



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 28, 2026 – 07:57 PM UTC

PDB ID : 2UV8 / pdb_00002uv8
Title : Crystal structure of yeast fatty acid synthase with stalled acyl carrier protein at 3.1 angstrom resolution
Authors : Leibundgut, M.; Jenni, S.; Frick, C.; Ban, N.
Deposited on : 2007-03-09
Resolution : 3.10 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

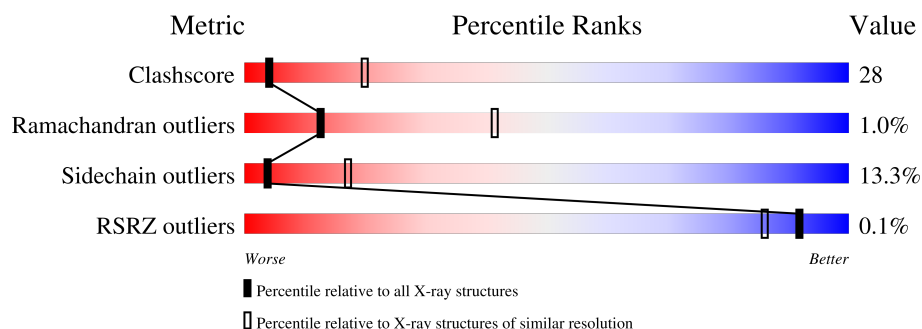
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	190562	1539 (3.10-3.10)
Ramachandran outliers	187476	1467 (3.10-3.10)
Sidechain outliers	187428	1467 (3.10-3.10)
RSRZ outliers	180081	1456 (3.10-3.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1887	
1	B	1887	
1	C	1887	
2	G	2051	
2	H	2051	
2	I	2051	

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 85962 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called FATTY ACID SYNTHASE SUBUNIT ALPHA (FAS2).

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	1614	Total	C	N	O	P	S	0	0	0
			12628	8003	2128	2448	1	48			
1	B	1614	Total	C	N	O	P	S	0	0	0
			12628	8003	2128	2448	1	48			
1	C	1614	Total	C	N	O	P	S	0	0	0
			12628	8003	2128	2448	1	48			

- Molecule 2 is a protein called FATTY ACID SYNTHASE SUBUNIT BETA (FAS1).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	G	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	H	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			
2	I	2033	Total	C	N	O	S	0	0	0
			15995	10253	2660	3026	56			

- Molecule 3 is FLAVIN MONONUCLEOTIDE (CCD ID: FMN) (formula: C₁₇H₂₁N₄O₉P).

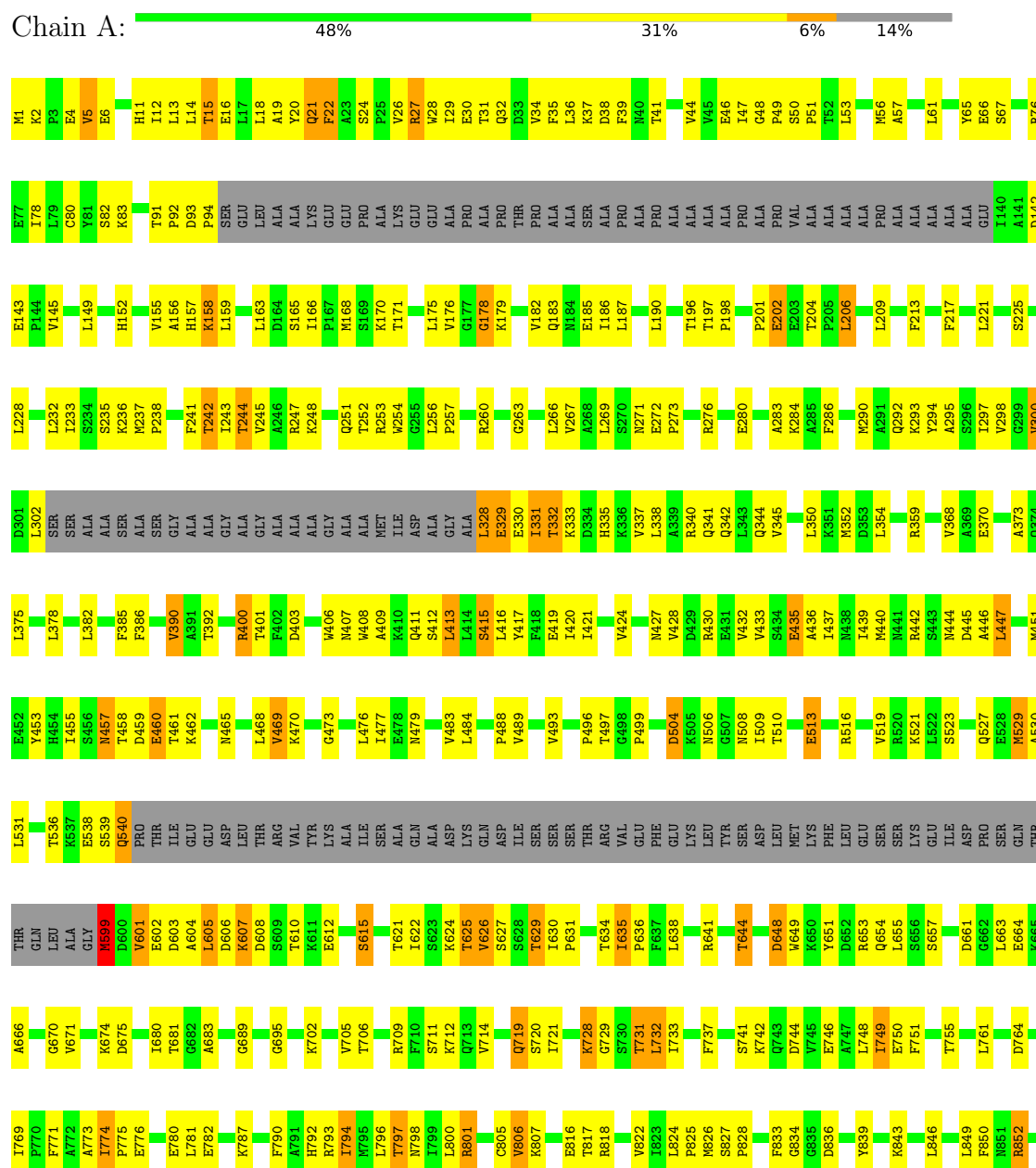


Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	G	1	Total	C	N	O	P	0	0
			31	17	4	9	1		
3	H	1	Total	C	N	O	P	0	0
			31	17	4	9	1		
3	I	1	Total	C	N	O	P	0	0
			31	17	4	9	1		

3 Residue-property plots

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

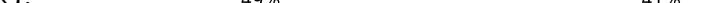
• Molecule 1: FATTY ACID SYNTHASE SUBUNIT ALPHA (FAS2)



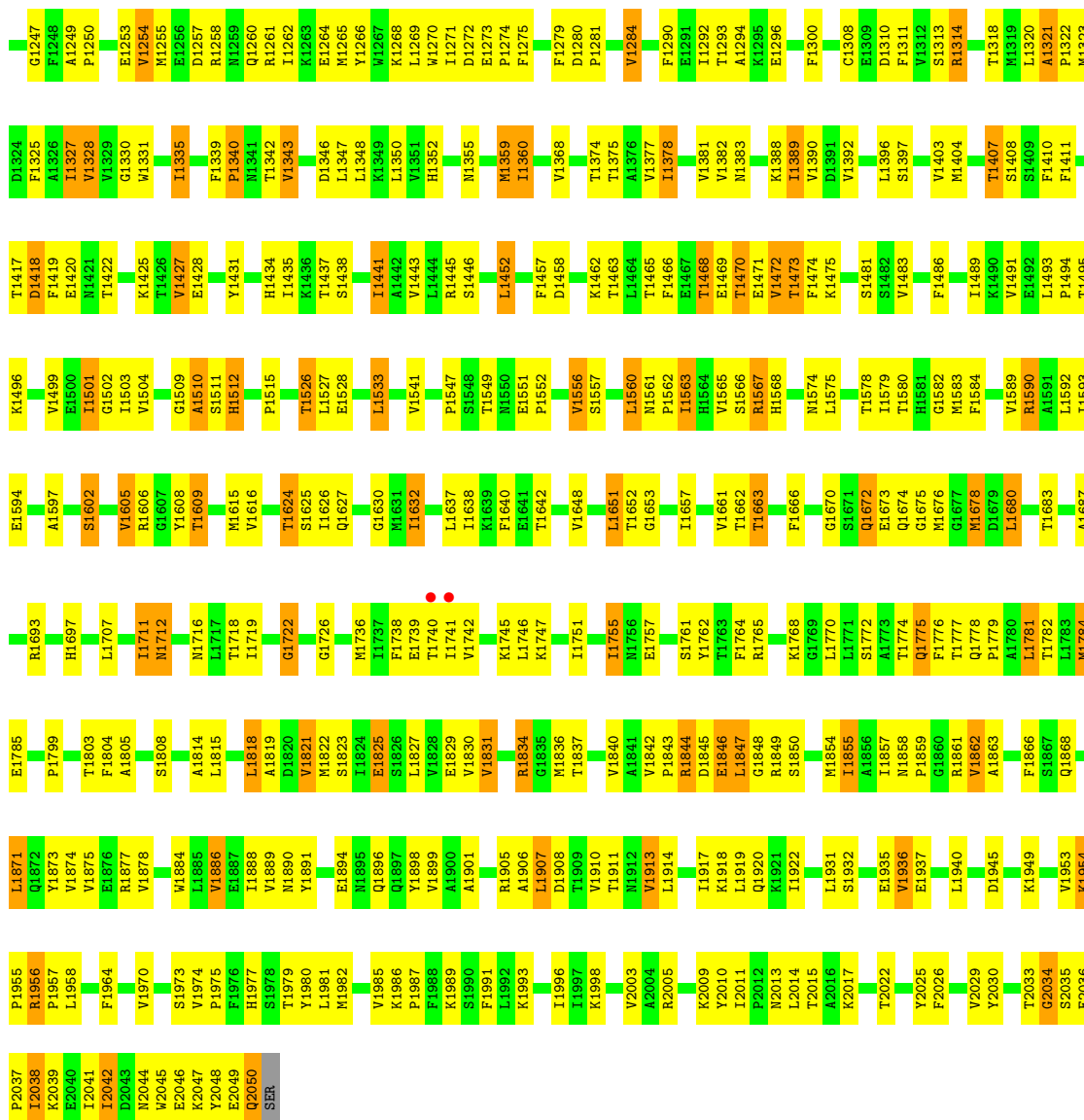


[illegible]

- Molecule 2: FATTY ACID SYNTHASE SUBUNIT BETA (FAS1)

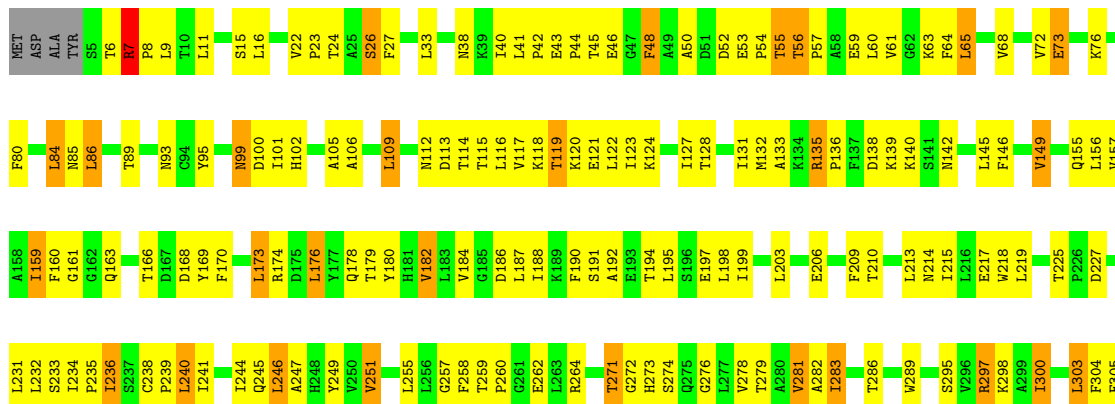
Chain G:  49% 41% 9%

M1168	K1096	L1021	W938	E852	G772	L703	Y624	M558	V480	K397	P315	P235	G162	T89	MET
P1169	P1097	R1024	F939	P853	S773	G704	G629	W561	D481	A398	P315	I236	Q163	T89	ASP
R1170	P1098	F1025	F939	R854	A774	L705	G630	W562	C482	A398	S318	S237	T166	N93	ALA
K1171	A1098	E1026	T942	R855	D775	K706	T631	L562	I483	L402	L319	P239	D167	C94	TYR
K1172	A1099	E1027	W943	K856	D776	P707	A632	Y565	I494	D403	P320	L240	D168	Y95	S5
F1173	E1101	I1027	R944	R857	T777	A712	A633	Y566	R485	Q404	P321	I241	Y169	R7	T6
K1174	Y1102	K1031	T945	R858	Y780	S713	L634	L569	L486	F416	L324	I244	F170	N99	P8
P1176	F1103	D1032	T946	R859	S714	S714	V638	J570	P487	S417	L324	I244	D100	D100	L9
S1177	T859	R860	T947	R860	W785	Q715	V638	L570	V488	N418	L328	I246	I101	H102	L11
M1180	P1108	L1040	G948	D949	S786	W716	I641	N572	K489	R419	L328	Q245	L173	L11	L11
V1181	V1109	A1042	F950	K866	T787	W717	S642	K573	E491	F420	E332	A247	D175	A105	S15
I1184	ASP	V1043	L951	E867	K788	I719	K643	S574	T492	L421	P335	H248	L176	A106	L16
T1189	VAL	V1044	R952	D869	F789	A720	G644	K575	T493	P422	P335	Y249	Y177		
V1190	GLN	D1045	R953	E870	D790	K721	S645	K576	T494	V423	P335	V251	Q178		
T1199	SER	Q1046	E954	E871	F791	A722	S645	K577	F496	V423	P335	V251	Q179		
V1194	GLN	D1047	E955	T871	F792	H723	G648	F578	F496	A424	M338	V251	Q178		
V1195	VAL	V1048	F956	L872	F793	H723	G648	V579	T499	S425	M339	L255	Q178		
V1196	ASP	Q1049	R957	F873	K794	F726	L649	F580	T499	P426	L339	L255	Q178		
V1197	SER	K879	K960	K879	F795	F727	L650	T581	H500	F427	S340	L256	Q178		
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S1198	SER	C1052	K960	K887	F797	A729	V653	F583	L502	H428	S342	L256	Q178		
E1199	VAL	I1053	L964	K888	D797	V654	V654	S584	D503	H430	N343	L256	Q178		
L1205	SER	L1054	L964	K888	F798	L730	V654	K585	F504	L431	T345	G261	Q178		
K1206	GLU	H1055	L967	K888	F799	Q731	V654	L586	G505	L432	Q346	E262	Q178		
K1206	GLU	H1055	L967	K888	F799	Q731	V654	L586	G505	L432	Q346	E262	Q178		
L1210	ASP	G1056	Q968	L894	K794	W732	V654	L587	P506	L432	E347	L283	Q178		
L1211	SER	P1057	Q968	L894	K794	W732	V654	L587	P506	L432	E347	L283	Q178		
L1211	SER	P1057	Q968	L894	K794	W732	V654	L587	P506	L432	E347	L283	Q178		
L1212	ASP	G1057	Q968	L894	K794	W732	V654	L587	P506	L432	E347	L283	Q178		
L1212	ASP	G1057	Q968	L894	K794	W732	V654	L587	P506	L432	E347	L283	Q178		
L1213	SER	C1052	K960	K887	F796	W728	V653	F583	D503	H430	N343	L256	Q178		
L1214	VAL	I1053	L964	K888	D797	V654	V654	K585	F504	L431	T345	G261	Q178		
L1217	SER	L1054	L964	K888	F798	L730	V654	L586	G505	L432	Q346	E262	Q178		
L1218	SER	L1054	L964	K888	F798	L730	V654	L586	G505	L432	Q346	E262	Q178		
L1219	SER	L1054	L964	K888	F798	L730	V654	L586	G505	L432	Q346	E262	Q178		
L1220	SER	L1054	L964	K888	F798	L730	V654	L586	G505	L432	Q346	E262	Q178		
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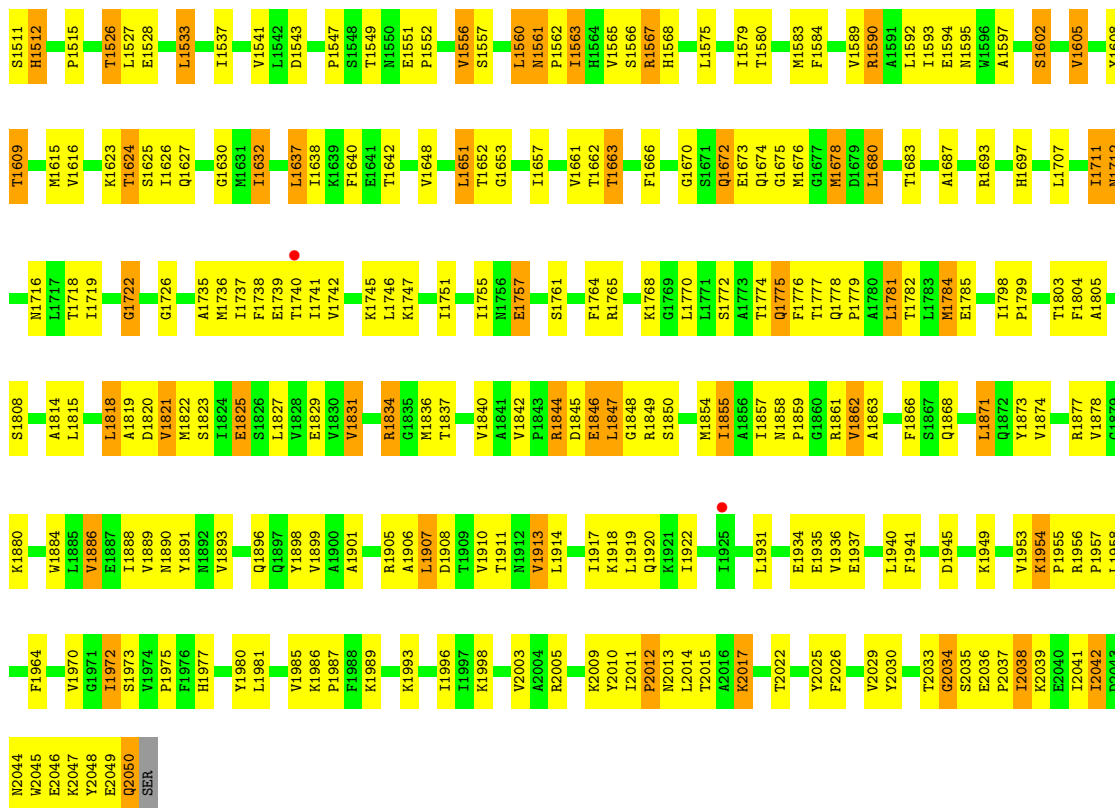


- Molecule 2: FATTY ACID SYNTHASE SUBUNIT BETA (FAS1)

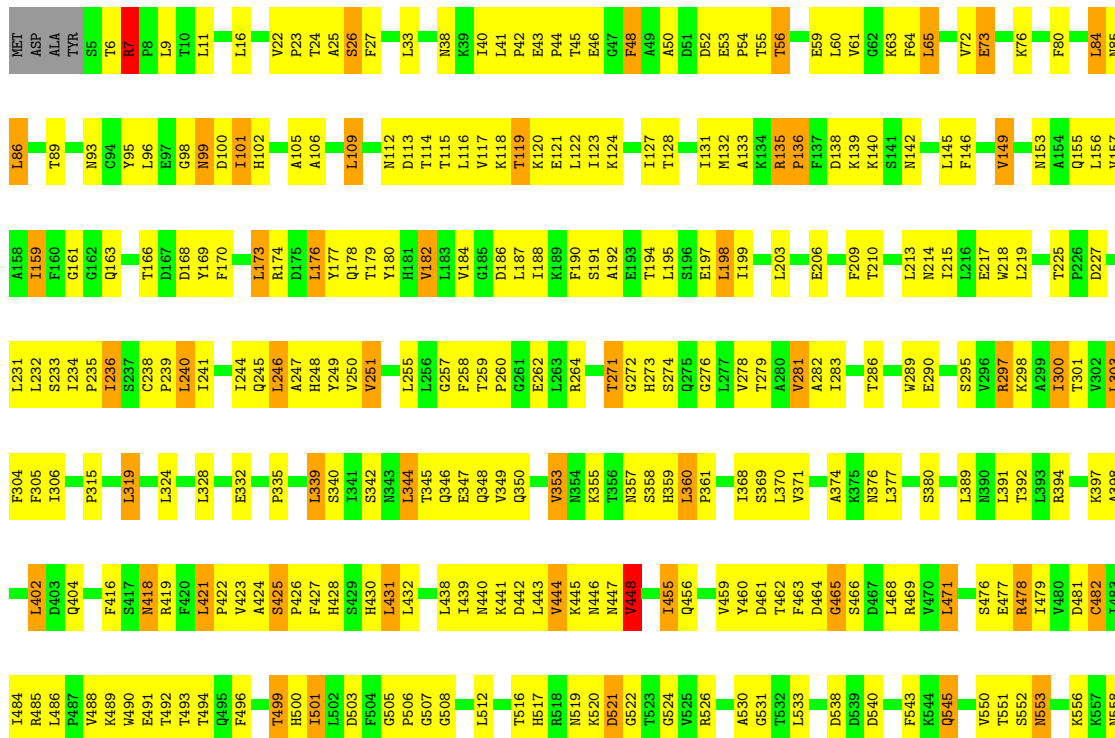
Chain H: 49% 41% 9%



K1425	I1338	R1258	S1177	E1101	F1025	F939	P953	T777	P707	T631	E563	R485	L402	I306
V1426	F1339	N1259	M1180	Y1102	I1027	T942	I854	Y778	A712	A632	Y565	L486	D403	R309
E1428	P1340	Q1260	V1181	F1103	E1026	W943	H855	Y780	I713	I634	E663	P487	Q404	
Y1431	N1341	R1262	I1184	S1107	K1031	R944	I857	K356	S714	V638	L569	K489	F416	P315
	V1343	K1263	I1189	P1108	D1032	T945	A858	E784	Q715			W490	S417	
H1434	D1346	E1264	T1189	V1109	L1040	F946	T859	S786	W716			E491	N418	L319
L1435	L1347	M1265		ASP	E1041	T947	R860	W785	I717			T492	R419	
K1436	L1348	Y1266	V1194	VAL	A1042	G948	G948	T787	W718			T493	F420	L324
T1437	K1349	K1267	V1195	GLN	V1043	D949	W865	K788	T719			T494	L421	
S1438	L1350	L1268	T1196	GLN	F1044	F950	K866	F789	A720			Q495	P422	L328
	V1351	W1270	L1197	GLN	V1045	L951	E867	D790	W721			F496	V423	
I1441	H1352	D1271	L1198	VAL	D1045	R952	F868	Y791	A722			T499	A424	E532
V1442	N1355	E1272	E1199	ASP	Q1046	R953	D869	F792	H723			H500	P426	P335
L1443	M1359	E1273	L1205	SER	V1048	E955	E870	W794	F726			I501	S425	
R1445	I1360	P1274	K1206	SER	Q1049	K960	I872	F795	P727			L502	H428	M338
S1446	V1368	F1275		VAL	R1050	S961	F873	F796	I728			D503	F427	L339
	T1374			SER	T1051	K962	K379	D797	A729			F504		S340
L1452	T1375	V1284	L1214	GLU	C1052	T963	L880	G798	L730			G505	L431	
F1457	T1376	D1280	K1212	D1123	L1054	L964	W881	L800	Q731			P506	L432	I341
D1458	A1376	P1281	L1213		H1055		P882		W732			G507	P434	N343
K1462	I1292	I1217	L1218	K1128		T967	K887	R804	T733			G508		L344
L1464	T1293	M1218	I1219	A1129	V1058	Q968	R888	V805	R736			L512	L438	T345
T1465	A1294	I1219	I1220	T1130	A1060	S969	T898	M806				G513	Q346	Q348
	K1295	Q1220	I1221	T1133	F1062	S971	I892	I807	G739			T516	K441	
V1381	E1296	D1220	M1221	D1134	T1063	L972	S893	E810	H740			H517	D442	V349
V1382	N1383	E1296	M1221	E1135		L973	R894	V811	H741			P595	L443	Q350
								K812	S742			G596	V444	
								L895				M597	K445	
T1468	F1300		M1223	V1138	I1066	Y987	N896	T813	D745			D521	N445	V353
E1469	A1303			S1145	D1067	Q993	D898	S814	A746			G522	N447	N354
T1470	E1308		T1228	E1146	E1068	F994	F899	P815	H747			P599	N447	K355
V1472	V1389		M1229	I1147	P1069	L995	Q900	D816	T748			C600	N447	T356
T1473	V1390	C1308	D1230	N1148	I1070		K901	A817	P749			T601	N357	N357
F1474	D1391	E1309	P1239	V1149	K1071	Q998	P902	R818				V602	I455	S358
K1475	V1392	D1310	P1233	T1149	M1074	D999	P902	K901	W750			S603	Q456	H359
		F1311	P1234	H1151	D1075	I1000	W903	T821	L751			P604	V459	L360
		S1312	V1234	K1151	G1076	D1001	F904	A823	Q752			D537	Y460	I368
		R1314	S1235	C1156	I1077	H1002	T906	C823	W753			D538	D461	S369
												D539	T462	L370
												D540	L463	L371
													D464	
													G465	A374
													S466	K375
													Q545	N376
													R469	L377
													V470	
													L471	S380
													S476	L389
													E477	N390
													R478	L391
													I479	T392
													V480	L393
													D481	R394
													C482	
													I483	K397
													L484	



- Molecule 2: FATTY ACID SYNTHASE SUBUNIT BETA (FAS1)







4 Data and refinement statistics

Property	Value	Source
Space group	P 41 21 2	Depositor
Cell constants a, b, c, α , β , γ	230.60Å 230.60Å 784.30Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	12.00 – 3.10 12.00 – 3.10	Depositor EDS
% Data completeness (in resolution range)	86.1 (12.00-3.10) 89.7 (12.00-3.10)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.94 (at 3.09Å)	Xtriage
Refinement program	PHENIX, PHENIX	Depositor
R, R_{free}	0.200 , 0.250 0.202 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å ²)	74.1	Xtriage
Anisotropy	0.124	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 45.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.52$, $\langle L^2 \rangle = 0.36$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	85962	wwPDB-VP
Average B, all atoms (Å ²)	73.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.36% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.52	0/12848	0.92	27/17358 (0.2%)
1	B	0.54	0/12848	0.92	25/17358 (0.1%)
1	C	0.51	0/12848	0.92	22/17358 (0.1%)
2	G	0.48	0/16360	0.92	34/22198 (0.2%)
2	H	0.48	0/16360	0.92	35/22198 (0.2%)
2	I	0.47	0/16360	0.92	40/22198 (0.2%)
All	All	0.50	0/87624	0.92	183/118668 (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
2	G	0	1
2	H	0	1
2	I	0	1
All	All	0	3

There are no bond length outliers.

All (183) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	329	GLU	N-CA-C	-8.37	102.52	112.89
1	C	329	GLU	N-CA-C	-8.36	102.52	112.89
1	B	329	GLU	N-CA-C	-8.32	102.57	112.89
2	G	7	ARG	CA-C-N	7.92	127.97	119.89
2	G	7	ARG	C-N-CA	7.92	127.97	119.89
2	G	760	HIS	CA-C-N	7.90	127.62	119.56
2	G	760	HIS	C-N-CA	7.90	127.62	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	760	HIS	CA-C-N	7.69	127.41	119.56
2	H	760	HIS	C-N-CA	7.69	127.41	119.56
1	A	1253	GLY	N-CA-C	-7.56	104.61	115.64
2	I	760	HIS	CA-C-N	7.34	127.04	119.56
2	I	760	HIS	C-N-CA	7.34	127.04	119.56
2	H	448	VAL	N-CA-C	7.32	118.55	108.89
2	H	7	ARG	CA-C-N	7.27	127.30	119.89
2	H	7	ARG	C-N-CA	7.27	127.30	119.89
1	B	1253	GLY	N-CA-C	-7.25	105.05	115.64
2	I	7	ARG	CA-C-N	7.25	127.29	119.89
2	I	7	ARG	C-N-CA	7.25	127.29	119.89
2	I	448	VAL	N-CA-C	7.24	118.44	108.89
2	G	794	MET	CA-C-N	7.21	126.97	119.76
2	G	794	MET	C-N-CA	7.21	126.97	119.76
2	I	465	GLY	N-CA-C	-7.21	105.37	115.32
1	C	48	GLY	CA-C-N	7.09	126.35	118.97
1	C	48	GLY	C-N-CA	7.09	126.35	118.97
1	B	712	LYS	N-CA-C	-7.00	103.58	111.07
1	C	1253	GLY	N-CA-C	-6.90	105.57	115.64
2	G	448	VAL	N-CA-C	6.84	117.92	108.89
2	G	465	GLY	N-CA-C	-6.82	105.66	115.27
1	A	712	LYS	N-CA-C	-6.74	103.86	111.14
1	B	773	ALA	N-CA-C	6.72	118.41	108.60
2	H	794	MET	CA-C-N	6.72	126.48	119.76
2	H	794	MET	C-N-CA	6.72	126.48	119.76
1	A	599	MET	N-CA-C	-6.67	92.32	111.00
1	B	599	MET	N-CA-C	-6.66	92.36	111.00
1	C	599	MET	N-CA-C	-6.66	92.36	111.00
1	C	773	ALA	N-CA-C	6.65	117.36	108.38
2	I	794	MET	CA-C-N	6.64	126.40	119.76
2	I	794	MET	C-N-CA	6.64	126.40	119.76
1	C	827	SER	CA-C-N	6.62	127.18	120.04
1	C	827	SER	C-N-CA	6.62	127.18	120.04
1	A	933	VAL	CA-C-N	6.60	127.13	120.14
1	A	933	VAL	C-N-CA	6.60	127.13	120.14
2	H	465	GLY	N-CA-C	-6.48	106.37	115.32
1	A	773	ALA	N-CA-C	6.48	118.06	108.60
1	C	1516	ASP	CA-C-N	6.44	127.36	120.47
1	C	1516	ASP	C-N-CA	6.44	127.36	120.47
2	H	360	LEU	CA-C-N	6.41	126.38	120.03
2	H	360	LEU	C-N-CA	6.41	126.38	120.03
1	A	48	GLY	CA-C-N	6.34	125.56	118.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	48	GLY	C-N-CA	6.34	125.56	118.97
1	A	1292	ILE	N-CA-C	6.33	117.26	111.81
2	H	1954	LYS	CA-C-N	6.31	127.73	119.84
2	H	1954	LYS	C-N-CA	6.31	127.73	119.84
1	B	1292	ILE	N-CA-C	6.30	117.22	111.81
2	G	1954	LYS	CA-C-N	6.24	127.64	119.84
2	G	1954	LYS	C-N-CA	6.24	127.64	119.84
1	C	933	VAL	CA-C-N	6.23	126.75	120.14
1	C	933	VAL	C-N-CA	6.23	126.75	120.14
2	I	360	LEU	CA-C-N	6.22	126.19	120.03
2	I	360	LEU	C-N-CA	6.22	126.19	120.03
2	H	674	TYR	CA-C-N	6.18	127.57	119.84
2	H	674	TYR	C-N-CA	6.18	127.57	119.84
2	I	1954	LYS	CA-C-N	6.12	127.49	119.84
2	I	1954	LYS	C-N-CA	6.12	127.49	119.84
1	C	1692	MET	N-CA-C	-6.11	104.25	111.03
2	I	135	ARG	CA-C-N	6.09	127.45	119.84
2	I	135	ARG	C-N-CA	6.09	127.45	119.84
2	G	360	LEU	CA-C-N	6.07	126.04	120.03
2	G	360	LEU	C-N-CA	6.07	126.04	120.03
1	B	204	THR	CA-C-N	6.04	126.38	119.92
1	B	204	THR	C-N-CA	6.04	126.38	119.92
2	H	135	ARG	CA-C-N	5.92	127.25	119.84
2	H	135	ARG	C-N-CA	5.92	127.25	119.84
1	B	933	VAL	CA-C-N	5.89	126.38	120.14
1	B	933	VAL	C-N-CA	5.89	126.38	120.14
1	C	712	LYS	N-CA-C	-5.88	104.79	111.14
2	G	674	TYR	CA-C-N	5.83	127.12	119.84
2	G	674	TYR	C-N-CA	5.83	127.12	119.84
2	I	1321	ALA	CA-C-N	5.82	125.75	119.76
2	I	1321	ALA	C-N-CA	5.82	125.75	119.76
2	I	674	TYR	CA-C-N	5.81	127.11	119.84
2	I	674	TYR	C-N-CA	5.81	127.11	119.84
2	G	43	GLU	CA-C-N	5.80	125.80	119.89
2	G	43	GLU	C-N-CA	5.80	125.80	119.89
1	A	204	THR	CA-C-N	5.75	126.08	119.92
1	A	204	THR	C-N-CA	5.75	126.08	119.92
2	G	135	ARG	CA-C-N	5.75	127.03	119.84
2	G	135	ARG	C-N-CA	5.75	127.03	119.84
2	G	1280	ASP	N-CA-C	-5.71	102.46	109.65
2	I	43	GLU	CA-C-N	5.67	125.62	119.78
2	I	43	GLU	C-N-CA	5.67	125.62	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	H	1280	ASP	N-CA-C	-5.66	102.52	109.65
2	I	421	LEU	CA-C-N	5.66	126.91	119.84
2	I	421	LEU	C-N-CA	5.66	126.91	119.84
2	I	1922	ILE	N-CA-C	5.63	115.39	106.32
2	H	505	GLY	CA-C-N	5.63	125.39	119.76
2	H	505	GLY	C-N-CA	5.63	125.39	119.76
1	A	827	SER	CA-C-N	5.62	126.49	120.47
1	A	827	SER	C-N-CA	5.62	126.49	120.47
1	A	1657	HIS	CA-C-N	5.62	125.72	119.32
1	A	1657	HIS	C-N-CA	5.62	125.72	119.32
1	A	1692	MET	N-CA-C	-5.61	104.81	111.03
2	G	1107	SER	CA-C-N	5.60	126.84	119.84
2	G	1107	SER	C-N-CA	5.60	126.84	119.84
2	I	1370	ASP	N-CA-C	5.58	118.10	110.24
2	G	1232	LYS	CA-C-N	5.57	126.80	119.84
2	G	1232	LYS	C-N-CA	5.57	126.80	119.84
2	I	690	VAL	CB-CA-C	-5.57	104.54	112.22
2	H	43	GLU	CA-C-N	5.55	125.50	119.78
2	H	43	GLU	C-N-CA	5.55	125.50	119.78
2	H	690	VAL	CB-CA-C	-5.55	104.56	112.22
1	C	204	THR	CA-C-N	5.54	125.85	119.92
1	C	204	THR	C-N-CA	5.54	125.85	119.92
2	H	1232	LYS	CA-C-N	5.54	126.77	119.84
2	H	1232	LYS	C-N-CA	5.54	126.77	119.84
2	I	1232	LYS	CA-C-N	5.52	126.75	119.84
2	I	1232	LYS	C-N-CA	5.52	126.75	119.84
2	G	505	GLY	CA-C-N	5.50	125.42	119.76
2	G	505	GLY	C-N-CA	5.50	125.42	119.76
1	B	1132	GLU	CA-C-N	5.49	125.44	119.78
1	B	1132	GLU	C-N-CA	5.49	125.44	119.78
2	H	1321	ALA	CA-C-N	5.49	125.42	119.76
2	H	1321	ALA	C-N-CA	5.49	125.42	119.76
2	I	1175	LYS	CA-C-N	5.48	126.69	119.84
2	I	1175	LYS	C-N-CA	5.48	126.69	119.84
1	B	540	GLN	N-CA-C	-5.47	95.69	111.00
2	H	421	LEU	CA-C-N	5.47	126.68	119.84
2	H	421	LEU	C-N-CA	5.47	126.68	119.84
1	A	794	ILE	CB-CA-C	-5.47	104.76	112.14
1	A	540	GLN	N-CA-C	-5.43	95.81	111.00
1	C	540	GLN	N-CA-C	-5.43	95.81	111.00
2	H	2017	LYS	CA-C-N	5.39	126.58	119.84
2	H	2017	LYS	C-N-CA	5.39	126.58	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	445	ASP	N-CA-C	-5.38	105.82	112.38
2	G	1321	ALA	CA-C-N	5.38	125.30	119.76
2	G	1321	ALA	C-N-CA	5.38	125.30	119.76
1	B	910	THR	CA-C-N	5.36	126.55	119.84
1	B	910	THR	C-N-CA	5.36	126.55	119.84
2	H	1107	SER	CA-C-N	5.34	126.52	119.84
2	H	1107	SER	C-N-CA	5.34	126.52	119.84
1	B	742	LYS	N-CA-C	-5.34	105.46	111.28
1	B	983	GLN	CA-C-N	5.31	125.07	119.76
1	B	983	GLN	C-N-CA	5.31	125.07	119.76
2	G	1175	LYS	CA-C-N	5.30	126.47	119.84
2	G	1175	LYS	C-N-CA	5.30	126.47	119.84
1	A	206	LEU	N-CA-C	5.30	117.14	111.36
2	H	1798	ILE	N-CA-C	5.29	112.79	107.55
1	A	1132	GLU	CA-C-N	5.27	125.26	119.89
1	A	1132	GLU	C-N-CA	5.27	125.26	119.89
2	G	690	VAL	CB-CA-C	-5.24	104.99	112.22
2	I	2017	LYS	CA-C-N	5.23	126.38	119.84
2	I	2017	LYS	C-N-CA	5.23	126.38	119.84
1	B	1418	VAL	CB-CA-C	-5.22	108.82	114.35
1	A	1641	ILE	CB-CA-C	-5.21	104.98	111.08
2	I	723	HIS	CA-C-N	5.20	124.86	119.56
2	I	723	HIS	C-N-CA	5.20	124.86	119.56
2	H	1561	ASN	CA-C-N	5.19	124.69	119.19
2	H	1561	ASN	C-N-CA	5.19	124.69	119.19
1	B	48	GLY	CA-C-N	5.17	124.35	118.97
1	B	48	GLY	C-N-CA	5.17	124.35	118.97
2	G	1582	GLY	N-CA-C	-5.17	106.52	112.83
1	A	445	ASP	N-CA-C	-5.14	106.11	112.38
2	I	875	LEU	CA-C-N	5.13	125.13	119.89
2	I	875	LEU	C-N-CA	5.13	125.13	119.89
2	G	1249	ALA	CA-C-N	5.13	124.30	118.97
2	G	1249	ALA	C-N-CA	5.13	124.30	118.97
1	B	1028	GLY	CA-C-N	5.12	125.40	119.47
1	B	1028	GLY	C-N-CA	5.12	125.40	119.47
1	C	1132	GLU	CA-C-N	5.11	125.04	119.78
1	C	1132	GLU	C-N-CA	5.11	125.04	119.78
1	A	983	GLN	CA-C-N	5.10	124.86	119.76
1	A	983	GLN	C-N-CA	5.10	124.86	119.76
1	C	206	LEU	N-CA-C	5.09	116.91	111.36
2	I	1842	VAL	CA-C-N	5.08	126.18	119.84
2	I	1842	VAL	C-N-CA	5.08	126.18	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	1692	MET	N-CA-C	-5.05	105.42	111.03
1	A	1418	VAL	CB-CA-C	-5.01	109.04	114.35
1	C	1175	ILE	CA-C-N	5.01	124.94	119.78
1	C	1175	ILE	C-N-CA	5.01	124.94	119.78
2	I	1604	ARG	N-CA-C	5.01	116.82	111.36
2	I	1561	ASN	CA-C-N	5.01	124.79	119.28
2	I	1561	ASN	C-N-CA	5.01	124.79	119.28
2	G	952	ARG	N-CA-C	-5.00	105.83	111.28

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	G	1108	PRO	Peptide
2	H	1108	PRO	Peptide
2	I	1108	PRO	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	12628	0	12603	593	0
1	B	12628	0	12603	612	0
1	C	12628	0	12603	610	0
2	G	15995	0	15978	1023	0
2	H	15995	0	15978	1034	0
2	I	15995	0	15978	1034	0
3	G	31	0	19	8	0
3	H	31	0	19	7	0
3	I	31	0	19	7	0
All	All	85962	0	85800	4747	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 28.

All (4747) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1956:ARG:HB2	2:I:1957:PRO:HD3	1.23	1.21
2:G:499:THR:HB	2:G:500:HIS:HD2	1.07	1.16
2:G:1956:ARG:HB2	2:G:1957:PRO:HD3	1.23	1.14
2:H:490:TRP:HE1	2:H:516:THR:HG22	1.11	1.13
2:G:490:TRP:HE1	2:G:516:THR:HG22	1.12	1.13
2:I:732:TRP:CG	2:I:750:MET:HE3	1.83	1.12
1:B:253:ARG:HG3	1:B:254:TRP:HD1	1.17	1.10
2:H:601:THR:HG21	2:H:618:GLU:O	1.50	1.09
2:H:1834:ARG:HG2	2:H:1834:ARG:HH11	1.06	1.09
2:I:499:THR:HB	2:I:500:HIS:HD2	1.07	1.09
2:H:1956:ARG:HB2	2:H:1957:PRO:HD3	1.24	1.09
2:I:601:THR:HG21	2:I:618:GLU:O	1.50	1.09
2:I:1834:ARG:HG2	2:I:1834:ARG:HH11	1.16	1.09
2:I:490:TRP:HE1	2:I:516:THR:HG22	1.10	1.09
2:G:1834:ARG:HG2	2:G:1834:ARG:HH11	1.16	1.08
2:G:1859:PRO:HG3	2:G:1871:LEU:HD12	1.29	1.08
2:H:499:THR:HB	2:H:500:HIS:HD2	1.10	1.08
2:G:732:TRP:CG	2:G:750:MET:HE3	1.88	1.08
1:A:1721:ARG:HG2	1:A:1721:ARG:HH11	1.16	1.08
2:I:297:ARG:HD3	2:I:447:ASN:HD21	1.15	1.07
2:G:601:THR:HG21	2:G:618:GLU:O	1.52	1.07
1:A:253:ARG:HG3	1:A:254:TRP:HD1	1.15	1.07
1:B:2:LYS:HD2	2:H:2050:GLN:HB3	1.36	1.07
2:H:732:TRP:CG	2:H:750:MET:HE3	1.90	1.07
1:C:253:ARG:HG3	1:C:254:TRP:HD1	1.15	1.06
1:C:852:ARG:HG2	1:C:852:ARG:HH11	1.14	1.06
2:I:1227:ARG:HH11	2:I:1227:ARG:HG3	1.18	1.06
2:H:1859:PRO:HG3	2:H:1871:LEU:HD12	1.38	1.05
1:B:1721:ARG:HH11	1:B:1721:ARG:HG2	1.20	1.05
1:A:1367:ARG:NH1	1:A:1372:THR:HB	1.72	1.05
1:B:1722:VAL:HG11	1:B:1731:LEU:HB3	1.37	1.05
1:C:1721:ARG:HG2	1:C:1721:ARG:HH11	1.20	1.05
2:H:1227:ARG:HH11	2:H:1227:ARG:HG3	1.19	1.05
2:G:7:ARG:HH21	2:G:27:PHE:HB3	1.22	1.04
1:C:1367:ARG:NH1	1:C:1372:THR:HB	1.71	1.04
2:H:7:ARG:HH21	2:H:27:PHE:HB3	1.22	1.04
2:H:297:ARG:HD3	2:H:447:ASN:HD21	1.16	1.03
1:A:1722:VAL:HG11	1:A:1731:LEU:HB3	1.41	1.03
1:C:1722:VAL:HG11	1:C:1731:LEU:HB3	1.37	1.02
1:B:1367:ARG:NH1	1:B:1372:THR:HB	1.73	1.02
2:G:1227:ARG:HG3	2:G:1227:ARG:HH11	1.18	1.02
1:A:852:ARG:HG2	1:A:852:ARG:HH11	1.23	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:599:MET:HB2	1:A:624:LYS:HD2	1.43	1.01
1:C:1219:VAL:HA	1:C:1384:ILE:HD11	1.40	1.01
1:C:1303:GLY:HA2	1:C:1649:LYS:HE2	1.42	1.01
2:G:297:ARG:HD3	2:G:447:ASN:HD21	1.18	1.01
2:I:762:ASN:H	2:I:762:ASN:HD22	1.08	1.01
1:B:852:ARG:HH11	1:B:852:ARG:HG2	1.20	1.01
2:G:835:THR:HG21	2:G:855:HIS:CD2	1.96	1.01
2:I:7:ARG:HH21	2:I:27:PHE:HB3	1.19	1.01
2:G:128:THR:HA	2:G:182:VAL:HG21	1.42	1.00
2:G:499:THR:HB	2:G:500:HIS:CD2	1.97	1.00
2:I:1739:GLU:HB2	2:I:1987:PRO:HB3	1.40	1.00
2:H:1739:GLU:HB2	2:H:1987:PRO:HB3	1.42	1.00
2:I:1859:PRO:HG3	2:I:1871:LEU:HD12	1.41	1.00
2:H:594:VAL:HB	2:H:617:ILE:HG13	1.44	0.99
1:A:2:LYS:HD2	2:G:2050:GLN:HB3	1.43	0.99
2:G:892:ILE:HD11	2:G:903:TRP:CE2	1.98	0.99
2:I:499:THR:HB	2:I:500:HIS:CD2	1.97	0.99
1:A:400:ARG:CG	1:A:400:ARG:HH11	1.76	0.99
2:H:1803:THR:HG22	2:H:2009:LYS:HA	1.45	0.99
1:A:253:ARG:HG3	1:A:254:TRP:CD1	1.98	0.98
1:A:1219:VAL:HA	1:A:1384:ILE:HD11	1.45	0.98
1:C:253:ARG:HG3	1:C:254:TRP:CD1	1.98	0.98
1:B:403:ASP:HB2	1:B:1613:ASN:HD21	1.29	0.98
2:G:1739:GLU:HB2	2:G:1987:PRO:HB3	1.43	0.98
2:H:499:THR:HB	2:H:500:HIS:CD2	1.99	0.97
2:G:1567:ARG:HH11	2:G:1567:ARG:HG3	1.29	0.97
2:H:1567:ARG:HG3	2:H:1567:ARG:HH11	1.27	0.97
1:B:1693:ILE:HD11	2:H:998:GLN:HB2	1.46	0.97
2:H:762:ASN:HD22	2:H:762:ASN:H	1.03	0.97
2:I:892:ILE:HD11	2:I:903:TRP:CE2	1.98	0.97
1:C:599:MET:HB2	1:C:624:LYS:HD2	1.43	0.97
2:G:762:ASN:H	2:G:762:ASN:HD22	1.03	0.97
1:A:198:PRO:HG3	1:A:209:LEU:HD21	1.47	0.97
2:I:490:TRP:NE1	2:I:516:THR:HG22	1.79	0.97
1:C:1693:ILE:HD11	2:I:998:GLN:HB2	1.42	0.97
1:C:529:MET:HE1	1:C:894:ARG:HD2	1.46	0.96
2:G:652:ILE:H	2:G:658:MET:HE3	1.30	0.96
1:B:599:MET:HB2	1:B:624:LYS:HD2	1.42	0.96
2:G:490:TRP:NE1	2:G:516:THR:HG22	1.81	0.96
2:I:835:THR:HG21	2:I:855:HIS:CD2	1.99	0.96
2:I:1567:ARG:HH11	2:I:1567:ARG:HG3	1.29	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:490:TRP:NE1	2:H:516:THR:HG22	1.81	0.96
2:I:594:VAL:HB	2:I:617:ILE:HG13	1.47	0.96
1:B:253:ARG:HG3	1:B:254:TRP:CD1	1.99	0.96
2:H:128:THR:HA	2:H:182:VAL:HG21	1.45	0.96
2:I:1567:ARG:HH11	2:I:1567:ARG:CG	1.78	0.96
1:B:1219:VAL:HA	1:B:1384:ILE:HD11	1.45	0.95
1:C:198:PRO:HG3	1:C:209:LEU:HD21	1.48	0.95
2:H:1567:ARG:HH11	2:H:1567:ARG:CG	1.78	0.95
2:I:932:ILE:HD11	2:I:1042:ALA:HB2	1.44	0.95
1:B:1303:GLY:HA2	1:B:1649:LYS:HE2	1.46	0.95
2:H:55:THR:HG22	2:H:56:THR:HG22	1.48	0.95
1:C:2:LYS:HD2	2:I:2050:GLN:HB3	1.47	0.95
1:A:444:ASN:HB2	1:A:447:LEU:H	1.31	0.94
1:A:400:ARG:HH11	1:A:400:ARG:HG2	1.28	0.94
2:H:892:ILE:HD11	2:H:903:TRP:CE2	2.01	0.94
2:H:1314:ARG:HH11	2:H:1314:ARG:HG3	1.31	0.94
2:I:128:THR:HA	2:I:182:VAL:HG21	1.49	0.94
2:G:1878:VAL:HG11	2:G:1910:VAL:HG22	1.48	0.94
1:C:1523:ARG:HG3	1:C:1523:ARG:HH11	1.32	0.94
2:G:1567:ARG:HH11	2:G:1567:ARG:CG	1.80	0.94
2:G:1741:ILE:HD12	2:G:1986:LYS:HD2	1.47	0.94
1:C:400:ARG:HG2	1:C:400:ARG:HH11	1.33	0.94
2:I:1314:ARG:HG3	2:I:1314:ARG:HH11	1.32	0.94
1:B:444:ASN:HB2	1:B:447:LEU:H	1.31	0.94
2:G:1314:ARG:HH11	2:G:1314:ARG:HG3	1.32	0.94
1:C:444:ASN:HB2	1:C:447:LEU:H	1.33	0.93
2:G:56:THR:HG23	2:G:59:GLU:HG3	1.50	0.93
2:H:1589:VAL:HA	2:H:1592:LEU:HD12	1.49	0.93
1:A:1303:GLY:HA2	1:A:1649:LYS:HE2	1.49	0.93
1:B:198:PRO:HG3	1:B:209:LEU:HD21	1.47	0.93
2:I:652:ILE:H	2:I:658:MET:HE3	1.34	0.93
2:I:1878:VAL:HG11	2:I:1910:VAL:HG22	1.50	0.93
2:I:56:THR:HG23	2:I:59:GLU:HG3	1.49	0.93
2:I:1741:ILE:HD12	2:I:1986:LYS:HD2	1.49	0.93
2:G:594:VAL:HB	2:G:617:ILE:HG13	1.51	0.92
2:I:1589:VAL:HA	2:I:1592:LEU:HD12	1.51	0.92
1:A:529:MET:HE1	1:A:894:ARG:HD2	1.52	0.92
2:H:1845:ASP:HB2	2:H:1849:ARG:H	1.34	0.92
1:B:400:ARG:HH11	1:B:400:ARG:CG	1.81	0.92
1:C:400:ARG:HH11	1:C:400:ARG:CG	1.81	0.92
1:C:793:ARG:HA	1:C:797:THR:HG23	1.52	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1589:VAL:HA	2:G:1592:LEU:HD12	1.49	0.92
2:G:942:THR:HB	2:G:1012:GLN:HG2	1.50	0.92
2:G:1803:THR:HG22	2:G:2009:LYS:HA	1.48	0.92
1:C:1376:PHE:HB3	1:C:1544:THR:HG22	1.52	0.92
2:G:55:THR:HG22	2:G:56:THR:HG22	1.52	0.92
2:I:667:LYS:HD2	2:I:697:THR:HG22	1.51	0.92
1:C:152:HIS:CD2	1:C:163:LEU:HB2	2.05	0.92
2:I:55:THR:HG22	2:I:56:THR:HG22	1.51	0.91
2:I:942:THR:HB	2:I:1012:GLN:HG2	1.52	0.91
1:A:1523:ARG:HH11	1:A:1523:ARG:HG3	1.33	0.91
2:G:1845:ASP:HB2	2:G:1849:ARG:H	1.34	0.91
2:H:652:ILE:H	2:H:658:MET:HE3	1.34	0.91
2:H:741:HIS:HE1	2:H:845:THR:CG2	1.82	0.91
2:I:707:PRO:HG3	2:I:716:VAL:HG21	1.52	0.91
1:A:335:HIS:CE1	1:C:335:HIS:HE1	1.89	0.91
1:A:403:ASP:HB2	1:A:1613:ASN:HD21	1.36	0.91
1:A:1367:ARG:HH12	1:A:1372:THR:HB	1.35	0.91
1:A:152:HIS:CD2	1:A:163:LEU:HB2	2.05	0.91
1:B:529:MET:HE1	1:B:894:ARG:HD2	1.53	0.91
1:A:1279:PHE:HB2	1:A:1282:THR:HG23	1.52	0.90
1:A:1376:PHE:HB3	1:A:1544:THR:HG22	1.53	0.90
1:A:1721:ARG:HH11	1:A:1721:ARG:CG	1.84	0.90
1:B:1376:PHE:HB3	1:B:1544:THR:HG22	1.51	0.90
2:G:932:ILE:HD11	2:G:1042:ALA:HB2	1.51	0.90
2:G:1002:HIS:NE2	2:G:1006:MET:HE3	1.86	0.90
1:B:1523:ARG:HH11	1:B:1523:ARG:HG3	1.36	0.90
2:I:1002:HIS:NE2	2:I:1006:MET:HE3	1.87	0.90
2:H:942:THR:HB	2:H:1012:GLN:HG2	1.54	0.90
1:A:1693:ILE:HD11	2:G:998:GLN:HB2	1.51	0.90
2:H:903:TRP:O	2:H:906:THR:HG22	1.71	0.90
2:H:1741:ILE:HD12	2:H:1986:LYS:HD2	1.54	0.90
2:I:1441:ILE:HD11	2:I:1445:ARG:CZ	2.02	0.90
2:I:1803:THR:HG22	2:I:2009:LYS:HA	1.51	0.90
1:B:793:ARG:HA	1:B:797:THR:HG23	1.54	0.89
2:I:55:THR:HG21	2:I:113:ASP:HB2	1.53	0.89
1:A:793:ARG:HA	1:A:797:THR:HG23	1.53	0.89
1:C:403:ASP:HB2	1:C:1613:ASN:HD21	1.33	0.89
1:B:253:ARG:HE	1:B:254:TRP:HE1	1.21	0.89
1:C:253:ARG:HE	1:C:254:TRP:HE1	1.21	0.89
2:H:707:PRO:HG3	2:H:716:VAL:HG21	1.54	0.89
2:H:1878:VAL:HG11	2:H:1910:VAL:HG22	1.55	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1721:ARG:HH11	1:B:1721:ARG:CG	1.85	0.89
2:H:667:LYS:HD2	2:H:697:THR:HG22	1.55	0.89
2:I:1845:ASP:HB2	2:I:1849:ARG:H	1.38	0.89
1:B:152:HIS:CD2	1:B:163:LEU:HB2	2.08	0.89
1:B:260:ARG:HH12	1:B:300:VAL:HG21	1.38	0.89
2:G:55:THR:HG21	2:G:113:ASP:HB2	1.52	0.88
2:H:1533:LEU:HD13	2:H:1630:GLY:HA2	1.56	0.88
2:G:741:HIS:HE1	2:G:845:THR:CG2	1.86	0.88
2:G:1847:LEU:H	2:G:1847:LEU:HD12	1.37	0.88
2:G:835:THR:HB	2:G:845:THR:HG23	1.55	0.88
2:G:903:TRP:O	2:G:906:THR:HG22	1.74	0.88
2:G:707:PRO:HG3	2:G:716:VAL:HG21	1.56	0.88
2:G:1441:ILE:HD11	2:G:1445:ARG:CZ	2.02	0.88
1:A:1584:PRO:HG3	1:A:1591:TRP:CZ3	2.09	0.88
2:G:667:LYS:HD2	2:G:697:THR:HG22	1.55	0.88
2:H:1441:ILE:HD11	2:H:1445:ARG:CZ	2.04	0.88
2:H:1847:LEU:HD12	2:H:1847:LEU:H	1.36	0.88
2:H:55:THR:HG21	2:H:113:ASP:HB2	1.53	0.87
1:C:1279:PHE:HB2	1:C:1282:THR:HG23	1.56	0.87
1:B:1584:PRO:HG3	1:B:1591:TRP:CZ3	2.08	0.87
2:G:369:SER:OG	2:G:380:SER:HB3	1.75	0.87
2:H:741:HIS:NE2	2:H:855:HIS:CE1	2.42	0.87
2:H:1002:HIS:NE2	2:H:1006:MET:HE3	1.90	0.87
1:C:1721:ARG:HH11	1:C:1721:ARG:CG	1.87	0.87
1:A:340:ARG:NH1	1:A:344:GLN:HG2	1.88	0.87
1:C:1014:ASP:H	1:C:1510:ASN:HD21	1.23	0.87
1:B:893:VAL:HG11	1:B:930:LEU:HD23	1.55	0.87
2:G:741:HIS:HE1	2:G:845:THR:HG22	1.39	0.87
2:I:1227:ARG:HH11	2:I:1227:ARG:CG	1.87	0.86
1:A:1474:ALA:HA	1:A:1478:PRO:HG2	1.55	0.86
1:C:1367:ARG:HH12	1:C:1372:THR:HB	1.38	0.86
1:B:1367:ARG:HH12	1:B:1372:THR:HB	1.38	0.86
2:H:1739:GLU:HB3	2:H:1746:LEU:HD11	1.56	0.86
2:H:56:THR:HG23	2:H:59:GLU:HG3	1.54	0.86
2:I:298:LYS:HG2	2:I:448:VAL:HG22	1.56	0.86
2:I:1847:LEU:H	2:I:1847:LEU:HD12	1.40	0.86
1:A:253:ARG:HE	1:A:254:TRP:HE1	1.21	0.86
2:H:774:ALA:HB1	2:H:1081:HIS:HD2	1.41	0.86
2:G:1425:LYS:HG2	2:G:1471:GLU:HG3	1.57	0.86
2:H:1844:ARG:CG	2:H:1844:ARG:HH11	1.89	0.86
2:H:835:THR:HG21	2:H:855:HIS:CD2	2.10	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:774:ALA:HB2	2:I:1077:ILE:HA	1.58	0.85
2:I:903:TRP:O	2:I:906:THR:HG22	1.76	0.85
1:B:1474:ALA:HA	1:B:1478:PRO:HG2	1.58	0.85
1:C:340:ARG:NH1	1:C:344:GLN:HG2	1.91	0.85
1:B:340:ARG:NH1	1:B:344:GLN:HG2	1.91	0.85
1:A:893:VAL:HG11	1:A:930:LEU:HD23	1.58	0.85
2:I:741:HIS:HE1	2:I:845:THR:CG2	1.88	0.85
1:A:335:HIS:CE1	1:C:335:HIS:CE1	2.64	0.85
2:G:732:TRP:CD2	2:G:750:MET:HE3	2.11	0.85
2:H:741:HIS:CE1	2:H:845:THR:CG2	2.60	0.85
2:G:1227:ARG:HH11	2:G:1227:ARG:CG	1.89	0.85
2:H:1672:GLN:HG2	2:H:1777:THR:HG23	1.59	0.85
2:H:1227:ARG:HH11	2:H:1227:ARG:CG	1.90	0.85
1:C:893:VAL:HG11	1:C:930:LEU:HD23	1.59	0.84
1:C:1474:ALA:HA	1:C:1478:PRO:HG2	1.57	0.84
2:G:1739:GLU:HB3	2:G:1746:LEU:HD11	1.59	0.84
2:H:777:THR:CG2	2:H:1081:HIS:NE2	2.40	0.84
1:C:31:THR:HG23	2:I:2011:ILE:HG21	1.58	0.84
2:H:297:ARG:HD3	2:H:447:ASN:ND2	1.91	0.84
2:I:732:TRP:CD2	2:I:750:MET:HE3	2.11	0.84
1:B:1279:PHE:HB2	1:B:1282:THR:HG23	1.57	0.84
2:H:741:HIS:CE1	2:H:845:THR:HG22	2.11	0.84
2:I:297:ARG:HD3	2:I:447:ASN:ND2	1.92	0.84
1:B:400:ARG:HH11	1:B:400:ARG:HG2	1.40	0.84
1:C:1584:PRO:HG3	1:C:1591:TRP:CZ3	2.11	0.84
2:H:369:SER:OG	2:H:380:SER:HB3	1.78	0.84
2:I:369:SER:OG	2:I:380:SER:HB3	1.75	0.84
2:G:1834:ARG:HG2	2:G:1834:ARG:NH1	1.93	0.83
2:I:774:ALA:HB1	2:I:1081:HIS:HD2	1.43	0.83
2:I:1834:ARG:HG2	2:I:1834:ARG:NH1	1.92	0.83
2:I:1844:ARG:HG2	2:I:1844:ARG:HH11	1.42	0.83
2:H:995:LEU:HD23	2:H:1000:ILE:HD13	1.58	0.83
2:I:1739:GLU:HB3	2:I:1746:LEU:HD11	1.58	0.83
2:G:777:THR:CG2	2:G:1081:HIS:NE2	2.42	0.83
2:I:1533:LEU:HD13	2:I:1630:GLY:HA2	1.59	0.83
2:G:995:LEU:HD23	2:G:1000:ILE:HD13	1.60	0.83
2:H:732:TRP:CD2	2:H:750:MET:HE3	2.11	0.83
2:H:932:ILE:HD11	2:H:1042:ALA:HB2	1.59	0.83
2:H:1425:LYS:HG2	2:H:1471:GLU:HG3	1.58	0.83
1:A:36:LEU:HD22	1:A:61:LEU:HD21	1.60	0.83
2:G:1533:LEU:HD13	2:G:1630:GLY:HA2	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2038:ILE:HG22	2:G:2042:ILE:HD11	1.60	0.83
2:G:297:ARG:HD3	2:G:447:ASN:ND2	1.94	0.82
2:G:298:LYS:HG2	2:G:448:VAL:HG22	1.61	0.82
2:H:1844:ARG:HH11	2:H:1844:ARG:HG2	1.41	0.82
1:B:31:THR:HG23	2:H:2011:ILE:HG21	1.61	0.82
1:C:333:LYS:O	1:C:337:VAL:HG23	1.80	0.82
2:I:1931:LEU:HB3	2:I:1935:GLU:HG2	1.61	0.82
2:I:124:LYS:HG2	2:I:179:THR:HA	1.62	0.82
2:I:732:TRP:CD1	2:I:750:MET:HE3	2.13	0.82
2:I:1672:GLN:HG2	2:I:1777:THR:HG23	1.61	0.82
2:G:1284:VAL:HG13	2:G:1377:VAL:HG22	1.62	0.82
2:I:1425:LYS:HG2	2:I:1471:GLU:HG3	1.61	0.82
2:I:1844:ARG:HH11	2:I:1844:ARG:CG	1.93	0.82
1:B:1189:ILE:HD12	1:B:1380:GLN:HG3	1.61	0.81
2:G:1931:LEU:HB3	2:G:1935:GLU:HG2	1.61	0.81
2:H:1931:LEU:HB3	2:H:1935:GLU:HG2	1.62	0.81
2:H:1159:ILE:HG12	2:H:1168:ASN:HA	1.61	0.81
2:I:1242:PHE:HE2	2:I:1244:PRO:HG3	1.46	0.81
2:G:774:ALA:HB2	2:G:1077:ILE:HA	1.61	0.81
2:G:1293:THR:HG23	2:G:1296:GLU:H	1.44	0.81
2:I:598:THR:HG22	2:I:622:GLY:HA3	1.61	0.81
2:H:543:PHE:HB2	2:H:545:GLN:HE22	1.45	0.81
2:H:1149:TRP:HA	2:H:1242:PHE:CE1	2.15	0.81
2:I:345:THR:HG22	2:I:347:GLU:H	1.46	0.81
2:I:2038:ILE:HG22	2:I:2042:ILE:HD11	1.61	0.81
2:I:1693:ARG:HD2	2:I:1825:GLU:OE2	1.80	0.81
2:H:85:ASN:HD22	2:H:135:ARG:HH11	1.26	0.81
2:I:85:ASN:HD22	2:I:135:ARG:HH11	1.28	0.81
2:I:741:HIS:HE1	2:I:845:THR:HG22	1.44	0.81
1:B:1014:ASP:H	1:B:1510:ASN:HD21	1.28	0.80
2:H:2038:ILE:HG22	2:H:2042:ILE:HD11	1.60	0.80
1:B:93:ASP:HB3	1:B:94:PRO:HD2	1.62	0.80
2:I:995:LEU:HD23	2:I:1000:ILE:HD13	1.60	0.80
2:H:741:HIS:HE1	2:H:845:THR:HG22	1.41	0.80
1:B:1030:TRP:CD1	1:B:1580:LEU:HD22	2.17	0.80
2:G:1352:HIS:HE1	2:G:1583:MET:CE	1.95	0.80
2:G:1672:GLN:HG2	2:G:1777:THR:HG23	1.61	0.80
1:A:340:ARG:HH12	1:A:344:GLN:HG2	1.44	0.80
1:A:1552:ASN:O	1:A:1556:THR:HG22	1.80	0.80
2:H:757:ILE:HG21	2:H:765:LEU:HD13	1.64	0.80
1:B:36:LEU:HD22	1:B:61:LEU:HD21	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:85:ASN:HD22	2:G:135:ARG:HH11	1.28	0.80
2:G:634:ILE:HD11	2:G:649:ILE:HD11	1.63	0.80
2:G:1314:ARG:HH11	2:G:1314:ARG:CG	1.95	0.80
2:G:1847:LEU:HD13	2:G:1849:ARG:HD2	1.62	0.80
2:I:777:THR:CG2	2:I:1081:HIS:NE2	2.43	0.80
1:A:333:LYS:O	1:A:337:VAL:HG23	1.81	0.80
1:C:852:ARG:HG2	1:C:852:ARG:NH1	1.93	0.80
2:G:131:ILE:HD12	2:G:182:VAL:HB	1.64	0.80
2:G:1956:ARG:CB	2:G:1957:PRO:HD3	2.10	0.80
1:A:93:ASP:HB3	1:A:94:PRO:HD2	1.63	0.80
1:A:400:ARG:HG2	1:A:400:ARG:NH1	1.91	0.80
2:G:1844:ARG:HH11	2:G:1844:ARG:CG	1.94	0.80
2:H:741:HIS:CE1	2:H:855:HIS:CE1	2.69	0.80
2:H:907:VAL:HG21	2:H:921:GLU:HG2	1.64	0.80
2:I:1159:ILE:HG12	2:I:1168:ASN:HA	1.63	0.80
2:I:345:THR:HB	2:I:348:GLN:H	1.46	0.80
2:I:543:PHE:HB2	2:I:545:GLN:HE22	1.46	0.80
2:G:774:ALA:HB1	2:G:1081:HIS:HD2	1.47	0.79
2:I:455:ILE:HD11	2:I:469:ARG:HD3	1.63	0.79
2:I:584:SER:HB3	2:I:591:PRO:HG3	1.63	0.79
2:G:732:TRP:CD1	2:G:750:MET:HE3	2.16	0.79
2:G:1693:ARG:HD2	2:G:1825:GLU:OE2	1.81	0.79
2:I:1054:LEU:HB2	3:I:3051:FMN:HM73	1.64	0.79
2:G:1678:MET:HE1	2:G:1707:LEU:HD22	1.63	0.79
2:G:1844:ARG:HH11	2:G:1844:ARG:HG2	1.46	0.79
2:I:1847:LEU:HD13	2:I:1849:ARG:HD2	1.64	0.79
2:H:1847:LEU:HD13	2:H:1849:ARG:HD2	1.63	0.79
2:I:259:THR:HG22	2:I:262:GLU:HG3	1.64	0.79
2:I:907:VAL:HG21	2:I:921:GLU:HG2	1.65	0.79
2:H:774:ALA:HB2	2:H:1077:ILE:HA	1.65	0.79
1:B:333:LYS:O	1:B:337:VAL:HG23	1.81	0.79
2:G:907:VAL:HG21	2:G:921:GLU:HG2	1.65	0.79
2:H:598:THR:HG22	2:H:622:GLY:HA3	1.64	0.79
2:H:1159:ILE:HG12	2:H:1169:PRO:HD3	1.64	0.79
2:H:1323:MET:HE3	2:H:1605:VAL:HG22	1.64	0.79
2:G:543:PHE:HB2	2:G:545:GLN:HE22	1.46	0.79
2:H:1693:ARG:HD2	2:H:1825:GLU:OE2	1.83	0.79
2:I:238:CYS:HB2	2:I:239:PRO:HD3	1.65	0.79
1:B:198:PRO:HG3	1:B:209:LEU:CD2	2.13	0.79
2:G:741:HIS:CE1	2:G:845:THR:HG22	2.17	0.79
2:I:55:THR:CG2	2:I:113:ASP:HB2	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1956:ARG:HB2	2:I:1957:PRO:CD	2.11	0.79
2:H:455:ILE:HD11	2:H:469:ARG:HD3	1.64	0.79
2:H:298:LYS:HG2	2:H:448:VAL:HG22	1.64	0.78
1:B:260:ARG:NH1	1:B:300:VAL:HG21	1.97	0.78
1:C:400:ARG:HG2	1:C:400:ARG:NH1	1.94	0.78
2:H:55:THR:CG2	2:H:113:ASP:HB2	2.13	0.78
1:B:1665:ILE:HG13	1:B:1669:ARG:HD3	1.66	0.78
1:B:529:MET:HA	1:B:529:MET:HE3	1.65	0.78
2:H:960:LYS:HE2	2:H:960:LYS:HA	1.65	0.78
2:I:1293:THR:HG23	2:I:1296:GLU:H	1.47	0.78
1:C:340:ARG:HH12	1:C:344:GLN:HG2	1.49	0.78
1:A:328:LEU:O	1:A:331:ILE:HG22	1.84	0.78
2:G:345:THR:HG22	2:G:347:GLU:H	1.47	0.78
2:H:124:LYS:HG2	2:H:179:THR:HA	1.62	0.78
2:H:1834:ARG:HG2	2:H:1834:ARG:NH1	1.86	0.78
2:I:192:ALA:HA	2:I:215:ILE:HD12	1.64	0.78
2:I:741:HIS:CE1	2:I:845:THR:HG22	2.18	0.78
2:I:1149:TRP:HA	2:I:1242:PHE:CE1	2.19	0.78
1:B:1722:VAL:CG1	1:B:1731:LEU:HB3	2.13	0.78
1:C:328:LEU:O	1:C:331:ILE:HG22	1.84	0.78
2:H:105:ALA:HB1	2:H:119:THR:HG23	1.65	0.78
1:C:93:ASP:HB3	1:C:94:PRO:HD2	1.65	0.77
2:G:960:LYS:HE2	2:G:960:LYS:HA	1.67	0.77
2:I:131:ILE:HD12	2:I:182:VAL:HB	1.66	0.77
2:I:741:HIS:NE2	2:I:855:HIS:CE1	2.52	0.77
2:I:1956:ARG:CB	2:I:1957:PRO:HD3	2.09	0.77
1:C:1523:ARG:HH11	1:C:1523:ARG:CG	1.96	0.77
2:G:55:THR:CG2	2:G:113:ASP:HB2	2.13	0.77
2:G:146:PHE:HA	2:G:149:VAL:CG1	2.15	0.77
2:G:1770:LEU:HD23	2:G:1776:PHE:CE2	2.20	0.77
1:A:198:PRO:HG3	1:A:209:LEU:CD2	2.14	0.77
1:A:1030:TRP:NE1	1:A:1580:LEU:HD22	1.99	0.77
1:B:335:HIS:HE1	1:C:335:HIS:CE1	2.02	0.77
2:G:839:PRO:HA	2:G:844:VAL:HG13	1.64	0.77
2:H:345:THR:HB	2:H:348:GLN:H	1.48	0.77
1:C:968:VAL:O	2:I:1512:HIS:HB2	1.85	0.77
2:I:634:ILE:HD11	2:I:649:ILE:HD11	1.66	0.77
2:I:1770:LEU:HD23	2:I:1776:PHE:CE2	2.19	0.77
1:B:1239:HIS:HD2	1:B:1241:SER:OG	1.67	0.77
1:A:31:THR:HG23	2:G:2011:ILE:HG21	1.66	0.77
1:A:1523:ARG:HH11	1:A:1523:ARG:CG	1.97	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:757:ILE:HG21	2:G:765:LEU:HD13	1.67	0.77
2:G:1678:MET:HE1	2:G:1707:LEU:CD2	2.15	0.77
2:I:105:ALA:HB1	2:I:119:THR:HG23	1.67	0.77
2:I:652:ILE:HD13	2:I:658:MET:HE1	1.67	0.77
2:I:1422:THR:CG2	2:I:1474:PHE:HB2	2.15	0.77
2:G:192:ALA:HA	2:G:215:ILE:HD12	1.67	0.77
2:G:652:ILE:HD13	2:G:658:MET:HE1	1.67	0.77
2:G:1956:ARG:HB2	2:G:1957:PRO:CD	2.11	0.76
2:H:355:LYS:O	2:H:358:SER:HB3	1.85	0.76
2:I:355:LYS:O	2:I:358:SER:HB3	1.85	0.76
1:A:1276:GLN:O	1:A:1282:THR:HG21	1.85	0.76
1:A:1665:ILE:HG13	1:A:1669:ARG:HD3	1.66	0.76
1:C:1030:TRP:CD1	1:C:1580:LEU:HD22	2.20	0.76
1:C:1722:VAL:CG1	1:C:1731:LEU:HB3	2.14	0.76
2:H:1314:ARG:HH11	2:H:1314:ARG:CG	1.97	0.76
1:A:881:ASN:HA	1:A:944:ARG:NH2	2.00	0.76
2:G:7:ARG:NH2	2:G:27:PHE:HB3	1.99	0.76
2:I:707:PRO:CG	2:I:716:VAL:HG21	2.15	0.76
1:B:1030:TRP:NE1	1:B:1580:LEU:HD22	2.00	0.76
1:C:1239:HIS:HD2	1:C:1241:SER:OG	1.68	0.76
1:C:1030:TRP:NE1	1:C:1580:LEU:HD22	2.00	0.76
2:G:964:LEU:HD23	2:G:964:LEU:H	1.50	0.76
1:A:1239:HIS:HD2	1:A:1241:SER:OG	1.69	0.76
1:B:340:ARG:HH12	1:B:344:GLN:HG2	1.48	0.76
2:I:741:HIS:CE1	2:I:845:THR:CG2	2.68	0.76
2:I:1567:ARG:HG3	2:I:1567:ARG:NH1	2.00	0.76
1:A:1189:ILE:HD12	1:A:1380:GLN:HG3	1.68	0.76
2:G:355:LYS:O	2:G:358:SER:HB3	1.84	0.76
2:G:835:THR:HG22	2:G:845:THR:N	2.01	0.76
2:H:7:ARG:NH2	2:H:27:PHE:HB3	1.99	0.76
2:H:579:VAL:HG23	2:H:1078:HIS:CD2	2.21	0.76
2:H:583:PHE:HD2	2:H:764:MET:HE3	1.51	0.76
1:B:980:VAL:HG21	2:H:952:ARG:HH21	1.49	0.76
1:C:198:PRO:HG3	1:C:209:LEU:CD2	2.15	0.76
1:C:985:ARG:NH1	2:I:953:ARG:CZ	2.48	0.76
2:G:1352:HIS:CE1	2:G:1583:MET:HE2	2.20	0.76
1:C:1693:ILE:CD1	2:I:998:GLN:HB2	2.15	0.76
2:H:1129:ALA:HB2	2:H:1138:TRP:CZ3	2.21	0.76
2:I:1314:ARG:HH11	2:I:1314:ARG:CG	1.98	0.76
2:I:1323:MET:HE3	2:I:1605:VAL:HG22	1.67	0.76
2:I:1352:HIS:HE1	2:I:1583:MET:CE	1.99	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:271:ASN:HD22	1:B:290:MET:HE1	1.51	0.75
2:I:7:ARG:NH2	2:I:27:PHE:HB3	1.97	0.75
1:B:1523:ARG:HH11	1:B:1523:ARG:CG	1.98	0.75
2:G:1149:TRP:HA	2:G:1242:PHE:CE1	2.21	0.75
2:I:1284:VAL:HG13	2:I:1377:VAL:HG22	1.68	0.75
1:A:1014:ASP:H	1:A:1510:ASN:HD21	1.34	0.75
2:G:741:HIS:CE1	2:G:845:THR:CG2	2.69	0.75
2:H:259:THR:HG22	2:H:262:GLU:HG3	1.67	0.75
2:H:2015:THR:HG22	2:H:2017:LYS:H	1.51	0.75
1:B:1693:ILE:CD1	2:H:998:GLN:HB2	2.17	0.75
2:H:192:ALA:HA	2:H:215:ILE:HD12	1.68	0.75
2:I:902:PRO:HG2	2:I:929:LEU:HD21	1.68	0.75
1:A:529:MET:HA	1:A:529:MET:HE3	1.68	0.75
1:A:1310:GLU:OE1	1:A:1649:LYS:HE3	1.86	0.75
1:B:1208:VAL:HG13	1:B:1212:THR:HB	1.68	0.75
2:G:598:THR:HG22	2:G:622:GLY:HA3	1.67	0.75
2:G:1159:ILE:HG12	2:G:1168:ASN:HA	1.67	0.75
2:G:345:THR:HB	2:G:348:GLN:H	1.50	0.75
2:G:2015:THR:HG22	2:G:2017:LYS:H	1.51	0.75
2:H:583:PHE:CD2	2:H:764:MET:HE3	2.21	0.75
2:H:1293:THR:HG23	2:H:1296:GLU:H	1.49	0.75
1:C:1665:ILE:HG13	1:C:1669:ARG:HD3	1.66	0.75
2:G:455:ILE:HD11	2:G:469:ARG:HD3	1.66	0.75
2:H:598:THR:OG1	2:H:599:PRO:HD3	1.86	0.75
2:I:943:TRP:CH2	2:I:1016:PRO:HG3	2.21	0.75
2:I:1310:ASP:OD2	2:I:1602:SER:HB3	1.87	0.75
1:A:427:ASN:HD21	1:A:610:THR:H	1.35	0.74
1:B:968:VAL:HG23	2:H:1515:PRO:HG3	1.67	0.74
1:C:1189:ILE:HD12	1:C:1380:GLN:HG3	1.68	0.74
2:I:2015:THR:HG22	2:I:2017:LYS:H	1.51	0.74
1:B:1552:ASN:O	1:B:1556:THR:HG22	1.88	0.74
2:G:1359:MET:HE3	2:G:1404:MET:HB3	1.69	0.74
1:A:1030:TRP:CD1	1:A:1580:LEU:HD22	2.21	0.74
2:H:1054:LEU:HB2	3:H:3051:FMN:HM73	1.68	0.74
2:G:572:ASN:HB3	2:G:576:LYS:H	1.52	0.74
2:H:455:ILE:HD11	2:H:469:ARG:CD	2.17	0.74
2:H:943:TRP:CH2	2:H:1016:PRO:HG3	2.22	0.74
2:H:1770:LEU:HD23	2:H:1776:PHE:CE2	2.21	0.74
2:I:138:ASP:O	2:I:139:LYS:HG3	1.87	0.74
2:I:1889:VAL:HG13	2:I:1977:HIS:HB2	1.70	0.74
2:H:1352:HIS:CE1	2:H:1583:MET:HE2	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1672:GLN:HA	2:H:1676:MET:CE	2.18	0.74
2:H:1678:MET:HE1	2:H:1707:LEU:HD22	1.68	0.74
1:A:655:LEU:HD22	1:A:916:LEU:HD11	1.68	0.74
1:C:36:LEU:HD22	1:C:61:LEU:HD21	1.68	0.74
1:B:335:HIS:CE1	1:C:335:HIS:CE1	2.75	0.74
2:G:652:ILE:H	2:G:658:MET:CE	2.01	0.74
2:G:1265:MET:HE1	2:G:1562:PRO:HG2	1.69	0.74
2:H:584:SER:HB3	2:H:591:PRO:HG3	1.67	0.74
2:H:1284:VAL:HG13	2:H:1377:VAL:HG22	1.69	0.74
2:I:960:LYS:HE2	2:I:960:LYS:HA	1.67	0.74
1:B:964:GLU:HG2	2:H:1515:PRO:HB3	1.69	0.74
2:I:741:HIS:CE1	2:I:855:HIS:CE1	2.76	0.74
1:C:260:ARG:HH12	1:C:300:VAL:HG21	1.52	0.74
2:G:259:THR:HG22	2:G:262:GLU:HG3	1.68	0.74
2:G:705:LEU:HD12	2:G:716:VAL:HG13	1.70	0.74
2:H:732:TRP:CD1	2:H:750:MET:HE3	2.23	0.74
2:I:1159:ILE:HG12	2:I:1169:PRO:HD3	1.68	0.74
1:B:1551:LYS:HD2	1:B:1617:ILE:HG21	1.70	0.74
1:C:1552:ASN:O	1:C:1556:THR:HG22	1.88	0.74
2:H:1242:PHE:HE2	2:H:1244:PRO:HG3	1.51	0.74
2:H:1956:ARG:HB2	2:H:1957:PRO:CD	2.13	0.74
1:B:328:LEU:O	1:B:331:ILE:HG22	1.86	0.73
1:B:400:ARG:HG2	1:B:400:ARG:NH1	2.00	0.73
2:G:194:THR:HG23	2:G:300:ILE:HD11	1.70	0.73
2:G:584:SER:HB3	2:G:591:PRO:HG3	1.70	0.73
2:I:7:ARG:NH1	2:I:24:THR:HG23	2.03	0.73
2:I:757:ILE:HG21	2:I:765:LEU:HD13	1.69	0.73
1:B:1376:PHE:CB	1:B:1544:THR:HG22	2.18	0.73
2:G:777:THR:HG22	2:G:1081:HIS:NE2	2.03	0.73
2:H:579:VAL:HG23	2:H:1078:HIS:NE2	2.03	0.73
2:I:572:ASN:HB3	2:I:576:LYS:H	1.52	0.73
2:I:1129:ALA:HB2	2:I:1138:TRP:CZ3	2.22	0.73
1:C:881:ASN:HA	1:C:944:ARG:NH2	2.01	0.73
2:H:84:LEU:HD13	2:H:133:ALA:HB2	1.69	0.73
2:H:1194:VAL:HG22	2:H:1212:LYS:HB3	1.70	0.73
2:H:1265:MET:HE1	2:H:1562:PRO:HG2	1.68	0.73
2:H:1331:TRP:CZ2	2:H:1335:ILE:HG13	2.23	0.73
2:I:1678:MET:HE1	2:I:1707:LEU:HD22	1.69	0.73
2:G:124:LYS:HG2	2:G:179:THR:HA	1.70	0.73
2:I:1784:MET:HG3	2:I:1785:GLU:N	2.02	0.73
2:I:2035:SER:HB3	2:I:2038:ILE:HG13	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:345:THR:HG22	2:H:347:GLU:H	1.51	0.73
2:H:1678:MET:HE1	2:H:1707:LEU:CD2	2.18	0.73
2:I:455:ILE:HD11	2:I:469:ARG:CD	2.19	0.73
2:G:7:ARG:HH21	2:G:27:PHE:CB	2.01	0.73
2:G:7:ARG:NH1	2:G:24:THR:HG23	2.03	0.73
1:A:44:VAL:CG1	1:A:78:ILE:HG12	2.18	0.73
1:B:749:ILE:HD13	1:B:806:VAL:HG12	1.71	0.73
1:C:1551:LYS:HD2	1:C:1617:ILE:HG21	1.70	0.73
2:G:105:ALA:HB1	2:G:119:THR:HG23	1.70	0.73
2:H:131:ILE:HD12	2:H:182:VAL:HB	1.71	0.73
1:A:1551:LYS:HD2	1:A:1617:ILE:HG21	1.70	0.73
1:C:67:SER:OG	2:H:359:HIS:HE1	1.70	0.73
2:G:1638:ILE:HD12	2:G:1657:ILE:HD12	1.71	0.73
2:G:1680:LEU:HD13	2:G:1687:ALA:HB2	1.71	0.73
2:H:572:ASN:HB3	2:H:576:LYS:H	1.54	0.73
1:B:1153:ASP:OD2	1:C:359:ARG:NH2	2.22	0.73
2:H:1352:HIS:HE1	2:H:1583:MET:HE2	1.53	0.73
2:H:1956:ARG:CB	2:H:1957:PRO:HD3	2.11	0.73
1:A:335:HIS:HE1	1:B:335:HIS:CE1	2.06	0.72
2:H:1352:HIS:HE1	2:H:1583:MET:CE	2.02	0.72
1:C:749:ILE:HD13	1:C:806:VAL:HG12	1.70	0.72
2:H:7:ARG:NH1	2:H:24:THR:HG23	2.03	0.72
2:H:194:THR:HG23	2:H:300:ILE:HD11	1.71	0.72
2:I:777:THR:HG22	2:I:1081:HIS:NE2	2.04	0.72
2:I:835:THR:HB	2:I:845:THR:HG23	1.71	0.72
1:A:833:PHE:HA	1:A:937:LYS:HD2	1.71	0.72
2:H:238:CYS:HB2	2:H:239:PRO:HD3	1.71	0.72
2:H:1680:LEU:HD13	2:H:1687:ALA:HB2	1.71	0.72
2:I:84:LEU:HD13	2:I:133:ALA:HB2	1.71	0.72
1:A:1208:VAL:HG13	1:A:1212:THR:HB	1.70	0.72
1:C:1376:PHE:CB	1:C:1544:THR:HG22	2.19	0.72
2:G:598:THR:OG1	2:G:599:PRO:HD3	1.89	0.72
2:G:1054:LEU:HB2	3:G:3051:FMN:HM73	1.72	0.72
2:H:856:LYS:HG2	2:H:1054:LEU:HD12	1.72	0.72
2:H:1784:MET:HG3	2:H:1785:GLU:N	2.03	0.72
2:I:7:ARG:HH21	2:I:27:PHE:CB	1.99	0.72
2:I:707:PRO:HG3	2:I:716:VAL:CG2	2.19	0.72
2:I:1331:TRP:CZ2	2:I:1335:ILE:HG13	2.25	0.72
1:B:473:GLY:O	1:B:477:ILE:HG13	1.89	0.72
1:C:655:LEU:HD22	1:C:916:LEU:HD11	1.71	0.72
2:H:705:LEU:HD12	2:H:716:VAL:HG13	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1672:GLN:HA	2:I:1676:MET:CE	2.20	0.72
1:B:44:VAL:CG1	1:B:78:ILE:HG12	2.18	0.72
1:A:1279:PHE:HB2	1:A:1282:THR:CG2	2.19	0.72
2:G:1269:LEU:O	2:G:1560:LEU:HD23	1.90	0.72
1:A:411:GLN:HE22	1:A:1628:SER:H	1.34	0.72
1:C:473:GLY:O	1:C:477:ILE:HG13	1.88	0.72
1:C:733:ILE:HD13	1:C:761:LEU:HD11	1.72	0.72
1:C:427:ASN:HD21	1:C:610:THR:H	1.35	0.72
2:G:238:CYS:HB2	2:G:239:PRO:HD3	1.71	0.72
2:G:707:PRO:CG	2:G:716:VAL:HG21	2.20	0.72
2:G:1310:ASP:OD2	2:G:1602:SER:HB3	1.90	0.72
2:H:138:ASP:O	2:H:139:LYS:HG3	1.90	0.72
2:H:777:THR:HG22	2:H:1081:HIS:NE2	2.04	0.72
2:I:194:THR:HG23	2:I:300:ILE:HD11	1.70	0.72
1:B:254:TRP:CZ3	1:B:302:LEU:HD13	2.25	0.72
2:H:109:LEU:HD11	2:H:116:LEU:HD23	1.72	0.72
2:H:146:PHE:HA	2:H:149:VAL:CG1	2.18	0.72
2:H:1355:ASN:HA	2:H:1407:THR:O	1.88	0.72
1:B:852:ARG:HG2	1:B:852:ARG:NH1	1.98	0.71
2:H:1359:MET:HE3	2:H:1404:MET:HB3	1.71	0.71
1:A:331:ILE:HD11	1:C:332:THR:HG22	1.71	0.71
1:A:733:ILE:HD13	1:A:761:LEU:HD11	1.71	0.71
1:B:1030:TRP:NE1	1:B:1580:LEU:CD2	2.54	0.71
2:G:1917:ILE:HG23	2:G:1922:ILE:HB	1.72	0.71
2:H:455:ILE:CG1	2:H:469:ARG:HD3	2.20	0.71
2:H:634:ILE:HD11	2:H:649:ILE:HD11	1.70	0.71
2:I:1496:LYS:HE2	2:I:1693:ARG:HH21	1.55	0.71
1:A:1045:PHE:HB3	1:A:1049:GLY:HA3	1.71	0.71
1:B:1312:VAL:HG22	1:B:1329:VAL:HG11	1.73	0.71
2:G:751:LEU:HD23	2:G:791:TYR:CE2	2.25	0.71
2:I:146:PHE:HA	2:I:149:VAL:CG1	2.20	0.71
2:I:583:PHE:CD2	2:I:764:MET:HE3	2.26	0.71
2:I:1680:LEU:HD13	2:I:1687:ALA:HB2	1.73	0.71
2:I:2036:GLU:HB2	2:I:2037:PRO:HD3	1.72	0.71
1:A:271:ASN:HD22	1:A:290:MET:HE1	1.54	0.71
1:B:1:MET:CE	1:B:6:GLU:HA	2.20	0.71
1:C:1208:VAL:HG13	1:C:1212:THR:HB	1.71	0.71
2:G:1352:HIS:HE1	2:G:1583:MET:HE2	1.52	0.71
2:H:1819:ALA:HA	2:H:2005:ARG:HH11	1.55	0.71
2:I:751:LEU:HD23	2:I:791:TYR:CE2	2.25	0.71
2:I:964:LEU:HD23	2:I:964:LEU:H	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:459:ASP:HB3	1:B:462:LYS:HG3	1.72	0.71
1:B:1232:TYR:CZ	1:B:1701:LYS:HD2	2.26	0.71
1:C:27:ARG:HH21	2:I:2015:THR:HA	1.54	0.71
2:G:109:LEU:HD11	2:G:116:LEU:HD23	1.71	0.71
2:H:1889:VAL:HG13	2:H:1977:HIS:HB2	1.72	0.71
2:I:191:SER:HA	2:I:194:THR:HG22	1.72	0.71
2:I:455:ILE:CG1	2:I:469:ARG:HD3	2.21	0.71
2:I:579:VAL:HG23	2:I:1078:HIS:CD2	2.24	0.71
2:I:1770:LEU:HD23	2:I:1776:PHE:HE2	1.55	0.71
2:I:1862:VAL:HG11	2:I:1866:PHE:CD1	2.26	0.71
1:A:1:MET:CE	1:A:6:GLU:HA	2.21	0.71
1:B:655:LEU:HD22	1:B:916:LEU:HD11	1.72	0.71
2:G:1159:ILE:HG12	2:G:1169:PRO:HD3	1.71	0.71
2:H:455:ILE:CD1	2:H:469:ARG:HD3	2.20	0.71
2:H:499:THR:CB	2:H:500:HIS:HD2	1.99	0.71
2:I:1352:HIS:CE1	2:I:1583:MET:HE2	2.24	0.71
1:B:1208:VAL:CG1	1:B:1212:THR:HB	2.20	0.71
2:G:1496:LYS:HE2	2:G:1693:ARG:HH21	1.54	0.71
2:H:1279:PHE:HD2	2:H:1340:PRO:HG3	1.55	0.71
2:I:234:ILE:HG13	2:I:235:PRO:HD3	1.73	0.71
2:I:856:LYS:HG2	2:I:1054:LEU:HD12	1.72	0.71
1:A:12:ILE:HA	1:A:15:THR:CG2	2.21	0.71
1:B:27:ARG:HH21	2:H:2015:THR:HA	1.56	0.71
2:H:1567:ARG:HG3	2:H:1567:ARG:NH1	1.99	0.71
2:I:1058:VAL:O	2:I:1061:GLN:HG2	1.90	0.71
2:G:161:GLY:H	2:G:505:GLY:HA3	1.54	0.70
2:G:2036:GLU:HB2	2:G:2037:PRO:HD3	1.73	0.70
2:I:259:THR:HG22	2:I:262:GLU:CG	2.20	0.70
2:I:1355:ASN:CB	2:I:1583:MET:HE1	2.21	0.70
2:G:50:ALA:HB3	2:G:53:GLU:HG3	1.72	0.70
2:G:835:THR:HG22	2:G:844:VAL:C	2.17	0.70
2:G:1889:VAL:HG13	2:G:1977:HIS:HB2	1.72	0.70
1:A:27:ARG:HH21	2:G:2015:THR:HA	1.56	0.70
2:H:7:ARG:HH21	2:H:27:PHE:CB	2.01	0.70
2:H:816:ASP:HB3	2:H:1048:VAL:HG21	1.73	0.70
2:I:1359:MET:HE3	2:I:1404:MET:HB3	1.72	0.70
1:B:968:VAL:O	2:H:1512:HIS:HB2	1.91	0.70
2:G:762:ASN:HD22	2:G:762:ASN:N	1.82	0.70
2:H:54:PRO:HG3	2:H:63:LYS:HG3	1.73	0.70
2:H:762:ASN:HD22	2:H:762:ASN:N	1.82	0.70
2:I:1242:PHE:CE2	2:I:1244:PRO:HG3	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1279:PHE:HD2	2:I:1340:PRO:HG3	1.54	0.70
2:I:1419:PHE:O	2:I:1422:THR:HG22	1.90	0.70
2:H:1310:ASP:OD2	2:H:1602:SER:HB3	1.91	0.70
1:A:852:ARG:HG2	1:A:852:ARG:NH1	2.00	0.70
1:C:1219:VAL:HG22	1:C:1384:ILE:HD12	1.73	0.70
2:I:1917:ILE:HG23	2:I:1922:ILE:HB	1.74	0.70
1:A:1208:VAL:CG1	1:A:1212:THR:HB	2.21	0.70
1:A:1722:VAL:CG1	1:A:1731:LEU:HB3	2.19	0.70
1:B:881:ASN:HA	1:B:944:ARG:NH2	2.06	0.70
1:C:529:MET:HA	1:C:529:MET:HE3	1.74	0.70
1:C:888:ILE:HD12	1:C:939:PHE:HE2	1.57	0.70
2:G:1331:TRP:CZ2	2:G:1335:ILE:HG13	2.26	0.70
2:H:652:ILE:HD13	2:H:658:MET:HE1	1.71	0.70
2:H:2036:GLU:HB2	2:H:2037:PRO:HD3	1.72	0.70
1:A:254:TRP:CZ3	1:A:292:GLN:HG3	2.26	0.70
1:A:631:PRO:HB2	1:A:634:THR:OG1	1.92	0.70
1:C:833:PHE:HA	1:C:937:LYS:HD2	1.73	0.70
2:I:1086:LEU:HG	2:I:1092:ASP:HA	1.72	0.70
1:A:749:ILE:HD13	1:A:806:VAL:HG12	1.72	0.70
1:A:1312:VAL:HG22	1:A:1329:VAL:HG11	1.73	0.70
2:G:964:LEU:H	2:G:964:LEU:CD2	2.04	0.70
2:G:1194:VAL:HG22	2:G:1212:LYS:HB3	1.74	0.70
2:H:652:ILE:H	2:H:658:MET:CE	2.03	0.70
2:I:455:ILE:CD1	2:I:469:ARG:HD3	2.21	0.70
1:A:1406:MET:HE1	1:A:1428:THR:HB	1.74	0.70
1:C:631:PRO:HB2	1:C:634:THR:OG1	1.92	0.70
2:G:1323:MET:HE3	2:G:1605:VAL:HG22	1.73	0.70
2:G:1670:GLY:H	2:G:1672:GLN:HE21	1.40	0.70
2:H:707:PRO:CG	2:H:716:VAL:HG21	2.21	0.70
2:I:161:GLY:H	2:I:505:GLY:HA3	1.56	0.70
1:C:1045:PHE:HB3	1:C:1049:GLY:HA3	1.74	0.69
1:C:1276:GLN:O	1:C:1282:THR:HG21	1.92	0.69
2:G:1672:GLN:HA	2:G:1676:MET:CE	2.21	0.69
1:A:253:ARG:HE	1:A:254:TRP:NE1	1.91	0.69
1:B:1:MET:HE3	1:B:5:VAL:HG12	1.74	0.69
1:C:260:ARG:NH1	1:C:300:VAL:HG21	2.06	0.69
1:C:459:ASP:HB3	1:C:462:LYS:HG3	1.73	0.69
2:H:1889:VAL:HG13	2:H:1977:HIS:CB	2.22	0.69
2:I:768:GLY:HA3	2:I:800:LEU:HD21	1.75	0.69
2:I:1265:MET:HE1	2:I:1562:PRO:HG2	1.74	0.69
1:A:1376:PHE:CB	1:A:1544:THR:HG22	2.19	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:253:ARG:HE	1:C:254:TRP:NE1	1.91	0.69
2:G:707:PRO:HG3	2:G:716:VAL:CG2	2.22	0.69
2:G:1242:PHE:HE2	2:G:1244:PRO:HG3	1.56	0.69
2:H:259:THR:HG22	2:H:262:GLU:CG	2.22	0.69
2:I:109:LEU:HD11	2:I:116:LEU:HD23	1.73	0.69
1:C:1208:VAL:CG1	1:C:1212:THR:HB	2.23	0.69
1:C:1219:VAL:HA	1:C:1384:ILE:CD1	2.20	0.69
2:G:191:SER:HA	2:G:194:THR:HG22	1.74	0.69
2:H:964:LEU:HD23	2:H:964:LEU:H	1.56	0.69
2:H:1808:SER:OG	2:H:1977:HIS:HE1	1.74	0.69
2:H:741:HIS:CE1	2:H:845:THR:HG21	2.27	0.69
2:H:1422:THR:CG2	2:H:1474:PHE:HB2	2.22	0.69
1:A:352:MET:HE2	1:A:354:LEU:CD2	2.22	0.69
1:B:888:ILE:HD12	1:B:939:PHE:HE2	1.57	0.69
1:B:1219:VAL:HG22	1:B:1384:ILE:HD12	1.75	0.69
2:G:187:LEU:HA	2:G:190:PHE:HB3	1.74	0.69
2:H:234:ILE:HG13	2:H:235:PRO:HD3	1.74	0.69
2:H:1670:GLY:H	2:H:1672:GLN:HE21	1.40	0.69
2:I:1264:GLU:HA	2:I:1275:PHE:CE1	2.27	0.69
1:A:1232:TYR:CZ	1:A:1701:LYS:HD2	2.27	0.69
1:B:254:TRP:CZ3	1:B:292:GLN:HG3	2.27	0.69
1:C:1310:GLU:OE1	1:C:1649:LYS:HE3	1.93	0.69
2:G:455:ILE:HD11	2:G:469:ARG:CD	2.22	0.69
2:G:1355:ASN:HA	2:G:1407:THR:O	1.92	0.69
2:G:1676:MET:HE1	2:G:1781:LEU:HD21	1.73	0.69
2:H:751:LEU:HD23	2:H:791:TYR:CE2	2.27	0.69
2:H:1161:GLN:HB3	2:H:1255:MET:HE3	1.75	0.69
2:I:926:LEU:HD13	2:I:947:THR:HG22	1.73	0.69
2:I:1355:ASN:HB3	2:I:1583:MET:HE1	1.75	0.69
1:A:504:ASP:HB3	1:A:508:ASN:H	1.56	0.69
1:A:888:ILE:HD12	1:A:939:PHE:HE2	1.57	0.69
2:G:259:THR:HG22	2:G:262:GLU:CG	2.22	0.69
2:G:455:ILE:CG1	2:G:469:ARG:HD3	2.23	0.69
2:G:579:VAL:HG23	2:G:1078:HIS:CD2	2.27	0.69
2:H:663:ILE:HB	2:H:664:PRO:HD3	1.75	0.69
2:I:910:GLN:HE21	2:I:912:ARG:HH21	1.40	0.69
2:I:1920:GLN:HG2	2:I:1922:ILE:HD11	1.75	0.69
1:A:1431:GLU:HG3	1:A:1433:HIS:CE1	2.28	0.69
2:H:2022:THR:HG23	2:H:2025:TYR:H	1.58	0.69
1:B:253:ARG:HE	1:B:254:TRP:NE1	1.91	0.69
1:C:271:ASN:HD22	1:C:290:MET:HE1	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:490:TRP:HE1	2:G:516:THR:CG2	1.99	0.69
2:G:741:HIS:NE2	2:G:855:HIS:CE1	2.61	0.69
2:I:598:THR:CG2	2:I:622:GLY:HA3	2.23	0.69
2:I:1352:HIS:HE1	2:I:1583:MET:HE2	1.56	0.69
2:I:1678:MET:HE1	2:I:1707:LEU:CD2	2.22	0.69
1:B:985:ARG:NH1	2:H:953:ARG:CZ	2.55	0.68
1:C:44:VAL:CG1	1:C:78:ILE:HG12	2.24	0.68
2:G:455:ILE:CD1	2:G:469:ARG:HD3	2.24	0.68
2:I:1638:ILE:HD12	2:I:1657:ILE:HD12	1.75	0.68
2:H:187:LEU:HA	2:H:190:PHE:HB3	1.75	0.68
2:H:305:PHE:CE1	2:H:442:ASP:HB3	2.27	0.68
2:I:663:ILE:HB	2:I:664:PRO:HD3	1.76	0.68
2:I:748:THR:HB	2:I:749:PRO:HD3	1.74	0.68
2:I:1739:GLU:CB	2:I:1987:PRO:HB3	2.20	0.68
1:C:985:ARG:HH12	2:I:953:ARG:CZ	2.06	0.68
2:G:84:LEU:HD13	2:G:133:ALA:HB2	1.75	0.68
2:G:1264:GLU:HA	2:G:1275:PHE:CE1	2.28	0.68
2:I:594:VAL:HG21	2:I:610:THR:HG21	1.75	0.68
1:C:968:VAL:HG23	2:I:1515:PRO:HG3	1.75	0.68
2:G:835:THR:HG21	2:G:855:HIS:HD2	1.51	0.68
2:H:1195:VAL:CG1	2:H:1211:LEU:HB3	2.23	0.68
2:H:1638:ILE:HD12	2:H:1657:ILE:HD12	1.76	0.68
2:I:305:PHE:CE1	2:I:442:ASP:HB3	2.29	0.68
2:I:545:GLN:HE21	2:I:545:GLN:H	1.41	0.68
2:I:652:ILE:H	2:I:658:MET:CE	2.04	0.68
1:A:1056:ILE:HD13	1:A:1193:TRP:HD1	1.59	0.68
1:C:12:ILE:HA	1:C:15:THR:CG2	2.22	0.68
2:G:663:ILE:HB	2:G:664:PRO:HD3	1.74	0.68
2:G:1770:LEU:HD23	2:G:1776:PHE:HE2	1.58	0.68
2:G:1784:MET:HG3	2:G:1785:GLU:N	2.07	0.68
2:H:1381:VAL:HG13	2:H:1390:VAL:HG22	1.74	0.68
1:A:1721:ARG:CG	1:A:1721:ARG:NH1	2.52	0.68
1:C:11:HIS:ND1	2:I:1998:LYS:HA	2.08	0.68
1:C:964:GLU:HG2	2:I:1515:PRO:HB3	1.76	0.68
2:G:1058:VAL:O	2:G:1061:GLN:HG2	1.93	0.68
2:G:2035:SER:HB3	2:G:2038:ILE:HG13	1.74	0.68
2:I:163:GLN:HG2	2:I:423:VAL:HG12	1.76	0.68
1:B:427:ASN:HD21	1:B:610:THR:H	1.41	0.68
2:H:1058:VAL:O	2:H:1061:GLN:HG2	1.94	0.68
2:H:1419:PHE:O	2:H:1422:THR:HG22	1.93	0.68
1:A:1474:ALA:HA	1:A:1478:PRO:CG	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:183:GLN:HE21	1:B:202:GLU:HG2	1.59	0.68
1:B:833:PHE:HA	1:B:937:LYS:HD2	1.75	0.68
1:B:1279:PHE:HB2	1:B:1282:THR:CG2	2.24	0.68
1:B:1310:GLU:OE1	1:B:1649:LYS:HE3	1.94	0.68
1:C:488:PRO:HG3	1:C:728:LYS:HG3	1.75	0.68
2:G:910:GLN:HE21	2:G:912:ARG:HH21	1.42	0.68
2:H:1264:GLU:HA	2:H:1275:PHE:CE1	2.29	0.68
1:A:1030:TRP:NE1	1:A:1580:LEU:CD2	2.57	0.68
2:G:583:PHE:CD2	2:G:764:MET:HE3	2.29	0.68
2:H:902:PRO:HG2	2:H:929:LEU:HD21	1.75	0.68
2:I:187:LEU:HA	2:I:190:PHE:HB3	1.76	0.68
2:I:1670:GLY:H	2:I:1672:GLN:HE21	1.38	0.68
1:A:183:GLN:HE21	1:A:202:GLU:HG2	1.59	0.68
1:A:359:ARG:NH2	1:C:1153:ASP:OD2	2.27	0.68
2:G:1889:VAL:HG13	2:G:1977:HIS:CB	2.24	0.68
2:I:499:THR:CB	2:I:500:HIS:HD2	1.95	0.68
2:I:1269:LEU:O	2:I:1560:LEU:HD23	1.93	0.68
2:I:1675:GLY:O	2:I:1678:MET:HB2	1.94	0.68
1:A:1594:ASN:O	1:A:1598:GLN:HG3	1.94	0.67
1:B:1391:ASP:OD2	1:B:1502:ARG:NH2	2.27	0.67
2:H:1834:ARG:HH11	2:H:1834:ARG:CG	1.92	0.67
2:I:703:LEU:HD21	2:I:705:LEU:HD21	1.76	0.67
1:A:328:LEU:O	1:A:328:LEU:HD22	1.94	0.67
1:A:459:ASP:HB3	1:A:462:LYS:HG3	1.76	0.67
1:C:257:PRO:HD2	1:C:260:ARG:HB2	1.76	0.67
1:C:1406:MET:HE1	1:C:1428:THR:HB	1.76	0.67
2:H:1770:LEU:HD23	2:H:1776:PHE:HE2	1.59	0.67
2:I:1194:VAL:HG22	2:I:1212:LYS:HB3	1.75	0.67
2:I:1822:MET:HE2	2:I:1996:ILE:HG12	1.77	0.67
1:C:1021:VAL:HG11	1:C:1597:LEU:HD11	1.74	0.67
2:H:1159:ILE:CG1	2:H:1169:PRO:HD3	2.25	0.67
2:I:1676:MET:HE1	2:I:1781:LEU:HD21	1.76	0.67
1:C:254:TRP:CZ3	1:C:292:GLN:HG3	2.29	0.67
1:C:1232:TYR:CZ	1:C:1701:LYS:HD2	2.29	0.67
1:C:1279:PHE:HB2	1:C:1282:THR:CG2	2.23	0.67
2:G:54:PRO:HG3	2:G:63:LYS:HG3	1.76	0.67
2:G:579:VAL:HG23	2:G:1078:HIS:NE2	2.10	0.67
2:G:768:GLY:HA3	2:G:800:LEU:HD21	1.76	0.67
2:G:1808:SER:H	2:G:2013:ASN:ND2	1.93	0.67
2:H:648:GLY:HA3	2:H:678:PHE:CE2	2.29	0.67
2:H:1741:ILE:HG12	2:H:1746:LEU:HD13	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1917:ILE:HG23	2:H:1922:ILE:HB	1.74	0.67
1:B:1045:PHE:HB3	1:B:1049:GLY:HA3	1.76	0.67
1:C:409:ALA:HB2	1:C:442:ARG:HD2	1.76	0.67
2:G:499:THR:CB	2:G:500:HIS:HD2	1.97	0.67
2:G:1176:PRO:O	2:G:1177:SER:HB3	1.93	0.67
2:H:1086:LEU:HG	2:H:1092:ASP:HA	1.76	0.67
2:H:1269:LEU:O	2:H:1560:LEU:HD23	1.94	0.67
2:I:1889:VAL:HG13	2:I:1977:HIS:CB	2.25	0.67
1:B:20:TYR:CE2	2:H:1985:VAL:HG11	2.29	0.67
1:B:1276:GLN:O	1:B:1282:THR:HG21	1.95	0.67
2:G:816:ASP:HB3	2:G:1048:VAL:HG21	1.77	0.67
2:G:1355:ASN:CB	2:G:1583:MET:HE1	2.25	0.67
2:I:1101:GLU:HB3	2:I:1147:ILE:HG22	1.75	0.67
1:B:2:LYS:CD	2:H:2050:GLN:HB3	2.21	0.67
1:B:1039:MET:O	1:B:1609:ARG:NH2	2.27	0.67
2:G:1161:GLN:HB3	2:G:1255:MET:HE3	1.77	0.67
2:G:1227:ARG:HD2	2:G:1565:VAL:HG11	1.76	0.67
2:G:1475:LYS:CG	2:G:1481:SER:HB2	2.25	0.67
2:H:545:GLN:HE21	2:H:545:GLN:H	1.41	0.67
2:I:904:PHE:HB2	2:I:1017:PHE:CD1	2.28	0.67
1:A:749:ILE:HD11	1:A:805:CYS:HB3	1.75	0.67
1:A:1219:VAL:HA	1:A:1384:ILE:CD1	2.23	0.67
1:A:1360:ARG:HH11	1:A:1364:GLU:HG2	1.60	0.67
1:C:12:ILE:HD11	2:I:2041:ILE:HD12	1.76	0.67
1:C:1030:TRP:NE1	1:C:1580:LEU:CD2	2.58	0.67
2:H:826:GLY:HA3	2:H:1061:GLN:HB3	1.76	0.67
2:I:583:PHE:HD2	2:I:764:MET:HE3	1.59	0.67
1:C:1:MET:HE3	1:C:5:VAL:HG12	1.77	0.67
2:H:1242:PHE:CE2	2:H:1244:PRO:HG3	2.30	0.67
2:I:1195:VAL:CG1	2:I:1211:LEU:HB3	2.25	0.67
1:C:746:GLU:O	1:C:750:GLU:HG3	1.95	0.67
2:H:50:ALA:HB3	2:H:53:GLU:HG3	1.76	0.67
2:H:707:PRO:HG3	2:H:716:VAL:CG2	2.24	0.67
2:I:598:THR:OG1	2:I:599:PRO:HD3	1.94	0.67
1:A:257:PRO:HD2	1:A:260:ARG:HB2	1.76	0.66
1:C:1360:ARG:HH11	1:C:1364:GLU:HG2	1.60	0.66
1:C:1455:ARG:HH11	1:C:1458:GLN:HE21	1.42	0.66
1:A:836:ASP:HB3	1:A:839:TYR:HB3	1.76	0.66
1:B:504:ASP:HB3	1:B:508:ASN:H	1.60	0.66
1:C:328:LEU:O	1:C:328:LEU:HD22	1.95	0.66
2:G:904:PHE:HB2	2:G:1017:PHE:CD1	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1101:GLU:HB3	2:G:1147:ILE:HG22	1.76	0.66
2:H:641:ILE:HG12	2:H:645:SER:HB2	1.76	0.66
2:H:910:GLN:HE21	2:H:912:ARG:HH21	1.43	0.66
2:I:705:LEU:HD12	2:I:716:VAL:HG13	1.76	0.66
1:A:1662:TYR:O	1:A:1665:ILE:HG22	1.95	0.66
1:B:12:ILE:HA	1:B:15:THR:CG2	2.25	0.66
1:C:294:TYR:CE1	1:C:298:VAL:HG21	2.29	0.66
1:C:504:ASP:HB3	1:C:508:ASN:H	1.60	0.66
2:G:1381:VAL:HG13	2:G:1390:VAL:HG22	1.78	0.66
1:C:183:GLN:HE21	1:C:202:GLU:HG2	1.60	0.66
2:G:1419:PHE:O	2:G:1422:THR:HG22	1.96	0.66
2:G:1739:GLU:CB	2:G:1987:PRO:HB3	2.23	0.66
2:H:1227:ARG:HD2	2:H:1565:VAL:HG11	1.77	0.66
1:B:328:LEU:O	1:B:328:LEU:HD22	1.95	0.66
1:B:864:VAL:HG22	1:B:921:PRO:HB3	1.77	0.66
1:B:883:ILE:HD12	1:B:947:LEU:HD12	1.77	0.66
1:C:836:ASP:HB3	1:C:839:TYR:HB3	1.77	0.66
2:H:1862:VAL:HG11	2:H:1866:PHE:CD1	2.30	0.66
1:A:473:GLY:O	1:A:477:ILE:HG13	1.95	0.66
1:A:1219:VAL:HG22	1:A:1384:ILE:HD12	1.77	0.66
1:C:1:MET:CE	1:C:6:GLU:HA	2.25	0.66
1:C:32:GLN:HA	1:C:35:PHE:CE2	2.31	0.66
2:G:163:GLN:HG2	2:G:423:VAL:HG12	1.77	0.66
2:G:1352:HIS:CD2	2:G:1410:PHE:CE2	2.84	0.66
2:G:1862:VAL:HG11	2:G:1866:PHE:CD1	2.30	0.66
1:A:599:MET:HB2	1:A:624:LYS:CD	2.25	0.66
1:C:1721:ARG:HG2	1:C:1721:ARG:NH1	2.00	0.66
2:G:353:VAL:HG23	2:G:357:ASN:ND2	2.10	0.66
2:G:736:ARG:NH1	2:G:769:SER:O	2.29	0.66
2:G:1129:ALA:HB2	2:G:1138:TRP:CZ3	2.30	0.66
1:C:460:GLU:HG2	1:C:470:LYS:HD3	1.77	0.66
2:G:902:PRO:HG2	2:G:929:LEU:HD21	1.76	0.66
2:G:1457:PHE:CZ	2:G:1501:ILE:HD11	2.30	0.66
2:G:1920:GLN:HG2	2:G:1922:ILE:HD11	1.78	0.66
2:H:161:GLY:H	2:H:505:GLY:HA3	1.59	0.66
2:H:594:VAL:HG21	2:H:610:THR:HG21	1.77	0.66
2:H:670:ARG:HD3	2:H:699:GLY:O	1.95	0.66
2:H:1676:MET:HE1	2:H:1781:LEU:HD21	1.78	0.66
2:I:835:THR:HG21	2:I:855:HIS:HD2	1.59	0.66
1:C:435:GLU:O	1:C:439:ILE:HG13	1.96	0.66
2:G:670:ARG:HD3	2:G:699:GLY:O	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:748:THR:HB	2:G:749:PRO:HD3	1.78	0.66
2:H:1986:LYS:N	2:H:1987:PRO:HD2	2.11	0.66
2:I:50:ALA:HB3	2:I:53:GLU:HG3	1.76	0.66
1:A:504:ASP:HB2	1:A:508:ASN:HB2	1.78	0.66
2:H:768:GLY:HA3	2:H:800:LEU:HD21	1.77	0.66
2:I:54:PRO:HG3	2:I:63:LYS:HG3	1.75	0.66
2:I:1176:PRO:O	2:I:1177:SER:HB3	1.95	0.66
1:A:254:TRP:CH2	1:A:292:GLN:HG3	2.31	0.65
1:A:968:VAL:O	2:G:1512:HIS:HB2	1.96	0.65
1:B:460:GLU:HG2	1:B:470:LYS:HD3	1.78	0.65
1:B:529:MET:CG	1:B:638:LEU:HG	2.26	0.65
1:B:1406:MET:HE1	1:B:1428:THR:HB	1.77	0.65
1:C:749:ILE:HD11	1:C:805:CYS:HB3	1.78	0.65
1:C:1056:ILE:HD13	1:C:1193:TRP:HD1	1.60	0.65
2:I:61:VAL:O	2:I:65:LEU:HB2	1.96	0.65
2:I:251:VAL:O	2:I:255:LEU:HB2	1.96	0.65
2:I:750:MET:HG3	2:I:796:PHE:HZ	1.60	0.65
1:A:864:VAL:HG22	1:A:921:PRO:HB3	1.78	0.65
1:B:294:TYR:CE1	1:B:298:VAL:HG21	2.31	0.65
2:G:61:VAL:O	2:G:65:LEU:HB2	1.96	0.65
2:H:904:PHE:HB2	2:H:1017:PHE:CD1	2.30	0.65
2:I:816:ASP:HB3	2:I:1048:VAL:CG2	2.26	0.65
1:A:294:TYR:CE1	1:A:298:VAL:HG21	2.32	0.65
1:A:488:PRO:HG3	1:A:728:LYS:HG3	1.77	0.65
1:A:881:ASN:HA	1:A:944:ARG:HH21	1.60	0.65
2:G:33:LEU:HD11	2:G:80:PHE:HD2	1.61	0.65
2:G:234:ILE:HG13	2:G:235:PRO:HD3	1.77	0.65
2:G:1279:PHE:HD2	2:G:1340:PRO:HG3	1.62	0.65
2:H:61:VAL:O	2:H:65:LEU:HB2	1.96	0.65
2:H:748:THR:HB	2:H:749:PRO:HD3	1.78	0.65
2:H:816:ASP:HB3	2:H:1048:VAL:CG2	2.26	0.65
2:H:964:LEU:H	2:H:964:LEU:CD2	2.10	0.65
1:A:1305:CYS:HB2	1:A:1645:GLY:HA2	1.79	0.65
1:B:497:THR:OG1	1:B:513:GLU:HG2	1.95	0.65
1:C:497:THR:OG1	1:C:513:GLU:HG2	1.97	0.65
2:G:856:LYS:NZ	2:G:1052:CYS:SG	2.69	0.65
2:H:1325:PHE:CZ	2:H:1328:VAL:HG11	2.32	0.65
2:I:1739:GLU:O	2:I:1987:PRO:HG3	1.95	0.65
1:A:335:HIS:CE1	1:B:335:HIS:CE1	2.84	0.65
1:A:985:ARG:NH1	2:G:953:ARG:CZ	2.60	0.65
1:C:411:GLN:HE22	1:C:1628:SER:H	1.42	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1242:PHE:CE2	2:G:1244:PRO:HG3	2.31	0.65
2:H:2035:SER:HB3	2:H:2038:ILE:HG13	1.79	0.65
2:I:579:VAL:HG23	2:I:1078:HIS:NE2	2.10	0.65
2:I:1808:SER:H	2:I:2013:ASN:ND2	1.94	0.65
1:A:27:ARG:HD2	1:A:30:GLU:OE2	1.97	0.65
1:B:421:ILE:CG1	1:B:469:VAL:HG21	2.27	0.65
1:C:295:ALA:HB2	1:C:302:LEU:HD11	1.77	0.65
2:G:353:VAL:HG23	2:G:357:ASN:HD22	1.61	0.65
2:G:1567:ARG:HG3	2:G:1567:ARG:NH1	2.02	0.65
2:H:1739:GLU:CB	2:H:1987:PRO:HB3	2.21	0.65
1:A:1021:VAL:HG11	1:A:1597:LEU:HD11	1.79	0.65
1:B:1317:GLU:OE1	1:B:1317:GLU:HA	1.96	0.65
2:G:816:ASP:HB3	2:G:1048:VAL:CG2	2.26	0.65
2:G:1740:THR:HG22	2:G:1742:VAL:HG23	1.78	0.65
2:G:1741:ILE:HG12	2:G:1746:LEU:HD13	1.77	0.65
2:H:703:LEU:HD21	2:H:705:LEU:HD21	1.79	0.65
2:H:1740:THR:HG22	2:H:1742:VAL:HG23	1.79	0.65
1:A:340:ARG:HH12	1:A:344:GLN:CG	2.09	0.65
1:B:257:PRO:HD2	1:B:260:ARG:HB2	1.78	0.65
1:C:864:VAL:HG22	1:C:921:PRO:HB3	1.79	0.65
1:C:1194:ASN:HB3	1:C:1197:THR:CG2	2.27	0.65
2:G:826:GLY:HA3	2:G:1061:GLN:HB3	1.78	0.65
2:G:1265:MET:CE	2:G:1562:PRO:HG2	2.27	0.65
2:G:1355:ASN:HB3	2:G:1583:MET:HE1	1.79	0.65
2:H:1823:SER:OG	2:H:1825:GLU:HG2	1.96	0.65
2:I:1378:ILE:HD11	2:I:1381:VAL:HG21	1.79	0.65
1:B:746:GLU:O	1:B:750:GLU:HG3	1.97	0.65
2:H:1472:VAL:HG22	2:H:1483:VAL:HG22	1.79	0.65
1:A:497:THR:OG1	1:A:513:GLU:HG2	1.96	0.65
1:B:749:ILE:HD11	1:B:805:CYS:HB3	1.78	0.65
2:G:131:ILE:HB	2:G:182:VAL:HG11	1.78	0.65
2:G:305:PHE:CE1	2:G:442:ASP:HB3	2.32	0.65
2:H:163:GLN:HG2	2:H:423:VAL:HG12	1.79	0.65
2:H:191:SER:HA	2:H:194:THR:HG22	1.77	0.65
2:H:1808:SER:H	2:H:2013:ASN:ND2	1.95	0.65
2:I:1475:LYS:CG	2:I:1481:SER:HB2	2.27	0.65
1:A:529:MET:CG	1:A:638:LEU:HG	2.27	0.64
1:A:1039:MET:O	1:A:1609:ARG:NH2	2.30	0.64
1:B:1474:ALA:HA	1:B:1478:PRO:CG	2.27	0.64
1:C:1594:ASN:O	1:C:1598:GLN:HG3	1.97	0.64
2:G:259:THR:HG23	2:G:262:GLU:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1195:VAL:CG1	2:G:1211:LEU:HB3	2.27	0.64
2:G:1378:ILE:HD11	2:G:1381:VAL:HG21	1.76	0.64
2:I:7:ARG:HE	2:I:27:PHE:HB2	1.62	0.64
1:C:408:TRP:CZ3	1:C:1628:SER:HB3	2.32	0.64
1:C:1292:ILE:CD1	1:C:1328:ILE:HD11	2.27	0.64
2:H:259:THR:CG2	2:H:262:GLU:H	2.10	0.64
2:I:1782:THR:HG22	2:I:1827:LEU:HD21	1.78	0.64
1:C:604:ALA:HB3	1:C:612:GLU:HG2	1.80	0.64
2:H:1205:LEU:O	2:H:1206:LYS:HG3	1.97	0.64
2:H:1719:ILE:O	2:H:1761:SER:HB2	1.97	0.64
2:I:1355:ASN:HA	2:I:1407:THR:O	1.96	0.64
1:A:746:GLU:O	1:A:750:GLU:HG3	1.97	0.64
1:B:254:TRP:CH2	1:B:292:GLN:HG3	2.32	0.64
2:I:826:GLY:HA3	2:I:1061:GLN:HB3	1.79	0.64
2:I:1266:TYR:CB	2:I:1347:LEU:HD23	2.28	0.64
1:A:1693:ILE:CD1	2:G:998:GLN:HB2	2.25	0.64
2:H:658:MET:HA	2:H:661:TRP:NE1	2.13	0.64
2:I:1673:GLU:H	2:I:1676:MET:HE3	1.63	0.64
2:I:1741:ILE:HG12	2:I:1746:LEU:HD13	1.80	0.64
1:A:1:MET:HE3	1:A:5:VAL:HG12	1.80	0.64
1:A:330:GLU:HA	1:A:333:LYS:HD2	1.80	0.64
1:A:1022:THR:HG22	1:A:1226:SER:HB2	1.80	0.64
1:A:1317:GLU:HA	1:A:1317:GLU:OE1	1.96	0.64
1:C:883:ILE:HD12	1:C:947:LEU:HD12	1.80	0.64
2:G:159:ILE:HD11	2:G:512:LEU:HG	1.80	0.64
2:G:1086:LEU:HG	2:G:1092:ASP:HA	1.77	0.64
2:G:1986:LYS:N	2:G:1987:PRO:HD2	2.12	0.64
2:H:598:THR:CG2	2:H:622:GLY:HA3	2.28	0.64
2:I:816:ASP:HB3	2:I:1048:VAL:HG21	1.79	0.64
1:C:1317:GLU:OE1	1:C:1317:GLU:HA	1.96	0.64
2:H:259:THR:HG23	2:H:262:GLU:H	1.63	0.64
2:H:871:THR:HB	2:H:872:ILE:HD12	1.80	0.64
2:H:1359:MET:SD	2:H:1404:MET:HE2	2.38	0.64
2:H:1457:PHE:CZ	2:H:1501:ILE:HD11	2.32	0.64
2:I:259:THR:CG2	2:I:262:GLU:H	2.11	0.64
2:I:719:ILE:O	2:I:722:ALA:HB3	1.97	0.64
2:G:259:THR:CG2	2:G:262:GLU:H	2.10	0.64
2:H:1266:TYR:CB	2:H:1347:LEU:HD23	2.28	0.64
2:I:184:VAL:HG13	2:I:187:LEU:HD21	1.80	0.64
2:I:892:ILE:HD11	2:I:903:TRP:NE1	2.12	0.64
2:I:1161:GLN:HB3	2:I:1255:MET:HE3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:331:ILE:CD1	1:C:332:THR:HG22	2.28	0.64
2:G:641:ILE:HG12	2:G:645:SER:HB2	1.80	0.64
2:G:1422:THR:CG2	2:G:1474:PHE:HB2	2.27	0.64
2:I:648:GLY:HA3	2:I:678:PHE:CE2	2.32	0.64
1:A:504:ASP:CB	1:A:508:ASN:H	2.10	0.64
1:B:733:ILE:HD13	1:B:761:LEU:HD11	1.78	0.64
1:B:980:VAL:H	2:H:968:GLN:HE22	1.45	0.64
1:C:12:ILE:HD11	2:I:2041:ILE:CD1	2.27	0.64
1:C:436:ALA:O	1:C:440:MET:HG3	1.98	0.64
2:G:1205:LEU:O	2:G:1206:LYS:HG3	1.98	0.64
2:G:1359:MET:SD	2:G:1404:MET:HE2	2.38	0.64
2:I:1103:PHE:O	2:I:1247:GLY:HA3	1.98	0.64
1:C:1312:VAL:HG22	1:C:1329:VAL:HG11	1.78	0.63
1:C:1474:ALA:HA	1:C:1478:PRO:CG	2.27	0.63
2:G:259:THR:OG1	2:G:260:PRO:HD2	1.98	0.63
2:G:1906:ALA:O	2:G:1910:VAL:HG23	1.97	0.63
2:H:601:THR:CG2	2:H:618:GLU:O	2.38	0.63
2:H:1352:HIS:CD2	2:H:1410:PHE:CE2	2.85	0.63
2:H:1874:VAL:O	2:H:1878:VAL:HG12	1.98	0.63
2:I:1195:VAL:HG13	2:I:1211:LEU:HB3	1.79	0.63
2:I:1381:VAL:HG13	2:I:1390:VAL:HG22	1.79	0.63
2:I:1740:THR:HG22	2:I:1742:VAL:HG23	1.79	0.63
1:B:330:GLU:HA	1:B:333:LYS:HD2	1.80	0.63
1:B:529:MET:HG3	1:B:638:LEU:HG	1.80	0.63
2:H:85:ASN:ND2	2:H:135:ARG:HH11	1.96	0.63
2:H:232:LEU:O	2:H:232:LEU:HD23	1.98	0.63
2:H:667:LYS:HB2	2:H:698:LEU:HD23	1.79	0.63
2:H:1859:PRO:O	2:H:1862:VAL:HG13	1.98	0.63
2:I:259:THR:OG1	2:I:260:PRO:HD2	1.98	0.63
2:I:490:TRP:HE1	2:I:516:THR:CG2	2.00	0.63
2:I:670:ARG:HD3	2:I:699:GLY:O	1.98	0.63
2:I:1194:VAL:O	2:I:1194:VAL:HG12	1.99	0.63
2:I:1819:ALA:HA	2:I:2005:ARG:HH11	1.61	0.63
1:C:158:LYS:HD3	1:C:185:GLU:HB3	1.79	0.63
1:C:1009:LEU:HD13	1:C:1445:MET:HE1	1.79	0.63
2:G:648:GLY:HA3	2:G:678:PHE:CE2	2.33	0.63
2:G:726:PHE:O	2:G:762:ASN:HB2	1.98	0.63
2:I:115:THR:HB	2:I:118:LYS:HB2	1.80	0.63
2:I:1859:PRO:O	2:I:1862:VAL:HG13	1.98	0.63
1:A:421:ILE:CG1	1:A:469:VAL:HG21	2.27	0.63
2:G:835:THR:CB	2:G:845:THR:HG23	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:353:VAL:HG23	2:H:357:ASN:ND2	2.13	0.63
2:H:1168:ASN:ND2	2:H:1171:ARG:HB2	2.14	0.63
2:I:964:LEU:H	2:I:964:LEU:CD2	2.11	0.63
1:A:436:ALA:O	1:A:440:MET:HG3	1.99	0.63
1:A:460:GLU:HG2	1:A:470:LYS:HD3	1.79	0.63
1:A:1194:ASN:HB3	1:A:1197:THR:CG2	2.28	0.63
1:A:1292:ILE:CD1	1:A:1328:ILE:HD11	2.28	0.63
1:A:1308:SER:HB3	1:A:1589:GLY:HA3	1.81	0.63
1:C:680:ILE:HG13	1:C:769:ILE:HB	1.80	0.63
2:H:33:LEU:HD11	2:H:80:PHE:HD2	1.63	0.63
2:H:131:ILE:HB	2:H:182:VAL:HG11	1.81	0.63
2:I:56:THR:HG23	2:I:59:GLU:CG	2.28	0.63
2:I:131:ILE:HB	2:I:182:VAL:HG11	1.79	0.63
2:I:1159:ILE:CG1	2:I:1169:PRO:HD3	2.28	0.63
1:B:488:PRO:HG3	1:B:728:LYS:HG3	1.78	0.63
1:C:1431:GLU:HG3	1:C:1433:HIS:CE1	2.33	0.63
2:H:856:LYS:NZ	2:H:1052:CYS:SG	2.70	0.63
2:H:1176:PRO:O	2:H:1177:SER:HB3	1.97	0.63
1:A:11:HIS:ND1	2:G:1998:LYS:HA	2.13	0.63
1:A:1461:ASP:O	1:A:1465:ASN:HB2	1.99	0.63
1:B:1540:SER:HA	1:B:1575:VAL:HG22	1.81	0.63
1:C:254:TRP:CH2	1:C:292:GLN:HG3	2.34	0.63
1:C:742:LYS:HD3	1:C:746:GLU:OE2	1.98	0.63
1:C:1039:MET:O	1:C:1609:ARG:NH2	2.31	0.63
2:G:99:ASN:HA	2:G:550:VAL:CG2	2.28	0.63
2:G:138:ASP:O	2:G:139:LYS:HG3	1.99	0.63
2:G:583:PHE:HD2	2:G:764:MET:HE3	1.62	0.63
2:G:1266:TYR:CB	2:G:1347:LEU:HD23	2.29	0.63
2:G:1808:SER:H	2:G:2013:ASN:HD21	1.47	0.63
2:G:2022:THR:HG23	2:G:2025:TYR:H	1.63	0.63
2:H:1004:LEU:HD21	2:H:1020:VAL:HG23	1.81	0.63
2:H:1931:LEU:HD22	2:H:1935:GLU:HG2	1.81	0.63
2:I:2022:THR:HG23	2:I:2025:TYR:H	1.63	0.63
1:B:352:MET:HE2	1:B:354:LEU:CD2	2.28	0.63
1:B:1219:VAL:HA	1:B:1384:ILE:CD1	2.24	0.63
1:C:956:ALA:O	1:C:959:ILE:HG22	1.99	0.63
1:C:1292:ILE:HD11	1:C:1328:ILE:HD11	1.81	0.63
2:G:7:ARG:HE	2:G:27:PHE:HB2	1.63	0.63
2:G:545:GLN:HE21	2:G:545:GLN:H	1.46	0.63
2:H:100:ASP:OD2	2:H:102:HIS:HD2	1.82	0.63
2:I:259:THR:HG23	2:I:262:GLU:H	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:158:LYS:HD3	1:A:185:GLU:HB3	1.81	0.63
1:A:1721:ARG:HG2	1:A:1721:ARG:NH1	1.97	0.63
1:B:504:ASP:HB2	1:B:508:ASN:HB2	1.79	0.63
2:G:241:ILE:HG23	2:G:506:PRO:HG3	1.80	0.63
2:H:115:THR:HB	2:H:118:LYS:HB2	1.80	0.63
2:H:1195:VAL:HG13	2:H:1211:LEU:HB3	1.79	0.63
2:H:1475:LYS:CG	2:H:1481:SER:HB2	2.29	0.63
2:I:1457:PHE:CZ	2:I:1501:ILE:HD11	2.33	0.63
2:I:1890:ASN:HB2	2:I:1899:VAL:HB	1.81	0.63
1:B:444:ASN:HB3	1:B:446:ALA:H	1.63	0.62
1:C:352:MET:HE2	1:C:354:LEU:CD2	2.28	0.62
2:G:943:TRP:CH2	2:G:1016:PRO:HG3	2.34	0.62
2:G:1103:PHE:O	2:G:1247:GLY:HA3	1.99	0.62
2:H:741:HIS:CB	2:H:853:PRO:HB2	2.29	0.62
2:H:750:MET:HG3	2:H:796:PHE:HZ	1.64	0.62
2:H:1149:TRP:CD1	2:H:1213:LEU:HD12	2.34	0.62
2:H:1808:SER:H	2:H:2013:ASN:HD21	1.46	0.62
2:I:1808:SER:H	2:I:2013:ASN:HD21	1.47	0.62
1:B:836:ASP:HB3	1:B:839:TYR:HB3	1.79	0.62
1:C:330:GLU:HA	1:C:333:LYS:HD2	1.79	0.62
2:G:324:LEU:HD12	2:G:328:LEU:HG	1.81	0.62
2:G:1822:MET:HE2	2:G:1996:ILE:HG12	1.79	0.62
2:H:251:VAL:O	2:H:255:LEU:HB2	1.99	0.62
2:H:762:ASN:H	2:H:762:ASN:ND2	1.85	0.62
2:H:1675:GLY:O	2:H:1678:MET:HB2	1.99	0.62
2:I:641:ILE:HG12	2:I:645:SER:HB2	1.79	0.62
1:A:1523:ARG:CG	1:A:1523:ARG:NH1	2.57	0.62
2:H:7:ARG:HE	2:H:27:PHE:HB2	1.64	0.62
1:B:1455:ARG:HH11	1:B:1458:GLN:HE21	1.47	0.62
1:C:985:ARG:HH12	2:I:953:ARG:NH2	1.97	0.62
2:G:490:TRP:O	2:G:494:THR:HG22	1.98	0.62
2:I:159:ILE:HD11	2:I:512:LEU:HG	1.80	0.62
2:I:846:VAL:HG13	2:I:865:TRP:NE1	2.15	0.62
2:I:1472:VAL:HG22	2:I:1483:VAL:HG22	1.81	0.62
2:I:1823:SER:OG	2:I:1825:GLU:HG2	2.00	0.62
2:I:1868:GLN:HG3	2:I:1898:TYR:OH	1.99	0.62
1:A:152:HIS:HD2	1:A:163:LEU:HB2	1.61	0.62
2:G:115:THR:HB	2:G:118:LYS:HB2	1.81	0.62
2:G:1819:ALA:HA	2:G:2005:ARG:HH11	1.65	0.62
2:H:1906:ALA:O	2:H:1910:VAL:HG23	1.98	0.62
1:C:529:MET:CG	1:C:638:LEU:HG	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:824:LEU:HD12	1:C:846:LEU:HB3	1.82	0.62
1:C:1523:ARG:CG	1:C:1523:ARG:NH1	2.57	0.62
2:G:251:VAL:O	2:G:255:LEU:HB2	1.99	0.62
2:G:732:TRP:CG	2:G:750:MET:CE	2.76	0.62
2:H:159:ILE:HD11	2:H:512:LEU:HG	1.82	0.62
2:I:667:LYS:HB2	2:I:698:LEU:HD23	1.82	0.62
1:B:1056:ILE:HD13	1:B:1193:TRP:HD1	1.64	0.62
1:B:1721:ARG:HG2	1:B:1721:ARG:NH1	2.00	0.62
2:G:33:LEU:HD11	2:G:80:PHE:CD2	2.35	0.62
2:G:1678:MET:HE2	2:G:1711:ILE:HG13	1.82	0.62
2:H:33:LEU:HD11	2:H:80:PHE:CD2	2.35	0.62
1:A:705:VAL:HG23	1:A:732:LEU:HD21	1.82	0.62
1:A:956:ALA:O	1:A:959:ILE:HG22	1.98	0.62
1:B:27:ARG:HD2	1:B:30:GLU:OE2	2.00	0.62
2:G:1673:GLU:H	2:G:1676:MET:HE3	1.64	0.62
2:H:601:THR:HG22	2:H:601:THR:O	2.00	0.62
2:I:464:ASP:HB3	2:I:466:SER:HB3	1.80	0.62
1:B:1594:ASN:O	1:B:1598:GLN:HG3	2.00	0.62
2:G:1859:PRO:O	2:G:1862:VAL:HG13	1.99	0.62
2:H:1374:THR:HG23	2:H:1396:LEU:HD12	1.81	0.62
2:H:1672:GLN:HA	2:H:1676:MET:HE1	1.80	0.62
1:B:198:PRO:CG	1:B:209:LEU:HD21	2.26	0.62
1:B:1292:ILE:HD11	1:B:1328:ILE:HD11	1.82	0.62
2:G:607:VAL:HA	2:G:617:ILE:HD13	1.82	0.62
2:G:719:ILE:O	2:G:722:ALA:HB3	2.00	0.62
2:G:1360:ILE:HG23	2:G:1403:VAL:O	1.99	0.62
1:A:644:THR:HG23	1:A:648:ASP:H	1.65	0.61
1:A:749:ILE:CD1	1:A:805:CYS:HB3	2.29	0.61
1:A:824:LEU:HD12	1:A:846:LEU:HB3	1.80	0.61
1:A:1326:ILE:HG12	1:A:1388:MET:HG3	1.82	0.61
1:B:340:ARG:HH12	1:B:344:GLN:CG	2.13	0.61
1:C:644:THR:HG23	1:C:648:ASP:H	1.65	0.61
1:C:992:PHE:CE2	1:C:1399:PRO:HG3	2.36	0.61
2:H:490:TRP:O	2:H:494:THR:HG22	2.00	0.61
2:H:517:HIS:C	2:H:517:HIS:CD2	2.78	0.61
2:H:589:ARG:HB3	2:H:590:PRO:HD2	1.82	0.61
2:H:892:ILE:HD11	2:H:903:TRP:NE1	2.14	0.61
2:H:1822:MET:HE2	2:H:1996:ILE:HG12	1.82	0.61
2:I:1678:MET:HE2	2:I:1711:ILE:HG13	1.82	0.61
1:B:604:ALA:HB3	1:B:612:GLU:HG2	1.82	0.61
1:C:504:ASP:CB	1:C:508:ASN:H	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:741:HIS:CE1	2:G:855:HIS:CE1	2.88	0.61
2:H:174:ARG:NH2	2:H:225:THR:OG1	2.33	0.61
2:I:33:LEU:HD11	2:I:80:PHE:HD2	1.65	0.61
2:I:241:ILE:HG23	2:I:506:PRO:HG3	1.81	0.61
2:I:1624:THR:HB	2:I:1642:THR:HG23	1.81	0.61
1:A:1455:ARG:HH11	1:A:1458:GLN:HE21	1.47	0.61
1:B:1292:ILE:CD1	1:B:1328:ILE:HD11	2.30	0.61
1:B:1555:ALA:HA	1:B:1621:PHE:CE1	2.36	0.61
1:C:24:SER:CB	2:I:2014:LEU:HD12	2.30	0.61
1:C:233:ILE:HD13	1:C:237:MET:CE	2.30	0.61
1:C:529:MET:HG3	1:C:638:LEU:HG	1.83	0.61
1:C:881:ASN:HA	1:C:944:ARG:HH21	1.64	0.61
2:G:85:ASN:ND2	2:G:135:ARG:HH11	1.97	0.61
2:G:745:ASP:HA	2:G:832:TRP:HH2	1.64	0.61
2:G:1719:ILE:O	2:G:1761:SER:HB2	2.00	0.61
2:H:315:PRO:O	2:I:1314:ARG:NH2	2.33	0.61
2:H:353:VAL:HG23	2:H:357:ASN:HD22	1.65	0.61
2:H:1086:LEU:HD12	2:H:1090:TYR:HB2	1.83	0.61
2:I:565:TYR:CZ	2:I:758:ARG:HD2	2.35	0.61
1:B:411:GLN:HE22	1:B:1628:SER:H	1.47	0.61
1:B:421:ILE:HG13	1:B:469:VAL:HG21	1.81	0.61
2:G:517:HIS:C	2:G:517:HIS:CD2	2.78	0.61
2:G:1004:LEU:HD21	2:G:1020:VAL:HG23	1.82	0.61
2:G:1908:ASP:HB2	2:G:1958:LEU:HD21	1.81	0.61
2:H:603:SER:O	2:H:607:VAL:HG12	2.01	0.61
2:H:1496:LYS:HE2	2:H:1693:ARG:HH21	1.65	0.61
2:H:1624:THR:HB	2:H:1642:THR:HG23	1.82	0.61
2:I:1325:PHE:CZ	2:I:1328:VAL:HG11	2.36	0.61
1:A:32:GLN:HA	1:A:35:PHE:CE2	2.35	0.61
1:A:232:LEU:HD22	1:A:269:LEU:HA	1.83	0.61
1:A:822:VAL:HG12	1:A:824:LEU:HD22	1.82	0.61
2:G:1931:LEU:HD22	2:G:1935:GLU:HG2	1.82	0.61
2:I:835:THR:HG21	2:I:855:HIS:NE2	2.14	0.61
1:B:1194:ASN:HB3	1:B:1197:THR:CG2	2.30	0.61
2:G:174:ARG:NH2	2:G:225:THR:OG1	2.34	0.61
2:G:522:GLY:HA3	2:G:561:TRP:CZ3	2.35	0.61
1:A:1103:ILE:HD11	1:A:1582:GLY:N	2.16	0.61
1:B:1523:ARG:CG	1:B:1523:ARG:NH1	2.59	0.61
1:C:1540:SER:HA	1:C:1575:VAL:HG22	1.82	0.61
2:H:1253:GLU:HB3	2:H:1255:MET:HE2	1.82	0.61
2:I:745:ASP:HA	2:I:832:TRP:HH2	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1906:ALA:O	2:I:1910:VAL:HG23	2.00	0.61
1:A:1259:GLY:HA2	1:A:1263:ASP:HB2	1.81	0.61
1:B:400:ARG:HH11	1:B:400:ARG:HG3	1.64	0.61
1:B:1021:VAL:HG11	1:B:1597:LEU:HD11	1.83	0.61
1:C:1308:SER:HB3	1:C:1589:GLY:HA3	1.80	0.61
2:I:1101:GLU:HB2	2:I:1147:ILE:O	2.00	0.61
1:B:158:LYS:HD3	1:B:185:GLU:HB3	1.82	0.61
1:B:631:PRO:HB2	1:B:634:THR:OG1	2.00	0.61
1:B:1052:GLU:O	1:B:1056:ILE:HG23	2.00	0.61
1:C:352:MET:HE2	1:C:354:LEU:HD21	1.83	0.61
2:G:1782:THR:HG22	2:G:1827:LEU:HD21	1.81	0.61
2:H:597:MET:HA	3:H:3051:FMN:N5	2.15	0.61
2:H:1673:GLU:H	2:H:1676:MET:HE3	1.64	0.61
2:I:33:LEU:HD11	2:I:80:PHE:CD2	2.36	0.61
2:I:663:ILE:HG13	2:I:694:TYR:HE1	1.66	0.61
2:I:860:ARG:HB3	2:I:898:ASP:HB3	1.81	0.61
2:I:1227:ARG:HD2	2:I:1565:VAL:HG11	1.81	0.61
1:B:1431:GLU:HG3	1:B:1433:HIS:CE1	2.36	0.61
2:G:871:THR:HB	2:G:872:ILE:HD12	1.82	0.61
2:I:835:THR:HG22	2:I:845:THR:N	2.16	0.61
2:I:1086:LEU:HD12	2:I:1090:TYR:HB2	1.82	0.61
1:A:1292:ILE:HD11	1:A:1328:ILE:HD11	1.81	0.60
1:C:444:ASN:HB3	1:C:446:ALA:H	1.65	0.60
1:C:599:MET:HB2	1:C:624:LYS:CD	2.25	0.60
1:C:635:ILE:HG22	1:C:651:TYR:CG	2.36	0.60
2:G:601:THR:O	2:G:601:THR:HG22	2.01	0.60
2:H:260:PRO:HD3	2:H:289:TRP:CE2	2.36	0.60
1:B:644:THR:HG23	1:B:648:ASP:H	1.65	0.60
1:C:504:ASP:HB2	1:C:508:ASN:HB2	1.81	0.60
1:C:980:VAL:HG21	2:I:952:ARG:HH21	1.65	0.60
2:G:1378:ILE:HD11	2:G:1381:VAL:CG2	2.30	0.60
2:I:932:ILE:HD11	2:I:1042:ALA:CB	2.25	0.60
1:A:12:ILE:HD11	2:G:2041:ILE:CD1	2.30	0.60
1:B:1062:TYR:CD2	1:B:1693:ILE:HG23	2.36	0.60
1:C:340:ARG:HH12	1:C:344:GLN:CG	2.14	0.60
1:C:705:VAL:HG23	1:C:732:LEU:HD21	1.82	0.60
1:C:1492:GLU:O	1:C:1496:GLU:HG3	2.01	0.60
2:G:598:THR:CG2	2:G:622:GLY:HA3	2.30	0.60
2:G:1086:LEU:HD12	2:G:1090:TYR:HB2	1.83	0.60
2:G:1123:ASP:N	2:G:1123:ASP:OD1	2.34	0.60
2:G:1805:ALA:HB2	2:G:2011:ILE:HB	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:499:THR:CB	2:H:500:HIS:CD2	2.81	0.60
2:I:741:HIS:CE1	2:I:845:THR:HG21	2.35	0.60
2:I:1805:ALA:HB2	2:I:2011:ILE:HB	1.82	0.60
1:B:956:ALA:O	1:B:959:ILE:HG22	2.02	0.60
1:B:1184:LEU:HB2	1:B:1352:THR:HG21	1.83	0.60
1:C:1057:MET:SD	1:C:1097:ILE:HG23	2.40	0.60
2:G:271:THR:OG1	2:G:460:TYR:HB2	2.01	0.60
2:G:443:LEU:HD22	2:G:448:VAL:HG11	1.83	0.60
2:G:526:ARG:HH11	2:G:558:ASN:HD21	1.49	0.60
2:G:1195:VAL:HG13	2:G:1211:LEU:HB3	1.84	0.60
2:G:1325:PHE:CZ	2:G:1328:VAL:HG11	2.37	0.60
2:G:1739:GLU:O	2:G:1987:PRO:HG3	2.00	0.60
2:I:1374:THR:HG23	2:I:1396:LEU:HD12	1.84	0.60
2:I:1672:GLN:HA	2:I:1676:MET:HE1	1.83	0.60
1:C:198:PRO:CG	1:C:209:LEU:HD21	2.28	0.60
1:C:822:VAL:HG12	1:C:824:LEU:HD22	1.82	0.60
1:C:1544:THR:O	1:C:1545:SER:HB3	2.02	0.60
2:G:846:VAL:HG13	2:G:865:TRP:NE1	2.16	0.60
2:G:1472:VAL:HG22	2:G:1483:VAL:HG22	1.83	0.60
2:H:241:ILE:HG23	2:H:506:PRO:HG3	1.83	0.60
2:H:324:LEU:HD12	2:H:328:LEU:HG	1.84	0.60
2:H:455:ILE:HG13	2:H:469:ARG:HD3	1.83	0.60
2:H:814:SER:HB2	2:H:1040:LEU:HD13	1.83	0.60
2:I:100:ASP:OD2	2:I:102:HIS:HD2	1.83	0.60
2:I:324:LEU:HD12	2:I:328:LEU:HG	1.82	0.60
2:I:1173:VAL:O	2:I:1567:ARG:NH2	2.35	0.60
2:I:1360:ILE:HG23	2:I:1403:VAL:O	2.01	0.60
1:A:635:ILE:HG22	1:A:651:TYR:CG	2.36	0.60
1:A:980:VAL:HG21	2:G:952:ARG:HH21	1.64	0.60
1:B:80:CYS:SG	1:B:82:SER:HB3	2.42	0.60
1:B:221:LEU:O	1:B:225:SER:HB3	2.02	0.60
1:B:680:ILE:HG13	1:B:769:ILE:HB	1.83	0.60
2:G:1834:ARG:HH11	2:G:1834:ARG:CG	2.02	0.60
2:H:197:GLU:OE1	2:H:197:GLU:HA	2.02	0.60
2:H:565:TYR:CZ	2:H:758:ARG:HD2	2.35	0.60
2:H:745:ASP:HA	2:H:832:TRP:HH2	1.66	0.60
2:H:1219:ILE:HD11	2:H:1242:PHE:HB2	1.83	0.60
2:H:1739:GLU:O	2:H:1987:PRO:HG3	2.02	0.60
2:I:1054:LEU:HB2	3:I:3051:FMN:C7M	2.30	0.60
2:I:1198:SER:HB3	2:I:1205:LEU:HD21	1.82	0.60
2:I:1205:LEU:O	2:I:1206:LYS:HG3	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1194:ASN:O	1:A:1197:THR:HG23	2.02	0.60
1:C:1194:ASN:O	1:C:1197:THR:HG23	2.01	0.60
2:G:184:VAL:HG13	2:G:187:LEU:HD21	1.84	0.60
2:G:907:VAL:O	2:G:910:GLN:HB3	2.02	0.60
2:I:732:TRP:CD2	2:I:750:MET:CE	2.84	0.60
2:I:1874:VAL:O	2:I:1878:VAL:HG12	2.02	0.60
1:B:992:PHE:CD2	1:B:1399:PRO:HG3	2.37	0.60
1:C:221:LEU:O	1:C:225:SER:HB3	2.02	0.60
1:C:531:LEU:HD21	1:C:629:THR:HG22	1.83	0.60
1:C:1062:TYR:CD2	1:C:1693:ILE:HG23	2.37	0.60
2:G:61:VAL:HG21	2:G:95:TYR:HE1	1.67	0.60
2:G:100:ASP:OD2	2:G:102:HIS:HD2	1.85	0.60
2:H:1103:PHE:O	2:H:1247:GLY:HA3	2.02	0.60
2:H:1198:SER:HB3	2:H:1205:LEU:HD21	1.83	0.60
2:I:1986:LYS:N	2:I:1987:PRO:HD2	2.17	0.60
1:A:529:MET:HG3	1:A:638:LEU:HG	1.84	0.60
1:B:824:LEU:HD12	1:B:846:LEU:HB3	1.82	0.60
1:B:1259:GLY:HA2	1:B:1263:ASP:HB2	1.84	0.60
1:C:749:ILE:CD1	1:C:805:CYS:HB3	2.32	0.60
2:G:762:ASN:H	2:G:762:ASN:ND2	1.85	0.60
2:H:663:ILE:HG13	2:H:694:TYR:HE1	1.67	0.60
2:H:817:ALA:O	2:H:821:ILE:HG13	2.02	0.60
2:H:860:ARG:HB3	2:H:898:ASP:HB3	1.83	0.60
2:I:1719:ILE:O	2:I:1761:SER:HB2	2.01	0.60
1:C:1304:ALA:O	1:C:1307:THR:HG23	2.02	0.60
1:C:1662:TYR:O	1:C:1665:ILE:HG22	2.01	0.60
2:G:565:TYR:CZ	2:G:758:ARG:HD2	2.37	0.60
2:G:892:ILE:HD11	2:G:903:TRP:NE1	2.17	0.60
2:H:490:TRP:HE1	2:H:516:THR:CG2	2.01	0.60
2:H:1054:LEU:HB2	3:H:3051:FMN:C7M	2.31	0.60
2:H:1805:ALA:HB2	2:H:2011:ILE:HB	1.82	0.60
2:I:674:TYR:HB3	2:I:676:ILE:HG22	1.84	0.60
2:I:762:ASN:HD22	2:I:762:ASN:N	1.88	0.60
2:I:1123:ASP:N	2:I:1123:ASP:OD1	2.35	0.60
2:I:1149:TRP:CD1	2:I:1213:LEU:HD12	2.37	0.60
1:B:328:LEU:HD22	1:B:328:LEU:C	2.27	0.59
1:B:1057:MET:SD	1:B:1097:ILE:HG23	2.42	0.59
1:C:80:CYS:SG	1:C:82:SER:HB3	2.42	0.59
2:G:1672:GLN:HA	2:G:1676:MET:HE1	1.84	0.59
2:H:846:VAL:HG13	2:H:865:TRP:NE1	2.17	0.59
2:I:402:LEU:O	2:I:402:LEU:HD13	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:817:ALA:O	2:I:821:ILE:HG13	2.01	0.59
1:B:1657:HIS:ND1	1:B:1658:PRO:HD2	2.17	0.59
2:G:747:HIS:HE1	2:G:780:TYR:OH	1.84	0.59
2:I:517:HIS:CD2	2:I:517:HIS:C	2.80	0.59
2:I:1004:LEU:HD21	2:I:1020:VAL:HG23	1.84	0.59
1:A:233:ILE:HD13	1:A:237:MET:CE	2.32	0.59
1:B:989:GLN:NE2	2:H:993:GLN:OE1	2.35	0.59
1:B:1360:ARG:HH11	1:B:1364:GLU:HG2	1.66	0.59
1:C:152:HIS:HD2	1:C:163:LEU:HB2	1.63	0.59
1:C:232:LEU:HD22	1:C:269:LEU:HA	1.83	0.59
2:G:750:MET:HG3	2:G:796:PHE:HZ	1.65	0.59
2:H:1378:ILE:HD11	2:H:1381:VAL:HG21	1.84	0.59
2:I:601:THR:O	2:I:601:THR:HG22	2.02	0.59
2:I:658:MET:HA	2:I:661:TRP:NE1	2.17	0.59
2:I:942:THR:HG21	2:I:1012:GLN:HA	1.85	0.59
2:I:1352:HIS:CD2	2:I:1410:PHE:CE2	2.89	0.59
1:A:251:GLN:HA	1:A:256:LEU:H	1.68	0.59
1:A:417:TYR:OH	1:A:458:THR:HG22	2.02	0.59
1:A:1304:ALA:O	1:A:1307:THR:HG23	2.03	0.59
1:A:1524:GLY:O	1:A:1528:THR:HG23	2.03	0.59
1:B:1392:LEU:HD22	1:B:1396:MET:HG3	1.84	0.59
1:C:980:VAL:HG23	2:I:968:GLN:OE1	2.02	0.59
2:I:839:PRO:HA	2:I:844:VAL:HG13	1.83	0.59
1:A:50:SER:HB2	1:A:51:PRO:HD3	1.85	0.59
1:B:233:ILE:HD13	1:B:237:MET:CE	2.32	0.59
1:B:504:ASP:CB	1:B:508:ASN:H	2.15	0.59
1:C:421:ILE:CG1	1:C:469:VAL:HG21	2.32	0.59
2:G:597:MET:HA	3:G:3051:FMN:N5	2.17	0.59
2:G:732:TRP:CD2	2:G:750:MET:CE	2.85	0.59
2:G:926:LEU:HD13	2:G:947:THR:HG22	1.83	0.59
2:G:2038:ILE:O	2:G:2042:ILE:HG12	2.02	0.59
2:H:99:ASN:HA	2:H:550:VAL:CG2	2.32	0.59
2:H:184:VAL:HG13	2:H:187:LEU:HD21	1.83	0.59
2:I:1293:THR:HG22	2:I:1296:GLU:CD	2.27	0.59
2:I:1567:ARG:CG	2:I:1567:ARG:NH1	2.50	0.59
1:A:12:ILE:HD11	2:G:2041:ILE:HD12	1.82	0.59
1:A:37:LYS:HB2	1:A:65:TYR:HE1	1.67	0.59
1:A:989:GLN:NE2	2:G:993:GLN:OE1	2.36	0.59
1:B:1009:LEU:HD13	1:B:1445:MET:HE1	1.83	0.59
1:B:1461:ASP:O	1:B:1465:ASN:HB2	2.03	0.59
1:B:1474:ALA:O	1:B:1478:PRO:HD2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1461:ASP:O	1:C:1465:ASN:HB2	2.02	0.59
1:C:1657:HIS:ND1	1:C:1658:PRO:HD2	2.17	0.59
2:H:719:ILE:O	2:H:722:ALA:HB3	2.02	0.59
2:I:163:GLN:CG	2:I:423:VAL:HG12	2.32	0.59
2:I:490:TRP:O	2:I:494:THR:HG22	2.03	0.59
2:I:1221:MET:HE2	2:I:1223:MET:HE1	1.82	0.59
2:I:2046:GLU:C	2:I:2048:TYR:H	2.11	0.59
1:A:1432:HIS:CE1	1:A:1434:SER:OG	2.56	0.59
1:B:1119:LYS:HE2	1:B:1341:PHE:CG	2.38	0.59
1:C:421:ILE:HG13	1:C:469:VAL:HG21	1.85	0.59
1:C:1555:ALA:HA	1:C:1621:PHE:CE1	2.38	0.59
2:G:594:VAL:HG21	2:G:610:THR:HG21	1.84	0.59
2:H:163:GLN:CG	2:H:423:VAL:HG12	2.32	0.59
2:H:1229:MET:HE2	2:H:1268:LYS:O	2.03	0.59
2:I:127:ILE:O	2:I:131:ILE:HG13	2.03	0.59
1:B:1308:SER:HB3	1:B:1589:GLY:HA3	1.83	0.59
2:G:232:LEU:O	2:G:232:LEU:HD23	2.03	0.59
2:G:754:TYR:CD2	2:G:794:MET:HG3	2.38	0.59
2:H:726:PHE:O	2:H:762:ASN:HB2	2.03	0.59
2:H:1265:MET:CE	2:H:1562:PRO:HG2	2.31	0.59
2:H:1844:ARG:CG	2:H:1844:ARG:NH1	2.58	0.59
2:H:2038:ILE:O	2:H:2042:ILE:HG12	2.03	0.59
2:I:589:ARG:HB3	2:I:590:PRO:HD2	1.83	0.59
2:I:1908:ASP:HB2	2:I:1958:LEU:HD21	1.83	0.59
1:A:2:LYS:CD	2:G:2050:GLN:HB3	2.24	0.59
1:A:440:MET:HE3	1:A:483:VAL:HG21	1.85	0.59
1:B:32:GLN:HA	1:B:35:PHE:CE2	2.38	0.59
1:B:413:LEU:HD13	1:B:451:MET:HG2	1.85	0.59
1:C:20:TYR:CE1	2:I:2035:SER:HB2	2.38	0.59
2:G:402:LEU:O	2:G:402:LEU:HD13	2.03	0.59
2:G:652:ILE:CD1	2:G:658:MET:HE1	2.32	0.59
2:I:174:ARG:NH2	2:I:225:THR:OG1	2.36	0.59
2:I:1210:ILE:HB	2:I:1222:GLU:HB3	1.85	0.59
1:A:233:ILE:HD13	1:A:237:MET:HE2	1.85	0.59
1:A:328:LEU:HD22	1:A:328:LEU:C	2.28	0.59
2:G:1823:SER:OG	2:G:1825:GLU:HG2	2.03	0.59
2:H:813:THR:HB	2:H:818:LYS:HE3	1.84	0.59
2:H:1314:ARG:CG	2:H:1314:ARG:NH1	2.62	0.59
2:H:1355:ASN:CB	2:H:1583:MET:HE1	2.33	0.59
2:I:99:ASN:HA	2:I:550:VAL:CG2	2.33	0.59
2:I:601:THR:CG2	2:I:618:GLU:O	2.39	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:813:THR:HB	2:I:818:LYS:HE3	1.85	0.59
1:A:409:ALA:HB2	1:A:442:ARG:HD2	1.84	0.58
1:B:286:PHE:O	1:B:290:MET:HG2	2.03	0.58
1:B:417:TYR:OH	1:B:458:THR:HG22	2.03	0.58
1:B:980:VAL:HG23	2:H:968:GLN:OE1	2.02	0.58
1:C:408:TRP:CH2	1:C:1628:SER:HB3	2.38	0.58
1:C:733:ILE:HD12	1:C:761:LEU:HD21	1.85	0.58
1:C:1233:GLU:OE2	1:C:1680:ARG:NH2	2.36	0.58
2:H:1293:THR:HG22	2:H:1296:GLU:CD	2.28	0.58
2:H:1575:LEU:HD13	2:H:1579:ILE:HD12	1.85	0.58
2:I:786:SER:CB	2:I:794:MET:HE2	2.33	0.58
1:A:290:MET:HA	1:A:290:MET:HE3	1.85	0.58
1:A:444:ASN:HB3	1:A:446:ALA:H	1.66	0.58
1:B:332:THR:HG22	1:C:331:ILE:CD1	2.33	0.58
1:B:1401:TYR:C	1:B:1658:PRO:HG3	2.28	0.58
1:C:1561:MET:HE2	1:C:1561:MET:HA	1.84	0.58
2:G:1844:ARG:CG	2:G:1844:ARG:NH1	2.62	0.58
2:H:105:ALA:HB3	2:H:533:LEU:HD21	1.84	0.58
2:H:606:PHE:HZ	2:H:805:VAL:HG11	1.68	0.58
2:H:1149:TRP:CD1	2:H:1213:LEU:CD1	2.85	0.58
2:I:597:MET:HA	3:I:3051:FMN:N5	2.19	0.58
1:B:1496:GLU:O	1:B:1500:GLN:HG3	2.03	0.58
1:C:290:MET:HA	1:C:290:MET:HE3	1.85	0.58
1:C:1721:ARG:CG	1:C:1721:ARG:NH1	2.56	0.58
2:G:166:THR:HG22	2:G:168:ASP:N	2.19	0.58
2:H:259:THR:OG1	2:H:260:PRO:HD2	2.03	0.58
2:I:736:ARG:NH1	2:I:769:SER:O	2.36	0.58
1:B:599:MET:HB2	1:B:624:LYS:CD	2.24	0.58
1:B:705:VAL:HG23	1:B:732:LEU:HD21	1.85	0.58
1:B:985:ARG:HH12	2:H:953:ARG:CZ	2.15	0.58
1:B:1662:TYR:O	1:B:1665:ILE:HG22	2.04	0.58
1:C:989:GLN:NE2	2:I:993:GLN:OE1	2.36	0.58
1:C:1056:ILE:CD1	1:C:1193:TRP:HD1	2.17	0.58
2:G:674:TYR:HB3	2:G:676:ILE:HG22	1.85	0.58
2:G:1931:LEU:HB3	2:G:1935:GLU:CG	2.33	0.58
2:H:926:LEU:HD13	2:H:947:THR:HG22	1.85	0.58
2:H:1101:GLU:HB3	2:H:1147:ILE:HG22	1.86	0.58
2:H:1130:THR:H	2:H:1133:THR:HG23	1.68	0.58
2:H:1678:MET:HE2	2:H:1711:ILE:HG13	1.84	0.58
2:I:856:LYS:NZ	2:I:1052:CYS:SG	2.70	0.58
2:I:907:VAL:O	2:I:910:GLN:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1086:LEU:HD12	2:I:1090:TYR:CB	2.33	0.58
2:I:1989:LYS:O	2:I:1993:LYS:HG3	2.02	0.58
1:A:11:HIS:O	1:A:15:THR:HG22	2.04	0.58
1:A:232:LEU:HD13	1:A:272:GLU:HB2	1.84	0.58
1:A:435:GLU:O	1:A:439:ILE:HG13	2.02	0.58
1:A:1544:THR:O	1:A:1545:SER:HB3	2.02	0.58
1:B:232:LEU:HD22	1:B:269:LEU:HA	1.85	0.58
1:B:531:LEU:HD21	1:B:629:THR:HG22	1.84	0.58
1:C:852:ARG:HH11	1:C:852:ARG:CG	2.00	0.58
2:G:603:SER:O	2:G:607:VAL:HG12	2.03	0.58
2:G:807:ILE:CG2	2:G:1066:ILE:HA	2.34	0.58
2:G:1149:TRP:CD1	2:G:1213:LEU:CD1	2.87	0.58
2:G:1597:ALA:HB1	2:G:1638:ILE:CD1	2.33	0.58
2:H:1360:ILE:HG23	2:H:1403:VAL:O	2.04	0.58
2:H:1589:VAL:HG11	2:H:1640:PHE:CE1	2.39	0.58
2:I:105:ALA:HB3	2:I:533:LEU:HD21	1.84	0.58
2:I:455:ILE:HG13	2:I:469:ARG:HD3	1.85	0.58
2:I:786:SER:HB2	2:I:794:MET:HE2	1.86	0.58
2:I:1054:LEU:CB	3:I:3051:FMN:HM73	2.32	0.58
2:I:1265:MET:CE	2:I:1562:PRO:HG2	2.33	0.58
1:B:50:SER:HB2	1:B:51:PRO:HD3	1.86	0.58
1:B:419:GLU:HG2	1:B:424:VAL:HB	1.86	0.58
1:C:232:LEU:HD13	1:C:272:GLU:HB2	1.85	0.58
2:G:611:THR:CG2	2:G:641:ILE:HG13	2.34	0.58
2:G:638:VAL:HA	2:G:641:ILE:HG22	1.86	0.58
2:G:1221:MET:HE2	2:G:1223:MET:HE1	1.85	0.58
2:H:1210:ILE:HB	2:H:1222:GLU:HB3	1.85	0.58
2:I:145:LEU:O	2:I:149:VAL:HG12	2.03	0.58
2:I:1219:ILE:HD11	2:I:1242:PHE:HB2	1.83	0.58
2:G:634:ILE:HD11	2:G:649:ILE:CD1	2.34	0.58
2:G:835:THR:HG21	2:G:855:HIS:NE2	2.19	0.58
2:G:1149:TRP:CD1	2:G:1213:LEU:HD12	2.38	0.58
2:H:89:THR:O	2:H:93:ASN:HB2	2.04	0.58
2:H:1871:LEU:HD22	2:H:1888:ILE:HD11	1.85	0.58
1:A:260:ARG:HH12	1:A:300:VAL:HG21	1.68	0.58
1:B:37:LYS:HB2	1:B:65:TYR:HE1	1.69	0.58
1:B:980:VAL:H	2:H:968:GLN:NE2	2.00	0.58
2:G:1210:ILE:HB	2:G:1222:GLU:HB3	1.85	0.58
2:H:1331:TRP:CE2	2:H:1335:ILE:HG13	2.38	0.58
1:A:992:PHE:CE2	1:A:1399:PRO:HG3	2.39	0.58
1:B:1125:VAL:HG21	1:B:1175:ILE:HD12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1020:VAL:HG13	1:C:1400:ILE:HG23	1.85	0.58
1:C:1401:TYR:C	1:C:1658:PRO:HG3	2.29	0.58
1:C:1665:ILE:HD11	1:C:1669:ARG:HG2	1.85	0.58
2:G:56:THR:HG23	2:G:59:GLU:CG	2.29	0.58
2:G:146:PHE:HA	2:G:149:VAL:HG12	1.86	0.58
2:G:260:PRO:HD3	2:G:289:TRP:CE2	2.38	0.58
2:G:658:MET:HA	2:G:661:TRP:NE1	2.19	0.58
2:G:741:HIS:CE1	2:G:845:THR:HG21	2.38	0.58
2:G:786:SER:CB	2:G:794:MET:HE2	2.34	0.58
2:G:821:ILE:HA	2:G:857:ILE:HD11	1.84	0.58
2:I:835:THR:HG22	2:I:844:VAL:C	2.29	0.58
2:I:1822:MET:CE	2:I:1996:ILE:HG12	2.34	0.58
2:I:1931:LEU:HD22	2:I:1935:GLU:HG2	1.86	0.58
1:A:1062:TYR:CD2	1:A:1693:ILE:HG23	2.39	0.58
2:G:1778:GLN:HB3	2:G:1831:VAL:HG13	1.85	0.58
2:H:490:TRP:CH2	2:H:512:LEU:HD21	2.39	0.58
2:H:665:LEU:O	2:H:669:LEU:HB2	2.04	0.58
2:H:907:VAL:O	2:H:910:GLN:HB3	2.03	0.58
2:H:1093:ASP:HB3	2:H:1096:LYS:HG3	1.84	0.58
2:I:239:PRO:HG3	2:I:304:PHE:HA	1.86	0.58
2:I:1004:LEU:CD2	2:I:1019:PRO:HB2	2.34	0.58
1:A:828:PRO:HG3	1:A:868:ILE:HG22	1.86	0.57
1:B:749:ILE:CD1	1:B:805:CYS:HB3	2.33	0.57
1:C:1052:GLU:O	1:C:1056:ILE:HG23	2.04	0.57
2:G:7:ARG:NH1	2:G:24:THR:HA	2.19	0.57
2:G:703:LEU:HD21	2:G:705:LEU:HD21	1.86	0.57
2:G:1054:LEU:HB2	3:G:3051:FMN:C7M	2.34	0.57
2:H:127:ILE:O	2:H:131:ILE:HG13	2.04	0.57
2:H:166:THR:HG22	2:H:168:ASP:N	2.19	0.57
1:A:419:GLU:HG2	1:A:424:VAL:HB	1.86	0.57
1:A:635:ILE:HG22	1:A:651:TYR:CD1	2.39	0.57
1:B:1009:LEU:HG	1:B:1664:ALA:HB2	1.87	0.57
1:B:1304:ALA:O	1:B:1307:THR:HG23	2.04	0.57
1:C:341:GLN:O	1:C:345:VAL:HG12	2.04	0.57
1:C:771:PHE:CD1	1:C:825:PRO:HG3	2.40	0.57
2:G:667:LYS:HB2	2:G:698:LEU:HD23	1.85	0.57
2:H:638:VAL:HA	2:H:641:ILE:HG22	1.86	0.57
2:I:353:VAL:HG23	2:I:357:ASN:ND2	2.19	0.57
2:I:376:ASN:HD22	2:I:377:LEU:N	2.01	0.57
2:I:1130:THR:H	2:I:1133:THR:HG23	1.69	0.57
1:B:436:ALA:O	1:B:440:MET:HG3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1184:LEU:HB2	1:C:1352:THR:HG21	1.85	0.57
2:G:741:HIS:CB	2:G:853:PRO:HB2	2.34	0.57
2:G:1130:THR:H	2:G:1133:THR:HG23	1.70	0.57
2:G:1374:THR:HG23	2:G:1396:LEU:HD12	1.85	0.57
2:H:443:LEU:HD22	2:H:448:VAL:HG11	1.86	0.57
2:H:736:ARG:NH1	2:H:769:SER:O	2.36	0.57
2:H:1355:ASN:HB3	2:H:1583:MET:HE1	1.87	0.57
2:I:499:THR:CB	2:I:500:HIS:CD2	2.79	0.57
2:I:2030:TYR:CE1	2:I:2034:GLY:HA2	2.39	0.57
1:A:604:ALA:HB3	1:A:612:GLU:HG2	1.86	0.57
1:A:1056:ILE:CD1	1:A:1193:TRP:HD1	2.17	0.57
1:B:232:LEU:HD13	1:B:272:GLU:HB2	1.87	0.57
1:C:1600:LEU:HD13	1:C:1657:HIS:HA	1.86	0.57
2:G:376:ASN:HD22	2:G:376:ASN:C	2.13	0.57
2:G:601:THR:CG2	2:G:618:GLU:O	2.41	0.57
2:G:856:LYS:HG2	2:G:1054:LEU:HD12	1.86	0.57
2:G:1624:THR:HB	2:G:1642:THR:HG23	1.86	0.57
2:I:726:PHE:O	2:I:762:ASN:HB2	2.04	0.57
1:A:415:SER:O	1:A:419:GLU:HB2	2.05	0.57
1:A:421:ILE:HG12	1:A:469:VAL:HG21	1.85	0.57
1:A:985:ARG:HH12	2:G:953:ARG:NH2	2.03	0.57
1:A:1540:SER:HA	1:A:1575:VAL:HG22	1.86	0.57
1:A:1600:LEU:HD13	1:A:1657:HIS:HA	1.85	0.57
1:B:11:HIS:ND1	2:H:1998:LYS:HA	2.19	0.57
1:B:1234:MET:HG2	1:B:1326:ILE:HD12	1.85	0.57
2:G:817:ALA:O	2:G:821:ILE:HG13	2.04	0.57
2:G:1159:ILE:CG1	2:G:1169:PRO:HD3	2.34	0.57
2:G:1293:THR:CG2	2:G:1296:GLU:H	2.14	0.57
2:H:601:THR:HG22	2:H:620:ALA:H	1.69	0.57
2:H:835:THR:HG22	2:H:845:THR:N	2.20	0.57
2:H:835:THR:HB	2:H:845:THR:HG23	1.85	0.57
2:H:1010:PRO:O	2:H:1011:MET:HB2	2.03	0.57
2:H:1231:GLY:O	2:H:1233:PRO:HD3	2.04	0.57
1:B:408:TRP:CZ3	1:B:1628:SER:HB3	2.40	0.57
1:B:1524:GLY:O	1:B:1528:THR:HG23	2.05	0.57
2:G:163:GLN:CG	2:G:423:VAL:HG12	2.34	0.57
2:G:273:HIS:HB3	2:G:512:LEU:HD22	1.86	0.57
2:H:741:HIS:CE1	2:H:855:HIS:NE2	2.73	0.57
2:I:707:PRO:HG2	2:I:730:LEU:HD13	1.85	0.57
1:A:531:LEU:HD21	1:A:629:THR:HG22	1.87	0.57
2:G:89:THR:O	2:G:93:ASN:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1086:LEU:HD12	2:G:1090:TYR:CB	2.35	0.57
2:G:1194:VAL:O	2:G:1194:VAL:HG12	2.05	0.57
2:G:1775:GLN:HG2	2:G:1836:MET:SD	2.44	0.57
2:H:543:PHE:CB	2:H:545:GLN:HE22	2.17	0.57
2:H:1086:LEU:HD12	2:H:1090:TYR:CB	2.34	0.57
2:H:1123:ASP:OD1	2:H:1123:ASP:N	2.36	0.57
2:H:1782:THR:HG22	2:H:1827:LEU:HD21	1.86	0.57
2:I:353:VAL:HG23	2:I:357:ASN:HD22	1.70	0.57
2:I:1931:LEU:HB3	2:I:1935:GLU:CG	2.35	0.57
2:I:2029:VAL:O	2:I:2033:THR:HG22	2.05	0.57
1:B:290:MET:HA	1:B:290:MET:HE3	1.85	0.57
1:B:980:VAL:HG21	2:H:952:ARG:NH2	2.19	0.57
1:B:1022:THR:HG22	1:B:1226:SER:HB2	1.86	0.57
1:B:1538:VAL:HB	1:B:1639:VAL:HG22	1.87	0.57
1:C:741:SER:HB3	1:C:744:ASP:HB2	1.86	0.57
1:C:1577:GLN:HE22	1:C:1591:TRP:C	2.13	0.57
2:G:455:ILE:HG13	2:G:469:ARG:HD3	1.86	0.57
2:G:577:ILE:HD13	2:G:1097:ILE:CD1	2.35	0.57
2:G:1198:SER:HB3	2:G:1205:LEU:HD21	1.85	0.57
2:H:99:ASN:HA	2:H:550:VAL:HG23	1.87	0.57
2:H:273:HIS:HB3	2:H:512:LEU:HD22	1.85	0.57
2:H:722:ALA:HB1	2:H:723:HIS:CE1	2.38	0.57
2:I:814:SER:HB2	2:I:1040:LEU:HD13	1.86	0.57
2:I:1010:PRO:O	2:I:1011:MET:HB2	2.05	0.57
2:I:1575:LEU:HD13	2:I:1579:ILE:HD12	1.84	0.57
1:A:1057:MET:SD	1:A:1097:ILE:HG23	2.45	0.57
1:A:1474:ALA:O	1:A:1478:PRO:HD2	2.04	0.57
1:B:1431:GLU:HB3	1:B:1520:ALA:HB2	1.87	0.57
1:B:1473:GLU:O	1:B:1478:PRO:HD3	2.04	0.57
1:C:2:LYS:CD	2:I:2050:GLN:HB3	2.29	0.57
1:C:1305:CYS:HB2	1:C:1645:GLY:HA2	1.86	0.57
1:C:1474:ALA:O	1:C:1478:PRO:HD2	2.05	0.57
2:G:1954:LYS:HD3	2:G:1958:LEU:HD13	1.87	0.57
2:I:653:TYR:CD1	2:I:659:LEU:HD21	2.40	0.57
1:A:329:GLU:O	1:A:333:LYS:HG3	2.05	0.57
1:C:251:GLN:HA	1:C:256:LEU:H	1.70	0.57
1:C:433:VAL:O	1:C:437:ILE:HG13	2.04	0.57
2:G:826:GLY:O	2:G:827:VAL:HG23	2.04	0.57
2:G:942:THR:HG21	2:G:1012:GLN:HA	1.86	0.57
2:G:1266:TYR:CG	2:G:1347:LEU:HD23	2.40	0.57
2:G:1868:GLN:HG3	2:G:1898:TYR:OH	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1989:LYS:O	2:G:1993:LYS:HG3	2.05	0.57
2:H:271:THR:OG1	2:H:460:TYR:HB2	2.03	0.57
2:H:2029:VAL:O	2:H:2033:THR:HG22	2.05	0.57
2:I:665:LEU:O	2:I:669:LEU:HB2	2.05	0.57
1:A:352:MET:HE2	1:A:354:LEU:HD21	1.86	0.56
1:A:400:ARG:HH11	1:A:400:ARG:HG3	1.67	0.56
1:A:1538:VAL:HB	1:A:1639:VAL:HG22	1.86	0.56
1:B:251:GLN:HA	1:B:256:LEU:H	1.70	0.56
1:B:409:ALA:HB2	1:B:442:ARG:HD2	1.86	0.56
1:B:1577:GLN:HE22	1:B:1591:TRP:C	2.12	0.56
1:C:1524:GLY:O	1:C:1528:THR:HG23	2.05	0.56
2:G:499:THR:CB	2:G:500:HIS:CD2	2.80	0.56
2:G:741:HIS:HE1	2:G:845:THR:HG21	1.69	0.56
2:G:1561:ASN:OD1	2:G:1563:ILE:HB	2.05	0.56
2:H:55:THR:CG2	2:H:56:THR:HG22	2.30	0.56
2:H:1834:ARG:NH1	2:H:1834:ARG:CG	2.60	0.56
2:I:273:HIS:HB3	2:I:512:LEU:HD22	1.87	0.56
2:I:481:ASP:OD2	2:I:485:ARG:NH1	2.38	0.56
2:I:490:TRP:CH2	2:I:512:LEU:HD21	2.40	0.56
2:I:634:ILE:HD11	2:I:649:ILE:CD1	2.35	0.56
2:I:741:HIS:CB	2:I:853:PRO:HB2	2.35	0.56
2:I:1300:PHE:HA	2:I:1556:VAL:HG11	1.87	0.56
1:A:80:CYS:SG	1:A:82:SER:HB3	2.45	0.56
1:A:883:ILE:HD12	1:A:947:LEU:HD12	1.86	0.56
1:A:1285:ALA:O	1:A:1289:MET:HG3	2.05	0.56
1:B:59:ARG:HH11	2:H:1896:GLN:NE2	2.03	0.56
1:B:742:LYS:HD3	1:B:746:GLU:OE2	2.05	0.56
1:B:1305:CYS:HB2	1:B:1645:GLY:HA2	1.86	0.56
1:C:807:LYS:HG3	1:C:858:TRP:HB3	1.87	0.56
1:C:1538:VAL:HB	1:C:1639:VAL:HG22	1.86	0.56
2:G:653:TYR:CD1	2:G:659:LEU:HD21	2.40	0.56
2:H:1908:ASP:HB2	2:H:1958:LEU:HD21	1.86	0.56
2:H:1920:GLN:HG2	2:H:1922:ILE:HD11	1.87	0.56
2:I:7:ARG:NH1	2:I:24:THR:HA	2.20	0.56
2:I:463:PHE:HD1	2:I:486:LEU:HD13	1.70	0.56
2:I:777:THR:CG2	2:I:1081:HIS:CE1	2.88	0.56
2:I:1231:GLY:O	2:I:1233:PRO:HD3	2.05	0.56
2:I:1804:PHE:CZ	2:I:2010:TYR:HB2	2.40	0.56
1:A:408:TRP:CZ3	1:A:1628:SER:HB3	2.40	0.56
1:B:1014:ASP:N	1:B:1510:ASN:HD21	2.01	0.56
1:C:328:LEU:HD22	1:C:328:LEU:C	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:625:THR:HG23	1:C:661:ASP:OD1	2.05	0.56
1:C:980:VAL:H	2:I:968:GLN:HE22	1.53	0.56
1:C:1022:THR:HG22	1:C:1226:SER:HB2	1.87	0.56
1:C:1326:ILE:HG12	1:C:1388:MET:HG3	1.87	0.56
2:G:102:HIS:HE1	2:G:180:TYR:OH	1.88	0.56
2:G:120:LYS:O	2:G:124:LYS:HG3	2.05	0.56
2:G:376:ASN:HD22	2:G:377:LEU:N	2.02	0.56
2:G:543:PHE:CB	2:G:545:GLN:HE22	2.17	0.56
2:G:702:TYR:CB	2:G:727:PRO:HB2	2.35	0.56
2:G:860:ARG:HB3	2:G:898:ASP:HB3	1.85	0.56
2:G:1874:VAL:O	2:G:1878:VAL:HG12	2.05	0.56
2:H:653:TYR:CD1	2:H:659:LEU:HD21	2.40	0.56
2:H:807:ILE:CG2	2:H:1066:ILE:HA	2.36	0.56
2:H:1223:MET:CE	2:H:1238:LEU:HD12	2.35	0.56
2:H:1266:TYR:CG	2:H:1347:LEU:HD23	2.40	0.56
2:I:89:THR:O	2:I:93:ASN:HB2	2.05	0.56
2:I:105:ALA:CB	2:I:533:LEU:HD21	2.34	0.56
2:I:281:VAL:HG23	2:I:459:VAL:HG11	1.87	0.56
2:I:1253:GLU:HB3	2:I:1255:MET:HE2	1.87	0.56
2:I:1300:PHE:CA	2:I:1556:VAL:HG11	2.36	0.56
2:I:1314:ARG:CG	2:I:1314:ARG:NH1	2.63	0.56
2:I:1567:ARG:HH12	2:I:1568:HIS:HB3	1.70	0.56
1:A:411:GLN:NE2	1:A:1628:SER:H	2.01	0.56
1:B:635:ILE:HG22	1:B:651:TYR:CG	2.40	0.56
1:C:430:ARG:NH2	1:C:605:LEU:HD13	2.21	0.56
2:G:239:PRO:HG3	2:G:304:PHE:HA	1.88	0.56
2:G:1229:MET:HE2	2:G:1268:LYS:O	2.05	0.56
2:G:1672:GLN:HA	2:G:1676:MET:HE3	1.87	0.56
2:I:120:LYS:O	2:I:124:LYS:HG3	2.06	0.56
2:I:376:ASN:HD22	2:I:376:ASN:C	2.13	0.56
2:I:603:SER:O	2:I:607:VAL:HG12	2.06	0.56
2:I:807:ILE:CG2	2:I:1066:ILE:HA	2.34	0.56
2:I:1328:VAL:HG23	2:I:1557:SER:HA	1.88	0.56
2:I:2038:ILE:O	2:I:2042:ILE:HG12	2.04	0.56
1:B:529:MET:HG2	1:B:638:LEU:CD1	2.35	0.56
1:C:419:GLU:HG2	1:C:424:VAL:HB	1.86	0.56
2:G:463:PHE:HD1	2:G:486:LEU:HD13	1.70	0.56
2:H:61:VAL:HG21	2:H:95:TYR:HE1	1.69	0.56
2:I:443:LEU:HD22	2:I:448:VAL:HG11	1.87	0.56
2:I:1149:TRP:CD1	2:I:1213:LEU:CD1	2.88	0.56
2:I:1292:ILE:O	2:I:1368:VAL:O	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1378:ILE:HD11	2:I:1381:VAL:CG2	2.34	0.56
1:B:56:MET:HG3	2:H:1893:VAL:CG2	2.35	0.56
1:C:27:ARG:HD2	1:C:30:GLU:OE2	2.06	0.56
1:C:1259:GLY:HA2	1:C:1263:ASP:HB2	1.87	0.56
2:G:584:SER:HA	2:G:587:ILE:HG23	1.87	0.56
2:G:786:SER:HB2	2:G:794:MET:HE2	1.87	0.56
2:G:1722:GLY:N	2:G:1726:GLY:HA3	2.21	0.56
2:H:376:ASN:HD22	2:H:377:LEU:N	2.03	0.56
2:H:741:HIS:HB3	2:H:853:PRO:HB2	1.88	0.56
2:H:1868:GLN:HG3	2:H:1898:TYR:OH	2.06	0.56
1:A:152:HIS:CE1	1:A:168:MET:HG3	2.41	0.56
1:A:295:ALA:HB2	1:A:302:LEU:HD11	1.87	0.56
1:A:742:LYS:HD3	1:A:746:GLU:OE2	2.05	0.56
1:A:1665:ILE:HD11	1:A:1669:ARG:HG2	1.88	0.56
1:B:152:HIS:CE1	1:B:168:MET:HG3	2.41	0.56
1:C:1056:ILE:HD13	1:C:1193:TRP:CD1	2.41	0.56
1:C:1473:GLU:O	1:C:1478:PRO:HD3	2.05	0.56
2:H:16:LEU:HG	2:H:48:PHE:CZ	2.41	0.56
2:H:777:THR:CG2	2:H:1081:HIS:CE1	2.88	0.56
2:H:835:THR:HG22	2:H:844:VAL:C	2.31	0.56
2:H:1194:VAL:O	2:H:1194:VAL:HG12	2.05	0.56
2:H:1890:ASN:HB2	2:H:1899:VAL:HB	1.88	0.56
2:H:1989:LYS:O	2:H:1993:LYS:HG3	2.06	0.56
2:I:232:LEU:HD23	2:I:232:LEU:O	2.06	0.56
2:I:1227:ARG:HG3	2:I:1227:ARG:NH1	2.00	0.56
1:B:644:THR:HG22	1:B:648:ASP:O	2.06	0.56
1:C:1347:LYS:O	1:C:1347:LYS:HD3	2.05	0.56
2:G:1343:VAL:O	2:G:1343:VAL:HG22	2.06	0.56
2:G:1567:ARG:HH12	2:G:1568:HIS:HB3	1.71	0.56
2:G:1675:GLY:O	2:G:1678:MET:HB2	2.05	0.56
2:H:526:ARG:HH11	2:H:558:ASN:HD21	1.53	0.56
2:H:1672:GLN:HA	2:H:1676:MET:HE3	1.87	0.56
2:I:607:VAL:HA	2:I:617:ILE:HD13	1.86	0.56
2:I:774:ALA:HB1	2:I:1081:HIS:CD2	2.33	0.56
2:I:1672:GLN:HA	2:I:1676:MET:HE3	1.87	0.56
1:A:1052:GLU:O	1:A:1056:ILE:HG23	2.06	0.56
1:B:233:ILE:HD13	1:B:237:MET:HE2	1.87	0.56
2:G:589:ARG:HB3	2:G:590:PRO:HD2	1.87	0.56
2:G:654:VAL:HG23	2:G:683:ALA:HB1	1.87	0.56
2:G:663:ILE:HG13	2:G:694:TYR:HE1	1.70	0.56
2:G:964:LEU:CD2	2:G:964:LEU:N	2.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1101:GLU:HB2	2:G:1147:ILE:O	2.06	0.56
2:G:1428:GLU:HB2	2:G:1468:THR:HG22	1.88	0.56
2:H:463:PHE:HD1	2:H:486:LEU:HD13	1.70	0.56
2:H:1431:TYR:CE1	2:H:1526:THR:HG23	2.41	0.56
2:I:577:ILE:HD13	2:I:1097:ILE:CD1	2.35	0.56
2:I:1722:GLY:N	2:I:1726:GLY:HA3	2.20	0.56
1:A:864:VAL:CG2	1:A:921:PRO:HB3	2.36	0.56
1:A:1009:LEU:HD13	1:A:1445:MET:HE1	1.87	0.56
1:A:1036:ARG:NH1	1:A:1040:GLU:OE1	2.39	0.56
1:A:1473:GLU:O	1:A:1478:PRO:HD3	2.06	0.56
1:A:1577:GLN:HE22	1:A:1591:TRP:C	2.13	0.56
1:B:2:LYS:HD2	2:H:2050:GLN:CB	2.26	0.56
1:C:50:SER:HB2	1:C:51:PRO:HD3	1.88	0.56
1:C:417:TYR:OH	1:C:458:THR:HG22	2.06	0.56
2:G:665:LEU:O	2:G:669:LEU:HB2	2.06	0.56
2:G:807:ILE:HG21	2:G:1066:ILE:HA	1.88	0.56
2:G:1010:PRO:O	2:G:1011:MET:HB2	2.05	0.56
2:H:1166:VAL:HG12	2:H:1167:SER:N	2.21	0.56
2:I:732:TRP:CG	2:I:750:MET:CE	2.73	0.56
1:A:221:LEU:O	1:A:225:SER:HB3	2.05	0.55
1:A:263:GLY:O	1:A:267:VAL:HG23	2.05	0.55
1:A:1125:VAL:HG21	1:A:1175:ILE:HD12	1.88	0.55
1:A:1566:ARG:HB3	1:A:1623:TYR:CE1	2.42	0.55
1:B:992:PHE:CE2	1:B:1399:PRO:HG3	2.41	0.55
1:B:1665:ILE:HD11	1:B:1669:ARG:HG2	1.88	0.55
1:C:12:ILE:HA	1:C:15:THR:HG23	1.87	0.55
1:C:254:TRP:CZ3	1:C:302:LEU:HD13	2.41	0.55
1:C:695:GLY:HA3	1:C:906:LEU:HD11	1.88	0.55
2:G:99:ASN:HA	2:G:550:VAL:HG23	1.87	0.55
2:G:652:ILE:HB	2:G:658:MET:CE	2.36	0.55
2:G:1168:ASN:ND2	2:G:1171:ARG:HB2	2.20	0.55
2:G:1475:LYS:HG3	2:G:1481:SER:HB2	1.88	0.55
2:G:1678:MET:CE	2:G:1707:LEU:HD22	2.35	0.55
2:G:1804:PHE:CZ	2:G:2010:TYR:HB2	2.40	0.55
2:G:1890:ASN:HB2	2:G:1899:VAL:HB	1.86	0.55
2:H:1475:LYS:HB2	2:H:1481:SER:HB2	1.88	0.55
2:I:601:THR:HG22	2:I:620:ALA:H	1.71	0.55
2:I:652:ILE:CD1	2:I:658:MET:HE1	2.35	0.55
2:I:654:VAL:HG23	2:I:683:ALA:HB1	1.87	0.55
2:I:1359:MET:SD	2:I:1404:MET:HE2	2.45	0.55
2:I:1873:TYR:HE1	2:I:1877:ARG:HH21	1.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1238:VAL:HG12	1:A:1239:HIS:N	2.21	0.55
1:B:733:ILE:HD12	1:B:761:LEU:HD21	1.88	0.55
1:B:1196:LYS:HE3	1:B:1202:ASP:CG	2.31	0.55
1:B:1233:GLU:OE2	1:B:1680:ARG:NH2	2.40	0.55
1:C:1496:GLU:O	1:C:1500:GLN:HG3	2.06	0.55
2:G:1227:ARG:CG	2:G:1227:ARG:NH1	2.56	0.55
2:G:1313:SER:O	2:G:1314:ARG:HD3	2.06	0.55
2:H:702:TYR:CB	2:H:727:PRO:HB2	2.36	0.55
2:H:1567:ARG:HH12	2:H:1568:HIS:HB3	1.70	0.55
2:I:260:PRO:HD3	2:I:289:TRP:CE2	2.42	0.55
2:I:1422:THR:HG21	2:I:1474:PHE:HB2	1.88	0.55
2:I:1778:GLN:HB3	2:I:1831:VAL:HG13	1.88	0.55
1:A:1657:HIS:ND1	1:A:1658:PRO:HD2	2.21	0.55
2:G:813:THR:HB	2:G:818:LYS:HE3	1.87	0.55
2:H:56:THR:HG23	2:H:59:GLU:CG	2.32	0.55
2:I:1382:VAL:HA	2:I:1422:THR:OG1	2.07	0.55
2:I:1589:VAL:HG11	2:I:1640:PHE:CE1	2.41	0.55
1:A:529:MET:HG2	1:A:638:LEU:CD1	2.36	0.55
1:A:680:ILE:HG13	1:A:769:ILE:HB	1.87	0.55
1:A:825:PRO:HB2	1:A:843:LYS:NZ	2.21	0.55
1:B:1584:PRO:HG3	1:B:1591:TRP:CH2	2.41	0.55
1:C:11:HIS:O	1:C:15:THR:HG22	2.06	0.55
2:H:120:LYS:O	2:H:124:LYS:HG3	2.06	0.55
2:I:197:GLU:OE1	2:I:197:GLU:HA	2.05	0.55
2:I:543:PHE:CB	2:I:545:GLN:HE22	2.17	0.55
1:A:1233:GLU:OE2	1:A:1680:ARG:NH2	2.40	0.55
1:B:49:PRO:O	1:B:82:SER:HB2	2.07	0.55
1:B:985:ARG:HH12	2:H:953:ARG:NH2	2.04	0.55
1:B:1036:ARG:NH1	1:B:1040:GLU:OE1	2.40	0.55
1:C:37:LYS:HB2	1:C:65:TYR:HE1	1.72	0.55
2:G:1004:LEU:CD2	2:G:1019:PRO:HB2	2.36	0.55
2:H:732:TRP:CD2	2:H:750:MET:CE	2.87	0.55
2:I:491:GLU:HA	2:I:494:THR:HG22	1.89	0.55
2:I:1093:ASP:HB3	2:I:1096:LYS:HG3	1.89	0.55
2:I:1331:TRP:CE2	2:I:1335:ILE:HG13	2.42	0.55
1:A:1524:GLY:HA2	1:A:1527:ALA:HB3	1.89	0.55
1:B:352:MET:HE2	1:B:354:LEU:HD21	1.89	0.55
1:C:1014:ASP:N	1:C:1510:ASN:HD21	1.99	0.55
1:C:1249:SER:HB3	1:C:1280:ILE:HG12	1.87	0.55
1:C:1584:PRO:O	1:C:1585:LYS:C	2.50	0.55
1:C:1585:LYS:HD3	1:C:1585:LYS:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:777:THR:CG2	2:G:1081:HIS:CE1	2.89	0.55
2:G:2046:GLU:C	2:G:2048:TYR:H	2.15	0.55
2:H:2046:GLU:C	2:H:2048:TYR:H	2.14	0.55
1:A:142:ASP:CG	1:A:257:PRO:HB2	2.32	0.55
1:A:733:ILE:CD1	1:A:761:LEU:HD11	2.37	0.55
1:A:1555:ALA:HA	1:A:1621:PHE:CE1	2.42	0.55
1:B:1138:LYS:HG3	1:B:1163:TYR:CE1	2.41	0.55
1:B:1544:THR:O	1:B:1545:SER:HB3	2.06	0.55
1:C:20:TYR:HE1	2:I:2035:SER:HB2	1.71	0.55
2:H:7:ARG:NH1	2:H:24:THR:HA	2.21	0.55
2:H:146:PHE:HA	2:H:149:VAL:HG12	1.89	0.55
2:H:839:PRO:HA	2:H:844:VAL:HG13	1.88	0.55
2:I:85:ASN:ND2	2:I:135:ARG:HH11	1.99	0.55
2:I:826:GLY:HA2	2:I:1060:ALA:HB3	1.88	0.55
2:I:1624:THR:HB	2:I:1642:THR:OG1	2.06	0.55
1:A:12:ILE:HA	1:A:15:THR:HG23	1.88	0.55
1:A:198:PRO:CG	1:A:209:LEU:HD21	2.28	0.55
1:A:771:PHE:CD1	1:A:825:PRO:HG3	2.42	0.55
1:A:824:LEU:HD11	1:A:849:LEU:HD12	1.89	0.55
1:A:1455:ARG:NH2	1:A:1459:ILE:HG12	2.22	0.55
1:B:433:VAL:O	1:B:437:ILE:HG13	2.07	0.55
1:B:771:PHE:CD1	1:B:825:PRO:HG3	2.42	0.55
1:C:329:GLU:O	1:C:333:LYS:HG3	2.06	0.55
1:C:335:HIS:HD2	1:C:335:HIS:O	1.89	0.55
2:G:197:GLU:OE1	2:G:197:GLU:HA	2.06	0.55
2:G:758:ARG:NH2	2:G:797:ASP:OD1	2.33	0.55
2:H:402:LEU:O	2:H:402:LEU:HD13	2.07	0.55
2:H:490:TRP:HA	2:H:493:THR:CG2	2.37	0.55
2:I:145:LEU:HD21	2:I:156:LEU:HD21	1.89	0.55
2:I:166:THR:HG22	2:I:168:ASP:N	2.21	0.55
2:I:606:PHE:HZ	2:I:805:VAL:HG11	1.71	0.55
2:I:1452:LEU:HA	2:I:1502:GLY:HA3	1.88	0.55
1:B:529:MET:HA	1:B:529:MET:CE	2.36	0.55
1:C:152:HIS:CE1	1:C:168:MET:HG3	2.42	0.55
2:G:1575:LEU:HD13	2:G:1579:ILE:HD12	1.89	0.55
2:H:264:ARG:NH1	2:H:456:GLN:HG3	2.22	0.55
2:H:1102:TYR:HB3	2:H:1244:PRO:HA	1.89	0.55
2:I:702:TYR:CB	2:I:727:PRO:HB2	2.36	0.55
1:B:236:LYS:HE2	1:B:273:PRO:O	2.07	0.55
1:C:286:PHE:O	1:C:290:MET:HG2	2.07	0.55
2:G:1859:PRO:CG	2:G:1871:LEU:HD12	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1378:ILE:HD11	2:H:1381:VAL:CG2	2.37	0.55
2:H:1493:LEU:HD11	2:H:1499:VAL:CG2	2.36	0.55
2:H:2015:THR:HG22	2:H:2017:LYS:N	2.21	0.55
2:I:490:TRP:HA	2:I:493:THR:CG2	2.37	0.55
2:I:871:THR:HB	2:I:872:ILE:HD12	1.88	0.55
2:I:926:LEU:HB3	2:I:947:THR:HG22	1.88	0.55
1:A:20:TYR:CE2	2:G:1985:VAL:HG11	2.42	0.54
1:B:440:MET:HE3	1:B:483:VAL:HG21	1.89	0.54
2:G:464:ASP:HB3	2:G:466:SER:HB3	1.88	0.54
2:G:1227:ARG:HG3	2:G:1227:ARG:NH1	2.00	0.54
2:H:239:PRO:HG3	2:H:304:PHE:HA	1.88	0.54
2:H:464:ASP:HB3	2:H:466:SER:HB3	1.90	0.54
2:H:611:THR:CG2	2:H:641:ILE:HG13	2.38	0.54
2:H:826:GLY:O	2:H:827:VAL:HG23	2.07	0.54
2:H:1159:ILE:HG12	2:H:1169:PRO:CD	2.36	0.54
2:H:1325:PHE:CE1	2:H:1328:VAL:HG11	2.43	0.54
2:H:1778:GLN:HB3	2:H:1831:VAL:HG13	1.88	0.54
2:I:584:SER:HA	2:I:587:ILE:HG23	1.89	0.54
2:I:611:THR:CG2	2:I:641:ILE:HG13	2.37	0.54
1:B:59:ARG:HH11	2:H:1896:GLN:HE22	1.54	0.54
1:B:1492:GLU:O	1:B:1496:GLU:HG3	2.06	0.54
2:G:332:GLU:OE2	2:G:394:ARG:HD3	2.07	0.54
2:G:1040:LEU:HD21	2:G:1048:VAL:HA	1.90	0.54
2:H:584:SER:HA	2:H:587:ILE:HG23	1.89	0.54
2:H:607:VAL:HA	2:H:617:ILE:HD13	1.88	0.54
2:I:240:LEU:O	2:I:244:ILE:HG13	2.08	0.54
2:I:526:ARG:HH11	2:I:558:ASN:HD21	1.55	0.54
2:I:638:VAL:HA	2:I:641:ILE:HG22	1.88	0.54
1:A:1247:SER:HB2	1:A:1332:TYR:HE2	1.72	0.54
1:A:1392:LEU:HD22	1:A:1396:MET:HG3	1.89	0.54
1:A:1665:ILE:CG1	1:A:1669:ARG:HD3	2.36	0.54
1:C:1219:VAL:CA	1:C:1384:ILE:HD11	2.27	0.54
1:C:1477:ILE:H	1:C:1478:PRO:CD	2.20	0.54
2:G:747:HIS:O	2:G:751:LEU:HB2	2.07	0.54
2:G:1231:GLY:O	2:G:1233:PRO:HD3	2.08	0.54
2:H:674:TYR:HB3	2:H:676:ILE:HG22	1.89	0.54
2:H:1343:VAL:O	2:H:1343:VAL:HG22	2.06	0.54
2:H:1697:HIS:CE1	2:H:1829:GLU:HG2	2.42	0.54
2:H:1822:MET:CE	2:H:1996:ILE:HG12	2.37	0.54
2:I:722:ALA:HB1	2:I:723:HIS:CE1	2.42	0.54
2:I:754:TYR:CD2	2:I:794:MET:HG3	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1401:TYR:C	1:A:1658:PRO:HG3	2.33	0.54
1:B:332:THR:HG22	1:C:331:ILE:HD11	1.88	0.54
1:C:1012:LEU:HD23	1:C:1445:MET:HE2	1.88	0.54
2:G:722:ALA:HB1	2:G:723:HIS:CE1	2.42	0.54
2:H:1040:LEU:HD21	2:H:1048:VAL:HA	1.89	0.54
2:I:61:VAL:HG21	2:I:95:TYR:HE1	1.72	0.54
2:I:1475:LYS:HB2	2:I:1481:SER:HB2	1.89	0.54
2:I:1954:LYS:HD3	2:I:1958:LEU:HD13	1.89	0.54
1:A:340:ARG:HH12	1:A:344:GLN:NE2	2.06	0.54
1:A:733:ILE:HD12	1:A:761:LEU:HD21	1.89	0.54
1:A:1184:LEU:HB2	1:A:1352:THR:HG21	1.89	0.54
1:B:1285:ALA:O	1:B:1289:MET:HG3	2.07	0.54
1:B:1584:PRO:O	1:B:1585:LYS:C	2.50	0.54
1:C:236:LYS:HE2	1:C:273:PRO:O	2.08	0.54
1:C:1501:LEU:O	1:C:1505:GLN:HG3	2.07	0.54
2:G:127:ILE:O	2:G:131:ILE:HG13	2.07	0.54
2:G:264:ARG:NH1	2:G:456:GLN:HG3	2.22	0.54
2:G:1300:PHE:HA	2:G:1556:VAL:HG11	1.89	0.54
2:G:2036:GLU:O	2:G:2039:LYS:HG2	2.07	0.54
2:H:786:SER:HB2	2:H:794:MET:HE2	1.90	0.54
2:I:826:GLY:O	2:I:827:VAL:HG23	2.08	0.54
2:I:1427:VAL:O	2:I:1427:VAL:HG12	2.07	0.54
1:A:529:MET:CE	1:A:894:ARG:HD2	2.34	0.54
1:A:1234:MET:CE	1:A:1326:ILE:HG21	2.38	0.54
1:A:1584:PRO:HB2	1:A:1587:ALA:HB3	1.88	0.54
1:B:263:GLY:O	1:B:267:VAL:HG23	2.07	0.54
1:B:625:THR:HG23	1:B:661:ASP:OD1	2.07	0.54
1:B:1432:HIS:CE1	1:B:1434:SER:OG	2.60	0.54
1:B:1566:ARG:HB3	1:B:1623:TYR:CE1	2.42	0.54
1:C:1036:ARG:NH1	1:C:1040:GLU:OE1	2.41	0.54
1:C:1125:VAL:HG21	1:C:1175:ILE:HD12	1.88	0.54
2:G:344:LEU:HB3	2:G:349:VAL:HG23	1.90	0.54
2:G:462:THR:HB	2:G:482:CYS:SG	2.48	0.54
2:G:707:PRO:HG2	2:G:730:LEU:HD13	1.90	0.54
2:H:85:ASN:HD22	2:H:135:ARG:NH1	2.02	0.54
2:H:1239:LEU:O	2:H:1254:VAL:HG23	2.08	0.54
2:I:545:GLN:H	2:I:545:GLN:NE2	2.06	0.54
2:I:1227:ARG:CG	2:I:1227:ARG:NH1	2.55	0.54
1:A:529:MET:HG2	1:A:638:LEU:HG	1.89	0.54
1:A:1114:TYR:CD1	1:A:1337:GLU:HG3	2.41	0.54
1:A:1585:LYS:H	1:A:1585:LYS:HD3	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:12:ILE:HD11	2:H:2041:ILE:HD12	1.88	0.54
1:B:385:PHE:HD2	1:B:787:LYS:HA	1.73	0.54
1:B:413:LEU:CD1	1:B:451:MET:HE3	2.37	0.54
1:B:1501:LEU:O	1:B:1505:GLN:HG3	2.08	0.54
1:C:479:ASN:O	1:C:483:VAL:HG23	2.07	0.54
1:C:1455:ARG:NH2	1:C:1459:ILE:HG12	2.22	0.54
2:G:346:GLN:HA	2:G:377:LEU:HD21	1.89	0.54
2:G:1253:GLU:HB3	2:G:1255:MET:HE2	1.89	0.54
2:G:1382:VAL:HA	2:G:1422:THR:OG1	2.08	0.54
2:H:402:LEU:HD12	2:H:404:GLN:HG2	1.90	0.54
2:H:1279:PHE:CD2	2:H:1340:PRO:HG3	2.41	0.54
2:H:1784:MET:HE2	2:H:1784:MET:O	2.08	0.54
2:H:2036:GLU:O	2:H:2039:LYS:HG2	2.08	0.54
2:I:271:THR:OG1	2:I:460:TYR:HB2	2.08	0.54
2:I:615:TYR:CZ	2:I:1074:MET:HB3	2.42	0.54
1:A:1455:ARG:O	1:A:1459:ILE:HG13	2.08	0.54
1:B:1392:LEU:CD2	1:B:1396:MET:HG3	2.38	0.54
1:B:1600:LEU:HD13	1:B:1657:HIS:HA	1.90	0.54
1:C:411:GLN:NE2	1:C:1628:SER:H	2.05	0.54
2:G:1496:LYS:HE2	2:G:1693:ARG:NH2	2.22	0.54
2:H:173:LEU:HD13	2:H:219:LEU:HD21	1.90	0.54
2:H:786:SER:CB	2:H:794:MET:HE2	2.38	0.54
2:H:1350:LEU:HD11	2:H:1410:PHE:HB3	1.89	0.54
2:H:1913:VAL:O	2:H:1917:ILE:HG13	2.08	0.54
1:A:24:SER:CB	2:G:2014:LEU:HD12	2.38	0.54
1:A:236:LYS:HE2	1:A:273:PRO:O	2.07	0.54
1:A:1123:GLN:HB2	1:A:1177:LYS:HE2	1.90	0.54
1:A:1183:ARG:NH1	1:A:1344:GLY:HA2	2.23	0.54
1:B:1584:PRO:HB2	1:B:1587:ALA:HB3	1.90	0.54
2:G:871:THR:HG21	2:G:887:LYS:HZ2	1.73	0.54
2:H:774:ALA:HB1	2:H:1081:HIS:CD2	2.32	0.54
2:H:1173:VAL:O	2:H:1567:ARG:NH2	2.40	0.54
2:I:1493:LEU:HD11	2:I:1499:VAL:CG2	2.37	0.54
2:I:2035:SER:HB3	2:I:2038:ILE:CG1	2.37	0.54
1:A:183:GLN:O	1:A:187:LEU:HG	2.08	0.54
1:A:1194:ASN:HB3	1:A:1197:THR:HG22	1.88	0.54
1:B:280:GLU:HG2	1:B:280:GLU:O	2.08	0.54
1:B:824:LEU:HD11	1:B:849:LEU:HD12	1.89	0.54
1:B:1123:GLN:HG3	1:B:1124:GLU:N	2.22	0.54
1:C:233:ILE:HD13	1:C:237:MET:HE2	1.88	0.54
1:C:263:GLY:O	1:C:267:VAL:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:413:LEU:CD1	1:C:451:MET:HE3	2.38	0.54
2:G:490:TRP:CH2	2:G:512:LEU:HD21	2.43	0.54
2:G:1378:ILE:O	2:G:1378:ILE:HG12	2.06	0.54
2:G:1822:MET:CE	2:G:1996:ILE:HG12	2.37	0.54
2:H:606:PHE:CE1	2:H:811:VAL:HG13	2.43	0.54
2:H:667:LYS:HD2	2:H:697:THR:CG2	2.35	0.54
2:H:707:PRO:HG2	2:H:730:LEU:HD13	1.89	0.54
2:I:99:ASN:HA	2:I:550:VAL:HG23	1.90	0.54
2:I:652:ILE:HB	2:I:658:MET:CE	2.38	0.54
1:A:421:ILE:HG13	1:A:469:VAL:HG21	1.89	0.53
1:A:1020:VAL:HG13	1:A:1400:ILE:HG23	1.90	0.53
1:B:329:GLU:O	1:B:333:LYS:HG3	2.08	0.53
1:C:1285:ALA:O	1:C:1289:MET:HG3	2.09	0.53
2:G:1166:VAL:HG12	2:G:1167:SER:N	2.23	0.53
2:G:1352:HIS:CE1	2:G:1583:MET:CE	2.82	0.53
2:H:652:ILE:CD1	2:H:658:MET:HE1	2.38	0.53
2:H:1313:SER:O	2:H:1314:ARG:HD3	2.08	0.53
2:I:868:PHE:HB3	2:I:873:PHE:CE2	2.43	0.53
1:A:413:LEU:CD1	1:A:451:MET:HE3	2.38	0.53
1:B:11:HIS:O	1:B:15:THR:HG22	2.06	0.53
1:B:751:PHE:CZ	1:B:761:LEU:HD13	2.42	0.53
1:C:1123:GLN:HG3	1:C:1124:GLU:N	2.23	0.53
2:G:750:MET:CG	2:G:796:PHE:HZ	2.21	0.53
2:H:964:LEU:CD2	2:H:964:LEU:N	2.70	0.53
2:I:1168:ASN:ND2	2:I:1171:ARG:HB2	2.22	0.53
2:I:1266:TYR:CG	2:I:1347:LEU:HD23	2.43	0.53
1:A:625:THR:HG23	1:A:661:ASP:OD1	2.08	0.53
1:A:1392:LEU:CD2	1:A:1396:MET:HG3	2.38	0.53
1:B:1010:GLU:HA	1:B:1664:ALA:HA	1.89	0.53
2:G:1093:ASP:HB3	2:G:1096:LYS:HG3	1.91	0.53
2:H:545:GLN:H	2:H:545:GLN:NE2	2.07	0.53
2:H:1804:PHE:CZ	2:H:2010:TYR:HB2	2.44	0.53
2:I:873:PHE:CD1	2:I:1026:GLU:HB2	2.43	0.53
1:A:1496:GLU:O	1:A:1500:GLN:HG3	2.07	0.53
1:A:1584:PRO:HG3	1:A:1591:TRP:CH2	2.42	0.53
1:A:1665:ILE:HG12	1:A:1666:THR:N	2.23	0.53
1:B:807:LYS:HG3	1:B:858:TRP:HB3	1.90	0.53
2:G:1697:HIS:CE1	2:G:1829:GLU:HG2	2.43	0.53
2:H:123:ILE:HD11	2:H:533:LEU:CD2	2.38	0.53
2:H:346:GLN:HA	2:H:377:LEU:HD21	1.91	0.53
2:H:615:TYR:CZ	2:H:1074:MET:HB3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:652:ILE:HB	2:H:658:MET:CE	2.38	0.53
2:H:1177:SER:O	2:H:1180:MET:HG2	2.08	0.53
2:I:892:ILE:HG12	2:I:903:TRP:CG	2.44	0.53
2:I:964:LEU:CD2	2:I:964:LEU:N	2.72	0.53
1:A:1310:GLU:OE1	1:A:1649:LYS:CE	2.57	0.53
1:B:413:LEU:C	1:B:415:SER:H	2.17	0.53
1:B:1247:SER:HB2	1:B:1332:TYR:HE2	1.74	0.53
2:G:1292:ILE:O	2:G:1368:VAL:O	2.26	0.53
2:G:2030:TYR:CE1	2:G:2034:GLY:HA2	2.43	0.53
2:H:1931:LEU:HB3	2:H:1935:GLU:CG	2.36	0.53
2:I:1861:ARG:HD2	2:I:1964:PHE:O	2.08	0.53
1:A:998:TYR:CE2	1:A:1667:GLU:HB2	2.44	0.53
1:A:1477:ILE:H	1:A:1478:PRO:CD	2.21	0.53
1:B:408:TRP:CH2	1:B:1628:SER:HB3	2.44	0.53
1:C:24:SER:HB3	2:I:2014:LEU:HD12	1.90	0.53
1:C:1194:ASN:HB3	1:C:1197:THR:HG22	1.90	0.53
2:G:176:LEU:HD22	2:G:247:ALA:HB1	1.90	0.53
2:G:606:PHE:HZ	2:G:805:VAL:HG11	1.74	0.53
2:G:839:PRO:CA	2:G:844:VAL:HG13	2.35	0.53
2:G:892:ILE:HG12	2:G:903:TRP:CG	2.44	0.53
2:G:1808:SER:OG	2:G:1977:HIS:HE1	1.91	0.53
2:H:835:THR:HG21	2:H:855:HIS:NE2	2.23	0.53
2:I:1040:LEU:HD21	2:I:1048:VAL:HA	1.90	0.53
2:I:2036:GLU:O	2:I:2039:LYS:HG2	2.09	0.53
1:A:1138:LYS:HG3	1:A:1163:TYR:CE1	2.43	0.53
1:A:1492:GLU:O	1:A:1496:GLU:HG3	2.09	0.53
1:B:12:ILE:HA	1:B:15:THR:HG23	1.90	0.53
1:B:980:VAL:N	2:H:968:GLN:HE22	2.07	0.53
2:G:1475:LYS:HB2	2:G:1481:SER:HB2	1.89	0.53
2:H:194:THR:CG2	2:H:300:ILE:HD11	2.39	0.53
2:H:1292:ILE:O	2:H:1368:VAL:O	2.27	0.53
2:I:102:HIS:HE1	2:I:180:TYR:OH	1.91	0.53
2:I:161:GLY:N	2:I:505:GLY:HA3	2.24	0.53
1:A:341:GLN:O	1:A:345:VAL:HG12	2.09	0.53
1:B:1194:ASN:O	1:B:1197:THR:HG23	2.08	0.53
1:B:1665:ILE:CG1	1:B:1669:ARG:HD3	2.35	0.53
2:G:85:ASN:HD22	2:G:135:ARG:NH1	2.03	0.53
2:G:1427:VAL:O	2:G:1427:VAL:HG12	2.09	0.53
2:G:1475:LYS:CB	2:G:1481:SER:HB2	2.39	0.53
2:G:1697:HIS:HE1	2:G:1829:GLU:HG2	1.74	0.53
2:H:1227:ARG:CG	2:H:1227:ARG:NH1	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1954:LYS:HD3	2:H:1958:LEU:HD13	1.91	0.53
2:I:465:GLY:HA2	2:I:493:THR:HA	1.91	0.53
2:I:606:PHE:CE1	2:I:811:VAL:HG13	2.44	0.53
2:I:1279:PHE:CD2	2:I:1340:PRO:HG3	2.40	0.53
2:I:1343:VAL:HG22	2:I:1343:VAL:O	2.09	0.53
2:I:1441:ILE:HD11	2:I:1445:ARG:NH2	2.23	0.53
2:I:2036:GLU:HG2	2:I:2039:LYS:NZ	2.24	0.53
1:A:644:THR:HG22	1:A:648:ASP:O	2.08	0.53
1:A:1584:PRO:O	1:A:1585:LYS:C	2.51	0.53
1:B:340:ARG:HH12	1:B:344:GLN:NE2	2.07	0.53
1:B:607:LYS:HG2	1:B:608:ASP:N	2.23	0.53
1:B:881:ASN:HA	1:B:944:ARG:HH21	1.73	0.53
1:C:825:PRO:HB2	1:C:843:LYS:NZ	2.24	0.53
1:C:992:PHE:CD2	1:C:1399:PRO:HG3	2.44	0.53
2:G:1314:ARG:CG	2:G:1314:ARG:NH1	2.61	0.53
2:H:654:VAL:HG23	2:H:683:ALA:HB1	1.91	0.53
2:I:332:GLU:OE2	2:I:394:ARG:HD3	2.08	0.53
2:I:1166:VAL:HG12	2:I:1167:SER:N	2.23	0.53
2:I:1350:LEU:HD11	2:I:1410:PHE:HB3	1.91	0.53
1:A:807:LYS:HG3	1:A:858:TRP:HB3	1.90	0.53
1:A:964:GLU:HG2	2:G:1515:PRO:HB3	1.91	0.53
1:B:1304:ALA:N	1:B:1307:THR:HG22	2.24	0.53
1:B:1312:VAL:CG2	1:B:1329:VAL:HG11	2.39	0.53
1:C:529:MET:HG2	1:C:638:LEU:CD1	2.39	0.53
2:G:121:GLU:HA	2:G:124:LYS:HD2	1.91	0.53
2:G:913:ASP:H	2:G:916:THR:CG2	2.22	0.53
2:G:1236:LEU:HD11	2:G:1262:ILE:HG12	1.91	0.53
2:G:1422:THR:HG21	2:G:1474:PHE:HB2	1.91	0.53
2:H:281:VAL:HG23	2:H:459:VAL:HG11	1.90	0.53
2:H:1382:VAL:HA	2:H:1422:THR:OG1	2.09	0.53
2:H:1567:ARG:HG3	2:H:1568:HIS:N	2.23	0.53
2:I:1040:LEU:O	2:I:1046:GLN:HG3	2.09	0.53
2:I:1177:SER:O	2:I:1180:MET:HG2	2.09	0.53
2:I:1438:SER:O	2:I:1441:ILE:HG23	2.08	0.53
1:B:152:HIS:HD2	1:B:163:LEU:HB2	1.66	0.52
1:B:695:GLY:HA3	1:B:906:LEU:HD11	1.90	0.52
1:B:1056:ILE:CD1	1:B:1193:TRP:HD1	2.22	0.52
1:C:1103:ILE:HD11	1:C:1582:GLY:N	2.24	0.52
2:G:615:TYR:CZ	2:G:1074:MET:HB3	2.44	0.52
2:G:663:ILE:HB	2:G:664:PRO:CD	2.40	0.52
2:G:1148:ASN:C	2:G:1148:ASN:HD22	2.17	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:455:ILE:HG12	2:H:469:ARG:HG2	1.91	0.52
2:H:768:GLY:HA3	2:H:800:LEU:CD2	2.39	0.52
2:H:2026:PHE:CD2	2:H:2045:TRP:HZ3	2.27	0.52
1:A:1249:SER:HB3	1:A:1280:ILE:HG12	1.92	0.52
1:B:2:LYS:HE2	1:B:4:GLU:CD	2.34	0.52
1:B:1194:ASN:HB3	1:B:1197:THR:HG22	1.91	0.52
1:C:824:LEU:HD11	1:C:849:LEU:HD12	1.90	0.52
1:C:1524:GLY:HA2	1:C:1527:ALA:HB3	1.91	0.52
2:G:161:GLY:N	2:G:505:GLY:HA3	2.23	0.52
2:G:1331:TRP:CE2	2:G:1335:ILE:HG13	2.43	0.52
2:G:1774:THR:HA	2:G:1777:THR:HB	1.91	0.52
2:H:145:LEU:O	2:H:149:VAL:HG12	2.10	0.52
2:H:577:ILE:HD13	2:H:1097:ILE:CD1	2.40	0.52
2:I:234:ILE:CG1	2:I:235:PRO:HD3	2.38	0.52
2:I:747:HIS:O	2:I:751:LEU:HB2	2.10	0.52
2:I:1567:ARG:HH11	2:I:1567:ARG:HG2	1.70	0.52
1:A:156:ALA:HA	1:A:166:ILE:CD1	2.39	0.52
1:A:385:PHE:HD2	1:A:787:LYS:HA	1.74	0.52
1:A:705:VAL:CG2	1:A:732:LEU:HD21	2.39	0.52
1:A:826:MET:HE1	1:A:850:PHE:CZ	2.45	0.52
1:A:1119:LYS:HE2	1:A:1341:PHE:CG	2.44	0.52
1:A:1303:GLY:H	1:A:1307:THR:HG22	1.74	0.52
1:C:864:VAL:CG2	1:C:921:PRO:HB3	2.39	0.52
2:G:871:THR:HG21	2:G:887:LYS:NZ	2.25	0.52
2:G:955:GLU:HG2	2:G:987:TYR:CE2	2.45	0.52
2:H:754:TYR:CD2	2:H:794:MET:HG3	2.45	0.52
2:H:1300:PHE:HA	2:H:1556:VAL:HG11	1.92	0.52
2:H:1417:THR:C	2:H:1419:PHE:H	2.18	0.52
2:H:1427:VAL:HG12	2:H:1427:VAL:O	2.08	0.52
2:H:1452:LEU:HA	2:H:1502:GLY:HA3	1.90	0.52
2:I:1293:THR:CG2	2:I:1296:GLU:H	2.20	0.52
2:I:1566:SER:HB3	2:I:1568:HIS:CE1	2.45	0.52
2:I:2026:PHE:CD2	2:I:2045:TRP:HZ3	2.27	0.52
1:A:988:ILE:HD13	1:A:1048:GLU:HB3	1.91	0.52
1:B:12:ILE:HD11	2:H:2041:ILE:CD1	2.38	0.52
1:B:1326:ILE:HG12	1:B:1388:MET:HG3	1.91	0.52
1:C:142:ASP:CG	1:C:257:PRO:HB2	2.34	0.52
1:C:630:ILE:O	1:C:653:ARG:NH2	2.42	0.52
1:C:1411:THR:HG22	1:C:1412:ASP:N	2.24	0.52
2:G:926:LEU:HB3	2:G:947:THR:HG22	1.92	0.52
2:G:1054:LEU:CB	3:G:3051:FMN:HM73	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1328:VAL:HG23	2:G:1557:SER:HA	1.91	0.52
2:H:814:SER:CB	2:H:1040:LEU:HD13	2.40	0.52
2:I:598:THR:O	2:I:602:VAL:HB	2.09	0.52
2:I:652:ILE:HD12	2:I:652:ILE:N	2.25	0.52
2:I:871:THR:HG21	2:I:887:LYS:NZ	2.25	0.52
2:I:1597:ALA:HB1	2:I:1638:ILE:CD1	2.39	0.52
1:A:655:LEU:CD2	1:A:916:LEU:HD11	2.38	0.52
1:A:741:SER:HB3	1:A:744:ASP:HB2	1.89	0.52
1:B:1158:PRO:HD2	1:B:1159:GLU:OE2	2.10	0.52
1:C:385:PHE:HD2	1:C:787:LYS:HA	1.73	0.52
1:C:1037:TRP:HB2	1:C:1598:GLN:OE1	2.09	0.52
2:G:1745:LYS:HD3	2:G:1747:LYS:HE2	1.91	0.52
2:G:1986:LYS:HA	2:G:1989:LYS:HB3	1.92	0.52
2:G:2026:PHE:CD2	2:G:2045:TRP:HZ3	2.27	0.52
2:H:1491:VAL:HB	2:H:1501:ILE:HD12	1.92	0.52
2:H:1776:PHE:O	2:H:1779:PRO:HD2	2.09	0.52
2:I:418:ASN:N	2:I:418:ASN:HD22	2.07	0.52
2:I:582:LYS:HE2	2:I:1108:PRO:HB3	1.91	0.52
2:I:1293:THR:HG22	2:I:1296:GLU:CG	2.39	0.52
2:I:1868:GLN:HG3	2:I:1898:TYR:CZ	2.45	0.52
1:A:13:LEU:HB2	2:G:2026:PHE:CE1	2.45	0.52
1:A:674:LYS:O	1:A:675:ASP:HB2	2.09	0.52
1:A:1411:THR:HG22	1:A:1412:ASP:N	2.25	0.52
1:B:341:GLN:O	1:B:345:VAL:HG12	2.10	0.52
1:B:415:SER:O	1:B:419:GLU:HB2	2.10	0.52
2:H:732:TRP:CG	2:H:750:MET:CE	2.79	0.52
2:H:1745:LYS:HE2	2:H:1747:LYS:HG2	1.91	0.52
2:I:702:TYR:HB2	2:I:727:PRO:HB2	1.92	0.52
2:I:1475:LYS:HG3	2:I:1481:SER:HB2	1.92	0.52
2:I:2015:THR:HG22	2:I:2017:LYS:N	2.21	0.52
1:A:335:HIS:HD2	1:A:335:HIS:O	1.92	0.52
1:B:655:LEU:CD2	1:B:916:LEU:HD11	2.38	0.52
1:B:1234:MET:CE	1:B:1326:ILE:HG21	2.40	0.52
1:B:1721:ARG:CG	1:B:1721:ARG:NH1	2.55	0.52
2:G:278:VAL:HG11	2:G:303:LEU:HD13	1.92	0.52
2:G:490:TRP:HA	2:G:493:THR:CG2	2.40	0.52
2:G:768:GLY:HA3	2:G:800:LEU:CD2	2.38	0.52
2:H:1159:ILE:CG1	2:H:1169:PRO:CD	2.87	0.52
2:H:2038:ILE:HG22	2:H:2042:ILE:CD1	2.36	0.52
2:I:264:ARG:NH1	2:I:456:GLN:HG3	2.24	0.52
2:I:751:LEU:HD23	2:I:791:TYR:CZ	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:821:ILE:HA	2:I:857:ILE:HD11	1.92	0.52
1:A:1123:GLN:HG3	1:A:1124:GLU:N	2.24	0.52
1:B:338:LEU:O	1:B:342:GLN:HG3	2.10	0.52
1:B:784:ILE:HG23	1:B:788:SER:HB2	1.92	0.52
1:B:1020:VAL:HG13	1:B:1400:ILE:HG23	1.91	0.52
1:B:1411:THR:HG22	1:B:1412:ASP:H	1.75	0.52
1:C:539:SER:O	1:C:540:GLN:C	2.52	0.52
1:C:635:ILE:HG22	1:C:651:TYR:CD1	2.45	0.52
1:C:1247:SER:HB2	1:C:1332:TYR:HE2	1.75	0.52
2:G:234:ILE:CG1	2:G:235:PRO:HD3	2.40	0.52
2:G:624:TYR:HB2	2:G:630:MET:HE3	1.92	0.52
2:G:1589:VAL:HG11	2:G:1640:PHE:CE1	2.45	0.52
2:H:1227:ARG:HG3	2:H:1227:ARG:NH1	2.01	0.52
2:I:715:GLN:O	2:I:719:ILE:HG12	2.10	0.52
2:I:1567:ARG:HG3	2:I:1568:HIS:N	2.22	0.52
1:A:36:LEU:CD2	1:A:61:LEU:HD21	2.37	0.52
1:A:50:SER:HB2	1:A:51:PRO:CD	2.39	0.52
1:B:335:HIS:O	1:B:335:HIS:HD2	1.93	0.52
1:B:529:MET:HG2	1:B:638:LEU:HG	1.92	0.52
1:C:607:LYS:HG2	1:C:608:ASP:N	2.24	0.52
1:C:1238:VAL:HG12	1:C:1239:HIS:N	2.25	0.52
2:G:1223:MET:CE	2:G:1238:LEU:HD12	2.40	0.52
2:H:1081:HIS:O	2:H:1085:LEU:HB2	2.10	0.52
2:H:1422:THR:HG21	2:H:1474:PHE:HB2	1.91	0.52
2:H:1561:ASN:OD1	2:H:1563:ILE:HB	2.10	0.52
2:I:1229:MET:HE2	2:I:1268:LYS:O	2.10	0.52
2:I:1871:LEU:HD22	2:I:1888:ILE:HD11	1.92	0.52
1:A:1487:LEU:C	1:A:1487:LEU:HD23	2.35	0.52
1:B:864:VAL:CG2	1:B:921:PRO:HB3	2.40	0.52
1:B:1123:GLN:HB2	1:B:1177:LYS:HE2	1.91	0.52
1:B:1238:VAL:HG12	1:B:1239:HIS:N	2.25	0.52
1:C:156:ALA:HA	1:C:166:ILE:CD1	2.40	0.52
1:C:1665:ILE:CG1	1:C:1669:ARG:HD3	2.36	0.52
2:G:674:TYR:HA	2:G:1164:MET:HE1	1.91	0.52
2:G:730:LEU:C	2:G:730:LEU:HD12	2.35	0.52
2:G:1417:THR:C	2:G:1419:PHE:H	2.18	0.52
2:G:1493:LEU:HD11	2:G:1499:VAL:CG2	2.40	0.52
2:H:1148:ASN:ND2	2:H:1151:HIS:H	2.08	0.52
2:H:1475:LYS:CB	2:H:1481:SER:HB2	2.40	0.52
2:H:1722:GLY:N	2:H:1726:GLY:HA3	2.24	0.52
2:I:273:HIS:CB	2:I:512:LEU:HD22	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:346:GLN:HA	2:I:377:LEU:HD21	1.92	0.52
2:I:573:LYS:C	2:I:575:GLY:H	2.18	0.52
2:I:1486:PHE:HA	2:I:1504:VAL:O	2.10	0.52
2:I:1745:LYS:HE2	2:I:1747:LYS:HG2	1.91	0.52
2:I:1776:PHE:O	2:I:1779:PRO:HD2	2.09	0.52
1:B:50:SER:HB2	1:B:51:PRO:CD	2.40	0.51
1:B:1477:ILE:H	1:B:1478:PRO:CD	2.23	0.51
1:B:1524:GLY:HA2	1:B:1527:ALA:HB3	1.93	0.51
1:C:465:ASN:O	1:C:469:VAL:HG23	2.09	0.51
2:G:654:VAL:O	2:G:654:VAL:HG12	2.09	0.51
2:H:747:HIS:O	2:H:751:LEU:HB2	2.10	0.51
2:H:1004:LEU:CD2	2:H:1019:PRO:HB2	2.40	0.51
2:H:1173:VAL:HB	2:H:1221:MET:HE1	1.92	0.51
2:I:281:VAL:HG12	2:I:282:ALA:N	2.26	0.51
2:I:913:ASP:H	2:I:916:THR:CG2	2.23	0.51
2:I:1223:MET:CE	2:I:1238:LEU:HD12	2.40	0.51
1:A:411:GLN:HE22	1:A:1628:SER:N	2.06	0.51
1:A:607:LYS:HG2	1:A:608:ASP:N	2.25	0.51
1:B:386:PHE:O	1:B:390:VAL:HB	2.10	0.51
1:C:2:LYS:HE2	1:C:4:GLU:CD	2.35	0.51
1:C:157:HIS:HE1	1:C:228:LEU:HD22	1.75	0.51
2:H:234:ILE:CG1	2:H:235:PRO:HD3	2.40	0.51
2:H:807:ILE:HG21	2:H:1066:ILE:HA	1.92	0.51
2:H:1775:GLN:HG2	2:H:1836:MET:SD	2.50	0.51
2:I:42:PRO:HG2	2:I:52:ASP:CG	2.35	0.51
2:I:55:THR:CG2	2:I:56:THR:HG22	2.33	0.51
1:A:1056:ILE:HD13	1:A:1193:TRP:CD1	2.42	0.51
1:B:1682:LYS:HB3	2:H:994:PHE:CE2	2.45	0.51
1:C:1009:LEU:CD1	1:C:1445:MET:HE1	2.41	0.51
1:C:1303:GLY:H	1:C:1307:THR:HG22	1.75	0.51
1:C:1411:THR:HG22	1:C:1412:ASP:H	1.75	0.51
2:G:145:LEU:HD21	2:G:156:LEU:HD21	1.91	0.51
2:G:1177:SER:O	2:G:1180:MET:HG2	2.09	0.51
2:G:1438:SER:O	2:G:1441:ILE:HG23	2.09	0.51
2:H:55:THR:HB	2:H:59:GLU:OE2	2.10	0.51
2:H:892:ILE:HG12	2:H:903:TRP:CG	2.45	0.51
2:H:1378:ILE:O	2:H:1378:ILE:HG12	2.10	0.51
2:H:1493:LEU:HD11	2:H:1499:VAL:HG21	1.93	0.51
2:H:1697:HIS:HE1	2:H:1829:GLU:CG	2.23	0.51
1:B:852:ARG:HH11	1:B:852:ARG:CG	2.06	0.51
1:B:1665:ILE:HG12	1:B:1666:THR:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1431:GLU:HB3	1:C:1520:ALA:HB2	1.92	0.51
2:G:16:LEU:HG	2:G:48:PHE:CZ	2.45	0.51
2:G:105:ALA:CB	2:G:533:LEU:HD21	2.40	0.51
2:G:489:LYS:O	2:G:493:THR:HG22	2.10	0.51
2:G:1081:HIS:O	2:G:1085:LEU:HB2	2.10	0.51
2:G:1579:ILE:HD11	2:G:1615:MET:SD	2.51	0.51
2:G:1764:PHE:HB2	2:G:1770:LEU:HD21	1.93	0.51
2:H:624:TYR:HB2	2:H:630:MET:HE3	1.92	0.51
2:H:1435:ILE:O	2:H:1435:ILE:HG22	2.10	0.51
1:A:20:TYR:CE1	2:G:2035:SER:HB2	2.45	0.51
1:B:1585:LYS:HD3	1:B:1585:LYS:H	1.76	0.51
1:C:11:HIS:C	1:C:11:HIS:CD2	2.89	0.51
1:C:644:THR:HG22	1:C:648:ASP:O	2.10	0.51
2:G:1431:TYR:CE1	2:G:1526:THR:HG23	2.45	0.51
2:G:1861:ARG:HD2	2:G:1964:PHE:O	2.10	0.51
2:H:42:PRO:HG2	2:H:52:ASP:CG	2.36	0.51
2:H:278:VAL:HG11	2:H:303:LEU:HD13	1.92	0.51
2:H:376:ASN:HD22	2:H:376:ASN:C	2.18	0.51
2:H:1697:HIS:HE1	2:H:1829:GLU:HG2	1.74	0.51
2:I:1148:ASN:C	2:I:1148:ASN:HD22	2.19	0.51
2:I:1884:TRP:NE1	2:I:1905:ARG:HH21	2.09	0.51
1:A:413:LEU:C	1:A:415:SER:H	2.18	0.51
1:A:539:SER:O	1:A:540:GLN:C	2.52	0.51
1:A:630:ILE:O	1:A:653:ARG:NH2	2.42	0.51
1:B:430:ARG:NH2	1:B:605:LEU:HD13	2.26	0.51
1:B:1189:ILE:CD1	1:B:1380:GLN:HG3	2.38	0.51
1:C:46:GLU:OE1	1:C:53:LEU:HB2	2.10	0.51
1:C:1584:PRO:HB2	1:C:1587:ALA:HB3	1.92	0.51
2:G:99:ASN:HA	2:G:550:VAL:HG21	1.92	0.51
2:G:1293:THR:HG22	2:G:1296:GLU:CD	2.35	0.51
2:G:1389:ILE:HG13	2:G:1411:PHE:HD1	1.75	0.51
2:G:1932:SER:O	2:G:1936:VAL:HG22	2.10	0.51
2:H:105:ALA:CB	2:H:533:LEU:HD21	2.40	0.51
2:H:332:GLU:OE2	2:H:394:ARG:HD3	2.10	0.51
2:I:306:ILE:HA	2:I:439:ILE:CD1	2.40	0.51
2:I:522:GLY:HA3	2:I:561:TRP:CZ3	2.46	0.51
2:I:1697:HIS:CE1	2:I:1829:GLU:HG2	2.45	0.51
2:I:1716:ASN:OD1	2:I:1765:ARG:HA	2.11	0.51
2:I:1953:VAL:O	2:I:1953:VAL:HG12	2.11	0.51
2:I:2038:ILE:HG22	2:I:2042:ILE:CD1	2.37	0.51
1:A:286:PHE:O	1:A:290:MET:HG2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:142:ASP:CG	1:B:257:PRO:HB2	2.35	0.51
1:B:170:LYS:HD3	1:B:175:LEU:HD23	1.92	0.51
1:C:1021:VAL:HG21	1:C:1593:MET:HE2	1.92	0.51
2:G:443:LEU:HD22	2:G:448:VAL:CG1	2.41	0.51
2:G:868:PHE:HB3	2:G:873:PHE:CE2	2.46	0.51
2:H:598:THR:O	2:H:602:VAL:HB	2.11	0.51
2:H:955:GLU:HG2	2:H:987:TYR:CE2	2.45	0.51
2:H:1389:ILE:HG13	2:H:1411:PHE:HD1	1.76	0.51
2:I:259:THR:HG22	2:I:262:GLU:CB	2.41	0.51
2:I:624:TYR:HB2	2:I:630:MET:HE3	1.92	0.51
2:I:675:PRO:HG3	2:I:1163:LYS:O	2.11	0.51
2:I:1159:ILE:HG12	2:I:1169:PRO:CD	2.39	0.51
1:A:2:LYS:HE2	1:A:4:GLU:CD	2.36	0.51
1:A:29:ILE:HG13	2:G:1891:TYR:O	2.10	0.51
1:A:34:VAL:O	1:A:38:ASP:HB2	2.10	0.51
1:A:465:ASN:O	1:A:469:VAL:HG23	2.11	0.51
1:A:1004:ILE:HG22	1:A:1660:TYR:CE2	2.46	0.51
1:A:1533:ILE:HD11	1:A:1564:LEU:HD13	1.93	0.51
1:B:421:ILE:HG12	1:B:469:VAL:HG21	1.93	0.51
1:B:1104:ARG:O	1:B:1185:VAL:HG13	2.11	0.51
1:B:1303:GLY:H	1:B:1307:THR:HG22	1.76	0.51
1:C:260:ARG:HH12	1:C:300:VAL:CG2	2.22	0.51
1:C:340:ARG:HH12	1:C:344:GLN:NE2	2.08	0.51
1:C:411:GLN:HE22	1:C:1628:SER:N	2.09	0.51
1:C:1705:PRO:HB2	1:C:1733:PHE:CE1	2.46	0.51
2:G:281:VAL:HG23	2:G:459:VAL:HG11	1.91	0.51
2:G:1159:ILE:HG12	2:G:1169:PRO:CD	2.39	0.51
2:G:2015:THR:HG22	2:G:2017:LYS:N	2.22	0.51
2:H:1293:THR:HG22	2:H:1296:GLU:CG	2.41	0.51
2:H:1716:ASN:OD1	2:H:1765:ARG:HA	2.11	0.51
2:H:1774:THR:HA	2:H:1777:THR:HB	1.93	0.51
2:I:376:ASN:C	2:I:376:ASN:ND2	2.68	0.51
2:I:1313:SER:O	2:I:1314:ARG:HD3	2.11	0.51
2:I:2035:SER:HB3	2:I:2038:ILE:CD1	2.40	0.51
1:A:254:TRP:HZ3	1:A:292:GLN:HG3	1.75	0.51
1:A:1105:LEU:HD23	1:A:1185:VAL:HG22	1.93	0.51
1:B:822:VAL:HG12	1:B:824:LEU:HD22	1.93	0.51
1:B:983:GLN:NE2	2:H:962:LYS:HD2	2.26	0.51
1:C:705:VAL:CG2	1:C:732:LEU:HD21	2.40	0.51
2:G:55:THR:CG2	2:G:56:THR:HG22	2.33	0.51
2:G:145:LEU:O	2:G:149:VAL:HG12	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:376:ASN:C	2:G:376:ASN:ND2	2.67	0.51
2:G:1452:LEU:HA	2:G:1502:GLY:HA3	1.92	0.51
2:H:1845:ASP:HB2	2:H:1849:ARG:N	2.15	0.51
2:H:2026:PHE:HD2	2:H:2045:TRP:HZ3	1.59	0.51
2:H:2030:TYR:CE1	2:H:2034:GLY:HA2	2.46	0.51
2:I:1015:VAL:HG11	2:I:1017:PHE:CE1	2.45	0.51
1:A:1181:PHE:CZ	1:A:1341:PHE:HA	2.46	0.51
1:A:1304:ALA:N	1:A:1307:THR:HG22	2.26	0.51
1:B:11:HIS:C	1:B:11:HIS:CD2	2.89	0.51
1:B:764:ASP:OD2	1:B:818:ARG:HD3	2.11	0.51
1:C:1009:LEU:HG	1:C:1664:ALA:HB2	1.93	0.51
1:C:1304:ALA:N	1:C:1307:THR:HG22	2.26	0.51
2:G:7:ARG:HE	2:G:27:PHE:CB	2.24	0.51
2:G:213:LEU:O	2:G:213:LEU:HG	2.11	0.51
2:G:784:GLU:O	2:G:787:THR:HB	2.11	0.51
2:G:1567:ARG:HG3	2:G:1568:HIS:N	2.20	0.51
2:H:273:HIS:CB	2:H:512:LEU:HD22	2.41	0.51
2:H:281:VAL:HG12	2:H:282:ALA:N	2.25	0.51
2:H:463:PHE:CE1	2:H:486:LEU:HD22	2.46	0.51
2:H:533:LEU:HD13	2:H:545:GLN:HG3	1.92	0.51
2:H:1673:GLU:N	2:H:1676:MET:HE3	2.26	0.51
2:I:60:LEU:O	2:I:63:LYS:HB2	2.11	0.51
2:I:955:GLU:HG2	2:I:987:TYR:CE2	2.46	0.51
2:I:1918:LYS:HG2	2:I:1919:LEU:HD23	1.92	0.51
1:A:1196:LYS:HE3	1:A:1202:ASP:CG	2.36	0.50
1:A:1347:LYS:O	1:A:1347:LYS:HD3	2.11	0.50
1:B:1411:THR:HG22	1:B:1412:ASP:N	2.26	0.50
1:C:280:GLU:O	1:C:280:GLU:HG2	2.11	0.50
2:G:7:ARG:CZ	2:G:24:THR:HA	2.41	0.50
2:G:932:ILE:HD11	2:G:1042:ALA:CB	2.33	0.50
2:G:1272:ASP:O	2:G:1273:GLU:HG3	2.11	0.50
2:G:2035:SER:HB3	2:G:2038:ILE:CG1	2.41	0.50
2:H:418:ASN:HD22	2:H:418:ASN:N	2.08	0.50
2:H:1475:LYS:HG3	2:H:1481:SER:HB2	1.93	0.50
2:H:2036:GLU:HG2	2:H:2039:LYS:NZ	2.26	0.50
2:I:157:VAL:HG11	2:I:496:PHE:CZ	2.46	0.50
2:I:455:ILE:HG12	2:I:469:ARG:HG2	1.92	0.50
2:I:1945:ASP:O	2:I:1949:LYS:HG3	2.11	0.50
2:I:1986:LYS:HA	2:I:1989:LYS:HB3	1.93	0.50
1:A:156:ALA:HA	1:A:166:ILE:HD12	1.93	0.50
1:B:529:MET:HE3	1:B:529:MET:CA	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:601:VAL:O	1:B:602:GLU:C	2.54	0.50
1:B:635:ILE:HG22	1:B:651:TYR:CD1	2.46	0.50
1:C:702:LYS:HE2	1:C:729:GLY:O	2.11	0.50
1:C:1566:ARG:HB3	1:C:1623:TYR:CE1	2.46	0.50
2:G:440:ASN:ND2	2:G:477:GLU:HG2	2.26	0.50
2:G:601:THR:HG22	2:G:620:ALA:H	1.75	0.50
2:G:611:THR:HA	2:G:615:TYR:O	2.11	0.50
2:G:702:TYR:HB2	2:G:727:PRO:HB2	1.93	0.50
2:H:871:THR:HG21	2:H:887:LYS:NZ	2.26	0.50
2:H:1162:ASP:O	2:H:1163:LYS:HB2	2.11	0.50
2:I:1417:THR:C	2:I:1419:PHE:H	2.18	0.50
1:A:1411:THR:HG22	1:A:1412:ASP:H	1.76	0.50
1:B:411:GLN:NE2	1:B:1628:SER:H	2.09	0.50
1:B:435:GLU:O	1:B:439:ILE:HG13	2.11	0.50
1:B:674:LYS:O	1:B:675:ASP:HB2	2.11	0.50
1:B:1642:THR:HG22	1:B:1652:GLN:HG3	1.93	0.50
1:C:157:HIS:CE1	1:C:228:LEU:HD22	2.47	0.50
1:C:1116:PRO:HB2	1:C:1184:LEU:HD12	1.93	0.50
1:C:1455:ARG:O	1:C:1459:ILE:HG13	2.12	0.50
2:G:1293:THR:HG22	2:G:1296:GLU:CG	2.40	0.50
2:G:1716:ASN:OD1	2:G:1765:ARG:HA	2.12	0.50
2:H:432:LEU:HB3	2:H:484:ILE:HG23	1.92	0.50
2:H:1597:ALA:HB1	2:H:1638:ILE:CD1	2.41	0.50
2:I:650:ASN:HD21	3:I:3051:FMN:HN3	1.58	0.50
2:I:1031:LYS:O	2:I:1032:ASP:C	2.54	0.50
2:I:1431:TYR:CE1	2:I:1526:THR:HG23	2.46	0.50
2:I:1678:MET:CE	2:I:1707:LEU:HD22	2.41	0.50
2:I:1776:PHE:C	2:I:1779:PRO:HD2	2.37	0.50
1:A:280:GLU:O	1:A:280:GLU:HG2	2.10	0.50
1:A:1474:ALA:HA	1:A:1478:PRO:CD	2.41	0.50
1:B:1347:LYS:O	1:B:1347:LYS:HD3	2.11	0.50
2:G:1135:GLU:OE2	2:G:1175:LYS:HE3	2.11	0.50
2:G:1873:TYR:CE1	2:G:1877:ARG:NE	2.75	0.50
2:G:1918:LYS:HG2	2:G:1919:LEU:HD23	1.93	0.50
2:H:260:PRO:HD3	2:H:289:TRP:CZ2	2.46	0.50
2:H:344:LEU:HB3	2:H:349:VAL:HG23	1.94	0.50
2:H:730:LEU:C	2:H:730:LEU:HD12	2.36	0.50
2:H:750:MET:CG	2:H:796:PHE:HZ	2.25	0.50
2:H:1031:LYS:O	2:H:1032:ASP:C	2.54	0.50
2:H:1428:GLU:HB2	2:H:1468:THR:HG22	1.94	0.50
2:H:1873:TYR:HE1	2:H:1877:ARG:HH21	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:161:GLY:HA3	2:I:506:PRO:HD2	1.94	0.50
2:I:344:LEU:HB3	2:I:349:VAL:HG23	1.93	0.50
2:I:460:TYR:HA	2:I:466:SER:O	2.10	0.50
2:I:1308:CYS:HB3	2:I:1311:PHE:CD2	2.46	0.50
2:I:2036:GLU:HG2	2:I:2039:LYS:HZ1	1.77	0.50
1:B:1600:LEU:HD11	1:B:1655:VAL:HG12	1.94	0.50
1:B:1685:TYR:CE1	2:H:993:GLN:OE1	2.64	0.50
1:C:1392:LEU:HD22	1:C:1396:MET:HG3	1.93	0.50
2:G:105:ALA:HB3	2:G:533:LEU:HD21	1.94	0.50
2:G:741:HIS:HB3	2:G:853:PRO:HB2	1.94	0.50
2:G:1493:LEU:HD11	2:G:1499:VAL:HG21	1.93	0.50
2:H:582:LYS:HE2	2:H:1108:PRO:HB3	1.92	0.50
2:H:1861:ARG:HD2	2:H:1964:PHE:O	2.11	0.50
2:I:1475:LYS:CB	2:I:1481:SER:HB2	2.41	0.50
1:A:433:VAL:O	1:A:437:ILE:HG13	2.12	0.50
1:A:889:GLU:HG3	1:A:893:VAL:O	2.11	0.50
1:B:254:TRP:HZ3	1:B:292:GLN:HG3	1.76	0.50
1:B:1105:LEU:HD23	1:B:1185:VAL:HG22	1.93	0.50
1:C:29:ILE:HG13	2:I:1891:TYR:O	2.12	0.50
1:C:156:ALA:HA	1:C:166:ILE:HD12	1.92	0.50
1:C:328:LEU:HD13	1:C:329:GLU:N	2.27	0.50
1:C:529:MET:CE	1:C:894:ARG:HD2	2.30	0.50
1:C:674:LYS:O	1:C:675:ASP:HB2	2.11	0.50
1:C:702:LYS:HD3	1:C:731:THR:CG2	2.41	0.50
1:C:1196:LYS:HE3	1:C:1202:ASP:CG	2.37	0.50
2:G:24:THR:O	2:G:26:SER:N	2.44	0.50
2:G:281:VAL:HG12	2:G:282:ALA:N	2.26	0.50
2:G:418:ASN:HD22	2:G:418:ASN:N	2.08	0.50
2:G:533:LEU:HD13	2:G:545:GLN:HG3	1.94	0.50
2:G:606:PHE:CE1	2:G:811:VAL:HG13	2.47	0.50
2:H:491:GLU:HA	2:H:494:THR:HG22	1.93	0.50
2:H:702:TYR:HB2	2:H:727:PRO:HB2	1.94	0.50
2:H:1221:MET:HE2	2:H:1223:MET:HE1	1.93	0.50
2:I:1846:GLU:C	2:I:1848:GLY:H	2.20	0.50
1:A:1234:MET:HG2	1:A:1326:ILE:HD12	1.93	0.50
1:B:826:MET:HE1	1:B:850:PHE:CZ	2.46	0.50
1:B:1705:PRO:HB2	1:B:1733:PHE:CE1	2.46	0.50
1:C:335:HIS:O	1:C:335:HIS:CD2	2.65	0.50
1:C:627:SER:HB2	1:C:657:SER:CB	2.41	0.50
1:C:828:PRO:HG3	1:C:868:ILE:HG22	1.94	0.50
1:C:1264:ARG:NH1	1:C:1270:VAL:HB	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1474:ALA:HA	1:C:1478:PRO:CD	2.42	0.50
2:G:463:PHE:C	2:G:463:PHE:CD2	2.90	0.50
2:G:751:LEU:HD23	2:G:791:TYR:CZ	2.46	0.50
2:G:814:SER:HB2	2:G:1040:LEU:HD13	1.93	0.50
2:G:1173:VAL:HB	2:G:1221:MET:HE1	1.94	0.50
2:G:1593:ILE:HD13	2:G:1626:ILE:HD13	1.92	0.50
2:G:1697:HIS:HE1	2:G:1829:GLU:CG	2.25	0.50
2:G:2035:SER:HB3	2:G:2038:ILE:CD1	2.42	0.50
2:H:1148:ASN:HD22	2:H:1151:HIS:H	1.60	0.50
2:H:1889:VAL:HG13	2:H:1977:HIS:HB3	1.93	0.50
2:I:1428:GLU:HB2	2:I:1468:THR:HG22	1.93	0.50
2:I:1774:THR:HA	2:I:1777:THR:HB	1.92	0.50
1:B:1362:PRO:HA	1:B:1365:MET:HG3	1.94	0.50
1:B:1451:GLN:OE1	1:B:1451:GLN:HA	2.12	0.50
1:C:888:ILE:HD12	1:C:939:PHE:CE2	2.44	0.50
1:C:1233:GLU:CD	1:C:1680:ARG:HH21	2.19	0.50
2:G:836:TYR:HA	2:G:845:THR:OG1	2.11	0.50
2:G:1871:LEU:HD22	2:G:1888:ILE:HD11	1.93	0.50
2:G:1913:VAL:O	2:G:1917:ILE:HG13	2.12	0.50
2:H:161:GLY:N	2:H:505:GLY:HA3	2.25	0.50
2:H:233:SER:HA	2:H:424:ALA:CB	2.41	0.50
2:H:638:VAL:HG22	2:H:675:PRO:HG2	1.94	0.50
2:H:1308:CYS:HB3	2:H:1311:PHE:CD2	2.47	0.50
2:H:1593:ILE:O	2:H:1597:ALA:HB3	2.12	0.50
2:I:238:CYS:CB	2:I:239:PRO:HD3	2.40	0.50
2:I:324:LEU:HD12	2:I:324:LEU:O	2.12	0.50
2:I:807:ILE:HG21	2:I:1066:ILE:HA	1.92	0.50
2:I:1027:ILE:O	2:I:1031:LYS:HB2	2.11	0.50
1:A:408:TRP:CH2	1:A:1628:SER:HB3	2.47	0.50
1:A:1104:ARG:O	1:A:1185:VAL:HG13	2.12	0.50
1:B:156:ALA:HA	1:B:166:ILE:CD1	2.41	0.50
1:C:267:VAL:HG12	1:C:290:MET:CE	2.42	0.50
1:C:1105:LEU:HD23	1:C:1185:VAL:HG22	1.94	0.50
1:C:1123:GLN:HB2	1:C:1177:LYS:HE2	1.93	0.50
2:G:60:LEU:O	2:G:63:LYS:HB2	2.12	0.50
2:G:1552:PRO:O	2:G:1556:VAL:HG23	2.12	0.50
2:G:1678:MET:HE2	2:G:1711:ILE:CG1	2.41	0.50
2:H:121:GLU:HA	2:H:124:LYS:HD2	1.93	0.50
2:H:455:ILE:HD11	2:H:469:ARG:NE	2.27	0.50
2:H:835:THR:HG21	2:H:855:HIS:HD2	1.70	0.50
2:H:995:LEU:HB3	2:H:1000:ILE:HD11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1776:PHE:C	2:H:1779:PRO:HD2	2.37	0.50
2:I:173:LEU:HD13	2:I:219:LEU:HD21	1.93	0.50
2:I:1435:ILE:HG22	2:I:1435:ILE:O	2.12	0.50
2:I:1493:LEU:HD11	2:I:1499:VAL:HG21	1.93	0.50
1:A:157:HIS:HE1	1:A:228:LEU:HD22	1.76	0.49
1:A:328:LEU:HD13	1:A:329:GLU:N	2.27	0.49
1:A:1125:VAL:HG21	1:A:1175:ILE:CD1	2.42	0.49
1:A:1451:GLN:OE1	1:A:1451:GLN:HA	2.12	0.49
1:A:1459:ILE:O	1:A:1463:VAL:HG23	2.12	0.49
1:B:157:HIS:HE1	1:B:228:LEU:HD22	1.77	0.49
1:B:413:LEU:HB2	1:B:439:ILE:HD13	1.94	0.49
1:B:790:PHE:CE2	1:B:794:ILE:HD11	2.47	0.49
2:H:7:ARG:CZ	2:H:24:THR:HA	2.42	0.49
2:H:102:HIS:HE1	2:H:180:TYR:OH	1.95	0.49
2:H:214:ASN:ND2	2:H:217:GLU:HB2	2.27	0.49
2:H:460:TYR:HA	2:H:466:SER:O	2.12	0.49
2:H:868:PHE:HB3	2:H:873:PHE:CE2	2.47	0.49
2:I:7:ARG:CZ	2:I:24:THR:HA	2.42	0.49
2:I:194:THR:CG2	2:I:300:ILE:HD11	2.40	0.49
2:I:402:LEU:HD12	2:I:404:GLN:HG2	1.94	0.49
2:I:611:THR:HA	2:I:615:TYR:O	2.11	0.49
2:I:1378:ILE:O	2:I:1378:ILE:HG12	2.11	0.49
2:I:1873:TYR:CE2	2:I:1940:LEU:HD21	2.47	0.49
1:B:156:ALA:HA	1:B:166:ILE:HD12	1.93	0.49
1:B:465:ASN:O	1:B:469:VAL:HG23	2.12	0.49
1:C:56:MET:HG3	2:I:1893:VAL:CG2	2.42	0.49
1:C:176:VAL:HG12	1:C:178:GLY:H	1.77	0.49
1:C:233:ILE:HD13	1:C:237:MET:HE3	1.94	0.49
1:C:655:LEU:CD2	1:C:916:LEU:HD11	2.39	0.49
1:C:1665:ILE:HG12	1:C:1666:THR:N	2.27	0.49
2:G:463:PHE:CE1	2:G:486:LEU:HD22	2.47	0.49
2:G:491:GLU:HA	2:G:494:THR:HG22	1.95	0.49
2:G:597:MET:H	2:G:601:THR:HB	1.77	0.49
2:G:677:GLN:O	2:G:678:PHE:HB3	2.13	0.49
2:G:740:HIS:HA	2:G:854:ILE:HD13	1.94	0.49
2:H:461:ASP:HB3	2:H:464:ASP:HB2	1.93	0.49
2:H:1745:LYS:HD3	2:H:1747:LYS:HE2	1.94	0.49
2:H:2035:SER:HB3	2:H:2038:ILE:CD1	2.42	0.49
2:I:24:THR:O	2:I:26:SER:N	2.45	0.49
2:I:274:SER:OG	2:I:428:HIS:HE1	1.96	0.49
2:I:573:LYS:HE3	2:I:1101:GLU:OE1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:712:ALA:O	2:I:715:GLN:HB3	2.12	0.49
1:A:980:VAL:HG23	2:G:968:GLN:OE1	2.12	0.49
1:A:1419:PRO:HB3	1:A:1646:PHE:CE2	2.48	0.49
1:B:1474:ALA:HA	1:B:1478:PRO:CD	2.41	0.49
1:C:790:PHE:CE2	1:C:794:ILE:HD11	2.48	0.49
1:C:889:GLU:HG3	1:C:893:VAL:O	2.13	0.49
1:C:1050:CYS:HB3	1:C:1089:VAL:HG12	1.93	0.49
2:G:157:VAL:HG11	2:G:496:PHE:CZ	2.47	0.49
2:G:573:LYS:C	2:G:575:GLY:H	2.21	0.49
2:G:1441:ILE:HD11	2:G:1445:ARG:NH2	2.25	0.49
2:G:1666:PHE:CD1	2:G:1814:ALA:HA	2.47	0.49
2:G:1845:ASP:HB2	2:G:1849:ARG:N	2.15	0.49
2:H:7:ARG:HE	2:H:27:PHE:CB	2.25	0.49
2:H:306:ILE:HA	2:H:439:ILE:CD1	2.43	0.49
2:H:634:ILE:HD11	2:H:649:ILE:CD1	2.40	0.49
2:H:1567:ARG:CG	2:H:1567:ARG:NH1	2.50	0.49
2:I:950:PHE:O	2:I:954:VAL:HG23	2.11	0.49
1:B:11:HIS:HE1	2:H:1996:ILE:O	1.94	0.49
1:B:140:ILE:HD13	1:B:255:GLY:O	2.11	0.49
1:C:34:VAL:O	1:C:38:ASP:HB2	2.11	0.49
1:C:415:SER:O	1:C:419:GLU:HB2	2.12	0.49
1:C:764:ASP:OD2	1:C:818:ARG:HD3	2.12	0.49
2:G:194:THR:CG2	2:G:300:ILE:HD11	2.41	0.49
2:G:306:ILE:HA	2:G:439:ILE:CD1	2.42	0.49
2:G:1350:LEU:HD11	2:G:1410:PHE:HB3	1.93	0.49
2:G:1428:GLU:HG2	2:G:1470:THR:HG22	1.94	0.49
2:H:259:THR:HG22	2:H:262:GLU:CB	2.42	0.49
2:H:777:THR:HG23	2:H:1081:HIS:CE1	2.47	0.49
2:I:7:ARG:HE	2:I:27:PHE:CB	2.25	0.49
2:I:72:VAL:HG12	2:I:73:GLU:N	2.28	0.49
2:I:866:LYS:O	2:I:870:GLU:HG3	2.12	0.49
2:I:871:THR:HG21	2:I:887:LYS:HZ2	1.77	0.49
1:A:1312:VAL:CG2	1:A:1329:VAL:HG11	2.41	0.49
1:B:46:GLU:OE1	1:B:53:LEU:HB2	2.12	0.49
1:B:1419:PRO:HB3	1:B:1646:PHE:CE2	2.48	0.49
1:B:1455:ARG:NH2	1:B:1459:ILE:HG12	2.26	0.49
1:B:1533:ILE:HG13	1:B:1564:LEU:HB3	1.94	0.49
1:C:254:TRP:HZ3	1:C:292:GLN:HG3	1.77	0.49
1:C:1020:VAL:CG1	1:C:1400:ILE:HG23	2.42	0.49
2:G:1359:MET:CE	2:G:1404:MET:HB3	2.39	0.49
2:G:1776:PHE:O	2:G:1779:PRO:HD2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:173:LEU:O	2:H:173:LEU:HD22	2.13	0.49
2:I:629:GLY:O	2:I:632:ALA:HB3	2.12	0.49
2:I:682:GLY:O	2:I:683:ALA:HB3	2.13	0.49
2:I:777:THR:HG23	2:I:1081:HIS:CE1	2.47	0.49
2:I:1135:GLU:OE2	2:I:1175:LYS:HE3	2.12	0.49
2:I:1352:HIS:HE1	2:I:1583:MET:HE3	1.75	0.49
2:I:1844:ARG:CG	2:I:1844:ARG:NH1	2.61	0.49
2:I:1850:SER:HB2	2:I:1973:SER:HB2	1.95	0.49
2:I:2026:PHE:HD2	2:I:2045:TRP:HZ3	1.60	0.49
1:A:427:ASN:ND2	1:A:610:THR:H	2.05	0.49
1:A:826:MET:HE1	1:A:850:PHE:CE2	2.47	0.49
1:B:9:LEU:HD23	2:H:2041:ILE:HD13	1.95	0.49
1:C:256:LEU:HD22	1:C:260:ARG:HB3	1.95	0.49
2:G:273:HIS:CB	2:G:512:LEU:HD22	2.43	0.49
2:G:774:ALA:HB1	2:G:1081:HIS:CD2	2.37	0.49
2:G:1547:PRO:HD3	2:G:1584:PHE:CE2	2.47	0.49
2:G:1567:ARG:CG	2:G:1567:ARG:NH1	2.51	0.49
2:G:2029:VAL:O	2:G:2033:THR:HG22	2.13	0.49
2:H:369:SER:C	2:H:370:LEU:HD23	2.38	0.49
2:H:369:SER:O	2:H:370:LEU:HD23	2.13	0.49
2:H:551:THR:C	2:H:553:ASN:H	2.21	0.49
2:H:758:ARG:NH2	2:H:797:ASP:OD1	2.35	0.49
2:H:860:ARG:HB2	2:H:1049:GLN:HG3	1.94	0.49
2:I:1130:THR:H	2:I:1133:THR:CG2	2.25	0.49
2:I:1491:VAL:HB	2:I:1501:ILE:HD12	1.93	0.49
1:A:1523:ARG:NH2	1:A:1564:LEU:O	2.45	0.49
1:A:1705:PRO:HB2	1:A:1733:PHE:CE1	2.47	0.49
1:B:328:LEU:N	1:B:330:GLU:H	2.11	0.49
1:C:733:ILE:CD1	1:C:761:LEU:HD11	2.40	0.49
2:G:706:LYS:HE2	2:G:731:GLN:OE1	2.13	0.49
2:H:747:HIS:HE1	2:H:780:TYR:OH	1.95	0.49
2:H:826:GLY:HA2	2:H:1060:ALA:HB3	1.94	0.49
2:H:1040:LEU:O	2:H:1046:GLN:HG3	2.13	0.49
2:H:1632:ILE:HG23	2:H:1632:ILE:O	2.13	0.49
2:H:1846:GLU:C	2:H:1848:GLY:H	2.19	0.49
2:I:345:THR:HG22	2:I:347:GLU:N	2.23	0.49
2:I:768:GLY:HA3	2:I:800:LEU:CD2	2.41	0.49
2:I:995:LEU:HB3	2:I:1000:ILE:HD11	1.95	0.49
1:A:430:ARG:NH2	1:A:605:LEU:HD13	2.27	0.49
1:A:927:ASN:O	1:A:929:GLY:N	2.41	0.49
1:A:1477:ILE:H	1:A:1478:PRO:HD3	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:182:VAL:O	1:B:186:ILE:HG13	2.12	0.49
1:B:1056:ILE:HD13	1:B:1193:TRP:CD1	2.45	0.49
2:G:11:LEU:HD11	2:G:64:PHE:CD2	2.48	0.49
2:G:1130:THR:H	2:G:1133:THR:CG2	2.26	0.49
2:G:1300:PHE:CA	2:G:1556:VAL:HG11	2.42	0.49
2:G:1359:MET:HE3	2:G:1359:MET:HA	1.94	0.49
2:G:1425:LYS:HG2	2:G:1471:GLU:CG	2.37	0.49
2:H:597:MET:H	2:H:601:THR:HB	1.78	0.49
2:H:682:GLY:O	2:H:683:ALA:HB3	2.13	0.49
2:I:306:ILE:HA	2:I:439:ILE:HD13	1.94	0.49
2:I:814:SER:CB	2:I:1040:LEU:HD13	2.42	0.49
2:I:1266:TYR:HB2	2:I:1347:LEU:HD23	1.95	0.49
2:I:1697:HIS:HE1	2:I:1829:GLU:CG	2.26	0.49
2:I:1745:LYS:HD3	2:I:1747:LYS:HE2	1.93	0.49
1:A:56:MET:HE3	1:A:56:MET:HB2	1.72	0.49
1:A:67:SER:OG	2:I:359:HIS:HE1	1.95	0.49
1:A:400:ARG:CG	1:A:400:ARG:NH1	2.47	0.49
1:B:187:LEU:HD22	1:B:201:PRO:HB2	1.94	0.49
1:B:1014:ASP:H	1:B:1510:ASN:ND2	2.06	0.49
1:B:1303:GLY:C	1:B:1307:THR:HG22	2.38	0.49
1:C:983:GLN:NE2	2:I:962:LYS:HD2	2.27	0.49
1:C:1584:PRO:HG3	1:C:1591:TRP:CH2	2.47	0.49
2:G:463:PHE:HD2	2:G:463:PHE:O	1.95	0.49
2:G:1486:PHE:HA	2:G:1504:VAL:O	2.12	0.49
2:G:1567:ARG:NH1	2:G:1568:HIS:HB3	2.28	0.49
2:H:489:LYS:O	2:H:493:THR:HG22	2.13	0.49
2:H:569:LEU:HD12	2:H:1090:TYR:CD1	2.48	0.49
2:I:569:LEU:HD12	2:I:1090:TYR:CD1	2.48	0.49
2:I:926:LEU:HB3	2:I:947:THR:CG2	2.43	0.49
2:I:1632:ILE:HG23	2:I:1632:ILE:O	2.12	0.49
1:B:825:PRO:HB2	1:B:843:LYS:NZ	2.27	0.49
1:C:427:ASN:HB2	1:C:468:LEU:HD21	1.95	0.49
1:C:1419:PRO:HB3	1:C:1646:PHE:CE2	2.47	0.49
1:C:1487:LEU:HD23	1:C:1487:LEU:C	2.38	0.49
2:G:272:GLY:HA3	2:G:276:GLY:C	2.38	0.49
2:G:455:ILE:HG12	2:G:469:ARG:HG2	1.94	0.49
2:G:569:LEU:HD12	2:G:1090:TYR:CD1	2.48	0.49
2:G:2026:PHE:HD2	2:G:2045:TRP:HZ3	1.60	0.49
2:H:22:VAL:HG11	2:H:27:PHE:HA	1.94	0.49
2:H:455:ILE:C	2:H:455:ILE:HD12	2.38	0.49
2:H:950:PHE:O	2:H:954:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1054:LEU:CB	3:H:3051:FMN:HM73	2.38	0.49
2:H:1441:ILE:HD11	2:H:1445:ARG:NH2	2.27	0.49
2:I:55:THR:HB	2:I:59:GLU:OE2	2.13	0.49
2:I:249:TYR:CD2	2:I:283:ILE:HD11	2.48	0.49
2:I:428:HIS:HD2	2:I:486:LEU:O	1.95	0.49
2:I:900:GLN:NE2	2:I:1051:THR:HA	2.28	0.49
2:I:1697:HIS:HE1	2:I:1829:GLU:HG2	1.77	0.49
2:I:1738:PHE:CE1	2:I:1837:THR:HG23	2.48	0.49
1:A:46:GLU:OE1	1:A:53:LEU:HB2	2.12	0.48
1:A:987:ASN:HD22	2:G:957:ARG:HD2	1.77	0.48
1:A:1264:ARG:NH1	1:A:1270:VAL:HB	2.28	0.48
1:B:243:ILE:O	1:B:247:ARG:HG3	2.13	0.48
1:B:1183:ARG:NH1	1:B:1344:GLY:HA2	2.28	0.48
1:C:413:LEU:C	1:C:415:SER:H	2.21	0.48
1:C:420:ILE:HG22	1:C:469:VAL:HG22	1.96	0.48
1:C:1119:LYS:HE2	1:C:1341:PHE:CG	2.48	0.48
2:G:42:PRO:HG2	2:G:52:ASP:CG	2.38	0.48
2:G:463:PHE:CD1	2:G:486:LEU:HD22	2.48	0.48
2:G:682:GLY:O	2:G:683:ALA:HB3	2.12	0.48
2:G:1325:PHE:CE1	2:G:1328:VAL:HG11	2.48	0.48
2:G:1427:VAL:HG22	2:G:1469:GLU:HG2	1.94	0.48
2:G:2038:ILE:HG22	2:G:2042:ILE:CD1	2.37	0.48
2:H:176:LEU:HD22	2:H:247:ALA:HB1	1.95	0.48
2:H:522:GLY:O	2:H:560:ASN:HA	2.13	0.48
2:H:1272:ASP:O	2:H:1273:GLU:HG3	2.13	0.48
2:H:1438:SER:O	2:H:1441:ILE:HG23	2.13	0.48
1:B:705:VAL:CG2	1:B:732:LEU:HD21	2.43	0.48
1:B:1009:LEU:CD1	1:B:1445:MET:HE1	2.43	0.48
1:C:331:ILE:HG23	1:C:332:THR:N	2.28	0.48
1:C:386:PHE:O	1:C:390:VAL:HB	2.14	0.48
1:C:430:ARG:CZ	1:C:605:LEU:HD13	2.43	0.48
1:C:601:VAL:O	1:C:602:GLU:C	2.56	0.48
1:C:1114:TYR:CD1	1:C:1337:GLU:HG3	2.48	0.48
1:C:1392:LEU:CD2	1:C:1396:MET:HG3	2.43	0.48
1:C:1523:ARG:NH2	1:C:1564:LEU:O	2.46	0.48
2:G:618:GLU:HG2	2:G:678:PHE:CZ	2.48	0.48
2:G:653:TYR:HD1	2:G:659:LEU:HD21	1.78	0.48
2:G:1266:TYR:HB2	2:G:1347:LEU:HD23	1.95	0.48
2:G:1330:GLY:HA2	2:G:1374:THR:HG21	1.94	0.48
2:H:232:LEU:HD21	2:H:423:VAL:HA	1.95	0.48
2:H:397:LYS:HB3	2:H:416:PHE:CE2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:463:PHE:C	2:H:463:PHE:CD2	2.90	0.48
2:H:465:GLY:HA2	2:H:493:THR:HA	1.95	0.48
2:H:901:LYS:NZ	2:H:1031:LYS:O	2.46	0.48
2:H:1624:THR:HB	2:H:1642:THR:OG1	2.14	0.48
2:H:1842:VAL:HG21	2:H:1975:PRO:HD3	1.95	0.48
2:I:562:LEU:HG	2:I:793:PRO:CB	2.44	0.48
2:I:881:VAL:N	2:I:882:PRO:CD	2.76	0.48
2:I:1325:PHE:CE1	2:I:1328:VAL:HG11	2.48	0.48
2:I:1579:ILE:HD11	2:I:1615:MET:SD	2.54	0.48
2:I:1678:MET:HE2	2:I:1711:ILE:CG1	2.43	0.48
1:A:340:ARG:HH12	1:A:344:GLN:HE21	1.60	0.48
1:A:1362:PRO:HA	1:A:1365:MET:HG3	1.94	0.48
1:B:256:LEU:HD22	1:B:260:ARG:HB3	1.95	0.48
1:B:328:LEU:HD13	1:B:329:GLU:N	2.28	0.48
1:B:1244:GLY:C	1:B:1327:CYS:HB2	2.38	0.48
1:C:237:MET:HG3	1:C:241:PHE:HB3	1.95	0.48
1:C:1010:GLU:HA	1:C:1664:ALA:HA	1.95	0.48
1:C:1396:MET:O	1:C:1680:ARG:NH1	2.46	0.48
1:C:1451:GLN:HA	1:C:1451:GLN:OE1	2.13	0.48
2:G:109:LEU:HD11	2:G:116:LEU:CD2	2.41	0.48
2:G:428:HIS:CD2	2:G:488:VAL:HG23	2.47	0.48
2:G:741:HIS:HB2	2:G:853:PRO:O	2.13	0.48
2:I:11:LEU:HD11	2:I:64:PHE:CD2	2.47	0.48
2:I:272:GLY:HA3	2:I:276:GLY:C	2.37	0.48
2:I:741:HIS:HB3	2:I:853:PRO:HB2	1.95	0.48
2:I:750:MET:CG	2:I:796:PHE:HZ	2.24	0.48
1:A:11:HIS:C	1:A:11:HIS:CD2	2.92	0.48
1:A:413:LEU:HD11	1:A:451:MET:HE3	1.95	0.48
1:A:695:GLY:HA3	1:A:906:LEU:HD11	1.94	0.48
1:A:1037:TRP:HB2	1:A:1598:GLN:OE1	2.13	0.48
1:B:1116:PRO:HB2	1:B:1184:LEU:HD12	1.95	0.48
1:B:1125:VAL:HG21	1:B:1175:ILE:CD1	2.42	0.48
1:C:1019:ILE:HG21	1:C:1316:VAL:HG22	1.94	0.48
2:G:545:GLN:H	2:G:545:GLN:NE2	2.09	0.48
2:G:598:THR:O	2:G:602:VAL:HB	2.13	0.48
2:G:715:GLN:O	2:G:719:ILE:HG12	2.13	0.48
2:G:950:PHE:O	2:G:954:VAL:HG23	2.13	0.48
2:G:1148:ASN:ND2	2:G:1151:HIS:H	2.11	0.48
2:G:1213:LEU:O	2:G:1214:LEU:HD23	2.12	0.48
2:G:1776:PHE:C	2:G:1779:PRO:HD2	2.38	0.48
2:G:1846:GLU:C	2:G:1848:GLY:H	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1868:GLN:HG3	2:G:1898:TYR:CZ	2.48	0.48
2:H:169:TYR:CG	2:H:170:PHE:N	2.81	0.48
2:H:441:LYS:O	2:H:444:VAL:HG12	2.12	0.48
2:H:573:LYS:C	2:H:575:GLY:H	2.21	0.48
2:H:715:GLN:O	2:H:719:ILE:HG12	2.13	0.48
2:H:932:ILE:HD12	2:H:939:PHE:HD1	1.78	0.48
2:H:1148:ASN:HD22	2:H:1148:ASN:C	2.21	0.48
2:H:1986:LYS:HA	2:H:1989:LYS:HB3	1.95	0.48
2:I:173:LEU:O	2:I:173:LEU:HD22	2.13	0.48
2:I:1081:HIS:O	2:I:1085:LEU:HB2	2.13	0.48
2:I:1169:PRO:O	2:I:1173:VAL:HG23	2.13	0.48
2:I:1834:ARG:NH1	2:I:1834:ARG:CG	2.66	0.48
1:A:335:HIS:O	1:A:338:LEU:HB3	2.12	0.48
1:A:683:ALA:HA	1:A:689:GLY:HA3	1.95	0.48
1:B:683:ALA:HA	1:B:689:GLY:HA3	1.96	0.48
2:G:593:LEU:HD21	2:G:800:LEU:HB3	1.96	0.48
2:G:676:ILE:O	2:G:676:ILE:HG12	2.11	0.48
2:G:720:ALA:HA	2:G:728:ILE:CD1	2.43	0.48
2:H:428:HIS:CD2	2:H:488:VAL:HG23	2.49	0.48
2:H:455:ILE:HG13	2:H:455:ILE:O	2.14	0.48
2:H:1566:SER:HB3	2:H:1568:HIS:CE1	2.47	0.48
2:H:1674:GLN:OE1	2:H:1712:ASN:HA	2.12	0.48
2:I:16:LEU:HG	2:I:48:PHE:CZ	2.48	0.48
2:I:663:ILE:HB	2:I:664:PRO:CD	2.42	0.48
2:I:970:TYR:O	2:I:973:LEU:HB2	2.13	0.48
1:A:182:VAL:O	1:A:186:ILE:HG13	2.14	0.48
1:A:1021:VAL:HG21	1:A:1593:MET:HE2	1.95	0.48
1:A:1116:PRO:HB2	1:A:1184:LEU:HD12	1.94	0.48
1:A:1189:ILE:HG23	1:A:1190:PRO:HD2	1.94	0.48
1:B:186:ILE:O	1:B:190:LEU:HG	2.13	0.48
1:B:335:HIS:C	1:B:335:HIS:CD2	2.92	0.48
1:B:413:LEU:HD11	1:B:451:MET:HE3	1.96	0.48
1:B:807:LYS:C	1:B:807:LYS:HD3	2.39	0.48
1:C:50:SER:HB2	1:C:51:PRO:CD	2.43	0.48
2:G:259:THR:HG22	2:G:262:GLU:CB	2.43	0.48
2:G:551:THR:C	2:G:553:ASN:H	2.20	0.48
2:G:1223:MET:HE3	2:G:1238:LEU:HD12	1.95	0.48
2:G:1745:LYS:HE2	2:G:1747:LYS:HG2	1.95	0.48
2:H:145:LEU:HD21	2:H:156:LEU:HD21	1.95	0.48
2:H:272:GLY:HA3	2:H:276:GLY:C	2.38	0.48
2:H:1868:GLN:HG3	2:H:1898:TYR:CZ	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1918:LYS:HG2	2:H:1919:LEU:HD23	1.96	0.48
2:I:85:ASN:HD22	2:I:135:ARG:NH1	2.04	0.48
2:I:455:ILE:HG13	2:I:455:ILE:O	2.13	0.48
2:I:747:HIS:HE1	2:I:780:TYR:OH	1.97	0.48
2:I:758:ARG:NH2	2:I:797:ASP:OD1	2.38	0.48
2:I:1015:VAL:HG13	2:I:1017:PHE:CE2	2.48	0.48
2:I:1784:MET:HE2	2:I:1784:MET:O	2.14	0.48
1:A:335:HIS:C	1:A:335:HIS:CD2	2.92	0.48
1:A:985:ARG:HH12	2:G:953:ARG:CZ	2.26	0.48
1:A:1061:SER:HB2	1:A:1078:SER:HB3	1.96	0.48
1:B:438:ASN:HD21	1:B:698:GLN:HE21	1.61	0.48
1:C:413:LEU:HD11	1:C:451:MET:HE3	1.94	0.48
1:C:852:ARG:NH1	1:C:852:ARG:CG	2.66	0.48
2:G:55:THR:HB	2:G:59:GLU:OE2	2.14	0.48
2:G:173:LEU:HD13	2:G:219:LEU:HD21	1.94	0.48
2:G:1493:LEU:HB3	2:G:1494:PRO:HD2	1.96	0.48
2:G:1590:ARG:HG3	2:G:1608:TYR:CD2	2.48	0.48
2:G:1666:PHE:CD1	2:G:1814:ALA:HB2	2.49	0.48
2:H:40:ILE:O	2:H:42:PRO:HD3	2.13	0.48
2:H:161:GLY:HA3	2:H:506:PRO:HD2	1.94	0.48
2:H:967:ILE:HD12	2:H:972:LEU:HD22	1.96	0.48
2:H:1953:VAL:O	2:H:1953:VAL:HG12	2.13	0.48
2:I:593:LEU:HD21	2:I:800:LEU:HB3	1.95	0.48
2:I:753:MET:O	2:I:757:ILE:HG13	2.14	0.48
2:I:1674:GLN:OE1	2:I:1712:ASN:HA	2.13	0.48
1:A:256:LEU:HD22	1:A:260:ARG:HB3	1.94	0.48
1:A:908:LEU:HA	1:A:913:VAL:HG21	1.96	0.48
1:B:34:VAL:O	1:B:38:ASP:HB2	2.14	0.48
1:B:980:VAL:H	2:H:968:GLN:CD	2.22	0.48
1:C:335:HIS:O	1:C:338:LEU:HB3	2.14	0.48
1:C:400:ARG:HH11	1:C:400:ARG:HG3	1.72	0.48
1:C:1617:ILE:O	1:C:1620:GLN:HG2	2.13	0.48
2:G:318:SER:HB3	2:H:1595:ASN:HD21	1.78	0.48
2:G:754:TYR:CE2	2:G:794:MET:HG3	2.48	0.48
2:G:1180:MET:HB2	2:G:1197:LEU:HD21	1.95	0.48
2:G:1651:LEU:O	2:G:1652:THR:HG23	2.14	0.48
2:H:7:ARG:HH11	2:H:24:THR:HG23	1.75	0.48
2:H:428:HIS:HD2	2:H:486:LEU:O	1.96	0.48
2:H:463:PHE:CD1	2:H:486:LEU:HD22	2.48	0.48
2:H:739:GLY:HA2	2:H:1054:LEU:HG	1.95	0.48
2:H:955:GLU:HG2	2:H:987:TYR:HE2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1873:TYR:CE1	2:H:1877:ARG:NE	2.78	0.48
1:A:1319:ILE:HA	1:A:1324:ALA:O	2.14	0.48
1:B:157:HIS:CE1	1:B:228:LEU:HD22	2.49	0.48
1:C:1303:GLY:C	1:C:1307:THR:HG22	2.38	0.48
2:G:40:ILE:O	2:G:42:PRO:HD3	2.14	0.48
2:G:173:LEU:O	2:G:173:LEU:HD22	2.13	0.48
2:G:465:GLY:HA2	2:G:493:THR:HA	1.95	0.48
2:G:1673:GLU:N	2:G:1676:MET:HE3	2.27	0.48
2:G:1784:MET:HE2	2:G:1784:MET:O	2.14	0.48
2:H:238:CYS:CB	2:H:239:PRO:HD3	2.43	0.48
2:H:1130:THR:H	2:H:1133:THR:CG2	2.27	0.48
2:I:233:SER:HA	2:I:424:ALA:CB	2.44	0.48
2:I:551:THR:HG22	2:I:552:SER:N	2.29	0.48
2:I:835:THR:CB	2:I:845:THR:HG23	2.42	0.48
2:I:894:ARG:NH1	2:I:898:ASP:OD2	2.42	0.48
2:I:1567:ARG:NH1	2:I:1568:HIS:HB3	2.28	0.48
1:A:157:HIS:CE1	1:A:228:LEU:HD22	2.48	0.48
1:A:176:VAL:HG12	1:A:178:GLY:H	1.79	0.48
1:A:427:ASN:HB2	1:A:468:LEU:HD21	1.95	0.48
1:A:852:ARG:NH1	1:A:852:ARG:CG	2.73	0.48
1:A:1501:LEU:O	1:A:1505:GLN:HG3	2.14	0.48
1:C:440:MET:HE3	1:C:483:VAL:HG21	1.95	0.48
1:C:751:PHE:CZ	1:C:761:LEU:HD13	2.49	0.48
1:C:1738:ILE:O	1:C:1739:GLN:HB2	2.14	0.48
2:G:72:VAL:HG12	2:G:73:GLU:N	2.28	0.48
2:G:240:LEU:O	2:G:244:ILE:HG13	2.13	0.48
2:G:455:ILE:HG13	2:G:455:ILE:O	2.14	0.48
2:G:807:ILE:HD12	2:G:1063:THR:HG23	1.95	0.48
2:H:1223:MET:HE3	2:H:1238:LEU:HD12	1.95	0.48
2:H:1678:MET:HE1	2:H:1707:LEU:HD23	1.94	0.48
2:I:131:ILE:HD12	2:I:182:VAL:CB	2.42	0.48
2:I:278:VAL:HG11	2:I:303:LEU:HD13	1.95	0.48
2:I:455:ILE:HD11	2:I:469:ARG:NE	2.29	0.48
2:I:1496:LYS:HE2	2:I:1693:ARG:NH2	2.25	0.48
2:I:1804:PHE:CD2	2:I:1818:LEU:HD22	2.49	0.48
1:A:19:ALA:O	1:A:22:PHE:HB2	2.14	0.47
1:A:243:ILE:O	1:A:247:ARG:HG3	2.14	0.47
1:A:332:THR:HG22	1:B:331:ILE:HD11	1.96	0.47
1:A:1158:PRO:HD2	1:A:1159:GLU:OE2	2.14	0.47
1:A:1561:MET:HE2	1:A:1561:MET:HA	1.96	0.47
1:A:1682:LYS:HB3	2:G:994:PHE:CE2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:983:GLN:NE2	2:H:962:LYS:HB2	2.28	0.47
1:C:186:ILE:O	1:C:190:LEU:HG	2.14	0.47
1:C:370:GLU:O	1:C:373:ALA:HB3	2.14	0.47
2:G:1873:TYR:CE2	2:G:1940:LEU:HD21	2.49	0.47
2:H:463:PHE:O	2:H:463:PHE:HD2	1.96	0.47
2:H:1425:LYS:HG2	2:H:1471:GLU:CG	2.38	0.47
2:H:1590:ARG:NH2	2:H:1594:GLU:OE2	2.47	0.47
2:I:489:LYS:O	2:I:493:THR:HG22	2.13	0.47
2:I:533:LEU:HG	2:I:533:LEU:O	2.13	0.47
2:I:1764:PHE:HB2	2:I:1770:LEU:HD21	1.96	0.47
1:A:20:TYR:HE1	2:G:2035:SER:HB2	1.79	0.47
1:A:1021:VAL:HG22	1:A:1387:ILE:HG22	1.95	0.47
1:B:335:HIS:O	1:B:338:LEU:HB3	2.14	0.47
1:B:741:SER:HB3	1:B:744:ASP:HB2	1.97	0.47
1:B:1310:GLU:OE1	1:B:1649:LYS:CE	2.62	0.47
1:B:1319:ILE:HA	1:B:1324:ALA:O	2.13	0.47
1:C:335:HIS:CD2	1:C:335:HIS:C	2.91	0.47
2:G:461:ASP:HB3	2:G:464:ASP:HB2	1.96	0.47
2:G:995:LEU:HB3	2:G:1000:ILE:HD11	1.95	0.47
2:G:1566:SER:HB3	2:G:1568:HIS:CE1	2.49	0.47
2:G:1676:MET:HE1	2:G:1781:LEU:CD2	2.42	0.47
2:H:33:LEU:HD21	2:H:80:PHE:CE2	2.49	0.47
2:H:157:VAL:HG11	2:H:496:PHE:CZ	2.49	0.47
2:H:740:HIS:HA	2:H:854:ILE:HD13	1.96	0.47
2:H:1427:VAL:HG22	2:H:1469:GLU:HG2	1.96	0.47
2:I:146:PHE:HA	2:I:149:VAL:HG12	1.93	0.47
2:I:214:ASN:ND2	2:I:217:GLU:HB2	2.28	0.47
2:I:551:THR:C	2:I:553:ASN:H	2.22	0.47
2:I:845:THR:HG22	2:I:855:HIS:CD2	2.49	0.47
1:A:980:VAL:HG21	2:G:952:ARG:NH2	2.28	0.47
1:A:1238:VAL:CG1	1:A:1242:GLU:HB2	2.44	0.47
1:B:889:GLU:HG3	1:B:893:VAL:O	2.15	0.47
1:C:32:GLN:NE2	1:C:57:ALA:HA	2.28	0.47
1:C:328:LEU:N	1:C:330:GLU:H	2.13	0.47
1:C:998:TYR:CE2	1:C:1667:GLU:HB2	2.49	0.47
1:C:1133:PRO:HG3	1:C:1166:LYS:HG3	1.97	0.47
1:C:1312:VAL:CG2	1:C:1329:VAL:HG11	2.44	0.47
1:C:1477:ILE:H	1:C:1478:PRO:HD3	1.78	0.47
2:G:123:ILE:HD11	2:G:533:LEU:CD2	2.44	0.47
2:G:1308:CYS:HB3	2:G:1311:PHE:CD2	2.49	0.47
2:G:1624:THR:HB	2:G:1642:THR:OG1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1300:PHE:CA	2:H:1556:VAL:HG11	2.44	0.47
2:H:1486:PHE:HA	2:H:1504:VAL:O	2.14	0.47
2:I:109:LEU:HD11	2:I:116:LEU:CD2	2.43	0.47
2:I:109:LEU:HD22	2:I:114:THR:HG23	1.96	0.47
2:I:176:LEU:HD22	2:I:247:ALA:HB1	1.96	0.47
2:I:573:LYS:C	2:I:575:GLY:N	2.72	0.47
2:I:741:HIS:CE1	2:I:855:HIS:NE2	2.82	0.47
2:I:1071:LYS:HE3	2:I:1075:ASP:OD2	2.14	0.47
2:I:1389:ILE:HG13	2:I:1411:PHE:HD1	1.80	0.47
2:I:1673:GLU:N	2:I:1676:MET:HE3	2.27	0.47
1:A:186:ILE:O	1:A:190:LEU:HG	2.14	0.47
1:A:702:LYS:HD3	1:A:731:THR:CG2	2.44	0.47
1:A:1639:VAL:HG12	1:A:1640:SER:N	2.28	0.47
1:B:32:GLN:NE2	1:B:57:ALA:HA	2.30	0.47
1:B:1233:GLU:CD	1:B:1680:ARG:HH21	2.22	0.47
1:C:826:MET:HE1	1:C:850:PHE:CZ	2.50	0.47
2:G:33:LEU:HD21	2:G:80:PHE:CE2	2.50	0.47
2:G:455:ILE:C	2:G:455:ILE:HD12	2.39	0.47
2:G:652:ILE:HB	2:G:658:MET:HE1	1.97	0.47
2:G:777:THR:HG23	2:G:1081:HIS:CE1	2.50	0.47
2:G:804:ARG:NH2	2:G:1068:GLU:OE1	2.48	0.47
2:G:1842:VAL:HG21	2:G:1975:PRO:HD3	1.96	0.47
2:G:2036:GLU:HG2	2:G:2039:LYS:NZ	2.28	0.47
2:H:598:THR:CB	2:H:599:PRO:HD3	2.44	0.47
2:H:751:LEU:HD23	2:H:791:TYR:CZ	2.49	0.47
2:H:1666:PHE:CD1	2:H:1814:ALA:HA	2.48	0.47
2:H:1666:PHE:CD1	2:H:1814:ALA:HB2	2.49	0.47
2:I:461:ASP:HB3	2:I:464:ASP:HB2	1.95	0.47
2:I:1913:VAL:O	2:I:1917:ILE:HG13	2.15	0.47
1:A:1714:VAL:HG22	1:A:1738:ILE:HD11	1.96	0.47
1:B:260:ARG:HH12	1:B:300:VAL:CG2	2.20	0.47
1:B:702:LYS:HD3	1:B:731:THR:CG2	2.44	0.47
1:C:20:TYR:CG	2:I:2033:THR:OG1	2.65	0.47
1:C:908:LEU:HA	1:C:913:VAL:HG21	1.96	0.47
1:C:1004:ILE:HG22	1:C:1660:TYR:CE2	2.49	0.47
1:C:1138:LYS:HG3	1:C:1163:TYR:CE1	2.49	0.47
2:G:22:VAL:HG11	2:G:27:PHE:HA	1.96	0.47
2:G:428:HIS:HD2	2:G:486:LEU:O	1.97	0.47
2:G:732:TRP:CE2	2:G:750:MET:HE3	2.48	0.47
2:G:1227:ARG:CZ	2:G:1565:VAL:HG12	2.44	0.47
2:G:1850:SER:HB2	2:G:1973:SER:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2042:ILE:HG12	2:G:2042:ILE:H	1.39	0.47
2:H:551:THR:HG22	2:H:552:SER:N	2.30	0.47
2:H:677:GLN:O	2:H:678:PHE:HB3	2.15	0.47
2:H:807:ILE:HD12	2:H:1063:THR:HG23	1.95	0.47
2:H:1567:ARG:NH1	2:H:1568:HIS:HB3	2.29	0.47
2:I:597:MET:H	2:I:601:THR:HB	1.78	0.47
2:I:772:GLY:O	2:I:804:ARG:HD3	2.14	0.47
1:A:529:MET:HE3	1:A:529:MET:CA	2.43	0.47
1:B:998:TYR:CE2	1:B:1667:GLU:HB2	2.49	0.47
1:B:1477:ILE:H	1:B:1478:PRO:HD3	1.79	0.47
1:C:13:LEU:HB2	2:I:2026:PHE:CE1	2.50	0.47
1:C:460:GLU:H	1:C:460:GLU:HG3	1.27	0.47
1:C:499:PRO:HD3	1:C:516:ARG:HH21	1.80	0.47
1:C:1642:THR:HG22	1:C:1652:GLN:HG3	1.96	0.47
1:C:1709:GLU:H	1:C:1709:GLU:HG3	1.42	0.47
2:G:369:SER:O	2:G:370:LEU:HD23	2.15	0.47
2:G:402:LEU:HD12	2:G:404:GLN:HG2	1.95	0.47
2:G:481:ASP:OD2	2:G:485:ARG:NH1	2.47	0.47
2:G:1352:HIS:HE1	2:G:1583:MET:HE3	1.73	0.47
2:H:490:TRP:HA	2:H:493:THR:HG22	1.96	0.47
2:H:579:VAL:CG2	2:H:1078:HIS:CD2	2.95	0.47
2:H:706:LYS:HE2	2:H:731:GLN:OE1	2.14	0.47
2:I:490:TRP:HA	2:I:493:THR:HG22	1.96	0.47
2:I:1547:PRO:HD3	2:I:1584:PHE:CE2	2.49	0.47
1:A:232:LEU:HD13	1:A:272:GLU:CB	2.44	0.47
1:A:516:ARG:NH1	1:A:894:ARG:CZ	2.78	0.47
1:A:1238:VAL:CG1	1:A:1239:HIS:N	2.78	0.47
1:B:66:GLU:OE1	1:B:66:GLU:HA	2.15	0.47
1:B:253:ARG:O	1:B:254:TRP:CD1	2.68	0.47
1:B:331:ILE:HG23	1:B:332:THR:N	2.29	0.47
1:B:451:MET:HE1	1:B:476:LEU:HB3	1.96	0.47
1:B:1021:VAL:HG21	1:B:1593:MET:HE2	1.96	0.47
1:B:1114:TYR:CD1	1:B:1337:GLU:HG3	2.50	0.47
1:B:1308:SER:HB3	1:B:1589:GLY:CA	2.45	0.47
1:B:1523:ARG:NH2	1:B:1564:LEU:O	2.48	0.47
1:C:427:ASN:ND2	1:C:610:THR:H	2.08	0.47
1:C:636:PRO:HB2	1:C:638:LEU:O	2.15	0.47
1:C:1125:VAL:HG21	1:C:1175:ILE:CD1	2.43	0.47
1:C:1319:ILE:HA	1:C:1324:ALA:O	2.14	0.47
1:C:1332:TYR:HB3	1:C:1382:ALA:CB	2.44	0.47
2:G:7:ARG:HH11	2:G:24:THR:HG23	1.76	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:169:TYR:CG	2:G:170:PHE:N	2.83	0.47
2:G:232:LEU:HD21	2:G:423:VAL:HA	1.97	0.47
2:G:279:THR:O	2:G:283:ILE:HB	2.15	0.47
2:G:512:LEU:O	2:G:516:THR:HG23	2.15	0.47
2:G:652:ILE:N	2:G:652:ILE:HD12	2.29	0.47
2:G:852:GLU:H	2:G:852:GLU:HG3	1.40	0.47
2:G:1027:ILE:O	2:G:1031:LYS:HB2	2.14	0.47
2:G:1100:VAL:HG21	2:G:1147:ILE:CD1	2.45	0.47
2:G:1884:TRP:NE1	2:G:1905:ARG:HH21	2.13	0.47
2:H:213:LEU:HG	2:H:213:LEU:O	2.14	0.47
2:H:559:PRO:HB3	2:H:564:GLU:HG3	1.97	0.47
2:H:652:ILE:HD12	2:H:652:ILE:N	2.30	0.47
2:H:751:LEU:HD23	2:H:791:TYR:CD2	2.50	0.47
2:H:784:GLU:O	2:H:787:THR:HB	2.13	0.47
2:H:860:ARG:H	2:H:1049:GLN:HG3	1.80	0.47
2:H:942:THR:HG21	2:H:1012:GLN:HA	1.95	0.47
2:H:943:TRP:CZ2	2:H:1016:PRO:HG3	2.49	0.47
2:H:1227:ARG:CZ	2:H:1565:VAL:HG12	2.45	0.47
2:H:1804:PHE:CD2	2:H:1818:LEU:HD22	2.50	0.47
2:H:1854:MET:CG	2:H:1901:ALA:HB2	2.45	0.47
2:I:740:HIS:HA	2:I:854:ILE:HD13	1.97	0.47
2:I:1159:ILE:CG1	2:I:1169:PRO:CD	2.91	0.47
2:I:1159:ILE:HG22	2:I:1160:THR:N	2.28	0.47
1:A:18:LEU:HD21	2:G:1815:LEU:HD12	1.97	0.47
1:A:187:LEU:HD22	1:A:201:PRO:HB2	1.96	0.47
1:A:406:TRP:CE3	1:A:1619:GLU:HG3	2.50	0.47
1:A:1009:LEU:HG	1:A:1664:ALA:HB2	1.95	0.47
1:A:1208:VAL:HG11	1:A:1212:THR:HB	1.96	0.47
1:A:1533:ILE:HG13	1:A:1564:LEU:HB3	1.97	0.47
1:A:1557:ILE:HD11	1:A:1642:THR:HG21	1.97	0.47
1:B:874:GLY:O	1:B:875:THR:C	2.58	0.47
1:B:916:LEU:HD22	1:B:922:VAL:HG22	1.95	0.47
1:C:529:MET:HG2	1:C:638:LEU:HG	1.95	0.47
1:C:930:LEU:HD23	1:C:930:LEU:HA	1.68	0.47
2:G:306:ILE:HA	2:G:439:ILE:HD13	1.96	0.47
2:G:355:LYS:HE2	2:G:355:LYS:HB3	1.64	0.47
2:G:650:ASN:HD21	3:G:3051:FMN:HN3	1.63	0.47
2:H:159:ILE:CG2	2:H:501:ILE:HG22	2.44	0.47
2:H:873:PHE:CD1	2:H:1026:GLU:HB2	2.49	0.47
2:H:894:ARG:NH1	2:H:898:ASP:OD2	2.41	0.47
2:H:1195:VAL:HG13	2:H:1211:LEU:CB	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1273:GLU:HB3	2:H:1274:PRO:CD	2.45	0.47
2:H:1678:MET:CE	2:H:1707:LEU:HD22	2.40	0.47
2:I:7:ARG:HH11	2:I:24:THR:HG23	1.77	0.47
2:I:589:ARG:HB3	2:I:590:PRO:CD	2.44	0.47
2:I:706:LYS:HE2	2:I:731:GLN:OE1	2.15	0.47
2:I:955:GLU:HG2	2:I:987:TYR:HE2	1.79	0.47
2:I:1590:ARG:NH2	2:I:1594:GLU:OE2	2.48	0.47
2:I:1593:ILE:HD13	2:I:1626:ILE:HD13	1.97	0.47
1:A:1251:MET:O	1:A:1252:GLY:O	2.33	0.47
1:A:1617:ILE:O	1:A:1620:GLN:HG2	2.15	0.47
1:B:513:GLU:OE2	1:B:873:ARG:NH1	2.45	0.47
1:B:1219:VAL:CA	1:B:1384:ILE:HD11	2.31	0.47
1:C:187:LEU:HD22	1:C:201:PRO:HB2	1.96	0.47
1:C:338:LEU:O	1:C:342:GLN:HG3	2.15	0.47
1:C:1577:GLN:NE2	1:C:1591:TRP:HB3	2.30	0.47
2:G:249:TYR:CD2	2:G:283:ILE:HD11	2.50	0.47
2:G:309:ARG:HD3	2:G:309:ARG:HA	1.65	0.47
2:H:7:ARG:NH2	2:H:24:THR:O	2.48	0.47
2:H:306:ILE:HA	2:H:439:ILE:HD13	1.96	0.47
2:H:520:LYS:O	2:H:521:ASP:C	2.58	0.47
2:H:741:HIS:HE1	2:H:845:THR:HG21	1.65	0.47
2:H:1135:GLU:OE2	2:H:1175:LYS:HE3	2.15	0.47
2:H:1258:ARG:O	2:H:1262:ILE:HG13	2.15	0.47
2:H:1738:PHE:CE1	2:H:1837:THR:HG23	2.50	0.47
2:I:121:GLU:HA	2:I:124:LYS:HD2	1.96	0.47
2:I:844:VAL:HG22	2:I:858:ALA:HB2	1.97	0.47
2:I:1180:MET:HB2	2:I:1197:LEU:HD21	1.97	0.47
1:A:2:LYS:HD2	2:G:2050:GLN:CB	2.30	0.47
1:A:852:ARG:HB3	1:A:858:TRP:HZ2	1.80	0.47
1:A:1010:GLU:HA	1:A:1664:ALA:HA	1.97	0.47
1:A:1114:TYR:CE1	1:A:1337:GLU:HG3	2.50	0.47
1:B:979:GLN:HB3	2:H:968:GLN:NE2	2.29	0.47
1:C:1533:ILE:HD11	1:C:1564:LEU:HD13	1.97	0.47
2:G:7:ARG:NH2	2:G:24:THR:O	2.48	0.47
2:G:214:ASN:ND2	2:G:217:GLU:HB2	2.30	0.47
2:G:432:LEU:HB3	2:G:484:ILE:HG23	1.96	0.47
2:G:772:GLY:O	2:G:804:ARG:HD3	2.15	0.47
2:G:860:ARG:HB2	2:G:1049:GLN:HG3	1.97	0.47
2:G:1327:ILE:HD12	2:G:1327:ILE:HA	1.79	0.47
2:G:1886:VAL:HG22	2:G:1906:ALA:HB1	1.97	0.47
2:H:11:LEU:HD11	2:H:64:PHE:CD2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:109:LEU:HD11	2:H:116:LEU:CD2	2.43	0.47
2:H:481:ASP:OD2	2:H:485:ARG:NH1	2.48	0.47
2:H:720:ALA:HA	2:H:728:ILE:CD1	2.45	0.47
2:H:1491:VAL:HB	2:H:1501:ILE:CD1	2.45	0.47
2:I:584:SER:CB	2:I:591:PRO:HG3	2.41	0.47
2:I:586:LEU:HD12	2:I:764:MET:SD	2.54	0.47
1:A:170:LYS:HD3	1:A:175:LEU:HD23	1.97	0.46
1:A:636:PRO:HB2	1:A:638:LEU:O	2.15	0.46
1:A:1303:GLY:C	1:A:1307:THR:HG22	2.40	0.46
1:B:826:MET:HE1	1:B:850:PHE:CE2	2.50	0.46
1:B:1133:PRO:HG3	1:B:1166:LYS:HG3	1.97	0.46
1:B:1239:HIS:CD2	1:B:1241:SER:H	2.33	0.46
1:C:59:ARG:HH11	2:I:1896:GLN:HE22	1.62	0.46
1:C:1189:ILE:HG23	1:C:1190:PRO:HD2	1.97	0.46
2:G:1148:ASN:HD22	2:G:1151:HIS:H	1.63	0.46
2:G:1273:GLU:HB3	2:G:1274:PRO:CD	2.45	0.46
2:H:376:ASN:C	2:H:376:ASN:ND2	2.70	0.46
2:H:440:ASN:ND2	2:H:477:GLU:HG2	2.30	0.46
2:H:573:LYS:HE3	2:H:1101:GLU:OE1	2.15	0.46
2:H:1266:TYR:HB2	2:H:1347:LEU:HD23	1.97	0.46
2:I:350:GLN:HA	2:I:353:VAL:HG13	1.97	0.46
1:A:11:HIS:HE1	2:G:1996:ILE:O	1.98	0.46
1:A:1430:ARG:O	1:A:1430:ARG:HG2	2.15	0.46
1:A:1639:VAL:CG1	1:A:1640:SER:N	2.78	0.46
1:B:340:ARG:HH12	1:B:344:GLN:HE21	1.64	0.46
1:B:539:SER:O	1:B:540:GLN:C	2.54	0.46
1:B:702:LYS:HE2	1:B:729:GLY:O	2.15	0.46
1:C:293:LYS:O	1:C:297:ILE:HG13	2.15	0.46
1:C:1183:ARG:NH1	1:C:1344:GLY:HA2	2.30	0.46
2:G:247:ALA:O	2:G:251:VAL:HG13	2.15	0.46
2:G:507:GLY:O	2:G:508:GLY:C	2.58	0.46
2:G:894:ARG:NH1	2:G:898:ASP:OD2	2.42	0.46
2:G:1199:GLU:OE2	2:G:1567:ARG:NH1	2.47	0.46
2:H:586:LEU:HD12	2:H:764:MET:SD	2.55	0.46
2:H:589:ARG:HB3	2:H:590:PRO:CD	2.43	0.46
2:H:702:TYR:HB3	2:H:727:PRO:HB2	1.97	0.46
2:H:1945:ASP:O	2:H:1949:LYS:HG3	2.15	0.46
2:I:443:LEU:HD22	2:I:448:VAL:CG1	2.45	0.46
2:I:553:ASN:O	2:I:556:LYS:HE3	2.15	0.46
2:I:736:ARG:H	2:I:736:ARG:HG3	1.57	0.46
2:I:817:ALA:HA	2:I:1048:VAL:HG11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:873:PHE:CE1	2:I:1026:GLU:HB2	2.49	0.46
2:I:1080:GLY:O	2:I:1084:LYS:HG3	2.15	0.46
2:I:1100:VAL:HG21	2:I:1147:ILE:CD1	2.46	0.46
2:I:1609:THR:O	2:I:1653:GLY:HA3	2.15	0.46
2:I:1873:TYR:CE1	2:I:1877:ARG:NH2	2.81	0.46
1:A:328:LEU:N	1:A:330:GLU:H	2.12	0.46
1:A:709:ARG:O	1:A:714:VAL:HG21	2.16	0.46
1:A:1270:VAL:HG11	1:A:1274:ILE:HD13	1.97	0.46
1:B:19:ALA:O	1:B:22:PHE:HB2	2.15	0.46
1:B:1375:GLY:HA2	1:B:1546:THR:HG22	1.97	0.46
1:B:1618:LEU:HD23	1:B:1621:PHE:CE2	2.50	0.46
1:C:59:ARG:HH11	2:I:1896:GLN:NE2	2.14	0.46
1:C:67:SER:CB	2:H:359:HIS:HE1	2.29	0.46
1:C:893:VAL:HG11	1:C:930:LEU:CD2	2.40	0.46
2:G:233:SER:HA	2:G:424:ALA:CB	2.46	0.46
2:G:520:LYS:O	2:G:521:ASP:C	2.58	0.46
2:G:785:TRP:CG	2:G:786:SER:N	2.83	0.46
2:G:873:PHE:CD1	2:G:1026:GLU:HB2	2.50	0.46
2:G:955:GLU:HG2	2:G:987:TYR:HE2	1.80	0.46
2:G:1015:VAL:HG11	2:G:1017:PHE:CE1	2.50	0.46
2:G:1173:VAL:O	2:G:1567:ARG:NH2	2.48	0.46
2:G:1314:ARG:NH2	2:I:315:PRO:O	2.48	0.46
2:G:1949:LYS:O	2:G:1953:VAL:HG23	2.15	0.46
2:H:606:PHE:HZ	2:H:805:VAL:CG1	2.28	0.46
2:H:881:VAL:N	2:H:882:PRO:CD	2.79	0.46
2:H:926:LEU:HB3	2:H:947:THR:HG22	1.97	0.46
2:H:1593:ILE:HD13	2:H:1626:ILE:HD13	1.97	0.46
2:H:1666:PHE:CE1	2:H:1814:ALA:HA	2.50	0.46
2:I:606:PHE:HZ	2:I:805:VAL:CG1	2.28	0.46
2:I:751:LEU:HD11	2:I:789:PHE:CD1	2.51	0.46
2:I:1021:LEU:HA	2:I:1021:LEU:HD22	1.61	0.46
2:I:1842:VAL:HG21	2:I:1975:PRO:HD3	1.97	0.46
2:I:1873:TYR:CE1	2:I:1877:ARG:NE	2.77	0.46
1:A:37:LYS:HB2	1:A:65:TYR:CE1	2.48	0.46
1:A:479:ASN:O	1:A:483:VAL:HG23	2.15	0.46
1:A:1308:SER:HB3	1:A:1589:GLY:CA	2.45	0.46
1:B:733:ILE:CD1	1:B:761:LEU:HD11	2.46	0.46
1:B:1012:LEU:HD23	1:B:1445:MET:HE2	1.96	0.46
1:B:1019:ILE:HG21	1:B:1316:VAL:HG22	1.98	0.46
1:C:1238:VAL:CG1	1:C:1242:GLU:HB2	2.45	0.46
1:C:1300:THR:HA	1:C:1301:PRO:HD3	1.67	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:101:ILE:H	2:G:101:ILE:HG13	1.31	0.46
2:G:629:GLY:O	2:G:632:ALA:HB3	2.15	0.46
2:G:745:ASP:HA	2:G:832:TRP:CH2	2.48	0.46
2:G:1004:LEU:HD21	2:G:1019:PRO:HB2	1.98	0.46
2:G:1314:ARG:HD3	2:G:1314:ARG:HA	1.63	0.46
2:G:1435:ILE:O	2:G:1435:ILE:HG22	2.15	0.46
2:G:1666:PHE:CE1	2:G:1814:ALA:HA	2.50	0.46
2:G:1980:TYR:HD1	2:G:1981:LEU:HD12	1.80	0.46
2:H:553:ASN:O	2:H:556:LYS:HE3	2.16	0.46
2:H:1169:PRO:O	2:H:1173:VAL:HG23	2.15	0.46
2:I:99:ASN:HA	2:I:550:VAL:HG21	1.98	0.46
2:I:213:LEU:O	2:I:213:LEU:HG	2.16	0.46
2:I:391:LEU:CD2	2:I:394:ARG:NH2	2.78	0.46
2:I:730:LEU:C	2:I:730:LEU:HD12	2.40	0.46
1:A:807:LYS:HD3	1:A:807:LYS:C	2.40	0.46
1:B:2:LYS:HE2	1:B:4:GLU:OE1	2.15	0.46
1:B:29:ILE:HG13	2:H:1891:TYR:O	2.15	0.46
1:B:1561:MET:HA	1:B:1561:MET:HE2	1.97	0.46
1:B:1595:GLY:O	1:B:1599:ILE:HG13	2.15	0.46
1:C:421:ILE:HG12	1:C:469:VAL:HG21	1.98	0.46
1:C:1021:VAL:HG11	1:C:1597:LEU:CD1	2.44	0.46
2:G:159:ILE:CG2	2:G:501:ILE:HG22	2.46	0.46
2:G:739:GLY:HA2	2:G:1054:LEU:HG	1.97	0.46
2:G:826:GLY:HA3	2:G:1061:GLN:CB	2.45	0.46
2:G:1567:ARG:HH11	2:G:1567:ARG:HG2	1.73	0.46
2:G:1736:MET:HE2	2:G:1736:MET:HA	1.98	0.46
2:H:1328:VAL:HG23	2:H:1557:SER:HA	1.98	0.46
2:I:123:ILE:HD11	2:I:533:LEU:CD2	2.46	0.46
2:I:762:ASN:H	2:I:762:ASN:ND2	1.88	0.46
1:A:293:LYS:O	1:A:297:ILE:HG13	2.16	0.46
1:A:1056:ILE:HG13	1:A:1057:MET:N	2.30	0.46
1:B:1251:MET:O	1:B:1252:GLY:O	2.33	0.46
1:C:143:GLU:H	1:C:260:ARG:HG2	1.81	0.46
1:C:243:ILE:O	1:C:247:ARG:HG3	2.16	0.46
2:G:441:LYS:O	2:G:444:VAL:HG12	2.15	0.46
2:G:612:ASN:C	2:G:614:GLY:H	2.24	0.46
2:G:807:ILE:HA	2:G:818:LYS:HG2	1.97	0.46
2:G:1738:PHE:CE1	2:G:1837:THR:HG23	2.50	0.46
2:H:350:GLN:HA	2:H:353:VAL:HG13	1.97	0.46
2:H:1624:THR:HB	2:H:1642:THR:CG2	2.45	0.46
2:H:1850:SER:HB2	2:H:1973:SER:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:1908:ASP:HA	2:H:1911:THR:HG22	1.97	0.46
2:H:2037:PRO:O	2:H:2041:ILE:HG13	2.15	0.46
2:I:463:PHE:C	2:I:463:PHE:CD2	2.94	0.46
2:I:1148:ASN:HD22	2:I:1151:HIS:H	1.63	0.46
2:I:1561:ASN:OD1	2:I:1563:ILE:HB	2.16	0.46
2:I:1651:LEU:HD23	2:I:1651:LEU:HA	1.73	0.46
2:I:2037:PRO:O	2:I:2041:ILE:HG13	2.14	0.46
1:A:420:ILE:HG22	1:A:469:VAL:HG22	1.96	0.46
1:A:1022:THR:HG22	1:A:1226:SER:CB	2.43	0.46
1:B:792:HIS:CE1	1:B:796:LEU:HD23	2.51	0.46
1:C:182:VAL:O	1:C:186:ILE:HG13	2.15	0.46
1:C:1040:GLU:HB2	1:C:1580:LEU:HD12	1.98	0.46
2:G:218:TRP:HB3	2:G:225:THR:OG1	2.16	0.46
2:H:72:VAL:HG12	2:H:73:GLU:N	2.31	0.46
2:H:599:PRO:HD2	3:H:3051:FMN:H6	1.98	0.46
2:H:1359:MET:CE	2:H:1404:MET:HB3	2.44	0.46
2:H:1764:PHE:HB2	2:H:1770:LEU:HD21	1.97	0.46
2:I:106:ALA:HB2	2:I:545:GLN:HG2	1.98	0.46
2:I:860:ARG:H	2:I:1049:GLN:HG3	1.80	0.46
2:I:1272:ASP:O	2:I:1273:GLU:HG3	2.15	0.46
2:I:1676:MET:HE1	2:I:1781:LEU:CD2	2.45	0.46
1:A:225:SER:OG	1:A:266:LEU:HD21	2.16	0.46
1:A:338:LEU:O	1:A:342:GLN:HG3	2.16	0.46
1:B:143:GLU:H	1:B:260:ARG:HG2	1.81	0.46
1:C:41:THR:HG21	2:I:1663:THR:HB	1.97	0.46
1:C:1308:SER:HB3	1:C:1589:GLY:CA	2.44	0.46
1:C:1459:ILE:O	1:C:1463:VAL:HG23	2.16	0.46
1:C:1673:TYR:CZ	1:C:1677:VAL:HG21	2.51	0.46
2:G:624:TYR:CB	2:G:630:MET:HE3	2.45	0.46
2:G:2037:PRO:O	2:G:2041:ILE:HG13	2.16	0.46
2:H:1884:TRP:NE1	2:H:1905:ARG:HH21	2.13	0.46
2:I:232:LEU:HD21	2:I:423:VAL:HA	1.98	0.46
2:I:507:GLY:O	2:I:508:GLY:C	2.59	0.46
2:I:807:ILE:HD12	2:I:1063:THR:HG23	1.98	0.46
2:I:1102:TYR:HB3	2:I:1244:PRO:HA	1.98	0.46
2:I:1148:ASN:ND2	2:I:1151:HIS:H	2.13	0.46
2:I:1666:PHE:CD1	2:I:1814:ALA:HA	2.51	0.46
2:I:1782:THR:CG2	2:I:1827:LEU:HD21	2.45	0.46
1:A:702:LYS:HE2	1:A:729:GLY:O	2.15	0.46
1:B:1639:VAL:HG12	1:B:1640:SER:N	2.30	0.46
1:C:1244:GLY:C	1:C:1327:CYS:HB2	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1367:ARG:HH12	1:C:1372:THR:CB	2.20	0.46
1:C:1682:LYS:HB3	2:I:994:PHE:CE2	2.50	0.46
2:G:9:LEU:HB2	2:G:27:PHE:HE1	1.81	0.46
2:G:490:TRP:HA	2:G:493:THR:HG22	1.98	0.46
2:G:1159:ILE:CG1	2:G:1169:PRO:CD	2.93	0.46
2:G:1873:TYR:HE1	2:G:1877:ARG:HH21	1.60	0.46
2:G:1889:VAL:HG13	2:G:1977:HIS:HB3	1.97	0.46
2:H:324:LEU:HD12	2:H:324:LEU:O	2.16	0.46
2:H:821:ILE:HA	2:H:857:ILE:HD11	1.97	0.46
2:H:1552:PRO:O	2:H:1556:VAL:HG23	2.15	0.46
2:H:1567:ARG:HH11	2:H:1567:ARG:HG2	1.72	0.46
2:I:1503:ILE:HG22	2:I:1504:VAL:C	2.41	0.46
2:I:1624:THR:HB	2:I:1642:THR:CG2	2.43	0.46
2:I:1932:SER:O	2:I:1936:VAL:HG22	2.16	0.46
1:A:1233:GLU:CD	1:A:1680:ARG:HH21	2.24	0.46
1:A:1353:LEU:HD23	1:A:1353:LEU:HA	1.62	0.46
1:B:13:LEU:HB2	2:H:2026:PHE:CE1	2.51	0.46
1:B:719:GLN:HG3	1:B:720:SER:N	2.31	0.46
1:B:1639:VAL:CG1	1:B:1640:SER:N	2.79	0.46
2:G:131:ILE:HD12	2:G:182:VAL:CB	2.42	0.46
2:G:551:THR:HG22	2:G:552:SER:N	2.31	0.46
2:G:582:LYS:HE2	2:G:1108:PRO:HB3	1.97	0.46
2:G:702:TYR:HB3	2:G:727:PRO:HB2	1.97	0.46
2:G:1031:LYS:O	2:G:1032:ASP:C	2.57	0.46
2:H:218:TRP:HB3	2:H:225:THR:OG1	2.16	0.46
2:H:345:THR:HG22	2:H:347:GLU:N	2.25	0.46
2:H:650:ASN:HD21	3:H:3051:FMN:HN3	1.64	0.46
2:H:845:THR:HG22	2:H:855:HIS:CD2	2.51	0.46
2:H:1015:VAL:HG11	2:H:1017:PHE:CE1	2.50	0.46
2:H:1161:GLN:CB	2:H:1255:MET:HE3	2.46	0.46
2:H:1678:MET:HE2	2:H:1711:ILE:CG1	2.46	0.46
2:I:231:LEU:HA	2:I:236:ILE:HD12	1.98	0.46
2:I:618:GLU:HG2	2:I:678:PHE:CZ	2.51	0.46
2:I:785:TRP:CG	2:I:786:SER:N	2.84	0.46
2:I:1173:VAL:HB	2:I:1221:MET:HE1	1.97	0.46
2:I:1355:ASN:CG	2:I:1583:MET:HE1	2.40	0.46
2:I:1886:VAL:HG22	2:I:1906:ALA:HB1	1.98	0.46
1:A:529:MET:HA	1:A:529:MET:CE	2.42	0.45
1:A:792:HIS:CE1	1:A:796:LEU:HD23	2.52	0.45
1:A:893:VAL:HG11	1:A:930:LEU:CD2	2.37	0.45
1:B:479:ASN:O	1:B:483:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:225:SER:OG	1:C:266:LEU:HD21	2.16	0.45
1:C:406:TRP:CE3	1:C:1619:GLU:HG3	2.51	0.45
2:G:826:GLY:HA2	2:G:1060:ALA:HB3	1.97	0.45
2:G:845:THR:HG22	2:G:855:HIS:CD2	2.50	0.45
2:G:970:TYR:O	2:G:973:LEU:HB2	2.16	0.45
2:H:319:LEU:HD22	2:H:319:LEU:HA	1.68	0.45
2:H:817:ALA:HA	2:H:1048:VAL:HG11	1.97	0.45
2:H:1079:ASP:O	2:H:1082:ILE:HG22	2.16	0.45
2:H:1327:ILE:HD12	2:H:1327:ILE:HA	1.76	0.45
2:H:1428:GLU:HG2	2:H:1470:THR:HG22	1.97	0.45
2:I:22:VAL:HG11	2:I:27:PHE:HA	1.97	0.45
2:I:23:PRO:HG2	2:I:86:LEU:HD11	1.98	0.45
2:I:745:ASP:HA	2:I:832:TRP:CH2	2.49	0.45
2:I:1236:LEU:HA	2:I:1237:PRO:HD3	1.74	0.45
2:I:1239:LEU:O	2:I:1254:VAL:HG23	2.15	0.45
1:A:168:MET:HA	1:A:206:LEU:HB2	1.98	0.45
1:A:764:ASP:OD2	1:A:818:ARG:HD3	2.17	0.45
1:A:988:ILE:HD13	1:A:1048:GLU:CB	2.47	0.45
1:B:9:LEU:CD2	2:H:2041:ILE:HD13	2.47	0.45
1:B:183:GLN:O	1:B:187:LEU:HG	2.17	0.45
1:B:196:THR:O	1:B:213:PHE:HE2	2.00	0.45
1:B:460:GLU:H	1:B:460:GLU:HG3	1.34	0.45
2:G:209:PHE:CE2	2:G:213:LEU:HD22	2.51	0.45
2:G:712:ALA:O	2:G:715:GLN:HB3	2.16	0.45
2:G:817:ALA:HA	2:G:1048:VAL:HG11	1.98	0.45
2:G:881:VAL:N	2:G:882:PRO:CD	2.78	0.45
2:G:1222:GLU:HG3	2:G:1235:SER:OG	2.17	0.45
2:G:1270:TRP:C	2:G:1271:ILE:HD13	2.41	0.45
2:G:1609:THR:O	2:G:1653:GLY:HA3	2.16	0.45
2:H:913:ASP:H	2:H:916:THR:CG2	2.29	0.45
2:H:1330:GLY:HA2	2:H:1374:THR:HG21	1.98	0.45
2:H:1388:LYS:HE3	2:H:1418:ASP:OD2	2.16	0.45
2:H:1417:THR:O	2:H:1419:PHE:N	2.45	0.45
2:H:1858:ASN:HA	2:H:1896:GLN:O	2.16	0.45
2:I:369:SER:C	2:I:370:LEU:HD23	2.41	0.45
2:I:490:TRP:CZ2	2:I:512:LEU:HD21	2.51	0.45
2:I:739:GLY:HA2	2:I:1054:LEU:HG	1.97	0.45
2:I:1589:VAL:HG21	2:I:1651:LEU:HD12	1.99	0.45
2:I:2026:PHE:HB3	2:I:2042:ILE:HD13	1.98	0.45
1:A:49:PRO:O	1:A:82:SER:HB2	2.16	0.45
1:A:335:HIS:O	1:A:335:HIS:CD2	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:460:GLU:H	1:A:460:GLU:HG3	1.34	0.45
1:A:601:VAL:O	1:A:602:GLU:C	2.59	0.45
1:C:889:GLU:C	1:C:891:MET:H	2.23	0.45
2:G:1472:VAL:CG2	2:G:1483:VAL:HG22	2.46	0.45
2:G:1491:VAL:HB	2:G:1501:ILE:HD12	1.98	0.45
2:H:236:ILE:C	2:H:236:ILE:HD13	2.41	0.45
2:H:490:TRP:CZ2	2:H:512:LEU:HD21	2.51	0.45
2:H:597:MET:HA	3:H:3051:FMN:C5A	2.46	0.45
2:H:611:THR:HA	2:H:615:TYR:O	2.16	0.45
2:H:1027:ILE:O	2:H:1031:LYS:HB2	2.16	0.45
2:H:1473:THR:O	2:H:1481:SER:HB3	2.15	0.45
2:H:1579:ILE:HG22	2:H:1580:THR:O	2.16	0.45
2:H:1590:ARG:HG3	2:H:1608:TYR:CD2	2.51	0.45
2:I:355:LYS:HB3	2:I:355:LYS:HE2	1.70	0.45
2:I:463:PHE:CE1	2:I:486:LEU:HD22	2.51	0.45
2:I:1156:CYS:SG	2:I:1250:PRO:HD2	2.56	0.45
1:A:780:GLU:O	1:A:781:LEU:C	2.59	0.45
1:A:874:GLY:O	1:A:875:THR:C	2.60	0.45
1:B:183:GLN:NE2	1:B:202:GLU:HG2	2.29	0.45
1:B:237:MET:HG3	1:B:241:PHE:HB3	1.97	0.45
1:B:1061:SER:HB2	1:B:1078:SER:HB3	1.98	0.45
1:C:183:GLN:O	1:C:187:LEU:HG	2.16	0.45
1:C:1208:VAL:HG11	1:C:1212:THR:HB	1.98	0.45
1:C:1375:GLY:HA2	1:C:1546:THR:HG22	1.98	0.45
1:C:1670:TYR:O	1:C:1674:VAL:HG23	2.17	0.45
2:G:315:PRO:O	2:H:1314:ARG:NH2	2.49	0.45
2:G:675:PRO:HG3	2:G:1163:LYS:O	2.15	0.45
2:G:1080:GLY:O	2:G:1084:LYS:HG3	2.16	0.45
2:G:1102:TYR:HB3	2:G:1244:PRO:HA	1.98	0.45
2:G:1854:MET:CG	2:G:1901:ALA:HB2	2.46	0.45
2:G:1953:VAL:O	2:G:1953:VAL:HG12	2.16	0.45
2:G:2049:GLU:O	2:G:2050:GLN:C	2.60	0.45
2:H:1472:VAL:CG2	2:H:1483:VAL:HG22	2.43	0.45
2:H:1651:LEU:O	2:H:1652:THR:HG23	2.16	0.45
2:H:1697:HIS:CE1	2:H:1829:GLU:CG	3.00	0.45
2:H:1735:ALA:O	2:H:1737:ILE:HG13	2.16	0.45
2:I:533:LEU:HD13	2:I:545:GLN:HG3	1.97	0.45
2:I:938:TRP:CD1	2:I:944:ARG:HG3	2.52	0.45
2:I:1223:MET:HE2	2:I:1223:MET:HB2	1.73	0.45
2:I:1775:GLN:HG2	2:I:1836:MET:SD	2.57	0.45
1:A:1373:ARG:NE	1:A:1550:ASP:HB2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1021:VAL:HG22	1:B:1387:ILE:HG22	1.98	0.45
1:C:170:LYS:HD3	1:C:175:LEU:HD23	1.97	0.45
1:C:529:MET:HA	1:C:529:MET:CE	2.45	0.45
1:C:1234:MET:HG2	1:C:1326:ILE:HD12	1.98	0.45
2:G:161:GLY:HA3	2:G:506:PRO:HD2	1.98	0.45
2:G:460:TYR:HA	2:G:466:SER:O	2.17	0.45
2:G:553:ASN:O	2:G:556:LYS:HE3	2.16	0.45
2:H:161:GLY:H	2:H:505:GLY:CA	2.29	0.45
2:H:843:ILE:HD11	2:H:1055:HIS:HB3	1.98	0.45
2:I:653:TYR:HD1	2:I:659:LEU:HD21	1.79	0.45
2:I:1949:LYS:O	2:I:1953:VAL:HG23	2.17	0.45
1:A:35:PHE:HA	1:A:39:PHE:HD2	1.81	0.45
1:A:143:GLU:H	1:A:260:ARG:HG2	1.81	0.45
1:B:378:LEU:HD12	1:B:378:LEU:HA	1.75	0.45
1:B:427:ASN:ND2	1:B:610:THR:H	2.12	0.45
1:B:612:GLU:O	1:B:615:SER:HB3	2.17	0.45
1:B:780:GLU:O	1:B:781:LEU:C	2.58	0.45
1:B:1617:ILE:O	1:B:1620:GLN:HG2	2.17	0.45
1:C:709:ARG:O	1:C:714:VAL:HG21	2.16	0.45
1:C:1022:THR:HG22	1:C:1226:SER:CB	2.47	0.45
1:C:1056:ILE:CD1	1:C:1193:TRP:CD1	2.99	0.45
1:C:1362:PRO:HA	1:C:1365:MET:HG3	1.97	0.45
1:C:1533:ILE:HG13	1:C:1564:LEU:HB3	1.98	0.45
1:C:1720:ALA:O	1:C:1721:ARG:HG2	2.17	0.45
2:G:949:ASP:HB3	2:G:1006:MET:CE	2.47	0.45
2:G:1678:MET:HE1	2:G:1707:LEU:HD23	1.94	0.45
2:H:427:PHE:HB3	2:H:428:HIS:ND1	2.32	0.45
2:I:440:ASN:ND2	2:I:477:GLU:HG2	2.31	0.45
2:I:601:THR:HB	2:I:620:ALA:HB2	1.98	0.45
2:I:677:GLN:O	2:I:678:PHE:HB3	2.17	0.45
2:I:720:ALA:HA	2:I:728:ILE:CD1	2.47	0.45
2:I:860:ARG:HB2	2:I:1049:GLN:HG3	1.97	0.45
2:I:1162:ASP:O	2:I:1163:LYS:HB2	2.16	0.45
2:I:1491:VAL:HB	2:I:1501:ILE:CD1	2.47	0.45
1:A:242:THR:HG22	1:A:243:ILE:H	1.81	0.45
1:A:256:LEU:HA	1:A:257:PRO:HD3	1.73	0.45
1:A:331:ILE:HG23	1:A:332:THR:N	2.31	0.45
1:A:1644:PHE:CD1	1:A:1644:PHE:N	2.85	0.45
1:B:32:GLN:NE2	1:B:57:ALA:CA	2.80	0.45
1:B:1020:VAL:CG1	1:B:1400:ILE:HG23	2.45	0.45
1:C:197:THR:HG22	1:C:198:PRO:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1431:GLU:OE2	1:C:1433:HIS:HE1	2.00	0.45
2:G:350:GLN:HA	2:G:353:VAL:HG13	1.97	0.45
2:G:357:ASN:OD1	2:G:365:GLN:HB3	2.16	0.45
2:G:597:MET:HA	3:G:3051:FMN:C5A	2.47	0.45
2:G:835:THR:CG2	2:G:845:THR:HG23	2.46	0.45
2:G:960:LYS:HA	2:G:960:LYS:CE	2.44	0.45
2:G:1281:PRO:O	2:G:1378:ILE:HG23	2.17	0.45
2:G:1632:ILE:HG23	2:G:1632:ILE:O	2.16	0.45
2:G:1858:ASN:ND2	2:G:1861:ARG:HG3	2.32	0.45
2:H:60:LEU:O	2:H:63:LYS:HB2	2.16	0.45
2:H:618:GLU:HG2	2:H:678:PHE:CZ	2.52	0.45
2:H:1311:PHE:HD1	2:H:1320:LEU:O	1.99	0.45
2:H:1325:PHE:O	2:H:1328:VAL:HG12	2.16	0.45
2:H:1680:LEU:HD13	2:H:1687:ALA:CB	2.45	0.45
2:H:2035:SER:HB3	2:H:2038:ILE:CG1	2.44	0.45
2:I:659:LEU:HD12	2:I:659:LEU:HA	1.84	0.45
1:A:29:ILE:HG13	2:G:1891:TYR:C	2.41	0.45
1:A:625:THR:HG23	1:A:627:SER:H	1.82	0.45
1:A:1133:PRO:HG3	1:A:1166:LYS:HG3	1.99	0.45
1:A:1300:THR:HA	1:A:1301:PRO:HD3	1.70	0.45
1:B:235:SER:HA	1:B:276:ARG:NH2	2.32	0.45
1:B:930:LEU:HD23	1:B:930:LEU:HA	1.67	0.45
1:B:1234:MET:HG2	1:B:1326:ILE:CD1	2.46	0.45
1:C:774:ILE:HA	1:C:775:PRO:HD3	1.74	0.45
1:C:1432:HIS:CE1	1:C:1434:SER:OG	2.69	0.45
1:C:1573:ILE:HG23	1:C:1627:PRO:HG3	1.98	0.45
2:G:598:THR:CB	2:G:599:PRO:HD3	2.46	0.45
2:G:754:TYR:CG	2:G:794:MET:HG2	2.51	0.45
2:G:844:VAL:HG22	2:G:858:ALA:HB2	1.98	0.45
2:G:1662:THR:HB	2:G:1799:PRO:HG2	1.99	0.45
2:H:443:LEU:HD22	2:H:448:VAL:CG1	2.46	0.45
2:H:1175:LYS:HA	2:H:1176:PRO:HD3	1.84	0.45
2:I:441:LYS:O	2:I:444:VAL:HG12	2.17	0.45
2:I:1428:GLU:HG2	2:I:1470:THR:HG22	1.99	0.45
1:A:413:LEU:HD13	1:A:451:MET:HG2	1.97	0.45
1:B:253:ARG:C	1:B:254:TRP:HD1	2.25	0.45
1:B:420:ILE:HG22	1:B:469:VAL:HG22	1.99	0.45
1:B:1004:ILE:HG22	1:B:1660:TYR:CE2	2.52	0.45
1:B:1459:ILE:O	1:B:1463:VAL:HG23	2.17	0.45
1:B:1487:LEU:HD23	1:B:1487:LEU:C	2.41	0.45
1:C:253:ARG:O	1:C:254:TRP:CD1	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:916:LEU:HD22	1:C:922:VAL:HG22	1.99	0.45
1:C:1238:VAL:CG1	1:C:1239:HIS:N	2.80	0.45
2:G:595:PRO:HD3	2:G:800:LEU:HB2	1.99	0.45
2:G:665:LEU:O	2:G:665:LEU:HD22	2.17	0.45
2:G:932:ILE:HD12	2:G:939:PHE:HD1	1.82	0.45
2:G:1015:VAL:HG13	2:G:1017:PHE:CE2	2.52	0.45
2:G:1945:ASP:O	2:G:1949:LYS:HG3	2.17	0.45
2:H:99:ASN:HA	2:H:550:VAL:HG21	1.99	0.45
2:H:249:TYR:CD2	2:H:283:ILE:HD11	2.52	0.45
2:H:624:TYR:CB	2:H:630:MET:HE3	2.46	0.45
2:H:785:TRP:CG	2:H:786:SER:N	2.84	0.45
2:H:865:TRP:CD1	2:H:865:TRP:C	2.95	0.45
2:H:1223:MET:HE2	2:H:1223:MET:HB2	1.69	0.45
2:H:1503:ILE:HG22	2:H:1504:VAL:C	2.41	0.45
2:I:159:ILE:CG2	2:I:501:ILE:HG22	2.47	0.45
2:I:901:LYS:NZ	2:I:1031:LYS:O	2.50	0.45
2:I:1228:THR:HG21	2:I:1234:VAL:HG23	1.98	0.45
2:I:1422:THR:HG23	2:I:1474:PHE:HB2	1.94	0.45
2:I:1854:MET:CG	2:I:1901:ALA:HB2	2.47	0.45
1:A:386:PHE:O	1:A:390:VAL:HB	2.16	0.45
1:A:798:ASN:HA	1:A:801:ARG:HB2	1.98	0.45
1:A:1020:VAL:CG1	1:A:1400:ILE:HG23	2.47	0.45
1:A:1431:GLU:HB3	1:A:1520:ALA:HB2	1.99	0.45
1:B:93:ASP:O	1:B:94:PRO:C	2.60	0.45
1:B:1239:HIS:HE1	1:B:1714:VAL:O	2.00	0.45
1:B:1533:ILE:HD11	1:B:1564:LEU:HD13	1.98	0.45
1:C:24:SER:O	2:I:1977:HIS:HD2	2.00	0.45
1:C:784:ILE:HG23	1:C:788:SER:HB2	1.98	0.45
2:G:245:GLN:HG2	2:G:505:GLY:HA2	1.99	0.45
2:G:1311:PHE:HD1	2:G:1320:LEU:O	1.99	0.45
2:G:1417:THR:O	2:G:1419:PHE:N	2.46	0.45
2:H:24:THR:O	2:H:26:SER:N	2.49	0.45
2:H:209:PHE:CE2	2:H:213:LEU:HD22	2.52	0.45
2:H:369:SER:HG	2:H:380:SER:HB3	1.79	0.45
2:H:439:ILE:HD12	2:H:484:ILE:HD11	1.99	0.45
2:H:562:LEU:HG	2:H:793:PRO:CB	2.47	0.45
2:H:938:TRP:CE2	2:H:944:ARG:HG3	2.52	0.45
2:H:1359:MET:HE2	2:H:1359:MET:HB3	1.82	0.45
2:H:1389:ILE:HG13	2:H:1411:PHE:CD1	2.52	0.45
2:H:1547:PRO:HD3	2:H:1584:PHE:CE2	2.52	0.45
2:H:2026:PHE:HB3	2:H:2042:ILE:HD13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:9:LEU:HB2	2:I:27:PHE:HE1	1.82	0.45
2:I:184:VAL:HG12	2:I:188:ILE:HG12	1.99	0.45
2:I:455:ILE:C	2:I:455:ILE:HD12	2.42	0.45
2:I:612:ASN:C	2:I:614:GLY:H	2.25	0.45
2:I:784:GLU:O	2:I:787:THR:HB	2.17	0.45
2:I:949:ASP:HB3	2:I:1006:MET:HE1	1.99	0.45
1:A:1516:ASP:HA	1:A:1517:PRO:HD3	1.61	0.44
1:B:335:HIS:HE1	1:C:335:HIS:ND1	2.16	0.44
1:C:37:LYS:HB2	1:C:65:TYR:CE1	2.52	0.44
1:C:248:LYS:HB2	1:C:248:LYS:HE3	1.84	0.44
1:C:627:SER:HB2	1:C:657:SER:HB3	1.99	0.44
1:C:641:ARG:HD3	1:C:649:TRP:O	2.17	0.44
1:C:1181:PHE:CZ	1:C:1341:PHE:HA	2.52	0.44
1:C:1234:MET:HE3	1:C:1326:ILE:HG21	1.99	0.44
1:C:1263:ASP:HB2	1:C:1270:VAL:HG21	1.98	0.44
1:C:1431:GLU:CG	1:C:1433:HIS:CE1	3.00	0.44
2:G:297:ARG:O	2:G:301:THR:HG22	2.16	0.44
2:G:573:LYS:C	2:G:575:GLY:N	2.75	0.44
2:G:615:TYR:CE2	2:G:1074:MET:HB3	2.52	0.44
2:G:900:GLN:NE2	2:G:1051:THR:HA	2.32	0.44
2:G:1071:LYS:HE3	2:G:1075:ASP:OD2	2.16	0.44
2:G:1219:ILE:HD11	2:G:1242:PHE:HB2	1.98	0.44
2:G:1579:ILE:HG22	2:G:1580:THR:O	2.16	0.44
2:H:1159:ILE:HG22	2:H:1160:THR:N	2.32	0.44
2:H:1768:LYS:HE2	2:H:1772:SER:HB3	1.98	0.44
2:I:40:ILE:O	2:I:42:PRO:HD3	2.17	0.44
2:I:305:PHE:CD1	2:I:442:ASP:HB3	2.52	0.44
2:I:780:TYR:HB2	2:I:799:PHE:CE2	2.53	0.44
2:I:1222:GLU:HG3	2:I:1235:SER:OG	2.16	0.44
1:B:330:GLU:O	1:B:330:GLU:HG2	2.16	0.44
1:B:444:ASN:HB2	1:B:447:LEU:N	2.15	0.44
1:B:893:VAL:HG11	1:B:930:LEU:CD2	2.36	0.44
1:B:931:GLN:H	1:B:931:GLN:HG3	1.32	0.44
1:B:1029:PRO:HA	1:B:1188:GLN:O	2.17	0.44
1:B:1103:ILE:HD11	1:B:1582:GLY:N	2.31	0.44
1:B:1248:GLY:HA3	1:B:1301:PRO:HD2	1.99	0.44
1:B:1593:MET:HE3	1:B:1597:LEU:HG	1.99	0.44
2:G:240:LEU:HD12	2:G:240:LEU:HA	1.83	0.44
2:G:319:LEU:HD22	2:G:319:LEU:HA	1.62	0.44
2:G:419:ARG:HG3	2:G:420:PHE:N	2.33	0.44
2:G:1804:PHE:CD2	2:G:1818:LEU:HD22	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:109:LEU:HD22	2:H:114:THR:HG23	1.99	0.44
2:H:663:ILE:HB	2:H:664:PRO:CD	2.44	0.44
2:I:161:GLY:H	2:I:505:GLY:CA	2.28	0.44
2:I:478:ARG:O	2:I:482:CYS:HB2	2.17	0.44
2:I:1175:LYS:HA	2:I:1176:PRO:HD3	1.84	0.44
1:A:26:VAL:HG13	2:G:2013:ASN:ND2	2.33	0.44
1:A:44:VAL:HG11	1:A:78:ILE:HG12	1.96	0.44
1:A:183:GLN:NE2	1:A:202:GLU:HG2	2.29	0.44
1:A:635:ILE:CG2	1:A:651:TYR:CG	3.00	0.44
1:A:1375:GLY:HA2	1:A:1546:THR:HG22	1.99	0.44
1:A:1420:ALA:HA	1:A:1421:PRO:HD3	1.75	0.44
1:B:1040:GLU:OE2	1:B:1577:GLN:HB2	2.18	0.44
1:B:1181:PHE:CZ	1:B:1341:PHE:HA	2.53	0.44
1:B:1239:HIS:CD2	1:B:1241:SER:OG	2.59	0.44
1:B:1455:ARG:O	1:B:1459:ILE:HG13	2.17	0.44
1:C:625:THR:HG23	1:C:627:SER:H	1.82	0.44
2:G:156:LEU:HD23	2:G:500:HIS:HB2	2.00	0.44
2:G:589:ARG:HB3	2:G:590:PRO:CD	2.48	0.44
2:G:1043:VAL:O	2:G:1044:VAL:C	2.60	0.44
2:G:1908:ASP:HA	2:G:1911:THR:HG22	1.99	0.44
2:H:512:LEU:O	2:H:516:THR:HG23	2.17	0.44
2:H:652:ILE:HB	2:H:658:MET:HE1	1.99	0.44
2:H:653:TYR:HD1	2:H:659:LEU:HD21	1.80	0.44
2:H:670:ARG:HD2	2:H:676:ILE:O	2.18	0.44
2:H:1180:MET:HB2	2:H:1197:LEU:HD21	1.98	0.44
2:H:1270:TRP:C	2:H:1271:ILE:HD13	2.42	0.44
2:I:432:LEU:HB3	2:I:484:ILE:HG23	1.99	0.44
2:I:748:THR:CB	2:I:749:PRO:HD3	2.44	0.44
2:I:892:ILE:HD11	2:I:903:TRP:CD2	2.50	0.44
2:I:1258:ARG:O	2:I:1262:ILE:HG13	2.17	0.44
2:I:1637:LEU:HD23	2:I:1637:LEU:HA	1.79	0.44
2:I:1819:ALA:O	2:I:1820:ASP:C	2.61	0.44
1:A:774:ILE:HA	1:A:775:PRO:HD3	1.76	0.44
1:A:790:PHE:CE2	1:A:794:ILE:HD11	2.53	0.44
1:A:1050:CYS:HB3	1:A:1089:VAL:HG12	1.98	0.44
1:A:1372:THR:O	1:A:1373:ARG:C	2.61	0.44
1:B:232:LEU:HD13	1:B:272:GLU:CB	2.47	0.44
1:B:427:ASN:HB2	1:B:468:LEU:HD21	1.99	0.44
1:B:1208:VAL:HG11	1:B:1212:THR:HB	1.97	0.44
1:B:1300:THR:HA	1:B:1301:PRO:HD3	1.69	0.44
1:C:980:VAL:H	2:I:968:GLN:NE2	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:257:GLY:C	2:G:258:PHE:HD1	2.26	0.44
2:G:298:LYS:HG2	2:G:448:VAL:CG2	2.40	0.44
2:G:717:ILE:O	2:G:720:ALA:HB3	2.18	0.44
2:G:1172:LYS:HE3	2:G:1574:ASN:OD1	2.18	0.44
2:G:1294:ALA:HA	2:G:1368:VAL:CG2	2.47	0.44
2:G:1466:PHE:HE2	2:G:1489:ILE:HD13	1.81	0.44
2:G:1590:ARG:NH2	2:G:1594:GLU:OE2	2.50	0.44
2:H:463:PHE:C	2:H:463:PHE:HD2	2.26	0.44
2:H:582:LYS:HE2	2:H:761:PRO:O	2.16	0.44
2:H:772:GLY:O	2:H:804:ARG:HD3	2.17	0.44
2:H:1236:LEU:HA	2:H:1237:PRO:HD3	1.79	0.44
2:I:653:TYR:OH	2:I:690:VAL:HG11	2.17	0.44
2:I:670:ARG:HD2	2:I:676:ILE:O	2.16	0.44
2:I:826:GLY:HA3	2:I:1061:GLN:CB	2.46	0.44
2:I:943:TRP:CZ2	2:I:1016:PRO:HG3	2.52	0.44
2:I:1004:LEU:HD21	2:I:1019:PRO:HB2	1.99	0.44
1:A:627:SER:HB2	1:A:657:SER:CB	2.48	0.44
1:A:641:ARG:HD3	1:A:649:TRP:O	2.18	0.44
1:A:1022:THR:CG2	1:A:1226:SER:OG	2.66	0.44
1:A:1283:MET:O	1:A:1287:VAL:HG23	2.17	0.44
1:B:32:GLN:HE21	1:B:57:ALA:HB2	1.82	0.44
1:B:881:ASN:O	1:B:881:ASN:CG	2.61	0.44
1:B:1249:SER:HB3	1:B:1280:ILE:HG12	1.99	0.44
1:B:1263:ASP:HB2	1:B:1270:VAL:HG21	2.00	0.44
1:B:1431:GLU:OE2	1:B:1433:HIS:HE1	1.99	0.44
2:G:669:LEU:HA	2:G:669:LEU:HD12	1.63	0.44
2:G:1236:LEU:HA	2:G:1237:PRO:HD3	1.76	0.44
2:G:1325:PHE:O	2:G:1328:VAL:HG12	2.17	0.44
2:H:234:ILE:HG13	2:H:235:PRO:CD	2.47	0.44
2:H:507:GLY:O	2:H:508:GLY:C	2.60	0.44
2:H:573:LYS:C	2:H:575:GLY:N	2.75	0.44
2:H:600:CYS:SG	2:H:806:MET:HE3	2.58	0.44
2:H:612:ASN:HD21	2:H:641:ILE:HA	1.81	0.44
2:H:641:ILE:HG12	2:H:645:SER:CB	2.46	0.44
2:H:2049:GLU:O	2:H:2050:GLN:C	2.61	0.44
2:I:369:SER:O	2:I:370:LEU:HD23	2.17	0.44
2:I:468:LEU:O	2:I:471:LEU:HB2	2.18	0.44
2:I:517:HIS:CE1	2:I:540:ASP:O	2.71	0.44
2:I:654:VAL:O	2:I:654:VAL:HG12	2.17	0.44
2:I:665:LEU:O	2:I:665:LEU:HD22	2.17	0.44
1:A:267:VAL:HG12	1:A:290:MET:CE	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:751:PHE:CZ	1:A:761:LEU:HD13	2.51	0.44
1:A:933:VAL:HA	1:A:934:PRO:HD3	1.65	0.44
1:A:1239:HIS:CD2	1:A:1241:SER:H	2.35	0.44
1:B:168:MET:HA	1:B:206:LEU:HB2	2.00	0.44
1:B:889:GLU:C	1:B:891:MET:H	2.25	0.44
1:B:1516:ASP:HA	1:B:1517:PRO:HD3	1.65	0.44
1:C:67:SER:OG	2:H:359:HIS:CE1	2.61	0.44
1:C:521:LYS:HB3	1:C:523:SER:HB3	1.99	0.44
1:C:1104:ARG:O	1:C:1185:VAL:HG13	2.17	0.44
1:C:1270:VAL:HG11	1:C:1274:ILE:HD13	1.99	0.44
1:C:1557:ILE:HD11	1:C:1642:THR:HG21	2.00	0.44
1:C:1657:HIS:CG	1:C:1658:PRO:HD2	2.53	0.44
2:G:324:LEU:HD12	2:G:324:LEU:O	2.18	0.44
2:G:459:VAL:HG12	2:G:468:LEU:HD12	2.00	0.44
2:G:860:ARG:H	2:G:1049:GLN:HG3	1.83	0.44
2:G:926:LEU:HB3	2:G:947:THR:CG2	2.46	0.44
2:G:1493:LEU:HB3	2:G:1494:PRO:CD	2.48	0.44
2:H:594:VAL:CG2	2:H:610:THR:HG21	2.46	0.44
2:H:607:VAL:O	2:H:611:THR:HB	2.17	0.44
2:H:1239:LEU:C	2:H:1254:VAL:HG23	2.42	0.44
2:H:1347:LEU:HD12	2:H:1347:LEU:HA	1.86	0.44
2:H:1561:ASN:HA	2:H:1562:PRO:HD3	1.83	0.44
2:I:101:ILE:H	2:I:101:ILE:HG13	1.30	0.44
2:I:938:TRP:CE2	2:I:944:ARG:HG3	2.52	0.44
2:I:1180:MET:HB3	2:I:1199:GLU:HG2	1.98	0.44
1:A:1443:LEU:HD23	1:A:1443:LEU:HA	1.75	0.44
1:B:18:LEU:HD21	2:H:1815:LEU:HD12	1.99	0.44
1:B:335:HIS:O	1:B:335:HIS:CD2	2.70	0.44
1:B:1385:GLN:HE21	1:B:1385:GLN:HB3	1.66	0.44
1:C:93:ASP:O	1:C:94:PRO:C	2.61	0.44
1:C:196:THR:O	1:C:213:PHE:HE2	2.01	0.44
1:C:235:SER:HA	1:C:276:ARG:NH2	2.33	0.44
1:C:340:ARG:HH12	1:C:344:GLN:HE21	1.65	0.44
1:C:639:HIS:HB2	1:C:656:SER:OG	2.18	0.44
1:C:1158:PRO:HD2	1:C:1159:GLU:OE2	2.18	0.44
1:C:1243:VAL:O	1:C:1296:GLY:HA3	2.18	0.44
2:G:120:LYS:HB3	2:G:124:LYS:HE3	1.99	0.44
2:G:142:ASN:HB2	2:G:550:VAL:HG13	1.99	0.44
2:G:231:LEU:HA	2:G:236:ILE:HD12	2.00	0.44
2:G:754:TYR:CD2	2:G:794:MET:CG	3.01	0.44
2:G:1321:ALA:HA	2:G:1322:PRO:HD3	1.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:601:THR:CG2	2:H:601:THR:O	2.65	0.44
2:H:826:GLY:HA3	2:H:1061:GLN:CB	2.44	0.44
2:H:938:TRP:CD1	2:H:944:ARG:HG3	2.53	0.44
2:H:949:ASP:HB3	2:H:1006:MET:CE	2.47	0.44
2:H:1222:GLU:HG3	2:H:1235:SER:OG	2.17	0.44
2:I:719:ILE:HG12	2:I:719:ILE:H	1.58	0.44
2:I:1102:TYR:CE2	2:I:1152:ALA:HB2	2.53	0.44
2:I:1158:PHE:C	2:I:1159:ILE:HD13	2.43	0.44
2:I:1168:ASN:HA	2:I:1169:PRO:HD3	1.84	0.44
2:I:1210:ILE:O	2:I:1210:ILE:HG22	2.18	0.44
2:I:1236:LEU:HB2	2:I:1265:MET:SD	2.57	0.44
2:I:1493:LEU:HB3	2:I:1494:PRO:CD	2.48	0.44
2:I:1579:ILE:HG22	2:I:1580:THR:O	2.18	0.44
1:A:24:SER:HB3	2:G:2014:LEU:HD12	1.98	0.44
1:A:254:TRP:CZ3	1:A:302:LEU:HD13	2.53	0.44
1:A:1431:GLU:CG	1:A:1433:HIS:CE1	3.00	0.44
1:A:1549:ASN:ND2	1:A:1549:ASN:C	2.76	0.44
1:A:1670:TYR:O	1:A:1674:VAL:HG23	2.18	0.44
1:B:26:VAL:HG13	2:H:2013:ASN:ND2	2.33	0.44
1:B:225:SER:OG	1:B:266:LEU:HD21	2.18	0.44
1:C:295:ALA:HB1	1:C:300:VAL:O	2.18	0.44
1:C:478:GLU:OE1	1:C:478:GLU:HA	2.18	0.44
1:C:852:ARG:HB3	1:C:858:TRP:HZ2	1.83	0.44
2:G:967:ILE:HD12	2:G:972:LEU:HD22	1.99	0.44
2:G:1257:ASP:O	2:G:1261:ARG:HG3	2.17	0.44
2:G:1855:ILE:HB	2:G:1907:LEU:HD12	2.00	0.44
2:G:1873:TYR:CE1	2:G:1877:ARG:NH2	2.84	0.44
2:H:73:GLU:OE2	2:H:76:LYS:HD2	2.18	0.44
2:H:120:LYS:HB3	2:H:124:LYS:HE3	1.99	0.44
2:H:439:ILE:HD12	2:H:484:ILE:CD1	2.47	0.44
2:H:551:THR:C	2:H:553:ASN:N	2.75	0.44
2:H:852:GLU:H	2:H:852:GLU:HG3	1.37	0.44
2:H:856:LYS:CE	2:H:1052:CYS:SG	3.06	0.44
2:I:209:PHE:CE2	2:I:213:LEU:HD22	2.53	0.44
2:I:439:ILE:HD12	2:I:484:ILE:CD1	2.48	0.44
2:I:600:CYS:SG	2:I:806:MET:HE3	2.58	0.44
2:I:760:HIS:HA	2:I:761:PRO:HD3	1.82	0.44
2:I:1494:PRO:HB2	2:I:1823:SER:HB2	1.99	0.44
2:I:1590:ARG:HG3	2:I:1608:TYR:CD2	2.53	0.44
2:I:1778:GLN:HB2	2:I:1779:PRO:HD3	2.00	0.44
1:B:32:GLN:HE22	1:B:57:ALA:N	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:176:VAL:HG12	1:B:178:GLY:H	1.83	0.44
1:B:267:VAL:HG12	1:B:290:MET:CE	2.48	0.44
1:B:496:PRO:HB2	1:B:519:VAL:HG12	1.99	0.44
1:B:1037:TRP:HB2	1:B:1598:GLN:OE1	2.18	0.44
1:B:1234:MET:HE3	1:B:1326:ILE:HG21	2.00	0.44
1:C:655:LEU:HD23	1:C:655:LEU:HA	1.79	0.44
1:C:1234:MET:CE	1:C:1326:ILE:HG21	2.48	0.44
1:C:1373:ARG:NE	1:C:1550:ASP:HB2	2.33	0.44
2:G:455:ILE:HD11	2:G:469:ARG:NE	2.32	0.44
2:G:753:MET:O	2:G:757:ILE:HG13	2.18	0.44
2:H:391:LEU:CD2	2:H:394:ARG:NH2	2.80	0.44
2:H:572:ASN:CB	2:H:576:LYS:H	2.28	0.44
2:H:653:TYR:OH	2:H:690:VAL:HG11	2.18	0.44
2:H:1101:GLU:HB2	2:H:1147:ILE:O	2.17	0.44
2:H:1551:GLU:HB2	2:H:1552:PRO:HD3	2.00	0.44
2:I:297:ARG:O	2:I:301:THR:HG22	2.18	0.44
2:I:427:PHE:HB3	2:I:428:HIS:ND1	2.33	0.44
2:I:1223:MET:HE3	2:I:1238:LEU:HD12	2.00	0.44
2:I:1236:LEU:HD22	2:I:1238:LEU:HG	1.99	0.44
2:I:1330:GLY:HA2	2:I:1374:THR:HG21	1.99	0.44
1:A:1234:MET:HE3	1:A:1326:ILE:HG21	2.00	0.43
1:A:1291:LEU:HD21	1:A:1698:PHE:CE1	2.53	0.43
1:A:1539:ALA:O	1:A:1574:GLY:HA2	2.18	0.43
1:A:1666:THR:HG23	1:A:1669:ARG:CB	2.47	0.43
1:A:1717:ASP:HA	1:A:1718:PRO:HD3	1.83	0.43
1:B:42:GLU:O	1:B:77:GLU:N	2.47	0.43
1:B:529:MET:CE	1:B:894:ARG:HD2	2.37	0.43
1:B:833:PHE:O	1:B:834:GLY:O	2.35	0.43
1:C:21:GLN:O	2:I:1977:HIS:CD2	2.71	0.43
2:G:522:GLY:HA3	2:G:561:TRP:CH2	2.53	0.43
2:G:653:TYR:OH	2:G:690:VAL:HG11	2.17	0.43
2:G:719:ILE:HG12	2:G:719:ILE:H	1.57	0.43
2:G:1016:PRO:HD2	2:G:1017:PHE:CE2	2.53	0.43
2:G:1551:GLU:HB2	2:G:1552:PRO:HD3	2.00	0.43
2:G:1674:GLN:OE1	2:G:1712:ASN:HA	2.18	0.43
2:H:15:SER:H	2:H:48:PHE:HE2	1.66	0.43
2:H:871:THR:HG21	2:H:887:LYS:HZ2	1.83	0.43
2:I:218:TRP:HB3	2:I:225:THR:OG1	2.18	0.43
2:I:425:SER:HA	2:I:426:PRO:HD3	1.78	0.43
2:I:751:LEU:HD23	2:I:791:TYR:CD2	2.53	0.43
2:I:865:TRP:CD1	2:I:865:TRP:C	2.95	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1159:ILE:CG2	2:I:1160:THR:N	2.81	0.43
2:I:1651:LEU:O	2:I:1652:THR:HG23	2.17	0.43
1:A:235:SER:HA	1:A:276:ARG:NH2	2.32	0.43
1:A:1556:THR:O	1:A:1560:MET:HG2	2.18	0.43
1:B:1022:THR:HG22	1:B:1226:SER:CB	2.48	0.43
1:B:1592:MET:HE2	1:B:1641:ILE:HG23	2.00	0.43
1:B:1644:PHE:N	1:B:1644:PHE:CD1	2.86	0.43
1:C:406:TRP:CE3	1:C:407:ASN:HB2	2.53	0.43
1:C:453:TYR:CD2	1:C:453:TYR:C	2.96	0.43
1:C:833:PHE:O	1:C:834:GLY:O	2.36	0.43
2:G:184:VAL:HG12	2:G:188:ILE:HG12	2.00	0.43
2:G:397:LYS:HB2	2:G:398:ALA:H	1.68	0.43
2:G:674:TYR:HA	2:G:675:PRO:HD3	1.71	0.43
2:G:901:LYS:NZ	2:G:1031:LYS:O	2.50	0.43
2:H:590:PRO:HA	2:H:591:PRO:HD3	1.82	0.43
2:H:778:TYR:N	2:H:779:PRO:CD	2.80	0.43
2:H:1294:ALA:HA	2:H:1368:VAL:CG2	2.48	0.43
2:I:397:LYS:HB3	2:I:416:PHE:CE2	2.53	0.43
2:I:597:MET:HA	3:I:3051:FMN:C5A	2.47	0.43
2:I:1257:ASP:O	2:I:1261:ARG:HG3	2.18	0.43
2:I:1662:THR:HB	2:I:1799:PRO:HG2	2.00	0.43
2:I:1735:ALA:O	2:I:1737:ILE:HG13	2.17	0.43
2:I:1808:SER:OG	2:I:1977:HIS:HE1	2.01	0.43
1:A:451:MET:HE1	1:A:476:LEU:HG	2.00	0.43
1:A:1442:ASN:HD22	1:A:1442:ASN:HA	1.62	0.43
1:B:242:THR:HG22	1:B:243:ILE:H	1.83	0.43
1:B:529:MET:HE2	1:B:637:PHE:CB	2.48	0.43
1:B:852:ARG:HB3	1:B:858:TRP:HZ2	1.83	0.43
1:C:1021:VAL:HG22	1:C:1387:ILE:HG22	2.01	0.43
1:C:1291:LEU:HD21	1:C:1698:PHE:CE1	2.53	0.43
2:G:195:LEU:O	2:G:199:ILE:HG13	2.18	0.43
2:G:369:SER:C	2:G:370:LEU:HD23	2.43	0.43
2:G:751:LEU:HD23	2:G:791:TYR:CD2	2.53	0.43
2:G:1102:TYR:CE2	2:G:1152:ALA:HB2	2.53	0.43
2:G:1161:GLN:CB	2:G:1255:MET:HE3	2.47	0.43
2:G:1175:LYS:HG3	2:G:1176:PRO:HD2	2.01	0.43
2:H:257:GLY:C	2:H:258:PHE:HD1	2.26	0.43
2:H:666:ILE:HG22	2:H:698:LEU:HD22	2.00	0.43
2:H:1149:TRP:HA	2:H:1242:PHE:CD1	2.54	0.43
2:I:674:TYR:HA	2:I:675:PRO:HD3	1.69	0.43
2:I:754:TYR:CG	2:I:794:MET:HG2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1043:VAL:O	2:I:1044:VAL:C	2.61	0.43
1:A:32:GLN:NE2	1:A:57:ALA:HA	2.33	0.43
1:A:458:THR:OG1	1:A:470:LYS:HD2	2.18	0.43
1:A:1194:ASN:OD1	1:A:1196:LYS:HB2	2.18	0.43
1:B:908:LEU:HA	1:B:913:VAL:HG21	2.00	0.43
1:B:987:ASN:HD21	2:H:993:GLN:HE22	1.66	0.43
1:B:990:LEU:HD23	1:B:990:LEU:HA	1.77	0.43
1:B:1238:VAL:CG1	1:B:1239:HIS:N	2.81	0.43
1:B:1685:TYR:CZ	2:H:993:GLN:OE1	2.72	0.43
1:C:253:ARG:C	1:C:254:TRP:HD1	2.26	0.43
2:G:397:LYS:HB3	2:G:416:PHE:CE2	2.53	0.43
2:G:581:THR:O	2:G:585:LYS:HB2	2.18	0.43
2:G:599:PRO:HD2	3:G:3051:FMN:H6	2.00	0.43
2:G:659:LEU:HD12	2:G:659:LEU:HA	1.81	0.43
2:G:675:PRO:HD3	2:G:1164:MET:HE1	2.00	0.43
2:G:1040:LEU:O	2:G:1046:GLN:HG3	2.18	0.43
2:G:1180:MET:HB3	2:G:1199:GLU:HG2	2.01	0.43
2:G:1589:VAL:HG21	2:G:1651:LEU:HD12	1.99	0.43
2:G:1782:THR:CG2	2:G:1827:LEU:HD21	2.48	0.43
2:H:654:VAL:O	2:H:654:VAL:HG12	2.18	0.43
2:H:807:ILE:HA	2:H:818:LYS:HG2	1.98	0.43
2:H:854:ILE:HG22	2:H:856:LYS:HG3	1.99	0.43
2:H:1015:VAL:HG13	2:H:1017:PHE:CE2	2.53	0.43
2:H:1021:LEU:HA	2:H:1021:LEU:HD22	1.58	0.43
2:H:1228:THR:HG21	2:H:1234:VAL:HG23	2.00	0.43
2:H:1458:ASP:O	2:H:1462:LYS:HE3	2.19	0.43
2:H:1637:LEU:HD23	2:H:1637:LEU:HA	1.76	0.43
2:I:428:HIS:CD2	2:I:488:VAL:HG23	2.53	0.43
2:I:430:HIS:CE1	2:I:431:LEU:HD13	2.54	0.43
1:A:32:GLN:HE22	1:A:57:ALA:N	2.16	0.43
1:A:985:ARG:NH1	2:G:953:ARG:NH2	2.65	0.43
1:A:1244:GLY:C	1:A:1327:CYS:HB2	2.44	0.43
1:B:20:TYR:CD2	2:H:1985:VAL:HG21	2.54	0.43
1:B:1050:CYS:HB3	1:B:1089:VAL:HG12	2.00	0.43
1:C:49:PRO:O	1:C:82:SER:HB2	2.19	0.43
2:G:463:PHE:C	2:G:463:PHE:HD2	2.25	0.43
2:G:1162:ASP:O	2:G:1163:LYS:HB2	2.19	0.43
2:G:1219:ILE:HB	2:G:1240:TYR:HB2	2.01	0.43
2:G:1496:LYS:CE	2:G:1693:ARG:HH21	2.26	0.43
2:H:160:PHE:CE2	2:H:504:PHE:HB2	2.54	0.43
2:H:245:GLN:HG2	2:H:505:GLY:HA2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:246:LEU:HD12	2:H:246:LEU:HA	1.85	0.43
2:H:309:ARG:HD3	2:H:309:ARG:HA	1.63	0.43
2:H:643:LYS:HA	2:H:1163:LYS:HG2	1.99	0.43
2:H:1383:ASN:HD21	2:H:1418:ASP:CB	2.30	0.43
2:I:73:GLU:OE2	2:I:76:LYS:HD2	2.18	0.43
2:I:319:LEU:HD22	2:I:319:LEU:HA	1.67	0.43
2:I:607:VAL:O	2:I:611:THR:HB	2.18	0.43
2:I:754:TYR:CE2	2:I:794:MET:HG3	2.53	0.43
2:I:856:LYS:CE	2:I:1052:CYS:SG	3.07	0.43
2:I:1175:LYS:HG3	2:I:1176:PRO:HD2	2.00	0.43
2:I:1311:PHE:HD1	2:I:1320:LEU:O	2.02	0.43
1:A:332:THR:HG22	1:B:331:ILE:CD1	2.48	0.43
1:A:453:TYR:CD2	1:A:453:TYR:C	2.96	0.43
1:B:526:VAL:HG12	1:B:626:VAL:HG11	1.99	0.43
1:B:1195:ALA:HB1	1:B:1200:ILE:HD12	1.99	0.43
1:C:232:LEU:HD13	1:C:272:GLU:CB	2.48	0.43
1:C:1310:GLU:OE1	1:C:1649:LYS:CE	2.65	0.43
1:C:1491:ARG:NH1	1:C:1744:TYR:O	2.51	0.43
1:C:1539:ALA:O	1:C:1574:GLY:HA2	2.18	0.43
1:C:1553:GLU:HA	1:C:1556:THR:HG23	2.00	0.43
2:G:23:PRO:HG2	2:G:86:LEU:HD11	2.00	0.43
2:G:562:LEU:HG	2:G:793:PRO:CB	2.48	0.43
2:H:745:ASP:HA	2:H:832:TRP:CH2	2.51	0.43
2:H:754:TYR:CE2	2:H:794:MET:HG3	2.52	0.43
2:I:44:PRO:HA	2:I:53:GLU:OE2	2.19	0.43
2:I:159:ILE:HG12	2:I:512:LEU:HD23	2.00	0.43
2:I:191:SER:HA	2:I:194:THR:CG2	2.43	0.43
2:I:240:LEU:HD12	2:I:240:LEU:HA	1.80	0.43
2:I:439:ILE:HD12	2:I:484:ILE:HD11	1.99	0.43
2:I:594:VAL:CG2	2:I:610:THR:HG21	2.44	0.43
2:I:810:GLU:OE2	2:I:1070:ILE:N	2.43	0.43
2:I:1091:GLY:C	2:I:1093:ASP:H	2.26	0.43
2:I:1561:ASN:HA	2:I:1562:PRO:HD3	1.80	0.43
2:I:2046:GLU:C	2:I:2048:TYR:N	2.73	0.43
1:A:889:GLU:C	1:A:891:MET:H	2.27	0.43
1:A:1673:TYR:CZ	1:A:1677:VAL:HG21	2.53	0.43
1:B:256:LEU:HA	1:B:257:PRO:HD3	1.73	0.43
1:B:774:ILE:HA	1:B:775:PRO:HD3	1.74	0.43
1:B:1189:ILE:HG23	1:B:1190:PRO:HD2	2.00	0.43
1:C:1220:VAL:O	1:C:1224:ILE:HG12	2.19	0.43
1:C:1248:GLY:HA3	1:C:1301:PRO:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1625:LEU:O	1:C:1627:PRO:HD3	2.18	0.43
2:G:441:LYS:O	2:G:445:LYS:HG3	2.18	0.43
2:G:751:LEU:HD11	2:G:789:PHE:CD1	2.53	0.43
2:G:810:GLU:OE2	2:G:1070:ILE:N	2.44	0.43
2:G:835:THR:HG22	2:G:844:VAL:CA	2.49	0.43
2:G:1858:ASN:HA	2:G:1896:GLN:O	2.18	0.43
2:H:536:ASN:HD21	2:H:540:ASP:HB3	1.84	0.43
2:H:595:PRO:HD3	2:H:800:LEU:HB2	2.00	0.43
2:H:705:LEU:HD23	2:H:705:LEU:HA	1.78	0.43
2:H:758:ARG:HD3	2:H:758:ARG:HA	1.88	0.43
2:H:1199:GLU:OE2	2:H:1567:ARG:NH1	2.52	0.43
2:I:33:LEU:HD21	2:I:80:PHE:CE2	2.54	0.43
2:I:142:ASN:HB2	2:I:550:VAL:HG13	1.99	0.43
2:I:246:LEU:O	2:I:250:VAL:HG23	2.18	0.43
2:I:257:GLY:C	2:I:258:PHE:HD1	2.27	0.43
2:I:572:ASN:CB	2:I:576:LYS:H	2.27	0.43
2:I:703:LEU:HD21	2:I:705:LEU:CD2	2.45	0.43
2:I:914:LEU:HD21	2:I:1003:PHE:CD2	2.53	0.43
2:I:972:LEU:HD23	2:I:979:ALA:HB2	2.00	0.43
2:I:1427:VAL:HG22	2:I:1469:GLU:HG2	1.99	0.43
1:A:411:GLN:O	1:A:415:SER:HB2	2.19	0.43
1:A:430:ARG:CZ	1:A:605:LEU:HD13	2.49	0.43
1:A:521:LYS:HB3	1:A:523:SER:HB3	2.01	0.43
1:A:888:ILE:HD12	1:A:939:PHE:CE2	2.45	0.43
1:A:1019:ILE:HG13	1:A:1316:VAL:HG13	2.01	0.43
1:B:681:THR:HA	1:B:706:THR:OG1	2.19	0.43
1:B:828:PRO:HG3	1:B:868:ILE:HG22	2.00	0.43
1:B:1131:LEU:HD12	1:B:1131:LEU:HA	1.73	0.43
1:B:1430:ARG:O	1:B:1430:ARG:HG2	2.18	0.43
1:C:330:GLU:O	1:C:330:GLU:HG2	2.18	0.43
1:C:1047:LEU:O	1:C:1051:VAL:HG23	2.19	0.43
2:G:109:LEU:HD22	2:G:114:THR:HG23	2.00	0.43
2:G:938:TRP:CE2	2:G:944:ARG:HG3	2.54	0.43
2:G:1768:LYS:HE2	2:G:1772:SER:HB3	2.00	0.43
2:H:55:THR:HB	2:H:59:GLU:CD	2.44	0.43
2:H:184:VAL:HG12	2:H:188:ILE:HG12	2.00	0.43
2:H:305:PHE:CD1	2:H:442:ASP:HB3	2.53	0.43
2:H:780:TYR:HB2	2:H:799:PHE:CE2	2.53	0.43
2:H:1070:ILE:CD1	2:H:1074:MET:HG2	2.49	0.43
2:H:1156:CYS:SG	2:H:1250:PRO:HD2	2.59	0.43
2:I:245:GLN:HG2	2:I:505:GLY:HA2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:279:THR:O	2:I:283:ILE:HB	2.19	0.43
2:I:503:ASP:O	2:I:530:ALA:HB3	2.19	0.43
2:I:778:TYR:N	2:I:779:PRO:CD	2.82	0.43
2:I:932:ILE:HD12	2:I:939:PHE:HD1	1.83	0.43
2:I:1417:THR:O	2:I:1419:PHE:N	2.45	0.43
2:I:1684:SER:O	2:I:1688:GLN:HG3	2.18	0.43
2:I:2030:TYR:CD1	2:I:2034:GLY:HA2	2.54	0.43
1:A:66:GLU:OE1	1:A:66:GLU:HA	2.18	0.43
1:A:233:ILE:HD13	1:A:237:MET:HE3	2.01	0.43
1:A:248:LYS:HB2	1:A:248:LYS:HE3	1.82	0.43
1:A:1219:VAL:CA	1:A:1384:ILE:HD11	2.32	0.43
1:A:1618:LEU:HD23	1:A:1621:PHE:CE2	2.54	0.43
1:B:35:PHE:HA	1:B:39:PHE:HD2	1.83	0.43
1:B:370:GLU:O	1:B:373:ALA:HB3	2.19	0.43
1:B:1283:MET:O	1:B:1287:VAL:HG23	2.18	0.43
1:C:256:LEU:HA	1:C:257:PRO:HD3	1.72	0.43
2:G:184:VAL:HG12	2:G:184:VAL:O	2.19	0.43
2:G:551:THR:C	2:G:553:ASN:N	2.75	0.43
2:G:607:VAL:O	2:G:611:THR:HB	2.17	0.43
2:G:866:LYS:O	2:G:870:GLU:HG3	2.18	0.43
2:G:884:LEU:HD22	2:G:1021:LEU:CD1	2.49	0.43
2:G:1021:LEU:HD22	2:G:1021:LEU:HA	1.60	0.43
2:G:1195:VAL:HG13	2:G:1211:LEU:CB	2.48	0.43
2:G:1651:LEU:HD23	2:G:1651:LEU:HA	1.73	0.43
2:H:900:GLN:NE2	2:H:1051:THR:HA	2.34	0.43
2:H:1359:MET:HE3	2:H:1359:MET:HA	2.01	0.43
2:H:1374:THR:HG23	2:H:1396:LEU:CD1	2.46	0.43
2:H:1889:VAL:HG22	2:H:1977:HIS:O	2.19	0.43
2:I:7:ARG:CG	2:I:22:VAL:O	2.67	0.43
2:I:562:LEU:HD23	2:I:562:LEU:HA	1.80	0.43
2:I:652:ILE:HB	2:I:658:MET:HE1	1.99	0.43
1:A:242:THR:HB	1:A:244:THR:HB	2.00	0.43
1:A:1019:ILE:HG21	1:A:1316:VAL:HG22	2.01	0.43
1:A:1332:TYR:HB3	1:A:1382:ALA:CB	2.49	0.43
1:B:242:THR:HB	1:B:244:THR:HB	2.01	0.43
1:B:350:LEU:HB2	1:B:352:MET:HG2	2.01	0.43
1:B:411:GLN:O	1:B:415:SER:HB2	2.18	0.43
1:B:625:THR:HG23	1:B:627:SER:H	1.84	0.43
1:B:1270:VAL:HG11	1:B:1274:ILE:HD13	2.00	0.43
1:C:616:LEU:HB2	1:C:617:PRO:HD3	2.01	0.43
2:G:1091:GLY:C	2:G:1093:ASP:H	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1494:PRO:HB2	2:G:1823:SER:HB2	2.00	0.43
2:G:2026:PHE:HB3	2:G:2042:ILE:HD13	2.00	0.43
2:H:258:PHE:CD1	2:H:258:PHE:N	2.87	0.43
2:H:629:GLY:O	2:H:632:ALA:HB3	2.18	0.43
2:H:630:MET:HE3	2:H:630:MET:HB2	1.95	0.43
2:H:732:TRP:CH2	2:H:749:PRO:HG2	2.53	0.43
2:H:748:THR:CB	2:H:749:PRO:HD3	2.46	0.43
2:H:1043:VAL:O	2:H:1044:VAL:C	2.62	0.43
2:H:1080:GLY:O	2:H:1084:LYS:HG3	2.19	0.43
2:H:1642:THR:HB	2:H:1651:LEU:HB2	2.01	0.43
2:H:1896:GLN:HE21	2:H:1896:GLN:HB3	1.60	0.43
2:I:198:LEU:HD13	2:I:198:LEU:HA	1.93	0.43
2:I:615:TYR:CE2	2:I:1074:MET:HB3	2.53	0.43
2:I:993:GLN:HE21	2:I:993:GLN:HB3	1.61	0.43
1:A:44:VAL:HG13	1:A:78:ILE:HG12	1.99	0.42
1:A:155:VAL:O	1:A:159:LEU:HG	2.19	0.42
1:A:521:LYS:HE2	1:A:605:LEU:HD11	2.01	0.42
1:A:881:ASN:O	1:A:881:ASN:CG	2.61	0.42
1:A:1396:MET:O	1:A:1680:ARG:NH1	2.52	0.42
1:B:335:HIS:CE1	1:C:335:HIS:ND1	2.87	0.42
1:C:706:THR:HB	1:C:737:PHE:HB3	2.00	0.42
1:C:1346:MET:HE1	1:C:1419:PRO:HG3	2.00	0.42
2:G:427:PHE:HB3	2:G:428:HIS:ND1	2.34	0.42
2:G:1223:MET:HE2	2:G:1223:MET:HB2	1.74	0.42
2:G:1989:LYS:HZ1	2:G:2037:PRO:HG2	1.83	0.42
2:H:960:LYS:HA	2:H:960:LYS:CE	2.44	0.42
2:H:1579:ILE:HD11	2:H:1615:MET:SD	2.58	0.42
2:H:1651:LEU:HD23	2:H:1651:LEU:HA	1.79	0.42
2:H:1757:GLU:H	2:H:1757:GLU:HG3	1.51	0.42
2:I:702:TYR:HB3	2:I:727:PRO:HB2	1.99	0.42
2:I:1239:LEU:C	2:I:1254:VAL:HG23	2.44	0.42
2:I:1551:GLU:HB2	2:I:1552:PRO:HD3	2.00	0.42
2:I:1980:TYR:HD1	2:I:1981:LEU:HD12	1.83	0.42
1:A:340:ARG:NH1	1:A:344:GLN:CG	2.70	0.42
1:A:1056:ILE:CD1	1:A:1193:TRP:CD1	3.00	0.42
1:A:1195:ALA:CB	1:A:1213:LEU:HD13	2.49	0.42
1:A:1553:GLU:HA	1:A:1556:THR:HG23	2.01	0.42
1:B:1238:VAL:CG1	1:B:1242:GLU:HB2	2.49	0.42
1:B:1280:ILE:HD13	1:B:1302:VAL:HG22	2.01	0.42
1:B:1553:GLU:HA	1:B:1556:THR:HG23	2.00	0.42
1:C:18:LEU:HD21	2:I:1815:LEU:HD12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:406:TRP:CD2	1:C:1619:GLU:HG3	2.55	0.42
1:C:451:MET:HE1	1:C:476:LEU:HG	2.01	0.42
1:C:749:ILE:HD11	1:C:805:CYS:C	2.44	0.42
1:C:780:GLU:O	1:C:781:LEU:C	2.61	0.42
1:C:949:GLU:O	1:C:953:VAL:CG1	2.67	0.42
1:C:1593:MET:HE3	1:C:1597:LEU:HG	2.01	0.42
2:G:238:CYS:CB	2:G:239:PRO:HD3	2.45	0.42
2:G:1339:PHE:N	2:G:1340:PRO:CD	2.82	0.42
2:G:1458:ASP:O	2:G:1462:LYS:HE3	2.19	0.42
2:H:240:LEU:O	2:H:244:ILE:HG13	2.19	0.42
2:H:274:SER:OG	2:H:428:HIS:HE1	2.02	0.42
2:H:543:PHE:CB	2:H:545:GLN:NE2	2.82	0.42
2:H:601:THR:HB	2:H:620:ALA:HB2	2.01	0.42
2:H:703:LEU:HD21	2:H:705:LEU:CD2	2.49	0.42
2:I:169:TYR:CD1	2:I:169:TYR:C	2.96	0.42
2:I:814:SER:HB2	2:I:1040:LEU:CD1	2.48	0.42
2:I:949:ASP:HB3	2:I:1006:MET:CE	2.48	0.42
2:I:1666:PHE:CE1	2:I:1814:ALA:HA	2.53	0.42
2:I:2049:GLU:O	2:I:2050:GLN:C	2.62	0.42
1:A:499:PRO:HD3	1:A:516:ARG:HH21	1.83	0.42
1:A:1175:ILE:HA	1:A:1176:PRO:HD3	1.86	0.42
1:B:24:SER:CB	2:H:2014:LEU:HD12	2.49	0.42
1:B:37:LYS:HB2	1:B:65:TYR:CE1	2.51	0.42
1:B:1446:LYS:O	1:B:1450:ARG:HG3	2.19	0.42
1:C:377:TYR:O	1:C:380:ALA:HB3	2.19	0.42
1:C:1061:SER:HB2	1:C:1078:SER:HB3	1.99	0.42
1:C:1446:LYS:O	1:C:1450:ARG:HG3	2.18	0.42
2:G:258:PHE:N	2:G:258:PHE:CD1	2.87	0.42
2:G:1346:ASP:C	2:G:1346:ASP:OD1	2.61	0.42
2:G:1389:ILE:HG13	2:G:1411:PHE:CD1	2.52	0.42
2:G:1473:THR:O	2:G:1481:SER:HB3	2.18	0.42
2:H:9:LEU:HB2	2:H:27:PHE:HE1	1.83	0.42
2:H:717:ILE:HG23	2:H:760:HIS:CE1	2.54	0.42
2:H:1980:TYR:HD1	2:H:1981:LEU:HD12	1.84	0.42
2:I:298:LYS:HA	2:I:448:VAL:CG2	2.50	0.42
2:I:786:SER:HB3	2:I:794:MET:HE2	2.02	0.42
2:I:1308:CYS:HB3	2:I:1311:PHE:CE2	2.54	0.42
2:I:1325:PHE:O	2:I:1328:VAL:HG12	2.18	0.42
2:I:1845:ASP:HB2	2:I:1849:ARG:N	2.20	0.42
1:A:1220:VAL:O	1:A:1224:ILE:HG12	2.18	0.42
1:B:458:THR:OG1	1:B:470:LYS:HD2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1244:GLY:O	1:B:1327:CYS:HB2	2.19	0.42
1:B:1455:ARG:HD2	1:B:1455:ARG:HA	1.86	0.42
1:B:1618:LEU:HD23	1:B:1621:PHE:HE2	1.85	0.42
1:C:27:ARG:HB2	2:I:2016:ALA:HB2	2.00	0.42
1:C:32:GLN:NE2	1:C:57:ALA:CA	2.82	0.42
1:C:168:MET:HA	1:C:206:LEU:HB2	2.00	0.42
1:C:428:VAL:HG12	1:C:606:ASP:O	2.20	0.42
1:C:798:ASN:HA	1:C:801:ARG:HB2	2.01	0.42
1:C:852:ARG:NH1	1:C:856:GLU:OE1	2.52	0.42
1:C:1105:LEU:HD23	1:C:1105:LEU:HA	1.85	0.42
1:C:1114:TYR:CE1	1:C:1337:GLU:HG3	2.55	0.42
1:C:1592:MET:HE2	1:C:1641:ILE:HG23	2.01	0.42
2:G:339:LEU:HD23	2:G:419:ARG:O	2.19	0.42
2:G:579:VAL:CG2	2:G:1078:HIS:CD2	3.01	0.42
2:G:949:ASP:HB3	2:G:1006:MET:HE1	2.01	0.42
2:G:1156:CYS:SG	2:G:1250:PRO:HD2	2.60	0.42
2:G:1355:ASN:CG	2:G:1583:MET:HE1	2.45	0.42
2:G:1979:THR:O	2:G:1982:MET:HB2	2.19	0.42
2:H:478:ARG:O	2:H:482:CYS:HB2	2.20	0.42
2:H:665:LEU:O	2:H:665:LEU:HD22	2.19	0.42
2:H:827:VAL:HG12	2:H:828:PRO:O	2.19	0.42
2:H:835:THR:HG23	2:H:843:ILE:O	2.18	0.42
2:H:950:PHE:O	2:H:953:ARG:HB3	2.19	0.42
2:H:1149:TRP:NE1	2:H:1213:LEU:HD12	2.34	0.42
2:H:1173:VAL:CG2	2:H:1221:MET:HE1	2.50	0.42
2:H:1427:VAL:HG22	2:H:1469:GLU:CG	2.49	0.42
2:H:1862:VAL:HG22	2:H:1863:ALA:N	2.34	0.42
2:I:169:TYR:CG	2:I:170:PHE:N	2.86	0.42
2:I:298:LYS:HG2	2:I:448:VAL:CG2	2.38	0.42
2:I:538:ASP:HB2	2:I:540:ASP:HB2	2.01	0.42
2:I:579:VAL:CG2	2:I:1078:HIS:CD2	3.01	0.42
2:I:732:TRP:CH2	2:I:749:PRO:HG2	2.55	0.42
2:I:1101:GLU:HG2	2:I:1148:ASN:HA	2.01	0.42
2:I:1541:VAL:HG22	2:I:1625:SER:HB2	2.01	0.42
2:I:1868:GLN:HG3	2:I:1898:TYR:HH	1.84	0.42
1:A:12:ILE:O	1:A:15:THR:HG23	2.19	0.42
1:A:1431:GLU:OE2	1:A:1433:HIS:HE1	2.02	0.42
1:B:1145:LYS:HD3	1:B:1154:ILE:HG12	2.02	0.42
1:B:1657:HIS:CG	1:B:1658:PRO:HD2	2.55	0.42
1:B:1682:LYS:O	2:H:994:PHE:HD2	2.02	0.42
1:C:20:TYR:CE2	2:I:1985:VAL:HG11	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:44:VAL:HG13	1:C:78:ILE:HG12	1.98	0.42
1:C:1682:LYS:O	2:I:994:PHE:HD2	2.03	0.42
2:G:246:LEU:HD12	2:G:246:LEU:HA	1.82	0.42
2:G:324:LEU:O	2:G:328:LEU:HG	2.18	0.42
2:G:667:LYS:HD2	2:G:697:THR:CG2	2.38	0.42
2:G:1015:VAL:HA	2:G:1016:PRO:HD3	1.78	0.42
2:G:1135:GLU:HG2	2:G:1176:PRO:HG2	2.02	0.42
2:G:1279:PHE:CD2	2:G:1340:PRO:HG3	2.48	0.42
2:G:1495:THR:O	2:G:1496:LYS:HB2	2.19	0.42
2:H:139:LYS:O	2:H:140:LYS:C	2.61	0.42
2:H:176:LEU:CD2	2:H:184:VAL:HG21	2.50	0.42
2:H:970:TYR:O	2:H:973:LEU:HB2	2.18	0.42
2:H:1159:ILE:CG2	2:H:1160:THR:N	2.83	0.42
2:H:1159:ILE:HG13	2:H:1169:PRO:CD	2.50	0.42
2:H:1854:MET:HE2	2:H:1972:ILE:HD12	2.02	0.42
2:I:7:ARG:NH2	2:I:24:THR:O	2.52	0.42
2:I:339:LEU:HD23	2:I:419:ARG:O	2.20	0.42
2:I:441:LYS:O	2:I:445:LYS:HG3	2.20	0.42
2:I:520:LYS:O	2:I:521:ASP:C	2.62	0.42
2:I:612:ASN:HD21	2:I:641:ILE:HA	1.84	0.42
2:I:967:ILE:HD12	2:I:972:LEU:HD22	2.00	0.42
2:I:1101:GLU:CB	2:I:1147:ILE:O	2.68	0.42
2:I:1214:LEU:HD11	2:I:1220:GLN:NE2	2.35	0.42
2:I:1347:LEU:HD12	2:I:1347:LEU:HA	1.91	0.42
1:A:12:ILE:O	1:A:16:GLU:HG2	2.20	0.42
1:A:196:THR:O	1:A:213:PHE:HE2	2.01	0.42
1:A:406:TRP:CE3	1:A:407:ASN:HB2	2.54	0.42
1:A:406:TRP:CD2	1:A:1619:GLU:HG3	2.55	0.42
1:A:444:ASN:HB2	1:A:447:LEU:N	2.14	0.42
1:B:59:ARG:NH1	2:H:1896:GLN:HE22	2.17	0.42
1:B:155:VAL:HG22	1:B:186:ILE:CG2	2.50	0.42
1:B:706:THR:HB	1:B:737:PHE:HB3	2.01	0.42
1:B:1534:ASP:OD1	1:B:1566:ARG:HD3	2.19	0.42
1:C:242:THR:HB	1:C:244:THR:HB	2.02	0.42
1:C:1338:GLU:H	1:C:1338:GLU:HG2	1.57	0.42
1:C:1516:ASP:HA	1:C:1517:PRO:HD3	1.66	0.42
2:G:15:SER:H	2:G:48:PHE:HE2	1.67	0.42
2:G:439:ILE:HD12	2:G:484:ILE:HD11	2.00	0.42
2:G:638:VAL:HG22	2:G:675:PRO:HG2	2.02	0.42
2:G:854:ILE:HG22	2:G:856:LYS:HG3	2.01	0.42
2:G:1044:VAL:HG21	2:G:1050:ARG:NE	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1056:GLY:HA2	2:G:1057:PRO:HD3	1.92	0.42
2:G:1210:ILE:O	2:G:1210:ILE:HG22	2.20	0.42
2:G:1383:ASN:OD1	2:G:1388:LYS:HG3	2.20	0.42
2:G:1697:HIS:CE1	2:G:1829:GLU:CG	3.02	0.42
2:H:142:ASN:HB2	2:H:550:VAL:HG13	2.01	0.42
2:H:726:PHE:HA	2:H:727:PRO:HD3	1.88	0.42
2:H:963:THR:HB	2:H:964:LEU:H	1.72	0.42
2:H:967:ILE:CD1	2:H:972:LEU:HD22	2.50	0.42
2:H:1015:VAL:HA	2:H:1016:PRO:HD3	1.79	0.42
2:H:1303:ALA:HB2	2:H:1556:VAL:HG21	2.01	0.42
2:H:1335:ILE:O	2:H:1338:ILE:HG12	2.19	0.42
2:H:1346:ASP:OD1	2:H:1346:ASP:C	2.62	0.42
2:I:463:PHE:CD1	2:I:486:LEU:HD22	2.54	0.42
2:I:592:LEU:O	2:I:616:THR:HG23	2.19	0.42
2:I:804:ARG:NH2	2:I:1068:GLU:OE1	2.53	0.42
2:I:1666:PHE:CD1	2:I:1814:ALA:HB2	2.54	0.42
1:A:382:LEU:HD23	1:A:382:LEU:HA	1.79	0.42
1:A:413:LEU:O	1:A:413:LEU:HG	2.17	0.42
1:A:666:ALA:O	1:A:670:GLY:HA2	2.19	0.42
1:B:20:TYR:CE1	2:H:2035:SER:HB2	2.55	0.42
1:B:90:TYR:O	2:H:1537:ILE:HD11	2.20	0.42
1:B:411:GLN:HE22	1:B:1628:SER:N	2.16	0.42
1:B:825:PRO:HB2	1:B:843:LYS:HZ2	1.83	0.42
1:B:1705:PRO:HB2	1:B:1733:PHE:CD1	2.55	0.42
1:C:626:VAL:HG23	1:C:664:GLU:OE2	2.20	0.42
1:C:1219:VAL:CA	1:C:1384:ILE:CD1	2.94	0.42
1:C:1239:HIS:HE1	1:C:1714:VAL:O	2.02	0.42
2:G:543:PHE:CB	2:G:545:GLN:NE2	2.81	0.42
2:G:814:SER:CB	2:G:1040:LEU:HD13	2.50	0.42
2:G:827:VAL:HG21	2:G:840:THR:CG2	2.49	0.42
2:G:879:LYS:HD3	2:G:879:LYS:HA	1.68	0.42
2:H:581:THR:O	2:H:585:LYS:HB2	2.20	0.42
2:H:1180:MET:HB3	2:H:1199:GLU:HG2	2.02	0.42
2:H:1293:THR:CG2	2:H:1296:GLU:H	2.24	0.42
2:H:1736:MET:HE2	2:H:1736:MET:HA	2.01	0.42
2:H:1781:LEU:HD22	2:H:1781:LEU:HA	1.83	0.42
2:H:1934:GLU:CD	2:H:1934:GLU:H	2.28	0.42
2:I:258:PHE:N	2:I:258:PHE:CD1	2.87	0.42
2:I:896:ASN:O	2:I:1050:ARG:NH2	2.52	0.42
2:I:950:PHE:O	2:I:953:ARG:HB3	2.19	0.42
2:I:1552:PRO:O	2:I:1556:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1838:MET:O	2:I:1974:VAL:HG21	2.20	0.42
2:I:1959:LYS:O	2:I:1959:LYS:HG2	2.19	0.42
1:A:28:TRP:CE2	1:A:53:LEU:HD22	2.55	0.42
1:A:32:GLN:NE2	1:A:57:ALA:CA	2.83	0.42
1:A:496:PRO:HB2	1:A:519:VAL:HG12	2.01	0.42
1:B:233:ILE:HD13	1:B:237:MET:HE3	2.00	0.42
1:B:280:GLU:O	1:B:284:LYS:HG3	2.20	0.42
1:B:888:ILE:HD12	1:B:939:PHE:CE2	2.45	0.42
1:B:949:GLU:O	1:B:953:VAL:CG1	2.68	0.42
1:B:1008:GLU:HG2	1:B:1446:LYS:HA	2.02	0.42
1:C:29:ILE:HG13	2:I:1891:TYR:C	2.44	0.42
1:C:183:GLN:NE2	1:C:202:GLU:HG2	2.31	0.42
1:C:455:ILE:HD13	1:C:455:ILE:HA	1.85	0.42
1:C:827:SER:HA	1:C:828:PRO:HD3	1.70	0.42
1:C:1420:ALA:HA	1:C:1421:PRO:HD3	1.78	0.42
1:C:1549:ASN:ND2	1:C:1549:ASN:C	2.77	0.42
1:C:1618:LEU:HD23	1:C:1621:PHE:CE2	2.55	0.42
2:G:106:ALA:HB2	2:G:545:GLN:HG2	2.02	0.42
2:G:191:SER:HA	2:G:194:THR:CG2	2.46	0.42
2:G:338:MET:HE2	2:G:423:VAL:HG21	2.02	0.42
2:G:584:SER:CB	2:G:591:PRO:HG3	2.47	0.42
2:G:586:LEU:HD12	2:G:764:MET:SD	2.59	0.42
2:G:892:ILE:HD11	2:G:903:TRP:CD2	2.51	0.42
2:G:1666:PHE:CD1	2:G:1814:ALA:CB	3.02	0.42
2:G:1875:VAL:HG22	2:G:1910:VAL:HG11	2.01	0.42
2:G:2036:GLU:HB2	2:G:2037:PRO:CD	2.47	0.42
2:H:1091:GLY:C	2:H:1093:ASP:H	2.27	0.42
2:H:1339:PHE:N	2:H:1340:PRO:CD	2.83	0.42
2:H:1541:VAL:HG22	2:H:1625:SER:HB2	2.01	0.42
2:H:1676:MET:HE1	2:H:1781:LEU:CD2	2.49	0.42
2:H:1855:ILE:HB	2:H:1907:LEU:HD12	2.01	0.42
2:H:1940:LEU:HD12	2:H:1941:PHE:N	2.34	0.42
2:I:190:PHE:O	2:I:194:THR:HG22	2.19	0.42
2:I:581:THR:O	2:I:585:LYS:HB2	2.20	0.42
2:I:1509:GLY:O	2:I:1510:ALA:C	2.61	0.42
2:I:1590:ARG:HG3	2:I:1608:TYR:CG	2.54	0.42
1:A:998:TYR:CD2	1:A:1667:GLU:HG3	2.55	0.42
1:A:1657:HIS:CG	1:A:1658:PRO:HD2	2.55	0.42
1:B:36:LEU:CD2	1:B:61:LEU:HD21	2.42	0.42
1:B:44:VAL:HG13	1:B:78:ILE:HG12	1.98	0.42
1:B:400:ARG:CG	1:B:400:ARG:NH1	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:453:TYR:CD2	1:B:453:TYR:C	2.98	0.42
1:B:1119:LYS:HE2	1:B:1341:PHE:CD1	2.54	0.42
1:C:19:ALA:O	1:C:22:PHE:HB2	2.19	0.42
1:C:155:VAL:HG22	1:C:186:ILE:CG2	2.50	0.42
1:C:453:TYR:O	1:C:457:ASN:HB2	2.19	0.42
1:C:792:HIS:CE1	1:C:796:LEU:HD23	2.55	0.42
1:C:881:ASN:O	1:C:881:ASN:CG	2.63	0.42
1:C:1076:VAL:CG1	1:C:1081:LYS:HA	2.50	0.42
1:C:1304:ALA:O	1:C:1307:THR:CG2	2.68	0.42
1:C:1418:VAL:N	1:C:1419:PRO:CD	2.83	0.42
1:C:1600:LEU:HD11	1:C:1655:VAL:HG12	2.01	0.42
2:G:237:SER:O	2:G:241:ILE:HG13	2.20	0.42
2:G:298:LYS:HA	2:G:448:VAL:CG2	2.50	0.42
2:G:468:LEU:O	2:G:471:LEU:HB2	2.20	0.42
2:G:490:TRP:CZ2	2:G:512:LEU:HD21	2.55	0.42
2:G:571:LYS:HB2	2:G:1099:ALA:HB2	2.02	0.42
2:G:856:LYS:CE	2:G:1052:CYS:SG	3.07	0.42
2:G:865:TRP:CD1	2:G:865:TRP:C	2.97	0.42
2:H:1989:LYS:HZ1	2:H:2037:PRO:HG2	1.85	0.42
2:I:139:LYS:O	2:I:140:LYS:C	2.63	0.42
2:I:258:PHE:HD1	2:I:258:PHE:N	2.18	0.42
2:I:524:GLY:HA2	2:I:558:ASN:O	2.20	0.42
2:I:624:TYR:CB	2:I:630:MET:HE3	2.50	0.42
2:I:740:HIS:CE1	2:I:852:GLU:OE1	2.73	0.42
2:I:1457:PHE:CD2	2:I:1459:LEU:HD23	2.55	0.42
1:A:93:ASP:O	1:A:94:PRO:C	2.63	0.42
1:B:238:PRO:CG	1:B:283:ALA:HB2	2.50	0.42
1:B:1264:ARG:NH1	1:B:1270:VAL:HB	2.34	0.42
1:B:1338:GLU:H	1:B:1338:GLU:HG2	1.58	0.42
1:B:1665:ILE:HD11	1:B:1669:ARG:CG	2.50	0.42
1:C:42:GLU:O	1:C:77:GLU:N	2.50	0.42
1:C:683:ALA:HA	1:C:689:GLY:HA3	2.02	0.42
1:C:1029:PRO:HG2	1:C:1581:THR:O	2.20	0.42
1:C:1430:ARG:O	1:C:1430:ARG:HG2	2.19	0.42
1:C:1639:VAL:HG12	1:C:1640:SER:N	2.35	0.42
1:C:1657:HIS:CE1	1:C:1658:PRO:HD2	2.54	0.42
2:G:601:THR:O	2:G:601:THR:CG2	2.66	0.42
2:G:670:ARG:HD2	2:G:676:ILE:O	2.20	0.42
2:G:732:TRP:CH2	2:G:749:PRO:HG2	2.55	0.42
2:G:1541:VAL:HG22	2:G:1625:SER:HB2	2.02	0.42
2:G:1989:LYS:NZ	2:G:2037:PRO:HG2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:279:THR:O	2:H:283:ILE:HB	2.19	0.42
2:H:712:ALA:O	2:H:715:GLN:HB3	2.20	0.42
2:H:1321:ALA:HA	2:H:1322:PRO:HD3	1.84	0.42
2:H:1819:ALA:CA	2:H:2005:ARG:HH11	2.26	0.42
2:I:156:LEU:HD23	2:I:500:HIS:HB2	2.02	0.42
2:I:248:HIS:CE1	2:I:531:GLY:HA2	2.55	0.42
2:I:675:PRO:HD3	2:I:1164:MET:HE1	2.01	0.42
2:I:703:LEU:CD2	2:I:705:LEU:HG	2.50	0.42
2:I:1079:ASP:O	2:I:1082:ILE:HG22	2.19	0.42
2:I:1195:VAL:HG13	2:I:1211:LEU:CB	2.46	0.42
2:I:1738:PHE:HE1	2:I:1837:THR:HG23	1.85	0.42
1:A:91:THR:HA	1:A:92:PRO:HD3	1.81	0.41
1:A:93:ASP:CB	1:A:94:PRO:HD2	2.37	0.41
1:A:530:ALA:HA	1:A:636:PRO:HB3	2.01	0.41
1:A:1260:MET:HB2	1:A:1274:ILE:HD12	2.02	0.41
1:A:1263:ASP:HB2	1:A:1270:VAL:HG21	2.01	0.41
1:B:82:SER:OG	1:B:83:LYS:HG3	2.20	0.41
1:B:988:ILE:H	1:B:988:ILE:HG12	1.69	0.41
1:B:1543:GLY:HA2	1:B:1550:ASP:OD1	2.20	0.41
1:B:1666:THR:HG23	1:B:1669:ARG:CB	2.49	0.41
1:C:475:GLN:CD	1:C:614:ALA:HB2	2.45	0.41
1:C:1154:ILE:O	1:C:1154:ILE:HG13	2.20	0.41
1:C:1644:PHE:CD1	1:C:1644:PHE:N	2.88	0.41
2:G:258:PHE:HD1	2:G:258:PHE:N	2.18	0.41
2:G:995:LEU:HB3	2:G:1000:ILE:CD1	2.50	0.41
2:G:1079:ASP:O	2:G:1082:ILE:HG22	2.19	0.41
2:G:1169:PRO:O	2:G:1173:VAL:HG23	2.20	0.41
2:G:1579:ILE:CD1	2:G:1615:MET:SD	3.08	0.41
2:G:1778:GLN:HB2	2:G:1779:PRO:HD3	2.02	0.41
2:G:2036:GLU:HG2	2:G:2039:LYS:HZ1	1.85	0.41
2:H:712:ALA:O	2:H:716:VAL:HG23	2.20	0.41
2:H:754:TYR:CG	2:H:794:MET:HG2	2.55	0.41
2:H:810:GLU:OE2	2:H:1070:ILE:N	2.45	0.41
2:I:236:ILE:C	2:I:236:ILE:HD13	2.45	0.41
2:I:360:LEU:HA	2:I:361:PRO:HD3	1.89	0.41
2:I:659:LEU:O	2:I:663:ILE:HG12	2.20	0.41
2:I:1593:ILE:O	2:I:1597:ALA:HB3	2.20	0.41
2:I:1842:VAL:HA	2:I:1843:PRO:HD2	1.80	0.41
2:I:1862:VAL:HG22	2:I:1863:ALA:N	2.35	0.41
2:I:1940:LEU:HD12	2:I:1941:PHE:N	2.35	0.41
2:I:1989:LYS:NZ	2:I:2037:PRO:HG2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:LYS:HE2	1:A:4:GLU:OE1	2.19	0.41
1:A:21:GLN:O	2:G:1977:HIS:CD2	2.74	0.41
1:A:29:ILE:HD13	2:G:1894:GLU:HA	2.02	0.41
1:A:237:MET:HG3	1:A:241:PHE:HB3	2.00	0.41
1:A:370:GLU:O	1:A:373:ALA:HB3	2.20	0.41
1:A:453:TYR:O	1:A:457:ASN:HB2	2.20	0.41
1:A:1154:ILE:O	1:A:1154:ILE:HG13	2.19	0.41
1:B:157:HIS:CE1	1:B:269:LEU:HD11	2.55	0.41
1:B:1056:ILE:HG13	1:B:1057:MET:N	2.35	0.41
1:C:444:ASN:HB2	1:C:447:LEU:N	2.17	0.41
1:C:927:ASN:O	1:C:929:GLY:N	2.41	0.41
1:C:1280:ILE:HD13	1:C:1302:VAL:HG22	2.02	0.41
1:C:1639:VAL:CG1	1:C:1640:SER:N	2.82	0.41
2:G:260:PRO:HD3	2:G:289:TRP:CZ2	2.55	0.41
2:G:345:THR:HG22	2:G:347:GLU:N	2.25	0.41
2:G:601:THR:HB	2:G:620:ALA:HB2	2.02	0.41
2:G:612:ASN:HD21	2:G:641:ILE:HA	1.84	0.41
2:G:786:SER:HB3	2:G:794:MET:HE2	2.02	0.41
2:G:1290:PHE:CD2	2:G:1290:PHE:C	2.98	0.41
2:G:1352:HIS:HD2	2:G:1410:PHE:CD2	2.38	0.41
2:G:1359:MET:HE2	2:G:1359:MET:HB3	1.83	0.41
2:G:1383:ASN:HD21	2:G:1418:ASP:CB	2.33	0.41
2:G:1986:LYS:N	2:G:1987:PRO:CD	2.82	0.41
2:H:38:ASN:HA	2:H:41:LEU:HD12	2.02	0.41
2:H:338:MET:HE2	2:H:423:VAL:HG11	2.02	0.41
2:H:1257:ASP:O	2:H:1261:ARG:HG3	2.19	0.41
2:H:1590:ARG:HG3	2:H:1608:TYR:CG	2.55	0.41
2:H:1593:ILE:HD13	2:H:1626:ILE:CD1	2.51	0.41
2:H:2039:LYS:HA	2:H:2042:ILE:HG13	2.03	0.41
2:I:120:LYS:HB3	2:I:124:LYS:HE3	2.00	0.41
2:I:551:THR:C	2:I:553:ASN:N	2.76	0.41
2:I:717:ILE:O	2:I:720:ALA:HB3	2.20	0.41
2:I:827:VAL:HG12	2:I:828:PRO:O	2.20	0.41
2:I:1135:GLU:HG2	2:I:1176:PRO:HG2	2.02	0.41
2:I:1243:ASN:OD1	2:I:1243:ASN:C	2.63	0.41
1:A:1:MET:HE3	1:A:6:GLU:HA	1.99	0.41
1:A:529:MET:HG2	1:A:638:LEU:CG	2.50	0.41
1:A:825:PRO:HB2	1:A:843:LYS:HZ3	1.85	0.41
1:A:931:GLN:H	1:A:931:GLN:HG3	1.30	0.41
1:A:1195:ALA:HB1	1:A:1200:ILE:HD12	2.02	0.41
1:A:1239:HIS:HE1	1:A:1714:VAL:O	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:41:THR:HG21	2:H:1663:THR:HB	2.01	0.41
1:B:44:VAL:HG11	1:B:78:ILE:HG12	2.00	0.41
1:B:56:MET:HB2	1:B:56:MET:HE3	1.83	0.41
1:C:2:LYS:HE2	1:C:4:GLU:OE1	2.19	0.41
1:C:12:ILE:HD11	2:I:2041:ILE:HD11	2.01	0.41
1:C:155:VAL:O	1:C:159:LEU:HG	2.19	0.41
1:C:301:ASP:C	1:C:302:LEU:HG	2.45	0.41
1:C:413:LEU:HD13	1:C:451:MET:HG2	2.03	0.41
1:C:635:ILE:CG2	1:C:651:TYR:CG	3.01	0.41
1:C:1257:LEU:HD23	1:C:1257:LEU:HA	1.84	0.41
1:C:1370:THR:HG22	1:C:1371:THR:N	2.35	0.41
2:G:455:ILE:HD13	2:G:457:ILE:O	2.20	0.41
2:G:638:VAL:HA	2:G:641:ILE:CG2	2.50	0.41
2:G:717:ILE:HG23	2:G:760:HIS:CE1	2.56	0.41
2:G:1258:ARG:O	2:G:1262:ILE:HG13	2.20	0.41
2:G:1509:GLY:O	2:G:1510:ALA:C	2.63	0.41
2:H:455:ILE:HG12	2:H:469:ARG:CG	2.49	0.41
2:H:705:LEU:CD1	2:H:716:VAL:HG13	2.46	0.41
2:H:812:LYS:HD3	2:H:812:LYS:HA	1.82	0.41
2:H:844:VAL:HG22	2:H:858:ALA:HB2	2.01	0.41
2:H:1128:LYS:HG2	2:H:1181:VAL:HG22	2.02	0.41
2:I:38:ASN:HA	2:I:41:LEU:HD12	2.02	0.41
2:I:96:LEU:C	2:I:98:GLY:H	2.29	0.41
2:I:1273:GLU:HB3	2:I:1274:PRO:CD	2.50	0.41
2:I:1493:LEU:HB3	2:I:1494:PRO:HD2	2.02	0.41
2:I:1680:LEU:HD13	2:I:1687:ALA:CB	2.48	0.41
1:A:916:LEU:HD22	1:A:922:VAL:HG22	2.02	0.41
1:A:1720:ALA:O	1:A:1721:ARG:HG2	2.21	0.41
1:B:253:ARG:C	1:B:254:TRP:CD1	2.98	0.41
1:B:293:LYS:O	1:B:297:ILE:HG13	2.21	0.41
1:B:406:TRP:CE3	1:B:1619:GLU:HG3	2.55	0.41
1:B:444:ASN:CB	1:B:446:ALA:H	2.31	0.41
1:B:1257:LEU:HD23	1:B:1257:LEU:HA	1.76	0.41
1:B:1396:MET:O	1:B:1680:ARG:NH1	2.52	0.41
1:C:294:TYR:CZ	1:C:298:VAL:HG21	2.55	0.41
1:C:931:GLN:H	1:C:931:GLN:HG3	1.31	0.41
1:C:949:GLU:O	1:C:953:VAL:HG12	2.21	0.41
1:C:1215:VAL:O	1:C:1219:VAL:HG23	2.20	0.41
1:C:1477:ILE:N	1:C:1478:PRO:CD	2.83	0.41
2:G:73:GLU:OE2	2:G:76:LYS:HD2	2.20	0.41
2:G:421:LEU:HA	2:G:422:PRO:HD3	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:598:THR:O	2:G:599:PRO:C	2.63	0.41
2:G:630:MET:HE3	2:G:630:MET:HB2	1.87	0.41
2:G:638:VAL:O	2:G:641:ILE:HG22	2.20	0.41
2:G:846:VAL:HG13	2:G:865:TRP:CD1	2.55	0.41
2:G:950:PHE:O	2:G:953:ARG:HB3	2.20	0.41
2:G:1243:ASN:C	2:G:1243:ASN:OD1	2.63	0.41
2:G:1503:ILE:HG22	2:G:1504:VAL:C	2.44	0.41
2:G:1842:VAL:HA	2:G:1843:PRO:HD2	1.86	0.41
2:H:60:LEU:O	2:H:60:LEU:HD23	2.20	0.41
2:H:732:TRP:CE2	2:H:750:MET:HE3	2.53	0.41
2:H:827:VAL:HG21	2:H:840:THR:CG2	2.51	0.41
2:H:1071:LYS:HE3	2:H:1075:ASP:OD2	2.20	0.41
2:H:1175:LYS:HG3	2:H:1176:PRO:HD2	2.02	0.41
2:I:397:LYS:HB2	2:I:398:ALA:H	1.68	0.41
2:I:478:ARG:C	2:I:478:ARG:HD3	2.45	0.41
2:I:516:THR:O	2:I:519:ASN:HB2	2.19	0.41
2:I:559:PRO:HB3	2:I:564:GLU:HG3	2.02	0.41
2:I:566:HIS:ND1	2:I:567:PRO:HD2	2.35	0.41
2:I:599:PRO:HD2	3:I:3051:FMN:H6	2.02	0.41
2:I:601:THR:O	2:I:601:THR:CG2	2.68	0.41
2:I:846:VAL:CG1	2:I:865:TRP:NE1	2.82	0.41
2:I:1360:ILE:HG23	2:I:1403:VAL:C	2.44	0.41
2:I:1458:ASP:O	2:I:1462:LYS:HE3	2.21	0.41
2:I:2020:GLN:HA	2:I:2020:GLN:NE2	2.36	0.41
1:A:155:VAL:HG22	1:A:186:ILE:CG2	2.50	0.41
1:A:350:LEU:HB2	1:A:352:MET:HG2	2.03	0.41
1:A:1625:LEU:O	1:A:1627:PRO:HD3	2.21	0.41
1:B:12:ILE:O	1:B:16:GLU:HG2	2.20	0.41
1:B:187:LEU:CD2	1:B:201:PRO:HB2	2.51	0.41
1:B:495:LYS:HA	1:B:496:PRO:HD3	1.88	0.41
1:B:1244:GLY:HA3	1:B:1297:PRO:HD2	2.03	0.41
1:B:1418:VAL:N	1:B:1419:PRO:CD	2.83	0.41
1:C:400:ARG:CG	1:C:400:ARG:NH1	2.51	0.41
1:C:413:LEU:O	1:C:413:LEU:HG	2.19	0.41
1:C:503:ILE:HD11	1:C:947:LEU:HD22	2.03	0.41
1:C:1029:PRO:HA	1:C:1188:GLN:O	2.20	0.41
1:C:1239:HIS:CD2	1:C:1241:SER:H	2.38	0.41
2:G:517:HIS:CE1	2:G:540:ASP:O	2.73	0.41
2:G:938:TRP:CD1	2:G:944:ARG:HG3	2.56	0.41
2:G:1815:LEU:O	2:G:1821:VAL:HG23	2.20	0.41
2:G:1862:VAL:HG22	2:G:1863:ALA:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:503:ASP:OD2	2:H:513:GLY:N	2.52	0.41
2:H:601:THR:HG22	2:H:620:ALA:N	2.36	0.41
2:H:1213:LEU:O	2:H:1214:LEU:HD23	2.19	0.41
2:H:1281:PRO:O	2:H:1378:ILE:HG23	2.20	0.41
2:H:1320:LEU:HD12	2:H:1320:LEU:HA	1.85	0.41
2:H:1383:ASN:HD21	2:H:1418:ASP:HB3	1.84	0.41
2:H:1666:PHE:CD1	2:H:1814:ALA:CB	3.03	0.41
2:I:195:LEU:O	2:I:199:ILE:HG13	2.21	0.41
2:I:712:ALA:O	2:I:716:VAL:HG23	2.21	0.41
2:I:1388:LYS:HE3	2:I:1418:ASP:OD2	2.21	0.41
1:A:1338:GLU:H	1:A:1338:GLU:HG2	1.55	0.41
1:A:1666:THR:HG23	1:A:1669:ARG:HB2	2.01	0.41
1:B:50:SER:CB	1:B:51:PRO:CD	2.99	0.41
1:B:197:THR:HG22	1:B:198:PRO:O	2.20	0.41
1:B:644:THR:HG23	1:B:648:ASP:N	2.35	0.41
1:B:798:ASN:HA	1:B:801:ARG:HB2	2.02	0.41
1:C:253:ARG:C	1:C:254:TRP:CD1	2.99	0.41
1:C:427:ASN:HB2	1:C:468:LEU:CD2	2.51	0.41
1:C:1208:VAL:HG13	1:C:1209:ASP:O	2.21	0.41
1:C:1391:ASP:OD2	1:C:1502:ARG:NH2	2.54	0.41
1:C:1543:GLY:HA2	1:C:1550:ASP:OD1	2.21	0.41
1:C:1599:ILE:HD11	1:C:1606:PRO:HD2	2.01	0.41
1:C:1685:TYR:CE1	2:I:993:GLN:OE1	2.73	0.41
2:G:1624:THR:HB	2:G:1642:THR:CG2	2.50	0.41
2:G:1642:THR:HB	2:G:1651:LEU:HB2	2.02	0.41
2:H:23:PRO:HG2	2:H:86:LEU:HD11	2.01	0.41
2:H:33:LEU:HD13	2:H:68:VAL:HG22	2.02	0.41
2:H:106:ALA:HB2	2:H:545:GLN:HG2	2.01	0.41
2:H:195:LEU:O	2:H:199:ILE:HG13	2.20	0.41
2:H:231:LEU:HA	2:H:236:ILE:HD12	2.03	0.41
2:H:433:VAL:N	2:H:434:PRO:CD	2.83	0.41
2:H:641:ILE:CD1	2:H:645:SER:HB2	2.50	0.41
2:H:719:ILE:HG12	2:H:719:ILE:H	1.62	0.41
2:H:740:HIS:CE1	2:H:852:GLU:OE1	2.74	0.41
2:H:896:ASN:O	2:H:1050:ARG:NH2	2.53	0.41
2:H:995:LEU:HB3	2:H:1000:ILE:CD1	2.50	0.41
2:H:1509:GLY:O	2:H:1510:ALA:C	2.63	0.41
2:H:1949:LYS:O	2:H:1953:VAL:HG23	2.21	0.41
2:H:1986:LYS:N	2:H:1987:PRO:CD	2.82	0.41
2:I:590:PRO:HA	2:I:591:PRO:HD3	1.79	0.41
2:I:846:VAL:CG2	2:I:866:LYS:HB2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1173:VAL:HG13	2:I:1568:HIS:HB2	2.02	0.41
2:I:1213:LEU:O	2:I:1214:LEU:HD23	2.20	0.41
2:I:1357:TYR:HD1	2:I:1406:VAL:HG22	1.85	0.41
2:I:1855:ILE:HB	2:I:1907:LEU:HD12	2.02	0.41
1:A:28:TRP:CZ2	1:A:53:LEU:HD22	2.56	0.41
1:A:36:LEU:O	1:A:76:ARG:NH1	2.53	0.41
1:A:50:SER:CB	1:A:51:PRO:CD	2.97	0.41
1:A:280:GLU:O	1:A:284:LYS:HG3	2.21	0.41
1:A:612:GLU:O	1:A:615:SER:HB3	2.21	0.41
1:A:1251:MET:HE3	1:A:1251:MET:HB2	1.87	0.41
1:A:1573:ILE:HG23	1:A:1627:PRO:HG3	2.03	0.41
1:B:709:ARG:O	1:B:714:VAL:HG21	2.21	0.41
1:B:906:LEU:HD23	1:B:906:LEU:HA	1.88	0.41
1:B:982:ILE:HD12	2:H:955:GLU:CD	2.45	0.41
1:B:1029:PRO:HG2	1:B:1581:THR:O	2.20	0.41
1:B:1431:GLU:CG	1:B:1433:HIS:CE1	3.02	0.41
1:B:1673:TYR:CZ	1:B:1677:VAL:HG21	2.55	0.41
1:C:12:ILE:O	1:C:15:THR:HG23	2.20	0.41
2:G:339:LEU:HB2	2:G:386:LEU:HD22	2.03	0.41
2:G:441:LYS:HG2	2:G:445:LYS:HE3	2.02	0.41
2:G:1149:TRP:NE1	2:G:1213:LEU:HD12	2.35	0.41
2:G:1173:VAL:HG13	2:G:1568:HIS:HB2	2.02	0.41
2:G:1360:ILE:HG23	2:G:1403:VAL:C	2.45	0.41
2:G:1388:LYS:HE3	2:G:1418:ASP:OD2	2.20	0.41
2:G:2035:SER:OG	2:G:2037:PRO:HD2	2.21	0.41
2:H:258:PHE:HD1	2:H:258:PHE:N	2.18	0.41
2:H:339:LEU:HD23	2:H:419:ARG:O	2.20	0.41
2:H:612:ASN:C	2:H:614:GLY:H	2.27	0.41
2:H:1085:LEU:HD12	2:H:1085:LEU:HA	1.85	0.41
2:H:1214:LEU:HD11	2:H:1220:GLN:NE2	2.36	0.41
2:H:1323:MET:CE	2:H:1605:VAL:HG22	2.42	0.41
2:I:118:LYS:O	2:I:121:GLU:HB2	2.20	0.41
2:I:654:VAL:CG2	2:I:683:ALA:HB1	2.50	0.41
2:I:732:TRP:CE2	2:I:750:MET:HE3	2.53	0.41
2:I:758:ARG:HD3	2:I:758:ARG:HA	1.86	0.41
2:I:1107:SER:HA	2:I:1108:PRO:HD3	1.96	0.41
2:I:1348:LEU:HD12	2:I:1348:LEU:HA	1.86	0.41
2:I:1819:ALA:CA	2:I:2005:ARG:HH11	2.33	0.41
1:A:413:LEU:HB2	1:A:439:ILE:HD13	2.03	0.41
1:A:681:THR:HA	1:A:706:THR:OG1	2.21	0.41
1:A:706:THR:HB	1:A:737:PHE:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1209:ASP:OD1	1:A:1210:PRO:HD2	2.21	0.41
1:B:32:GLN:HE22	1:B:57:ALA:CA	2.34	0.41
1:B:91:THR:HA	1:B:92:PRO:HD3	1.81	0.41
1:B:140:ILE:CG2	1:B:141:ALA:N	2.83	0.41
1:B:620:SER:HB2	1:B:668:PHE:HB3	2.02	0.41
1:B:1066:ASN:HD22	1:B:1071:PRO:HA	1.86	0.41
1:B:1304:ALA:O	1:B:1307:THR:CG2	2.69	0.41
1:B:1495:ASN:HD22	1:B:1495:ASN:HA	1.65	0.41
1:C:11:HIS:HE1	2:I:1996:ILE:O	2.04	0.41
1:C:496:PRO:HB2	1:C:519:VAL:HG12	2.02	0.41
2:G:159:ILE:HG12	2:G:512:LEU:HD23	2.03	0.41
2:G:270:ALA:O	2:G:459:VAL:HA	2.21	0.41
2:G:425:SER:HA	2:G:426:PRO:HD3	1.79	0.41
2:G:1070:ILE:HD13	2:G:1070:ILE:O	2.21	0.41
2:G:1383:ASN:HD21	2:G:1418:ASP:HB3	1.85	0.41
2:H:159:ILE:HG12	2:H:512:LEU:HD23	2.02	0.41
2:H:1173:VAL:CB	2:H:1221:MET:HE1	2.50	0.41
2:H:1217:ASN:HD22	2:H:1217:ASN:HA	1.66	0.41
2:H:1815:LEU:O	2:H:1821:VAL:HG23	2.21	0.41
2:H:1873:TYR:CE2	2:H:1940:LEU:HD21	2.56	0.41
2:H:2010:TYR:O	2:H:2012:PRO:HD3	2.20	0.41
2:I:463:PHE:HD2	2:I:463:PHE:O	2.04	0.41
2:I:582:LYS:HE2	2:I:761:PRO:O	2.21	0.41
2:I:1335:ILE:O	2:I:1338:ILE:HG12	2.20	0.41
2:I:1889:VAL:HG13	2:I:1977:HIS:HB3	2.00	0.41
2:I:1908:ASP:HA	2:I:1911:THR:HG22	2.03	0.41
1:A:41:THR:HG21	2:G:1663:THR:HB	2.02	0.41
1:A:197:THR:HG22	1:A:198:PRO:O	2.21	0.41
1:A:238:PRO:CG	1:A:283:ALA:HB2	2.51	0.41
1:A:330:GLU:O	1:A:330:GLU:HG2	2.20	0.41
1:A:427:ASN:HB2	1:A:468:LEU:CD2	2.51	0.41
1:A:983:GLN:OE1	1:A:1087:LYS:HD3	2.21	0.41
1:A:1146:HIS:HD2	1:A:1146:HIS:O	2.04	0.41
1:B:403:ASP:HB2	1:B:1613:ASN:ND2	2.14	0.41
1:B:949:GLU:O	1:B:953:VAL:HG12	2.21	0.41
1:B:979:GLN:HA	2:H:968:GLN:OE1	2.21	0.41
1:B:1019:ILE:HG13	1:B:1316:VAL:HG13	2.03	0.41
1:B:1047:LEU:O	1:B:1051:VAL:HG23	2.21	0.41
1:B:1539:ALA:O	1:B:1574:GLY:HA2	2.20	0.41
1:C:526:VAL:HG12	1:C:626:VAL:HG11	2.03	0.41
1:C:906:LEU:HD23	1:C:906:LEU:HA	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:933:VAL:HA	1:C:934:PRO:HD3	1.65	0.41
1:C:988:ILE:H	1:C:988:ILE:HG12	1.73	0.41
2:G:236:ILE:HD13	2:G:236:ILE:C	2.45	0.41
2:G:486:LEU:HA	2:G:487:PRO:HD3	1.91	0.41
2:G:503:ASP:OD1	2:G:503:ASP:C	2.63	0.41
2:G:503:ASP:OD2	2:G:513:GLY:N	2.51	0.41
2:G:643:LYS:HA	2:G:1163:LYS:HG2	2.03	0.41
2:G:705:LEU:HA	2:G:705:LEU:HD23	1.72	0.41
2:G:735:GLY:O	2:G:741:HIS:CD2	2.73	0.41
2:G:754:TYR:CG	2:G:794:MET:CG	3.04	0.41
2:G:888:ARG:O	2:G:892:ILE:HB	2.20	0.41
2:G:992:GLU:OE1	2:G:992:GLU:HA	2.20	0.41
2:G:1158:PHE:C	2:G:1159:ILE:HD13	2.46	0.41
2:G:1239:LEU:O	2:G:1254:VAL:HG23	2.20	0.41
2:G:1501:ILE:HD13	2:G:1501:ILE:HG21	1.79	0.41
2:H:355:LYS:HE2	2:H:355:LYS:HB3	1.65	0.41
2:H:462:THR:HB	2:H:482:CYS:SG	2.61	0.41
2:H:624:TYR:CG	2:H:630:MET:HE3	2.56	0.41
2:H:641:ILE:CG1	2:H:645:SER:HB2	2.45	0.41
2:H:669:LEU:HD12	2:H:669:LEU:HA	1.66	0.41
2:H:717:ILE:CG2	2:H:760:HIS:CE1	3.04	0.41
2:H:846:VAL:HG13	2:H:865:TRP:CD1	2.56	0.41
2:H:873:PHE:CE1	2:H:1026:GLU:HB2	2.56	0.41
2:H:1004:LEU:HD21	2:H:1019:PRO:HB2	2.03	0.41
2:H:1431:TYR:CE1	2:H:1526:THR:CG2	3.04	0.41
2:H:1543:ASP:OD1	2:H:1623:LYS:HG2	2.21	0.41
2:H:1662:THR:HB	2:H:1799:PRO:HG2	2.02	0.41
2:H:1739:GLU:HB2	2:H:1987:PRO:CB	2.30	0.41
2:H:1778:GLN:CB	2:H:1831:VAL:HG13	2.51	0.41
2:H:1845:ASP:CG	2:H:1849:ARG:HB2	2.46	0.41
2:H:2046:GLU:C	2:H:2048:TYR:N	2.75	0.41
2:I:421:LEU:HA	2:I:422:PRO:HD3	1.79	0.41
2:I:643:LYS:HA	2:I:1163:LYS:HG2	2.01	0.41
2:I:666:ILE:HG22	2:I:698:LEU:HD22	2.03	0.41
2:I:667:LYS:HD2	2:I:697:THR:CG2	2.35	0.41
2:I:754:TYR:CD1	2:I:794:MET:HG2	2.56	0.41
2:I:807:ILE:HA	2:I:818:LYS:HG2	2.02	0.41
2:I:1219:ILE:H	2:I:1219:ILE:HG12	1.63	0.41
2:I:1270:TRP:C	2:I:1271:ILE:HD13	2.45	0.41
2:I:1327:ILE:O	2:I:1331:TRP:HB2	2.21	0.41
2:I:1579:ILE:CD1	2:I:1615:MET:SD	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:32:GLN:O	1:A:36:LEU:HB2	2.21	0.41
1:A:253:ARG:O	1:A:254:TRP:CD1	2.74	0.41
1:A:455:ILE:HD13	1:A:455:ILE:HA	1.84	0.41
1:B:982:ILE:HD11	2:H:955:GLU:OE2	2.21	0.41
1:B:998:TYR:CD2	1:B:1667:GLU:HG3	2.56	0.41
1:B:1194:ASN:OD1	1:B:1196:LYS:HB2	2.21	0.41
1:B:1549:ASN:C	1:B:1549:ASN:ND2	2.79	0.41
1:C:420:ILE:CD1	1:C:472:LEU:HD23	2.51	0.41
1:C:658:LEU:HD13	1:C:916:LEU:HD12	2.03	0.41
1:C:1244:GLY:HA3	1:C:1297:PRO:HD2	2.02	0.41
1:C:1443:LEU:HD23	1:C:1443:LEU:HA	1.76	0.41
2:G:7:ARG:NH1	2:G:24:THR:CG2	2.79	0.41
2:G:748:THR:CB	2:G:749:PRO:HD3	2.47	0.41
2:G:1830:VAL:HA	2:G:1991:PHE:HE2	1.86	0.41
2:G:1834:ARG:NH1	2:G:1834:ARG:CG	2.68	0.41
2:G:1890:ASN:HD22	2:G:1890:ASN:HA	1.69	0.41
2:H:9:LEU:HD23	2:H:9:LEU:C	2.46	0.41
2:H:538:ASP:HB2	2:H:540:ASP:HB2	2.03	0.41
2:H:603:SER:HA	2:H:604:PRO:HD2	1.95	0.41
2:H:879:LYS:HD3	2:H:879:LYS:HA	1.71	0.41
2:H:1063:THR:O	2:H:1063:THR:HG22	2.21	0.41
2:H:1243:ASN:OD1	2:H:1243:ASN:C	2.63	0.41
2:I:7:ARG:NH1	2:I:24:THR:CG2	2.80	0.41
2:I:177:TYR:CD1	2:I:188:ILE:HG21	2.56	0.41
2:I:512:LEU:O	2:I:516:THR:HG23	2.20	0.41
2:I:587:ILE:HD11	2:I:589:ARG:HB2	2.03	0.41
2:I:1129:ALA:HB2	2:I:1138:TRP:CH2	2.55	0.41
2:I:1236:LEU:HD23	2:I:1236:LEU:C	2.46	0.41
2:I:1290:PHE:CD2	2:I:1290:PHE:C	2.98	0.41
2:I:1601:VAL:O	2:I:1602:SER:C	2.64	0.41
2:I:1624:THR:CB	2:I:1642:THR:HG23	2.48	0.41
2:I:2035:SER:OG	2:I:2037:PRO:HD2	2.21	0.41
1:A:24:SER:O	2:G:1977:HIS:HD2	2.04	0.40
1:A:32:GLN:HE21	1:A:57:ALA:HB2	1.85	0.40
1:A:232:LEU:O	1:A:236:LYS:HB2	2.21	0.40
1:A:930:LEU:HD23	1:A:930:LEU:HA	1.70	0.40
1:B:483:VAL:O	1:B:483:VAL:HG12	2.21	0.40
1:B:827:SER:HA	1:B:828:PRO:HD3	1.73	0.40
1:B:1251:MET:HE3	1:B:1251:MET:HB2	1.87	0.40
1:B:1274:ILE:H	1:B:1274:ILE:HG13	1.55	0.40
1:C:529:MET:HE2	1:C:637:PHE:CB	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:874:GLY:O	1:C:875:THR:C	2.63	0.40
1:C:1131:LEU:HD12	1:C:1131:LEU:HA	1.69	0.40
1:C:1194:ASN:OD1	1:C:1196:LYS:HB2	2.21	0.40
1:C:1233:GLU:CD	1:C:1680:ARG:NH2	2.78	0.40
1:C:1353:LEU:HD23	1:C:1353:LEU:HA	1.62	0.40
2:G:248:HIS:CE1	2:G:531:GLY:HA2	2.56	0.40
2:G:439:ILE:HD12	2:G:484:ILE:CD1	2.50	0.40
2:G:524:GLY:HA2	2:G:558:ASN:O	2.22	0.40
2:G:1845:ASP:CG	2:G:1849:ARG:HB2	2.46	0.40
2:G:1878:VAL:CG1	2:G:1910:VAL:HG22	2.33	0.40
2:H:44:PRO:HA	2:H:53:GLU:OE2	2.21	0.40
2:H:750:MET:HE2	2:H:750:MET:CA	2.50	0.40
2:H:751:LEU:HD11	2:H:789:PHE:CD1	2.55	0.40
2:H:805:VAL:O	2:H:805:VAL:HG12	2.20	0.40
2:H:866:LYS:O	2:H:870:GLU:HG3	2.19	0.40
2:H:888:ARG:O	2:H:892:ILE:HB	2.21	0.40
2:H:1168:ASN:HA	2:H:1169:PRO:HD3	1.79	0.40
2:H:1173:VAL:HG13	2:H:1568:HIS:HB2	2.03	0.40
2:H:1270:TRP:HZ3	2:H:1347:LEU:HD21	1.85	0.40
2:H:1387:GLY:HA2	2:H:1414:GLY:O	2.21	0.40
2:H:1886:VAL:HG22	2:H:1906:ALA:HB1	2.02	0.40
2:I:55:THR:HB	2:I:59:GLU:CD	2.46	0.40
2:I:463:PHE:C	2:I:463:PHE:HD2	2.29	0.40
2:I:595:PRO:HD3	2:I:800:LEU:HB2	2.02	0.40
2:I:641:ILE:HG12	2:I:645:SER:CB	2.49	0.40
2:I:800:LEU:H	2:I:800:LEU:HD23	1.85	0.40
2:I:827:VAL:HG21	2:I:840:THR:CG2	2.51	0.40
2:I:1219:ILE:HB	2:I:1240:TYR:HB2	2.03	0.40
2:I:1339:PHE:N	2:I:1340:PRO:CD	2.85	0.40
2:I:1642:THR:HB	2:I:1651:LEU:HB2	2.03	0.40
2:I:1815:LEU:O	2:I:1821:VAL:HG23	2.20	0.40
2:I:2042:ILE:HG12	2:I:2042:ILE:H	1.36	0.40
1:A:253:ARG:C	1:A:254:TRP:HD1	2.28	0.40
1:A:800:LEU:HA	1:A:800:LEU:HD23	1.84	0.40
1:A:908:LEU:O	1:A:913:VAL:HG22	2.21	0.40
1:A:1346:MET:HE1	1:A:1419:PRO:HG3	2.02	0.40
1:B:1126:ILE:CD1	1:B:1172:THR:HG22	2.51	0.40
1:B:1557:ILE:HD11	1:B:1642:THR:HG21	2.03	0.40
1:C:1050:CYS:HB3	1:C:1089:VAL:CG1	2.51	0.40
1:C:1408:ALA:O	1:C:1651:GLY:HA2	2.21	0.40
1:C:1585:LYS:H	1:C:1585:LYS:CD	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1717:ASP:HA	1:C:1718:PRO:HD3	1.85	0.40
2:G:44:PRO:HA	2:G:53:GLU:OE2	2.21	0.40
2:G:159:ILE:HD11	2:G:512:LEU:CD2	2.52	0.40
2:G:582:LYS:HE2	2:G:761:PRO:O	2.22	0.40
2:G:827:VAL:HG12	2:G:828:PRO:O	2.21	0.40
2:G:1018:VAL:HA	2:G:1019:PRO:HD3	1.92	0.40
2:G:1491:VAL:HB	2:G:1501:ILE:CD1	2.51	0.40
2:G:1905:ARG:HA	2:G:1958:LEU:CD2	2.51	0.40
2:G:1974:VAL:HA	2:G:1975:PRO:HD3	1.92	0.40
2:H:585:LYS:HD2	2:H:585:LYS:HA	1.88	0.40
2:H:1044:VAL:HG21	2:H:1050:ARG:NE	2.37	0.40
2:I:259:THR:HG22	2:I:262:GLU:H	1.85	0.40
2:I:1495:THR:O	2:I:1496:LYS:HB2	2.20	0.40
2:I:1736:MET:HA	2:I:1736:MET:HE2	2.03	0.40
1:A:460:GLU:CG	1:A:470:LYS:HD3	2.49	0.40
1:A:1009:LEU:CD1	1:A:1445:MET:HE1	2.50	0.40
1:B:1154:ILE:O	1:B:1154:ILE:HG13	2.22	0.40
1:B:1233:GLU:CD	1:B:1680:ARG:NH2	2.79	0.40
1:C:822:VAL:HG12	1:C:824:LEU:CD2	2.49	0.40
2:G:675:PRO:HD3	2:G:1164:MET:CE	2.51	0.40
2:G:780:TYR:HB2	2:G:799:PHE:CE2	2.56	0.40
2:G:1100:VAL:HG21	2:G:1147:ILE:HD13	2.04	0.40
2:G:1428:GLU:CG	2:G:1468:THR:HG22	2.51	0.40
2:H:169:TYR:CD1	2:H:169:TYR:C	2.97	0.40
2:H:259:THR:HG22	2:H:262:GLU:H	1.85	0.40
2:H:517:HIS:CE1	2:H:540:ASP:O	2.74	0.40
2:H:720:ALA:HA	2:H:728:ILE:HD11	2.04	0.40
2:H:753:MET:O	2:H:757:ILE:HG13	2.21	0.40
2:H:1589:VAL:HG21	2:H:1651:LEU:HD12	2.02	0.40
2:H:1819:ALA:O	2:H:1820:ASP:C	2.63	0.40
2:I:135:ARG:N	2:I:136:PRO:HD3	2.36	0.40
2:I:441:LYS:HG2	2:I:445:LYS:HE3	2.02	0.40
2:I:832:TRP:CD1	2:I:832:TRP:C	2.98	0.40
2:I:1383:ASN:HD21	2:I:1418:ASP:CB	2.34	0.40
2:I:1616:VAL:HG22	2:I:1650:VAL:HG11	2.03	0.40
2:I:1678:MET:HE1	2:I:1707:LEU:HD23	2.01	0.40
2:I:1847:LEU:H	2:I:1847:LEU:CD1	2.14	0.40
2:I:2039:LYS:HA	2:I:2042:ILE:HG13	2.03	0.40
1:A:16:GLU:HA	1:A:16:GLU:OE2	2.21	0.40
1:A:157:HIS:CE1	1:A:269:LEU:HD11	2.57	0.40
1:A:427:ASN:O	1:A:427:ASN:CG	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:719:GLN:HG3	1:A:720:SER:N	2.36	0.40
1:A:1153:ASP:OD2	1:B:359:ARG:NH2	2.55	0.40
1:A:1418:VAL:N	1:A:1419:PRO:CD	2.84	0.40
1:A:1705:PRO:HB2	1:A:1733:PHE:CD1	2.56	0.40
1:B:20:TYR:HE1	2:H:2035:SER:HB2	1.87	0.40
1:B:21:GLN:O	2:H:1977:HIS:CD2	2.75	0.40
1:B:453:TYR:O	1:B:457:ASN:HB2	2.21	0.40
1:B:1448:ARG:HD2	1:B:1508:TRP:O	2.21	0.40
1:C:35:PHE:HA	1:C:39:PHE:HD2	1.86	0.40
1:C:608:ASP:OD1	1:C:608:ASP:C	2.65	0.40
1:C:1014:ASP:H	1:C:1510:ASN:ND2	2.03	0.40
1:C:1705:PRO:HB2	1:C:1733:PHE:CD1	2.56	0.40
2:G:119:THR:HG22	2:G:120:LYS:N	2.36	0.40
2:G:430:HIS:CE1	2:G:431:LEU:HD13	2.57	0.40
2:G:827:VAL:HG21	2:G:840:THR:HG22	2.04	0.40
2:G:1352:HIS:CD2	2:G:1410:PHE:CD2	3.09	0.40
2:G:1359:MET:HB3	2:G:1606:ARG:NH2	2.36	0.40
2:G:1755:ILE:HD11	2:G:1762:TYR:HB2	2.02	0.40
2:H:7:ARG:HA	2:H:8:PRO:HD3	1.91	0.40
2:H:184:VAL:HG11	2:H:247:ALA:HB1	2.04	0.40
2:H:298:LYS:HG2	2:H:448:VAL:CG2	2.45	0.40
2:H:499:THR:CG2	2:H:500:HIS:CD2	3.05	0.40
2:H:804:ARG:NH2	2:H:1068:GLU:OE1	2.54	0.40
2:H:1609:THR:O	2:H:1653:GLY:HA3	2.21	0.40
2:H:1775:GLN:H	2:H:1775:GLN:HG3	1.68	0.40
2:H:1873:TYR:CE1	2:H:1877:ARG:NH2	2.83	0.40
2:H:2036:GLU:HB2	2:H:2037:PRO:CD	2.47	0.40
2:I:499:THR:CG2	2:I:500:HIS:CD2	3.05	0.40
2:I:638:VAL:HG22	2:I:675:PRO:HG2	2.03	0.40
2:I:912:ARG:HB2	2:I:916:THR:HG23	2.04	0.40
2:I:1085:LEU:HA	2:I:1085:LEU:HD12	1.82	0.40
2:I:1271:ILE:HG22	2:I:1273:GLU:HB2	2.03	0.40
2:I:1631:MET:HE3	2:I:1631:MET:HB3	1.87	0.40
2:I:1793:LYS:HA	2:I:1798:ILE:HG12	2.04	0.40
2:I:1889:VAL:HG21	2:I:1901:ALA:HB3	2.04	0.40
2:I:1967:ILE:HA	2:I:1968:PRO:HD3	1.94	0.40
1:A:82:SER:OG	1:A:83:LYS:HG3	2.20	0.40
1:A:626:VAL:HG23	1:A:664:GLU:OE2	2.21	0.40
1:A:1280:ILE:HD13	1:A:1302:VAL:HG22	2.03	0.40
1:A:1642:THR:HG22	1:A:1652:GLN:HG3	2.03	0.40
1:A:1657:HIS:HA	1:A:1658:PRO:HD3	1.92	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:294:TYR:CZ	1:B:298:VAL:HG21	2.57	0.40
1:B:413:LEU:O	1:B:413:LEU:HG	2.21	0.40
1:B:636:PRO:HB2	1:B:638:LEU:O	2.21	0.40
1:B:1232:TYR:CE2	1:B:1701:LYS:HD2	2.56	0.40
1:B:1346:MET:HE1	1:B:1419:PRO:HG3	2.03	0.40
1:C:32:GLN:HE22	1:C:57:ALA:N	2.19	0.40
1:C:807:LYS:C	1:C:807:LYS:HD3	2.47	0.40
1:C:1195:ALA:CB	1:C:1213:LEU:HD13	2.51	0.40
2:G:142:ASN:CB	2:G:550:VAL:HG13	2.52	0.40
2:G:236:ILE:HG12	2:G:240:LEU:HD22	2.02	0.40
2:G:320:PRO:HA	2:G:321:PRO:HD3	1.90	0.40
2:G:338:MET:HG3	2:G:423:VAL:HG21	2.04	0.40
2:G:682:GLY:HA3	3:G:3051:FMN:O2	2.20	0.40
2:G:751:LEU:HD11	2:G:789:PHE:CG	2.57	0.40
2:G:1128:LYS:HG2	2:G:1181:VAL:HG22	2.03	0.40
2:G:1427:VAL:HG22	2:G:1469:GLU:CG	2.51	0.40
2:H:57:PRO:O	2:H:61:VAL:HG23	2.22	0.40
2:H:389:LEU:HD22	2:H:393:LEU:HG	2.03	0.40
2:H:441:LYS:O	2:H:445:LYS:HG3	2.22	0.40
2:H:723:HIS:ND1	2:H:723:HIS:N	2.70	0.40
2:H:1819:ALA:C	2:H:2005:ARG:NH1	2.80	0.40
2:H:1880:LYS:HB2	2:H:1880:LYS:HE3	1.92	0.40
2:I:246:LEU:HA	2:I:246:LEU:HD12	1.78	0.40
2:I:247:ALA:O	2:I:251:VAL:HG13	2.21	0.40
2:I:283:ILE:HD12	2:I:283:ILE:HA	1.94	0.40
2:I:290:GLU:OE1	2:I:290:GLU:N	2.41	0.40
2:I:543:PHE:CB	2:I:545:GLN:NE2	2.82	0.40
2:I:598:THR:CB	2:I:599:PRO:HD3	2.52	0.40
2:I:1100:VAL:HG21	2:I:1147:ILE:HD12	2.03	0.40
2:I:1352:HIS:CE1	2:I:1583:MET:CE	2.86	0.40
2:I:2026:PHE:HD2	2:I:2045:TRP:CZ3	2.39	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1603/1887 (85%)	1498 (93%)	91 (6%)	14 (1%)	14	44
1	B	1603/1887 (85%)	1495 (93%)	95 (6%)	13 (1%)	16	47
1	C	1603/1887 (85%)	1498 (93%)	90 (6%)	15 (1%)	14	44
2	G	2029/2051 (99%)	1841 (91%)	163 (8%)	25 (1%)	10	37
2	H	2029/2051 (99%)	1841 (91%)	166 (8%)	22 (1%)	11	39
2	I	2029/2051 (99%)	1837 (90%)	168 (8%)	24 (1%)	10	37
All	All	10896/11814 (92%)	10010 (92%)	773 (7%)	113 (1%)	12	41

All (113) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	504	ASP
1	A	538	GLU
1	A	605	LEU
1	A	834	GLY
1	A	1252	GLY
1	A	1585	LYS
1	B	504	ASP
1	B	538	GLU
1	B	605	LEU
1	B	834	GLY
1	B	1252	GLY
1	B	1585	LYS
1	C	504	ASP
1	C	538	GLU
1	C	605	LEU
1	C	834	GLY
1	C	1252	GLY
1	C	1585	LYS
2	G	521	ASP
2	G	1418	ASP
2	G	1955	PRO
2	H	521	ASP
2	H	1418	ASP
2	H	1955	PRO
2	I	521	ASP
2	I	1418	ASP
2	I	1955	PRO

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Mol	Chain	Res	Type
1	A	179	LYS
1	A	1608	ASN
1	B	179	LYS
1	B	1608	ASN
1	C	179	LYS
1	C	1608	ASN
2	G	203	LEU
2	G	1044	VAL
2	G	1177	SER
2	G	1722	GLY
2	H	203	LEU
2	H	1044	VAL
2	H	1177	SER
2	H	1722	GLY
2	I	203	LEU
2	I	1044	VAL
2	I	1177	SER
2	I	1722	GLY
1	B	1545	SER
2	G	112	ASN
2	G	1101	GLU
2	G	2034	GLY
2	H	112	ASN
2	H	1101	GLU
2	I	374	ALA
2	I	1092	ASP
2	I	1101	GLU
2	I	2034	GLY
1	A	1545	SER
2	G	25	ALA
2	G	26	SER
2	G	374	ALA
2	G	742	SER
2	G	769	SER
2	G	1092	ASP
2	G	1510	ALA
2	H	26	SER
2	H	374	ALA
2	H	742	SER
2	H	823	ALA
2	H	1510	ALA
2	H	2034	GLY

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Mol	Chain	Res	Type
2	I	26	SER
2	I	112	ASN
2	I	742	SER
1	A	1130	ASP
1	A	1477	ILE
1	A	1536	LEU
1	B	970	GLY
1	B	1477	ILE
1	C	1477	ILE
1	C	1545	SER
2	H	769	SER
2	H	1092	ASP
2	I	25	ALA
2	I	769	SER
2	I	823	ALA
2	I	1510	ALA
1	A	970	GLY
1	C	970	GLY
1	C	1536	LEU
2	G	574	SER
2	G	1340	PRO
2	H	136	PRO
2	I	136	PRO
2	I	574	SER
1	A	178	GLY
1	B	178	GLY
1	C	178	GLY
2	G	136	PRO
2	G	335	PRO
2	H	335	PRO
2	G	1956	ARG
2	H	772	GLY
1	C	1240	VAL
2	G	772	GLY
2	I	772	GLY
2	I	1340	PRO
2	I	1956	ARG
1	B	726	GLY
1	C	726	GLY
2	G	470	VAL
2	G	1176	PRO
2	H	470	VAL

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Mol	Chain	Res	Type
2	H	2012	PRO
2	I	335	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1366/1565 (87%)	1194 (87%)	172 (13%)	4	19
1	B	1366/1565 (87%)	1197 (88%)	169 (12%)	4	19
1	C	1366/1565 (87%)	1192 (87%)	174 (13%)	4	18
2	G	1772/1789 (99%)	1525 (86%)	247 (14%)	3	15
2	H	1772/1789 (99%)	1527 (86%)	245 (14%)	3	15
2	I	1772/1789 (99%)	1523 (86%)	249 (14%)	3	15
All	All	9414/10062 (94%)	8158 (87%)	1256 (13%)	4	17

All (1256) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	5	VAL
1	A	14	LEU
1	A	15	THR
1	A	21	GLN
1	A	22	PHE
1	A	27	ARG
1	A	47	ILE
1	A	145	VAL
1	A	149	LEU
1	A	158	LYS
1	A	165	SER
1	A	171	THR
1	A	202	GLU
1	A	217	PHE
1	A	242	THR
1	A	244	THR

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Mol	Chain	Res	Type
1	A	245	VAL
1	A	252	THR
1	A	300	VAL
1	A	328	LEU
1	A	331	ILE
1	A	332	THR
1	A	368	VAL
1	A	375	LEU
1	A	378	LEU
1	A	390	VAL
1	A	392	THR
1	A	400	ARG
1	A	401	THR
1	A	412	SER
1	A	413	LEU
1	A	415	SER
1	A	416	LEU
1	A	428	VAL
1	A	432	VAL
1	A	435	GLU
1	A	447	LEU
1	A	457	ASN
1	A	460	GLU
1	A	461	THR
1	A	469	VAL
1	A	484	LEU
1	A	489	VAL
1	A	493	VAL
1	A	506	ASN
1	A	509	ILE
1	A	510	THR
1	A	513	GLU
1	A	527	GLN
1	A	529	MET
1	A	536	THR
1	A	599	MET
1	A	601	VAL
1	A	603	ASP
1	A	606	ASP
1	A	607	LYS
1	A	615	SER
1	A	621	THR

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Mol	Chain	Res	Type
1	A	622	ILE
1	A	625	THR
1	A	626	VAL
1	A	629	THR
1	A	635	ILE
1	A	644	THR
1	A	648	ASP
1	A	654	GLN
1	A	663	LEU
1	A	671	VAL
1	A	711	SER
1	A	719	GLN
1	A	721	ILE
1	A	728	LYS
1	A	731	THR
1	A	732	LEU
1	A	748	LEU
1	A	749	ILE
1	A	755	THR
1	A	774	ILE
1	A	776	GLU
1	A	782	GLU
1	A	797	THR
1	A	801	ARG
1	A	806	VAL
1	A	816	GLU
1	A	817	THR
1	A	852	ARG
1	A	860	ASN
1	A	864	VAL
1	A	873	ARG
1	A	881	ASN
1	A	891	MET
1	A	913	VAL
1	A	930	LEU
1	A	931	GLN
1	A	933	VAL
1	A	947	LEU
1	A	949	GLU
1	A	953	VAL
1	A	957	VAL
1	A	959	ILE

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Mol	Chain	Res	Type
1	A	964	GLU
1	A	980	VAL
1	A	982	ILE
1	A	1020	VAL
1	A	1022	THR
1	A	1047	LEU
1	A	1056	ILE
1	A	1067	LEU
1	A	1070	ARG
1	A	1076	VAL
1	A	1078	SER
1	A	1079	LYS
1	A	1080	THR
1	A	1095	THR
1	A	1101	SER
1	A	1125	VAL
1	A	1127	VAL
1	A	1131	LEU
1	A	1167	LEU
1	A	1172	THR
1	A	1173	LEU
1	A	1179	LEU
1	A	1184	LEU
1	A	1189	ILE
1	A	1196	LYS
1	A	1197	THR
1	A	1208	VAL
1	A	1218	SER
1	A	1224	ILE
1	A	1229	THR
1	A	1251	MET
1	A	1255	SER
1	A	1274	ILE
1	A	1280	ILE
1	A	1292	ILE
1	A	1307	THR
1	A	1308	SER
1	A	1338	GLU
1	A	1365	MET
1	A	1367	ARG
1	A	1372	THR
1	A	1384	ILE

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Mol	Chain	Res	Type
1	A	1385	GLN
1	A	1392	LEU
1	A	1414	ILE
1	A	1426	LEU
1	A	1430	ARG
1	A	1442	ASN
1	A	1453	VAL
1	A	1465	ASN
1	A	1479	SER
1	A	1515	ARG
1	A	1522	LEU
1	A	1523	ARG
1	A	1532	THR
1	A	1533	ILE
1	A	1549	ASN
1	A	1556	THR
1	A	1566	ARG
1	A	1577	GLN
1	A	1580	LEU
1	A	1585	LYS
1	A	1612	ASP
1	A	1625	LEU
1	A	1665	ILE
1	A	1666	THR
1	A	1692	MET
1	A	1693	ILE
1	A	1707	THR
1	A	1709	GLU
1	A	1721	ARG
1	A	1723	SER
1	B	5	VAL
1	B	14	LEU
1	B	15	THR
1	B	21	GLN
1	B	22	PHE
1	B	47	ILE
1	B	145	VAL
1	B	149	LEU
1	B	158	LYS
1	B	165	SER
1	B	171	THR
1	B	202	GLU

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Mol	Chain	Res	Type
1	B	217	PHE
1	B	242	THR
1	B	244	THR
1	B	245	VAL
1	B	252	THR
1	B	300	VAL
1	B	328	LEU
1	B	331	ILE
1	B	332	THR
1	B	375	LEU
1	B	378	LEU
1	B	390	VAL
1	B	392	THR
1	B	400	ARG
1	B	401	THR
1	B	412	SER
1	B	413	LEU
1	B	415	SER
1	B	416	LEU
1	B	428	VAL
1	B	432	VAL
1	B	435	GLU
1	B	447	LEU
1	B	457	ASN
1	B	460	GLU
1	B	461	THR
1	B	469	VAL
1	B	484	LEU
1	B	489	VAL
1	B	493	VAL
1	B	506	ASN
1	B	509	ILE
1	B	510	THR
1	B	513	GLU
1	B	527	GLN
1	B	529	MET
1	B	536	THR
1	B	599	MET
1	B	600	ASP
1	B	601	VAL
1	B	603	ASP
1	B	606	ASP

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Mol	Chain	Res	Type
1	B	607	LYS
1	B	615	SER
1	B	621	THR
1	B	622	ILE
1	B	625	THR
1	B	626	VAL
1	B	629	THR
1	B	635	ILE
1	B	644	THR
1	B	648	ASP
1	B	654	GLN
1	B	663	LEU
1	B	671	VAL
1	B	711	SER
1	B	719	GLN
1	B	721	ILE
1	B	728	LYS
1	B	731	THR
1	B	732	LEU
1	B	748	LEU
1	B	749	ILE
1	B	774	ILE
1	B	776	GLU
1	B	782	GLU
1	B	797	THR
1	B	806	VAL
1	B	813	ARG
1	B	816	GLU
1	B	817	THR
1	B	852	ARG
1	B	860	ASN
1	B	864	VAL
1	B	873	ARG
1	B	881	ASN
1	B	891	MET
1	B	913	VAL
1	B	930	LEU
1	B	931	GLN
1	B	933	VAL
1	B	947	LEU
1	B	949	GLU
1	B	953	VAL

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Mol	Chain	Res	Type
1	B	964	GLU
1	B	980	VAL
1	B	982	ILE
1	B	1020	VAL
1	B	1022	THR
1	B	1047	LEU
1	B	1056	ILE
1	B	1067	LEU
1	B	1070	ARG
1	B	1073	THR
1	B	1076	VAL
1	B	1078	SER
1	B	1079	LYS
1	B	1080	THR
1	B	1095	THR
1	B	1101	SER
1	B	1125	VAL
1	B	1127	VAL
1	B	1131	LEU
1	B	1167	LEU
1	B	1172	THR
1	B	1173	LEU
1	B	1179	LEU
1	B	1184	LEU
1	B	1189	ILE
1	B	1196	LYS
1	B	1197	THR
1	B	1208	VAL
1	B	1218	SER
1	B	1224	ILE
1	B	1229	THR
1	B	1251	MET
1	B	1255	SER
1	B	1274	ILE
1	B	1292	ILE
1	B	1307	THR
1	B	1308	SER
1	B	1327	CYS
1	B	1338	GLU
1	B	1365	MET
1	B	1367	ARG
1	B	1372	THR

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Mol	Chain	Res	Type
1	B	1384	ILE
1	B	1385	GLN
1	B	1392	LEU
1	B	1414	ILE
1	B	1426	LEU
1	B	1430	ARG
1	B	1442	ASN
1	B	1453	VAL
1	B	1465	ASN
1	B	1479	SER
1	B	1510	ASN
1	B	1515	ARG
1	B	1522	LEU
1	B	1523	ARG
1	B	1532	THR
1	B	1533	ILE
1	B	1556	THR
1	B	1566	ARG
1	B	1577	GLN
1	B	1580	LEU
1	B	1585	LYS
1	B	1612	ASP
1	B	1617	ILE
1	B	1625	LEU
1	B	1665	ILE
1	B	1666	THR
1	B	1692	MET
1	B	1693	ILE
1	B	1707	THR
1	B	1709	GLU
1	B	1721	ARG
1	C	5	VAL
1	C	14	LEU
1	C	15	THR
1	C	21	GLN
1	C	22	PHE
1	C	47	ILE
1	C	145	VAL
1	C	149	LEU
1	C	158	LYS
1	C	165	SER
1	C	171	THR

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Mol	Chain	Res	Type
1	C	202	GLU
1	C	217	PHE
1	C	242	THR
1	C	244	THR
1	C	245	VAL
1	C	252	THR
1	C	300	VAL
1	C	328	LEU
1	C	331	ILE
1	C	332	THR
1	C	375	LEU
1	C	378	LEU
1	C	390	VAL
1	C	392	THR
1	C	400	ARG
1	C	401	THR
1	C	412	SER
1	C	413	LEU
1	C	415	SER
1	C	416	LEU
1	C	428	VAL
1	C	432	VAL
1	C	435	GLU
1	C	447	LEU
1	C	457	ASN
1	C	460	GLU
1	C	461	THR
1	C	469	VAL
1	C	484	LEU
1	C	489	VAL
1	C	493	VAL
1	C	506	ASN
1	C	509	ILE
1	C	510	THR
1	C	513	GLU
1	C	527	GLN
1	C	529	MET
1	C	536	THR
1	C	599	MET
1	C	600	ASP
1	C	601	VAL
1	C	603	ASP

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Mol	Chain	Res	Type
1	C	606	ASP
1	C	607	LYS
1	C	615	SER
1	C	621	THR
1	C	622	ILE
1	C	625	THR
1	C	626	VAL
1	C	629	THR
1	C	635	ILE
1	C	644	THR
1	C	648	ASP
1	C	654	GLN
1	C	663	LEU
1	C	671	VAL
1	C	711	SER
1	C	719	GLN
1	C	721	ILE
1	C	728	LYS
1	C	731	THR
1	C	732	LEU
1	C	748	LEU
1	C	749	ILE
1	C	774	ILE
1	C	776	GLU
1	C	782	GLU
1	C	797	THR
1	C	806	VAL
1	C	816	GLU
1	C	817	THR
1	C	842	SER
1	C	852	ARG
1	C	860	ASN
1	C	864	VAL
1	C	873	ARG
1	C	881	ASN
1	C	891	MET
1	C	913	VAL
1	C	930	LEU
1	C	931	GLN
1	C	933	VAL
1	C	947	LEU
1	C	949	GLU

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Mol	Chain	Res	Type
1	C	953	VAL
1	C	964	GLU
1	C	980	VAL
1	C	982	ILE
1	C	1020	VAL
1	C	1022	THR
1	C	1047	LEU
1	C	1056	ILE
1	C	1067	LEU
1	C	1070	ARG
1	C	1073	THR
1	C	1076	VAL
1	C	1078	SER
1	C	1079	LYS
1	C	1080	THR
1	C	1089	VAL
1	C	1095	THR
1	C	1101	SER
1	C	1125	VAL
1	C	1127	VAL
1	C	1131	LEU
1	C	1167	LEU
1	C	1172	THR
1	C	1173	LEU
1	C	1179	LEU
1	C	1184	LEU
1	C	1189	ILE
1	C	1196	LYS
1	C	1197	THR
1	C	1208	VAL
1	C	1218	SER
1	C	1224	ILE
1	C	1229	THR
1	C	1251	MET
1	C	1255	SER
1	C	1274	ILE
1	C	1280	ILE
1	C	1292	ILE
1	C	1307	THR
1	C	1308	SER
1	C	1328	ILE
1	C	1338	GLU

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Mol	Chain	Res	Type
1	C	1365	MET
1	C	1367	ARG
1	C	1372	THR
1	C	1384	ILE
1	C	1385	GLN
1	C	1392	LEU
1	C	1414	ILE
1	C	1426	LEU
1	C	1430	ARG
1	C	1442	ASN
1	C	1443	LEU
1	C	1453	VAL
1	C	1465	ASN
1	C	1479	SER
1	C	1515	ARG
1	C	1522	LEU
1	C	1523	ARG
1	C	1532	THR
1	C	1533	ILE
1	C	1549	ASN
1	C	1556	THR
1	C	1566	ARG
1	C	1577	GLN
1	C	1580	LEU
1	C	1585	LYS
1	C	1599	ILE
1	C	1612	ASP
1	C	1617	ILE
1	C	1625	LEU
1	C	1633	THR
1	C	1665	ILE
1	C	1666	THR
1	C	1692	MET
1	C	1693	ILE
1	C	1707	THR
1	C	1709	GLU
1	C	1721	ARG
2	G	6	THR
2	G	7	ARG
2	G	45	THR
2	G	46	GLU
2	G	48	PHE

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Mol	Chain	Res	Type
2	G	56	THR
2	G	65	LEU
2	G	73	GLU
2	G	84	LEU
2	G	86	LEU
2	G	99	ASN
2	G	101	ILE
2	G	109	LEU
2	G	117	VAL
2	G	119	THR
2	G	122	LEU
2	G	132	MET
2	G	149	VAL
2	G	153	ASN
2	G	155	GLN
2	G	159	ILE
2	G	173	LEU
2	G	176	LEU
2	G	178	GLN
2	G	182	VAL
2	G	186	ASP
2	G	198	LEU
2	G	206	GLU
2	G	210	THR
2	G	227	ASP
2	G	236	ILE
2	G	240	LEU
2	G	246	LEU
2	G	251	VAL
2	G	271	THR
2	G	281	VAL
2	G	283	ILE
2	G	286	THR
2	G	295	SER
2	G	297	ARG
2	G	300	ILE
2	G	303	LEU
2	G	319	LEU
2	G	339	LEU
2	G	340	SER
2	G	342	SER
2	G	344	LEU

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Mol	Chain	Res	Type
2	G	353	VAL
2	G	368	ILE
2	G	371	VAL
2	G	389	LEU
2	G	392	THR
2	G	402	LEU
2	G	418	ASN
2	G	425	SER
2	G	431	LEU
2	G	438	LEU
2	G	448	VAL
2	G	455	ILE
2	G	462	THR
2	G	471	LEU
2	G	476	SER
2	G	478	ARG
2	G	479	ILE
2	G	482	CYS
2	G	492	THR
2	G	499	THR
2	G	501	ILE
2	G	545	GLN
2	G	553	ASN
2	G	562	LEU
2	G	573	LYS
2	G	574	SER
2	G	586	LEU
2	G	587	ILE
2	G	598	THR
2	G	607	VAL
2	G	611	THR
2	G	616	THR
2	G	631	THR
2	G	665	LEU
2	G	669	LEU
2	G	670	ARG
2	G	676	ILE
2	G	680	THR
2	G	681	ILE
2	G	693	GLU
2	G	714	SER
2	G	719	ILE

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Mol	Chain	Res	Type
2	G	723	HIS
2	G	730	LEU
2	G	733	THR
2	G	736	ARG
2	G	740	HIS
2	G	741	HIS
2	G	751	LEU
2	G	762	ASN
2	G	775	ASP
2	G	777	THR
2	G	787	THR
2	G	794	MET
2	G	797	ASP
2	G	807	ILE
2	G	810	GLU
2	G	825	THR
2	G	832	TRP
2	G	835	THR
2	G	844	VAL
2	G	846	VAL
2	G	852	GLU
2	G	855	HIS
2	G	857	ILE
2	G	869	ASP
2	G	880	LEU
2	G	881	VAL
2	G	892	ILE
2	G	907	VAL
2	G	929	LEU
2	G	945	THR
2	G	953	ARG
2	G	964	LEU
2	G	971	SER
2	G	993	GLN
2	G	1015	VAL
2	G	1020	VAL
2	G	1021	LEU
2	G	1024	ARG
2	G	1048	VAL
2	G	1066	ILE
2	G	1070	ILE
2	G	1082	ILE

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Mol	Chain	Res	Type
2	G	1109	VAL
2	G	1123	ASP
2	G	1124	SER
2	G	1145	SER
2	G	1148	ASN
2	G	1159	ILE
2	G	1160	THR
2	G	1171	ARG
2	G	1172	LYS
2	G	1184	ILE
2	G	1189	THR
2	G	1197	LEU
2	G	1211	LEU
2	G	1213	LEU
2	G	1217	ASN
2	G	1219	ILE
2	G	1227	ARG
2	G	1254	VAL
2	G	1260	GLN
2	G	1284	VAL
2	G	1314	ARG
2	G	1318	THR
2	G	1327	ILE
2	G	1328	VAL
2	G	1335	ILE
2	G	1342	THR
2	G	1343	VAL
2	G	1348	LEU
2	G	1359	MET
2	G	1360	ILE
2	G	1375	THR
2	G	1378	ILE
2	G	1389	ILE
2	G	1392	VAL
2	G	1397	SER
2	G	1407	THR
2	G	1408	SER
2	G	1420	GLU
2	G	1427	VAL
2	G	1434	HIS
2	G	1437	THR
2	G	1441	ILE

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Mol	Chain	Res	Type
2	G	1443	VAL
2	G	1446	SER
2	G	1452	LEU
2	G	1463	THR
2	G	1465	THR
2	G	1468	THR
2	G	1470	THR
2	G	1472	VAL
2	G	1473	THR
2	G	1501	ILE
2	G	1511	SER
2	G	1512	HIS
2	G	1526	THR
2	G	1527	LEU
2	G	1528	GLU
2	G	1533	LEU
2	G	1549	THR
2	G	1556	VAL
2	G	1560	LEU
2	G	1563	ILE
2	G	1567	ARG
2	G	1578	THR
2	G	1590	ARG
2	G	1602	SER
2	G	1605	VAL
2	G	1609	THR
2	G	1616	VAL
2	G	1624	THR
2	G	1627	GLN
2	G	1632	ILE
2	G	1637	LEU
2	G	1648	VAL
2	G	1651	LEU
2	G	1661	VAL
2	G	1663	THR
2	G	1672	GLN
2	G	1678	MET
2	G	1680	LEU
2	G	1683	THR
2	G	1711	ILE
2	G	1712	ASN
2	G	1718	THR

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Mol	Chain	Res	Type
2	G	1751	ILE
2	G	1755	ILE
2	G	1757	GLU
2	G	1775	GLN
2	G	1781	LEU
2	G	1784	MET
2	G	1818	LEU
2	G	1821	VAL
2	G	1825	GLU
2	G	1831	VAL
2	G	1834	ARG
2	G	1840	VAL
2	G	1844	ARG
2	G	1846	GLU
2	G	1847	LEU
2	G	1855	ILE
2	G	1857	ILE
2	G	1862	VAL
2	G	1871	LEU
2	G	1886	VAL
2	G	1907	LEU
2	G	1913	VAL
2	G	1914	LEU
2	G	1936	VAL
2	G	1937	GLU
2	G	1970	VAL
2	G	2003	VAL
2	G	2038	ILE
2	G	2042	ILE
2	G	2044	ASN
2	G	2047	LYS
2	G	2050	GLN
2	H	6	THR
2	H	7	ARG
2	H	45	THR
2	H	46	GLU
2	H	48	PHE
2	H	55	THR
2	H	56	THR
2	H	65	LEU
2	H	73	GLU
2	H	84	LEU

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Mol	Chain	Res	Type
2	H	86	LEU
2	H	99	ASN
2	H	101	ILE
2	H	109	LEU
2	H	117	VAL
2	H	119	THR
2	H	122	LEU
2	H	132	MET
2	H	149	VAL
2	H	155	GLN
2	H	159	ILE
2	H	173	LEU
2	H	176	LEU
2	H	178	GLN
2	H	182	VAL
2	H	186	ASP
2	H	198	LEU
2	H	206	GLU
2	H	210	THR
2	H	227	ASP
2	H	236	ILE
2	H	240	LEU
2	H	246	LEU
2	H	251	VAL
2	H	271	THR
2	H	281	VAL
2	H	283	ILE
2	H	286	THR
2	H	295	SER
2	H	297	ARG
2	H	300	ILE
2	H	303	LEU
2	H	319	LEU
2	H	339	LEU
2	H	340	SER
2	H	342	SER
2	H	344	LEU
2	H	353	VAL
2	H	368	ILE
2	H	371	VAL
2	H	389	LEU
2	H	392	THR

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Mol	Chain	Res	Type
2	H	402	LEU
2	H	418	ASN
2	H	425	SER
2	H	431	LEU
2	H	438	LEU
2	H	448	VAL
2	H	455	ILE
2	H	462	THR
2	H	471	LEU
2	H	476	SER
2	H	478	ARG
2	H	479	ILE
2	H	482	CYS
2	H	492	THR
2	H	499	THR
2	H	545	GLN
2	H	553	ASN
2	H	562	LEU
2	H	574	SER
2	H	586	LEU
2	H	587	ILE
2	H	598	THR
2	H	607	VAL
2	H	611	THR
2	H	616	THR
2	H	631	THR
2	H	665	LEU
2	H	669	LEU
2	H	670	ARG
2	H	676	ILE
2	H	680	THR
2	H	681	ILE
2	H	693	GLU
2	H	714	SER
2	H	719	ILE
2	H	723	HIS
2	H	730	LEU
2	H	733	THR
2	H	736	ARG
2	H	740	HIS
2	H	741	HIS
2	H	751	LEU

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Mol	Chain	Res	Type
2	H	762	ASN
2	H	775	ASP
2	H	777	THR
2	H	787	THR
2	H	794	MET
2	H	797	ASP
2	H	807	ILE
2	H	810	GLU
2	H	825	THR
2	H	832	TRP
2	H	835	THR
2	H	844	VAL
2	H	846	VAL
2	H	852	GLU
2	H	855	HIS
2	H	857	ILE
2	H	869	ASP
2	H	880	LEU
2	H	881	VAL
2	H	892	ILE
2	H	907	VAL
2	H	929	LEU
2	H	945	THR
2	H	964	LEU
2	H	971	SER
2	H	993	GLN
2	H	1012	GLN
2	H	1015	VAL
2	H	1021	LEU
2	H	1024	ARG
2	H	1048	VAL
2	H	1066	ILE
2	H	1070	ILE
2	H	1082	ILE
2	H	1095	SER
2	H	1109	VAL
2	H	1123	ASP
2	H	1145	SER
2	H	1148	ASN
2	H	1159	ILE
2	H	1160	THR
2	H	1171	ARG

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Mol	Chain	Res	Type
2	H	1172	LYS
2	H	1184	ILE
2	H	1189	THR
2	H	1197	LEU
2	H	1211	LEU
2	H	1213	LEU
2	H	1219	ILE
2	H	1227	ARG
2	H	1254	VAL
2	H	1260	GLN
2	H	1284	VAL
2	H	1314	ARG
2	H	1318	THR
2	H	1327	ILE
2	H	1328	VAL
2	H	1335	ILE
2	H	1342	THR
2	H	1343	VAL
2	H	1348	LEU
2	H	1352	HIS
2	H	1359	MET
2	H	1360	ILE
2	H	1375	THR
2	H	1378	ILE
2	H	1389	ILE
2	H	1392	VAL
2	H	1397	SER
2	H	1407	THR
2	H	1408	SER
2	H	1420	GLU
2	H	1426	THR
2	H	1427	VAL
2	H	1434	HIS
2	H	1437	THR
2	H	1441	ILE
2	H	1443	VAL
2	H	1446	SER
2	H	1452	LEU
2	H	1463	THR
2	H	1465	THR
2	H	1468	THR
2	H	1470	THR

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Mol	Chain	Res	Type
2	H	1472	VAL
2	H	1473	THR
2	H	1501	ILE
2	H	1511	SER
2	H	1512	HIS
2	H	1526	THR
2	H	1527	LEU
2	H	1528	GLU
2	H	1533	LEU
2	H	1549	THR
2	H	1556	VAL
2	H	1560	LEU
2	H	1563	ILE
2	H	1567	ARG
2	H	1590	ARG
2	H	1602	SER
2	H	1605	VAL
2	H	1609	THR
2	H	1616	VAL
2	H	1624	THR
2	H	1627	GLN
2	H	1632	ILE
2	H	1637	LEU
2	H	1648	VAL
2	H	1651	LEU
2	H	1661	VAL
2	H	1663	THR
2	H	1672	GLN
2	H	1678	MET
2	H	1680	LEU
2	H	1683	THR
2	H	1711	ILE
2	H	1712	ASN
2	H	1718	THR
2	H	1751	ILE
2	H	1755	ILE
2	H	1757	GLU
2	H	1775	GLN
2	H	1781	LEU
2	H	1784	MET
2	H	1818	LEU
2	H	1821	VAL

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Mol	Chain	Res	Type
2	H	1825	GLU
2	H	1831	VAL
2	H	1834	ARG
2	H	1840	VAL
2	H	1844	ARG
2	H	1846	GLU
2	H	1847	LEU
2	H	1855	ILE
2	H	1857	ILE
2	H	1862	VAL
2	H	1871	LEU
2	H	1886	VAL
2	H	1907	LEU
2	H	1913	VAL
2	H	1914	LEU
2	H	1936	VAL
2	H	1937	GLU
2	H	1970	VAL
2	H	1972	ILE
2	H	2003	VAL
2	H	2038	ILE
2	H	2042	ILE
2	H	2044	ASN
2	H	2047	LYS
2	H	2050	GLN
2	I	6	THR
2	I	7	ARG
2	I	45	THR
2	I	46	GLU
2	I	48	PHE
2	I	56	THR
2	I	65	LEU
2	I	73	GLU
2	I	84	LEU
2	I	86	LEU
2	I	99	ASN
2	I	101	ILE
2	I	109	LEU
2	I	117	VAL
2	I	119	THR
2	I	122	LEU
2	I	132	MET

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Mol	Chain	Res	Type
2	I	149	VAL
2	I	153	ASN
2	I	155	GLN
2	I	159	ILE
2	I	173	LEU
2	I	176	LEU
2	I	178	GLN
2	I	182	VAL
2	I	186	ASP
2	I	198	LEU
2	I	206	GLU
2	I	210	THR
2	I	227	ASP
2	I	236	ILE
2	I	240	LEU
2	I	246	LEU
2	I	251	VAL
2	I	271	THR
2	I	281	VAL
2	I	286	THR
2	I	295	SER
2	I	297	ARG
2	I	300	ILE
2	I	303	LEU
2	I	319	LEU
2	I	339	LEU
2	I	340	SER
2	I	342	SER
2	I	344	LEU
2	I	353	VAL
2	I	368	ILE
2	I	371	VAL
2	I	389	LEU
2	I	392	THR
2	I	402	LEU
2	I	418	ASN
2	I	425	SER
2	I	431	LEU
2	I	438	LEU
2	I	444	VAL
2	I	446	ASN
2	I	448	VAL

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Mol	Chain	Res	Type
2	I	455	ILE
2	I	462	THR
2	I	471	LEU
2	I	476	SER
2	I	478	ARG
2	I	479	ILE
2	I	482	CYS
2	I	492	THR
2	I	499	THR
2	I	501	ILE
2	I	545	GLN
2	I	553	ASN
2	I	562	LEU
2	I	574	SER
2	I	586	LEU
2	I	587	ILE
2	I	598	THR
2	I	607	VAL
2	I	611	THR
2	I	616	THR
2	I	631	THR
2	I	665	LEU
2	I	669	LEU
2	I	670	ARG
2	I	676	ILE
2	I	680	THR
2	I	681	ILE
2	I	693	GLU
2	I	714	SER
2	I	719	ILE
2	I	723	HIS
2	I	730	LEU
2	I	733	THR
2	I	736	ARG
2	I	740	HIS
2	I	741	HIS
2	I	750	MET
2	I	751	LEU
2	I	762	ASN
2	I	777	THR
2	I	787	THR
2	I	794	MET

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Mol	Chain	Res	Type
2	I	797	ASP
2	I	807	ILE
2	I	810	GLU
2	I	825	THR
2	I	832	TRP
2	I	835	THR
2	I	844	VAL
2	I	846	VAL
2	I	852	GLU
2	I	855	HIS
2	I	857	ILE
2	I	869	ASP
2	I	880	LEU
2	I	881	VAL
2	I	892	ILE
2	I	907	VAL
2	I	929	LEU
2	I	945	THR
2	I	964	LEU
2	I	971	SER
2	I	993	GLN
2	I	1012	GLN
2	I	1015	VAL
2	I	1020	VAL
2	I	1021	LEU
2	I	1024	ARG
2	I	1048	VAL
2	I	1066	ILE
2	I	1070	ILE
2	I	1082	ILE
2	I	1109	VAL
2	I	1123	ASP
2	I	1145	SER
2	I	1148	ASN
2	I	1159	ILE
2	I	1160	THR
2	I	1171	ARG
2	I	1172	LYS
2	I	1184	ILE
2	I	1189	THR
2	I	1197	LEU
2	I	1211	LEU

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Mol	Chain	Res	Type
2	I	1213	LEU
2	I	1217	ASN
2	I	1219	ILE
2	I	1227	ARG
2	I	1254	VAL
2	I	1260	GLN
2	I	1284	VAL
2	I	1314	ARG
2	I	1318	THR
2	I	1327	ILE
2	I	1328	VAL
2	I	1335	ILE
2	I	1342	THR
2	I	1343	VAL
2	I	1348	LEU
2	I	1352	HIS
2	I	1359	MET
2	I	1360	ILE
2	I	1375	THR
2	I	1378	ILE
2	I	1389	ILE
2	I	1392	VAL
2	I	1397	SER
2	I	1407	THR
2	I	1408	SER
2	I	1420	GLU
2	I	1426	THR
2	I	1427	VAL
2	I	1434	HIS
2	I	1437	THR
2	I	1441	ILE
2	I	1443	VAL
2	I	1446	SER
2	I	1452	LEU
2	I	1463	THR
2	I	1468	THR
2	I	1470	THR
2	I	1472	VAL
2	I	1473	THR
2	I	1501	ILE
2	I	1511	SER
2	I	1512	HIS

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Mol	Chain	Res	Type
2	I	1526	THR
2	I	1527	LEU
2	I	1528	GLU
2	I	1533	LEU
2	I	1549	THR
2	I	1556	VAL
2	I	1560	LEU
2	I	1563	ILE
2	I	1565	VAL
2	I	1567	ARG
2	I	1590	ARG
2	I	1602	SER
2	I	1605	VAL
2	I	1609	THR
2	I	1616	VAL
2	I	1624	THR
2	I	1627	GLN
2	I	1632	ILE
2	I	1637	LEU
2	I	1648	VAL
2	I	1651	LEU
2	I	1661	VAL
2	I	1663	THR
2	I	1672	GLN
2	I	1678	MET
2	I	1680	LEU
2	I	1683	THR
2	I	1711	ILE
2	I	1712	ASN
2	I	1718	THR
2	I	1736	MET
2	I	1751	ILE
2	I	1755	ILE
2	I	1757	GLU
2	I	1775	GLN
2	I	1781	LEU
2	I	1784	MET
2	I	1818	LEU
2	I	1821	VAL
2	I	1825	GLU
2	I	1831	VAL
2	I	1834	ARG

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Mol	Chain	Res	Type
2	I	1840	VAL
2	I	1844	ARG
2	I	1846	GLU
2	I	1847	LEU
2	I	1855	ILE
2	I	1857	ILE
2	I	1862	VAL
2	I	1871	LEU
2	I	1886	VAL
2	I	1907	LEU
2	I	1913	VAL
2	I	1914	LEU
2	I	1936	VAL
2	I	1937	GLU
2	I	1970	VAL
2	I	1972	ILE
2	I	2003	VAL
2	I	2038	ILE
2	I	2042	ILE
2	I	2044	ASN
2	I	2047	LYS
2	I	2050	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (295) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	7	GLN
1	A	11	HIS
1	A	32	GLN
1	A	58	GLN
1	A	63	ASN
1	A	157	HIS
1	A	183	GLN
1	A	214	GLN
1	A	271	ASN
1	A	335	HIS
1	A	344	GLN
1	A	356	ASN
1	A	374	GLN
1	A	411	GLN
1	A	422	HIS
1	A	427	ASN

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Mol	Chain	Res	Type
1	A	438	ASN
1	A	475	GLN
1	A	527	GLN
1	A	618	ASN
1	A	694	GLN
1	A	698	GLN
1	A	738	ASN
1	A	792	HIS
1	A	829	ASN
1	A	860	ASN
1	A	898	GLN
1	A	987	ASN
1	A	989	GLN
1	A	1000	GLN
1	A	1003	GLN
1	A	1063	HIS
1	A	1064	ASN
1	A	1066	ASN
1	A	1146	HIS
1	A	1239	HIS
1	A	1272	ASN
1	A	1385	GLN
1	A	1432	HIS
1	A	1433	HIS
1	A	1442	ASN
1	A	1458	GLN
1	A	1482	GLN
1	A	1495	ASN
1	A	1505	GLN
1	A	1510	ASN
1	A	1549	ASN
1	A	1563	HIS
1	A	1577	GLN
1	A	1610	ASN
1	A	1652	GLN
1	A	1690	ASN
1	A	1695	ASN
1	B	11	HIS
1	B	32	GLN
1	B	58	GLN
1	B	63	ASN
1	B	157	HIS

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Mol	Chain	Res	Type
1	B	183	GLN
1	B	214	GLN
1	B	271	ASN
1	B	335	HIS
1	B	344	GLN
1	B	374	GLN
1	B	411	GLN
1	B	427	ASN
1	B	438	ASN
1	B	475	GLN
1	B	527	GLN
1	B	618	ASN
1	B	694	GLN
1	B	738	ASN
1	B	739	GLN
1	B	792	HIS
1	B	829	ASN
1	B	860	ASN
1	B	898	GLN
1	B	987	ASN
1	B	989	GLN
1	B	1000	GLN
1	B	1003	GLN
1	B	1063	HIS
1	B	1064	ASN
1	B	1066	ASN
1	B	1146	HIS
1	B	1239	HIS
1	B	1272	ASN
1	B	1385	GLN
1	B	1432	HIS
1	B	1433	HIS
1	B	1442	ASN
1	B	1458	GLN
1	B	1482	GLN
1	B	1495	ASN
1	B	1510	ASN
1	B	1552	ASN
1	B	1563	HIS
1	B	1577	GLN
1	B	1610	ASN
1	B	1652	GLN

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Mol	Chain	Res	Type
1	B	1690	ASN
1	B	1695	ASN
1	C	11	HIS
1	C	32	GLN
1	C	58	GLN
1	C	63	ASN
1	C	157	HIS
1	C	183	GLN
1	C	214	GLN
1	C	271	ASN
1	C	335	HIS
1	C	374	GLN
1	C	407	ASN
1	C	411	GLN
1	C	427	ASN
1	C	438	ASN
1	C	475	GLN
1	C	527	GLN
1	C	618	ASN
1	C	694	GLN
1	C	738	ASN
1	C	758	ASN
1	C	792	HIS
1	C	829	ASN
1	C	860	ASN
1	C	898	GLN
1	C	987	ASN
1	C	989	GLN
1	C	1000	GLN
1	C	1003	GLN
1	C	1063	HIS
1	C	1064	ASN
1	C	1066	ASN
1	C	1146	HIS
1	C	1239	HIS
1	C	1272	ASN
1	C	1385	GLN
1	C	1432	HIS
1	C	1433	HIS
1	C	1442	ASN
1	C	1458	GLN
1	C	1482	GLN

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Mol	Chain	Res	Type
1	C	1495	ASN
1	C	1510	ASN
1	C	1577	GLN
1	C	1610	ASN
1	C	1652	GLN
1	C	1690	ASN
1	C	1695	ASN
2	G	34	GLN
2	G	85	ASN
2	G	102	HIS
2	G	359	HIS
2	G	376	ASN
2	G	418	ASN
2	G	428	HIS
2	G	430	HIS
2	G	440	ASN
2	G	447	ASN
2	G	456	GLN
2	G	500	HIS
2	G	517	HIS
2	G	545	GLN
2	G	558	ASN
2	G	572	ASN
2	G	612	ASN
2	G	650	ASN
2	G	718	ASN
2	G	740	HIS
2	G	741	HIS
2	G	747	HIS
2	G	752	GLN
2	G	762	ASN
2	G	900	GLN
2	G	910	GLN
2	G	1046	GLN
2	G	1148	ASN
2	G	1217	ASN
2	G	1220	GLN
2	G	1246	ASN
2	G	1259	ASN
2	G	1260	GLN
2	G	1341	ASN
2	G	1352	HIS

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Mol	Chain	Res	Type
2	G	1355	ASN
2	G	1367	GLN
2	G	1384	GLN
2	G	1432	GLN
2	G	1595	ASN
2	G	1669	GLN
2	G	1672	GLN
2	G	1697	HIS
2	G	1890	ASN
2	G	1896	GLN
2	G	1977	HIS
2	G	1995	ASN
2	G	2013	ASN
2	G	2020	GLN
2	H	34	GLN
2	H	85	ASN
2	H	102	HIS
2	H	359	HIS
2	H	376	ASN
2	H	418	ASN
2	H	428	HIS
2	H	430	HIS
2	H	440	ASN
2	H	447	ASN
2	H	451	ASN
2	H	500	HIS
2	H	517	HIS
2	H	545	GLN
2	H	558	ASN
2	H	572	ASN
2	H	612	ASN
2	H	650	ASN
2	H	718	ASN
2	H	740	HIS
2	H	741	HIS
2	H	747	HIS
2	H	752	GLN
2	H	762	ASN
2	H	900	GLN
2	H	910	GLN
2	H	1046	GLN
2	H	1148	ASN

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Mol	Chain	Res	Type
2	H	1151	HIS
2	H	1217	ASN
2	H	1220	GLN
2	H	1246	ASN
2	H	1259	ASN
2	H	1260	GLN
2	H	1352	HIS
2	H	1355	ASN
2	H	1367	GLN
2	H	1384	GLN
2	H	1432	GLN
2	H	1581	HIS
2	H	1595	ASN
2	H	1672	GLN
2	H	1697	HIS
2	H	1756	ASN
2	H	1890	ASN
2	H	1896	GLN
2	H	1977	HIS
2	H	1995	ASN
2	H	2013	ASN
2	H	2020	GLN
2	I	34	GLN
2	I	85	ASN
2	I	102	HIS
2	I	359	HIS
2	I	376	ASN
2	I	418	ASN
2	I	428	HIS
2	I	430	HIS
2	I	440	ASN
2	I	447	ASN
2	I	500	HIS
2	I	517	HIS
2	I	545	GLN
2	I	558	ASN
2	I	572	ASN
2	I	612	ASN
2	I	650	ASN
2	I	740	HIS
2	I	741	HIS
2	I	747	HIS

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Mol	Chain	Res	Type
2	I	752	GLN
2	I	762	ASN
2	I	910	GLN
2	I	1046	GLN
2	I	1148	ASN
2	I	1217	ASN
2	I	1220	GLN
2	I	1246	ASN
2	I	1259	ASN
2	I	1260	GLN
2	I	1341	ASN
2	I	1352	HIS
2	I	1355	ASN
2	I	1367	GLN
2	I	1384	GLN
2	I	1432	GLN
2	I	1535	ASN
2	I	1581	HIS
2	I	1595	ASN
2	I	1672	GLN
2	I	1697	HIS
2	I	1890	ASN
2	I	1896	GLN
2	I	1977	HIS
2	I	1995	ASN
2	I	2013	ASN
2	I	2020	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

3 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
1	GVL	B	180	1	15,18,19	0.67	0	20,26,28	0.85	1 (5%)
1	GVL	A	180	1	15,18,19	0.74	0	20,26,28	0.81	0
1	GVL	C	180	1	15,18,19	0.78	0	20,26,28	0.98	1 (5%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	GVL	B	180	1	-	5/22/25/27	-
1	GVL	A	180	1	-	6/22/25/27	-
1	GVL	C	180	1	-	6/22/25/27	-

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	180	GVL	C30-C29-C32	2.54	113.10	108.77
1	B	180	GVL	O35-C34-C32	2.05	121.15	119.11

There are no chirality outliers.

All (17) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	180	GVL	CB-O25-P24-O23
1	A	180	GVL	CB-O25-P24-O27
1	A	180	GVL	C28-O27-P24-O25
1	A	180	GVL	C28-O27-P24-O26
1	B	180	GVL	CB-O25-P24-O23
1	B	180	GVL	CB-O25-P24-O27
1	B	180	GVL	C28-O27-P24-O25
1	B	180	GVL	C28-O27-P24-O26
1	C	180	GVL	CB-O25-P24-O23
1	C	180	GVL	CB-O25-P24-O27
1	C	180	GVL	C28-O27-P24-O25
1	C	180	GVL	C28-O27-P24-O26

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Mol	Chain	Res	Type	Atoms
1	A	180	GVL	CB-O25-P24-O26
1	A	180	GVL	C28-O27-P24-O23
1	B	180	GVL	CB-O25-P24-O26
1	C	180	GVL	CB-O25-P24-O26
1	C	180	GVL	C28-O27-P24-O23

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

3 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	FMN	H	3051	-	33,33,33	6.34	21 (63%)	48,50,50	1.36	7 (14%)
3	FMN	G	3051	-	33,33,33	6.45	22 (66%)	48,50,50	1.35	5 (10%)
3	FMN	I	3051	-	33,33,33	6.45	24 (72%)	48,50,50	1.37	8 (16%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	FMN	H	3051	-	-	5/18/18/18	0/3/3/3
3	FMN	G	3051	-	-	5/18/18/18	0/3/3/3
3	FMN	I	3051	-	-	5/18/18/18	0/3/3/3

All (67) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	3051	FMN	C6-C7	13.45	1.57	1.39
3	I	3051	FMN	C6-C7	13.06	1.57	1.39
3	H	3051	FMN	C6-C7	12.80	1.57	1.39
3	I	3051	FMN	C9-C8	12.48	1.56	1.39
3	I	3051	FMN	C6-C5A	12.42	1.58	1.40
3	G	3051	FMN	C9-C9A	12.38	1.59	1.39
3	G	3051	FMN	C6-C5A	12.35	1.58	1.40
3	I	3051	FMN	C9-C9A	12.17	1.59	1.39
3	H	3051	FMN	C9-C9A	12.16	1.59	1.39
3	H	3051	FMN	C6-C5A	12.07	1.58	1.40
3	G	3051	FMN	C9-C8	11.91	1.55	1.39
3	H	3051	FMN	C9-C8	11.77	1.55	1.39
3	G	3051	FMN	O4-C4	9.98	1.42	1.23
3	H	3051	FMN	O4-C4	9.91	1.42	1.23
3	I	3051	FMN	O4-C4	9.74	1.42	1.23
3	G	3051	FMN	C4A-N5	9.61	1.51	1.30
3	I	3051	FMN	C4A-N5	9.32	1.50	1.30
3	H	3051	FMN	C4A-N5	9.31	1.50	1.30
3	I	3051	FMN	C9A-C5A	9.12	1.55	1.41
3	G	3051	FMN	C9A-C5A	8.72	1.55	1.41
3	H	3051	FMN	O2-C2	8.50	1.41	1.24
3	H	3051	FMN	C9A-C5A	8.41	1.54	1.41
3	I	3051	FMN	O2-C2	8.40	1.41	1.24
3	G	3051	FMN	O2-C2	8.23	1.40	1.24
3	I	3051	FMN	C8-C7	7.48	1.59	1.40
3	G	3051	FMN	C2-N1	7.45	1.53	1.36
3	H	3051	FMN	C2-N1	7.29	1.53	1.36
3	I	3051	FMN	C2-N1	7.21	1.53	1.36
3	G	3051	FMN	C10-N1	7.19	1.47	1.33
3	H	3051	FMN	C10-N1	7.17	1.47	1.33
3	G	3051	FMN	C8-C7	7.11	1.58	1.40
3	I	3051	FMN	C10-N1	6.97	1.47	1.33
3	H	3051	FMN	C8-C7	6.86	1.57	1.40
3	I	3051	FMN	C5A-N5	6.68	1.51	1.39
3	G	3051	FMN	C10-N10	6.60	1.51	1.37
3	H	3051	FMN	C10-N10	6.59	1.51	1.37
3	I	3051	FMN	C10-N10	6.57	1.51	1.37
3	H	3051	FMN	C2-N3	6.53	1.53	1.39
3	G	3051	FMN	C5A-N5	6.51	1.51	1.39
3	H	3051	FMN	C5A-N5	6.42	1.51	1.39
3	H	3051	FMN	C4-N3	6.35	1.50	1.38
3	G	3051	FMN	C2-N3	6.21	1.52	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	3051	FMN	C4-N3	6.15	1.50	1.38
3	I	3051	FMN	C2-N3	6.08	1.52	1.39
3	I	3051	FMN	C4-N3	6.05	1.50	1.38
3	G	3051	FMN	C9A-N10	5.24	1.50	1.41
3	I	3051	FMN	C9A-N10	4.95	1.49	1.41
3	H	3051	FMN	C9A-N10	4.94	1.49	1.41
3	G	3051	FMN	C4A-C10	3.66	1.55	1.44
3	H	3051	FMN	C4A-C10	3.30	1.53	1.44
3	I	3051	FMN	C4A-C10	3.25	1.53	1.44
3	H	3051	FMN	C1'-C2'	3.20	1.57	1.52
3	I	3051	FMN	P-O2P	3.13	1.66	1.54
3	I	3051	FMN	C1'-C2'	3.07	1.56	1.52
3	H	3051	FMN	P-O2P	3.04	1.66	1.54
3	G	3051	FMN	P-O2P	3.03	1.66	1.54
3	G	3051	FMN	C1'-C2'	3.02	1.56	1.52
3	I	3051	FMN	P-O3P	2.97	1.65	1.54
3	H	3051	FMN	P-O3P	2.89	1.65	1.54
3	G	3051	FMN	P-O3P	2.71	1.64	1.54
3	G	3051	FMN	C4A-C4	2.44	1.53	1.44
3	I	3051	FMN	C8M-C8	2.43	1.55	1.51
3	H	3051	FMN	C4A-C4	2.34	1.53	1.44
3	I	3051	FMN	C7M-C7	2.24	1.55	1.51
3	I	3051	FMN	C4A-C4	2.20	1.52	1.44
3	I	3051	FMN	C5'-C4'	2.02	1.54	1.51
3	G	3051	FMN	C7M-C7	2.02	1.54	1.51

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	H	3051	FMN	C4'-C3'-C2'	-3.57	107.62	113.57
3	G	3051	FMN	C4'-C3'-C2'	-3.56	107.65	113.57
3	I	3051	FMN	C4'-C3'-C2'	-3.54	107.68	113.57
3	I	3051	FMN	C4A-C10-N10	3.23	121.10	116.48
3	H	3051	FMN	C4A-C10-N10	3.08	120.89	116.48
3	G	3051	FMN	C4A-C10-N10	3.06	120.87	116.48
3	G	3051	FMN	C10-C4A-N5	-2.77	119.14	124.81
3	H	3051	FMN	C10-C4A-N5	-2.72	119.25	124.81
3	I	3051	FMN	C10-C4A-N5	-2.60	119.50	124.81
3	I	3051	FMN	C4-N3-C2	-2.59	121.03	125.64
3	G	3051	FMN	C4-N3-C2	-2.44	121.30	125.64
3	H	3051	FMN	C4-N3-C2	-2.35	121.47	125.64
3	H	3051	FMN	O2-C2-N1	-2.27	118.03	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	I	3051	FMN	O4-C4-C4A	-2.20	120.74	126.53
3	G	3051	FMN	C5A-C9A-N10	2.07	119.84	117.97
3	I	3051	FMN	C9A-C5A-N5	-2.07	120.26	122.45
3	I	3051	FMN	O2-C2-N1	-2.06	118.38	121.80
3	I	3051	FMN	C4A-C4-N3	2.05	118.47	113.25
3	H	3051	FMN	O5'-C5'-C4'	-2.02	103.96	109.36
3	H	3051	FMN	O4-C4-C4A	-2.00	121.24	126.53

There are no chirality outliers.

All (15) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	G	3051	FMN	C2'-C3'-C4'-C5'
3	G	3051	FMN	O3'-C3'-C4'-C5'
3	H	3051	FMN	C2'-C3'-C4'-C5'
3	H	3051	FMN	O3'-C3'-C4'-C5'
3	I	3051	FMN	C2'-C3'-C4'-C5'
3	I	3051	FMN	O3'-C3'-C4'-C5'
3	I	3051	FMN	C2'-C3'-C4'-O4'
3	H	3051	FMN	O3'-C3'-C4'-O4'
3	I	3051	FMN	O3'-C3'-C4'-O4'
3	H	3051	FMN	C2'-C3'-C4'-O4'
3	G	3051	FMN	C2'-C3'-C4'-O4'
3	G	3051	FMN	O3'-C3'-C4'-O4'
3	G	3051	FMN	C4'-C5'-O5'-P
3	H	3051	FMN	C4'-C5'-O5'-P
3	I	3051	FMN	C4'-C5'-O5'-P

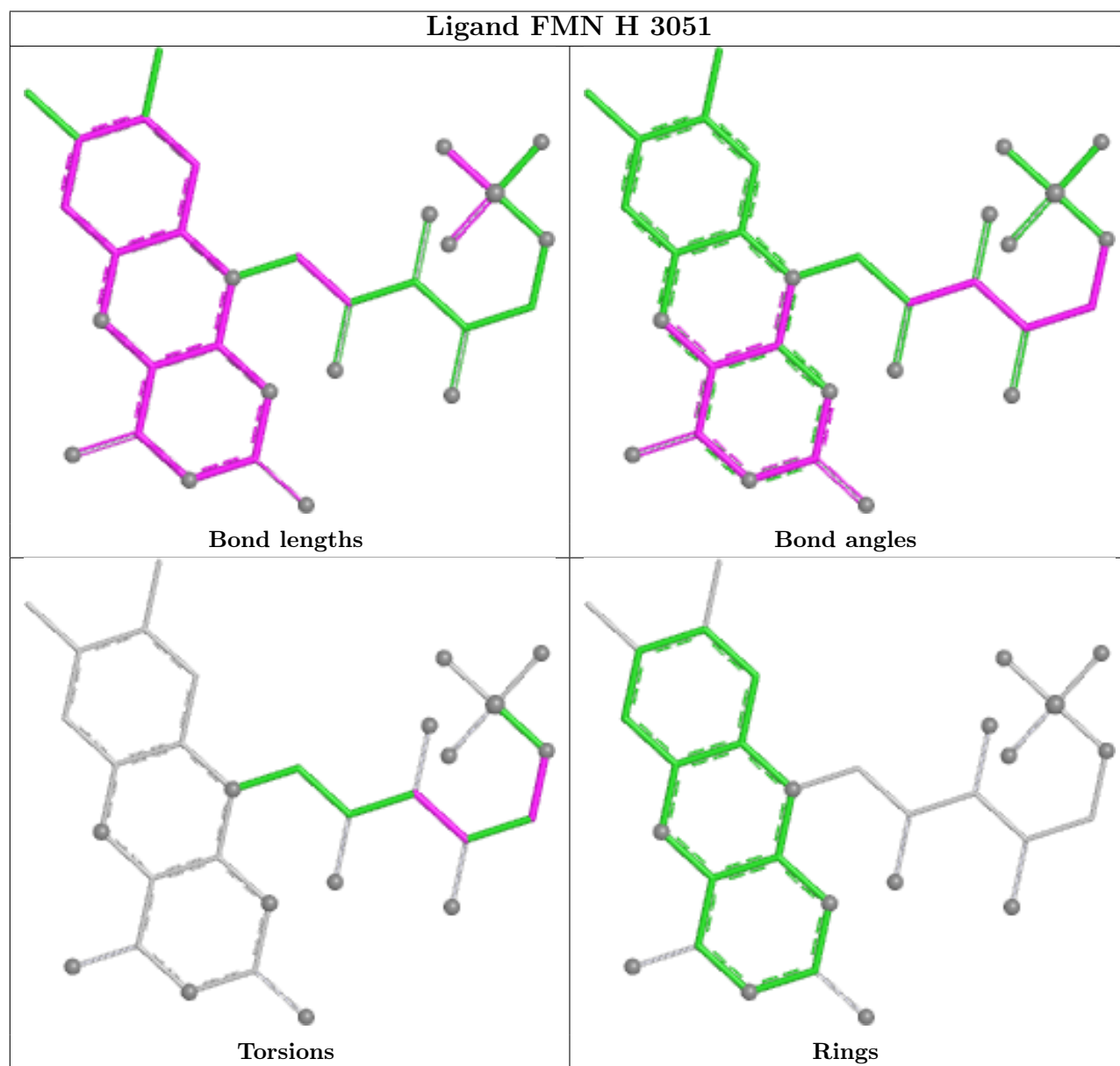
There are no ring outliers.

3 monomers are involved in 22 short contacts:

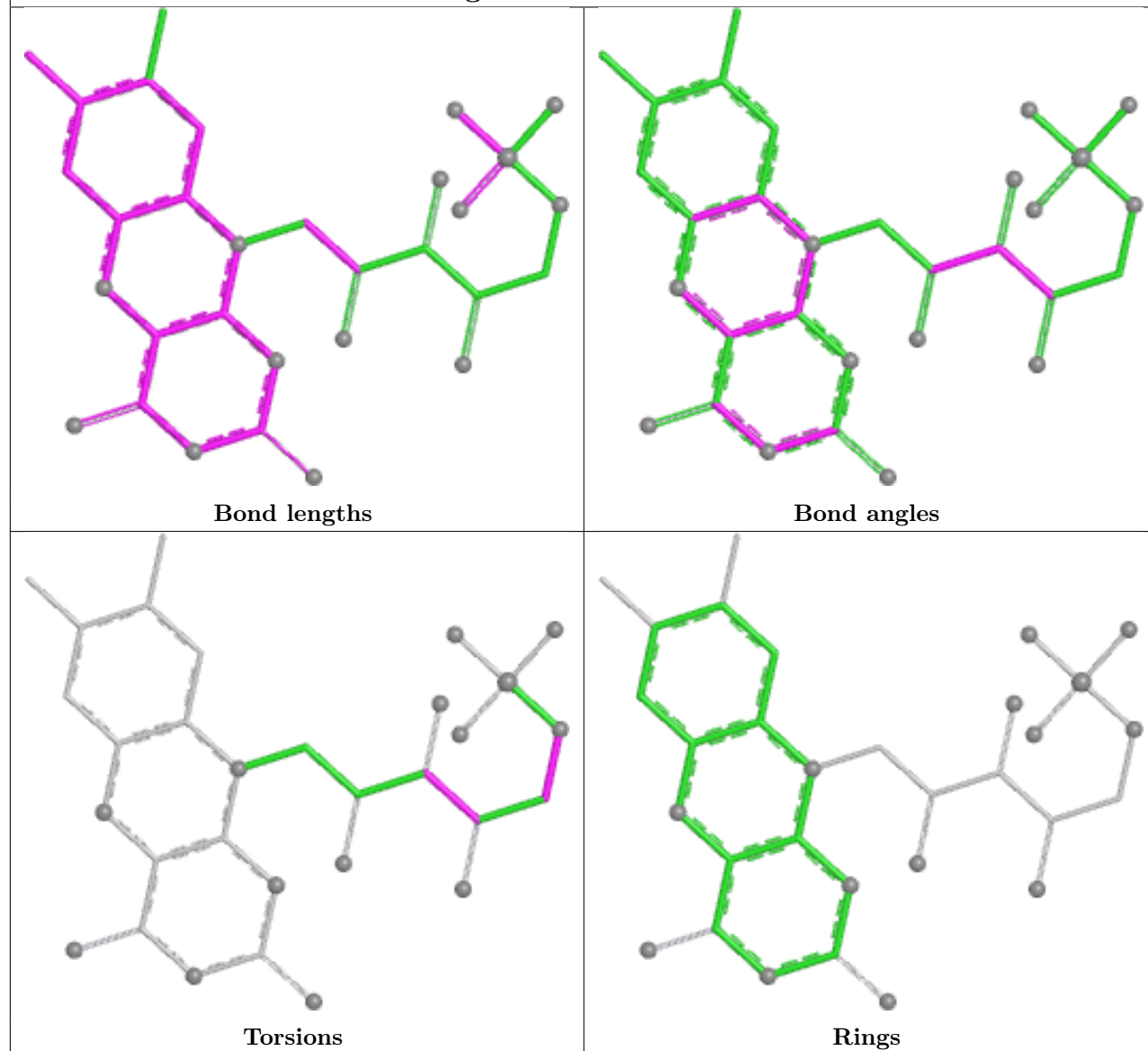
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	H	3051	FMN	7	0
3	G	3051	FMN	8	0
3	I	3051	FMN	7	0

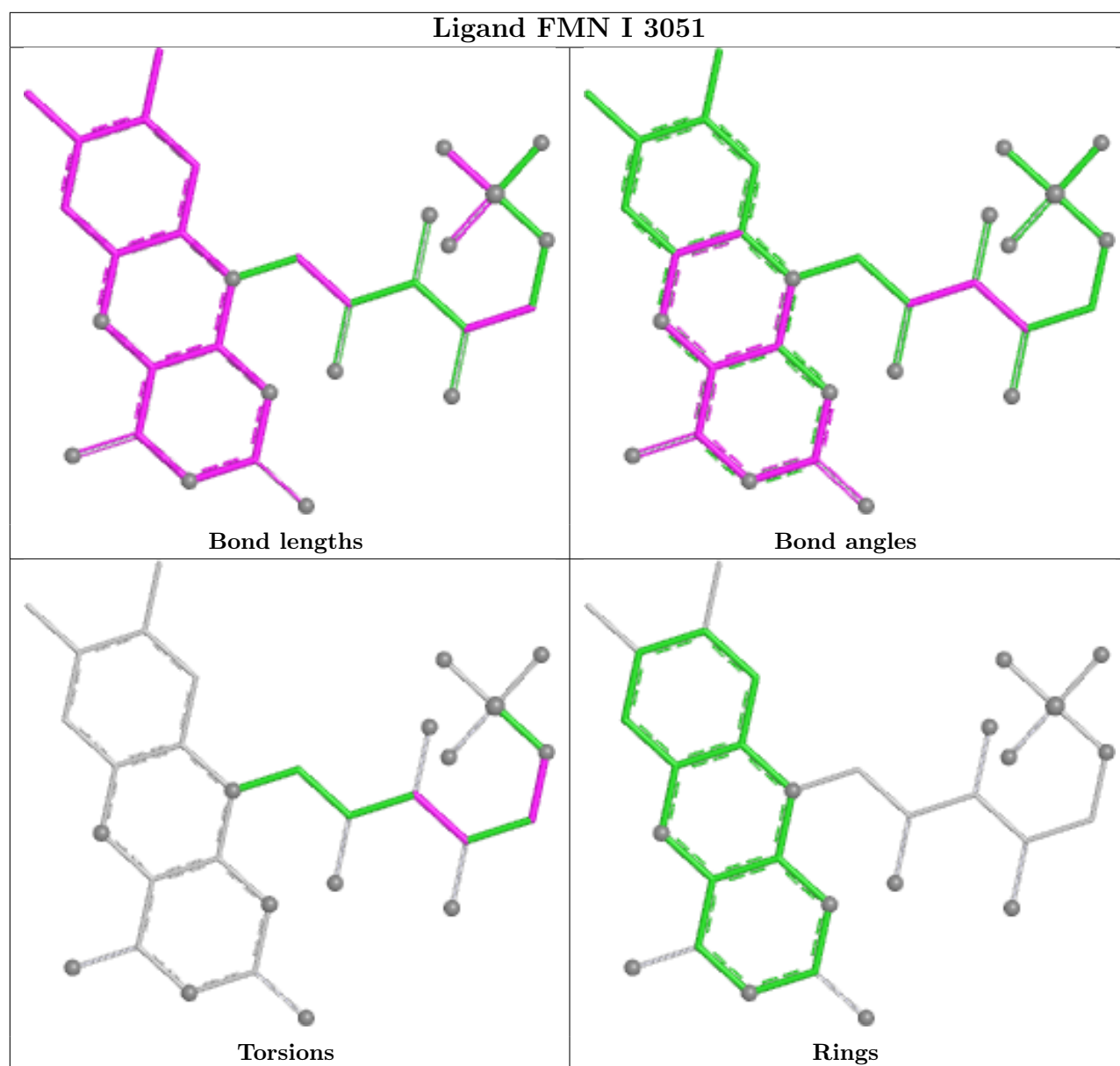
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be

highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



Ligand FMN G 3051





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

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

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

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	1613/1887 (85%)	-0.83	0 100 100	28, 59, 126, 166	0
1	B	1613/1887 (85%)	-0.79	1 (0%) 92 86	30, 59, 127, 170	0
1	C	1613/1887 (85%)	-0.84	0 100 100	29, 61, 126, 170	0
2	G	2033/2051 (99%)	-0.73	2 (0%) 92 86	39, 73, 114, 151	0
2	H	2033/2051 (99%)	-0.73	2 (0%) 92 86	41, 73, 113, 152	0
2	I	2033/2051 (99%)	-0.75	1 (0%) 100 100	42, 74, 113, 150	0
All	All	10938/11814 (92%)	-0.77	6 (0%) 92 86	28, 69, 119, 170	0

All (6) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	1476	GLU	4.2
2	H	1925	ILE	3.2
2	H	1740	THR	3.1
2	G	1740	THR	2.3
2	G	1741	ILE	2.1
2	I	1740	THR	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q< 0.9’ lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	GVL	C	180	19/20	0.74	0.14	49,130,161,187	0
1	GVL	B	180	19/20	0.81	0.12	48,119,172,190	0
1	GVL	A	180	19/20	0.87	0.09	44,125,164,189	0

6.3 Carbohydrates [i](#)

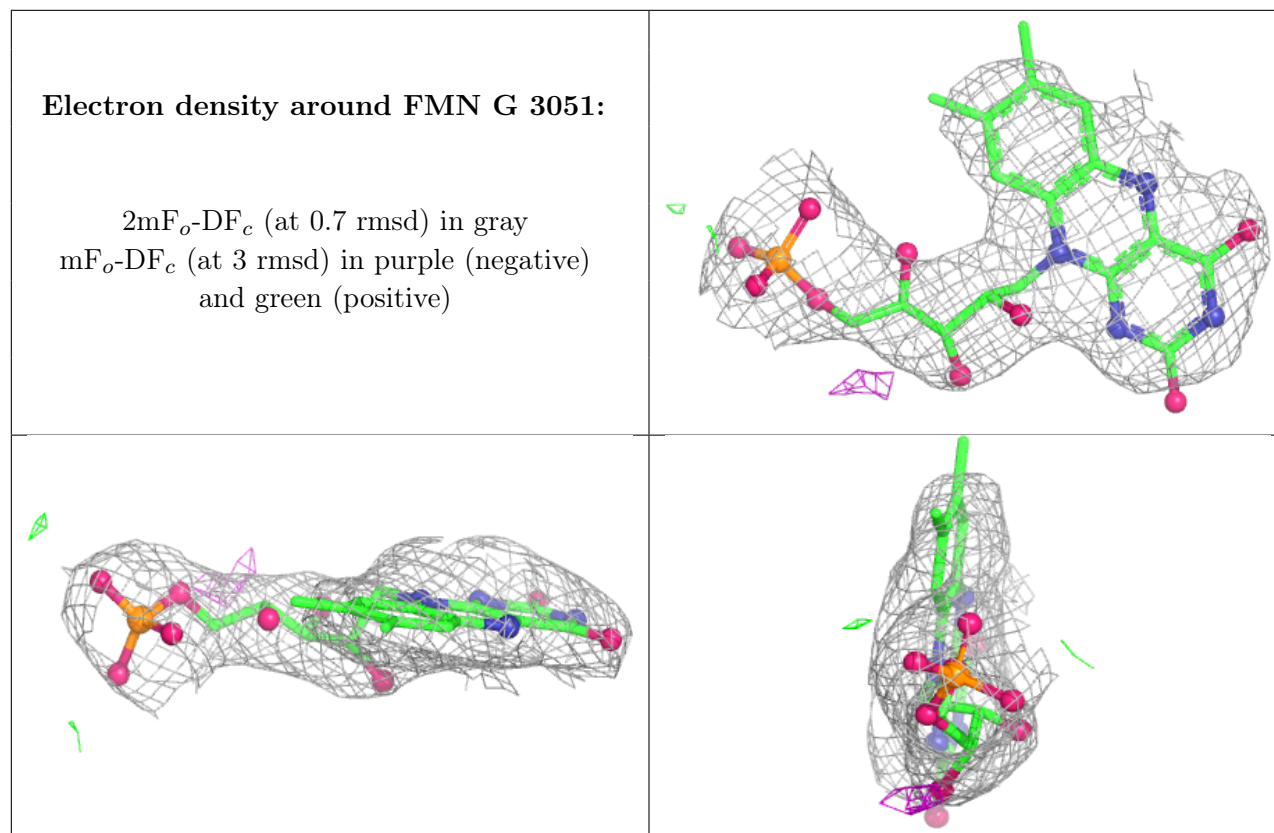
There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

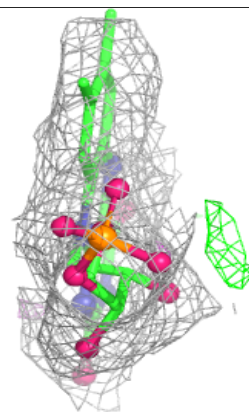
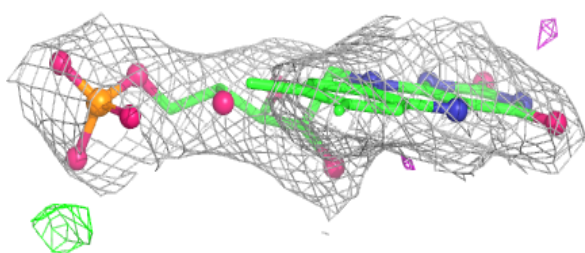
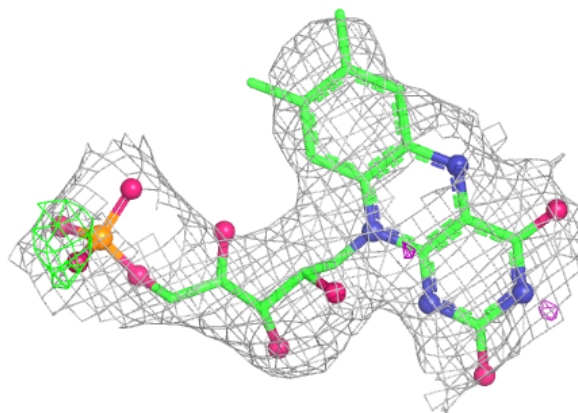
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	FMN	G	3051	31/31	0.96	0.08	31,55,81,100	0
3	FMN	H	3051	31/31	0.96	0.08	27,54,78,82	0
3	FMN	I	3051	31/31	0.96	0.07	26,57,75,97	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

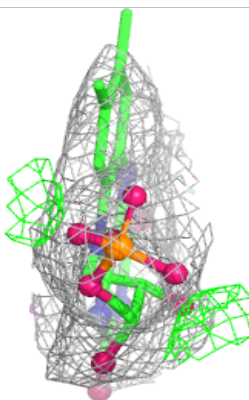
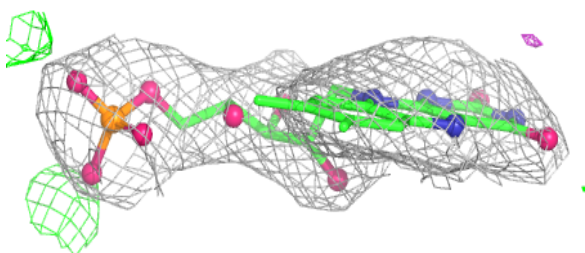
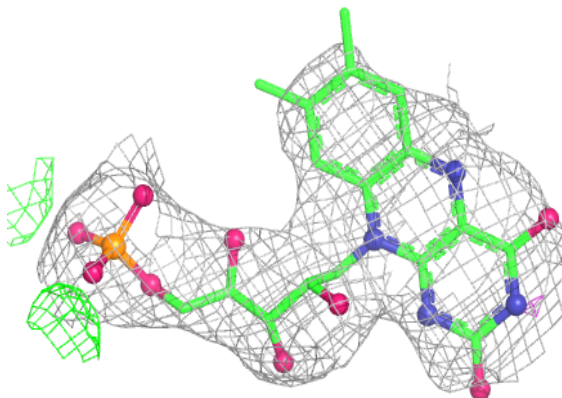


Electron density around FMN H 3051:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

**Electron density around FMN I 3051:**

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.