



# Full wwPDB X-ray Structure Validation Report ⓘ

May 29, 2020 – 08:11 am BST

PDB ID : 4YLO  
Title : E. coli Transcription Initiation Complex - 16-bp spacer and 4-nt RNA  
Authors : Zuo, Y.; Steitz, T.A.  
Deposited on : 2015-03-05  
Resolution : 6.00 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](mailto: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.

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

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.11  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.11

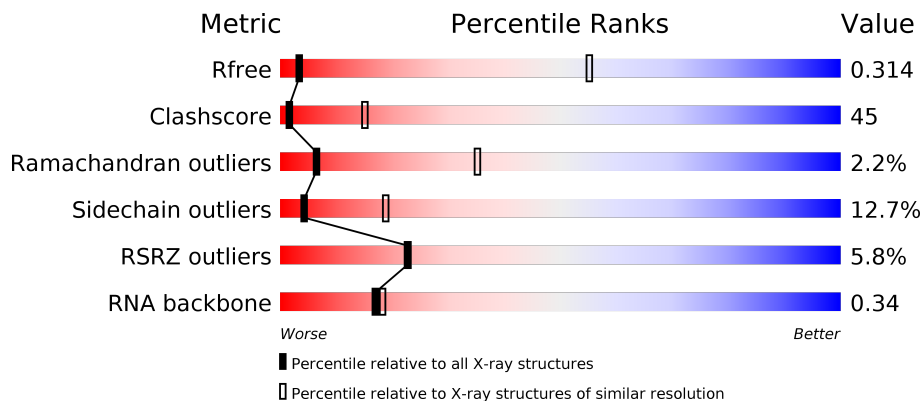
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 6.00 Å.

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



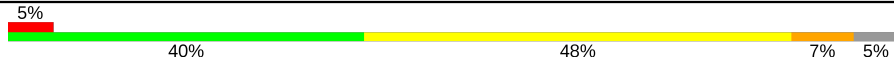

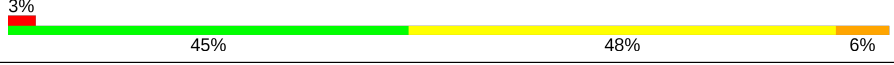
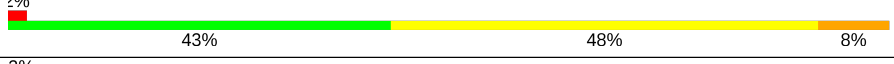
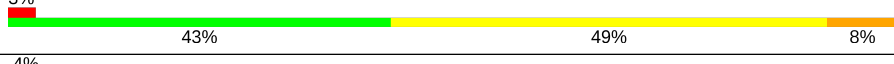
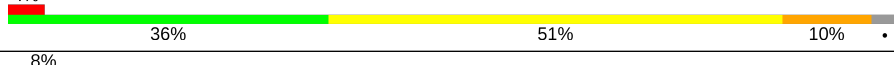
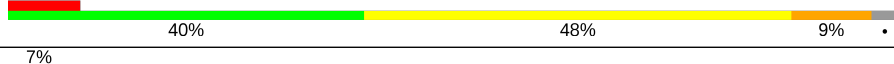

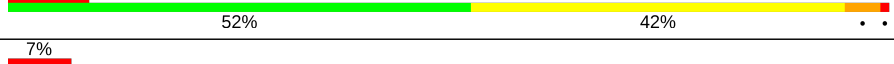


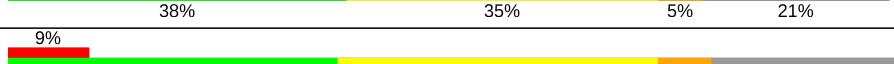

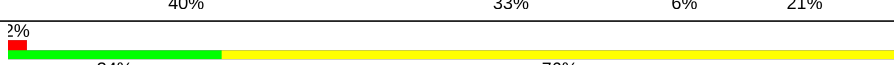
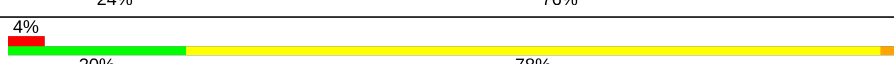
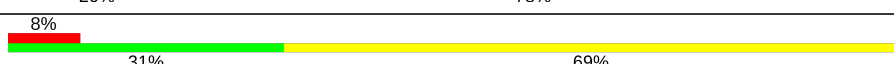
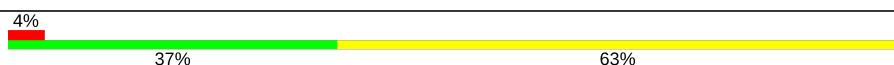
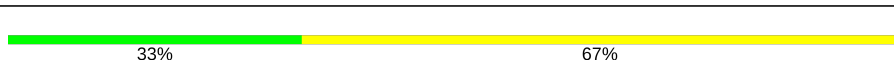
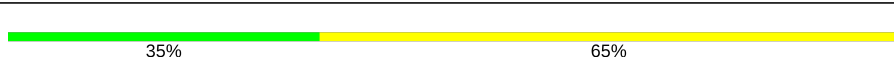




Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	1000 (8.00-3.88)
Clashscore	141614	1049 (8.00-3.90)
Ramachandran outliers	138981	1016 (8.00-3.86)
Sidechain outliers	138945	1017 (8.00-3.82)
RSRZ outliers	127900	1015 (8.20-3.78)
RNA backbone	3102	1076 (8.70-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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	242	
1	B	242	
1	G	242	
1	H	242	

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Mol	Chain	Length	Quality of chain
1	M	242	
1	N	242	
2	C	1342	
2	I	1342	
2	O	1342	
3	D	1407	
3	J	1407	
3	P	1407	
4	E	90	
4	K	90	
4	Q	90	
5	F	628	
5	L	628	
5	R	628	
6	1	49	
6	4	49	
6	7	49	
7	2	49	
7	5	49	
7	8	49	
8	3	4	
8	6	4	
8	9	4	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
10	ZN	D	1502	-	-	X	-

## 2 Entry composition i

There are 10 unique types of molecules in this entry. The entry contains 94608 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 DNA-directed RNA polymerase subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	230	Total 1787	C 1112	N 317	O 352	S 6	0	0	0
1	B	228	Total 1767	C 1100	N 312	O 349	S 6	0	0	0
1	G	230	Total 1787	C 1112	N 317	O 352	S 6	0	0	0
1	H	228	Total 1767	C 1100	N 312	O 349	S 6	0	0	0
1	M	230	Total 1787	C 1112	N 317	O 352	S 6	0	0	0
1	N	228	Total 1767	C 1100	N 312	O 349	S 6	0	0	0

There are 42 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-6	ALA	-	expression tag	UNP A7ZSI4
A	-5	HIS	-	expression tag	UNP A7ZSI4
A	-4	HIS	-	expression tag	UNP A7ZSI4
A	-3	HIS	-	expression tag	UNP A7ZSI4
A	-2	HIS	-	expression tag	UNP A7ZSI4
A	-1	HIS	-	expression tag	UNP A7ZSI4
A	0	HIS	-	expression tag	UNP A7ZSI4
B	-6	ALA	-	expression tag	UNP A7ZSI4
B	-5	HIS	-	expression tag	UNP A7ZSI4
B	-4	HIS	-	expression tag	UNP A7ZSI4
B	-3	HIS	-	expression tag	UNP A7ZSI4
B	-2	HIS	-	expression tag	UNP A7ZSI4
B	-1	HIS	-	expression tag	UNP A7ZSI4
B	0	HIS	-	expression tag	UNP A7ZSI4
G	-6	ALA	-	expression tag	UNP A7ZSI4
G	-5	HIS	-	expression tag	UNP A7ZSI4
G	-4	HIS	-	expression tag	UNP A7ZSI4

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Chain	Residue	Modelled	Actual	Comment	Reference
G	-3	HIS	-	expression tag	UNP A7ZSI4
G	-2	HIS	-	expression tag	UNP A7ZSI4
G	-1	HIS	-	expression tag	UNP A7ZSI4
G	0	HIS	-	expression tag	UNP A7ZSI4
H	-6	ALA	-	expression tag	UNP A7ZSI4
H	-5	HIS	-	expression tag	UNP A7ZSI4
H	-4	HIS	-	expression tag	UNP A7ZSI4
H	-3	HIS	-	expression tag	UNP A7ZSI4
H	-2	HIS	-	expression tag	UNP A7ZSI4
H	-1	HIS	-	expression tag	UNP A7ZSI4
H	0	HIS	-	expression tag	UNP A7ZSI4
M	-6	ALA	-	expression tag	UNP A7ZSI4
M	-5	HIS	-	expression tag	UNP A7ZSI4
M	-4	HIS	-	expression tag	UNP A7ZSI4
M	-3	HIS	-	expression tag	UNP A7ZSI4
M	-2	HIS	-	expression tag	UNP A7ZSI4
M	-1	HIS	-	expression tag	UNP A7ZSI4
M	0	HIS	-	expression tag	UNP A7ZSI4
N	-6	ALA	-	expression tag	UNP A7ZSI4
N	-5	HIS	-	expression tag	UNP A7ZSI4
N	-4	HIS	-	expression tag	UNP A7ZSI4
N	-3	HIS	-	expression tag	UNP A7ZSI4
N	-2	HIS	-	expression tag	UNP A7ZSI4
N	-1	HIS	-	expression tag	UNP A7ZSI4
N	0	HIS	-	expression tag	UNP A7ZSI4

- Molecule 2 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	C	1341	10576	6636	1842	2055	43	0	0	0
2	I	1341	10576	6636	1842	2055	43	0	0	0
2	O	1341	10576	6636	1842	2055	43	0	0	0

- Molecule 3 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	D	1362	10568	6633	1887	1998	50	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	J	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			
3	P	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			

- Molecule 4 is a protein called DNA-directed RNA polymerase subunit omega.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	E	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			
4	K	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			
4	Q	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			

- Molecule 5 is a protein called RNA polymerase sigma factor RpoD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	F	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			
5	L	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			
5	R	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			

There are 45 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
F	-14	MET	-	expression tag	UNP P00579
F	-13	ARG	-	expression tag	UNP P00579
F	-12	GLY	-	expression tag	UNP P00579
F	-11	SER	-	expression tag	UNP P00579
F	-10	HIS	-	expression tag	UNP P00579
F	-9	HIS	-	expression tag	UNP P00579
F	-8	HIS	-	expression tag	UNP P00579
F	-7	HIS	-	expression tag	UNP P00579
F	-6	HIS	-	expression tag	UNP P00579
F	-5	HIS	-	expression tag	UNP P00579
F	-4	THR	-	expression tag	UNP P00579
F	-3	ASP	-	expression tag	UNP P00579
F	-2	GLN	-	expression tag	UNP P00579
F	-1	PHE	-	expression tag	UNP P00579

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Chain	Residue	Modelled	Actual	Comment	Reference
F	0	THR	-	expression tag	UNP P00579
L	-14	MET	-	expression tag	UNP P00579
L	-13	ARG	-	expression tag	UNP P00579
L	-12	GLY	-	expression tag	UNP P00579
L	-11	SER	-	expression tag	UNP P00579
L	-10	HIS	-	expression tag	UNP P00579
L	-9	HIS	-	expression tag	UNP P00579
L	-8	HIS	-	expression tag	UNP P00579
L	-7	HIS	-	expression tag	UNP P00579
L	-6	HIS	-	expression tag	UNP P00579
L	-5	HIS	-	expression tag	UNP P00579
L	-4	THR	-	expression tag	UNP P00579
L	-3	ASP	-	expression tag	UNP P00579
L	-2	GLN	-	expression tag	UNP P00579
L	-1	PHE	-	expression tag	UNP P00579
L	0	THR	-	expression tag	UNP P00579
R	-14	MET	-	expression tag	UNP P00579
R	-13	ARG	-	expression tag	UNP P00579
R	-12	GLY	-	expression tag	UNP P00579
R	-11	SER	-	expression tag	UNP P00579
R	-10	HIS	-	expression tag	UNP P00579
R	-9	HIS	-	expression tag	UNP P00579
R	-8	HIS	-	expression tag	UNP P00579
R	-7	HIS	-	expression tag	UNP P00579
R	-6	HIS	-	expression tag	UNP P00579
R	-5	HIS	-	expression tag	UNP P00579
R	-4	THR	-	expression tag	UNP P00579
R	-3	ASP	-	expression tag	UNP P00579
R	-2	GLN	-	expression tag	UNP P00579
R	-1	PHE	-	expression tag	UNP P00579
R	0	THR	-	expression tag	UNP P00579

- Molecule 6 is a DNA chain called NT strand DNA (49-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			
6	4	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			
6	7	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			



- Molecule 7 is a DNA chain called T strand DNA (49-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	2	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			
7	5	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			
7	8	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			

- Molecule 8 is a RNA chain called RNA (5'-D\*(GTP))-R(P\*AP\*GP\*U)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	3	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			
8	6	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			
8	9	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			

- Molecule 9 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	P	1	Total	Mg	0	0
			1	1		
9	J	1	Total	Mg	0	0
			1	1		
9	C	1	Total	Mg	0	0
			1	1		

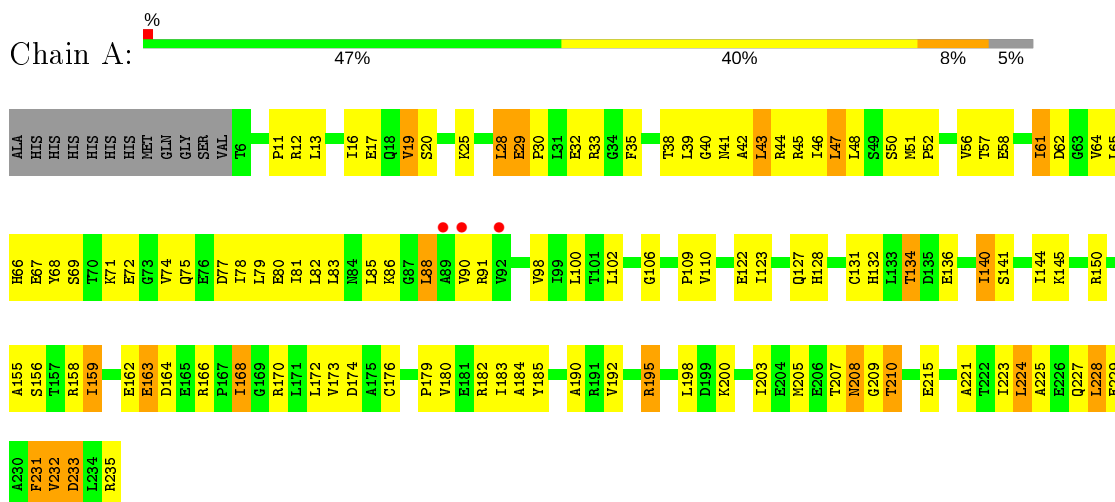
- Molecule 10 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
10	P	2	Total	Zn	0	0
			2	2		
10	J	2	Total	Zn	0	0
			2	2		
10	D	2	Total	Zn	0	0
			2	2		

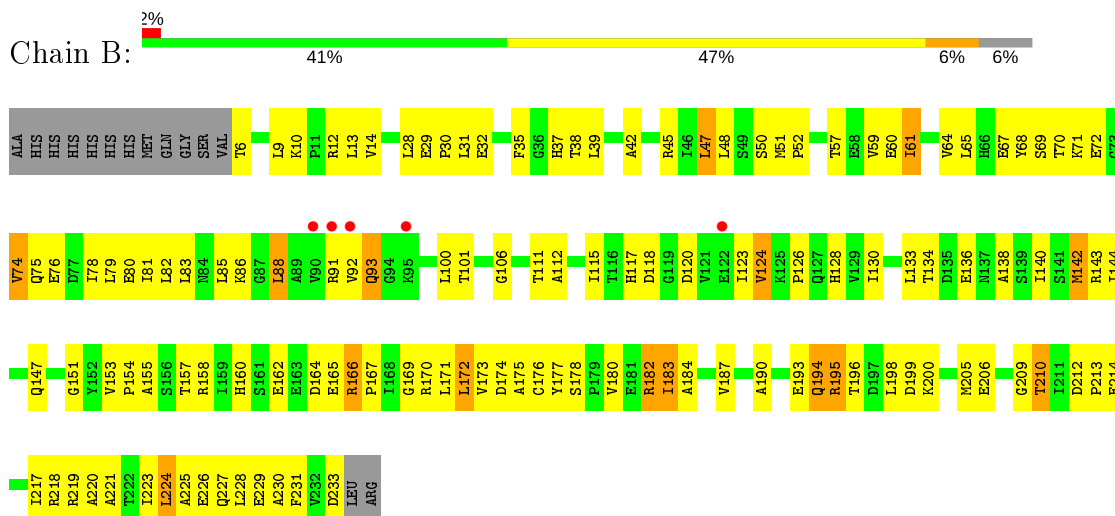
### 3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA 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.

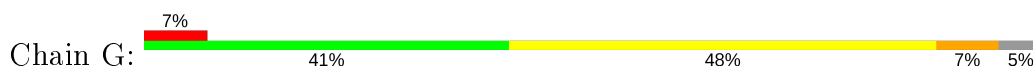
- Molecule 1: DNA-directed RNA polymerase subunit alpha

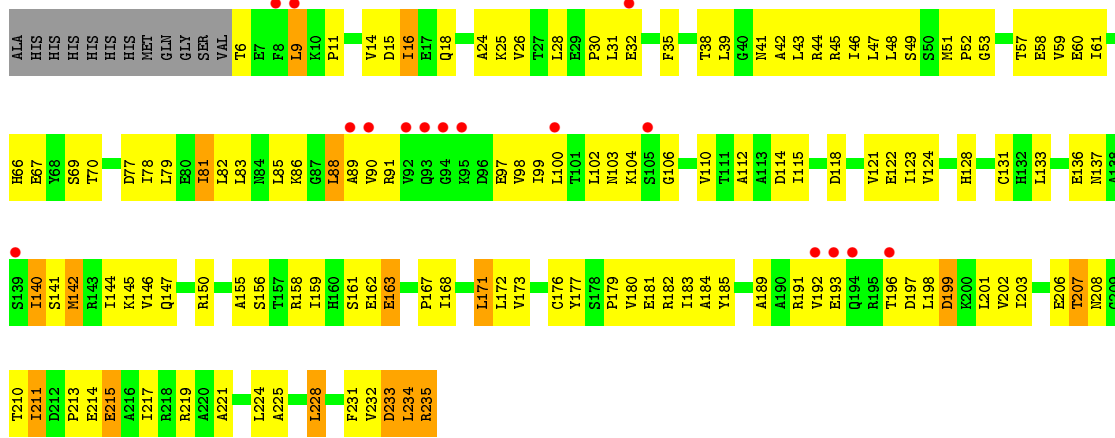


- Molecule 1: DNA-directed RNA polymerase subunit alpha

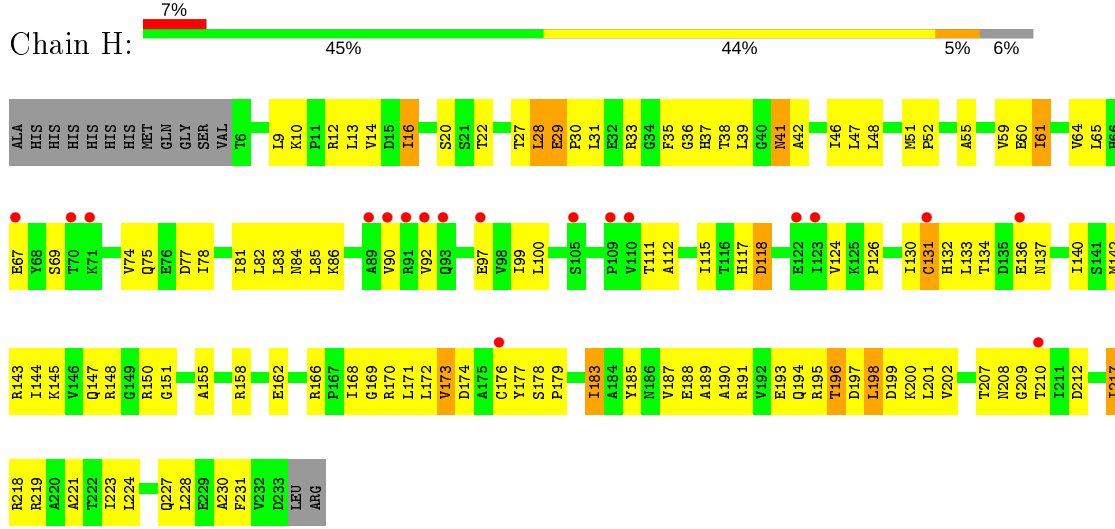


- Molecule 1: DNA-directed RNA polymerase subunit alpha

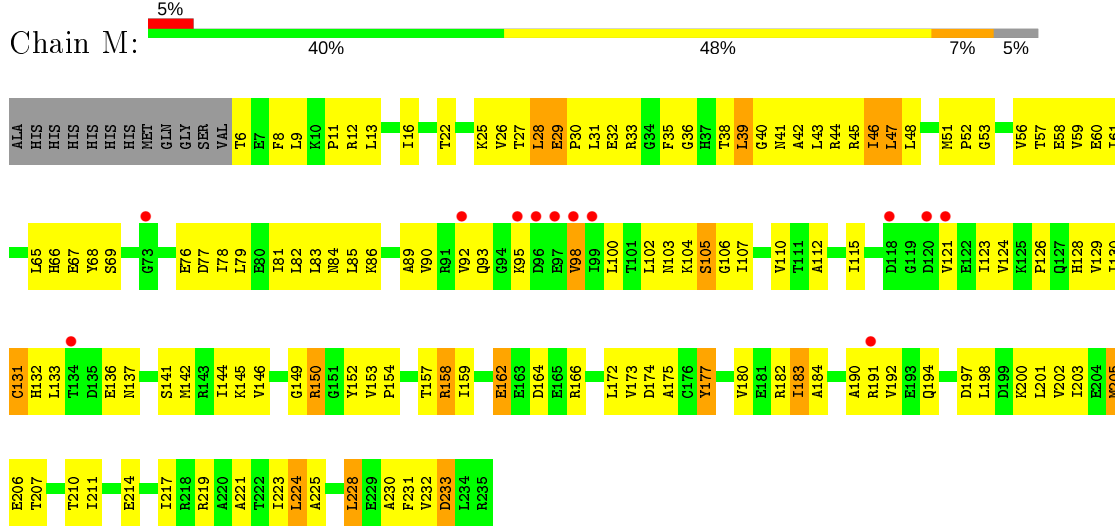




• Molecule 1: DNA-directed RNA polymerase subunit alpha

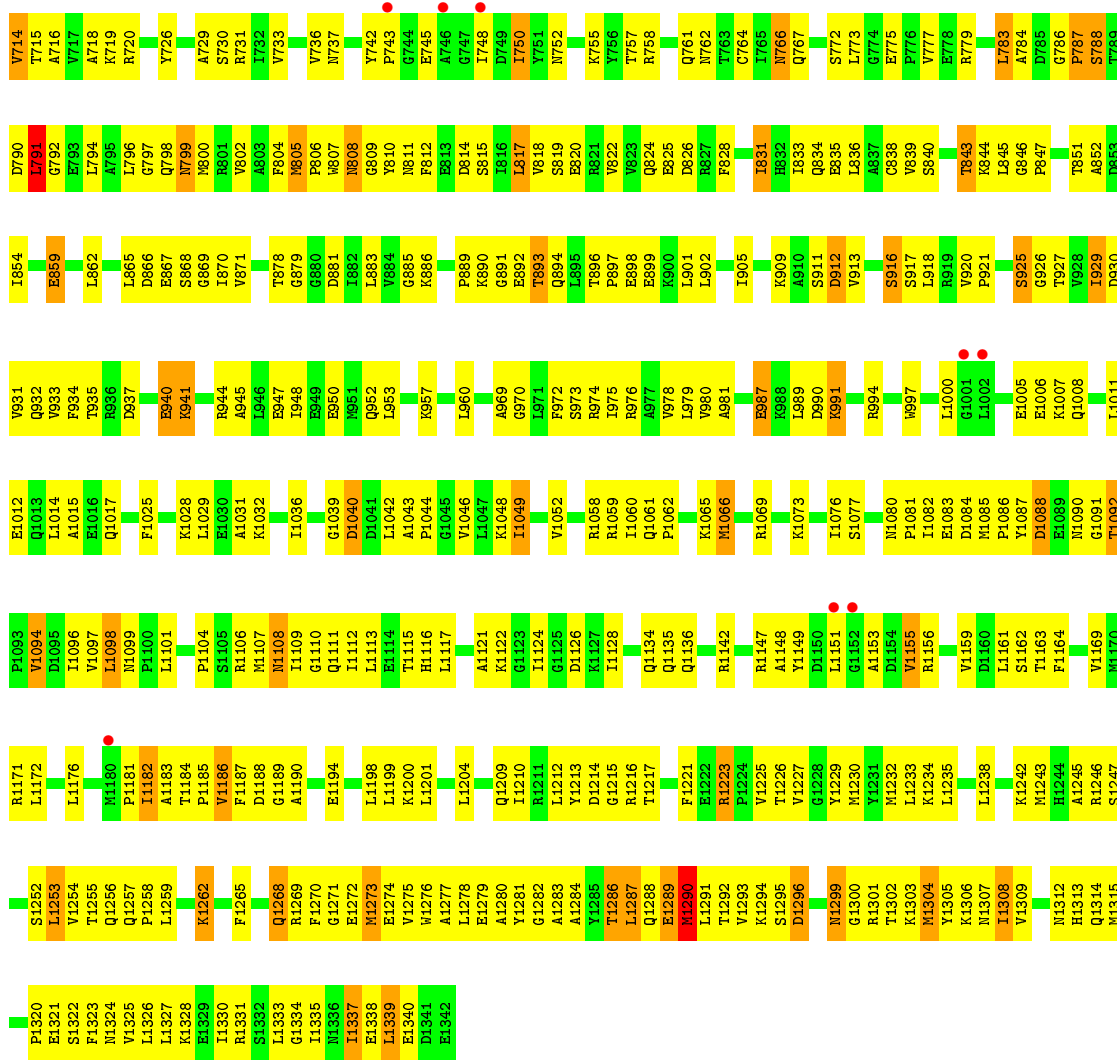


• Molecule 1: DNA-directed RNA polymerase subunit alpha

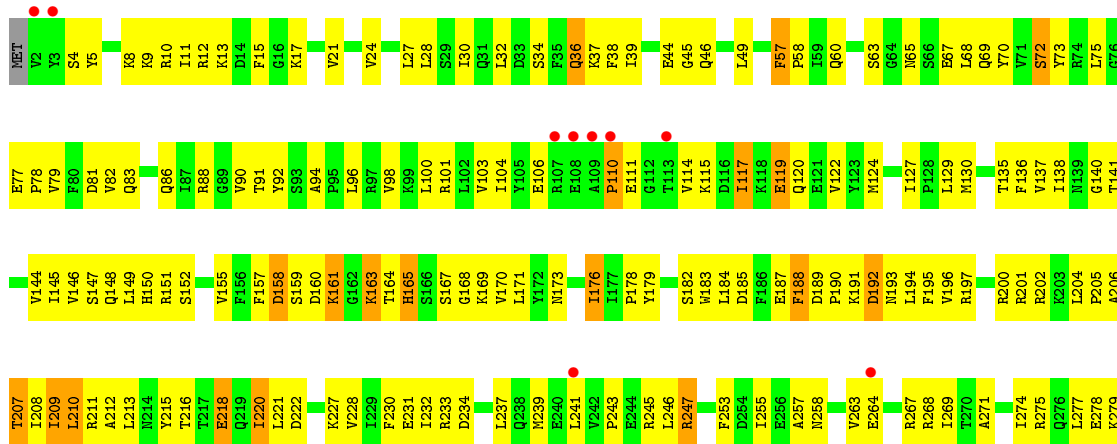


• Molecule 1: DNA-directed RNA polymerase subunit alpha






● Molecule 2: DNA-directed RNA polymerase subunit beta

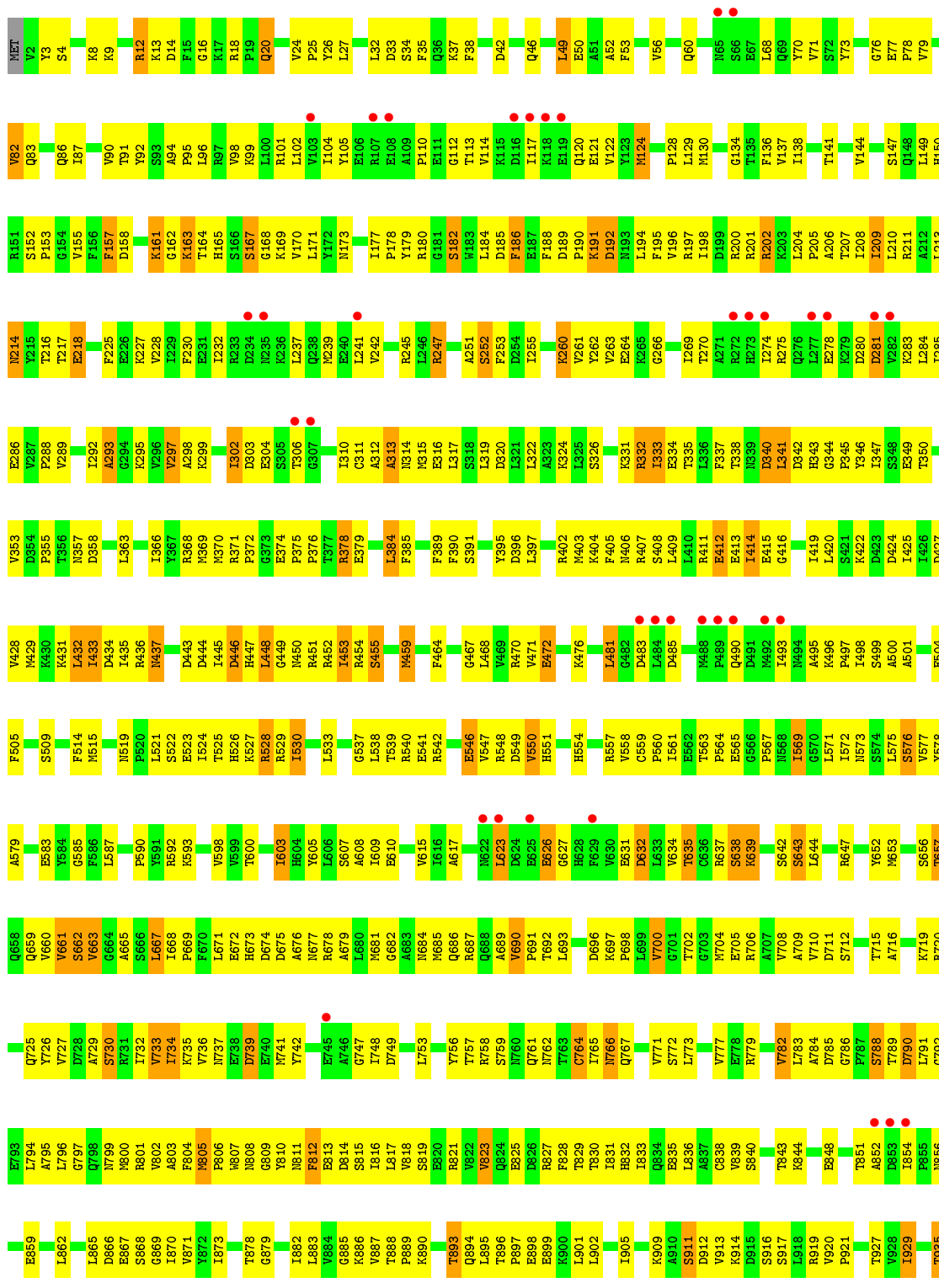


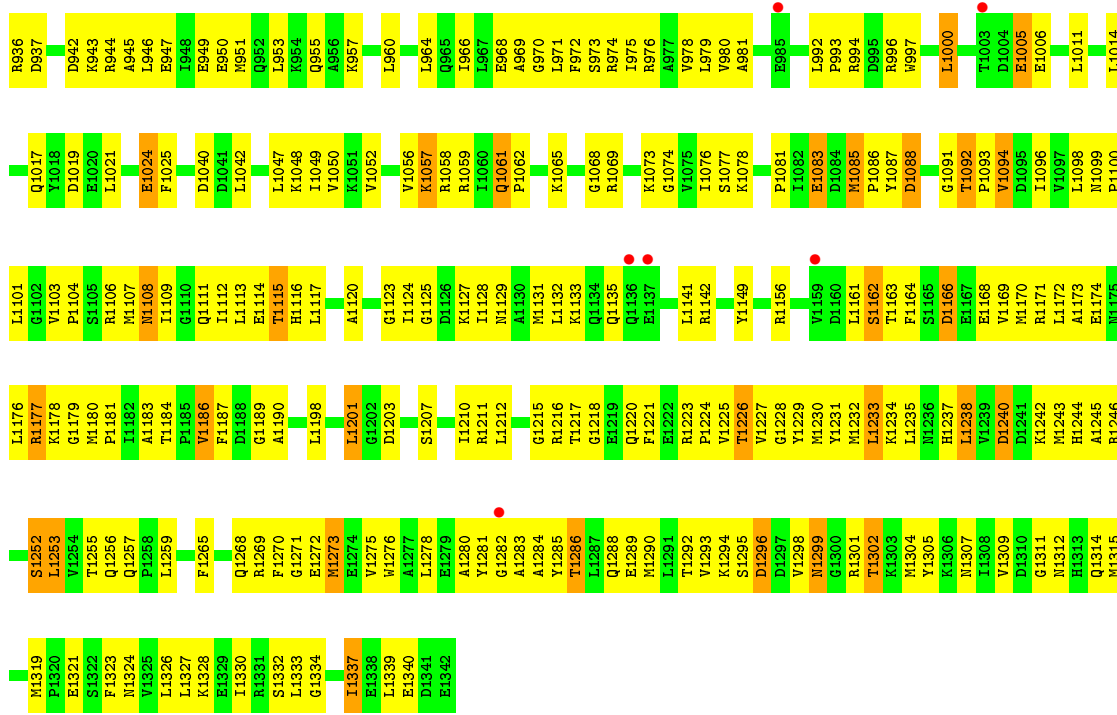
Q1257	I1182	S1105	R1034	E947	E876	F804	K735	1668	V502	I435	L360	D880
P1258	A1183	R1106	K1035	1948	V877	M805	V736	P669	A503	R436	S361	D281
G1261	P1184	M1107	I1036	E949	T878	P806	N737	F670	F504	M437	A362	V282
F1265	P1185	M1108	T1037	E950	G879	P805	P807	L671	F505	G440	L363	I285
Q1268	V1186	Q1111	Q1038	Q951	D881	M808	M740	E872	F506	E441	I286	E286
R1269	F1187	I1112	D1040	L953	E882	G809	E742	D674	S508	V442	E287	V287
F1270	A1188	L1113	D1041	R954	L883	Y810	P743	D675	S509	D443	P288	V289
G1271	H1114	L1114	L1042	Q955	V884	M811	G744	A676	L511	D444	M869	
E1272	H1115	H1115	A1043	A956	K886	E813	E745	R678	E588	I445	M870	
M1273	L1117	L1117	P1044	K957	V887	E814	A746	A679	F589	D446	E374	I292
E1274	G1118	E863	L1047	E863	T888	S815	G747	L680	P590	H447	P375	
V1275	M1119	K890	K1048	K890	P889	E816	T750	M681	R592	L448	P376	K295
M1276	A1120	K890	V1050	K890	K890	L817	N751	N684	R593	M450	E379	V296
L1277	A1121	E968	I1059	E968	V751	V818	N752	N684	V594	R451	E379	V297
L1278	K1122	A969	K1051	A969	L753	L753	L753	N685	S522	A380	A380	A298
E1279	G1123	G970	V1052	G970	L754	E820	L754	N686	T595	A381	K299	D300
A1280	I1124	L971	Y1053	L971	K755	R821	K755	D686	T595	E483	D300	K299
A1281	G1125	F972	A1054	F972	V756	V822	V756	R687	A597	R454	S383	Y301
G1282	I1128	S973	R1058	R973	T757	E825	Y757	V690	R527	V456	L384	I302
A1284	Q1134	R974	R1059	R974	R758	D826	R758	P691	R528	G457	F385	D803
Y1285	Q1135	I975	I1060	I975	S759	D826	S759	T600	R529	E458	L309	I310
T1286	Q1136	V980	Q1061	V980	K900	R827	K900	L603	I530	M459	I310	I310
L1287	R1142	V984	P1062	V984	L902	F828	N762	L606	A531	A460	F389	M315
Q1288	R1142	V984	G1063	V984	I905	H832	I763	L699	L533	E461	F390	M315
E1289	E1143	A986	G1064	A986	I905	I833	C764	L699	E392	E462	S391	E316
M1290	F1144	E987	D1064	E987	S911	Q834	I765	V700	E392	M463	E392	L317
L1291	I1145	K988	K1065	K988	S911	E835	N766	I702	E392	F464	D893	S318
T1292	Q1146	R988	R1069	R988	D912	L836	Q767	G703	I538	G467	R394	D320
V1293	R1147	L992	R1072	L992	V913	A837	M768	M704	T539	L488	Y395	L321
K1294	A1148	P993	M1072	P993	S916	C838	C770	E705	R540	L488	L321	L321
S1295	Y1149	M997	I1076	M997	S917	V839	V771	E705	E541	R470	A323	K324
D1296	D1150	M997	I1077	D1150	V920	P769	S772	E705	R542	L469	K324	K324
M1299	L1151	L1000	K1078	L1000	P921	R841	S772	E775	R542	E472	L325	L325
G1300	R1156	D1004	I1079	D1004	S925	R844	E775	P776	V550	K476	R402	S326
R1301	Q1157	E1005	I1085	E1005	G926	E848	R779	R779	T583	E477	M403	R322
K1303	V1158	E1006	P1086	E1006	T927	E849	V715	E641	Y555	R478	K404	L333
M1304	D1160	E1006	Y1087	E1006	V928	E850	L644	L644	Y556	L479	P405	E334
Y1305	L1161	L1161	D1088	L1161	I929	T851	V782	V782	R557	L409	L409	T335
K1306	S1162	S1162	E1089	S1162	D950	A852	V717	F645	V558	D483	E415	L336
M1307	F1163	F1163	M1090	F1163	Q931	D853	D785	A718	C599	D486	G416	F337
M1312	S1165	S1165	T1092	S1165	Q933	E855	G786	K719	P560	T486	G416	D840
H1237	D1166	D1166	P1093	D1166	F934	M856	T789	A718	E561	L487	S417	L341
L1238	V1169	V1169	V1094	V1169	T835	V857	D790	V723	T562	M488	L420	D842
L1239	M1170	M1170	D1096	M1170	R936	L865	L791	Q725	E562	P489	S421	R343
V1240	R1171	R1171	I1097	R1171	D937	L865	L794	Y726	E562	M488	L420	D842
D1241	L1172	L1172	L1098	L1172	G938	S868	E940	Y727	E562	P489	S421	R343
K1242	L1176	L1176	M1009	L1176	E940	G869	D790	V660	E564	Q490	K422	G344
M1243	R1177	R1177	P1100	R1177	K941	I870	L791	V661	E565	D491	D423	F345
M1244	L1177	L1177	L1101	L1177	D942	V871	G797	S730	E565	M492	D423	Y346
S1247	M1180	M1180	G1102	M1180	R943	I872	Q798	R731	E565	D492	D423	F345
Y1251	Q1256	Q1256	P1104	Q1256	R943	I872	V798	V731	E570	T486	L420	E349
F1252	Y1251	Y1251	L1101	F1252	R943	I872	N799	I732	L571	L487	L420	E349
M1254	T1255	T1255	G1102	M1254	R943	I872	M800	V733	L572	P497	S421	E349
V1255	Q1256	Q1256	P1104	V1255	R943	I872	V733	S666	L572	L498	L420	E349
L1256	Q1256	Q1256	P1104	L1256	R943	I872	R801	I734	S574	S499	D434	R359

L1327  
K1328  
E1329  
I1330  
R1331  
S1332  
L1333  
G1334  
I1335  
I1337  
E1342

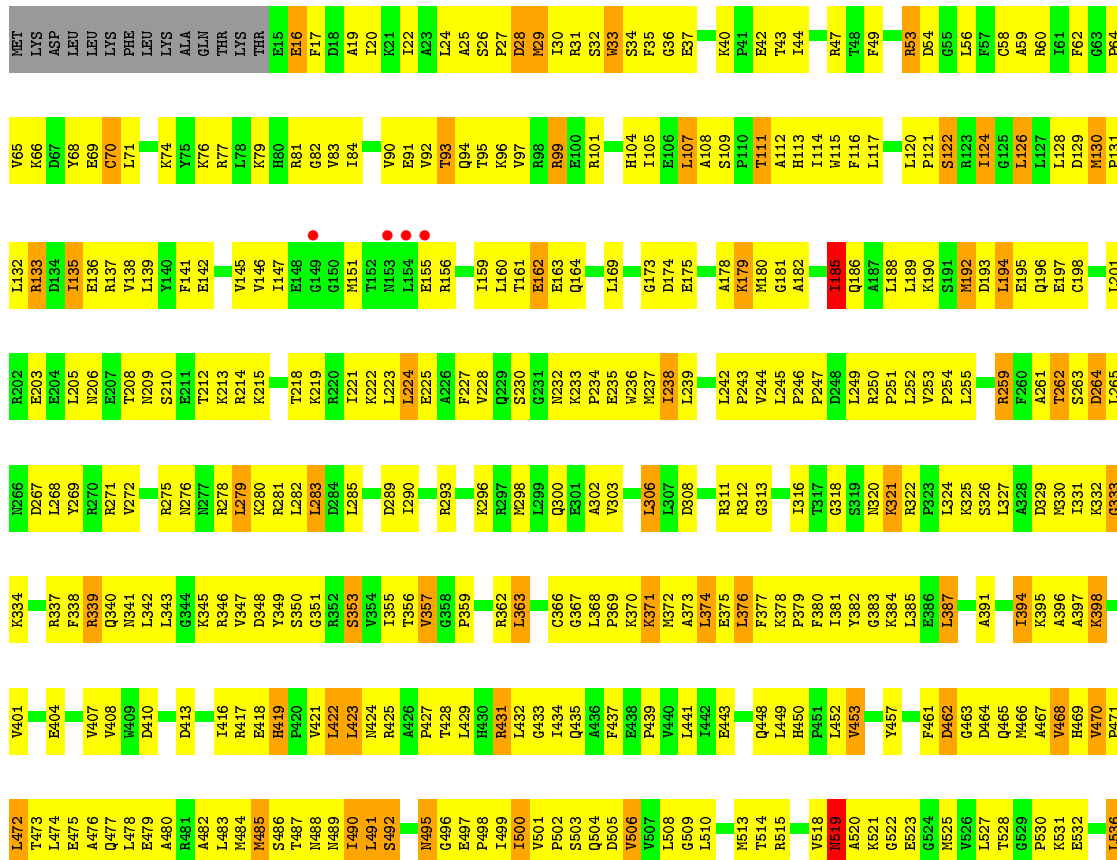
● Molecule 2: DNA-directed RNA polymerase subunit beta

Chain O: 



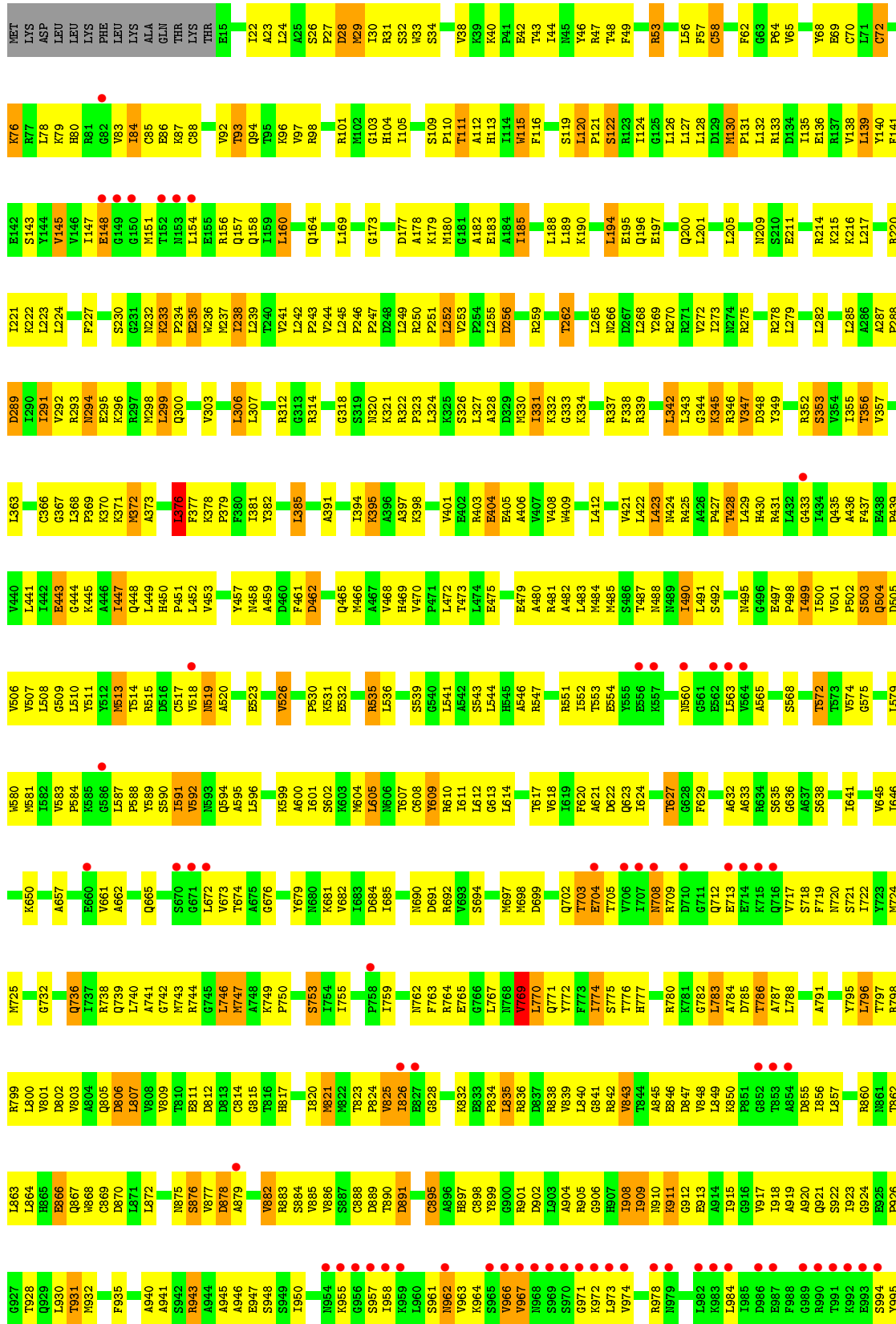


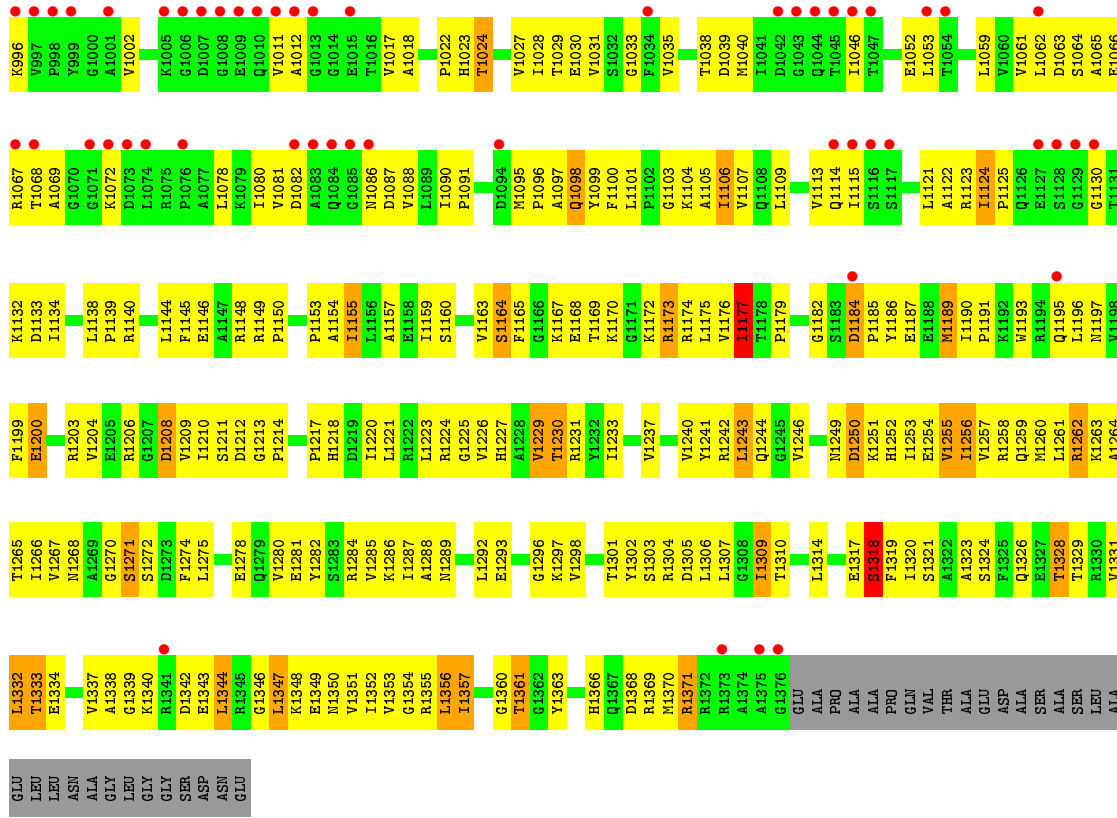
• Molecule 3: DNA-directed RNA polymerase subunit beta'



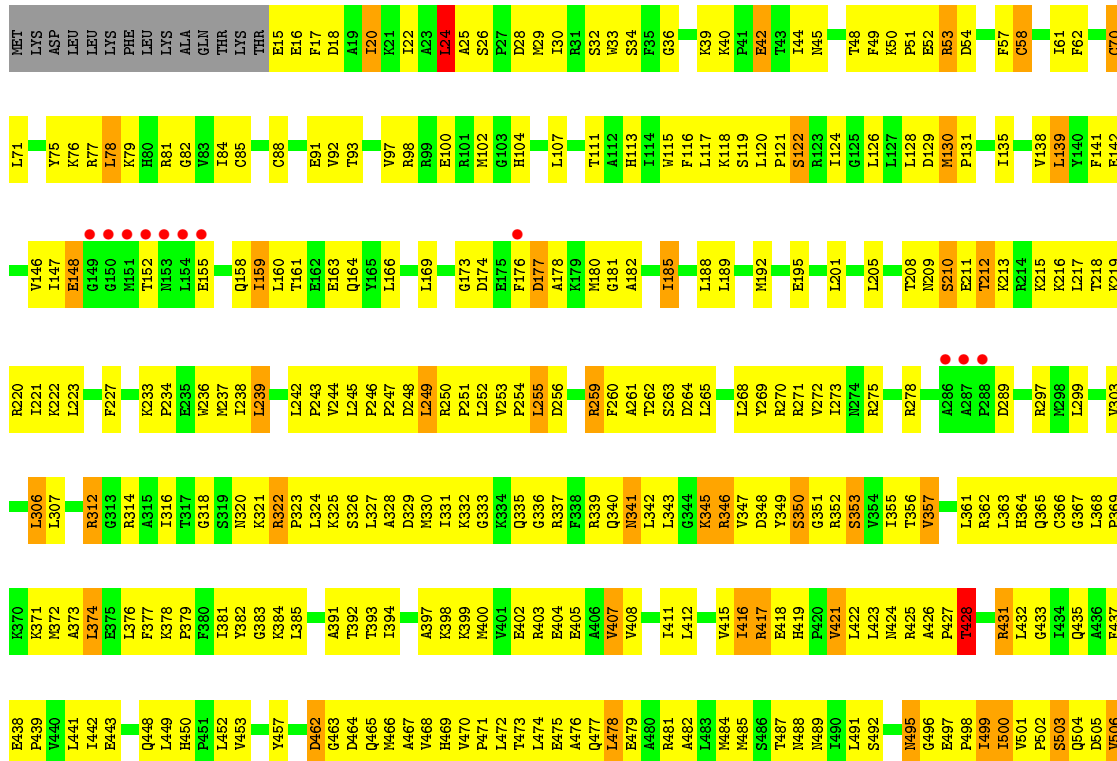


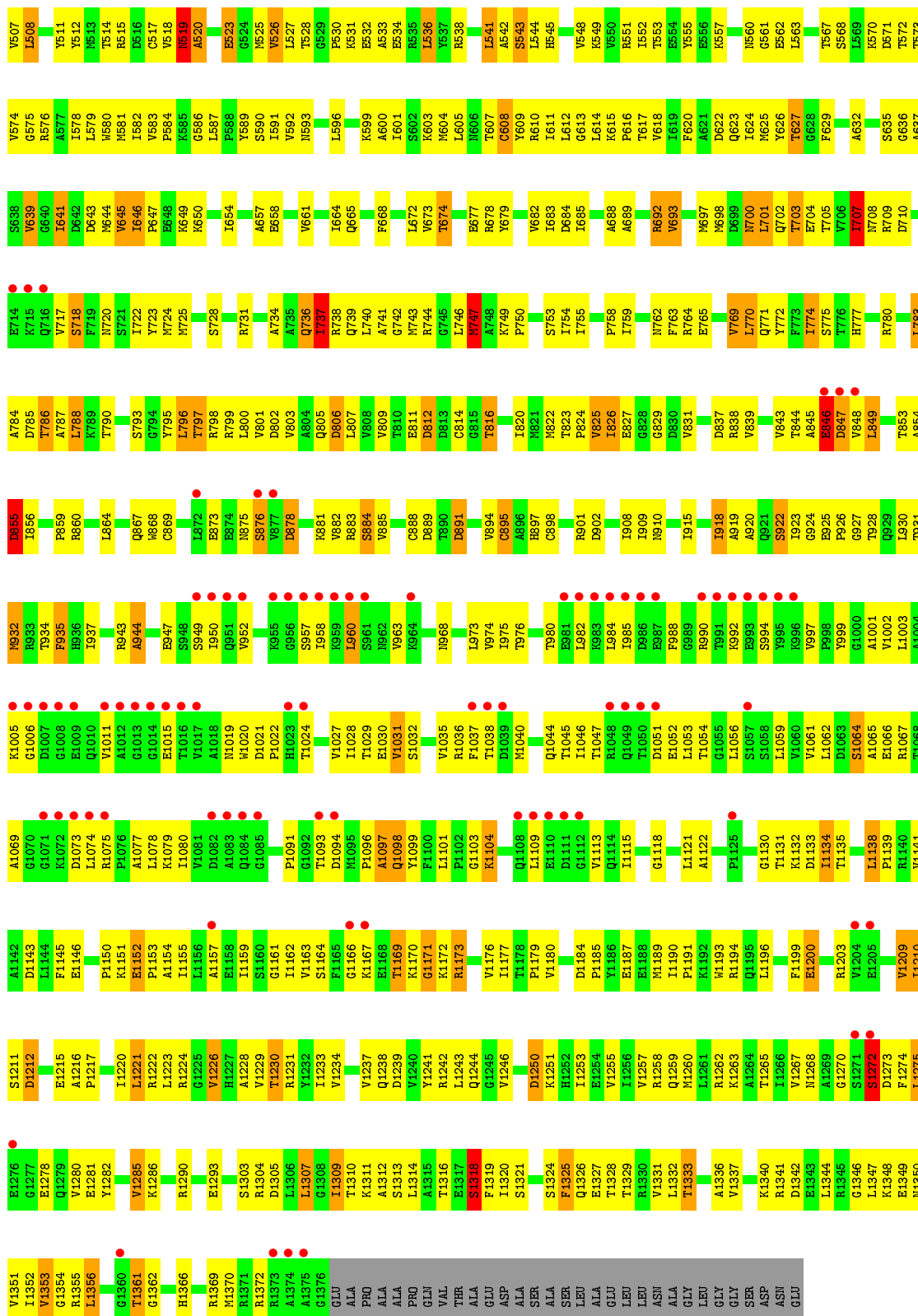






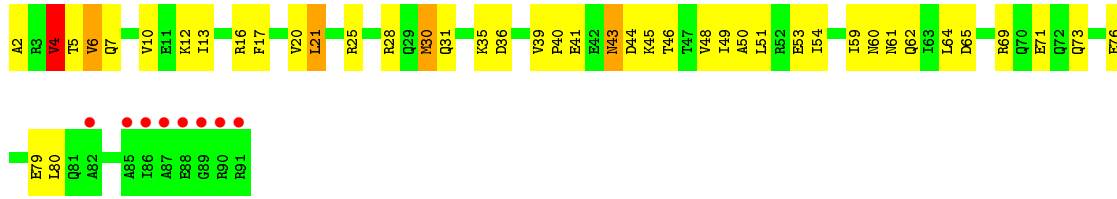
• Molecule 3: DNA-directed RNA polymerase subunit beta'





• Molecule 4: DNA-directed RNA polymerase subunit omega

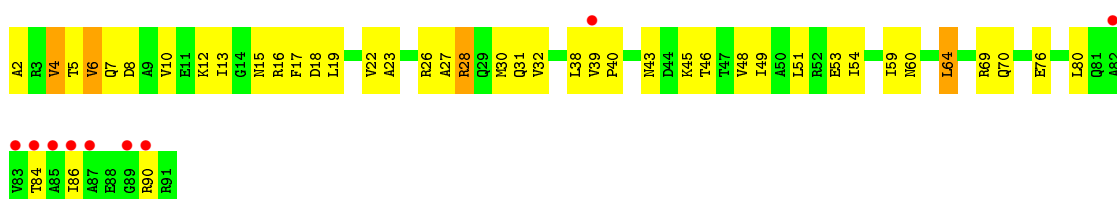




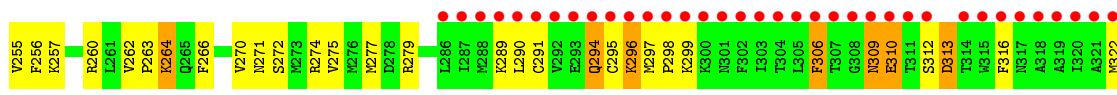
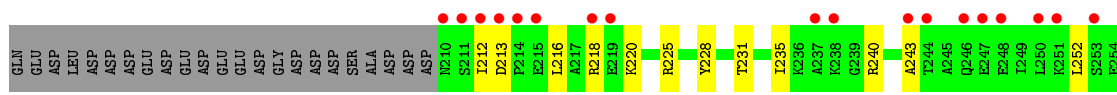
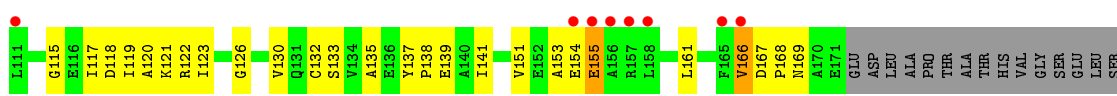
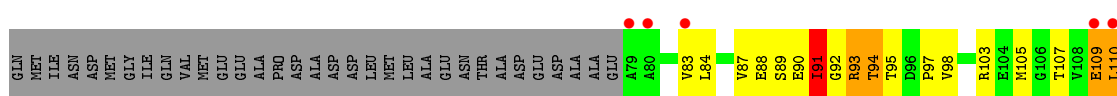
• Molecule 4: DNA-directed RNA polymerase subunit omega

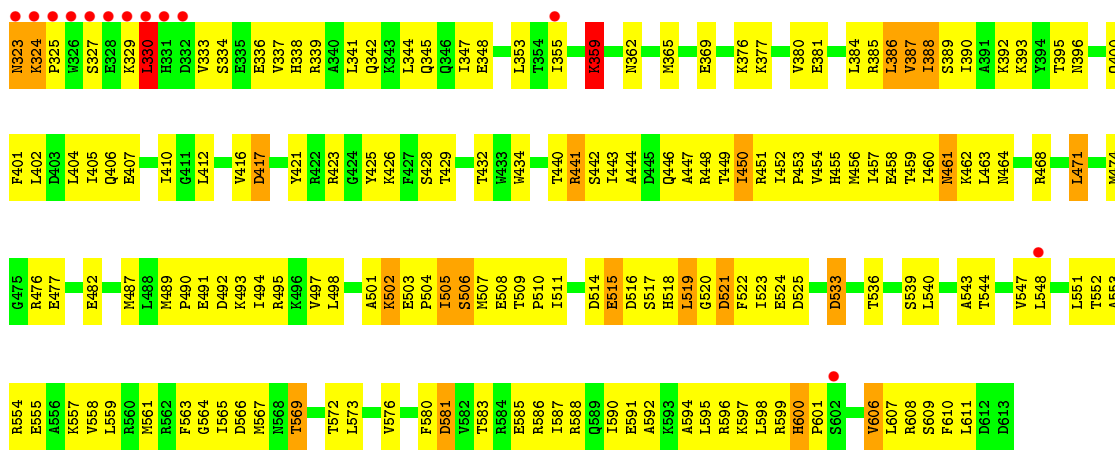


• Molecule 4: DNA-directed RNA polymerase subunit omega

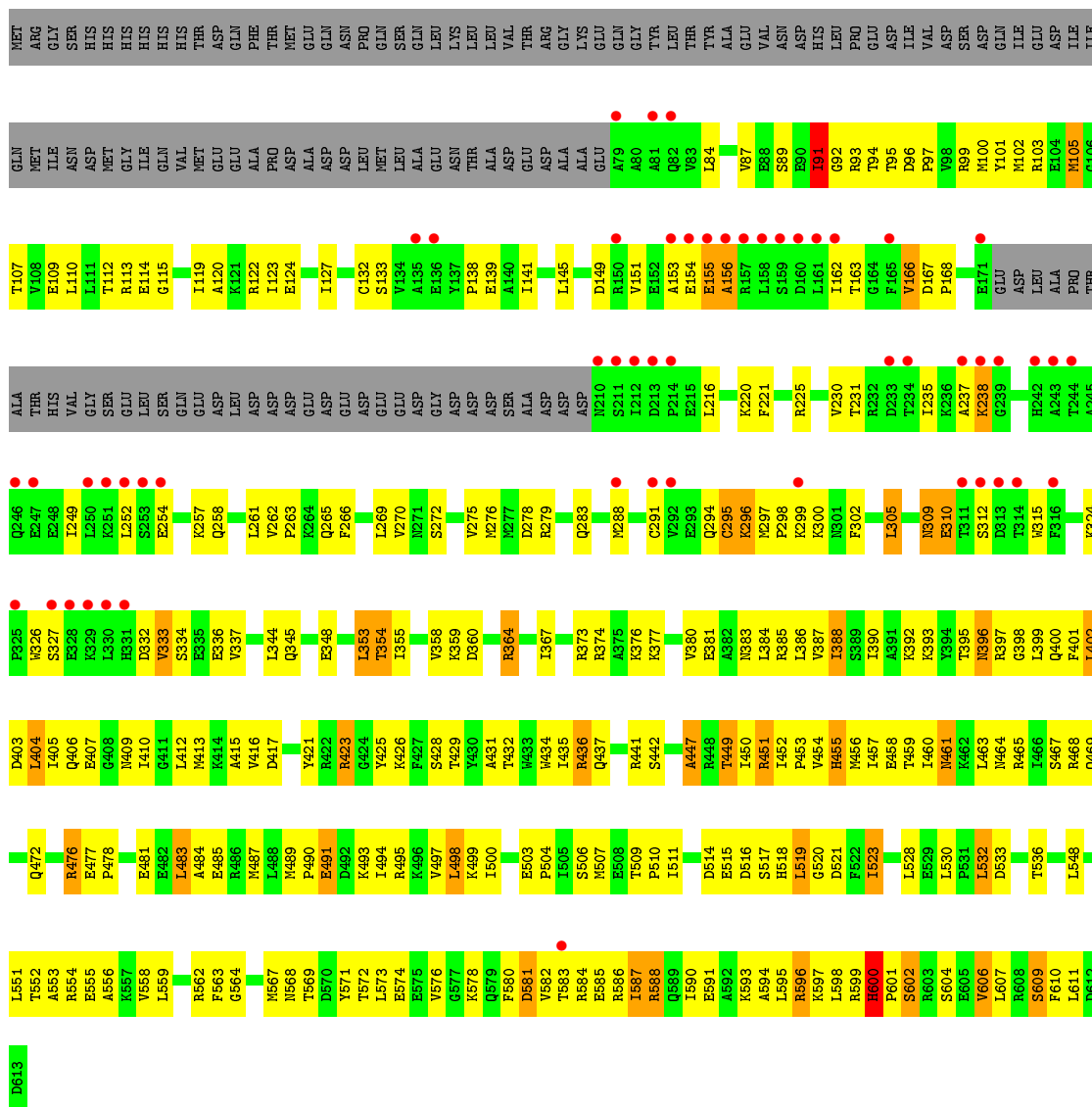


• Molecule 5: RNA polymerase sigma factor RpoD

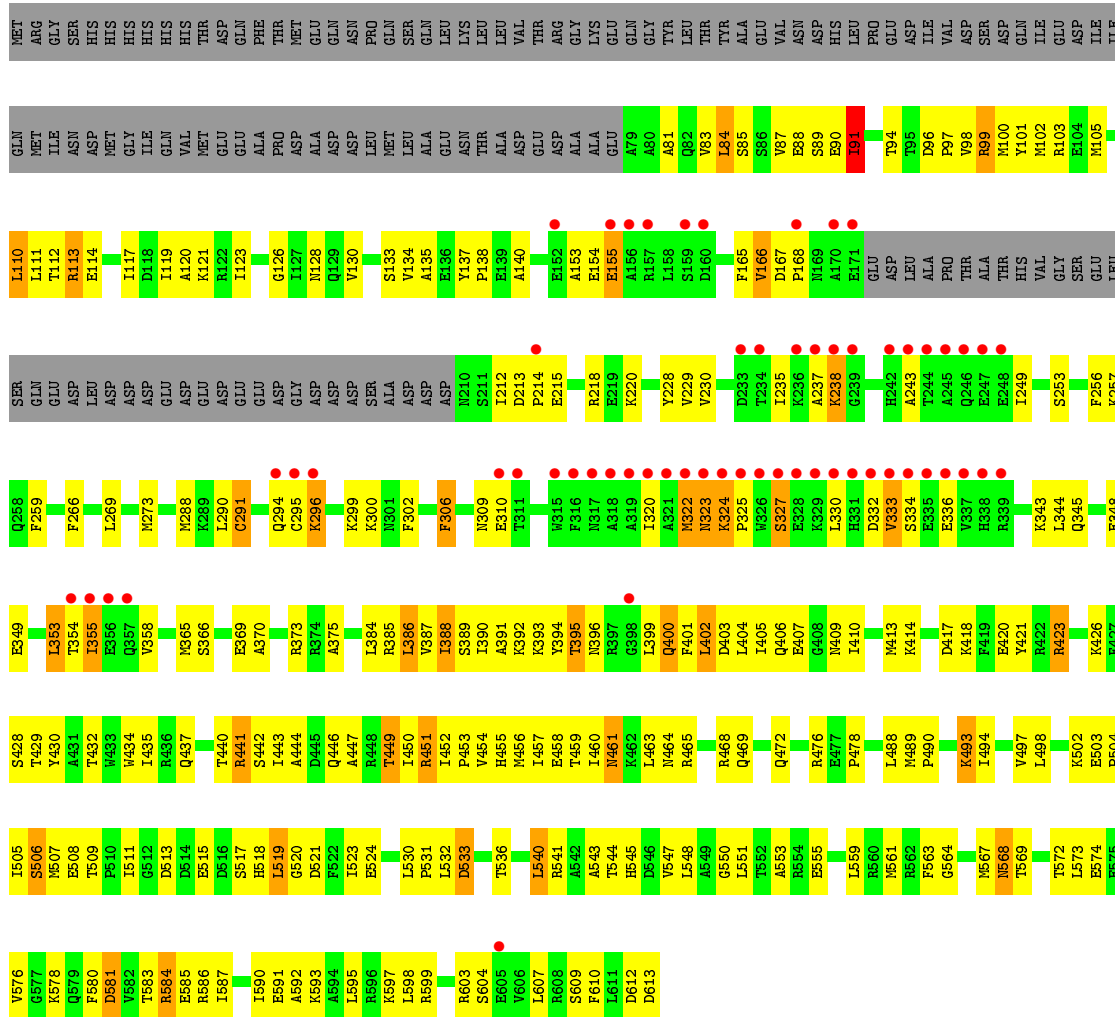
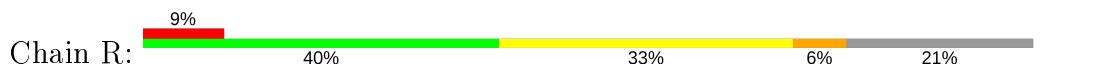




• Molecule 5: RNA polymerase sigma factor RpoD



• Molecule 5: RNA polymerase sigma factor RpoD



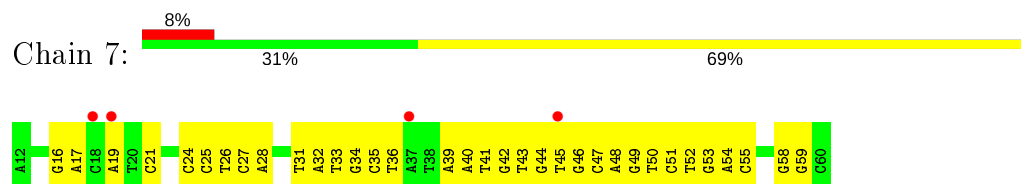
• Molecule 6: NT strand DNA (49-MER)



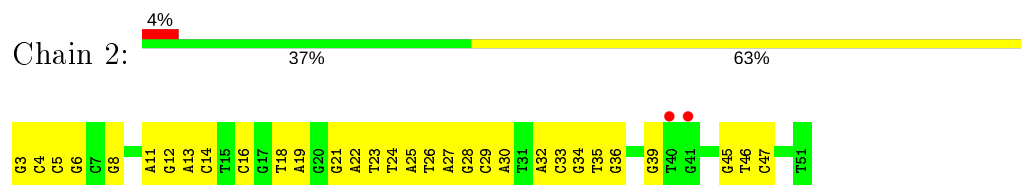
• Molecule 6: NT strand DNA (49-MER)



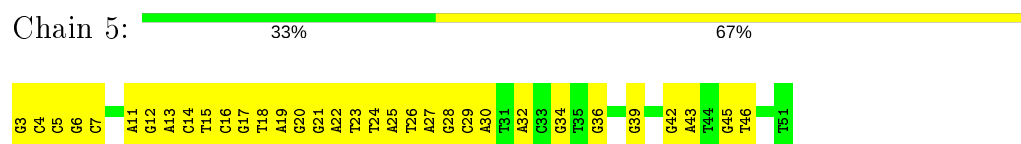
• Molecule 6: NT strand DNA (49-MER)



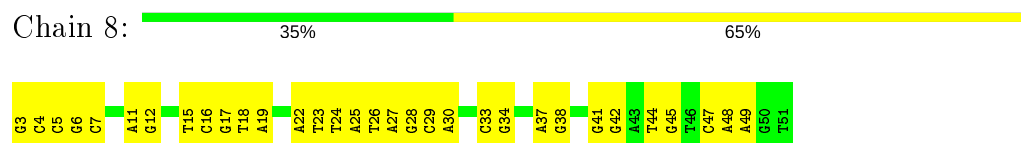
- Molecule 7: T strand DNA (49-MER)



- Molecule 7: T strand DNA (49-MER)



- Molecule 7: T strand DNA (49-MER)



- Molecule 8: RNA (5'-D\*(GTP))-R(P\*AP\*GP\*U)-3')



- Molecule 8: RNA (5'-D\*(GTP))-R(P\*AP\*GP\*U)-3')



- Molecule 8: RNA (5'-D\*(GTP))-R(P\*AP\*GP\*U)-3')





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	240.89Å 208.17Å 256.32Å 90.00° 119.31° 90.00°	Depositor
Resolution (Å)	39.95 – 6.00 39.95 – 6.00	Depositor EDS
% Data completeness (in resolution range)	99.6 (39.95-6.00) 100.0 (39.95-6.00)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.44 (at 6.13Å)	Xtrriage
Refinement program	REFMAC 5.8.0073	Depositor
R, $R_{free}$	0.227 , 0.314 0.227 , 0.314	Depositor DCC
$R_{free}$ test set	2938 reflections (5.31%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	343.5	Xtrriage
Anisotropy	0.527	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 253.8	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.25$	Xtrriage
Estimated twinning fraction	0.035 for h,-k,-h-l	Xtrriage
$F_o, F_c$ correlation	0.93	EDS
Total number of atoms	94608	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	238.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.84% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

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

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

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

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	0.59	0/1809	0.85	2/2450 (0.1%)
1	B	0.57	0/1789	0.84	1/2425 (0.0%)
1	G	0.60	1/1809 (0.1%)	0.83	1/2450 (0.0%)
1	H	0.57	0/1789	0.79	1/2425 (0.0%)
1	M	0.63	0/1809	0.87	2/2450 (0.1%)
1	N	0.60	0/1789	0.87	0/2425
2	C	0.58	3/10745 (0.0%)	0.79	11/14499 (0.1%)
2	I	0.61	3/10745 (0.0%)	0.81	3/14499 (0.0%)
2	O	0.61	4/10745 (0.0%)	0.81	4/14499 (0.0%)
3	D	0.66	3/10729 (0.0%)	0.91	20/14487 (0.1%)
3	J	0.63	2/10729 (0.0%)	0.85	15/14487 (0.1%)
3	P	0.59	4/10729 (0.0%)	0.80	9/14487 (0.1%)
4	E	0.62	0/710	0.89	1/956 (0.1%)
4	K	0.56	0/710	0.72	0/956
4	Q	0.55	0/710	0.74	1/956 (0.1%)
5	F	0.56	2/4076 (0.0%)	0.77	1/5482 (0.0%)
5	L	0.59	0/4076	0.78	2/5482 (0.0%)
5	R	0.55	0/4076	0.77	2/5482 (0.0%)
6	1	0.39	0/1112	0.67	0/1706
6	4	0.51	1/1114 (0.1%)	0.73	0/1714
6	7	0.39	0/1115	0.70	0/1718
7	2	0.38	0/1136	0.66	0/1752
7	5	0.41	0/1137	0.69	0/1756
7	8	0.36	0/1137	0.68	0/1756
8	3	0.33	0/72	0.58	0/110
8	6	0.50	0/72	0.71	0/110
8	9	0.50	0/72	0.65	0/110
All	All	0.59	23/96541 (0.0%)	0.81	76/131629 (0.1%)

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
3	J	0	1
3	P	0	1
All	All	0	2

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	O	316	GLU	CD-OE2	13.14	1.40	1.25
3	J	943	ARG	CZ-NH1	11.93	1.48	1.33
3	D	431	ARG	CZ-NH1	11.55	1.48	1.33
2	I	565	GLU	CB-CG	10.38	1.71	1.52
3	P	1152	GLU	CD-OE2	-9.69	1.15	1.25
2	C	641	GLU	CB-CG	8.01	1.67	1.52
2	O	316	GLU	CD-OE1	7.74	1.34	1.25
5	F	359	LYS	CE-NZ	7.47	1.67	1.49
3	P	1272	SER	CB-OG	7.36	1.51	1.42
5	F	359	LYS	CD-CE	7.02	1.68	1.51
3	P	846	GLU	CD-OE1	6.72	1.33	1.25
2	O	252	SER	CB-OG	6.45	1.50	1.42
6	4	46	DG	O3'-P	6.33	1.68	1.61
3	D	70	CYS	CB-SG	6.14	1.92	1.82
3	D	431	ARG	CZ-NH2	5.83	1.40	1.33
2	I	119	GLU	CD-OE1	5.77	1.31	1.25
2	C	1289	GLU	CG-CD	5.51	1.60	1.51
3	J	236	TRP	CB-CG	5.50	1.60	1.50
2	O	626	GLU	CD-OE1	5.44	1.31	1.25
1	G	182	ARG	NE-CZ	5.32	1.40	1.33
3	P	846	GLU	CD-OE2	5.19	1.31	1.25
2	I	279	LYS	CG-CD	5.18	1.70	1.52
2	C	847	PRO	N-CD	5.01	1.54	1.47

All (76) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	F	359	LYS	CG-CD-CE	-8.94	85.08	111.90
3	D	431	ARG	NE-CZ-NH2	-8.33	116.13	120.30
3	J	943	ARG	NE-CZ-NH2	-8.10	116.25	120.30
1	M	29	GLU	C-N-CD	-7.94	103.14	120.60
3	D	376	LEU	CA-CB-CG	-7.68	97.62	115.30
3	D	120	LEU	C-N-CD	-7.18	104.81	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	943	ARG	NH1-CZ-NH2	-7.18	111.50	119.40
3	D	1332	LEU	CA-CB-CG	-7.09	98.98	115.30
3	D	619	ILE	CB-CA-C	-7.02	97.56	111.60
3	J	342	LEU	CA-CB-CG	-6.89	99.44	115.30
3	P	737	ILE	CB-CA-C	-6.87	97.85	111.60
3	P	139	LEU	CA-CB-CG	-6.82	99.63	115.30
3	D	1234	VAL	CB-CA-C	-6.75	98.57	111.40
3	D	84	ILE	CB-CA-C	-6.62	98.36	111.60
1	A	224	LEU	CA-CB-CG	-6.55	100.23	115.30
3	J	120	LEU	C-N-CD	-6.46	106.38	120.60
3	D	185	ILE	CB-CA-C	-6.34	98.92	111.60
4	E	21	LEU	CA-CB-CG	-6.25	100.92	115.30
1	G	182	ARG	NE-CZ-NH1	6.25	123.42	120.30
3	P	747	MET	CG-SD-CE	-6.19	90.29	100.20
3	D	872	LEU	CA-CB-CG	-6.11	101.25	115.30
1	H	29	GLU	C-N-CD	-6.07	107.25	120.60
3	J	1332	LEU	CA-CB-CG	-6.02	101.45	115.30
1	B	13	LEU	CA-CB-CG	5.96	129.00	115.30
3	D	1229	VAL	CB-CA-C	-5.93	100.12	111.40
3	J	1255	VAL	CB-CA-C	-5.90	100.19	111.40
3	D	472	LEU	CB-CG-CD2	5.85	120.95	111.00
2	I	498	ILE	CB-CA-C	-5.85	99.90	111.60
3	D	1287	ILE	CB-CA-C	-5.76	100.08	111.60
3	D	820	ILE	CB-CA-C	-5.76	100.08	111.60
2	O	1233	LEU	CA-CB-CG	-5.74	102.10	115.30
2	O	1253	LEU	CA-CB-CG	-5.73	102.12	115.30
3	J	943	ARG	NE-CZ-NH1	5.72	123.16	120.30
2	C	1253	LEU	CA-CB-CG	-5.72	102.15	115.30
2	I	57	PHE	C-N-CD	-5.71	108.04	120.60
3	P	541	LEU	CA-CB-CG	-5.68	102.24	115.30
3	P	864	LEU	CA-CB-CG	-5.66	102.29	115.30
3	D	506	VAL	CB-CA-C	-5.65	100.66	111.40
2	C	1308	ILE	CB-CA-C	-5.65	100.30	111.60
2	C	428	VAL	CB-CA-C	-5.61	100.73	111.40
3	D	1351	VAL	CB-CA-C	-5.61	100.74	111.40
3	P	24	LEU	CA-CB-CG	-5.61	102.40	115.30
2	C	1339	LEU	CA-CB-CG	5.59	128.16	115.30
3	P	774	ILE	CB-CA-C	-5.56	100.47	111.60
3	D	601	ILE	CB-CA-C	-5.47	100.66	111.60
3	J	774	ILE	CB-CA-C	-5.46	100.68	111.60
3	J	72	CYS	CA-CB-SG	5.45	123.81	114.00
2	C	1290	MET	CB-CG-SD	-5.44	96.08	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	O	946	LEU	CA-CB-CG	-5.38	102.92	115.30
3	D	973	LEU	CA-CB-CG	5.38	127.67	115.30
2	I	210	LEU	CA-CB-CG	-5.37	102.94	115.30
3	J	1347	LEU	CA-CB-CG	5.34	127.59	115.30
2	C	623	LEU	CA-CB-CG	5.33	127.56	115.30
5	L	305	LEU	CA-CB-CG	5.33	127.56	115.30
3	D	387	LEU	CA-CB-CG	5.30	127.50	115.30
3	J	803	VAL	CB-CA-C	-5.29	101.35	111.40
2	C	30	ILE	CB-CA-C	-5.27	101.05	111.60
5	R	111	LEU	CA-CB-CG	5.26	127.40	115.30
2	C	57	PHE	C-N-CD	-5.24	109.08	120.60
5	R	386	LEU	CA-CB-CG	5.18	127.21	115.30
1	A	43	LEU	CA-CB-CG	5.17	127.19	115.30
3	P	78	LEU	CA-CB-CG	5.16	127.16	115.30
2	C	498	ILE	CB-CA-C	-5.15	101.30	111.60
5	L	398	GLY	N-CA-C	-5.15	100.23	113.10
2	C	577	VAL	CB-CA-C	-5.15	101.62	111.40
3	J	376	LEU	CA-CB-CG	-5.13	103.50	115.30
4	Q	64	LEU	CA-CB-CG	-5.12	103.53	115.30
3	D	283	LEU	CA-CB-CG	5.09	127.00	115.30
3	J	139	LEU	CA-CB-CG	-5.08	103.61	115.30
3	J	38	VAL	CB-CA-C	-5.07	101.77	111.40
3	J	1177	ILE	CB-CA-C	-5.06	101.47	111.60
1	M	47	LEU	CA-CB-CG	-5.06	103.66	115.30
3	P	960	LEU	CA-CB-CG	5.06	126.93	115.30
2	C	317	LEU	CB-CG-CD2	-5.03	102.45	111.00
3	D	541	LEU	CB-CA-C	5.02	119.74	110.20
2	O	623	LEU	CA-CB-CG	5.00	126.81	115.30

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	J	943	ARG	Sidechain
3	P	210	SER	Peptide

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

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

the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1787	0	1813	190	0
1	B	1767	0	1789	200	0
1	G	1787	0	1813	179	0
1	H	1767	0	1789	145	0
1	M	1787	0	1813	260	0
1	N	1767	0	1789	213	0
2	C	10576	0	10591	945	0
2	I	10576	0	10591	991	0
2	O	10576	0	10591	1002	1
3	D	10568	0	10781	1353	1
3	J	10568	0	10782	1175	0
3	P	10568	0	10780	1041	1
4	E	708	0	719	65	0
4	K	708	0	719	40	0
4	Q	708	0	719	46	0
5	F	4022	0	4083	368	1
5	L	4022	0	4083	367	0
5	R	4022	0	4083	348	0
6	1	996	0	557	71	0
6	4	996	0	555	103	1
6	7	996	0	554	69	0
7	2	1012	0	554	65	0
7	5	1012	0	553	62	0
7	8	1012	0	553	66	0
8	3	97	0	44	21	0
8	6	97	0	44	6	0
8	9	97	0	44	19	0
9	C	1	0	0	0	0
9	J	1	0	0	0	0
9	P	1	0	0	0	0
10	D	2	0	0	2	0
10	J	2	0	0	2	0
10	P	2	0	0	1	0
All	All	94608	0	92786	8368	3

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 45.

All (8368) 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)
5:F:359:LYS:NZ	5:F:359:LYS:CE	1.67	1.54
3:D:484:MET:SD	3:D:484:MET:CE	2.03	1.46
3:P:139:LEU:CD2	3:P:185:ILE:HD11	1.49	1.43
3:J:367:GLY:O	3:J:447:ILE:CG2	1.68	1.38
1:G:25:LYS:NZ	1:G:202:VAL:HG11	1.34	1.37
3:J:115:TRP:CH2	3:J:1329:THR:HA	1.60	1.37
5:F:585:GLU:HG2	7:2:46:DT:C7	1.53	1.36
1:M:39:LEU:O	1:M:43:LEU:HG	1.26	1.35
3:D:1282:TYR:O	3:D:1285:VAL:HG12	1.14	1.32
1:N:35:PHE:O	1:N:39:LEU:HG	1.13	1.31
2:C:755:LYS:NZ	2:C:767:GLN:O	1.62	1.31
1:A:228:LEU:HA	1:A:231:PHE:CE2	1.67	1.28
3:D:395:LYS:O	3:D:398:LYS:HG3	1.30	1.28
2:I:1275:VAL:O	2:I:1279:GLU:HG3	1.34	1.28
1:M:42:ALA:HA	1:N:38:THR:CG2	1.64	1.28
5:F:137:TYR:CE1	5:F:353:LEU:HD11	1.69	1.28
1:B:213:PRO:O	1:B:217:ILE:HD13	1.30	1.27
3:D:112:ALA:HA	3:D:238:ILE:CD1	1.63	1.27
1:A:35:PHE:O	1:A:39:LEU:HG	1.34	1.27
2:C:448:LEU:HD11	2:C:553:THR:O	1.34	1.25
3:D:181:GLY:O	3:D:185:ILE:CD1	1.83	1.25
3:D:112:ALA:CA	3:D:238:ILE:HD11	1.65	1.25
3:D:1226:VAL:O	3:D:1229:VAL:HG13	1.33	1.25
3:J:367:GLY:O	3:J:447:ILE:HG23	1.18	1.25
2:I:237:LEU:CD1	2:I:289:VAL:HG22	1.65	1.23
3:D:281:ARG:HH22	5:F:441:ARG:NH2	1.35	1.23
3:J:501:VAL:CG1	3:J:502:PRO:HD2	1.67	1.23
5:F:458:GLU:HA	5:F:461:ASN:ND2	1.51	1.23
1:M:35:PHE:O	1:M:39:LEU:HG	1.35	1.22
3:P:337:ARG:HD3	3:P:341:ASN:ND2	1.55	1.22
1:A:47:LEU:HD13	1:A:183:ILE:CD1	1.70	1.21
1:M:224:LEU:HD12	1:M:224:LEU:O	1.40	1.21
3:D:281:ARG:NH2	5:F:441:ARG:HH22	1.36	1.21
1:B:68:TYR:CE1	1:B:79:LEU:HD21	1.74	1.20
1:N:88:LEU:HD11	1:N:128:HIS:CD2	1.76	1.20
2:C:206:ALA:O	2:C:209:ILE:CG2	1.88	1.20
3:J:1221:LEU:HD13	3:J:1229:VAL:HG11	1.22	1.20
1:N:88:LEU:HD11	1:N:128:HIS:NE2	1.55	1.20
2:I:533:LEU:HD23	2:I:538:LEU:O	1.35	1.19
5:R:110:LEU:H	5:R:110:LEU:HD12	1.04	1.19
1:A:180:VAL:HA	1:A:207:THR:HG22	1.20	1.19
1:M:180:VAL:HA	1:M:207:THR:CG2	1.72	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:132:CYS:SG	5:F:257:LYS:CE	2.30	1.18
5:F:520:GLY:HA2	5:F:523:ILE:HD12	1.21	1.18
3:J:915:ILE:O	3:J:918:ILE:HG22	1.41	1.18
3:P:608:CYS:SG	3:P:617:THR:HG22	1.84	1.18
3:J:1282:TYR:O	3:J:1285:VAL:HG12	1.42	1.18
3:D:1226:VAL:O	3:D:1229:VAL:CG1	1.91	1.17
5:F:520:GLY:HA2	5:F:523:ILE:CD1	1.73	1.17
2:I:206:ALA:O	2:I:209:ILE:HG22	1.45	1.17
3:J:749:LYS:HB3	3:J:750:PRO:CD	1.74	1.17
5:R:583:THR:HG21	5:R:586:ARG:HB3	1.21	1.17
3:P:508:LEU:O	3:P:508:LEU:HD12	1.01	1.16
5:F:132:CYS:SG	5:F:257:LYS:HE2	1.85	1.16
3:J:608:CYS:SG	3:J:617:THR:HG22	1.84	1.16
3:J:749:LYS:HD2	3:J:753:SER:CB	1.75	1.16
3:P:739:GLN:HG2	3:P:744:ARG:HG3	1.17	1.16
3:D:1327:GLU:O	3:D:1331:VAL:HG23	1.46	1.16
3:D:395:LYS:HA	3:D:398:LYS:HE3	1.27	1.16
4:E:39:VAL:HG13	4:E:40:PRO:CD	1.73	1.16
3:P:508:LEU:CD1	3:P:508:LEU:O	1.94	1.16
3:J:115:TRP:CZ2	3:J:1329:THR:HG22	1.79	1.16
3:P:373:ALA:HA	3:P:376:LEU:HD12	1.28	1.15
1:N:38:THR:HB	1:N:39:LEU:CD2	1.76	1.15
3:P:242:LEU:HD12	3:P:243:PRO:HD2	1.23	1.15
5:F:583:THR:HG23	5:F:586:ARG:HB3	1.21	1.15
3:J:849:LEU:CD2	3:J:857:LEU:HA	1.77	1.15
3:J:128:LEU:HD11	3:J:189:LEU:HD21	1.22	1.15
1:B:100:LEU:HD13	1:B:115:ILE:CG2	1.77	1.15
3:D:975:ILE:HD13	3:D:980:THR:HG21	1.18	1.15
3:D:464:ASP:OD1	8:3:15:G:O2'	1.64	1.15
1:M:43:LEU:O	1:M:47:LEU:HG	1.46	1.14
3:P:747:MET:CE	3:P:774:ILE:HG21	1.75	1.14
2:C:1327:LEU:HD23	2:C:1337:ILE:HD11	1.20	1.14
2:I:700:VAL:HG13	2:I:1117:LEU:HD22	1.17	1.14
1:G:91:ARG:HD2	1:G:124:VAL:CG2	1.77	1.14
3:P:575:GLY:HA2	3:P:578:ILE:HD12	1.15	1.14
5:R:583:THR:HG21	5:R:586:ARG:CB	1.78	1.14
3:P:508:LEU:C	3:P:508:LEU:HD12	1.50	1.14
1:A:38:THR:CG2	1:B:42:ALA:HA	1.76	1.13
2:C:1271:GLY:O	2:C:1275:VAL:HG23	1.48	1.13
3:D:470:VAL:HB	3:D:472:LEU:HD21	1.14	1.13
3:P:527:LEU:HD13	3:P:532:GLU:HG2	1.30	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:805:GLN:CB	3:J:1347:LEU:HD12	1.77	1.13
3:J:848:VAL:O	3:J:849:LEU:HD23	1.47	1.13
5:F:585:GLU:CG	7:2:46:DT:C7	2.25	1.13
1:G:41:ASN:O	1:G:45:ARG:HG3	1.49	1.13
2:I:137:VAL:C	2:I:138:ILE:HD13	1.68	1.13
1:M:35:PHE:O	1:M:39:LEU:CG	1.97	1.13
3:D:1282:TYR:O	3:D:1285:VAL:CG1	1.94	1.12
3:D:186:GLN:HA	3:D:189:LEU:HD12	1.28	1.12
3:J:849:LEU:HD21	3:J:857:LEU:HA	1.26	1.12
3:J:843:VAL:HG12	3:J:883:ARG:HB3	1.25	1.12
3:D:363:LEU:CD2	3:D:618:VAL:HG13	1.79	1.12
1:G:25:LYS:NZ	1:G:202:VAL:CG1	2.13	1.12
1:M:45:ARG:NH1	2:O:1215:GLY:O	1.82	1.12
2:O:639:LYS:O	2:O:639:LYS:HG2	1.46	1.12
3:D:185:ILE:H	3:D:185:ILE:CD1	1.61	1.12
5:F:583:THR:CG2	5:F:586:ARG:HB3	1.77	1.12
3:P:425:ARG:NH1	3:P:426:ALA:O	1.81	1.12
5:F:551:LEU:HD22	5:F:597:LYS:HD2	1.23	1.12
3:J:771:GLN:HA	3:J:774:ILE:HD12	1.25	1.12
5:L:451:ARG:NH1	5:L:453:PRO:HG3	1.62	1.12
2:O:897:PRO:HB3	5:R:563:PHE:O	1.49	1.12
3:P:88:CYS:SG	10:P:1501:ZN:ZN	1.38	1.12
1:A:224:LEU:HD23	1:B:228:LEU:HD11	1.32	1.11
2:C:1086:PRO:O	2:C:1094:VAL:HG23	1.50	1.11
5:F:457:ILE:O	5:F:461:ASN:OD1	1.65	1.11
1:G:79:LEU:HA	1:G:82:LEU:HD12	1.33	1.11
2:C:402:ARG:HG2	2:C:416:GLY:HA3	1.19	1.11
3:P:337:ARG:HD3	3:P:341:ASN:HD21	0.99	1.11
5:F:84:LEU:CD1	5:F:107:THR:HG21	1.78	1.11
2:I:201:ARG:HB2	2:I:369:MET:HE1	1.30	1.11
1:N:35:PHE:O	1:N:39:LEU:CG	1.97	1.11
2:O:1086:PRO:O	2:O:1094:VAL:HG23	1.49	1.11
3:J:482:ALA:O	3:J:488:ASN:ND2	1.83	1.11
3:J:909:ILE:HD11	3:J:913:GLU:HB3	1.31	1.11
3:J:294:ASN:HD21	5:L:101:TYR:HB2	1.02	1.11
1:N:39:LEU:HD23	1:N:39:LEU:N	1.60	1.11
3:P:1138:LEU:HB3	3:P:1139:PRO:HD3	1.14	1.11
5:F:450:ILE:HD13	5:F:450:ILE:H	1.02	1.11
2:O:297:VAL:HG13	2:O:317:LEU:HD21	1.16	1.10
1:B:100:LEU:HD13	1:B:115:ILE:HG21	1.15	1.10
5:L:449:THR:OG1	5:L:504:PRO:HG3	1.51	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:235:ILE:CD1	5:R:249:ILE:HD11	1.80	1.10
2:I:168:GLY:O	3:J:1065:ALA:HA	1.48	1.10
1:A:47:LEU:HD13	1:A:183:ILE:HD13	1.10	1.10
1:G:69:SER:O	1:G:78:ILE:HG13	1.52	1.10
1:M:38:THR:HG23	1:N:42:ALA:HA	1.25	1.10
1:A:45:ARG:HD3	1:B:38:THR:OG1	1.51	1.10
3:D:1333:THR:O	3:D:1337:VAL:HG23	1.51	1.10
3:D:806:ASP:OD1	3:D:1346:GLY:HA2	1.51	1.09
2:C:206:ALA:O	2:C:209:ILE:HG22	1.45	1.09
2:I:237:LEU:HD12	2:I:289:VAL:HG22	1.19	1.09
3:J:353:SER:HB2	3:J:372:MET:HE1	1.11	1.09
5:L:102:MET:HE2	6:4:42:DG:N3	1.66	1.09
5:F:553:ALA:O	5:F:557:LYS:HG2	1.52	1.09
2:O:1298:VAL:O	2:O:1302:THR:HG22	1.50	1.09
3:D:1253:ILE:HD12	3:D:1253:ILE:H	1.10	1.09
3:D:337:ARG:HD3	3:D:341:ASN:HD22	1.15	1.09
1:M:180:VAL:CA	1:M:207:THR:HG22	1.79	1.09
2:O:402:ARG:HG2	2:O:416:GLY:HA3	1.33	1.09
2:C:975:ILE:O	2:C:979:LEU:HG	1.52	1.09
3:J:385:LEU:HD13	3:J:397:ALA:CB	1.83	1.09
1:M:47:LEU:CD1	1:M:183:ILE:CD1	2.31	1.09
2:O:298:ALA:HB3	2:O:334:GLU:HB3	1.09	1.09
2:O:524:ILE:HD11	2:O:712:SER:HB3	1.18	1.09
2:O:727:VAL:HG23	2:O:773:LEU:HD13	1.33	1.09
2:C:1282:GLY:O	3:D:1361:THR:OG1	1.70	1.09
3:J:770:LEU:O	3:J:774:ILE:HG13	1.51	1.09
2:I:1330:ILE:HA	2:I:1333:LEU:HD12	1.34	1.09
3:J:749:LYS:CD	3:J:753:SER:HB2	1.82	1.09
5:L:457:ILE:O	5:L:461:ASN:OD1	1.68	1.09
3:P:747:MET:CE	3:P:774:ILE:CG2	2.30	1.09
5:F:216:LEU:O	5:F:220:LYS:HG2	1.53	1.09
3:J:242:LEU:HD12	3:J:243:PRO:HD2	1.25	1.09
5:L:584:ARG:O	5:L:587:ILE:HG12	1.51	1.08
3:D:835:LEU:HG	3:D:836:ARG:N	1.65	1.08
3:D:1328:THR:O	3:D:1332:LEU:HG	1.51	1.08
2:I:559:CYS:SG	2:I:661:VAL:HG13	1.93	1.08
2:C:524:ILE:HD11	2:C:712:SER:HB3	1.29	1.08
2:C:886:LYS:HD2	2:C:916:SER:HB2	1.35	1.08
5:F:137:TYR:HE1	5:F:353:LEU:CD1	1.66	1.08
1:G:9:LEU:HD21	1:G:198:LEU:HD21	1.16	1.08
1:G:224:LEU:HG	1:H:228:LEU:HD11	1.21	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:62:PHE:HB3	3:J:98:ARG:HG2	1.23	1.08
5:R:457:ILE:O	5:R:461:ASN:OD1	1.72	1.08
4:E:39:VAL:CG1	4:E:40:PRO:HD2	1.82	1.08
3:J:373:ALA:HA	3:J:376:LEU:HD12	1.28	1.08
1:N:44:ARG:HH12	3:P:538:ARG:HD2	1.17	1.08
5:R:583:THR:CG2	5:R:586:ARG:HB3	1.83	1.08
3:P:139:LEU:CD2	3:P:185:ILE:CD1	2.32	1.08
2:C:566:GLY:O	2:C:569:ILE:HG22	1.52	1.08
2:O:1142:ARG:HH22	2:O:1169:VAL:HG21	1.16	1.08
2:I:1337:ILE:HD12	3:J:22:ILE:HG12	1.33	1.08
5:L:587:ILE:HD13	5:L:587:ILE:N	1.56	1.08
3:P:1344:LEU:HA	3:P:1349:GLU:OE1	1.52	1.07
3:P:801:VAL:HG22	3:P:920:ALA:HB1	1.31	1.07
2:C:1151:LEU:CD2	2:C:1198:LEU:HD13	1.83	1.07
5:F:84:LEU:HD11	5:F:107:THR:HG21	1.36	1.07
1:M:44:ARG:HA	1:M:47:LEU:HD12	1.26	1.07
2:O:211:ARG:HD3	2:O:357:ASN:O	1.53	1.07
3:D:839:VAL:HG13	3:D:864:LEU:HD13	1.30	1.07
2:I:319:LEU:HA	2:I:322:LEU:HD12	1.34	1.07
2:I:524:ILE:HD11	2:I:712:SER:HB3	1.36	1.07
3:J:342:LEU:HD22	3:J:1352:ILE:HG23	1.32	1.07
3:P:1230:THR:O	3:P:1234:VAL:HG23	1.53	1.07
2:C:1258:PRO:HG2	3:D:346:ARG:CB	1.85	1.07
5:R:518:HIS:O	5:R:520:GLY:N	1.87	1.07
5:F:457:ILE:HA	5:F:460:ILE:HD12	1.30	1.07
1:M:42:ALA:HA	1:N:38:THR:HG23	1.37	1.07
1:G:59:VAL:HG22	1:G:144:ILE:HG23	1.31	1.07
2:O:178:PRO:HA	2:O:397:LEU:HD23	1.33	1.07
7:5:25:DA:H1'	7:5:26:DT:H5''	1.30	1.07
3:D:470:VAL:HB	3:D:472:LEU:CD2	1.84	1.07
1:N:38:THR:HB	1:N:39:LEU:HD21	1.35	1.07
3:D:363:LEU:HD23	3:D:618:VAL:HG13	1.34	1.06
1:N:47:LEU:O	1:N:51:MET:HG2	1.55	1.06
3:D:185:ILE:N	3:D:185:ILE:HD12	1.62	1.06
5:F:551:LEU:CD2	5:F:597:LYS:HD2	1.85	1.06
1:A:42:ALA:HA	1:B:38:THR:HG23	1.12	1.06
3:J:771:GLN:HA	3:J:774:ILE:CD1	1.84	1.06
3:P:421:VAL:HG23	3:P:439:PRO:HG3	1.33	1.06
3:D:181:GLY:O	3:D:185:ILE:HD11	1.56	1.06
2:C:1258:PRO:HG2	3:D:346:ARG:HB3	1.37	1.06
1:M:225:ALA:HB2	1:N:228:LEU:CD1	1.85	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:228:LEU:HD21	1:B:224:LEU:CD2	1.84	1.06
3:J:886:VAL:HG11	3:J:1261:LEU:CD1	1.84	1.06
2:O:161:LYS:HA	2:O:161:LYS:HE2	1.28	1.06
3:D:268:LEU:HD13	3:D:306:LEU:HA	1.38	1.06
3:P:846:GLU:OE1	3:P:881:LYS:HD3	1.54	1.06
3:D:1156:LEU:HD22	3:D:1209:VAL:HA	1.34	1.06
2:I:106:GLU:HG2	2:I:115:LYS:HB2	1.34	1.06
3:J:385:LEU:HD13	3:J:397:ALA:HB1	1.07	1.06
3:D:575:GLY:HA2	3:D:578:ILE:HD12	1.06	1.05
5:L:166:VAL:HG12	5:L:168:PRO:HD3	1.38	1.05
1:M:47:LEU:HD12	1:M:183:ILE:HD11	1.35	1.05
2:C:1199:LEU:CD2	2:C:1204:LEU:HD13	1.86	1.05
2:I:184:LEU:HD21	2:I:389:PHE:CE2	1.91	1.05
3:P:139:LEU:HD22	3:P:185:ILE:HD11	1.36	1.05
2:O:1142:ARG:NH2	2:O:1169:VAL:HG21	1.71	1.05
2:O:823:VAL:HG12	2:O:1059:ARG:CZ	1.85	1.05
1:A:228:LEU:HD11	1:B:224:LEU:HD11	1.10	1.05
3:D:1230:THR:O	3:D:1234:VAL:HG23	1.56	1.05
2:O:1129:ASN:OD1	2:O:1133:LYS:HE3	1.56	1.05
3:D:783:LEU:O	3:D:786:THR:HG22	1.57	1.05
2:I:828:PHE:O	2:I:1234:LYS:NZ	1.87	1.05
3:D:130:MET:HG2	3:D:135:ILE:HG12	1.38	1.05
2:O:333:ILE:HG22	2:O:334:GLU:H	1.18	1.05
3:J:744:ARG:NH2	3:J:940:ALA:HB2	1.72	1.05
3:D:796:LEU:HG	3:D:797:THR:N	1.69	1.04
1:G:232:VAL:HG13	1:H:218:ARG:HG2	1.33	1.04
3:J:139:LEU:CD2	3:J:185:ILE:HD11	1.85	1.04
2:O:18:ARG:NH1	2:O:623:LEU:HD12	1.69	1.04
1:B:100:LEU:CD1	1:B:115:ILE:HG21	1.86	1.04
4:E:39:VAL:HG13	4:E:40:PRO:HD2	1.06	1.04
1:M:224:LEU:HD12	1:M:224:LEU:C	1.78	1.04
3:P:575:GLY:HA2	3:P:578:ILE:CD1	1.86	1.04
2:I:169:LYS:HD2	3:J:1067:ARG:O	1.57	1.04
2:C:148:GLN:NE2	2:C:533:LEU:O	1.90	1.04
3:P:555:TYR:HB3	3:P:563:LEU:HD22	1.32	1.04
3:J:826:ILE:CG2	3:J:826:ILE:O	2.01	1.04
3:J:65:VAL:HG13	3:J:98:ARG:HH12	1.20	1.04
2:O:1284:ALA:HB1	3:P:1356:LEU:HD22	1.32	1.04
2:O:331:LYS:O	2:O:332:ARG:HG3	1.57	1.04
5:R:235:ILE:HD11	5:R:249:ILE:CD1	1.87	1.04
2:C:1273:MET:SD	3:D:428:THR:HB	1.98	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1270:PHE:HB2	3:D:347:VAL:HG21	1.36	1.04
2:C:559:CYS:SG	2:C:661:VAL:HG12	1.96	1.04
3:J:367:GLY:O	3:J:447:ILE:HG22	1.57	1.04
1:M:154:PRO:HG2	1:M:157:THR:OG1	1.56	1.04
3:D:797:THR:HA	3:D:800:LEU:HD12	1.07	1.03
3:J:843:VAL:HG11	3:J:883:ARG:HD3	1.40	1.03
1:M:47:LEU:HD13	1:M:183:ILE:HD12	1.40	1.03
3:P:797:THR:HG23	3:P:924:GLY:CA	1.88	1.03
2:I:944:ARG:O	2:I:947:GLU:HG2	1.56	1.03
1:N:191:ARG:HG3	1:N:196:THR:HG22	1.38	1.03
3:D:1145:PHE:HE1	3:D:1256:ILE:HD12	1.23	1.03
3:D:349:TYR:O	3:D:470:VAL:HG23	1.59	1.03
2:I:1275:VAL:O	2:I:1279:GLU:CG	2.06	1.03
5:L:587:ILE:HD13	5:L:587:ILE:H	1.23	1.03
3:P:473:THR:HB	3:P:475:GLU:OE1	1.56	1.03
1:M:100:LEU:HD22	1:M:115:ILE:CG2	1.87	1.03
2:O:1128:ILE:O	2:O:1132:LEU:HG	1.56	1.03
2:O:1223:ARG:HG2	3:P:635:SER:O	1.57	1.03
3:P:421:VAL:HG23	3:P:439:PRO:CG	1.87	1.03
2:I:704:MET:O	2:I:708:VAL:HG23	1.58	1.03
2:C:436:ARG:NH1	2:C:436:ARG:O	1.91	1.03
2:C:831:ILE:HD12	2:C:831:ILE:H	1.20	1.03
3:D:130:MET:CG	3:D:135:ILE:HG12	1.88	1.03
3:J:501:VAL:HG13	3:J:502:PRO:CD	1.88	1.03
3:J:807:LEU:HD21	3:J:1259:GLN:HG2	1.36	1.03
3:P:747:MET:HE1	3:P:774:ILE:CG2	1.89	1.03
2:C:1151:LEU:HD22	2:C:1198:LEU:HD13	1.39	1.03
2:I:690:VAL:HG23	2:I:1234:LYS:O	1.58	1.03
3:D:1155:ILE:C	3:D:1156:LEU:HD23	1.80	1.02
1:H:82:LEU:HD22	1:H:173:VAL:HG21	1.36	1.02
1:M:40:GLY:HA2	1:M:43:LEU:HD12	1.40	1.02
3:D:1287:ILE:HG22	3:D:1288:ALA:N	1.68	1.02
3:J:1145:PHE:HB3	3:J:1309:ILE:HD11	1.37	1.02
3:D:1233:ILE:O	3:D:1237:VAL:HG23	1.59	1.02
4:E:46:THR:HA	4:E:49:ILE:HD12	1.04	1.02
5:L:386:LEU:HD13	6:4:41:DT:O4'	1.59	1.02
3:P:614:LEU:HD23	4:Q:7:GLN:HB2	1.40	1.02
3:J:749:LYS:HD2	3:J:753:SER:HB2	1.07	1.02
1:H:100:LEU:HD13	1:H:115:ILE:HG21	1.35	1.02
1:M:214:GLU:HA	1:M:217:ILE:HD12	1.42	1.02
2:O:448:LEU:HD23	2:O:448:LEU:O	1.59	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:213:PRO:O	1:B:217:ILE:CD1	2.07	1.02
1:A:228:LEU:HD21	1:B:224:LEU:HD21	1.04	1.02
2:O:1223:ARG:CG	3:P:635:SER:O	2.06	1.02
1:A:47:LEU:CD1	1:A:183:ILE:CD1	2.36	1.02
2:C:1323:PHE:HE1	2:C:1327:LEU:HD21	1.24	1.02
1:H:190:ALA:H	1:H:199:ASP:HA	1.24	1.02
2:I:542:ARG:NH2	6:4:49:DG:N7	2.06	1.02
3:D:620:PHE:O	3:D:624:ILE:HG13	1.60	1.01
2:O:297:VAL:CG1	2:O:317:LEU:HD21	1.90	1.01
2:C:1199:LEU:HD22	2:C:1204:LEU:HD13	1.40	1.01
3:D:185:ILE:H	3:D:185:ILE:HD12	0.87	1.01
3:J:353:SER:HB2	3:J:372:MET:CE	1.88	1.01
3:J:823:THR:HG22	3:J:879:ALA:HB2	1.40	1.01
2:O:1305:TYR:CE2	3:P:379:PRO:HB3	1.95	1.01
3:P:747:MET:HE1	3:P:774:ILE:HG21	1.05	1.01
1:M:16:ILE:HG12	1:M:26:VAL:HG13	1.39	1.01
3:J:182:ALA:HA	3:J:185:ILE:HD12	1.41	1.01
2:O:1273:MET:O	3:P:428:THR:HG21	1.61	1.01
2:O:1101:LEU:CD2	3:P:725:MET:HG2	1.90	1.01
3:D:130:MET:SD	3:D:135:ILE:HG12	2.00	1.01
3:D:395:LYS:O	3:D:398:LYS:CG	2.07	1.01
3:D:975:ILE:CD1	3:D:980:THR:HG21	1.90	1.01
3:J:805:GLN:HB2	3:J:1347:LEU:HD12	1.40	1.01
5:L:455:HIS:H	5:L:455:HIS:CD2	1.56	1.01
2:O:161:LYS:HA	2:O:161:LYS:CE	1.90	1.01
2:C:831:ILE:HD12	2:C:831:ILE:N	1.76	1.01
1:A:224:LEU:CD2	1:B:228:LEU:HD11	1.91	1.00
3:D:205:LEU:HD21	3:D:214:ARG:HG3	1.42	1.00
2:I:577:VAL:HG23	2:I:661:VAL:O	1.60	1.00
3:J:681:LYS:O	3:J:685:ILE:HG13	1.60	1.00
3:P:337:ARG:CD	3:P:341:ASN:ND2	2.23	1.00
1:B:68:TYR:HE1	1:B:79:LEU:HD21	1.22	1.00
3:D:378:LYS:HA	3:D:381:ILE:HD12	1.40	1.00
2:I:169:LYS:CD	3:J:1067:ARG:O	2.09	1.00
3:D:797:THR:HA	3:D:800:LEU:CD1	1.91	1.00
1:N:38:THR:C	1:N:39:LEU:HD23	1.82	1.00
2:O:292:ILE:HG21	2:O:322:LEU:HD11	1.41	1.00
5:F:402:LEU:HA	5:F:405:ILE:HD12	1.40	1.00
2:C:253:PHE:CD1	2:C:288:PRO:HD2	1.97	1.00
3:J:24:LEU:HD12	3:J:232:ASN:HB3	1.39	1.00
1:M:47:LEU:HD12	1:M:183:ILE:CD1	1.92	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:47:LEU:CD1	1:M:183:ILE:HD11	1.89	1.00
3:J:826:ILE:HG22	3:J:826:ILE:O	1.60	1.00
3:D:1263:LYS:HG2	3:D:1281:GLU:HA	1.43	1.00
5:F:491:GLU:OE2	5:F:495:ARG:NH2	1.94	1.00
3:J:1323:ALA:HB2	3:J:1332:LEU:HD21	1.43	1.00
3:D:1253:ILE:HD12	3:D:1253:ILE:N	1.75	0.99
3:P:720:ASN:O	3:P:724:MET:HG3	1.61	0.99
1:N:224:LEU:O	1:N:224:LEU:HD12	1.62	0.99
3:D:1138:LEU:HB3	3:D:1139:PRO:HD3	1.45	0.99
1:G:16:ILE:HG21	1:G:214:GLU:CD	1.83	0.99
1:A:192:VAL:HB	1:A:195:ARG:O	1.61	0.99
3:D:918:ILE:HG22	3:D:919:ALA:N	1.75	0.99
1:G:185:TYR:HB2	1:G:201:LEU:HD11	1.43	0.99
2:C:96:LEU:CB	2:C:127:ILE:HD11	1.93	0.99
3:J:502:PRO:HG2	3:J:601:ILE:HG21	1.41	0.99
3:J:869:CYS:HA	3:J:872:LEU:HD12	1.44	0.99
5:F:132:CYS:SG	5:F:257:LYS:NZ	2.36	0.99
3:J:1328:THR:O	3:J:1332:LEU:HG	1.63	0.99
3:J:749:LYS:HB3	3:J:750:PRO:HD2	1.38	0.99
3:J:294:ASN:ND2	5:L:101:TYR:HB2	1.76	0.99
2:C:1257:GLN:HG3	2:C:1296:ASP:OD1	1.61	0.99
3:D:1284:ARG:O	3:D:1287:ILE:HB	1.63	0.99
3:D:318:GLY:HA2	3:D:324:LEU:HD21	1.45	0.99
5:F:137:TYR:HE1	5:F:353:LEU:HD11	0.82	0.99
1:G:25:LYS:HZ1	1:G:202:VAL:CG1	1.74	0.99
3:J:930:LEU:HB2	3:J:1134:ILE:HD11	1.45	0.99
4:K:60:ASN:HB3	4:K:63:ILE:HD12	1.42	0.99
2:O:298:ALA:CB	2:O:334:GLU:HB3	1.93	0.99
2:C:700:VAL:HG13	2:C:1117:LEU:HD23	1.43	0.98
2:C:1327:LEU:HA	2:C:1337:ILE:HD13	1.45	0.98
3:D:351:GLY:O	3:D:468:VAL:HG23	1.60	0.98
1:N:44:ARG:HD3	1:N:185:TYR:HE1	1.24	0.98
3:D:1151:LYS:H	3:D:1151:LYS:HD2	1.24	0.98
3:D:182:ALA:CA	3:D:185:ILE:HD13	1.93	0.98
2:C:1289:GLU:OE1	3:D:472:LEU:HG	1.63	0.98
4:E:46:THR:CA	4:E:49:ILE:HD12	1.91	0.98
2:I:178:PRO:HG3	2:I:395:TYR:CZ	1.98	0.98
5:R:135:ALA:HB2	5:R:256:PHE:HB3	1.41	0.98
3:D:1075:ARG:HD3	3:D:1076:PRO:HD2	1.45	0.98
2:I:496:LYS:HD2	5:L:468:ARG:HH21	1.26	0.98
3:J:1101:LEU:HD22	3:J:1122:ALA:CB	1.93	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:681:MET:O	2:C:685:MET:HG2	1.62	0.98
1:G:228:LEU:HD11	1:H:224:LEU:HG	1.45	0.98
1:A:42:ALA:HA	1:B:38:THR:CG2	1.92	0.98
2:I:187:GLU:O	2:I:194:LEU:HD12	1.63	0.98
1:M:224:LEU:HG	1:M:225:ALA:N	1.76	0.98
5:R:574:GLU:O	5:R:578:LYS:HG3	1.63	0.98
3:D:349:TYR:HB3	3:D:470:VAL:HG21	1.46	0.98
3:J:1333:THR:O	3:J:1337:VAL:HG23	1.63	0.98
3:D:337:ARG:HD3	3:D:341:ASN:ND2	1.76	0.98
3:J:185:ILE:HG22	3:J:189:LEU:HD11	1.45	0.98
1:N:44:ARG:HA	1:N:47:LEU:HD12	1.42	0.98
3:D:108:ALA:HB3	3:D:279:LEU:HD21	1.46	0.98
3:D:1253:ILE:CD1	3:D:1253:ILE:H	1.74	0.98
1:M:47:LEU:HD13	1:M:183:ILE:CD1	1.94	0.98
2:C:237:LEU:HG	2:C:289:VAL:HG22	1.44	0.98
2:O:674:ASP:O	3:P:772:TYR:OH	1.79	0.98
3:J:46:TYR:O	3:J:49:PHE:CZ	2.17	0.97
3:D:1224:ARG:HD2	3:D:1228:ALA:HB1	1.42	0.97
2:I:1305:TYR:OH	5:L:532:LEU:HG	1.65	0.97
3:J:473:THR:HB	3:J:475:GLU:OE1	1.63	0.97
3:P:1146:GLU:HG2	3:P:1309:ILE:HD12	1.41	0.97
3:D:432:LEU:CD1	3:D:499:ILE:HD13	1.94	0.97
3:J:513:MET:CE	3:J:579:LEU:HD21	1.93	0.97
5:F:585:GLU:CG	7:2:46:DT:H73	1.88	0.97
3:D:111:THR:O	3:D:238:ILE:HD12	1.64	0.97
1:G:47:LEU:CD1	1:G:183:ILE:CD1	2.43	0.97
1:G:49:SER:CB	1:H:33:ARG:HH12	1.77	0.97
3:J:209:ASN:HD22	3:J:214:ARG:HD3	1.24	0.97
3:D:363:LEU:HD23	3:D:618:VAL:CG1	1.94	0.97
3:J:111:THR:HG23	3:J:300:GLN:HE22	1.24	0.97
3:P:1230:THR:HA	3:P:1233:ILE:HD12	1.43	0.97
2:C:149:LEU:HD11	2:C:451:ARG:HB3	1.47	0.97
3:D:1155:ILE:O	3:D:1156:LEU:HD23	1.63	0.97
5:F:585:GLU:HG2	7:2:46:DT:H73	0.99	0.97
1:G:225:ALA:HB2	1:H:228:LEU:HD13	1.47	0.97
2:I:1273:MET:SD	3:J:428:THR:HB	2.04	0.97
2:O:425:ILE:O	2:O:428:VAL:HB	1.65	0.97
2:O:1294:LYS:HE2	3:P:472:LEU:HD11	1.46	0.97
2:O:213:LEU:O	2:O:214:ASN:CB	2.11	0.97
4:E:49:ILE:HG22	4:E:50:ALA:N	1.78	0.97
5:F:585:GLU:CG	7:2:46:DT:H71	1.95	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1066:MET:SD	2:C:1076:ILE:HD11	2.05	0.96
2:I:1275:VAL:HG12	2:I:1279:GLU:OE2	1.65	0.96
3:J:905:ARG:HD2	4:K:16:ARG:HH11	1.29	0.96
3:P:1052:GLU:HG2	3:P:1053:LEU:H	1.30	0.96
3:P:428:THR:O	3:P:428:THR:HG22	1.62	0.96
1:A:228:LEU:CD1	1:B:224:LEU:HD11	1.94	0.96
2:C:257:ALA:HB2	2:C:277:LEU:HD11	1.47	0.96
5:L:401:PHE:O	5:L:405:ILE:HG13	1.64	0.96
3:P:1221:LEU:HG	3:P:1222:ARG:N	1.76	0.96
1:B:68:TYR:CD1	1:B:79:LEU:HD21	2.00	0.96
2:I:167:SER:HB3	3:J:1064:SER:HB3	1.47	0.96
2:I:722:GLY:HA2	2:I:737:ASN:OD1	1.65	0.96
2:O:577:VAL:HG23	2:O:661:VAL:O	1.64	0.96
3:D:1151:LYS:N	3:D:1151:LYS:HD2	1.80	0.96
2:C:96:LEU:HB2	2:C:127:ILE:HD11	1.46	0.96
2:I:700:VAL:HG13	2:I:1117:LEU:CD2	1.95	0.96
2:I:190:PRO:HB2	3:J:1069:ALA:HB2	1.44	0.96
5:L:412:LEU:HD12	5:L:415:ALA:HB3	1.46	0.96
1:M:45:ARG:HH12	2:O:1216:ARG:HA	1.27	0.96
3:D:601:ILE:O	3:D:605:LEU:HG	1.66	0.96
2:C:1253:LEU:HB2	5:F:523:ILE:HG21	1.48	0.96
3:J:111:THR:HG23	3:J:300:GLN:NE2	1.80	0.96
3:D:514:THR:HG21	3:D:596:LEU:HG	1.44	0.96
3:D:1224:ARG:HD2	3:D:1228:ALA:CB	1.96	0.96
3:D:1229:VAL:O	3:D:1233:ILE:HG13	1.66	0.96
1:M:224:LEU:CD2	1:N:228:LEU:HG	1.94	0.96
2:O:448:LEU:CD1	2:O:557:ARG:HD2	1.94	0.96
3:P:138:VAL:HG12	3:P:139:LEU:HD23	1.47	0.96
3:P:797:THR:HG23	3:P:924:GLY:HA3	1.44	0.96
2:C:149:LEU:HD21	2:C:451:ARG:HE	1.31	0.96
5:R:460:ILE:HA	5:R:463:LEU:HD12	1.46	0.96
2:O:445:ILE:HB	2:O:446:ASP:OD1	1.64	0.95
3:P:1045:THR:HG22	3:P:1067:ARG:HD3	1.45	0.95
3:D:530:PRO:HG2	3:D:531:LYS:HG3	1.48	0.95
4:E:46:THR:HA	4:E:49:ILE:CD1	1.93	0.95
1:H:61:ILE:HD12	1:H:64:VAL:HG11	1.48	0.95
3:J:1321:SER:O	3:J:1324:SER:OG	1.84	0.95
3:J:373:ALA:HA	3:J:376:LEU:CD1	1.96	0.95
2:O:161:LYS:HE2	2:O:161:LYS:CA	1.88	0.95
3:P:512:TYR:CE1	3:P:545:HIS:HE1	1.83	0.95
3:P:737:ILE:HG22	3:P:738:ARG:N	1.81	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:459:THR:O	5:L:463:LEU:HG	1.66	0.95
1:M:8:PHE:CZ	1:N:223:ILE:HG23	2.01	0.95
2:I:432:LEU:HG	2:I:433:ILE:N	1.81	0.95
3:J:797:THR:HG23	3:J:924:GLY:HA3	1.48	0.95
2:C:715:THR:HG22	2:C:786:GLY:H	1.31	0.95
2:I:675:ASP:HB2	2:I:1107:MET:HE2	1.49	0.95
5:L:451:ARG:HH11	5:L:453:PRO:HG3	1.26	0.95
2:O:201:ARG:HB2	2:O:369:MET:CE	1.96	0.95
2:C:1268:GLN:NE2	3:D:351:GLY:O	1.99	0.95
3:D:587:LEU:HD21	3:D:612:LEU:HD11	1.49	0.95
2:I:496:LYS:HB3	2:I:497:PRO:HD3	1.47	0.95
3:P:1138:LEU:HB3	3:P:1139:PRO:CD	1.96	0.95
1:N:13:LEU:HD12	1:N:28:LEU:CD2	1.97	0.95
3:D:836:ARG:HB2	3:D:873:GLU:OE2	1.66	0.94
3:D:909:ILE:HD13	3:D:910:ASN:O	1.67	0.94
1:G:91:ARG:HD2	1:G:124:VAL:HG23	1.45	0.94
3:P:139:LEU:HD21	3:P:185:ILE:HD11	1.47	0.94
3:P:363:LEU:CD2	3:P:487:THR:HG22	1.97	0.94
3:J:1159:ILE:HA	3:J:1206:ARG:HG2	1.49	0.94
3:P:644:MET:CE	3:P:764:ARG:HB2	1.97	0.94
3:D:1156:LEU:CD2	3:D:1209:VAL:HA	1.97	0.94
1:M:224:LEU:HD23	1:N:228:LEU:HG	1.47	0.94
3:J:385:LEU:HD22	3:J:391:ALA:HB2	1.47	0.94
3:D:842:ARG:NH1	3:D:1254:GLU:OE2	2.01	0.94
3:D:886:VAL:HG13	3:D:1258:ARG:HG3	1.49	0.94
5:F:92:GLY:O	5:F:93:ARG:HG3	1.68	0.94
2:O:206:ALA:O	2:O:209:ILE:HG22	1.68	0.94
2:O:26:TYR:HA	2:O:711:ASP:OD2	1.67	0.94
1:B:61:ILE:HB	1:B:64:VAL:HB	1.48	0.94
2:C:75:LEU:HD21	2:C:94:ALA:HB3	1.49	0.94
3:D:282:LEU:HD21	5:F:410:ILE:HG12	1.48	0.94
3:J:501:VAL:HG13	3:J:502:PRO:HD2	0.96	0.94
1:M:29:GLU:HG3	1:M:30:PRO:HD3	1.48	0.94
3:D:501:VAL:HG13	3:D:502:PRO:HD2	1.47	0.94
3:P:620:PHE:O	3:P:624:ILE:HG13	1.65	0.94
2:C:1283:ALA:HB1	3:D:479:GLU:OE2	1.67	0.94
2:C:255:ILE:HD13	2:C:285:ILE:HD13	1.47	0.94
1:G:45:ARG:HH12	2:I:1216:ARG:HA	1.29	0.94
3:J:332:LYS:NZ	3:J:1329:THR:OG1	2.01	0.94
3:D:797:THR:CA	3:D:800:LEU:HD12	1.97	0.94
2:I:488:MET:HB3	2:I:489:PRO:HD2	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:385:LEU:CD1	3:J:397:ALA:HB1	1.97	0.94
3:D:478:LEU:HB3	4:E:20:VAL:HG13	1.49	0.93
1:M:162:GLU:OE1	1:M:166:ARG:NH1	2.01	0.93
3:D:105:ILE:HD12	3:D:242:LEU:HD23	1.48	0.93
3:J:185:ILE:O	3:J:189:LEU:HD12	1.67	0.93
3:J:783:LEU:O	3:J:786:THR:HG22	1.68	0.93
2:O:706:ARG:O	2:O:710:VAL:HG23	1.68	0.93
3:P:587:LEU:HD21	3:P:612:LEU:HD21	1.50	0.93
3:P:688:ALA:O	3:P:692:ARG:HD2	1.66	0.93
3:D:918:ILE:CG2	3:D:919:ALA:N	2.28	0.93
5:F:450:ILE:CD1	5:F:450:ILE:H	1.78	0.93
5:F:585:GLU:OE2	5:F:588:ARG:HG2	1.67	0.93
2:O:802:VAL:HG22	2:O:1096:ILE:HB	1.50	0.93
1:N:42:ALA:O	1:N:46:ILE:HD12	1.69	0.93
3:P:1310:THR:O	3:P:1314:LEU:HG	1.68	0.93
2:C:1073:LYS:NZ	8:3:15:G:O5'	2.02	0.93
1:A:224:LEU:O	1:A:224:LEU:HD12	1.67	0.93
1:A:228:LEU:CD2	1:B:224:LEU:HD21	1.95	0.93
3:J:266:ASN:O	3:J:270:ARG:HG3	1.68	0.93
3:P:622:ASP:O	3:P:626:TYR:CD2	2.21	0.93
2:C:870:ILE:HG13	2:C:944:ARG:HG2	1.50	0.93
3:J:421:VAL:HG12	3:J:422:LEU:H	1.32	0.93
2:O:448:LEU:HD13	2:O:608:ALA:HB2	1.50	0.93
3:P:497:GLU:HB3	3:P:498:PRO:HD2	1.46	0.93
2:C:838:CYS:SG	2:C:886:LYS:HE3	2.09	0.93
2:I:1294:LYS:HD3	3:J:347:VAL:HG12	1.51	0.93
2:O:217:THR:HG21	2:O:313:ALA:HB1	1.50	0.93
2:I:237:LEU:HD11	2:I:289:VAL:HG22	1.51	0.93
3:P:1138:LEU:CB	3:P:1139:PRO:HD3	1.98	0.93
3:D:126:LEU:HD13	3:D:223:LEU:HD11	1.49	0.92
2:O:890:LYS:HA	2:O:914:LYS:HE3	1.50	0.92
6:1:58:DG:H2''	6:1:59:DG:OP2	1.68	0.92
3:D:575:GLY:CA	3:D:578:ILE:HD12	1.98	0.92
2:I:883:LEU:HD21	2:I:920:VAL:CG2	1.99	0.92
3:J:601:ILE:O	3:J:605:LEU:HG	1.68	0.92
1:A:184:ALA:HB2	2:C:1091:GLY:HA3	1.51	0.92
3:J:182:ALA:HA	3:J:185:ILE:CD1	1.98	0.92
1:G:47:LEU:HD12	1:G:183:ILE:HD13	1.52	0.92
3:J:1101:LEU:HD22	3:J:1122:ALA:HB3	1.49	0.92
1:M:154:PRO:CG	1:M:157:THR:OG1	2.17	0.92
1:N:102:LEU:HD11	1:N:114:ASP:HB3	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:371:ARG:C	5:R:99:ARG:HH22	1.73	0.92
3:P:1238:GLN:O	3:P:1242:ARG:HG3	1.70	0.92
5:R:235:ILE:HD11	5:R:249:ILE:HD11	0.94	0.92
3:D:425:ARG:NH1	8:3:16:U:O2'	2.03	0.92
2:C:1288:GLN:HB3	2:C:1315:MET:HE3	1.51	0.92
3:J:814:CYS:SG	10:J:1502:ZN:ZN	1.56	0.92
1:M:69:SER:O	1:M:78:ILE:HG13	1.70	0.92
5:F:458:GLU:HA	5:F:461:ASN:HD21	1.24	0.92
2:C:104:ILE:O	2:C:115:LYS:HB3	1.69	0.92
5:L:548:LEU:HD23	5:L:551:LEU:CD1	1.98	0.92
2:C:75:LEU:HD21	2:C:94:ALA:CB	1.99	0.92
2:I:835:GLU:O	2:I:836:LEU:HD23	1.70	0.92
3:J:381:ILE:HD11	3:J:412:LEU:HA	1.51	0.92
3:J:909:ILE:HG12	3:J:910:ASN:N	1.85	0.92
2:O:698:PRO:HA	2:O:1231:TYR:CE1	2.04	0.92
2:O:83:GLN:O	2:O:87:ILE:HG13	1.69	0.92
3:D:1145:PHE:CE1	3:D:1256:ILE:HD12	2.05	0.92
1:A:225:ALA:HB2	1:B:228:LEU:HD13	1.49	0.92
2:I:1333:LEU:HD23	3:J:327:LEU:HD13	1.52	0.92
2:C:431:LYS:O	2:C:435:ILE:HG13	1.69	0.91
5:F:450:ILE:HD13	5:F:450:ILE:N	1.85	0.91
3:P:422:LEU:O	3:P:468:VAL:HG13	1.69	0.91
5:R:399:LEU:O	5:R:400:GLN:HB2	1.69	0.91
2:C:295:LYS:O	2:C:317:LEU:HG	1.69	0.91
3:D:139:LEU:O	3:D:141:PHE:CD2	2.24	0.91
2:C:1077:SER:HA	3:D:356:THR:CG2	2.00	0.91
1:M:38:THR:HG23	1:N:42:ALA:CA	2.00	0.91
5:R:110:LEU:HD12	5:R:110:LEU:N	1.83	0.91
2:C:1107:MET:HE2	3:D:740:LEU:HD21	1.49	0.91
1:M:48:LEU:HD23	1:M:180:VAL:HB	1.49	0.91
2:O:870:ILE:HG21	2:O:944:ARG:HE	1.35	0.91
3:P:739:GLN:CG	3:P:744:ARG:HG3	2.00	0.91
2:C:1284:ALA:O	2:C:1287:LEU:HD23	1.70	0.91
3:D:608:CYS:SG	3:D:617:THR:HG22	2.10	0.91
1:N:38:THR:HB	1:N:39:LEU:HD23	1.52	0.91
2:I:498:ILE:O	2:I:502:VAL:HG23	1.70	0.91
2:I:901:LEU:O	2:I:905:ILE:HG13	1.69	0.91
3:J:1258:ARG:HA	3:J:1261:LEU:HD12	1.53	0.91
2:O:889:PRO:O	2:O:914:LYS:NZ	2.04	0.91
3:P:1321:SER:O	3:P:1324:SER:OG	1.89	0.91
3:P:797:THR:CG2	3:P:924:GLY:HA3	2.00	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:6:VAL:O	4:E:10:VAL:HG23	1.69	0.91
5:F:166:VAL:HG12	5:F:167:ASP:H	1.33	0.91
5:F:551:LEU:HD22	5:F:597:LYS:CD	2.00	0.91
3:J:1221:LEU:CD1	3:J:1229:VAL:HG11	2.01	0.91
3:J:825:VAL:HG22	3:J:838:ARG:NH1	1.86	0.91
5:L:295:CYS:O	5:L:296:LYS:HB2	1.68	0.91
3:P:1353:VAL:HG21	3:P:1355:ARG:HD2	1.51	0.91
2:C:1086:PRO:O	2:C:1094:VAL:CG2	2.18	0.91
3:J:820:ILE:HG12	3:J:1227:HIS:HB3	1.51	0.91
3:J:899:TYR:CE1	3:J:915:ILE:HG21	2.05	0.91
3:P:269:TYR:O	3:P:273:ILE:HG13	1.71	0.91
3:P:503:SER:O	3:P:506:VAL:HG23	1.70	0.91
1:B:65:LEU:O	1:B:169:GLY:HA2	1.69	0.91
2:O:1120:ALA:HB1	2:O:1198:LEU:HG	1.50	0.91
2:O:298:ALA:HB3	2:O:334:GLU:CB	1.99	0.91
3:D:182:ALA:C	3:D:185:ILE:HD13	1.92	0.90
2:I:184:LEU:HD21	2:I:389:PHE:CZ	2.05	0.90
3:J:501:VAL:CG1	3:J:502:PRO:CD	2.47	0.90
1:M:43:LEU:HD13	1:M:203:ILE:HD11	1.53	0.90
1:G:25:LYS:HZ2	1:G:202:VAL:CG1	1.81	0.90
5:R:457:ILE:HA	5:R:460:ILE:HD12	1.53	0.90
3:D:1326:GLN:OE1	7:2:11:DA:H4'	1.70	0.90
5:F:583:THR:HG21	5:F:587:ILE:CD1	2.00	0.90
3:D:185:ILE:HG22	3:D:189:LEU:HD11	1.51	0.90
3:J:1344:LEU:HD23	3:J:1349:GLU:HB3	1.53	0.90
3:J:905:ARG:HD2	4:K:16:ARG:NH1	1.86	0.90
3:P:385:LEU:HD21	3:P:411:ILE:HD13	1.54	0.90
1:G:49:SER:HB2	1:H:33:ARG:HH12	1.33	0.90
3:J:1266:ILE:HG21	3:J:1274:PHE:HB3	1.54	0.90
2:O:550:VAL:HG22	3:P:780:ARG:HD3	1.53	0.90
3:D:369:PRO:HG2	3:D:372:MET:HE1	1.53	0.90
2:I:1151:LEU:HD22	2:I:1198:LEU:HD12	1.53	0.90
1:A:155:ALA:HA	1:A:172:LEU:HD21	1.52	0.90
5:F:520:GLY:CA	5:F:523:ILE:HD12	2.02	0.90
1:M:40:GLY:HA2	1:M:43:LEU:CD1	2.02	0.90
3:P:644:MET:HE2	3:P:764:ARG:HB2	1.50	0.90
5:L:429:THR:HG1	6:4:39:DA:H8	0.94	0.90
2:C:1288:GLN:O	2:C:1292:THR:HG22	1.71	0.90
3:D:116:PHE:O	3:D:124:ILE:HD11	1.72	0.90
3:J:886:VAL:CG1	3:J:1261:LEU:CD1	2.48	0.90
3:J:1287:ILE:HG22	3:J:1288:ALA:N	1.83	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:44:ARG:HD3	1:N:185:TYR:CE1	2.07	0.90
2:O:371:ARG:CA	5:R:99:ARG:NH2	2.35	0.90
3:D:1145:PHE:HE1	3:D:1256:ILE:CD1	1.83	0.90
5:F:585:GLU:HG2	7:2:46:DT:H71	1.52	0.90
1:G:16:ILE:HG21	1:G:214:GLU:CG	2.02	0.90
1:G:25:LYS:HZ1	1:G:202:VAL:HG11	0.89	0.90
2:C:551:HIS:HD1	2:C:553:THR:HG1	1.13	0.90
5:R:128:ASN:HD22	5:R:257:LYS:HE2	1.36	0.90
4:E:2:ALA:N	4:E:5:THR:O	2.06	0.89
2:O:949:GLU:O	2:O:953:LEU:HG	1.73	0.89
2:O:1340:GLU:OE1	3:P:1341:ARG:NH2	2.04	0.89
3:P:543:SER:O	3:P:574:VAL:HG21	1.72	0.89
2:O:1112:ILE:HD13	3:P:639:VAL:O	1.72	0.89
1:B:88:LEU:HD11	1:B:128:HIS:CG	2.08	0.89
2:O:353:VAL:O	2:O:355:PRO:HD3	1.72	0.89
3:D:575:GLY:HA2	3:D:578:ILE:CD1	1.99	0.89
3:D:839:VAL:HG13	3:D:864:LEU:CD1	2.01	0.89
5:F:594:ALA:O	5:F:598:LEU:HG	1.72	0.89
2:O:297:VAL:HG13	2:O:317:LEU:CD2	2.00	0.89
5:R:385:ARG:O	5:R:388:ILE:HG22	1.72	0.89
1:B:68:TYR:HE1	1:B:79:LEU:CD2	1.85	0.89
2:C:146:VAL:HG12	2:C:529:ARG:O	1.73	0.89
3:J:1226:VAL:O	3:J:1230:THR:OG1	1.89	0.89
3:P:337:ARG:CD	3:P:341:ASN:HD21	1.83	0.89
1:B:190:ALA:HB2	1:B:200:LYS:HG3	1.51	0.89
3:D:1216:ALA:O	3:D:1220:ILE:HG13	1.72	0.89
3:J:139:LEU:CD2	3:J:185:ILE:CD1	2.51	0.89
2:I:550:VAL:HG22	3:J:780:ARG:HD2	1.54	0.89
2:O:1113:LEU:HD23	3:P:641:ILE:HD11	1.55	0.89
5:R:517:SER:HB2	5:R:521:ASP:HB2	1.55	0.89
2:C:1324:ASN:HA	2:C:1327:LEU:HD12	1.51	0.89
3:J:1173:ARG:HB2	3:J:1190:ILE:HD12	1.54	0.89
3:J:720:ASN:O	3:J:724:MET:HG3	1.72	0.89
2:O:402:ARG:NH1	2:O:424:ASP:OD2	2.05	0.89
3:P:262:THR:O	5:R:507:MET:N	2.06	0.89
3:D:186:GLN:NE2	3:D:235:GLU:O	2.04	0.89
5:F:585:GLU:OE2	5:F:588:ARG:CG	2.21	0.89
3:J:1230:THR:HG23	3:J:1257:VAL:HG11	1.53	0.89
2:O:524:ILE:CD1	2:O:712:SER:HB3	2.02	0.89
3:P:218:THR:HG22	3:P:222:LYS:HE3	1.54	0.89
2:C:1121:ALA:HB2	2:C:1182:ILE:HD11	1.55	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1321:SER:O	3:D:1324:SER:OG	1.89	0.89
3:D:342:LEU:HB3	3:D:1352:ILE:HG12	1.52	0.89
3:D:589:TYR:HE2	3:D:593:ASN:ND2	1.69	0.89
1:G:25:LYS:HZ2	1:G:202:VAL:HG11	1.38	0.89
3:J:797:THR:CG2	3:J:924:GLY:HA3	2.02	0.89
2:O:1288:GLN:O	2:O:1292:THR:HG22	1.72	0.89
1:A:42:ALA:CA	1:B:38:THR:HG23	2.01	0.89
1:N:140:ILE:HG13	1:N:142:MET:CE	2.01	0.89
2:O:1284:ALA:HB1	3:P:1356:LEU:CD2	2.01	0.89
5:R:135:ALA:HB2	5:R:256:PHE:CB	2.03	0.89
2:C:206:ALA:O	2:C:209:ILE:HG23	1.73	0.88
3:D:432:LEU:HD11	3:D:499:ILE:HD13	1.53	0.88
3:D:694:SER:OG	3:D:738:ARG:HD3	1.72	0.88
5:L:583:THR:HG22	5:L:587:ILE:HD11	1.53	0.88
3:D:252:LEU:HD13	3:D:262:THR:HB	1.54	0.88
5:F:84:LEU:HG	5:F:107:THR:CG2	2.03	0.88
5:L:84:LEU:HD11	5:L:107:THR:CG2	2.03	0.88
1:A:38:THR:HG22	1:B:42:ALA:HA	1.52	0.88
3:D:97:VAL:HG12	3:D:101:ARG:HG3	1.54	0.88
1:G:47:LEU:CD1	1:G:183:ILE:HD13	2.02	0.88
3:J:923:ILE:HD11	3:J:1252:HIS:HB2	1.54	0.88
3:J:130:MET:SD	3:J:135:ILE:HG12	2.14	0.88
3:P:139:LEU:HD22	3:P:185:ILE:CD1	1.97	0.88
3:P:553:THR:HG23	3:P:567:THR:OG1	1.74	0.88
2:I:335:THR:HG22	2:I:336:LEU:H	1.36	0.88
5:L:386:LEU:HD22	6:4:41:DT:C2	2.07	0.88
3:P:609:TYR:HA	3:P:617:THR:HG21	1.53	0.88
3:P:703:THR:O	3:P:718:SER:HB3	1.73	0.88
3:D:501:VAL:HG22	3:D:605:LEU:HD12	1.55	0.88
2:I:686:GLN:NE2	2:I:1069:ARG:HG2	1.88	0.88
3:J:368:LEU:O	3:J:441:LEU:HD23	1.74	0.88
1:M:68:TYR:HE2	2:O:927:THR:HB	1.35	0.88
1:M:150:ARG:N	1:M:150:ARG:HD3	1.87	0.88
2:O:700:VAL:HG12	2:O:1117:LEU:HD23	1.55	0.88
3:D:502:PRO:HB3	3:D:506:VAL:HG11	1.55	0.88
2:I:797:GLY:HA3	2:I:1233:LEU:HD23	1.55	0.88
2:I:870:ILE:HG13	2:I:944:ARG:HD3	1.55	0.88
2:O:1174:GLU:O	2:O:1177:ARG:HB3	1.72	0.88
1:A:102:LEU:HD21	1:A:110:VAL:HG11	1.56	0.88
3:D:115:TRP:CH2	3:D:1329:THR:HA	2.08	0.88
3:D:797:THR:CG2	3:D:924:GLY:HA3	2.04	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1291:LEU:HD13	3:J:1354:GLY:HA2	1.53	0.88
2:C:1275:VAL:O	2:C:1279:GLU:HG3	1.73	0.88
2:C:525:THR:HG21	2:C:687:ARG:HD3	1.55	0.88
3:D:130:MET:HG2	3:D:135:ILE:CG1	2.04	0.88
5:L:132:CYS:SG	5:L:257:LYS:CE	2.61	0.88
2:O:184:LEU:HG	2:O:389:PHE:CZ	2.08	0.88
3:P:115:TRP:CZ2	3:P:1329:THR:HG22	2.09	0.88
6:7:44:DG:OP1	6:7:44:DG:H4'	1.73	0.88
2:I:1305:TYR:HA	2:I:1308:ILE:HD12	1.55	0.88
2:I:137:VAL:O	2:I:138:ILE:HD13	1.74	0.88
1:N:47:LEU:HD13	1:N:183:ILE:HD13	1.54	0.88
5:R:511:ILE:HD13	5:R:519:LEU:HA	1.56	0.88
3:D:1356:LEU:HD13	3:D:1365:TYR:CD1	2.09	0.87
3:D:182:ALA:HA	3:D:185:ILE:HD13	1.53	0.87
3:J:1226:VAL:O	3:J:1229:VAL:HG13	1.74	0.87
2:C:797:GLY:HA3	2:C:1233:LEU:HD21	1.54	0.87
2:I:1086:PRO:O	2:I:1094:VAL:HG23	1.73	0.87
5:L:402:LEU:HA	5:L:405:ILE:HD12	1.56	0.87
5:L:587:ILE:CD1	5:L:587:ILE:N	2.29	0.87
1:B:69:SER:O	1:B:78:ILE:HG13	1.75	0.87
1:N:65:LEU:O	1:N:169:GLY:HA2	1.73	0.87
3:P:829:GLY:HA2	3:P:994:SER:O	1.74	0.87
6:7:51:DC:H2''	6:7:52:DT:H5'	1.54	0.87
3:D:619:ILE:HG22	3:D:620:PHE:N	1.89	0.87
2:O:1286:THR:O	2:O:1290:MET:HG2	1.75	0.87
3:P:923:ILE:O	3:P:926:PRO:HD2	1.75	0.87
3:D:1263:LYS:NZ	3:D:1315:ALA:O	2.08	0.87
3:D:474:LEU:CD1	4:E:28:ARG:HG2	2.05	0.87
1:G:224:LEU:CG	1:H:228:LEU:HD11	2.05	0.87
2:I:1054:LEU:HD22	2:I:1055:ALA:N	1.88	0.87
2:I:168:GLY:O	3:J:1065:ALA:CA	2.23	0.87
3:P:259:ARG:HH22	5:R:502:LYS:HG2	1.39	0.87
3:P:384:LYS:NZ	3:P:415:VAL:HG22	1.89	0.87
1:M:41:ASN:O	1:M:45:ARG:HG3	1.74	0.87
1:M:51:MET:HE3	1:M:211:ILE:HG13	1.55	0.87
1:N:88:LEU:CD1	1:N:128:HIS:NE2	2.38	0.87
1:M:45:ARG:NH1	2:O:1216:ARG:HA	1.89	0.87
2:C:1338:GLU:O	3:D:20:ILE:HG23	1.74	0.87
3:D:975:ILE:HD13	3:D:980:THR:CG2	2.03	0.87
1:H:28:LEU:HD12	1:H:201:LEU:HB3	1.56	0.87
3:J:1252:HIS:O	3:J:1255:VAL:HB	1.75	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1101:LEU:HD23	3:P:725:MET:HG2	1.56	0.87
2:O:205:PRO:O	2:O:208:ILE:HG22	1.74	0.87
2:O:448:LEU:HD11	2:O:557:ARG:CD	2.03	0.87
2:C:257:ALA:HB3	2:C:262:TYR:HE2	1.39	0.87
5:L:455:HIS:CD2	5:L:455:HIS:N	2.39	0.87
2:O:839:VAL:O	2:O:886:LYS:NZ	2.05	0.87
3:P:363:LEU:HD23	3:P:487:THR:HG22	1.54	0.87
3:P:622:ASP:HB3	3:P:626:TYR:HE2	1.40	0.87
2:C:1117:LEU:HD11	2:C:1182:ILE:HD13	1.57	0.87
3:D:503:SER:O	3:D:506:VAL:HG23	1.75	0.87
1:M:102:LEU:CD2	1:M:130:ILE:HD13	2.04	0.87
2:O:227:LYS:HD3	2:O:334:GLU:CD	1.96	0.87
3:P:747:MET:HE2	3:P:774:ILE:CG2	2.04	0.87
1:A:228:LEU:HD11	1:B:224:LEU:CD1	2.03	0.86
3:D:497:GLU:HB3	3:D:498:PRO:HD2	1.57	0.86
2:I:257:ALA:HB1	2:I:282:VAL:HG11	1.55	0.86
3:J:115:TRP:CH2	3:J:1329:THR:CA	2.55	0.86
2:C:1253:LEU:HB2	5:F:523:ILE:CG2	2.05	0.86
3:D:1229:VAL:HG22	3:D:1233:ILE:HD11	1.56	0.86
3:D:880:VAL:CG1	3:D:881:LYS:N	2.38	0.86
1:N:39:LEU:N	1:N:39:LEU:CD2	2.27	0.86
1:N:84:ASN:O	1:N:88:LEU:HD13	1.75	0.86
8:9:14:A:H5'	8:9:15:G:OP2	1.75	0.86
2:C:1330:ILE:HD13	2:C:1337:ILE:HD12	1.57	0.86
1:G:9:LEU:HD21	1:G:198:LEU:CD2	2.03	0.86
3:J:923:ILE:HD11	3:J:1252:HIS:CB	2.04	0.86
1:M:45:ARG:HD3	1:N:38:THR:OG1	1.74	0.86
1:B:68:TYR:CE1	1:B:79:LEU:CD2	2.55	0.86
3:D:452:LEU:HD11	3:D:625:MET:CE	2.06	0.86
3:D:452:LEU:HG	3:D:625:MET:SD	2.15	0.86
3:D:1309:ILE:HG22	3:D:1310:THR:N	1.90	0.86
3:D:478:LEU:CB	4:E:20:VAL:HG13	2.04	0.86
2:I:1269:ARG:HG3	3:J:345:LYS:C	1.95	0.86
1:N:83:LEU:HD13	1:N:86:LYS:HD2	1.58	0.86
7:5:25:DA:H2'	7:5:26:DT:OP2	1.75	0.86
3:D:616:PRO:O	3:D:619:ILE:HB	1.74	0.86
2:C:1223:ARG:NH2	3:D:719:PHE:O	2.09	0.86
1:B:124:VAL:HG21	1:B:210:THR:HG23	1.57	0.86
3:D:797:THR:HG23	3:D:924:GLY:HA3	1.58	0.86
2:I:210:LEU:CB	2:I:220:ILE:HD11	2.06	0.86
3:P:425:ARG:HD2	3:P:457:TYR:HB3	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:673:VAL:HG11	3:P:678:ARG:HB2	1.58	0.86
2:C:303:ASP:HB2	2:C:310:ILE:HD11	1.55	0.86
3:J:353:SER:CB	3:J:372:MET:HE1	2.02	0.86
3:J:886:VAL:HG11	3:J:1261:LEU:HD11	1.56	0.86
5:R:386:LEU:HD13	6:7:41:DT:O4'	1.74	0.86
3:P:372:MET:O	3:P:376:LEU:HG	1.76	0.86
3:D:1138:LEU:HD23	3:D:1139:PRO:HG3	1.58	0.85
1:H:47:LEU:CD1	1:H:183:ILE:HD12	2.06	0.85
3:J:1250:ASP:HA	3:J:1253:ILE:HD12	1.56	0.85
3:D:452:LEU:HD11	3:D:625:MET:HE2	1.56	0.85
1:G:38:THR:CG2	1:H:42:ALA:HA	2.06	0.85
3:J:825:VAL:HG22	3:J:838:ARG:HH11	1.41	0.85
2:O:1113:LEU:CD2	3:P:641:ILE:HD11	2.06	0.85
5:R:392:LYS:HA	5:R:395:THR:HG23	1.56	0.85
2:C:708:VAL:CG1	2:C:794:LEU:HD22	2.06	0.85
2:I:592:ARG:NH2	2:I:600:THR:O	2.08	0.85
3:J:115:TRP:O	3:J:119:SER:OG	1.93	0.85
3:J:1284:ARG:HA	3:J:1287:ILE:HD12	1.56	0.85
3:J:749:LYS:HB3	3:J:750:PRO:HD3	1.57	0.85
3:D:105:ILE:HG13	3:D:244:VAL:HG21	1.57	0.85
3:D:24:LEU:HD12	3:D:232:ASN:HB3	1.59	0.85
1:G:38:THR:HG23	1:H:42:ALA:HA	1.58	0.85
3:P:219:LYS:HA	3:P:222:LYS:HD2	1.58	0.85
3:P:425:ARG:HB2	3:P:466:MET:HE3	1.57	0.85
2:C:257:ALA:HB3	2:C:262:TYR:CE2	2.11	0.85
3:D:1261:LEU:HD13	3:D:1304:ARG:HD2	1.59	0.85
2:O:1085:MET:HA	2:O:1085:MET:CE	2.07	0.85
2:O:171:LEU:HD22	2:O:188:PHE:O	1.76	0.85
3:D:1137:GLY:O	3:D:1141:VAL:HG23	1.74	0.85
3:D:543:SER:O	3:D:574:VAL:HG21	1.75	0.85
2:I:533:LEU:CD2	2:I:538:LEU:O	2.24	0.85
1:M:56:VAL:HG13	1:M:144:ILE:CG2	2.07	0.85
2:O:634:VAL:HG12	2:O:635:THR:H	1.42	0.85
2:O:715:THR:HG22	2:O:786:GLY:H	1.39	0.85
2:C:1274:GLU:N	2:C:1274:GLU:OE1	2.08	0.85
3:D:589:TYR:CE2	3:D:593:ASN:ND2	2.44	0.85
3:P:1353:VAL:CG2	3:P:1355:ARG:HD2	2.06	0.85
6:1:50:DT:H6	6:1:50:DT:H3'	1.42	0.85
5:F:458:GLU:CA	5:F:461:ASN:ND2	2.40	0.85
3:J:190:LYS:O	3:J:190:LYS:HG3	1.77	0.85
3:P:435:GLN:HB2	3:P:457:TYR:OH	1.77	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:395:LYS:CA	3:D:398:LYS:HE3	2.05	0.85
3:D:453:VAL:HG13	3:D:500:ILE:HD13	1.59	0.85
3:P:823:THR:O	3:P:838:ARG:NH1	2.10	0.85
2:C:204:LEU:HB3	2:C:205:PRO:HD2	1.58	0.84
3:D:24:LEU:CD1	3:D:232:ASN:HB3	2.06	0.84
2:I:106:GLU:CG	2:I:115:LYS:HB2	2.05	0.84
3:J:807:LEU:CD2	3:J:1259:GLN:HG2	2.06	0.84
2:O:237:LEU:CD1	2:O:289:VAL:HG22	2.07	0.84
3:P:303:VAL:O	3:P:307:LEU:HG	1.75	0.84
1:A:40:GLY:HA2	1:A:43:LEU:HD12	1.59	0.84
3:D:1328:THR:HG22	3:D:1332:LEU:HD11	1.59	0.84
2:I:157:PHE:O	2:I:442:VAL:CG1	2.25	0.84
2:I:790:ASP:O	2:I:792:GLY:N	2.10	0.84
2:C:1273:MET:HA	2:C:1276:TRP:CE3	2.11	0.84
3:D:355:ILE:HD12	3:D:461:PHE:CE1	2.11	0.84
3:D:895:CYS:SG	3:D:898:CYS:N	2.50	0.84
2:I:1337:ILE:HD12	3:J:22:ILE:CG1	2.06	0.84
2:I:171:LEU:HD22	2:I:188:PHE:O	1.77	0.84
3:J:278:ARG:O	3:J:282:LEU:HG	1.77	0.84
1:M:150:ARG:HH11	1:M:150:ARG:H	1.24	0.84
2:I:542:ARG:NH2	6:4:49:DG:C8	2.45	0.84
2:C:838:CYS:SG	2:C:886:LYS:CE	2.65	0.84
3:D:820:ILE:HD11	3:D:884:SER:HB2	1.56	0.84
2:I:4:SER:O	2:I:8:LYS:HG3	1.77	0.84
3:J:1190:ILE:HG22	3:J:1191:PRO:O	1.76	0.84
5:L:476:ARG:HG3	5:L:477:GLU:N	1.92	0.84
3:D:343:LEU:HD23	3:D:1351:VAL:HG11	1.58	0.84
1:G:26:VAL:HG11	1:G:217:ILE:HD12	1.59	0.84
2:C:1330:ILE:CD1	2:C:1337:ILE:HD12	2.07	0.84
5:F:277:MET:SD	5:F:362:ASN:ND2	2.50	0.84
2:I:157:PHE:O	2:I:442:VAL:HG12	1.78	0.84
3:J:139:LEU:HD23	3:J:185:ILE:HD11	1.60	0.84
3:P:508:LEU:CD1	3:P:508:LEU:C	2.25	0.84
3:P:575:GLY:CA	3:P:578:ILE:HD12	2.05	0.84
3:D:1146:GLU:OE1	3:D:1309:ILE:HB	1.78	0.84
3:D:181:GLY:O	3:D:185:ILE:HD12	1.77	0.84
2:C:1270:PHE:HB2	3:D:347:VAL:CG2	2.07	0.84
3:D:746:LEU:CD2	3:D:758:PRO:HB3	2.07	0.84
3:J:481:ARG:O	3:J:485:MET:HB2	1.75	0.84
5:L:105:MET:SD	5:L:385:ARG:HG2	2.16	0.84
5:R:573:LEU:N	7:8:45:DG:OP2	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:9:13:GTP:H8	8:9:13:GTP:O3A	1.60	0.84
1:A:150:ARG:NH2	1:B:32:GLU:OE1	2.11	0.84
3:D:1350:ASN:HA	3:D:1353:VAL:HG22	1.58	0.84
5:F:333:VAL:O	5:F:337:VAL:HG23	1.78	0.84
3:D:79:LYS:NZ	5:F:569:THR:HG22	1.93	0.84
3:J:749:LYS:CB	3:J:750:PRO:CD	2.52	0.84
2:O:99:LYS:HG3	2:O:121:GLU:HG3	1.60	0.84
2:C:149:LEU:CD1	2:C:451:ARG:HB3	2.07	0.84
3:D:131:PRO:O	3:D:135:ILE:HG13	1.77	0.84
1:M:180:VAL:HA	1:M:207:THR:HG22	0.87	0.84
1:M:42:ALA:HA	1:N:38:THR:HG21	1.57	0.84
2:O:52:ALA:HB3	2:O:464:PHE:HE2	1.43	0.84
2:O:812:PHE:O	2:O:1099:ASN:ND2	2.10	0.84
3:P:797:THR:HG23	3:P:924:GLY:HA2	1.60	0.84
3:D:737:ILE:HG22	3:D:738:ARG:N	1.92	0.83
5:F:386:LEU:HD13	6:1:41:DT:O4'	1.77	0.83
2:I:811:ASN:HB3	2:I:817:LEU:HD12	1.60	0.83
3:P:115:TRP:CH2	3:P:1329:THR:HA	2.13	0.83
1:A:232:VAL:HG22	1:B:221:ALA:HB1	1.59	0.83
1:H:28:LEU:HD12	1:H:201:LEU:CB	2.07	0.83
5:L:123:ILE:O	5:L:127:ILE:HG13	1.77	0.83
1:M:83:LEU:HD13	1:M:86:LYS:HD2	1.60	0.83
2:O:1184:THR:OG1	2:O:1190:ALA:N	2.11	0.83
2:O:247:ARG:HA	2:O:274:ILE:HD11	1.60	0.83
3:P:749:LYS:HB3	3:P:750:PRO:HD2	1.58	0.83
1:B:217:ILE:CD1	1:B:217:ILE:H	1.89	0.83
2:C:669:PRO:HB3	2:C:1184:THR:HG22	1.58	0.83
3:D:483:LEU:O	3:D:489:ASN:ND2	2.09	0.83
3:D:839:VAL:CG1	3:D:864:LEU:HD13	2.08	0.83
5:F:329:LYS:O	5:F:330:LEU:HB2	1.76	0.83
2:I:169:LYS:NZ	2:I:192:ASP:OD1	2.10	0.83
2:O:1100:PRO:HB3	3:P:639:VAL:CG2	2.08	0.83
3:P:883:ARG:CZ	3:P:898:CYS:SG	2.61	0.83
5:R:392:LYS:HD3	6:7:43:DT:O3'	1.79	0.83
3:D:1229:VAL:CG2	3:D:1233:ILE:HD11	2.08	0.83
2:I:623:LEU:HD23	2:I:628:HIS:O	1.79	0.83
3:P:1233:ILE:O	3:P:1237:VAL:HG23	1.77	0.83
3:P:1348:LYS:HA	3:P:1351:VAL:CG2	2.08	0.83
3:P:512:TYR:CE1	3:P:545:HIS:CE1	2.66	0.83
3:P:622:ASP:O	3:P:626:TYR:HD2	1.59	0.83
3:D:245:LEU:O	3:D:250:ARG:NE	2.12	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:885:VAL:HG12	3:D:886:VAL:N	1.91	0.83
3:J:614:LEU:HD23	4:K:7:GLN:CD	1.98	0.83
3:P:268:LEU:O	3:P:272:VAL:HG23	1.78	0.83
3:P:318:GLY:HA3	3:P:322:ARG:HH12	1.41	0.83
2:O:1112:ILE:CD1	3:P:639:VAL:O	2.25	0.83
5:R:450:ILE:HD12	5:R:452:ILE:HD11	1.60	0.83
1:A:35:PHE:O	1:A:39:LEU:CG	2.25	0.83
3:J:1040:MET:HE2	3:J:1046:ILE:HD13	1.60	0.83
2:O:1077:SER:HA	3:P:356:THR:CG2	2.09	0.83
2:O:1237:HIS:CG	2:O:1242:LYS:HZ1	1.96	0.83
2:O:1246:ARG:HD2	2:O:1265:PHE:O	1.77	0.83
5:R:494:ILE:O	5:R:498:LEU:HG	1.77	0.83
6:4:50:DT:H5'	6:4:51:DC:C6	2.13	0.83
3:D:1306:LEU:HD12	3:D:1307:LEU:N	1.92	0.83
3:D:880:VAL:HG12	3:D:881:LYS:N	1.91	0.83
5:F:518:HIS:O	5:F:520:GLY:N	2.12	0.83
3:J:950:ILE:HB	3:J:1018:ALA:HB3	1.60	0.83
5:L:548:LEU:HD23	5:L:551:LEU:HD12	1.59	0.83
1:M:158:ARG:HE	1:M:172:LEU:HD21	1.42	0.83
2:O:1324:ASN:HA	2:O:1327:LEU:HD12	1.59	0.83
2:O:9:LYS:HE2	2:O:1171:ARG:HD3	1.59	0.83
2:O:1294:LYS:HB3	3:P:347:VAL:HG13	1.61	0.83
2:C:797:GLY:HA3	2:C:1233:LEU:CD2	2.08	0.83
2:I:333:ILE:HG22	2:I:334:GLU:H	1.43	0.83
2:I:1294:LYS:HD3	3:J:347:VAL:CG1	2.07	0.83
1:M:39:LEU:C	1:M:43:LEU:HG	1.99	0.83
1:A:75:GLN:O	2:C:729:ALA:HB2	1.79	0.83
2:C:807:TRP:CD1	2:C:817:LEU:HD11	2.14	0.83
3:D:316:ILE:HG22	3:D:324:LEU:HD12	1.59	0.83
5:F:583:THR:HG21	5:F:587:ILE:HD11	1.60	0.83
2:I:725:GLN:NE2	2:I:735:LYS:HE2	1.92	0.83
2:I:870:ILE:CB	2:I:944:ARG:HD3	2.08	0.83
3:J:1040:MET:HE3	3:J:1046:ILE:HG21	1.60	0.83
5:L:132:CYS:SG	5:L:257:LYS:NZ	2.51	0.83
5:L:145:LEU:HD22	5:L:225:ARG:HH12	1.44	0.83
5:L:91:ILE:O	5:L:91:ILE:HG22	1.78	0.83
2:O:340:ASP:HA	2:O:344:GLY:HA2	1.59	0.83
2:O:178:PRO:HA	2:O:397:LEU:CD2	2.08	0.83
2:I:151:ARG:HD2	2:I:445:ILE:CG2	2.09	0.83
2:O:197:ARG:HB3	2:O:200:ARG:HA	1.61	0.83
3:P:975:ILE:HD11	3:P:1003:LEU:HD11	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:91:THR:HG23	2:C:138:ILE:HA	1.60	0.82
3:D:1270:GLY:HA2	3:D:1298:VAL:HB	1.60	0.82
3:D:496:GLY:HA2	3:D:903:LEU:HD22	1.61	0.82
2:I:1278:LEU:HD22	2:I:1283:ALA:HB3	1.61	0.82
3:J:342:LEU:HB3	3:J:1352:ILE:HG12	1.60	0.82
2:O:1101:LEU:HD21	3:P:725:MET:HG2	1.59	0.82
3:P:1221:LEU:HD11	3:P:1304:ARG:O	1.79	0.82
3:P:312:ARG:HB3	3:P:312:ARG:HH11	1.41	0.82
3:P:499:ILE:HG22	3:P:500:ILE:HG12	1.61	0.82
1:N:85:LEU:HA	1:N:88:LEU:HD22	1.59	0.82
2:O:960:LEU:HB3	2:O:1025:PHE:HE1	1.43	0.82
5:R:591:GLU:O	5:R:595:LEU:HG	1.78	0.82
1:A:140:ILE:HG13	1:A:141:SER:H	1.43	0.82
3:D:147:ILE:CD1	3:D:178:ALA:HA	2.08	0.82
5:L:390:ILE:HD13	5:L:432:THR:HG23	1.62	0.82
2:C:674:ASP:O	3:D:772:TYR:OH	1.95	0.82
2:I:745:GLU:HG3	2:I:746:ALA:N	1.95	0.82
3:P:1259:GLN:NE2	3:P:1259:GLN:HA	1.94	0.82
3:P:883:ARG:NE	3:P:898:CYS:SG	2.52	0.82
4:Q:18:ASP:O	4:Q:22:VAL:HG23	1.78	0.82
5:L:395:THR:HA	5:L:404:LEU:HD13	1.61	0.82
1:B:88:LEU:CD1	1:B:128:HIS:CG	2.62	0.82
2:C:1327:LEU:HA	2:C:1337:ILE:CD1	2.10	0.82
3:D:209:ASN:HB2	3:D:214:ARG:HD3	1.60	0.82
2:I:524:ILE:HD11	2:I:712:SER:CB	2.09	0.82
3:J:1233:ILE:O	3:J:1237:VAL:HG23	1.79	0.82
2:O:839:VAL:O	2:O:886:LYS:HE2	1.79	0.82
8:3:13:GTP:PA	8:3:13:GTP:H8	2.03	0.82
6:4:47:DC:N3	6:4:48:DA:C6	2.48	0.82
2:C:1232:MET:C	2:C:1233:LEU:HG	1.99	0.82
3:D:117:LEU:HA	3:D:124:ILE:HD11	1.60	0.82
5:F:385:ARG:O	5:F:388:ILE:HG22	1.79	0.82
5:L:437:GLN:OE1	7:5:27:DA:N6	2.12	0.82
3:P:53:ARG:O	3:P:58:CYS:HB2	1.78	0.82
2:C:524:ILE:CD1	2:C:712:SER:HB3	2.09	0.82
2:C:896:THR:HG23	2:C:898:GLU:HB2	1.60	0.82
2:C:1289:GLU:CD	3:D:472:LEU:HB2	2.00	0.82
1:H:82:LEU:HD22	1:H:173:VAL:CG2	2.09	0.82
5:L:469:GLN:O	5:L:472:GLN:HG2	1.79	0.82
1:M:85:LEU:HD21	1:M:130:ILE:HG23	1.61	0.82
1:N:47:LEU:CD1	1:N:183:ILE:HD13	2.09	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:496:LYS:HB2	2:C:497:PRO:HD3	1.60	0.82
3:D:234:PRO:O	3:D:237:MET:HG2	1.79	0.82
1:G:91:ARG:CD	1:G:124:VAL:HG23	2.10	0.82
3:P:746:LEU:HG	3:P:758:PRO:HB3	1.61	0.82
5:R:450:ILE:O	5:R:450:ILE:HG13	1.77	0.82
1:B:61:ILE:HD13	1:B:64:VAL:HG11	1.61	0.82
2:C:708:VAL:HG11	2:C:794:LEU:HD22	1.60	0.82
3:D:1226:VAL:O	3:D:1230:THR:OG1	1.97	0.82
2:I:1061:GLN:HB2	2:I:1062:PRO:HD2	1.62	0.82
2:I:599:VAL:HG21	2:I:623:LEU:HD11	1.60	0.82
2:I:661:VAL:CG1	2:I:665:ALA:HB3	2.09	0.82
3:P:747:MET:CE	3:P:774:ILE:HG22	2.09	0.82
3:D:644:MET:O	3:D:764:ARG:NH1	2.13	0.81
3:J:24:LEU:HD13	3:J:237:MET:CE	2.10	0.81
3:P:1226:VAL:O	3:P:1230:THR:OG1	1.96	0.81
3:P:1262:ARG:HH12	3:P:1316:THR:HG22	1.45	0.81
1:B:35:PHE:O	1:B:39:LEU:HG	1.80	0.81
3:D:1229:VAL:HG13	3:D:1230:THR:H	1.45	0.81
3:D:205:LEU:CD2	3:D:214:ARG:HG3	2.08	0.81
5:F:440:THR:O	5:F:443:ILE:HG22	1.80	0.81
1:G:69:SER:O	1:G:78:ILE:CG1	2.28	0.81
2:I:167:SER:CB	3:J:1064:SER:HB3	2.10	0.81
3:J:840:LEU:HD13	3:J:869:CYS:SG	2.20	0.81
3:P:843:VAL:HB	3:P:897:HIS:O	1.80	0.81
2:C:1289:GLU:OE1	3:D:472:LEU:CG	2.27	0.81
3:P:385:LEU:HD21	3:P:411:ILE:CD1	2.09	0.81
3:P:816:THR:OG1	3:P:889:ASP:HB2	1.80	0.81
5:R:488:LEU:O	5:R:488:LEU:HG	1.80	0.81
5:F:573:LEU:HB3	7:2:45:DG:OP2	1.80	0.81
3:D:1078:LEU:HD13	3:D:1121:LEU:HD22	1.60	0.81
3:D:431:ARG:NH2	3:D:904:ALA:CB	2.43	0.81
3:D:536:LEU:HD13	3:D:542:ALA:CB	2.10	0.81
2:I:228:VAL:HG22	2:I:245:ARG:NH1	1.95	0.81
2:I:902:LEU:HA	2:I:905:ILE:HD12	1.62	0.81
1:N:140:ILE:HG13	1:N:142:MET:HE1	1.60	0.81
3:P:1163:VAL:HG13	3:P:1177:ILE:HA	1.62	0.81
3:P:697:MET:CE	3:P:737:ILE:CG2	2.58	0.81
3:P:809:VAL:HG23	3:P:915:ILE:HD11	1.63	0.81
3:P:785:ASP:HB3	3:P:935:PHE:CZ	2.16	0.81
3:P:264:ASP:CG	5:R:508:GLU:HB2	2.01	0.81
2:I:298:ALA:HB2	2:I:336:LEU:HD21	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:700:VAL:HG11	2:I:1114:GLU:HG3	1.62	0.81
4:K:27:ALA:HA	4:K:30:MET:SD	2.20	0.81
5:L:489:MET:HB3	5:L:490:PRO:HD2	1.63	0.81
1:B:190:ALA:H	1:B:199:ASP:HA	1.45	0.81
2:C:525:THR:HG21	2:C:687:ARG:CD	2.11	0.81
2:I:164:THR:O	2:I:168:GLY:HA2	1.80	0.81
3:J:1257:VAL:O	3:J:1261:LEU:HG	1.79	0.81
1:M:68:TYR:HE2	2:O:927:THR:CB	1.93	0.81
3:P:739:GLN:HG2	3:P:744:ARG:CG	2.08	0.81
1:A:57:THR:CG2	1:A:158:ARG:NH2	2.44	0.81
5:F:365:MET:O	5:F:369:GLU:HG3	1.79	0.81
5:F:533:ASP:O	5:F:536:THR:HB	1.80	0.81
2:I:949:GLU:O	2:I:953:LEU:HG	1.81	0.81
3:J:885:VAL:HG11	3:J:1255:VAL:HA	1.63	0.81
4:K:13:ILE:HD12	4:K:19:LEU:HA	1.61	0.81
3:D:1146:GLU:CD	3:D:1309:ILE:HB	2.01	0.81
1:G:48:LEU:HD21	1:G:183:ILE:HG22	1.61	0.81
3:J:1320:ILE:HD12	3:J:1342:ASP:OD2	1.80	0.81
3:J:369:PRO:HD3	3:J:447:ILE:HG13	1.61	0.81
3:J:749:LYS:CB	3:J:750:PRO:HD2	2.10	0.81
2:O:997:TRP:HB3	2:O:1000:LEU:HD23	1.63	0.81
5:R:117:ILE:HG23	5:R:421:TYR:HB2	1.61	0.81
3:D:349:TYR:HB3	3:D:470:VAL:CG2	2.10	0.81
3:D:395:LYS:HA	3:D:398:LYS:CE	2.10	0.81
3:D:880:VAL:CG1	3:D:881:LYS:H	1.93	0.81
2:I:1288:GLN:O	2:I:1292:THR:HG22	1.81	0.81
2:I:666:SER:HA	2:I:1186:VAL:HG21	1.62	0.81
3:J:895:CYS:SG	3:J:898:CYS:N	2.50	0.81
5:L:84:LEU:HD11	5:L:107:THR:HG21	1.60	0.81
2:O:366:ILE:HG22	2:O:384:LEU:HD21	1.62	0.81
3:J:915:ILE:O	3:J:918:ILE:CG2	2.26	0.81
3:P:574:VAL:O	3:P:578:ILE:HG13	1.81	0.81
5:R:540:LEU:O	5:R:544:THR:HG23	1.81	0.81
2:C:19:PRO:HB3	2:C:1156:ARG:HD2	1.61	0.81
5:F:585:GLU:HG3	7:2:47:DC:H41	1.46	0.81
2:I:210:LEU:HB2	2:I:220:ILE:HD11	1.63	0.81
1:N:220:ALA:HA	1:N:223:ILE:HD12	1.63	0.81
2:O:371:ARG:C	5:R:99:ARG:NH2	2.34	0.81
7:8:22:DA:H1'	7:8:23:DT:P	2.22	0.80
3:D:422:LEU:C	3:D:423:LEU:HD23	2.02	0.80
3:D:363:LEU:HG	3:D:487:THR:HG22	1.61	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:47:LEU:CD1	1:G:183:ILE:HD12	2.10	0.80
1:M:150:ARG:HD3	1:M:150:ARG:H	1.45	0.80
6:4:47:DC:N3	6:4:48:DA:N1	2.29	0.80
2:C:1258:PRO:HG2	3:D:346:ARG:HB2	1.63	0.80
2:O:432:LEU:HG	2:O:433:ILE:N	1.94	0.80
6:4:50:DT:H6	6:4:50:DT:H3'	1.45	0.80
3:D:194:LEU:HD12	3:D:194:LEU:H	1.47	0.80
3:D:70:CYS:HB2	3:D:90:VAL:HB	1.63	0.80
3:D:975:ILE:HD12	3:D:997:VAL:HG11	1.63	0.80
5:F:295:CYS:O	5:F:296:LYS:HB2	1.81	0.80
3:J:1350:ASN:ND2	3:J:1356:LEU:O	2.13	0.80
3:J:843:VAL:CG1	3:J:883:ARG:HB3	2.10	0.80
2:O:371:ARG:HB3	5:R:99:ARG:NH2	1.96	0.80
5:L:449:THR:OG1	5:L:504:PRO:CG	2.29	0.80
1:A:44:ARG:O	1:A:47:LEU:HB2	1.82	0.80
5:F:514:ASP:O	5:F:516:ASP:N	2.14	0.80
2:I:868:SER:HB2	2:I:870:ILE:HG12	1.63	0.80
3:J:1259:GLN:OE1	3:J:1262:ARG:CD	2.29	0.80
3:D:795:TYR:OH	7:2:11:DA:H2''	1.82	0.80
2:C:885:GLY:HA2	2:C:917:SER:OG	1.81	0.80
3:D:1229:VAL:HG22	3:D:1230:THR:N	1.95	0.80
3:D:147:ILE:HG13	3:D:178:ALA:HA	1.64	0.80
3:D:259:ARG:NH1	5:F:505:ILE:HG12	1.96	0.80
1:G:47:LEU:HD13	1:G:183:ILE:CD1	2.11	0.80
1:M:41:ASN:HD21	2:O:1218:GLY:N	1.79	0.80
1:M:42:ALA:CA	1:N:38:THR:CG2	2.55	0.80
2:O:333:ILE:HG22	2:O:334:GLU:N	1.95	0.80
3:D:115:TRP:HE3	3:D:1333:THR:HG23	1.46	0.80
2:O:293:ALA:HB2	2:O:319:LEU:HD21	1.63	0.80
2:C:255:ILE:HD13	2:C:285:ILE:CD1	2.11	0.80
2:C:56:VAL:HG12	2:C:59:ILE:HD11	1.62	0.80
3:D:474:LEU:HD12	4:E:28:ARG:HG2	1.64	0.80
1:H:14:VAL:HG21	1:H:29:GLU:HG2	1.62	0.80
2:I:1286:THR:O	2:I:1290:MET:HG2	1.81	0.80
3:J:1259:GLN:OE1	3:J:1262:ARG:HD3	1.82	0.80
1:A:38:THR:HG23	1:B:42:ALA:HA	1.63	0.80
2:C:1278:LEU:HD21	2:C:1286:THR:HB	1.62	0.80
2:C:718:ALA:HB2	2:C:783:LEU:HD21	1.62	0.80
3:D:1259:GLN:HA	3:D:1259:GLN:HE21	1.47	0.80
3:D:1259:GLN:HA	3:D:1259:GLN:NE2	1.95	0.80
4:E:60:ASN:HD21	4:E:62:GLN:HB3	1.44	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:210:LEU:HD23	2:O:213:LEU:HD12	1.61	0.80
5:R:110:LEU:H	5:R:110:LEU:CD1	1.88	0.80
2:C:1109:ILE:HG13	3:D:740:LEU:HD22	1.64	0.80
2:O:1104:PRO:HG3	3:P:725:MET:CE	2.11	0.80
2:O:1273:MET:HB3	3:P:428:THR:HB	1.63	0.80
3:P:1347:LEU:O	3:P:1351:VAL:HG23	1.81	0.80
3:P:261:ALA:HB2	5:R:519:LEU:HD21	1.64	0.80
3:D:1261:LEU:HD13	3:D:1304:ARG:CD	2.11	0.79
2:C:1281:TYR:CE2	3:D:431:ARG:HB2	2.17	0.79
3:D:470:VAL:CB	3:D:472:LEU:HD21	2.06	0.79
2:I:725:GLN:HB3	2:I:733:VAL:HG23	1.64	0.79
2:O:295:LYS:HD2	2:O:335:THR:CG2	2.10	0.79
3:P:1101:LEU:HD22	3:P:1122:ALA:HB3	1.62	0.79
2:C:1031:ALA:HB3	2:C:1032:LYS:HE3	1.63	0.79
2:I:681:MET:O	2:I:685:MET:HG2	1.82	0.79
1:M:152:TYR:OH	1:M:174:ASP:HB3	1.82	0.79
2:O:839:VAL:O	2:O:886:LYS:CE	2.29	0.79
3:P:312:ARG:NH1	3:P:312:ARG:HB3	1.96	0.79
2:C:96:LEU:HB2	2:C:127:ILE:CD1	2.11	0.79
1:G:59:VAL:HG13	1:G:144:ILE:HG12	1.62	0.79
2:I:870:ILE:CG1	2:I:944:ARG:HD3	2.11	0.79
3:J:1280:VAL:HG12	3:J:1281:GLU:H	1.46	0.79
3:J:65:VAL:HG13	3:J:98:ARG:NH1	1.96	0.79
1:B:9:LEU:HD12	1:B:10:LYS:H	1.46	0.79
3:D:783:LEU:CD1	3:D:783:LEU:N	2.44	0.79
3:D:918:ILE:HG22	3:D:919:ALA:H	1.44	0.79
1:G:45:ARG:NH1	2:I:1216:ARG:HA	1.97	0.79
3:J:1284:ARG:O	3:J:1287:ILE:HB	1.82	0.79
1:M:38:THR:CG2	1:N:42:ALA:HB1	2.12	0.79
2:O:681:MET:O	2:O:685:MET:HG2	1.82	0.79
3:P:1031:VAL:HG13	3:P:1091:PRO:HD3	1.63	0.79
2:C:930:ASP:OD2	2:C:932:GLN:NE2	2.15	0.79
2:I:868:SER:HB2	2:I:870:ILE:CG1	2.13	0.79
3:J:849:LEU:HD22	3:J:856:ILE:O	1.83	0.79
2:C:817:LEU:HD21	2:C:1080:ASN:ND2	1.98	0.79
2:C:831:ILE:CD1	2:C:831:ILE:H	1.96	0.79
3:J:825:VAL:CG2	3:J:838:ARG:NH1	2.44	0.79
2:O:1223:ARG:CD	3:P:635:SER:O	2.30	0.79
3:P:464:ASP:OD1	8:9:15:G:O2'	2.01	0.79
5:F:583:THR:CG2	5:F:587:ILE:HD11	2.13	0.79
2:I:247:ARG:HG3	2:I:274:ILE:HD13	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:805:MET:CE	2:I:806:PRO:HD2	2.13	0.79
3:J:53:ARG:O	3:J:58:CYS:HB2	1.82	0.79
2:O:1290:MET:HA	2:O:1294:LYS:HD2	1.65	0.79
2:O:213:LEU:O	2:O:214:ASN:HB3	1.83	0.79
3:P:135:ILE:O	3:P:139:LEU:HG	1.82	0.79
3:P:419:HIS:O	3:P:439:PRO:CD	2.30	0.79
2:C:301:TYR:CE1	2:C:333:ILE:HG23	2.17	0.79
2:C:448:LEU:HB2	2:C:608:ALA:CB	2.13	0.79
3:D:342:LEU:HD22	3:D:1352:ILE:HG23	1.65	0.79
3:D:139:LEU:O	3:D:141:PHE:CE2	2.34	0.79
4:E:44:ASP:OD2	4:E:48:VAL:HG11	1.82	0.79
2:I:1275:VAL:CG1	2:I:1279:GLU:OE2	2.31	0.79
2:I:811:ASN:O	2:I:1099:ASN:HB2	1.82	0.79
2:I:812:PHE:O	2:I:1099:ASN:ND2	2.15	0.79
3:J:1331:VAL:O	3:J:1334:GLU:HB2	1.82	0.79
3:J:115:TRP:HE3	3:J:1333:THR:HG23	1.46	0.79
3:J:423:LEU:HB3	3:J:466:MET:CE	2.13	0.79
1:M:68:TYR:CE2	2:O:927:THR:HB	2.17	0.79
1:N:191:ARG:HG3	1:N:196:THR:CG2	2.11	0.79
1:N:92:VAL:HG22	1:N:121:VAL:HG22	1.65	0.79
6:1:44:DG:H4'	6:1:44:DG:OP1	1.82	0.79
3:D:259:ARG:HH11	5:F:505:ILE:HG12	1.48	0.79
1:G:47:LEU:HD13	1:G:183:ILE:HD12	1.63	0.79
2:I:870:ILE:HG13	2:I:944:ARG:CD	2.13	0.79
2:I:870:ILE:HG13	2:I:944:ARG:CG	2.13	0.79
3:J:849:LEU:HD11	3:J:857:LEU:HD23	1.63	0.79
2:O:149:LEU:HD11	2:O:451:ARG:HB3	1.65	0.79
1:B:61:ILE:HD11	1:B:171:LEU:CD1	2.13	0.79
3:D:1138:LEU:CB	3:D:1139:PRO:HD3	2.12	0.79
3:D:909:ILE:HD13	3:D:910:ASN:N	1.97	0.79
2:I:149:LEU:HD11	2:I:451:ARG:HB3	1.64	0.79
2:I:297:VAL:HG12	2:I:317:LEU:HD21	1.63	0.79
2:I:589:THR:HG22	2:I:590:PRO:HD2	1.64	0.79
2:O:163:LYS:HG2	2:O:164:THR:N	1.97	0.79
2:O:52:ALA:HB1	2:O:468:LEU:CD1	2.13	0.79
2:C:257:ALA:HB2	2:C:277:LEU:CD1	2.13	0.78
3:D:869:CYS:O	3:D:873:GLU:HG3	1.83	0.78
3:J:46:TYR:O	3:J:49:PHE:CE1	2.35	0.78
3:J:964:LYS:HD3	3:J:1197:ASN:O	1.82	0.78
1:N:38:THR:CB	1:N:39:LEU:HD23	2.13	0.78
2:O:1223:ARG:HD2	3:P:635:SER:O	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:34:DG:N2	7:5:29:DC:O2	2.16	0.78
2:I:447:HIS:CE1	2:I:553:THR:HG21	2.19	0.78
3:J:115:TRP:HH2	3:J:1329:THR:HA	1.48	0.78
3:J:62:PHE:O	3:J:98:ARG:HG3	1.83	0.78
2:O:310:ILE:HD13	2:O:324:LYS:HB3	1.64	0.78
3:P:325:LYS:HA	3:P:329:ASP:OD2	1.83	0.78
3:P:975:ILE:HD13	3:P:980:THR:HG21	1.64	0.78
6:7:44:DG:H2''	6:7:45:DT:O4'	1.82	0.78
1:G:49:SER:HB2	1:H:33:ARG:NH1	1.99	0.78
3:J:1323:ALA:CB	3:J:1332:LEU:HD21	2.12	0.78
1:M:92:VAL:HG11	1:M:95:LYS:O	1.84	0.78
2:O:1142:ARG:CZ	2:O:1169:VAL:HG21	2.13	0.78
3:P:1282:TYR:O	3:P:1285:VAL:HG12	1.84	0.78
3:P:482:ALA:O	3:P:488:ASN:ND2	2.17	0.78
3:P:314:ARG:NH2	5:R:96:ASP:OD2	2.16	0.78
2:C:538:LEU:HD23	2:C:538:LEU:N	1.98	0.78
2:C:1257:GLN:NE2	3:D:345:LYS:HB3	1.97	0.78
3:D:496:GLY:HA2	3:D:903:LEU:CD2	2.14	0.78
1:G:9:LEU:CD2	1:G:198:LEU:HD21	2.08	0.78
2:I:15:PHE:CE2	2:I:1182:ILE:HG23	2.19	0.78
2:I:1200:LYS:HE3	2:I:1206:THR:HG21	1.64	0.78
2:I:136:PHE:HB3	2:I:138:ILE:HD11	1.64	0.78
2:I:178:PRO:HG3	2:I:395:TYR:CE1	2.18	0.78
2:I:511:LEU:HD11	2:I:535:PRO:HD2	1.64	0.78
3:J:832:LYS:NZ	3:J:1242:ARG:HB3	1.98	0.78
1:M:225:ALA:HB2	1:N:228:LEU:HD11	1.66	0.78
5:R:96:ASP:O	5:R:100:MET:HG3	1.83	0.78
1:B:219:ARG:O	1:B:223:ILE:HG13	1.84	0.78
2:C:1323:PHE:CE1	2:C:1327:LEU:HD21	2.14	0.78
2:C:896:THR:CG2	2:C:898:GLU:HB2	2.13	0.78
3:D:1229:VAL:O	3:D:1233:ILE:CG1	2.31	0.78
3:D:814:CYS:SG	10:D:1502:ZN:ZN	1.72	0.78
3:D:601:ILE:HG22	3:D:602:SER:N	1.95	0.78
3:J:447:ILE:HD12	3:J:447:ILE:N	1.98	0.78
2:O:213:LEU:O	2:O:214:ASN:HB2	1.82	0.78
2:O:726:TYR:HB3	2:O:733:VAL:CG2	2.14	0.78
3:P:407:VAL:O	3:P:411:ILE:HG13	1.84	0.78
2:C:1183:ALA:O	2:C:1185:PRO:HD3	1.83	0.78
2:C:790:ASP:O	2:C:792:GLY:N	2.17	0.78
3:D:845:ALA:HB3	3:D:881:LYS:HD3	1.64	0.78
2:I:678:ARG:HD3	2:I:1106:ARG:O	1.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:658:GLN:NE2	2:I:1186:VAL:H	1.81	0.78
3:J:1342:ASP:OD2	3:J:1344:LEU:HG	1.84	0.78
2:C:1058:ARG:HH11	2:C:1238:LEU:HD12	1.49	0.78
3:D:432:LEU:HD12	3:D:499:ILE:HD13	1.64	0.78
3:J:62:PHE:HB3	3:J:98:ARG:CG	2.11	0.78
1:M:56:VAL:HG13	1:M:144:ILE:HG23	1.64	0.78
1:M:8:PHE:CZ	1:N:223:ILE:CG2	2.66	0.78
2:O:1294:LYS:HD3	3:P:347:VAL:CG1	2.14	0.78
3:D:452:LEU:HD11	3:D:625:MET:SD	2.23	0.78
3:D:322:ARG:HE	5:F:510:PRO:HD3	1.48	0.78
2:I:538:LEU:N	2:I:538:LEU:HD23	1.95	0.78
3:J:1140:ARG:O	3:J:1144:LEU:HG	1.83	0.78
3:J:795:TYR:O	3:J:799:ARG:HG3	1.84	0.78
1:M:57:THR:HG22	1:M:58:GLU:HG3	1.66	0.78
1:N:35:PHE:HB3	1:N:39:LEU:HD11	1.66	0.78
1:N:44:ARG:CA	1:N:47:LEU:HD12	2.13	0.78
3:P:79:LYS:HG3	5:R:569:THR:HG23	1.63	0.78
2:C:797:GLY:CA	2:C:1233:LEU:HD21	2.13	0.78
1:H:100:LEU:HB3	1:H:115:ILE:HD12	1.64	0.78
1:G:232:VAL:CG2	1:H:221:ALA:HB3	2.13	0.78
3:J:1272:SER:HB2	3:J:1274:PHE:CZ	2.19	0.78
3:J:423:LEU:CB	3:J:466:MET:HE1	2.14	0.78
1:B:154:PRO:HD2	1:B:157:THR:HB	1.64	0.78
3:D:1252:HIS:HB2	3:D:1253:ILE:HD12	1.66	0.78
2:I:530:ILE:HD11	2:I:575:LEU:HB2	1.66	0.78
2:C:164:THR:O	2:C:165:HIS:HB2	1.81	0.77
3:D:53:ARG:O	3:D:58:CYS:HB2	1.84	0.77
3:D:452:LEU:CG	3:D:625:MET:SD	2.72	0.77
5:F:84:LEU:CG	5:F:107:THR:HG21	2.14	0.77
5:F:141:ILE:HD11	5:F:256:PHE:CE1	2.19	0.77
2:I:715:THR:HG22	2:I:786:GLY:H	1.49	0.77
3:J:352:ARG:O	3:J:372:MET:HE1	1.84	0.77
3:J:931:THR:HG23	3:J:1134:ILE:HB	1.65	0.77
5:L:392:LYS:HD2	6:4:43:DT:H2 <sup>9</sup>	1.66	0.77
1:M:47:LEU:CD1	1:M:183:ILE:HD12	2.02	0.77
3:P:481:ARG:O	3:P:485:MET:HB2	1.83	0.77
3:D:848:VAL:HG21	3:D:880:VAL:HG11	1.65	0.77
1:N:158:ARG:HD2	1:N:172:LEU:HD21	1.64	0.77
2:O:1269:ARG:NH1	3:P:340:GLN:HG3	2.00	0.77
1:A:228:LEU:HA	1:A:231:PHE:CD2	2.19	0.77
2:C:82:VAL:HG23	2:C:83:GLN:N	1.99	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:490:ILE:H	3:D:490:ILE:HD12	1.48	0.77
1:N:179:PRO:O	1:N:208:ASN:CB	2.32	0.77
1:N:224:LEU:C	1:N:224:LEU:HD12	2.02	0.77
2:O:191:LYS:O	2:O:192:ASP:HB2	1.83	0.77
1:B:217:ILE:CD1	1:B:217:ILE:N	2.48	0.77
2:C:1334:GLY:O	3:D:25:ALA:HB2	1.84	0.77
2:C:568:ASN:HA	2:C:571:LEU:HD12	1.66	0.77
3:J:1146:GLU:OE2	3:J:1309:ILE:HB	1.84	0.77
1:M:152:TYR:CD1	1:M:175:ALA:O	2.38	0.77
3:P:963:VAL:CG2	3:P:975:ILE:HG23	2.14	0.77
2:C:1290:MET:N	2:C:1290:MET:SD	2.54	0.77
3:J:369:PRO:CD	3:J:447:ILE:HG13	2.14	0.77
3:J:849:LEU:HD11	3:J:857:LEU:CD2	2.15	0.77
5:L:407:GLU:HA	5:L:410:ILE:HD12	1.66	0.77
2:O:559:CYS:CB	2:O:662:SER:HB3	2.15	0.77
7:5:4:DC:C4	7:5:5:DC:N4	2.53	0.77
2:C:1098:LEU:HD22	2:C:1099:ASN:H	1.49	0.77
2:C:1335:ILE:HD12	2:C:1335:ILE:N	1.99	0.77
2:I:298:ALA:CB	2:I:336:LEU:HD21	2.15	0.77
2:I:560:PRO:HB2	3:J:776:THR:HG21	1.67	0.77
3:J:918:ILE:CG2	3:J:919:ALA:N	2.47	0.77
1:N:88:LEU:CD1	1:N:128:HIS:CD2	2.66	0.77
2:O:1292:THR:HG23	2:O:1293:VAL:H	1.49	0.77
3:D:435:GLN:OE1	3:D:486:SER:HB3	1.85	0.77
1:G:78:ILE:HA	1:G:81:ILE:HD12	1.65	0.77
3:J:1318:SER:OG	3:J:1321:SER:HB3	1.83	0.77
3:J:807:LEU:HD11	3:J:1259:GLN:HE21	1.49	0.77
4:Q:2:ALA:N	4:Q:6:VAL:HG13	2.00	0.77
1:B:61:ILE:HD11	1:B:171:LEU:HD12	1.66	0.77
2:C:1252:SER:HA	2:C:1259:LEU:HD21	1.67	0.77
2:C:1278:LEU:HD13	2:C:1287:LEU:HA	1.67	0.77
2:C:522:SER:O	2:C:525:THR:HG22	1.85	0.77
3:D:1163:VAL:HG13	3:D:1176:VAL:O	1.85	0.77
3:D:492:SER:OG	3:D:495:ASN:N	2.17	0.77
5:F:166:VAL:HG12	5:F:167:ASP:N	1.98	0.77
3:J:495:ASN:HD21	3:J:497:GLU:HB2	1.50	0.77
3:J:807:LEU:HD11	3:J:1259:GLN:NE2	1.98	0.77
2:O:237:LEU:HD12	2:O:289:VAL:HG22	1.66	0.77
3:P:425:ARG:HD2	3:P:457:TYR:CB	2.14	0.77
3:P:747:MET:HE2	3:P:774:ILE:HG22	1.67	0.77
1:B:224:LEU:HG	1:B:225:ALA:N	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1288:GLN:HB3	2:C:1315:MET:CE	2.14	0.77
2:C:96:LEU:HB3	2:C:127:ILE:HD11	1.66	0.77
3:J:24:LEU:HD12	3:J:232:ASN:CB	2.14	0.77
3:J:513:MET:HE1	3:J:579:LEU:HD21	1.66	0.77
2:O:1100:PRO:HB3	3:P:639:VAL:HG23	1.67	0.77
2:O:52:ALA:HB3	2:O:464:PHE:CE2	2.20	0.77
3:P:428:THR:O	3:P:428:THR:CG2	2.32	0.77
3:D:425:ARG:HH22	8:3:16:U:C4'	1.97	0.77
2:C:1108:ASN:N	2:C:1108:ASN:OD1	2.17	0.77
2:C:1321:GLU:O	2:C:1325:VAL:HG23	1.84	0.77
3:D:186:GLN:CA	3:D:189:LEU:HD12	2.12	0.77
3:D:382:TYR:HE1	3:D:398:LYS:HA	1.50	0.77
2:I:165:HIS:CB	2:I:168:GLY:H	1.98	0.77
2:I:886:LYS:N	2:I:917:SER:OG	2.18	0.77
3:J:515:ARG:HH21	3:J:717:VAL:HB	1.49	0.77
1:N:162:GLU:OE2	1:N:166:ARG:NH1	2.18	0.77
2:O:1085:MET:HA	2:O:1085:MET:HE3	1.66	0.77
2:O:347:ILE:HD11	2:O:433:ILE:HD11	1.66	0.77
1:A:13:LEU:HA	1:A:28:LEU:HD22	1.65	0.76
1:B:48:LEU:HD21	1:B:183:ILE:HG21	1.65	0.76
2:C:1327:LEU:HA	2:C:1330:ILE:HD12	1.67	0.76
2:C:555:TYR:OH	3:D:769:VAL:HG11	1.84	0.76
3:D:657:ALA:O	3:D:661:VAL:HG23	1.84	0.76
3:D:849:LEU:HD23	3:D:856:ILE:O	1.83	0.76
3:J:1253:ILE:O	3:J:1257:VAL:HG23	1.84	0.76
3:J:132:LEU:HA	3:J:135:ILE:HD12	1.67	0.76
3:J:899:TYR:CE1	3:J:915:ILE:CG2	2.67	0.76
2:O:719:LYS:HA	2:O:719:LYS:HE2	1.66	0.76
3:P:805:GLN:HB2	3:P:1347:LEU:HD12	1.67	0.76
2:C:1292:THR:HG23	2:C:1293:VAL:N	2.01	0.76
2:C:314:ASN:ND2	2:C:351:LEU:HD13	2.00	0.76
1:G:232:VAL:HG22	1:H:221:ALA:HB3	1.66	0.76
2:I:12:ARG:NH2	2:I:793:GLU:OE1	2.15	0.76
3:J:1029:THR:CG2	3:J:1121:LEU:HD11	2.15	0.76
3:J:145:VAL:HG23	3:J:158:GLN:O	1.85	0.76
3:J:843:VAL:HG21	3:J:897:HIS:HB3	1.66	0.76
3:P:139:LEU:HD21	3:P:185:ILE:CD1	2.08	0.76
3:P:262:THR:C	5:R:507:MET:HB3	2.05	0.76
3:P:384:LYS:HZ3	3:P:415:VAL:HG22	1.48	0.76
1:B:75:GLN:HG3	1:B:134:THR:CG2	2.16	0.76
3:D:1348:LYS:HA	3:D:1351:VAL:CG2	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1348:LYS:O	3:D:1351:VAL:HB	1.86	0.76
3:J:620:PHE:O	3:J:624:ILE:HD12	1.86	0.76
1:N:47:LEU:O	1:N:51:MET:CG	2.33	0.76
1:N:88:LEU:HD21	1:N:130:ILE:HG12	1.66	0.76
3:P:1190:ILE:HG22	3:P:1191:PRO:O	1.84	0.76
3:P:770:LEU:O	3:P:774:ILE:HG13	1.85	0.76
3:D:116:PHE:O	3:D:124:ILE:CD1	2.33	0.76
3:D:809:VAL:HB	3:D:912:GLY:H	1.50	0.76
2:O:802:VAL:CG2	2:O:1096:ILE:HB	2.14	0.76
3:P:1080:ILE:HB	3:P:1097:ALA:HB3	1.67	0.76
1:A:30:PRO:HB2	1:A:198:LEU:HD22	1.66	0.76
2:C:112:GLY:O	2:C:114:VAL:N	2.17	0.76
2:C:402:ARG:HG2	2:C:416:GLY:CA	2.10	0.76
4:E:39:VAL:CG1	4:E:40:PRO:CD	2.51	0.76
3:J:242:LEU:HD12	3:J:243:PRO:CD	2.10	0.76
1:M:39:LEU:N	1:M:39:LEU:HD23	1.99	0.76
5:R:392:LYS:HA	5:R:395:THR:CG2	2.13	0.76
2:C:1199:LEU:HD23	2:C:1204:LEU:HD13	1.68	0.76
2:C:367:TYR:HD1	2:C:384:LEU:HD22	1.49	0.76
3:J:795:TYR:OH	3:J:1326:GLN:NE2	2.19	0.76
2:I:1270:PHE:HB2	3:J:347:VAL:HG21	1.68	0.76
3:J:805:GLN:HB2	3:J:1347:LEU:CD1	2.15	0.76
2:O:537:GLY:C	2:O:538:LEU:HD23	2.06	0.76
3:P:259:ARG:HH12	5:R:502:LYS:HG2	1.50	0.76
1:B:48:LEU:HD21	1:B:183:ILE:CG2	2.16	0.76
1:B:75:GLN:HG3	1:B:134:THR:HG23	1.67	0.76
1:B:88:LEU:HD11	1:B:128:HIS:CB	2.15	0.76
2:C:1334:GLY:O	3:D:25:ALA:CB	2.34	0.76
3:D:483:LEU:HD21	4:E:16:ARG:HB3	1.68	0.76
5:L:598:LEU:HD23	5:L:598:LEU:N	2.01	0.76
1:M:225:ALA:HB2	1:N:228:LEU:HD12	1.68	0.76
1:N:107:ILE:HD11	1:N:136:GLU:OE1	1.85	0.76
5:R:120:ALA:HA	5:R:123:ILE:HD12	1.67	0.76
6:7:47:DC:H4'	6:7:48:DA:OP1	1.85	0.76
3:D:1080:ILE:HD11	3:D:1121:LEU:HD11	1.68	0.76
2:I:698:PRO:HB3	2:I:1069:ARG:HH22	1.48	0.76
2:I:232:ILE:CD1	2:I:326:SER:HB3	2.15	0.76
2:I:883:LEU:HD21	2:I:920:VAL:HG23	1.66	0.76
3:J:1217:PRO:HB2	3:J:1306:LEU:HD21	1.68	0.76
3:P:126:LEU:HD22	3:P:216:LYS:NZ	2.00	0.76
2:C:253:PHE:HB2	2:C:288:PRO:HG2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:311:CYS:SG	2:C:325:LEU:HD21	2.26	0.76
2:C:448:LEU:HG	2:C:553:THR:CB	2.16	0.76
2:I:390:PHE:CD2	2:I:390:PHE:N	2.54	0.76
4:K:26:ARG:O	4:K:30:MET:HG3	1.86	0.76
1:M:100:LEU:HD22	1:M:115:ILE:HG21	1.66	0.76
2:O:13:LYS:HB2	2:O:1149:TYR:CE1	2.20	0.76
2:O:726:TYR:HB3	2:O:733:VAL:HG22	1.68	0.76
1:B:217:ILE:HD12	1:B:217:ILE:N	1.98	0.76
3:D:1261:LEU:CD1	3:D:1304:ARG:HD2	2.16	0.76
3:D:363:LEU:CG	3:D:487:THR:HG22	2.16	0.76
3:D:835:LEU:CG	3:D:836:ARG:N	2.48	0.76
5:L:166:VAL:HG12	5:L:168:PRO:CD	2.16	0.76
2:O:702:THR:HG22	2:O:1184:THR:O	1.85	0.76
3:P:697:MET:SD	3:P:741:ALA:HB3	2.26	0.76
3:D:1287:ILE:CG2	3:D:1288:ALA:N	2.39	0.75
2:C:892:GLU:OE2	3:D:69:GLU:OE2	2.04	0.75
5:F:117:ILE:HG23	5:F:421:TYR:HB2	1.68	0.75
2:I:165:HIS:CE1	2:I:190:PRO:HB3	2.20	0.75
3:J:24:LEU:HD13	3:J:237:MET:HE1	1.68	0.75
3:J:843:VAL:HB	3:J:897:HIS:O	1.85	0.75
5:L:548:LEU:HD23	5:L:551:LEU:HD11	1.67	0.75
2:O:1252:SER:HA	2:O:1259:LEU:HD21	1.68	0.75
3:P:601:ILE:O	3:P:605:LEU:HG	1.86	0.75
3:P:673:VAL:CG1	3:P:678:ARG:HB2	2.15	0.75
3:P:739:GLN:HE21	3:P:744:ARG:CG	1.99	0.75
2:C:448:LEU:HG	2:C:553:THR:OG1	1.85	0.75
2:C:577:VAL:HG23	2:C:661:VAL:O	1.86	0.75
2:C:714:VAL:HG11	2:C:787:PRO:HD2	1.67	0.75
3:D:1145:PHE:CE1	3:D:1256:ILE:CD1	2.65	0.75
5:F:401:PHE:HA	5:F:404:LEU:HD12	1.68	0.75
3:P:1145:PHE:O	3:P:1309:ILE:HG13	1.87	0.75
5:R:370:ALA:HA	5:R:373:ARG:NH1	2.00	0.75
5:R:434:TRP:CE2	6:7:36:DT:H72	2.21	0.75
2:C:1061:GLN:HB2	2:C:1062:PRO:HD2	1.68	0.75
2:I:761:GLN:O	2:I:762:ASN:HB2	1.86	0.75
3:J:128:LEU:HD11	3:J:189:LEU:CD2	2.12	0.75
3:J:826:ILE:HG21	3:J:994:SER:HB3	1.66	0.75
5:L:381:GLU:O	5:L:384:LEU:HG	1.86	0.75
5:L:580:PHE:O	5:L:581:ASP:HB2	1.85	0.75
3:P:139:LEU:HD23	3:P:185:ILE:HD11	1.61	0.75
2:C:550:VAL:HG23	3:D:780:ARG:HD2	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:371:LYS:O	3:D:374:LEU:HD23	1.85	0.75
3:J:447:ILE:HD12	3:J:447:ILE:H	1.49	0.75
1:M:44:ARG:CA	1:M:47:LEU:HD12	2.13	0.75
1:N:102:LEU:CD1	1:N:114:ASP:HB3	2.14	0.75
3:P:795:TYR:O	3:P:799:ARG:HG3	1.85	0.75
3:D:551:ARG:O	3:D:552:ILE:HD13	1.87	0.75
3:J:703:THR:O	3:J:718:SER:HB3	1.87	0.75
5:L:386:LEU:HB2	6:4:41:DT:O2	1.86	0.75
1:N:219:ARG:O	1:N:223:ILE:HG13	1.86	0.75
2:O:1107:MET:HG2	3:P:740:LEU:HD11	1.69	0.75
5:R:607:LEU:HA	5:R:610:PHE:HD2	1.51	0.75
2:C:1292:THR:HG23	2:C:1293:VAL:H	1.51	0.75
3:D:974:VAL:HG11	3:D:1028:ILE:HG21	1.69	0.75
3:D:245:LEU:HD12	3:D:246:PRO:HD2	1.69	0.75
5:F:520:GLY:HA2	5:F:523:ILE:HD11	1.68	0.75
2:I:1101:LEU:HD11	3:J:508:LEU:HD22	1.68	0.75
2:I:1243:MET:HA	3:J:372:MET:HE3	1.69	0.75
2:I:1278:LEU:CD2	2:I:1283:ALA:HB3	2.16	0.75
3:J:135:ILE:O	3:J:139:LEU:HG	1.87	0.75
5:L:145:LEU:HD13	5:L:225:ARG:HH11	1.52	0.75
5:L:455:HIS:HD2	5:L:455:HIS:H	1.29	0.75
2:O:685:MET:HE1	2:O:1073:LYS:HB3	1.68	0.75
2:O:375:PRO:HA	5:R:87:VAL:HG22	1.66	0.75
2:C:708:VAL:HG11	2:C:794:LEU:CD2	2.16	0.75
3:D:1284:ARG:HA	3:D:1287:ILE:HD12	1.67	0.75
3:D:1344:LEU:HA	3:D:1349:GLU:OE1	1.86	0.75
3:D:492:SER:OG	3:D:495:ASN:O	2.04	0.75
3:D:909:ILE:CD1	3:D:910:ASN:O	2.33	0.75
1:G:42:ALA:HA	1:H:38:THR:HG23	1.69	0.75
1:H:27:THR:HG22	1:H:202:VAL:HG13	1.67	0.75
2:I:21:VAL:HG11	2:I:592:ARG:HD3	1.69	0.75
2:O:178:PRO:HB3	2:O:395:TYR:CZ	2.22	0.75
3:P:805:GLN:CB	3:P:1347:LEU:HD12	2.16	0.75
1:A:179:PRO:HA	1:A:208:ASN:HD21	1.52	0.75
2:C:1281:TYR:OH	3:D:431:ARG:O	2.04	0.75
2:I:120:GLN:HG2	2:I:489:PRO:HG2	1.69	0.75
3:J:502:PRO:HG2	3:J:601:ILE:CG2	2.16	0.75
1:M:13:LEU:HA	1:M:28:LEU:HD22	1.69	0.75
2:O:1142:ARG:HH12	2:O:1169:VAL:CG2	2.00	0.75
3:P:1262:ARG:NH1	3:P:1316:THR:HG22	2.01	0.75
2:O:1243:MET:HG3	3:P:372:MET:CE	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1286:THR:OG1	3:P:479:GLU:OE2	2.01	0.75
5:R:519:LEU:O	5:R:519:LEU:HD12	1.86	0.75
3:D:915:ILE:O	3:D:918:ILE:HG22	1.86	0.75
1:G:156:SER:O	1:G:159:ILE:HG22	1.86	0.75
2:I:1035:LYS:O	2:I:1036:ILE:HG13	1.86	0.75
2:I:594:VAL:HG22	2:I:599:VAL:HG13	1.69	0.75
2:I:1101:LEU:HD11	3:J:508:LEU:CD2	2.16	0.75
2:O:227:LYS:HD3	2:O:334:GLU:OE2	1.87	0.75
2:I:1134:GLN:O	2:I:1136:GLN:N	2.19	0.74
2:I:558:VAL:HG22	2:I:574:SER:O	1.87	0.74
3:J:1040:MET:CE	3:J:1046:ILE:HG21	2.17	0.74
3:J:1101:LEU:HD22	3:J:1122:ALA:HB2	1.68	0.74
3:J:823:THR:HG22	3:J:879:ALA:CB	2.16	0.74
3:D:26:SER:HB3	3:D:29:MET:HB2	1.68	0.74
3:D:485:MET:HG3	3:D:487:THR:OG1	1.87	0.74
3:J:233:LYS:CG	3:J:234:PRO:HD2	2.17	0.74
2:O:232:ILE:HG21	2:O:326:SER:HB3	1.68	0.74
1:A:185:TYR:O	1:A:185:TYR:CD2	2.40	0.74
3:D:369:PRO:HG2	3:D:372:MET:CE	2.18	0.74
3:D:282:LEU:HD21	5:F:410:ILE:CG1	2.17	0.74
2:I:187:GLU:O	2:I:194:LEU:CD1	2.33	0.74
1:N:38:THR:CB	1:N:39:LEU:CD2	2.63	0.74
2:O:1309:VAL:HG13	3:P:383:GLY:HA2	1.69	0.74
3:P:709:ARG:HG3	3:P:709:ARG:O	1.84	0.74
2:C:1161:LEU:CD1	2:C:1164:PHE:HB2	2.16	0.74
2:C:953:LEU:HD22	2:C:957:LYS:HE3	1.67	0.74
3:D:1280:VAL:CG1	3:D:1281:GLU:N	2.51	0.74
3:D:848:VAL:CG2	3:D:880:VAL:HG11	2.17	0.74
3:J:406:ALA:HA	3:J:409:TRP:HD1	1.50	0.74
1:M:43:LEU:HD13	1:M:203:ILE:CD1	2.16	0.74
2:O:298:ALA:N	2:O:334:GLU:O	2.19	0.74
2:O:188:PHE:CE2	2:O:432:LEU:HD11	2.21	0.74
3:P:611:ILE:HG22	3:P:612:LEU:HD23	1.69	0.74
1:A:47:LEU:CD1	1:A:183:ILE:HD12	2.17	0.74
1:A:44:ARG:HA	1:A:47:LEU:CD1	2.17	0.74
4:E:53:GLU:HB3	4:E:59:ILE:HG13	1.67	0.74
1:G:180:VAL:HA	1:G:207:THR:HG22	1.69	0.74
1:H:60:GLU:O	1:H:142:MET:HB2	1.87	0.74
2:I:237:LEU:HD12	2:I:289:VAL:CG2	2.10	0.74
3:J:355:ILE:O	3:J:355:ILE:HG13	1.87	0.74
3:J:864:LEU:HD13	3:J:872:LEU:HD11	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:875:ASN:O	3:J:876:SER:HB2	1.88	0.74
3:P:1229:VAL:O	3:P:1233:ILE:HG13	1.86	0.74
1:A:192:VAL:CB	1:A:195:ARG:O	2.34	0.74
2:I:1111:GLN:HB2	2:I:1230:MET:CE	2.17	0.74
2:I:988:LYS:HZ2	2:I:992:LEU:HD12	1.52	0.74
3:J:490:ILE:HD11	3:J:614:LEU:HD11	1.69	0.74
2:I:674:ASP:O	3:J:772:TYR:HE1	1.70	0.74
1:M:38:THR:CG2	1:N:42:ALA:CB	2.66	0.74
1:N:99:ILE:HG12	1:N:145:LYS:HE2	1.69	0.74
3:P:138:VAL:HG12	3:P:139:LEU:CD2	2.16	0.74
1:B:124:VAL:CG2	1:B:210:THR:HG23	2.18	0.74
2:C:854:ILE:HD12	2:C:862:LEU:CD2	2.18	0.74
3:D:1260:MET:O	3:D:1307:LEU:HG	1.86	0.74
3:D:502:PRO:HG2	3:D:601:ILE:HD13	1.69	0.74
3:J:1266:ILE:HD12	3:J:1278:GLU:CB	2.18	0.74
3:J:1280:VAL:HG12	3:J:1281:GLU:N	2.03	0.74
3:J:160:LEU:HD23	3:J:164:GLN:HB3	1.68	0.74
3:J:584:PRO:HD3	3:J:620:PHE:CD1	2.23	0.74
2:C:559:CYS:SG	2:C:661:VAL:CG1	2.76	0.74
3:D:363:LEU:HG	3:D:487:THR:CG2	2.17	0.74
3:D:475:GLU:OE2	4:E:28:ARG:NH2	2.21	0.74
2:I:201:ARG:CB	2:I:369:MET:HE1	2.14	0.74
2:O:528:ARG:NH1	2:O:575:LEU:O	2.21	0.74
2:O:448:LEU:HD11	2:O:557:ARG:HD2	1.64	0.74
3:P:385:LEU:CD2	3:P:411:ILE:HD13	2.17	0.74
7:8:18:DT:H2'	7:8:19:DA:H5''	1.69	0.74
1:B:100:LEU:CD1	1:B:115:ILE:CG2	2.58	0.74
2:I:1329:GLU:O	2:I:1333:LEU:HG	1.88	0.74
2:I:167:SER:HA	3:J:1064:SER:HB2	1.68	0.74
2:I:237:LEU:CD1	2:I:289:VAL:CG2	2.58	0.74
3:J:185:ILE:O	3:J:189:LEU:CD1	2.34	0.74
3:J:431:ARG:HH21	3:J:904:ALA:CB	2.01	0.74
2:O:1161:LEU:HD11	2:O:1164:PHE:HB2	1.68	0.74
3:P:182:ALA:HA	3:P:185:ILE:HD12	1.69	0.74
3:P:30:ILE:HA	3:P:33:TRP:CE3	2.23	0.74
5:R:407:GLU:HG2	5:R:442:SER:CB	2.18	0.74
6:1:51:DC:C5	6:1:52:DT:H73	2.23	0.74
2:C:524:ILE:HD11	2:C:712:SER:CB	2.16	0.74
2:C:851:THR:HG22	2:C:852:ALA:N	2.02	0.74
3:D:1138:LEU:HD23	3:D:1139:PRO:CG	2.18	0.74
3:D:1346:GLY:C	3:D:1349:GLU:HG3	2.09	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:68:TYR:CE1	3:D:93:THR:HA	2.23	0.74
4:E:60:ASN:OD1	4:E:61:ASN:N	2.21	0.74
2:I:890:LYS:NZ	2:I:893:THR:HG23	2.03	0.74
2:I:674:ASP:O	3:J:772:TYR:CE1	2.41	0.74
2:O:758:ARG:HA	2:O:833:ILE:HD12	1.69	0.74
3:P:1348:LYS:O	3:P:1352:ILE:HG13	1.87	0.74
3:P:497:GLU:HB3	3:P:498:PRO:CD	2.17	0.74
3:D:82:GLY:HA2	3:D:91:GLU:OE2	1.87	0.73
2:I:1151:LEU:HD22	2:I:1198:LEU:CD1	2.18	0.73
3:J:759:ILE:HG12	3:J:771:GLN:HG2	1.69	0.73
7:5:22:DA:H1'	7:5:23:DT:OP1	1.87	0.73
2:C:56:VAL:HG21	2:C:468:LEU:HD13	1.70	0.73
3:D:160:LEU:HD22	3:D:164:GLN:HB3	1.70	0.73
3:D:770:LEU:O	3:D:774:ILE:HG13	1.87	0.73
3:D:796:LEU:HD11	3:D:800:LEU:HD11	1.68	0.73
3:J:1266:ILE:HD12	3:J:1278:GLU:HB3	1.70	0.73
5:L:386:LEU:O	5:L:390:ILE:HG13	1.87	0.73
2:O:807:TRP:O	2:O:809:GLY:N	2.20	0.73
2:O:960:LEU:HB3	2:O:1025:PHE:CE1	2.23	0.73
3:P:646:ILE:HD11	3:P:765:GLU:HG3	1.67	0.73
5:F:554:ARG:NH2	6:1:13:DC:OP2	2.22	0.73
6:4:47:DC:H2'	6:4:48:DA:C8	2.23	0.73
3:D:109:SER:HB2	3:D:296:LYS:HE2	1.70	0.73
5:F:110:LEU:H	5:F:110:LEU:HD12	1.53	0.73
3:D:79:LYS:HZ3	5:F:569:THR:CB	2.01	0.73
1:H:158:ARG:HD2	1:H:172:LEU:HD11	1.69	0.73
2:I:178:PRO:HA	2:I:397:LEU:HD23	1.70	0.73
2:O:1061:GLN:O	2:O:1076:ILE:HD12	1.86	0.73
3:P:796:LEU:HA	3:P:799:ARG:HE	1.53	0.73
5:L:455:HIS:HE1	6:4:31:DT:C6	2.06	0.73
7:5:45:DG:C2	7:5:46:DT:C2	2.77	0.73
3:D:281:ARG:HH22	5:F:441:ARG:CZ	2.01	0.73
2:I:292:ILE:HG21	2:I:322:LEU:HD21	1.68	0.73
2:I:232:ILE:HD12	2:I:326:SER:HB3	1.70	0.73
2:I:498:ILE:HG22	2:I:499:SER:N	2.04	0.73
3:J:56:LEU:O	3:J:250:ARG:NH2	2.18	0.73
1:M:32:GLU:HG2	1:M:33:ARG:N	2.03	0.73
1:N:156:SER:O	1:N:159:ILE:HG22	1.87	0.73
3:P:371:LYS:O	3:P:374:LEU:HD23	1.88	0.73
3:P:801:VAL:HG22	3:P:920:ALA:CB	2.14	0.73
3:P:930:LEU:HD13	3:P:1134:ILE:HG13	1.68	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:856:ASN:ND2	5:R:613:ASP:O	2.20	0.73
2:C:1281:TYR:CZ	3:D:431:ARG:HG3	2.24	0.73
3:D:181:GLY:C	3:D:185:ILE:HD11	2.09	0.73
3:J:1099:TYR:HE2	3:J:1195:GLN:NE2	1.86	0.73
2:O:979:LEU:HD11	2:O:1000:LEU:HD21	1.71	0.73
2:O:1087:TYR:O	2:O:1212:LEU:HD23	1.88	0.73
5:R:604:SER:OG	5:R:607:LEU:HD12	1.88	0.73
3:D:620:PHE:O	3:D:624:ILE:CG1	2.35	0.73
3:D:261:ALA:HA	5:F:505:ILE:O	1.87	0.73
2:I:68:LEU:HD22	2:I:479:LEU:HD21	1.69	0.73
3:J:475:GLU:N	3:J:475:GLU:OE1	2.18	0.73
2:O:827:ARG:O	2:O:828:PHE:HB2	1.88	0.73
2:O:851:THR:HG22	2:O:852:ALA:H	1.53	0.73
1:N:44:ARG:NH1	3:P:538:ARG:HD2	2.00	0.73
4:Q:30:MET:HE2	4:Q:46:THR:HG22	1.68	0.73
3:D:1346:GLY:H	3:D:1349:GLU:CD	1.91	0.73
3:D:824:PRO:HD3	3:D:878:ASP:O	1.89	0.73
5:F:457:ILE:HA	5:F:460:ILE:CD1	2.14	0.73
5:F:493:LYS:HE3	5:F:497:VAL:HG23	1.69	0.73
1:G:234:LEU:HG	1:H:13:LEU:HD23	1.70	0.73
1:G:79:LEU:CA	1:G:82:LEU:HD12	2.15	0.73
2:I:5:TYR:HA	2:I:8:LYS:HD2	1.69	0.73
2:I:886:LYS:CD	2:I:916:SER:HB2	2.18	0.73
3:J:112:ALA:HA	3:J:238:ILE:CD1	2.18	0.73
3:J:966:VAL:HG11	3:J:1030:GLU:HA	1.69	0.73
3:P:1274:PHE:O	3:P:1275:LEU:HB2	1.87	0.73
7:5:25:DA:H1'	7:5:26:DT:C5'	2.15	0.73
2:C:1278:LEU:HD21	2:C:1286:THR:CB	2.18	0.73
2:C:255:ILE:CD1	2:C:285:ILE:HD13	2.18	0.73
3:D:519:ASN:O	3:D:523:GLU:HB2	1.88	0.73
3:D:563:LEU:HD22	3:D:586:GLY:HA2	1.69	0.73
3:D:673:VAL:CG1	3:D:678:ARG:HB2	2.18	0.73
5:L:407:GLU:HG2	5:L:442:SER:HB3	1.71	0.73
2:O:1086:PRO:O	2:O:1094:VAL:CG2	2.34	0.73
3:P:771:GLN:O	3:P:774:ILE:HB	1.88	0.73
3:D:464:ASP:CG	8:3:15:G:O2'	2.28	0.73
3:D:147:ILE:HD11	3:D:179:LYS:N	2.04	0.73
3:D:478:LEU:HB3	4:E:20:VAL:CG1	2.19	0.73
3:J:518:VAL:HG12	3:J:519:ASN:OD1	1.88	0.73
3:J:72:CYS:SG	3:J:87:LYS:HD3	2.29	0.73
5:L:451:ARG:NH1	5:L:453:PRO:CG	2.48	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:519:ASN:OD1	2:O:522:SER:HB2	1.89	0.73
2:O:975:ILE:HG23	2:O:1011:LEU:HD11	1.69	0.73
3:P:265:LEU:HD21	3:P:326:SER:HA	1.70	0.73
3:P:425:ARG:CD	3:P:457:TYR:HB3	2.17	0.73
2:O:371:ARG:CB	5:R:99:ARG:NH2	2.52	0.73
1:A:86:LYS:HE3	1:A:173:VAL:CG1	2.18	0.73
2:C:720:ARG:HD2	2:C:736:VAL:HG21	1.70	0.73
3:D:1302:TYR:CD1	3:D:1302:TYR:N	2.56	0.73
3:D:843:VAL:HG12	3:D:883:ARG:HB3	1.70	0.73
5:F:91:ILE:HG22	5:F:91:ILE:O	1.88	0.73
2:I:444:ASP:O	2:I:450:ASN:ND2	2.22	0.73
3:J:128:LEU:CD1	3:J:189:LEU:HD21	2.13	0.73
3:J:584:PRO:HD3	3:J:620:PHE:CE1	2.22	0.73
3:J:826:ILE:HG23	3:J:826:ILE:O	1.87	0.73
5:L:216:LEU:O	5:L:220:LYS:CG	2.36	0.73
1:M:76:GLU:HB3	1:M:81:ILE:HG13	1.70	0.73
2:O:564:PRO:HB3	8:9:13:GTP:PA	2.29	0.73
3:P:421:VAL:HG23	3:P:439:PRO:HG2	1.71	0.73
3:P:826:ILE:HG22	3:P:826:ILE:O	1.89	0.73
1:A:69:SER:O	1:A:78:ILE:HG13	1.89	0.72
1:B:67:GLU:HB3	1:B:171:LEU:HD22	1.71	0.72
2:C:1151:LEU:HD22	2:C:1198:LEU:CD1	2.16	0.72
2:C:1334:GLY:C	2:C:1335:ILE:HD12	2.09	0.72
2:C:448:LEU:CD1	2:C:553:THR:O	2.28	0.72
2:C:750:ILE:HG12	2:C:750:ILE:O	1.89	0.72
2:C:90:VAL:CG1	2:C:91:THR:N	2.52	0.72
2:C:1275:VAL:HG21	3:D:343:LEU:O	1.89	0.72
2:I:165:HIS:HB2	2:I:168:GLY:HA2	1.71	0.72
3:J:805:GLN:HB3	3:J:1347:LEU:HD12	1.71	0.72
4:K:60:ASN:CB	4:K:63:ILE:HD12	2.19	0.72
5:R:414:LYS:HD3	5:R:434:TRP:CZ3	2.24	0.72
2:C:1199:LEU:HD22	2:C:1204:LEU:CD1	2.19	0.72
2:C:519:ASN:HD22	2:C:796:LEU:HD22	1.53	0.72
3:D:795:TYR:O	3:D:799:ARG:HG3	1.89	0.72
3:D:814:CYS:HB2	3:D:889:ASP:HB3	1.69	0.72
2:I:165:HIS:HB3	2:I:168:GLY:H	1.54	0.72
2:I:319:LEU:CA	2:I:322:LEU:HD12	2.18	0.72
2:I:91:THR:HG23	2:I:137:VAL:O	1.88	0.72
2:I:1284:ALA:HA	3:J:1357:ILE:HD11	1.72	0.72
2:O:848:GLU:HG2	2:O:888:THR:HG23	1.71	0.72
5:R:517:SER:CB	5:R:521:ASP:HB2	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:448:LEU:HD11	2:C:553:THR:C	2.09	0.72
4:E:39:VAL:HG13	4:E:40:PRO:CG	2.20	0.72
2:I:39:ILE:HG22	2:I:39:ILE:O	1.87	0.72
3:J:662:ALA:HA	3:J:665:GLN:OE1	1.89	0.72
1:M:8:PHE:CE2	1:N:223:ILE:HG12	2.22	0.72
2:O:1068:GLY:HA2	2:O:1232:MET:HE2	1.71	0.72
2:O:811:ASN:ND2	2:O:1099:ASN:HA	2.04	0.72
2:O:886:LYS:N	2:O:917:SER:OG	2.19	0.72
3:P:261:ALA:HB2	5:R:519:LEU:CD2	2.19	0.72
3:P:449:LEU:HD12	3:P:450:HIS:H	1.54	0.72
1:A:57:THR:HG21	1:A:158:ARG:NH2	2.04	0.72
3:D:185:ILE:O	3:D:189:LEU:HG	1.89	0.72
1:G:81:ILE:O	1:G:85:LEU:HG	1.89	0.72
1:G:232:VAL:CG1	1:H:218:ARG:HG2	2.15	0.72
5:L:478:PRO:HB2	5:L:483:LEU:HD22	1.70	0.72
5:L:572:THR:O	5:L:576:VAL:HG23	1.90	0.72
5:R:583:THR:HG21	5:R:586:ARG:HB2	1.67	0.72
2:C:1327:LEU:HD23	2:C:1337:ILE:CD1	2.12	0.72
2:C:144:VAL:HG23	2:C:515:MET:HB2	1.70	0.72
2:C:550:VAL:CG2	3:D:780:ARG:HD2	2.19	0.72
2:C:952:GLN:OE1	2:C:1036:ILE:HG23	1.90	0.72
3:J:26:SER:HB3	3:J:29:MET:HB2	1.71	0.72
2:O:16:GLY:O	2:O:1156:ARG:HB3	1.88	0.72
2:O:56:VAL:HG13	2:O:472:GLU:OE1	1.89	0.72
2:C:1327:LEU:CA	2:C:1337:ILE:HD13	2.18	0.72
3:D:147:ILE:CG1	3:D:178:ALA:HA	2.19	0.72
3:D:880:VAL:HG13	3:D:881:LYS:H	1.54	0.72
4:E:53:GLU:HB3	4:E:59:ILE:CG1	2.19	0.72
5:F:271:ASN:O	5:F:275:VAL:HG23	1.89	0.72
2:I:183:TRP:CH2	6:4:48:DA:N6	2.56	0.72
2:I:745:GLU:HG3	2:I:746:ALA:O	1.89	0.72
2:I:757:THR:O	2:I:833:ILE:HD12	1.90	0.72
4:K:15:ASN:HB3	4:K:18:ASP:HB2	1.70	0.72
5:L:84:LEU:CD1	5:L:107:THR:HG21	2.20	0.72
1:N:102:LEU:HD11	1:N:114:ASP:CB	2.18	0.72
1:N:18:GLN:OE1	1:N:213:PRO:HG2	1.88	0.72
4:Q:26:ARG:O	4:Q:30:MET:HG3	1.88	0.72
2:C:75:LEU:CD2	2:C:94:ALA:HB1	2.20	0.72
3:D:432:LEU:HD11	3:D:499:ILE:CD1	2.18	0.72
2:I:310:ILE:HD13	2:I:324:LYS:HB3	1.71	0.72
2:I:335:THR:HG22	2:I:336:LEU:N	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1229:VAL:O	3:J:1233:ILE:HG13	1.90	0.72
3:J:1270:GLY:H	3:J:1274:PHE:HD2	1.34	0.72
3:J:421:VAL:HG12	3:J:422:LEU:N	2.05	0.72
1:N:32:GLU:HB3	1:N:35:PHE:HD2	1.55	0.72
2:O:406:ASN:ND2	2:O:413:GLU:OE1	2.23	0.72
2:O:431:LYS:O	2:O:435:ILE:HG13	1.89	0.72
2:O:376:PRO:HD3	5:R:87:VAL:HG22	1.70	0.72
1:A:224:LEU:CD1	1:A:224:LEU:O	2.38	0.72
3:D:116:PHE:O	3:D:124:ILE:CG1	2.38	0.72
3:D:339:ARG:HH12	3:D:798:ARG:CZ	2.03	0.72
5:F:580:PHE:O	5:F:581:ASP:HB2	1.89	0.72
2:I:799:ASN:O	2:I:827:ARG:NH2	2.22	0.72
1:N:56:VAL:HA	1:N:146:VAL:HG22	1.72	0.72
3:P:419:HIS:O	3:P:439:PRO:HD3	1.90	0.72
2:C:1327:LEU:CD2	2:C:1337:ILE:HD11	2.11	0.72
3:D:1194:ARG:HH11	3:D:1211:SER:HB3	1.54	0.72
3:D:885:VAL:HG12	3:D:886:VAL:HG22	1.72	0.72
5:F:295:CYS:O	5:F:296:LYS:CB	2.37	0.72
1:H:9:LEU:HD21	1:H:30:PRO:HG2	1.72	0.72
1:M:13:LEU:HD13	1:M:28:LEU:CD2	2.19	0.72
3:P:844:THR:HG22	3:P:882:VAL:HB	1.71	0.72
5:R:220:LYS:HE3	5:R:259:PHE:CE1	2.25	0.72
5:R:119:ILE:HG23	5:R:375:ALA:HB1	1.70	0.72
2:C:878:THR:HG22	2:C:879:GLY:N	2.05	0.72
3:D:822:MET:HG2	3:D:838:ARG:NH2	2.03	0.72
2:I:1271:GLY:O	2:I:1275:VAL:HG23	1.90	0.72
2:I:851:THR:HG22	2:I:853:ASP:H	1.55	0.72
2:O:255:ILE:HD12	2:O:263:VAL:HB	1.72	0.72
3:P:499:ILE:HG22	3:P:500:ILE:N	2.03	0.72
3:D:1282:TYR:C	3:D:1285:VAL:HG12	2.06	0.71
3:D:133:ARG:O	3:D:136:GLU:HB2	1.89	0.71
2:I:1159:VAL:O	2:I:1159:VAL:HG12	1.89	0.71
2:I:539:THR:HG22	2:I:540:ARG:H	1.54	0.71
2:I:886:LYS:HD2	2:I:916:SER:HB2	1.71	0.71
3:J:1287:ILE:CG2	3:J:1288:ALA:N	2.52	0.71
1:M:224:LEU:HD21	1:N:228:LEU:HG	1.71	0.71
2:O:467:GLY:O	2:O:471:VAL:HG23	1.90	0.71
1:B:61:ILE:CD1	1:B:64:VAL:HG11	2.18	0.71
2:C:28:LEU:HD13	2:C:527:LYS:HD2	1.72	0.71
3:D:115:TRP:CE3	3:D:1333:THR:HG23	2.25	0.71
3:D:435:GLN:NE2	3:D:486:SER:HA	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:351:GLY:C	3:D:468:VAL:HG23	2.09	0.71
3:D:840:LEU:CD1	3:D:869:CYS:SG	2.78	0.71
5:F:452:ILE:CG2	5:F:457:ILE:CD1	2.67	0.71
2:I:120:GLN:HG2	2:I:489:PRO:CG	2.21	0.71
2:I:525:THR:CG2	2:I:687:ARG:HD3	2.20	0.71
3:J:423:LEU:HD23	3:J:423:LEU:N	2.04	0.71
2:O:726:TYR:N	2:O:733:VAL:HG22	2.05	0.71
3:P:587:LEU:CD2	3:P:612:LEU:HD21	2.20	0.71
3:P:749:LYS:HB3	3:P:750:PRO:CD	2.19	0.71
4:Q:46:THR:HA	4:Q:49:ILE:HD12	1.72	0.71
2:O:564:PRO:CB	8:9:13:GTP:O2A	2.39	0.71
2:C:196:VAL:CG2	2:C:206:ALA:HA	2.20	0.71
1:H:166:ARG:HH12	1:H:172:LEU:HD22	1.53	0.71
2:I:1278:LEU:HD11	2:I:1286:THR:HB	1.71	0.71
2:I:255:ILE:HG23	2:I:285:ILE:HD13	1.72	0.71
5:L:376:LYS:O	5:L:380:VAL:HG23	1.91	0.71
1:A:46:ILE:CD1	1:A:224:LEU:HB2	2.21	0.71
1:B:74:VAL:O	1:B:74:VAL:HG12	1.90	0.71
2:C:177:ILE:HG23	2:C:183:TRP:HE1	1.55	0.71
3:D:452:LEU:CD1	3:D:625:MET:SD	2.78	0.71
1:G:11:PRO:O	1:H:230:ALA:CB	2.37	0.71
3:J:811:GLU:O	3:J:895:CYS:HA	1.90	0.71
3:J:826:ILE:CG2	3:J:994:SER:HB3	2.20	0.71
5:L:491:GLU:O	5:L:494:ILE:HB	1.89	0.71
2:O:292:ILE:CG2	2:O:322:LEU:HD11	2.17	0.71
2:O:178:PRO:HG3	2:O:395:TYR:CE1	2.25	0.71
3:P:275:ARG:HG2	3:P:278:ARG:HH22	1.55	0.71
6:7:34:DG:N2	7:8:29:DC:O2	2.24	0.71
3:D:115:TRP:HE3	3:D:1333:THR:CG2	2.03	0.71
5:F:583:THR:CG2	5:F:587:ILE:CD1	2.68	0.71
2:I:295:LYS:O	2:I:317:LEU:HD12	1.90	0.71
2:O:162:GLY:O	2:O:163:LYS:HB3	1.89	0.71
2:O:564:PRO:HB3	8:9:13:GTP:O2A	1.91	0.71
1:A:38:THR:CG2	1:B:42:ALA:CA	2.63	0.71
3:D:453:VAL:CG1	3:D:500:ILE:HD13	2.21	0.71
3:D:609:TYR:HA	3:D:617:THR:HG21	1.71	0.71
1:G:24:ALA:HB3	1:G:213:PRO:HB3	1.70	0.71
2:I:164:THR:O	2:I:165:HIS:HB2	1.90	0.71
2:I:34:SER:O	2:I:37:LYS:HB2	1.91	0.71
3:J:1138:LEU:HB3	3:J:1139:PRO:HD3	1.73	0.71
3:J:771:GLN:CA	3:J:774:ILE:HD12	2.14	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:62:PHE:CB	3:J:98:ARG:HG2	2.13	0.71
2:O:150:HIS:CE1	2:O:454:ARG:HG3	2.25	0.71
2:O:720:ARG:HD2	2:O:736:VAL:HG21	1.73	0.71
3:P:1251:LYS:O	3:P:1255:VAL:HG23	1.90	0.71
5:R:402:LEU:HA	5:R:405:ILE:HD12	1.71	0.71
6:7:26:DT:H2 <sup>+</sup>	6:7:27:DC:OP2	1.91	0.71
2:C:1253:LEU:HD12	5:F:525:ASP:HB2	1.73	0.71
3:D:1090:ILE:HG23	3:D:1091:PRO:HD2	1.72	0.71
5:F:461:ASN:N	5:F:461:ASN:OD1	2.21	0.71
5:F:489:MET:HB3	5:F:490:PRO:HD2	1.73	0.71
5:F:84:LEU:CG	5:F:107:THR:CG2	2.69	0.71
2:I:686:GLN:NE2	2:I:1069:ARG:CG	2.53	0.71
3:P:580:TRP:CZ3	3:P:583:VAL:HG11	2.26	0.71
3:P:974:VAL:HG11	3:P:1028:ILE:HG21	1.73	0.71
2:C:13:LYS:HE3	2:C:1149:TYR:O	1.90	0.71
1:G:142:MET:SD	1:G:144:ILE:HD11	2.31	0.71
1:H:158:ARG:NH2	1:H:177:TYR:OH	2.23	0.71
3:J:111:THR:OG1	3:J:300:GLN:OE1	2.08	0.71
1:N:13:LEU:HD12	1:N:28:LEU:HD23	1.72	0.71
2:O:295:LYS:HD2	2:O:335:THR:HG23	1.72	0.71
2:O:533:LEU:HD21	2:O:571:LEU:HD13	1.73	0.71
2:O:90:VAL:CG1	2:O:91:THR:H	2.02	0.71
3:P:210:SER:HB3	3:P:213:LYS:HD2	1.70	0.71
5:R:110:LEU:HD21	5:R:385:ARG:HD2	1.72	0.71
2:I:183:TRP:HZ3	6:4:47:DC:H42	1.37	0.71
3:D:490:ILE:N	3:D:490:ILE:HD12	2.05	0.71
3:D:875:ASN:O	3:D:876:SER:HB2	1.90	0.71
3:J:135:ILE:HG22	3:J:139:LEU:HD11	1.73	0.71
3:J:190:LYS:HD2	3:J:235:GLU:OE2	1.91	0.71
3:J:245:LEU:HD12	3:J:246:PRO:HD2	1.71	0.71
2:O:1237:HIS:ND1	2:O:1242:LYS:NZ	2.37	0.71
2:C:255:ILE:HG12	2:C:285:ILE:HG21	1.73	0.71
2:C:706:ARG:O	2:C:710:VAL:HG23	1.91	0.71
3:D:611:ILE:HG22	3:D:612:LEU:HD23	1.73	0.71
3:D:840:LEU:HD12	3:D:869:CYS:SG	2.31	0.71
3:D:842:ARG:O	3:D:864:LEU:HG	1.91	0.71
3:J:422:LEU:C	3:J:423:LEU:HD23	2.11	0.71
3:J:584:PRO:HD2	3:J:620:PHE:CZ	2.25	0.71
3:J:909:ILE:HD11	3:J:913:GLU:CB	2.14	0.71
5:L:297:MET:HB2	5:L:326:TRP:CZ3	2.25	0.71
2:O:73:TYR:CB	2:O:98:VAL:HG22	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1130:GLY:O	3:P:1131:THR:HG23	1.91	0.71
1:A:40:GLY:O	1:A:43:LEU:HB2	1.91	0.70
2:C:797:GLY:CA	2:C:1233:LEU:CD2	2.68	0.70
5:F:289:LYS:HE3	5:F:290:LEU:HG	1.73	0.70
2:I:169:LYS:HD3	3:J:1067:ARG:O	1.90	0.70
3:J:946:ALA:O	3:J:948:SER:N	2.23	0.70
1:N:193:GLU:O	1:N:194:GLN:HB2	1.91	0.70
1:M:38:THR:CG2	1:N:42:ALA:HA	2.14	0.70
2:O:1056:VAL:CG1	2:O:1058:ARG:HG3	2.21	0.70
2:O:1184:THR:O	2:O:1184:THR:HG23	1.90	0.70
2:O:1227:VAL:HG12	2:O:1228:GLY:N	2.05	0.70
2:O:167:SER:HA	3:P:1064:SER:HB2	1.73	0.70
3:P:1138:LEU:HD23	3:P:1139:PRO:HG3	1.72	0.70
5:R:607:LEU:HA	5:R:610:PHE:CD2	2.26	0.70
5:F:132:CYS:SG	5:F:257:LYS:CD	2.78	0.70
5:F:514:ASP:O	5:F:516:ASP:HB2	1.91	0.70
1:G:104:LYS:HG2	1:G:110:VAL:HG22	1.72	0.70
2:I:822:VAL:HG11	2:I:1060:ILE:HD13	1.71	0.70
3:J:115:TRP:CZ3	3:J:1329:THR:HA	2.24	0.70
3:J:423:LEU:HB3	3:J:466:MET:HE2	1.74	0.70
2:O:333:ILE:CG2	2:O:334:GLU:H	2.02	0.70
3:P:644:MET:O	3:P:764:ARG:NH1	2.24	0.70
3:P:930:LEU:HD11	3:P:1244:GLN:HG3	1.73	0.70
3:P:976:THR:HG21	3:P:1030:GLU:HG2	1.71	0.70
5:R:503:GLU:CB	5:R:504:PRO:HD2	2.21	0.70
6:7:28:DA:N6	7:8:34:DG:C6	2.59	0.70
2:C:1077:SER:HA	3:D:356:THR:HG21	1.72	0.70
3:D:898:CYS:SG	10:D:1502:ZN:ZN	1.80	0.70
5:F:458:GLU:O	5:F:462:LYS:HG3	1.90	0.70
2:I:94:ALA:HB2	2:I:129:LEU:HD11	1.73	0.70
2:I:950:GLU:HA	2:I:953:LEU:HD12	1.73	0.70
3:J:1226:VAL:HG21	3:J:1304:ARG:NH2	2.05	0.70
3:J:971:GLY:O	3:J:972:LYS:HG3	1.90	0.70
1:N:67:GLU:O	1:N:78:ILE:HB	1.91	0.70
3:P:1103:GLY:O	3:P:1104:LYS:HB2	1.91	0.70
3:P:116:PHE:CD2	3:P:237:MET:SD	2.85	0.70
3:P:997:VAL:HG13	3:P:1001:ALA:HB3	1.72	0.70
2:C:1110:GLY:HA2	2:C:1113:LEU:HD12	1.72	0.70
3:D:1356:LEU:HD13	3:D:1365:TYR:HD1	1.56	0.70
1:H:190:ALA:N	1:H:199:ASP:HA	2.02	0.70
1:H:28:LEU:HD11	1:H:31:LEU:HG	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1304:MET:O	2:I:1308:ILE:HG13	1.91	0.70
2:I:319:LEU:HA	2:I:322:LEU:CD1	2.18	0.70
1:M:192:VAL:HG21	1:M:198:LEU:HD12	1.73	0.70
2:O:1142:ARG:NH1	2:O:1169:VAL:HG21	2.06	0.70
2:O:1227:VAL:HG12	2:O:1228:GLY:H	1.55	0.70
2:O:201:ARG:HB2	2:O:369:MET:HE2	1.73	0.70
2:O:122:VAL:HG21	2:O:493:ILE:HD12	1.74	0.70
3:P:1146:GLU:CG	3:P:1309:ILE:HD12	2.21	0.70
5:R:545:HIS:HA	5:R:548:LEU:HD12	1.72	0.70
1:B:61:ILE:CD1	1:B:171:LEU:CD1	2.69	0.70
1:B:221:ALA:HA	1:B:224:LEU:HD23	1.72	0.70
2:C:213:LEU:O	2:C:214:ASN:CB	2.39	0.70
3:D:322:ARG:NE	5:F:510:PRO:HD3	2.06	0.70
3:D:325:LYS:HG3	3:D:329:ASP:HB3	1.70	0.70
5:F:583:THR:HG21	5:F:586:ARG:HB3	1.72	0.70
3:J:495:ASN:ND2	3:J:497:GLU:HB2	2.06	0.70
3:J:609:TYR:HA	3:J:617:THR:HG21	1.72	0.70
3:J:909:ILE:HG12	3:J:910:ASN:H	1.55	0.70
1:M:45:ARG:HH12	2:O:1216:ARG:CA	2.03	0.70
3:P:643:ASP:O	3:P:722:ILE:HD12	1.91	0.70
3:P:739:GLN:HE21	3:P:744:ARG:HG3	1.56	0.70
3:P:259:ARG:NH2	5:R:502:LYS:HG2	2.05	0.70
2:C:196:VAL:HG23	2:C:206:ALA:HA	1.72	0.70
3:D:614:LEU:O	3:D:617:THR:OG1	2.09	0.70
3:J:115:TRP:CE3	3:J:1333:THR:HG23	2.26	0.70
3:J:421:VAL:HG13	3:J:470:VAL:HA	1.72	0.70
2:O:185:ASP:C	2:O:186:PHE:HD2	1.95	0.70
3:P:373:ALA:HA	3:P:376:LEU:CD1	2.17	0.70
2:C:533:LEU:HD23	2:C:538:LEU:O	1.92	0.70
3:D:339:ARG:NH2	3:D:1325:PHE:O	2.24	0.70
3:D:872:LEU:HD23	3:D:875:ASN:HD22	1.57	0.70
3:J:1029:THR:CG2	3:J:1121:LEU:CD1	2.69	0.70
1:M:8:PHE:CZ	1:N:223:ILE:HG12	2.26	0.70
2:O:741:MET:SD	2:O:747:GLY:HA3	2.32	0.70
3:P:1280:VAL:HG12	3:P:1281:GLU:H	1.55	0.70
3:P:363:LEU:HD23	3:P:618:VAL:HG13	1.72	0.70
5:R:295:CYS:O	5:R:296:LYS:HB2	1.91	0.70
2:C:1287:LEU:HG	2:C:1288:GLN:N	1.98	0.70
3:J:1167:LYS:O	3:J:1174:ARG:HB2	1.91	0.70
3:J:68:TYR:HA	3:J:92:VAL:HG13	1.72	0.70
1:B:166:ARG:HB2	1:B:166:ARG:CZ	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:75:LEU:HD21	2:I:127:ILE:HD13	1.73	0.70
2:I:1314:GLN:HA	4:K:28:ARG:NH2	2.06	0.70
2:I:838:CYS:O	2:I:1049:ILE:HG23	1.92	0.70
2:I:90:VAL:HG12	2:I:91:THR:H	1.57	0.70
2:I:988:LYS:NZ	2:I:992:LEU:HD12	2.06	0.70
1:M:11:PRO:O	1:N:231:PHE:CZ	2.45	0.70
2:O:1049:ILE:HG22	2:O:1050:VAL:N	2.07	0.70
2:O:16:GLY:O	2:O:1156:ARG:CB	2.39	0.70
2:O:402:ARG:HG2	2:O:416:GLY:CA	2.17	0.70
2:O:639:LYS:O	2:O:639:LYS:CG	2.33	0.70
2:O:374:GLU:OE1	5:R:99:ARG:HD3	1.91	0.70
2:C:805:MET:O	2:C:811:ASN:ND2	2.25	0.70
3:D:244:VAL:HG13	3:D:269:TYR:CE1	2.27	0.70
3:D:363:LEU:CD2	3:D:487:THR:HG22	2.22	0.70
3:D:349:TYR:O	3:D:470:VAL:CG2	2.37	0.70
3:D:615:LYS:HE2	4:E:4:VAL:HB	1.73	0.70
5:F:416:VAL:HB	5:F:417:ASP:OD1	1.91	0.70
2:I:369:MET:HG3	2:I:370:MET:N	2.07	0.70
2:I:149:LEU:CD1	2:I:451:ARG:HB3	2.21	0.70
3:J:196:GLN:O	3:J:200:GLN:HG3	1.91	0.70
5:L:583:THR:CG2	5:L:586:ARG:HB3	2.21	0.70
2:O:237:LEU:HD11	2:O:289:VAL:HG22	1.74	0.70
3:P:1348:LYS:HA	3:P:1351:VAL:HG21	1.72	0.70
3:P:328:ALA:HA	3:P:331:ILE:HD12	1.73	0.70
3:P:749:LYS:HG2	3:P:755:ILE:HG13	1.74	0.70
5:R:520:GLY:HA2	5:R:523:ILE:CD1	2.22	0.70
2:C:1330:ILE:HB	2:C:1337:ILE:HG21	1.73	0.69
3:D:1101:LEU:HD22	3:D:1122:ALA:CB	2.22	0.69
3:D:909:ILE:HD11	3:D:913:GLU:CB	2.21	0.69
3:D:79:LYS:HZ3	5:F:569:THR:HG22	1.57	0.69
2:I:655:VAL:HG12	2:I:656:SER:N	2.05	0.69
3:J:1031:VAL:HG11	3:J:1090:ILE:HA	1.73	0.69
3:J:1145:PHE:O	3:J:1309:ILE:HG13	1.92	0.69
3:J:886:VAL:HG22	3:J:1258:ARG:HB2	1.74	0.69
5:L:518:HIS:O	5:L:520:GLY:N	2.24	0.69
4:Q:27:ALA:HA	4:Q:30:MET:SD	2.32	0.69
6:4:59:DG:O6	7:5:3:DG:O6	2.10	0.69
2:C:1289:GLU:OE2	3:D:472:LEU:HB2	1.92	0.69
2:I:1035:LYS:C	2:I:1036:ILE:HG13	2.12	0.69
2:I:1054:LEU:CD2	2:I:1055:ALA:N	2.55	0.69
1:M:41:ASN:HD21	2:O:1217:THR:C	1.95	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:163:LYS:HG2	2:O:164:THR:H	1.53	0.69
2:O:347:ILE:HD11	2:O:433:ILE:CD1	2.21	0.69
2:O:82:VAL:O	2:O:86:GLN:HG3	1.92	0.69
3:P:398:LYS:O	3:P:402:GLU:HG3	1.91	0.69
3:P:771:GLN:HA	3:P:774:ILE:HD12	1.74	0.69
5:R:390:ILE:HD13	5:R:432:THR:HG23	1.73	0.69
2:C:975:ILE:O	2:C:979:LEU:CG	2.37	0.69
3:D:1155:ILE:O	3:D:1156:LEU:CD2	2.40	0.69
2:I:184:LEU:HD11	2:I:389:PHE:CD2	2.26	0.69
1:N:100:LEU:HD11	1:N:121:VAL:HG11	1.74	0.69
1:N:64:VAL:HG11	1:N:78:ILE:HD11	1.74	0.69
2:O:76:GLY:O	2:O:94:ALA:HB1	1.91	0.69
3:P:1173:ARG:O	3:P:1190:ILE:HB	1.92	0.69
3:P:1344:LEU:CA	3:P:1349:GLU:OE1	2.37	0.69
4:Q:59:ILE:HG23	4:Q:64:LEU:HD21	1.74	0.69
5:R:572:THR:O	5:R:576:VAL:HG23	1.92	0.69
3:D:433:GLY:O	3:D:457:TYR:CE1	2.45	0.69
3:D:858:VAL:HG11	3:D:872:LEU:HD11	1.73	0.69
2:I:678:ARG:CZ	2:I:1106:ARG:HB3	2.21	0.69
3:J:1148:ARG:HG2	6:4:55:DC:OP1	1.92	0.69
2:O:448:LEU:CD1	2:O:557:ARG:CD	2.65	0.69
2:O:528:ARG:NH2	2:O:575:LEU:HD23	2.06	0.69
2:O:805:MET:HB2	2:O:806:PRO:HD2	1.72	0.69
2:I:1065:LYS:NZ	8:6:15:G:OP1	2.24	0.69
6:7:58:DG:H2"	6:7:59:DG:OP2	1.91	0.69
1:A:88:LEU:HD13	1:A:128:HIS:CG	2.28	0.69
3:D:111:THR:HG23	3:D:300:GLN:HE22	1.57	0.69
2:I:191:LYS:HA	3:J:1069:ALA:HB3	1.75	0.69
3:J:601:ILE:O	3:J:605:LEU:CG	2.40	0.69
2:I:1107:MET:HG2	3:J:740:LEU:HD21	1.73	0.69
5:L:406:GLN:O	5:L:410:ILE:HG13	1.92	0.69
3:P:930:LEU:HD13	3:P:1134:ILE:CG1	2.22	0.69
3:P:644:MET:HE1	3:P:764:ARG:HB2	1.73	0.69
3:P:822:MET:CE	3:P:838:ARG:HE	2.05	0.69
2:C:846:GLY:HA3	2:C:889:PRO:HG2	1.73	0.69
3:D:1348:LYS:HA	3:D:1351:VAL:HG21	1.74	0.69
3:D:909:ILE:HD11	3:D:913:GLU:HB2	1.72	0.69
5:F:587:ILE:HA	5:F:590:ILE:HD12	1.74	0.69
2:I:436:ARG:O	2:I:436:ARG:HD2	1.92	0.69
3:J:1029:THR:HG22	3:J:1099:TYR:CD1	2.27	0.69
1:M:67:GLU:O	1:M:78:ILE:HB	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1262:ARG:HH22	3:P:1316:THR:HB	1.57	0.69
3:P:527:LEU:HD22	3:P:532:GLU:OE2	1.92	0.69
3:P:536:LEU:HD22	3:P:541:LEU:O	1.93	0.69
1:A:57:THR:HG23	1:A:158:ARG:NH2	2.07	0.69
2:C:149:LEU:HD11	2:C:451:ARG:CB	2.20	0.69
3:D:786:THR:CG2	3:D:787:ALA:N	2.55	0.69
3:D:281:ARG:CZ	5:F:441:ARG:HH22	2.06	0.69
1:H:28:LEU:HD13	1:H:28:LEU:O	1.93	0.69
2:I:599:VAL:HG21	2:I:623:LEU:CD1	2.22	0.69
3:J:115:TRP:CZ2	3:J:1329:THR:CG2	2.70	0.69
3:J:722:ILE:O	3:J:725:MET:HB2	1.93	0.69
4:K:5:THR:HG22	4:K:7:GLN:H	1.58	0.69
5:L:102:MET:HE3	5:L:105:MET:HE2	1.75	0.69
1:M:35:PHE:O	1:M:39:LEU:CD2	2.39	0.69
1:N:11:PRO:HG3	1:N:31:LEU:HD21	1.74	0.69
2:O:102:LEU:HD21	2:O:104:ILE:HD11	1.73	0.69
3:P:734:ALA:O	3:P:737:ILE:HB	1.93	0.69
1:A:228:LEU:CA	1:A:231:PHE:CE2	2.61	0.69
3:J:1310:THR:O	3:J:1314:LEU:HG	1.91	0.69
3:J:76:LYS:O	3:J:80:HIS:ND1	2.22	0.69
3:J:922:SER:O	3:J:926:PRO:HD3	1.92	0.69
1:M:43:LEU:CD1	1:M:203:ILE:HD11	2.20	0.69
1:A:45:ARG:HH12	2:C:1216:ARG:HA	1.58	0.69
2:C:408:SER:O	2:C:431:LYS:NZ	2.21	0.69
2:C:448:LEU:HG	2:C:553:THR:HB	1.75	0.69
2:C:871:VAL:CG2	2:C:883:LEU:O	2.41	0.69
3:D:497:GLU:CB	3:D:498:PRO:HD2	2.23	0.69
2:I:525:THR:HG21	2:I:687:ARG:HD3	1.74	0.69
2:I:65:ASN:HD21	2:I:484:LEU:HD11	1.55	0.69
3:J:1274:PHE:O	3:J:1278:GLU:HG3	1.93	0.69
3:J:332:LYS:HZ2	3:J:1329:THR:HG23	1.57	0.69
2:O:431:LYS:O	2:O:434:ASP:HB2	1.93	0.69
2:O:495:ALA:HA	2:O:498:ILE:HD12	1.75	0.69
2:O:867:GLU:OE2	2:O:943:LYS:HG2	1.91	0.69
2:O:976:ARG:O	2:O:980:VAL:HG23	1.93	0.69
3:P:421:VAL:CG2	3:P:439:PRO:CG	2.69	0.69
2:C:205:PRO:HB2	2:C:207:THR:HG22	1.73	0.69
3:D:478:LEU:HB3	4:E:20:VAL:HG22	1.75	0.69
5:F:333:VAL:HG22	5:F:336:GLU:HB2	1.75	0.69
1:G:115:ILE:HD12	1:G:123:ILE:HD13	1.75	0.69
1:H:100:LEU:HD13	1:H:115:ILE:CG2	2.19	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:151:GLY:HA2	1:H:178:SER:OG	1.93	0.69
2:I:1287:LEU:HD22	3:J:1357:ILE:HG12	1.74	0.69
2:I:1332:SER:O	3:J:243:PRO:HG2	1.93	0.69
2:I:885:GLY:HA2	2:I:917:SER:OG	1.93	0.69
3:J:1368:ASP:HA	3:J:1371:ARG:HE	1.57	0.69
3:J:749:LYS:CE	3:J:753:SER:HB2	2.22	0.69
3:P:128:LEU:HD13	3:P:188:LEU:HD23	1.75	0.69
3:P:271:ARG:HH12	3:P:316:ILE:HG23	1.57	0.69
3:P:382:TYR:HD1	3:P:397:ALA:HB1	1.57	0.69
2:C:804:PHE:O	3:D:638:SER:HB3	1.92	0.69
3:D:471:PRO:HB2	3:D:476:ALA:HB1	1.75	0.69
3:D:474:LEU:HD12	4:E:28:ARG:CG	2.21	0.69
4:E:54:ILE:HG13	4:E:59:ILE:HB	1.74	0.69
5:F:583:THR:CG2	5:F:586:ARG:CB	2.66	0.69
2:I:807:TRP:O	2:I:809:GLY:N	2.26	0.69
3:P:148:GLU:HA	3:P:155:GLU:O	1.93	0.69
1:A:109:PRO:HG3	1:A:132:HIS:CD2	2.28	0.68
1:A:140:ILE:HG13	1:A:141:SER:N	2.08	0.68
1:A:42:ALA:CA	1:B:38:THR:CG2	2.68	0.68
2:C:297:VAL:HG13	2:C:317:LEU:CD2	2.23	0.68
3:D:470:VAL:CB	3:D:472:LEU:CD2	2.66	0.68
5:F:451:ARG:HG3	5:F:451:ARG:O	1.92	0.68
1:G:67:GLU:O	1:G:78:ILE:HB	1.92	0.68
1:H:14:VAL:CG2	1:H:29:GLU:HG2	2.23	0.68
2:I:165:HIS:NE2	2:I:190:PRO:HB3	2.07	0.68
2:I:851:THR:CG2	2:I:852:ALA:N	2.56	0.68
3:J:490:ILE:HG23	3:J:500:ILE:HD12	1.73	0.68
3:P:147:ILE:O	3:P:148:GLU:HB2	1.92	0.68
2:C:530:ILE:N	2:C:530:ILE:HD12	2.08	0.68
2:C:761:GLN:O	2:C:762:ASN:HB2	1.91	0.68
3:D:378:LYS:O	3:D:382:TYR:CD2	2.46	0.68
2:O:448:LEU:HD11	2:O:557:ARG:HD3	1.75	0.68
3:P:1145:PHE:HB3	3:P:1309:ILE:HD11	1.75	0.68
1:A:56:VAL:HG13	1:A:144:ILE:CG2	2.23	0.68
3:D:1159:ILE:HG22	3:D:1160:SER:H	1.58	0.68
3:D:201:LEU:HB3	3:D:221:ILE:HD11	1.75	0.68
3:D:331:ILE:HG22	3:D:338:PHE:HE2	1.57	0.68
1:H:65:LEU:HD22	1:H:168:ILE:HG22	1.76	0.68
2:I:1125:GLY:O	2:I:1128:ILE:HB	1.93	0.68
2:I:883:LEU:HD21	2:I:920:VAL:HG22	1.76	0.68
3:J:835:LEU:HD12	3:J:839:VAL:HG21	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:392:LYS:HA	5:L:395:THR:HG23	1.76	0.68
2:O:1289:GLU:HA	2:O:1293:VAL:CG2	2.24	0.68
3:P:34:SER:CB	3:P:104:HIS:HB3	2.23	0.68
3:P:362:ARG:HB2	3:P:365:GLN:CD	2.12	0.68
3:P:707:ILE:HG22	3:P:708:ASN:H	1.59	0.68
1:B:47:LEU:HD13	1:B:183:ILE:CD1	2.24	0.68
2:C:519:ASN:ND2	2:C:521:LEU:HD23	2.09	0.68
3:D:162:GLU:HB3	3:D:163:GLU:OE1	1.94	0.68
3:D:575:GLY:O	3:D:578:ILE:HB	1.93	0.68
3:D:644:MET:O	3:D:764:ARG:CZ	2.42	0.68
3:J:428:THR:HG21	3:J:921:GLN:HE22	1.58	0.68
3:J:491:LEU:HD23	3:J:498:PRO:HA	1.75	0.68
3:J:506:VAL:O	3:J:510:LEU:HG	1.94	0.68
1:N:43:LEU:O	1:N:47:LEU:HG	1.93	0.68
2:O:448:LEU:HD12	2:O:557:ARG:HD2	1.75	0.68
3:P:416:ILE:HD12	3:P:441:LEU:HG	1.74	0.68
3:P:366:CYS:SG	3:P:439:PRO:HA	2.33	0.68
3:P:796:LEU:HG	3:P:797:THR:N	2.06	0.68
5:R:98:VAL:HG21	6:7:44:DG:N2	2.08	0.68
2:C:542:ARG:NH2	6:1:49:DG:N7	2.42	0.68
3:D:182:ALA:HA	3:D:185:ILE:CD1	2.23	0.68
3:D:665:GLN:O	3:D:668:PHE:HB3	1.92	0.68
3:D:786:THR:HG23	3:D:787:ALA:N	2.09	0.68
2:O:558:VAL:HG11	2:O:573:ASN:HB3	1.76	0.68
2:O:805:MET:O	2:O:811:ASN:ND2	2.26	0.68
2:O:830:THR:OG1	2:O:832:HIS:CD2	2.47	0.68
3:P:749:LYS:HD2	3:P:753:SER:OG	1.93	0.68
5:R:533:ASP:OD1	5:R:533:ASP:N	2.25	0.68
1:B:193:GLU:O	1:B:194:GLN:HB2	1.93	0.68
1:B:47:LEU:O	1:B:51:MET:HB2	1.93	0.68
2:C:714:VAL:HG13	2:C:786:GLY:HA3	1.75	0.68
3:D:237:MET:O	3:D:238:ILE:HD13	1.93	0.68
3:J:406:ALA:HA	3:J:409:TRP:CD1	2.27	0.68
3:J:725:MET:HE3	3:J:732:GLY:H	1.58	0.68
1:M:13:LEU:HD13	1:M:28:LEU:HD23	1.75	0.68
2:O:163:LYS:CG	2:O:164:THR:H	2.02	0.68
3:D:509:GLY:O	3:D:513:MET:HG3	1.93	0.68
3:D:886:VAL:HG13	3:D:1258:ARG:CG	2.22	0.68
5:F:452:ILE:HG21	5:F:457:ILE:HD13	1.76	0.68
2:I:1324:ASN:HA	2:I:1327:LEU:HD12	1.76	0.68
3:J:112:ALA:HA	3:J:238:ILE:HD13	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:747:MET:HA	3:J:941:ALA:HB3	1.73	0.68
2:O:575:LEU:HD11	2:O:579:ALA:HB3	1.76	0.68
3:P:1162:ILE:HG13	3:P:1180:VAL:HG12	1.75	0.68
3:P:1319:PHE:HD2	3:P:1340:LYS:HD2	1.59	0.68
3:P:350:SER:HB3	3:P:469:HIS:ND1	2.09	0.68
3:P:530:PRO:HB2	3:P:581:MET:CG	2.23	0.68
3:P:697:MET:HE3	3:P:737:ILE:CG2	2.24	0.68
5:R:437:GLN:OE1	7:8:27:DA:N6	2.26	0.68
3:D:425:ARG:HH22	8:3:16:U:H4'	1.58	0.68
1:A:61:ILE:HD13	1:A:64:VAL:HG11	1.75	0.68
2:C:824:GLN:HE22	2:C:1082:ILE:HD11	1.58	0.68
3:D:885:VAL:HG12	3:D:886:VAL:CG2	2.24	0.68
1:G:225:ALA:CB	1:H:228:LEU:HD13	2.21	0.68
2:I:1077:SER:HA	3:J:356:THR:HG21	1.74	0.68
2:I:369:MET:HG3	2:I:370:MET:H	1.59	0.68
2:I:851:THR:HG22	2:I:852:ALA:N	2.09	0.68
2:I:896:THR:HG22	2:I:899:GLU:OE1	1.94	0.68
1:N:74:VAL:HG22	1:N:133:LEU:HD21	1.75	0.68
2:O:371:ARG:HA	5:R:99:ARG:NH2	2.07	0.68
2:O:729:ALA:O	2:O:730:SER:HB3	1.94	0.68
3:P:536:LEU:HD22	3:P:541:LEU:C	2.14	0.68
3:P:614:LEU:O	3:P:617:THR:OG1	2.11	0.68
2:C:1209:GLN:HE21	3:D:640:GLY:HA3	1.57	0.68
2:C:807:TRP:O	2:C:809:GLY:N	2.25	0.68
3:D:811:GLU:O	3:D:895:CYS:HA	1.94	0.68
1:G:16:ILE:HG21	1:G:214:GLU:HG3	1.75	0.68
2:I:700:VAL:HG21	2:I:1114:GLU:HG3	1.76	0.68
2:I:197:ARG:HB3	2:I:200:ARG:HA	1.75	0.68
3:J:128:LEU:HD21	3:J:189:LEU:HD23	1.76	0.68
1:N:179:PRO:O	1:N:208:ASN:HB2	1.92	0.68
3:P:805:GLN:OE1	3:P:1347:LEU:HB2	1.94	0.68
5:F:461:ASN:HA	7:2:26:DT:C5	2.28	0.68
2:C:1113:LEU:HD23	3:D:641:ILE:HD13	1.76	0.68
3:D:133:ARG:NH2	5:F:91:ILE:O	2.24	0.68
3:D:58:CYS:SG	3:D:60:ARG:N	2.66	0.68
2:I:176:ILE:O	2:I:176:ILE:HG22	1.93	0.68
2:I:65:ASN:ND2	2:I:484:LEU:HD11	2.09	0.68
2:I:870:ILE:HB	2:I:944:ARG:HD3	1.75	0.68
2:O:1231:TYR:O	2:O:1232:MET:HE2	1.94	0.68
3:P:1163:VAL:HG13	3:P:1176:VAL:O	1.94	0.68
1:A:180:VAL:CA	1:A:207:THR:HG22	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:50:SER:O	1:A:52:PRO:HD3	1.93	0.67
1:A:57:THR:HG21	1:A:158:ARG:HH22	1.58	0.67
1:B:100:LEU:HD13	1:B:115:ILE:HG23	1.75	0.67
1:B:182:ARG:HB3	1:B:206:GLU:HB3	1.76	0.67
2:C:112:GLY:C	2:C:114:VAL:H	1.97	0.67
2:C:1273:MET:O	3:D:428:THR:HG21	1.93	0.67
3:D:263:SER:HA	5:F:507:MET:HB3	1.76	0.67
1:G:35:PHE:O	1:G:39:LEU:HG	1.94	0.67
2:I:344:GLY:HA3	2:I:346:TYR:CE2	2.28	0.67
3:J:68:TYR:HA	3:J:92:VAL:CG1	2.23	0.67
2:O:1212:LEU:HB3	2:O:1221:PHE:HD2	1.57	0.67
2:O:759:SER:HA	2:O:765:ILE:HD11	1.76	0.67
2:O:764:CYS:HB3	2:O:831:ILE:HB	1.75	0.67
5:R:493:LYS:O	5:R:497:VAL:HG23	1.94	0.67
5:R:98:VAL:O	5:R:102:MET:HG2	1.94	0.67
2:C:1289:GLU:HA	2:C:1293:VAL:CG2	2.25	0.67
2:C:1289:GLU:HA	2:C:1293:VAL:HG22	1.76	0.67
3:D:131:PRO:O	3:D:135:ILE:CG1	2.42	0.67
3:D:181:GLY:C	3:D:185:ILE:CD1	2.63	0.67
3:D:264:ASP:OD1	3:D:264:ASP:N	2.25	0.67
2:I:196:VAL:CG2	2:I:206:ALA:HA	2.24	0.67
1:N:215:GLU:O	1:N:219:ARG:HG3	1.94	0.67
2:O:830:THR:HG23	2:O:1234:LYS:NZ	2.09	0.67
2:O:412:GLU:N	2:O:412:GLU:CD	2.45	0.67
2:O:1077:SER:CB	3:P:357:VAL:HG23	2.24	0.67
3:P:854:ALA:O	3:P:855:ASP:HB2	1.93	0.67
1:A:88:LEU:HD13	1:A:128:HIS:CD2	2.29	0.67
2:C:1184:THR:HG23	2:C:1184:THR:O	1.92	0.67
3:D:1350:ASN:HA	3:D:1353:VAL:CG2	2.25	0.67
3:D:819:GLY:N	3:D:881:LYS:HE2	2.09	0.67
3:D:162:GLU:OE2	5:F:84:LEU:HD13	1.95	0.67
1:G:185:TYR:CD2	1:G:185:TYR:O	2.47	0.67
1:M:40:GLY:CA	1:M:43:LEU:HD12	2.21	0.67
3:P:378:LYS:HE2	3:P:382:TYR:OH	1.95	0.67
3:P:822:MET:HE2	3:P:838:ARG:HE	1.59	0.67
1:B:133:LEU:HD22	1:B:138:ALA:HB1	1.75	0.67
2:C:1107:MET:HE2	3:D:740:LEU:CD2	2.23	0.67
3:D:1109:LEU:HD13	3:D:1115:ILE:HG22	1.76	0.67
3:D:783:LEU:HD12	3:D:783:LEU:N	2.09	0.67
2:I:145:ILE:HD11	2:I:506:PHE:HD1	1.60	0.67
3:J:1095:MET:SD	3:J:1173:ARG:NH2	2.68	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:443:GLU:HG3	3:J:444:GLY:N	2.07	0.67
3:J:814:CYS:SG	3:J:883:ARG:NH2	2.67	0.67
4:K:69:ARG:O	4:K:73:GLN:HG3	1.94	0.67
5:L:119:ILE:HG23	5:L:122:ARG:NH2	2.09	0.67
3:P:188:LEU:HG	3:P:188:LEU:O	1.93	0.67
3:P:325:LYS:HG3	3:P:329:ASP:HB3	1.77	0.67
4:Q:27:ALA:HB1	4:Q:46:THR:HB	1.77	0.67
3:D:1264:ALA:HB1	3:D:1303:SER:O	1.93	0.67
5:F:166:VAL:HG12	5:F:168:PRO:HD3	1.75	0.67
2:I:805:MET:HE3	2:I:806:PRO:HD2	1.75	0.67
2:I:886:LYS:H	2:I:917:SER:HG	1.42	0.67
2:I:848:GLU:HG2	2:I:888:THR:HG23	1.74	0.67
3:J:421:VAL:CG1	3:J:469:HIS:O	2.42	0.67
1:M:11:PRO:HD2	1:N:227:GLN:HA	1.77	0.67
2:O:402:ARG:CG	2:O:416:GLY:HA3	2.20	0.67
2:O:657:THR:O	2:O:660:VAL:HG23	1.94	0.67
2:O:90:VAL:HG12	2:O:91:THR:H	1.60	0.67
6:4:45:DT:H3'	6:4:45:DT:C6	2.30	0.67
2:C:1273:MET:SD	3:D:428:THR:O	2.53	0.67
2:C:297:VAL:HG23	2:C:314:ASN:H	1.59	0.67
2:C:496:LYS:CB	2:C:497:PRO:HD3	2.24	0.67
3:D:325:LYS:HG3	3:D:329:ASP:CB	2.24	0.67
3:D:607:THR:O	3:D:611:ILE:HG13	1.95	0.67
5:F:119:ILE:HG13	5:F:122:ARG:HH22	1.59	0.67
1:G:49:SER:HB3	1:H:33:ARG:HH12	1.59	0.67
3:J:105:ILE:CD1	3:J:244:VAL:HG21	2.25	0.67
3:J:397:ALA:O	3:J:401:VAL:HG23	1.93	0.67
3:J:872:LEU:O	3:J:877:VAL:HG23	1.94	0.67
1:M:228:LEU:HD22	1:N:221:ALA:HB1	1.77	0.67
2:O:936:ARG:HG2	2:O:937:ASP:H	1.60	0.67
2:O:9:LYS:HE2	2:O:1171:ARG:CD	2.24	0.67
3:P:1226:VAL:O	3:P:1229:VAL:HG12	1.94	0.67
3:P:131:PRO:O	3:P:135:ILE:HG13	1.94	0.67
3:P:212:THR:HA	3:P:215:LYS:HD2	1.76	0.67
5:R:291:CYS:O	5:R:295:CYS:HB2	1.94	0.67
5:R:387:VAL:HG11	5:R:409:ASN:OD1	1.95	0.67
5:R:587:ILE:HG23	5:R:590:ILE:HD12	1.75	0.67
2:C:623:LEU:HD23	2:C:628:HIS:O	1.95	0.67
2:I:106:GLU:HG2	2:I:115:LYS:CB	2.20	0.67
2:I:702:THR:HG22	2:I:1184:THR:O	1.95	0.67
3:J:1173:ARG:O	3:J:1190:ILE:HB	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:332:LYS:HZ2	3:J:1329:THR:CG2	2.06	0.67
5:L:84:LEU:CD1	5:L:107:THR:CG2	2.72	0.67
1:M:8:PHE:CE1	1:N:223:ILE:HG23	2.29	0.67
2:O:804:PHE:O	2:O:805:MET:HB3	1.95	0.67
2:C:1268:GLN:HE22	3:D:351:GLY:N	1.91	0.67
3:D:1167:LYS:HB2	3:D:1174:ARG:NH1	2.09	0.67
3:D:1287:ILE:HG22	3:D:1288:ALA:CA	2.25	0.67
3:D:521:LYS:NZ	3:D:541:LEU:HD23	2.10	0.67
3:D:563:LEU:CD2	3:D:586:GLY:HA2	2.23	0.67
3:J:832:LYS:HZ2	3:J:1242:ARG:HB3	1.58	0.67
3:J:835:LEU:HG	3:J:836:ARG:N	2.10	0.67
5:L:145:LEU:HD13	5:L:225:ARG:NH1	2.09	0.67
1:M:214:GLU:HA	1:M:217:ILE:CD1	2.23	0.67
2:O:557:ARG:HG3	2:O:557:ARG:HH11	1.60	0.67
2:O:592:ARG:NE	2:O:600:THR:O	2.27	0.67
3:P:1155:ILE:O	3:P:1210:ILE:HD12	1.93	0.67
2:O:1065:LYS:HE3	3:P:463:GLY:HA3	1.77	0.67
3:P:519:ASN:HB3	3:P:523:GLU:CD	2.15	0.67
3:P:747:MET:SD	3:P:747:MET:N	2.68	0.67
5:R:112:THR:OG1	5:R:113:ARG:HG2	1.95	0.67
2:C:1151:LEU:HD23	2:C:1198:LEU:HD13	1.75	0.67
2:C:871:VAL:HG23	2:C:883:LEU:O	1.95	0.67
3:D:1327:GLU:O	3:D:1331:VAL:CG2	2.35	0.67
3:D:1367:GLN:HA	3:D:1370:MET:HG3	1.77	0.67
2:I:165:HIS:CB	2:I:168:GLY:N	2.58	0.67
3:J:147:ILE:HG13	3:J:178:ALA:HA	1.77	0.67
3:J:511:TYR:HD1	3:J:596:LEU:O	1.78	0.67
3:J:886:VAL:HG11	3:J:1261:LEU:HD13	1.74	0.67
5:L:132:CYS:SG	5:L:257:LYS:HE2	2.34	0.67
5:L:476:ARG:CG	5:L:477:GLU:H	2.07	0.67
2:O:811:ASN:ND2	2:O:1099:ASN:CA	2.57	0.67
2:O:1161:LEU:O	2:O:1163:THR:N	2.28	0.67
2:O:871:VAL:HG23	2:O:883:LEU:O	1.95	0.67
3:P:275:ARG:HG2	3:P:278:ARG:NH2	2.10	0.67
3:P:796:LEU:HD11	3:P:800:LEU:HD11	1.77	0.67
6:1:50:DT:C6	6:1:50:DT:H3'	2.28	0.67
3:D:1263:LYS:HG2	3:D:1281:GLU:CA	2.22	0.67
5:F:503:GLU:HB3	5:F:504:PRO:HD2	1.77	0.67
1:G:78:ILE:HG22	1:G:82:LEU:HD11	1.77	0.67
1:H:86:LYS:HE3	1:H:173:VAL:HG12	1.77	0.67
1:H:47:LEU:HD13	1:H:183:ILE:HD12	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1111:GLN:HB2	2:I:1230:MET:HE3	1.76	0.67
2:I:165:HIS:HB2	2:I:168:GLY:CA	2.25	0.67
2:I:805:MET:HE2	2:I:806:PRO:HD2	1.76	0.67
2:I:1286:THR:OG1	3:J:479:GLU:OE2	2.12	0.67
5:R:399:LEU:O	5:R:400:GLN:CB	2.42	0.67
3:D:501:VAL:HG13	3:D:502:PRO:CD	2.24	0.66
3:D:536:LEU:HD13	3:D:542:ALA:HB2	1.77	0.66
2:I:1124:ILE:HD11	2:I:1198:LEU:HG	1.77	0.66
2:I:1257:GLN:NE2	3:J:345:LYS:HB3	2.10	0.66
3:J:1106:ILE:HD12	3:J:1125:PRO:HG2	1.77	0.66
3:J:744:ARG:CZ	3:J:940:ALA:HB2	2.25	0.66
1:M:66:HIS:CE1	2:O:929:ILE:HG12	2.29	0.66
2:O:558:VAL:O	2:O:560:PRO:HD3	1.95	0.66
3:P:909:ILE:HG12	3:P:910:ASN:N	2.11	0.66
3:D:836:ARG:CB	3:D:873:GLU:OE2	2.42	0.66
5:F:333:VAL:HG13	5:F:333:VAL:O	1.96	0.66
2:I:1098:LEU:HD23	2:I:1099:ASN:N	2.10	0.66
5:L:412:LEU:O	5:L:416:VAL:HG23	1.96	0.66
5:L:451:ARG:O	5:L:451:ARG:HG3	1.95	0.66
2:O:71:VAL:HG22	2:O:101:ARG:HE	1.59	0.66
2:O:1061:GLN:HB2	2:O:1062:PRO:HD2	1.77	0.66
2:O:150:HIS:HE1	2:O:454:ARG:HG3	1.60	0.66
2:O:540:ARG:HD3	2:O:567:PRO:HB2	1.75	0.66
3:P:418:GLU:O	3:P:481:ARG:NH2	2.28	0.66
3:P:45:ASN:HB3	3:P:48:THR:O	1.96	0.66
3:P:575:GLY:O	3:P:578:ILE:HB	1.95	0.66
6:4:53:DG:H2 <sup>+</sup>	6:4:54:DA:OP2	1.95	0.66
5:R:434:TRP:CZ2	6:7:36:DT:C7	2.78	0.66
1:A:45:ARG:NH1	2:C:1215:GLY:O	2.27	0.66
2:C:519:ASN:HD21	2:C:521:LEU:HD23	1.58	0.66
2:C:902:LEU:HA	2:C:905:ILE:HD12	1.77	0.66
2:C:170:VAL:CG2	3:D:1065:ALA:HB1	2.26	0.66
3:D:306:LEU:O	3:D:326:SER:HB2	1.94	0.66
3:D:779:ALA:O	3:D:783:LEU:HD13	1.94	0.66
4:E:39:VAL:CB	4:E:40:PRO:HD2	2.24	0.66
2:I:1124:ILE:HD13	2:I:1201:LEU:HD23	1.77	0.66
2:I:165:HIS:HB2	2:I:168:GLY:N	2.11	0.66
2:I:714:VAL:HG13	2:I:786:GLY:HA3	1.76	0.66
3:J:614:LEU:O	3:J:617:THR:OG1	2.13	0.66
2:O:230:PHE:CE1	2:O:292:ILE:HD11	2.30	0.66
2:O:528:ARG:CZ	2:O:575:LEU:HD23	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1215:GLU:HB3	3:P:1220:ILE:HD11	1.77	0.66
3:P:701:LEU:HG	3:P:723:TYR:HB2	1.78	0.66
5:R:128:ASN:ND2	5:R:257:LYS:HE2	2.10	0.66
5:R:511:ILE:HG13	5:R:517:SER:OG	1.95	0.66
6:4:50:DT:H3'	6:4:50:DT:C6	2.30	0.66
2:C:1142:ARG:HG3	2:C:1161:LEU:HD21	1.78	0.66
2:C:56:VAL:CG1	2:C:59:ILE:HD11	2.24	0.66
3:D:1318:SER:HA	3:D:1342:ASP:OD2	1.95	0.66
2:I:161:LYS:CA	2:I:161:LYS:HE2	2.24	0.66
3:J:869:CYS:HA	3:J:872:LEU:CD1	2.24	0.66
2:O:1017:GLN:O	2:O:1021:LEU:HG	1.95	0.66
3:P:161:THR:H	3:P:164:GLN:CD	1.98	0.66
1:A:134:THR:HG22	2:C:773:LEU:HD22	1.77	0.66
2:C:700:VAL:O	2:C:1069:ARG:NH2	2.28	0.66
3:D:205:LEU:HD21	3:D:214:ARG:CG	2.24	0.66
3:D:267:ASP:O	3:D:271:ARG:HG3	1.95	0.66
3:D:583:VAL:HG13	3:D:587:LEU:HD12	1.78	0.66
5:F:169:ASN:HB2	5:F:260:ARG:HB2	1.77	0.66
5:F:452:ILE:HB	5:F:457:ILE:HD11	1.77	0.66
1:G:44:ARG:HA	1:G:183:ILE:HD13	1.75	0.66
3:J:1332:LEU:HD23	3:J:1332:LEU:N	2.09	0.66
2:I:1326:LEU:HD22	3:J:342:LEU:HD11	1.76	0.66
3:J:79:LYS:HD2	5:L:569:THR:HG21	1.76	0.66
1:N:35:PHE:O	1:N:39:LEU:CD1	2.43	0.66
2:O:1128:ILE:HG22	2:O:1132:LEU:HD11	1.77	0.66
3:P:1103:GLY:O	3:P:1104:LYS:CB	2.44	0.66
5:R:452:ILE:HG22	5:R:456:MET:HG2	1.76	0.66
7:8:18:DT:H2'	7:8:19:DA:C5'	2.24	0.66
1:A:221:ALA:HB1	1:B:228:LEU:CD2	2.25	0.66
2:C:1006:GLU:HB2	2:C:1007:LYS:NZ	2.11	0.66
2:C:19:PRO:CB	2:C:1156:ARG:HD2	2.25	0.66
3:D:1148:ARG:O	3:D:1150:PRO:HD3	1.96	0.66
3:D:431:ARG:NH2	3:D:904:ALA:HB1	2.09	0.66
3:D:433:GLY:O	3:D:457:TYR:HE1	1.78	0.66
2:C:555:TYR:OH	3:D:769:VAL:CG1	2.43	0.66
1:H:100:LEU:CD1	1:H:115:ILE:HG21	2.19	0.66
2:I:220:ILE:HG22	2:I:221:LEU:N	2.11	0.66
2:O:1017:GLN:HE21	2:O:1021:LEU:HG	1.61	0.66
2:O:1123:GLY:O	2:O:1127:LYS:HG2	1.93	0.66
2:O:201:ARG:HB2	2:O:369:MET:HE1	1.78	0.66
3:P:527:LEU:CD1	3:P:532:GLU:HG2	2.19	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:697:MET:HE1	3:P:737:ILE:CG2	2.24	0.66
1:A:44:ARG:HA	1:A:47:LEU:HD13	1.77	0.66
1:B:220:ALA:HA	1:B:223:ILE:HD12	1.78	0.66
2:C:521:LEU:HD21	2:C:686:GLN:C	2.15	0.66
2:C:886:LYS:N	2:C:917:SER:OG	2.25	0.66
3:D:162:GLU:HB3	3:D:163:GLU:CD	2.16	0.66
1:G:47:LEU:HD12	1:G:183:ILE:CD1	2.16	0.66
2:I:800:MET:SD	2:I:1096:ILE:HD11	2.36	0.66
2:I:1289:GLU:OE2	3:J:473:THR:N	2.25	0.66
5:L:100:MET:HG2	5:L:103:ARG:HH22	1.60	0.66
5:L:511:ILE:HD13	5:L:519:LEU:HA	1.77	0.66
5:L:591:GLU:O	5:L:595:LEU:HG	1.94	0.66
3:P:742:GLY:O	3:P:762:ASN:HB3	1.96	0.66
5:R:590:ILE:HG12	5:R:593:LYS:NZ	2.10	0.66
2:C:42:ASP:OD1	2:C:43:PRO:HD2	1.95	0.66
2:I:797:GLY:CA	2:I:1233:LEU:HD23	2.26	0.66
2:I:391:SER:HB3	2:I:394:ARG:HB2	1.78	0.66
2:I:759:SER:HB3	2:I:765:ILE:HG13	1.78	0.66
3:J:288:PRO:O	3:J:292:VAL:HG23	1.96	0.66
3:J:786:THR:CG2	3:J:787:ALA:N	2.59	0.66
1:M:38:THR:CG2	1:N:42:ALA:CA	2.73	0.66
5:R:91:ILE:HD11	5:R:103:ARG:HH12	1.60	0.66
6:4:47:DC:C4	6:4:48:DA:C6	2.83	0.66
1:A:102:LEU:HD21	1:A:110:VAL:CG1	2.26	0.66
1:A:179:PRO:O	1:A:208:ASN:ND2	2.29	0.66
2:C:237:LEU:CG	2:C:289:VAL:HG22	2.21	0.66
3:D:281:ARG:HH22	5:F:441:ARG:HH22	0.69	0.66
5:F:583:THR:HG21	5:F:587:ILE:HD13	1.77	0.66
3:J:1342:ASP:CG	3:J:1344:LEU:HG	2.16	0.66
3:J:923:ILE:HD11	3:J:1252:HIS:HB3	1.78	0.66
1:M:39:LEU:O	1:M:43:LEU:CG	2.23	0.66
2:O:164:THR:O	2:O:165:HIS:HB2	1.96	0.66
2:O:830:THR:HG1	2:O:832:HIS:CD2	2.14	0.66
5:R:434:TRP:CE2	6:7:36:DT:C7	2.79	0.66
6:7:50:DT:O5'	6:7:51:DC:C5	2.49	0.66
2:C:256:GLU:HG2	2:C:259:GLY:O	1.96	0.66
2:C:253:PHE:CD1	2:C:288:PRO:CD	2.77	0.66
3:D:574:VAL:O	3:D:578:ILE:HG13	1.95	0.66
2:I:1284:ALA:HB1	3:J:1356:LEU:HD23	1.78	0.66
3:J:662:ALA:HA	3:J:665:GLN:CD	2.16	0.66
1:M:13:LEU:HD11	1:M:26:VAL:CG1	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:99:LYS:HG3	2:O:121:GLU:CG	2.26	0.66
2:O:149:LEU:CD2	2:O:451:ARG:HE	2.09	0.66
3:P:306:LEU:O	3:P:326:SER:HB2	1.96	0.66
3:P:557:LYS:HE2	3:P:561:GLY:HA2	1.77	0.66
1:A:232:VAL:HG22	1:B:221:ALA:CB	2.26	0.65
2:C:176:ILE:HD12	2:C:184:LEU:HB2	1.77	0.65
3:D:1120:THR:HB	3:D:1123:ARG:NH1	2.11	0.65
2:I:496:LYS:CB	2:I:497:PRO:HD3	2.24	0.65
5:L:145:LEU:HD22	5:L:225:ARG:NH1	2.10	0.65
5:L:476:ARG:CG	5:L:477:GLU:N	2.58	0.65
1:M:44:ARG:O	1:M:47:LEU:HB2	1.96	0.65
2:O:1294:LYS:HD3	3:P:347:VAL:HG11	1.78	0.65
2:O:1333:LEU:HD11	3:P:331:ILE:HD11	1.79	0.65
2:O:312:ALA:HB3	2:O:315:MET:HB2	1.76	0.65
2:O:3:TYR:O	2:O:8:LYS:HE3	1.96	0.65
5:R:333:VAL:HG13	5:R:333:VAL:O	1.95	0.65
2:C:1312:ASN:O	2:C:1313:HIS:HB2	1.95	0.65
3:D:1328:THR:O	3:D:1332:LEU:CG	2.39	0.65
3:D:382:TYR:CE1	3:D:398:LYS:HA	2.31	0.65
5:F:323:ASN:O	5:F:324:LYS:HB2	1.96	0.65
2:I:302:ILE:HA	2:I:309:LEU:HA	1.78	0.65
3:J:127:LEU:HD11	3:J:227:PHE:CE2	2.30	0.65
3:J:156:ARG:HB3	3:J:157:GLN:HG3	1.78	0.65
5:L:412:LEU:HD22	5:L:435:ILE:HD11	1.78	0.65
5:L:597:LYS:C	5:L:598:LEU:HD23	2.16	0.65
1:M:219:ARG:O	1:M:223:ILE:HG13	1.96	0.65
2:O:340:ASP:O	2:O:342:ASP:N	2.29	0.65
2:O:642:SER:O	2:O:643:SER:HB3	1.94	0.65
4:Q:38:LEU:HD12	4:Q:53:GLU:OE2	1.96	0.65
3:D:502:PRO:HB3	3:D:506:VAL:CG1	2.25	0.65
5:F:84:LEU:HG	5:F:107:THR:HG22	1.76	0.65
2:I:1048:LYS:O	2:I:1049:ILE:HG12	1.97	0.65
1:M:35:PHE:HE2	1:N:50:SER:HG	1.43	0.65
3:P:30:ILE:HG12	3:P:33:TRP:HZ3	1.60	0.65
3:P:563:LEU:HD21	3:P:586:GLY:HA2	1.78	0.65
3:P:259:ARG:HH22	5:R:502:LYS:CG	2.09	0.65
1:A:79:LEU:O	1:A:83:LEU:HD23	1.97	0.65
1:B:9:LEU:HD12	1:B:10:LYS:N	2.10	0.65
3:D:68:TYR:CD1	3:D:93:THR:HA	2.32	0.65
5:F:555:GLU:O	5:F:559:LEU:HG	1.97	0.65
1:H:42:ALA:O	1:H:46:ILE:HD12	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:686:GLN:CD	2:I:1069:ARG:HG2	2.17	0.65
2:I:743:PRO:HG3	2:I:974:ARG:NH2	2.11	0.65
5:L:261:LEU:HD13	5:L:269:LEU:HD12	1.76	0.65
5:L:261:LEU:HD13	5:L:269:LEU:CD1	2.26	0.65
5:L:599:ARG:O	5:L:601:PRO:HD3	1.97	0.65
3:P:79:LYS:HG3	5:R:569:THR:CG2	2.26	0.65
5:R:353:LEU:HB3	5:R:358:VAL:HG22	1.76	0.65
6:4:28:DA:C2	7:5:36:DG:N2	2.64	0.65
2:C:1288:GLN:HG2	2:C:1315:MET:SD	2.37	0.65
2:C:854:ILE:HD12	2:C:862:LEU:HD23	1.77	0.65
3:D:1323:ALA:HB2	3:D:1332:LEU:HD21	1.78	0.65
2:C:1326:LEU:HD22	3:D:342:LEU:CD1	2.27	0.65
5:F:137:TYR:HE2	5:F:139:GLU:HB2	1.62	0.65
1:H:75:GLN:HG2	1:H:134:THR:CG2	2.26	0.65
2:I:1146:GLN:OE1	2:I:1161:LEU:HB3	1.96	0.65
2:I:634:VAL:C	2:I:644:LEU:HD22	2.17	0.65
3:J:1226:VAL:O	3:J:1229:VAL:CG1	2.44	0.65
3:J:160:LEU:HD23	3:J:164:GLN:CB	2.27	0.65
3:J:84:ILE:HG22	3:J:84:ILE:O	1.96	0.65
5:L:297:MET:HB2	5:L:326:TRP:HZ3	1.61	0.65
1:N:179:PRO:O	1:N:208:ASN:HB3	1.96	0.65
2:O:634:VAL:HG12	2:O:635:THR:N	2.12	0.65
3:P:169:LEU:HD12	3:P:173:GLY:HA2	1.78	0.65
1:A:203:ILE:HG22	1:A:205:MET:HE2	1.78	0.65
2:C:204:LEU:HB3	2:C:205:PRO:CD	2.27	0.65
2:C:1289:GLU:OE1	3:D:472:LEU:CB	2.44	0.65
3:D:514:THR:O	3:D:576:ARG:NE	2.30	0.65
3:D:609:TYR:C	3:D:609:TYR:CD1	2.70	0.65
2:I:1199:LEU:HD22	2:I:1204:LEU:HB2	1.78	0.65
3:J:139:LEU:HD21	3:J:185:ILE:CD1	2.25	0.65
5:L:84:LEU:HD11	5:L:107:THR:HG23	1.77	0.65
1:N:162:GLU:OE2	1:N:166:ARG:CZ	2.45	0.65
2:O:429:MET:O	2:O:432:LEU:HD23	1.97	0.65
3:P:248:ASP:O	3:P:251:PRO:HG3	1.97	0.65
1:A:47:LEU:HD11	1:A:183:ILE:CD1	2.26	0.65
3:D:343:LEU:HD11	3:D:1348:LYS:HD3	1.77	0.65
3:D:749:LYS:HB3	3:D:750:PRO:HD2	1.78	0.65
5:F:98:VAL:HG22	5:F:402:LEU:HD21	1.78	0.65
1:G:232:VAL:HG13	1:H:218:ARG:CG	2.20	0.65
2:I:15:PHE:HE2	2:I:1182:ILE:HG23	1.61	0.65
2:I:1269:ARG:HG3	3:J:345:LYS:O	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:387:ASN:O	2:I:391:SER:HB2	1.96	0.65
2:I:489:PRO:O	2:I:493:ILE:CD1	2.44	0.65
2:I:559:CYS:CB	2:I:662:SER:HB3	2.26	0.65
2:I:729:ALA:O	2:I:730:SER:HB3	1.97	0.65
2:I:1077:SER:HA	3:J:356:THR:CG2	2.26	0.65
3:J:840:LEU:HD12	3:J:864:LEU:O	1.97	0.65
4:K:70:GLN:HA	4:K:73:GLN:CD	2.16	0.65
5:L:295:CYS:O	5:L:296:LYS:CB	2.44	0.65
2:O:32:LEU:HD23	2:O:130:MET:HE1	1.78	0.65
2:O:448:LEU:HD23	2:O:448:LEU:C	2.16	0.65
1:A:39:LEU:HD23	1:A:39:LEU:N	2.11	0.65
1:B:124:VAL:HG21	1:B:210:THR:CG2	2.25	0.65
2:C:209:ILE:HD11	2:C:425:ILE:HG21	1.78	0.65
2:C:720:ARG:NH2	2:C:745:GLU:OE2	2.21	0.65
3:D:1028:ILE:HG23	3:D:1118:GLY:HA2	1.78	0.65
3:D:378:LYS:HE2	3:D:382:TYR:OH	1.96	0.65
5:F:123:ILE:HG21	5:F:376:LYS:HE3	1.78	0.65
2:I:1072:ASN:ND2	2:I:1111:GLN:OE1	2.29	0.65
2:I:566:GLY:O	2:I:569:ILE:HG22	1.97	0.65
2:I:660:VAL:HG21	3:J:769:VAL:HG12	1.77	0.65
2:I:524:ILE:CD1	2:I:712:SER:HB3	2.21	0.65
3:J:105:ILE:HD12	3:J:244:VAL:HG22	1.78	0.65
3:J:97:VAL:HG12	3:J:101:ARG:HD2	1.79	0.65
5:L:461:ASN:N	5:L:461:ASN:OD1	2.29	0.65
5:L:587:ILE:CD1	5:L:587:ILE:H	1.85	0.65
2:O:1337:ILE:HD11	3:P:20:ILE:HG21	1.77	0.65
3:P:1180:VAL:HG11	3:P:1203:ARG:HD3	1.79	0.65
3:P:1215:GLU:CB	3:P:1220:ILE:HD11	2.26	0.65
3:P:1262:ARG:HH12	3:P:1316:THR:CG2	2.10	0.65
3:P:1346:GLY:H	3:P:1349:GLU:CD	2.00	0.65
5:R:406:GLN:O	5:R:410:ILE:HG13	1.97	0.65
3:D:79:LYS:HZ3	5:F:569:THR:CA	2.10	0.65
4:E:60:ASN:ND2	4:E:62:GLN:HB3	2.12	0.65
5:F:120:ALA:HA	5:F:123:ILE:HD12	1.77	0.65
1:G:112:ALA:HB1	1:G:123:ILE:HG21	1.79	0.65
2:I:1107:MET:HE1	3:J:763:PHE:CE2	2.32	0.65
2:I:1284:ALA:HB1	3:J:1356:LEU:CD2	2.27	0.65
3:J:1124:ILE:HG22	3:J:1124:ILE:O	1.96	0.65
5:L:96:ASP:HB3	5:L:99:ARG:CG	2.26	0.65
2:O:727:VAL:H	2:O:773:LEU:HD22	1.61	0.65
5:R:446:GLN:O	5:R:447:ALA:HB3	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:533:ASP:O	5:R:536:THR:HB	1.96	0.65
2:C:335:THR:HG22	2:C:336:LEU:N	2.11	0.65
2:C:170:VAL:HG21	3:D:1065:ALA:HB1	1.79	0.65
3:D:482:ALA:O	3:D:488:ASN:ND2	2.29	0.65
3:D:79:LYS:HZ3	5:F:569:THR:CG2	2.10	0.65
2:I:178:PRO:HB3	2:I:397:LEU:HD23	1.78	0.65
2:I:149:LEU:HD11	2:I:451:ARG:CB	2.26	0.65
1:N:47:LEU:HD13	1:N:183:ILE:CD1	2.26	0.65
2:O:1088:ASP:OD1	2:O:1092:THR:O	2.14	0.65
2:O:1323:PHE:O	2:O:1327:LEU:HG	1.97	0.65
2:O:445:ILE:HD12	2:O:546:GLU:OE1	1.97	0.65
3:P:1145:PHE:CB	3:P:1309:ILE:HD11	2.27	0.65
3:P:76:LYS:HG3	3:P:77:ARG:HG3	1.79	0.65
5:R:461:ASN:HA	7:8:26:DT:H72	1.77	0.64
1:B:57:THR:HG21	1:B:147:GLN:NE2	2.12	0.64
2:C:1292:THR:CG2	2:C:1293:VAL:H	2.09	0.64
3:D:145:VAL:O	3:D:178:ALA:HB1	1.97	0.64
3:D:452:LEU:CD1	3:D:625:MET:CE	2.74	0.64
1:G:30:PRO:CB	1:G:198:LEU:HD13	2.27	0.64
1:G:231:PHE:CZ	1:H:39:LEU:HB3	2.32	0.64
3:J:1046:ILE:HD12	3:J:1059:LEU:HD22	1.77	0.64
3:J:132:LEU:HA	3:J:135:ILE:CD1	2.27	0.64
3:J:269:TYR:O	3:J:273:ILE:HG13	1.96	0.64
3:J:492:SER:HB3	3:J:499:ILE:HG13	1.79	0.64
5:L:551:LEU:HD13	5:L:559:LEU:HD12	1.79	0.64
2:O:805:MET:HA	2:O:1100:PRO:CG	2.27	0.64
2:O:405:PHE:HD1	2:O:406:ASN:OD1	1.79	0.64
3:P:1263:LYS:HB2	3:P:1307:LEU:HD11	1.79	0.64
3:P:347:VAL:HG12	3:P:348:ASP:O	1.96	0.64
2:O:1286:THR:HG23	3:P:479:GLU:OE2	1.97	0.64
3:D:1156:LEU:HD22	3:D:1209:VAL:CA	2.20	0.64
2:C:1269:ARG:NH1	3:D:340:GLN:HA	2.12	0.64
3:D:820:ILE:HD11	3:D:884:SER:CB	2.27	0.64
2:I:1151:LEU:CD2	2:I:1198:LEU:HD12	2.27	0.64
2:I:90:VAL:HG12	2:I:91:THR:N	2.13	0.64
3:J:1095:MET:HB3	3:J:1173:ARG:HH22	1.61	0.64
3:J:349:TYR:O	3:J:470:VAL:HG23	1.97	0.64
1:M:154:PRO:HG2	1:M:157:THR:HG1	1.62	0.64
1:M:44:ARG:HA	1:M:183:ILE:CD1	2.28	0.64
3:P:361:LEU:HD22	3:P:365:GLN:CB	2.27	0.64
2:O:1283:ALA:HB1	3:P:479:GLU:OE2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:697:MET:HE3	3:P:737:ILE:HG21	1.80	0.64
1:A:227:GLN:O	1:A:231:PHE:CZ	2.51	0.64
2:C:714:VAL:CG1	2:C:787:PRO:HD2	2.27	0.64
3:D:105:ILE:HG13	3:D:244:VAL:CG2	2.26	0.64
3:D:141:PHE:HD1	3:D:180:MET:HE3	1.63	0.64
3:D:591:ILE:HG22	3:D:592:VAL:N	2.10	0.64
3:D:885:VAL:CG1	3:D:886:VAL:N	2.60	0.64
1:G:26:VAL:HG11	1:G:217:ILE:CD1	2.26	0.64
3:J:68:TYR:C	3:J:92:VAL:HG13	2.16	0.64
5:L:548:LEU:CD2	5:L:551:LEU:HD12	2.27	0.64
2:O:90:VAL:HG12	2:O:91:THR:N	2.12	0.64
3:P:1239:ASP:O	3:P:1243:LEU:HG	1.98	0.64
5:R:101:TYR:OH	5:R:384:LEU:HB3	1.97	0.64
6:1:21:DC:H2'	6:1:22:DC:C6	2.32	0.64
6:7:48:DA:H3'	6:7:49:DG:H5'	1.78	0.64
1:A:228:LEU:HA	1:A:231:PHE:HE2	1.53	0.64
1:B:61:ILE:CD1	1:B:171:LEU:HD12	2.27	0.64
1:B:88:LEU:CD2	1:B:128:HIS:CD2	2.81	0.64
2:C:1293:VAL:O	2:C:1301:ARG:HB3	1.98	0.64
2:C:257:ALA:CB	2:C:262:TYR:CE2	2.81	0.64
3:D:1280:VAL:HG12	3:D:1281:GLU:N	2.12	0.64
3:D:130:MET:SD	3:D:135:ILE:HG23	2.37	0.64
3:D:395:LYS:C	3:D:398:LYS:HG3	2.16	0.64
3:D:673:VAL:HG11	3:D:678:ARG:HB2	1.78	0.64
3:D:796:LEU:CG	3:D:797:THR:N	2.53	0.64
2:I:149:LEU:HD21	2:I:451:ARG:HE	1.60	0.64
3:J:320:ASN:OD1	3:J:321:LYS:N	2.28	0.64
3:J:480:ALA:HA	3:J:484:MET:SD	2.37	0.64
1:M:46:ILE:HG12	1:N:35:PHE:CE1	2.32	0.64
2:O:149:LEU:HG	2:O:451:ARG:HE	1.61	0.64
3:P:527:LEU:HD13	3:P:532:GLU:CG	2.20	0.64
5:R:426:LYS:HG2	6:7:39:DA:H3'	1.78	0.64
3:P:264:ASP:OD1	5:R:508:GLU:HB2	1.97	0.64
1:A:79:LEU:HA	1:A:82:LEU:HD12	1.79	0.64
2:C:818:VAL:HG12	2:C:1096:ILE:HG12	1.80	0.64
3:D:30:ILE:HG23	3:D:243:PRO:HB3	1.80	0.64
5:F:586:ARG:HG3	5:F:587:ILE:HD13	1.80	0.64
2:I:736:VAL:HG23	2:I:747:GLY:O	1.98	0.64
2:I:75:LEU:HD21	2:I:127:ILE:CD1	2.28	0.64
2:I:898:GLU:O	2:I:901:LEU:HB3	1.98	0.64
3:J:185:ILE:HG22	3:J:189:LEU:CD1	2.24	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1333:LEU:HD21	3:J:327:LEU:HB3	1.79	0.64
5:L:554:ARG:HG3	5:L:555:GLU:N	2.12	0.64
2:O:12:ARG:HH11	2:O:12:ARG:HG3	1.62	0.64
2:O:894:GLN:O	2:O:894:GLN:HG3	1.97	0.64
3:P:1349:GLU:O	3:P:1353:VAL:HG13	1.97	0.64
3:P:963:VAL:HG23	3:P:975:ILE:HG23	1.78	0.64
2:O:564:PRO:HG3	8:9:13:GTP:O2A	1.97	0.64
3:D:955:LYS:HG3	3:D:1011:VAL:O	1.98	0.64
3:D:797:THR:HG21	3:D:924:GLY:HA3	1.79	0.64
2:I:1048:LYS:C	2:I:1049:ILE:CG1	2.66	0.64
2:I:559:CYS:HB2	2:I:662:SER:HB3	1.78	0.64
3:J:105:ILE:HG13	3:J:244:VAL:HG21	1.80	0.64
3:J:233:LYS:HG2	3:J:234:PRO:HD2	1.79	0.64
3:J:796:LEU:HG	3:J:797:THR:N	2.08	0.64
1:M:44:ARG:HA	1:M:183:ILE:HD11	1.80	0.64
3:P:1040:MET:HE3	3:P:1061:VAL:HG22	1.80	0.64
3:P:421:VAL:HG12	3:P:469:HIS:O	1.97	0.64
5:R:166:VAL:HG12	5:R:167:ASP:H	1.63	0.64
5:R:355:ILE:H	5:R:355:ILE:HD12	1.63	0.64
5:L:102:MET:CE	6:4:42:DG:N3	2.54	0.64
1:B:75:GLN:HE21	1:B:134:THR:HG22	1.61	0.64
2:C:1073:LYS:HZ2	8:3:15:G:C5'	2.11	0.64
2:C:155:VAL:HG22	2:C:405:PHE:CD2	2.33	0.64
2:C:262:TYR:CZ	2:C:277:LEU:HD13	2.32	0.64
2:C:297:VAL:HG13	2:C:317:LEU:HD21	1.79	0.64
3:D:474:LEU:CD1	4:E:28:ARG:CG	2.76	0.64
2:I:1200:LYS:HG3	2:I:1206:THR:CG2	2.27	0.64
3:J:330:MET:SD	3:J:337:ARG:NH2	2.71	0.64
3:J:506:VAL:HG12	3:J:510:LEU:HD11	1.79	0.64
1:M:35:PHE:O	1:M:39:LEU:CD1	2.45	0.64
1:N:199:ASP:OD1	1:N:199:ASP:N	2.30	0.64
2:O:378:ARG:HG2	2:O:379:GLU:N	2.11	0.64
2:O:144:VAL:HG21	2:O:515:MET:SD	2.37	0.64
2:O:734:ILE:HG23	2:O:749:ASP:HB2	1.78	0.64
3:P:259:ARG:NH1	5:R:502:LYS:HG2	2.13	0.64
3:D:1011:VAL:HG11	3:D:1017:VAL:HG11	1.78	0.64
3:D:1078:LEU:HG	3:D:1101:LEU:HD11	1.78	0.64
3:D:1353:VAL:HG23	3:D:1355:ARG:HB2	1.78	0.64
3:D:536:LEU:HD22	3:D:542:ALA:CB	2.28	0.64
5:F:468:ARG:HH22	7:2:25:DA:H2'	1.63	0.64
2:I:157:PHE:O	2:I:442:VAL:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:334:LYS:O	3:J:339:ARG:HB2	1.98	0.64
3:J:339:ARG:CZ	3:J:798:ARG:HH12	2.11	0.64
3:J:513:MET:SD	3:J:579:LEU:HD21	2.37	0.64
3:J:878:ASP:OD1	3:J:878:ASP:N	2.29	0.64
5:L:407:GLU:HA	5:L:410:ILE:CD1	2.28	0.64
1:M:106:GLY:HA2	1:M:136:GLU:HA	1.79	0.64
3:P:53:ARG:O	3:P:58:CYS:CB	2.46	0.64
5:R:440:THR:O	5:R:443:ILE:HG22	1.98	0.64
1:B:14:VAL:HG21	1:B:29:GLU:HG2	1.79	0.64
1:B:82:LEU:CD2	1:B:173:VAL:HG22	2.28	0.64
2:C:363:LEU:HB3	2:C:381:ALA:HB1	1.80	0.64
2:C:87:ILE:HG22	2:C:934:PHE:HZ	1.62	0.64
3:D:1035:VAL:HG22	3:D:1121:LEU:HD21	1.80	0.64
3:D:251:PRO:O	5:F:507:MET:HE3	1.98	0.64
3:D:316:ILE:CG2	3:D:324:LEU:HD12	2.27	0.64
2:I:589:THR:CG2	2:I:590:PRO:HD2	2.28	0.64
3:J:435:GLN:HB3	3:J:437:PHE:CE1	2.33	0.64
5:R:583:THR:CG2	5:R:586:ARG:CB	2.57	0.64
1:B:166:ARG:HG2	1:B:167:PRO:HD2	1.80	0.64
2:C:1299:ASN:OD1	2:C:1299:ASN:N	2.29	0.64
2:C:1340:GLU:HB2	3:D:19:ALA:O	1.98	0.64
2:C:82:VAL:CG2	2:C:83:GLN:N	2.60	0.64
3:D:117:LEU:CA	3:D:124:ILE:HD11	2.28	0.64
3:D:377:PHE:C	3:D:379:PRO:HD2	2.17	0.64
2:I:486:THR:HG23	2:I:487:LEU:HG	1.80	0.64
3:J:864:LEU:CD1	3:J:872:LEU:HD11	2.28	0.64
3:J:97:VAL:CG1	3:J:101:ARG:HD2	2.28	0.64
1:M:41:ASN:ND2	2:O:1217:THR:C	2.52	0.64
2:O:1198:LEU:O	2:O:1198:LEU:HD12	1.97	0.64
2:O:182:SER:O	2:O:395:TYR:HE1	1.81	0.64
2:O:194:LEU:CD1	2:O:432:LEU:HD21	2.28	0.64
2:O:885:GLY:HA2	2:O:917:SER:OG	1.98	0.64
2:O:673:HIS:ND1	3:P:763:PHE:O	2.31	0.64
4:Q:2:ALA:N	4:Q:51:LEU:HD13	2.12	0.64
5:R:452:ILE:CG2	5:R:456:MET:HG2	2.27	0.64
5:R:530:LEU:HB2	5:R:533:ASP:OD1	1.97	0.64
1:A:168:ILE:N	1:A:168:ILE:HD13	2.13	0.63
1:A:224:LEU:CD1	1:A:224:LEU:C	2.63	0.63
1:B:85:LEU:HD21	1:B:130:ILE:HG23	1.80	0.63
3:D:843:VAL:HG21	3:D:897:HIS:O	1.98	0.63
3:D:431:ARG:HH22	3:D:904:ALA:CB	2.09	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:458:GLU:OE2	7:2:28:DG:H8	1.80	0.63
2:I:1044:PRO:HB3	5:L:498:LEU:HD13	1.80	0.63
3:J:867:GLN:O	3:J:870:ASP:HB2	1.98	0.63
2:O:331:LYS:C	2:O:332:ARG:HG3	2.18	0.63
2:O:1280:ALA:HB1	3:P:431:ARG:HD2	1.81	0.63
3:P:795:TYR:CE1	7:8:12:DG:H5'	2.32	0.63
5:R:451:ARG:HH12	6:7:32:DA:P	2.21	0.63
3:D:1179:PRO:HD2	3:D:1182:GLY:O	1.97	0.63
3:D:121:PRO:O	3:D:122:SER:HB3	1.96	0.63
3:D:1243:LEU:HD22	3:D:1244:GLN:NE2	2.13	0.63
3:D:44:ILE:HD12	3:D:49:PHE:O	1.99	0.63
2:C:1104:PRO:HG3	3:D:725:MET:HE1	1.80	0.63
3:D:70:CYS:HB2	3:D:90:VAL:CB	2.27	0.63
5:F:338:HIS:O	5:F:341:LEU:HB3	1.98	0.63
5:F:412:LEU:O	5:F:416:VAL:HG23	1.97	0.63
1:G:11:PRO:HA	1:G:30:PRO:HD2	1.79	0.63
2:I:237:LEU:HD11	2:I:289:VAL:CG2	2.25	0.63
2:I:297:VAL:HG12	2:I:317:LEU:CD2	2.28	0.63
3:J:182:ALA:CA	3:J:185:ILE:HD12	2.23	0.63
3:J:882:VAL:CG2	3:J:882:VAL:O	2.45	0.63
2:O:1142:ARG:HH12	2:O:1169:VAL:HG21	1.63	0.63
3:P:1109:LEU:HD22	3:P:1113:VAL:HG21	1.79	0.63
3:P:1176:VAL:HG22	3:P:1187:GLU:HG2	1.79	0.63
3:P:146:VAL:CG2	3:P:158:GLN:HB3	2.28	0.63
2:C:669:PRO:HB3	2:C:1184:THR:CG2	2.28	0.63
1:H:83:LEU:HD11	3:J:526:VAL:O	1.98	0.63
2:I:167:SER:HB3	3:J:1064:SER:CB	2.24	0.63
2:I:178:PRO:CA	2:I:397:LEU:HD23	2.28	0.63
2:I:297:VAL:O	2:I:336:LEU:HD11	1.98	0.63
2:I:70:TYR:CE1	2:I:72:SER:HA	2.32	0.63
3:J:1022:PRO:HB2	3:J:1023:HIS:CD2	2.33	0.63
3:J:265:LEU:HA	3:J:268:LEU:HD12	1.80	0.63
2:O:1129:ASN:OD1	2:O:1133:LYS:CE	2.42	0.63
2:O:369:MET:HG3	2:O:370:MET:N	2.11	0.63
3:P:121:PRO:O	3:P:122:SER:HB3	1.97	0.63
3:P:1369:ARG:HG2	3:P:1372:ARG:NH1	2.14	0.63
2:C:1073:LYS:NZ	8:3:15:G:P	2.71	0.63
3:D:1051:ASP:HB2	3:D:1056:LEU:O	1.98	0.63
3:D:503:SER:O	3:D:506:VAL:CG2	2.44	0.63
3:D:645:VAL:CG2	3:D:700:ASN:HD22	2.12	0.63
3:D:742:GLY:O	3:D:762:ASN:HB3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:849:LEU:O	3:D:850:LYS:HB2	1.97	0.63
2:I:1210:ILE:HG22	2:I:1211:ARG:N	2.12	0.63
2:I:215:TYR:OH	2:I:422:LYS:NZ	2.31	0.63
3:J:1263:LYS:HB2	3:J:1307:LEU:CD1	2.29	0.63
3:J:694:SER:OG	3:J:738:ARG:NE	2.32	0.63
3:J:614:LEU:HD23	4:K:7:GLN:OE1	1.98	0.63
5:L:451:ARG:HD2	5:L:453:PRO:HD3	1.80	0.63
1:M:67:GLU:HA	1:M:78:ILE:HG21	1.80	0.63
2:O:77:GLU:HB3	2:O:78:PRO:HD2	1.80	0.63
2:O:371:ARG:HB3	5:R:99:ARG:CZ	2.29	0.63
3:D:116:PHE:O	3:D:124:ILE:HG13	1.99	0.63
3:D:1274:PHE:HA	3:D:1278:GLU:HG3	1.79	0.63
3:D:1285:VAL:HG13	3:D:1286:LYS:N	2.12	0.63
3:D:264:ASP:OD2	5:F:508:GLU:HB2	1.98	0.63
5:F:585:GLU:CD	5:F:588:ARG:HB3	2.19	0.63
1:G:57:THR:HG22	1:G:58:GLU:HG3	1.81	0.63
1:H:82:LEU:HD13	1:H:173:VAL:HG13	1.80	0.63
1:H:82:LEU:CD2	1:H:173:VAL:HG21	2.21	0.63
2:I:32:LEU:HA	2:I:130:MET:HE1	1.81	0.63
2:I:130:MET:HB2	2:I:136:PHE:CE1	2.33	0.63
3:J:786:THR:HG23	3:J:787:ALA:N	2.13	0.63
5:L:584:ARG:O	5:L:587:ILE:CG1	2.39	0.63
2:O:1237:HIS:CG	2:O:1242:LYS:NZ	2.66	0.63
2:O:804:PHE:O	2:O:805:MET:CB	2.47	0.63
2:O:167:SER:HB3	3:P:1064:SER:HB2	1.81	0.63
3:P:1078:LEU:HB2	3:P:1121:LEU:HD13	1.80	0.63
3:P:847:ASP:OD1	3:P:860:ARG:HB3	1.98	0.63
1:A:86:LYS:HE3	1:A:173:VAL:HG12	1.80	0.63
1:B:61:ILE:CD1	1:B:64:VAL:CG1	2.76	0.63
3:D:197:GLU:O	3:D:201:LEU:HG	1.98	0.63
3:D:613:GLY:O	3:D:617:THR:HG23	1.99	0.63
3:D:844:THR:HG21	3:D:864:LEU:HD21	1.80	0.63
5:F:402:LEU:HA	5:F:405:ILE:CD1	2.24	0.63
1:G:31:LEU:CD1	1:G:201:LEU:HB2	2.28	0.63
2:I:967:LEU:HD23	2:I:1021:LEU:HD11	1.79	0.63
2:I:191:LYS:O	2:I:192:ASP:HB2	1.98	0.63
2:I:851:THR:CG2	2:I:852:ALA:H	2.11	0.63
3:J:1264:ALA:HB1	3:J:1303:SER:O	1.98	0.63
3:J:918:ILE:HG22	3:J:919:ALA:N	2.14	0.63
2:O:178:PRO:HB3	2:O:395:TYR:CE2	2.33	0.63
2:O:230:PHE:HE1	2:O:292:ILE:HD11	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:363:LEU:HD22	2:O:385:PHE:HB2	1.79	0.63
2:O:573:ASN:OD1	3:P:780:ARG:NH2	2.30	0.63
2:O:782:VAL:HG21	2:O:792:GLY:HA2	1.80	0.63
3:P:1029:THR:HG21	3:P:1080:ILE:HD11	1.81	0.63
3:P:337:ARG:HD2	3:P:341:ASN:ND2	2.12	0.63
5:R:550:GLY:HA3	5:R:603:ARG:NH2	2.14	0.63
7:5:45:DG:N2	7:5:46:DT:O2	2.31	0.63
5:F:339:ARG:O	5:F:342:GLN:HB2	1.98	0.63
5:F:377:LYS:O	5:F:381:GLU:HG3	1.97	0.63
2:I:1166:ASP:O	2:I:1169:VAL:HB	1.97	0.63
2:I:489:PRO:O	2:I:493:ILE:HD12	1.98	0.63
2:I:870:ILE:HG21	2:I:944:ARG:CD	2.28	0.63
5:L:452:ILE:CG2	5:L:456:MET:HB3	2.29	0.63
2:O:1307:ASN:HB3	2:O:1312:ASN:HB3	1.80	0.63
3:P:1319:PHE:HD2	3:P:1340:LYS:CD	2.11	0.63
2:O:1077:SER:HB3	3:P:357:VAL:HG23	1.80	0.63
3:P:501:VAL:CG1	3:P:502:PRO:HD2	2.29	0.63
3:P:572:THR:OG1	3:P:573:THR:N	2.31	0.63
2:O:1100:PRO:HG2	3:P:637:ALA:O	1.98	0.63
6:7:45:DT:H2'	6:7:46:DG:O4'	1.99	0.63
6:7:53:DG:H1'	6:7:54:DA:H5''	1.81	0.63
1:B:217:ILE:HD13	1:B:217:ILE:H	1.61	0.63
3:D:373:ALA:HA	3:D:376:LEU:HD12	1.80	0.63
5:F:91:ILE:HG23	5:F:94:THR:H	1.62	0.63
1:G:59:VAL:HG22	1:G:144:ILE:CG2	2.17	0.63
2:I:519:ASN:OD1	2:I:522:SER:HB2	1.98	0.63
2:I:726:TYR:HB3	2:I:733:VAL:HG22	1.79	0.63
3:J:770:LEU:O	3:J:774:ILE:CG1	2.39	0.63
5:L:476:ARG:HG3	5:L:477:GLU:H	1.61	0.63
3:J:79:LYS:HD2	5:L:569:THR:CG2	2.27	0.63
1:M:224:LEU:CD1	1:M:224:LEU:C	2.42	0.63
1:M:40:GLY:CA	1:M:43:LEU:CD1	2.77	0.63
2:O:149:LEU:HD12	2:O:452:ARG:O	1.98	0.63
3:D:1328:THR:HG22	3:D:1332:LEU:CD1	2.28	0.63
2:C:1309:VAL:HG13	3:D:383:GLY:CA	2.29	0.63
3:D:68:TYR:HA	3:D:92:VAL:HG13	1.80	0.63
5:F:456:MET:O	5:F:460:ILE:HG13	1.97	0.63
2:I:1210:ILE:CG2	2:I:1211:ARG:N	2.62	0.63
2:I:1276:TRP:HE1	3:J:1348:LYS:CE	2.12	0.63
2:I:296:VAL:HG12	2:I:297:VAL:H	1.64	0.63
3:J:431:ARG:NH2	3:J:904:ALA:CB	2.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:228:LEU:CD2	1:N:221:ALA:HB1	2.28	0.63
3:P:1326:GLN:NE2	7:8:11:DA:H4'	2.14	0.63
5:R:137:TYR:CG	5:R:138:PRO:HD2	2.34	0.63
5:R:460:ILE:O	5:R:463:LEU:HB2	1.99	0.63
5:F:585:GLU:HG3	7:2:46:DT:C7	2.24	0.62
5:R:573:LEU:HB3	7:8:45:DG:OP2	1.99	0.62
1:A:224:LEU:C	1:A:224:LEU:HD12	2.15	0.62
1:A:35:PHE:HE2	1:B:50:SER:HG	1.46	0.62
2:C:1225:VAL:CG1	2:C:1226:THR:N	2.62	0.62
2:C:184:LEU:HB3	2:C:186:PHE:HE2	1.64	0.62
3:D:1218:HIS:CD2	3:D:1306:LEU:HD23	2.34	0.62
3:D:111:THR:HG23	3:D:300:GLN:NE2	2.13	0.62
3:D:858:VAL:HG11	3:D:872:LEU:CD1	2.29	0.62
3:D:915:ILE:O	3:D:918:ILE:CG2	2.46	0.62
3:J:111:THR:HG23	3:J:112:ALA:N	2.13	0.62
3:J:121:PRO:O	3:J:122:SER:HB3	1.98	0.62
3:J:140:TYR:O	3:J:141:PHE:HB2	1.98	0.62
3:J:373:ALA:CA	3:J:376:LEU:HD12	2.17	0.62
5:L:102:MET:HE1	5:L:105:MET:HE1	1.80	0.62
2:O:1068:GLY:HA3	2:O:1232:MET:HE1	1.81	0.62
2:O:368:ARG:HD3	5:R:90:GLU:HG2	1.79	0.62
2:O:191:LYS:HA	3:P:1069:ALA:HB2	1.80	0.62
3:P:341:ASN:O	3:P:345:LYS:HE2	1.99	0.62
2:C:213:LEU:O	2:C:214:ASN:HB3	1.99	0.62
2:C:514:PHE:CZ	7:2:19:DA:H1'	2.34	0.62
3:J:116:PHE:CE1	3:J:1333:THR:HG22	2.34	0.62
3:J:805:GLN:CA	3:J:1347:LEU:HD12	2.29	0.62
3:J:849:LEU:HD21	3:J:857:LEU:CA	2.15	0.62
4:K:79:GLU:HG2	4:K:79:GLU:O	1.99	0.62
1:N:47:LEU:HD13	1:N:183:ILE:HG21	1.81	0.62
2:O:1225:VAL:CG1	2:O:1226:THR:N	2.61	0.62
2:O:870:ILE:HG21	2:O:944:ARG:NE	2.12	0.62
3:P:1101:LEU:HD22	3:P:1122:ALA:CB	2.27	0.62
3:P:501:VAL:HG12	3:P:502:PRO:HD2	1.81	0.62
5:R:568:ASN:OD1	5:R:568:ASN:N	2.32	0.62
6:4:40:DA:H2''	6:4:41:DT:H5'	1.81	0.62
5:L:386:LEU:CD1	6:4:41:DT:O4'	2.43	0.62
2:C:1284:ALA:HB3	3:D:1361:THR:CG2	2.29	0.62
2:C:75:LEU:CD2	2:C:94:ALA:CB	2.73	0.62
3:D:416:ILE:CD1	3:D:441:LEU:HG	2.29	0.62
3:D:709:ARG:O	3:D:709:ARG:HG3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:133:SER:HB3	5:F:365:MET:SD	2.40	0.62
1:G:30:PRO:HB2	1:G:198:LEU:HD13	1.79	0.62
2:I:390:PHE:HD2	2:I:390:PHE:N	1.98	0.62
3:J:1270:GLY:HA2	3:J:1298:VAL:O	1.98	0.62
3:J:115:TRP:CE2	3:J:1329:THR:HG22	2.32	0.62
3:J:130:MET:CE	3:J:135:ILE:HG12	2.29	0.62
5:L:102:MET:HE2	6:4:42:DG:C2	2.33	0.62
5:L:265:GLN:O	5:L:269:LEU:HG	2.00	0.62
1:M:38:THR:HG23	1:N:42:ALA:CB	2.29	0.62
2:O:363:LEU:CD2	2:O:385:PHE:HB2	2.29	0.62
2:O:372:PRO:O	5:R:94:THR:OG1	2.09	0.62
3:P:499:ILE:HG22	3:P:500:ILE:CG1	2.29	0.62
3:P:918:ILE:HG22	3:P:919:ALA:N	2.14	0.62
3:P:42:GLU:HG2	5:R:451:ARG:HB3	1.80	0.62
6:1:45:DT:H2''	6:1:46:DG:O4'	1.98	0.62
3:D:1250:ASP:O	3:D:1254:GLU:HG3	1.99	0.62
2:C:1289:GLU:OE1	3:D:472:LEU:HB2	1.98	0.62
3:D:490:ILE:HG23	3:D:500:ILE:HG13	1.82	0.62
3:D:845:ALA:CB	3:D:881:LYS:HD3	2.30	0.62
4:E:53:GLU:CB	4:E:59:ILE:HG13	2.28	0.62
4:E:60:ASN:OD1	4:E:62:GLN:N	2.28	0.62
1:H:86:LYS:HE2	1:H:174:ASP:HB2	1.80	0.62
2:I:1225:VAL:HG13	3:J:638:SER:HB3	1.82	0.62
2:I:557:ARG:O	2:I:575:LEU:HD12	1.99	0.62
3:J:1029:THR:HG23	3:J:1121:LEU:CD1	2.28	0.62
3:J:1323:ALA:O	3:J:1328:THR:HG23	2.00	0.62
3:J:227:PHE:HE1	3:J:234:PRO:HD3	1.65	0.62
3:J:899:TYR:CD1	3:J:915:ILE:HD13	2.33	0.62
5:L:597:LYS:O	5:L:600:HIS:HB2	1.98	0.62
2:O:935:THR:HA	2:O:1048:LYS:HG2	1.80	0.62
2:O:1081:PRO:HB3	2:O:1083:GLU:OE1	1.98	0.62
2:O:1125:GLY:HA2	2:O:1128:ILE:HD12	1.82	0.62
2:O:1184:THR:O	2:O:1184:THR:CG2	2.47	0.62
3:P:1078:LEU:HD12	3:P:1121:LEU:HB3	1.80	0.62
2:C:282:VAL:HG11	2:C:285:ILE:HG13	1.81	0.62
3:D:796:LEU:CD1	3:D:800:LEU:HD11	2.29	0.62
3:D:814:CYS:SG	3:D:883:ARG:NH2	2.72	0.62
5:F:503:GLU:CB	5:F:504:PRO:HD2	2.29	0.62
2:I:300:ASP:N	2:I:300:ASP:OD1	2.31	0.62
2:I:82:VAL:O	2:I:86:GLN:HG3	2.00	0.62
3:J:945:ALA:CB	3:J:1023:HIS:CE1	2.83	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1343:GLU:O	3:J:1344:LEU:HB2	1.97	0.62
3:J:111:THR:CG2	3:J:300:GLN:HE22	2.05	0.62
3:J:322:ARG:NH2	5:L:506:SER:OG	2.32	0.62
2:O:448:LEU:CD2	2:O:448:LEU:C	2.68	0.62
3:P:147:ILE:HD12	3:P:177:ASP:HB3	1.81	0.62
3:P:384:LYS:HZ2	3:P:415:VAL:HG22	1.64	0.62
3:P:492:SER:O	3:P:495:ASN:O	2.18	0.62
1:B:31:LEU:HD11	1:B:39:LEU:HD12	1.80	0.62
5:F:452:ILE:HG22	5:F:457:ILE:HG12	1.81	0.62
1:H:28:LEU:HD12	1:H:201:LEU:HB2	1.82	0.62
2:I:138:ILE:N	2:I:138:ILE:HD13	2.11	0.62
2:I:169:LYS:HD3	3:J:1068:THR:HA	1.82	0.62
2:I:230:PHE:CE1	2:I:292:ILE:HG13	2.34	0.62
2:I:211:ARG:NH1	2:I:357:ASN:O	2.33	0.62
5:L:310:GLU:OE2	5:L:355:ILE:HG21	1.99	0.62
5:L:583:THR:HG22	5:L:587:ILE:CD1	2.28	0.62
1:N:99:ILE:HG12	1:N:145:LYS:CE	2.30	0.62
2:O:1294:LYS:HD3	3:P:347:VAL:HG13	1.82	0.62
2:O:184:LEU:CG	2:O:389:PHE:CZ	2.83	0.62
6:4:50:DT:H3'	6:4:51:DC:H5'	1.80	0.62
2:C:521:LEU:CD2	2:C:686:GLN:HB3	2.29	0.62
3:D:1226:VAL:O	3:D:1229:VAL:HG12	1.94	0.62
3:D:820:ILE:O	3:D:882:VAL:HG13	1.98	0.62
1:G:215:GLU:HG2	1:G:219:ARG:HH21	1.64	0.62
2:I:1180:MET:HG3	2:I:1181:PRO:HD2	1.82	0.62
2:I:1256:GLN:HE22	3:J:96:LYS:HZ1	1.48	0.62
2:I:390:PHE:HD2	2:I:390:PHE:H	1.45	0.62
2:I:505:PHE:O	2:I:509:SER:HB3	2.00	0.62
2:I:870:ILE:HG13	2:I:944:ARG:CB	2.30	0.62
2:I:967:LEU:CD2	2:I:1021:LEU:HD11	2.30	0.62
3:J:1210:ILE:HD12	3:J:1210:ILE:N	2.14	0.62
2:I:1337:ILE:CD1	3:J:22:ILE:HG12	2.20	0.62
2:I:550:VAL:HG22	3:J:780:ARG:CD	2.28	0.62
2:O:678:ARG:CZ	2:O:1106:ARG:HD2	2.30	0.62
2:O:245:ARG:HD3	2:O:337:PHE:CE1	2.34	0.62
3:P:398:LYS:HE2	5:R:532:LEU:HD21	1.81	0.62
3:P:849:LEU:HA	3:P:856:ILE:O	1.99	0.62
3:P:997:VAL:HG13	3:P:1001:ALA:CB	2.29	0.62
2:C:1087:TYR:HE1	2:C:1215:GLY:HA2	1.64	0.62
2:C:183:TRP:HZ3	6:1:47:DC:N4	1.98	0.62
2:C:12:ARG:NH2	2:C:698:PRO:O	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1082:ASP:OD1	3:D:1086:ASN:HB2	2.00	0.62
3:D:1159:ILE:HG22	3:D:1160:SER:N	2.15	0.62
3:D:1243:LEU:HD13	3:D:1244:GLN:HE21	1.64	0.62
2:I:104:ILE:CD1	2:I:484:LEU:O	2.47	0.62
2:I:136:PHE:CB	2:I:138:ILE:HD11	2.29	0.62
3:J:1342:ASP:OD1	3:J:1344:LEU:N	2.33	0.62
3:J:379:PRO:HA	3:J:382:TYR:HD2	1.65	0.62
2:I:1107:MET:CE	3:J:763:PHE:CE2	2.82	0.62
2:O:38:PHE:O	2:O:49:LEU:HD12	2.00	0.62
3:P:1052:GLU:HG2	3:P:1053:LEU:N	2.09	0.62
3:P:53:ARG:O	3:P:58:CYS:SG	2.58	0.62
7:5:23:DT:H3'	7:5:24:DT:H5''	1.81	0.62
7:5:25:DA:C1'	7:5:26:DT:H5''	2.19	0.62
6:7:21:DC:O2	7:8:42:DG:N2	2.30	0.62
1:A:235:ARG:HA	1:B:218:ARG:CZ	2.30	0.62
1:B:65:LEU:O	1:B:169:GLY:CA	2.46	0.62
2:C:255:ILE:CD1	2:C:285:ILE:CD1	2.77	0.62
3:D:808:VAL:HG12	3:D:809:VAL:N	2.13	0.62
2:I:804:PHE:O	2:I:805:MET:HB3	1.99	0.62
2:I:890:LYS:HZ2	2:I:893:THR:HG23	1.64	0.62
3:J:109:SER:HB2	3:J:296:LYS:CE	2.29	0.62
3:J:886:VAL:HG13	3:J:1261:LEU:HD12	1.82	0.62
3:J:127:LEU:HD11	3:J:227:PHE:HE2	1.65	0.62
3:J:1226:VAL:HG21	3:J:1304:ARG:CZ	2.29	0.62
3:J:782:GLY:O	3:J:935:PHE:HB3	2.00	0.62
3:J:88:CYS:SG	10:J:1501:ZN:ZN	1.88	0.62
5:L:490:PRO:O	5:L:494:ILE:HD13	2.00	0.62
1:N:54:CYS:SG	1:N:148:ARG:HA	2.40	0.62
1:M:45:ARG:HD3	1:N:38:THR:CB	2.30	0.62
2:O:1049:ILE:CG2	2:O:1050:VAL:N	2.63	0.62
2:O:448:LEU:CD2	2:O:448:LEU:O	2.42	0.62
2:O:807:TRP:CD1	2:O:817:LEU:HD11	2.35	0.62
3:P:844:THR:HA	3:P:883:ARG:H	1.63	0.62
5:R:407:GLU:OE2	5:R:442:SER:HB3	2.00	0.62
5:L:586:ARG:HD3	6:4:13:DC:H5	1.65	0.62
2:C:253:PHE:CG	2:C:288:PRO:HD2	2.34	0.62
3:D:514:THR:HG21	3:D:596:LEU:CG	2.24	0.62
3:D:619:ILE:HG22	3:D:620:PHE:CA	2.29	0.62
5:F:455:HIS:HD2	6:1:31:DT:H72	1.65	0.62
2:I:496:LYS:HB3	2:I:497:PRO:CD	2.27	0.62
2:I:708:VAL:HG11	2:I:794:LEU:HD22	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:423:LEU:C	3:J:466:MET:HE1	2.19	0.62
3:J:741:ALA:C	3:J:762:ASN:HD22	2.02	0.62
3:J:899:TYR:CG	3:J:915:ILE:HD13	2.35	0.62
3:J:97:VAL:HG12	3:J:101:ARG:HG3	1.80	0.62
5:L:216:LEU:O	5:L:220:LYS:HG3	1.98	0.62
5:L:594:ALA:O	5:L:598:LEU:HG	1.99	0.62
2:O:811:ASN:HD22	2:O:1099:ASN:N	1.97	0.62
2:O:205:PRO:HB2	2:O:207:THR:HG22	1.81	0.62
2:O:759:SER:CA	2:O:765:ILE:HD11	2.30	0.62
3:P:587:LEU:HD21	3:P:612:LEU:CD2	2.27	0.62
5:R:324:LYS:HB3	5:R:325:PRO:CD	2.29	0.62
3:P:251:PRO:HB2	5:R:507:MET:HE1	1.82	0.62
1:A:19:VAL:HG12	1:A:20:SER:N	2.13	0.61
2:C:13:LYS:CE	2:C:1149:TYR:O	2.48	0.61
2:C:390:PHE:CD2	2:C:390:PHE:N	2.68	0.61
2:C:551:HIS:CE1	2:C:553:THR:HG1	2.17	0.61
3:D:1230:THR:HA	3:D:1233:ILE:HD12	1.82	0.61
2:C:810:TYR:CZ	3:D:359:PRO:HG2	2.35	0.61
3:D:536:LEU:HD22	3:D:542:ALA:HB3	1.81	0.61
3:D:65:VAL:HG12	3:D:66:LYS:HG3	1.81	0.61
2:I:1098:LEU:HD23	2:I:1099:ASN:H	1.65	0.61
2:I:1326:LEU:HD21	3:J:342:LEU:HD13	1.82	0.61
3:J:509:GLY:O	3:J:513:MET:HG3	1.99	0.61
3:J:519:ASN:HD21	3:J:709:ARG:HA	1.64	0.61
3:J:520:ALA:HB3	3:J:546:ALA:HB2	1.80	0.61
5:L:383:ASN:ND2	6:4:41:DT:H3	1.96	0.61
5:L:91:ILE:O	5:L:91:ILE:CG2	2.46	0.61
1:M:224:LEU:HD23	1:N:228:LEU:CG	2.28	0.61
1:N:214:GLU:HA	1:N:217:ILE:HD12	1.82	0.61
2:O:1184:THR:OG1	2:O:1189:GLY:CA	2.48	0.61
2:O:374:GLU:HB2	5:R:99:ARG:HD2	1.82	0.61
6:1:42:DG:H3'	6:1:42:DG:P	2.40	0.61
2:C:1116:HIS:CD2	3:D:641:ILE:HG13	2.35	0.61
3:D:952:VAL:HG11	3:D:1011:VAL:HG21	1.82	0.61
3:D:712:GLN:O	3:D:713:GLU:HG2	2.00	0.61
2:I:1299:ASN:O	2:I:1302:THR:HG22	2.01	0.61
2:I:230:PHE:HE1	2:I:292:ILE:HG13	1.64	0.61
2:I:387:ASN:HA	2:I:391:SER:HB2	1.81	0.61
3:J:105:ILE:CD1	3:J:244:VAL:CG2	2.78	0.61
3:J:111:THR:CG2	3:J:300:GLN:NE2	2.60	0.61
2:O:371:ARG:HA	5:R:99:ARG:HH21	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1:45:DT:C2'	6:1:46:DG:O4'	2.49	0.61
5:R:465:ARG:HH12	7:8:27:DA:H5'	1.63	0.61
2:C:1040:ASP:O	2:C:1042:LEU:HG	1.99	0.61
3:D:79:LYS:NZ	5:F:569:THR:CG2	2.62	0.61
5:F:166:VAL:HG11	5:F:212:ILE:HG13	1.82	0.61
1:G:100:LEU:HD21	1:G:118:ASP:HB2	1.81	0.61
1:G:224:LEU:HD23	1:H:228:LEU:HD21	1.82	0.61
2:I:871:VAL:HG23	2:I:883:LEU:O	2.00	0.61
2:O:790:ASP:O	2:O:792:GLY:N	2.33	0.61
3:P:1250:ASP:N	3:P:1250:ASP:OD1	2.31	0.61
5:R:288:MET:SD	5:R:299:LYS:HE2	2.41	0.61
5:R:388:ILE:HG21	6:7:42:DG:H5'	1.82	0.61
3:D:625:MET:HG2	3:D:629:PHE:HE2	1.65	0.61
5:F:458:GLU:CA	5:F:461:ASN:HD21	2.05	0.61
2:I:333:ILE:HG22	2:I:334:GLU:N	2.13	0.61
2:I:358:ASP:OD2	2:I:360:LEU:HB2	1.99	0.61
2:I:402:ARG:HD2	2:I:416:GLY:HA3	1.82	0.61
3:J:22:ILE:CD1	3:J:1319:PHE:CE1	2.83	0.61
2:O:453:ILE:HG12	2:O:585:GLY:O	2.00	0.61
2:O:708:VAL:HB	2:O:794:LEU:HD13	1.81	0.61
3:P:128:LEU:HD11	3:P:189:LEU:HD21	1.82	0.61
3:P:805:GLN:HB2	3:P:1347:LEU:CD1	2.30	0.61
5:F:426:LYS:HG2	6:1:39:DA:H3'	1.82	0.61
2:C:1061:GLN:HB2	2:C:1062:PRO:CD	2.30	0.61
2:C:12:ARG:HG3	2:C:1181:PRO:O	2.01	0.61
3:D:1190:ILE:HD13	3:D:1196:LEU:HD22	1.82	0.61
3:D:886:VAL:HG22	3:D:1258:ARG:HB2	1.80	0.61
3:D:1344:LEU:HD22	3:D:1349:GLU:HB3	1.83	0.61
3:D:185:ILE:O	3:D:189:LEU:CD1	2.48	0.61
3:D:835:LEU:O	3:D:839:VAL:HB	1.99	0.61
3:D:858:VAL:CG1	3:D:872:LEU:HD11	2.31	0.61
5:F:457:ILE:O	5:F:461:ASN:CG	2.38	0.61
1:G:232:VAL:CG2	1:H:221:ALA:CB	2.78	0.61
1:G:67:GLU:HA	1:G:78:ILE:HG21	1.80	0.61
1:G:11:PRO:O	1:H:230:ALA:HB2	2.00	0.61
2:I:822:VAL:CG1	2:I:1060:ILE:HD13	2.30	0.61
3:J:342:LEU:HD22	3:J:1352:ILE:CG2	2.21	0.61
3:J:405:GLU:O	3:J:408:VAL:HB	1.99	0.61
3:J:517:CYS:SG	3:J:518:VAL:N	2.73	0.61
3:J:53:ARG:O	3:J:58:CYS:CB	2.48	0.61
3:J:431:ARG:NH2	3:J:904:ALA:HB3	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:503:GLU:HB3	5:L:504:PRO:HD2	1.82	0.61
1:N:55:ALA:O	1:N:146:VAL:HG13	2.01	0.61
2:O:1161:LEU:CD1	2:O:1164:PHE:HB2	2.31	0.61
2:O:1142:ARG:NH1	2:O:1169:VAL:CG2	2.64	0.61
2:O:297:VAL:HG22	2:O:315:MET:O	2.01	0.61
2:O:374:GLU:HG3	2:O:375:PRO:HD2	1.82	0.61
2:O:893:THR:HG22	2:O:895:LEU:HG	1.82	0.61
4:Q:39:VAL:HG12	4:Q:40:PRO:HD2	1.83	0.61
7:2:27:DA:H1'	7:2:28:DG:H5'	1.83	0.61
6:7:59:DG:O6	7:8:3:DG:O6	2.19	0.61
2:C:558:VAL:HG22	2:C:574:SER:O	2.00	0.61
3:D:24:LEU:HD11	3:D:232:ASN:HB3	1.82	0.61
3:D:58:CYS:SG	3:D:60:ARG:HB3	2.40	0.61
3:D:943:ARG:HG3	3:D:1132:LYS:HE3	1.83	0.61
2:I:206:ALA:O	2:I:209:ILE:CG2	2.35	0.61
5:L:216:LEU:O	5:L:220:LYS:HG2	2.01	0.61
5:L:533:ASP:O	5:L:536:THR:HB	2.01	0.61
5:L:586:ARG:HD3	6:4:13:DC:C5	2.36	0.61
5:L:597:LYS:O	5:L:600:HIS:CB	2.48	0.61
1:N:71:LYS:HD3	1:N:140:ILE:HD13	1.82	0.61
2:O:412:GLU:N	2:O:412:GLU:OE1	2.34	0.61
2:O:149:LEU:HD13	2:O:453:ILE:CD1	2.31	0.61
3:P:1047:THR:HB	3:P:1062:LEU:HD11	1.80	0.61
3:P:421:VAL:CG2	3:P:439:PRO:HG3	2.21	0.61
2:C:1088:ASP:OD1	2:C:1092:THR:O	2.18	0.61
2:C:505:PHE:O	2:C:509:SER:HB3	2.00	0.61
2:C:953:LEU:O	2:C:957:LYS:HG3	2.01	0.61
3:D:253:VAL:HB	3:D:254:PRO:CD	2.30	0.61
3:D:318:GLY:HA2	3:D:324:LEU:CD2	2.27	0.61
3:D:431:ARG:HH22	3:D:904:ALA:HB3	1.65	0.61
5:F:322:MET:O	5:F:323:ASN:HB2	1.99	0.61
5:F:558:VAL:HG11	5:F:590:ILE:HG21	1.83	0.61
1:H:223:ILE:O	1:H:227:GLN:HG2	2.00	0.61
2:I:839:VAL:O	2:I:886:LYS:HE2	2.01	0.61
3:J:111:THR:CG2	3:J:112:ALA:N	2.63	0.61
3:J:1263:LYS:HB2	3:J:1307:LEU:HD11	1.82	0.61
3:J:431:ARG:HH21	3:J:904:ALA:HB1	1.65	0.61
3:J:849:LEU:HD22	3:J:857:LEU:HA	1.79	0.61
1:M:53:GLY:HA2	1:M:210:THR:HG21	1.81	0.61
3:P:1190:ILE:HG21	3:P:1196:LEU:HD21	1.82	0.61
3:P:337:ARG:HD2	3:P:341:ASN:HD22	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:673:VAL:HG12	3:P:674:THR:O	2.00	0.61
5:R:530:LEU:HB2	5:R:533:ASP:CG	2.21	0.61
5:R:590:ILE:HA	5:R:593:LYS:HE3	1.82	0.61
2:C:1077:SER:HA	3:D:356:THR:HG22	1.83	0.61
2:C:346:TYR:CZ	2:C:436:ARG:HG3	2.36	0.61
2:C:449:GLY:O	2:C:586:PHE:CE1	2.53	0.61
2:C:851:THR:CG2	2:C:852:ALA:N	2.63	0.61
2:C:868:SER:HB2	2:C:944:ARG:HB2	1.82	0.61
3:D:1002:VAL:HB	3:D:1019:ASN:O	2.00	0.61
3:D:423:LEU:HD23	3:D:423:LEU:N	2.12	0.61
3:D:530:PRO:HD2	3:D:531:LYS:HE2	1.83	0.61
2:I:191:LYS:CA	3:J:1069:ALA:HB3	2.31	0.61
2:I:9:LYS:HG2	2:I:1171:ARG:HD2	1.82	0.61
3:J:130:MET:HG2	3:J:131:PRO:O	2.00	0.61
3:J:294:ASN:ND2	5:L:101:TYR:HD1	1.99	0.61
5:L:390:ILE:HD12	5:L:435:ILE:HD12	1.81	0.61
1:M:16:ILE:HG23	1:M:26:VAL:HG22	1.80	0.61
1:N:193:GLU:O	1:N:194:GLN:CB	2.47	0.61
1:N:190:ALA:HB2	1:N:199:ASP:C	2.21	0.61
2:O:1077:SER:HA	3:P:356:THR:HG23	1.82	0.61
5:R:547:VAL:HG21	5:R:607:LEU:HD11	1.83	0.61
6:1:46:DG:C5'	6:1:46:DG:H8	2.14	0.61
7:2:33:DC:H2''	7:2:34:DG:OP2	2.00	0.61
3:D:331:ILE:HG22	3:D:338:PHE:CE2	2.35	0.61
3:D:379:PRO:HG2	3:D:380:PHE:H	1.65	0.61
2:I:151:ARG:HD2	2:I:445:ILE:HG23	1.83	0.61
2:I:528:ARG:NH2	2:I:575:LEU:HD23	2.15	0.61
2:I:592:ARG:HG3	2:I:592:ARG:HH11	1.66	0.61
3:J:1052:GLU:HG2	3:J:1053:LEU:H	1.66	0.61
5:L:551:LEU:HD23	5:L:597:LYS:HD2	1.83	0.61
3:P:189:LEU:O	3:P:192:MET:HG2	2.00	0.61
1:A:29:GLU:CB	1:A:30:PRO:HA	2.31	0.61
2:C:402:ARG:CG	2:C:416:GLY:HA3	2.13	0.61
2:C:521:LEU:HD11	2:C:687:ARG:HG2	1.82	0.61
2:C:944:ARG:O	2:C:947:GLU:HG2	2.00	0.61
3:D:1040:MET:HE3	3:D:1046:ILE:HG21	1.82	0.61
3:D:1278:GLU:HA	3:D:1278:GLU:OE1	1.99	0.61
2:I:263:VAL:HG12	2:I:264:GLU:O	2.01	0.61
3:J:532:GLU:O	3:J:536:LEU:HG	2.01	0.61
5:L:123:ILE:HG22	5:L:127:ILE:HD11	1.82	0.61
5:L:302:PHE:HA	5:L:305:LEU:HD12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:194:LEU:HD11	2:O:432:LEU:HD21	1.83	0.61
3:P:419:HIS:O	3:P:439:PRO:HD2	2.00	0.61
1:A:29:GLU:HB2	1:A:30:PRO:HA	1.83	0.60
2:C:1085:MET:CE	2:C:1085:MET:HA	2.31	0.60
2:C:353:VAL:O	2:C:355:PRO:HD3	2.00	0.60
3:D:1163:VAL:HG22	3:D:1177:ILE:HG23	1.83	0.60
3:D:363:LEU:HD21	3:D:618:VAL:HG13	1.78	0.60
5:F:452:ILE:CG2	5:F:457:ILE:HD11	2.31	0.60
5:F:583:THR:HG21	5:F:586:ARG:CG	2.31	0.60
2:I:1161:LEU:O	2:I:1164:PHE:HD2	1.84	0.60
3:J:1175:LEU:HD22	3:J:1196:LEU:CD1	2.31	0.60
3:J:698:MET:O	3:J:702:GLN:HB2	2.00	0.60
5:L:406:GLN:OE1	5:L:406:GLN:HA	2.00	0.60
2:O:788:SER:OG	2:O:796:LEU:HA	2.00	0.60
5:R:83:VAL:O	5:R:87:VAL:HG23	2.00	0.60
1:A:155:ALA:HA	1:A:172:LEU:CD2	2.30	0.60
1:B:193:GLU:O	1:B:194:GLN:CB	2.49	0.60
3:D:1262:ARG:HB3	3:D:1307:LEU:HD11	1.81	0.60
3:D:697:MET:HE3	3:D:738:ARG:HG2	1.82	0.60
1:H:191:ARG:HG3	1:H:196:THR:HG22	1.83	0.60
1:H:22:THR:O	1:H:207:THR:HG22	2.01	0.60
1:H:51:MET:HE3	1:H:219:ARG:HD2	1.82	0.60
2:I:1272:GLU:HG2	3:J:343:LEU:HB3	1.83	0.60
2:I:743:PRO:HG3	2:I:974:ARG:HH22	1.65	0.60
2:I:988:LYS:NZ	2:I:992:LEU:CD1	2.63	0.60
3:J:185:ILE:C	3:J:189:LEU:HD12	2.21	0.60
3:J:421:VAL:HG12	3:J:469:HIS:O	2.00	0.60
5:L:410:ILE:HA	5:L:413:MET:HG2	1.83	0.60
5:L:548:LEU:CD2	5:L:551:LEU:CD1	2.76	0.60
2:O:14:ASP:HA	2:O:1183:ALA:HB3	1.83	0.60
2:O:505:PHE:O	2:O:509:SER:HB3	2.01	0.60
3:P:139:LEU:O	3:P:141:PHE:CD2	2.53	0.60
5:L:434:TRP:CE2	6:4:36:DT:C7	2.84	0.60
2:C:1314:GLN:HG3	4:E:28:ARG:NH2	2.16	0.60
3:D:372:MET:O	3:D:376:LEU:HG	2.01	0.60
4:E:41:GLU:HG2	4:E:43:ASN:H	1.67	0.60
2:I:1031:ALA:O	2:I:1033:ARG:N	2.34	0.60
2:I:1086:PRO:CB	2:I:1212:LEU:HD22	2.30	0.60
2:I:296:VAL:HG12	2:I:297:VAL:N	2.17	0.60
2:I:782:VAL:HG21	2:I:792:GLY:HA2	1.83	0.60
3:J:22:ILE:HD11	3:J:1319:PHE:HE1	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:16:ILE:CG1	1:M:26:VAL:HG13	2.23	0.60
2:O:411:ARG:NH2	2:O:427:ASP:OD2	2.34	0.60
2:O:551:HIS:H	2:O:554:HIS:CE1	2.19	0.60
2:O:559:CYS:HB3	2:O:662:SER:HB3	1.83	0.60
2:O:1223:ARG:HD3	3:P:636:GLY:O	2.00	0.60
3:P:749:LYS:HG2	3:P:755:ILE:CG1	2.32	0.60
6:1:50:DT:C6	6:1:50:DT:C3'	2.84	0.60
6:4:23:DA:N6	7:5:39:DG:O6	2.35	0.60
2:C:1255:THR:O	2:C:1256:GLN:HB2	2.00	0.60
2:C:528:ARG:HD2	2:C:663:VAL:HG21	1.83	0.60
2:C:920:VAL:HG13	2:C:921:PRO:HD2	1.84	0.60
3:D:53:ARG:O	3:D:58:CYS:CB	2.49	0.60
5:F:597:LYS:O	5:F:600:HIS:HB2	2.01	0.60
3:J:1302:TYR:CD2	3:J:1302:TYR:O	2.54	0.60
3:P:201:LEU:HD22	3:P:217:LEU:HD22	1.81	0.60
3:P:739:GLN:NE2	3:P:744:ARG:HG3	2.17	0.60
5:R:91:ILE:O	5:R:91:ILE:HG22	2.02	0.60
7:8:22:DA:C1'	7:8:23:DT:P	2.87	0.60
2:C:1073:LYS:HZ2	8:3:15:G:P	2.23	0.60
3:D:480:ALA:HA	3:D:484:MET:HB2	1.83	0.60
3:D:589:TYR:O	3:D:591:ILE:N	2.34	0.60
1:G:233:ASP:O	1:G:235:ARG:N	2.34	0.60
2:I:1275:VAL:CB	2:I:1279:GLU:OE2	2.49	0.60
2:I:150:HIS:HE1	2:I:454:ARG:HG3	1.66	0.60
2:I:425:ILE:O	2:I:429:MET:HG3	2.02	0.60
2:I:668:ILE:HG21	2:I:671:LEU:HD13	1.83	0.60
3:J:252:LEU:O	3:J:252:LEU:HG	2.00	0.60
3:J:68:TYR:OH	3:J:94:GLN:CG	2.50	0.60
1:M:48:LEU:HD23	1:M:180:VAL:CB	2.30	0.60
1:M:69:SER:O	1:M:78:ILE:CG1	2.45	0.60
2:O:1142:ARG:HH22	2:O:1169:VAL:CG2	2.05	0.60
2:O:1333:LEU:HD23	3:P:327:LEU:HD13	1.82	0.60
3:P:1046:ILE:HD12	3:P:1059:LEU:HD22	1.83	0.60
3:P:473:THR:CB	3:P:475:GLU:OE1	2.41	0.60
3:P:512:TYR:CD1	3:P:545:HIS:HE1	2.20	0.60
7:8:15:DT:H2'	7:8:16:DC:C6	2.37	0.60
1:A:42:ALA:CB	1:B:38:THR:CG2	2.80	0.60
2:C:1098:LEU:HD22	2:C:1099:ASN:N	2.16	0.60
2:C:402:ARG:NH2	2:C:417:SER:O	2.28	0.60
3:D:182:ALA:CA	3:D:185:ILE:CD1	2.76	0.60
2:I:488:MET:HB3	2:I:489:PRO:CD	2.28	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1100:PHE:HB2	3:J:1193:TRP:HB2	1.82	0.60
3:J:27:PRO:HB3	3:J:241:VAL:HG23	1.83	0.60
3:J:492:SER:O	3:J:495:ASN:O	2.20	0.60
3:J:587:LEU:HD21	3:J:612:LEU:HG	1.83	0.60
3:J:886:VAL:CG1	3:J:1261:LEU:HD12	2.31	0.60
3:J:891:ASP:OD1	3:J:891:ASP:N	2.32	0.60
1:M:102:LEU:HD22	1:M:130:ILE:HD13	1.80	0.60
2:O:13:LYS:HB2	2:O:1149:TYR:CD1	2.36	0.60
2:O:52:ALA:CB	2:O:464:PHE:CE2	2.84	0.60
3:P:1258:ARG:HH11	3:P:1258:ARG:HG2	1.67	0.60
3:P:421:VAL:CG2	3:P:439:PRO:HG2	2.31	0.60
3:P:679:TYR:CE2	3:P:683:ILE:HD12	2.36	0.60
5:R:449:THR:OG1	5:R:504:PRO:HG3	2.01	0.60
6:7:34:DG:N2	7:8:30:DA:C2	2.69	0.60
2:C:92:TYR:HB3	2:C:137:VAL:HB	1.84	0.60
3:D:1293:GLU:OE2	3:D:1299:GLY:HA3	2.01	0.60
3:D:79:LYS:HZ1	5:F:569:THR:HG22	1.66	0.60
3:J:930:LEU:HD11	3:J:1246:VAL:HG21	1.84	0.60
3:J:584:PRO:CD	3:J:620:PHE:CE1	2.84	0.60
3:J:902:ASP:HB2	3:J:909:ILE:HB	1.83	0.60
3:J:967:VAL:HG22	3:J:973:LEU:HD12	1.82	0.60
1:M:61:ILE:CG1	1:M:142:MET:HB2	2.31	0.60
2:O:1061:GLN:CB	2:O:1062:PRO:HD2	2.32	0.60
2:O:33:ASP:O	2:O:37:LYS:HG3	2.02	0.60
2:O:748:ILE:HG13	2:O:970:GLY:HA3	1.83	0.60
2:O:888:THR:CG2	2:O:889:PRO:HD2	2.32	0.60
2:O:90:VAL:CG1	2:O:91:THR:N	2.65	0.60
3:P:785:ASP:HB3	3:P:935:PHE:CE2	2.37	0.60
3:P:952:VAL:HG11	3:P:984:LEU:HD13	1.82	0.60
1:A:155:ALA:N	1:A:174:ASP:OD1	2.28	0.60
1:B:175:ALA:CB	1:B:177:TYR:CE2	2.84	0.60
2:C:34:SER:O	2:C:37:LYS:HB2	2.02	0.60
2:C:839:VAL:O	2:C:886:LYS:HE2	2.01	0.60
3:D:1120:THR:OG1	3:D:1123:ARG:NH2	2.34	0.60
3:D:1306:LEU:HD12	3:D:1307:LEU:H	1.66	0.60
2:C:1257:GLN:NE2	3:D:345:LYS:CB	2.64	0.60
1:G:112:ALA:O	1:G:115:ILE:HD12	2.01	0.60
2:O:1230:MET:SD	2:O:1232:MET:CE	2.90	0.60
2:O:194:LEU:HD11	2:O:432:LEU:CD2	2.32	0.60
2:O:685:MET:CE	2:O:1073:LYS:HB3	2.31	0.60
2:O:1107:MET:HG2	3:P:740:LEU:HD21	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:98:VAL:HG21	6:1:44:DG:N2	2.16	0.60
2:C:1085:MET:HE2	2:C:1085:MET:HA	1.83	0.60
2:C:1184:THR:O	2:C:1184:THR:CG2	2.50	0.60
3:D:1175:LEU:O	3:D:1188:GLU:N	2.30	0.60
3:D:137:ARG:NH1	3:D:142:GLU:OE2	2.34	0.60
3:D:502:PRO:CG	3:D:601:ILE:HD13	2.32	0.60
3:D:871:LEU:O	3:D:874:GLU:HB2	2.01	0.60
1:G:49:SER:HB2	1:H:33:ARG:HH22	1.67	0.60
2:I:1212:LEU:HB3	2:I:1221:PHE:CD2	2.36	0.60
3:J:1165:PHE:CD2	3:J:1175:LEU:HD13	2.37	0.60
3:J:53:ARG:O	3:J:58:CYS:SG	2.60	0.60
1:M:58:GLU:HG2	1:M:172:LEU:CD1	2.32	0.60
2:O:1056:VAL:HG11	2:O:1058:ARG:HG3	1.84	0.60
2:O:144:VAL:CG2	2:O:515:MET:SD	2.90	0.60
2:O:559:CYS:HB2	2:O:662:SER:HB3	1.84	0.60
2:O:73:TYR:HB3	2:O:98:VAL:HG22	1.83	0.60
1:A:35:PHE:HE2	1:B:50:SER:OG	1.84	0.60
2:C:46:GLN:O	2:C:46:GLN:HG3	2.02	0.60
3:D:999:TYR:HB3	3:D:1025:MET:HE2	1.84	0.60
3:D:130:MET:HG2	3:D:135:ILE:CD1	2.31	0.60
3:D:210:SER:HB3	3:D:213:LYS:HD2	1.84	0.60
3:D:836:ARG:HD3	3:D:873:GLU:OE2	2.02	0.60
1:G:97:GLU:HG3	1:G:147:GLN:HG2	1.84	0.60
2:I:1269:ARG:CG	3:J:345:LYS:O	2.50	0.60
2:I:9:LYS:HG2	2:I:1171:ARG:CD	2.32	0.60
3:J:42:GLU:CD	5:L:451:ARG:HG2	2.21	0.60
5:L:452:ILE:CG2	5:L:456:MET:CB	2.80	0.60
1:M:38:THR:HG21	1:N:46:ILE:HD11	1.83	0.60
2:O:340:ASP:OD2	3:P:1044:GLN:NE2	2.22	0.60
3:P:1173:ARG:HB2	3:P:1190:ILE:HB	1.84	0.60
3:P:925:GLU:N	3:P:926:PRO:HD3	2.17	0.60
1:A:61:ILE:HB	1:A:64:VAL:HB	1.83	0.59
2:C:523:GLU:O	2:C:527:LYS:HG3	2.01	0.59
3:D:1155:ILE:N	3:D:1211:SER:OG	2.28	0.59
3:D:886:VAL:HA	3:D:1258:ARG:HD2	1.82	0.59
3:D:343:LEU:CD2	3:D:1351:VAL:HG11	2.32	0.59
3:D:53:ARG:O	3:D:58:CYS:SG	2.60	0.59
5:F:126:GLY:O	5:F:130:VAL:HG23	2.02	0.59
1:G:24:ALA:HB3	1:G:213:PRO:CB	2.31	0.59
2:I:82:VAL:CG2	2:I:83:GLN:N	2.65	0.59
3:J:1251:LYS:O	3:J:1255:VAL:HG23	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1280:VAL:CG1	3:J:1281:GLU:H	2.14	0.59
3:J:421:VAL:CG1	3:J:422:LEU:H	2.11	0.59
3:J:608:CYS:SG	3:J:617:THR:CG2	2.77	0.59
1:M:39:LEU:N	1:M:39:LEU:CD2	2.59	0.59
1:M:58:GLU:HB2	1:M:145:LYS:HB3	1.82	0.59
2:O:823:VAL:CG1	2:O:1059:ARG:CZ	2.73	0.59
2:O:1068:GLY:CA	2:O:1232:MET:CE	2.80	0.59
3:P:220:ARG:HA	3:P:223:LEU:HD12	1.83	0.59
5:R:135:ALA:CB	5:R:256:PHE:HB3	2.23	0.59
5:R:453:PRO:O	5:R:456:MET:HB3	2.02	0.59
1:B:88:LEU:HD13	1:B:128:HIS:CG	2.36	0.59
1:B:79:LEU:O	1:B:83:LEU:HD23	2.02	0.59
1:B:88:LEU:HD21	1:B:128:HIS:CD2	2.37	0.59
2:C:1161:LEU:HD11	2:C:1164:PHE:HB2	1.83	0.59
2:C:1287:LEU:CG	2:C:1288:GLN:N	2.61	0.59
2:C:525:THR:CG2	2:C:526:HIS:N	2.65	0.59
2:C:521:LEU:HD21	2:C:686:GLN:CB	2.31	0.59
1:H:112:ALA:HB3	1:H:126:PRO:HA	1.83	0.59
3:J:209:ASN:ND2	3:J:214:ARG:HD3	2.08	0.59
5:L:153:ALA:O	5:L:155:GLU:N	2.35	0.59
2:O:1333:LEU:HD21	3:P:327:LEU:HB3	1.83	0.59
2:O:251:ALA:O	2:O:266:GLY:HA2	2.02	0.59
2:O:698:PRO:CA	2:O:1231:TYR:CE1	2.83	0.59
2:O:726:TYR:H	2:O:733:VAL:HG22	1.67	0.59
2:O:748:ILE:HD12	2:O:966:ILE:O	2.01	0.59
2:O:810:TYR:HB3	2:O:817:LEU:HG	1.83	0.59
3:P:30:ILE:HA	3:P:33:TRP:HE3	1.65	0.59
3:P:643:ASP:O	3:P:720:ASN:ND2	2.35	0.59
5:R:583:THR:HG22	5:R:586:ARG:HB3	1.80	0.59
5:F:386:LEU:HB2	6:1:41:DT:C2	2.37	0.59
1:A:44:ARG:HA	1:A:47:LEU:HD12	1.83	0.59
2:C:277:LEU:HD12	2:C:282:VAL:HG21	1.83	0.59
2:C:787:PRO:HG2	2:C:788:SER:H	1.67	0.59
3:D:37:GLU:C	3:D:37:GLU:OE1	2.40	0.59
3:D:510:LEU:CD2	3:D:579:LEU:HD13	2.32	0.59
3:D:673:VAL:HG13	3:D:678:ARG:HB2	1.83	0.59
1:G:82:LEU:HA	1:G:85:LEU:HD12	1.85	0.59
2:I:1119:MET:HE1	2:I:1208:GLY:HA2	1.83	0.59
3:J:320:ASN:CG	3:J:321:LYS:H	2.05	0.59
5:L:454:VAL:N	5:L:455:HIS:HD2	2.00	0.59
2:O:811:ASN:HB2	2:O:1099:ASN:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1237:HIS:ND1	2:O:1242:LYS:CE	2.64	0.59
2:O:1243:MET:HG3	3:P:372:MET:HE2	1.84	0.59
2:O:888:THR:HB	2:O:914:LYS:HD2	1.83	0.59
3:P:591:ILE:HD13	3:P:604:MET:HG2	1.84	0.59
3:P:251:PRO:HD2	5:R:507:MET:SD	2.43	0.59
6:1:50:DT:H5'	6:1:51:DC:C6	2.36	0.59
7:5:42:DG:H2''	7:5:43:DA:OP2	2.01	0.59
7:5:45:DG:H2''	7:5:46:DT:H5'	1.84	0.59
2:C:1109:ILE:CG1	3:D:740:LEU:HD22	2.31	0.59
2:C:1309:VAL:HG13	3:D:383:GLY:HA2	1.84	0.59
3:D:1270:GLY:HA2	3:D:1298:VAL:O	2.02	0.59
3:D:79:LYS:HE2	5:F:569:THR:HB	1.83	0.59
2:I:495:ALA:O	2:I:498:ILE:HB	2.03	0.59
2:I:838:CYS:O	2:I:1049:ILE:CG2	2.50	0.59
2:I:888:THR:O	2:I:913:VAL:HG13	2.02	0.59
3:J:1237:VAL:HG12	3:J:1241:TYR:HE2	1.68	0.59
3:J:289:ASP:HA	3:J:292:VAL:CG2	2.33	0.59
3:J:514:THR:HB	3:J:595:ALA:HA	1.84	0.59
3:J:518:VAL:O	3:J:520:ALA:N	2.36	0.59
3:J:843:VAL:HG12	3:J:883:ARG:CB	2.17	0.59
5:L:102:MET:CE	5:L:105:MET:CE	2.81	0.59
5:L:353:LEU:HB3	5:L:358:VAL:CG2	2.32	0.59
5:L:514:ASP:O	5:L:516:ASP:N	2.35	0.59
2:O:911:SER:O	2:O:913:VAL:N	2.35	0.59
3:P:614:LEU:O	3:P:618:VAL:HG23	2.03	0.59
2:C:498:ILE:O	2:C:502:VAL:HG23	2.01	0.59
3:D:318:GLY:CA	3:D:324:LEU:HD21	2.29	0.59
3:D:701:LEU:HD21	3:D:720:ASN:HD22	1.65	0.59
3:D:894:VAL:HG23	3:D:895:CYS:O	2.02	0.59
4:E:76:GLU:O	4:E:80:LEU:HG	2.02	0.59
5:F:387:VAL:HG12	5:F:388:ILE:N	2.15	0.59
1:G:140:ILE:HD11	1:G:142:MET:HE3	1.84	0.59
2:I:797:GLY:HA3	2:I:1233:LEU:CD2	2.31	0.59
3:J:113:HIS:CD2	3:J:115:TRP:HB2	2.38	0.59
3:J:1179:PRO:HB2	3:J:1182:GLY:O	2.02	0.59
3:J:425:ARG:HD2	3:J:457:TYR:HB3	1.84	0.59
3:J:553:THR:CG2	3:J:565:ALA:HB1	2.33	0.59
1:M:57:THR:O	1:M:172:LEU:HD12	2.02	0.59
1:N:79:LEU:HA	1:N:82:LEU:HD12	1.83	0.59
2:O:1104:PRO:HG3	3:P:725:MET:HE1	1.83	0.59
2:O:909:LYS:HE2	2:O:911:SER:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1339:LEU:HD13	3:P:17:PHE:CE1	2.36	0.59
5:F:461:ASN:HA	7:2:26:DT:C7	2.32	0.59
3:D:112:ALA:CA	3:D:238:ILE:CD1	2.48	0.59
3:D:1274:PHE:O	3:D:1275:LEU:HB2	2.02	0.59
3:D:366:CYS:SG	3:D:439:PRO:HA	2.43	0.59
3:D:697:MET:CE	3:D:738:ARG:HA	2.33	0.59
3:D:431:ARG:HH21	3:D:904:ALA:HB1	1.66	0.59
3:J:24:LEU:HD13	3:J:237:MET:HE3	1.84	0.59
3:J:749:LYS:HD2	3:J:753:SER:OG	2.03	0.59
5:L:84:LEU:CG	5:L:107:THR:CG2	2.80	0.59
1:M:100:LEU:HD13	1:M:115:ILE:HG21	1.83	0.59
2:O:802:VAL:CG1	2:O:803:ALA:N	2.65	0.59
3:P:272:VAL:HG21	3:P:306:LEU:HD23	1.83	0.59
3:P:452:LEU:HD23	3:P:452:LEU:N	2.16	0.59
3:P:474:LEU:HD13	4:Q:28:ARG:HG2	1.84	0.59
3:P:339:ARG:NH1	3:P:798:ARG:NH2	2.50	0.59
4:Q:39:VAL:CG1	4:Q:40:PRO:HD2	2.32	0.59
6:7:49:DG:H2'	6:7:50:DT:H1'	1.85	0.59
1:A:224:LEU:HG	1:A:225:ALA:N	2.05	0.59
1:B:190:ALA:HB2	1:B:200:LYS:CG	2.29	0.59
3:D:1167:LYS:O	3:D:1174:ARG:CD	2.49	0.59
3:D:1218:HIS:O	3:D:1221:LEU:HB3	2.02	0.59
3:D:599:LYS:HG3	3:D:600:ALA:H	1.67	0.59
2:I:672:GLU:HG3	2:I:1187:PHE:HA	1.85	0.59
2:I:92:TYR:HB2	2:I:137:VAL:HB	1.84	0.59
3:J:110:PRO:HB2	3:J:238:ILE:HG21	1.84	0.59
3:J:296:LYS:O	3:J:299:LEU:HB3	2.03	0.59
3:J:366:CYS:SG	3:J:439:PRO:HA	2.43	0.59
3:J:601:ILE:HG23	3:J:605:LEU:HD21	1.85	0.59
2:O:526:HIS:HA	2:O:529:ARG:HD3	1.84	0.59
2:O:559:CYS:HB2	2:O:662:SER:N	2.17	0.59
3:P:424:ASN:C	3:P:466:MET:HE2	2.23	0.59
3:P:423:LEU:HD12	3:P:437:PHE:CD1	2.37	0.59
7:2:4:DC:C4	7:2:5:DC:N4	2.70	0.59
3:D:234:PRO:O	3:D:237:MET:CG	2.50	0.59
2:I:15:PHE:CD2	2:I:1182:ILE:HG23	2.36	0.59
2:I:255:ILE:O	2:I:255:ILE:HG22	2.02	0.59
3:J:835:LEU:HD12	3:J:839:VAL:CG2	2.33	0.59
2:O:1212:LEU:HB3	2:O:1221:PHE:CD2	2.38	0.59
2:O:232:ILE:HG12	2:O:237:LEU:HD22	1.84	0.59
3:P:117:LEU:HD21	3:P:118:LYS:HE2	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:403:ARG:O	3:P:404:GLU:HB2	2.01	0.59
6:4:50:DT:C3'	6:4:50:DT:C6	2.85	0.59
1:A:192:VAL:HG21	1:A:198:LEU:HB2	1.84	0.59
1:A:41:ASN:ND2	2:C:1217:THR:C	2.56	0.59
3:D:826:ILE:HG22	3:D:826:ILE:O	2.02	0.59
5:F:345:GLN:O	5:F:348:GLU:HB2	2.03	0.59
2:I:1048:LYS:C	2:I:1049:ILE:HG13	2.22	0.59
2:I:936:ARG:HG2	2:I:937:ASP:H	1.67	0.59
3:J:1271:SER:OG	3:J:1297:LYS:HD2	2.02	0.59
3:J:483:LEU:HD23	4:K:16:ARG:HE	1.68	0.59
4:K:60:ASN:HB3	4:K:63:ILE:CD1	2.27	0.59
5:L:412:LEU:HD11	5:L:431:ALA:HB1	1.84	0.59
1:M:158:ARG:HB3	1:M:172:LEU:HD21	1.85	0.59
1:M:51:MET:CE	1:M:211:ILE:HG13	2.32	0.59
3:P:1226:VAL:O	3:P:1229:VAL:CG1	2.51	0.59
5:R:137:TYR:HE1	5:R:353:LEU:CD1	2.14	0.59
5:R:370:ALA:HB1	5:R:373:ARG:NH2	2.18	0.59
5:R:394:TYR:C	5:R:396:ASN:H	2.06	0.59
6:4:54:DA:H2''	6:4:55:DC:C6	2.37	0.59
7:5:4:DC:N3	7:5:5:DC:N4	2.51	0.59
2:O:564:PRO:CG	8:9:13:GTP:O2A	2.51	0.59
2:C:1087:TYR:CE2	2:C:1213:TYR:HB2	2.37	0.59
2:C:1284:ALA:HB2	3:D:1361:THR:HB	1.84	0.59
2:I:163:LYS:CG	2:I:164:THR:H	2.14	0.59
2:I:170:VAL:HG23	3:J:1066:GLU:HA	1.85	0.59
3:J:342:LEU:CD2	3:J:1352:ILE:HG23	2.22	0.59
1:M:56:VAL:HA	1:M:146:VAL:HG22	1.84	0.59
1:N:44:ARG:O	1:N:47:LEU:HB2	2.03	0.59
2:O:1278:LEU:HD22	2:O:1286:THR:OG1	2.01	0.59
3:P:1348:LYS:HA	3:P:1351:VAL:HG23	1.85	0.59
3:P:242:LEU:HD12	3:P:243:PRO:CD	2.15	0.59
7:8:24:DT:H2''	7:8:25:DA:OP1	2.02	0.58
2:C:227:LYS:O	2:C:245:ARG:NH2	2.36	0.58
2:C:622:ASN:HB3	2:C:630:VAL:HB	1.84	0.58
2:C:925:SER:OG	2:C:926:GLY:N	2.34	0.58
5:F:595:LEU:O	5:F:599:ARG:HG3	2.03	0.58
1:G:102:LEU:HD12	1:G:114:ASP:O	2.03	0.58
1:G:215:GLU:HG2	1:G:219:ARG:NH2	2.18	0.58
2:I:514:PHE:CE2	7:5:19:DA:O4'	2.56	0.58
3:J:899:TYR:CD1	3:J:915:ILE:HG21	2.38	0.58
5:L:477:GLU:OE2	5:L:478:PRO:HD2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:536:LEU:HB3	3:P:542:ALA:HB3	1.85	0.58
6:4:47:DC:C4	6:4:48:DA:N6	2.71	0.58
6:7:53:DG:H2''	6:7:54:DA:H5'	1.83	0.58
1:B:61:ILE:HD12	1:B:64:VAL:CG1	2.33	0.58
1:B:67:GLU:HG3	1:B:68:TYR:CE2	2.37	0.58
2:C:835:GLU:O	2:C:836:LEU:HD23	2.01	0.58
3:D:1318:SER:OG	3:D:1321:SER:CB	2.51	0.58
3:D:795:TYR:CZ	7:2:11:DA:H2''	2.37	0.58
3:D:923:ILE:HD11	3:D:1252:HIS:HB3	1.85	0.58
5:F:452:ILE:CG2	5:F:456:MET:HB3	2.32	0.58
5:F:457:ILE:CA	5:F:460:ILE:HD12	2.20	0.58
2:I:1088:ASP:N	2:I:1088:ASP:OD1	2.36	0.58
2:I:672:GLU:CG	2:I:1187:PHE:HA	2.33	0.58
2:I:870:ILE:HG21	2:I:944:ARG:NE	2.18	0.58
2:I:92:TYR:CB	2:I:137:VAL:HB	2.33	0.58
3:J:553:THR:HG21	3:J:565:ALA:HB1	1.84	0.58
2:O:859:GLU:HA	2:O:862:LEU:HD12	1.85	0.58
3:P:147:ILE:HG13	3:P:178:ALA:HA	1.85	0.58
6:1:26:DT:H2''	6:1:27:DC:OP2	2.04	0.58
1:B:76:GLU:HG3	1:B:80:GLU:CD	2.22	0.58
2:C:429:MET:O	2:C:432:LEU:HB3	2.03	0.58
2:C:448:LEU:CD1	2:C:553:THR:HB	2.33	0.58
2:C:794:LEU:HG	2:C:796:LEU:HG	1.85	0.58
2:I:452:ARG:NH2	2:I:458:GLU:OE2	2.37	0.58
3:J:931:THR:HG23	3:J:1134:ILE:CB	2.34	0.58
1:N:156:SER:C	1:N:159:ILE:HG22	2.24	0.58
2:O:374:GLU:N	5:R:99:ARG:NH1	2.52	0.58
3:P:1031:VAL:CG1	3:P:1091:PRO:HD3	2.32	0.58
3:P:997:VAL:CG1	3:P:1001:ALA:HB3	2.33	0.58
2:I:183:TRP:CZ3	6:4:47:DC:N4	2.71	0.58
2:C:1066:MET:CE	2:C:1234:LYS:HA	2.33	0.58
3:D:797:THR:HG23	3:D:924:GLY:CA	2.33	0.58
5:F:464:ASN:HB2	7:2:26:DT:C7	2.33	0.58
1:G:69:SER:O	1:G:78:ILE:CD1	2.51	0.58
2:I:832:HIS:CD2	2:I:1058:ARG:HD2	2.39	0.58
3:J:423:LEU:CA	3:J:466:MET:HE1	2.33	0.58
5:L:167:ASP:N	5:L:168:PRO:HD3	2.18	0.58
5:L:96:ASP:HB3	5:L:99:ARG:HG3	1.83	0.58
1:N:169:GLY:O	1:N:171:LEU:HG	2.02	0.58
1:N:208:ASN:O	1:N:210:THR:N	2.33	0.58
2:O:1161:LEU:O	2:O:1161:LEU:HD12	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:178:PRO:HD3	2:O:395:TYR:OH	2.03	0.58
2:O:406:ASN:HB3	2:O:411:ARG:HB2	1.85	0.58
2:O:575:LEU:HG	2:O:576:SER:O	2.02	0.58
3:P:1190:ILE:HD13	3:P:1196:LEU:CD2	2.33	0.58
2:C:434:ASP:O	2:C:439:LYS:HB2	2.03	0.58
2:C:934:PHE:O	2:C:1048:LYS:HG3	2.03	0.58
3:D:109:SER:HB2	3:D:296:LYS:CE	2.33	0.58
3:D:573:THR:HG23	3:D:576:ARG:HD2	1.85	0.58
3:D:615:LYS:N	3:D:616:PRO:CD	2.65	0.58
5:F:341:LEU:O	5:F:341:LEU:HD23	2.03	0.58
1:H:75:GLN:CD	1:H:132:HIS:HB3	2.23	0.58
5:L:276:MET:SD	5:L:279:ARG:HD3	2.43	0.58
5:L:386:LEU:HD13	6:4:41:DT:C1'	2.33	0.58
2:O:1113:LEU:HD21	3:P:641:ILE:HD11	1.84	0.58
2:O:161:LYS:HA	2:O:161:LYS:HE3	1.83	0.58
3:P:807:LEU:HD23	3:P:1255:VAL:CG1	2.34	0.58
4:Q:45:LYS:O	4:Q:49:ILE:HG13	2.03	0.58
3:J:458:ASN:ND2	8:6:16:U:O3'	2.36	0.58
2:C:1289:GLU:OE2	3:D:473:THR:N	2.37	0.58
2:C:1314:GLN:HG2	2:C:1315:MET:N	2.18	0.58
2:C:1323:PHE:HE1	2:C:1327:LEU:CD2	2.08	0.58
2:C:165:HIS:CE1	2:C:190:PRO:HB3	2.39	0.58
2:C:367:TYR:CZ	2:C:380:ALA:HB1	2.38	0.58
2:C:494:ASN:HD21	2:C:496:LYS:HB2	1.68	0.58
3:D:139:LEU:HA	3:D:181:GLY:HA2	1.85	0.58
2:I:201:ARG:HB2	2:I:369:MET:CE	2.21	0.58
2:I:60:GLN:HG2	2:I:67:GLU:OE1	2.03	0.58
2:I:1269:ARG:HA	3:J:346:ARG:HA	1.85	0.58
2:O:185:ASP:C	2:O:186:PHE:CD2	2.76	0.58
2:O:167:SER:CB	3:P:1064:SER:HB2	2.34	0.58
3:P:1318:SER:OG	3:P:1321:SER:HB3	2.03	0.58
6:4:51:DC:H3'	6:4:52:DT:P	2.43	0.58
7:5:45:DG:C2	7:5:46:DT:N3	2.72	0.58
1:A:35:PHE:HB3	1:A:39:LEU:HD11	1.85	0.58
2:C:1281:TYR:CE1	3:D:431:ARG:HG3	2.39	0.58
2:C:1292:THR:CG2	2:C:1293:VAL:N	2.64	0.58
2:C:346:TYR:OH	2:C:436:ARG:HG3	2.04	0.58
2:C:87:ILE:HG22	2:C:934:PHE:CZ	2.37	0.58
5:F:395:THR:HG22	5:F:404:LEU:CD1	2.34	0.58
2:I:1268:GLN:HA	7:5:16:DC:OP1	2.03	0.58
2:I:1270:PHE:HB2	3:J:347:VAL:CG2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:296:VAL:HG13	2:I:315:MET:O	2.04	0.58
3:J:483:LEU:HD11	4:K:17:PHE:CD1	2.37	0.58
5:L:288:MET:SD	5:L:299:LYS:NZ	2.68	0.58
2:O:188:PHE:CE2	2:O:432:LEU:CD1	2.86	0.58
2:O:228:VAL:HG23	2:O:335:THR:O	2.03	0.58
2:O:347:ILE:CD1	2:O:433:ILE:HD11	2.33	0.58
3:P:1229:VAL:HG13	3:P:1230:THR:N	2.17	0.58
6:1:56:DG:C2	7:2:8:DG:C2	2.92	0.58
1:A:184:ALA:HB2	2:C:1091:GLY:CA	2.30	0.58
2:C:369:MET:HG3	2:C:370:MET:N	2.18	0.58
2:C:870:ILE:HG13	2:C:944:ARG:CG	2.29	0.58
3:D:1286:LYS:O	3:D:1290:ARG:HG2	2.03	0.58
3:D:1318:SER:OG	3:D:1321:SER:HB3	2.04	0.58
1:H:60:GLU:HB2	1:H:170:ARG:HD2	1.85	0.58
2:I:1088:ASP:OD1	2:I:1092:THR:O	2.21	0.58
2:I:160:ASP:OD2	2:I:163:LYS:HD2	2.03	0.58
3:J:104:HIS:C	3:J:105:ILE:HG13	2.24	0.58
2:I:168:GLY:C	3:J:1065:ALA:HA	2.23	0.58
3:J:672:LEU:O	3:J:673:VAL:HG22	2.04	0.58
3:J:843:VAL:HG21	3:J:897:HIS:CB	2.34	0.58
2:O:1104:PRO:HG3	3:P:725:MET:HE3	1.83	0.58
2:O:1332:SER:O	3:P:243:PRO:HG2	2.04	0.58
2:O:331:LYS:O	2:O:332:ARG:CG	2.44	0.58
2:O:690:VAL:HG12	2:O:691:PRO:HD2	1.85	0.58
2:O:771:VAL:CG2	2:O:783:LEU:HD22	2.33	0.58
3:P:1005:LYS:HE3	3:P:1015:GLU:OE1	2.04	0.58
3:P:1051:ASP:HB2	3:P:1056:LEU:O	2.04	0.58
3:P:1274:PHE:O	3:P:1275:LEU:CB	2.52	0.58
3:P:1318:SER:OG	3:P:1321:SER:CB	2.51	0.58
3:P:272:VAL:HG21	3:P:306:LEU:CD2	2.34	0.58
3:P:341:ASN:OD1	3:P:341:ASN:N	2.36	0.58
3:P:839:VAL:O	3:P:839:VAL:HG12	2.03	0.58
5:R:166:VAL:HG11	5:R:212:ILE:HG13	1.86	0.58
6:7:58:DG:C2	7:8:6:DG:N2	2.72	0.58
1:B:47:LEU:HD13	1:B:183:ILE:HD12	1.84	0.58
2:C:237:LEU:CD1	2:C:292:ILE:HD12	2.34	0.58
2:C:255:ILE:HG12	2:C:285:ILE:CG2	2.33	0.58
2:C:389:PHE:HB2	2:C:390:PHE:CE2	2.38	0.58
2:C:452:ARG:O	2:C:453:ILE:HD13	2.04	0.58
2:C:807:TRP:CD1	2:C:817:LEU:CD1	2.86	0.58
3:D:378:LYS:HA	3:D:381:ILE:CD1	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:297:MET:SD	5:F:298:PRO:HD2	2.44	0.58
1:H:83:LEU:HD13	1:H:86:LYS:HD2	1.84	0.58
2:I:565:GLU:HG3	2:I:566:GLY:N	2.18	0.58
3:J:369:PRO:HB3	3:J:445:LYS:HA	1.86	0.58
1:H:83:LEU:HD11	3:J:526:VAL:HB	1.85	0.58
3:J:591:ILE:CG2	3:J:604:MET:HG2	2.34	0.58
5:L:491:GLU:OE2	5:L:495:ARG:NH2	2.36	0.58
1:M:231:PHE:CE1	1:N:28:LEU:HG	2.39	0.58
2:O:1231:TYR:O	2:O:1232:MET:CE	2.51	0.58
2:O:130:MET:SD	2:O:134:GLY:HA2	2.44	0.58
2:O:725:GLN:HB2	2:O:735:LYS:HG3	1.86	0.58
2:O:887:VAL:HB	2:O:913:VAL:HG13	1.86	0.58
3:P:555:TYR:CB	3:P:563:LEU:HD22	2.22	0.58
4:Q:13:ILE:HG13	4:Q:54:ILE:HG21	1.86	0.58
2:I:514:PHE:CZ	7:5:19:DA:O4'	2.57	0.58
3:D:1082:ASP:N	3:D:1086:ASN:O	2.37	0.58
3:D:146:VAL:CG1	3:D:155:GLU:O	2.52	0.58
3:D:703:THR:O	3:D:718:SER:HB3	2.04	0.58
1:G:102:LEU:CD1	1:G:114:ASP:O	2.52	0.58
2:I:1186:VAL:O	2:I:1187:PHE:HB2	2.03	0.58
2:I:1275:VAL:C	2:I:1279:GLU:OE2	2.42	0.58
2:I:145:ILE:HD11	2:I:506:PHE:CD1	2.38	0.58
3:J:289:ASP:HA	3:J:292:VAL:HG23	1.85	0.58
2:O:227:LYS:NZ	2:O:334:GLU:OE1	2.37	0.58
3:P:1319:PHE:CD2	3:P:1340:LYS:HD2	2.39	0.58
3:P:471:PRO:CB	3:P:476:ALA:HB1	2.33	0.58
5:R:407:GLU:OE2	5:R:442:SER:CB	2.52	0.58
2:O:371:ARG:CA	5:R:99:ARG:HH21	2.15	0.58
2:C:1335:ILE:CD1	2:C:1335:ILE:N	2.65	0.57
2:C:56:VAL:HG12	2:C:59:ILE:CD1	2.33	0.57
2:C:758:ARG:HB2	2:C:833:ILE:HB	1.86	0.57
3:D:203:GLU:O	3:D:206:ASN:HB3	2.03	0.57
3:D:502:PRO:CB	3:D:601:ILE:HD13	2.34	0.57
3:D:839:VAL:O	3:D:864:LEU:HD12	2.04	0.57
1:G:59:VAL:CG2	1:G:144:ILE:HG23	2.20	0.57
2:I:539:THR:HG22	2:I:540:ARG:N	2.19	0.57
2:I:933:VAL:HG13	2:I:1050:VAL:HG22	1.85	0.57
3:J:423:LEU:CB	3:J:466:MET:CE	2.78	0.57
3:J:497:GLU:HB3	3:J:498:PRO:HD2	1.85	0.57
4:K:13:ILE:CD1	4:K:19:LEU:HA	2.34	0.57
1:N:30:PRO:O	1:N:31:LEU:HG	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:167:SER:CA	3:P:1064:SER:HB2	2.33	0.57
2:O:804:PHE:CE1	2:O:1103:VAL:HG21	2.39	0.57
3:P:116:PHE:HB2	3:P:124:ILE:HD11	1.85	0.57
3:P:1145:PHE:O	3:P:1309:ILE:CG1	2.52	0.57
3:P:1369:ARG:HG2	3:P:1372:ARG:HH11	1.68	0.57
5:R:407:GLU:HG2	5:R:442:SER:OG	2.04	0.57
5:R:407:GLU:HG2	5:R:442:SER:HB3	1.86	0.57
6:4:21:DC:H2 <sup>7</sup>	6:4:22:DC:C5	2.38	0.57
1:B:88:LEU:HD13	1:B:128:HIS:ND1	2.19	0.57
1:B:76:GLU:HG3	1:B:80:GLU:OE2	2.04	0.57
2:C:525:THR:HG23	2:C:526:HIS:N	2.19	0.57
2:C:688:GLN:HE22	8:3:14:A:P	2.27	0.57
2:C:694:ARG:O	2:C:798:GLN:NE2	2.38	0.57
3:D:1287:ILE:O	3:D:1291:GLU:HG3	2.04	0.57
3:D:885:VAL:HG12	3:D:886:VAL:CA	2.34	0.57
3:D:918:ILE:O	3:D:922:SER:OG	2.22	0.57
2:I:1061:GLN:NE2	2:I:1240:ASP:OD1	2.36	0.57
2:I:1086:PRO:HB3	2:I:1212:LEU:HD22	1.86	0.57
2:I:1184:THR:O	2:I:1184:THR:HG23	2.04	0.57
2:I:1210:ILE:CG2	2:I:1211:ARG:H	2.16	0.57
2:I:309:LEU:N	2:I:309:LEU:HD23	2.19	0.57
2:I:298:ALA:HB2	2:I:336:LEU:CD2	2.34	0.57
2:I:447:HIS:HB3	2:I:450:ASN:ND2	2.19	0.57
2:I:598:VAL:HG13	2:I:627:GLY:HA2	1.86	0.57
2:O:1289:GLU:N	2:O:1315:MET:HE2	2.19	0.57
2:O:186:PHE:N	2:O:186:PHE:HD2	2.02	0.57
5:R:428:SER:HB2	6:7:40:DA:OP2	2.03	0.57
1:B:57:THR:CG2	1:B:158:ARG:HH12	2.18	0.57
2:C:1292:THR:HG23	2:C:1293:VAL:HG13	1.85	0.57
2:C:282:VAL:CG1	2:C:285:ILE:HG13	2.33	0.57
2:C:82:VAL:CG2	2:C:83:GLN:H	2.18	0.57
2:C:1269:ARG:HH12	3:D:340:GLN:HA	1.68	0.57
3:D:492:SER:O	3:D:495:ASN:O	2.21	0.57
3:D:806:ASP:OD1	3:D:1346:GLY:CA	2.40	0.57
2:I:104:ILE:HD13	2:I:484:LEU:O	2.03	0.57
2:I:1283:ALA:HA	3:J:479:GLU:OE1	2.05	0.57
2:I:208:ILE:HG12	2:I:362:ALA:HB1	1.86	0.57
2:I:565:GLU:CG	2:I:566:GLY:N	2.67	0.57
3:J:511:TYR:CD1	3:J:596:LEU:O	2.56	0.57
3:J:796:LEU:O	3:J:800:LEU:HG	2.04	0.57
3:J:931:THR:CG2	3:J:1134:ILE:HB	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:410:ILE:O	5:L:413:MET:HB2	2.04	0.57
1:N:88:LEU:HD11	1:N:128:HIS:CE1	2.35	0.57
2:O:1337:ILE:HD11	3:P:20:ILE:CG2	2.34	0.57
3:P:261:ALA:CB	5:R:519:LEU:HD23	2.34	0.57
5:R:574:GLU:HB3	5:R:578:LYS:NZ	2.19	0.57
6:4:47:DC:O2	6:4:48:DA:C2	2.57	0.57
7:8:37:DA:H2 <sup>+</sup>	7:8:38:DG:OP2	2.04	0.57
1:A:47:LEU:HD11	1:A:183:ILE:HD12	1.82	0.57
2:C:169:LYS:O	2:C:171:LEU:HG	2.05	0.57
2:C:259:GLY:CA	2:I:120:GLN:HB2	2.34	0.57
2:C:449:GLY:O	2:C:586:PHE:HE1	1.88	0.57
3:D:115:TRP:CZ3	3:D:1329:THR:HA	2.39	0.57
3:D:253:VAL:HB	3:D:254:PRO:HD2	1.85	0.57
5:F:262:VAL:CG1	5:F:263:PRO:HD2	2.34	0.57
5:F:98:VAL:HG22	5:F:402:LEU:CD2	2.35	0.57
2:I:455:SER:O	2:I:459:MET:HG3	2.04	0.57
3:J:1146:GLU:CD	3:J:1309:ILE:HB	2.24	0.57
3:J:1217:PRO:HG2	3:J:1218:HIS:ND1	2.19	0.57
3:J:771:GLN:HA	3:J:774:ILE:HD11	1.80	0.57
3:J:786:THR:OG1	3:J:932:MET:HG3	2.04	0.57
4:K:7:GLN:O	4:K:11:GLU:HG3	2.05	0.57
4:K:78:ALA:O	4:K:81:GLN:HG2	2.04	0.57
5:L:387:VAL:HG23	5:L:412:LEU:HD23	1.86	0.57
1:M:43:LEU:O	1:M:47:LEU:CG	2.38	0.57
2:O:1211:ARG:HG3	2:O:1211:ARG:HH11	1.68	0.57
2:O:155:VAL:CG2	2:O:405:PHE:CD2	2.87	0.57
3:P:218:THR:HG22	3:P:222:LYS:CE	2.29	0.57
3:P:201:LEU:HB2	3:P:221:ILE:HD11	1.85	0.57
3:P:261:ALA:CB	5:R:519:LEU:CD2	2.82	0.57
2:O:1286:THR:CG2	3:P:479:GLU:OE2	2.52	0.57
2:C:901:LEU:O	2:C:905:ILE:HG13	2.04	0.57
2:C:673:HIS:ND1	3:D:763:PHE:O	2.34	0.57
4:E:20:VAL:C	4:E:21:LEU:HD23	2.25	0.57
5:F:137:TYR:CE2	5:F:139:GLU:HB2	2.40	0.57
5:F:137:TYR:CG	5:F:138:PRO:HD2	2.39	0.57
5:F:279:ARG:HH21	5:F:347:ILE:HG12	1.70	0.57
5:F:490:PRO:HG2	5:F:493:LYS:HB2	1.87	0.57
2:I:1103:VAL:HB	2:I:1104:PRO:HD3	1.86	0.57
2:I:335:THR:CG2	2:I:336:LEU:H	2.11	0.57
2:I:245:ARG:HD3	2:I:337:PHE:CE1	2.39	0.57
2:I:70:TYR:HA	2:I:100:LEU:HD23	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:798:GLN:HE22	2:I:827:ARG:HG2	1.69	0.57
1:M:61:ILE:HG12	1:M:142:MET:CB	2.35	0.57
2:O:8:LYS:HD3	2:O:1168:GLU:CD	2.24	0.57
2:O:1238:LEU:O	2:O:1242:LYS:HG3	2.04	0.57
2:O:454:ARG:HD3	2:O:459:MET:SD	2.45	0.57
3:P:1078:LEU:HG	3:P:1101:LEU:HD11	1.87	0.57
3:P:1167:LYS:NZ	3:P:1187:GLU:OE2	2.35	0.57
3:P:1199:PHE:O	3:P:1200:GLU:HB2	2.03	0.57
2:O:1326:LEU:HD22	3:P:342:LEU:HD13	1.86	0.57
2:C:112:GLY:C	2:C:114:VAL:N	2.56	0.57
2:C:1272:GLU:O	2:C:1275:VAL:HB	2.04	0.57
2:C:333:ILE:HG22	2:C:334:GLU:H	1.69	0.57
2:C:702:THR:HG22	2:C:1184:THR:O	2.03	0.57
1:A:66:HIS:CE1	2:C:929:ILE:HG13	2.39	0.57
3:D:185:ILE:O	3:D:189:LEU:CG	2.52	0.57
3:D:975:ILE:HD11	3:D:1003:LEU:HD11	1.86	0.57
3:D:282:LEU:CD2	5:F:410:ILE:HG12	2.31	0.57
5:F:585:GLU:HG3	7:2:47:DC:N4	2.17	0.57
2:I:402:ARG:NH2	2:I:417:SER:O	2.38	0.57
3:J:1109:LEU:HD22	3:J:1113:VAL:HG11	1.87	0.57
3:J:1029:THR:HG21	3:J:1121:LEU:HD11	1.86	0.57
4:K:22:VAL:HG22	4:K:61:ASN:ND2	2.19	0.57
2:O:184:LEU:HG	2:O:389:PHE:CE2	2.39	0.57
3:P:403:ARG:HD3	3:P:405:GLU:OE2	2.05	0.57
3:P:536:LEU:CD2	3:P:541:LEU:CB	2.82	0.57
3:P:665:GLN:O	3:P:668:PHE:HB3	2.04	0.57
3:P:918:ILE:O	3:P:922:SER:OG	2.23	0.57
5:R:520:GLY:HA2	5:R:523:ILE:HD11	1.86	0.57
2:O:374:GLU:CD	5:R:99:ARG:HD3	2.24	0.57
1:B:155:ALA:HB2	1:B:174:ASP:OD1	2.05	0.57
1:B:70:THR:HG23	1:B:70:THR:O	2.04	0.57
2:C:1322:SER:O	2:C:1325:VAL:HB	2.04	0.57
3:D:972:LYS:HE2	3:D:1002:VAL:HG11	1.87	0.57
3:D:1138:LEU:HD23	3:D:1139:PRO:CD	2.34	0.57
3:D:1331:VAL:O	3:D:1334:GLU:HB2	2.04	0.57
5:F:395:THR:HA	5:F:404:LEU:HD11	1.85	0.57
5:F:98:VAL:CG2	5:F:402:LEU:HD21	2.34	0.57
1:H:31:LEU:HD13	1:H:36:GLY:HA2	1.87	0.57
2:I:1276:TRP:HE1	3:J:1348:LYS:HE2	1.70	0.57
2:I:137:VAL:C	2:I:138:ILE:CD1	2.59	0.57
3:J:1105:ALA:O	3:J:1107:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1328:THR:HG22	3:J:1332:LEU:HD11	1.87	0.57
3:J:473:THR:CB	3:J:475:GLU:OE1	2.47	0.57
5:L:493:LYS:O	5:L:497:VAL:HG23	2.04	0.57
2:O:1283:ALA:HB1	3:P:479:GLU:CD	2.25	0.57
2:O:227:LYS:CE	2:O:334:GLU:OE1	2.52	0.57
3:P:968:ASN:HB3	3:P:1118:GLY:HA3	1.87	0.57
3:P:1259:GLN:OE1	3:P:1262:ARG:HD2	2.04	0.57
3:P:511:TYR:HE2	3:P:724:MET:HE3	1.70	0.57
5:R:295:CYS:O	5:R:296:LYS:CB	2.52	0.57
5:R:388:ILE:CG2	5:R:389:SER:N	2.67	0.57
2:C:1268:GLN:HA	7:2:16:DC:OP1	2.04	0.57
6:4:47:DC:C2	6:4:48:DA:C2	2.93	0.57
6:7:51:DC:C2'	6:7:52:DT:H5'	2.30	0.57
2:C:934:PHE:CB	2:C:1049:ILE:HD12	2.35	0.57
3:D:395:LYS:HA	3:D:398:LYS:HG2	1.87	0.57
3:D:849:LEU:HD13	3:D:850:LYS:H	1.67	0.57
1:G:57:THR:HG23	1:G:158:ARG:NH2	2.20	0.57
1:G:44:ARG:HG3	1:G:183:ILE:HG23	1.85	0.57
2:I:1294:LYS:HB3	3:J:347:VAL:HG12	1.87	0.57
3:J:138:VAL:HG21	3:J:145:VAL:HB	1.87	0.57
3:J:109:SER:HB2	3:J:296:LYS:HE2	1.86	0.57
3:J:601:ILE:O	3:J:605:LEU:CD2	2.53	0.57
5:L:604:SER:HB3	5:L:607:LEU:HB2	1.87	0.57
2:O:1085:MET:HE2	2:O:1085:MET:HA	1.85	0.57
2:O:338:THR:HA	2:O:343:HIS:O	2.04	0.57
2:O:598:VAL:HG13	2:O:627:GLY:HA2	1.86	0.57
2:O:878:THR:HG22	2:O:879:GLY:N	2.20	0.57
3:P:1257:VAL:HA	3:P:1260:MET:HE2	1.87	0.57
3:P:1146:GLU:OE1	3:P:1309:ILE:HB	2.05	0.57
3:P:269:TYR:O	3:P:272:VAL:HB	2.05	0.57
2:O:1073:LYS:HE3	3:P:462:ASP:OD2	2.04	0.57
3:P:534:GLU:O	3:P:538:ARG:HG2	2.04	0.57
3:P:737:ILE:HG22	3:P:738:ARG:CA	2.35	0.57
3:D:839:VAL:O	3:D:842:ARG:HG3	2.04	0.57
1:H:178:SER:HB2	3:J:535:ARG:NH1	2.19	0.57
2:I:178:PRO:CB	2:I:397:LEU:HD23	2.34	0.57
3:J:1190:ILE:HD13	3:J:1196:LEU:HD21	1.87	0.57
3:J:1208:ASP:O	3:J:1210:ILE:HD12	2.05	0.57
3:J:379:PRO:HA	3:J:382:TYR:CD2	2.40	0.57
3:J:424:ASN:O	3:J:466:MET:HG2	2.05	0.57
2:I:1280:ALA:CB	3:J:431:ARG:HB3	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:68:TYR:CA	3:J:92:VAL:HG13	2.34	0.57
5:L:555:GLU:O	5:L:559:LEU:HG	2.04	0.57
2:O:1289:GLU:HA	2:O:1293:VAL:HG22	1.86	0.57
2:O:153:PRO:HA	2:O:177:ILE:CG2	2.35	0.57
2:O:593:LYS:HA	2:O:652:TYR:CD1	2.40	0.57
3:P:1135:THR:O	3:P:1139:PRO:HD2	2.04	0.57
3:P:589:TYR:O	3:P:591:ILE:N	2.38	0.57
1:B:100:LEU:HB3	1:B:115:ILE:HD12	1.87	0.57
2:C:262:TYR:CE2	2:C:277:LEU:HD13	2.40	0.57
2:C:432:LEU:HA	2:C:435:ILE:HD12	1.86	0.57
2:C:90:VAL:HG13	2:C:91:THR:H	1.70	0.57
2:C:1291:LEU:HD13	3:D:1354:GLY:HA2	1.86	0.57
3:D:147:ILE:CD1	3:D:178:ALA:CA	2.82	0.57
3:D:909:ILE:HD13	3:D:910:ASN:C	2.26	0.57
1:H:189:ALA:HA	1:H:199:ASP:CB	2.35	0.57
2:I:189:ASP:OD2	2:I:190:PRO:HD2	2.04	0.57
3:J:246:PRO:HB2	3:J:249:LEU:HG	1.86	0.57
5:L:155:GLU:O	5:L:156:ALA:HB2	2.05	0.57
1:N:102:LEU:HG	1:N:103:ASN:N	2.19	0.57
1:N:44:ARG:CD	1:N:185:TYR:HE1	2.08	0.57
1:A:203:ILE:HG22	1:A:205:MET:CE	2.34	0.56
2:C:495:ALA:HA	2:C:498:ILE:HD12	1.87	0.56
2:C:560:PRO:O	3:D:780:ARG:NH2	2.37	0.56
2:C:75:LEU:HD22	2:C:94:ALA:HB1	1.87	0.56
2:C:834:GLN:HG2	2:C:836:LEU:HD21	1.85	0.56
2:C:934:PHE:O	2:C:1048:LYS:CG	2.53	0.56
3:D:1176:VAL:HG13	3:D:1187:GLU:HG2	1.87	0.56
3:D:1320:ILE:HD11	3:D:1342:ASP:HB3	1.87	0.56
3:D:521:LYS:HZ2	3:D:541:LEU:HD23	1.70	0.56
3:D:74:LYS:HE3	6:I:24:DC:OP2	2.05	0.56
5:F:452:ILE:HG21	5:F:457:ILE:CD1	2.35	0.56
1:H:75:GLN:CG	1:H:134:THR:HG23	2.35	0.56
2:I:179:TYR:OH	2:I:462:ASN:OD1	2.18	0.56
2:I:489:PRO:O	2:I:493:ILE:HG13	2.05	0.56
2:I:94:ALA:CB	2:I:129:LEU:HD11	2.34	0.56
3:J:147:ILE:O	3:J:148:GLU:HB2	2.05	0.56
3:J:588:PRO:O	3:J:591:ILE:HG13	2.05	0.56
3:J:62:PHE:CD2	3:J:247:PRO:HG3	2.40	0.56
2:O:1330:ILE:HA	2:O:1333:LEU:HD12	1.87	0.56
2:O:374:GLU:HB2	5:R:99:ARG:NH1	2.19	0.56
3:P:478:LEU:HD11	4:Q:23:ALA:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:564:PRO:HB3	8:3:13:GTP:O1A	2.05	0.56
1:A:38:THR:HG21	1:B:42:ALA:O	2.05	0.56
1:B:47:LEU:HD13	1:B:183:ILE:HD11	1.87	0.56
3:D:1138:LEU:HD23	3:D:1139:PRO:HD3	1.87	0.56
3:D:497:GLU:HB3	3:D:498:PRO:CD	2.30	0.56
3:D:694:SER:OG	3:D:738:ARG:CD	2.50	0.56
5:F:452:ILE:HG23	5:F:456:MET:HB3	1.87	0.56
5:F:517:SER:HB2	5:F:521:ASP:HB2	1.87	0.56
3:J:514:THR:HG21	3:J:596:LEU:HB2	1.87	0.56
3:J:681:LYS:O	3:J:685:ILE:CG1	2.45	0.56
3:J:709:ARG:O	3:J:709:ARG:HG3	2.04	0.56
5:L:412:LEU:CD1	5:L:415:ALA:HB3	2.29	0.56
5:L:456:MET:O	5:L:460:ILE:HG13	2.05	0.56
1:M:56:VAL:CG1	1:M:144:ILE:HG23	2.33	0.56
1:M:45:ARG:HD3	1:N:38:THR:HG23	1.87	0.56
2:O:870:ILE:HG13	2:O:944:ARG:HG2	1.86	0.56
3:P:930:LEU:HD22	3:P:1134:ILE:HG13	1.87	0.56
3:P:366:CYS:SG	3:P:437:PHE:HB2	2.45	0.56
5:R:386:LEU:CD1	6:7:41:DT:O4'	2.49	0.56
1:B:106:GLY:HA2	1:B:136:GLU:HA	1.86	0.56
3:D:536:LEU:CD1	3:D:542:ALA:HB2	2.35	0.56
2:I:152:SER:HB3	2:I:452:ARG:HB2	1.86	0.56
2:I:205:PRO:O	2:I:208:ILE:HG22	2.06	0.56
5:L:374:ARG:HA	5:L:377:LYS:HD2	1.88	0.56
5:L:457:ILE:O	5:L:461:ASN:CG	2.42	0.56
1:M:152:TYR:HD1	1:M:175:ALA:O	1.86	0.56
1:N:73:GLY:HA3	1:N:138:ALA:HB2	1.87	0.56
2:O:347:ILE:O	2:O:350:THR:HB	2.05	0.56
3:P:930:LEU:HB3	3:P:1134:ILE:CD1	2.35	0.56
3:P:1138:LEU:CD2	3:P:1139:PRO:HD3	2.35	0.56
3:P:839:VAL:CG1	3:P:839:VAL:O	2.53	0.56
3:P:875:ASN:O	3:P:876:SER:HB2	2.05	0.56
5:R:87:VAL:HG11	5:R:103:ARG:HD3	1.87	0.56
8:3:13:GTP:C8	8:3:13:GTP:PA	2.96	0.56
2:C:1232:MET:O	2:C:1233:LEU:HG	2.05	0.56
2:C:673:HIS:C	3:D:763:PHE:HD1	2.09	0.56
2:C:896:THR:HG22	2:C:899:GLU:CD	2.24	0.56
3:J:978:ARG:HB2	3:J:1212:ASP:HB3	1.87	0.56
3:J:275:ARG:HD3	3:J:298:MET:HB3	1.86	0.56
1:M:45:ARG:HH12	2:O:1215:GLY:C	2.08	0.56
2:O:186:PHE:CD2	2:O:186:PHE:N	2.72	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:865:LEU:HD13	2:O:869:GLY:HA2	1.88	0.56
3:P:530:PRO:HB2	3:P:581:MET:SD	2.45	0.56
5:R:166:VAL:HG12	5:R:168:PRO:HD3	1.88	0.56
7:8:22:DA:H1'	7:8:23:DT:OP2	2.04	0.56
2:C:1289:GLU:HG2	2:C:1293:VAL:HG21	1.86	0.56
3:D:1283:SER:HA	3:D:1286:LYS:HD3	1.86	0.56
1:G:231:PHE:HZ	1:H:39:LEU:HB3	1.70	0.56
3:J:978:ARG:HG3	3:J:1212:ASP:CG	2.25	0.56
3:J:68:TYR:OH	3:J:94:GLN:HG2	2.05	0.56
2:I:938:GLY:HA2	5:L:481:GLU:OE2	2.04	0.56
1:M:106:GLY:O	1:M:133:LEU:HB3	2.05	0.56
1:M:154:PRO:CD	1:M:157:THR:OG1	2.53	0.56
1:M:158:ARG:NE	1:M:172:LEU:HD21	2.18	0.56
1:M:78:ILE:O	1:M:82:LEU:HG	2.06	0.56
2:O:280:ASP:O	2:O:281:ASP:HB2	2.04	0.56
2:O:428:VAL:HG12	2:O:429:MET:N	2.21	0.56
2:O:804:PHE:HE1	2:O:1103:VAL:HG21	1.69	0.56
3:P:1253:ILE:O	3:P:1257:VAL:HG23	2.06	0.56
3:P:689:ALA:O	3:P:693:VAL:HB	2.04	0.56
5:R:320:ILE:HD11	5:R:330:LEU:HD13	1.87	0.56
5:F:585:GLU:CB	7:2:46:DT:H71	2.34	0.56
1:B:60:GLU:O	1:B:142:MET:HB2	2.06	0.56
2:C:804:PHE:O	2:C:805:MET:HB3	2.04	0.56
3:D:416:ILE:HD12	3:D:441:LEU:CD1	2.35	0.56
3:D:583:VAL:CG1	3:D:587:LEU:HD12	2.35	0.56
2:I:840:SER:OG	2:I:1048:LYS:O	2.21	0.56
2:I:15:PHE:CE2	2:I:1182:ILE:CG2	2.88	0.56
2:I:245:ARG:HD3	2:I:337:PHE:CD1	2.40	0.56
2:I:753:LEU:HD22	2:I:767:GLN:HB3	1.88	0.56
3:J:34:SER:CB	3:J:104:HIS:HB3	2.35	0.56
5:L:395:THR:O	5:L:396:ASN:C	2.44	0.56
5:L:457:ILE:HD13	5:L:460:ILE:HD12	1.87	0.56
5:L:551:LEU:HB2	5:L:556:ALA:HB2	1.88	0.56
1:N:74:VAL:HG22	1:N:133:LEU:CD2	2.36	0.56
1:N:88:LEU:CD1	1:N:128:HIS:CE1	2.87	0.56
2:O:539:THR:HB	2:O:542:ARG:HB3	1.87	0.56
3:P:48:THR:HB	3:P:50:LYS:HE3	1.88	0.56
3:P:697:MET:HE1	3:P:737:ILE:HG22	1.88	0.56
6:4:47:DC:H4'	6:4:48:DA:OP1	2.06	0.56
6:7:49:DG:H2'	6:7:50:DT:C1'	2.35	0.56
2:C:76:GLY:HA3	2:C:95:PRO:HG2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:279:LEU:HG	3:D:280:LYS:N	2.20	0.56
2:C:1309:VAL:O	3:D:383:GLY:HA3	2.06	0.56
2:I:1289:GLU:HA	2:I:1293:VAL:CG2	2.35	0.56
3:J:1326:GLN:HE21	7:5:11:DA:H4'	1.71	0.56
2:I:1282:GLY:O	3:J:1361:THR:OG1	2.22	0.56
3:J:385:LEU:HD22	3:J:391:ALA:CB	2.27	0.56
3:J:501:VAL:HG12	3:J:502:PRO:HD2	1.79	0.56
2:O:1230:MET:SD	2:O:1232:MET:HE1	2.45	0.56
2:O:153:PRO:HA	2:O:177:ILE:HG22	1.87	0.56
2:O:218:GLU:OE1	2:O:299:LYS:HD2	2.06	0.56
2:O:179:TYR:HB3	2:O:396:ASP:O	2.05	0.56
2:O:668:ILE:HD11	2:O:686:GLN:HE22	1.71	0.56
3:P:885:VAL:HG11	3:P:1255:VAL:HA	1.88	0.56
5:F:451:ARG:NH1	6:1:32:DA:P	2.79	0.56
6:1:42:DG:OP2	6:1:42:DG:H3'	2.06	0.56
1:B:76:GLU:CG	1:B:80:GLU:OE2	2.54	0.56
2:C:1278:LEU:CD2	2:C:1286:THR:OG1	2.53	0.56
2:C:590:PRO:HB3	2:C:605:TYR:CZ	2.40	0.56
3:D:1266:ILE:HB	3:D:1278:GLU:HB2	1.87	0.56
3:D:112:ALA:HB3	3:D:300:GLN:NE2	2.20	0.56
5:F:452:ILE:HG23	5:F:456:MET:HG2	1.87	0.56
2:I:1269:ARG:HG3	3:J:346:ARG:N	2.20	0.56
2:I:398:SER:OG	2:I:399:ALA:N	2.39	0.56
2:I:524:ILE:HD11	2:I:712:SER:CA	2.35	0.56
2:I:561:ILE:HG21	2:I:676:ALA:HB1	1.88	0.56
3:J:1123:ARG:O	3:J:1125:PRO:HD3	2.06	0.56
3:J:551:ARG:O	3:J:552:ILE:HD13	2.05	0.56
5:L:489:MET:HB3	5:L:490:PRO:CD	2.36	0.56
5:L:583:THR:HG21	5:L:586:ARG:HB3	1.86	0.56
1:M:22:THR:OG1	1:M:207:THR:O	2.13	0.56
1:N:40:GLY:HA2	1:N:43:LEU:HD12	1.87	0.56
2:O:1161:LEU:HG	2:O:1162:SER:N	2.21	0.56
2:O:1294:LYS:HE2	3:P:472:LEU:CD1	2.27	0.56
2:O:1324:ASN:O	2:O:1328:LYS:HG2	2.06	0.56
2:O:607:SER:OG	2:O:610:GLU:HG3	2.05	0.56
2:O:955:GLN:HA	2:O:955:GLN:OE1	2.05	0.56
3:P:326:SER:O	3:P:329:ASP:HB2	2.05	0.56
3:P:392:THR:OG1	3:P:393:THR:N	2.39	0.56
6:1:24:DC:H2''	6:1:25:DC:OP2	2.06	0.56
2:C:18:ARG:HG2	2:C:1188:ASP:OD2	2.06	0.56
2:C:660:VAL:HG12	2:C:661:VAL:HG22	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:923:ILE:HD13	3:D:1253:ILE:HG13	1.87	0.56
3:D:1346:GLY:CA	3:D:1349:GLU:HG3	2.36	0.56
3:D:544:LEU:HA	3:D:574:VAL:HB	1.88	0.56
3:D:701:LEU:HD11	3:D:720:ASN:ND2	2.21	0.56
3:D:746:LEU:HD23	3:D:758:PRO:HB3	1.86	0.56
5:F:137:TYR:CE1	5:F:353:LEU:HD21	2.41	0.56
2:I:167:SER:CB	3:J:1064:SER:CB	2.84	0.56
2:I:623:LEU:HD23	2:I:628:HIS:C	2.25	0.56
2:I:881:ASP:O	2:I:920:VAL:HG23	2.06	0.56
3:J:882:VAL:HG22	3:J:882:VAL:O	2.06	0.56
5:L:102:MET:CE	5:L:105:MET:HE2	2.36	0.56
5:L:105:MET:CB	5:L:384:LEU:HD13	2.36	0.56
1:M:51:MET:CE	1:M:211:ILE:HG21	2.36	0.56
1:N:158:ARG:CD	1:N:172:LEU:HD21	2.33	0.56
3:P:270:ARG:HE	5:R:449:THR:HG23	1.71	0.56
3:P:795:TYR:CD1	7:8:12:DG:H5 <sup>7</sup>	2.41	0.56
4:Q:12:LYS:HG2	4:Q:54:ILE:O	2.06	0.56
6:4:30:DG:O6	7:5:32:DA:N6	2.39	0.56
2:C:1284:ALA:O	2:C:1287:LEU:CD2	2.49	0.56
2:C:136:PHE:CE1	2:C:506:PHE:HE1	2.23	0.56
2:C:520:PRO:O	2:C:524:ILE:HG13	2.06	0.56
2:C:646:SER:O	2:C:650:VAL:HG23	2.06	0.56
2:C:766:ASN:ND2	2:C:766:ASN:C	2.58	0.56
2:C:73:TYR:HB3	2:C:98:VAL:HG22	1.88	0.56
3:D:1179:PRO:HB2	3:D:1182:GLY:O	2.06	0.56
3:D:147:ILE:HD12	3:D:178:ALA:HA	1.86	0.56
3:D:245:LEU:CD1	3:D:249:LEU:HD12	2.36	0.56
3:D:702:GLN:HG3	3:D:723:TYR:CZ	2.41	0.56
5:F:452:ILE:HG22	5:F:457:ILE:CD1	2.35	0.56
2:I:1237:HIS:O	2:I:1238:LEU:HD23	2.06	0.56
2:I:821:ARG:O	2:I:825:GLU:HG3	2.06	0.56
3:J:395:LYS:HD2	5:L:610:PHE:CD1	2.41	0.56
5:L:102:MET:HB3	6:4:42:DG:N2	2.20	0.56
5:L:102:MET:HE1	5:L:105:MET:CE	2.34	0.56
5:L:235:ILE:HD11	5:L:249:ILE:HD11	1.88	0.56
1:N:150:ARG:HB2	1:N:150:ARG:HH11	1.70	0.56
1:M:45:ARG:HD3	1:N:38:THR:CG2	2.36	0.56
2:O:12:ARG:HA	2:O:1181:PRO:O	2.06	0.56
2:O:34:SER:OG	2:O:455:SER:HB2	2.05	0.56
2:O:823:VAL:HG12	2:O:1059:ARG:NH2	2.21	0.56
3:P:1278:GLU:HA	3:P:1278:GLU:OE1	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:432:LEU:HD13	3:P:435:GLN:NE2	2.21	0.56
3:P:984:LEU:HD23	3:P:992:LYS:HB3	1.87	0.56
5:R:401:PHE:O	5:R:405:ILE:HG13	2.06	0.56
6:1:36:DT:O3'	6:1:37:DA:P	2.64	0.56
1:B:59:VAL:HG22	1:B:144:ILE:HG12	1.88	0.56
3:D:1169:THR:OG1	3:D:1174:ARG:NH2	2.35	0.56
3:D:135:ILE:O	3:D:138:VAL:HB	2.06	0.56
3:D:519:ASN:HA	3:D:523:GLU:HB2	1.88	0.56
3:D:885:VAL:CG1	3:D:886:VAL:HG22	2.36	0.56
3:D:972:LYS:CE	3:D:1002:VAL:HG11	2.36	0.56
5:F:540:LEU:HD13	5:F:610:PHE:CE2	2.40	0.56
1:H:61:ILE:HB	1:H:64:VAL:HB	1.87	0.56
2:I:1199:LEU:HD23	2:I:1204:LEU:HD13	1.88	0.56
2:I:149:LEU:HD11	2:I:451:ARG:NE	2.21	0.56
3:J:1100:PHE:HB2	3:J:1193:TRP:CB	2.34	0.56
3:J:1145:PHE:HB3	3:J:1309:ILE:CD1	2.24	0.56
3:J:224:LEU:O	3:J:227:PHE:HB3	2.06	0.56
2:O:1081:PRO:CB	2:O:1083:GLU:OE1	2.54	0.56
2:O:1288:GLN:HB3	2:O:1315:MET:CE	2.37	0.56
2:O:739:ASP:OD1	2:O:739:ASP:N	2.36	0.56
2:O:49:LEU:HD13	2:O:73:TYR:CE1	2.41	0.56
3:P:1093:THR:HG22	3:P:1199:PHE:HB3	1.88	0.56
3:P:135:ILE:HG22	3:P:139:LEU:HD11	1.88	0.56
3:P:361:LEU:HD22	3:P:365:GLN:HB2	1.86	0.56
3:P:822:MET:HE2	3:P:838:ARG:NE	2.21	0.56
7:2:29:DC:H2''	7:2:30:DA:C8	2.41	0.55
6:4:47:DC:O2	6:4:48:DA:N3	2.39	0.55
1:A:106:GLY:HA2	1:A:136:GLU:HA	1.87	0.55
1:A:192:VAL:CG2	1:A:195:ARG:O	2.54	0.55
2:C:237:LEU:HG	2:C:289:VAL:CG2	2.26	0.55
2:C:432:LEU:HG	2:C:433:ILE:N	2.17	0.55
2:C:530:ILE:HD11	2:C:575:LEU:N	2.21	0.55
2:C:699:LEU:HG	2:C:799:ASN:OD1	2.06	0.55
3:D:1226:VAL:C	3:D:1229:VAL:CG1	2.71	0.55
5:F:587:ILE:HG23	5:F:590:ILE:HD12	1.88	0.55
2:I:805:MET:HE2	2:I:806:PRO:O	2.06	0.55
2:I:988:LYS:HZ3	2:I:992:LEU:HD11	1.70	0.55
3:J:632:ALA:O	3:J:635:SER:OG	2.23	0.55
3:J:749:LYS:HG3	3:J:755:ILE:HG12	1.88	0.55
3:J:428:THR:HG21	3:J:921:GLN:NE2	2.21	0.55
5:L:221:PHE:HB3	5:L:225:ARG:NH2	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:217:THR:CG2	2:O:313:ALA:HB1	2.29	0.55
2:O:149:LEU:CG	2:O:451:ARG:HE	2.19	0.55
3:P:185:ILE:O	3:P:189:LEU:HD12	2.06	0.55
3:P:512:TYR:CE2	3:P:635:SER:HB2	2.41	0.55
2:C:374:GLU:HG3	2:C:375:PRO:HD2	1.88	0.55
3:D:133:ARG:HA	3:D:136:GLU:CG	2.36	0.55
5:F:290:LEU:O	5:F:294:GLN:HB2	2.06	0.55
5:F:551:LEU:HD13	5:F:559:LEU:CD1	2.36	0.55
1:H:31:LEU:CD1	1:H:36:GLY:HA2	2.37	0.55
2:I:1069:ARG:NH2	2:I:1231:TYR:CD2	2.74	0.55
3:J:1163:VAL:HG22	3:J:1177:ILE:HG23	1.87	0.55
3:J:182:ALA:HA	3:J:185:ILE:HD11	1.85	0.55
2:I:1337:ILE:HD12	3:J:22:ILE:CD1	2.34	0.55
5:L:574:GLU:O	5:L:578:LYS:HG3	2.06	0.55
2:O:105:TYR:CE1	2:O:113:THR:HB	2.41	0.55
2:O:761:GLN:O	2:O:762:ASN:HB2	2.06	0.55
2:O:168:GLY:O	3:P:1065:ALA:CB	2.55	0.55
5:R:166:VAL:HG12	5:R:167:ASP:N	2.21	0.55
6:1:46:DG:H5'	6:1:46:DG:H8	1.72	0.55
1:B:68:TYR:CD1	1:B:79:LEU:CD2	2.83	0.55
2:C:562:GLU:O	2:C:563:THR:HB	2.06	0.55
2:C:854:ILE:CD1	2:C:862:LEU:HD23	2.35	0.55
2:C:940:GLU:HG2	2:C:941:LYS:HD2	1.88	0.55
3:D:1023:HIS:O	3:D:1024:THR:CB	2.54	0.55
3:D:377:PHE:O	3:D:381:ILE:HG13	2.06	0.55
2:C:1112:ILE:HG22	3:D:641:ILE:HG12	1.88	0.55
2:C:1116:HIS:NE2	3:D:641:ILE:HG13	2.21	0.55
3:D:697:MET:CE	3:D:738:ARG:HG2	2.36	0.55
5:F:385:ARG:O	5:F:388:ILE:CG2	2.53	0.55
2:I:1205:PRO:HD2	2:I:1210:ILE:HD11	1.88	0.55
2:I:191:LYS:HG2	3:J:1069:ALA:HB3	1.89	0.55
3:J:1338:ALA:HB3	3:J:1340:LYS:HG3	1.87	0.55
3:J:321:LYS:O	3:J:321:LYS:HG2	2.06	0.55
3:J:427:PRO:HB3	7:5:14:DC:H1'	1.87	0.55
3:J:543:SER:O	3:J:574:VAL:HG21	2.06	0.55
5:L:395:THR:O	5:L:396:ASN:O	2.24	0.55
1:M:11:PRO:HD2	1:N:227:GLN:CA	2.37	0.55
2:O:1088:ASP:CG	2:O:1092:THR:O	2.44	0.55
2:O:830:THR:CG2	2:O:1234:LYS:NZ	2.70	0.55
2:O:303:ASP:HB2	2:O:310:ILE:HG13	1.87	0.55
2:O:405:PHE:CD1	2:O:406:ASN:OD1	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:800:MET:SD	2:O:828:PHE:CE1	2.99	0.55
3:P:1179:PRO:HD2	3:P:1184:ASP:O	2.06	0.55
2:O:550:VAL:O	3:P:777:HIS:CE1	2.58	0.55
1:B:162:GLU:HG2	1:B:164:ASP:HB3	1.88	0.55
2:C:1276:TRP:HD1	2:C:1279:GLU:OE1	1.90	0.55
3:D:1101:LEU:HD13	3:D:1107:VAL:CG2	2.37	0.55
3:D:113:HIS:CD2	3:D:115:TRP:HB2	2.41	0.55
3:D:1165:PHE:HE1	3:D:1199:PHE:O	1.89	0.55
3:D:251:PRO:O	5:F:507:MET:CE	2.54	0.55
3:D:424:ASN:HB3	3:D:467:ALA:HB3	1.87	0.55
3:D:645:VAL:HG23	3:D:645:VAL:O	2.06	0.55
2:C:1104:PRO:CG	3:D:725:MET:HE1	2.36	0.55
5:F:277:MET:CE	5:F:362:ASN:HD22	2.19	0.55
1:G:99:ILE:HG12	1:G:145:LYS:HG3	1.88	0.55
1:H:162:GLU:OE1	1:H:166:ARG:CZ	2.55	0.55
1:H:193:GLU:C	1:H:194:GLN:HG2	2.26	0.55
2:I:1238:LEU:O	2:I:1242:LYS:HG3	2.07	0.55
2:I:890:LYS:HZ3	2:I:893:THR:HG23	1.72	0.55
3:J:1138:LEU:CB	3:J:1139:PRO:HD3	2.35	0.55
3:J:428:THR:CG2	3:J:921:GLN:HE22	2.19	0.55
3:J:449:LEU:HD11	3:J:453:VAL:CG2	2.37	0.55
2:I:1283:ALA:HB1	3:J:479:GLU:CD	2.27	0.55
3:J:519:ASN:N	3:J:519:ASN:OD1	2.39	0.55
2:O:1108:ASN:OD1	2:O:1108:ASN:N	2.31	0.55
2:O:227:LYS:HE2	2:O:298:ALA:HB1	1.87	0.55
2:O:25:PRO:O	2:O:27:LEU:CD2	2.54	0.55
2:O:522:SER:O	2:O:525:THR:HG22	2.07	0.55
2:O:617:ALA:HB3	2:O:653:MET:HG3	1.88	0.55
3:P:30:ILE:HG12	3:P:33:TRP:CZ3	2.40	0.55
2:O:1112:ILE:HD11	3:P:639:VAL:HB	1.88	0.55
3:P:943:ARG:O	3:P:944:ALA:HB2	2.07	0.55
5:R:452:ILE:HB	5:R:457:ILE:HD11	1.88	0.55
6:1:55:DC:H2'	6:1:56:DG:OP2	2.07	0.55
1:B:190:ALA:CB	1:B:200:LYS:HG3	2.30	0.55
1:B:88:LEU:HD11	1:B:128:HIS:HB3	1.87	0.55
2:C:820:GLU:OE1	2:C:1081:PRO:HA	2.06	0.55
2:C:1107:MET:CE	3:D:740:LEU:CD2	2.84	0.55
2:C:448:LEU:CG	2:C:553:THR:HB	2.36	0.55
3:D:614:LEU:O	3:D:618:VAL:HG23	2.06	0.55
2:I:1054:LEU:CD2	2:I:1055:ALA:H	2.19	0.55
2:I:1225:VAL:CG1	2:I:1226:THR:N	2.68	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:338:PHE:CE2	3:J:1328:THR:HG21	2.41	0.55
3:J:371:LYS:NZ	3:J:371:LYS:HB3	2.21	0.55
3:J:591:ILE:HG21	3:J:604:MET:HG2	1.89	0.55
3:J:843:VAL:CG1	3:J:883:ARG:HD3	2.26	0.55
2:I:1256:GLN:HE22	3:J:96:LYS:NZ	2.04	0.55
1:M:41:ASN:HD21	2:O:1218:GLY:CA	2.19	0.55
2:O:1252:SER:CA	2:O:1259:LEU:HD21	2.36	0.55
2:O:643:SER:OG	2:O:644:LEU:N	2.39	0.55
2:O:559:CYS:HB2	2:O:662:SER:H	1.72	0.55
2:O:727:VAL:H	2:O:773:LEU:CD2	2.20	0.55
3:P:1212:ASP:OD1	3:P:1212:ASP:N	2.27	0.55
3:P:322:ARG:HB2	3:P:323:PRO:HD2	1.88	0.55
2:C:685:MET:CE	2:C:1073:LYS:HD3	2.36	0.55
2:C:667:LEU:HD22	2:C:705:GLU:OE2	2.07	0.55
2:C:878:THR:CG2	2:C:879:GLY:N	2.70	0.55
3:D:36:GLY:C	3:D:104:HIS:CE1	2.80	0.55
3:D:192:MET:HE3	3:D:197:GLU:OE2	2.05	0.55
3:D:368:LEU:HD22	3:D:439:PRO:HB3	1.89	0.55
3:D:484:MET:HB3	3:D:484:MET:CE	2.37	0.55
3:D:79:LYS:NZ	5:F:569:THR:CB	2.69	0.55
2:I:188:PHE:CE2	2:I:432:LEU:HD11	2.41	0.55
2:I:448:LEU:HD23	2:I:448:LEU:N	2.21	0.55
3:J:1069:ALA:HA	3:J:1072:LYS:HE2	1.89	0.55
3:J:1081:VAL:HB	3:J:1086:ASN:O	2.07	0.55
3:J:352:ARG:O	3:J:372:MET:CE	2.54	0.55
3:J:483:LEU:HD11	4:K:17:PHE:CE1	2.41	0.55
1:M:39:LEU:H	1:M:39:LEU:CD2	2.14	0.55
1:N:37:HIS:NE2	1:N:187:VAL:HG21	2.22	0.55
2:O:867:GLU:HG3	2:O:868:SER:N	2.21	0.55
2:O:809:GLY:CA	3:P:629:PHE:CE1	2.90	0.55
2:C:1273:MET:HB2	2:C:1274:GLU:OE1	2.06	0.55
2:C:303:ASP:HB2	2:C:310:ILE:CD1	2.34	0.55
3:D:1226:VAL:HG22	3:D:1304:ARG:HH12	1.72	0.55
3:D:1230:THR:HA	3:D:1233:ILE:CD1	2.37	0.55
3:D:504:GLN:HG2	3:D:505:ASP:OD1	2.07	0.55
2:I:15:PHE:O	2:I:17:LYS:HE3	2.06	0.55
2:I:165:HIS:HB3	2:I:168:GLY:N	2.19	0.55
2:I:211:ARG:HD3	2:I:357:ASN:O	2.05	0.55
2:I:232:ILE:HD13	2:I:326:SER:HB3	1.89	0.55
2:I:289:VAL:CG1	2:I:322:LEU:HD13	2.36	0.55
2:I:717:VAL:CG1	2:I:718:ALA:N	2.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:90:VAL:CG1	2:I:91:THR:H	2.20	0.55
2:I:1258:PRO:HG2	3:J:346:ARG:HB3	1.88	0.55
5:L:392:LYS:HA	5:L:395:THR:CG2	2.37	0.55
1:N:38:THR:CA	1:N:39:LEU:HD23	2.37	0.55
2:O:1104:PRO:CB	3:P:725:MET:HE1	2.36	0.55
3:P:622:ASP:O	3:P:625:MET:HB3	2.06	0.55
1:A:45:ARG:HD3	1:B:38:THR:HG1	1.69	0.55
1:B:175:ALA:HB1	1:B:177:TYR:CE2	2.41	0.55
1:B:175:ALA:HB3	1:B:177:TYR:CE2	2.42	0.55
1:B:57:THR:HG21	1:B:147:GLN:HE22	1.71	0.55
3:D:116:PHE:C	3:D:124:ILE:HD11	2.27	0.55
3:D:108:ALA:CB	3:D:279:LEU:HD21	2.30	0.55
3:D:435:GLN:OE1	3:D:486:SER:CB	2.53	0.55
3:D:625:MET:HG2	3:D:629:PHE:CE2	2.42	0.55
3:D:808:VAL:CG1	3:D:809:VAL:N	2.69	0.55
5:F:262:VAL:CG1	5:F:264:LYS:HE3	2.36	0.55
5:F:443:ILE:HG23	5:F:444:ALA:N	2.22	0.55
1:G:189:ALA:HA	1:G:199:ASP:HB3	1.89	0.55
2:I:163:LYS:CG	2:I:164:THR:N	2.70	0.55
2:I:1294:LYS:HB3	3:J:347:VAL:CG1	2.36	0.55
3:J:814:CYS:HB2	3:J:889:ASP:HB3	1.89	0.55
1:M:104:LYS:HD2	1:M:105:SER:H	1.72	0.55
1:N:57:THR:HG23	1:N:158:ARG:NH2	2.22	0.55
2:O:839:VAL:HG13	2:O:1049:ILE:HG12	1.89	0.55
2:O:1085:MET:CE	2:O:1085:MET:CA	2.84	0.55
2:O:196:VAL:HG12	2:O:197:ARG:N	2.21	0.55
2:O:230:PHE:CE1	2:O:292:ILE:CD1	2.90	0.55
2:O:716:ALA:HB3	2:O:784:ALA:HB3	1.88	0.55
3:P:1096:PRO:O	3:P:1098:GLN:N	2.39	0.55
3:P:820:ILE:CD1	3:P:1230:THR:HB	2.36	0.55
6:4:46:DG:C5'	6:4:46:DG:H8	2.19	0.55
1:B:37:HIS:CE1	2:C:1216:ARG:HD2	2.42	0.55
1:B:70:THR:O	1:B:70:THR:CG2	2.55	0.55
2:C:1334:GLY:O	3:D:25:ALA:HB3	2.06	0.55
2:C:448:LEU:HB2	2:C:608:ALA:HB2	1.89	0.55
2:C:90:VAL:HG12	2:C:91:THR:N	2.20	0.55
3:D:1046:ILE:HG22	3:D:1061:VAL:HA	1.89	0.55
3:D:112:ALA:HA	3:D:238:ILE:HD11	0.73	0.55
3:D:826:ILE:HG12	3:D:831:VAL:HG13	1.89	0.55
2:I:1064:ASP:CG	2:I:1238:LEU:HD22	2.27	0.55
2:I:661:VAL:CG1	2:I:665:ALA:CB	2.85	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:270:ARG:HA	3:J:273:ILE:HD12	1.89	0.55
2:O:1292:THR:HG23	2:O:1293:VAL:N	2.20	0.55
2:O:375:PRO:HA	5:R:87:VAL:CG2	2.35	0.55
2:O:689:ALA:CB	2:O:1233:LEU:HD13	2.37	0.55
3:P:1327:GLU:O	3:P:1331:VAL:HG23	2.07	0.55
3:P:363:LEU:HD21	3:P:487:THR:HA	1.89	0.55
3:P:39:LYS:HG2	3:P:40:LYS:HE3	1.89	0.55
3:D:1148:ARG:CZ	6:1:54:DA:H4'	2.37	0.55
6:4:28:DA:N6	7:5:34:DG:C6	2.75	0.55
7:8:22:DA:H2'	7:8:23:DT:OP1	2.07	0.55
1:B:61:ILE:HD12	1:B:171:LEU:HD11	1.89	0.55
2:C:255:ILE:CG1	2:C:285:ILE:HG21	2.36	0.55
2:C:897:PRO:HB3	5:F:563:PHE:O	2.06	0.55
3:D:999:TYR:HB3	3:D:1025:MET:CE	2.37	0.55
3:D:1347:LEU:O	3:D:1351:VAL:HG23	2.06	0.55
3:D:182:ALA:O	3:D:185:ILE:HD13	2.07	0.55
3:D:363:LEU:HD21	3:D:487:THR:HG22	1.88	0.55
3:D:378:LYS:HG2	3:D:382:TYR:CE2	2.42	0.55
3:D:702:GLN:HG3	3:D:723:TYR:CE1	2.41	0.55
5:F:119:ILE:N	5:F:119:ILE:HD12	2.22	0.55
1:G:48:LEU:CD2	1:G:183:ILE:HG22	2.36	0.55
3:J:539:SER:HB2	3:J:541:LEU:HG	1.88	0.55
5:L:599:ARG:O	5:L:601:PRO:CD	2.55	0.55
1:N:16:ILE:HG23	1:N:26:VAL:HG13	1.88	0.55
1:N:41:ASN:ND2	1:N:42:ALA:N	2.54	0.55
2:O:960:LEU:HD22	2:O:1025:PHE:CD1	2.42	0.55
2:O:369:MET:HG3	2:O:370:MET:H	1.71	0.55
6:7:50:DT:H5'	6:7:51:DC:C6	2.42	0.54
3:D:227:PHE:HZ	3:D:234:PRO:HA	1.72	0.54
3:D:341:ASN:O	3:D:345:LYS:HE2	2.07	0.54
2:I:86:GLN:HA	2:I:140:GLY:HA2	1.87	0.54
3:J:797:THR:HG21	3:J:924:GLY:HA3	1.88	0.54
1:M:26:VAL:HG21	1:M:217:ILE:HD11	1.89	0.54
2:O:165:HIS:CB	2:O:168:GLY:H	2.20	0.54
2:O:665:ALA:HA	2:O:668:ILE:HD12	1.87	0.54
2:O:994:ARG:NH1	2:O:997:TRP:CH2	2.74	0.54
3:P:268:LEU:HD21	3:P:324:LEU:HD12	1.89	0.54
3:P:584:PRO:CD	3:P:620:PHE:CD1	2.89	0.54
7:5:29:DC:H2'	7:5:30:DA:C8	2.42	0.54
6:7:58:DG:C2'	6:7:59:DG:OP2	2.55	0.54
3:P:464:ASP:CG	8:9:15:G:O2'	2.45	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:LYS:CE	1:A:173:VAL:HG12	2.37	0.54
1:B:92:VAL:HG12	1:B:93:GLN:N	2.22	0.54
2:C:1257:GLN:CG	2:C:1296:ASP:OD1	2.47	0.54
2:C:407:ARG:CZ	2:C:407:ARG:HB2	2.36	0.54
3:D:1301:THR:HG23	3:D:1302:TYR:N	2.23	0.54
3:D:133:ARG:HA	3:D:136:GLU:HG3	1.90	0.54
3:D:337:ARG:NH1	3:D:341:ASN:HD21	2.06	0.54
2:C:673:HIS:O	3:D:763:PHE:HD1	1.89	0.54
5:F:137:TYR:CE1	5:F:353:LEU:CD1	2.57	0.54
2:I:1112:ILE:O	2:I:1115:THR:HB	2.07	0.54
2:I:36:GLN:CD	2:I:36:GLN:C	2.65	0.54
2:I:468:LEU:O	2:I:471:VAL:HB	2.06	0.54
3:J:1106:ILE:CD1	3:J:1125:PRO:HG2	2.37	0.54
3:J:1177:ILE:HD12	3:J:1186:TYR:HB2	1.87	0.54
3:J:139:LEU:HD22	3:J:185:ILE:CD1	2.36	0.54
3:J:69:GLU:CG	3:J:70:CYS:O	2.55	0.54
5:L:124:GLU:OE2	5:L:421:TYR:CE1	2.59	0.54
2:O:1131:MET:HB2	2:O:1141:LEU:HD21	1.88	0.54
3:P:1138:LEU:HD23	3:P:1139:PRO:CG	2.37	0.54
6:4:53:DG:H1'	6:4:54:DA:C5'	2.38	0.54
2:C:1043:ALA:HB3	2:C:1046:VAL:HG21	1.89	0.54
2:C:1122:LYS:HG3	2:C:1229:TYR:CZ	2.42	0.54
3:D:783:LEU:HD13	3:D:783:LEU:N	2.22	0.54
3:D:786:THR:CG2	3:D:787:ALA:H	2.19	0.54
5:F:450:ILE:CD1	5:F:450:ILE:N	2.53	0.54
2:I:298:ALA:CB	2:I:334:GLU:O	2.55	0.54
2:I:404:LYS:HZ1	2:I:450:ASN:HA	1.72	0.54
2:I:429:MET:O	2:I:433:ILE:HG13	2.08	0.54
2:I:722:GLY:HA2	2:I:737:ASN:CG	2.26	0.54
2:I:827:ARG:O	2:I:828:PHE:HB2	2.08	0.54
2:I:886:LYS:HD3	2:I:916:SER:HB2	1.87	0.54
2:I:933:VAL:HG22	2:I:1050:VAL:HG13	1.89	0.54
3:J:1033:GLY:HA3	3:J:1081:VAL:O	2.07	0.54
3:J:1302:TYR:C	3:J:1302:TYR:CD2	2.81	0.54
3:J:828:GLY:HA2	3:J:996:LYS:HB2	1.90	0.54
5:L:266:PHE:O	5:L:270:VAL:HG23	2.07	0.54
5:L:604:SER:OG	5:L:607:LEU:HD12	2.07	0.54
2:O:1077:SER:HB2	3:P:357:VAL:HG23	1.88	0.54
2:O:163:LYS:CG	2:O:164:THR:N	2.62	0.54
2:O:805:MET:CA	2:O:1100:PRO:HD3	2.38	0.54
3:P:1038:THR:OG1	3:P:1077:ALA:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:391:ALA:O	5:R:395:THR:HG23	2.08	0.54
1:A:38:THR:HG22	1:B:42:ALA:CA	2.29	0.54
1:B:85:LEU:N	1:B:85:LEU:HD23	2.22	0.54
2:C:1061:GLN:CB	2:C:1062:PRO:HD2	2.36	0.54
2:C:1111:GLN:O	2:C:1115:THR:OG1	2.25	0.54
2:C:1270:PHE:CB	3:D:347:VAL:CG2	2.82	0.54
2:C:163:LYS:HD3	2:C:164:THR:HG22	1.89	0.54
2:C:702:THR:OG1	2:C:704:MET:HB2	2.08	0.54
2:C:82:VAL:HG23	2:C:83:GLN:H	1.72	0.54
2:C:890:LYS:HE2	2:C:893:THR:OG1	2.08	0.54
3:D:227:PHE:CE1	3:D:232:ASN:O	2.61	0.54
3:D:264:ASP:HA	3:D:267:ASP:OD2	2.08	0.54
3:D:632:ALA:O	3:D:635:SER:OG	2.23	0.54
2:I:467:GLY:O	2:I:471:VAL:HG23	2.08	0.54
2:I:725:GLN:NE2	2:I:735:LYS:CE	2.69	0.54
2:I:988:LYS:HZ3	2:I:992:LEU:CD1	2.21	0.54
3:J:1080:ILE:CD1	3:J:1115:ILE:HD11	2.38	0.54
3:J:22:ILE:HD11	3:J:1319:PHE:CE1	2.42	0.54
3:J:28:ASP:HA	3:J:31:ARG:HD2	1.89	0.54
3:J:330:MET:CE	3:J:337:ARG:HH22	2.21	0.54
3:J:450:HIS:CD2	3:J:452:LEU:H	2.26	0.54
5:L:279:ARG:O	5:L:283:GLN:HG2	2.07	0.54
2:O:1172:LEU:O	2:O:1176:LEU:HG	2.08	0.54
2:O:162:GLY:O	2:O:163:LYS:CB	2.56	0.54
2:O:1245:ALA:HB2	3:P:372:MET:HG3	1.89	0.54
3:P:501:VAL:CG1	3:P:502:PRO:CD	2.85	0.54
3:P:261:ALA:HB1	5:R:519:LEU:HD23	1.89	0.54
6:1:46:DG:H5 <sup>+</sup>	6:1:46:DG:C8	2.42	0.54
1:A:41:ASN:HD21	2:C:1217:THR:C	2.10	0.54
2:C:149:LEU:HD23	2:C:532:ALA:HB2	1.88	0.54
3:D:1253:ILE:HG23	3:D:1256:ILE:HD12	1.88	0.54
3:D:132:LEU:HA	3:D:135:ILE:HD12	1.89	0.54
3:D:146:VAL:HG11	3:D:155:GLU:O	2.07	0.54
3:D:162:GLU:CB	3:D:163:GLU:OE1	2.55	0.54
3:D:269:TYR:O	3:D:272:VAL:HB	2.07	0.54
3:D:619:ILE:CG2	3:D:620:PHE:N	2.52	0.54
2:I:448:LEU:HD11	2:I:553:THR:C	2.28	0.54
2:I:805:MET:HE1	3:J:633:ALA:O	2.07	0.54
3:J:1027:VAL:O	3:J:1121:LEU:HB2	2.07	0.54
3:J:105:ILE:HD12	3:J:244:VAL:CG2	2.37	0.54
2:I:1269:ARG:CG	3:J:345:LYS:C	2.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:918:ILE:HG23	3:J:919:ALA:N	2.21	0.54
3:J:974:VAL:HG11	3:J:1028:ILE:HG21	1.90	0.54
4:K:70:GLN:HA	4:K:73:GLN:NE2	2.23	0.54
4:K:80:LEU:HD23	4:K:83:VAL:HB	1.89	0.54
2:O:1120:ALA:HB1	2:O:1198:LEU:CG	2.30	0.54
2:O:211:ARG:CD	2:O:357:ASN:O	2.43	0.54
2:O:530:ILE:CD1	2:O:558:VAL:HG22	2.38	0.54
2:O:656:SER:O	2:O:659:GLN:HG2	2.07	0.54
2:O:668:ILE:CG1	2:O:686:GLN:HE22	2.21	0.54
2:O:951:MET:O	2:O:955:GLN:HG2	2.07	0.54
1:A:140:ILE:CG1	1:A:141:SER:N	2.70	0.54
1:B:214:GLU:O	1:B:217:ILE:HB	2.07	0.54
2:C:937:ASP:HB2	2:C:1039:GLY:HA3	1.90	0.54
2:C:228:VAL:HG22	2:C:245:ARG:NH1	2.23	0.54
2:C:531:SER:HB2	2:C:572:ILE:HG12	1.90	0.54
2:C:807:TRP:CG	2:C:817:LEU:HD11	2.41	0.54
2:C:890:LYS:HB3	2:C:912:ASP:C	2.28	0.54
3:D:478:LEU:HB3	4:E:20:VAL:CG2	2.37	0.54
3:D:665:GLN:O	3:D:668:PHE:CB	2.55	0.54
3:D:759:ILE:CD1	3:D:771:GLN:HB3	2.37	0.54
3:D:96:LYS:O	3:D:99:ARG:HB3	2.07	0.54
1:G:24:ALA:CB	1:G:213:PRO:CB	2.85	0.54
2:I:559:CYS:HB2	2:I:662:SER:N	2.23	0.54
2:I:761:GLN:O	2:I:762:ASN:CB	2.55	0.54
3:J:291:ILE:HG23	5:L:409:ASN:ND2	2.22	0.54
3:J:600:ALA:O	3:J:604:MET:HG3	2.07	0.54
1:M:77:ASP:OD2	2:O:756:TYR:OH	2.21	0.54
2:O:211:ARG:NH1	2:O:357:ASN:O	2.39	0.54
2:O:437:ASN:OD1	2:O:437:ASN:N	2.40	0.54
3:P:421:VAL:HG13	3:P:470:VAL:HA	1.88	0.54
2:O:1301:ARG:HG3	5:R:531:PRO:HG3	1.89	0.54
5:R:555:GLU:O	5:R:559:LEU:HG	2.08	0.54
6:1:48:DA:H3'	6:1:49:DG:H5''	1.90	0.54
5:F:572:THR:HB	7:2:45:DG:OP1	2.08	0.54
2:C:557:ARG:NH2	2:C:611:GLU:OE1	2.41	0.54
2:C:667:LEU:CD2	2:C:704:MET:HB3	2.38	0.54
2:C:898:GLU:OE1	2:C:898:GLU:N	2.34	0.54
3:D:1219:ASP:OD1	3:D:1219:ASP:N	2.41	0.54
3:D:132:LEU:O	3:D:136:GLU:HG3	2.07	0.54
3:D:289:ASP:O	3:D:293:ARG:HG3	2.08	0.54
2:C:1281:TYR:CD1	3:D:431:ARG:HD2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:31:LEU:HD11	1:G:201:LEU:HB2	1.90	0.54
1:H:33:ARG:O	1:H:33:ARG:HG3	2.07	0.54
1:H:81:ILE:HG21	1:H:131:CYS:SG	2.48	0.54
1:H:59:VAL:HG21	1:H:85:LEU:CD1	2.37	0.54
2:I:1111:GLN:HB2	2:I:1230:MET:HE1	1.89	0.54
2:I:150:HIS:CE1	2:I:454:ARG:HG3	2.42	0.54
3:J:972:LYS:HB3	3:J:1002:VAL:HG13	1.90	0.54
2:O:1184:THR:OG1	2:O:1189:GLY:HA3	2.07	0.54
2:O:1257:GLN:OE1	3:P:346:ARG:HG3	2.07	0.54
2:O:671:LEU:HD22	2:O:1186:VAL:CG1	2.37	0.54
3:P:325:LYS:HG3	3:P:329:ASP:CB	2.38	0.54
3:P:579:LEU:O	3:P:583:VAL:HG23	2.08	0.54
5:R:395:THR:HA	5:R:404:LEU:CD1	2.38	0.54
2:C:1012:GLU:HA	2:C:1015:ALA:HB3	1.90	0.54
2:C:851:THR:HG22	2:C:852:ALA:H	1.73	0.54
3:D:40:LYS:HZ2	3:D:53:ARG:HH21	1.55	0.54
3:D:963:VAL:HG23	3:D:980:THR:OG1	2.08	0.54
4:E:5:THR:HG22	4:E:7:GLN:H	1.73	0.54
2:I:592:ARG:NH2	2:I:599:VAL:HG12	2.22	0.54
2:I:725:GLN:CD	2:I:735:LYS:HE2	2.27	0.54
1:M:230:ALA:CB	1:N:11:PRO:HG2	2.38	0.54
1:N:102:LEU:CD1	1:N:114:ASP:CB	2.82	0.54
2:O:1109:ILE:HD13	2:O:1109:ILE:N	2.23	0.54
2:O:801:ARG:HG2	2:O:1229:TYR:CZ	2.43	0.54
2:O:771:VAL:HG22	2:O:783:LEU:HD22	1.89	0.54
3:P:1005:LYS:HD2	3:P:1011:VAL:CG1	2.37	0.54
3:P:205:LEU:HD11	3:P:217:LEU:CB	2.38	0.54
3:P:363:LEU:HA	3:P:450:HIS:CE1	2.43	0.54
3:P:650:LYS:HG3	3:P:743:MET:HE1	1.90	0.54
3:P:786:THR:HG22	3:P:787:ALA:N	2.21	0.54
5:R:503:GLU:HB3	5:R:504:PRO:HD2	1.88	0.54
6:4:33:DT:H2 <sup>+</sup>	6:4:34:DG:C8	2.43	0.54
5:L:509:THR:HG23	7:5:22:DA:N6	2.23	0.54
2:C:275:ARG:NH1	2:C:279:LYS:HB2	2.23	0.54
2:C:335:THR:CG2	2:C:336:LEU:N	2.70	0.54
2:C:615:VAL:HA	2:C:638:SER:HB2	1.90	0.54
2:C:851:THR:CG2	2:C:852:ALA:H	2.21	0.54
3:D:1251:LYS:O	3:D:1255:VAL:HG23	2.08	0.54
3:D:201:LEU:CB	3:D:221:ILE:HD11	2.38	0.54
2:I:1281:TYR:CE2	3:J:431:ARG:HB2	2.43	0.54
2:I:578:TYR:CE2	2:I:656:SER:OG	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1061:VAL:O	3:J:1104:LYS:N	2.40	0.54
3:J:169:LEU:HD12	3:J:173:GLY:HA2	1.89	0.54
3:J:223:LEU:O	3:J:227:PHE:HB2	2.08	0.54
2:O:809:GLY:O	3:P:357:VAL:HG11	2.08	0.54
3:P:697:MET:CE	3:P:737:ILE:HG23	2.37	0.54
1:A:208:ASN:H	1:A:208:ASN:HD22	1.55	0.54
1:A:221:ALA:HB1	1:B:228:LEU:HD22	1.90	0.54
2:C:1272:GLU:HB3	2:C:1276:TRP:CZ2	2.43	0.54
2:C:521:LEU:HD21	2:C:686:GLN:HB3	1.89	0.54
2:C:530:ILE:HD11	2:C:575:LEU:H	1.73	0.54
2:C:828:PHE:O	2:C:1234:LYS:NZ	2.36	0.54
2:C:83:GLN:O	2:C:87:ILE:HG13	2.08	0.54
3:D:334:LYS:O	3:D:339:ARG:HB2	2.07	0.54
3:D:842:ARG:HH12	3:D:1254:GLU:CD	2.09	0.54
4:E:61:ASN:HA	4:E:64:LEU:HD12	1.90	0.54
5:F:428:SER:HB2	6:1:40:DA:OP2	2.08	0.54
2:I:1258:PRO:HG2	3:J:346:ARG:CB	2.38	0.54
3:J:805:GLN:CB	3:J:1347:LEU:CD1	2.68	0.54
5:L:431:ALA:O	5:L:435:ILE:HG13	2.08	0.54
5:L:507:MET:O	5:L:519:LEU:HB3	2.08	0.54
1:M:38:THR:HG21	1:N:46:ILE:CD1	2.38	0.54
2:O:453:ILE:N	2:O:453:ILE:HD13	2.23	0.54
3:P:650:LYS:HE3	3:P:743:MET:HE2	1.89	0.54
5:R:117:ILE:HG23	5:R:421:TYR:CB	2.36	0.54
5:R:441:ARG:HG2	5:R:442:SER:N	2.23	0.54
5:R:457:ILE:HD13	5:R:460:ILE:HD12	1.90	0.54
5:R:503:GLU:CG	5:R:504:PRO:HD2	2.37	0.54
5:R:564:GLY:HA2	5:R:567:MET:HB2	1.88	0.54
2:C:1161:LEU:O	2:C:1163:THR:N	2.41	0.53
2:C:13:LYS:HZ1	2:C:1151:LEU:H	1.55	0.53
3:D:1145:PHE:CE1	3:D:1256:ILE:HD13	2.43	0.53
3:D:425:ARG:NH2	3:D:464:ASP:OD2	2.41	0.53
2:I:1020:GLU:O	2:I:1024:GLU:N	2.35	0.53
2:I:184:LEU:HD11	2:I:389:PHE:CE2	2.43	0.53
2:I:36:GLN:NE2	2:I:36:GLN:O	2.41	0.53
3:J:1132:LYS:O	3:J:1133:ASP:HB2	2.08	0.53
3:J:1342:ASP:OD1	3:J:1344:LEU:HG	2.07	0.53
3:J:24:LEU:CD2	3:J:116:PHE:CZ	2.91	0.53
3:J:955:LYS:HG3	3:J:1012:ALA:HA	1.88	0.53
1:M:100:LEU:HD22	1:M:115:ILE:HG22	1.84	0.53
1:N:179:PRO:HB3	1:N:208:ASN:HD22	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:799:ARG:O	3:P:803:VAL:HG23	2.06	0.53
3:P:960:LEU:HD23	3:P:982:LEU:HD13	1.91	0.53
1:B:190:ALA:N	1:B:199:ASP:HA	2.20	0.53
2:C:1088:ASP:OD1	2:C:1088:ASP:N	2.38	0.53
2:C:1111:GLN:O	2:C:1230:MET:CE	2.56	0.53
2:C:58:PRO:HG3	2:C:69:GLN:HG2	1.90	0.53
3:D:111:THR:HG23	3:D:112:ALA:N	2.23	0.53
3:D:379:PRO:HG2	3:D:380:PHE:N	2.22	0.53
1:G:9:LEU:HD23	1:G:32:GLU:CG	2.39	0.53
1:H:86:LYS:CE	1:H:173:VAL:HG12	2.38	0.53
2:C:259:GLY:HA3	2:I:120:GLN:HB2	1.89	0.53
2:I:178:PRO:HG3	2:I:395:TYR:OH	2.08	0.53
3:J:806:ASP:OD1	3:J:1346:GLY:HA2	2.08	0.53
3:J:294:ASN:ND2	5:L:101:TYR:CD1	2.76	0.53
3:J:479:GLU:O	3:J:484:MET:HG3	2.08	0.53
3:J:491:LEU:HD23	3:J:498:PRO:CA	2.38	0.53
5:L:463:LEU:HD23	5:L:487:MET:SD	2.48	0.53
1:M:48:LEU:CD2	1:M:180:VAL:HB	2.30	0.53
1:M:47:LEU:O	1:M:51:MET:HB2	2.07	0.53
1:N:156:SER:HA	1:N:159:ILE:HG22	1.90	0.53
1:M:11:PRO:O	1:N:231:PHE:CE1	2.60	0.53
2:O:564:PRO:CB	8:9:13:GTP:PA	2.96	0.53
2:O:1282:GLY:O	3:P:1361:THR:OG1	2.23	0.53
3:P:205:LEU:HD11	3:P:217:LEU:HB2	1.90	0.53
5:R:461:ASN:HA	7:8:26:DT:C7	2.39	0.53
7:5:19:DA:H3'	7:5:19:DA:C8	2.43	0.53
7:8:11:DA:H2'	7:8:12:DG:C8	2.43	0.53
2:C:1330:ILE:CD1	2:C:1337:ILE:CD1	2.85	0.53
2:C:38:PHE:HE1	2:C:461:GLU:HA	1.74	0.53
2:C:859:GLU:HA	2:C:862:LEU:HD12	1.89	0.53
3:D:886:VAL:CG1	3:D:1258:ARG:HG3	2.29	0.53
3:D:417:ARG:HG2	3:D:418:GLU:HG2	1.90	0.53
5:F:310:GLU:OE1	5:F:355:ILE:HD13	2.08	0.53
3:D:263:SER:N	5:F:507:MET:HE3	2.24	0.53
2:I:1284:ALA:O	2:I:1287:LEU:HB3	2.08	0.53
2:I:508:SER:OG	7:5:21:DG:N2	2.41	0.53
3:J:1217:PRO:HG2	3:J:1218:HIS:H	1.73	0.53
3:J:42:GLU:OE1	5:L:451:ARG:HG2	2.07	0.53
3:J:481:ARG:O	4:K:6:VAL:HG21	2.07	0.53
3:J:584:PRO:CD	3:J:620:PHE:CZ	2.91	0.53
3:J:672:LEU:C	3:J:673:VAL:CG2	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:102:LEU:HD13	1:M:115:ILE:HG12	1.91	0.53
2:O:285:ILE:CG2	2:O:286:GLU:N	2.71	0.53
2:O:500:ALA:O	2:O:504:GLU:HG2	2.08	0.53
2:O:501:ALA:O	2:O:504:GLU:HB2	2.08	0.53
6:7:52:DT:C2	6:7:53:DG:C6	2.97	0.53
3:D:1005:LYS:HD3	3:D:1009:GLU:OE1	2.08	0.53
3:D:1037:PHE:HE2	3:D:1059:LEU:HD13	1.73	0.53
3:D:825:VAL:HB	3:D:1242:ARG:HH12	1.73	0.53
3:D:783:LEU:HD13	3:D:783:LEU:H	1.74	0.53
3:J:1220:ILE:HG23	3:J:1224:ARG:HD2	1.90	0.53
3:J:327:LEU:O	3:J:331:ILE:HG12	2.09	0.53
5:L:413:MET:O	5:L:417:ASP:CG	2.47	0.53
2:I:897:PRO:HB3	5:L:563:PHE:O	2.09	0.53
2:O:1056:VAL:HG12	2:O:1058:ARG:HG3	1.89	0.53
2:O:185:ASP:CG	2:O:200:ARG:HE	2.11	0.53
2:O:896:THR:HG22	2:O:899:GLU:OE1	2.09	0.53
3:P:1190:ILE:HD13	3:P:1196:LEU:HD21	1.89	0.53
3:P:423:LEU:HD12	3:P:437:PHE:CE1	2.43	0.53
3:P:632:ALA:O	3:P:635:SER:OG	2.25	0.53
5:R:507:MET:O	5:R:519:LEU:HB3	2.08	0.53
2:C:297:VAL:HG22	2:C:315:MET:H	1.73	0.53
2:C:56:VAL:O	2:C:59:ILE:HG12	2.08	0.53
2:C:944:ARG:HG3	2:C:948:ILE:HD11	1.91	0.53
3:D:1040:MET:CE	3:D:1046:ILE:HG21	2.37	0.53
3:D:128:LEU:HD11	3:D:189:LEU:HD21	1.91	0.53
3:D:1307:LEU:CD1	3:D:1312:ALA:HA	2.39	0.53
5:F:381:GLU:O	5:F:384:LEU:HG	2.08	0.53
2:I:69:GLN:HB2	2:I:101:ARG:HB2	1.91	0.53
2:I:1085:MET:HA	2:I:1085:MET:CE	2.38	0.53
2:I:756:TYR:CD2	2:I:756:TYR:N	2.74	0.53
3:J:1100:PHE:CD2	3:J:1100:PHE:N	2.77	0.53
3:J:338:PHE:HE2	3:J:1328:THR:HG21	1.73	0.53
3:J:115:TRP:CZ3	3:J:1329:THR:O	2.62	0.53
3:J:332:LYS:HE3	3:J:1328:THR:H	1.72	0.53
5:L:105:MET:HB3	5:L:384:LEU:HD13	1.91	0.53
1:M:102:LEU:CD2	1:M:130:ILE:CD1	2.84	0.53
2:O:451:ARG:HH12	2:O:538:LEU:HD11	1.74	0.53
2:O:558:VAL:CG1	2:O:573:ASN:HB3	2.37	0.53
3:P:1275:LEU:O	3:P:1278:GLU:HG2	2.09	0.53
3:P:1221:LEU:HD11	3:P:1304:ARG:C	2.28	0.53
3:P:1313:SER:O	3:P:1316:THR:HG23	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:370:ALA:HA	5:R:373:ARG:CZ	2.37	0.53
2:C:196:VAL:HG23	2:C:206:ALA:CA	2.38	0.53
2:C:806:PRO:HG2	3:D:632:ALA:O	2.09	0.53
2:C:807:TRP:CG	2:C:817:LEU:CD1	2.91	0.53
3:D:1263:LYS:CG	3:D:1281:GLU:HA	2.29	0.53
3:D:830:ASP:HB3	3:D:832:LYS:HD3	1.90	0.53
5:F:92:GLY:C	5:F:93:ARG:HG3	2.27	0.53
1:G:88:LEU:HD12	1:G:89:ALA:H	1.74	0.53
2:I:1304:MET:CE	2:I:1308:ILE:HD11	2.38	0.53
2:I:73:TYR:HB3	2:I:98:VAL:HG22	1.89	0.53
1:H:83:LEU:HD21	3:J:526:VAL:HB	1.91	0.53
3:J:840:LEU:HD21	3:J:866:GLU:HG3	1.90	0.53
2:O:1286:THR:O	2:O:1289:GLU:HB2	2.09	0.53
2:O:708:VAL:HG11	2:O:794:LEU:HD22	1.89	0.53
2:O:73:TYR:HB2	2:O:96:LEU:HD11	1.90	0.53
3:P:245:LEU:HD21	3:P:249:LEU:HB2	1.91	0.53
2:O:1268:GLN:HE22	3:P:351:GLY:HA2	1.73	0.53
3:P:449:LEU:HD12	3:P:450:HIS:N	2.22	0.53
2:O:1109:ILE:HD11	3:P:740:LEU:HD22	1.90	0.53
3:P:797:THR:O	3:P:801:VAL:HG23	2.07	0.53
5:R:451:ARG:NH1	6:7:32:DA:OP2	2.42	0.53
1:A:58:GLU:HB2	1:A:145:LYS:HB3	1.90	0.53
1:A:68:TYR:HE2	2:C:927:THR:HB	1.74	0.53
2:C:15:PHE:HA	2:C:1155:VAL:CG2	2.38	0.53
2:C:1161:LEU:HD12	2:C:1164:PHE:HB2	1.89	0.53
2:C:1186:VAL:HG12	2:C:1187:PHE:CE2	2.44	0.53
2:C:533:LEU:HD11	2:C:571:LEU:HD13	1.90	0.53
2:C:530:ILE:HD12	2:C:573:ASN:O	2.08	0.53
2:C:972:PHE:HE2	2:C:994:ARG:O	1.92	0.53
3:D:1048:ARG:NE	3:D:1050:THR:OG1	2.41	0.53
3:D:245:LEU:HD21	3:D:249:LEU:HB2	1.90	0.53
3:D:615:LYS:N	3:D:616:PRO:HD2	2.24	0.53
3:D:94:GLN:O	3:D:97:VAL:HG23	2.07	0.53
5:F:489:MET:HB3	5:F:490:PRO:CD	2.37	0.53
1:G:49:SER:HB2	1:H:33:ARG:NH2	2.23	0.53
2:I:1192:GLU:HA	2:I:1195:ILE:HD12	1.90	0.53
3:J:244:VAL:HG13	3:J:269:TYR:CE1	2.43	0.53
3:J:424:ASN:N	3:J:466:MET:HE1	2.23	0.53
3:J:918:ILE:O	3:J:922:SER:OG	2.23	0.53
5:L:491:GLU:HA	5:L:494:ILE:HD13	1.89	0.53
1:M:35:PHE:HE2	1:N:50:SER:OG	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1111:GLN:O	2:O:1115:THR:OG1	2.26	0.53
2:O:283:LYS:O	2:O:284:LEU:HG	2.08	0.53
3:P:355:ILE:HG13	3:P:355:ILE:O	2.09	0.53
2:O:1099:ASN:HD21	3:P:504:GLN:HE21	1.55	0.53
3:P:746:LEU:HD22	3:P:755:ILE:O	2.09	0.53
5:R:290:LEU:O	5:R:294:GLN:HB3	2.08	0.53
5:R:401:PHE:HB2	5:R:402:LEU:HD23	1.89	0.53
5:R:584:ARG:HB2	5:R:584:ARG:CZ	2.35	0.53
6:4:59:DG:H2"	6:4:60:DC:C6	2.44	0.53
1:A:232:VAL:CG2	1:B:221:ALA:HB1	2.35	0.53
2:C:1278:LEU:HD22	2:C:1286:THR:OG1	2.09	0.53
3:D:518:VAL:O	3:D:520:ALA:N	2.42	0.53
3:D:664:ILE:HG21	3:D:681:LYS:HD3	1.90	0.53
2:I:165:HIS:HB2	2:I:168:GLY:H	1.72	0.53
3:J:268:LEU:HD21	3:J:324:LEU:HD12	1.91	0.53
2:I:812:PHE:CE1	3:J:504:GLN:HB3	2.44	0.53
5:L:490:PRO:C	5:L:494:ILE:HD13	2.29	0.53
5:L:520:GLY:HA2	5:L:523:ILE:CD1	2.39	0.53
1:M:61:ILE:HG13	1:M:142:MET:HB2	1.91	0.53
1:M:48:LEU:HG	1:M:183:ILE:CG2	2.39	0.53
2:O:1232:MET:HE2	2:O:1232:MET:HA	1.91	0.53
2:O:514:PHE:CE2	7:8:19:DA:N3	2.76	0.53
3:P:584:PRO:HD3	3:P:620:PHE:CD1	2.44	0.53
2:C:1283:ALA:HB1	3:D:479:GLU:CD	2.29	0.53
2:C:1323:PHE:HD2	3:D:1352:ILE:O	1.91	0.53
3:D:1285:VAL:HG13	3:D:1286:LYS:HG3	1.91	0.53
3:D:242:LEU:HD12	3:D:243:PRO:HD2	1.90	0.53
3:D:394:ILE:HD11	5:F:539:SER:HB2	1.91	0.53
3:D:70:CYS:CB	3:D:90:VAL:HG11	2.39	0.53
1:H:155:ALA:H	1:H:174:ASP:CG	2.12	0.53
2:I:1072:ASN:ND2	2:I:1111:GLN:CD	2.62	0.53
3:J:930:LEU:C	3:J:1134:ILE:HG13	2.30	0.53
3:J:1153:PRO:HA	3:J:1214:PRO:HG2	1.90	0.53
3:J:1165:PHE:HA	3:J:1175:LEU:CD1	2.38	0.53
3:J:1280:VAL:CG1	3:J:1281:GLU:N	2.71	0.53
3:J:1344:LEU:HA	3:J:1349:GLU:OE1	2.08	0.53
3:J:30:ILE:HD13	3:J:243:PRO:HD3	1.90	0.53
3:J:34:SER:HG	3:J:104:HIS:CG	2.23	0.53
5:L:102:MET:HE2	6:4:42:DG:C4	2.38	0.53
5:L:453:PRO:HB2	5:L:455:HIS:CD2	2.44	0.53
5:L:96:ASP:HB3	5:L:99:ARG:HG2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1223:ARG:HH11	3:P:637:ALA:HA	1.74	0.53
2:O:1268:GLN:OE1	3:P:350:SER:HB2	2.09	0.53
3:P:1353:VAL:CG2	3:P:1355:ARG:CD	2.84	0.53
3:P:363:LEU:CG	3:P:487:THR:HG22	2.39	0.53
2:C:151:ARG:NH1	2:C:445:ILE:CG2	2.71	0.53
2:C:82:VAL:HG23	2:C:83:GLN:HG3	1.91	0.53
3:D:734:ALA:O	3:D:737:ILE:HB	2.09	0.53
3:D:872:LEU:CD2	3:D:875:ASN:HD22	2.21	0.53
3:D:909:ILE:HD11	3:D:913:GLU:HB3	1.90	0.53
3:D:964:LYS:HB2	3:D:977:SER:HB3	1.90	0.53
4:E:39:VAL:HG13	4:E:40:PRO:HG2	1.89	0.53
1:G:211:ILE:HG23	1:G:219:ARG:NH1	2.24	0.53
1:H:75:GLN:HG2	1:H:134:THR:HG23	1.91	0.53
2:I:161:LYS:C	2:I:161:LYS:HE2	2.29	0.53
2:I:120:GLN:CG	2:I:489:PRO:HG2	2.38	0.53
2:I:669:PRO:HB2	2:I:670:PHE:CD2	2.44	0.53
3:J:1317:GLU:O	3:J:1318:SER:CB	2.55	0.53
1:M:31:LEU:CD1	1:M:39:LEU:CD1	2.87	0.53
2:O:678:ARG:NE	2:O:1106:ARG:HB3	2.24	0.53
2:O:82:VAL:CG2	2:O:83:GLN:N	2.72	0.53
3:P:1054:THR:OG1	3:P:1056:LEU:HG	2.09	0.53
3:P:805:GLN:HB2	3:P:1347:LEU:CG	2.39	0.53
3:P:674:THR:OG1	3:P:677:GLU:HG3	2.08	0.53
6:4:45:DT:C3'	6:4:45:DT:C6	2.91	0.52
7:8:24:DT:H4'	7:8:24:DT:OP1	2.07	0.52
2:C:1065:LYS:O	2:C:1235:LEU:HG	2.08	0.52
2:C:144:VAL:CG2	2:C:515:MET:HB2	2.36	0.52
2:C:178:PRO:HA	2:C:397:LEU:HD23	1.91	0.52
2:C:433:ILE:O	2:C:437:ASN:OD1	2.27	0.52
2:C:897:PRO:HB2	5:F:565:ILE:CG1	2.39	0.52
2:C:944:ARG:HG3	2:C:948:ILE:CD1	2.39	0.52
3:D:228:VAL:HG12	3:D:228:VAL:O	2.08	0.52
3:D:395:LYS:C	3:D:398:LYS:CG	2.74	0.52
5:F:262:VAL:HG12	5:F:263:PRO:HD2	1.91	0.52
1:G:16:ILE:HG23	1:G:26:VAL:HG13	1.90	0.52
1:G:98:VAL:HG23	1:G:146:VAL:HB	1.91	0.52
2:I:210:LEU:HB3	2:I:220:ILE:HD11	1.86	0.52
2:I:724:VAL:HG21	2:I:771:VAL:CG2	2.39	0.52
3:J:105:ILE:CG1	3:J:244:VAL:HG21	2.38	0.52
3:J:398:LYS:HE2	5:L:532:LEU:CD2	2.38	0.52
1:M:184:ALA:HB2	2:O:1091:GLY:HA3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1256:GLN:OE1	2:O:1256:GLN:HA	2.09	0.52
3:P:1233:ILE:HD13	3:P:1257:VAL:CG2	2.39	0.52
2:O:1112:ILE:HD11	3:P:639:VAL:O	2.07	0.52
5:R:543:ALA:O	5:R:547:VAL:HG23	2.09	0.52
6:4:47:DC:C2'	6:4:48:DA:H5''	2.39	0.52
1:A:38:THR:OG1	1:B:45:ARG:HD3	2.09	0.52
2:C:528:ARG:HD2	2:C:663:VAL:CG2	2.40	0.52
3:D:1167:LYS:O	3:D:1174:ARG:HD2	2.09	0.52
3:D:281:ARG:NH2	5:F:441:ARG:NH2	2.16	0.52
2:C:1326:LEU:HD22	3:D:342:LEU:HD11	1.91	0.52
3:D:379:PRO:HA	3:D:382:TYR:HD2	1.74	0.52
3:D:467:ALA:C	3:D:468:VAL:HG22	2.29	0.52
4:E:49:ILE:O	4:E:53:GLU:HG3	2.09	0.52
5:F:583:THR:HG22	5:F:587:ILE:HG12	1.91	0.52
2:I:1031:ALA:C	2:I:1033:ARG:N	2.63	0.52
2:I:1064:ASP:OD1	2:I:1238:LEU:HD22	2.09	0.52
2:I:1292:THR:HG23	2:I:1293:VAL:H	1.74	0.52
2:I:708:VAL:CG1	2:I:794:LEU:HD22	2.38	0.52
2:I:798:GLN:NE2	2:I:827:ARG:HG2	2.24	0.52
3:J:1272:SER:HB2	3:J:1274:PHE:CE2	2.44	0.52
3:J:201:LEU:HD11	3:J:220:ARG:NH1	2.23	0.52
3:J:251:PRO:HG2	5:L:507:MET:HE1	1.91	0.52
5:L:460:ILE:HA	5:L:463:LEU:HD12	1.92	0.52
5:L:551:LEU:CD2	5:L:597:LYS:HD2	2.39	0.52
1:M:224:LEU:CG	1:M:225:ALA:N	2.48	0.52
1:N:208:ASN:C	1:N:210:THR:H	2.12	0.52
2:O:255:ILE:CG2	2:O:285:ILE:HD13	2.39	0.52
1:M:68:TYR:HE2	2:O:927:THR:HG1	1.51	0.52
5:R:590:ILE:HG12	5:R:593:LYS:HZ1	1.74	0.52
2:C:542:ARG:NH2	6:1:49:DG:C8	2.77	0.52
2:C:514:PHE:CZ	7:2:19:DA:C1'	2.93	0.52
2:I:1269:ARG:N	7:5:16:DC:OP1	2.38	0.52
2:O:564:PRO:HB3	8:9:13:GTP:O5'	2.10	0.52
1:A:225:ALA:CB	1:B:228:LEU:HD13	2.32	0.52
2:C:1040:ASP:N	2:C:1040:ASP:OD1	2.42	0.52
2:C:1288:GLN:HG2	2:C:1315:MET:CE	2.38	0.52
2:C:1314:GLN:HG2	2:C:1315:MET:H	1.75	0.52
2:C:190:PRO:HG2	2:C:191:LYS:HG3	1.92	0.52
2:C:448:LEU:HD13	2:C:557:ARG:HD2	1.91	0.52
3:D:1319:PHE:CE2	3:D:1342:ASP:HB2	2.44	0.52
3:D:431:ARG:HH21	3:D:904:ALA:CB	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:87:VAL:HG12	5:F:103:ARG:HD3	1.90	0.52
1:H:208:ASN:O	1:H:210:THR:N	2.41	0.52
2:I:1151:LEU:CD2	2:I:1198:LEU:CD1	2.85	0.52
2:I:719:LYS:O	2:I:779:ARG:HG3	2.09	0.52
2:I:931:VAL:HG13	2:I:1052:VAL:HG13	1.91	0.52
2:I:936:ARG:HG2	2:I:937:ASP:N	2.24	0.52
3:J:1099:TYR:HE2	3:J:1195:GLN:HE22	1.55	0.52
3:J:1165:PHE:HA	3:J:1175:LEU:HD12	1.92	0.52
3:J:1237:VAL:HG12	3:J:1241:TYR:CE2	2.43	0.52
3:J:657:ALA:O	3:J:661:VAL:HG23	2.10	0.52
3:J:749:LYS:NZ	3:J:753:SER:HB2	2.24	0.52
1:N:85:LEU:HD21	1:N:130:ILE:HG21	1.90	0.52
2:O:1253:LEU:HG	2:O:1253:LEU:O	2.00	0.52
2:O:1253:LEU:HD23	3:P:251:PRO:HG2	1.91	0.52
3:P:744:ARG:HD2	3:P:763:PHE:HE2	1.74	0.52
5:R:387:VAL:HA	5:R:435:ILE:HD13	1.91	0.52
3:D:1267:VAL:O	3:D:1268:ASN:HB2	2.10	0.52
3:D:1319:PHE:HD2	3:D:1340:LYS:HD3	1.73	0.52
3:D:496:GLY:CA	3:D:903:LEU:CD2	2.86	0.52
3:D:820:ILE:CD1	3:D:884:SER:HB2	2.34	0.52
1:H:188:GLU:O	1:H:200:LYS:HB2	2.09	0.52
2:I:1048:LYS:O	2:I:1049:ILE:CG1	2.58	0.52
2:I:1331:ARG:HD3	3:J:33:TRP:CD2	2.45	0.52
5:L:412:LEU:HD12	5:L:415:ALA:CB	2.31	0.52
3:P:28:ASP:OD1	3:P:29:MET:N	2.43	0.52
3:P:423:LEU:CD1	3:P:437:PHE:CD1	2.92	0.52
3:P:589:TYR:CE2	3:P:593:ASN:HB2	2.45	0.52
1:A:13:LEU:HA	1:A:28:LEU:CD2	2.39	0.52
1:A:44:ARG:HG3	1:A:183:ILE:HD13	1.92	0.52
3:D:133:ARG:HA	3:D:136:GLU:CD	2.30	0.52
1:G:60:GLU:O	1:G:142:MET:HB2	2.09	0.52
1:G:53:GLY:HA3	1:G:179:PRO:HG3	1.91	0.52
2:I:459:MET:O	2:I:462:ASN:HB2	2.09	0.52
2:I:550:VAL:O	3:J:777:HIS:CE1	2.63	0.52
3:J:110:PRO:CB	3:J:238:ILE:HG21	2.40	0.52
3:J:322:ARG:NE	5:L:510:PRO:HD3	2.25	0.52
3:J:46:TYR:CD2	5:L:500:ILE:HD11	2.44	0.52
5:L:413:MET:O	5:L:417:ASP:OD2	2.27	0.52
2:O:830:THR:HG23	2:O:1234:LYS:HZ3	1.72	0.52
2:O:263:VAL:HG12	2:O:264:GLU:O	2.08	0.52
2:O:715:THR:HG22	2:O:786:GLY:N	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:757:THR:HG22	2:O:758:ARG:N	2.25	0.52
2:O:980:VAL:HG12	2:O:980:VAL:O	2.08	0.52
3:P:161:THR:HG23	3:P:164:GLN:HE22	1.74	0.52
3:P:161:THR:HG23	3:P:164:GLN:NE2	2.25	0.52
3:P:377:PHE:HB2	3:P:412:LEU:HD11	1.91	0.52
3:P:688:ALA:O	3:P:692:ARG:CD	2.50	0.52
5:R:573:LEU:HD11	5:R:584:ARG:HA	1.92	0.52
5:F:585:GLU:HG3	7:2:47:DC:C5	2.44	0.52
2:C:808:ASN:C	3:D:629:PHE:HB3	2.30	0.52
3:D:1346:GLY:N	3:D:1349:GLU:CD	2.62	0.52
3:D:28:ASP:HA	3:D:31:ARG:HD2	1.90	0.52
5:F:490:PRO:HG2	5:F:493:LYS:CB	2.39	0.52
5:F:587:ILE:HD13	5:F:587:ILE:N	2.25	0.52
2:I:1047:LEU:C	2:I:1048:LYS:HG3	2.30	0.52
2:I:1200:LYS:HG3	2:I:1206:THR:HG21	1.92	0.52
2:I:28:LEU:HD22	2:I:527:LYS:HD2	1.91	0.52
2:I:232:ILE:HG21	2:I:326:SER:HB3	1.90	0.52
2:I:433:ILE:O	2:I:437:ASN:OD1	2.28	0.52
3:J:740:LEU:O	3:J:762:ASN:HB2	2.10	0.52
3:J:322:ARG:HH22	5:L:506:SER:CB	2.23	0.52
5:L:554:ARG:O	5:L:558:VAL:HG23	2.09	0.52
2:O:209:ILE:HG23	2:O:210:LEU:N	2.24	0.52
2:O:260:LYS:HD3	2:O:260:LYS:H	1.74	0.52
2:O:253:PHE:CZ	2:O:288:PRO:HD2	2.44	0.52
2:O:667:LEU:HD22	2:O:705:GLU:OE2	2.09	0.52
2:O:726:TYR:CB	2:O:733:VAL:HG22	2.38	0.52
3:P:297:ARG:HH12	5:R:100:MET:CB	2.22	0.52
3:P:297:ARG:HH12	5:R:100:MET:HB2	1.73	0.52
5:R:220:LYS:HE3	5:R:259:PHE:HE1	1.75	0.52
1:A:45:ARG:NH1	2:C:1216:ARG:HA	2.22	0.52
2:C:7:GLU:O	2:C:11:ILE:HG13	2.10	0.52
2:C:1147:ARG:HH22	2:C:1201:LEU:HD11	1.74	0.52
3:D:709:ARG:O	3:D:710:ASP:HB3	2.10	0.52
3:D:854:ALA:O	3:D:855:ASP:HB2	2.09	0.52
2:C:1282:GLY:HA3	4:E:17:PHE:CE1	2.44	0.52
5:F:452:ILE:CB	5:F:457:ILE:HD11	2.40	0.52
1:G:147:GLN:O	1:G:177:TYR:HE1	1.93	0.52
1:G:31:LEU:HD12	1:G:201:LEU:HB2	1.92	0.52
2:I:822:VAL:HG11	2:I:1060:ILE:CD1	2.40	0.52
2:I:1270:PHE:N	3:J:345:LYS:O	2.42	0.52
2:I:277:LEU:O	2:I:277:LEU:HG	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:980:VAL:O	2:I:980:VAL:CG1	2.58	0.52
3:J:154:LEU:HD13	3:J:158:GLN:HG2	1.91	0.52
3:J:372:MET:O	3:J:376:LEU:HG	2.10	0.52
3:J:602:SER:HA	3:J:605:LEU:CD1	2.40	0.52
3:J:902:ASP:HB2	3:J:909:ILE:CB	2.40	0.52
4:K:21:LEU:HD22	4:K:25:ARG:HD3	1.90	0.52
1:M:102:LEU:HD13	1:M:115:ILE:CG1	2.40	0.52
3:P:749:LYS:CE	3:P:755:ILE:HA	2.39	0.52
5:R:390:ILE:CD1	5:R:432:THR:HG23	2.40	0.52
2:C:1331:ARG:HG3	2:C:1337:ILE:CG2	2.39	0.52
2:C:170:VAL:HG23	3:D:1065:ALA:HA	1.91	0.52
2:C:257:ALA:CB	2:C:277:LEU:CD1	2.87	0.52
3:D:1175:LEU:HD12	3:D:1176:VAL:H	1.74	0.52
3:D:1264:ALA:HB2	3:D:1304:ARG:HA	1.90	0.52
3:D:193:ASP:OD2	3:D:196:GLN:HG3	2.10	0.52
3:D:499:ILE:HG22	3:D:500:ILE:HG12	1.91	0.52
2:C:808:ASN:HA	3:D:629:PHE:HB3	1.92	0.52
2:I:1326:LEU:CD2	3:J:342:LEU:CD1	2.87	0.52
2:I:298:ALA:HB3	2:I:334:GLU:O	2.10	0.52
3:J:806:ASP:OD1	3:J:1346:GLY:CA	2.58	0.52
3:J:864:LEU:HD22	3:J:868:TRP:HB2	1.92	0.52
3:J:482:ALA:HA	4:K:6:VAL:HG21	1.91	0.52
5:L:402:LEU:O	5:L:406:GLN:HG2	2.10	0.52
2:O:390:PHE:O	2:O:419:ILE:HG21	2.09	0.52
2:O:805:MET:HB2	2:O:806:PRO:CD	2.40	0.52
2:O:859:GLU:HG3	2:O:862:LEU:HB2	1.90	0.52
3:P:930:LEU:HB3	3:P:1134:ILE:HD12	1.92	0.52
2:O:1326:LEU:HD22	3:P:342:LEU:CD1	2.39	0.52
3:P:518:VAL:O	3:P:520:ALA:N	2.42	0.52
5:R:237:ALA:O	5:R:238:LYS:HB2	2.10	0.52
5:R:585:GLU:HG3	7:8:47:DC:N4	2.25	0.52
6:1:53:DG:H2 <sup>''</sup>	6:1:54:DA:H5 <sup>'</sup>	1.90	0.52
1:B:155:ALA:H	1:B:174:ASP:CG	2.13	0.52
2:C:1333:LEU:HG	3:D:327:LEU:HD13	1.92	0.52
2:C:14:ASP:O	2:C:1155:VAL:HG22	2.10	0.52
2:C:177:ILE:HA	2:C:183:TRP:CD1	2.45	0.52
2:C:341:LEU:HD21	3:D:1044:GLN:NE2	2.25	0.52
2:C:726:TYR:HA	2:C:773:LEU:HD11	1.92	0.52
2:C:974:ARG:O	2:C:978:VAL:HG23	2.10	0.52
3:D:860:ARG:O	3:D:862:THR:HG23	2.10	0.52
2:I:1330:ILE:CG2	2:I:1335:ILE:HB	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:431:LYS:O	2:I:435:ILE:HG13	2.08	0.52
3:J:1285:VAL:HG13	3:J:1286:LYS:N	2.25	0.52
3:J:609:TYR:CD1	3:J:609:TYR:C	2.83	0.52
3:J:825:VAL:HG21	3:J:838:ARG:NH1	2.25	0.52
5:L:511:ILE:CD1	5:L:519:LEU:HA	2.40	0.52
1:M:61:ILE:HG23	1:M:141:SER:O	2.10	0.52
1:N:73:GLY:HA3	1:N:138:ALA:CB	2.40	0.52
1:N:85:LEU:CD2	1:N:130:ILE:HG21	2.40	0.52
2:O:1230:MET:HG2	2:O:1231:TYR:N	2.24	0.52
2:O:936:ARG:HB2	2:O:1047:LEU:O	2.10	0.52
5:R:451:ARG:O	5:R:451:ARG:HG3	2.08	0.52
1:A:28:LEU:HD11	1:B:231:PHE:CZ	2.44	0.52
2:C:16:GLY:HA2	2:C:1188:ASP:O	2.10	0.52
2:C:185:ASP:HB2	2:C:197:ARG:HB2	1.92	0.52
2:C:838:CYS:SG	2:C:886:LYS:HE2	2.49	0.52
3:D:886:VAL:HG13	3:D:1258:ARG:CB	2.40	0.52
2:C:809:GLY:CA	3:D:629:PHE:CD1	2.93	0.52
3:J:1150:PRO:HG2	3:J:1153:PRO:HG3	1.92	0.52
3:J:860:ARG:O	3:J:862:THR:HG23	2.10	0.52
3:J:609:TYR:OH	3:J:905:ARG:O	2.18	0.52
1:N:27:THR:HG22	1:N:202:VAL:HG13	1.91	0.52
1:N:82:LEU:HD22	1:N:173:VAL:HG22	1.92	0.52
3:P:1319:PHE:CZ	3:P:1342:ASP:HB2	2.45	0.52
3:P:349:TYR:O	3:P:470:VAL:HG23	2.10	0.52
3:P:44:ILE:HG22	3:P:51:PRO:HA	1.92	0.52
3:P:263:SER:N	5:R:507:MET:HB3	2.25	0.52
7:2:21:DG:H2'	7:2:22:DA:C8	2.45	0.51
7:8:22:DA:H1'	7:8:23:DT:OP1	2.10	0.51
2:C:1014:LEU:O	2:C:1017:GLN:HB3	2.10	0.51
2:C:886:LYS:HD2	2:C:916:SER:CB	2.24	0.51
3:D:163:GLU:N	3:D:163:GLU:CD	2.63	0.51
3:D:647:PRO:HG3	3:D:697:MET:HA	1.92	0.51
5:F:471:LEU:HG	5:F:476:ARG:O	2.10	0.51
2:I:556:GLY:HA2	2:I:659:GLN:O	2.10	0.51
2:I:75:LEU:CD2	2:I:127:ILE:CD1	2.88	0.51
3:J:145:VAL:O	3:J:178:ALA:HB1	2.10	0.51
3:J:403:ARG:O	3:J:404:GLU:HB2	2.09	0.51
3:J:68:TYR:O	3:J:76:LYS:HA	2.10	0.51
5:L:407:GLU:HG2	5:L:442:SER:CB	2.37	0.51
5:L:84:LEU:HG	5:L:107:THR:CG2	2.40	0.51
2:O:1290:MET:CA	2:O:1294:LYS:HD2	2.38	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:152:SER:HB3	2:O:452:ARG:HB2	1.92	0.51
2:O:557:ARG:HD3	2:O:587:LEU:HB3	1.91	0.51
3:P:424:ASN:HB3	3:P:467:ALA:HB3	1.92	0.51
3:P:555:TYR:HB3	3:P:563:LEU:CD2	2.23	0.51
4:Q:60:ASN:O	4:Q:64:LEU:HG	2.10	0.51
5:R:345:GLN:O	5:R:348:GLU:HB2	2.11	0.51
5:R:392:LYS:HG3	5:R:395:THR:HG21	1.92	0.51
6:4:47:DC:C2	6:4:48:DA:C6	2.98	0.51
2:C:1324:ASN:O	2:C:1328:LYS:HG2	2.09	0.51
2:C:217:THR:HG23	2:C:351:LEU:HD21	1.91	0.51
2:C:253:PHE:CB	2:C:288:PRO:HG2	2.38	0.51
3:D:181:GLY:O	3:D:185:ILE:HD13	1.97	0.51
3:D:275:ARG:NH1	3:D:298:MET:O	2.44	0.51
1:B:86:LYS:HB2	3:D:528:THR:HG21	1.92	0.51
3:D:843:VAL:CG2	3:D:897:HIS:O	2.58	0.51
1:G:228:LEU:HD12	1:H:228:LEU:HD12	1.92	0.51
1:H:223:ILE:HG22	1:H:227:GLN:HE21	1.75	0.51
2:I:148:GLN:NE2	2:I:533:LEU:O	2.24	0.51
2:I:719:LYS:N	2:I:719:LYS:CD	2.73	0.51
2:I:818:VAL:HG12	2:I:1096:ILE:HG23	1.92	0.51
4:K:39:VAL:HG13	4:K:40:PRO:HD2	1.93	0.51
5:L:333:VAL:O	5:L:337:VAL:HG23	2.10	0.51
5:L:353:LEU:HB3	5:L:358:VAL:HG22	1.91	0.51
5:L:403:ASP:O	5:L:406:GLN:HB2	2.10	0.51
1:M:81:ILE:HG23	1:M:130:ILE:O	2.10	0.51
1:M:56:VAL:CG1	1:M:144:ILE:CG2	2.85	0.51
2:O:758:ARG:HB2	2:O:833:ILE:HG21	1.92	0.51
3:P:1230:THR:HG23	3:P:1257:VAL:HG11	1.93	0.51
3:P:352:ARG:O	3:P:353:SER:HB2	2.09	0.51
3:P:844:THR:HB	3:P:881:LYS:O	2.10	0.51
5:R:353:LEU:HB3	5:R:358:VAL:CG2	2.41	0.51
6:1:21:DC:H2''	6:1:22:DC:C5	2.44	0.51
6:7:42:DG:P	6:7:42:DG:H3'	2.50	0.51
1:A:61:ILE:CD1	1:A:64:VAL:HG11	2.39	0.51
2:C:68:LEU:HD21	2:C:493:ILE:HD11	1.93	0.51
2:C:704:MET:HE3	2:C:708:VAL:HG23	1.91	0.51
2:C:797:GLY:HA3	2:C:1233:LEU:HD23	1.91	0.51
2:C:941:LYS:H	2:C:941:LYS:HD2	1.75	0.51
3:D:1229:VAL:HG13	3:D:1230:THR:N	2.20	0.51
3:D:1347:LEU:CD2	3:D:1357:ILE:HG23	2.40	0.51
3:D:275:ARG:HG2	3:D:278:ARG:HH22	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:485:MET:CG	3:D:487:THR:OG1	2.56	0.51
3:D:712:GLN:O	3:D:713:GLU:CG	2.58	0.51
5:F:583:THR:HG21	5:F:586:ARG:CB	2.33	0.51
1:G:77:ASP:O	1:G:81:ILE:HG13	2.10	0.51
2:I:1337:ILE:CD1	3:J:22:ILE:CD1	2.89	0.51
2:I:194:LEU:HD12	2:I:195:PHE:N	2.25	0.51
2:I:36:GLN:CD	2:I:36:GLN:O	2.48	0.51
3:J:1035:VAL:CG1	3:J:1078:LEU:HD22	2.40	0.51
3:J:121:PRO:O	3:J:122:SER:CB	2.57	0.51
3:J:1274:PHE:O	3:J:1278:GLU:CG	2.59	0.51
3:J:370:LYS:HA	3:J:441:LEU:HD22	1.93	0.51
3:J:620:PHE:C	3:J:624:ILE:HD12	2.30	0.51
2:O:1233:LEU:HD23	2:O:1234:LYS:H	1.76	0.51
2:O:1304:MET:HG3	2:O:1314:GLN:O	2.09	0.51
2:O:397:LEU:HD11	2:O:420:LEU:HD21	1.92	0.51
2:O:18:ARG:HH12	2:O:623:LEU:HD12	1.71	0.51
3:P:130:MET:SD	3:P:135:ILE:HG12	2.51	0.51
3:P:218:THR:CG2	3:P:222:LYS:HE3	2.36	0.51
3:P:975:ILE:HD12	3:P:997:VAL:HG11	1.93	0.51
5:R:547:VAL:HG11	5:R:598:LEU:HD22	1.93	0.51
7:8:17:DG:N2	8:9:13:GTP:C5	2.79	0.51
1:A:229:GLU:O	1:A:233:ASP:HB2	2.10	0.51
1:B:223:ILE:O	1:B:227:GLN:HG2	2.10	0.51
2:C:242:VAL:HB	2:C:245:ARG:HG3	1.92	0.51
2:C:283:LYS:C	2:C:284:LEU:HG	2.31	0.51
3:D:97:VAL:CG1	3:D:101:ARG:HG3	2.33	0.51
3:D:370:LYS:HE3	3:D:443:GLU:HB3	1.93	0.51
3:D:608:CYS:SG	3:D:617:THR:HA	2.50	0.51
3:D:622:ASP:HA	3:D:625:MET:HE2	1.93	0.51
1:G:158:ARG:NE	1:G:172:LEU:HD11	2.25	0.51
1:G:42:ALA:HA	1:H:38:THR:CG2	2.40	0.51
2:I:271:ALA:HA	2:I:274:ILE:HD12	1.92	0.51
3:J:886:VAL:HG21	3:J:1257:VAL:HB	1.92	0.51
5:L:385:ARG:HB3	6:4:42:DG:H5'	1.93	0.51
1:N:156:SER:O	1:N:159:ILE:CG2	2.56	0.51
2:O:660:VAL:HB	2:O:661:VAL:HG22	1.92	0.51
3:P:36:GLY:HA3	3:P:61:ILE:HG12	1.92	0.51
5:R:366:SER:HA	5:R:369:GLU:OE1	2.10	0.51
6:7:49:DG:O3'	6:7:50:DT:H4'	2.11	0.51
1:B:183:ILE:O	1:B:184:ALA:HB2	2.10	0.51
2:C:1065:LYS:NZ	8:3:14:A:O2'	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:191:LYS:O	2:C:192:ASP:HB2	2.10	0.51
2:C:685:MET:HE2	2:C:1073:LYS:HD3	1.92	0.51
2:C:871:VAL:HG22	2:C:883:LEU:O	2.09	0.51
2:C:980:VAL:HG12	2:C:980:VAL:O	2.11	0.51
3:D:1146:GLU:OE2	3:D:1309:ILE:HG21	2.10	0.51
3:D:1167:LYS:HE3	3:D:1167:LYS:N	2.25	0.51
3:D:33:TRP:O	3:D:35:PHE:CE2	2.64	0.51
2:C:1258:PRO:CG	3:D:346:ARG:HB2	2.38	0.51
3:D:746:LEU:HG	3:D:758:PRO:HB3	1.93	0.51
5:F:388:ILE:HG23	5:F:389:SER:N	2.25	0.51
2:I:1176:LEU:HD22	2:I:1181:PRO:HD3	1.92	0.51
2:I:158:ASP:HB2	2:I:173:ASN:OD1	2.10	0.51
2:I:565:GLU:HG3	2:I:566:GLY:H	1.75	0.51
3:J:1115:ILE:HD13	3:J:1121:LEU:HD21	1.93	0.51
3:J:1159:ILE:HG22	3:J:1160:SER:H	1.76	0.51
3:J:497:GLU:CB	3:J:498:PRO:HD2	2.41	0.51
3:J:501:VAL:HG12	3:J:502:PRO:CD	2.36	0.51
3:J:712:GLN:C	3:J:713:GLU:HG2	2.30	0.51
1:M:100:LEU:CD2	1:M:115:ILE:HG21	2.39	0.51
3:P:113:HIS:HB3	3:P:116:PHE:CD2	2.45	0.51
2:I:1269:ARG:NH2	7:5:15:DT:OP1	2.43	0.51
1:A:71:LYS:HG2	1:A:72:GLU:H	1.75	0.51
3:D:378:LYS:HG2	3:D:382:TYR:CZ	2.46	0.51
3:D:697:MET:SD	3:D:738:ARG:HA	2.50	0.51
4:E:60:ASN:OD1	4:E:60:ASN:C	2.49	0.51
3:D:262:THR:HA	5:F:507:MET:HE3	1.93	0.51
5:F:585:GLU:O	5:F:588:ARG:HB3	2.11	0.51
1:G:97:GLU:OE2	1:G:145:LYS:HD3	2.11	0.51
2:I:104:ILE:HD11	2:I:484:LEU:O	2.11	0.51
2:I:1304:MET:HE2	2:I:1308:ILE:HD11	1.91	0.51
2:I:489:PRO:O	2:I:493:ILE:CG1	2.59	0.51
3:J:160:LEU:CD2	3:J:164:GLN:HB3	2.39	0.51
3:J:428:THR:CG2	3:J:921:GLN:NE2	2.73	0.51
3:J:841:GLY:O	3:J:863:LEU:HD11	2.11	0.51
3:J:918:ILE:HG22	3:J:919:ALA:H	1.75	0.51
3:P:1258:ARG:CG	3:P:1258:ARG:HH11	2.23	0.51
3:P:332:LYS:HE3	3:P:1328:THR:H	1.76	0.51
3:P:333:GLY:C	3:P:336:GLY:H	2.13	0.51
3:P:347:VAL:CG1	3:P:348:ASP:N	2.74	0.51
3:P:453:VAL:HG12	3:P:500:ILE:HD13	1.93	0.51
5:R:324:LYS:CB	5:R:325:PRO:CD	2.87	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:155:ALA:CB	1:A:174:ASP:OD1	2.59	0.51
1:A:56:VAL:HG21	1:A:85:LEU:O	2.10	0.51
2:C:173:ASN:HB3	2:C:187:GLU:HB3	1.93	0.51
2:C:251:ALA:O	2:C:266:GLY:HA2	2.11	0.51
3:D:1035:VAL:HG13	3:D:1078:LEU:HB3	1.92	0.51
3:D:435:GLN:CD	3:D:486:SER:HA	2.31	0.51
3:D:490:ILE:N	3:D:490:ILE:CD1	2.73	0.51
3:D:807:LEU:HD22	3:D:1259:GLN:HG2	1.93	0.51
3:D:922:SER:O	3:D:926:PRO:HD3	2.11	0.51
5:F:580:PHE:O	5:F:581:ASP:CB	2.58	0.51
2:I:1054:LEU:HD22	2:I:1055:ALA:O	2.11	0.51
2:I:1212:LEU:HB3	2:I:1221:PHE:CE2	2.45	0.51
2:I:511:LEU:HD21	2:I:534:GLY:HA3	1.92	0.51
2:I:951:MET:O	2:I:955:GLN:HG2	2.11	0.51
3:J:1255:VAL:HG12	3:J:1256:ILE:N	2.24	0.51
3:J:1260:MET:HG2	3:J:1307:LEU:O	2.10	0.51
3:J:320:ASN:HD21	3:J:322:ARG:HG2	1.74	0.51
2:O:796:LEU:HB3	2:O:1233:LEU:HD11	1.92	0.51
2:O:149:LEU:HD13	2:O:453:ILE:HD13	1.92	0.51
2:O:433:ILE:O	2:O:437:ASN:OD1	2.28	0.51
3:P:1286:LYS:HB3	3:P:1290:ARG:NH2	2.25	0.51
3:P:268:LEU:HB2	3:P:306:LEU:HD13	1.93	0.51
3:P:536:LEU:HD13	3:P:542:ALA:HB2	1.91	0.51
2:O:90:VAL:HG11	5:R:476:ARG:NH2	2.26	0.51
3:P:259:ARG:CZ	5:R:502:LYS:HG2	2.41	0.51
6:7:59:DG:C6	7:8:3:DG:O6	2.64	0.51
2:C:1281:TYR:CZ	3:D:431:ARG:CG	2.93	0.51
2:C:211:ARG:CZ	2:C:357:ASN:O	2.58	0.51
2:C:817:LEU:HB3	2:C:1097:VAL:HB	1.92	0.51
2:C:90:VAL:HG13	2:C:91:THR:N	2.26	0.51
3:D:1035:VAL:CG2	3:D:1121:LEU:HD21	2.40	0.51
3:D:1138:LEU:CB	3:D:1139:PRO:CD	2.83	0.51
3:D:546:ALA:O	3:D:548:VAL:CG2	2.59	0.51
3:D:746:LEU:CG	3:D:758:PRO:HB3	2.40	0.51
3:D:884:SER:OG	3:D:885:VAL:N	2.44	0.51
1:H:197:ASP:HB3	1:H:198:LEU:HD13	1.93	0.51
2:I:1273:MET:HA	2:I:1276:TRP:CE3	2.46	0.51
2:I:165:HIS:HE2	2:I:190:PRO:HB3	1.74	0.51
2:I:993:PRO:O	2:I:997:TRP:CD1	2.63	0.51
3:J:179:LYS:HG2	3:J:180:MET:H	1.75	0.51
3:J:332:LYS:HE3	3:J:1328:THR:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:967:VAL:HG13	3:J:973:LEU:HD12	1.92	0.51
5:L:364:ARG:HA	5:L:367:ILE:HD12	1.92	0.51
1:M:102:LEU:HD21	1:M:130:ILE:HD13	1.91	0.51
1:M:43:LEU:HD11	1:M:201:LEU:HD21	1.93	0.51
1:M:221:ALA:HB1	1:N:228:LEU:HD21	1.93	0.51
2:O:16:GLY:O	2:O:1156:ARG:HB2	2.10	0.51
2:O:1161:LEU:C	2:O:1161:LEU:HD12	2.31	0.51
2:O:210:LEU:CD2	2:O:213:LEU:HD12	2.36	0.51
2:O:539:THR:HG22	2:O:540:ARG:N	2.26	0.51
2:O:725:GLN:HB3	2:O:733:VAL:HG23	1.91	0.51
2:O:852:ALA:O	2:O:862:LEU:CD2	2.59	0.51
4:Q:5:THR:HG22	4:Q:7:GLN:H	1.76	0.51
6:1:46:DG:C8	6:1:46:DG:C5'	2.93	0.51
6:4:28:DA:H2''	6:4:29:DC:C6	2.46	0.51
1:A:62:ASP:N	1:A:62:ASP:OD1	2.43	0.51
2:C:1121:ALA:HB2	2:C:1182:ILE:CD1	2.34	0.51
3:D:452:LEU:HD11	3:D:625:MET:HB2	1.92	0.51
5:F:110:LEU:HD12	5:F:110:LEU:N	2.22	0.51
1:G:18:GLN:HG3	1:G:24:ALA:HB2	1.93	0.51
3:J:233:LYS:HG3	3:J:234:PRO:HD2	1.91	0.51
3:J:575:GLY:O	3:J:579:LEU:HG	2.11	0.51
3:J:69:GLU:HG2	3:J:70:CYS:O	2.11	0.51
2:O:1286:THR:HB	2:O:1290:MET:HE2	1.93	0.51
2:O:247:ARG:HA	2:O:274:ILE:CD1	2.38	0.51
3:P:1002:VAL:HB	3:P:1019:ASN:O	2.11	0.51
3:P:1265:THR:OG1	3:P:1303:SER:OG	2.28	0.51
3:P:371:LYS:O	3:P:374:LEU:HB3	2.11	0.51
3:P:407:VAL:CG2	3:P:408:VAL:N	2.72	0.51
3:P:514:THR:HG21	3:P:596:LEU:HD12	1.92	0.51
3:P:749:LYS:HE2	3:P:755:ILE:HA	1.93	0.51
3:P:891:ASP:OD1	3:P:891:ASP:N	2.43	0.51
5:R:135:ALA:CB	5:R:256:PHE:CB	2.81	0.51
6:4:50:DT:H5'	6:4:51:DC:H6	1.72	0.51
1:B:74:VAL:O	1:B:74:VAL:CG1	2.58	0.51
2:C:1107:MET:HE3	3:D:739:GLN:HB3	1.93	0.51
3:D:1179:PRO:CD	3:D:1182:GLY:O	2.59	0.51
3:D:1251:LYS:O	3:D:1254:GLU:HB2	2.10	0.51
2:C:1320:PRO:HB3	3:D:345:LYS:NZ	2.26	0.51
3:D:425:ARG:HB3	3:D:457:TYR:HD1	1.76	0.51
2:C:902:LEU:HD13	5:F:540:LEU:HD21	1.92	0.51
1:H:82:LEU:CD2	1:H:173:VAL:CG2	2.84	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:61:ILE:HA	1:H:142:MET:CB	2.41	0.51
2:I:1101:LEU:HD11	3:J:508:LEU:HD23	1.90	0.51
2:I:1299:ASN:H	2:I:1299:ASN:ND2	2.09	0.51
2:I:366:ILE:O	2:I:369:MET:HG3	2.11	0.51
3:J:1250:ASP:OD1	3:J:1250:ASP:N	2.44	0.51
3:J:923:ILE:CD1	3:J:1252:HIS:HB3	2.40	0.51
3:J:848:VAL:C	3:J:849:LEU:HD23	2.28	0.51
1:N:106:GLY:HA2	1:N:136:GLU:HA	1.92	0.51
1:N:79:LEU:O	1:N:83:LEU:HD23	2.11	0.51
2:O:975:ILE:HG23	2:O:1011:LEU:CD1	2.38	0.51
2:O:496:LYS:HB2	2:O:497:PRO:HD3	1.92	0.51
3:P:1138:LEU:HD23	3:P:1139:PRO:CD	2.41	0.51
2:O:1269:ARG:HH12	3:P:340:GLN:HG3	1.73	0.51
2:O:550:VAL:O	3:P:777:HIS:HE1	1.94	0.51
5:R:112:THR:O	5:R:114:GLU:N	2.44	0.51
1:B:175:ALA:HB1	1:B:177:TYR:CZ	2.46	0.50
2:C:1252:SER:CA	2:C:1259:LEU:HD21	2.40	0.50
2:C:1278:LEU:CD1	2:C:1287:LEU:HA	2.40	0.50
2:C:1307:ASN:HB3	2:C:1312:ASN:HD22	1.76	0.50
2:C:250:THR:HG22	2:C:251:ALA:H	1.75	0.50
2:C:539:THR:HG22	2:C:540:ARG:H	1.76	0.50
2:C:58:PRO:CG	2:C:69:GLN:HG2	2.41	0.50
3:D:185:ILE:O	3:D:189:LEU:HD12	2.11	0.50
3:D:276:ASN:OD1	3:D:279:LEU:HD23	2.11	0.50
3:D:423:LEU:HB2	3:D:466:MET:HE1	1.93	0.50
3:D:339:ARG:HH12	3:D:798:ARG:NH1	2.09	0.50
3:D:825:VAL:HG21	3:D:1242:ARG:HH22	1.76	0.50
3:D:840:LEU:HD13	3:D:869:CYS:SG	2.51	0.50
5:F:123:ILE:CG2	5:F:376:LYS:HE3	2.40	0.50
5:F:289:LYS:CE	5:F:290:LEU:HG	2.39	0.50
1:G:31:LEU:HD11	1:G:201:LEU:CB	2.40	0.50
1:H:75:GLN:CG	1:H:134:THR:CG2	2.89	0.50
2:I:165:HIS:HE2	2:I:190:PRO:CB	2.24	0.50
2:I:298:ALA:HA	2:I:336:LEU:HD11	1.93	0.50
3:J:112:ALA:H	3:J:300:GLN:HE22	1.59	0.50
3:J:43:THR:HB	3:J:44:ILE:HG23	1.93	0.50
3:J:610:ARG:HD2	3:J:866:GLU:OE1	2.11	0.50
3:J:515:ARG:NH2	3:J:717:VAL:HB	2.22	0.50
2:O:102:LEU:CD2	2:O:104:ILE:HD11	2.40	0.50
2:O:34:SER:HA	2:O:37:LYS:HE3	1.92	0.50
2:O:662:SER:OG	2:O:663:VAL:N	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1145:PHE:C	3:P:1309:ILE:HD11	2.31	0.50
5:R:399:LEU:HD21	5:R:447:ALA:HB2	1.93	0.50
7:2:24:DT:H72	7:2:25:DA:N6	2.25	0.50
2:C:1225:VAL:HG13	2:C:1226:THR:N	2.26	0.50
3:D:491:LEU:HD21	3:D:609:TYR:CD2	2.45	0.50
5:F:306:PHE:O	5:F:310:GLU:HG3	2.11	0.50
5:F:551:LEU:CD1	5:F:559:LEU:HD12	2.41	0.50
5:F:585:GLU:OE2	5:F:588:ARG:CB	2.59	0.50
1:G:14:VAL:HG12	1:G:15:ASP:N	2.25	0.50
1:H:55:ALA:HB3	1:H:177:TYR:CD1	2.46	0.50
1:H:61:ILE:HD12	1:H:171:LEU:HD11	1.94	0.50
2:I:953:LEU:HB3	2:I:957:LYS:NZ	2.25	0.50
3:J:930:LEU:HD11	3:J:1246:VAL:CG2	2.41	0.50
5:L:452:ILE:HG23	5:L:456:MET:CB	2.40	0.50
2:O:189:ASP:HB2	2:O:195:PHE:CD2	2.46	0.50
2:O:851:THR:HG22	2:O:852:ALA:N	2.24	0.50
2:O:942:ASP:HB2	2:O:945:ALA:HB2	1.93	0.50
2:O:997:TRP:HB3	2:O:1000:LEU:CD2	2.39	0.50
3:P:367:GLY:HA3	3:P:448:GLN:HB2	1.94	0.50
3:P:608:CYS:SG	3:P:617:THR:CG2	2.78	0.50
3:P:650:LYS:O	3:P:654:ILE:HG13	2.11	0.50
7:2:32:DA:H2''	7:2:33:DC:OP2	2.11	0.50
1:A:56:VAL:HG13	1:A:144:ILE:HG21	1.92	0.50
1:A:166:ARG:HD2	1:A:170:ARG:HG2	1.92	0.50
2:C:184:LEU:HB3	2:C:186:PHE:CE2	2.46	0.50
3:D:1307:LEU:HD12	3:D:1312:ALA:HA	1.93	0.50
3:D:416:ILE:CD1	3:D:441:LEU:CD1	2.89	0.50
1:G:155:ALA:HB1	1:G:172:LEU:HG	1.93	0.50
1:G:49:SER:HB2	1:H:33:ARG:CZ	2.41	0.50
1:H:140:ILE:HG12	1:H:142:MET:CE	2.41	0.50
2:I:1119:MET:HE3	2:I:1199:LEU:HD21	1.93	0.50
2:I:675:ASP:HB2	2:I:1107:MET:CE	2.33	0.50
2:I:736:VAL:O	2:I:741:MET:CE	2.60	0.50
3:J:1253:ILE:O	3:J:1257:VAL:CG2	2.57	0.50
5:L:586:ARG:O	5:L:590:ILE:HG13	2.11	0.50
1:M:224:LEU:CD2	1:N:228:LEU:CG	2.81	0.50
3:P:930:LEU:CD1	3:P:1134:ILE:HG13	2.41	0.50
3:P:548:VAL:HG12	3:P:549:LYS:N	2.27	0.50
3:J:425:ARG:HH12	8:6:16:U:H1'	1.76	0.50
2:C:559:CYS:HB2	2:C:662:SER:HB3	1.93	0.50
5:F:572:THR:O	5:F:576:VAL:HG23	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1107:MET:HE1	3:J:763:PHE:HE2	1.74	0.50
2:I:15:PHE:CD2	2:I:1182:ILE:CG2	2.95	0.50
2:I:27:LEU:HD12	2:I:711:ASP:CB	2.41	0.50
3:J:143:SER:HB2	3:J:160:LEU:O	2.12	0.50
3:J:755:ILE:HD12	3:J:774:ILE:CG2	2.42	0.50
3:J:824:PRO:HD3	3:J:878:ASP:O	2.11	0.50
5:L:390:ILE:HD13	5:L:432:THR:HA	1.94	0.50
1:M:154:PRO:HD2	1:M:157:THR:OG1	2.11	0.50
1:M:11:PRO:HB2	1:M:28:LEU:HD12	1.93	0.50
1:M:38:THR:HG22	1:N:42:ALA:HB1	1.92	0.50
2:O:1129:ASN:HA	2:O:1132:LEU:HD12	1.92	0.50
2:O:13:LYS:HD2	2:O:1149:TYR:HA	1.94	0.50
3:P:233:LYS:HE2	3:P:236:TRP:NE1	2.27	0.50
3:P:371:LYS:O	3:P:374:LEU:CD2	2.56	0.50
5:F:434:TRP:HH2	6:1:35:DC:OP2	1.94	0.50
5:R:453:PRO:HG2	6:7:31:DT:OP1	2.11	0.50
6:7:53:DG:H2''	6:7:54:DA:C5'	2.42	0.50
2:C:13:LYS:NZ	2:C:1149:TYR:O	2.45	0.50
2:C:149:LEU:HD21	2:C:451:ARG:NE	2.14	0.50
2:C:230:PHE:CD1	2:C:292:ILE:HD11	2.47	0.50
3:D:1285:VAL:CG1	3:D:1286:LYS:N	2.74	0.50
3:D:219:LYS:O	3:D:222:LYS:HB2	2.12	0.50
3:D:111:THR:HG23	3:D:300:GLN:OE1	2.11	0.50
2:C:1283:ALA:CB	3:D:479:GLU:OE2	2.52	0.50
3:D:609:TYR:HA	3:D:617:THR:CG2	2.40	0.50
2:C:1104:PRO:HG3	3:D:725:MET:CE	2.40	0.50
3:D:795:TYR:CE1	7:2:12:DG:H5'	2.47	0.50
3:D:830:ASP:HB3	3:D:832:LYS:NZ	2.26	0.50
4:E:69:ARG:O	4:E:73:GLN:HG3	2.12	0.50
1:H:61:ILE:HA	1:H:142:MET:HB2	1.93	0.50
1:H:86:LYS:HE3	1:H:173:VAL:CG1	2.40	0.50
2:I:148:GLN:NE2	2:I:534:GLY:HA3	2.27	0.50
3:J:1285:VAL:CG1	3:J:1286:LYS:N	2.75	0.50
3:J:136:GLU:O	3:J:140:TYR:HD2	1.94	0.50
3:J:64:PRO:HG3	3:J:93:THR:H	1.76	0.50
2:I:1256:GLN:NE2	3:J:96:LYS:NZ	2.60	0.50
2:O:191:LYS:O	2:O:192:ASP:CB	2.58	0.50
2:O:297:VAL:HG11	2:O:311:CYS:HB2	1.93	0.50
2:O:672:GLU:CG	2:O:1187:PHE:HA	2.42	0.50
3:P:139:LEU:HA	3:P:181:GLY:HA2	1.93	0.50
3:P:838:ARG:CG	3:P:1250:ASP:OD2	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:795:TYR:CD1	7:8:12:DG:C5'	2.95	0.50
1:A:180:VAL:HA	1:A:207:THR:CG2	2.14	0.50
2:C:1109:ILE:N	2:C:1109:ILE:HD13	2.27	0.50
2:C:255:ILE:CD1	2:C:285:ILE:HG21	2.42	0.50
3:D:1307:LEU:N	3:D:1307:LEU:HD23	2.26	0.50
3:D:249:LEU:C	3:D:251:PRO:HD3	2.31	0.50
3:D:385:LEU:HD22	3:D:391:ALA:HB2	1.93	0.50
3:D:40:LYS:NZ	3:D:53:ARG:HE	2.10	0.50
3:D:700:ASN:O	3:D:704:GLU:CB	2.60	0.50
3:D:849:LEU:HD21	3:D:855:ASP:OD1	2.12	0.50
3:D:967:VAL:HG22	3:D:973:LEU:CD1	2.41	0.50
5:F:166:VAL:CG1	5:F:167:ASP:N	2.69	0.50
5:F:235:ILE:HG23	5:F:240:ARG:HD3	1.93	0.50
1:G:106:GLY:HA2	1:G:136:GLU:HA	1.94	0.50
2:I:1296:ASP:N	2:I:1296:ASP:OD1	2.42	0.50
2:I:49:LEU:HD23	2:I:464:PHE:CE2	2.47	0.50
3:J:1082:ASP:HB3	3:J:1088:VAL:CG2	2.42	0.50
3:J:1164:SER:O	3:J:1175:LEU:HD12	2.11	0.50
3:J:1266:ILE:CD1	3:J:1278:GLU:HB3	2.40	0.50
3:J:139:LEU:CD2	3:J:185:ILE:HD13	2.39	0.50
5:L:390:ILE:HG21	5:L:432:THR:HG23	1.94	0.50
1:M:68:TYR:OH	2:O:1057:LYS:HG2	2.12	0.50
2:O:414:ILE:H	2:O:414:ILE:HD13	1.77	0.50
2:O:758:ARG:HB2	2:O:833:ILE:CG2	2.41	0.50
2:O:170:VAL:HG23	3:P:1065:ALA:O	2.11	0.50
3:P:139:LEU:O	3:P:141:PHE:HD2	1.93	0.50
3:P:318:GLY:HA3	3:P:322:ARG:NH1	2.20	0.50
3:P:453:VAL:CG1	3:P:500:ILE:HD13	2.42	0.50
3:P:746:LEU:CG	3:P:758:PRO:HB3	2.35	0.50
3:P:843:VAL:CB	3:P:897:HIS:O	2.57	0.50
5:R:464:ASN:CG	7:8:25:DA:N6	2.65	0.50
5:R:418:LYS:NZ	6:7:35:DC:OP2	2.38	0.50
2:C:1008:GLN:HE22	2:C:1011:LEU:HD23	1.76	0.50
2:C:1151:LEU:CD2	2:C:1198:LEU:CD1	2.72	0.50
2:C:375:PRO:N	5:F:87:VAL:HG21	2.26	0.50
2:C:385:PHE:HA	2:C:388:LEU:HD12	1.93	0.50
2:C:708:VAL:HG12	2:C:794:LEU:HD22	1.90	0.50
3:D:379:PRO:CG	3:D:380:PHE:H	2.25	0.50
3:D:395:LYS:CB	3:D:398:LYS:HE3	2.41	0.50
3:D:450:HIS:CD2	3:D:452:LEU:H	2.30	0.50
3:D:894:VAL:HG22	3:D:915:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:221:ALA:O	1:G:224:LEU:HB3	2.11	0.50
2:I:185:ASP:OD2	2:I:200:ARG:NE	2.41	0.50
2:I:448:LEU:HG	2:I:553:THR:OG1	2.12	0.50
2:I:563:THR:HG22	2:I:680:LEU:HD11	1.94	0.50
2:I:75:LEU:CD2	2:I:127:ILE:HD12	2.42	0.50
2:I:876:GLU:HG2	2:I:927:THR:OG1	2.12	0.50
3:J:1225:GLY:O	3:J:1229:VAL:HG12	2.12	0.50
3:J:520:ALA:HB3	3:J:546:ALA:CB	2.42	0.50
3:J:824:PRO:HB3	3:J:834:PRO:HA	1.93	0.50
5:L:298:PRO:HD2	5:L:326:TRP:CH2	2.47	0.50
1:M:100:LEU:CD2	1:M:115:ILE:CG2	2.76	0.50
1:M:35:PHE:O	1:M:39:LEU:HD21	2.10	0.50
1:N:158:ARG:CD	1:N:172:LEU:HD11	2.41	0.50
2:O:1104:PRO:HB3	3:P:725:MET:HE1	1.92	0.50
2:O:1210:ILE:HG22	2:O:1211:ARG:N	2.26	0.50
7:2:25:DA:H1'	7:2:26:DT:H5''	1.94	0.50
3:J:47:ARG:NH2	6:4:30:DG:O3'	2.44	0.50
1:A:150:ARG:HB3	1:B:6:THR:OG1	2.12	0.50
1:B:76:GLU:CG	1:B:80:GLU:CD	2.80	0.50
2:C:143:ARG:NH1	2:C:507:GLY:HA2	2.27	0.50
3:D:1330:ARG:O	3:D:1334:GLU:HG3	2.12	0.50
5:F:426:LYS:HE2	6:1:40:DA:OP2	2.12	0.50
5:F:443:ILE:CG2	5:F:444:ALA:N	2.75	0.50
2:I:1148:ALA:O	2:I:1151:LEU:HB2	2.12	0.50
2:I:192:ASP:HB3	2:I:346:TYR:HD1	1.77	0.50
2:I:232:ILE:HG21	2:I:326:SER:CB	2.42	0.50
2:I:661:VAL:HG12	2:I:665:ALA:HB3	1.91	0.50
2:I:805:MET:HE2	2:I:806:PRO:CD	2.42	0.50
3:J:1350:ASN:HD22	3:J:1356:LEU:C	2.15	0.50
3:J:69:GLU:HG2	3:J:69:GLU:O	2.12	0.50
5:L:120:ALA:CB	5:L:421:TYR:HB3	2.42	0.50
1:M:69:SER:O	1:M:78:ILE:CD1	2.60	0.50
2:O:1237:HIS:CE1	2:O:1242:LYS:HZ1	2.28	0.50
2:O:1299:ASN:OD1	2:O:1299:ASN:N	2.45	0.50
2:O:157:PHE:N	2:O:157:PHE:CD1	2.79	0.50
2:O:293:ALA:HB2	2:O:319:LEU:CD2	2.39	0.50
3:P:1157:ALA:O	3:P:1223:LEU:HD13	2.11	0.50
3:P:1263:LYS:HD3	3:P:1280:VAL:C	2.32	0.50
6:1:51:DC:C4	6:1:52:DT:O4	2.65	0.50
5:L:429:THR:OG1	6:4:39:DA:H8	1.75	0.50
5:R:461:ASN:CA	7:8:26:DT:H72	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:217:ILE:HG22	1:B:218:ARG:N	2.25	0.50
2:C:1289:GLU:OE2	3:D:472:LEU:N	2.45	0.50
2:C:1334:GLY:C	3:D:25:ALA:HB2	2.31	0.50
2:C:838:CYS:HB2	2:C:918:LEU:HD22	1.93	0.50
3:D:105:ILE:HD12	3:D:242:LEU:CD2	2.31	0.50
3:D:424:ASN:O	3:D:466:MET:HE2	2.12	0.50
3:D:497:GLU:CB	3:D:498:PRO:CD	2.89	0.50
3:D:522:GLY:CA	3:D:525:MET:SD	3.00	0.50
3:D:696:ALA:O	3:D:700:ASN:HB2	2.11	0.50
3:D:749:LYS:HE3	3:D:755:ILE:CG1	2.42	0.50
3:D:807:LEU:HG	3:D:893:GLY:HA2	1.93	0.50
5:F:601:PRO:HB3	5:F:608:ARG:NH2	2.27	0.50
2:C:260:LYS:HD3	2:I:490:GLN:OE1	2.11	0.50
2:I:870:ILE:CG2	2:I:944:ARG:HD3	2.41	0.50
3:J:303:VAL:O	3:J:306:LEU:HB3	2.12	0.50
3:J:621:ALA:HA	3:J:624:ILE:HD12	1.93	0.50
3:J:945:ALA:CB	3:J:1023:HIS:HE1	2.25	0.50
1:N:65:LEU:O	1:N:169:GLY:CA	2.54	0.50
2:O:1088:ASP:HB2	2:O:1091:GLY:H	1.77	0.50
2:O:766:ASN:ND2	2:O:766:ASN:C	2.65	0.50
3:P:1078:LEU:CG	3:P:1101:LEU:HD11	2.41	0.50
3:P:478:LEU:HD11	4:Q:23:ALA:CB	2.42	0.50
3:P:552:ILE:HG21	3:P:589:TYR:CD1	2.47	0.50
6:1:59:DG:H2"	6:1:60:DC:C6	2.47	0.49
6:7:54:DA:H2"	6:7:55:DC:C6	2.47	0.49
1:B:9:LEU:HD21	1:B:30:PRO:HG2	1.94	0.49
1:B:86:LYS:HB3	1:B:176:CYS:SG	2.52	0.49
2:C:669:PRO:CB	2:C:1184:THR:CG2	2.90	0.49
2:C:177:ILE:HA	2:C:183:TRP:HD1	1.77	0.49
3:D:1101:LEU:HD22	3:D:1122:ALA:HB2	1.93	0.49
3:D:238:ILE:HG23	3:D:239:LEU:N	2.27	0.49
3:D:849:LEU:O	3:D:850:LYS:CB	2.60	0.49
1:G:25:LYS:HZ2	1:G:202:VAL:HG12	1.74	0.49
2:I:686:GLN:NE2	2:I:1069:ARG:CD	2.75	0.49
2:I:1124:ILE:HG23	2:I:1144:PHE:HE2	1.77	0.49
2:I:357:ASN:N	2:I:361:SER:OG	2.45	0.49
2:I:60:GLN:CG	2:I:67:GLU:OE1	2.60	0.49
2:I:719:LYS:N	2:I:719:LYS:HD2	2.27	0.49
2:I:878:THR:HG22	2:I:879:GLY:N	2.27	0.49
2:I:878:THR:HA	2:I:925:SER:HB2	1.94	0.49
3:J:1355:ARG:HD3	3:J:1369:ARG:HH22	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:646:ILE:HG13	3:J:764:ARG:HH11	1.76	0.49
3:J:826:ILE:HG21	3:J:994:SER:CB	2.37	0.49
3:J:843:VAL:HG11	3:J:883:ARG:CD	2.29	0.49
5:L:360:ASP:O	5:L:364:ARG:HB2	2.11	0.49
5:L:452:ILE:CG2	5:L:456:MET:HB2	2.42	0.49
2:I:905:ILE:HA	5:L:595:LEU:HD22	1.93	0.49
1:N:64:VAL:HG11	1:N:78:ILE:CD1	2.42	0.49
2:O:829:THR:HG23	2:O:1058:ARG:O	2.12	0.49
2:O:165:HIS:HB2	2:O:168:GLY:H	1.77	0.49
2:O:295:LYS:O	2:O:317:LEU:HB2	2.12	0.49
2:O:73:TYR:HB2	2:O:98:VAL:HG22	1.93	0.49
3:P:1190:ILE:HD13	3:P:1196:LEU:CD1	2.42	0.49
3:P:1280:VAL:HG12	3:P:1281:GLU:N	2.25	0.49
3:P:807:LEU:HD23	3:P:1255:VAL:HG12	1.94	0.49
5:R:91:ILE:CD1	5:R:103:ARG:HH22	2.25	0.49
5:R:84:LEU:HD22	5:R:88:GLU:OE2	2.11	0.49
7:5:27:DA:C8	7:5:27:DA:OP1	2.65	0.49
8:9:14:A:C5'	8:9:15:G:OP2	2.54	0.49
2:C:1066:MET:HE3	2:C:1234:LYS:HA	1.92	0.49
3:D:117:LEU:HA	3:D:124:ILE:CD1	2.36	0.49
3:D:190:LYS:HG3	3:D:235:GLU:OE2	2.12	0.49
2:C:1294:LYS:NZ	3:D:349:TYR:HB2	2.27	0.49
5:F:452:ILE:HG22	5:F:457:ILE:CG1	2.43	0.49
1:G:79:LEU:O	1:G:82:LEU:HB2	2.11	0.49
1:H:81:ILE:HG23	1:H:84:ASN:HD22	1.77	0.49
2:I:1294:LYS:HD3	3:J:347:VAL:HG11	1.93	0.49
2:I:1315:MET:HG2	2:I:1317:PRO:HD3	1.94	0.49
2:I:448:LEU:CD1	2:I:553:THR:O	2.61	0.49
2:I:684:ASN:HA	2:I:687:ARG:NH2	2.26	0.49
2:I:840:SER:OG	2:I:1048:LYS:N	2.45	0.49
3:J:1176:VAL:HG22	3:J:1187:GLU:HG2	1.93	0.49
3:J:26:SER:H	3:J:29:MET:CE	2.25	0.49
3:J:353:SER:CB	3:J:372:MET:CE	2.77	0.49
3:J:786:THR:CG2	3:J:787:ALA:H	2.25	0.49
5:L:309:ASN:OD1	5:L:312:SER:HB3	2.12	0.49
1:M:59:VAL:CG1	1:M:60:GLU:N	2.74	0.49
2:O:60:GLN:O	2:O:476:LYS:HE3	2.12	0.49
3:P:1169:THR:C	3:P:1171:GLY:H	2.15	0.49
3:P:1319:PHE:CE2	3:P:1342:ASP:HB2	2.47	0.49
3:P:572:THR:HB	3:P:589:TYR:OH	2.11	0.49
2:O:1107:MET:CG	3:P:740:LEU:HD11	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:76:GLU:O	4:Q:80:LEU:HG	2.11	0.49
3:P:79:LYS:CG	5:R:569:THR:HG23	2.39	0.49
2:O:1073:LYS:NZ	8:9:15:G:O5'	2.44	0.49
1:B:169:GLY:O	1:B:171:LEU:HG	2.11	0.49
2:C:653:MET:HG2	2:C:654:ASP:N	2.27	0.49
3:D:1011:VAL:HG11	3:D:1017:VAL:CG1	2.41	0.49
3:D:1151:LYS:CD	3:D:1151:LYS:N	2.60	0.49
3:D:421:VAL:HG23	3:D:439:PRO:HG2	1.94	0.49
3:D:643:ASP:O	3:D:720:ASN:ND2	2.44	0.49
3:D:844:THR:CG2	3:D:864:LEU:HD21	2.41	0.49
5:F:565:ILE:O	5:F:566:ASP:CB	2.60	0.49
5:F:547:VAL:HG21	5:F:607:LEU:HD11	1.93	0.49
1:H:35:PHE:O	1:H:39:LEU:HG	2.13	0.49
2:I:1034:ARG:HA	2:I:1037:THR:CB	2.42	0.49
2:I:1277:ALA:O	2:I:1280:ALA:HB3	2.12	0.49
2:I:568:ASN:HA	2:I:571:LEU:HD12	1.92	0.49
2:I:668:ILE:O	2:I:1186:VAL:HG22	2.13	0.49
2:I:82:VAL:HG23	2:I:83:GLN:N	2.27	0.49
2:I:854:ILE:HG22	2:I:857:VAL:HB	1.94	0.49
3:J:886:VAL:CG1	3:J:1261:LEU:HD13	2.33	0.49
3:J:1318:SER:OG	3:J:1321:SER:CB	2.57	0.49
3:J:708:ASN:ND2	3:J:713:GLU:HG2	2.27	0.49
3:J:931:THR:HG23	3:J:1134:ILE:CG2	2.42	0.49
2:O:1290:MET:HA	2:O:1294:LYS:CD	2.39	0.49
2:O:548:ARG:HH12	3:P:788:LEU:HD23	1.77	0.49
3:P:261:ALA:HB1	5:R:507:MET:HA	1.94	0.49
3:P:615:LYS:N	3:P:616:PRO:CD	2.75	0.49
3:P:762:ASN:OD1	3:P:764:ARG:HB3	2.13	0.49
4:Q:30:MET:HE1	4:Q:46:THR:HA	1.94	0.49
6:1:53:DG:H1'	6:1:54:DA:H5'	1.94	0.49
7:2:35:DT:H2'	7:2:36:DG:OP2	2.12	0.49
6:4:59:DG:C6	7:5:3:DG:O6	2.66	0.49
2:C:559:CYS:HG	2:C:661:VAL:HG12	1.75	0.49
2:C:170:VAL:HG23	3:D:1065:ALA:CB	2.43	0.49
3:D:1170:LYS:HG2	3:D:1170:LYS:O	2.12	0.49
3:D:799:ARG:HD2	3:D:1309:ILE:HG21	1.94	0.49
3:D:337:ARG:HH11	3:D:341:ASN:HD21	1.60	0.49
3:D:395:LYS:HA	3:D:398:LYS:CG	2.43	0.49
3:D:625:MET:CG	3:D:629:PHE:HE2	2.25	0.49
3:D:651:HIS:HA	3:D:654:ILE:HD12	1.93	0.49
2:C:673:HIS:O	3:D:763:PHE:CD1	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:167:ASP:N	5:F:168:PRO:HD3	2.26	0.49
5:F:601:PRO:HB3	5:F:608:ARG:HH21	1.76	0.49
1:G:43:LEU:HD13	1:G:203:ILE:HD11	1.94	0.49
3:J:1063:ASP:HB3	3:J:1103:GLY:HA3	1.94	0.49
3:J:1172:LYS:HE2	3:J:1191:PRO:HA	1.94	0.49
2:I:813:GLU:O	3:J:461:PHE:HB2	2.12	0.49
5:L:407:GLU:CG	5:L:442:SER:HB3	2.41	0.49
1:M:61:ILE:HG12	1:M:142:MET:HB2	1.93	0.49
1:N:18:GLN:HG3	1:N:24:ALA:HB2	1.94	0.49
2:O:805:MET:C	2:O:1100:PRO:HD3	2.33	0.49
2:O:25:PRO:O	2:O:27:LEU:HD23	2.12	0.49
2:O:49:LEU:HD13	2:O:73:TYR:CZ	2.48	0.49
2:O:693:LEU:HA	2:O:831:ILE:HD11	1.94	0.49
3:P:1210:ILE:HG22	3:P:1211:SER:N	2.27	0.49
3:P:252:LEU:HD12	3:P:253:VAL:N	2.27	0.49
3:P:643:ASP:HA	3:P:720:ASN:HD21	1.76	0.49
5:R:394:TYR:O	5:R:396:ASN:N	2.45	0.49
5:R:429:THR:OG1	6:7:39:DA:H8	1.96	0.49
1:B:183:ILE:HB	1:B:205:MET:HE2	1.95	0.49
2:C:251:ALA:HB3	2:C:266:GLY:H	1.77	0.49
2:C:406:ASN:HD22	2:C:414:ILE:HA	1.76	0.49
3:D:419:HIS:CE1	3:D:477:GLN:NE2	2.80	0.49
1:G:121:VAL:O	1:G:122:GLU:HG3	2.12	0.49
1:H:52:PRO:HA	1:H:150:ARG:CB	2.42	0.49
2:I:452:ARG:NH2	2:I:458:GLU:CD	2.66	0.49
3:J:104:HIS:HA	3:J:244:VAL:HG23	1.94	0.49
3:J:1254:GLU:HA	3:J:1257:VAL:HG21	1.95	0.49
3:J:197:GLU:HA	3:J:200:GLN:CD	2.32	0.49
2:I:1336:ASN:HD22	3:J:23:ALA:HB3	1.76	0.49
3:J:278:ARG:HH21	5:L:406:GLN:HB3	1.78	0.49
3:J:424:ASN:N	3:J:466:MET:CE	2.75	0.49
5:L:383:ASN:HD22	5:L:386:LEU:CD2	2.26	0.49
1:M:76:GLU:CB	1:M:81:ILE:HG13	2.41	0.49
2:O:1101:LEU:HD21	3:P:725:MET:CG	2.39	0.49
2:O:811:ASN:CB	2:O:1099:ASN:HB2	2.42	0.49
2:O:862:LEU:O	2:O:865:LEU:HB2	2.12	0.49
3:P:1150:PRO:O	3:P:1153:PRO:HD3	2.12	0.49
3:P:1231:ARG:O	3:P:1234:VAL:HB	2.12	0.49
3:P:26:SER:O	3:P:30:ILE:HG13	2.12	0.49
5:F:451:ARG:NH1	6:1:32:DA:OP1	2.46	0.49
1:A:232:VAL:HG13	1:B:221:ALA:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:48:LEU:HD21	1:B:183:ILE:HG22	1.93	0.49
2:C:1275:VAL:HG12	2:C:1279:GLU:CD	2.33	0.49
3:D:111:THR:CG2	3:D:112:ALA:N	2.75	0.49
3:D:395:LYS:O	3:D:398:LYS:CD	2.60	0.49
3:D:470:VAL:CG1	3:D:472:LEU:CD2	2.91	0.49
3:D:479:GLU:HA	4:E:20:VAL:HG21	1.94	0.49
3:D:92:VAL:O	3:D:93:THR:HG23	2.13	0.49
5:F:489:MET:HB2	5:F:494:ILE:HD11	1.95	0.49
2:I:27:LEU:HD12	2:I:711:ASP:HB3	1.93	0.49
2:I:750:ILE:HG23	2:I:750:ILE:O	2.13	0.49
3:J:1254:GLU:C	3:J:1257:VAL:HG23	2.33	0.49
3:J:805:GLN:HB2	3:J:1347:LEU:CG	2.43	0.49
3:J:828:GLY:HA2	3:J:996:LYS:N	2.28	0.49
1:N:13:LEU:HD12	1:N:28:LEU:HD22	1.92	0.49
2:O:1142:ARG:HG3	2:O:1161:LEU:CD2	2.43	0.49
2:O:830:THR:OG1	2:O:832:HIS:HD2	1.95	0.49
5:R:428:SER:OG	6:7:41:DT:H73	2.13	0.49
6:1:58:DG:C2	7:2:6:DG:N2	2.81	0.49
6:4:53:DG:H1'	6:4:54:DA:H5'	1.95	0.49
1:A:81:ILE:O	1:A:85:LEU:HG	2.12	0.49
1:B:61:ILE:HD12	1:B:171:LEU:CD1	2.43	0.49
1:B:88:LEU:HD22	1:B:128:HIS:CD2	2.48	0.49
3:D:173:GLY:O	3:D:175:GLU:N	2.46	0.49
3:D:501:VAL:CG1	3:D:502:PRO:HD2	2.32	0.49
3:D:600:ALA:O	3:D:604:MET:SD	2.71	0.49
3:D:646:ILE:HG13	3:D:764:ARG:HH11	1.78	0.49
2:C:1107:MET:CE	3:D:740:LEU:HD21	2.31	0.49
1:G:91:ARG:HD2	1:G:124:VAL:HG22	1.83	0.49
2:I:678:ARG:CD	2:I:1106:ARG:O	2.58	0.49
3:J:1237:VAL:CG1	3:J:1241:TYR:HE2	2.24	0.49
3:J:809:VAL:HB	3:J:911:LYS:HA	1.95	0.49
3:J:786:THR:HA	3:J:935:PHE:CD2	2.48	0.49
3:J:97:VAL:HG12	3:J:101:ARG:CD	2.43	0.49
5:L:423:ARG:HD3	6:4:37:DA:C4	2.47	0.49
1:M:66:HIS:O	1:M:78:ILE:CD1	2.60	0.49
1:M:83:LEU:HD13	1:M:86:LYS:CD	2.38	0.49
2:O:414:ILE:N	2:O:414:ILE:HD13	2.27	0.49
2:O:56:VAL:HG21	2:O:468:LEU:HD22	1.94	0.49
3:P:1353:VAL:HG21	3:P:1355:ARG:CD	2.33	0.49
3:P:161:THR:OG1	3:P:164:GLN:NE2	2.45	0.49
3:P:526:VAL:O	3:P:527:LEU:HD23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:525:MET:O	3:P:548:VAL:HG13	2.12	0.49
5:F:585:GLU:HG3	7:2:46:DT:C5	2.47	0.49
5:F:585:GLU:CG	7:2:47:DC:H41	2.22	0.49
2:C:1330:ILE:HD12	2:C:1337:ILE:HD12	1.93	0.49
3:D:1167:LYS:O	3:D:1174:ARG:NE	2.45	0.49
3:D:1261:LEU:HD13	3:D:1304:ARG:HD3	1.92	0.49
3:D:471:PRO:HG2	3:D:471:PRO:O	2.13	0.49
3:D:909:ILE:CD1	3:D:910:ASN:N	2.71	0.49
5:F:417:ASP:OD1	5:F:417:ASP:N	2.44	0.49
5:F:476:ARG:HG3	5:F:477:GLU:N	2.28	0.49
5:F:84:LEU:CD1	5:F:107:THR:CG2	2.70	0.49
2:I:13:LYS:HB2	2:I:1149:TYR:CE1	2.48	0.49
3:J:296:LYS:O	3:J:299:LEU:HD23	2.12	0.49
2:I:680:LEU:HD23	3:J:783:LEU:HD23	1.94	0.49
5:L:490:PRO:O	5:L:494:ILE:CD1	2.60	0.49
5:L:586:ARG:C	5:L:587:ILE:HD13	2.26	0.49
2:O:13:LYS:O	2:O:1183:ALA:N	2.32	0.49
2:O:424:ASP:O	2:O:428:VAL:HG23	2.12	0.49
2:O:18:ARG:HH11	2:O:623:LEU:HD12	1.66	0.49
2:O:668:ILE:HD11	2:O:686:GLN:NE2	2.27	0.49
3:P:1163:VAL:HG22	3:P:1177:ILE:HG23	1.95	0.49
3:P:201:LEU:HD22	3:P:217:LEU:CD2	2.43	0.49
3:P:925:GLU:N	3:P:926:PRO:CD	2.75	0.49
3:D:332:LYS:CE	7:2:11:DA:OP1	2.61	0.49
8:6:14:A:H5'	8:6:15:G:OP2	2.11	0.49
1:A:69:SER:O	1:A:78:ILE:CG1	2.60	0.49
2:C:1281:TYR:CZ	3:D:431:ARG:HB2	2.48	0.49
5:F:252:LEU:O	5:F:255:VAL:HB	2.12	0.49
5:F:511:ILE:HD13	5:F:519:LEU:HA	1.94	0.49
2:I:1232:MET:C	2:I:1233:LEU:HG	2.33	0.49
2:I:38:PHE:HE1	2:I:461:GLU:HA	1.78	0.49
2:I:655:VAL:CG1	2:I:656:SER:N	2.73	0.49
2:I:191:LYS:CG	3:J:1069:ALA:HB3	2.42	0.49
3:J:1240:VAL:O	3:J:1243:LEU:HB3	2.12	0.49
2:I:1326:LEU:HD22	3:J:342:LEU:CD1	2.42	0.49
5:L:386:LEU:HD22	6:4:41:DT:N3	2.28	0.49
1:M:150:ARG:CD	1:M:150:ARG:H	2.23	0.49
1:M:224:LEU:HD11	1:M:228:LEU:HD12	1.94	0.49
1:N:140:ILE:CG1	1:N:142:MET:HE1	2.37	0.49
2:O:1085:MET:HE2	2:O:1086:PRO:HD2	1.95	0.49
2:O:1238:LEU:HB3	2:O:1240:ASP:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:720:ASN:O	3:P:724:MET:CG	2.48	0.49
6:1:34:DG:C5	6:1:35:DC:N4	2.81	0.49
2:C:726:TYR:HB3	2:C:733:VAL:CG2	2.42	0.49
2:C:846:GLY:CA	2:C:889:PRO:HG2	2.41	0.49
3:D:1229:VAL:CG1	3:D:1230:THR:H	2.21	0.49
3:D:70:CYS:CB	3:D:90:VAL:CG1	2.91	0.49
5:F:91:ILE:HD11	5:F:103:ARG:CZ	2.43	0.49
5:F:606:VAL:HG23	5:F:607:LEU:HG	1.95	0.49
2:I:402:ARG:CD	2:I:416:GLY:HA3	2.43	0.49
2:I:726:TYR:N	2:I:733:VAL:HG22	2.28	0.49
3:J:1098:GLN:HB3	3:J:1100:PHE:CE2	2.47	0.49
3:J:1265:THR:OG1	3:J:1303:SER:OG	2.29	0.49
3:J:268:LEU:O	3:J:272:VAL:HG23	2.13	0.49
2:O:1225:VAL:HG12	2:O:1226:THR:N	2.26	0.49
2:O:496:LYS:CB	2:O:497:PRO:HD3	2.43	0.49
2:O:1286:THR:CB	3:P:479:GLU:OE2	2.61	0.49
3:P:622:ASP:HB3	3:P:626:TYR:CE2	2.32	0.49
3:P:75:TYR:HB3	3:P:92:VAL:HG21	1.94	0.49
6:4:47:DC:C2	6:4:48:DA:C4	3.00	0.48
2:C:1117:LEU:O	2:C:1117:LEU:HG	2.13	0.48
2:C:452:ARG:NH2	2:C:458:GLU:OE1	2.45	0.48
2:C:559:CYS:HB2	2:C:662:SER:N	2.28	0.48
3:D:1165:PHE:CE1	3:D:1199:PHE:O	2.66	0.48
3:D:1145:PHE:CZ	3:D:1253:ILE:HG23	2.48	0.48
3:D:163:GLU:OE1	3:D:163:GLU:N	2.46	0.48
2:C:1257:GLN:HE21	3:D:345:LYS:HB3	1.77	0.48
3:D:746:LEU:HD21	3:D:758:PRO:HB3	1.90	0.48
1:G:46:ILE:HG12	1:H:35:PHE:CE1	2.48	0.48
2:I:1034:ARG:HA	2:I:1037:THR:HB	1.93	0.48
2:I:686:GLN:HE21	2:I:1069:ARG:HG2	1.76	0.48
2:I:1307:ASN:HB3	2:I:1312:ASN:HB3	1.95	0.48
2:I:448:LEU:HD11	2:I:553:THR:O	2.13	0.48
2:I:849:GLU:O	2:I:887:VAL:HG22	2.13	0.48
2:I:190:PRO:CB	3:J:1069:ALA:HB2	2.31	0.48
3:J:141:PHE:HA	3:J:180:MET:HG2	1.95	0.48
5:L:457:ILE:HA	5:L:460:ILE:HD12	1.94	0.48
1:M:59:VAL:HG12	1:M:60:GLU:N	2.27	0.48
1:N:219:ARG:O	1:N:223:ILE:CG1	2.58	0.48
2:O:225:PHE:CE2	2:O:347:ILE:HB	2.48	0.48
2:O:363:LEU:HA	2:O:366:ILE:HD12	1.94	0.48
2:O:590:PRO:HD3	2:O:605:TYR:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:883:LEU:HG	2:O:920:VAL:HG23	1.95	0.48
3:P:481:ARG:O	3:P:485:MET:CB	2.59	0.48
5:R:590:ILE:HA	5:R:593:LYS:CE	2.43	0.48
6:4:44:DG:H2''	6:4:45:DT:C4'	2.43	0.48
2:C:1006:GLU:HB2	2:C:1007:LYS:HZ1	1.77	0.48
2:C:1288:GLN:CB	2:C:1315:MET:CE	2.90	0.48
3:D:1280:VAL:HG13	3:D:1281:GLU:H	1.78	0.48
5:F:213:ASP:OD1	5:F:213:ASP:N	2.46	0.48
5:F:434:TRP:CE2	6:1:36:DT:C7	2.96	0.48
5:F:468:ARG:NH2	7:2:25:DA:H8	2.11	0.48
5:F:533:ASP:N	5:F:533:ASP:OD1	2.46	0.48
3:D:79:LYS:CE	5:F:569:THR:HB	2.43	0.48
1:G:199:ASP:OD1	1:G:199:ASP:N	2.46	0.48
1:G:9:LEU:HD23	1:G:32:GLU:HG3	1.94	0.48
1:H:75:GLN:NE2	1:H:132:HIS:HB3	2.27	0.48
2:I:1034:ARG:HA	2:I:1037:THR:OG1	2.13	0.48
3:J:1172:LYS:HD3	3:J:1189:MET:CE	2.43	0.48
3:J:26:SER:H	3:J:29:MET:HE2	1.78	0.48
3:J:421:VAL:HG13	3:J:469:HIS:O	2.11	0.48
3:J:368:LEU:HA	3:J:447:ILE:HG23	1.94	0.48
3:J:796:LEU:CD1	3:J:800:LEU:HD21	2.42	0.48
2:O:525:THR:CG2	2:O:526:HIS:N	2.76	0.48
3:P:415:VAL:HA	4:Q:45:LYS:NZ	2.28	0.48
3:P:909:ILE:CG1	3:P:910:ASN:N	2.76	0.48
2:C:797:GLY:CA	2:C:1233:LEU:HD23	2.41	0.48
2:C:1283:ALA:HA	3:D:479:GLU:OE1	2.12	0.48
2:C:865:LEU:HD13	2:C:869:GLY:HA2	1.93	0.48
2:C:870:ILE:N	2:C:870:ILE:HD13	2.27	0.48
3:D:1307:LEU:HD12	3:D:1312:ALA:CB	2.44	0.48
2:C:1289:GLU:OE2	3:D:472:LEU:CA	2.61	0.48
5:F:279:ARG:NH2	5:F:347:ILE:HG12	2.27	0.48
1:G:24:ALA:HB2	1:G:213:PRO:HG2	1.95	0.48
2:I:1006:GLU:CD	2:I:1006:GLU:N	2.66	0.48
2:I:1072:ASN:CG	2:I:1111:GLN:OE1	2.51	0.48
2:I:211:ARG:HB2	2:I:362:ALA:CB	2.43	0.48
2:I:184:LEU:CD2	2:I:389:PHE:CE2	2.82	0.48
2:I:851:THR:HG23	2:I:852:ALA:H	1.76	0.48
3:J:291:ILE:HG23	5:L:409:ASN:HD22	1.79	0.48
3:J:306:LEU:O	3:J:326:SER:HB2	2.13	0.48
3:J:608:CYS:HG	3:J:617:THR:HG22	1.75	0.48
2:I:1223:ARG:HG3	3:J:636:GLY:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:712:GLN:C	3:J:713:GLU:CG	2.81	0.48
1:M:112:ALA:HB1	1:M:123:ILE:HG21	1.94	0.48
1:M:84:ASN:O	1:M:128:HIS:NE2	2.46	0.48
2:O:1271:GLY:O	2:O:1275:VAL:HG23	2.13	0.48
2:O:194:LEU:HD23	2:O:206:ALA:CB	2.43	0.48
2:O:444:ASP:O	2:O:450:ASN:ND2	2.47	0.48
2:O:693:LEU:O	2:O:693:LEU:HD12	2.13	0.48
2:O:79:VAL:HG23	2:O:95:PRO:HD3	1.95	0.48
3:P:1163:VAL:CG2	3:P:1177:ILE:HG23	2.43	0.48
3:P:902:ASP:HB2	3:P:909:ILE:HA	1.94	0.48
2:O:1311:GLY:O	4:Q:31:GLN:HG2	2.13	0.48
1:A:190:ALA:O	1:A:192:VAL:HG23	2.12	0.48
1:A:225:ALA:HA	1:A:228:LEU:HB2	1.95	0.48
2:C:1185:PRO:HD2	2:C:1189:GLY:HA2	1.95	0.48
2:C:1307:ASN:HB3	2:C:1312:ASN:HB3	1.95	0.48
3:D:121:PRO:O	3:D:122:SER:CB	2.58	0.48
3:D:1346:GLY:O	3:D:1349:GLU:HB2	2.12	0.48
3:D:421:VAL:HG23	3:D:439:PRO:CG	2.43	0.48
3:D:484:MET:CG	3:D:484:MET:CE	2.90	0.48
2:I:661:VAL:CG1	2:I:662:SER:N	2.76	0.48
2:I:686:GLN:CG	2:I:1069:ARG:HG2	2.44	0.48
2:I:745:GLU:CG	2:I:746:ALA:N	2.67	0.48
3:J:1218:HIS:CD2	3:J:1306:LEU:HD23	2.49	0.48
3:J:145:VAL:CG2	3:J:158:GLN:O	2.59	0.48
2:I:1294:LYS:CD	3:J:347:VAL:CG1	2.85	0.48
3:J:490:ILE:HD11	3:J:614:LEU:CD1	2.41	0.48
3:J:875:ASN:O	3:J:876:SER:CB	2.55	0.48
5:L:269:LEU:O	5:L:272:SER:HB2	2.13	0.48
5:L:84:LEU:HD21	5:L:107:THR:HG23	1.95	0.48
1:M:39:LEU:HD12	1:M:201:LEU:HD22	1.94	0.48
1:M:68:TYR:HE2	2:O:927:THR:OG1	1.96	0.48
1:M:79:LEU:O	1:M:83:LEU:HD23	2.13	0.48
2:O:432:LEU:CG	2:O:433:ILE:N	2.71	0.48
3:P:422:LEU:O	3:P:468:VAL:CG1	2.54	0.48
3:P:82:GLY:HA2	3:P:91:GLU:OE2	2.14	0.48
3:P:927:GLY:HA2	3:P:1134:ILE:CD1	2.43	0.48
3:P:930:LEU:HB3	3:P:1134:ILE:HG13	1.93	0.48
3:P:57:PHE:HB3	3:P:98:ARG:NH2	2.29	0.48
4:Q:2:ALA:HB3	4:Q:5:THR:O	2.12	0.48
5:R:137:TYR:HE1	5:R:353:LEU:HD12	1.77	0.48
6:4:46:DG:C8	6:4:46:DG:C5'	2.97	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:8:29:DC:H2'	7:8:30:DA:C8	2.48	0.48
1:A:32:GLU:HG2	1:A:33:ARG:N	2.29	0.48
2:C:1300:GLY:O	2:C:1304:MET:HB2	2.13	0.48
2:C:52:ALA:HB1	2:C:468:LEU:HD12	1.95	0.48
2:C:716:ALA:HB3	2:C:784:ALA:HB3	1.94	0.48
3:D:1356:LEU:CD1	3:D:1365:TYR:CD1	2.91	0.48
3:D:452:LEU:CD1	3:D:625:MET:HE2	2.36	0.48
5:F:583:THR:HG21	5:F:586:ARG:HG2	1.94	0.48
1:G:225:ALA:CA	1:H:228:LEU:HD13	2.44	0.48
2:I:496:LYS:HD2	5:L:468:ARG:NH2	2.10	0.48
2:I:666:SER:OG	2:I:704:MET:CE	2.61	0.48
2:I:968:GLU:O	2:I:972:PHE:HB2	2.13	0.48
3:J:1209:VAL:HG13	3:J:1211:SER:O	2.13	0.48
3:J:972:LYS:HB3	3:J:1002:VAL:CG1	2.43	0.48
3:J:967:VAL:HG22	3:J:973:LEU:CD1	2.43	0.48
2:O:409:LEU:CD2	2:O:431:LYS:HB2	2.44	0.48
2:O:447:HIS:O	2:O:450:ASN:HB2	2.13	0.48
2:O:736:VAL:HG12	2:O:737:ASN:N	2.28	0.48
3:P:363:LEU:N	3:P:450:HIS:CE1	2.82	0.48
3:P:576:ARG:HG2	3:P:592:VAL:HG22	1.95	0.48
3:P:795:TYR:CE1	7:8:12:DG:C5'	2.96	0.48
5:R:300:LYS:HE2	5:R:300:LYS:HB3	1.69	0.48
5:R:320:ILE:HG12	5:R:327:SER:OG	2.13	0.48
2:C:934:PHE:HD2	2:C:1049:ILE:HB	1.78	0.48
2:C:178:PRO:HD2	2:C:183:TRP:CD1	2.49	0.48
3:D:147:ILE:HD12	3:D:178:ALA:CA	2.44	0.48
3:D:471:PRO:CB	3:D:476:ALA:HB1	2.43	0.48
3:D:885:VAL:HG11	3:D:1255:VAL:HA	1.95	0.48
3:D:496:GLY:CA	3:D:903:LEU:HD21	2.44	0.48
3:D:967:VAL:CG2	3:D:973:LEU:CD1	2.92	0.48
4:E:49:ILE:HG22	4:E:50:ALA:CA	2.42	0.48
5:F:133:SER:CB	5:F:365:MET:SD	3.01	0.48
2:C:1044:PRO:HB3	5:F:498:LEU:HB3	1.96	0.48
1:G:112:ALA:O	1:G:115:ILE:CD1	2.61	0.48
1:G:18:GLN:HG3	1:G:24:ALA:CB	2.43	0.48
2:I:1333:LEU:HD21	3:J:327:LEU:CB	2.44	0.48
2:I:810:TYR:HB2	2:I:817:LEU:HD21	1.95	0.48
3:J:1218:HIS:CG	3:J:1306:LEU:HD23	2.48	0.48
3:J:234:PRO:O	3:J:237:MET:HG2	2.14	0.48
5:L:262:VAL:CG1	5:L:263:PRO:HD2	2.44	0.48
5:L:593:LYS:HE2	5:L:596:ARG:HH12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:415:GLU:HG3	2:O:416:GLY:N	2.28	0.48
2:O:878:THR:HG22	2:O:879:GLY:H	1.79	0.48
6:4:47:DC:N3	6:4:48:DA:C2	2.80	0.48
1:A:235:ARG:OXT	1:B:218:ARG:HD3	2.13	0.48
1:A:224:LEU:CG	1:B:228:LEU:HD11	2.41	0.48
2:C:1262:LYS:O	2:C:1262:LYS:HG3	2.12	0.48
2:C:314:ASN:HD21	2:C:351:LEU:HD13	1.76	0.48
2:C:448:LEU:HD12	2:C:557:ARG:NH1	2.29	0.48
3:D:969:SER:HB3	3:D:1116:SER:OG	2.13	0.48
2:C:1339:LEU:HD22	3:D:17:PHE:CE1	2.48	0.48
3:D:215:LYS:O	3:D:218:THR:HB	2.14	0.48
3:D:385:LEU:HD13	3:D:397:ALA:HA	1.95	0.48
3:D:849:LEU:HA	3:D:856:ILE:O	2.14	0.48
1:G:86:LYS:HE2	1:G:173:VAL:HG13	1.96	0.48
2:I:555:TYR:CZ	2:I:660:VAL:HG22	2.48	0.48
3:J:820:ILE:HG21	3:J:1231:ARG:HD2	1.95	0.48
3:J:128:LEU:HD21	3:J:189:LEU:CD2	2.43	0.48
3:J:1292:LEU:O	3:J:1296:GLY:N	2.41	0.48
3:J:382:TYR:HA	3:J:385:LEU:HD12	1.96	0.48
3:J:801:VAL:HG22	3:J:920:ALA:HB3	1.96	0.48
5:L:426:LYS:HB3	6:4:39:DA:P	2.54	0.48
5:L:415:ALA:HB2	5:L:434:TRP:HB2	1.96	0.48
1:M:158:ARG:NE	1:M:172:LEU:HD11	2.29	0.48
1:N:150:ARG:CB	1:N:150:ARG:HH11	2.27	0.48
2:O:1323:PHE:CD1	2:O:1327:LEU:HD11	2.49	0.48
2:O:859:GLU:HA	2:O:862:LEU:HB2	1.95	0.48
2:O:888:THR:HG23	2:O:889:PRO:HD2	1.96	0.48
2:O:920:VAL:HG13	2:O:921:PRO:HD2	1.95	0.48
3:P:1029:THR:HG22	3:P:1099:TYR:CD1	2.49	0.48
3:P:254:PRO:HB3	3:P:260:PHE:CZ	2.48	0.48
3:P:52:GLU:HA	3:P:52:GLU:OE1	2.13	0.48
3:P:683:ILE:HG22	3:P:684:ASP:OD1	2.13	0.48
3:P:770:LEU:O	3:P:770:LEU:HG	2.06	0.48
3:P:859:PRO:HG2	3:P:868:TRP:HZ3	1.79	0.48
2:O:374:GLU:HB2	5:R:99:ARG:CD	2.44	0.48
6:1:59:DG:H2'	6:1:60:DC:C5	2.49	0.48
2:C:1273:MET:N	2:C:1274:GLU:OE1	2.47	0.48
2:C:1274:GLU:H	2:C:1274:GLU:CD	2.07	0.48
2:C:929:ILE:HG23	2:C:930:ASP:N	2.29	0.48
3:D:245:LEU:HD11	3:D:249:LEU:CD1	2.44	0.48
1:H:74:VAL:HG22	1:H:133:LEU:HD23	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:47:LEU:HD12	1:H:183:ILE:HD12	1.93	0.48
2:I:1031:ALA:C	2:I:1033:ARG:H	2.16	0.48
2:I:185:ASP:CG	2:I:200:ARG:HE	2.17	0.48
3:J:1360:GLY:O	3:J:1363:TYR:HB3	2.14	0.48
3:J:405:GLU:HB2	3:J:408:VAL:HG23	1.94	0.48
1:M:100:LEU:HD22	1:M:115:ILE:HG23	1.89	0.48
1:M:182:ARG:HD2	2:O:1092:THR:HG23	1.94	0.48
1:M:31:LEU:HD13	1:M:39:LEU:CD1	2.44	0.48
2:O:13:LYS:HG3	2:O:1149:TYR:HD1	1.79	0.48
1:N:37:HIS:CE1	2:O:1216:ARG:HD2	2.49	0.48
2:O:551:HIS:CB	2:O:554:HIS:CE1	2.96	0.48
2:O:708:VAL:HG11	2:O:794:LEU:CD2	2.44	0.48
2:O:902:LEU:HA	2:O:905:ILE:HD12	1.95	0.48
3:P:1151:LYS:C	3:P:1153:PRO:HD3	2.34	0.48
5:R:429:THR:OG1	6:7:39:DA:H2'	2.14	0.48
7:5:6:DG:C4	7:5:7:DC:C4	3.02	0.48
2:C:363:LEU:HA	2:C:366:ILE:HD12	1.94	0.48
2:C:151:ARG:NH1	2:C:445:ILE:HG23	2.29	0.48
2:C:974:ARG:HD3	2:C:1014:LEU:HD11	1.95	0.48
3:D:124:ILE:HG13	3:D:124:ILE:H	1.25	0.48
3:D:278:ARG:O	3:D:282:LEU:HG	2.14	0.48
3:D:611:ILE:HG22	3:D:612:LEU:CD2	2.43	0.48
5:F:95:THR:O	5:F:97:PRO:HD3	2.14	0.48
1:G:179:PRO:O	1:G:208:ASN:ND2	2.47	0.48
1:G:82:LEU:HA	1:G:85:LEU:CD1	2.43	0.48
1:G:91:ARG:HD2	1:G:124:VAL:HG21	1.86	0.48
2:I:451:ARG:HG2	2:I:451:ARG:HH11	1.79	0.48
3:J:185:ILE:H	3:J:185:ILE:HG13	1.27	0.48
2:I:815:SER:OG	3:J:461:PHE:CD2	2.67	0.48
3:J:57:PHE:CD2	3:J:57:PHE:N	2.81	0.48
3:J:92:VAL:O	3:J:93:THR:HG23	2.14	0.48
3:J:97:VAL:HG12	3:J:101:ARG:CG	2.44	0.48
4:K:70:GLN:HG3	4:K:73:GLN:HE22	1.79	0.48
2:O:1142:ARG:HG3	2:O:1161:LEU:HD21	1.95	0.48
2:O:374:GLU:OE1	5:R:99:ARG:CD	2.62	0.48
2:O:705:GLU:OE1	2:O:705:GLU:N	2.46	0.48
3:P:1062:LEU:HD13	3:P:1066:GLU:OE1	2.13	0.48
3:P:1141:VAL:HG13	3:P:1145:PHE:CE2	2.49	0.48
3:P:1155:ILE:CD1	3:P:1190:ILE:HG12	2.44	0.48
4:Q:86:ILE:HG23	4:Q:90:ARG:HH11	1.79	0.48
5:R:434:TRP:CZ2	6:7:36:DT:H73	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:58:DG:N2	7:8:6:DG:C2	2.82	0.48
2:C:1214:ASP:HB2	2:C:1221:PHE:CZ	2.49	0.48
3:D:1265:THR:OG1	3:D:1303:SER:OG	2.29	0.48
3:D:68:TYR:HA	3:D:92:VAL:CG1	2.44	0.48
4:E:41:GLU:HG2	4:E:43:ASN:N	2.28	0.48
5:F:119:ILE:H	5:F:119:ILE:HD12	1.78	0.48
5:F:456:MET:O	5:F:459:THR:OG1	2.30	0.48
1:H:158:ARG:CD	1:H:172:LEU:HD11	2.42	0.48
2:I:1144:PHE:CZ	2:I:1201:LEU:HG	2.49	0.48
2:I:122:VAL:HG21	2:I:493:ILE:HD12	1.94	0.48
2:I:90:VAL:CG1	2:I:91:THR:N	2.76	0.48
2:I:949:GLU:OE2	2:I:1036:ILE:HG22	2.13	0.48
3:J:22:ILE:HG13	3:J:1319:PHE:CE1	2.48	0.48
3:J:725:MET:HE3	3:J:732:GLY:N	2.29	0.48
5:L:84:LEU:HG	5:L:107:THR:HG22	1.96	0.48
1:M:85:LEU:HD21	1:M:130:ILE:CG2	2.40	0.48
1:N:224:LEU:O	1:N:224:LEU:CD1	2.49	0.48
1:N:44:ARG:N	1:N:47:LEU:HD12	2.29	0.48
2:O:269:ILE:HG22	2:O:269:ILE:O	2.13	0.48
2:O:521:LEU:CD2	2:O:686:GLN:HB3	2.43	0.48
2:O:548:ARG:HH12	3:P:788:LEU:CD2	2.27	0.48
3:P:126:LEU:HD22	3:P:216:LYS:HZ1	1.78	0.48
3:P:1319:PHE:CE2	3:P:1340:LYS:HB3	2.48	0.48
3:P:416:ILE:HG22	3:P:417:ARG:N	2.28	0.48
3:P:419:HIS:CE1	3:P:477:GLN:CD	2.88	0.48
3:P:544:LEU:HA	3:P:574:VAL:HB	1.94	0.48
3:P:646:ILE:HA	3:P:647:PRO:HD2	1.41	0.48
2:O:1104:PRO:CG	3:P:725:MET:HE1	2.44	0.48
3:P:820:ILE:HD11	3:P:1230:THR:HB	1.96	0.48
3:P:297:ARG:NH1	5:R:100:MET:HB2	2.29	0.48
5:R:587:ILE:N	5:R:587:ILE:HD13	2.29	0.48
7:5:4:DC:C2	7:5:5:DC:C4	3.02	0.47
2:C:1061:GLN:CB	2:C:1062:PRO:CD	2.92	0.47
2:C:715:THR:HB	2:C:784:ALA:O	2.14	0.47
3:D:886:VAL:HG13	3:D:1258:ARG:HA	1.95	0.47
2:C:1289:GLU:OE2	3:D:472:LEU:CB	2.60	0.47
2:I:34:SER:CB	2:I:457:GLY:H	2.26	0.47
3:J:842:ARG:NH1	3:J:1254:GLU:OE2	2.38	0.47
3:J:523:GLU:HA	3:J:547:ARG:O	2.14	0.47
1:M:112:ALA:HB3	1:M:126:PRO:HA	1.96	0.47
1:M:39:LEU:C	1:M:43:LEU:CG	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:21:DC:H2'	6:4:22:DC:C6	2.49	0.47
6:4:47:DC:C2	6:4:48:DA:C5	3.01	0.47
2:O:564:PRO:HB3	8:9:13:GTP:C5'	2.44	0.47
2:C:1025:PHE:HA	2:C:1028:LYS:HD2	1.97	0.47
2:C:931:VAL:HG13	2:C:1052:VAL:HG13	1.95	0.47
2:C:1247:SER:HA	3:D:349:TYR:HA	1.97	0.47
3:D:1101:LEU:HD13	3:D:1107:VAL:HG21	1.96	0.47
3:D:1109:LEU:HD13	3:D:1115:ILE:CG2	2.42	0.47
3:D:923:ILE:O	3:D:926:PRO:HD2	2.14	0.47
4:E:61:ASN:O	4:E:64:LEU:HB2	2.14	0.47
5:F:453:PRO:HG2	6:1:31:DT:O5'	2.14	0.47
1:G:115:ILE:HD12	1:G:123:ILE:CD1	2.44	0.47
1:G:81:ILE:H	1:G:81:ILE:HG13	1.41	0.47
1:H:61:ILE:CD1	1:H:171:LEU:HD11	2.45	0.47
2:I:693:LEU:HD12	2:I:693:LEU:O	2.13	0.47
3:J:1174:ARG:HE	3:J:1189:MET:HE3	1.79	0.47
2:I:1335:ILE:HG22	3:J:22:ILE:CG2	2.45	0.47
3:J:295:GLU:HA	3:J:295:GLU:OE1	2.13	0.47
3:J:320:ASN:CG	3:J:321:LYS:N	2.66	0.47
3:J:587:LEU:HG	3:J:612:LEU:HD11	1.95	0.47
3:J:797:THR:HG23	3:J:924:GLY:CA	2.32	0.47
3:J:786:THR:HA	3:J:935:PHE:HD2	1.79	0.47
3:J:68:TYR:OH	3:J:94:GLN:HG3	2.14	0.47
3:J:298:MET:SD	5:L:406:GLN:HG3	2.54	0.47
2:O:1101:LEU:O	3:P:731:ARG:HG2	2.14	0.47
2:O:149:LEU:CD1	2:O:451:ARG:HB3	2.42	0.47
2:O:90:VAL:HG11	5:R:476:ARG:HH22	1.79	0.47
3:P:579:LEU:HD23	3:P:579:LEU:HA	1.62	0.47
3:P:582:ILE:HD13	3:P:582:ILE:N	2.29	0.47
3:P:797:THR:CG2	3:P:924:GLY:CA	2.68	0.47
6:4:43:DT:H2'	6:4:44:DG:O4'	2.14	0.47
2:C:1281:TYR:CE1	3:D:431:ARG:HD2	2.49	0.47
2:C:91:THR:HG23	2:C:137:VAL:O	2.14	0.47
3:D:521:LYS:HZ3	3:D:541:LEU:HD23	1.79	0.47
5:F:117:ILE:HG23	5:F:421:TYR:CB	2.43	0.47
5:F:385:ARG:C	5:F:388:ILE:HG22	2.33	0.47
2:I:476:LYS:HA	2:I:479:LEU:HD12	1.96	0.47
2:I:705:GLU:OE1	2:I:705:GLU:N	2.47	0.47
2:I:710:VAL:HG13	2:I:717:VAL:HG21	1.96	0.47
3:J:1157:ALA:O	3:J:1223:LEU:HD13	2.14	0.47
3:J:141:PHE:HB3	3:J:293:ARG:HD3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:127:LEU:CD1	3:J:227:PHE:CE2	2.97	0.47
3:J:363:LEU:CD2	3:J:618:VAL:HG13	2.44	0.47
5:L:423:ARG:HB3	5:L:425:TYR:HD2	1.79	0.47
2:O:433:ILE:O	2:O:436:ARG:HB3	2.13	0.47
2:O:524:ILE:HD11	2:O:712:SER:CB	2.13	0.47
2:O:590:PRO:HB3	2:O:605:TYR:CZ	2.49	0.47
1:M:66:HIS:HE1	2:O:929:ILE:HG12	1.78	0.47
3:P:1366:HIS:O	3:P:1370:MET:HG2	2.13	0.47
3:P:57:PHE:HB3	3:P:98:ARG:HH22	1.80	0.47
5:R:590:ILE:HG12	5:R:593:LYS:HZ2	1.76	0.47
1:A:44:ARG:HG3	1:A:183:ILE:CD1	2.43	0.47
2:C:1134:GLN:O	2:C:1136:GLN:N	2.48	0.47
2:C:23:ASP:OD1	2:C:23:ASP:N	2.46	0.47
3:D:693:VAL:HG11	3:D:743:MET:HE3	1.96	0.47
5:F:586:ARG:CG	5:F:587:ILE:HD13	2.44	0.47
1:G:140:ILE:HG12	1:G:141:SER:N	2.28	0.47
2:I:1103:VAL:HB	2:I:1104:PRO:CD	2.44	0.47
2:I:302:ILE:HG22	2:I:309:LEU:HD22	1.96	0.47
2:I:575:LEU:HG	2:I:576:SER:O	2.14	0.47
2:I:596:ASP:N	2:I:596:ASP:OD1	2.48	0.47
2:I:667:LEU:HD21	2:I:708:VAL:HG21	1.96	0.47
3:J:978:ARG:CB	3:J:1212:ASP:HB3	2.44	0.47
3:J:332:LYS:NZ	3:J:1329:THR:HG23	2.27	0.47
3:J:262:THR:O	5:L:507:MET:HB3	2.14	0.47
3:J:381:ILE:CD1	3:J:412:LEU:HA	2.34	0.47
3:J:492:SER:OG	3:J:495:ASN:O	2.31	0.47
3:J:784:ALA:O	3:J:788:LEU:HG	2.14	0.47
5:L:124:GLU:OE2	5:L:421:TYR:HE1	1.97	0.47
5:L:275:VAL:O	5:L:278:ASP:HB2	2.15	0.47
5:L:383:ASN:HD22	5:L:386:LEU:HD22	1.80	0.47
5:L:562:ARG:HD2	5:L:571:TYR:O	2.14	0.47
5:L:87:VAL:HG11	5:L:103:ARG:CD	2.44	0.47
1:M:104:LYS:HG3	1:M:105:SER:N	2.29	0.47
1:M:29:GLU:HB2	1:M:30:PRO:HA	1.95	0.47
1:N:56:VAL:HG21	1:N:85:LEU:O	2.15	0.47
2:O:689:ALA:HB1	2:O:1233:LEU:HD22	1.97	0.47
2:O:230:PHE:HE1	2:O:292:ILE:CD1	2.27	0.47
2:O:974:ARG:O	2:O:978:VAL:HG23	2.15	0.47
3:P:1037:PHE:CE1	3:P:1078:LEU:HD22	2.50	0.47
3:P:1138:LEU:HD23	3:P:1139:PRO:HD3	1.95	0.47
3:P:1209:VAL:HG12	3:P:1209:VAL:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:264:ASP:OD2	5:R:508:GLU:HB2	2.13	0.47
1:A:29:GLU:OE1	1:A:200:LYS:HB3	2.14	0.47
2:C:1268:GLN:NE2	3:D:351:GLY:C	2.65	0.47
2:C:1269:ARG:NH2	3:D:339:ARG:O	2.48	0.47
2:C:682:GLY:O	2:C:686:GLN:HG3	2.14	0.47
1:A:66:HIS:HB3	2:C:927:THR:HG21	1.96	0.47
3:D:1095:MET:SD	3:D:1173:ARG:NH2	2.86	0.47
3:D:135:ILE:H	3:D:135:ILE:HG13	1.28	0.47
3:D:449:LEU:HG	3:D:450:HIS:N	2.27	0.47
3:D:610:ARG:HH22	3:D:901:ARG:HH12	1.63	0.47
3:D:619:ILE:HG22	3:D:620:PHE:HA	1.95	0.47
3:D:701:LEU:HD11	3:D:720:ASN:CG	2.35	0.47
3:D:478:LEU:HB2	4:E:20:VAL:HG13	1.90	0.47
5:F:118:ASP:HB2	5:F:119:ILE:HD12	1.97	0.47
2:I:1326:LEU:CD2	3:J:342:LEU:HD11	2.45	0.47
3:J:515:ARG:NH1	3:J:724:MET:HG2	2.29	0.47
2:I:1187:PHE:CD1	3:J:769:VAL:HA	2.49	0.47
2:O:1252:SER:HB2	2:O:1259:LEU:HD23	1.95	0.47
2:O:1299:ASN:O	2:O:1302:THR:HG23	2.14	0.47
2:O:1309:VAL:HG13	3:P:383:GLY:CA	2.41	0.47
2:O:340:ASP:CG	2:O:341:LEU:H	2.18	0.47
3:P:1267:VAL:O	3:P:1268:ASN:HB2	2.14	0.47
3:P:160:LEU:HA	3:P:164:GLN:OE1	2.14	0.47
2:O:1223:ARG:CD	3:P:636:GLY:C	2.83	0.47
3:P:869:CYS:O	3:P:873:GLU:HG3	2.13	0.47
1:B:112:ALA:HB3	1:B:126:PRO:HA	1.96	0.47
3:D:1351:VAL:HG12	3:D:1352:ILE:HG13	1.96	0.47
3:D:265:LEU:O	3:D:269:TYR:HD2	1.98	0.47
3:D:27:PRO:O	3:D:31:ARG:HG3	2.14	0.47
2:C:1243:MET:HG3	3:D:372:MET:HE2	1.97	0.47
3:D:395:LYS:HD3	3:D:396:ALA:N	2.29	0.47
2:C:1277:ALA:HB3	3:D:434:ILE:HD12	1.96	0.47
3:D:744:ARG:NH2	3:D:940:ALA:HB2	2.29	0.47
3:D:826:ILE:HA	3:D:831:VAL:HA	1.97	0.47
5:F:385:ARG:HA	5:F:388:ILE:HG22	1.97	0.47
5:F:592:ALA:HA	5:F:595:LEU:HD12	1.96	0.47
1:H:178:SER:HA	1:H:179:PRO:HD2	1.61	0.47
1:H:48:LEU:HD21	1:H:183:ILE:HG22	1.95	0.47
2:I:387:ASN:CA	2:I:391:SER:HB2	2.45	0.47
2:I:581:THR:HG22	2:I:587:LEU:HD23	1.96	0.47
3:J:46:TYR:HD2	5:L:500:ILE:HD11	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:585:GLU:OE1	5:L:585:GLU:O	2.33	0.47
2:O:971:LEU:HD12	2:O:1014:LEU:HD22	1.97	0.47
3:P:1233:ILE:O	3:P:1237:VAL:CG2	2.57	0.47
3:P:1246:VAL:HG12	3:P:1246:VAL:O	2.14	0.47
3:P:363:LEU:HG	3:P:487:THR:CG2	2.45	0.47
3:P:812:ASP:OD1	3:P:812:ASP:N	2.47	0.47
3:P:335:GLN:HE22	5:R:518:HIS:CD2	2.33	0.47
1:A:43:LEU:C	1:A:47:LEU:HD12	2.34	0.47
2:C:1273:MET:O	2:C:1276:TRP:HB2	2.12	0.47
2:C:38:PHE:CE1	2:C:461:GLU:HA	2.49	0.47
2:C:693:LEU:HB2	2:C:831:ILE:HD11	1.97	0.47
3:D:1156:LEU:HD21	3:D:1209:VAL:HA	1.91	0.47
3:D:1274:PHE:O	3:D:1275:LEU:CB	2.62	0.47
3:D:849:LEU:CG	3:D:850:LYS:H	2.28	0.47
5:F:299:LYS:HD2	5:F:299:LYS:N	2.29	0.47
5:F:557:LYS:O	5:F:561:MET:HG3	2.14	0.47
1:H:14:VAL:HG21	1:H:29:GLU:CG	2.40	0.47
2:I:1292:THR:HG23	2:I:1293:VAL:HG22	1.95	0.47
2:I:32:LEU:HD23	2:I:130:MET:HE3	1.95	0.47
2:I:187:GLU:OE2	2:I:197:ARG:NE	2.48	0.47
2:I:212:ALA:HB3	2:I:385:PHE:CZ	2.50	0.47
2:I:538:LEU:N	2:I:538:LEU:CD2	2.66	0.47
3:J:1029:THR:HG23	3:J:1121:LEU:HG	1.94	0.47
3:J:422:LEU:O	3:J:468:VAL:HG13	2.15	0.47
3:J:501:VAL:CG1	3:J:502:PRO:N	2.77	0.47
2:I:1225:VAL:HA	3:J:638:SER:OG	2.15	0.47
5:L:345:GLN:O	5:L:348:GLU:HB2	2.15	0.47
1:M:231:PHE:HE1	1:N:28:LEU:HG	1.79	0.47
1:M:58:GLU:HG2	1:M:172:LEU:HD13	1.96	0.47
2:O:413:GLU:O	2:O:413:GLU:HG3	2.14	0.47
2:O:689:ALA:HB1	2:O:1233:LEU:HD13	1.96	0.47
3:P:427:PRO:HD3	8:9:16:U:O2'	2.14	0.47
5:R:592:ALA:HA	5:R:595:LEU:HD12	1.95	0.47
6:4:13:DC:H2''	6:4:14:DT:OP2	2.14	0.47
6:4:50:DT:H6	6:4:50:DT:C3'	2.17	0.47
6:7:19:DA:C2	7:8:45:DG:C2	3.03	0.47
1:A:45:ARG:HD3	1:B:38:THR:CB	2.42	0.47
1:B:224:LEU:CG	1:B:225:ALA:N	2.74	0.47
2:C:1242:LYS:HD3	3:D:465:GLN:NE2	2.30	0.47
2:C:1295:SER:HB3	2:C:1296:ASP:OD1	2.15	0.47
2:C:1331:ARG:HG3	2:C:1337:ILE:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:930:LEU:HB2	3:D:1134:ILE:HD11	1.96	0.47
3:D:401:VAL:HG13	3:D:408:VAL:HG11	1.96	0.47
3:D:40:LYS:HZ1	3:D:53:ARG:HE	1.62	0.47
3:D:786:THR:HG22	3:D:787:ALA:H	1.80	0.47
1:H:37:HIS:O	1:H:41:ASN:HB3	2.15	0.47
2:I:1190:ALA:O	2:I:1195:ILE:HD11	2.15	0.47
2:I:164:THR:O	2:I:165:HIS:CB	2.62	0.47
2:I:511:LEU:CD1	2:I:535:PRO:HD2	2.42	0.47
2:I:988:LYS:O	2:I:992:LEU:HB2	2.14	0.47
3:J:480:ALA:HA	3:J:484:MET:CG	2.44	0.47
3:J:536:LEU:HD22	3:J:541:LEU:CD1	2.44	0.47
3:J:596:LEU:CD2	3:J:600:ALA:HB3	2.45	0.47
1:N:187:VAL:HG12	1:N:201:LEU:CD1	2.44	0.47
2:O:1128:ILE:HG22	2:O:1132:LEU:CD1	2.42	0.47
2:O:161:LYS:CE	2:O:161:LYS:CA	2.61	0.47
2:O:228:VAL:HG11	2:O:239:MET:CE	2.45	0.47
2:O:530:ILE:CD1	2:O:558:VAL:CG2	2.93	0.47
2:O:727:VAL:CG2	2:O:773:LEU:HD13	2.24	0.47
3:P:339:ARG:NH2	3:P:1325:PHE:O	2.48	0.47
3:P:138:VAL:HG12	3:P:139:LEU:N	2.30	0.47
3:P:261:ALA:HA	5:R:505:ILE:O	2.14	0.47
3:P:643:ASP:CA	3:P:720:ASN:HD21	2.27	0.47
3:P:847:ASP:OD2	3:P:859:PRO:HA	2.15	0.47
3:P:811:GLU:O	3:P:895:CYS:HA	2.15	0.47
2:I:1261:GLY:HA2	7:5:17:DG:OP1	2.14	0.47
7:5:19:DA:C3'	7:5:19:DA:C8	2.98	0.47
1:A:46:ILE:HD12	1:A:224:LEU:HB2	1.95	0.47
2:C:1081:PRO:HB2	2:C:1083:GLU:OE1	2.15	0.47
2:C:1087:TYR:N	2:C:1087:TYR:CD1	2.82	0.47
2:C:1108:ASN:C	2:C:1109:ILE:HD13	2.35	0.47
2:C:1257:GLN:OE1	3:D:346:ARG:HG2	2.15	0.47
2:C:185:ASP:OD2	2:C:200:ARG:HD3	2.14	0.47
2:C:448:LEU:HB2	2:C:608:ALA:HB1	1.92	0.47
2:C:775:GLU:OE2	2:C:1171:ARG:NH1	2.48	0.47
3:D:1148:ARG:HG2	6:1:55:DC:OP1	2.14	0.47
3:D:1344:LEU:HD11	3:D:1353:VAL:HG21	1.96	0.47
2:C:1113:LEU:HA	3:D:641:ILE:HD11	1.96	0.47
2:I:21:VAL:HG11	2:I:592:ARG:CD	2.43	0.47
2:I:575:LEU:HD11	2:I:579:ALA:CB	2.45	0.47
2:I:723:VAL:O	2:I:734:ILE:HG13	2.14	0.47
2:I:765:ILE:HG22	2:I:765:ILE:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1254:GLU:HA	3:J:1257:VAL:CG2	2.45	0.47
3:J:233:LYS:HE3	3:J:235:GLU:OE2	2.14	0.47
3:J:83:VAL:HG12	3:J:84:ILE:N	2.29	0.47
5:L:231:THR:HG21	5:L:252:LEU:HD22	1.95	0.47
5:L:387:VAL:HG23	5:L:412:LEU:CD2	2.44	0.47
5:L:464:ASN:O	5:L:467:SER:HB2	2.13	0.47
5:L:585:GLU:OE1	5:L:585:GLU:C	2.53	0.47
1:M:31:LEU:HD11	1:M:39:LEU:CD1	2.45	0.47
2:O:1269:ARG:NH1	3:P:340:GLN:CG	2.74	0.47
3:P:424:ASN:O	3:P:466:MET:HE2	2.14	0.47
3:P:364:HIS:CE1	3:P:438:GLU:OE1	2.67	0.47
3:P:888:CYS:SG	3:P:894:VAL:HA	2.54	0.47
5:R:465:ARG:HH12	7:8:27:DA:C5'	2.27	0.47
5:R:580:PHE:O	5:R:581:ASP:HB2	2.14	0.47
5:R:91:ILE:HD11	5:R:103:ARG:HH22	1.80	0.47
6:4:45:DT:H6	6:4:45:DT:H3'	1.80	0.47
5:R:572:THR:HB	7:8:44:DT:H3'	1.97	0.47
7:8:4:DC:H2"	7:8:5:DC:OP2	2.15	0.47
1:A:67:GLU:HA	1:A:78:ILE:HG21	1.97	0.47
1:B:158:ARG:NH2	1:B:175:ALA:HB2	2.30	0.47
2:C:367:TYR:CD1	2:C:384:LEU:HD22	2.39	0.47
2:C:558:VAL:HG13	2:C:559:CYS:O	2.15	0.47
2:C:950:GLU:O	2:C:953:LEU:HB2	2.14	0.47
2:C:960:LEU:HB3	2:C:1025:PHE:CE1	2.50	0.47
2:C:987:GLU:O	2:C:991:LYS:HD2	2.15	0.47
3:D:1301:THR:CG2	3:D:1302:TYR:N	2.77	0.47
3:D:423:LEU:O	3:D:457:TYR:OH	2.26	0.47
3:D:427:PRO:HB3	7:2:13:DA:H2	1.80	0.47
3:D:705:THR:O	3:D:705:THR:HG22	2.15	0.47
5:F:262:VAL:HG12	5:F:264:LYS:HE3	1.97	0.47
2:C:1044:PRO:HG3	5:F:498:LEU:HD13	1.96	0.47
5:F:498:LEU:O	5:F:501:ALA:HB3	2.14	0.47
2:I:1024:GLU:HG2	2:I:1028:LYS:HE3	1.97	0.47
2:I:148:GLN:NE2	2:I:511:LEU:HD11	2.30	0.47
2:I:504:GLU:HA	2:I:504:GLU:OE2	2.14	0.47
2:I:557:ARG:HD3	2:I:587:LEU:CB	2.45	0.47
2:I:692:THR:OG1	2:I:693:LEU:N	2.45	0.47
2:I:96:LEU:HB2	2:I:127:ILE:HD11	1.96	0.47
3:J:1046:ILE:HD12	3:J:1059:LEU:HD13	1.97	0.47
3:J:1154:ALA:HB2	3:J:1213:GLY:CA	2.45	0.47
3:J:885:VAL:O	3:J:888:CYS:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:387:VAL:HG11	5:L:409:ASN:OD1	2.14	0.47
5:L:401:PHE:O	5:L:405:ILE:CG1	2.50	0.47
3:J:46:TYR:CD2	5:L:500:ILE:CD1	2.98	0.47
1:M:25:LYS:HE2	1:M:202:VAL:HG13	1.96	0.47
2:O:242:VAL:HB	2:O:245:ARG:HG3	1.97	0.47
2:O:201:ARG:HG3	2:O:370:MET:SD	2.55	0.47
2:O:675:ASP:OD2	2:O:677:ASN:HB2	2.15	0.47
2:O:732:ILE:CD1	2:O:753:LEU:HD11	2.45	0.47
2:O:896:THR:OG1	2:O:898:GLU:OE1	2.29	0.47
3:P:947:GLU:O	3:P:1022:PRO:HG3	2.15	0.47
3:P:385:LEU:HD22	3:P:400:MET:HE1	1.97	0.47
3:P:425:ARG:HD2	3:P:457:TYR:HB2	1.93	0.47
3:P:435:GLN:HB3	3:P:437:PHE:CE1	2.50	0.47
4:Q:28:ARG:O	4:Q:32:VAL:HG23	2.15	0.47
5:R:355:ILE:CD1	5:R:355:ILE:H	2.25	0.47
5:R:551:LEU:HA	5:R:597:LYS:NZ	2.29	0.47
6:4:43:DT:C6	6:4:43:DT:H3'	2.50	0.47
1:A:227:GLN:C	1:A:231:PHE:CZ	2.88	0.47
1:B:124:VAL:HG21	1:B:210:THR:CB	2.45	0.47
2:C:685:MET:HE1	2:C:1073:LYS:CD	2.45	0.47
2:C:520:PRO:HG3	2:C:714:VAL:HG11	1.96	0.47
2:C:766:ASN:HD22	2:C:767:GLN:N	2.12	0.47
2:C:788:SER:OG	2:C:796:LEU:HA	2.15	0.47
3:D:34:SER:OG	3:D:104:HIS:HB3	2.15	0.47
3:D:470:VAL:CG1	3:D:472:LEU:HD23	2.45	0.47
3:D:875:ASN:O	3:D:876:SER:CB	2.56	0.47
4:E:79:GLU:O	4:E:79:GLU:HG2	2.13	0.47
1:G:16:ILE:HG21	1:G:214:GLU:OE1	2.13	0.47
1:H:193:GLU:O	1:H:194:GLN:CB	2.62	0.47
1:H:75:GLN:HE21	1:H:134:THR:HG22	1.79	0.47
2:I:1330:ILE:HG22	2:I:1335:ILE:HB	1.97	0.47
2:I:30:ILE:H	2:I:30:ILE:HG13	1.32	0.47
2:I:868:SER:HB2	2:I:870:ILE:CD1	2.45	0.47
3:J:30:ILE:O	3:J:30:ILE:HG22	2.15	0.47
3:J:377:PHE:C	3:J:379:PRO:HD2	2.35	0.47
3:J:785:ASP:HB3	3:J:935:PHE:CE1	2.50	0.47
3:J:70:CYS:HB2	3:J:88:CYS:SG	2.55	0.47
5:L:554:ARG:CG	5:L:555:GLU:N	2.75	0.47
5:L:606:VAL:O	5:L:610:PHE:CD2	2.68	0.47
1:M:58:GLU:HB2	1:M:145:LYS:HD2	1.96	0.47
3:P:1134:ILE:HG23	3:P:1134:ILE:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:259:ARG:HH11	3:P:259:ARG:HB3	1.80	0.47
3:P:107:LEU:HD22	3:P:299:LEU:HD11	1.97	0.47
3:P:76:LYS:O	3:P:77:ARG:HB2	2.15	0.47
1:A:47:LEU:HD22	1:A:180:VAL:HG11	1.97	0.46
1:B:224:LEU:C	1:B:224:LEU:HD12	2.35	0.46
2:C:840:SER:OG	2:C:1048:LYS:O	2.32	0.46
2:C:691:PRO:HB3	2:C:788:SER:CB	2.45	0.46
3:D:1189:MET:HG2	3:D:1190:ILE:N	2.30	0.46
3:D:1252:HIS:CB	3:D:1253:ILE:HD12	2.42	0.46
3:D:1333:THR:O	3:D:1337:VAL:CG2	2.43	0.46
3:D:228:VAL:CG1	3:D:228:VAL:O	2.63	0.46
3:D:410:ASP:N	3:D:410:ASP:OD1	2.47	0.46
3:D:424:ASN:O	3:D:466:MET:CE	2.63	0.46
3:D:845:ALA:O	3:D:846:GLU:CB	2.63	0.46
5:F:585:GLU:O	5:F:585:GLU:OE1	2.33	0.46
2:I:1061:GLN:HB2	2:I:1062:PRO:CD	2.38	0.46
2:I:208:ILE:CG2	2:I:209:ILE:N	2.77	0.46
2:I:801:ARG:HG2	2:I:1229:TYR:CE1	2.50	0.46
2:I:854:ILE:CG2	2:I:857:VAL:HB	2.44	0.46
3:J:1344:LEU:HD23	3:J:1349:GLU:CB	2.36	0.46
3:J:1349:GLU:O	3:J:1353:VAL:HG13	2.15	0.46
3:J:322:ARG:CD	5:L:510:PRO:HD3	2.46	0.46
1:M:45:ARG:CD	1:N:38:THR:OG1	2.54	0.46
2:O:1068:GLY:CA	2:O:1232:MET:HE1	2.44	0.46
2:O:128:PRO:C	2:O:129:LEU:HD23	2.36	0.46
2:O:976:ARG:HH11	2:O:994:ARG:HH22	1.62	0.46
3:P:34:SER:HA	3:P:102:MET:O	2.15	0.46
3:P:432:LEU:HD13	3:P:435:GLN:HE21	1.78	0.46
3:P:499:ILE:CG2	3:P:500:ILE:N	2.69	0.46
5:R:299:LYS:O	5:R:302:PHE:HB3	2.15	0.46
5:R:306:PHE:O	5:R:310:GLU:HG3	2.15	0.46
5:R:465:ARG:NH1	7:8:27:DA:H5'	2.29	0.46
7:5:24:DT:H2''	7:5:25:DA:OP1	2.16	0.46
7:8:33:DC:H2''	7:8:34:DG:OP2	2.15	0.46
1:B:14:VAL:HG21	1:B:29:GLU:CG	2.46	0.46
2:C:1330:ILE:HD12	2:C:1337:ILE:CD1	2.43	0.46
2:C:206:ALA:HB1	2:C:429:MET:CE	2.45	0.46
2:C:159:SER:HB3	2:C:442:VAL:HG11	1.96	0.46
3:D:147:ILE:HD11	3:D:178:ALA:C	2.35	0.46
3:D:425:ARG:HB3	3:D:457:TYR:CD1	2.51	0.46
3:D:796:LEU:HG	3:D:797:THR:CA	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:E:53:GLU:HB3	4:E:59:ILE:HG12	1.97	0.46
2:I:151:ARG:HD2	2:I:445:ILE:HG22	1.94	0.46
2:I:363:LEU:HB3	2:I:381:ALA:HB1	1.98	0.46
2:I:395:TYR:CE2	2:I:420:LEU:HG	2.51	0.46
3:J:1101:LEU:CD2	3:J:1122:ALA:HB2	2.41	0.46
3:J:1169:THR:OG1	3:J:1174:ARG:CZ	2.64	0.46
3:J:1172:LYS:HD3	3:J:1189:MET:HE2	1.97	0.46
3:J:1259:GLN:O	3:J:1262:ARG:HB2	2.15	0.46
3:J:139:LEU:HG	3:J:139:LEU:H	1.51	0.46
3:J:238:ILE:HD13	3:J:238:ILE:HA	1.55	0.46
3:J:519:ASN:HA	3:J:523:GLU:HB2	1.97	0.46
3:J:536:LEU:HD22	3:J:541:LEU:HD13	1.96	0.46
3:J:690:ASN:HB2	3:J:743:MET:SD	2.55	0.46
4:K:70:GLN:HG3	4:K:73:GLN:NE2	2.30	0.46
5:L:421:TYR:C	5:L:421:TYR:CD2	2.88	0.46
5:L:95:THR:O	5:L:97:PRO:HD3	2.15	0.46
2:O:415:GLU:CG	2:O:416:GLY:N	2.78	0.46
2:O:523:GLU:HG3	2:O:527:LYS:HE3	1.98	0.46
2:O:668:ILE:CD1	2:O:686:GLN:HE22	2.28	0.46
3:P:322:ARG:NH1	3:P:322:ARG:O	2.48	0.46
3:P:613:GLY:O	3:P:617:THR:HG23	2.15	0.46
5:R:573:LEU:O	5:R:573:LEU:HD12	2.15	0.46
1:A:86:LYS:HE3	1:A:173:VAL:HG11	1.96	0.46
1:B:93:GLN:HB2	1:B:120:ASP:HB2	1.96	0.46
1:B:61:ILE:HD13	1:B:64:VAL:CG1	2.36	0.46
2:C:1048:LYS:C	2:C:1049:ILE:HG13	2.31	0.46
2:C:196:VAL:HG21	2:C:206:ALA:HA	1.97	0.46
2:C:250:THR:HG22	2:C:251:ALA:N	2.30	0.46
2:C:516:ASP:CB	2:C:522:SER:OG	2.63	0.46
2:C:590:PRO:HB3	2:C:605:TYR:CE1	2.50	0.46
2:C:170:VAL:CG2	3:D:1065:ALA:CB	2.93	0.46
3:D:1161:GLY:HA3	3:D:1179:PRO:HA	1.97	0.46
3:D:1224:ARG:CD	3:D:1228:ALA:HB1	2.31	0.46
3:D:422:LEU:HD12	3:D:469:HIS:C	2.36	0.46
3:D:608:CYS:SG	3:D:617:THR:CG2	2.96	0.46
3:D:749:LYS:HE3	3:D:755:ILE:HG12	1.97	0.46
4:E:20:VAL:HG12	4:E:21:LEU:HD23	1.98	0.46
2:I:700:VAL:CG1	2:I:1114:GLU:HG3	2.41	0.46
3:J:1265:THR:HG23	3:J:1305:ASP:OD2	2.15	0.46
3:J:255:LEU:HD22	3:J:256:ASP:OD1	2.16	0.46
3:J:703:THR:HB	3:J:704:GLU:H	1.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:795:TYR:CD1	7:5:12:DG:H5'	2.50	0.46
5:L:426:LYS:HG3	5:L:428:SER:H	1.80	0.46
2:O:1092:THR:HG22	2:O:1093:PRO:HD2	1.97	0.46
3:P:34:SER:OG	3:P:104:HIS:ND1	2.36	0.46
3:P:1155:ILE:HD11	3:P:1194:ARG:HD2	1.97	0.46
3:P:511:TYR:CE2	3:P:724:MET:HE3	2.51	0.46
5:R:437:GLN:HG2	6:7:35:DC:N4	2.30	0.46
7:2:25:DA:H2''	7:2:26:DT:OP2	2.16	0.46
5:L:455:HIS:CE1	6:4:31:DT:C6	2.97	0.46
6:7:33:DT:H2''	6:7:34:DG:C8	2.50	0.46
7:8:24:DT:OP1	7:8:24:DT:C4'	2.64	0.46
7:8:25:DA:H1'	7:8:26:DT:H5''	1.97	0.46
1:B:82:LEU:HD21	1:B:173:VAL:HG22	1.97	0.46
2:C:1272:GLU:HG2	3:D:343:LEU:HB3	1.97	0.46
2:C:269:ILE:HD12	2:C:273:HIS:CG	2.50	0.46
2:C:563:THR:HB	2:C:573:ASN:ND2	2.31	0.46
3:D:34:SER:OG	3:D:104:HIS:ND1	2.42	0.46
3:D:1323:ALA:CB	3:D:1332:LEU:HD21	2.44	0.46
3:D:303:VAL:O	3:D:306:LEU:HB3	2.16	0.46
3:D:355:ILE:HD12	3:D:461:PHE:CD1	2.50	0.46
3:D:410:ASP:O	3:D:413:ASP:HB3	2.15	0.46
5:F:235:ILE:CG2	5:F:240:ARG:HD3	2.44	0.46
5:F:323:ASN:O	5:F:324:LYS:CB	2.63	0.46
5:F:401:PHE:CA	5:F:404:LEU:HD12	2.42	0.46
5:F:588:ARG:O	5:F:591:GLU:HB3	2.16	0.46
1:G:232:VAL:HG23	1:H:221:ALA:CB	2.45	0.46
1:H:81:ILE:HA	1:H:84:ASN:ND2	2.30	0.46
2:I:1035:LYS:O	2:I:1036:ILE:CG1	2.61	0.46
2:I:1304:MET:HG2	2:I:1304:MET:O	2.14	0.46
2:I:218:GLU:CD	2:I:299:LYS:HD2	2.35	0.46
2:I:148:GLN:NE2	2:I:511:LEU:HD21	2.31	0.46
2:I:5:TYR:HA	2:I:8:LYS:CD	2.43	0.46
2:I:671:LEU:HD23	2:I:1186:VAL:HG11	1.96	0.46
2:I:896:THR:N	2:I:899:GLU:OE1	2.46	0.46
3:J:1199:PHE:O	3:J:1200:GLU:HB2	2.15	0.46
2:I:1326:LEU:CD2	3:J:342:LEU:HD13	2.45	0.46
3:J:369:PRO:HB2	3:J:372:MET:HB2	1.98	0.46
3:J:449:LEU:HD11	3:J:453:VAL:HG21	1.96	0.46
3:J:501:VAL:HG12	3:J:502:PRO:N	2.29	0.46
3:J:805:GLN:CA	3:J:1347:LEU:CD1	2.93	0.46
1:N:102:LEU:HD12	1:N:114:ASP:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1000:LEU:HG	2:O:1000:LEU:O	2.14	0.46
2:O:12:ARG:CZ	2:O:1181:PRO:HB2	2.44	0.46
2:O:1339:LEU:HD13	3:P:17:PHE:CZ	2.50	0.46
2:O:184:LEU:HA	2:O:184:LEU:HD23	1.41	0.46
2:O:35:PHE:CZ	2:O:129:LEU:HA	2.51	0.46
2:O:346:TYR:CD2	2:O:433:ILE:HD13	2.50	0.46
2:O:901:LEU:HD13	5:R:563:PHE:CE2	2.50	0.46
3:P:1138:LEU:CB	3:P:1139:PRO:CD	2.71	0.46
3:P:210:SER:HB3	3:P:213:LYS:CD	2.42	0.46
3:P:584:PRO:HD2	3:P:620:PHE:CD1	2.50	0.46
3:P:620:PHE:O	3:P:624:ILE:CG1	2.51	0.46
3:P:875:ASN:O	3:P:876:SER:CB	2.64	0.46
5:R:395:THR:HA	5:R:404:LEU:HD12	1.97	0.46
2:C:1323:PHE:CE1	2:C:1327:LEU:CD2	2.91	0.46
2:C:551:HIS:H	2:C:554:HIS:CE1	2.33	0.46
2:C:638:SER:O	2:C:639:LYS:HB3	2.15	0.46
3:D:1344:LEU:CD1	3:D:1353:VAL:HG21	2.46	0.46
3:D:188:LEU:O	3:D:188:LEU:HG	2.12	0.46
3:D:558:ASP:CG	3:D:559:ALA:H	2.18	0.46
3:D:809:VAL:HB	3:D:911:LYS:HA	1.97	0.46
1:G:163:GLU:HG2	1:G:163:GLU:H	1.64	0.46
2:I:1184:THR:O	2:I:1184:THR:CG2	2.63	0.46
2:I:176:ILE:HD11	2:I:405:PHE:HE2	1.80	0.46
2:I:559:CYS:HG	2:I:661:VAL:HG13	1.71	0.46
2:I:719:LYS:HD3	2:I:751:TYR:CE1	2.50	0.46
2:I:167:SER:CA	3:J:1064:SER:HB2	2.41	0.46
3:J:1098:GLN:O	3:J:1100:PHE:CE2	2.68	0.46
3:J:287:ALA:HB1	3:J:291:ILE:HD12	1.98	0.46
3:J:42:GLU:HG2	5:L:451:ARG:HB3	1.96	0.46
3:J:56:LEU:HD23	3:J:56:LEU:HA	1.58	0.46
3:J:797:THR:HA	3:J:800:LEU:CD1	2.46	0.46
5:L:583:THR:CG2	5:L:587:ILE:HD11	2.34	0.46
1:N:55:ALA:C	1:N:146:VAL:HG13	2.35	0.46
1:N:83:LEU:CD2	1:N:83:LEU:N	2.79	0.46
2:O:830:THR:OG1	2:O:1058:ARG:HB2	2.16	0.46
2:O:1132:LEU:HD21	2:O:1173:ALA:HB1	1.98	0.46
2:O:674:ASP:O	3:P:772:TYR:CZ	2.67	0.46
2:O:867:GLU:CD	2:O:943:LYS:HG2	2.35	0.46
3:P:1270:GLY:H	3:P:1274:PHE:HD2	1.62	0.46
3:P:223:LEU:O	3:P:227:PHE:HB2	2.15	0.46
3:P:318:GLY:HA2	3:P:324:LEU:HD21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:688:ALA:C	3:P:692:ARG:HD2	2.33	0.46
3:P:923:ILE:O	3:P:926:PRO:CD	2.55	0.46
5:R:455:HIS:CE1	7:8:29:DC:C5	3.03	0.46
5:R:587:ILE:HA	5:R:590:ILE:HD12	1.97	0.46
6:1:34:DG:N7	6:1:35:DC:N4	2.64	0.46
5:L:509:THR:HG23	7:5:22:DA:H61	1.80	0.46
1:A:158:ARG:O	1:A:162:GLU:HB2	2.15	0.46
1:A:185:TYR:C	1:A:185:TYR:CD2	2.88	0.46
1:A:41:ASN:O	1:A:45:ARG:HG3	2.16	0.46
5:F:132:CYS:SG	5:F:257:LYS:HD3	2.54	0.46
3:D:79:LYS:NZ	5:F:569:THR:HB	2.31	0.46
2:I:1288:GLN:O	2:I:1292:THR:CG2	2.58	0.46
2:I:298:ALA:CA	2:I:336:LEU:HD21	2.46	0.46
3:J:1154:ALA:HB1	3:J:1211:SER:HB2	1.98	0.46
3:J:1145:PHE:CB	3:J:1309:ILE:HD11	2.27	0.46
3:J:130:MET:SD	3:J:135:ILE:CG1	2.95	0.46
3:J:796:LEU:HD12	3:J:800:LEU:HD21	1.98	0.46
4:K:30:MET:HE3	4:K:49:ILE:HG22	1.98	0.46
1:N:79:LEU:O	1:N:82:LEU:HB2	2.14	0.46
2:O:255:ILE:HD12	2:O:263:VAL:CB	2.43	0.46
2:O:227:LYS:CD	2:O:334:GLU:CD	2.76	0.46
2:O:719:LYS:HA	2:O:719:LYS:CE	2.32	0.46
2:O:797:GLY:HA3	2:O:1233:LEU:HG	1.97	0.46
2:O:947:GLU:O	2:O:950:GLU:HB3	2.16	0.46
3:P:824:PRO:HD3	3:P:878:ASP:O	2.16	0.46
4:Q:30:MET:HE1	4:Q:49:ILE:CD1	2.46	0.46
2:C:1256:GLN:HA	2:C:1256:GLN:OE1	2.14	0.46
2:C:269:ILE:HD13	2:C:269:ILE:HA	1.76	0.46
2:C:521:LEU:HD12	2:C:521:LEU:O	2.15	0.46
2:C:698:PRO:HD3	2:C:794:LEU:O	2.16	0.46
2:C:799:ASN:O	2:C:799:ASN:ND2	2.48	0.46
3:D:1123:ARG:O	3:D:1125:PRO:HD3	2.15	0.46
3:D:1156:LEU:N	3:D:1156:LEU:HD23	2.23	0.46
3:D:1252:HIS:HB2	3:D:1253:ILE:CD1	2.42	0.46
3:D:162:GLU:HB3	3:D:163:GLU:OE2	2.16	0.46
3:D:194:LEU:HB3	3:D:224:LEU:HD21	1.97	0.46
3:D:312:ARG:HG2	3:D:313:GLY:N	2.30	0.46
3:D:379:PRO:CG	3:D:380:PHE:N	2.77	0.46
3:D:610:ARG:NH2	3:D:901:ARG:NH1	2.63	0.46
3:D:894:VAL:HG22	3:D:915:ILE:CD1	2.45	0.46
4:E:31:GLN:OE1	4:E:46:THR:HG21	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:271:ASN:HA	5:F:274:ARG:HB2	1.98	0.46
5:F:407:GLU:CD	5:F:442:SER:HB3	2.36	0.46
2:I:190:PRO:C	3:J:1069:ALA:HB2	2.35	0.46
3:J:945:ALA:HB1	3:J:1023:HIS:CE1	2.51	0.46
3:J:449:LEU:HD12	3:J:450:HIS:H	1.81	0.46
3:J:481:ARG:O	3:J:485:MET:CB	2.56	0.46
3:J:708:ASN:ND2	3:J:712:GLN:O	2.48	0.46
5:L:574:GLU:OE1	5:L:574:GLU:HA	2.15	0.46
1:N:56:VAL:CA	1:N:146:VAL:HG22	2.44	0.46
1:N:211:ILE:HG22	1:N:212:ASP:O	2.15	0.46
3:P:366:CYS:SG	3:P:437:PHE:CB	3.04	0.46
3:P:600:ALA:O	3:P:603:LYS:HB2	2.16	0.46
3:P:452:LEU:HD11	3:P:625:MET:HB2	1.97	0.46
3:P:622:ASP:C	3:P:626:TYR:CD2	2.87	0.46
3:P:822:MET:HE2	3:P:838:ARG:HG2	1.97	0.46
1:A:71:LYS:HG2	1:A:72:GLU:N	2.31	0.46
2:C:1028:LYS:O	2:C:1032:LYS:HG2	2.16	0.46
2:C:1273:MET:HB2	7:2:14:DC:H4'	1.98	0.46
2:C:843:THR:HB	2:C:845:LEU:HG	1.98	0.46
3:D:198:CYS:SG	3:D:224:LEU:HD13	2.55	0.46
3:D:311:ARG:NH2	3:D:1329:THR:HG21	2.31	0.46
3:D:879:ALA:O	3:D:880:VAL:CG2	2.64	0.46
3:D:971:GLY:O	3:D:972:LYS:HG3	2.16	0.46
5:F:135:ALA:HB2	5:F:256:PHE:HB3	1.96	0.46
5:F:448:ARG:NE	5:F:503:GLU:OE2	2.48	0.46
2:I:935:THR:HA	2:I:1048:LYS:HG2	1.97	0.46
1:G:184:ALA:HB2	2:I:1091:GLY:HA3	1.98	0.46
2:I:340:ASP:O	2:I:342:ASP:N	2.49	0.46
3:J:620:PHE:O	3:J:624:ILE:CD1	2.59	0.46
3:J:846:GLU:HG2	3:J:847:ASP:N	2.30	0.46
2:O:1005:GLU:HG2	2:O:1006:GLU:H	1.80	0.46
2:O:1253:LEU:CD2	3:P:251:PRO:HG2	2.46	0.46
2:O:184:LEU:CD2	2:O:198:ILE:HA	2.46	0.46
2:O:178:PRO:CB	2:O:395:TYR:CZ	2.97	0.46
2:O:539:THR:HB	2:O:542:ARG:CB	2.46	0.46
2:O:809:GLY:HA3	3:P:629:PHE:CE1	2.50	0.46
2:O:882:ILE:HG12	2:O:919:ARG:HG2	1.97	0.46
2:O:953:LEU:O	2:O:957:LYS:HG3	2.16	0.46
2:O:980:VAL:O	2:O:980:VAL:CG1	2.63	0.46
3:P:120:LEU:HD23	3:P:121:PRO:HA	1.96	0.46
3:P:999:TYR:HE2	3:P:1027:VAL:HA	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:266:PHE:O	5:R:269:LEU:HB2	2.16	0.46
5:R:388:ILE:HG23	5:R:389:SER:N	2.30	0.46
5:R:573:LEU:HD23	7:8:45:DG:C8	2.51	0.46
5:R:91:ILE:HD11	5:R:103:ARG:NH1	2.30	0.46
2:I:1268:GLN:CA	7:5:16:DC:OP1	2.63	0.46
6:7:49:DG:O3'	6:7:50:DT:C4'	2.63	0.46
6:7:52:DT:H1'	6:7:53:DG:C5	2.50	0.46
1:A:77:ASP:O	1:A:81:ILE:HD12	2.16	0.46
2:C:1253:LEU:HB2	5:F:523:ILE:HG22	1.96	0.46
2:C:1309:VAL:HG13	3:D:383:GLY:N	2.31	0.46
2:C:1324:ASN:HA	2:C:1327:LEU:CD1	2.36	0.46
2:C:230:PHE:CE1	2:C:292:ILE:HD11	2.51	0.46
3:D:425:ARG:HH12	8:3:16:U:C2'	2.24	0.46
5:F:425:TYR:HD2	6:1:37:DA:N3	2.14	0.46
2:I:1029:LEU:C	2:I:1031:ALA:N	2.68	0.46
2:I:135:THR:HG22	2:I:144:VAL:CG2	2.46	0.46
2:I:267:ARG:HD3	2:I:268:ARG:H	1.81	0.46
3:J:1326:GLN:NE2	7:5:11:DA:H4'	2.30	0.46
3:J:583:VAL:HG12	3:J:584:PRO:O	2.16	0.46
3:J:572:THR:HG21	3:J:589:TYR:OH	2.16	0.46
4:K:54:ILE:HG12	4:K:59:ILE:HB	1.97	0.46
2:O:696:ASP:O	2:O:795:ALA:HB1	2.16	0.46
2:O:996:ARG:O	2:O:997:TRP:HD1	1.99	0.46
3:P:1075:ARG:HB3	3:P:1193:TRP:HB3	1.98	0.46
3:P:492:SER:OG	3:P:495:ASN:O	2.34	0.46
3:P:657:ALA:O	3:P:661:VAL:HG23	2.16	0.46
4:Q:10:VAL:HA	4:Q:19:LEU:HD22	1.97	0.46
7:8:37:DA:C2'	7:8:38:DG:OP2	2.64	0.46
2:C:1270:PHE:CE2	2:C:1278:LEU:HD12	2.51	0.46
2:C:1284:ALA:CB	3:D:1361:THR:HB	2.44	0.46
2:C:252:SER:O	2:C:265:LYS:HG3	2.15	0.46
2:C:314:ASN:HD22	2:C:351:LEU:HD13	1.77	0.46
2:C:551:HIS:ND1	2:C:553:THR:OG1	2.20	0.46
2:C:719:LYS:O	2:C:779:ARG:NH1	2.49	0.46
2:C:911:SER:O	2:C:913:VAL:N	2.49	0.46
3:D:245:LEU:HD11	3:D:249:LEU:HD12	1.98	0.46
3:D:367:GLY:HA3	3:D:448:GLN:HB2	1.97	0.46
3:D:416:ILE:HD12	3:D:441:LEU:HD11	1.98	0.46
3:D:422:LEU:O	3:D:423:LEU:HD23	2.16	0.46
3:D:967:VAL:CG2	3:D:973:LEU:HD12	2.45	0.46
4:E:46:THR:O	4:E:49:ILE:HB	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:141:ILE:CD1	5:F:256:PHE:CE1	2.94	0.46
1:H:51:MET:HE1	1:H:219:ARG:HB2	1.98	0.46
2:I:213:LEU:HD22	2:I:422:LYS:HD2	1.97	0.46
2:I:901:LEU:HG	2:I:905:ILE:HD11	1.97	0.46
3:J:147:ILE:O	3:J:188:LEU:HD13	2.16	0.46
3:J:736:GLN:HE21	3:J:736:GLN:HB3	1.52	0.46
5:L:262:VAL:HG13	5:L:263:PRO:HD2	1.98	0.46
1:M:86:LYS:HE2	1:M:173:VAL:HG13	1.98	0.46
2:O:979:LEU:CD1	2:O:1000:LEU:HD21	2.44	0.46
2:O:185:ASP:OD2	2:O:200:ARG:NE	2.49	0.46
3:P:1052:GLU:CG	3:P:1053:LEU:H	2.13	0.46
3:P:1150:PRO:HG2	3:P:1153:PRO:HB3	1.97	0.46
5:R:586:ARG:O	5:R:590:ILE:HG13	2.15	0.46
2:C:1186:VAL:HG12	2:C:1187:PHE:CD2	2.51	0.45
2:C:787:PRO:CG	2:C:788:SER:H	2.28	0.45
3:D:1023:HIS:O	3:D:1024:THR:HB	2.15	0.45
3:D:1194:ARG:NH1	3:D:1211:SER:HB3	2.29	0.45
3:D:1280:VAL:HG13	3:D:1281:GLU:N	2.31	0.45
3:D:275:ARG:HH11	3:D:302:ALA:HB2	1.81	0.45
3:D:555:TYR:HB3	3:D:563:LEU:HD22	1.97	0.45
3:D:650:LYS:NZ	3:D:765:GLU:OE2	2.49	0.45
5:F:585:GLU:OE2	5:F:588:ARG:HB3	2.16	0.45
1:H:178:SER:HB2	3:J:535:ARG:HH12	1.82	0.45
2:I:560:PRO:HB2	3:J:776:THR:CG2	2.42	0.45
2:I:724:VAL:HG21	2:I:771:VAL:HG21	1.97	0.45
3:J:1052:GLU:HG2	3:J:1053:LEU:N	2.32	0.45
3:J:1243:LEU:HD13	3:J:1244:GLN:HE21	1.81	0.45
3:J:591:ILE:HG21	3:J:604:MET:HE2	1.98	0.45
5:L:588:ARG:O	5:L:591:GLU:HB3	2.16	0.45
2:O:12:ARG:HG3	2:O:12:ARG:NH1	2.30	0.45
3:P:1230:THR:O	3:P:1234:VAL:CG2	2.44	0.45
5:R:399:LEU:HA	5:R:399:LEU:HD23	1.51	0.45
5:R:564:GLY:O	5:R:567:MET:O	2.34	0.45
6:1:33:DT:H2 <sup>''</sup>	6:1:34:DG:C8	2.51	0.45
2:C:564:PRO:CB	8:3:13:GTP:O1A	2.65	0.45
6:4:53:DG:H1 <sup>'</sup>	6:4:54:DA:H5 <sup>''</sup>	1.97	0.45
5:R:386:LEU:HD22	6:7:41:DT:C2	2.52	0.45
1:A:71:LYS:CG	1:A:72:GLU:H	2.30	0.45
2:C:1273:MET:CB	2:C:1274:GLU:OE1	2.64	0.45
3:D:1179:PRO:CB	3:D:1182:GLY:O	2.64	0.45
2:C:1291:LEU:O	3:D:345:LYS:HD2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:505:ASP:N	3:D:505:ASP:OD1	2.47	0.45
3:D:510:LEU:CD2	3:D:579:LEU:CD1	2.94	0.45
3:D:721:SER:O	3:D:725:MET:HG3	2.15	0.45
5:F:309:ASN:OD1	5:F:312:SER:HB3	2.17	0.45
5:F:540:LEU:O	5:F:544:THR:HG23	2.16	0.45
1:G:100:LEU:HD11	1:G:121:VAL:HG21	1.97	0.45
1:G:86:LYS:HG3	1:G:173:VAL:HG11	1.97	0.45
2:I:1313:HIS:N	2:I:1313:HIS:CD2	2.83	0.45
2:I:478:ARG:NH1	2:I:492:MET:O	2.49	0.45
2:I:700:VAL:HG22	2:I:1117:LEU:HD23	1.98	0.45
2:I:799:ASN:C	2:I:800:MET:HG2	2.36	0.45
3:J:395:LYS:HD3	5:L:609:SER:O	2.16	0.45
3:J:353:SER:HB3	3:J:447:ILE:HD11	1.97	0.45
3:J:462:ASP:N	3:J:462:ASP:OD1	2.48	0.45
3:J:530:PRO:HB2	3:J:581:MET:CG	2.47	0.45
3:J:544:LEU:HA	3:J:574:VAL:HB	1.98	0.45
2:O:253:PHE:CE1	2:O:288:PRO:HD2	2.51	0.45
2:O:405:PHE:CD1	2:O:405:PHE:C	2.89	0.45
2:O:557:ARG:HD3	2:O:587:LEU:CB	2.47	0.45
2:O:557:ARG:HG3	2:O:557:ARG:NH1	2.28	0.45
2:O:559:CYS:HA	2:O:560:PRO:HD2	1.63	0.45
2:O:657:THR:HG22	3:P:769:VAL:CG2	2.46	0.45
2:O:737:ASN:HB3	2:O:739:ASP:CG	2.36	0.45
2:O:823:VAL:HG12	2:O:1059:ARG:NH1	2.29	0.45
3:P:1036:ARG:O	3:P:1079:LYS:N	2.41	0.45
3:P:126:LEU:HD22	3:P:216:LYS:HZ2	1.77	0.45
3:P:237:MET:C	3:P:238:ILE:HD13	2.37	0.45
3:P:415:VAL:HA	4:Q:45:LYS:HZ2	1.81	0.45
3:P:536:LEU:HD21	3:P:541:LEU:HB3	1.98	0.45
3:D:425:ARG:NH2	8:3:16:U:H4'	2.29	0.45
7:5:27:DA:H2'	7:5:28:DG:H5'	1.97	0.45
7:5:6:DG:C5	7:5:7:DC:N4	2.84	0.45
3:P:1326:GLN:HE21	7:8:11:DA:H4'	1.82	0.45
2:C:1112:ILE:CG2	3:D:641:ILE:HG12	2.46	0.45
2:C:1172:LEU:O	2:C:1176:LEU:HG	2.16	0.45
2:C:1121:ALA:CB	2:C:1182:ILE:HD11	2.35	0.45
2:C:524:ILE:CG1	2:C:712:SER:HB3	2.45	0.45
3:D:151:MET:HG2	3:D:175:GLU:OE1	2.17	0.45
3:D:470:VAL:HB	3:D:472:LEU:HD23	1.89	0.45
3:D:783:LEU:CD1	3:D:783:LEU:H	2.26	0.45
3:D:835:LEU:HD12	3:D:839:VAL:HB	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:849:LEU:HD22	3:D:850:LYS:N	2.31	0.45
5:F:387:VAL:CG1	5:F:388:ILE:N	2.77	0.45
5:F:380:VAL:HG22	5:F:416:VAL:HG21	1.98	0.45
5:F:506:SER:O	5:F:509:THR:OG1	2.25	0.45
1:G:66:HIS:CE1	2:I:929:ILE:HG13	2.51	0.45
2:I:700:VAL:HG21	2:I:1114:GLU:CG	2.43	0.45
2:I:1116:HIS:CE1	2:I:1226:THR:HG23	2.51	0.45
2:I:1200:LYS:HE3	2:I:1206:THR:CG2	2.39	0.45
2:I:1225:VAL:HG22	3:J:638:SER:HB3	1.99	0.45
2:I:146:VAL:HG12	2:I:529:ARG:O	2.16	0.45
3:J:1068:THR:O	3:J:1072:LYS:HE2	2.15	0.45
3:J:230:SER:HB2	3:J:1339:GLY:HA3	1.97	0.45
3:J:349:TYR:CD2	3:J:472:LEU:HD11	2.51	0.45
4:K:76:GLU:O	4:K:80:LEU:HG	2.16	0.45
5:L:387:VAL:CG2	5:L:412:LEU:CD2	2.94	0.45
5:L:390:ILE:HG23	5:L:393:LYS:HZ3	1.81	0.45
5:L:481:GLU:O	5:L:485:GLU:HG3	2.16	0.45
2:O:189:ASP:CG	2:O:190:PRO:HD2	2.36	0.45
2:O:196:VAL:CG1	2:O:197:ARG:N	2.79	0.45
2:O:800:MET:SD	2:O:828:PHE:HE1	2.38	0.45
2:O:830:THR:HG23	2:O:1234:LYS:HZ1	1.81	0.45
3:P:271:ARG:NH1	3:P:316:ILE:CG2	2.80	0.45
3:P:501:VAL:HG12	3:P:502:PRO:CD	2.46	0.45
3:P:958:ILE:CG2	3:P:982:LEU:HD11	2.47	0.45
5:R:598:LEU:HA	5:R:598:LEU:HD23	1.79	0.45
1:A:163:GLU:HG3	1:A:164:ASP:N	2.31	0.45
1:A:47:LEU:CD2	1:A:180:VAL:HG11	2.45	0.45
1:B:48:LEU:HD23	1:B:180:VAL:HB	1.98	0.45
1:B:212:ASP:CG	1:B:213:PRO:HD2	2.37	0.45
1:B:91:ARG:HB2	1:B:210:THR:HG21	1.98	0.45
2:C:12:ARG:CZ	2:C:1181:PRO:HB2	2.46	0.45
2:C:878:THR:HG22	2:C:879:GLY:H	1.79	0.45
3:D:952:VAL:HG11	3:D:1011:VAL:CG2	2.46	0.45
5:F:153:ALA:O	5:F:155:GLU:N	2.48	0.45
2:I:1086:PRO:HB2	2:I:1212:LEU:HD22	1.98	0.45
2:I:1120:ALA:O	2:I:1124:ILE:HG13	2.15	0.45
2:I:422:LYS:HG2	2:I:422:LYS:H	1.48	0.45
2:I:592:ARG:NH1	2:I:592:ARG:HG3	2.32	0.45
2:I:661:VAL:HG11	2:I:665:ALA:CB	2.46	0.45
3:J:1011:VAL:HG11	3:J:1017:VAL:HG12	1.98	0.45
3:J:1080:ILE:HD12	3:J:1115:ILE:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:332:LYS:NZ	3:J:1329:THR:CG2	2.76	0.45
3:J:140:TYR:CE1	3:J:312:ARG:NH2	2.84	0.45
3:J:298:MET:HE3	5:L:403:ASP:N	2.30	0.45
5:L:102:MET:CE	6:4:42:DG:C4	2.99	0.45
5:L:465:ARG:HH22	7:5:27:DA:H5'	1.82	0.45
1:M:32:GLU:CG	1:M:33:ARG:N	2.76	0.45
1:M:8:PHE:CZ	1:N:223:ILE:CG1	2.97	0.45
2:O:1237:HIS:ND1	2:O:1242:LYS:HE3	2.30	0.45
2:O:347:ILE:HD13	2:O:347:ILE:N	2.32	0.45
3:P:337:ARG:CD	3:P:341:ASN:HD22	2.12	0.45
3:P:749:LYS:HE3	3:P:754:ILE:O	2.17	0.45
5:R:446:GLN:O	5:R:447:ALA:CB	2.62	0.45
5:R:469:GLN:O	5:R:472:GLN:HG2	2.16	0.45
5:R:585:GLU:OE1	5:R:585:GLU:O	2.34	0.45
7:2:27:DA:H2''	7:2:28:DG:H5'	1.98	0.45
2:C:1065:LYS:C	2:C:1066:MET:HG2	2.33	0.45
2:C:1081:PRO:CB	2:C:1083:GLU:OE1	2.65	0.45
2:C:1269:ARG:NH1	3:D:340:GLN:HG3	2.31	0.45
2:C:206:ALA:C	2:C:209:ILE:HG22	2.29	0.45
2:C:572:ILE:O	2:C:573:ASN:ND2	2.48	0.45
3:D:114:ILE:CD1	3:D:308:ASP:HB3	2.46	0.45
3:D:849:LEU:CD1	3:D:850:LYS:H	2.29	0.45
5:F:262:VAL:HG11	5:F:264:LYS:HE3	1.99	0.45
2:I:241:LEU:HD22	2:I:285:ILE:CD1	2.46	0.45
2:I:448:LEU:HD12	2:I:557:ARG:HD2	1.98	0.45
2:I:668:ILE:HG23	2:I:669:PRO:HD2	1.98	0.45
3:J:908:ILE:O	3:J:908:ILE:HG22	2.16	0.45
1:M:228:LEU:HD13	1:N:225:ALA:HB2	1.98	0.45
1:M:228:LEU:HD21	1:N:221:ALA:HA	1.98	0.45
1:N:75:GLN:HE21	1:N:134:THR:HG23	1.82	0.45
2:O:149:LEU:CD1	2:O:453:ILE:HD13	2.46	0.45
2:O:888:THR:HG22	2:O:889:PRO:HD2	1.98	0.45
3:P:245:LEU:HG	3:P:249:LEU:HD12	1.98	0.45
3:P:332:LYS:O	3:P:333:GLY:C	2.54	0.45
5:R:324:LYS:CB	5:R:325:PRO:HD3	2.47	0.45
5:R:503:GLU:CB	5:R:504:PRO:CD	2.93	0.45
1:B:100:LEU:HD23	1:B:100:LEU:HA	1.72	0.45
2:C:670:PHE:CD2	2:C:1113:LEU:HB2	2.52	0.45
2:C:1087:TYR:HE1	2:C:1215:GLY:CA	2.27	0.45
2:C:622:ASN:HB3	2:C:630:VAL:CB	2.46	0.45
3:D:1017:VAL:O	3:D:1018:ALA:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1261:LEU:HD22	3:D:1304:ARG:HB3	1.99	0.45
3:D:1320:ILE:HG13	3:D:1320:ILE:H	1.25	0.45
3:D:115:TRP:CZ3	3:D:1329:THR:O	2.70	0.45
3:D:1331:VAL:HG12	3:D:1332:LEU:HD23	1.98	0.45
3:D:503:SER:H	3:D:506:VAL:HG21	1.81	0.45
2:I:209:ILE:HG23	2:I:210:LEU:HG	1.96	0.45
2:I:634:VAL:O	2:I:644:LEU:HD22	2.16	0.45
3:J:747:MET:HG3	3:J:940:ALA:HB1	1.98	0.45
3:J:811:GLU:HB2	3:J:890:THR:HG23	1.98	0.45
5:L:297:MET:HA	5:L:326:TRP:CH2	2.52	0.45
5:L:455:HIS:HD2	5:L:455:HIS:N	1.98	0.45
5:L:452:ILE:HG23	5:L:456:MET:HB2	1.99	0.45
5:L:461:ASN:O	5:L:465:ARG:HG3	2.17	0.45
1:M:228:LEU:O	1:M:232:VAL:HG23	2.16	0.45
2:O:729:ALA:O	2:O:730:SER:CB	2.63	0.45
3:P:1224:ARG:HD3	3:P:1228:ALA:HB1	1.99	0.45
3:P:1356:LEU:HD13	3:P:1362:GLY:CA	2.46	0.45
2:O:1309:VAL:HA	3:P:383:GLY:HA3	1.99	0.45
3:P:411:ILE:O	3:P:415:VAL:HG23	2.16	0.45
3:P:635:SER:OG	3:P:636:GLY:N	2.48	0.45
8:3:13:GTP:H8	8:3:13:GTP:O3A	1.99	0.45
6:7:32:DA:N6	7:8:30:DA:N6	2.64	0.45
5:R:110:LEU:HD23	6:7:41:DT:C2	2.51	0.45
2:C:70:TYR:HA	2:C:100:LEU:HD23	1.97	0.45
2:C:1142:ARG:NH1	2:C:1169:VAL:HG21	2.31	0.45
2:C:1284:ALA:HB3	3:D:1361:THR:HG21	1.98	0.45
2:C:170:VAL:HG12	2:C:172:TYR:CE2	2.52	0.45
2:C:56:VAL:CG2	2:C:468:LEU:HD13	2.43	0.45
2:C:840:SER:OG	2:C:1048:LYS:N	2.50	0.45
3:D:337:ARG:CD	3:D:341:ASN:HD22	2.06	0.45
3:D:891:ASP:N	3:D:891:ASP:OD1	2.50	0.45
3:D:967:VAL:HG22	3:D:973:LEU:HD12	1.99	0.45
5:F:225:ARG:O	5:F:228:TYR:HB3	2.17	0.45
2:C:373:GLY:HA2	5:F:87:VAL:HG13	1.99	0.45
2:I:185:ASP:HB2	2:I:197:ARG:HB2	1.98	0.45
2:I:222:ASP:OD1	2:I:227:LYS:HE3	2.17	0.45
2:I:559:CYS:HA	2:I:560:PRO:HD2	1.78	0.45
2:I:870:ILE:HG13	2:I:944:ARG:HB2	1.98	0.45
3:J:367:GLY:HA3	3:J:448:GLN:HB2	1.98	0.45
3:J:85:CYS:HB3	3:J:88:CYS:SG	2.57	0.45
3:J:899:TYR:CE1	3:J:915:ILE:HG23	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:112:ALA:HB1	1:N:123:ILE:HG21	1.97	0.45
2:O:1243:MET:HG2	2:O:1244:HIS:N	2.31	0.45
2:O:890:LYS:HE2	2:O:893:THR:OG1	2.17	0.45
2:O:98:VAL:HB	2:O:124:MET:SD	2.57	0.45
3:P:1138:LEU:O	3:P:1141:VAL:HB	2.17	0.45
3:P:135:ILE:HG13	3:P:135:ILE:H	1.41	0.45
7:5:45:DG:H2''	7:5:46:DT:C5'	2.47	0.45
1:A:67:GLU:O	1:A:78:ILE:HB	2.17	0.45
2:C:1111:GLN:O	2:C:1230:MET:HE2	2.16	0.45
3:D:1280:VAL:HG12	3:D:1281:GLU:O	2.16	0.45
3:D:278:ARG:HG3	3:D:278:ARG:HH11	1.81	0.45
3:D:621:ALA:HA	3:D:624:ILE:HD12	1.98	0.45
3:D:661:VAL:HG12	3:D:665:GLN:NE2	2.32	0.45
3:D:762:ASN:OD1	3:D:765:GLU:HG3	2.17	0.45
3:D:796:LEU:O	3:D:799:ARG:HB2	2.17	0.45
3:D:829:GLY:HA2	3:D:995:TYR:CE1	2.52	0.45
3:D:879:ALA:O	3:D:880:VAL:HG23	2.16	0.45
3:D:974:VAL:HG11	3:D:1028:ILE:CG2	2.45	0.45
5:F:502:LYS:HA	5:F:502:LYS:HD2	1.79	0.45
1:G:38:THR:HG21	1:H:42:ALA:HA	1.95	0.45
2:I:675:ASP:CB	2:I:1107:MET:HE2	2.34	0.45
2:I:351:LEU:HD23	2:I:351:LEU:HA	1.67	0.45
2:I:435:ILE:HG12	2:I:440:GLY:HA3	1.97	0.45
3:J:1218:HIS:CD2	3:J:1306:LEU:HB3	2.52	0.45
3:J:65:VAL:HG22	3:J:98:ARG:NH1	2.32	0.45
3:J:820:ILE:HG22	3:J:821:MET:N	2.31	0.45
3:J:809:VAL:HB	3:J:912:GLY:H	1.82	0.45
5:L:484:ALA:HB2	5:L:494:ILE:HG12	1.99	0.45
2:I:1044:PRO:CB	5:L:498:LEU:HD13	2.47	0.45
5:L:506:SER:O	5:L:509:THR:OG1	2.25	0.45
3:P:271:ARG:HH12	3:P:316:ILE:CG2	2.27	0.45
3:P:759:ILE:HG12	3:P:771:GLN:HG2	1.99	0.45
3:P:807:LEU:HD21	3:P:1259:GLN:HG2	1.99	0.45
8:3:13:GTP:C8	8:3:13:GTP:O5'	2.70	0.45
3:J:120:LEU:HD13	6:4:57:DC:H5'	1.99	0.45
5:L:465:ARG:NH2	7:5:27:DA:H5'	2.32	0.45
7:8:17:DG:C2	8:9:13:GTP:C6	3.04	0.45
7:8:23:DT:H5''	7:8:23:DT:H6	1.82	0.45
1:A:223:ILE:O	1:A:227:GLN:HG2	2.16	0.45
2:C:1289:GLU:CD	3:D:472:LEU:CB	2.79	0.45
2:C:237:LEU:HD11	2:C:289:VAL:HG13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:437:ASN:N	2:C:437:ASN:OD1	2.47	0.45
2:C:448:LEU:CD1	2:C:557:ARG:NH1	2.80	0.45
2:C:65:ASN:OD1	2:C:66:SER:N	2.50	0.45
2:C:896:THR:OG1	2:C:898:GLU:OE1	2.29	0.45
3:D:133:ARG:HG2	3:D:136:GLU:OE1	2.16	0.45
3:D:530:PRO:CD	3:D:531:LYS:HE2	2.46	0.45
5:F:551:LEU:CD1	5:F:559:LEU:CD1	2.95	0.45
1:G:142:MET:HB3	1:G:142:MET:HE3	1.55	0.45
2:I:106:GLU:HG2	2:I:115:LYS:HD2	1.98	0.45
2:I:661:VAL:HG12	2:I:662:SER:N	2.32	0.45
2:I:870:ILE:HG21	2:I:944:ARG:HD3	1.95	0.45
3:J:1229:VAL:HG13	3:J:1230:THR:H	1.82	0.45
3:J:1250:ASP:O	3:J:1254:GLU:HG3	2.16	0.45
2:I:1258:PRO:HG2	3:J:346:ARG:C	2.37	0.45
3:J:515:ARG:HH21	3:J:717:VAL:CB	2.24	0.45
2:I:1107:MET:CG	3:J:740:LEU:HD21	2.46	0.45
5:L:593:LYS:O	5:L:597:LYS:HG3	2.17	0.45
1:M:191:ARG:O	1:M:191:ARG:HG2	2.16	0.45
1:N:150:ARG:HG3	1:N:150:ARG:O	2.16	0.45
2:O:1088:ASP:OD1	2:O:1088:ASP:N	2.47	0.45
2:O:312:ALA:O	2:O:314:ASN:N	2.50	0.45
2:O:802:VAL:HG22	2:O:1096:ILE:O	2.17	0.45
3:P:1307:LEU:HB2	3:P:1312:ALA:HB2	1.97	0.45
3:P:1350:ASN:HD21	3:P:1366:HIS:CE1	2.35	0.45
3:P:161:THR:H	3:P:164:GLN:NE2	2.15	0.45
5:R:489:MET:HB3	5:R:490:PRO:HD2	1.99	0.45
6:4:43:DT:H6	6:4:43:DT:H3'	1.82	0.45
8:9:13:GTP:O3A	8:9:13:GTP:C8	2.55	0.45
1:B:153:VAL:HG13	1:B:157:THR:HB	1.99	0.45
1:B:151:GLY:HA2	1:B:178:SER:OG	2.16	0.45
2:C:15:PHE:HA	2:C:1155:VAL:HG23	1.98	0.45
2:C:1245:ALA:HB1	3:D:375:GLU:CB	2.47	0.45
2:C:1277:ALA:O	2:C:1281:TYR:CD2	2.70	0.45
2:C:1284:ALA:O	2:C:1287:LEU:HB3	2.17	0.45
2:C:530:ILE:CD1	2:C:575:LEU:N	2.80	0.45
2:C:559:CYS:HB2	2:C:662:SER:H	1.81	0.45
2:C:58:PRO:HB3	2:C:69:GLN:HG2	1.98	0.45
2:C:731:ARG:NH1	2:C:752:ASN:OD1	2.50	0.45
3:D:1145:PHE:HZ	3:D:1253:ILE:HG23	1.82	0.45
3:D:192:MET:HE3	3:D:192:MET:HB2	1.95	0.45
3:D:230:SER:OG	3:D:232:ASN:ND2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:331:ILE:CG2	3:D:338:PHE:CE2	2.99	0.45
3:D:349:TYR:CB	3:D:470:VAL:CG2	2.90	0.45
3:D:664:ILE:HG12	3:D:681:LYS:HZ3	1.82	0.45
3:D:705:THR:O	3:D:707:ILE:HG13	2.17	0.45
5:F:511:ILE:CD1	5:F:519:LEU:HA	2.46	0.45
2:I:1270:PHE:CE1	2:I:1274:GLU:HB3	2.52	0.45
2:I:469:VAL:O	2:I:472:GLU:HG2	2.17	0.45
3:J:111:THR:HG23	3:J:112:ALA:H	1.79	0.45
3:J:279:LEU:HA	3:J:282:LEU:HD12	1.98	0.45
3:J:285:LEU:HD23	3:J:285:LEU:HA	1.79	0.45
5:L:390:ILE:HG23	5:L:393:LYS:NZ	2.33	0.45
1:M:153:VAL:O	1:M:153:VAL:HG12	2.17	0.45
2:O:1272:GLU:HB3	2:O:1276:TRP:CZ2	2.52	0.45
2:O:592:ARG:NH2	2:O:600:THR:O	2.50	0.45
2:O:968:GLU:HG3	2:O:972:PHE:CE1	2.52	0.45
3:P:382:TYR:HD1	3:P:397:ALA:CB	2.27	0.45
3:P:530:PRO:HB2	3:P:581:MET:HG2	1.97	0.45
3:P:678:ARG:O	3:P:682:VAL:HG23	2.17	0.45
3:P:973:LEU:HD23	3:P:1003:LEU:HD12	2.00	0.45
4:Q:15:ASN:OD1	4:Q:16:ARG:N	2.50	0.45
4:Q:30:MET:CE	4:Q:49:ILE:HG21	2.47	0.45
7:5:22:DA:C1'	7:5:23:DT:OP1	2.63	0.44
2:C:800:MET:O	2:C:802:VAL:HG23	2.17	0.44
2:C:170:VAL:HG23	3:D:1065:ALA:CA	2.47	0.44
3:D:1078:LEU:HD12	3:D:1101:LEU:HD21	1.99	0.44
3:D:1319:PHE:CD2	3:D:1340:LYS:HD3	2.51	0.44
3:D:579:LEU:HA	3:D:579:LEU:HD23	1.60	0.44
4:E:20:VAL:O	4:E:21:LEU:HD23	2.17	0.44
5:F:266:PHE:O	5:F:270:VAL:HG23	2.17	0.44
5:F:392:LYS:HD3	6:1:43:DT:O3'	2.17	0.44
1:G:112:ALA:O	1:G:115:ILE:CG1	2.65	0.44
1:G:102:LEU:CD1	1:G:114:ASP:C	2.85	0.44
1:H:217:ILE:HG22	1:H:218:ARG:N	2.32	0.44
2:I:103:VAL:HG13	2:I:117:ILE:HG23	1.99	0.44
2:I:1275:VAL:HB	2:I:1279:GLU:OE2	2.15	0.44
2:I:736:VAL:O	2:I:741:MET:HE2	2.16	0.44
2:I:948:ILE:O	2:I:951:MET:HB2	2.17	0.44
2:I:191:LYS:HG2	3:J:1069:ALA:CB	2.46	0.44
3:J:135:ILE:O	3:J:139:LEU:CG	2.63	0.44
3:J:140:TYR:HE1	3:J:312:ARG:NH2	2.16	0.44
3:J:68:TYR:CA	3:J:92:VAL:CG1	2.93	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:961:SER:O	3:J:962:ASN:HB2	2.16	0.44
5:L:101:TYR:CD2	5:L:101:TYR:C	2.91	0.44
5:L:503:GLU:CB	5:L:504:PRO:HD2	2.44	0.44
1:M:102:LEU:HD21	1:M:130:ILE:CD1	2.47	0.44
1:N:79:LEU:H	1:N:79:LEU:HG	1.08	0.44
2:O:1223:ARG:HD2	3:P:635:SER:C	2.37	0.44
2:O:340:ASP:HA	2:O:344:GLY:CA	2.40	0.44
2:O:420:LEU:HA	2:O:420:LEU:HD23	1.83	0.44
2:O:804:PHE:HE1	2:O:1103:VAL:CG2	2.29	0.44
2:O:942:ASP:O	2:O:945:ALA:HB3	2.16	0.44
3:P:205:LEU:HD21	3:P:217:LEU:HD12	1.99	0.44
3:P:265:LEU:HD23	3:P:265:LEU:N	2.31	0.44
3:P:503:SER:C	3:P:507:VAL:HG23	2.36	0.44
5:R:97:PRO:HA	5:R:100:MET:HG3	1.98	0.44
6:4:46:DG:C8	6:4:46:DG:H5 <sup>+</sup>	2.53	0.44
1:A:42:ALA:O	1:A:46:ILE:HG13	2.17	0.44
1:A:51:MET:HB3	1:A:179:PRO:HD2	1.99	0.44
2:C:896:THR:HG21	2:C:898:GLU:HB2	1.94	0.44
3:D:979:ASN:HB2	3:D:1197:ASN:HD21	1.82	0.44
3:D:394:ILE:O	3:D:397:ALA:HB3	2.17	0.44
3:D:697:MET:HB3	3:D:697:MET:HE2	1.61	0.44
3:D:872:LEU:HD23	3:D:872:LEU:HA	1.54	0.44
3:D:986:ASP:N	3:D:986:ASP:OD1	2.50	0.44
5:F:91:ILE:O	5:F:93:ARG:N	2.46	0.44
2:I:1107:MET:HE3	3:J:763:PHE:CE2	2.52	0.44
2:I:1289:GLU:O	2:I:1293:VAL:HG23	2.16	0.44
2:I:169:LYS:HA	3:J:1065:ALA:O	2.18	0.44
2:I:393:ASP:N	2:I:393:ASP:OD1	2.50	0.44
2:I:732:ILE:HD11	2:I:769:PRO:HB3	1.99	0.44
2:I:836:LEU:HD23	2:I:836:LEU:HA	1.54	0.44
2:I:980:VAL:O	2:I:980:VAL:HG12	2.16	0.44
3:J:1168:GLU:OE2	3:J:1173:ARG:NH2	2.50	0.44
3:J:1169:THR:OG1	3:J:1174:ARG:NH2	2.50	0.44
3:J:179:LYS:CG	3:J:180:MET:H	2.31	0.44
3:J:385:LEU:CD2	3:J:391:ALA:HB2	2.33	0.44
3:J:530:PRO:HB2	3:J:581:MET:HG2	1.98	0.44
3:J:62:PHE:C	3:J:98:ARG:HG3	2.38	0.44
2:O:120:GLN:NE2	2:O:490:GLN:OE1	2.50	0.44
2:O:346:TYR:HB2	2:O:347:ILE:HD13	1.99	0.44
2:O:363:LEU:HD23	2:O:366:ILE:HD12	1.99	0.44
2:O:698:PRO:HA	2:O:1231:TYR:HE1	1.73	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:159:ILE:H	3:P:159:ILE:HG13	1.41	0.44
3:P:609:TYR:CD1	3:P:609:TYR:C	2.91	0.44
3:P:930:LEU:HB3	3:P:1134:ILE:CG1	2.47	0.44
5:R:322:MET:O	5:R:323:ASN:HB2	2.16	0.44
5:R:456:MET:O	5:R:460:ILE:HG13	2.17	0.44
1:A:91:ARG:HB2	1:A:122:GLU:HB3	2.00	0.44
2:C:1106:ARG:O	2:C:1107:MET:HB2	2.17	0.44
2:C:1278:LEU:HD13	2:C:1287:LEU:CA	2.42	0.44
2:C:1280:ALA:CB	3:D:431:ARG:HB3	2.48	0.44
2:C:267:ARG:HD3	2:C:268:ARG:N	2.32	0.44
2:C:496:LYS:CB	2:C:497:PRO:CD	2.95	0.44
3:D:141:PHE:CZ	3:D:181:GLY:HA3	2.52	0.44
3:D:281:ARG:O	3:D:285:LEU:HG	2.18	0.44
3:D:423:LEU:CB	3:D:466:MET:HE1	2.48	0.44
3:D:697:MET:HE3	3:D:738:ARG:HA	1.99	0.44
5:F:450:ILE:HG12	5:F:450:ILE:O	2.17	0.44
5:F:505:ILE:HA	5:F:505:ILE:HD13	1.75	0.44
1:G:47:LEU:HA	1:G:51:MET:HG2	1.99	0.44
2:I:1237:HIS:C	2:I:1238:LEU:HD23	2.38	0.44
3:J:105:ILE:HD11	3:J:244:VAL:HG21	1.98	0.44
3:J:513:MET:HE2	3:J:579:LEU:HD21	1.91	0.44
3:J:739:GLN:HG2	3:J:744:ARG:HG3	1.99	0.44
3:J:915:ILE:HG22	3:J:915:ILE:O	2.16	0.44
2:O:1230:MET:SD	2:O:1232:MET:HE3	2.56	0.44
2:O:409:LEU:HD23	2:O:431:LYS:HD2	1.99	0.44
2:O:719:LYS:HE2	2:O:719:LYS:CA	2.41	0.44
3:P:1028:ILE:CG2	3:P:1118:GLY:HA2	2.48	0.44
3:P:1172:LYS:HD3	3:P:1189:MET:CE	2.47	0.44
3:P:1311:LYS:H	3:P:1311:LYS:HG3	1.48	0.44
3:P:1314:LEU:HG	3:P:1314:LEU:H	1.59	0.44
3:P:182:ALA:HA	3:P:185:ILE:CD1	2.44	0.44
3:P:491:LEU:HB3	3:P:496:GLY:O	2.18	0.44
3:P:584:PRO:HG3	3:P:620:PHE:HB2	1.99	0.44
4:Q:48:VAL:O	4:Q:51:LEU:HB2	2.17	0.44
7:5:18:DT:H2'	7:5:19:DA:H5'	1.99	0.44
5:R:386:LEU:HD13	6:7:41:DT:C6	2.52	0.44
1:A:47:LEU:O	1:A:51:MET:HB2	2.17	0.44
1:B:140:ILE:HA	1:B:140:ILE:HD12	1.74	0.44
1:B:78:ILE:HA	1:B:81:ILE:HD12	1.99	0.44
2:C:1305:TYR:HA	2:C:1308:ILE:HD12	1.99	0.44
2:C:538:LEU:CD2	2:C:538:LEU:N	2.69	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:844:LYS:NZ	3:D:47:ARG:HD3	2.32	0.44
2:C:870:ILE:HB	2:C:944:ARG:HD3	1.99	0.44
2:C:901:LEU:HG	2:C:905:ILE:HD11	1.99	0.44
3:D:1320:ILE:HD11	3:D:1342:ASP:CB	2.48	0.44
3:D:169:LEU:HD12	3:D:173:GLY:HA2	1.99	0.44
3:D:325:LYS:HE2	3:D:330:MET:HA	1.99	0.44
3:D:416:ILE:HD13	3:D:441:LEU:HG	1.98	0.44
3:D:505:ASP:O	3:D:508:LEU:HB3	2.18	0.44
3:D:555:TYR:HB3	3:D:563:LEU:HB3	1.98	0.44
3:D:70:CYS:HA	3:D:90:VAL:HG11	1.98	0.44
1:G:112:ALA:O	1:G:115:ILE:HG13	2.18	0.44
2:I:1024:GLU:HG2	2:I:1028:LYS:CE	2.48	0.44
2:I:1161:LEU:O	2:I:1163:THR:N	2.51	0.44
2:I:1205:PRO:HG2	2:I:1210:ILE:CD1	2.48	0.44
2:I:1326:LEU:HD21	3:J:342:LEU:CD1	2.46	0.44
2:I:70:TYR:CZ	2:I:72:SER:HA	2.53	0.44
3:J:97:VAL:CG1	3:J:101:ARG:CD	2.95	0.44
3:J:825:VAL:HG21	3:J:1242:ARG:HH12	1.82	0.44
3:J:224:LEU:O	3:J:227:PHE:CB	2.66	0.44
5:L:333:VAL:O	5:L:333:VAL:HG13	2.17	0.44
3:J:298:MET:SD	5:L:406:GLN:CG	3.05	0.44
5:L:387:VAL:HA	5:L:435:ILE:HD13	1.98	0.44
2:O:13:LYS:HE3	2:O:1149:TYR:O	2.16	0.44
2:O:883:LEU:HD11	2:O:920:VAL:HG22	1.99	0.44
2:O:960:LEU:HD22	2:O:1025:PHE:HD1	1.81	0.44
3:P:163:GLU:OE2	5:R:81:ALA:HB1	2.18	0.44
3:P:303:VAL:HG12	3:P:307:LEU:HD11	2.00	0.44
3:P:793:SER:O	3:P:796:LEU:HB3	2.18	0.44
3:P:960:LEU:CD2	3:P:982:LEU:HD13	2.48	0.44
4:Q:17:PHE:N	4:Q:17:PHE:CD1	2.84	0.44
5:R:414:LYS:HD3	5:R:434:TRP:HZ3	1.79	0.44
5:R:121:LYS:NZ	5:R:421:TYR:OH	2.33	0.44
1:A:35:PHE:CE2	1:B:50:SER:OG	2.62	0.44
2:C:1101:LEU:HD11	3:D:508:LEU:CD2	2.47	0.44
2:C:1277:ALA:O	2:C:1281:TYR:HD2	2.01	0.44
2:C:805:MET:HE2	2:C:806:PRO:O	2.17	0.44
3:D:1357:ILE:HA	3:D:1358:PRO:HD3	1.80	0.44
3:D:536:LEU:HD21	3:D:541:LEU:O	2.18	0.44
3:D:610:ARG:NH2	3:D:901:ARG:HH12	2.16	0.44
2:C:894:GLN:HE22	3:D:76:LYS:HB2	1.81	0.44
3:D:899:TYR:C	3:D:899:TYR:CD2	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:476:ARG:HG3	5:F:477:GLU:HG2	1.99	0.44
5:F:543:ALA:O	5:F:547:VAL:HG23	2.17	0.44
1:H:97:GLU:HG3	1:H:147:GLN:HG2	2.00	0.44
1:H:75:GLN:NE2	1:H:134:THR:HG22	2.33	0.44
2:I:11:ILE:O	2:I:1181:PRO:HG2	2.17	0.44
2:I:1187:PHE:CE1	3:J:769:VAL:HA	2.53	0.44
2:I:1326:LEU:HA	2:I:1326:LEU:HD12	1.73	0.44
2:I:208:ILE:HG23	2:I:209:ILE:N	2.32	0.44
2:I:495:ALA:HA	2:I:498:ILE:HD12	1.98	0.44
3:J:1184:ASP:HA	3:J:1185:PRO:HD3	1.87	0.44
3:J:227:PHE:CE1	3:J:234:PRO:HD3	2.49	0.44
3:J:694:SER:HA	3:J:697:MET:HE1	1.99	0.44
3:J:650:LYS:NZ	3:J:765:GLU:OE2	2.43	0.44
5:L:167:ASP:OD2	5:L:262:VAL:HG21	2.17	0.44
5:L:302:PHE:HE1	5:L:315:TRP:CH2	2.36	0.44
1:M:131:CYS:SG	1:M:132:HIS:N	2.89	0.44
1:M:61:ILE:HG12	1:M:142:MET:HB3	1.98	0.44
1:N:228:LEU:HD22	1:N:228:LEU:O	2.18	0.44
2:O:1234:LYS:HE2	2:O:1238:LEU:HD21	2.00	0.44
2:O:35:PHE:HZ	2:O:129:LEU:HA	1.83	0.44
3:P:1046:ILE:CD1	3:P:1059:LEU:HD22	2.47	0.44
3:P:1073:ASP:O	3:P:1075:ARG:HG2	2.18	0.44
3:P:1190:ILE:HD13	3:P:1196:LEU:HD11	1.99	0.44
3:P:343:LEU:HD23	3:P:1351:VAL:HG11	2.00	0.44
2:O:1280:ALA:HB3	3:P:431:ARG:HB3	1.99	0.44
3:P:51:PRO:HB3	3:P:57:PHE:C	2.38	0.44
3:P:583:VAL:HG12	3:P:584:PRO:O	2.17	0.44
3:P:698:MET:SD	3:P:737:ILE:CD1	3.05	0.44
5:R:390:ILE:HD12	5:R:435:ILE:HD12	1.99	0.44
7:8:5:DC:H2''	7:8:6:DG:H5'	1.99	0.44
1:A:228:LEU:HG	1:A:231:PHE:HE2	1.83	0.44
2:C:797:GLY:N	2:C:1233:LEU:HD21	2.33	0.44
2:C:1243:MET:HA	3:D:353:SER:OG	2.18	0.44
2:C:131:THR:HG23	2:C:135:THR:O	2.18	0.44
2:C:980:VAL:CG1	2:C:980:VAL:O	2.65	0.44
3:D:653:ILE:HG23	3:D:692:ARG:NH1	2.33	0.44
3:D:799:ARG:O	3:D:803:VAL:HG23	2.18	0.44
3:D:894:VAL:HG23	3:D:895:CYS:C	2.38	0.44
1:G:112:ALA:HB2	1:G:128:HIS:HB3	2.00	0.44
1:H:124:VAL:HG21	1:H:210:THR:OG1	2.17	0.44
2:I:666:SER:OG	2:I:704:MET:HE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1023:HIS:O	3:J:1024:THR:CB	2.65	0.44
3:J:1221:LEU:CD1	3:J:1226:VAL:HA	2.48	0.44
3:J:1266:ILE:CD1	3:J:1278:GLU:CB	2.90	0.44
3:J:217:LEU:HA	3:J:217:LEU:HD23	1.80	0.44
3:J:685:ILE:HG13	3:J:685:ILE:H	1.54	0.44
2:O:1298:VAL:HG22	2:O:1301:ARG:NH2	2.32	0.44
2:O:1288:GLN:HG2	2:O:1315:MET:SD	2.58	0.44
2:O:149:LEU:HG	2:O:451:ARG:NE	2.31	0.44
2:O:704:MET:O	2:O:708:VAL:HG23	2.18	0.44
2:O:761:GLN:O	2:O:762:ASN:CB	2.64	0.44
2:O:873:ILE:H	2:O:873:ILE:HG13	1.56	0.44
3:P:1216:ALA:HA	3:P:1217:PRO:HD2	1.68	0.44
3:P:176:PHE:O	3:P:177:ASP:OD1	2.36	0.44
3:P:254:PRO:HB3	3:P:260:PHE:CE1	2.53	0.44
3:P:518:VAL:HG12	3:P:519:ASN:OD1	2.17	0.44
3:P:736:GLN:H	3:P:736:GLN:HG2	1.53	0.44
3:P:790:THR:HG21	3:P:932:MET:HG3	1.99	0.44
5:R:428:SER:OG	6:7:41:DT:C7	2.64	0.44
7:8:22:DA:C2'	7:8:23:DT:OP1	2.65	0.44
2:C:1087:TYR:CE1	2:C:1215:GLY:HA2	2.48	0.44
2:C:976:ARG:NH2	2:C:990:ASP:OD2	2.51	0.44
3:D:1175:LEU:O	3:D:1187:GLU:HA	2.18	0.44
3:D:885:VAL:CG1	3:D:1258:ARG:HB2	2.47	0.44
3:D:397:ALA:O	3:D:401:VAL:HG23	2.17	0.44
3:D:422:LEU:HD11	3:D:471:PRO:N	2.33	0.44
3:D:502:PRO:HB2	3:D:601:ILE:HD13	1.99	0.44
3:D:700:ASN:O	3:D:704:GLU:HB2	2.17	0.44
3:D:715:LYS:HG2	3:D:716:GLN:N	2.33	0.44
5:F:601:PRO:HA	5:F:608:ARG:HH21	1.83	0.44
1:G:58:GLU:HG2	1:G:172:LEU:HD12	1.98	0.44
1:H:31:LEU:CD1	1:H:201:LEU:HD22	2.48	0.44
2:I:1103:VAL:HG11	2:I:1112:ILE:HD11	1.99	0.44
2:I:303:ASP:HB2	2:I:310:ILE:HG13	1.99	0.44
2:I:724:VAL:CG1	2:I:727:VAL:HG22	2.48	0.44
2:I:851:THR:HG22	2:I:853:ASP:N	2.29	0.44
3:J:1101:LEU:HD13	3:J:1107:VAL:HG21	1.99	0.44
3:J:610:ARG:CZ	3:J:901:ARG:HH12	2.30	0.44
1:M:81:ILE:O	1:M:85:LEU:HG	2.18	0.44
2:O:725:GLN:C	2:O:773:LEU:HD11	2.38	0.44
2:O:889:PRO:O	2:O:914:LYS:CE	2.65	0.44
2:O:964:LEU:HG	2:O:964:LEU:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:97:VAL:O	3:P:100:GLU:HG2	2.18	0.44
3:P:116:PHE:CE2	3:P:237:MET:SD	3.11	0.44
3:P:806:ASP:OD1	3:P:1346:GLY:HA2	2.18	0.44
3:P:1356:LEU:HD13	3:P:1362:GLY:HA2	1.99	0.44
4:Q:53:GLU:HB3	4:Q:59:ILE:HG13	1.99	0.44
7:2:34:DG:H2 <sup>''</sup>	7:2:35:DT:OP2	2.18	0.44
2:I:1273:MET:HG2	7:5:14:DC:H4 <sup>'</sup>	2.00	0.44
7:5:20:DG:H5 <sup>''</sup>	7:5:20:DG:H8	1.83	0.44
6:7:16:DG:H2 <sup>''</sup>	6:7:17:DA:OP2	2.17	0.44
6:7:28:DA:C6	7:8:34:DG:C6	3.06	0.44
7:8:48:DA:H2 <sup>''</sup>	7:8:49:DA:H5 <sup>''</sup>	2.00	0.44
2:C:176:ILE:HD12	2:C:184:LEU:CB	2.47	0.44
2:C:506:PHE:O	2:C:512:SER:HB2	2.17	0.44
3:D:1149:ARG:HA	3:D:1150:PRO:HD2	1.85	0.44
3:D:1260:MET:HB3	3:D:1307:LEU:O	2.18	0.44
3:D:1218:HIS:CG	3:D:1306:LEU:HD23	2.53	0.44
3:D:281:ARG:HH12	5:F:441:ARG:NH2	2.15	0.44
3:D:363:LEU:HD12	3:D:363:LEU:O	2.18	0.44
3:D:519:ASN:C	3:D:523:GLU:HB2	2.38	0.44
3:D:589:TYR:C	3:D:591:ILE:N	2.70	0.44
3:D:925:GLU:HB3	3:D:926:PRO:HD3	1.99	0.44
1:G:79:LEU:HA	1:G:82:LEU:CD1	2.24	0.44
1:H:81:ILE:HD13	1:H:131:CYS:SG	2.58	0.44
1:H:99:ILE:HD11	1:H:145:LYS:HE3	1.99	0.44
2:I:158:ASP:OD1	2:I:158:ASP:N	2.49	0.44
2:I:346:TYR:OH	2:I:436:ARG:HG3	2.18	0.44
2:I:561:ILE:HD12	2:I:679:ALA:HB1	1.99	0.44
2:I:58:PRO:HB3	2:I:69:GLN:HG2	1.98	0.44
2:I:808:ASN:HA	3:J:629:PHE:HB3	2.00	0.44
3:J:109:SER:OG	3:J:296:LYS:HD3	2.17	0.44
3:J:318:GLY:N	3:J:322:ARG:O	2.51	0.44
5:L:406:GLN:O	5:L:409:ASN:HB2	2.18	0.44
5:L:452:ILE:HG21	5:L:456:MET:HB3	1.96	0.44
5:L:597:LYS:O	5:L:600:HIS:HB3	2.16	0.44
1:M:232:VAL:HG22	1:N:221:ALA:HB3	1.98	0.44
1:N:16:ILE:HG22	1:N:26:VAL:HG22	1.99	0.44
2:O:1073:LYS:HD2	3:P:462:ASP:HB2	1.99	0.44
2:O:816:ILE:HG13	2:O:1074:GLY:HA3	1.99	0.44
2:O:1180:MET:HG3	2:O:1181:PRO:HD2	2.00	0.44
2:O:1290:MET:O	2:O:1295:SER:OG	2.35	0.44
2:O:9:LYS:HG2	2:O:1171:ARG:HD2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:838:ARG:HG3	3:P:1250:ASP:OD2	2.17	0.44
3:P:1272:SER:HB3	3:P:1273:ASP:H	1.52	0.44
3:P:352:ARG:HH21	3:P:465:GLN:HB2	1.82	0.44
6:1:47:DC:H2'	6:1:48:DA:C8	2.53	0.44
5:R:386:LEU:HD22	6:7:41:DT:N3	2.32	0.44
1:A:79:LEU:O	1:A:82:LEU:HB2	2.18	0.44
1:B:195:ARG:HB2	1:B:198:LEU:HD13	2.00	0.44
2:C:295:LYS:C	2:C:317:LEU:HG	2.36	0.44
2:C:952:GLN:OE1	2:C:1036:ILE:CG2	2.65	0.44
3:D:1164:SER:O	3:D:1175:LEU:HD12	2.17	0.44
3:D:1229:VAL:HG23	3:D:1233:ILE:HD11	1.92	0.44
3:D:1231:ARG:O	3:D:1234:VAL:HB	2.18	0.44
3:D:1286:LYS:HE2	3:D:1286:LYS:HB2	1.40	0.44
3:D:160:LEU:HA	3:D:164:GLN:OE1	2.18	0.44
3:D:357:VAL:HG22	3:D:461:PHE:CD2	2.53	0.44
3:D:635:SER:OG	3:D:636:GLY:N	2.50	0.44
3:D:650:LYS:O	3:D:654:ILE:HG13	2.18	0.44
3:D:750:PRO:O	3:D:781:LYS:HE3	2.18	0.44
3:D:882:VAL:O	3:D:882:VAL:HG22	2.18	0.44
5:F:87:VAL:CG1	5:F:103:ARG:HD3	2.48	0.44
5:F:412:LEU:HD12	5:F:412:LEU:HA	1.65	0.44
5:F:551:LEU:HD13	5:F:559:LEU:HD12	1.98	0.44
1:G:133:LEU:HD23	1:G:133:LEU:HA	1.54	0.44
1:G:181:GLU:HB3	1:G:206:GLU:HG2	2.00	0.44
2:I:149:LEU:CD2	2:I:451:ARG:HH21	2.31	0.44
2:I:865:LEU:HD22	2:I:869:GLY:C	2.38	0.44
3:J:105:ILE:HG13	3:J:244:VAL:CG2	2.48	0.44
3:J:1190:ILE:CD1	3:J:1196:LEU:HD21	2.47	0.44
3:J:131:PRO:O	3:J:135:ILE:HG13	2.18	0.44
3:J:591:ILE:HB	3:J:604:MET:HE3	1.99	0.44
3:J:69:GLU:HG3	3:J:70:CYS:O	2.18	0.44
5:L:373:ARG:HG2	5:L:377:LYS:HE3	2.00	0.44
1:M:232:VAL:HG13	1:N:218:ARG:HG2	1.99	0.44
1:N:92:VAL:HG11	1:N:98:VAL:HG11	2.00	0.44
2:O:1243:MET:HG3	3:P:372:MET:HE1	1.97	0.44
2:O:374:GLU:HB2	5:R:99:ARG:CZ	2.48	0.44
2:O:415:GLU:HG3	2:O:416:GLY:H	1.81	0.44
2:O:615:VAL:HA	2:O:638:SER:HB2	1.99	0.44
2:O:896:THR:OG1	2:O:897:PRO:HD2	2.18	0.44
2:O:1284:ALA:CB	3:P:1356:LEU:CD2	2.85	0.44
3:P:536:LEU:CD2	3:P:541:LEU:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:78:LEU:O	3:P:81:ARG:HG3	2.18	0.44
3:P:932:MET:HE2	3:P:932:MET:HB2	1.58	0.44
5:R:165:PHE:HB3	5:R:166:VAL:H	1.68	0.44
5:R:135:ALA:CB	5:R:253:SER:HA	2.47	0.44
1:A:29:GLU:HB2	1:A:30:PRO:CA	2.46	0.43
1:B:57:THR:HG23	1:B:158:ARG:HH22	1.83	0.43
2:C:1058:ARG:NH1	2:C:1238:LEU:HD12	2.23	0.43
2:C:217:THR:HG23	2:C:351:LEU:CD2	2.48	0.43
2:C:714:VAL:CG1	2:C:787:PRO:CD	2.95	0.43
2:C:10:ARG:NH2	2:C:791:LEU:HB3	2.32	0.43
2:C:808:ASN:N	2:C:808:ASN:HD22	2.14	0.43
2:C:825:GLU:O	2:C:826:ASP:HB2	2.16	0.43
3:D:1226:VAL:C	3:D:1229:VAL:HG12	2.37	0.43
3:D:923:ILE:HD11	3:D:1252:HIS:CB	2.48	0.43
3:D:320:ASN:O	3:D:321:LYS:HB2	2.18	0.43
3:D:435:GLN:HE22	3:D:486:SER:HA	1.83	0.43
3:D:625:MET:CG	3:D:629:PHE:CE2	3.00	0.43
3:D:899:TYR:CD1	3:D:915:ILE:HG21	2.53	0.43
5:F:524:GLU:HG2	5:F:524:GLU:H	1.51	0.43
1:G:16:ILE:HD13	1:G:214:GLU:OE2	2.18	0.43
2:I:34:SER:OG	2:I:457:GLY:N	2.41	0.43
2:I:557:ARG:HD3	2:I:587:LEU:HB3	1.99	0.43
3:J:205:LEU:HD22	3:J:214:ARG:HG3	1.99	0.43
3:J:376:LEU:HB2	3:J:377:PHE:HD2	1.82	0.43
3:J:574:VAL:H	3:J:574:VAL:HG23	1.53	0.43
5:L:437:GLN:NE2	5:L:441:ARG:HB3	2.32	0.43
5:L:456:MET:O	5:L:459:THR:OG1	2.30	0.43
5:L:465:ARG:NH1	7:5:27:DA:H5'	2.33	0.43
1:M:41:ASN:ND2	2:O:1218:GLY:CA	2.81	0.43
2:O:239:MET:O	2:O:284:LEU:HA	2.17	0.43
2:O:825:GLU:CB	2:O:827:ARG:HG3	2.48	0.43
2:O:836:LEU:HA	2:O:836:LEU:HD23	1.67	0.43
2:O:82:VAL:HG23	2:O:83:GLN:N	2.33	0.43
2:O:936:ARG:HG2	2:O:937:ASP:N	2.28	0.43
3:P:120:LEU:CD2	3:P:121:PRO:HA	2.48	0.43
3:P:271:ARG:NH1	3:P:316:ILE:HG23	2.28	0.43
3:P:552:ILE:HG13	3:P:570:LYS:HB2	2.00	0.43
4:Q:27:ALA:CB	4:Q:46:THR:HB	2.45	0.43
5:R:323:ASN:HB3	5:R:324:LYS:H	1.59	0.43
5:R:110:LEU:CD2	5:R:385:ARG:HD2	2.44	0.43
1:A:12:ARG:O	1:A:28:LEU:HD13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:203:ILE:CG2	1:A:205:MET:CE	2.95	0.43
1:A:35:PHE:N	1:A:35:PHE:CD2	2.87	0.43
1:B:166:ARG:HG3	1:B:166:ARG:HH11	1.83	0.43
2:C:1245:ALA:HB1	3:D:375:GLU:HB2	2.00	0.43
2:C:188:PHE:HE2	2:C:436:ARG:HB2	1.83	0.43
3:D:107:LEU:HG	3:D:107:LEU:H	1.65	0.43
2:C:1309:VAL:CG1	3:D:383:GLY:HA2	2.48	0.43
3:D:513:MET:SD	3:D:579:LEU:HD11	2.57	0.43
3:D:62:PHE:CD1	3:D:247:PRO:HD3	2.53	0.43
3:D:725:MET:HE2	3:D:725:MET:HB2	1.53	0.43
3:D:915:ILE:H	3:D:915:ILE:HG13	1.53	0.43
5:F:586:ARG:O	5:F:590:ILE:HG13	2.18	0.43
2:I:246:LEU:HA	2:I:246:LEU:HD23	1.77	0.43
2:I:432:LEU:HD12	2:I:432:LEU:O	2.18	0.43
3:J:1165:PHE:CZ	3:J:1196:LEU:HD12	2.53	0.43
3:J:1346:GLY:H	3:J:1349:GLU:CD	2.21	0.43
3:J:344:GLY:C	3:J:345:LYS:HG2	2.38	0.43
3:J:452:LEU:HD23	3:J:452:LEU:HA	1.70	0.43
3:J:592:VAL:CG2	3:J:592:VAL:O	2.66	0.43
2:I:560:PRO:CB	3:J:776:THR:HG21	2.41	0.43
2:I:550:VAL:HG13	3:J:780:ARG:CZ	2.47	0.43
3:J:801:VAL:HG23	3:J:920:ALA:HB1	1.99	0.43
3:J:967:VAL:CG2	3:J:973:LEU:HD12	2.46	0.43
3:J:94:GLN:O	3:J:97:VAL:HG23	2.18	0.43
5:L:428:SER:O	5:L:432:THR:OG1	2.29	0.43
1:M:166:ARG:HH12	1:M:172:LEU:HD22	1.82	0.43
1:N:86:LYS:HG2	1:N:173:VAL:CG1	2.48	0.43
2:O:818:VAL:HG22	2:O:1078:LYS:O	2.18	0.43
2:O:634:VAL:CG1	2:O:635:THR:H	2.23	0.43
3:P:255:LEU:HG	3:P:255:LEU:H	1.14	0.43
3:P:265:LEU:O	3:P:269:TYR:HD2	2.01	0.43
3:P:346:ARG:HB3	3:P:346:ARG:HH11	1.83	0.43
3:P:511:TYR:HD1	3:P:596:LEU:O	2.00	0.43
4:Q:80:LEU:O	4:Q:84:THR:HG23	2.18	0.43
5:R:87:VAL:CG1	5:R:103:ARG:HD3	2.48	0.43
5:R:530:LEU:HB2	5:R:533:ASP:OD2	2.19	0.43
5:R:540:LEU:HG	5:R:541:ARG:N	2.34	0.43
2:C:197:ARG:NH2	2:C:203:LYS:HG2	2.33	0.43
2:C:257:ALA:CB	2:C:277:LEU:HD11	2.34	0.43
1:A:66:HIS:CB	2:C:927:THR:HG21	2.47	0.43
2:C:976:ARG:O	2:C:980:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1051:ASP:O	3:D:1055:GLY:HA2	2.19	0.43
3:D:623:GLN:O	3:D:627:THR:OG1	2.35	0.43
5:F:585:GLU:HG3	7:2:47:DC:H5	1.83	0.43
1:G:115:ILE:HD13	1:G:123:ILE:HG12	2.00	0.43
2:I:937:ASP:HA	2:I:1039:GLY:HA3	1.99	0.43
2:I:1255:THR:HG21	2:I:1257:GLN:HB2	2.00	0.43
2:I:211:ARG:O	2:I:359:ARG:HA	2.18	0.43
2:I:228:VAL:HG13	2:I:245:ARG:HH12	1.83	0.43
2:I:297:VAL:C	2:I:336:LEU:HD11	2.39	0.43
3:J:111:THR:HG1	3:J:300:GLN:CD	2.20	0.43
3:J:501:VAL:HG22	3:J:605:LEU:HD13	1.99	0.43
5:L:511:ILE:HG13	5:L:517:SER:HB2	2.00	0.43
1:M:13:LEU:HA	1:M:28:LEU:CD2	2.43	0.43
1:M:58:GLU:HG2	1:M:172:LEU:HD12	2.00	0.43
1:N:83:LEU:N	1:N:83:LEU:HD22	2.33	0.43
2:O:1021:LEU:HD23	2:O:1024:GLU:OE1	2.18	0.43
2:O:1125:GLY:HA3	2:O:1179:GLY:HA2	1.99	0.43
2:O:1114:GLU:OE1	2:O:1230:MET:HG3	2.18	0.43
2:O:796:LEU:C	2:O:1233:LEU:HD11	2.38	0.43
2:O:1307:ASN:ND2	2:O:1312:ASN:HD22	2.16	0.43
2:O:24:VAL:HA	2:O:578:TYR:CE1	2.53	0.43
2:O:53:PHE:CD2	2:O:70:TYR:CE1	3.06	0.43
2:O:569:ILE:HG21	3:P:784:ALA:HA	1.98	0.43
3:P:249:LEU:C	3:P:251:PRO:HD3	2.38	0.43
3:P:562:GLU:H	3:P:562:GLU:HG3	1.61	0.43
3:P:673:VAL:CG1	3:P:674:THR:O	2.65	0.43
3:P:70:CYS:SG	3:P:88:CYS:SG	3.16	0.43
5:R:333:VAL:HG22	5:R:336:GLU:HB2	1.99	0.43
6:7:34:DG:C2	7:8:30:DA:C2	3.06	0.43
2:C:104:ILE:CG2	2:C:115:LYS:HD3	2.48	0.43
2:C:1268:GLN:HE22	3:D:351:GLY:C	2.17	0.43
2:C:208:ILE:O	2:C:211:ARG:HB2	2.18	0.43
2:C:277:LEU:CD1	2:C:282:VAL:HG21	2.47	0.43
2:C:494:ASN:ND2	2:C:496:LYS:HB2	2.33	0.43
2:C:559:CYS:CB	2:C:662:SER:HB3	2.47	0.43
2:C:742:TYR:HA	2:C:743:PRO:HD3	1.91	0.43
3:D:1037:PHE:CE2	3:D:1059:LEU:HD13	2.52	0.43
3:D:1261:LEU:HD23	3:D:1261:LEU:HA	1.36	0.43
3:D:141:PHE:CE1	3:D:181:GLY:HA3	2.54	0.43
3:D:954:ASN:HB2	3:D:992:LYS:HZ3	1.83	0.43
5:F:507:MET:HB2	5:F:507:MET:HE2	1.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:192:VAL:HG12	1:G:193:GLU:H	1.83	0.43
1:H:60:GLU:CD	1:H:143:ARG:HH21	2.22	0.43
2:I:1085:MET:HA	2:I:1085:MET:HE2	1.99	0.43
2:I:678:ARG:HG3	2:I:1108:ASN:ND2	2.33	0.43
2:I:167:SER:HA	3:J:1064:SER:CB	2.44	0.43
2:I:189:ASP:CG	2:I:190:PRO:HD2	2.38	0.43
2:I:941:LYS:H	2:I:941:LYS:HG2	1.66	0.43
3:J:104:HIS:O	3:J:105:ILE:HG13	2.19	0.43
3:J:135:ILE:O	3:J:139:LEU:CD1	2.65	0.43
3:J:825:VAL:CG2	3:J:838:ARG:HH11	2.14	0.43
3:J:849:LEU:HB3	3:J:850:LYS:H	1.62	0.43
3:J:85:CYS:CB	3:J:88:CYS:SG	3.06	0.43
5:L:354:THR:O	5:L:358:VAL:HG23	2.17	0.43
5:L:84:LEU:HD21	5:L:107:THR:CG2	2.48	0.43
1:M:89:ALA:HB1	1:M:124:VAL:HB	2.01	0.43
1:M:31:LEU:HD13	1:M:36:GLY:HA2	2.00	0.43
1:M:8:PHE:CE1	1:N:223:ILE:CG2	2.99	0.43
1:N:102:LEU:HB2	1:N:115:ILE:CD1	2.48	0.43
1:N:140:ILE:HD12	1:N:140:ILE:HA	1.80	0.43
2:O:1166:ASP:OD1	2:O:1166:ASP:N	2.48	0.43
2:O:447:HIS:CD2	2:O:449:GLY:H	2.37	0.43
2:O:725:GLN:HB3	2:O:733:VAL:CG2	2.49	0.43
2:O:802:VAL:HG13	2:O:803:ALA:N	2.32	0.43
3:P:1224:ARG:HD3	3:P:1228:ALA:CB	2.48	0.43
5:R:370:ALA:CB	5:R:373:ARG:NH2	2.80	0.43
6:1:53:DG:H2"	6:1:54:DA:OP2	2.19	0.43
1:B:48:LEU:CD2	1:B:183:ILE:HG21	2.41	0.43
2:C:1048:LYS:HG2	2:C:1049:ILE:H	1.82	0.43
2:C:1112:ILE:O	2:C:1116:HIS:HD2	2.01	0.43
2:C:1199:LEU:O	2:C:1204:LEU:HB2	2.19	0.43
2:C:1235:LEU:HG	2:C:1235:LEU:H	1.57	0.43
2:C:208:ILE:CD1	2:C:356:THR:OG1	2.66	0.43
2:C:279:LYS:HE3	2:I:79:VAL:HG21	2.01	0.43
2:C:881:ASP:O	2:C:920:VAL:HG23	2.19	0.43
3:D:1138:LEU:CD2	3:D:1139:PRO:HG3	2.40	0.43
3:D:264:ASP:CG	5:F:508:GLU:HB2	2.38	0.43
3:D:475:GLU:O	3:D:479:GLU:HG2	2.18	0.43
3:D:733:SER:H	3:D:736:GLN:HG2	1.83	0.43
4:E:35:LYS:HA	4:E:35:LYS:HD3	1.73	0.43
5:F:121:LYS:HG2	5:F:421:TYR:CZ	2.53	0.43
2:I:1028:LYS:O	2:I:1031:ALA:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1049:ILE:HG22	2:I:1050:VAL:N	2.33	0.43
2:I:253:PHE:CE1	2:I:255:ILE:HG13	2.54	0.43
2:I:267:ARG:HD3	2:I:268:ARG:N	2.33	0.43
2:I:755:LYS:NZ	2:I:767:GLN:O	2.45	0.43
2:I:758:ARG:HB2	2:I:833:ILE:CG2	2.48	0.43
3:J:116:PHE:O	3:J:124:ILE:HG13	2.18	0.43
3:J:322:ARG:HD3	5:L:510:PRO:HD3	1.99	0.43
3:J:368:LEU:HA	3:J:368:LEU:HD12	1.69	0.43
3:J:705:THR:O	3:J:705:THR:HG22	2.18	0.43
5:L:138:PRO:HG2	5:L:139:GLU:H	1.82	0.43
5:L:348:GLU:OE2	5:L:355:ILE:HD11	2.19	0.43
5:L:383:ASN:ND2	6:4:41:DT:N3	2.66	0.43
3:J:291:ILE:CG2	5:L:409:ASN:HD22	2.32	0.43
5:L:412:LEU:HD13	5:L:435:ILE:CG1	2.48	0.43
5:L:412:LEU:HD22	5:L:435:ILE:CD1	2.45	0.43
5:L:465:ARG:HH12	7:5:27:DA:H5'	1.84	0.43
5:L:564:GLY:O	5:L:567:MET:O	2.37	0.43
2:O:1124:ILE:O	2:O:1128:ILE:HG13	2.19	0.43
2:O:1180:MET:HA	2:O:1181:PRO:HD3	1.86	0.43
2:O:684:ASN:O	2:O:687:ARG:HB2	2.19	0.43
3:P:973:LEU:HD22	3:P:1006:GLY:HA2	1.99	0.43
3:P:931:THR:HG23	3:P:1134:ILE:HG21	2.01	0.43
3:P:316:ILE:CG2	3:P:324:LEU:HD12	2.49	0.43
3:P:527:LEU:HD12	3:P:533:ALA:HA	2.01	0.43
3:P:53:ARG:HB3	3:P:54:ASP:H	1.58	0.43
3:P:831:VAL:O	3:P:831:VAL:HG12	2.19	0.43
3:P:614:LEU:CD2	4:Q:5:THR:HG21	2.48	0.43
5:R:393:LYS:HD3	5:R:393:LYS:HA	1.78	0.43
5:R:423:ARG:H	5:R:423:ARG:HG2	1.59	0.43
5:R:506:SER:O	5:R:509:THR:OG1	2.24	0.43
2:O:905:ILE:HA	5:R:595:LEU:HD22	2.00	0.43
5:R:595:LEU:O	5:R:599:ARG:HG3	2.17	0.43
6:1:45:DT:H2'	6:1:46:DG:O4'	2.18	0.43
3:P:464:ASP:CG	8:9:15:G:HO2'	2.09	0.43
2:C:960:LEU:HD22	2:C:1028:LYS:HD3	2.00	0.43
2:C:1190:ALA:HA	2:C:1194:GLU:OE1	2.18	0.43
2:C:99:LYS:HG2	2:C:121:GLU:HG2	2.01	0.43
2:C:1277:ALA:O	2:C:1280:ALA:HB3	2.18	0.43
3:D:825:VAL:CB	3:D:1242:ARG:HH12	2.32	0.43
3:D:1346:GLY:HA3	3:D:1349:GLU:HG3	2.00	0.43
3:D:786:THR:HA	3:D:935:PHE:HD2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:446:GLN:O	5:F:448:ARG:N	2.51	0.43
2:I:455:SER:HB2	2:I:456:VAL:H	1.68	0.43
2:I:68:LEU:HD12	2:I:68:LEU:HA	1.52	0.43
2:I:805:MET:HE3	2:I:805:MET:HB2	1.95	0.43
3:J:1175:LEU:HD22	3:J:1196:LEU:HD13	1.99	0.43
3:J:332:LYS:HG3	3:J:1328:THR:OG1	2.19	0.43
3:J:185:ILE:O	3:J:189:LEU:CG	2.66	0.43
5:L:385:ARG:O	5:L:388:ILE:HG23	2.18	0.43
5:L:494:ILE:HG22	5:L:495:ARG:N	2.33	0.43
5:L:551:LEU:HD13	5:L:556:ALA:HA	2.00	0.43
5:L:91:ILE:HG12	5:L:94:THR:OG1	2.18	0.43
1:N:156:SER:CA	1:N:159:ILE:HG22	2.48	0.43
2:O:1272:GLU:O	2:O:1276:TRP:CD1	2.72	0.43
2:O:1298:VAL:HG22	2:O:1301:ARG:HH21	1.84	0.43
2:O:682:GLY:O	2:O:686:GLN:HG3	2.18	0.43
3:P:664:ILE:HD12	3:P:685:ILE:HD12	2.01	0.43
6:1:36:DT:H2''	6:1:37:DA:H5''	2.01	0.43
7:2:18:DT:H2'	7:2:19:DA:O5'	2.19	0.43
6:4:44:DG:H2''	6:4:45:DT:H4'	2.00	0.43
1:B:162:GLU:OE2	1:B:164:ASP:HB3	2.19	0.43
1:A:235:ARG:C	1:B:218:ARG:NE	2.72	0.43
2:C:291:TYR:CZ	2:C:295:LYS:HE3	2.54	0.43
2:C:297:VAL:HG23	2:C:314:ASN:N	2.32	0.43
2:C:448:LEU:CG	2:C:553:THR:CB	2.92	0.43
3:D:162:GLU:OE1	3:D:163:GLU:OE2	2.37	0.43
2:I:1031:ALA:O	2:I:1032:LYS:C	2.57	0.43
2:I:1164:PHE:HD2	2:I:1164:PHE:H	1.66	0.43
2:I:120:GLN:OE1	2:I:490:GLN:HB3	2.18	0.43
2:I:1335:ILE:CG2	3:J:22:ILE:CG2	2.97	0.43
2:I:319:LEU:H	2:I:319:LEU:HG	1.16	0.43
2:I:873:ILE:H	2:I:873:ILE:HG13	1.36	0.43
2:I:9:LYS:O	2:I:1172:LEU:HD13	2.19	0.43
3:J:1029:THR:HG23	3:J:1121:LEU:CG	2.49	0.43
3:J:1165:PHE:CG	3:J:1175:LEU:HD13	2.52	0.43
3:J:1253:ILE:H	3:J:1253:ILE:HG13	1.53	0.43
3:J:1286:LYS:O	3:J:1289:ASN:HB2	2.18	0.43
3:J:1218:HIS:CE1	3:J:1306:LEU:HD23	2.53	0.43
4:K:50:ALA:O	4:K:54:ILE:HG13	2.18	0.43
2:O:204:LEU:HB3	2:O:205:PRO:HD2	2.01	0.43
2:O:227:LYS:HE2	2:O:334:GLU:OE1	2.19	0.43
3:P:115:TRP:HE3	3:P:1333:THR:HG23	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1328:THR:HG22	3:P:1332:LEU:HD12	2.01	0.43
3:P:339:ARG:NH1	3:P:798:ARG:HH22	2.15	0.43
3:P:362:ARG:HH12	4:Q:4:VAL:HG13	1.83	0.43
3:P:432:LEU:HD12	3:P:499:ILE:HD13	1.99	0.43
3:P:531:LYS:H	3:P:531:LYS:HG3	1.41	0.43
3:P:645:VAL:HB	3:P:700:ASN:HD22	1.83	0.43
3:P:85:CYS:CB	3:P:88:CYS:SG	3.06	0.43
5:R:551:LEU:HA	5:R:597:LYS:HZ1	1.83	0.43
6:1:52:DT:H2''	6:1:53:DG:N7	2.34	0.43
2:I:183:TRP:CH2	6:4:47:DC:N4	2.87	0.43
6:4:53:DG:C2'	6:4:54:DA:OP2	2.61	0.43
2:C:1098:LEU:HD23	2:C:1098:LEU:HA	1.66	0.43
2:C:130:MET:SD	2:C:134:GLY:HA2	2.59	0.43
2:C:366:ILE:HG22	2:C:384:LEU:CD2	2.49	0.43
2:C:9:LYS:O	2:C:10:ARG:HB2	2.18	0.43
3:D:1029:THR:HG22	3:D:1099:TYR:CE1	2.54	0.43
3:D:1264:ALA:CB	3:D:1304:ARG:HA	2.48	0.43
3:D:111:THR:CG2	3:D:300:GLN:OE1	2.66	0.43
3:D:470:VAL:O	3:D:472:LEU:HG	2.19	0.43
3:D:70:CYS:HB2	3:D:90:VAL:CG1	2.49	0.43
3:D:835:LEU:HG	3:D:836:ARG:H	1.72	0.43
3:D:888:CYS:SG	3:D:890:THR:N	2.89	0.43
3:D:843:VAL:HB	3:D:897:HIS:O	2.19	0.43
5:F:109:GLU:H	5:F:109:GLU:HG3	1.68	0.43
5:F:406:GLN:HA	5:F:406:GLN:OE1	2.18	0.43
1:G:30:PRO:HB3	1:G:198:LEU:HD13	2.01	0.43
1:G:86:LYS:CG	1:G:173:VAL:CG1	2.96	0.43
2:I:563:THR:CG2	2:I:680:LEU:HD11	2.48	0.43
2:I:850:ILE:HG23	2:I:885:GLY:O	2.18	0.43
3:J:1184:ASP:N	3:J:1184:ASP:OD1	2.50	0.43
3:J:355:ILE:O	3:J:355:ILE:CG1	2.60	0.43
5:L:387:VAL:CG2	5:L:412:LEU:HD23	2.48	0.43
1:M:149:GLY:HA3	1:M:177:TYR:CE2	2.54	0.43
1:N:54:CYS:SG	1:N:148:ARG:CA	3.06	0.43
2:O:811:ASN:O	2:O:1099:ASN:HB2	2.19	0.43
2:O:1201:LEU:HA	2:O:1201:LEU:HD12	1.50	0.43
2:O:1307:ASN:HB3	2:O:1312:ASN:CB	2.45	0.43
2:O:136:PHE:HB3	2:O:138:ILE:HD11	2.01	0.43
2:O:144:VAL:HG23	2:O:515:MET:SD	2.59	0.43
3:P:1229:VAL:CG1	3:P:1230:THR:N	2.82	0.43
3:P:79:LYS:C	3:P:79:LYS:HD3	2.39	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:430:TYR:CZ	5:R:434:TRP:NE1	2.79	0.43
2:C:1088:ASP:CG	2:C:1092:THR:O	2.58	0.43
2:C:153:PRO:HG2	2:C:401:GLY:HA2	2.01	0.43
2:C:425:ILE:O	2:C:428:VAL:HG23	2.19	0.43
2:C:591:TYR:HA	2:C:655:VAL:HG23	2.01	0.43
2:C:714:VAL:O	2:C:767:GLN:NE2	2.52	0.43
2:C:941:LYS:HB3	2:C:945:ALA:HB3	1.99	0.43
3:D:1179:PRO:CG	3:D:1182:GLY:O	2.67	0.43
3:D:238:ILE:CG2	3:D:239:LEU:N	2.75	0.43
3:D:245:LEU:CD2	3:D:249:LEU:HB2	2.49	0.43
3:D:424:ASN:N	3:D:466:MET:HE2	2.33	0.43
3:D:487:THR:O	3:D:490:ILE:HD11	2.19	0.43
3:D:579:LEU:O	3:D:583:VAL:HG23	2.19	0.43
3:D:836:ARG:O	3:D:840:LEU:HB2	2.19	0.43
5:F:576:VAL:O	5:F:580:PHE:HB2	2.19	0.43
1:H:65:LEU:HA	1:H:169:GLY:HA2	1.99	0.43
2:I:1151:LEU:HD12	2:I:1151:LEU:HA	1.87	0.43
2:I:1255:THR:CG2	2:I:1257:GLN:HB2	2.49	0.43
2:I:805:MET:HE3	3:J:636:GLY:HA2	2.01	0.43
3:J:1155:ILE:H	3:J:1211:SER:HB2	1.84	0.43
3:J:179:LYS:HG2	3:J:180:MET:N	2.34	0.43
3:J:433:GLY:O	3:J:457:TYR:HE1	2.02	0.43
3:J:450:HIS:HA	3:J:451:PRO:HD3	1.86	0.43
3:J:502:PRO:HG2	3:J:601:ILE:HD13	1.99	0.43
3:J:767:LEU:HD23	3:J:767:LEU:N	2.33	0.43
3:J:828:GLY:O	3:J:994:SER:O	2.36	0.43
5:L:493:LYS:HD2	5:L:493:LYS:HA	1.46	0.43
2:O:1296:ASP:O	2:O:1321:GLU:HG2	2.19	0.43
2:O:530:ILE:HG13	2:O:573:ASN:O	2.17	0.43
3:P:1141:VAL:HG13	3:P:1145:PHE:HE2	1.82	0.43
3:P:378:LYS:HA	3:P:381:ILE:HD12	2.01	0.43
3:P:536:LEU:CD2	3:P:541:LEU:HB3	2.48	0.43
5:R:324:LYS:HB3	5:R:325:PRO:HD2	2.01	0.43
5:R:130:VAL:HG13	5:R:365:MET:SD	2.59	0.43
2:O:901:LEU:HD13	5:R:563:PHE:CD2	2.53	0.43
5:L:426:LYS:HG2	6:4:39:DA:H3'	2.01	0.43
2:C:492:MET:HB2	2:C:492:MET:HE2	1.78	0.43
2:C:718:ALA:HB2	2:C:783:LEU:CD2	2.41	0.43
2:C:839:VAL:O	2:C:886:LYS:CE	2.67	0.43
2:C:941:LYS:HB3	2:C:945:ALA:CB	2.49	0.43
3:D:1224:ARG:HB3	3:D:1228:ALA:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:156:ARG:HH22	3:D:192:MET:HA	1.83	0.43
3:D:470:VAL:CB	3:D:472:LEU:HD23	2.47	0.43
3:D:537:TYR:CD2	3:D:544:LEU:HD21	2.54	0.43
3:D:64:PRO:O	3:D:95:THR:HG23	2.19	0.43
5:F:324:LYS:HA	5:F:325:PRO:HD3	1.75	0.43
5:F:551:LEU:CD2	5:F:597:LYS:CD	2.73	0.43
5:F:597:LYS:O	5:F:600:HIS:CB	2.67	0.43
1:H:136:GLU:HG2	1:H:136:GLU:H	1.70	0.43
2:I:1054:LEU:HD22	2:I:1055:ALA:C	2.39	0.43
2:I:1116:HIS:CD2	3:J:641:ILE:HD11	2.53	0.43
2:I:1156:ARG:O	2:I:1158:LYS:N	2.52	0.43
2:I:269:ILE:HD13	2:I:269:ILE:HA	1.87	0.43
2:I:975:ILE:HD11	2:I:1014:LEU:HB3	2.00	0.43
3:J:1267:VAL:HB	3:J:1301:THR:HB	2.01	0.43
3:J:363:LEU:CD2	3:J:487:THR:HG22	2.49	0.43
3:J:40:LYS:NZ	3:J:53:ARG:NH2	2.66	0.43
3:J:514:THR:CB	3:J:596:LEU:H	2.32	0.43
3:J:501:VAL:HG22	3:J:605:LEU:CD1	2.49	0.43
4:K:39:VAL:HA	4:K:40:PRO:HD3	1.89	0.43
5:L:262:VAL:HA	5:L:263:PRO:HD3	1.91	0.43
5:L:412:LEU:HD12	5:L:412:LEU:HA	1.38	0.43
5:L:399:LEU:HD21	5:L:447:ALA:HA	2.01	0.43
2:O:1288:GLN:HB3	2:O:1315:MET:HE1	2.00	0.43
2:O:297:VAL:HG21	2:O:311:CYS:HB2	2.01	0.43
2:O:771:VAL:HG21	2:O:783:LEU:HD22	2.01	0.43
2:O:785:ASP:HB3	2:O:789:THR:O	2.18	0.43
2:O:992:LEU:CD2	2:O:993:PRO:HD2	2.49	0.43
3:P:1233:ILE:HD13	3:P:1257:VAL:HG22	2.01	0.43
3:P:246:PRO:HA	3:P:247:PRO:HD3	1.79	0.43
3:P:268:LEU:HD21	3:P:324:LEU:CD1	2.49	0.43
3:P:58:CYS:O	3:P:62:PHE:HD2	2.02	0.43
5:R:320:ILE:HD11	5:R:330:LEU:CD1	2.49	0.43
5:R:428:SER:O	5:R:432:THR:OG1	2.32	0.43
3:P:335:GLN:NE2	5:R:518:HIS:NE2	2.67	0.43
6:7:24:DC:H2'	6:7:25:DC:OP2	2.19	0.42
2:C:1283:ALA:HB1	2:C:1286:THR:OG1	2.18	0.42
2:C:452:ARG:C	2:C:453:ILE:HD13	2.39	0.42
2:C:468:LEU:HA	2:C:468:LEU:HD23	1.88	0.42
2:C:969:ALA:O	2:C:973:SER:OG	2.29	0.42
3:D:1039:ASP:OD1	3:D:1039:ASP:N	2.51	0.42
3:D:1350:ASN:CA	3:D:1353:VAL:HG22	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:185:ILE:N	3:D:185:ILE:CD1	2.37	0.42
3:D:371:LYS:HB2	3:D:371:LYS:HE3	1.64	0.42
2:C:1243:MET:HG3	3:D:372:MET:CE	2.49	0.42
3:D:381:ILE:HG13	3:D:381:ILE:H	1.71	0.42
2:C:1281:TYR:CZ	3:D:431:ARG:O	2.72	0.42
1:G:232:VAL:HG23	1:H:221:ALA:HB1	2.01	0.42
1:G:38:THR:CG2	1:H:42:ALA:CA	2.91	0.42
2:I:110:PRO:HB2	2:I:111:GLU:H	1.61	0.42
2:I:193:ASN:OD1	2:I:349:GLU:HB3	2.19	0.42
2:I:289:VAL:HG13	2:I:322:LEU:HD13	2.01	0.42
2:I:349:GLU:OE1	2:I:349:GLU:HA	2.18	0.42
3:J:1115:ILE:HD13	3:J:1121:LEU:CD2	2.49	0.42
3:J:1347:LEU:O	3:J:1351:VAL:HG23	2.19	0.42
3:J:774:ILE:HG13	3:J:774:ILE:H	1.60	0.42
5:L:298:PRO:HD2	5:L:326:TRP:HH2	1.84	0.42
1:M:98:VAL:HG21	1:M:121:VAL:HG21	2.01	0.42
1:M:31:LEU:HD23	1:M:31:LEU:HA	1.93	0.42
1:M:35:PHE:O	1:M:39:LEU:HD11	2.17	0.42
1:N:84:ASN:O	1:N:88:LEU:CD1	2.59	0.42
2:O:519:ASN:ND2	2:O:521:LEU:HB3	2.33	0.42
3:P:1132:LYS:O	3:P:1133:ASP:HB2	2.18	0.42
2:O:1289:GLU:OE2	3:P:473:THR:HG23	2.18	0.42
3:P:614:LEU:HG	4:Q:5:THR:HG21	2.01	0.42
4:Q:30:MET:HE1	4:Q:49:ILE:HD12	2.01	0.42
5:R:458:GLU:HA	5:R:461:ASN:ND2	2.34	0.42
5:L:437:GLN:HG2	6:4:35:DC:N4	2.34	0.42
6:7:51:DC:OP2	6:7:52:DT:H71	2.18	0.42
1:A:11:PRO:HG3	1:B:227:GLN:HB3	2.01	0.42
1:A:228:LEU:O	1:A:232:VAL:HG23	2.20	0.42
1:A:28:LEU:HD11	1:B:231:PHE:HZ	1.83	0.42
1:B:76:GLU:HG2	1:B:80:GLU:OE2	2.18	0.42
2:C:257:ALA:O	2:C:259:GLY:N	2.52	0.42
2:C:563:THR:O	2:C:680:LEU:HD11	2.19	0.42
2:C:767:GLN:HG2	2:C:786:GLY:HA2	2.01	0.42
3:D:1090:ILE:HG23	3:D:1091:PRO:CD	2.47	0.42
3:D:1100:PHE:CE1	3:D:1192:LYS:HE2	2.54	0.42
3:D:1154:ALA:HA	3:D:1211:SER:HB2	2.00	0.42
3:D:320:ASN:O	3:D:321:LYS:CB	2.67	0.42
3:D:508:LEU:HD12	3:D:508:LEU:O	2.19	0.42
3:D:510:LEU:HD23	3:D:510:LEU:HA	1.66	0.42
1:G:51:MET:HA	1:G:52:PRO:HD2	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:59:VAL:HG22	1:H:144:ILE:HG23	2.01	0.42
2:I:1103:VAL:HG22	2:I:1111:GLN:NE2	2.34	0.42
2:I:660:VAL:HB	2:I:1187:PHE:HE2	1.83	0.42
2:I:194:LEU:HD12	2:I:195:PHE:H	1.83	0.42
2:I:531:SER:OG	2:I:532:ALA:N	2.53	0.42
2:I:775:GLU:HA	2:I:776:PRO:HD3	1.85	0.42
2:I:819:SER:OG	2:I:821:ARG:HB2	2.18	0.42
3:J:322:ARG:HA	3:J:323:PRO:HD2	1.65	0.42
2:I:1281:TYR:CZ	3:J:431:ARG:HB2	2.55	0.42
3:J:531:LYS:H	3:J:531:LYS:HG3	1.45	0.42
3:J:580:TRP:HA	3:J:583:VAL:CG2	2.48	0.42
3:J:849:LEU:HD21	3:J:857:LEU:HD23	2.01	0.42
3:J:950:ILE:HG23	3:J:995:TYR:CE2	2.54	0.42
5:L:333:VAL:HG22	5:L:336:GLU:HB2	2.02	0.42
5:L:437:GLN:HG2	6:4:35:DC:H41	1.84	0.42
1:M:142:MET:SD	1:M:144:ILE:HD11	2.59	0.42
1:M:230:ALA:HB2	1:N:11:PRO:HG2	2.01	0.42
1:N:187:VAL:CG1	1:N:201:LEU:CD1	2.97	0.42
1:N:29:GLU:HA	1:N:30:PRO:HA	1.77	0.42
1:N:29:GLU:HB3	1:N:200:LYS:HG2	2.00	0.42
1:N:47:LEU:CD1	1:N:183:ILE:CD1	2.89	0.42
2:O:189:ASP:HB2	2:O:195:PHE:HD2	1.82	0.42
2:O:374:GLU:CD	5:R:99:ARG:CD	2.87	0.42
2:O:563:THR:HB	2:O:572:ILE:O	2.19	0.42
2:O:676:ALA:HA	2:O:679:ALA:HB3	2.01	0.42
3:P:1162:ILE:H	3:P:1162:ILE:HG13	1.69	0.42
3:P:1154:ALA:HB1	3:P:1211:SER:O	2.19	0.42
3:P:337:ARG:HA	3:P:341:ASN:ND2	2.34	0.42
3:P:518:VAL:HG12	3:P:519:ASN:CG	2.39	0.42
3:P:544:LEU:HD22	3:P:578:ILE:HD11	2.01	0.42
3:P:85:CYS:HB3	3:P:88:CYS:SG	2.59	0.42
7:5:13:DA:H2 <sup>+</sup>	7:5:14:DC:OP2	2.20	0.42
2:C:1124:ILE:O	2:C:1128:ILE:HG13	2.19	0.42
2:C:562:GLU:O	2:C:563:THR:CB	2.67	0.42
2:C:673:HIS:HB3	3:D:763:PHE:O	2.19	0.42
3:D:1078:LEU:CG	3:D:1101:LEU:HD11	2.46	0.42
3:D:842:ARG:HB2	3:D:864:LEU:HD12	2.00	0.42
3:D:952:VAL:CG1	3:D:984:LEU:HD13	2.49	0.42
3:D:960:LEU:HD13	3:D:963:VAL:HG21	2.01	0.42
1:G:86:LYS:HG3	1:G:173:VAL:CG1	2.49	0.42
2:I:1145:ILE:HG22	2:I:1146:GLN:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1322:SER:O	2:I:1325:VAL:HB	2.20	0.42
2:I:178:PRO:HB3	2:I:397:LEU:CD2	2.47	0.42
2:I:178:PRO:HD3	2:I:395:TYR:OH	2.19	0.42
2:I:379:GLU:O	2:I:383:SER:HB2	2.19	0.42
2:I:671:LEU:HD12	2:I:671:LEU:HA	1.69	0.42
3:J:343:LEU:HD23	3:J:343:LEU:HA	1.76	0.42
3:J:368:LEU:O	3:J:441:LEU:CD2	2.57	0.42
3:J:515:ARG:HD3	3:J:719:PHE:CE1	2.54	0.42
3:J:828:GLY:CA	3:J:996:LYS:HB2	2.49	0.42
5:L:87:VAL:HG11	5:L:103:ARG:HD3	2.00	0.42
1:N:67:GLU:OE1	1:N:82:LEU:HD11	2.18	0.42
2:O:1296:ASP:N	2:O:1296:ASP:OD1	2.51	0.42
2:O:180:ARG:O	2:O:395:TYR:HA	2.19	0.42
2:O:24:VAL:HA	2:O:25:PRO:HD2	1.81	0.42
2:O:969:ALA:O	2:O:973:SER:OG	2.29	0.42
3:P:1045:THR:HG22	3:P:1067:ARG:CD	2.32	0.42
3:P:130:MET:HG2	3:P:135:ILE:HG12	2.00	0.42
3:P:551:ARG:C	3:P:552:ILE:HD13	2.40	0.42
3:P:576:ARG:HD3	3:P:592:VAL:O	2.18	0.42
3:P:398:LYS:CE	5:R:532:LEU:HD21	2.47	0.42
6:1:51:DC:C6	6:1:52:DT:H73	2.54	0.42
3:J:791:ALA:O	7:5:13:DA:H5'	2.19	0.42
2:C:944:ARG:HD2	2:C:947:GLU:OE2	2.19	0.42
3:D:131:PRO:O	3:D:135:ILE:CD1	2.67	0.42
2:C:1309:VAL:HG22	3:D:379:PRO:O	2.18	0.42
3:D:813:ASP:OD1	3:D:883:ARG:NH1	2.31	0.42
3:D:927:GLY:O	3:D:931:THR:HG23	2.19	0.42
5:F:295:CYS:O	5:F:296:LYS:CG	2.67	0.42
3:D:282:LEU:HD21	5:F:410:ILE:CD1	2.48	0.42
2:I:1164:PHE:N	2:I:1164:PHE:CD2	2.88	0.42
2:I:1335:ILE:CG2	3:J:22:ILE:HG22	2.50	0.42
2:I:375:PRO:HD3	5:L:87:VAL:HG21	2.01	0.42
2:I:594:VAL:CG2	2:I:599:VAL:HG13	2.42	0.42
3:J:194:LEU:HG	3:J:194:LEU:H	1.55	0.42
3:J:331:ILE:H	3:J:331:ILE:HG12	1.43	0.42
3:J:672:LEU:O	3:J:673:VAL:CG2	2.68	0.42
3:J:842:ARG:NH2	3:J:884:SER:HA	2.33	0.42
3:J:911:LYS:HG2	3:J:911:LYS:H	1.32	0.42
5:L:459:THR:O	5:L:463:LEU:CG	2.53	0.42
1:M:224:LEU:HG	1:M:225:ALA:CA	2.45	0.42
1:M:36:GLY:O	1:M:201:LEU:HD11	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:102:LEU:HD12	1:N:114:ASP:C	2.40	0.42
2:O:1288:GLN:NE2	3:P:1354:GLY:O	2.53	0.42
2:O:315:MET:HA	2:O:315:MET:CE	2.49	0.42
2:O:541:GLU:HG3	2:O:542:ARG:N	2.34	0.42
2:O:742:TYR:O	2:O:974:ARG:NH1	2.45	0.42
3:P:322:ARG:CB	3:P:323:PRO:HD2	2.50	0.42
3:P:471:PRO:HB2	3:P:476:ALA:HB1	2.00	0.42
3:P:452:LEU:HD22	3:P:502:PRO:HA	2.01	0.42
5:R:417:ASP:OD1	5:R:417:ASP:N	2.51	0.42
5:R:550:GLY:HA3	5:R:603:ARG:HH22	1.81	0.42
7:2:27:DA:C2'	7:2:28:DG:H5'	2.50	0.42
1:B:101:THR:HG22	1:B:143:ARG:HG2	2.01	0.42
1:B:71:LYS:O	1:B:74:VAL:HB	2.19	0.42
1:B:88:LEU:HD13	1:B:128:HIS:CE1	2.54	0.42
2:C:934:PHE:O	2:C:1048:LYS:HG2	2.19	0.42
2:C:1058:ARG:HH11	2:C:1238:LEU:CD1	2.25	0.42
1:A:48:LEU:HD13	2:C:1082:ILE:HG21	2.01	0.42
2:C:1268:GLN:HE22	3:D:351:GLY:H	1.64	0.42
2:C:1303:LYS:HG2	2:C:1306:LYS:NZ	2.35	0.42
2:C:1314:GLN:CG	2:C:1315:MET:N	2.83	0.42
2:C:530:ILE:N	2:C:530:ILE:CD1	2.76	0.42
2:C:24:VAL:HG11	2:C:707:ALA:HB1	2.02	0.42
3:D:111:THR:HG23	3:D:300:GLN:CD	2.39	0.42
3:D:1138:LEU:CD2	3:D:1139:PRO:HD3	2.49	0.42
3:D:1184:ASP:HA	3:D:1185:PRO:HD3	1.93	0.42
3:D:1233:ILE:H	3:D:1233:ILE:HG13	1.25	0.42
3:D:246:PRO:HD2	3:D:249:LEU:HD12	2.01	0.42
3:D:621:ALA:HA	3:D:624:ILE:CD1	2.49	0.42
3:D:741:ALA:C	3:D:762:ASN:HD22	2.22	0.42
5:F:588:ARG:HH12	5:F:592:ALA:HB2	1.84	0.42
2:I:1165:SER:O	2:I:1169:VAL:HG23	2.20	0.42
2:I:161:LYS:HA	2:I:161:LYS:HE2	2.01	0.42
2:I:207:THR:O	2:I:211:ARG:HG3	2.19	0.42
2:I:810:TYR:CB	2:I:817:LEU:HD21	2.50	0.42
2:I:920:VAL:HA	2:I:921:PRO:HD3	1.81	0.42
3:J:205:LEU:HA	3:J:205:LEU:HD23	1.60	0.42
3:J:265:LEU:O	3:J:269:TYR:HD2	2.03	0.42
2:I:1333:LEU:CD2	3:J:327:LEU:HD13	2.36	0.42
5:L:405:ILE:H	5:L:405:ILE:HG13	1.45	0.42
2:O:1127:LYS:HE3	2:O:1203:ASP:HB2	2.02	0.42
2:O:371:ARG:CB	5:R:99:ARG:HH21	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1319:PHE:CD2	3:P:1340:LYS:HB3	2.54	0.42
3:P:484:MET:HE2	3:P:484:MET:HB3	1.74	0.42
3:P:610:ARG:CZ	3:P:901:ARG:HH12	2.32	0.42
3:P:679:TYR:CZ	3:P:683:ILE:HD11	2.55	0.42
3:P:725:MET:O	3:P:728:SER:OG	2.38	0.42
3:P:783:LEU:O	3:P:786:THR:HB	2.18	0.42
5:R:134:VAL:HG13	5:R:140:ALA:HB1	2.01	0.42
3:P:262:THR:C	5:R:507:MET:H	2.07	0.42
8:6:14:A:H3'	8:6:15:G:C8	2.55	0.42
1:B:92:VAL:CG1	1:B:93:GLN:N	2.82	0.42
2:C:506:PHE:O	2:C:512:SER:CB	2.68	0.42
2:C:794:LEU:HD12	2:C:794:LEU:HA	1.66	0.42
2:C:53:PHE:CZ	2:C:98:VAL:HG21	2.54	0.42
3:D:926:PRO:HB2	3:D:1241:TYR:CE1	2.54	0.42
3:D:374:LEU:HG	3:D:375:GLU:N	2.33	0.42
3:D:502:PRO:CD	3:D:605:LEU:HD11	2.50	0.42
3:D:614:LEU:HB2	4:E:7:GLN:NE2	2.34	0.42
3:D:725:MET:HE3	3:D:732:GLY:H	1.84	0.42
3:D:830:ASP:CB	3:D:832:LYS:NZ	2.83	0.42
5:F:231:THR:O	5:F:231:THR:HG22	2.19	0.42
2:C:375:PRO:HA	5:F:87:VAL:HG21	2.01	0.42
1:G:69:SER:O	1:G:70:THR:HB	2.19	0.42
2:I:1042:LEU:HD13	2:I:1049:ILE:HD12	2.02	0.42
2:I:1200:LYS:CE	2:I:1206:THR:HG21	2.44	0.42
3:J:97:VAL:HG11	3:J:101:ARG:HD2	2.01	0.42
5:L:151:VAL:CG2	5:L:162:ILE:HG13	2.49	0.42
5:L:92:GLY:O	5:L:93:ARG:HG3	2.20	0.42
1:N:165:GLU:HG2	1:N:166:ARG:N	2.34	0.42
2:O:390:PHE:O	2:O:419:ILE:CG2	2.67	0.42
2:O:519:ASN:ND2	2:O:686:GLN:O	2.53	0.42
3:P:1258:ARG:CG	3:P:1258:ARG:NH1	2.79	0.42
3:P:422:LEU:HA	3:P:422:LEU:HD23	1.71	0.42
3:P:536:LEU:HB3	3:P:542:ALA:CB	2.47	0.42
3:P:536:LEU:HD23	3:P:541:LEU:HB2	2.01	0.42
5:R:228:TYR:HD2	5:R:229:VAL:HG13	1.84	0.42
6:1:19:DA:C2	7:2:45:DG:C2	3.07	0.42
6:4:24:DC:H2'	6:4:25:DC:OP2	2.19	0.42
3:J:320:ASN:HB3	7:5:22:DA:C2	2.54	0.42
7:8:3:DG:C5	7:8:4:DC:N4	2.87	0.42
1:A:29:GLU:OE1	1:A:190:ALA:CB	2.68	0.42
1:B:112:ALA:HB1	1:B:123:ILE:HG21	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:177:ILE:HG12	2:C:183:TRP:CD1	2.55	0.42
2:C:516:ASP:HB3	2:C:522:SER:OG	2.19	0.42
2:C:736:VAL:HG12	2:C:737:ASN:N	2.34	0.42
2:C:819:SER:O	2:C:822:VAL:HG23	2.19	0.42
3:D:233:LYS:HE2	3:D:236:TRP:HE1	1.85	0.42
3:D:428:THR:O	3:D:428:THR:HG22	2.19	0.42
3:D:835:LEU:HG	3:D:836:ARG:CA	2.44	0.42
1:H:179:PRO:O	1:H:208:ASN:HB2	2.20	0.42
2:I:1335:ILE:HG22	3:J:22:ILE:HG22	2.02	0.42
2:I:213:LEU:HD23	2:I:213:LEU:HA	1.88	0.42
2:I:678:ARG:HB3	2:I:1108:ASN:HD22	1.84	0.42
2:I:709:ALA:HB3	2:I:792:GLY:O	2.20	0.42
2:I:957:LYS:HG3	2:I:1029:LEU:HD11	2.02	0.42
3:J:1212:ASP:N	3:J:1212:ASP:OD1	2.46	0.42
3:J:320:ASN:OD1	3:J:322:ARG:HG2	2.20	0.42
3:J:518:VAL:CG1	3:J:519:ASN:OD1	2.64	0.42
3:J:596:LEU:HA	3:J:596:LEU:HD23	1.77	0.42
3:J:611:ILE:HG22	3:J:612:LEU:HD23	2.01	0.42
3:J:363:LEU:HD23	3:J:618:VAL:HG13	2.00	0.42
3:J:676:GLY:O	3:J:679:TYR:HB3	2.20	0.42
3:J:68:TYR:CD1	3:J:93:THR:HA	2.55	0.42
1:M:47:LEU:HD23	1:M:47:LEU:HA	1.71	0.42
2:O:1094:VAL:HG23	2:O:1094:VAL:H	1.48	0.42
2:O:297:VAL:HG11	2:O:311:CYS:CB	2.49	0.42
2:O:727:VAL:HB	2:O:773:LEU:HD22	2.02	0.42
3:P:1348:LYS:O	3:P:1351:VAL:HB	2.20	0.42
3:P:233:LYS:HG3	3:P:234:PRO:HD2	2.01	0.42
3:P:113:HIS:HB2	3:P:239:LEU:HD11	2.00	0.42
3:P:511:TYR:CE2	3:P:515:ARG:HD2	2.54	0.42
3:P:514:THR:HG21	3:P:596:LEU:CD1	2.50	0.42
3:P:584:PRO:HD2	3:P:620:PHE:CE1	2.55	0.42
3:P:703:THR:HG22	3:P:717:VAL:HA	2.01	0.42
3:P:884:SER:OG	3:P:885:VAL:N	2.52	0.42
3:P:790:THR:HG22	3:P:931:THR:OG1	2.19	0.42
5:R:420:GLU:OE1	5:R:423:ARG:NH2	2.53	0.42
5:R:461:ASN:N	5:R:461:ASN:OD1	2.52	0.42
3:J:427:PRO:HG3	7:5:13:DA:H2	1.84	0.42
6:7:51:DC:C5	6:7:52:DT:H73	2.54	0.42
1:A:82:LEU:HD22	1:A:173:VAL:HG22	2.00	0.42
2:C:1161:LEU:HD12	2:C:1164:PHE:CD2	2.55	0.42
2:C:184:LEU:HA	2:C:184:LEU:HD23	1.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:519:ASN:OD1	2:C:519:ASN:N	2.53	0.42
2:C:642:SER:O	2:C:643:SER:HB3	2.19	0.42
3:D:1037:PHE:HB3	3:D:1040:MET:HB2	2.01	0.42
3:D:1046:ILE:HD12	3:D:1059:LEU:HD22	2.00	0.42
3:D:1229:VAL:CG1	3:D:1230:THR:N	2.81	0.42
3:D:24:LEU:HD21	3:D:1337:VAL:HA	2.00	0.42
3:D:250:ARG:N	3:D:251:PRO:HD3	2.35	0.42
3:D:572:THR:OG1	3:D:576:ARG:HB2	2.20	0.42
3:D:137:ARG:NH1	5:F:88:GLU:O	2.49	0.42
2:I:10:ARG:HB2	2:I:10:ARG:HE	1.56	0.42
2:I:1135:GLN:O	2:I:1136:GLN:HB2	2.20	0.42
3:J:331:ILE:HG22	3:J:338:PHE:CE2	2.53	0.42
3:J:963:VAL:O	3:J:964:LYS:HG3	2.20	0.42
4:K:6:VAL:O	4:K:10:VAL:HG23	2.19	0.42
5:L:258:GLN:HG2	5:L:258:GLN:O	2.20	0.42
1:M:158:ARG:O	1:M:162:GLU:HG3	2.20	0.42
1:N:100:LEU:HA	1:N:100:LEU:HD23	1.92	0.42
2:O:1062:PRO:HA	2:O:1076:ILE:HB	2.02	0.42
2:O:1337:ILE:HD12	3:P:22:ILE:HG12	2.02	0.42
2:O:319:LEU:H	2:O:319:LEU:HG	1.54	0.42
2:O:448:LEU:HD11	2:O:587:LEU:HB2	2.02	0.42
3:P:1262:ARG:O	3:P:1282:TYR:HB2	2.19	0.42
2:O:1268:GLN:NE2	3:P:351:GLY:HA2	2.34	0.42
3:P:623:GLN:O	3:P:627:THR:OG1	2.38	0.42
5:R:126:GLY:O	5:R:130:VAL:HG23	2.20	0.42
5:R:213:ASP:HA	5:R:214:PRO:HD3	1.91	0.42
5:R:494:ILE:N	5:R:494:ILE:HD12	2.34	0.42
1:A:235:ARG:OXT	1:B:218:ARG:CD	2.67	0.42
1:B:31:LEU:HA	1:B:31:LEU:HD23	1.79	0.42
1:B:76:GLU:HG3	1:B:80:GLU:OE1	2.20	0.42
2:C:1065:LYS:HE3	3:D:463:GLY:HA3	2.02	0.42
2:C:379:GLU:O	2:C:383:SER:HB2	2.20	0.42
2:C:989:LEU:HD22	2:C:997:TRP:CZ2	2.55	0.42
3:D:1284:ARG:HA	3:D:1287:ILE:CD1	2.41	0.42
3:D:161:THR:N	3:D:164:GLN:OE1	2.45	0.42
3:D:209:ASN:HB2	3:D:214:ARG:CD	2.41	0.42
3:D:592:VAL:CG2	3:D:592:VAL:O	2.67	0.42
3:D:610:ARG:HH22	3:D:901:ARG:NH1	2.17	0.42
2:C:808:ASN:CA	3:D:629:PHE:HB3	2.49	0.42
3:D:700:ASN:O	3:D:704:GLU:HB3	2.20	0.42
5:F:464:ASN:HB2	7:2:26:DT:H71	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:263:SER:HB2	5:F:507:MET:SD	2.60	0.42
5:F:585:GLU:CG	7:2:46:DT:C5	2.98	0.42
1:G:136:GLU:HG3	1:G:137:ASN:N	2.34	0.42
2:I:1064:ASP:O	2:I:1076:ILE:HD12	2.20	0.42
2:I:243:PRO:CG	2:I:278:GLU:HG3	2.50	0.42
2:I:9:LYS:HG2	2:I:1171:ARG:HD3	2.01	0.42
3:J:1289:ASN:O	3:J:1293:GLU:HG3	2.20	0.42
3:J:110:PRO:CB	3:J:238:ILE:CG2	2.98	0.42
2:I:812:PHE:HZ	3:J:503:SER:HB2	1.85	0.42
3:J:950:ILE:HG23	3:J:995:TYR:CZ	2.55	0.42
1:M:214:GLU:O	1:M:217:ILE:HB	2.20	0.42
1:M:221:ALA:O	1:M:224:LEU:HB3	2.20	0.42
2:O:345:PRO:O	2:O:349:GLU:HG2	2.19	0.42
2:O:631:GLU:HG3	2:O:632:ASP:N	2.35	0.42
2:O:866:ASP:OD2	2:O:944:ARG:HD3	2.20	0.42
3:P:121:PRO:O	3:P:122:SER:CB	2.65	0.42
3:P:325:LYS:HD3	5:R:508:GLU:OE1	2.20	0.42
3:P:552:ILE:CG1	3:P:570:LYS:HB2	2.50	0.42
2:O:806:PRO:HG2	3:P:632:ALA:O	2.20	0.42
5:R:153:ALA:O	5:R:155:GLU:N	2.53	0.42
6:1:23:DA:N6	7:2:39:DG:O6	2.53	0.42
1:A:225:ALA:O	1:A:228:LEU:HB2	2.20	0.42
2:C:1006:GLU:HB2	2:C:1007:LYS:HZ3	1.84	0.42
2:C:203:LYS:H	2:C:203:LYS:HG3	1.63	0.42
2:C:436:ARG:HD2	2:C:436:ARG:O	2.20	0.42
2:C:519:ASN:OD1	2:C:522:SER:HB2	2.20	0.42
2:C:531:SER:CB	2:C:572:ILE:HG12	2.50	0.42
2:C:869:GLY:C	2:C:870:ILE:HD13	2.40	0.42
3:D:1275:LEU:HA	3:D:1275:LEU:HD12	1.97	0.42
3:D:378:LYS:HG2	3:D:382:TYR:OH	2.19	0.42
3:D:527:LEU:HD13	3:D:532:GLU:HB3	2.02	0.42
3:D:583:VAL:HG12	3:D:584:PRO:O	2.20	0.42
3:D:673:VAL:HG13	3:D:674:THR:O	2.19	0.42
3:D:848:VAL:CG2	3:D:880:VAL:CG1	2.94	0.42
3:D:914:ALA:HB2	3:D:1359:ALA:HB1	2.01	0.42
3:D:960:LEU:HD13	3:D:963:VAL:HG11	2.02	0.42
5:F:601:PRO:CB	5:F:608:ARG:HH21	2.33	0.42
1:H:51:MET:HA	1:H:52:PRO:HD2	1.91	0.42
2:I:671:LEU:CB	2:I:1186:VAL:HG13	2.50	0.42
2:I:220:ILE:HG22	2:I:221:LEU:HG	2.01	0.42
2:I:719:LYS:HD3	2:I:751:TYR:HE1	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:827:ARG:O	2:I:828:PHE:CB	2.68	0.42
3:J:1101:LEU:HD13	3:J:1107:VAL:CG2	2.49	0.42
3:J:1106:ILE:CG1	3:J:1125:PRO:HG2	2.49	0.42
3:J:580:TRP:HA	3:J:583:VAL:HG23	2.01	0.42
3:J:746:LEU:H	3:J:746:LEU:HG	1.51	0.42
3:J:79:LYS:HG2	3:J:79:LYS:O	2.20	0.42
5:L:115:GLY:O	5:L:119:ILE:HD12	2.19	0.42
1:N:211:ILE:HG23	1:N:215:GLU:HB3	2.02	0.42
2:O:1281:TYR:OH	3:P:432:LEU:HD23	2.20	0.42
2:O:196:VAL:HG23	2:O:206:ALA:HA	2.02	0.42
2:O:404:LYS:C	2:O:404:LYS:HD3	2.40	0.42
2:O:50:GLU:OE2	2:O:73:TYR:HE2	2.03	0.42
2:O:819:SER:OG	2:O:821:ARG:HB2	2.20	0.42
3:P:501:VAL:HG13	3:P:502:PRO:HD2	2.00	0.42
5:R:110:LEU:CD1	5:R:110:LEU:N	2.56	0.42
8:3:14:A:H3'	8:3:15:G:C8	2.55	0.41
6:4:28:DA:N6	7:5:34:DG:O6	2.53	0.41
6:7:50:DT:C6	6:7:50:DT:H3'	2.55	0.41
1:A:17:GLU:HB3	1:A:25:LYS:O	2.20	0.41
1:B:50:SER:O	1:B:52:PRO:HD3	2.20	0.41
2:C:358:ASP:OD1	2:C:358:ASP:N	2.37	0.41
2:C:972:PHE:CE2	2:C:994:ARG:O	2.72	0.41
3:D:1233:ILE:O	3:D:1237:VAL:CG2	2.48	0.41
3:D:1326:GLN:OE1	7:2:11:DA:C4'	2.56	0.41
3:D:370:LYS:CE	3:D:443:GLU:HB3	2.49	0.41
2:C:1281:TYR:OH	3:D:431:ARG:HG3	2.19	0.41
3:D:522:GLY:HA2	3:D:525:MET:SD	2.60	0.41
3:D:519:ASN:CA	3:D:523:GLU:HB2	2.50	0.41
3:D:672:LEU:O	3:D:673:VAL:HG23	2.19	0.41
3:D:701:LEU:HD23	3:D:723:TYR:HB2	2.02	0.41
3:D:960:LEU:HD23	3:D:981:GLU:O	2.20	0.41
4:E:5:THR:HG22	4:E:6:VAL:N	2.34	0.41
5:F:592:ALA:O	5:F:595:LEU:HB2	2.19	0.41
1:G:16:ILE:CG2	1:G:214:GLU:HG3	2.45	0.41
2:I:204:LEU:HD13	2:I:208:ILE:HD13	2.02	0.41
2:I:805:MET:O	2:I:811:ASN:ND2	2.53	0.41
2:I:868:SER:HB2	2:I:870:ILE:HD11	2.02	0.41
3:J:815:GLY:H	3:J:883:ARG:HH22	1.67	0.41
5:L:359:LYS:HD2	5:L:359:LYS:HA	1.82	0.41
1:M:35:PHE:N	1:M:35:PHE:CD2	2.87	0.41
1:M:42:ALA:CB	1:N:38:THR:HG22	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:68:LEU:HD12	2:O:101:ARG:O	2.19	0.41
2:O:700:VAL:HG21	2:O:1114:GLU:HG3	2.02	0.41
2:O:1307:ASN:ND2	2:O:1312:ASN:ND2	2.68	0.41
2:O:155:VAL:HG22	2:O:405:PHE:CD2	2.55	0.41
2:O:727:VAL:N	2:O:773:LEU:HD22	2.29	0.41
3:P:1093:THR:HG22	3:P:1199:PHE:CB	2.49	0.41
3:P:1262:ARG:NH2	3:P:1316:THR:HB	2.30	0.41
3:P:131:PRO:O	3:P:135:ILE:CG1	2.67	0.41
2:O:1334:GLY:O	3:P:25:ALA:HB3	2.19	0.41
3:P:432:LEU:HD21	3:P:489:ASN:CB	2.49	0.41
3:P:697:MET:HB3	3:P:697:MET:HE2	1.85	0.41
3:P:705:THR:HG22	3:P:705:THR:O	2.20	0.41
3:P:950:ILE:HD11	3:P:1020:TRP:HZ3	1.85	0.41
2:O:368:ARG:CD	5:R:90:GLU:HG2	2.47	0.41
7:2:45:DG:C2	7:2:46:DT:C2	3.08	0.41
7:2:4:DC:C2	7:2:5:DC:C4	3.08	0.41
5:L:451:ARG:NH2	6:4:32:DA:OP1	2.51	0.41
5:R:428:SER:CB	6:7:40:DA:OP2	2.67	0.41
7:8:15:DT:C4	7:8:16:DC:N4	2.88	0.41
7:8:27:DA:H1'	7:8:28:DG:H5''	2.03	0.41
1:B:158:ARG:CZ	1:B:172:LEU:HD11	2.50	0.41
2:C:267:ARG:HD3	2:C:267:ARG:C	2.40	0.41
2:C:428:VAL:HB	2:C:429:MET:HG3	2.00	0.41
2:C:718:ALA:CB	2:C:783:LEU:HD21	2.41	0.41
3:D:1077:ALA:HB2	3:D:1100:PHE:CD1	2.55	0.41
3:D:1176:VAL:HA	3:D:1187:GLU:HA	2.02	0.41
3:D:332:LYS:O	3:D:333:GLY:O	2.38	0.41
3:D:501:VAL:CG1	3:D:502:PRO:CD	2.96	0.41
3:D:679:TYR:CE1	3:D:683:ILE:HD12	2.55	0.41
2:I:1006:GLU:OE1	2:I:1006:GLU:CA	2.68	0.41
2:I:1161:LEU:O	2:I:1164:PHE:CD2	2.69	0.41
2:I:243:PRO:HG2	2:I:278:GLU:HG3	2.01	0.41
2:I:636:CYS:SG	2:I:650:VAL:HG13	2.60	0.41
2:I:92:TYR:HB3	2:I:137:VAL:HB	2.01	0.41
2:I:969:ALA:O	2:I:973:SER:OG	2.29	0.41
3:J:1062:LEU:HD13	3:J:1066:GLU:OE1	2.20	0.41
3:J:1087:ASP:OD2	3:J:1096:PRO:HB3	2.21	0.41
3:J:519:ASN:ND2	3:J:709:ARG:HB2	2.35	0.41
3:J:623:GLN:O	3:J:627:THR:OG1	2.38	0.41
3:J:820:ILE:O	3:J:882:VAL:HG13	2.20	0.41
2:O:1085:MET:CA	2:O:1085:MET:HE3	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1220:GLN:HG2	2:O:1221:PHE:O	2.20	0.41
2:O:169:LYS:HA	3:P:1065:ALA:HA	2.01	0.41
2:O:603:ILE:HG13	2:O:603:ILE:H	1.39	0.41
2:O:812:PHE:HB3	2:O:813:GLU:H	1.67	0.41
3:P:265:LEU:CD2	3:P:326:SER:HA	2.44	0.41
3:P:350:SER:HB3	3:P:469:HIS:CE1	2.55	0.41
3:P:433:GLY:O	3:P:457:TYR:HE1	2.03	0.41
2:O:1104:PRO:CG	3:P:725:MET:CE	2.92	0.41
3:P:339:ARG:HH12	3:P:798:ARG:HH22	1.68	0.41
3:P:297:ARG:NH1	5:R:100:MET:CB	2.83	0.41
5:R:409:ASN:O	5:R:413:MET:HG2	2.19	0.41
7:2:23:DT:H3'	7:2:24:DT:H5''	2.01	0.41
7:2:5:DC:H2''	7:2:6:DG:OP2	2.20	0.41
7:5:25:DA:C2'	7:5:26:DT:OP2	2.52	0.41
1:B:61:ILE:HD12	1:B:64:VAL:HG12	2.03	0.41
2:C:1255:THR:O	2:C:1255:THR:HG22	2.20	0.41
5:F:166:VAL:CG1	5:F:168:PRO:HD3	2.47	0.41
5:F:313:ASP:O	5:F:316:PHE:HB2	2.20	0.41
5:F:390:ILE:CD1	5:F:432:THR:HG23	2.50	0.41
5:F:390:ILE:HA	5:F:393:LYS:NZ	2.35	0.41
5:F:493:LYS:HE3	5:F:497:VAL:CG2	2.45	0.41
1:G:158:ARG:O	1:G:162:GLU:HB2	2.20	0.41
2:I:1116:HIS:CD2	3:J:641:ILE:HG13	2.54	0.41
2:I:163:LYS:HG2	2:I:164:THR:N	2.34	0.41
2:I:237:LEU:O	2:I:287:VAL:HG22	2.21	0.41
2:I:550:VAL:O	3:J:777:HIS:ND1	2.53	0.41
3:J:1175:LEU:CD2	3:J:1196:LEU:HD13	2.50	0.41
3:J:1259:GLN:OE1	3:J:1262:ARG:NH1	2.53	0.41
3:J:29:MET:O	3:J:32:SER:HB3	2.20	0.41
3:J:30:ILE:HG21	3:J:243:PRO:HB3	2.02	0.41
3:J:339:ARG:NH2	3:J:798:ARG:HH12	2.18	0.41
4:K:62:GLN:O	4:K:66:VAL:HG23	2.20	0.41
5:L:113:ARG:HB2	5:L:114:GLU:H	1.49	0.41
5:L:167:ASP:N	5:L:168:PRO:CD	2.82	0.41
5:L:390:ILE:HG21	5:L:432:THR:CG2	2.51	0.41
1:M:83:LEU:HD13	1:M:83:LEU:HA	1.85	0.41
2:O:194:LEU:HD13	2:O:432:LEU:HD21	2.01	0.41
2:O:557:ARG:CG	2:O:557:ARG:HH11	2.29	0.41
2:O:993:PRO:HG3	2:O:996:ARG:NH1	2.35	0.41
3:P:1161:GLY:HA2	3:P:1180:VAL:HG13	2.02	0.41
3:P:807:LEU:HD23	3:P:1255:VAL:HG13	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1369:ARG:O	3:P:1372:ARG:HB2	2.19	0.41
3:P:24:LEU:HA	3:P:24:LEU:HD23	1.30	0.41
3:P:407:VAL:HG22	3:P:408:VAL:N	2.35	0.41
3:P:481:ARG:HG2	4:Q:6:VAL:HG21	2.00	0.41
2:O:809:GLY:HA2	3:P:629:PHE:CE1	2.54	0.41
4:Q:64:LEU:H	4:Q:64:LEU:HG	1.64	0.41
4:Q:86:ILE:HG23	4:Q:90:ARG:NH1	2.35	0.41
5:R:370:ALA:CA	5:R:373:ARG:NH1	2.77	0.41
5:R:395:THR:HA	5:R:404:LEU:HD13	2.01	0.41
6:1:26:DT:C2'	6:1:27:DC:OP2	2.68	0.41
1:A:227:GLN:O	1:A:231:PHE:CE1	2.73	0.41
1:B:57:THR:CB	1:B:147:GLN:NE2	2.84	0.41
2:C:297:VAL:CG2	2:C:315:MET:H	2.33	0.41
2:C:429:MET:HG3	2:C:429:MET:H	1.68	0.41
2:C:975:ILE:HG22	2:C:979:LEU:HD11	2.03	0.41
3:D:1101:LEU:HD13	3:D:1107:VAL:HG22	2.02	0.41
3:D:1163:VAL:HG12	3:D:1164:SER:N	2.34	0.41
3:D:146:VAL:HG12	3:D:155:GLU:O	2.19	0.41
3:D:29:MET:O	3:D:32:SER:HB3	2.20	0.41
3:D:368:LEU:HD12	3:D:368:LEU:HA	1.81	0.41
3:D:759:ILE:O	3:D:759:ILE:HG22	2.20	0.41
2:C:1107:MET:HE1	3:D:763:PHE:CD2	2.56	0.41
3:D:615:LYS:CE	4:E:4:VAL:HB	2.48	0.41
5:F:115:GLY:O	5:F:118:ASP:HB2	2.20	0.41
5:F:583:THR:CB	5:F:587:ILE:HD11	2.50	0.41
1:G:88:LEU:HD12	1:G:89:ALA:N	2.36	0.41
2:I:253:PHE:HB3	2:I:288:PRO:HG3	2.02	0.41
2:I:280:ASP:O	2:I:281:ASP:HB2	2.20	0.41
2:I:477:GLU:HG3	2:I:478:ARG:N	2.34	0.41
2:I:561:ILE:CA	2:I:680:LEU:HD13	2.50	0.41
2:I:525:THR:HG22	2:I:687:ARG:HD3	2.02	0.41
2:I:729:ALA:O	2:I:730:SER:CB	2.65	0.41
3:J:1342:ASP:OD2	3:J:1344:LEU:CG	2.61	0.41
3:J:917:VAL:CG2	3:J:1347:LEU:HD11	2.51	0.41
3:J:436:ALA:C	3:J:437:PHE:CD1	2.94	0.41
3:J:485:MET:HB3	3:J:488:ASN:OD1	2.20	0.41
3:J:672:LEU:C	3:J:673:VAL:HG23	2.40	0.41
5:L:166:VAL:HG12	5:L:168:PRO:CG	2.50	0.41
1:M:190:ALA:HB2	1:M:200:LYS:HB3	2.02	0.41
1:N:86:LYS:HE2	1:N:173:VAL:HG13	2.01	0.41
2:O:1062:PRO:HA	2:O:1076:ILE:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1116:HIS:CE1	2:O:1207:SER:O	2.73	0.41
2:O:1276:TRP:N	2:O:1276:TRP:CD1	2.86	0.41
2:O:672:GLU:HB2	2:O:673:HIS:CD2	2.55	0.41
3:P:1285:VAL:CG1	3:P:1286:LYS:N	2.82	0.41
2:O:1099:ASN:ND2	3:P:504:GLN:HE21	2.18	0.41
2:O:1223:ARG:CD	3:P:636:GLY:O	2.65	0.41
3:P:988:PHE:HB2	3:P:990:ARG:NH2	2.35	0.41
5:R:489:MET:SD	5:R:493:LYS:HE2	2.60	0.41
3:P:335:GLN:NE2	5:R:518:HIS:CD2	2.88	0.41
5:F:428:SER:OG	6:1:41:DT:H73	2.20	0.41
6:4:30:DG:C8	6:4:31:DT:H71	2.55	0.41
8:6:13:GTP:H2'	8:6:14:A:H8	1.85	0.41
7:8:16:DC:H2''	7:8:17:DG:H5'	2.02	0.41
1:B:212:ASP:HA	1:B:213:PRO:HD3	1.85	0.41
2:C:213:LEU:HD23	2:C:213:LEU:HA	1.80	0.41
2:C:390:PHE:N	2:C:390:PHE:HD2	2.18	0.41
2:C:412:GLU:H	2:C:412:GLU:HG3	1.63	0.41
2:C:521:LEU:C	2:C:521:LEU:HD12	2.41	0.41
2:C:878:THR:CG2	2:C:879:GLY:H	2.33	0.41
2:C:897:PRO:HB2	5:F:565:ILE:HG13	2.01	0.41
3:D:1120:THR:HG21	3:D:1123:ARG:HG2	2.01	0.41
3:D:1225:GLY:O	3:D:1229:VAL:HG12	2.20	0.41
3:D:357:VAL:HG22	3:D:461:PHE:CE2	2.56	0.41
3:D:421:VAL:HG12	3:D:422:LEU:N	2.35	0.41
3:D:42:GLU:O	3:D:56:LEU:HG	2.20	0.41
3:D:471:PRO:CG	3:D:471:PRO:O	2.65	0.41
3:D:767:LEU:N	3:D:767:LEU:HD23	2.35	0.41
3:D:828:GLY:O	3:D:994:SER:O	2.37	0.41
5:F:166:VAL:CG1	5:F:212:ILE:HG13	2.50	0.41
1:H:13:LEU:HD21	1:H:16:ILE:HG23	2.02	0.41
1:H:61:ILE:HD11	1:H:171:LEU:CD1	2.51	0.41
1:H:59:VAL:HG21	1:H:85:LEU:HD13	2.02	0.41
2:I:310:ILE:CD1	2:I:324:LYS:HB3	2.46	0.41
2:I:865:LEU:HD23	2:I:865:LEU:HA	1.71	0.41
3:J:239:LEU:HD23	3:J:239:LEU:HA	1.67	0.41
3:J:901:ARG:HD3	3:J:906:GLY:O	2.20	0.41
4:K:16:ARG:O	4:K:19:LEU:HB3	2.21	0.41
5:L:402:LEU:HA	5:L:405:ILE:CD1	2.39	0.41
1:M:203:ILE:HG22	1:M:205:MET:HE2	2.03	0.41
1:N:71:LYS:CD	1:N:140:ILE:HD13	2.47	0.41
1:N:54:CYS:SG	1:N:148:ARG:HB2	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:190:ALA:HB2	1:N:200:LYS:N	2.35	0.41
2:O:840:SER:OG	2:O:1048:LYS:O	2.34	0.41
2:O:522:SER:O	2:O:526:HIS:HB2	2.20	0.41
2:O:1305:TYR:CD2	3:P:379:PRO:HB3	2.47	0.41
3:P:364:HIS:HE1	3:P:438:GLU:OE1	2.03	0.41
5:R:407:GLU:CG	5:R:442:SER:CB	2.94	0.41
6:4:47:DC:H2'	6:4:48:DA:O4'	2.20	0.41
7:5:5:DC:H1'	7:5:6:DG:H5'	2.02	0.41
1:A:44:ARG:CA	1:A:47:LEU:HD12	2.49	0.41
1:B:158:ARG:HH22	1:B:175:ALA:HB2	1.85	0.41
1:A:11:PRO:O	1:B:230:ALA:CB	2.69	0.41
2:C:1257:GLN:HG2	2:C:1258:PRO:HD2	2.03	0.41
2:C:1283:ALA:HB1	2:C:1286:THR:HG1	1.85	0.41
2:C:275:ARG:NH2	2:C:279:LYS:HD2	2.36	0.41
2:C:668:ILE:HA	2:C:669:PRO:HD3	1.87	0.41
2:C:715:THR:HG22	2:C:786:GLY:N	2.14	0.41
3:D:506:VAL:H	3:D:506:VAL:HG23	1.64	0.41
3:D:514:THR:HB	3:D:595:ALA:HA	2.03	0.41
3:D:537:TYR:CZ	3:D:544:LEU:HD11	2.55	0.41
3:D:659:ALA:O	3:D:663:GLU:HG3	2.21	0.41
3:D:723:TYR:O	3:D:726:ALA:HB3	2.21	0.41
3:D:749:LYS:HB3	3:D:750:PRO:CD	2.49	0.41
3:D:786:THR:HA	3:D:935:PHE:CD2	2.55	0.41
5:F:151:VAL:HB	5:F:161:LEU:HD23	2.03	0.41
2:I:57:PHE:HB3	2:I:58:PRO:HA	2.01	0.41
2:I:902:LEU:HA	2:I:905:ILE:CD1	2.41	0.41
3:J:211:GLU:O	3:J:215:LYS:HG3	2.19	0.41
3:J:504:GLN:HB3	3:J:505:ASP:H	1.70	0.41
3:J:513:MET:HB2	3:J:579:LEU:HD11	2.02	0.41
3:J:65:VAL:CG1	3:J:98:ARG:HH12	2.10	0.41
5:L:400:GLN:OE1	5:L:402:LEU:HG	2.19	0.41
1:M:92:VAL:CG1	1:M:95:LYS:O	2.62	0.41
2:O:1176:LEU:N	2:O:1176:LEU:HD23	2.35	0.41
2:O:1309:VAL:O	3:P:383:GLY:HA3	2.21	0.41
2:O:407:ARG:CB	2:O:407:ARG:CZ	2.98	0.41
2:O:757:THR:CG2	2:O:758:ARG:N	2.83	0.41
3:P:113:HIS:CD2	3:P:115:TRP:HB2	2.56	0.41
3:P:126:LEU:HA	3:P:126:LEU:HD23	1.50	0.41
3:P:1353:VAL:HG23	3:P:1353:VAL:O	2.19	0.41
3:P:205:LEU:HD11	3:P:217:LEU:HB3	2.03	0.41
3:P:326:SER:O	3:P:330:MET:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:368:LEU:HA	3:P:369:PRO:HD3	1.90	0.41
3:P:548:VAL:CG1	3:P:549:LYS:N	2.83	0.41
3:P:572:THR:OG1	3:P:576:ARG:HB2	2.20	0.41
5:R:167:ASP:N	5:R:168:PRO:HD3	2.36	0.41
7:2:4:DC:N3	7:2:5:DC:N4	2.69	0.41
7:2:5:DC:H1'	7:2:6:DG:H5'	2.02	0.41
6:7:49:DG:H2'	6:7:50:DT:O4'	2.21	0.41
2:C:435:ILE:H	2:C:435:ILE:HG13	1.52	0.41
2:C:748:ILE:HD11	2:C:970:GLY:HA3	2.03	0.41
3:D:114:ILE:HG23	3:D:115:TRP:HD1	1.85	0.41
3:D:161:THR:H	3:D:164:GLN:CD	2.21	0.41
3:D:826:ILE:HG12	3:D:831:VAL:HG22	2.03	0.41
4:E:2:ALA:N	4:E:5:THR:C	2.74	0.41
2:I:1199:LEU:CD2	2:I:1204:LEU:HD13	2.50	0.41
2:I:1312:ASN:O	2:I:1313:HIS:HB2	2.21	0.41
2:I:169:LYS:O	2:I:171:LEU:HG	2.19	0.41
2:I:228:VAL:HG11	2:I:239:MET:CE	2.51	0.41
2:I:321:LEU:HD23	2:I:324:LYS:HD2	2.03	0.41
2:I:340:ASP:O	2:I:343:HIS:N	2.51	0.41
2:I:561:ILE:C	2:I:680:LEU:HD13	2.41	0.41
2:I:953:LEU:HB3	2:I:957:LYS:HZ2	1.85	0.41
3:J:1095:MET:CB	3:J:1173:ARG:HH22	2.32	0.41
3:J:1189:MET:HB3	3:J:1189:MET:HE2	1.88	0.41
3:J:255:LEU:HA	3:J:255:LEU:HD23	1.70	0.41
5:L:127:ILE:HG13	5:L:127:ILE:H	1.65	0.41
3:J:253:VAL:HG21	5:L:523:ILE:HG21	2.02	0.41
1:M:40:GLY:HA2	1:M:43:LEU:HD11	1.95	0.41
2:O:1128:ILE:CG2	2:O:1132:LEU:HD11	2.48	0.41
2:O:1333:LEU:HD21	3:P:327:LEU:CB	2.49	0.41
2:O:292:ILE:CD1	2:O:322:LEU:HD11	2.50	0.41
2:O:422:LYS:O	2:O:425:ILE:HB	2.20	0.41
3:P:34:SER:HB3	3:P:104:HIS:HB3	2.03	0.41
3:P:1229:VAL:HG13	3:P:1230:THR:H	1.83	0.41
3:P:22:ILE:HG22	3:P:1336:ALA:HA	2.03	0.41
2:O:1323:PHE:CE2	3:P:1353:VAL:HA	2.56	0.41
3:P:250:ARG:N	3:P:251:PRO:HD3	2.35	0.41
3:P:269:TYR:CD2	3:P:306:LEU:HD21	2.56	0.41
3:P:361:LEU:HD22	3:P:365:GLN:HB3	2.00	0.41
3:P:501:VAL:HG13	3:P:502:PRO:CD	2.50	0.41
3:P:560:ASN:N	3:P:560:ASN:OD1	2.54	0.41
3:P:698:MET:O	3:P:702:GLN:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:958:ILE:HG23	3:P:982:LEU:HD11	2.01	0.41
5:R:488:LEU:CG	5:R:488:LEU:O	2.56	0.41
5:R:503:GLU:HG2	5:R:504:PRO:HD2	2.01	0.41
3:P:399:LYS:NZ	5:R:612:ASP:OD2	2.42	0.41
6:4:47:DC:H2'	6:4:48:DA:H5'	2.03	0.41
6:4:58:DG:N2	7:5:6:DG:N2	2.69	0.41
6:7:50:DT:C5'	6:7:51:DC:C6	3.03	0.41
2:C:34:SER:OG	2:C:455:SER:HB2	2.21	0.41
2:C:431:LYS:O	2:C:435:ILE:CG1	2.54	0.41
2:C:691:PRO:HB3	2:C:788:SER:HB2	2.03	0.41
2:C:758:ARG:HB2	2:C:833:ILE:HD12	2.02	0.41
2:C:871:VAL:HG22	2:C:883:LEU:HA	2.03	0.41
3:D:1302:TYR:N	3:D:1302:TYR:HD1	2.17	0.41
3:D:332:LYS:HE3	7:2:11:DA:OP1	2.21	0.41
3:D:519:ASN:HA	3:D:523:GLU:CB	2.51	0.41
3:D:58:CYS:SG	3:D:59:ALA:N	2.88	0.41
3:D:989:GLY:C	3:D:990:ARG:HG3	2.40	0.41
4:E:49:ILE:CG2	4:E:50:ALA:N	2.48	0.41
5:F:313:ASP:O	5:F:316:PHE:CB	2.69	0.41
5:F:386:LEU:HA	6:1:41:DT:O4'	2.20	0.41
3:D:43:THR:HG21	5:F:449:THR:CG2	2.51	0.41
5:F:503:GLU:HB3	5:F:504:PRO:CD	2.49	0.41
1:H:185:TYR:CD2	1:H:185:TYR:O	2.74	0.41
2:I:1210:ILE:HG23	2:I:1211:ARG:H	1.84	0.41
2:I:1247:SER:O	3:J:348:ASP:HB3	2.20	0.41
2:I:231:GLU:HB3	2:I:233:ARG:HG3	2.01	0.41
3:J:34:SER:OG	3:J:103:GLY:C	2.59	0.41
3:J:490:ILE:CD1	3:J:614:LEU:CD1	2.99	0.41
5:L:112:THR:HB	5:L:426:LYS:NZ	2.36	0.41
1:M:102:LEU:HD21	1:M:110:VAL:CG1	2.50	0.41
1:M:136:GLU:CG	1:M:137:ASN:N	2.83	0.41
1:M:48:LEU:HG	1:M:183:ILE:HG21	2.03	0.41
2:O:404:LYS:O	2:O:404:LYS:HD3	2.21	0.41
2:O:823:VAL:HG12	2:O:1059:ARG:NE	2.31	0.41
2:O:838:CYS:O	2:O:1049:ILE:HG23	2.21	0.41
3:P:943:ARG:HG3	3:P:1132:LYS:HG3	2.02	0.41
3:P:1184:ASP:N	3:P:1184:ASP:OD1	2.53	0.41
3:P:1333:THR:O	3:P:1337:VAL:HG23	2.20	0.41
3:P:1320:ILE:HD12	3:P:1342:ASP:CG	2.40	0.41
3:P:146:VAL:HG21	3:P:158:GLN:HB3	2.02	0.41
3:P:541:LEU:HD23	3:P:541:LEU:HA	1.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:673:VAL:HG13	3:P:678:ARG:N	2.36	0.41
5:R:213:ASP:OD1	5:R:213:ASP:N	2.54	0.41
5:R:393:LYS:O	5:R:396:ASN:OD1	2.38	0.41
3:P:270:ARG:NE	5:R:449:THR:HG23	2.34	0.41
2:O:496:LYS:HE3	5:R:468:ARG:HG2	2.02	0.41
5:F:429:THR:OG1	6:1:39:DA:H8	2.03	0.41
6:7:50:DT:H3'	6:7:51:DC:H5'	2.01	0.41
1:B:85:LEU:CD2	1:B:130:ILE:HG12	2.51	0.41
2:C:557:ARG:NH2	2:C:608:ALA:HA	2.35	0.41
2:C:989:LEU:HD21	2:C:1000:LEU:CD2	2.51	0.41
3:D:1052:GLU:HG2	3:D:1053:LEU:H	1.86	0.41
3:D:145:VAL:CG2	3:D:146:VAL:N	2.83	0.41
3:D:372:MET:O	3:D:376:LEU:CD1	2.69	0.41
3:D:470:VAL:HG12	3:D:472:LEU:HD23	2.03	0.41
3:D:725:MET:O	3:D:728:SER:OG	2.39	0.41
5:F:551:LEU:HD22	5:F:597:LYS:CE	2.51	0.41
5:F:558:VAL:HG12	5:F:559:LEU:HD23	2.03	0.41
1:G:51:MET:SD	1:G:52:PRO:HD2	2.61	0.41
1:H:100:LEU:HD21	1:H:118:ASP:HB2	2.03	0.41
1:H:193:GLU:O	1:H:194:GLN:HB2	2.21	0.41
2:I:10:ARG:HG2	2:I:10:ARG:O	2.21	0.41
2:I:1225:VAL:HG12	2:I:1226:THR:N	2.35	0.41
2:I:233:ARG:O	2:I:234:ASP:HB2	2.21	0.41
2:I:296:VAL:CG1	2:I:297:VAL:H	2.32	0.41
3:J:832:LYS:HZ1	3:J:1242:ARG:HB3	1.85	0.41
3:J:378:LYS:O	3:J:382:TYR:CD2	2.74	0.41
3:J:662:ALA:HA	3:J:665:GLN:NE2	2.36	0.41
5:L:388:ILE:O	5:L:388:ILE:HG12	2.18	0.41
5:L:551:LEU:CD1	5:L:559:LEU:HD12	2.48	0.41
5:L:593:LYS:HG2	5:L:597:LYS:HE3	2.02	0.41
1:M:44:ARG:HA	1:M:183:ILE:HD13	2.03	0.41
1:N:81:ILE:HG23	1:N:130:ILE:HG22	2.03	0.41
2:O:1017:GLN:NE2	2:O:1021:LEU:HG	2.33	0.41
2:O:1042:LEU:HA	2:O:1042:LEU:HD23	1.83	0.41
2:O:1077:SER:CB	3:P:357:VAL:CG2	2.97	0.41
2:O:202:ARG:H	2:O:369:MET:HE3	1.85	0.41
2:O:551:HIS:HB2	2:O:554:HIS:CE1	2.56	0.41
2:O:68:LEU:HD12	2:O:68:LEU:HA	1.78	0.41
2:O:697:LYS:HZ1	2:O:1178:LYS:HB2	1.86	0.41
3:P:1067:ARG:NH1	3:P:1074:LEU:O	2.54	0.41
3:P:1163:VAL:HG22	3:P:1177:ILE:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:238:ILE:N	3:P:238:ILE:HD13	2.34	0.41
3:P:693:VAL:HG21	3:P:743:MET:CE	2.51	0.41
5:R:573:LEU:HD11	5:R:584:ARG:CA	2.49	0.41
5:R:585:GLU:HG3	7:8:47:DC:C4	2.56	0.41
7:2:27:DA:C1'	7:2:28:DG:H5'	2.51	0.41
6:4:46:DG:H8	6:4:46:DG:H5''	1.84	0.41
7:8:5:DC:C2'	7:8:6:DG:C8	3.04	0.41
2:O:202:ARG:NH2	7:8:7:DC:H3'	2.36	0.41
1:A:71:LYS:O	1:A:74:VAL:HB	2.21	0.41
2:C:1032:LYS:HD3	2:C:1032:LYS:HA	1.99	0.41
2:C:1066:MET:HE2	2:C:1066:MET:HB3	1.66	0.41
2:C:1088:ASP:OD2	2:C:1092:THR:CB	2.69	0.41
2:C:1148:ALA:O	2:C:1151:LEU:HB2	2.21	0.41
2:C:301:TYR:HE1	2:C:333:ILE:HG23	1.75	0.41
2:C:188:PHE:CE2	2:C:436:ARG:HB2	2.55	0.41
2:C:766:ASN:ND2	2:C:767:GLN:N	2.69	0.41
2:C:807:TRP:NE1	2:C:817:LEU:HD11	2.36	0.41
2:C:896:THR:HG23	2:C:898:GLU:CB	2.43	0.41
3:D:1285:VAL:HG13	3:D:1286:LYS:H	1.86	0.41
3:D:528:THR:OG1	3:D:528:THR:O	2.38	0.41
3:D:510:LEU:HD22	3:D:596:LEU:HD12	2.02	0.41
3:D:843:VAL:CB	3:D:897:HIS:O	2.69	0.41
1:H:189:ALA:HA	1:H:199:ASP:HB2	2.03	0.41
2:I:1029:LEU:O	2:I:1031:ALA:N	2.53	0.41
2:I:1142:ARG:NH2	2:I:1169:VAL:HG21	2.36	0.41
2:I:674:ASP:O	3:J:772:TYR:OH	2.35	0.41
3:J:1100:PHE:CD2	3:J:1193:TRP:HA	2.55	0.41
3:J:1130:GLY:O	3:J:1132:LYS:HG3	2.21	0.41
3:J:1251:LYS:HB3	3:J:1251:LYS:HE2	1.83	0.41
3:J:1266:ILE:HD12	3:J:1278:GLU:HB2	2.01	0.41
3:J:339:ARG:CZ	3:J:798:ARG:NH1	2.81	0.41
3:J:514:THR:HG21	3:J:596:LEU:CB	2.51	0.41
3:J:786:THR:HG22	3:J:787:ALA:H	1.86	0.41
5:L:383:ASN:ND2	5:L:386:LEU:HD23	2.35	0.41
3:P:1241:TYR:HB3	3:P:1246:VAL:O	2.20	0.41
3:P:115:TRP:HZ2	3:P:1329:THR:HG22	1.77	0.41
3:P:592:VAL:O	3:P:592:VAL:HG22	2.21	0.41
3:P:609:TYR:HD1	3:P:610:ARG:HG2	1.86	0.41
3:P:845:ALA:O	3:P:881:LYS:O	2.39	0.41
5:R:370:ALA:HB1	5:R:373:ARG:HH22	1.84	0.41
7:2:18:DT:H2''	7:2:19:DA:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:162:GLU:OE2	1:B:164:ASP:OD2	2.39	0.41
1:B:183:ILE:HB	1:B:205:MET:CE	2.51	0.41
2:C:1281:TYR:OH	3:D:431:ARG:C	2.57	0.41
2:C:46:GLN:C	2:C:51:ALA:HB2	2.41	0.41
2:C:539:THR:H	2:C:542:ARG:HB3	1.86	0.41
2:C:805:MET:HE2	2:C:806:PRO:HD2	2.02	0.41
3:D:139:LEU:HD21	3:D:185:ILE:HG12	2.03	0.41
3:D:112:ALA:C	3:D:238:ILE:HD11	2.36	0.41
3:D:342:LEU:HA	3:D:342:LEU:HD23	1.68	0.41
3:D:431:ARG:HG3	3:D:432:LEU:HD23	2.03	0.41
3:D:473:THR:O	3:D:476:ALA:HB3	2.21	0.41
3:D:709:ARG:O	3:D:710:ASP:CB	2.67	0.41
3:D:835:LEU:HD12	3:D:835:LEU:C	2.42	0.41
3:D:856:ILE:HG22	3:D:858:VAL:HG23	2.02	0.41
5:F:135:ALA:CB	5:F:256:PHE:HB3	2.51	0.41
5:F:551:LEU:HD21	5:F:598:LEU:HD21	2.02	0.41
2:I:840:SER:OG	2:I:1048:LYS:C	2.60	0.41
3:J:1031:VAL:HG12	3:J:1091:PRO:CD	2.51	0.41
3:J:135:ILE:H	3:J:135:ILE:HG13	1.57	0.41
3:J:270:ARG:HB3	3:J:270:ARG:NH1	2.36	0.41
3:J:30:ILE:CG2	3:J:30:ILE:O	2.69	0.41
3:J:682:VAL:HA	3:J:685:ILE:HD12	2.03	0.41
3:J:98:ARG:O	3:J:247:PRO:HD2	2.21	0.41
5:L:237:ALA:O	5:L:238:LYS:HB2	2.21	0.41
2:I:1251:TYR:HB2	5:L:528:LEU:CD1	2.51	0.41
5:L:99:ARG:H	5:L:99:ARG:HG2	1.58	0.41
2:O:228:VAL:HG22	2:O:337:PHE:HB2	2.02	0.41
2:O:188:PHE:CZ	2:O:432:LEU:HD11	2.55	0.41
2:O:709:ALA:O	2:O:712:SER:OG	2.38	0.41
3:P:70:CYS:SG	3:P:71:LEU:N	2.93	0.41
5:R:299:LYS:HA	5:R:302:PHE:CB	2.51	0.41
5:R:456:MET:HE2	5:R:456:MET:HB2	1.89	0.41
5:F:586:ARG:HH12	6:1:13:DC:P	2.44	0.40
2:C:1080:ASN:HB3	2:C:1084:ASP:HB2	2.03	0.40
2:C:255:ILE:HG22	2:C:255:ILE:O	2.20	0.40
2:C:452:ARG:HG2	2:C:453:ILE:N	2.37	0.40
2:C:838:CYS:HB2	2:C:918:LEU:HB2	2.03	0.40
2:C:866:ASP:CG	2:C:867:GLU:H	2.24	0.40
3:D:930:LEU:HD11	3:D:1246:VAL:CG2	2.51	0.40
3:D:930:LEU:HD11	3:D:1246:VAL:HB	2.02	0.40
3:D:423:LEU:HD11	3:D:437:PHE:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1314:GLN:HG3	4:E:28:ARG:CZ	2.52	0.40
5:F:426:LYS:HG2	6:1:40:DA:OP2	2.21	0.40
5:F:564:GLY:O	5:F:567:MET:O	2.38	0.40
2:I:1212:LEU:O	2:I:1221:PHE:CD2	2.74	0.40
2:I:149:LEU:CD1	2:I:451:ARG:CB	2.94	0.40
2:I:375:PRO:HA	2:I:376:PRO:HD3	1.96	0.40
2:I:529:ARG:C	2:I:530:ILE:HG13	2.41	0.40
2:I:559:CYS:O	2:I:573:ASN:ND2	2.54	0.40
2:I:785:ASP:HB3	2:I:789:THR:OG1	2.20	0.40
2:I:887:VAL:HG23	2:I:887:VAL:O	2.22	0.40
3:J:1249:ASN:HB3	3:J:1251:LYS:HG2	2.04	0.40
3:J:247:PRO:HA	3:J:250:ARG:CZ	2.52	0.40
3:J:291:ILE:H	3:J:291:ILE:HG13	1.52	0.40
3:J:306:LEU:HG	3:J:307:LEU:N	2.35	0.40
3:J:342:LEU:HA	3:J:342:LEU:HD23	1.85	0.40
3:J:425:ARG:HE	3:J:459:ALA:HB2	1.86	0.40
3:J:519:ASN:CG	3:J:709:ARG:HB2	2.42	0.40
3:J:796:LEU:HA	3:J:799:ARG:HE	1.86	0.40
3:J:83:VAL:CG1	3:J:84:ILE:N	2.83	0.40
1:M:12:ARG:HA	1:N:230:ALA:CB	2.52	0.40
1:N:11:PRO:HB2	1:N:28:LEU:HD11	2.03	0.40
2:O:686:GLN:NE2	2:O:1069:ARG:HG2	2.36	0.40
2:O:1278:LEU:HD11	2:O:1290:MET:HE2	2.03	0.40
2:O:50:GLU:OE2	2:O:73:TYR:CE2	2.74	0.40
2:O:835:GLU:O	2:O:836:LEU:HD23	2.22	0.40
3:P:332:LYS:HG3	3:P:1328:THR:OG1	2.20	0.40
2:O:1288:GLN:OE1	3:P:1356:LEU:HD23	2.21	0.40
3:P:385:LEU:HB3	3:P:391:ALA:HB2	2.03	0.40
3:P:363:LEU:HG	3:P:487:THR:HG22	2.02	0.40
3:P:52:GLU:OE1	3:P:52:GLU:CA	2.68	0.40
3:P:807:LEU:N	3:P:807:LEU:CD1	2.84	0.40
3:P:915:ILE:HG13	3:P:915:ILE:H	1.66	0.40
4:Q:30:MET:HE1	4:Q:49:ILE:HB	2.03	0.40
5:R:137:TYR:CE1	5:R:353:LEU:HD12	2.56	0.40
6:1:59:DG:O6	7:2:3:DG:O6	2.39	0.40
1:A:208:ASN:ND2	1:A:208:ASN:H	2.18	0.40
2:C:1116:HIS:CD2	3:D:641:ILE:CG1	3.03	0.40
2:C:1281:TYR:CE1	3:D:431:ARG:CG	3.03	0.40
2:C:374:GLU:HA	2:C:375:PRO:HD2	1.86	0.40
3:D:1032:SER:O	3:D:1080:ILE:HG22	2.21	0.40
3:D:126:LEU:HD13	3:D:223:LEU:CD1	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1286:LYS:O	3:D:1289:ASN:HB2	2.22	0.40
3:D:394:ILE:O	3:D:398:LYS:HG2	2.21	0.40
3:D:462:ASP:OD1	3:D:462:ASP:N	2.53	0.40
3:D:677:GLU:O	3:D:681:LYS:HB2	2.20	0.40
3:D:645:VAL:HG23	3:D:700:ASN:HD22	1.85	0.40
3:D:701:LEU:HD12	3:D:701:LEU:HA	1.88	0.40
3:D:807:LEU:HD12	3:D:807:LEU:HA	1.83	0.40
3:D:496:GLY:HA3	3:D:903:LEU:HD21	2.02	0.40
3:D:914:ALA:HB2	3:D:1359:ALA:CB	2.51	0.40
5:F:117:ILE:H	5:F:117:ILE:HG13	1.68	0.40
5:F:231:THR:O	5:F:235:ILE:HG13	2.20	0.40
2:C:375:PRO:CA	5:F:87:VAL:HG21	2.51	0.40
1:G:35:PHE:O	1:G:39:LEU:CG	2.67	0.40
1:G:49:SER:CB	1:H:33:ARG:NH1	2.60	0.40
1:H:69:SER:O	1:H:78:ILE:HG13	2.21	0.40
2:I:1104:PRO:HG3	3:J:725:MET:SD	2.61	0.40
2:I:120:GLN:HG2	2:I:489:PRO:HG3	1.97	0.40
2:I:1272:GLU:OE2	3:J:343:LEU:HD12	2.21	0.40
2:I:1305:TYR:OH	5:L:532:LEU:CG	2.53	0.40
2:I:1323:PHE:O	2:I:1323:PHE:CD1	2.75	0.40
2:I:285:ILE:CG2	2:I:286:GLU:N	2.84	0.40
2:I:461:GLU:O	2:I:464:PHE:HB3	2.21	0.40
2:I:594:VAL:HG22	2:I:599:VAL:HA	2.03	0.40
2:I:725:GLN:HB2	2:I:735:LYS:HG2	2.03	0.40
2:I:970:GLY:HA2	2:I:973:SER:HB2	2.03	0.40
3:J:320:ASN:ND2	3:J:322:ARG:HG2	2.36	0.40
3:J:742:GLY:O	3:J:762:ASN:HB3	2.22	0.40
4:K:30:MET:HE3	4:K:49:ILE:CG2	2.52	0.40
5:L:355:ILE:HA	5:L:358:VAL:HB	2.03	0.40
5:L:600:HIS:CE1	5:L:602:SER:OG	2.75	0.40
1:M:136:GLU:HG2	1:M:137:ASN:N	2.35	0.40
2:O:1021:LEU:HA	2:O:1024:GLU:OE1	2.20	0.40
2:O:1285:TYR:O	2:O:1289:GLU:HG3	2.21	0.40
2:O:302:ILE:H	2:O:302:ILE:HG12	1.47	0.40
2:O:8:LYS:HD3	2:O:1168:GLU:OE1	2.21	0.40
2:O:942:ASP:HB2	2:O:945:ALA:CB	2.51	0.40
3:P:1257:VAL:HA	3:P:1260:MET:CE	2.49	0.40
3:P:141:PHE:CZ	3:P:181:GLY:HA3	2.56	0.40
3:P:244:VAL:HG13	3:P:269:TYR:CE1	2.57	0.40
3:P:252:LEU:C	3:P:252:LEU:HD12	2.41	0.40
3:P:259:ARG:HH12	5:R:502:LYS:CG	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:363:LEU:CA	3:P:450:HIS:CE1	3.04	0.40
3:P:517:CYS:SG	3:P:518:VAL:N	2.94	0.40
3:P:626:TYR:O	3:P:629:PHE:HB2	2.22	0.40
3:P:689:ALA:HA	3:P:692:ARG:HD2	2.03	0.40
5:R:394:TYR:C	5:R:396:ASN:N	2.73	0.40
1:A:208:ASN:O	1:A:210:THR:N	2.54	0.40
1:B:88:LEU:CD1	1:B:128:HIS:CD2	3.04	0.40
2:C:1294:LYS:HE2	3:D:348:ASP:O	2.21	0.40
2:C:690:VAL:CG1	2:C:691:PRO:HD2	2.52	0.40
2:C:667:LEU:HD23	2:C:704:MET:HE2	2.04	0.40
3:D:185:ILE:HG22	3:D:189:LEU:CD1	2.36	0.40
3:D:268:LEU:HD13	3:D:306:LEU:CA	2.29	0.40
2:C:1294:LYS:HE3	3:D:349:TYR:HD2	1.85	0.40
3:D:504:GLN:HB3	3:D:505:ASP:H	1.68	0.40
4:E:12:LYS:HD3	4:E:12:LYS:HA	1.85	0.40
1:H:67:GLU:O	1:H:78:ILE:HB	2.20	0.40
2:I:255:ILE:CG2	2:I:285:ILE:HD13	2.45	0.40
2:I:409:LEU:HD23	2:I:409:LEU:HA	1.90	0.40
2:I:587:LEU:HA	2:I:587:LEU:HD23	1.81	0.40
3:J:1046:ILE:HD12	3:J:1059:LEU:CD2	2.48	0.40
2:I:1254:VAL:HG22	3:J:251:PRO:HG3	2.03	0.40
3:J:373:ALA:CB	3:J:441:LEU:HD21	2.51	0.40
3:J:507:VAL:HG22	3:J:601:ILE:HD12	2.03	0.40
3:J:68:TYR:HA	3:J:92:VAL:HG12	2.01	0.40
3:J:817:HIS:O	3:J:845:ALA:CB	2.69	0.40
5:L:383:ASN:ND2	5:L:386:LEU:CD2	2.85	0.40
1:M:214:GLU:CA	1:M:217:ILE:HD12	2.31	0.40
1:N:145:LYS:HE3	1:N:145:LYS:HB2	1.92	0.40
2:O:1021:LEU:HA	2:O:1021:LEU:HD23	1.94	0.40
2:O:1223:ARG:HA	2:O:1224:PRO:HD3	1.94	0.40
2:O:158:ASP:HB2	2:O:173:ASN:OD1	2.21	0.40
2:O:275:ARG:NH1	2:O:278:GLU:OE1	2.45	0.40
2:O:453:ILE:HD11	2:O:587:LEU:HG	2.04	0.40
2:O:736:VAL:CG1	2:O:737:ASN:N	2.85	0.40
2:O:96:LEU:HD11	2:O:98:VAL:CG2	2.52	0.40
3:P:1035:VAL:HG22	3:P:1115:ILE:HD13	2.02	0.40
3:P:1109:LEU:HD13	3:P:1113:VAL:HG11	2.02	0.40
3:P:115:TRP:O	3:P:119:SER:HB3	2.22	0.40
3:P:825:VAL:O	3:P:827:GLU:N	2.51	0.40
5:R:137:TYR:CD2	5:R:138:PRO:HD2	2.56	0.40
5:R:407:GLU:OE2	5:R:442:SER:HB2	2.19	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:443:ILE:HG23	5:R:444:ALA:N	2.36	0.40
5:R:573:LEU:C	5:R:573:LEU:HD12	2.42	0.40
3:P:142:GLU:OE1	5:R:91:ILE:HD12	2.20	0.40
6:1:56:DG:N3	7:2:8:DG:N2	2.70	0.40
6:4:46:DG:H8	6:4:46:DG:H5'	1.86	0.40
7:8:41:DG:H2''	7:8:42:DG:OP2	2.22	0.40
1:B:124:VAL:HG21	1:B:210:THR:OG1	2.20	0.40
2:C:685:MET:HE1	2:C:1073:LYS:HD3	2.03	0.40
2:C:197:ARG:HB3	2:C:200:ARG:HA	2.03	0.40
3:D:1146:GLU:OE2	3:D:1309:ILE:CG2	2.69	0.40
3:D:425:ARG:HB2	3:D:466:MET:HE3	2.03	0.40
3:D:563:LEU:HD21	3:D:586:GLY:CA	2.51	0.40
4:E:30:MET:HB3	4:E:30:MET:HE2	1.82	0.40
4:E:39:VAL:CG1	4:E:40:PRO:N	2.82	0.40
1:G:59:VAL:O	1:G:171:LEU:HD12	2.22	0.40
1:H:9:LEU:HD12	1:H:10:LYS:N	2.36	0.40
2:I:230:PHE:CD1	2:I:292:ILE:HD11	2.57	0.40
2:I:429:MET:HG3	2:I:429:MET:H	1.63	0.40
2:I:668:ILE:HA	2:I:669:PRO:HD3	1.69	0.40
2:I:768:MET:HA	2:I:769:PRO:HD3	1.96	0.40
2:I:812:PHE:CE2	2:I:813:GLU:HG3	2.57	0.40
3:J:1254:GLU:O	3:J:1257:VAL:HB	2.20	0.40
3:J:398:LYS:HE2	5:L:532:LEU:HD23	2.02	0.40
3:J:353:SER:HB3	3:J:447:ILE:CD1	2.52	0.40
3:J:797:THR:HA	3:J:800:LEU:HD12	2.02	0.40
3:J:84:ILE:HG21	3:J:84:ILE:HD13	1.81	0.40
5:L:266:PHE:O	5:L:269:LEU:HB2	2.21	0.40
5:L:491:GLU:HA	5:L:494:ILE:HB	2.02	0.40
1:M:42:ALA:CA	1:N:38:THR:HG21	2.40	0.40
2:O:1086:PRO:HB3	2:O:1221:PHE:HE2	1.86	0.40
2:O:1166:ASP:O	2:O:1170:MET:HG3	2.21	0.40
2:O:122:VAL:HG13	2:O:490:GLN:HB2	2.02	0.40
2:O:92:TYR:HB2	2:O:137:VAL:HB	2.03	0.40
2:O:1243:MET:CG	3:P:372:MET:CE	2.95	0.40
3:P:785:ASP:HB3	3:P:935:PHE:CE1	2.56	0.40
5:R:218:ARG:O	5:R:218:ARG:HD2	2.21	0.40
5:F:425:TYR:CD2	6:1:37:DA:N3	2.90	0.40
6:1:25:DC:O2	7:2:39:DG:N2	2.54	0.40
8:3:13:GTP:O2A	8:3:13:GTP:H8	2.05	0.40
6:4:13:DC:C2'	6:4:14:DT:H72	2.52	0.40
6:4:43:DT:C6	6:4:43:DT:C3'	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:47:DC:N4	6:4:48:DA:N6	2.70	0.40
7:5:6:DG:H2"	7:5:7:DC:C6	2.56	0.40
1:A:127:GLN:H	1:A:127:GLN:HG2	1.56	0.40
1:A:156:SER:HA	1:A:159:ILE:HB	2.02	0.40
1:A:43:LEU:O	1:A:47:LEU:HD12	2.21	0.40
1:A:44:ARG:HG3	1:A:183:ILE:HG12	2.03	0.40
1:A:11:PRO:HD3	1:B:227:GLN:OE1	2.21	0.40
2:C:1323:PHE:C	2:C:1323:PHE:CD1	2.95	0.40
2:C:1323:PHE:O	2:C:1327:LEU:HG	2.21	0.40
2:C:367:TYR:OH	2:C:380:ALA:HB1	2.21	0.40
2:C:482:GLY:HA3	2:C:487:LEU:HD11	2.02	0.40
2:C:890:LYS:HG3	2:C:891:GLY:N	2.36	0.40
3:D:1358:PRO:HB3	3:D:1366:HIS:HB3	2.03	0.40
3:D:246:PRO:O	3:D:250:ARG:HG2	2.21	0.40
3:D:537:TYR:CD1	3:D:544:LEU:HG	2.56	0.40
3:D:574:VAL:HG23	3:D:574:VAL:H	1.49	0.40
3:D:58:CYS:O	3:D:62:PHE:HD2	2.05	0.40
3:D:759:ILE:HD11	3:D:771:GLN:HB3	2.01	0.40
1:G:81:ILE:O	1:G:85:LEU:CG	2.63	0.40
2:I:667:LEU:HA	2:I:667:LEU:HD23	1.86	0.40
2:I:724:VAL:HG11	2:I:727:VAL:HG22	2.04	0.40
2:I:77:GLU:HA	2:I:78:PRO:HD3	1.97	0.40
2:I:984:VAL:O	2:I:984:VAL:HG12	2.22	0.40
3:J:1173:ARG:O	3:J:1190:ILE:CB	2.67	0.40
3:J:289:ASP:O	3:J:293:ARG:HG3	2.21	0.40
3:J:328:ALA:HA	3:J:331:ILE:HG13	2.03	0.40
3:J:430:HIS:N	3:J:430:HIS:ND1	2.70	0.40
3:J:613:GLY:O	3:J:617:THR:HG23	2.22	0.40
2:I:550:VAL:CG2	3:J:780:ARG:HD2	2.38	0.40
3:J:886:VAL:HG22	3:J:1258:ARG:CB	2.47	0.40
5:L:132:CYS:SG	5:L:257:LYS:HE3	2.58	0.40
5:L:381:GLU:O	5:L:384:LEU:CG	2.64	0.40
5:L:432:THR:O	5:L:436:ARG:HB2	2.22	0.40
5:L:451:ARG:HH12	6:4:32:DA:P	2.45	0.40
1:M:52:PRO:O	1:M:211:ILE:HD11	2.22	0.40
1:N:88:LEU:HD12	1:N:88:LEU:HA	1.85	0.40
2:O:92:TYR:O	2:O:128:PRO:HA	2.21	0.40
2:O:12:ARG:NH1	2:O:1181:PRO:HB2	2.37	0.40
2:O:766:ASN:HD22	2:O:767:GLN:N	2.19	0.40
3:P:1163:VAL:CG1	3:P:1177:ILE:HA	2.44	0.40
2:O:1288:GLN:NE2	3:P:1355:ARG:HA	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:271:ARG:NH1	3:P:316:ILE:HD13	2.36	0.40
3:P:471:PRO:HB2	3:P:476:ALA:CB	2.51	0.40
5:R:572:THR:HB	7:8:45:DG:P	2.62	0.40

All (3) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:12:DA:O5'	6:4:60:DC:O5'[2_454]	1.86	0.34
5:F:482:GLU:OE2	2:O:275:ARG:NH2[2_455]	1.99	0.21
3:D:1282:TYR:OH	3:P:710:ASP:OD2[1_655]	2.08	0.12

## 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	228/242 (94%)	210 (92%)	15 (7%)	3 (1%)	12	48
1	B	226/242 (93%)	207 (92%)	13 (6%)	6 (3%)	5	31
1	G	228/242 (94%)	211 (92%)	14 (6%)	3 (1%)	12	48
1	H	226/242 (93%)	207 (92%)	17 (8%)	2 (1%)	17	56
1	M	228/242 (94%)	209 (92%)	16 (7%)	3 (1%)	12	48
1	N	226/242 (93%)	207 (92%)	14 (6%)	5 (2%)	6	35
2	C	1339/1342 (100%)	1218 (91%)	98 (7%)	23 (2%)	9	42
2	I	1339/1342 (100%)	1210 (90%)	102 (8%)	27 (2%)	7	38
2	O	1339/1342 (100%)	1222 (91%)	87 (6%)	30 (2%)	6	35
3	D	1360/1407 (97%)	1210 (89%)	122 (9%)	28 (2%)	7	36
3	J	1360/1407 (97%)	1225 (90%)	110 (8%)	25 (2%)	8	40
3	P	1360/1407 (97%)	1208 (89%)	112 (8%)	40 (3%)	4	29

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	E	88/90 (98%)	82 (93%)	5 (6%)	1 (1%)	14	52
4	K	88/90 (98%)	83 (94%)	4 (4%)	1 (1%)	14	52
4	Q	88/90 (98%)	81 (92%)	6 (7%)	1 (1%)	14	52
5	F	493/628 (78%)	443 (90%)	34 (7%)	16 (3%)	4	26
5	L	493/628 (78%)	441 (90%)	36 (7%)	16 (3%)	4	26
5	R	493/628 (78%)	441 (90%)	36 (7%)	16 (3%)	4	26
All	All	11202/11853 (94%)	10115 (90%)	841 (8%)	246 (2%)	6	35

All (246) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	209	GLY
1	A	210	THR
2	C	113	THR
2	C	481	LEU
2	C	791	LEU
2	C	808	ASN
2	C	812	PHE
2	C	909	LYS
2	C	1162	SER
3	D	16	GLU
3	D	53	ARG
3	D	77	ARG
3	D	519	ASN
3	D	590	SER
3	D	704	GLU
3	D	850	LYS
3	D	1024	THR
3	D	1114	GLN
3	D	1275	LEU
3	D	1309	ILE
5	F	243	ALA
5	F	296	LYS
5	F	330	LEU
5	F	396	ASN
5	F	447	ALA
5	F	515	GLU
5	F	519	LEU
5	F	581	ASP
1	H	209	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	I	110	PRO
2	I	341	LEU
2	I	730	SER
2	I	791	LEU
2	I	808	ASN
2	I	812	PHE
2	I	1135	GLN
2	I	1162	SER
3	J	519	ASN
3	J	590	SER
3	J	947	GLU
3	J	1024	THR
3	J	1200	GLU
3	J	1275	LEU
3	J	1309	ILE
3	J	1318	SER
5	L	156	ALA
5	L	296	LYS
5	L	310	GLU
5	L	396	ASN
5	L	515	GLU
5	L	519	LEU
5	L	581	ASP
1	M	164	ASP
1	M	233	ASP
1	N	117	HIS
2	O	110	PRO
2	O	163	LYS
2	O	247	ARG
2	O	293	ALA
2	O	341	LEU
2	O	730	SER
2	O	791	LEU
2	O	808	ASN
2	O	812	PHE
2	O	912	ASP
2	O	1162	SER
3	P	53	ARG
3	P	148	GLU
3	P	174	ASP
3	P	519	ASN
3	P	590	SER

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	P	1097	ALA
3	P	1169	THR
3	P	1200	GLU
3	P	1275	LEU
5	R	243	ALA
5	R	296	LYS
5	R	395	THR
5	R	400	GLN
5	R	519	LEU
5	R	581	ASP
1	B	117	HIS
1	B	118	ASP
1	B	194	GLN
2	C	258	ASN
2	C	546	GLU
2	C	596	ASP
2	C	625	GLU
2	C	730	SER
2	C	912	ASP
2	C	1005	GLU
2	C	1153	ALA
3	D	162	GLU
3	D	174	ASP
3	D	321	LYS
3	D	462	ASP
3	D	769	VAL
3	D	876	SER
3	D	1325	PHE
4	E	4	VAL
5	F	94	THR
5	F	154	GLU
5	F	155	GLU
5	F	166	VAL
5	F	310	GLU
1	G	233	ASP
2	I	163	LYS
2	I	247	ARG
2	I	986	ALA
2	I	1032	LYS
2	I	1159	VAL
3	J	53	ARG
3	J	404	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	428	THR
3	J	708	ASN
3	J	769	VAL
3	J	876	SER
3	J	1097	ALA
3	J	1106	ILE
5	L	91	ILE
5	L	154	GLU
5	L	553	ALA
1	M	93	GLN
1	N	119	GLY
1	N	194	GLN
2	O	313	ALA
2	O	333	ILE
2	O	643	SER
2	O	981	ALA
3	P	49	PHE
3	P	152	THR
3	P	320	ASN
3	P	321	LYS
3	P	462	ASP
3	P	523	GLU
3	P	944	ALA
3	P	1024	THR
3	P	1309	ILE
5	R	154	GLU
5	R	155	GLU
1	B	72	GLU
1	B	93	GLN
2	C	163	LYS
2	C	341	LEU
2	C	1135	GLN
3	D	122	SER
3	D	404	GLU
3	D	966	VAL
5	F	324	LYS
2	I	258	ASN
2	I	856	ASN
2	I	1000	LEU
2	I	1157	GLN
2	I	1187	PHE
3	J	148	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	462	ASP
3	J	962	ASN
3	J	1114	GLN
3	J	1344	LEU
5	L	166	VAL
5	L	447	ALA
2	O	20	GLN
2	O	281	ASP
2	O	1005	GLU
2	O	1135	GLN
3	P	16	GLU
3	P	876	SER
3	P	1166	GLY
3	P	1318	SER
3	P	1325	PHE
5	R	166	VAL
5	R	323	ASN
5	R	478	PRO
2	C	110	PRO
3	D	731	ARG
3	D	1111	ASP
5	F	323	ASN
1	G	210	THR
1	H	117	HIS
2	I	165	HIS
2	I	192	ASP
2	I	655	VAL
2	I	787	PRO
2	I	1107	MET
3	J	122	SER
1	N	209	GLY
2	O	192	ASP
2	O	332	ARG
2	O	481	LEU
2	O	485	ASP
2	O	546	GLU
3	P	769	VAL
3	P	855	ASP
3	P	1104	LYS
3	P	1170	LYS
3	P	1173	ARG
5	R	113	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	R	238	LYS
5	R	553	ALA
2	C	787	PRO
2	C	981	ALA
3	D	1106	ILE
3	D	1200	GLU
5	F	91	ILE
2	I	1030	GLU
5	L	238	LYS
2	O	214	ASN
2	O	340	ASP
2	O	1040	ASP
3	P	428	THR
3	P	520	ALA
3	P	825	VAL
3	P	826	ILE
2	C	165	HIS
2	C	563	THR
3	D	619	ILE
3	D	1268	ASN
2	I	45	GLY
2	I	1036	ILE
3	J	1124	ILE
1	N	118	ASP
2	O	669	PRO
3	P	122	SER
3	P	846	GLU
3	P	1209	VAL
4	Q	4	VAL
5	R	91	ILE
4	K	4	VAL
3	P	1185	PRO
3	P	1210	ILE
2	I	993	PRO
3	J	333	GLY
5	L	582	VAL
3	P	707	ILE
5	R	324	LYS
3	J	966	VAL
5	L	324	LYS
5	L	600	HIS
3	P	1152	GLU

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Mol	Chain	Res	Type
3	P	1171	GLY
1	A	19	VAL
1	B	209	GLY
2	O	805	MET
3	D	333	GLY
1	G	167	PRO
2	O	112	GLY

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	198/208 (95%)	171 (86%)	27 (14%)	3	17
1	B	196/208 (94%)	172 (88%)	24 (12%)	5	20
1	G	198/208 (95%)	169 (85%)	29 (15%)	3	16
1	H	196/208 (94%)	171 (87%)	25 (13%)	4	18
1	M	198/208 (95%)	171 (86%)	27 (14%)	3	17
1	N	196/208 (94%)	167 (85%)	29 (15%)	3	15
2	C	1156/1157 (100%)	1016 (88%)	140 (12%)	5	20
2	I	1156/1157 (100%)	1013 (88%)	143 (12%)	4	19
2	O	1156/1157 (100%)	1019 (88%)	137 (12%)	5	20
3	D	1135/1168 (97%)	968 (85%)	167 (15%)	3	15
3	J	1135/1168 (97%)	986 (87%)	149 (13%)	4	18
3	P	1135/1168 (97%)	989 (87%)	146 (13%)	4	18
4	E	74/74 (100%)	63 (85%)	11 (15%)	3	15
4	K	74/74 (100%)	70 (95%)	4 (5%)	22	47
4	Q	74/74 (100%)	68 (92%)	6 (8%)	11	35
5	F	439/554 (79%)	388 (88%)	51 (12%)	5	21
5	L	439/554 (79%)	382 (87%)	57 (13%)	4	18
5	R	439/554 (79%)	393 (90%)	46 (10%)	7	24

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	9594/10107 (95%)	8376 (87%)	1218 (13%)	4 19

All (1218) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	16	ILE
1	A	28	LEU
1	A	29	GLU
1	A	47	LEU
1	A	61	ILE
1	A	65	LEU
1	A	80	GLU
1	A	88	LEU
1	A	90	VAL
1	A	98	VAL
1	A	100	LEU
1	A	123	ILE
1	A	131	CYS
1	A	134	THR
1	A	140	ILE
1	A	159	ILE
1	A	163	GLU
1	A	168	ILE
1	A	176	CYS
1	A	182	ARG
1	A	195	ARG
1	A	208	ASN
1	A	215	GLU
1	A	228	LEU
1	A	231	PHE
1	A	232	VAL
1	A	233	ASP
1	B	12	ARG
1	B	28	LEU
1	B	47	LEU
1	B	61	ILE
1	B	74	VAL
1	B	88	LEU
1	B	111	THR
1	B	124	VAL
1	B	142	MET
1	B	160	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	165	GLU
1	B	166	ARG
1	B	170	ARG
1	B	172	LEU
1	B	182	ARG
1	B	183	ILE
1	B	187	VAL
1	B	195	ARG
1	B	196	THR
1	B	210	THR
1	B	224	LEU
1	B	226	GLU
1	B	229	GLU
1	B	233	ASP
2	C	23	ASP
2	C	30	ILE
2	C	34	SER
2	C	75	LEU
2	C	111	GLU
2	C	116	ASP
2	C	141	THR
2	C	146	VAL
2	C	147	SER
2	C	155	VAL
2	C	171	LEU
2	C	182	SER
2	C	189	ASP
2	C	202	ARG
2	C	203	LYS
2	C	209	ILE
2	C	216	THR
2	C	235	ASN
2	C	254	ASP
2	C	255	ILE
2	C	269	ILE
2	C	270	THR
2	C	272	ARG
2	C	277	LEU
2	C	281	ASP
2	C	284	LEU
2	C	290	GLU
2	C	296	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	322	LEU
2	C	327	GLN
2	C	332	ARG
2	C	340	ASP
2	C	358	ASP
2	C	360	LEU
2	C	365	GLU
2	C	369	MET
2	C	382	GLU
2	C	383	SER
2	C	390	PHE
2	C	392	GLU
2	C	393	ASP
2	C	396	ASP
2	C	404	LYS
2	C	407	ARG
2	C	413	GLU
2	C	422	LYS
2	C	432	LEU
2	C	433	ILE
2	C	437	ASN
2	C	442	VAL
2	C	471	VAL
2	C	472	GLU
2	C	480	SER
2	C	483	ASP
2	C	499	SER
2	C	512	SER
2	C	521	LEU
2	C	530	ILE
2	C	538	LEU
2	C	539	THR
2	C	547	VAL
2	C	558	VAL
2	C	575	LEU
2	C	576	SER
2	C	598	VAL
2	C	603	ILE
2	C	622	ASN
2	C	623	LEU
2	C	633	LEU
2	C	634	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	635	THR
2	C	646	SER
2	C	657	THR
2	C	661	VAL
2	C	672	GLU
2	C	692	THR
2	C	714	VAL
2	C	750	ILE
2	C	757	THR
2	C	764	CYS
2	C	766	ASN
2	C	772	SER
2	C	777	VAL
2	C	783	LEU
2	C	788	SER
2	C	791	LEU
2	C	799	ASN
2	C	805	MET
2	C	814	ASP
2	C	815	SER
2	C	817	LEU
2	C	831	ILE
2	C	843	THR
2	C	859	GLU
2	C	893	THR
2	C	916	SER
2	C	925	SER
2	C	929	ILE
2	C	933	VAL
2	C	935	THR
2	C	940	GLU
2	C	941	LYS
2	C	987	GLU
2	C	991	LYS
2	C	1029	LEU
2	C	1040	ASP
2	C	1049	ILE
2	C	1059	ARG
2	C	1060	ILE
2	C	1066	MET
2	C	1088	ASP
2	C	1090	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	1092	THR
2	C	1094	VAL
2	C	1098	LEU
2	C	1108	ASN
2	C	1126	ASP
2	C	1155	VAL
2	C	1159	VAL
2	C	1182	ILE
2	C	1186	VAL
2	C	1200	LYS
2	C	1210	ILE
2	C	1212	LEU
2	C	1223	ARG
2	C	1227	VAL
2	C	1246	ARG
2	C	1254	VAL
2	C	1262	LYS
2	C	1265	PHE
2	C	1268	GLN
2	C	1273	MET
2	C	1286	THR
2	C	1287	LEU
2	C	1290	MET
2	C	1296	ASP
2	C	1299	ASN
2	C	1302	THR
2	C	1304	MET
2	C	1337	ILE
3	D	16	GLU
3	D	22	ILE
3	D	28	ASP
3	D	29	MET
3	D	33	TRP
3	D	54	ASP
3	D	71	LEU
3	D	81	ARG
3	D	83	VAL
3	D	93	THR
3	D	99	ARG
3	D	107	LEU
3	D	111	THR
3	D	124	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	126	LEU
3	D	129	ASP
3	D	130	MET
3	D	133	ARG
3	D	135	ILE
3	D	159	ILE
3	D	179	LYS
3	D	185	ILE
3	D	192	MET
3	D	194	LEU
3	D	195	GLU
3	D	208	THR
3	D	212	THR
3	D	224	LEU
3	D	225	GLU
3	D	238	ILE
3	D	255	LEU
3	D	259	ARG
3	D	262	THR
3	D	264	ASP
3	D	279	LEU
3	D	283	LEU
3	D	290	ILE
3	D	306	LEU
3	D	339	ARG
3	D	350	SER
3	D	353	SER
3	D	357	VAL
3	D	362	ARG
3	D	363	LEU
3	D	371	LYS
3	D	374	LEU
3	D	384	LYS
3	D	387	LEU
3	D	394	ILE
3	D	398	LYS
3	D	407	VAL
3	D	419	HIS
3	D	422	LEU
3	D	423	LEU
3	D	429	LEU
3	D	453	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	468	VAL
3	D	470	VAL
3	D	485	MET
3	D	490	ILE
3	D	491	LEU
3	D	492	SER
3	D	495	ASN
3	D	500	ILE
3	D	515	ARG
3	D	519	ASN
3	D	536	LEU
3	D	541	LEU
3	D	548	VAL
3	D	560	ASN
3	D	572	THR
3	D	591	ILE
3	D	592	VAL
3	D	601	ILE
3	D	607	THR
3	D	614	LEU
3	D	627	THR
3	D	642	ASP
3	D	650	LYS
3	D	673	VAL
3	D	680	ASN
3	D	684	ASP
3	D	693	VAL
3	D	703	THR
3	D	715	LYS
3	D	722	ILE
3	D	737	ILE
3	D	747	MET
3	D	760	THR
3	D	775	SER
3	D	783	LEU
3	D	786	THR
3	D	788	LEU
3	D	796	LEU
3	D	802	ASP
3	D	805	GLN
3	D	806	ASP
3	D	807	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	809	VAL
3	D	812	ASP
3	D	814	CYS
3	D	816	THR
3	D	820	ILE
3	D	825	VAL
3	D	833	GLU
3	D	835	LEU
3	D	836	ARG
3	D	838	ARG
3	D	849	LEU
3	D	853	THR
3	D	855	ASP
3	D	882	VAL
3	D	889	ASP
3	D	891	ASP
3	D	903	LEU
3	D	909	ILE
3	D	911	LYS
3	D	915	ILE
3	D	918	ILE
3	D	922	SER
3	D	928	THR
3	D	934	THR
3	D	957	SER
3	D	958	ILE
3	D	1039	ASP
3	D	1057	SER
3	D	1058	SER
3	D	1064	SER
3	D	1066	GLU
3	D	1075	ARG
3	D	1082	ASP
3	D	1094	ASP
3	D	1134	ILE
3	D	1138	LEU
3	D	1144	LEU
3	D	1151	LYS
3	D	1164	SER
3	D	1167	LYS
3	D	1175	LEU
3	D	1184	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	1196	LEU
3	D	1197	ASN
3	D	1211	SER
3	D	1219	ASP
3	D	1226	VAL
3	D	1229	VAL
3	D	1230	THR
3	D	1233	ILE
3	D	1250	ASP
3	D	1253	ILE
3	D	1259	GLN
3	D	1261	LEU
3	D	1265	THR
3	D	1272	SER
3	D	1286	LYS
3	D	1301	THR
3	D	1305	ASP
3	D	1307	LEU
3	D	1318	SER
3	D	1333	THR
3	D	1341	ARG
3	D	1344	LEU
3	D	1356	LEU
3	D	1357	ILE
3	D	1366	HIS
3	D	1370	MET
3	D	1371	ARG
4	E	4	VAL
4	E	6	VAL
4	E	13	ILE
4	E	25	ARG
4	E	30	MET
4	E	36	ASP
4	E	43	ASN
4	E	45	LYS
4	E	51	LEU
4	E	65	ASP
4	E	71	GLU
5	F	83	VAL
5	F	89	SER
5	F	90	GLU
5	F	91	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	F	93	ARG
5	F	105	MET
5	F	109	GLU
5	F	110	LEU
5	F	218	ARG
5	F	264	LYS
5	F	272	SER
5	F	291	CYS
5	F	294	GLN
5	F	306	PHE
5	F	309	ASN
5	F	313	ASP
5	F	327	SER
5	F	330	LEU
5	F	334	SER
5	F	344	LEU
5	F	359	LYS
5	F	386	LEU
5	F	387	VAL
5	F	388	ILE
5	F	400	GLN
5	F	417	ASP
5	F	423	ARG
5	F	441	ARG
5	F	450	ILE
5	F	454	VAL
5	F	461	ASN
5	F	463	LEU
5	F	471	LEU
5	F	474	MET
5	F	487	MET
5	F	492	ASP
5	F	502	LYS
5	F	505	ILE
5	F	506	SER
5	F	515	GLU
5	F	521	ASP
5	F	522	PHE
5	F	533	ASP
5	F	548	LEU
5	F	552	THR
5	F	569	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	F	596	ARG
5	F	600	HIS
5	F	606	VAL
5	F	609	SER
5	F	611	LEU
1	G	6	THR
1	G	9	LEU
1	G	16	ILE
1	G	28	LEU
1	G	61	ILE
1	G	81	ILE
1	G	83	LEU
1	G	88	LEU
1	G	90	VAL
1	G	103	ASN
1	G	131	CYS
1	G	140	ILE
1	G	142	MET
1	G	150	ARG
1	G	161	SER
1	G	163	GLU
1	G	168	ILE
1	G	171	LEU
1	G	176	CYS
1	G	191	ARG
1	G	196	THR
1	G	197	ASP
1	G	199	ASP
1	G	207	THR
1	G	211	ILE
1	G	215	GLU
1	G	228	LEU
1	G	234	LEU
1	G	235	ARG
1	H	12	ARG
1	H	16	ILE
1	H	20	SER
1	H	28	LEU
1	H	41	ASN
1	H	61	ILE
1	H	77	ASP
1	H	90	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	H	92	VAL
1	H	111	THR
1	H	118	ASP
1	H	130	ILE
1	H	131	CYS
1	H	137	ASN
1	H	148	ARG
1	H	173	VAL
1	H	176	CYS
1	H	183	ILE
1	H	187	VAL
1	H	195	ARG
1	H	196	THR
1	H	198	LEU
1	H	212	ASP
1	H	217	ILE
1	H	231	PHE
2	I	24	VAL
2	I	36	GLN
2	I	44	GLU
2	I	46	GLN
2	I	63	SER
2	I	72	SER
2	I	81	ASP
2	I	88	ARG
2	I	114	VAL
2	I	117	ILE
2	I	119	GLU
2	I	124	MET
2	I	141	THR
2	I	147	SER
2	I	155	VAL
2	I	158	ASP
2	I	159	SER
2	I	161	LYS
2	I	176	ILE
2	I	182	SER
2	I	188	PHE
2	I	202	ARG
2	I	207	THR
2	I	209	ILE
2	I	216	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	I	218	GLU
2	I	220	ILE
2	I	275	ARG
2	I	280	ASP
2	I	292	ILE
2	I	297	VAL
2	I	300	ASP
2	I	309	LEU
2	I	319	LEU
2	I	320	ASP
2	I	332	ARG
2	I	342	ASP
2	I	369	MET
2	I	390	PHE
2	I	391	SER
2	I	393	ASP
2	I	409	LEU
2	I	422	LYS
2	I	423	ASP
2	I	432	LEU
2	I	455	SER
2	I	459	MET
2	I	468	LEU
2	I	477	GLU
2	I	483	ASP
2	I	484	LEU
2	I	496	LYS
2	I	499	SER
2	I	525	THR
2	I	528	ARG
2	I	538	LEU
2	I	550	VAL
2	I	558	VAL
2	I	563	THR
2	I	572	ILE
2	I	576	SER
2	I	588	GLU
2	I	589	THR
2	I	595	THR
2	I	596	ASP
2	I	603	ILE
2	I	618	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	I	632	ASP
2	I	634	VAL
2	I	635	THR
2	I	641	GLU
2	I	646	SER
2	I	662	SER
2	I	690	VAL
2	I	692	THR
2	I	714	VAL
2	I	727	VAL
2	I	740	GLU
2	I	745	GLU
2	I	750	ILE
2	I	757	THR
2	I	764	CYS
2	I	766	ASN
2	I	772	SER
2	I	788	SER
2	I	791	LEU
2	I	799	ASN
2	I	800	MET
2	I	805	MET
2	I	815	SER
2	I	817	LEU
2	I	839	VAL
2	I	841	ARG
2	I	843	THR
2	I	844	LYS
2	I	856	ASN
2	I	873	ILE
2	I	893	THR
2	I	894	GLN
2	I	901	LEU
2	I	911	SER
2	I	916	SER
2	I	925	SER
2	I	931	VAL
2	I	935	THR
2	I	940	GLU
2	I	941	LYS
2	I	988	LYS
2	I	1004	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	I	1021	LEU
2	I	1040	ASP
2	I	1041	ASP
2	I	1054	LEU
2	I	1060	ILE
2	I	1072	ASN
2	I	1079	ILE
2	I	1085	MET
2	I	1088	ASP
2	I	1092	THR
2	I	1108	ASN
2	I	1117	LEU
2	I	1122	LYS
2	I	1145	ILE
2	I	1177	ARG
2	I	1204	LEU
2	I	1212	LEU
2	I	1222	GLU
2	I	1223	ARG
2	I	1227	VAL
2	I	1232	MET
2	I	1238	LEU
2	I	1254	VAL
2	I	1265	PHE
2	I	1286	THR
2	I	1287	LEU
2	I	1292	THR
2	I	1293	VAL
2	I	1295	SER
2	I	1296	ASP
2	I	1299	ASN
2	I	1301	ARG
2	I	1302	THR
2	I	1324	ASN
3	J	28	ASP
3	J	29	MET
3	J	48	THR
3	J	58	CYS
3	J	76	LYS
3	J	78	LEU
3	J	84	ILE
3	J	86	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	93	THR
3	J	111	THR
3	J	115	TRP
3	J	126	LEU
3	J	130	MET
3	J	133	ARG
3	J	145	VAL
3	J	151	MET
3	J	160	LEU
3	J	177	ASP
3	J	183	GLU
3	J	185	ILE
3	J	194	LEU
3	J	195	GLU
3	J	216	LYS
3	J	221	ILE
3	J	222	LYS
3	J	233	LYS
3	J	235	GLU
3	J	238	ILE
3	J	252	LEU
3	J	256	ASP
3	J	259	ARG
3	J	262	THR
3	J	289	ASP
3	J	291	ILE
3	J	294	ASN
3	J	299	LEU
3	J	306	LEU
3	J	314	ARG
3	J	331	ILE
3	J	345	LYS
3	J	347	VAL
3	J	353	SER
3	J	356	THR
3	J	357	VAL
3	J	372	MET
3	J	376	LEU
3	J	385	LEU
3	J	394	ILE
3	J	395	LYS
3	J	423	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	429	LEU
3	J	443	GLU
3	J	447	ILE
3	J	465	GLN
3	J	490	ILE
3	J	499	ILE
3	J	503	SER
3	J	504	GLN
3	J	513	MET
3	J	526	VAL
3	J	535	ARG
3	J	554	GLU
3	J	560	ASN
3	J	563	LEU
3	J	568	SER
3	J	572	THR
3	J	591	ILE
3	J	592	VAL
3	J	594	GLN
3	J	599	LYS
3	J	605	LEU
3	J	607	THR
3	J	609	TYR
3	J	622	ASP
3	J	627	THR
3	J	645	VAL
3	J	674	THR
3	J	684	ASP
3	J	691	ASP
3	J	692	ARG
3	J	699	ASP
3	J	703	THR
3	J	704	GLU
3	J	721	SER
3	J	736	GLN
3	J	746	LEU
3	J	747	MET
3	J	753	SER
3	J	769	VAL
3	J	770	LEU
3	J	775	SER
3	J	783	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	786	THR
3	J	796	LEU
3	J	802	ASP
3	J	806	ASP
3	J	807	LEU
3	J	812	ASP
3	J	821	MET
3	J	825	VAL
3	J	826	ILE
3	J	835	LEU
3	J	843	VAL
3	J	855	ASP
3	J	866	GLU
3	J	878	ASP
3	J	882	VAL
3	J	891	ASP
3	J	895	CYS
3	J	908	ILE
3	J	909	ILE
3	J	911	LYS
3	J	928	THR
3	J	931	THR
3	J	957	SER
3	J	958	ILE
3	J	967	VAL
3	J	984	LEU
3	J	1038	THR
3	J	1039	ASP
3	J	1098	GLN
3	J	1149	ARG
3	J	1155	ILE
3	J	1164	SER
3	J	1170	LYS
3	J	1173	ARG
3	J	1177	ILE
3	J	1184	ASP
3	J	1189	MET
3	J	1203	ARG
3	J	1204	VAL
3	J	1208	ASP
3	J	1229	VAL
3	J	1230	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	J	1243	LEU
3	J	1250	ASP
3	J	1256	ILE
3	J	1262	ARG
3	J	1268	ASN
3	J	1271	SER
3	J	1318	SER
3	J	1328	THR
3	J	1333	THR
3	J	1356	LEU
3	J	1357	ILE
3	J	1361	THR
3	J	1366	HIS
3	J	1370	MET
3	J	1371	ARG
4	K	6	VAL
4	K	21	LEU
4	K	43	ASN
4	K	62	GLN
5	L	89	SER
5	L	91	ILE
5	L	105	MET
5	L	109	GLU
5	L	110	LEU
5	L	133	SER
5	L	141	ILE
5	L	149	ASP
5	L	155	GLU
5	L	163	THR
5	L	230	VAL
5	L	254	GLU
5	L	291	CYS
5	L	294	GLN
5	L	295	CYS
5	L	300	LYS
5	L	309	ASN
5	L	327	SER
5	L	332	ASP
5	L	333	VAL
5	L	334	SER
5	L	344	LEU
5	L	353	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	L	354	THR
5	L	364	ARG
5	L	388	ILE
5	L	397	ARG
5	L	402	LEU
5	L	404	LEU
5	L	423	ARG
5	L	436	ARG
5	L	449	THR
5	L	450	ILE
5	L	451	ARG
5	L	455	HIS
5	L	458	GLU
5	L	461	ASN
5	L	476	ARG
5	L	483	LEU
5	L	491	GLU
5	L	498	LEU
5	L	499	LYS
5	L	521	ASP
5	L	523	ILE
5	L	530	LEU
5	L	532	LEU
5	L	552	THR
5	L	568	ASN
5	L	573	LEU
5	L	587	ILE
5	L	588	ARG
5	L	596	ARG
5	L	600	HIS
5	L	602	SER
5	L	606	VAL
5	L	609	SER
5	L	611	LEU
1	M	6	THR
1	M	9	LEU
1	M	27	THR
1	M	28	LEU
1	M	39	LEU
1	M	46	ILE
1	M	65	LEU
1	M	90	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	M	98	VAL
1	M	103	ASN
1	M	105	SER
1	M	107	ILE
1	M	129	VAL
1	M	131	CYS
1	M	150	ARG
1	M	158	ARG
1	M	159	ILE
1	M	162	GLU
1	M	177	TYR
1	M	183	ILE
1	M	194	GLN
1	M	197	ASP
1	M	205	MET
1	M	206	GLU
1	M	224	LEU
1	M	228	LEU
1	M	233	ASP
1	N	12	ARG
1	N	13	LEU
1	N	16	ILE
1	N	28	LEU
1	N	39	LEU
1	N	41	ASN
1	N	68	TYR
1	N	79	LEU
1	N	88	LEU
1	N	90	VAL
1	N	107	ILE
1	N	111	THR
1	N	120	ASP
1	N	131	CYS
1	N	134	THR
1	N	140	ILE
1	N	150	ARG
1	N	163	GLU
1	N	168	ILE
1	N	170	ARG
1	N	174	ASP
1	N	192	VAL
1	N	196	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	N	198	LEU
1	N	199	ASP
1	N	222	THR
1	N	228	LEU
1	N	231	PHE
1	N	233	ASP
2	O	4	SER
2	O	12	ARG
2	O	20	GLN
2	O	42	ASP
2	O	46	GLN
2	O	49	LEU
2	O	82	VAL
2	O	114	VAL
2	O	117	ILE
2	O	124	MET
2	O	141	THR
2	O	147	SER
2	O	157	PHE
2	O	161	LYS
2	O	167	SER
2	O	182	SER
2	O	186	PHE
2	O	191	LYS
2	O	202	ARG
2	O	209	ILE
2	O	216	THR
2	O	218	GLU
2	O	241	LEU
2	O	252	SER
2	O	260	LYS
2	O	261	VAL
2	O	262	TYR
2	O	270	THR
2	O	297	VAL
2	O	302	ILE
2	O	304	GLU
2	O	306	THR
2	O	320	ASP
2	O	358	ASP
2	O	378	ARG
2	O	384	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	O	391	SER
2	O	403	MET
2	O	408	SER
2	O	412	GLU
2	O	414	ILE
2	O	432	LEU
2	O	433	ILE
2	O	437	ASN
2	O	443	ASP
2	O	446	ASP
2	O	448	LEU
2	O	453	ILE
2	O	455	SER
2	O	459	MET
2	O	470	ARG
2	O	472	GLU
2	O	481	LEU
2	O	483	ASP
2	O	499	SER
2	O	528	ARG
2	O	530	ILE
2	O	547	VAL
2	O	549	ASP
2	O	550	VAL
2	O	561	ILE
2	O	565	GLU
2	O	569	ILE
2	O	576	SER
2	O	583	GLU
2	O	603	ILE
2	O	609	ILE
2	O	626	GLU
2	O	632	ASP
2	O	635	THR
2	O	637	ARG
2	O	638	SER
2	O	639	LYS
2	O	647	ARG
2	O	657	THR
2	O	661	VAL
2	O	662	SER
2	O	663	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	O	667	LEU
2	O	690	VAL
2	O	692	THR
2	O	700	VAL
2	O	733	VAL
2	O	734	ILE
2	O	739	ASP
2	O	764	CYS
2	O	766	ASN
2	O	772	SER
2	O	777	VAL
2	O	779	ARG
2	O	782	VAL
2	O	788	SER
2	O	790	ASP
2	O	799	ASN
2	O	814	ASP
2	O	815	SER
2	O	823	VAL
2	O	843	THR
2	O	844	LYS
2	O	854	ILE
2	O	893	THR
2	O	911	SER
2	O	916	SER
2	O	929	ILE
2	O	935	THR
2	O	1000	LEU
2	O	1019	ASP
2	O	1024	GLU
2	O	1052	VAL
2	O	1057	LYS
2	O	1061	GLN
2	O	1083	GLU
2	O	1085	MET
2	O	1088	ASP
2	O	1092	THR
2	O	1094	VAL
2	O	1098	LEU
2	O	1108	ASN
2	O	1115	THR
2	O	1166	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	O	1177	ARG
2	O	1186	VAL
2	O	1201	LEU
2	O	1226	THR
2	O	1235	LEU
2	O	1238	LEU
2	O	1240	ASP
2	O	1252	SER
2	O	1255	THR
2	O	1270	PHE
2	O	1273	MET
2	O	1286	THR
2	O	1296	ASP
2	O	1299	ASN
2	O	1302	THR
2	O	1319	MET
2	O	1337	ILE
3	P	15	GLU
3	P	18	ASP
3	P	20	ILE
3	P	24	LEU
3	P	32	SER
3	P	42	GLU
3	P	58	CYS
3	P	70	CYS
3	P	84	ILE
3	P	93	THR
3	P	111	THR
3	P	129	ASP
3	P	130	MET
3	P	159	ILE
3	P	166	LEU
3	P	177	ASP
3	P	180	MET
3	P	185	ILE
3	P	195	GLU
3	P	208	THR
3	P	209	ASN
3	P	211	GLU
3	P	212	THR
3	P	239	LEU
3	P	249	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	P	255	LEU
3	P	256	ASP
3	P	259	ARG
3	P	289	ASP
3	P	306	LEU
3	P	312	ARG
3	P	322	ARG
3	P	341	ASN
3	P	345	LYS
3	P	346	ARG
3	P	350	SER
3	P	353	SER
3	P	357	VAL
3	P	374	LEU
3	P	394	ILE
3	P	407	VAL
3	P	416	ILE
3	P	417	ARG
3	P	421	VAL
3	P	428	THR
3	P	431	ARG
3	P	442	ILE
3	P	443	GLU
3	P	478	LEU
3	P	495	ASN
3	P	499	ILE
3	P	500	ILE
3	P	503	SER
3	P	505	ASP
3	P	506	VAL
3	P	508	LEU
3	P	519	ASN
3	P	526	VAL
3	P	528	THR
3	P	536	LEU
3	P	543	SER
3	P	568	SER
3	P	571	ASP
3	P	599	LYS
3	P	607	THR
3	P	608	CYS
3	P	627	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	P	639	VAL
3	P	641	ILE
3	P	645	VAL
3	P	646	ILE
3	P	649	LYS
3	P	658	GLU
3	P	672	LEU
3	P	674	THR
3	P	692	ARG
3	P	693	VAL
3	P	700	ASN
3	P	701	LEU
3	P	703	THR
3	P	704	GLU
3	P	707	ILE
3	P	718	SER
3	P	736	GLN
3	P	737	ILE
3	P	747	MET
3	P	770	LEU
3	P	775	SER
3	P	783	LEU
3	P	786	THR
3	P	788	LEU
3	P	796	LEU
3	P	797	THR
3	P	802	ASP
3	P	806	ASP
3	P	812	ASP
3	P	814	CYS
3	P	816	THR
3	P	837	ASP
3	P	847	ASP
3	P	848	VAL
3	P	849	LEU
3	P	853	THR
3	P	855	ASP
3	P	867	GLN
3	P	878	ASP
3	P	884	SER
3	P	891	ASP
3	P	895	CYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	P	908	ILE
3	P	918	ILE
3	P	922	SER
3	P	928	THR
3	P	932	MET
3	P	934	THR
3	P	935	PHE
3	P	937	ILE
3	P	949	SER
3	P	957	SER
3	P	985	ILE
3	P	1021	ASP
3	P	1031	VAL
3	P	1032	SER
3	P	1064	SER
3	P	1094	ASP
3	P	1098	GLN
3	P	1134	ILE
3	P	1138	LEU
3	P	1143	ASP
3	P	1159	ILE
3	P	1164	SER
3	P	1212	ASP
3	P	1221	LEU
3	P	1226	VAL
3	P	1230	THR
3	P	1250	ASP
3	P	1272	SER
3	P	1285	VAL
3	P	1293	GLU
3	P	1305	ASP
3	P	1307	LEU
3	P	1318	SER
3	P	1333	THR
3	P	1353	VAL
3	P	1356	LEU
3	P	1361	THR
4	Q	6	VAL
4	Q	8	ASP
4	Q	28	ARG
4	Q	43	ASN
4	Q	69	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
4	Q	70	GLN
5	R	84	LEU
5	R	85	SER
5	R	89	SER
5	R	91	ILE
5	R	99	ARG
5	R	105	MET
5	R	110	LEU
5	R	133	SER
5	R	215	GLU
5	R	230	VAL
5	R	273	MET
5	R	291	CYS
5	R	306	PHE
5	R	309	ASN
5	R	322	MET
5	R	327	SER
5	R	332	ASP
5	R	333	VAL
5	R	334	SER
5	R	343	LYS
5	R	344	LEU
5	R	349	GLU
5	R	353	LEU
5	R	354	THR
5	R	355	ILE
5	R	388	ILE
5	R	402	LEU
5	R	403	ASP
5	R	423	ARG
5	R	441	ARG
5	R	449	THR
5	R	451	ARG
5	R	454	VAL
5	R	459	THR
5	R	461	ASN
5	R	493	LYS
5	R	506	SER
5	R	513	ASP
5	R	515	GLU
5	R	524	GLU
5	R	533	ASP

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Mol	Chain	Res	Type
5	R	540	LEU
5	R	561	MET
5	R	568	ASN
5	R	584	ARG
5	R	609	SER

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

Mol	Chain	Res	Type
1	A	41	ASN
1	A	128	HIS
1	A	132	HIS
1	A	208	ASN
1	A	227	GLN
1	B	18	GLN
1	B	23	HIS
1	B	37	HIS
1	B	75	GLN
1	B	84	ASN
1	B	147	GLN
1	B	194	GLN
2	C	46	GLN
2	C	150	HIS
2	C	314	ASN
2	C	330	HIS
2	C	406	ASN
2	C	494	ASN
2	C	568	ASN
2	C	573	ASN
2	C	618	GLN
2	C	677	ASN
2	C	688	GLN
2	C	766	ASN
2	C	824	GLN
2	C	856	ASN
2	C	894	GLN
2	C	1116	HIS
2	C	1209	GLN
2	C	1220	GLN
2	C	1312	ASN
3	D	113	HIS
3	D	232	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	D	341	ASN
3	D	419	HIS
3	D	465	GLN
3	D	593	ASN
3	D	690	ASN
3	D	700	ASN
3	D	720	ASN
3	D	777	HIS
3	D	875	ASN
3	D	954	ASN
3	D	1010	GLN
3	D	1098	GLN
3	D	1114	GLN
3	D	1197	ASN
3	D	1244	GLN
3	D	1259	GLN
3	D	1366	HIS
4	E	43	ASN
5	F	129	GLN
5	F	227	GLN
5	F	362	ASN
5	F	409	ASN
5	F	455	HIS
1	G	66	HIS
1	G	208	ASN
1	H	18	GLN
1	H	75	GLN
2	I	46	GLN
2	I	450	ASN
2	I	513	GLN
2	I	554	HIS
2	I	568	ASN
2	I	573	ASN
2	I	658	GLN
2	I	686	GLN
2	I	725	GLN
2	I	766	ASN
2	I	856	ASN
2	I	1108	ASN
2	I	1116	HIS
2	I	1209	GLN
2	I	1256	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	I	1299	ASN
3	J	158	GLN
3	J	209	ASN
3	J	232	ASN
3	J	294	ASN
3	J	300	GLN
3	J	335	GLN
3	J	450	HIS
3	J	458	ASN
3	J	593	ASN
3	J	690	ASN
3	J	708	ASN
3	J	736	GLN
3	J	921	GLN
3	J	954	ASN
3	J	1023	HIS
3	J	1098	GLN
3	J	1114	GLN
3	J	1195	GLN
3	J	1244	GLN
3	J	1326	GLN
3	J	1350	ASN
4	K	43	ASN
4	K	60	ASN
4	K	73	GLN
5	L	129	GLN
5	L	169	ASN
5	L	383	ASN
5	L	455	HIS
5	L	464	ASN
5	L	600	HIS
1	M	41	ASN
1	M	66	HIS
1	N	41	ASN
1	N	75	GLN
1	N	128	HIS
1	N	208	ASN
2	O	150	HIS
2	O	219	GLN
2	O	387	ASN
2	O	447	HIS
2	O	554	HIS

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Mol	Chain	Res	Type
2	O	568	ASN
2	O	686	GLN
2	O	766	ASN
2	O	798	GLN
2	O	808	ASN
2	O	832	HIS
2	O	1017	GLN
2	O	1099	ASN
2	O	1220	GLN
2	O	1307	ASN
2	O	1313	HIS
3	P	113	HIS
3	P	164	GLN
3	P	335	GLN
3	P	364	HIS
3	P	419	HIS
3	P	435	GLN
3	P	545	HIS
3	P	690	ASN
3	P	720	ASN
3	P	736	GLN
3	P	739	GLN
3	P	777	HIS
3	P	1098	GLN
3	P	1114	GLN
3	P	1326	GLN
3	P	1366	HIS
4	Q	43	ASN
5	R	128	ASN
5	R	129	GLN
5	R	309	ASN
5	R	342	GLN
5	R	383	ASN
5	R	455	HIS
5	R	472	GLN

### 5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
8	3	3/4 (75%)	1 (33%)	1 (33%)
8	6	3/4 (75%)	1 (33%)	1 (33%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
8	9	3/4 (75%)	1 (33%)	1 (33%)
All	All	9/12 (75%)	3 (33%)	3 (33%)

All (3) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
8	3	15	G
8	6	15	G
8	9	15	G

All (3) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
8	3	13	GTP
8	6	13	GTP
8	9	13	GTP

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 9 ligands modelled in this entry, 9 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
6	1	3
7	2	1
6	4	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	51:DC	O3'	52:DT	P	3.86
1	1	51:DC	O3'	52:DT	P	3.85
1	1	46:DG	O3'	47:DC	P	3.49
1	2	12:DG	O3'	13:DA	P	2.97
1	1	36:DT	O3'	37:DA	P	2.64

## 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	230/242 (95%)	-0.02	3 (1%) 77 68	162, 207, 238, 299	0
1	B	228/242 (94%)	-0.15	5 (2%) 62 54	165, 211, 254, 284	0
1	G	230/242 (95%)	0.09	16 (6%) 16 16	175, 216, 259, 292	0
1	H	228/242 (94%)	0.39	18 (7%) 12 14	200, 264, 307, 325	0
1	M	230/242 (95%)	-0.01	12 (5%) 27 27	155, 186, 230, 311	0
1	N	228/242 (94%)	-0.18	5 (2%) 62 54	162, 205, 248, 280	0
2	C	1341/1342 (99%)	0.01	38 (2%) 53 46	126, 243, 333, 427	0
2	I	1341/1342 (99%)	-0.08	26 (1%) 66 59	142, 196, 276, 345	0
2	O	1341/1342 (99%)	-0.03	43 (3%) 47 41	126, 202, 287, 327	0
3	D	1362/1407 (96%)	0.06	62 (4%) 32 30	129, 204, 384, 437	0
3	J	1362/1407 (96%)	0.26	118 (8%) 10 12	145, 213, 344, 397	0
3	P	1362/1407 (96%)	0.18	97 (7%) 16 16	133, 223, 391, 441	0
4	E	90/90 (100%)	0.15	8 (8%) 9 12	138, 184, 398, 452	0
4	K	90/90 (100%)	0.24	6 (6%) 17 17	165, 213, 389, 436	0
4	Q	90/90 (100%)	0.30	9 (10%) 7 10	157, 202, 400, 463	0
5	F	497/628 (79%)	0.51	80 (16%) 1 4	176, 304, 513, 589	0
5	L	497/628 (79%)	0.23	54 (10%) 5 8	171, 277, 369, 399	0
5	R	497/628 (79%)	0.41	59 (11%) 4 8	170, 322, 414, 449	0
6	1	49/49 (100%)	-0.21	1 (2%) 65 58	206, 263, 311, 333	0
6	4	49/49 (100%)	-0.03	2 (4%) 37 34	50, 261, 289, 312	0
6	7	49/49 (100%)	0.17	4 (8%) 11 13	214, 295, 334, 336	0
7	2	49/49 (100%)	0.00	2 (4%) 37 34	186, 272, 334, 388	0
7	5	49/49 (100%)	-0.10	0 100 100	174, 257, 298, 371	0
7	8	49/49 (100%)	-0.14	0 100 100	229, 300, 347, 427	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
8	3	3/4 (75%)	0.07	0 100 100	310, 310, 316, 331	0
8	6	3/4 (75%)	0.58	0 100 100	242, 242, 251, 272	0
8	9	3/4 (75%)	0.69	0 100 100	257, 257, 296, 373	0
All	All	11547/12159 (94%)	0.10	668 (5%) 23 23	50, 219, 383, 589	0

All (668) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
5	R	326	TRP	12.3
5	R	325	PRO	10.7
3	D	1054	THR	9.2
3	P	153	ASN	8.5
3	P	959	LYS	8.4
5	F	328	GLU	8.4
5	F	327	SER	8.4
3	J	971	GLY	8.3
3	J	1043	GLY	8.3
5	R	324	LYS	8.2
3	D	852	GLY	8.0
3	J	1045	THR	7.8
3	P	982	LEU	7.7
3	P	960	LEU	7.6
3	D	1171	GLY	7.6
3	J	968	ASN	7.3
3	P	951	GLN	7.3
5	F	320	ILE	7.3
3	J	992	LYS	7.2
5	F	319	ALA	7.0
5	F	332	ASP	7.0
3	J	1042	ASP	6.9
5	F	321	ALA	6.9
3	P	995	TYR	6.8
3	J	1071	GLY	6.8
2	O	282	VAL	6.6
5	F	301	ASN	6.5
3	P	961	SER	6.4
5	R	332	ASP	6.3
3	P	1007	ASP	6.3
5	F	110	LEU	6.3
5	R	327	SER	6.2
3	P	1016	THR	6.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	F	211	SER	6.0
3	J	714	GLU	6.0
3	P	958	ILE	5.9
3	J	1006	GLY	5.9
3	D	1083	ALA	5.8
5	L	135	ALA	5.7
3	D	1084	GLN	5.7
3	J	153	ASN	5.7
5	F	299	LYS	5.7
3	D	971	GLY	5.6
5	L	212	ILE	5.6
5	F	318	ALA	5.5
5	F	331	HIS	5.5
5	R	317	ASN	5.5
3	P	983	LYS	5.5
3	P	950	ILE	5.5
1	H	91	ARG	5.4
5	R	238	LYS	5.4
5	F	325	PRO	5.4
3	P	1111	ASP	5.4
3	P	1008	GLY	5.4
5	F	315	TRP	5.3
3	P	1110	GLU	5.3
5	R	335	GLU	5.3
5	F	212	ILE	5.3
3	P	1006	GLY	5.2
5	F	326	TRP	5.2
5	F	317	ASN	5.2
3	J	715	LYS	5.2
5	F	302	PHE	5.2
5	R	318	ALA	5.1
3	D	855	ASP	5.1
5	R	319	ALA	5.1
5	R	323	ASN	5.0
4	Q	90	ARG	5.0
5	F	214	PRO	5.0
5	F	309	ASN	5.0
1	H	122	GLU	5.0
3	D	1052	GLU	4.9
3	J	993	GLU	4.9
5	R	328	GLU	4.9
5	R	334	SER	4.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	F	244	THR	4.8
5	F	330	LEU	4.8
3	J	959	LYS	4.8
5	R	244	THR	4.8
3	J	854	ALA	4.8
5	F	303	ILE	4.8
5	R	156	ALA	4.7
3	J	148	GLU	4.7
3	J	958	ILE	4.7
3	J	991	THR	4.7
5	F	304	THR	4.7
5	F	247	GLU	4.7
3	D	1051	ASP	4.7
3	J	1007	ASP	4.7
3	D	715	LYS	4.7
5	F	210	ASN	4.7
5	F	305	LEU	4.6
3	J	969	SER	4.6
3	J	972	LYS	4.6
3	P	1084	GLN	4.6
2	C	235	ASN	4.6
3	D	154	LEU	4.6
2	I	2	VAL	4.6
3	J	1044	GLN	4.6
3	J	1084	GLN	4.6
5	F	311	THR	4.6
3	P	1072	LYS	4.6
5	L	213	ASP	4.6
5	R	333	VAL	4.5
5	R	331	HIS	4.5
3	D	1127	GLU	4.5
5	R	322	MET	4.5
5	L	327	SER	4.5
3	P	981	GLU	4.5
2	O	853	ASP	4.5
3	D	1104	LYS	4.4
3	J	1117	SER	4.4
3	J	1083	ALA	4.4
5	L	247	GLU	4.4
2	C	114	VAL	4.4
3	D	714	GLU	4.4
3	D	1055	GLY	4.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	L	244	THR	4.4
5	F	291	CYS	4.3
5	F	310	GLU	4.3
1	G	95	LYS	4.3
3	P	287	ALA	4.3
1	H	90	VAL	4.3
5	L	243	ALA	4.2
5	F	215	GLU	4.2
3	D	854	ALA	4.2
2	I	108	GLU	4.2
5	F	307	THR	4.2
3	D	1032	SER	4.2
3	P	991	THR	4.2
3	P	1083	ALA	4.2
3	J	998	PRO	4.2
3	J	154	LEU	4.1
5	R	155	GLU	4.1
5	F	213	ASP	4.1
3	J	1114	GLN	4.1
5	L	313	ASP	4.1
1	G	90	VAL	4.1
3	P	154	LEU	4.1
2	C	113	THR	4.0
5	F	329	LYS	4.0
4	Q	86	ILE	4.0
2	I	376	PRO	4.0
5	R	321	ALA	4.0
2	O	493	ILE	4.0
3	J	990	ARG	4.0
5	R	237	ALA	4.0
1	M	191	ARG	4.0
2	C	333	ILE	4.0
3	J	1115	ILE	4.0
2	C	232	ILE	4.0
2	C	234	ASP	4.0
3	P	1057	SER	3.9
1	G	92	VAL	3.9
5	L	328	GLU	3.9
3	P	1017	VAL	3.9
2	O	119	GLU	3.9
1	G	93	GLN	3.9
3	P	1015	GLU	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	P	152	THR	3.9
3	J	1128	SER	3.9
3	D	972	LYS	3.9
3	D	1169	THR	3.9
3	J	1074	LEU	3.9
3	J	1009	GLU	3.9
5	R	170	ALA	3.8
5	F	300	LYS	3.8
3	J	1005	LYS	3.8
2	O	281	ASP	3.8
3	J	1046	ILE	3.8
3	D	851	PRO	3.8
3	J	1129	GLY	3.8
5	F	158	LEU	3.8
5	L	157	ARG	3.8
2	O	622	ASN	3.8
5	R	247	GLU	3.8
3	J	1076	PRO	3.7
3	P	952	VAL	3.7
5	F	297	MET	3.7
3	P	1073	ASP	3.7
2	O	488	MET	3.7
3	J	955	LYS	3.7
5	R	329	LYS	3.7
5	R	336	GLU	3.7
3	P	949	SER	3.7
2	I	109	ALA	3.7
3	D	1082	ASP	3.7
5	F	250	LEU	3.7
5	R	316	PHE	3.7
5	F	248	GLU	3.7
3	D	1203	ARG	3.7
5	F	295	CYS	3.6
3	P	1075	ARG	3.6
1	A	90	VAL	3.6
2	O	485	ASP	3.6
3	P	1108	GLN	3.6
3	D	1031	VAL	3.6
3	D	1192	LYS	3.6
2	C	332	ARG	3.6
3	P	1013	GLY	3.6
3	P	715	LYS	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	P	957	SER	3.6
5	R	243	ALA	3.6
2	C	1001	GLY	3.6
5	F	308	GLY	3.5
1	B	90	VAL	3.5
5	F	298	PRO	3.5
3	P	1014	GLY	3.5
5	L	253	SER	3.5
2	I	241	LEU	3.5
2	O	484	LEU	3.5
3	P	994	SER	3.5
5	R	330	LEU	3.5
3	P	955	LYS	3.5
2	C	231	GLU	3.5
3	J	1127	GLU	3.5
5	F	155	GLU	3.5
1	G	94	GLY	3.5
3	D	1086	ASN	3.5
5	L	214	PRO	3.5
3	P	1048	ARG	3.5
3	D	1085	GLY	3.4
5	F	306	PHE	3.4
3	D	853	THR	3.4
1	H	131	CYS	3.4
3	D	1022	PRO	3.4
5	F	154	GLU	3.4
3	J	1085	GLY	3.4
5	F	312	SER	3.4
3	J	708	ASN	3.4
3	J	1086	ASN	3.4
5	R	315	TRP	3.4
1	H	210	THR	3.4
3	J	1116	SER	3.4
3	D	1170	LYS	3.3
3	P	846	GLU	3.4
5	F	294	GLN	3.4
2	C	65	ASN	3.3
2	C	233	ARG	3.3
5	F	322	MET	3.3
3	P	848	VAL	3.3
5	R	356	GLU	3.3
5	F	316	PHE	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	D	949	SER	3.3
3	J	660	GLU	3.3
4	E	87	ALA	3.3
3	J	149	GLY	3.3
3	J	1010	GLN	3.3
5	R	296	LYS	3.3
3	D	1033	GLY	3.3
3	J	563	LEU	3.3
2	O	492	MET	3.3
5	L	238	LYS	3.3
2	I	110	PRO	3.3
4	Q	84	THR	3.3
5	L	211	SER	3.3
3	J	713	GLU	3.3
4	Q	85	ALA	3.3
3	D	1096	PRO	3.3
3	P	286	ALA	3.3
5	L	299	LYS	3.3
4	E	90	ARG	3.3
2	I	375	PRO	3.2
5	F	293	GLU	3.2
6	7	37	DA	3.2
2	O	489	PRO	3.2
5	L	237	ALA	3.2
5	R	339	ARG	3.2
5	R	338	HIS	3.2
5	L	154	GLU	3.2
3	D	1114	GLN	3.2
5	L	136	GLU	3.2
1	H	109	PRO	3.2
3	D	968	ASN	3.2
5	R	354	THR	3.2
3	J	983	LYS	3.2
1	H	97	GLU	3.1
1	B	91	ARG	3.1
3	J	979	ASN	3.1
1	M	98	VAL	3.1
3	P	1050	THR	3.1
1	B	92	VAL	3.1
5	F	289	LYS	3.1
3	D	967	VAL	3.1
2	I	1090	ASN	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	P	151	MET	3.1
4	K	91	ARG	3.1
5	F	323	ASN	3.1
5	L	312	SER	3.1
3	D	1053	LEU	3.1
3	J	1054	THR	3.1
3	J	1047	THR	3.1
3	P	1109	LEU	3.1
5	F	111	LEU	3.1
5	F	157	ARG	3.1
5	L	242	HIS	3.1
2	C	621	SER	3.1
5	L	288	MET	3.1
3	P	714	GLU	3.0
3	J	1008	GLY	3.0
3	J	1082	ASP	3.0
1	H	93	GLN	3.0
3	P	716	GLN	3.0
5	F	109	GLU	3.0
5	R	311	THR	3.0
3	D	716	GLN	3.0
3	P	1112	GLY	3.0
1	H	176	CYS	3.0
5	L	251	LYS	3.0
3	P	1038	THR	3.0
5	R	242	HIS	3.0
3	P	993	GLU	3.0
3	J	671	GLY	3.0
3	P	149	GLY	3.0
1	B	95	LYS	3.0
3	P	1009	GLU	3.0
5	F	292	VAL	3.0
3	P	990	ARG	3.0
3	D	948	SER	3.0
1	H	92	VAL	2.9
5	F	218	ARG	2.9
3	D	850	LYS	2.9
2	O	490	GLN	2.9
3	P	956	GLY	2.9
3	J	152	THR	2.9
3	J	1012	ALA	2.9
3	J	562	GLU	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	J	973	LEU	2.9
3	P	1071	GLY	2.9
2	C	748	ILE	2.9
5	L	150	ARG	2.9
2	C	64	GLY	2.9
1	B	122	GLU	2.9
3	P	992	LYS	2.9
3	J	1067	ARG	2.9
2	C	443	ASP	2.9
1	G	9	LEU	2.9
2	O	65	ASN	2.9
3	J	982	LEU	2.9
3	J	999	TYR	2.9
3	J	710	ASP	2.8
3	J	560	ASN	2.8
2	C	548	ARG	2.8
3	D	970	SER	2.8
5	F	166	VAL	2.8
3	J	997	VAL	2.8
2	C	743	PRO	2.8
3	P	1360	GLY	2.8
2	O	629	PHE	2.8
2	O	234	ASP	2.8
3	D	1094	ASP	2.8
1	M	97	GLU	2.8
5	L	325	PRO	2.8
5	F	287	ILE	2.8
2	C	236	LYS	2.8
2	O	1136	GLN	2.8
3	J	978	ARG	2.8
3	P	877	VAL	2.8
3	D	1056	LEU	2.8
3	J	706	VAL	2.8
3	P	1375	ALA	2.8
3	P	1074	LEU	2.8
2	C	442	VAL	2.8
3	J	586	GLY	2.8
3	J	672	LEU	2.8
5	L	252	LEU	2.8
3	P	1012	ALA	2.7
5	R	157	ARG	2.7
5	R	294	GLN	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	E	91	ARG	2.7
5	L	161	LEU	2.7
5	L	250	LEU	2.7
3	D	766	GLY	2.7
3	J	150	GLY	2.7
5	L	160	ASP	2.7
1	A	92	VAL	2.7
4	K	39	VAL	2.7
1	G	8	PHE	2.7
3	J	1011	VAL	2.7
2	O	108	GLU	2.7
5	L	233	ASP	2.7
3	P	1271	SER	2.7
3	J	1072	LYS	2.7
3	D	1087	ASP	2.7
2	O	235	ASN	2.7
5	R	246	GLN	2.7
2	C	115	LYS	2.7
5	R	160	ASP	2.6
3	J	962	ASN	2.6
2	C	292	ILE	2.6
5	R	168	PRO	2.6
3	P	1051	ASP	2.6
5	L	246	GLN	2.6
3	J	557	LYS	2.6
1	N	95	LYS	2.6
3	D	713	GLU	2.6
3	J	1015	GLU	2.6
1	G	192	VAL	2.6
2	O	483	ASP	2.6
2	C	441	GLU	2.6
2	O	107	ARG	2.6
4	Q	82	ALA	2.6
5	F	79	ALA	2.6
3	J	1053	LEU	2.6
3	J	670	SER	2.6
5	R	337	VAL	2.6
2	I	113	THR	2.6
4	E	86	ILE	2.6
3	P	1205	GLU	2.6
2	C	318	SER	2.6
5	L	331	HIS	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	F	324	LYS	2.6
6	7	19	DA	2.6
4	E	85	ALA	2.6
5	F	288	MET	2.6
1	M	118	ASP	2.6
2	I	942	ASP	2.6
3	J	996	LYS	2.6
3	P	1166	GLY	2.6
3	P	1082	ASP	2.6
5	F	290	LEU	2.6
3	P	1037	PHE	2.6
5	L	316	PHE	2.6
3	J	970	SER	2.6
4	K	40	PRO	2.6
3	P	1373	ARG	2.6
5	F	83	VAL	2.6
1	G	89	ALA	2.6
2	C	63	SER	2.6
5	R	295	CYS	2.6
3	J	852	GLY	2.6
3	J	989	GLY	2.6
4	Q	83	VAL	2.6
5	L	165	PHE	2.6
2	I	374	GLU	2.5
1	A	89	ALA	2.5
3	J	956	GLY	2.5
2	O	116	ASP	2.5
2	O	1137	GLU	2.5
3	J	1001	ALA	2.5
2	C	746	ALA	2.5
3	J	984	LEU	2.5
5	F	156	ALA	2.5
1	M	121	VAL	2.5
3	J	986	ASP	2.5
1	G	32	GLU	2.5
3	P	1039	ASP	2.5
3	J	82	GLY	2.5
3	P	288	PRO	2.5
3	J	957	SER	2.5
3	D	946	ALA	2.5
1	H	123	ILE	2.5
5	L	210	ASN	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	I	415	GLU	2.5
1	M	99	ILE	2.5
5	L	156	ALA	2.5
2	I	107	ARG	2.5
3	J	1068	THR	2.5
4	E	88	GLU	2.5
1	N	96	ASP	2.5
5	F	80	ALA	2.5
5	R	248	GLU	2.4
2	C	298	ALA	2.4
3	D	877	VAL	2.4
2	C	111	GLU	2.4
3	J	974	VAL	2.4
3	P	1093	THR	2.4
5	L	171	GLU	2.4
3	P	150	GLY	2.4
3	J	1062	LEU	2.4
3	P	872	LEU	2.4
3	J	518	VAL	2.4
3	J	1073	ASP	2.4
3	P	1023	HIS	2.4
2	I	264	GLU	2.4
5	L	330	LEU	2.4
3	D	1034	PHE	2.4
3	P	1167	LYS	2.4
3	D	155	GLU	2.4
2	O	117	ILE	2.4
3	D	856	ILE	2.4
3	J	1375	ALA	2.4
2	O	1282	GLY	2.4
2	O	118	LYS	2.4
3	J	716	GLN	2.4
2	C	1180	MET	2.4
5	R	398	GLY	2.4
3	D	707	ILE	2.3
2	O	985	GLU	2.3
2	O	103	VAL	2.3
3	D	1097	ALA	2.3
3	P	1049	GLN	2.3
5	F	246	GLN	2.3
1	H	70	THR	2.3
2	O	854	ILE	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	F	602	SER	2.3
4	K	90	ARG	2.3
3	P	986	ASP	2.3
2	C	21	VAL	2.3
2	I	1014	LEU	2.3
5	L	254	GLU	2.3
2	I	853	ASP	2.3
3	P	984	LEU	2.3
2	I	850	ILE	2.3
1	N	98	VAL	2.3
5	R	355	ILE	2.3
3	P	1094	ASP	2.3
5	F	296	LYS	2.3
5	F	219	GLU	2.3
3	J	954	ASN	2.3
2	C	484	LEU	2.3
5	F	238	LYS	2.3
3	P	1011	VAL	2.3
1	M	134	THR	2.3
2	C	106	GLU	2.3
3	P	987	GLU	2.3
3	P	1024	THR	2.3
1	G	105	SER	2.3
1	M	92	VAL	2.3
5	R	357	GLN	2.3
3	D	672	LEU	2.3
5	R	214	PRO	2.3
1	M	120	ASP	2.3
3	J	967	VAL	2.3
1	N	13	LEU	2.2
2	C	629	PHE	2.2
2	I	606	LEU	2.2
1	G	193	GLU	2.2
1	G	194	GLN	2.2
1	H	136	GLU	2.2
5	R	320	ILE	2.2
2	I	854	ILE	2.2
2	O	273	HIS	2.2
3	P	985	ILE	2.2
3	P	1157	ALA	2.2
5	L	291	CYS	2.2
5	F	165	PHE	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
5	F	253	SER	2.2
3	J	1034	PHE	2.2
4	E	82	ALA	2.2
5	L	311	THR	2.2
1	M	73	GLY	2.2
1	M	96	ASP	2.2
5	L	82	GLN	2.2
5	L	153	ALA	2.2
5	L	583	THR	2.2
1	G	139	SER	2.2
2	O	1159	VAL	2.2
2	I	1013	GLN	2.2
1	N	92	VAL	2.2
3	J	994	SER	2.2
4	K	59	ILE	2.2
2	C	1151	LEU	2.2
3	J	827	GLU	2.2
2	C	289	VAL	2.2
3	J	879	ALA	2.2
3	J	1195	GLN	2.2
1	H	89	ALA	2.2
2	O	623	LEU	2.2
3	J	826	ILE	2.2
5	L	329	LYS	2.2
3	P	1125	PRO	2.2
7	2	40	DT	2.2
6	4	44	DG	2.2
3	J	1013	GLY	2.2
3	J	564	VAL	2.2
5	L	162	ILE	2.2
2	O	272	ARG	2.2
1	G	100	LEU	2.2
3	D	153	ASN	2.2
3	P	996	LYS	2.2
5	F	548	LEU	2.1
7	2	41	DG	2.1
3	P	1085	GLY	2.1
2	I	1277	ALA	2.1
5	L	234	THR	2.1
5	L	158	LEU	2.1
3	J	987	GLU	2.1
2	I	1015	ALA	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	J	1376	GLY	2.1
4	E	89	GLY	2.1
5	R	239	GLY	2.1
1	G	196	THR	2.1
2	I	1017	GLN	2.1
3	P	176	PHE	2.1
3	P	964	LYS	2.1
5	F	251	LYS	2.1
5	F	314	THR	2.1
3	P	1272	SER	2.1
3	D	951	GLN	2.1
3	D	1112	GLY	2.1
2	C	1152	GLY	2.1
2	O	1003	THR	2.1
2	I	3	TYR	2.1
2	O	66	SER	2.1
5	R	159	SER	2.1
3	J	704	GLU	2.1
3	J	1130	GLY	2.1
3	J	433	GLY	2.1
4	K	89	GLY	2.1
5	R	171	GLU	2.1
3	D	857	LEU	2.1
4	Q	39	VAL	2.1
3	D	1030	GLU	2.1
3	P	1276	GLU	2.1
3	P	876	SER	2.1
4	Q	87	ALA	2.1
5	R	245	ALA	2.1
3	D	1212	ASP	2.1
2	O	274	ILE	2.1
2	O	307	GLY	2.1
5	R	605	GLU	2.1
6	1	46	DG	2.1
4	Q	89	GLY	2.1
1	H	105	SER	2.1
2	O	852	ALA	2.1
3	P	1204	VAL	2.1
5	L	79	ALA	2.1
1	H	71	LYS	2.1
1	M	95	LYS	2.1
3	J	556	GLU	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	J	966	VAL	2.1
3	P	847	ASP	2.1
3	J	707	ILE	2.1
3	J	758	PRO	2.1
5	F	237	ALA	2.1
5	R	152	GLU	2.1
2	C	316	GLU	2.1
2	C	1002	LEU	2.1
2	O	745	GLU	2.1
5	F	355	ILE	2.1
3	P	1374	ALA	2.1
3	J	1373	ARG	2.1
3	P	155	GLU	2.1
5	L	314	THR	2.0
2	C	112	GLY	2.0
3	D	1042	ASP	2.0
5	R	234	THR	2.0
1	H	67	GLU	2.0
6	7	18	DC	2.0
3	J	853	THR	2.0
5	R	233	ASP	2.0
6	7	45	DT	2.0
5	L	155	GLU	2.0
3	D	149	GLY	2.0
3	J	1184	ASP	2.0
3	P	1005	LYS	2.0
1	H	110	VAL	2.0
2	O	306	THR	2.0
3	D	1063	ASP	2.0
5	F	286	LEU	2.0
5	L	239	GLY	2.0
5	L	159	SER	2.0
5	L	292	VAL	2.0
6	4	36	DT	2.0
2	O	625	GLU	2.0
2	O	241	LEU	2.0
2	O	277	LEU	2.0
5	F	243	ALA	2.0
3	J	965	SER	2.0
2	I	963	GLU	2.0
2	O	278	GLU	2.0
5	R	310	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
3	J	1094	ASP	2.0
3	J	1341	ARG	2.0
5	L	81	ALA	2.0
2	I	1159	VAL	2.0
5	R	236	LYS	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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
10	ZN	J	1501	1/1	0.72	0.13	218,218,218,218	0
10	ZN	D	1501	1/1	0.83	0.11	215,215,215,215	0
10	ZN	P	1502	1/1	0.90	0.15	204,204,204,204	0
9	MG	C	1401	1/1	0.91	0.33	218,218,218,218	0
10	ZN	P	1501	1/1	0.96	0.08	252,252,252,252	0
10	ZN	J	1502	1/1	0.97	0.17	196,196,196,196	0
9	MG	J	1503	1/1	0.97	0.19	204,204,204,204	0
10	ZN	D	1502	1/1	0.97	0.21	172,172,172,172	0
9	MG	P	1503	1/1	0.98	0.15	187,187,187,187	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.