	0.59
1:A:143:ILE:HD13	1:A:491:THR:HG23	1.83	0.59
2:B:579:PRO:C	2:B:581:SER:H	2.06	0.59
2:F:543:GLU:HA	2:F:552:LYS:HA	1.85	0.59
1:A:454:ILE:HD11	1:A:456:ASP:OD1	2.03	0.58
1:E:198:SER:O	1:E:200:ASN:N	2.36	0.58
1:E:444:ASN:OD1	1:E:445:ASP:N	2.36	0.58
2:B:1023:LEU:HD12	2:B:1024:PHE:N	2.17	0.58
2:D:1149:HIS:CE1	2:D:1150:ASP:HB3	2.38	0.58
1:C:854:ASN:HB2	1:C:865:THR:HG22	1.84	0.58
1:E:628:LEU:HD23	1:E:632:ILE:HB	1.85	0.58
2:D:469:TYR:CE2	2:D:562:ASN:HB2	2.38	0.58
2:D:526:TRP:CZ2	2:D:530:ILE:HD11	2.38	0.58
1:A:453:GLU:O	1:A:454:ILE:HG22	2.03	0.58
1:E:453:GLU:O	1:E:454:ILE:HG22	2.04	0.58
1:E:943:MET:HB3	1:E:947:ASN:HA	1.85	0.58
2:B:246:ASN:ND2	2:B:413:ILE:O	2.35	0.58
1:E:454:ILE:HD11	1:E:456:ASP:OD1	2.03	0.58
1:E:779:ILE:O	1:E:779:ILE:HG22	2.03	0.58
2:B:990:ASN:HB3	2:B:993:GLU:CD	2.23	0.58
2:D:245:THR:O	2:D:247:PRO:C	2.42	0.58
2:D:465:LEU:HB3	2:D:466:PRO:HD2	1.86	0.58
2:D:990:ASN:HB3	2:D:993:GLU:CD	2.23	0.58
2:F:804:SER:O	2:F:818:ASP:HA	2.03	0.58
1:A:836:LEU:HB2	2:B:995:LEU:HD11	1.85	0.58
1:A:1211:LEU:HD12	1:A:1225:TYR:HB3	1.84	0.58
1:C:436:PHE:HD1	1:C:437:VAL:N	2.01	0.58
1:E:143:ILE:HD13	1:E:491:THR:HG23	1.83	0.58
1:E:417:SER:OG	1:E:418:VAL:N	2.32	0.58
2:D:436:ASP:HA	2:D:437:ILE:CB	2.14	0.58
2:F:13:VAL:HG12	2:F:14:ASP:N	2.18	0.58
2:B:427:GLU:C	2:B:430:PRO:HD3	2.24	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:454:ILE:CD1	1:A:456:ASP:OD1	2.51	0.58
1:A:779:ILE:HG22	1:A:779:ILE:O	2.03	0.58
1:C:164:ASN:HB3	1:C:180:SER:OG	2.04	0.58
1:E:1131:ARG:HD2	1:E:1132:VAL:N	2.18	0.58
1:A:164:ASN:HB3	1:A:180:SER:OG	2.03	0.58
1:C:168:ARG:HA	1:C:497:TYR:HB2	1.86	0.58
2:F:469:TYR:CE2	2:F:562:ASN:HB2	2.39	0.58
2:D:427:GLU:C	2:D:430:PRO:HD3	2.24	0.58
1:A:444:ASN:OD1	1:A:445:ASP:N	2.37	0.58
1:C:154:GLU:HB2	1:C:155:PRO:CD	2.34	0.58
2:D:113:ASN:HB3	2:D:279:ILE:CB	2.33	0.58
2:D:465:LEU:HB3	2:D:466:PRO:CD	2.34	0.58
2:F:788:SER:O	2:F:791:GLU:HB3	2.04	0.58
2:F:990:ASN:HB3	2:F:993:GLU:CD	2.24	0.58
1:A:1044:ILE:HG22	1:A:1045:ARG:N	2.19	0.57
1:C:824:PRO:HB3	2:D:952:ALA:HB2	1.86	0.57
2:D:788:SER:O	2:D:791:GLU:HB3	2.04	0.57
2:D:804:SER:O	2:D:818:ASP:HA	2.04	0.57
2:F:227:LEU:HD11	2:F:231:ASP:HB2	1.86	0.57
2:F:411:HIS:HA	2:F:624:PHE:HE1	1.69	0.57
1:A:605:TYR:CD1	1:A:605:TYR:O	2.57	0.57
1:C:1205:ASN:C	1:C:1205:ASN:OD1	2.42	0.57
2:B:856:ASN:HB3	2:B:859:PHE:HE2	1.69	0.57
2:B:989:ILE:HG22	2:B:994:ILE:HG13	1.86	0.57
2:D:1023:LEU:HD12	2:D:1024:PHE:N	2.19	0.57
2:D:498:TYR:OH	2:D:559:ARG:O	2.21	0.57
2:D:756:ASN:OD1	2:D:756:ASN:N	2.37	0.57
2:F:552:LYS:O	2:F:713:PHE:CD1	2.57	0.57
2:F:1142:TRP:CD1	2:F:1142:TRP:N	2.72	0.57
1:E:20:TYR:HB3	1:E:29:PHE:HB3	1.84	0.57
1:E:236:GLN:HB3	1:E:241:ILE:CD1	2.33	0.57
2:B:554:ILE:HG21	2:B:556:TRP:CE2	2.39	0.57
2:B:1023:LEU:HD13	2:B:1158:TRP:HZ3	1.68	0.57
2:D:543:GLU:HA	2:D:552:LYS:HA	1.87	0.57
1:A:168:ARG:HA	1:A:497:TYR:HB2	1.87	0.57
1:C:628:LEU:HD23	1:C:632:ILE:HB	1.86	0.57
1:E:168:ARG:HA	1:E:497:TYR:HB2	1.87	0.57
1:E:368:ILE:HD11	1:E:395:ILE:HA	1.85	0.57
1:E:824:PRO:CB	2:F:952:ALA:HB2	2.35	0.57
2:F:1093:THR:HG23	2:F:1095:ASN:H	1.69	0.57
1:C:416:VAL:HG13	1:C:420:GLY:N	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:154:GLU:HB2	1:E:155:PRO:CD	2.35	0.57
1:E:164:ASN:HB3	1:E:180:SER:OG	2.04	0.57
1:E:454:ILE:CD1	1:E:456:ASP:OD1	2.52	0.57
1:C:380:LEU:HA	1:C:385:ARG:HB3	1.86	0.57
1:C:857:TYR:OH	1:C:860:ASP:HA	2.05	0.57
2:D:552:LYS:HB2	2:D:713:PHE:CE1	2.40	0.57
1:A:309:LEU:CD2	1:A:319:VAL:HG12	2.35	0.57
1:C:453:GLU:O	1:C:454:ILE:HG22	2.04	0.57
2:B:166:LEU:HD12	2:B:196:SER:HB2	1.86	0.57
2:D:742:ASN:HA	2:D:745:THR:HG22	1.87	0.57
2:F:552:LYS:HB2	2:F:713:PHE:HE1	1.69	0.57
1:A:289:VAL:HB	1:A:290:GLN:CB	2.35	0.57
1:C:368:ILE:HD11	1:C:395:ILE:HA	1.86	0.57
1:E:436:PHE:HD1	1:E:437:VAL:N	2.01	0.57
1:E:836:LEU:HD13	2:F:991:SER:HA	1.87	0.57
1:C:943:MET:HB3	1:C:947:ASN:HA	1.86	0.57
2:D:9:ILE:HG23	2:D:10:ASP:H	1.69	0.57
2:F:870:TYR:CE2	2:F:983:SER:OG	2.57	0.57
1:A:198:SER:O	1:A:200:ASN:N	2.38	0.56
1:E:742:GLN:O	1:E:744:GLU:N	2.38	0.56
1:E:1205:ASN:C	1:E:1205:ASN:OD1	2.43	0.56
2:F:605:ASN:HA	2:F:754:ASN:HB2	1.87	0.56
2:B:895:TRP:O	2:B:896:GLU:HG2	2.05	0.56
2:F:40:TRP:O	2:F:137:VAL:HA	2.05	0.56
2:F:113:ASN:HB3	2:F:279:ILE:CB	2.34	0.56
2:F:756:ASN:N	2:F:756:ASN:OD1	2.37	0.56
2:F:1023:LEU:HD13	2:F:1158:TRP:CZ3	2.40	0.56
2:F:1149:HIS:CE1	2:F:1150:ASP:HB3	2.40	0.56
1:A:427:ILE:HG22	1:A:428:GLU:N	2.19	0.56
1:E:452:LYS:HB2	1:E:651:LYS:HE2	1.88	0.56
1:E:1149:TYR:CD1	1:E:1183:ARG:HD2	2.40	0.56
2:B:756:ASN:OD1	2:B:756:ASN:N	2.39	0.56
2:B:804:SER:O	2:B:818:ASP:HA	2.04	0.56
2:B:943:LEU:HD23	2:B:953:ASN:HA	1.88	0.56
2:F:245:THR:O	2:F:247:PRO:C	2.42	0.56
1:A:452:LYS:HB2	1:A:651:LYS:HE2	1.87	0.56
1:A:628:LEU:HD23	1:A:632:ILE:HB	1.86	0.56
1:C:481:PRO:HG2	1:C:483:LEU:HD21	1.88	0.56
2:B:526:TRP:CZ2	2:B:530:ILE:HD11	2.40	0.56
1:A:1205:ASN:C	1:A:1205:ASN:OD1	2.43	0.56
1:C:454:ILE:HD11	1:C:456:ASP:OD1	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:824:PRO:CB	2:D:952:ALA:HB2	2.36	0.56
2:B:465:LEU:HB3	2:B:466:PRO:CD	2.36	0.56
2:B:788:SER:O	2:B:791:GLU:HB3	2.04	0.56
2:D:227:LEU:HD11	2:D:231:ASP:HB2	1.88	0.56
2:D:393:THR:HG1	2:D:396:ASN:N	2.03	0.56
1:A:289:VAL:HB	1:A:290:GLN:HB3	1.88	0.56
1:A:436:PHE:HD1	1:A:437:VAL:N	2.03	0.56
1:A:1150:ILE:HG22	1:A:1162:LEU:HD12	1.86	0.56
1:C:1163:TYR:O	1:C:1175:ILE:HG23	2.05	0.56
2:B:113:ASN:HB3	2:B:279:ILE:CB	2.36	0.56
2:B:465:LEU:HB3	2:B:466:PRO:HD2	1.87	0.56
2:B:822:LYS:O	2:B:824:THR:N	2.39	0.56
2:D:856:ASN:HB3	2:D:859:PHE:HE2	1.71	0.56
1:A:38:ASN:HD21	1:A:484:SER:CB	2.19	0.56
1:C:1083:ASP:N	1:C:1129:ILE:O	2.33	0.56
1:E:462:ASN:HB3	1:E:463:ASN:HA	1.87	0.56
2:F:98:LEU:O	2:F:101:LEU:HB3	2.06	0.56
1:C:198:SER:O	1:C:200:ASN:N	2.39	0.56
1:C:454:ILE:CD1	1:C:456:ASP:OD1	2.53	0.56
1:E:416:VAL:HG13	1:E:420:GLY:N	2.21	0.56
2:B:552:LYS:HB2	2:B:713:PHE:CE1	2.40	0.56
2:F:429:ILE:HG22	2:F:429:ILE:O	2.06	0.56
1:A:154:GLU:HB2	1:A:155:PRO:CD	2.35	0.56
1:C:857:TYR:HA	1:C:862:TYR:HA	1.88	0.56
1:C:899:ASN:OD1	1:C:1028:ASN:HB3	2.05	0.56
1:C:1044:ILE:HG22	1:C:1045:ARG:N	2.20	0.56
1:E:289:VAL:CB	1:E:290:GLN:HA	2.27	0.56
2:B:269:TYR:CE1	2:B:287:LEU:HB3	2.41	0.56
2:B:742:ASN:HA	2:B:745:THR:HG22	1.88	0.56
2:D:870:TYR:CE2	2:D:983:SER:OG	2.59	0.56
2:F:554:ILE:HG21	2:F:556:TRP:CE2	2.41	0.56
1:C:119:THR:H	1:C:120:PRO:CD	2.18	0.55
1:E:1163:TYR:O	1:E:1175:ILE:HG23	2.06	0.55
1:E:1211:LEU:HD12	1:E:1225:TYR:HB3	1.86	0.55
2:F:427:GLU:C	2:F:430:PRO:HD3	2.26	0.55
1:C:448:ILE:O	1:C:449:ASN:C	2.44	0.55
2:B:40:TRP:O	2:B:137:VAL:HA	2.06	0.55
2:B:1015:LEU:HB2	2:B:1071:VAL:HB	1.89	0.55
2:D:943:LEU:HD23	2:D:953:ASN:HA	1.88	0.55
2:F:545:SER:HA	2:F:550:ASP:N	2.21	0.55
1:E:376:ASN:HB3	1:E:381:LYS:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:92:ASN:HB3	2:D:310:PHE:CZ	2.42	0.55
2:D:545:SER:HA	2:D:550:ASP:N	2.21	0.55
2:D:554:ILE:HG21	2:D:556:TRP:CE2	2.41	0.55
2:D:1023:LEU:HD13	2:D:1158:TRP:CZ3	2.41	0.55
2:F:269:TYR:CE1	2:F:287:LEU:HB3	2.41	0.55
1:A:67:SER:HA	1:A:158:PHE:CD2	2.41	0.55
1:C:452:LYS:HB2	1:C:651:LYS:HE2	1.87	0.55
1:C:1092:LEU:O	1:C:1094:PRO:HD3	2.06	0.55
2:F:498:TYR:OH	2:F:559:ARG:O	2.23	0.55
2:F:943:LEU:HD23	2:F:953:ASN:HA	1.89	0.55
1:A:705:TYR:C	1:A:705:TYR:HD1	2.09	0.55
1:A:742:GLN:O	1:A:744:GLU:N	2.40	0.55
1:C:427:ILE:HG22	1:C:428:GLU:N	2.22	0.55
2:B:92:ASN:HB3	2:B:310:PHE:CZ	2.42	0.55
2:B:1023:LEU:HD13	2:B:1158:TRP:CZ3	2.42	0.55
2:D:895:TRP:O	2:D:896:GLU:HG2	2.05	0.55
2:F:1023:LEU:HD12	2:F:1024:PHE:N	2.22	0.55
1:A:1092:LEU:O	1:A:1094:PRO:HD3	2.07	0.55
1:C:462:ASN:HB3	1:C:463:ASN:HA	1.88	0.55
1:C:627:LEU:O	1:E:420:GLY:N	2.40	0.55
1:C:738:TYR:O	1:C:739:ASP:C	2.45	0.55
1:E:111:ASN:HA	1:E:147:ASN:OD1	2.07	0.55
2:B:9:ILE:HG23	2:B:10:ASP:H	1.71	0.55
2:B:98:LEU:O	2:B:101:LEU:HB3	2.07	0.55
2:B:469:TYR:CE2	2:B:562:ASN:HB2	2.41	0.55
2:D:23:SER:OG	2:D:29:PHE:HB2	2.07	0.55
1:A:737:LYS:O	1:A:738:TYR:O	2.24	0.55
2:B:502:ASN:O	2:B:506:ASP:HB2	2.06	0.55
2:F:579:PRO:C	2:F:581:SER:H	2.08	0.55
1:A:119:THR:H	1:A:120:PRO:CD	2.19	0.55
1:A:1025:VAL:HG12	1:A:1026:SER:N	2.22	0.55
1:C:742:GLN:O	1:C:744:GLU:N	2.40	0.55
2:F:727:TYR:N	2:F:728:PRO:HD2	2.22	0.55
1:E:392:ASN:O	1:E:395:ILE:HG12	2.07	0.55
2:B:1149:HIS:NE2	2:B:1150:ASP:HB3	2.22	0.55
2:F:1072:GLN:O	2:F:1075:ASP:HB2	2.07	0.55
1:A:943:MET:HB3	1:A:947:ASN:HA	1.88	0.54
1:C:606:ILE:HD13	1:C:761:PHE:CE2	2.42	0.54
1:E:1044:ILE:HG22	1:E:1045:ARG:N	2.22	0.54
2:B:23:SER:OG	2:B:29:PHE:HB2	2.08	0.54
2:B:544:ILE:HD13	2:B:575:LYS:HG2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:98:LEU:O	2:D:101:LEU:HB3	2.07	0.54
1:C:67:SER:HA	1:C:158:PHE:CD2	2.43	0.54
1:C:467:ASP:OD1	1:C:468:LEU:N	2.40	0.54
1:C:1053:GLU:HG3	1:C:1053:GLU:O	2.07	0.54
1:E:606:ILE:HD13	1:E:761:PHE:CE2	2.42	0.54
1:E:824:PRO:HB3	2:F:952:ALA:HB2	1.89	0.54
2:B:88:ARG:NE	2:B:339:TYR:OH	2.41	0.54
2:B:870:TYR:CE2	2:B:983:SER:OG	2.59	0.54
2:D:579:PRO:C	2:D:581:SER:H	2.10	0.54
2:D:1142:TRP:N	2:D:1142:TRP:CD1	2.75	0.54
2:F:583:ILE:O	2:F:586:LYS:HE3	2.08	0.54
1:A:448:ILE:O	1:A:449:ASN:C	2.45	0.54
1:C:1150:ILE:HG22	1:C:1162:LEU:HD12	1.88	0.54
1:E:480:ALA:N	1:E:481:PRO:HD3	2.23	0.54
2:B:545:SER:HA	2:B:550:ASP:N	2.21	0.54
2:B:1072:GLN:O	2:B:1075:ASP:HB2	2.07	0.54
2:F:269:TYR:CE2	2:F:288:GLU:HA	2.43	0.54
1:A:236:GLN:HB3	1:A:241:ILE:CD1	2.37	0.54
1:A:1131:ARG:HD2	1:A:1131:ARG:C	2.27	0.54
1:A:1163:TYR:O	1:A:1175:ILE:HG23	2.06	0.54
1:E:1150:ILE:HG22	1:E:1162:LEU:HD12	1.88	0.54
2:D:429:ILE:O	2:D:429:ILE:HG22	2.08	0.54
1:C:309:LEU:CD2	1:C:319:VAL:HG12	2.37	0.54
1:C:1131:ARG:HD2	1:C:1131:ARG:C	2.28	0.54
1:E:448:ILE:O	1:E:449:ASN:C	2.45	0.54
1:E:899:ASN:OD1	1:E:1028:ASN:HB3	2.07	0.54
1:A:416:VAL:HG13	1:A:420:GLY:N	2.23	0.54
1:E:309:LEU:CD2	1:E:319:VAL:HG12	2.36	0.54
1:E:427:ILE:HG22	1:E:428:GLU:N	2.23	0.54
1:E:987:ILE:C	1:E:989:LYS:H	2.10	0.54
2:B:429:ILE:O	2:B:429:ILE:HG22	2.07	0.54
1:A:227:ILE:CD1	1:A:271:ILE:HA	2.38	0.54
1:A:278:ASP:N	1:A:278:ASP:OD1	2.40	0.54
1:A:892:ASN:N	1:A:892:ASN:OD1	2.40	0.54
1:C:568:GLN:O	1:C:569:ALA:CB	2.56	0.54
1:C:737:LYS:O	1:C:738:TYR:O	2.24	0.54
1:E:737:LYS:O	1:E:738:TYR:O	2.25	0.54
2:F:502:ASN:O	2:F:506:ASP:N	2.38	0.54
1:A:1155:SER:O	1:A:1156:LYS:C	2.47	0.54
1:C:242:THR:HG22	1:C:435:PHE:O	2.08	0.54
2:B:14:ASP:OD1	2:B:16:LYS:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:574:PHE:C	2:B:574:PHE:CD2	2.81	0.54
2:B:615:LEU:HB3	2:B:767:ASN:ND2	2.23	0.54
2:D:239:ASP:OD2	2:D:318:TYR:N	2.41	0.54
2:D:755:ILE:CG2	2:D:759:GLU:HB2	2.37	0.54
2:F:526:TRP:CZ2	2:F:530:ILE:HD11	2.42	0.54
2:F:742:ASN:HA	2:F:745:THR:HG22	1.90	0.54
1:A:443:TYR:CD1	1:A:444:ASN:N	2.75	0.54
1:A:857:TYR:OH	1:A:860:ASP:HA	2.08	0.54
1:E:857:TYR:OH	1:E:860:ASP:HA	2.07	0.54
2:B:727:TYR:N	2:B:728:PRO:HD2	2.23	0.54
2:B:863:LEU:HD23	2:B:864:THR:HG23	1.90	0.54
2:F:856:ASN:HB3	2:F:859:PHE:HE2	1.72	0.54
1:A:111:ASN:HA	1:A:147:ASN:OD1	2.08	0.54
2:D:1015:LEU:HB2	2:D:1071:VAL:HB	1.90	0.54
2:F:502:ASN:O	2:F:506:ASP:HB2	2.08	0.54
1:A:610:LEU:HD11	1:A:704:MET:HE2	1.90	0.53
1:C:86:ILE:HG13	1:C:364:LEU:HD21	1.90	0.53
1:C:297:ASN:N	1:C:298:PRO:CD	2.71	0.53
1:E:605:TYR:O	1:E:605:TYR:CD1	2.61	0.53
2:B:153:TYR:HD2	2:B:165:MET:HB2	1.73	0.53
2:B:245:THR:O	2:B:247:PRO:C	2.46	0.53
2:D:273:ILE:O	2:D:276:ASN:HB3	2.08	0.53
1:A:738:TYR:O	1:A:739:ASP:C	2.44	0.53
1:C:289:VAL:HB	1:C:290:GLN:CB	2.38	0.53
1:C:480:ALA:N	1:C:481:PRO:HD3	2.23	0.53
2:B:859:PHE:CD1	2:B:968:ILE:HD12	2.43	0.53
2:D:817:GLY:HA2	2:D:826:VAL:HG21	1.91	0.53
2:F:23:SER:OG	2:F:29:PHE:HB2	2.07	0.53
2:F:254:TYR:O	2:F:258:THR:HG22	2.08	0.53
2:F:755:ILE:CG2	2:F:759:GLU:HB2	2.37	0.53
1:E:38:ASN:HD21	1:E:484:SER:CB	2.20	0.53
1:E:289:VAL:HB	1:E:290:GLN:CB	2.37	0.53
1:E:1083:ASP:N	1:E:1129:ILE:O	2.32	0.53
2:D:101:LEU:HD11	2:D:293:ILE:HD12	1.90	0.53
1:A:45:ARG:HG3	1:A:74:LEU:HD23	1.89	0.53
1:A:547:GLU:HB2	1:A:550:LYS:HG3	1.90	0.53
1:A:606:ILE:HD13	1:A:761:PHE:CE2	2.43	0.53
1:A:836:LEU:HD11	2:B:945:PHE:CE1	2.44	0.53
1:A:1149:TYR:CD1	1:A:1183:ARG:HD2	2.43	0.53
1:C:236:GLN:HB3	1:C:241:ILE:CD1	2.37	0.53
1:C:447:ASN:N	1:C:447:ASN:OD1	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:45:ARG:HG3	1:E:74:LEU:HD23	1.89	0.53
1:E:597:ALA:HB2	2:F:939:LYS:HB3	1.90	0.53
2:B:755:ILE:CG2	2:B:759:GLU:HB2	2.37	0.53
2:F:694:ASN:O	2:F:697:ARG:HD2	2.08	0.53
1:A:297:ASN:N	1:A:298:PRO:CD	2.70	0.53
1:C:111:ASN:HA	1:C:147:ASN:OD1	2.09	0.53
1:E:382:VAL:O	1:E:382:VAL:HG13	2.08	0.53
2:D:206:ASN:ND2	2:D:208:ASN:HB2	2.23	0.53
2:D:269:TYR:CE1	2:D:287:LEU:HB3	2.44	0.53
2:D:574:PHE:C	2:D:574:PHE:CD2	2.81	0.53
2:F:817:GLY:HA2	2:F:826:VAL:HG21	1.91	0.53
2:F:859:PHE:CD1	2:F:968:ILE:HD12	2.43	0.53
1:A:1012:ILE:O	2:B:779:ILE:HD12	2.09	0.53
1:C:227:ILE:CD1	1:C:271:ILE:HA	2.39	0.53
2:D:277:ASN:HB3	2:D:281:ASN:CB	2.39	0.53
2:D:1072:GLN:O	2:D:1075:ASP:HB2	2.09	0.53
2:F:544:ILE:HD13	2:F:575:LYS:HG2	1.91	0.53
2:F:895:TRP:O	2:F:896:GLU:HG2	2.08	0.53
1:A:1083:ASP:N	1:A:1129:ILE:O	2.32	0.53
1:C:382:VAL:O	1:C:382:VAL:HG13	2.08	0.53
2:B:254:TYR:O	2:B:258:THR:HG22	2.08	0.53
2:B:554:ILE:CG2	2:B:556:TRP:CE2	2.92	0.53
2:D:166:LEU:HD12	2:D:196:SER:HB2	1.89	0.53
2:D:694:ASN:O	2:D:697:ARG:HD2	2.09	0.53
2:D:1149:HIS:NE2	2:D:1150:ASP:HB3	2.24	0.53
2:F:14:ASP:O	2:F:15:ASN:HB2	2.09	0.53
2:F:206:ASN:ND2	2:F:208:ASN:HB2	2.24	0.53
1:A:568:GLN:O	1:A:569:ALA:CB	2.56	0.53
1:C:1149:TYR:CD1	1:C:1183:ARG:HD2	2.44	0.53
1:C:1174:THR:HA	1:C:1220:VAL:HG12	1.90	0.53
2:B:273:ILE:O	2:B:276:ASN:HB3	2.08	0.53
1:C:605:TYR:O	1:C:605:TYR:CD1	2.61	0.53
1:E:738:TYR:O	1:E:739:ASP:C	2.47	0.53
2:B:227:LEU:HD11	2:B:231:ASP:HB2	1.91	0.53
2:B:239:ASP:OD2	2:B:318:TYR:N	2.41	0.53
2:B:428:LYS:C	2:B:430:PRO:HD2	2.29	0.53
2:B:534:TYR:CE1	2:B:538:ILE:HD12	2.44	0.53
2:D:551:THR:HG21	2:D:716:ASN:HB3	1.91	0.53
2:D:822:LYS:O	2:D:824:THR:N	2.41	0.53
2:D:990:ASN:O	2:D:991:SER:C	2.47	0.53
2:F:273:ILE:O	2:F:276:ASN:HB3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:1017:TYR:O	2:F:1018:ASN:CB	2.57	0.53
1:A:274:ASN:HA	1:A:277:ASN:ND2	2.25	0.53
1:A:823:ILE:HG23	1:A:824:PRO:HD2	1.91	0.53
1:C:45:ARG:HG3	1:C:74:LEU:HD23	1.90	0.53
1:E:467:ASP:OD1	1:E:468:LEU:N	2.42	0.53
2:B:583:ILE:O	2:B:586:LYS:HE3	2.09	0.53
2:D:863:LEU:HD23	2:D:864:THR:HG23	1.91	0.53
2:D:1093:THR:HG22	2:D:1097:ARG:O	2.08	0.53
1:A:467:ASP:OD1	1:A:468:LEU:N	2.42	0.52
1:A:1108:ILE:O	1:A:1110:ASN:N	2.42	0.52
1:C:682:TYR:CE2	1:C:825:PHE:HA	2.45	0.52
1:E:1053:GLU:HG3	1:E:1053:GLU:O	2.07	0.52
2:B:101:LEU:HD11	2:B:293:ILE:HD12	1.90	0.52
2:F:1015:LEU:HB2	2:F:1071:VAL:HB	1.90	0.52
1:A:38:ASN:HD21	1:A:484:SER:HB2	1.74	0.52
1:A:209:THR:O	1:A:212:HIS:HB3	2.09	0.52
1:C:38:ASN:HD21	1:C:484:SER:CB	2.23	0.52
1:C:273:THR:O	1:C:276:LEU:N	2.42	0.52
1:E:34:ASN:HB2	1:E:40:TRP:CH2	2.44	0.52
1:E:289:VAL:HB	1:E:290:GLN:HB3	1.90	0.52
2:B:858:TYR:OH	2:B:866:ASN:O	2.27	0.52
2:D:21:VAL:CG1	2:D:22:ARG:N	2.72	0.52
2:D:583:ILE:O	2:D:586:LYS:HE3	2.08	0.52
1:C:443:TYR:CD1	1:C:444:ASN:N	2.76	0.52
1:C:1108:ILE:O	1:C:1110:ASN:N	2.43	0.52
1:E:1174:THR:HA	1:E:1220:VAL:HG12	1.92	0.52
2:B:81:ALA:O	2:B:82:THR:C	2.47	0.52
2:D:40:TRP:O	2:D:137:VAL:HA	2.09	0.52
2:D:254:TYR:O	2:D:258:THR:HG22	2.09	0.52
2:F:568:ASN:OD1	2:F:569:SER:N	2.42	0.52
1:A:382:VAL:HG13	1:A:382:VAL:O	2.09	0.52
1:A:632:ILE:HG23	1:A:633:LEU:N	2.24	0.52
1:A:818:THR:O	1:A:819:LEU:HG	2.09	0.52
1:A:1053:GLU:HG3	1:A:1053:GLU:O	2.09	0.52
1:E:443:TYR:CD1	1:E:444:ASN:N	2.77	0.52
1:E:480:ALA:N	1:E:481:PRO:CD	2.73	0.52
1:E:1092:LEU:O	1:E:1094:PRO:HD3	2.08	0.52
2:B:421:VAL:O	2:B:421:VAL:HG12	2.09	0.52
2:D:502:ASN:O	2:D:506:ASP:HB2	2.09	0.52
2:F:14:ASP:OD1	2:F:16:LYS:N	2.42	0.52
2:F:166:LEU:HD12	2:F:196:SER:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:552:LYS:HB2	2:F:713:PHE:CE1	2.44	0.52
2:F:574:PHE:C	2:F:574:PHE:CD2	2.82	0.52
1:A:462:ASN:CB	1:A:463:ASN:HA	2.38	0.52
1:E:242:THR:HG22	1:E:435:PHE:O	2.10	0.52
1:A:86:ILE:HG13	1:A:364:LEU:HD21	1.92	0.52
1:A:273:THR:O	1:A:276:LEU:N	2.42	0.52
1:C:289:VAL:HB	1:C:290:GLN:HB3	1.90	0.52
1:E:836:LEU:CB	2:F:995:LEU:HD11	2.40	0.52
1:C:944:ARG:CG	1:C:1026:SER:HA	2.39	0.52
1:E:705:TYR:C	1:E:705:TYR:HD1	2.13	0.52
1:E:738:TYR:HA	1:E:743:ILE:CG1	2.38	0.52
2:D:727:TYR:N	2:D:728:PRO:HD2	2.25	0.52
2:F:21:VAL:CG1	2:F:121:ASN:HA	2.39	0.52
2:F:1137:ASN:CB	2:F:1142:TRP:HE1	2.22	0.52
1:A:205:ASP:OD1	1:A:206:PRO:HD2	2.10	0.52
1:A:899:ASN:OD1	1:A:1028:ASN:HB3	2.09	0.52
1:A:1174:THR:HA	1:A:1220:VAL:HG12	1.90	0.52
1:E:1131:ARG:HD2	1:E:1131:ARG:C	2.30	0.52
2:B:21:VAL:CG1	2:B:22:ARG:N	2.73	0.52
2:B:1093:THR:HG22	2:B:1097:ARG:O	2.09	0.52
2:D:411:HIS:HA	2:D:624:PHE:HE1	1.74	0.52
2:D:421:VAL:O	2:D:421:VAL:HG12	2.10	0.52
1:A:199:ILE:HA	1:A:705:TYR:CE2	2.39	0.52
1:C:987:ILE:C	1:C:989:LYS:H	2.13	0.52
1:E:481:PRO:HG2	1:E:483:LEU:HD21	1.92	0.52
2:B:251:ILE:O	2:B:252:ASP:CB	2.58	0.52
2:B:1137:ASN:CB	2:B:1142:TRP:HE1	2.20	0.52
2:D:1017:TYR:O	2:D:1018:ASN:CB	2.57	0.52
2:F:863:LEU:HD23	2:F:864:THR:HG23	1.92	0.52
1:A:738:TYR:HA	1:A:743:ILE:CG1	2.40	0.52
1:C:41:ILE:HG22	1:C:150:ILE:HB	1.92	0.52
1:C:209:THR:O	1:C:212:HIS:HB3	2.10	0.52
1:E:209:THR:O	1:E:212:HIS:HB3	2.10	0.52
2:F:277:ASN:HB3	2:F:281:ASN:CB	2.39	0.52
2:F:1093:THR:HG22	2:F:1097:ARG:O	2.09	0.52
1:C:682:TYR:CD2	1:C:825:PHE:HD1	2.28	0.51
1:C:1155:SER:O	1:C:1156:LYS:C	2.49	0.51
1:E:82:ARG:HG3	1:E:364:LEU:HD11	1.92	0.51
1:E:462:ASN:CB	1:E:463:ASN:HA	2.39	0.51
2:D:571:VAL:O	2:D:574:PHE:HB3	2.10	0.51
2:F:41:ILE:HG22	2:F:138:ILE:HB	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:534:TYR:CE1	2:F:538:ILE:HD12	2.45	0.51
2:F:722:PHE:HA	2:F:726:ILE:HD12	1.92	0.51
2:F:822:LYS:O	2:F:824:THR:N	2.42	0.51
1:A:854:ASN:CB	1:A:865:THR:HG22	2.40	0.51
1:A:1143:ARG:HH21	1:A:1143:ARG:CG	2.23	0.51
1:E:297:ASN:N	1:E:298:PRO:CD	2.73	0.51
1:E:568:GLN:O	1:E:569:ALA:CB	2.58	0.51
2:B:151:ILE:HD11	2:B:167:GLU:HB2	1.91	0.51
2:B:1140:TYR:CE2	2:B:1142:TRP:CD2	2.98	0.51
2:D:534:TYR:CE1	2:D:538:ILE:HD12	2.44	0.51
2:F:421:VAL:O	2:F:421:VAL:HG12	2.10	0.51
1:A:392:ASN:O	1:A:395:ILE:HG12	2.10	0.51
1:A:1025:VAL:CG1	1:A:1026:SER:N	2.73	0.51
1:C:205:ASP:OD1	1:C:206:PRO:HD2	2.10	0.51
1:E:1155:SER:O	1:E:1156:LYS:C	2.48	0.51
2:D:14:ASP:OD1	2:D:16:LYS:N	2.43	0.51
2:D:88:ARG:NE	2:D:339:TYR:OH	2.43	0.51
2:D:502:ASN:O	2:D:506:ASP:N	2.41	0.51
2:F:88:ARG:NE	2:F:339:TYR:OH	2.43	0.51
1:A:166:SER:HB3	1:A:498:ILE:HB	1.92	0.51
1:A:376:ASN:HB3	1:A:381:LYS:HA	1.92	0.51
1:C:855:MET:C	1:C:856:ARG:HD3	2.31	0.51
1:E:67:SER:HA	1:E:158:PHE:CD2	2.46	0.51
2:B:923:ILE:O	2:B:925:ASN:N	2.33	0.51
1:C:1025:VAL:HG12	1:C:1026:SER:N	2.25	0.51
1:E:38:ASN:HD21	1:E:484:SER:HB2	1.76	0.51
1:E:227:ILE:CD1	1:E:271:ILE:HA	2.40	0.51
2:B:262:PHE:CZ	2:B:293:ILE:O	2.63	0.51
2:B:1017:TYR:O	2:B:1018:ASN:CB	2.59	0.51
2:B:1042:ILE:O	2:B:1099:GLN:HA	2.11	0.51
1:A:857:TYR:HA	1:A:862:TYR:HA	1.93	0.51
1:C:215:ILE:HG22	1:C:219:HIS:CE1	2.45	0.51
1:C:363:LEU:HD21	1:C:375:TYR:OH	2.10	0.51
1:C:376:ASN:HB3	1:C:381:LYS:HA	1.93	0.51
2:B:277:ASN:HB3	2:B:281:ASN:CB	2.39	0.51
2:B:817:GLY:HA2	2:B:826:VAL:HG21	1.92	0.51
2:F:21:VAL:CG1	2:F:22:ARG:N	2.73	0.51
2:F:858:TYR:OH	2:F:866:ASN:O	2.29	0.51
1:C:220:GLY:CA	1:C:225:LYS:HE3	2.41	0.51
1:C:462:ASN:CB	1:C:463:ASN:HA	2.40	0.51
1:E:273:THR:O	1:E:276:LEU:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:682:TYR:CD2	1:E:825:PHE:HD1	2.29	0.51
1:E:972:LYS:HB2	2:F:772:LEU:HD21	1.93	0.51
2:B:14:ASP:O	2:B:15:ASN:HB2	2.11	0.51
2:D:251:ILE:O	2:D:252:ASP:CB	2.59	0.51
2:D:872:TRP:HB2	2:D:980:GLU:HB3	1.92	0.51
1:A:113:TYR:HB3	1:A:178:PHE:HB3	1.93	0.51
1:C:480:ALA:N	1:C:481:PRO:CD	2.74	0.51
1:E:86:ILE:HG13	1:E:364:LEU:HD21	1.93	0.51
1:E:144:LEU:HA	1:E:487:LYS:HA	1.93	0.51
1:E:823:ILE:HG23	1:E:824:PRO:HD2	1.92	0.51
2:B:22:ARG:HD2	2:B:27:ASP:O	2.11	0.51
2:B:154:LYS:HD3	2:B:157:TYR:CE2	2.45	0.51
2:D:9:ILE:O	2:D:10:ASP:C	2.49	0.51
2:F:482:LEU:HD22	2:F:499:SER:HB3	1.93	0.51
2:F:1022:GLU:HG2	2:F:1023:LEU:N	2.25	0.51
1:A:481:PRO:HG2	1:A:483:LEU:HD21	1.93	0.51
1:C:392:ASN:O	1:C:395:ILE:HG12	2.10	0.51
2:D:859:PHE:CD1	2:D:968:ILE:HD12	2.46	0.51
2:D:1122:LEU:HD21	2:D:1158:TRP:HZ2	1.75	0.51
2:F:428:LYS:C	2:F:430:PRO:HD2	2.31	0.51
2:F:763:LEU:HA	2:F:766:GLN:HB2	1.92	0.51
1:C:47:VAL:O	1:C:47:VAL:HG12	2.11	0.51
1:C:547:GLU:HB2	1:C:550:LYS:HG3	1.92	0.51
1:C:854:ASN:CB	1:C:865:THR:HG22	2.41	0.51
1:E:363:LEU:HD21	1:E:375:TYR:OH	2.11	0.51
2:B:146:ILE:HD13	2:B:330:TYR:CZ	2.46	0.51
2:B:1007:ILE:HG22	2:B:1015:LEU:HD12	1.93	0.51
2:F:81:ALA:O	2:F:82:THR:C	2.48	0.51
1:A:363:LEU:HD21	1:A:375:TYR:OH	2.11	0.50
1:A:1087:TYR:N	1:A:1243:ILE:O	2.45	0.50
1:C:143:ILE:HG22	1:C:144:LEU:N	2.26	0.50
1:C:1093:LYS:HB3	1:C:1096:ASN:HB2	1.91	0.50
1:E:1108:ILE:O	1:E:1110:ASN:N	2.44	0.50
2:B:9:ILE:O	2:B:11:SER:N	2.44	0.50
2:B:153:TYR:CD2	2:B:165:MET:HB2	2.45	0.50
2:B:568:ASN:OD1	2:B:569:SER:N	2.44	0.50
2:B:583:ILE:HG23	2:B:644:GLN:NE2	2.26	0.50
2:D:568:ASN:OD1	2:D:569:SER:N	2.43	0.50
2:F:101:LEU:HD11	2:F:293:ILE:HD12	1.93	0.50
2:F:571:VAL:O	2:F:574:PHE:HB3	2.11	0.50
2:F:824:THR:HA	2:F:856:ASN:HB2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:215:ILE:HG22	1:A:219:HIS:CE1	2.46	0.50
1:C:154:GLU:CB	1:C:155:PRO:HD2	2.41	0.50
1:C:475:PHE:C	2:D:1136:LYS:HE2	2.31	0.50
1:E:143:ILE:HG22	1:E:144:LEU:N	2.26	0.50
1:E:291:VAL:HA	1:E:292:SER:HB2	1.93	0.50
2:B:9:ILE:O	2:B:10:ASP:C	2.49	0.50
2:B:347:GLY:O	2:B:351:THR:HB	2.11	0.50
2:F:9:ILE:O	2:F:10:ASP:C	2.49	0.50
2:F:154:LYS:HD3	2:F:157:TYR:CE2	2.47	0.50
1:A:447:ASN:N	1:A:447:ASN:OD1	2.42	0.50
1:C:632:ILE:HG23	1:C:633:LEU:N	2.26	0.50
1:C:823:ILE:HG23	1:C:824:PRO:HD2	1.92	0.50
1:C:836:LEU:HD21	2:D:945:PHE:HE1	1.75	0.50
2:B:372:LEU:O	2:B:379:VAL:HA	2.11	0.50
2:B:1022:GLU:HG2	2:B:1023:LEU:N	2.26	0.50
2:D:544:ILE:HD13	2:D:575:LYS:HG2	1.92	0.50
2:D:858:TYR:OH	2:D:866:ASN:O	2.30	0.50
2:D:1022:GLU:HG2	2:D:1023:LEU:N	2.26	0.50
1:E:857:TYR:HA	1:E:862:TYR:HA	1.93	0.50
2:B:205:PRO:HD3	2:B:230:ILE:HD11	1.94	0.50
2:B:694:ASN:O	2:B:697:ARG:HD2	2.10	0.50
2:D:269:TYR:CE2	2:D:288:GLU:HA	2.47	0.50
2:D:888:SER:HB3	2:D:968:ILE:HG12	1.94	0.50
2:F:151:ILE:HD11	2:F:167:GLU:HB2	1.94	0.50
2:F:262:PHE:CZ	2:F:293:ILE:O	2.64	0.50
2:F:554:ILE:CG2	2:F:556:TRP:CE2	2.94	0.50
2:F:1149:HIS:NE2	2:F:1150:ASP:HB3	2.26	0.50
1:A:143:ILE:HG22	1:A:144:LEU:N	2.27	0.50
1:A:144:LEU:HA	1:A:487:LYS:HA	1.93	0.50
1:A:154:GLU:CB	1:A:155:PRO:HD2	2.42	0.50
1:C:82:ARG:HG3	1:C:364:LEU:HD11	1.94	0.50
1:E:45:ARG:NH1	1:E:154:GLU:O	2.45	0.50
1:E:447:ASN:OD1	1:E:447:ASN:N	2.43	0.50
1:E:944:ARG:CG	1:E:1026:SER:HA	2.41	0.50
1:E:1093:LYS:HB3	1:E:1096:ASN:HB2	1.93	0.50
2:B:482:LEU:HD22	2:B:499:SER:HB3	1.94	0.50
2:D:277:ASN:HA	2:D:281:ASN:HA	1.92	0.50
2:F:22:ARG:HD2	2:F:27:ASP:O	2.11	0.50
2:F:923:ILE:O	2:F:925:ASN:N	2.37	0.50
1:A:661:ASN:HA	1:A:664:ILE:HG22	1.94	0.50
1:A:829:SER:C	1:A:831:THR:H	2.15	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:795:ASN:OD1	1:C:796:TYR:N	2.44	0.50
1:E:278:ASP:OD1	1:E:278:ASP:N	2.43	0.50
2:D:1137:ASN:CB	2:D:1142:TRP:HE1	2.20	0.50
1:A:836:LEU:HD21	2:B:945:PHE:HE1	1.75	0.50
1:C:34:ASN:HB2	1:C:40:TRP:CH2	2.47	0.50
1:C:45:ARG:NH1	1:C:154:GLU:O	2.44	0.50
1:C:1143:ARG:HH21	1:C:1143:ARG:CG	2.24	0.50
1:E:661:ASN:HA	1:E:664:ILE:HG22	1.93	0.50
2:B:9:ILE:HG13	2:B:10:ASP:N	2.27	0.50
2:B:251:ILE:O	2:B:252:ASP:HB2	2.12	0.50
1:A:45:ARG:NH1	1:A:154:GLU:O	2.45	0.50
1:A:90:ILE:O	1:A:93:ARG:HB3	2.12	0.50
1:C:113:TYR:HB3	1:C:178:PHE:HB3	1.93	0.50
1:C:738:TYR:HA	1:C:743:ILE:CG1	2.42	0.50
1:E:818:THR:O	1:E:819:LEU:HG	2.12	0.50
1:E:836:LEU:HD21	2:F:945:PHE:HE1	1.76	0.50
1:E:989:LYS:HG2	1:E:1076:TRP:HA	1.94	0.50
1:E:1025:VAL:HG12	1:E:1026:SER:N	2.27	0.50
2:D:262:PHE:CZ	2:D:293:ILE:O	2.65	0.50
2:F:92:ASN:HB3	2:F:310:PHE:CZ	2.46	0.50
2:F:551:THR:HG21	2:F:716:ASN:HB3	1.94	0.50
2:F:1008:ARG:HA	2:F:1014:ILE:HA	1.94	0.50
1:A:46:ASN:OD1	1:A:151:MET:HG3	2.12	0.50
1:A:82:ARG:HG3	1:A:364:LEU:HD11	1.94	0.50
1:A:242:THR:HG22	1:A:435:PHE:O	2.11	0.50
1:A:573:VAL:HA	1:A:576:ILE:HD12	1.94	0.50
2:B:436:ASP:CA	2:B:437:ILE:HB	2.25	0.50
2:D:658:ALA:O	2:D:662:LEU:HG	2.12	0.50
2:D:1140:TYR:CE2	2:D:1142:TRP:CD2	3.00	0.50
2:F:277:ASN:HA	2:F:281:ASN:HA	1.93	0.50
1:A:607:GLY:HA2	1:A:612:ILE:HG13	1.94	0.49
1:A:897:GLU:HG2	1:A:1032:LYS:CB	2.38	0.49
1:A:897:GLU:CG	1:A:1032:LYS:HD3	2.42	0.49
1:A:1090:ASN:HB2	1:A:1240:TRP:CZ3	2.47	0.49
1:E:41:ILE:HG22	1:E:150:ILE:HB	1.93	0.49
2:B:763:LEU:HA	2:B:766:GLN:HB2	1.94	0.49
2:D:9:ILE:O	2:D:11:SER:N	2.45	0.49
2:D:9:ILE:HG21	2:D:76:ASP:HB2	1.94	0.49
2:D:482:LEU:HD22	2:D:499:SER:HB3	1.93	0.49
2:D:877:LYS:HB3	2:D:878:GLN:CB	2.42	0.49
2:F:990:ASN:O	2:F:991:SER:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:41:ILE:HG22	2:B:138:ILE:HB	1.94	0.49
2:D:14:ASP:O	2:D:15:ASN:HB2	2.12	0.49
2:D:21:VAL:HG12	2:D:22:ARG:N	2.26	0.49
2:D:388:ASP:OD1	2:D:388:ASP:N	2.42	0.49
2:F:251:ILE:O	2:F:252:ASP:CB	2.60	0.49
2:F:888:SER:HB3	2:F:968:ILE:HG12	1.94	0.49
1:A:836:LEU:HD13	2:B:991:SER:HA	1.94	0.49
1:A:940:ILE:O	1:A:951:LYS:HA	2.13	0.49
1:E:547:GLU:HB2	1:E:550:LYS:HG3	1.94	0.49
2:B:888:SER:HB3	2:B:968:ILE:HG12	1.95	0.49
2:D:554:ILE:CG2	2:D:556:TRP:CE2	2.95	0.49
1:C:705:TYR:C	1:C:705:TYR:HD1	2.12	0.49
1:E:143:ILE:CG2	1:E:144:LEU:N	2.75	0.49
2:B:803:LEU:HD23	2:B:803:LEU:C	2.33	0.49
2:D:290:LYS:O	2:D:290:LYS:HG2	2.13	0.49
2:D:347:GLY:O	2:D:351:THR:HB	2.13	0.49
2:D:824:THR:HA	2:D:856:ASN:HB2	1.94	0.49
2:F:877:LYS:HB3	2:F:878:GLN:CB	2.42	0.49
2:F:1007:ILE:HG22	2:F:1015:LEU:HD12	1.93	0.49
1:A:795:ASN:OD1	1:A:796:TYR:N	2.45	0.49
1:C:38:ASN:HD21	1:C:484:SER:HB2	1.77	0.49
1:C:90:ILE:O	1:C:93:ARG:HB3	2.13	0.49
1:C:1188:VAL:CG1	1:C:1199:MET:HB2	2.43	0.49
1:E:607:GLY:HA2	1:E:612:ILE:CG1	2.42	0.49
2:B:990:ASN:O	2:B:991:SER:C	2.50	0.49
2:D:151:ILE:HD11	2:D:167:GLU:HB2	1.94	0.49
2:D:706:ALA:O	2:D:709:ASN:HB2	2.13	0.49
2:D:827:GLU:O	2:D:852:ILE:HG23	2.12	0.49
1:A:41:ILE:HG22	1:A:150:ILE:HB	1.93	0.49
1:A:1093:LYS:HB3	1:A:1096:ASN:HB2	1.94	0.49
1:C:607:GLY:HA2	1:C:612:ILE:HG13	1.95	0.49
1:E:166:SER:HB3	1:E:498:ILE:HB	1.94	0.49
2:B:717:ALA:O	2:B:721:VAL:HG23	2.12	0.49
2:B:722:PHE:HA	2:B:726:ILE:HD12	1.93	0.49
2:B:755:ILE:HG23	2:B:759:GLU:HB2	1.95	0.49
2:D:755:ILE:HG23	2:D:759:GLU:HB2	1.95	0.49
1:A:607:GLY:HA2	1:A:612:ILE:CG1	2.43	0.49
1:A:989:LYS:HG2	1:A:1076:TRP:HA	1.94	0.49
1:A:1122:TYR:HE1	1:A:1244:SER:O	1.95	0.49
1:C:199:ILE:HA	1:C:705:TYR:CE2	2.42	0.49
1:C:892:ASN:N	1:C:892:ASN:OD1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:113:TYR:HB3	1:E:178:PHE:HB3	1.93	0.49
1:E:607:GLY:HA2	1:E:612:ILE:HG13	1.95	0.49
2:B:64:TYR:HE2	2:B:363:ILE:HD12	1.78	0.49
2:B:1095:ASN:HB2	2:B:1097:ARG:HB2	1.95	0.49
2:D:22:ARG:HD2	2:D:27:ASP:O	2.12	0.49
2:D:41:ILE:HG22	2:D:138:ILE:HB	1.94	0.49
2:D:153:TYR:HD2	2:D:165:MET:HB2	1.77	0.49
2:D:154:LYS:HD3	2:D:157:TYR:CE2	2.47	0.49
2:D:717:ALA:O	2:D:721:VAL:HG23	2.13	0.49
2:F:347:GLY:O	2:F:351:THR:HB	2.12	0.49
2:F:424:GLU:O	2:F:428:LYS:N	2.44	0.49
2:F:518:ASP:O	2:F:680:ILE:HD11	2.12	0.49
1:A:34:ASN:HB2	1:A:40:TRP:CH2	2.48	0.49
1:A:700:ARG:HA	1:A:703:GLN:HB2	1.95	0.49
1:A:854:ASN:HB2	1:A:865:THR:CG2	2.43	0.49
1:E:154:GLU:CB	1:E:155:PRO:HD2	2.40	0.49
1:E:205:ASP:OD1	1:E:206:PRO:HD2	2.13	0.49
2:B:541:THR:O	2:B:542:GLN:CB	2.60	0.49
2:B:806:TYR:O	2:B:806:TYR:CD1	2.65	0.49
2:D:23:SER:HB2	2:D:47:TYR:CZ	2.47	0.49
2:F:203:ILE:HG22	2:F:254:TYR:OH	2.12	0.49
2:F:755:ILE:HG23	2:F:759:GLU:HB2	1.95	0.49
1:C:143:ILE:CG2	1:C:144:LEU:N	2.75	0.49
1:C:331:LEU:HB2	1:C:332:TYR:HD2	1.77	0.49
1:C:940:ILE:O	1:C:951:LYS:HA	2.12	0.49
2:B:393:THR:OG1	2:B:396:ASN:N	2.46	0.49
2:B:872:TRP:HB2	2:B:980:GLU:HB3	1.94	0.49
2:D:763:LEU:HA	2:D:766:GLN:HB2	1.95	0.49
1:A:143:ILE:CG2	1:A:144:LEU:N	2.76	0.49
2:B:277:ASN:HA	2:B:281:ASN:HA	1.94	0.49
2:B:815:VAL:HG12	2:B:816:ILE:N	2.28	0.49
2:F:153:TYR:HD2	2:F:165:MET:HB2	1.77	0.49
1:C:278:ASP:OD1	1:C:278:ASP:N	2.43	0.48
1:C:627:LEU:O	1:E:419:LYS:HG2	2.12	0.48
1:C:854:ASN:HB2	1:C:865:THR:CG2	2.43	0.48
1:C:879:TYR:O	1:C:888:PHE:HA	2.13	0.48
1:C:1025:VAL:CG1	1:C:1026:SER:N	2.76	0.48
1:C:1108:ILE:CG2	1:C:1217:ASP:HA	2.43	0.48
1:E:944:ARG:O	1:E:946:ASN:N	2.46	0.48
2:B:1020:THR:HA	2:B:1059:PHE:O	2.12	0.48
1:E:46:ASN:OD1	1:E:151:MET:HG3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:47:VAL:O	1:E:47:VAL:HG12	2.12	0.48
2:B:877:LYS:HB3	2:B:878:GLN:CB	2.42	0.48
2:D:251:ILE:O	2:D:252:ASP:HB2	2.13	0.48
2:D:428:LYS:C	2:D:430:PRO:HD2	2.33	0.48
2:D:518:ASP:O	2:D:680:ILE:HD11	2.12	0.48
2:F:207:ASP:N	2:F:207:ASP:OD1	2.46	0.48
2:F:658:ALA:O	2:F:662:LEU:HG	2.13	0.48
2:F:803:LEU:HD23	2:F:803:LEU:C	2.33	0.48
1:A:17:THR:HG22	1:A:34:ASN:HB3	1.94	0.48
1:A:220:GLY:CA	1:A:225:LYS:HE3	2.43	0.48
1:A:480:ALA:N	1:A:481:PRO:HD3	2.29	0.48
1:C:548:GLN:HB2	1:C:549:PRO:HD3	1.95	0.48
1:C:818:THR:O	1:C:819:LEU:HG	2.13	0.48
1:C:1087:TYR:N	1:C:1243:ILE:O	2.46	0.48
1:E:940:ILE:O	1:E:951:LYS:HA	2.13	0.48
2:B:206:ASN:ND2	2:B:208:ASN:HB2	2.27	0.48
2:B:424:GLU:O	2:B:428:LYS:N	2.46	0.48
2:D:64:TYR:HE2	2:D:363:ILE:HD12	1.79	0.48
2:F:9:ILE:O	2:F:11:SER:N	2.46	0.48
2:F:21:VAL:HG12	2:F:22:ARG:N	2.28	0.48
2:F:1140:TYR:CE2	2:F:1142:TRP:CD2	3.02	0.48
1:C:573:VAL:HA	1:C:576:ILE:HD12	1.95	0.48
1:C:607:GLY:HA2	1:C:612:ILE:CG1	2.43	0.48
1:C:829:SER:C	1:C:831:THR:H	2.17	0.48
1:E:17:THR:HG22	1:E:34:ASN:HB3	1.95	0.48
1:E:376:ASN:O	1:E:381:LYS:HB3	2.13	0.48
2:B:552:LYS:CB	2:B:713:PHE:HE1	2.26	0.48
2:D:372:LEU:O	2:D:379:VAL:HA	2.14	0.48
2:D:1008:ARG:HA	2:D:1014:ILE:HA	1.96	0.48
1:A:936:GLU:HA	1:A:954:LEU:O	2.14	0.48
1:A:1212:LEU:O	1:A:1238:CYS:HA	2.12	0.48
1:C:46:ASN:OD1	1:C:151:MET:HG3	2.12	0.48
1:E:892:ASN:OD1	1:E:892:ASN:N	2.45	0.48
1:E:972:LYS:CB	2:F:772:LEU:HD11	2.44	0.48
2:B:402:ILE:HG12	2:B:593:LYS:CB	2.44	0.48
2:B:827:GLU:O	2:B:852:ILE:HG23	2.12	0.48
2:D:552:LYS:CB	2:D:713:PHE:HE1	2.26	0.48
2:D:1007:ILE:HG22	2:D:1015:LEU:HD12	1.95	0.48
2:F:615:LEU:HB3	2:F:767:ASN:ND2	2.28	0.48
1:A:47:VAL:O	1:A:47:VAL:HG12	2.13	0.48
1:C:231:CYS:CB	1:C:249:ILE:HD12	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1122:TYR:HE1	1:C:1244:SER:O	1.97	0.48
1:E:440:GLU:O	1:E:443:TYR:CD1	2.67	0.48
1:E:854:ASN:CB	1:E:865:THR:HG22	2.43	0.48
1:E:1122:TYR:HE1	1:E:1244:SER:O	1.97	0.48
2:B:502:ASN:O	2:B:506:ASP:N	2.42	0.48
2:B:570:PHE:O	2:B:573:GLU:HB2	2.13	0.48
2:F:570:PHE:O	2:F:573:GLU:HB2	2.14	0.48
1:E:220:GLY:CA	1:E:225:LYS:HE3	2.44	0.48
1:E:423:LYS:HD2	2:D:510:PHE:CE2	2.48	0.48
1:E:700:ARG:HA	1:E:703:GLN:HB2	1.95	0.48
2:B:518:ASP:O	2:B:680:ILE:HD11	2.13	0.48
2:F:23:SER:HB2	2:F:47:TYR:CZ	2.49	0.48
1:A:291:VAL:HA	1:A:292:SER:HB2	1.95	0.48
1:A:944:ARG:CG	1:A:1026:SER:HA	2.42	0.48
1:E:215:ILE:HG22	1:E:219:HIS:CE1	2.48	0.48
1:E:548:GLN:HB2	1:E:549:PRO:HD3	1.96	0.48
2:B:1122:LEU:HD21	2:B:1158:TRP:HZ2	1.76	0.48
2:D:153:TYR:CD2	2:D:165:MET:HB2	2.48	0.48
2:D:1042:ILE:O	2:D:1099:GLN:HA	2.13	0.48
2:D:1138:GLN:HB3	2:D:1139:ASP:C	2.34	0.48
2:F:232:PHE:CZ	2:F:240:TYR:HA	2.49	0.48
1:A:944:ARG:O	1:A:946:ASN:N	2.47	0.48
1:C:836:LEU:HD13	2:D:991:SER:HA	1.96	0.48
1:E:897:GLU:CG	1:E:1032:LYS:HD3	2.44	0.48
2:B:203:ILE:HG22	2:B:203:ILE:O	2.13	0.48
2:D:146:ILE:HD13	2:D:330:TYR:CZ	2.49	0.48
2:D:615:LEU:HB3	2:D:767:ASN:ND2	2.29	0.48
2:D:684:ASN:O	2:D:687:LEU:N	2.47	0.48
2:F:15:ASN:OD1	2:F:126:LYS:CB	2.62	0.48
2:F:475:ILE:HG21	2:F:497:VAL:HG22	1.95	0.48
2:F:1020:THR:HA	2:F:1059:PHE:O	2.14	0.48
1:C:661:ASN:HA	1:C:664:ILE:HG22	1.95	0.48
1:C:944:ARG:O	1:C:946:ASN:N	2.47	0.48
1:C:1088:LEU:HD23	1:C:1089:LEU:N	2.29	0.48
1:E:1143:ARG:HH21	1:E:1143:ARG:CG	2.26	0.48
2:B:21:VAL:HG12	2:B:22:ARG:N	2.29	0.48
2:B:64:TYR:CD2	2:B:64:TYR:N	2.81	0.48
2:B:571:VAL:O	2:B:574:PHE:HB3	2.14	0.48
2:B:1008:ARG:HA	2:B:1014:ILE:HA	1.96	0.48
2:D:1095:ASN:HB2	2:D:1097:ARG:HB2	1.95	0.48
2:F:1042:ILE:O	2:F:1099:GLN:HA	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:166:SER:HB3	1:C:498:ILE:HB	1.95	0.47
1:E:90:ILE:O	1:E:93:ARG:HB3	2.14	0.47
2:B:203:ILE:HG22	2:B:254:TYR:OH	2.13	0.47
2:B:232:PHE:CZ	2:B:240:TYR:HA	2.49	0.47
2:F:381:MET:HE3	2:F:471:GLN:HB3	1.95	0.47
2:F:583:ILE:HG23	2:F:644:GLN:NE2	2.29	0.47
2:F:726:ILE:C	2:F:728:PRO:HD2	2.34	0.47
2:F:815:VAL:HG12	2:F:816:ILE:N	2.29	0.47
1:A:929:LYS:HA	1:A:932:ASN:HB2	1.96	0.47
1:E:682:TYR:CE2	1:E:825:PHE:HA	2.49	0.47
1:E:879:TYR:O	1:E:888:PHE:HA	2.13	0.47
2:B:551:THR:HG21	2:B:716:ASN:HB3	1.95	0.47
2:D:205:PRO:HD3	2:D:230:ILE:HD11	1.96	0.47
2:D:945:PHE:CD1	2:D:950:LEU:HA	2.49	0.47
2:D:991:SER:O	2:D:994:ILE:HB	2.13	0.47
2:F:631:TYR:O	2:F:634:LEU:HB2	2.14	0.47
2:F:1122:LEU:HD21	2:F:1158:TRP:HZ2	1.75	0.47
1:A:138:ASN:ND2	1:A:140:SER:OG	2.47	0.47
1:A:270:ASP:O	1:A:273:THR:HG22	2.14	0.47
1:C:936:GLU:HA	1:C:954:LEU:O	2.14	0.47
1:E:854:ASN:HB2	1:E:865:THR:CG2	2.43	0.47
1:E:911:LYS:O	1:E:999:ARG:NE	2.47	0.47
1:E:1025:VAL:CG1	1:E:1026:SER:N	2.78	0.47
2:B:290:LYS:O	2:B:290:LYS:HG2	2.14	0.47
2:B:402:ILE:HG12	2:B:593:LYS:HB2	1.96	0.47
2:B:541:THR:HA	2:B:553:ILE:O	2.14	0.47
2:B:554:ILE:HB	2:B:557:ILE:CD1	2.44	0.47
2:D:1020:THR:HA	2:D:1059:PHE:O	2.14	0.47
2:F:205:PRO:HD3	2:F:230:ILE:HD11	1.96	0.47
2:F:269:TYR:HD1	2:F:287:LEU:HD23	1.79	0.47
2:F:717:ALA:O	2:F:721:VAL:HG23	2.14	0.47
1:A:203:ILE:HD13	1:A:396:ILE:HG21	1.96	0.47
1:A:603:VAL:CG1	1:A:605:TYR:CE2	2.98	0.47
1:C:716:LYS:O	1:C:719:ILE:HG22	2.14	0.47
1:E:231:CYS:HB2	1:E:249:ILE:HD12	1.97	0.47
2:D:192:CYS:O	2:D:195:LYS:HB3	2.14	0.47
2:D:815:VAL:HG12	2:D:816:ILE:N	2.29	0.47
2:F:1095:ASN:HB2	2:F:1097:ARG:HB2	1.96	0.47
1:A:456:ASP:HA	1:A:669:ASN:HD21	1.79	0.47
1:A:528:VAL:HG13	1:A:528:VAL:O	2.15	0.47
1:C:17:THR:HG22	1:C:34:ASN:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:138:ASN:ND2	1:C:140:SER:OG	2.47	0.47
1:C:949:GLY:O	1:C:963:LEU:HD12	2.15	0.47
1:E:1087:TYR:N	1:E:1243:ILE:O	2.47	0.47
1:E:1108:ILE:CG2	1:E:1217:ASP:HA	2.44	0.47
2:D:794:ILE:O	2:D:795:LYS:C	2.53	0.47
2:F:239:ASP:OD2	2:F:318:TYR:N	2.43	0.47
2:F:402:ILE:HG12	2:F:593:LYS:HB2	1.97	0.47
2:F:827:GLU:O	2:F:852:ILE:HG23	2.14	0.47
1:A:431:ASN:O	1:A:434:LEU:HB2	2.14	0.47
1:A:855:MET:C	1:A:856:ARG:HD3	2.33	0.47
1:A:912:TYR:O	1:A:913:LYS:HB3	2.15	0.47
1:A:1229:MET:O	1:A:1231:ASP:N	2.48	0.47
1:C:897:GLU:CG	1:C:1032:LYS:HD3	2.44	0.47
1:E:186:PHE:CE2	1:E:188:PRO:HB3	2.48	0.47
1:E:1043:GLY:C	1:E:1044:ILE:HG13	2.35	0.47
2:B:706:ALA:O	2:B:709:ASN:HB2	2.13	0.47
2:B:726:ILE:C	2:B:728:PRO:HD2	2.35	0.47
2:B:991:SER:O	2:B:994:ILE:HB	2.15	0.47
2:B:1138:GLN:HB3	2:B:1139:ASP:C	2.34	0.47
2:D:271:ILE:HG23	2:D:272:LYS:N	2.30	0.47
2:D:424:GLU:O	2:D:428:LYS:N	2.47	0.47
2:F:173:PHE:HA	2:F:333:ILE:HB	1.96	0.47
1:A:548:GLN:HB2	1:A:549:PRO:HD3	1.96	0.47
1:A:716:LYS:O	1:A:719:ILE:HG22	2.15	0.47
1:A:778:LYS:HA	1:A:782:LEU:HB2	1.96	0.47
1:C:203:ILE:HD13	1:C:396:ILE:HG21	1.97	0.47
1:C:291:VAL:HA	1:C:292:SER:HB2	1.97	0.47
1:C:376:ASN:O	1:C:381:LYS:HB3	2.15	0.47
1:C:911:LYS:O	1:C:999:ARG:NE	2.47	0.47
1:E:270:ASP:O	1:E:273:THR:HG22	2.15	0.47
1:E:633:LEU:O	1:E:700:ARG:NH2	2.45	0.47
1:E:829:SER:C	1:E:831:THR:H	2.18	0.47
2:B:210:ASN:HB3	2:B:228:ASP:HA	1.97	0.47
2:B:269:TYR:HD1	2:B:287:LEU:HD23	1.79	0.47
2:B:1069:GLN:O	2:B:1070:TYR:CD2	2.68	0.47
2:D:203:ILE:HG22	2:D:254:TYR:OH	2.14	0.47
2:D:541:THR:HA	2:D:553:ILE:O	2.15	0.47
2:D:917:ASN:C	2:D:918:ILE:HG13	2.35	0.47
2:F:9:ILE:HG21	2:F:76:ASP:HB2	1.97	0.47
2:F:290:LYS:HG2	2:F:290:LYS:O	2.15	0.47
2:F:388:ASP:OD1	2:F:388:ASP:N	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:706:ALA:O	2:F:709:ASN:HB2	2.14	0.47
1:A:231:CYS:HB2	1:A:249:ILE:HD12	1.97	0.47
1:A:286:LEU:O	1:A:287:SER:C	2.52	0.47
1:C:1092:LEU:HD11	1:C:1234:ASN:O	2.15	0.47
1:E:632:ILE:HG23	1:E:633:LEU:N	2.28	0.47
1:E:795:ASN:OD1	1:E:796:TYR:N	2.48	0.47
2:B:13:VAL:HG12	2:B:14:ASP:H	1.77	0.47
2:B:185:PRO:O	2:B:186:ALA:C	2.53	0.47
2:D:868:SER:HA	2:D:933:ILE:O	2.14	0.47
2:F:251:ILE:O	2:F:252:ASP:HB2	2.14	0.47
1:A:911:LYS:O	1:A:999:ARG:NE	2.47	0.47
1:C:857:TYR:HB2	1:C:862:TYR:CE1	2.50	0.47
1:E:331:LEU:HB2	1:E:332:TYR:HD2	1.80	0.47
1:E:1092:LEU:HD11	1:E:1234:ASN:O	2.15	0.47
2:B:15:ASN:OD1	2:B:126:LYS:CB	2.63	0.47
2:B:658:ALA:O	2:B:662:LEU:HG	2.14	0.47
2:B:876:LEU:HD21	2:B:978:TYR:CD2	2.50	0.47
2:D:9:ILE:HG13	2:D:10:ASP:N	2.29	0.47
1:A:942:CYS:SG	1:A:1025:VAL:CG1	3.03	0.47
1:A:949:GLY:O	1:A:963:LEU:HD12	2.15	0.47
1:C:231:CYS:HB2	1:C:249:ILE:HD12	1.97	0.47
1:C:270:ASP:O	1:C:273:THR:HG22	2.15	0.47
2:B:305:TYR:CE1	2:B:418:LEU:CD1	2.97	0.47
2:B:475:ILE:HG21	2:B:497:VAL:HG22	1.96	0.47
2:B:1116:ILE:HG23	2:B:1117:PHE:N	2.29	0.47
2:F:541:THR:HA	2:F:553:ILE:O	2.15	0.47
2:F:876:LEU:HD21	2:F:978:TYR:CD2	2.50	0.47
1:A:480:ALA:N	1:A:481:PRO:CD	2.78	0.46
1:A:1132:VAL:HG23	1:A:1149:TYR:CE2	2.50	0.46
1:A:1188:VAL:CG1	1:A:1199:MET:HB2	2.45	0.46
1:C:535:VAL:HG12	1:C:536:ASN:N	2.30	0.46
1:E:896:SER:C	1:E:897:GLU:HG3	2.35	0.46
2:B:45:ARG:HG3	2:B:141:PRO:O	2.15	0.46
2:B:106:ILE:HG22	2:B:107:PRO:O	2.14	0.46
2:B:155:LYS:O	2:B:156:GLU:C	2.54	0.46
2:F:146:ILE:HD13	2:F:330:TYR:CZ	2.50	0.46
2:F:185:PRO:O	2:F:186:ALA:C	2.53	0.46
1:A:186:PHE:CE2	1:A:188:PRO:HB3	2.51	0.46
1:A:297:ASN:N	1:A:298:PRO:HD3	2.30	0.46
1:C:440:GLU:O	1:C:443:TYR:CD1	2.68	0.46
1:C:470:GLN:HG3	2:D:1028:PHE:CE1	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1090:ASN:HB2	1:C:1240:TRP:CZ3	2.50	0.46
1:E:154:GLU:CB	1:E:155:PRO:CD	2.94	0.46
1:E:528:VAL:O	1:E:528:VAL:HG13	2.15	0.46
1:E:824:PRO:HB2	2:F:952:ALA:HB2	1.97	0.46
2:D:81:ALA:O	2:D:82:THR:C	2.53	0.46
2:D:570:PHE:O	2:D:573:GLU:HB2	2.15	0.46
2:D:631:TYR:O	2:D:634:LEU:HB2	2.15	0.46
2:D:722:PHE:HA	2:D:726:ILE:HD12	1.96	0.46
2:D:1093:THR:OG1	2:D:1094:THR:N	2.49	0.46
1:C:528:VAL:O	1:C:528:VAL:HG13	2.15	0.46
1:E:855:MET:C	1:E:856:ARG:HD3	2.36	0.46
1:E:920:TRP:HB2	1:E:1045:ARG:CD	2.45	0.46
1:E:1188:VAL:CG1	1:E:1199:MET:HB2	2.45	0.46
2:B:567:ASN:O	2:B:568:ASN:C	2.53	0.46
2:D:990:ASN:O	2:D:993:GLU:N	2.48	0.46
2:F:45:ARG:HG3	2:F:141:PRO:O	2.15	0.46
1:A:376:ASN:O	1:A:381:LYS:HB3	2.15	0.46
1:A:785:TYR:O	1:A:786:ASP:C	2.53	0.46
1:A:879:TYR:O	1:A:888:PHE:HA	2.16	0.46
1:C:606:ILE:CG2	1:C:621:PHE:CE2	2.98	0.46
1:C:795:ASN:OD1	1:C:795:ASN:C	2.54	0.46
1:E:345:VAL:HG13	1:E:387:GLN:HE22	1.81	0.46
1:E:573:VAL:HA	1:E:576:ILE:HD12	1.97	0.46
1:E:1132:VAL:HG23	1:E:1149:TYR:CE2	2.50	0.46
2:B:23:SER:HB2	2:B:47:TYR:CZ	2.50	0.46
2:D:106:ILE:HG22	2:D:107:PRO:O	2.15	0.46
2:D:846:THR:HG23	2:D:847:GLY:N	2.31	0.46
2:F:153:TYR:CD2	2:F:165:MET:HB2	2.50	0.46
2:F:859:PHE:HD1	2:F:968:ILE:HD12	1.80	0.46
2:F:867:PHE:CZ	2:F:935:ILE:HD12	2.50	0.46
2:F:989:ILE:HG22	2:F:990:ASN:N	2.31	0.46
1:A:22:LYS:CG	1:A:23:PRO:HD2	2.45	0.46
1:A:453:GLU:C	1:A:454:ILE:HG22	2.36	0.46
1:A:1088:LEU:HD23	1:A:1089:LEU:N	2.30	0.46
1:C:22:LYS:CG	1:C:23:PRO:HD2	2.45	0.46
1:C:469:ASP:O	1:C:472:ILE:HB	2.15	0.46
1:C:571:LEU:O	1:C:575:TRP:N	2.42	0.46
2:B:141:PRO:HA	2:B:169:TRP:HB3	1.96	0.46
2:B:192:CYS:O	2:B:195:LYS:HB3	2.15	0.46
2:B:305:TYR:CZ	2:B:418:LEU:CD1	2.99	0.46
2:B:868:SER:HA	2:B:933:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:13:VAL:HG12	2:D:14:ASP:H	1.80	0.46
2:D:610:ASP:OD1	2:D:611:LEU:HD13	2.15	0.46
2:F:14:ASP:O	2:F:15:ASN:CB	2.64	0.46
2:F:872:TRP:HB2	2:F:980:GLU:HB3	1.97	0.46
1:A:179:GLY:HA2	1:A:220:GLY:O	2.15	0.46
1:C:179:GLY:HA2	1:C:220:GLY:O	2.15	0.46
1:C:932:ASN:HA	1:C:956:HIS:CE1	2.51	0.46
1:C:989:LYS:HG2	1:C:1076:TRP:HA	1.97	0.46
1:E:453:GLU:C	1:E:454:ILE:HG22	2.35	0.46
1:E:664:ILE:HG23	1:E:665:LYS:N	2.30	0.46
2:B:269:TYR:CE2	2:B:288:GLU:HA	2.51	0.46
2:B:989:ILE:HG22	2:B:990:ASN:N	2.30	0.46
2:D:203:ILE:HG22	2:D:203:ILE:O	2.16	0.46
2:D:815:VAL:C	2:D:816:ILE:HG13	2.36	0.46
2:D:1003:ASN:HB3	2:D:1116:ILE:CD1	2.46	0.46
2:F:271:ILE:HG23	2:F:272:LYS:N	2.30	0.46
2:F:806:TYR:O	2:F:806:TYR:CD1	2.69	0.46
1:A:231:CYS:CB	1:A:249:ILE:HD12	2.46	0.46
1:A:286:LEU:O	1:A:289:VAL:HG13	2.16	0.46
1:C:942:CYS:SG	1:C:1025:VAL:CG1	3.04	0.46
1:E:873:ASN:N	1:E:899:ASN:O	2.39	0.46
1:E:949:GLY:O	1:E:963:LEU:HD12	2.16	0.46
1:E:981:ASN:ND2	2:F:414:ASN:HB3	2.28	0.46
2:B:207:ASP:OD1	2:B:207:ASP:N	2.48	0.46
2:D:475:ILE:HG21	2:D:497:VAL:HG22	1.96	0.46
2:F:586:LYS:O	2:F:641:TYR:CZ	2.69	0.46
2:F:991:SER:O	2:F:994:ILE:HB	2.16	0.46
1:A:382:VAL:HG11	1:A:868:TYR:CE1	2.51	0.46
1:A:1108:ILE:CG2	1:A:1217:ASP:HA	2.46	0.46
1:E:286:LEU:O	1:E:289:VAL:HG13	2.16	0.46
1:E:456:ASP:HA	1:E:669:ASN:HD21	1.80	0.46
1:E:610:LEU:HD11	1:E:704:MET:HE2	1.98	0.46
2:B:815:VAL:C	2:B:816:ILE:HG13	2.36	0.46
2:B:1007:ILE:CG2	2:B:1015:LEU:HD12	2.46	0.46
2:D:515:LYS:HB3	2:D:516:PRO:HD2	1.97	0.46
2:D:726:ILE:C	2:D:728:PRO:HD2	2.36	0.46
2:D:1003:ASN:HB3	2:D:1116:ILE:HD13	1.97	0.46
2:F:554:ILE:HB	2:F:557:ILE:CD1	2.45	0.46
1:A:468:LEU:HD12	1:A:471:VAL:HG22	1.98	0.46
1:A:937:TYR:CE1	1:A:954:LEU:HB2	2.51	0.46
1:C:297:ASN:N	1:C:298:PRO:HD3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:231:CYS:CB	1:E:249:ILE:HD12	2.45	0.46
1:E:1010:ASN:HB3	2:F:780:GLN:HG3	1.97	0.46
1:E:1212:LEU:O	1:E:1238:CYS:HA	2.16	0.46
2:B:867:PHE:CZ	2:B:935:ILE:HD12	2.51	0.46
2:D:173:PHE:HA	2:D:333:ILE:HB	1.98	0.46
2:F:51:LEU:HB3	2:F:66:SER:HA	1.97	0.46
2:F:402:ILE:HG12	2:F:593:LYS:CB	2.45	0.46
2:F:1003:ASN:HB3	2:F:1116:ILE:CD1	2.46	0.46
2:F:1138:GLN:HB3	2:F:1139:ASP:C	2.36	0.46
1:A:664:ILE:HG23	1:A:665:LYS:N	2.31	0.46
1:A:1127:VAL:HG11	1:A:1150:ILE:HG23	1.97	0.46
1:C:627:LEU:O	1:E:420:GLY:HA3	2.16	0.46
1:C:1168:THR:HG22	1:C:1170:ASN:H	1.80	0.46
2:B:610:ASP:OD1	2:B:611:LEU:HD13	2.16	0.46
2:D:298:ILE:HA	2:D:301:LEU:HD12	1.98	0.46
2:D:806:TYR:CD1	2:D:806:TYR:O	2.69	0.46
2:D:1135:ILE:HG22	2:D:1136:LYS:N	2.31	0.46
2:F:106:ILE:HG22	2:F:107:PRO:O	2.16	0.46
1:A:456:ASP:HA	1:A:669:ASN:ND2	2.31	0.45
1:A:482:GLY:C	1:A:483:LEU:HG	2.36	0.45
1:A:896:SER:C	1:A:897:GLU:HG3	2.36	0.45
1:C:345:VAL:HG13	1:C:387:GLN:HE22	1.81	0.45
1:C:664:ILE:HG23	1:C:665:LYS:N	2.31	0.45
1:C:778:LYS:HA	1:C:782:LEU:HB2	1.98	0.45
1:E:972:LYS:HB2	2:F:772:LEU:HD11	1.98	0.45
1:E:972:LYS:CD	2:F:772:LEU:HD11	2.46	0.45
2:B:21:VAL:CG1	2:B:121:ASN:HA	2.43	0.45
2:B:51:LEU:HB3	2:B:66:SER:HA	1.98	0.45
2:B:846:THR:HG23	2:B:847:GLY:N	2.31	0.45
2:F:298:ILE:HA	2:F:301:LEU:HD12	1.97	0.45
2:F:868:SER:HA	2:F:933:ILE:O	2.16	0.45
1:A:535:VAL:HG12	1:A:536:ASN:N	2.32	0.45
1:A:912:TYR:O	1:A:913:LYS:CB	2.64	0.45
1:C:897:GLU:HG2	1:C:1032:LYS:CB	2.44	0.45
1:E:606:ILE:CG2	1:E:621:PHE:CE2	2.99	0.45
1:E:1168:THR:HG22	1:E:1170:ASN:H	1.80	0.45
2:B:1149:HIS:CE1	2:B:1150:ASP:CB	3.00	0.45
2:D:269:TYR:HD1	2:D:287:LEU:HD23	1.81	0.45
2:F:269:TYR:HE2	2:F:288:GLU:CG	2.29	0.45
2:F:552:LYS:CB	2:F:713:PHE:HE1	2.30	0.45
1:A:94:ILE:HG23	1:A:211:MET:HE3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:469:ASP:O	1:A:472:ILE:HB	2.15	0.45
1:A:771:MET:HA	1:A:774:ILE:CG2	2.46	0.45
1:C:942:CYS:SG	1:C:1026:SER:HB3	2.56	0.45
1:C:1106:LEU:HD12	1:C:1175:ILE:HB	1.97	0.45
1:E:482:GLY:C	1:E:483:LEU:HG	2.37	0.45
1:E:603:VAL:CG1	1:E:605:TYR:CE2	2.99	0.45
2:B:298:ILE:O	2:B:301:LEU:HB2	2.17	0.45
2:D:15:ASN:OD1	2:D:126:LYS:CB	2.64	0.45
2:D:867:PHE:CB	2:D:985:LEU:O	2.64	0.45
2:F:65:ASP:O	2:F:66:SER:OG	2.31	0.45
2:F:866:ASN:O	2:F:867:PHE:HB3	2.16	0.45
1:A:864:ASP:C	1:A:864:ASP:OD1	2.55	0.45
1:A:1092:LEU:HD11	1:A:1234:ASN:O	2.16	0.45
1:C:21:ILE:HG12	1:C:134:ILE:HG22	1.98	0.45
1:C:448:ILE:O	1:C:449:ASN:O	2.35	0.45
1:C:597:ALA:HB2	2:D:939:LYS:HB3	1.98	0.45
1:E:778:LYS:HA	1:E:782:LEU:HB2	1.97	0.45
1:E:836:LEU:HD11	2:F:945:PHE:CE1	2.52	0.45
1:E:942:CYS:SG	1:E:1026:SER:HB3	2.57	0.45
2:B:374:ASN:C	2:B:374:ASN:OD1	2.54	0.45
2:B:990:ASN:O	2:B:993:GLU:N	2.49	0.45
2:F:594:ILE:CG2	2:F:595:LYS:N	2.79	0.45
2:F:932:VAL:C	2:F:933:ILE:HG13	2.37	0.45
1:A:192:PHE:CE1	1:A:204:GLN:HB3	2.51	0.45
1:A:203:ILE:CD1	1:A:396:ILE:HG21	2.46	0.45
1:A:440:GLU:O	1:A:443:TYR:CD1	2.69	0.45
1:A:606:ILE:CG2	1:A:621:PHE:CE2	3.00	0.45
1:C:160:THR:HA	1:C:185:THR:O	2.17	0.45
1:C:275:LEU:HD11	1:C:279:TYR:CE2	2.51	0.45
1:C:576:ILE:HG12	1:C:719:ILE:HD11	1.97	0.45
1:C:1012:ILE:O	2:D:779:ILE:HD12	2.17	0.45
1:E:199:ILE:HA	1:E:705:TYR:CE2	2.45	0.45
1:E:203:ILE:HD13	1:E:396:ILE:HG21	1.97	0.45
1:E:716:LYS:O	1:E:719:ILE:HG22	2.16	0.45
1:E:1127:VAL:HG11	1:E:1150:ILE:HG23	1.99	0.45
2:B:173:PHE:HA	2:B:333:ILE:HB	1.98	0.45
2:B:1142:TRP:HD1	2:B:1142:TRP:H	1.65	0.45
2:D:932:VAL:C	2:D:933:ILE:HG13	2.36	0.45
2:F:192:CYS:O	2:F:195:LYS:HB3	2.16	0.45
1:A:92:ASN:O	1:A:96:ASN:HB2	2.17	0.45
1:A:857:TYR:HB2	1:A:862:TYR:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:427:ILE:HD12	1:C:521:PHE:CD1	2.52	0.45
1:C:720:GLU:HA	1:C:723:TYR:HB3	1.99	0.45
1:E:981:ASN:HB3	1:E:1117:LEU:HB3	1.99	0.45
2:B:43:PRO:HA	2:B:78:PHE:CE2	2.51	0.45
2:D:402:ILE:HG12	2:D:593:LYS:CB	2.46	0.45
2:F:203:ILE:HG22	2:F:203:ILE:O	2.15	0.45
1:A:275:LEU:HD11	1:A:279:TYR:CE2	2.51	0.45
1:A:345:VAL:HG13	1:A:387:GLN:HE22	1.80	0.45
1:C:453:GLU:C	1:C:454:ILE:HG22	2.37	0.45
1:C:456:ASP:HA	1:C:669:ASN:HD21	1.81	0.45
1:C:484:SER:O	1:C:485:ASP:CB	2.64	0.45
2:B:541:THR:O	2:B:542:GLN:HB3	2.16	0.45
2:B:727:TYR:N	2:B:728:PRO:CD	2.80	0.45
2:B:738:ILE:HA	2:B:741:ILE:HD12	1.99	0.45
2:D:102:ILE:HG12	2:D:197:LEU:HD11	1.98	0.45
2:F:684:ASN:O	2:F:687:LEU:N	2.50	0.45
2:F:734:MET:HA	2:F:737:CYS:SG	2.57	0.45
1:A:427:ILE:CG2	1:A:428:GLU:N	2.79	0.45
1:A:634:LEU:HD23	1:A:696:GLN:CD	2.37	0.45
1:A:1168:THR:HG22	1:A:1170:ASN:H	1.82	0.45
1:C:92:ASN:O	1:C:96:ASN:HB2	2.16	0.45
1:C:416:VAL:CG1	1:C:420:GLY:N	2.80	0.45
2:B:9:ILE:HG21	2:B:76:ASP:HB2	1.98	0.45
2:B:631:TYR:O	2:B:634:LEU:HB2	2.16	0.45
2:B:730:PHE:O	2:B:734:MET:HG2	2.17	0.45
2:D:43:PRO:HA	2:D:78:PHE:CE2	2.52	0.45
2:D:583:ILE:HG23	2:D:644:GLN:NE2	2.32	0.45
2:D:730:PHE:O	2:D:734:MET:HG2	2.17	0.45
2:F:1003:ASN:HB3	2:F:1116:ILE:HD13	1.98	0.45
1:A:206:PRO:O	1:A:209:THR:N	2.50	0.45
1:C:144:LEU:HA	1:C:487:LYS:HA	1.99	0.45
1:C:194:PHE:N	1:C:194:PHE:CD1	2.85	0.45
1:C:203:ILE:CD1	1:C:396:ILE:HG21	2.47	0.45
1:C:610:LEU:HD11	1:C:704:MET:HE2	1.98	0.45
1:E:94:ILE:HG23	1:E:211:MET:HE3	1.99	0.45
1:E:416:VAL:CG1	1:E:420:GLY:N	2.80	0.45
1:E:576:ILE:HG12	1:E:719:ILE:HD11	1.98	0.45
1:E:852:VAL:HG11	1:E:906:ILE:HG23	1.99	0.45
2:B:684:ASN:O	2:B:687:LEU:N	2.49	0.45
2:B:867:PHE:CD1	2:B:867:PHE:C	2.91	0.45
2:D:64:TYR:CD2	2:D:64:TYR:N	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:232:PHE:CZ	2:D:240:TYR:HA	2.52	0.45
2:D:402:ILE:HG12	2:D:593:LYS:HB2	1.99	0.45
2:F:610:ASP:OD1	2:F:611:LEU:HD13	2.17	0.45
2:F:738:ILE:HA	2:F:741:ILE:HD12	1.98	0.45
1:A:154:GLU:CB	1:A:155:PRO:CD	2.94	0.45
1:A:682:TYR:CE2	1:A:825:PHE:HA	2.52	0.45
1:A:942:CYS:SG	1:A:1026:SER:HB3	2.57	0.45
1:C:896:SER:C	1:C:897:GLU:HG3	2.36	0.45
1:C:920:TRP:HB2	1:C:1045:ARG:CD	2.47	0.45
1:C:1212:LEU:O	1:C:1238:CYS:HA	2.16	0.45
1:E:193:ARG:NH2	1:E:196:ASP:OD1	2.50	0.45
1:E:423:LYS:HD2	2:D:510:PHE:CZ	2.52	0.45
1:E:1088:LEU:HD23	1:E:1089:LEU:N	2.31	0.45
2:B:14:ASP:O	2:B:15:ASN:CB	2.64	0.45
2:B:274:LYS:C	2:B:276:ASN:H	2.19	0.45
2:B:856:ASN:O	2:B:857:ASP:C	2.55	0.45
2:D:210:ASN:HB3	2:D:228:ASP:HA	1.99	0.45
2:D:298:ILE:O	2:D:301:LEU:HB2	2.17	0.45
2:D:803:LEU:HD23	2:D:803:LEU:C	2.37	0.45
2:D:1116:ILE:HG23	2:D:1117:PHE:N	2.32	0.45
2:F:423:ILE:O	2:F:423:ILE:CG2	2.64	0.45
2:F:870:TYR:HA	2:F:931:ILE:O	2.17	0.45
2:F:989:ILE:CG2	2:F:994:ILE:HG13	2.47	0.45
1:A:427:ILE:HD12	1:A:521:PHE:CD1	2.52	0.44
1:A:614:ASN:CB	1:A:617:GLN:OE1	2.66	0.44
1:A:633:LEU:O	1:A:700:ARG:NH2	2.46	0.44
1:C:154:GLU:CB	1:C:155:PRO:CD	2.94	0.44
1:C:738:TYR:C	1:C:740:ILE:N	2.70	0.44
1:C:1229:MET:O	1:C:1231:ASP:N	2.50	0.44
1:E:484:SER:O	1:E:485:ASP:CB	2.65	0.44
1:E:785:TYR:O	1:E:786:ASP:C	2.55	0.44
2:B:677:ASN:CG	2:D:849:ASN:ND2	2.70	0.44
2:B:824:THR:HA	2:B:856:ASN:HB2	1.99	0.44
2:B:870:TYR:HA	2:B:931:ILE:O	2.17	0.44
2:B:1056:PRO:O	2:B:1058:LYS:N	2.50	0.44
2:D:14:ASP:O	2:D:15:ASN:CB	2.65	0.44
2:D:51:LEU:HB3	2:D:66:SER:HA	1.98	0.44
2:D:274:LYS:C	2:D:276:ASN:H	2.20	0.44
2:F:1056:PRO:O	2:F:1058:LYS:N	2.50	0.44
1:A:576:ILE:HG12	1:A:719:ILE:HD11	1.99	0.44
1:A:603:VAL:HG13	1:A:605:TYR:CE2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1076:TRP:HZ3	1:A:1244:SER:HG	1.66	0.44
1:C:1127:VAL:HG11	1:C:1150:ILE:HG23	1.99	0.44
1:E:535:VAL:HG11	1:E:551:ILE:HD12	1.99	0.44
1:E:554:PHE:HB3	1:E:608:LEU:HD12	1.99	0.44
2:B:271:ILE:HG23	2:B:272:LYS:N	2.32	0.44
2:B:866:ASN:O	2:B:867:PHE:HB3	2.18	0.44
2:B:922:ASN:C	2:B:923:ILE:HG13	2.37	0.44
2:D:35:VAL:O	2:D:36:ALA:HB2	2.17	0.44
2:D:415:TYR:O	2:D:416:SER:CB	2.65	0.44
2:D:594:ILE:CG2	2:D:595:LYS:N	2.80	0.44
2:D:859:PHE:HD1	2:D:968:ILE:HD12	1.82	0.44
2:F:64:TYR:HE2	2:F:363:ILE:HD12	1.81	0.44
2:F:155:LYS:O	2:F:156:GLU:C	2.55	0.44
1:A:331:LEU:HB2	1:A:332:TYR:HD2	1.81	0.44
1:A:795:ASN:OD1	1:A:795:ASN:C	2.55	0.44
1:C:94:ILE:HG23	1:C:211:MET:HE3	1.99	0.44
1:C:220:GLY:HA2	1:C:225:LYS:HE3	1.99	0.44
1:C:700:ARG:HA	1:C:703:GLN:HB2	1.98	0.44
1:E:22:LYS:CG	1:E:23:PRO:HD2	2.47	0.44
1:E:448:ILE:O	1:E:449:ASN:O	2.36	0.44
1:E:864:ASP:C	1:E:864:ASP:OD1	2.55	0.44
1:E:912:TYR:O	1:E:913:LYS:CB	2.65	0.44
2:B:27:ASP:N	2:B:27:ASP:OD1	2.50	0.44
2:B:622:ASN:O	2:B:625:TYR:N	2.50	0.44
2:D:45:ARG:HG3	2:D:141:PRO:O	2.18	0.44
2:D:866:ASN:O	2:D:867:PHE:HB3	2.18	0.44
2:F:372:LEU:O	2:F:379:VAL:HA	2.17	0.44
1:A:535:VAL:HG11	1:A:551:ILE:HD12	1.99	0.44
1:A:738:TYR:C	1:A:740:ILE:N	2.71	0.44
1:A:908:TYR:HB3	1:A:1025:VAL:CG2	2.47	0.44
1:C:331:LEU:CB	1:C:332:TYR:CD2	3.01	0.44
1:C:908:TYR:HB3	1:C:1025:VAL:CG2	2.47	0.44
1:E:469:ASP:O	1:E:472:ILE:HB	2.17	0.44
1:E:1090:ASN:HB2	1:E:1240:TRP:CZ3	2.53	0.44
2:B:1122:LEU:HD21	2:B:1158:TRP:CE2	2.53	0.44
2:D:1056:PRO:O	2:D:1058:LYS:N	2.50	0.44
2:F:480:ILE:HG21	2:F:497:VAL:HG23	2.00	0.44
2:F:846:THR:HG23	2:F:847:GLY:N	2.32	0.44
2:F:880:THR:CB	2:F:901:ASN:HA	2.48	0.44
2:F:1036:ILE:HD12	2:F:1045:SER:HB3	1.99	0.44
1:A:522:TYR:O	1:A:525:ALA:HB3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:636:PHE:HD2	1:A:696:GLN:OE1	2.01	0.44
1:C:186:PHE:CE2	1:C:188:PRO:HB3	2.53	0.44
1:C:286:LEU:O	1:C:289:VAL:HG13	2.17	0.44
1:C:785:TYR:O	1:C:786:ASP:C	2.54	0.44
1:E:21:ILE:HG12	1:E:134:ILE:HG22	2.00	0.44
2:B:211:ILE:O	2:B:226:GLU:HA	2.18	0.44
2:B:932:VAL:C	2:B:933:ILE:HG13	2.37	0.44
2:B:1135:ILE:HG22	2:B:1136:LYS:N	2.32	0.44
2:D:554:ILE:HB	2:D:557:ILE:CD1	2.48	0.44
2:F:1013:GLU:O	2:F:1014:ILE:CB	2.66	0.44
1:A:916:SER:OG	1:A:1054:LEU:HG	2.18	0.44
2:B:102:ILE:HG12	2:B:197:LEU:HD11	1.99	0.44
2:B:298:ILE:HA	2:B:301:LEU:HD12	1.99	0.44
2:D:141:PRO:HA	2:D:169:TRP:HB3	1.99	0.44
2:F:727:TYR:N	2:F:728:PRO:CD	2.80	0.44
2:F:815:VAL:C	2:F:816:ILE:HG13	2.37	0.44
2:F:1007:ILE:CG2	2:F:1015:LEU:HD12	2.47	0.44
1:A:920:TRP:HB2	1:A:1045:ARG:CD	2.48	0.44
1:C:912:TYR:O	1:C:913:LYS:HB3	2.18	0.44
1:C:1044:ILE:CG2	1:C:1045:ARG:N	2.80	0.44
1:E:203:ILE:CD1	1:E:396:ILE:HG21	2.47	0.44
2:B:285:LEU:O	2:B:288:GLU:N	2.51	0.44
2:B:877:LYS:CB	2:B:878:GLN:HB3	2.47	0.44
2:D:990:ASN:HB3	2:D:993:GLU:OE2	2.17	0.44
2:F:8:ASN:O	2:F:9:ILE:C	2.55	0.44
1:A:193:ARG:NH2	1:A:196:ASP:OD1	2.51	0.44
1:A:287:SER:HA	1:A:317:TYR:CD2	2.53	0.44
1:A:395:ILE:HG13	1:A:396:ILE:HG23	2.00	0.44
1:A:484:SER:O	1:A:485:ASP:CB	2.66	0.44
1:A:987:ILE:O	1:A:989:LYS:N	2.51	0.44
1:A:1044:ILE:CG2	1:A:1045:ARG:N	2.80	0.44
1:C:380:LEU:HD23	1:C:385:ARG:HD3	2.00	0.44
1:C:431:ASN:O	1:C:434:LEU:HB2	2.17	0.44
1:C:864:ASP:C	1:C:864:ASP:OD1	2.56	0.44
1:C:916:SER:OG	1:C:1054:LEU:HG	2.18	0.44
1:C:1132:VAL:HG23	1:C:1149:TYR:CE2	2.52	0.44
1:C:1153:VAL:HG23	1:C:1159:LEU:CD2	2.48	0.44
1:E:299:TYR:HA	1:E:302:ILE:HG22	1.99	0.44
2:B:153:TYR:HB2	2:B:165:MET:O	2.18	0.44
2:B:400:ASN:OD1	2:B:400:ASN:N	2.50	0.44
2:F:552:LYS:C	2:F:713:PHE:CE1	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:21:ILE:HG12	1:A:134:ILE:HG22	2.00	0.44
1:A:554:PHE:HB3	1:A:608:LEU:HD12	1.99	0.44
1:C:476:ASN:N	2:D:1136:LYS:CE	2.81	0.44
1:C:482:GLY:C	1:C:483:LEU:HG	2.38	0.44
1:E:92:ASN:O	1:E:96:ASN:HB2	2.18	0.44
1:E:431:ASN:O	1:E:434:LEU:HB2	2.17	0.44
1:E:571:LEU:O	1:E:575:TRP:N	2.42	0.44
1:E:942:CYS:SG	1:E:1025:VAL:CG1	3.06	0.44
1:E:1229:MET:O	1:E:1231:ASP:N	2.51	0.44
2:B:106:ILE:N	2:B:290:LYS:HD3	2.33	0.44
2:B:579:PRO:C	2:B:581:SER:N	2.71	0.44
2:D:867:PHE:CZ	2:D:935:ILE:HD12	2.52	0.44
2:F:108:PHE:HB3	2:F:162:MET:CG	2.46	0.44
2:F:274:LYS:C	2:F:276:ASN:H	2.21	0.44
2:F:945:PHE:CD1	2:F:950:LEU:HA	2.53	0.44
2:F:1142:TRP:H	2:F:1142:TRP:HD1	1.66	0.44
1:A:398:PRO:C	1:A:399:ILE:HG13	2.38	0.43
1:C:427:ILE:CG2	1:C:428:GLU:N	2.81	0.43
1:C:636:PHE:HD2	1:C:696:GLN:OE1	2.00	0.43
1:C:727:THR:O	1:C:728:LEU:CB	2.65	0.43
1:E:535:VAL:HG12	1:E:536:ASN:N	2.31	0.43
2:B:173:PHE:O	2:B:333:ILE:N	2.51	0.43
2:B:1003:ASN:HB3	2:B:1116:ILE:HD13	2.00	0.43
2:D:870:TYR:HA	2:D:931:ILE:O	2.18	0.43
2:F:227:LEU:HD11	2:F:231:ASP:CB	2.48	0.43
2:F:298:ILE:O	2:F:301:LEU:HB2	2.17	0.43
2:F:305:TYR:CE1	2:F:418:LEU:CD1	3.01	0.43
1:A:299:TYR:HA	1:A:302:ILE:HG22	1.99	0.43
1:A:416:VAL:CG1	1:A:420:GLY:N	2.81	0.43
1:C:522:TYR:O	1:C:525:ALA:HB3	2.18	0.43
1:C:554:PHE:HB3	1:C:608:LEU:HD12	2.00	0.43
1:E:361:SER:OG	1:E:397:LYS:HE2	2.17	0.43
1:E:857:TYR:HB2	1:E:862:TYR:CE1	2.53	0.43
2:B:501:LEU:HD22	2:B:537:ASP:HB3	2.00	0.43
2:D:381:MET:HE3	2:D:471:GLN:CD	2.39	0.43
2:D:804:SER:HB3	2:D:819:THR:HG22	1.99	0.43
2:D:962:ILE:O	2:D:962:ILE:CG2	2.66	0.43
2:F:141:PRO:HA	2:F:169:TRP:HB3	2.00	0.43
2:F:415:TYR:O	2:F:416:SER:CB	2.65	0.43
2:F:501:LEU:HD22	2:F:537:ASP:HB3	2.00	0.43
1:A:873:ASN:N	1:A:899:ASN:O	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:299:TYR:HA	1:C:302:ILE:HG22	2.00	0.43
1:E:522:TYR:O	1:E:525:ALA:HB3	2.18	0.43
1:E:993:VAL:HG12	1:E:994:THR:N	2.33	0.43
2:B:645:TYR:O	2:B:646:PHE:C	2.56	0.43
2:B:799:SER:HB2	2:B:800:PRO:HD2	1.99	0.43
2:B:962:ILE:O	2:B:962:ILE:CG2	2.65	0.43
2:F:540:GLU:HB3	2:F:555:PRO:CD	2.49	0.43
2:F:567:ASN:O	2:F:568:ASN:C	2.57	0.43
2:F:867:PHE:C	2:F:867:PHE:CD1	2.91	0.43
2:F:1135:ILE:HG22	2:F:1136:LYS:N	2.33	0.43
1:A:454:ILE:HD12	1:A:456:ASP:OD1	2.19	0.43
1:A:727:THR:O	1:A:728:LEU:CB	2.66	0.43
1:C:398:PRO:C	1:C:399:ILE:HG13	2.38	0.43
1:C:836:LEU:HD11	2:D:945:PHE:CE1	2.54	0.43
1:C:929:LYS:HA	1:C:932:ASN:HB2	1.99	0.43
1:E:771:MET:HA	1:E:774:ILE:CG2	2.45	0.43
1:E:833:ASP:HB3	1:E:835:ILE:HD12	2.01	0.43
1:E:1095:ASN:O	1:E:1112:ARG:N	2.40	0.43
2:B:515:LYS:HB3	2:B:516:PRO:HD2	1.98	0.43
2:B:794:ILE:O	2:B:795:LYS:C	2.56	0.43
2:B:806:TYR:O	2:B:816:ILE:HA	2.19	0.43
2:D:296:LYS:HA	2:D:299:TRP:HE3	1.84	0.43
2:D:552:LYS:C	2:D:713:PHE:CE1	2.92	0.43
2:F:89:ILE:O	2:F:95:GLY:HA3	2.18	0.43
2:F:645:TYR:OH	2:F:721:VAL:HG21	2.19	0.43
2:F:794:ILE:O	2:F:795:LYS:C	2.56	0.43
1:A:361:SER:OG	1:A:397:LYS:HE2	2.18	0.43
1:A:836:LEU:CB	2:B:995:LEU:HD11	2.47	0.43
1:A:981:ASN:HB3	1:A:1117:LEU:HB3	2.01	0.43
1:E:456:ASP:HA	1:E:669:ASN:ND2	2.34	0.43
1:E:634:LEU:HD23	1:E:696:GLN:CD	2.39	0.43
2:B:105:ALA:HA	2:B:290:LYS:CD	2.48	0.43
2:B:146:ILE:HD13	2:B:330:TYR:CE2	2.54	0.43
2:B:1142:TRP:N	2:B:1142:TRP:HD1	2.16	0.43
2:D:35:VAL:CG1	2:D:36:ALA:H	2.29	0.43
2:D:246:ASN:HA	2:D:247:PRO:HA	1.83	0.43
2:D:567:ASN:O	2:D:568:ASN:C	2.54	0.43
2:D:738:ILE:HA	2:D:741:ILE:HD12	1.99	0.43
2:D:876:LEU:HD21	2:D:978:TYR:CD2	2.53	0.43
1:A:380:LEU:HD23	1:A:385:ARG:HD3	2.01	0.43
1:C:4:ILE:HD11	1:C:95:ASN:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:193:ARG:NH2	1:C:196:ASP:OD1	2.51	0.43
1:E:179:GLY:HA2	1:E:220:GLY:O	2.17	0.43
1:E:522:TYR:CZ	1:E:611:ASN:HB2	2.53	0.43
1:E:617:GLN:OE1	1:E:617:GLN:N	2.47	0.43
1:E:632:ILE:HG23	1:E:633:LEU:HG	2.01	0.43
1:E:883:THR:HG23	1:E:884:ASN:H	1.84	0.43
2:B:81:ALA:O	2:B:84:LYS:N	2.52	0.43
2:D:21:VAL:CG1	2:D:121:ASN:HA	2.46	0.43
2:D:269:TYR:HE2	2:D:288:GLU:CG	2.31	0.43
2:D:645:TYR:O	2:D:646:PHE:C	2.55	0.43
1:C:456:ASP:HA	1:C:669:ASN:ND2	2.34	0.43
1:C:633:LEU:O	1:C:700:ARG:NH2	2.47	0.43
1:E:863:VAL:HG12	1:E:864:ASP:N	2.33	0.43
1:E:912:TYR:O	1:E:913:LYS:HB3	2.16	0.43
1:E:1106:LEU:HD12	1:E:1175:ILE:HB	1.99	0.43
1:E:1232:HIS:CB	1:E:1236:ASN:HD21	2.32	0.43
2:B:1013:GLU:O	2:B:1014:ILE:CB	2.66	0.43
2:F:856:ASN:O	2:F:857:ASP:C	2.56	0.43
1:A:468:LEU:HD12	1:A:468:LEU:C	2.39	0.43
1:A:660:LYS:CG	1:A:661:ASN:N	2.82	0.43
1:A:824:PRO:HB3	2:B:952:ALA:HB2	2.00	0.43
1:C:627:LEU:HG	1:E:419:LYS:O	2.18	0.43
1:C:863:VAL:HG12	1:C:864:ASP:N	2.34	0.43
1:C:898:VAL:O	1:C:1030:LEU:HA	2.18	0.43
1:C:990:TRP:HZ3	1:C:1044:ILE:HA	1.83	0.43
1:C:994:THR:HB	1:C:1006:TYR:HB2	2.00	0.43
1:E:38:ASN:HB3	1:E:147:ASN:HB2	2.00	0.43
1:E:47:VAL:C	1:E:50:THR:HG1	2.22	0.43
1:E:118:ASN:HA	1:E:119:THR:CB	2.41	0.43
1:E:262:ILE:CD1	1:E:690:MET:HB3	2.49	0.43
1:E:423:LYS:NZ	2:D:514:ASP:OD1	2.41	0.43
1:E:603:VAL:HG13	1:E:605:TYR:CE2	2.54	0.43
1:E:897:GLU:HG2	1:E:1032:LYS:CB	2.42	0.43
2:B:13:VAL:CG1	2:B:14:ASP:N	2.82	0.43
2:B:913:GLY:O	2:B:914:ASN:C	2.57	0.43
2:B:1003:ASN:HB3	2:B:1116:ILE:CD1	2.48	0.43
2:F:43:PRO:HA	2:F:78:PHE:CE2	2.54	0.43
2:F:400:ASN:N	2:F:400:ASN:OD1	2.51	0.43
2:F:990:ASN:O	2:F:993:GLU:N	2.51	0.43
1:A:452:LYS:CB	1:A:651:LYS:HE2	2.49	0.43
1:C:250:GLU:O	1:C:254:THR:N	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:682:TYR:HE2	1:C:825:PHE:HA	1.83	0.43
1:C:943:MET:CE	1:C:947:ASN:HB3	2.49	0.43
1:E:795:ASN:OD1	1:E:795:ASN:C	2.57	0.43
2:B:423:ILE:O	2:B:423:ILE:CG2	2.64	0.43
2:B:859:PHE:HD1	2:B:968:ILE:HD12	1.81	0.43
2:D:13:VAL:HG13	2:D:19:ALA:HA	2.01	0.43
2:D:854:PHE:HE2	2:D:970:LEU:HB2	1.83	0.43
2:D:917:ASN:O	2:D:918:ILE:HG13	2.19	0.43
2:D:1093:THR:HG23	2:D:1095:ASN:N	2.34	0.43
2:F:13:VAL:HG12	2:F:14:ASP:H	1.82	0.43
2:F:306:PHE:O	2:F:307:SER:C	2.57	0.43
2:F:867:PHE:CB	2:F:985:LEU:O	2.65	0.43
1:A:730:GLU:O	1:A:732:ASN:N	2.52	0.43
1:A:994:THR:HB	1:A:1006:TYR:HB2	2.00	0.43
1:C:475:PHE:C	2:D:1136:LYS:CE	2.87	0.43
1:C:632:ILE:HG23	1:C:633:LEU:HG	2.01	0.43
1:C:634:LEU:HD23	1:C:696:GLN:CD	2.38	0.43
1:C:1226:TYR:N	1:C:1226:TYR:CD2	2.87	0.43
1:E:173:PRO:HB2	1:E:178:PHE:HB2	2.01	0.43
1:E:838:SER:O	1:E:842:LYS:HB3	2.19	0.43
1:E:916:SER:OG	1:E:1054:LEU:HG	2.18	0.43
2:B:289:GLN:NE2	2:B:423:ILE:HG22	2.34	0.43
2:B:923:ILE:C	2:B:925:ASN:N	2.72	0.43
2:D:1007:ILE:CG2	2:D:1015:LEU:HD12	2.49	0.43
2:F:289:GLN:NE2	2:F:292:LYS:HE3	2.34	0.43
2:F:429:ILE:N	2:F:430:PRO:HD3	2.34	0.43
2:F:554:ILE:HG21	2:F:556:TRP:CZ2	2.54	0.43
2:F:923:ILE:C	2:F:925:ASN:H	2.21	0.43
1:A:191:SER:HB2	1:A:360:LEU:HD11	2.01	0.42
1:A:448:ILE:O	1:A:449:ASN:O	2.36	0.42
1:A:610:LEU:CD1	1:A:704:MET:HE2	2.48	0.42
1:A:912:TYR:N	1:A:912:TYR:CD1	2.83	0.42
1:A:1106:LEU:HD12	1:A:1175:ILE:HB	2.00	0.42
1:C:196:ASP:OD2	1:C:196:ASP:N	2.52	0.42
1:C:286:LEU:O	1:C:287:SER:C	2.58	0.42
1:C:382:VAL:HG11	1:C:868:TYR:CE1	2.54	0.42
1:E:468:LEU:HD12	1:E:471:VAL:HG22	2.01	0.42
1:E:660:LYS:CG	1:E:661:ASN:N	2.82	0.42
1:E:936:GLU:HA	1:E:954:LEU:O	2.19	0.42
1:E:1153:VAL:HG23	1:E:1159:LEU:CD2	2.48	0.42
2:B:35:VAL:O	2:B:36:ALA:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:586:LYS:O	2:B:641:TYR:CZ	2.72	0.42
2:D:211:ILE:O	2:D:226:GLU:HA	2.19	0.42
2:D:254:TYR:O	2:D:258:THR:HB	2.19	0.42
2:D:989:ILE:HG22	2:D:990:ASN:N	2.34	0.42
2:F:973:ASP:O	2:F:975:ASN:N	2.51	0.42
1:A:453:GLU:HG3	1:A:454:ILE:HB	2.01	0.42
1:E:138:ASN:ND2	1:E:140:SER:OG	2.52	0.42
2:B:296:LYS:HA	2:B:299:TRP:HE3	1.84	0.42
2:B:428:LYS:C	2:B:430:PRO:CD	2.88	0.42
2:B:989:ILE:CG2	2:B:994:ILE:HG13	2.50	0.42
2:D:106:ILE:N	2:D:290:LYS:HD3	2.34	0.42
2:D:976:ASN:C	2:D:977:VAL:HG23	2.40	0.42
2:D:1003:ASN:CG	2:D:1003:ASN:O	2.57	0.42
2:F:9:ILE:HG13	2:F:10:ASP:N	2.34	0.42
2:F:211:ILE:O	2:F:226:GLU:HA	2.19	0.42
1:A:194:PHE:N	1:A:194:PHE:CD1	2.87	0.42
1:C:361:SER:OG	1:C:397:LYS:HE2	2.19	0.42
1:C:912:TYR:O	1:C:913:LYS:CB	2.67	0.42
1:C:1188:VAL:HG22	1:C:1201:PHE:CE1	2.54	0.42
1:E:274:ASN:HA	1:E:277:ASN:ND2	2.34	0.42
2:B:266:LYS:HA	2:B:291:PHE:CE1	2.55	0.42
2:B:381:MET:HE3	2:B:471:GLN:CD	2.38	0.42
2:B:480:ILE:HG21	2:B:497:VAL:HG23	2.01	0.42
2:B:645:TYR:OH	2:B:721:VAL:HG21	2.19	0.42
2:D:238:ILE:O	2:D:239:ASP:C	2.55	0.42
2:D:1098:ILE:HD12	2:D:1143:VAL:CG1	2.50	0.42
2:F:210:ASN:HB3	2:F:228:ASP:HA	1.99	0.42
1:A:160:THR:HA	1:A:185:THR:O	2.19	0.42
1:A:990:TRP:HZ3	1:A:1044:ILE:HA	1.84	0.42
1:C:416:VAL:HG13	1:C:420:GLY:CA	2.50	0.42
1:C:467:ASP:OD1	1:C:467:ASP:C	2.57	0.42
1:C:920:TRP:O	1:C:1044:ILE:HA	2.19	0.42
1:E:297:ASN:N	1:E:298:PRO:HD3	2.33	0.42
1:E:597:ALA:HA	2:F:939:LYS:HD3	2.01	0.42
1:E:1083:ASP:HB2	1:E:1128:LYS:HE3	2.01	0.42
2:B:1122:LEU:C	2:B:1122:LEU:HD12	2.40	0.42
2:D:155:LYS:O	2:D:156:GLU:C	2.57	0.42
2:D:289:GLN:NE2	2:D:423:ILE:HG22	2.35	0.42
2:D:855:THR:HG22	2:D:967:ILE:HG12	2.02	0.42
2:D:877:LYS:CB	2:D:878:GLN:HB3	2.47	0.42
2:F:411:HIS:CA	2:F:624:PHE:HE1	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:877:LYS:CB	2:F:878:GLN:HB3	2.47	0.42
2:F:962:ILE:O	2:F:962:ILE:CG2	2.66	0.42
2:F:1116:ILE:HG23	2:F:1117:PHE:N	2.34	0.42
1:A:1043:GLY:C	1:A:1044:ILE:HG13	2.39	0.42
1:C:194:PHE:N	1:C:194:PHE:HD1	2.18	0.42
1:C:535:VAL:HG11	1:C:551:ILE:HD12	2.00	0.42
1:E:727:THR:O	1:E:728:LEU:CB	2.66	0.42
1:E:987:ILE:O	1:E:989:LYS:N	2.52	0.42
1:E:1012:ILE:O	2:F:779:ILE:HD12	2.19	0.42
1:E:1044:ILE:CG2	1:E:1045:ARG:N	2.82	0.42
2:B:234:ILE:O	2:B:302:ASN:HB2	2.19	0.42
2:B:242:LEU:CD1	2:B:638:TRP:CG	3.03	0.42
2:B:415:TYR:O	2:B:416:SER:CB	2.67	0.42
1:A:287:SER:HB3	1:A:317:TYR:H	1.84	0.42
1:A:720:GLU:HA	1:A:723:TYR:HB3	2.02	0.42
1:A:993:VAL:HG12	1:A:994:THR:N	2.35	0.42
1:A:1002:ASP:N	1:A:1002:ASP:OD1	2.53	0.42
1:C:1127:VAL:CG1	1:C:1128:LYS:N	2.82	0.42
1:E:15:ASP:HA	1:E:16:ARG:HA	1.77	0.42
1:E:427:ILE:CG2	1:E:428:GLU:N	2.82	0.42
1:E:738:TYR:C	1:E:740:ILE:N	2.72	0.42
2:D:727:TYR:N	2:D:728:PRO:CD	2.82	0.42
2:F:242:LEU:CD1	2:F:638:TRP:CG	3.02	0.42
2:F:276:ASN:O	2:F:277:ASN:HB3	2.20	0.42
1:A:617:GLN:OE1	1:A:617:GLN:N	2.47	0.42
1:A:932:ASN:HA	1:A:956:HIS:CE1	2.55	0.42
1:A:1190:MET:HE1	1:A:1199:MET:HB3	2.02	0.42
1:C:926:TYR:HD1	1:C:1247:HIS:O	2.03	0.42
1:E:170:ASN:HD21	2:B:377:ASN:ND2	2.18	0.42
1:E:250:GLU:O	1:E:254:THR:N	2.44	0.42
1:E:730:GLU:O	1:E:732:ASN:N	2.52	0.42
2:B:629:ILE:O	2:B:630:TYR:C	2.58	0.42
2:B:1097:ARG:NE	2:B:1142:TRP:CE3	2.87	0.42
2:D:586:LYS:O	2:D:641:TYR:CZ	2.73	0.42
2:D:923:ILE:O	2:D:925:ASN:N	2.39	0.42
2:F:945:PHE:HA	2:F:949:ILE:O	2.20	0.42
1:A:305:GLU:OE1	1:A:305:GLU:HA	2.20	0.42
1:A:436:PHE:CD1	1:A:437:VAL:N	2.86	0.42
1:C:262:ILE:CD1	1:C:690:MET:HB3	2.50	0.42
1:C:452:LYS:CB	1:C:651:LYS:HE2	2.50	0.42
1:C:617:GLN:OE1	1:C:617:GLN:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:660:LYS:CG	1:C:661:ASN:N	2.82	0.42
1:C:981:ASN:HB3	1:C:1117:LEU:HB3	2.02	0.42
1:C:1232:HIS:CB	1:C:1236:ASN:HD21	2.32	0.42
1:E:15:ASP:HA	1:E:136:PHE:HZ	1.85	0.42
2:B:13:VAL:HG13	2:B:19:ALA:HA	2.01	0.42
2:B:755:ILE:HG22	2:B:760:LYS:HG3	2.01	0.42
2:B:905:VAL:HA	2:B:918:ILE:O	2.20	0.42
2:D:153:TYR:HB2	2:D:165:MET:O	2.19	0.42
2:D:922:ASN:C	2:D:923:ILE:HG13	2.40	0.42
2:F:238:ILE:O	2:F:239:ASP:C	2.57	0.42
2:F:738:ILE:O	2:F:739:LYS:C	2.58	0.42
1:A:220:GLY:HA2	1:A:225:LYS:HE3	2.01	0.42
1:A:903:ASN:OD1	1:A:903:ASN:C	2.59	0.42
1:A:1111:ILE:HG23	1:A:1111:ILE:O	2.20	0.42
1:A:1153:VAL:HG23	1:A:1159:LEU:CD2	2.50	0.42
1:C:38:ASN:HB3	1:C:147:ASN:HB2	2.02	0.42
1:C:395:ILE:HG13	1:C:396:ILE:HG23	2.02	0.42
1:C:838:SER:O	1:C:842:LYS:HB3	2.20	0.42
1:E:196:ASP:OD2	1:E:196:ASP:N	2.53	0.42
1:E:398:PRO:C	1:E:399:ILE:HG13	2.40	0.42
2:B:108:PHE:CG	2:B:109:PRO:HD2	2.55	0.42
2:B:276:ASN:O	2:B:277:ASN:HB3	2.20	0.42
2:B:945:PHE:CD1	2:B:950:LEU:HA	2.55	0.42
2:B:1093:THR:HG23	2:B:1095:ASN:N	2.35	0.42
2:D:554:ILE:HG21	2:D:556:TRP:CZ2	2.54	0.42
2:D:1149:HIS:CE1	2:D:1150:ASP:CB	3.02	0.42
2:F:266:LYS:HA	2:F:291:PHE:CE1	2.55	0.42
2:F:515:LYS:HB3	2:F:516:PRO:HD2	2.01	0.42
2:F:709:ASN:O	2:F:713:PHE:HD2	2.02	0.42
2:F:922:ASN:C	2:F:923:ILE:HG13	2.39	0.42
1:A:427:ILE:CD1	1:A:521:PHE:CD1	3.03	0.42
1:A:522:TYR:CZ	1:A:611:ASN:HB2	2.53	0.42
1:C:993:VAL:HG12	1:C:994:THR:N	2.35	0.42
1:C:1103:ASP:OD1	1:C:1103:ASP:N	2.36	0.42
1:E:4:ILE:HD11	1:E:95:ASN:HB2	2.02	0.42
1:E:39:ILE:HG12	1:E:148:VAL:HB	2.02	0.42
1:E:908:TYR:HB3	1:E:1025:VAL:CG2	2.49	0.42
1:E:1227:THR:HG22	2:F:806:TYR:CD2	2.54	0.42
2:B:552:LYS:C	2:B:713:PHE:CE1	2.93	0.42
2:B:734:MET:HA	2:B:737:CYS:SG	2.60	0.42
2:B:990:ASN:HB3	2:B:993:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1093:THR:OG1	2:B:1094:THR:N	2.52	0.42
2:D:27:ASP:N	2:D:27:ASP:OD1	2.52	0.42
2:D:81:ALA:O	2:D:84:LYS:N	2.52	0.42
2:D:308:LYS:HA	2:D:789:TYR:CE2	2.55	0.42
2:D:1122:LEU:HD21	2:D:1158:TRP:CE2	2.55	0.42
2:F:629:ILE:O	2:F:630:TYR:C	2.58	0.42
1:C:427:ILE:CD1	1:C:521:PHE:CD1	3.02	0.41
1:E:636:PHE:HD2	1:E:696:GLN:OE1	2.03	0.41
1:E:943:MET:CE	1:E:947:ASN:HB3	2.50	0.41
2:B:917:ASN:C	2:B:918:ILE:HG13	2.40	0.41
2:B:973:ASP:O	2:B:975:ASN:N	2.50	0.41
2:D:856:ASN:O	2:D:857:ASP:C	2.58	0.41
2:F:71:THR:OG1	2:F:74:GLU:HG2	2.20	0.41
2:F:855:THR:HG22	2:F:967:ILE:HG12	2.02	0.41
2:F:855:THR:HA	2:F:966:ASP:O	2.19	0.41
2:F:1003:ASN:O	2:F:1003:ASN:CG	2.58	0.41
2:F:1122:LEU:HD21	2:F:1158:TRP:CE2	2.54	0.41
1:C:192:PHE:CE1	1:C:204:GLN:HB3	2.55	0.41
1:C:468:LEU:HD12	1:C:471:VAL:HG22	2.02	0.41
1:C:522:TYR:CZ	1:C:611:ASN:HB2	2.54	0.41
1:E:216:HIS:CE1	1:E:250:GLU:HG3	2.54	0.41
1:E:720:GLU:HA	1:E:723:TYR:HB3	2.02	0.41
2:B:71:THR:OG1	2:B:74:GLU:HG2	2.19	0.41
2:B:453:ILE:CG1	2:B:454:THR:H	2.32	0.41
2:B:530:ILE:O	2:B:531:PHE:C	2.59	0.41
2:B:917:ASN:O	2:B:918:ILE:HG13	2.20	0.41
2:B:1122:LEU:HD21	2:B:1158:TRP:NE1	2.35	0.41
2:D:89:ILE:O	2:D:95:GLY:HA3	2.21	0.41
2:D:622:ASN:O	2:D:625:TYR:N	2.53	0.41
2:D:828:TYR:HB2	2:D:829:PRO:HD2	2.02	0.41
2:D:1097:ARG:NE	2:D:1142:TRP:CE3	2.89	0.41
2:F:321:ALA:HB1	2:F:388:ASP:HB3	2.02	0.41
2:F:580:ILE:H	2:F:580:ILE:HG13	1.66	0.41
1:A:22:LYS:HG3	1:A:23:PRO:HD2	2.01	0.41
1:A:987:ILE:C	1:A:989:LYS:N	2.73	0.41
1:A:1143:ARG:HB2	1:A:1146:ASP:OD1	2.20	0.41
1:C:912:TYR:CD1	1:C:912:TYR:N	2.87	0.41
1:C:1232:HIS:HB3	1:C:1236:ASN:HD21	1.85	0.41
1:E:436:PHE:CD1	1:E:437:VAL:N	2.85	0.41
1:E:778:LYS:HA	1:E:782:LEU:HD12	2.02	0.41
1:E:1010:ASN:HB3	2:F:780:GLN:CG	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:245:THR:HB	2:B:631:TYR:CE1	2.55	0.41
2:B:1007:ILE:HG12	2:B:1072:GLN:C	2.41	0.41
2:D:185:PRO:O	2:D:186:ALA:C	2.57	0.41
2:D:308:LYS:HA	2:D:789:TYR:CD2	2.56	0.41
2:D:799:SER:HB2	2:D:800:PRO:HD2	2.02	0.41
2:F:308:LYS:HA	2:F:789:TYR:CE2	2.55	0.41
2:F:502:ASN:O	2:F:505:MET:N	2.54	0.41
2:F:730:PHE:O	2:F:734:MET:HG2	2.20	0.41
1:A:38:ASN:HB3	1:A:147:ASN:HB2	2.03	0.41
1:A:584:THR:HG22	1:A:750:LYS:HD2	2.02	0.41
1:A:789:VAL:HG12	1:A:793:LEU:HD12	2.03	0.41
1:A:838:SER:O	1:A:842:LYS:HB3	2.21	0.41
1:A:852:VAL:HG11	1:A:906:ILE:HG23	2.03	0.41
1:A:1000:LEU:N	1:A:1000:LEU:HD12	2.36	0.41
1:C:249:ILE:HG23	1:C:263:ILE:CD1	2.51	0.41
1:C:903:ASN:C	1:C:903:ASN:OD1	2.59	0.41
1:E:614:ASN:CB	1:E:617:GLN:OE1	2.68	0.41
1:E:1188:VAL:HG22	1:E:1201:PHE:CE1	2.55	0.41
2:B:526:TRP:O	2:B:529:ALA:HB3	2.20	0.41
2:B:540:GLU:HB3	2:B:555:PRO:CD	2.50	0.41
2:B:554:ILE:HG21	2:B:556:TRP:CZ2	2.54	0.41
2:B:860:GLU:O	2:B:861:ASN:HB2	2.20	0.41
2:B:885:LEU:HG	2:B:886:ILE:CD1	2.22	0.41
2:D:46:TYR:HB3	2:D:142:GLY:HA2	2.02	0.41
2:D:71:THR:OG1	2:D:74:GLU:HG2	2.19	0.41
2:D:254:TYR:O	2:D:258:THR:CG2	2.69	0.41
2:D:289:GLN:NE2	2:D:292:LYS:HE3	2.36	0.41
2:D:645:TYR:OH	2:D:721:VAL:HG21	2.21	0.41
2:F:35:VAL:O	2:F:36:ALA:HB2	2.19	0.41
2:F:46:TYR:HB3	2:F:142:GLY:HA2	2.03	0.41
2:F:269:TYR:CZ	2:F:288:GLU:HB2	2.55	0.41
2:F:423:ILE:HG23	2:F:426:ILE:HB	2.02	0.41
2:F:860:GLU:O	2:F:861:ASN:HB2	2.21	0.41
2:F:1069:GLN:O	2:F:1070:TYR:CD2	2.74	0.41
1:A:297:ASN:N	1:A:297:ASN:OD1	2.49	0.41
1:A:1001:GLY:HA2	1:A:1018:LEU:HD21	2.02	0.41
1:C:274:ASN:HA	1:C:277:ASN:ND2	2.36	0.41
1:C:614:ASN:HB2	1:C:617:GLN:HE22	1.85	0.41
1:C:730:GLU:O	1:C:732:ASN:N	2.53	0.41
1:C:835:ILE:HG23	2:D:949:ILE:HA	2.03	0.41
1:E:395:ILE:HG13	1:E:396:ILE:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:456:ASP:OD1	1:E:456:ASP:N	2.52	0.41
1:E:932:ASN:HA	1:E:956:HIS:CE1	2.56	0.41
1:E:1127:VAL:CG1	1:E:1128:LYS:N	2.84	0.41
2:B:594:ILE:CG2	2:B:595:LYS:N	2.83	0.41
2:B:709:ASN:O	2:B:712:LYS:N	2.53	0.41
2:B:730:PHE:CE2	2:B:734:MET:HG3	2.55	0.41
2:D:423:ILE:HG23	2:D:426:ILE:HB	2.01	0.41
2:D:654:LYS:HA	2:D:657:LEU:HD12	2.02	0.41
2:F:88:ARG:O	2:F:91:ASN:HB2	2.20	0.41
2:F:755:ILE:HG22	2:F:760:LYS:HG3	2.03	0.41
2:F:799:SER:HB2	2:F:800:PRO:HD2	2.02	0.41
2:F:1098:ILE:HD12	2:F:1143:VAL:CG1	2.51	0.41
1:A:863:VAL:HG12	1:A:864:ASP:N	2.36	0.41
1:A:883:THR:HG23	1:A:884:ASN:H	1.85	0.41
1:A:1083:ASP:HB2	1:A:1128:LYS:HE3	2.02	0.41
1:A:1127:VAL:CG1	1:A:1128:LYS:N	2.83	0.41
1:C:603:VAL:CG1	1:C:605:TYR:CE2	3.04	0.41
1:E:1111:ILE:HG23	1:E:1111:ILE:O	2.20	0.41
2:B:185:PRO:O	2:B:188:GLU:N	2.53	0.41
2:B:583:ILE:HD11	2:B:645:TYR:CE2	2.55	0.41
2:B:626:LEU:HD22	2:B:734:MET:HE3	2.01	0.41
2:B:709:ASN:O	2:B:713:PHE:HD2	2.03	0.41
2:B:828:TYR:HB2	2:B:829:PRO:HD2	2.02	0.41
2:B:1140:TYR:CE2	2:B:1142:TRP:CE2	3.09	0.41
2:D:501:LEU:HD22	2:D:537:ASP:HB3	2.01	0.41
2:D:755:ILE:HG22	2:D:760:LYS:HG3	2.03	0.41
2:D:945:PHE:HA	2:D:949:ILE:O	2.20	0.41
2:F:553:ILE:CG2	2:F:554:ILE:N	2.83	0.41
2:F:731:THR:O	2:F:735:GLU:HG3	2.21	0.41
2:F:1097:ARG:NE	2:F:1142:TRP:CE3	2.89	0.41
1:A:682:TYR:CD2	1:A:825:PHE:HD1	2.38	0.41
1:C:470:GLN:HG3	2:D:1028:PHE:HE1	1.86	0.41
2:B:11:SER:CB	2:B:12:PRO:HA	2.51	0.41
2:B:35:VAL:CG1	2:B:36:ALA:H	2.30	0.41
2:B:254:TYR:O	2:B:258:THR:HB	2.21	0.41
2:B:423:ILE:HG23	2:B:426:ILE:HB	2.02	0.41
2:F:102:ILE:HG12	2:F:197:LEU:HD11	2.03	0.41
2:F:182:TYR:CE2	2:F:351:THR:HG22	2.56	0.41
2:F:185:PRO:O	2:F:188:GLU:N	2.53	0.41
1:A:15:ASP:HA	1:A:16:ARG:HA	1.75	0.41
1:A:143:ILE:CD1	1:A:491:THR:HG23	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1127:VAL:HG13	1:A:1151:ASN:O	2.21	0.41
1:A:1188:VAL:HG22	1:A:1201:PHE:CE1	2.55	0.41
1:C:436:PHE:CD1	1:C:437:VAL:N	2.83	0.41
1:C:1083:ASP:HB2	1:C:1128:LYS:HE3	2.03	0.41
1:E:416:VAL:HG13	1:E:420:GLY:CA	2.51	0.41
1:E:903:ASN:C	1:E:903:ASN:OD1	2.59	0.41
2:B:381:MET:HE3	2:B:471:GLN:HB3	2.03	0.41
2:B:681:SER:HB3	2:B:684:ASN:HD22	1.85	0.41
2:D:480:ILE:HG21	2:D:497:VAL:HG23	2.02	0.41
2:D:583:ILE:HD11	2:D:645:TYR:CE2	2.55	0.41
2:F:13:VAL:HG13	2:F:19:ALA:HA	2.03	0.41
1:A:962:THR:HA	1:A:972:LYS:HG2	2.03	0.41
1:A:989:LYS:HE2	1:A:1075:PHE:CE2	2.55	0.41
1:A:1137:THR:OG1	2:B:1109:ILE:HG21	2.21	0.41
1:A:1190:MET:CE	1:A:1199:MET:HB3	2.51	0.41
1:C:74:LEU:N	1:C:79:GLU:OE1	2.49	0.41
1:C:116:ASN:OD1	1:C:116:ASN:N	2.54	0.41
1:C:331:LEU:HB2	1:C:332:TYR:CD2	2.55	0.41
1:C:468:LEU:O	1:C:469:ASP:C	2.59	0.41
1:C:468:LEU:HD12	1:C:468:LEU:C	2.41	0.41
1:C:610:LEU:O	1:C:611:ASN:C	2.58	0.41
1:C:627:LEU:O	1:E:419:LYS:CG	2.69	0.41
1:C:641:LEU:HD12	1:E:614:ASN:ND2	2.35	0.41
1:C:645:ILE:HD12	1:C:785:TYR:HB2	2.03	0.41
1:C:769:TYR:O	1:C:772:LYS:HB2	2.21	0.41
1:E:192:PHE:CE1	1:E:204:GLN:HB3	2.56	0.41
1:E:220:GLY:HA2	1:E:225:LYS:HE3	2.03	0.41
1:E:382:VAL:HG11	1:E:868:TYR:CE1	2.56	0.41
1:E:468:LEU:O	1:E:469:ASP:C	2.60	0.41
1:E:773:LEU:O	1:E:774:ILE:C	2.59	0.41
1:E:912:TYR:CD1	1:E:912:TYR:N	2.87	0.41
1:E:929:LYS:HA	1:E:932:ASN:HB2	2.02	0.41
1:E:989:LYS:CG	1:E:1076:TRP:HA	2.50	0.41
2:B:197:LEU:N	2:B:197:LEU:HD12	2.36	0.41
2:B:491:SER:O	2:B:495:SER:N	2.54	0.41
2:B:789:TYR:CE2	2:B:793:LEU:CD1	3.03	0.41
2:B:1147:LEU:HD12	2:B:1147:LEU:N	2.36	0.41
2:D:105:ALA:HA	2:D:290:LYS:CD	2.50	0.41
2:D:108:PHE:CG	2:D:109:PRO:HD2	2.55	0.41
2:D:207:ASP:N	2:D:207:ASP:OD1	2.52	0.41
2:D:242:LEU:CD1	2:D:638:TRP:CG	3.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:453:ILE:CG1	2:D:454:THR:H	2.33	0.41
2:D:709:ASN:O	2:D:713:PHE:HD2	2.03	0.41
2:D:710:ILE:HG23	2:D:714:PHE:CE2	2.56	0.41
2:D:734:MET:HA	2:D:737:CYS:SG	2.60	0.41
2:D:855:THR:HA	2:D:966:ASP:O	2.20	0.41
2:D:1008:ARG:HD2	2:D:1012:GLU:HB3	2.02	0.41
2:F:27:ASP:N	2:F:27:ASP:OD1	2.54	0.41
2:F:35:VAL:CG1	2:F:36:ALA:H	2.31	0.41
2:F:106:ILE:N	2:F:290:LYS:HD3	2.36	0.41
2:F:146:ILE:HD13	2:F:330:TYR:CE2	2.56	0.41
2:F:552:LYS:C	2:F:713:PHE:HE1	2.24	0.41
2:F:709:ASN:O	2:F:710:ILE:C	2.60	0.41
2:F:832:ILE:H	2:F:832:ILE:HG13	1.75	0.41
1:A:778:LYS:HA	1:A:782:LEU:HD12	2.02	0.41
1:A:1067:PRO:O	1:A:1068:ASN:O	2.38	0.41
1:A:1143:ARG:O	1:A:1144:LYS:C	2.59	0.41
1:C:297:ASN:N	1:C:297:ASN:OD1	2.49	0.41
1:C:625:LEU:O	1:C:626:GLU:C	2.59	0.41
1:E:160:THR:HA	1:E:185:THR:O	2.21	0.41
1:E:452:LYS:CB	1:E:651:LYS:HE2	2.50	0.41
2:B:269:TYR:HE2	2:B:288:GLU:CG	2.34	0.41
2:B:502:ASN:O	2:B:505:MET:N	2.54	0.41
2:B:855:THR:HA	2:B:966:ASP:O	2.21	0.41
2:B:1098:ILE:HD12	2:B:1143:VAL:CG1	2.50	0.41
2:D:276:ASN:O	2:D:277:ASN:HB3	2.21	0.41
2:D:400:ASN:N	2:D:400:ASN:OD1	2.54	0.41
2:D:1069:GLN:O	2:D:1070:TYR:CD2	2.74	0.41
2:F:285:LEU:O	2:F:288:GLU:N	2.54	0.41
1:A:4:ILE:HD11	1:A:95:ASN:HB2	2.02	0.40
1:A:196:ASP:N	1:A:196:ASP:OD2	2.54	0.40
1:A:989:LYS:CG	1:A:1076:TRP:HA	2.50	0.40
1:C:225:LYS:HA	1:C:228:THR:OG1	2.21	0.40
1:E:20:TYR:HA	1:E:30:TYR:O	2.21	0.40
1:E:388:ASN:HB3	1:E:391:LEU:HB3	2.01	0.40
1:E:898:VAL:O	1:E:1030:LEU:HA	2.22	0.40
2:B:554:ILE:CG2	2:B:556:TRP:NE1	2.84	0.40
2:D:108:PHE:HB3	2:D:162:MET:CG	2.47	0.40
2:F:108:PHE:CG	2:F:109:PRO:HD2	2.56	0.40
2:F:254:TYR:O	2:F:258:THR:HB	2.21	0.40
2:F:428:LYS:C	2:F:430:PRO:CD	2.89	0.40
1:C:614:ASN:CB	1:C:617:GLN:OE1	2.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:833:ASP:HB3	1:C:835:ILE:HD12	2.03	0.40
2:B:429:ILE:N	2:B:430:PRO:HD3	2.34	0.40
2:B:470:LEU:HD11	2:B:654:LYS:HB3	2.04	0.40
2:D:497:VAL:HG12	2:D:498:TYR:N	2.35	0.40
2:F:583:ILE:HD11	2:F:645:TYR:CE2	2.56	0.40
2:F:854:PHE:HE2	2:F:970:LEU:HB2	1.87	0.40
2:F:880:THR:HB	2:F:901:ASN:HA	2.03	0.40
2:F:990:ASN:HB3	2:F:993:GLU:OE2	2.20	0.40
1:A:625:LEU:O	1:A:626:GLU:C	2.60	0.40
1:A:632:ILE:HG23	1:A:633:LEU:HG	2.02	0.40
1:A:926:TYR:HD1	1:A:1247:HIS:O	2.04	0.40
1:A:1213:GLY:HA3	1:A:1225:TYR:CE2	2.57	0.40
1:C:39:ILE:HG12	1:C:148:VAL:HB	2.04	0.40
1:C:305:GLU:OE1	1:C:305:GLU:HA	2.20	0.40
1:C:897:GLU:HG2	1:C:1032:LYS:HD3	2.04	0.40
1:C:903:ASN:OD1	1:C:904:ASP:N	2.54	0.40
1:E:1125:ILE:HD12	1:E:1125:ILE:HA	1.93	0.40
2:B:107:PRO:HG2	2:B:118:ARG:CB	2.50	0.40
2:B:553:ILE:CG2	2:B:554:ILE:N	2.83	0.40
2:D:197:LEU:HD12	2:D:197:LEU:N	2.36	0.40
2:D:709:ASN:O	2:D:710:ILE:C	2.60	0.40
2:F:205:PRO:CD	2:F:230:ILE:HD11	2.52	0.40
2:F:246:ASN:HA	2:F:247:PRO:HA	1.84	0.40
2:F:254:TYR:O	2:F:258:THR:CG2	2.69	0.40
2:F:298:ILE:HA	2:F:301:LEU:CD1	2.52	0.40
2:F:469:TYR:CE1	2:F:562:ASN:HB2	2.55	0.40
2:F:541:THR:O	2:F:542:GLN:HB3	2.21	0.40
1:A:467:ASP:OD1	1:A:467:ASP:C	2.58	0.40
1:A:614:ASN:HB2	1:A:617:GLN:HE22	1.86	0.40
1:A:833:ASP:HB3	1:A:835:ILE:HD12	2.03	0.40
1:A:1084:LYS:HB3	1:A:1086:TYR:CE2	2.57	0.40
1:C:824:PRO:HB2	2:D:952:ALA:HB2	2.03	0.40
1:C:937:TYR:CE1	1:C:954:LEU:HB2	2.57	0.40
1:E:216:HIS:CE1	1:E:254:THR:HG1	2.39	0.40
1:E:225:LYS:HA	1:E:228:THR:OG1	2.22	0.40
1:E:305:GLU:OE1	1:E:305:GLU:HA	2.21	0.40
1:E:789:VAL:HG12	1:E:793:LEU:HD12	2.03	0.40
1:E:920:TRP:O	1:E:1044:ILE:HA	2.21	0.40
2:B:589:ILE:HG13	2:B:641:TYR:OH	2.22	0.40
2:B:646:PHE:O	2:B:647:ASP:C	2.59	0.40
2:D:646:PHE:O	2:D:647:ASP:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1106:ASN:O	2:D:1107:ALA:C	2.59	0.40
2:F:99:LEU:C	2:F:101:LEU:N	2.75	0.40
2:F:828:TYR:HB2	2:F:829:PRO:HD2	2.04	0.40
1:A:39:ILE:HG12	1:A:148:VAL:HB	2.04	0.40
1:C:22:LYS:HG3	1:C:23:PRO:HD2	2.02	0.40
1:C:249:ILE:O	1:C:250:GLU:C	2.57	0.40
1:C:873:ASN:N	1:C:899:ASN:O	2.41	0.40
1:C:1163:TYR:CZ	1:C:1176:LYS:HB2	2.56	0.40
1:E:169:ASN:OD1	2:B:461:THR:HA	2.20	0.40
1:E:427:ILE:HD12	1:E:521:PHE:CD1	2.56	0.40
1:E:610:LEU:O	1:E:611:ASN:C	2.60	0.40
1:E:975:PHE:CE2	1:E:977:TYR:HB3	2.57	0.40
1:E:1000:LEU:N	1:E:1000:LEU:HD12	2.36	0.40
2:B:373:ILE:HG22	2:B:379:VAL:HG22	2.04	0.40
2:B:403:ILE:HA	2:B:404:PRO:HD3	1.95	0.40
2:B:654:LYS:HA	2:B:657:LEU:HD12	2.02	0.40
2:D:13:VAL:CG1	2:D:14:ASP:N	2.84	0.40
2:D:245:THR:HB	2:D:631:TYR:CE1	2.56	0.40
2:D:271:ILE:CG2	2:D:272:LYS:N	2.84	0.40
2:D:540:GLU:HB3	2:D:555:PRO:CD	2.52	0.40
2:D:589:ILE:HG13	2:D:641:TYR:OH	2.21	0.40
2:F:92:ASN:O	2:F:95:GLY:N	2.55	0.40
2:F:153:TYR:HB2	2:F:165:MET:O	2.21	0.40
2:F:579:PRO:C	2:F:581:SER:N	2.74	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:A:280:ARG:NH2	1:C:420:GLY:O[3_564]	2.16	0.04

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	1225/1252 (98%)	999 (82%)	159 (13%)	67 (6%)	2	9
1	C	1225/1252 (98%)	995 (81%)	166 (14%)	64 (5%)	2	10
1	E	1225/1252 (98%)	997 (81%)	162 (13%)	66 (5%)	2	9
2	B	1084/1163 (93%)	832 (77%)	183 (17%)	69 (6%)	1	7
2	D	1084/1163 (93%)	835 (77%)	179 (16%)	70 (6%)	1	6
2	F	1084/1163 (93%)	838 (77%)	177 (16%)	69 (6%)	1	7
All	All	6927/7245 (96%)	5496 (79%)	1026 (15%)	405 (6%)	1	8

All (405) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	119	THR
1	A	199	ILE
1	A	291	VAL
1	A	419	LYS
1	A	449	ASN
1	A	469	ASP
1	A	483	LEU
1	A	485	ASP
1	A	490	LEU
1	A	499	PRO
1	A	738	TYR
1	A	740	ILE
1	A	743	ILE
1	A	928	ASN
1	A	978	GLY
1	A	979	ASN
1	A	1068	ASN
1	A	1074	ASP
1	A	1103	ASP
1	A	1104	SER
1	A	1109	ASN
1	A	1156	LYS
1	C	119	THR
1	C	199	ILE
1	C	291	VAL
1	C	419	LYS
1	C	449	ASN
1	C	469	ASP

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Mol	Chain	Res	Type
1	C	483	LEU
1	C	485	ASP
1	C	490	LEU
1	C	499	PRO
1	C	738	TYR
1	C	740	ILE
1	C	743	ILE
1	C	928	ASN
1	C	978	GLY
1	C	979	ASN
1	C	1068	ASN
1	C	1074	ASP
1	C	1103	ASP
1	C	1104	SER
1	C	1109	ASN
1	C	1156	LYS
1	E	119	THR
1	E	199	ILE
1	E	291	VAL
1	E	419	LYS
1	E	449	ASN
1	E	469	ASP
1	E	483	LEU
1	E	485	ASP
1	E	490	LEU
1	E	499	PRO
1	E	738	TYR
1	E	740	ILE
1	E	743	ILE
1	E	928	ASN
1	E	978	GLY
1	E	979	ASN
1	E	1068	ASN
1	E	1074	ASP
1	E	1103	ASP
1	E	1104	SER
1	E	1109	ASN
1	E	1156	LYS
2	B	9	ILE
2	B	10	ASP
2	B	36	ALA
2	B	37	PRO

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Mol	Chain	Res	Type
2	B	155	LYS
2	B	252	ASP
2	B	253	LYS
2	B	273	ILE
2	B	277	ASN
2	B	279	ILE
2	B	285	LEU
2	B	416	SER
2	B	439	PRO
2	B	480	ILE
2	B	604	LEU
2	B	709	ASN
2	B	848	ALA
2	B	856	ASN
2	B	861	ASN
2	B	914	ASN
2	B	991	SER
2	B	1057	LEU
2	B	1102	ASP
2	B	1107	ALA
2	B	1128	ASN
2	D	9	ILE
2	D	10	ASP
2	D	36	ALA
2	D	37	PRO
2	D	155	LYS
2	D	252	ASP
2	D	253	LYS
2	D	273	ILE
2	D	277	ASN
2	D	279	ILE
2	D	285	LEU
2	D	416	SER
2	D	439	PRO
2	D	480	ILE
2	D	604	LEU
2	D	709	ASN
2	D	848	ALA
2	D	856	ASN
2	D	861	ASN
2	D	914	ASN
2	D	991	SER

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Mol	Chain	Res	Type
2	D	1057	LEU
2	D	1102	ASP
2	D	1128	ASN
2	F	9	ILE
2	F	10	ASP
2	F	36	ALA
2	F	37	PRO
2	F	155	LYS
2	F	252	ASP
2	F	253	LYS
2	F	273	ILE
2	F	277	ASN
2	F	279	ILE
2	F	285	LEU
2	F	416	SER
2	F	439	PRO
2	F	480	ILE
2	F	604	LEU
2	F	709	ASN
2	F	848	ALA
2	F	856	ASN
2	F	861	ASN
2	F	914	ASN
2	F	991	SER
2	F	1057	LEU
2	F	1102	ASP
2	F	1107	ALA
2	F	1128	ASN
1	A	362	ASN
1	A	417	SER
1	A	420	GLY
1	A	444	ASN
1	A	530	GLU
1	A	569	ALA
1	A	611	ASN
1	A	728	LEU
1	A	731	LYS
1	A	739	ASP
1	A	742	GLN
1	A	819	LEU
1	A	835	ILE
1	A	1116	LEU

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Mol	Chain	Res	Type
1	A	1230	ARG
1	C	362	ASN
1	C	417	SER
1	C	420	GLY
1	C	444	ASN
1	C	530	GLU
1	C	569	ALA
1	C	611	ASN
1	C	728	LEU
1	C	731	LYS
1	C	739	ASP
1	C	742	GLN
1	C	819	LEU
1	C	835	ILE
1	C	1027	ASP
1	C	1116	LEU
1	C	1230	ARG
1	E	362	ASN
1	E	417	SER
1	E	420	GLY
1	E	444	ASN
1	E	530	GLU
1	E	569	ALA
1	E	611	ASN
1	E	728	LEU
1	E	731	LYS
1	E	739	ASP
1	E	742	GLN
1	E	819	LEU
1	E	835	ILE
1	E	1116	LEU
1	E	1230	ARG
2	B	15	ASN
2	B	81	ALA
2	B	114	THR
2	B	419	ASP
2	B	501	LEU
2	B	540	GLU
2	B	676	GLU
2	B	710	ILE
2	B	811	GLN
2	B	822	LYS

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Mol	Chain	Res	Type
2	B	947	ASP
2	B	1012	GLU
2	B	1014	ILE
2	D	15	ASN
2	D	81	ALA
2	D	114	THR
2	D	419	ASP
2	D	501	LEU
2	D	540	GLU
2	D	676	GLU
2	D	710	ILE
2	D	811	GLN
2	D	822	LYS
2	D	947	ASP
2	D	1012	GLU
2	D	1014	ILE
2	D	1107	ALA
2	F	15	ASN
2	F	81	ALA
2	F	114	THR
2	F	419	ASP
2	F	501	LEU
2	F	540	GLU
2	F	676	GLU
2	F	710	ILE
2	F	811	GLN
2	F	822	LYS
2	F	947	ASP
2	F	1012	GLU
2	F	1014	ILE
1	A	138	ASN
1	A	293	ASN
1	A	398	PRO
1	A	451	PRO
1	A	507	SER
1	A	583	PHE
1	A	648	PHE
1	A	666	ALA
1	A	1027	ASP
1	C	138	ASN
1	C	293	ASN
1	C	398	PRO

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Mol	Chain	Res	Type
1	C	451	PRO
1	C	507	SER
1	C	583	PHE
1	C	648	PHE
1	C	666	ALA
1	E	138	ASN
1	E	293	ASN
1	E	398	PRO
1	E	451	PRO
1	E	507	SER
1	E	583	PHE
1	E	648	PHE
1	E	666	ALA
1	E	1027	ASP
1	E	1083	ASP
2	B	16	LYS
2	B	113	ASN
2	B	153	TYR
2	B	154	LYS
2	B	276	ASN
2	B	542	GLN
2	B	857	ASP
2	B	922	ASN
2	B	924	SER
2	B	972	SER
2	B	1018	ASN
2	D	16	LYS
2	D	113	ASN
2	D	153	TYR
2	D	154	LYS
2	D	276	ASN
2	D	296	LYS
2	D	417	TYR
2	D	542	GLN
2	D	922	ASN
2	D	924	SER
2	D	972	SER
2	D	1018	ASN
2	F	16	LYS
2	F	113	ASN
2	F	154	LYS
2	F	276	ASN

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Mol	Chain	Res	Type
2	F	417	TYR
2	F	922	ASN
2	F	924	SER
2	F	972	SER
2	F	1018	ASN
1	A	454	ILE
1	A	488	LEU
1	A	498	ILE
1	A	913	LYS
1	A	915	PHE
1	A	927	ASP
1	A	1083	ASP
1	A	1117	LEU
1	C	454	ILE
1	C	488	LEU
1	C	498	ILE
1	C	913	LYS
1	C	927	ASP
1	C	1083	ASP
1	C	1117	LEU
1	E	468	LEU
1	E	498	ILE
1	E	913	LYS
1	E	927	ASP
1	E	988	ASN
2	B	66	SER
2	B	296	LYS
2	B	417	TYR
2	B	442	LYS
2	B	680	ILE
2	B	1093	THR
2	B	1140	TYR
2	B	1147	LEU
2	D	275	ASN
2	D	295	VAL
2	D	442	LYS
2	D	680	ILE
2	D	857	ASP
2	D	878	GLN
2	D	1093	THR
2	D	1140	TYR
2	D	1147	LEU

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Mol	Chain	Res	Type
2	F	153	TYR
2	F	275	ASN
2	F	295	VAL
2	F	296	LYS
2	F	442	LYS
2	F	542	GLN
2	F	857	ASP
2	F	1140	TYR
2	F	1147	LEU
1	A	146	PRO
1	A	292	SER
1	A	400	THR
1	A	468	LEU
1	A	791	THR
1	A	910	ASN
1	A	988	ASN
1	A	1139	ASP
1	C	50	THR
1	C	146	PRO
1	C	292	SER
1	C	468	LEU
1	C	791	THR
1	C	915	PHE
1	C	988	ASN
1	C	1094	PRO
1	E	146	PRO
1	E	292	SER
1	E	400	THR
1	E	454	ILE
1	E	488	LEU
1	E	791	THR
1	E	910	ASN
1	E	915	PHE
1	E	1094	PRO
1	E	1117	LEU
2	B	275	ASN
2	B	295	VAL
2	B	433	ASN
2	B	478	ASN
2	B	878	GLN
2	D	14	ASP
2	D	66	SER

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Mol	Chain	Res	Type
2	D	328	LYS
2	D	433	ASN
2	D	478	ASN
2	F	66	SER
2	F	433	ASN
2	F	478	ASN
2	F	680	ILE
2	F	878	GLN
2	F	1093	THR
1	A	1094	PRO
1	E	50	THR
2	B	14	ASP
2	B	328	LYS
2	B	429	ILE
2	B	1101	VAL
2	D	186	ALA
2	D	429	ILE
2	D	1101	VAL
2	F	14	ASP
2	F	328	LYS
2	F	1101	VAL
1	C	604	PRO
2	B	251	ILE
2	D	142	GLY
2	D	251	ILE
2	F	142	GLY
2	F	251	ILE
2	F	429	ILE
1	A	604	PRO
1	C	239	PRO
2	B	93	VAL
2	B	142	GLY
2	D	93	VAL
2	F	93	VAL
1	A	154	GLU
1	A	803	ILE
1	C	803	ILE
1	E	604	PRO
1	A	239	PRO
1	E	803	ILE
1	E	154	GLU

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	1125/1155 (97%)	1013 (90%)	112 (10%)	7	25
1	C	1125/1155 (97%)	1011 (90%)	114 (10%)	7	25
1	E	1125/1155 (97%)	1014 (90%)	111 (10%)	8	25
2	B	990/1103 (90%)	915 (92%)	75 (8%)	13	38
2	D	990/1103 (90%)	915 (92%)	75 (8%)	13	38
2	F	990/1103 (90%)	914 (92%)	76 (8%)	13	38
All	All	6345/6774 (94%)	5782 (91%)	563 (9%)	9	31

All (563) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	16	ARG
1	A	17	THR
1	A	19	LEU
1	A	50	THR
1	A	53	GLN
1	A	65	ASP
1	A	93	ARG
1	A	108	SER
1	A	121	ASP
1	A	122	ASN
1	A	136	PHE
1	A	144	LEU
1	A	180	SER
1	A	191	SER
1	A	194	PHE
1	A	196	ASP
1	A	197	ASN
1	A	201	GLU
1	A	221	LEU
1	A	230	THR
1	A	258	ASN
1	A	270	ASP

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Mol	Chain	Res	Type
1	A	273	THR
1	A	278	ASP
1	A	281	LYS
1	A	290	GLN
1	A	301	ASP
1	A	305	GLU
1	A	326	ASP
1	A	336	GLU
1	A	348	ARG
1	A	354	GLN
1	A	402	ARG
1	A	421	ILE
1	A	428	GLU
1	A	436	PHE
1	A	440	GLU
1	A	441	ASN
1	A	443	TYR
1	A	447	ASN
1	A	455	ASP
1	A	456	ASP
1	A	464	TYR
1	A	465	GLU
1	A	468	LEU
1	A	475	PHE
1	A	486	GLU
1	A	487	LYS
1	A	491	THR
1	A	506	THR
1	A	515	ASN
1	A	532	GLU
1	A	554	PHE
1	A	591	SER
1	A	598	ASP
1	A	608	LEU
1	A	625	LEU
1	A	634	LEU
1	A	658	ASP
1	A	674	ARG
1	A	690	MET
1	A	696	GLN
1	A	703	GLN
1	A	705	TYR

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Mol	Chain	Res	Type
1	A	716	LYS
1	A	725	SER
1	A	733	GLU
1	A	734	LEU
1	A	735	THR
1	A	738	TYR
1	A	755	MET
1	A	781	LYS
1	A	795	ASN
1	A	821	ASN
1	A	838	SER
1	A	839	TYR
1	A	842	LYS
1	A	869	ASP
1	A	886	ASN
1	A	893	ASP
1	A	897	GLU
1	A	903	ASN
1	A	904	ASP
1	A	905	TYR
1	A	907	ILE
1	A	918	SER
1	A	930	ILE
1	A	938	THR
1	A	1002	ASP
1	A	1016	SER
1	A	1020	LEU
1	A	1027	ASP
1	A	1037	SER
1	A	1040	ARG
1	A	1045	ARG
1	A	1052	LYS
1	A	1053	GLU
1	A	1083	ASP
1	A	1088	LEU
1	A	1099	ASP
1	A	1103	ASP
1	A	1104	SER
1	A	1105	THR
1	A	1134	ASN
1	A	1143	ARG
1	A	1169	THR

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Mol	Chain	Res	Type
1	A	1170	ASN
1	A	1197	CYS
1	A	1205	ASN
1	A	1217	ASP
1	A	1230	ARG
1	A	1250	GLN
1	C	16	ARG
1	C	17	THR
1	C	19	LEU
1	C	50	THR
1	C	53	GLN
1	C	65	ASP
1	C	93	ARG
1	C	108	SER
1	C	121	ASP
1	C	122	ASN
1	C	136	PHE
1	C	144	LEU
1	C	180	SER
1	C	191	SER
1	C	194	PHE
1	C	196	ASP
1	C	197	ASN
1	C	201	GLU
1	C	221	LEU
1	C	230	THR
1	C	258	ASN
1	C	270	ASP
1	C	273	THR
1	C	278	ASP
1	C	281	LYS
1	C	290	GLN
1	C	301	ASP
1	C	305	GLU
1	C	326	ASP
1	C	336	GLU
1	C	348	ARG
1	C	354	GLN
1	C	402	ARG
1	C	421	ILE
1	C	422	ARG
1	C	428	GLU

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Mol	Chain	Res	Type
1	C	436	PHE
1	C	440	GLU
1	C	441	ASN
1	C	443	TYR
1	C	447	ASN
1	C	456	ASP
1	C	464	TYR
1	C	465	GLU
1	C	468	LEU
1	C	475	PHE
1	C	486	GLU
1	C	487	LYS
1	C	491	THR
1	C	506	THR
1	C	515	ASN
1	C	532	GLU
1	C	554	PHE
1	C	591	SER
1	C	598	ASP
1	C	608	LEU
1	C	625	LEU
1	C	634	LEU
1	C	658	ASP
1	C	690	MET
1	C	696	GLN
1	C	703	GLN
1	C	705	TYR
1	C	716	LYS
1	C	725	SER
1	C	733	GLU
1	C	734	LEU
1	C	735	THR
1	C	738	TYR
1	C	755	MET
1	C	781	LYS
1	C	795	ASN
1	C	821	ASN
1	C	831	THR
1	C	838	SER
1	C	839	TYR
1	C	842	LYS
1	C	869	ASP

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Mol	Chain	Res	Type
1	C	886	ASN
1	C	893	ASP
1	C	897	GLU
1	C	903	ASN
1	C	904	ASP
1	C	905	TYR
1	C	907	ILE
1	C	918	SER
1	C	930	ILE
1	C	938	THR
1	C	1002	ASP
1	C	1016	SER
1	C	1020	LEU
1	C	1027	ASP
1	C	1037	SER
1	C	1040	ARG
1	C	1045	ARG
1	C	1052	LYS
1	C	1053	GLU
1	C	1083	ASP
1	C	1088	LEU
1	C	1099	ASP
1	C	1103	ASP
1	C	1104	SER
1	C	1105	THR
1	C	1134	ASN
1	C	1143	ARG
1	C	1146	ASP
1	C	1169	THR
1	C	1170	ASN
1	C	1183	ARG
1	C	1197	CYS
1	C	1205	ASN
1	C	1217	ASP
1	C	1230	ARG
1	C	1250	GLN
1	E	16	ARG
1	E	17	THR
1	E	19	LEU
1	E	50	THR
1	E	53	GLN
1	E	65	ASP

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Mol	Chain	Res	Type
1	E	93	ARG
1	E	108	SER
1	E	121	ASP
1	E	122	ASN
1	E	136	PHE
1	E	144	LEU
1	E	180	SER
1	E	191	SER
1	E	194	PHE
1	E	196	ASP
1	E	197	ASN
1	E	201	GLU
1	E	221	LEU
1	E	230	THR
1	E	258	ASN
1	E	273	THR
1	E	278	ASP
1	E	281	LYS
1	E	290	GLN
1	E	305	GLU
1	E	326	ASP
1	E	336	GLU
1	E	348	ARG
1	E	354	GLN
1	E	367	SER
1	E	402	ARG
1	E	421	ILE
1	E	422	ARG
1	E	428	GLU
1	E	436	PHE
1	E	440	GLU
1	E	441	ASN
1	E	443	TYR
1	E	447	ASN
1	E	455	ASP
1	E	456	ASP
1	E	464	TYR
1	E	465	GLU
1	E	468	LEU
1	E	475	PHE
1	E	486	GLU
1	E	487	LYS

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Mol	Chain	Res	Type
1	E	491	THR
1	E	506	THR
1	E	532	GLU
1	E	554	PHE
1	E	591	SER
1	E	598	ASP
1	E	608	LEU
1	E	625	LEU
1	E	634	LEU
1	E	658	ASP
1	E	690	MET
1	E	696	GLN
1	E	703	GLN
1	E	705	TYR
1	E	716	LYS
1	E	725	SER
1	E	733	GLU
1	E	734	LEU
1	E	735	THR
1	E	738	TYR
1	E	755	MET
1	E	781	LYS
1	E	795	ASN
1	E	821	ASN
1	E	838	SER
1	E	839	TYR
1	E	842	LYS
1	E	869	ASP
1	E	886	ASN
1	E	893	ASP
1	E	897	GLU
1	E	903	ASN
1	E	904	ASP
1	E	905	TYR
1	E	907	ILE
1	E	918	SER
1	E	930	ILE
1	E	938	THR
1	E	1002	ASP
1	E	1016	SER
1	E	1020	LEU
1	E	1027	ASP

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Mol	Chain	Res	Type
1	E	1037	SER
1	E	1040	ARG
1	E	1045	ARG
1	E	1052	LYS
1	E	1053	GLU
1	E	1083	ASP
1	E	1088	LEU
1	E	1099	ASP
1	E	1103	ASP
1	E	1104	SER
1	E	1105	THR
1	E	1128	LYS
1	E	1134	ASN
1	E	1143	ARG
1	E	1169	THR
1	E	1170	ASN
1	E	1197	CYS
1	E	1205	ASN
1	E	1217	ASP
1	E	1230	ARG
1	E	1250	GLN
2	B	14	ASP
2	B	23	SER
2	B	41	ILE
2	B	63	ILE
2	B	68	PHE
2	B	70	SER
2	B	152	TYR
2	B	153	TYR
2	B	179	ASP
2	B	207	ASP
2	B	248	TYR
2	B	253	LYS
2	B	267	ASN
2	B	272	LYS
2	B	291	PHE
2	B	300	GLU
2	B	304	SER
2	B	319	ASN
2	B	335	TYR
2	B	351	THR
2	B	400	ASN

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Mol	Chain	Res	Type
2	B	435	GLU
2	B	438	TYR
2	B	453	ILE
2	B	481	ASN
2	B	483	SER
2	B	484	SER
2	B	491	SER
2	B	499	SER
2	B	504	THR
2	B	518	ASP
2	B	566	THR
2	B	570	PHE
2	B	580	ILE
2	B	588	ASN
2	B	593	LYS
2	B	601	SER
2	B	620	CYS
2	B	643	SER
2	B	656	VAL
2	B	678	SER
2	B	697	ARG
2	B	754	ASN
2	B	756	ASN
2	B	787	ASN
2	B	791	GLU
2	B	793	LEU
2	B	830	LYS
2	B	845	LEU
2	B	856	ASN
2	B	863	LEU
2	B	865	ASN
2	B	876	LEU
2	B	899	PHE
2	B	910	ASP
2	B	928	TRP
2	B	954	GLU
2	B	958	GLU
2	B	969	SER
2	B	974	ASN
2	B	986	ASN
2	B	987	LYS
2	B	1002	LEU

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Mol	Chain	Res	Type
2	B	1013	GLU
2	B	1024	PHE
2	B	1030	GLU
2	B	1075	ASP
2	B	1095	ASN
2	B	1097	ARG
2	B	1140	TYR
2	B	1142	TRP
2	B	1145	CYS
2	B	1147	LEU
2	B	1148	ASN
2	B	1158	TRP
2	D	14	ASP
2	D	23	SER
2	D	41	ILE
2	D	63	ILE
2	D	68	PHE
2	D	70	SER
2	D	152	TYR
2	D	153	TYR
2	D	207	ASP
2	D	248	TYR
2	D	253	LYS
2	D	258	THR
2	D	267	ASN
2	D	272	LYS
2	D	291	PHE
2	D	300	GLU
2	D	304	SER
2	D	319	ASN
2	D	335	TYR
2	D	351	THR
2	D	400	ASN
2	D	438	TYR
2	D	445	ASP
2	D	453	ILE
2	D	481	ASN
2	D	483	SER
2	D	484	SER
2	D	491	SER
2	D	499	SER
2	D	504	THR

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Mol	Chain	Res	Type
2	D	518	ASP
2	D	566	THR
2	D	570	PHE
2	D	580	ILE
2	D	588	ASN
2	D	593	LYS
2	D	601	SER
2	D	620	CYS
2	D	643	SER
2	D	656	VAL
2	D	678	SER
2	D	697	ARG
2	D	703	SER
2	D	754	ASN
2	D	756	ASN
2	D	787	ASN
2	D	791	GLU
2	D	793	LEU
2	D	830	LYS
2	D	845	LEU
2	D	863	LEU
2	D	865	ASN
2	D	876	LEU
2	D	899	PHE
2	D	910	ASP
2	D	928	TRP
2	D	954	GLU
2	D	958	GLU
2	D	969	SER
2	D	974	ASN
2	D	986	ASN
2	D	987	LYS
2	D	1002	LEU
2	D	1013	GLU
2	D	1024	PHE
2	D	1030	GLU
2	D	1075	ASP
2	D	1095	ASN
2	D	1097	ARG
2	D	1140	TYR
2	D	1142	TRP
2	D	1145	CYS

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Mol	Chain	Res	Type
2	D	1147	LEU
2	D	1148	ASN
2	D	1158	TRP
2	F	14	ASP
2	F	23	SER
2	F	41	ILE
2	F	56	ASP
2	F	63	ILE
2	F	68	PHE
2	F	70	SER
2	F	74	GLU
2	F	152	TYR
2	F	153	TYR
2	F	207	ASP
2	F	248	TYR
2	F	253	LYS
2	F	267	ASN
2	F	272	LYS
2	F	291	PHE
2	F	300	GLU
2	F	304	SER
2	F	319	ASN
2	F	335	TYR
2	F	351	THR
2	F	400	ASN
2	F	438	TYR
2	F	445	ASP
2	F	453	ILE
2	F	481	ASN
2	F	483	SER
2	F	484	SER
2	F	491	SER
2	F	499	SER
2	F	504	THR
2	F	518	ASP
2	F	566	THR
2	F	570	PHE
2	F	580	ILE
2	F	588	ASN
2	F	593	LYS
2	F	601	SER
2	F	620	CYS

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Mol	Chain	Res	Type
2	F	643	SER
2	F	656	VAL
2	F	678	SER
2	F	697	ARG
2	F	754	ASN
2	F	756	ASN
2	F	791	GLU
2	F	793	LEU
2	F	830	LYS
2	F	845	LEU
2	F	855	THR
2	F	856	ASN
2	F	863	LEU
2	F	865	ASN
2	F	876	LEU
2	F	899	PHE
2	F	910	ASP
2	F	928	TRP
2	F	954	GLU
2	F	958	GLU
2	F	969	SER
2	F	974	ASN
2	F	986	ASN
2	F	987	LYS
2	F	1002	LEU
2	F	1013	GLU
2	F	1024	PHE
2	F	1030	GLU
2	F	1075	ASP
2	F	1095	ASN
2	F	1097	ARG
2	F	1140	TYR
2	F	1142	TRP
2	F	1145	CYS
2	F	1147	LEU
2	F	1148	ASN
2	F	1158	TRP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (110) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	111	ASN

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Mol	Chain	Res	Type
1	A	122	ASN
1	A	125	HIS
1	A	195	ASN
1	A	197	ASN
1	A	204	GLN
1	A	235	GLN
1	A	261	ASN
1	A	379	ASN
1	A	441	ASN
1	A	661	ASN
1	A	669	ASN
1	A	711	GLN
1	A	957	ASN
1	A	1060	GLN
1	A	1170	ASN
1	A	1228	HIS
1	C	111	ASN
1	C	122	ASN
1	C	125	HIS
1	C	195	ASN
1	C	197	ASN
1	C	235	GLN
1	C	261	ASN
1	C	379	ASN
1	C	441	ASN
1	C	661	ASN
1	C	669	ASN
1	C	841	ASN
1	C	932	ASN
1	C	956	HIS
1	C	957	ASN
1	C	1060	GLN
1	C	1170	ASN
1	E	111	ASN
1	E	122	ASN
1	E	125	HIS
1	E	142	HIS
1	E	195	ASN
1	E	197	ASN
1	E	204	GLN
1	E	235	GLN
1	E	261	ASN

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Mol	Chain	Res	Type
1	E	379	ASN
1	E	441	ASN
1	E	661	ASN
1	E	669	ASN
1	E	711	GLN
1	E	932	ASN
1	E	956	HIS
1	E	957	ASN
1	E	1060	GLN
1	E	1170	ASN
1	E	1228	HIS
2	B	67	ASN
2	B	171	GLN
2	B	208	ASN
2	B	289	GLN
2	B	324	HIS
2	B	377	ASN
2	B	452	ASN
2	B	636	GLN
2	B	644	GLN
2	B	677	ASN
2	B	684	ASN
2	B	704	GLN
2	B	762	HIS
2	B	849	ASN
2	B	865	ASN
2	B	1003	ASN
2	B	1034	ASN
2	B	1130	ASN
2	B	1137	ASN
2	D	67	ASN
2	D	171	GLN
2	D	208	ASN
2	D	289	GLN
2	D	324	HIS
2	D	452	ASN
2	D	636	GLN
2	D	644	GLN
2	D	677	ASN
2	D	684	ASN
2	D	704	GLN
2	D	762	HIS

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Mol	Chain	Res	Type
2	D	849	ASN
2	D	865	ASN
2	D	925	ASN
2	D	1003	ASN
2	D	1034	ASN
2	D	1130	ASN
2	D	1137	ASN
2	F	67	ASN
2	F	92	ASN
2	F	171	GLN
2	F	208	ASN
2	F	289	GLN
2	F	324	HIS
2	F	452	ASN
2	F	636	GLN
2	F	644	GLN
2	F	677	ASN
2	F	684	ASN
2	F	704	GLN
2	F	762	HIS
2	F	865	ASN
2	F	1003	ASN
2	F	1034	ASN
2	F	1130	ASN
2	F	1137	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 3 ligands modelled in this entry, 3 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

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, 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	1235/1252 (98%)	-0.69	1 (0%) 95 91	53, 120, 189, 296	0
1	C	1235/1252 (98%)	-0.66	3 (0%) 95 89	46, 129, 207, 364	0
1	E	1235/1252 (98%)	-0.67	5 (0%) 92 82	62, 143, 214, 391	0
2	B	1114/1163 (95%)	-0.69	1 (0%) 95 91	37, 109, 179, 274	0
2	D	1114/1163 (95%)	-0.68	4 (0%) 92 82	48, 129, 194, 278	0
2	F	1114/1163 (95%)	-0.61	10 (0%) 84 66	51, 143, 220, 328	0
All	All	7047/7245 (97%)	-0.67	24 (0%) 94 85	37, 129, 203, 391	0

All (24) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	657	SER	9.4
1	E	655	GLY	7.5
1	E	657	SER	7.4
2	B	275	ASN	6.8
1	E	656	SER	4.7
2	F	852	ILE	4.4
1	E	658	ASP	4.2
1	C	656	SER	3.9
2	F	434	ASP	3.7
2	F	1158	TRP	3.4
1	C	803	ILE	3.4
1	E	420	GLY	3.2
2	F	843	ILE	3.2
1	A	498	ILE	2.9
2	D	275	ASN	2.8
2	F	275	ASN	2.3
2	F	279	ILE	2.2
2	F	278	TYR	2.2
2	F	380	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
2	D	843	ILE	2.1
2	D	1158	TRP	2.1
2	F	873	LEU	2.1
2	F	979	ILE	2.0
2	D	863	LEU	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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	B-factors(\AA^2)	Q<0.9
3	ZN	C	1301	1/1	0.98	0.17	83,83,83,83	0
3	ZN	E	1301	1/1	0.98	0.14	99,99,99,99	0
3	ZN	A	1301	1/1	0.99	0.18	86,86,86,86	0

6.5 Other polymers [i](#)

There are no such residues in this entry.