



## wwPDB EM Map/Model Validation Report ⓘ

Sep 14, 2016 – 12:13 PM EDT

PDB ID : 5GL0  
EMDB ID: : EMD-9520  
Title : Structure of RyR1 in a closed state (C4 conformer)  
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.  
Deposited on : 2016-07-07  
Resolution : 4.20 Å(reported)

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.  
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

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MolProbity : 4.02b-467  
Mogul : unknown  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : rb-20027939

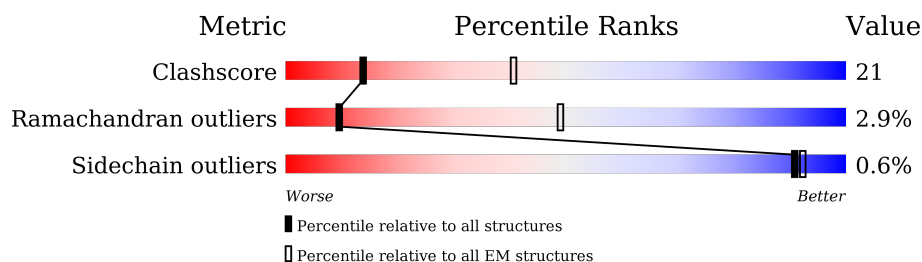
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.20 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	A	5037	
1	C	5037	
1	E	5037	
1	G	5037	
2	B	108	
2	D	108	
2	F	108	
2	H	108	

## 2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 111000 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 Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	C	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	E	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	G	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	D	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	F	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	H	107	Total	C	N	O	S	0	0
			832	527	146	155	4		

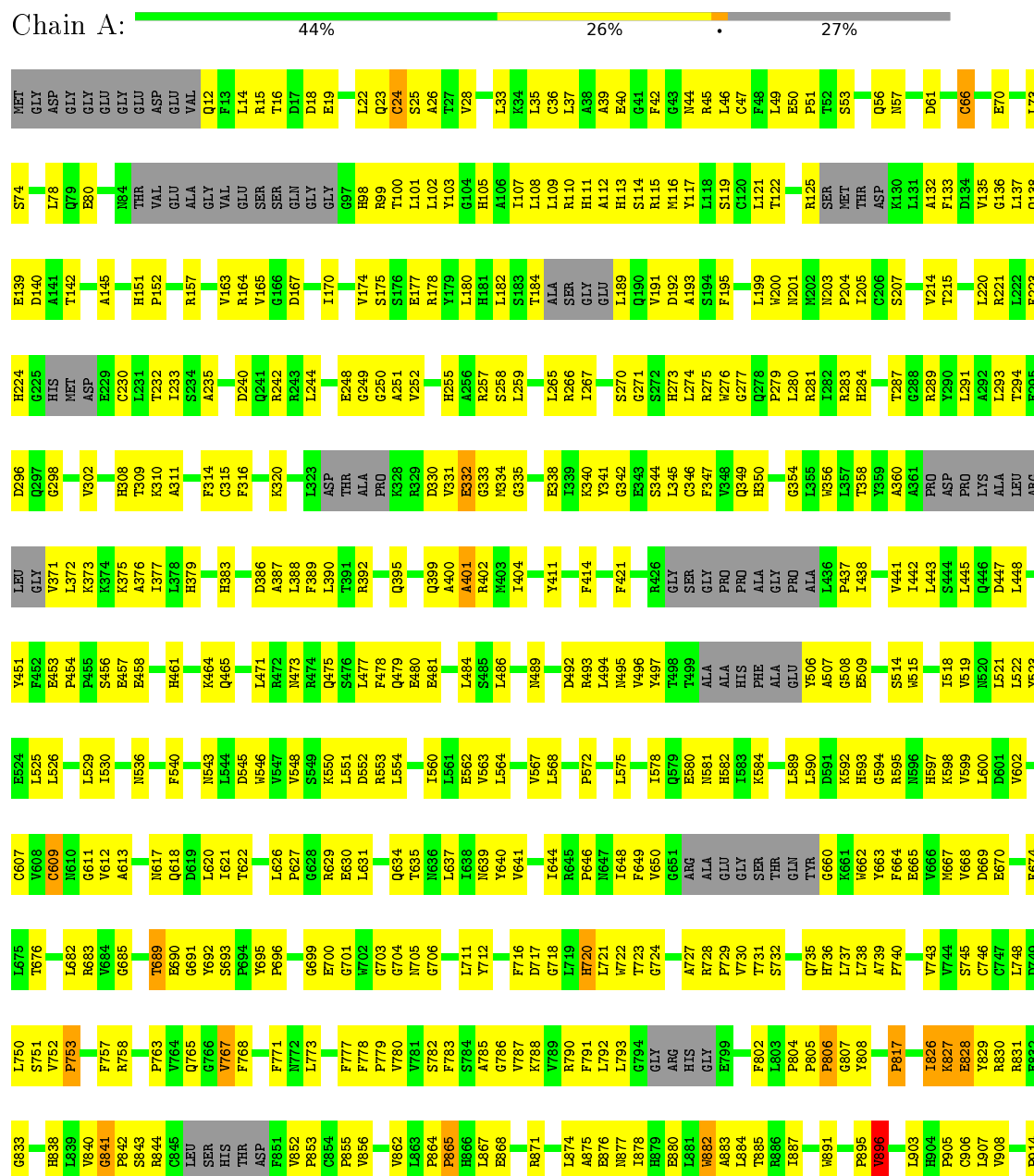
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

### 3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

#### • Molecule 1: Ryanodine receptor 1





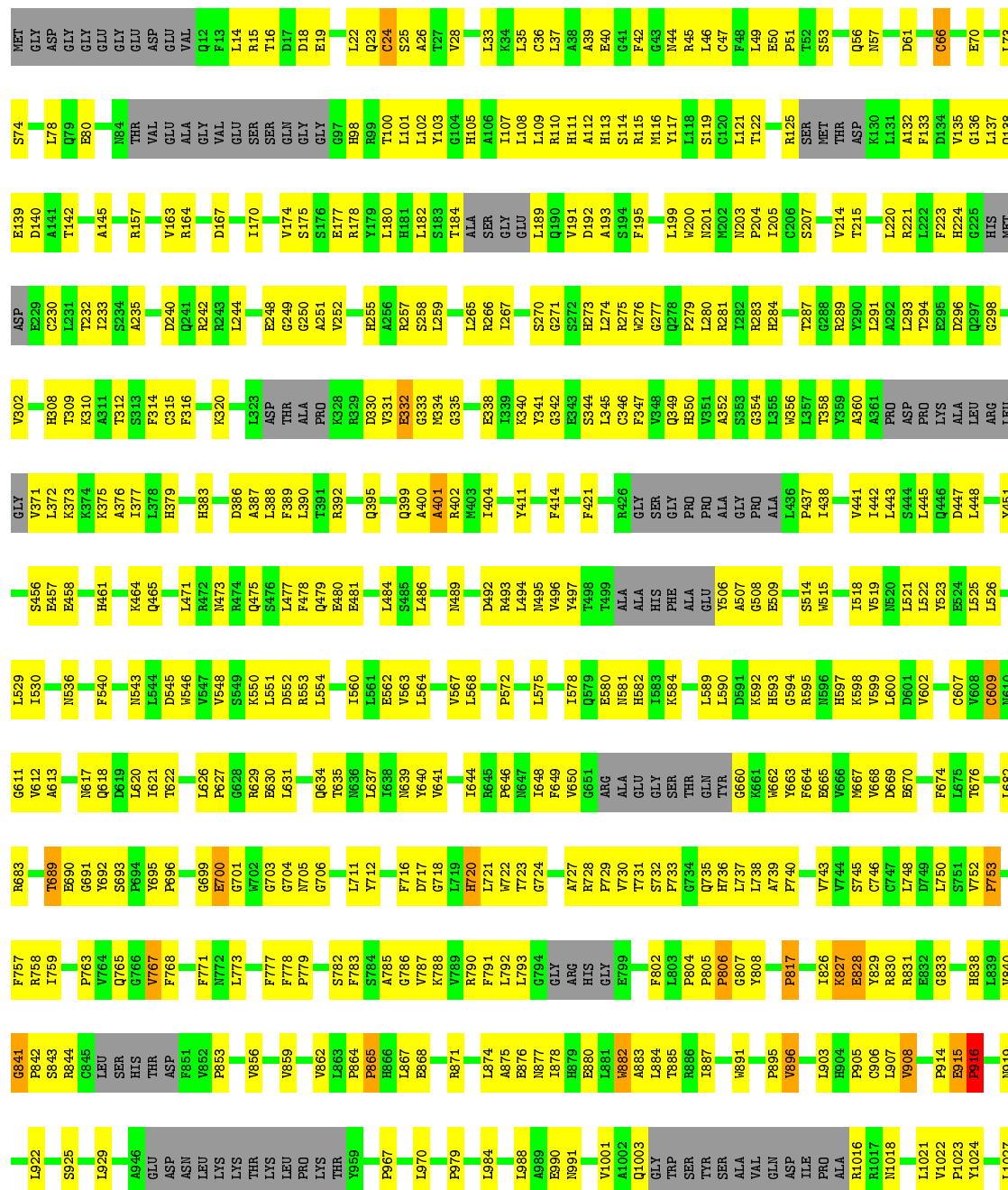







- Molecule 1: Ryanodine receptor 1

Chain C: 
















I1160	I1161	E1167	V1168	L1169	MET	SER	ASP	SER	GLY	SER	GLU	THR	A1178	I1182	D1186	G1187	F1188	L1189	P1190	V1191	C1192	L1194	G1197	Q1198	V1199	G1200	H1201	L1202	S1203	L1204	G1205	Q1206	D1207	V1284	
S1210	L1211	R1212	F1213	F1214	G1218	L1219	F1226	A1227	W1230	H1238	M1239	M1240	T1235	T1236	M1237	F1238	S1239	K1240	P1243	Q1244	F1245	E1246	P1247	E1251	H1252	P1263	H1264	R1265	P1266	R1267	R1268	R1269	R1270	R1271	
L1287	L1288	R1289	L1290	L1291	S1292	L1293	P1294	W1295	Q1296	F1297	H1298	G1299	L1300	L1301	L1302	L1303	L1304	L1305	L1306	L1307	L1308	L1309	L1310	L1311	L1312	L1313	L1314	L1315	L1316	L1317	L1318	L1319	L1320	L1321	
GLU	GLY	GLY	LYS	GLY	THR	ALA	LYS	GLY	GLY	THR	PRO	VAL	ARG	THR	GLN	ASP	ILE	ILE	GLY	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	
PRO	ALA	LEU	PRO	ARG	LEU	PRO	HIS	ASP	VAL	PRO	ALA	ASP	ASN	ARG	THR	GLN	ASP	ILE	ILE	GLY	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	
Q1480	G1481	M1482	L1487	K1488	C1489	S1490	M1491	C1492	Y1493	G1497	GLY	ASP	ASP	PHE	THR	VAL	SER	PRO	GLY	GLN	GLY	ILE	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	
M1560	V1561	I1562	E1565	LEU	GLY	LYS	GLN	LYS	ASN	ILE	MET	PRO	LEU	SER	A1577	F1580	L1581	S1582	R1584	K1585	M1586	P1587	A1588	P1589	R1594	L1595	E1596	V1597	Q1598	M1599	L1600	M1601	P1602		
V1628	Q1629	C1630	Q1631	L1634	T1635	M1636	M1637	A1638	L1639	H1640	P1641	E1642	E1643	N1645	R1646	C1647	M1648	D1649	I1650	L1653	S1654	E1655	R1656	Q1660	R1661	F1662	H1663	S1664	H1665	T1666	L1667	L1676	G1677	M1678	
R1708	A1709	Y1710	Y1711	Y1712	D1713	L1714	L1715	L1716	L1720	E1721	S1722	A1723	C1724	R1725	R1726	R1727	R1728	L1731	I1735	V1736	P1737	L1738	T1739	T1742	I1745	P1750	GLY	ARG	LYS	GLY	GLY	ASN	ALA		
V1783	A1784	ALA	LEU	PRO	ALA	ALA	GLY	VAL	ALA	GLY	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA	ALA
M1851	G1852	I1853	F1854	G1855	D1858	M1865	I1866	E1867	P1868	E1869	VAL	PHE	THR	GLY	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLU	LYS	GLU	ASP	LEU	GLY	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLN	GLN	ILE	ASN	MET	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU
LYS	GLU	LYS	PRO	GLU	GLU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU	LEU
L2145	P2146	V2149	E2150	D2151	T2152	S2153	S2154	L2155	E2157	C2158	L2159	I2162	L2165	L2166	L2167	V2168	GLN	MET	GLY	PRO	Q2173	L2177	M2178	V2190	F2191	L2192	Q2193	H2194	L2197	M2198	L2201	G2202	L2203	H2204	E2205
ILE	ARG	PHE	P2226	C2233	R2234	F2239	R2248	F2251	D2252	H2253	L2254	L2257	L2258	E2259	L2263	GLY	LEU	GLY	PRO	Q2173	L2177	M2178	V2190	F2191	L2192	Q2193	H2194	L2197	M2198	L2201	G2202	L2203	H2204	E2205	
L2263	GLY	LEU	GLY	PRO	Q2173	L2177	M2178	V2190	F2191	L2192	Q2193	H2194	L2197	M2198	L2201	G2202	L2203	H2204	E2205	Q2293	D2294	L2295	E2296	K2297	V2298	V2299	C2305	G2306	L2307	GLN	SER	CYS	PRO	MET	

WORLDWIDE  
**PDB**  
PROTEIN DATA BANK

 **EMDataBank**  
Unified Data Resource for 3DEM

- Molecule 1: Ryanodine receptor 1







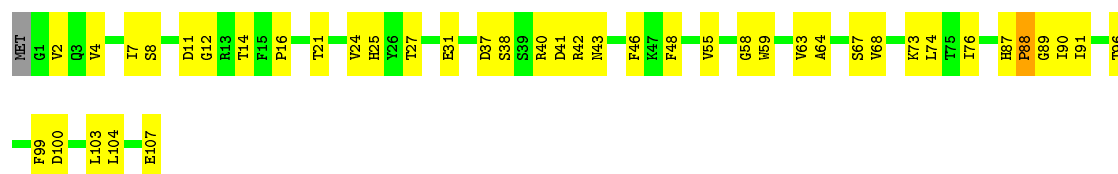




F5022	L4937	K4861	D4786	Y4715	ASP	E4545	GLU	GLY	ARG	E4239	M4142	E4056	S3964
D5026	D4938	F4862	M4787	W4716	GLU	E4550	VAL	LEU	GLY	I4242	V4145	E4061	L3965
C5027	A4939	Y4863	S4788	D4717	ASN	K4550	PRO	SER	LEU	I4246	I4146	F4061	T3966
F5028	F4940	N4864	F4789	K4720	MET	Y4554	GLU	GLY	TYR	Q4246	V4154	M4064	Y3968
H5029	S4865	K4865	F4790	K4721	Y4628	L4555	PRO	ALA	ARG	I4251	P4158	PHE	I3969
K5030	S4866	S4866	Y4791	R4722	Y4630	S4556	GLU	LYS	SER	L4251	R4159	LEU	Q3970
Q5031	D4868	D4868	L4792	K4723	Y4630	R4557	PRO	GLY	LEU	SER	P4158	LEU	G3971
T4956	D4873	D4873	G4793	V4724	C4645	R4557	GLU	GLY	ARG	LEU	R4159	LEU	P3972
K4957	D4874	D4874	W4794	L4725	L4648	F4559	PRO	GLY	ARG	PRO	M4162	LEU	L3980
C4958	K4875	K4875	Y4795	K4726	L4649	R4563	PRO	VAL	VAL	GLY	E4165	ASP	L3985
F4959	K4876	K4876	W4797	H4728	L4649	L4567	GLU	GLY	ARG	PRO	E4168	V4072	M3986
C4961	D4877	D4877	M4798	G4729	L4656	L4578	PRO	ALA	LEU	GLY	E4168	G4073	D3987
G4962	D4878	D4878	S4799		L4661	L4581	GLU	VAL	LEU	GLY	E4169	V4073	A3988
L4963	M4879	M4879	L4800	G4733	Y4661	K4581	LYS	ALA	ARG	ALA	S4169	A4076	V3989
S4965	Y4883	Y4883	H4803	R4736	C4663	Y4582	ASP	GLY	ARG	ASP	I4170	F4077	V3990
D4966	M4887	M4887	M4806	L4737	L4664	S4583	GLU	PRO	THR	ASP	E4172	V4081	G3991
Y4967	Y4888	Y4888	P4807	A4738	K4685	ASP	ASN	ASP	ALA	GLY	Y4173		F3992
	V4889	V4889	F4808	E4739	V4666	SER	GLY	PHE	ARG	GLY	F4174	P4084	H3993
	F4891	F4891	F4809	L4740	P4667	PRO	GLY	THR	SER	ALA	R4175	R4085	H3994
	A4892	A4892	F4809	L4741		PRO	GLY	PRO	ALA	GLY	P4176	G4086	V3995
	G4893	G4893	F4812	G4742	L4670	GLY	LYS	GLY	ALA	ALA	Y4177	L4087	F3996
	A4894	A4894	MET			GLU	GLY	GLY	THR	ALA	L4178	A3997	H3997
	D4899	D4899	ASP			GLU	VAL	ALA	ALA	ALA	G4179	I4088	H3998
	F4900	F4900	LEU			ASP	HIS	LEU	ALA	ALA	R4180	S4089	M3999
	I4901	I4901	ASP			ASP	GLY	GLY	LEU	ALA	I4181	F4093	K4002
	P4904	P4904	ALA			ALA	PRO	GLY	LEU	ALA	M4184	M4097	L4003
	Y4909	Y4909	THR			SER	PRO	ALA	TRP	GLY	R4188		I4010
	R4913	R4913	ALA			ALA	GLY	GLY	ALA	GLY	R4189	Q4100	L4013
	V4914	V4914	ALA			ALA	PRO	PRO	VAL	ALA	I4190	LYS	
	F4916	F4916	HIS			GLY	PRO	THR	VAL	ALA	E4191	Q4102	K4021
	D4917	D4917	ASN			ASP	LYS	THR	ALA	GLY	R4192	F4103	D4022
	F4920	F4920	GLU			LEU	ALA	PRO	ARG	ALA	F4195	I4108	M4023
	F4921	F4921	ARG			ALA	ALA	ASP	ALA	GLU	E4196	S4115	V4024
	F4922	F4922	LYS			GLY	PRO	ASP	GLY	ALA	I4197		V4025
	F4923	F4923	PRO			ALA	PRO	PRO	ALA	ALA			M4026
	F4924	F4924	ASP			GLY	SER	GLY	GLY	GLY	R4202	N4120	L4027
	V4925	V4925	PRO			SER	PRO	THR	ALA	THR		E4121	L4028
	V4926	V4926	PRO			GLY	ALA	GLY	GLY	VAL	M4205	M4122	L4031
	I4927	I4927	LYS			GLY	LYS	GLY	ALA	ALA	E4206	I4123	L4031
	L4928	L4928	GLY			SER	GLY	GLY	ALA	GLY	M4207	M4124	E4032
	L4929	L4929	GLY			GLY	PRO	GLY	ALA	ALA	P4208	F4125	
	A4930	A4930	TRP			TRP	ILE	GLY	GLY	ALA			V4036
	I4931	I4931	D4702			GLY	ALA	ASP	ALA	THR	K4214	F4128	A4041
	I4932	I4932	SER			SER	GLY	LEU	LEU	ALA	F4219	R4131	A4042
	Q4933	Q4933	GLY			GLY	ARG	ALA	ARG	ARG	D4220	PHE	Q4043
	G4934	G4934	ALA			ALA	LYS	LEU	LEU	LEU	V4221	GLN	M4044
	L4935	L4935	GLY			GLY	GLY	GLY	TRP	ALA		GLU	V4045
	I4936	I4936	THR			ALA	VAL	VAL	GLY	ALA	M4231	A4135	D4046
			P4710			ALA	ASP	ASP	SER	ALA	E4232	A4136	M4047
			F4711			GLU	GLY	GLY	LEU	ALA	L4233	R4137	L4048
			P4712			GLY	GLY	GLY	PHE	ARG	F4234	D4138	V4049
			S4713			ASP	VAL	VAL	GLY	ALA	V4235		S4052
			M4714			GLU	LEU	ALA	GLY			F4141	

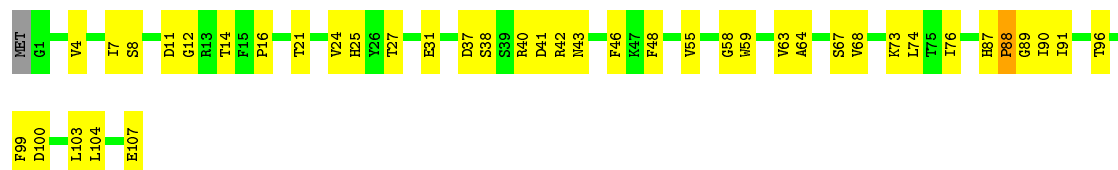
● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain B:  60%  38%



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain D: 61% 37% ..



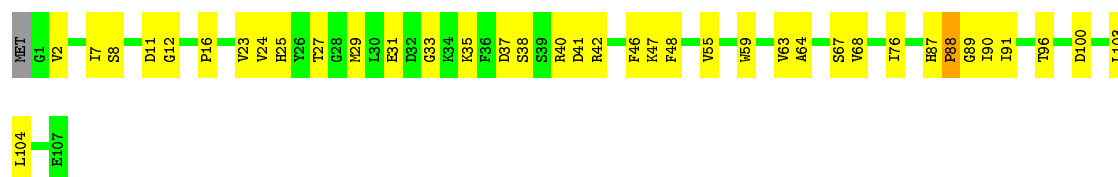
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain F: 63% 35% ..



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain H: 64% 34% ..



## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	47000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	Not provided	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	Not provided	Depositor

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 2$	RMSZ	$\# Z  > 2$
1	A	0.93	55/27385 (0.2%)	0.86	90/37104 (0.2%)
1	C	0.93	56/27385 (0.2%)	0.87	92/37104 (0.2%)
1	E	0.93	53/27385 (0.2%)	0.86	91/37104 (0.2%)
1	G	0.93	55/27385 (0.2%)	0.85	90/37104 (0.2%)
2	B	0.58	0/851	0.67	0/1146
2	D	0.58	0/851	0.67	0/1146
2	F	0.58	0/851	0.67	0/1146
2	H	0.60	0/851	0.67	0/1146
All	All	0.92	219/112944 (0.2%)	0.86	363/153000 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	19
1	C	0	19
1	E	0	19
1	G	0	19
All	All	0	76

All (219) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4988	TYR	CG-CD2	-12.12	1.23	1.39
1	A	5014	TYR	CG-CD1	-11.55	1.24	1.39
1	E	5014	TYR	CG-CD1	-11.43	1.24	1.39
1	C	3922	TYR	CE1-CZ	-11.19	1.24	1.38
1	E	3922	TYR	CE1-CZ	-11.12	1.24	1.38
1	A	3922	TYR	CE1-CZ	-11.12	1.24	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	5014	TYR	CG-CD1	-11.10	1.24	1.39
1	G	5014	TYR	CG-CD1	-11.09	1.24	1.39
1	E	4988	TYR	CG-CD2	-11.06	1.24	1.39
1	C	4988	TYR	CG-CD2	-11.06	1.24	1.39
1	A	4988	TYR	CG-CD2	-11.03	1.24	1.39
1	A	5014	TYR	CE2-CZ	-10.02	1.25	1.38
1	E	5014	TYR	CE2-CZ	-9.80	1.25	1.38
1	C	5014	TYR	CE2-CZ	-9.74	1.25	1.38
1	G	5014	TYR	CE2-CZ	-9.68	1.25	1.38
1	C	3922	TYR	CG-CD1	-9.47	1.26	1.39
1	E	3922	TYR	CG-CD1	-9.45	1.26	1.39
1	A	4849	TYR	CG-CD1	-9.43	1.26	1.39
1	G	4988	TYR	CE1-CZ	-9.38	1.26	1.38
1	A	3922	TYR	CG-CD1	-9.33	1.27	1.39
1	G	4851	TYR	CE2-CZ	-9.23	1.26	1.38
1	E	4849	TYR	CG-CD1	-9.14	1.27	1.39
1	C	4849	TYR	CG-CD1	-9.07	1.27	1.39
1	E	3922	TYR	CG-CD2	-8.82	1.27	1.39
1	C	3922	TYR	CG-CD2	-8.81	1.27	1.39
1	A	3922	TYR	CG-CD2	-8.80	1.27	1.39
1	G	4849	TYR	CG-CD1	-8.75	1.27	1.39
1	E	4851	TYR	CE1-CZ	-8.56	1.27	1.38
1	C	4851	TYR	CE1-CZ	-8.54	1.27	1.38
1	A	5009	TYR	CG-CD2	-8.53	1.28	1.39
1	G	5009	TYR	CG-CD2	-8.50	1.28	1.39
1	A	4851	TYR	CE1-CZ	-8.48	1.27	1.38
1	G	4851	TYR	CG-CD1	-8.48	1.28	1.39
1	E	5009	TYR	CG-CD2	-8.43	1.28	1.39
1	C	5009	TYR	CG-CD2	-8.42	1.28	1.39
1	G	3922	TYR	CG-CD1	-8.10	1.28	1.39
1	G	3922	TYR	CE1-CZ	-7.78	1.28	1.38
1	C	4987	ASN	N-CA	-7.70	1.30	1.46
1	A	4987	ASN	N-CA	-7.65	1.31	1.46
1	E	4987	ASN	N-CA	-7.61	1.31	1.46
1	G	5022	PHE	CG-CD2	-7.35	1.27	1.38
1	G	4234	PHE	CG-CD1	-7.32	1.27	1.38
1	A	5022	PHE	CG-CD2	-7.30	1.27	1.38
1	C	5022	PHE	CG-CD2	-7.29	1.27	1.38
1	E	5022	PHE	CG-CD2	-7.26	1.27	1.38
1	G	4988	TYR	CG-CD1	-7.25	1.29	1.39
1	E	4032	GLU	CD-OE2	-7.08	1.17	1.25
1	A	4032	GLU	CD-OE2	-7.02	1.18	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4032	GLU	CD-OE2	-7.00	1.18	1.25
1	G	4032	GLU	CD-OE2	-6.98	1.18	1.25
1	E	4991	PHE	CG-CD1	-6.98	1.28	1.38
1	C	5009	TYR	CG-CD1	-6.96	1.30	1.39
1	A	5009	TYR	CG-CD1	-6.91	1.30	1.39
1	A	4991	PHE	CG-CD1	-6.85	1.28	1.38
1	C	4991	PHE	CG-CD1	-6.83	1.28	1.38
1	E	5009	TYR	CG-CD1	-6.76	1.30	1.39
1	E	3722	TYR	CE1-CZ	-6.70	1.29	1.38
1	G	3922	TYR	CG-CD2	-6.65	1.30	1.39
1	G	4181	ILE	CA-CB	-6.64	1.39	1.54
1	E	4234	PHE	CG-CD1	-6.63	1.28	1.38
1	C	4234	PHE	CG-CD1	-6.63	1.28	1.38
1	A	3722	TYR	CE1-CZ	-6.62	1.29	1.38
1	C	3722	TYR	CE1-CZ	-6.62	1.29	1.38
1	G	4988	TYR	CE2-CZ	-6.61	1.29	1.38
1	G	3968	TYR	CG-CD1	-6.61	1.30	1.39
1	G	4987	ASN	N-CA	-6.60	1.33	1.46
1	G	4991	PHE	CG-CD1	-6.57	1.28	1.38
1	E	4851	TYR	CG-CD2	-6.56	1.30	1.39
1	C	4851	TYR	CG-CD2	-6.56	1.30	1.39
1	A	4234	PHE	CG-CD1	-6.56	1.28	1.38
1	G	3722	TYR	CE1-CZ	-6.55	1.30	1.38
1	C	5009	TYR	CE2-CZ	-6.52	1.30	1.38
1	A	5009	TYR	CE2-CZ	-6.50	1.30	1.38
1	E	4181	ILE	CA-CB	-6.49	1.40	1.54
1	A	4991	PHE	CG-CD2	-6.46	1.29	1.38
1	A	4181	ILE	CA-CB	-6.45	1.40	1.54
1	C	4181	ILE	CA-CB	-6.44	1.40	1.54
1	G	4940	PHE	CG-CD2	-6.41	1.29	1.38
1	G	5009	TYR	CG-CD1	-6.38	1.30	1.39
1	C	4988	TYR	CE1-CZ	-6.37	1.30	1.38
1	E	5009	TYR	CE2-CZ	-6.37	1.30	1.38
1	E	4988	TYR	CE1-CZ	-6.32	1.30	1.38
1	C	4994	TYR	CG-CD1	-6.25	1.31	1.39
1	A	4794	TRP	CE3-CZ3	-6.25	1.27	1.38
1	A	3968	TYR	CG-CD1	-6.24	1.31	1.39
1	A	4851	TYR	CG-CD2	-6.24	1.31	1.39
1	E	4994	TYR	CG-CD1	-6.23	1.31	1.39
1	E	4794	TRP	CE3-CZ3	-6.22	1.27	1.38
1	C	4794	TRP	CE3-CZ3	-6.21	1.27	1.38
1	A	4988	TYR	CE1-CZ	-6.19	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4988	TYR	CE2-CZ	-6.18	1.30	1.38
1	C	3968	TYR	CG-CD1	-6.18	1.31	1.39
1	E	3968	TYR	CG-CD1	-6.18	1.31	1.39
1	E	4991	PHE	CG-CD2	-6.18	1.29	1.38
1	C	4863	TYR	CE1-CZ	-6.17	1.30	1.38
1	C	4991	PHE	CG-CD2	-6.17	1.29	1.38
1	C	4988	TYR	CE2-CZ	-6.15	1.30	1.38
1	G	4991	PHE	CG-CD2	-6.14	1.29	1.38
1	G	3986	TRP	CB-CG	-6.14	1.39	1.50
1	A	4994	TYR	CG-CD1	-6.13	1.31	1.39
1	E	4988	TYR	CG-CD1	-6.13	1.31	1.39
1	E	5011	TRP	CG-CD1	-6.11	1.28	1.36
1	A	4988	TYR	CE2-CZ	-6.07	1.30	1.38
1	A	5011	TRP	CG-CD1	-6.06	1.28	1.36
1	C	5011	TRP	CG-CD1	-6.06	1.28	1.36
1	G	5011	TRP	CG-CD1	-6.04	1.28	1.36
1	C	4988	TYR	CG-CD1	-6.04	1.31	1.39
1	A	5014	TYR	CG-CD2	-5.98	1.31	1.39
1	G	5009	TYR	CE2-CZ	-5.93	1.30	1.38
1	A	3986	TRP	CB-CG	-5.93	1.39	1.50
1	C	3986	TRP	CB-CG	-5.93	1.39	1.50
1	G	4859	PHE	CG-CD2	-5.92	1.29	1.38
1	G	3951	PHE	CG-CD1	-5.91	1.29	1.38
1	G	4856	PHE	CB-CG	-5.91	1.41	1.51
1	E	3986	TRP	CB-CG	-5.89	1.39	1.50
1	G	4940	PHE	CB-CG	-5.88	1.41	1.51
1	A	4988	TYR	CG-CD1	-5.88	1.31	1.39
1	A	4863	TYR	CE1-CZ	-5.86	1.30	1.38
1	G	4863	TYR	CE1-CZ	-5.85	1.30	1.38
1	C	4856	PHE	CB-CG	-5.84	1.41	1.51
1	A	4856	PHE	CB-CG	-5.84	1.41	1.51
1	E	4856	PHE	CB-CG	-5.82	1.41	1.51
1	E	4863	TYR	CE1-CZ	-5.80	1.31	1.38
1	G	4836	GLN	CG-CD	5.80	1.64	1.51
1	E	4701	TRP	CB-CG	-5.79	1.39	1.50
1	A	4701	TRP	CB-CG	-5.77	1.39	1.50
1	E	5014	TYR	CG-CD2	-5.71	1.31	1.39
1	A	4180	ARG	C-O	-5.69	1.12	1.23
1	E	4180	ARG	C-O	-5.69	1.12	1.23
1	G	4920	PHE	CG-CD1	-5.69	1.30	1.38
1	C	4701	TRP	CB-CG	-5.68	1.40	1.50
1	C	5014	TYR	CG-CD2	-5.65	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4180	ARG	C-O	-5.64	1.12	1.23
1	E	4671	PHE	CG-CD2	-5.63	1.30	1.38
1	G	4990	PHE	CB-CG	-5.63	1.41	1.51
1	E	4851	TYR	CG-CD1	-5.62	1.31	1.39
1	C	4851	TYR	CG-CD1	-5.59	1.31	1.39
1	A	4671	PHE	CG-CD2	-5.58	1.30	1.38
1	G	3968	TYR	CE1-CZ	-5.56	1.31	1.38
1	A	4192	ARG	CZ-NH2	-5.55	1.25	1.33
1	E	4192	ARG	CZ-NH2	-5.55	1.25	1.33
1	C	4192	ARG	CZ-NH2	-5.51	1.25	1.33
1	E	4859	PHE	CG-CD2	-5.49	1.30	1.38
1	E	3828	PHE	CG-CD2	-5.48	1.30	1.38
1	C	4921	PHE	CG-CD1	-5.46	1.30	1.38
1	A	4851	TYR	CG-CD1	-5.46	1.32	1.39
1	A	4921	PHE	CG-CD1	-5.46	1.30	1.38
1	C	4859	PHE	CG-CD2	-5.46	1.30	1.38
1	A	4177	TYR	CB-CG	-5.45	1.43	1.51
1	A	3828	PHE	CG-CD2	-5.45	1.30	1.38
1	G	4701	TRP	CB-CG	-5.44	1.40	1.50
1	E	4921	PHE	CG-CD1	-5.44	1.30	1.38
1	C	4671	PHE	CG-CD2	-5.44	1.30	1.38
1	E	4177	TYR	CB-CG	-5.43	1.43	1.51
1	A	4859	PHE	CG-CD2	-5.43	1.30	1.38
1	C	3828	PHE	CG-CD2	-5.43	1.30	1.38
1	G	5014	TYR	CG-CD2	-5.43	1.32	1.39
1	A	3919	THR	CB-CG2	-5.40	1.34	1.52
1	E	4836	GLN	CG-CD	5.40	1.63	1.51
1	C	4177	TYR	CB-CG	-5.38	1.43	1.51
1	A	5028	PHE	CG-CD2	-5.34	1.30	1.38
1	E	3919	THR	CB-CG2	-5.33	1.34	1.52
1	G	4173	TYR	CG-CD1	-5.33	1.32	1.39
1	E	4990	PHE	CG-CD2	-5.32	1.30	1.38
1	A	4178	LEU	C-O	-5.32	1.13	1.23
1	G	3922	TYR	CE2-CZ	-5.31	1.31	1.38
1	C	4178	LEU	C-O	-5.28	1.13	1.23
1	C	5028	PHE	CG-CD2	-5.28	1.30	1.38
1	E	4991	PHE	CD1-CE1	-5.28	1.28	1.39
1	C	3919	THR	CB-CG2	-5.27	1.34	1.52
1	G	4794	TRP	CE3-CZ3	-5.27	1.29	1.38
1	G	4921	PHE	CG-CD1	-5.26	1.30	1.38
1	A	4991	PHE	CD1-CE1	-5.23	1.28	1.39
1	G	3964	SER	CA-CB	-5.22	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	5011	TRP	CD2-CE2	-5.20	1.35	1.41
1	C	4990	PHE	CG-CD2	-5.20	1.30	1.38
1	C	5011	TRP	CD2-CE2	-5.19	1.35	1.41
1	G	1662	PHE	CG-CD2	-5.19	1.30	1.38
1	A	4990	PHE	CG-CD2	-5.18	1.30	1.38
1	E	5028	PHE	CG-CD2	-5.18	1.30	1.38
1	C	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	E	4178	LEU	C-O	-5.17	1.13	1.23
1	G	4141	PHE	CG-CD2	-5.17	1.30	1.38
1	C	4836	GLN	CG-CD	5.17	1.62	1.51
1	A	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	E	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	C	3922	TYR	CE2-CZ	-5.16	1.31	1.38
1	C	4991	PHE	CD1-CE1	-5.16	1.28	1.39
1	G	4848	VAL	CB-CG2	-5.16	1.42	1.52
1	E	4920	PHE	CA-CB	-5.15	1.42	1.53
1	E	3922	TYR	CE2-CZ	-5.15	1.31	1.38
1	A	4920	PHE	CA-CB	-5.15	1.42	1.53
1	G	4180	ARG	C-O	-5.15	1.13	1.23
1	E	5011	TRP	CD2-CE2	-5.14	1.35	1.41
1	G	4178	LEU	C-O	-5.14	1.13	1.23
1	G	5028	PHE	CG-CD2	-5.14	1.31	1.38
1	G	4192	ARG	CZ-NH2	-5.13	1.26	1.33
1	C	3934	TYR	CB-CG	-5.12	1.44	1.51
1	C	4983	HIS	CB-CG	-5.12	1.40	1.50
1	A	3968	TYR	CE1-CZ	-5.11	1.31	1.38
1	G	3934	TYR	CB-CG	-5.11	1.44	1.51
1	G	4967	TYR	CE1-CZ	-5.08	1.31	1.38
1	G	3957	VAL	CB-CG1	-5.08	1.42	1.52
1	A	3934	TYR	CB-CG	-5.07	1.44	1.51
1	C	4920	PHE	CA-CB	-5.07	1.42	1.53
1	C	4967	TYR	CE1-CZ	-5.07	1.31	1.38
1	E	4141	PHE	CG-CD2	-5.07	1.31	1.38
1	A	4988	TYR	CA-CB	-5.05	1.42	1.53
1	A	5009	TYR	CE1-CZ	-5.04	1.31	1.38
1	A	4141	PHE	CG-CD2	-5.04	1.31	1.38
1	C	5009	TYR	CE1-CZ	-5.03	1.32	1.38
1	E	4967	TYR	CE1-CZ	-5.03	1.32	1.38
1	C	4141	PHE	CG-CD2	-5.03	1.31	1.38
1	E	3934	TYR	CB-CG	-5.01	1.44	1.51
1	A	4983	HIS	CB-CG	-5.01	1.41	1.50
1	C	4173	TYR	CG-CD1	-5.01	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	5011	TRP	CD2-CE2	-5.01	1.35	1.41
1	A	3922	TYR	CE2-CZ	-5.00	1.32	1.38
1	G	4988	TYR	CA-CB	-5.00	1.43	1.53

All (363) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4128	PHE	CB-CG-CD2	-10.00	113.80	120.80
1	E	4128	PHE	CB-CG-CD2	-9.73	113.99	120.80
1	C	4128	PHE	CB-CG-CD2	-9.69	114.02	120.80
1	A	4128	PHE	CB-CG-CD2	-9.62	114.07	120.80
1	E	4064	MET	CG-SD-CE	8.87	114.39	100.20
1	A	4064	MET	CG-SD-CE	8.86	114.38	100.20
1	C	4064	MET	CG-SD-CE	8.84	114.34	100.20
1	C	4931	ILE	CG1-CB-CG2	-8.53	92.64	111.40
1	E	4931	ILE	CG1-CB-CG2	-8.51	92.68	111.40
1	G	4967	TYR	CB-CG-CD1	-7.83	116.30	121.00
1	G	4913	ARG	NE-CZ-NH2	-7.68	116.46	120.30
1	C	4849	TYR	CB-CG-CD1	-7.61	116.43	121.00
1	E	4849	TYR	CB-CG-CD1	-7.59	116.45	121.00
1	A	4849	TYR	CB-CG-CD1	-7.52	116.49	121.00
1	E	4967	TYR	CB-CG-CD1	-7.48	116.51	121.00
1	A	4967	TYR	CB-CG-CD1	-7.47	116.52	121.00
1	A	4850	LEU	CB-CG-CD1	7.43	123.64	111.00
1	A	4913	ARG	NE-CZ-NH2	-7.42	116.59	120.30
1	C	4967	TYR	CB-CG-CD1	-7.42	116.55	121.00
1	A	66	CYS	CA-CB-SG	7.40	127.33	114.00
1	C	4850	LEU	CB-CG-CD1	7.37	123.53	111.00
1	G	4850	LEU	CB-CG-CD1	7.37	123.53	111.00
1	C	4929	LEU	CB-CG-CD2	7.34	123.49	111.00
1	E	4032	GLU	OE1-CD-OE2	-7.28	114.56	123.30
1	G	4931	ILE	CG1-CB-CG2	-7.28	95.39	111.40
1	A	4032	GLU	OE1-CD-OE2	-7.25	114.59	123.30
1	C	2616	PRO	N-CA-CB	7.25	112.00	103.30
1	G	2616	PRO	N-CA-CB	7.25	112.00	103.30
1	A	4931	ILE	CG1-CB-CG2	-7.22	95.52	111.40
1	C	4032	GLU	OE1-CD-OE2	-7.20	114.66	123.30
1	E	2616	PRO	N-CA-CB	7.19	111.93	103.30
1	A	2616	PRO	N-CA-CB	7.08	111.80	103.30
1	C	4913	ARG	NE-CZ-NH2	-7.07	116.76	120.30
1	E	4850	LEU	CB-CG-CD1	7.06	123.00	111.00
1	G	4916	PHE	CB-CG-CD1	-7.04	115.87	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4988	TYR	CB-CG-CD2	-7.03	116.78	121.00
1	A	4916	PHE	CB-CG-CD1	-7.01	115.89	120.80
1	E	4988	TYR	CB-CG-CD2	-7.00	116.80	121.00
1	A	4988	TYR	CB-CG-CD2	-6.99	116.81	121.00
1	E	4916	PHE	CB-CG-CD1	-6.99	115.91	120.80
1	G	66	CYS	CA-CB-SG	6.97	126.55	114.00
1	E	4929	LEU	CB-CG-CD2	6.97	122.84	111.00
1	C	1827	ARG	NE-CZ-NH1	6.93	123.77	120.30
1	E	4913	ARG	NE-CZ-NH2	-6.91	116.85	120.30
1	G	4924	VAL	CG1-CB-CG2	-6.91	99.85	110.90
1	G	1827	ARG	NE-CZ-NH1	6.88	123.74	120.30
1	A	3360	PRO	N-CA-CB	6.87	111.54	103.30
1	G	73	LEU	CB-CG-CD2	6.87	122.67	111.00
1	C	3360	PRO	N-CA-CB	6.86	111.53	103.30
1	E	3138	PRO	N-CA-CB	6.86	111.53	103.30
1	E	1827	ARG	NE-CZ-NH1	6.85	123.72	120.30
1	G	4938	ASP	CB-CG-OD2	6.84	124.46	118.30
1	C	3138	PRO	N-CA-CB	6.83	111.50	103.30
1	E	3360	PRO	N-CA-CB	6.82	111.49	103.30
1	A	3138	PRO	N-CA-CB	6.80	111.46	103.30
1	E	3567	PRO	N-CA-CB	6.77	111.43	103.30
1	A	3567	PRO	N-CA-CB	6.76	111.41	103.30
1	C	3567	PRO	N-CA-CB	6.75	111.40	103.30
1	C	4916	PHE	CB-CG-CD1	-6.74	116.08	120.80
1	G	4849	TYR	CB-CG-CD1	-6.74	116.96	121.00
1	C	73	LEU	CB-CG-CD2	6.71	122.40	111.00
1	G	3360	PRO	N-CA-CB	6.68	111.32	103.30
1	C	66	CYS	CA-CB-SG	6.68	126.02	114.00
1	G	3926	LEU	CB-CG-CD2	-6.66	99.69	111.00
1	G	3351	PRO	N-CA-CB	6.65	111.28	103.30
1	E	2451	LEU	CB-CG-CD1	6.64	122.29	111.00
1	A	2451	LEU	CB-CG-CD1	6.63	122.27	111.00
1	G	2451	LEU	CB-CG-CD1	6.62	122.26	111.00
1	C	4924	VAL	CG1-CB-CG2	-6.62	100.31	110.90
1	C	2451	LEU	CB-CG-CD1	6.61	122.24	111.00
1	E	4924	VAL	CG1-CB-CG2	-6.61	100.33	110.90
1	A	1827	ARG	NE-CZ-NH1	6.60	123.60	120.30
1	A	3351	PRO	N-CA-CB	6.59	111.21	103.30
1	A	4924	VAL	CG1-CB-CG2	-6.58	100.37	110.90
1	E	3351	PRO	N-CA-CB	6.58	111.19	103.30
1	C	3351	PRO	N-CA-CB	6.57	111.18	103.30
1	E	66	CYS	CA-CB-SG	6.56	125.81	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	73	LEU	CB-CG-CD2	6.56	122.15	111.00
1	G	3303	PRO	N-CA-CB	6.55	111.16	103.30
1	G	4064	MET	CG-SD-CE	6.53	110.66	100.20
1	G	3289	PRO	N-CA-CB	6.53	111.14	103.30
1	G	4992	LEU	CB-CG-CD1	-6.53	99.90	111.00
1	E	3527	PRO	N-CA-CB	6.53	111.13	103.30
1	G	3297	PRO	N-CA-CB	6.52	111.12	103.30
1	A	3527	PRO	N-CA-CB	6.52	111.12	103.30
1	C	3527	PRO	N-CA-CB	6.51	111.11	103.30
1	C	4889	VAL	CG1-CB-CG2	-6.51	100.49	110.90
1	G	3567	PRO	N-CA-CB	6.49	111.09	103.30
1	A	3297	PRO	N-CA-CB	6.49	111.08	103.30
1	E	3275	PRO	N-CA-CB	6.49	111.08	103.30
1	A	3275	PRO	N-CA-CB	6.48	111.07	103.30
1	E	3297	PRO	N-CA-CB	6.47	111.06	103.30
1	E	3303	PRO	N-CA-CB	6.46	111.05	103.30
1	C	2701	PRO	N-CA-CB	6.45	111.04	103.30
1	E	2701	PRO	N-CA-CB	6.44	111.03	103.30
1	C	3297	PRO	N-CA-CB	6.43	111.02	103.30
1	C	2640	PRO	N-CA-CB	6.43	111.02	103.30
1	C	3275	PRO	N-CA-CB	6.43	111.02	103.30
1	E	2640	PRO	N-CA-CB	6.43	111.02	103.30
1	G	3301	PRO	N-CA-CB	6.43	111.01	103.30
1	A	3303	PRO	N-CA-CB	6.42	111.01	103.30
1	G	2631	PRO	N-CA-CB	6.42	111.01	103.30
1	A	2640	PRO	N-CA-CB	6.42	111.00	103.30
1	G	4928	LEU	CB-CG-CD1	-6.42	100.09	111.00
1	A	2701	PRO	N-CA-CB	6.41	111.00	103.30
1	C	3303	PRO	N-CA-CB	6.41	110.99	103.30
1	G	4856	PHE	CB-CG-CD2	-6.41	116.31	120.80
1	A	2631	PRO	N-CA-CB	6.40	110.98	103.30
1	A	4889	VAL	CG1-CB-CG2	-6.39	100.67	110.90
1	E	2631	PRO	N-CA-CB	6.39	110.97	103.30
1	C	3021	PRO	N-CA-CB	6.38	110.96	103.30
1	A	3021	PRO	N-CA-CB	6.38	110.95	103.30
1	G	3138	PRO	N-CA-CB	6.38	110.95	103.30
1	C	2631	PRO	N-CA-CB	6.38	110.95	103.30
1	G	2640	PRO	N-CA-CB	6.37	110.95	103.30
1	G	4796	MET	CG-SD-CE	6.37	110.39	100.20
1	C	2658	PRO	N-CA-CB	6.36	110.94	103.30
1	E	4889	VAL	CG1-CB-CG2	-6.36	100.72	110.90
1	G	2658	PRO	N-CA-CB	6.36	110.94	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	3289	PRO	N-CA-CB	6.36	110.93	103.30
1	E	3021	PRO	N-CA-CB	6.36	110.93	103.30
1	C	4988	TYR	CB-CG-CD1	6.35	124.81	121.00
1	G	4188	ARG	NE-CZ-NH1	6.35	123.48	120.30
1	E	2658	PRO	N-CA-CB	6.35	110.92	103.30
1	A	4992	LEU	CB-CG-CD1	-6.35	100.21	111.00
1	C	3289	PRO	N-CA-CB	6.35	110.92	103.30
1	A	2658	PRO	N-CA-CB	6.34	110.91	103.30
1	A	3289	PRO	N-CA-CB	6.34	110.91	103.30
1	G	3527	PRO	N-CA-CB	6.31	110.88	103.30
1	A	1211	LEU	CA-CB-CG	6.30	129.80	115.30
1	G	1211	LEU	CA-CB-CG	6.30	129.79	115.30
1	E	1211	LEU	CA-CB-CG	6.29	129.77	115.30
1	C	1211	LEU	CA-CB-CG	6.29	129.77	115.30
1	C	4992	LEU	CB-CG-CD1	-6.29	100.31	111.00
1	G	3282	PRO	N-CA-CB	6.29	110.84	103.30
1	G	2701	PRO	N-CA-CB	6.28	110.84	103.30
1	E	3816	MET	CG-SD-CE	6.28	110.24	100.20
1	A	4929	LEU	CB-CG-CD2	6.27	121.66	111.00
1	A	3816	MET	CG-SD-CE	6.26	110.21	100.20
1	G	3021	PRO	N-CA-CB	6.26	110.81	103.30
1	C	3816	MET	CG-SD-CE	6.25	110.20	100.20
1	E	4988	TYR	CB-CG-CD1	6.25	124.75	121.00
1	G	3188	PRO	N-CA-CB	6.22	110.76	103.30
1	G	4889	VAL	CG1-CB-CG2	-6.19	100.99	110.90
1	C	3519	PRO	N-CA-CB	6.19	110.73	103.30
1	C	3282	PRO	N-CA-CB	6.18	110.72	103.30
1	E	3519	PRO	N-CA-CB	6.18	110.72	103.30
1	E	3188	PRO	N-CA-CB	6.16	110.69	103.30
1	A	3282	PRO	N-CA-CB	6.16	110.69	103.30
1	A	3519	PRO	N-CA-CB	6.15	110.68	103.30
1	A	4988	TYR	CB-CG-CD1	6.15	124.69	121.00
1	C	3188	PRO	N-CA-CB	6.14	110.67	103.30
1	E	3282	PRO	N-CA-CB	6.13	110.66	103.30
1	A	3188	PRO	N-CA-CB	6.13	110.66	103.30
1	C	3820	LEU	CB-CG-CD2	-6.13	100.58	111.00
1	C	3301	PRO	N-CA-CB	6.12	110.64	103.30
1	E	3820	LEU	CB-CG-CD2	-6.11	100.61	111.00
1	A	2429	LEU	CB-CG-CD1	6.11	121.39	111.00
1	A	3820	LEU	CB-CG-CD2	-6.10	100.63	111.00
1	G	2429	LEU	CB-CG-CD1	6.09	121.36	111.00
1	E	3301	PRO	N-CA-CB	6.09	110.61	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4917	ASP	CB-CG-OD1	-6.07	112.83	118.30
1	C	3427	PRO	N-CA-CB	6.07	110.58	103.30
1	A	3301	PRO	N-CA-CB	6.06	110.57	103.30
1	E	3427	PRO	N-CA-CB	6.05	110.56	103.30
1	E	4887	MET	CA-CB-CG	6.05	123.58	113.30
1	E	2429	LEU	CB-CG-CD1	6.04	121.27	111.00
1	G	4128	PHE	CB-CG-CD1	6.04	125.03	120.80
1	C	2429	LEU	CB-CG-CD1	6.03	121.25	111.00
1	A	4917	ASP	CB-CG-OD1	-6.03	112.88	118.30
1	A	3427	PRO	N-CA-CB	6.02	110.53	103.30
1	G	1943	LEU	CB-CG-CD2	-6.01	100.78	111.00
1	E	4929	LEU	CB-CG-CD1	-6.01	100.78	111.00
1	E	2711	PRO	N-CA-CB	6.01	110.51	103.30
1	G	3275	PRO	N-CA-CB	6.01	110.51	103.30
1	C	2711	PRO	N-CA-CB	6.00	110.50	103.30
1	G	4170	ILE	CG1-CB-CG2	-6.00	98.19	111.40
1	C	3302	PRO	N-CA-CB	6.00	110.49	103.30
1	A	2711	PRO	N-CA-CB	5.99	110.49	103.30
1	A	3302	PRO	N-CA-CB	5.98	110.48	103.30
1	E	3302	PRO	N-CA-CB	5.97	110.47	103.30
1	E	4992	LEU	CB-CG-CD1	-5.97	100.85	111.00
1	G	4929	LEU	CB-CG-CD2	5.97	121.14	111.00
1	G	5017	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	G	2711	PRO	N-CA-CB	5.95	110.44	103.30
1	G	3410	PRO	N-CA-CB	5.93	110.41	103.30
1	E	1290	ARG	NE-CZ-NH1	5.92	123.26	120.30
1	G	4032	GLU	OE1-CD-OE2	-5.91	116.21	123.30
1	G	1290	ARG	NE-CZ-NH1	5.91	123.25	120.30
1	C	4887	MET	CA-CB-CG	5.90	123.33	113.30
1	A	1943	LEU	CB-CG-CD2	-5.89	100.99	111.00
1	E	4184	MET	CG-SD-CE	5.89	109.62	100.20
1	E	1290	ARG	NE-CZ-NH2	-5.88	117.36	120.30
1	A	4823	LEU	CB-CG-CD2	-5.87	101.02	111.00
1	C	3410	PRO	N-CA-CB	5.87	110.34	103.30
1	C	4184	MET	CG-SD-CE	5.87	109.59	100.20
1	A	73	LEU	CB-CG-CD2	5.86	120.97	111.00
1	A	4887	MET	CA-CB-CG	5.86	123.25	113.30
1	E	4028	LEU	CB-CG-CD2	5.84	120.93	111.00
1	E	4823	LEU	CB-CG-CD2	-5.84	101.07	111.00
1	C	4188	ARG	NE-CZ-NH1	5.83	123.21	120.30
1	G	4231	MET	CG-SD-CE	-5.82	90.89	100.20
1	E	3410	PRO	N-CA-CB	5.80	110.26	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4184	MET	CG-SD-CE	5.79	109.47	100.20
1	E	551	LEU	CB-CG-CD1	5.79	120.84	111.00
1	A	3410	PRO	N-CA-CB	5.79	110.24	103.30
1	G	1290	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	E	1943	LEU	CB-CG-CD2	-5.77	101.19	111.00
1	A	4929	LEU	CB-CG-CD1	-5.76	101.20	111.00
1	C	4917	ASP	CB-CG-OD1	-5.76	113.12	118.30
1	C	1290	ARG	NE-CZ-NH1	5.75	123.18	120.30
1	C	1290	ARG	NE-CZ-NH2	-5.75	117.43	120.30
1	A	4028	LEU	CB-CG-CD2	5.74	120.76	111.00
1	C	4929	LEU	CB-CG-CD1	-5.74	101.24	111.00
1	C	551	LEU	CB-CG-CD1	5.74	120.75	111.00
1	C	4128	PHE	CB-CG-CD1	5.74	124.81	120.80
1	E	5021	PHE	CB-CG-CD2	-5.73	116.79	120.80
1	G	3519	PRO	N-CA-CB	5.73	110.18	103.30
1	G	3208	PRO	N-CA-CB	5.73	110.18	103.30
1	A	3885	PHE	CB-CG-CD2	-5.73	116.79	120.80
1	E	3885	PHE	CB-CG-CD2	-5.70	116.81	120.80
1	A	1290	ARG	NE-CZ-NH1	5.69	123.14	120.30
1	C	3085	PRO	N-CA-CB	5.69	110.13	103.30
1	C	3208	PRO	N-CA-CB	5.69	110.12	103.30
1	C	4823	LEU	CB-CG-CD2	-5.69	101.33	111.00
1	A	551	LEU	CB-CG-CD1	5.69	120.67	111.00
1	A	1290	ARG	NE-CZ-NH2	-5.68	117.46	120.30
1	A	3085	PRO	N-CA-CB	5.68	110.12	103.30
1	G	3062	PRO	N-CA-CB	5.68	110.11	103.30
1	A	3208	PRO	N-CA-CB	5.68	110.11	103.30
1	E	4170	ILE	CG1-CB-CG2	-5.68	98.91	111.40
1	E	3208	PRO	N-CA-CB	5.67	110.11	103.30
1	E	4868	ASP	N-CA-C	5.67	126.32	111.00
1	A	1493	TYR	N-CA-CB	5.67	120.81	110.60
1	C	4028	LEU	CB-CG-CD2	5.67	120.64	111.00
1	E	1493	TYR	N-CA-CB	5.66	120.79	110.60
1	E	3085	PRO	N-CA-CB	5.66	110.09	103.30
1	A	4170	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	C	1943	LEU	CB-CG-CD2	-5.66	101.39	111.00
1	C	4170	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	A	4868	ASP	N-CA-C	5.65	126.25	111.00
1	G	4868	ASP	N-CA-C	5.64	126.23	111.00
1	G	3302	PRO	N-CA-CB	5.63	110.06	103.30
1	G	4847	VAL	CG1-CB-CG2	-5.63	101.89	110.90
1	C	4868	ASP	N-CA-C	5.62	126.17	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4128	PHE	CB-CG-CD1	5.62	124.73	120.80
1	A	4128	PHE	CB-CG-CD1	5.61	124.73	120.80
1	C	3885	PHE	CB-CG-CD2	-5.61	116.87	120.80
1	E	4856	PHE	CB-CG-CD2	-5.59	116.89	120.80
1	G	3085	PRO	N-CA-CB	5.59	110.01	103.30
1	A	4184	MET	CG-SD-CE	5.59	109.14	100.20
1	G	2712	PRO	N-CA-CB	5.58	110.00	103.30
1	C	4847	VAL	CG1-CB-CG2	-5.57	101.99	110.90
1	E	4188	ARG	NE-CZ-NH1	5.57	123.08	120.30
1	A	4856	PHE	CB-CG-CD2	-5.56	116.91	120.80
1	A	4847	VAL	CG1-CB-CG2	-5.56	102.01	110.90
1	E	631	LEU	CB-CG-CD2	-5.55	101.56	111.00
1	A	4188	ARG	NE-CZ-NH1	5.55	123.08	120.30
1	C	4856	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	4929	LEU	CB-CG-CD1	-5.54	101.58	111.00
1	G	551	LEU	CB-CG-CD1	5.54	120.42	111.00
1	C	5021	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	4914	VAL	CG1-CB-CG2	5.53	119.75	110.90
1	G	3427	PRO	N-CA-CB	5.53	109.93	103.30
1	C	4928	LEU	CB-CG-CD1	-5.52	101.62	111.00
1	A	631	LEU	CB-CG-CD2	-5.50	101.64	111.00
1	A	5021	PHE	CB-CG-CD2	-5.50	116.95	120.80
1	C	3842	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	E	3062	PRO	N-CA-CB	5.50	109.89	103.30
1	G	631	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	A	2712	PRO	N-CA-CB	5.49	109.89	103.30
1	C	2925	GLU	N-CA-C	-5.49	96.18	111.00
1	E	2712	PRO	N-CA-CB	5.49	109.89	103.30
1	A	3062	PRO	N-CA-CB	5.49	109.88	103.30
1	C	631	LEU	CB-CG-CD2	-5.48	101.68	111.00
1	C	1493	TYR	N-CA-CB	5.48	120.46	110.60
1	C	3294	PRO	N-CA-CB	5.47	109.87	103.30
1	A	3842	LEU	CB-CG-CD2	-5.47	101.70	111.00
1	E	3294	PRO	N-CA-CB	5.47	109.86	103.30
1	G	1493	TYR	N-CA-CB	5.47	120.44	110.60
1	E	3842	LEU	CB-CG-CD2	-5.46	101.71	111.00
1	A	3294	PRO	N-CA-CB	5.46	109.86	103.30
1	C	2712	PRO	N-CA-CB	5.46	109.86	103.30
1	G	4963	ILE	CG1-CB-CG2	-5.46	99.39	111.40
1	G	3294	PRO	N-CA-CB	5.46	109.85	103.30
1	E	4847	VAL	CG1-CB-CG2	-5.45	102.17	110.90
1	G	3820	LEU	CB-CG-CD2	-5.44	101.75	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	5026	ASP	CB-CG-OD2	5.43	123.19	118.30
1	G	5026	ASP	CB-CG-OD2	5.43	123.19	118.30
1	C	3062	PRO	N-CA-CB	5.41	109.79	103.30
1	G	4967	TYR	CB-CG-CD2	5.40	124.24	121.00
1	E	4928	LEU	CB-CG-CD1	-5.39	101.83	111.00
1	G	4837	LEU	CB-CG-CD1	-5.38	101.86	111.00
1	G	4887	MET	CA-CB-CG	5.35	122.40	113.30
1	G	3769	ARG	NE-CZ-NH2	-5.35	117.62	120.30
1	C	3953	LYS	CD-CE-NZ	5.32	123.94	111.70
1	A	3953	LYS	CD-CE-NZ	5.32	123.94	111.70
1	E	3953	LYS	CD-CE-NZ	5.31	123.91	111.70
1	A	3924	LEU	CB-CG-CD2	-5.31	101.98	111.00
1	E	4963	ILE	CG1-CB-CG2	-5.30	99.74	111.40
1	C	3880	PHE	CB-CG-CD1	-5.29	117.10	120.80
1	A	4880	MET	CG-SD-CE	5.29	108.66	100.20
1	G	4917	ASP	CB-CG-OD1	-5.28	113.54	118.30
1	A	3880	PHE	CB-CG-CD1	-5.28	117.10	120.80
1	C	2473	PRO	N-CA-CB	5.28	109.64	103.30
1	E	2473	PRO	N-CA-CB	5.28	109.64	103.30
1	A	2473	PRO	N-CA-CB	5.28	109.63	103.30
1	G	4146	LEU	CB-CG-CD1	-5.27	102.03	111.00
1	G	2473	PRO	N-CA-CB	5.27	109.63	103.30
1	E	3992	PHE	CB-CG-CD2	-5.27	117.11	120.80
1	G	4988	TYR	CB-CG-CD1	5.25	124.15	121.00
1	A	3992	PHE	CB-CG-CD2	-5.25	117.12	120.80
1	E	3924	LEU	CB-CG-CD2	-5.24	102.09	111.00
1	C	3924	LEU	CB-CG-CD2	-5.23	102.11	111.00
1	G	1284	VAL	N-CA-C	5.22	125.10	111.00
1	E	3880	PHE	CB-CG-CD1	-5.22	117.14	120.80
1	A	1284	VAL	N-CA-C	5.22	125.10	111.00
1	C	3992	PHE	CB-CG-CD2	-5.21	117.15	120.80
1	C	1284	VAL	N-CA-C	5.21	125.07	111.00
1	A	5026	ASP	CB-CG-OD2	5.21	122.98	118.30
1	E	1284	VAL	N-CA-C	5.21	125.05	111.00
1	E	4178	LEU	CB-CG-CD1	-5.20	102.16	111.00
1	A	915	GLU	C-N-CA	5.19	143.81	122.00
1	G	915	GLU	C-N-CA	5.18	143.77	122.00
1	C	915	GLU	C-N-CA	5.16	143.69	122.00
1	C	5026	ASP	CB-CG-OD2	5.16	122.95	118.30
1	E	915	GLU	C-N-CA	5.16	143.65	122.00
1	A	4963	ILE	CG1-CB-CG2	-5.15	100.07	111.40
1	E	1481	GLY	N-CA-C	5.14	125.96	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4178	LEU	CB-CG-CD1	-5.14	102.26	111.00
1	C	4963	ILE	CG1-CB-CG2	-5.14	100.08	111.40
1	C	1481	GLY	N-CA-C	5.14	125.94	113.10
1	E	4967	TYR	CB-CG-CD2	5.14	124.08	121.00
1	G	1481	GLY	N-CA-C	5.13	125.93	113.10
1	A	2178	MET	CG-SD-CE	-5.13	91.99	100.20
1	E	4980	LEU	CB-CG-CD2	-5.12	102.30	111.00
1	A	2567	PRO	N-CA-CB	5.12	109.44	103.30
1	A	1481	GLY	N-CA-C	5.11	125.88	113.10
1	C	4178	LEU	CB-CG-CD1	-5.11	102.31	111.00
1	C	4967	TYR	CB-CG-CD2	5.11	124.07	121.00
1	G	2567	PRO	N-CA-CB	5.11	109.43	103.30
1	C	2178	MET	CG-SD-CE	-5.10	92.05	100.20
1	E	2178	MET	CG-SD-CE	-5.10	92.05	100.20
1	C	2567	PRO	N-CA-CB	5.08	109.39	103.30
1	E	2567	PRO	N-CA-CB	5.08	109.39	103.30
1	E	5010	VAL	CG1-CB-CG2	-5.07	102.79	110.90
1	A	1548	LEU	CA-CB-CG	5.06	126.93	115.30
1	C	5010	VAL	CG1-CB-CG2	-5.05	102.82	110.90
1	E	551	LEU	CB-CG-CD2	-5.05	102.42	111.00
1	C	4928	LEU	CB-CG-CD2	5.04	119.58	111.00
1	C	551	LEU	CB-CG-CD2	-5.04	102.43	111.00
1	E	1548	LEU	CA-CB-CG	5.04	126.89	115.30
1	G	1548	LEU	CA-CB-CG	5.04	126.89	115.30
1	G	2178	MET	CG-SD-CE	-5.04	92.14	100.20
1	G	2168	VAL	CG1-CB-CG2	5.03	118.95	110.90
1	A	4967	TYR	CB-CG-CD2	5.03	124.02	121.00
1	C	1548	LEU	CA-CB-CG	5.03	126.87	115.30
1	G	4048	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	A	551	LEU	CB-CG-CD2	-5.03	102.45	111.00
1	G	3965	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	G	4563	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	G	551	LEU	CB-CG-CD2	-5.00	102.50	111.00
1	A	5010	VAL	CG1-CB-CG2	-5.00	102.90	110.90

There are no chirality outliers.

All (76) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1252	HIS	Peptide
1	A	1253	PRO	Peptide
1	A	1464	PHE	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	A	1480	GLN	Peptide
1	A	1588	ALA	Mainchain,Peptide
1	A	1783	VAL	Mainchain,Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	332	GLU	Mainchain,Peptide
1	A	4157	ASP	Peptide
1	A	4849	TYR	Sidechain
1	A	4867	GLU	Mainchain,Peptide
1	A	841	GLY	Peptide
1	C	1252	HIS	Peptide
1	C	1253	PRO	Peptide
1	C	1464	PHE	Mainchain,Peptide
1	C	1480	GLN	Peptide
1	C	1588	ALA	Mainchain,Peptide
1	C	1783	VAL	Mainchain,Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	332	GLU	Mainchain,Peptide
1	C	4157	ASP	Peptide
1	C	4849	TYR	Sidechain
1	C	4867	GLU	Mainchain,Peptide
1	C	841	GLY	Peptide
1	E	1252	HIS	Peptide
1	E	1253	PRO	Peptide
1	E	1464	PHE	Mainchain,Peptide
1	E	1480	GLN	Peptide
1	E	1588	ALA	Mainchain,Peptide
1	E	1783	VAL	Mainchain,Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	332	GLU	Mainchain,Peptide
1	E	4157	ASP	Peptide
1	E	4849	TYR	Sidechain
1	E	4867	GLU	Mainchain,Peptide
1	E	841	GLY	Peptide
1	G	1252	HIS	Peptide
1	G	1253	PRO	Peptide
1	G	1464	PHE	Mainchain,Peptide
1	G	1480	GLN	Peptide
1	G	1588	ALA	Mainchain,Peptide
1	G	1783	VAL	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	332	GLU	Mainchain,Peptide
1	G	4690	GLU	Peptide
1	G	4849	TYR	Sidechain
1	G	4867	GLU	Mainchain,Peptide
1	G	841	GLY	Peptide

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26917	0	24461	1094	0
1	C	26917	0	24461	1105	0
1	E	26917	0	24461	1108	0
1	G	26917	0	24461	1100	0
2	B	832	0	831	38	0
2	D	832	0	831	37	0
2	F	832	0	831	36	0
2	H	832	0	831	34	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111000	0	101168	4395	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 21.

All (4395) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4826:ILE:CG2	1:G:4931:ILE:HD11	1.79	1.10
1:A:4879:MET:SD	1:G:4578:LEU:HA	1.92	1.10
1:A:4826:ILE:CG2	1:C:4931:ILE:HD11	1.86	1.05
1:E:4578:LEU:HA	1:G:4879:MET:SD	1.99	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4826:ILE:CG2	1:E:4931:ILE:HD11	1.91	1.00
1:C:4578:LEU:HA	1:E:4879:MET:SD	2.02	0.98
1:A:4578:LEU:HA	1:C:4879:MET:SD	2.03	0.98
1:G:3936:TYR:O	1:G:3940:LYS:NZ	1.96	0.97
1:G:1585:LYS:NZ	1:G:1596:GLU:OE1	2.00	0.94
1:C:1585:LYS:NZ	1:C:1596:GLU:OE1	2.00	0.93
1:E:1585:LYS:NZ	1:E:1596:GLU:OE1	2.00	0.93
1:C:2924:GLN:O	1:C:2928:LYS:HB2	1.68	0.93
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.01	0.93
1:A:1585:LYS:NZ	1:A:1596:GLU:OE1	2.00	0.93
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.34	0.92
1:A:265:LEU:HD12	1:A:279:PRO:HB2	1.52	0.92
1:G:693:SER:OG	1:G:827:LYS:NZ	2.03	0.92
1:E:693:SER:OG	1:E:827:LYS:NZ	2.02	0.92
1:C:693:SER:OG	1:C:827:LYS:NZ	2.03	0.91
1:G:265:LEU:HD12	1:G:279:PRO:HB2	1.52	0.91
1:E:265:LEU:HD12	1:E:279:PRO:HB2	1.52	0.91
1:A:3936:TYR:O	1:A:3940:LYS:NZ	2.03	0.91
1:G:1027:LEU:O	1:G:1032:LYS:NZ	2.04	0.91
1:C:2865:VAL:O	1:C:2928:LYS:NZ	2.03	0.90
1:C:3936:TYR:O	1:C:3940:LYS:NZ	2.04	0.90
1:E:3936:TYR:O	1:E:3940:LYS:NZ	2.04	0.90
1:C:265:LEU:HD12	1:C:279:PRO:HB2	1.52	0.90
1:A:1027:LEU:O	1:A:1032:LYS:NZ	2.04	0.90
1:A:693:SER:OG	1:A:827:LYS:NZ	2.03	0.90
1:E:4826:ILE:HG22	1:G:4931:ILE:HD11	1.54	0.90
1:A:2865:VAL:O	1:A:2928:LYS:NZ	2.03	0.89
1:C:552:ASP:O	1:C:1594:ARG:NH1	2.05	0.89
1:C:2924:GLN:O	1:C:2928:LYS:CB	2.20	0.89
1:E:552:ASP:O	1:E:1594:ARG:NH1	2.06	0.89
1:C:1027:LEU:O	1:C:1032:LYS:NZ	2.05	0.89
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.36	0.89
1:E:1027:LEU:O	1:E:1032:LYS:NZ	2.04	0.88
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.07	0.88
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.36	0.88
1:A:552:ASP:O	1:A:1594:ARG:NH1	2.06	0.88
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.36	0.88
1:C:4786:ASP:OD2	1:C:4789:PHE:N	2.07	0.88
1:E:4786:ASP:OD2	1:E:4789:PHE:N	2.07	0.88
1:A:4786:ASP:OD2	1:A:4789:PHE:N	2.07	0.88
1:G:552:ASP:O	1:G:1594:ARG:NH1	2.06	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.07	0.87
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.07	0.87
1:A:281:ARG:NH1	1:A:309:THR:OG1	2.07	0.87
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.06	0.87
1:G:281:ARG:NH1	1:G:309:THR:OG1	2.08	0.87
1:E:281:ARG:NH1	1:E:309:THR:OG1	2.08	0.87
1:E:1243:PRO:O	1:E:1458:HIS:ND1	2.07	0.86
1:C:4892:ARG:NH1	1:E:4895:GLY:O	2.08	0.86
1:C:281:ARG:NH1	1:C:309:THR:OG1	2.08	0.86
1:A:1259:ARG:HH12	1:A:1597:VAL:HA	1.41	0.86
1:A:4895:GLY:O	1:G:4892:ARG:NH1	2.09	0.86
1:G:2924:GLN:O	1:G:2928:LYS:HB2	1.76	0.85
1:E:2463:LEU:N	1:E:2510:TYR:HH	1.75	0.85
1:E:1259:ARG:HH12	1:E:1597:VAL:HA	1.41	0.84
1:G:4786:ASP:OD2	1:G:4789:PHE:N	2.09	0.84
1:C:1259:ARG:HH12	1:C:1597:VAL:HA	1.41	0.84
1:G:1259:ARG:HH12	1:G:1597:VAL:HA	1.42	0.84
1:A:2924:GLN:O	1:A:2928:LYS:N	2.11	0.83
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.43	0.83
1:G:2463:LEU:N	1:G:2510:TYR:HH	1.76	0.83
1:E:4578:LEU:O	1:G:4879:MET:HB3	1.78	0.83
1:C:1456:ASP:O	1:C:1458:HIS:CD2	2.31	0.83
1:A:4892:ARG:NH1	1:C:4895:GLY:O	2.11	0.83
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.43	0.83
1:G:5017:ARG:HH11	1:G:5019:TRP:HH2	1.25	0.83
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.44	0.83
1:E:61:ASP:OD2	1:E:402:ARG:NH2	2.12	0.83
1:A:1727:ARG:HH12	1:A:1775:HIS:HD2	1.26	0.83
1:G:61:ASP:OD2	1:G:402:ARG:NH2	2.12	0.83
1:G:4984:ASN:O	1:G:4986:ALA:N	2.11	0.82
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.11	0.82
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.12	0.82
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.43	0.82
1:E:1727:ARG:HH12	1:E:1775:HIS:HD2	1.26	0.81
1:G:111:HIS:HD2	1:G:114:SER:H	1.28	0.81
1:C:706:GLY:HA2	1:C:711:LEU:HD22	1.62	0.81
1:A:111:HIS:HD2	1:A:114:SER:H	1.28	0.81
1:E:4892:ARG:HH12	1:G:4899:ASP:N	1.78	0.81
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.60	0.81
1:A:1555:LEU:HD12	1:A:1556:PRO:HD2	1.63	0.81
1:C:4892:ARG:HH12	1:E:4899:ASP:N	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4899:ASP:N	1:G:4892:ARG:HH12	1.78	0.81
1:C:622:THR:HG23	1:C:626:LEU:HD12	1.63	0.80
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.12	0.80
1:G:4180:ARG:NH1	1:G:4981:GLU:OE1	2.15	0.80
1:A:622:THR:HG23	1:A:626:LEU:HD12	1.63	0.80
1:A:706:GLY:HA2	1:A:711:LEU:HD22	1.62	0.80
1:E:706:GLY:HA2	1:E:711:LEU:HD22	1.62	0.80
1:G:2924:GLN:O	1:G:2928:LYS:CB	2.29	0.80
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.64	0.80
1:E:1555:LEU:HD12	1:E:1556:PRO:HD2	1.63	0.80
1:C:111:HIS:HD2	1:C:114:SER:H	1.27	0.79
1:A:1435:TYR:H	1:A:1516:ILE:CG1	1.93	0.79
1:C:1727:ARG:HH12	1:C:1775:HIS:HD2	1.26	0.79
1:G:1727:ARG:HH12	1:G:1775:HIS:HD2	1.26	0.79
1:G:706:GLY:HA2	1:G:711:LEU:HD22	1.62	0.79
1:A:4879:MET:HB3	1:G:4578:LEU:O	1.82	0.79
1:C:1555:LEU:HD12	1:C:1556:PRO:HD2	1.64	0.79
1:E:622:THR:HG23	1:E:626:LEU:HD12	1.63	0.79
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.64	0.79
1:G:3927:GLN:HE21	1:G:3991:GLY:HA3	1.48	0.79
1:C:2463:LEU:N	1:C:2510:TYR:HH	1.81	0.79
1:G:622:THR:HG23	1:G:626:LEU:HD12	1.63	0.79
1:A:4892:ARG:HH12	1:C:4899:ASP:N	1.80	0.78
1:G:316:PHE:HB3	1:G:346:CYS:HB3	1.65	0.78
1:G:840:VAL:O	1:G:1073:ARG:NH1	2.17	0.78
1:G:1555:LEU:HD12	1:G:1556:PRO:HD2	1.65	0.78
1:G:1780:PRO:O	2:H:42:ARG:NH2	2.16	0.78
1:E:4892:ARG:NH1	1:G:4895:GLY:O	2.16	0.78
1:E:4578:LEU:O	1:G:4879:MET:HG2	1.83	0.78
1:A:316:PHE:HB3	1:A:346:CYS:HB3	1.65	0.78
1:E:111:HIS:HD2	1:E:114:SER:H	1.28	0.78
1:A:5017:ARG:HH11	1:A:5019:TRP:HH2	1.32	0.78
1:E:479:GLN:NE2	1:E:536:ASN:OD1	2.13	0.78
1:A:840:VAL:O	1:A:1073:ARG:NH1	2.17	0.78
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.64	0.78
1:G:580:GLU:HA	1:G:620:LEU:HD11	1.67	0.77
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.67	0.77
1:E:840:VAL:O	1:E:1073:ARG:NH1	2.17	0.77
1:C:612:VAL:HA	1:C:2167:ILE:HG23	1.65	0.77
1:E:316:PHE:HB3	1:E:346:CYS:HB3	1.65	0.77
1:A:4578:LEU:O	1:C:4879:MET:HG2	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.67	0.77
1:A:4895:GLY:O	1:G:4892:ARG:CZ	2.33	0.77
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.67	0.77
1:A:612:VAL:HA	1:A:2167:ILE:HG23	1.65	0.77
1:A:2625:ARG:HA	1:A:2910:THR:HG22	1.66	0.77
1:A:479:GLN:NE2	1:A:536:ASN:OD1	2.14	0.76
1:E:731:THR:OG1	1:E:765:GLN:NE2	2.19	0.76
1:G:3889:GLN:HG3	1:G:3967:GLU:HG3	1.67	0.76
1:A:4931:ILE:HD11	1:G:4826:ILE:HG23	1.66	0.76
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.66	0.76
1:G:607:CYS:O	1:G:618:GLN:NE2	2.19	0.76
1:G:731:THR:OG1	1:G:765:GLN:NE2	2.19	0.76
1:A:2463:LEU:N	1:A:2510:TYR:HH	1.83	0.76
1:G:3966:THR:O	1:G:3970:GLN:N	2.18	0.76
1:C:316:PHE:HB3	1:C:346:CYS:HB3	1.65	0.76
1:E:2625:ARG:HA	1:E:2910:THR:HG22	1.67	0.76
1:C:840:VAL:O	1:C:1073:ARG:NH1	2.17	0.76
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.68	0.76
1:E:612:VAL:HA	1:E:2167:ILE:HG23	1.65	0.76
1:E:580:GLU:HA	1:E:620:LEU:HD11	1.67	0.76
1:A:180:LEU:O	1:A:200:TRP:NE1	2.18	0.76
1:E:1637:MET:HG2	1:E:1650:ILE:HD12	1.68	0.76
1:C:4578:LEU:O	1:E:4879:MET:HG2	1.86	0.76
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.67	0.76
1:G:1808:ARG:NH2	1:G:1858:ASP:OD2	2.18	0.76
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.68	0.76
1:G:612:VAL:HA	1:G:2167:ILE:HG23	1.66	0.76
1:A:1808:ARG:NH2	1:A:1858:ASP:OD2	2.18	0.76
1:C:180:LEU:O	1:C:200:TRP:NE1	2.18	0.76
1:A:4826:ILE:HG22	1:C:4931:ILE:HD11	1.66	0.76
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.67	0.76
1:E:703:GLY:N	1:E:1647:CYS:SG	2.58	0.76
1:C:1637:MET:HG2	1:C:1650:ILE:HD12	1.68	0.75
1:C:1808:ARG:NH2	1:C:1858:ASP:OD2	2.18	0.75
1:C:5017:ARG:HH11	1:C:5019:TRP:HH2	1.32	0.75
1:C:607:CYS:O	1:C:618:GLN:NE2	2.19	0.75
1:C:640:TYR:HE1	1:C:1613:LEU:HD23	1.51	0.75
1:G:1731:LEU:HA	1:G:1772:ARG:HE	1.52	0.75
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.68	0.75
1:C:731:THR:OG1	1:C:765:GLN:NE2	2.19	0.75
1:A:703:GLY:N	1:A:1647:CYS:SG	2.58	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:580:GLU:HA	1:A:620:LEU:HD11	1.67	0.75
1:C:2625:ARG:HA	1:C:2910:THR:HG22	1.67	0.75
1:G:2924:GLN:HB3	1:G:2928:LYS:HE2	1.68	0.75
1:G:700:GLU:OE2	1:G:1458:HIS:NE2	2.19	0.75
1:G:1190:PRO:HG3	1:G:1226:PHE:HE2	1.51	0.75
1:G:1435:TYR:H	1:G:1516:ILE:CG1	1.99	0.75
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.68	0.75
1:E:1808:ARG:NH2	1:E:1858:ASP:OD2	2.19	0.75
1:C:1190:PRO:HG3	1:C:1226:PHE:HE2	1.51	0.75
1:E:5017:ARG:HH11	1:E:5019:TRP:HH2	1.32	0.75
1:G:1637:MET:HG2	1:G:1650:ILE:HD12	1.68	0.75
1:G:1805:GLU:OE2	1:G:1808:ARG:NH1	2.20	0.75
1:A:1731:LEU:HA	1:A:1772:ARG:HE	1.52	0.75
1:A:731:THR:OG1	1:A:765:GLN:NE2	2.19	0.75
1:E:1190:PRO:HG3	1:E:1226:PHE:HE2	1.51	0.75
1:E:1731:LEU:HA	1:E:1772:ARG:HE	1.52	0.75
1:A:2452:ARG:NH2	1:C:177:GLU:HG3	2.02	0.75
1:C:2922:LYS:HA	1:C:2925:GLU:OE1	1.86	0.75
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.67	0.75
1:E:640:TYR:HE1	1:E:1613:LEU:HD23	1.52	0.75
1:C:1805:GLU:OE2	1:C:1808:ARG:NH1	2.20	0.74
1:E:1805:GLU:OE2	1:E:1808:ARG:NH1	2.20	0.74
1:A:607:CYS:O	1:A:618:GLN:NE2	2.19	0.74
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.70	0.74
1:C:703:GLY:N	1:C:1647:CYS:SG	2.59	0.74
1:A:1805:GLU:OE2	1:A:1808:ARG:NH1	2.20	0.74
1:C:479:GLN:NE2	1:C:536:ASN:OD1	2.14	0.74
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.68	0.74
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.70	0.74
1:A:640:TYR:HE1	1:A:1613:LEU:HD23	1.52	0.74
1:A:717:ASP:O	1:A:720:HIS:NE2	2.21	0.74
1:C:580:GLU:HA	1:C:620:LEU:HD11	1.67	0.74
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.69	0.74
1:E:607:CYS:O	1:E:618:GLN:NE2	2.19	0.74
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	1.69	0.74
1:G:2159:LEU:HD11	1:G:2201:LEU:HD13	1.69	0.74
1:G:717:ASP:O	1:G:720:HIS:NE2	2.21	0.74
1:E:1582:SER:OG	1:E:1589:PRO:O	2.05	0.74
1:G:640:TYR:HE1	1:G:1613:LEU:HD23	1.51	0.74
1:C:1582:SER:OG	1:C:1589:PRO:O	2.04	0.74
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2452:ARG:NH2	1:E:177:GLU:HG3	2.03	0.74
1:C:2497:ASP:OD1	1:C:2552:ARG:NE	2.21	0.74
1:E:180:LEU:O	1:E:200:TRP:NE1	2.18	0.74
1:A:1637:MET:HG2	1:A:1650:ILE:HD12	1.68	0.74
1:G:479:GLN:NE2	1:G:536:ASN:OD1	2.13	0.74
1:E:1780:PRO:O	2:F:42:ARG:NH2	2.21	0.73
1:G:15:ARG:NH1	1:G:100:THR:OG1	2.21	0.73
1:G:180:LEU:O	1:G:200:TRP:NE1	2.18	0.73
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.70	0.73
1:A:3839:CYS:SG	1:A:3840:SER:N	2.61	0.73
1:E:2159:LEU:HD11	1:E:2201:LEU:HD13	1.69	0.73
1:G:2924:GLN:O	1:G:2928:LYS:CG	2.36	0.73
1:A:1436:SER:H	1:A:1516:ILE:CG1	2.00	0.73
1:C:717:ASP:O	1:C:720:HIS:NE2	2.20	0.73
1:E:2497:ASP:OD1	1:E:2552:ARG:NE	2.21	0.73
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.70	0.73
1:E:717:ASP:O	1:E:720:HIS:NE2	2.21	0.73
1:E:2452:ARG:NH2	1:G:177:GLU:HG3	2.02	0.73
1:C:1780:PRO:O	2:D:42:ARG:NH2	2.22	0.73
1:A:195:PHE:CE2	1:G:2358:ILE:HG23	2.24	0.73
1:A:2159:LEU:HD11	1:A:2201:LEU:HD13	1.69	0.73
1:C:1731:LEU:HA	1:C:1772:ARG:HE	1.52	0.73
1:G:1582:SER:OG	1:G:1589:PRO:O	2.04	0.73
1:G:2497:ASP:OD1	1:G:2552:ARG:NE	2.21	0.73
1:A:1780:PRO:O	2:B:42:ARG:NH2	2.22	0.73
1:C:2159:LEU:HD11	1:C:2201:LEU:HD13	1.69	0.73
1:C:2358:ILE:HG23	1:E:195:PHE:CE2	2.24	0.73
1:G:1456:ASP:O	1:G:1458:HIS:CD2	2.42	0.73
1:G:1948:ASP:OD1	1:G:2126:ARG:NH2	2.21	0.73
1:C:595:ARG:HH22	1:C:1641:ILE:HD11	1.54	0.73
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.70	0.73
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	1.69	0.72
1:C:2924:GLN:O	1:C:2928:LYS:CG	2.37	0.72
1:E:3839:CYS:SG	1:E:3840:SER:N	2.61	0.72
1:A:177:GLU:HG3	1:G:2452:ARG:NH2	2.04	0.72
1:E:595:ARG:HH22	1:E:1641:ILE:HD11	1.54	0.72
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.70	0.72
1:E:33:LEU:HD11	1:E:51:PRO:HB3	1.72	0.72
1:G:703:GLY:N	1:G:1647:CYS:SG	2.60	0.72
1:G:252:VAL:HG23	1:G:257:ARG:HG3	1.72	0.72
1:G:331:VAL:HG12	1:G:333:GLY:HA3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:15:ARG:NH1	1:E:100:THR:OG1	2.21	0.72
1:E:1810:LYS:HA	1:E:1813:ARG:HH12	1.54	0.72
1:G:39:ALA:HB2	1:G:47:CYS:HA	1.71	0.72
1:G:1810:LYS:HA	1:G:1813:ARG:HH12	1.54	0.72
1:A:331:VAL:HG12	1:A:333:GLY:HA3	1.72	0.72
1:C:15:ARG:NH1	1:C:100:THR:OG1	2.21	0.72
1:E:2136:ARG:NH1	1:E:3720:TYR:OH	2.23	0.72
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.55	0.72
1:A:2358:ILE:HG23	1:C:195:PHE:CE2	2.24	0.72
1:C:2921:GLU:O	1:C:2925:GLU:HB2	1.90	0.72
1:C:4826:ILE:HG22	1:E:4931:ILE:HD11	1.71	0.72
1:C:33:LEU:HD11	1:C:51:PRO:HB3	1.72	0.72
1:E:252:VAL:HG23	1:E:257:ARG:HG3	1.72	0.72
1:E:331:VAL:HG12	1:E:333:GLY:HA3	1.71	0.72
1:A:2136:ARG:NH1	1:A:3720:TYR:OH	2.23	0.72
1:C:331:VAL:HG12	1:C:333:GLY:HA3	1.72	0.72
1:E:28:VAL:HG21	1:E:189:LEU:HD11	1.72	0.72
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.71	0.72
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.55	0.72
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	1.71	0.72
1:A:2497:ASP:OD1	1:A:2552:ARG:NE	2.21	0.72
1:C:700:GLU:OE2	1:C:1458:HIS:NE2	2.20	0.72
1:G:786:GLY:HA2	1:G:1631:GLN:HA	1.71	0.72
1:G:595:ARG:HH22	1:G:1641:ILE:HD11	1.54	0.72
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.71	0.72
1:A:1112:ASP:HA	1:A:1607:ARG:HB2	1.72	0.71
1:C:2136:ARG:NH1	1:C:3720:TYR:OH	2.23	0.71
1:G:4235:VAL:HG21	1:G:5019:TRP:NE1	2.04	0.71
1:A:1436:SER:H	1:A:1516:ILE:HA	1.54	0.71
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.71	0.71
1:C:786:GLY:HA2	1:C:1631:GLN:HA	1.71	0.71
1:C:613:ALA:HB1	1:C:618:GLN:HE22	1.55	0.71
1:C:4892:ARG:CZ	1:E:4895:GLY:O	2.38	0.71
1:G:2625:ARG:HA	1:G:2910:THR:HG22	1.70	0.71
1:G:33:LEU:HD11	1:G:51:PRO:HB3	1.72	0.71
1:A:786:GLY:HA2	1:A:1631:GLN:HA	1.71	0.71
1:E:4892:ARG:O	1:G:4895:GLY:HA2	1.91	0.71
1:E:786:GLY:HA2	1:E:1631:GLN:HA	1.71	0.71
1:A:252:VAL:HG23	1:A:257:ARG:HG3	1.71	0.71
1:C:28:VAL:HG21	1:C:189:LEU:HD11	1.72	0.71
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:613:ALA:HB1	1:A:618:GLN:HE22	1.55	0.71
1:E:2358:ILE:HG23	1:G:195:PHE:CE2	2.25	0.71
1:A:1190:PRO:HG3	1:A:1226:PHE:HE2	1.54	0.71
1:A:2921:GLU:O	1:A:2925:GLU:HG3	1.91	0.71
1:C:1245:PHE:HB2	1:C:1602:PRO:HB2	1.73	0.71
1:E:349:GLN:HE21	1:E:354:GLY:HA2	1.56	0.71
1:A:1810:LYS:HA	1:A:1813:ARG:NH1	2.06	0.71
1:A:33:LEU:HD11	1:A:51:PRO:HB3	1.72	0.71
1:A:4892:ARG:O	1:C:4895:GLY:HA2	1.91	0.71
1:E:2287:ALA:O	1:E:2349:ASN:ND2	2.24	0.71
1:E:717:ASP:OD2	1:E:737:LEU:HD12	1.91	0.71
1:G:349:GLN:HE21	1:G:354:GLY:HA2	1.56	0.71
1:A:15:ARG:NH1	1:A:100:THR:OG1	2.22	0.71
1:A:595:ARG:HH22	1:A:1641:ILE:HD11	1.55	0.71
1:C:1810:LYS:HA	1:C:1813:ARG:NH1	2.06	0.71
1:C:1948:ASP:OD1	1:C:2126:ARG:NH2	2.24	0.71
1:C:39:ALA:HB2	1:C:47:CYS:HA	1.71	0.71
1:E:39:ALA:HB2	1:E:47:CYS:HA	1.71	0.71
1:G:1245:PHE:HB2	1:G:1602:PRO:HB2	1.72	0.71
1:G:4817:ALA:HB1	1:G:4827:LEU:HD11	1.73	0.71
1:G:717:ASP:OD2	1:G:737:LEU:HD12	1.90	0.71
1:C:4180:ARG:NH1	1:C:4981:GLU:OE1	2.24	0.70
1:E:1245:PHE:HB2	1:E:1602:PRO:HB2	1.73	0.70
1:G:2924:GLN:O	1:G:2928:LYS:HG3	1.91	0.70
1:G:1112:ASP:HA	1:G:1607:ARG:HB2	1.72	0.70
1:A:1582:SER:OG	1:A:1589:PRO:O	2.05	0.70
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.73	0.70
1:C:252:VAL:HG23	1:C:257:ARG:HG3	1.72	0.70
1:C:4044:MET:HA	1:C:4047:MET:HG2	1.73	0.70
1:G:28:VAL:HG21	1:G:189:LEU:HD11	1.72	0.70
1:E:1029:GLU:HA	1:E:1032:LYS:HD3	1.73	0.70
1:A:1810:LYS:HA	1:A:1813:ARG:HH12	1.54	0.70
1:A:2287:ALA:O	1:A:2349:ASN:ND2	2.24	0.70
1:A:39:ALA:HB2	1:A:47:CYS:HA	1.72	0.70
1:A:717:ASP:OD2	1:A:737:LEU:HD12	1.91	0.70
1:E:1810:LYS:HA	1:E:1813:ARG:NH1	2.06	0.70
1:E:1948:ASP:OD1	1:E:2126:ARG:NH2	2.24	0.70
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.73	0.70
1:A:1252:HIS:O	1:A:1255:TYR:N	2.24	0.70
1:C:3839:CYS:SG	1:C:3840:SER:N	2.61	0.70
1:C:717:ASP:OD2	1:C:737:LEU:HD12	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1112:ASP:HA	1:E:1607:ARG:HB2	1.72	0.70
1:E:4044:MET:HA	1:E:4047:MET:HG2	1.73	0.70
1:E:4578:LEU:O	1:G:4879:MET:CG	2.39	0.70
1:G:2136:ARG:NH1	1:G:3720:TYR:OH	2.24	0.70
1:A:28:VAL:HG21	1:A:189:LEU:HD11	1.72	0.70
1:C:2287:ALA:O	1:C:2349:ASN:ND2	2.23	0.70
1:A:1436:SER:N	1:A:1516:ILE:CG1	2.54	0.70
1:C:584:LYS:NZ	1:C:1586:ASN:HD21	1.90	0.70
1:E:1703:LEU:HD12	1:E:1704:PRO:HD2	1.73	0.70
1:E:4892:ARG:NE	1:G:4917:ASP:OD2	2.25	0.70
1:G:1810:LYS:HA	1:G:1813:ARG:NH1	2.06	0.70
1:A:349:GLN:HE21	1:A:354:GLY:HA2	1.56	0.70
1:A:4865:LYS:N	1:A:4873:ASP:OD2	2.25	0.70
1:C:1112:ASP:HA	1:C:1607:ARG:HB2	1.72	0.70
1:C:349:GLN:HE21	1:C:354:GLY:HA2	1.56	0.70
1:C:4865:LYS:N	1:C:4873:ASP:OD2	2.25	0.70
1:E:1294:PRO:HD2	1:E:1584:ARG:HH11	1.56	0.70
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.73	0.70
1:G:1703:LEU:HD12	1:G:1704:PRO:HD2	1.74	0.70
1:A:783:PHE:HB2	1:A:787:VAL:HG21	1.74	0.69
1:C:1029:GLU:HA	1:C:1032:LYS:HD3	1.74	0.69
1:C:1252:HIS:O	1:C:1255:TYR:N	2.23	0.69
1:E:4865:LYS:N	1:E:4873:ASP:OD2	2.25	0.69
1:E:783:PHE:HB2	1:E:787:VAL:HG21	1.74	0.69
1:G:1252:HIS:O	1:G:1255:TYR:N	2.24	0.69
1:G:783:PHE:HB2	1:G:787:VAL:HG21	1.74	0.69
1:A:1245:PHE:HB2	1:A:1602:PRO:HB2	1.74	0.69
1:A:4180:ARG:NH1	1:A:4981:GLU:OE1	2.24	0.69
1:E:1691:GLN:HE22	1:E:1802:ILE:HG22	1.58	0.69
1:E:737:LEU:HD13	2:F:8:SER:HB3	1.74	0.69
1:G:1821:ASP:OD1	1:G:1822:GLY:N	2.25	0.69
1:A:1727:ARG:HH12	1:A:1775:HIS:CD2	2.10	0.69
1:A:1821:ASP:OD1	1:A:1822:GLY:N	2.25	0.69
1:A:3891:LEU:HD23	1:A:3899:PHE:HZ	1.57	0.69
1:A:4235:VAL:HG21	1:A:5019:TRP:NE1	2.07	0.69
1:C:1810:LYS:HA	1:C:1813:ARG:HH12	1.54	0.69
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.74	0.69
1:E:4180:ARG:NH1	1:E:4981:GLU:OE1	2.25	0.69
1:A:1029:GLU:HA	1:A:1032:LYS:HD3	1.74	0.69
1:C:4578:LEU:O	1:E:4879:MET:HB3	1.93	0.69
1:E:584:LYS:NZ	1:E:1586:ASN:HD21	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.58	0.69
1:A:4044:MET:HA	1:A:4047:MET:HG2	1.73	0.69
1:A:584:LYS:NZ	1:A:1586:ASN:HD21	1.91	0.69
1:G:1691:GLN:HE22	1:G:1802:ILE:HG22	1.58	0.69
1:C:1294:PRO:HD2	1:C:1584:ARG:HH11	1.56	0.69
1:E:1810:LYS:HD2	1:E:1813:ARG:HH12	1.58	0.69
1:G:1294:PRO:HD2	1:G:1584:ARG:HH11	1.56	0.69
1:A:1211:LEU:HD23	1:A:1212:ARG:H	1.57	0.69
1:A:1294:PRO:HD2	1:A:1584:ARG:HH11	1.56	0.69
1:A:737:LEU:HD13	2:B:8:SER:HB3	1.74	0.69
1:C:4235:VAL:HG21	1:C:5019:TRP:NE1	2.08	0.69
1:A:252:VAL:HG22	1:A:258:SER:HB3	1.75	0.69
1:C:4892:ARG:O	1:E:4895:GLY:HA2	1.92	0.69
1:E:1211:LEU:HD23	1:E:1212:ARG:H	1.57	0.69
1:G:584:LYS:NZ	1:G:1586:ASN:HD21	1.90	0.69
1:G:4865:LYS:N	1:G:4873:ASP:OD2	2.26	0.69
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.28	0.69
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.58	0.69
1:A:1641:ILE:HG13	1:A:1643:GLU:HG2	1.75	0.69
1:A:1810:LYS:HD2	1:A:1813:ARG:HH12	1.58	0.69
1:C:1211:LEU:HD23	1:C:1212:ARG:H	1.57	0.69
1:C:4892:ARG:NE	1:E:4917:ASP:OD2	2.26	0.69
1:C:783:PHE:HB2	1:C:787:VAL:HG21	1.74	0.69
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.28	0.69
1:E:4235:VAL:HG21	1:E:5019:TRP:NE1	2.08	0.69
1:A:1206:GLN:N	1:A:1227:ALA:HB3	2.08	0.69
1:A:1259:ARG:NH1	1:A:1597:VAL:HA	2.07	0.69
1:C:1821:ASP:OD1	1:C:1822:GLY:N	2.25	0.69
1:G:24:CYS:SG	1:G:25:SER:N	2.67	0.69
1:G:2929:PHE:O	1:G:2933:ASN:ND2	2.26	0.69
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.58	0.69
1:C:1810:LYS:HD2	1:C:1813:ARG:HH12	1.58	0.68
1:E:1821:ASP:OD1	1:E:1822:GLY:N	2.25	0.68
1:C:2924:GLN:O	1:C:2928:LYS:HG3	1.92	0.68
1:E:4892:ARG:CZ	1:G:4895:GLY:O	2.42	0.68
1:G:252:VAL:HG22	1:G:258:SER:HB3	1.75	0.68
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.73	0.68
1:A:2822:THR:HG1	1:A:2938:THR:HG1	1.41	0.68
1:A:3786:CYS:SG	1:A:3794:VAL:HG22	2.33	0.68
1:E:1259:ARG:NH1	1:E:1597:VAL:HA	2.07	0.68
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1703:LEU:HD12	1:A:1704:PRO:HD2	1.74	0.68
1:C:1691:GLN:HE22	1:C:1802:ILE:HG22	1.58	0.68
1:C:1703:LEU:HD12	1:C:1704:PRO:HD2	1.73	0.68
1:C:1727:ARG:NH1	1:C:1775:HIS:HD2	1.92	0.68
1:G:1211:LEU:HD23	1:G:1212:ARG:H	1.57	0.68
1:G:4190:ILE:HD11	1:G:5026:ASP:HB3	1.74	0.68
1:A:1727:ARG:NH1	1:A:1775:HIS:HD2	1.92	0.68
1:C:1727:ARG:HH12	1:C:1775:HIS:CD2	2.10	0.68
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.74	0.68
1:G:1029:GLU:HA	1:G:1032:LYS:HD3	1.74	0.68
1:G:1616:GLU:HG3	1:G:1617:THR:H	1.58	0.68
1:C:1616:GLU:HG3	1:C:1617:THR:H	1.58	0.68
1:E:4875:LYS:O	1:E:4877:ASP:N	2.27	0.68
1:G:1727:ARG:HH12	1:G:1775:HIS:CD2	2.10	0.68
1:G:4172:GLU:HG2	1:G:4175:ARG:HH22	1.59	0.68
1:A:2452:ARG:HH22	1:C:177:GLU:HG3	1.58	0.68
1:A:24:CYS:SG	1:A:25:SER:N	2.66	0.68
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.74	0.68
1:C:1259:ARG:NH1	1:C:1597:VAL:HA	2.07	0.68
1:E:1252:HIS:O	1:E:1255:TYR:N	2.24	0.68
1:E:24:CYS:SG	1:E:25:SER:N	2.66	0.68
1:E:3786:CYS:SG	1:E:3794:VAL:HG22	2.33	0.68
1:G:1727:ARG:NH1	1:G:1775:HIS:HD2	1.92	0.68
1:G:2891:LYS:HG3	1:G:2905:LEU:HD22	1.76	0.68
1:A:1691:GLN:HE22	1:A:1802:ILE:HG22	1.58	0.68
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.28	0.68
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.58	0.68
1:A:4578:LEU:O	1:C:4879:MET:HB3	1.93	0.68
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.76	0.68
1:E:683:ARG:HD2	1:E:705:ASN:HB3	1.76	0.68
1:G:1259:ARG:NH1	1:G:1597:VAL:HA	2.08	0.68
1:G:1783:VAL:HG21	2:H:55:VAL:HG12	1.76	0.68
1:A:1473:THR:HG22	1:A:1489:CYS:HA	1.76	0.68
1:A:1948:ASP:OD1	1:A:2126:ARG:NH2	2.24	0.68
1:C:3891:LEU:HD23	1:C:3899:PHE:HZ	1.58	0.68
1:C:4085:ARG:HB3	1:C:4087:LEU:HD13	1.76	0.67
1:E:1727:ARG:NH1	1:E:1775:HIS:HD2	1.92	0.67
1:E:589:LEU:HG	1:E:593:HIS:HD2	1.59	0.67
1:G:1810:LYS:HD2	1:G:1813:ARG:HH12	1.58	0.67
1:C:737:LEU:HD13	2:D:8:SER:HB3	1.74	0.67
1:C:24:CYS:SG	1:C:25:SER:N	2.67	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1435:TYR:H	1:E:1516:ILE:CG1	2.06	0.67
1:G:2154:SER:O	1:G:2157:GLU:HG2	1.95	0.67
1:A:1229:ASN:OD1	1:A:1827:ARG:NH2	2.27	0.67
1:A:4892:ARG:NE	1:C:4917:ASP:OD2	2.26	0.67
1:C:1473:THR:HG22	1:C:1489:CYS:HA	1.76	0.67
1:E:2154:SER:O	1:E:2157:GLU:HG2	1.95	0.67
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.76	0.67
1:C:1229:ASN:OD1	1:C:1827:ARG:NH2	2.28	0.67
1:C:164:ARG:HB3	1:C:167:ASP:OD2	1.95	0.67
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.76	0.67
1:E:345:LEU:HD23	1:E:389:PHE:HB3	1.76	0.67
1:E:4555:LEU:HD11	1:E:4656:LEU:HG	1.76	0.67
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.76	0.67
1:A:2154:SER:O	1:A:2157:GLU:HG2	1.95	0.67
1:C:683:ARG:HD2	1:C:705:ASN:HB3	1.76	0.67
1:G:1229:ASN:OD1	1:G:1827:ARG:NH2	2.28	0.67
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.30	0.67
1:A:164:ARG:HB3	1:A:167:ASP:OD2	1.95	0.67
1:A:3806:ASN:H	1:A:3890:LEU:HD23	1.60	0.67
1:A:4085:ARG:HB3	1:A:4087:LEU:HD13	1.77	0.67
1:C:589:LEU:HG	1:C:593:HIS:HD2	1.60	0.67
1:G:356:TRP:N	1:G:379:HIS:O	2.27	0.67
1:G:683:ARG:HD2	1:G:705:ASN:HB3	1.76	0.67
1:A:3893:GLU:OE2	1:A:5001:THR:HG22	1.95	0.67
1:A:4892:ARG:CZ	1:C:4895:GLY:O	2.42	0.67
1:A:4917:ASP:OD2	1:G:4892:ARG:NE	2.28	0.67
1:E:356:TRP:N	1:E:379:HIS:O	2.27	0.67
1:E:3891:LEU:HD23	1:E:3899:PHE:HZ	1.58	0.67
1:A:356:TRP:N	1:A:379:HIS:O	2.27	0.67
1:A:683:ARG:HD2	1:A:705:ASN:HB3	1.76	0.67
1:C:277:GLY:N	1:C:315:CYS:SG	2.68	0.67
1:C:4578:LEU:O	1:E:4879:MET:CG	2.43	0.67
1:E:1727:ARG:HH12	1:E:1775:HIS:CD2	2.11	0.67
1:G:277:GLY:N	1:G:315:CYS:SG	2.68	0.67
1:A:1616:GLU:HG3	1:A:1617:THR:H	1.58	0.67
1:A:4895:GLY:HA2	1:G:4892:ARG:O	1.95	0.67
1:C:2154:SER:O	1:C:2157:GLU:HG2	1.95	0.67
1:E:1616:GLU:HG3	1:E:1617:THR:H	1.58	0.67
1:A:4875:LYS:O	1:A:4877:ASP:N	2.27	0.66
1:C:3806:ASN:H	1:C:3890:LEU:HD23	1.60	0.66
1:E:164:ARG:HB3	1:E:167:ASP:OD2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3771:HIS:HE1	1:E:3811:GLU:HB3	1.61	0.66
1:A:589:LEU:HG	1:A:593:HIS:HD2	1.60	0.66
1:A:1783:VAL:HG21	2:B:55:VAL:HG12	1.76	0.66
1:C:252:VAL:HG22	1:C:258:SER:HB3	1.77	0.66
1:C:3786:CYS:SG	1:C:3794:VAL:HG22	2.35	0.66
1:C:3893:GLU:OE2	1:C:5001:THR:HG22	1.95	0.66
1:C:4555:LEU:HD11	1:C:4656:LEU:HG	1.76	0.66
1:A:177:GLU:HG3	1:G:2452:ARG:HH22	1.59	0.66
1:A:1767:VAL:O	1:A:1769:THR:N	2.28	0.66
1:A:4849:TYR:O	1:A:4852:THR:HG22	1.95	0.66
1:C:2452:ARG:HH22	1:E:177:GLU:HG3	1.59	0.66
1:E:1076:ARG:O	1:E:1237:TRP:N	2.27	0.66
1:E:252:VAL:HG22	1:E:258:SER:HB3	1.76	0.66
1:G:345:LEU:HD23	1:G:389:PHE:HB3	1.77	0.66
1:G:4875:LYS:O	1:G:4877:ASP:N	2.28	0.66
1:A:526:LEU:HD11	1:A:540:PHE:HZ	1.60	0.66
1:C:1641:ILE:HG13	1:C:1643:GLU:HG2	1.77	0.66
1:C:3771:HIS:HE1	1:C:3811:GLU:HB3	1.61	0.66
1:E:1473:THR:HG22	1:E:1489:CYS:HA	1.76	0.66
1:E:3893:GLU:OE2	1:E:5001:THR:HG22	1.95	0.66
1:G:589:LEU:HG	1:G:593:HIS:HD2	1.59	0.66
1:C:1815:LEU:HD11	1:C:1845:VAL:HG21	1.77	0.66
1:C:4940:PHE:CD2	1:E:4938:ASP:OD2	2.47	0.66
1:E:1229:ASN:OD1	1:E:1827:ARG:NH2	2.28	0.66
1:E:1767:VAL:O	1:E:1769:THR:N	2.28	0.66
1:E:3841:VAL:HG12	1:E:3843:ASP:H	1.61	0.66
1:A:4578:LEU:O	1:C:4879:MET:CG	2.43	0.66
1:C:4875:LYS:O	1:C:4877:ASP:N	2.27	0.66
1:A:4937:ILE:HG12	1:C:4934:GLY:HA3	1.77	0.66
1:E:1641:ILE:HG13	1:E:1643:GLU:HG2	1.76	0.66
1:E:4849:TYR:O	1:E:4852:THR:HG22	1.95	0.66
1:E:526:LEU:HD11	1:E:540:PHE:HZ	1.59	0.66
1:G:1473:THR:HG22	1:G:1489:CYS:HA	1.76	0.66
1:G:1641:ILE:HG13	1:G:1643:GLU:HG2	1.77	0.66
1:A:3841:VAL:HG12	1:A:3843:ASP:H	1.61	0.66
1:A:345:LEU:HD23	1:A:389:PHE:HB3	1.77	0.66
1:A:45:ARG:NH1	1:A:443:LEU:HD11	2.11	0.66
1:A:4190:ILE:HD11	1:A:5026:ASP:HB3	1.78	0.66
1:E:277:GLY:N	1:E:315:CYS:SG	2.68	0.66
1:E:3806:ASN:H	1:E:3890:LEU:HD23	1.60	0.66
1:E:4190:ILE:HD11	1:E:5026:ASP:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1767:VAL:O	1:G:1769:THR:N	2.28	0.66
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.24	0.66
1:G:648:ILE:HG23	1:G:649:PHE:HD2	1.61	0.66
1:C:4849:TYR:O	1:C:4852:THR:HG22	1.95	0.66
1:E:4688:ILE:HD12	1:E:4737:ILE:HD12	1.77	0.66
1:A:572:PRO:HB3	1:A:609:CYS:HB3	1.78	0.66
2:B:31:GLU:HG2	2:B:96:THR:HB	1.78	0.66
1:C:1767:VAL:O	1:C:1769:THR:N	2.28	0.66
1:C:2799:GLU:OE1	1:C:2806:ARG:NH2	2.29	0.66
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.28	0.66
1:G:164:ARG:HB3	1:G:167:ASP:OD2	1.95	0.66
1:G:2862:LEU:HD21	1:G:2929:PHE:HD1	1.61	0.66
1:G:3893:GLU:OE2	1:G:5001:THR:HG22	1.96	0.66
1:A:277:GLY:N	1:A:315:CYS:SG	2.68	0.66
1:A:4555:LEU:HD11	1:A:4656:LEU:HG	1.76	0.66
1:A:4976:GLU:O	1:A:4979:THR:OG1	2.14	0.66
1:C:4830:VAL:HG22	1:C:4936:ILE:HD12	1.78	0.66
1:C:526:LEU:HD11	1:C:540:PHE:HZ	1.59	0.66
1:E:2452:ARG:HH22	1:G:177:GLU:HG3	1.59	0.66
1:E:4085:ARG:HB3	1:E:4087:LEU:HD13	1.76	0.66
1:A:3835:LEU:HD22	1:A:3884:LEU:HD13	1.77	0.65
1:C:3835:LEU:HD22	1:C:3884:LEU:HD13	1.77	0.65
1:C:45:ARG:NH1	1:C:443:LEU:HD11	2.11	0.65
1:C:2883:HIS:NE2	1:C:2906:VAL:O	2.28	0.65
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.44	0.65
1:C:3841:VAL:HG12	1:C:3843:ASP:H	1.61	0.65
1:C:345:LEU:HD23	1:C:389:PHE:HB3	1.76	0.65
1:C:4172:GLU:HG2	1:C:4175:ARG:HH22	1.61	0.65
1:E:3835:LEU:HD22	1:E:3884:LEU:HD13	1.78	0.65
1:A:1252:HIS:O	1:A:1254:HIS:N	2.30	0.65
1:C:356:TRP:N	1:C:379:HIS:O	2.27	0.65
1:E:2799:GLU:OE1	1:E:2806:ARG:NH2	2.29	0.65
1:G:526:LEU:HD11	1:G:540:PHE:HZ	1.59	0.65
1:C:1090:PHE:HB2	1:C:1204:LEU:HD22	1.79	0.65
1:C:4976:GLU:O	1:C:4979:THR:OG1	2.14	0.65
1:C:572:PRO:HB3	1:C:609:CYS:HB3	1.78	0.65
1:E:1112:ASP:OD1	1:E:1606:SER:OG	2.14	0.65
1:E:1252:HIS:O	1:E:1254:HIS:N	2.30	0.65
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.77	0.65
1:G:4822:THR:O	1:G:4825:THR:OG1	2.14	0.65
2:H:31:GLU:HG2	2:H:96:THR:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:31:GLU:HG2	2:D:96:THR:HB	1.79	0.65
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.30	0.65
1:E:4097:MET:HB3	1:E:4108:ILE:HD12	1.79	0.65
1:G:1252:HIS:O	1:G:1254:HIS:N	2.30	0.65
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.28	0.65
1:G:45:ARG:NH1	1:G:443:LEU:HD11	2.11	0.65
1:A:2891:LYS:HG3	1:A:2905:LEU:HD22	1.79	0.65
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.79	0.65
1:A:4688:ILE:HD12	1:A:4737:ILE:HD12	1.77	0.65
1:C:4190:ILE:HD11	1:C:5026:ASP:HB3	1.78	0.65
1:E:1090:PHE:HB2	1:E:1204:LEU:HD22	1.79	0.65
1:E:1783:VAL:HG21	2:F:55:VAL:HG12	1.77	0.65
2:F:31:GLU:HG2	2:F:96:THR:HB	1.79	0.65
1:G:2799:GLU:OE1	1:G:2806:ARG:NH2	2.29	0.65
1:A:2799:GLU:OE1	1:A:2806:ARG:NH2	2.29	0.65
1:E:4830:VAL:HG22	1:E:4936:ILE:HD12	1.79	0.65
1:E:4578:LEU:O	1:G:4879:MET:CB	2.43	0.65
1:A:1815:LEU:HD11	1:A:1845:VAL:HG21	1.77	0.65
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.29	0.65
1:A:648:ILE:HG23	1:A:649:PHE:HD2	1.61	0.65
1:C:3889:GLN:HG3	1:C:3967:GLU:HG3	1.79	0.65
1:C:648:ILE:HG23	1:C:649:PHE:HD2	1.61	0.65
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.79	0.65
1:E:3889:GLN:HG3	1:E:3967:GLU:HG3	1.79	0.65
1:C:1783:VAL:HG21	2:D:55:VAL:HG12	1.78	0.65
1:C:4688:ILE:HD12	1:C:4737:ILE:HD12	1.77	0.65
1:E:1457:TYR:O	1:E:1458:HIS:CG	2.50	0.65
1:E:4172:GLU:HG2	1:E:4175:ARG:HH22	1.61	0.65
1:G:1076:ARG:O	1:G:1237:TRP:N	2.27	0.65
1:G:1815:LEU:HD11	1:G:1845:VAL:HG21	1.78	0.65
1:G:3791:GLY:O	1:G:3793:MET:N	2.30	0.65
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.77	0.65
1:G:4085:ARG:HB3	1:G:4087:LEU:HD13	1.77	0.65
1:G:572:PRO:HB3	1:G:609:CYS:HB3	1.78	0.65
1:C:1436:SER:H	1:C:1516:ILE:HA	1.61	0.65
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.79	0.65
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.30	0.65
1:A:4554:TYR:HA	1:A:4557:ARG:NH1	2.12	0.64
1:C:224:HIS:HA	1:C:388:LEU:HD23	1.79	0.64
1:E:4823:LEU:HD11	1:G:4839:MET:HB3	1.79	0.64
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4554:TYR:HA	1:E:4557:ARG:NH1	2.12	0.64
1:E:529:LEU:O	1:E:536:ASN:ND2	2.31	0.64
1:A:3771:HIS:HE1	1:A:3811:GLU:HB3	1.62	0.64
2:B:25:HIS:CG	2:B:40:ARG:HE	2.15	0.64
2:D:25:HIS:CG	2:D:40:ARG:HE	2.16	0.64
1:E:1435:TYR:HB3	1:E:1517:GLY:H	1.61	0.64
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.80	0.64
1:A:1076:ARG:O	1:A:1237:TRP:N	2.26	0.64
1:E:224:HIS:HA	1:E:388:LEU:HD23	1.79	0.64
1:E:4976:GLU:O	1:E:4979:THR:OG1	2.14	0.64
1:G:1090:PHE:HB2	1:G:1204:LEU:HD22	1.79	0.64
1:G:856:VAL:O	1:G:991:ASN:ND2	2.31	0.64
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.31	0.64
1:C:2891:LYS:HG3	1:C:2905:LEU:HD22	1.79	0.64
1:A:4172:GLU:HG2	1:A:4175:ARG:HH22	1.62	0.64
1:C:1252:HIS:O	1:C:1254:HIS:N	2.30	0.64
1:C:1435:TYR:HB3	1:C:1517:GLY:H	1.63	0.64
1:C:145:ALA:HA	1:C:175:SER:HB3	1.80	0.64
1:E:1206:GLN:N	1:E:1227:ALA:HB3	2.12	0.64
1:E:572:PRO:HB3	1:E:609:CYS:HB3	1.78	0.64
2:F:25:HIS:CG	2:F:40:ARG:HE	2.16	0.64
1:G:23:GLN:HG3	1:G:203:ASN:HD22	1.63	0.64
1:G:4052:SER:O	1:G:4056:GLU:HG2	1.98	0.64
1:G:529:LEU:O	1:G:536:ASN:ND2	2.31	0.64
1:A:3889:GLN:HG3	1:A:3967:GLU:HG3	1.79	0.64
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.79	0.64
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.79	0.64
1:E:1810:LYS:HE3	1:E:1813:ARG:HH22	1.63	0.64
1:E:1815:LEU:HD11	1:E:1845:VAL:HG21	1.78	0.64
1:E:648:ILE:HG23	1:E:649:PHE:HD2	1.61	0.64
1:A:145:ALA:HA	1:A:175:SER:HB3	1.80	0.64
1:A:266:ARG:HH12	1:A:330:ASP:HA	1.63	0.64
1:E:856:VAL:O	1:E:991:ASN:ND2	2.31	0.64
1:G:1436:SER:H	1:G:1516:ILE:HA	1.63	0.64
1:G:3771:HIS:HE1	1:G:3811:GLU:HB3	1.62	0.64
1:G:4077:PHE:CD2	1:G:4125:PHE:HB3	2.33	0.64
1:C:1810:LYS:HE3	1:C:1813:ARG:HH22	1.63	0.64
1:C:266:ARG:HH12	1:C:330:ASP:HA	1.63	0.64
1:C:4097:MET:HB3	1:C:4108:ILE:HD12	1.80	0.64
1:E:145:ALA:HA	1:E:175:SER:HB3	1.80	0.64
1:E:2178:MET:SD	1:E:2210:VAL:HG11	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1810:LYS:HE3	1:G:1813:ARG:HH22	1.63	0.64
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.63	0.64
1:G:457:GLU:HG3	1:G:464:LYS:NZ	2.13	0.64
1:A:1090:PHE:HB2	1:A:1204:LEU:HD22	1.80	0.64
1:E:45:ARG:NH1	1:E:443:LEU:HD11	2.12	0.64
1:E:457:GLU:HG3	1:E:464:LYS:NZ	2.12	0.64
1:G:1112:ASP:OD1	1:G:1606:SER:OG	2.15	0.64
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.63	0.63
1:C:1112:ASP:OD1	1:C:1606:SER:OG	2.15	0.63
1:E:2891:LYS:HG3	1:E:2905:LEU:HD22	1.79	0.63
1:A:1160:ILE:HD11	1:A:1182:ILE:HD13	1.81	0.63
1:A:184:THR:HA	1:A:189:LEU:HD23	1.79	0.63
1:A:529:LEU:O	1:A:536:ASN:ND2	2.31	0.63
1:C:2349:ASN:OD1	1:C:3849:ARG:NH1	2.21	0.63
1:C:457:GLU:HG3	1:C:464:LYS:NZ	2.12	0.63
1:G:3423:TRP:O	1:G:3427:PRO:N	2.31	0.63
1:G:4688:ILE:HD12	1:G:4737:ILE:HD12	1.80	0.63
1:A:2178:MET:SD	1:A:2210:VAL:HG11	2.39	0.63
1:A:274:LEU:HD11	1:A:280:LEU:HD22	1.80	0.63
1:A:4097:MET:HB3	1:A:4108:ILE:HD12	1.80	0.63
1:E:320:LYS:NZ	1:E:383:HIS:O	2.28	0.63
1:G:3817:LEU:HD11	1:G:3821:LYS:HE2	1.80	0.63
2:H:25:HIS:CG	2:H:40:ARG:HE	2.17	0.63
1:A:1275:ARG:NH2	1:A:1599:MET:O	2.32	0.63
1:C:4667:PRO:HA	1:C:4670:ILE:HG22	1.80	0.63
1:E:184:THR:HA	1:E:189:LEU:HD23	1.79	0.63
1:E:2924:GLN:O	1:E:2928:LYS:N	2.25	0.63
1:G:266:ARG:HH12	1:G:330:ASP:HA	1.63	0.63
1:C:2178:MET:SD	1:C:2210:VAL:HG11	2.39	0.63
1:C:4554:TYR:HA	1:C:4557:ARG:NH1	2.12	0.63
1:A:4940:PHE:CD2	1:C:4938:ASP:OD2	2.52	0.63
1:E:1295:VAL:HG22	1:E:1548:LEU:H	1.63	0.63
1:E:1828:ASP:HB3	1:E:1830:VAL:H	1.63	0.63
1:A:23:GLN:HG3	1:A:203:ASN:HD22	1.63	0.63
1:A:224:HIS:HA	1:A:388:LEU:HD23	1.79	0.63
1:A:856:VAL:O	1:A:991:ASN:ND2	2.31	0.63
1:C:184:THR:HA	1:C:189:LEU:HD23	1.79	0.63
1:C:2146:PRO:HA	1:C:2149:VAL:HG13	1.81	0.63
1:C:529:LEU:O	1:C:536:ASN:ND2	2.31	0.63
1:G:2178:MET:SD	1:G:2210:VAL:HG11	2.38	0.63
1:A:1810:LYS:HE3	1:A:1813:ARG:HH22	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1295:VAL:HG22	1:C:1548:LEU:H	1.63	0.63
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.63	0.63
1:A:4823:LEU:HD11	1:C:4839:MET:HB3	1.81	0.63
1:E:274:LEU:HD11	1:E:280:LEU:HD22	1.79	0.63
1:G:224:HIS:HA	1:G:388:LEU:HD23	1.79	0.63
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.34	0.63
1:C:887:ILE:HG12	1:C:907:LEU:HD13	1.81	0.63
1:E:266:ARG:HH12	1:E:330:ASP:HA	1.63	0.63
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.80	0.63
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.81	0.63
1:G:1275:ARG:NH2	1:G:1599:MET:O	2.32	0.63
1:G:184:THR:HA	1:G:189:LEU:HD23	1.79	0.63
1:G:4686:LEU:HB2	1:G:4690:GLU:HB2	1.81	0.63
1:A:3924:LEU:O	1:A:3927:GLN:HB3	1.99	0.62
1:A:4667:PRO:HA	1:A:4670:ILE:HG22	1.81	0.62
1:C:274:LEU:HD11	1:C:280:LEU:HD22	1.79	0.62
1:C:3924:LEU:O	1:C:3927:GLN:HB3	1.99	0.62
1:E:2146:PRO:HA	1:E:2149:VAL:HG13	1.81	0.62
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.43	0.62
1:A:221:ARG:NE	1:A:258:SER:OG	2.32	0.62
1:A:457:GLU:HG3	1:A:464:LYS:NZ	2.13	0.62
1:C:320:LYS:NZ	1:C:383:HIS:O	2.29	0.62
1:C:856:VAL:O	1:C:991:ASN:ND2	2.31	0.62
1:E:3817:LEU:HD11	1:E:3821:LYS:HE2	1.81	0.62
1:E:4667:PRO:HA	1:E:4670:ILE:HG22	1.81	0.62
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.81	0.62
1:G:221:ARG:NE	1:G:258:SER:OG	2.32	0.62
1:A:1112:ASP:OD1	1:A:1606:SER:OG	2.14	0.62
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.81	0.62
1:A:2146:PRO:HA	1:A:2149:VAL:HG13	1.80	0.62
1:A:2883:HIS:NE2	1:A:2906:VAL:O	2.28	0.62
1:C:4137:ARG:NH2	1:C:4177:TYR:OH	2.33	0.62
1:E:23:GLN:HG3	1:E:203:ASN:HD22	1.63	0.62
1:G:4889:VAL:H	1:G:4892:ARG:HD3	1.62	0.62
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.34	0.62
1:C:1160:ILE:HD11	1:C:1182:ILE:HD13	1.81	0.62
1:C:4823:LEU:HD11	1:E:4839:MET:HB3	1.82	0.62
1:E:4052:SER:O	1:E:4056:GLU:HG2	2.00	0.62
1:G:145:ALA:HA	1:G:175:SER:HB3	1.80	0.62
1:G:1160:ILE:HD11	1:G:1182:ILE:HD13	1.81	0.62
1:G:4137:ARG:NH2	1:G:4177:TYR:OH	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4866:SER:N	1:G:4873:ASP:OD2	2.33	0.62
1:C:1275:ARG:NH2	1:C:1599:MET:O	2.32	0.62
1:E:3924:LEU:O	1:E:3927:GLN:HB3	2.00	0.62
1:E:887:ILE:HG12	1:E:907:LEU:HD13	1.82	0.62
1:G:4727:LYS:O	1:G:4729:GLY:N	2.32	0.62
1:A:1295:VAL:HG22	1:A:1548:LEU:H	1.63	0.62
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.14	0.62
1:C:23:GLN:HG3	1:C:203:ASN:HD22	1.63	0.62
1:C:626:LEU:HB3	1:C:1688:HIS:CE1	2.35	0.62
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.31	0.62
1:E:626:LEU:HB3	1:E:1688:HIS:CE1	2.35	0.62
1:A:4137:ARG:NH2	1:A:4177:TYR:OH	2.33	0.62
1:E:1275:ARG:NH2	1:E:1599:MET:O	2.32	0.62
1:E:1615:VAL:HG12	1:E:1634:LEU:HD13	1.82	0.62
1:E:3813:GLN:NE2	1:E:3891:LEU:O	2.33	0.62
1:G:2354:VAL:HG11	1:G:2457:LEU:HD11	1.82	0.62
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.80	0.62
1:C:1076:ARG:O	1:C:1237:TRP:N	2.27	0.62
1:C:2354:VAL:HG11	1:C:2457:LEU:HD11	1.81	0.62
1:E:3791:GLY:O	1:E:3793:MET:N	2.32	0.62
1:E:4137:ARG:NH2	1:E:4177:TYR:OH	2.33	0.62
1:A:4708:THR:HG22	1:A:4710:SER:H	1.65	0.62
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.31	0.62
1:E:1230:MET:HG2	1:E:1828:ASP:HA	1.82	0.62
1:E:4866:SER:N	1:E:4873:ASP:OD2	2.33	0.62
1:G:1230:MET:HG2	1:G:1828:ASP:HA	1.82	0.62
1:G:2146:PRO:HA	1:G:2149:VAL:HG13	1.80	0.62
1:A:2868:SER:O	1:A:2872:GLN:N	2.32	0.61
1:A:705:ASN:OD1	1:A:706:GLY:N	2.33	0.61
1:C:829:TYR:HA	1:C:1073:ARG:NH1	2.15	0.61
1:C:1615:VAL:HG12	1:C:1634:LEU:HD13	1.82	0.61
1:C:3817:LEU:HD11	1:C:3821:LYS:HE2	1.81	0.61
1:C:4052:SER:O	1:C:4056:GLU:HG2	2.00	0.61
1:C:4866:SER:N	1:C:4873:ASP:OD2	2.33	0.61
1:E:111:HIS:CD2	1:E:114:SER:H	2.16	0.61
1:E:135:VAL:HG23	1:E:192:ASP:HA	1.82	0.61
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.01	0.61
1:A:340:LYS:HB2	1:A:344:SER:HB2	1.82	0.61
1:C:1230:MET:HG2	1:C:1828:ASP:HA	1.82	0.61
1:C:340:LYS:HB2	1:C:344:SER:HB2	1.82	0.61
1:C:644:ILE:HD11	1:C:1619:ARG:HD2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1436:SER:H	1:E:1516:ILE:HA	1.65	0.61
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.65	0.61
1:E:4708:THR:HG22	1:E:4710:SER:H	1.65	0.61
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.14	0.61
1:G:4708:THR:HG22	1:G:4710:SER:H	1.64	0.61
1:A:1243:PRO:O	1:A:1458:HIS:ND1	2.32	0.61
1:A:3817:LEU:HD11	1:A:3821:LYS:HE2	1.81	0.61
1:A:4686:LEU:HB2	1:A:4690:GLU:HB2	1.82	0.61
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.82	0.61
1:A:650:VAL:O	1:A:777:PHE:N	2.30	0.61
1:E:4686:LEU:HB2	1:E:4690:GLU:HB2	1.82	0.61
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.35	0.61
1:G:4828:SER:HA	1:G:4831:THR:HG22	1.83	0.61
1:A:135:VAL:HG23	1:A:192:ASP:HA	1.82	0.61
1:A:887:ILE:HG12	1:A:907:LEU:HD13	1.81	0.61
1:C:135:VAL:HG23	1:C:192:ASP:HA	1.82	0.61
1:C:1457:TYR:O	1:C:1458:HIS:CG	2.53	0.61
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.81	0.61
1:G:584:LYS:HZ3	1:G:1586:ASN:HD21	1.48	0.61
1:G:817:PRO:HB3	1:G:1022:VAL:HG11	1.82	0.61
1:G:674:PHE:HZ	2:H:100:ASP:OD2	1.83	0.61
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.35	0.61
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.34	0.61
1:E:221:ARG:NE	1:E:258:SER:OG	2.32	0.61
1:G:274:LEU:HD11	1:G:280:LEU:HD22	1.80	0.61
1:G:3891:LEU:HB3	1:G:3899:PHE:HE2	1.63	0.61
1:G:829:TYR:HA	1:G:1073:ARG:NH1	2.15	0.61
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.65	0.61
1:A:4052:SER:O	1:A:4056:GLU:HG2	2.00	0.61
1:A:4077:PHE:CD2	1:A:4125:PHE:HB3	2.35	0.61
1:A:4866:SER:N	1:A:4873:ASP:OD2	2.33	0.61
1:A:717:ASP:HB2	1:A:737:LEU:HA	1.83	0.61
1:A:829:TYR:HA	1:A:1073:ARG:NH1	2.15	0.61
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.81	0.61
1:C:2868:SER:O	1:C:2872:GLN:N	2.32	0.61
1:C:3813:GLN:NE2	1:C:3891:LEU:O	2.33	0.61
1:E:1160:ILE:HD11	1:E:1182:ILE:HD13	1.81	0.61
1:G:1295:VAL:HG22	1:G:1548:LEU:H	1.64	0.61
1:C:3791:GLY:O	1:C:3793:MET:N	2.32	0.61
1:G:135:VAL:HG23	1:G:192:ASP:HA	1.82	0.61
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.80	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1436:SER:HA	1:C:1515:VAL:O	1.99	0.61
1:C:723:THR:OG1	1:C:728:ARG:NH1	2.34	0.61
1:E:717:ASP:HB2	1:E:737:LEU:HA	1.82	0.61
1:G:887:ILE:HG12	1:G:907:LEU:HD13	1.82	0.61
1:A:3813:GLN:NE2	1:A:3891:LEU:O	2.34	0.61
1:A:80:GLU:OE1	1:G:3935:TRP:HE3	1.83	0.61
1:A:817:PRO:HB3	1:A:1022:VAL:HG11	1.82	0.61
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.01	0.61
2:F:11:ASP:OD2	2:F:68:VAL:HB	2.01	0.61
1:G:4044:MET:HA	1:G:4047:MET:HG2	1.83	0.61
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.35	0.61
1:A:717:ASP:OD1	1:A:718:GLY:N	2.34	0.61
1:C:347:PHE:HE1	1:C:387:ALA:HA	1.66	0.61
1:E:4687:TYR:OH	1:E:4699:GLY:O	2.19	0.61
1:E:4979:THR:O	1:E:4984:ASN:N	2.32	0.61
1:A:102:LEU:HB2	1:A:105:HIS:CD2	2.36	0.60
1:A:2354:VAL:HG11	1:A:2457:LEU:HD11	1.82	0.60
1:C:584:LYS:HZ3	1:C:1586:ASN:HD21	1.48	0.60
1:C:4077:PHE:CD2	1:C:4125:PHE:HB3	2.35	0.60
1:A:4826:ILE:HG23	1:C:4931:ILE:HD11	1.79	0.60
1:E:817:PRO:HB3	1:E:1022:VAL:HG11	1.82	0.60
1:E:1088:TRP:HZ3	1:E:1229:ASN:HD21	1.49	0.60
1:E:2349:ASN:OD1	1:E:3849:ARG:NH1	2.21	0.60
1:E:2354:VAL:HG11	1:E:2457:LEU:HD11	1.82	0.60
1:E:347:PHE:HE1	1:E:387:ALA:HA	1.66	0.60
1:E:4077:PHE:CD2	1:E:4125:PHE:HB3	2.35	0.60
1:E:829:TYR:HA	1:E:1073:ARG:NH1	2.15	0.60
1:G:1739:THR:O	1:G:1742:THR:OG1	2.16	0.60
1:G:4027:LEU:HD22	1:G:4146:LEU:HD11	1.82	0.60
1:C:2355:ARG:O	1:C:2359:ARG:NE	2.33	0.60
1:E:644:ILE:HD11	1:E:1619:ARG:HD2	1.82	0.60
1:G:3806:ASN:H	1:G:3890:LEU:HD23	1.66	0.60
1:G:4686:LEU:O	1:G:4690:GLU:N	2.33	0.60
1:A:3962:PHE:O	1:A:3966:THR:HG23	2.01	0.60
1:A:495:ASN:HD22	1:A:550:LYS:HD2	1.66	0.60
1:E:3937:TYR:HA	1:E:3940:LYS:HZ3	1.66	0.60
1:E:495:ASN:HD22	1:E:550:LYS:HD2	1.66	0.60
1:E:717:ASP:OD2	2:F:7:ILE:O	2.19	0.60
1:G:347:PHE:HE1	1:G:387:ALA:HA	1.66	0.60
1:G:717:ASP:OD1	1:G:718:GLY:N	2.34	0.60
1:A:1615:VAL:HG12	1:A:1634:LEU:HD13	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:717:ASP:OD2	2:D:7:ILE:O	2.20	0.60
1:E:445:LEU:HD21	1:E:522:LEU:HG	1.84	0.60
1:E:717:ASP:OD1	1:E:718:GLY:N	2.34	0.60
1:E:723:THR:OG1	1:E:728:ARG:NH1	2.33	0.60
1:G:102:LEU:HB2	1:G:105:HIS:CD2	2.37	0.60
1:G:644:ILE:HD11	1:G:1619:ARG:HD2	1.82	0.60
1:G:2924:GLN:HB3	1:G:2928:LYS:CE	2.31	0.60
1:G:495:ASN:HD22	1:G:550:LYS:HD2	1.66	0.60
1:A:1547:LYS:NZ	1:A:1645:ASN:HB2	2.16	0.60
1:A:717:ASP:OD2	2:B:7:ILE:O	2.19	0.60
1:C:4686:LEU:HB2	1:C:4690:GLU:HB2	1.82	0.60
1:C:4809:PHE:O	1:C:4812:HIS:ND1	2.28	0.60
1:C:717:ASP:HB2	1:C:737:LEU:HA	1.82	0.60
1:E:1547:LYS:NZ	1:E:1645:ASN:HB2	2.15	0.60
1:G:1088:TRP:HZ3	1:G:1229:ASN:HD21	1.50	0.60
1:G:639:ASN:HA	1:G:1635:THR:HG22	1.83	0.60
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.01	0.60
1:G:705:ASN:OD1	1:G:706:GLY:N	2.33	0.60
1:A:445:LEU:HD21	1:A:522:LEU:HG	1.84	0.60
1:C:1435:TYR:H	1:C:1516:ILE:CG1	2.14	0.60
1:C:1961:PHE:CD1	1:C:2066:LEU:HD13	2.37	0.60
1:C:3962:PHE:O	1:C:3966:THR:HG23	2.02	0.60
1:C:445:LEU:HD21	1:C:522:LEU:HG	1.84	0.60
2:D:11:ASP:OD2	2:D:68:VAL:HB	2.02	0.60
1:G:2868:SER:O	1:G:2872:GLN:N	2.32	0.60
1:C:2356:LEU:HD23	1:C:2359:ARG:NH1	2.17	0.60
1:C:4708:THR:HG22	1:C:4710:SER:H	1.65	0.60
1:G:1547:LYS:NZ	1:G:1645:ASN:HB2	2.17	0.60
1:G:1615:VAL:HG12	1:G:1634:LEU:HD13	1.82	0.60
1:G:2356:LEU:HD23	1:G:2359:ARG:NH1	2.17	0.60
1:G:320:LYS:NZ	1:G:383:HIS:O	2.29	0.60
1:A:2356:LEU:HD23	1:A:2359:ARG:NH1	2.17	0.60
1:C:1088:TRP:HZ3	1:C:1229:ASN:HD21	1.49	0.60
1:C:705:ASN:OD1	1:C:706:GLY:N	2.33	0.60
1:C:717:ASP:OD1	1:C:718:GLY:N	2.34	0.60
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.17	0.60
1:A:1230:MET:HG2	1:A:1828:ASP:HA	1.84	0.60
1:A:2517:PHE:HA	1:A:2520:HIS:CE1	2.37	0.60
1:A:4830:VAL:HG22	1:A:4936:ILE:HD12	1.84	0.60
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.66	0.60
1:G:4667:PRO:HA	1:G:4670:ILE:HG22	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:119:SER:HB2	1:A:145:ALA:HB1	1.84	0.60
1:A:644:ILE:HD11	1:A:1619:ARG:HD2	1.82	0.60
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.66	0.60
1:C:221:ARG:NE	1:C:258:SER:OG	2.32	0.60
1:C:4687:TYR:OH	1:C:4699:GLY:O	2.19	0.60
1:E:2496:PRO:HG3	1:E:2549:ALA:HB1	1.84	0.60
1:E:340:LYS:HB2	1:E:344:SER:HB2	1.82	0.60
1:E:3962:PHE:O	1:E:3966:THR:HG23	2.01	0.60
1:A:347:PHE:HE1	1:A:387:ALA:HA	1.66	0.59
1:A:3791:GLY:O	1:A:3793:MET:N	2.32	0.59
1:C:639:ASN:HA	1:C:1635:THR:HG22	1.83	0.59
1:C:1739:THR:O	1:C:1742:THR:OG1	2.17	0.59
1:C:2517:PHE:HA	1:C:2520:HIS:CE1	2.37	0.59
1:E:2356:LEU:HD23	1:E:2359:ARG:NH1	2.17	0.59
1:E:4806:ASN:O	1:E:4809:PHE:HB3	2.01	0.59
1:G:2517:PHE:HA	1:G:2520:HIS:CE1	2.37	0.59
1:G:2496:PRO:HG3	1:G:2549:ALA:HB1	1.84	0.59
1:G:445:LEU:HD21	1:G:522:LEU:HG	1.84	0.59
1:C:102:LEU:HB2	1:C:105:HIS:CD2	2.37	0.59
1:C:1547:LYS:NZ	1:C:1645:ASN:HB2	2.16	0.59
1:E:705:ASN:OD1	1:E:706:GLY:N	2.33	0.59
1:G:340:LYS:HB2	1:G:344:SER:HB2	1.83	0.59
1:C:495:ASN:HD22	1:C:550:LYS:HD2	1.66	0.59
1:G:250:GLY:O	1:G:252:VAL:N	2.35	0.59
1:A:1739:THR:O	1:A:1742:THR:OG1	2.17	0.59
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	1.85	0.59
2:B:11:ASP:OD2	2:B:68:VAL:HB	2.01	0.59
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.84	0.59
1:E:4928:LEU:O	1:E:4931:ILE:HG22	2.02	0.59
1:E:494:LEU:HB3	1:E:515:TRP:HE1	1.68	0.59
1:E:635:THR:HG23	1:E:1693:GLN:HE22	1.68	0.59
1:G:2355:ARG:O	1:G:2359:ARG:NE	2.33	0.59
1:A:350:HIS:O	1:A:354:GLY:N	2.28	0.59
1:E:639:ASN:HA	1:E:1635:THR:HG22	1.84	0.59
1:E:617:ASN:O	1:E:621:ILE:HG12	2.02	0.59
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.84	0.59
1:A:293:LEU:HD13	1:A:350:HIS:CD2	2.38	0.59
1:C:1206:GLN:N	1:C:1227:ALA:HB3	2.12	0.59
1:C:627:PRO:HG3	2:D:89:GLY:C	2.23	0.59
1:E:119:SER:HB2	1:E:145:ALA:HB1	1.85	0.59
1:E:2205:GLU:O	1:E:2209:GLU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4904:PRO:HB2	1:E:4910:GLU:HG2	1.85	0.59
1:G:1620:ALA:N	1:G:1629:GLN:O	2.33	0.59
1:G:1961:PHE:CD1	1:G:2066:LEU:HD13	2.37	0.59
1:G:2205:GLU:O	1:G:2209:GLU:N	2.36	0.59
1:G:4554:TYR:HA	1:G:4557:ARG:NH1	2.17	0.59
1:G:717:ASP:OD2	2:H:7:ILE:O	2.19	0.59
2:H:11:ASP:OD2	2:H:68:VAL:HB	2.03	0.59
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.84	0.59
1:C:1598:GLN:O	1:C:1600:LEU:N	2.34	0.59
1:E:1457:TYR:O	1:E:1458:HIS:CD2	2.56	0.59
1:G:4097:MET:HB3	1:G:4108:ILE:HD12	1.84	0.59
1:G:4928:LEU:HA	1:G:4931:ILE:HG22	1.85	0.59
1:A:1961:PHE:CD1	1:A:2066:LEU:HD13	2.37	0.59
1:A:2349:ASN:OD1	1:A:3849:ARG:NH1	2.21	0.59
1:G:635:THR:HG23	1:G:1693:GLN:HE22	1.68	0.59
1:G:4705:VAL:HG22	1:G:4711:PHE:HD1	1.68	0.59
1:A:617:ASN:O	1:A:621:ILE:HG12	2.03	0.59
1:C:119:SER:HB2	1:C:145:ALA:HB1	1.85	0.59
1:C:293:LEU:HD13	1:C:350:HIS:CD2	2.38	0.59
1:C:4904:PRO:HB2	1:C:4910:GLU:HG2	1.85	0.59
1:C:617:ASN:O	1:C:621:ILE:HG12	2.02	0.59
1:C:817:PRO:HB3	1:C:1022:VAL:HG11	1.82	0.59
1:G:717:ASP:HB2	1:G:737:LEU:HA	1.85	0.59
1:A:2496:PRO:HG3	1:A:2549:ALA:HB1	1.85	0.59
1:C:2496:PRO:HG3	1:C:2549:ALA:HB1	1.85	0.59
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.18	0.59
1:C:57:ASN:HD22	1:C:308:HIS:HB2	1.67	0.59
1:C:650:VAL:O	1:C:777:PHE:N	2.30	0.59
1:E:102:LEU:HB2	1:E:105:HIS:CD2	2.37	0.59
1:E:1961:PHE:CD1	1:E:2066:LEU:HD13	2.38	0.59
1:E:57:ASN:HD22	1:E:308:HIS:HB2	1.67	0.59
1:G:617:ASN:O	1:G:621:ILE:HG12	2.02	0.59
1:G:723:THR:OG1	1:G:728:ARG:NH1	2.34	0.59
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.01	0.58
1:A:4931:ILE:HD11	1:G:4826:ILE:CG2	2.33	0.58
1:C:2125:HIS:HD2	1:C:3728:ILE:HD11	1.67	0.58
1:E:249:GLY:H	1:E:372:LEU:HD11	1.68	0.58
1:G:494:LEU:HB3	1:G:515:TRP:HE1	1.68	0.58
1:A:2233:CYS:HG	1:A:2271:THR:N	2.01	0.58
1:A:4904:PRO:HB2	1:A:4910:GLU:HG2	1.86	0.58
1:A:737:LEU:CD1	2:B:8:SER:HB3	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.84	0.58
1:C:1437:VAL:N	1:C:1515:VAL:O	2.35	0.58
1:C:2233:CYS:HG	1:C:2271:THR:N	2.01	0.58
1:C:358:THR:HA	1:C:386:ASP:OD2	2.04	0.58
1:C:4979:THR:O	1:C:4984:ASN:N	2.31	0.58
1:C:737:LEU:CD1	2:D:8:SER:HB3	2.34	0.58
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.84	0.58
1:E:2517:PHE:HA	1:E:2520:HIS:CE1	2.37	0.58
1:E:2890:LYS:HE3	1:E:2894:LEU:HD11	1.85	0.58
1:E:293:LEU:HD13	1:E:350:HIS:CD2	2.38	0.58
1:E:737:LEU:CD1	2:F:8:SER:HB3	2.33	0.58
1:G:1435:TYR:HB3	1:G:1517:GLY:H	1.68	0.58
1:G:2126:ARG:HB2	1:G:2133:GLU:OE1	2.03	0.58
1:G:293:LEU:HD13	1:G:350:HIS:CD2	2.38	0.58
1:A:358:THR:HA	1:A:386:ASP:OD2	2.03	0.58
1:A:723:THR:OG1	1:A:728:ARG:NH1	2.34	0.58
1:E:1091:GLU:HG2	1:E:1213:PHE:HB2	1.85	0.58
1:E:2233:CYS:HG	1:E:2271:THR:N	2.01	0.58
1:G:119:SER:HB2	1:G:145:ALA:HB1	1.85	0.58
1:G:1206:GLN:N	1:G:1227:ALA:HB3	2.12	0.58
1:A:4687:TYR:OH	1:A:4699:GLY:O	2.20	0.58
1:E:404:ILE:HD13	1:E:481:GLU:HG3	1.85	0.58
1:A:2125:HIS:HD2	1:A:3728:ILE:HD11	1.68	0.58
1:A:250:GLY:O	1:A:252:VAL:N	2.36	0.58
1:A:494:LEU:HB3	1:A:515:TRP:HE1	1.68	0.58
1:E:1598:GLN:O	1:E:1600:LEU:N	2.33	0.58
1:G:3839:CYS:SG	1:G:3881:THR:HG22	2.44	0.58
1:A:635:THR:HG23	1:A:1693:GLN:HE22	1.68	0.58
1:A:4839:MET:HB3	1:G:4823:LEU:HD11	1.85	0.58
1:C:1190:PRO:HG3	1:C:1226:PHE:CE2	2.36	0.58
1:C:635:THR:HG23	1:C:1693:GLN:HE22	1.68	0.58
1:C:1745:ILE:HD11	1:C:1769:THR:HG21	1.86	0.58
1:C:15:ARG:N	1:C:18:ASP:OD2	2.37	0.58
1:C:404:ILE:HD13	1:C:481:GLU:HG3	1.86	0.58
1:C:864:PRO:O	1:C:868:GLU:N	2.32	0.58
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.84	0.58
1:G:3780:LEU:HD21	1:G:3820:LEU:HD21	1.85	0.58
1:A:639:ASN:HA	1:A:1635:THR:HG22	1.84	0.58
1:A:1933:GLU:HB3	1:A:2116:LEU:HD21	1.86	0.58
1:A:2355:ARG:O	1:A:2359:ARG:NE	2.33	0.58
1:C:4806:ASN:O	1:C:4809:PHE:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2233:CYS:HG	1:G:2271:THR:N	2.01	0.58
1:G:2349:ASN:OD1	1:G:3849:ARG:NH1	2.26	0.58
1:G:4727:LYS:HZ2	1:G:4728:HIS:CE1	2.22	0.58
1:A:1745:ILE:HD11	1:A:1769:THR:HG21	1.86	0.58
1:A:4786:ASP:OD2	1:A:4788:SER:OG	2.07	0.58
1:A:57:ASN:HD22	1:A:308:HIS:HB2	1.67	0.58
1:C:2205:GLU:O	1:C:2209:GLU:N	2.36	0.58
1:C:2890:LYS:HE3	1:C:2894:LEU:HD11	1.84	0.58
1:E:15:ARG:N	1:E:18:ASP:OD2	2.36	0.58
1:E:2868:SER:O	1:E:2872:GLN:N	2.32	0.58
1:E:3821:LYS:HZ3	1:E:3902:TYR:HD1	1.50	0.58
1:G:1091:GLU:HG2	1:G:1213:PHE:HB2	1.85	0.58
1:G:640:TYR:CE1	1:G:1613:LEU:HD23	2.37	0.58
1:G:737:LEU:CD1	2:H:8:SER:HB3	2.33	0.58
1:A:1620:ALA:N	1:A:1629:GLN:O	2.33	0.58
1:A:249:GLY:H	1:A:372:LEU:HD11	1.68	0.58
1:C:1091:GLU:HG2	1:C:1213:PHE:HB2	1.85	0.58
1:E:1585:LYS:HZ3	1:E:1596:GLU:CD	2.05	0.58
1:E:1933:GLU:HB3	1:E:2116:LEU:HD21	1.86	0.58
1:C:2358:ILE:HG23	1:E:195:PHE:CD2	2.39	0.58
1:E:2125:HIS:HD2	1:E:3728:ILE:HD11	1.68	0.58
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.37	0.58
1:G:1933:GLU:HB3	1:G:2116:LEU:HD21	1.86	0.58
1:A:195:PHE:CD2	1:G:2358:ILE:HG23	2.39	0.58
1:G:358:THR:HA	1:G:386:ASP:OD2	2.03	0.58
1:G:249:GLY:H	1:G:372:LEU:HD11	1.68	0.58
1:G:4855:ALA:HB1	1:G:4863:TYR:CE2	2.39	0.58
1:A:111:HIS:HD2	1:A:114:SER:N	2.00	0.58
1:A:2358:ILE:HG23	1:C:195:PHE:CD2	2.39	0.58
1:A:4806:ASN:O	1:A:4809:PHE:HB3	2.04	0.58
1:C:1620:ALA:N	1:C:1629:GLN:O	2.33	0.58
1:E:358:THR:HA	1:E:386:ASP:OD2	2.03	0.58
1:E:627:PRO:HG3	2:F:89:GLY:C	2.24	0.58
1:G:3169:LEU:O	1:G:3173:TYR:N	2.36	0.58
1:G:650:VAL:O	1:G:777:PHE:N	2.30	0.58
1:A:1436:SER:N	1:A:1516:ILE:HA	2.19	0.57
1:A:320:LYS:NZ	1:A:383:HIS:O	2.29	0.57
1:E:1243:PRO:O	1:E:1458:HIS:CE1	2.57	0.57
1:G:111:HIS:HD2	1:G:114:SER:N	2.00	0.57
1:G:2890:LYS:HE3	1:G:2894:LEU:HD11	1.85	0.57
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.13	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.37	0.57
1:A:3805:LEU:O	1:A:3807:GLY:N	2.37	0.57
1:A:421:PHE:CD1	1:A:507:ALA:HB2	2.39	0.57
2:D:87:HIS:HB3	2:D:91:ILE:H	1.69	0.57
1:E:421:PHE:CD1	1:E:507:ALA:HB2	2.39	0.57
1:G:2259:GLU:HG2	1:G:2297:LYS:HE2	1.86	0.57
1:G:2454:ARG:O	1:G:2458:ARG:HG3	2.04	0.57
1:G:461:HIS:O	1:G:465:GLN:HG2	2.04	0.57
1:G:4830:VAL:HG22	1:G:4936:ILE:HD12	1.86	0.57
1:G:57:ASN:HD22	1:G:308:HIS:HB2	1.67	0.57
1:A:2890:LYS:HE3	1:A:2894:LEU:HD11	1.85	0.57
1:A:627:PRO:HG3	2:B:89:GLY:C	2.24	0.57
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.20	0.57
1:C:1933:GLU:HB3	1:C:2116:LEU:HD21	1.86	0.57
1:C:250:GLY:O	1:C:252:VAL:N	2.38	0.57
1:E:1480:GLN:N	1:E:1481:GLY:HA2	2.19	0.57
1:E:864:PRO:O	1:E:868:GLU:N	2.33	0.57
2:F:87:HIS:HB3	2:F:91:ILE:H	1.69	0.57
1:G:2125:HIS:HD2	1:G:3728:ILE:HD11	1.69	0.57
1:A:15:ARG:N	1:A:18:ASP:OD2	2.37	0.57
1:A:3835:LEU:HD21	1:A:3880:PHE:CE2	2.40	0.57
1:A:4077:PHE:O	1:A:4081:VAL:N	2.37	0.57
1:E:250:GLY:O	1:E:252:VAL:N	2.38	0.57
1:E:4027:LEU:HD22	1:E:4146:LEU:HD11	1.86	0.57
1:G:1745:ILE:HD11	1:G:1769:THR:HG21	1.86	0.57
2:H:87:HIS:HB3	2:H:91:ILE:H	1.68	0.57
1:A:2205:GLU:O	1:A:2209:GLU:N	2.36	0.57
1:C:2126:ARG:HB2	1:C:2133:GLU:OE1	2.05	0.57
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.37	0.57
1:C:3805:LEU:O	1:C:3807:GLY:N	2.37	0.57
1:E:1745:ILE:HD11	1:E:1769:THR:HG21	1.86	0.57
1:E:2771:ILE:HD11	1:E:2857:PRO:HD2	1.87	0.57
1:E:4786:ASP:OD2	1:E:4788:SER:OG	2.07	0.57
1:G:3897:ASN:O	1:G:3901:ASN:ND2	2.36	0.57
1:G:768:PHE:HB3	1:G:771:PHE:HE1	1.69	0.57
1:A:1480:GLN:N	1:A:1481:GLY:HA2	2.19	0.57
1:A:170:ILE:HD11	1:A:199:LEU:HD23	1.85	0.57
1:A:649:PHE:CE1	1:A:689:THR:HG22	2.40	0.57
1:A:16:THR:HB	1:A:98:HIS:HA	1.87	0.57
1:C:350:HIS:O	1:C:354:GLY:N	2.27	0.57
1:G:1436:SER:H	1:G:1516:ILE:CG1	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:170:ILE:HD11	1:G:199:LEU:HD23	1.86	0.57
1:G:4026:MET:HG3	1:G:4027:LEU:N	2.19	0.57
1:G:627:PRO:HG3	2:H:89:GLY:C	2.23	0.57
1:A:1731:LEU:HD21	1:A:1948:ASP:HB3	1.87	0.57
1:A:2771:ILE:HD11	1:A:2857:PRO:HD2	1.87	0.57
1:A:495:ASN:HB3	1:A:553:ARG:NH2	2.20	0.57
1:C:1480:GLN:N	1:C:1481:GLY:HA2	2.19	0.57
1:C:494:LEU:HB3	1:C:515:TRP:HE1	1.69	0.57
1:C:523:TYR:CD1	1:C:560:ILE:HG12	2.40	0.57
1:E:170:ILE:HD11	1:E:199:LEU:HD23	1.86	0.57
1:E:2454:ARG:O	1:E:2458:ARG:HG3	2.04	0.57
1:G:15:ARG:N	1:G:18:ASP:OD2	2.36	0.57
1:G:4047:MET:HG3	1:G:4048:LEU:N	2.18	0.57
1:G:421:PHE:CD1	1:G:507:ALA:HB2	2.40	0.57
1:A:4928:LEU:O	1:A:4931:ILE:HG22	2.04	0.57
1:A:4205:TRP:CZ2	1:A:4986:ALA:HB2	2.40	0.57
1:C:2259:GLU:HG2	1:C:2297:LYS:HE2	1.87	0.57
1:C:2922:LYS:HA	1:C:2925:GLU:CD	2.23	0.57
1:C:768:PHE:HB3	1:C:771:PHE:HE1	1.69	0.57
1:G:1480:GLN:N	1:G:1481:GLY:HA2	2.19	0.57
1:G:2551:ASN:O	1:G:2554:LEU:HG	2.05	0.57
1:A:1833:SER:HB2	1:A:1836:PHE:HD2	1.70	0.57
1:A:2454:ARG:O	1:A:2458:ARG:HG3	2.04	0.57
1:C:2556:LEU:HA	1:C:2559:LEU:HD13	1.87	0.57
1:C:2771:ILE:HD11	1:C:2857:PRO:HD2	1.87	0.57
1:C:249:GLY:H	1:C:372:LEU:HD11	1.69	0.57
1:C:3835:LEU:HD21	1:C:3880:PHE:CE2	2.39	0.57
1:C:421:PHE:CD1	1:C:507:ALA:HB2	2.39	0.57
1:E:16:THR:HB	1:E:98:HIS:HA	1.87	0.57
1:E:1739:THR:O	1:E:1742:THR:OG1	2.17	0.57
1:E:3835:LEU:HD21	1:E:3880:PHE:CE2	2.40	0.57
1:E:495:ASN:HB3	1:E:553:ARG:NH2	2.20	0.57
1:E:523:TYR:CD1	1:E:560:ILE:HG12	2.40	0.57
1:E:649:PHE:CE1	1:E:689:THR:HG22	2.40	0.57
1:G:649:PHE:CE1	1:G:689:THR:HG22	2.40	0.57
1:A:232:THR:OG1	1:A:252:VAL:HG21	2.05	0.57
1:C:4077:PHE:O	1:C:4081:VAL:N	2.37	0.57
1:E:584:LYS:HZ3	1:E:1586:ASN:HD21	1.51	0.57
1:E:2259:GLU:HG2	1:E:2297:LYS:HE2	1.87	0.57
1:E:2355:ARG:O	1:E:2359:ARG:NE	2.33	0.57
1:G:1731:LEU:HD21	1:G:1948:ASP:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:257:ARG:O	1:G:284:HIS:HE1	1.88	0.57
1:E:4826:ILE:HG23	1:G:4931:ILE:HD11	1.80	0.57
1:G:4994:TYR:O	1:G:4998:LYS:HG2	2.05	0.57
1:G:523:TYR:CD1	1:G:560:ILE:HG12	2.40	0.57
1:A:1598:GLN:O	1:A:1600:LEU:N	2.33	0.56
1:A:257:ARG:O	1:A:284:HIS:HE1	1.88	0.56
1:A:2862:LEU:HD21	1:A:2929:PHE:HD1	1.70	0.56
1:C:495:ASN:HB3	1:C:553:ARG:NH2	2.20	0.56
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.70	0.56
1:G:1190:PRO:HG3	1:G:1226:PHE:CE2	2.36	0.56
1:A:1190:PRO:HG3	1:A:1226:PHE:CE2	2.37	0.56
1:A:2902:HIS:HB3	1:A:2905:LEU:HG	1.87	0.56
1:A:4861:LYS:O	1:A:4875:LYS:NZ	2.39	0.56
1:C:4205:TRP:CZ2	1:C:4986:ALA:HB2	2.40	0.56
1:E:1616:GLU:HG3	1:E:1617:THR:N	2.20	0.56
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.14	0.56
1:E:257:ARG:O	1:E:284:HIS:HE1	1.88	0.56
1:E:4205:TRP:CZ2	1:E:4986:ALA:HB2	2.40	0.56
1:G:2771:ILE:HD11	1:G:2857:PRO:HD2	1.87	0.56
1:G:4077:PHE:O	1:G:4081:VAL:N	2.38	0.56
1:A:4686:LEU:O	1:A:4690:GLU:N	2.39	0.56
2:B:87:HIS:HB3	2:B:91:ILE:H	1.69	0.56
1:C:2454:ARG:O	1:C:2458:ARG:HG3	2.04	0.56
1:C:649:PHE:CE1	1:C:689:THR:HG22	2.40	0.56
1:E:2827:ARG:HB2	1:E:2934:GLY:HA3	1.87	0.56
1:E:4809:PHE:O	1:E:4812:HIS:ND1	2.28	0.56
1:E:650:VAL:O	1:E:777:PHE:N	2.30	0.56
1:G:110:ARG:NH1	1:G:115:ARG:HE	2.03	0.56
1:G:3805:LEU:O	1:G:3807:GLY:N	2.38	0.56
1:A:110:ARG:NH1	1:A:115:ARG:HE	2.03	0.56
1:C:170:ILE:HD11	1:C:199:LEU:HD23	1.86	0.56
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.87	0.56
1:G:4848:VAL:HG23	1:G:4920:PHE:HE1	1.71	0.56
1:A:2259:GLU:HG2	1:A:2297:LYS:HE2	1.87	0.56
1:A:768:PHE:HB3	1:A:771:PHE:HE1	1.70	0.56
1:C:1616:GLU:HG3	1:C:1617:THR:N	2.20	0.56
1:C:3885:PHE:HE1	1:C:3919:THR:HG1	1.52	0.56
1:E:2126:ARG:HB2	1:E:2133:GLU:OE1	2.05	0.56
1:E:2551:ASN:O	1:E:2554:LEU:HG	2.05	0.56
1:E:4077:PHE:O	1:E:4081:VAL:N	2.38	0.56
1:G:1616:GLU:HG3	1:G:1617:THR:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1731:LEU:HD21	1:C:1948:ASP:HB3	1.86	0.56
1:C:461:HIS:O	1:C:465:GLN:HG2	2.06	0.56
1:E:896:VAL:HG13	1:E:903:LEU:HB3	1.88	0.56
1:G:1003:GLN:O	1:G:1016:ARG:N	2.39	0.56
1:G:3786:CYS:SG	1:G:3794:VAL:HG22	2.45	0.56
1:G:404:ILE:HD13	1:G:481:GLU:HG3	1.86	0.56
1:A:2551:ASN:O	1:A:2554:LEU:HG	2.05	0.56
1:A:2827:ARG:HB2	1:A:2934:GLY:HA3	1.87	0.56
1:A:4031:LEU:HD13	1:A:4044:MET:HE3	1.87	0.56
1:C:111:HIS:CD2	1:C:114:SER:H	2.16	0.56
1:C:257:ARG:O	1:C:284:HIS:HE1	1.88	0.56
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.87	0.56
1:E:4164:LEU:HD23	1:E:4168:GLU:OE2	2.06	0.56
1:E:461:HIS:O	1:E:465:GLN:HG2	2.06	0.56
1:E:670:GLU:HB3	1:E:788:LYS:HB3	1.87	0.56
1:G:232:THR:OG1	1:G:252:VAL:HG21	2.05	0.56
1:G:4956:THR:O	1:G:4965:SER:N	2.38	0.56
1:A:1616:GLU:HG3	1:A:1617:THR:N	2.20	0.56
1:A:2126:ARG:HB2	1:A:2133:GLU:OE1	2.05	0.56
1:A:2248:ARG:NH1	1:A:2285:GLU:OE2	2.39	0.56
1:A:2556:LEU:HA	1:A:2559:LEU:HD13	1.87	0.56
1:A:4013:LEU:O	1:A:4017:LEU:HG	2.06	0.56
1:A:404:ILE:HD13	1:A:481:GLU:HG3	1.86	0.56
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.70	0.56
1:E:1003:GLN:O	1:E:1016:ARG:N	2.39	0.56
1:E:1214:PHE:O	1:E:1218:GLY:N	2.37	0.56
1:E:640:TYR:CE1	1:E:1613:LEU:HD23	2.37	0.56
1:E:1833:SER:HB2	1:E:1836:PHE:HD2	1.70	0.56
1:E:2358:ILE:HG23	1:G:195:PHE:CD2	2.40	0.56
1:C:4826:ILE:HG23	1:E:4931:ILE:HD11	1.83	0.56
1:E:768:PHE:HB3	1:E:771:PHE:HE1	1.69	0.56
1:G:4205:TRP:CZ2	1:G:4986:ALA:HB2	2.41	0.56
1:G:16:THR:HB	1:G:98:HIS:HA	1.87	0.56
1:A:1237:TRP:HD1	1:A:1611:HIS:HA	1.71	0.56
1:A:2143:THR:OG1	1:A:3651:ASN:ND2	2.39	0.56
1:A:523:TYR:CD1	1:A:560:ILE:HG12	2.40	0.56
1:C:2827:ARG:HB2	1:C:2934:GLY:HA3	1.88	0.56
1:C:896:VAL:HG23	1:C:903:LEU:HB3	1.88	0.56
1:E:1240:LYS:HG3	1:E:1610:ASN:HD22	1.71	0.56
1:E:1620:ALA:N	1:E:1629:GLN:O	2.33	0.56
1:E:4904:PRO:HG3	1:E:4913:ARG:HH11	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4683:PHE:CE2	1:E:5017:ARG:HD2	2.41	0.56
1:G:3840:SER:HB2	1:G:3877:ASP:OD2	2.06	0.56
1:C:1833:SER:HB2	1:C:1836:PHE:HD2	1.70	0.56
1:C:2143:THR:OG1	1:C:3651:ASN:ND2	2.39	0.56
1:C:2862:LEU:HD21	1:C:2929:PHE:HD1	1.71	0.56
1:C:4027:LEU:HD22	1:C:4146:LEU:HD11	1.87	0.56
1:C:4888:TYR:CD1	1:E:4914:VAL:HG23	2.41	0.56
1:E:1190:PRO:HG3	1:E:1226:PHE:CE2	2.36	0.56
1:E:2862:LEU:HD21	1:E:2929:PHE:HD1	1.71	0.56
1:E:4013:LEU:O	1:E:4017:LEU:HG	2.06	0.56
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.38	0.56
1:A:1091:GLU:HG2	1:A:1213:PHE:HB2	1.86	0.56
1:A:4979:THR:O	1:A:4984:ASN:N	2.31	0.56
1:C:670:GLU:HB3	1:C:788:LYS:HB3	1.87	0.56
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.21	0.56
1:E:4705:VAL:HG22	1:E:4711:PHE:HD1	1.71	0.56
1:G:1240:LYS:HG3	1:G:1610:ASN:HD22	1.71	0.56
1:G:4181:ILE:HG23	1:G:4195:PHE:HE1	1.71	0.56
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.88	0.56
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.71	0.55
1:C:111:HIS:HD2	1:C:114:SER:N	2.01	0.55
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.71	0.55
1:E:2763:HIS:NE2	1:E:2792:ARG:O	2.32	0.55
1:C:4578:LEU:O	1:E:4879:MET:CB	2.54	0.55
1:G:1598:GLN:O	1:G:1600:LEU:N	2.33	0.55
1:G:641:VAL:HG21	1:G:704:GLY:N	2.21	0.55
1:A:670:GLU:HB3	1:A:788:LYS:HB3	1.87	0.55
1:C:640:TYR:CE1	1:C:1613:LEU:HD23	2.37	0.55
1:C:232:THR:OG1	1:C:252:VAL:HG21	2.05	0.55
1:C:2551:ASN:O	1:C:2554:LEU:HG	2.05	0.55
1:C:2902:HIS:HB3	1:C:2905:LEU:HG	1.86	0.55
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.87	0.55
1:C:4786:ASP:OD2	1:C:4788:SER:OG	2.07	0.55
1:C:4928:LEU:O	1:C:4931:ILE:HG22	2.06	0.55
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.71	0.55
1:E:2556:LEU:HA	1:E:2559:LEU:HD13	1.88	0.55
1:G:103:TYR:CE2	1:G:163:VAL:HA	2.42	0.55
1:G:495:ASN:HB3	1:G:553:ARG:NH2	2.20	0.55
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.20	0.55
1:A:864:PRO:O	1:A:868:GLU:N	2.33	0.55
1:E:4181:ILE:HG23	1:E:4195:PHE:HE1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.71	0.55
1:G:1833:SER:HB2	1:G:1836:PHE:HD2	1.70	0.55
1:A:2763:HIS:NE2	1:A:2792:ARG:O	2.32	0.55
1:A:294:THR:HG22	1:A:296:ASP:H	1.71	0.55
1:C:1003:GLN:O	1:C:1016:ARG:N	2.39	0.55
1:C:16:THR:HB	1:C:98:HIS:HA	1.87	0.55
1:C:641:VAL:HG21	1:C:704:GLY:N	2.21	0.55
1:C:758:ARG:HH12	1:C:763:PRO:HG3	1.72	0.55
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.42	0.55
1:E:103:TYR:CE2	1:E:163:VAL:HA	2.41	0.55
1:E:2248:ARG:NH1	1:E:2285:GLU:OE2	2.39	0.55
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.41	0.55
1:E:2902:HIS:HB3	1:E:2905:LEU:HG	1.86	0.55
1:E:2143:THR:OG1	1:E:3651:ASN:ND2	2.39	0.55
1:E:375:LYS:HZ1	1:E:377:ILE:HG22	1.71	0.55
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.88	0.55
1:G:1201:HIS:CE1	1:G:1203:ASN:HD21	2.24	0.55
1:G:220:LEU:HD11	1:G:390:LEU:HD22	1.87	0.55
1:G:3750:GLU:OE2	1:G:4716:TRP:HA	2.07	0.55
1:A:1088:TRP:HZ3	1:A:1229:ASN:HD21	1.54	0.55
1:A:3891:LEU:HD23	1:A:3899:PHE:CZ	2.41	0.55
1:A:220:LEU:HD11	1:A:390:LEU:HD22	1.88	0.55
1:C:4031:LEU:HD13	1:C:4044:MET:HE3	1.87	0.55
1:C:4164:LEU:HD23	1:C:4168:GLU:OE2	2.06	0.55
1:C:4956:THR:O	1:C:4965:SER:N	2.39	0.55
1:E:1731:LEU:HD21	1:E:1948:ASP:HB3	1.87	0.55
1:E:2094:LEU:O	1:E:2097:LEU:HG	2.07	0.55
1:E:294:THR:HG22	1:E:296:ASP:H	1.71	0.55
1:E:3805:LEU:O	1:E:3807:GLY:N	2.38	0.55
1:E:4889:VAL:H	1:E:4892:ARG:HD3	1.71	0.55
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.41	0.55
1:G:294:THR:HG22	1:G:296:ASP:H	1.72	0.55
1:G:350:HIS:O	1:G:354:GLY:N	2.28	0.55
1:G:3767:GLN:NE2	1:G:3805:LEU:O	2.39	0.55
1:C:2151:ASP:OD2	1:C:2190:VAL:HG23	2.07	0.55
1:C:2922:LYS:O	1:C:2925:GLU:HB3	2.07	0.55
1:C:4683:PHE:CE2	1:C:5017:ARG:HD2	2.41	0.55
1:G:1585:LYS:HZ3	1:G:1596:GLU:CD	2.04	0.55
1:G:4861:LYS:O	1:G:4875:LYS:NZ	2.39	0.55
1:A:4027:LEU:HD22	1:A:4146:LEU:HD11	1.87	0.55
1:A:461:HIS:O	1:A:465:GLN:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4956:THR:O	1:A:4965:SER:N	2.40	0.55
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.42	0.55
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.41	0.55
1:C:4013:LEU:O	1:C:4017:LEU:HG	2.06	0.55
1:E:592:LYS:HA	1:E:1585:LYS:HE2	1.88	0.55
1:E:595:ARG:HH12	1:E:1641:ILE:CD1	2.20	0.55
1:E:232:THR:OG1	1:E:252:VAL:HG21	2.05	0.55
1:E:4686:LEU:O	1:E:4690:GLU:N	2.39	0.55
1:G:1639:LEU:HD23	1:G:1650:ILE:HG12	1.89	0.55
1:G:3821:LYS:HZ3	1:G:3902:TYR:HD1	1.54	0.55
1:A:584:LYS:HZ3	1:A:1586:ASN:HD21	1.54	0.55
1:A:773:LEU:HA	1:A:777:PHE:HZ	1.72	0.55
1:C:4686:LEU:O	1:C:4690:GLU:N	2.39	0.55
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.18	0.55
1:A:1003:GLN:O	1:A:1016:ARG:N	2.39	0.55
1:C:2770:LYS:HG3	1:C:2791:LEU:HD21	1.89	0.55
1:C:294:THR:HG22	1:C:296:ASP:H	1.72	0.55
1:C:4181:ILE:HG23	1:C:4195:PHE:HE1	1.71	0.55
1:E:220:LEU:HD11	1:E:390:LEU:HD22	1.88	0.55
1:E:4031:LEU:HD13	1:E:4044:MET:HE3	1.87	0.55
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.75	0.55
1:G:670:GLU:HB3	1:G:788:LYS:HB3	1.88	0.55
2:H:87:HIS:CD2	2:H:88:PRO:HD2	2.41	0.55
1:C:103:TYR:CE2	1:C:163:VAL:HA	2.41	0.55
1:C:273:HIS:N	1:C:334:MET:O	2.27	0.55
1:C:4904:PRO:HG3	1:C:4913:ARG:HH11	1.71	0.55
1:E:758:ARG:HH12	1:E:763:PRO:HG3	1.72	0.55
1:G:592:LYS:HA	1:G:1585:LYS:HE2	1.88	0.55
1:A:4181:ILE:HG23	1:A:4195:PHE:HE1	1.71	0.54
1:A:758:ARG:HH12	1:A:763:PRO:HG3	1.72	0.54
1:C:1201:HIS:CE1	1:C:1203:ASN:HD21	2.24	0.54
1:C:2257:LEU:HD21	1:C:2275:VAL:HB	1.90	0.54
1:E:1676:LEU:HD12	1:E:1725:ARG:HH11	1.73	0.54
1:E:2770:LYS:HG3	1:E:2791:LEU:HD21	1.89	0.54
1:G:2556:LEU:HA	1:G:2559:LEU:HD13	1.88	0.54
1:G:3927:GLN:OE1	1:G:3988:ALA:HA	2.07	0.54
1:G:1783:VAL:CG2	2:H:55:VAL:HG12	2.36	0.54
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.22	0.54
1:A:4164:LEU:HD23	1:A:4168:GLU:OE2	2.06	0.54
1:C:1639:LEU:HD23	1:C:1650:ILE:HG12	1.89	0.54
1:C:220:LEU:HD11	1:C:390:LEU:HD22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1783:VAL:CG2	2:D:55:VAL:HG12	2.37	0.54
1:E:773:LEU:HA	1:E:777:PHE:HZ	1.72	0.54
1:G:2151:ASP:OD2	1:G:2190:VAL:HG23	2.07	0.54
1:G:2257:LEU:HD21	1:G:2275:VAL:HB	1.89	0.54
1:A:103:TYR:CE2	1:A:163:VAL:HA	2.42	0.54
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.41	0.54
1:C:2094:LEU:O	1:C:2097:LEU:HG	2.07	0.54
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.40	0.54
1:E:3424:LEU:O	1:E:3427:PRO:N	2.41	0.54
1:E:3972:PRO:HA	1:E:4032:GLU:OE2	2.08	0.54
1:E:442:ILE:HD11	1:E:514:SER:HB3	1.89	0.54
1:E:641:VAL:HG21	1:E:704:GLY:N	2.22	0.54
1:E:699:GLY:H	1:E:703:GLY:HA2	1.72	0.54
1:G:442:ILE:HD11	1:G:514:SER:HB3	1.89	0.54
1:A:1240:LYS:HG3	1:A:1610:ASN:HD22	1.71	0.54
1:A:640:TYR:CE1	1:A:1613:LEU:HD23	2.37	0.54
1:A:1676:LEU:HD12	1:A:1725:ARG:HH11	1.72	0.54
1:A:2094:LEU:O	1:A:2097:LEU:HG	2.07	0.54
1:A:4578:LEU:O	1:C:4879:MET:CB	2.55	0.54
1:A:699:GLY:H	1:A:703:GLY:HA2	1.72	0.54
1:A:641:VAL:HG21	1:A:704:GLY:N	2.22	0.54
1:A:790:ARG:HD3	1:A:792:LEU:HD21	1.90	0.54
1:A:1783:VAL:CG2	2:B:55:VAL:HG12	2.37	0.54
1:C:2248:ARG:NH1	1:C:2285:GLU:OE2	2.39	0.54
1:C:3424:LEU:O	1:C:3427:PRO:N	2.40	0.54
1:C:3972:PRO:HA	1:C:4032:GLU:OE2	2.07	0.54
1:E:3920:VAL:HG11	1:E:3983:SER:OG	2.07	0.54
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.42	0.54
1:G:896:VAL:HG13	1:G:903:LEU:HB3	1.88	0.54
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.08	0.54
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.88	0.54
1:A:4888:TYR:CD1	1:C:4914:VAL:HG23	2.42	0.54
1:A:4904:PRO:HG3	1:A:4913:ARG:HH11	1.72	0.54
1:C:1457:TYR:O	1:C:1458:HIS:ND1	2.41	0.54
1:C:1653:LEU:HA	1:C:1656:ARG:HB2	1.90	0.54
1:C:215:THR:HG22	1:C:273:HIS:HD2	1.73	0.54
1:C:2277:ALA:O	1:C:2281:ILE:HG13	2.08	0.54
1:C:3920:VAL:HG11	1:C:3983:SER:OG	2.08	0.54
1:C:3937:TYR:HA	1:C:3940:LYS:HZ3	1.73	0.54
1:C:773:LEU:HA	1:C:777:PHE:HZ	1.73	0.54
1:C:887:ILE:HD11	1:C:907:LEU:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1201:HIS:CE1	1:E:1203:ASN:HD21	2.25	0.54
1:E:1650:ILE:HG23	1:E:1653:LEU:HD12	1.89	0.54
1:E:2257:LEU:HD21	1:E:2275:VAL:HB	1.89	0.54
1:E:554:LEU:HG	1:E:593:HIS:CE1	2.43	0.54
1:E:1783:VAL:CG2	2:F:55:VAL:HG12	2.37	0.54
1:G:4049:VAL:HG21	1:G:4159:ARG:HD2	1.88	0.54
1:G:4786:ASP:OD2	1:G:4788:SER:OG	2.08	0.54
1:G:773:LEU:HA	1:G:777:PHE:HZ	1.73	0.54
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.42	0.54
1:A:2151:ASP:OD2	1:A:2190:VAL:HG23	2.07	0.54
1:A:2257:LEU:HD21	1:A:2275:VAL:HB	1.90	0.54
1:A:3920:VAL:HG11	1:A:3983:SER:OG	2.08	0.54
1:C:1650:ILE:HG23	1:C:1653:LEU:HD12	1.89	0.54
1:E:1079:LYS:HG3	1:E:1237:TRP:CZ3	2.43	0.54
1:E:1639:LEU:HD23	1:E:1650:ILE:HG12	1.89	0.54
1:E:2151:ASP:OD2	1:E:2190:VAL:HG23	2.07	0.54
1:E:4956:THR:O	1:E:4965:SER:N	2.40	0.54
1:G:3699:HIS:HD2	1:G:3773:ARG:HA	1.72	0.54
1:G:3878:ASP:OD2	1:G:3953:LYS:HG2	2.07	0.54
1:G:595:ARG:HH12	1:G:1641:ILE:CD1	2.20	0.54
1:A:1079:LYS:HG3	1:A:1237:TRP:CZ3	2.43	0.54
1:C:1240:LYS:HG3	1:C:1610:ASN:HD22	1.72	0.54
1:C:595:ARG:HH12	1:C:1641:ILE:CD1	2.20	0.54
1:C:3882:GLN:HB2	1:C:3957:VAL:HG22	1.90	0.54
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.71	0.54
1:G:1961:PHE:HZ	1:G:2063:LEU:HD23	1.72	0.54
1:G:4979:THR:O	1:G:4984:ASN:N	2.40	0.54
1:A:3897:ASN:O	1:A:3901:ASN:ND2	2.40	0.54
1:A:3972:PRO:HA	1:A:4032:GLU:OE2	2.08	0.54
1:C:592:LYS:HA	1:C:1585:LYS:HE2	1.88	0.54
1:E:1288:PHE:CE2	1:E:1460:HIS:HA	2.42	0.54
1:E:1295:VAL:HG22	1:E:1548:LEU:N	2.23	0.54
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.90	0.54
1:E:4861:LYS:O	1:E:4875:LYS:NZ	2.40	0.54
1:E:4860:ARG:HB2	1:E:4877:ASP:OD1	2.08	0.54
1:G:1288:PHE:CE2	1:G:1460:HIS:HA	2.43	0.54
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.22	0.54
1:A:102:LEU:HD12	1:A:105:HIS:HE2	1.72	0.54
1:A:1255:TYR:HD1	1:A:1279:SER:HB3	1.73	0.54
1:A:375:LYS:NZ	1:A:376:ALA:O	2.35	0.54
1:C:1295:VAL:HG22	1:C:1548:LEU:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1676:LEU:HD12	1:C:1725:ARG:HH11	1.73	0.54
1:C:1815:LEU:HD11	1:C:1845:VAL:HG11	1.90	0.54
1:C:3767:GLN:NE2	1:C:3805:LEU:O	2.41	0.54
1:C:711:LEU:HD23	1:C:712:TYR:N	2.23	0.54
1:C:884:LEU:HB2	1:C:967:PRO:HG2	1.90	0.54
1:E:350:HIS:O	1:E:354:GLY:N	2.28	0.54
1:E:4844:LEU:HD21	1:E:4891:VAL:HG21	1.89	0.54
1:G:2094:LEU:O	1:G:2097:LEU:HG	2.07	0.54
1:G:4661:TYR:OH	1:G:4788:SER:OG	2.24	0.54
1:G:554:LEU:HG	1:G:593:HIS:CE1	2.43	0.54
1:G:874:LEU:O	1:G:878:ILE:N	2.38	0.54
1:A:1201:HIS:CE1	1:A:1203:ASN:HD21	2.26	0.54
1:A:1929:MET:HG3	1:A:1930:LYS:O	2.08	0.54
1:A:2922:LYS:HA	1:A:2925:GLU:OE1	2.08	0.54
1:A:3971:GLY:O	1:A:3973:CYS:N	2.38	0.54
1:A:4026:MET:HG3	1:A:4027:LEU:N	2.23	0.54
1:A:554:LEU:HG	1:A:593:HIS:CE1	2.43	0.54
2:B:87:HIS:CD2	2:B:88:PRO:HD2	2.41	0.54
1:C:1252:HIS:ND1	1:C:1253:PRO:HD2	2.23	0.54
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.22	0.54
1:E:674:PHE:HZ	2:F:100:ASP:OD2	1.91	0.54
1:G:2333:ASP:O	1:G:2336:ARG:HB3	2.08	0.54
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.38	0.54
1:A:3424:LEU:O	1:A:3427:PRO:N	2.41	0.53
1:A:4683:PHE:CE2	1:A:5017:ARG:HD2	2.42	0.53
1:A:442:ILE:HD11	1:A:514:SER:HB3	1.89	0.53
1:A:896:VAL:HG13	1:A:903:LEU:HB3	1.88	0.53
2:B:37:ASP:OD1	2:B:38:SER:N	2.42	0.53
1:C:110:ARG:NH1	1:C:115:ARG:HE	2.05	0.53
1:C:3878:ASP:OD2	1:C:3953:LYS:HG2	2.08	0.53
1:C:790:ARG:HD3	1:C:792:LEU:HD21	1.90	0.53
1:E:215:THR:HG22	1:E:273:HIS:HD2	1.72	0.53
1:E:33:LEU:HA	1:E:53:SER:HB3	1.90	0.53
1:E:3775:ALA:O	1:E:3778:MET:HG2	2.08	0.53
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.40	0.53
1:G:111:HIS:CD2	1:G:113:HIS:HB3	2.43	0.53
1:G:1815:LEU:HD11	1:G:1845:VAL:HG11	1.89	0.53
1:G:1929:MET:HG3	1:G:1930:LYS:O	2.08	0.53
1:G:4825:THR:O	1:G:4829:SER:N	2.40	0.53
1:A:711:LEU:HD23	1:A:712:TYR:N	2.23	0.53
1:A:720:HIS:HB3	1:A:729:PRO:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:674:PHE:HZ	2:B:100:ASP:OD2	1.90	0.53
1:E:1653:LEU:HA	1:E:1656:ARG:HB2	1.90	0.53
1:E:2277:ALA:O	1:E:2281:ILE:HG13	2.08	0.53
1:G:3371:LYS:O	1:G:3375:GLU:N	2.41	0.53
1:G:3647:HIS:CE1	1:G:3648:ARG:HG3	2.43	0.53
1:G:887:ILE:HD11	1:G:907:LEU:HB3	1.89	0.53
1:A:1130:GLN:HA	1:A:1139:PHE:HB3	1.91	0.53
1:A:111:HIS:CD2	1:A:113:HIS:HB3	2.43	0.53
1:A:1295:VAL:HG22	1:A:1548:LEU:N	2.23	0.53
1:A:592:LYS:HA	1:A:1585:LYS:HE2	1.88	0.53
1:A:1712:TYR:HD2	1:A:1840:PRO:HB2	1.74	0.53
1:A:266:ARG:NH1	1:A:330:ASP:HA	2.23	0.53
1:A:887:ILE:HD11	1:A:907:LEU:HB3	1.91	0.53
1:C:1079:LYS:HG3	1:C:1237:TRP:CZ3	2.43	0.53
1:C:284:HIS:HD2	1:C:287:THR:H	1.56	0.53
2:D:37:ASP:OD1	2:D:38:SER:N	2.41	0.53
1:E:3971:GLY:O	1:E:3973:CYS:N	2.38	0.53
1:E:4852:THR:HG21	1:E:4883:TYR:HB2	1.90	0.53
1:E:711:LEU:HD23	1:E:712:TYR:N	2.23	0.53
1:E:720:HIS:HB3	1:E:729:PRO:HA	1.90	0.53
1:G:1079:LYS:HG3	1:G:1237:TRP:CZ3	2.43	0.53
1:G:214:VAL:HG22	1:G:341:TYR:CZ	2.44	0.53
1:G:36:CYS:HB2	1:G:50:GLU:HB3	1.91	0.53
1:A:1650:ILE:HG23	1:A:1653:LEU:HD12	1.89	0.53
1:A:1637:MET:HB2	1:A:1696:HIS:CD2	2.44	0.53
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.91	0.53
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.77	0.53
1:A:595:ARG:HH12	1:A:1641:ILE:CD1	2.21	0.53
1:C:1637:MET:HB2	1:C:1696:HIS:CD2	2.44	0.53
1:C:3775:ALA:O	1:C:3778:MET:HG2	2.08	0.53
1:C:3906:GLN:NE2	1:C:3913:ILE:O	2.40	0.53
1:E:110:ARG:NH1	1:E:115:ARG:HE	2.06	0.53
1:E:1815:LEU:HD11	1:E:1845:VAL:HG11	1.90	0.53
1:E:1848:LEU:O	1:E:1851:MET:HB3	2.09	0.53
1:E:3897:ASN:O	1:E:3901:ASN:ND2	2.40	0.53
1:G:1255:TYR:HD1	1:G:1279:SER:HB3	1.74	0.53
1:G:2248:ARG:NH1	1:G:2285:GLU:OE2	2.39	0.53
1:G:2902:HIS:HB3	1:G:2905:LEU:HG	1.89	0.53
2:H:37:ASP:OD1	2:H:38:SER:N	2.41	0.53
1:A:2770:LYS:HG3	1:A:2791:LEU:HD21	1.90	0.53
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4809:PHE:O	1:A:4812:HIS:ND1	2.27	0.53
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.40	0.53
1:A:721:LEU:HD22	1:A:767:VAL:HG13	1.91	0.53
1:A:831:ARG:O	1:A:838:HIS:ND1	2.36	0.53
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.77	0.53
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.08	0.53
1:E:2142:TYR:CD2	1:E:2197:LEU:HB2	2.44	0.53
1:E:2333:ASP:O	1:E:2336:ARG:HB3	2.09	0.53
1:E:284:HIS:HD2	1:E:287:THR:H	1.55	0.53
1:E:3842:LEU:HD21	1:E:3933:PHE:CD1	2.44	0.53
1:E:887:ILE:HD11	1:E:907:LEU:HB3	1.90	0.53
2:F:87:HIS:CD2	2:F:88:PRO:HD2	2.41	0.53
1:G:1457:TYR:O	1:G:1458:HIS:CG	2.62	0.53
1:G:1650:ILE:HG23	1:G:1653:LEU:HD12	1.90	0.53
1:G:1712:TYR:HD2	1:G:1840:PRO:HB2	1.73	0.53
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.09	0.53
1:A:33:LEU:HA	1:A:53:SER:HB3	1.91	0.53
1:A:3771:HIS:CG	1:A:3812:VAL:HG22	2.44	0.53
1:A:66:CYS:HB2	1:A:112:ALA:HB2	1.90	0.53
1:C:1772:ARG:NH1	1:C:1952:GLN:NE2	2.57	0.53
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.08	0.53
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.90	0.53
1:E:1929:MET:HG3	1:E:1930:LYS:O	2.08	0.53
1:E:283:ARG:HG2	1:E:284:HIS:O	2.09	0.53
1:E:3767:GLN:NE2	1:E:3805:LEU:O	2.41	0.53
1:E:3891:LEU:HD23	1:E:3899:PHE:CZ	2.42	0.53
1:G:1214:PHE:O	1:G:1218:GLY:N	2.37	0.53
1:G:1295:VAL:HG22	1:G:1548:LEU:N	2.23	0.53
1:G:1676:LEU:HD12	1:G:1725:ARG:HH11	1.73	0.53
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.89	0.53
1:G:2774:ASN:HA	1:G:2852:ARG:HG2	1.90	0.53
1:A:1024:TYR:HA	1:A:1027:LEU:HG	1.91	0.53
1:A:1252:HIS:ND1	1:A:1253:PRO:HD2	2.23	0.53
1:A:1815:LEU:HD11	1:A:1845:VAL:HG11	1.90	0.53
1:A:2114:PRO:HD3	1:A:3707:ARG:NH1	2.23	0.53
1:A:2277:ALA:O	1:A:2281:ILE:HG13	2.08	0.53
1:A:3882:GLN:HB2	1:A:3957:VAL:HG22	1.91	0.53
1:C:3842:LEU:HD21	1:C:3933:PHE:CD1	2.44	0.53
1:C:33:LEU:HA	1:C:53:SER:HB3	1.91	0.53
1:C:554:LEU:HG	1:C:593:HIS:CE1	2.43	0.53
1:E:111:HIS:CD2	1:E:113:HIS:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1252:HIS:ND1	1:E:1253:PRO:HD2	2.24	0.53
1:E:1806:ALA:O	1:E:1810:LYS:HG2	2.09	0.53
2:F:37:ASP:OD1	2:F:38:SER:N	2.42	0.53
1:G:284:HIS:HD2	1:G:287:THR:H	1.56	0.53
1:G:650:VAL:N	1:G:777:PHE:O	2.42	0.53
1:G:758:ARG:HH12	1:G:763:PRO:HG3	1.73	0.53
1:A:1214:PHE:CZ	1:A:1219:LEU:HB2	2.43	0.53
1:A:1772:ARG:NH1	1:A:1952:GLN:NE2	2.56	0.53
1:A:3842:LEU:HB3	1:A:3929:SER:OG	2.09	0.53
1:C:1130:GLN:HA	1:C:1139:PHE:HB3	1.91	0.53
1:C:1848:LEU:O	1:C:1851:MET:HB3	2.09	0.53
1:C:1737:PRO:HB3	1:C:2149:VAL:HG11	1.91	0.53
1:C:3771:HIS:CG	1:C:3812:VAL:HG22	2.44	0.53
1:C:4026:MET:HG3	1:C:4027:LEU:N	2.23	0.53
1:E:102:LEU:HD12	1:E:105:HIS:HE2	1.74	0.53
1:E:1961:PHE:HZ	1:E:2063:LEU:HD23	1.74	0.53
1:E:266:ARG:NH1	1:E:330:ASP:HA	2.23	0.53
1:E:3878:ASP:OD2	1:E:3953:LYS:HG2	2.08	0.53
1:E:448:LEU:HD12	1:E:525:LEU:HD11	1.91	0.53
1:G:1772:ARG:NH1	1:G:1952:GLN:NE2	2.56	0.53
1:G:1806:ALA:O	1:G:1810:LYS:HG2	2.09	0.53
1:G:2277:ALA:O	1:G:2281:ILE:HG13	2.08	0.53
1:G:3993:LEU:O	1:G:3997:ALA:N	2.40	0.53
1:A:284:HIS:HD2	1:A:287:THR:H	1.56	0.53
1:A:3767:GLN:NE2	1:A:3805:LEU:O	2.41	0.53
1:A:3842:LEU:HD21	1:A:3933:PHE:CD1	2.44	0.53
1:A:895:PRO:HA	1:A:905:PRO:HB3	1.91	0.53
1:C:1024:TYR:HA	1:C:1027:LEU:HG	1.91	0.53
1:C:111:HIS:CD2	1:C:113:HIS:HB3	2.44	0.53
1:C:1255:TYR:HD1	1:C:1279:SER:HB3	1.74	0.53
1:C:3891:LEU:HD23	1:C:3899:PHE:CZ	2.42	0.53
1:C:4124:ASN:OD1	1:C:4125:PHE:N	2.42	0.53
1:C:4679:ARG:HA	1:C:4682:GLU:HG2	1.91	0.53
1:C:448:LEU:HD12	1:C:525:LEU:HD11	1.91	0.53
1:E:1024:TYR:HA	1:E:1027:LEU:HG	1.91	0.53
1:E:1076:ARG:HH12	1:E:1111:PRO:HB3	1.74	0.53
1:E:1252:HIS:CG	1:E:1253:PRO:HD2	2.44	0.53
1:E:1255:TYR:HD1	1:E:1279:SER:HB3	1.74	0.53
1:E:3795:SER:O	1:E:3799:LYS:HG2	2.09	0.53
1:E:4679:ARG:HA	1:E:4682:GLU:HG2	1.91	0.53
1:E:650:VAL:N	1:E:777:PHE:O	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1252:HIS:CG	1:G:1253:PRO:HD2	2.44	0.53
1:G:35:LEU:HD21	1:G:182:LEU:HD11	1.91	0.53
1:G:3775:ALA:HA	1:G:3778:MET:HG2	1.91	0.53
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.40	0.53
1:G:843:SER:OG	1:G:844:ARG:N	2.41	0.53
1:A:1961:PHE:CG	1:A:2066:LEU:HD13	2.44	0.53
1:A:3775:ALA:O	1:A:3778:MET:HG2	2.09	0.53
1:C:1214:PHE:O	1:C:1218:GLY:N	2.37	0.53
1:C:1805:GLU:CD	1:C:1808:ARG:HH11	2.13	0.53
1:C:1961:PHE:CG	1:C:2066:LEU:HD13	2.44	0.53
1:C:2114:PRO:HD3	1:C:3707:ARG:NH1	2.24	0.53
1:C:720:HIS:HB3	1:C:729:PRO:HA	1.90	0.53
1:E:35:LEU:HD21	1:E:182:LEU:HD11	1.91	0.53
1:G:1252:HIS:ND1	1:G:1253:PRO:HD2	2.24	0.53
1:G:1547:LYS:HZ3	1:G:1645:ASN:HB2	1.73	0.53
1:G:2763:HIS:NE2	1:G:2792:ARG:O	2.34	0.53
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.08	0.53
1:G:790:ARG:HD3	1:G:792:LEU:HD21	1.90	0.53
1:G:895:PRO:HA	1:G:905:PRO:HB3	1.91	0.53
1:A:1436:SER:HA	1:A:1516:ILE:HA	1.92	0.52
1:A:1639:LEU:HD23	1:A:1650:ILE:HG12	1.89	0.52
1:A:884:LEU:HB2	1:A:967:PRO:HG2	1.91	0.52
1:C:1806:ALA:O	1:C:1810:LYS:HG2	2.09	0.52
1:C:1929:MET:HG3	1:C:1930:LYS:O	2.08	0.52
1:E:1637:MET:HB2	1:E:1696:HIS:CD2	2.44	0.52
1:E:1961:PHE:CG	1:E:2066:LEU:HD13	2.44	0.52
1:E:2340:PHE:HB2	1:E:2435:ARG:HD3	1.92	0.52
1:E:3771:HIS:CG	1:E:3812:VAL:HG22	2.44	0.52
1:E:842:PRO:O	1:E:1197:GLY:N	2.43	0.52
1:E:895:PRO:HA	1:E:905:PRO:HB3	1.91	0.52
1:G:1653:LEU:HA	1:G:1656:ARG:HB2	1.90	0.52
1:G:1637:MET:HB2	1:G:1696:HIS:CD2	2.44	0.52
1:G:711:LEU:HD23	1:G:712:TYR:N	2.23	0.52
1:A:1252:HIS:CG	1:A:1253:PRO:HD2	2.44	0.52
1:A:4852:THR:HG21	1:A:4883:TYR:HB2	1.91	0.52
1:C:1252:HIS:CG	1:C:1253:PRO:HD2	2.44	0.52
1:C:2774:ASN:HA	1:C:2852:ARG:HG2	1.91	0.52
1:C:4860:ARG:HB2	1:C:4877:ASP:OD1	2.08	0.52
1:C:842:PRO:O	1:C:1197:GLY:N	2.43	0.52
1:E:1712:TYR:HD2	1:E:1840:PRO:HB2	1.73	0.52
1:E:4026:MET:HG3	1:E:4027:LEU:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.76	0.52
1:G:2114:PRO:HD3	1:G:3707:ARG:NH1	2.24	0.52
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.92	0.52
1:G:3827:GLY:HA2	1:G:3830:GLN:HB3	1.90	0.52
1:G:4674:GLU:O	1:G:4678:ALA:N	2.35	0.52
1:A:1806:ALA:O	1:A:1810:LYS:HG2	2.09	0.52
1:A:1848:LEU:O	1:A:1851:MET:HB3	2.09	0.52
1:A:215:THR:HG22	1:A:273:HIS:HD2	1.75	0.52
1:A:283:ARG:HG2	1:A:284:HIS:O	2.09	0.52
1:A:4124:ASN:OD1	1:A:4125:PHE:N	2.42	0.52
1:A:4860:ARG:HB2	1:A:4877:ASP:OD1	2.09	0.52
1:A:4889:VAL:H	1:A:4892:ARG:HD3	1.74	0.52
1:A:4914:VAL:HG23	1:G:4888:TYR:CD1	2.45	0.52
1:A:842:PRO:O	1:A:1197:GLY:N	2.43	0.52
1:C:1961:PHE:HZ	1:C:2063:LEU:HD23	1.74	0.52
1:C:4852:THR:HG21	1:C:4883:TYR:HB2	1.92	0.52
1:C:721:LEU:HD22	1:C:767:VAL:HG13	1.91	0.52
1:G:1024:TYR:HA	1:G:1027:LEU:HG	1.91	0.52
1:G:33:LEU:HA	1:G:53:SER:HB3	1.91	0.52
1:G:448:LEU:HD12	1:G:525:LEU:HD11	1.91	0.52
1:G:864:PRO:O	1:G:868:GLU:N	2.32	0.52
1:A:214:VAL:HG22	1:A:341:TYR:CZ	2.44	0.52
1:C:2123:LEU:HA	1:C:2126:ARG:HG2	1.91	0.52
1:C:2333:ASP:O	1:C:2336:ARG:HB3	2.09	0.52
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.91	0.52
1:C:36:CYS:HB2	1:C:50:GLU:HB3	1.91	0.52
1:C:442:ILE:HD11	1:C:514:SER:HB3	1.91	0.52
1:C:674:PHE:HZ	2:D:100:ASP:OD2	1.91	0.52
1:E:2114:PRO:HD3	1:E:3707:ARG:NH1	2.24	0.52
1:E:4124:ASN:OD1	1:E:4125:PHE:N	2.42	0.52
1:E:705:ASN:ND2	1:E:782:SER:OG	2.43	0.52
1:E:790:ARG:HD3	1:E:792:LEU:HD21	1.90	0.52
1:G:1076:ARG:HH12	1:G:1111:PRO:HB3	1.74	0.52
1:G:1130:GLN:HA	1:G:1139:PHE:HB3	1.91	0.52
1:G:1947:CYS:SG	1:G:2126:ARG:NE	2.83	0.52
1:G:2137:ALA:HA	1:G:2140:ARG:HH21	1.75	0.52
1:A:3795:SER:O	1:A:3799:LYS:HG2	2.09	0.52
1:C:283:ARG:HG2	1:C:284:HIS:O	2.09	0.52
1:C:3897:ASN:O	1:C:3901:ASN:ND2	2.40	0.52
1:C:445:LEU:HD23	1:C:521:LEU:HB2	1.92	0.52
1:C:4721:LYS:HD3	1:C:4741:LEU:HB3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:805:PRO:O	1:C:807:GLY:N	2.43	0.52
1:C:895:PRO:HA	1:C:905:PRO:HB3	1.92	0.52
1:E:4655:PHE:O	1:E:4658:ILE:HG13	2.10	0.52
1:G:2142:TYR:CD2	1:G:2197:LEU:HB2	2.44	0.52
1:G:2340:PHE:HB2	1:G:2435:ARG:HD3	1.92	0.52
1:G:2770:LYS:HG3	1:G:2791:LEU:HD21	1.90	0.52
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.27	0.52
1:A:4899:ASP:H	1:G:4892:ARG:HH12	1.52	0.52
1:G:842:PRO:O	1:G:1197:GLY:N	2.43	0.52
1:A:4721:LYS:HD3	1:A:4741:LEU:HB3	1.92	0.52
1:C:3842:LEU:HB3	1:C:3929:SER:OG	2.09	0.52
1:C:3971:GLY:O	1:C:3973:CYS:N	2.38	0.52
1:C:4994:TYR:O	1:C:4998:LYS:HG2	2.10	0.52
1:E:2924:GLN:O	1:E:2928:LYS:HB2	2.10	0.52
1:E:332:GLU:N	1:E:333:GLY:HA3	2.24	0.52
1:E:4994:TYR:O	1:E:4998:LYS:HG2	2.10	0.52
1:E:884:LEU:HB2	1:E:967:PRO:HG2	1.91	0.52
1:G:102:LEU:HD12	1:G:105:HIS:HE2	1.74	0.52
1:G:721:LEU:HD22	1:G:767:VAL:HG13	1.91	0.52
1:A:1596:GLU:HB2	1:A:1599:MET:HG2	1.92	0.52
1:A:1653:LEU:HA	1:A:1656:ARG:HB2	1.90	0.52
1:A:3878:ASP:OD2	1:A:3953:LYS:HG2	2.09	0.52
1:A:36:CYS:HB2	1:A:50:GLU:HB3	1.92	0.52
1:C:1108:GLU:HG3	1:C:1186:ASP:OD2	2.10	0.52
1:C:2129:ASP:OD1	1:C:2132:GLY:N	2.42	0.52
1:C:266:ARG:NH1	1:C:330:ASP:HA	2.23	0.52
1:C:4794:TRP:HA	1:C:4797:VAL:HG12	1.91	0.52
1:E:1130:GLN:HA	1:E:1139:PHE:HB3	1.91	0.52
1:E:3842:LEU:HB3	1:E:3929:SER:OG	2.09	0.52
1:G:215:THR:HG22	1:G:273:HIS:HD2	1.75	0.52
1:G:3770:LEU:O	1:G:3775:ALA:HB3	2.10	0.52
1:G:705:ASN:ND2	1:G:782:SER:OG	2.43	0.52
1:G:884:LEU:HB2	1:G:967:PRO:HG2	1.91	0.52
1:A:1131:ARG:HD3	1:A:1139:PHE:CD1	2.45	0.52
1:A:2123:LEU:HA	1:A:2126:ARG:HG2	1.90	0.52
1:A:3963:ASN:O	1:A:3966:THR:OG1	2.24	0.52
1:A:4679:ARG:HA	1:A:4682:GLU:HG2	1.91	0.52
1:C:1207:ASP:O	1:C:1210:SER:OG	2.21	0.52
1:C:2142:TYR:CD2	1:C:2197:LEU:HB2	2.44	0.52
1:C:332:GLU:N	1:C:333:GLY:HA3	2.24	0.52
1:C:3750:GLU:OE2	1:C:4716:TRP:HA	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4889:VAL:H	1:C:4892:ARG:HD3	1.74	0.52
1:C:4979:THR:OG1	1:C:4980:LEU:N	2.43	0.52
1:C:699:GLY:H	1:C:703:GLY:HA2	1.74	0.52
1:E:23:GLN:HE22	1:E:267:ILE:HG21	1.75	0.52
1:E:214:VAL:HG22	1:E:341:TYR:CZ	2.44	0.52
1:E:4794:TRP:HA	1:E:4797:VAL:HG12	1.91	0.52
1:G:157:ARG:NE	1:G:167:ASP:OD2	2.43	0.52
1:G:1805:GLU:CD	1:G:1808:ARG:HH11	2.13	0.52
1:G:2891:LYS:HG2	1:G:2905:LEU:HD13	1.92	0.52
1:G:489:ASN:HB3	1:G:493:ARG:NH1	2.25	0.52
1:G:720:HIS:HB3	1:G:729:PRO:HA	1.91	0.52
1:A:2142:TYR:CD2	1:A:2197:LEU:HB2	2.44	0.52
1:A:1737:PRO:HB3	1:A:2149:VAL:HG11	1.91	0.52
1:A:23:GLN:HE22	1:A:267:ILE:HG21	1.75	0.52
1:A:3821:LYS:HZ3	1:A:3902:TYR:HD1	1.57	0.52
1:A:843:SER:OG	1:A:844:ARG:N	2.41	0.52
1:C:1131:ARG:HD3	1:C:1139:PHE:CD1	2.45	0.52
1:C:2340:PHE:HB2	1:C:2435:ARG:HD3	1.91	0.52
1:C:3795:SER:O	1:C:3799:LYS:HG2	2.09	0.52
1:E:1805:GLU:CD	1:E:1808:ARG:HH11	2.13	0.52
1:E:1772:ARG:NH1	1:E:1952:GLN:NE2	2.56	0.52
1:E:2123:LEU:HA	1:E:2126:ARG:HG2	1.90	0.52
1:E:445:LEU:HD23	1:E:521:LEU:HB2	1.92	0.52
1:E:4721:LYS:HD3	1:E:4741:LEU:HB3	1.92	0.52
1:G:1629:GLN:HE21	1:G:1631:GLN:HG3	1.75	0.52
1:G:1848:LEU:O	1:G:1851:MET:HB3	2.09	0.52
1:G:283:ARG:HG2	1:G:284:HIS:O	2.10	0.52
1:G:3878:ASP:HA	1:G:3881:THR:HG23	1.92	0.52
1:G:3835:LEU:HD22	1:G:3884:LEU:HD13	1.92	0.52
1:G:864:PRO:HG2	1:G:867:LEU:HB2	1.92	0.52
1:A:1108:GLU:HG3	1:A:1186:ASP:OD2	2.10	0.52
1:A:111:HIS:CD2	1:A:114:SER:H	2.17	0.52
1:A:1242:LEU:HD22	1:A:1458:HIS:HB3	1.91	0.52
1:A:1802:ILE:HG13	1:A:1804:LEU:HD12	1.92	0.52
1:A:2333:ASP:O	1:A:2336:ARG:HB3	2.09	0.52
1:A:2340:PHE:HB2	1:A:2435:ARG:HD3	1.91	0.52
1:A:332:GLU:N	1:A:333:GLY:HA3	2.24	0.52
1:A:445:LEU:HD23	1:A:521:LEU:HB2	1.92	0.52
1:A:4994:TYR:O	1:A:4998:LYS:HG2	2.10	0.52
1:C:1076:ARG:HH12	1:C:1111:PRO:HB3	1.74	0.52
1:C:650:VAL:N	1:C:777:PHE:O	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1620:ALA:O	1:E:1629:GLN:N	2.35	0.52
1:E:3750:GLU:OE2	1:E:4716:TRP:HA	2.10	0.52
1:E:3882:GLN:HB2	1:E:3957:VAL:HG22	1.91	0.52
1:G:2143:THR:OG1	1:G:3651:ASN:ND2	2.43	0.52
1:A:1076:ARG:HH12	1:A:1111:PRO:HB3	1.74	0.51
1:A:1961:PHE:HZ	1:A:2063:LEU:HD23	1.74	0.51
1:A:4738:ALA:O	1:A:4742:GLY:N	2.43	0.51
1:C:102:LEU:HD12	1:C:105:HIS:HE2	1.74	0.51
1:C:157:ARG:NE	1:C:167:ASP:OD2	2.43	0.51
1:C:35:LEU:HD21	1:C:182:LEU:HD11	1.91	0.51
1:C:375:LYS:HZ1	1:C:377:ILE:HG22	1.74	0.51
1:C:4655:PHE:O	1:C:4658:ILE:HG13	2.10	0.51
1:C:4807:PHE:HB3	1:E:4857:ASN:HD21	1.75	0.51
1:C:4864:ASN:HA	1:C:4875:LYS:HG2	1.92	0.51
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.20	0.51
1:E:2162:ILE:HD13	1:E:2178:MET:HG3	1.92	0.51
1:E:437:PRO:O	1:E:441:VAL:HG23	2.10	0.51
1:G:111:HIS:CD2	1:G:114:SER:H	2.17	0.51
1:G:1436:SER:N	1:G:1516:ILE:CG1	2.73	0.51
1:G:3972:PRO:HA	1:G:4032:GLU:OE2	2.10	0.51
1:A:35:LEU:HD21	1:A:182:LEU:HD11	1.91	0.51
1:A:2774:ASN:HA	1:A:2852:ARG:HG2	1.91	0.51
1:A:3934:TYR:OH	1:A:3998:HIS:HB3	2.10	0.51
1:A:4794:TRP:HA	1:A:4797:VAL:HG12	1.91	0.51
1:A:4823:LEU:CD1	1:C:4839:MET:HB3	2.39	0.51
1:A:448:LEU:HD12	1:A:525:LEU:HD11	1.91	0.51
1:A:650:VAL:N	1:A:777:PHE:O	2.42	0.51
1:C:4738:ALA:O	1:C:4742:GLY:N	2.43	0.51
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.91	0.51
1:E:2774:ASN:HA	1:E:2852:ARG:HG2	1.91	0.51
1:E:721:LEU:HD22	1:E:767:VAL:HG13	1.91	0.51
1:G:23:GLN:HE22	1:G:267:ILE:HG21	1.75	0.51
1:G:3781:GLN:O	1:G:3784:SER:OG	2.19	0.51
1:G:3934:TYR:OH	1:G:3998:HIS:HB3	2.10	0.51
1:G:445:LEU:HD23	1:G:521:LEU:HB2	1.92	0.51
1:G:4697:VAL:O	1:G:4701:TRP:N	2.42	0.51
1:G:699:GLY:H	1:G:703:GLY:HA2	1.74	0.51
1:A:4655:PHE:O	1:A:4658:ILE:HG13	2.10	0.51
1:C:3934:TYR:OH	1:C:3998:HIS:HB3	2.10	0.51
1:C:663:TYR:HB3	1:C:808:TYR:CD1	2.46	0.51
1:E:1108:GLU:HG3	1:E:1186:ASP:OD2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:594:GLY:H	1:E:1598:GLN:CG	2.24	0.51
1:E:3647:HIS:CE1	1:E:3648:ARG:HG3	2.46	0.51
1:E:3794:VAL:O	1:E:3797:THR:OG1	2.25	0.51
1:E:805:PRO:O	1:E:807:GLY:N	2.44	0.51
1:G:4727:LYS:NZ	1:G:4728:HIS:CE1	2.79	0.51
1:G:4849:TYR:O	1:G:4852:THR:HG22	2.09	0.51
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.18	0.51
1:A:663:TYR:HB3	1:A:808:TYR:CD1	2.46	0.51
1:C:1596:GLU:HB2	1:C:1599:MET:HG2	1.93	0.51
1:C:214:VAL:HG22	1:C:341:TYR:CZ	2.45	0.51
1:E:157:ARG:NE	1:E:167:ASP:OD2	2.43	0.51
1:E:1802:ILE:HG13	1:E:1804:LEU:HD12	1.92	0.51
1:G:1802:ILE:HG13	1:G:1804:LEU:HD12	1.93	0.51
1:G:2123:LEU:HA	1:G:2126:ARG:HG2	1.91	0.51
1:G:2146:PRO:O	1:G:2149:VAL:HG22	2.11	0.51
1:G:1737:PRO:HB3	1:G:2149:VAL:HG11	1.91	0.51
1:G:2162:ILE:HD13	1:G:2178:MET:HG3	1.92	0.51
1:G:2862:LEU:HD21	1:G:2929:PHE:CD1	2.44	0.51
1:A:2162:ILE:HD13	1:A:2178:MET:HG3	1.92	0.51
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	1.93	0.51
1:A:3750:GLU:OE2	1:A:4716:TRP:HA	2.10	0.51
1:A:4864:ASN:HA	1:A:4875:LYS:HG2	1.92	0.51
1:C:140:ASP:OD2	1:C:142:THR:OG1	2.28	0.51
1:C:1629:GLN:HE21	1:C:1631:GLN:HG3	1.76	0.51
1:C:1712:TYR:HD2	1:C:1840:PRO:HB2	1.73	0.51
1:C:23:GLN:HE22	1:C:267:ILE:HG21	1.75	0.51
1:C:887:ILE:HA	1:C:891:TRP:HB2	1.93	0.51
1:E:1715:LEU:HD21	1:E:1807:LEU:HD21	1.92	0.51
1:E:4738:ALA:O	1:E:4742:GLY:N	2.43	0.51
1:E:831:ARG:O	1:E:838:HIS:ND1	2.35	0.51
1:G:1108:GLU:HG3	1:G:1186:ASP:OD2	2.10	0.51
1:G:437:PRO:O	1:G:441:VAL:HG23	2.11	0.51
1:A:1805:GLU:CD	1:A:1808:ARG:HH11	2.13	0.51
1:A:2146:PRO:O	1:A:2149:VAL:HG22	2.11	0.51
1:A:437:PRO:O	1:A:441:VAL:HG23	2.11	0.51
1:A:4822:THR:O	1:A:4825:THR:OG1	2.23	0.51
1:A:705:ASN:ND2	1:A:782:SER:OG	2.43	0.51
1:C:1715:LEU:HD21	1:C:1807:LEU:HD21	1.93	0.51
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	1.93	0.51
1:C:4844:LEU:HD21	1:C:4891:VAL:HG21	1.93	0.51
1:C:705:ASN:ND2	1:C:782:SER:OG	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:457:GLU:HG3	1:E:464:LYS:HZ1	1.73	0.51
1:E:4889:VAL:HG22	1:E:4892:ARG:HH21	1.75	0.51
1:E:489:ASN:HB3	1:E:493:ARG:NH1	2.25	0.51
1:E:750:LEU:O	1:E:752:VAL:N	2.43	0.51
1:G:66:CYS:HB2	1:G:112:ALA:HB2	1.91	0.51
1:G:140:ASP:OD2	1:G:142:THR:OG1	2.28	0.51
1:G:1715:LEU:HD21	1:G:1807:LEU:HD21	1.92	0.51
1:G:805:PRO:O	1:G:807:GLY:N	2.43	0.51
1:A:1629:GLN:HE21	1:A:1631:GLN:HG3	1.75	0.51
1:A:2137:ALA:HA	1:A:2140:ARG:HH21	1.76	0.51
1:A:2923:ALA:O	1:A:2926:LEU:HB3	2.11	0.51
1:A:4103:PHE:HB2	1:A:4108:ILE:HD11	1.93	0.51
1:A:874:LEU:O	1:A:878:ILE:N	2.38	0.51
1:C:4861:LYS:O	1:C:4875:LYS:NZ	2.40	0.51
2:D:87:HIS:CD2	2:D:88:PRO:HD2	2.41	0.51
1:E:111:HIS:HD2	1:E:114:SER:N	2.02	0.51
1:E:1629:GLN:HE21	1:E:1631:GLN:HG3	1.75	0.51
1:E:3699:HIS:HD2	1:E:3773:ARG:HA	1.76	0.51
1:E:3934:TYR:OH	1:E:3998:HIS:HB3	2.11	0.51
1:C:4892:ARG:NH1	1:E:4899:ASP:N	2.56	0.51
1:E:4979:THR:OG1	1:E:4980:LEU:N	2.44	0.51
1:E:36:CYS:HB2	1:E:50:GLU:HB3	1.91	0.51
1:G:1131:ARG:HD3	1:G:1139:PHE:CD1	2.45	0.51
1:G:1961:PHE:CG	1:G:2066:LEU:HD13	2.45	0.51
1:G:2121:PHE:CD1	1:G:3701:LEU:HD12	2.46	0.51
1:G:831:ARG:O	1:G:838:HIS:ND1	2.36	0.51
1:A:157:ARG:NE	1:A:167:ASP:OD2	2.44	0.51
1:A:4736:ARG:O	1:A:4739:GLU:HG2	2.11	0.51
1:A:4844:LEU:HD21	1:A:4891:VAL:HG21	1.93	0.51
1:A:805:PRO:O	1:A:807:GLY:N	2.43	0.51
1:A:864:PRO:HG2	1:A:867:LEU:HB2	1.93	0.51
1:C:3647:HIS:CE1	1:C:3648:ARG:HG3	2.46	0.51
1:C:445:LEU:HD23	1:C:521:LEU:CB	2.41	0.51
1:E:1144:GLN:N	1:E:1147:ASP:OD2	2.34	0.51
1:E:445:LEU:HD23	1:E:521:LEU:CB	2.41	0.51
1:G:1182:ILE:HD12	1:G:1188:PHE:HE2	1.75	0.51
1:G:266:ARG:NH1	1:G:330:ASP:HA	2.24	0.51
1:G:594:GLY:H	1:G:1598:GLN:CG	2.24	0.51
1:A:375:LYS:HZ1	1:A:377:ILE:HG22	1.76	0.51
1:A:4701:TRP:HB3	1:A:4778:TRP:CD1	2.46	0.51
1:A:4979:THR:OG1	1:A:4980:LEU:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:750:LEU:O	1:A:752:VAL:N	2.43	0.51
1:C:1182:ILE:HD12	1:C:1188:PHE:HE2	1.75	0.51
1:C:864:PRO:HG2	1:C:867:LEU:HB2	1.92	0.51
1:E:1596:GLU:HB2	1:E:1599:MET:HG2	1.92	0.51
1:E:2146:PRO:O	1:E:2149:VAL:HG22	2.11	0.51
1:E:4103:PHE:HB2	1:E:4108:ILE:HD11	1.93	0.51
1:E:4736:ARG:O	1:E:4739:GLU:HG2	2.11	0.51
1:E:4864:ASN:HA	1:E:4875:LYS:HG2	1.92	0.51
1:E:663:TYR:HB3	1:E:808:TYR:CD1	2.46	0.51
1:G:332:GLU:N	1:G:333:GLY:HA3	2.25	0.51
1:G:3713:LYS:O	1:G:3715:LYS:N	2.43	0.51
1:G:4991:PHE:HE2	1:G:5010:VAL:HG11	1.75	0.51
1:G:750:LEU:O	1:G:752:VAL:N	2.43	0.51
1:A:630:GLU:HA	1:A:1642:PRO:HG3	1.93	0.51
1:C:2763:HIS:NE2	1:C:2792:ARG:O	2.32	0.51
1:C:489:ASN:HB3	1:C:493:ARG:NH1	2.25	0.51
1:C:874:LEU:O	1:C:878:ILE:N	2.38	0.51
1:E:695:TYR:HB2	1:E:1240:LYS:NZ	2.26	0.51
1:E:1244:GLN:HG2	1:E:1458:HIS:HE1	1.75	0.51
1:E:2137:ALA:HA	1:E:2140:ARG:HH21	1.76	0.51
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	1.93	0.51
1:E:4205:TRP:CH2	1:E:4986:ALA:HB2	2.46	0.51
1:E:887:ILE:HA	1:E:891:TRP:HB2	1.93	0.51
1:G:1700:ASP:OD2	1:G:1703:LEU:HB2	2.11	0.51
1:G:3101:GLU:O	1:G:3105:LYS:N	2.39	0.51
1:G:3878:ASP:HB2	1:G:3957:VAL:HG21	1.93	0.51
1:A:1585:LYS:HZ3	1:A:1596:GLU:CD	2.06	0.50
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.93	0.50
1:A:887:ILE:HA	1:A:891:TRP:HB2	1.92	0.50
1:C:2449:GLU:O	1:C:2452:ARG:HB3	2.11	0.50
1:C:3699:HIS:HD2	1:C:3773:ARG:HA	1.76	0.50
1:C:4736:ARG:O	1:C:4739:GLU:HG2	2.11	0.50
1:C:4701:TRP:HB3	1:C:4778:TRP:CD1	2.46	0.50
1:C:4205:TRP:CH2	1:C:4986:ALA:HB2	2.46	0.50
1:E:1131:ARG:HD3	1:E:1139:PHE:CD1	2.45	0.50
1:C:4823:LEU:CD1	1:E:4839:MET:HB3	2.40	0.50
1:G:375:LYS:NZ	1:G:376:ALA:O	2.35	0.50
1:G:3916:ILE:HA	1:G:3919:THR:HG22	1.92	0.50
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.12	0.50
1:G:445:LEU:HD23	1:G:521:LEU:CB	2.41	0.50
2:H:87:HIS:HB3	2:H:90:ILE:HB	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:489:ASN:HB3	1:A:493:ARG:NH1	2.25	0.50
1:C:594:GLY:H	1:C:1598:GLN:CG	2.23	0.50
1:E:441:VAL:O	1:E:445:LEU:HD13	2.11	0.50
1:G:3813:GLN:NE2	1:G:3891:LEU:O	2.43	0.50
1:G:4010:ILE:HA	1:G:4013:LEU:HB3	1.93	0.50
1:A:1182:ILE:HD12	1:A:1188:PHE:HE2	1.75	0.50
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.75	0.50
1:A:2924:GLN:O	1:A:2928:LYS:CB	2.60	0.50
1:A:445:LEU:HD23	1:A:521:LEU:CB	2.41	0.50
1:C:695:TYR:HB2	1:C:1240:LYS:NZ	2.27	0.50
1:C:507:ALA:O	1:C:509:GLU:N	2.44	0.50
1:C:630:GLU:HA	1:C:1642:PRO:HG3	1.93	0.50
2:D:58:GLY:HA3	2:D:76:ILE:HG23	1.94	0.50
1:E:1182:ILE:HD12	1:E:1188:PHE:HE2	1.75	0.50
1:E:4017:LEU:HA	1:E:4139:ILE:HD11	1.93	0.50
1:E:35:LEU:HD13	1:E:49:LEU:HD22	1.93	0.50
1:G:1596:GLU:HB2	1:G:1599:MET:HG2	1.92	0.50
1:G:1620:ALA:O	1:G:1629:GLN:N	2.35	0.50
1:A:4879:MET:CB	1:G:4578:LEU:O	2.55	0.50
1:G:663:TYR:HB3	1:G:808:TYR:CD1	2.46	0.50
1:A:2498:HIS:O	1:A:2501:SER:OG	2.20	0.50
1:A:2806:ARG:HA	1:A:2809:ILE:HD12	1.93	0.50
1:A:3647:HIS:CE1	1:A:3648:ARG:HG3	2.46	0.50
1:A:4205:TRP:CH2	1:A:4986:ALA:HB2	2.46	0.50
1:A:4717:ASP:O	1:A:4720:VAL:HG23	2.12	0.50
1:C:1802:ILE:HG13	1:C:1804:LEU:HD12	1.93	0.50
1:C:4103:PHE:HB2	1:C:4108:ILE:HD11	1.93	0.50
1:A:4892:ARG:NH1	1:C:4899:ASP:N	2.56	0.50
1:C:706:GLY:O	1:C:724:GLY:N	2.45	0.50
1:E:1737:PRO:HB3	1:E:2149:VAL:HG11	1.92	0.50
1:E:3846:ALA:O	1:E:3850:GLN:N	2.45	0.50
1:E:4701:TRP:HB3	1:E:4778:TRP:CD1	2.46	0.50
2:F:25:HIS:CD2	2:F:104:LEU:HD11	2.47	0.50
1:G:1245:PHE:HD2	1:G:1290:ARG:HE	1.60	0.50
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.11	0.50
1:A:1700:ASP:OD2	1:A:1703:LEU:HB2	2.11	0.50
1:A:178:ARG:HG2	1:A:195:PHE:CE1	2.47	0.50
1:A:2129:ASP:OD1	1:A:2132:GLY:N	2.43	0.50
1:A:3677:LEU:HB3	1:A:3698:LEU:HB2	1.94	0.50
1:A:3958:ALA:HA	1:A:3961:VAL:HG12	1.94	0.50
1:C:375:LYS:NZ	1:C:376:ALA:O	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:437:PRO:O	1:C:441:VAL:HG23	2.11	0.50
1:C:441:VAL:O	1:C:445:LEU:HD13	2.11	0.50
1:A:1207:ASP:O	1:A:1210:SER:OG	2.21	0.50
1:A:3699:HIS:HD2	1:A:3773:ARG:HA	1.76	0.50
1:A:4727:LYS:O	1:A:4728:HIS:HB2	2.12	0.50
2:B:87:HIS:HB3	2:B:90:ILE:HB	1.94	0.50
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.76	0.50
1:C:2146:PRO:O	1:C:2149:VAL:HG22	2.11	0.50
1:C:40:GLU:OE2	1:C:402:ARG:HG3	2.12	0.50
2:D:25:HIS:CD2	2:D:104:LEU:HD11	2.47	0.50
1:E:838:HIS:HD2	1:E:1095:VAL:HG21	1.77	0.50
1:E:1125:ASN:HB3	1:E:1127:HIS:O	2.12	0.50
1:E:178:ARG:HG2	1:E:195:PHE:CE1	2.47	0.50
1:E:843:SER:OG	1:E:844:ARG:N	2.41	0.50
1:E:874:LEU:O	1:E:878:ILE:N	2.38	0.50
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.12	0.50
1:G:291:LEU:O	1:G:312:THR:OG1	2.21	0.50
1:G:4860:ARG:HB2	1:G:4877:ASP:OD1	2.11	0.50
1:G:4922:PHE:HA	1:G:4926:VAL:HB	1.92	0.50
1:A:4934:GLY:HA3	1:G:4937:ILE:HG12	1.94	0.50
1:A:2449:GLU:O	1:A:2452:ARG:HB3	2.11	0.50
1:A:613:ALA:HB1	1:A:618:GLN:NE2	2.26	0.50
1:C:110:ARG:HA	1:C:117:TYR:HD1	1.77	0.50
1:E:1076:ARG:HD2	1:E:1189:LEU:HD13	1.94	0.50
1:E:3958:ALA:HA	1:E:3961:VAL:HG12	1.94	0.50
1:E:4717:ASP:O	1:E:4720:VAL:HG23	2.12	0.50
1:E:4892:ARG:HH12	1:G:4899:ASP:H	1.53	0.50
2:F:58:GLY:HA3	2:F:76:ILE:HG23	1.94	0.50
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.92	0.50
1:A:3937:TYR:HA	1:A:3940:LYS:NZ	2.27	0.50
1:A:40:GLU:OE2	1:A:402:ARG:HG3	2.12	0.50
1:C:178:ARG:HG2	1:C:195:PHE:CE1	2.47	0.50
1:C:3958:ALA:HA	1:C:3961:VAL:HG12	1.94	0.50
1:C:4682:GLU:HG3	1:C:4683:PHE:CE2	2.47	0.50
1:E:4682:GLU:HG3	1:E:4683:PHE:CE2	2.47	0.50
1:E:871:ARG:HB2	1:E:929:LEU:HD13	1.92	0.50
1:G:1144:GLN:N	1:G:1147:ASP:OD2	2.34	0.50
1:G:695:TYR:HB2	1:G:1240:LYS:NZ	2.27	0.50
1:G:4864:ASN:HA	1:G:4875:LYS:HG2	1.94	0.50
1:G:4934:GLY:HA2	1:G:4937:ILE:HD12	1.94	0.50
1:A:110:ARG:HA	1:A:117:TYR:HD1	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:594:GLY:H	1:A:1598:GLN:CG	2.24	0.50
1:A:1715:LEU:HD21	1:A:1807:LEU:HD21	1.93	0.50
1:A:3664:THR:HB	1:A:3665:GLU:OE1	2.12	0.50
1:A:3906:GLN:NE2	1:A:3913:ILE:O	2.39	0.50
1:A:4925:ILE:HG23	1:A:4929:LEU:HD12	1.93	0.50
1:A:4991:PHE:HE2	1:A:5010:VAL:HG11	1.77	0.50
1:A:507:ALA:O	1:A:509:GLU:N	2.45	0.50
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	1.93	0.50
1:C:457:GLU:HG3	1:C:464:LYS:HZ1	1.76	0.50
1:C:4717:ASP:O	1:C:4720:VAL:HG23	2.11	0.50
1:E:1245:PHE:HD2	1:E:1290:ARG:HE	1.60	0.50
1:E:2449:GLU:O	1:E:2452:ARG:HB3	2.12	0.50
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.77	0.50
1:E:597:HIS:CE1	1:E:1661:ARG:HB3	2.47	0.50
1:E:864:PRO:HG2	1:E:867:LEU:HB2	1.92	0.50
1:G:375:LYS:HZ1	1:G:377:ILE:HG22	1.75	0.50
1:G:4003:LEU:HB2	1:G:4013:LEU:HD13	1.93	0.50
1:G:871:ARG:HB2	1:G:929:LEU:HD13	1.93	0.50
1:G:887:ILE:HA	1:G:891:TRP:HB2	1.93	0.50
1:A:1254:HIS:HD2	1:A:1281:ASN:H	1.60	0.49
1:A:1288:PHE:CE2	1:A:1460:HIS:HA	2.47	0.49
1:A:1586:ASN:O	1:A:1588:ALA:N	2.43	0.49
1:A:1639:LEU:HD21	1:A:1653:LEU:HD11	1.94	0.49
1:A:4928:LEU:O	1:A:4932:ILE:HD12	2.12	0.49
2:B:25:HIS:CD2	2:B:104:LEU:HD11	2.46	0.49
1:C:1245:PHE:HD2	1:C:1290:ARG:HE	1.60	0.49
1:C:1745:ILE:HD13	1:C:1956:GLU:HG2	1.94	0.49
1:C:35:LEU:HD13	1:C:49:LEU:HD22	1.93	0.49
1:C:5027:CYS:SG	1:C:5028:PHE:N	2.85	0.49
1:E:2806:ARG:HA	1:E:2809:ILE:HD12	1.94	0.49
1:E:3928:GLU:HG3	1:E:3929:SER:N	2.27	0.49
1:G:2449:GLU:O	1:G:2452:ARG:HB3	2.11	0.49
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.47	0.49
1:G:441:VAL:O	1:G:445:LEU:HD13	2.11	0.49
1:G:457:GLU:HG3	1:G:464:LYS:HZ1	1.73	0.49
1:G:4766:THR:O	1:G:4770:SER:N	2.45	0.49
1:A:110:ARG:HH11	1:A:115:ARG:HE	1.61	0.49
1:A:140:ASP:OD2	1:A:142:THR:OG1	2.28	0.49
1:A:871:ARG:HB2	1:A:929:LEU:HD13	1.93	0.49
1:E:2793:PRO:O	1:E:2796:THR:OG1	2.19	0.49
1:E:4727:LYS:O	1:E:4728:HIS:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1125:ASN:HB3	1:G:1127:HIS:O	2.12	0.49
1:G:1237:TRP:CH2	1:G:1655:GLU:HB3	2.47	0.49
1:G:2825:LYS:HD2	1:G:2935:TYR:HE1	1.78	0.49
1:G:4239:GLU:OE1	1:G:4675:LYS:HD2	2.11	0.49
1:G:4979:THR:OG1	1:G:4980:LEU:N	2.45	0.49
1:G:597:HIS:CE1	1:G:1661:ARG:HB3	2.47	0.49
1:A:35:LEU:HD13	1:A:49:LEU:HD22	1.94	0.49
1:A:4682:GLU:HG3	1:A:4683:PHE:CE2	2.47	0.49
2:B:58:GLY:HA3	2:B:76:ILE:HG23	1.94	0.49
1:C:1585:LYS:HZ3	1:C:1596:GLU:CD	2.05	0.49
1:C:1728:ARG:HH21	1:C:1850:VAL:HG11	1.77	0.49
1:C:2924:GLN:O	1:C:2928:LYS:N	2.40	0.49
1:C:3794:VAL:O	1:C:3797:THR:OG1	2.25	0.49
1:C:4017:LEU:HA	1:C:4139:ILE:HD11	1.93	0.49
1:C:871:ARG:HB2	1:C:929:LEU:HD13	1.93	0.49
1:E:1745:ILE:HD13	1:E:1956:GLU:HG2	1.94	0.49
1:E:2162:ILE:HD11	1:E:2210:VAL:HG21	1.94	0.49
1:E:507:ALA:O	1:E:509:GLU:N	2.45	0.49
1:E:706:GLY:O	1:E:724:GLY:N	2.45	0.49
1:G:178:ARG:HG2	1:G:195:PHE:CE1	2.47	0.49
1:G:3963:ASN:O	1:G:3966:THR:OG1	2.29	0.49
1:G:5027:CYS:SG	1:G:5028:PHE:N	2.84	0.49
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.48	0.49
1:A:3846:ALA:O	1:A:3850:GLN:N	2.45	0.49
1:A:341:TYR:CE1	1:A:392:ARG:HB3	2.48	0.49
1:A:4017:LEU:HA	1:A:4139:ILE:HD11	1.93	0.49
1:A:597:HIS:CE1	1:A:1661:ARG:HB3	2.47	0.49
1:C:597:HIS:CE1	1:C:1661:ARG:HB3	2.47	0.49
1:C:2162:ILE:HD13	1:C:2178:MET:HG3	1.92	0.49
1:A:4807:PHE:HB3	1:C:4857:ASN:HD21	1.76	0.49
1:C:750:LEU:O	1:C:752:VAL:N	2.43	0.49
1:E:1728:ARG:HH21	1:E:1850:VAL:HG11	1.77	0.49
1:E:3677:LEU:HB3	1:E:3698:LEU:HB2	1.93	0.49
1:E:3906:GLN:NE2	1:E:3913:ILE:O	2.39	0.49
1:G:838:HIS:HD2	1:G:1095:VAL:HG21	1.77	0.49
1:G:1076:ARG:HD2	1:G:1189:LEU:HD13	1.94	0.49
1:G:1207:ASP:HA	1:G:1210:SER:HB3	1.95	0.49
1:G:35:LEU:HD13	1:G:49:LEU:HD22	1.93	0.49
1:G:3670:GLU:OE1	1:G:3731:LYS:HB2	2.12	0.49
1:G:706:GLY:O	1:G:724:GLY:N	2.45	0.49
1:A:838:HIS:HD2	1:A:1095:VAL:HG21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:695:TYR:HB2	1:A:1240:LYS:NZ	2.27	0.49
1:A:1842:LEU:HD21	1:A:1926:LEU:HD21	1.95	0.49
1:C:2162:ILE:HD11	1:C:2210:VAL:HG21	1.94	0.49
1:C:2806:ARG:HA	1:C:2809:ILE:HD12	1.93	0.49
1:C:4844:LEU:HD21	1:C:4891:VAL:CG2	2.43	0.49
1:C:4928:LEU:HA	1:C:4931:ILE:HG22	1.93	0.49
1:E:110:ARG:HA	1:E:117:TYR:HD1	1.77	0.49
1:E:1207:ASP:HA	1:E:1210:SER:HB3	1.95	0.49
1:E:1237:TRP:CH2	1:E:1655:GLU:HB3	2.47	0.49
1:E:3664:THR:HB	1:E:3665:GLU:OE1	2.13	0.49
1:E:4721:LYS:NZ	1:E:4741:LEU:HD22	2.28	0.49
2:F:87:HIS:HB3	2:F:90:ILE:HB	1.93	0.49
1:G:276:TRP:HB2	1:G:316:PHE:O	2.13	0.49
1:G:273:HIS:ND1	1:G:335:GLY:O	2.46	0.49
1:G:341:TYR:CE1	1:G:392:ARG:HB3	2.47	0.49
1:G:3817:LEU:HD13	1:G:3899:PHE:HD1	1.76	0.49
1:A:1125:ASN:HB3	1:A:1127:HIS:O	2.12	0.49
1:A:441:VAL:O	1:A:445:LEU:HD13	2.11	0.49
1:C:1237:TRP:CH2	1:C:1655:GLU:HB3	2.47	0.49
1:C:1288:PHE:CE2	1:C:1460:HIS:HA	2.48	0.49
1:C:3664:THR:HB	1:C:3665:GLU:OE1	2.13	0.49
1:C:3928:GLU:HG3	1:C:3929:SER:N	2.27	0.49
1:E:3804:ILE:HG22	1:E:3812:VAL:HG11	1.95	0.49
1:E:4728:HIS:HA	1:E:4731:ILE:HD12	1.95	0.49
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.95	0.49
1:G:4976:GLU:O	1:G:4979:THR:OG1	2.22	0.49
1:A:4844:LEU:HD21	1:A:4891:VAL:CG2	2.43	0.49
1:C:838:HIS:HD2	1:C:1095:VAL:HG21	1.77	0.49
1:C:1254:HIS:HE2	1:C:1280:GLN:HB3	1.78	0.49
1:C:2137:ALA:HA	1:C:2140:ARG:HH21	1.76	0.49
1:C:3966:THR:O	1:C:3970:GLN:HG3	2.12	0.49
1:C:668:VAL:HB	1:C:740:PRO:HA	1.95	0.49
1:E:2498:HIS:O	1:E:2501:SER:OG	2.21	0.49
1:G:223:PHE:HD1	1:G:230:CYS:HB3	1.78	0.49
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.48	0.49
1:G:4864:ASN:CG	1:G:4875:LYS:HZ3	2.15	0.49
1:G:507:ALA:O	1:G:509:GLU:N	2.45	0.49
2:H:76:ILE:O	2:H:96:THR:HG23	2.13	0.49
1:A:1245:PHE:HD2	1:A:1290:ARG:HE	1.60	0.49
1:A:1438:ARG:HA	1:A:1513:ASP:O	2.13	0.49
1:A:2190:VAL:HA	1:A:2193:GLN:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:273:HIS:N	1:A:334:MET:O	2.27	0.49
1:A:706:GLY:O	1:A:724:GLY:N	2.45	0.49
1:C:1254:HIS:HD2	1:C:1281:ASN:H	1.60	0.49
1:C:1700:ASP:OD2	1:C:1703:LEU:HB2	2.11	0.49
1:C:1846:SER:O	1:C:1850:VAL:HG23	2.13	0.49
1:C:240:ASP:OD2	1:C:244:LEU:HD12	2.12	0.49
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.48	0.49
1:C:3677:LEU:HB3	1:C:3698:LEU:HB2	1.93	0.49
1:C:3804:ILE:HG22	1:C:3812:VAL:HG11	1.95	0.49
1:C:3938:SER:HA	1:C:4002:LYS:HE3	1.95	0.49
2:D:38:SER:HB3	2:D:41:ASP:CG	2.33	0.49
1:E:5027:CYS:SG	1:E:5028:PHE:N	2.85	0.49
1:G:1728:ARG:HH21	1:G:1850:VAL:HG11	1.76	0.49
1:G:1846:SER:O	1:G:1850:VAL:HG23	2.13	0.49
1:G:2735:PHE:HE1	1:G:2907:PRO:HG3	1.78	0.49
1:G:3674:ILE:HD11	1:G:3728:ILE:HG22	1.94	0.49
1:G:4682:GLU:HG3	1:G:4683:PHE:CD2	2.47	0.49
1:G:4567:LEU:HD13	1:G:4815:ASP:HB3	1.95	0.49
1:A:276:TRP:HB2	1:A:316:PHE:O	2.13	0.49
1:A:4666:VAL:HG13	1:A:4783:ILE:HG12	1.94	0.49
1:A:4839:MET:HB3	1:G:4823:LEU:CD1	2.42	0.49
1:C:1125:ASN:HB3	1:C:1127:HIS:O	2.12	0.49
1:C:1078:GLU:OE1	1:C:1235:THR:OG1	2.31	0.49
1:C:696:PRO:HB2	1:C:1613:LEU:HD22	1.94	0.49
1:C:4991:PHE:HE2	1:C:5010:VAL:HG11	1.77	0.49
2:D:87:HIS:HB3	2:D:90:ILE:HB	1.94	0.49
1:E:3938:SER:HA	1:E:4002:LYS:HE3	1.95	0.49
1:E:40:GLU:OE2	1:E:402:ARG:HG3	2.12	0.49
2:F:76:ILE:O	2:F:96:THR:HG23	2.13	0.49
1:G:110:ARG:HA	1:G:117:TYR:HD1	1.76	0.49
1:G:1078:GLU:OE1	1:G:1235:THR:OG1	2.31	0.49
1:G:1842:LEU:HD21	1:G:1926:LEU:HD21	1.95	0.49
1:G:3841:VAL:HG12	1:G:3843:ASP:H	1.77	0.49
1:G:4680:LYS:HD3	1:G:4686:LEU:HD23	1.95	0.49
1:G:4736:ARG:O	1:G:4739:GLU:HG2	2.13	0.49
1:G:841:GLY:HA3	1:G:1073:ARG:NH1	2.28	0.49
1:A:1078:GLU:OE1	1:A:1235:THR:OG1	2.31	0.49
1:A:696:PRO:HB2	1:A:1613:LEU:HD22	1.95	0.49
1:A:273:HIS:ND1	1:A:335:GLY:O	2.45	0.49
1:A:3928:GLU:HG3	1:A:3929:SER:N	2.27	0.49
1:C:1617:THR:O	1:C:1618:ARG:NH2	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:701:GLY:HA2	1:C:1645:ASN:HD21	1.77	0.49
1:C:2924:GLN:HB3	1:C:2928:LYS:HE2	1.95	0.49
1:C:276:TRP:HB2	1:C:316:PHE:O	2.13	0.49
1:C:4721:LYS:NZ	1:C:4741:LEU:HD22	2.27	0.49
1:E:2129:ASP:OD1	1:E:2132:GLY:N	2.43	0.49
1:E:276:TRP:HB2	1:E:316:PHE:O	2.13	0.49
1:E:4041:ALA:O	1:E:4044:MET:HG2	2.13	0.49
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.95	0.49
1:E:4721:LYS:HZ3	1:E:4741:LEU:HD22	1.78	0.49
1:E:4666:VAL:HG13	1:E:4783:ILE:HG12	1.95	0.49
1:E:526:LEU:HD11	1:E:540:PHE:CZ	2.45	0.49
1:E:630:GLU:HA	1:E:1642:PRO:HG3	1.93	0.49
1:G:1639:LEU:HD21	1:G:1653:LEU:HD11	1.95	0.49
1:G:1676:LEU:HG	1:G:1721:GLU:OE2	2.13	0.49
1:G:4219:PHE:HD1	1:G:4950:VAL:HG21	1.77	0.49
1:G:802:PHE:CE2	1:G:804:PRO:HG3	2.48	0.49
1:A:1745:ILE:HD13	1:A:1956:GLU:HG2	1.94	0.48
1:A:223:PHE:HD1	1:A:230:CYS:HB3	1.78	0.48
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.95	0.48
1:C:1144:GLN:N	1:C:1147:ASP:OD2	2.34	0.48
1:C:223:PHE:HD1	1:C:230:CYS:HB3	1.78	0.48
1:C:2498:HIS:O	1:C:2501:SER:OG	2.20	0.48
1:C:843:SER:OG	1:C:844:ARG:N	2.41	0.48
1:E:1676:LEU:HG	1:E:1721:GLU:OE2	2.13	0.48
1:E:240:ASP:OD2	1:E:244:LEU:HD12	2.13	0.48
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.48	0.48
1:E:3840:SER:HB2	1:E:3877:ASP:OD2	2.14	0.48
1:E:3966:THR:O	1:E:3970:GLN:HG3	2.12	0.48
1:E:4826:ILE:HG22	1:G:4931:ILE:CD1	2.36	0.48
1:E:841:GLY:HA3	1:E:1073:ARG:NH1	2.28	0.48
1:E:4940:PHE:CD2	1:G:4938:ASP:OD2	2.66	0.48
1:G:630:GLU:HA	1:G:1642:PRO:HG3	1.94	0.48
1:A:1214:PHE:O	1:A:1218:GLY:N	2.38	0.48
1:A:1237:TRP:CH2	1:A:1655:GLU:HB3	2.48	0.48
1:A:1728:ARG:HH21	1:A:1850:VAL:HG11	1.77	0.48
1:A:1846:SER:O	1:A:1850:VAL:HG23	2.13	0.48
1:A:595:ARG:NH2	1:A:1643:GLU:OE2	2.47	0.48
1:C:273:HIS:ND1	1:C:335:GLY:O	2.45	0.48
1:E:1254:HIS:HE2	1:E:1280:GLN:HB3	1.78	0.48
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.48	0.48
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4833:ASN:HB3	1:E:4935:LEU:HD21	1.95	0.48
1:G:3664:THR:HB	1:G:3665:GLU:OE1	2.13	0.48
1:G:701:GLY:HA2	1:G:1645:ASN:HD21	1.77	0.48
1:A:1738:LEU:HD11	1:A:2143:THR:HB	1.96	0.48
1:A:2816:MET:HG2	1:A:2878:LEU:HD21	1.96	0.48
1:A:3804:ILE:HG22	1:A:3812:VAL:HG11	1.95	0.48
1:A:3966:THR:O	1:A:3970:GLN:HG3	2.13	0.48
2:B:38:SER:HB3	2:B:41:ASP:CG	2.33	0.48
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.48	0.48
1:C:341:TYR:CE1	1:C:392:ARG:HB3	2.48	0.48
1:C:3708:THR:O	1:C:3711:THR:OG1	2.29	0.48
1:C:3840:SER:HB2	1:C:3877:ASP:OD2	2.13	0.48
1:C:831:ARG:O	1:C:838:HIS:ND1	2.36	0.48
1:E:1639:LEU:HD21	1:E:1653:LEU:HD11	1.94	0.48
1:E:595:ARG:NH2	1:E:1641:ILE:HD11	2.26	0.48
1:E:595:ARG:NH2	1:E:1643:GLU:OE2	2.46	0.48
1:E:2190:VAL:HA	1:E:2193:GLN:HB2	1.95	0.48
1:E:341:TYR:CE1	1:E:392:ARG:HB3	2.48	0.48
2:F:11:ASP:OD1	2:F:12:GLY:N	2.47	0.48
1:G:2190:VAL:HA	1:G:2193:GLN:HB2	1.94	0.48
1:G:273:HIS:N	1:G:334:MET:O	2.27	0.48
1:G:4042:ARG:O	1:G:4045:VAL:HB	2.13	0.48
1:A:1281:ASN:OD1	1:A:1282:SER:N	2.47	0.48
1:A:2288:LEU:O	1:A:3849:ARG:HD3	2.13	0.48
1:A:457:GLU:HG3	1:A:464:LYS:HZ1	1.77	0.48
1:A:4728:HIS:HA	1:A:4731:ILE:HD12	1.96	0.48
2:B:76:ILE:O	2:B:96:THR:HG23	2.13	0.48
1:C:1085:SER:O	1:C:1088:TRP:NE1	2.39	0.48
1:C:1207:ASP:HA	1:C:1210:SER:HB3	1.95	0.48
1:C:280:LEU:O	1:C:280:LEU:HD12	2.13	0.48
1:C:3963:ASN:O	1:C:3966:THR:OG1	2.24	0.48
1:E:1738:LEU:HD11	1:E:2143:THR:HB	1.96	0.48
1:E:2470:ILE:O	1:E:2474:LEU:N	2.40	0.48
1:E:2288:LEU:O	1:E:3849:ARG:HD3	2.13	0.48
1:E:473:ASN:O	1:E:477:LEU:HG	2.14	0.48
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.94	0.48
1:G:473:ASN:O	1:G:477:LEU:HG	2.14	0.48
1:G:526:LEU:HD11	1:G:540:PHE:CZ	2.46	0.48
1:A:1617:THR:O	1:A:1618:ARG:NH2	2.37	0.48
1:A:1676:LEU:HG	1:A:1721:GLU:OE2	2.13	0.48
1:A:2045:GLN:O	1:A:2064:ARG:NH2	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2114:PRO:HD3	1:A:3707:ARG:HH11	1.78	0.48
1:A:2924:GLN:O	1:A:2928:LYS:HG3	2.14	0.48
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.49	0.48
1:A:3713:LYS:O	1:A:3715:LYS:N	2.47	0.48
1:A:4833:ASN:HB3	1:A:4935:LEU:HD21	1.95	0.48
1:A:877:ASN:O	1:A:880:GLU:HB2	2.14	0.48
1:C:2190:VAL:HA	1:C:2193:GLN:HB2	1.94	0.48
1:E:1254:HIS:HD2	1:E:1281:ASN:H	1.60	0.48
1:E:1617:THR:O	1:E:1618:ARG:NH2	2.37	0.48
1:E:1846:SER:O	1:E:1850:VAL:HG23	2.13	0.48
1:E:1842:LEU:HD21	1:E:1926:LEU:HD21	1.94	0.48
1:G:110:ARG:NH1	1:G:115:ARG:HB3	2.29	0.48
1:G:696:PRO:HB2	1:G:1613:LEU:HD22	1.94	0.48
1:G:178:ARG:HB2	1:G:193:ALA:HB1	1.96	0.48
1:A:280:LEU:HD12	1:A:280:LEU:O	2.13	0.48
1:A:3938:SER:HA	1:A:4002:LYS:HE3	1.94	0.48
1:C:1620:ALA:O	1:C:1629:GLN:N	2.35	0.48
1:C:1842:LEU:HD21	1:C:1926:LEU:HD21	1.95	0.48
1:C:3937:TYR:HA	1:C:3940:LYS:NZ	2.27	0.48
1:C:4728:HIS:HA	1:C:4731:ILE:HD12	1.96	0.48
1:C:4863:TYR:CD1	1:C:4901:ILE:HD12	2.49	0.48
2:D:11:ASP:OD1	2:D:12:GLY:N	2.47	0.48
2:D:55:VAL:HG21	2:D:59:TRP:HD1	1.79	0.48
1:E:1700:ASP:OD2	1:E:1703:LEU:HB2	2.12	0.48
1:E:1723:ALA:HB1	1:E:1851:MET:HG3	1.96	0.48
1:E:223:PHE:HD1	1:E:230:CYS:HB3	1.77	0.48
1:G:110:ARG:HH11	1:G:115:ARG:HE	1.61	0.48
1:G:2129:ASP:OD1	1:G:2132:GLY:N	2.44	0.48
1:G:4865:LYS:NZ	1:G:4876:CYS:N	2.61	0.48
1:G:526:LEU:HG	1:G:530:ILE:HD11	1.96	0.48
1:G:877:ASN:O	1:G:880:GLU:HB2	2.14	0.48
1:A:1022:VAL:HG23	1:A:1027:LEU:HB3	1.95	0.48
1:A:841:GLY:HA3	1:A:1073:ARG:NH1	2.28	0.48
1:A:4766:THR:O	1:A:4770:SER:N	2.46	0.48
1:A:526:LEU:HG	1:A:530:ILE:HD11	1.96	0.48
1:A:692:TYR:CD1	1:A:711:LEU:HD12	2.49	0.48
1:A:802:PHE:CE2	1:A:804:PRO:HG3	2.48	0.48
1:C:1076:ARG:HD2	1:C:1189:LEU:HD13	1.94	0.48
1:C:1095:VAL:HB	1:C:1199:VAL:HG12	1.96	0.48
1:C:291:LEU:O	1:C:312:THR:OG1	2.21	0.48
1:C:3821:LYS:HZ3	1:C:3902:TYR:HD1	1.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:720:HIS:HA	1:C:730:VAL:H	1.79	0.48
1:C:802:PHE:CE2	1:C:804:PRO:HG3	2.48	0.48
1:E:1078:GLU:OE1	1:E:1235:THR:OG1	2.31	0.48
1:E:3817:LEU:HD22	1:E:3899:PHE:HB2	1.96	0.48
1:E:3835:LEU:HD11	1:E:3880:PHE:HZ	1.79	0.48
1:E:4195:PHE:CE1	1:E:4991:PHE:HB2	2.48	0.48
1:E:4925:ILE:HG23	1:E:4929:LEU:HD12	1.95	0.48
2:F:38:SER:HB3	2:F:41:ASP:CG	2.33	0.48
2:F:87:HIS:O	2:F:90:ILE:N	2.39	0.48
1:G:640:TYR:CD2	1:G:1634:LEU:HD12	2.49	0.48
1:G:2123:LEU:HD23	1:G:2126:ARG:HD3	1.95	0.48
1:G:2162:ILE:HD11	1:G:2210:VAL:HG21	1.95	0.48
1:G:636:ASN:HD22	2:H:35:LYS:HD3	1.79	0.48
1:G:720:HIS:HA	1:G:730:VAL:H	1.78	0.48
1:A:1076:ARG:HD2	1:A:1189:LEU:HD13	1.94	0.48
1:A:178:ARG:HB2	1:A:193:ALA:HB1	1.96	0.48
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.48	0.48
1:A:4195:PHE:CE1	1:A:4991:PHE:HB2	2.49	0.48
1:A:4863:TYR:CD1	1:A:4901:ILE:HD12	2.49	0.48
1:A:720:HIS:HA	1:A:730:VAL:H	1.79	0.48
2:B:55:VAL:HG21	2:B:59:TRP:HD1	1.79	0.48
1:C:1281:ASN:OD1	1:C:1282:SER:N	2.47	0.48
1:C:119:SER:HB3	1:C:138:GLN:HG2	1.96	0.48
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.49	0.48
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.95	0.48
1:E:119:SER:HB3	1:E:138:GLN:HG2	1.96	0.48
1:E:696:PRO:HB2	1:E:1613:LEU:HD22	1.95	0.48
1:E:178:ARG:HB2	1:E:193:ALA:HB1	1.96	0.48
1:E:280:LEU:HD12	1:E:280:LEU:O	2.13	0.48
1:E:4863:TYR:CD1	1:E:4901:ILE:HD12	2.49	0.48
1:E:4960:ILE:HD13	1:E:4983:HIS:HB3	1.96	0.48
1:E:613:ALA:HB1	1:E:618:GLN:NE2	2.26	0.48
1:G:1457:TYR:O	1:G:1458:HIS:ND1	2.46	0.48
1:G:2920:ARG:O	1:G:2924:GLN:HG3	2.14	0.48
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.49	0.48
1:G:563:VAL:O	1:G:567:VAL:HG23	2.14	0.48
1:A:640:TYR:CD2	1:A:1634:LEU:HD12	2.48	0.48
1:A:2162:ILE:HD11	1:A:2210:VAL:HG21	1.95	0.48
1:A:3817:LEU:HD22	1:A:3899:PHE:HB2	1.95	0.48
1:A:4041:ALA:O	1:A:4044:MET:HG2	2.13	0.48
1:A:668:VAL:HB	1:A:740:PRO:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1676:LEU:HG	1:C:1721:GLU:OE2	2.13	0.48
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.14	0.48
1:C:3846:ALA:O	1:C:3850:GLN:N	2.45	0.48
1:C:4727:LYS:O	1:C:4728:HIS:HB2	2.12	0.48
1:C:4766:THR:O	1:C:4770:SER:N	2.46	0.48
1:C:4195:PHE:CE1	1:C:4991:PHE:HB2	2.49	0.48
1:C:613:ALA:HB1	1:C:618:GLN:NE2	2.26	0.48
2:D:76:ILE:O	2:D:96:THR:HG23	2.13	0.48
1:E:1139:PHE:CE2	1:E:1169:LEU:HD21	2.49	0.48
1:E:640:TYR:CD2	1:E:1634:LEU:HD12	2.48	0.48
1:E:833:GLY:HA3	1:E:838:HIS:HE1	1.79	0.48
1:G:1085:SER:O	1:G:1088:TRP:NE1	2.39	0.48
1:G:1281:ASN:OD1	1:G:1282:SER:N	2.47	0.48
1:G:1667:LEU:HD23	1:G:1710:GLY:C	2.34	0.48
1:G:2498:HIS:O	1:G:2501:SER:OG	2.20	0.48
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.49	0.48
1:G:4715:TYR:OH	1:G:5017:ARG:NH2	2.45	0.48
1:G:4823:LEU:HA	1:G:4826:ILE:HD12	1.95	0.48
1:G:489:ASN:HB3	1:G:493:ARG:HH12	1.79	0.48
1:G:692:TYR:CD1	1:G:711:LEU:HD12	2.49	0.48
1:A:110:ARG:NH1	1:A:115:ARG:HB3	2.29	0.48
1:A:1254:HIS:HE2	1:A:1280:GLN:HB3	1.78	0.48
1:A:4003:LEU:HB2	1:A:4013:LEU:HD13	1.96	0.48
1:C:1723:ALA:HB1	1:C:1851:MET:HG3	1.96	0.48
1:E:1095:VAL:HB	1:E:1199:VAL:HG12	1.96	0.48
1:E:3885:PHE:HE1	1:E:3919:THR:HG1	1.61	0.48
1:E:4059:LEU:HD22	1:E:4170:ILE:HD13	1.96	0.48
1:E:4661:TYR:HE2	1:E:4789:PHE:HB2	1.79	0.48
1:E:4844:LEU:HD21	1:E:4891:VAL:CG2	2.43	0.48
1:G:1745:ILE:HD13	1:G:1956:GLU:HG2	1.95	0.48
1:G:2806:ARG:HA	1:G:2809:ILE:HD12	1.96	0.48
1:G:4124:ASN:OD1	1:G:4125:PHE:N	2.47	0.48
1:G:4738:ALA:O	1:G:4742:GLY:N	2.46	0.48
1:A:4721:LYS:NZ	1:A:4741:LEU:HD22	2.28	0.47
1:A:473:ASN:O	1:A:477:LEU:HG	2.13	0.47
1:C:1022:VAL:HG23	1:C:1027:LEU:HB3	1.96	0.47
1:C:1778:SER:N	1:C:1799:SER:O	2.36	0.47
1:C:4003:LEU:HB2	1:C:4013:LEU:HD13	1.96	0.47
1:C:4139:ILE:O	1:C:4143:VAL:HG23	2.14	0.47
1:C:877:ASN:O	1:C:880:GLU:HB2	2.14	0.47
2:D:87:HIS:O	2:D:90:ILE:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2816:MET:HG2	1:E:2878:LEU:HD21	1.96	0.47
1:E:2930:LEU:HB3	1:E:2937:VAL:HG21	1.96	0.47
1:G:1254:HIS:HD2	1:G:1281:ASN:H	1.60	0.47
1:G:1254:HIS:HE2	1:G:1280:GLN:HB3	1.78	0.47
1:G:595:ARG:NH2	1:G:1643:GLU:OE2	2.47	0.47
1:G:240:ASP:OD2	1:G:244:LEU:HD12	2.13	0.47
1:G:4242:ILE:O	1:G:4246:GLN:HG2	2.14	0.47
1:G:4680:LYS:O	1:G:4685:GLY:N	2.42	0.47
1:G:4683:PHE:CE2	1:G:5017:ARG:HD2	2.49	0.47
1:A:1144:GLN:N	1:A:1147:ASP:OD2	2.34	0.47
1:A:119:SER:HB3	1:A:138:GLN:HG2	1.96	0.47
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.14	0.47
1:A:240:ASP:OD2	1:A:244:LEU:HD12	2.14	0.47
1:A:3937:TYR:HA	1:A:3940:LYS:HZ3	1.78	0.47
1:C:1239:SER:HA	1:C:1608:MET:O	2.14	0.47
1:C:640:TYR:CD2	1:C:1634:LEU:HD12	2.48	0.47
1:C:1639:LEU:HD21	1:C:1653:LEU:HD11	1.95	0.47
1:C:1667:LEU:HD23	1:C:1710:GLY:C	2.34	0.47
1:E:4766:THR:O	1:E:4770:SER:N	2.46	0.47
1:E:668:VAL:HB	1:E:740:PRO:HA	1.95	0.47
1:E:720:HIS:HA	1:E:730:VAL:H	1.79	0.47
1:G:40:GLU:OE2	1:G:402:ARG:HG3	2.12	0.47
1:G:4174:PHE:O	1:G:4178:LEU:N	2.45	0.47
1:G:466:SER:HA	1:G:469:ARG:HE	1.79	0.47
1:G:4904:PRO:HG3	1:G:4913:ARG:HD3	1.96	0.47
1:A:1815:LEU:HB3	1:A:1865:MET:SD	2.54	0.47
1:A:563:VAL:O	1:A:567:VAL:HG23	2.14	0.47
1:C:1139:PHE:CE2	1:C:1169:LEU:HD21	2.49	0.47
1:C:595:ARG:NH2	1:C:1643:GLU:OE2	2.47	0.47
1:C:293:LEU:HG	1:C:298:GLY:HA2	1.97	0.47
1:C:2288:LEU:O	1:C:3849:ARG:HD3	2.13	0.47
1:C:4041:ALA:O	1:C:4044:MET:HG2	2.13	0.47
1:C:4565:LEU:O	1:C:4569:LEU:HG	2.15	0.47
1:E:140:ASP:OD2	1:E:142:THR:OG1	2.29	0.47
1:E:1667:LEU:HD23	1:E:1710:GLY:C	2.35	0.47
1:G:119:SER:HB3	1:G:138:GLN:HG2	1.96	0.47
1:G:280:LEU:HD12	1:G:280:LEU:O	2.13	0.47
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.14	0.47
1:G:4701:TRP:HB3	1:G:4778:TRP:CD1	2.48	0.47
1:A:1547:LYS:HZ3	1:A:1645:ASN:HB2	1.77	0.47
1:A:1723:ALA:HB1	1:A:1851:MET:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:291:LEU:HG	1:A:314:PHE:HE2	1.79	0.47
1:A:4000:MET:HE2	1:A:4058:ILE:HG22	1.97	0.47
1:A:4059:LEU:HD22	1:A:4170:ILE:HD13	1.96	0.47
1:A:4682:GLU:HG3	1:A:4683:PHE:CD2	2.50	0.47
1:A:495:ASN:HB3	1:A:553:ARG:HH21	1.79	0.47
1:C:1738:LEU:HD11	1:C:2143:THR:HB	1.96	0.47
1:C:2816:MET:HG2	1:C:2878:LEU:HD21	1.95	0.47
1:C:3713:LYS:O	1:C:3715:LYS:N	2.47	0.47
1:C:3817:LEU:HD22	1:C:3899:PHE:HB2	1.96	0.47
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.95	0.47
1:C:4666:VAL:HG13	1:C:4783:ILE:HG12	1.95	0.47
1:C:4727:LYS:O	1:C:4728:HIS:CB	2.62	0.47
1:C:473:ASN:O	1:C:477:LEU:HG	2.14	0.47
1:C:4864:ASN:CG	1:C:4875:LYS:HZ2	2.16	0.47
1:C:526:LEU:HG	1:C:530:ILE:HD11	1.96	0.47
1:C:833:GLY:HA3	1:C:838:HIS:HE1	1.79	0.47
1:E:273:HIS:ND1	1:E:335:GLY:O	2.46	0.47
1:E:526:LEU:HG	1:E:530:ILE:HD11	1.96	0.47
1:G:1139:PHE:CE2	1:G:1169:LEU:HD21	2.49	0.47
1:G:4064:MET:O	1:G:4073:GLY:N	2.48	0.47
1:G:4242:ILE:HG12	1:G:4993:MET:HG2	1.96	0.47
1:G:4682:GLU:HG3	1:G:4683:PHE:CE2	2.49	0.47
1:G:4930:ALA:O	1:G:4934:GLY:N	2.33	0.47
1:G:883:ALA:O	1:G:887:ILE:HD12	2.15	0.47
1:A:5027:CYS:SG	1:A:5028:PHE:N	2.86	0.47
1:C:178:ARG:HB2	1:C:193:ALA:HB1	1.96	0.47
1:C:4059:LEU:HD22	1:C:4170:ILE:HD13	1.97	0.47
1:C:563:VAL:O	1:C:567:VAL:HG23	2.13	0.47
1:E:111:HIS:NE2	1:E:113:HIS:HB3	2.30	0.47
1:E:1281:ASN:OD1	1:E:1282:SER:N	2.47	0.47
1:E:2496:PRO:HB3	1:E:2553:TYR:CZ	2.49	0.47
1:E:4928:LEU:O	1:E:4932:ILE:HD12	2.12	0.47
1:G:1095:VAL:HB	1:G:1199:VAL:HG12	1.96	0.47
1:G:4783:ILE:HG22	1:G:4789:PHE:CD2	2.50	0.47
1:G:613:ALA:HB1	1:G:618:GLN:NE2	2.26	0.47
2:H:11:ASP:OD1	2:H:12:GLY:N	2.47	0.47
1:A:1095:VAL:HB	1:A:1199:VAL:HG12	1.97	0.47
1:A:4139:ILE:O	1:A:4143:VAL:HG23	2.14	0.47
1:A:50:GLU:OE2	1:A:61:ASP:N	2.36	0.47
1:C:495:ASN:HB3	1:C:553:ARG:HH21	1.79	0.47
1:E:1022:VAL:HG23	1:E:1027:LEU:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1239:SER:HA	1:E:1608:MET:O	2.14	0.47
1:E:3713:LYS:O	1:E:3715:LYS:N	2.47	0.47
1:E:465:GLN:NE2	1:E:3712:GLU:OE1	2.48	0.47
1:E:563:VAL:O	1:E:567:VAL:HG23	2.14	0.47
1:E:831:ARG:CZ	1:E:840:VAL:HG11	2.45	0.47
1:G:2495:VAL:HA	1:G:2498:HIS:HD2	1.80	0.47
1:A:4727:LYS:O	1:A:4728:HIS:CB	2.62	0.47
2:B:11:ASP:OD1	2:B:12:GLY:N	2.47	0.47
1:C:692:TYR:CD1	1:C:711:LEU:HD12	2.49	0.47
1:C:841:GLY:HA3	1:C:1073:ARG:NH1	2.28	0.47
1:E:1947:CYS:SG	1:E:2126:ARG:NE	2.87	0.47
1:G:2121:PHE:O	1:G:3725:TYR:OH	2.27	0.47
1:G:3105:LYS:O	1:G:3109:ASN:N	2.41	0.47
1:G:291:LEU:HG	1:G:314:PHE:HE2	1.79	0.47
1:G:4089:SER:HA	1:G:4122:MET:HA	1.97	0.47
1:G:4158:PRO:O	1:G:4162:ASN:N	2.41	0.47
1:G:4721:LYS:HG3	1:G:4741:LEU:HD22	1.96	0.47
1:G:495:ASN:HB3	1:G:553:ARG:HH21	1.79	0.47
1:G:562:GLU:OE2	1:G:598:LYS:HD3	2.15	0.47
1:G:831:ARG:CZ	1:G:840:VAL:HG11	2.45	0.47
1:A:1139:PHE:CE2	1:A:1169:LEU:HD21	2.49	0.47
1:A:1207:ASP:HA	1:A:1210:SER:HB3	1.97	0.47
1:A:1480:GLN:H	1:A:1481:GLY:HA2	1.80	0.47
1:A:584:LYS:HZ1	1:A:1586:ASN:HD21	1.60	0.47
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.50	0.47
1:C:111:HIS:NE2	1:C:113:HIS:HB3	2.30	0.47
1:C:1947:CYS:SG	1:C:2126:ARG:NE	2.88	0.47
1:C:4928:LEU:O	1:C:4932:ILE:HD12	2.14	0.47
1:E:1226:PHE:O	1:E:1229:ASN:HB2	2.15	0.47
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.50	0.47
1:E:3937:TYR:HA	1:E:3940:LYS:NZ	2.28	0.47
1:E:4139:ILE:O	1:E:4143:VAL:HG23	2.14	0.47
1:E:4682:GLU:HG3	1:E:4683:PHE:CD2	2.50	0.47
1:E:589:LEU:HG	1:E:593:HIS:CD2	2.47	0.47
1:E:877:ASN:O	1:E:880:GLU:HB2	2.14	0.47
1:E:883:ALA:O	1:E:887:ILE:HD12	2.15	0.47
1:G:1022:VAL:HG23	1:G:1027:LEU:HB3	1.96	0.47
1:G:121:LEU:O	1:G:133:PHE:HB3	2.15	0.47
1:G:1245:PHE:H	1:G:1290:ARG:HH21	1.63	0.47
1:G:1723:ALA:HB1	1:G:1851:MET:HG3	1.96	0.47
1:G:2204:HIS:O	1:G:2208:MET:N	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:689:THR:HA	1:G:778:PHE:HE2	1.80	0.47
1:E:3935:TRP:HE3	1:G:80:GLU:OE1	1.98	0.47
1:A:1239:SER:HA	1:A:1608:MET:O	2.14	0.47
1:A:2166:LEU:HG	1:A:2209:GLU:OE1	2.15	0.47
1:A:3840:SER:HB2	1:A:3877:ASP:OD2	2.14	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.96	0.47
1:A:4242:ILE:O	1:A:4246:GLN:HG2	2.15	0.47
1:A:4661:TYR:HE2	1:A:4789:PHE:HB2	1.79	0.47
1:C:1815:LEU:HB3	1:C:1865:MET:SD	2.54	0.47
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.48	0.47
1:C:2735:PHE:HE1	1:C:2907:PRO:HG3	1.80	0.47
1:C:3835:LEU:HD11	1:C:3880:PHE:HZ	1.79	0.47
1:C:4682:GLU:HG3	1:C:4683:PHE:CD2	2.50	0.47
1:C:562:GLU:OE2	1:C:598:LYS:HD3	2.15	0.47
1:E:14:LEU:HB3	1:E:101:LEU:HD12	1.97	0.47
1:E:1815:LEU:HB3	1:E:1865:MET:SD	2.54	0.47
1:E:2735:PHE:HE1	1:E:2907:PRO:HG3	1.80	0.47
1:E:689:THR:HA	1:E:778:PHE:HE2	1.80	0.47
1:E:692:TYR:CD1	1:E:711:LEU:HD12	2.49	0.47
1:E:802:PHE:CE2	1:E:804:PRO:HG3	2.48	0.47
2:F:55:VAL:HG21	2:F:59:TRP:HD1	1.79	0.47
1:G:14:LEU:HB3	1:G:101:LEU:HD12	1.97	0.47
1:G:1815:LEU:HB3	1:G:1865:MET:SD	2.54	0.47
1:G:3651:ASN:HA	1:G:3654:LEU:HD12	1.97	0.47
1:G:4583:SER:H	1:G:4628:VAL:HB	1.79	0.47
1:G:50:GLU:OE2	1:G:61:ASP:N	2.36	0.47
1:G:568:LEU:HD12	1:G:602:VAL:HG13	1.97	0.47
1:A:853:PRO:HB3	1:A:1023:PRO:HB3	1.97	0.47
1:A:2495:VAL:HA	1:A:2498:HIS:HD2	1.79	0.47
1:A:2930:LEU:HB3	1:A:2937:VAL:HG21	1.96	0.47
1:A:4565:LEU:O	1:A:4569:LEU:HG	2.15	0.47
1:A:831:ARG:CZ	1:A:840:VAL:HG11	2.45	0.47
1:C:2891:LYS:HG2	1:C:2905:LEU:HD13	1.97	0.47
1:C:4150:LEU:O	1:C:4154:VAL:N	2.29	0.47
1:C:4661:TYR:HE2	1:C:4789:PHE:HB2	1.79	0.47
1:C:831:ARG:CZ	1:C:840:VAL:HG11	2.45	0.47
1:E:1245:PHE:H	1:E:1290:ARG:HH21	1.63	0.47
1:E:2431:ASP:O	1:E:2435:ARG:HG3	2.14	0.47
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.15	0.47
1:E:4662:ASN:HA	1:E:4666:VAL:HG21	1.97	0.47
1:E:4966:ASP:OD1	1:E:4967:TYR:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:828:GLU:HG3	1:E:830:ARG:H	1.79	0.47
1:G:1239:SER:HA	1:G:1608:MET:O	2.14	0.47
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.80	0.47
1:G:5000:GLU:HA	1:G:5003:HIS:CE1	2.50	0.47
1:G:853:PRO:HB3	1:G:1023:PRO:HB3	1.97	0.47
2:H:87:HIS:O	2:H:90:ILE:N	2.39	0.47
1:A:1808:ARG:NH2	1:A:1855:GLY:H	2.13	0.47
1:A:1947:CYS:SG	1:A:2126:ARG:NE	2.88	0.47
1:A:3835:LEU:HD11	1:A:3880:PHE:HZ	1.79	0.47
1:A:523:TYR:CE1	1:A:560:ILE:HG12	2.50	0.47
1:A:689:THR:HA	1:A:778:PHE:HE2	1.80	0.47
1:C:790:ARG:HG3	1:C:1625:GLY:O	2.15	0.47
1:C:2166:LEU:HG	1:C:2209:GLU:OE1	2.15	0.47
1:C:2299:VAL:HG21	1:C:2356:LEU:HB3	1.98	0.47
1:C:2470:ILE:O	1:C:2474:LEU:N	2.40	0.47
1:C:2930:LEU:HB3	1:C:2937:VAL:HG21	1.96	0.47
1:C:330:ASP:OD2	1:C:332:GLU:OE2	2.33	0.47
1:C:4691:GLN:HB2	1:C:4692:PRO:HD2	1.97	0.47
1:E:4003:LEU:HB2	1:E:4013:LEU:HD13	1.96	0.47
1:G:1480:GLN:H	1:G:1481:GLY:HA2	1.80	0.47
1:G:2045:GLN:O	1:G:2064:ARG:NH2	2.40	0.47
1:G:2166:LEU:HG	1:G:2209:GLU:OE1	2.15	0.47
1:G:284:HIS:HB3	1:G:287:THR:OG1	2.15	0.47
1:G:2867:LEU:HG	1:G:2928:LYS:NZ	2.30	0.47
1:A:1435:TYR:HB3	1:A:1517:GLY:H	1.80	0.46
1:A:2821:TRP:CD1	1:A:2939:ARG:HA	2.50	0.46
1:A:465:GLN:NE2	1:A:3712:GLU:OE1	2.48	0.46
1:A:4662:ASN:HA	1:A:4666:VAL:HG21	1.98	0.46
1:A:489:ASN:HB3	1:A:493:ARG:HH12	1.79	0.46
1:C:284:HIS:CD2	1:C:287:THR:H	2.32	0.46
1:C:465:GLN:NE2	1:C:3712:GLU:OE1	2.48	0.46
1:C:489:ASN:HB3	1:C:493:ARG:HH12	1.80	0.46
1:C:4960:ILE:HD13	1:C:4983:HIS:HB3	1.97	0.46
1:E:293:LEU:HG	1:E:298:GLY:HA2	1.97	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.96	0.46
1:E:4049:VAL:HG21	1:E:4159:ARG:HD2	1.97	0.46
1:E:495:ASN:HB3	1:E:553:ARG:HH21	1.79	0.46
1:E:562:GLU:OE2	1:E:598:LYS:HD3	2.15	0.46
1:G:1226:PHE:O	1:G:1229:ASN:HB2	2.14	0.46
1:G:3424:LEU:O	1:G:3427:PRO:N	2.48	0.46
1:G:4234:PHE:CE1	1:G:4985:LEU:HD11	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4892:ARG:NH1	1:G:4899:ASP:N	2.57	0.46
1:G:833:GLY:HA3	1:G:838:HIS:HE1	1.79	0.46
1:A:121:LEU:O	1:A:133:PHE:HB3	2.15	0.46
1:A:1226:PHE:O	1:A:1229:ASN:HB2	2.16	0.46
1:A:1245:PHE:H	1:A:1290:ARG:HH21	1.63	0.46
1:A:2422:ILE:O	1:A:2425:PHE:HB3	2.16	0.46
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.15	0.46
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.98	0.46
1:C:2114:PRO:HD3	1:C:3707:ARG:HH11	1.79	0.46
1:C:291:LEU:HG	1:C:314:PHE:HE2	1.79	0.46
1:C:4867:GLU:HA	1:C:4868:ASP:HA	1.80	0.46
1:C:883:ALA:O	1:C:887:ILE:HD12	2.15	0.46
1:E:2114:PRO:HD3	1:E:3707:ARG:HH11	1.79	0.46
1:E:2165:LEU:HD21	1:E:2177:LEU:HB2	1.97	0.46
1:E:2142:TYR:HB3	1:E:2197:LEU:HD12	1.98	0.46
1:E:479:GLN:HE22	1:E:484:LEU:HD22	1.80	0.46
1:E:489:ASN:HB3	1:E:493:ARG:HH12	1.80	0.46
1:G:14:LEU:HD21	1:G:204:PRO:HD3	1.97	0.46
1:G:293:LEU:HG	1:G:298:GLY:HA2	1.97	0.46
1:G:330:ASP:OD2	1:G:332:GLU:OE2	2.33	0.46
1:G:3906:GLN:NE2	1:G:3913:ILE:O	2.46	0.46
1:G:4961:CYS:SG	1:G:4983:HIS:CE1	3.03	0.46
1:G:4195:PHE:CE1	1:G:4991:PHE:HB2	2.50	0.46
1:A:1079:LYS:HG3	1:A:1237:TRP:HZ3	1.80	0.46
1:A:1667:LEU:HD23	1:A:1710:GLY:C	2.35	0.46
1:A:2299:VAL:HG11	1:A:2356:LEU:HB2	1.98	0.46
1:A:2517:PHE:O	1:A:2521:VAL:HG23	2.16	0.46
1:A:3885:PHE:HE1	1:A:3919:THR:HG1	1.59	0.46
1:A:4032:GLU:O	1:A:5006:GLN:NE2	2.49	0.46
1:A:4691:GLN:HB2	1:A:4692:PRO:HD2	1.97	0.46
1:A:4960:ILE:HD13	1:A:4983:HIS:HB3	1.98	0.46
1:A:562:GLU:OE2	1:A:598:LYS:HD3	2.15	0.46
1:A:883:ALA:O	1:A:887:ILE:HD12	2.15	0.46
1:C:110:ARG:HG2	1:C:111:HIS:O	2.15	0.46
1:C:1245:PHE:H	1:C:1290:ARG:HH21	1.64	0.46
1:C:2517:PHE:O	1:C:2521:VAL:HG23	2.16	0.46
1:C:3935:TRP:HE3	1:E:80:GLU:OE1	1.99	0.46
1:A:3935:TRP:HE3	1:C:80:GLU:OE1	1.99	0.46
1:C:828:GLU:HG3	1:C:830:ARG:H	1.80	0.46
1:E:395:GLN:NE2	1:E:399:GLN:HB2	2.31	0.46
1:E:4242:ILE:O	1:E:4246:GLN:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4565:LEU:O	1:E:4569:LEU:HG	2.15	0.46
1:G:2299:VAL:HG21	1:G:2356:LEU:HB3	1.97	0.46
1:G:2431:ASP:O	1:G:2435:ARG:HG3	2.14	0.46
1:G:4774:LYS:HA	1:G:4777:ILE:HG22	1.96	0.46
1:G:4796:MET:HG3	1:G:4797:VAL:N	2.29	0.46
1:G:4966:ASP:OD1	1:G:4967:TYR:N	2.46	0.46
1:A:110:ARG:HG2	1:A:111:HIS:O	2.16	0.46
1:A:14:LEU:HB3	1:A:101:LEU:HD12	1.96	0.46
1:A:2299:VAL:HG21	1:A:2356:LEU:HB3	1.98	0.46
1:A:828:GLU:HG3	1:A:830:ARG:H	1.79	0.46
2:B:87:HIS:O	2:B:90:ILE:N	2.39	0.46
1:C:1621:GLY:HA2	1:C:1628:VAL:HA	1.98	0.46
1:C:2142:TYR:HB3	1:C:2197:LEU:HD12	1.98	0.46
1:C:2821:TRP:CD1	1:C:2939:ARG:HA	2.50	0.46
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.50	0.46
1:C:4000:MET:HE2	1:C:4058:ILE:HG22	1.97	0.46
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.15	0.46
1:C:4648:LEU:HD23	1:C:4803:HIS:NE2	2.30	0.46
1:C:4662:ASN:HA	1:C:4666:VAL:HG21	1.97	0.46
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.27	0.46
1:C:568:LEU:HD12	1:C:602:VAL:HG13	1.98	0.46
1:C:667:MET:HG2	1:C:743:VAL:HG22	1.98	0.46
1:E:14:LEU:HD21	1:E:204:PRO:HD3	1.98	0.46
1:E:2891:LYS:HG2	1:E:2905:LEU:HD13	1.98	0.46
1:E:4032:GLU:O	1:E:5006:GLN:NE2	2.49	0.46
1:E:523:TYR:CE1	1:E:560:ILE:HG12	2.50	0.46
1:E:667:MET:HG2	1:E:743:VAL:HG22	1.98	0.46
1:G:110:ARG:HG2	1:G:111:HIS:O	2.15	0.46
1:G:2165:LEU:HD21	1:G:2177:LEU:HB2	1.97	0.46
1:G:3980:LEU:HD21	1:G:3985:LEU:HD13	1.98	0.46
1:G:523:TYR:CE1	1:G:560:ILE:HG12	2.50	0.46
1:A:1962:ALA:O	1:A:1966:VAL:HG23	2.16	0.46
1:A:3898:ASP:OD1	1:A:3899:PHE:N	2.49	0.46
1:A:453:GLU:HA	1:A:454:PRO:HD3	1.85	0.46
1:A:4648:LEU:HD23	1:A:4803:HIS:NE2	2.31	0.46
1:A:667:MET:HG2	1:A:743:VAL:HG22	1.98	0.46
1:C:2326:CYS:O	1:C:2329:GLU:HG2	2.16	0.46
1:C:345:LEU:HD22	1:C:387:ALA:HB1	1.97	0.46
1:C:4922:PHE:HA	1:C:4926:VAL:HB	1.97	0.46
1:C:580:GLU:HG3	1:C:620:LEU:HD12	1.98	0.46
1:E:1962:ALA:O	1:E:1966:VAL:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.49	0.46
1:G:1739:THR:OG1	1:G:1742:THR:HG23	2.15	0.46
1:G:2422:ILE:O	1:G:2425:PHE:HB3	2.16	0.46
1:G:2821:TRP:CE2	1:G:2939:ARG:HG2	2.51	0.46
1:G:526:LEU:O	1:G:530:ILE:HG13	2.16	0.46
1:G:74:SER:O	1:G:78:LEU:N	2.40	0.46
1:A:1739:THR:OG1	1:A:1742:THR:HG23	2.16	0.46
1:A:2867:LEU:HD12	1:A:2924:GLN:HG2	1.96	0.46
1:A:289:ARG:HB3	1:A:302:VAL:O	2.16	0.46
1:A:345:LEU:HD22	1:A:387:ALA:HB1	1.97	0.46
1:A:4149:ASN:OD1	1:A:4153:HIS:ND1	2.48	0.46
1:A:568:LEU:HD12	1:A:602:VAL:HG13	1.98	0.46
1:A:716:PHE:N	1:A:738:LEU:HD13	2.31	0.46
1:A:790:ARG:HG3	1:A:1625:GLY:O	2.15	0.46
1:C:110:ARG:HH11	1:C:115:ARG:HE	1.64	0.46
1:C:4149:ASN:OD1	1:C:4153:HIS:ND1	2.49	0.46
1:E:853:PRO:HB3	1:E:1023:PRO:HB3	1.97	0.46
1:E:121:LEU:O	1:E:133:PHE:HB3	2.15	0.46
1:E:1457:TYR:CZ	1:E:1459:GLN:HB2	2.50	0.46
1:E:2093:SER:HA	1:E:2096:GLU:OE2	2.15	0.46
1:E:2299:VAL:HG21	1:E:2356:LEU:HB3	1.97	0.46
1:E:2422:ILE:O	1:E:2425:PHE:HB3	2.15	0.46
1:E:4149:ASN:OD1	1:E:4153:HIS:ND1	2.48	0.46
1:E:580:GLU:HG3	1:E:620:LEU:HD12	1.97	0.46
1:E:701:GLY:HA2	1:E:1645:ASN:HD21	1.81	0.46
1:G:1079:LYS:HG3	1:G:1237:TRP:HZ3	1.80	0.46
1:G:790:ARG:HG3	1:G:1625:GLY:O	2.15	0.46
1:G:1676:LEU:CD1	1:G:1725:ARG:HH11	2.29	0.46
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.97	0.46
1:G:2434:GLY:O	1:G:2508:ARG:HG3	2.16	0.46
1:G:828:GLU:HG3	1:G:830:ARG:H	1.79	0.46
1:A:2093:SER:HA	1:A:2096:GLU:OE2	2.16	0.46
1:A:2862:LEU:HD21	1:A:2929:PHE:CD1	2.49	0.46
1:A:284:HIS:CD2	1:A:287:THR:H	2.33	0.46
1:A:4978:HIS:HA	1:A:4982:GLU:CG	2.46	0.46
1:A:833:GLY:HA3	1:A:838:HIS:HE1	1.80	0.46
1:C:395:GLN:NE2	1:C:399:GLN:HB2	2.31	0.46
1:E:110:ARG:NH1	1:E:115:ARG:HB3	2.31	0.46
1:E:221:ARG:HG3	1:E:259:LEU:HD23	1.98	0.46
1:E:330:ASP:OD2	1:E:332:GLU:OE2	2.33	0.46
1:E:4727:LYS:O	1:E:4728:HIS:CB	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:568:LEU:HD12	1:E:602:VAL:HG13	1.98	0.46
1:E:716:PHE:N	1:E:738:LEU:HD13	2.31	0.46
1:G:1586:ASN:O	1:G:1588:ALA:N	2.44	0.46
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.48	0.46
1:A:1621:GLY:HA2	1:A:1628:VAL:HA	1.98	0.46
1:A:330:ASP:OD2	1:A:332:GLU:OE2	2.33	0.46
1:A:526:LEU:O	1:A:530:ILE:HG13	2.16	0.46
1:C:1721:GLU:O	1:C:1725:ARG:HG2	2.16	0.46
1:C:1676:LEU:CD1	1:C:1725:ARG:HH11	2.29	0.46
1:C:265:LEU:HD21	1:C:281:ARG:HG2	1.98	0.46
1:C:3995:VAL:O	1:C:3999:MET:HB3	2.16	0.46
1:C:853:PRO:HB3	1:C:1023:PRO:HB3	1.97	0.46
1:E:1141:ARG:NH1	1:E:1167:GLU:OE1	2.48	0.46
1:E:1480:GLN:H	1:E:1481:GLY:HA2	1.80	0.46
1:E:1586:ASN:O	1:E:1588:ALA:N	2.43	0.46
1:E:1621:GLY:HA2	1:E:1628:VAL:HA	1.98	0.46
1:E:1676:LEU:CD1	1:E:1725:ARG:HH11	2.29	0.46
1:E:1739:THR:OG1	1:E:1742:THR:HG23	2.15	0.46
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.50	0.46
1:E:2349:ASN:O	1:E:2353:VAL:HG23	2.16	0.46
1:E:265:LEU:HD21	1:E:281:ARG:HG2	1.98	0.46
1:E:3898:ASP:OD1	1:E:3899:PHE:N	2.49	0.46
1:E:575:LEU:O	1:E:578:ILE:HG22	2.16	0.46
1:E:723:THR:HG1	1:E:728:ARG:HH12	1.60	0.46
1:G:1617:THR:O	1:G:1618:ARG:NH2	2.36	0.46
1:G:265:LEU:HD21	1:G:281:ARG:HG2	1.98	0.46
1:G:2143:THR:HG23	1:G:3654:LEU:HD11	1.98	0.46
1:G:345:LEU:HD22	1:G:387:ALA:HB1	1.97	0.46
1:G:3929:SER:O	1:G:3933:PHE:N	2.46	0.46
1:A:1139:PHE:CE1	1:A:1169:LEU:HD11	2.51	0.46
1:A:1721:GLU:O	1:A:1725:ARG:HG2	2.16	0.46
1:A:1676:LEU:CD1	1:A:1725:ARG:HH11	2.29	0.46
1:A:2142:TYR:HB3	1:A:2197:LEU:HD12	1.98	0.46
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.48	0.46
1:A:265:LEU:HD21	1:A:281:ARG:HG2	1.98	0.46
1:A:4966:ASP:OD1	1:A:4967:TYR:N	2.47	0.46
1:C:1690:ASP:OD1	1:C:1691:GLN:N	2.49	0.46
1:C:1848:LEU:HD11	1:C:1853:ILE:HD12	1.98	0.46
1:C:2761:TYR:CE2	1:C:2862:LEU:HD22	2.51	0.46
1:C:4931:ILE:HD13	1:C:4931:ILE:HG21	1.74	0.46
1:E:273:HIS:N	1:E:334:MET:O	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3825:GLU:OE2	1:E:3828:PHE:HB2	2.16	0.46
1:E:5017:ARG:HB3	1:E:5019:TRP:CZ3	2.51	0.46
1:G:1690:ASP:OD1	1:G:1691:GLN:N	2.49	0.46
1:G:1962:ALA:O	1:G:1966:VAL:HG23	2.16	0.46
1:G:221:ARG:HG3	1:G:259:LEU:HD23	1.98	0.46
1:G:3185:LYS:O	1:G:3189:ALA:N	2.46	0.46
1:G:3825:GLU:O	1:G:3827:GLY:N	2.45	0.46
1:G:3928:GLU:HG3	1:G:3929:SER:N	2.31	0.46
1:G:4958:CYS:SG	1:G:4959:PHE:N	2.89	0.46
1:G:758:ARG:NH1	1:G:763:PRO:HG3	2.31	0.46
1:A:2434:GLY:O	1:A:2508:ARG:HG3	2.16	0.46
1:A:4778:TRP:O	1:A:4782:VAL:HG23	2.16	0.46
1:C:1141:ARG:NH1	1:C:1167:GLU:OE1	2.48	0.46
1:C:121:LEU:O	1:C:133:PHE:HB3	2.15	0.46
1:C:2495:VAL:HA	1:C:2498:HIS:HD2	1.80	0.46
1:C:2496:PRO:HB3	1:C:2553:TYR:CZ	2.51	0.46
1:C:4978:HIS:HA	1:C:4982:GLU:CG	2.46	0.46
1:C:50:GLU:OE2	1:C:61:ASP:N	2.36	0.46
1:E:235:ALA:HB2	1:E:257:ARG:NH1	2.31	0.46
1:E:2862:LEU:HD21	1:E:2929:PHE:CD1	2.49	0.46
1:E:2761:TYR:CE2	1:E:2862:LEU:HD22	2.51	0.46
1:E:284:HIS:CD2	1:E:287:THR:H	2.32	0.46
1:E:2821:TRP:CD1	1:E:2939:ARG:HA	2.50	0.46
1:E:4778:TRP:O	1:E:4782:VAL:HG23	2.16	0.46
1:E:526:LEU:O	1:E:530:ILE:HG13	2.16	0.46
1:G:1152:MET:HB3	1:G:1161:ILE:O	2.16	0.46
1:G:3780:LEU:HD22	1:G:3819:TYR:CD2	2.51	0.46
1:G:3831:SER:O	1:G:3835:LEU:HB2	2.17	0.46
1:G:4863:TYR:CD1	1:G:4901:ILE:HD12	2.51	0.46
1:A:4934:GLY:CA	1:G:4937:ILE:HG12	2.46	0.46
1:E:4940:PHE:CE2	1:G:4938:ASP:OD2	2.69	0.46
1:G:595:ARG:HH12	1:G:1641:ILE:HD13	1.80	0.46
1:A:1690:ASP:OD1	1:A:1691:GLN:N	2.49	0.45
1:A:3995:VAL:O	1:A:3999:MET:HB3	2.16	0.45
1:A:479:GLN:HE22	1:A:484:LEU:HD22	1.80	0.45
1:C:1024:TYR:CZ	1:C:1032:LYS:HG3	2.51	0.45
1:C:66:CYS:HB2	1:C:112:ALA:HB2	1.99	0.45
1:C:1226:PHE:O	1:C:1229:ASN:HB2	2.15	0.45
1:C:2299:VAL:HG11	1:C:2356:LEU:HB2	1.98	0.45
1:C:2422:ILE:O	1:C:2425:PHE:HB3	2.16	0.45
1:C:4925:ILE:HG23	1:C:4929:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:790:ARG:HG3	1:E:1625:GLY:O	2.15	0.45
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.98	0.45
1:E:1690:ASP:OD1	1:E:1691:GLN:N	2.49	0.45
1:E:284:HIS:HB3	1:E:287:THR:OG1	2.16	0.45
1:E:4691:GLN:HB2	1:E:4692:PRO:HD2	1.97	0.45
1:E:4648:LEU:HD23	1:E:4803:HIS:NE2	2.31	0.45
1:E:4963:ILE:HD12	1:E:5027:CYS:HB3	1.97	0.45
1:E:876:GLU:O	1:E:880:GLU:HG3	2.16	0.45
1:G:1139:PHE:CE1	1:G:1169:LEU:HD11	2.51	0.45
1:G:1808:ARG:NH2	1:G:1855:GLY:H	2.14	0.45
1:G:4221:VAL:HG22	1:G:4233:LEU:HD22	1.98	0.45
1:A:110:ARG:HH11	1:A:115:ARG:HB3	1.81	0.45
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.98	0.45
1:A:2165:LEU:HD21	1:A:2177:LEU:HB2	1.97	0.45
1:A:2326:CYS:O	1:A:2329:GLU:HG2	2.16	0.45
1:A:2349:ASN:O	1:A:2353:VAL:HG23	2.16	0.45
1:C:1139:PHE:CE1	1:C:1169:LEU:HD11	2.51	0.45
1:C:1770:SER:OG	1:C:1771:LEU:N	2.49	0.45
1:C:1808:ARG:NH2	1:C:1855:GLY:H	2.14	0.45
1:C:14:LEU:HD21	1:C:204:PRO:HD3	1.97	0.45
1:C:2093:SER:HA	1:C:2096:GLU:OE2	2.15	0.45
1:C:255:HIS:NE2	1:C:480:GLU:OE2	2.49	0.45
1:C:3898:ASP:OD1	1:C:3899:PHE:N	2.49	0.45
1:C:4032:GLU:O	1:C:5006:GLN:NE2	2.49	0.45
1:C:4242:ILE:O	1:C:4246:GLN:HG2	2.15	0.45
1:E:110:ARG:HG2	1:E:111:HIS:O	2.15	0.45
1:E:24:CYS:SG	1:E:182:LEU:HD13	2.56	0.45
1:E:1848:LEU:HD11	1:E:1853:ILE:HD12	1.98	0.45
1:E:2326:CYS:O	1:E:2329:GLU:HG2	2.17	0.45
1:E:255:HIS:NE2	1:E:480:GLU:OE2	2.49	0.45
1:E:289:ARG:HB3	1:E:302:VAL:O	2.16	0.45
1:E:291:LEU:HG	1:E:314:PHE:HE2	1.79	0.45
1:E:629:ARG:HB3	1:E:634:GLN:OE1	2.17	0.45
1:G:111:HIS:NE2	1:G:113:HIS:HB3	2.31	0.45
1:G:1297:PHE:CD2	1:G:1545:ASN:HA	2.51	0.45
1:G:2299:VAL:HG11	1:G:2356:LEU:HB2	1.98	0.45
1:G:2923:ALA:HA	1:G:2926:LEU:HB3	1.97	0.45
1:G:289:ARG:HB3	1:G:302:VAL:O	2.16	0.45
1:G:479:GLN:HE22	1:G:484:LEU:HD22	1.80	0.45
1:A:1690:ASP:OD1	2:B:41:ASP:HB3	2.17	0.45
1:A:1848:LEU:HD11	1:A:1853:ILE:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2761:TYR:CE2	1:A:2862:LEU:HD22	2.51	0.45
1:A:4049:VAL:HG21	1:A:4159:ARG:HD2	1.98	0.45
1:A:4963:ILE:HD12	1:A:5027:CYS:HB3	1.97	0.45
1:A:639:ASN:OD1	1:A:640:TYR:N	2.50	0.45
1:A:876:GLU:O	1:A:880:GLU:HG3	2.17	0.45
1:C:14:LEU:HB3	1:C:101:LEU:HD12	1.97	0.45
1:C:1739:THR:OG1	1:C:1742:THR:HG23	2.16	0.45
1:C:284:HIS:HB3	1:C:287:THR:OG1	2.16	0.45
1:C:289:ARG:HB3	1:C:302:VAL:O	2.16	0.45
1:C:4049:VAL:HG21	1:C:4159:ARG:HD2	1.98	0.45
1:C:523:TYR:CE1	1:C:560:ILE:HG12	2.50	0.45
1:E:2166:LEU:HG	1:E:2209:GLU:OE1	2.15	0.45
1:E:345:LEU:HD22	1:E:387:ALA:HB1	1.97	0.45
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.98	0.45
1:G:2093:SER:HA	1:G:2096:GLU:OE2	2.16	0.45
1:G:2142:TYR:HB3	1:G:2197:LEU:HD12	1.97	0.45
1:G:2517:PHE:O	1:G:2521:VAL:HG23	2.16	0.45
1:G:2496:PRO:HB3	1:G:2553:TYR:CZ	2.51	0.45
1:G:3319:ILE:O	1:G:3323:ILE:N	2.48	0.45
1:G:3986:TRP:O	1:G:3990:VAL:HG23	2.17	0.45
1:G:4833:ASN:HD22	1:G:4939:ALA:HB2	1.80	0.45
1:G:4963:ILE:HD12	1:G:5027:CYS:HB3	1.97	0.45
1:A:1226:PHE:HA	1:A:1229:ASN:HD22	1.82	0.45
1:A:1261:ASP:HB2	1:A:1595:LEU:HD13	1.98	0.45
1:A:284:HIS:HB3	1:A:287:THR:OG1	2.16	0.45
1:A:2891:LYS:HG2	1:A:2905:LEU:HD13	1.98	0.45
1:A:308:HIS:CE1	1:A:310:LYS:HB2	2.51	0.45
1:A:5017:ARG:HB3	1:A:5019:TRP:CZ3	2.51	0.45
1:C:1079:LYS:HG3	1:C:1237:TRP:HZ3	1.80	0.45
1:C:1152:MET:HB3	1:C:1161:ILE:O	2.16	0.45
1:C:1226:PHE:HA	1:C:1229:ASN:HD22	1.81	0.45
1:C:1480:GLN:H	1:C:1481:GLY:HA2	1.80	0.45
1:C:1712:TYR:O	1:C:1716:ILE:HG12	2.17	0.45
1:C:2060:SER:HA	1:C:2063:LEU:HD12	1.98	0.45
1:C:2165:LEU:HD21	1:C:2177:LEU:HB2	1.97	0.45
1:C:2434:GLY:O	1:C:2508:ARG:HG3	2.16	0.45
1:C:5000:GLU:HA	1:C:5003:HIS:CE1	2.52	0.45
1:C:595:ARG:HH12	1:C:1641:ILE:HD13	1.80	0.45
1:C:758:ARG:NH1	1:C:763:PRO:HG3	2.30	0.45
1:C:689:THR:HA	1:C:778:PHE:HE2	1.80	0.45
1:E:1297:PHE:CD2	1:E:1545:ASN:HA	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:595:ARG:HH12	1:E:1641:ILE:HD13	1.80	0.45
1:E:2517:PHE:O	1:E:2521:VAL:HG23	2.16	0.45
1:E:639:ASN:OD1	1:E:640:TYR:N	2.50	0.45
1:E:758:ARG:NH1	1:E:763:PRO:HG3	2.31	0.45
1:G:1024:TYR:CZ	1:G:1032:LYS:HG3	2.52	0.45
1:G:1091:GLU:HG2	1:G:1213:PHE:CD1	2.52	0.45
1:G:2349:ASN:O	1:G:2353:VAL:HG23	2.16	0.45
1:G:24:CYS:SG	1:G:182:LEU:HD13	2.56	0.45
1:G:284:HIS:CD2	1:G:287:THR:H	2.32	0.45
1:G:395:GLN:NE2	1:G:399:GLN:HB2	2.31	0.45
1:G:404:ILE:HG12	1:G:478:PHE:CE1	2.52	0.45
1:G:575:LEU:O	1:G:578:ILE:HG22	2.16	0.45
1:G:876:GLU:O	1:G:880:GLU:HG3	2.16	0.45
1:A:1093:GLU:HG3	1:A:1148:VAL:HG22	1.98	0.45
1:A:1211:LEU:HB3	1:A:1213:PHE:CE2	2.51	0.45
1:A:235:ALA:HB2	1:A:257:ARG:NH1	2.31	0.45
1:A:293:LEU:HG	1:A:298:GLY:HA2	1.97	0.45
1:A:371:VAL:HG22	1:A:373:LYS:H	1.81	0.45
1:A:3793:MET:O	1:A:3797:THR:HG23	2.16	0.45
1:A:4655:PHE:O	1:A:4659:ILE:HG12	2.16	0.45
1:A:575:LEU:O	1:A:578:ILE:HG22	2.16	0.45
1:A:580:GLU:HG3	1:A:620:LEU:HD12	1.98	0.45
1:A:629:ARG:HB3	1:A:634:GLN:OE1	2.17	0.45
1:C:110:ARG:NH1	1:C:115:ARG:HB3	2.32	0.45
1:C:2248:ARG:O	1:C:2251:PHE:HB3	2.17	0.45
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.17	0.45
1:E:1152:MET:HB3	1:E:1161:ILE:O	2.16	0.45
1:E:1808:ARG:NH2	1:E:1855:GLY:H	2.14	0.45
1:E:2434:GLY:O	1:E:2508:ARG:HG3	2.16	0.45
1:E:2802:LYS:O	1:E:2806:ARG:HG3	2.17	0.45
1:E:371:VAL:HG22	1:E:373:LYS:H	1.81	0.45
1:E:4583:SER:H	1:E:4628:VAL:HB	1.81	0.45
1:E:5000:GLU:HA	1:E:5003:HIS:CE1	2.52	0.45
1:E:791:PHE:HB2	1:E:1626:TRP:HB3	1.99	0.45
1:G:1141:ARG:NH1	1:G:1167:GLU:OE1	2.48	0.45
1:G:1770:SER:OG	1:G:1771:LEU:N	2.49	0.45
1:G:255:HIS:NE2	1:G:480:GLU:OE2	2.49	0.45
1:G:3771:HIS:CG	1:G:3812:VAL:HG22	2.51	0.45
1:G:4103:PHE:HB2	1:G:4108:ILE:HD11	1.98	0.45
1:G:4666:VAL:HB	1:G:4667:PRO:HD3	1.98	0.45
1:G:4717:ASP:O	1:G:4720:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4991:PHE:CE2	1:G:5010:VAL:HG11	2.51	0.45
1:A:14:LEU:HD21	1:A:204:PRO:HD3	1.98	0.45
1:A:1547:LYS:O	1:A:1548:LEU:HD12	2.17	0.45
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.98	0.45
1:A:2071:ARG:O	1:A:2072:LEU:HG	2.17	0.45
1:A:1738:LEU:N	1:A:2144:ILE:O	2.48	0.45
1:A:221:ARG:HG3	1:A:259:LEU:HD23	1.98	0.45
1:A:4235:VAL:HG21	1:A:5019:TRP:HE1	1.80	0.45
1:A:4892:ARG:HH12	1:C:4899:ASP:H	1.61	0.45
1:A:4913:ARG:O	1:A:4916:PHE:HB3	2.17	0.45
1:C:1457:TYR:C	1:C:1458:HIS:CG	2.90	0.45
1:C:791:PHE:HB2	1:C:1626:TRP:HB3	1.99	0.45
1:C:24:CYS:SG	1:C:182:LEU:HD13	2.56	0.45
1:C:3793:MET:O	1:C:3797:THR:HG23	2.16	0.45
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.82	0.45
1:C:3825:GLU:OE2	1:C:3828:PHE:HB2	2.16	0.45
1:C:4963:ILE:HD12	1:C:5027:CYS:HB3	1.97	0.45
1:C:5017:ARG:HB3	1:C:5019:TRP:CZ3	2.51	0.45
1:C:575:LEU:O	1:C:578:ILE:HG22	2.16	0.45
1:E:1261:ASP:HB2	1:E:1595:LEU:HD13	1.98	0.45
1:E:2071:ARG:O	1:E:2072:LEU:HG	2.16	0.45
1:E:4655:PHE:O	1:E:4659:ILE:HG12	2.16	0.45
1:E:404:ILE:HG12	1:E:478:PHE:CE1	2.52	0.45
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.98	0.45
1:E:765:GLN:HG3	1:E:1479:GLU:N	2.32	0.45
1:G:1211:LEU:HB3	1:G:1213:PHE:CE2	2.52	0.45
1:G:1721:GLU:O	1:G:1725:ARG:HG2	2.16	0.45
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.99	0.45
1:G:4175:ARG:N	1:G:4176:PRO:CD	2.80	0.45
1:A:111:HIS:NE2	1:A:113:HIS:HB3	2.32	0.45
1:A:1091:GLU:HG2	1:A:1213:PHE:CD1	2.52	0.45
1:A:1712:TYR:O	1:A:1716:ILE:HG12	2.17	0.45
1:A:1737:PRO:HB2	1:A:1739:THR:HG23	1.98	0.45
1:A:4583:SER:H	1:A:4628:VAL:HB	1.82	0.45
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.17	0.45
1:C:1211:LEU:HB3	1:C:1213:PHE:CE2	2.52	0.45
1:C:1295:VAL:HG12	1:C:1580:PHE:HE1	1.82	0.45
1:C:221:ARG:HG3	1:C:259:LEU:HD23	1.98	0.45
1:C:2862:LEU:HD21	1:C:2929:PHE:CD1	2.49	0.45
1:C:308:HIS:CE1	1:C:310:LYS:HB2	2.51	0.45
1:C:479:GLN:HE22	1:C:484:LEU:HD22	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1547:LYS:HZ3	1:E:1645:ASN:HB2	1.81	0.45
1:E:2299:VAL:HG11	1:E:2356:LEU:HB2	1.98	0.45
1:G:1089:TYR:CE2	1:G:1091:GLU:OE2	2.70	0.45
1:G:1547:LYS:O	1:G:1548:LEU:HD12	2.17	0.45
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.98	0.45
1:G:1690:ASP:OD1	2:H:41:ASP:HB3	2.17	0.45
1:G:4648:LEU:HD23	1:G:4803:HIS:NE2	2.32	0.45
1:A:1152:MET:HB3	1:A:1161:ILE:O	2.17	0.45
1:A:2359:ARG:C	1:A:2360:LYS:HG3	2.37	0.45
1:A:404:ILE:HG12	1:A:478:PHE:CE1	2.52	0.45
1:A:758:ARG:NH1	1:A:763:PRO:HG3	2.31	0.45
1:C:1297:PHE:CD2	1:C:1545:ASN:HA	2.51	0.45
1:C:2071:ARG:O	1:C:2072:LEU:HG	2.16	0.45
1:C:2349:ASN:O	1:C:2353:VAL:HG23	2.16	0.45
1:C:404:ILE:HG12	1:C:478:PHE:CE1	2.52	0.45
1:C:4205:TRP:HZ2	1:C:4214:LYS:HD3	1.82	0.45
1:C:4583:SER:H	1:C:4628:VAL:HB	1.81	0.45
1:C:639:ASN:OD1	1:C:640:TYR:N	2.49	0.45
1:C:716:PHE:N	1:C:738:LEU:HD13	2.32	0.45
1:E:1079:LYS:HG3	1:E:1237:TRP:HZ3	1.80	0.45
1:C:2452:ARG:NH2	1:E:174:VAL:O	2.48	0.45
1:E:2204:HIS:O	1:E:2208:MET:N	2.42	0.45
1:E:3793:MET:O	1:E:3797:THR:HG23	2.16	0.45
1:G:1621:GLY:HA2	1:G:1628:VAL:HA	1.98	0.45
1:G:215:THR:HA	1:G:273:HIS:HA	1.99	0.45
1:G:235:ALA:HB2	1:G:257:ARG:NH1	2.31	0.45
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.52	0.45
1:G:4826:ILE:O	1:G:4829:SER:HB2	2.16	0.45
1:G:667:MET:HG2	1:G:743:VAL:HG22	1.99	0.45
1:A:1089:TYR:CE2	1:A:1091:GLU:OE2	2.70	0.45
1:A:1297:PHE:CD2	1:A:1545:ASN:HA	2.52	0.45
1:A:1728:ARG:O	1:A:1731:LEU:HB3	2.17	0.45
1:A:1778:SER:N	1:A:1799:SER:O	2.36	0.45
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.17	0.45
1:A:2735:PHE:HE1	1:A:2907:PRO:HG3	1.80	0.45
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.17	0.45
1:C:1101:ARG:HB2	1:C:1193:SER:OG	2.17	0.45
1:C:178:ARG:HG2	1:C:195:PHE:CD1	2.52	0.45
1:C:526:LEU:O	1:C:530:ILE:HG13	2.16	0.45
1:C:669:ASP:OD2	1:C:790:ARG:HB2	2.17	0.45
1:C:876:GLU:O	1:C:880:GLU:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1211:LEU:HB3	1:E:1213:PHE:CE2	2.52	0.45
1:E:584:LYS:HZ1	1:E:1586:ASN:HD21	1.63	0.45
1:E:600:LEU:HD21	1:E:1666:THR:HG22	1.99	0.45
1:E:1690:ASP:OD1	2:F:41:ASP:HB3	2.16	0.45
1:E:1712:TYR:O	1:E:1716:ILE:HG12	2.17	0.45
1:E:2495:VAL:HA	1:E:2498:HIS:HD2	1.81	0.45
1:E:42:PHE:HA	1:E:447:ASP:OD2	2.16	0.45
1:E:4889:VAL:HG22	1:E:4892:ARG:NH2	2.31	0.45
1:G:830:ARG:NH1	1:G:1612:PHE:CE2	2.85	0.45
1:G:1616:GLU:O	1:G:1634:LEU:HD11	2.17	0.45
1:G:1848:LEU:HD11	1:G:1853:ILE:HD12	1.98	0.45
1:G:2071:ARG:O	1:G:2072:LEU:HG	2.16	0.45
1:G:3102:ASP:O	1:G:3106:MET:N	2.49	0.45
1:G:3695:PRO:HB2	1:G:3700:GLN:HE21	1.82	0.45
1:G:42:PHE:HA	1:G:447:ASP:OD2	2.17	0.45
1:G:4721:LYS:HZ3	1:G:4741:LEU:HD22	1.82	0.45
1:E:4826:ILE:HG21	1:G:4931:ILE:HD11	1.86	0.45
1:G:639:ASN:OD1	1:G:640:TYR:N	2.49	0.45
1:A:1255:TYR:CE1	1:A:1287:LEU:HD11	2.52	0.45
1:A:1770:SER:OG	1:A:1771:LEU:N	2.49	0.45
1:A:2867:LEU:CD1	1:A:2924:GLN:HG2	2.47	0.45
1:A:255:HIS:NE2	1:A:480:GLU:OE2	2.50	0.45
1:C:1089:TYR:CE2	1:C:1091:GLU:OE2	2.70	0.45
1:C:277:GLY:H	1:C:315:CYS:HG	1.63	0.45
1:C:4154:VAL:HA	1:C:4155:PRO:HD2	1.82	0.45
1:C:4778:TRP:O	1:C:4782:VAL:HG23	2.16	0.45
1:C:4913:ARG:O	1:C:4916:PHE:HB3	2.17	0.45
1:C:622:THR:O	1:C:627:PRO:HD3	2.17	0.45
1:C:629:ARG:HB3	1:C:634:GLN:OE1	2.17	0.45
2:D:67:SER:O	2:D:103:LEU:HD23	2.17	0.45
1:E:178:ARG:HG2	1:E:195:PHE:CD1	2.52	0.45
1:E:3995:VAL:O	1:E:3999:MET:HB3	2.16	0.45
1:E:4205:TRP:HZ2	1:E:4214:LYS:HD3	1.82	0.45
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.17	0.45
1:E:4865:LYS:NZ	1:E:4876:CYS:N	2.65	0.45
1:E:689:THR:OG1	1:E:690:GLU:N	2.50	0.45
1:G:110:ARG:HH11	1:G:115:ARG:HB3	1.82	0.45
1:G:1182:ILE:HD12	1:G:1188:PHE:CE2	2.51	0.45
1:G:1255:TYR:CE1	1:G:1287:LEU:HD11	2.52	0.45
1:G:1533:GLY:C	1:G:1534:LYS:HD2	2.38	0.45
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.17	0.45
1:G:4666:VAL:HG13	1:G:4783:ILE:HG12	1.99	0.45
1:G:4799:SER:OG	1:G:4812:HIS:NE2	2.31	0.45
1:G:4978:HIS:HA	1:G:4982:GLU:CG	2.46	0.45
1:G:716:PHE:N	1:G:738:LEU:HD13	2.32	0.45
2:H:38:SER:HB3	2:H:41:ASP:CG	2.37	0.45
1:A:1107:PRO:HB2	1:A:1186:ASP:OD2	2.17	0.44
1:A:1292:SER:OG	1:A:1598:GLN:O	2.23	0.44
1:A:2248:ARG:O	1:A:2251:PHE:HB3	2.17	0.44
1:A:42:PHE:HA	1:A:447:ASP:OD2	2.17	0.44
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.17	0.44
1:A:4974:GLY:O	1:A:4977:THR:OG1	2.27	0.44
1:A:552:ASP:HB3	1:A:1594:ARG:NH1	2.32	0.44
1:A:568:LEU:HD22	1:A:575:LEU:HD23	2.00	0.44
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.17	0.44
1:C:1728:ARG:O	1:C:1731:LEU:HB3	2.17	0.44
1:C:1962:ALA:O	1:C:1966:VAL:HG23	2.16	0.44
1:C:235:ALA:HB2	1:C:257:ARG:NH1	2.32	0.44
1:C:3775:ALA:HA	1:C:3778:MET:HG2	1.99	0.44
1:C:4937:ILE:HG12	1:E:4934:GLY:HA3	1.97	0.44
1:C:552:ASP:HB3	1:C:1594:ARG:NH1	2.32	0.44
1:C:765:GLN:HG3	1:C:1479:GLU:N	2.32	0.44
1:E:1139:PHE:CE1	1:E:1169:LEU:HD11	2.51	0.44
1:E:1226:PHE:HA	1:E:1229:ASN:HD22	1.81	0.44
1:E:1616:GLU:O	1:E:1634:LEU:HD11	2.17	0.44
1:E:1721:GLU:O	1:E:1725:ARG:HG2	2.16	0.44
1:E:19:GLU:HB2	1:E:205:ILE:HB	1.99	0.44
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.98	0.44
1:E:2248:ARG:O	1:E:2251:PHE:HB3	2.17	0.44
1:E:215:THR:HA	1:E:273:HIS:HA	1.99	0.44
1:E:3958:ALA:O	1:E:3961:VAL:HG12	2.17	0.44
1:E:649:PHE:HE1	1:E:689:THR:HG22	1.82	0.44
1:E:830:ARG:NH1	1:E:1612:PHE:CE2	2.85	0.44
1:G:1107:PRO:HB2	1:G:1186:ASP:OD2	2.18	0.44
1:G:4197:ILE:HD13	1:G:4202:ARG:HD3	1.99	0.44
1:G:4555:LEU:HD11	1:G:4656:LEU:HG	1.99	0.44
1:G:668:VAL:HB	1:G:740:PRO:HA	1.99	0.44
1:G:689:THR:OG1	1:G:690:GLU:N	2.50	0.44
1:A:1295:VAL:HG12	1:A:1580:PHE:HE1	1.82	0.44
1:A:1616:GLU:O	1:A:1634:LEU:HD11	2.17	0.44
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:215:THR:HA	1:A:273:HIS:HA	1.99	0.44
1:A:2802:LYS:O	1:A:2806:ARG:HG3	2.17	0.44
1:A:3825:GLU:OE2	1:A:3828:PHE:HB2	2.17	0.44
1:A:4175:ARG:N	1:A:4176:PRO:CD	2.80	0.44
1:A:495:ASN:ND2	1:A:550:LYS:HD2	2.32	0.44
1:A:622:THR:O	1:A:627:PRO:HD3	2.17	0.44
1:A:830:ARG:NH1	1:A:1612:PHE:CE2	2.85	0.44
2:B:67:SER:O	2:B:103:LEU:HD23	2.17	0.44
1:C:1091:GLU:HG2	1:C:1213:PHE:CD1	2.52	0.44
1:C:1261:ASP:HB2	1:C:1595:LEU:HD13	1.98	0.44
1:C:215:THR:HA	1:C:273:HIS:HA	2.00	0.44
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.82	0.44
1:C:26:ALA:O	1:C:33:LEU:N	2.50	0.44
1:C:521:LEU:O	1:C:525:LEU:N	2.46	0.44
1:C:66:CYS:HB2	1:C:112:ALA:CB	2.47	0.44
1:E:1255:TYR:CE1	1:E:1287:LEU:HD11	2.52	0.44
1:E:308:HIS:CE1	1:E:310:LYS:HB2	2.52	0.44
1:E:3963:ASN:O	1:E:3966:THR:OG1	2.24	0.44
1:E:4150:LEU:O	1:E:4154:VAL:N	2.29	0.44
1:E:4978:HIS:HA	1:E:4982:GLU:CG	2.46	0.44
1:G:1712:TYR:O	1:G:1716:ILE:HG12	2.17	0.44
1:G:2359:ARG:C	1:G:2360:LYS:HG3	2.37	0.44
1:G:265:LEU:HD22	1:G:281:ARG:NH2	2.33	0.44
1:G:3778:MET:HG3	1:G:3779:VAL:N	2.32	0.44
1:G:3780:LEU:HG	1:G:3828:PHE:CE1	2.51	0.44
1:G:4909:TYR:O	1:G:4913:ARG:N	2.51	0.44
1:G:622:THR:O	1:G:627:PRO:HD3	2.17	0.44
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.52	0.44
1:A:1018:ASN:O	1:A:1021:LEU:HG	2.18	0.44
1:A:1024:TYR:CZ	1:A:1032:LYS:HG3	2.52	0.44
1:A:4666:VAL:HB	1:A:4667:PRO:HD3	1.99	0.44
1:C:2802:LYS:O	1:C:2806:ARG:HG3	2.17	0.44
1:C:2927:LEU:HD22	1:C:2937:VAL:HG11	1.99	0.44
1:C:3781:GLN:O	1:C:3784:SER:OG	2.21	0.44
1:C:4175:ARG:N	1:C:4176:PRO:CD	2.81	0.44
1:C:649:PHE:HE1	1:C:689:THR:HG22	1.81	0.44
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.17	0.44
1:E:2359:ARG:C	1:E:2360:LYS:HG3	2.37	0.44
1:E:265:LEU:HD22	1:E:281:ARG:NH2	2.32	0.44
1:E:3882:GLN:HE22	1:E:3956:SER:HB3	1.82	0.44
1:E:4967:TYR:OH	1:E:5030:LYS:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:874:LEU:HA	1:E:877:ASN:HB3	1.99	0.44
1:G:1018:ASN:O	1:G:1021:LEU:HG	2.18	0.44
1:G:1738:LEU:N	1:G:2144:ILE:O	2.47	0.44
1:G:3805:LEU:HB2	1:G:3890:LEU:HD23	1.99	0.44
1:G:589:LEU:HG	1:G:593:HIS:CD2	2.47	0.44
1:G:580:GLU:HG3	1:G:620:LEU:HD12	1.98	0.44
1:A:1101:ARG:HB2	1:A:1193:SER:OG	2.17	0.44
1:A:595:ARG:HH12	1:A:1641:ILE:HD13	1.82	0.44
1:A:597:HIS:HB3	1:A:1665:HIS:CD2	2.53	0.44
1:C:371:VAL:HG22	1:C:373:LYS:H	1.81	0.44
1:C:3958:ALA:O	1:C:3961:VAL:HG12	2.17	0.44
1:C:497:TYR:HB2	1:C:506:TYR:CE1	2.53	0.44
2:D:16:PRO:HG2	2:D:63:VAL:HG12	2.00	0.44
1:E:1547:LYS:HZ1	1:E:1645:ASN:HB2	1.82	0.44
1:E:4175:ARG:N	1:E:4176:PRO:CD	2.81	0.44
1:E:4666:VAL:HB	1:E:4667:PRO:HD3	1.99	0.44
1:E:622:THR:O	1:E:627:PRO:HD3	2.18	0.44
1:G:1226:PHE:HA	1:G:1229:ASN:HD22	1.81	0.44
1:G:1295:VAL:HG12	1:G:1580:PHE:HE1	1.82	0.44
1:G:2103:VAL:O	1:G:2107:GLN:HG3	2.17	0.44
1:G:2326:CYS:O	1:G:2329:GLU:HG2	2.16	0.44
1:G:2893:GLU:HG2	1:G:2897:LYS:NZ	2.32	0.44
1:A:1849:LEU:HD13	1:A:1854:PHE:HD2	1.83	0.44
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.18	0.44
1:A:26:ALA:O	1:A:33:LEU:N	2.50	0.44
1:A:3980:LEU:HD21	1:A:3985:LEU:HD13	2.00	0.44
1:A:5000:GLU:HA	1:A:5003:HIS:CE1	2.52	0.44
1:A:669:ASP:OD2	1:A:790:ARG:HB2	2.17	0.44
1:A:791:PHE:HB2	1:A:1626:TRP:HB3	1.99	0.44
1:C:4655:PHE:O	1:C:4659:ILE:HG12	2.16	0.44
1:C:4671:PHE:HE1	1:C:4715:TYR:HA	1.83	0.44
1:C:4967:TYR:OH	1:C:5030:LYS:HA	2.18	0.44
1:C:874:LEU:HA	1:C:877:ASN:HB3	1.99	0.44
1:E:1024:TYR:CZ	1:E:1032:LYS:HG3	2.52	0.44
1:E:66:CYS:HB2	1:E:112:ALA:CB	2.48	0.44
1:E:1182:ILE:HD12	1:E:1188:PHE:CE2	2.51	0.44
1:E:1737:PRO:HB2	1:E:1739:THR:HG23	1.99	0.44
1:E:2152:THR:HG22	1:E:2190:VAL:HG11	2.00	0.44
1:E:3781:GLN:O	1:E:3784:SER:OG	2.21	0.44
1:E:765:GLN:HB3	1:E:1477:GLY:H	1.83	0.44
2:F:27:THR:HA	2:F:38:SER:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1101:ARG:HB2	1:G:1193:SER:OG	2.17	0.44
1:G:1214:PHE:CZ	1:G:1219:LEU:HB2	2.53	0.44
1:G:1261:ASP:HB2	1:G:1595:LEU:HD13	1.98	0.44
1:G:178:ARG:HG2	1:G:195:PHE:CD1	2.52	0.44
1:G:308:HIS:CE1	1:G:310:LYS:HB2	2.51	0.44
1:G:371:VAL:HG22	1:G:373:LYS:H	1.81	0.44
1:G:3835:LEU:HD21	1:G:3880:PHE:CZ	2.53	0.44
1:G:4024:VAL:O	1:G:4028:LEU:N	2.37	0.44
1:G:552:ASP:HB3	1:G:1594:ARG:NH1	2.32	0.44
1:G:629:ARG:HB3	1:G:634:GLN:OE1	2.17	0.44
1:A:205:ILE:HG22	1:A:271:GLY:HA3	1.99	0.44
1:A:22:LEU:HB3	1:A:200:TRP:CE3	2.53	0.44
1:A:242:ARG:HE	1:A:287:THR:HG22	1.82	0.44
1:A:24:CYS:SG	1:A:182:LEU:HD13	2.57	0.44
1:A:3780:LEU:HD22	1:A:3819:TYR:CD2	2.53	0.44
1:A:3882:GLN:HE22	1:A:3956:SER:HB3	1.82	0.44
1:A:4205:TRP:HZ2	1:A:4214:LYS:HD3	1.82	0.44
1:A:3761:GLN:CD	1:A:4722:ARG:HH12	2.20	0.44
1:A:689:THR:OG1	1:A:690:GLU:N	2.50	0.44
1:C:1214:PHE:CZ	1:C:1219:LEU:HB2	2.53	0.44
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.98	0.44
1:A:2452:ARG:NH2	1:C:174:VAL:O	2.49	0.44
1:C:2114:PRO:O	1:C:2116:LEU:N	2.45	0.44
1:C:2359:ARG:C	1:C:2360:LYS:HG3	2.37	0.44
1:C:242:ARG:HE	1:C:287:THR:HG22	1.83	0.44
1:C:265:LEU:HD22	1:C:281:ARG:NH2	2.33	0.44
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.18	0.44
2:D:21:THR:HB	2:D:107:GLU:HB2	2.00	0.44
1:E:1089:TYR:CE2	1:E:1091:GLU:OE2	2.70	0.44
1:E:2060:SER:HA	1:E:2063:LEU:HD12	1.98	0.44
1:E:242:ARG:HE	1:E:287:THR:HG22	1.83	0.44
1:E:4720:VAL:O	1:E:4724:VAL:HG23	2.17	0.44
1:E:4928:LEU:HA	1:E:4931:ILE:HG22	1.99	0.44
1:E:495:ASN:ND2	1:E:550:LYS:HD2	2.32	0.44
1:E:497:TYR:HB2	1:E:506:TYR:CE1	2.53	0.44
1:E:552:ASP:HB3	1:E:1594:ARG:NH1	2.32	0.44
1:G:2060:SER:HA	1:G:2063:LEU:HD12	1.98	0.44
1:G:4041:ALA:O	1:G:4044:MET:HG2	2.17	0.44
1:G:438:ILE:HG23	1:G:518:ILE:HD11	2.00	0.44
1:G:4645:CYS:O	1:G:4649:LEU:N	2.46	0.44
1:G:4791:TYR:HD2	1:G:4792:LEU:HD12	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:568:LEU:HD22	1:G:575:LEU:HD23	2.00	0.44
1:G:597:HIS:HB3	1:G:1665:HIS:CD2	2.53	0.44
1:G:791:PHE:HB2	1:G:1626:TRP:HB3	1.99	0.44
1:A:600:LEU:HD21	1:A:1666:THR:HG22	1.99	0.44
1:A:178:ARG:HG2	1:A:195:PHE:CD1	2.52	0.44
1:A:294:THR:O	1:A:298:GLY:N	2.51	0.44
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.83	0.44
1:A:395:GLN:NE2	1:A:399:GLN:HB2	2.32	0.44
1:A:589:LEU:HG	1:A:593:HIS:CD2	2.47	0.44
1:C:1255:TYR:CE1	1:C:1287:LEU:HD11	2.52	0.44
1:C:830:ARG:NH1	1:C:1612:PHE:CE2	2.85	0.44
1:C:1716:ILE:HD13	1:C:1720:LEU:HD12	2.00	0.44
1:C:1737:PRO:HB2	1:C:1739:THR:HG23	1.99	0.44
1:C:2920:ARG:O	1:C:2924:GLN:HG3	2.18	0.44
1:C:4045:VAL:HG22	1:C:4160:LEU:HD22	2.00	0.44
1:C:4666:VAL:HB	1:C:4667:PRO:HD3	2.00	0.44
1:C:4865:LYS:NZ	1:C:4876:CYS:N	2.66	0.44
1:C:5013:MET:O	1:C:5017:ARG:N	2.51	0.44
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.17	0.44
1:E:1738:LEU:N	1:E:2144:ILE:O	2.48	0.44
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.82	0.44
1:E:3838:THR:OG1	1:E:3839:CYS:N	2.51	0.44
1:E:4913:ARG:O	1:E:4916:PHE:HB3	2.17	0.44
1:E:5013:MET:O	1:E:5017:ARG:N	2.51	0.44
1:E:706:GLY:CA	1:E:711:LEU:HD22	2.42	0.44
2:F:16:PRO:HG2	2:F:63:VAL:HG12	2.00	0.44
1:G:1728:ARG:O	1:G:1731:LEU:HB3	2.17	0.44
1:G:2470:ILE:O	1:G:2474:LEU:N	2.40	0.44
1:G:2107:GLN:HE21	1:G:3679:LYS:HB2	1.83	0.44
1:G:465:GLN:NE2	1:G:3712:GLU:OE1	2.50	0.44
1:G:497:TYR:HB2	1:G:506:TYR:CE1	2.53	0.44
1:G:66:CYS:HB2	1:G:112:ALA:CB	2.47	0.44
1:A:1457:TYR:O	1:A:1458:HIS:CG	2.70	0.44
1:A:1436:SER:CA	1:A:1516:ILE:HA	2.48	0.44
1:A:19:GLU:HB2	1:A:205:ILE:HB	1.99	0.44
1:A:265:LEU:HD22	1:A:281:ARG:NH2	2.32	0.44
1:A:4864:ASN:CG	1:A:4875:LYS:HZ2	2.21	0.44
1:A:497:TYR:HB2	1:A:506:TYR:CE1	2.53	0.44
1:C:1182:ILE:HD12	1:C:1188:PHE:CE2	2.51	0.44
1:C:1586:ASN:O	1:C:1588:ALA:N	2.43	0.44
1:C:2066:LEU:O	1:C:2070:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	2.00	0.44
1:C:3780:LEU:HD22	1:C:3819:TYR:CD2	2.53	0.44
1:E:1101:ARG:HB2	1:E:1193:SER:OG	2.17	0.44
1:E:1091:GLU:HG2	1:E:1213:PHE:CD1	2.52	0.44
1:E:1214:PHE:CZ	1:E:1219:LEU:HB2	2.53	0.44
1:E:1728:ARG:O	1:E:1731:LEU:HB3	2.17	0.44
1:E:568:LEU:HD22	1:E:575:LEU:HD23	2.00	0.44
1:G:19:GLU:HB2	1:G:205:ILE:HB	1.99	0.44
1:G:3710:LEU:HA	1:G:3710:LEU:HD23	1.83	0.44
1:G:3825:GLU:C	1:G:3827:GLY:H	2.19	0.44
1:G:543:ASN:O	1:G:546:TRP:HB3	2.18	0.44
1:G:745:SER:OG	1:G:758:ARG:HB2	2.18	0.44
1:G:765:GLN:HG3	1:G:1479:GLU:N	2.32	0.44
1:A:827:LYS:HG2	1:A:1073:ARG:NH2	2.33	0.44
1:A:2121:PHE:O	1:A:3725:TYR:OH	2.27	0.44
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.82	0.44
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	2.00	0.44
1:A:3775:ALA:HA	1:A:3778:MET:HG2	2.00	0.44
1:A:438:ILE:HG23	1:A:518:ILE:HD11	2.00	0.44
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.87	0.44
1:A:745:SER:OG	1:A:758:ARG:HB2	2.18	0.44
1:C:597:HIS:HB3	1:C:1665:HIS:CD2	2.53	0.44
1:C:1690:ASP:OD1	2:D:41:ASP:HB3	2.17	0.44
1:C:294:THR:O	1:C:298:GLY:N	2.51	0.44
2:D:27:THR:HA	2:D:38:SER:HA	2.00	0.44
1:E:1295:VAL:HG12	1:E:1580:PHE:HE1	1.82	0.44
1:E:2045:GLN:O	1:E:2064:ARG:NH2	2.40	0.44
1:E:275:ARG:HB2	1:E:338:GLU:OE1	2.18	0.44
1:E:4855:ALA:HB1	1:E:4863:TYR:CE2	2.53	0.44
1:E:706:GLY:O	1:E:725:HIS:N	2.37	0.44
1:E:765:GLN:HG3	1:E:1479:GLU:H	1.83	0.44
1:G:1660:GLN:HG3	1:G:1707:LEU:HD11	2.00	0.44
1:G:22:LEU:HB3	1:G:200:TRP:CE3	2.53	0.44
1:G:600:LEU:HD21	1:G:1666:THR:HG22	1.99	0.44
1:G:639:ASN:HD21	1:G:785:ALA:HB2	1.83	0.44
1:G:874:LEU:HA	1:G:877:ASN:HB3	1.99	0.44
2:H:67:SER:O	2:H:103:LEU:HD23	2.18	0.44
1:A:66:CYS:HB2	1:A:112:ALA:CB	2.48	0.43
1:A:1182:ILE:HD12	1:A:1188:PHE:CE2	2.51	0.43
1:A:3761:GLN:NE2	1:A:4722:ARG:HH22	2.16	0.43
1:A:3958:ALA:O	1:A:3961:VAL:HG12	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4865:LYS:NZ	1:A:4876:CYS:N	2.66	0.43
1:C:1106:ARG:HG2	1:C:1188:PHE:CD1	2.53	0.43
1:C:205:ILE:HG22	1:C:271:GLY:HA3	2.00	0.43
1:C:2251:PHE:CG	1:C:2286:LEU:HD22	2.53	0.43
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	2.00	0.43
1:C:3371:LYS:HA	1:C:3374:ALA:HB3	2.00	0.43
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.17	0.43
1:C:4710:SER:O	1:C:4713:SER:OG	2.28	0.43
1:E:1849:LEU:HD13	1:E:1854:PHE:HD2	1.83	0.43
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.17	0.43
1:E:4188:ARG:HA	1:E:4188:ARG:HD3	1.86	0.43
1:E:4208:PRO:HB2	1:E:4209:GLN:H	1.59	0.43
1:E:4235:VAL:HG21	1:E:5019:TRP:HE1	1.81	0.43
1:E:4822:THR:O	1:E:4825:THR:OG1	2.26	0.43
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.00	0.43
1:G:1440:PHE:HD2	1:G:1560:ASN:HB3	1.83	0.43
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.18	0.43
1:G:2251:PHE:CG	1:G:2286:LEU:HD22	2.53	0.43
1:G:4928:LEU:O	1:G:4931:ILE:HG22	2.18	0.43
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.83	0.43
1:A:275:ARG:HB2	1:A:338:GLU:OE1	2.18	0.43
1:A:3817:LEU:HD13	1:A:3899:PHE:CD1	2.53	0.43
1:A:4715:TYR:CD2	1:A:4717:ASP:HB3	2.53	0.43
1:A:4922:PHE:HA	1:A:4926:VAL:HB	1.99	0.43
1:A:543:ASN:O	1:A:546:TRP:HB3	2.19	0.43
1:A:649:PHE:HE1	1:A:689:THR:HG22	1.81	0.43
2:B:21:THR:HB	2:B:107:GLU:HB2	2.00	0.43
1:C:1455:PRO:HG2	1:C:1547:LYS:HE3	2.00	0.43
1:C:1966:VAL:HG21	1:C:3650:CYS:SG	2.58	0.43
1:C:3882:GLN:HE22	1:C:3956:SER:HB3	1.82	0.43
1:C:42:PHE:HA	1:C:447:ASP:OD2	2.17	0.43
1:C:3761:GLN:CD	1:C:4722:ARG:HH12	2.20	0.43
1:E:1018:ASN:O	1:E:1021:LEU:HG	2.17	0.43
1:E:1252:HIS:HD2	1:E:1255:TYR:HD2	1.66	0.43
1:E:1547:LYS:O	1:E:1548:LEU:HD12	2.17	0.43
1:E:22:LEU:HB3	1:E:200:TRP:CE3	2.53	0.43
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	2.00	0.43
1:E:2924:GLN:HG2	1:E:2928:LYS:HE2	2.00	0.43
1:E:294:THR:O	1:E:298:GLY:N	2.51	0.43
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.17	0.43
1:G:1737:PRO:HB2	1:G:1739:THR:HG23	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2152:THR:HG22	1:G:2190:VAL:HG11	2.00	0.43
1:G:2248:ARG:O	1:G:2251:PHE:HB3	2.17	0.43
1:A:4879:MET:HG2	1:G:4578:LEU:O	2.17	0.43
1:A:1115:LEU:HD11	1:A:1191:VAL:HG11	2.00	0.43
1:A:1254:HIS:NE2	1:A:1280:GLN:HB3	2.34	0.43
1:A:2060:SER:HA	1:A:2063:LEU:HD12	1.99	0.43
1:A:3716:LEU:HB3	1:A:3789:GLU:OE1	2.18	0.43
1:C:1018:ASN:O	1:C:1021:LEU:HG	2.18	0.43
1:C:116:MET:HE2	1:C:139:GLU:HG2	1.99	0.43
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.99	0.43
1:C:438:ILE:HG23	1:C:518:ILE:HD11	2.00	0.43
1:E:110:ARG:HH11	1:E:115:ARG:HE	1.65	0.43
1:E:1440:PHE:HD2	1:E:1560:ASN:HB3	1.83	0.43
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.18	0.43
1:E:24:CYS:HB2	1:E:200:TRP:CZ3	2.54	0.43
1:E:4055:VAL:O	1:E:4058:ILE:HG13	2.18	0.43
1:E:827:LYS:HG2	1:E:1073:ARG:NH2	2.33	0.43
2:F:21:THR:HB	2:F:107:GLU:HB2	2.00	0.43
1:G:1110:ARG:HD2	1:G:1113:VAL:HG23	2.00	0.43
1:G:26:ALA:O	1:G:33:LEU:N	2.50	0.43
1:G:4697:VAL:C	1:G:4700:GLN:H	2.21	0.43
1:G:4721:LYS:NZ	1:G:4741:LEU:HD22	2.33	0.43
1:G:829:TYR:HA	1:G:1073:ARG:HH12	1.82	0.43
1:G:875:ALA:HB1	1:G:922:LEU:HB2	2.00	0.43
1:A:882:TRP:HH2	1:A:906:CYS:HB2	1.83	0.43
1:C:2152:THR:HG22	1:C:2190:VAL:HG11	2.00	0.43
1:C:4822:THR:O	1:C:4825:THR:OG1	2.23	0.43
1:C:495:ASN:ND2	1:C:550:LYS:HD2	2.32	0.43
1:C:568:LEU:HD22	1:C:575:LEU:HD23	2.00	0.43
1:E:102:LEU:HB2	1:E:105:HIS:HD2	1.83	0.43
1:E:26:ALA:O	1:E:33:LEU:N	2.51	0.43
1:E:3716:LEU:HB3	1:E:3789:GLU:OE1	2.18	0.43
1:E:3817:LEU:HD13	1:E:3899:PHE:CD1	2.53	0.43
1:E:2452:ARG:NH2	1:G:174:VAL:O	2.51	0.43
1:G:132:ALA:HB1	1:G:193:ALA:O	2.19	0.43
1:G:2114:PRO:O	1:G:2116:LEU:N	2.43	0.43
1:G:2816:MET:O	1:G:2820:GLU:N	2.51	0.43
1:A:4931:ILE:CD1	1:G:4826:ILE:CG2	2.97	0.43
1:G:4928:LEU:O	1:G:4932:ILE:HD12	2.17	0.43
1:G:736:HIS:HE1	1:G:739:ALA:HB3	1.83	0.43
1:A:2496:PRO:HB3	1:A:2553:TYR:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2927:LEU:HD22	1:A:2937:VAL:HG11	2.00	0.43
1:A:4967:TYR:OH	1:A:5030:LYS:HA	2.18	0.43
1:A:521:LEU:O	1:A:525:LEU:N	2.46	0.43
2:B:73:LYS:HA	2:B:99:PHE:O	2.18	0.43
1:C:827:LYS:HG2	1:C:1073:ARG:NH2	2.33	0.43
1:C:1547:LYS:O	1:C:1548:LEU:HD12	2.17	0.43
1:C:1247:PRO:HB3	1:C:1600:LEU:HD13	2.00	0.43
1:C:1616:GLU:O	1:C:1634:LEU:HD11	2.17	0.43
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.18	0.43
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.18	0.43
1:C:2295:LEU:HD13	1:C:2353:VAL:HG22	2.01	0.43
1:C:3817:LEU:HD13	1:C:3899:PHE:CD1	2.53	0.43
1:C:564:LEU:O	1:C:568:LEU:HG	2.19	0.43
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.01	0.43
1:E:132:ALA:HB1	1:E:193:ALA:O	2.19	0.43
1:E:2251:PHE:CG	1:E:2286:LEU:HD22	2.53	0.43
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	2.01	0.43
1:E:669:ASP:OD2	1:E:790:ARG:HB2	2.18	0.43
1:E:882:TRP:HH2	1:E:906:CYS:HB2	1.83	0.43
1:G:827:LYS:HG2	1:G:1073:ARG:NH2	2.33	0.43
1:G:1254:HIS:NE2	1:G:1280:GLN:HB3	2.34	0.43
1:G:1849:LEU:HD13	1:G:1854:PHE:HD2	1.83	0.43
1:G:205:ILE:HG22	1:G:271:GLY:HA3	2.00	0.43
1:G:2129:ASP:OD2	1:G:3667:HIS:ND1	2.48	0.43
1:G:2802:LYS:O	1:G:2806:ARG:HG3	2.19	0.43
1:G:220:LEU:CD1	1:G:390:LEU:HD22	2.48	0.43
1:G:4003:LEU:HD13	1:G:4013:LEU:HA	2.01	0.43
1:G:4710:SER:O	1:G:4713:SER:OG	2.28	0.43
1:G:4851:TYR:HD2	1:G:4916:PHE:CE1	2.36	0.43
1:G:706:GLY:CA	1:G:711:LEU:HD22	2.42	0.43
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.18	0.43
1:A:1853:ILE:HG22	1:A:1854:PHE:N	2.34	0.43
1:A:2924:GLN:O	1:A:2928:LYS:HB2	2.18	0.43
1:A:3670:GLU:OE1	1:A:3731:LYS:HB2	2.19	0.43
1:A:3878:ASP:HB2	1:A:3957:VAL:HG21	2.01	0.43
1:A:874:LEU:HA	1:A:877:ASN:HB3	1.99	0.43
1:C:765:GLN:HG3	1:C:1479:GLU:H	1.83	0.43
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.84	0.43
1:C:223:PHE:CD1	1:C:230:CYS:HB3	2.54	0.43
1:C:3980:LEU:HD21	1:C:3985:LEU:HD13	1.99	0.43
1:C:4855:ALA:HB1	1:C:4863:TYR:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4826:ILE:HG21	1:C:4931:ILE:HD11	1.91	0.43
1:E:597:HIS:HB3	1:E:1665:HIS:CD2	2.53	0.43
1:E:1716:ILE:HD13	1:E:1720:LEU:HD12	2.00	0.43
1:E:2103:VAL:O	1:E:2107:GLN:HG3	2.19	0.43
1:E:4671:PHE:HE1	1:E:4715:TYR:HA	1.84	0.43
2:F:67:SER:O	2:F:103:LEU:HD23	2.17	0.43
1:G:1252:HIS:HD2	1:G:1255:TYR:HD2	1.67	0.43
1:G:3920:VAL:HG22	1:G:3985:LEU:HD12	2.00	0.43
1:G:4214:LYS:HD2	1:G:4985:LEU:HD23	2.00	0.43
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.17	0.43
1:G:4922:PHE:HD1	1:G:4926:VAL:HG21	1.84	0.43
1:G:4967:TYR:OH	1:G:5030:LYS:HA	2.18	0.43
1:A:1027:LEU:HD12	1:A:1032:LYS:HD2	2.01	0.43
1:A:1260:MET:HB3	1:A:1274:HIS:HE1	1.84	0.43
1:A:103:TYR:CZ	1:A:163:VAL:HG13	2.54	0.43
1:A:1660:GLN:HG3	1:A:1707:LEU:HD11	2.01	0.43
1:A:265:LEU:HD21	1:A:281:ARG:H	1.84	0.43
1:A:4867:GLU:HA	1:A:4868:ASP:HA	1.79	0.43
1:A:4859:PHE:CE1	1:A:4913:ARG:HB2	2.54	0.43
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.01	0.43
1:A:639:ASN:HD21	1:A:785:ALA:HB2	1.84	0.43
1:A:765:GLN:HG3	1:A:1479:GLU:N	2.32	0.43
2:B:16:PRO:HD2	2:B:64:ALA:HA	2.01	0.43
1:C:1079:LYS:NZ	1:C:1107:PRO:HB3	2.34	0.43
1:C:1660:GLN:HG3	1:C:1707:LEU:HD11	2.01	0.43
1:C:3937:TYR:CE2	1:C:3943:ILE:HG23	2.54	0.43
1:C:4889:VAL:HG22	1:C:4892:ARG:NH2	2.34	0.43
1:C:705:ASN:HD22	1:C:782:SER:CB	2.31	0.43
1:E:1093:GLU:HG3	1:E:1148:VAL:HG22	2.01	0.43
1:E:1260:MET:HB3	1:E:1274:HIS:HE1	1.84	0.43
1:E:1515:VAL:HA	1:E:1530:THR:O	2.18	0.43
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	2.01	0.43
1:E:3780:LEU:HD22	1:E:3819:TYR:CD2	2.53	0.43
1:E:3817:LEU:HD13	1:E:3899:PHE:HD1	1.82	0.43
1:E:3980:LEU:HD21	1:E:3985:LEU:HD13	2.00	0.43
1:E:3761:GLN:CD	1:E:4722:ARG:HH12	2.20	0.43
1:E:745:SER:OG	1:E:758:ARG:HB2	2.18	0.43
1:E:768:PHE:HB3	1:E:771:PHE:CE1	2.53	0.43
1:G:116:MET:HE2	1:G:139:GLU:HG2	2.00	0.43
1:G:765:GLN:HB3	1:G:1477:GLY:H	1.83	0.43
1:G:265:LEU:HD21	1:G:281:ARG:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.01	0.43
1:A:1106:ARG:HG2	1:A:1188:PHE:CD1	2.53	0.43
1:A:1141:ARG:NH1	1:A:1167:GLU:OE1	2.48	0.43
1:A:1839:VAL:HG23	1:A:1935:VAL:HG22	2.00	0.43
1:A:2103:VAL:O	1:A:2107:GLN:HG3	2.19	0.43
1:A:3794:VAL:O	1:A:3797:THR:OG1	2.25	0.43
1:A:4045:VAL:HG22	1:A:4160:LEU:HD22	2.00	0.43
1:A:736:HIS:HE1	1:A:739:ALA:HB3	1.84	0.43
2:B:16:PRO:HG2	2:B:63:VAL:HG12	2.00	0.43
1:C:1093:GLU:HG3	1:C:1148:VAL:HG22	2.01	0.43
1:C:1440:PHE:HD2	1:C:1560:ASN:HB3	1.83	0.43
1:C:22:LEU:HB3	1:C:200:TRP:CE3	2.53	0.43
1:C:19:GLU:HB2	1:C:205:ILE:HB	2.00	0.43
1:C:3716:LEU:HB3	1:C:3789:GLU:OE1	2.19	0.43
1:C:401:ALA:HA	1:C:404:ILE:HD12	2.00	0.43
1:C:745:SER:OG	1:C:758:ARG:HB2	2.18	0.43
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	2.01	0.43
1:E:1110:ARG:HD2	1:E:1113:VAL:HG23	2.00	0.43
1:E:1106:ARG:HG2	1:E:1188:PHE:CD1	2.53	0.43
1:E:2761:TYR:CZ	1:E:2862:LEU:HD13	2.54	0.43
1:E:2803:GLU:OE2	1:E:2806:ARG:NH1	2.51	0.43
1:E:4000:MET:HE2	1:E:4058:ILE:HG22	2.00	0.43
1:E:438:ILE:HG23	1:E:518:ILE:HD11	2.00	0.43
1:E:543:ASN:O	1:E:546:TRP:HB3	2.18	0.43
1:E:66:CYS:HB2	1:E:112:ALA:HB2	2.00	0.43
1:G:765:GLN:HG3	1:G:1479:GLU:H	1.83	0.43
1:G:1455:PRO:HG2	1:G:1547:LYS:HE3	2.01	0.43
1:G:24:CYS:HB2	1:G:200:TRP:CZ3	2.54	0.43
1:G:242:ARG:HH21	1:G:287:THR:HG22	1.84	0.43
1:G:275:ARG:HB2	1:G:338:GLU:OE1	2.18	0.43
1:G:3817:LEU:HD13	1:G:3899:PHE:CD1	2.54	0.43
1:G:3833:GLN:O	1:G:3837:GLN:HG2	2.19	0.43
1:E:4823:LEU:CD1	1:G:4839:MET:HB3	2.45	0.43
1:E:4937:ILE:HG12	1:G:4934:GLY:HA3	2.00	0.43
1:G:495:ASN:ND2	1:G:550:LYS:HD2	2.32	0.43
2:H:55:VAL:HG21	2:H:59:TRP:HD1	1.84	0.43
1:A:122:THR:HG23	1:A:133:PHE:CE1	2.54	0.43
1:A:121:LEU:HD12	1:A:136:GLY:HA3	2.00	0.43
1:A:1533:GLY:C	1:A:1534:LYS:HD2	2.39	0.43
1:A:2295:LEU:HD13	1:A:2353:VAL:HG22	2.01	0.43
1:A:242:ARG:HH21	1:A:287:THR:HG22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:35:LEU:O	1:A:35:LEU:HD12	2.19	0.43
1:A:3804:ILE:CG2	1:A:3812:VAL:HG11	2.49	0.43
1:A:3989:VAL:HA	1:A:4023:MET:CE	2.49	0.43
1:A:4141:PHE:O	1:A:4145:VAL:HG23	2.19	0.43
1:A:4791:TYR:HD2	1:A:4792:LEU:HD12	1.83	0.43
1:A:752:VAL:HA	1:A:753:PRO:HD3	1.79	0.43
1:A:665:GLU:OE2	1:A:802:PHE:HB3	2.19	0.43
1:C:1260:MET:HB3	1:C:1274:HIS:HE1	1.84	0.43
1:C:765:GLN:HB3	1:C:1477:GLY:H	1.83	0.43
1:C:1533:GLY:C	1:C:1534:LYS:HD2	2.39	0.43
1:C:1853:ILE:HG22	1:C:1854:PHE:N	2.34	0.43
1:C:3710:LEU:HD23	1:C:3710:LEU:HA	1.89	0.43
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	2.01	0.43
1:C:4715:TYR:CD2	1:C:4717:ASP:HB3	2.54	0.43
1:C:600:LEU:HD21	1:C:1666:THR:HG22	1.99	0.43
1:C:639:ASN:HD21	1:C:785:ALA:HB2	1.83	0.43
1:C:882:TRP:HH2	1:C:906:CYS:HB2	1.83	0.43
1:E:1027:LEU:HD12	1:E:1032:LYS:HD2	2.00	0.43
1:E:121:LEU:HD12	1:E:136:GLY:HA3	2.00	0.43
1:E:3371:LYS:HA	1:E:3374:ALA:HB3	2.01	0.43
1:E:4141:PHE:O	1:E:4145:VAL:HG23	2.19	0.43
1:E:4961:CYS:SG	1:E:4983:HIS:CE1	3.06	0.43
1:E:564:LEU:O	1:E:568:LEU:HG	2.19	0.43
1:E:639:ASN:HD21	1:E:785:ALA:HB2	1.84	0.43
1:G:242:ARG:HE	1:G:287:THR:HG22	1.83	0.43
1:G:294:THR:O	1:G:298:GLY:N	2.52	0.43
1:G:3761:GLN:O	1:G:3765:TYR:N	2.41	0.43
1:G:3891:LEU:HD23	1:G:3899:PHE:HZ	1.83	0.43
1:G:4849:TYR:HD1	1:G:4883:TYR:CE1	2.37	0.43
1:G:723:THR:HG1	1:G:728:ARG:HH12	1.64	0.43
1:A:23:GLN:N	1:A:201:ASN:O	2.52	0.43
1:A:232:THR:HG21	1:A:248:GLU:CB	2.49	0.43
1:A:1966:VAL:HG21	1:A:3650:CYS:SG	2.58	0.43
1:A:5013:MET:O	1:A:5017:ARG:N	2.51	0.43
1:A:74:SER:O	1:A:78:LEU:N	2.40	0.43
2:B:27:THR:HA	2:B:38:SER:HA	2.00	0.43
1:C:1107:PRO:HB2	1:C:1186:ASP:OD2	2.18	0.43
1:C:14:LEU:HD12	1:C:163:VAL:HG12	2.01	0.43
1:C:1849:LEU:HD13	1:C:1854:PHE:HD2	1.83	0.43
1:C:275:ARG:HB2	1:C:338:GLU:OE1	2.18	0.43
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4791:TYR:HD2	1:C:4792:LEU:HD12	1.83	0.43
1:C:545:ASP:OD1	1:C:582:HIS:NE2	2.52	0.43
1:C:665:GLU:OE2	1:C:802:PHE:HB3	2.19	0.43
1:E:1455:PRO:HG2	1:E:1547:LYS:HE3	2.01	0.43
1:E:14:LEU:HD12	1:E:163:VAL:HG12	2.01	0.43
1:E:1966:VAL:HG21	1:E:3650:CYS:SG	2.58	0.43
1:E:2114:PRO:O	1:E:2116:LEU:N	2.47	0.43
1:E:232:THR:HG21	1:E:248:GLU:CB	2.49	0.43
1:E:2453:ILE:HA	1:E:2456:ILE:HG22	2.00	0.43
1:E:265:LEU:HD21	1:E:281:ARG:H	1.83	0.43
1:E:284:HIS:HD2	1:E:287:THR:HG23	1.84	0.43
1:E:35:LEU:HD12	1:E:35:LEU:O	2.19	0.43
1:E:3761:GLN:NE2	1:E:4722:ARG:HH22	2.16	0.43
1:E:3927:GLN:HE21	1:E:3991:GLY:HA3	1.84	0.43
1:E:456:SER:OG	1:E:458:GLU:HG2	2.19	0.43
1:E:545:ASP:OD1	1:E:582:HIS:NE2	2.52	0.43
1:G:122:THR:HG23	1:G:133:PHE:CE1	2.54	0.43
1:G:1260:MET:HB3	1:G:1274:HIS:HE1	1.84	0.43
1:G:14:LEU:HD12	1:G:163:VAL:HG12	2.01	0.43
1:G:2114:PRO:HD3	1:G:3707:ARG:HH11	1.83	0.43
1:G:2453:ILE:HA	1:G:2456:ILE:HG22	2.00	0.43
1:G:401:ALA:O	1:G:404:ILE:HB	2.19	0.43
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.19	0.43
1:G:665:GLU:OE2	1:G:802:PHE:HB3	2.19	0.43
1:G:882:TRP:HH2	1:G:906:CYS:HB2	1.82	0.43
1:A:116:MET:HE2	1:A:139:GLU:HG2	2.00	0.42
1:A:1455:PRO:HG2	1:A:1547:LYS:HE3	2.01	0.42
1:A:174:VAL:O	1:G:2452:ARG:NH2	2.50	0.42
1:A:2152:THR:HG22	1:A:2190:VAL:HG11	2.00	0.42
1:A:2251:PHE:CG	1:A:2286:LEU:HD22	2.53	0.42
1:A:2453:ILE:HA	1:A:2456:ILE:HG22	2.00	0.42
1:A:4671:PHE:HE1	1:A:4715:TYR:HA	1.83	0.42
1:A:590:LEU:HB2	1:A:599:VAL:HG11	2.01	0.42
1:A:722:TRP:NE1	1:A:727:ALA:HB2	2.34	0.42
1:A:757:PHE:HE2	1:A:768:PHE:HE2	1.67	0.42
1:C:132:ALA:HB1	1:C:193:ALA:O	2.19	0.42
1:C:242:ARG:HH21	1:C:287:THR:HG22	1.83	0.42
1:C:284:HIS:HD2	1:C:287:THR:HG23	1.84	0.42
1:C:4897:ILE:O	1:C:4901:ILE:HG22	2.19	0.42
1:C:4833:ASN:HB3	1:C:4935:LEU:HD21	2.01	0.42
1:C:594:GLY:H	1:C:1598:GLN:HG3	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1660:GLN:HG3	1:E:1707:LEU:HD11	2.01	0.42
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.99	0.42
1:E:1853:ILE:HG22	1:E:1854:PHE:N	2.34	0.42
1:E:242:ARG:HH21	1:E:287:THR:HG22	1.84	0.42
1:E:266:ARG:O	1:E:270:SER:HB3	2.19	0.42
1:E:3775:ALA:HA	1:E:3778:MET:HG2	1.99	0.42
1:E:220:LEU:CD1	1:E:390:LEU:HD22	2.48	0.42
1:E:401:ALA:HA	1:E:404:ILE:HD12	2.01	0.42
1:E:4575:PHE:O	1:E:4578:LEU:HG	2.19	0.42
1:E:736:HIS:HE1	1:E:739:ALA:HB3	1.84	0.42
1:G:1093:GLU:HG3	1:G:1148:VAL:HG22	2.01	0.42
1:G:1802:ILE:O	1:G:1804:LEU:HD12	2.20	0.42
1:G:232:THR:HG21	1:G:248:GLU:CB	2.49	0.42
1:G:3783:ILE:HA	1:G:3786:CYS:SG	2.58	0.42
1:G:3840:SER:HB3	1:G:3881:THR:HG21	2.00	0.42
1:G:4061:PHE:O	1:G:4064:MET:HG2	2.19	0.42
1:G:4677:LEU:HD11	1:G:4702:ASP:HB3	2.01	0.42
1:G:564:LEU:O	1:G:568:LEU:HG	2.19	0.42
1:A:1079:LYS:NZ	1:A:1107:PRO:HB3	2.34	0.42
1:A:1110:ARG:HD2	1:A:1113:VAL:HG23	2.01	0.42
1:A:1247:PRO:HB3	1:A:1600:LEU:HD13	2.00	0.42
1:A:2273:LEU:HD23	1:A:2330:ARG:HG2	2.02	0.42
1:A:2761:TYR:CZ	1:A:2862:LEU:HD13	2.54	0.42
1:A:3371:LYS:HA	1:A:3374:ALA:HB3	2.02	0.42
1:A:345:LEU:HD13	1:A:387:ALA:HB1	2.01	0.42
1:A:3937:TYR:CE2	1:A:3943:ILE:HG23	2.54	0.42
1:A:401:ALA:HA	1:A:404:ILE:HD12	2.00	0.42
1:A:3989:VAL:HG13	1:A:4023:MET:CE	2.49	0.42
1:A:401:ALA:O	1:A:404:ILE:HB	2.19	0.42
1:A:519:VAL:HG22	1:A:523:TYR:CE2	2.55	0.42
1:A:765:GLN:HG3	1:A:1479:GLU:H	1.83	0.42
1:C:1110:ARG:HD2	1:C:1113:VAL:HG23	2.00	0.42
1:C:595:ARG:NH2	1:C:1641:ILE:HD11	2.27	0.42
1:C:24:CYS:HB2	1:C:200:TRP:CZ3	2.54	0.42
1:C:2453:ILE:HA	1:C:2456:ILE:HG22	2.00	0.42
1:C:265:LEU:HD21	1:C:281:ARG:H	1.83	0.42
1:C:2793:PRO:O	1:C:2796:THR:OG1	2.20	0.42
1:C:3804:ILE:CG2	1:C:3812:VAL:HG11	2.49	0.42
1:C:3819:TYR:CZ	1:C:3823:LYS:HG3	2.54	0.42
1:C:3989:VAL:HA	1:C:4023:MET:CE	2.49	0.42
1:C:543:ASN:O	1:C:546:TRP:HB3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:732:SER:HB2	1:C:735:GLN:HG2	2.02	0.42
1:E:1737:PRO:HG2	1:E:1742:THR:HG21	2.01	0.42
1:E:2104:ARG:HD2	1:E:2107:GLN:OE1	2.19	0.42
1:G:1106:ARG:HG2	1:G:1188:PHE:CD1	2.54	0.42
1:G:1853:ILE:HG22	1:G:1854:PHE:N	2.34	0.42
1:G:3651:ASN:O	1:G:3654:LEU:HB2	2.18	0.42
1:G:3771:HIS:CE1	1:G:3811:GLU:HB3	2.48	0.42
1:G:3836:MET:HA	1:G:3839:CYS:HB2	2.01	0.42
1:G:3838:THR:OG1	1:G:3839:CYS:N	2.44	0.42
1:G:3949:ARG:O	1:G:3952:SER:OG	2.23	0.42
1:G:4930:ALA:HA	1:G:4933:GLN:HB2	2.01	0.42
1:G:4837:LEU:HD22	1:G:4936:ILE:HD11	2.01	0.42
1:G:519:VAL:HG22	1:G:523:TYR:CE2	2.55	0.42
1:G:757:PHE:HE2	1:G:768:PHE:HE2	1.66	0.42
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	2.00	0.42
1:A:1277:TRP:HB2	1:A:1562:ILE:O	2.20	0.42
1:A:765:GLN:HB3	1:A:1477:GLY:H	1.83	0.42
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.18	0.42
1:A:2495:VAL:H	1:A:2496:PRO:HD2	1.84	0.42
1:A:3674:ILE:CG2	1:A:3769:ARG:HD3	2.49	0.42
1:A:4899:ASP:H	1:G:4892:ARG:NH1	2.17	0.42
1:C:1115:LEU:HD11	1:C:1191:VAL:HG11	2.01	0.42
1:C:1581:LEU:HD13	1:C:1594:ARG:C	2.40	0.42
1:C:2162:ILE:O	1:C:2166:LEU:N	2.53	0.42
1:C:2234:ARG:HH12	1:C:2271:THR:N	2.17	0.42
1:C:3674:ILE:CG2	1:C:3769:ARG:HD3	2.49	0.42
1:C:3761:GLN:NE2	1:C:4722:ARG:HH22	2.16	0.42
1:C:456:SER:OG	1:C:458:GLU:HG2	2.19	0.42
1:C:618:GLN:OE1	1:C:1678:ASN:ND2	2.52	0.42
1:C:736:HIS:HE1	1:C:739:ALA:HB3	1.84	0.42
2:D:73:LYS:HA	2:D:99:PHE:O	2.18	0.42
1:E:1107:PRO:HB2	1:E:1186:ASP:OD2	2.18	0.42
1:E:1533:GLY:C	1:E:1534:LYS:HD2	2.39	0.42
1:E:1839:VAL:HG23	1:E:1935:VAL:HG22	2.01	0.42
1:E:2273:LEU:HD23	1:E:2330:ARG:HG2	2.02	0.42
1:E:23:GLN:N	1:E:201:ASN:O	2.52	0.42
1:E:3674:ILE:CG2	1:E:3769:ARG:HD3	2.49	0.42
1:E:3804:ILE:CG2	1:E:3812:VAL:HG11	2.49	0.42
1:E:3989:VAL:HA	1:E:4023:MET:CE	2.49	0.42
1:E:3989:VAL:HG13	1:E:4023:MET:CE	2.49	0.42
1:E:4147:LEU:HD23	1:E:4147:LEU:HA	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4715:TYR:CD2	1:E:4717:ASP:HB3	2.53	0.42
1:E:4791:TYR:HD2	1:E:4792:LEU:HD12	1.83	0.42
1:E:70:GLU:HB2	1:E:108:LEU:HB3	2.02	0.42
2:F:73:LYS:HA	2:F:99:PHE:O	2.18	0.42
1:G:2295:LEU:HD13	1:G:2353:VAL:HG22	2.01	0.42
1:G:23:GLN:N	1:G:201:ASN:O	2.52	0.42
1:G:252:VAL:HA	1:G:255:HIS:HB2	2.01	0.42
1:G:266:ARG:O	1:G:270:SER:HB3	2.19	0.42
1:G:284:HIS:HD2	1:G:287:THR:HG23	1.84	0.42
1:G:401:ALA:HA	1:G:404:ILE:HD12	2.00	0.42
1:G:4093:PHE:O	1:G:4097:MET:HG2	2.19	0.42
1:G:4960:ILE:HD13	1:G:4983:HIS:HB3	2.01	0.42
1:A:1089:TYR:OH	1:A:1213:PHE:O	2.27	0.42
1:A:1252:HIS:HD2	1:A:1255:TYR:HD2	1.67	0.42
1:A:223:PHE:CD1	1:A:230:CYS:HB3	2.54	0.42
1:A:4630:TYR:CE2	1:A:4632:LEU:HA	2.54	0.42
1:A:4889:VAL:HG22	1:A:4892:ARG:NH2	2.35	0.42
1:A:526:LEU:HD11	1:A:540:PHE:CZ	2.46	0.42
1:A:732:SER:HB2	1:A:735:GLN:HG2	2.02	0.42
1:A:829:TYR:HA	1:A:1073:ARG:HH12	1.82	0.42
1:A:875:ALA:HB1	1:A:922:LEU:HB2	2.01	0.42
1:C:266:ARG:O	1:C:270:SER:HB3	2.19	0.42
1:C:3878:ASP:HB2	1:C:3957:VAL:HG21	2.01	0.42
1:C:4141:PHE:O	1:C:4145:VAL:HG23	2.20	0.42
1:C:663:TYR:HA	1:C:746:CYS:O	2.20	0.42
1:E:1778:SER:N	1:E:1799:SER:O	2.36	0.42
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.83	0.42
1:E:2162:ILE:O	1:E:2166:LEU:N	2.53	0.42
1:E:205:ILE:HG22	1:E:271:GLY:HA3	2.00	0.42
1:E:3878:ASP:HB2	1:E:3957:VAL:HG21	2.01	0.42
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.55	0.42
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.27	0.42
1:E:594:GLY:H	1:E:1598:GLN:HG3	1.85	0.42
1:G:1115:LEU:HD11	1:G:1191:VAL:HG11	2.01	0.42
1:G:121:LEU:HD12	1:G:136:GLY:HA3	2.01	0.42
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.83	0.42
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.19	0.42
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.54	0.42
1:G:2865:VAL:HB	1:G:2928:LYS:HD3	2.01	0.42
1:G:2067:LEU:CD1	1:G:3661:TRP:HB3	2.50	0.42
1:G:2131:LEU:HD11	1:G:3662:ILE:HD12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4188:ARG:HD3	1:G:4188:ARG:HA	1.85	0.42
1:G:4235:VAL:HG21	1:G:5019:TRP:HE1	1.81	0.42
1:A:132:ALA:HB1	1:A:193:ALA:O	2.19	0.42
1:A:1440:PHE:HD2	1:A:1560:ASN:HB3	1.83	0.42
1:A:1716:ILE:HD13	1:A:1720:LEU:HD12	2.00	0.42
1:A:1676:LEU:HG	1:A:1725:ARG:HE	1.85	0.42
1:A:2162:ILE:O	1:A:2166:LEU:N	2.53	0.42
1:A:266:ARG:O	1:A:270:SER:HB3	2.19	0.42
1:C:103:TYR:CZ	1:C:163:VAL:HG13	2.54	0.42
1:C:1547:LYS:HZ3	1:C:1645:ASN:HB2	1.81	0.42
1:C:2103:VAL:O	1:C:2107:GLN:HG3	2.19	0.42
1:C:35:LEU:O	1:C:35:LEU:HD12	2.19	0.42
1:C:3825:GLU:O	1:C:3827:GLY:N	2.48	0.42
1:C:3802:ILE:HD11	1:C:3883:ASP:O	2.20	0.42
1:C:4055:VAL:O	1:C:4058:ILE:HG13	2.19	0.42
1:C:4966:ASP:OD1	1:C:4967:TYR:N	2.47	0.42
1:C:768:PHE:HB3	1:C:771:PHE:CE1	2.53	0.42
1:C:875:ALA:HB1	1:C:922:LEU:HB2	2.01	0.42
2:D:16:PRO:HD2	2:D:64:ALA:HA	2.01	0.42
1:E:1079:LYS:HZ3	1:E:1107:PRO:HB3	1.84	0.42
1:E:1247:PRO:HB3	1:E:1600:LEU:HD13	2.01	0.42
1:E:284:HIS:CD2	1:E:287:THR:HG23	2.55	0.42
1:E:401:ALA:O	1:E:404:ILE:HB	2.20	0.42
1:E:4154:VAL:HA	1:E:4155:PRO:HD2	1.79	0.42
1:E:595:ARG:HH12	1:E:1641:ILE:HD11	1.85	0.42
1:E:682:LEU:HD22	1:E:738:LEU:HD23	2.02	0.42
1:E:705:ASN:HD22	1:E:782:SER:CB	2.31	0.42
1:G:2104:ARG:O	1:G:2108:GLU:HG2	2.20	0.42
1:G:2162:ILE:O	1:G:2166:LEU:N	2.53	0.42
1:G:400:ALA:HB2	1:G:451:TYR:OH	2.20	0.42
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.20	0.42
1:G:663:TYR:HA	1:G:746:CYS:O	2.20	0.42
1:A:233:ILE:HD12	1:A:242:ARG:HG2	2.01	0.42
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	2.02	0.42
1:A:4055:VAL:O	1:A:4058:ILE:HG13	2.19	0.42
1:A:4855:ALA:HB1	1:A:4863:TYR:CE2	2.54	0.42
1:A:4961:CYS:SG	1:A:4983:HIS:CE1	3.06	0.42
1:A:663:TYR:HA	1:A:746:CYS:O	2.20	0.42
1:A:705:ASN:HD22	1:A:782:SER:CB	2.31	0.42
1:C:1277:TRP:HB2	1:C:1562:ILE:O	2.20	0.42
1:C:3838:THR:OG1	1:C:3839:CYS:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3989:VAL:HG13	1:C:4023:MET:CE	2.50	0.42
1:C:4859:PHE:CE1	1:C:4913:ARG:HB2	2.54	0.42
1:C:723:THR:HG1	1:C:728:ARG:HH12	1.65	0.42
1:E:103:TYR:CZ	1:E:163:VAL:HG13	2.54	0.42
1:E:2295:LEU:HD13	1:E:2353:VAL:HG22	2.01	0.42
1:E:3937:TYR:CE2	1:E:3943:ILE:HG23	2.55	0.42
1:E:414:PHE:CD1	1:E:441:VAL:HG21	2.55	0.42
1:E:493:ARG:HA	1:E:496:VAL:HG23	2.02	0.42
1:G:103:TYR:CZ	1:G:163:VAL:HG13	2.54	0.42
1:G:35:LEU:O	1:G:35:LEU:HD12	2.19	0.42
1:G:3898:ASP:OD1	1:G:3899:PHE:N	2.52	0.42
1:A:1745:ILE:HD12	1:A:1960:ALA:HB2	2.02	0.42
1:A:2057:THR:O	1:A:2060:SER:OG	2.30	0.42
1:A:2495:VAL:H	1:A:2496:PRO:CD	2.33	0.42
1:A:24:CYS:HB2	1:A:200:TRP:CZ3	2.54	0.42
1:A:2799:GLU:HA	1:A:2802:LYS:HD2	2.01	0.42
1:A:3819:TYR:CZ	1:A:3823:LYS:HG3	2.55	0.42
1:C:1078:GLU:HG3	1:C:1237:TRP:CZ2	2.55	0.42
1:C:1802:ILE:O	1:C:1804:LEU:HD12	2.20	0.42
1:C:1839:VAL:HG23	1:C:1935:VAL:HG22	2.01	0.42
1:C:23:GLN:N	1:C:201:ASN:O	2.52	0.42
1:C:2045:GLN:O	1:C:2064:ARG:NH2	2.40	0.42
1:C:2104:ARG:HD2	1:C:2107:GLN:OE1	2.20	0.42
1:C:220:LEU:CD1	1:C:390:LEU:HD22	2.48	0.42
1:C:3670:GLU:OE1	1:C:3731:LYS:HB2	2.19	0.42
1:C:401:ALA:O	1:C:404:ILE:HB	2.20	0.42
1:C:4174:PHE:O	1:C:4178:LEU:N	2.49	0.42
1:C:4892:ARG:HH12	1:E:4899:ASP:H	1.61	0.42
1:C:519:VAL:HG22	1:C:523:TYR:CE2	2.54	0.42
1:C:664:PHE:CE1	1:C:779:PRO:HB3	2.55	0.42
1:E:1079:LYS:NZ	1:E:1107:PRO:HB3	2.34	0.42
1:E:2104:ARG:O	1:E:2108:GLU:HG2	2.20	0.42
1:E:3670:GLU:OE1	1:E:3731:LYS:HB2	2.19	0.42
1:E:3819:TYR:CZ	1:E:3823:LYS:HG3	2.55	0.42
1:E:5022:PHE:HA	1:E:5023:PRO:HD3	1.87	0.42
1:E:665:GLU:OE2	1:E:802:PHE:HB3	2.19	0.42
1:E:664:PHE:CE1	1:E:779:PRO:HB3	2.55	0.42
1:G:113:HIS:HE1	1:G:399:GLN:O	2.03	0.42
1:G:1716:ILE:HD13	1:G:1720:LEU:HD12	2.00	0.42
1:G:3781:GLN:HG2	1:G:3819:TYR:OH	2.18	0.42
1:G:3897:ASN:OD1	1:G:3901:ASN:ND2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3938:SER:HA	1:G:4002:LYS:HE3	2.02	0.42
1:G:3999:MET:O	1:G:4003:LEU:HG	2.20	0.42
1:G:4867:GLU:HA	1:G:4868:ASP:HA	1.79	0.42
1:G:493:ARG:HA	1:G:496:VAL:HG23	2.02	0.42
1:G:4036:VAL:HG23	1:G:5032:TYR:CD2	2.55	0.42
1:G:590:LEU:HB2	1:G:599:VAL:HG11	2.02	0.42
1:G:732:SER:HB2	1:G:735:GLN:HG2	2.02	0.42
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.20	0.42
1:A:284:HIS:HD2	1:A:287:THR:HG23	1.85	0.42
1:A:564:LEU:O	1:A:568:LEU:HG	2.19	0.42
1:C:108:LEU:HD11	1:C:117:TYR:CG	2.55	0.42
1:C:122:THR:HG23	1:C:133:PHE:CE1	2.54	0.42
1:C:1252:HIS:HD2	1:C:1255:TYR:HD2	1.67	0.42
1:C:121:LEU:HD12	1:C:136:GLY:HA3	2.01	0.42
1:C:2126:ARG:CZ	1:C:2133:GLU:OE2	2.68	0.42
1:C:2273:LEU:HD23	1:C:2330:ARG:HG2	2.01	0.42
1:C:2506:LEU:HD21	1:C:2517:PHE:HE2	1.85	0.42
1:C:3927:GLN:HE21	1:C:3991:GLY:HA3	1.85	0.42
1:C:689:THR:OG1	1:C:690:GLU:N	2.50	0.42
1:C:829:TYR:HA	1:C:1073:ARG:HH12	1.83	0.42
1:E:1085:SER:O	1:E:1088:TRP:NE1	2.39	0.42
1:E:116:MET:HE2	1:E:139:GLU:HG2	2.01	0.42
1:E:1514:LEU:O	1:E:1515:VAL:HG22	2.20	0.42
1:E:1802:ILE:O	1:E:1804:LEU:HD12	2.20	0.42
1:E:2506:LEU:HD21	1:E:2517:PHE:HE2	1.85	0.42
1:E:400:ALA:HB2	1:E:451:TYR:OH	2.20	0.42
1:E:4174:PHE:O	1:E:4178:LEU:N	2.50	0.42
1:E:4712:PRO:HG2	1:E:4718:LYS:HA	2.01	0.42
1:E:4859:PHE:CE1	1:E:4913:ARG:HB2	2.54	0.42
1:E:4957:LYS:HE3	1:E:4957:LYS:HB2	1.91	0.42
1:E:875:ALA:HB1	1:E:922:LEU:HB2	2.00	0.42
1:G:1027:LEU:HD12	1:G:1032:LYS:HD2	2.01	0.42
1:G:1277:TRP:HB2	1:G:1562:ILE:O	2.20	0.42
1:G:1515:VAL:HA	1:G:1530:THR:O	2.20	0.42
1:G:1682:ALA:HB3	1:G:1800:PRO:HG2	2.01	0.42
1:G:2234:ARG:HH12	1:G:2271:THR:N	2.18	0.42
1:G:2327:GLY:O	1:G:2330:ARG:HB3	2.20	0.42
1:G:3916:ILE:O	1:G:3920:VAL:HG23	2.20	0.42
1:G:545:ASP:OD1	1:G:582:HIS:NE2	2.52	0.42
1:G:618:GLN:OE1	1:G:1678:ASN:ND2	2.52	0.42
1:G:664:PHE:CE1	1:G:779:PRO:HB3	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1079:LYS:NZ	1:A:1107:PRO:O	2.53	0.42
1:A:2121:PHE:CG	1:A:3701:LEU:HD12	2.55	0.42
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.20	0.42
1:A:2234:ARG:HH12	1:A:2271:THR:N	2.17	0.42
1:A:3927:GLN:HE21	1:A:3991:GLY:HA3	1.84	0.42
1:A:4042:ARG:O	1:A:4045:VAL:HB	2.20	0.42
1:A:4150:LEU:O	1:A:4154:VAL:N	2.29	0.42
1:A:4829:SER:O	1:A:4939:ALA:HB1	2.20	0.42
1:A:4897:ILE:O	1:A:4901:ILE:HG22	2.19	0.42
1:A:594:GLY:H	1:A:1598:GLN:HG3	1.84	0.42
1:A:720:HIS:HA	1:A:728:ARG:O	2.20	0.42
1:C:1936:LYS:NZ	1:C:2105:TRP:CG	2.83	0.42
1:C:232:THR:HG21	1:C:248:GLU:CB	2.50	0.42
1:C:2495:VAL:H	1:C:2496:PRO:CD	2.33	0.42
1:C:3783:ILE:HA	1:C:3786:CYS:SG	2.60	0.42
1:C:3989:VAL:HG13	1:C:4023:MET:HE2	2.01	0.42
1:C:4042:ARG:O	1:C:4045:VAL:HB	2.20	0.42
1:C:4712:PRO:HG2	1:C:4718:LYS:HA	2.02	0.42
1:C:4889:VAL:HG22	1:C:4892:ARG:HH21	1.85	0.42
1:C:5022:PHE:HA	1:C:5023:PRO:HD3	1.87	0.42
1:C:526:LEU:HD11	1:C:540:PHE:CZ	2.46	0.42
1:C:916:PRO:O	1:C:919:ASN:HB2	2.20	0.42
1:E:1254:HIS:NE2	1:E:1280:GLN:HB3	2.34	0.42
1:E:637:LEU:HD23	1:E:1693:GLN:HA	2.02	0.42
1:E:1682:ALA:HB3	1:E:1800:PRO:HG2	2.01	0.42
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.54	0.42
1:E:2234:ARG:HH12	1:E:2271:THR:N	2.17	0.42
1:E:3802:ILE:HD11	1:E:3883:ASP:O	2.20	0.42
1:E:4958:CYS:SG	1:E:4959:PHE:N	2.93	0.42
1:G:1581:LEU:HD13	1:G:1594:ARG:C	2.40	0.42
1:G:4165:GLU:O	1:G:4168:GLU:HG2	2.19	0.42
1:G:4706:LEU:O	1:G:4721:LYS:NZ	2.53	0.42
2:H:16:PRO:HG2	2:H:63:VAL:HG12	2.01	0.42
1:A:1682:ALA:HB3	1:A:1800:PRO:HG2	2.01	0.42
1:A:1771:LEU:HA	1:A:1771:LEU:HD23	1.94	0.42
1:A:2470:ILE:O	1:A:2474:LEU:N	2.40	0.42
1:A:113:HIS:HE1	1:A:399:GLN:O	2.02	0.42
1:A:4664:LEU:HG	1:A:4665:LYS:HG3	2.02	0.42
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	2.01	0.42
1:A:4712:PRO:HG2	1:A:4718:LYS:HA	2.01	0.42
1:A:4857:ASN:HD21	1:G:4807:PHE:HB3	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:618:GLN:OE1	1:A:1678:ASN:ND2	2.52	0.42
1:C:1745:ILE:HD12	1:C:1960:ALA:HB2	2.02	0.42
1:C:2194:HIS:O	1:C:2198:MET:HG2	2.20	0.42
1:C:2327:GLY:O	1:C:2330:ARG:HB3	2.20	0.42
1:C:2747:ILE:HG22	1:C:2748:PRO:O	2.20	0.42
1:C:2799:GLU:HA	1:C:2802:LYS:HD2	2.01	0.42
1:C:350:HIS:NE2	1:C:352:ALA:HB3	2.35	0.42
1:C:471:LEU:O	1:C:475:GLN:HG3	2.20	0.42
1:C:4934:GLY:HA2	1:C:4937:ILE:HB	2.02	0.42
1:C:493:ARG:HA	1:C:496:VAL:HG23	2.02	0.42
1:C:682:LEU:HD22	1:C:738:LEU:HD23	2.02	0.42
1:C:906:CYS:O	1:C:908:VAL:N	2.52	0.42
1:E:618:GLN:OE1	1:E:1678:ASN:ND2	2.52	0.42
1:E:2121:PHE:CG	1:E:3701:LEU:HD12	2.55	0.42
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.20	0.42
1:E:2927:LEU:HD22	1:E:2937:VAL:HG11	2.02	0.42
1:E:350:HIS:NE2	1:E:352:ALA:HB3	2.35	0.42
1:E:4042:ARG:O	1:E:4045:VAL:HB	2.20	0.42
1:E:4045:VAL:HG22	1:E:4160:LEU:HD22	2.01	0.42
1:C:4892:ARG:CD	1:E:4917:ASP:OD2	2.68	0.42
1:E:641:VAL:HG21	1:E:704:GLY:H	1.85	0.42
1:G:1079:LYS:NZ	1:G:1107:PRO:HB3	2.34	0.42
1:G:116:MET:HB2	1:G:137:LEU:HD13	2.02	0.42
1:G:2273:LEU:HD23	1:G:2330:ARG:HG2	2.02	0.42
1:G:2881:ASN:OD1	1:G:2885:THR:OG1	2.37	0.42
1:G:3716:LEU:HB3	1:G:3789:GLU:OE1	2.20	0.42
1:A:2104:ARG:O	1:A:2108:GLU:HG2	2.20	0.41
1:A:2126:ARG:CZ	1:A:2133:GLU:OE2	2.68	0.41
1:A:4027:LEU:HD23	1:A:4027:LEU:O	2.20	0.41
1:A:456:SER:OG	1:A:458:GLU:HG2	2.19	0.41
1:A:682:LEU:HD22	1:A:738:LEU:HD23	2.01	0.41
1:A:70:GLU:HB2	1:A:108:LEU:HB3	2.02	0.41
1:C:102:LEU:HB2	1:C:105:HIS:HD2	1.83	0.41
1:C:1027:LEU:HD12	1:C:1032:LYS:HD2	2.00	0.41
1:C:1079:LYS:NZ	1:C:1107:PRO:O	2.54	0.41
1:C:116:MET:HB3	1:C:138:GLN:O	2.20	0.41
1:C:1777:PHE:CD1	1:C:1801:ALA:HA	2.55	0.41
1:C:1841:VAL:O	1:C:1845:VAL:HG23	2.20	0.41
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.20	0.41
1:C:2761:TYR:CZ	1:C:2862:LEU:HD13	2.54	0.41
1:C:3825:GLU:C	1:C:3827:GLY:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4921:PHE:O	1:C:4926:VAL:HG23	2.19	0.41
1:C:589:LEU:HG	1:C:593:HIS:CD2	2.48	0.41
1:C:590:LEU:HB2	1:C:599:VAL:HG11	2.01	0.41
1:C:70:GLU:HB2	1:C:108:LEU:HB3	2.02	0.41
1:E:1514:LEU:C	1:E:1515:VAL:CG2	2.88	0.41
1:E:2327:GLY:O	1:E:2330:ARG:HB3	2.20	0.41
1:E:252:VAL:HA	1:E:255:HIS:HB2	2.01	0.41
1:E:277:GLY:H	1:E:315:CYS:HG	1.66	0.41
1:E:3713:LYS:O	1:E:3714:SER:OG	2.38	0.41
1:E:4027:LEU:O	1:E:4027:LEU:HD23	2.20	0.41
1:E:4630:TYR:CE2	1:E:4632:LEU:HA	2.55	0.41
1:E:720:HIS:HA	1:E:728:ARG:O	2.20	0.41
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	2.01	0.41
1:G:151:HIS:HA	1:G:152:PRO:HD2	1.95	0.41
1:G:2465:ASP:O	1:G:2467:VAL:N	2.53	0.41
1:G:345:LEU:HD13	1:G:387:ALA:HB1	2.01	0.41
1:G:453:GLU:HA	1:G:454:PRO:HD3	1.85	0.41
1:G:4675:LYS:O	1:G:4679:ARG:HG2	2.19	0.41
1:A:4917:ASP:OD2	1:G:4892:ARG:CD	2.67	0.41
1:G:705:ASN:HD22	1:G:782:SER:CB	2.32	0.41
1:G:736:HIS:ND1	1:G:737:LEU:O	2.50	0.41
2:H:46:PHE:CE2	2:H:48:PHE:CD1	3.08	0.41
1:A:1078:GLU:HG3	1:A:1237:TRP:CZ2	2.55	0.41
1:A:1581:LEU:HD13	1:A:1594:ARG:C	2.40	0.41
1:A:1936:LYS:NZ	1:A:2105:TRP:CG	2.84	0.41
1:A:3838:THR:OG1	1:A:3839:CYS:N	2.51	0.41
1:A:4159:ARG:O	1:A:4162:ASN:HB3	2.20	0.41
1:A:545:ASP:OD1	1:A:582:HIS:NE2	2.52	0.41
1:A:750:LEU:O	1:A:751:SER:OG	2.35	0.41
1:C:116:MET:HB2	1:C:137:LEU:HD13	2.03	0.41
1:C:1432:THR:N	1:C:1518:CYS:SG	2.93	0.41
1:C:4147:LEU:HA	1:C:4147:LEU:HD23	1.85	0.41
1:C:641:VAL:HG21	1:C:704:GLY:H	1.85	0.41
1:C:722:TRP:NE1	1:C:727:ALA:HB2	2.35	0.41
1:C:757:PHE:HE2	1:C:768:PHE:HE2	1.67	0.41
1:E:1115:LEU:HD11	1:E:1191:VAL:HG11	2.01	0.41
1:E:1125:ASN:OD1	1:E:1132:TRP:HZ3	2.03	0.41
1:E:1290:ARG:HG2	1:E:1551:ALA:HB2	2.02	0.41
1:E:1432:THR:N	1:E:1518:CYS:SG	2.93	0.41
1:E:2799:GLU:HA	1:E:2802:LYS:HD2	2.02	0.41
1:E:4897:ILE:O	1:E:4901:ILE:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:732:SER:HB2	1:E:735:GLN:HG2	2.02	0.41
2:F:16:PRO:HD2	2:F:64:ALA:HA	2.01	0.41
1:G:1290:ARG:HG2	1:G:1551:ALA:HB2	2.02	0.41
1:G:830:ARG:CZ	1:G:1616:GLU:OE2	2.68	0.41
1:G:4559:PHE:CE1	1:G:4661:TYR:HB2	2.55	0.41
1:G:456:SER:OG	1:G:458:GLU:HG2	2.20	0.41
2:H:29:MET:HB2	2:H:33:GLY:C	2.41	0.41
1:A:116:MET:HB3	1:A:138:GLN:O	2.20	0.41
1:A:2465:ASP:O	1:A:2467:VAL:N	2.53	0.41
1:A:3694:LYS:HA	1:A:3695:PRO:HD3	1.79	0.41
1:A:3710:LEU:HD11	1:A:3781:GLN:NE2	2.36	0.41
1:A:220:LEU:CD1	1:A:390:LEU:HD22	2.48	0.41
1:A:3989:VAL:HG13	1:A:4023:MET:HE2	2.01	0.41
1:A:4715:TYR:O	1:A:4716:TRP:CG	2.73	0.41
1:A:493:ARG:HA	1:A:496:VAL:HG23	2.02	0.41
1:A:660:GLY:O	1:A:662:TRP:HD1	2.04	0.41
1:A:701:GLY:HA2	1:A:1645:ASN:HD21	1.86	0.41
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	2.01	0.41
1:C:1254:HIS:NE2	1:C:1280:GLN:HB3	2.34	0.41
1:C:1676:LEU:HG	1:C:1725:ARG:HE	1.85	0.41
1:C:1737:PRO:HG2	1:C:1742:THR:HG21	2.02	0.41
1:C:1682:ALA:HB3	1:C:1800:PRO:HG2	2.01	0.41
1:C:2204:HIS:O	1:C:2208:MET:N	2.42	0.41
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.54	0.41
1:A:4892:ARG:CD	1:C:4917:ASP:OD2	2.68	0.41
1:C:660:GLY:O	1:C:662:TRP:HD1	2.04	0.41
1:E:1079:LYS:NZ	1:E:1107:PRO:O	2.53	0.41
1:E:1211:LEU:CD2	1:E:1212:ARG:H	2.31	0.41
1:E:2123:LEU:HD23	1:E:2126:ARG:HD3	2.02	0.41
1:E:2924:GLN:HB3	1:E:2928:LYS:HD2	2.01	0.41
1:E:4774:LYS:HA	1:E:4777:ILE:HG22	2.03	0.41
1:E:663:TYR:HA	1:E:746:CYS:O	2.20	0.41
1:E:757:PHE:HE2	1:E:768:PHE:HE2	1.67	0.41
1:G:116:MET:HB3	1:G:138:GLN:O	2.20	0.41
1:G:1432:THR:N	1:G:1518:CYS:SG	2.93	0.41
1:G:637:LEU:HD23	1:G:1693:GLN:HA	2.02	0.41
1:G:3664:THR:HB	1:G:3665:GLU:H	1.68	0.41
1:G:4722:ARG:O	1:G:4725:LEU:HG	2.19	0.41
1:G:5017:ARG:HB3	1:G:5019:TRP:CZ3	2.55	0.41
1:G:722:TRP:NE1	1:G:727:ALA:HB2	2.36	0.41
1:G:984:LEU:O	1:G:988:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1087:ARG:NH1	1:A:1223:PHE:CE2	2.89	0.41
1:A:108:LEU:HD11	1:A:117:TYR:CG	2.55	0.41
1:A:1125:ASN:OD1	1:A:1132:TRP:HZ3	2.03	0.41
1:A:116:MET:HB2	1:A:137:LEU:HD13	2.02	0.41
1:A:1519:LEU:HD13	1:A:1527:MET:HG2	2.02	0.41
1:A:1736:VAL:HA	1:A:1737:PRO:HD2	1.84	0.41
1:A:1802:ILE:O	1:A:1804:LEU:HD12	2.20	0.41
1:A:2165:LEU:HD21	1:A:2177:LEU:CB	2.51	0.41
1:A:2305:CYS:O	1:A:2325:PRO:HG2	2.20	0.41
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.55	0.41
1:A:4235:VAL:HG21	1:A:5019:TRP:CD1	2.55	0.41
1:A:830:ARG:CZ	1:A:1616:GLU:OE2	2.69	0.41
1:C:1194:LEU:HD22	1:C:1198:GLN:O	2.21	0.41
1:C:637:LEU:HD23	1:C:1693:GLN:HA	2.02	0.41
1:C:1773:PRO:HA	1:C:1774:PRO:HD3	1.96	0.41
1:C:284:HIS:CD2	1:C:287:THR:HG23	2.55	0.41
1:C:4027:LEU:O	1:C:4027:LEU:HD23	2.21	0.41
1:C:414:PHE:CD1	1:C:441:VAL:HG21	2.55	0.41
1:C:4159:ARG:O	1:C:4162:ASN:HB3	2.20	0.41
1:C:4630:TYR:CE2	1:C:4632:LEU:HA	2.54	0.41
1:E:1297:PHE:CZ	1:E:1519:LEU:HD21	2.55	0.41
1:E:1770:SER:OG	1:E:1771:LEU:N	2.49	0.41
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.20	0.41
1:E:233:ILE:HD12	1:E:242:ARG:HG2	2.02	0.41
1:E:2747:ILE:HG22	1:E:2748:PRO:O	2.20	0.41
1:E:3783:ILE:HA	1:E:3786:CYS:SG	2.61	0.41
1:E:699:GLY:O	1:E:701:GLY:N	2.53	0.41
1:E:722:TRP:NE1	1:E:727:ALA:HB2	2.35	0.41
1:E:855:PRO:HD3	1:E:994:ASN:HB3	2.03	0.41
1:G:1778:SER:N	1:G:1799:SER:O	2.36	0.41
1:G:1841:VAL:O	1:G:1845:VAL:HG23	2.21	0.41
1:G:2305:CYS:O	1:G:2325:PRO:HG2	2.20	0.41
1:G:2495:VAL:H	1:G:2496:PRO:CD	2.33	0.41
1:G:284:HIS:CD2	1:G:287:THR:HG23	2.55	0.41
1:G:3819:TYR:CZ	1:G:3823:LYS:HG3	2.56	0.41
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.55	0.41
1:G:414:PHE:CD1	1:G:441:VAL:HG21	2.55	0.41
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.85	0.41
1:A:1620:ALA:O	1:A:1629:GLN:N	2.35	0.41
1:A:14:LEU:HD12	1:A:163:VAL:HG12	2.03	0.41
1:A:1737:PRO:HG2	1:A:1742:THR:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1841:VAL:O	1:A:1845:VAL:HG23	2.20	0.41
1:A:2104:ARG:HD2	1:A:2107:GLN:OE1	2.19	0.41
1:A:2327:GLY:O	1:A:2330:ARG:HB3	2.20	0.41
1:A:2506:LEU:HD21	1:A:2517:PHE:HE2	1.85	0.41
1:A:2747:ILE:HG22	1:A:2748:PRO:O	2.20	0.41
1:A:3783:ILE:HA	1:A:3786:CYS:SG	2.61	0.41
1:A:3802:ILE:HD11	1:A:3883:ASP:O	2.20	0.41
1:A:414:PHE:CD1	1:A:441:VAL:HG21	2.55	0.41
1:C:1125:ASN:OD1	1:C:1132:TRP:HZ3	2.03	0.41
1:C:2210:VAL:O	1:C:2214:VAL:HG23	2.20	0.41
1:C:252:VAL:HA	1:C:255:HIS:HB2	2.02	0.41
1:C:4201:ASN:HB3	1:C:4990:PHE:CE1	2.55	0.41
1:C:4235:VAL:HG21	1:C:5019:TRP:CD1	2.55	0.41
1:C:4715:TYR:O	1:C:4716:TRP:CG	2.73	0.41
1:E:108:LEU:HD11	1:E:117:TYR:CG	2.55	0.41
1:E:122:THR:HG23	1:E:133:PHE:CE1	2.54	0.41
1:E:1275:ARG:HG3	1:E:1277:TRP:HE1	1.86	0.41
1:E:1277:TRP:HB2	1:E:1562:ILE:O	2.20	0.41
1:E:1695:LEU:O	1:E:1699:GLU:HG3	2.21	0.41
1:E:1779:PRO:HA	1:E:1780:PRO:HD3	1.91	0.41
1:E:2465:ASP:O	1:E:2467:VAL:N	2.53	0.41
1:E:3825:GLU:C	1:E:3827:GLY:H	2.23	0.41
1:E:4664:LEU:HG	1:E:4665:LYS:HG3	2.03	0.41
1:E:471:LEU:O	1:E:475:GLN:HG3	2.20	0.41
1:E:519:VAL:HG22	1:E:523:TYR:CE2	2.55	0.41
1:E:826:ILE:O	1:E:828:GLU:N	2.54	0.41
1:E:829:TYR:HA	1:E:1073:ARG:HH12	1.83	0.41
1:E:984:LEU:O	1:E:988:LEU:HG	2.20	0.41
1:G:108:LEU:HD11	1:G:117:TYR:CG	2.55	0.41
1:G:1745:ILE:HD12	1:G:1960:ALA:HB2	2.02	0.41
1:G:1777:PHE:CD1	1:G:1801:ALA:HA	2.56	0.41
1:G:1839:VAL:HG23	1:G:1935:VAL:HG22	2.01	0.41
1:G:2817:ILE:C	1:G:2820:GLU:H	2.23	0.41
1:G:2867:LEU:HD11	1:G:2924:GLN:HA	2.03	0.41
1:G:3657:TYR:CE2	1:G:3662:ILE:HD11	2.55	0.41
1:G:4856:PHE:HE1	1:G:4877:ASP:O	2.03	0.41
1:G:646:PRO:HB2	1:G:793:LEU:HD11	2.03	0.41
2:H:2:VAL:HG23	2:H:76:ILE:HA	2.02	0.41
1:A:1290:ARG:HA	1:A:1551:ALA:CB	2.51	0.41
1:A:1432:THR:N	1:A:1518:CYS:SG	2.93	0.41
1:A:2191:PHE:HZ	1:A:2239:PHE:HD1	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:VAL:HA	1:A:255:HIS:HB2	2.01	0.41
1:A:400:ALA:HB2	1:A:451:TYR:OH	2.20	0.41
1:A:80:GLU:OE1	1:G:3935:TRP:CE3	2.70	0.41
1:C:1519:LEU:HD13	1:C:1527:MET:HG2	2.02	0.41
1:C:1738:LEU:N	1:C:2144:ILE:O	2.48	0.41
1:C:2165:LEU:HD21	1:C:2177:LEU:CB	2.51	0.41
1:C:2813:LEU:HD22	1:C:2823:ILE:HD13	2.02	0.41
1:C:595:ARG:HH12	1:C:1641:ILE:HD11	1.86	0.41
1:E:1775:HIS:CE1	1:E:1777:PHE:CE2	3.09	0.41
1:E:3766:GLN:O	1:E:3769:ARG:HB3	2.20	0.41
1:E:375:LYS:NZ	1:E:377:ILE:HG22	2.36	0.41
1:E:4049:VAL:HG21	1:E:4159:ARG:CD	2.51	0.41
1:C:4940:PHE:CE2	1:E:4938:ASP:OD2	2.72	0.41
1:E:50:GLU:OE2	1:E:61:ASP:N	2.36	0.41
1:G:1436:SER:HA	1:G:1516:ILE:HA	2.02	0.41
1:G:471:LEU:O	1:G:475:GLN:HG3	2.20	0.41
1:G:594:GLY:H	1:G:1598:GLN:HG3	1.85	0.41
1:G:660:GLY:O	1:G:662:TRP:HD1	2.04	0.41
1:G:855:PRO:HD3	1:G:994:ASN:HB3	2.03	0.41
1:G:16:THR:N	1:G:99:ARG:O	2.46	0.41
2:H:23:VAL:HG13	2:H:47:LYS:HG2	2.01	0.41
1:A:46:LEU:HD13	1:A:125:ARG:HH22	1.86	0.41
1:A:1775:HIS:CE1	1:A:1777:PHE:CE2	3.08	0.41
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.56	0.41
1:A:2194:HIS:O	1:A:2198:MET:HG2	2.20	0.41
1:A:471:LEU:O	1:A:475:GLN:HG3	2.21	0.41
1:A:4921:PHE:O	1:A:4926:VAL:HG23	2.20	0.41
1:A:4957:LYS:HB2	1:A:4957:LYS:HE3	1.93	0.41
1:A:664:PHE:CE1	1:A:779:PRO:HB3	2.55	0.41
1:A:826:ILE:O	1:A:828:GLU:N	2.54	0.41
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.56	0.41
1:C:4235:VAL:HG21	1:C:5019:TRP:HE1	1.81	0.41
1:C:4933:GLN:O	1:C:4937:ILE:HG13	2.19	0.41
1:C:706:GLY:CA	1:C:711:LEU:HD22	2.42	0.41
1:C:925:SER:O	1:C:929:LEU:HG	2.21	0.41
1:E:1078:GLU:HG3	1:E:1237:TRP:CZ2	2.55	0.41
1:E:116:MET:HB2	1:E:137:LEU:HD13	2.03	0.41
1:E:2655:TYR:O	1:E:2659:THR:N	2.54	0.41
1:E:4235:VAL:HG21	1:E:5019:TRP:CD1	2.55	0.41
1:E:4776:GLN:HA	1:E:4779:LYS:HG2	2.03	0.41
1:E:660:GLY:O	1:E:662:TRP:HD1	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1290:ARG:HA	1:G:1551:ALA:CB	2.50	0.41
1:G:1247:PRO:HB3	1:G:1600:LEU:HD13	2.01	0.41
1:G:1676:LEU:HG	1:G:1725:ARG:HE	1.85	0.41
1:G:2191:PHE:HZ	1:G:2239:PHE:HD1	1.69	0.41
1:G:2876:GLU:OE2	1:G:2908:TYR:CE2	2.74	0.41
1:G:350:HIS:NE2	1:G:352:ALA:HB3	2.35	0.41
1:G:3701:LEU:HD11	1:G:3725:TYR:CE1	2.56	0.41
1:G:5013:MET:O	1:G:5017:ARG:N	2.53	0.41
1:G:733:PRO:HD2	1:G:759:ILE:HD12	2.03	0.41
1:A:1194:LEU:HD22	1:A:1198:GLN:O	2.20	0.41
1:A:2129:ASP:HB2	1:A:3669:PHE:CE1	2.56	0.41
1:A:3705:PHE:CD1	1:A:3722:TYR:HD1	2.39	0.41
1:A:3839:CYS:SG	1:A:3881:THR:HG21	2.61	0.41
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.21	0.41
1:A:699:GLY:O	1:A:701:GLY:N	2.54	0.41
2:B:2:VAL:HG23	2:B:76:ILE:HA	2.03	0.41
1:C:830:ARG:CZ	1:C:1616:GLU:OE2	2.69	0.41
1:C:375:LYS:NZ	1:C:377:ILE:HG22	2.36	0.41
1:C:4671:PHE:CE1	1:C:4715:TYR:HA	2.56	0.41
1:C:4807:PHE:HB3	1:E:4857:ASN:ND2	2.36	0.41
1:C:4957:LYS:HB2	1:C:4957:LYS:HE3	1.94	0.41
1:C:733:PRO:HD2	1:C:759:ILE:HD12	2.02	0.41
1:E:590:LEU:HB2	1:E:599:VAL:HG11	2.01	0.41
2:F:40:ARG:C	2:F:43:ASN:H	2.24	0.41
2:F:87:HIS:CE1	2:F:90:ILE:HD13	2.55	0.41
1:G:1079:LYS:NZ	1:G:1107:PRO:O	2.53	0.41
1:G:1737:PRO:HG2	1:G:1742:THR:HG21	2.03	0.41
1:G:2165:LEU:HD21	1:G:2177:LEU:CB	2.51	0.41
1:G:3780:LEU:HD22	1:G:3819:TYR:HD2	1.86	0.41
1:G:3962:PHE:CE1	1:G:4023:MET:HG3	2.55	0.41
1:G:4581:LYS:O	1:G:4630:TYR:N	2.51	0.41
1:G:70:GLU:HB2	1:G:108:LEU:HB3	2.02	0.41
2:H:87:HIS:CE1	2:H:90:ILE:HD13	2.56	0.41
1:A:1648:MET:HE3	1:A:1656:ARG:HG3	2.03	0.41
1:A:2204:HIS:O	1:A:2208:MET:N	2.42	0.41
1:A:3801:GLY:O	1:A:3805:LEU:HG	2.21	0.41
1:A:685:GLY:O	1:A:780:VAL:HB	2.21	0.41
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.86	0.41
1:C:1297:PHE:CZ	1:C:1519:LEU:HD21	2.56	0.41
1:C:1290:ARG:HA	1:C:1551:ALA:CB	2.51	0.41
1:C:1775:HIS:CE1	1:C:1777:PHE:CE2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2465:ASP:O	1:C:2467:VAL:N	2.53	0.41
1:C:2495:VAL:N	1:C:2496:PRO:HD2	2.36	0.41
1:C:2755:ILE:HG23	1:C:2809:ILE:HG21	2.03	0.41
1:C:2817:ILE:C	1:C:2820:GLU:H	2.24	0.41
1:C:280:LEU:HG	1:C:314:PHE:O	2.21	0.41
1:C:345:LEU:HD13	1:C:387:ALA:HB1	2.02	0.41
1:C:4049:VAL:HG21	1:C:4159:ARG:CD	2.51	0.41
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.86	0.41
1:E:116:MET:HB3	1:E:138:GLN:O	2.20	0.41
1:E:830:ARG:CZ	1:E:1616:GLU:OE2	2.68	0.41
1:E:212:GLY:O	1:E:341:TYR:N	2.45	0.41
1:E:2293:GLN:O	1:E:2296:GLU:HB2	2.21	0.41
1:E:3825:GLU:O	1:E:3827:GLY:N	2.48	0.41
1:E:4891:VAL:HG12	1:G:4921:PHE:CE2	2.56	0.41
1:E:521:LEU:O	1:E:525:LEU:N	2.46	0.41
1:E:733:PRO:HD2	1:E:759:ILE:HD12	2.02	0.41
1:G:1297:PHE:CZ	1:G:1519:LEU:HD21	2.56	0.41
1:G:1695:LEU:O	1:G:1699:GLU:HG3	2.21	0.41
1:G:1775:HIS:CE1	1:G:1777:PHE:CE2	3.09	0.41
1:G:2506:LEU:HD21	1:G:2517:PHE:HE2	1.85	0.41
1:G:4931:ILE:HD13	1:G:4931:ILE:HG21	1.75	0.41
1:G:826:ILE:O	1:G:828:GLU:N	2.54	0.41
1:A:1106:ARG:HA	1:A:1107:PRO:HD3	1.94	0.41
1:A:1514:LEU:C	1:A:1515:VAL:CG2	2.89	0.41
1:A:1777:PHE:CD1	1:A:1801:ALA:HA	2.56	0.41
1:A:2123:LEU:HD23	1:A:2126:ARG:HD3	2.03	0.41
1:A:2159:LEU:HA	1:A:2162:ILE:HG22	2.03	0.41
1:A:4851:TYR:CE1	1:A:4920:PHE:HB2	2.56	0.41
1:A:4886:HIS:O	1:A:4890:GLY:HA3	2.21	0.41
1:A:4889:VAL:HG22	1:A:4892:ARG:HH21	1.86	0.41
2:B:14:THR:HB	2:B:68:VAL:HG23	2.03	0.41
1:C:1211:LEU:CD2	1:C:1212:ARG:H	2.31	0.41
1:C:1432:THR:N	1:C:1518:CYS:HG	2.19	0.41
1:C:2104:ARG:O	1:C:2108:GLU:HG2	2.19	0.41
1:C:3694:LYS:HA	1:C:3695:PRO:HD3	1.80	0.41
1:C:4664:LEU:HG	1:C:4665:LYS:HG3	2.03	0.41
1:C:554:LEU:HG	1:C:593:HIS:HE1	1.86	0.41
1:C:646:PRO:HB2	1:C:793:LEU:HD11	2.03	0.41
1:C:984:LEU:O	1:C:988:LEU:HG	2.21	0.41
2:D:14:THR:HB	2:D:68:VAL:HG23	2.02	0.41
2:D:40:ARG:C	2:D:43:ASN:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:4:VAL:HG22	2:D:74:LEU:HG	2.02	0.41
2:D:87:HIS:CE1	2:D:90:ILE:HD13	2.55	0.41
1:E:1194:LEU:HD22	1:E:1198:GLN:O	2.21	0.41
1:E:2209:GLU:O	1:E:2212:VAL:HB	2.21	0.41
1:E:3710:LEU:HD11	1:E:3781:GLN:NE2	2.35	0.41
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.21	0.41
1:E:4715:TYR:O	1:E:4716:TRP:CG	2.73	0.41
1:E:4724:VAL:O	1:E:4727:LYS:O	2.39	0.41
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.86	0.41
1:G:46:LEU:HD13	1:G:125:ARG:HH22	1.86	0.41
1:G:2735:PHE:HD2	1:G:2891:LYS:HD2	1.86	0.41
1:G:2755:ILE:HG23	1:G:2809:ILE:HG21	2.02	0.41
1:G:4776:GLN:HA	1:G:4779:LYS:HG2	2.02	0.41
1:A:595:ARG:NH2	1:A:1641:ILE:HD11	2.27	0.41
1:A:1660:GLN:HE22	1:A:1704:PRO:HB2	1.86	0.41
1:A:2495:VAL:N	1:A:2496:PRO:HD2	2.35	0.41
1:A:3766:GLN:O	1:A:3769:ARG:HB3	2.21	0.41
1:A:4242:ILE:HG12	1:A:4993:MET:HG2	2.03	0.41
1:A:4724:VAL:O	1:A:4727:LYS:O	2.39	0.41
1:A:4978:HIS:HA	1:A:4982:GLU:HB2	2.03	0.41
1:A:4201:ASN:HB3	1:A:4990:PHE:CE1	2.55	0.41
1:C:107:ILE:HD12	1:C:109:LEU:HD21	2.03	0.41
1:C:1275:ARG:HG3	1:C:1277:TRP:HE1	1.86	0.41
1:C:1290:ARG:HG2	1:C:1551:ALA:HB2	2.02	0.41
1:C:2876:GLU:OE2	1:C:2908:TYR:HE2	2.04	0.41
1:C:3766:GLN:O	1:C:3769:ARG:HB3	2.21	0.41
1:C:400:ALA:HB2	1:C:451:TYR:OH	2.20	0.41
1:C:4219:PHE:CD1	1:C:4950:VAL:HG21	2.57	0.41
1:C:4242:ILE:HG12	1:C:4993:MET:HG2	2.03	0.41
1:C:46:LEU:HD13	1:C:125:ARG:HH22	1.86	0.41
1:C:4886:HIS:O	1:C:4890:GLY:HA3	2.22	0.41
1:C:882:TRP:CZ3	1:C:907:LEU:HD23	2.56	0.41
1:E:1581:LEU:HD13	1:E:1594:ARG:C	2.40	0.41
1:E:1648:MET:HE3	1:E:1656:ARG:HG3	2.03	0.41
1:E:2165:LEU:HD21	1:E:2177:LEU:CB	2.51	0.41
1:E:2254:LEU:O	1:E:2258:LEU:HG	2.21	0.41
1:E:347:PHE:CE1	1:E:387:ALA:HA	2.52	0.41
1:G:1125:ASN:OD1	1:G:1132:TRP:HZ3	2.03	0.41
1:G:1126:GLY:HA3	1:G:1143:TRP:CE2	2.56	0.41
1:G:1194:LEU:HD22	1:G:1198:GLN:O	2.21	0.41
1:G:1660:GLN:HE22	1:G:1704:PRO:HB2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2194:HIS:O	1:G:2198:MET:HG2	2.20	0.41
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.56	0.41
1:G:2293:GLN:O	1:G:2296:GLU:HB2	2.21	0.41
1:G:4797:VAL:O	1:G:4800:LEU:HB2	2.20	0.41
1:G:4925:ILE:HG23	1:G:4929:LEU:HD12	2.02	0.41
1:G:882:TRP:CZ3	1:G:907:LEU:HD23	2.56	0.41
1:A:1130:GLN:HB2	1:A:1137:GLU:O	2.21	0.40
1:A:1297:PHE:CZ	1:A:1519:LEU:HD21	2.56	0.40
1:A:151:HIS:HA	1:A:152:PRO:HD2	1.95	0.40
1:A:284:HIS:CD2	1:A:287:THR:HG23	2.56	0.40
1:A:3884:LEU:O	1:A:3887:PHE:HB3	2.21	0.40
1:A:4219:PHE:CD1	1:A:4950:VAL:HG21	2.56	0.40
1:A:984:LEU:O	1:A:988:LEU:HG	2.21	0.40
1:A:16:THR:N	1:A:99:ARG:O	2.46	0.40
2:B:40:ARG:C	2:B:43:ASN:H	2.24	0.40
2:B:4:VAL:HG22	2:B:74:LEU:HG	2.02	0.40
1:C:1436:SER:N	1:C:1516:ILE:HA	2.33	0.40
1:C:1660:GLN:HE22	1:C:1704:PRO:HB2	1.86	0.40
1:C:2209:GLU:O	1:C:2212:VAL:HB	2.21	0.40
1:C:2254:LEU:O	1:C:2258:LEU:HG	2.22	0.40
1:C:3710:LEU:HD11	1:C:3781:GLN:NE2	2.36	0.40
1:C:3839:CYS:SG	1:C:3881:THR:HG21	2.61	0.40
1:C:4724:VAL:O	1:C:4727:LYS:O	2.39	0.40
1:C:720:HIS:HA	1:C:728:ARG:O	2.21	0.40
1:E:1126:GLY:HA3	1:E:1143:TRP:CE2	2.56	0.40
1:E:2191:PHE:HZ	1:E:2239:PHE:HD1	1.69	0.40
1:E:2205:GLU:OE1	1:E:2253:HIS:NE2	2.55	0.40
1:E:2305:CYS:O	1:E:2325:PRO:HG2	2.20	0.40
1:E:2876:GLU:OE2	1:E:2908:TYR:HE2	2.04	0.40
1:E:4201:ASN:HB3	1:E:4990:PHE:CE1	2.55	0.40
1:E:4219:PHE:CD1	1:E:4950:VAL:HG21	2.56	0.40
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.86	0.40
1:E:4581:LYS:O	1:E:4630:TYR:N	2.45	0.40
1:E:4888:TYR:CD1	1:G:4914:VAL:HG23	2.56	0.40
2:F:4:VAL:HG22	2:F:74:LEU:HG	2.02	0.40
1:G:203:ASN:HA	1:G:204:PRO:HD2	1.95	0.40
1:G:2495:VAL:H	1:G:2496:PRO:HD2	1.85	0.40
1:G:2799:GLU:HA	1:G:2802:LYS:HD2	2.02	0.40
1:G:4715:TYR:HD2	1:G:4717:ASP:HB3	1.86	0.40
1:G:595:ARG:HH12	1:G:1641:ILE:HD11	1.86	0.40
1:G:925:SER:O	1:G:929:LEU:HG	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1126:GLY:HA3	1:A:1143:TRP:CE2	2.56	0.40
1:A:1290:ARG:HG2	1:A:1551:ALA:HB2	2.02	0.40
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	2.03	0.40
1:A:12:GLN:O	1:A:165:VAL:HG23	2.21	0.40
1:A:4174:PHE:O	1:A:4178:LEU:N	2.50	0.40
1:A:646:PRO:HB2	1:A:793:LEU:HD11	2.03	0.40
2:B:46:PHE:CE2	2:B:48:PHE:CD1	3.09	0.40
1:C:2191:PHE:HZ	1:C:2239:PHE:HD1	1.69	0.40
1:C:3884:LEU:O	1:C:3887:PHE:HB3	2.21	0.40
1:C:4053:SER:O	1:C:4057:MET:HG2	2.21	0.40
1:E:1106:ARG:HA	1:E:1107:PRO:HD3	1.94	0.40
1:E:1676:LEU:HG	1:E:1725:ARG:HE	1.85	0.40
1:E:1777:PHE:CD1	1:E:1801:ALA:HA	2.56	0.40
1:E:2194:HIS:O	1:E:2198:MET:HG2	2.20	0.40
1:E:232:THR:OG1	1:E:233:ILE:N	2.55	0.40
1:E:2341:VAL:HG22	1:E:2342:ASN:N	2.34	0.40
1:E:4115:SER:HA	1:E:4128:PHE:CD1	2.57	0.40
1:E:4706:LEU:HD12	1:E:4707:ASN:N	2.36	0.40
1:E:4851:TYR:CE1	1:E:4920:PHE:HB2	2.57	0.40
1:E:4886:HIS:O	1:E:4890:GLY:HA3	2.21	0.40
1:E:646:PRO:HB2	1:E:793:LEU:HD11	2.03	0.40
1:E:16:THR:N	1:E:99:ARG:O	2.46	0.40
2:F:2:VAL:HG23	2:F:76:ILE:HA	2.03	0.40
1:G:1078:GLU:HG3	1:G:1237:TRP:CZ2	2.55	0.40
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	2.04	0.40
1:G:1632:ASP:HA	1:G:1633:PRO:HD2	1.94	0.40
1:G:2104:ARG:HD2	1:G:2107:GLN:OE1	2.21	0.40
1:G:3562:LYS:O	1:G:3566:SER:N	2.53	0.40
1:A:637:LEU:HD23	1:A:1693:GLN:HA	2.02	0.40
1:A:3878:ASP:OD2	1:A:3953:LYS:HE3	2.22	0.40
1:A:4958:CYS:SG	1:A:4959:PHE:N	2.94	0.40
1:A:600:LEU:HD23	1:A:1666:THR:HA	2.03	0.40
1:A:882:TRP:CZ3	1:A:907:LEU:HD23	2.57	0.40
1:C:1961:PHE:CZ	1:C:2063:LEU:HD23	2.55	0.40
1:C:2129:ASP:HB2	1:C:3669:PHE:CE1	2.56	0.40
1:C:2159:LEU:HA	1:C:2162:ILE:HG22	2.03	0.40
1:C:2293:GLN:O	1:C:2296:GLU:HB2	2.21	0.40
1:C:233:ILE:HD12	1:C:242:ARG:HG2	2.02	0.40
1:C:2754:PHE:CZ	1:C:2930:LEU:HD23	2.57	0.40
1:C:3705:PHE:CD1	1:C:3722:TYR:HD1	2.39	0.40
1:C:4115:SER:HA	1:C:4128:PHE:CD1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4229:GLU:O	1:C:4232:GLU:HB3	2.21	0.40
1:C:4774:LYS:HA	1:C:4777:ILE:HG22	2.03	0.40
1:C:4851:TYR:CE1	1:C:4920:PHE:HB2	2.56	0.40
1:C:74:SER:O	1:C:78:LEU:N	2.41	0.40
1:C:752:VAL:HA	1:C:753:PRO:HD3	1.80	0.40
1:E:46:LEU:HD13	1:E:125:ARG:HH22	1.86	0.40
1:E:1519:LEU:HD13	1:E:1527:MET:HG2	2.02	0.40
1:E:2126:ARG:CZ	1:E:2133:GLU:OE2	2.69	0.40
1:E:2773:ASN:HD22	1:E:2775:TRP:HE1	1.69	0.40
1:E:4053:SER:O	1:E:4057:MET:HG2	2.21	0.40
1:E:4089:SER:HA	1:E:4122:MET:HA	2.04	0.40
1:E:4242:ILE:HG12	1:E:4993:MET:HG2	2.04	0.40
1:E:4931:ILE:HG21	1:E:4931:ILE:HD13	1.74	0.40
1:E:4036:VAL:HG23	1:E:5032:TYR:CD2	2.57	0.40
1:E:882:TRP:CZ3	1:E:907:LEU:HD23	2.56	0.40
1:G:2793:PRO:O	1:G:2796:THR:OG1	2.19	0.40
1:G:3995:VAL:O	1:G:3999:MET:HB3	2.22	0.40
1:G:4794:TRP:O	1:G:4797:VAL:HG12	2.21	0.40
1:G:4833:ASN:O	1:G:4837:LEU:N	2.54	0.40
1:G:554:LEU:HG	1:G:593:HIS:HE1	1.86	0.40
2:H:16:PRO:HD2	2:H:64:ALA:HA	2.04	0.40
1:A:1085:SER:O	1:A:1088:TRP:NE1	2.40	0.40
1:A:107:ILE:HD12	1:A:109:LEU:HD21	2.03	0.40
1:A:1280:GLN:O	1:A:1559:GLN:NE2	2.54	0.40
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.56	0.40
1:A:3710:LEU:HA	1:A:3710:LEU:HD23	1.90	0.40
1:A:375:LYS:NZ	1:A:377:ILE:HG22	2.36	0.40
1:A:4937:ILE:HG12	1:C:4934:GLY:CA	2.49	0.40
2:B:87:HIS:CE1	2:B:90:ILE:HD13	2.56	0.40
1:C:2205:GLU:OE1	1:C:2253:HIS:NE2	2.54	0.40
1:C:2121:PHE:CG	1:C:3701:LEU:HD12	2.56	0.40
1:C:3752:SER:O	1:C:3756:LYS:HB2	2.21	0.40
1:C:4779:LYS:O	1:C:4783:ILE:HG13	2.21	0.40
1:E:1829:PRO:HD2	1:E:1832:GLY:HA2	2.03	0.40
1:E:1841:VAL:O	1:E:1845:VAL:HG23	2.21	0.40
1:E:1745:ILE:HD12	1:E:1960:ALA:HB2	2.02	0.40
1:E:2129:ASP:HB2	1:E:3669:PHE:CE1	2.56	0.40
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.56	0.40
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.57	0.40
1:E:345:LEU:HD13	1:E:387:ALA:HB1	2.02	0.40
1:E:3884:LEU:O	1:E:3887:PHE:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4156:HIS:O	1:E:4156:HIS:ND1	2.54	0.40
1:E:4229:GLU:O	1:E:4232:GLU:HB3	2.21	0.40
1:E:4779:LYS:O	1:E:4783:ILE:HG13	2.21	0.40
1:E:925:SER:O	1:E:929:LEU:HG	2.21	0.40
1:G:1436:SER:N	1:G:1516:ILE:HA	2.31	0.40
1:G:1519:LEU:HD13	1:G:1527:MET:HG2	2.02	0.40
1:G:1856:ASP:O	1:G:1860:LYS:HG3	2.22	0.40
1:G:2495:VAL:N	1:G:2496:PRO:HD2	2.36	0.40
1:G:4154:VAL:HG13	1:G:4154:VAL:O	2.22	0.40
1:G:4662:ASN:HA	1:G:4666:VAL:HG21	2.03	0.40
1:G:4809:PHE:O	1:G:4812:HIS:ND1	2.38	0.40
1:G:649:PHE:HE1	1:G:689:THR:HG22	1.82	0.40
1:A:1126:GLY:HA2	1:A:1143:TRP:NE1	2.36	0.40
1:A:1695:LEU:O	1:A:1699:GLU:HG3	2.21	0.40
1:A:2293:GLN:O	1:A:2296:GLU:HB2	2.21	0.40
1:A:2451:LEU:O	1:A:2454:ARG:HB3	2.22	0.40
1:A:2813:LEU:HD22	1:A:2823:ILE:HD13	2.03	0.40
1:A:4671:PHE:CE1	1:A:4715:TYR:HA	2.57	0.40
1:A:855:PRO:HD3	1:A:994:ASN:HB3	2.03	0.40
1:C:135:VAL:HG21	1:C:191:VAL:HG12	2.03	0.40
1:C:4776:GLN:HA	1:C:4779:LYS:HG2	2.03	0.40
1:A:4940:PHE:HD2	1:C:4938:ASP:OD2	2.02	0.40
2:D:46:PHE:CE2	2:D:48:PHE:CD1	3.09	0.40
1:E:107:ILE:HD12	1:E:109:LEU:HD21	2.03	0.40
1:E:1514:LEU:HD12	1:E:1533:GLY:HA3	2.03	0.40
1:E:1585:LYS:CB	1:E:1587:PRO:HD2	2.51	0.40
1:E:2208:MET:O	1:E:2212:VAL:HG23	2.22	0.40
1:E:2208:MET:O	1:E:2211:MET:HB3	2.22	0.40
1:E:2813:LEU:HD22	1:E:2823:ILE:HD13	2.03	0.40
1:E:3705:PHE:CD1	1:E:3722:TYR:HD1	2.39	0.40
1:E:3878:ASP:OD2	1:E:3953:LYS:HE3	2.22	0.40
1:E:4667:PRO:O	1:E:4670:ILE:HG22	2.22	0.40
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	2.04	0.40
1:E:916:PRO:O	1:E:919:ASN:HB2	2.21	0.40
1:G:1024:TYR:CE1	1:G:1032:LYS:HG3	2.57	0.40
1:G:1126:GLY:HA2	1:G:1143:TRP:NE1	2.37	0.40
1:G:1514:LEU:C	1:G:1515:VAL:CG2	2.89	0.40
1:G:135:VAL:HG21	1:G:191:VAL:HG12	2.03	0.40
1:G:3462:ASN:O	1:G:3466:ASN:N	2.50	0.40
1:G:3884:LEU:O	1:G:3887:PHE:HB3	2.22	0.40
1:A:4879:MET:CG	1:G:4578:LEU:HA	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4715:TYR:CD2	1:G:4717:ASP:HB3	2.57	0.40
1:G:404:ILE:HG12	1:G:478:PHE:CD1	2.57	0.40
1:G:521:LEU:O	1:G:525:LEU:N	2.46	0.40
1:G:685:GLY:O	1:G:780:VAL:HB	2.21	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	3496/5037 (69%)	3173 (91%)	220 (6%)	103 (3%)	6	45
1	C	3496/5037 (69%)	3169 (91%)	223 (6%)	104 (3%)	5	45
1	E	3496/5037 (69%)	3169 (91%)	223 (6%)	104 (3%)	5	45
1	G	3496/5037 (69%)	3169 (91%)	226 (6%)	101 (3%)	6	45
2	B	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	19	65
2	D	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	19	65
2	F	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	19	65
2	H	105/108 (97%)	89 (85%)	15 (14%)	1 (1%)	19	65
All	All	14404/20580 (70%)	13045 (91%)	943 (6%)	416 (3%)	9	45

All (416) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	689	THR
1	A	720	HIS
1	A	806	PRO
1	A	916	PRO
1	A	1253	PRO
1	A	1589	PRO

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Mol	Chain	Res	Type
1	A	1768	THR
1	A	1853	ILE
1	A	2203	MET
1	A	2466	LEU
1	A	4084	PRO
1	A	4958	CYS
1	C	689	THR
1	C	720	HIS
1	C	806	PRO
1	C	916	PRO
1	C	1253	PRO
1	C	1589	PRO
1	C	1768	THR
1	C	1853	ILE
1	C	2203	MET
1	C	2466	LEU
1	C	4084	PRO
1	C	4958	CYS
1	E	689	THR
1	E	720	HIS
1	E	806	PRO
1	E	916	PRO
1	E	1253	PRO
1	E	1589	PRO
1	E	1768	THR
1	E	1853	ILE
1	E	2203	MET
1	E	2466	LEU
1	E	4084	PRO
1	E	4958	CYS
1	G	689	THR
1	G	720	HIS
1	G	806	PRO
1	G	916	PRO
1	G	1253	PRO
1	G	1589	PRO
1	G	1768	THR
1	G	1853	ILE
1	G	2203	MET
1	G	2466	LEU
1	G	3679	LYS
1	G	3843	ASP

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Mol	Chain	Res	Type
1	G	4084	PRO
1	G	4115	SER
1	G	4958	CYS
1	G	4985	LEU
1	A	207	SER
1	A	251	ALA
1	A	508	GLY
1	A	581	ASN
1	A	817	PRO
1	A	882	TRP
1	A	1542	VAL
1	A	1544	PRO
1	A	1854	PHE
1	A	2110	TYR
1	A	2341	VAL
1	A	2560	PRO
1	A	3679	LYS
1	A	3714	SER
1	A	3843	ASP
1	A	3894	GLY
1	A	3906	GLN
1	A	4031	LEU
1	A	4076	ALA
1	A	4085	ARG
1	A	4115	SER
1	A	4207	MET
1	A	4208	PRO
1	A	4733	GLY
1	A	4875	LYS
1	A	4893	ALA
1	A	4894	GLY
1	A	5027	CYS
2	B	88	PRO
1	C	251	ALA
1	C	508	GLY
1	C	581	ASN
1	C	817	PRO
1	C	882	TRP
1	C	1542	VAL
1	C	1544	PRO
1	C	1854	PHE
1	C	2110	TYR

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Mol	Chain	Res	Type
1	C	2341	VAL
1	C	2560	PRO
1	C	3679	LYS
1	C	3714	SER
1	C	3843	ASP
1	C	3894	GLY
1	C	3906	GLN
1	C	4031	LEU
1	C	4076	ALA
1	C	4085	ARG
1	C	4115	SER
1	C	4207	MET
1	C	4208	PRO
1	C	4733	GLY
1	C	4875	LYS
1	C	4894	GLY
1	C	5027	CYS
2	D	88	PRO
1	E	251	ALA
1	E	508	GLY
1	E	581	ASN
1	E	817	PRO
1	E	882	TRP
1	E	1542	VAL
1	E	1544	PRO
1	E	1854	PHE
1	E	2110	TYR
1	E	2341	VAL
1	E	2560	PRO
1	E	3679	LYS
1	E	3714	SER
1	E	3843	ASP
1	E	3894	GLY
1	E	3906	GLN
1	E	4031	LEU
1	E	4076	ALA
1	E	4085	ARG
1	E	4115	SER
1	E	4207	MET
1	E	4208	PRO
1	E	4733	GLY
1	E	4875	LYS

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Mol	Chain	Res	Type
1	E	4893	ALA
1	E	4894	GLY
1	E	5027	CYS
2	F	88	PRO
1	G	207	SER
1	G	251	ALA
1	G	508	GLY
1	G	581	ASN
1	G	817	PRO
1	G	882	TRP
1	G	1542	VAL
1	G	1544	PRO
1	G	1854	PHE
1	G	2110	TYR
1	G	2341	VAL
1	G	2560	PRO
1	G	3714	SER
1	G	3806	ASN
1	G	3894	GLY
1	G	3906	GLN
1	G	4031	LEU
1	G	4076	ALA
1	G	4085	ARG
1	G	4207	MET
1	G	4208	PRO
1	G	4733	GLY
1	G	4875	LYS
1	G	4890	GLY
1	G	4894	GLY
1	G	5027	CYS
2	H	88	PRO
1	A	401	ALA
1	A	609	CYS
1	A	676	THR
1	A	753	PRO
1	A	767	VAL
1	A	827	LYS
1	A	828	GLU
1	A	908	VAL
1	A	970	LEU
1	A	1156	THR
1	A	1294	PRO

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Mol	Chain	Res	Type
1	A	1436	SER
1	A	1489	CYS
1	A	1560	ASN
1	A	1606	SER
1	A	1611	HIS
1	A	1676	LEU
1	A	1690	ASP
1	A	1825	HIS
1	A	2360	LYS
1	A	2826	ALA
1	A	3721	LEU
1	A	3806	ASN
1	A	3809	ASN
1	A	4036	VAL
1	A	4120	ASN
1	A	4550	LYS
1	A	4728	HIS
1	A	4959	PHE
1	A	4985	LEU
1	C	44	ASN
1	C	207	SER
1	C	401	ALA
1	C	609	CYS
1	C	676	THR
1	C	753	PRO
1	C	767	VAL
1	C	827	LYS
1	C	828	GLU
1	C	908	VAL
1	C	970	LEU
1	C	1156	THR
1	C	1294	PRO
1	C	1436	SER
1	C	1489	CYS
1	C	1560	ASN
1	C	1606	SER
1	C	1611	HIS
1	C	1676	LEU
1	C	1690	ASP
1	C	1825	HIS
1	C	2360	LYS
1	C	2826	ALA

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Mol	Chain	Res	Type
1	C	3721	LEU
1	C	3806	ASN
1	C	3809	ASN
1	C	4036	VAL
1	C	4120	ASN
1	C	4550	LYS
1	C	4728	HIS
1	C	4893	ALA
1	C	4959	PHE
1	C	4985	LEU
1	E	44	ASN
1	E	207	SER
1	E	401	ALA
1	E	609	CYS
1	E	676	THR
1	E	753	PRO
1	E	767	VAL
1	E	827	LYS
1	E	828	GLU
1	E	908	VAL
1	E	970	LEU
1	E	1156	THR
1	E	1294	PRO
1	E	1436	SER
1	E	1458	HIS
1	E	1489	CYS
1	E	1560	ASN
1	E	1606	SER
1	E	1611	HIS
1	E	1676	LEU
1	E	1690	ASP
1	E	1825	HIS
1	E	2360	LYS
1	E	2826	ALA
1	E	3721	LEU
1	E	3806	ASN
1	E	3809	ASN
1	E	4036	VAL
1	E	4120	ASN
1	E	4550	LYS
1	E	4728	HIS
1	E	4959	PHE

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Mol	Chain	Res	Type
1	E	4985	LEU
1	G	44	ASN
1	G	401	ALA
1	G	609	CYS
1	G	676	THR
1	G	753	PRO
1	G	767	VAL
1	G	827	LYS
1	G	828	GLU
1	G	908	VAL
1	G	970	LEU
1	G	1156	THR
1	G	1294	PRO
1	G	1436	SER
1	G	1489	CYS
1	G	1560	ASN
1	G	1606	SER
1	G	1611	HIS
1	G	1676	LEU
1	G	1690	ASP
1	G	1825	HIS
1	G	2360	LYS
1	G	3721	LEU
1	G	3809	ASN
1	G	4120	ASN
1	G	4550	LYS
1	G	4959	PHE
1	A	24	CYS
1	A	44	ASN
1	A	56	GLN
1	A	342	GLY
1	A	700	GLU
1	A	826	ILE
1	A	915	GLU
1	A	1206	GLN
1	A	1251	GLU
1	A	1482	ASN
1	A	1487	LEU
1	A	1614	GLN
1	A	2107	GLN
1	A	2113	SER
1	A	4052	SER

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Mol	Chain	Res	Type
1	C	24	CYS
1	C	56	GLN
1	C	342	GLY
1	C	700	GLU
1	C	826	ILE
1	C	915	GLU
1	C	1206	GLN
1	C	1251	GLU
1	C	1482	ASN
1	C	1487	LEU
1	C	1614	GLN
1	C	2107	GLN
1	C	2113	SER
1	C	4052	SER
1	E	24	CYS
1	E	56	GLN
1	E	342	GLY
1	E	700	GLU
1	E	826	ILE
1	E	915	GLU
1	E	1206	GLN
1	E	1251	GLU
1	E	1482	ASN
1	E	1487	LEU
1	E	1614	GLN
1	E	2107	GLN
1	E	2113	SER
1	E	3941	ASP
1	E	4052	SER
1	G	24	CYS
1	G	56	GLN
1	G	342	GLY
1	G	700	GLU
1	G	826	ILE
1	G	915	GLU
1	G	1206	GLN
1	G	1251	GLU
1	G	1482	ASN
1	G	1487	LEU
1	G	1614	GLN
1	G	2107	GLN
1	G	2113	SER

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Mol	Chain	Res	Type
1	G	2826	ALA
1	G	3792	ALA
1	G	3941	ASP
1	G	4893	ALA
1	A	360	ALA
1	A	611	GLY
1	A	1830	VAL
1	A	2377	LEU
1	A	2495	VAL
1	A	3905	THR
1	A	3941	ASP
1	A	4876	CYS
1	C	360	ALA
1	C	611	GLY
1	C	1218	GLY
1	C	1830	VAL
1	C	2377	LEU
1	C	2495	VAL
1	C	2926	LEU
1	C	3905	THR
1	C	3941	ASP
1	C	4876	CYS
1	E	360	ALA
1	E	611	GLY
1	E	1218	GLY
1	E	1830	VAL
1	E	2377	LEU
1	E	3905	THR
1	E	4876	CYS
1	G	360	ALA
1	G	611	GLY
1	G	1218	GLY
1	G	1830	VAL
1	G	2377	LEU
1	G	2495	VAL
1	G	3905	THR
1	A	691	GLY
1	A	1218	GLY
1	A	4819	GLY
1	A	4890	GLY
1	C	691	GLY
1	C	4819	GLY

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Mol	Chain	Res	Type
1	E	691	GLY
1	E	2495	VAL
1	E	4819	GLY
1	G	691	GLY
1	A	865	PRO
1	A	1762	LEU
1	C	865	PRO
1	C	896	VAL
1	C	1762	LEU
1	C	4890	GLY
1	E	865	PRO
1	E	1762	LEU
1	E	4890	GLY
1	G	865	PRO
1	G	1762	LEU
1	A	896	VAL
1	A	1141	ARG
1	A	2343	GLY
1	C	1141	ARG
1	C	2343	GLY
1	E	896	VAL
1	E	1141	ARG
1	E	2343	GLY
1	G	896	VAL
1	G	1141	ARG
1	G	2343	GLY
1	G	3826	VAL
1	C	1053	ILE
1	E	1053	ILE
1	G	1053	ILE
1	A	1053	ILE
1	G	4036	VAL

### 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	
1	A	2500/4276 (58%)	2486 (99%)	14 (1%)	90	95
1	C	2501/4276 (58%)	2487 (99%)	14 (1%)	90	95
1	E	2502/4276 (58%)	2486 (99%)	16 (1%)	90	95
1	G	2501/4276 (58%)	2482 (99%)	19 (1%)	86	93
2	B	89/90 (99%)	89 (100%)	0	100	100
2	D	89/90 (99%)	89 (100%)	0	100	100
2	F	89/90 (99%)	89 (100%)	0	100	100
2	H	89/90 (99%)	89 (100%)	0	100	100
All	All	10360/17464 (59%)	10297 (99%)	63 (1%)	91	95

All (63) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	806	PRO
1	A	852	VAL
1	A	862	VAL
1	A	865	PRO
1	A	885	THR
1	A	896	VAL
1	A	914	PRO
1	A	916	PRO
1	A	979	PRO
1	A	1055	PRO
1	A	1513	ASP
1	A	1829	PRO
1	A	1934	SER
1	A	4850	LEU
1	C	806	PRO
1	C	859	VAL
1	C	862	VAL
1	C	865	PRO
1	C	885	THR
1	C	914	PRO
1	C	916	PRO
1	C	979	PRO
1	C	1001	VAL
1	C	1055	PRO
1	C	1514	LEU
1	C	1829	PRO
1	C	1934	SER

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Mol	Chain	Res	Type
1	C	4850	LEU
1	E	806	PRO
1	E	852	VAL
1	E	865	PRO
1	E	885	THR
1	E	896	VAL
1	E	914	PRO
1	E	916	PRO
1	E	979	PRO
1	E	1001	VAL
1	E	1055	PRO
1	E	1513	ASP
1	E	1514	LEU
1	E	1829	PRO
1	E	1934	SER
1	E	4072	VAL
1	E	4850	LEU
1	G	806	PRO
1	G	852	VAL
1	G	859	VAL
1	G	862	VAL
1	G	865	PRO
1	G	885	THR
1	G	896	VAL
1	G	914	PRO
1	G	916	PRO
1	G	979	PRO
1	G	1055	PRO
1	G	1513	ASP
1	G	1514	LEU
1	G	1829	PRO
1	G	1934	SER
1	G	3926	LEU
1	G	4233	LEU
1	G	4796	MET
1	G	4850	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (152) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	57	ASN
1	A	111	HIS

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Mol	Chain	Res	Type
1	A	113	HIS
1	A	203	ASN
1	A	349	GLN
1	A	379	HIS
1	A	395	GLN
1	A	465	GLN
1	A	495	ASN
1	A	593	HIS
1	A	765	GLN
1	A	1127	HIS
1	A	1203	ASN
1	A	1252	HIS
1	A	1274	HIS
1	A	1460	HIS
1	A	1586	ASN
1	A	1610	ASN
1	A	1629	GLN
1	A	1631	GLN
1	A	1645	ASN
1	A	1663	HIS
1	A	1691	GLN
1	A	1693	GLN
1	A	1775	HIS
1	A	1949	GLN
1	A	1952	GLN
1	A	2127	GLN
1	A	2247	GLN
1	A	2420	HIS
1	A	2856	ASN
1	A	3699	HIS
1	A	3700	GLN
1	A	3771	HIS
1	A	3813	GLN
1	A	4806	ASN
1	A	5031	GLN
2	B	87	HIS
1	C	57	ASN
1	C	111	HIS
1	C	113	HIS
1	C	203	ASN
1	C	349	GLN
1	C	379	HIS

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Mol	Chain	Res	Type
1	C	395	GLN
1	C	465	GLN
1	C	495	ASN
1	C	593	HIS
1	C	765	GLN
1	C	1127	HIS
1	C	1203	ASN
1	C	1252	HIS
1	C	1274	HIS
1	C	1586	ASN
1	C	1629	GLN
1	C	1631	GLN
1	C	1645	ASN
1	C	1663	HIS
1	C	1691	GLN
1	C	1693	GLN
1	C	1775	HIS
1	C	1949	GLN
1	C	1952	GLN
1	C	2127	GLN
1	C	2247	GLN
1	C	2420	HIS
1	C	2856	ASN
1	C	3699	HIS
1	C	3700	GLN
1	C	3771	HIS
1	C	3813	GLN
1	C	4806	ASN
1	C	5031	GLN
2	D	87	HIS
1	E	57	ASN
1	E	111	HIS
1	E	113	HIS
1	E	203	ASN
1	E	349	GLN
1	E	379	HIS
1	E	395	GLN
1	E	465	GLN
1	E	495	ASN
1	E	593	HIS
1	E	765	GLN
1	E	1127	HIS

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Mol	Chain	Res	Type
1	E	1203	ASN
1	E	1252	HIS
1	E	1274	HIS
1	E	1586	ASN
1	E	1610	ASN
1	E	1629	GLN
1	E	1631	GLN
1	E	1645	ASN
1	E	1663	HIS
1	E	1691	GLN
1	E	1693	GLN
1	E	1775	HIS
1	E	1949	GLN
1	E	1952	GLN
1	E	2127	GLN
1	E	2246	ASN
1	E	2247	GLN
1	E	2420	HIS
1	E	2856	ASN
1	E	3699	HIS
1	E	3700	GLN
1	E	3771	HIS
1	E	3813	GLN
1	E	4806	ASN
1	E	5031	GLN
2	F	87	HIS
1	G	57	ASN
1	G	111	HIS
1	G	113	HIS
1	G	203	ASN
1	G	349	GLN
1	G	379	HIS
1	G	395	GLN
1	G	465	GLN
1	G	495	ASN
1	G	593	HIS
1	G	765	GLN
1	G	1127	HIS
1	G	1203	ASN
1	G	1252	HIS
1	G	1274	HIS
1	G	1586	ASN

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Mol	Chain	Res	Type
1	G	1610	ASN
1	G	1629	GLN
1	G	1631	GLN
1	G	1645	ASN
1	G	1663	HIS
1	G	1691	GLN
1	G	1693	GLN
1	G	1775	HIS
1	G	1949	GLN
1	G	1952	GLN
1	G	2125	HIS
1	G	2127	GLN
1	G	2247	GLN
1	G	2420	HIS
1	G	2856	ASN
1	G	3699	HIS
1	G	3700	GLN
1	G	3767	GLN
1	G	3771	HIS
1	G	4806	ASN
1	G	4833	ASN
1	G	4984	ASN
1	G	5031	GLN
2	H	87	HIS

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

### 5.6 Ligand geometry ⓘ

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.