



Full wwPDB EM Validation Report ⓘ

Jun 16, 2025 – 10:45 PM JST

PDB ID : 7EYB / pdb_00007eyb
EMDB ID : EMD-31317
Title : core proteins
Authors : Liu, H.R.; Chen, W.Y.
Deposited on : 2021-05-30
Resolution : 3.70 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>

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:

EMDB validation analysis : 0.0.1.dev118
MolProbity : 4-5-2 with Phenix2.0rc1
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.44

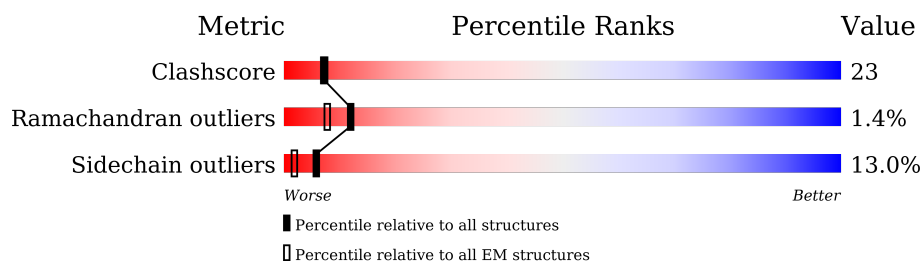
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.70 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)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	a	196	<div> <div>22%</div> <div>24% 15% • 60%</div> </div>
1	b	196	<div> <div>18%</div> <div>22% 15% • 60%</div> </div>
1	c	196	<div> <div>22%</div> <div>23% 15% • 60%</div> </div>
1	d	196	<div> <div>19%</div> <div>23% 15% • 60%</div> </div>
1	e	196	<div> <div>21%</div> <div>23% 15% • 60%</div> </div>
1	f	196	<div> <div>19%</div> <div>23% 15% • 60%</div> </div>
1	g	196	<div> <div>21%</div> <div>23% 15% • 60%</div> </div>
1	h	196	<div> <div>19%</div> <div>23% 15% • 60%</div> </div>

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Mol	Chain	Length	Quality of chain
2	A	747	
2	B	747	
2	C	747	
2	D	747	
2	E	747	
2	F	747	
2	G	747	
2	H	747	
3	I	1318	
3	J	1318	
3	K	1318	
3	L	1318	

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 78184 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Internal virion protein gp14.

Mol	Chain	Residues	Atoms				AltConf	Trace
1	a	78	Total	C	N	O	0	0
			387	231	78	78		
1	b	78	Total	C	N	O	0	0
			387	231	78	78		
1	c	78	Total	C	N	O	0	0
			387	231	78	78		
1	d	78	Total	C	N	O	0	0
			387	231	78	78		
1	e	78	Total	C	N	O	0	0
			387	231	78	78		
1	f	78	Total	C	N	O	0	0
			387	231	78	78		
1	g	78	Total	C	N	O	0	0
			387	231	78	78		
1	h	78	Total	C	N	O	0	0
			387	231	78	78		

- Molecule 2 is a protein called Internal virion protein gp15.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		
2	B	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		
2	C	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		
2	D	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		
2	E	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		
2	F	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		
2	G	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		

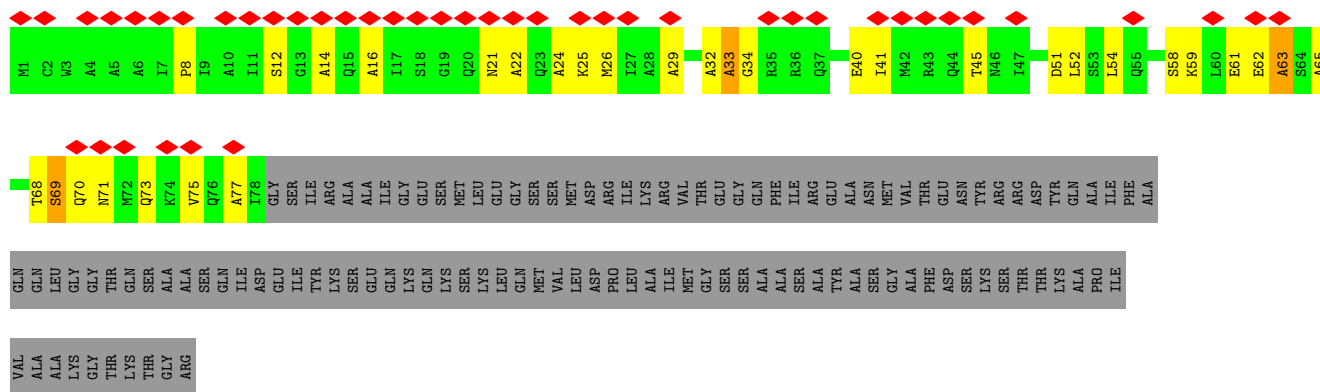
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Mol	Chain	Residues	Atoms					AltConf	Trace
2	H	647	Total	C	N	O	S	0	0
			5148	3184	904	1031	29		

- Molecule 3 is a protein called Peptidoglycan transglycosylase gp16.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	I	1101	Total	C	N	O	S	0	0
			8476	5312	1492	1628	44		
3	J	1101	Total	C	N	O	S	0	0
			8476	5312	1492	1628	44		
3	K	1101	Total	C	N	O	S	0	0
			8476	5312	1492	1628	44		
3	L	1101	Total	C	N	O	S	0	0
			8476	5312	1492	1628	44		



• Molecule 1: Internal virion protein gp14

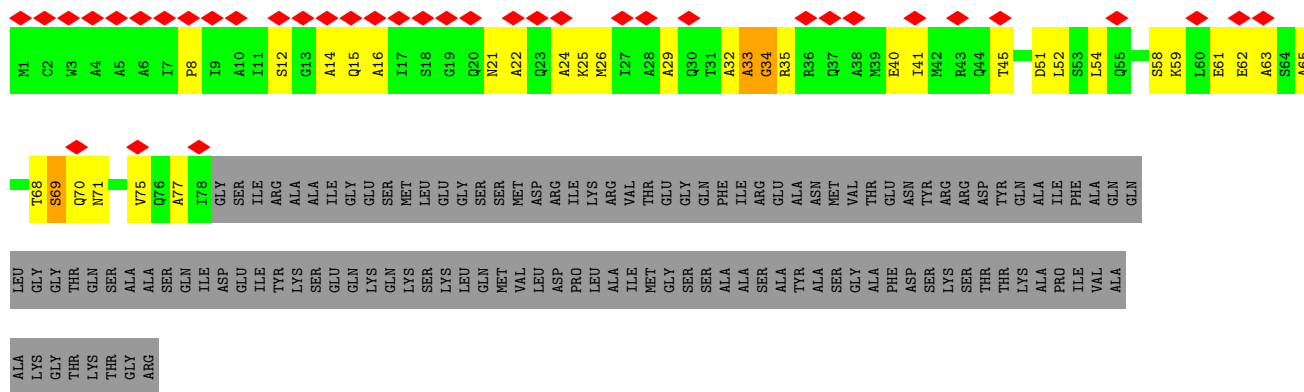


• Molecule 1: Internal virion protein gp14

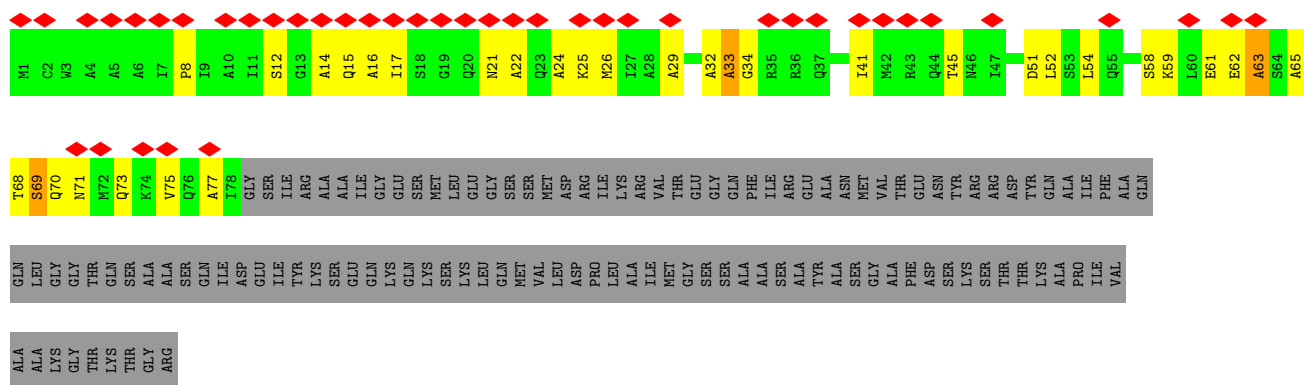


• Molecule 1: Internal virion protein gp14

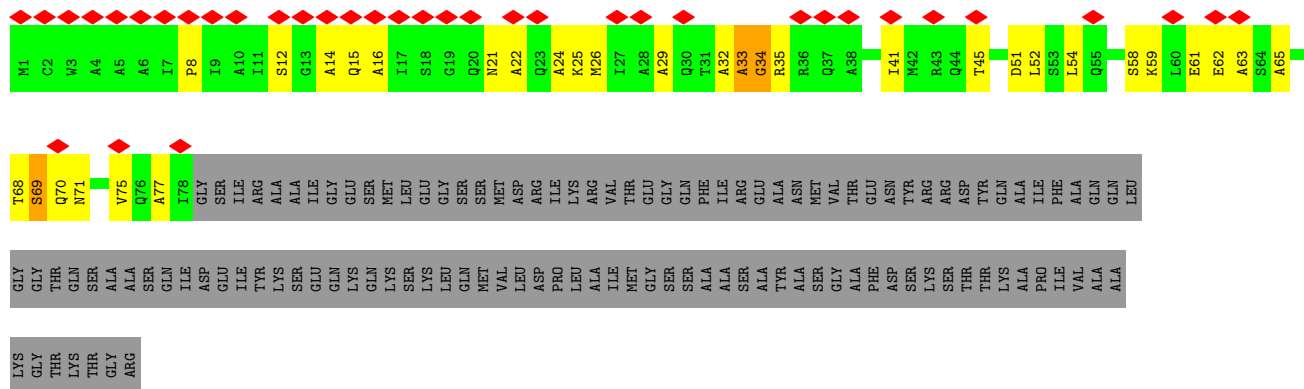




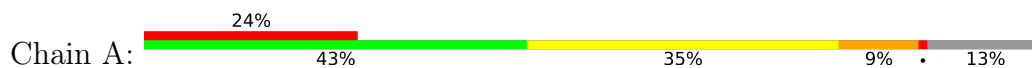
• Molecule 1: Internal virion protein gp14

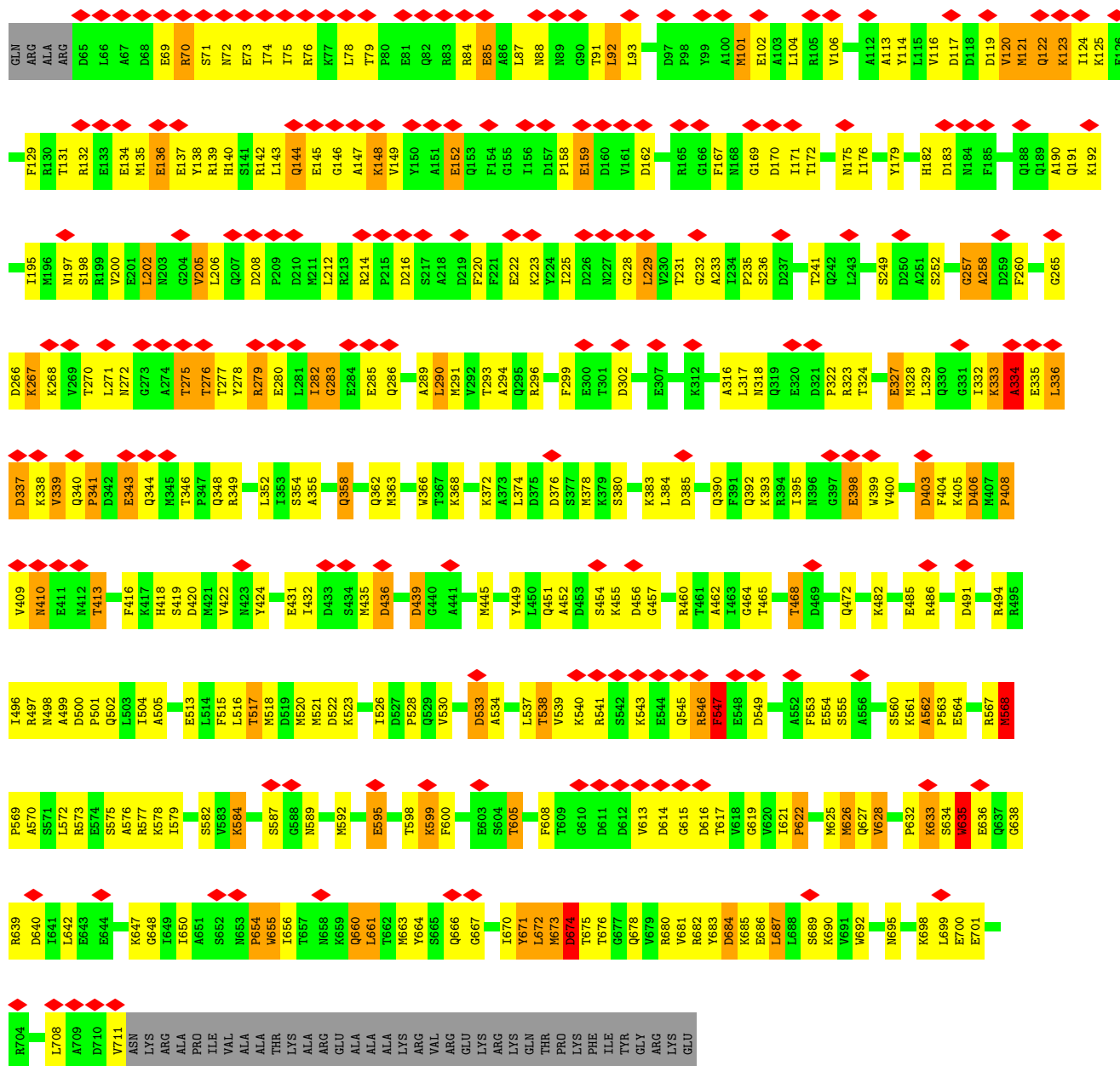


• Molecule 1: Internal virion protein gp14

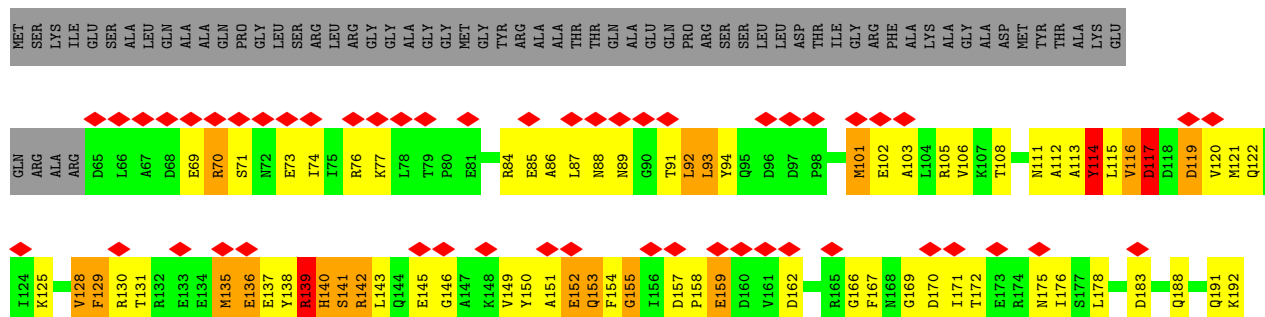


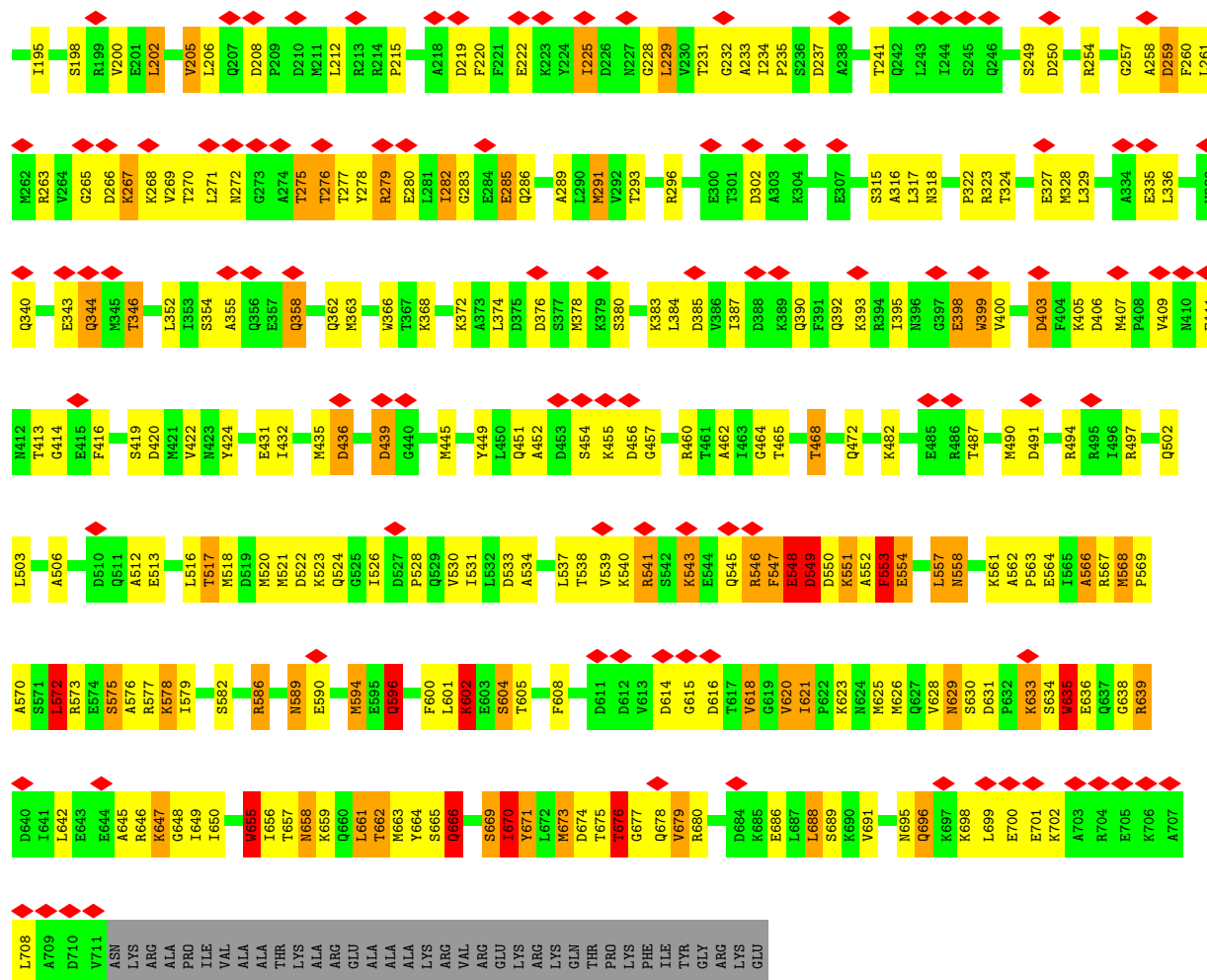
• Molecule 2: Internal virion protein gp15



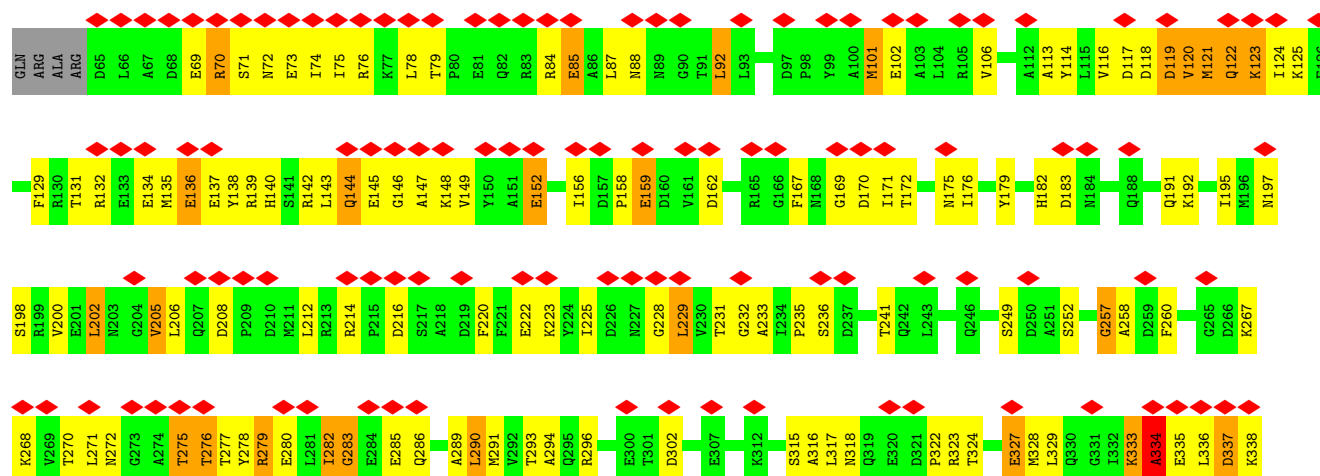


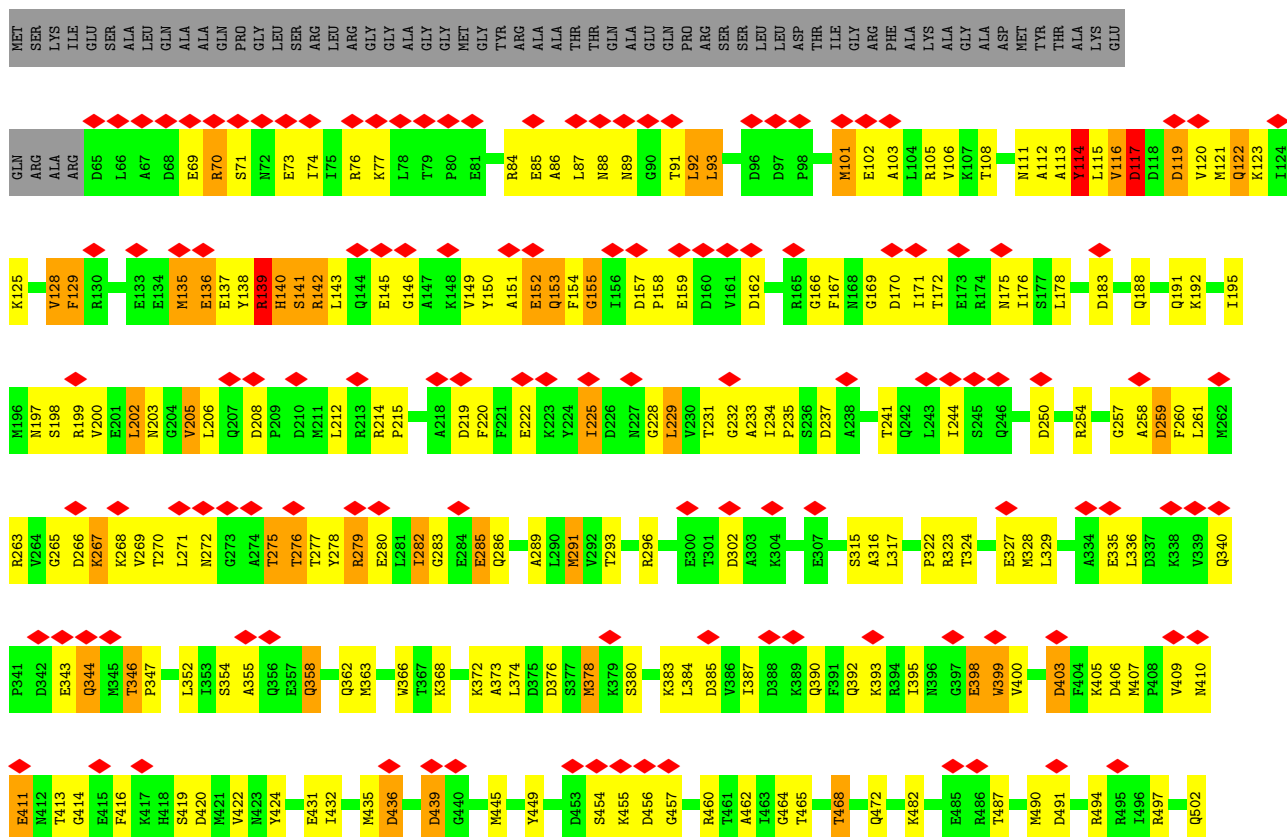
• Molecule 2: Internal virion protein gp15

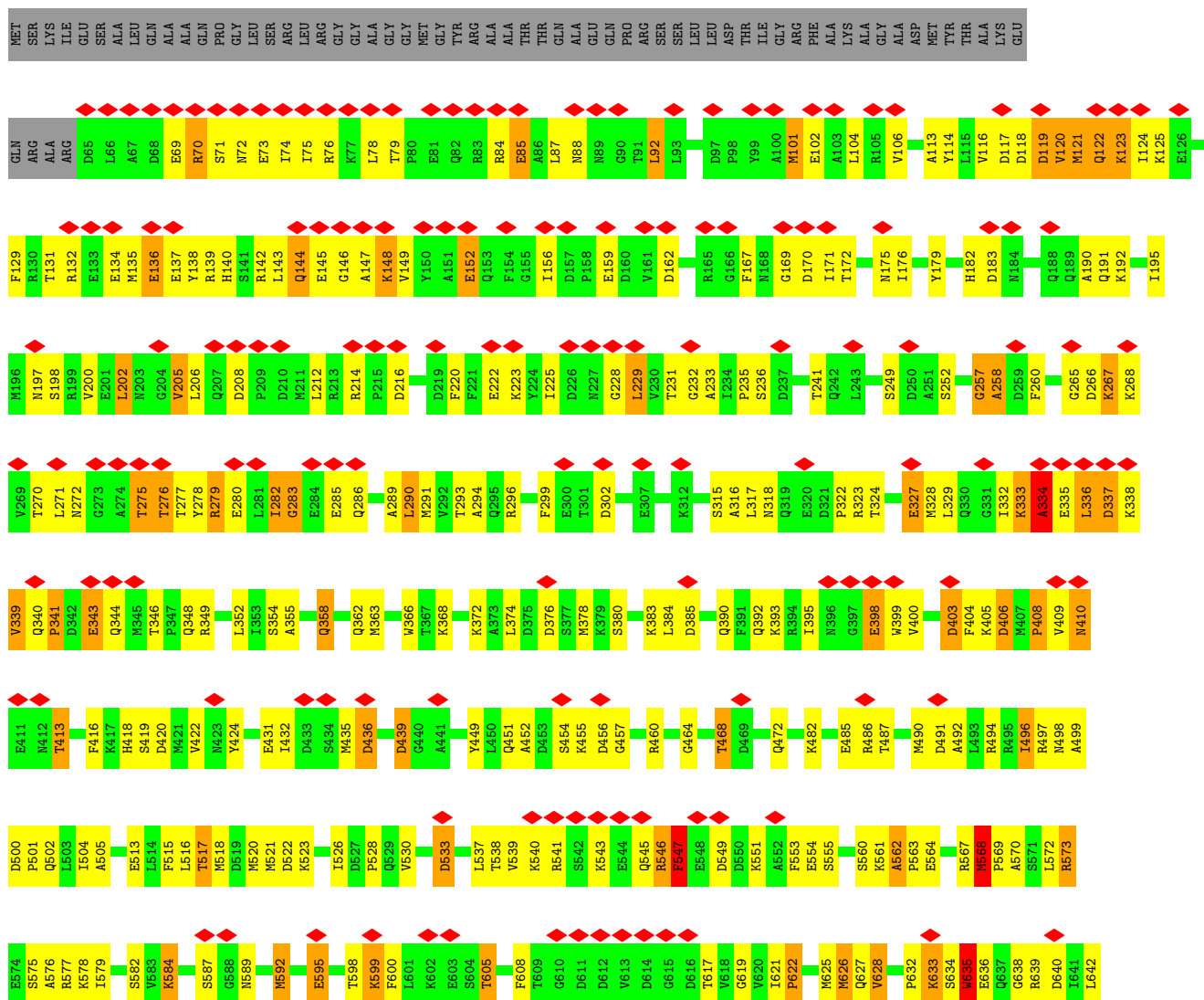


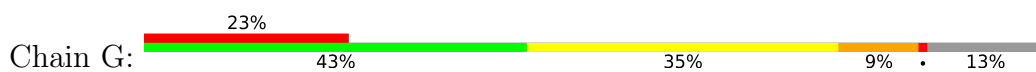


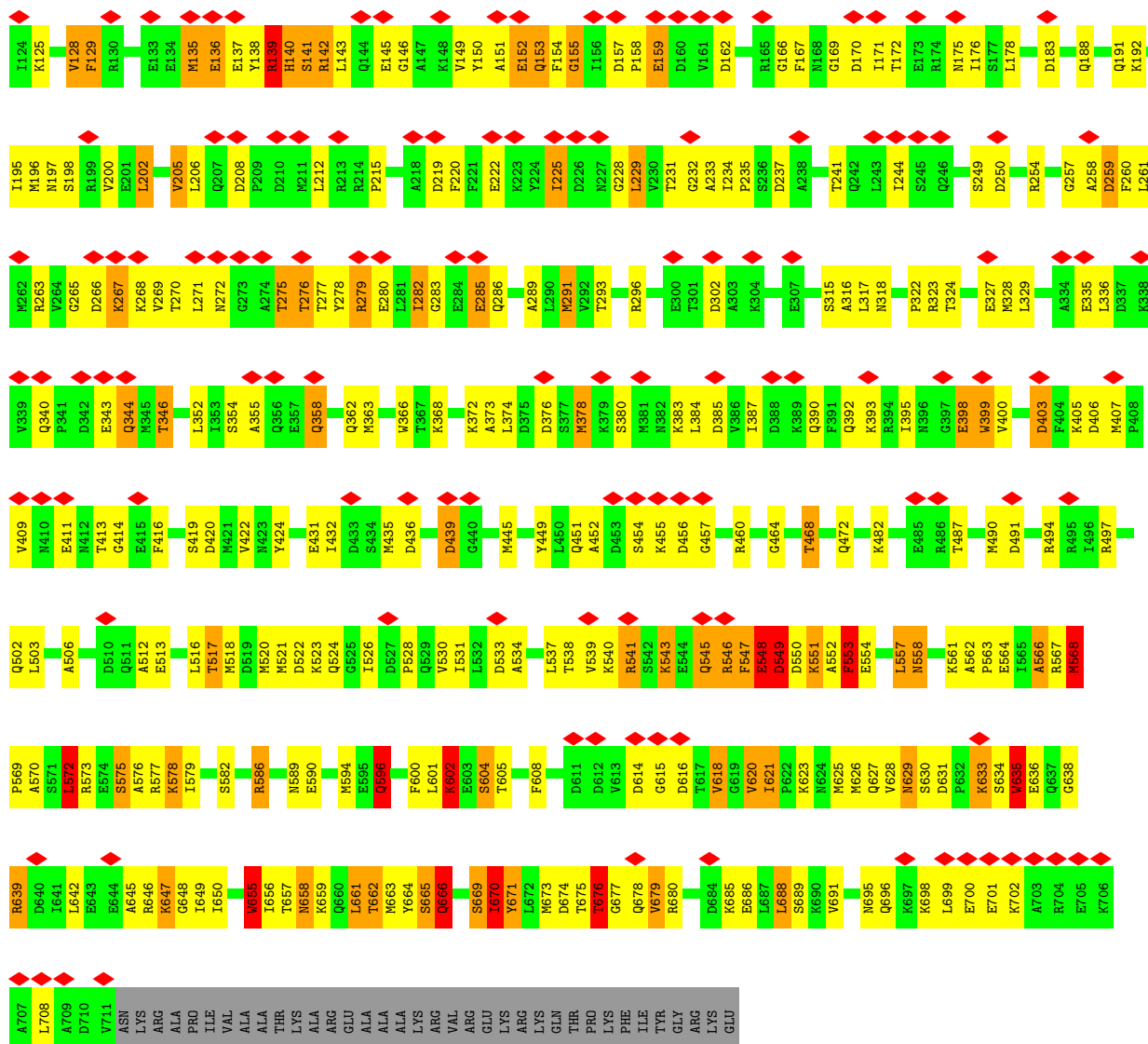
• Molecule 2: Internal virion protein gp15



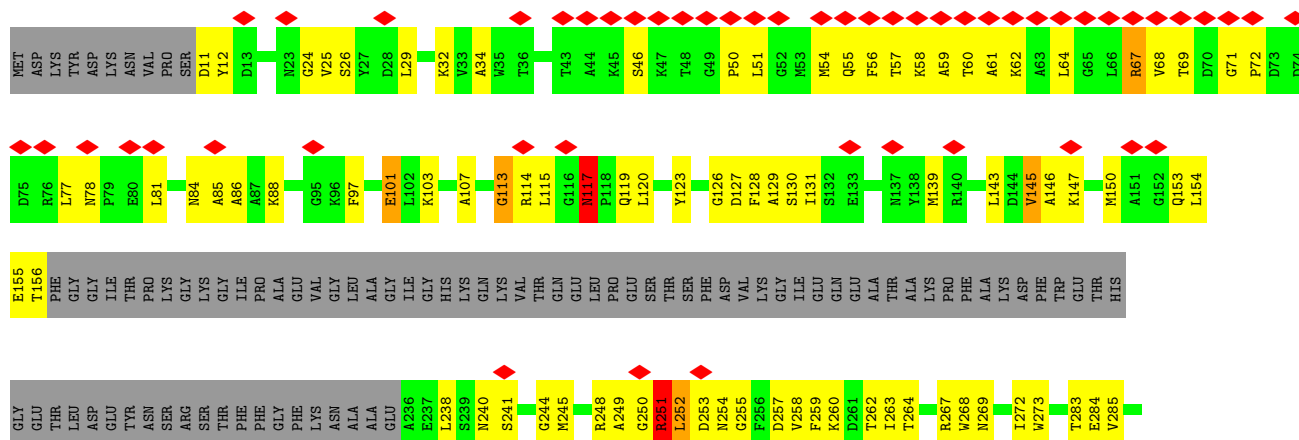




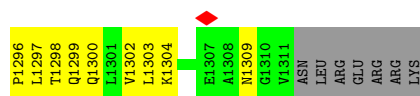




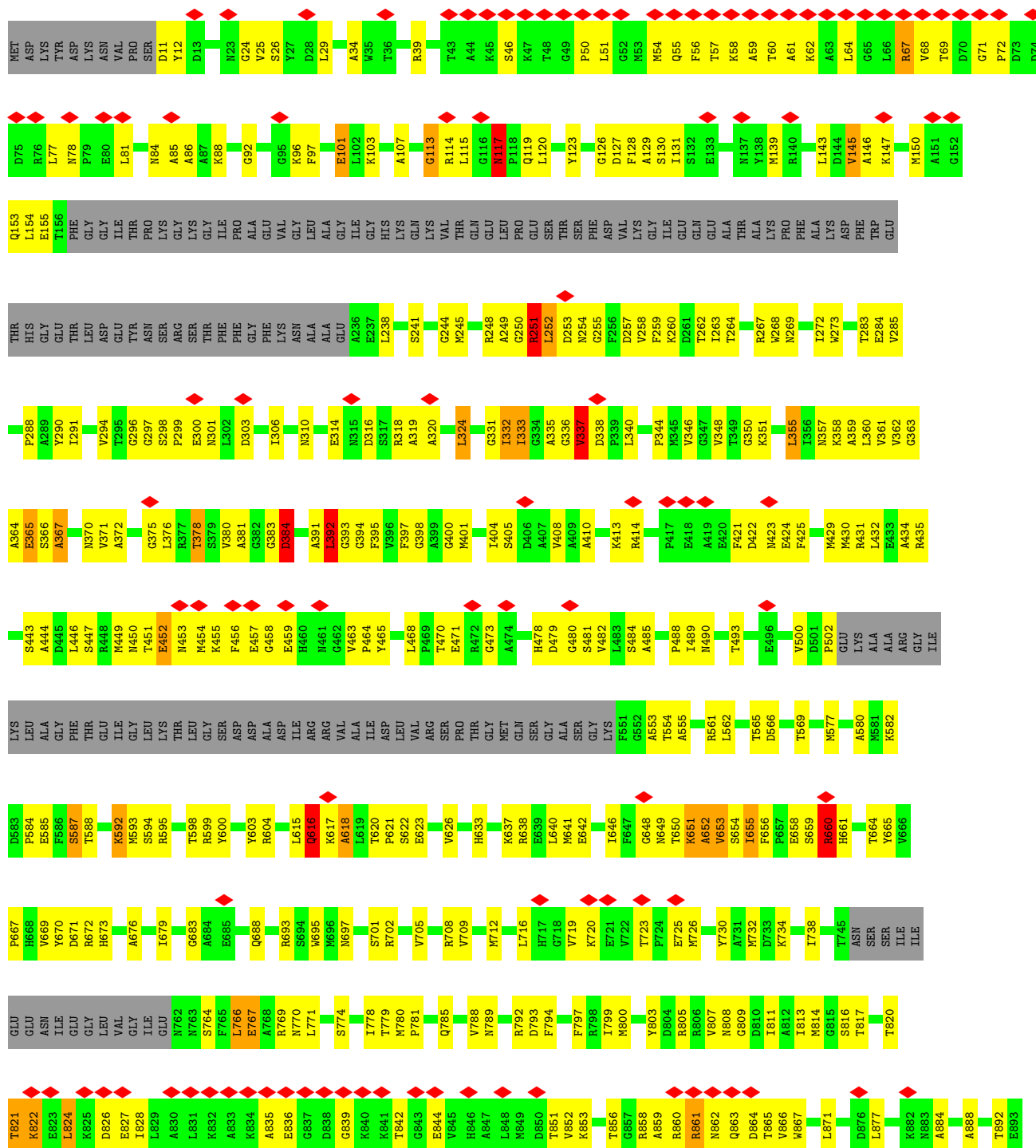
• Molecule 3: Peptidoglycan transglycosylase gp16

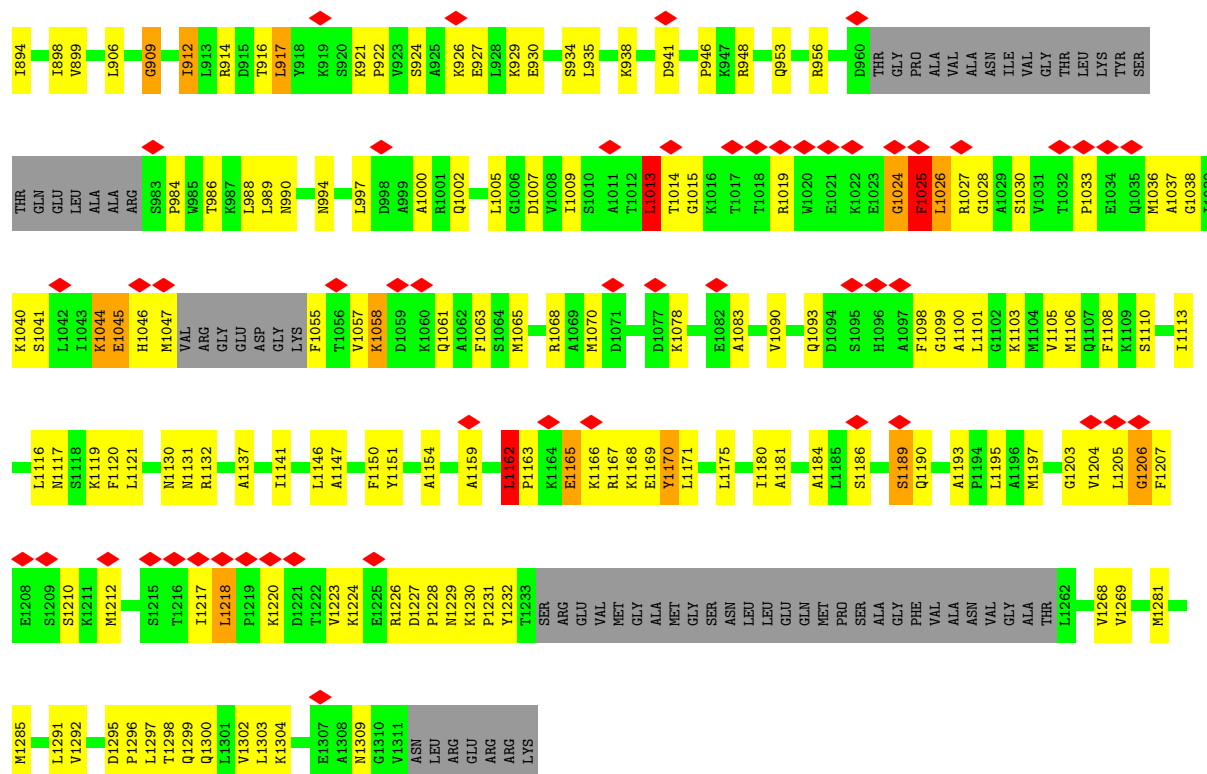




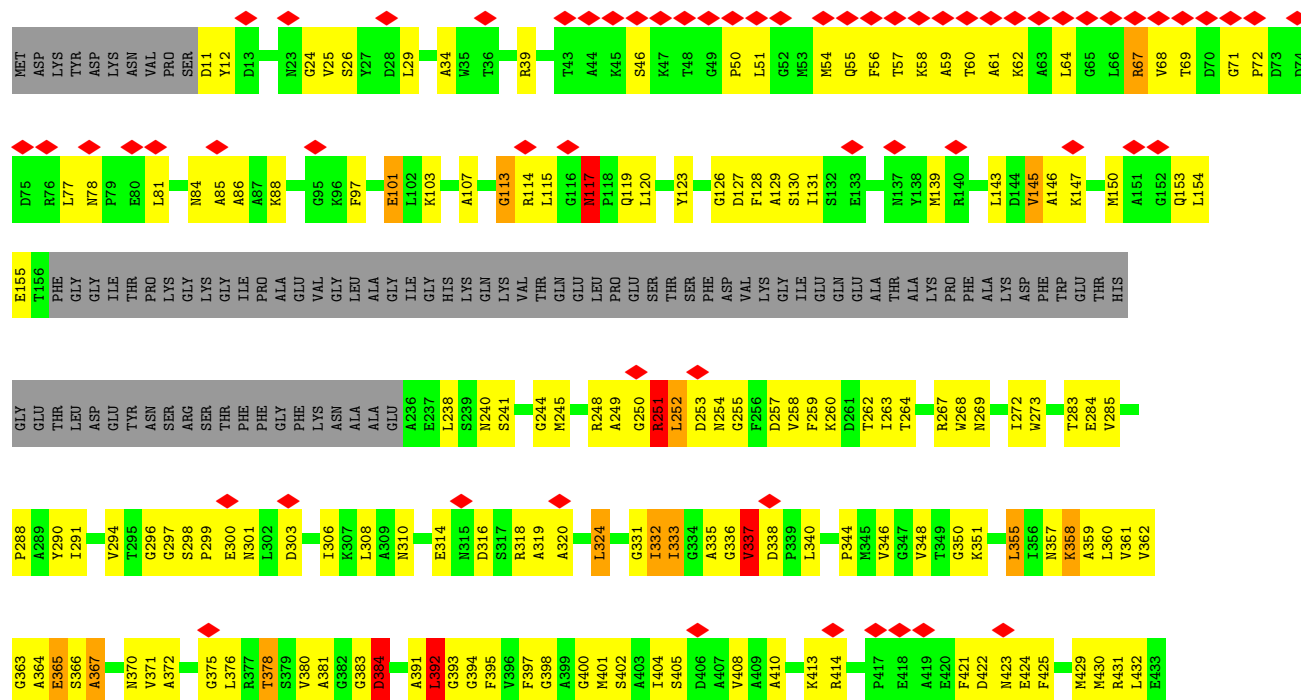


● Molecule 3: Peptidoglycan transglycosylase gp16





• Molecule 3: Peptidoglycan transglycosylase gp16







I1039	K1040	S1041	L1042	T1043	K1044	E1045	H1046	M1047	VAL	ARG	GLY	GLU	ASP	GLY	LYS	F1055	T1056	V1057	K1058	D1059	K1060	Q1061	A1062	F1063	S1064	M1065	R1068	A1069	M1070	D1071	L1072	V1073	D1077	K1078	E1082	A1083	V1090	Q1093	D1094	S1095	H1096	A1097	F1098	G1099	A1100	L1101	G1102	K1103	M1104	V1105	M1106	Q1107	F1108	K1109			
S1110	I1113	L1116	N1117	S1118	K1119	F1120	L1121	N1130	N1131	R1132	A1137	I1141	L1146	A1147	F1150	Y1151	A1154	A1159	L1162	P1163	K1164	E1165	K1166	R1167	K1168	E1169	Y1170	L1171	L1175	I1180	A1181	A1184	L1185	S1186	R1187	S1188	S1189	Q1190	A1193	P1194	L1195	A1196	M1197	G1203													
V1204	L1205	G1206	F1207	E1208	S1209	S1210	K1211	M1212	S1215	T1216	I1217	L1218	P1219	K1220	D1221	T1222	V1223	K1224	E1225	R1226	D1227	P1228	N1229	K1230	P1231	Y1232	T1233	SER	ARG	GLU	VAL	MET	GLY	ALA	MET	GLY	SER	ASN	LEU	LEU	GLU	GLN	MET	PRO	SER	ALA	GLY	PHE	VAL	ALA	ASN	VAL	GLY	ALA	THR	L1262	V1268
V1269	M1281	M1285	L1291	V1292	D1295	P1296	L1297	T1298	Q1299	Q1300	L1301	V1302	L1303	K1304	E1307	A1308	N1309	G1310	V1311	ASN	LEU	ARG	GLU	ARG	ARG	ARG	LYS																														

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	74984	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TECNAI ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	72.374	Depositor
Minimum map value	-46.971	Depositor
Average map value	0.038	Depositor
Map value standard deviation	2.961	Depositor
Recommended contour level	11	Depositor
Map size (\AA)	406.4, 406.4, 406.4	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.27, 1.27, 1.27	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	a	1.45	4/386 (1.0%)	1.89	18/537 (3.4%)
1	b	1.45	4/386 (1.0%)	1.88	20/537 (3.7%)
1	c	1.45	4/386 (1.0%)	1.88	19/537 (3.5%)
1	d	1.45	4/386 (1.0%)	1.88	20/537 (3.7%)
1	e	1.45	4/386 (1.0%)	1.89	19/537 (3.5%)
1	f	1.45	4/386 (1.0%)	1.88	20/537 (3.7%)
1	g	1.46	4/386 (1.0%)	1.90	19/537 (3.5%)
1	h	1.45	4/386 (1.0%)	1.88	19/537 (3.5%)
2	A	0.73	3/5226 (0.1%)	1.09	53/7039 (0.8%)
2	B	0.87	9/5226 (0.2%)	1.11	49/7039 (0.7%)
2	C	0.73	3/5226 (0.1%)	1.09	52/7039 (0.7%)
2	D	0.87	9/5226 (0.2%)	1.11	49/7039 (0.7%)
2	E	0.73	4/5226 (0.1%)	1.09	53/7039 (0.8%)
2	F	0.88	9/5226 (0.2%)	1.11	49/7039 (0.7%)
2	G	0.73	3/5226 (0.1%)	1.09	51/7039 (0.7%)
2	H	0.88	10/5226 (0.2%)	1.11	49/7039 (0.7%)
3	I	0.65	4/8620 (0.0%)	1.01	82/11617 (0.7%)
3	J	0.65	5/8620 (0.1%)	1.01	84/11617 (0.7%)
3	K	0.65	4/8620 (0.0%)	1.01	85/11617 (0.7%)
3	L	0.65	5/8620 (0.1%)	1.01	82/11617 (0.7%)
All	All	0.78	100/79376 (0.1%)	1.10	892/107076 (0.8%)

All (100) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	J	355	LEU	CA-C	-9.05	1.43	1.53
3	L	355	LEU	CA-C	-9.03	1.43	1.53
3	I	355	LEU	CA-C	-9.02	1.43	1.53
3	K	355	LEU	CA-C	-9.02	1.43	1.53
2	G	114	TYR	C-O	-7.05	1.15	1.24
2	A	114	TYR	C-O	-7.04	1.15	1.24
2	E	114	TYR	C-O	-7.04	1.15	1.24
2	C	114	TYR	C-O	-7.03	1.15	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	D	662	THR	CA-C	-6.88	1.44	1.52
2	B	662	THR	CA-C	-6.87	1.44	1.52
2	F	662	THR	CA-C	-6.87	1.44	1.52
2	H	662	THR	CA-C	-6.87	1.44	1.52
3	I	319	ALA	CA-C	-6.72	1.43	1.52
3	K	319	ALA	CA-C	-6.72	1.43	1.52
3	L	319	ALA	CA-C	-6.72	1.43	1.52
3	J	319	ALA	CA-C	-6.64	1.43	1.52
2	H	497	ARG	C-O	-6.63	1.16	1.24
2	B	497	ARG	C-O	-6.59	1.16	1.24
2	D	497	ARG	C-O	-6.59	1.16	1.24
2	F	497	ARG	C-O	-6.59	1.16	1.24
3	I	264	THR	CA-C	-6.05	1.44	1.52
3	J	264	THR	CA-C	-6.05	1.44	1.52
3	K	264	THR	CA-C	-6.00	1.44	1.52
3	L	264	THR	CA-C	-6.00	1.44	1.52
2	D	566	ALA	CA-C	-5.95	1.45	1.53
2	B	566	ALA	CA-C	-5.90	1.45	1.53
2	F	566	ALA	CA-C	-5.90	1.45	1.53
2	H	566	ALA	CA-C	-5.90	1.45	1.53
2	E	121	MET	CA-C	-5.78	1.45	1.52
2	B	114	TYR	C-O	-5.77	1.16	1.24
1	h	24	ALA	CA-C	-5.75	1.45	1.52
2	D	114	TYR	C-O	-5.75	1.16	1.24
2	F	114	TYR	C-O	-5.75	1.16	1.24
2	H	114	TYR	C-O	-5.73	1.16	1.24
1	a	24	ALA	CA-C	-5.70	1.45	1.52
1	b	24	ALA	CA-C	-5.69	1.45	1.52
1	d	33	ALA	CA-C	-5.65	1.45	1.52
1	f	24	ALA	CA-C	-5.63	1.45	1.52
2	G	121	MET	CA-C	-5.62	1.45	1.52
1	g	24	ALA	CA-C	-5.62	1.45	1.52
1	d	24	ALA	CA-C	-5.61	1.45	1.52
1	c	24	ALA	CA-C	-5.57	1.45	1.52
2	A	121	MET	CA-C	-5.57	1.45	1.52
1	a	33	ALA	CA-C	-5.57	1.45	1.52
1	f	68	THR	CA-C	-5.56	1.45	1.52
2	C	121	MET	CA-C	-5.55	1.45	1.52
2	A	334	ALA	C-O	5.55	1.30	1.24
2	C	334	ALA	C-O	5.54	1.30	1.24
2	G	334	ALA	C-O	5.54	1.30	1.24
2	E	334	ALA	C-O	5.53	1.30	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	d	68	THR	CA-C	-5.51	1.45	1.52
2	B	117	ASP	CA-C	-5.51	1.45	1.52
2	D	117	ASP	CA-C	-5.51	1.45	1.52
2	H	117	ASP	CA-C	-5.51	1.45	1.52
1	f	33	ALA	CA-C	-5.51	1.45	1.52
1	h	33	ALA	CA-C	-5.50	1.45	1.52
1	c	33	ALA	CA-C	-5.49	1.45	1.52
1	c	68	THR	CA-C	-5.47	1.46	1.52
1	e	33	ALA	CA-C	-5.47	1.45	1.52
1	b	33	ALA	CA-C	-5.46	1.45	1.52
2	F	117	ASP	CA-C	-5.46	1.45	1.52
1	e	24	ALA	CA-C	-5.45	1.45	1.52
1	g	59	LYS	CA-C	-5.45	1.48	1.53
1	g	33	ALA	CA-C	-5.45	1.46	1.52
1	h	68	THR	CA-C	-5.43	1.46	1.52
1	e	68	THR	CA-C	-5.41	1.46	1.52
1	a	59	LYS	CA-C	-5.40	1.48	1.53
1	f	59	LYS	CA-C	-5.38	1.48	1.53
1	g	68	THR	CA-C	-5.37	1.46	1.52
3	I	652	ALA	CA-C	-5.37	1.45	1.52
1	a	68	THR	CA-C	-5.35	1.46	1.52
3	L	652	ALA	CA-C	-5.35	1.45	1.52
1	h	59	LYS	CA-C	-5.35	1.48	1.53
1	b	68	THR	CA-C	-5.34	1.46	1.52
3	J	652	ALA	CA-C	-5.34	1.45	1.52
3	K	652	ALA	CA-C	-5.34	1.45	1.52
2	B	568	MET	CA-C	-5.33	1.46	1.52
1	c	59	LYS	CA-C	-5.28	1.48	1.53
2	H	568	MET	CA-C	-5.27	1.46	1.52
1	e	59	LYS	CA-C	-5.27	1.48	1.53
2	D	568	MET	CA-C	-5.27	1.46	1.52
1	b	59	LYS	CA-C	-5.21	1.48	1.53
2	F	568	MET	CA-C	-5.21	1.46	1.52
2	B	639	ARG	C-O	-5.19	1.17	1.24
2	D	639	ARG	C-O	-5.19	1.17	1.24
2	H	639	ARG	C-O	-5.19	1.17	1.24
2	F	639	ARG	C-O	-5.18	1.17	1.24
2	H	497	ARG	CA-C	-5.17	1.46	1.52
2	B	497	ARG	CA-C	-5.14	1.46	1.52
2	D	497	ARG	CA-C	-5.14	1.46	1.52
2	F	497	ARG	CA-C	-5.14	1.46	1.52
1	d	59	LYS	CA-C	-5.13	1.48	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L	1165	GLU	CA-C	-5.05	1.46	1.52
2	B	119	ASP	CA-C	-5.05	1.46	1.52
2	F	119	ASP	CA-C	-5.05	1.46	1.52
2	E	573	ARG	CA-C	-5.02	1.46	1.52
2	H	665	SER	CA-C	-5.01	1.46	1.52
3	J	1165	GLU	CA-C	-5.01	1.46	1.52
2	D	119	ASP	CA-C	-5.01	1.46	1.52
2	H	119	ASP	CA-C	-5.01	1.46	1.52

All (892) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	1025	PHE	N-CA-C	-12.30	98.67	112.57
3	K	1025	PHE	N-CA-C	-12.30	98.67	112.57
3	I	1025	PHE	N-CA-C	-12.24	98.73	112.57
3	L	1025	PHE	N-CA-C	-12.24	98.73	112.57
3	J	1165	GLU	N-CA-C	-12.11	92.06	110.10
3	I	1165	GLU	N-CA-C	-12.10	92.07	110.10
3	K	1165	GLU	N-CA-C	-12.09	92.09	110.10
3	L	1165	GLU	N-CA-C	-12.09	92.09	110.10
2	E	568	MET	CA-C-N	-12.02	107.71	119.85
2	E	568	MET	C-N-CA	-12.02	107.71	119.85
2	C	568	MET	CA-C-N	-12.01	107.72	119.85
2	C	568	MET	C-N-CA	-12.01	107.72	119.85
2	A	568	MET	CA-C-N	-11.96	107.77	119.85
2	A	568	MET	C-N-CA	-11.96	107.77	119.85
2	G	568	MET	CA-C-N	-11.96	107.77	119.85
2	G	568	MET	C-N-CA	-11.96	107.77	119.85
2	G	279	ARG	N-CA-C	-11.36	98.89	111.28
2	A	279	ARG	N-CA-C	-11.32	98.94	111.28
2	E	279	ARG	N-CA-C	-11.30	98.96	111.28
2	F	279	ARG	N-CA-C	-11.29	98.98	111.28
2	C	279	ARG	N-CA-C	-11.26	99.01	111.28
2	D	279	ARG	N-CA-C	-11.25	99.01	111.28
2	H	279	ARG	N-CA-C	-11.25	99.02	111.28
2	B	279	ARG	N-CA-C	-11.24	99.03	111.28
3	K	858	ARG	N-CA-C	-10.55	99.75	111.14
3	J	858	ARG	N-CA-C	-10.53	99.76	111.14
3	I	858	ARG	N-CA-C	-10.52	99.78	111.14
3	K	909	GLY	N-CA-C	10.51	125.35	112.73
3	L	858	ARG	N-CA-C	-10.48	99.83	111.14
2	A	343	GLU	N-CA-C	10.26	122.05	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	343	GLU	N-CA-C	10.25	122.03	111.07
2	G	343	GLU	N-CA-C	10.20	121.98	111.07
1	g	63	ALA	N-CA-C	-10.18	100.15	111.14
1	e	63	ALA	N-CA-C	-10.17	100.15	111.14
1	h	63	ALA	N-CA-C	-10.17	100.15	111.14
1	c	63	ALA	N-CA-C	-10.15	100.18	111.14
2	E	343	GLU	N-CA-C	10.15	121.93	111.07
1	a	63	ALA	N-CA-C	-10.14	100.19	111.14
1	d	63	ALA	N-CA-C	-10.14	100.19	111.14
1	b	63	ALA	N-CA-C	-10.11	100.22	111.14
1	f	63	ALA	N-CA-C	-10.08	100.25	111.14
3	I	909	GLY	N-CA-C	9.78	125.29	112.77
3	L	909	GLY	N-CA-C	9.78	125.29	112.77
3	J	909	GLY	N-CA-C	9.77	125.27	112.77
2	G	121	MET	N-CA-C	-9.66	100.73	111.07
2	E	121	MET	N-CA-C	-9.63	100.76	111.07
2	A	121	MET	N-CA-C	-9.62	100.78	111.07
2	F	604	SER	N-CA-C	9.62	122.98	111.82
2	C	121	MET	N-CA-C	-9.61	100.78	111.07
2	B	604	SER	N-CA-C	9.59	122.94	111.82
2	H	604	SER	N-CA-C	9.57	122.92	111.82
2	D	604	SER	N-CA-C	9.56	122.91	111.82
2	A	633	LYS	N-CA-C	-9.55	100.74	111.82
2	E	633	LYS	N-CA-C	-9.50	100.80	111.82
2	C	633	LYS	N-CA-C	-9.46	100.85	111.82
2	D	655	TRP	N-CA-C	-9.45	100.98	111.28
2	F	655	TRP	N-CA-C	-9.45	100.98	111.28
2	G	633	LYS	N-CA-C	-9.43	100.88	111.82
2	B	655	TRP	N-CA-C	-9.42	101.01	111.28
3	K	1169	GLU	N-CA-C	-9.42	101.02	111.28
3	J	1169	GLU	N-CA-C	-9.41	101.02	111.28
3	I	1169	GLU	N-CA-C	-9.39	101.05	111.28
2	H	655	TRP	N-CA-C	-9.39	101.05	111.28
3	L	1169	GLU	N-CA-C	-9.38	101.06	111.28
1	h	61	GLU	N-CA-C	-9.32	101.60	113.16
3	J	656	PHE	N-CA-C	9.31	120.30	109.60
3	K	656	PHE	N-CA-C	9.27	120.26	109.60
3	I	656	PHE	N-CA-C	9.24	120.22	109.60
3	L	656	PHE	N-CA-C	9.21	120.19	109.60
1	f	61	GLU	N-CA-C	-9.21	101.74	113.16
1	g	61	GLU	N-CA-C	-9.18	101.77	113.16
1	a	61	GLU	N-CA-C	-9.18	101.78	113.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	e	61	GLU	N-CA-C	-9.18	101.78	113.16
1	b	61	GLU	N-CA-C	-9.16	101.81	113.16
1	c	61	GLU	N-CA-C	-9.14	101.82	113.16
1	d	61	GLU	N-CA-C	-9.13	101.84	113.16
3	K	117	ASN	CA-C-N	-9.05	109.01	119.05
3	K	117	ASN	C-N-CA	-9.05	109.01	119.05
3	L	117	ASN	CA-C-N	-9.03	109.03	119.05
3	L	117	ASN	C-N-CA	-9.03	109.03	119.05
2	F	551	LYS	N-CA-C	-9.02	101.45	111.28
3	J	117	ASN	CA-C-N	-9.01	109.04	119.05
3	J	117	ASN	C-N-CA	-9.01	109.04	119.05
2	H	551	LYS	N-CA-C	-9.01	101.46	111.28
3	I	117	ASN	CA-C-N	-8.99	109.07	119.05
3	I	117	ASN	C-N-CA	-8.99	109.07	119.05
2	B	551	LYS	N-CA-C	-8.99	101.48	111.28
2	D	551	LYS	N-CA-C	-8.94	101.53	111.28
3	K	241	SER	N-CA-C	8.94	123.70	111.54
3	L	241	SER	N-CA-C	8.93	123.68	111.54
3	I	241	SER	N-CA-C	8.90	123.65	111.54
3	J	241	SER	N-CA-C	8.90	123.65	111.54
2	A	119	ASP	N-CA-C	-8.89	101.55	111.07
2	G	119	ASP	N-CA-C	-8.88	101.57	111.07
2	E	119	ASP	N-CA-C	-8.87	101.58	111.07
2	F	633	LYS	N-CA-C	-8.85	102.47	113.18
2	C	119	ASP	N-CA-C	-8.83	101.62	111.07
2	B	633	LYS	N-CA-C	-8.83	102.50	113.18
2	H	633	LYS	N-CA-C	-8.83	102.50	113.18
2	D	633	LYS	N-CA-C	-8.80	102.53	113.18
2	B	548	GLU	N-CA-C	8.79	120.86	111.28
2	H	548	GLU	N-CA-C	8.79	120.86	111.28
2	F	548	GLU	N-CA-C	8.76	120.83	111.28
2	D	548	GLU	N-CA-C	8.76	120.83	111.28
1	g	16	ALA	N-CA-C	8.64	120.70	111.28
3	L	333	ILE	N-CA-C	-8.41	104.33	111.56
3	I	333	ILE	N-CA-C	-8.38	104.36	111.56
3	K	333	ILE	N-CA-C	-8.36	104.37	111.56
3	J	392	LEU	N-CA-C	-8.36	102.17	111.28
3	J	333	ILE	N-CA-C	-8.34	104.39	111.56
3	I	392	LEU	N-CA-C	-8.34	102.19	111.28
3	K	392	LEU	N-CA-C	-8.32	102.21	111.28
3	L	392	LEU	N-CA-C	-8.31	102.22	111.28
3	L	253	ASP	N-CA-C	8.26	120.37	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	499	ALA	N-CA-C	8.26	120.36	111.36
2	C	499	ALA	N-CA-C	8.26	120.36	111.36
3	I	253	ASP	N-CA-C	8.24	120.35	111.36
3	K	253	ASP	N-CA-C	8.22	120.32	111.36
2	A	499	ALA	N-CA-C	8.20	120.30	111.36
3	J	253	ASP	N-CA-C	8.20	120.29	111.36
2	E	499	ALA	N-CA-C	8.19	120.28	111.36
2	G	123	LYS	N-CA-C	-8.17	102.32	111.14
2	A	123	LYS	N-CA-C	-8.16	102.33	111.14
2	C	123	LYS	N-CA-C	-8.14	102.34	111.14
2	E	123	LYS	N-CA-C	-8.10	102.40	111.14
2	D	701	GLU	N-CA-C	-8.06	103.20	112.87
2	B	701	GLU	N-CA-C	-8.04	103.23	112.87
2	F	701	GLU	N-CA-C	-8.04	103.23	112.87
2	C	562	ALA	N-CA-C	-8.03	98.01	110.14
2	H	701	GLU	N-CA-C	-8.03	103.23	112.87
2	G	562	ALA	N-CA-C	-8.02	98.03	110.14
2	E	562	ALA	N-CA-C	-7.99	98.07	110.14
2	A	562	ALA	N-CA-C	-7.99	98.08	110.14
2	E	674	ASP	N-CA-C	-7.96	99.80	110.55
2	G	674	ASP	N-CA-C	-7.95	99.82	110.55
3	J	1015	GLY	N-CA-C	-7.94	102.67	112.68
2	G	122	GLN	N-CA-C	-7.94	102.56	111.14
2	C	674	ASP	N-CA-C	-7.93	99.84	110.55
2	A	674	ASP	N-CA-C	-7.92	99.86	110.55
1	a	16	ALA	N-CA-C	7.91	122.65	112.92
1	e	16	ALA	N-CA-C	7.89	122.63	112.92
3	L	1015	GLY	N-CA-C	-7.88	102.74	112.68
3	I	1015	GLY	N-CA-C	-7.87	102.76	112.68
3	K	1015	GLY	N-CA-C	-7.87	102.77	112.68
3	I	320	ALA	N-CA-C	-7.84	102.74	111.28
3	J	320	ALA	N-CA-C	-7.83	102.74	111.28
2	C	122	GLN	N-CA-C	-7.83	102.69	111.14
2	E	122	GLN	N-CA-C	-7.83	102.69	111.14
3	L	320	ALA	N-CA-C	-7.81	102.77	111.28
2	G	570	ALA	N-CA-C	7.79	119.77	111.28
2	E	570	ALA	N-CA-C	7.79	119.77	111.28
3	K	320	ALA	N-CA-C	-7.78	102.80	111.28
2	A	122	GLN	N-CA-C	-7.78	102.74	111.14
2	A	554	GLU	N-CA-C	7.78	122.03	112.54
2	C	570	ALA	N-CA-C	7.77	119.75	111.28
3	K	914	ARG	N-CA-C	7.76	119.81	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	L	914	ARG	N-CA-C	7.76	119.81	111.36
2	C	554	GLU	N-CA-C	7.75	122.00	112.54
2	E	554	GLU	N-CA-C	7.75	121.99	112.54
2	G	554	GLU	N-CA-C	7.75	121.99	112.54
2	A	570	ALA	N-CA-C	7.74	119.72	111.28
3	J	914	ARG	N-CA-C	7.73	119.78	111.36
3	I	914	ARG	N-CA-C	7.72	119.78	111.36
2	H	635	TRP	N-CA-C	-7.70	102.89	111.28
2	H	596	GLN	N-CA-C	7.70	122.52	113.20
2	B	635	TRP	N-CA-C	-7.69	102.90	111.28
2	D	596	GLN	N-CA-C	7.69	122.50	113.20
2	D	635	TRP	N-CA-C	-7.67	102.92	111.28
2	F	635	TRP	N-CA-C	-7.67	102.92	111.28
2	B	596	GLN	N-CA-C	7.66	122.47	113.20
2	F	596	GLN	N-CA-C	7.63	122.44	113.20
3	I	358	LYS	N-CA-C	-7.62	97.64	109.76
2	F	630	SER	N-CA-C	7.62	119.58	111.28
3	K	358	LYS	N-CA-C	-7.61	97.66	109.76
2	H	561	LYS	N-CA-C	7.61	122.17	111.52
3	L	358	LYS	N-CA-C	-7.60	97.67	109.76
2	B	630	SER	N-CA-C	7.60	119.56	111.28
1	a	25	LYS	N-CA-C	7.59	119.63	111.36
2	G	562	ALA	CA-C-N	-7.59	111.35	119.24
2	G	562	ALA	C-N-CA	-7.59	111.35	119.24
2	D	630	SER	N-CA-C	7.58	119.54	111.28
3	J	358	LYS	N-CA-C	-7.58	97.71	109.76
2	B	561	LYS	N-CA-C	7.58	122.13	111.52
2	F	561	LYS	N-CA-C	7.58	122.12	111.52
2	H	630	SER	N-CA-C	7.57	119.53	111.28
2	D	635	TRP	CA-C-N	-7.57	110.14	120.28
2	D	635	TRP	C-N-CA	-7.57	110.14	120.28
2	C	562	ALA	CA-C-N	-7.56	111.38	119.24
2	C	562	ALA	C-N-CA	-7.56	111.38	119.24
3	I	1170	TYR	CA-C-N	-7.56	110.15	120.28
3	I	1170	TYR	C-N-CA	-7.56	110.15	120.28
2	E	547	PHE	N-CA-C	-7.56	103.04	111.28
2	B	635	TRP	CA-C-N	-7.55	110.16	120.28
2	B	635	TRP	C-N-CA	-7.55	110.16	120.28
2	F	635	TRP	CA-C-N	-7.55	110.16	120.28
2	F	635	TRP	C-N-CA	-7.55	110.16	120.28
1	d	25	LYS	N-CA-C	7.53	119.57	111.36
2	D	561	LYS	N-CA-C	7.53	122.07	111.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	K	1170	TYR	CA-C-N	-7.53	110.19	120.28
3	K	1170	TYR	C-N-CA	-7.53	110.19	120.28
1	f	25	LYS	N-CA-C	7.53	119.57	111.36
3	L	1170	TYR	CA-C-N	-7.53	110.19	120.28
3	L	1170	TYR	C-N-CA	-7.53	110.19	120.28
2	H	635	TRP	CA-C-N	-7.52	110.20	120.28
2	H	635	TRP	C-N-CA	-7.52	110.20	120.28
3	J	1170	TYR	CA-C-N	-7.52	110.20	120.28
3	J	1170	TYR	C-N-CA	-7.52	110.20	120.28
1	e	25	LYS	N-CA-C	7.51	119.55	111.36
2	A	562	ALA	CA-C-N	-7.50	111.44	119.24
2	A	562	ALA	C-N-CA	-7.50	111.44	119.24
2	E	562	ALA	CA-C-N	-7.50	111.45	119.24
2	E	562	ALA	C-N-CA	-7.50	111.45	119.24
1	b	25	LYS	N-CA-C	7.49	119.52	111.36
1	c	25	LYS	N-CA-C	7.49	119.52	111.36
1	g	25	LYS	N-CA-C	7.49	119.52	111.36
2	G	547	PHE	N-CA-C	-7.48	103.13	111.28
1	h	25	LYS	N-CA-C	7.47	119.50	111.36
2	A	547	PHE	N-CA-C	-7.47	103.14	111.28
2	B	84	ARG	N-CA-C	7.42	119.37	111.28
2	C	547	PHE	N-CA-C	-7.42	103.19	111.28
3	L	126	GLY	N-CA-C	-7.42	104.58	112.08
2	F	84	ARG	N-CA-C	7.42	119.37	111.28
3	K	126	GLY	N-CA-C	-7.41	104.59	112.08
3	I	126	GLY	N-CA-C	-7.41	104.60	112.08
2	F	92	LEU	N-CA-C	7.41	122.78	112.93
2	D	84	ARG	N-CA-C	7.40	119.35	111.28
3	J	126	GLY	N-CA-C	-7.40	104.60	112.08
2	B	92	LEU	N-CA-C	7.40	122.77	112.93
2	H	92	LEU	N-CA-C	7.40	122.77	112.93
2	G	678	GLN	N-CA-C	7.39	119.34	111.28
2	H	84	ARG	N-CA-C	7.39	119.33	111.28
2	C	676	THR	N-CA-C	-7.38	99.53	110.23
2	D	92	LEU	N-CA-C	7.36	122.72	112.93
2	E	678	GLN	N-CA-C	7.34	119.28	111.28
3	I	1167	ARG	N-CA-C	-7.33	93.35	108.53
3	J	1167	ARG	N-CA-C	-7.33	93.35	108.53
3	K	1167	ARG	N-CA-C	-7.33	93.35	108.53
3	L	1167	ARG	N-CA-C	-7.33	93.35	108.53
2	A	676	THR	N-CA-C	-7.33	99.60	110.23
2	C	678	GLN	N-CA-C	7.33	119.26	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	676	THR	N-CA-C	-7.32	99.61	110.23
2	E	676	THR	N-CA-C	-7.31	99.63	110.23
2	A	678	GLN	N-CA-C	7.30	119.24	111.28
3	J	361	VAL	N-CA-C	-7.30	97.89	108.11
2	C	120	VAL	N-CA-C	-7.29	103.42	110.42
2	G	120	VAL	N-CA-C	-7.29	103.42	110.42
2	A	120	VAL	N-CA-C	-7.29	103.43	110.42
3	I	361	VAL	N-CA-C	-7.28	97.92	108.11
3	L	361	VAL	N-CA-C	-7.28	97.92	108.11
2	E	120	VAL	N-CA-C	-7.26	103.45	110.42
3	K	361	VAL	N-CA-C	-7.26	97.94	108.11
3	L	824	LEU	N-CA-C	-7.26	103.45	111.36
3	J	824	LEU	N-CA-C	-7.25	103.45	111.36
3	K	587	SER	N-CA-C	7.23	122.66	113.55
3	I	824	LEU	N-CA-C	-7.22	103.49	111.36
2	G	605	THR	CB-CA-C	-7.21	99.71	110.24
3	I	587	SER	N-CA-C	7.21	122.63	113.55
3	L	587	SER	N-CA-C	7.21	122.63	113.55
3	J	587	SER	N-CA-C	7.20	122.62	113.55
2	E	605	THR	CB-CA-C	-7.19	99.75	110.24
3	K	824	LEU	N-CA-C	-7.18	103.53	111.36
3	L	1024	GLY	N-CA-C	-7.14	103.83	115.46
3	I	1028	GLY	N-CA-C	-7.12	105.95	115.21
3	L	1028	GLY	N-CA-C	-7.12	105.95	115.21
3	K	1024	GLY	N-CA-C	-7.12	103.86	115.46
2	C	605	THR	CB-CA-C	-7.12	99.85	110.24
3	I	1024	GLY	N-CA-C	-7.12	103.86	115.46
2	F	618	VAL	N-CA-C	-7.11	104.92	111.67
3	K	1028	GLY	N-CA-C	-7.11	105.97	115.21
3	J	1024	GLY	N-CA-C	-7.09	103.91	115.46
2	H	618	VAL	N-CA-C	-7.08	104.94	111.67
2	A	605	THR	CB-CA-C	-7.08	99.91	110.24
2	B	618	VAL	N-CA-C	-7.07	104.95	111.67
3	J	1028	GLY	N-CA-C	-7.06	106.03	115.21
2	B	139	ARG	N-CA-C	7.05	118.76	111.14
2	F	139	ARG	N-CA-C	7.04	118.75	111.14
2	D	139	ARG	N-CA-C	7.04	118.74	111.14
2	D	618	VAL	N-CA-C	-7.03	105.00	111.67
3	K	826	ASP	N-CA-C	-7.02	103.56	111.07
2	H	139	ARG	N-CA-C	7.02	118.72	111.14
3	I	826	ASP	N-CA-C	-7.01	103.56	111.07
3	L	826	ASP	N-CA-C	-7.01	103.56	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	826	ASP	N-CA-C	-6.99	103.59	111.07
2	C	635	TRP	N-CA-C	-6.97	103.61	111.07
1	c	16	ALA	N-CA-C	6.94	121.46	112.92
2	B	679	VAL	CB-CA-C	-6.91	103.42	111.09
3	K	764	SER	N-CA-C	6.90	118.98	109.18
3	J	851	THR	N-CA-C	-6.90	103.75	111.28
3	L	851	THR	N-CA-C	-6.90	103.75	111.28
3	L	764	SER	N-CA-C	6.90	118.97	109.18
3	I	851	THR	N-CA-C	-6.89	103.77	111.28
1	c	8	PRO	N-CA-CB	6.89	110.83	103.39
1	a	8	PRO	N-CA-CB	6.88	110.83	103.39
2	F	679	VAL	CB-CA-C	-6.88	103.45	111.09
2	D	679	VAL	CB-CA-C	-6.88	103.45	111.09
2	H	679	VAL	CB-CA-C	-6.88	103.45	111.09
3	I	764	SER	N-CA-C	6.87	118.94	109.18
2	A	632	PRO	CA-C-O	6.86	127.55	118.90
1	f	8	PRO	N-CA-CB	6.86	110.80	103.39
1	h	8	PRO	N-CA-CB	6.86	110.80	103.39
2	G	632	PRO	CA-C-O	6.85	127.53	118.90
3	J	1019	ARG	N-CA-C	-6.85	103.27	111.69
3	L	249	ALA	N-CA-C	6.84	121.76	113.41
3	K	851	THR	N-CA-C	-6.84	103.75	111.07
1	e	8	PRO	N-CA-CB	6.84	110.78	103.39
1	b	8	PRO	N-CA-CB	6.84	110.77	103.39
3	I	1019	ARG	N-CA-C	-6.84	103.28	111.69
2	C	632	PRO	CA-C-O	6.83	127.51	118.90
3	J	764	SER	N-CA-C	6.83	118.88	109.18
3	L	1019	ARG	N-CA-C	-6.83	103.29	111.69
3	K	1019	ARG	N-CA-C	-6.82	103.30	111.69
3	I	249	ALA	N-CA-C	6.81	121.72	113.41
2	C	341	PRO	N-CA-C	6.81	122.53	113.40
2	G	341	PRO	N-CA-C	6.81	122.53	113.40
2	E	632	PRO	CA-C-O	6.81	127.48	118.90
3	K	249	ALA	N-CA-C	6.81	121.71	113.41
2	E	341	PRO	N-CA-C	6.80	122.52	113.40
1	d	8	PRO	N-CA-CB	6.80	110.74	103.39
1	g	8	PRO	N-CA-CB	6.79	110.73	103.39
1	h	16	ALA	N-CA-C	6.79	118.77	111.36
3	J	249	ALA	N-CA-C	6.78	121.69	113.41
2	A	341	PRO	N-CA-C	6.75	122.44	113.40
2	E	282	ILE	N-CA-CB	-6.74	103.53	111.83
2	D	282	ILE	N-CA-CB	-6.73	103.55	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	282	ILE	N-CA-CB	-6.73	103.55	111.83
1	d	16	ALA	N-CA-C	6.73	118.69	111.36
2	D	116	VAL	CB-CA-C	-6.73	103.36	111.97
2	H	282	ILE	N-CA-CB	-6.73	103.56	111.83
2	A	282	ILE	N-CA-CB	-6.71	103.57	111.83
2	C	282	ILE	N-CA-CB	-6.71	103.57	111.83
2	G	282	ILE	N-CA-CB	-6.70	103.59	111.83
2	G	673	MET	N-CA-C	6.70	120.32	109.40
2	B	116	VAL	CB-CA-C	-6.70	103.40	111.97
2	H	116	VAL	CB-CA-C	-6.70	103.40	111.97
2	B	282	ILE	N-CA-CB	-6.69	103.61	111.83
3	J	130	SER	N-CA-C	-6.68	104.99	113.01
2	F	116	VAL	CB-CA-C	-6.68	103.42	111.97
3	K	130	SER	N-CA-C	-6.68	104.99	113.01
3	K	113	GLY	N-CA-C	6.68	124.69	115.27
3	I	113	GLY	N-CA-C	6.68	124.68	115.27
3	L	130	SER	N-CA-C	-6.68	105.00	113.01
2	A	673	MET	N-CA-C	6.67	120.28	109.40
3	J	113	GLY	N-CA-C	6.67	124.68	115.27
3	L	113	GLY	N-CA-C	6.67	124.68	115.27
2	C	673	MET	N-CA-C	6.67	120.28	109.40
3	L	822	LYS	N-CA-C	-6.66	103.95	111.07
3	I	126	GLY	CA-C-O	-6.66	117.51	122.37
3	I	130	SER	N-CA-C	-6.65	105.03	113.01
3	K	822	LYS	N-CA-C	-6.65	103.95	111.07
2	E	673	MET	N-CA-C	6.63	120.21	109.40
3	I	822	LYS	N-CA-C	-6.62	103.98	111.07
3	J	126	GLY	CA-C-O	-6.62	117.54	122.37
2	H	503	LEU	N-CA-C	-6.62	104.15	111.36
2	D	503	LEU	N-CA-C	-6.61	104.15	111.36
3	L	126	GLY	CA-C-O	-6.61	117.54	122.37
3	J	822	LYS	N-CA-C	-6.61	104.00	111.07
3	K	126	GLY	CA-C-O	-6.61	117.55	122.37
2	B	503	LEU	N-CA-C	-6.60	104.16	111.36
2	F	503	LEU	N-CA-C	-6.60	104.16	111.36
3	K	264	THR	CA-C-N	-6.60	111.59	119.84
3	K	264	THR	C-N-CA	-6.60	111.59	119.84
3	L	264	THR	CA-C-N	-6.59	111.60	119.84
3	L	264	THR	C-N-CA	-6.59	111.60	119.84
3	I	264	THR	CA-C-N	-6.57	111.63	119.84
3	I	264	THR	C-N-CA	-6.57	111.63	119.84
3	J	264	THR	CA-C-N	-6.57	111.63	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	264	THR	C-N-CA	-6.57	111.63	119.84
3	I	618	ALA	N-CA-C	6.56	118.92	110.65
3	J	618	ALA	N-CA-C	6.55	118.91	110.65
3	L	618	ALA	N-CA-C	6.55	118.90	110.65
3	K	618	ALA	N-CA-C	6.52	118.87	110.65
2	E	660	GLN	N-CA-C	6.51	118.38	111.28
1	f	16	ALA	N-CA-C	6.51	118.46	111.36
3	L	272	ILE	N-CA-C	-6.50	101.16	109.80
2	G	660	GLN	N-CA-C	6.49	118.35	111.28
3	K	381	ALA	N-CA-C	-6.49	101.96	110.53
3	J	272	ILE	N-CA-C	-6.48	101.18	109.80
2	F	76	ARG	N-CA-C	-6.47	103.47	111.75
3	J	381	ALA	N-CA-C	-6.47	101.99	110.53
3	I	381	ALA	N-CA-C	-6.47	101.99	110.53
3	I	272	ILE	N-CA-C	-6.46	101.20	109.80
2	H	76	ARG	N-CA-C	-6.46	103.49	111.75
2	A	660	GLN	N-CA-C	6.46	118.31	111.28
2	E	654	PRO	CA-C-O	-6.45	114.08	121.56
3	L	381	ALA	N-CA-C	-6.45	102.01	110.53
1	f	41	ILE	N-CA-C	-6.45	101.22	109.80
2	D	76	ARG	N-CA-C	-6.45	103.50	111.75
3	K	272	ILE	N-CA-C	-6.45	101.22	109.80
2	G	654	PRO	CA-C-O	-6.45	114.08	121.56
2	C	660	GLN	N-CA-C	6.44	118.30	111.28
2	B	76	ARG	N-CA-C	-6.44	103.50	111.75
2	C	654	PRO	CA-C-O	-6.44	114.09	121.56
3	J	333	ILE	CB-CA-C	-6.43	105.33	111.44
2	G	113	ALA	N-CA-C	-6.42	104.20	111.07
2	A	290	LEU	N-CA-C	-6.41	104.29	111.28
2	A	654	PRO	CA-C-O	-6.41	114.12	121.56
3	I	333	ILE	CB-CA-C	-6.40	105.36	111.44
3	K	333	ILE	CB-CA-C	-6.40	105.36	111.44
2	E	113	ALA	N-CA-C	-6.40	104.23	111.07
3	L	333	ILE	CB-CA-C	-6.39	105.37	111.44
1	e	41	ILE	N-CA-C	-6.38	101.31	109.80
2	C	290	LEU	N-CA-C	-6.38	104.33	111.28
2	B	113	ALA	N-CA-C	-6.38	104.02	110.97
2	D	113	ALA	N-CA-C	-6.38	104.02	110.97
2	F	113	ALA	N-CA-C	-6.38	104.02	110.97
2	C	113	ALA	N-CA-C	-6.36	104.26	111.07
2	H	113	ALA	N-CA-C	-6.36	104.03	110.97
2	A	113	ALA	N-CA-C	-6.35	104.27	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	635	TRP	CA-C-N	-6.35	111.77	120.28
2	C	635	TRP	C-N-CA	-6.35	111.77	120.28
2	D	103	ALA	N-CA-C	-6.34	104.37	111.28
2	B	103	ALA	N-CA-C	-6.33	104.38	111.28
2	G	290	LEU	N-CA-C	-6.33	104.38	111.28
2	H	103	ALA	N-CA-C	-6.33	104.38	111.28
1	a	41	ILE	N-CA-C	-6.33	101.39	109.80
2	E	635	TRP	N-CA-C	-6.32	103.53	111.11
1	h	41	ILE	N-CA-C	-6.32	101.40	109.80
2	E	635	TRP	CA-C-N	-6.31	111.82	120.28
2	E	635	TRP	C-N-CA	-6.31	111.82	120.28
2	G	635	TRP	CA-C-N	-6.31	111.82	120.28
2	G	635	TRP	C-N-CA	-6.31	111.82	120.28
1	d	41	ILE	N-CA-C	-6.31	101.41	109.80
2	A	635	TRP	CA-C-N	-6.31	111.83	120.28
2	A	635	TRP	C-N-CA	-6.31	111.83	120.28
2	A	635	TRP	N-CA-C	-6.30	103.55	111.11
1	c	41	ILE	N-CA-C	-6.30	101.42	109.80
2	G	647	LYS	N-CA-C	6.29	118.22	111.36
1	g	41	ILE	N-CA-C	-6.29	101.44	109.80
2	E	290	LEU	N-CA-C	-6.28	104.43	111.28
2	F	103	ALA	N-CA-C	-6.28	104.44	111.28
1	b	41	ILE	N-CA-C	-6.27	101.46	109.80
2	C	647	LYS	N-CA-C	6.27	118.20	111.36
2	A	647	LYS	N-CA-C	6.27	118.19	111.36
3	J	332	ILE	CA-C-N	-6.26	116.75	123.08
3	J	332	ILE	C-N-CA	-6.26	116.75	123.08
2	E	647	LYS	N-CA-C	6.25	118.18	111.36
2	H	658	ASN	CB-CA-C	-6.24	109.36	116.54
1	h	26	MET	N-CA-C	-6.23	104.49	111.28
2	G	635	TRP	N-CA-C	-6.23	103.63	111.11
2	E	619	GLY	N-CA-C	6.23	120.19	110.91
2	D	119	ASP	N-CA-C	-6.22	104.58	111.36
3	I	332	ILE	CA-C-N	-6.22	116.80	123.08
3	I	332	ILE	C-N-CA	-6.22	116.80	123.08
1	d	26	MET	N-CA-C	-6.22	104.50	111.28
2	F	658	ASN	CB-CA-C	-6.22	109.39	116.54
2	B	658	ASN	CB-CA-C	-6.22	109.39	116.54
2	D	658	ASN	CB-CA-C	-6.22	109.39	116.54
2	B	666	GLN	N-CA-C	-6.21	100.10	109.79
2	F	666	GLN	N-CA-C	-6.21	100.10	109.79
3	L	332	ILE	CA-C-N	-6.21	116.81	123.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	L	332	ILE	C-N-CA	-6.21	116.81	123.08
2	G	619	GLY	N-CA-C	6.20	120.15	110.91
2	D	666	GLN	N-CA-C	-6.20	100.12	109.79
2	H	666	GLN	N-CA-C	-6.20	100.12	109.79
1	e	26	MET	N-CA-C	-6.20	104.52	111.28
3	K	332	ILE	CA-C-N	-6.20	116.82	123.08
3	K	332	ILE	C-N-CA	-6.20	116.82	123.08
2	H	119	ASP	N-CA-C	-6.19	104.61	111.36
2	H	259	ASP	CA-C-N	-6.19	111.98	120.28
2	H	259	ASP	C-N-CA	-6.19	111.98	120.28
2	F	259	ASP	CA-C-N	-6.19	111.98	120.28
2	F	259	ASP	C-N-CA	-6.19	111.98	120.28
1	b	16	ALA	N-CA-C	6.19	118.11	111.36
2	C	619	GLY	N-CA-C	6.19	120.13	110.91
3	J	592	LYS	N-CA-C	-6.19	97.62	110.80
1	f	26	MET	N-CA-C	-6.18	104.55	111.28
2	D	259	ASP	CA-C-N	-6.17	112.01	120.28
2	D	259	ASP	C-N-CA	-6.17	112.01	120.28
3	J	1013	LEU	N-CA-C	6.17	123.95	110.80
3	K	592	LYS	N-CA-C	-6.17	97.65	110.80
1	b	26	MET	N-CA-C	-6.17	104.55	111.28
2	A	619	GLY	N-CA-C	6.17	120.11	110.91
3	I	592	LYS	N-CA-C	-6.17	97.66	110.80
1	c	26	MET	N-CA-C	-6.17	104.56	111.28
2	B	111	ASN	N-CA-C	-6.17	104.56	111.28
2	B	259	ASP	CA-C-N	-6.17	112.02	120.28
2	B	259	ASP	C-N-CA	-6.17	112.02	120.28
2	F	111	ASN	N-CA-C	-6.17	104.56	111.28
3	I	1013	LEU	N-CA-C	6.17	123.94	110.80
2	D	111	ASN	N-CA-C	-6.16	104.56	111.28
3	L	592	LYS	N-CA-C	-6.16	97.67	110.80
3	L	1013	LEU	N-CA-C	6.16	123.92	110.80
2	B	119	ASP	N-CA-C	-6.16	104.65	111.36
3	K	1013	LEU	N-CA-C	6.16	123.92	110.80
3	K	1218	LEU	CA-C-N	-6.15	113.35	119.56
3	K	1218	LEU	C-N-CA	-6.15	113.35	119.56
3	L	1218	LEU	CA-C-N	-6.14	113.36	119.56
3	L	1218	LEU	C-N-CA	-6.14	113.36	119.56
2	F	119	ASP	N-CA-C	-6.13	104.68	111.36
2	H	111	ASN	N-CA-C	-6.11	104.61	111.28
3	I	1218	LEU	CA-C-N	-6.11	113.39	119.56
3	I	1218	LEU	C-N-CA	-6.11	113.39	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	553	PHE	N-CA-C	-6.10	104.63	111.28
3	J	1218	LEU	CA-C-N	-6.10	113.39	119.56
3	J	1218	LEU	C-N-CA	-6.10	113.39	119.56
3	L	384	ASP	N-CA-C	-6.10	97.81	110.80
3	L	1162	LEU	CA-C-N	-6.09	113.41	119.93
3	L	1162	LEU	C-N-CA	-6.09	113.41	119.93
3	I	384	ASP	N-CA-C	-6.09	97.83	110.80
3	K	384	ASP	N-CA-C	-6.09	97.83	110.80
3	J	384	ASP	N-CA-C	-6.08	97.84	110.80
1	g	26	MET	N-CA-C	-6.08	104.66	111.28
1	a	26	MET	N-CA-C	-6.08	104.66	111.28
3	K	766	LEU	N-CA-C	-6.07	104.67	111.28
2	C	553	PHE	N-CA-C	-6.06	104.68	111.28
3	J	766	LEU	N-CA-C	-6.06	104.68	111.28
2	H	553	PHE	N-CA-C	-6.05	104.68	111.28
3	I	1162	LEU	CA-C-N	-6.05	113.46	119.93
3	I	1162	LEU	C-N-CA	-6.05	113.46	119.93
3	J	1162	LEU	CA-C-N	-6.05	113.46	119.93
3	J	1162	LEU	C-N-CA	-6.05	113.46	119.93
2	D	553	PHE	N-CA-C	-6.04	104.70	111.28
2	B	506	ALA	N-CA-C	6.04	117.73	111.03
2	H	506	ALA	N-CA-C	6.04	117.73	111.03
2	D	506	ALA	N-CA-C	6.03	117.73	111.03
2	B	553	PHE	N-CA-C	-6.03	104.71	111.28
2	G	78	LEU	N-CA-C	-6.03	101.11	110.10
2	A	553	PHE	N-CA-C	-6.03	104.71	111.28
2	E	553	PHE	N-CA-C	-6.03	104.71	111.28
3	I	766	LEU	N-CA-C	-6.02	104.72	111.28
3	K	1162	LEU	CA-C-N	-6.02	113.49	119.93
3	K	1162	LEU	C-N-CA	-6.02	113.49	119.93
3	L	766	LEU	N-CA-C	-6.02	104.72	111.28
1	b	21	ASN	N-CA-C	6.02	117.51	111.07
1	d	59	LYS	CB-CA-C	-6.02	109.65	116.63
2	E	78	LEU	N-CA-C	-6.01	101.14	110.10
2	F	553	PHE	N-CA-C	-6.01	104.73	111.28
3	K	378	THR	N-CA-C	6.00	119.44	110.14
2	F	506	ALA	N-CA-C	6.00	117.69	111.03
2	A	78	LEU	N-CA-C	-5.99	101.17	110.10
3	K	1044	LYS	N-CA-C	5.99	121.51	113.72
2	C	78	LEU	N-CA-C	-5.99	101.17	110.10
3	I	378	THR	N-CA-C	5.99	119.42	110.14
3	J	1044	LYS	N-CA-C	5.99	121.50	113.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	59	LYS	CB-CA-C	-5.98	109.69	116.63
3	I	1044	LYS	N-CA-C	5.98	121.50	113.72
3	L	1044	LYS	N-CA-C	5.98	121.50	113.72
2	D	572	LEU	N-CA-C	5.98	117.80	111.28
3	L	378	THR	N-CA-C	5.98	119.41	110.14
1	g	59	LYS	CB-CA-C	-5.96	109.71	116.63
3	J	378	THR	N-CA-C	5.96	119.38	110.14
1	f	59	LYS	CB-CA-C	-5.95	109.72	116.63
2	B	572	LEU	N-CA-C	5.95	117.77	111.28
2	F	572	LEU	N-CA-C	5.95	117.77	111.28
1	d	75	VAL	N-CA-C	5.93	116.97	111.45
1	a	59	LYS	CB-CA-C	-5.93	109.75	116.63
1	g	75	VAL	N-CA-C	5.93	116.97	111.45
1	d	58	SER	N-CA-C	-5.92	98.20	110.80
1	h	58	SER	N-CA-C	-5.91	98.20	110.80
2	A	640	ASP	N-CA-C	5.91	119.96	112.87
1	a	75	VAL	N-CA-C	5.91	116.94	111.45
1	d	52	LEU	N-CA-C	-5.90	104.85	111.28
2	H	572	LEU	N-CA-C	5.90	117.71	111.28
2	G	640	ASP	N-CA-C	5.89	119.94	112.87
3	I	128	PHE	N-CA-C	5.89	123.35	110.80
3	L	128	PHE	N-CA-C	5.89	123.35	110.80
1	e	75	VAL	N-CA-C	5.89	116.93	111.45
1	c	58	SER	N-CA-C	-5.88	98.27	110.80
1	a	58	SER	N-CA-C	-5.88	98.27	110.80
1	e	59	LYS	CB-CA-C	-5.88	109.81	116.63
3	K	128	PHE	N-CA-C	5.88	123.32	110.80
1	c	59	LYS	CB-CA-C	-5.87	109.82	116.63
1	e	58	SER	N-CA-C	-5.87	98.30	110.80
1	d	21	ASN	N-CA-C	5.87	117.48	111.14
1	f	58	SER	N-CA-C	-5.87	98.30	110.80
3	J	251	ARG	N-CA-C	5.87	119.20	111.28
2	B	621	ILE	CA-C-N	-5.87	113.50	120.13
2	B	621	ILE	C-N-CA	-5.87	113.50	120.13
1	e	21	ASN	N-CA-C	5.86	117.47	111.14
2	E	640	ASP	N-CA-C	5.86	119.90	112.87
3	J	128	PHE	N-CA-C	5.86	123.28	110.80
1	b	75	VAL	N-CA-C	5.86	116.90	111.45
1	b	58	SER	N-CA-C	-5.85	98.33	110.80
2	F	621	ILE	CA-C-N	-5.85	113.52	120.13
2	F	621	ILE	C-N-CA	-5.85	113.52	120.13
1	c	21	ASN	N-CA-C	5.85	117.46	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	D	621	ILE	CA-C-N	-5.85	113.52	120.13
2	D	621	ILE	C-N-CA	-5.85	113.52	120.13
1	c	75	VAL	N-CA-C	5.85	116.89	111.45
1	e	52	LEU	N-CA-C	-5.84	104.91	111.28
2	C	640	ASP	N-CA-C	5.84	119.88	112.87
1	a	52	LEU	N-CA-C	-5.84	104.92	111.28
1	h	21	ASN	N-CA-C	5.83	117.44	111.14
1	g	58	SER	N-CA-C	-5.83	98.37	110.80
1	h	59	LYS	CB-CA-C	-5.83	109.87	116.63
1	g	52	LEU	N-CA-C	-5.83	104.93	111.28
3	I	251	ARG	N-CA-C	5.83	119.14	111.28
3	L	251	ARG	N-CA-C	5.83	119.14	111.28
1	h	75	VAL	N-CA-C	5.82	116.86	111.45
2	H	621	ILE	CA-C-N	-5.82	113.55	120.13
2	H	621	ILE	C-N-CA	-5.82	113.55	120.13
1	c	52	LEU	N-CA-C	-5.82	104.94	111.28
1	g	21	ASN	N-CA-C	5.82	117.42	111.14
2	B	336	LEU	N-CA-C	-5.81	105.29	112.38
1	a	21	ASN	N-CA-C	5.80	117.41	111.14
3	K	251	ARG	N-CA-C	5.80	119.11	111.28
2	F	336	LEU	N-CA-C	-5.79	105.31	112.38
3	I	1162	LEU	N-CA-C	-5.79	101.86	110.20
3	K	1162	LEU	N-CA-C	-5.79	101.86	110.20
3	L	1162	LEU	N-CA-C	-5.79	101.87	110.20
2	D	336	LEU	N-CA-C	-5.78	105.33	112.38
3	J	1162	LEU	N-CA-C	-5.77	101.89	110.20
1	d	15	GLN	N-CA-C	5.77	117.93	108.52
1	b	52	LEU	N-CA-C	-5.77	105.00	111.28
1	f	21	ASN	N-CA-C	5.76	117.36	111.14
1	f	15	GLN	N-CA-C	5.76	117.91	108.52
3	I	367	ALA	N-CA-C	5.76	123.08	110.80
2	H	336	LEU	N-CA-C	-5.76	105.36	112.38
1	h	52	LEU	N-CA-C	-5.75	105.01	111.28
3	K	367	ALA	N-CA-C	5.75	123.06	110.80
1	f	52	LEU	N-CA-C	-5.74	105.02	111.28
1	f	75	VAL	N-CA-C	5.74	116.79	111.45
3	J	367	ALA	N-CA-C	5.74	123.03	110.80
3	L	367	ALA	N-CA-C	5.74	123.03	110.80
3	L	264	THR	N-CA-C	-5.72	100.71	109.64
3	I	264	THR	N-CA-C	-5.71	100.73	109.64
3	L	355	LEU	CB-CA-C	-5.70	103.58	112.12
3	K	264	THR	N-CA-C	-5.69	100.76	109.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	264	THR	N-CA-C	-5.69	100.76	109.64
3	I	355	LEU	CB-CA-C	-5.69	103.59	112.12
3	K	355	LEU	CB-CA-C	-5.69	103.59	112.12
1	b	15	GLN	N-CA-C	5.69	117.79	108.52
3	K	1193	ALA	CA-C-N	-5.68	113.70	119.83
3	K	1193	ALA	C-N-CA	-5.68	113.70	119.83
3	I	1193	ALA	CA-C-N	-5.66	113.72	119.83
3	I	1193	ALA	C-N-CA	-5.66	113.72	119.83
3	J	355	LEU	CB-CA-C	-5.66	103.63	112.12
3	L	1193	ALA	CA-C-N	-5.66	113.72	119.83
3	L	1193	ALA	C-N-CA	-5.66	113.72	119.83
3	J	1193	ALA	CA-C-N	-5.66	113.72	119.83
3	J	1193	ALA	C-N-CA	-5.66	113.72	119.83
2	D	250	ASP	N-CA-C	-5.63	105.15	111.28
2	B	250	ASP	N-CA-C	-5.62	105.16	111.28
2	F	250	ASP	N-CA-C	-5.62	105.16	111.28
2	C	648	GLY	N-CA-C	-5.61	106.00	112.73
2	D	566	ALA	N-CA-C	-5.61	103.29	110.53
2	H	250	ASP	N-CA-C	-5.61	105.17	111.28
2	G	648	GLY	N-CA-C	-5.61	106.00	112.73
2	B	566	ALA	N-CA-C	-5.60	103.30	110.53
2	H	566	ALA	N-CA-C	-5.60	103.31	110.53
3	I	357	ASN	N-CA-C	-5.59	101.76	110.10
3	K	821	THR	N-CA-C	-5.59	98.89	110.80
2	B	676	THR	N-CA-C	-5.59	98.90	110.80
3	J	357	ASN	N-CA-C	-5.58	101.79	110.10
2	F	566	ALA	N-CA-C	-5.58	103.33	110.53
2	D	676	THR	N-CA-C	-5.57	98.93	110.80
3	K	357	ASN	N-CA-C	-5.57	101.80	110.10
3	L	821	THR	N-CA-C	-5.57	98.94	110.80
2	H	676	THR	N-CA-C	-5.57	98.94	110.80
3	J	821	THR	N-CA-C	-5.57	98.95	110.80
3	I	821	THR	N-CA-C	-5.56	98.96	110.80
2	F	676	THR	N-CA-C	-5.55	98.98	110.80
3	K	371	VAL	N-CA-C	-5.55	106.42	112.80
3	L	357	ASN	N-CA-C	-5.54	101.84	110.10
2	A	648	GLY	N-CA-C	-5.53	106.09	112.73
2	E	648	GLY	N-CA-C	-5.53	106.09	112.73
3	L	371	VAL	N-CA-C	-5.53	106.44	112.80
2	C	661	LEU	N-CA-C	5.53	118.46	110.28
2	G	333	LYS	O-C-N	-5.53	116.38	122.07
1	e	45	THR	CB-CA-C	-5.52	110.23	116.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	29	ALA	N-CA-C	-5.51	105.17	111.07
3	I	252	LEU	N-CA-C	5.51	122.54	110.80
3	J	371	VAL	N-CA-C	-5.51	106.46	112.80
3	I	371	VAL	N-CA-C	-5.51	106.47	112.80
1	e	29	ALA	N-CA-C	-5.50	105.28	111.28
2	E	661	LEU	N-CA-C	5.50	118.42	110.28
3	L	252	LEU	N-CA-C	5.50	122.52	110.80
2	G	661	LEU	N-CA-C	5.50	118.42	110.28
2	E	333	LYS	O-C-N	-5.49	116.41	122.07
3	K	252	LEU	N-CA-C	5.49	122.50	110.80
1	c	45	THR	CB-CA-C	-5.49	110.26	116.63
1	f	45	THR	CB-CA-C	-5.49	110.26	116.63
3	J	252	LEU	N-CA-C	5.49	122.50	110.80
2	A	661	LEU	N-CA-C	5.47	118.38	110.28
1	f	29	ALA	N-CA-C	-5.47	105.32	111.28
2	C	577	ARG	N-CA-C	-5.47	105.32	111.28
1	b	45	THR	CB-CA-C	-5.46	110.29	116.63
1	h	29	ALA	N-CA-C	-5.46	105.22	111.07
2	B	343	GLU	N-CA-C	-5.45	102.21	110.28
2	D	343	GLU	N-CA-C	-5.45	102.21	110.28
2	F	343	GLU	N-CA-C	-5.45	102.21	110.28
1	h	15	GLN	N-CA-C	5.45	117.84	109.07
1	a	45	THR	CB-CA-C	-5.44	110.32	116.63
2	A	627	GLN	N-CA-C	5.44	116.99	109.15
3	K	260	LYS	N-CA-C	-5.44	107.30	114.04
1	a	34	GLY	N-CA-C	-5.42	105.83	112.77
1	d	45	THR	CB-CA-C	-5.42	110.34	116.63
3	J	366	SER	N-CA-C	5.42	117.19	111.28
2	C	627	GLN	N-CA-C	5.42	116.96	109.15
2	E	627	GLN	N-CA-C	5.42	116.95	109.15
2	G	627	GLN	N-CA-C	5.42	116.95	109.15
2	H	343	GLU	N-CA-C	-5.42	102.26	110.28
1	d	29	ALA	N-CA-C	-5.41	105.28	111.07
3	L	366	SER	N-CA-C	5.41	117.18	111.28
2	A	577	ARG	N-CA-C	-5.41	105.38	111.28
2	G	577	ARG	N-CA-C	-5.41	105.38	111.28
3	L	452	GLU	CA-C-N	5.41	131.43	121.70
3	L	452	GLU	C-N-CA	5.41	131.43	121.70
3	L	260	LYS	N-CA-C	-5.40	107.34	114.04
3	K	366	SER	N-CA-C	5.40	117.17	111.28
1	g	45	THR	CB-CA-C	-5.40	110.37	116.63
3	I	366	SER	N-CA-C	5.40	117.16	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	I	260	LYS	N-CA-C	-5.39	107.35	114.04
3	J	260	LYS	N-CA-C	-5.39	107.35	114.04
1	c	29	ALA	N-CA-C	-5.39	105.30	111.07
3	K	452	GLU	CA-C-N	5.39	131.41	121.70
3	K	452	GLU	C-N-CA	5.39	131.41	121.70
2	B	662	THR	CB-CA-C	-5.39	98.12	109.38
2	D	662	THR	CB-CA-C	-5.39	98.12	109.38
2	F	662	THR	CB-CA-C	-5.39	98.11	109.38
2	H	662	THR	CB-CA-C	-5.39	98.11	109.38
1	a	29	ALA	N-CA-C	-5.39	105.31	111.07
3	I	452	GLU	CA-C-N	5.38	131.39	121.70
3	I	452	GLU	C-N-CA	5.38	131.39	121.70
2	A	333	LYS	O-C-N	-5.38	116.53	122.07
1	f	34	GLY	N-CA-C	-5.37	105.89	112.77
2	E	628	VAL	N-CA-C	-5.37	102.14	109.55
2	E	577	ARG	N-CA-C	-5.37	105.43	111.28
3	J	452	GLU	CA-C-N	5.37	131.37	121.70
3	J	452	GLU	C-N-CA	5.37	131.37	121.70
3	L	622	SER	N-CA-C	-5.37	106.80	113.19
2	A	628	VAL	N-CA-C	-5.37	102.14	109.55
2	C	333	LYS	O-C-N	-5.37	116.54	122.07
1	b	34	GLY	N-CA-C	-5.36	105.90	112.77
1	e	34	GLY	N-CA-C	-5.36	105.90	112.77
1	c	34	GLY	N-CA-C	-5.36	105.91	112.77
3	K	622	SER	N-CA-C	-5.36	106.82	113.19
3	I	622	SER	N-CA-C	-5.34	106.83	113.19
3	J	622	SER	N-CA-C	-5.34	106.83	113.19
1	h	69	SER	N-CA-C	-5.34	105.46	111.28
1	f	45	THR	N-CA-C	5.34	117.10	108.08
1	g	34	GLY	N-CA-C	-5.34	105.94	112.77
1	h	45	THR	CB-CA-C	-5.34	110.44	116.63
1	g	29	ALA	N-CA-C	-5.33	105.36	111.07
3	J	1037	ALA	N-CA-C	-5.32	105.89	112.38
2	G	628	VAL	N-CA-C	-5.32	102.21	109.55
2	C	628	VAL	N-CA-C	-5.32	102.21	109.55
3	I	1037	ALA	N-CA-C	-5.31	105.90	112.38
3	L	1037	ALA	N-CA-C	-5.31	105.90	112.38
1	e	45	THR	N-CA-C	5.30	117.04	108.08
1	d	34	GLY	N-CA-C	-5.30	105.98	112.77
2	E	605	THR	N-CA-C	5.30	117.24	108.13
1	g	45	THR	N-CA-C	5.29	117.03	108.08
2	H	602	LYS	N-CA-C	5.29	117.12	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	h	34	GLY	N-CA-C	-5.29	106.01	112.77
2	A	605	THR	N-CA-C	5.29	117.22	108.13
3	K	1037	ALA	N-CA-C	-5.28	105.94	112.38
1	b	69	SER	N-CA-C	-5.28	105.53	111.28
1	d	22	ALA	N-CA-C	-5.28	105.53	111.28
2	C	605	THR	N-CA-C	5.27	117.20	108.13
1	e	69	SER	N-CA-C	-5.27	105.54	111.28
2	F	602	LYS	N-CA-C	5.27	117.10	111.36
2	D	602	LYS	N-CA-C	5.26	117.10	111.36
1	d	45	THR	N-CA-C	5.26	116.97	108.08
2	B	602	LYS	N-CA-C	5.26	117.09	111.36
1	c	45	THR	N-CA-C	5.26	116.96	108.08
2	G	605	THR	N-CA-C	5.25	117.16	108.13
1	a	69	SER	N-CA-C	-5.24	105.56	111.28
1	c	69	SER	N-CA-C	-5.24	105.57	111.28
1	a	45	THR	N-CA-C	5.24	116.93	108.08
3	I	145	VAL	CA-C-N	5.24	131.12	121.70
3	I	145	VAL	C-N-CA	5.24	131.12	121.70
3	J	145	VAL	CA-C-N	5.24	131.12	121.70
3	J	145	VAL	C-N-CA	5.24	131.12	121.70
3	K	145	VAL	CA-C-N	5.24	131.12	121.70
3	K	145	VAL	C-N-CA	5.24	131.12	121.70
3	L	145	VAL	CA-C-N	5.23	131.11	121.70
3	L	145	VAL	C-N-CA	5.23	131.11	121.70
2	H	285	GLU	CA-C-N	-5.23	113.28	120.28
2	H	285	GLU	C-N-CA	-5.23	113.28	120.28
1	h	45	THR	N-CA-C	5.22	116.91	108.08
3	J	115	LEU	N-CA-C	-5.22	105.59	111.28
2	A	626	MET	N-CA-C	-5.22	106.60	113.17
2	E	626	MET	N-CA-C	-5.21	106.60	113.17
1	b	45	THR	N-CA-C	5.21	116.89	108.08
1	h	22	ALA	N-CA-C	-5.21	105.60	111.28
2	G	671	TYR	O-C-N	-5.21	116.59	123.16
3	I	115	LEU	N-CA-C	-5.21	105.60	111.28
2	F	285	GLU	CA-C-N	-5.20	113.31	120.28
2	F	285	GLU	C-N-CA	-5.20	113.31	120.28
2	B	285	GLU	CA-C-N	-5.20	113.31	120.28
2	B	285	GLU	C-N-CA	-5.20	113.31	120.28
1	f	69	SER	N-CA-C	-5.19	105.62	111.28
2	G	626	MET	N-CA-C	-5.19	106.63	113.17
1	d	69	SER	N-CA-C	-5.19	105.63	111.28
1	e	22	ALA	N-CA-C	-5.19	105.63	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	626	MET	N-CA-C	-5.19	106.63	113.17
3	L	115	LEU	N-CA-C	-5.19	105.63	111.28
1	g	69	SER	N-CA-C	-5.18	105.63	111.28
1	f	22	ALA	N-CA-C	-5.18	105.63	111.28
2	D	285	GLU	CA-C-N	-5.18	113.34	120.28
2	D	285	GLU	C-N-CA	-5.18	113.34	120.28
1	b	22	ALA	N-CA-C	-5.17	105.64	111.28
3	J	372	ALA	N-CA-C	-5.17	99.79	110.80
3	K	372	ALA	N-CA-C	-5.17	99.80	110.80
2	H	549	ASP	N-CA-C	-5.16	105.65	111.28
3	K	115	LEU	N-CA-C	-5.16	105.65	111.28
2	A	671	TYR	O-C-N	-5.16	116.48	123.19
2	E	671	TYR	O-C-N	-5.16	116.48	123.19
2	D	549	ASP	N-CA-C	-5.16	105.66	111.28
1	g	22	ALA	N-CA-C	-5.15	105.66	111.28
3	I	372	ALA	N-CA-C	-5.15	99.83	110.80
3	L	372	ALA	N-CA-C	-5.15	99.83	110.80
2	A	622	PRO	CA-C-O	-5.15	115.16	121.03
2	A	504	ILE	N-CA-C	-5.15	105.37	110.62
1	c	22	ALA	N-CA-C	-5.14	105.67	111.28
3	I	1168	LYS	N-CA-C	-5.14	106.69	113.17
2	C	671	TYR	O-C-N	-5.14	116.51	123.19
3	K	664	THR	N-CA-C	-5.14	99.85	110.80
2	C	504	ILE	N-CA-C	-5.13	105.39	110.62
3	J	1168	LYS	N-CA-C	-5.12	106.71	113.17
3	I	664	THR	N-CA-C	-5.12	99.89	110.80
2	C	672	LEU	N-CA-C	5.12	116.66	107.80
2	D	86	ALA	N-CA-C	-5.12	105.59	111.07
3	J	664	THR	N-CA-C	-5.12	99.90	110.80
3	L	664	THR	N-CA-C	-5.12	99.90	110.80
2	B	549	ASP	N-CA-C	-5.11	105.71	111.28
2	F	549	ASP	N-CA-C	-5.11	105.71	111.28
3	L	1168	LYS	N-CA-C	-5.11	106.73	113.17
2	F	548	GLU	N-CA-CB	5.11	117.63	110.12
2	B	548	GLU	N-CA-CB	5.11	117.62	110.12
2	E	672	LEU	N-CA-C	5.11	116.63	107.80
2	F	86	ALA	N-CA-C	-5.11	105.61	111.07
2	G	622	PRO	CA-C-O	-5.11	115.21	121.03
2	A	672	LEU	N-CA-C	5.10	116.63	107.80
2	D	548	GLU	N-CA-CB	5.10	117.62	110.12
2	D	686	GLU	N-CA-C	-5.10	105.36	112.45
3	K	1168	LYS	N-CA-C	-5.10	106.74	113.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	114	TYR	N-CA-C	-5.10	105.72	111.28
2	C	635	TRP	CB-CA-C	-5.10	102.88	110.88
2	H	686	GLU	N-CA-C	-5.10	105.36	112.45
2	F	686	GLU	N-CA-C	-5.10	105.37	112.45
2	H	548	GLU	N-CA-CB	5.09	117.61	110.12
2	G	114	TYR	N-CA-C	-5.09	105.73	111.28
3	I	269	ASN	N-CA-C	-5.09	103.67	110.55
1	c	40	GLU	N-CA-C	5.09	118.98	112.26
2	G	672	LEU	N-CA-C	5.09	116.61	107.80
2	H	254	ARG	N-CA-C	5.09	121.64	110.80
2	B	686	GLU	N-CA-C	-5.09	105.38	112.45
1	b	40	GLU	N-CA-C	5.08	118.97	112.26
2	E	622	PRO	CA-C-O	-5.08	115.24	121.03
3	I	652	ALA	N-CA-C	-5.08	99.98	110.80
2	B	254	ARG	N-CA-C	5.08	121.61	110.80
3	J	616	GLN	CA-C-N	5.08	131.23	121.54
3	J	616	GLN	C-N-CA	5.08	131.23	121.54
3	K	269	ASN	N-CA-C	-5.08	103.70	110.55
2	D	254	ARG	N-CA-C	5.07	121.60	110.80
2	G	504	ILE	N-CA-C	-5.07	105.45	110.62
1	a	22	ALA	N-CA-C	-5.07	105.75	111.28
2	B	86	ALA	N-CA-C	-5.07	105.64	111.07
1	d	40	GLU	N-CA-C	5.07	118.95	112.26
2	C	622	PRO	CA-C-O	-5.07	115.25	121.03
3	L	269	ASN	N-CA-C	-5.07	103.71	110.55
3	K	851	THR	CB-CA-C	-5.07	102.93	110.88
2	H	86	ALA	N-CA-C	-5.06	105.65	111.07
3	J	652	ALA	N-CA-C	-5.06	100.02	110.80
3	K	652	ALA	N-CA-C	-5.06	100.02	110.80
2	F	254	ARG	N-CA-C	5.06	121.58	110.80
3	L	652	ALA	N-CA-C	-5.05	100.03	110.80
3	J	269	ASN	N-CA-C	-5.05	103.73	110.55
1	f	40	GLU	N-CA-C	5.05	118.93	112.26
2	E	504	ILE	N-CA-C	-5.05	105.47	110.62
2	G	551	LYS	N-CA-C	-5.05	105.96	111.82
3	K	616	GLN	CA-C-N	5.05	131.18	121.54
3	K	616	GLN	C-N-CA	5.05	131.18	121.54
3	L	616	GLN	CA-C-N	5.05	131.18	121.54
3	L	616	GLN	C-N-CA	5.05	131.18	121.54
2	C	551	LYS	N-CA-C	-5.04	105.97	111.82
3	I	1206	GLY	CA-C-N	5.04	130.77	121.70
3	I	1206	GLY	C-N-CA	5.04	130.77	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	L	1206	GLY	CA-C-N	5.04	130.77	121.70
3	L	1206	GLY	C-N-CA	5.04	130.77	121.70
2	A	114	TYR	N-CA-C	-5.04	105.79	111.28
3	J	1206	GLY	CA-C-N	5.04	130.77	121.70
3	J	1206	GLY	C-N-CA	5.04	130.77	121.70
2	E	258	ALA	N-CA-C	-5.03	105.68	111.07
3	K	1206	GLY	CA-C-N	5.03	130.75	121.70
3	K	1206	GLY	C-N-CA	5.03	130.75	121.70
3	K	1189	SER	CA-C-N	5.02	130.74	121.70
3	K	1189	SER	C-N-CA	5.02	130.74	121.70
2	A	122	GLN	CA-C-N	-5.02	113.61	120.44
2	A	122	GLN	C-N-CA	-5.02	113.61	120.44
3	I	616	GLN	CA-C-N	5.02	131.13	121.54
3	I	616	GLN	C-N-CA	5.02	131.13	121.54
2	A	258	ALA	N-CA-C	-5.02	105.70	111.07
1	g	15	GLN	N-CA-C	5.01	117.70	110.28
2	E	114	TYR	N-CA-C	-5.01	105.81	111.28
3	J	1189	SER	CA-C-N	5.01	130.73	121.70
3	J	1189	SER	C-N-CA	5.01	130.73	121.70
1	e	40	GLU	N-CA-C	5.00	118.86	112.26
2	E	122	GLN	CA-C-N	-5.00	113.64	120.44
2	E	122	GLN	C-N-CA	-5.00	113.64	120.44

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	a	387	0	214	11	0
1	b	387	0	214	13	0
1	c	387	0	214	11	0
1	d	387	0	214	12	0
1	e	387	0	214	11	0
1	f	387	0	214	11	0
1	g	387	0	214	11	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	h	387	0	214	10	0
2	A	5148	0	5040	228	0
2	B	5148	0	5040	339	0
2	C	5148	0	5040	205	0
2	D	5148	0	5040	332	0
2	E	5148	0	5040	223	0
2	F	5148	0	5040	338	0
2	G	5148	0	5040	228	0
2	H	5148	0	5040	333	0
3	I	8476	0	8466	401	0
3	J	8476	0	8466	389	0
3	K	8476	0	8466	404	0
3	L	8476	0	8466	394	0
All	All	78184	0	75896	3602	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 23.

All (3602) 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)
3:L:146:ALA:HB1	3:L:147:LYS:CG	1.42	1.49
3:J:146:ALA:HB1	3:J:147:LYS:CG	1.42	1.47
3:I:146:ALA:HB1	3:I:147:LYS:CG	1.42	1.47
3:K:146:ALA:HB1	3:K:147:LYS:CG	1.42	1.43
2:F:541:ARG:CG	2:F:546:ARG:HB3	1.61	1.31
2:H:541:ARG:CG	2:H:546:ARG:HB3	1.61	1.31
2:D:541:ARG:CG	2:D:546:ARG:HB3	1.61	1.30
2:B:541:ARG:CG	2:B:546:ARG:HB3	1.61	1.27
3:I:146:ALA:CB	3:I:147:LYS:HG3	1.68	1.23
3:J:146:ALA:CB	3:J:147:LYS:HG3	1.68	1.22
3:J:1120:PHE:CD2	3:J:1304:LYS:HG3	1.75	1.22
3:L:146:ALA:CB	3:L:147:LYS:HG3	1.68	1.22
3:I:1120:PHE:CD2	3:I:1304:LYS:HG3	1.75	1.22
3:K:146:ALA:CB	3:K:147:LYS:HG3	1.68	1.21
3:K:1120:PHE:CD2	3:K:1304:LYS:HG3	1.75	1.21
3:L:1120:PHE:CD2	3:L:1304:LYS:HG3	1.75	1.19
2:B:135:MET:HE3	2:B:136:GLU:HA	1.25	1.18
3:I:333:ILE:HD11	3:I:429:MET:HG3	1.24	1.17
2:B:676:THR:CG2	3:I:449:MET:HE1	1.74	1.17
2:D:646:ARG:NH2	2:D:647:LYS:HE3	1.60	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:135:MET:HE3	2:H:136:GLU:HA	1.25	1.16
3:L:813:ILE:CG2	3:L:824:LEU:HD22	1.76	1.15
2:D:135:MET:HE3	2:D:136:GLU:HA	1.25	1.15
2:H:646:ARG:NH2	2:H:647:LYS:HE3	1.60	1.15
2:H:646:ARG:HD3	2:H:663:MET:HE1	1.22	1.15
3:J:333:ILE:HD11	3:J:429:MET:HG3	1.24	1.15
2:F:646:ARG:NH2	2:F:647:LYS:HE3	1.60	1.14
3:I:813:ILE:CG2	3:I:824:LEU:HD22	1.76	1.14
2:B:646:ARG:NH2	2:B:647:LYS:CE	2.11	1.14
2:B:646:ARG:NH2	2:B:647:LYS:HE3	1.60	1.14
2:F:646:ARG:NH2	2:F:647:LYS:CE	2.11	1.14
3:K:813:ILE:CG2	3:K:824:LEU:HD22	1.76	1.14
2:F:646:ARG:HD3	2:F:663:MET:HE1	1.22	1.14
2:F:135:MET:HE3	2:F:136:GLU:HA	1.25	1.14
2:H:646:ARG:NH2	2:H:647:LYS:CE	2.11	1.14
3:L:333:ILE:HD11	3:L:429:MET:HG3	1.24	1.13
3:J:813:ILE:CG2	3:J:824:LEU:HD22	1.76	1.13
2:D:646:ARG:NH2	2:D:647:LYS:CE	2.11	1.13
3:I:813:ILE:HG23	3:I:824:LEU:HD22	1.33	1.10
2:B:646:ARG:HD3	2:B:663:MET:HE1	1.22	1.10
2:F:323:ARG:HH11	2:G:249:SER:HB3	1.16	1.10
3:J:335:ALA:HB3	3:J:336:GLY:HA2	1.25	1.10
3:I:600:TYR:HE1	3:I:604:ARG:NH2	1.50	1.09
3:I:1027:ARG:HB2	3:I:1078:LYS:HE2	1.31	1.09
3:L:335:ALA:HB3	3:L:336:GLY:HA2	1.25	1.09
3:J:600:TYR:HE1	3:J:604:ARG:NH2	1.50	1.09
3:J:813:ILE:HG23	3:J:824:LEU:HD22	1.33	1.09
3:L:600:TYR:HE1	3:L:604:ARG:NH2	1.51	1.09
3:L:813:ILE:HG23	3:L:824:LEU:HD22	1.33	1.09
2:D:646:ARG:HD3	2:D:663:MET:HE1	1.22	1.09
3:I:335:ALA:HB3	3:I:336:GLY:HA2	1.25	1.09
3:K:333:ILE:HD11	3:K:429:MET:HG3	1.23	1.08
2:D:646:ARG:HH22	2:D:647:LYS:CE	1.67	1.08
2:F:676:THR:CG2	3:K:449:MET:HE1	1.84	1.08
3:K:335:ALA:HB3	3:K:336:GLY:HA2	1.25	1.08
2:A:249:SER:HB3	2:H:323:ARG:HH11	1.14	1.08
2:B:646:ARG:HH22	2:B:647:LYS:CE	1.67	1.07
3:K:600:TYR:HE1	3:K:604:ARG:NH2	1.51	1.07
3:J:1027:ARG:HB2	3:J:1078:LYS:HE2	1.31	1.07
2:B:646:ARG:HH22	2:B:647:LYS:HE2	1.17	1.07
2:H:676:THR:CG2	3:L:449:MET:HE1	1.85	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:646:ARG:HH22	2:D:647:LYS:HE2	1.17	1.06
2:A:485:GLU:O	2:A:486:ARG:HG2	1.55	1.06
3:K:1027:ARG:HB2	3:K:1078:LYS:HE2	1.31	1.06
2:D:323:ARG:HH11	2:E:249:SER:HB3	1.15	1.06
2:E:485:GLU:O	2:E:486:ARG:HG2	1.55	1.06
3:L:1120:PHE:CE2	3:L:1304:LYS:HG3	1.90	1.06
2:C:485:GLU:O	2:C:486:ARG:HG2	1.55	1.05
2:D:553:PHE:CE2	2:D:577:ARG:HG3	1.91	1.05
2:D:676:THR:CG2	3:J:449:MET:HE1	1.85	1.05
2:H:646:ARG:HH22	2:H:647:LYS:CE	1.67	1.05
2:G:485:GLU:O	2:G:486:ARG:HG2	1.55	1.05
3:I:1120:PHE:CE2	3:I:1304:LYS:HG3	1.90	1.05
2:F:646:ARG:HH22	2:F:647:LYS:HE2	1.17	1.05
3:K:1120:PHE:CE2	3:K:1304:LYS:HG3	1.90	1.04
3:J:1120:PHE:CE2	3:J:1304:LYS:HG3	1.90	1.04
3:L:1027:ARG:HB2	3:L:1078:LYS:HE2	1.31	1.04
2:B:553:PHE:CE2	2:B:577:ARG:HG3	1.91	1.04
2:H:646:ARG:HH22	2:H:647:LYS:HE2	1.17	1.04
3:J:146:ALA:HB1	3:J:147:LYS:HG2	1.40	1.04
3:J:337:VAL:HG22	3:J:338:ASP:H	1.21	1.04
3:I:146:ALA:HB1	3:I:147:LYS:HG2	1.40	1.04
3:I:333:ILE:CD1	3:I:429:MET:HG3	1.88	1.04
2:F:541:ARG:HG3	2:F:546:ARG:CB	1.88	1.03
3:J:333:ILE:CD1	3:J:429:MET:HG3	1.88	1.03
2:H:553:PHE:CE2	2:H:577:ARG:HG3	1.91	1.03
3:K:813:ILE:HG23	3:K:824:LEU:HD22	1.33	1.03
2:F:142:ARG:HA	2:F:142:ARG:HE	1.21	1.03
2:F:553:PHE:CE2	2:F:577:ARG:HG3	1.91	1.03
2:H:541:ARG:HG3	2:H:546:ARG:CB	1.88	1.03
3:I:337:VAL:HG22	3:I:338:ASP:H	1.21	1.03
2:D:142:ARG:HA	2:D:142:ARG:HE	1.21	1.02
2:D:541:ARG:HG3	2:D:546:ARG:CB	1.88	1.02
3:L:333:ILE:CD1	3:L:429:MET:HG3	1.88	1.02
2:D:541:ARG:HG3	2:D:546:ARG:HB3	1.03	1.02
2:F:646:ARG:HH22	2:F:647:LYS:CE	1.67	1.02
2:H:142:ARG:HA	2:H:142:ARG:HE	1.21	1.02
2:B:541:ARG:HG3	2:B:546:ARG:CB	1.88	1.02
2:B:541:ARG:HG3	2:B:546:ARG:HB3	1.03	1.02
2:D:323:ARG:HD2	2:E:249:SER:OG	1.59	1.02
2:A:249:SER:OG	2:H:323:ARG:HD2	1.58	1.02
2:F:516:LEU:CD2	2:F:579:ILE:HG23	1.90	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:516:LEU:CD2	2:H:579:ILE:HG23	1.90	1.02
2:G:282:ILE:HG23	2:G:286:GLN:HG3	1.42	1.01
3:L:337:VAL:HG22	3:L:338:ASP:H	1.21	1.01
2:E:282:ILE:HG23	2:E:286:GLN:HG3	1.42	1.01
3:K:333:ILE:CD1	3:K:429:MET:HG3	1.88	1.01
3:L:146:ALA:HB1	3:L:147:LYS:HG2	1.40	1.01
2:B:323:ARG:HH11	2:C:249:SER:HB3	1.21	1.01
2:B:516:LEU:CD2	2:B:579:ILE:HG23	1.90	1.01
2:D:516:LEU:CD2	2:D:579:ILE:HG23	1.90	1.01
2:B:142:ARG:HA	2:B:142:ARG:HE	1.20	1.00
2:C:282:ILE:HG23	2:C:286:GLN:HG3	1.42	1.00
2:F:323:ARG:HD2	2:G:249:SER:OG	1.60	1.00
2:H:135:MET:HE3	2:H:136:GLU:CA	1.91	1.00
3:K:337:VAL:HG22	3:K:338:ASP:H	1.21	1.00
2:B:135:MET:HE3	2:B:136:GLU:CA	1.92	1.00
3:J:600:TYR:HE1	3:J:604:ARG:HH21	1.01	1.00
2:F:135:MET:HE3	2:F:136:GLU:CA	1.91	1.00
2:H:541:ARG:HG3	2:H:546:ARG:HB3	1.03	1.00
3:K:146:ALA:HB1	3:K:147:LYS:HG2	1.40	1.00
2:F:541:ARG:HG3	2:F:546:ARG:HB3	1.03	0.99
2:D:135:MET:HE3	2:D:136:GLU:CA	1.91	0.99
2:A:282:ILE:HG23	2:A:286:GLN:HG3	1.42	0.99
3:I:600:TYR:HE1	3:I:604:ARG:HH21	1.01	0.99
2:B:516:LEU:HD22	2:B:579:ILE:HG23	1.43	0.98
2:D:516:LEU:HD22	2:D:579:ILE:HG23	1.43	0.98
2:F:516:LEU:HD22	2:F:579:ILE:HG23	1.43	0.98
2:F:661:LEU:HD12	2:F:662:THR:N	1.78	0.98
2:H:661:LEU:HD12	2:H:662:THR:N	1.78	0.98
2:H:516:LEU:HD22	2:H:579:ILE:HG23	1.44	0.98
2:D:661:LEU:HD12	2:D:662:THR:N	1.78	0.97
2:B:661:LEU:HD12	2:B:662:THR:N	1.78	0.97
2:A:372:LYS:HB2	2:H:700:GLU:HG3	1.47	0.97
3:L:337:VAL:HG22	3:L:338:ASP:N	1.80	0.96
2:B:323:ARG:HD2	2:C:249:SER:OG	1.66	0.95
2:B:678:GLN:NE2	3:I:449:MET:SD	2.40	0.94
3:K:600:TYR:HE1	3:K:604:ARG:HH21	1.01	0.94
3:I:337:VAL:HG22	3:I:338:ASP:N	1.80	0.94
3:L:600:TYR:HE1	3:L:604:ARG:HH21	1.01	0.94
2:D:121:MET:HG3	2:D:139:ARG:HD3	1.49	0.94
3:I:600:TYR:CE1	3:I:604:ARG:NH2	2.35	0.94
2:F:700:GLU:HG3	2:G:372:LYS:HB2	1.47	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:139:ARG:HH22	2:F:175:ASN:ND2	1.65	0.94
2:F:688:LEU:HD23	2:F:689:SER:N	1.81	0.94
3:I:1120:PHE:CD2	3:I:1304:LYS:CG	2.51	0.94
2:H:688:LEU:HD23	2:H:689:SER:N	1.82	0.94
3:I:824:LEU:HD21	3:I:1230:LYS:HZ3	1.33	0.94
2:B:688:LEU:HD23	2:B:689:SER:N	1.82	0.94
3:J:600:TYR:CE1	3:J:604:ARG:NH2	2.35	0.94
3:L:67:ARG:HD3	3:L:85:ALA:HA	1.50	0.93
2:D:688:LEU:HD23	2:D:689:SER:N	1.82	0.93
2:A:249:SER:HB3	2:H:323:ARG:NH1	1.83	0.93
2:D:323:ARG:NH1	2:E:249:SER:HB3	1.83	0.93
2:B:121:MET:HG3	2:B:139:ARG:HD3	1.49	0.93
3:J:1120:PHE:CD2	3:J:1304:LYS:CG	2.51	0.93
2:D:700:GLU:HG3	2:E:372:LYS:HB2	1.49	0.93
3:I:67:ARG:HD3	3:I:85:ALA:HA	1.50	0.93
3:J:67:ARG:HD3	3:J:85:ALA:HA	1.50	0.93
2:D:139:ARG:HH22	2:D:175:ASN:ND2	1.65	0.93
3:K:67:ARG:HD3	3:K:85:ALA:HA	1.50	0.93
3:K:1120:PHE:CD2	3:K:1304:LYS:CG	2.51	0.93
3:K:600:TYR:CE1	3:K:604:ARG:NH2	2.35	0.92
2:B:676:THR:CG2	3:I:449:MET:CE	2.47	0.92
2:H:139:ARG:HH22	2:H:175:ASN:ND2	1.66	0.92
2:B:541:ARG:HD2	2:B:546:ARG:HB2	1.52	0.92
2:D:541:ARG:HD2	2:D:546:ARG:CB	2.00	0.92
2:F:541:ARG:HD2	2:F:546:ARG:CB	2.00	0.92
3:L:1120:PHE:CD2	3:L:1304:LYS:CG	2.51	0.92
2:F:121:MET:HG3	2:F:139:ARG:HD3	1.49	0.92
2:B:139:ARG:HH22	2:B:175:ASN:ND2	1.66	0.92
2:C:222:GLU:OE1	2:C:223:LYS:HD2	1.70	0.92
2:D:541:ARG:HD2	2:D:546:ARG:HB2	1.52	0.92
3:L:146:ALA:CB	3:L:147:LYS:CG	2.38	0.92
2:G:222:GLU:OE1	2:G:223:LYS:HD2	1.70	0.91
3:I:146:ALA:CB	3:I:147:LYS:CG	2.38	0.91
2:H:579:ILE:HG13	2:H:600:PHE:CD2	2.06	0.91
3:J:337:VAL:HG22	3:J:338:ASP:N	1.80	0.91
2:F:136:GLU:OE2	2:F:137:GLU:N	2.04	0.91
2:H:541:ARG:HD2	2:H:546:ARG:HB2	1.52	0.91
2:F:579:ILE:HG13	2:F:600:PHE:CD2	2.06	0.91
2:B:136:GLU:OE2	2:B:137:GLU:N	2.04	0.91
2:D:579:ILE:HG13	2:D:600:PHE:CD2	2.06	0.91
3:L:600:TYR:CE1	3:L:604:ARG:NH2	2.35	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:541:ARG:HD2	2:B:546:ARG:CB	2.00	0.91
1:h:34:GLY:O	2:A:192:LYS:HE2	1.71	0.91
3:L:1120:PHE:HD2	3:L:1304:LYS:CB	1.84	0.91
2:F:541:ARG:HD2	2:F:546:ARG:HB2	1.52	0.90
2:H:541:ARG:HD2	2:H:546:ARG:CB	2.00	0.90
2:A:222:GLU:OE1	2:A:223:LYS:HD2	1.70	0.90
2:H:136:GLU:OE2	2:H:137:GLU:N	2.04	0.90
2:H:121:MET:HG3	2:H:139:ARG:HD3	1.49	0.90
2:E:222:GLU:OE1	2:E:223:LYS:HD2	1.70	0.90
3:K:1120:PHE:HD2	3:K:1304:LYS:CB	1.84	0.90
3:K:824:LEU:HD21	3:K:1230:LYS:HZ3	1.36	0.90
3:L:824:LEU:HD21	3:L:1230:LYS:HZ3	1.35	0.90
2:F:323:ARG:NH1	2:G:249:SER:HB3	1.85	0.90
2:B:579:ILE:HG13	2:B:600:PHE:CD2	2.06	0.90
3:I:1120:PHE:HD2	3:I:1304:LYS:CB	1.84	0.90
2:A:291:MET:HE2	2:A:291:MET:HA	1.54	0.90
2:G:291:MET:HE2	2:G:291:MET:HA	1.54	0.89
3:I:146:ALA:HB1	3:I:147:LYS:HG3	0.91	0.89
3:L:146:ALA:HB1	3:L:147:LYS:HG3	0.91	0.89
2:D:136:GLU:OE2	2:D:137:GLU:N	2.04	0.89
3:J:146:ALA:HB1	3:J:147:LYS:HG3	0.90	0.89
3:K:146:ALA:HB1	3:K:147:LYS:HG3	0.91	0.89
1:b:34:GLY:O	2:C:192:LYS:HE2	1.72	0.89
2:D:678:GLN:NE2	3:J:449:MET:SD	2.46	0.89
2:B:151:ALA:HB1	2:B:158:PRO:HG3	1.54	0.89
2:H:676:THR:HG22	2:H:677:GLY:H	1.37	0.89
2:B:139:ARG:NH2	2:B:175:ASN:ND2	2.20	0.89
2:F:139:ARG:NH2	2:F:175:ASN:ND2	2.20	0.88
2:F:678:GLN:NE2	3:K:449:MET:SD	2.45	0.88
2:H:151:ALA:HB1	2:H:158:PRO:HG3	1.54	0.88
2:H:139:ARG:NH2	2:H:175:ASN:ND2	2.20	0.88
2:B:676:THR:HG22	2:B:677:GLY:H	1.37	0.88
2:B:676:THR:HG23	3:I:449:MET:HE1	1.54	0.88
3:I:452:GLU:HB2	3:I:453:ASN:HB2	1.56	0.88
2:H:678:GLN:NE2	3:L:449:MET:SD	2.46	0.88
3:K:331:GLY:O	3:K:335:ALA:HB2	1.74	0.88
2:D:139:ARG:NH2	2:D:175:ASN:ND2	2.20	0.88
3:J:1120:PHE:HD2	3:J:1304:LYS:CB	1.84	0.88
3:L:452:GLU:HB2	3:L:453:ASN:HB2	1.56	0.88
2:D:676:THR:HG22	2:D:677:GLY:H	1.37	0.88
2:B:323:ARG:NH1	2:C:249:SER:HB3	1.89	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:337:VAL:HG22	3:K:338:ASP:N	1.80	0.88
3:J:331:GLY:O	3:J:335:ALA:HB2	1.74	0.87
2:C:291:MET:HE2	2:C:291:MET:HA	1.54	0.87
2:E:291:MET:HA	2:E:291:MET:HE2	1.54	0.87
3:J:824:LEU:HD21	3:J:1230:LYS:HZ3	1.37	0.87
2:F:676:THR:HG22	2:F:677:GLY:H	1.37	0.87
1:d:34:GLY:O	2:E:192:LYS:HE2	1.73	0.87
2:B:700:GLU:HG3	2:C:372:LYS:HB2	1.56	0.87
3:J:452:GLU:HB2	3:J:453:ASN:HB2	1.56	0.86
2:F:151:ALA:HB1	2:F:158:PRO:HG3	1.54	0.86
3:L:331:GLY:O	3:L:335:ALA:HB2	1.74	0.86
3:L:604:ARG:HH22	3:L:948:ARG:HH21	1.21	0.86
2:H:675:THR:O	2:H:676:THR:OG1	1.94	0.86
3:I:331:GLY:O	3:I:335:ALA:HB2	1.74	0.86
2:D:151:ALA:HB1	2:D:158:PRO:HG3	1.54	0.86
3:K:452:GLU:HB2	3:K:453:ASN:HB2	1.56	0.86
2:H:151:ALA:CB	2:H:158:PRO:HG3	2.06	0.86
1:f:34:GLY:O	2:G:192:LYS:HE2	1.75	0.85
2:B:151:ALA:CB	2:B:158:PRO:HG3	2.06	0.85
3:J:146:ALA:CB	3:J:147:LYS:CG	2.38	0.85
2:H:541:ARG:CG	2:H:546:ARG:CB	2.52	0.85
3:K:146:ALA:CB	3:K:147:LYS:CG	2.38	0.85
2:D:666:GLN:HA	2:D:666:GLN:NE2	1.90	0.85
2:F:675:THR:O	2:F:676:THR:OG1	1.94	0.85
3:L:337:VAL:CG2	3:L:338:ASP:H	1.89	0.85
2:D:135:MET:CE	2:D:136:GLU:HA	2.06	0.85
2:H:666:GLN:NE2	2:H:666:GLN:HA	1.90	0.85
3:J:337:VAL:CG2	3:J:338:ASP:H	1.89	0.85
3:K:337:VAL:CG2	3:K:338:ASP:H	1.89	0.85
3:K:604:ARG:HH22	3:K:948:ARG:HH21	1.21	0.85
2:B:675:THR:O	2:B:676:THR:OG1	1.94	0.85
3:I:604:ARG:HH22	3:I:948:ARG:HH21	1.21	0.85
2:B:676:THR:HG21	3:I:449:MET:SD	2.16	0.84
2:F:135:MET:CE	2:F:136:GLU:HA	2.06	0.84
2:F:151:ALA:CB	2:F:158:PRO:HG3	2.06	0.84
3:I:337:VAL:CG2	3:I:338:ASP:H	1.89	0.84
2:D:557:LEU:HD23	2:D:558:ASN:N	1.92	0.84
2:B:557:LEU:HD23	2:B:558:ASN:N	1.92	0.84
2:B:625:MET:HE1	2:B:669:SER:N	1.92	0.84
2:D:675:THR:O	2:D:676:THR:OG1	1.94	0.84
2:B:666:GLN:NE2	2:B:666:GLN:HA	1.90	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:700:GLU:HG3	2:B:372:LYS:HB2	1.59	0.84
2:F:666:GLN:HA	2:F:666:GLN:NE2	1.90	0.84
2:B:135:MET:CE	2:B:136:GLU:HA	2.06	0.84
2:D:625:MET:HE1	2:D:669:SER:N	1.92	0.84
2:D:151:ALA:CB	2:D:158:PRO:HG3	2.06	0.84
2:F:541:ARG:CG	2:F:546:ARG:CB	2.52	0.84
2:B:553:PHE:HE2	2:B:577:ARG:CG	1.91	0.83
2:F:557:LEU:HD23	2:F:558:ASN:N	1.92	0.83
2:H:557:LEU:HD23	2:H:558:ASN:N	1.92	0.83
3:J:604:ARG:HH22	3:J:948:ARG:HH21	1.21	0.83
2:D:553:PHE:HE2	2:D:577:ARG:CG	1.91	0.83
2:H:625:MET:HE1	2:H:669:SER:N	1.92	0.83
2:F:625:MET:HE1	2:F:669:SER:N	1.92	0.83
3:K:1206:GLY:HA2	3:K:1207:PHE:HB2	1.60	0.83
2:H:135:MET:CE	2:H:136:GLU:HA	2.06	0.83
3:I:813:ILE:HG21	3:I:824:LEU:HD22	1.60	0.83
2:B:548:GLU:HA	2:B:548:GLU:OE2	1.78	0.83
2:D:646:ARG:NH2	2:D:647:LYS:HE2	1.85	0.83
2:H:553:PHE:HE2	2:H:577:ARG:CG	1.91	0.83
3:K:64:LEU:HD13	3:K:71:GLY:HA3	1.61	0.83
3:L:333:ILE:HD11	3:L:429:MET:CG	2.09	0.83
3:J:1206:GLY:HA2	3:J:1207:PHE:HB2	1.60	0.82
2:F:553:PHE:HE2	2:F:577:ARG:CG	1.91	0.82
2:H:548:GLU:HA	2:H:548:GLU:OE2	1.79	0.82
2:B:541:ARG:CG	2:B:546:ARG:CB	2.52	0.82
2:H:676:THR:HG23	3:L:449:MET:HE1	1.61	0.82
2:H:676:THR:CG2	3:L:449:MET:CE	2.58	0.82
3:J:333:ILE:HD11	3:J:429:MET:CG	2.09	0.82
3:J:813:ILE:HG21	3:J:824:LEU:HD22	1.60	0.82
3:L:64:LEU:HD13	3:L:71:GLY:HA3	1.61	0.82
3:L:1206:GLY:HA2	3:L:1207:PHE:HB2	1.60	0.82
2:F:548:GLU:HA	2:F:548:GLU:OE2	1.78	0.81
3:I:1206:GLY:HA2	3:I:1207:PHE:HB2	1.60	0.81
3:K:813:ILE:HG21	3:K:824:LEU:HD22	1.60	0.81
2:F:676:THR:CG2	3:K:449:MET:CE	2.57	0.81
3:I:64:LEU:HD13	3:I:71:GLY:HA3	1.61	0.81
3:I:333:ILE:HD11	3:I:429:MET:CG	2.09	0.81
2:D:676:THR:CG2	3:J:449:MET:CE	2.58	0.81
2:C:700:GLU:HG3	2:D:372:LYS:HB2	1.62	0.81
2:D:548:GLU:OE2	2:D:548:GLU:HA	1.78	0.81
2:E:700:GLU:HG3	2:F:372:LYS:HB2	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:646:ARG:NH2	2:F:647:LYS:HE2	1.85	0.81
2:F:676:THR:HG23	3:K:449:MET:HE1	1.61	0.81
2:D:516:LEU:HD22	2:D:579:ILE:CD1	2.11	0.81
3:K:333:ILE:O	3:K:336:GLY:HA3	1.81	0.81
2:B:139:ARG:HE	2:B:178:LEU:HD22	1.46	0.81
2:D:541:ARG:CG	2:D:546:ARG:CB	2.52	0.81
2:G:700:GLU:HG2	2:H:368:LYS:HG2	1.62	0.81
2:B:516:LEU:HD22	2:B:579:ILE:CD1	2.11	0.80
2:H:139:ARG:HE	2:H:178:LEU:HD22	1.47	0.80
3:J:64:LEU:HD13	3:J:71:GLY:HA3	1.61	0.80
3:J:333:ILE:O	3:J:336:GLY:HA3	1.81	0.80
3:K:333:ILE:HD11	3:K:429:MET:CG	2.09	0.80
2:B:553:PHE:HE2	2:B:577:ARG:HG3	1.45	0.80
1:c:73:GLN:HA	2:D:220:PHE:CE2	2.16	0.80
3:L:813:ILE:HG21	3:L:824:LEU:HD22	1.60	0.80
2:F:151:ALA:HB1	2:F:158:PRO:CG	2.12	0.80
3:L:333:ILE:O	3:L:336:GLY:HA3	1.81	0.80
2:D:646:ARG:HD3	2:D:663:MET:CE	2.09	0.80
2:B:553:PHE:CE2	2:B:577:ARG:CG	2.65	0.80
2:F:646:ARG:HD3	2:F:663:MET:CE	2.09	0.80
2:H:541:ARG:CD	2:H:546:ARG:HB3	2.12	0.80
3:L:1120:PHE:HD2	3:L:1304:LYS:HB2	1.46	0.80
2:D:139:ARG:HE	2:D:178:LEU:HD22	1.46	0.80
2:H:139:ARG:NH2	2:H:175:ASN:HD22	1.80	0.80
2:H:553:PHE:HE2	2:H:577:ARG:HG3	1.45	0.80
3:J:1120:PHE:HD2	3:J:1304:LYS:HB2	1.46	0.80
2:A:699:LEU:HG	2:B:372:LYS:HZ3	1.46	0.79
2:A:700:GLU:HG2	2:B:368:LYS:HG2	1.63	0.79
2:B:151:ALA:HB1	2:B:158:PRO:CG	2.12	0.79
2:D:151:ALA:HB1	2:D:158:PRO:CG	2.12	0.79
2:F:516:LEU:HD22	2:F:579:ILE:CD1	2.11	0.79
2:H:516:LEU:HD22	2:H:579:ILE:CD1	2.11	0.79
2:B:541:ARG:CD	2:B:546:ARG:HB3	2.12	0.79
2:B:628:VAL:HA	2:B:689:SER:HB3	1.65	0.79
2:B:646:ARG:HD3	2:B:663:MET:CE	2.09	0.79
2:H:628:VAL:HA	2:H:689:SER:HB3	1.65	0.79
3:I:333:ILE:O	3:I:336:GLY:HA3	1.81	0.79
2:B:139:ARG:NH2	2:B:175:ASN:HD22	1.80	0.79
2:F:139:ARG:HE	2:F:178:LEU:HD22	1.46	0.79
2:H:646:ARG:NH2	2:H:647:LYS:HE2	1.85	0.79
1:c:73:GLN:HA	2:D:220:PHE:HE2	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:676:THR:HG23	3:J:449:MET:HE1	1.62	0.79
2:F:139:ARG:NH2	2:F:175:ASN:HD22	1.80	0.79
2:H:646:ARG:HD3	2:H:663:MET:CE	2.09	0.79
2:F:541:ARG:CD	2:F:546:ARG:HB3	2.12	0.79
3:I:1120:PHE:HD2	3:I:1304:LYS:HB2	1.46	0.79
3:K:553:ALA:HB1	3:K:554:THR:HG22	1.65	0.79
2:H:676:THR:HG21	3:L:449:MET:SD	2.23	0.79
2:A:124:ILE:HG22	2:A:129:PHE:HB2	1.65	0.79
2:D:541:ARG:CD	2:D:546:ARG:HB3	2.12	0.79
2:F:676:THR:HG21	3:K:449:MET:SD	2.23	0.79
3:L:335:ALA:CB	3:L:336:GLY:HA2	2.07	0.79
2:C:699:LEU:HG	2:D:372:LYS:HZ3	1.48	0.78
3:I:655:ILE:HD12	3:I:655:ILE:O	1.83	0.78
2:A:125:LYS:HZ3	2:A:135:MET:HE3	1.48	0.78
2:C:700:GLU:HG2	2:D:368:LYS:HG2	1.64	0.78
2:E:700:GLU:HG2	2:F:368:LYS:HG2	1.63	0.78
2:G:700:GLU:HG3	2:H:372:LYS:HB2	1.64	0.78
3:J:553:ALA:HB1	3:J:554:THR:HG22	1.65	0.78
2:E:125:LYS:HZ3	2:E:135:MET:HE3	1.48	0.78
2:G:124:ILE:HG22	2:G:129:PHE:HB2	1.65	0.78
3:J:1120:PHE:CD2	3:J:1304:LYS:CB	2.67	0.78
2:C:124:ILE:HG22	2:C:129:PHE:HB2	1.65	0.78
2:D:139:ARG:HH22	2:D:175:ASN:HD21	1.29	0.78
3:L:723:THR:HG22	3:L:725:GLU:H	1.49	0.78
3:K:655:ILE:O	3:K:655:ILE:HD12	1.83	0.78
2:D:142:ARG:HA	2:D:142:ARG:NE	1.99	0.78
2:E:494:ARG:HH22	2:E:521:MET:HE2	1.49	0.78
2:D:676:THR:HG21	3:J:449:MET:SD	2.24	0.78
3:I:1120:PHE:CD2	3:I:1304:LYS:CB	2.67	0.78
3:I:1189:SER:HA	3:I:1190:GLN:HB3	1.66	0.78
3:L:655:ILE:HD12	3:L:655:ILE:O	1.83	0.78
3:K:723:THR:HG22	3:K:725:GLU:H	1.49	0.78
3:K:1120:PHE:HD2	3:K:1304:LYS:HB2	1.46	0.78
3:L:1189:SER:HA	3:L:1190:GLN:HB3	1.66	0.78
1:g:73:GLN:HA	2:H:220:PHE:CE2	2.18	0.78
2:B:139:ARG:HH22	2:B:175:ASN:HD21	1.29	0.78
2:H:151:ALA:HB1	2:H:158:PRO:CG	2.12	0.78
3:J:655:ILE:HD12	3:J:655:ILE:O	1.83	0.78
3:J:1189:SER:HA	3:J:1190:GLN:HB3	1.66	0.78
2:B:317:LEU:HD11	2:B:358:GLN:HB3	1.66	0.77
2:D:317:LEU:HD11	2:D:358:GLN:HB3	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:125:LYS:HZ3	2:G:135:MET:HE3	1.48	0.77
2:C:125:LYS:HZ3	2:C:135:MET:HE3	1.48	0.77
2:C:494:ARG:HH22	2:C:521:MET:HE2	1.49	0.77
2:D:628:VAL:HA	2:D:689:SER:HB3	1.64	0.77
2:F:317:LEU:HD11	2:F:358:GLN:HB3	1.66	0.77
2:H:317:LEU:HD11	2:H:358:GLN:HB3	1.66	0.77
3:K:1120:PHE:CD2	3:K:1304:LYS:CB	2.67	0.77
1:e:73:GLN:HA	2:F:220:PHE:CE2	2.19	0.77
2:C:317:LEU:HD11	2:C:358:GLN:HB3	1.67	0.77
2:D:139:ARG:NH2	2:D:175:ASN:HD22	1.80	0.77
3:J:813:ILE:HG23	3:J:824:LEU:CD2	2.14	0.77
3:K:1189:SER:HA	3:K:1190:GLN:HB3	1.66	0.77
2:B:323:ARG:HD3	2:C:290:LEU:HD21	1.65	0.77
3:I:723:THR:HG22	3:I:725:GLU:H	1.49	0.77
3:J:555:ALA:HB3	3:J:1230:LYS:HA	1.67	0.77
2:F:628:VAL:HA	2:F:689:SER:HB3	1.64	0.77
2:G:317:LEU:HD11	2:G:358:GLN:HB3	1.67	0.77
3:J:1044:LYS:HG3	3:J:1058:LYS:HE2	1.67	0.77
3:K:376:LEU:HD21	3:K:1285:MET:HE3	1.67	0.77
2:A:317:LEU:HD11	2:A:358:GLN:HB3	1.67	0.77
2:H:553:PHE:CE2	2:H:577:ARG:CG	2.65	0.77
3:J:376:LEU:HD21	3:J:1285:MET:HE3	1.67	0.77
3:L:553:ALA:HB1	3:L:554:THR:HG22	1.65	0.77
2:F:646:ARG:CD	2:F:663:MET:HE1	2.12	0.77
3:I:553:ALA:HB1	3:I:554:THR:HG22	1.65	0.77
3:J:723:THR:HG22	3:J:725:GLU:H	1.49	0.77
3:K:1044:LYS:HG3	3:K:1058:LYS:HE2	1.67	0.77
1:a:73:GLN:HA	2:B:220:PHE:CE2	2.20	0.77
3:I:1044:LYS:HG3	3:I:1058:LYS:HE2	1.67	0.77
3:K:1217:ILE:HG21	3:K:1223:VAL:HB	1.67	0.77
1:g:73:GLN:HA	2:H:220:PHE:HE2	1.50	0.76
2:B:700:GLU:HG2	2:C:368:LYS:HG2	1.67	0.76
2:A:392:GLN:HA	2:A:395:ILE:HD12	1.67	0.76
2:D:541:ARG:CD	2:D:546:ARG:CB	2.63	0.76
2:G:392:GLN:HA	2:G:395:ILE:HD12	1.67	0.76
2:E:124:ILE:HG22	2:E:129:PHE:HB2	1.65	0.76
2:E:317:LEU:HD11	2:E:358:GLN:HB3	1.67	0.76
2:G:494:ARG:HH22	2:G:521:MET:HE2	1.49	0.76
2:H:392:GLN:HA	2:H:395:ILE:HD12	1.68	0.76
2:H:541:ARG:CD	2:H:546:ARG:CB	2.64	0.76
1:e:73:GLN:HA	2:F:220:PHE:HE2	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:291:MET:HE2	2:C:291:MET:CA	2.15	0.76
2:D:553:PHE:CE2	2:D:577:ARG:CG	2.65	0.76
2:F:541:ARG:CD	2:F:546:ARG:CB	2.64	0.76
3:I:555:ALA:HB3	3:I:1230:LYS:HA	1.67	0.76
2:C:392:GLN:HA	2:C:395:ILE:HD12	1.67	0.76
3:L:1044:LYS:HG3	3:L:1058:LYS:HE2	1.67	0.76
2:A:249:SER:CB	2:H:323:ARG:HH11	1.95	0.76
2:F:553:PHE:HE2	2:F:577:ARG:HG3	1.45	0.76
2:H:646:ARG:CD	2:H:663:MET:HE1	2.12	0.76
2:B:392:GLN:HA	2:B:395:ILE:HD12	1.68	0.76
2:B:541:ARG:CD	2:B:546:ARG:CB	2.64	0.76
2:C:205:VAL:HG11	2:C:220:PHE:HE2	1.51	0.76
2:H:676:THR:HG22	2:H:677:GLY:N	2.01	0.76
3:I:376:LEU:HD21	3:I:1285:MET:HE3	1.67	0.76
2:B:403:ASP:OD1	2:B:403:ASP:N	2.19	0.76
2:B:676:THR:HG22	2:B:677:GLY:N	2.01	0.76
3:L:376:LEU:HD21	3:L:1285:MET:HE3	1.67	0.76
2:B:569:PRO:HG3	2:B:605:THR:HG21	1.68	0.76
2:H:516:LEU:HD22	2:H:579:ILE:HA	1.68	0.76
3:I:398:GLY:HA3	3:I:429:MET:HE3	1.67	0.76
3:K:555:ALA:HB3	3:K:1230:LYS:HA	1.67	0.76
2:A:403:ASP:OD1	2:A:403:ASP:N	2.19	0.76
2:D:323:ARG:HD3	2:E:290:LEU:HD21	1.68	0.76
2:F:139:ARG:HH22	2:F:175:ASN:HD21	1.29	0.76
2:F:676:THR:HG22	2:F:677:GLY:N	2.01	0.76
2:H:139:ARG:HH22	2:H:175:ASN:HD21	1.29	0.76
2:H:403:ASP:OD1	2:H:403:ASP:N	2.19	0.76
3:L:1120:PHE:CD2	3:L:1304:LYS:CB	2.67	0.76
2:D:688:LEU:HD23	2:D:688:LEU:C	2.11	0.75
3:K:337:VAL:CG2	3:K:338:ASP:N	2.49	0.75
3:L:398:GLY:HA3	3:L:429:MET:HE3	1.67	0.75
2:D:569:PRO:HG3	2:D:605:THR:HG21	1.68	0.75
3:L:1217:ILE:HG21	3:L:1223:VAL:HB	1.67	0.75
1:a:73:GLN:HA	2:B:220:PHE:HE2	1.49	0.75
2:F:569:PRO:HG3	2:F:605:THR:HG21	1.69	0.75
2:F:392:GLN:HA	2:F:395:ILE:HD12	1.68	0.75
3:L:555:ALA:HB3	3:L:1230:LYS:HA	1.67	0.75
2:B:516:LEU:HD22	2:B:579:ILE:HA	1.68	0.75
2:D:700:GLU:HG2	2:E:368:LYS:HG2	1.67	0.75
2:F:688:LEU:HD23	2:F:688:LEU:C	2.11	0.75
3:J:398:GLY:HA3	3:J:429:MET:HE3	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:485:GLU:O	2:E:486:ARG:CG	2.34	0.75
2:F:553:PHE:CE2	2:F:577:ARG:CG	2.65	0.75
2:A:494:ARG:HH22	2:A:521:MET:HE2	1.49	0.75
2:D:392:GLN:HA	2:D:395:ILE:HD12	1.68	0.75
2:E:205:VAL:HG11	2:E:220:PHE:HE2	1.51	0.75
2:H:569:PRO:HG3	2:H:605:THR:HG21	1.68	0.75
3:I:1217:ILE:HG21	3:I:1223:VAL:HB	1.67	0.75
2:B:688:LEU:HD23	2:B:688:LEU:C	2.12	0.74
2:E:392:GLN:HA	2:E:395:ILE:HD12	1.67	0.74
2:G:403:ASP:OD1	2:G:403:ASP:N	2.19	0.74
3:J:813:ILE:CG2	3:J:824:LEU:CD2	2.63	0.74
2:D:676:THR:HG22	2:D:677:GLY:N	2.01	0.74
2:F:403:ASP:OD1	2:F:403:ASP:N	2.19	0.74
3:K:398:GLY:HA3	3:K:429:MET:HE3	1.67	0.74
2:D:323:ARG:HH11	2:E:249:SER:CB	1.95	0.74
2:D:646:ARG:CD	2:D:663:MET:HE1	2.12	0.74
2:F:516:LEU:HD22	2:F:579:ILE:HA	1.69	0.74
3:L:400:GLY:HA3	3:L:1303:LEU:HD11	1.69	0.74
2:A:290:LEU:HD21	2:H:323:ARG:HD3	1.70	0.74
2:A:368:LYS:HG2	2:H:700:GLU:HG2	1.68	0.74
3:L:813:ILE:HG23	3:L:824:LEU:CD2	2.14	0.74
2:G:485:GLU:O	2:G:486:ARG:CG	2.34	0.74
2:H:409:VAL:HA	2:H:413:THR:HG22	1.70	0.74
3:J:400:GLY:HA3	3:J:1303:LEU:HD11	1.69	0.74
3:L:1224:LYS:O	3:L:1227:ASP:N	2.20	0.74
2:G:291:MET:HE2	2:G:291:MET:CA	2.15	0.74
3:K:1224:LYS:O	3:K:1227:ASP:N	2.20	0.74
2:A:605:THR:HG22	2:A:622:PRO:HA	1.69	0.74
1:b:13:GLY:O	1:b:14:ALA:HB3	1.86	0.74
2:G:205:VAL:HG11	2:G:220:PHE:HE2	1.51	0.74
3:I:813:ILE:HG23	3:I:824:LEU:CD2	2.14	0.74
3:J:1217:ILE:HG21	3:J:1223:VAL:HB	1.67	0.74
2:A:249:SER:HG	2:H:323:ARG:HD2	1.50	0.73
2:B:409:VAL:HA	2:B:413:THR:HG22	1.70	0.73
2:D:516:LEU:HD22	2:D:579:ILE:HA	1.68	0.73
2:F:323:ARG:HH11	2:G:249:SER:CB	1.97	0.73
2:H:688:LEU:HD23	2:H:688:LEU:C	2.11	0.73
3:J:938:LYS:HA	3:J:1002:GLN:HG2	1.70	0.73
3:L:813:ILE:CG2	3:L:824:LEU:CD2	2.63	0.73
2:B:676:THR:HG23	3:I:449:MET:CE	2.14	0.73
2:G:605:THR:HG22	2:G:622:PRO:HA	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:605:THR:HG22	2:E:622:PRO:HA	1.69	0.73
2:B:323:ARG:HD3	2:C:290:LEU:CD2	2.17	0.73
2:A:296:ARG:HA	2:H:374:LEU:HD13	1.70	0.73
2:C:605:THR:HG22	2:C:622:PRO:HA	1.69	0.73
2:F:374:LEU:HD13	2:G:296:ARG:HA	1.71	0.73
2:F:700:GLU:HG2	2:G:368:LYS:HG2	1.69	0.73
3:J:1224:LYS:O	3:J:1227:ASP:N	2.20	0.73
2:A:205:VAL:HG11	2:A:220:PHE:HE2	1.51	0.73
2:C:485:GLU:O	2:C:486:ARG:CG	2.34	0.73
3:I:400:GLY:HA3	3:I:1303:LEU:HD11	1.69	0.73
3:I:938:LYS:HA	3:I:1002:GLN:HG2	1.70	0.73
3:K:400:GLY:HA3	3:K:1303:LEU:HD11	1.69	0.73
2:B:646:ARG:NH2	2:B:647:LYS:HE2	1.85	0.73
2:D:409:VAL:HA	2:D:413:THR:HG22	1.70	0.73
2:E:699:LEU:HG	2:F:372:LYS:HZ3	1.53	0.73
3:J:150:MET:HA	3:J:153:GLN:HB3	1.71	0.73
3:K:24:GLY:HA3	3:K:25:VAL:HB	1.71	0.73
3:I:1224:LYS:O	3:I:1227:ASP:N	2.20	0.73
2:D:403:ASP:OD1	2:D:403:ASP:N	2.19	0.72
3:I:470:THR:HG22	3:I:471:GLU:H	1.54	0.72
3:K:150:MET:HA	3:K:153:GLN:HB3	1.71	0.72
3:L:470:THR:HG22	3:L:471:GLU:H	1.55	0.72
2:A:291:MET:HE2	2:A:291:MET:CA	2.15	0.72
3:J:24:GLY:HA3	3:J:25:VAL:HB	1.71	0.72
2:F:409:VAL:HA	2:F:413:THR:HG22	1.70	0.72
2:F:516:LEU:HD22	2:F:579:ILE:CG2	2.20	0.72
2:F:661:LEU:HD12	2:F:661:LEU:C	2.14	0.72
2:H:661:LEU:HD12	2:H:661:LEU:C	2.14	0.72
3:J:470:THR:HG22	3:J:471:GLU:H	1.55	0.72
2:E:291:MET:HE2	2:E:291:MET:CA	2.15	0.72
3:K:470:THR:HG22	3:K:471:GLU:H	1.55	0.72
2:H:154:PHE:O	2:H:155:GLY:C	2.32	0.72
3:K:813:ILE:HG23	3:K:824:LEU:CD2	2.14	0.72
2:D:374:LEU:HD13	2:E:296:ARG:HA	1.71	0.72
3:L:938:LYS:HA	3:L:1002:GLN:HG2	1.70	0.72
2:C:520:MET:HB3	2:C:526:ILE:HD11	1.72	0.72
2:G:520:MET:HB3	2:G:526:ILE:HD11	1.72	0.72
3:I:813:ILE:CG2	3:I:824:LEU:CD2	2.63	0.72
2:B:661:LEU:HD12	2:B:661:LEU:C	2.14	0.72
2:E:520:MET:HB3	2:E:526:ILE:HD11	1.72	0.72
3:I:150:MET:HA	3:I:153:GLN:HB3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:705:VAL:HA	3:J:708:ARG:HG2	1.70	0.72
3:L:150:MET:HA	3:L:153:GLN:HB3	1.71	0.72
2:D:661:LEU:HD12	2:D:661:LEU:C	2.14	0.71
2:A:485:GLU:O	2:A:486:ARG:CG	2.34	0.71
2:F:520:MET:HB3	2:F:526:ILE:HD11	1.73	0.71
3:I:705:VAL:HA	3:I:708:ARG:HG2	1.71	0.71
3:K:705:VAL:HA	3:K:708:ARG:HG2	1.71	0.71
2:D:520:MET:HB3	2:D:526:ILE:HD11	1.73	0.71
2:G:129:PHE:CZ	2:G:135:MET:HB2	2.26	0.71
2:D:323:ARG:HD3	2:E:290:LEU:CD2	2.21	0.71
3:I:24:GLY:HA3	3:I:25:VAL:HB	1.71	0.71
2:A:129:PHE:CZ	2:A:135:MET:HB2	2.26	0.71
2:A:139:ARG:O	2:A:143:LEU:HB2	1.91	0.71
2:F:323:ARG:HD3	2:G:290:LEU:HD21	1.72	0.71
2:F:516:LEU:CD2	2:F:579:ILE:HA	2.21	0.71
2:H:516:LEU:CD2	2:H:579:ILE:HA	2.21	0.71
3:L:1061:GLN:HG3	3:L:1065:MET:HE3	1.73	0.71
3:L:24:GLY:HA3	3:L:25:VAL:HB	1.71	0.71
2:G:139:ARG:O	2:G:143:LEU:HB2	1.91	0.71
3:L:705:VAL:HA	3:L:708:ARG:HG2	1.71	0.71
2:A:520:MET:HB3	2:A:526:ILE:HD11	1.72	0.71
2:C:139:ARG:O	2:C:143:LEU:HB2	1.91	0.71
2:D:516:LEU:CD2	2:D:579:ILE:HA	2.21	0.71
3:J:835:ALA:HA	3:J:836:GLU:HB3	1.73	0.71
3:K:813:ILE:CG2	3:K:824:LEU:CD2	2.63	0.71
2:B:516:LEU:CD2	2:B:579:ILE:HA	2.21	0.71
3:K:938:LYS:HA	3:K:1002:GLN:HG2	1.70	0.71
2:F:557:LEU:HD23	2:F:557:LEU:C	2.16	0.70
3:I:835:ALA:HA	3:I:836:GLU:HB3	1.73	0.70
3:J:912:ILE:HG13	3:J:1103:LYS:HG3	1.72	0.70
2:C:129:PHE:CZ	2:C:135:MET:HB2	2.26	0.70
2:E:129:PHE:CZ	2:E:135:MET:HB2	2.26	0.70
3:L:835:ALA:HA	3:L:836:GLU:HB3	1.73	0.70
3:L:1090:VAL:HG21	3:L:1110:SER:HA	1.74	0.70
2:B:154:PHE:O	2:B:155:GLY:C	2.32	0.70
2:B:520:MET:HB3	2:B:526:ILE:HD11	1.73	0.70
2:B:553:PHE:CD2	2:B:577:ARG:HG3	2.27	0.70
2:B:557:LEU:HD23	2:B:557:LEU:C	2.16	0.70
2:H:520:MET:HB3	2:H:526:ILE:HD11	1.73	0.70
2:H:557:LEU:HD23	2:H:557:LEU:C	2.16	0.70
3:K:835:ALA:HA	3:K:836:GLU:HB3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:1090:VAL:HG21	3:K:1110:SER:HA	1.74	0.70
3:K:362:VAL:HG23	3:K:446:LEU:HD11	1.73	0.70
3:L:362:VAL:HG23	3:L:446:LEU:HD11	1.73	0.70
3:I:1061:GLN:HG3	3:I:1065:MET:HE3	1.73	0.70
2:E:139:ARG:O	2:E:143:LEU:HB2	1.91	0.70
2:E:291:MET:HA	2:E:291:MET:CE	2.22	0.70
3:J:813:ILE:HD13	3:J:824:LEU:HD23	1.74	0.70
3:I:912:ILE:HG13	3:I:1103:LYS:HG3	1.72	0.70
3:K:1061:GLN:HG3	3:K:1065:MET:HE3	1.73	0.70
3:L:912:ILE:HG13	3:L:1103:LYS:HG3	1.72	0.70
2:F:229:LEU:HD23	2:G:84:ARG:NE	2.07	0.70
2:A:569:PRO:HG3	2:A:605:THR:HG21	1.74	0.69
2:D:516:LEU:HD22	2:D:579:ILE:HD12	1.73	0.69
2:D:553:PHE:CD2	2:D:577:ARG:HG3	2.27	0.69
2:F:516:LEU:HD22	2:F:579:ILE:HD12	1.73	0.69
2:H:142:ARG:HA	2:H:142:ARG:NE	1.98	0.69
3:J:362:VAL:HG23	3:J:446:LEU:HD11	1.73	0.69
2:H:553:PHE:CD2	2:H:577:ARG:HG3	2.27	0.69
3:K:335:ALA:HB3	3:K:336:GLY:CA	2.15	0.69
3:I:669:VAL:HG11	3:I:799:ILE:HD12	1.75	0.69
3:K:669:VAL:HG11	3:K:799:ILE:HD12	1.75	0.69
3:K:912:ILE:HG13	3:K:1103:LYS:HG3	1.72	0.69
3:J:669:VAL:HG11	3:J:799:ILE:HD12	1.75	0.69
3:J:1090:VAL:HG21	3:J:1110:SER:HA	1.74	0.69
3:K:688:GLN:HE22	3:K:732:MET:HG3	1.58	0.69
2:B:142:ARG:HA	2:B:142:ARG:NE	1.98	0.69
2:C:569:PRO:HG3	2:C:605:THR:HG21	1.75	0.69
3:I:362:VAL:HG23	3:I:446:LEU:HD11	1.73	0.69
3:L:813:ILE:HD13	3:L:824:LEU:HD23	1.74	0.69
3:J:1061:GLN:HG3	3:J:1065:MET:HE3	1.73	0.69
2:B:323:ARG:HH11	2:C:249:SER:CB	2.01	0.69
2:D:154:PHE:O	2:D:155:GLY:C	2.32	0.69
2:E:403:ASP:OD1	2:E:403:ASP:N	2.19	0.69
2:H:516:LEU:HD22	2:H:579:ILE:HD12	1.73	0.69
2:D:142:ARG:HE	2:D:142:ARG:CA	2.02	0.69
2:D:557:LEU:HD23	2:D:557:LEU:C	2.16	0.69
3:L:669:VAL:HG11	3:L:799:ILE:HD12	1.75	0.69
3:I:813:ILE:HD13	3:I:824:LEU:HD23	1.74	0.69
3:I:1090:VAL:HG21	3:I:1110:SER:HA	1.74	0.69
3:J:688:GLN:HE22	3:J:732:MET:HG3	1.58	0.69
3:K:813:ILE:HD13	3:K:824:LEU:HD23	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:688:GLN:HE22	3:L:732:MET:HG3	1.58	0.69
2:B:676:THR:HG21	3:I:449:MET:CE	2.21	0.68
2:B:678:GLN:CD	3:I:449:MET:SD	2.76	0.68
3:I:688:GLN:HE22	3:I:732:MET:HG3	1.58	0.68
3:J:58:LYS:O	3:J:62:LYS:NZ	2.27	0.68
3:L:1230:LYS:HB2	3:L:1231:PRO:HD3	1.75	0.68
2:B:516:LEU:HD22	2:B:579:ILE:CG2	2.20	0.68
2:B:516:LEU:HD22	2:B:579:ILE:HD12	1.73	0.68
2:E:569:PRO:HG3	2:E:605:THR:HG21	1.75	0.68
2:F:154:PHE:O	2:F:155:GLY:C	2.32	0.68
2:F:553:PHE:CD2	2:F:577:ARG:HG3	2.27	0.68
3:L:561:ARG:NH1	3:L:1269:VAL:O	2.26	0.68
2:A:290:LEU:CD2	2:H:323:ARG:HD3	2.23	0.68
2:C:485:GLU:C	2:C:486:ARG:HG2	2.19	0.68
2:G:569:PRO:HG3	2:G:605:THR:HG21	1.74	0.68
2:B:142:ARG:HE	2:B:142:ARG:CA	2.02	0.68
3:J:561:ARG:NH1	3:J:1269:VAL:O	2.26	0.68
2:A:84:ARG:NE	2:H:229:LEU:HD23	2.09	0.68
2:D:676:THR:HG23	3:J:449:MET:CE	2.23	0.68
3:K:1230:LYS:HB2	3:K:1231:PRO:HD3	1.75	0.68
2:F:149:VAL:HG13	2:F:150:TYR:N	2.09	0.68
2:F:323:ARG:HD2	2:G:249:SER:HG	1.59	0.68
2:F:323:ARG:HD3	2:G:290:LEU:CD2	2.24	0.68
3:J:139:MET:HE2	3:J:154:LEU:HD12	1.75	0.68
3:L:139:MET:HE2	3:L:154:LEU:HD12	1.75	0.68
2:D:149:VAL:HG13	2:D:150:TYR:N	2.09	0.68
2:E:485:GLU:C	2:E:486:ARG:HG2	2.19	0.68
3:I:888:ALA:HB2	3:I:1281:MET:HE1	1.76	0.68
3:L:58:LYS:O	3:L:62:LYS:NZ	2.27	0.68
2:A:485:GLU:C	2:A:486:ARG:HG2	2.19	0.68
2:D:516:LEU:HD22	2:D:579:ILE:CG2	2.20	0.68
2:G:485:GLU:C	2:G:486:ARG:HG2	2.19	0.68
3:K:561:ARG:NH1	3:K:1269:VAL:O	2.26	0.68
3:K:899:VAL:HG13	3:K:1181:ALA:HB1	1.76	0.68
3:K:888:ALA:HB2	3:K:1281:MET:HE1	1.76	0.67
2:A:146:GLY:HA2	2:A:149:VAL:HG12	1.76	0.67
3:I:899:VAL:HG13	3:I:1181:ALA:HB1	1.76	0.67
3:J:899:VAL:HG13	3:J:1181:ALA:HB1	1.76	0.67
3:K:58:LYS:O	3:K:62:LYS:NZ	2.27	0.67
1:h:34:GLY:O	2:A:192:LYS:CE	2.41	0.67
2:C:146:GLY:HA2	2:C:149:VAL:HG12	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:652:ALA:HB1	3:K:814:MET:HG3	1.77	0.67
2:C:383:LYS:HB3	2:C:413:THR:HG23	1.76	0.67
3:L:584:PRO:HA	3:L:588:THR:HG23	1.76	0.67
3:L:888:ALA:HB2	3:L:1281:MET:HE1	1.76	0.67
2:G:383:LYS:HB3	2:G:413:THR:HG23	1.76	0.67
3:J:67:ARG:HE	3:J:69:THR:H	1.43	0.67
3:K:139:MET:HE2	3:K:154:LEU:HD12	1.75	0.67
2:F:645:ALA:O	2:F:648:GLY:N	2.28	0.67
3:I:139:MET:HE2	3:I:154:LEU:HD12	1.75	0.67
3:J:337:VAL:CG2	3:J:338:ASP:N	2.49	0.67
3:J:1230:LYS:HB2	3:J:1231:PRO:HD3	1.76	0.67
1:b:34:GLY:O	2:C:192:LYS:CE	2.42	0.67
2:A:249:SER:OG	2:H:323:ARG:CD	2.40	0.67
2:A:372:LYS:HZ3	2:H:699:LEU:HB3	1.60	0.67
2:G:291:MET:HA	2:G:291:MET:CE	2.22	0.67
3:I:561:ARG:NH1	3:I:1269:VAL:O	2.26	0.67
3:I:1230:LYS:HB2	3:I:1231:PRO:HD3	1.75	0.67
2:A:546:ARG:HG3	2:A:547:PHE:N	2.10	0.67
2:B:645:ALA:O	2:B:648:GLY:N	2.28	0.67
2:F:676:THR:HG23	3:K:449:MET:CE	2.22	0.67
2:G:420:ASP:O	2:G:424:TYR:N	2.26	0.67
3:I:58:LYS:O	3:I:62:LYS:NZ	2.27	0.67
3:I:584:PRO:HA	3:I:588:THR:HG23	1.76	0.67
3:L:652:ALA:HB1	3:L:814:MET:HG3	1.77	0.67
3:L:899:VAL:HG13	3:L:1181:ALA:HB1	1.76	0.67
2:B:149:VAL:HG13	2:B:150:TYR:N	2.09	0.66
2:C:546:ARG:HG3	2:C:547:PHE:N	2.09	0.66
3:I:67:ARG:HE	3:I:69:THR:H	1.43	0.66
2:D:645:ALA:O	2:D:648:GLY:N	2.28	0.66
3:J:335:ALA:HB3	3:J:336:GLY:CA	2.15	0.66
3:J:888:ALA:HB2	3:J:1281:MET:HE1	1.76	0.66
2:B:646:ARG:CD	2:B:663:MET:HE1	2.12	0.66
2:E:420:ASP:O	2:E:424:TYR:N	2.26	0.66
2:F:142:ARG:HE	2:F:142:ARG:CA	2.02	0.66
2:G:146:GLY:HA2	2:G:149:VAL:HG12	1.76	0.66
2:G:546:ARG:HG3	2:G:547:PHE:N	2.10	0.66
2:H:516:LEU:HD22	2:H:579:ILE:CG2	2.20	0.66
3:I:780:MET:HE3	3:I:781:PRO:HD2	1.78	0.66
3:J:780:MET:HE3	3:J:781:PRO:HD2	1.78	0.66
3:K:67:ARG:HE	3:K:69:THR:H	1.43	0.66
2:H:656:ILE:HD11	2:H:658:ASN:HD21	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:420:ASP:O	2:F:424:TYR:N	2.26	0.66
2:H:149:VAL:HG13	2:H:150:TYR:N	2.09	0.66
3:J:584:PRO:HA	3:J:588:THR:HG23	1.77	0.66
2:B:656:ILE:HD11	2:B:658:ASN:HD21	1.61	0.66
2:D:579:ILE:HG13	2:D:600:PHE:CE2	2.31	0.66
3:K:1044:LYS:HG2	3:K:1063:PHE:HD2	1.61	0.66
3:L:67:ARG:HE	3:L:69:THR:H	1.43	0.66
2:H:645:ALA:O	2:H:648:GLY:N	2.28	0.66
2:B:135:MET:HE3	2:B:135:MET:C	2.21	0.66
2:B:676:THR:HG21	3:I:449:MET:HE1	1.76	0.66
2:D:151:ALA:HB1	2:D:158:PRO:CD	2.26	0.66
2:E:146:GLY:HA2	2:E:149:VAL:HG12	1.76	0.66
2:B:676:THR:HG22	3:I:449:MET:HE1	1.76	0.66
3:I:941:ASP:OD2	3:I:1002:GLN:NE2	2.28	0.66
3:K:584:PRO:HA	3:K:588:THR:HG23	1.76	0.66
2:E:383:LYS:HB3	2:E:413:THR:HG23	1.77	0.66
2:H:142:ARG:HE	2:H:142:ARG:CA	2.02	0.66
2:F:656:ILE:HD11	2:F:658:ASN:HD21	1.61	0.65
2:H:579:ILE:HG13	2:H:600:PHE:CE2	2.30	0.65
3:L:1044:LYS:HG2	3:L:1063:PHE:HD2	1.61	0.65
2:D:229:LEU:HD23	2:E:84:ARG:NE	2.11	0.65
2:D:656:ILE:HD11	2:D:658:ASN:HD21	1.61	0.65
3:K:780:MET:HE3	3:K:781:PRO:HD2	1.78	0.65
3:L:941:ASP:OD2	3:L:1002:GLN:NE2	2.28	0.65
2:F:151:ALA:HB1	2:F:158:PRO:CD	2.26	0.65
2:D:135:MET:HE3	2:D:135:MET:C	2.21	0.65
3:I:652:ALA:HB1	3:I:814:MET:HG3	1.77	0.65
3:L:780:MET:HE3	3:L:781:PRO:HD2	1.78	0.65
2:D:420:ASP:O	2:D:424:TYR:N	2.26	0.65
2:E:546:ARG:HG3	2:E:547:PHE:N	2.10	0.65
2:H:135:MET:HE3	2:H:135:MET:C	2.21	0.65
3:I:335:ALA:HB3	3:I:336:GLY:CA	2.15	0.65
3:I:1044:LYS:HG2	3:I:1063:PHE:HD2	1.61	0.65
3:J:335:ALA:CB	3:J:336:GLY:HA2	2.07	0.65
3:J:652:ALA:HB1	3:J:814:MET:HG3	1.76	0.65
1:f:34:GLY:O	2:G:192:LYS:CE	2.45	0.65
2:A:383:LYS:HB3	2:A:413:THR:HG23	1.76	0.65
2:D:153:GLN:OE1	2:D:153:GLN:HA	1.97	0.65
2:H:420:ASP:O	2:H:424:TYR:N	2.26	0.65
2:H:676:THR:HG23	3:L:449:MET:CE	2.22	0.65
2:B:151:ALA:HB1	2:B:158:PRO:CD	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:579:ILE:HG13	2:B:600:PHE:CE2	2.31	0.65
2:D:323:ARG:CD	2:E:249:SER:OG	2.42	0.65
2:F:579:ILE:HG13	2:F:600:PHE:CE2	2.31	0.65
3:I:604:ARG:HH22	3:I:948:ARG:NH2	1.95	0.64
3:J:1044:LYS:HG2	3:J:1063:PHE:HD2	1.61	0.64
3:L:335:ALA:HB3	3:L:336:GLY:CA	2.15	0.64
3:J:646:ILE:HG12	3:K:701:SER:HB2	1.79	0.64
2:B:145:GLU:HA	2:B:145:GLU:OE2	1.98	0.64
2:F:135:MET:HE3	2:F:135:MET:C	2.21	0.64
2:G:125:LYS:HD2	2:G:182:HIS:HA	1.79	0.64
2:G:699:LEU:HG	2:H:372:LYS:HZ3	1.62	0.64
2:D:145:GLU:OE2	2:D:145:GLU:HA	1.98	0.64
2:E:436:ASP:HB2	2:F:315:SER:OG	1.98	0.64
2:A:626:MET:HE3	2:A:635:TRP:HD1	1.63	0.64
2:C:291:MET:HA	2:C:291:MET:CE	2.22	0.64
2:G:628:VAL:HG13	2:G:689:SER:HA	1.80	0.64
2:H:151:ALA:HB1	2:H:158:PRO:CD	2.26	0.64
3:I:1217:ILE:HG23	3:I:1220:LYS:HB2	1.79	0.64
3:K:1162:LEU:HG	3:K:1170:TYR:CD2	2.33	0.64
3:I:335:ALA:CB	3:I:336:GLY:HA2	2.07	0.64
3:L:363:GLY:O	3:L:443:SER:HB3	1.97	0.64
3:L:1217:ILE:HG23	3:L:1220:LYS:HB2	1.79	0.64
2:D:219:ASP:OD1	2:D:267:LYS:NZ	2.25	0.64
3:K:363:GLY:O	3:K:443:SER:HB3	1.97	0.64
2:C:125:LYS:HD2	2:C:182:HIS:HA	1.79	0.64
3:J:604:ARG:HH22	3:J:948:ARG:NH2	1.95	0.64
3:K:259:PHE:HE1	3:K:984:PRO:HD2	1.63	0.64
3:K:1217:ILE:HG23	3:K:1220:LYS:HB2	1.79	0.64
3:L:259:PHE:HE1	3:L:984:PRO:HD2	1.63	0.64
3:K:145:VAL:HB	3:K:255:GLY:HA3	1.80	0.64
2:A:291:MET:HA	2:A:291:MET:CE	2.22	0.63
2:E:125:LYS:HD2	2:E:182:HIS:HA	1.79	0.63
3:I:1162:LEU:HG	3:I:1170:TYR:CD2	2.33	0.63
3:J:1162:LEU:HG	3:J:1170:TYR:CD2	2.33	0.63
3:L:1162:LEU:HG	3:L:1170:TYR:CD2	2.33	0.63
2:A:699:LEU:HG	2:B:372:LYS:NZ	2.13	0.63
2:C:626:MET:HE3	2:C:635:TRP:HD1	1.63	0.63
2:G:404:PHE:HE1	2:G:418:HIS:ND1	1.97	0.63
2:G:626:MET:HE3	2:G:635:TRP:HD1	1.63	0.63
3:I:145:VAL:HB	3:I:255:GLY:HA3	1.80	0.63
3:I:259:PHE:HE1	3:I:984:PRO:HD2	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:363:GLY:O	3:I:443:SER:HB3	1.97	0.63
3:J:363:GLY:O	3:J:443:SER:HB3	1.97	0.63
3:J:941:ASP:OD2	3:J:1002:GLN:NE2	2.28	0.63
3:L:145:VAL:HB	3:L:255:GLY:HA3	1.80	0.63
3:L:953:GLN:OE1	3:L:956:ARG:NH1	2.31	0.63
2:A:125:LYS:HD2	2:A:182:HIS:HA	1.79	0.63
3:I:701:SER:HB2	3:L:646:ILE:HG12	1.79	0.63
3:J:953:GLN:OE1	3:J:956:ARG:NH1	2.31	0.63
3:L:250:GLY:O	3:L:251:ARG:HB2	1.98	0.63
3:L:828:ILE:CD1	3:L:852:VAL:HG21	2.29	0.63
1:d:34:GLY:O	2:E:192:LYS:CE	2.45	0.63
2:F:145:GLU:HA	2:F:145:GLU:OE2	1.98	0.63
3:I:640:LEU:HD22	3:I:811:ILE:HD13	1.81	0.63
2:B:153:GLN:HA	2:B:153:GLN:OE1	1.97	0.63
3:I:953:GLN:OE1	3:I:956:ARG:NH1	2.31	0.63
3:J:828:ILE:CD1	3:J:852:VAL:HG21	2.29	0.63
3:K:836:GLU:H	3:K:842:THR:HG21	1.64	0.63
3:K:941:ASP:OD2	3:K:1002:GLN:NE2	2.28	0.63
3:L:774:SER:HB2	3:L:788:VAL:HB	1.81	0.63
2:C:420:ASP:O	2:C:424:TYR:N	2.26	0.63
2:F:153:GLN:OE1	2:F:153:GLN:HA	1.97	0.63
2:H:153:GLN:OE1	2:H:153:GLN:HA	1.97	0.63
3:J:1217:ILE:HG23	3:J:1220:LYS:HB2	1.79	0.63
2:E:628:VAL:HG13	2:E:689:SER:HA	1.80	0.63
2:F:142:ARG:HA	2:F:142:ARG:NE	1.98	0.63
2:F:352:LEU:O	2:F:355:ALA:HB3	1.99	0.63
3:J:259:PHE:HE1	3:J:984:PRO:HD2	1.63	0.63
3:J:774:SER:HB2	3:J:788:VAL:HB	1.81	0.63
2:B:219:ASP:OD1	2:B:267:LYS:NZ	2.25	0.63
2:C:228:GLY:O	2:C:233:ALA:N	2.32	0.63
2:E:404:PHE:HE1	2:E:418:HIS:ND1	1.97	0.63
2:F:323:ARG:CD	2:G:249:SER:OG	2.41	0.63
3:I:705:VAL:HG23	3:I:708:ARG:HE	1.64	0.63
2:C:628:VAL:HG13	2:C:689:SER:HA	1.80	0.62
2:D:516:LEU:HD21	2:D:579:ILE:HG23	1.80	0.62
3:I:250:GLY:O	3:I:251:ARG:HB2	1.98	0.62
3:J:836:GLU:H	3:J:842:THR:HG21	1.64	0.62
3:K:705:VAL:HG23	3:K:708:ARG:HE	1.64	0.62
2:A:404:PHE:HE1	2:A:418:HIS:ND1	1.97	0.62
2:E:626:MET:HE3	2:E:635:TRP:HD1	1.63	0.62
2:G:436:ASP:HB2	2:H:315:SER:OG	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:378:THR:HG21	3:J:383:GLY:HA3	1.81	0.62
3:J:817:THR:HG23	3:J:1229:ASN:HD21	1.64	0.62
3:K:953:GLN:OE1	3:K:956:ARG:NH1	2.31	0.62
2:D:352:LEU:O	2:D:355:ALA:HB3	2.00	0.62
3:I:378:THR:HG21	3:I:383:GLY:HA3	1.80	0.62
3:K:774:SER:HB2	3:K:788:VAL:HB	1.81	0.62
3:K:862:ASN:O	3:K:863:GLN:C	2.42	0.62
3:L:640:LEU:HD22	3:L:811:ILE:HD13	1.81	0.62
2:D:135:MET:HE3	2:D:136:GLU:N	2.14	0.62
2:E:439:ASP:OD1	2:E:439:ASP:N	2.26	0.62
2:E:595:GLU:O	2:E:598:THR:HG22	2.00	0.62
2:H:145:GLU:HA	2:H:145:GLU:OE2	1.98	0.62
3:I:774:SER:HB2	3:I:788:VAL:HB	1.81	0.62
3:I:828:ILE:CD1	3:I:852:VAL:HG21	2.29	0.62
2:A:228:GLY:O	2:A:233:ALA:N	2.32	0.62
2:A:599:LYS:HE3	2:A:600:PHE:N	2.15	0.62
3:I:836:GLU:H	3:I:842:THR:HG21	1.64	0.62
3:J:145:VAL:HB	3:J:255:GLY:HA3	1.80	0.62
3:K:250:GLY:O	3:K:251:ARG:HB2	1.98	0.62
3:K:817:THR:HG23	3:K:1229:ASN:HD21	1.65	0.62
2:A:628:VAL:HG13	2:A:689:SER:HA	1.80	0.62
2:C:404:PHE:HE1	2:C:418:HIS:HD1	1.47	0.62
2:G:595:GLU:O	2:G:598:THR:HG22	2.00	0.62
2:H:219:ASP:OD1	2:H:267:LYS:NZ	2.25	0.62
3:K:150:MET:O	3:K:154:LEU:N	2.32	0.62
3:K:378:THR:HG21	3:K:383:GLY:HA3	1.80	0.62
3:K:828:ILE:CD1	3:K:852:VAL:HG21	2.29	0.62
2:A:595:GLU:O	2:A:598:THR:HG22	2.00	0.62
2:B:212:LEU:HB3	2:B:260:PHE:HB2	1.82	0.62
2:B:374:LEU:HD13	2:C:296:ARG:HA	1.80	0.62
2:F:135:MET:HE3	2:F:136:GLU:N	2.14	0.62
3:I:817:THR:HG23	3:I:1229:ASN:HD21	1.64	0.62
3:L:378:THR:HG21	3:L:383:GLY:HA3	1.81	0.62
3:L:836:GLU:H	3:L:842:THR:HG21	1.64	0.62
2:D:212:LEU:HB3	2:D:260:PHE:HB2	1.82	0.62
2:F:212:LEU:HB3	2:F:260:PHE:HB2	1.82	0.62
2:F:219:ASP:OD1	2:F:267:LYS:NZ	2.25	0.62
2:H:212:LEU:HB3	2:H:260:PHE:HB2	1.82	0.62
3:K:646:ILE:HG12	3:L:701:SER:HB2	1.82	0.62
2:A:420:ASP:O	2:A:424:TYR:N	2.26	0.62
2:H:135:MET:HE3	2:H:136:GLU:N	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:352:LEU:O	2:H:355:ALA:HB3	2.00	0.62
3:I:300:GLU:HB3	3:I:301:ASN:HB3	1.82	0.62
3:J:705:VAL:HG23	3:J:708:ARG:HE	1.64	0.62
3:L:150:MET:O	3:L:154:LEU:N	2.32	0.62
3:L:705:VAL:HG23	3:L:708:ARG:HE	1.64	0.62
2:H:516:LEU:HD21	2:H:579:ILE:HG23	1.80	0.62
3:J:250:GLY:O	3:J:251:ARG:HB2	1.98	0.62
3:L:337:VAL:CG2	3:L:338:ASP:N	2.49	0.62
2:B:352:LEU:O	2:B:355:ALA:HB3	1.99	0.61
2:G:228:GLY:O	2:G:233:ALA:N	2.32	0.61
3:I:288:PRO:HB2	3:I:588:THR:CG2	2.30	0.61
3:J:640:LEU:HD22	3:J:811:ILE:HD13	1.81	0.61
3:L:817:THR:HG23	3:L:1229:ASN:HD21	1.65	0.61
2:A:231:THR:N	2:A:232:GLY:HA2	2.15	0.61
2:C:436:ASP:HB2	2:D:315:SER:OG	2.01	0.61
2:F:143:LEU:HG	2:F:167:PHE:HZ	1.65	0.61
2:F:169:GLY:HA3	2:F:170:ASP:C	2.26	0.61
2:H:439:ASP:OD1	2:H:439:ASP:N	2.26	0.61
3:I:150:MET:O	3:I:154:LEU:N	2.33	0.61
3:I:785:GLN:HB3	3:L:561:ARG:HH22	1.65	0.61
3:J:288:PRO:HB2	3:J:588:THR:CG2	2.30	0.61
3:J:649:ASN:OD1	3:J:650:THR:N	2.34	0.61
3:K:649:ASN:OD1	3:K:650:THR:N	2.34	0.61
2:B:549:ASP:OD1	2:B:550:ASP:N	2.34	0.61
2:D:143:LEU:HG	2:D:167:PHE:HZ	1.65	0.61
2:E:599:LYS:HE3	2:E:600:PHE:N	2.15	0.61
3:L:862:ASN:O	3:L:863:GLN:C	2.42	0.61
2:B:231:THR:N	2:B:232:GLY:HA2	2.16	0.61
2:C:231:THR:N	2:C:232:GLY:HA2	2.15	0.61
2:C:595:GLU:O	2:C:598:THR:HG22	2.00	0.61
2:E:228:GLY:O	2:E:233:ALA:N	2.32	0.61
3:J:862:ASN:O	3:J:863:GLN:C	2.42	0.61
3:K:640:LEU:HD22	3:K:811:ILE:HD13	1.81	0.61
2:B:135:MET:HE3	2:B:136:GLU:N	2.14	0.61
2:B:322:PRO:HG2	2:B:366:TRP:HB2	1.83	0.61
2:B:420:ASP:O	2:B:424:TYR:N	2.26	0.61
2:B:626:MET:HE3	2:B:635:TRP:HD1	1.66	0.61
2:F:139:ARG:HG2	2:F:139:ARG:NH1	2.15	0.61
2:F:549:ASP:OD1	2:F:550:ASP:N	2.34	0.61
3:I:646:ILE:HG12	3:J:701:SER:HB2	1.81	0.61
3:K:300:GLU:HB3	3:K:301:ASN:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:322:PRO:HG2	2:A:366:TRP:HB2	1.83	0.61
2:D:322:PRO:HG2	2:D:366:TRP:HB2	1.83	0.61
2:D:516:LEU:CD2	2:D:579:ILE:CG2	2.74	0.61
2:F:322:PRO:HG2	2:F:366:TRP:HB2	1.83	0.61
2:G:599:LYS:HE3	2:G:600:PHE:N	2.15	0.61
2:C:322:PRO:HG2	2:C:366:TRP:HB2	1.83	0.61
2:C:599:LYS:HE3	2:C:600:PHE:N	2.15	0.61
2:F:699:LEU:HB3	2:G:372:LYS:HZ3	1.64	0.61
3:K:288:PRO:HB2	3:K:588:THR:CG2	2.30	0.61
3:K:561:ARG:HH22	3:L:785:GLN:HB3	1.66	0.61
3:L:300:GLU:HB3	3:L:301:ASN:HB3	1.82	0.61
2:B:143:LEU:HG	2:B:167:PHE:HZ	1.65	0.61
2:B:516:LEU:HD21	2:B:579:ILE:HG23	1.80	0.61
2:D:169:GLY:HA3	2:D:170:ASP:C	2.26	0.61
2:H:139:ARG:NH1	2:H:139:ARG:HG2	2.15	0.61
2:H:143:LEU:HG	2:H:167:PHE:HZ	1.65	0.61
3:J:300:GLU:HB3	3:J:301:ASN:HB3	1.82	0.61
3:K:490:ASN:ND2	3:K:493:THR:OG1	2.34	0.61
2:B:169:GLY:HA3	2:B:170:ASP:C	2.26	0.61
2:G:322:PRO:HG2	2:G:366:TRP:HB2	1.83	0.61
2:H:549:ASP:OD1	2:H:550:ASP:N	2.33	0.61
3:I:649:ASN:OD1	3:I:650:THR:N	2.34	0.61
3:L:490:ASN:ND2	3:L:493:THR:OG1	2.34	0.61
2:A:404:PHE:HE1	2:A:418:HIS:HD1	1.47	0.61
2:D:549:ASP:OD1	2:D:550:ASP:N	2.34	0.61
2:E:231:THR:N	2:E:232:GLY:HA2	2.15	0.61
2:F:678:GLN:CD	3:K:449:MET:SD	2.84	0.61
2:G:404:PHE:HE1	2:G:418:HIS:HD1	1.47	0.61
3:I:862:ASN:O	3:I:863:GLN:C	2.42	0.61
3:L:288:PRO:HB2	3:L:588:THR:CG2	2.30	0.61
3:L:649:ASN:OD1	3:L:650:THR:N	2.34	0.61
2:G:169:GLY:HA3	2:G:170:ASP:C	2.26	0.60
2:H:322:PRO:HG2	2:H:366:TRP:HB2	1.83	0.60
3:J:561:ARG:HH22	3:K:785:GLN:HB3	1.66	0.60
3:J:1116:LEU:HA	3:J:1121:LEU:HD22	1.83	0.60
3:L:623:GLU:O	3:L:626:VAL:HG12	2.01	0.60
2:A:699:LEU:CG	2:B:372:LYS:HZ3	2.14	0.60
2:C:404:PHE:HE1	2:C:418:HIS:ND1	1.97	0.60
2:D:626:MET:HE3	2:D:635:TRP:HD1	1.66	0.60
2:E:322:PRO:HG2	2:E:366:TRP:HB2	1.83	0.60
2:H:626:MET:HE3	2:H:635:TRP:HD1	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:604:ARG:HH22	3:K:948:ARG:NH2	1.95	0.60
3:L:410:ALA:HA	3:L:413:LYS:HG3	1.83	0.60
2:D:231:THR:N	2:D:232:GLY:HA2	2.15	0.60
3:I:490:ASN:ND2	3:I:493:THR:OG1	2.34	0.60
3:I:1116:LEU:HA	3:I:1121:LEU:HD22	1.83	0.60
2:A:169:GLY:HA3	2:A:170:ASP:C	2.26	0.60
2:H:169:GLY:HA3	2:H:170:ASP:C	2.25	0.60
3:L:1116:LEU:HA	3:L:1121:LEU:HD22	1.83	0.60
2:E:169:GLY:HA3	2:E:170:ASP:C	2.26	0.60
2:F:231:THR:N	2:F:232:GLY:HA2	2.16	0.60
2:F:676:THR:HG21	3:K:449:MET:CE	2.32	0.60
3:I:337:VAL:CG2	3:I:338:ASP:N	2.49	0.60
3:K:1116:LEU:HA	3:K:1121:LEU:HD22	1.83	0.60
3:L:909:GLY:HA3	3:L:1309:ASN:HD21	1.67	0.60
1:g:51:ASP:O	1:g:54:LEU:N	2.35	0.60
1:h:51:ASP:O	1:h:54:LEU:N	2.35	0.60
2:C:169:GLY:HA3	2:C:170:ASP:C	2.26	0.60
2:D:139:ARG:HG2	2:D:139:ARG:NH1	2.15	0.60
2:F:626:MET:HE3	2:F:635:TRP:HD1	1.66	0.60
3:J:986:THR:OG1	3:J:990:ASN:ND2	2.35	0.60
3:K:479:ASP:N	3:K:480:GLY:HA2	2.16	0.60
1:f:51:ASP:O	1:f:54:LEU:N	2.35	0.60
2:B:541:ARG:CB	2:B:546:ARG:HB3	2.31	0.60
2:F:516:LEU:HD21	2:F:579:ILE:HG23	1.80	0.60
3:I:623:GLU:O	3:I:626:VAL:HG12	2.01	0.60
3:J:490:ASN:ND2	3:J:493:THR:OG1	2.34	0.60
3:K:410:ALA:HA	3:K:413:LYS:HG3	1.84	0.60
3:K:986:THR:OG1	3:K:990:ASN:ND2	2.35	0.60
2:D:541:ARG:CB	2:D:546:ARG:HB3	2.31	0.60
3:J:410:ALA:HA	3:J:413:LYS:HG3	1.83	0.60
3:J:909:GLY:HA3	3:J:1309:ASN:HD21	1.67	0.60
3:L:553:ALA:HB1	3:L:554:THR:CG2	2.32	0.60
3:L:986:THR:OG1	3:L:990:ASN:ND2	2.35	0.60
2:A:562:ALA:O	2:A:563:PRO:C	2.43	0.60
2:E:205:VAL:HG11	2:E:220:PHE:CE2	2.37	0.60
2:G:439:ASP:OD1	2:G:439:ASP:N	2.26	0.60
3:I:410:ALA:HA	3:I:413:LYS:HG3	1.84	0.60
3:K:909:GLY:HA3	3:K:1309:ASN:HD21	1.67	0.60
2:D:699:LEU:HB3	2:E:372:LYS:HZ3	1.67	0.60
2:E:404:PHE:HE1	2:E:418:HIS:HD1	1.47	0.60
2:H:678:GLN:CD	3:L:449:MET:SD	2.85	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:553:ALA:HB1	3:J:554:THR:CG2	2.32	0.60
3:K:813:ILE:HG21	3:K:824:LEU:CD2	2.30	0.60
2:A:599:LYS:HE3	2:A:599:LYS:C	2.27	0.59
2:D:650:ILE:HG12	2:D:657:THR:HG21	1.84	0.59
3:I:553:ALA:HB1	3:I:554:THR:CG2	2.32	0.59
3:J:344:PRO:O	3:J:1300:GLN:NE2	2.35	0.59
3:K:553:ALA:HB1	3:K:554:THR:CG2	2.32	0.59
1:a:51:ASP:O	1:a:54:LEU:N	2.35	0.59
2:A:621:ILE:HD12	2:A:670:ILE:HG23	1.84	0.59
2:B:516:LEU:CD2	2:B:579:ILE:CG2	2.74	0.59
2:B:547:PHE:CZ	3:I:318:ARG:O	2.54	0.59
2:F:650:ILE:HG12	2:F:657:THR:HG21	1.84	0.59
3:I:909:GLY:HA3	3:I:1309:ASN:HD21	1.67	0.59
3:I:986:THR:OG1	3:I:990:ASN:ND2	2.35	0.59
3:K:344:PRO:O	3:K:1300:GLN:NE2	2.35	0.59
3:L:479:ASP:N	3:L:480:GLY:HA2	2.16	0.59
1:e:51:ASP:O	1:e:54:LEU:N	2.35	0.59
2:D:666:GLN:HA	2:D:666:GLN:HE21	1.66	0.59
2:E:562:ALA:O	2:E:563:PRO:C	2.43	0.59
2:A:699:LEU:CD2	2:B:372:LYS:HZ3	2.16	0.59
2:B:513:GLU:HG3	2:B:578:LYS:HD3	1.85	0.59
3:J:26:SER:HB2	3:J:29:LEU:HD12	1.85	0.59
3:J:623:GLU:O	3:J:626:VAL:HG12	2.01	0.59
3:J:986:THR:O	3:J:990:ASN:ND2	2.36	0.59
3:L:26:SER:HB2	3:L:29:LEU:HD12	1.85	0.59
2:B:229:LEU:HD23	2:C:84:ARG:NE	2.17	0.59
2:G:231:THR:N	2:G:232:GLY:HA2	2.15	0.59
3:I:986:THR:O	3:I:990:ASN:ND2	2.36	0.59
3:K:101:GLU:HB2	3:K:146:ALA:O	2.03	0.59
3:K:623:GLU:O	3:K:626:VAL:HG12	2.01	0.59
2:C:599:LYS:HE3	2:C:599:LYS:C	2.28	0.59
2:E:599:LYS:HE3	2:E:599:LYS:C	2.28	0.59
2:H:231:THR:N	2:H:232:GLY:HA2	2.16	0.59
2:A:338:LYS:O	2:A:339:VAL:C	2.46	0.59
2:B:139:ARG:NH1	2:B:139:ARG:HG2	2.15	0.59
2:F:569:PRO:HG2	2:F:572:LEU:HB2	1.85	0.59
2:G:621:ILE:HD12	2:G:670:ILE:HG23	1.84	0.59
2:H:513:GLU:HG3	2:H:578:LYS:HD3	1.85	0.59
3:I:561:ARG:HH22	3:J:785:GLN:HB3	1.66	0.59
3:J:150:MET:O	3:J:154:LEU:N	2.32	0.59
2:H:135:MET:SD	2:H:178:LEU:HD21	2.43	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:793:ASP:OD1	3:K:794:PHE:N	2.33	0.59
1:b:13:GLY:O	1:b:14:ALA:CB	2.51	0.59
2:C:621:ILE:HD12	2:C:670:ILE:HG23	1.84	0.59
2:D:678:GLN:CD	3:J:449:MET:SD	2.85	0.59
2:E:338:LYS:O	2:E:339:VAL:C	2.46	0.59
3:I:26:SER:HB2	3:I:29:LEU:HD12	1.85	0.59
1:b:51:ASP:O	1:b:54:LEU:N	2.35	0.59
2:D:676:THR:HG21	3:J:449:MET:CE	2.33	0.59
2:F:516:LEU:CD2	2:F:579:ILE:CG2	2.74	0.59
2:G:338:LYS:O	2:G:339:VAL:C	2.46	0.59
2:G:699:LEU:CD2	2:H:372:LYS:HZ3	2.15	0.59
2:H:650:ILE:HG12	2:H:657:THR:HG21	1.84	0.59
3:I:101:GLU:HB2	3:I:146:ALA:O	2.03	0.59
3:I:479:ASP:N	3:I:480:GLY:HA2	2.16	0.59
3:K:986:THR:O	3:K:990:ASN:ND2	2.36	0.59
2:B:569:PRO:HG2	2:B:572:LEU:HB2	1.85	0.58
2:C:403:ASP:OD1	2:C:403:ASP:N	2.19	0.58
2:D:569:PRO:HG2	2:D:572:LEU:HB2	1.85	0.58
2:G:516:LEU:HD22	2:G:579:ILE:HG12	1.85	0.58
2:H:569:PRO:HG2	2:H:572:LEU:HB2	1.85	0.58
3:I:344:PRO:O	3:I:1300:GLN:NE2	2.35	0.58
3:J:479:ASP:N	3:J:480:GLY:HA2	2.16	0.58
3:K:26:SER:HB2	3:K:29:LEU:HD12	1.85	0.58
3:L:813:ILE:HG21	3:L:824:LEU:CD2	2.30	0.58
3:L:986:THR:O	3:L:990:ASN:ND2	2.36	0.58
1:c:51:ASP:O	1:c:54:LEU:N	2.35	0.58
2:A:374:LEU:HD13	2:B:296:ARG:HA	1.85	0.58
2:A:505:ALA:HA	2:A:515:PHE:CE2	2.38	0.58
2:B:135:MET:SD	2:B:178:LEU:HD21	2.43	0.58
2:B:650:ILE:HG12	2:B:657:THR:HG21	1.84	0.58
2:C:505:ALA:HA	2:C:515:PHE:CE2	2.38	0.58
2:C:568:MET:HG2	2:C:573:ARG:HB2	1.85	0.58
2:F:135:MET:SD	2:F:178:LEU:HD21	2.43	0.58
2:H:541:ARG:CB	2:H:546:ARG:HB3	2.31	0.58
3:L:344:PRO:O	3:L:1300:GLN:NE2	2.35	0.58
1:d:51:ASP:O	1:d:54:LEU:N	2.35	0.58
2:A:136:GLU:OE2	2:A:137:GLU:N	2.37	0.58
2:A:568:MET:HG2	2:A:573:ARG:HB2	1.86	0.58
2:C:628:VAL:HG11	2:C:692:TRP:HB3	1.86	0.58
2:E:136:GLU:OE2	2:E:137:GLU:N	2.36	0.58
2:G:599:LYS:HE3	2:G:599:LYS:C	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:101:GLU:HB2	3:L:146:ALA:O	2.03	0.58
3:L:712:MET:HE3	3:L:716:LEU:HD11	1.86	0.58
2:A:205:VAL:HG11	2:A:220:PHE:CE2	2.37	0.58
2:A:567:ARG:HD3	3:I:1119:LYS:HE3	1.85	0.58
2:F:541:ARG:CB	2:F:546:ARG:HB3	2.31	0.58
2:G:136:GLU:OE2	2:G:137:GLU:N	2.36	0.58
2:G:666:GLN:HG3	2:G:667:GLY:H	1.69	0.58
2:A:439:ASP:OD1	2:A:439:ASP:N	2.26	0.58
2:B:215:PRO:C	2:B:263:ARG:HH22	2.12	0.58
2:C:136:GLU:OE2	2:C:137:GLU:N	2.37	0.58
2:F:575:SER:O	2:F:576:ALA:C	2.46	0.58
3:J:990:ASN:OD1	3:J:994:ASN:ND2	2.36	0.58
2:A:516:LEU:HD22	2:A:579:ILE:HG12	1.85	0.58
2:C:567:ARG:HD3	3:J:1119:LYS:HE3	1.86	0.58
2:G:404:PHE:HE1	2:G:418:HIS:CE1	2.21	0.58
2:G:505:ALA:HA	2:G:515:PHE:CE2	2.39	0.58
3:K:257:ASP:C	3:K:259:PHE:H	2.11	0.58
3:K:1141:ILE:HD11	3:K:1302:VAL:HG13	1.85	0.58
2:B:666:GLN:HA	2:B:666:GLN:HE21	1.66	0.58
2:D:579:ILE:HG13	2:D:600:PHE:HD2	1.66	0.58
2:E:516:LEU:HD22	2:E:579:ILE:HG12	1.85	0.58
2:E:567:ARG:HD3	3:K:1119:LYS:HE3	1.85	0.58
2:E:621:ILE:HD12	2:E:670:ILE:HG23	1.84	0.58
3:I:816:SER:OG	3:I:817:THR:N	2.37	0.58
3:I:990:ASN:OD1	3:I:994:ASN:ND2	2.36	0.58
2:F:215:PRO:C	2:F:263:ARG:HH22	2.12	0.58
2:G:567:ARG:HD3	3:L:1119:LYS:HE3	1.85	0.58
3:J:101:GLU:HB2	3:J:146:ALA:O	2.03	0.58
3:L:816:SER:OG	3:L:817:THR:N	2.37	0.58
2:A:404:PHE:HE1	2:A:418:HIS:CE1	2.22	0.58
2:C:584:LYS:HG2	2:C:589:ASN:HB2	1.86	0.58
2:D:135:MET:SD	2:D:178:LEU:HD21	2.43	0.58
2:E:568:MET:HG2	2:E:573:ARG:HB2	1.85	0.58
2:E:505:ALA:HA	2:E:515:PHE:CE2	2.39	0.58
2:F:101:MET:HA	2:F:101:MET:HE3	1.86	0.58
2:G:101:MET:HA	2:G:101:MET:HE3	1.85	0.58
3:I:449:MET:HG2	3:I:468:LEU:HD11	1.86	0.58
3:I:1141:ILE:HD11	3:I:1302:VAL:HG13	1.85	0.58
3:J:712:MET:HE3	3:J:716:LEU:HD11	1.86	0.58
3:K:1189:SER:HA	3:K:1190:GLN:CB	2.34	0.58
2:C:516:LEU:HD22	2:C:579:ILE:HG12	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:188:GLN:O	2:F:192:LYS:HG2	2.04	0.57
2:G:628:VAL:HG11	2:G:692:TRP:HB3	1.86	0.57
2:H:101:MET:HA	2:H:101:MET:HE3	1.86	0.57
2:H:215:PRO:C	2:H:263:ARG:HH22	2.12	0.57
3:I:257:ASP:C	3:I:259:PHE:H	2.12	0.57
3:K:816:SER:OG	3:K:817:THR:N	2.37	0.57
3:L:502:PRO:HD2	3:L:1151:TYR:HE1	1.69	0.57
3:L:990:ASN:OD1	3:L:994:ASN:ND2	2.36	0.57
1:h:12:SER:C	1:h:14:ALA:H	2.12	0.57
2:C:338:LYS:O	2:C:339:VAL:C	2.46	0.57
2:C:404:PHE:HE1	2:C:418:HIS:CE1	2.21	0.57
2:D:516:LEU:HB2	2:D:579:ILE:CD1	2.34	0.57
2:F:513:GLU:HG3	2:F:578:LYS:HD3	1.85	0.57
3:J:502:PRO:HD2	3:J:1151:TYR:HE1	1.69	0.57
2:B:188:GLN:O	2:B:192:LYS:HG2	2.04	0.57
2:D:215:PRO:C	2:D:263:ARG:HH22	2.12	0.57
2:E:404:PHE:HE1	2:E:418:HIS:CE1	2.21	0.57
2:H:139:ARG:CG	2:H:139:ARG:HH11	2.17	0.57
2:H:188:GLN:O	2:H:192:LYS:HG2	2.04	0.57
3:I:502:PRO:HD2	3:I:1151:TYR:HE1	1.69	0.57
3:L:449:MET:HG2	3:L:468:LEU:HD11	1.86	0.57
3:L:604:ARG:HH22	3:L:948:ARG:NH2	1.95	0.57
1:h:35:ARG:O	2:A:192:LYS:HG2	2.04	0.57
2:B:579:ILE:HG13	2:B:600:PHE:HD2	1.66	0.57
2:D:513:GLU:HG3	2:D:578:LYS:HD3	1.85	0.57
3:I:712:MET:HE3	3:I:716:LEU:HD11	1.86	0.57
3:J:257:ASP:C	3:J:259:PHE:H	2.12	0.57
3:K:458:GLY:HA2	3:K:465:TYR:CE2	2.40	0.57
3:K:712:MET:HE3	3:K:716:LEU:HD11	1.86	0.57
3:L:458:GLY:HA2	3:L:465:TYR:CE2	2.40	0.57
2:A:505:ALA:HA	2:A:515:PHE:HE2	1.70	0.57
2:D:380:SER:HA	2:D:383:LYS:HE2	1.87	0.57
2:G:505:ALA:HA	2:G:515:PHE:HE2	1.70	0.57
3:I:671:ASP:OD1	3:I:673:HIS:N	2.38	0.57
3:J:29:LEU:HD11	3:J:101:GLU:HG2	1.86	0.57
3:J:708:ARG:HG3	3:J:771:LEU:HD21	1.86	0.57
3:J:1141:ILE:HD11	3:J:1302:VAL:HG13	1.85	0.57
3:K:29:LEU:HD11	3:K:101:GLU:HG2	1.86	0.57
3:L:1005:LEU:O	3:L:1009:ILE:HG13	2.05	0.57
1:d:12:SER:C	1:d:14:ALA:H	2.12	0.57
2:A:101:MET:HA	2:A:101:MET:HE3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:516:LEU:HB2	2:B:579:ILE:CD1	2.34	0.57
2:D:188:GLN:O	2:D:192:LYS:HG2	2.04	0.57
2:E:666:GLN:HG3	2:E:667:GLY:H	1.69	0.57
2:F:628:VAL:HB	2:F:634:SER:HB3	1.86	0.57
3:I:1030:SER:HB3	3:I:1033:PRO:HD2	1.87	0.57
3:J:434:ALA:HB3	3:J:447:SER:HB2	1.87	0.57
3:J:702:ARG:HB2	3:J:705:VAL:HG12	1.87	0.57
1:f:12:SER:C	1:f:14:ALA:H	2.12	0.57
2:F:380:SER:HA	2:F:383:LYS:HE2	1.87	0.57
2:F:516:LEU:HB2	2:F:579:ILE:CD1	2.34	0.57
2:F:666:GLN:HA	2:F:666:GLN:HE21	1.66	0.57
2:G:562:ALA:O	2:G:563:PRO:C	2.43	0.57
3:J:449:MET:HG2	3:J:468:LEU:HD11	1.86	0.57
3:J:1030:SER:HB3	3:J:1033:PRO:HD2	1.87	0.57
3:L:1141:ILE:HD11	3:L:1302:VAL:HG13	1.85	0.57
3:L:1224:LYS:O	3:L:1228:PRO:HD2	2.04	0.57
2:A:666:GLN:HG3	2:A:667:GLY:H	1.69	0.57
2:B:380:SER:HA	2:B:383:LYS:HE2	1.87	0.57
2:C:101:MET:HE3	2:C:101:MET:HA	1.85	0.57
2:E:628:VAL:HG11	2:E:692:TRP:HB3	1.86	0.57
2:F:579:ILE:HG13	2:F:600:PHE:HD2	1.66	0.57
2:G:584:LYS:HG2	2:G:589:ASN:HB2	1.86	0.57
2:H:516:LEU:HB2	2:H:579:ILE:CD1	2.34	0.57
3:K:708:ARG:HG3	3:K:771:LEU:HD21	1.86	0.57
3:K:284:GLU:HB2	3:K:306:ILE:HD13	1.87	0.57
2:B:344:GLN:HG3	2:B:346:THR:HG22	1.87	0.57
2:B:439:ASP:OD1	2:B:439:ASP:N	2.26	0.57
2:C:562:ALA:O	2:C:563:PRO:C	2.43	0.57
2:H:344:GLN:HG3	2:H:346:THR:HG22	1.87	0.57
3:I:434:ALA:HB3	3:I:447:SER:HB2	1.86	0.57
3:K:990:ASN:OD1	3:K:994:ASN:ND2	2.36	0.57
3:K:1224:LYS:O	3:K:1228:PRO:HD2	2.04	0.57
3:L:1189:SER:HA	3:L:1190:GLN:CB	2.34	0.57
2:C:380:SER:HA	2:C:383:LYS:HE2	1.86	0.56
2:E:380:SER:HA	2:E:383:LYS:HE2	1.87	0.56
2:G:568:MET:HG2	2:G:573:ARG:HB2	1.86	0.56
3:K:434:ALA:HB3	3:K:447:SER:HB2	1.87	0.56
3:K:616:GLN:O	3:K:618:ALA:N	2.38	0.56
3:L:793:ASP:OD1	3:L:794:PHE:N	2.33	0.56
2:B:628:VAL:HB	2:B:634:SER:HB3	1.86	0.56
2:C:666:GLN:HG3	2:C:667:GLY:H	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:101:MET:HA	2:D:101:MET:HE3	1.86	0.56
2:D:439:ASP:OD1	2:D:439:ASP:N	2.26	0.56
2:E:101:MET:HA	2:E:101:MET:HE3	1.85	0.56
2:F:139:ARG:HH11	2:F:139:ARG:CG	2.17	0.56
3:I:78:ASN:HB2	3:I:81:LEU:HB2	1.87	0.56
3:I:702:ARG:HB2	3:I:705:VAL:HG12	1.87	0.56
3:I:1224:LYS:O	3:I:1228:PRO:HD2	2.04	0.56
3:K:331:GLY:O	3:K:335:ALA:CB	2.52	0.56
3:K:449:MET:HG2	3:K:468:LEU:HD11	1.86	0.56
3:L:671:ASP:OD1	3:L:673:HIS:N	2.38	0.56
2:A:380:SER:HA	2:A:383:LYS:HE2	1.87	0.56
2:A:584:LYS:HG2	2:A:589:ASN:HB2	1.86	0.56
2:D:344:GLN:HG3	2:D:346:THR:HG22	1.87	0.56
2:D:557:LEU:HD23	2:D:558:ASN:CA	2.36	0.56
2:D:628:VAL:HB	2:D:634:SER:HB3	1.86	0.56
2:D:700:GLU:C	2:D:702:LYS:N	2.62	0.56
2:F:344:GLN:HG3	2:F:346:THR:HG22	1.87	0.56
2:G:380:SER:HA	2:G:383:LYS:HE2	1.87	0.56
2:H:380:SER:HA	2:H:383:LYS:HE2	1.87	0.56
2:H:700:GLU:C	2:H:702:LYS:N	2.62	0.56
3:I:458:GLY:HA2	3:I:465:TYR:CE2	2.40	0.56
3:I:708:ARG:HG3	3:I:771:LEU:HD21	1.86	0.56
3:J:50:PRO:HA	3:J:57:THR:OG1	2.05	0.56
3:J:458:GLY:HA2	3:J:465:TYR:CE2	2.40	0.56
3:J:604:ARG:NH2	3:J:948:ARG:HH21	1.99	0.56
3:J:1224:LYS:O	3:J:1228:PRO:HD2	2.04	0.56
3:K:50:PRO:HA	3:K:57:THR:OG1	2.05	0.56
3:K:1030:SER:HB3	3:K:1033:PRO:HD2	1.87	0.56
3:L:78:ASN:HB2	3:L:81:LEU:HB2	1.87	0.56
3:L:708:ARG:HG3	3:L:771:LEU:HD21	1.86	0.56
2:B:101:MET:HA	2:B:101:MET:HE3	1.86	0.56
2:B:139:ARG:HH11	2:B:139:ARG:CG	2.17	0.56
2:E:231:THR:OG1	2:E:233:ALA:N	2.38	0.56
2:H:575:SER:O	2:H:576:ALA:C	2.46	0.56
2:H:579:ILE:HG13	2:H:600:PHE:HD2	1.66	0.56
3:I:793:ASP:OD1	3:I:794:PHE:N	2.33	0.56
3:I:813:ILE:HG21	3:I:824:LEU:CD2	2.30	0.56
3:J:816:SER:OG	3:J:817:THR:N	2.37	0.56
3:K:502:PRO:HD2	3:K:1151:TYR:HE1	1.69	0.56
3:K:702:ARG:HB2	3:K:705:VAL:HG12	1.87	0.56
3:K:1005:LEU:O	3:K:1009:ILE:HG13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:257:ASP:C	3:L:259:PHE:H	2.11	0.56
2:B:656:ILE:HD11	2:B:658:ASN:ND2	2.21	0.56
2:C:699:LEU:HG	2:D:372:LYS:NZ	2.18	0.56
2:E:584:LYS:HG2	2:E:589:ASN:HB2	1.86	0.56
2:H:516:LEU:CD2	2:H:579:ILE:CG2	2.74	0.56
2:H:656:ILE:HD11	2:H:658:ASN:ND2	2.21	0.56
3:J:284:GLU:HB2	3:J:306:ILE:HD13	1.87	0.56
3:L:29:LEU:HD11	3:L:101:GLU:HG2	1.86	0.56
1:b:35:ARG:O	2:C:192:LYS:HG2	2.06	0.56
2:B:557:LEU:HD23	2:B:558:ASN:CA	2.36	0.56
2:E:505:ALA:HA	2:E:515:PHE:HE2	1.70	0.56
3:I:616:GLN:O	3:I:618:ALA:N	2.38	0.56
3:I:1189:SER:HA	3:I:1190:GLN:CB	2.34	0.56
3:J:78:ASN:HB2	3:J:81:LEU:HB2	1.87	0.56
3:J:616:GLN:O	3:J:618:ALA:N	2.38	0.56
3:L:331:GLY:O	3:L:335:ALA:CB	2.52	0.56
3:L:1030:SER:HB3	3:L:1033:PRO:HD2	1.87	0.56
1:a:12:SER:C	1:a:14:ALA:H	2.12	0.56
3:J:1189:SER:HA	3:J:1190:GLN:CB	2.34	0.56
3:L:434:ALA:HB3	3:L:447:SER:HB2	1.86	0.56
3:L:616:GLN:O	3:L:618:ALA:N	2.38	0.56
2:A:120:VAL:O	2:A:121:MET:C	2.49	0.56
2:A:628:VAL:HG11	2:A:692:TRP:HB3	1.86	0.56
2:F:439:ASP:OD1	2:F:439:ASP:N	2.26	0.56
2:F:557:LEU:HD23	2:F:558:ASN:CA	2.36	0.56
3:I:1005:LEU:O	3:I:1009:ILE:HG13	2.05	0.56
3:L:284:GLU:HB2	3:L:306:ILE:HD13	1.87	0.56
2:B:282:ILE:HG23	2:B:286:GLN:HG2	1.88	0.56
2:C:205:VAL:HG11	2:C:220:PHE:CE2	2.36	0.56
2:D:282:ILE:HG23	2:D:286:GLN:HG2	1.88	0.56
3:K:362:VAL:CG2	3:K:446:LEU:HD11	2.36	0.56
2:E:139:ARG:O	2:E:143:LEU:CB	2.54	0.56
2:F:547:PHE:CD1	2:F:547:PHE:C	2.84	0.56
2:F:661:LEU:HD12	2:F:662:THR:H	1.68	0.56
2:F:699:LEU:HB3	2:G:372:LYS:NZ	2.21	0.56
2:H:85:GLU:HA	2:H:88:ASN:ND2	2.21	0.56
2:H:628:VAL:HB	2:H:634:SER:HB3	1.86	0.56
3:I:50:PRO:HA	3:I:57:THR:OG1	2.05	0.56
3:I:1120:PHE:CD2	3:I:1304:LYS:HB2	2.36	0.56
3:L:50:PRO:HA	3:L:57:THR:OG1	2.05	0.56
3:L:1120:PHE:CE2	3:L:1304:LYS:CG	2.80	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:676:THR:HA	3:I:431:ARG:HG2	1.88	0.55
2:F:282:ILE:HG23	2:F:286:GLN:HG2	1.88	0.55
3:I:29:LEU:HD11	3:I:101:GLU:HG2	1.86	0.55
3:K:78:ASN:HB2	3:K:81:LEU:HB2	1.87	0.55
3:K:432:LEU:HD11	3:K:894:ILE:HG13	1.89	0.55
2:A:139:ARG:O	2:A:143:LEU:CB	2.54	0.55
2:H:282:ILE:HG23	2:H:286:GLN:HG2	1.88	0.55
2:H:666:GLN:HA	2:H:666:GLN:HE21	1.66	0.55
3:J:1218:LEU:HA	3:J:1224:LYS:HD3	1.89	0.55
3:K:924:SER:HB3	3:K:927:GLU:HB2	1.88	0.55
3:L:702:ARG:HB2	3:L:705:VAL:HG12	1.87	0.55
1:e:12:SER:C	1:e:14:ALA:H	2.13	0.55
2:H:557:LEU:HD23	2:H:558:ASN:CA	2.36	0.55
2:H:676:THR:HG21	3:L:449:MET:CE	2.33	0.55
3:I:921:LYS:HB2	3:I:922:PRO:HA	1.89	0.55
3:J:1005:LEU:O	3:J:1009:ILE:HG13	2.05	0.55
3:L:924:SER:HB3	3:L:927:GLU:HB2	1.88	0.55
2:C:505:ALA:HA	2:C:515:PHE:HE2	1.70	0.55
2:D:494:ARG:HH22	2:D:521:MET:HE2	1.72	0.55
2:D:664:TYR:CD1	2:D:664:TYR:C	2.85	0.55
2:F:625:MET:HE2	2:F:670:ILE:HG13	1.89	0.55
2:G:231:THR:OG1	2:G:233:ALA:N	2.38	0.55
3:K:604:ARG:NH2	3:K:948:ARG:HH21	1.99	0.55
3:K:671:ASP:OD1	3:K:673:HIS:N	2.38	0.55
3:L:432:LEU:HD11	3:L:894:ILE:HG13	1.89	0.55
2:B:85:GLU:HA	2:B:88:ASN:ND2	2.21	0.55
2:H:541:ARG:HG3	2:H:546:ARG:CG	2.36	0.55
2:E:324:THR:HA	2:E:327:GLU:OE1	2.07	0.55
2:G:699:LEU:HG	2:H:372:LYS:NZ	2.21	0.55
2:H:625:MET:HE2	2:H:670:ILE:HG13	1.89	0.55
3:I:1024:GLY:C	3:I:1026:LEU:H	2.15	0.55
3:L:362:VAL:CG2	3:L:446:LEU:HD11	2.36	0.55
3:L:633:HIS:HD2	3:L:800:MET:HE2	1.72	0.55
2:B:323:ARG:HD2	2:C:249:SER:HG	1.71	0.55
2:D:139:ARG:HH11	2:D:139:ARG:CG	2.17	0.55
3:I:284:GLU:HB2	3:I:306:ILE:HD13	1.87	0.55
2:B:664:TYR:CD1	2:B:664:TYR:C	2.85	0.55
2:C:324:THR:HA	2:C:327:GLU:OE1	2.07	0.55
2:D:656:ILE:HD11	2:D:658:ASN:ND2	2.21	0.55
2:F:494:ARG:HH22	2:F:521:MET:HE2	1.72	0.55
2:F:541:ARG:HG3	2:F:546:ARG:CG	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:661:LEU:HD12	2:H:662:THR:H	1.68	0.55
3:I:362:VAL:CG2	3:I:446:LEU:HD11	2.36	0.55
3:J:362:VAL:CG2	3:J:446:LEU:HD11	2.36	0.55
3:J:633:HIS:HD2	3:J:800:MET:HE2	1.72	0.55
3:J:671:ASP:OD1	3:J:673:HIS:N	2.37	0.55
2:D:85:GLU:HA	2:D:88:ASN:ND2	2.21	0.55
3:I:432:LEU:HD11	3:I:894:ILE:HG13	1.89	0.55
3:I:587:SER:HA	3:I:1132:ARG:HH12	1.72	0.55
3:I:835:ALA:HA	3:I:836:GLU:CB	2.37	0.55
3:J:333:ILE:HD12	3:J:430:MET:HA	1.89	0.55
3:J:364:ALA:O	3:J:365:GLU:C	2.50	0.55
3:J:432:LEU:HD11	3:J:894:ILE:HG13	1.89	0.55
3:J:921:LYS:HB2	3:J:922:PRO:HA	1.89	0.55
3:K:651:LYS:O	3:K:652:ALA:HB3	2.07	0.55
2:A:372:LYS:NZ	2:H:699:LEU:HB3	2.21	0.55
2:B:575:SER:O	2:B:576:ALA:C	2.46	0.55
2:D:575:SER:O	2:D:576:ALA:C	2.46	0.55
2:E:699:LEU:HG	2:F:372:LYS:NZ	2.21	0.55
2:H:464:GLY:O	2:H:468:THR:HG23	2.07	0.55
3:I:1218:LEU:HA	3:I:1224:LYS:HD3	1.89	0.55
3:L:1218:LEU:HA	3:L:1224:LYS:HD3	1.89	0.55
2:A:464:GLY:O	2:A:468:THR:HG23	2.07	0.54
2:B:233:ALA:O	2:B:234:ILE:C	2.50	0.54
2:B:699:LEU:HB3	2:C:372:LYS:HZ3	1.72	0.54
2:F:85:GLU:HA	2:F:88:ASN:ND2	2.21	0.54
2:F:380:SER:O	2:F:384:LEU:HB2	2.07	0.54
2:F:553:PHE:C	2:F:553:PHE:CD1	2.85	0.54
3:I:633:HIS:HD2	3:I:800:MET:HE2	1.72	0.54
3:J:587:SER:HA	3:J:1132:ARG:HH12	1.72	0.54
3:J:924:SER:HB3	3:J:927:GLU:HB2	1.88	0.54
3:K:673:HIS:CD2	3:K:946:PRO:HG3	2.43	0.54
2:A:323:ARG:O	2:A:327:GLU:HG3	2.07	0.54
2:C:380:SER:O	2:C:384:LEU:HB2	2.07	0.54
2:D:553:PHE:CD1	2:D:553:PHE:C	2.85	0.54
2:H:664:TYR:CD1	2:H:664:TYR:C	2.85	0.54
3:J:673:HIS:CD2	3:J:946:PRO:HG3	2.43	0.54
3:J:813:ILE:HG21	3:J:824:LEU:CD2	2.30	0.54
3:K:364:ALA:O	3:K:365:GLU:C	2.50	0.54
3:K:587:SER:HA	3:K:1132:ARG:HH12	1.72	0.54
3:K:633:HIS:HD2	3:K:800:MET:HE2	1.72	0.54
3:L:921:LYS:HB2	3:L:922:PRO:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:380:SER:O	2:A:384:LEU:HB2	2.07	0.54
2:B:231:THR:OG1	2:B:233:ALA:N	2.39	0.54
2:C:139:ARG:O	2:C:143:LEU:CB	2.54	0.54
2:D:600:PHE:C	2:D:600:PHE:CD1	2.85	0.54
2:E:380:SER:O	2:E:384:LEU:HB2	2.07	0.54
2:F:656:ILE:HD11	2:F:658:ASN:ND2	2.21	0.54
2:G:205:VAL:HG11	2:G:220:PHE:CE2	2.37	0.54
2:H:494:ARG:HH22	2:H:521:MET:HE2	1.72	0.54
3:L:580:ALA:C	3:L:582:LYS:H	2.15	0.54
3:L:587:SER:HA	3:L:1132:ARG:HH12	1.72	0.54
2:A:436:ASP:HB2	2:B:315:SER:OG	2.07	0.54
2:B:625:MET:HE2	2:B:670:ILE:HG13	1.89	0.54
2:C:120:VAL:O	2:C:121:MET:C	2.49	0.54
2:D:676:THR:HG21	3:J:449:MET:HE1	1.87	0.54
2:E:323:ARG:O	2:E:327:GLU:HG3	2.07	0.54
2:F:112:ALA:HB2	2:F:150:TYR:HD2	1.72	0.54
3:L:364:ALA:O	3:L:365:GLU:C	2.50	0.54
2:B:541:ARG:HG3	2:B:546:ARG:CG	2.37	0.54
2:C:231:THR:OG1	2:C:233:ALA:N	2.38	0.54
2:G:323:ARG:O	2:G:327:GLU:HG3	2.07	0.54
2:G:464:GLY:O	2:G:468:THR:HG23	2.07	0.54
3:K:1218:LEU:HA	3:K:1224:LYS:HD3	1.89	0.54
3:L:651:LYS:O	3:L:652:ALA:HB3	2.07	0.54
2:B:112:ALA:HB2	2:B:150:TYR:HD2	1.72	0.54
2:B:225:ILE:O	2:B:229:LEU:HD12	2.08	0.54
2:B:380:SER:O	2:B:384:LEU:HB2	2.07	0.54
2:D:656:ILE:HD11	2:D:658:ASN:OD1	2.08	0.54
2:H:231:THR:OG1	2:H:233:ALA:N	2.39	0.54
3:I:333:ILE:HD12	3:I:430:MET:HA	1.89	0.54
3:I:906:LEU:HD11	3:I:1141:ILE:HG22	1.90	0.54
3:I:924:SER:HB3	3:I:927:GLU:HB2	1.88	0.54
3:J:821:THR:O	3:J:822:LYS:C	2.50	0.54
1:f:35:ARG:O	2:G:192:LYS:HG2	2.08	0.54
2:A:672:LEU:O	2:A:680:ARG:HA	2.08	0.54
2:B:656:ILE:HD11	2:B:658:ASN:OD1	2.08	0.54
2:C:323:ARG:O	2:C:327:GLU:HG3	2.07	0.54
2:D:358:GLN:OE1	2:D:358:GLN:HA	2.08	0.54
2:D:625:MET:HE2	2:D:670:ILE:HG13	1.89	0.54
2:D:661:LEU:HD12	2:D:662:THR:H	1.68	0.54
2:F:225:ILE:O	2:F:229:LEU:HD12	2.08	0.54
2:F:358:GLN:OE1	2:F:358:GLN:HA	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:672:LEU:O	2:G:680:ARG:HA	2.08	0.54
2:H:329:LEU:HD11	2:H:355:ALA:HB1	1.90	0.54
2:H:547:PHE:CD1	2:H:547:PHE:C	2.84	0.54
2:H:564:GLU:HG3	2:H:602:LYS:HG2	1.90	0.54
3:J:69:THR:HB	3:J:81:LEU:HD22	1.90	0.54
3:J:860:ARG:O	3:J:861:ARG:C	2.51	0.54
3:L:835:ALA:HA	3:L:836:GLU:CB	2.37	0.54
2:H:233:ALA:O	2:H:234:ILE:C	2.50	0.54
3:I:364:ALA:O	3:I:365:GLU:C	2.50	0.54
3:J:1024:GLY:C	3:J:1026:LEU:H	2.15	0.54
3:K:69:THR:HB	3:K:81:LEU:HD22	1.90	0.54
3:K:821:THR:O	3:K:822:LYS:C	2.50	0.54
3:K:934:SER:OG	3:K:1101:LEU:HB2	2.08	0.54
3:L:69:THR:HB	3:L:81:LEU:HD22	1.90	0.54
3:L:604:ARG:NH2	3:L:948:ARG:HH21	1.99	0.54
3:L:673:HIS:CD2	3:L:946:PRO:HG3	2.43	0.54
2:A:497:ARG:O	2:A:498:ASN:C	2.49	0.54
2:A:675:THR:HG22	3:I:1117:ASN:HB3	1.89	0.54
2:B:564:GLU:HG3	2:B:602:LYS:HG2	1.90	0.54
2:D:112:ALA:HB2	2:D:150:TYR:HD2	1.72	0.54
2:D:464:GLY:O	2:D:468:THR:HG23	2.07	0.54
2:E:358:GLN:OE1	2:E:358:GLN:HA	2.08	0.54
2:F:664:TYR:C	2:F:664:TYR:CD1	2.85	0.54
2:G:139:ARG:O	2:G:143:LEU:CB	2.54	0.54
2:H:225:ILE:O	2:H:229:LEU:HD12	2.08	0.54
3:I:673:HIS:CD2	3:I:946:PRO:HG3	2.43	0.54
3:J:906:LEU:HD11	3:J:1141:ILE:HG22	1.90	0.54
3:K:906:LEU:HD11	3:K:1141:ILE:HG22	1.90	0.54
2:A:277:THR:OG1	2:A:280:GLU:HB2	2.08	0.54
2:B:494:ARG:HH22	2:B:521:MET:HE2	1.72	0.54
2:D:699:LEU:HB3	2:E:372:LYS:NZ	2.23	0.54
2:F:277:THR:OG1	2:F:280:GLU:HB2	2.08	0.54
2:F:543:LYS:O	2:F:546:ARG:HG3	2.08	0.54
2:G:85:GLU:O	2:G:88:ASN:ND2	2.41	0.54
2:G:358:GLN:OE1	2:G:358:GLN:HA	2.08	0.54
2:H:112:ALA:HB2	2:H:150:TYR:HD2	1.72	0.54
2:H:662:THR:HG22	2:H:663:MET:N	2.23	0.54
3:I:604:ARG:NH2	3:I:948:ARG:HH21	1.99	0.54
3:J:934:SER:OG	3:J:1101:LEU:HB2	2.08	0.54
3:K:145:VAL:HA	3:K:146:ALA:HB2	1.90	0.54
3:K:580:ALA:C	3:K:582:LYS:H	2.16	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:324:THR:HA	2:A:327:GLU:OE1	2.07	0.53
2:A:358:GLN:OE1	2:A:358:GLN:HA	2.08	0.53
2:B:464:GLY:O	2:B:468:THR:HG23	2.07	0.53
2:D:233:ALA:O	2:D:234:ILE:C	2.50	0.53
2:E:85:GLU:O	2:E:88:ASN:ND2	2.41	0.53
2:E:497:ARG:O	2:E:498:ASN:C	2.49	0.53
2:F:700:GLU:C	2:F:702:LYS:N	2.62	0.53
2:G:322:PRO:HB2	2:G:363:MET:SD	2.48	0.53
2:G:329:LEU:HD11	2:G:355:ALA:HB1	1.90	0.53
2:H:322:PRO:HB2	2:H:363:MET:SD	2.49	0.53
3:I:69:THR:HB	3:I:81:LEU:HD22	1.90	0.53
3:L:906:LEU:HD11	3:L:1141:ILE:HG22	1.90	0.53
2:A:322:PRO:HB2	2:A:363:MET:SD	2.49	0.53
2:B:277:THR:OG1	2:B:280:GLU:HB2	2.08	0.53
2:B:322:PRO:HB2	2:B:363:MET:SD	2.49	0.53
2:B:358:GLN:OE1	2:B:358:GLN:HA	2.08	0.53
2:C:85:GLU:O	2:C:88:ASN:ND2	2.41	0.53
2:C:672:LEU:O	2:C:680:ARG:HA	2.08	0.53
2:D:543:LYS:O	2:D:546:ARG:HG3	2.08	0.53
2:G:324:THR:HA	2:G:327:GLU:OE1	2.07	0.53
2:G:380:SER:O	2:G:384:LEU:HB2	2.07	0.53
2:G:675:THR:HG22	3:L:1117:ASN:HB3	1.91	0.53
3:I:103:LYS:HD3	3:I:123:TYR:CD1	2.43	0.53
3:J:659:SER:O	3:J:660:ARG:HB3	2.08	0.53
3:J:793:ASP:OD1	3:J:794:PHE:N	2.33	0.53
3:J:835:ALA:HA	3:J:836:GLU:CB	2.37	0.53
3:L:103:LYS:HD3	3:L:123:TYR:CD1	2.43	0.53
3:L:934:SER:OG	3:L:1101:LEU:HB2	2.08	0.53
2:C:464:GLY:O	2:C:468:THR:HG23	2.07	0.53
2:E:277:THR:OG1	2:E:280:GLU:HB2	2.08	0.53
2:F:656:ILE:HD11	2:F:658:ASN:OD1	2.08	0.53
2:H:656:ILE:HD11	2:H:658:ASN:OD1	2.08	0.53
3:J:580:ALA:C	3:J:582:LYS:H	2.16	0.53
3:J:649:ASN:OD1	3:J:651:LYS:HD3	2.09	0.53
3:K:921:LYS:HB2	3:K:922:PRO:HA	1.89	0.53
3:L:290:TYR:OH	3:L:316:ASP:OD2	2.25	0.53
2:A:329:LEU:HD11	2:A:355:ALA:HB1	1.90	0.53
2:B:700:GLU:C	2:B:702:LYS:N	2.62	0.53
2:F:329:LEU:HD11	2:F:355:ALA:HB1	1.90	0.53
2:H:277:THR:OG1	2:H:280:GLU:HB2	2.08	0.53
3:I:145:VAL:HA	3:I:146:ALA:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:145:VAL:HA	3:J:146:ALA:HB2	1.91	0.53
3:K:659:SER:O	3:K:660:ARG:HB3	2.08	0.53
3:L:46:SER:OG	3:L:55:GLN:OE1	2.27	0.53
3:L:67:ARG:CZ	3:L:84:ASN:HB3	2.39	0.53
3:L:821:THR:O	3:L:822:LYS:C	2.50	0.53
3:L:1027:ARG:CB	3:L:1078:LYS:HE2	2.22	0.53
3:L:1162:LEU:O	3:L:1163:PRO:C	2.51	0.53
2:C:277:THR:OG1	2:C:280:GLU:HB2	2.08	0.53
2:E:672:LEU:O	2:E:680:ARG:HA	2.08	0.53
2:G:277:THR:OG1	2:G:280:GLU:HB2	2.08	0.53
3:I:67:ARG:CZ	3:I:84:ASN:HB3	2.39	0.53
3:I:331:GLY:O	3:I:335:ALA:CB	2.52	0.53
3:I:659:SER:O	3:I:660:ARG:HB3	2.08	0.53
3:J:651:LYS:O	3:J:652:ALA:HB3	2.07	0.53
3:K:860:ARG:O	3:K:861:ARG:C	2.51	0.53
3:L:422:ASP:HA	3:L:423:ASN:C	2.34	0.53
2:B:543:LYS:O	2:B:546:ARG:HG3	2.08	0.53
2:D:380:SER:O	2:D:384:LEU:HB2	2.07	0.53
2:E:322:PRO:HB2	2:E:363:MET:SD	2.48	0.53
2:F:139:ARG:HH21	2:F:175:ASN:HD22	1.57	0.53
2:F:464:GLY:O	2:F:468:THR:HG23	2.08	0.53
2:H:380:SER:O	2:H:384:LEU:HB2	2.07	0.53
3:I:257:ASP:C	3:I:259:PHE:N	2.66	0.53
3:I:651:LYS:O	3:I:652:ALA:HB3	2.07	0.53
3:I:860:ARG:O	3:I:861:ARG:C	2.51	0.53
3:I:934:SER:OG	3:I:1101:LEU:HB2	2.08	0.53
3:J:422:ASP:HA	3:J:423:ASN:C	2.34	0.53
3:K:653:VAL:N	3:K:814:MET:HE3	2.24	0.53
3:L:860:ARG:O	3:L:861:ARG:C	2.51	0.53
3:L:1024:GLY:C	3:L:1026:LEU:H	2.15	0.53
2:C:322:PRO:HB2	2:C:363:MET:SD	2.49	0.53
2:D:129:PHE:CZ	2:D:138:TYR:HD2	2.27	0.53
2:D:322:PRO:HB2	2:D:363:MET:SD	2.49	0.53
2:F:322:PRO:HB2	2:F:363:MET:SD	2.49	0.53
2:F:564:GLU:HG3	2:F:602:LYS:HG2	1.90	0.53
2:H:543:LYS:O	2:H:546:ARG:HG3	2.08	0.53
3:J:46:SER:OG	3:J:55:GLN:OE1	2.27	0.53
3:K:335:ALA:CB	3:K:336:GLY:HA2	2.07	0.53
1:d:35:ARG:O	2:E:192:LYS:HG2	2.08	0.53
2:A:231:THR:OG1	2:A:233:ALA:N	2.38	0.53
2:A:617:THR:OG1	3:I:1119:LYS:NZ	2.29	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:329:LEU:HD11	2:C:355:ALA:HB1	1.90	0.53
2:D:564:GLU:HG3	2:D:602:LYS:HG2	1.90	0.53
3:I:346:VAL:HA	3:I:1297:LEU:HD22	1.91	0.53
3:I:566:ASP:HA	3:I:569:THR:HG22	1.91	0.53
3:J:288:PRO:HB2	3:J:588:THR:HG21	1.91	0.53
3:J:665:TYR:HB2	3:J:769:ARG:HE	1.74	0.53
3:J:828:ILE:HD11	3:J:852:VAL:HG21	1.91	0.53
3:K:46:SER:OG	3:K:55:GLN:OE1	2.27	0.53
3:L:145:VAL:HA	3:L:146:ALA:HB2	1.91	0.53
3:L:288:PRO:HB2	3:L:588:THR:HG21	1.91	0.53
2:C:358:GLN:OE1	2:C:358:GLN:HA	2.08	0.53
2:D:329:LEU:HD11	2:D:355:ALA:HB1	1.90	0.53
2:G:497:ARG:O	2:G:498:ASN:C	2.49	0.53
2:H:358:GLN:HA	2:H:358:GLN:OE1	2.08	0.53
2:H:524:GLN:OE1	2:H:596:GLN:OE1	2.27	0.53
3:J:565:THR:HG21	3:J:1268:VAL:HG13	1.91	0.53
3:J:648:GLY:HA2	3:K:778:ILE:HD11	1.91	0.53
3:K:67:ARG:CZ	3:K:84:ASN:HB3	2.39	0.53
1:b:12:SER:C	1:b:14:ALA:H	2.17	0.53
2:B:329:LEU:HD11	2:B:355:ALA:HB1	1.90	0.53
2:C:626:MET:HE3	2:C:635:TRP:CD1	2.44	0.53
2:D:225:ILE:O	2:D:229:LEU:HD12	2.08	0.53
2:D:231:THR:OG1	2:D:233:ALA:N	2.39	0.53
2:D:547:PHE:C	2:D:547:PHE:CD1	2.84	0.53
2:F:676:THR:HA	3:K:431:ARG:HG2	1.90	0.53
2:G:291:MET:CA	2:G:291:MET:CE	2.85	0.53
3:I:422:ASP:HA	3:I:423:ASN:C	2.34	0.53
3:I:653:VAL:N	3:I:814:MET:HE3	2.24	0.53
3:K:257:ASP:C	3:K:259:PHE:N	2.65	0.53
3:K:649:ASN:OD1	3:K:651:LYS:HD3	2.09	0.53
3:K:835:ALA:HA	3:K:836:GLU:CB	2.37	0.53
2:A:214:ARG:HG3	2:A:216:ASP:H	1.74	0.52
2:B:553:PHE:CD1	2:B:553:PHE:C	2.85	0.52
2:C:214:ARG:HG3	2:C:216:ASP:H	1.75	0.52
2:E:464:GLY:O	2:E:468:THR:HG23	2.07	0.52
2:E:626:MET:HE3	2:E:635:TRP:CD1	2.44	0.52
2:F:129:PHE:CZ	2:F:138:TYR:HD2	2.27	0.52
3:I:649:ASN:OD1	3:I:651:LYS:HD3	2.09	0.52
3:I:828:ILE:HD11	3:I:852:VAL:HG21	1.91	0.52
3:K:333:ILE:HD12	3:K:430:MET:HA	1.89	0.52
3:K:566:ASP:HA	3:K:569:THR:HG22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:547:PHE:CD1	2:B:547:PHE:C	2.84	0.52
2:B:647:LYS:CD	2:B:647:LYS:N	2.73	0.52
2:C:533:ASP:O	2:C:537:LEU:N	2.42	0.52
2:C:675:THR:HG22	3:J:1117:ASN:HB3	1.90	0.52
2:D:541:ARG:HG3	2:D:546:ARG:CG	2.36	0.52
3:I:665:TYR:HB2	3:I:769:ARG:HE	1.74	0.52
3:K:422:ASP:HA	3:K:423:ASN:C	2.34	0.52
3:L:333:ILE:HD12	3:L:430:MET:HA	1.89	0.52
2:B:524:GLN:OE1	2:B:596:GLN:OE1	2.27	0.52
2:D:277:THR:OG1	2:D:280:GLU:HB2	2.08	0.52
2:D:675:THR:C	2:D:676:THR:HG1	2.03	0.52
2:D:676:THR:HA	3:J:431:ARG:HG2	1.91	0.52
2:E:120:VAL:O	2:E:121:MET:C	2.49	0.52
2:E:675:THR:HG22	3:K:1117:ASN:HB3	1.90	0.52
2:F:233:ALA:O	2:F:234:ILE:C	2.50	0.52
3:I:719:VAL:HG12	3:I:720:LYS:H	1.74	0.52
3:J:103:LYS:HD3	3:J:123:TYR:CD1	2.43	0.52
3:J:719:VAL:HG12	3:J:720:LYS:H	1.74	0.52
3:K:288:PRO:HB2	3:K:588:THR:HG21	1.91	0.52
3:K:431:ARG:NH2	3:K:484:SER:HB3	2.25	0.52
3:K:1024:GLY:C	3:K:1026:LEU:H	2.15	0.52
3:L:789:ASN:HD22	3:L:792:ARG:HD3	1.75	0.52
2:B:662:THR:HG22	2:B:663:MET:N	2.23	0.52
2:C:439:ASP:OD1	2:C:439:ASP:N	2.26	0.52
2:C:617:THR:OG1	3:J:1119:LYS:NZ	2.30	0.52
2:D:143:LEU:HG	2:D:167:PHE:CZ	2.44	0.52
2:H:146:GLY:O	2:H:149:VAL:HG12	2.10	0.52
2:H:575:SER:O	2:H:578:LYS:N	2.43	0.52
2:H:600:PHE:CD1	2:H:600:PHE:C	2.85	0.52
3:I:778:ILE:HD11	3:L:648:GLY:HA2	1.90	0.52
3:K:1162:LEU:O	3:K:1163:PRO:C	2.51	0.52
3:L:565:THR:HG21	3:L:1268:VAL:HG13	1.91	0.52
3:L:665:TYR:HB2	3:L:769:ARG:HE	1.73	0.52
3:L:1036:MET:C	3:L:1038:GLY:N	2.67	0.52
2:B:129:PHE:CZ	2:B:138:TYR:HD2	2.27	0.52
2:B:228:GLY:O	2:B:233:ALA:N	2.43	0.52
2:D:212:LEU:HD23	2:D:260:PHE:CB	2.40	0.52
2:D:575:SER:O	2:D:578:LYS:N	2.43	0.52
2:E:214:ARG:HG3	2:E:216:ASP:H	1.75	0.52
2:E:329:LEU:HD11	2:E:355:ALA:HB1	1.90	0.52
3:I:580:ALA:C	3:I:582:LYS:H	2.16	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:866:VAL:HG21	3:I:1197:MET:HG2	1.92	0.52
3:J:67:ARG:CZ	3:J:84:ASN:HB3	2.39	0.52
3:J:866:VAL:HG21	3:J:1197:MET:HG2	1.92	0.52
3:K:103:LYS:HD3	3:K:123:TYR:CD1	2.43	0.52
3:L:1162:LEU:HG	3:L:1170:TYR:CE2	2.45	0.52
2:A:85:GLU:O	2:A:88:ASN:ND2	2.41	0.52
2:A:699:LEU:CD2	2:B:372:LYS:NZ	2.72	0.52
2:B:149:VAL:CG1	2:B:150:TYR:N	2.73	0.52
2:F:645:ALA:O	2:F:648:GLY:CA	2.58	0.52
2:H:656:ILE:CG1	2:H:658:ASN:OD1	2.58	0.52
3:J:346:VAL:HA	3:J:1297:LEU:HD22	1.91	0.52
3:K:789:ASN:HD22	3:K:792:ARG:HD3	1.75	0.52
3:L:257:ASP:C	3:L:259:PHE:N	2.65	0.52
3:L:285:VAL:HG21	3:L:291:ILE:HD11	1.91	0.52
3:L:659:SER:O	3:L:660:ARG:HB3	2.08	0.52
2:B:212:LEU:HD23	2:B:260:PHE:CB	2.40	0.52
2:B:646:ARG:CZ	2:B:647:LYS:CE	2.87	0.52
2:D:228:GLY:O	2:D:233:ALA:N	2.43	0.52
2:D:656:ILE:HG13	2:D:658:ASN:OD1	2.10	0.52
2:F:228:GLY:O	2:F:233:ALA:N	2.43	0.52
2:F:547:PHE:CZ	3:K:318:ARG:O	2.63	0.52
2:F:575:SER:O	2:F:578:LYS:N	2.43	0.52
2:F:600:PHE:CD1	2:F:600:PHE:C	2.85	0.52
2:G:120:VAL:O	2:G:121:MET:C	2.49	0.52
2:H:149:VAL:CG1	2:H:150:TYR:N	2.73	0.52
3:I:288:PRO:HB2	3:I:588:THR:HG21	1.91	0.52
3:K:709:VAL:HG22	3:K:771:LEU:HD22	1.92	0.52
3:K:805:ARG:NH2	3:K:859:ALA:HB3	2.24	0.52
3:L:709:VAL:HG22	3:L:771:LEU:HD22	1.92	0.52
2:B:647:LYS:N	2:B:647:LYS:HD3	2.25	0.52
2:B:661:LEU:HD12	2:B:662:THR:H	1.68	0.52
2:C:341:PRO:HB3	2:C:346:THR:HG21	1.92	0.52
2:G:70:ARG:O	2:G:74:ILE:HG12	2.10	0.52
2:G:522:ASP:OD1	2:G:523:LYS:N	2.43	0.52
2:H:647:LYS:N	2:H:647:LYS:HD3	2.25	0.52
3:K:565:THR:HG21	3:K:1268:VAL:HG13	1.91	0.52
3:L:697:ASN:HD21	3:L:778:ILE:HB	1.75	0.52
2:B:139:ARG:NH1	2:B:139:ARG:CG	2.73	0.52
2:B:600:PHE:CD1	2:B:600:PHE:C	2.85	0.52
2:B:645:ALA:O	2:B:648:GLY:CA	2.58	0.52
2:C:374:LEU:HD13	2:D:296:ARG:HA	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:660:GLN:O	2:C:675:THR:HG23	2.10	0.52
2:G:214:ARG:HG3	2:G:216:ASP:H	1.75	0.52
2:H:522:ASP:OD1	2:H:523:LYS:N	2.43	0.52
2:H:645:ALA:O	2:H:648:GLY:CA	2.58	0.52
3:I:46:SER:OG	3:I:55:GLN:OE1	2.27	0.52
3:I:258:VAL:HG13	3:I:259:PHE:CD1	2.45	0.52
3:J:34:ALA:HB2	3:J:54:MET:HE1	1.92	0.52
3:J:709:VAL:HG22	3:J:771:LEU:HD22	1.92	0.52
3:J:789:ASN:HD22	3:J:792:ARG:HD3	1.75	0.52
3:J:1162:LEU:HG	3:J:1170:TYR:CE2	2.45	0.52
3:K:719:VAL:HG12	3:K:720:LYS:H	1.74	0.52
3:L:346:VAL:HA	3:L:1297:LEU:HD22	1.91	0.52
3:L:649:ASN:OD1	3:L:651:LYS:HD3	2.09	0.52
3:L:828:ILE:HD11	3:L:852:VAL:HG21	1.91	0.52
1:c:12:SER:C	1:c:14:ALA:H	2.16	0.52
2:B:146:GLY:O	2:B:149:VAL:HG12	2.10	0.52
2:B:656:ILE:HG13	2:B:658:ASN:OD1	2.10	0.52
2:C:608:PHE:CZ	2:C:642:LEU:HD23	2.46	0.52
2:D:647:LYS:CD	2:D:647:LYS:N	2.73	0.52
2:E:432:ILE:HA	2:E:435:MET:HG3	1.92	0.52
2:F:149:VAL:CG1	2:F:150:TYR:N	2.73	0.52
2:F:522:ASP:OD1	2:F:523:LYS:N	2.43	0.52
2:F:646:ARG:CZ	2:F:647:LYS:CE	2.87	0.52
3:I:34:ALA:HB2	3:I:54:MET:HE1	1.92	0.52
3:I:285:VAL:HG21	3:I:291:ILE:HD11	1.91	0.52
3:I:431:ARG:NH2	3:I:484:SER:HB3	2.25	0.52
3:I:1027:ARG:CB	3:I:1078:LYS:HE2	2.22	0.52
3:J:566:ASP:HA	3:J:569:THR:HG22	1.91	0.52
3:K:34:ALA:HB2	3:K:54:MET:HE1	1.92	0.52
3:K:679:ILE:HA	3:K:683:GLY:HA2	1.92	0.52
3:L:397:PHE:HA	3:L:1303:LEU:HD12	1.92	0.52
2:A:333:LYS:O	2:A:334:ALA:C	2.53	0.51
2:B:575:SER:O	2:B:578:LYS:N	2.43	0.51
2:B:621:ILE:HD11	2:B:663:MET:HG3	1.92	0.51
2:D:139:ARG:HG2	2:D:139:ARG:HH11	1.75	0.51
2:D:146:GLY:O	2:D:149:VAL:HG12	2.10	0.51
2:D:533:ASP:O	2:D:537:LEU:N	2.43	0.51
2:D:656:ILE:CG1	2:D:658:ASN:OD1	2.58	0.51
2:E:522:ASP:OD1	2:E:523:LYS:N	2.43	0.51
2:F:143:LEU:HG	2:F:167:PHE:CZ	2.44	0.51
2:F:146:GLY:O	2:F:149:VAL:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:524:GLN:OE1	2:F:596:GLN:OE1	2.27	0.51
2:F:656:ILE:CG1	2:F:658:ASN:OD1	2.58	0.51
2:H:70:ARG:O	2:H:74:ILE:HG12	2.10	0.51
2:H:129:PHE:CZ	2:H:138:TYR:HD2	2.27	0.51
2:H:228:GLY:O	2:H:233:ALA:N	2.43	0.51
3:I:697:ASN:HD21	3:I:778:ILE:HB	1.75	0.51
3:I:805:ARG:NH2	3:I:859:ALA:HB3	2.25	0.51
3:J:653:VAL:N	3:J:814:MET:HE3	2.24	0.51
3:K:693:ARG:HB3	3:K:778:ILE:HD13	1.92	0.51
3:L:719:VAL:HG12	3:L:720:LYS:H	1.74	0.51
2:B:257:GLY:O	2:B:258:ALA:C	2.53	0.51
2:D:516:LEU:HB2	2:D:579:ILE:HD12	1.92	0.51
2:F:135:MET:C	2:F:135:MET:SD	2.94	0.51
2:F:516:LEU:HD22	2:F:579:ILE:CA	2.40	0.51
2:F:656:ILE:HG13	2:F:658:ASN:OD1	2.10	0.51
2:H:645:ALA:C	2:H:648:GLY:H	2.19	0.51
3:I:1162:LEU:HG	3:I:1170:TYR:CE2	2.45	0.51
3:J:697:ASN:HD21	3:J:778:ILE:HB	1.75	0.51
3:K:665:TYR:HB2	3:K:769:ARG:HE	1.74	0.51
3:K:730:TYR:CZ	3:K:734:LYS:HD2	2.46	0.51
3:L:653:VAL:N	3:L:814:MET:HE3	2.24	0.51
3:L:805:ARG:NH2	3:L:859:ALA:HB3	2.25	0.51
2:A:225:ILE:O	2:A:229:LEU:HD12	2.11	0.51
2:A:432:ILE:HA	2:A:435:MET:HG3	1.93	0.51
2:A:522:ASP:OD1	2:A:523:LYS:N	2.43	0.51
2:A:608:PHE:CZ	2:A:642:LEU:HD23	2.46	0.51
2:A:660:GLN:O	2:A:675:THR:HG23	2.10	0.51
2:D:524:GLN:OE1	2:D:596:GLN:OE1	2.27	0.51
2:D:547:PHE:CZ	3:J:318:ARG:O	2.64	0.51
2:D:662:THR:HG22	2:D:663:MET:N	2.24	0.51
2:F:516:LEU:HD22	2:F:579:ILE:HD13	1.91	0.51
2:H:129:PHE:CZ	2:H:135:MET:HA	2.46	0.51
3:I:709:VAL:HG22	3:I:771:LEU:HD22	1.92	0.51
3:I:789:ASN:HD22	3:I:792:ARG:HD3	1.75	0.51
3:J:285:VAL:HG21	3:J:291:ILE:HD11	1.91	0.51
3:L:283:THR:HG23	3:L:284:GLU:HG3	1.92	0.51
1:g:12:SER:C	1:g:14:ALA:H	2.17	0.51
2:B:533:ASP:O	2:B:537:LEU:N	2.43	0.51
2:B:656:ILE:CG1	2:B:658:ASN:OD1	2.58	0.51
2:D:135:MET:C	2:D:135:MET:SD	2.94	0.51
2:D:139:ARG:NH1	2:D:139:ARG:CG	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:647:LYS:N	2:D:647:LYS:HD3	2.25	0.51
2:F:212:LEU:HD23	2:F:260:PHE:CB	2.40	0.51
2:F:662:THR:HG22	2:F:663:MET:N	2.23	0.51
2:H:135:MET:C	2:H:135:MET:SD	2.94	0.51
2:H:647:LYS:N	2:H:647:LYS:CD	2.73	0.51
2:H:656:ILE:HG13	2:H:658:ASN:OD1	2.10	0.51
3:I:397:PHE:HA	3:I:1303:LEU:HD12	1.92	0.51
3:I:693:ARG:HB3	3:I:778:ILE:HD13	1.92	0.51
3:I:1093:GLN:NE2	3:I:1106:MET:HE3	2.26	0.51
3:I:1162:LEU:O	3:I:1163:PRO:C	2.51	0.51
3:J:258:VAL:HG13	3:J:259:PHE:CD1	2.45	0.51
3:J:805:ARG:NH2	3:J:859:ALA:HB3	2.25	0.51
3:K:621:PRO:C	3:K:623:GLU:H	2.17	0.51
3:K:866:VAL:HG21	3:K:1197:MET:HG2	1.92	0.51
3:L:693:ARG:HB3	3:L:778:ILE:HD13	1.92	0.51
2:B:143:LEU:HG	2:B:167:PHE:CZ	2.44	0.51
2:B:572:LEU:O	2:B:573:ARG:C	2.54	0.51
2:B:645:ALA:C	2:B:648:GLY:H	2.19	0.51
2:C:432:ILE:HA	2:C:435:MET:HG3	1.93	0.51
2:D:129:PHE:CZ	2:D:135:MET:HA	2.46	0.51
2:E:333:LYS:O	2:E:334:ALA:C	2.53	0.51
2:E:661:LEU:HD12	2:E:674:ASP:HA	1.93	0.51
2:F:129:PHE:CZ	2:F:135:MET:HA	2.46	0.51
2:F:676:THR:CG2	2:F:677:GLY:N	2.73	0.51
2:G:432:ILE:HA	2:G:435:MET:HG3	1.93	0.51
2:G:567:ARG:O	2:G:568:MET:C	2.54	0.51
2:G:660:GLN:O	2:G:675:THR:HG23	2.10	0.51
2:H:257:GLY:O	2:H:258:ALA:C	2.53	0.51
3:I:821:THR:O	3:I:822:LYS:C	2.50	0.51
3:I:827:GLU:HB2	3:I:1226:ARG:HH12	1.76	0.51
3:J:431:ARG:NH2	3:J:484:SER:HB3	2.25	0.51
3:J:827:GLU:HB2	3:J:1226:ARG:HH12	1.76	0.51
3:K:283:THR:HG23	3:K:284:GLU:HG3	1.92	0.51
3:L:431:ARG:NH2	3:L:484:SER:HB3	2.25	0.51
3:L:827:GLU:HB2	3:L:1226:ARG:HH12	1.76	0.51
2:C:225:ILE:O	2:C:229:LEU:HD12	2.11	0.51
2:C:661:LEU:HD12	2:C:674:ASP:HA	1.93	0.51
2:D:645:ALA:O	2:D:648:GLY:CA	2.58	0.51
2:E:374:LEU:HD13	2:F:296:ARG:HA	1.93	0.51
2:E:660:GLN:O	2:E:675:THR:HG23	2.10	0.51
2:F:70:ARG:O	2:F:74:ILE:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:647:LYS:CD	2:F:647:LYS:N	2.73	0.51
2:G:225:ILE:O	2:G:229:LEU:HD12	2.11	0.51
2:G:626:MET:HE3	2:G:635:TRP:CD1	2.44	0.51
3:I:621:PRO:C	3:I:623:GLU:H	2.17	0.51
3:J:397:PHE:HA	3:J:1303:LEU:HD12	1.92	0.51
3:K:397:PHE:HA	3:K:1303:LEU:HD12	1.92	0.51
3:K:648:GLY:HA2	3:L:778:ILE:HD11	1.92	0.51
3:K:697:ASN:HD21	3:K:778:ILE:HB	1.75	0.51
2:A:661:LEU:HD12	2:A:674:ASP:HA	1.93	0.51
2:B:139:ARG:HG2	2:B:139:ARG:HH11	1.75	0.51
2:B:399:TRP:CZ2	3:I:414:ARG:HA	2.46	0.51
2:D:522:ASP:OD1	2:D:523:LYS:N	2.43	0.51
2:E:70:ARG:O	2:E:74:ILE:HG12	2.10	0.51
2:G:212:LEU:HD23	2:G:260:PHE:CB	2.40	0.51
2:G:608:PHE:CZ	2:G:642:LEU:HD23	2.45	0.51
2:G:682:ARG:O	3:L:250:GLY:HA2	2.11	0.51
2:H:154:PHE:O	2:H:155:GLY:O	2.29	0.51
2:H:547:PHE:CZ	3:L:318:ARG:O	2.64	0.51
3:I:565:THR:HG21	3:I:1268:VAL:HG13	1.91	0.51
3:I:648:GLY:HA2	3:J:778:ILE:HD11	1.92	0.51
3:I:730:TYR:CZ	3:I:734:LYS:HD2	2.46	0.51
3:J:679:ILE:HA	3:J:683:GLY:HA2	1.92	0.51
3:K:258:VAL:HG13	3:K:259:PHE:CD1	2.45	0.51
3:K:346:VAL:HA	3:K:1297:LEU:HD22	1.91	0.51
3:K:1162:LEU:HG	3:K:1170:TYR:CE2	2.45	0.51
3:L:258:VAL:HG13	3:L:259:PHE:CD1	2.45	0.51
3:L:566:ASP:HA	3:L:569:THR:HG22	1.91	0.51
2:A:212:LEU:HD23	2:A:260:PHE:CB	2.40	0.51
2:B:261:LEU:HB3	2:B:291:MET:HE1	1.93	0.51
2:C:212:LEU:HD23	2:C:260:PHE:CB	2.40	0.51
2:C:628:VAL:HG11	2:C:692:TRP:CD2	2.46	0.51
2:D:257:GLY:O	2:D:258:ALA:C	2.53	0.51
2:D:363:MET:HB3	2:E:285:GLU:O	2.11	0.51
2:E:212:LEU:HD23	2:E:260:PHE:CB	2.40	0.51
2:E:567:ARG:O	2:E:568:MET:C	2.54	0.51
2:F:647:LYS:N	2:F:647:LYS:HD3	2.25	0.51
2:G:661:LEU:HD12	2:G:674:ASP:HA	1.93	0.51
2:H:572:LEU:O	2:H:573:ARG:C	2.54	0.51
2:H:621:ILE:HD11	2:H:663:MET:HG3	1.92	0.51
3:J:463:VAL:HG11	3:J:871:LEU:HD11	1.93	0.51
3:J:730:TYR:CZ	3:J:734:LYS:HD2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:1093:GLN:NE2	3:K:1106:MET:HE3	2.26	0.51
3:L:730:TYR:CZ	3:L:734:LYS:HD2	2.46	0.51
2:A:70:ARG:O	2:A:74:ILE:HG12	2.10	0.51
2:C:497:ARG:O	2:C:498:ASN:C	2.49	0.51
2:D:149:VAL:CG1	2:D:150:TYR:N	2.73	0.51
2:D:289:ALA:O	2:D:293:THR:HG22	2.11	0.51
2:E:608:PHE:CZ	2:E:642:LEU:HD23	2.45	0.51
2:E:628:VAL:HG11	2:E:692:TRP:CD2	2.46	0.51
2:F:154:PHE:O	2:F:155:GLY:O	2.29	0.51
2:H:212:LEU:HD23	2:H:260:PHE:CB	2.40	0.51
2:H:676:THR:HA	3:L:431:ARG:HG2	1.92	0.51
3:I:1036:MET:C	3:I:1038:GLY:N	2.67	0.51
3:J:46:SER:OG	3:J:50:PRO:O	2.29	0.51
3:J:621:PRO:C	3:J:623:GLU:H	2.18	0.51
3:J:1093:GLN:NE2	3:J:1106:MET:HE3	2.26	0.51
3:K:285:VAL:HG21	3:K:291:ILE:HD11	1.91	0.51
3:L:866:VAL:HG21	3:L:1197:MET:HG2	1.92	0.51
2:A:341:PRO:HB3	2:A:346:THR:HG21	1.92	0.51
2:D:261:LEU:HB3	2:D:291:MET:HE1	1.93	0.51
2:D:645:ALA:C	2:D:648:GLY:H	2.19	0.51
2:E:225:ILE:O	2:E:229:LEU:HD12	2.11	0.51
2:E:346:THR:C	2:E:348:GLN:H	2.19	0.51
2:E:642:LEU:HD21	2:E:670:ILE:HG21	1.93	0.51
2:F:432:ILE:HA	2:F:435:MET:HG3	1.93	0.51
2:F:645:ALA:C	2:F:648:GLY:H	2.19	0.51
2:H:114:TYR:O	2:H:115:LEU:C	2.54	0.51
2:H:516:LEU:HD22	2:H:579:ILE:HD13	1.91	0.51
3:I:463:VAL:HG11	3:I:871:LEU:HD11	1.93	0.51
3:J:257:ASP:C	3:J:259:PHE:N	2.66	0.51
3:K:463:VAL:HG11	3:K:871:LEU:HD11	1.93	0.51
3:L:421:PHE:C	3:L:423:ASN:HB2	2.36	0.51
3:L:1093:GLN:NE2	3:L:1106:MET:HE3	2.26	0.51
2:A:346:THR:C	2:A:348:GLN:H	2.20	0.50
2:B:70:ARG:O	2:B:74:ILE:HG12	2.10	0.50
2:B:135:MET:C	2:B:135:MET:SD	2.94	0.50
2:B:522:ASP:OD1	2:B:523:LYS:N	2.43	0.50
2:C:70:ARG:O	2:C:74:ILE:HG12	2.10	0.50
2:D:621:ILE:HD11	2:D:663:MET:HG3	1.92	0.50
2:D:638:GLY:O	2:D:639:ARG:C	2.54	0.50
2:D:646:ARG:CZ	2:D:647:LYS:CE	2.87	0.50
2:E:533:ASP:O	2:E:537:LEU:N	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:289:ALA:O	2:F:293:THR:HG22	2.11	0.50
2:G:346:THR:C	2:G:348:GLN:H	2.19	0.50
2:H:516:LEU:HD22	2:H:579:ILE:CA	2.40	0.50
3:J:1162:LEU:O	3:J:1163:PRO:C	2.51	0.50
3:K:827:GLU:HB2	3:K:1226:ARG:HH12	1.76	0.50
3:L:67:ARG:NH2	3:L:68:VAL:HB	2.26	0.50
2:A:628:VAL:HG11	2:A:692:TRP:CD2	2.46	0.50
2:B:516:LEU:HD22	2:B:579:ILE:CA	2.40	0.50
2:E:341:PRO:HB3	2:E:346:THR:HG21	1.92	0.50
2:G:323:ARG:HG3	2:G:363:MET:HE1	1.93	0.50
2:G:346:THR:C	2:G:348:GLN:N	2.69	0.50
3:I:67:ARG:NH2	3:I:68:VAL:HB	2.26	0.50
3:J:421:PHE:C	3:J:423:ASN:HB2	2.36	0.50
3:K:67:ARG:HB3	3:K:88:LYS:HD2	1.93	0.50
3:K:828:ILE:HD11	3:K:852:VAL:HG21	1.91	0.50
3:L:463:VAL:HG11	3:L:871:LEU:HD11	1.93	0.50
3:L:990:ASN:O	3:L:994:ASN:ND2	2.45	0.50
3:L:1295:ASP:O	3:L:1298:THR:HG22	2.12	0.50
2:C:346:THR:C	2:C:348:GLN:H	2.20	0.50
2:D:516:LEU:HD22	2:D:579:ILE:CA	2.40	0.50
2:E:291:MET:CA	2:E:291:MET:CE	2.86	0.50
2:G:628:VAL:HG11	2:G:692:TRP:CD2	2.46	0.50
2:H:553:PHE:C	2:H:553:PHE:CD1	2.85	0.50
3:J:331:GLY:O	3:J:335:ALA:CB	2.52	0.50
3:J:1036:MET:C	3:J:1038:GLY:N	2.67	0.50
3:J:1295:ASP:O	3:J:1298:THR:HG22	2.12	0.50
3:K:46:SER:OG	3:K:50:PRO:O	2.29	0.50
3:L:34:ALA:HB2	3:L:54:MET:HE1	1.92	0.50
2:A:285:GLU:O	2:H:363:MET:HB3	2.12	0.50
2:A:567:ARG:O	2:A:568:MET:C	2.54	0.50
2:B:323:ARG:HG3	2:B:363:MET:HE1	1.93	0.50
2:B:432:ILE:HA	2:B:435:MET:HG3	1.93	0.50
2:B:516:LEU:HB2	2:B:579:ILE:HD12	1.92	0.50
2:B:521:MET:HG3	2:B:528:PRO:HB3	1.94	0.50
2:B:628:VAL:H	2:B:634:SER:HB3	1.77	0.50
2:F:261:LEU:HB3	2:F:291:MET:HE1	1.93	0.50
2:F:533:ASP:O	2:F:537:LEU:N	2.42	0.50
2:G:341:PRO:HB3	2:G:346:THR:HG21	1.92	0.50
2:H:516:LEU:HB2	2:H:579:ILE:HD12	1.92	0.50
3:I:283:THR:HG23	3:I:284:GLU:HG3	1.92	0.50
3:I:298:SER:N	3:I:299:PRO:HD3	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:340:LEU:HD23	3:I:1303:LEU:HD21	1.93	0.50
3:I:1295:ASP:O	3:I:1298:THR:HG22	2.12	0.50
3:J:1120:PHE:CD2	3:J:1304:LYS:HB2	2.36	0.50
3:L:621:PRO:C	3:L:623:GLU:H	2.17	0.50
2:A:72:ASN:O	2:A:76:ARG:HG2	2.12	0.50
2:A:642:LEU:HD21	2:A:670:ILE:HG21	1.93	0.50
2:C:567:ARG:O	2:C:568:MET:C	2.54	0.50
2:D:114:TYR:O	2:D:115:LEU:C	2.54	0.50
2:E:682:ARG:O	3:K:250:GLY:HA2	2.12	0.50
2:G:333:LYS:O	2:G:334:ALA:C	2.53	0.50
2:G:638:GLY:O	2:G:639:ARG:C	2.54	0.50
2:H:143:LEU:HG	2:H:167:PHE:CZ	2.44	0.50
2:H:261:LEU:HB3	2:H:291:MET:HE1	1.93	0.50
2:H:289:ALA:O	2:H:293:THR:HG22	2.11	0.50
3:I:262:THR:OG1	3:I:263:ILE:N	2.45	0.50
3:I:421:PHE:C	3:I:423:ASN:HB2	2.36	0.50
3:I:679:ILE:HA	3:I:683:GLY:HA2	1.92	0.50
3:J:67:ARG:NH2	3:J:68:VAL:HB	2.26	0.50
3:J:693:ARG:HB3	3:J:778:ILE:HD13	1.92	0.50
3:K:262:THR:OG1	3:K:263:ILE:N	2.45	0.50
2:B:129:PHE:CZ	2:B:135:MET:HA	2.46	0.50
2:B:289:ALA:O	2:B:293:THR:HG22	2.11	0.50
2:C:522:ASP:OD1	2:C:523:LYS:N	2.43	0.50
2:C:642:LEU:HD21	2:C:670:ILE:HG21	1.93	0.50
2:D:70:ARG:O	2:D:74:ILE:HG12	2.10	0.50
2:D:456:ASP:N	2:D:457:GLY:HA2	2.27	0.50
2:F:257:GLY:O	2:F:258:ALA:C	2.53	0.50
2:F:323:ARG:HG3	2:F:363:MET:HE1	1.93	0.50
3:I:67:ARG:HB3	3:I:88:LYS:HD2	1.93	0.50
3:J:290:TYR:OH	3:J:316:ASP:OD2	2.25	0.50
3:L:679:ILE:HA	3:L:683:GLY:HA2	1.92	0.50
2:A:533:ASP:O	2:A:537:LEU:N	2.42	0.50
2:B:456:ASP:N	2:B:457:GLY:HA2	2.27	0.50
2:B:625:MET:SD	2:B:665:SER:HB2	2.52	0.50
2:D:154:PHE:O	2:D:155:GLY:O	2.29	0.50
2:E:323:ARG:HG3	2:E:363:MET:HE1	1.93	0.50
2:H:628:VAL:H	2:H:634:SER:HB3	1.77	0.50
3:J:283:THR:HG23	3:J:284:GLU:HG3	1.92	0.50
3:K:67:ARG:NH2	3:K:68:VAL:HB	2.26	0.50
3:K:298:SER:N	3:K:299:PRO:HD3	2.27	0.50
3:K:1295:ASP:O	3:K:1298:THR:HG22	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:72:ASN:O	2:C:76:ARG:HG2	2.12	0.50
2:C:276:THR:HG23	2:C:280:GLU:HB3	1.94	0.50
2:D:628:VAL:H	2:D:634:SER:HB3	1.77	0.50
2:F:621:ILE:HD11	2:F:663:MET:HG3	1.92	0.50
2:G:374:LEU:HD13	2:H:296:ARG:HA	1.93	0.50
2:G:642:LEU:HD21	2:G:670:ILE:HG21	1.93	0.50
2:H:625:MET:SD	2:H:665:SER:HB2	2.52	0.50
3:I:1165:GLU:O	3:I:1166:LYS:C	2.54	0.50
3:J:298:SER:N	3:J:299:PRO:HD3	2.27	0.50
3:K:421:PHE:C	3:K:423:ASN:HB2	2.36	0.50
3:K:990:ASN:O	3:K:994:ASN:ND2	2.45	0.50
3:L:46:SER:OG	3:L:50:PRO:O	2.29	0.50
3:L:298:SER:N	3:L:299:PRO:HD3	2.27	0.50
3:L:340:LEU:HD23	3:L:1303:LEU:HD21	1.93	0.50
3:L:695:TRP:HE1	3:L:774:SER:HB3	1.77	0.50
2:A:323:ARG:HG3	2:A:363:MET:HE1	1.93	0.50
2:E:121:MET:O	2:E:122:GLN:C	2.55	0.50
2:G:72:ASN:O	2:G:76:ARG:HG2	2.12	0.50
2:H:432:ILE:HA	2:H:435:MET:HG3	1.93	0.50
2:H:676:THR:CG2	2:H:677:GLY:H	2.18	0.50
3:I:654:SER:O	3:I:654:SER:OG	2.27	0.50
3:J:695:TRP:HE1	3:J:774:SER:HB3	1.77	0.50
3:J:1027:ARG:CB	3:J:1078:LYS:HE2	2.22	0.50
2:B:516:LEU:HD22	2:B:579:ILE:HD13	1.91	0.49
2:D:521:MET:HG3	2:D:528:PRO:HB3	1.94	0.49
2:E:346:THR:C	2:E:348:GLN:N	2.69	0.49
2:F:191:GLN:O	2:F:195:ILE:HG12	2.12	0.49
2:F:516:LEU:HB2	2:F:579:ILE:HD12	1.92	0.49
2:G:456:ASP:N	2:G:457:GLY:HA2	2.27	0.49
3:I:595:ARG:O	3:I:598:THR:HG22	2.12	0.49
3:I:1159:ALA:HA	3:I:1170:TYR:HE2	1.77	0.49
3:J:67:ARG:HB3	3:J:88:LYS:HD2	1.93	0.49
3:K:655:ILE:HD12	3:K:655:ILE:C	2.37	0.49
3:L:67:ARG:HB3	3:L:88:LYS:HD2	1.93	0.49
2:A:682:ARG:O	3:I:250:GLY:HA2	2.12	0.49
2:B:642:LEU:HD21	2:B:670:ILE:HG21	1.94	0.49
2:C:122:GLN:O	2:C:123:LYS:C	2.55	0.49
2:C:628:VAL:HG11	2:C:692:TRP:CG	2.47	0.49
2:E:456:ASP:N	2:E:457:GLY:HA2	2.27	0.49
3:I:695:TRP:HE1	3:I:774:SER:HB3	1.77	0.49
3:J:595:ARG:O	3:J:598:THR:HG22	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:595:ARG:O	3:L:598:THR:HG22	2.12	0.49
2:A:626:MET:HE3	2:A:635:TRP:CD1	2.44	0.49
2:C:699:LEU:CG	2:D:372:LYS:HZ3	2.20	0.49
2:D:700:GLU:C	2:D:702:LYS:H	2.20	0.49
2:E:72:ASN:O	2:E:76:ARG:HG2	2.12	0.49
2:F:139:ARG:HG2	2:F:139:ARG:HH11	1.75	0.49
2:H:533:ASP:O	2:H:537:LEU:N	2.42	0.49
3:I:779:THR:HG22	3:L:561:ARG:HH21	1.78	0.49
3:I:990:ASN:O	3:I:994:ASN:ND2	2.45	0.49
3:K:695:TRP:HE1	3:K:774:SER:HB3	1.77	0.49
3:L:661:HIS:HD2	3:L:771:LEU:HG	1.78	0.49
3:L:665:TYR:CZ	3:L:667:PRO:HA	2.47	0.49
2:A:122:GLN:O	2:A:123:LYS:C	2.55	0.49
2:B:154:PHE:O	2:B:155:GLY:O	2.29	0.49
2:B:513:GLU:O	2:B:517:THR:OG1	2.30	0.49
2:B:700:GLU:C	2:B:702:LYS:H	2.20	0.49
2:D:276:THR:HG23	2:D:280:GLU:HB3	1.94	0.49
2:D:323:ARG:HG3	2:D:363:MET:HE1	1.93	0.49
2:E:628:VAL:HG11	2:E:692:TRP:CG	2.47	0.49
2:F:231:THR:OG1	2:F:233:ALA:N	2.39	0.49
2:G:191:GLN:O	2:G:195:ILE:HG12	2.12	0.49
2:H:276:THR:HG23	2:H:280:GLU:HB3	1.94	0.49
3:I:665:TYR:CZ	3:I:667:PRO:HA	2.47	0.49
3:J:455:LYS:HZ2	3:J:478:HIS:HA	1.77	0.49
3:L:864:ASP:OD1	3:L:865:THR:N	2.46	0.49
2:C:323:ARG:HG3	2:C:363:MET:HE1	1.93	0.49
2:C:638:GLY:O	2:C:639:ARG:C	2.54	0.49
2:C:682:ARG:O	3:J:250:GLY:HA2	2.13	0.49
2:D:642:LEU:HD21	2:D:670:ILE:HG21	1.94	0.49
2:F:521:MET:HG3	2:F:528:PRO:HB3	1.94	0.49
2:G:276:THR:HG23	2:G:280:GLU:HB3	1.94	0.49
3:I:864:ASP:OD1	3:I:865:THR:N	2.46	0.49
3:J:864:ASP:OD1	3:J:865:THR:N	2.46	0.49
3:K:595:ARG:O	3:K:598:THR:HG22	2.12	0.49
3:K:734:LYS:HB3	3:K:770:ASN:ND2	2.28	0.49
3:K:1159:ALA:HA	3:K:1170:TYR:HE2	1.77	0.49
2:B:323:ARG:CD	2:C:249:SER:OG	2.50	0.49
2:C:456:ASP:N	2:C:457:GLY:HA2	2.27	0.49
2:C:513:GLU:O	2:C:517:THR:OG1	2.30	0.49
2:D:572:LEU:O	2:D:573:ARG:C	2.54	0.49
2:F:105:ARG:HG2	2:F:157:ASP:OD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:628:VAL:H	2:F:634:SER:HB3	1.77	0.49
3:K:290:TYR:OH	3:K:316:ASP:OD2	2.25	0.49
2:B:276:THR:HG23	2:B:280:GLU:HB3	1.94	0.49
2:D:432:ILE:HA	2:D:435:MET:HG3	1.93	0.49
2:F:513:GLU:O	2:F:517:THR:OG1	2.30	0.49
2:F:639:ARG:NE	2:G:418:HIS:CD2	2.81	0.49
3:I:734:LYS:HB3	3:I:770:ASN:ND2	2.28	0.49
3:J:405:SER:HA	3:J:408:VAL:HG12	1.95	0.49
3:J:641:MET:HE2	3:J:655:ILE:HG23	1.95	0.49
3:J:1159:ALA:HA	3:J:1170:TYR:HE2	1.77	0.49
3:L:1165:GLU:O	3:L:1166:LYS:C	2.54	0.49
2:C:121:MET:O	2:C:122:GLN:C	2.55	0.49
2:C:521:MET:HG3	2:C:528:PRO:HB3	1.95	0.49
2:D:605:THR:HB	2:D:620:VAL:HG12	1.95	0.49
2:D:625:MET:SD	2:D:665:SER:HB2	2.52	0.49
2:E:191:GLN:O	2:E:195:ILE:HG12	2.13	0.49
2:F:605:THR:HB	2:F:620:VAL:HG12	1.95	0.49
2:F:625:MET:SD	2:F:665:SER:HB2	2.52	0.49
2:F:676:THR:HG22	3:K:449:MET:HE1	1.84	0.49
2:G:513:GLU:O	2:G:517:THR:OG1	2.30	0.49
2:G:686:GLU:OE2	3:L:153:GLN:OE1	2.31	0.49
2:H:105:ARG:HG2	2:H:157:ASP:OD2	2.12	0.49
2:H:605:THR:HB	2:H:620:VAL:HG12	1.95	0.49
3:I:1025:PHE:HE2	3:I:1083:ALA:HB2	1.78	0.49
3:J:655:ILE:HD12	3:J:655:ILE:C	2.36	0.49
3:J:990:ASN:O	3:J:994:ASN:ND2	2.45	0.49
3:K:405:SER:HA	3:K:408:VAL:HG12	1.95	0.49
2:A:513:GLU:O	2:A:517:THR:OG1	2.30	0.49
2:B:524:GLN:NE2	2:B:596:GLN:OE1	2.46	0.49
2:C:140:HIS:O	2:C:144:GLN:HG3	2.13	0.49
2:C:686:GLU:OE2	3:J:153:GLN:OE1	2.31	0.49
2:H:191:GLN:O	2:H:195:ILE:HG12	2.12	0.49
3:I:621:PRO:C	3:I:623:GLU:N	2.71	0.49
3:J:1025:PHE:HE2	3:J:1083:ALA:HB2	1.78	0.49
3:J:1165:GLU:O	3:J:1166:LYS:C	2.54	0.49
3:K:273:TRP:HA	3:K:273:TRP:CE3	2.48	0.49
3:K:864:ASP:OD1	3:K:865:THR:N	2.46	0.49
3:K:1007:ASP:OD2	3:K:1098:PHE:HB3	2.13	0.49
3:K:1027:ARG:CB	3:K:1078:LYS:HE2	2.22	0.49
3:L:817:THR:HG23	3:L:1229:ASN:ND2	2.28	0.49
3:L:1007:ASP:OD2	3:L:1098:PHE:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:1090:VAL:HG23	3:L:1113:ILE:HD12	1.95	0.49
2:B:436:ASP:HB2	2:C:315:SER:OG	2.12	0.49
2:B:605:THR:HB	2:B:620:VAL:HG12	1.95	0.49
2:D:105:ARG:HG2	2:D:157:ASP:OD2	2.12	0.49
2:E:699:LEU:CD2	2:F:372:LYS:HZ3	2.26	0.49
2:F:524:GLN:NE2	2:F:596:GLN:OE1	2.46	0.49
2:G:122:GLN:O	2:G:123:LYS:C	2.55	0.49
2:G:140:HIS:O	2:G:144:GLN:HG3	2.13	0.49
2:H:524:GLN:NE2	2:H:596:GLN:OE1	2.46	0.49
3:J:262:THR:OG1	3:J:263:ILE:N	2.45	0.49
3:J:340:LEU:HD23	3:J:1303:LEU:HD21	1.93	0.49
3:J:665:TYR:CZ	3:J:667:PRO:HA	2.47	0.49
3:K:1025:PHE:HE2	3:K:1083:ALA:HB2	1.78	0.49
3:K:1036:MET:C	3:K:1038:GLY:N	2.67	0.49
3:L:262:THR:OG1	3:L:263:ILE:N	2.45	0.49
3:L:621:PRO:C	3:L:623:GLU:N	2.71	0.49
3:L:641:MET:HE2	3:L:655:ILE:HG23	1.95	0.49
3:L:1159:ALA:HA	3:L:1170:TYR:HE2	1.77	0.49
1:e:69:SER:C	1:e:71:ASN:N	2.69	0.48
2:A:140:HIS:O	2:A:144:GLN:HG3	2.13	0.48
2:A:456:ASP:N	2:A:457:GLY:HA2	2.27	0.48
2:B:512:ALA:CB	2:B:575:SER:OG	2.61	0.48
2:D:512:ALA:CB	2:D:575:SER:OG	2.61	0.48
2:F:512:ALA:CB	2:F:575:SER:OG	2.61	0.48
2:G:121:MET:O	2:G:122:GLN:C	2.55	0.48
2:H:323:ARG:HG3	2:H:363:MET:HE1	1.93	0.48
2:H:625:MET:HE1	2:H:669:SER:CA	2.43	0.48
3:J:273:TRP:HA	3:J:273:TRP:CE3	2.48	0.48
3:J:561:ARG:HH21	3:K:779:THR:HG22	1.78	0.48
3:J:734:LYS:HB3	3:J:770:ASN:ND2	2.28	0.48
2:A:191:GLN:O	2:A:195:ILE:HG12	2.12	0.48
2:A:628:VAL:HG11	2:A:692:TRP:CG	2.47	0.48
2:A:692:TRP:CD1	3:I:245:MET:HE2	2.48	0.48
2:B:363:MET:HB3	2:C:285:GLU:O	2.13	0.48
2:E:140:HIS:O	2:E:144:GLN:HG3	2.13	0.48
2:E:276:THR:HG23	2:E:280:GLU:HB3	1.94	0.48
2:F:276:THR:HG23	2:F:280:GLU:HB3	1.94	0.48
2:F:553:PHE:HE2	2:F:577:ARG:CD	2.27	0.48
2:F:638:GLY:O	2:F:639:ARG:C	2.54	0.48
2:G:363:MET:HB3	2:H:285:GLU:HB3	1.93	0.48
2:H:513:GLU:O	2:H:517:THR:OG1	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:700:GLU:C	2:H:702:LYS:H	2.20	0.48
3:I:453:ASN:CG	3:I:454:MET:HA	2.38	0.48
3:I:651:LYS:HD3	3:I:651:LYS:N	2.29	0.48
3:J:453:ASN:CG	3:J:454:MET:HA	2.38	0.48
3:K:836:GLU:OE2	3:K:839:GLY:N	2.46	0.48
2:A:346:THR:C	2:A:348:GLN:N	2.69	0.48
2:B:625:MET:HE1	2:B:669:SER:CA	2.43	0.48
2:D:524:GLN:NE2	2:D:596:GLN:OE1	2.46	0.48
2:D:625:MET:HE1	2:D:669:SER:CA	2.43	0.48
2:E:152:GLU:HA	2:E:152:GLU:OE2	2.13	0.48
2:E:513:GLU:O	2:E:517:THR:OG1	2.30	0.48
2:E:692:TRP:CD1	3:K:245:MET:HE2	2.49	0.48
2:G:533:ASP:O	2:G:537:LEU:N	2.42	0.48
3:I:1090:VAL:HG23	3:I:1113:ILE:HD12	1.96	0.48
3:J:661:HIS:HD2	3:J:771:LEU:HG	1.77	0.48
3:K:340:LEU:HD23	3:K:1303:LEU:HD21	1.93	0.48
2:D:191:GLN:O	2:D:195:ILE:HG12	2.12	0.48
2:D:521:MET:CG	2:D:528:PRO:HB3	2.44	0.48
2:F:456:ASP:N	2:F:457:GLY:HA2	2.27	0.48
2:G:152:GLU:HA	2:G:152:GLU:OE2	2.13	0.48
2:G:628:VAL:HG11	2:G:692:TRP:CG	2.47	0.48
2:H:642:LEU:HD21	2:H:670:ILE:HG21	1.94	0.48
3:I:119:GLN:HG2	3:I:131:ILE:HA	1.96	0.48
3:J:310:ASN:O	3:J:314:GLU:HG2	2.14	0.48
3:K:621:PRO:C	3:K:623:GLU:N	2.71	0.48
3:K:988:LEU:C	3:K:989:LEU:HD23	2.39	0.48
3:L:51:LEU:O	3:L:77:LEU:HD12	2.13	0.48
3:L:113:GLY:HA2	3:L:117:ASN:HB2	1.95	0.48
3:L:453:ASN:CG	3:L:454:MET:HA	2.38	0.48
3:L:672:ARG:HH12	3:L:676:ALA:HB2	1.79	0.48
2:C:152:GLU:OE2	2:C:152:GLU:HA	2.13	0.48
2:C:191:GLN:O	2:C:195:ILE:HG12	2.12	0.48
2:D:553:PHE:HE2	2:D:577:ARG:CD	2.26	0.48
2:E:592:MET:HE2	2:E:592:MET:HB3	1.64	0.48
2:F:642:LEU:HD21	2:F:670:ILE:HG21	1.94	0.48
3:J:651:LYS:HD3	3:J:651:LYS:N	2.29	0.48
3:J:672:ARG:HH12	3:J:676:ALA:HB2	1.79	0.48
3:K:600:TYR:HE1	3:K:604:ARG:CZ	2.20	0.48
3:L:734:LYS:HB3	3:L:770:ASN:ND2	2.28	0.48
3:L:813:ILE:HD13	3:L:824:LEU:CD2	2.43	0.48
3:L:1120:PHE:CD2	3:L:1304:LYS:HB2	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:32:ALA:O	1:a:33:ALA:C	2.55	0.48
1:h:69:SER:C	1:h:71:ASN:N	2.70	0.48
2:A:249:SER:CB	2:H:323:ARG:HD2	2.42	0.48
2:B:114:TYR:O	2:B:115:LEU:C	2.54	0.48
2:E:546:ARG:O	2:E:547:PHE:C	2.57	0.48
2:F:265:GLY:HA2	2:F:266:ASP:HA	1.50	0.48
2:F:628:VAL:HG13	2:F:689:SER:CB	2.44	0.48
2:G:521:MET:HG3	2:G:528:PRO:HB3	1.95	0.48
2:H:456:ASP:N	2:H:457:GLY:HA2	2.27	0.48
3:I:458:GLY:HA3	3:I:459:GLU:HB3	1.96	0.48
3:I:1007:ASP:OD2	3:I:1098:PHE:HB3	2.13	0.48
3:I:1120:PHE:CE2	3:I:1304:LYS:CG	2.80	0.48
3:J:836:GLU:OE2	3:J:839:GLY:N	2.46	0.48
3:L:119:GLN:HG2	3:L:131:ILE:HA	1.96	0.48
2:A:521:MET:HG3	2:A:528:PRO:HB3	1.95	0.48
2:B:191:GLN:O	2:B:195:ILE:HG12	2.12	0.48
2:D:628:VAL:HG13	2:D:689:SER:CB	2.44	0.48
2:F:625:MET:HE1	2:F:669:SER:CA	2.43	0.48
3:I:113:GLY:HA2	3:I:117:ASN:HB2	1.94	0.48
3:I:641:MET:HE2	3:I:655:ILE:HG23	1.95	0.48
3:K:661:HIS:HD2	3:K:771:LEU:HG	1.77	0.48
2:B:105:ARG:HG2	2:B:157:ASP:OD2	2.12	0.48
2:D:445:MET:HE1	2:E:318:ASN:CG	2.39	0.48
2:D:513:GLU:O	2:D:517:THR:OG1	2.30	0.48
2:E:363:MET:HB3	2:F:285:GLU:HB3	1.94	0.48
2:F:572:LEU:O	2:F:573:ARG:C	2.54	0.48
2:H:628:VAL:HG13	2:H:689:SER:CB	2.44	0.48
2:H:675:THR:C	2:H:676:THR:HG1	2.10	0.48
3:J:1090:VAL:HG23	3:J:1113:ILE:HD12	1.95	0.48
3:K:672:ARG:NH1	3:K:676:ALA:HB2	2.29	0.48
3:K:1090:VAL:HG23	3:K:1113:ILE:HD12	1.95	0.48
3:L:836:GLU:OE2	3:L:839:GLY:N	2.46	0.48
3:L:1025:PHE:HE2	3:L:1083:ALA:HB2	1.78	0.48
1:c:32:ALA:O	1:c:33:ALA:C	2.55	0.48
2:D:676:THR:HG22	3:J:449:MET:HE1	1.86	0.48
2:F:553:PHE:CE1	2:F:557:LEU:HD13	2.49	0.48
2:H:512:ALA:CB	2:H:575:SER:OG	2.61	0.48
2:H:521:MET:HG3	2:H:528:PRO:HB3	1.94	0.48
2:H:553:PHE:HE2	2:H:577:ARG:CD	2.27	0.48
3:I:405:SER:HA	3:I:408:VAL:HG12	1.95	0.48
3:I:824:LEU:HD12	3:I:824:LEU:HA	1.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1120:PHE:CE2	3:J:1304:LYS:CG	2.80	0.48
3:K:51:LEU:O	3:K:77:LEU:HD12	2.13	0.48
3:K:651:LYS:HD3	3:K:651:LYS:N	2.29	0.48
3:K:672:ARG:HH12	3:K:676:ALA:HB2	1.79	0.48
3:L:273:TRP:HA	3:L:273:TRP:CE3	2.48	0.48
3:L:405:SER:HA	3:L:408:VAL:HG12	1.95	0.48
3:L:458:GLY:HA3	3:L:459:GLU:HB3	1.96	0.48
2:B:553:PHE:CE1	2:B:557:LEU:HD13	2.49	0.48
2:F:521:MET:CG	2:F:528:PRO:HB3	2.44	0.48
2:F:655:TRP:CD1	2:F:655:TRP:H	2.30	0.48
2:G:699:LEU:CG	2:H:372:LYS:HZ3	2.25	0.48
3:I:51:LEU:O	3:I:77:LEU:HD12	2.13	0.48
3:I:310:ASN:O	3:I:314:GLU:HG2	2.14	0.48
3:I:672:ARG:NH1	3:I:676:ALA:HB2	2.29	0.48
3:I:813:ILE:HD13	3:I:824:LEU:CD2	2.43	0.48
3:I:836:GLU:OE2	3:I:839:GLY:N	2.46	0.48
3:I:917:LEU:HD13	3:I:917:LEU:HA	1.59	0.48
3:J:600:TYR:HE1	3:J:604:ARG:CZ	2.20	0.48
3:J:1007:ASP:OD2	3:J:1098:PHE:HB3	2.13	0.48
3:K:641:MET:HE2	3:K:655:ILE:HG23	1.95	0.48
3:K:665:TYR:CZ	3:K:667:PRO:HA	2.47	0.48
3:L:672:ARG:NH1	3:L:676:ALA:HB2	2.29	0.48
3:L:1170:TYR:O	3:L:1171:LEU:C	2.56	0.48
1:c:69:SER:C	1:c:71:ASN:N	2.69	0.47
2:A:152:GLU:HA	2:A:152:GLU:OE2	2.13	0.47
2:A:418:HIS:CD2	2:H:639:ARG:NE	2.82	0.47
2:A:638:GLY:O	2:A:639:ARG:C	2.54	0.47
2:C:291:MET:CA	2:C:291:MET:CE	2.86	0.47
2:C:684:ASP:OD1	2:C:686:GLU:N	2.47	0.47
2:E:212:LEU:H	2:E:212:LEU:HD12	1.79	0.47
2:E:521:MET:CG	2:E:528:PRO:HB3	2.44	0.47
2:G:692:TRP:CD1	3:L:245:MET:HE2	2.49	0.47
3:I:853:LYS:O	3:I:856:THR:HG22	2.14	0.47
3:K:113:GLY:HA2	3:K:117:ASN:HB2	1.95	0.47
3:K:119:GLN:HG2	3:K:131:ILE:HA	1.96	0.47
3:L:1291:LEU:HD12	3:L:1292:VAL:HG23	1.96	0.47
1:f:62:GLU:HA	1:f:65:ALA:CB	2.44	0.47
2:C:333:LYS:O	2:C:334:ALA:C	2.53	0.47
2:C:521:MET:CG	2:C:528:PRO:HB3	2.45	0.47
2:C:663:MET:HG2	2:C:672:LEU:HD13	1.96	0.47
2:D:534:ALA:HB1	2:D:586:ARG:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:553:PHE:CE1	2:D:557:LEU:HD13	2.49	0.47
2:D:608:PHE:CZ	2:D:642:LEU:HD23	2.49	0.47
2:E:663:MET:HG2	2:E:672:LEU:HD13	1.96	0.47
2:F:608:PHE:CZ	2:F:642:LEU:HD23	2.49	0.47
3:I:273:TRP:HA	3:I:273:TRP:CE3	2.48	0.47
3:I:1098:PHE:HA	3:I:1099:GLY:HA2	1.59	0.47
3:J:113:GLY:HA2	3:J:117:ASN:HB2	1.94	0.47
3:J:119:GLN:HG2	3:J:131:ILE:HA	1.96	0.47
3:J:988:LEU:C	3:J:989:LEU:HD23	2.39	0.47
3:K:54:MET:HG3	3:K:86:ALA:CB	2.45	0.47
1:a:69:SER:C	1:a:71:ASN:N	2.69	0.47
1:d:62:GLU:HA	1:d:65:ALA:CB	2.44	0.47
2:A:318:ASN:CG	2:H:445:MET:HE1	2.39	0.47
2:A:383:LYS:HB2	2:A:416:PHE:CE2	2.49	0.47
2:A:398:GLU:OE1	2:A:398:GLU:HA	2.14	0.47
2:E:521:MET:HG3	2:E:528:PRO:HB3	1.95	0.47
2:E:686:GLU:OE2	3:K:153:GLN:OE1	2.32	0.47
2:H:139:ARG:HG2	2:H:139:ARG:HH11	1.75	0.47
3:I:1291:LEU:HD12	3:I:1292:VAL:HG23	1.95	0.47
3:J:51:LEU:O	3:J:77:LEU:HD12	2.13	0.47
3:K:453:ASN:CG	3:K:454:MET:HA	2.38	0.47
1:e:62:GLU:HA	1:e:65:ALA:CB	2.45	0.47
2:A:121:MET:O	2:A:122:GLN:C	2.55	0.47
2:A:291:MET:HG2	2:G:711:VAL:HG11	1.97	0.47
2:B:638:GLY:O	2:B:639:ARG:C	2.54	0.47
2:C:383:LYS:HB2	2:C:416:PHE:CE2	2.50	0.47
2:G:212:LEU:H	2:G:212:LEU:HD12	1.80	0.47
2:H:608:PHE:CZ	2:H:642:LEU:HD23	2.50	0.47
3:I:661:HIS:HD2	3:I:771:LEU:HG	1.78	0.47
3:I:672:ARG:HH12	3:I:676:ALA:HB2	1.79	0.47
3:I:1040:LYS:HB2	3:I:1068:ARG:HD2	1.97	0.47
3:J:1291:LEU:HD12	3:J:1292:VAL:HG23	1.95	0.47
3:K:310:ASN:O	3:K:314:GLU:HG2	2.14	0.47
3:K:594:SER:HA	3:K:595:ARG:HA	1.56	0.47
3:K:853:LYS:O	3:K:856:THR:HG22	2.14	0.47
1:h:62:GLU:HA	1:h:65:ALA:CB	2.44	0.47
2:B:140:HIS:C	2:B:140:HIS:ND1	2.73	0.47
2:B:553:PHE:HE2	2:B:577:ARG:CD	2.26	0.47
2:B:608:PHE:CZ	2:B:642:LEU:HD23	2.50	0.47
2:B:628:VAL:HG13	2:B:689:SER:CB	2.44	0.47
2:C:343:GLU:HA	2:C:349:ARG:HH12	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:346:THR:C	2:C:348:GLN:N	2.69	0.47
2:E:122:GLN:O	2:E:123:LYS:C	2.55	0.47
2:E:383:LYS:HB2	2:E:416:PHE:CE2	2.50	0.47
2:E:650:ILE:HG23	2:E:656:ILE:O	2.15	0.47
2:E:699:LEU:CG	2:F:372:LYS:HZ3	2.23	0.47
2:F:212:LEU:HD12	2:F:212:LEU:H	1.80	0.47
3:K:455:LYS:NZ	3:K:478:HIS:HA	2.30	0.47
3:L:853:LYS:O	3:L:856:THR:HG22	2.14	0.47
2:A:276:THR:HG23	2:A:280:GLU:HB3	1.94	0.47
2:B:521:MET:CG	2:B:528:PRO:HB3	2.44	0.47
2:D:140:HIS:C	2:D:140:HIS:ND1	2.73	0.47
2:F:700:GLU:C	2:F:702:LYS:H	2.20	0.47
2:G:383:LYS:HB2	2:G:416:PHE:CE2	2.49	0.47
2:G:398:GLU:OE1	2:G:398:GLU:HA	2.14	0.47
2:G:684:ASP:OD1	2:G:686:GLU:N	2.47	0.47
3:J:54:MET:HG3	3:J:86:ALA:CB	2.45	0.47
3:J:672:ARG:NH1	3:J:676:ALA:HB2	2.29	0.47
3:J:853:LYS:O	3:J:856:THR:HG22	2.14	0.47
1:f:32:ALA:O	1:f:33:ALA:C	2.55	0.47
1:f:69:SER:C	1:f:71:ASN:N	2.70	0.47
2:A:684:ASP:OD1	2:A:686:GLU:N	2.47	0.47
2:B:398:GLU:HA	2:B:398:GLU:OE1	2.15	0.47
2:B:675:THR:C	2:B:676:THR:HG1	2.07	0.47
2:C:212:LEU:H	2:C:212:LEU:HD12	1.80	0.47
2:C:650:ILE:HG23	2:C:656:ILE:O	2.15	0.47
2:D:212:LEU:H	2:D:212:LEU:HD12	1.80	0.47
2:D:516:LEU:HD22	2:D:579:ILE:HD13	1.91	0.47
2:D:550:ASP:O	2:D:551:LYS:C	2.55	0.47
2:E:398:GLU:HA	2:E:398:GLU:OE1	2.14	0.47
2:F:451:GLN:HA	2:F:452:ALA:HA	1.62	0.47
2:H:550:ASP:O	2:H:551:LYS:C	2.55	0.47
2:H:553:PHE:CE1	2:H:557:LEU:HD13	2.49	0.47
3:I:54:MET:HG3	3:I:86:ALA:CB	2.45	0.47
3:I:988:LEU:C	3:I:989:LEU:HD23	2.39	0.47
3:J:455:LYS:NZ	3:J:478:HIS:HA	2.30	0.47
3:J:1027:ARG:HB2	3:J:1078:LYS:CE	2.23	0.47
3:J:1040:LYS:HB2	3:J:1068:ARG:HD2	1.97	0.47
3:K:458:GLY:HA3	3:K:459:GLU:HB3	1.96	0.47
3:K:561:ARG:HH21	3:L:779:THR:HG22	1.80	0.47
3:K:676:ALA:HA	3:K:679:ILE:HG12	1.97	0.47
3:K:1165:GLU:O	3:K:1166:LYS:C	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:310:ASN:O	3:L:314:GLU:HG2	2.14	0.47
3:L:580:ALA:C	3:L:582:LYS:N	2.73	0.47
3:L:651:LYS:HD3	3:L:651:LYS:N	2.29	0.47
3:L:676:ALA:HA	3:L:679:ILE:HG12	1.97	0.47
3:L:988:LEU:C	3:L:989:LEU:HD23	2.39	0.47
3:L:1040:LYS:HB2	3:L:1068:ARG:HD2	1.97	0.47
1:c:62:GLU:HA	1:c:65:ALA:CB	2.44	0.47
1:d:32:ALA:O	1:d:33:ALA:C	2.55	0.47
2:B:645:ALA:O	2:B:649:ILE:N	2.47	0.47
2:C:363:MET:HB3	2:D:285:GLU:HB3	1.96	0.47
2:C:699:LEU:CD2	2:D:372:LYS:HZ3	2.28	0.47
2:D:265:GLY:HA2	2:D:266:ASP:HA	1.50	0.47
2:D:639:ARG:NE	2:E:418:HIS:CD2	2.83	0.47
2:G:265:GLY:HA2	2:G:266:ASP:HA	1.51	0.47
2:G:343:GLU:HA	2:G:349:ARG:HH12	1.80	0.47
2:G:663:MET:HG2	2:G:672:LEU:HD13	1.96	0.47
2:H:265:GLY:HA2	2:H:266:ASP:HA	1.50	0.47
2:H:387:ILE:HG12	2:H:416:PHE:HE1	1.80	0.47
2:H:676:THR:HG22	3:L:449:MET:HE1	1.86	0.47
3:I:930:GLU:HB3	3:I:1100:ALA:HB2	1.97	0.47
3:J:143:LEU:HD23	3:J:143:LEU:HA	1.79	0.47
3:J:813:ILE:HD13	3:J:824:LEU:CD2	2.43	0.47
3:K:813:ILE:HD13	3:K:824:LEU:CD2	2.43	0.47
3:K:817:THR:HG23	3:K:1229:ASN:ND2	2.28	0.47
1:a:62:GLU:HA	1:a:65:ALA:CB	2.44	0.47
1:g:62:GLU:HA	1:g:65:ALA:CB	2.44	0.47
2:B:387:ILE:HG12	2:B:416:PHE:HE1	1.80	0.47
2:D:387:ILE:HG12	2:D:416:PHE:HE1	1.80	0.47
2:E:171:ILE:HG13	2:E:175:ASN:OD1	2.15	0.47
2:F:363:MET:HB3	2:G:285:GLU:O	2.14	0.47
3:I:290:TYR:OH	3:I:316:ASP:OD2	2.25	0.47
3:I:655:ILE:HD12	3:I:655:ILE:C	2.37	0.47
3:J:458:GLY:HA3	3:J:459:GLU:HB3	1.96	0.47
3:J:1195:LEU:HD23	3:J:1195:LEU:HA	1.59	0.47
3:L:54:MET:HG3	3:L:86:ALA:CB	2.45	0.47
1:g:69:SER:C	1:g:71:ASN:N	2.70	0.47
2:A:343:GLU:HA	2:A:349:ARG:HH12	1.80	0.47
2:A:650:ILE:HG23	2:A:656:ILE:O	2.15	0.47
2:A:686:GLU:OE2	3:I:153:GLN:OE1	2.32	0.47
2:D:323:ARG:HD2	2:E:249:SER:CB	2.43	0.47
2:E:343:GLU:HA	2:E:349:ARG:HH12	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:135:MET:HE3	2:F:135:MET:O	2.15	0.47
2:F:140:HIS:C	2:F:140:HIS:ND1	2.73	0.47
2:F:676:THR:CG2	2:F:677:GLY:H	2.18	0.47
2:H:140:HIS:ND1	2:H:140:HIS:C	2.73	0.47
2:H:398:GLU:OE1	2:H:398:GLU:HA	2.15	0.47
3:K:627:MET:HE3	3:K:627:MET:HB3	1.80	0.47
3:K:1159:ALA:HB2	3:K:1171:LEU:HD13	1.97	0.47
3:K:1291:LEU:HD12	3:K:1292:VAL:HG23	1.95	0.47
3:L:600:TYR:HE1	3:L:604:ARG:CZ	2.20	0.47
3:L:670:TYR:CE2	3:L:738:ILE:HG12	2.50	0.47
1:b:62:GLU:HA	1:b:65:ALA:CB	2.44	0.46
2:A:635:TRP:CG	2:A:636:GLU:N	2.81	0.46
2:B:661:LEU:HA	2:B:674:ASP:HA	1.97	0.46
2:E:383:LYS:HE3	2:E:420:ASP:HB3	1.97	0.46
2:F:171:ILE:HG13	2:F:175:ASN:OD1	2.15	0.46
2:H:212:LEU:H	2:H:212:LEU:HD12	1.80	0.46
2:H:534:ALA:HB1	2:H:586:ARG:HA	1.96	0.46
3:J:670:TYR:CE2	3:J:738:ILE:HG12	2.50	0.46
3:K:11:ASP:HA	3:K:12:TYR:HA	1.61	0.46
3:K:670:TYR:CE2	3:K:738:ILE:HG12	2.50	0.46
2:A:212:LEU:HD12	2:A:212:LEU:H	1.80	0.46
2:A:252:SER:HB2	2:A:294:ALA:HB2	1.98	0.46
2:B:74:ILE:HA	2:B:77:LYS:HE2	1.97	0.46
2:C:398:GLU:OE1	2:C:398:GLU:HA	2.14	0.46
2:D:139:ARG:HH21	2:D:175:ASN:HD22	1.57	0.46
2:H:646:ARG:CZ	2:H:647:LYS:CE	2.87	0.46
3:I:580:ALA:C	3:I:582:LYS:N	2.73	0.46
3:I:1045:GLU:HA	3:I:1057:VAL:HB	1.98	0.46
3:I:1195:LEU:HD23	3:I:1195:LEU:HA	1.59	0.46
3:K:143:LEU:HA	3:K:143:LEU:HD23	1.79	0.46
3:K:1206:GLY:HA2	3:K:1207:PHE:CB	2.39	0.46
3:L:655:ILE:HD12	3:L:655:ILE:C	2.37	0.46
2:A:296:ARG:NH2	2:H:373:ALA:HB1	2.31	0.46
2:A:521:MET:CG	2:A:528:PRO:HB3	2.45	0.46
2:B:212:LEU:H	2:B:212:LEU:HD12	1.80	0.46
2:C:711:VAL:HG11	2:E:291:MET:HG2	1.97	0.46
2:D:171:ILE:HG13	2:D:175:ASN:OD1	2.15	0.46
2:D:398:GLU:OE1	2:D:398:GLU:HA	2.15	0.46
2:E:711:VAL:HG11	2:G:291:MET:HG2	1.97	0.46
2:F:74:ILE:HA	2:F:77:LYS:HE2	1.97	0.46
2:F:323:ARG:HD2	2:G:249:SER:CB	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:383:LYS:HE3	2:G:420:ASP:HB3	1.97	0.46
2:G:521:MET:CG	2:G:528:PRO:HB3	2.44	0.46
2:H:521:MET:CG	2:H:528:PRO:HB3	2.44	0.46
2:H:645:ALA:O	2:H:649:ILE:N	2.47	0.46
3:I:51:LEU:O	3:I:51:LEU:HD12	2.16	0.46
3:I:561:ARG:HH21	3:J:779:THR:HG22	1.81	0.46
3:I:600:TYR:HE1	3:I:604:ARG:CZ	2.20	0.46
3:J:621:PRO:C	3:J:623:GLU:N	2.71	0.46
2:A:323:ARG:HH11	2:B:249:SER:HB3	1.80	0.46
2:B:534:ALA:HB1	2:B:586:ARG:HA	1.96	0.46
2:C:625:MET:HE3	2:C:625:MET:HB2	1.65	0.46
2:D:557:LEU:CD2	2:D:558:ASN:N	2.73	0.46
2:E:684:ASP:OD1	2:E:686:GLU:N	2.47	0.46
2:F:398:GLU:OE1	2:F:398:GLU:HA	2.15	0.46
2:G:410:ASN:HD22	2:G:410:ASN:HA	1.53	0.46
2:G:592:MET:HE2	2:G:592:MET:HB3	1.64	0.46
2:H:666:GLN:NE2	2:H:666:GLN:CA	2.72	0.46
3:I:1090:VAL:HG11	3:I:1110:SER:HB2	1.98	0.46
3:J:1210:SER:HB2	3:J:1231:PRO:HG3	1.97	0.46
3:L:431:ARG:HH22	3:L:484:SER:HB3	1.81	0.46
2:B:594:MET:HE2	2:B:594:MET:HB3	1.59	0.46
2:D:553:PHE:CE1	2:D:557:LEU:CD1	2.99	0.46
2:F:225:ILE:HD12	2:F:225:ILE:HA	1.75	0.46
2:F:383:LYS:HE3	2:F:420:ASP:HB3	1.98	0.46
2:F:513:GLU:CG	2:F:578:LYS:HD3	2.46	0.46
2:F:557:LEU:C	2:F:557:LEU:CD2	2.85	0.46
2:G:451:GLN:HA	2:G:452:ALA:HA	1.62	0.46
2:H:655:TRP:CD1	2:H:655:TRP:H	2.30	0.46
3:I:1217:ILE:O	3:I:1218:LEU:C	2.57	0.46
3:J:97:PHE:CD2	3:J:103:LYS:HG2	2.51	0.46
3:J:1159:ALA:HB2	3:J:1171:LEU:HD13	1.97	0.46
3:K:1040:LYS:HB2	3:K:1068:ARG:HD2	1.97	0.46
3:K:1210:SER:HB2	3:K:1231:PRO:HG3	1.97	0.46
3:L:1159:ALA:HB2	3:L:1171:LEU:HD13	1.97	0.46
3:L:1188:SER:O	3:L:1188:SER:OG	2.30	0.46
2:A:406:ASP:O	2:A:408:PRO:HD3	2.16	0.46
2:A:663:MET:HG2	2:A:672:LEU:HD13	1.96	0.46
2:D:383:LYS:HE3	2:D:420:ASP:HB3	1.98	0.46
2:D:513:GLU:CG	2:D:578:LYS:HD3	2.46	0.46
2:D:628:VAL:HG13	2:D:689:SER:HB2	1.97	0.46
2:F:661:LEU:HA	2:F:674:ASP:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:650:ILE:HG23	2:G:656:ILE:O	2.15	0.46
2:H:628:VAL:HG13	2:H:689:SER:HB2	1.97	0.46
2:H:638:GLY:O	2:H:639:ARG:C	2.54	0.46
3:I:155:GLU:HA	3:I:156:THR:HA	1.73	0.46
3:I:594:SER:HA	3:I:595:ARG:HA	1.56	0.46
3:J:250:GLY:O	3:J:251:ARG:CB	2.61	0.46
3:J:817:THR:HG23	3:J:1229:ASN:ND2	2.28	0.46
3:J:1045:GLU:HA	3:J:1057:VAL:HB	1.98	0.46
3:K:824:LEU:HD12	3:K:824:LEU:HA	1.59	0.46
3:K:930:GLU:HB3	3:K:1100:ALA:HB2	1.97	0.46
3:K:1027:ARG:HB2	3:K:1078:LYS:CE	2.23	0.46
2:A:171:ILE:HG13	2:A:175:ASN:OD1	2.15	0.46
2:A:418:HIS:HD2	2:H:639:ARG:NE	2.14	0.46
2:B:666:GLN:NE2	2:B:666:GLN:CA	2.72	0.46
2:C:699:LEU:CD2	2:D:372:LYS:NZ	2.79	0.46
2:D:152:GLU:C	2:D:152:GLU:CD	2.84	0.46
2:G:572:LEU:HA	2:G:572:LEU:HD23	1.62	0.46
2:H:135:MET:HE3	2:H:135:MET:O	2.15	0.46
2:H:661:LEU:HA	2:H:674:ASP:HA	1.97	0.46
3:I:455:LYS:NZ	3:I:478:HIS:HA	2.30	0.46
3:K:1151:TYR:CE2	3:K:1180:ILE:HD13	2.51	0.46
3:K:1195:LEU:HD23	3:K:1195:LEU:HA	1.59	0.46
3:L:455:LYS:HB3	3:L:464:PRO:HB2	1.98	0.46
3:L:455:LYS:NZ	3:L:478:HIS:HA	2.30	0.46
3:L:930:GLU:HB3	3:L:1100:ALA:HB2	1.97	0.46
3:L:1217:ILE:O	3:L:1218:LEU:C	2.57	0.46
2:A:93:LEU:HD13	2:A:93:LEU:HA	1.73	0.46
2:B:513:GLU:CG	2:B:578:LYS:HD3	2.46	0.46
2:B:639:ARG:NE	2:C:418:HIS:CD2	2.84	0.46
2:E:235:PRO:HA	2:E:236:SER:HA	1.48	0.46
2:F:534:ALA:HB1	2:F:586:ARG:HA	1.96	0.46
3:I:670:TYR:CE2	3:I:738:ILE:HG12	2.50	0.46
3:I:817:THR:HG23	3:I:1229:ASN:ND2	2.28	0.46
3:J:1090:VAL:HG11	3:J:1110:SER:HB2	1.98	0.46
3:K:401:MET:HA	3:K:404:ILE:HG22	1.98	0.46
3:K:455:LYS:HB3	3:K:464:PRO:HB2	1.98	0.46
3:K:1120:PHE:CE2	3:K:1304:LYS:CG	2.80	0.46
3:K:1217:ILE:O	3:K:1218:LEU:C	2.57	0.46
3:L:97:PHE:CD2	3:L:103:LYS:HG2	2.51	0.46
3:L:1151:TYR:CE2	3:L:1180:ILE:HD13	2.51	0.46
1:b:32:ALA:O	1:b:33:ALA:C	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:699:LEU:HB3	2:C:372:LYS:NZ	2.30	0.46
2:C:406:ASP:O	2:C:408:PRO:HD3	2.16	0.46
2:C:546:ARG:O	2:C:547:PHE:C	2.57	0.46
2:C:692:TRP:CD1	3:J:245:MET:HE2	2.51	0.46
2:D:661:LEU:HA	2:D:674:ASP:HA	1.97	0.46
2:F:390:GLN:NE2	2:F:400:VAL:HG12	2.31	0.46
2:F:399:TRP:CZ2	3:K:414:ARG:HA	2.50	0.46
2:F:553:PHE:CE1	2:F:557:LEU:CD1	2.99	0.46
2:H:513:GLU:CG	2:H:578:LYS:HD3	2.46	0.46
3:I:676:ALA:HA	3:I:679:ILE:HG12	1.97	0.46
3:J:553:ALA:O	3:K:779:THR:OG1	2.26	0.46
3:K:431:ARG:HH22	3:K:484:SER:HB3	1.80	0.46
3:L:1045:GLU:HA	3:L:1057:VAL:HB	1.98	0.46
1:g:32:ALA:O	1:g:33:ALA:C	2.55	0.46
2:A:299:PHE:HE1	2:H:378:MET:CE	2.28	0.46
2:A:500:ASP:O	2:A:501:PRO:C	2.59	0.46
2:A:711:VAL:HG11	2:C:291:MET:HG2	1.98	0.46
2:B:139:ARG:HH21	2:B:175:ASN:HD22	1.57	0.46
2:B:265:GLY:HA2	2:B:266:ASP:HA	1.50	0.46
2:C:75:ILE:CD1	2:C:92:LEU:HG	2.46	0.46
2:C:252:SER:HB2	2:C:294:ALA:HB2	1.98	0.46
2:D:74:ILE:HA	2:D:77:LYS:HE2	1.97	0.46
2:D:121:MET:HE1	2:D:138:TYR:CD2	2.51	0.46
2:F:373:ALA:HB1	2:G:296:ARG:NH2	2.31	0.46
2:F:409:VAL:HG22	2:F:414:GLY:H	1.81	0.46
2:F:628:VAL:HG13	2:F:689:SER:HB2	1.97	0.46
2:G:171:ILE:HG13	2:G:175:ASN:OD1	2.15	0.46
2:G:546:ARG:O	2:G:547:PHE:C	2.57	0.46
2:H:383:LYS:HE3	2:H:420:ASP:HB3	1.98	0.46
3:I:29:LEU:HD11	3:I:101:GLU:HB3	1.98	0.46
3:I:459:GLU:O	3:I:459:GLU:HG3	2.16	0.46
3:I:906:LEU:HD13	3:I:1108:PHE:HE1	1.81	0.46
3:J:489:ILE:HD11	3:J:892:THR:HG21	1.98	0.46
3:J:1217:ILE:O	3:J:1218:LEU:C	2.57	0.46
3:K:51:LEU:O	3:K:51:LEU:HD12	2.16	0.46
3:K:97:PHE:CD2	3:K:103:LYS:HG2	2.51	0.46
3:K:1090:VAL:HG11	3:K:1110:SER:HB2	1.98	0.46
3:L:348:VAL:HG13	3:L:1296:PRO:HG2	1.98	0.46
3:L:1013:LEU:HD12	3:L:1013:LEU:HA	1.64	0.46
1:b:69:SER:C	1:b:71:ASN:N	2.69	0.45
1:h:69:SER:O	1:h:70:GLN:C	2.58	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:75:ILE:CD1	2:A:92:LEU:HG	2.47	0.45
2:B:152:GLU:C	2:B:152:GLU:CD	2.84	0.45
2:B:628:VAL:HG13	2:B:689:SER:HB2	1.97	0.45
2:G:406:ASP:O	2:G:408:PRO:HD3	2.16	0.45
2:H:74:ILE:HA	2:H:77:LYS:HE2	1.97	0.45
2:H:661:LEU:C	2:H:661:LEU:CD1	2.85	0.45
3:J:654:SER:O	3:J:654:SER:OG	2.27	0.45
3:K:906:LEU:HD13	3:K:1108:PHE:HE1	1.81	0.45
3:L:489:ILE:HD11	3:L:892:THR:HG21	1.98	0.45
1:a:69:SER:O	1:a:70:GLN:C	2.58	0.45
2:A:291:MET:HG3	2:G:711:VAL:HG21	1.98	0.45
2:B:390:GLN:NE2	2:B:400:VAL:HG12	2.31	0.45
2:C:171:ILE:HG13	2:C:175:ASN:OD1	2.15	0.45
2:D:603:GLU:O	2:D:623:LYS:NZ	2.42	0.45
2:E:406:ASP:O	2:E:408:PRO:HD3	2.15	0.45
2:F:639:ARG:NE	2:G:418:HIS:HD2	2.13	0.45
2:H:409:VAL:HG22	2:H:414:GLY:H	1.81	0.45
3:I:1162:LEU:HD22	3:I:1162:LEU:HA	1.83	0.45
3:J:29:LEU:HD11	3:J:101:GLU:HB3	1.98	0.45
3:J:324:LEU:HD22	3:J:324:LEU:HA	1.72	0.45
3:J:580:ALA:C	3:J:582:LYS:N	2.73	0.45
3:J:906:LEU:HD13	3:J:1108:PHE:HE1	1.82	0.45
3:K:1009:ILE:HG23	3:K:1041:SER:OG	2.17	0.45
3:L:51:LEU:O	3:L:51:LEU:HD12	2.16	0.45
3:L:479:ASP:HB2	3:L:481:SER:H	1.81	0.45
3:L:1090:VAL:HG11	3:L:1110:SER:HB2	1.98	0.45
1:e:32:ALA:O	1:e:33:ALA:C	2.55	0.45
2:A:138:TYR:HE1	2:A:142:ARG:HH11	1.65	0.45
2:B:121:MET:HE1	2:B:138:TYR:CD2	2.51	0.45
2:B:139:ARG:O	2:B:140:HIS:C	2.58	0.45
2:B:553:PHE:CE1	2:B:557:LEU:CD1	2.99	0.45
2:C:383:LYS:HE3	2:C:420:ASP:HB3	1.97	0.45
2:C:451:GLN:HA	2:C:452:ALA:HA	1.62	0.45
2:C:628:VAL:CG1	2:C:692:TRP:HB3	2.46	0.45
2:D:135:MET:HE3	2:D:135:MET:O	2.15	0.45
2:E:628:VAL:CG1	2:E:692:TRP:HB3	2.46	0.45
2:E:638:GLY:O	2:E:639:ARG:C	2.54	0.45
2:F:545:GLN:HE21	2:F:545:GLN:HB2	1.60	0.45
2:F:669:SER:O	2:F:671:TYR:N	2.50	0.45
2:H:152:GLU:C	2:H:152:GLU:CD	2.84	0.45
2:H:171:ILE:HG13	2:H:175:ASN:OD1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:779:THR:OG1	3:L:553:ALA:O	2.25	0.45
3:J:917:LEU:HD13	3:J:917:LEU:HA	1.59	0.45
3:L:250:GLY:O	3:L:251:ARG:CB	2.61	0.45
3:L:1098:PHE:HA	3:L:1099:GLY:HA2	1.59	0.45
1:g:69:SER:O	1:g:70:GLN:C	2.58	0.45
2:A:390:GLN:NE2	2:A:400:VAL:HG12	2.31	0.45
2:C:138:TYR:HE1	2:C:142:ARG:HH11	1.65	0.45
2:C:270:THR:HG22	2:C:275:THR:HG22	1.98	0.45
2:D:323:ARG:HD2	2:E:249:SER:HG	1.75	0.45
2:D:390:GLN:NE2	2:D:400:VAL:HG12	2.31	0.45
2:D:409:VAL:HG22	2:D:414:GLY:H	1.81	0.45
2:E:75:ILE:CD1	2:E:92:LEU:HG	2.46	0.45
2:E:563:PRO:HB3	2:E:617:THR:HG21	1.99	0.45
2:F:387:ILE:HG12	2:F:416:PHE:HE1	1.80	0.45
2:G:390:GLN:NE2	2:G:400:VAL:HG12	2.31	0.45
2:H:390:GLN:NE2	2:H:400:VAL:HG12	2.31	0.45
2:H:553:PHE:CE1	2:H:557:LEU:CD1	2.99	0.45
3:I:348:VAL:HG13	3:I:1296:PRO:HG2	1.98	0.45
3:I:422:ASP:N	3:I:422:ASP:OD1	2.49	0.45
3:I:1159:ALA:HB2	3:I:1171:LEU:HD13	1.97	0.45
3:K:653:VAL:H	3:K:814:MET:HE3	1.82	0.45
3:K:1045:GLU:HA	3:K:1057:VAL:HB	1.98	0.45
1:f:69:SER:O	1:f:70:GLN:C	2.58	0.45
2:A:383:LYS:HE3	2:A:420:ASP:HB3	1.98	0.45
2:A:563:PRO:HB3	2:A:617:THR:HG21	1.99	0.45
2:D:139:ARG:O	2:D:140:HIS:C	2.58	0.45
2:D:553:PHE:HE1	2:D:557:LEU:CD1	2.30	0.45
2:F:553:PHE:HE1	2:F:557:LEU:CD1	2.29	0.45
2:G:75:ILE:CD1	2:G:92:LEU:HG	2.46	0.45
2:G:252:SER:HB2	2:G:294:ALA:HB2	1.98	0.45
2:H:285:GLU:O	2:H:286:GLN:C	2.58	0.45
3:I:350:GLY:HA3	3:I:351:LYS:HA	1.61	0.45
3:J:11:ASP:HA	3:J:12:TYR:HA	1.61	0.45
3:J:435:ARG:NH2	3:J:482:VAL:O	2.50	0.45
3:J:676:ALA:HA	3:J:679:ILE:HG12	1.97	0.45
3:J:930:GLU:HB3	3:J:1100:ALA:HB2	1.97	0.45
3:J:1151:TYR:CE2	3:J:1180:ILE:HD13	2.51	0.45
3:K:29:LEU:HD11	3:K:101:GLU:HB3	1.98	0.45
3:K:333:ILE:HD13	3:K:429:MET:HG3	1.92	0.45
3:L:401:MET:HA	3:L:404:ILE:HG22	1.98	0.45
1:b:69:SER:C	1:b:71:ASN:H	2.25	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:135:MET:HE3	2:B:135:MET:O	2.15	0.45
2:E:265:GLY:HA2	2:E:266:ASP:HA	1.50	0.45
2:F:152:GLU:CD	2:F:152:GLU:C	2.84	0.45
2:F:285:GLU:O	2:F:286:GLN:C	2.58	0.45
2:F:378:MET:CE	2:G:299:PHE:HE1	2.29	0.45
2:F:548:GLU:HG3	2:G:543:LYS:HG2	1.97	0.45
2:H:322:PRO:HG3	2:H:362:GLN:HG2	1.99	0.45
3:I:97:PHE:CD2	3:I:103:LYS:HG2	2.51	0.45
3:I:146:ALA:HB3	3:I:147:LYS:HG3	1.85	0.45
3:I:456:PHE:HB2	3:I:457:GLU:HA	1.98	0.45
3:I:489:ILE:HD11	3:I:892:THR:HG21	1.98	0.45
3:I:616:GLN:HB3	3:I:617:LYS:H	1.54	0.45
3:I:1013:LEU:HD12	3:I:1013:LEU:HA	1.64	0.45
3:I:1210:SER:HB2	3:I:1231:PRO:HG3	1.97	0.45
3:J:422:ASP:N	3:J:422:ASP:OD1	2.49	0.45
3:J:864:ASP:OD1	3:J:865:THR:OG1	2.34	0.45
3:K:459:GLU:HG3	3:K:459:GLU:O	2.16	0.45
3:L:29:LEU:HD11	3:L:101:GLU:HB3	1.99	0.45
3:L:338:ASP:HB2	3:L:340:LEU:H	1.81	0.45
3:L:1009:ILE:HG23	3:L:1041:SER:OG	2.17	0.45
2:A:451:GLN:HA	2:A:452:ALA:HA	1.62	0.45
2:A:546:ARG:O	2:A:549:ASP:N	2.50	0.45
2:B:171:ILE:HG13	2:B:175:ASN:OD1	2.15	0.45
2:C:500:ASP:O	2:C:501:PRO:C	2.59	0.45
2:C:546:ARG:O	2:C:549:ASP:N	2.50	0.45
2:D:639:ARG:NE	2:E:418:HIS:HD2	2.15	0.45
2:E:617:THR:OG1	3:K:1119:LYS:NZ	2.30	0.45
2:F:114:TYR:O	2:F:115:LEU:C	2.54	0.45
2:G:270:THR:HG22	2:G:275:THR:HG22	1.98	0.45
2:G:322:PRO:HG3	2:G:362:GLN:HG2	1.99	0.45
2:H:399:TRP:CZ2	3:L:414:ARG:HA	2.52	0.45
2:H:451:GLN:HA	2:H:452:ALA:HA	1.62	0.45
2:H:669:SER:O	2:H:671:TYR:N	2.50	0.45
3:I:1009:ILE:HG23	3:I:1041:SER:OG	2.17	0.45
3:I:1151:TYR:CE2	3:I:1180:ILE:HD13	2.51	0.45
3:J:51:LEU:O	3:J:51:LEU:HD12	2.16	0.45
3:J:1009:ILE:HG23	3:J:1041:SER:OG	2.17	0.45
3:K:146:ALA:HB3	3:K:147:LYS:HG3	1.85	0.45
3:K:324:LEU:HD22	3:K:324:LEU:HA	1.72	0.45
3:K:435:ARG:NH2	3:K:482:VAL:O	2.50	0.45
3:L:155:GLU:HA	3:L:156:THR:HA	1.73	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:435:ARG:NH2	3:L:482:VAL:O	2.50	0.45
1:a:12:SER:C	1:a:14:ALA:N	2.75	0.45
1:d:69:SER:C	1:d:71:ASN:N	2.69	0.45
2:A:546:ARG:O	2:A:547:PHE:C	2.57	0.45
2:B:547:PHE:CD1	2:B:547:PHE:O	2.70	0.45
2:B:676:THR:HG21	2:B:678:GLN:HG3	1.99	0.45
2:C:695:ASN:CG	3:J:245:MET:HE3	2.42	0.45
2:D:119:ASP:O	2:D:120:VAL:C	2.60	0.45
2:D:645:ALA:O	2:D:649:ILE:N	2.47	0.45
2:E:132:ARG:HE	2:E:182:HIS:CD2	2.35	0.45
2:E:252:SER:HB2	2:E:294:ALA:HB2	1.97	0.45
2:G:138:TYR:HE1	2:G:142:ARG:HH11	1.65	0.45
2:H:139:ARG:HH21	2:H:175:ASN:HD22	1.57	0.45
3:I:11:ASP:HA	3:I:12:TYR:HA	1.61	0.45
3:I:455:LYS:HB3	3:I:464:PRO:HB2	1.98	0.45
3:I:479:ASP:HB2	3:I:481:SER:H	1.81	0.45
3:J:296:GLY:HA3	3:J:297:GLY:HA3	1.60	0.45
3:J:479:ASP:HB2	3:J:481:SER:H	1.81	0.45
3:J:929:LYS:HA	3:J:929:LYS:HD3	1.87	0.45
3:K:338:ASP:HB2	3:K:340:LEU:H	1.81	0.45
3:K:479:ASP:HB2	3:K:481:SER:H	1.81	0.45
3:K:864:ASP:OD1	3:K:865:THR:OG1	2.34	0.45
3:K:1013:LEU:HB3	3:K:1014:THR:H	1.56	0.45
3:L:1210:SER:HB2	3:L:1231:PRO:HG3	1.97	0.45
2:B:383:LYS:HE3	2:B:420:ASP:HB3	1.98	0.45
2:D:399:TRP:CZ2	3:J:414:ARG:HA	2.51	0.45
2:E:138:TYR:HE1	2:E:142:ARG:HH11	1.65	0.45
2:G:635:TRP:CG	2:G:636:GLU:N	2.81	0.45
2:H:121:MET:HE1	2:H:138:TYR:CD2	2.51	0.45
2:H:676:THR:HG21	2:H:678:GLN:HG3	1.99	0.45
3:I:435:ARG:NH2	3:I:482:VAL:O	2.50	0.45
3:I:1046:HIS:O	3:I:1047:MET:C	2.60	0.45
3:J:456:PHE:HB2	3:J:457:GLU:HA	1.98	0.45
3:J:459:GLU:HG3	3:J:459:GLU:O	2.16	0.45
3:K:348:VAL:HG13	3:K:1296:PRO:HG2	1.99	0.45
2:B:384:LEU:HD11	2:B:424:TYR:HA	1.99	0.45
2:B:409:VAL:HG22	2:B:414:GLY:H	1.81	0.45
2:B:553:PHE:HE1	2:B:557:LEU:CD1	2.30	0.45
2:B:557:LEU:CD2	2:B:558:ASN:N	2.73	0.45
2:C:147:ALA:HB2	2:C:167:PHE:CZ	2.52	0.45
2:C:547:PHE:HD1	2:C:547:PHE:HA	1.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:445:MET:HE1	2:G:318:ASN:CG	2.42	0.45
2:F:516:LEU:CD1	2:F:579:ILE:HG23	2.47	0.45
2:G:132:ARG:HE	2:G:182:HIS:CD2	2.35	0.45
3:I:615:LEU:O	3:I:616:GLN:C	2.60	0.45
3:K:39:ARG:HD3	3:K:39:ARG:HA	1.78	0.45
3:K:489:ILE:HD11	3:K:892:THR:HG21	1.98	0.45
3:K:1170:TYR:O	3:K:1171:LEU:C	2.56	0.45
3:L:1120:PHE:CD1	3:L:1120:PHE:O	2.70	0.45
1:h:69:SER:C	1:h:71:ASN:H	2.25	0.44
2:A:322:PRO:HG3	2:A:362:GLN:HG2	1.99	0.44
2:B:655:TRP:CD1	2:B:655:TRP:H	2.30	0.44
2:C:322:PRO:HG3	2:C:362:GLN:HG2	1.99	0.44
2:C:563:PRO:HB3	2:C:617:THR:HG21	1.99	0.44
2:D:547:PHE:CD1	2:D:547:PHE:O	2.70	0.44
2:D:669:SER:O	2:D:671:TYR:N	2.50	0.44
2:E:699:LEU:CD2	2:F:372:LYS:NZ	2.80	0.44
2:F:547:PHE:CD1	2:F:547:PHE:O	2.70	0.44
2:G:563:PRO:HB3	2:G:617:THR:HG21	1.99	0.44
2:H:384:LEU:HD11	2:H:424:TYR:HA	1.99	0.44
2:H:516:LEU:CD1	2:H:579:ILE:HG23	2.47	0.44
3:I:401:MET:HA	3:I:404:ILE:HG22	1.98	0.44
3:K:580:ALA:C	3:K:582:LYS:N	2.73	0.44
3:K:1046:HIS:O	3:K:1047:MET:C	2.60	0.44
3:L:906:LEU:HD13	3:L:1108:PHE:HE1	1.81	0.44
3:L:1046:HIS:O	3:L:1047:MET:C	2.60	0.44
2:A:147:ALA:HB2	2:A:167:PHE:CZ	2.52	0.44
2:B:270:THR:HG22	2:B:275:THR:HG22	1.99	0.44
2:B:516:LEU:CD1	2:B:579:ILE:HG23	2.47	0.44
2:C:132:ARG:HE	2:C:182:HIS:CD2	2.35	0.44
2:D:270:THR:HG22	2:D:275:THR:HG22	1.99	0.44
2:D:322:PRO:HG3	2:D:362:GLN:HG2	1.99	0.44
2:E:390:GLN:NE2	2:E:400:VAL:HG12	2.31	0.44
2:F:603:GLU:O	2:F:623:LYS:NZ	2.42	0.44
2:F:645:ALA:O	2:F:649:ILE:N	2.47	0.44
2:G:628:VAL:CG1	2:G:692:TRP:HB3	2.46	0.44
2:H:138:TYR:O	2:H:138:TYR:CD1	2.70	0.44
2:H:139:ARG:O	2:H:140:HIS:C	2.58	0.44
2:H:553:PHE:HE1	2:H:557:LEU:CD1	2.29	0.44
3:I:391:ALA:O	3:I:392:LEU:C	2.60	0.44
3:J:129:ALA:C	3:J:131:ILE:N	2.74	0.44
3:J:401:MET:HA	3:J:404:ILE:HG22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:456:PHE:HB2	3:K:457:GLU:HA	1.98	0.44
3:L:422:ASP:N	3:L:422:ASP:OD1	2.49	0.44
1:e:69:SER:O	1:e:70:GLN:C	2.58	0.44
2:A:132:ARG:HE	2:A:182:HIS:CD2	2.35	0.44
2:A:598:THR:HG23	2:A:599:LYS:N	2.32	0.44
2:C:390:GLN:NE2	2:C:400:VAL:HG12	2.31	0.44
2:F:322:PRO:HG3	2:F:362:GLN:HG2	1.99	0.44
2:F:550:ASP:O	2:F:551:LYS:C	2.55	0.44
2:F:562:ALA:O	2:F:563:PRO:C	2.61	0.44
2:G:316:ALA:HA	2:G:328:MET:HE3	2.00	0.44
2:G:551:LYS:HA	2:G:551:LYS:HD2	1.82	0.44
3:I:431:ARG:HH22	3:I:484:SER:HB3	1.81	0.44
3:I:935:LEU:HD11	3:I:1154:ALA:HA	2.00	0.44
3:J:348:VAL:HG13	3:J:1296:PRO:HG2	1.98	0.44
3:J:431:ARG:HH22	3:J:484:SER:HB3	1.81	0.44
3:J:653:VAL:H	3:J:814:MET:HE3	1.82	0.44
3:J:935:LEU:HD11	3:J:1154:ALA:HA	2.00	0.44
3:J:1120:PHE:CD1	3:J:1120:PHE:O	2.70	0.44
3:J:1205:LEU:HD23	3:J:1205:LEU:H	1.82	0.44
3:K:1120:PHE:O	3:K:1120:PHE:CD1	2.70	0.44
3:L:391:ALA:O	3:L:392:LEU:C	2.60	0.44
1:g:69:SER:C	1:g:71:ASN:H	2.25	0.44
2:A:270:THR:HG22	2:A:275:THR:HG22	1.98	0.44
2:E:147:ALA:HB2	2:E:167:PHE:CZ	2.52	0.44
2:E:270:THR:HG22	2:E:275:THR:HG22	1.98	0.44
2:E:316:ALA:HA	2:E:328:MET:HE3	2.00	0.44
2:E:451:GLN:HA	2:E:452:ALA:HA	1.62	0.44
2:E:546:ARG:O	2:E:549:ASP:N	2.50	0.44
2:F:121:MET:HE1	2:F:138:TYR:CD2	2.51	0.44
2:F:316:ALA:HA	2:F:328:MET:HE3	2.00	0.44
2:G:500:ASP:O	2:G:501:PRO:C	2.59	0.44
2:G:598:THR:HG23	2:G:599:LYS:N	2.33	0.44
3:I:627:MET:HE3	3:I:627:MET:HB3	1.80	0.44
3:I:912:ILE:HG23	3:I:917:LEU:HD23	2.00	0.44
3:J:455:LYS:HB3	3:J:464:PRO:HB2	1.98	0.44
3:J:1098:PHE:HA	3:J:1099:GLY:HA2	1.59	0.44
3:L:456:PHE:HB2	3:L:457:GLU:HA	1.98	0.44
3:L:824:LEU:HA	3:L:824:LEU:HD12	1.59	0.44
3:L:1130:ASN:C	3:L:1132:ARG:H	2.26	0.44
2:A:625:MET:HE3	2:A:625:MET:HB2	1.65	0.44
2:B:625:MET:HE3	2:B:625:MET:HB2	1.88	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:635:TRP:CG	2:C:636:GLU:N	2.81	0.44
2:D:138:TYR:CD1	2:D:138:TYR:O	2.70	0.44
2:F:666:GLN:NE2	2:F:666:GLN:CA	2.72	0.44
2:G:125:LYS:HD3	2:G:125:LYS:HA	1.74	0.44
2:G:147:ALA:HB2	2:G:167:PHE:CZ	2.52	0.44
2:G:625:MET:HE3	2:G:625:MET:HB2	1.65	0.44
2:G:635:TRP:O	2:G:636:GLU:C	2.59	0.44
2:H:547:PHE:CD1	2:H:547:PHE:O	2.70	0.44
2:H:579:ILE:CG1	2:H:600:PHE:CE2	3.01	0.44
3:I:726:MET:HE3	3:I:726:MET:HB3	1.81	0.44
3:I:1151:TYR:HE2	3:I:1180:ILE:HD13	1.83	0.44
3:J:997:LEU:HD23	3:J:997:LEU:HA	1.82	0.44
3:L:653:VAL:H	3:L:814:MET:HE3	1.82	0.44
3:L:1151:TYR:HE2	3:L:1180:ILE:HD13	1.83	0.44
1:e:12:SER:C	1:e:14:ALA:N	2.76	0.44
2:A:265:GLY:HA2	2:A:266:ASP:HA	1.51	0.44
2:A:410:ASN:HD22	2:A:410:ASN:HA	1.54	0.44
2:B:673:MET:SD	3:I:426:ILE:HG22	2.58	0.44
2:C:116:VAL:HG21	2:C:143:LEU:HA	2.00	0.44
2:C:278:TYR:O	2:C:279:ARG:C	2.60	0.44
2:C:598:THR:HG23	2:C:599:LYS:N	2.33	0.44
2:D:234:ILE:O	2:D:235:PRO:C	2.61	0.44
2:D:516:LEU:CD1	2:D:579:ILE:HG23	2.47	0.44
2:F:116:VAL:O	2:F:117:ASP:C	2.60	0.44
2:F:143:LEU:HD12	2:F:143:LEU:HA	1.80	0.44
2:F:676:THR:HG21	2:F:678:GLN:HG3	1.99	0.44
3:I:1120:PHE:O	3:I:1120:PHE:CD1	2.70	0.44
3:J:338:ASP:HB2	3:J:340:LEU:H	1.81	0.44
3:K:637:LYS:NZ	3:K:808:ASN:HD21	2.16	0.44
2:A:384:LEU:HD11	2:A:424:TYR:HA	1.99	0.44
2:B:547:PHE:CE2	3:I:318:ARG:HB3	2.52	0.44
2:D:655:TRP:CD1	2:D:655:TRP:H	2.30	0.44
2:D:676:THR:HG21	2:D:678:GLN:HG3	1.99	0.44
2:E:543:LYS:O	2:E:543:LYS:NZ	2.31	0.44
2:E:575:SER:O	2:E:578:LYS:N	2.50	0.44
2:E:598:THR:HG23	2:E:599:LYS:N	2.33	0.44
2:H:119:ASP:O	2:H:120:VAL:C	2.60	0.44
3:I:340:LEU:HD23	3:I:340:LEU:HA	1.85	0.44
3:J:1013:LEU:HD12	3:J:1013:LEU:HA	1.64	0.44
3:K:912:ILE:HG23	3:K:917:LEU:HD23	2.00	0.44
3:K:1120:PHE:CD2	3:K:1304:LYS:HB2	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:69:SER:C	1:c:71:ASN:H	2.25	0.44
1:c:69:SER:O	1:c:70:GLN:C	2.58	0.44
2:A:257:GLY:O	2:A:258:ALA:C	2.60	0.44
2:A:628:VAL:CG1	2:A:692:TRP:HB3	2.47	0.44
2:B:548:GLU:HG3	2:C:543:LYS:HG2	1.98	0.44
2:B:562:ALA:O	2:B:563:PRO:C	2.61	0.44
2:B:676:THR:HA	3:I:431:ARG:CG	2.48	0.44
2:D:373:ALA:HB1	2:E:296:ARG:NH2	2.33	0.44
2:E:628:VAL:HG11	2:E:692:TRP:CE3	2.53	0.44
2:E:670:ILE:O	2:E:683:TYR:N	2.50	0.44
2:F:138:TYR:O	2:F:138:TYR:CD1	2.70	0.44
2:G:148:LYS:HE3	2:G:148:LYS:HB2	1.64	0.44
2:G:547:PHE:HD1	2:G:547:PHE:HA	1.65	0.44
2:G:628:VAL:HG11	2:G:692:TRP:CE3	2.53	0.44
2:G:670:ILE:O	2:G:683:TYR:N	2.51	0.44
2:H:316:ALA:HA	2:H:328:MET:HE3	2.00	0.44
2:H:557:LEU:CD2	2:H:558:ASN:N	2.73	0.44
3:J:450:ASN:HA	3:J:451:THR:HA	1.62	0.44
3:J:577:MET:HG3	3:J:603:TYR:OH	2.18	0.44
3:J:1046:HIS:O	3:J:1047:MET:C	2.60	0.44
3:K:1130:ASN:C	3:K:1132:ARG:H	2.26	0.44
3:L:358:LYS:HA	3:L:358:LYS:HD3	1.60	0.44
2:A:670:ILE:O	2:A:683:TYR:N	2.51	0.44
2:A:711:VAL:HG21	2:C:291:MET:HG3	2.00	0.44
2:B:119:ASP:O	2:B:120:VAL:C	2.60	0.44
2:B:324:THR:HA	2:B:327:GLU:HG2	2.00	0.44
2:B:579:ILE:CG1	2:B:600:PHE:CE2	3.01	0.44
2:E:118:ASP:O	2:E:119:ASP:C	2.60	0.44
2:E:322:PRO:HG3	2:E:362:GLN:HG2	1.99	0.44
2:E:711:VAL:HG21	2:G:291:MET:HG3	2.00	0.44
2:F:594:MET:HE2	2:F:594:MET:HB3	1.59	0.44
2:H:116:VAL:O	2:H:117:ASP:C	2.60	0.44
3:I:473:GLY:HA3	3:I:485:ALA:HB2	2.00	0.44
3:I:926:LYS:NZ	3:I:930:GLU:OE2	2.51	0.44
3:I:1205:LEU:HD23	3:I:1205:LEU:H	1.82	0.44
3:J:926:LYS:NZ	3:J:930:GLU:OE2	2.51	0.44
3:J:1227:ASP:O	3:J:1231:PRO:HD2	2.18	0.44
3:K:391:ALA:O	3:K:392:LEU:C	2.60	0.44
3:L:1195:LEU:HA	3:L:1195:LEU:HD23	1.59	0.44
3:L:1205:LEU:HD23	3:L:1205:LEU:H	1.82	0.44
1:a:69:SER:C	1:a:71:ASN:H	2.25	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:69:SER:C	1:d:71:ASN:H	2.25	0.43
2:A:104:LEU:HD12	2:H:197:ASN:HD22	1.83	0.43
2:B:669:SER:O	2:B:671:TYR:N	2.50	0.43
2:C:711:VAL:HG21	2:E:291:MET:HG3	1.99	0.43
2:D:557:LEU:C	2:D:557:LEU:CD2	2.85	0.43
2:E:116:VAL:HG21	2:E:143:LEU:HA	2.00	0.43
2:F:557:LEU:HD23	2:F:558:ASN:HA	1.99	0.43
2:G:546:ARG:O	2:G:549:ASP:N	2.50	0.43
3:I:338:ASP:HB2	3:I:340:LEU:H	1.81	0.43
3:J:473:GLY:HA3	3:J:485:ALA:HB2	2.00	0.43
3:K:308:LEU:HD23	3:K:308:LEU:HA	1.84	0.43
3:K:473:GLY:HA3	3:K:485:ALA:HB2	2.00	0.43
3:K:935:LEU:HD11	3:K:1154:ALA:HA	2.00	0.43
3:L:143:LEU:HD23	3:L:143:LEU:HA	1.79	0.43
3:L:459:GLU:HG3	3:L:459:GLU:O	2.16	0.43
3:L:577:MET:HG3	3:L:603:TYR:OH	2.18	0.43
3:L:1227:ASP:O	3:L:1231:PRO:HD2	2.18	0.43
2:A:572:LEU:HD23	2:A:572:LEU:HA	1.62	0.43
2:B:138:TYR:O	2:B:138:TYR:CD1	2.70	0.43
2:C:670:ILE:O	2:C:683:TYR:N	2.50	0.43
2:D:316:ALA:HA	2:D:328:MET:HE3	2.00	0.43
2:D:625:MET:HE3	2:D:625:MET:HB2	1.87	0.43
2:E:384:LEU:HD11	2:E:424:TYR:HA	1.99	0.43
2:F:410:ASN:OD1	2:F:411:GLU:N	2.46	0.43
2:H:270:THR:HG22	2:H:275:THR:HG22	1.99	0.43
2:H:656:ILE:HD11	2:H:658:ASN:CG	2.43	0.43
3:I:1130:ASN:C	3:I:1132:ARG:H	2.26	0.43
3:J:50:PRO:HB2	3:J:55:GLN:C	2.43	0.43
3:J:294:VAL:O	3:J:294:VAL:HG23	2.18	0.43
3:K:358:LYS:HD3	3:K:358:LYS:HA	1.60	0.43
3:K:422:ASP:OD1	3:K:422:ASP:N	2.49	0.43
3:K:600:TYR:OH	3:K:948:ARG:NE	2.51	0.43
1:b:69:SER:O	1:b:70:GLN:C	2.58	0.43
2:A:543:LYS:HG2	2:H:548:GLU:HG3	1.99	0.43
2:A:567:ARG:CD	3:I:1119:LYS:HE3	2.48	0.43
2:B:322:PRO:HG3	2:B:362:GLN:HG2	1.99	0.43
2:B:676:THR:CG2	2:B:677:GLY:N	2.73	0.43
2:C:316:ALA:HA	2:C:328:MET:HE3	1.99	0.43
2:C:450:LEU:HD12	2:C:450:LEU:HA	1.86	0.43
2:D:378:MET:CE	2:E:299:PHE:HE1	2.30	0.43
2:F:234:ILE:O	2:F:235:PRO:C	2.60	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:516:LEU:HD22	2:F:579:ILE:CB	2.49	0.43
2:G:384:LEU:HD11	2:G:424:TYR:HA	1.99	0.43
2:H:516:LEU:HD22	2:H:579:ILE:CB	2.49	0.43
3:I:359:ALA:O	3:I:360:LEU:HB2	2.19	0.43
3:I:637:LYS:NZ	3:I:808:ASN:HD21	2.16	0.43
3:J:1130:ASN:C	3:J:1132:ARG:H	2.26	0.43
3:K:294:VAL:HG23	3:K:294:VAL:O	2.18	0.43
3:K:359:ALA:O	3:K:360:LEU:HB2	2.19	0.43
3:L:637:LYS:NZ	3:L:808:ASN:HD21	2.16	0.43
2:A:116:VAL:HG21	2:A:143:LEU:HA	2.00	0.43
2:A:148:LYS:HE3	2:A:148:LYS:HB2	1.65	0.43
2:A:363:MET:HB3	2:B:285:GLU:HB3	1.99	0.43
2:B:278:TYR:O	2:B:279:ARG:C	2.60	0.43
2:B:445:MET:HE1	2:C:318:ASN:CG	2.42	0.43
2:C:567:ARG:CD	3:J:1119:LYS:HE3	2.49	0.43
2:D:384:LEU:HD11	2:D:424:TYR:HA	1.99	0.43
2:D:562:ALA:O	2:D:563:PRO:C	2.61	0.43
2:F:106:VAL:HA	2:F:166:GLY:HA3	2.01	0.43
2:F:384:LEU:HD11	2:F:424:TYR:HA	1.99	0.43
2:G:395:ILE:HD13	2:G:449:TYR:CE1	2.54	0.43
3:I:50:PRO:HB2	3:I:55:GLN:C	2.43	0.43
3:J:719:VAL:HG12	3:J:720:LYS:N	2.34	0.43
3:K:296:GLY:HA3	3:K:297:GLY:HA3	1.60	0.43
3:L:594:SER:HA	3:L:595:ARG:HA	1.56	0.43
3:L:926:LYS:NZ	3:L:930:GLU:OE2	2.51	0.43
2:A:283:GLY:N	2:A:286:GLN:HB3	2.33	0.43
2:A:316:ALA:HA	2:A:328:MET:HE3	2.00	0.43
2:B:451:GLN:HA	2:B:452:ALA:HA	1.62	0.43
2:C:384:LEU:HD11	2:C:424:TYR:HA	1.99	0.43
2:C:628:VAL:HG11	2:C:692:TRP:CE3	2.53	0.43
2:D:140:HIS:ND1	2:D:141:SER:N	2.67	0.43
2:D:324:THR:HA	2:D:327:GLU:HG2	2.00	0.43
2:D:548:GLU:HG3	2:E:543:LYS:HG2	1.99	0.43
2:D:557:LEU:HD23	2:D:558:ASN:HA	1.99	0.43
2:E:635:TRP:CG	2:E:636:GLU:N	2.81	0.43
2:F:197:ASN:HD22	2:G:104:LEU:HD12	1.83	0.43
2:F:557:LEU:CD2	2:F:558:ASN:N	2.73	0.43
2:G:699:LEU:CD2	2:H:372:LYS:NZ	2.80	0.43
3:K:615:LEU:O	3:K:616:GLN:C	2.60	0.43
3:L:1030:SER:HB3	3:L:1033:PRO:CD	2.48	0.43
2:B:553:PHE:HE2	2:B:577:ARG:CB	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:106:VAL:HA	2:D:166:GLY:HA3	2.01	0.43
2:D:516:LEU:HD22	2:D:579:ILE:CB	2.49	0.43
2:E:289:ALA:O	2:E:293:THR:HG22	2.19	0.43
2:E:635:TRP:O	2:E:636:GLU:C	2.59	0.43
2:E:687:LEU:CD1	3:K:155:GLU:O	2.67	0.43
2:E:695:ASN:CG	3:K:245:MET:HE3	2.44	0.43
2:F:616:ASP:OD1	2:F:616:ASP:N	2.52	0.43
3:J:244:GLY:O	3:J:248:ARG:HG2	2.19	0.43
3:K:1151:TYR:HE2	3:K:1180:ILE:HD13	1.83	0.43
2:A:395:ILE:HD13	2:A:449:TYR:CE1	2.54	0.43
2:B:557:LEU:HD23	2:B:558:ASN:HA	1.99	0.43
2:C:395:ILE:HD13	2:C:449:TYR:CE1	2.54	0.43
2:D:676:THR:CG2	2:D:677:GLY:H	2.18	0.43
2:F:324:THR:HA	2:F:327:GLU:HG2	2.00	0.43
2:F:579:ILE:CG1	2:F:600:PHE:CE2	3.01	0.43
2:F:589:ASN:HD22	2:F:589:ASN:HA	1.70	0.43
2:F:656:ILE:CD1	2:F:658:ASN:OD1	2.67	0.43
2:G:616:ASP:OD1	2:G:616:ASP:N	2.52	0.43
3:J:912:ILE:HG23	3:J:917:LEU:HD23	2.00	0.43
3:K:394:GLY:HA3	3:K:894:ILE:HD13	2.01	0.43
3:K:488:PRO:HB2	3:K:867:TRP:CD2	2.54	0.43
3:K:809:GLY:O	3:K:813:ILE:HG13	2.19	0.43
3:K:1205:LEU:HD23	3:K:1205:LEU:H	1.82	0.43
3:L:50:PRO:HB2	3:L:55:GLN:C	2.43	0.43
2:B:106:VAL:HA	2:B:166:GLY:HA3	2.01	0.43
2:C:235:PRO:HA	2:C:236:SER:HA	1.47	0.43
2:D:285:GLU:O	2:D:286:GLN:C	2.58	0.43
2:D:656:ILE:HD11	2:D:658:ASN:CG	2.44	0.43
2:D:656:ILE:CD1	2:D:658:ASN:OD1	2.67	0.43
2:E:337:ASP:O	2:E:338:LYS:C	2.61	0.43
2:E:567:ARG:CD	3:K:1119:LYS:HE3	2.48	0.43
2:E:625:MET:HE3	2:E:625:MET:HB2	1.65	0.43
3:I:397:PHE:CE2	3:I:898:ILE:HA	2.54	0.43
3:I:1030:SER:HB3	3:I:1033:PRO:CD	2.48	0.43
3:J:340:LEU:HD23	3:J:340:LEU:HA	1.85	0.43
3:J:422:ASP:HA	3:J:423:ASN:O	2.19	0.43
3:J:1170:TYR:O	3:J:1171:LEU:C	2.56	0.43
3:K:244:GLY:O	3:K:248:ARG:HG2	2.19	0.43
3:K:719:VAL:HG12	3:K:720:LYS:N	2.34	0.43
3:K:926:LYS:NZ	3:K:930:GLU:OE2	2.51	0.43
3:K:1098:PHE:HA	3:K:1099:GLY:HA2	1.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:294:VAL:HG23	3:L:294:VAL:O	2.18	0.43
3:L:350:GLY:HA3	3:L:351:LYS:HA	1.61	0.43
3:L:719:VAL:HG12	3:L:720:LYS:N	2.34	0.43
3:L:935:LEU:HD11	3:L:1154:ALA:HA	2.00	0.43
1:e:69:SER:C	1:e:71:ASN:H	2.25	0.43
2:A:628:VAL:HG11	2:A:692:TRP:CE3	2.53	0.43
2:A:635:TRP:O	2:A:636:GLU:C	2.59	0.43
2:B:92:LEU:O	2:B:93:LEU:HB2	2.19	0.43
2:B:269:VAL:HG21	2:B:278:TYR:CZ	2.54	0.43
2:B:512:ALA:HB1	2:B:575:SER:OG	2.19	0.43
2:B:656:ILE:HD11	2:B:658:ASN:CG	2.44	0.43
2:D:135:MET:CE	2:D:135:MET:C	2.91	0.43
2:D:616:ASP:OD1	2:D:616:ASP:N	2.52	0.43
2:E:500:ASP:O	2:E:501:PRO:C	2.59	0.43
2:F:635:TRP:O	2:F:636:GLU:C	2.59	0.43
2:H:106:VAL:HA	2:H:166:GLY:HA3	2.01	0.43
2:H:557:LEU:C	2:H:557:LEU:CD2	2.85	0.43
3:I:422:ASP:HA	3:I:423:ASN:O	2.19	0.43
3:I:653:VAL:H	3:I:814:MET:HE3	1.81	0.43
3:J:394:GLY:HA3	3:J:894:ILE:HD13	2.01	0.43
3:J:637:LYS:NZ	3:J:808:ASN:HD21	2.16	0.43
3:J:803:TYR:O	3:J:807:VAL:HG23	2.19	0.43
3:K:146:ALA:CB	3:K:147:LYS:HG2	2.29	0.43
3:L:422:ASP:HA	3:L:423:ASN:O	2.19	0.43
2:A:235:PRO:HA	2:A:236:SER:HA	1.47	0.43
2:A:445:MET:HE1	2:B:318:ASN:CG	2.44	0.43
2:A:687:LEU:CD1	3:I:155:GLU:O	2.67	0.43
2:B:120:VAL:HG12	2:B:121:MET:SD	2.59	0.43
2:B:140:HIS:ND1	2:B:141:SER:N	2.67	0.43
2:C:283:GLY:N	2:C:286:GLN:HB3	2.33	0.43
2:C:616:ASP:OD1	2:C:616:ASP:N	2.52	0.43
2:D:92:LEU:O	2:D:93:LEU:HB2	2.19	0.43
2:D:197:ASN:HD22	2:E:104:LEU:HD12	1.84	0.43
2:D:395:ILE:HD13	2:D:449:TYR:CE1	2.54	0.43
2:E:197:ASN:HD21	2:F:108:THR:CA	2.32	0.43
2:G:289:ALA:O	2:G:293:THR:HG22	2.19	0.43
2:G:695:ASN:CG	3:L:245:MET:HE3	2.44	0.43
3:I:294:VAL:HG23	3:I:294:VAL:O	2.18	0.43
3:I:394:GLY:HA3	3:I:894:ILE:HD13	2.01	0.43
3:I:488:PRO:HB2	3:I:867:TRP:CD2	2.54	0.43
3:I:1170:TYR:O	3:I:1171:LEU:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:397:PHE:CE2	3:J:898:ILE:HA	2.54	0.43
3:J:824:LEU:HD12	3:J:824:LEU:HA	1.59	0.43
3:J:1151:TYR:HE2	3:J:1180:ILE:HD13	1.83	0.43
3:K:129:ALA:C	3:K:131:ILE:N	2.74	0.43
3:L:473:GLY:HA3	3:L:485:ALA:HB2	2.00	0.43
3:L:912:ILE:HG23	3:L:917:LEU:HD23	2.00	0.43
2:A:695:ASN:CG	3:I:245:MET:HE3	2.43	0.42
2:B:130:ARG:HB3	2:B:131:THR:H	1.58	0.42
2:B:158:PRO:HA	2:B:159:GLU:HA	1.73	0.42
2:D:579:ILE:CG1	2:D:600:PHE:CE2	3.01	0.42
2:E:551:LYS:HD2	2:E:551:LYS:HA	1.82	0.42
2:F:186:LEU:HD23	2:F:186:LEU:HA	1.81	0.42
2:G:283:GLY:N	2:G:286:GLN:HB3	2.33	0.42
2:H:158:PRO:HA	2:H:159:GLU:HA	1.73	0.42
2:H:545:GLN:HE21	2:H:545:GLN:HB2	1.60	0.42
2:H:557:LEU:HD23	2:H:558:ASN:HA	1.99	0.42
2:H:562:ALA:O	2:H:563:PRO:C	2.61	0.42
2:H:616:ASP:OD1	2:H:616:ASP:N	2.52	0.42
3:I:244:GLY:O	3:I:248:ARG:HG2	2.19	0.42
3:I:554:THR:HB	3:I:1229:ASN:O	2.19	0.42
3:I:577:MET:HG3	3:I:603:TYR:OH	2.18	0.42
3:I:809:GLY:O	3:I:813:ILE:HG13	2.19	0.42
3:I:864:ASP:OD1	3:I:865:THR:OG1	2.34	0.42
3:I:1227:ASP:O	3:I:1231:PRO:HD2	2.18	0.42
3:J:60:THR:HG23	3:J:61:ALA:H	1.84	0.42
3:J:146:ALA:CB	3:J:147:LYS:HG2	2.29	0.42
3:J:554:THR:HB	3:J:1229:ASN:O	2.19	0.42
3:J:1030:SER:HB3	3:J:1033:PRO:CD	2.48	0.42
3:K:393:GLY:HA3	3:K:1299:GLN:HG3	2.01	0.42
3:K:397:PHE:CE2	3:K:898:ILE:HA	2.54	0.42
3:K:424:GLU:HB2	3:K:425:PHE:H	1.61	0.42
3:L:244:GLY:O	3:L:248:ARG:HG2	2.19	0.42
3:L:359:ALA:O	3:L:360:LEU:HB2	2.19	0.42
3:L:488:PRO:HB2	3:L:867:TRP:CD2	2.54	0.42
1:f:69:SER:C	1:f:71:ASN:H	2.25	0.42
1:h:32:ALA:O	1:h:33:ALA:C	2.55	0.42
2:B:316:ALA:HA	2:B:328:MET:HE3	2.00	0.42
2:D:604:SER:O	2:D:623:LYS:CB	2.67	0.42
2:E:283:GLY:N	2:E:286:GLN:HB3	2.33	0.42
2:E:395:ILE:HD13	2:E:449:TYR:CE1	2.54	0.42
2:F:270:THR:HG22	2:F:275:THR:HG22	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:116:VAL:HG21	2:G:143:LEU:HA	2.00	0.42
3:I:56:PHE:HB2	3:I:59:ALA:HB3	2.01	0.42
3:J:488:PRO:HB2	3:J:867:TRP:CD2	2.54	0.42
3:J:599:ARG:HH12	3:J:797:PHE:HB2	1.85	0.42
3:J:809:GLY:O	3:J:813:ILE:HG13	2.19	0.42
3:K:60:THR:HG23	3:K:61:ALA:H	1.84	0.42
3:K:1000:ALA:HB2	3:K:1105:VAL:HG21	2.01	0.42
3:K:1013:LEU:HD12	3:K:1013:LEU:HA	1.64	0.42
3:K:1203:GLY:O	3:K:1204:VAL:C	2.62	0.42
3:L:397:PHE:CE2	3:L:898:ILE:HA	2.54	0.42
3:L:600:TYR:OH	3:L:948:ARG:NE	2.51	0.42
3:L:803:TYR:O	3:L:807:VAL:HG23	2.19	0.42
2:A:289:ALA:O	2:A:293:THR:HG22	2.19	0.42
2:B:234:ILE:O	2:B:235:PRO:C	2.61	0.42
2:B:516:LEU:HD22	2:B:579:ILE:CB	2.49	0.42
2:B:604:SER:O	2:B:623:LYS:CB	2.68	0.42
2:B:656:ILE:CD1	2:B:658:ASN:OD1	2.67	0.42
2:E:132:ARG:HD2	2:E:179:TYR:CE2	2.55	0.42
2:F:512:ALA:HB1	2:F:575:SER:OG	2.19	0.42
2:G:687:LEU:CD1	3:L:155:GLU:O	2.68	0.42
2:H:566:ALA:O	2:H:567:ARG:HB2	2.20	0.42
2:H:629:ASN:H	2:H:634:SER:HB3	1.85	0.42
3:I:877:LEU:HD21	3:I:884:ALA:HB3	2.01	0.42
3:J:393:GLY:HA3	3:J:1299:GLN:HG3	2.02	0.42
3:J:449:MET:HE2	3:J:449:MET:HB2	1.89	0.42
3:K:577:MET:HG3	3:K:603:TYR:OH	2.18	0.42
3:K:877:LEU:HD21	3:K:884:ALA:HB3	2.01	0.42
3:L:56:PHE:HB2	3:L:59:ALA:HB3	2.01	0.42
3:L:92:GLY:O	3:L:96:LYS:N	2.35	0.42
3:L:615:LEU:O	3:L:616:GLN:C	2.60	0.42
3:L:877:LEU:HD21	3:L:884:ALA:HB3	2.01	0.42
3:L:1137:ALA:O	3:L:1141:ILE:HG12	2.19	0.42
3:L:1206:GLY:HA2	3:L:1207:PHE:CB	2.39	0.42
2:A:278:TYR:O	2:A:279:ARG:C	2.60	0.42
2:A:418:HIS:CD2	2:H:639:ARG:CD	3.02	0.42
2:A:575:SER:O	2:A:578:LYS:N	2.50	0.42
2:B:665:SER:C	2:B:666:GLN:O	2.62	0.42
2:F:140:HIS:ND1	2:F:141:SER:N	2.67	0.42
2:G:235:PRO:HA	2:G:236:SER:HA	1.47	0.42
2:G:257:GLY:O	2:G:258:ALA:C	2.61	0.42
2:H:269:VAL:HG21	2:H:278:TYR:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:324:THR:HA	2:H:327:GLU:HG2	2.00	0.42
2:H:604:SER:O	2:H:623:LYS:CB	2.68	0.42
3:I:803:TYR:O	3:I:807:VAL:HG23	2.19	0.42
3:J:600:TYR:OH	3:J:948:ARG:NE	2.51	0.42
3:K:50:PRO:HB2	3:K:55:GLN:C	2.43	0.42
3:L:393:GLY:HA3	3:L:1299:GLN:HG3	2.02	0.42
2:A:125:LYS:HA	2:A:125:LYS:HD3	1.74	0.42
2:B:285:GLU:O	2:B:286:GLN:C	2.58	0.42
2:D:143:LEU:HA	2:D:143:LEU:HD12	1.79	0.42
2:D:269:VAL:HG21	2:D:278:TYR:CZ	2.54	0.42
2:E:572:LEU:HD12	2:E:605:THR:HG23	2.02	0.42
2:F:139:ARG:O	2:F:140:HIS:C	2.58	0.42
2:F:269:VAL:HG21	2:F:278:TYR:CZ	2.54	0.42
2:F:629:ASN:H	2:F:634:SER:HB3	1.84	0.42
2:F:656:ILE:HD11	2:F:658:ASN:CG	2.44	0.42
2:G:190:ALA:HB1	2:H:94:TYR:HD2	1.84	0.42
3:I:656:PHE:HA	3:I:657:PRO:HD3	1.95	0.42
3:I:825:LYS:O	3:I:826:ASP:C	2.63	0.42
3:I:1000:ALA:HB2	3:I:1105:VAL:HG21	2.01	0.42
3:I:1137:ALA:O	3:I:1141:ILE:HG12	2.19	0.42
3:I:1203:GLY:O	3:I:1204:VAL:C	2.62	0.42
3:J:362:VAL:H	3:J:444:ALA:CB	2.33	0.42
3:J:877:LEU:HD21	3:J:884:ALA:HB3	2.01	0.42
3:K:997:LEU:HD23	3:K:997:LEU:HA	1.82	0.42
3:L:107:ALA:HA	3:L:120:LEU:HD11	2.02	0.42
3:L:577:MET:SD	3:L:626:VAL:HG21	2.59	0.42
3:L:641:MET:SD	3:L:807:VAL:HG13	2.60	0.42
3:L:1000:ALA:HB2	3:L:1105:VAL:HG21	2.01	0.42
1:b:12:SER:C	1:b:14:ALA:N	2.77	0.42
1:d:12:SER:C	1:d:14:ALA:N	2.76	0.42
2:B:395:ILE:HD13	2:B:449:TYR:CE1	2.54	0.42
2:B:678:GLN:CG	3:I:449:MET:SD	3.07	0.42
2:C:132:ARG:HD2	2:C:179:TYR:CE2	2.55	0.42
2:D:116:VAL:O	2:D:117:ASP:C	2.60	0.42
2:D:138:TYR:CD1	2:D:138:TYR:C	2.97	0.42
2:E:628:VAL:HG11	2:E:692:TRP:CB	2.50	0.42
2:F:604:SER:O	2:F:623:LYS:CB	2.67	0.42
2:H:553:PHE:HE2	2:H:577:ARG:CB	2.31	0.42
3:I:577:MET:SD	3:I:626:VAL:HG21	2.59	0.42
3:I:809:GLY:HA3	3:I:856:THR:HA	2.02	0.42
3:J:332:ILE:HG21	3:J:395:PHE:CD1	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:594:SER:HA	3:J:595:ARG:HA	1.56	0.42
3:J:615:LEU:O	3:J:616:GLN:C	2.60	0.42
3:K:803:TYR:O	3:K:807:VAL:HG23	2.19	0.42
3:K:809:GLY:HA3	3:K:856:THR:HA	2.02	0.42
3:K:1137:ALA:O	3:K:1141:ILE:HG12	2.19	0.42
3:K:1227:ASP:O	3:K:1231:PRO:HD2	2.18	0.42
2:A:572:LEU:HD12	2:A:605:THR:HG23	2.01	0.42
2:A:616:ASP:OD1	2:A:616:ASP:N	2.52	0.42
2:B:604:SER:O	2:B:623:LYS:HB2	2.19	0.42
2:B:639:ARG:NE	2:C:418:HIS:HD2	2.18	0.42
2:C:635:TRP:O	2:C:636:GLU:C	2.59	0.42
2:C:687:LEU:CD1	3:J:155:GLU:O	2.67	0.42
2:D:120:VAL:HG12	2:D:121:MET:SD	2.59	0.42
2:D:665:SER:C	2:D:666:GLN:O	2.61	0.42
2:D:698:LYS:HE3	2:D:698:LYS:HB3	1.80	0.42
2:E:572:LEU:HA	2:E:572:LEU:HD23	1.62	0.42
2:F:120:VAL:HG12	2:F:121:MET:SD	2.59	0.42
2:F:395:ILE:HD13	2:F:449:TYR:CE1	2.54	0.42
2:F:625:MET:HE3	2:F:625:MET:HB2	1.87	0.42
2:F:639:ARG:CD	2:G:418:HIS:CD2	3.02	0.42
2:G:572:LEU:HD12	2:G:605:THR:HG23	2.02	0.42
2:H:120:VAL:HG12	2:H:121:MET:SD	2.59	0.42
2:H:278:TYR:O	2:H:279:ARG:C	2.60	0.42
2:H:680:ARG:HH21	3:L:422:ASP:HB2	1.85	0.42
3:I:1070:MET:HE2	3:I:1070:MET:N	2.35	0.42
3:J:809:GLY:HA3	3:J:856:THR:HA	2.02	0.42
3:J:1000:ALA:HB2	3:J:1105:VAL:HG21	2.01	0.42
3:J:1203:GLY:O	3:J:1204:VAL:C	2.62	0.42
3:K:350:GLY:HA3	3:K:351:LYS:HA	1.61	0.42
3:K:554:THR:HB	3:K:1229:ASN:O	2.19	0.42
3:K:726:MET:HE3	3:K:726:MET:HB3	1.81	0.42
3:K:917:LEU:HA	3:K:917:LEU:HD13	1.59	0.42
1:d:69:SER:O	1:d:70:GLN:C	2.58	0.42
2:B:635:TRP:O	2:B:636:GLU:C	2.59	0.42
2:C:289:ALA:O	2:C:293:THR:HG22	2.19	0.42
2:C:572:LEU:HD12	2:C:605:THR:HG23	2.01	0.42
2:D:436:ASP:HB2	2:E:315:SER:OG	2.20	0.42
2:D:512:ALA:HB1	2:D:575:SER:OG	2.19	0.42
2:E:584:LYS:O	2:E:589:ASN:ND2	2.53	0.42
2:E:654:PRO:O	2:E:655:TRP:CG	2.73	0.42
2:F:92:LEU:O	2:F:93:LEU:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:278:TYR:O	2:F:279:ARG:C	2.60	0.42
2:F:604:SER:O	2:F:623:LYS:HB2	2.19	0.42
2:H:117:ASP:O	2:H:121:MET:HG2	2.20	0.42
2:H:271:LEU:HG	2:H:272:ASN:H	1.85	0.42
2:H:656:ILE:CD1	2:H:658:ASN:OD1	2.67	0.42
3:I:60:THR:HG23	3:I:61:ALA:H	1.84	0.42
3:I:145:VAL:HG23	3:I:146:ALA:HB2	2.01	0.42
3:I:332:ILE:HG21	3:I:395:PHE:CD1	2.55	0.42
3:J:145:VAL:HG23	3:J:146:ALA:HB2	2.01	0.42
3:J:391:ALA:O	3:J:392:LEU:C	2.60	0.42
3:K:332:ILE:HG21	3:K:395:PHE:CD1	2.55	0.42
3:K:362:VAL:H	3:K:444:ALA:CB	2.33	0.42
3:K:422:ASP:HA	3:K:423:ASN:O	2.19	0.42
3:K:599:ARG:HH12	3:K:797:PHE:HB2	1.85	0.42
3:L:599:ARG:HH12	3:L:797:PHE:HB2	1.84	0.42
3:L:705:VAL:O	3:L:709:VAL:HG23	2.20	0.42
1:c:12:SER:C	1:c:14:ALA:N	2.78	0.42
2:B:116:VAL:O	2:B:117:ASP:C	2.60	0.42
2:B:614:ASP:HB2	2:B:615:GLY:HA2	2.02	0.42
2:B:629:ASN:H	2:B:634:SER:HB3	1.85	0.42
2:B:670:ILE:HG13	2:B:670:ILE:H	1.63	0.42
2:C:628:VAL:HG11	2:C:692:TRP:CB	2.49	0.42
2:D:410:ASN:OD1	2:D:411:GLU:N	2.46	0.42
2:D:604:SER:O	2:D:623:LYS:HB2	2.19	0.42
2:F:673:MET:HE2	2:F:673:MET:HB2	1.44	0.42
2:F:688:LEU:C	2:F:688:LEU:CD2	2.85	0.42
2:G:278:TYR:O	2:G:279:ARG:C	2.60	0.42
2:H:140:HIS:ND1	2:H:141:SER:N	2.67	0.42
2:H:205:VAL:HG12	2:H:206:LEU:HG	2.02	0.42
2:H:512:ALA:HB1	2:H:575:SER:OG	2.19	0.42
3:I:641:MET:SD	3:I:807:VAL:HG13	2.60	0.42
3:K:1162:LEU:HD22	3:K:1162:LEU:HA	1.83	0.42
3:L:332:ILE:HG21	3:L:395:PHE:CD1	2.55	0.42
1:g:12:SER:C	1:g:14:ALA:N	2.78	0.42
2:B:115:LEU:O	2:B:116:VAL:C	2.61	0.42
2:D:271:LEU:HG	2:D:272:ASN:H	1.85	0.42
2:D:576:ALA:HB2	2:D:601:LEU:HD21	2.02	0.42
2:E:197:ASN:HD21	2:F:108:THR:HA	1.84	0.42
2:E:257:GLY:O	2:E:258:ALA:C	2.60	0.42
2:G:584:LYS:O	2:G:589:ASN:ND2	2.53	0.42
2:H:135:MET:CE	2:H:135:MET:C	2.91	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:234:ILE:O	2:H:235:PRO:C	2.60	0.42
2:H:395:ILE:HD13	2:H:449:TYR:CE1	2.54	0.42
3:I:333:ILE:HD13	3:I:429:MET:HG3	1.92	0.42
3:I:599:ARG:HH12	3:I:797:PHE:HB2	1.84	0.42
3:I:719:VAL:HG12	3:I:720:LYS:N	2.34	0.42
3:I:938:LYS:HD3	3:I:1150:PHE:CD1	2.55	0.42
3:J:359:ALA:O	3:J:360:LEU:HB2	2.19	0.42
3:J:424:GLU:HB2	3:J:425:PHE:H	1.61	0.42
3:J:844:GLU:OE2	3:J:1212:MET:HE2	2.20	0.42
3:K:705:VAL:O	3:K:709:VAL:HG23	2.20	0.42
3:K:1130:ASN:C	3:K:1132:ARG:N	2.78	0.42
3:L:301:ASN:ND2	3:L:303:ASP:OD2	2.52	0.42
3:L:554:THR:HB	3:L:1229:ASN:O	2.19	0.42
3:L:938:LYS:HD3	3:L:1150:PHE:CD1	2.55	0.42
3:L:1013:LEU:HB3	3:L:1014:THR:H	1.56	0.42
2:A:132:ARG:HD2	2:A:179:TYR:CE2	2.54	0.41
2:B:589:ASN:HD22	2:B:589:ASN:HA	1.70	0.41
2:D:117:ASP:O	2:D:121:MET:HG2	2.20	0.41
2:D:122:GLN:O	2:D:123:LYS:C	2.63	0.41
2:E:148:LYS:HE3	2:E:148:LYS:HB2	1.64	0.41
2:G:132:ARG:HD2	2:G:179:TYR:CE2	2.54	0.41
2:G:197:ASN:HD21	2:H:108:THR:CA	2.33	0.41
2:H:92:LEU:O	2:H:93:LEU:HB2	2.19	0.41
2:H:138:TYR:CD1	2:H:138:TYR:C	2.96	0.41
2:H:614:ASP:HB2	2:H:615:GLY:HA2	2.02	0.41
2:H:635:TRP:CD1	2:H:635:TRP:C	2.95	0.41
3:I:393:GLY:HA3	3:I:1299:GLN:HG3	2.02	0.41
3:I:495:LYS:O	3:I:499:GLU:N	2.52	0.41
3:J:56:PHE:HB2	3:J:59:ALA:HB3	2.02	0.41
3:J:301:ASN:ND2	3:J:303:ASP:OD2	2.52	0.41
3:K:1030:SER:HB3	3:K:1033:PRO:CD	2.48	0.41
3:K:1147:ALA:HB1	3:K:1184:ALA:HA	2.02	0.41
3:L:145:VAL:HG23	3:L:146:ALA:HB2	2.01	0.41
3:L:296:GLY:HA3	3:L:297:GLY:HA3	1.60	0.41
3:L:394:GLY:HA3	3:L:894:ILE:HD13	2.01	0.41
3:L:809:GLY:HA3	3:L:856:THR:HA	2.02	0.41
3:L:825:LYS:O	3:L:826:ASP:C	2.63	0.41
3:L:1030:SER:C	3:L:1033:PRO:HD2	2.45	0.41
2:A:614:ASP:HB2	2:A:615:GLY:HA2	2.02	0.41
2:B:117:ASP:O	2:B:121:MET:HG2	2.20	0.41
2:B:143:LEU:HA	2:B:143:LEU:HD12	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:550:ASP:O	2:B:551:LYS:C	2.56	0.41
2:D:614:ASP:HB2	2:D:615:GLY:HA2	2.02	0.41
2:D:629:ASN:H	2:D:634:SER:HB3	1.85	0.41
2:E:323:ARG:HH11	2:F:249:SER:HB3	1.85	0.41
2:E:673:MET:HB3	2:E:680:ARG:HG3	2.02	0.41
2:F:117:ASP:O	2:F:121:MET:HG2	2.20	0.41
2:F:138:TYR:CD1	2:F:138:TYR:C	2.97	0.41
2:H:642:LEU:HD12	2:H:642:LEU:HA	1.95	0.41
3:I:358:LYS:HD3	3:I:358:LYS:HA	1.60	0.41
3:I:502:PRO:HD2	3:I:1151:TYR:CE1	2.54	0.41
3:J:820:THR:HG23	3:J:821:THR:N	2.35	0.41
3:J:1030:SER:C	3:J:1033:PRO:HD2	2.45	0.41
3:J:1070:MET:N	3:J:1070:MET:HE2	2.35	0.41
3:J:1130:ASN:C	3:J:1132:ARG:N	2.78	0.41
3:K:56:PHE:HB2	3:K:59:ALA:HB3	2.01	0.41
3:K:107:ALA:HA	3:K:120:LEU:HD11	2.02	0.41
3:K:145:VAL:HG23	3:K:146:ALA:HB2	2.01	0.41
3:K:450:ASN:HA	3:K:451:THR:HA	1.62	0.41
3:K:641:MET:SD	3:K:807:VAL:HG13	2.60	0.41
3:K:1030:SER:C	3:K:1033:PRO:HD2	2.45	0.41
3:K:1070:MET:HE2	3:K:1070:MET:N	2.35	0.41
3:L:405:SER:OG	3:L:424:GLU:OE1	2.31	0.41
3:L:997:LEU:HA	3:L:997:LEU:HD23	1.82	0.41
3:L:1130:ASN:C	3:L:1132:ARG:N	2.78	0.41
2:A:197:ASN:HD21	2:B:108:THR:CA	2.33	0.41
2:A:299:PHE:CE1	2:H:378:MET:SD	3.13	0.41
2:A:567:ARG:HH12	3:I:1122:ARG:NH1	2.18	0.41
2:B:616:ASP:N	2:B:616:ASP:OD1	2.52	0.41
2:C:257:GLY:O	2:C:258:ALA:C	2.60	0.41
2:C:271:LEU:HG	2:C:272:ASN:H	1.85	0.41
2:F:635:TRP:CD1	2:F:635:TRP:C	2.95	0.41
2:G:222:GLU:HG3	2:G:267:LYS:HB3	2.03	0.41
2:H:142:ARG:NE	2:H:142:ARG:CA	2.72	0.41
2:H:487:THR:HB	2:H:490:MET:HB2	2.03	0.41
2:H:604:SER:O	2:H:623:LYS:HB2	2.19	0.41
3:I:129:ALA:C	3:I:131:ILE:N	2.74	0.41
3:I:370:ASN:HD22	3:I:370:ASN:HA	1.64	0.41
3:I:1120:PHE:CD1	3:I:1120:PHE:C	2.97	0.41
3:J:107:ALA:HA	3:J:120:LEU:HD11	2.02	0.41
3:J:577:MET:SD	3:J:626:VAL:HG21	2.60	0.41
3:J:705:VAL:O	3:J:709:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:797:PHE:HE1	3:J:1195:LEU:O	2.04	0.41
3:J:865:THR:HG22	3:J:1186:SER:OG	2.21	0.41
3:J:1137:ALA:O	3:J:1141:ILE:HG12	2.19	0.41
3:K:592:LYS:HE3	3:K:593:MET:HE3	2.03	0.41
3:L:797:PHE:HE1	3:L:1195:LEU:O	2.04	0.41
3:L:820:THR:HG23	3:L:821:THR:N	2.35	0.41
3:L:1001:ARG:NH2	3:L:1073:TRP:CE2	2.88	0.41
3:L:1070:MET:HE2	3:L:1070:MET:N	2.35	0.41
2:A:654:PRO:O	2:A:655:TRP:CG	2.73	0.41
2:B:680:ARG:HH21	3:I:422:ASP:HB2	1.85	0.41
2:C:654:PRO:O	2:C:655:TRP:CG	2.73	0.41
2:D:202:LEU:HD21	2:D:206:LEU:HD12	2.02	0.41
2:F:115:LEU:O	2:F:116:VAL:C	2.61	0.41
2:F:271:LEU:HG	2:F:272:ASN:H	1.85	0.41
2:F:553:PHE:HE2	2:F:577:ARG:CB	2.31	0.41
2:G:271:LEU:HG	2:G:272:ASN:H	1.85	0.41
2:G:569:PRO:CG	2:G:605:THR:HG21	2.47	0.41
2:G:614:ASP:HB2	2:G:615:GLY:HA2	2.02	0.41
3:I:584:PRO:O	3:I:585:GLU:C	2.63	0.41
3:I:865:THR:HG22	3:I:1186:SER:OG	2.21	0.41
3:I:1130:ASN:C	3:I:1132:ARG:N	2.78	0.41
3:K:797:PHE:HE1	3:K:1195:LEU:O	2.04	0.41
3:K:1044:LYS:HG2	3:K:1063:PHE:CD2	2.49	0.41
3:L:502:PRO:HD2	3:L:1151:TYR:CE1	2.54	0.41
3:L:809:GLY:O	3:L:813:ILE:HG13	2.19	0.41
3:L:1203:GLY:O	3:L:1204:VAL:C	2.62	0.41
2:A:271:LEU:HG	2:A:272:ASN:H	1.85	0.41
2:B:135:MET:SD	2:B:135:MET:O	2.79	0.41
2:B:271:LEU:HG	2:B:272:ASN:H	1.85	0.41
2:B:557:LEU:C	2:B:557:LEU:CD2	2.85	0.41
2:B:566:ALA:O	2:B:567:ARG:HB2	2.20	0.41
2:B:699:LEU:HD23	2:B:699:LEU:HA	1.90	0.41
2:D:115:LEU:O	2:D:116:VAL:C	2.61	0.41
2:D:135:MET:SD	2:D:135:MET:O	2.79	0.41
2:D:229:LEU:HG	2:D:234:ILE:HD11	2.02	0.41
2:D:462:ALA:O	2:D:465:THR:HG22	2.21	0.41
2:F:202:LEU:HD21	2:F:206:LEU:HD12	2.02	0.41
2:F:576:ALA:HB2	2:F:601:LEU:HD21	2.02	0.41
2:G:564:GLU:H	2:G:564:GLU:HG3	1.45	0.41
2:G:673:MET:HB3	2:G:680:ARG:HG3	2.03	0.41
2:H:202:LEU:HD21	2:H:206:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:362:VAL:H	3:I:444:ALA:CB	2.33	0.41
3:I:600:TYR:OH	3:I:948:ARG:NE	2.51	0.41
3:I:705:VAL:O	3:I:709:VAL:HG23	2.20	0.41
3:I:820:THR:HG23	3:I:821:THR:N	2.35	0.41
3:J:641:MET:SD	3:J:807:VAL:HG13	2.60	0.41
3:K:921:LYS:CB	3:K:922:PRO:HA	2.51	0.41
3:L:898:ILE:HD12	3:L:1292:VAL:HG22	2.03	0.41
2:A:202:LEU:HD21	2:A:206:LEU:HD12	2.02	0.41
2:B:576:ALA:HB2	2:B:601:LEU:HD21	2.02	0.41
2:B:675:THR:O	2:B:675:THR:OG1	2.39	0.41
2:C:337:ASP:O	2:C:338:LYS:C	2.61	0.41
2:C:614:ASP:HB2	2:C:615:GLY:HA2	2.02	0.41
2:C:673:MET:HB3	2:C:680:ARG:HG3	2.03	0.41
2:D:205:VAL:HG12	2:D:206:LEU:HG	2.02	0.41
2:D:278:TYR:O	2:D:279:ARG:C	2.60	0.41
2:D:566:ALA:O	2:D:568:MET:N	2.53	0.41
2:D:639:ARG:CD	2:E:418:HIS:CD2	3.04	0.41
2:D:670:ILE:HG13	2:D:670:ILE:H	1.63	0.41
2:E:278:TYR:O	2:E:279:ARG:C	2.60	0.41
2:G:77:LYS:H	2:G:77:LYS:HG3	1.65	0.41
3:I:143:LEU:HD23	3:I:143:LEU:HA	1.79	0.41
3:I:146:ALA:CB	3:I:147:LYS:HG2	2.29	0.41
3:I:898:ILE:HD12	3:I:1292:VAL:HG22	2.03	0.41
3:I:1147:ALA:HB1	3:I:1184:ALA:HA	2.02	0.41
3:J:726:MET:HE3	3:J:726:MET:HB3	1.82	0.41
3:J:921:LYS:CB	3:J:922:PRO:HA	2.51	0.41
3:K:478:HIS:HD2	3:L:66:LEU:HA	1.86	0.41
3:K:577:MET:SD	3:K:626:VAL:HG21	2.60	0.41
1:c:63:ALA:HB1	2:E:121:MET:SD	2.61	0.41
2:B:202:LEU:HD21	2:B:206:LEU:HD12	2.02	0.41
2:B:487:THR:HB	2:B:490:MET:HB2	2.03	0.41
2:B:516:LEU:HD21	2:B:579:ILE:CG2	2.48	0.41
2:B:531:ILE:HG23	2:B:586:ARG:NE	2.36	0.41
2:C:584:LYS:O	2:C:589:ASN:ND2	2.53	0.41
2:E:152:GLU:OE2	2:E:156:ILE:HG12	2.21	0.41
2:E:202:LEU:HD21	2:E:206:LEU:HD12	2.02	0.41
2:F:378:MET:SD	2:G:299:PHE:CE1	3.13	0.41
2:G:202:LEU:HD21	2:G:206:LEU:HD12	2.02	0.41
2:G:205:VAL:HG12	2:G:206:LEU:HG	2.02	0.41
2:G:337:ASP:O	2:G:338:LYS:C	2.61	0.41
2:H:229:LEU:HG	2:H:234:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:531:ILE:HG23	2:H:586:ARG:NE	2.36	0.41
3:K:938:LYS:HD3	3:K:1150:PHE:CD1	2.55	0.41
3:L:11:ASP:HA	3:L:12:TYR:HA	1.61	0.41
3:L:1146:LEU:HD12	3:L:1150:PHE:CE2	2.56	0.41
3:L:1147:ALA:HB1	3:L:1184:ALA:HA	2.02	0.41
2:A:91:THR:HA	2:A:92:LEU:HA	1.90	0.41
2:A:613:VAL:HG13	3:I:414:ARG:NH1	2.36	0.41
2:B:462:ALA:O	2:B:465:THR:HG22	2.21	0.41
2:C:152:GLU:OE2	2:C:156:ILE:HG12	2.21	0.41
2:D:635:TRP:O	2:D:636:GLU:C	2.59	0.41
2:D:680:ARG:HH21	3:J:422:ASP:HB2	1.85	0.41
2:F:551:LYS:O	2:F:554:GLU:N	2.54	0.41
2:F:614:ASP:HB2	2:F:615:GLY:HA2	2.02	0.41
2:H:121:MET:HB3	2:H:178:LEU:HD11	2.03	0.41
3:I:107:ALA:HA	3:I:120:LEU:HD11	2.02	0.41
3:I:797:PHE:HE1	3:I:1195:LEU:O	2.04	0.41
3:I:921:LYS:CB	3:I:922:PRO:HA	2.51	0.41
3:I:1146:LEU:HD12	3:I:1150:PHE:CE2	2.56	0.41
3:J:350:GLY:HA3	3:J:351:LYS:HA	1.61	0.41
3:L:592:LYS:HE3	3:L:593:MET:HE3	2.03	0.41
1:f:62:GLU:HA	1:f:65:ALA:HB3	2.03	0.41
2:A:158:PRO:HA	2:A:159:GLU:HA	1.74	0.41
2:A:205:VAL:HG12	2:A:206:LEU:HG	2.02	0.41
2:A:337:ASP:O	2:A:338:LYS:C	2.61	0.41
2:A:584:LYS:O	2:A:589:ASN:ND2	2.53	0.41
2:A:621:ILE:HA	2:A:622:PRO:HD3	1.87	0.41
2:C:118:ASP:O	2:C:119:ASP:C	2.60	0.41
2:C:125:LYS:HA	2:C:125:LYS:HD3	1.74	0.41
2:D:531:ILE:HG23	2:D:586:ARG:NE	2.36	0.41
2:D:551:LYS:O	2:D:554:GLU:N	2.54	0.41
2:E:222:GLU:HG3	2:E:267:LYS:HB3	2.03	0.41
2:E:271:LEU:HG	2:E:272:ASN:H	1.85	0.41
2:E:327:GLU:HG3	2:E:327:GLU:H	1.67	0.41
2:F:206:LEU:HD23	2:F:206:LEU:HA	1.93	0.41
2:F:229:LEU:HG	2:F:234:ILE:HD11	2.02	0.41
2:F:244:ILE:HD11	2:F:278:TYR:CE1	2.56	0.41
2:F:462:ALA:O	2:F:465:THR:HG22	2.20	0.41
2:F:487:THR:HB	2:F:490:MET:HB2	2.03	0.41
2:F:566:ALA:O	2:F:567:ARG:HB2	2.20	0.41
2:F:566:ALA:O	2:F:568:MET:N	2.53	0.41
2:G:462:ALA:O	2:G:465:THR:HG22	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:487:THR:HB	2:G:490:MET:HB2	2.03	0.41
2:G:543:LYS:O	2:G:543:LYS:NZ	2.31	0.41
2:G:567:ARG:CD	3:L:1119:LYS:HE3	2.49	0.41
2:H:516:LEU:HD21	2:H:579:ILE:CG2	2.48	0.41
2:H:566:ALA:O	2:H:568:MET:N	2.53	0.41
3:I:268:TRP:CE3	3:I:268:TRP:HA	2.56	0.41
3:I:554:THR:HG23	3:I:1232:TYR:CE1	2.56	0.41
3:I:834:LYS:HD2	3:I:835:ALA:HB2	2.03	0.41
3:I:844:GLU:OE2	3:I:1212:MET:HE2	2.20	0.41
3:I:1030:SER:C	3:I:1033:PRO:HD2	2.45	0.41
3:J:500:VAL:HB	3:J:1170:TYR:CE1	2.56	0.41
3:J:554:THR:HG23	3:J:1232:TYR:CE1	2.56	0.41
3:J:562:LEU:HD13	3:J:808:ASN:ND2	2.36	0.41
3:J:898:ILE:HD12	3:J:1292:VAL:HG22	2.03	0.41
3:J:938:LYS:HD3	3:J:1150:PHE:CD1	2.55	0.41
3:K:268:TRP:CE3	3:K:268:TRP:HA	2.55	0.41
3:K:375:GLY:O	3:K:376:LEU:C	2.64	0.41
3:K:500:VAL:HB	3:K:1170:TYR:CE1	2.56	0.41
3:K:554:THR:HG23	3:K:1232:TYR:CE1	2.56	0.41
3:K:820:THR:HG23	3:K:821:THR:N	2.35	0.41
3:K:834:LYS:HD2	3:K:835:ALA:HB2	2.03	0.41
3:K:865:THR:HG22	3:K:1186:SER:OG	2.21	0.41
3:K:1146:LEU:HD12	3:K:1150:PHE:CE2	2.56	0.41
3:L:60:THR:HG23	3:L:61:ALA:H	1.84	0.41
3:L:268:TRP:CE3	3:L:268:TRP:HA	2.56	0.41
3:L:450:ASN:HA	3:L:451:THR:HA	1.62	0.41
3:L:494:LEU:HD23	3:L:494:LEU:HA	1.81	0.41
3:L:844:GLU:OE2	3:L:1212:MET:HE2	2.20	0.41
3:L:917:LEU:HA	3:L:917:LEU:HD13	1.59	0.41
1:d:62:GLU:HA	1:d:65:ALA:HB3	2.03	0.41
2:A:190:ALA:HB1	2:B:94:TYR:HD2	1.85	0.41
2:A:695:ASN:ND2	3:I:240:ASN:HA	2.35	0.41
2:C:202:LEU:HD21	2:C:206:LEU:HD12	2.02	0.41
2:D:85:GLU:H	2:D:85:GLU:HG3	1.67	0.41
2:E:75:ILE:HD11	2:E:92:LEU:HG	2.03	0.41
2:E:492:ALA:O	2:E:496:ILE:HG22	2.21	0.41
2:E:695:ASN:ND2	3:K:240:ASN:HA	2.36	0.41
2:F:121:MET:HB3	2:F:178:LEU:HD11	2.03	0.41
2:F:135:MET:SD	2:F:135:MET:O	2.79	0.41
2:F:680:ARG:HH21	3:K:422:ASP:HB2	1.86	0.41
2:G:75:ILE:HD11	2:G:92:LEU:HG	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:654:PRO:O	2:G:655:TRP:CG	2.73	0.41
2:H:135:MET:SD	2:H:135:MET:O	2.79	0.41
3:I:1044:LYS:HG2	3:I:1063:PHE:CD2	2.49	0.41
3:J:584:PRO:O	3:J:585:GLU:C	2.63	0.41
3:L:308:LEU:HA	3:L:308:LEU:HD23	1.84	0.41
3:L:358:LYS:O	3:L:359:ALA:HB3	2.21	0.41
3:L:402:SER:HA	3:L:424:GLU:HG3	2.03	0.41
3:L:865:THR:HG22	3:L:1186:SER:OG	2.20	0.41
1:e:63:ALA:HB1	2:G:121:MET:SD	2.61	0.40
2:A:327:GLU:HG3	2:A:327:GLU:H	1.67	0.40
2:A:628:VAL:HG11	2:A:692:TRP:CB	2.50	0.40
2:A:642:LEU:HD12	2:A:642:LEU:HA	1.95	0.40
2:B:229:LEU:HG	2:B:234:ILE:HD11	2.02	0.40
2:B:546:ARG:CD	2:B:546:ARG:C	2.94	0.40
2:B:642:LEU:HD12	2:B:642:LEU:HA	1.95	0.40
2:B:698:LYS:HB3	2:B:698:LYS:HE3	1.80	0.40
2:C:158:PRO:HA	2:C:159:GLU:HA	1.74	0.40
2:F:531:ILE:HG23	2:F:586:ARG:NE	2.36	0.40
2:G:197:ASN:HD21	2:H:108:THR:HA	1.86	0.40
2:H:576:ALA:HB2	2:H:601:LEU:HD21	2.02	0.40
3:I:424:GLU:HB2	3:I:425:PHE:H	1.61	0.40
3:I:494:LEU:HD23	3:I:494:LEU:HA	1.81	0.40
3:I:500:VAL:HB	3:I:1170:TYR:CE1	2.56	0.40
3:I:1027:ARG:HB2	3:I:1078:LYS:CE	2.23	0.40
3:J:92:GLY:O	3:J:96:LYS:N	2.35	0.40
3:J:1146:LEU:HD12	3:J:1150:PHE:CE2	2.56	0.40
3:K:654:SER:O	3:K:654:SER:OG	2.27	0.40
3:L:299:PRO:HA	3:L:300:GLU:HA	1.82	0.40
3:L:362:VAL:H	3:L:444:ALA:CB	2.33	0.40
3:L:726:MET:HE3	3:L:726:MET:HB3	1.82	0.40
2:B:205:VAL:HG12	2:B:206:LEU:HG	2.02	0.40
2:B:516:LEU:HD13	2:B:579:ILE:HD12	2.04	0.40
2:B:551:LYS:O	2:B:554:GLU:N	2.54	0.40
2:B:678:GLN:HG3	3:I:449:MET:SD	2.61	0.40
2:D:346:THR:O	2:D:347:PRO:C	2.64	0.40
2:D:487:THR:HB	2:D:490:MET:HB2	2.03	0.40
2:D:635:TRP:CD1	2:D:635:TRP:C	2.95	0.40
2:D:696:GLN:HE21	2:D:696:GLN:HB2	1.63	0.40
2:E:190:ALA:HB1	2:F:94:TYR:HD2	1.86	0.40
2:E:410:ASN:HD22	2:E:410:ASN:HA	1.53	0.40
2:F:272:ASN:OD1	2:F:272:ASN:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:436:ASP:HB2	2:G:315:SER:OG	2.21	0.40
2:G:332:ILE:O	2:G:336:LEU:HB2	2.22	0.40
2:H:143:LEU:HD12	2:H:143:LEU:HA	1.79	0.40
2:H:192:LYS:O	2:H:196:MET:HG2	2.21	0.40
2:H:675:THR:O	2:H:676:THR:CB	2.69	0.40
3:J:268:TRP:CE3	3:J:268:TRP:HA	2.56	0.40
3:J:375:GLY:O	3:J:376:LEU:C	2.64	0.40
3:J:587:SER:CA	3:J:1132:ARG:HH12	2.34	0.40
3:J:1147:ALA:HB1	3:J:1184:ALA:HA	2.02	0.40
3:J:1175:LEU:HD23	3:J:1180:ILE:HD11	2.04	0.40
3:K:805:ARG:NH2	3:K:857:GLY:O	2.54	0.40
3:K:827:GLU:HG3	3:K:1226:ARG:HH22	1.86	0.40
3:K:844:GLU:OE2	3:K:1212:MET:HE2	2.20	0.40
3:K:898:ILE:HD12	3:K:1292:VAL:HG22	2.03	0.40
3:L:500:VAL:HB	3:L:1170:TYR:CE1	2.56	0.40
3:L:834:LYS:HD2	3:L:835:ALA:HB2	2.03	0.40
3:L:864:ASP:OD1	3:L:865:THR:OG1	2.34	0.40
1:g:63:ALA:HB1	2:A:121:MET:SD	2.61	0.40
2:A:278:TYR:HD1	2:A:278:TYR:HA	1.77	0.40
2:A:462:ALA:O	2:A:465:THR:HG22	2.20	0.40
2:B:549:ASP:O	2:B:552:ALA:HB3	2.22	0.40
2:B:696:GLN:HE21	2:B:696:GLN:HB2	1.63	0.40
2:C:205:VAL:HG12	2:C:206:LEU:HG	2.02	0.40
2:D:121:MET:HB3	2:D:178:LEU:HD11	2.03	0.40
2:D:553:PHE:HE2	2:D:577:ARG:CB	2.31	0.40
2:D:589:ASN:HD22	2:D:589:ASN:HA	1.70	0.40
2:F:119:ASP:O	2:F:120:VAL:C	2.60	0.40
2:F:205:VAL:HG12	2:F:206:LEU:HG	2.02	0.40
2:F:551:LYS:HG3	2:G:543:LYS:HD3	2.03	0.40
2:G:152:GLU:OE2	2:G:156:ILE:HG12	2.21	0.40
2:G:445:MET:HE1	2:H:318:ASN:CG	2.46	0.40
2:G:492:ALA:O	2:G:496:ILE:HG22	2.22	0.40
2:H:244:ILE:HD11	2:H:278:TYR:CE1	2.56	0.40
2:H:698:LYS:HB3	2:H:698:LYS:HE3	1.80	0.40
3:I:67:ARG:CZ	3:I:68:VAL:HB	2.51	0.40
3:J:592:LYS:HE3	3:J:593:MET:HE3	2.03	0.40
3:K:301:ASN:ND2	3:K:303:ASP:OD2	2.52	0.40
3:K:340:LEU:HD23	3:K:340:LEU:HA	1.86	0.40
3:K:402:SER:HA	3:K:424:GLU:HG3	2.03	0.40
3:K:495:LYS:O	3:K:499:GLU:N	2.52	0.40
3:K:584:PRO:O	3:K:585:GLU:C	2.63	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:656:PHE:HA	3:K:657:PRO:HD3	1.94	0.40
3:L:370:ASN:HD22	3:L:370:ASN:HA	1.64	0.40
3:L:375:GLY:O	3:L:376:LEU:C	2.64	0.40
3:L:562:LEU:HD13	3:L:808:ASN:ND2	2.36	0.40
1:a:73:GLN:CA	2:B:220:PHE:CE2	2.99	0.40
2:A:75:ILE:HD11	2:A:92:LEU:HG	2.03	0.40
2:A:212:LEU:HB3	2:A:260:PHE:HB2	2.04	0.40
2:A:222:GLU:HG3	2:A:267:LYS:HB3	2.03	0.40
2:A:534:ALA:O	2:A:538:THR:HG22	2.22	0.40
2:A:673:MET:HB3	2:A:680:ARG:HG3	2.03	0.40
2:A:684:ASP:OD2	2:A:687:LEU:HB2	2.22	0.40
2:B:138:TYR:CD1	2:B:138:TYR:C	2.97	0.40
2:C:75:ILE:HD11	2:C:92:LEU:HG	2.03	0.40
2:C:197:ASN:HD21	2:D:108:THR:CA	2.35	0.40
2:C:462:ALA:O	2:C:465:THR:HG22	2.20	0.40
2:D:199:ARG:O	2:D:203:ASN:HB2	2.22	0.40
2:D:244:ILE:HD11	2:D:278:TYR:CE1	2.56	0.40
2:E:125:LYS:HD3	2:E:125:LYS:HA	1.74	0.40
2:E:272:ASN:OD1	2:E:272:ASN:N	2.55	0.40
2:E:332:ILE:O	2:E:336:LEU:HB2	2.21	0.40
2:F:698:LYS:HE3	2:F:698:LYS:HB3	1.80	0.40
2:G:323:ARG:HH11	2:H:249:SER:HB3	1.86	0.40
2:G:695:ASN:ND2	3:L:240:ASN:HA	2.36	0.40
2:H:635:TRP:O	2:H:636:GLU:C	2.59	0.40
3:I:32:LYS:HD2	3:I:32:LYS:HA	1.97	0.40
3:I:301:ASN:ND2	3:I:303:ASP:OD2	2.52	0.40
3:I:402:SER:HA	3:I:424:GLU:HG3	2.03	0.40
3:K:562:LEU:HD13	3:K:808:ASN:ND2	2.36	0.40
3:K:1175:LEU:HD23	3:K:1180:ILE:HD11	2.04	0.40
3:L:67:ARG:CZ	3:L:68:VAL:HB	2.51	0.40
3:L:654:SER:O	3:L:654:SER:OG	2.27	0.40
2:A:332:ILE:O	2:A:336:LEU:HB2	2.21	0.40
2:B:655:TRP:CZ2	2:B:678:GLN:HB3	2.57	0.40
2:B:673:MET:HB2	2:B:673:MET:HE2	1.44	0.40
2:D:212:LEU:C	2:D:214:ARG:N	2.78	0.40
2:D:546:ARG:CD	2:D:546:ARG:C	2.94	0.40
2:E:487:THR:HB	2:E:490:MET:HB2	2.03	0.40
2:E:567:ARG:HH12	3:K:1122:ARG:NH1	2.19	0.40
2:F:75:ILE:O	2:F:76:ARG:C	2.63	0.40
2:G:93:LEU:HA	2:G:93:LEU:HD13	1.74	0.40
2:H:549:ASP:O	2:H:552:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:627:GLN:HB3	2:H:685:LYS:HE3	2.04	0.40
2:H:655:TRP:CZ2	2:H:678:GLN:HB3	2.57	0.40
3:I:665:TYR:CE1	3:I:769:ARG:HG3	2.57	0.40
3:I:1025:PHE:N	3:I:1025:PHE:CD1	2.90	0.40
3:J:39:ARG:HA	3:J:39:ARG:HD3	1.78	0.40
3:J:638:ARG:NE	3:J:642:GLU:OE2	2.55	0.40
3:K:358:LYS:O	3:K:359:ALA:HB3	2.21	0.40
3:K:502:PRO:HD2	3:K:1151:TYR:CE1	2.54	0.40
3:K:587:SER:CA	3:K:1132:ARG:HH12	2.34	0.40
3:K:931:LEU:HD23	3:K:931:LEU:HA	1.90	0.40
3:K:1114:LYS:HB2	3:K:1114:LYS:HE3	1.89	0.40
3:L:322:ALA:O	3:L:323:GLY:C	2.63	0.40
3:L:584:PRO:O	3:L:585:GLU:C	2.63	0.40
3:L:827:GLU:HG3	3:L:1226:ARG:HH22	1.86	0.40
3:L:1175:LEU:HD23	3:L:1180:ILE:HD11	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	76/196 (39%)	65 (86%)	10 (13%)	1 (1%)	10	40
1	b	76/196 (39%)	66 (87%)	8 (10%)	2 (3%)	4	29
1	c	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	10	40
1	d	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	10	40
1	e	76/196 (39%)	65 (86%)	10 (13%)	1 (1%)	10	40
1	f	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	10	40
1	g	76/196 (39%)	66 (87%)	8 (10%)	2 (3%)	4	29
1	h	76/196 (39%)	66 (87%)	9 (12%)	1 (1%)	10	40

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	A	645/747 (86%)	582 (90%)	56 (9%)	7 (1%)	12	43
2	B	645/747 (86%)	576 (89%)	56 (9%)	13 (2%)	6	34
2	C	645/747 (86%)	583 (90%)	55 (8%)	7 (1%)	12	43
2	D	645/747 (86%)	577 (90%)	55 (8%)	13 (2%)	6	34
2	E	645/747 (86%)	583 (90%)	55 (8%)	7 (1%)	12	43
2	F	645/747 (86%)	577 (90%)	55 (8%)	13 (2%)	6	34
2	G	645/747 (86%)	583 (90%)	55 (8%)	7 (1%)	12	43
2	H	645/747 (86%)	576 (89%)	56 (9%)	13 (2%)	6	34
3	I	1087/1318 (82%)	940 (86%)	133 (12%)	14 (1%)	10	40
3	J	1087/1318 (82%)	940 (86%)	133 (12%)	14 (1%)	10	40
3	K	1087/1318 (82%)	938 (86%)	135 (12%)	14 (1%)	10	40
3	L	1087/1318 (82%)	938 (86%)	135 (12%)	14 (1%)	10	40
All	All	10116/12816 (79%)	8919 (88%)	1051 (10%)	146 (1%)	12	39

All (146) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	334	ALA
2	A	339	VAL
2	B	570	ALA
2	B	676	THR
2	C	334	ALA
2	C	339	VAL
2	D	570	ALA
2	D	676	THR
2	E	334	ALA
2	E	339	VAL
2	F	570	ALA
2	F	676	THR
2	G	334	ALA
2	G	339	VAL
2	H	570	ALA
2	H	676	THR
3	I	72	PRO
3	I	384	ASP
3	I	616	GLN
3	I	617	LYS
3	I	1013	LEU

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Mol	Chain	Res	Type
3	I	1058	LYS
3	J	72	PRO
3	J	384	ASP
3	J	616	GLN
3	J	617	LYS
3	J	1013	LEU
3	J	1058	LYS
3	K	72	PRO
3	K	384	ASP
3	K	616	GLN
3	K	617	LYS
3	K	1013	LEU
3	K	1058	LYS
3	L	72	PRO
3	L	384	ASP
3	L	616	GLN
3	L	617	LYS
3	L	1013	LEU
3	L	1058	LYS
2	B	128	VAL
2	B	155	GLY
2	D	128	VAL
2	D	155	GLY
2	F	128	VAL
2	F	155	GLY
2	H	128	VAL
2	H	155	GLY
3	I	367	ALA
3	I	767	GLU
3	I	1131	ASN
3	J	367	ALA
3	J	767	GLU
3	J	1131	ASN
3	K	367	ALA
3	K	767	GLU
3	K	1131	ASN
3	L	367	ALA
3	L	767	GLU
3	L	1131	ASN
1	a	77	ALA
1	b	77	ALA
1	c	77	ALA

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Mol	Chain	Res	Type
1	d	77	ALA
1	e	77	ALA
1	f	77	ALA
1	g	17	ILE
1	g	77	ALA
1	h	77	ALA
2	A	283	GLY
2	B	237	ASP
2	B	283	GLY
2	B	344	GLN
2	C	283	GLY
2	D	237	ASP
2	D	283	GLY
2	D	344	GLN
2	E	283	GLY
2	F	237	ASP
2	F	283	GLY
2	F	344	GLN
2	G	283	GLY
2	H	237	ASP
2	H	283	GLY
2	H	344	GLN
3	I	252	LEU
3	J	252	LEU
3	K	252	LEU
3	L	252	LEU
1	b	14	ALA
2	B	586	ARG
2	D	586	ARG
2	F	586	ARG
2	H	586	ARG
3	I	365	GLU
3	I	861	ARG
3	J	365	GLU
3	J	861	ARG
3	K	365	GLU
3	K	861	ARG
3	L	365	GLU
3	L	861	ARG
2	A	257	GLY
2	A	568	MET
2	B	291	MET

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Mol	Chain	Res	Type
2	C	257	GLY
2	C	568	MET
2	D	291	MET
2	E	257	GLY
2	E	568	MET
2	F	291	MET
2	G	257	GLY
2	G	568	MET
2	H	291	MET
3	L	660	ARG
2	A	576	ALA
2	B	89	ASN
2	B	114	TYR
2	C	576	ALA
2	D	89	ASN
2	D	114	TYR
2	E	576	ALA
2	F	89	ASN
2	F	114	TYR
2	G	576	ALA
2	H	89	ASN
2	H	114	TYR
3	I	660	ARG
3	J	660	ARG
3	K	660	ARG
2	B	670	ILE
2	D	670	ILE
2	F	670	ILE
2	H	670	ILE
2	A	408	PRO
2	C	408	PRO
2	E	408	PRO
2	G	408	PRO
3	I	337	VAL
3	J	337	VAL
3	K	337	VAL
3	L	337	VAL
2	B	568	MET
2	D	568	MET
2	F	568	MET
2	H	568	MET

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	
2	A	552/624 (88%)	444 (80%)	108 (20%)	1	7
2	B	552/624 (88%)	434 (79%)	118 (21%)	1	6
2	C	552/624 (88%)	444 (80%)	108 (20%)	1	7
2	D	552/624 (88%)	434 (79%)	118 (21%)	1	6
2	E	552/624 (88%)	444 (80%)	108 (20%)	1	7
2	F	552/624 (88%)	434 (79%)	118 (21%)	1	6
2	G	552/624 (88%)	444 (80%)	108 (20%)	1	7
2	H	552/624 (88%)	434 (79%)	118 (21%)	1	6
3	I	890/1059 (84%)	857 (96%)	33 (4%)	29	54
3	J	890/1059 (84%)	857 (96%)	33 (4%)	29	54
3	K	890/1059 (84%)	857 (96%)	33 (4%)	29	54
3	L	890/1059 (84%)	857 (96%)	33 (4%)	29	54
All	All	7976/9228 (86%)	6940 (87%)	1036 (13%)	6	19

All (1036) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	A	69	GLU
2	A	70	ARG
2	A	71	SER
2	A	73	GLU
2	A	79	THR
2	A	85	GLU
2	A	87	LEU
2	A	92	LEU
2	A	101	MET
2	A	102	GLU
2	A	106	VAL
2	A	117	ASP
2	A	131	THR
2	A	134	GLU

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Mol	Chain	Res	Type
2	A	136	GLU
2	A	144	GLN
2	A	145	GLU
2	A	148	LYS
2	A	152	GLU
2	A	159	GLU
2	A	162	ASP
2	A	172	THR
2	A	176	ILE
2	A	183	ASP
2	A	198	SER
2	A	200	VAL
2	A	202	LEU
2	A	205	VAL
2	A	208	ASP
2	A	229	LEU
2	A	241	THR
2	A	267	LYS
2	A	268	LYS
2	A	275	THR
2	A	276	THR
2	A	302	ASP
2	A	327	GLU
2	A	335	GLU
2	A	336	LEU
2	A	337	ASP
2	A	340	GLN
2	A	344	GLN
2	A	352	LEU
2	A	354	SER
2	A	358	GLN
2	A	376	ASP
2	A	378	MET
2	A	385	ASP
2	A	393	LYS
2	A	398	GLU
2	A	399	TRP
2	A	403	ASP
2	A	405	LYS
2	A	406	ASP
2	A	409	VAL
2	A	410	ASN

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Mol	Chain	Res	Type
2	A	413	THR
2	A	419	SER
2	A	422	VAL
2	A	431	GLU
2	A	436	ASP
2	A	439	ASP
2	A	454	SER
2	A	455	LYS
2	A	460	ARG
2	A	468	THR
2	A	472	GLN
2	A	482	LYS
2	A	491	ASP
2	A	496	ILE
2	A	502	GLN
2	A	517	THR
2	A	518	MET
2	A	530	VAL
2	A	533	ASP
2	A	538	THR
2	A	539	VAL
2	A	540	LYS
2	A	541	ARG
2	A	545	GLN
2	A	546	ARG
2	A	547	PHE
2	A	555	SER
2	A	560	SER
2	A	561	LYS
2	A	564	GLU
2	A	568	MET
2	A	582	SER
2	A	584	LYS
2	A	587	SER
2	A	592	MET
2	A	595	GLU
2	A	599	LYS
2	A	633	LYS
2	A	634	SER
2	A	635	TRP
2	A	655	TRP
2	A	664	TYR

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Mol	Chain	Res	Type
2	A	671	TYR
2	A	674	ASP
2	A	681	VAL
2	A	684	ASP
2	A	685	LYS
2	A	687	LEU
2	A	690	LYS
2	A	698	LYS
2	A	701	GLU
2	A	708	LEU
2	B	69	GLU
2	B	70	ARG
2	B	71	SER
2	B	73	GLU
2	B	87	LEU
2	B	91	THR
2	B	93	LEU
2	B	101	MET
2	B	102	GLU
2	B	117	ASP
2	B	122	GLN
2	B	125	LYS
2	B	128	VAL
2	B	129	PHE
2	B	135	MET
2	B	136	GLU
2	B	139	ARG
2	B	140	HIS
2	B	141	SER
2	B	142	ARG
2	B	152	GLU
2	B	153	GLN
2	B	159	GLU
2	B	162	ASP
2	B	172	THR
2	B	176	ILE
2	B	183	ASP
2	B	198	SER
2	B	200	VAL
2	B	202	LEU
2	B	205	VAL
2	B	208	ASP

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Mol	Chain	Res	Type
2	B	222	GLU
2	B	225	ILE
2	B	229	LEU
2	B	241	THR
2	B	259	ASP
2	B	267	LYS
2	B	268	LYS
2	B	275	THR
2	B	276	THR
2	B	302	ASP
2	B	335	GLU
2	B	340	GLN
2	B	346	THR
2	B	354	SER
2	B	358	GLN
2	B	376	ASP
2	B	378	MET
2	B	385	ASP
2	B	393	LYS
2	B	398	GLU
2	B	399	TRP
2	B	403	ASP
2	B	405	LYS
2	B	406	ASP
2	B	407	MET
2	B	411	GLU
2	B	419	SER
2	B	422	VAL
2	B	431	GLU
2	B	436	ASP
2	B	439	ASP
2	B	454	SER
2	B	455	LYS
2	B	460	ARG
2	B	468	THR
2	B	472	GLN
2	B	482	LYS
2	B	491	ASP
2	B	502	GLN
2	B	517	THR
2	B	518	MET
2	B	530	VAL

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Mol	Chain	Res	Type
2	B	538	THR
2	B	539	VAL
2	B	540	LYS
2	B	541	ARG
2	B	543	LYS
2	B	545	GLN
2	B	546	ARG
2	B	547	PHE
2	B	548	GLU
2	B	549	ASP
2	B	553	PHE
2	B	554	GLU
2	B	557	LEU
2	B	558	ASN
2	B	572	LEU
2	B	575	SER
2	B	578	LYS
2	B	582	SER
2	B	589	ASN
2	B	590	GLU
2	B	594	MET
2	B	596	GLN
2	B	602	LYS
2	B	618	VAL
2	B	620	VAL
2	B	629	ASN
2	B	631	ASP
2	B	633	LYS
2	B	635	TRP
2	B	647	LYS
2	B	655	TRP
2	B	659	LYS
2	B	661	LEU
2	B	666	GLN
2	B	669	SER
2	B	670	ILE
2	B	671	TYR
2	B	673	MET
2	B	679	VAL
2	B	688	LEU
2	B	691	VAL
2	B	695	ASN

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Mol	Chain	Res	Type
2	B	696	GLN
2	B	708	LEU
2	C	69	GLU
2	C	70	ARG
2	C	71	SER
2	C	73	GLU
2	C	79	THR
2	C	85	GLU
2	C	87	LEU
2	C	92	LEU
2	C	101	MET
2	C	102	GLU
2	C	106	VAL
2	C	117	ASP
2	C	131	THR
2	C	134	GLU
2	C	136	GLU
2	C	144	GLN
2	C	145	GLU
2	C	148	LYS
2	C	152	GLU
2	C	159	GLU
2	C	162	ASP
2	C	172	THR
2	C	176	ILE
2	C	183	ASP
2	C	198	SER
2	C	200	VAL
2	C	202	LEU
2	C	205	VAL
2	C	208	ASP
2	C	229	LEU
2	C	241	THR
2	C	267	LYS
2	C	268	LYS
2	C	275	THR
2	C	276	THR
2	C	302	ASP
2	C	327	GLU
2	C	335	GLU
2	C	336	LEU
2	C	337	ASP

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Mol	Chain	Res	Type
2	C	340	GLN
2	C	344	GLN
2	C	352	LEU
2	C	354	SER
2	C	358	GLN
2	C	376	ASP
2	C	378	MET
2	C	385	ASP
2	C	393	LYS
2	C	398	GLU
2	C	399	TRP
2	C	403	ASP
2	C	405	LYS
2	C	406	ASP
2	C	409	VAL
2	C	410	ASN
2	C	413	THR
2	C	419	SER
2	C	422	VAL
2	C	431	GLU
2	C	436	ASP
2	C	439	ASP
2	C	454	SER
2	C	455	LYS
2	C	460	ARG
2	C	468	THR
2	C	472	GLN
2	C	482	LYS
2	C	491	ASP
2	C	496	ILE
2	C	502	GLN
2	C	517	THR
2	C	518	MET
2	C	530	VAL
2	C	533	ASP
2	C	538	THR
2	C	539	VAL
2	C	540	LYS
2	C	541	ARG
2	C	545	GLN
2	C	546	ARG
2	C	547	PHE

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Mol	Chain	Res	Type
2	C	555	SER
2	C	560	SER
2	C	561	LYS
2	C	564	GLU
2	C	568	MET
2	C	582	SER
2	C	584	LYS
2	C	587	SER
2	C	592	MET
2	C	595	GLU
2	C	599	LYS
2	C	633	LYS
2	C	634	SER
2	C	635	TRP
2	C	655	TRP
2	C	664	TYR
2	C	671	TYR
2	C	674	ASP
2	C	681	VAL
2	C	684	ASP
2	C	685	LYS
2	C	687	LEU
2	C	690	LYS
2	C	698	LYS
2	C	701	GLU
2	C	708	LEU
2	D	69	GLU
2	D	70	ARG
2	D	71	SER
2	D	73	GLU
2	D	87	LEU
2	D	91	THR
2	D	93	LEU
2	D	101	MET
2	D	102	GLU
2	D	117	ASP
2	D	122	GLN
2	D	125	LYS
2	D	128	VAL
2	D	129	PHE
2	D	135	MET
2	D	136	GLU

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Mol	Chain	Res	Type
2	D	139	ARG
2	D	140	HIS
2	D	141	SER
2	D	142	ARG
2	D	152	GLU
2	D	153	GLN
2	D	159	GLU
2	D	162	ASP
2	D	172	THR
2	D	176	ILE
2	D	183	ASP
2	D	198	SER
2	D	200	VAL
2	D	202	LEU
2	D	205	VAL
2	D	208	ASP
2	D	222	GLU
2	D	225	ILE
2	D	229	LEU
2	D	241	THR
2	D	259	ASP
2	D	267	LYS
2	D	268	LYS
2	D	275	THR
2	D	276	THR
2	D	302	ASP
2	D	335	GLU
2	D	340	GLN
2	D	346	THR
2	D	354	SER
2	D	358	GLN
2	D	376	ASP
2	D	378	MET
2	D	385	ASP
2	D	393	LYS
2	D	398	GLU
2	D	399	TRP
2	D	403	ASP
2	D	405	LYS
2	D	406	ASP
2	D	407	MET
2	D	411	GLU

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Mol	Chain	Res	Type
2	D	419	SER
2	D	422	VAL
2	D	431	GLU
2	D	436	ASP
2	D	439	ASP
2	D	454	SER
2	D	455	LYS
2	D	460	ARG
2	D	468	THR
2	D	472	GLN
2	D	482	LYS
2	D	491	ASP
2	D	502	GLN
2	D	517	THR
2	D	518	MET
2	D	530	VAL
2	D	538	THR
2	D	539	VAL
2	D	540	LYS
2	D	541	ARG
2	D	543	LYS
2	D	545	GLN
2	D	546	ARG
2	D	547	PHE
2	D	548	GLU
2	D	549	ASP
2	D	553	PHE
2	D	554	GLU
2	D	557	LEU
2	D	558	ASN
2	D	572	LEU
2	D	575	SER
2	D	578	LYS
2	D	582	SER
2	D	589	ASN
2	D	590	GLU
2	D	594	MET
2	D	596	GLN
2	D	602	LYS
2	D	618	VAL
2	D	620	VAL
2	D	629	ASN

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Mol	Chain	Res	Type
2	D	631	ASP
2	D	633	LYS
2	D	635	TRP
2	D	647	LYS
2	D	655	TRP
2	D	659	LYS
2	D	661	LEU
2	D	666	GLN
2	D	669	SER
2	D	670	ILE
2	D	671	TYR
2	D	673	MET
2	D	679	VAL
2	D	688	LEU
2	D	691	VAL
2	D	695	ASN
2	D	696	GLN
2	D	708	LEU
2	E	69	GLU
2	E	70	ARG
2	E	71	SER
2	E	73	GLU
2	E	79	THR
2	E	85	GLU
2	E	87	LEU
2	E	92	LEU
2	E	101	MET
2	E	102	GLU
2	E	106	VAL
2	E	117	ASP
2	E	131	THR
2	E	134	GLU
2	E	136	GLU
2	E	144	GLN
2	E	145	GLU
2	E	148	LYS
2	E	152	GLU
2	E	159	GLU
2	E	162	ASP
2	E	172	THR
2	E	176	ILE
2	E	183	ASP

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Mol	Chain	Res	Type
2	E	198	SER
2	E	200	VAL
2	E	202	LEU
2	E	205	VAL
2	E	208	ASP
2	E	229	LEU
2	E	241	THR
2	E	267	LYS
2	E	268	LYS
2	E	275	THR
2	E	276	THR
2	E	302	ASP
2	E	327	GLU
2	E	335	GLU
2	E	336	LEU
2	E	337	ASP
2	E	340	GLN
2	E	344	GLN
2	E	352	LEU
2	E	354	SER
2	E	358	GLN
2	E	376	ASP
2	E	378	MET
2	E	385	ASP
2	E	393	LYS
2	E	398	GLU
2	E	399	TRP
2	E	403	ASP
2	E	405	LYS
2	E	406	ASP
2	E	409	VAL
2	E	410	ASN
2	E	413	THR
2	E	419	SER
2	E	422	VAL
2	E	431	GLU
2	E	436	ASP
2	E	439	ASP
2	E	454	SER
2	E	455	LYS
2	E	460	ARG
2	E	468	THR

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Mol	Chain	Res	Type
2	E	472	GLN
2	E	482	LYS
2	E	491	ASP
2	E	496	ILE
2	E	502	GLN
2	E	517	THR
2	E	518	MET
2	E	530	VAL
2	E	533	ASP
2	E	538	THR
2	E	539	VAL
2	E	540	LYS
2	E	541	ARG
2	E	545	GLN
2	E	546	ARG
2	E	547	PHE
2	E	555	SER
2	E	560	SER
2	E	561	LYS
2	E	564	GLU
2	E	568	MET
2	E	582	SER
2	E	584	LYS
2	E	587	SER
2	E	592	MET
2	E	595	GLU
2	E	599	LYS
2	E	633	LYS
2	E	634	SER
2	E	635	TRP
2	E	655	TRP
2	E	664	TYR
2	E	671	TYR
2	E	674	ASP
2	E	681	VAL
2	E	684	ASP
2	E	685	LYS
2	E	687	LEU
2	E	690	LYS
2	E	698	LYS
2	E	701	GLU
2	E	708	LEU

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Mol	Chain	Res	Type
2	F	69	GLU
2	F	70	ARG
2	F	71	SER
2	F	73	GLU
2	F	87	LEU
2	F	91	THR
2	F	93	LEU
2	F	101	MET
2	F	102	GLU
2	F	117	ASP
2	F	122	GLN
2	F	125	LYS
2	F	128	VAL
2	F	129	PHE
2	F	135	MET
2	F	136	GLU
2	F	139	ARG
2	F	140	HIS
2	F	141	SER
2	F	142	ARG
2	F	152	GLU
2	F	153	GLN
2	F	159	GLU
2	F	162	ASP
2	F	172	THR
2	F	176	ILE
2	F	183	ASP
2	F	198	SER
2	F	200	VAL
2	F	202	LEU
2	F	205	VAL
2	F	208	ASP
2	F	222	GLU
2	F	225	ILE
2	F	229	LEU
2	F	241	THR
2	F	259	ASP
2	F	267	LYS
2	F	268	LYS
2	F	275	THR
2	F	276	THR
2	F	302	ASP

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Mol	Chain	Res	Type
2	F	335	GLU
2	F	340	GLN
2	F	346	THR
2	F	354	SER
2	F	358	GLN
2	F	376	ASP
2	F	378	MET
2	F	385	ASP
2	F	393	LYS
2	F	398	GLU
2	F	399	TRP
2	F	403	ASP
2	F	405	LYS
2	F	406	ASP
2	F	407	MET
2	F	411	GLU
2	F	419	SER
2	F	422	VAL
2	F	431	GLU
2	F	436	ASP
2	F	439	ASP
2	F	454	SER
2	F	455	LYS
2	F	460	ARG
2	F	468	THR
2	F	472	GLN
2	F	482	LYS
2	F	491	ASP
2	F	502	GLN
2	F	517	THR
2	F	518	MET
2	F	530	VAL
2	F	538	THR
2	F	539	VAL
2	F	540	LYS
2	F	541	ARG
2	F	543	LYS
2	F	545	GLN
2	F	546	ARG
2	F	547	PHE
2	F	548	GLU
2	F	549	ASP

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Mol	Chain	Res	Type
2	F	553	PHE
2	F	554	GLU
2	F	557	LEU
2	F	558	ASN
2	F	572	LEU
2	F	575	SER
2	F	578	LYS
2	F	582	SER
2	F	589	ASN
2	F	590	GLU
2	F	594	MET
2	F	596	GLN
2	F	602	LYS
2	F	618	VAL
2	F	620	VAL
2	F	629	ASN
2	F	631	ASP
2	F	633	LYS
2	F	635	TRP
2	F	647	LYS
2	F	655	TRP
2	F	659	LYS
2	F	661	LEU
2	F	666	GLN
2	F	669	SER
2	F	670	ILE
2	F	671	TYR
2	F	673	MET
2	F	679	VAL
2	F	688	LEU
2	F	691	VAL
2	F	695	ASN
2	F	696	GLN
2	F	708	LEU
2	G	69	GLU
2	G	70	ARG
2	G	71	SER
2	G	73	GLU
2	G	79	THR
2	G	85	GLU
2	G	87	LEU
2	G	92	LEU

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Mol	Chain	Res	Type
2	G	101	MET
2	G	102	GLU
2	G	106	VAL
2	G	117	ASP
2	G	131	THR
2	G	134	GLU
2	G	136	GLU
2	G	144	GLN
2	G	145	GLU
2	G	148	LYS
2	G	152	GLU
2	G	159	GLU
2	G	162	ASP
2	G	172	THR
2	G	176	ILE
2	G	183	ASP
2	G	198	SER
2	G	200	VAL
2	G	202	LEU
2	G	205	VAL
2	G	208	ASP
2	G	229	LEU
2	G	241	THR
2	G	267	LYS
2	G	268	LYS
2	G	275	THR
2	G	276	THR
2	G	302	ASP
2	G	327	GLU
2	G	335	GLU
2	G	336	LEU
2	G	337	ASP
2	G	340	GLN
2	G	344	GLN
2	G	352	LEU
2	G	354	SER
2	G	358	GLN
2	G	376	ASP
2	G	378	MET
2	G	385	ASP
2	G	393	LYS
2	G	398	GLU

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Mol	Chain	Res	Type
2	G	399	TRP
2	G	403	ASP
2	G	405	LYS
2	G	406	ASP
2	G	409	VAL
2	G	410	ASN
2	G	413	THR
2	G	419	SER
2	G	422	VAL
2	G	431	GLU
2	G	436	ASP
2	G	439	ASP
2	G	454	SER
2	G	455	LYS
2	G	460	ARG
2	G	468	THR
2	G	472	GLN
2	G	482	LYS
2	G	491	ASP
2	G	496	ILE
2	G	502	GLN
2	G	517	THR
2	G	518	MET
2	G	530	VAL
2	G	533	ASP
2	G	538	THR
2	G	539	VAL
2	G	540	LYS
2	G	541	ARG
2	G	545	GLN
2	G	546	ARG
2	G	547	PHE
2	G	555	SER
2	G	560	SER
2	G	561	LYS
2	G	564	GLU
2	G	568	MET
2	G	582	SER
2	G	584	LYS
2	G	587	SER
2	G	592	MET
2	G	595	GLU

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Mol	Chain	Res	Type
2	G	599	LYS
2	G	633	LYS
2	G	634	SER
2	G	635	TRP
2	G	655	TRP
2	G	664	TYR
2	G	671	TYR
2	G	674	ASP
2	G	681	VAL
2	G	684	ASP
2	G	685	LYS
2	G	687	LEU
2	G	690	LYS
2	G	698	LYS
2	G	701	GLU
2	G	708	LEU
2	H	69	GLU
2	H	70	ARG
2	H	71	SER
2	H	73	GLU
2	H	87	LEU
2	H	91	THR
2	H	93	LEU
2	H	101	MET
2	H	102	GLU
2	H	117	ASP
2	H	122	GLN
2	H	125	LYS
2	H	128	VAL
2	H	129	PHE
2	H	135	MET
2	H	136	GLU
2	H	139	ARG
2	H	140	HIS
2	H	141	SER
2	H	142	ARG
2	H	152	GLU
2	H	153	GLN
2	H	159	GLU
2	H	162	ASP
2	H	172	THR
2	H	176	ILE

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Mol	Chain	Res	Type
2	H	183	ASP
2	H	198	SER
2	H	200	VAL
2	H	202	LEU
2	H	205	VAL
2	H	208	ASP
2	H	222	GLU
2	H	225	ILE
2	H	229	LEU
2	H	241	THR
2	H	259	ASP
2	H	267	LYS
2	H	268	LYS
2	H	275	THR
2	H	276	THR
2	H	302	ASP
2	H	335	GLU
2	H	340	GLN
2	H	346	THR
2	H	354	SER
2	H	358	GLN
2	H	376	ASP
2	H	378	MET
2	H	385	ASP
2	H	393	LYS
2	H	398	GLU
2	H	399	TRP
2	H	403	ASP
2	H	405	LYS
2	H	406	ASP
2	H	407	MET
2	H	411	GLU
2	H	419	SER
2	H	422	VAL
2	H	431	GLU
2	H	436	ASP
2	H	439	ASP
2	H	454	SER
2	H	455	LYS
2	H	460	ARG
2	H	468	THR
2	H	472	GLN

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Mol	Chain	Res	Type
2	H	482	LYS
2	H	491	ASP
2	H	502	GLN
2	H	517	THR
2	H	518	MET
2	H	530	VAL
2	H	538	THR
2	H	539	VAL
2	H	540	LYS
2	H	541	ARG
2	H	543	LYS
2	H	545	GLN
2	H	546	ARG
2	H	547	PHE
2	H	548	GLU
2	H	549	ASP
2	H	553	PHE
2	H	554	GLU
2	H	557	LEU
2	H	558	ASN
2	H	572	LEU
2	H	575	SER
2	H	578	LYS
2	H	582	SER
2	H	589	ASN
2	H	590	GLU
2	H	594	MET
2	H	596	GLN
2	H	602	LYS
2	H	618	VAL
2	H	620	VAL
2	H	629	ASN
2	H	631	ASP
2	H	633	LYS
2	H	635	TRP
2	H	647	LYS
2	H	655	TRP
2	H	659	LYS
2	H	661	LEU
2	H	666	GLN
2	H	669	SER
2	H	670	ILE

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Mol	Chain	Res	Type
2	H	671	TYR
2	H	673	MET
2	H	679	VAL
2	H	688	LEU
2	H	691	VAL
2	H	695	ASN
2	H	696	GLN
2	H	708	LEU
3	I	67	ARG
3	I	101	GLU
3	I	114	ARG
3	I	117	ASN
3	I	127	ASP
3	I	238	LEU
3	I	251	ARG
3	I	254	ASN
3	I	267	ARG
3	I	324	LEU
3	I	337	VAL
3	I	355	LEU
3	I	370	ASN
3	I	380	VAL
3	I	384	ASP
3	I	392	LEU
3	I	620	THR
3	I	651	LYS
3	I	653	VAL
3	I	655	ILE
3	I	658	GLU
3	I	660	ARG
3	I	766	LEU
3	I	767	GLU
3	I	912	ILE
3	I	916	THR
3	I	917	LEU
3	I	1014	THR
3	I	1025	PHE
3	I	1026	LEU
3	I	1045	GLU
3	I	1055	PHE
3	I	1162	LEU
3	J	67	ARG

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Mol	Chain	Res	Type
3	J	101	GLU
3	J	114	ARG
3	J	117	ASN
3	J	127	ASP
3	J	238	LEU
3	J	251	ARG
3	J	254	ASN
3	J	267	ARG
3	J	324	LEU
3	J	337	VAL
3	J	355	LEU
3	J	370	ASN
3	J	380	VAL
3	J	384	ASP
3	J	392	LEU
3	J	620	THR
3	J	651	LYS
3	J	653	VAL
3	J	655	ILE
3	J	658	GLU
3	J	660	ARG
3	J	766	LEU
3	J	767	GLU
3	J	912	ILE
3	J	916	THR
3	J	917	LEU
3	J	1014	THR
3	J	1025	PHE
3	J	1026	LEU
3	J	1045	GLU
3	J	1055	PHE
3	J	1162	LEU
3	K	67	ARG
3	K	101	GLU
3	K	114	ARG
3	K	117	ASN
3	K	127	ASP
3	K	238	LEU
3	K	251	ARG
3	K	254	ASN
3	K	267	ARG
3	K	324	LEU

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Mol	Chain	Res	Type
3	K	337	VAL
3	K	355	LEU
3	K	370	ASN
3	K	380	VAL
3	K	384	ASP
3	K	392	LEU
3	K	620	THR
3	K	651	LYS
3	K	653	VAL
3	K	655	ILE
3	K	658	GLU
3	K	660	ARG
3	K	766	LEU
3	K	767	GLU
3	K	912	ILE
3	K	916	THR
3	K	917	LEU
3	K	1014	THR
3	K	1025	PHE
3	K	1026	LEU
3	K	1045	GLU
3	K	1055	PHE
3	K	1162	LEU
3	L	67	ARG
3	L	101	GLU
3	L	114	ARG
3	L	117	ASN
3	L	127	ASP
3	L	238	LEU
3	L	251	ARG
3	L	254	ASN
3	L	267	ARG
3	L	324	LEU
3	L	337	VAL
3	L	355	LEU
3	L	370	ASN
3	L	380	VAL
3	L	384	ASP
3	L	392	LEU
3	L	620	THR
3	L	651	LYS
3	L	653	VAL

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Mol	Chain	Res	Type
3	L	655	ILE
3	L	658	GLU
3	L	660	ARG
3	L	766	LEU
3	L	767	GLU
3	L	912	ILE
3	L	916	THR
3	L	917	LEU
3	L	1014	THR
3	L	1025	PHE
3	L	1026	LEU
3	L	1045	GLU
3	L	1055	PHE
3	L	1162	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (164) such sidechains are listed below:

Mol	Chain	Res	Type
2	A	182	HIS
2	A	197	ASN
2	A	382	ASN
2	A	410	ASN
2	A	596	GLN
2	A	627	GLN
2	A	666	GLN
2	B	95	GLN
2	B	111	ASN
2	B	175	ASN
2	B	182	HIS
2	B	197	ASN
2	B	472	GLN
2	B	524	GLN
2	B	545	GLN
2	B	589	ASN
2	B	660	GLN
2	B	666	GLN
2	B	678	GLN
2	B	695	ASN
2	B	696	GLN
2	C	182	HIS
2	C	197	ASN
2	C	382	ASN

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Mol	Chain	Res	Type
2	C	410	ASN
2	C	596	GLN
2	C	627	GLN
2	C	666	GLN
2	D	95	GLN
2	D	111	ASN
2	D	175	ASN
2	D	182	HIS
2	D	197	ASN
2	D	472	GLN
2	D	524	GLN
2	D	545	GLN
2	D	589	ASN
2	D	660	GLN
2	D	666	GLN
2	D	678	GLN
2	D	695	ASN
2	D	696	GLN
2	E	182	HIS
2	E	197	ASN
2	E	370	GLN
2	E	382	ASN
2	E	410	ASN
2	E	596	GLN
2	E	627	GLN
2	E	637	GLN
2	E	666	GLN
2	F	95	GLN
2	F	111	ASN
2	F	175	ASN
2	F	182	HIS
2	F	197	ASN
2	F	472	GLN
2	F	524	GLN
2	F	545	GLN
2	F	589	ASN
2	F	660	GLN
2	F	666	GLN
2	F	678	GLN
2	F	695	ASN
2	F	696	GLN
2	G	182	HIS

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Mol	Chain	Res	Type
2	G	197	ASN
2	G	382	ASN
2	G	410	ASN
2	G	596	GLN
2	G	627	GLN
2	G	666	GLN
2	H	95	GLN
2	H	111	ASN
2	H	175	ASN
2	H	182	HIS
2	H	197	ASN
2	H	472	GLN
2	H	524	GLN
2	H	545	GLN
2	H	589	ASN
2	H	660	GLN
2	H	666	GLN
2	H	695	ASN
2	H	696	GLN
3	I	78	ASN
3	I	110	GLN
3	I	254	ASN
3	I	269	ASN
3	I	357	ASN
3	I	370	ASN
3	I	440	ASN
3	I	567	GLN
3	I	633	HIS
3	I	688	GLN
3	I	697	ASN
3	I	789	ASN
3	I	808	ASN
3	I	990	ASN
3	I	994	ASN
3	I	1088	HIS
3	I	1131	ASN
3	I	1229	ASN
3	I	1309	ASN
3	J	78	ASN
3	J	84	ASN
3	J	110	GLN
3	J	254	ASN

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Mol	Chain	Res	Type
3	J	269	ASN
3	J	357	ASN
3	J	370	ASN
3	J	440	ASN
3	J	567	GLN
3	J	633	HIS
3	J	688	GLN
3	J	697	ASN
3	J	789	ASN
3	J	808	ASN
3	J	990	ASN
3	J	994	ASN
3	J	1088	HIS
3	J	1131	ASN
3	J	1229	ASN
3	J	1309	ASN
3	K	78	ASN
3	K	110	GLN
3	K	254	ASN
3	K	269	ASN
3	K	357	ASN
3	K	370	ASN
3	K	440	ASN
3	K	478	HIS
3	K	567	GLN
3	K	633	HIS
3	K	688	GLN
3	K	697	ASN
3	K	789	ASN
3	K	808	ASN
3	K	846	HIS
3	K	990	ASN
3	K	994	ASN
3	K	1088	HIS
3	K	1131	ASN
3	K	1229	ASN
3	K	1309	ASN
3	L	78	ASN
3	L	110	GLN
3	L	254	ASN
3	L	269	ASN
3	L	357	ASN

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Mol	Chain	Res	Type
3	L	370	ASN
3	L	440	ASN
3	L	567	GLN
3	L	633	HIS
3	L	688	GLN
3	L	697	ASN
3	L	789	ASN
3	L	808	ASN
3	L	990	ASN
3	L	994	ASN
3	L	1088	HIS
3	L	1131	ASN
3	L	1229	ASN
3	L	1309	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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

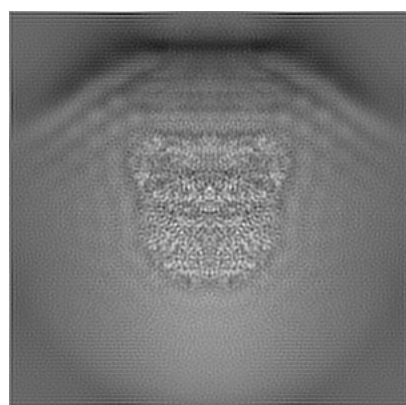
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-31317. These allow visual inspection of the internal detail of the map and identification of artifacts.

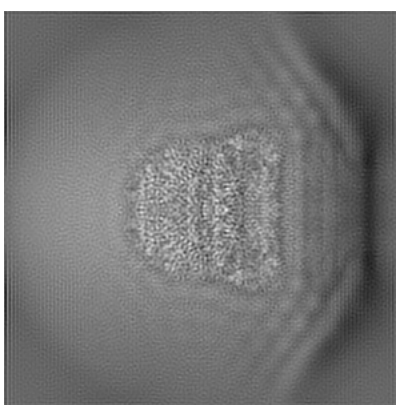
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

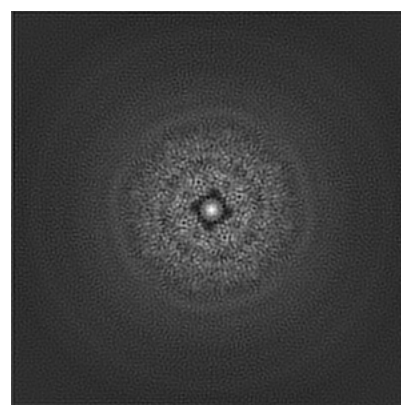
6.1.1 Primary map



X



Y

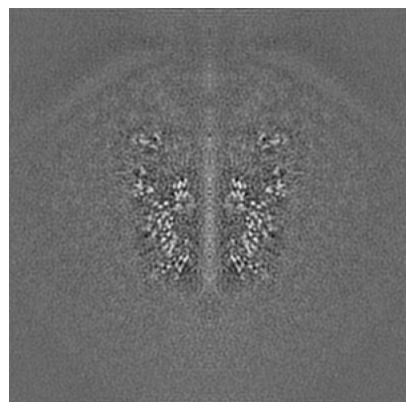


Z

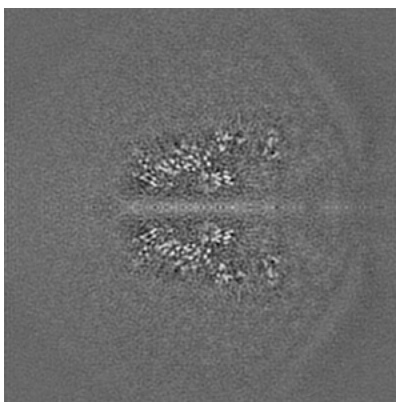
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

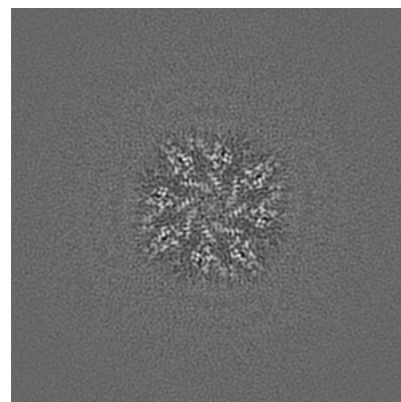
6.2.1 Primary map



X Index: 160



Y Index: 160

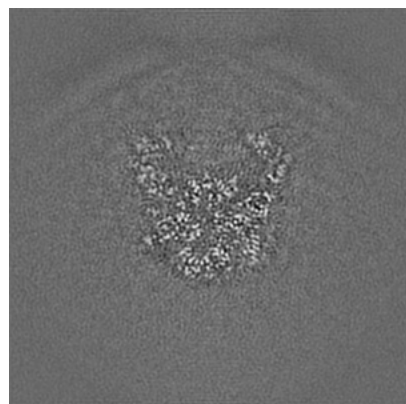


Z Index: 160

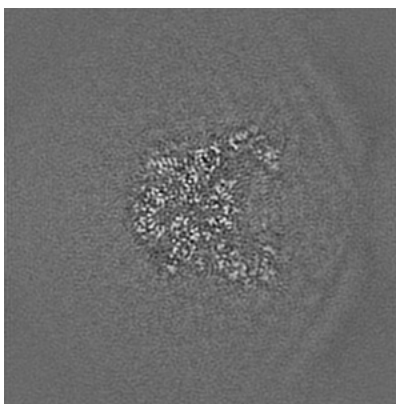
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

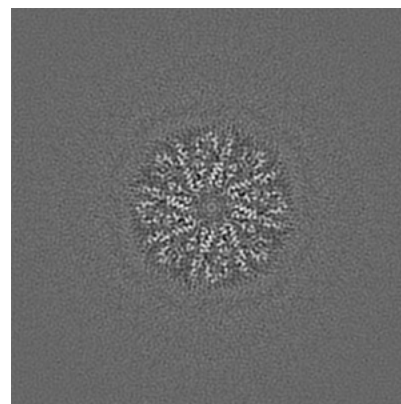
6.3.1 Primary map



X Index: 135



Y Index: 185

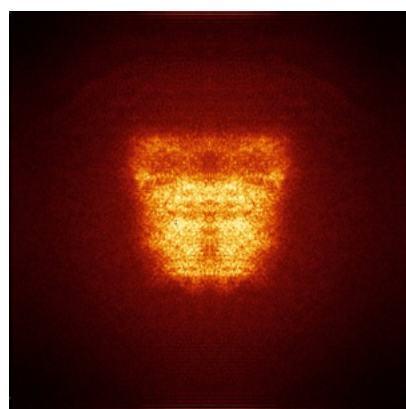


Z Index: 170

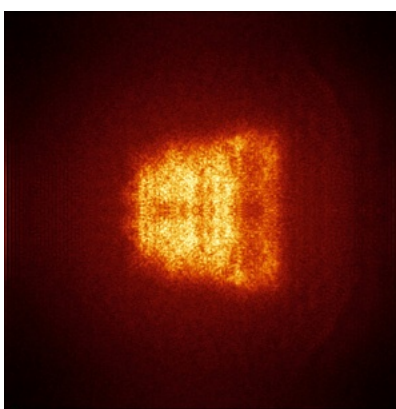
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

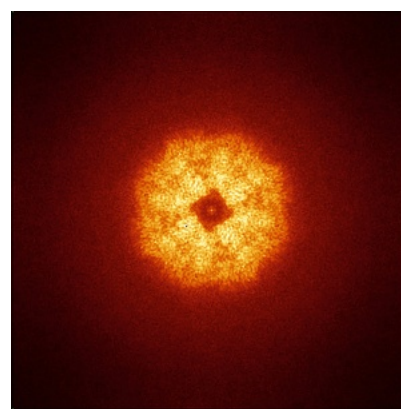
6.4.1 Primary map



X



Y

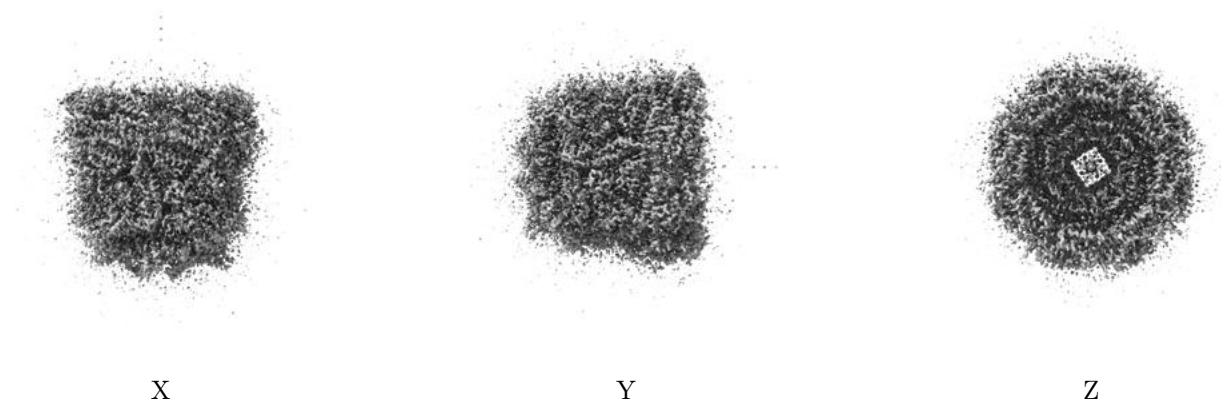


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 11.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

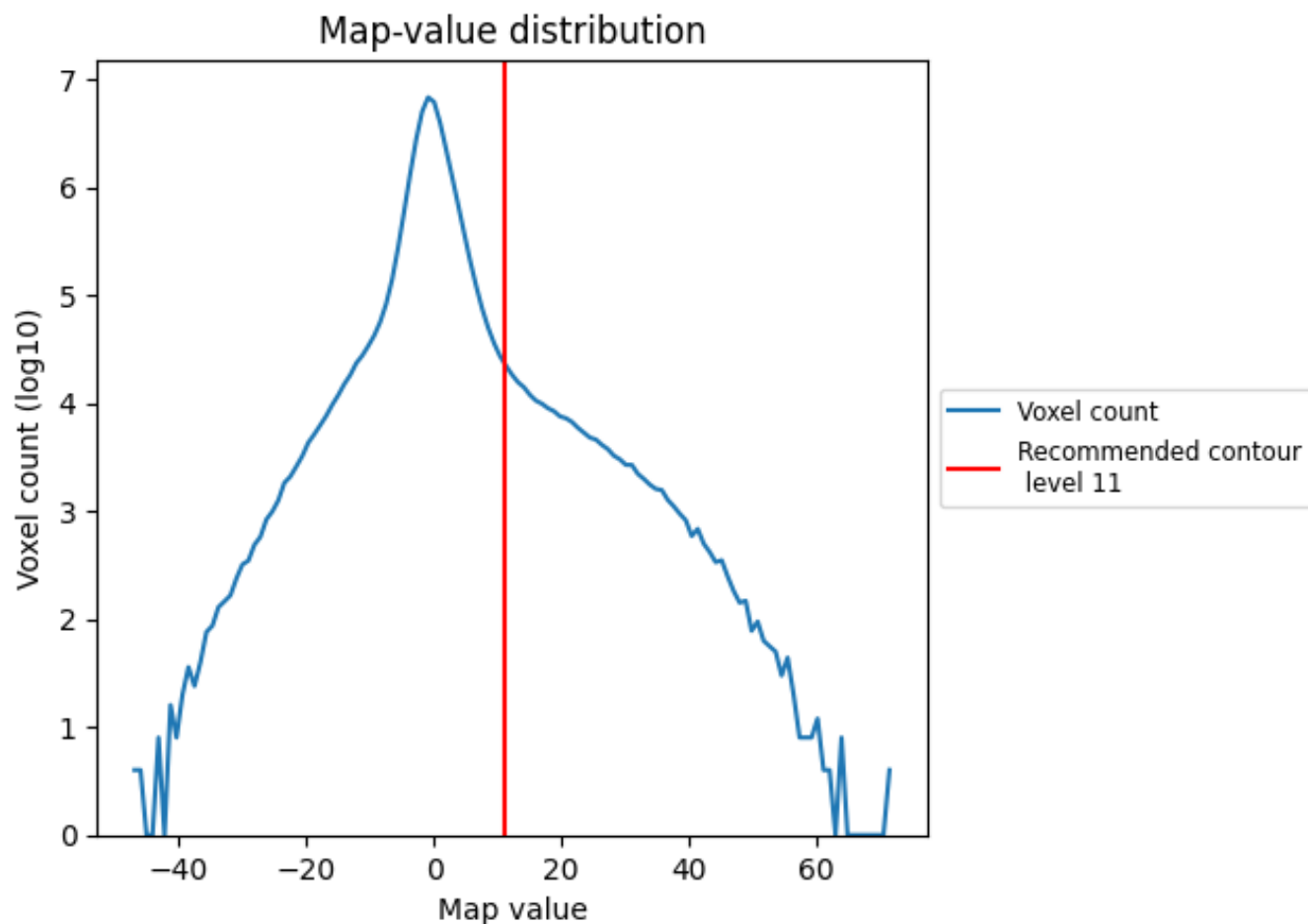
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

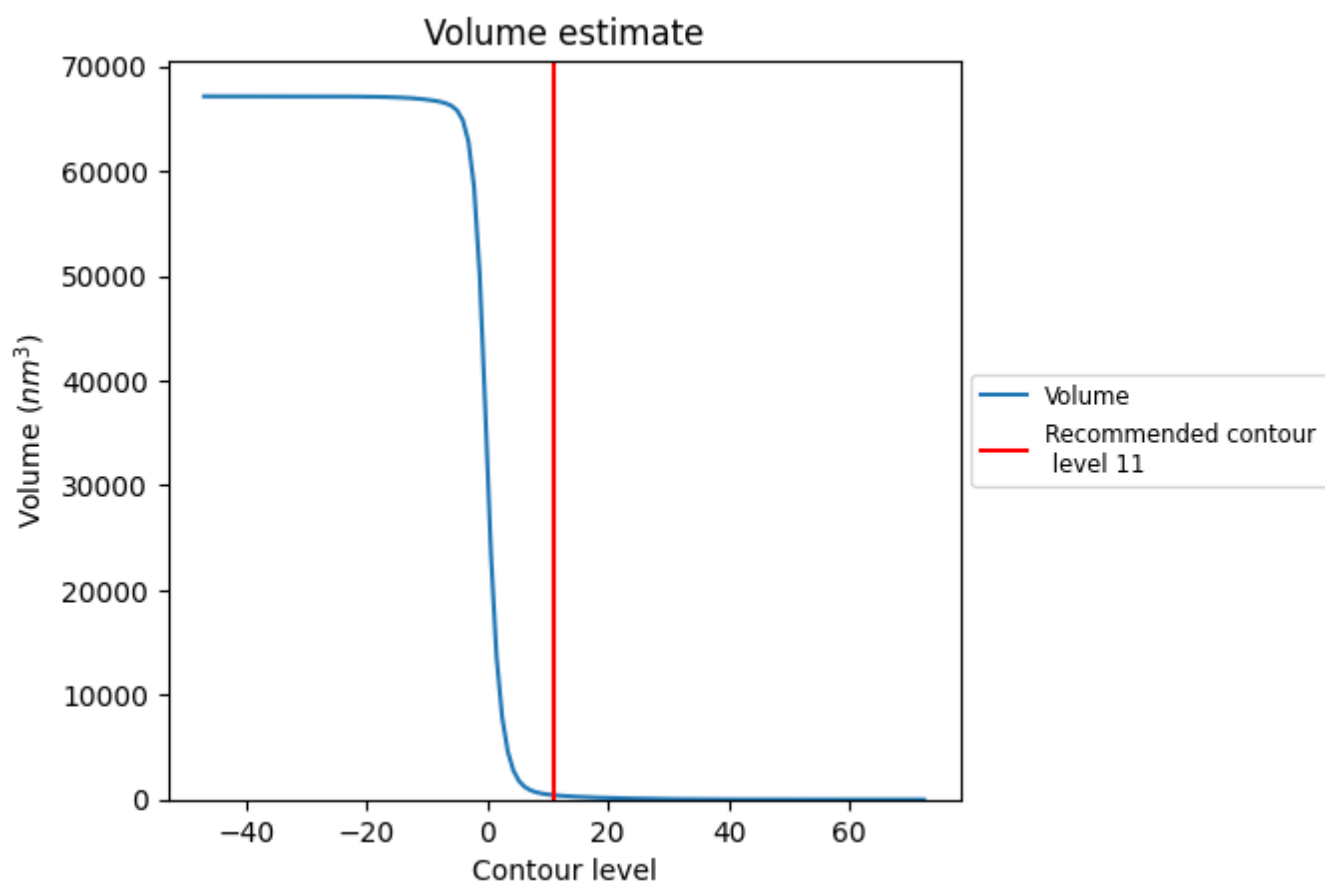
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

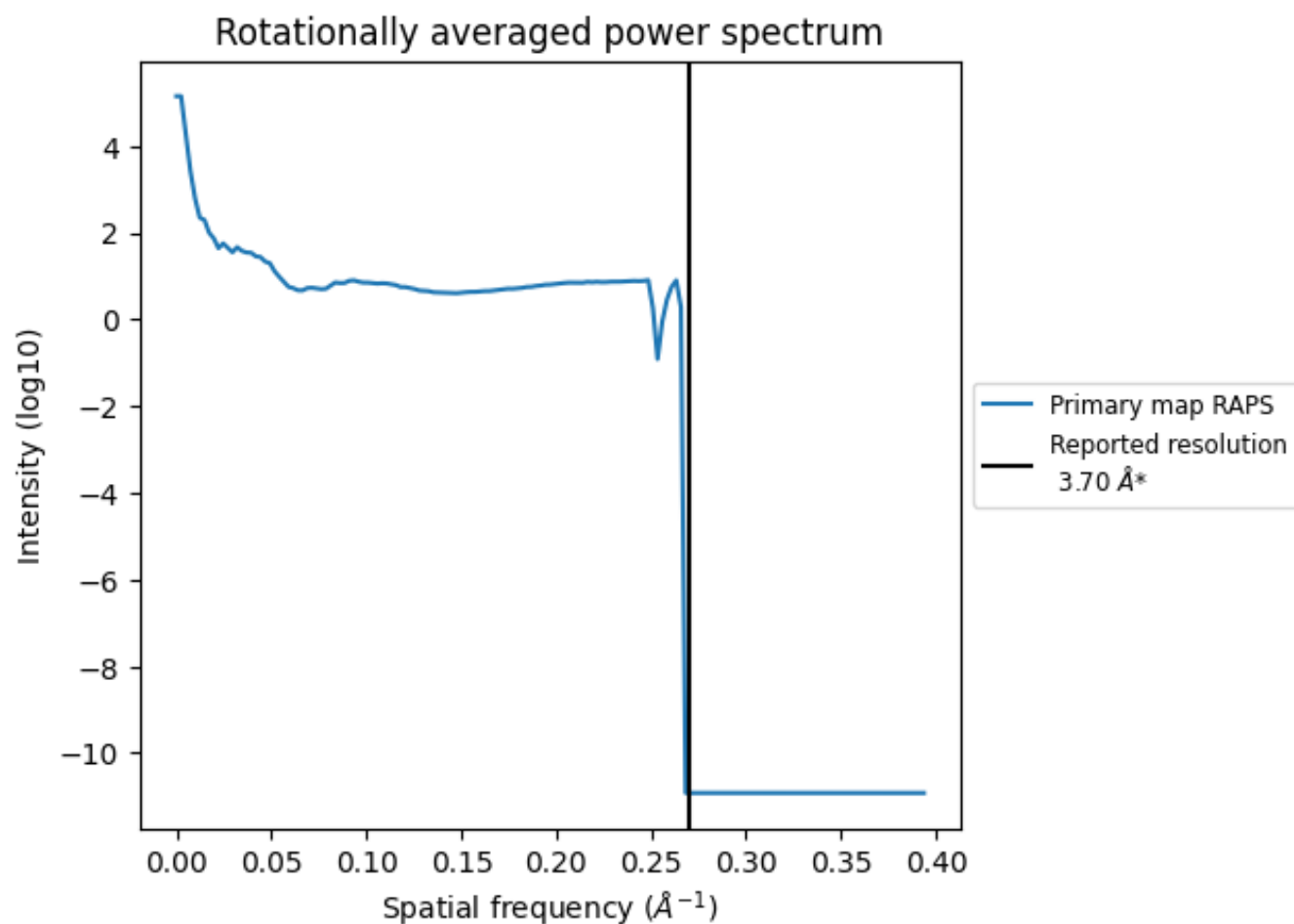
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 425 nm³; this corresponds to an approximate mass of 384 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.270 Å⁻¹

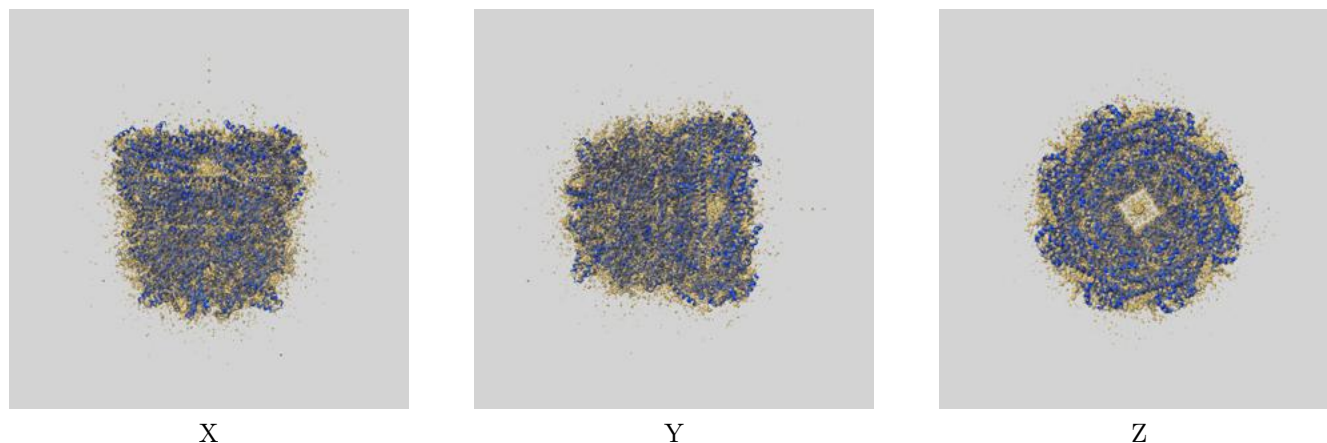
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

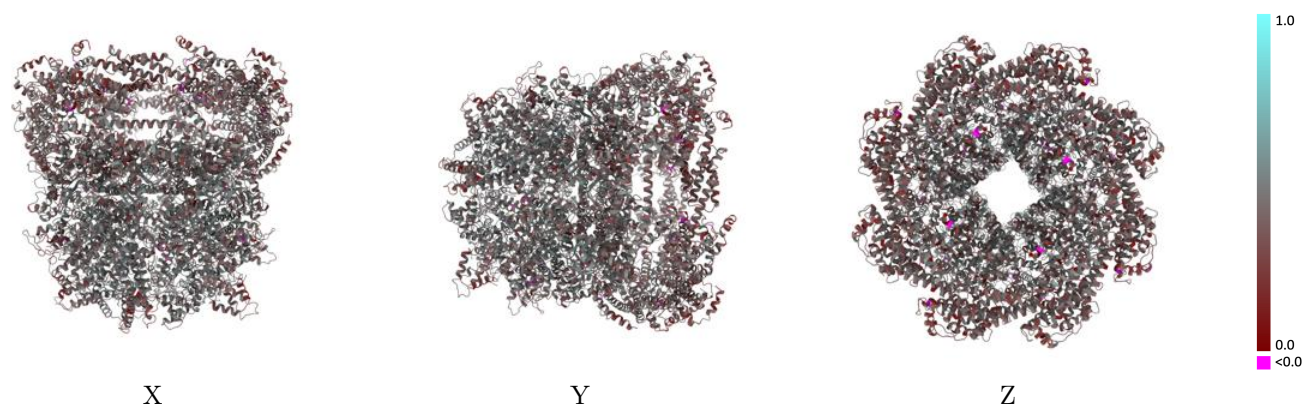
This section contains information regarding the fit between EMDB map EMD-31317 and PDB model 7EYB. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlay [i](#)



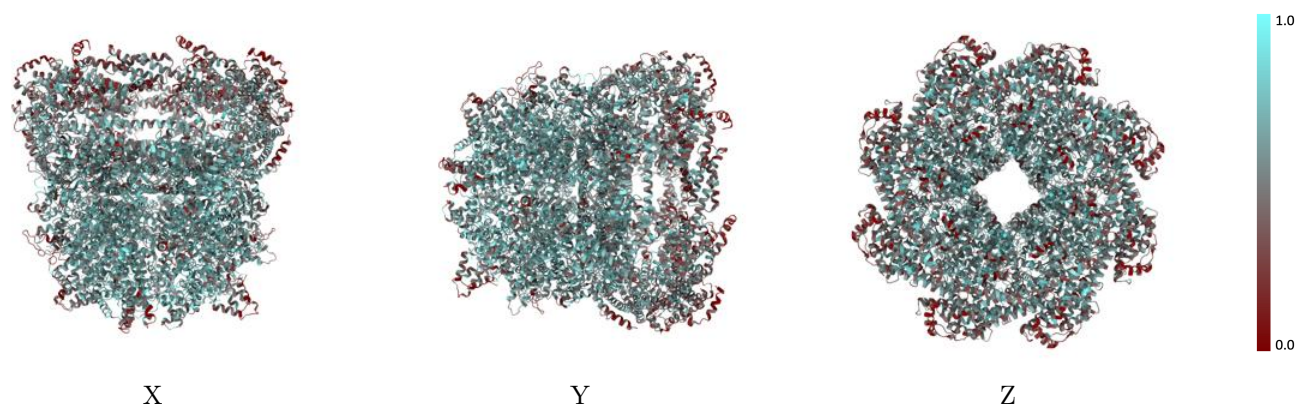
The images above show the 3D surface view of the map at the recommended contour level 11.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



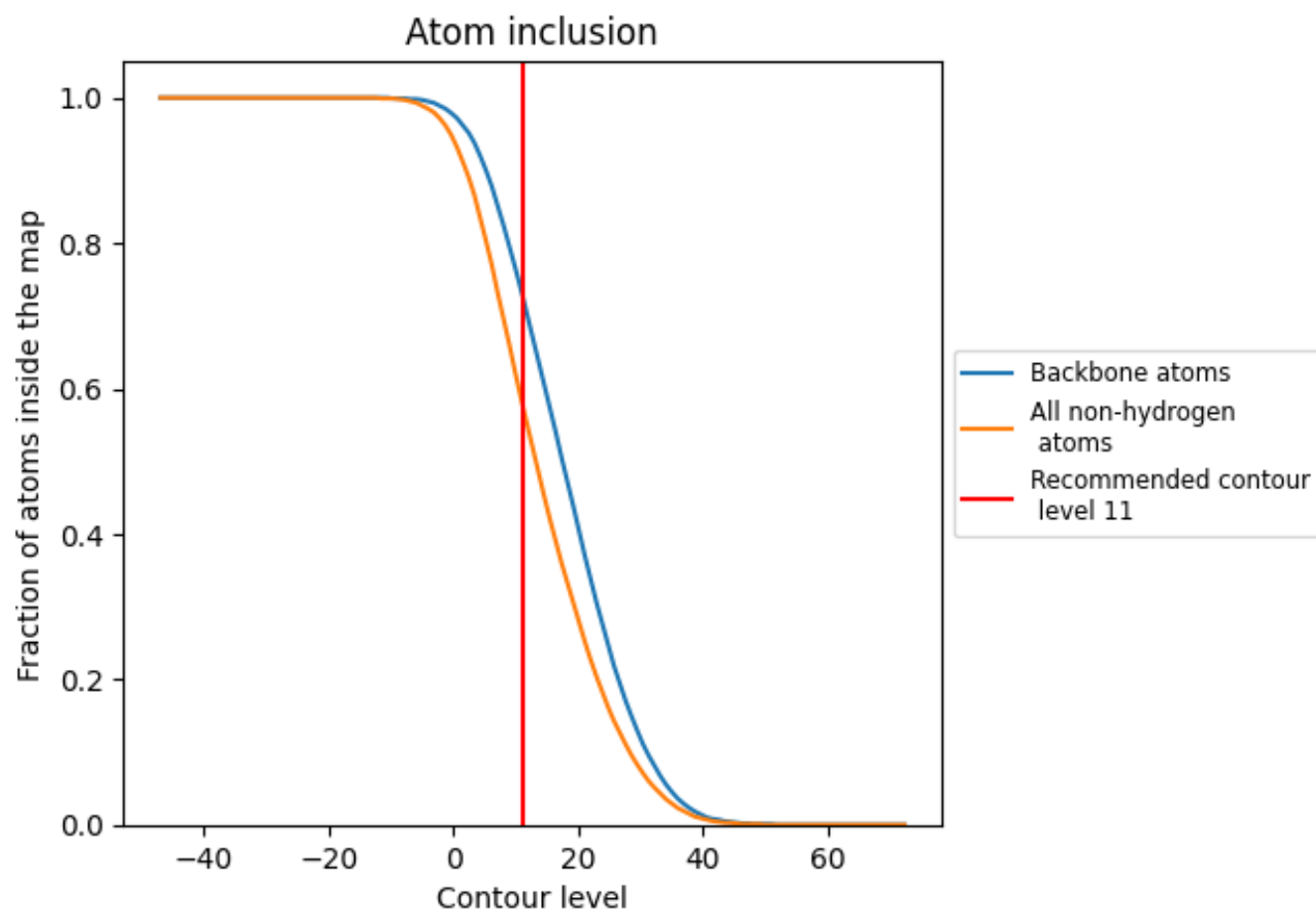
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (11).











































9.4 Atom inclusion [i](#)



At the recommended contour level, 73% of all backbone atoms, 58% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (11) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5810	 0.4160
A	 0.5480	 0.3970
B	 0.5560	 0.4040
C	 0.5500	 0.3990
D	 0.5540	 0.4050
E	 0.5480	 0.3990
F	 0.5540	 0.4050
G	 0.5490	 0.3980
H	 0.5510	 0.4050
I	 0.6270	 0.4420
J	 0.6290	 0.4410
K	 0.6290	 0.4400
L	 0.6300	 0.4410
a	 0.4440	 0.3700
b	 0.4830	 0.3200
c	 0.4470	 0.3680
d	 0.4780	 0.3170
e	 0.4500	 0.3660
f	 0.4730	 0.3210
g	 0.4470	 0.3650
h	 0.4780	 0.3210

