



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 12, 2026 – 06:03 AM UTC

PDB ID : 4YLP / pdb_00004ylp
Title : E. coli Transcription Initiation Complex - 16-bp spacer and 5-nt RNA
Authors : Zuo, Y.; Steitz, T.A.
Deposited on : 2015-03-05
Resolution : 5.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

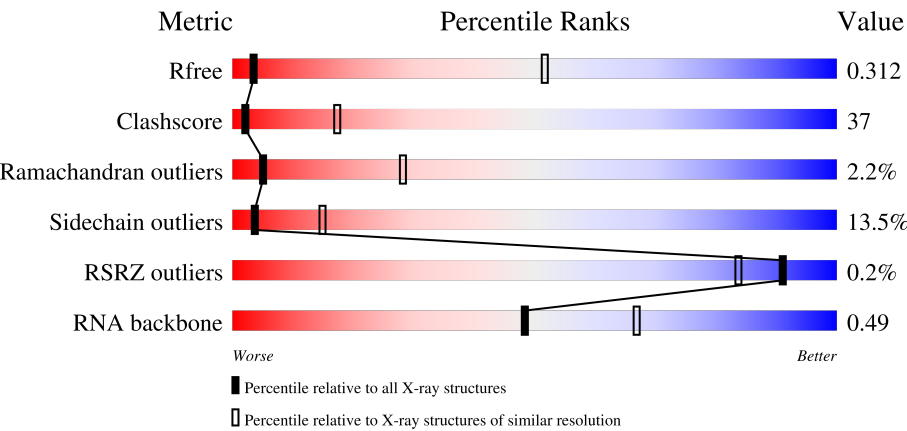
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 5.50 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}	180053	1088 (7.00-4.00)
Clashscore	190562	1147 (7.00-4.00)
Ramachandran outliers	187476	1012 (7.02-3.98)
Sidechain outliers	187428	1023 (7.04-3.96)
RSRZ outliers	180081	1081 (7.00-4.00)
RNA backbone	3983	1052 (7.80-3.10)

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

Mol	Chain	Length	Quality of chain
1	A	242	39%45%10%• 5%
1	B	242	% 37%40%17%• 6%
1	G	242	47%40%7%• 5%
1	H	242	48%35%11%6%

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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	5	
8	6	5	
8	9	5	

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
9	ZN	P	1501	-	-	X	-
9	ZN	P	1502	-	-	X	-

2 Entry composition

There are 10 unique types of molecules in this entry. The entry contains 94668 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
1	A	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	B	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			
1	G	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	H	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			
1	M	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	N	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			

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
2	C	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			
2	I	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			
2	O	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			

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

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

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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'-R(*(GTP))-R(P*AP*GP*UP*C)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	3	5	Total	C	N	O	P	0	0	0
			117	48	20	42	7			
8	6	5	Total	C	N	O	P	0	0	0
			117	48	20	42	7			
8	9	5	Total	C	N	O	P	0	0	0
			117	48	20	42	7			

- Molecule 9 is ZINC ION (CCD ID: ZN) (formula: Zn).

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

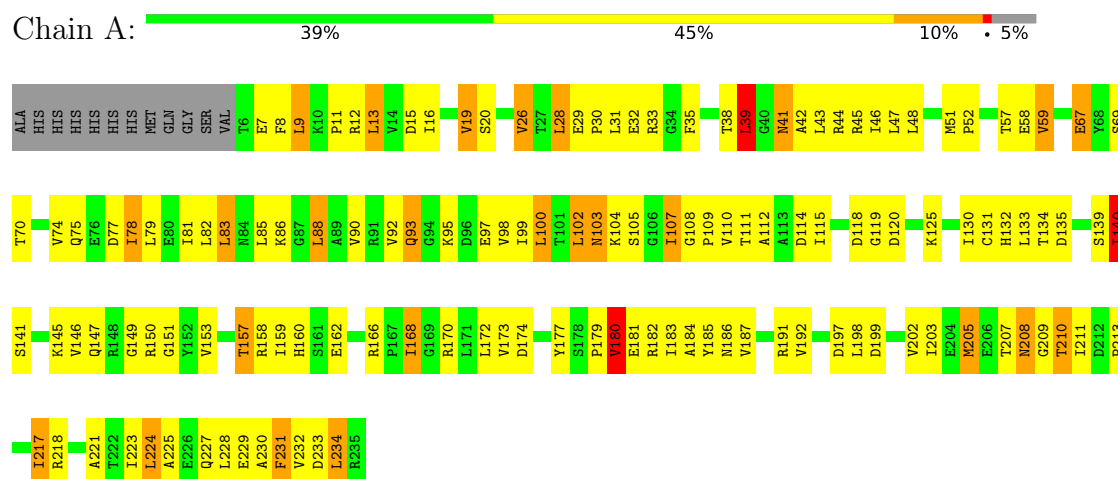
- Molecule 10 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
10	D	1	Total	Mg	0	0
			1	1		
10	J	1	Total	Mg	0	0
			1	1		
10	P	1	Total	Mg	0	0
			1	1		

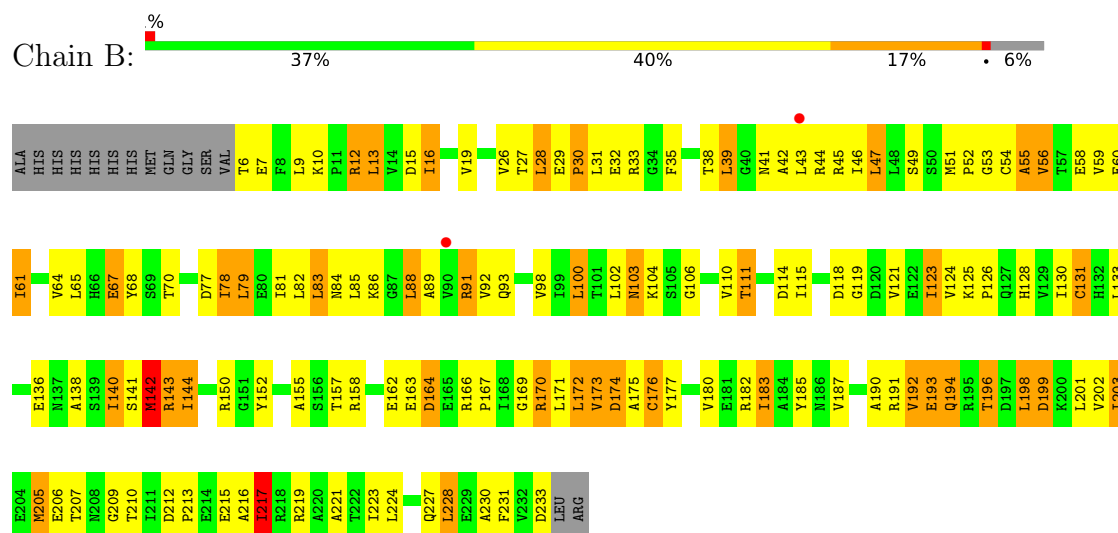
3 Residue-property plots

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

• Molecule 1: DNA-directed RNA polymerase subunit alpha

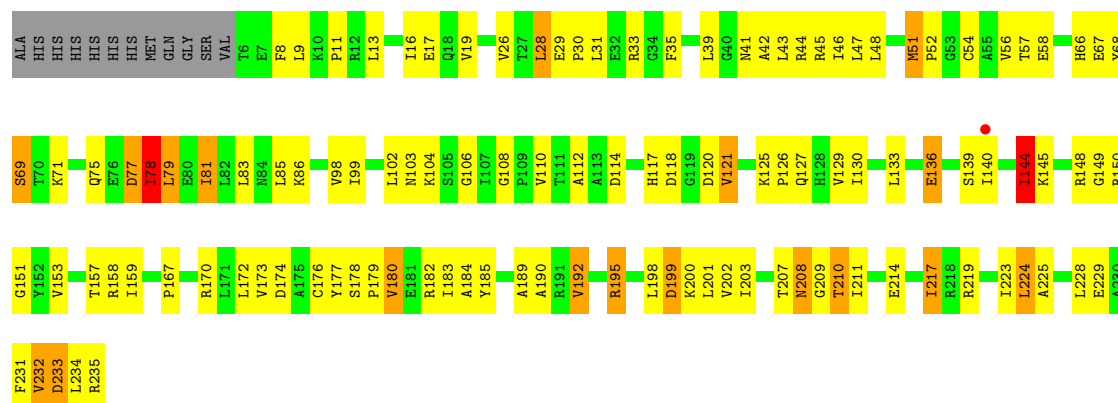


• Molecule 1: DNA-directed RNA polymerase subunit alpha



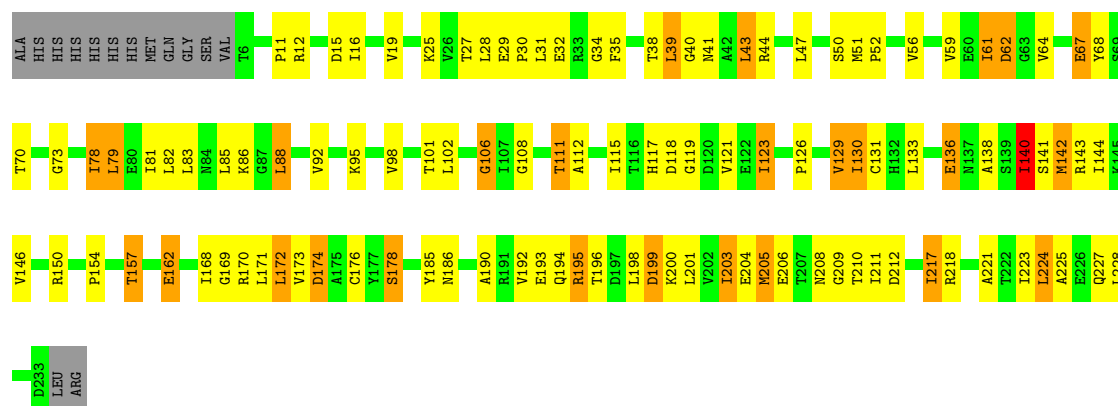
• Molecule 1: DNA-directed RNA polymerase subunit alpha





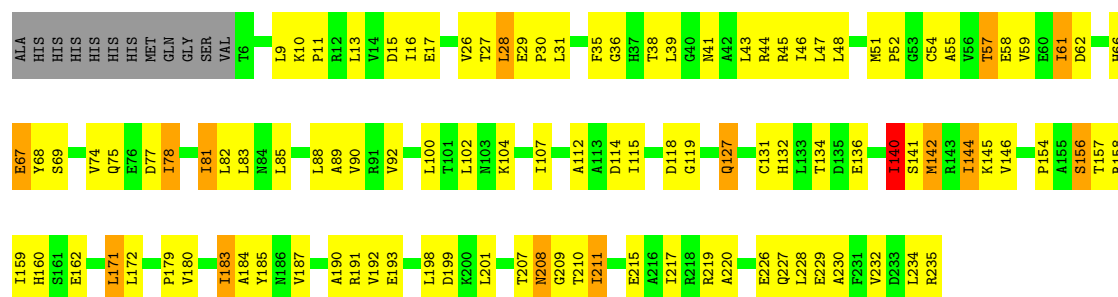
• Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain H: 48% 35% 11% 6%



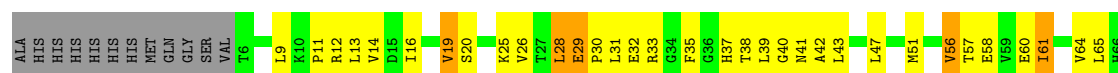
• Molecule 1: DNA-directed RNA polymerase subunit alpha

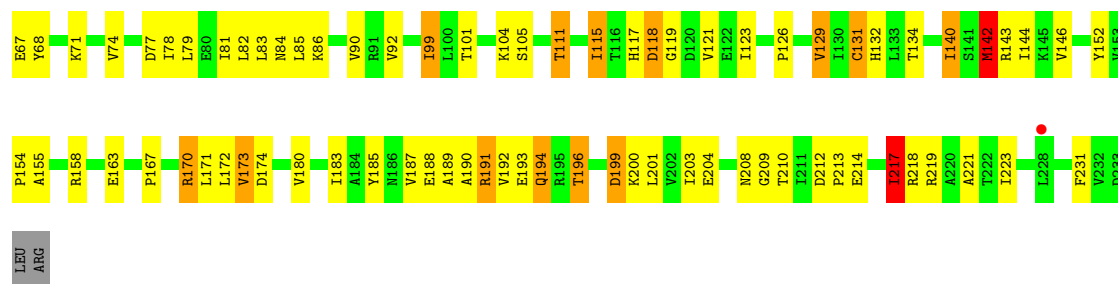
Chain M: 50% 38% 6% 5%



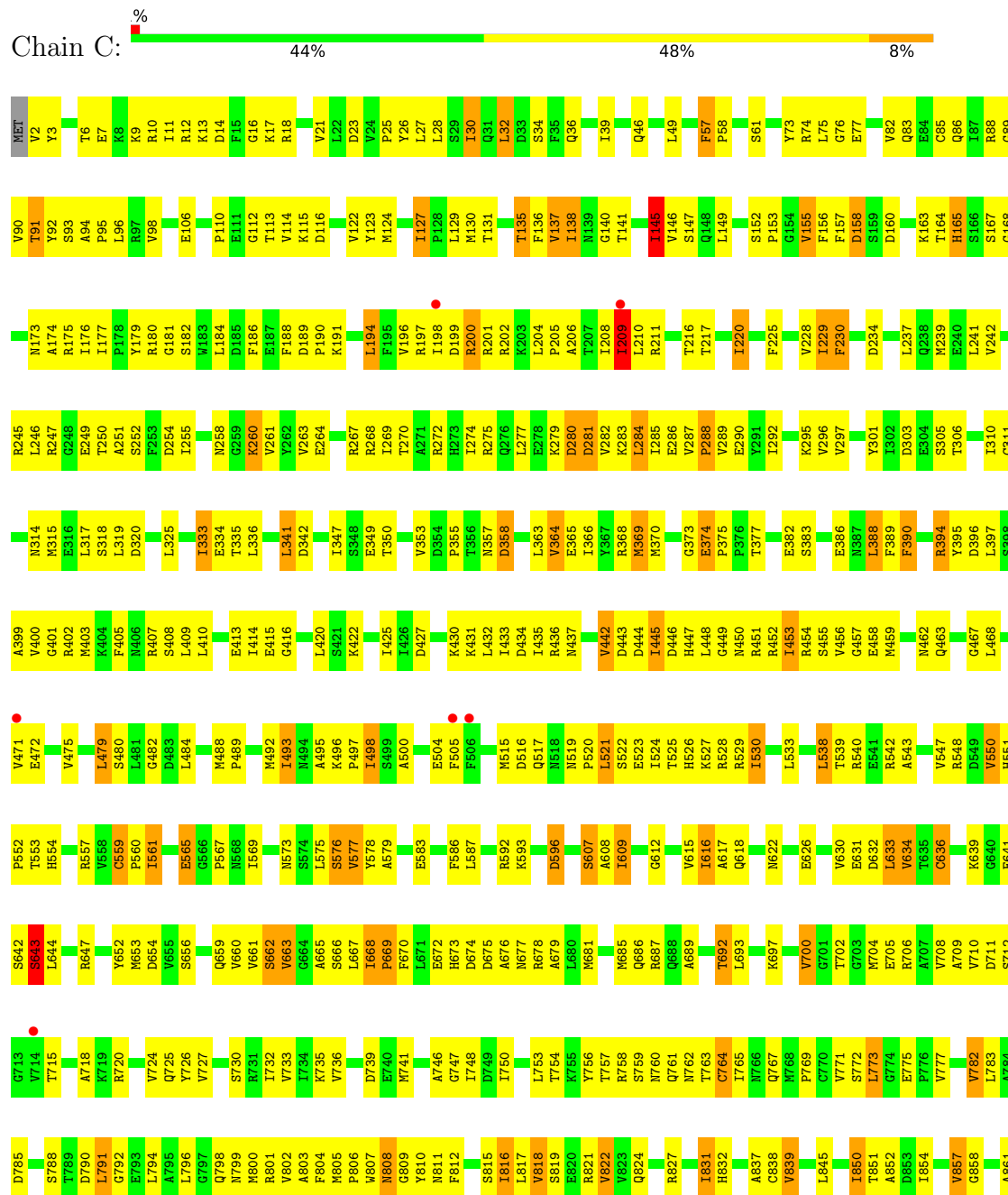
• Molecule 1: DNA-directed RNA polymerase subunit alpha

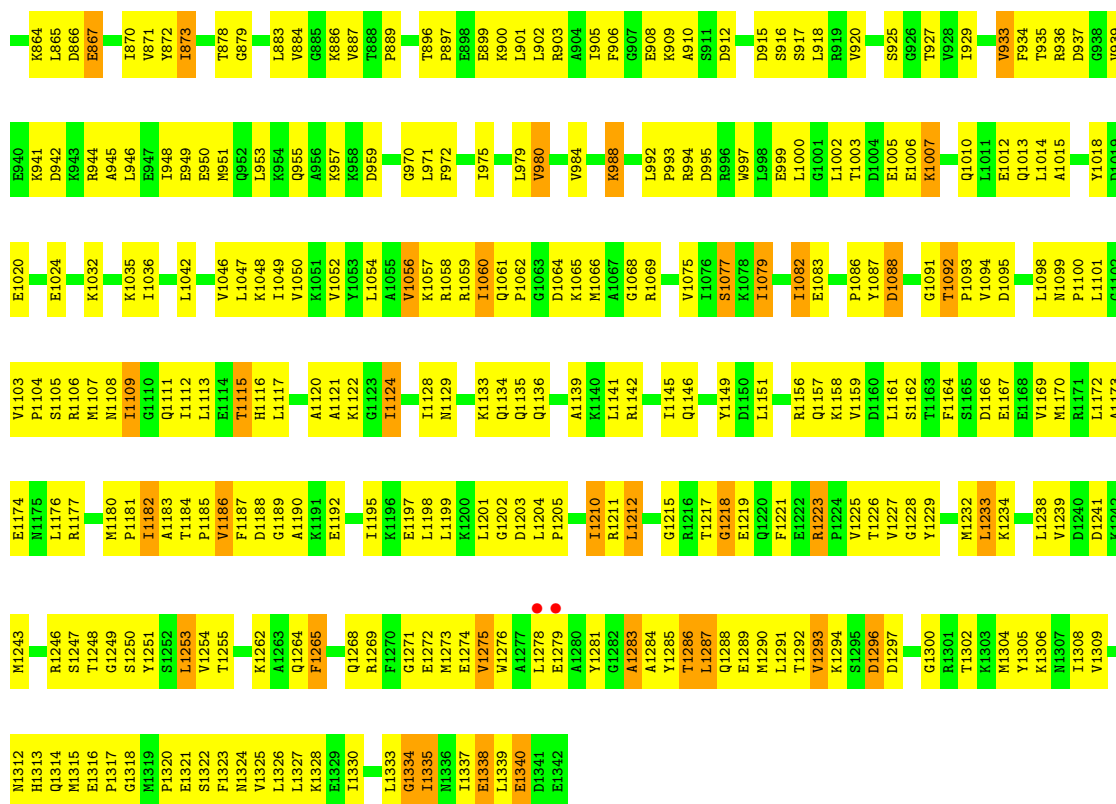
Chain N: 49% 37% 7% 6%





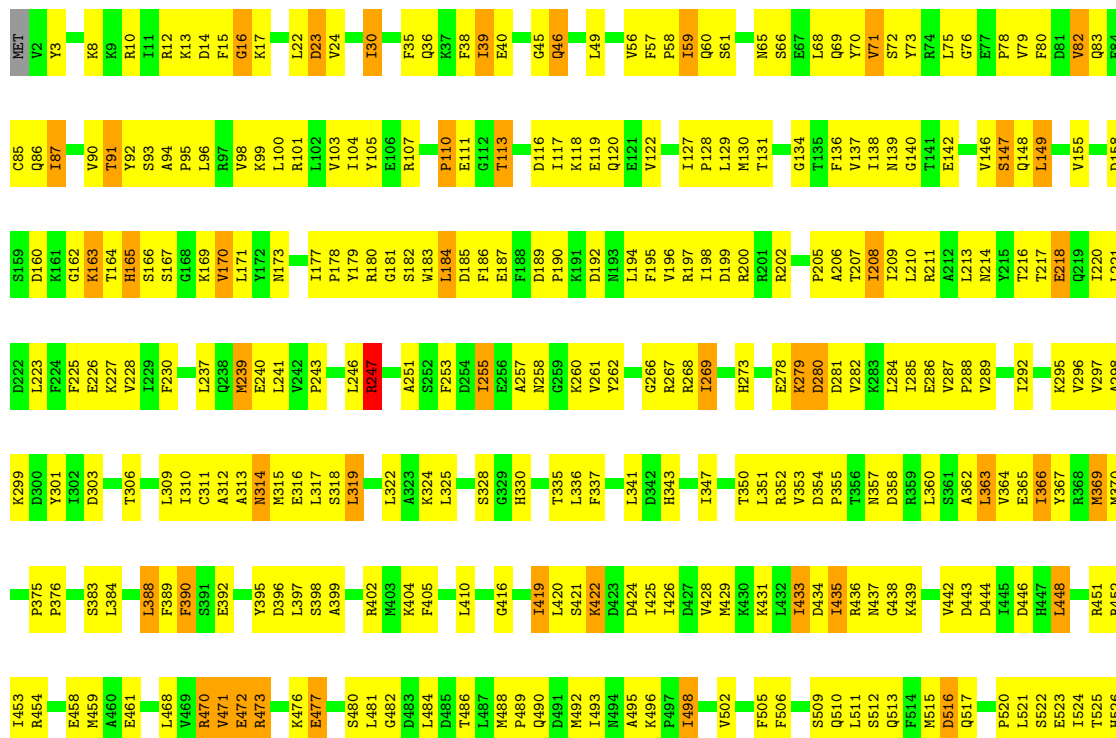
• Molecule 2: DNA-directed RNA polymerase subunit beta

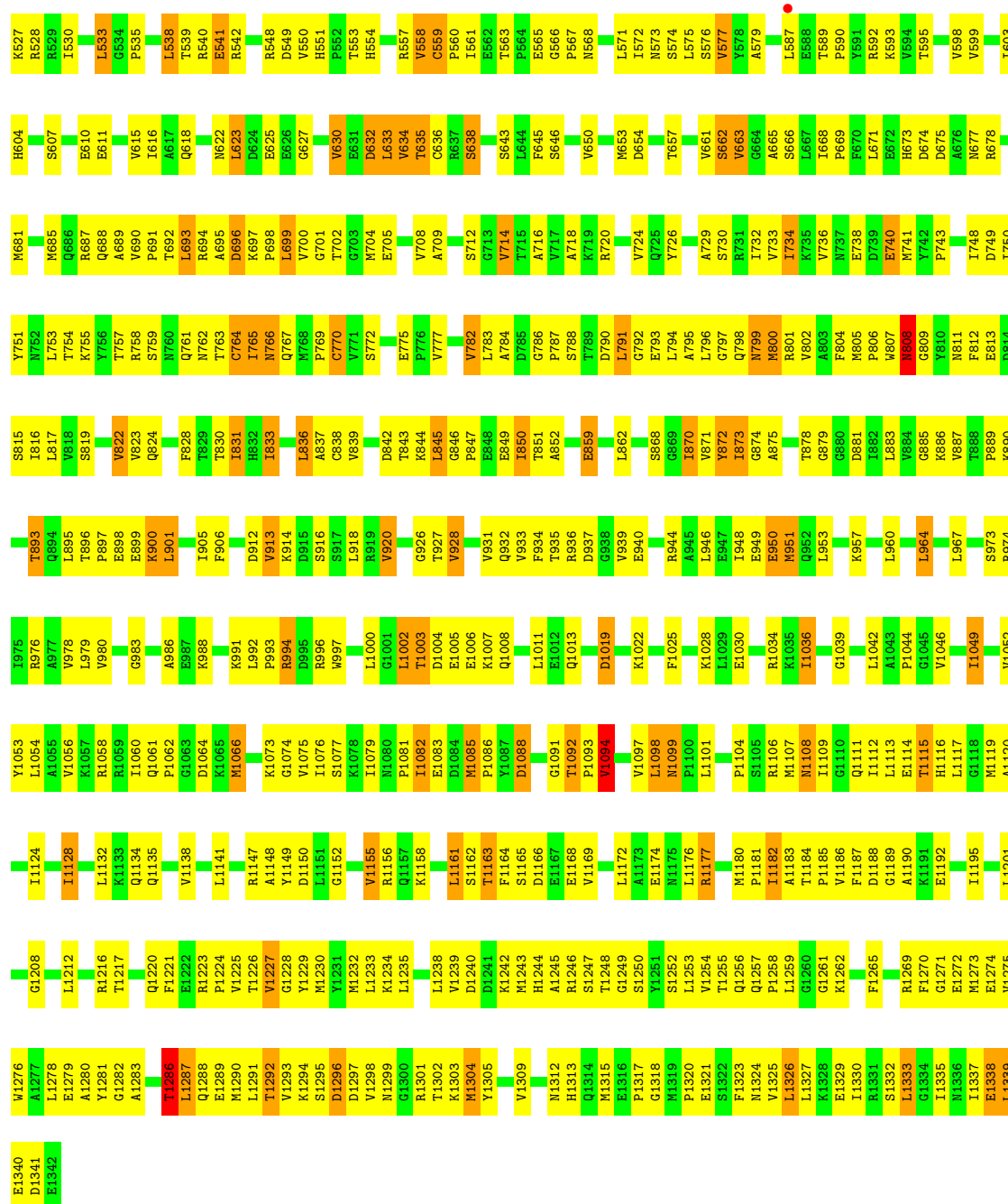




● Molecule 2: DNA-directed RNA polymerase subunit beta

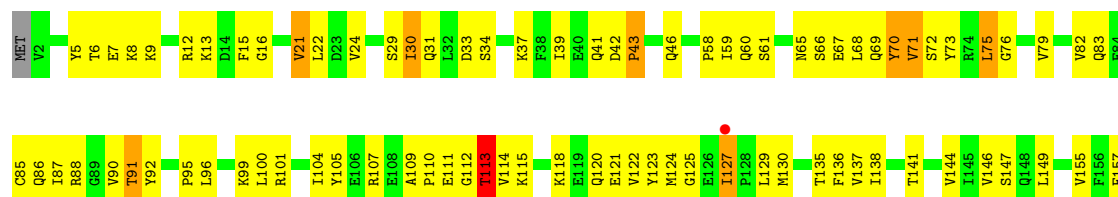
Chain I:





• Molecule 2: DNA-directed RNA polymerase subunit beta

Chain O: 47% 46% 7%

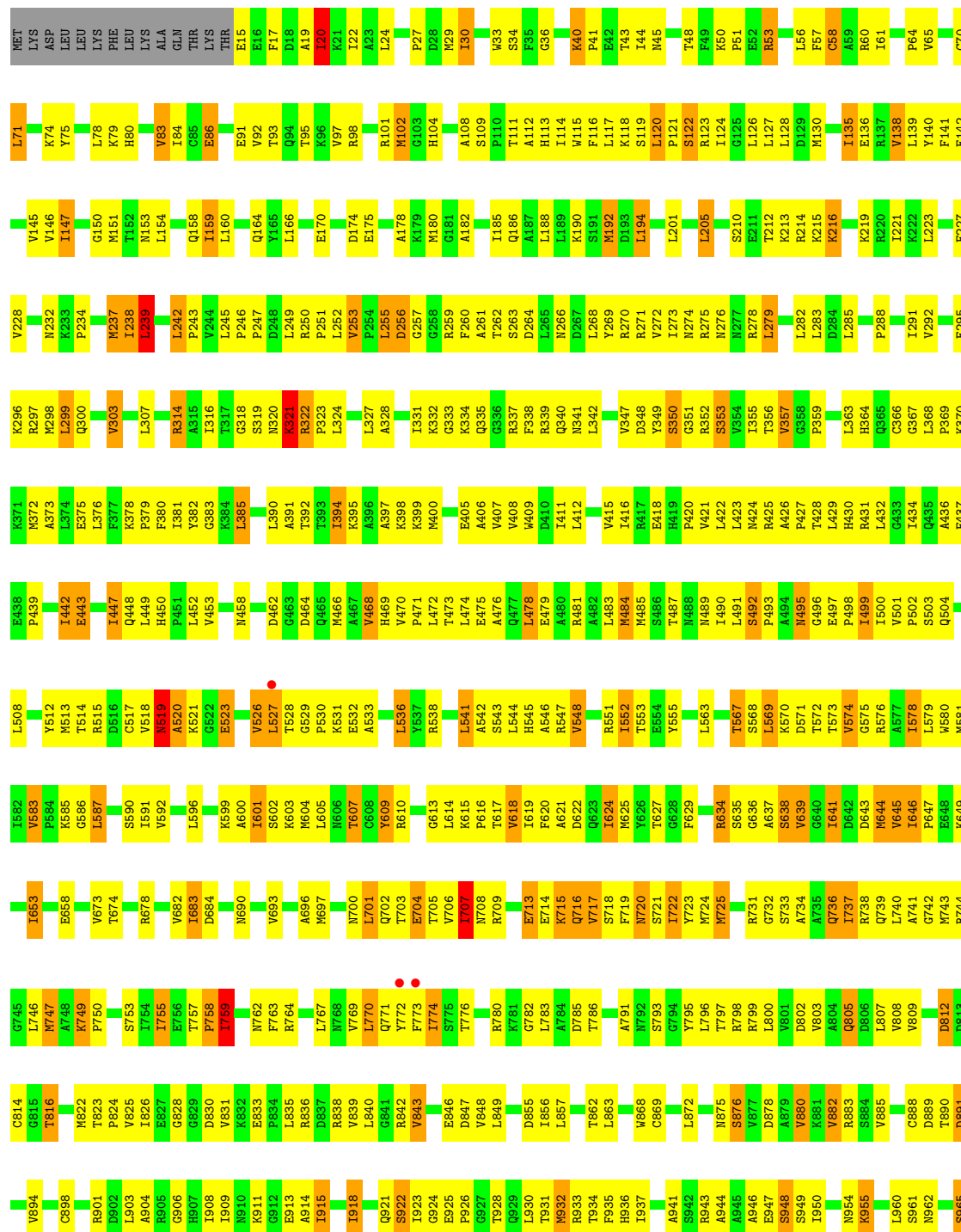


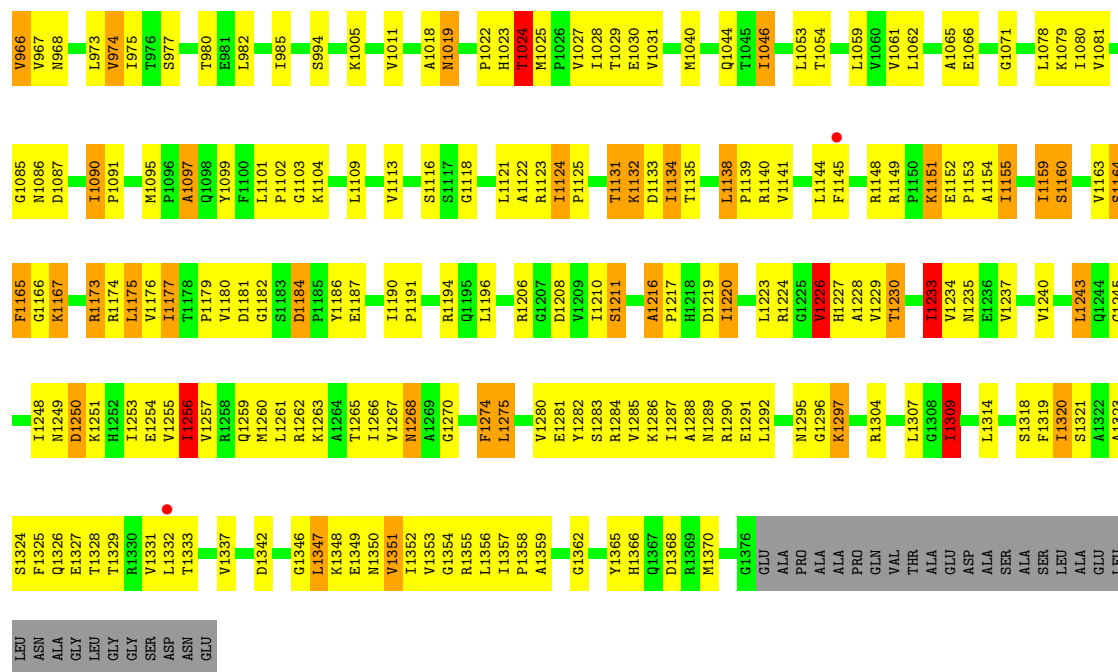
G1266	L1198	L1042	E949	L794	Q725	D654	T563	D485	V400	L322	V228	D158
G1267	L1199	A1043	E950	A795	Y726	V655	F564	T486	G401	L326	V229	S159
G1268	L1200	P1044	M951	L796	Y727	S656	E585	T487	R402	S326	V230	D160
R1269	G1202	G1045	Q952	G797	D728	M488	G566	M489	Q327	T232	V231	K163
G1270	L1203	L1046	L953	W799	A729	Q659	I569	P489	F405	S328	V232	H165
G1271	L1204	L1047	A956	W800	S730	V660	V569	T490	R406	E240	V233	H166
G1272	E1205	K1048	Q956	W801	R731	V661	L575	T491	R407	L241	V234	S167
M1273	L1210	V1049	D959	R801	L732	S662	S576	T492	S408	P243	V235	V170
E1274	L1212	V1050	L960	M805	W733	V663	S576	T493	E415	P244	V236	V171
V1275	G1216	Y1053	L964	W807	K735	G664	A679	T494	G416	R245	V237	V172
L1278	R1217	L1054	Q957	W808	W736	S666	Q580	T495	S417	L246	V238	V173
A1280	G1218	Q1061	I966	G809	W737	L667	T581	T496	G418	R247	V239	M173
Y1281	Q1219	P1062	L967	W810	W741	L671	E583	V502	L419	S252	V240	V177
Q1282	Q1220	G1063	L968	R812	Y742	S672	L587	F505	S421	L341	V241	Y178
A1283	L1221	D1064	L969	R813	P743	H673	E588	S509	K422	D342	V242	Y179
A1284	E1222	E1065	L971	R814	P744	D674	T589	S509	H423	H343	V243	V182
Y1285	R1223	M1066	R974	S815	A746	D675	P590	Q513	L425	G344	V244	S183
T1286	F1224	H1070	R975	S816	G747	L676	F591	F514	V428	F346	V245	W183
L1287	E999	K1073	R976	L817	W748	R678	R592	M515	V261	T347	V246	L184
Q1288	Q1226	L901	R977	W818	D749	A679	K593	M515	V262	S348	V247	D185
E1289	V1227	L902	L979	W819	W750	L680	T594	N518	L432	E349	V248	F186
M1290	G1228	V1075	V980	S820	Y751	M681	T595	N519	L433	T350	V249	F187
L1291	L1229	L1076	V981	R821	W752	M682	D596	P520	L434	L351	V250	F188
M1230	M1230	I1077	V982	W822	L753	M683	G597	L521	L435	R352	V251	D189
Y1231	Y1231	S1077	V983	W823	T754	M684	F598	P523	L436	V353	V252	P190
M1232	M1232	R1079	A986	R827	K755	A689	V599	P524	G440	N357	V253	K191
L1233	L1233	N1080	E987	W828	W756	V690	T600	P525	V441	D358	V254	D192
Q1234	Q1234	K988	L989	F828	T757	P691	T603	T525	V442	R359	V255	M193
L1235	L1235	D915	L990	R831	W758	T692	L603	R528	V443	L360	V256	L194
M1236	M1236	S916	D991	L832	S759	L694	L606	R529	L448	S361	V257	R197
L1238	L1238	S917	K991	R833	W760	A695	R607	P530	R451	L363	V258	I198
V1239	V1239	S917	L992	Q834	W761	A695	S607	P530	R452	L364	V259	D199
R1240	R1240	P993	R994	R835	T762	P698	E610	L533	R453	V364	V260	R200
D1241	D1241	R994	R994	L836	W763	T764	E611	L533	L453	E365	V261	E201
K1242	K1242	D1088	L1000	W839	C765	V700	T616	L538	V456	L366	V262	R202
M1243	M1243	G1091	L1011	W840	W766	G701	T617	T539	G457	T292	V263	K203
H1244	H1244	T1092	L1012	W841	Q767	T702	Q618	R540	A293	L293	V264	L204
A1245	A1245	P1093	E1013	D842	S772	W704	L623	E541	G373	G294	V265	P205
R1246	R1246	D1094	L1014	T843	L773	E705	L623	A543	G374	K295	V266	A206
S1247	S1247	L1095	L1015	K844	W773	R706	L623	A543	P375	V297	V267	T207
T1248	T1248	I1096	A1015	L845	P776	A707	G627	G544	F464	V297	V268	I208
G1249	G1249	V1097	E1016	L846	W779	W708	V634	F545	R465	E379	V269	I209
S1250	S1250	E1017	E1017	P847	R779	W710	V634	E546	E379	D303	V270	L210
Y1251	Y1251	P1101	E1018	T851	L783	D711	C636	R549	S383	E304	V271	R211
S1252	S1252	L1101	E1019	W857	A784	S712	R637	V500	V471	T306	V272	A212
L1253	L1253	P1102	E1020	W858	W785	T715	R638	H551	E472	T310	V273	L213
V1254	V1254	L1101	E1021	E859	G786	A716	K639	P552	K476	C311	V274	Y215
T1255	T1255	L1021	L1021	R859	P787	W717	A716	T553	E477	A312	V275	T216
Q1256	Q1256	V1103	E1022	S868	W788	T718	E641	H554	R478	S391	V276	T217
V1257	V1257	P1104	E1023	W860	W789	K719	S643	V555	E392	M314	V277	Q218
P1258	P1258	L1105	E1024	R870	D790	R720	S643	G556	S480	L397	V278	Q219
L1259	L1259	M1107	A1031	W871	L791	R720	S643	H557	L481	L398	V279	L220
G1260	G1260	N1108	A1031	R871	L791	R720	S643	H557	L481	L398	V280	L221
K1261	K1261	L1109	R1034	W872	G792	R720	S643	H557	L481	L398	V281	D222
Y1262	Y1262	L1109	K1035	W873	G792	R720	S643	H557	L481	L398	V282	L223
A1263	A1263	G1110	I1036	W874	G792	R720	S643	H557	L481	L398	V283	D222
L1264	L1264	L1112	I1036	W874	G792	R720	S643	H557	L481	L398	V284	L223
L1265	L1265	L1112	I1036	W874	G792	R720	S643	H557	L481	L398	V285	L223

K1328
E1329
I1330
R1331
S1332
L1333
G1334
I1335
R1336
I1337
E1338
L1339
E1340
D1341
E1342

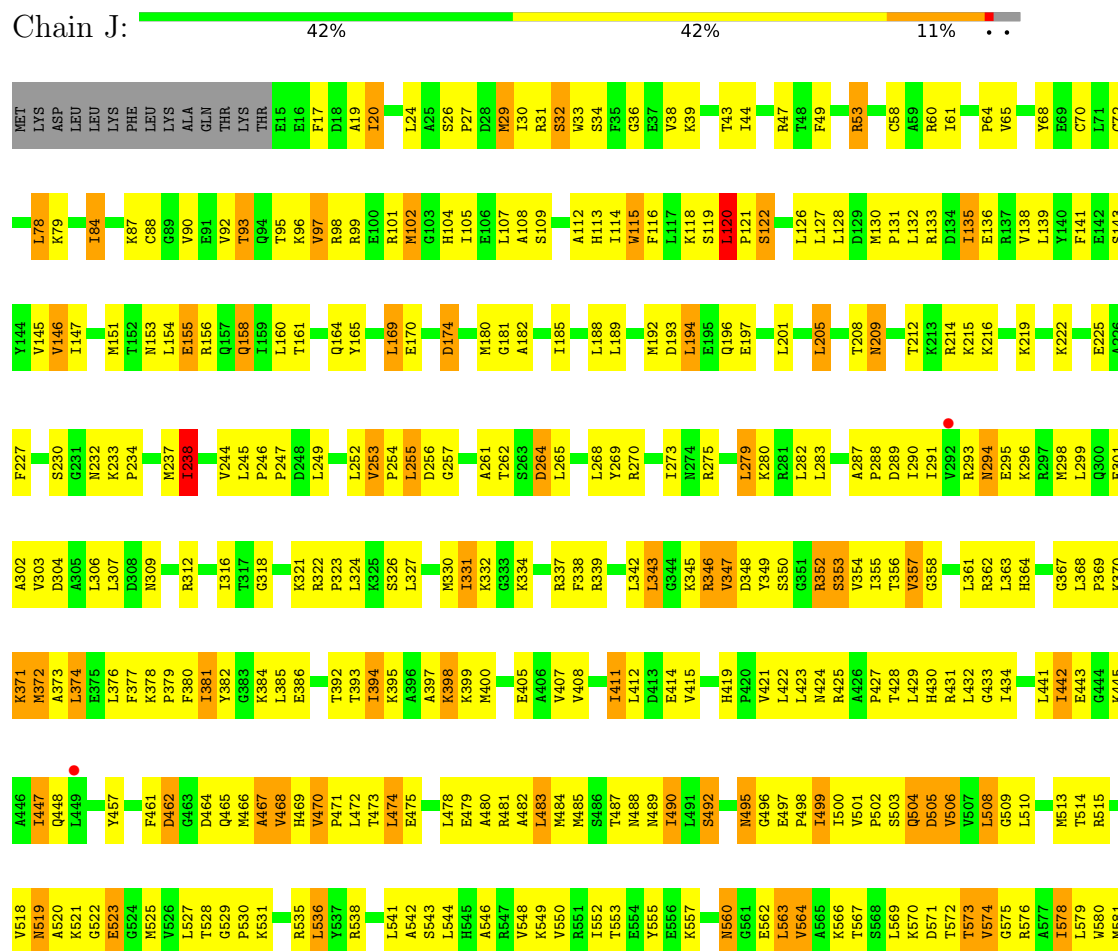
● Molecule 3: DNA-directed RNA polymerase subunit beta'

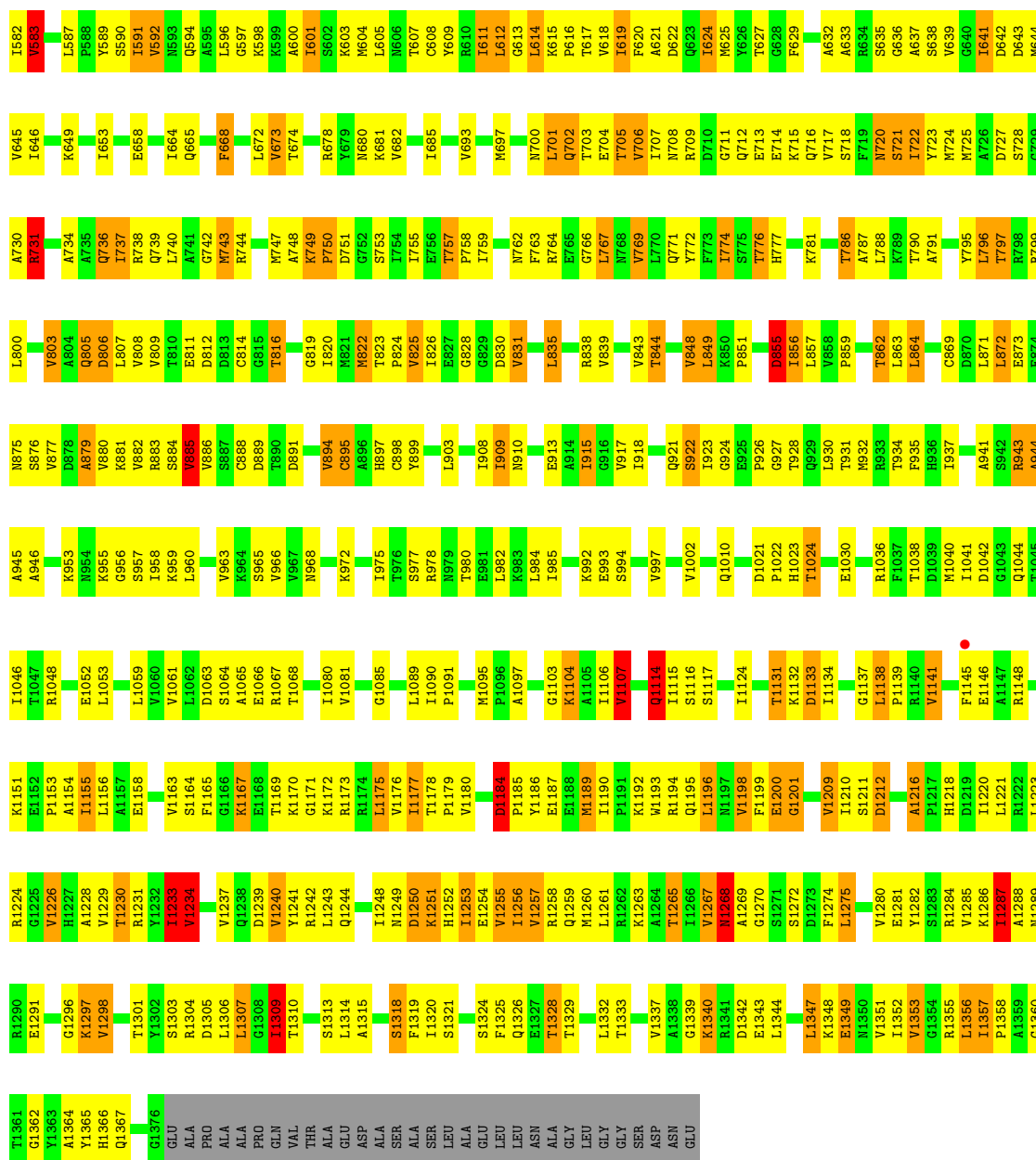
Chain D: 43% 43% 10% ..





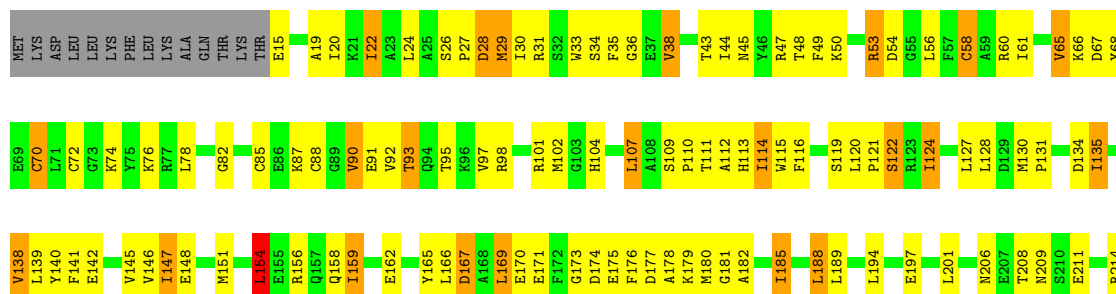
• Molecule 3: DNA-directed RNA polymerase subunit beta'





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

Chain P: 44% 42% 10% .

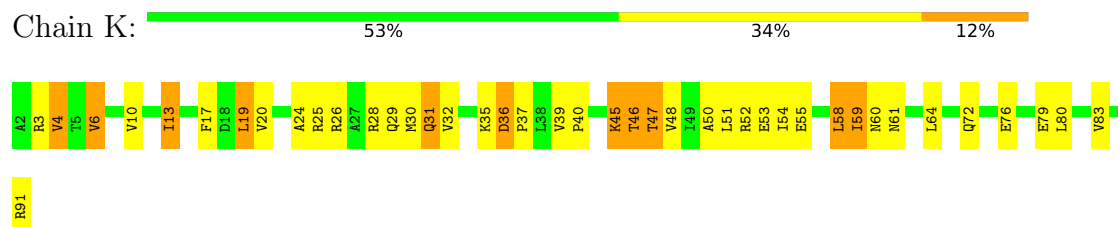




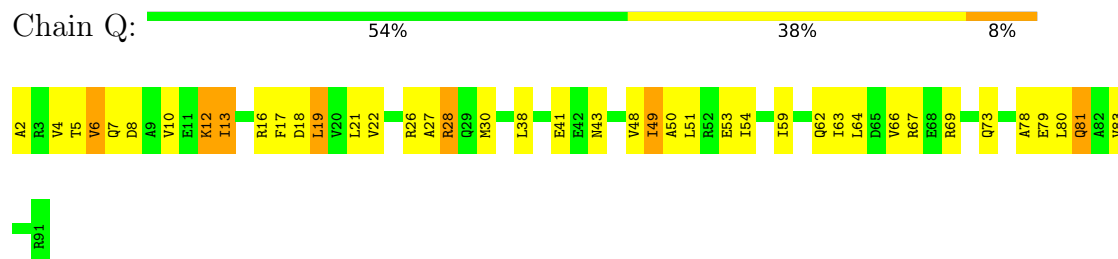
- Molecule 4: DNA-directed RNA polymerase subunit omega



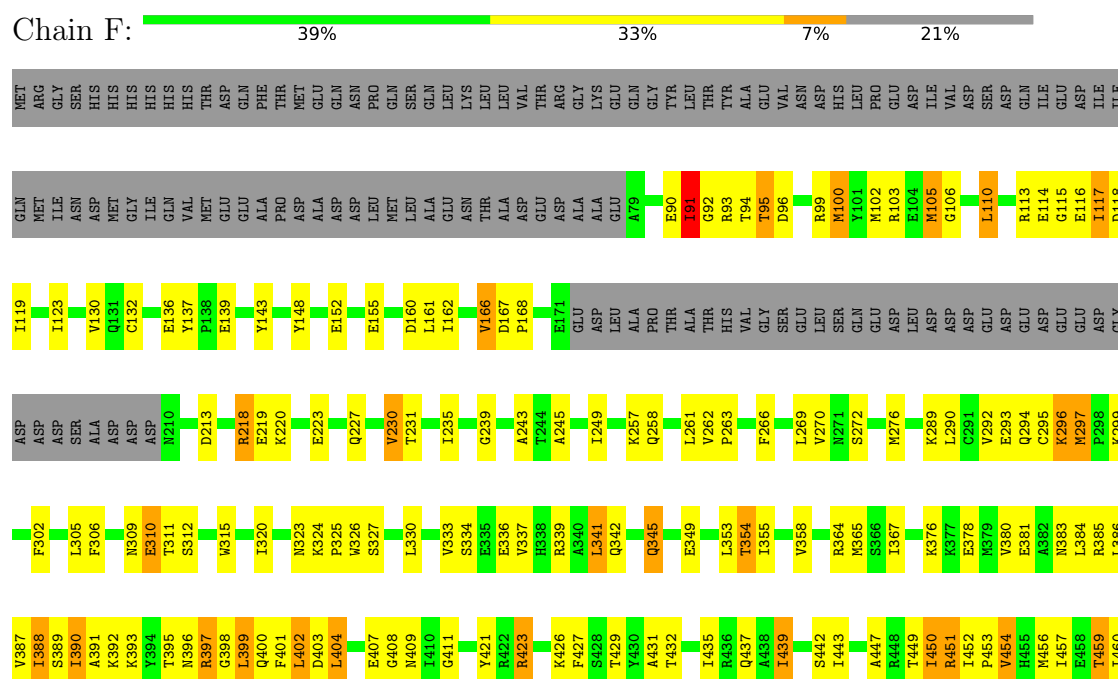
- Molecule 4: DNA-directed RNA polymerase subunit omega

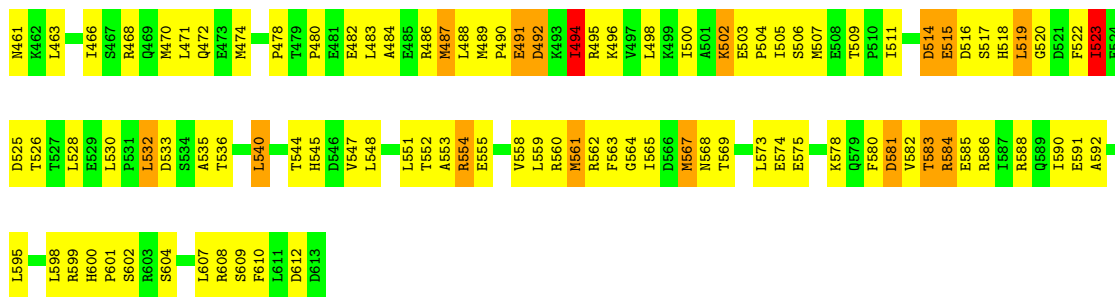


- Molecule 4: DNA-directed RNA polymerase subunit omega



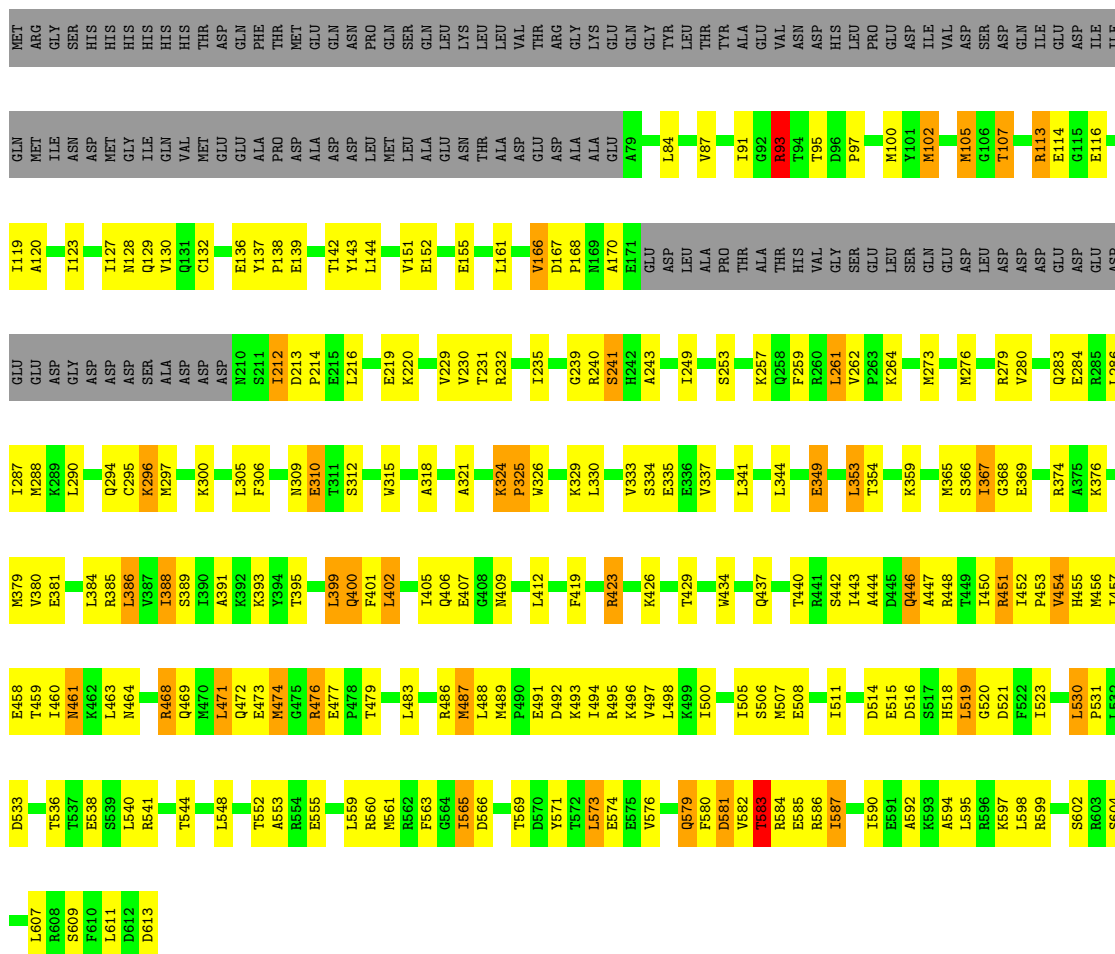
- Molecule 5: RNA polymerase sigma factor RpoD





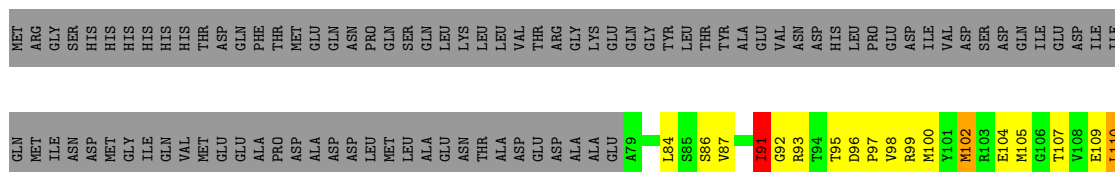
• Molecule 5: RNA polymerase sigma factor RpoD

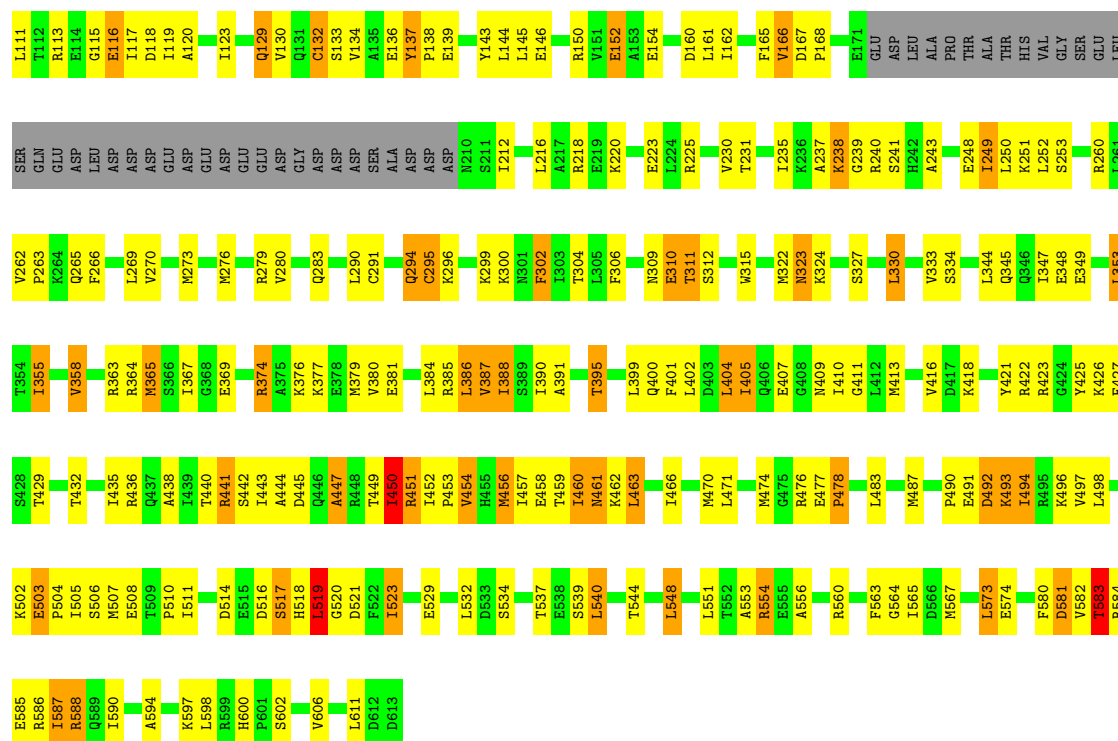
Chain L: 42% 31% 6% 21%



• Molecule 5: RNA polymerase sigma factor RpoD

Chain R: 40% 31% 8% 21%





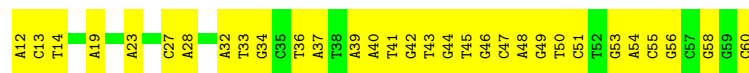
• Molecule 6: NT strand DNA (49-MER)



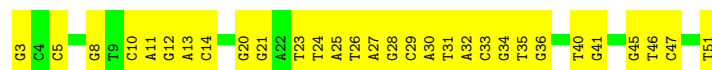
• Molecule 6: NT strand DNA (49-MER)



• Molecule 6: NT strand DNA (49-MER)

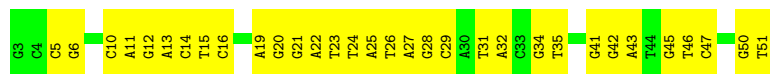


• Molecule 7: T strand DNA (49-MER)



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

Chain 5:  35% 65%



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

Chain 8:  41% 57%

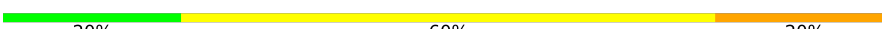


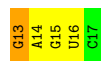
- Molecule 8: RNA (5'-R(*(GTP))-R(P*AP*GP*UP*C)-3')

Chain 3:  80% 20%



- Molecule 8: RNA (5'-R(*(GTP))-R(P*AP*GP*UP*C)-3')

Chain 6:  20% 60% 20%



- Molecule 8: RNA (5'-R(*(GTP))-R(P*AP*GP*UP*C)-3')

Chain 9:  40% 60%



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	237.67Å 204.99Å 248.84Å 90.00° 116.86° 90.00°	Depositor
Resolution (Å)	39.98 – 5.50 39.98 – 5.50	Depositor EDS
% Data completeness (in resolution range)	97.9 (39.98-5.50) 97.9 (39.98-5.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.07 (at 5.37Å)	Xtriage
Refinement program	REFMAC 5.8.0073	Depositor
R, R_{free}	0.231 , 0.313 0.231 , 0.312	Depositor DCC
R_{free} test set	3384 reflections (4.89%)	wwPDB-VP
Wilson B-factor (Å ²)	324.1	Xtriage
Anisotropy	0.251	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.24 , 171.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.39$, $\langle L^2 \rangle = 0.22$	Xtriage
Estimated twinning fraction	0.055 for h,-k,-h-l	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	94668	wwPDB-VP
Average B, all atoms (Å ²)	198.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.45% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 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	0.88	0/1809	1.28	11/2450 (0.4%)
1	B	0.84	0/1789	1.29	8/2425 (0.3%)
1	G	0.82	0/1809	1.26	4/2450 (0.2%)
1	H	0.87	0/1789	1.34	14/2425 (0.6%)
1	M	0.76	0/1809	1.16	3/2450 (0.1%)
1	N	0.82	0/1789	1.21	9/2425 (0.4%)
2	C	0.76	0/10745	1.18	51/14499 (0.4%)
2	I	0.77	2/10745 (0.0%)	1.16	33/14499 (0.2%)
2	O	0.73	0/10745	1.14	36/14499 (0.2%)
3	D	0.81	1/10729 (0.0%)	1.18	56/14487 (0.4%)
3	J	0.82	4/10729 (0.0%)	1.23	60/14487 (0.4%)
3	P	0.81	2/10729 (0.0%)	1.18	47/14487 (0.3%)
4	E	0.72	0/710	1.08	2/956 (0.2%)
4	K	0.84	1/710 (0.1%)	1.23	5/956 (0.5%)
4	Q	0.76	0/710	1.08	0/956
5	F	0.70	0/4076	1.08	13/5482 (0.2%)
5	L	0.74	0/4076	1.10	6/5482 (0.1%)
5	R	0.74	1/4076 (0.0%)	1.07	12/5482 (0.2%)
6	1	0.35	0/1114	0.65	0/1714
6	4	1.03	1/1114 (0.1%)	0.83	4/1714 (0.2%)
6	7	0.39	0/1115	0.65	0/1718
7	2	0.35	0/1136	0.61	0/1752
7	5	0.35	0/1136	0.62	0/1752
7	8	0.39	0/1137	0.64	1/1756 (0.1%)
8	3	0.45	0/94	0.65	0/144
8	6	0.46	0/94	0.64	0/144
8	9	0.43	0/94	0.67	0/144
All	All	0.77	12/96608 (0.0%)	1.14	375/131735 (0.3%)

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	P	0	1

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	4	51	DC	O3'-P	32.46	2.09	1.61
2	I	638	SER	CB-OG	10.49	1.63	1.42
3	D	955	LYS	CE-NZ	9.04	1.76	1.49
4	K	91	ARG	C-O	6.95	1.37	1.23
2	I	255	ILE	CG1-CD1	5.89	1.74	1.51
3	J	563	LEU	CA-C	5.85	1.60	1.53
3	P	681	LYS	CG-CD	5.84	1.70	1.52
3	P	855	ASP	N-CA	5.40	1.53	1.46
3	J	1287	ILE	CG1-CD1	5.40	1.72	1.51
3	J	470	VAL	CA-C	-5.26	1.48	1.52
3	J	470	VAL	N-CA	-5.17	1.41	1.46
5	R	374	ARG	NE-CZ	5.00	1.38	1.33

All (375) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	4	51	DC	O3'-P-O5'	-13.08	84.38	104.00
6	4	51	DC	P-O3'-C3'	11.98	138.17	120.20
3	D	737	ILE	CB-CA-C	-10.61	98.30	111.88
6	4	51	DC	OP1-P-O3'	10.47	139.42	108.00
3	D	529	GLY	CA-C-N	10.18	130.35	119.05
3	D	529	GLY	C-N-CA	10.18	130.35	119.05
2	O	1308	ILE	CB-CA-C	-9.88	99.33	111.97
3	J	120	LEU	C-N-CD	-9.82	99.00	120.60
2	O	70	TYR	CA-C-N	-9.74	113.24	123.08
2	O	70	TYR	C-N-CA	-9.74	113.24	123.08
2	I	643	SER	N-CA-C	9.54	120.83	108.24
1	B	217	ILE	CB-CA-C	-9.44	100.01	111.81
3	J	529	GLY	CA-C-N	9.36	129.05	118.85
3	J	529	GLY	C-N-CA	9.36	129.05	118.85
3	J	885	VAL	CB-CA-C	-9.28	99.88	112.04
3	J	601	ILE	CB-CA-C	-9.22	100.08	111.88
3	J	856	ILE	N-CA-C	9.21	121.81	109.37
3	D	774	ILE	CB-CA-C	-9.18	100.13	111.88
3	P	529	GLY	CA-C-N	9.16	128.84	118.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	P	529	GLY	C-N-CA	9.16	128.84	118.85
1	N	29	GLU	C-N-CD	-9.03	100.74	120.60
3	D	641	ILE	CB-CA-C	-8.88	100.15	112.14
2	C	559	CYS	CA-C-N	8.78	128.42	119.56
2	C	559	CYS	C-N-CA	8.78	128.42	119.56
3	J	737	ILE	CB-CA-C	-8.74	100.69	111.88
3	J	591	ILE	N-CA-C	8.71	118.78	110.42
2	I	1161	LEU	N-CA-C	8.68	120.36	111.07
2	C	209	ILE	CB-CA-C	-8.63	100.49	112.14
3	J	1216	ALA	CA-C-N	8.60	130.59	119.84
3	J	1216	ALA	C-N-CA	8.60	130.59	119.84
5	R	93	ARG	N-CA-C	8.55	120.91	110.91
3	P	1216	ALA	CA-C-N	8.40	127.98	119.24
3	P	1216	ALA	C-N-CA	8.40	127.98	119.24
1	M	140	ILE	N-CA-C	8.25	120.36	108.48
3	D	932	MET	N-CA-C	8.22	119.86	111.07
2	C	1079	ILE	CB-CA-C	-8.14	100.92	111.25
3	D	803	VAL	CB-CA-C	-8.12	101.40	112.04
2	O	127	ILE	CB-CA-C	-8.10	101.94	110.53
3	J	499	ILE	CB-CA-C	-8.06	101.36	111.92
3	D	591	ILE	N-CA-C	8.04	118.14	110.42
2	O	1161	LEU	N-CA-C	7.90	119.67	111.14
3	P	702	GLN	CA-C-N	-7.84	113.11	122.44
3	P	702	GLN	C-N-CA	-7.84	113.11	122.44
3	D	1165	PHE	CB-CA-C	-7.76	105.12	116.53
1	G	217	ILE	CB-CA-C	-7.76	101.94	111.88
1	B	140	ILE	N-CA-C	7.70	119.21	108.12
2	C	577	VAL	N-CA-C	7.70	118.24	110.23
2	I	1286	THR	CB-CA-C	-7.67	98.85	110.88
1	A	180	VAL	CB-CA-C	-7.65	102.96	111.23
2	C	77	GLU	CA-C-N	7.60	128.06	119.93
2	C	77	GLU	C-N-CA	7.60	128.06	119.93
2	O	1079	ILE	CB-CA-C	-7.59	100.68	111.31
5	F	523	ILE	N-CA-C	7.52	119.08	108.93
3	D	1165	PHE	CA-C-O	7.47	123.04	118.33
5	L	324	LYS	CA-C-N	7.47	129.18	119.84
5	L	324	LYS	C-N-CA	7.47	129.18	119.84
3	J	591	ILE	CB-CA-C	-7.45	102.43	111.97
1	G	144	ILE	CB-CA-C	-7.34	100.85	110.84
2	I	438	GLY	N-CA-C	-7.33	104.94	115.64
3	D	578	ILE	CB-CA-C	-7.32	102.61	111.97
2	C	242	VAL	CA-C-N	7.29	126.82	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	242	VAL	C-N-CA	7.29	126.82	119.24
5	R	523	ILE	N-CA-C	7.28	118.40	109.30
2	I	428	VAL	CB-CA-C	-7.27	102.58	111.88
3	D	856	ILE	N-CA-C	7.10	118.21	108.84
3	D	646	ILE	CB-CA-C	-7.08	103.24	110.89
3	P	1309	ILE	CB-CA-C	-7.06	102.84	111.88
3	J	831	VAL	CB-CA-C	-7.05	104.33	111.80
3	D	253	VAL	N-CA-C	7.03	116.89	108.45
3	J	646	ILE	CA-C-N	7.03	127.45	119.93
3	J	646	ILE	C-N-CA	7.03	127.45	119.93
6	4	51	DC	OP2-P-O3'	-6.94	87.17	108.00
3	D	618	VAL	CB-CA-C	-6.93	102.82	111.70
1	N	140	ILE	N-CA-C	6.93	120.03	108.81
2	C	616	ILE	N-CA-C	6.92	117.80	108.11
2	C	1002	LEU	N-CA-C	6.92	114.46	108.78
5	R	460	ILE	CB-CA-C	-6.87	103.09	111.88
2	I	486	THR	N-CA-C	6.86	119.77	111.82
2	C	498	ILE	CB-CA-C	-6.79	103.33	111.81
2	O	428	VAL	CB-CA-C	-6.79	103.13	112.02
3	J	470	VAL	CB-CA-C	-6.76	103.01	110.52
1	H	178	SER	CA-C-N	6.76	128.29	119.84
1	H	178	SER	C-N-CA	6.76	128.29	119.84
3	D	147	ILE	CB-CA-C	-6.73	103.06	111.94
2	C	282	VAL	N-CA-C	6.71	117.69	109.30
2	I	782	VAL	CB-CA-C	-6.71	103.23	111.08
2	O	71	VAL	CB-CA-C	6.69	117.80	111.44
2	I	933	VAL	N-CA-C	6.69	117.75	108.12
2	C	374	GLU	CA-C-N	6.67	124.53	119.66
2	C	374	GLU	C-N-CA	6.67	124.53	119.66
2	C	290	GLU	N-CA-C	6.66	119.88	111.69
2	C	1002	LEU	CB-CA-C	-6.63	107.52	117.07
1	A	140	ILE	N-CA-C	6.62	119.65	108.86
2	O	724	VAL	CB-CA-C	-6.61	104.15	111.35
1	B	199	ASP	N-CA-C	6.60	119.75	109.52
3	J	583	VAL	N-CA-C	6.58	123.10	108.88
2	C	138	ILE	CB-CA-C	-6.55	103.40	111.32
5	F	123	ILE	CB-CA-C	-6.54	103.63	111.81
3	P	120	LEU	C-N-CD	-6.54	106.22	120.60
2	C	445	ILE	CB-CA-C	-6.52	103.50	112.04
1	H	51	MET	N-CA-C	6.51	117.86	109.72
3	P	1046	ILE	N-CA-C	6.51	117.50	108.12
2	I	577	VAL	N-CA-C	6.51	116.67	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	I	603	ILE	CB-CA-C	-6.50	102.71	111.15
3	P	470	VAL	N-CA-C	6.50	115.13	107.73
2	C	145	ILE	CB-CA-C	-6.49	102.09	110.98
3	D	1132	LYS	CB-CA-C	-6.49	107.26	116.34
2	C	137	VAL	CB-CA-C	-6.49	102.93	111.81
1	H	51	MET	CA-C-N	6.48	126.24	119.76
1	H	51	MET	C-N-CA	6.48	126.24	119.76
2	O	920	VAL	CA-C-N	6.48	127.94	119.84
2	O	920	VAL	C-N-CA	6.48	127.94	119.84
2	I	366	ILE	CB-CA-C	-6.47	103.42	111.70
3	J	894	VAL	CB-CA-C	-6.45	102.35	111.19
2	O	1152	GLY	N-CA-C	6.42	118.87	111.36
1	H	217	ILE	CB-CA-C	-6.41	103.49	111.70
3	D	1046	ILE	N-CA-C	6.40	116.34	108.53
2	C	577	VAL	CB-CA-C	-6.37	103.55	111.70
3	J	1257	VAL	CB-CA-C	-6.36	103.74	111.88
5	F	387	VAL	CB-CA-C	-6.35	103.85	111.97
3	D	1216	ALA	CA-C-N	6.33	126.54	119.32
3	D	1216	ALA	C-N-CA	6.33	126.54	119.32
1	H	140	ILE	N-CA-C	6.33	116.94	108.27
4	K	20	VAL	CB-CA-C	-6.32	103.88	111.97
2	O	399	ALA	N-CA-C	-6.32	104.39	111.28
3	D	707	ILE	CB-CA-C	-6.32	102.50	111.34
1	H	130	ILE	CB-CA-C	6.31	116.67	111.05
2	I	255	ILE	N-CA-C	6.30	116.74	106.72
3	D	1086	ASN	N-CA-C	6.29	119.36	110.23
3	P	506	VAL	CB-CA-C	-6.29	103.65	111.70
3	P	124	ILE	CB-CA-C	-6.27	103.94	111.97
3	J	65	VAL	CB-CA-C	-6.26	103.69	112.14
1	B	78	ILE	CB-CA-C	-6.25	103.88	111.88
3	J	527	LEU	N-CA-C	6.24	119.58	109.40
4	K	31	GLN	CA-C-N	-6.23	116.61	122.66
4	K	31	GLN	C-N-CA	-6.23	116.61	122.66
5	F	567	MET	N-CA-C	-6.23	98.12	108.34
1	H	98	VAL	N-CA-C	6.22	117.73	108.46
3	P	645	VAL	N-CA-C	6.21	117.06	107.99
3	D	704	GLU	N-CA-C	6.21	120.19	112.24
3	J	398	LYS	CB-CA-C	-6.21	101.05	110.92
2	O	1163	THR	N-CA-C	6.21	118.05	111.28
5	R	299	LYS	N-CA-C	-6.20	105.20	112.89
3	P	1094	ASP	N-CA-C	6.20	119.01	111.82
5	R	92	GLY	N-CA-C	-6.18	98.53	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	776	THR	CB-CA-C	-6.18	100.17	110.68
2	O	255	ILE	N-CA-C	6.17	115.61	106.85
3	J	879	ALA	CA-C-N	-6.16	113.46	122.58
3	J	879	ALA	C-N-CA	-6.16	113.46	122.58
1	A	217	ILE	CB-CA-C	-6.16	103.82	112.14
1	B	142	MET	N-CA-C	6.15	117.49	108.14
1	N	199	ASP	N-CA-C	6.15	118.75	109.41
3	D	120	LEU	C-N-CD	-6.14	107.08	120.60
3	P	1357	ILE	CB-CA-C	-6.13	104.87	110.88
3	J	803	VAL	CB-CA-C	-6.12	104.04	112.24
2	O	984	VAL	N-CA-C	6.11	115.41	106.55
3	P	147	ILE	CB-CA-C	-6.10	103.89	111.94
3	P	1110	GLU	N-CA-C	6.10	118.40	110.53
5	F	583	THR	N-CA-C	6.09	119.66	110.64
5	L	583	THR	N-CA-C	6.09	123.77	110.80
3	J	1255	VAL	CB-CA-C	-6.08	103.91	111.70
2	O	513	GLN	N-CA-C	6.05	117.39	108.86
2	C	1283	ALA	N-CA-C	6.04	119.34	108.17
2	C	493	ILE	N-CA-C	6.03	117.45	108.23
2	I	870	ILE	CB-CA-C	-6.03	102.48	110.98
3	J	38	VAL	CB-CA-C	-6.02	104.12	111.88
3	J	583	VAL	CB-CA-C	-6.01	100.41	111.36
3	J	578	ILE	CB-CA-C	-6.01	104.28	111.97
3	D	1256	ILE	CB-CA-C	-5.98	104.31	111.97
2	C	615	VAL	N-CA-C	5.96	116.20	107.37
3	P	1226	VAL	N-CA-C	5.93	116.11	110.42
4	K	46	THR	CB-CA-C	-5.92	100.96	110.79
2	O	71	VAL	N-CA-C	5.88	116.61	111.56
2	O	823	VAL	CB-CA-C	-5.88	104.32	112.02
1	M	78	ILE	CB-CA-C	-5.86	104.38	111.88
1	N	196	THR	N-CA-C	-5.86	106.48	113.97
2	C	220	ILE	CB-CA-C	-5.85	104.21	111.70
3	J	146	VAL	CB-CA-C	-5.84	104.25	111.08
5	R	450	ILE	N-CA-CB	-5.84	105.00	111.66
3	P	1184	ASP	N-CA-C	5.84	118.08	109.50
2	I	39	ILE	CB-CA-C	-5.83	104.18	112.22
3	D	1164	SER	N-CA-C	5.82	115.92	108.24
3	J	1124	ILE	N-CA-C	5.82	113.64	107.76
2	O	846	GLY	CA-C-N	5.82	126.00	119.90
2	O	846	GLY	C-N-CA	5.82	126.00	119.90
3	D	239	LEU	CA-CB-CG	-5.80	95.99	116.30
2	C	305	SER	N-CA-C	5.79	117.28	110.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	F	137	TYR	CA-C-N	5.78	125.47	119.05
5	F	137	TYR	C-N-CA	5.78	125.47	119.05
3	D	833	GLU	CA-C-N	-5.77	114.67	120.21
3	D	833	GLU	C-N-CA	-5.77	114.67	120.21
3	D	1177	ILE	CB-CA-C	-5.77	104.02	111.53
7	8	25	DA	C2'-C3'-O3'	-5.77	102.85	111.50
1	M	142	MET	N-CA-C	5.76	117.61	108.79
1	A	153	VAL	CA-C-N	-5.75	114.83	120.52
1	A	153	VAL	C-N-CA	-5.75	114.83	120.52
3	D	1220	ILE	CB-CA-C	-5.75	104.61	111.97
3	J	1309	ILE	N-CA-C	5.75	121.31	109.34
3	J	1226	VAL	N-CA-C	5.75	115.94	110.42
2	O	425	ILE	CB-CA-C	-5.73	104.54	111.88
3	D	1351	VAL	CB-CA-C	-5.71	101.93	111.29
3	J	1233	ILE	CB-CA-C	-5.71	104.67	111.97
2	C	399	ALA	N-CA-C	-5.70	105.06	111.28
2	I	1135	GLN	CB-CA-C	-5.70	109.48	117.23
3	J	467	ALA	CA-C-N	-5.70	114.03	122.23
3	J	467	ALA	C-N-CA	-5.70	114.03	122.23
3	D	587	LEU	N-CA-C	5.68	117.04	109.83
2	C	933	VAL	N-CA-C	5.68	116.92	108.46
2	I	493	ILE	N-CA-C	5.67	117.16	108.71
3	P	523	GLU	N-CA-C	5.66	118.40	109.96
3	P	1206	ARG	CB-CA-C	-5.66	102.01	110.16
1	A	26	VAL	N-CA-C	5.66	116.43	108.17
2	C	1075	VAL	CB-CA-C	-5.65	103.47	111.21
2	C	1159	VAL	N-CA-C	5.65	115.69	108.12
1	G	78	ILE	CB-CA-C	-5.65	104.74	111.97
1	G	51	MET	N-CA-C	5.64	116.76	109.65
3	P	1237	VAL	CB-CA-C	-5.60	104.80	111.81
5	R	583	THR	N-CA-C	5.60	122.72	110.80
1	B	228	LEU	CA-CB-CG	-5.59	96.72	116.30
1	A	74	VAL	CB-CA-C	-5.59	103.32	110.98
1	A	205	MET	CB-CG-SD	-5.59	95.94	112.70
1	B	192	VAL	CB-CA-C	-5.58	103.92	111.63
2	O	1061	GLN	N-CA-C	5.58	114.56	108.14
3	P	1282	TYR	CA-CB-CG	5.58	123.95	113.90
3	J	713	GLU	N-CA-C	5.58	117.89	109.41
3	D	968	ASN	N-CA-C	5.58	117.94	109.63
2	O	242	VAL	CA-C-N	5.57	125.67	119.32
2	O	242	VAL	C-N-CA	5.57	125.67	119.32
3	P	154	LEU	N-CA-C	5.57	117.87	109.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	98	VAL	N-CA-C	5.56	116.74	108.46
1	H	108	GLY	CA-C-N	5.52	126.74	119.84
1	H	108	GLY	C-N-CA	5.52	126.74	119.84
3	P	317	THR	N-CA-C	5.52	118.69	110.52
3	J	419	HIS	CA-C-N	-5.51	112.95	119.84
3	J	419	HIS	C-N-CA	-5.51	112.95	119.84
3	P	968	ASN	N-CA-C	5.51	115.68	108.07
2	O	635	THR	N-CA-C	5.50	117.48	108.52
3	D	1309	ILE	N-CA-C	5.49	120.76	109.34
3	P	624	ILE	CB-CA-C	-5.49	104.86	111.88
3	P	1331	VAL	CB-CA-C	-5.49	104.85	112.04
5	L	523	ILE	N-CA-C	5.48	116.07	108.84
1	H	106	GLY	CA-C-N	5.48	127.84	120.50
1	H	106	GLY	C-N-CA	5.48	127.84	120.50
2	O	209	ILE	CB-CA-C	-5.48	104.96	111.97
2	O	616	ILE	N-CA-C	5.47	115.83	108.17
3	P	809	VAL	CB-CA-C	-5.45	106.02	111.80
2	I	57	PHE	N-CA-C	5.45	116.39	110.13
2	C	999	GLU	N-CA-C	-5.44	106.59	113.18
2	C	636	CYS	N-CA-C	5.44	115.31	108.45
2	C	57	PHE	N-CA-C	5.44	118.03	110.20
2	I	388	LEU	CA-C-N	-5.42	113.73	122.24
2	I	388	LEU	C-N-CA	-5.42	113.73	122.24
3	J	1171	GLY	N-CA-C	-5.42	107.19	115.00
3	J	93	THR	N-CA-CB	5.42	115.04	109.51
3	P	206	ASN	CA-C-N	-5.41	115.15	121.64
3	P	206	ASN	C-N-CA	-5.41	115.15	121.64
3	D	941	ALA	N-CA-C	5.40	117.47	108.02
2	O	260	LYS	N-CA-C	5.40	118.18	110.24
3	D	743	MET	N-CA-C	-5.40	99.88	109.06
2	O	502	VAL	CB-CA-C	-5.40	105.06	111.97
2	O	72	SER	N-CA-C	5.39	115.49	107.88
3	P	1111	ASP	N-CA-C	5.39	118.38	110.30
1	N	56	VAL	CB-CA-C	-5.38	103.32	111.33
3	D	523	GLU	N-CA-C	5.37	118.02	109.96
2	C	245	ARG	N-CA-C	-5.37	107.38	114.31
3	D	30	ILE	CB-CA-C	-5.37	104.90	112.14
3	D	759	ILE	CB-CA-C	-5.36	103.74	111.19
3	D	713	GLU	N-CA-C	5.36	118.01	110.14
3	J	147	ILE	CB-CA-C	-5.36	105.02	112.04
3	J	238	ILE	CA-C-N	-5.35	115.33	122.72
3	J	238	ILE	C-N-CA	-5.35	115.33	122.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	F	517	SER	N-CA-C	5.32	117.08	108.41
5	R	302	PHE	N-CA-C	5.32	117.08	111.28
3	P	769	VAL	CB-CA-C	-5.32	102.57	111.29
5	F	583	THR	CB-CA-C	-5.31	103.27	109.80
2	I	559	CYS	CA-C-N	5.31	124.92	119.56
2	I	559	CYS	C-N-CA	5.31	124.92	119.56
2	O	599	VAL	N-CA-C	5.30	115.41	107.51
3	P	38	VAL	CB-CA-C	-5.30	104.52	111.25
1	A	39	LEU	CA-CB-CG	-5.29	97.78	116.30
3	D	40	LYS	CA-C-N	5.29	124.91	119.56
3	D	40	LYS	C-N-CA	5.29	124.91	119.56
2	C	194	LEU	N-CA-C	5.29	116.93	108.41
3	D	1245	GLY	CA-C-N	-5.29	115.92	123.11
3	D	1245	GLY	C-N-CA	-5.29	115.92	123.11
2	O	933	VAL	N-CA-C	5.28	116.08	108.48
2	C	482	GLY	N-CA-C	5.28	119.32	112.25
3	D	1124	ILE	CA-C-N	5.27	125.03	119.76
3	D	1124	ILE	C-N-CA	5.27	125.03	119.76
3	D	20	ILE	N-CA-C	5.27	115.49	108.11
2	O	488	MET	CA-C-N	5.27	124.90	119.05
2	O	488	MET	C-N-CA	5.27	124.90	119.05
2	I	1338	GLU	N-CA-C	5.27	116.81	108.96
3	J	611	ILE	CB-CA-C	-5.26	105.00	111.94
3	D	527	LEU	N-CA-C	5.25	117.95	109.40
3	D	967	VAL	N-CA-C	5.24	116.00	108.93
5	R	137	TYR	CA-C-N	5.23	124.55	118.85
5	R	137	TYR	C-N-CA	5.23	124.55	118.85
3	J	859	PRO	N-CA-C	5.22	119.51	111.21
2	I	973	SER	N-CA-C	5.22	116.77	111.14
3	P	1164	SER	N-CA-C	5.22	117.32	109.23
4	E	2	ALA	CA-C-N	5.21	127.27	120.28
4	E	2	ALA	C-N-CA	5.21	127.27	120.28
2	C	1233	LEU	N-CA-C	5.21	117.92	109.06
3	J	1184	ASP	N-CA-C	5.21	117.27	110.08
2	C	1316	GLU	CA-C-N	5.20	125.18	120.03
2	C	1316	GLU	C-N-CA	5.20	125.18	120.03
2	I	399	ALA	N-CA-C	-5.20	105.61	111.28
1	N	142	MET	N-CA-C	5.20	116.05	108.14
2	C	1334	GLY	CA-C-N	-5.19	115.78	122.99
2	C	1334	GLY	C-N-CA	-5.19	115.78	122.99
2	I	260	LYS	N-CA-C	5.18	117.82	110.10
5	F	443	ILE	N-CA-CB	5.18	117.58	110.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	564	VAL	N-CA-C	5.17	115.76	109.30
3	J	1198	VAL	N-CA-C	5.17	116.02	108.58
2	I	87	ILE	N-CA-C	5.17	116.63	111.00
3	J	570	LYS	N-CA-C	5.17	117.72	109.81
3	D	915	ILE	CB-CA-C	-5.16	103.90	112.26
3	J	1107	VAL	N-CA-C	5.16	114.69	107.37
3	D	1233	ILE	CB-CA-C	-5.16	105.37	111.97
2	C	1265	PHE	N-CA-C	-5.15	105.01	111.92
2	C	1002	LEU	CA-C-O	5.15	120.93	117.94
1	N	129	VAL	CA-C-N	-5.15	117.67	122.66
1	N	129	VAL	C-N-CA	-5.15	117.67	122.66
3	P	245	LEU	N-CA-C	5.14	116.17	109.64
3	J	668	PHE	N-CA-C	5.14	116.58	110.97
5	L	168	PRO	N-CA-C	5.14	118.64	110.21
3	P	567	THR	N-CA-C	5.13	117.12	108.96
3	P	1351	VAL	CB-CA-C	-5.13	105.31	111.88
5	R	503	GLU	CA-C-N	5.13	125.13	119.90
5	R	503	GLU	C-N-CA	5.13	125.13	119.90
2	C	116	ASP	N-CA-C	5.13	116.77	108.26
5	F	502	LYS	N-CA-C	5.13	117.65	109.96
2	C	388	LEU	CA-C-N	-5.12	114.20	122.24
2	C	388	LEU	C-N-CA	-5.12	114.20	122.24
3	P	322	ARG	CA-C-N	5.12	125.36	119.83
3	P	322	ARG	C-N-CA	5.12	125.36	119.83
3	P	490	ILE	CB-CA-C	-5.12	106.55	111.06
2	O	1076	ILE	CB-CA-C	-5.11	104.48	111.33
5	F	590	ILE	CB-CA-C	-5.11	105.24	112.14
3	D	570	LYS	N-CA-C	5.11	118.07	109.95
2	I	1163	THR	N-CA-C	5.10	116.92	111.36
3	J	702	GLN	CA-C-N	-5.10	114.52	122.42
3	J	702	GLN	C-N-CA	-5.10	114.52	122.42
3	J	563	LEU	N-CA-C	5.10	117.77	110.68
5	F	494	ILE	CB-CA-C	-5.10	105.44	111.81
2	I	928	VAL	CB-CA-C	-5.09	103.75	111.33
3	J	1240	VAL	CB-CA-C	-5.09	105.45	111.81
3	P	273	ILE	CB-CA-C	-5.09	105.46	111.97
4	K	20	VAL	N-CA-C	5.09	115.31	110.42
3	P	1282	TYR	N-CA-CB	-5.09	102.36	109.94
2	I	30	ILE	CB-CA-C	-5.08	105.19	111.70
2	I	433	ILE	CB-CA-C	-5.08	105.28	112.14
3	D	1226	VAL	N-CA-C	5.08	115.30	110.53
3	J	474	LEU	N-CA-C	-5.07	105.94	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	1160	SER	N-CA-C	5.07	117.40	110.55
5	L	212	ILE	N-CA-C	5.07	115.15	107.80
1	A	205	MET	N-CA-C	5.05	117.57	108.48
3	P	1006	GLY	N-CA-C	5.05	119.99	112.41
2	C	550	VAL	CB-CA-C	-5.05	105.78	111.23
3	J	915	ILE	CB-CA-C	-5.04	104.09	112.26
2	I	1094	VAL	CB-CA-C	-5.04	106.04	111.59
2	C	1275	VAL	CB-CA-C	-5.04	105.43	111.88
3	P	591	ILE	N-CA-C	5.04	115.81	110.72
2	C	1338	GLU	N-CA-C	5.04	117.46	109.50
2	I	920	VAL	CB-CA-C	-5.04	106.06	111.00
3	P	1131	THR	N-CA-C	5.03	118.95	112.41
2	I	166	SER	N-CA-C	-5.03	105.88	111.36
3	P	114	ILE	N-CA-C	5.03	115.75	110.62
2	C	1218	GLY	N-CA-C	-5.02	108.39	115.32
3	J	1234	VAL	CB-CA-C	-5.02	103.06	111.29
1	H	176	CYS	CB-CA-C	-5.02	104.43	112.05
1	N	217	ILE	N-CA-C	5.01	115.23	110.42
1	A	59	VAL	N-CA-C	5.00	114.96	108.35
3	D	645	VAL	N-CA-C	5.00	114.96	107.51

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	P	1276	GLU	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1787	0	1813	211	0
1	B	1767	0	1789	221	0
1	G	1787	0	1813	171	0
1	H	1767	0	1789	164	0
1	M	1787	0	1813	139	0
1	N	1767	0	1789	119	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	C	10576	0	10591	839	0
2	I	10576	0	10591	941	0
2	O	10576	0	10591	759	0
3	D	10568	0	10781	955	1
3	J	10568	0	10780	1032	0
3	P	10568	0	10783	918	0
4	E	708	0	719	40	0
4	K	708	0	719	40	0
4	Q	708	0	719	49	0
5	F	4022	0	4083	294	0
5	L	4022	0	4083	229	0
5	R	4022	0	4083	308	0
6	1	996	0	555	65	1
6	4	996	0	556	71	0
6	7	996	0	554	60	1
7	2	1012	0	554	55	1
7	5	1012	0	554	52	0
7	8	1012	0	553	48	0
8	3	117	0	55	9	0
8	6	117	0	55	7	0
8	9	117	0	55	6	0
9	D	2	0	0	1	0
9	J	2	0	0	1	0
9	P	2	0	0	5	0
10	D	1	0	0	0	0
10	J	1	0	0	0	0
10	P	1	0	0	0	0
All	All	94668	0	92820	6986	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 37.

All (6986) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:255:ILE:CG1	2:I:255:ILE:CD1	1.74	1.59
3:D:955:LYS:NZ	3:D:955:LYS:CE	1.76	1.48
3:P:514:THR:HG21	3:P:596:LEU:CD1	1.48	1.42
3:J:421:VAL:CG1	3:J:469:HIS:O	1.70	1.40
3:P:1095:MET:SD	3:P:1173:ARG:NH2	1.97	1.38
3:D:130:MET:SD	3:D:135:ILE:HG12	1.62	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:514:THR:CG2	3:P:596:LEU:HD12	1.54	1.36
2:I:184:LEU:HD21	2:I:389:PHE:CZ	1.62	1.33
1:B:35:PHE:O	1:B:39:LEU:HG	1.27	1.32
2:I:206:ALA:O	2:I:209:ILE:HG22	1.23	1.30
3:D:703:THR:O	3:D:718:SER:CB	1.77	1.29
2:C:342:ASP:O	2:C:437:ASN:ND2	1.62	1.29
1:A:69:SER:O	1:A:78:ILE:HD11	1.24	1.29
2:O:1275:VAL:HG12	2:O:1279:GLU:OE2	1.29	1.29
1:A:224:LEU:CD1	1:A:228:LEU:HD11	1.62	1.28
3:J:1233:ILE:O	3:J:1237:VAL:HG23	1.27	1.28
1:H:39:LEU:O	1:H:43:LEU:HG	1.27	1.28
3:D:139:LEU:HD21	3:D:185:ILE:CD1	1.63	1.27
1:H:43:LEU:O	1:H:47:LEU:HD12	1.32	1.27
1:M:112:ALA:O	1:M:115:ILE:HD12	1.28	1.27
1:A:35:PHE:O	1:A:39:LEU:HG	1.29	1.26
2:O:206:ALA:O	2:O:209:ILE:HG22	1.30	1.26
1:A:45:ARG:HD3	1:B:38:THR:OG1	1.32	1.26
3:D:868:TRP:O	3:D:872:LEU:HG	1.33	1.26
3:J:1257:VAL:HA	3:J:1260:MET:CE	1.64	1.26
2:O:1073:LYS:NZ	8:9:16:U:OP1	1.65	1.26
3:D:251:PRO:O	5:F:507:MET:HE1	1.17	1.25
3:D:805:GLN:HB2	3:D:1347:LEU:CD1	1.66	1.24
3:J:1348:LYS:O	3:J:1352:ILE:HD12	1.11	1.24
1:A:180:VAL:HA	1:A:207:THR:CG2	1.69	1.23
3:J:372:MET:O	3:J:376:LEU:HG	1.38	1.23
5:L:573:LEU:HB3	7:5:45:DG:OP2	1.39	1.23
1:G:35:PHE:O	1:G:39:LEU:HD12	1.35	1.22
3:D:425:ARG:NH2	8:3:16:U:O2'	1.72	1.22
1:H:35:PHE:O	1:H:39:LEU:HG	1.37	1.21
2:I:1326:LEU:HA	2:I:1329:GLU:OE1	1.38	1.21
1:B:47:LEU:HD13	1:B:183:ILE:CD1	1.68	1.21
3:D:139:LEU:CD2	3:D:185:ILE:HD12	1.70	1.21
1:G:47:LEU:HD13	1:G:183:ILE:CD1	1.69	1.21
2:C:542:ARG:NH1	6:1:50:DT:C7	2.03	1.20
2:I:448:LEU:HD11	2:I:553:THR:O	1.37	1.20
2:C:521:LEU:HD21	2:C:686:GLN:HB3	1.21	1.20
3:J:843:VAL:HG21	3:J:897:HIS:O	1.43	1.17
3:P:398:LYS:CE	5:R:532:LEU:HD21	1.73	1.17
2:I:661:VAL:HG13	2:I:665:ALA:HB3	1.24	1.17
1:A:224:LEU:HD11	1:A:228:LEU:CD1	1.72	1.17
2:C:452:ARG:NH2	2:C:458:GLU:OE1	1.78	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:542:ARG:NH1	6:1:50:DT:H71	1.59	1.17
2:C:211:ARG:HD3	2:C:357:ASN:O	1.45	1.17
3:J:282:LEU:HD22	3:J:287:ALA:HB2	1.21	1.17
2:O:1326:LEU:O	2:O:1330:ILE:HD12	1.45	1.17
2:C:521:LEU:CD2	2:C:686:GLN:HB3	1.74	1.17
3:D:749:LYS:HB3	3:D:750:PRO:CD	1.70	1.17
7:8:25:DA:H1'	7:8:26:DT:H5''	1.24	1.17
1:M:112:ALA:O	1:M:115:ILE:CD1	1.93	1.16
3:P:398:LYS:HE2	5:R:532:LEU:HD21	1.21	1.16
3:J:1257:VAL:CA	3:J:1260:MET:HE2	1.75	1.15
3:P:608:CYS:SG	3:P:617:THR:HG22	1.85	1.15
1:M:47:LEU:CD1	1:M:183:ILE:HD12	1.75	1.15
3:P:502:PRO:HB3	3:P:506:VAL:HG11	1.29	1.15
1:N:101:THR:HG22	1:N:143:ARG:HG2	1.22	1.15
2:O:136:PHE:HB3	2:O:138:ILE:HD11	1.26	1.15
2:C:1273:MET:HE3	7:2:13:DA:H5''	1.26	1.15
3:J:673:VAL:CG1	3:J:678:ARG:HB2	1.76	1.15
3:J:749:LYS:HB3	3:J:750:PRO:CD	1.77	1.15
2:O:402:ARG:NH2	2:O:417:SER:O	1.77	1.14
2:C:206:ALA:O	2:C:209:ILE:HG22	1.43	1.14
2:C:1232:MET:HE2	2:C:1232:MET:HA	1.28	1.14
3:D:146:VAL:CG2	3:D:158:GLN:HB3	1.78	1.14
1:G:44:ARG:HA	1:G:47:LEU:HD12	1.29	1.13
1:N:31:LEU:HD11	1:N:39:LEU:HD12	1.23	1.13
1:H:85:LEU:HD21	1:H:130:ILE:CG2	1.77	1.13
3:D:759:ILE:HG22	3:D:759:ILE:O	1.49	1.13
3:D:943:ARG:HG2	3:D:944:ALA:H	1.10	1.13
2:O:29:SER:OG	2:O:30:ILE:HD12	1.46	1.13
2:C:96:LEU:CB	2:C:127:ILE:HD11	1.77	1.13
3:D:515:ARG:NH2	3:D:717:VAL:HB	1.61	1.12
3:P:749:LYS:HB3	3:P:750:PRO:CD	1.79	1.12
5:R:507:MET:O	5:R:519:LEU:HB3	1.46	1.12
3:J:421:VAL:HG12	3:J:469:HIS:O	1.30	1.12
3:P:849:LEU:HD21	3:P:857:LEU:HD23	1.31	1.12
1:A:192:VAL:HG21	1:A:198:LEU:HD12	1.22	1.12
3:D:869:CYS:HA	3:D:872:LEU:HD12	1.22	1.12
5:F:511:ILE:HD13	5:F:519:LEU:HD13	1.22	1.12
3:J:112:ALA:HA	3:J:238:ILE:HD12	1.19	1.11
2:C:575:LEU:HD11	2:C:579:ALA:HB3	1.33	1.11
3:J:496:GLY:HA2	3:J:903:LEU:HD22	1.28	1.11
5:L:507:MET:HA	5:L:519:LEU:HD23	1.24	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:149:LEU:HD11	2:C:451:ARG:HB3	1.33	1.11
3:J:1348:LYS:O	3:J:1352:ILE:CD1	1.98	1.11
5:L:533:ASP:O	5:L:536:THR:HB	1.50	1.11
1:H:39:LEU:O	1:H:43:LEU:CG	2.00	1.10
2:C:1077:SER:HA	3:D:356:THR:HG21	1.27	1.10
5:R:506:SER:O	5:R:519:LEU:HD23	1.52	1.10
1:B:61:ILE:HD12	1:B:61:ILE:N	1.61	1.10
1:B:84:ASN:OD1	3:D:551:ARG:NH1	1.84	1.10
1:A:13:LEU:HA	1:A:28:LEU:CD2	1.81	1.10
2:C:463:GLN:HG3	2:C:505:PHE:HD1	1.11	1.10
2:I:661:VAL:CG1	2:I:665:ALA:HB3	1.81	1.10
6:4:51:DC:O3'	6:4:52:DT:P	2.09	1.10
3:P:22:ILE:HD11	3:P:1319:PHE:CE1	1.87	1.10
5:R:584:ARG:O	5:R:587:ILE:HG12	1.49	1.10
2:C:988:LYS:HB2	2:C:988:LYS:NZ	1.67	1.09
1:G:180:VAL:HA	1:G:207:THR:HG22	1.34	1.09
1:M:9:LEU:HD21	1:M:198:LEU:HD21	1.25	1.09
3:P:88:CYS:SG	9:P:1501:ZN:ZN	1.39	1.09
3:D:734:ALA:HA	3:D:737:ILE:HD12	1.09	1.09
1:H:68:TYR:HB2	3:P:857:LEU:HD13	1.23	1.09
3:J:282:LEU:HD22	3:J:287:ALA:CB	1.81	1.09
3:J:363:LEU:HG	3:J:487:THR:HG22	1.26	1.09
3:J:1138:LEU:HB3	3:J:1139:PRO:HD3	1.27	1.09
1:A:39:LEU:HD23	1:A:39:LEU:N	1.48	1.09
2:C:217:THR:CA	2:C:220:ILE:HD12	1.82	1.09
3:D:749:LYS:HG3	3:D:755:ILE:HG12	1.16	1.09
5:F:132:CYS:SG	5:F:257:LYS:HE2	1.93	1.09
2:I:689:ALA:CB	2:I:1233:LEU:HD13	1.83	1.09
3:J:1156:LEU:HD22	3:J:1209:VAL:HA	1.34	1.09
2:I:870:ILE:HG13	2:I:944:ARG:HG2	1.29	1.09
2:C:524:ILE:HD11	2:C:712:SER:HB3	1.15	1.08
2:C:1077:SER:HA	3:D:356:THR:CG2	1.83	1.08
3:D:139:LEU:CD2	3:D:185:ILE:CD1	2.26	1.08
2:I:402:ARG:HG2	2:I:416:GLY:HA3	1.34	1.08
2:I:1324:ASN:HA	2:I:1327:LEU:HD12	1.15	1.08
3:J:749:LYS:HB3	3:J:750:PRO:HD2	1.14	1.08
2:C:96:LEU:HB2	2:C:127:ILE:CD1	1.83	1.08
1:G:228:LEU:HD13	1:H:224:LEU:HD11	1.08	1.08
1:M:47:LEU:HD12	1:M:183:ILE:CD1	1.83	1.08
2:O:496:LYS:HB2	2:O:497:PRO:HD3	1.26	1.08
2:C:560:PRO:O	3:D:780:ARG:NH2	1.87	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:903:ARG:HH21	2:C:909:LYS:HG2	1.19	1.08
2:I:1243:MET:HG3	3:J:372:MET:HE2	1.35	1.08
3:J:373:ALA:HA	3:J:376:LEU:HD12	1.10	1.08
3:J:1164:SER:O	3:J:1175:LEU:CD1	2.02	1.08
1:A:13:LEU:HA	1:A:28:LEU:HD21	1.24	1.07
1:A:47:LEU:HD13	1:A:183:ILE:HD11	1.33	1.07
1:A:180:VAL:CA	1:A:207:THR:HG22	1.83	1.07
2:I:1276:TRP:HD1	2:I:1279:GLU:OE1	1.37	1.07
3:J:373:ALA:HA	3:J:376:LEU:CD1	1.82	1.07
3:J:502:PRO:HG2	3:J:601:ILE:HG21	1.33	1.07
1:G:43:LEU:O	1:G:47:LEU:HG	1.51	1.07
2:I:228:VAL:HG11	2:I:239:MET:HE3	1.32	1.07
2:C:616:ILE:HG12	2:C:652:TYR:HB2	1.34	1.07
3:D:1155:ILE:O	3:D:1210:ILE:HD12	1.52	1.07
3:P:74:LYS:HD3	3:P:85:CYS:SG	1.95	1.07
3:P:262:THR:O	5:R:507:MET:HB2	1.55	1.07
3:P:322:ARG:HB2	3:P:323:PRO:HD2	1.35	1.07
3:D:425:ARG:NH1	3:D:426:ALA:O	1.88	1.07
3:J:115:TRP:CH2	3:J:1329:THR:HA	1.90	1.07
3:P:262:THR:HA	5:R:507:MET:CE	1.85	1.07
3:D:1328:THR:O	3:D:1332:LEU:HG	1.53	1.06
5:F:91:ILE:HD11	5:F:103:ARG:NH1	1.70	1.06
1:N:86:LYS:HE2	1:N:174:ASP:HB2	1.34	1.06
3:P:245:LEU:HD12	3:P:246:PRO:HD2	1.35	1.06
5:F:396:ASN:O	5:F:398:GLY:N	1.88	1.06
1:A:227:GLN:O	1:A:231:PHE:CZ	2.09	1.06
1:H:85:LEU:HD21	1:H:130:ILE:HG23	1.07	1.06
3:P:805:GLN:OE1	3:P:1348:LYS:HG3	1.55	1.06
2:C:14:ASP:OD2	2:C:1156:ARG:NH2	1.86	1.06
5:F:511:ILE:CD1	5:F:519:LEU:HD13	1.85	1.06
2:O:59:ILE:HG23	2:O:476:LYS:HE3	1.35	1.06
1:A:182:ARG:CD	2:C:1092:THR:HG23	1.86	1.06
2:I:883:LEU:HD21	2:I:920:VAL:CG2	1.84	1.06
3:P:251:PRO:O	5:R:507:MET:HE1	1.54	1.05
2:O:896:THR:HG22	2:O:899:GLU:OE1	1.56	1.05
1:B:142:MET:N	1:B:142:MET:HE3	1.72	1.05
2:I:689:ALA:HB2	2:I:1233:LEU:HD13	1.13	1.05
2:C:217:THR:HA	2:C:220:ILE:CD1	1.85	1.05
3:J:1138:LEU:CB	3:J:1139:PRO:HD3	1.86	1.05
3:P:1163:VAL:HG11	3:P:1175:LEU:HD21	1.38	1.05
3:P:109:SER:HB2	3:P:296:LYS:CE	1.87	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:47:LEU:HD13	1:G:183:ILE:HD11	1.39	1.04
2:I:363:LEU:HA	2:I:366:ILE:HD12	1.06	1.04
2:I:764:CYS:HA	2:I:833:ILE:HD11	1.39	1.04
3:P:253:VAL:HB	3:P:254:PRO:CD	1.85	1.04
2:O:247:ARG:HG3	2:O:274:ILE:HD13	1.36	1.04
1:A:224:LEU:HG	1:A:225:ALA:N	1.36	1.04
2:C:10:ARG:NH2	2:C:697:LYS:HD3	1.71	1.04
1:G:102:LEU:HD13	1:G:114:ASP:O	1.57	1.04
2:I:38:PHE:HE1	2:I:461:GLU:HA	1.17	1.04
2:O:1275:VAL:O	2:O:1279:GLU:HG3	1.57	1.04
3:P:601:ILE:HA	3:P:604:MET:SD	1.97	1.04
1:M:43:LEU:O	1:M:47:LEU:HG	1.58	1.03
3:P:139:LEU:HD11	3:P:185:ILE:HD12	1.37	1.03
3:P:739:GLN:HE22	3:P:940:ALA:HB3	1.20	1.03
1:A:39:LEU:N	1:A:39:LEU:CD2	2.16	1.03
1:A:168:ILE:H	1:A:168:ILE:HD12	1.21	1.03
5:L:507:MET:O	5:L:519:LEU:HB3	1.58	1.03
1:B:44:ARG:HH12	3:D:538:ARG:HB3	1.22	1.03
3:J:368:LEU:O	3:J:441:LEU:HD23	1.58	1.03
3:J:673:VAL:HG13	3:J:678:ARG:HB2	1.39	1.03
3:P:620:PHE:O	3:P:624:ILE:HG13	1.56	1.03
3:J:17:PHE:O	3:J:1355:ARG:NH1	1.90	1.03
1:B:39:LEU:N	1:B:39:LEU:HD23	1.74	1.03
2:C:819:SER:O	2:C:822:VAL:HG23	1.59	1.02
1:G:106:GLY:HA2	1:G:136:GLU:HA	1.40	1.02
1:B:47:LEU:HD13	1:B:183:ILE:HD12	1.03	1.02
3:J:109:SER:HB2	3:J:296:LYS:HE2	1.37	1.02
5:L:592:ALA:HA	5:L:595:LEU:HD12	1.36	1.02
2:I:1286:THR:OG1	3:J:479:GLU:OE2	1.77	1.02
1:N:31:LEU:CD1	1:N:39:LEU:HD12	1.89	1.02
2:O:550:VAL:HG23	3:P:780:ARG:HD2	1.37	1.02
3:J:839:VAL:HG12	3:J:864:LEU:HD12	1.02	1.02
2:O:878:THR:HG22	2:O:879:GLY:N	1.72	1.02
3:P:514:THR:HG21	3:P:596:LEU:CG	1.89	1.02
1:B:83:LEU:HD13	1:B:86:LYS:HD2	1.40	1.02
1:B:85:LEU:HD21	1:B:130:ILE:HG23	1.42	1.02
3:D:805:GLN:HB2	3:D:1347:LEU:HD12	1.33	1.02
2:I:241:LEU:HD11	2:I:246:LEU:HD11	1.38	1.02
2:I:524:ILE:HD11	2:I:712:SER:HB3	1.39	1.02
1:M:232:VAL:HG13	1:N:218:ARG:HG2	1.39	1.02
3:P:262:THR:HA	5:R:507:MET:HE3	1.36	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:185:ILE:HG22	3:J:189:LEU:HD11	1.40	1.01
3:J:839:VAL:CG1	3:J:864:LEU:HD12	1.89	1.01
1:G:47:LEU:CD1	1:G:183:ILE:CD1	2.39	1.01
3:P:1310:THR:O	3:P:1314:LEU:HG	1.60	1.01
3:D:749:LYS:CG	3:D:755:ILE:HG12	1.89	1.01
1:G:232:VAL:HG22	1:H:221:ALA:CB	1.90	1.01
3:J:363:LEU:HD23	3:J:618:VAL:HG13	1.02	1.01
3:J:598:LYS:HA	3:J:601:ILE:HD12	1.41	1.01
3:P:840:LEU:HD13	3:P:869:CYS:SG	2.00	1.01
2:I:1276:TRP:HE1	3:J:1348:LYS:NZ	1.59	1.01
2:O:1104:PRO:HG3	3:P:725:MET:HE1	1.38	1.01
2:C:264:GLU:HB2	2:C:267:ARG:HB3	1.42	1.01
3:J:503:SER:O	3:J:506:VAL:HG23	1.58	1.01
3:P:115:TRP:CH2	3:P:1329:THR:HA	1.96	1.01
3:P:427:PRO:HB3	7:8:12:DG:N2	1.75	1.01
3:P:749:LYS:HB3	3:P:750:PRO:HD2	1.03	1.01
3:P:1344:LEU:HA	3:P:1349:GLU:OE1	1.60	1.01
1:A:224:LEU:CG	1:A:225:ALA:N	2.24	1.00
3:D:930:LEU:HB2	3:D:1134:ILE:HD11	1.43	1.00
1:B:61:ILE:HD12	1:B:61:ILE:H	1.20	1.00
3:D:749:LYS:CB	3:D:750:PRO:HD2	1.91	1.00
5:L:123:ILE:HD13	5:L:376:LYS:HE3	1.39	1.00
3:P:797:THR:O	3:P:801:VAL:HG23	1.61	1.00
3:D:543:SER:O	3:D:574:VAL:HG21	1.60	1.00
2:I:206:ALA:O	2:I:209:ILE:CG2	2.09	1.00
2:I:953:LEU:HD22	2:I:957:LYS:HZ2	1.26	1.00
3:P:1145:PHE:HB3	3:P:1309:ILE:HD11	1.39	1.00
3:P:1328:THR:O	3:P:1332:LEU:HG	1.62	1.00
3:D:342:LEU:HD22	3:D:1352:ILE:HG23	1.43	1.00
2:I:871:VAL:HG23	2:I:883:LEU:O	1.62	1.00
3:J:1282:TYR:OH	3:J:1304:ARG:NH2	1.95	1.00
3:D:736:GLN:O	3:D:740:LEU:HG	1.60	1.00
5:F:449:THR:OG1	5:F:504:PRO:HG3	1.60	1.00
1:H:78:ILE:O	1:H:82:LEU:HG	1.61	1.00
3:P:515:ARG:NH2	3:P:718:SER:O	1.93	1.00
1:H:43:LEU:C	1:H:47:LEU:HD12	1.85	1.00
5:R:457:ILE:HA	5:R:460:ILE:HD12	1.44	1.00
3:J:275:ARG:NH1	3:J:298:MET:O	1.93	0.99
5:L:306:PHE:O	5:L:310:GLU:HG3	1.61	0.99
1:A:38:THR:HG23	1:B:42:ALA:HA	1.42	0.99
3:J:797:THR:HA	3:J:800:LEU:HD12	1.44	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1243:MET:CG	3:P:372:MET:HE3	1.92	0.99
2:C:542:ARG:NH1	6:1:50:DT:H73	1.75	0.99
2:I:912:ASP:O	2:I:913:VAL:HG23	1.62	0.99
2:I:953:LEU:HD22	2:I:957:LYS:NZ	1.77	0.99
3:P:425:ARG:NH1	3:P:426:ALA:O	1.95	0.99
5:R:120:ALA:HA	5:R:123:ILE:HD12	1.43	0.99
1:B:81:ILE:O	1:B:85:LEU:HG	1.61	0.99
5:F:460:ILE:HA	5:F:463:LEU:HD12	1.45	0.99
1:A:182:ARG:HD2	2:C:1092:THR:HG23	1.43	0.99
7:2:23:DT:H3'	7:2:24:DT:H5''	1.45	0.99
1:G:228:LEU:CD1	1:H:224:LEU:HD11	1.91	0.99
1:H:192:VAL:HG11	1:H:198:LEU:HD22	1.42	0.99
3:J:814:CYS:SG	9:J:1502:ZN:ZN	1.51	0.99
2:I:184:LEU:HD21	2:I:389:PHE:CE2	1.97	0.99
3:P:22:ILE:HD11	3:P:1319:PHE:CD1	1.96	0.99
1:B:61:ILE:HB	1:B:64:VAL:HB	1.42	0.99
2:C:656:SER:O	2:C:659:GLN:HG2	1.60	0.98
3:D:139:LEU:HD21	3:D:185:ILE:HD12	1.23	0.98
3:J:421:VAL:HG12	3:J:422:LEU:H	1.26	0.98
1:N:158:ARG:HD3	1:N:172:LEU:HD11	1.41	0.98
3:P:368:LEU:HD21	3:P:373:ALA:HB2	1.43	0.98
1:A:192:VAL:HG21	1:A:198:LEU:CD1	1.93	0.98
3:D:318:GLY:HA3	3:D:322:ARG:HH12	1.24	0.98
3:J:1357:ILE:HD12	3:J:1357:ILE:N	1.75	0.98
3:P:139:LEU:HD11	3:P:185:ILE:CD1	1.92	0.98
2:I:755:LYS:NZ	2:I:767:GLN:O	1.94	0.98
2:I:1280:ALA:CB	3:J:431:ARG:HB3	1.93	0.98
3:J:519:ASN:HB2	3:J:523:GLU:HB2	1.45	0.98
3:J:613:GLY:O	3:J:617:THR:HG23	1.62	0.98
3:J:1163:VAL:HG13	3:J:1176:VAL:O	1.63	0.98
2:O:878:THR:HG22	2:O:879:GLY:H	1.27	0.98
2:C:670:PHE:CD2	2:C:1113:LEU:HB2	1.99	0.98
1:A:38:THR:C	1:A:39:LEU:HD23	1.88	0.98
2:O:732:ILE:HD11	2:O:753:LEU:HD11	1.41	0.98
2:O:1275:VAL:CG1	2:O:1279:GLU:OE2	2.11	0.98
2:I:217:THR:HA	2:I:220:ILE:HD12	1.44	0.98
1:H:168:ILE:HD11	3:P:867:GLN:HB2	1.46	0.98
1:B:35:PHE:O	1:B:39:LEU:CG	2.12	0.97
1:A:225:ALA:HA	1:A:228:LEU:HD12	1.44	0.97
3:D:703:THR:O	3:D:718:SER:HB3	0.81	0.97
1:H:190:ALA:H	1:H:199:ASP:HA	1.25	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:228:VAL:HG11	2:I:239:MET:CE	1.93	0.97
2:O:1104:PRO:CG	3:P:725:MET:HE1	1.94	0.97
2:C:452:ARG:C	2:C:453:ILE:HD13	1.88	0.97
2:I:1086:PRO:O	2:I:1094:VAL:CG2	2.13	0.97
5:F:339:ARG:O	5:F:342:GLN:HB2	1.65	0.97
1:G:232:VAL:CG2	1:H:221:ALA:CB	2.43	0.97
3:P:337:ARG:CD	3:P:341:ASN:HD21	1.78	0.97
2:C:706:ARG:O	2:C:710:VAL:HG23	1.63	0.97
3:J:839:VAL:HG12	3:J:864:LEU:CD1	1.94	0.97
1:M:45:ARG:HH12	2:O:1216:ARG:HA	1.30	0.97
3:D:44:ILE:HD12	3:D:44:ILE:O	1.64	0.97
2:O:435:ILE:HG12	2:O:440:GLY:HA3	1.42	0.97
2:O:1261:GLY:CA	7:8:16:DC:OP1	2.13	0.97
3:D:514:THR:HG21	3:D:596:LEU:HG	1.44	0.97
2:I:1288:GLN:O	2:I:1292:THR:HG22	1.63	0.97
3:J:620:PHE:O	3:J:624:ILE:HG13	1.65	0.97
2:C:157:PHE:O	2:C:442:VAL:HG12	1.65	0.96
2:I:1066:MET:HE3	2:I:1233:LEU:O	1.64	0.96
3:P:1134:ILE:HG23	3:P:1138:LEU:HG	1.41	0.96
3:J:711:GLY:N	3:P:1302:TYR:OH	1.96	0.96
3:P:113:HIS:HB2	3:P:239:LEU:HD21	1.47	0.96
2:I:819:SER:O	2:I:822:VAL:HG23	1.62	0.96
1:A:16:ILE:HA	1:A:26:VAL:HG22	1.47	0.96
3:D:1274:PHE:O	3:D:1275:LEU:HB2	1.64	0.96
3:J:185:ILE:O	3:J:189:LEU:HG	1.64	0.96
3:J:620:PHE:O	3:J:624:ILE:CG1	2.13	0.96
3:J:1357:ILE:N	3:J:1357:ILE:CD1	2.25	0.96
3:P:109:SER:HB2	3:P:296:LYS:NZ	1.79	0.96
3:D:620:PHE:O	3:D:624:ILE:HG13	1.64	0.96
2:I:448:LEU:HD11	2:I:553:THR:C	1.90	0.96
3:D:946:ALA:O	3:D:948:SER:N	1.97	0.96
5:L:93:ARG:HD2	5:L:93:ARG:O	1.64	0.96
3:D:1282:TYR:O	3:D:1285:VAL:HG12	1.65	0.96
5:F:583:THR:OG1	6:1:14:DT:OP2	1.81	0.96
2:I:237:LEU:CD1	2:I:289:VAL:HG13	1.94	0.96
1:M:9:LEU:HD21	1:M:198:LEU:CD2	1.96	0.96
2:C:897:PRO:HA	2:C:900:LYS:HD3	1.43	0.96
3:D:318:GLY:HA3	3:D:322:ARG:NH1	1.79	0.96
1:G:47:LEU:CD1	1:G:183:ILE:HD11	1.94	0.96
3:J:482:ALA:O	3:J:488:ASN:ND2	1.99	0.96
3:P:70:CYS:SG	9:P:1501:ZN:ZN	1.52	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:251:PRO:O	5:F:507:MET:CE	2.13	0.95
2:O:890:LYS:NZ	2:O:893:THR:HG23	1.81	0.95
5:R:587:ILE:HD13	5:R:587:ILE:N	1.80	0.95
2:C:260:LYS:HD3	2:C:260:LYS:H	1.30	0.95
2:C:463:GLN:HG3	2:C:505:PHE:CD1	2.00	0.95
3:D:262:THR:HA	5:F:507:MET:HE3	1.48	0.95
2:I:1113:LEU:CD2	3:J:641:ILE:HD13	1.95	0.95
3:P:70:CYS:HG	9:P:1501:ZN:ZN	0.68	0.95
2:C:542:ARG:HH12	6:1:50:DT:H71	1.28	0.95
1:H:35:PHE:O	1:H:39:LEU:CG	2.14	0.95
2:I:1113:LEU:HD23	3:J:641:ILE:CD1	1.95	0.95
2:I:1271:GLY:O	2:I:1275:VAL:HG23	1.66	0.95
6:7:44:DG:H2'	6:7:45:DT:O4'	1.66	0.95
2:I:1289:GLU:OE2	3:J:473:THR:HG23	1.65	0.95
3:J:1233:ILE:O	3:J:1237:VAL:CG2	2.14	0.95
3:P:322:ARG:HE	5:R:510:PRO:HD3	1.31	0.95
3:D:262:THR:C	5:F:507:MET:HB2	1.92	0.95
5:R:511:ILE:O	7:8:19:DA:N6	1.99	0.95
1:B:85:LEU:CD2	1:B:130:ILE:HG23	1.96	0.95
2:C:96:LEU:HB2	2:C:127:ILE:HD11	0.96	0.95
3:D:531:LYS:H	3:D:531:LYS:HD2	1.31	0.95
1:H:43:LEU:O	1:H:47:LEU:CD1	2.14	0.95
1:H:162:GLU:HG2	1:H:162:GLU:O	1.67	0.95
2:I:875:ALA:O	2:I:928:VAL:HG23	1.65	0.95
3:J:227:PHE:CE1	3:J:232:ASN:O	2.19	0.95
1:M:47:LEU:HD12	1:M:183:ILE:HD12	0.97	0.95
2:C:467:GLY:O	2:C:471:VAL:HG23	1.67	0.95
3:J:506:VAL:O	3:J:510:LEU:HG	1.66	0.94
3:J:1132:LYS:O	3:J:1133:ASP:HB3	1.66	0.94
2:I:1290:MET:SD	2:I:1294:LYS:HD2	2.06	0.94
2:I:1297:ASP:OD2	2:I:1318:GLY:HA3	1.67	0.94
3:P:261:ALA:O	5:R:507:MET:HE3	1.68	0.94
3:D:1167:LYS:H	3:D:1167:LYS:HD2	1.33	0.94
2:O:1326:LEU:HA	2:O:1329:GLU:OE1	1.67	0.94
3:P:473:THR:HB	3:P:475:GLU:OE1	1.66	0.94
1:A:224:LEU:HD11	1:A:228:LEU:HD11	0.94	0.94
2:C:870:ILE:HG13	2:C:944:ARG:HG2	1.50	0.94
2:I:1113:LEU:HD23	3:J:641:ILE:HD13	1.47	0.94
3:P:337:ARG:HD3	3:P:341:ASN:HD21	1.32	0.94
5:R:518:HIS:O	5:R:520:GLY:N	2.01	0.94
3:J:1344:LEU:HA	3:J:1349:GLU:OE1	1.68	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:38:THR:HB	1:B:39:LEU:HD23	1.50	0.94
3:D:515:ARG:HH21	3:D:717:VAL:HB	1.32	0.94
3:D:868:TRP:O	3:D:872:LEU:CG	2.16	0.94
5:F:575:GLU:HG2	5:F:578:LYS:HE3	1.48	0.94
3:J:492:SER:HG	3:J:495:ASN:H	1.14	0.94
3:J:594:GLN:O	3:J:596:LEU:HG	1.68	0.94
3:D:121:PRO:O	3:D:122:SER:HB3	1.66	0.94
5:L:295:CYS:O	5:L:296:LYS:HE3	1.67	0.94
2:O:1042:LEU:HD21	2:O:1049:ILE:HD11	1.50	0.94
2:I:540:ARG:NH2	8:6:13:GTP:O1G	2.01	0.94
3:J:502:PRO:HG2	3:J:601:ILE:CG2	1.98	0.94
3:P:1266:ILE:HD12	3:P:1278:GLU:HB2	1.49	0.94
2:C:878:THR:HG22	2:C:879:GLY:H	1.29	0.93
2:I:593:LYS:NZ	2:I:595:THR:OG1	2.01	0.93
3:P:514:THR:HG21	3:P:596:LEU:HD12	0.95	0.93
5:R:583:THR:HG22	5:R:586:ARG:HB3	1.50	0.93
3:J:363:LEU:HD23	3:J:618:VAL:CG1	1.97	0.93
3:D:378:LYS:NZ	5:F:532:LEU:HD11	1.83	0.93
1:A:69:SER:O	1:A:78:ILE:CD1	2.16	0.93
2:O:878:THR:CG2	2:O:879:GLY:H	1.81	0.93
3:D:805:GLN:CB	3:D:1347:LEU:CD1	2.46	0.93
1:H:192:VAL:CG1	1:H:198:LEU:HD22	1.97	0.93
3:J:536:LEU:CD2	3:J:541:LEU:HB2	1.99	0.93
2:C:1061:GLN:HB2	2:C:1062:PRO:HD2	1.51	0.93
3:P:169:LEU:HG	3:P:170:GLU:N	1.82	0.93
1:B:13:LEU:HA	1:B:28:LEU:HD21	1.47	0.93
3:D:530:PRO:HD3	3:D:552:ILE:HD11	1.46	0.93
3:D:974:VAL:HG11	3:D:1028:ILE:HG21	1.50	0.93
1:N:190:ALA:H	1:N:199:ASP:HA	1.30	0.93
2:I:936:ARG:HG2	2:I:937:ASP:H	1.29	0.93
2:I:1324:ASN:HA	2:I:1327:LEU:CD1	1.99	0.93
2:O:551:HIS:HD1	2:O:553:THR:HG1	0.98	0.93
5:F:295:CYS:O	5:F:296:LYS:HB2	1.67	0.93
2:O:260:LYS:HE3	2:O:262:TYR:OH	1.67	0.93
2:I:661:VAL:HG13	2:I:665:ALA:CB	1.99	0.92
3:J:1163:VAL:HG22	3:J:1177:ILE:HG23	1.51	0.92
3:J:1356:LEU:HD13	3:J:1365:TYR:CE1	2.04	0.92
3:P:739:GLN:NE2	3:P:940:ALA:HB3	1.84	0.92
5:R:429:THR:HG1	6:7:39:DA:H8	1.09	0.92
2:O:1243:MET:HG2	3:P:372:MET:HE3	1.51	0.92
2:O:1305:TYR:HA	2:O:1308:ILE:HD12	1.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:798:GLN:HB2	2:I:828:PHE:CZ	2.05	0.92
2:O:118:LYS:NZ	2:O:485:ASP:O	2.03	0.92
3:D:822:MET:HG2	3:D:838:ARG:HH21	1.35	0.92
5:L:381:GLU:O	5:L:384:LEU:HG	1.69	0.92
3:P:492:SER:CB	3:P:495:ASN:OD1	2.17	0.92
3:J:673:VAL:HG11	3:J:678:ARG:HB2	1.49	0.92
5:L:385:ARG:O	5:L:388:ILE:HG23	1.70	0.92
2:O:550:VAL:HG21	3:P:776:THR:CG2	1.99	0.92
3:P:1267:VAL:O	3:P:1268:ASN:HB2	1.69	0.92
1:A:42:ALA:HA	1:B:38:THR:HG23	1.51	0.92
3:D:97:VAL:HG12	3:D:101:ARG:HG3	1.52	0.92
3:D:1163:VAL:HG13	3:D:1176:VAL:O	1.68	0.92
3:J:363:LEU:CD2	3:J:618:VAL:HG13	1.96	0.92
2:O:1322:SER:O	2:O:1325:VAL:HB	1.69	0.92
3:P:868:TRP:O	3:P:872:LEU:HG	1.70	0.92
1:H:68:TYR:CB	3:P:857:LEU:HD13	1.99	0.92
3:P:252:LEU:HD13	3:P:262:THR:HB	1.48	0.92
3:D:130:MET:SD	3:D:135:ILE:CG1	2.56	0.91
2:O:157:PHE:O	2:O:442:VAL:HG13	1.68	0.91
2:O:1290:MET:SD	2:O:1294:LYS:HD2	2.10	0.91
2:C:524:ILE:CD1	2:C:712:SER:HB3	1.99	0.91
5:F:320:ILE:HG23	5:F:327:SER:HB3	1.49	0.91
2:I:881:ASP:O	2:I:920:VAL:HG23	1.71	0.91
2:I:1061:GLN:HB2	2:I:1062:PRO:HD2	1.50	0.91
3:J:1333:THR:O	3:J:1337:VAL:HG23	1.69	0.91
3:D:1267:VAL:O	3:D:1268:ASN:HB2	1.69	0.91
2:I:700:VAL:HG13	2:I:1117:LEU:HD23	1.50	0.91
6:4:51:DC:O3'	6:4:52:DT:H5'	1.70	0.91
3:J:1272:SER:HB2	3:J:1274:PHE:CE2	2.06	0.91
5:L:507:MET:HA	5:L:519:LEU:CD2	1.99	0.91
3:J:363:LEU:HG	3:J:487:THR:CG2	2.01	0.91
3:J:363:LEU:CG	3:J:487:THR:HG22	2.00	0.91
3:J:930:LEU:HB3	3:J:1134:ILE:HD12	1.53	0.91
3:J:1175:LEU:HD12	3:J:1176:VAL:H	1.30	0.91
3:D:205:LEU:HD21	3:D:214:ARG:HG3	1.51	0.91
3:D:749:LYS:HB3	3:D:750:PRO:HD2	0.94	0.91
5:L:216:LEU:HG	5:L:220:LYS:HE2	1.51	0.91
5:R:520:GLY:HA2	5:R:523:ILE:CD1	2.01	0.91
1:B:83:LEU:HD11	1:B:86:LYS:HZ2	1.36	0.91
2:I:375:PRO:HD3	5:L:87:VAL:HG11	1.52	0.91
1:B:79:LEU:O	1:B:82:LEU:HB2	1.70	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:883:LEU:HD21	2:C:920:VAL:HG22	1.52	0.91
5:R:265:GLN:O	5:R:269:LEU:HG	1.71	0.91
5:R:583:THR:CG2	5:R:586:ARG:HB3	2.01	0.91
3:D:1173:ARG:O	3:D:1190:ILE:HB	1.71	0.90
5:F:297:MET:HE3	5:F:326:TRP:HZ3	1.36	0.90
1:G:232:VAL:CG1	1:H:218:ARG:HA	2.01	0.90
1:A:180:VAL:HA	1:A:207:THR:HG22	0.92	0.90
3:D:298:MET:HE3	5:F:402:LEU:HB2	1.51	0.90
1:G:167:PRO:HG2	1:G:170:ARG:HD2	1.54	0.90
3:J:245:LEU:HD21	3:J:249:LEU:HB2	1.51	0.90
3:J:848:VAL:HG11	3:J:880:VAL:HG22	1.52	0.90
1:M:48:LEU:HD21	1:M:183:ILE:HG22	1.53	0.90
3:P:797:THR:HA	3:P:800:LEU:HD12	1.53	0.90
2:I:363:LEU:HA	2:I:366:ILE:CD1	2.00	0.90
2:O:15:PHE:CE2	2:O:1182:ILE:HD13	2.06	0.90
1:G:77:ASP:O	1:G:81:ILE:HD12	1.70	0.90
3:J:255:LEU:HD22	3:J:256:ASP:H	1.36	0.90
3:P:720:ASN:O	3:P:724:MET:HG3	1.69	0.90
1:B:47:LEU:CD1	1:B:183:ILE:HD12	1.99	0.90
2:C:903:ARG:NH2	2:C:909:LYS:HG2	1.87	0.90
3:D:146:VAL:HG21	3:D:158:GLN:HB3	1.54	0.90
3:J:536:LEU:HD22	3:J:541:LEU:HB2	1.54	0.90
5:F:423:ARG:HD3	6:1:37:DA:C6	2.06	0.90
2:I:452:ARG:NH2	2:I:458:GLU:OE1	2.05	0.90
3:J:848:VAL:HG21	3:J:880:VAL:CG1	2.00	0.90
5:R:407:GLU:HG2	5:R:442:SER:HB3	1.52	0.90
3:D:74:LYS:NZ	3:D:86:GLU:OE2	2.05	0.90
1:G:225:ALA:HA	1:G:228:LEU:HD12	1.54	0.90
2:I:1042:LEU:HD13	2:I:1049:ILE:CD1	2.02	0.90
1:A:35:PHE:O	1:A:39:LEU:CG	2.20	0.90
3:P:490:ILE:HD12	3:P:490:ILE:H	1.36	0.90
1:A:81:ILE:O	1:A:85:LEU:HG	1.72	0.89
3:D:262:THR:CA	5:F:507:MET:HE3	2.02	0.89
2:I:593:LYS:CE	2:I:595:THR:OG1	2.21	0.89
2:O:1314:GLN:HA	4:Q:28:ARG:NH2	1.86	0.89
2:C:13:LYS:HE3	2:C:1149:TYR:O	1.71	0.89
3:D:154:LEU:HD13	3:D:158:GLN:HG2	1.54	0.89
3:D:1230:THR:HA	3:D:1233:ILE:HD12	1.54	0.89
5:F:132:CYS:SG	5:F:257:LYS:CE	2.60	0.89
1:G:112:ALA:HB3	1:G:126:PRO:HA	1.51	0.89
3:J:1231:ARG:O	3:J:1234:VAL:HB	1.71	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1154:ALA:HB1	3:P:1211:SER:HB2	1.52	0.89
1:G:39:LEU:O	1:G:43:LEU:HD12	1.73	0.89
3:J:139:LEU:HD21	3:J:185:ILE:CG1	2.03	0.89
1:N:35:PHE:O	1:N:39:LEU:HG	1.72	0.89
3:P:1075:ARG:HG3	3:P:1192:LYS:HD3	1.53	0.89
2:C:1105:SER:OG	3:D:731:ARG:NH1	2.06	0.89
3:D:262:THR:O	5:F:507:MET:HB2	1.72	0.89
3:D:747:MET:HE1	3:D:774:ILE:HG22	1.54	0.89
2:I:96:LEU:HB2	2:I:127:ILE:CD1	2.03	0.89
1:M:232:VAL:HG13	1:N:218:ARG:CG	2.02	0.89
3:P:514:THR:CG2	3:P:596:LEU:CD1	2.26	0.89
2:I:671:LEU:HD23	2:I:1186:VAL:CG1	2.02	0.89
2:I:1291:LEU:O	3:J:345:LYS:NZ	2.05	0.89
2:O:137:VAL:C	2:O:138:ILE:HD13	1.97	0.89
3:P:262:THR:OG1	3:P:266:ASN:ND2	2.06	0.89
1:G:232:VAL:CG2	1:H:221:ALA:HB1	2.02	0.89
3:J:1164:SER:C	3:J:1175:LEU:HD11	1.98	0.89
5:L:461:ASN:HA	7:5:26:DT:H72	1.54	0.89
1:A:221:ALA:O	1:A:224:LEU:HD23	1.71	0.89
1:A:228:LEU:HA	1:A:231:PHE:CE2	2.06	0.89
2:I:575:LEU:HD11	2:I:579:ALA:HB3	1.51	0.89
5:R:466:ILE:HG22	5:R:470:MET:SD	2.12	0.89
3:D:517:CYS:HB2	3:D:719:PHE:HZ	1.38	0.89
2:I:883:LEU:HD21	2:I:920:VAL:HG22	1.53	0.89
3:P:121:PRO:O	3:P:122:SER:HB3	1.72	0.89
2:I:671:LEU:HD23	2:I:1186:VAL:HG11	1.55	0.88
5:L:451:ARG:NH1	6:4:32:DA:OP1	2.06	0.88
1:G:228:LEU:HA	1:G:231:PHE:CE2	2.07	0.88
2:I:1276:TRP:HE1	3:J:1348:LYS:HZ1	1.16	0.88
3:J:1164:SER:O	3:J:1175:LEU:HD11	1.73	0.88
3:J:1357:ILE:CD1	3:J:1357:ILE:H	1.86	0.88
2:O:110:PRO:O	2:O:112:GLY:N	2.05	0.88
2:O:1288:GLN:O	2:O:1292:THR:HG22	1.73	0.88
3:P:869:CYS:HA	3:P:872:LEU:HD12	1.54	0.88
2:I:208:ILE:HD11	2:I:365:GLU:HB3	1.53	0.88
2:I:697:LYS:HB3	2:I:790:ASP:OD2	1.73	0.88
3:J:805:GLN:HB2	3:J:1347:LEU:HD12	1.56	0.88
3:D:373:ALA:HA	3:D:376:LEU:HD12	1.55	0.88
3:D:621:ALA:HA	3:D:624:ILE:HD12	1.55	0.88
3:J:575:GLY:HA2	3:J:578:ILE:HD12	1.55	0.88
3:J:1155:ILE:C	3:J:1156:LEU:HD23	1.98	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:217:THR:HA	2:O:220:ILE:HD12	1.55	0.88
2:C:188:PHE:CE2	2:C:432:LEU:HD11	2.08	0.88
2:C:403:MET:HE3	2:C:407:ARG:NH2	1.88	0.88
2:C:675:ASP:OD2	2:C:677:ASN:ND2	2.05	0.88
3:D:1101:LEU:HD22	3:D:1122:ALA:HB3	1.56	0.88
2:I:559:CYS:HB2	2:I:662:SER:HB3	1.53	0.88
2:I:1324:ASN:CA	2:I:1327:LEU:HD12	2.04	0.88
1:M:38:THR:CG2	1:N:42:ALA:HA	2.04	0.88
3:P:97:VAL:HG13	3:P:101:ARG:HG3	1.55	0.88
3:P:1333:THR:O	3:P:1337:VAL:HG23	1.73	0.88
2:C:373:GLY:CA	5:F:91:ILE:HG12	2.03	0.88
2:I:1086:PRO:O	2:I:1094:VAL:HG23	1.74	0.88
2:C:160:ASP:CG	2:C:163:LYS:HD3	1.99	0.88
3:D:614:LEU:CD2	4:E:5:THR:HG21	2.04	0.88
1:G:69:SER:O	1:G:78:ILE:CG1	2.21	0.88
2:I:1042:LEU:HD13	2:I:1049:ILE:HD12	1.53	0.88
3:J:1138:LEU:HB3	3:J:1139:PRO:CD	2.03	0.88
3:D:481:ARG:NH1	4:E:3:ARG:O	2.06	0.88
3:J:392:THR:HG1	5:L:609:SER:HG	1.21	0.88
3:J:843:VAL:CG2	3:J:897:HIS:O	2.22	0.88
2:C:1180:MET:HG3	2:C:1181:PRO:HD2	1.56	0.87
3:D:269:TYR:O	3:D:273:ILE:HG13	1.74	0.87
1:H:102:LEU:HB2	1:H:115:ILE:CD1	2.04	0.87
3:J:492:SER:HA	3:J:499:ILE:HD11	1.54	0.87
7:5:11:DA:O3'	7:5:12:DG:P	2.33	0.87
3:D:805:GLN:CB	3:D:1347:LEU:HD12	2.03	0.87
3:J:169:LEU:HG	3:J:170:GLU:N	1.87	0.87
3:P:337:ARG:HD2	3:P:341:ASN:ND2	1.89	0.87
3:D:1263:LYS:HD3	3:D:1281:GLU:HA	1.52	0.87
3:J:421:VAL:HG13	3:J:469:HIS:O	1.74	0.87
3:P:68:TYR:HA	3:P:92:VAL:HG13	1.56	0.87
2:C:521:LEU:HD21	2:C:686:GLN:CB	2.02	0.87
5:L:585:GLU:HG3	7:5:47:DC:N4	1.89	0.87
2:O:34:SER:HA	2:O:37:LYS:HD2	1.55	0.87
2:C:577:VAL:HG23	2:C:661:VAL:O	1.75	0.87
2:I:38:PHE:CE1	2:I:461:GLU:HA	2.08	0.87
1:A:13:LEU:CA	1:A:28:LEU:HD21	2.04	0.87
3:D:734:ALA:CA	3:D:737:ILE:HD12	2.02	0.87
2:I:1315:MET:HE2	2:I:1315:MET:HA	1.55	0.87
6:4:48:DA:H2''	6:4:49:DG:H5''	1.54	0.87
3:D:622:ASP:O	3:D:625:MET:HB3	1.75	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1257:VAL:HA	3:D:1260:MET:HE3	1.57	0.87
3:P:1040:MET:HE3	3:P:1046:ILE:HG21	1.55	0.87
5:R:262:VAL:HG13	5:R:263:PRO:CD	2.03	0.87
1:B:38:THR:HB	1:B:39:LEU:CD2	2.04	0.87
2:C:681:MET:O	2:C:685:MET:HG2	1.73	0.87
3:D:1362:GLY:O	3:D:1366:HIS:HB2	1.75	0.87
1:G:54:CYS:SG	1:G:148:ARG:HG3	2.14	0.87
2:I:1276:TRP:NE1	3:J:1348:LYS:HZ1	1.72	0.87
5:L:437:GLN:HG2	6:4:35:DC:N4	1.90	0.87
6:4:54:DA:H2''	6:4:55:DC:OP2	1.75	0.87
2:C:883:LEU:HD21	2:C:920:VAL:CG2	2.04	0.86
2:I:1325:VAL:O	2:I:1329:GLU:HG3	1.75	0.86
3:J:70:CYS:HB2	3:J:90:VAL:CG1	2.04	0.86
2:O:33:ASP:O	2:O:37:LYS:HG3	1.75	0.86
2:O:539:THR:HG22	2:O:540:ARG:H	1.38	0.86
2:O:1104:PRO:HG3	3:P:725:MET:CE	2.04	0.86
3:P:138:VAL:HG12	3:P:139:LEU:HG	1.55	0.86
2:C:668:ILE:HG23	2:C:1069:ARG:HB3	1.57	0.86
3:D:1229:VAL:O	3:D:1233:ILE:HG13	1.75	0.86
2:I:118:LYS:HD3	2:I:488:MET:HE3	1.56	0.86
1:A:109:PRO:HB3	1:A:132:HIS:CD2	2.10	0.86
3:D:139:LEU:HD23	3:D:185:ILE:HD12	1.54	0.86
5:L:507:MET:O	5:L:519:LEU:CB	2.22	0.86
2:O:260:LYS:HE3	2:O:262:TYR:CZ	2.10	0.86
1:B:44:ARG:HA	1:B:183:ILE:HD13	1.57	0.86
5:F:506:SER:HB3	5:F:509:THR:OG1	1.74	0.86
2:I:237:LEU:HD12	2:I:289:VAL:HG13	1.53	0.86
2:C:542:ARG:HH11	6:1:50:DT:H73	1.40	0.86
6:4:47:DC:H3'	6:4:48:DA:H5''	1.55	0.86
2:C:1104:PRO:HG2	2:C:1105:SER:H	1.40	0.86
3:D:805:GLN:HB2	3:D:1347:LEU:HD11	1.57	0.86
3:P:262:THR:C	5:R:507:MET:HB2	1.99	0.86
3:P:749:LYS:CB	3:P:750:PRO:HD2	1.99	0.86
3:P:849:LEU:CD2	3:P:857:LEU:HD23	2.05	0.86
1:B:15:ASP:HB3	1:B:27:THR:OG1	1.75	0.86
1:B:65:LEU:O	1:B:169:GLY:HA2	1.75	0.86
3:D:350:SER:HB3	3:D:469:HIS:CE1	2.10	0.86
2:I:528:ARG:CD	2:I:663:VAL:HG21	2.05	0.86
2:I:1339:LEU:HD12	2:I:1339:LEU:H	1.40	0.86
3:J:112:ALA:HA	3:J:238:ILE:CD1	2.04	0.86
3:D:797:THR:HG23	3:D:924:GLY:HA3	1.57	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:943:ARG:HG2	3:D:944:ALA:N	1.91	0.86
2:O:518:ASN:OD1	2:O:761:GLN:HG2	1.75	0.86
4:Q:27:ALA:HA	4:Q:30:MET:SD	2.16	0.86
2:C:217:THR:HA	2:C:220:ILE:HD12	0.90	0.86
2:C:285:ILE:HG22	2:C:286:GLU:H	1.41	0.86
3:D:216:LYS:HA	3:D:219:LYS:HD2	1.57	0.86
3:D:759:ILE:O	3:D:759:ILE:CG2	2.18	0.86
1:M:45:ARG:NH1	2:O:1216:ARG:HA	1.91	0.86
3:P:1328:THR:HG22	3:P:1332:LEU:HD11	1.58	0.86
1:B:201:LEU:HG	1:B:203:ILE:HD11	1.56	0.86
2:C:160:ASP:HB3	2:C:163:LYS:CB	2.06	0.86
3:D:139:LEU:HD21	3:D:185:ILE:HD13	1.57	0.86
5:F:324:LYS:O	5:F:326:TRP:N	2.09	0.86
2:I:184:LEU:CD2	2:I:389:PHE:CZ	2.56	0.86
2:I:1066:MET:HE1	2:I:1232:MET:HB3	1.56	0.86
2:O:689:ALA:HB1	2:O:1233:LEU:HD22	1.58	0.86
3:P:1162:ILE:HG13	3:P:1180:VAL:CG1	2.06	0.86
3:D:205:LEU:CD2	3:D:214:ARG:HG3	2.05	0.85
3:J:70:CYS:HB3	3:J:92:VAL:HG22	1.57	0.85
5:R:262:VAL:HG13	5:R:263:PRO:HD2	1.56	0.85
3:J:582:ILE:HG22	3:J:620:PHE:HE1	1.40	0.85
3:P:975:ILE:HD13	3:P:980:THR:HG21	1.57	0.85
2:C:10:ARG:NH1	2:C:697:LYS:HB3	1.91	0.85
2:I:448:LEU:CD1	2:I:553:THR:O	2.24	0.85
2:I:593:LYS:HE2	2:I:595:THR:OG1	1.76	0.85
4:Q:6:VAL:HG13	4:Q:51:LEU:HD21	1.57	0.85
3:P:297:ARG:HD3	5:R:100:MET:SD	2.16	0.85
3:D:536:LEU:HD13	3:D:542:ALA:HB2	1.57	0.85
2:I:96:LEU:HB2	2:I:127:ILE:HD11	1.56	0.85
2:C:149:LEU:CD1	2:C:451:ARG:HB3	2.07	0.85
2:C:732:ILE:HD11	2:C:769:PRO:HB3	1.56	0.85
3:D:146:VAL:HG23	3:D:158:GLN:HB3	1.57	0.85
1:G:48:LEU:CD2	1:G:180:VAL:HB	2.07	0.85
1:G:190:ALA:H	1:G:199:ASP:HA	1.42	0.85
2:I:764:CYS:SG	2:I:831:ILE:HD12	2.16	0.85
2:O:1120:ALA:HB1	2:O:1198:LEU:HG	1.59	0.85
2:O:1243:MET:HG2	3:P:372:MET:CE	2.07	0.85
5:F:117:ILE:HG23	5:F:421:TYR:HB2	1.58	0.85
5:F:520:GLY:HA2	5:F:523:ILE:HD11	1.58	0.85
1:H:85:LEU:CD2	1:H:130:ILE:HG23	2.01	0.85
3:D:1233:ILE:O	3:D:1237:VAL:HG23	1.77	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:295:CYS:O	5:L:296:LYS:HB2	1.74	0.85
5:R:117:ILE:HG23	5:R:421:TYR:HB2	1.57	0.85
2:I:541:GLU:OE1	6:4:52:DT:N3	2.09	0.85
3:J:1318:SER:OG	3:J:1321:SER:HB3	1.76	0.85
3:P:109:SER:HB2	3:P:296:LYS:HE2	1.58	0.85
3:D:869:CYS:HA	3:D:872:LEU:CD1	2.04	0.84
1:G:47:LEU:HD13	1:G:183:ILE:HD12	1.59	0.84
3:J:849:LEU:HD22	3:J:856:ILE:O	1.77	0.84
3:J:930:LEU:HB3	3:J:1134:ILE:CD1	2.07	0.84
6:4:45:DT:H72	6:4:46:DG:N2	1.92	0.84
2:O:1043:ALA:HB1	2:O:1044:PRO:HD2	1.56	0.84
3:D:363:LEU:HD12	3:D:363:LEU:O	1.77	0.84
3:D:614:LEU:HD23	4:E:5:THR:HG21	1.59	0.84
3:D:909:ILE:HD11	3:D:913:GLU:HB3	1.59	0.84
2:I:1005:GLU:HG2	2:I:1006:GLU:H	1.41	0.84
2:C:678:ARG:NH1	2:C:1106:ARG:HD2	1.91	0.84
3:P:1165:PHE:HZ	3:P:1196:LEU:HD12	1.42	0.84
1:A:100:LEU:HD13	1:A:115:ILE:HG22	1.59	0.84
1:G:189:ALA:HA	1:G:199:ASP:HB3	1.59	0.84
2:O:422:LYS:HA	2:O:425:ILE:HD12	1.58	0.84
5:R:166:VAL:HG12	5:R:168:PRO:HD3	1.60	0.84
3:D:709:ARG:HG3	3:D:709:ARG:O	1.78	0.84
1:G:35:PHE:HB3	1:G:39:LEU:CD1	2.08	0.84
3:J:720:ASN:O	3:J:724:MET:HG3	1.77	0.84
5:L:452:ILE:HG22	5:L:457:ILE:HG12	1.57	0.84
3:D:805:GLN:OE1	3:D:1348:LYS:HG2	1.77	0.84
1:G:69:SER:O	1:G:78:ILE:HG13	1.76	0.84
3:D:1282:TYR:OH	3:D:1304:ARG:NH2	2.10	0.84
1:H:168:ILE:HD11	3:P:867:GLN:CB	2.07	0.84
3:J:481:ARG:NH1	4:K:3:ARG:O	2.10	0.84
1:B:133:LEU:HD22	1:B:138:ALA:HB1	1.58	0.84
2:C:1199:LEU:HD22	2:C:1205:PRO:O	1.76	0.84
3:D:367:GLY:O	3:D:447:ILE:CG2	2.26	0.84
1:G:228:LEU:CD1	1:H:228:LEU:CD1	2.55	0.84
2:I:225:PHE:HE2	2:I:347:ILE:HB	1.41	0.84
3:J:318:GLY:HA2	3:J:324:LEU:HD21	1.59	0.84
3:D:725:MET:CE	3:D:732:GLY:H	1.91	0.84
1:B:44:ARG:HA	1:B:183:ILE:CD1	2.07	0.84
2:C:445:ILE:HB	2:C:446:ASP:OD1	1.78	0.84
2:C:616:ILE:CG1	2:C:652:TYR:HB2	2.07	0.84
2:I:225:PHE:CE2	2:I:347:ILE:HB	2.11	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1257:VAL:HA	3:J:1260:MET:HE2	0.89	0.84
2:O:73:TYR:HE1	2:O:75:LEU:HD21	1.42	0.84
2:O:1292:THR:HG23	2:O:1293:VAL:H	1.43	0.84
3:P:261:ALA:C	5:R:507:MET:HE3	2.02	0.84
1:A:224:LEU:HG	1:A:225:ALA:H	1.36	0.83
2:C:764:CYS:HB3	2:C:831:ILE:HB	1.60	0.83
3:D:1288:ALA:O	3:D:1292:LEU:HG	1.77	0.83
5:F:110:LEU:HD12	5:F:110:LEU:H	1.38	0.83
3:J:553:THR:HG23	3:J:566:LYS:C	2.01	0.83
3:J:909:ILE:HG12	3:J:910:ASN:N	1.93	0.83
5:L:440:THR:O	5:L:443:ILE:HG22	1.77	0.83
2:O:202:ARG:HH22	7:8:6:DG:H3'	1.41	0.83
5:R:451:ARG:NH1	5:R:453:PRO:HG3	1.92	0.83
2:C:10:ARG:CZ	2:C:697:LYS:HD3	2.07	0.83
2:C:988:LYS:HB2	2:C:988:LYS:HZ2	1.41	0.83
3:D:367:GLY:O	3:D:447:ILE:HG23	1.78	0.83
3:J:697:MET:HE1	3:J:738:ARG:HA	1.60	0.83
1:B:133:LEU:HD22	1:B:138:ALA:CB	2.08	0.83
3:D:108:ALA:HB3	3:D:279:LEU:HD21	1.59	0.83
1:G:69:SER:O	1:G:78:ILE:HD11	1.78	0.83
2:I:558:VAL:HG22	2:I:574:SER:O	1.78	0.83
3:J:392:THR:OG1	5:L:609:SER:OG	1.96	0.83
2:O:29:SER:OG	2:O:30:ILE:CD1	2.26	0.83
3:P:421:VAL:CG1	3:P:469:HIS:O	2.27	0.83
2:C:871:VAL:HG23	2:C:883:LEU:O	1.77	0.83
2:C:1296:ASP:O	2:C:1321:GLU:HG2	1.78	0.83
3:J:411:ILE:O	3:J:415:VAL:HG23	1.77	0.83
5:L:518:HIS:O	5:L:520:GLY:N	2.11	0.83
2:C:741:MET:SD	2:C:747:GLY:HA3	2.18	0.83
2:I:1243:MET:HG3	3:J:372:MET:CE	2.07	0.83
3:D:475:GLU:OE1	3:D:475:GLU:N	2.11	0.83
3:J:519:ASN:HB3	3:J:523:GLU:CD	2.03	0.83
3:J:1226:VAL:O	3:J:1230:THR:OG1	1.95	0.83
2:O:15:PHE:HE2	2:O:1182:ILE:HD13	1.41	0.83
2:O:136:PHE:CB	2:O:138:ILE:HD11	2.07	0.83
3:P:621:ALA:HA	3:P:624:ILE:HD12	1.59	0.83
3:P:1145:PHE:CE1	3:P:1256:ILE:HD13	2.13	0.83
1:A:213:PRO:O	1:A:217:ILE:HD12	1.79	0.83
2:I:1276:TRP:CD1	2:I:1279:GLU:OE1	2.29	0.83
2:O:206:ALA:O	2:O:209:ILE:CG2	2.21	0.83
1:H:68:TYR:CD1	1:H:79:LEU:HD21	2.14	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:732:ILE:HD11	2:I:769:PRO:HB3	1.61	0.83
2:O:1117:LEU:HD12	2:O:1195:ILE:HG23	1.59	0.83
1:M:45:ARG:HD3	1:N:38:THR:HG23	1.59	0.82
3:P:337:ARG:CD	3:P:341:ASN:ND2	2.41	0.82
1:B:88:LEU:HD22	1:B:128:HIS:CD2	2.13	0.82
3:D:115:TRP:CH2	3:D:1332:LEU:HD12	2.13	0.82
3:D:747:MET:HE1	3:D:774:ILE:CG2	2.08	0.82
2:I:1116:HIS:CD2	3:J:641:ILE:HD11	2.14	0.82
5:L:452:ILE:HG23	5:L:456:MET:HG2	1.61	0.82
5:R:426:LYS:HE2	6:7:40:DA:OP2	1.80	0.82
3:D:1190:ILE:HG22	3:D:1191:PRO:O	1.79	0.82
5:F:407:GLU:HG2	5:F:442:SER:CB	2.09	0.82
5:F:564:GLY:O	5:F:567:MET:O	1.96	0.82
1:H:68:TYR:HB2	3:P:857:LEU:CD1	2.06	0.82
3:J:1212:ASP:OD1	3:J:1212:ASP:N	2.11	0.82
2:O:211:ARG:HD3	2:O:357:ASN:O	1.78	0.82
3:P:492:SER:HG	3:P:495:ASN:H	1.23	0.82
1:G:232:VAL:CG2	1:H:221:ALA:HB3	2.09	0.82
2:I:1313:HIS:CE1	3:J:380:PHE:HE1	1.97	0.82
3:P:403:ARG:O	3:P:404:GLU:HB2	1.79	0.82
3:P:425:ARG:NH2	8:9:16:U:O2'	2.12	0.82
2:I:405:PHE:HZ	2:I:424:ASP:HB3	1.45	0.82
2:I:1212:LEU:HD12	2:I:1225:VAL:HB	1.61	0.82
2:I:1289:GLU:OE1	3:J:472:LEU:HB2	1.79	0.82
3:D:1179:PRO:HD2	3:D:1184:ASP:O	1.79	0.82
3:P:322:ARG:HE	5:R:510:PRO:CD	1.92	0.82
3:P:1343:GLU:C	3:P:1344:LEU:HG	2.02	0.82
2:C:551:HIS:H	2:C:554:HIS:CE1	1.97	0.82
2:I:178:PRO:HA	2:I:397:LEU:CD2	2.09	0.82
2:I:696:ASP:HB2	2:I:798:GLN:HG2	1.60	0.82
3:J:844:THR:HG23	3:J:862:THR:O	1.80	0.82
3:J:1164:SER:O	3:J:1175:LEU:HD12	1.79	0.82
2:O:171:LEU:HD22	2:O:188:PHE:O	1.78	0.82
3:P:1145:PHE:CB	3:P:1309:ILE:HD11	2.08	0.82
2:C:373:GLY:HA3	5:F:91:ILE:HG12	1.59	0.82
3:D:1101:LEU:CD2	3:D:1122:ALA:HB3	2.09	0.82
1:H:190:ALA:HA	1:H:200:LYS:HG3	1.60	0.82
1:H:224:LEU:HG	1:H:225:ALA:N	1.95	0.82
2:O:1304:MET:HE3	2:O:1308:ILE:HD11	1.60	0.82
3:P:767:LEU:HD12	3:P:772:TYR:HD1	1.44	0.82
5:R:548:LEU:HD23	5:R:551:LEU:HD12	1.62	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:586:ARG:O	5:R:590:ILE:HG13	1.79	0.82
2:O:59:ILE:CG2	2:O:476:LYS:HE3	2.09	0.82
2:O:1333:LEU:HB2	2:O:1335:ILE:HD12	1.60	0.82
3:P:128:LEU:HD11	3:P:189:LEU:HD21	1.62	0.82
3:P:139:LEU:HD22	3:P:182:ALA:HA	1.61	0.82
3:P:492:SER:HB3	3:P:495:ASN:OD1	1.78	0.82
7:8:23:DT:H3'	7:8:24:DT:H5''	1.61	0.82
2:I:14:ASP:OD2	2:I:1156:ARG:NH2	2.12	0.82
5:R:440:THR:O	5:R:443:ILE:HG22	1.80	0.82
1:B:86:LYS:HB3	1:B:176:CYS:SG	2.20	0.81
1:G:228:LEU:HD13	1:H:224:LEU:CD1	2.03	0.81
2:I:764:CYS:HA	2:I:833:ILE:CD1	2.09	0.81
2:O:939:VAL:HG21	2:O:1047:LEU:HD22	1.62	0.81
2:C:160:ASP:CB	2:C:163:LYS:HD3	2.09	0.81
2:C:1291:LEU:HD13	3:D:1354:GLY:HA2	1.60	0.81
3:D:707:ILE:HG22	3:D:708:ASN:H	1.44	0.81
1:H:81:ILE:O	1:H:85:LEU:HG	1.79	0.81
2:I:886:LYS:HD2	2:I:916:SER:HB2	1.60	0.81
2:O:280:ASP:O	2:O:281:ASP:HB2	1.79	0.81
2:O:589:THR:CG2	2:O:590:PRO:HD2	2.10	0.81
1:A:182:ARG:HD3	2:C:1092:THR:HG23	1.60	0.81
1:B:213:PRO:O	1:B:217:ILE:HD13	1.79	0.81
2:C:14:ASP:HA	2:C:1183:ALA:HB3	1.61	0.81
3:D:347:VAL:HG12	3:D:348:ASP:O	1.80	0.81
1:G:214:GLU:HA	1:G:217:ILE:HD12	1.61	0.81
2:I:1299:ASN:O	2:I:1302:THR:HG22	1.81	0.81
1:N:212:ASP:OD1	1:N:213:PRO:HD2	1.80	0.81
2:O:8:LYS:HD3	2:O:1168:GLU:OE1	1.80	0.81
3:P:503:SER:O	3:P:506:VAL:HG23	1.80	0.81
2:C:569:ILE:HD12	3:D:783:LEU:HD23	1.62	0.81
3:D:544:LEU:HD22	3:D:578:ILE:HD11	1.63	0.81
1:G:69:SER:O	1:G:78:ILE:CD1	2.29	0.81
3:J:422:LEU:O	3:J:468:VAL:CG1	2.28	0.81
2:O:1243:MET:HG3	3:P:372:MET:HE3	1.60	0.81
3:P:370:LYS:HA	3:P:441:LEU:HD22	1.62	0.81
3:P:1226:VAL:O	3:P:1230:THR:OG1	1.97	0.81
5:R:449:THR:CB	5:R:504:PRO:HG3	2.11	0.81
1:H:186:ASN:O	1:H:201:LEU:HD12	1.80	0.81
2:I:297:VAL:HG22	2:I:315:MET:H	1.44	0.81
2:I:1108:ASN:OD1	2:I:1108:ASN:N	2.13	0.81
2:I:1280:ALA:HB3	3:J:431:ARG:HB3	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:299:LEU:O	3:J:303:VAL:HG23	1.80	0.81
3:J:849:LEU:CD2	3:J:857:LEU:HD23	2.10	0.81
1:N:60:GLU:O	1:N:142:MET:HB2	1.81	0.81
3:D:930:LEU:CB	3:D:1134:ILE:HD11	2.11	0.81
1:H:50:SER:O	1:H:150:ARG:HD2	1.80	0.81
2:I:363:LEU:O	2:I:366:ILE:HB	1.80	0.81
3:J:322:ARG:HB2	3:J:323:PRO:HD2	1.62	0.81
2:O:550:VAL:HG23	3:P:780:ARG:CD	2.11	0.81
1:A:45:ARG:HD3	1:B:38:THR:CB	2.09	0.81
2:C:559:CYS:CB	2:C:662:SER:HB3	2.09	0.81
3:D:703:THR:HG22	3:D:717:VAL:HA	1.63	0.81
3:P:739:GLN:NE2	3:P:940:ALA:CB	2.43	0.81
2:C:1309:VAL:O	3:D:383:GLY:HA2	1.81	0.81
3:D:372:MET:O	3:D:376:LEU:HG	1.80	0.81
3:P:1253:ILE:O	3:P:1257:VAL:HG23	1.80	0.81
3:D:485:MET:O	3:D:489:ASN:ND2	2.13	0.81
2:C:1120:ALA:O	2:C:1124:ILE:HG13	1.80	0.81
3:P:1163:VAL:CG1	3:P:1175:LEU:HD21	2.11	0.81
1:B:102:LEU:HB2	1:B:115:ILE:HD11	1.63	0.80
3:D:1226:VAL:O	3:D:1230:THR:OG1	1.99	0.80
4:E:27:ALA:HA	4:E:30:MET:SD	2.20	0.80
2:I:936:ARG:HG2	2:I:937:ASP:N	1.92	0.80
3:J:848:VAL:HG21	3:J:880:VAL:HG13	1.63	0.80
3:J:872:LEU:C	3:J:872:LEU:CD2	2.55	0.80
3:J:1175:LEU:HD12	3:J:1176:VAL:N	1.94	0.80
3:P:1078:LEU:HD13	3:P:1121:LEU:HD22	1.64	0.80
2:C:149:LEU:HD11	2:C:451:ARG:CB	2.11	0.80
2:C:1174:GLU:O	2:C:1177:ARG:HB3	1.81	0.80
1:M:180:VAL:HA	1:M:207:THR:HG22	1.64	0.80
3:P:253:VAL:HB	3:P:254:PRO:HD2	1.63	0.80
3:P:1282:TYR:O	3:P:1285:VAL:CG1	2.30	0.80
5:R:387:VAL:HG23	5:R:435:ILE:HD13	1.63	0.80
5:R:443:ILE:O	5:R:447:ALA:HB2	1.80	0.80
2:C:617:ALA:HA	2:C:636:CYS:SG	2.22	0.80
3:D:544:LEU:HD22	3:D:578:ILE:CD1	2.11	0.80
3:J:1347:LEU:O	3:J:1351:VAL:HG23	1.80	0.80
2:O:790:ASP:O	2:O:792:GLY:N	2.13	0.80
2:O:1184:THR:OG1	2:O:1189:GLY:HA3	1.81	0.80
3:P:262:THR:CA	5:R:507:MET:HE3	2.10	0.80
3:D:805:GLN:C	3:D:1347:LEU:HD11	2.07	0.80
3:J:255:LEU:HD13	3:J:257:GLY:H	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:546:ALA:O	3:J:548:VAL:HG23	1.80	0.80
3:P:406:ALA:HA	3:P:409:TRP:HD1	1.46	0.80
3:P:690:ASN:HA	3:P:743:MET:HE1	1.63	0.80
1:B:39:LEU:O	1:B:43:LEU:HD12	1.82	0.80
2:C:403:MET:HE3	2:C:407:ARG:HH22	1.47	0.80
3:D:442:ILE:O	3:D:442:ILE:HG13	1.80	0.80
5:L:123:ILE:HD13	5:L:376:LYS:CE	2.11	0.80
1:N:86:LYS:CE	1:N:174:ASP:HB2	2.11	0.80
3:P:421:VAL:HG12	3:P:469:HIS:O	1.82	0.80
3:D:822:MET:HG2	3:D:838:ARG:NH2	1.97	0.80
5:L:452:ILE:HG23	5:L:456:MET:CG	2.12	0.80
2:O:1271:GLY:O	2:O:1275:VAL:HG23	1.82	0.80
3:D:339:ARG:NH2	3:D:1325:PHE:O	2.14	0.80
1:G:45:ARG:HD3	1:H:38:THR:OG1	1.81	0.80
2:I:528:ARG:HD3	2:I:663:VAL:HG21	1.64	0.80
3:J:279:LEU:O	3:J:283:LEU:HG	1.81	0.80
3:J:1230:THR:HA	3:J:1233:ILE:HD12	1.61	0.80
3:J:1230:THR:O	3:J:1234:VAL:HG23	1.80	0.80
5:R:583:THR:O	5:R:587:ILE:HD11	1.82	0.80
2:I:1280:ALA:HB1	3:J:431:ARG:HB3	1.63	0.80
3:J:809:VAL:HG21	3:J:909:ILE:HD13	1.64	0.80
3:J:1267:VAL:O	3:J:1268:ASN:HB2	1.80	0.80
5:L:401:PHE:O	5:L:405:ILE:HG13	1.82	0.80
1:M:69:SER:O	1:M:78:ILE:HG13	1.81	0.80
3:D:318:GLY:HA2	3:D:324:LEU:HD21	1.62	0.80
3:D:759:ILE:HD11	3:D:767:LEU:HD13	1.63	0.80
5:F:100:MET:HE2	5:F:103:ARG:HH22	1.44	0.80
2:I:164:THR:O	2:I:165:HIS:HB2	1.80	0.80
3:J:497:GLU:HB3	3:J:498:PRO:HD2	1.63	0.80
5:L:93:ARG:O	5:L:93:ARG:CD	2.29	0.80
2:O:197:ARG:HB3	2:O:200:ARG:HA	1.64	0.80
3:D:385:LEU:HD22	3:D:391:ALA:HB2	1.64	0.79
5:F:404:LEU:HD23	5:F:439:ILE:HG12	1.62	0.79
2:I:237:LEU:HG	2:I:289:VAL:HG22	1.64	0.79
1:A:179:PRO:CA	1:A:208:ASN:HD21	1.96	0.79
1:B:82:LEU:HD22	1:B:173:VAL:HG13	1.61	0.79
3:D:734:ALA:O	3:D:737:ILE:HB	1.82	0.79
3:J:797:THR:CG2	3:J:924:GLY:HA3	2.11	0.79
3:J:1046:ILE:HG22	3:J:1061:VAL:HA	1.64	0.79
2:O:575:LEU:HD11	2:O:579:ALA:HB3	1.64	0.79
2:O:1261:GLY:HA2	7:8:16:DC:OP1	1.80	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:Q:6:VAL:HG13	4:Q:51:LEU:CD2	2.12	0.79
1:B:217:ILE:CD1	1:B:217:ILE:H	1.96	0.79
2:C:667:LEU:HD11	2:C:708:VAL:HG21	1.62	0.79
2:C:1309:VAL:O	3:D:383:GLY:CA	2.30	0.79
2:C:1313:HIS:CE1	3:D:380:PHE:HE1	2.00	0.79
4:E:45:LYS:O	4:E:49:ILE:HG13	1.83	0.79
2:I:142:GLU:OE1	2:I:517:GLN:NE2	2.15	0.79
2:I:661:VAL:CG1	2:I:665:ALA:CB	2.58	0.79
2:I:846:GLY:HA3	2:I:889:PRO:HG2	1.64	0.79
3:J:1239:ASP:O	3:J:1243:LEU:HG	1.81	0.79
3:P:932:MET:HE3	8:9:17:C:H2'	1.65	0.79
2:C:263:VAL:HG11	2:C:269:ILE:HD11	1.65	0.79
3:D:749:LYS:HG2	3:D:755:ILE:CD1	2.12	0.79
1:G:106:GLY:HA2	1:G:136:GLU:CA	2.13	0.79
2:I:178:PRO:HA	2:I:397:LEU:HD23	1.64	0.79
2:I:838:CYS:SG	2:I:886:LYS:HE3	2.21	0.79
3:J:309:ASN:HD21	3:J:316:ILE:H	1.31	0.79
1:N:31:LEU:HD11	1:N:39:LEU:CD1	2.11	0.79
5:R:564:GLY:O	5:R:567:MET:O	2.00	0.79
2:C:82:VAL:HG23	2:C:83:GLN:N	1.95	0.79
3:D:415:VAL:HA	4:E:45:LYS:HZ1	1.47	0.79
5:F:385:ARG:O	5:F:388:ILE:HG22	1.81	0.79
2:I:148:GLN:NE2	2:I:533:LEU:O	2.16	0.79
2:C:17:LYS:NZ	2:C:1189:GLY:O	2.14	0.79
3:D:759:ILE:CD1	3:D:767:LEU:HD13	2.12	0.79
3:D:922:SER:O	3:D:926:PRO:HD3	1.83	0.79
5:F:399:LEU:HD13	5:F:403:ASP:HB3	1.64	0.79
3:J:282:LEU:CD2	3:J:287:ALA:HB2	2.08	0.79
2:O:671:LEU:HD11	2:O:679:ALA:HB1	1.65	0.79
6:7:48:DA:H2''	6:7:49:DG:H5''	1.64	0.79
1:B:61:ILE:H	1:B:61:ILE:CD1	1.93	0.79
3:D:478:LEU:CD1	4:E:24:ALA:HB2	2.13	0.79
5:F:457:ILE:HA	5:F:460:ILE:HD12	1.64	0.79
2:I:993:PRO:HG2	2:I:996:ARG:HE	1.48	0.79
2:I:1116:HIS:CD2	3:J:641:ILE:CD1	2.66	0.79
3:J:519:ASN:CB	3:J:523:GLU:HB2	2.13	0.79
3:J:1163:VAL:HG13	3:J:1176:VAL:C	2.08	0.79
2:O:529:ARG:C	2:O:530:ILE:HG12	2.08	0.79
2:C:209:ILE:HG23	2:C:210:LEU:N	1.96	0.79
2:I:883:LEU:HD21	2:I:920:VAL:HG23	1.64	0.79
2:I:1252:SER:HA	2:I:1259:LEU:HD21	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1275:VAL:O	2:I:1279:GLU:HG3	1.82	0.79
5:R:262:VAL:CG1	5:R:263:PRO:HD2	2.11	0.79
2:C:559:CYS:SG	2:C:560:PRO:HD2	2.23	0.79
3:D:470:VAL:HG12	3:D:472:LEU:HD23	1.65	0.79
3:D:497:GLU:HB3	3:D:498:PRO:HD2	1.65	0.79
2:I:241:LEU:HD11	2:I:246:LEU:CD1	2.13	0.79
2:I:1187:PHE:CZ	3:J:769:VAL:HA	2.18	0.79
3:J:146:VAL:HG11	3:J:155:GLU:O	1.81	0.79
3:J:1252:HIS:O	3:J:1255:VAL:HB	1.83	0.79
3:P:1230:THR:HA	3:P:1233:ILE:HD12	1.65	0.79
5:R:110:LEU:H	5:R:110:LEU:HD12	1.46	0.79
5:R:449:THR:HB	5:R:504:PRO:HG3	1.63	0.79
7:8:25:DA:H2''	7:8:26:DT:OP2	1.79	0.79
3:J:97:VAL:HG12	3:J:101:ARG:HG3	1.64	0.78
3:J:543:SER:O	3:J:574:VAL:HG21	1.82	0.78
2:O:478:ARG:NH1	2:O:492:MET:HA	1.97	0.78
2:O:693:LEU:HB2	2:O:831:ILE:HD11	1.65	0.78
3:P:673:VAL:HG11	3:P:678:ARG:HB2	1.64	0.78
3:D:583:VAL:O	3:D:583:VAL:HG12	1.82	0.78
3:J:20:ILE:HD13	3:J:1320:ILE:HD11	1.63	0.78
3:J:1138:LEU:CB	3:J:1139:PRO:CD	2.61	0.78
2:O:897:PRO:HB2	5:R:565:ILE:CG1	2.13	0.78
3:J:885:VAL:HG12	3:J:886:VAL:N	1.97	0.78
3:P:749:LYS:HG3	3:P:755:ILE:HG12	1.65	0.78
1:A:157:THR:O	1:A:160:HIS:HB3	1.82	0.78
5:F:451:ARG:HH12	6:1:32:DA:P	2.06	0.78
2:C:18:ARG:HH22	2:C:622:ASN:CG	1.90	0.78
2:C:1314:GLN:HG3	4:E:28:ARG:CZ	2.14	0.78
3:D:337:ARG:HA	3:D:341:ASN:ND2	1.98	0.78
3:D:337:ARG:HA	3:D:341:ASN:HD22	1.47	0.78
3:J:342:LEU:HB3	3:J:1352:ILE:HG23	1.63	0.78
3:J:475:GLU:HG3	4:K:24:ALA:HB1	1.66	0.78
5:L:120:ALA:HA	5:L:123:ILE:HD12	1.65	0.78
2:O:557:ARG:HD3	2:O:587:LEU:HB2	1.65	0.78
1:A:39:LEU:O	1:A:43:LEU:HD12	1.83	0.78
1:B:83:LEU:CD1	1:B:86:LYS:HZ2	1.94	0.78
3:D:649:LYS:O	3:D:653:ILE:HG13	1.84	0.78
3:P:783:LEU:O	3:P:786:THR:HG22	1.83	0.78
2:C:746:ALA:HB2	2:C:971:LEU:HD13	1.66	0.78
1:G:228:LEU:HD12	1:H:228:LEU:HD13	1.65	0.78
2:I:800:MET:HE2	2:I:800:MET:HA	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:227:PHE:HE1	3:J:232:ASN:O	1.66	0.78
1:N:61:ILE:HB	1:N:64:VAL:HB	1.65	0.78
2:O:672:GLU:HG2	2:O:1187:PHE:HA	1.64	0.78
4:Q:13:ILE:HD12	4:Q:19:LEU:HB2	1.66	0.78
5:F:110:LEU:HD12	5:F:110:LEU:N	1.99	0.78
5:F:591:GLU:O	5:F:595:LEU:HG	1.84	0.78
2:I:1294:LYS:HD3	3:J:347:VAL:HG12	1.64	0.78
3:J:582:ILE:HG22	3:J:620:PHE:CE1	2.19	0.78
3:J:848:VAL:HG21	3:J:880:VAL:HG11	1.66	0.78
2:O:949:GLU:O	2:O:953:LEU:HG	1.84	0.78
3:P:673:VAL:HG13	3:P:674:THR:O	1.83	0.78
3:P:739:GLN:HE22	3:P:940:ALA:CB	1.95	0.78
1:M:11:PRO:HB2	1:N:231:PHE:HZ	1.47	0.78
3:P:700:ASN:O	3:P:704:GLU:HB2	1.83	0.78
5:R:262:VAL:CG1	5:R:263:PRO:CD	2.61	0.78
7:8:25:DA:C1'	7:8:26:DT:H5''	2.12	0.78
1:B:83:LEU:HD13	1:B:86:LYS:CD	2.14	0.77
2:C:1232:MET:HA	2:C:1232:MET:CE	2.12	0.77
1:G:102:LEU:CD1	1:G:114:ASP:O	2.33	0.77
2:I:850:ILE:HG22	2:I:885:GLY:O	1.84	0.77
2:I:1128:ILE:O	2:I:1132:LEU:HG	1.84	0.77
3:J:309:ASN:HD21	3:J:316:ILE:N	1.81	0.77
3:J:909:ILE:HD11	3:J:913:GLU:HB3	1.66	0.77
3:P:1266:ILE:HD13	3:P:1274:PHE:HB3	1.66	0.77
5:R:323:ASN:CG	5:R:324:LYS:H	1.92	0.77
1:N:101:THR:CG2	1:N:143:ARG:HG2	2.09	0.77
1:G:66:HIS:NE2	1:G:69:SER:HB3	1.99	0.77
1:G:232:VAL:HG13	1:H:218:ARG:HA	1.65	0.77
2:I:755:LYS:HZ1	2:I:769:PRO:HD3	1.48	0.77
3:J:625:MET:HG2	3:J:629:PHE:CE2	2.18	0.77
3:P:1321:SER:O	3:P:1324:SER:OG	2.03	0.77
5:R:401:PHE:O	5:R:405:ILE:HG13	1.83	0.77
5:R:506:SER:O	5:R:519:LEU:CD2	2.31	0.77
3:J:156:ARG:HD3	3:J:188:LEU:HD11	1.66	0.77
1:M:232:VAL:CG2	1:N:221:ALA:HB3	2.13	0.77
3:P:74:LYS:NZ	3:P:87:LYS:HB2	1.99	0.77
3:P:421:VAL:HG23	3:P:439:PRO:HG2	1.66	0.77
3:P:490:ILE:HD12	3:P:490:ILE:N	1.99	0.77
2:C:530:ILE:HD12	2:C:573:ASN:O	1.84	0.77
2:C:622:ASN:HB3	2:C:630:VAL:HG21	1.64	0.77
2:C:809:GLY:HA3	3:D:629:PHE:CE1	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:878:THR:HG22	2:C:879:GLY:N	1.99	0.77
2:I:237:LEU:HD11	2:I:289:VAL:HG13	1.66	0.77
2:I:1326:LEU:CA	2:I:1329:GLU:OE1	2.28	0.77
5:L:93:ARG:O	5:L:93:ARG:CG	2.32	0.77
1:A:38:THR:HG23	1:B:42:ALA:CA	2.13	0.77
2:C:1104:PRO:HG2	2:C:1105:SER:N	1.99	0.77
5:F:91:ILE:HD11	5:F:103:ARG:HH12	1.48	0.77
2:I:878:THR:HG22	2:I:879:GLY:H	1.50	0.77
3:J:473:THR:HB	3:J:475:GLU:OE1	1.84	0.77
2:C:496:LYS:HB2	2:C:497:PRO:HD3	1.64	0.77
2:O:209:ILE:HG23	2:O:210:LEU:N	2.00	0.77
1:A:234:LEU:HD22	1:B:12:ARG:HH12	1.50	0.77
2:C:726:TYR:HB3	2:C:733:VAL:HG22	1.66	0.77
3:D:50:LYS:HD3	3:D:71:LEU:CD2	2.15	0.77
1:G:117:HIS:NE2	1:G:121:VAL:O	2.18	0.77
2:I:78:PRO:HB3	2:I:93:SER:O	1.83	0.77
3:J:1132:LYS:O	3:J:1133:ASP:CB	2.32	0.77
3:J:1173:ARG:O	3:J:1190:ILE:HD12	1.84	0.77
2:O:15:PHE:HE2	2:O:1182:ILE:CD1	1.96	0.77
2:O:91:THR:HG23	2:O:138:ILE:HA	1.67	0.77
3:P:268:LEU:O	3:P:272:VAL:HG23	1.84	0.77
3:P:1230:THR:O	3:P:1234:VAL:HG23	1.85	0.77
1:B:44:ARG:NH1	3:D:538:ARG:HD2	2.00	0.77
3:D:478:LEU:HD22	4:E:20:VAL:HG13	1.66	0.77
3:D:770:LEU:HD23	3:D:771:GLN:HG3	1.64	0.77
3:D:805:GLN:CA	3:D:1347:LEU:HD11	2.14	0.77
2:I:178:PRO:HB3	2:I:395:TYR:CZ	2.20	0.77
2:I:237:LEU:O	2:I:287:VAL:HG22	1.84	0.77
3:J:1163:VAL:CG2	3:J:1177:ILE:HG23	2.15	0.77
2:C:1306:LYS:HD3	5:F:535:ALA:HA	1.67	0.77
3:D:492:SER:HG	3:D:495:ASN:H	1.33	0.77
5:F:580:PHE:O	5:F:581:ASP:HB2	1.83	0.77
2:I:38:PHE:HE1	2:I:461:GLU:CA	1.95	0.77
3:J:372:MET:O	3:J:376:LEU:CG	2.28	0.77
6:4:54:DA:H1'	6:4:55:DC:H5'	1.67	0.77
2:O:890:LYS:HZ1	2:O:893:THR:HG23	1.48	0.77
2:O:1198:LEU:HD12	2:O:1198:LEU:O	1.85	0.77
3:P:664:ILE:HD12	3:P:685:ILE:HD11	1.65	0.77
1:A:232:VAL:HG22	1:B:221:ALA:HB3	1.66	0.76
1:B:61:ILE:CD1	1:B:171:LEU:CD1	2.64	0.76
2:C:149:LEU:HD21	2:C:451:ARG:NE	2.00	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:988:LYS:HB2	2:C:988:LYS:HZ3	1.46	0.76
3:D:378:LYS:HA	3:D:381:ILE:HD12	1.65	0.76
3:D:421:VAL:CG2	3:D:439:PRO:HG2	2.14	0.76
1:H:59:VAL:HG22	1:H:144:ILE:HG23	1.64	0.76
3:J:421:VAL:HG13	3:J:470:VAL:HA	1.66	0.76
2:O:1135:GLN:HG3	2:O:1136:GLN:H	1.50	0.76
3:P:245:LEU:HD12	3:P:246:PRO:CD	2.14	0.76
3:P:682:VAL:HA	3:P:685:ILE:HD12	1.67	0.76
3:P:1154:ALA:CB	3:P:1211:SER:HB2	2.14	0.76
3:D:1217:PRO:HA	3:D:1220:ILE:HD12	1.66	0.76
1:H:102:LEU:HB2	1:H:115:ILE:HD13	1.66	0.76
3:J:424:ASN:C	3:J:466:MET:HE3	2.10	0.76
3:P:353:SER:HB2	3:P:372:MET:HE1	1.66	0.76
3:P:367:GLY:O	3:P:447:ILE:HG22	1.84	0.76
5:R:551:LEU:HB2	5:R:556:ALA:HB2	1.67	0.76
2:C:748:ILE:HD11	2:C:970:GLY:HA3	1.65	0.76
3:D:943:ARG:CG	3:D:944:ALA:H	1.92	0.76
1:G:102:LEU:HD12	1:G:103:ASN:N	1.99	0.76
1:H:82:LEU:N	1:H:82:LEU:HD23	1.99	0.76
2:I:1327:LEU:HA	2:I:1330:ILE:HD12	1.66	0.76
3:J:474:LEU:O	3:J:478:LEU:HG	1.85	0.76
3:J:1321:SER:O	3:J:1324:SER:OG	2.03	0.76
1:M:41:ASN:O	1:M:45:ARG:HG3	1.85	0.76
1:M:61:ILE:HG12	1:M:142:MET:HE2	1.65	0.76
3:P:58:CYS:SG	3:P:60:ARG:HB3	2.25	0.76
3:P:253:VAL:HB	3:P:254:PRO:HD3	1.67	0.76
1:A:9:LEU:O	1:B:227:GLN:NE2	2.19	0.76
1:B:47:LEU:CD1	1:B:183:ILE:CD1	2.60	0.76
3:D:514:THR:HG21	3:D:596:LEU:CG	2.16	0.76
3:D:526:VAL:O	3:D:527:LEU:HD23	1.85	0.76
3:D:703:THR:HB	3:D:716:GLN:O	1.86	0.76
1:G:232:VAL:HG21	1:H:221:ALA:HB1	1.67	0.76
2:I:218:GLU:OE1	2:I:299:LYS:HG2	1.85	0.76
2:I:515:MET:HE3	2:I:517:GLN:HG2	1.67	0.76
2:I:1313:HIS:NE2	3:J:380:PHE:HE1	1.82	0.76
2:I:1333:LEU:HD13	2:I:1335:ILE:HD12	1.68	0.76
2:O:110:PRO:C	2:O:112:GLY:H	1.94	0.76
1:A:19:VAL:HG12	1:A:20:SER:N	2.00	0.76
1:A:224:LEU:C	1:A:224:LEU:HD12	2.10	0.76
3:D:138:VAL:HG12	3:D:185:ILE:HD11	1.66	0.76
3:D:572:THR:OG1	3:D:576:ARG:HB2	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:620:PHE:O	3:D:624:ILE:CG1	2.33	0.76
5:F:130:VAL:HG13	5:F:365:MET:HG3	1.67	0.76
2:I:241:LEU:CD1	2:I:246:LEU:HD11	2.14	0.76
3:J:70:CYS:HB2	3:J:90:VAL:HB	1.66	0.76
1:N:61:ILE:HA	1:N:142:MET:HB2	1.66	0.76
3:P:1190:ILE:HG22	3:P:1191:PRO:O	1.86	0.76
2:C:560:PRO:HG2	2:C:561:ILE:HG12	1.66	0.76
2:C:839:VAL:O	2:C:886:LYS:NZ	2.17	0.76
2:I:513:GLN:OE1	2:I:526:HIS:NE2	2.18	0.76
3:J:1357:ILE:H	3:J:1357:ILE:HD13	1.50	0.76
3:P:697:MET:O	3:P:701:LEU:HB2	1.85	0.76
3:P:932:MET:CE	8:9:17:C:H2'	2.16	0.76
3:D:975:ILE:HD13	3:D:980:THR:HG21	1.68	0.76
1:G:51:MET:SD	1:G:52:PRO:HD2	2.25	0.76
3:J:739:GLN:HG2	3:J:744:ARG:HG3	1.67	0.76
3:J:767:LEU:N	3:J:767:LEU:HD23	2.00	0.76
3:J:797:THR:HG23	3:J:924:GLY:HA3	1.65	0.76
5:L:235:ILE:HG23	5:L:240:ARG:HA	1.68	0.76
5:L:324:LYS:O	5:L:326:TRP:N	2.19	0.76
1:N:71:LYS:HD3	1:N:140:ILE:HD12	1.66	0.76
2:O:1326:LEU:O	2:O:1330:ILE:CD1	2.28	0.76
3:P:139:LEU:CD1	3:P:185:ILE:HD12	2.13	0.76
3:P:1328:THR:O	3:P:1332:LEU:CG	2.33	0.76
5:R:84:LEU:HD11	5:R:107:THR:HG21	1.66	0.76
5:R:407:GLU:HG2	5:R:442:SER:CB	2.15	0.76
3:D:544:LEU:HA	3:D:574:VAL:HB	1.68	0.76
3:J:681:LYS:O	3:J:685:ILE:HG13	1.85	0.76
1:M:227:GLN:NE2	1:N:9:LEU:O	2.12	0.76
2:O:539:THR:HG22	2:O:540:ARG:N	2.00	0.76
3:P:259:ARG:HH11	5:R:502:LYS:HG2	1.49	0.76
3:D:720:ASN:O	3:D:724:MET:HG3	1.86	0.76
3:J:128:LEU:HD11	3:J:189:LEU:HD21	1.68	0.76
3:J:197:GLU:O	3:J:201:LEU:HG	1.86	0.76
2:O:932:GLN:HB3	2:O:934:PHE:CZ	2.19	0.76
3:P:599:LYS:HG3	3:P:600:ALA:H	1.48	0.76
3:D:138:VAL:CG1	3:D:185:ILE:HD11	2.15	0.76
3:D:512:TYR:CE2	3:D:635:SER:HB2	2.21	0.76
3:D:1280:VAL:HG12	3:D:1281:GLU:N	2.00	0.76
3:J:1146:GLU:CD	3:J:1309:ILE:HB	2.11	0.76
2:O:496:LYS:CB	2:O:497:PRO:HD3	2.09	0.76
2:O:1261:GLY:HA3	7:8:16:DC:OP1	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:68:TYR:CA	3:P:92:VAL:HG13	2.16	0.76
1:A:42:ALA:HA	1:B:38:THR:CG2	2.16	0.75
1:B:83:LEU:HD11	1:B:86:LYS:NZ	1.99	0.75
2:C:263:VAL:CG1	2:C:269:ILE:HD11	2.16	0.75
5:F:105:MET:HE3	5:F:106:GLY:N	2.00	0.75
1:G:153:VAL:HG13	1:G:157:THR:HB	1.66	0.75
1:B:221:ALA:O	1:B:224:LEU:HB3	1.85	0.75
2:C:16:GLY:O	2:C:1156:ARG:HB3	1.86	0.75
3:D:1326:GLN:NE2	7:2:10:DC:H4'	2.00	0.75
2:I:76:GLY:HA3	2:I:95:PRO:HG2	1.68	0.75
5:L:561:MET:SD	5:L:579:GLN:OE1	2.43	0.75
5:R:520:GLY:HA2	5:R:523:ILE:HD11	1.68	0.75
2:C:1141:LEU:O	2:C:1145:ILE:HD12	1.87	0.75
3:D:113:HIS:HB2	3:D:239:LEU:HD11	1.69	0.75
3:D:805:GLN:CB	3:D:1347:LEU:HD11	2.13	0.75
5:F:395:THR:HG22	5:F:404:LEU:HD13	1.68	0.75
5:R:381:GLU:O	5:R:384:LEU:HG	1.87	0.75
1:B:44:ARG:NH1	3:D:538:ARG:CD	2.50	0.75
2:C:557:ARG:O	2:C:575:LEU:HD12	1.86	0.75
2:C:1294:LYS:HE2	3:D:349:TYR:HB2	1.68	0.75
3:D:44:ILE:HD12	3:D:44:ILE:C	2.11	0.75
3:J:480:ALA:HA	3:J:484:MET:SD	2.26	0.75
3:J:848:VAL:CG2	3:J:880:VAL:HG13	2.16	0.75
3:J:1167:LYS:H	3:J:1167:LYS:HD2	1.51	0.75
3:D:707:ILE:HG22	3:D:708:ASN:N	2.01	0.75
3:P:697:MET:HE1	3:P:738:ARG:HA	1.69	0.75
3:P:1145:PHE:O	3:P:1309:ILE:HG13	1.87	0.75
3:P:1165:PHE:HZ	3:P:1196:LEU:CD1	1.99	0.75
2:I:15:PHE:HB3	2:I:17:LYS:NZ	2.00	0.75
2:I:994:ARG:HH11	2:I:994:ARG:HA	1.52	0.75
3:J:294:ASN:HB3	5:L:406:GLN:HE22	1.52	0.75
3:J:378:LYS:HG2	3:J:382:TYR:HE2	1.49	0.75
2:O:73:TYR:CE1	2:O:75:LEU:HD21	2.20	0.75
3:P:416:ILE:HD12	3:P:441:LEU:HG	1.67	0.75
3:P:1332:LEU:HD23	3:P:1332:LEU:N	1.98	0.75
1:B:142:MET:SD	1:B:144:ILE:HD11	2.26	0.75
2:C:447:HIS:HD2	2:C:449:GLY:H	1.35	0.75
2:O:1138:VAL:HA	2:O:1141:LEU:HD12	1.67	0.75
2:O:1246:ARG:HD2	2:O:1265:PHE:O	1.85	0.75
3:P:978:ARG:HG3	3:P:1212:ASP:HB3	1.68	0.75
5:R:470:MET:HE2	5:R:478:PRO:HB3	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:160:ASP:HB3	2:C:163:LYS:HB3	1.68	0.75
2:C:727:VAL:HG23	2:C:773:LEU:HD13	1.69	0.75
3:D:848:VAL:HG21	3:D:880:VAL:HG22	1.67	0.75
3:D:1090:ILE:HG12	3:D:1097:ALA:HB2	1.68	0.75
3:D:1132:LYS:HG2	3:D:1243:LEU:HD21	1.67	0.75
1:G:69:SER:C	1:G:78:ILE:HD11	2.12	0.75
2:I:184:LEU:HD11	2:I:389:PHE:CE2	2.22	0.75
3:J:245:LEU:HD21	3:J:249:LEU:CB	2.17	0.75
3:J:805:GLN:HB2	3:J:1347:LEU:CD1	2.16	0.75
3:J:1282:TYR:CZ	3:J:1304:ARG:NH2	2.52	0.75
5:R:276:MET:O	5:R:280:VAL:HG23	1.87	0.75
5:R:386:LEU:HD13	6:7:41:DT:O4'	1.87	0.75
2:C:1184:THR:HG23	2:C:1184:THR:O	1.86	0.75
3:D:102:MET:HE3	3:D:246:PRO:HD3	1.69	0.75
3:D:1321:SER:O	3:D:1324:SER:OG	2.04	0.75
3:J:803:VAL:HG22	3:J:1313:SER:OG	1.87	0.75
6:4:34:DG:N2	7:5:29:DC:O2	2.19	0.75
3:D:544:LEU:CD2	3:D:578:ILE:HD11	2.16	0.74
2:I:838:CYS:SG	2:I:886:LYS:CE	2.75	0.74
2:O:898:GLU:OE1	5:R:565:ILE:HG12	1.86	0.74
2:C:1297:ASP:OD2	2:C:1318:GLY:HA3	1.86	0.74
1:G:232:VAL:HG12	1:H:218:ARG:HA	1.68	0.74
2:I:1273:MET:CG	7:5:13:DA:H4'	2.17	0.74
3:J:115:TRP:CZ2	3:J:1329:THR:HG22	2.22	0.74
3:P:1326:GLN:NE2	7:8:10:DC:H4'	2.03	0.74
5:R:306:PHE:O	5:R:310:GLU:HG3	1.86	0.74
6:7:28:DA:N6	7:8:34:DG:C6	2.54	0.74
6:7:34:DG:N2	7:8:29:DC:O2	2.19	0.74
1:A:41:ASN:ND2	2:C:1218:GLY:CA	2.50	0.74
2:C:810:TYR:CE1	3:D:359:PRO:HG3	2.22	0.74
1:G:151:GLY:O	1:G:177:TYR:HB2	1.88	0.74
2:I:807:TRP:O	2:I:809:GLY:N	2.20	0.74
2:I:1269:ARG:HA	3:J:346:ARG:HA	1.69	0.74
3:D:30:ILE:HG23	3:D:243:PRO:HB3	1.68	0.74
3:D:328:ALA:HA	3:D:331:ILE:HD12	1.69	0.74
2:I:873:ILE:HG12	2:I:944:ARG:HH22	1.53	0.74
3:J:112:ALA:CA	3:J:238:ILE:HD12	2.08	0.74
3:J:185:ILE:CG2	3:J:189:LEU:HD11	2.15	0.74
3:J:492:SER:CB	3:J:495:ASN:OD1	2.36	0.74
5:L:166:VAL:HG11	5:L:212:ILE:HG13	1.70	0.74
2:O:835:GLU:O	2:O:836:LEU:HD23	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:681:LYS:O	3:P:685:ILE:HG13	1.87	0.74
1:B:191:ARG:HG3	1:B:196:THR:HG22	1.69	0.74
2:I:488:MET:HB3	2:I:489:PRO:HD2	1.70	0.74
2:I:702:THR:HG22	2:I:1184:THR:O	1.87	0.74
3:J:613:GLY:O	3:J:617:THR:CG2	2.35	0.74
3:P:332:LYS:O	3:P:333:GLY:O	2.05	0.74
3:P:575:GLY:HA2	3:P:578:ILE:HD12	1.69	0.74
3:P:1002:VAL:HB	3:P:1019:ASN:O	1.87	0.74
2:C:206:ALA:O	2:C:209:ILE:CG2	2.31	0.74
2:C:1086:PRO:O	2:C:1094:VAL:HG23	1.88	0.74
2:C:1223:ARG:HD3	3:D:637:ALA:HA	1.69	0.74
5:F:487:MET:O	5:F:488:LEU:HB3	1.88	0.74
1:H:67:GLU:HG2	1:H:171:LEU:HD22	1.68	0.74
2:I:86:GLN:HA	2:I:140:GLY:HA2	1.70	0.74
2:I:520:PRO:O	2:I:524:ILE:HD12	1.87	0.74
2:O:667:LEU:HD13	2:O:796:LEU:HD11	1.69	0.74
3:P:314:ARG:NH1	5:R:96:ASP:OD1	2.20	0.74
3:P:808:VAL:HG13	3:P:914:ALA:HA	1.70	0.74
2:C:250:THR:HA	2:C:268:ARG:HG2	1.69	0.74
3:D:378:LYS:HZ2	5:F:532:LEU:HD11	1.50	0.74
2:I:10:ARG:CZ	2:I:697:LYS:HD3	2.17	0.74
3:J:705:THR:HG21	3:J:716:GLN:HE21	1.53	0.74
3:J:899:TYR:CE1	3:J:915:ILE:HG21	2.23	0.74
3:J:1163:VAL:CG1	3:J:1176:VAL:O	2.36	0.74
2:O:83:GLN:O	2:O:87:ILE:HG13	1.87	0.74
2:O:675:ASP:HB2	2:O:1107:MET:HE2	1.68	0.74
3:P:322:ARG:CB	3:P:323:PRO:HD2	2.12	0.74
1:A:224:LEU:CD1	1:A:228:LEU:CD1	2.49	0.74
2:C:807:TRP:O	2:C:809:GLY:N	2.20	0.74
2:I:402:ARG:CG	2:I:416:GLY:HA3	2.15	0.74
3:J:580:TRP:HA	3:J:583:VAL:CG2	2.18	0.74
3:J:1052:GLU:HG2	3:J:1053:LEU:H	1.51	0.74
3:P:242:LEU:HD12	3:P:243:PRO:HD2	1.68	0.74
2:C:1271:GLY:HA3	7:2:14:DC:OP1	1.87	0.74
2:C:1288:GLN:O	2:C:1292:THR:HG22	1.88	0.74
3:D:1135:THR:O	3:D:1139:PRO:HD2	1.88	0.74
1:H:205:MET:HG3	1:H:205:MET:O	1.82	0.74
2:I:402:ARG:HG2	2:I:416:GLY:CA	2.14	0.74
3:J:245:LEU:CD2	3:J:249:LEU:HB2	2.18	0.74
7:5:6:DG:H8	7:5:6:DG:OP2	1.71	0.74
2:C:353:VAL:O	2:C:355:PRO:HD3	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:530:PRO:HD2	3:D:531:LYS:NZ	2.03	0.74
5:F:575:GLU:CG	5:F:578:LYS:HE3	2.17	0.74
2:I:878:THR:HG22	2:I:879:GLY:N	2.01	0.74
3:J:26:SER:H	3:J:29:MET:HE2	1.51	0.74
2:O:979:LEU:HD21	2:O:1011:LEU:HD13	1.67	0.74
2:C:1253:LEU:HD12	5:F:525:ASP:HB2	1.69	0.73
2:I:1117:LEU:HD11	2:I:1182:ILE:HD12	1.70	0.73
2:I:1212:LEU:O	2:I:1221:PHE:CD2	2.40	0.73
1:M:47:LEU:O	1:M:51:MET:HG2	1.87	0.73
2:C:539:THR:HG22	2:C:540:ARG:N	2.02	0.73
6:1:48:DA:H2''	6:1:49:DG:H5''	1.70	0.73
1:G:46:ILE:CD1	1:G:224:LEU:HB2	2.18	0.73
3:J:596:LEU:CD2	3:J:600:ALA:HB1	2.18	0.73
3:J:608:CYS:SG	3:J:617:THR:HG22	2.28	0.73
3:J:644:MET:O	3:J:764:ARG:NH1	2.21	0.73
1:M:190:ALA:H	1:M:199:ASP:HA	1.53	0.73
5:R:231:THR:HG21	5:R:252:LEU:HD22	1.69	0.73
1:B:217:ILE:CD1	1:B:217:ILE:N	2.50	0.73
3:D:609:TYR:CD1	3:D:609:TYR:C	2.66	0.73
2:I:900:LYS:HZ3	5:L:563:PHE:HE1	1.34	0.73
3:J:264:ASP:OD1	3:J:264:ASP:N	2.20	0.73
3:P:115:TRP:CZ2	3:P:1329:THR:HG22	2.23	0.73
3:P:610:ARG:CZ	3:P:901:ARG:HH12	2.02	0.73
3:P:1253:ILE:HA	3:P:1256:ILE:CD1	2.18	0.73
4:Q:48:VAL:O	4:Q:51:LEU:HB2	1.88	0.73
5:R:309:ASN:OD1	5:R:312:SER:HB3	1.87	0.73
5:R:505:ILE:HD12	7:8:22:DA:H62	1.52	0.73
2:C:1305:TYR:CE2	3:D:379:PRO:HB3	2.22	0.73
1:G:232:VAL:HG21	1:H:221:ALA:CB	2.16	0.73
1:H:217:ILE:H	1:H:217:ILE:HD12	1.54	0.73
1:M:208:ASN:O	1:M:210:THR:N	2.19	0.73
3:P:886:VAL:HG21	3:P:1230:THR:HG21	1.71	0.73
5:R:84:LEU:CD1	5:R:107:THR:HG21	2.18	0.73
1:A:69:SER:C	1:A:78:ILE:HD11	2.11	0.73
2:C:409:LEU:CD1	2:C:427:ASP:HB3	2.18	0.73
3:J:797:THR:HA	3:J:800:LEU:CD1	2.18	0.73
2:O:260:LYS:CE	2:O:262:TYR:OH	2.36	0.73
3:P:371:LYS:O	3:P:374:LEU:HD23	1.88	0.73
5:R:401:PHE:O	5:R:405:ILE:CG1	2.36	0.73
3:D:600:ALA:O	3:D:604:MET:HG3	1.89	0.73
2:I:615:VAL:HG22	2:I:638:SER:HB2	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:703:THR:O	3:J:718:SER:HB3	1.89	0.73
3:P:843:VAL:HG21	3:P:897:HIS:O	1.89	0.73
2:C:255:ILE:O	2:C:255:ILE:HG22	1.88	0.73
2:C:616:ILE:HG12	2:C:652:TYR:CB	2.14	0.73
3:D:314:ARG:HH21	5:F:95:THR:HG23	1.53	0.73
1:H:30:PRO:HG3	1:H:192:VAL:CG2	2.18	0.73
2:I:384:LEU:O	2:I:388:LEU:HG	1.87	0.73
2:O:1296:ASP:HB3	2:O:1321:GLU:H	1.53	0.73
1:B:86:LYS:HE2	1:B:173:VAL:HG12	1.70	0.73
2:C:1077:SER:CA	3:D:356:THR:CG2	2.66	0.73
2:C:1340:GLU:HB2	3:D:19:ALA:O	1.88	0.73
3:D:334:LYS:NZ	7:2:13:DA:OP1	2.21	0.73
3:J:786:THR:OG1	3:J:932:MET:HA	1.88	0.73
3:J:931:THR:O	3:J:935:PHE:CD2	2.41	0.73
1:M:184:ALA:HB2	2:O:1091:GLY:HA3	1.71	0.73
4:Q:5:THR:HG22	4:Q:7:GLN:H	1.53	0.73
2:I:734:ILE:HG23	2:I:749:ASP:HB2	1.70	0.73
3:J:378:LYS:O	3:J:382:TYR:CD2	2.41	0.73
3:J:1155:ILE:O	3:J:1156:LEU:HD23	1.88	0.73
3:P:452:LEU:HD22	3:P:502:PRO:HA	1.71	0.73
3:P:665:GLN:O	3:P:668:PHE:HB3	1.87	0.73
3:P:739:GLN:HG2	3:P:744:ARG:HG3	1.70	0.73
3:P:930:LEU:HB2	3:P:1134:ILE:HD11	1.69	0.73
3:P:1080:ILE:HB	3:P:1097:ALA:HB3	1.71	0.73
1:B:217:ILE:N	1:B:217:ILE:HD12	2.03	0.73
2:C:542:ARG:HH21	6:1:51:DC:N4	1.86	0.73
2:C:1066:MET:HG2	2:C:1234:LYS:HA	1.69	0.73
2:O:524:ILE:HD11	2:O:712:SER:HB3	1.71	0.73
1:A:168:ILE:H	1:A:168:ILE:CD1	1.95	0.72
3:D:303:VAL:O	3:D:307:LEU:HG	1.88	0.72
3:D:734:ALA:HA	3:D:737:ILE:CD1	2.05	0.72
1:G:224:LEU:O	1:G:228:LEU:HG	1.89	0.72
2:O:109:ALA:HB1	2:O:110:PRO:HD2	1.70	0.72
2:O:719:LYS:O	2:O:779:ARG:NH1	2.22	0.72
1:G:26:VAL:O	1:G:203:ILE:HD12	1.89	0.72
1:G:192:VAL:HG21	1:G:198:LEU:HB2	1.69	0.72
1:G:229:GLU:O	1:G:233:ASP:HB2	1.89	0.72
1:H:102:LEU:HB2	1:H:115:ILE:HD11	1.70	0.72
2:I:3:TYR:O	2:I:8:LYS:HE3	1.89	0.72
2:I:1066:MET:HE3	2:I:1233:LEU:C	2.13	0.72
3:J:146:VAL:CG1	3:J:155:GLU:O	2.36	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:K:53:GLU:HB3	4:K:59:ILE:HG13	1.72	0.72
3:P:918:ILE:O	3:P:922:SER:OG	2.07	0.72
5:R:310:GLU:HB3	5:R:355:ILE:HD13	1.72	0.72
1:A:140:ILE:HG13	1:A:141:SER:N	2.03	0.72
2:C:395:TYR:HE2	2:C:420:LEU:HD21	1.53	0.72
3:D:252:LEU:HD11	3:D:260:PHE:CD2	2.24	0.72
3:D:1224:ARG:HB3	3:D:1228:ALA:HB3	1.69	0.72
3:J:237:MET:O	3:J:238:ILE:HD13	1.88	0.72
2:O:137:VAL:O	2:O:138:ILE:HD13	1.89	0.72
2:C:1121:ALA:HA	2:C:1124:ILE:HD12	1.69	0.72
2:I:130:MET:HG2	2:I:131:THR:O	1.88	0.72
2:I:714:VAL:HG13	2:I:786:GLY:HA3	1.71	0.72
3:J:422:LEU:O	3:J:468:VAL:HG12	1.89	0.72
3:P:1253:ILE:HA	3:P:1256:ILE:HD11	1.71	0.72
3:D:1167:LYS:H	3:D:1167:LYS:CD	2.03	0.72
7:2:33:DC:H2"	7:2:34:DG:OP2	1.89	0.72
2:I:91:THR:HG23	2:I:138:ILE:HA	1.70	0.72
2:I:268:ARG:NH2	3:J:1048:ARG:HD2	2.03	0.72
3:J:574:VAL:O	3:J:578:ILE:HG13	1.89	0.72
3:J:805:GLN:O	3:J:1347:LEU:HD11	1.88	0.72
2:C:237:LEU:O	2:C:287:VAL:HG22	1.89	0.72
3:D:27:PRO:HA	3:D:30:ILE:HD12	1.69	0.72
3:D:574:VAL:O	3:D:578:ILE:HG13	1.88	0.72
3:J:139:LEU:HD21	3:J:185:ILE:HG13	1.70	0.72
1:M:38:THR:HG23	1:N:42:ALA:HA	1.69	0.72
2:O:30:ILE:HD12	2:O:30:ILE:N	2.04	0.72
2:O:890:LYS:HZ3	2:O:893:THR:HG23	1.50	0.72
2:O:933:VAL:HG22	2:O:1050:VAL:HG13	1.70	0.72
2:O:953:LEU:HD23	2:O:1036:ILE:HD12	1.71	0.72
2:C:325:LEU:HD12	2:C:333:ILE:HD11	1.71	0.72
2:C:953:LEU:O	2:C:957:LYS:HG3	1.89	0.72
3:D:385:LEU:HD21	3:D:400:MET:HE1	1.72	0.72
1:G:79:LEU:O	1:G:83:LEU:HD23	1.90	0.72
3:J:378:LYS:HG2	3:J:382:TYR:CE2	2.24	0.72
2:O:347:ILE:HD13	2:O:347:ILE:N	2.03	0.72
2:C:211:ARG:CD	2:C:357:ASN:O	2.34	0.72
2:C:1225:VAL:HG13	3:D:638:SER:HB3	1.72	0.72
3:D:262:THR:HA	5:F:507:MET:CE	2.20	0.72
5:F:166:VAL:HG12	5:F:168:PRO:HD3	1.70	0.72
2:I:758:ARG:HG3	2:I:833:ILE:O	1.90	0.72
3:J:146:VAL:HG21	3:J:158:GLN:HB2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1254:GLU:O	3:J:1257:VAL:HB	1.90	0.72
2:O:896:THR:HG23	2:O:899:GLU:H	1.53	0.72
3:P:513:MET:CE	3:P:579:LEU:HD21	2.20	0.72
1:A:67:GLU:C	1:A:78:ILE:HD12	2.15	0.72
3:J:70:CYS:HB2	3:J:90:VAL:CB	2.20	0.72
3:J:580:TRP:O	3:J:583:VAL:HB	1.90	0.72
3:J:1133:ASP:CG	3:J:1134:ILE:H	1.98	0.72
3:D:450:HIS:HD2	3:D:452:LEU:HB2	1.55	0.72
5:F:514:ASP:O	5:F:516:ASP:N	2.20	0.72
3:J:492:SER:OG	3:J:495:ASN:N	2.23	0.72
6:4:51:DC:O3'	6:4:52:DT:C5'	2.37	0.72
2:O:178:PRO:HA	2:O:397:LEU:HD23	1.70	0.72
2:O:689:ALA:HB2	2:O:1233:LEU:HD13	1.71	0.72
1:A:208:ASN:HD22	1:A:208:ASN:N	1.88	0.71
2:I:870:ILE:CG1	2:I:944:ARG:HG2	2.16	0.71
3:J:496:GLY:HA2	3:J:903:LEU:CD2	2.13	0.71
3:J:536:LEU:HD21	3:J:541:LEU:HB2	1.73	0.71
3:J:673:VAL:HG11	3:J:678:ARG:CB	2.19	0.71
4:K:6:VAL:O	4:K:10:VAL:HG23	1.89	0.71
1:M:156:SER:O	1:M:159:ILE:HG22	1.89	0.71
2:O:798:GLN:NE2	2:O:827:ARG:HG2	2.04	0.71
2:C:1227:VAL:HG12	2:C:1228:GLY:N	2.05	0.71
3:D:1081:VAL:HB	3:D:1085:GLY:O	1.89	0.71
2:I:1286:THR:O	2:I:1290:MET:HG2	1.89	0.71
5:L:456:MET:O	5:L:460:ILE:HG13	1.90	0.71
5:L:489:MET:SD	5:L:494:ILE:HD11	2.29	0.71
2:O:1117:LEU:CD1	2:O:1195:ILE:HG23	2.20	0.71
2:C:10:ARG:NH2	2:C:697:LYS:CD	2.52	0.71
2:C:164:THR:O	2:C:165:HIS:HB2	1.88	0.71
2:C:363:LEU:HA	2:C:366:ILE:HD12	1.72	0.71
2:C:1241:ASP:O	2:C:1262:LYS:NZ	2.23	0.71
2:C:1272:GLU:O	2:C:1276:TRP:CD1	2.43	0.71
2:I:94:ALA:HB2	2:I:129:LEU:HD11	1.72	0.71
2:I:593:LYS:CE	2:I:595:THR:HG1	2.02	0.71
3:J:332:LYS:NZ	3:J:1329:THR:OG1	2.23	0.71
3:J:492:SER:OG	3:J:495:ASN:OD1	2.08	0.71
3:J:1137:GLY:O	3:J:1141:VAL:HG23	1.90	0.71
1:M:47:LEU:O	1:M:51:MET:HB2	1.90	0.71
3:P:614:LEU:O	3:P:617:THR:OG1	2.09	0.71
6:7:23:DA:C2	7:8:41:DG:N2	2.57	0.71
1:A:100:LEU:HD13	1:A:115:ILE:CG2	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:10:ARG:HH12	2:C:697:LYS:HB3	1.53	0.71
2:C:28:LEU:O	2:C:32:LEU:HD21	1.90	0.71
2:C:936:ARG:NE	2:C:1046:VAL:O	2.24	0.71
2:C:1121:ALA:HA	2:C:1124:ILE:CD1	2.20	0.71
2:C:1284:ALA:HB1	3:D:1356:LEU:CD2	2.21	0.71
3:D:1224:ARG:CD	3:D:1228:ALA:HB1	2.20	0.71
2:I:528:ARG:HD2	2:I:663:VAL:HG21	1.72	0.71
3:J:597:GLY:O	3:J:601:ILE:HG13	1.91	0.71
3:J:977:SER:OG	3:J:980:THR:OG1	2.07	0.71
2:O:1186:VAL:O	2:O:1187:PHE:HB2	1.91	0.71
3:P:795:TYR:CE1	7:8:11:DA:H5'	2.25	0.71
2:C:1286:THR:N	3:D:479:GLU:OE2	2.19	0.71
2:C:1290:MET:SD	2:C:1294:LYS:HD2	2.30	0.71
3:D:1046:ILE:HD12	3:D:1059:LEU:HD13	1.72	0.71
2:I:843:THR:HB	2:I:845:LEU:HG	1.72	0.71
5:L:132:CYS:SG	5:L:257:LYS:HE3	2.29	0.71
5:L:452:ILE:CG2	5:L:457:ILE:HG12	2.19	0.71
6:4:27:DC:H2''	6:4:28:DA:OP2	1.91	0.71
2:O:885:GLY:HA2	2:O:917:SER:OG	1.89	0.71
3:P:332:LYS:O	3:P:333:GLY:C	2.31	0.71
3:P:427:PRO:HB3	7:8:12:DG:H22	1.53	0.71
3:P:492:SER:OG	3:P:495:ASN:OD1	2.08	0.71
2:C:463:GLN:CG	2:C:505:PHE:HD1	1.97	0.71
5:L:137:TYR:CD1	5:L:138:PRO:HD2	2.26	0.71
1:B:9:LEU:HD21	1:B:30:PRO:O	1.90	0.71
1:B:144:ILE:HD12	1:B:144:ILE:N	2.05	0.71
3:D:115:TRP:CZ3	3:D:1332:LEU:HD12	2.26	0.71
3:D:442:ILE:HD12	3:D:443:GLU:O	1.90	0.71
1:H:83:LEU:O	3:J:528:THR:HG21	1.91	0.71
2:I:542:ARG:NH1	6:4:50:DT:H71	2.06	0.71
3:J:422:LEU:O	3:J:468:VAL:HG13	1.90	0.71
3:J:1216:ALA:O	3:J:1220:ILE:HG13	1.91	0.71
3:J:1282:TYR:O	3:J:1285:VAL:CG1	2.39	0.71
1:M:67:GLU:HA	1:M:78:ILE:HG21	1.72	0.71
3:P:1268:ASN:O	3:P:1300:ALA:HB1	1.91	0.71
1:A:140:ILE:HG13	1:A:141:SER:H	1.54	0.71
3:D:30:ILE:HD13	3:D:243:PRO:HD3	1.73	0.71
3:D:364:HIS:HB3	3:D:487:THR:CG2	2.20	0.71
3:D:1061:VAL:O	3:D:1104:LYS:N	2.24	0.71
3:D:1226:VAL:O	3:D:1229:VAL:HG12	1.91	0.71
1:G:35:PHE:C	1:G:39:LEU:HD12	2.14	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:253:VAL:HB	3:J:254:PRO:HD2	1.73	0.71
3:P:269:TYR:O	3:P:273:ILE:HG13	1.91	0.71
2:I:1282:GLY:H	3:J:483:LEU:HD13	1.56	0.71
3:J:377:PHE:C	3:J:379:PRO:HD2	2.15	0.71
3:J:918:ILE:O	3:J:922:SER:OG	2.08	0.71
1:N:152:TYR:CE2	1:N:154:PRO:HG3	2.24	0.71
2:O:1282:GLY:HA3	4:Q:17:PHE:CE1	2.26	0.71
3:P:109:SER:CB	3:P:296:LYS:NZ	2.52	0.71
2:C:525:THR:HG21	2:C:687:ARG:HD3	1.71	0.71
3:D:449:LEU:HD12	3:D:450:HIS:H	1.55	0.71
3:D:530:PRO:HD3	3:D:552:ILE:CD1	2.21	0.71
3:D:949:SER:HB3	3:D:1019:ASN:HD22	1.55	0.71
2:I:425:ILE:O	2:I:429:MET:HG3	1.91	0.71
3:J:139:LEU:HD21	3:J:185:ILE:HG12	1.73	0.71
2:O:592:ARG:NH2	2:O:599:VAL:HG12	2.06	0.71
2:O:634:VAL:HG12	2:O:635:THR:H	1.55	0.71
1:A:45:ARG:HD3	1:B:38:THR:HG1	1.55	0.70
3:D:1145:PHE:CE1	3:D:1256:ILE:HD13	2.25	0.70
1:H:34:GLY:O	1:H:38:THR:OG1	2.09	0.70
2:I:405:PHE:CZ	2:I:424:ASP:HB3	2.26	0.70
2:I:1275:VAL:HG21	3:J:343:LEU:O	1.91	0.70
3:J:393:THR:OG1	5:L:609:SER:HB3	1.91	0.70
3:J:722:ILE:HA	3:J:725:MET:SD	2.31	0.70
1:A:11:PRO:O	1:B:231:PHE:CZ	2.44	0.70
2:C:1324:ASN:HA	2:C:1327:LEU:HD12	1.73	0.70
3:D:749:LYS:CG	3:D:755:ILE:CG1	2.68	0.70
3:D:1145:PHE:HE1	3:D:1256:ILE:HD13	1.54	0.70
5:F:491:GLU:HA	5:F:494:ILE:HD13	1.72	0.70
2:I:495:ALA:HA	2:I:498:ILE:HD12	1.72	0.70
2:O:1081:PRO:HB3	2:O:1083:GLU:OE1	1.92	0.70
1:A:151:GLY:O	1:A:177:TYR:HB2	1.91	0.70
2:C:515:MET:SD	2:C:523:GLU:HG3	2.32	0.70
2:C:1121:ALA:HB2	2:C:1182:ILE:HD11	1.74	0.70
2:C:1184:THR:O	2:C:1184:THR:CG2	2.39	0.70
3:D:977:SER:OG	3:D:980:THR:OG1	2.09	0.70
4:K:48:VAL:O	4:K:51:LEU:HB2	1.91	0.70
2:O:436:ARG:O	2:O:436:ARG:HD2	1.91	0.70
2:O:1122:LYS:HE2	2:O:1178:LYS:O	1.89	0.70
3:P:859:PRO:HG2	3:P:862:THR:OG1	1.91	0.70
3:P:1075:ARG:CG	3:P:1192:LYS:HD3	2.20	0.70
1:A:184:ALA:HB2	2:C:1091:GLY:HA3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:373:GLY:HA2	5:F:91:ILE:HG12	1.72	0.70
3:D:918:ILE:O	3:D:922:SER:OG	2.09	0.70
5:F:554:ARG:HG3	5:F:555:GLU:N	2.07	0.70
1:G:125:LYS:HE2	1:G:127:GLN:HG3	1.72	0.70
1:G:184:ALA:HB2	2:I:1091:GLY:HA3	1.73	0.70
1:H:28:LEU:HD13	1:H:28:LEU:C	2.16	0.70
2:I:542:ARG:HD2	6:4:51:DC:OP2	1.91	0.70
3:J:930:LEU:CB	3:J:1134:ILE:CD1	2.69	0.70
1:M:74:VAL:HG13	1:M:131:CYS:SG	2.31	0.70
3:P:589:TYR:O	3:P:592:VAL:HG13	1.90	0.70
2:C:209:ILE:HG23	2:C:210:LEU:H	1.54	0.70
2:C:1294:LYS:HD3	3:D:347:VAL:HG13	1.72	0.70
2:I:184:LEU:HD21	2:I:389:PHE:HZ	1.51	0.70
2:I:1313:HIS:CE1	3:J:380:PHE:CE1	2.78	0.70
3:J:614:LEU:O	3:J:617:THR:OG1	2.08	0.70
3:J:1158:GLU:HA	3:J:1223:LEU:HD13	1.72	0.70
3:P:1272:SER:HB2	3:P:1274:PHE:CE2	2.26	0.70
1:A:224:LEU:CD1	1:A:224:LEU:C	2.59	0.70
1:G:47:LEU:O	1:G:51:MET:HB2	1.91	0.70
2:I:98:VAL:HG12	2:I:100:LEU:HG	1.74	0.70
2:I:799:ASN:O	2:I:800:MET:HE3	1.92	0.70
2:I:1273:MET:HG2	7:5:13:DA:H4'	1.73	0.70
3:J:70:CYS:CB	3:J:90:VAL:CG1	2.70	0.70
6:4:47:DC:H3'	6:4:48:DA:C5'	2.22	0.70
1:M:41:ASN:HD21	2:O:1218:GLY:HA3	1.54	0.70
2:O:488:MET:HB3	2:O:489:PRO:HD2	1.71	0.70
3:P:495:ASN:HB2	3:P:497:GLU:OE1	1.91	0.70
2:C:444:ASP:O	2:C:450:ASN:ND2	2.24	0.70
2:C:1227:VAL:HG12	2:C:1228:GLY:H	1.57	0.70
3:D:278:ARG:O	3:D:282:LEU:HG	1.90	0.70
3:D:470:VAL:CG1	3:D:472:LEU:HD23	2.20	0.70
2:I:525:THR:HG21	2:I:687:ARG:HD2	1.74	0.70
3:J:872:LEU:HD22	3:J:873:GLU:N	2.06	0.70
6:7:44:DG:C2'	6:7:45:DT:O4'	2.38	0.70
1:A:185:TYR:C	1:A:185:TYR:CD2	2.70	0.70
3:D:1280:VAL:HG12	3:D:1281:GLU:H	1.54	0.70
5:F:132:CYS:SG	5:F:257:LYS:NZ	2.64	0.70
5:F:573:LEU:CB	7:2:45:DG:OP2	2.40	0.70
2:I:871:VAL:CG2	2:I:883:LEU:HA	2.21	0.70
3:J:20:ILE:N	3:J:20:ILE:HD12	2.05	0.70
5:L:496:LYS:HE2	5:L:500:ILE:HD11	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:5:42:DG:H2''	7:5:43:DA:OP2	1.91	0.70
2:O:886:LYS:N	2:O:917:SER:OG	2.24	0.70
1:A:86:LYS:HG2	1:A:173:VAL:CG1	2.22	0.70
2:I:539:THR:HG22	2:I:540:ARG:H	1.57	0.70
2:I:549:ASP:OD2	3:J:781:LYS:HD3	1.92	0.70
3:J:185:ILE:HG22	3:J:189:LEU:CD1	2.20	0.70
3:P:406:ALA:HA	3:P:409:TRP:CD1	2.26	0.70
2:C:205:PRO:O	2:C:208:ILE:HG22	1.91	0.70
3:D:91:GLU:OE1	3:D:101:ARG:NH2	2.25	0.70
3:D:464:ASP:OD1	8:3:16:U:H4'	1.92	0.70
3:D:1226:VAL:HG12	3:D:1227:HIS:N	2.05	0.70
1:H:61:ILE:HD12	1:H:61:ILE:H	1.57	0.70
4:K:79:GLU:HG2	4:K:83:VAL:HG23	1.74	0.70
2:O:392:GLU:HG2	2:O:419:ILE:HG21	1.74	0.70
2:O:1244:HIS:H	3:P:372:MET:HE2	1.57	0.70
2:O:1285:TYR:HD2	3:P:1361:THR:HG21	1.55	0.70
3:P:610:ARG:CZ	3:P:901:ARG:NH1	2.55	0.70
3:P:806:ASP:O	3:P:808:VAL:HG23	1.90	0.70
5:R:456:MET:O	5:R:460:ILE:HG13	1.91	0.70
1:B:61:ILE:N	1:B:61:ILE:CD1	2.37	0.69
3:D:406:ALA:HA	3:D:409:TRP:HD1	1.57	0.69
3:D:415:VAL:HA	4:E:45:LYS:NZ	2.05	0.69
3:D:933:ARG:NH1	3:D:937:ILE:HD11	2.07	0.69
2:C:452:ARG:NH2	2:C:458:GLU:CD	2.50	0.69
2:C:1210:ILE:HG22	2:C:1212:LEU:HD23	1.75	0.69
2:C:1225:VAL:HG13	3:D:638:SER:CB	2.22	0.69
3:D:252:LEU:HD11	3:D:260:PHE:HD2	1.56	0.69
5:F:460:ILE:O	5:F:463:LEU:HB2	1.91	0.69
3:J:596:LEU:HD22	3:J:600:ALA:HB1	1.72	0.69
3:P:111:THR:CG2	3:P:112:ALA:N	2.54	0.69
3:P:1282:TYR:O	3:P:1285:VAL:HG12	1.92	0.69
2:C:239:MET:SD	2:C:241:LEU:HD13	2.32	0.69
2:I:790:ASP:O	2:I:792:GLY:N	2.24	0.69
2:I:1086:PRO:O	2:I:1094:VAL:HG22	1.92	0.69
3:J:1328:THR:O	3:J:1332:LEU:HG	1.92	0.69
4:K:50:ALA:O	4:K:54:ILE:HG13	1.92	0.69
2:O:219:GLN:O	2:O:223:LEU:HG	1.91	0.69
3:P:977:SER:OG	3:P:980:THR:OG1	2.08	0.69
5:R:385:ARG:O	5:R:388:ILE:HG22	1.91	0.69
1:B:13:LEU:HD11	1:B:16:ILE:HG12	1.74	0.69
3:D:613:GLY:O	3:D:617:THR:HG23	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:96:ASP:HB3	5:F:99:ARG:HG2	1.73	0.69
3:J:869:CYS:O	3:J:872:LEU:HB3	1.91	0.69
3:J:1080:ILE:HD12	3:J:1115:ILE:HD11	1.74	0.69
3:J:1250:ASP:O	3:J:1254:GLU:HG3	1.91	0.69
3:P:950:ILE:HB	3:P:1018:ALA:HB3	1.75	0.69
2:C:409:LEU:HD13	2:C:427:ASP:HB3	1.74	0.69
2:C:569:ILE:CD1	3:D:783:LEU:HD23	2.23	0.69
2:C:643:SER:OG	2:C:644:LEU:N	2.24	0.69
2:C:861:ALA:O	2:C:865:LEU:HG	1.92	0.69
2:C:1065:LYS:NZ	8:3:15:G:H4'	2.07	0.69
1:H:28:LEU:HD12	1:H:31:LEU:HD11	1.73	0.69
1:H:35:PHE:O	1:H:39:LEU:CD1	2.40	0.69
2:I:68:LEU:HD22	2:I:492:MET:HE1	1.74	0.69
2:I:953:LEU:CD2	2:I:957:LYS:NZ	2.54	0.69
3:J:982:LEU:O	3:J:994:SER:OG	2.08	0.69
2:O:693:LEU:HB2	2:O:831:ILE:CD1	2.23	0.69
3:P:298:MET:SD	5:R:402:LEU:HB3	2.31	0.69
3:P:398:LYS:CE	5:R:532:LEU:CD2	2.63	0.69
3:P:1163:VAL:HG22	3:P:1177:ILE:HG23	1.74	0.69
5:R:390:ILE:HD13	5:R:432:THR:HG23	1.74	0.69
2:I:15:PHE:CG	2:I:1190:ALA:HB2	2.28	0.69
3:J:43:THR:HB	3:J:44:ILE:HG23	1.73	0.69
3:J:262:THR:O	5:L:507:MET:HB2	1.93	0.69
3:J:373:ALA:CA	3:J:376:LEU:HD12	2.05	0.69
3:P:312:ARG:NH1	5:R:95:THR:OG1	2.25	0.69
3:P:514:THR:HG21	3:P:596:LEU:HG	1.72	0.69
3:D:624:ILE:O	3:D:627:THR:HB	1.93	0.69
3:D:749:LYS:HG2	3:D:755:ILE:HD11	1.72	0.69
5:F:551:LEU:HD21	5:F:598:LEU:HD21	1.74	0.69
1:G:42:ALA:HA	1:H:38:THR:HG23	1.74	0.69
3:J:596:LEU:HD23	3:J:600:ALA:CB	2.21	0.69
3:J:1173:ARG:HB2	3:J:1190:ILE:HB	1.74	0.69
2:O:806:PRO:HG3	3:P:632:ALA:O	1.92	0.69
2:O:1268:GLN:HG2	3:P:352:ARG:HH11	1.58	0.69
1:B:54:CYS:O	1:B:55:ALA:HB2	1.92	0.69
2:C:617:ALA:CA	2:C:636:CYS:SG	2.81	0.69
2:C:906:PHE:HE2	5:F:608:ARG:HH12	1.39	0.69
3:D:747:MET:CE	3:D:774:ILE:HG22	2.22	0.69
3:D:791:ALA:HA	7:2:12:DG:O4'	1.92	0.69
3:D:1328:THR:HG22	3:D:1332:LEU:HD11	1.74	0.69
5:F:461:ASN:HA	7:2:26:DT:H73	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:228:LEU:CD1	1:H:228:LEU:HD11	2.23	0.69
1:H:203:ILE:HD12	1:H:203:ILE:N	2.07	0.69
2:I:179:TYR:HB3	2:I:396:ASP:O	1.93	0.69
2:I:1161:LEU:O	2:I:1164:PHE:HD2	1.75	0.69
3:J:185:ILE:O	3:J:189:LEU:CG	2.40	0.69
5:L:130:VAL:HG13	5:L:365:MET:HG3	1.73	0.69
1:M:47:LEU:HA	1:M:51:MET:HG2	1.72	0.69
1:N:67:GLU:OE1	1:N:82:LEU:HD11	1.93	0.69
2:O:1107:MET:HE1	3:P:744:ARG:HH12	1.58	0.69
3:P:111:THR:HG22	3:P:112:ALA:N	2.07	0.69
2:C:519:ASN:OD1	2:C:522:SER:HB2	1.93	0.69
1:G:208:ASN:H	1:G:208:ASN:HD22	1.41	0.69
2:I:1252:SER:HB2	2:I:1259:LEU:HD23	1.73	0.69
3:J:550:VAL:HG12	3:J:552:ILE:HG12	1.74	0.69
5:L:423:ARG:HD2	6:4:37:DA:C6	2.28	0.69
5:R:580:PHE:O	5:R:581:ASP:HB2	1.91	0.69
2:C:559:CYS:HB3	2:C:662:SER:HB3	1.74	0.69
7:2:27:DA:H2''	7:2:28:DG:H5'	1.73	0.69
2:I:693:LEU:HG	2:I:694:ARG:N	2.08	0.69
3:J:109:SER:CB	3:J:296:LYS:HE2	2.18	0.69
2:O:1109:ILE:HD11	3:P:740:LEU:HD22	1.75	0.69
3:P:272:VAL:HG22	3:P:302:ALA:HB1	1.75	0.69
3:P:1155:ILE:HG22	3:P:1156:LEU:H	1.58	0.69
5:R:387:VAL:HG12	5:R:388:ILE:N	2.08	0.69
2:C:809:GLY:CA	3:D:629:PHE:CE1	2.76	0.68
5:F:494:ILE:O	5:F:498:LEU:HG	1.93	0.68
2:I:592:ARG:NH2	2:I:599:VAL:HG12	2.09	0.68
2:I:800:MET:HA	2:I:800:MET:CE	2.24	0.68
3:J:957:SER:N	3:J:985:ILE:O	2.21	0.68
2:C:225:PHE:CE2	2:C:347:ILE:HB	2.28	0.68
3:D:474:LEU:HD12	4:E:28:ARG:HE	1.57	0.68
3:D:704:GLU:O	3:D:704:GLU:HG3	1.94	0.68
6:1:45:DT:H2'	6:1:46:DG:O4'	1.92	0.68
2:I:528:ARG:HD3	2:I:663:VAL:CG2	2.22	0.68
2:I:1273:MET:HB2	2:I:1274:GLU:OE1	1.93	0.68
5:L:130:VAL:HG13	5:L:365:MET:CG	2.23	0.68
3:P:1090:ILE:HD12	3:P:1095:MET:HE3	1.73	0.68
1:A:179:PRO:O	1:A:208:ASN:ND2	2.26	0.68
1:B:65:LEU:O	1:B:169:GLY:CA	2.42	0.68
1:B:102:LEU:HB2	1:B:115:ILE:CD1	2.23	0.68
2:C:801:ARG:NH1	2:C:1229:TYR:OH	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1040:MET:HE3	3:D:1061:VAL:HG22	1.75	0.68
3:D:1062:LEU:HD22	3:D:1066:GLU:CD	2.19	0.68
2:I:12:ARG:NH2	2:I:793:GLU:OE1	2.25	0.68
2:I:169:LYS:NZ	2:I:190:PRO:O	2.25	0.68
2:I:1101:LEU:HD11	3:J:508:LEU:HD22	1.74	0.68
3:J:425:ARG:HD3	3:J:457:TYR:O	1.94	0.68
2:O:1273:MET:HB3	3:P:428:THR:HB	1.75	0.68
3:P:826:ILE:HG23	3:P:831:VAL:HG22	1.74	0.68
2:C:1291:LEU:HD21	3:D:1351:VAL:O	1.92	0.68
3:D:115:TRP:HH2	3:D:1332:LEU:HD12	1.59	0.68
3:J:131:PRO:O	3:J:135:ILE:HG13	1.93	0.68
2:O:672:GLU:CG	2:O:1187:PHE:HA	2.23	0.68
3:P:1282:TYR:O	3:P:1285:VAL:HG13	1.93	0.68
1:A:208:ASN:HD22	1:A:208:ASN:H	1.42	0.68
3:D:423:LEU:HB3	3:D:466:MET:HE1	1.73	0.68
2:I:1273:MET:HG3	7:5:13:DA:O4'	1.94	0.68
3:J:108:ALA:HB3	3:J:279:LEU:HD21	1.74	0.68
4:K:60:ASN:O	4:K:64:LEU:HG	1.93	0.68
3:P:661:VAL:HG22	3:P:685:ILE:HG21	1.74	0.68
3:P:1266:ILE:CD1	3:P:1278:GLU:HB2	2.23	0.68
5:R:365:MET:O	5:R:369:GLU:HG3	1.93	0.68
2:C:12:ARG:HA	2:C:1181:PRO:HG2	1.75	0.68
2:C:137:VAL:C	2:C:138:ILE:HD13	2.18	0.68
3:D:614:LEU:O	3:D:617:THR:OG1	2.10	0.68
3:D:620:PHE:O	3:D:624:ILE:CD1	2.42	0.68
2:I:211:ARG:HD3	2:I:357:ASN:O	1.93	0.68
2:I:770:CYS:HB3	2:I:791:LEU:CD2	2.24	0.68
3:J:275:ARG:NH1	3:J:301:GLU:OE1	2.26	0.68
1:N:57:THR:HG23	1:N:158:ARG:NH2	2.09	0.68
2:O:964:LEU:HD12	2:O:1021:LEU:HD22	1.75	0.68
3:P:139:LEU:HD23	3:P:181:GLY:C	2.17	0.68
3:P:368:LEU:CD2	3:P:373:ALA:HB2	2.22	0.68
3:D:268:LEU:O	3:D:272:VAL:HG23	1.93	0.68
5:F:470:MET:HE1	5:F:482:GLU:CD	2.19	0.68
3:J:1356:LEU:HD13	3:J:1365:TYR:CZ	2.27	0.68
1:M:215:GLU:OE2	1:M:219:ARG:NH2	2.27	0.68
2:O:202:ARG:NH2	7:8:6:DG:H3'	2.08	0.68
2:O:213:LEU:O	2:O:214:ASN:HB3	1.93	0.68
3:P:604:MET:HE2	3:P:605:LEU:HD23	1.76	0.68
2:I:743:PRO:HA	2:I:974:ARG:HH12	1.58	0.68
2:I:1077:SER:HA	3:J:356:THR:HG21	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1174:GLU:O	2:I:1177:ARG:HB3	1.93	0.68
5:L:583:THR:O	5:L:587:ILE:HD11	1.94	0.68
2:O:807:TRP:O	2:O:809:GLY:N	2.27	0.68
2:O:1325:VAL:HG12	2:O:1326:LEU:N	2.08	0.68
3:P:543:SER:O	3:P:574:VAL:HG21	1.93	0.68
3:P:1134:ILE:CG2	3:P:1138:LEU:HG	2.21	0.68
2:C:160:ASP:HA	2:C:163:LYS:HD3	1.75	0.68
2:C:452:ARG:NH1	2:C:454:ARG:HG3	2.09	0.68
1:H:67:GLU:O	1:H:78:ILE:HB	1.93	0.68
2:I:110:PRO:O	2:I:111:GLU:HG3	1.94	0.68
2:I:208:ILE:CD1	2:I:365:GLU:HB3	2.24	0.68
2:I:754:THR:N	2:I:767:GLN:OE1	2.27	0.68
2:I:1257:GLN:HB3	2:I:1258:PRO:HD2	1.75	0.68
3:J:501:VAL:HG13	3:J:502:PRO:HD2	1.76	0.68
3:J:553:THR:HG23	3:J:566:LYS:O	1.94	0.68
2:O:1065:LYS:O	2:O:1235:LEU:HG	1.94	0.68
3:P:673:VAL:CG1	3:P:678:ARG:HB2	2.23	0.68
3:P:797:THR:HG23	3:P:924:GLY:HA3	1.75	0.68
2:C:463:GLN:CG	2:C:505:PHE:CD1	2.75	0.68
2:C:824:GLN:HE22	2:C:1082:ILE:HD11	1.59	0.68
3:D:1283:SER:O	3:D:1287:ILE:HG13	1.93	0.68
2:I:816:ILE:CD1	2:I:1074:GLY:HA3	2.24	0.68
3:J:505:ASP:OD1	3:J:505:ASP:N	2.25	0.68
3:P:509:GLY:O	3:P:513:MET:HG3	1.93	0.68
3:P:803:VAL:HG21	3:P:1309:ILE:HG23	1.76	0.68
2:C:1116:HIS:CE1	2:C:1226:THR:HG23	2.29	0.67
3:D:644:MET:HE2	3:D:764:ARG:HB2	1.76	0.67
3:D:703:THR:C	3:D:718:SER:HB3	2.01	0.67
3:D:1353:VAL:HG23	3:D:1355:ARG:HG3	1.75	0.67
5:F:562:ARG:HE	5:F:573:LEU:HD13	1.58	0.67
1:G:13:LEU:HA	1:G:28:LEU:HD22	1.74	0.67
1:H:168:ILE:CD1	3:P:867:GLN:CB	2.71	0.67
2:I:839:VAL:O	2:I:886:LYS:HE2	1.94	0.67
2:O:708:VAL:HG11	2:O:794:LEU:HD22	1.75	0.67
3:P:803:VAL:CG1	3:P:1259:GLN:HB3	2.24	0.67
2:C:488:MET:HB3	2:C:489:PRO:HD2	1.75	0.67
5:F:452:ILE:HB	5:F:457:ILE:HD11	1.75	0.67
1:H:85:LEU:O	1:H:88:LEU:HB2	1.94	0.67
2:I:448:LEU:HG	2:I:553:THR:OG1	1.94	0.67
2:I:681:MET:O	2:I:685:MET:HG2	1.94	0.67
2:I:704:MET:O	2:I:708:VAL:HG23	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1305:TYR:O	2:I:1309:VAL:HG23	1.93	0.67
3:J:1179:PRO:HD3	3:J:1184:ASP:O	1.94	0.67
3:P:141:PHE:HA	3:P:180:MET:HG2	1.76	0.67
3:P:1233:ILE:O	3:P:1237:VAL:HG23	1.94	0.67
1:B:83:LEU:CD1	1:B:86:LYS:NZ	2.56	0.67
3:D:703:THR:HA	3:D:718:SER:H	1.59	0.67
1:G:211:ILE:HD12	1:G:219:ARG:HH12	1.58	0.67
3:J:379:PRO:HG2	3:J:380:PHE:H	1.57	0.67
3:J:474:LEU:HD12	4:K:28:ARG:HG2	1.76	0.67
3:J:975:ILE:HD13	3:J:980:THR:HG21	1.74	0.67
2:O:806:PRO:CG	3:P:632:ALA:O	2.42	0.67
2:O:1109:ILE:HD13	2:O:1109:ILE:N	2.08	0.67
5:R:520:GLY:HA2	5:R:523:ILE:HD12	1.77	0.67
2:C:1286:THR:OG1	3:D:479:GLU:OE2	2.10	0.67
3:D:1167:LYS:HD2	3:D:1167:LYS:N	2.09	0.67
2:I:950:GLU:O	2:I:953:LEU:HB2	1.94	0.67
2:I:953:LEU:CD2	2:I:957:LYS:HZ2	2.06	0.67
2:O:589:THR:HG23	2:O:590:PRO:HD2	1.74	0.67
3:P:217:LEU:O	3:P:221:ILE:HG13	1.94	0.67
4:Q:54:ILE:CG1	4:Q:59:ILE:HB	2.23	0.67
2:C:525:THR:HG21	2:C:687:ARG:CD	2.24	0.67
2:C:997:TRP:O	2:C:1000:LEU:HB2	1.95	0.67
3:D:392:THR:OG1	5:F:609:SER:OG	2.11	0.67
3:D:749:LYS:HG3	3:D:755:ILE:CG1	2.10	0.67
1:H:78:ILE:O	1:H:82:LEU:CG	2.41	0.67
2:I:736:VAL:O	2:I:741:MET:HE2	1.95	0.67
3:J:20:ILE:CD1	3:J:1344:LEU:HD21	2.25	0.67
1:M:235:ARG:C	1:N:218:ARG:HH21	2.02	0.67
2:O:164:THR:O	2:O:165:HIS:HB2	1.92	0.67
3:P:128:LEU:HD13	3:P:188:LEU:HD21	1.77	0.67
3:P:608:CYS:SG	3:P:617:THR:CG2	2.75	0.67
5:R:457:ILE:HA	5:R:460:ILE:CD1	2.21	0.67
2:C:616:ILE:HG23	2:C:653:MET:HA	1.77	0.67
2:C:754:THR:N	2:C:767:GLN:OE1	2.24	0.67
1:G:75:GLN:O	2:I:729:ALA:HB2	1.94	0.67
2:I:297:VAL:CG2	2:I:315:MET:H	2.06	0.67
2:O:112:GLY:O	2:O:114:VAL:N	2.27	0.67
2:O:897:PRO:HB2	5:R:565:ILE:HG13	1.76	0.67
4:Q:48:VAL:HG13	4:Q:51:LEU:HD12	1.75	0.67
5:R:505:ILE:HD12	7:8:22:DA:N6	2.08	0.67
6:7:54:DA:H1'	6:7:55:DC:H5''	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:211:ARG:HG2	2:C:211:ARG:HH11	1.60	0.67
3:D:24:LEU:HD12	3:D:232:ASN:HB3	1.77	0.67
5:F:545:HIS:HA	5:F:548:LEU:HD12	1.76	0.67
1:H:190:ALA:HB2	1:H:199:ASP:C	2.20	0.67
2:I:738:GLU:HA	2:I:741:MET:HB2	1.76	0.67
3:J:580:TRP:HA	3:J:583:VAL:HG23	1.76	0.67
5:L:295:CYS:O	5:L:296:LYS:CB	2.41	0.67
2:O:1327:LEU:HD21	2:O:1339:LEU:HD21	1.75	0.67
1:A:179:PRO:CB	1:A:208:ASN:HD21	2.07	0.67
2:C:82:VAL:CG2	2:C:83:GLN:N	2.58	0.67
2:C:593:LYS:HA	2:C:652:TYR:CD1	2.29	0.67
2:C:807:TRP:CZ3	2:C:1086:PRO:HD3	2.30	0.67
3:D:205:LEU:HD21	3:D:214:ARG:CG	2.24	0.67
3:D:450:HIS:CD2	3:D:452:LEU:HB2	2.30	0.67
3:D:1151:LYS:O	3:D:1153:PRO:HD3	1.94	0.67
5:F:573:LEU:HB2	7:2:45:DG:OP2	1.95	0.67
2:I:498:ILE:O	2:I:502:VAL:HG23	1.94	0.67
3:P:43:THR:OG1	3:P:44:ILE:HG12	1.93	0.67
3:P:773:PHE:O	3:P:776:THR:HB	1.95	0.67
5:R:167:ASP:OD2	5:R:262:VAL:HG21	1.94	0.67
5:R:441:ARG:O	5:R:445:ASP:HB2	1.95	0.67
1:B:43:LEU:O	1:B:47:LEU:HD12	1.94	0.67
1:B:158:ARG:HH21	1:B:175:ALA:CB	2.08	0.67
3:D:121:PRO:O	3:D:122:SER:CB	2.39	0.67
3:J:495:ASN:C	3:J:903:LEU:HD13	2.20	0.67
5:L:458:GLU:OE2	7:5:28:DG:H8	1.77	0.67
2:O:1284:ALA:HB1	3:P:1356:LEU:HD22	1.77	0.67
3:P:601:ILE:CA	3:P:604:MET:SD	2.79	0.67
2:C:1219:GLU:OE1	3:D:634:ARG:HD3	1.94	0.67
3:D:44:ILE:HG22	3:D:51:PRO:HA	1.77	0.67
5:F:91:ILE:HG23	5:F:94:THR:OG1	1.95	0.67
5:L:105:MET:HE1	5:L:385:ARG:HG2	1.75	0.67
5:L:493:LYS:O	5:L:497:VAL:HG23	1.94	0.67
2:O:901:LEU:O	2:O:905:ILE:HG13	1.94	0.67
5:R:385:ARG:O	5:R:388:ILE:CG2	2.43	0.67
2:C:160:ASP:CA	2:C:163:LYS:HD3	2.25	0.66
2:I:448:LEU:HG	2:I:553:THR:CB	2.25	0.66
3:J:759:ILE:HG12	3:J:771:GLN:HG2	1.77	0.66
3:J:1309:ILE:HG22	3:J:1310:THR:N	2.10	0.66
5:L:583:THR:HG21	5:L:586:ARG:HB3	1.76	0.66
1:M:232:VAL:CG1	1:N:218:ARG:HG2	2.22	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:247:ARG:HD2	2:O:274:ILE:HG21	1.76	0.66
3:P:111:THR:CG2	3:P:112:ALA:H	2.08	0.66
3:P:111:THR:CG2	3:P:300:GLN:HG3	2.25	0.66
3:P:367:GLY:O	3:P:447:ILE:CG2	2.43	0.66
3:D:1333:THR:O	3:D:1337:VAL:HG23	1.94	0.66
2:I:575:LEU:HG	2:I:576:SER:O	1.96	0.66
3:J:84:ILE:H	3:J:84:ILE:HD12	1.59	0.66
3:J:596:LEU:CD2	3:J:600:ALA:CB	2.73	0.66
2:O:70:TYR:HA	2:O:100:LEU:HD23	1.75	0.66
3:P:233:LYS:CG	3:P:234:PRO:HD2	2.25	0.66
3:J:109:SER:HB2	3:J:296:LYS:CE	2.22	0.66
2:O:1109:ILE:HG23	2:O:1112:ILE:HD12	1.76	0.66
4:Q:48:VAL:HA	4:Q:51:LEU:HD12	1.77	0.66
1:B:106:GLY:HA2	1:B:136:GLU:HA	1.76	0.66
3:D:53:ARG:O	3:D:58:CYS:HB2	1.95	0.66
3:D:262:THR:C	5:F:507:MET:HE3	2.21	0.66
5:F:562:ARG:NE	5:F:573:LEU:HD13	2.10	0.66
1:G:44:ARG:HA	1:G:47:LEU:CD1	2.17	0.66
2:I:149:LEU:HD21	2:I:451:ARG:NH2	2.10	0.66
2:I:819:SER:HB2	2:I:1085:MET:SD	2.36	0.66
2:I:1004:ASP:OD2	2:I:1008:GLN:HG2	1.95	0.66
3:J:245:LEU:HD11	3:J:249:LEU:HD12	1.77	0.66
3:J:805:GLN:CB	3:J:1347:LEU:HD12	2.25	0.66
5:L:514:ASP:O	5:L:516:ASP:N	2.27	0.66
1:M:59:VAL:HG12	1:M:171:LEU:HD12	1.78	0.66
1:M:140:ILE:HG13	1:M:141:SER:N	2.11	0.66
3:P:923:ILE:O	3:P:926:PRO:HD2	1.95	0.66
3:P:1138:LEU:HB2	3:P:1139:PRO:HD3	1.77	0.66
6:7:54:DA:H2''	6:7:55:DC:H5'	1.78	0.66
2:C:878:THR:CG2	2:C:879:GLY:H	2.07	0.66
3:D:493:PRO:HA	3:D:904:ALA:HB2	1.78	0.66
5:F:105:MET:HE3	5:F:106:GLY:CA	2.25	0.66
3:J:492:SER:HB3	3:J:495:ASN:OD1	1.95	0.66
3:P:517:CYS:HB3	3:P:545:HIS:HB2	1.76	0.66
3:D:842:ARG:NH1	3:D:1254:GLU:OE2	2.27	0.66
2:I:701:GLY:O	2:I:1183:ALA:HA	1.96	0.66
3:J:1200:GLU:HG2	3:J:1201:GLY:H	1.60	0.66
3:J:1318:SER:OG	3:J:1321:SER:CB	2.43	0.66
1:M:59:VAL:HG22	1:M:144:ILE:HG23	1.77	0.66
2:O:375:PRO:HD3	5:R:87:VAL:HG11	1.78	0.66
2:O:674:ASP:O	3:P:772:TYR:OH	2.06	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:796:LEU:C	2:O:1233:LEU:HD21	2.21	0.66
2:O:1104:PRO:HG3	3:P:725:MET:SD	2.36	0.66
3:P:427:PRO:HB3	7:8:12:DG:H21	1.60	0.66
4:E:46:THR:HA	4:E:49:ILE:HD12	1.77	0.66
1:G:150:ARG:NH2	1:H:32:GLU:OE1	2.27	0.66
2:I:764:CYS:HB3	2:I:831:ILE:HB	1.78	0.66
2:I:1273:MET:HG3	7:5:13:DA:C4'	2.26	0.66
3:J:269:TYR:O	3:J:273:ILE:HG13	1.94	0.66
6:4:44:DG:H2'	6:4:45:DT:O4'	1.95	0.66
2:O:257:ALA:HB3	2:O:262:TYR:CD2	2.30	0.66
2:C:409:LEU:HD11	2:C:427:ASP:C	2.21	0.66
2:C:798:GLN:NE2	2:C:827:ARG:HE	1.94	0.66
2:C:878:THR:HG23	2:C:925:SER:HB2	1.77	0.66
2:C:936:ARG:HB2	2:C:1047:LEU:O	1.96	0.66
3:D:114:ILE:HG22	3:D:307:LEU:HD12	1.76	0.66
2:I:577:VAL:HG23	2:I:661:VAL:O	1.95	0.66
2:I:1005:GLU:HG2	2:I:1006:GLU:N	2.10	0.66
3:J:115:TRP:HH2	3:J:1329:THR:HA	1.59	0.66
3:J:1282:TYR:O	3:J:1285:VAL:HG12	1.94	0.66
2:O:592:ARG:HB2	2:O:653:MET:HE2	1.76	0.66
2:O:1117:LEU:HD13	2:O:1195:ILE:HG12	1.77	0.66
3:P:609:TYR:CD1	3:P:609:TYR:C	2.73	0.66
2:C:796:LEU:O	2:C:1233:LEU:HD21	1.96	0.66
3:D:112:ALA:HA	3:D:238:ILE:HD13	1.76	0.66
3:D:770:LEU:CD2	3:D:771:GLN:HG3	2.26	0.66
2:I:228:VAL:CG1	2:I:239:MET:HE3	2.20	0.66
2:I:240:GLU:HG3	2:I:284:LEU:CD2	2.26	0.66
2:I:1305:TYR:CE2	3:J:379:PRO:HB3	2.31	0.66
3:J:20:ILE:HD13	3:J:1320:ILE:CD1	2.26	0.66
3:J:421:VAL:HG12	3:J:422:LEU:N	2.04	0.66
3:J:750:PRO:O	3:J:781:LYS:HE3	1.95	0.66
1:M:58:GLU:HB2	1:M:145:LYS:HB3	1.77	0.66
5:R:597:LYS:O	5:R:600:HIS:HB2	1.96	0.66
2:C:557:ARG:HD3	2:C:587:LEU:HB2	1.77	0.66
5:F:511:ILE:HD13	5:F:519:LEU:CD1	2.14	0.66
2:I:757:THR:HG22	2:I:758:ARG:H	1.60	0.66
2:I:808:ASN:C	3:J:629:PHE:HB3	2.21	0.66
2:I:1296:ASP:OD1	2:I:1296:ASP:N	2.27	0.66
5:L:399:LEU:O	5:L:400:GLN:HB2	1.95	0.66
3:P:113:HIS:HA	3:P:239:LEU:HD11	1.78	0.66
3:P:955:LYS:HE3	3:P:1010:GLN:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1251:LYS:O	3:P:1255:VAL:HG23	1.94	0.66
1:B:81:ILE:HG22	1:B:85:LEU:HD11	1.76	0.65
2:C:112:GLY:C	2:C:114:VAL:H	2.04	0.65
2:C:1105:SER:HG	3:D:731:ARG:HH11	1.42	0.65
2:C:1172:LEU:HD12	2:C:1172:LEU:O	1.96	0.65
2:C:1326:LEU:HD22	3:D:342:LEU:HD11	1.78	0.65
3:D:690:ASN:C	3:D:690:ASN:HD22	2.05	0.65
3:D:826:ILE:HG12	3:D:831:VAL:HG22	1.77	0.65
2:I:949:GLU:OE2	2:I:1036:ILE:HG22	1.96	0.65
6:4:45:DT:H72	6:4:46:DG:C2	2.29	0.65
1:M:44:ARG:HG3	1:M:183:ILE:HG23	1.78	0.65
2:O:757:THR:HG22	2:O:758:ARG:H	1.61	0.65
5:R:364:ARG:HA	5:R:367:ILE:HD12	1.78	0.65
3:D:366:CYS:SG	3:D:439:PRO:HA	2.37	0.65
5:F:132:CYS:O	5:F:136:GLU:HG2	1.97	0.65
2:I:163:LYS:HD3	2:I:171:LEU:HD12	1.78	0.65
2:I:1292:THR:HG23	2:I:1293:VAL:H	1.60	0.65
3:P:492:SER:O	3:P:495:ASN:O	2.15	0.65
1:A:228:LEU:HD23	1:A:231:PHE:HE2	1.60	0.65
2:C:936:ARG:NH2	2:C:1046:VAL:O	2.29	0.65
2:C:1268:GLN:HE22	3:D:351:GLY:CA	2.08	0.65
3:D:555:TYR:CD2	3:D:563:LEU:HD22	2.31	0.65
3:D:771:GLN:O	3:D:774:ILE:HG13	1.96	0.65
3:D:797:THR:HA	3:D:800:LEU:HD12	1.78	0.65
5:F:585:GLU:HG3	7:2:47:DC:H41	1.61	0.65
1:M:9:LEU:CD2	1:M:198:LEU:CD2	2.74	0.65
5:R:152:GLU:HG2	5:R:162:ILE:HD11	1.79	0.65
2:C:689:ALA:HB1	2:C:1233:LEU:HD22	1.79	0.65
3:D:262:THR:O	5:F:507:MET:CB	2.44	0.65
3:D:499:ILE:HG23	3:D:500:ILE:HG13	1.78	0.65
3:D:1256:ILE:C	3:D:1260:MET:HE2	2.20	0.65
5:F:437:GLN:OE1	7:2:27:DA:N6	2.30	0.65
5:F:588:ARG:HE	7:2:46:DT:P	2.19	0.65
2:I:96:LEU:HB2	2:I:127:ILE:HD12	1.78	0.65
2:O:110:PRO:C	2:O:112:GLY:N	2.54	0.65
2:O:806:PRO:HG2	3:P:633:ALA:HA	1.77	0.65
3:P:1162:ILE:HG13	3:P:1180:VAL:HG12	1.79	0.65
5:R:463:LEU:N	5:R:463:LEU:HD23	2.10	0.65
2:C:10:ARG:HH22	2:C:697:LYS:HD3	1.58	0.65
3:D:437:PHE:O	3:D:439:PRO:HD3	1.96	0.65
5:F:468:ARG:NH2	7:2:25:DA:C8	2.64	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:575:LEU:CD1	2:I:579:ALA:HB3	2.25	0.65
2:I:1113:LEU:HD23	3:J:641:ILE:HD11	1.76	0.65
3:J:489:ASN:O	3:J:500:ILE:HD11	1.96	0.65
3:J:1103:GLY:O	3:J:1104:LYS:HB2	1.97	0.65
3:J:1165:PHE:HZ	3:J:1196:LEU:HD13	1.60	0.65
1:M:41:ASN:HD21	2:O:1218:GLY:CA	2.09	0.65
1:B:44:ARG:HH12	3:D:538:ARG:CB	2.05	0.65
3:D:883:ARG:NE	3:D:898:CYS:SG	2.69	0.65
5:F:105:MET:HE3	5:F:106:GLY:HA2	1.79	0.65
2:I:257:ALA:HB1	2:I:282:VAL:HG21	1.78	0.65
2:I:1101:LEU:HD11	3:J:508:LEU:CD2	2.26	0.65
3:J:509:GLY:O	3:J:513:MET:HG3	1.97	0.65
3:J:1145:PHE:O	3:J:1309:ILE:HG13	1.97	0.65
2:O:1100:PRO:HB3	3:P:639:VAL:HG23	1.77	0.65
3:P:767:LEU:HD12	3:P:772:TYR:CD1	2.29	0.65
5:R:353:LEU:HB3	5:R:358:VAL:HG23	1.78	0.65
2:C:452:ARG:HG2	2:C:453:ILE:N	2.11	0.65
2:C:626:GLU:CG	2:C:626:GLU:O	2.44	0.65
2:C:1104:PRO:CG	2:C:1105:SER:H	2.07	0.65
5:F:295:CYS:O	5:F:296:LYS:CB	2.43	0.65
6:1:26:DT:O4	7:2:36:DG:O6	2.14	0.65
2:I:255:ILE:HG23	2:I:285:ILE:HG21	1.78	0.65
2:I:521:LEU:HD21	2:I:687:ARG:HG2	1.79	0.65
2:I:788:SER:O	2:I:794:LEU:HD12	1.96	0.65
5:L:93:ARG:O	5:L:93:ARG:HG3	1.96	0.65
5:L:97:PRO:HA	5:L:100:MET:HG3	1.78	0.65
2:O:902:LEU:HA	2:O:905:ILE:HD12	1.78	0.65
2:O:1275:VAL:HG21	3:P:343:LEU:O	1.97	0.65
1:B:44:ARG:NH1	3:D:538:ARG:HB3	2.05	0.65
2:C:394:ARG:HB3	2:C:394:ARG:CZ	2.26	0.65
3:D:955:LYS:NZ	3:D:955:LYS:CD	2.59	0.65
1:H:40:GLY:HA2	1:H:43:LEU:HD12	1.78	0.65
1:H:61:ILE:HD11	1:H:171:LEU:HD12	1.77	0.65
3:J:245:LEU:HD11	3:J:249:LEU:CD1	2.27	0.65
3:J:1233:ILE:HG22	3:J:1237:VAL:HG21	1.79	0.65
1:N:99:ILE:HD11	1:N:170:ARG:NH2	2.11	0.65
2:O:13:LYS:HB2	2:O:1149:TYR:CE1	2.31	0.65
2:O:1269:ARG:NH1	3:P:340:GLN:HG3	2.12	0.65
1:B:83:LEU:HB3	3:D:528:THR:HG22	1.79	0.65
5:F:574:GLU:O	5:F:578:LYS:HG3	1.97	0.65
1:H:85:LEU:N	1:H:85:LEU:HD23	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:80:PHE:O	2:I:92:TYR:HE1	1.80	0.65
2:I:1104:PRO:HG3	3:J:725:MET:HE1	1.77	0.65
3:J:121:PRO:O	3:J:122:SER:HB3	1.97	0.65
3:J:1131:THR:O	3:J:1132:LYS:HB3	1.96	0.65
3:J:1164:SER:C	3:J:1175:LEU:CD1	2.66	0.65
2:O:257:ALA:HB3	2:O:262:TYR:HD2	1.61	0.65
2:O:936:ARG:HG2	2:O:937:ASP:N	2.12	0.65
3:P:47:ARG:HH12	5:R:496:LYS:HD3	1.61	0.65
3:P:826:ILE:HA	3:P:831:VAL:HA	1.77	0.65
3:D:814:CYS:SG	3:D:883:ARG:NH2	2.70	0.65
1:G:106:GLY:CA	1:G:136:GLU:HA	2.22	0.65
2:I:1004:ASP:CG	2:I:1008:GLN:HB2	2.22	0.65
3:J:620:PHE:O	3:J:624:ILE:HG12	1.96	0.65
3:J:1198:VAL:HG22	3:J:1210:ILE:HG23	1.79	0.65
5:L:385:ARG:C	5:L:388:ILE:HG23	2.22	0.65
5:L:583:THR:CG2	5:L:586:ARG:HB3	2.27	0.65
2:O:34:SER:OG	2:O:457:GLY:N	2.29	0.65
3:P:1075:ARG:HG3	3:P:1192:LYS:HB3	1.78	0.65
4:Q:80:LEU:HD23	4:Q:83:VAL:HB	1.77	0.65
3:D:97:VAL:CG1	3:D:101:ARG:HG3	2.27	0.64
3:D:1123:ARG:O	3:D:1125:PRO:HD3	1.96	0.64
1:G:228:LEU:HD12	1:H:228:LEU:CD1	2.22	0.64
2:I:434:ASP:O	2:I:439:LYS:HB2	1.97	0.64
3:J:806:ASP:N	3:J:806:ASP:OD1	2.30	0.64
5:L:385:ARG:HA	5:L:388:ILE:CG2	2.27	0.64
1:N:190:ALA:HB2	1:N:200:LYS:CG	2.27	0.64
1:B:61:ILE:HD13	1:B:171:LEU:CD1	2.28	0.64
2:C:1217:THR:HG21	3:D:634:ARG:NH1	2.12	0.64
3:D:367:GLY:O	3:D:447:ILE:HG22	1.97	0.64
3:D:1224:ARG:HD3	3:D:1228:ALA:HB1	1.79	0.64
1:G:58:GLU:HB2	1:G:145:LYS:CB	2.27	0.64
3:J:721:SER:O	3:J:725:MET:HG3	1.97	0.64
2:O:333:ILE:HG22	2:O:334:GLU:H	1.62	0.64
2:O:1042:LEU:CD2	2:O:1049:ILE:HD11	2.24	0.64
3:P:496:GLY:HA2	3:P:903:LEU:HD22	1.78	0.64
3:D:869:CYS:CA	3:D:872:LEU:HD12	2.15	0.64
5:F:407:GLU:HG2	5:F:442:SER:OG	1.98	0.64
7:2:20:DG:H2''	7:2:21:DG:C8	2.32	0.64
2:I:1278:LEU:HD12	2:I:1287:LEU:HD13	1.80	0.64
3:J:342:LEU:HD22	3:J:1352:ILE:HG23	1.78	0.64
3:J:796:LEU:HG	3:J:797:THR:N	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:826:ILE:HD13	3:J:831:VAL:HG22	1.78	0.64
2:O:9:LYS:HE2	2:O:1171:ARG:HH11	1.63	0.64
1:A:11:PRO:O	1:B:231:PHE:HZ	1.80	0.64
1:A:43:LEU:O	1:A:47:LEU:HD12	1.97	0.64
1:B:67:GLU:HA	1:B:78:ILE:HG21	1.79	0.64
2:C:191:LYS:N	2:C:191:LYS:HD2	2.11	0.64
2:C:389:PHE:HB3	2:C:420:LEU:HD12	1.77	0.64
3:D:151:MET:HB3	3:D:153:ASN:ND2	2.12	0.64
3:D:1266:ILE:HD13	3:D:1274:PHE:CD1	2.32	0.64
2:I:517:GLN:H	2:I:761:GLN:NE2	1.96	0.64
3:J:1280:VAL:CG1	3:J:1281:GLU:N	2.61	0.64
1:M:47:LEU:O	1:M:51:MET:CG	2.45	0.64
2:O:247:ARG:HG3	2:O:274:ILE:CD1	2.21	0.64
3:P:338:PHE:CD1	3:P:1324:SER:HA	2.33	0.64
2:C:82:VAL:HG23	2:C:83:GLN:H	1.61	0.64
2:C:98:VAL:HB	2:C:124:MET:SD	2.38	0.64
2:C:157:PHE:O	2:C:442:VAL:CG1	2.44	0.64
2:C:285:ILE:HG22	2:C:286:GLU:N	2.12	0.64
3:D:742:GLY:O	3:D:762:ASN:HB3	1.97	0.64
3:D:966:VAL:HG11	3:D:1030:GLU:HG2	1.80	0.64
1:G:67:GLU:O	1:G:78:ILE:HB	1.97	0.64
1:G:225:ALA:HA	1:G:228:LEU:CD1	2.27	0.64
1:H:30:PRO:HG3	1:H:192:VAL:HG23	1.78	0.64
2:I:185:ASP:HB2	2:I:197:ARG:HB2	1.78	0.64
3:J:1133:ASP:CG	3:J:1134:ILE:N	2.54	0.64
3:P:111:THR:O	3:P:239:LEU:HG	1.96	0.64
2:C:1104:PRO:CG	2:C:1105:SER:N	2.60	0.64
3:D:1229:VAL:HG22	3:D:1233:ILE:HD11	1.80	0.64
5:F:489:MET:HB3	5:F:490:PRO:HD2	1.79	0.64
5:F:585:GLU:HG3	7:2:47:DC:N4	2.12	0.64
2:I:313:ALA:O	2:I:314:ASN:CB	2.45	0.64
3:J:972:LYS:HD3	3:J:1002:VAL:HG11	1.78	0.64
5:L:507:MET:CA	5:L:519:LEU:HD23	2.16	0.64
2:O:709:ALA:O	2:O:712:SER:OG	2.15	0.64
2:O:1307:ASN:HB3	2:O:1312:ASN:HB3	1.78	0.64
3:P:421:VAL:CG2	3:P:439:PRO:HG2	2.27	0.64
2:C:1020:GLU:O	2:C:1024:GLU:HB3	1.98	0.64
3:D:369:PRO:HB2	3:D:372:MET:HE3	1.79	0.64
2:I:251:ALA:HB3	2:I:266:GLY:H	1.61	0.64
2:I:538:LEU:N	2:I:538:LEU:HD23	2.13	0.64
2:I:632:ASP:HB2	2:I:633:LEU:HD12	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1243:MET:CG	3:J:372:MET:HE2	2.20	0.64
2:I:1278:LEU:HB2	2:I:1287:LEU:HD22	1.79	0.64
3:J:268:LEU:CB	3:J:306:LEU:HD13	2.27	0.64
2:O:202:ARG:HB2	2:O:369:MET:HE3	1.80	0.64
2:O:448:LEU:HD23	2:O:448:LEU:N	2.12	0.64
2:O:589:THR:HG22	2:O:590:PRO:HD2	1.78	0.64
2:O:671:LEU:HD11	2:O:679:ALA:CB	2.26	0.64
2:O:758:ARG:HB2	2:O:833:ILE:CG2	2.27	0.64
3:P:109:SER:CB	3:P:296:LYS:HZ3	2.10	0.64
3:P:322:ARG:HB2	3:P:323:PRO:CD	2.21	0.64
5:R:548:LEU:HD23	5:R:551:LEU:CD1	2.28	0.64
1:A:45:ARG:CD	1:B:38:THR:OG1	2.28	0.64
1:A:221:ALA:O	1:A:224:LEU:CD2	2.46	0.64
2:C:539:THR:HG22	2:C:540:ARG:H	1.60	0.64
2:C:575:LEU:HG	2:C:576:SER:O	1.97	0.64
2:C:1120:ALA:HB1	2:C:1198:LEU:HG	1.79	0.64
3:J:553:THR:CG2	3:J:566:LYS:O	2.46	0.64
3:J:1081:VAL:HB	3:J:1085:GLY:O	1.98	0.64
1:N:11:PRO:HB3	1:N:30:PRO:O	1.98	0.64
2:O:901:LEU:HD13	5:R:563:PHE:CZ	2.33	0.64
3:P:1212:ASP:OD1	3:P:1212:ASP:N	2.20	0.64
1:B:133:LEU:CD2	1:B:138:ALA:HB1	2.26	0.64
3:D:1284:ARG:HA	3:D:1287:ILE:HD12	1.78	0.64
2:I:209:ILE:HG23	2:I:210:LEU:N	2.11	0.64
2:I:1073:LYS:HD2	3:J:462:ASP:HB2	1.79	0.64
3:J:349:TYR:CD2	3:J:472:LEU:HD11	2.33	0.64
3:J:1250:ASP:N	3:J:1250:ASP:OD1	2.31	0.64
2:O:1081:PRO:CB	2:O:1083:GLU:OE1	2.45	0.64
3:P:803:VAL:HG12	3:P:1259:GLN:HB3	1.80	0.64
1:B:61:ILE:HA	1:B:142:MET:HB2	1.80	0.64
2:C:800:MET:HE3	2:C:827:ARG:HD3	1.79	0.64
3:D:795:TYR:CD1	7:2:11:DA:H5'	2.33	0.64
1:H:68:TYR:CD1	1:H:79:LEU:CD2	2.79	0.64
2:I:184:LEU:HD11	2:I:389:PHE:HE2	1.63	0.64
2:I:944:ARG:O	2:I:948:ILE:HG13	1.98	0.64
3:J:95:THR:O	3:J:98:ARG:HG3	1.97	0.64
3:J:234:PRO:O	3:J:237:MET:HG2	1.98	0.64
2:O:209:ILE:HG23	2:O:210:LEU:HG	1.80	0.64
2:O:496:LYS:HB2	2:O:497:PRO:CD	2.15	0.64
3:P:256:ASP:OD1	3:P:256:ASP:N	2.28	0.64
2:C:1161:LEU:HD12	2:C:1164:PHE:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:749:LYS:CB	3:D:750:PRO:CD	2.57	0.63
2:I:615:VAL:HG22	2:I:638:SER:CB	2.27	0.63
2:I:837:ALA:C	2:I:918:LEU:HD22	2.23	0.63
2:I:1258:PRO:HG2	3:J:346:ARG:HB2	1.80	0.63
3:P:762:ASN:HD21	3:P:764:ARG:HB3	1.64	0.63
2:C:1129:ASN:OD1	2:C:1133:LYS:HE3	1.98	0.63
1:H:61:ILE:HD12	1:H:61:ILE:N	2.13	0.63
2:I:1113:LEU:HD22	2:I:1195:ILE:CD1	2.28	0.63
3:J:872:LEU:HD22	3:J:873:GLU:CA	2.27	0.63
5:L:585:GLU:HG3	7:5:47:DC:H41	1.61	0.63
2:O:716:ALA:HB3	2:O:784:ALA:HB3	1.80	0.63
3:P:74:LYS:HZ2	3:P:87:LYS:HB2	1.60	0.63
5:R:119:ILE:O	5:R:123:ILE:HG13	1.99	0.63
5:R:401:PHE:HZ	6:7:45:DT:H1'	1.63	0.63
1:B:60:GLU:O	1:B:142:MET:HB2	1.99	0.63
2:C:1313:HIS:CE1	3:D:380:PHE:CE1	2.86	0.63
3:D:385:LEU:HD22	3:D:391:ALA:CB	2.28	0.63
5:F:451:ARG:HG3	5:F:451:ARG:O	1.98	0.63
2:I:709:ALA:O	2:I:712:SER:OG	2.15	0.63
2:O:757:THR:C	2:O:833:ILE:HD12	2.23	0.63
1:B:217:ILE:HD13	1:B:217:ILE:H	1.62	0.63
2:C:708:VAL:HG11	2:C:794:LEU:HD22	1.79	0.63
3:D:1224:ARG:HD2	3:D:1228:ALA:HB1	1.80	0.63
1:G:102:LEU:HD13	1:G:114:ASP:C	2.23	0.63
2:I:663:VAL:O	2:I:666:SER:OG	2.16	0.63
2:I:1081:PRO:HB2	2:I:1083:GLU:OE1	1.98	0.63
2:I:1116:HIS:HD2	3:J:641:ILE:HD11	1.60	0.63
3:J:352:ARG:O	3:J:353:SER:HB2	1.96	0.63
3:J:580:TRP:CZ3	3:J:583:VAL:HG11	2.33	0.63
3:J:665:GLN:O	3:J:668:PHE:HB3	1.98	0.63
5:L:583:THR:HG21	5:L:586:ARG:CB	2.28	0.63
2:O:432:LEU:HG	2:O:433:ILE:N	2.10	0.63
2:O:1319:MET:HE3	2:O:1324:ASN:OD1	1.99	0.63
3:P:371:LYS:O	3:P:374:LEU:CD2	2.46	0.63
3:P:437:PHE:O	3:P:439:PRO:HD3	1.98	0.63
3:P:513:MET:SD	3:P:579:LEU:HD21	2.37	0.63
3:P:1230:THR:HG23	3:P:1257:VAL:HG11	1.81	0.63
2:C:753:LEU:CD1	2:C:769:PRO:HG3	2.29	0.63
2:C:1327:LEU:HA	2:C:1330:ILE:HD12	1.79	0.63
3:D:706:VAL:CG1	3:D:713:GLU:OE1	2.46	0.63
2:I:1280:ALA:HB3	3:J:431:ARG:CB	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1332:SER:OG	3:J:245:LEU:HB2	1.98	0.63
3:P:368:LEU:HD21	3:P:373:ALA:CB	2.23	0.63
4:Q:54:ILE:HG12	4:Q:59:ILE:HB	1.79	0.63
5:R:401:PHE:CZ	6:7:45:DT:H1'	2.33	0.63
2:C:204:LEU:HB3	2:C:205:PRO:HD2	1.80	0.63
2:C:724:VAL:HG23	2:C:775:GLU:O	1.99	0.63
3:D:714:GLU:O	3:D:715:LYS:HB2	1.97	0.63
3:D:744:ARG:HB3	3:D:759:ILE:HG21	1.79	0.63
5:F:130:VAL:HG13	5:F:365:MET:CG	2.27	0.63
6:1:19:DA:C2	7:2:45:DG:C2	2.85	0.63
2:I:237:LEU:HD13	2:I:292:ILE:HD12	1.80	0.63
2:I:1186:VAL:O	2:I:1187:PHE:HB2	1.98	0.63
2:I:1272:GLU:O	2:I:1275:VAL:HB	1.98	0.63
2:I:1325:VAL:HG13	3:J:249:LEU:HD22	1.81	0.63
3:J:1170:LYS:O	3:J:1192:LYS:HE3	1.98	0.63
1:M:38:THR:HG22	1:N:42:ALA:HA	1.81	0.63
2:O:208:ILE:HD11	2:O:362:ALA:O	1.98	0.63
2:O:805:MET:HB2	2:O:806:PRO:HD2	1.81	0.63
2:O:811:ASN:HD22	2:O:1099:ASN:HA	1.62	0.63
3:P:424:ASN:HB2	3:P:434:ILE:HG12	1.81	0.63
3:P:518:VAL:O	3:P:520:ALA:N	2.32	0.63
7:8:29:DC:H2"	7:8:30:DA:C8	2.34	0.63
3:D:888:CYS:SG	9:D:1502:ZN:ZN	1.87	0.63
3:D:1230:THR:O	3:D:1234:VAL:HG23	1.99	0.63
2:I:473:ARG:O	2:I:477:GLU:HB2	1.98	0.63
2:I:1286:THR:CB	3:J:479:GLU:OE2	2.46	0.63
3:J:355:ILE:HD13	3:J:464:ASP:HB2	1.80	0.63
1:M:13:LEU:HA	1:M:28:LEU:HD22	1.81	0.63
2:O:868:SER:HB2	2:O:870:ILE:HG12	1.80	0.63
1:B:91:ARG:HH12	1:B:210:THR:CG2	2.11	0.63
2:C:17:LYS:NZ	2:C:1190:ALA:HA	2.13	0.63
2:C:82:VAL:CG2	2:C:83:GLN:H	2.11	0.63
3:D:40:LYS:NZ	3:D:53:ARG:HE	1.97	0.63
3:D:142:GLU:OE2	5:F:91:ILE:HG21	1.97	0.63
5:F:449:THR:CB	5:F:504:PRO:HG3	2.28	0.63
1:H:39:LEU:C	1:H:43:LEU:HD11	2.24	0.63
1:N:99:ILE:HD11	1:N:170:ARG:HH22	1.61	0.63
3:P:421:VAL:HG12	3:P:422:LEU:H	1.64	0.63
1:A:184:ALA:HB2	2:C:1091:GLY:CA	2.29	0.63
1:A:231:PHE:N	1:A:231:PHE:CD1	2.60	0.63
2:C:870:ILE:HG22	2:C:871:VAL:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:309:ASN:OD1	5:F:312:SER:HB3	1.98	0.63
1:H:190:ALA:N	1:H:199:ASP:HA	2.05	0.63
2:I:718:ALA:HB2	2:I:783:LEU:HD21	1.81	0.63
2:I:1184:THR:O	2:I:1184:THR:HG23	1.98	0.63
3:J:115:TRP:HH2	3:J:1332:LEU:HD12	1.64	0.63
3:J:1169:THR:O	3:J:1170:LYS:HB2	1.97	0.63
3:J:1169:THR:O	3:J:1172:LYS:HB2	1.98	0.63
2:O:598:VAL:HG13	2:O:627:GLY:O	1.99	0.63
2:O:663:VAL:O	2:O:666:SER:OG	2.16	0.63
2:O:1281:TYR:OH	3:P:431:ARG:O	2.15	0.63
5:R:594:ALA:O	5:R:598:LEU:HG	1.98	0.63
1:A:224:LEU:HD12	1:A:224:LEU:O	1.98	0.62
2:C:1273:MET:HG3	7:2:13:DA:H4'	1.81	0.62
3:D:1062:LEU:HB3	3:D:1066:GLU:HB2	1.79	0.62
3:D:1206:ARG:NH2	3:D:1223:LEU:O	2.32	0.62
1:H:154:PRO:HG2	1:H:157:THR:OG1	1.98	0.62
3:J:736:GLN:O	3:J:740:LEU:HG	1.98	0.62
3:P:421:VAL:HG13	3:P:469:HIS:O	1.99	0.62
3:P:497:GLU:HB3	3:P:498:PRO:HD2	1.80	0.62
3:P:1243:LEU:HD22	3:P:1244:GLN:NE2	2.14	0.62
4:Q:10:VAL:HG22	4:Q:19:LEU:HD22	1.79	0.62
2:C:759:SER:CB	2:C:763:THR:HG1	2.12	0.62
2:C:796:LEU:CB	2:C:1233:LEU:HD11	2.29	0.62
5:F:385:ARG:O	5:F:388:ILE:CG2	2.47	0.62
5:F:588:ARG:NE	7:2:46:DT:OP2	2.32	0.62
2:I:296:VAL:HG12	2:I:297:VAL:N	2.14	0.62
2:I:678:ARG:CZ	2:I:1106:ARG:HB3	2.29	0.62
2:I:764:CYS:CB	2:I:831:ILE:HB	2.28	0.62
3:J:872:LEU:HD22	3:J:873:GLU:HA	1.80	0.62
3:J:885:VAL:HG12	3:J:886:VAL:CG2	2.29	0.62
3:J:930:LEU:CB	3:J:1134:ILE:HD12	2.29	0.62
1:N:99:ILE:HD13	1:N:143:ARG:HB3	1.80	0.62
2:O:83:GLN:O	2:O:86:GLN:HB2	1.99	0.62
5:R:587:ILE:N	5:R:587:ILE:CD1	2.50	0.62
1:A:179:PRO:HA	1:A:208:ASN:HD21	1.64	0.62
1:A:227:GLN:C	1:A:231:PHE:CZ	2.77	0.62
2:C:524:ILE:HD11	2:C:712:SER:CB	2.10	0.62
3:D:646:ILE:HG13	3:D:764:ARG:HH11	1.64	0.62
2:I:15:PHE:HB3	2:I:17:LYS:HZ1	1.64	0.62
2:I:227:LYS:NZ	2:I:298:ALA:HB1	2.13	0.62
2:I:1212:LEU:O	2:I:1221:PHE:HD2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:409:ASN:O	5:L:412:LEU:HB3	2.00	0.62
1:M:83:LEU:HD11	2:O:694:ARG:HH11	1.63	0.62
1:M:88:LEU:HD12	1:M:89:ALA:H	1.64	0.62
2:O:581:THR:HG22	2:O:587:LEU:HD23	1.79	0.62
1:B:213:PRO:O	1:B:217:ILE:CD1	2.47	0.62
2:C:1100:PRO:HB3	3:D:639:VAL:CG2	2.28	0.62
5:F:461:ASN:HA	7:2:26:DT:C7	2.29	0.62
2:I:448:LEU:HG	2:I:553:THR:HB	1.82	0.62
2:I:807:TRP:CG	2:I:817:LEU:HD11	2.35	0.62
2:I:1113:LEU:HD22	2:I:1195:ILE:HD13	1.81	0.62
2:I:1315:MET:CE	3:J:473:THR:HG21	2.29	0.62
3:J:1106:ILE:HG22	3:J:1106:ILE:O	1.97	0.62
4:K:13:ILE:HG22	4:K:19:LEU:HD22	1.82	0.62
1:N:92:VAL:HG22	1:N:121:VAL:HG13	1.81	0.62
3:P:846:GLU:H	3:P:860:ARG:HG2	1.63	0.62
2:C:149:LEU:HD21	2:C:451:ARG:HE	1.65	0.62
2:C:757:THR:HG22	2:C:758:ARG:N	2.15	0.62
3:D:474:LEU:HD21	4:E:31:GLN:NE2	2.15	0.62
3:D:653:ILE:HD13	3:D:693:VAL:HG22	1.82	0.62
3:D:809:VAL:HG23	3:D:915:ILE:HD11	1.81	0.62
3:D:839:VAL:O	3:D:839:VAL:HG12	1.99	0.62
1:G:39:LEU:O	1:G:43:LEU:CD1	2.46	0.62
3:J:307:LEU:HD23	3:J:327:LEU:HD13	1.81	0.62
3:J:1241:TYR:CD2	3:J:1241:TYR:N	2.65	0.62
2:O:333:ILE:HG22	2:O:334:GLU:N	2.13	0.62
2:O:661:VAL:HG12	2:O:665:ALA:HB3	1.82	0.62
2:O:1184:THR:HG23	2:O:1184:THR:O	1.99	0.62
2:O:1232:MET:HE2	2:O:1232:MET:HA	1.82	0.62
3:P:1163:VAL:HG11	3:P:1175:LEU:CD2	2.23	0.62
1:A:38:THR:HG22	1:B:42:ALA:HB1	1.81	0.62
1:B:158:ARG:HH21	1:B:175:ALA:HB3	1.65	0.62
2:C:663:VAL:O	2:C:666:SER:OG	2.16	0.62
3:D:519:ASN:HA	3:D:523:GLU:CD	2.25	0.62
3:D:622:ASP:HA	3:D:625:MET:HE2	1.82	0.62
3:D:744:ARG:CB	3:D:759:ILE:HG21	2.30	0.62
5:F:92:GLY:O	5:F:93:ARG:HG2	1.98	0.62
2:I:1235:LEU:N	2:I:1235:LEU:HD23	2.14	0.62
1:N:61:ILE:HD12	1:N:64:VAL:CG1	2.29	0.62
2:O:183:TRP:CZ3	6:7:49:DG:O6	2.53	0.62
2:O:990:ASP:O	2:O:994:ARG:NH2	2.32	0.62
3:P:15:GLU:CG	3:P:15:GLU:O	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:139:LEU:HD21	3:P:185:ILE:HD12	1.80	0.62
3:P:576:ARG:HB3	3:P:592:VAL:HG23	1.81	0.62
3:P:661:VAL:HG22	3:P:685:ILE:HD13	1.80	0.62
1:A:43:LEU:C	1:A:47:LEU:HD12	2.24	0.62
2:C:946:LEU:HD11	2:C:950:GLU:OE1	1.99	0.62
2:C:1284:ALA:HB1	3:D:1356:LEU:HD22	1.82	0.62
2:C:1294:LYS:HD3	3:D:347:VAL:CG1	2.29	0.62
2:C:1326:LEU:O	2:C:1330:ILE:HG13	1.99	0.62
3:D:275:ARG:HD3	3:D:298:MET:HB3	1.80	0.62
3:D:492:SER:OG	3:D:495:ASN:OD1	2.07	0.62
3:D:880:VAL:HG12	3:D:882:VAL:HG12	1.80	0.62
3:D:1280:VAL:CG1	3:D:1281:GLU:H	2.12	0.62
1:H:221:ALA:O	1:H:224:LEU:HD23	2.00	0.62
2:I:806:PRO:HA	2:I:811:ASN:HD21	1.65	0.62
2:I:1061:GLN:HB2	2:I:1062:PRO:CD	2.28	0.62
3:J:363:LEU:CD2	3:J:487:THR:HG22	2.29	0.62
3:J:958:ILE:HG23	3:J:982:LEU:HD11	1.81	0.62
3:J:1261:LEU:HD13	3:J:1304:ARG:HD2	1.80	0.62
5:L:123:ILE:CD1	5:L:376:LYS:HE3	2.23	0.62
5:L:489:MET:SD	5:L:494:ILE:CD1	2.88	0.62
2:O:292:ILE:CG2	2:O:322:LEU:HD11	2.28	0.62
2:O:812:PHE:CD2	2:O:813:GLU:HG3	2.33	0.62
2:O:1309:VAL:HG13	3:P:383:GLY:HA2	1.81	0.62
3:P:259:ARG:HH11	5:R:502:LYS:CG	2.12	0.62
3:P:506:VAL:O	3:P:510:LEU:HG	1.99	0.62
3:P:1360:GLY:HA2	4:Q:17:PHE:CD2	2.35	0.62
2:C:92:TYR:HB2	2:C:137:VAL:HG21	1.80	0.62
3:D:822:MET:HE3	3:D:838:ARG:HG2	1.82	0.62
1:G:190:ALA:N	1:G:199:ASP:HA	2.13	0.62
1:H:106:GLY:O	1:H:133:LEU:HB3	1.99	0.62
2:I:433:ILE:HG22	2:I:437:ASN:HD21	1.64	0.62
2:I:1212:LEU:CD1	2:I:1225:VAL:HB	2.30	0.62
5:L:128:ASN:ND2	5:L:257:LYS:HD3	2.15	0.62
7:5:23:DT:H3'	7:5:24:DT:H5''	1.81	0.62
2:O:147:SER:HB2	2:O:530:ILE:HG23	1.82	0.62
2:O:1292:THR:HG23	2:O:1293:VAL:N	2.12	0.62
6:7:47:DC:O5'	6:7:48:DA:OP2	2.18	0.62
7:8:23:DT:H5'	7:8:24:DT:OP2	1.99	0.62
1:B:38:THR:CB	1:B:39:LEU:HD23	2.27	0.62
2:C:156:PHE:O	2:C:174:ALA:HA	1.98	0.62
2:C:670:PHE:HD2	2:C:1113:LEU:HB2	1.56	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:215:LYS:O	3:D:219:LYS:HG3	2.00	0.62
3:D:405:GLU:O	3:D:408:VAL:HB	2.00	0.62
3:D:1226:VAL:CG1	3:D:1227:HIS:N	2.61	0.62
1:H:101:THR:HG22	1:H:143:ARG:HG2	1.82	0.62
2:I:255:ILE:CD1	2:I:255:ILE:CB	2.74	0.62
5:L:506:SER:O	5:L:519:LEU:HD22	1.99	0.62
2:O:575:LEU:HG	2:O:576:SER:O	2.00	0.62
2:O:758:ARG:HG3	2:O:833:ILE:O	2.00	0.62
3:P:492:SER:OG	3:P:495:ASN:N	2.32	0.62
3:P:690:ASN:HA	3:P:743:MET:CE	2.29	0.62
2:C:524:ILE:HG12	2:C:712:SER:HA	1.81	0.62
2:C:971:LEU:HD11	2:C:1014:LEU:HD13	1.82	0.62
3:D:1348:LYS:O	3:D:1351:VAL:HB	1.99	0.62
1:G:104:LYS:HE3	1:G:114:ASP:OD2	2.00	0.62
2:I:661:VAL:HG12	2:I:662:SER:O	1.99	0.62
3:J:352:ARG:CD	7:5:15:DT:H4'	2.30	0.62
3:J:560:ASN:N	3:J:560:ASN:OD1	2.32	0.62
1:N:71:LYS:HD3	1:N:140:ILE:CD1	2.30	0.62
3:P:97:VAL:CG1	3:P:101:ARG:HG3	2.29	0.62
3:P:513:MET:HE1	3:P:579:LEU:HD21	1.82	0.62
3:P:898:CYS:SG	9:P:1502:ZN:ZN	1.87	0.62
2:C:436:ARG:O	2:C:436:ARG:NH1	2.22	0.61
2:C:764:CYS:CB	2:C:831:ILE:HB	2.30	0.61
2:C:1065:LYS:HZ1	8:3:15:G:H4'	1.65	0.61
2:C:1104:PRO:HG3	3:D:725:MET:SD	2.40	0.61
2:C:1273:MET:CE	7:2:13:DA:H5''	2.17	0.61
3:D:41:PRO:HA	3:D:273:ILE:HD12	1.81	0.61
3:D:261:ALA:HA	5:F:505:ILE:O	2.00	0.61
3:D:771:GLN:HA	3:D:774:ILE:CD1	2.29	0.61
1:G:228:LEU:HD11	1:H:228:LEU:HD11	1.81	0.61
2:I:1104:PRO:HG3	3:J:725:MET:CE	2.30	0.61
3:J:822:MET:HG2	3:J:838:ARG:NH2	2.13	0.61
3:J:872:LEU:C	3:J:872:LEU:HD22	2.24	0.61
6:4:48:DA:C2'	6:4:49:DG:H5''	2.28	0.61
1:M:29:GLU:HB2	1:M:30:PRO:HA	1.82	0.61
2:O:82:VAL:HG23	2:O:83:GLN:N	2.15	0.61
2:O:188:PHE:CE2	2:O:432:LEU:HD11	2.35	0.61
2:O:528:ARG:NH1	2:O:663:VAL:HB	2.15	0.61
2:O:599:VAL:HG21	2:O:623:LEU:HD21	1.81	0.61
2:O:720:ARG:HD2	2:O:736:VAL:HG21	1.82	0.61
1:B:44:ARG:O	1:B:47:LEU:HB2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:764:CYS:SG	2:C:831:ILE:HD12	2.40	0.61
2:C:1198:LEU:HD12	2:C:1198:LEU:O	1.98	0.61
3:D:609:TYR:C	3:D:609:TYR:HD1	2.06	0.61
3:J:826:ILE:CD1	3:J:831:VAL:HG22	2.30	0.61
3:J:1360:GLY:HA2	4:K:17:PHE:CD2	2.35	0.61
1:M:28:LEU:HD11	1:N:231:PHE:CE1	2.35	0.61
2:O:1061:GLN:HB2	2:O:1062:PRO:HD2	1.82	0.61
2:O:1261:GLY:HA3	7:8:16:DC:P	2.40	0.61
3:P:322:ARG:HG3	3:P:322:ARG:NH1	2.14	0.61
3:P:615:LYS:HE2	4:Q:5:THR:HB	1.82	0.61
3:P:1075:ARG:HG3	3:P:1192:LYS:CD	2.28	0.61
2:C:525:THR:HG23	2:C:526:HIS:N	2.15	0.61
2:C:809:GLY:CA	3:D:629:PHE:CD1	2.83	0.61
2:C:1274:GLU:OE1	2:C:1274:GLU:N	2.27	0.61
3:D:807:LEU:CD1	3:D:1259:GLN:HE21	2.14	0.61
3:D:1101:LEU:HD22	3:D:1122:ALA:CB	2.28	0.61
4:E:22:VAL:HG11	4:E:61:ASN:HA	1.82	0.61
5:F:423:ARG:HD3	6:1:37:DA:N1	2.15	0.61
5:F:468:ARG:NH2	7:2:25:DA:H8	1.97	0.61
1:G:102:LEU:HD12	1:G:103:ASN:H	1.64	0.61
1:G:112:ALA:HB3	1:G:126:PRO:CA	2.29	0.61
2:I:525:THR:HG21	2:I:687:ARG:CD	2.30	0.61
2:I:837:ALA:O	2:I:918:LEU:HD22	1.99	0.61
2:I:878:THR:CG2	2:I:879:GLY:H	2.12	0.61
3:J:522:GLY:CA	3:J:525:MET:SD	2.88	0.61
2:O:599:VAL:CG2	2:O:623:LEU:HD21	2.31	0.61
2:O:967:LEU:O	2:O:971:LEU:HB2	1.99	0.61
3:P:140:TYR:O	3:P:141:PHE:HB2	2.00	0.61
2:C:76:GLY:HA3	2:C:95:PRO:HG2	1.82	0.61
2:C:395:TYR:CE2	2:C:420:LEU:HD21	2.35	0.61
3:D:1103:GLY:O	3:D:1104:LYS:HB2	2.00	0.61
1:H:28:LEU:HD13	1:H:29:GLU:N	2.15	0.61
2:I:541:GLU:OE1	6:4:52:DT:C4	2.53	0.61
2:I:845:LEU:O	2:I:889:PRO:HB2	2.01	0.61
3:J:27:PRO:HA	3:J:30:ILE:HD12	1.82	0.61
1:M:115:ILE:HD12	1:M:115:ILE:H	1.65	0.61
2:O:896:THR:CG2	2:O:898:GLU:HB2	2.31	0.61
4:Q:41:GLU:HA	4:Q:49:ILE:HD11	1.80	0.61
5:R:583:THR:HG21	5:R:586:ARG:HB3	1.81	0.61
3:D:271:ARG:HA	3:D:274:ASN:HD22	1.65	0.61
3:D:741:ALA:C	3:D:762:ASN:HD22	2.09	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:211:ILE:HD12	1:G:219:ARG:NH1	2.15	0.61
3:J:431:ARG:HG3	3:J:432:LEU:HD23	1.81	0.61
3:J:1080:ILE:CD1	3:J:1115:ILE:HD11	2.30	0.61
1:M:190:ALA:N	1:M:199:ASP:HA	2.14	0.61
3:P:377:PHE:O	3:P:381:ILE:HG13	2.01	0.61
3:P:1078:LEU:CD1	3:P:1121:LEU:HD22	2.30	0.61
3:P:1342:ASP:OD1	3:P:1344:LEU:HD23	1.99	0.61
1:A:47:LEU:HD13	1:A:183:ILE:CD1	2.21	0.61
2:C:496:LYS:CB	2:C:497:PRO:HD3	2.30	0.61
2:I:216:THR:O	2:I:220:ILE:HG13	2.01	0.61
3:J:1284:ARG:O	3:J:1287:ILE:HG22	2.01	0.61
2:O:303:ASP:OD1	2:O:328:SER:HB2	2.00	0.61
2:O:431:LYS:O	2:O:435:ILE:HG13	2.01	0.61
3:P:138:VAL:HG12	3:P:139:LEU:N	2.15	0.61
3:P:262:THR:HA	5:R:507:MET:SD	2.40	0.61
2:C:1217:THR:HG21	3:D:634:ARG:HH12	1.63	0.61
3:D:363:LEU:HD23	3:D:618:VAL:HG13	1.82	0.61
3:D:737:ILE:HG22	3:D:738:ARG:N	2.15	0.61
4:E:22:VAL:HG12	4:E:64:LEU:HD12	1.83	0.61
2:I:173:ASN:HA	2:I:186:PHE:O	2.01	0.61
2:I:790:ASP:HB2	2:I:795:ALA:HB2	1.83	0.61
2:I:906:PHE:HE1	5:L:607:LEU:HB3	1.66	0.61
2:I:1270:PHE:HB2	3:J:347:VAL:HG21	1.83	0.61
3:J:723:TYR:O	3:J:723:TYR:CD1	2.54	0.61
3:J:736:GLN:CA	3:J:736:GLN:HE21	2.13	0.61
3:J:1230:THR:HA	3:J:1233:ILE:CD1	2.31	0.61
2:O:76:GLY:HA3	2:O:95:PRO:HG2	1.83	0.61
3:P:514:THR:HG23	3:P:596:LEU:HD12	1.71	0.61
5:R:587:ILE:HD13	5:R:587:ILE:H	1.60	0.61
2:C:158:ASP:HB3	2:C:173:ASN:OD1	1.99	0.61
2:C:453:ILE:HD13	2:C:453:ILE:N	2.12	0.61
2:C:1246:ARG:NH2	2:C:1249:GLY:H	1.99	0.61
1:G:68:TYR:HE2	2:I:927:THR:HB	1.65	0.61
2:I:1004:ASP:CG	2:I:1008:GLN:CB	2.73	0.61
3:J:233:LYS:CG	3:J:234:PRO:HD2	2.30	0.61
3:J:255:LEU:HD22	3:J:256:ASP:N	2.13	0.61
2:O:267:ARG:HD3	2:O:268:ARG:N	2.15	0.61
2:O:292:ILE:HG21	2:O:322:LEU:HD21	1.83	0.61
3:P:111:THR:HG23	3:P:300:GLN:HG3	1.82	0.61
3:P:673:VAL:CG1	3:P:674:THR:O	2.47	0.61
1:B:33:ARG:H	1:B:198:LEU:HD12	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:168:ILE:CD1	3:P:867:GLN:HB3	2.31	0.61
3:J:399:LYS:NZ	5:L:611:LEU:HD23	2.16	0.61
3:J:427:PRO:HB3	7:5:12:DG:N2	2.16	0.61
2:O:1242:LYS:NZ	3:P:465:GLN:HE21	1.99	0.61
3:P:341:ASN:N	3:P:341:ASN:OD1	2.33	0.61
3:P:622:ASP:O	3:P:625:MET:HB3	2.01	0.61
2:C:452:ARG:HH22	2:C:458:GLU:CD	2.09	0.61
2:C:459:MET:HB3	2:C:505:PHE:CZ	2.36	0.61
2:C:975:ILE:O	2:C:979:LEU:HG	2.01	0.61
2:I:548:ARG:HH12	3:J:788:LEU:HG	1.66	0.61
2:C:427:ASP:O	2:C:430:LYS:HB2	2.01	0.60
2:C:520:PRO:O	2:C:524:ILE:HG13	2.01	0.60
2:C:617:ALA:HB2	2:C:636:CYS:SG	2.40	0.60
3:D:135:ILE:HG22	3:D:139:LEU:HD11	1.83	0.60
3:D:805:GLN:O	3:D:1347:LEU:HD11	2.00	0.60
3:D:1328:THR:O	3:D:1332:LEU:CG	2.41	0.60
5:F:519:LEU:HD12	5:F:522:PHE:HB3	1.83	0.60
2:I:182:SER:HA	2:I:183:TRP:CE3	2.36	0.60
2:I:720:ARG:HD2	2:I:736:VAL:HG21	1.83	0.60
3:J:609:TYR:CD1	3:J:609:TYR:C	2.79	0.60
3:J:796:LEU:HA	3:J:799:ARG:HE	1.66	0.60
3:J:1349:GLU:O	3:J:1353:VAL:HG13	2.01	0.60
1:N:26:VAL:CG1	1:N:28:LEU:HD23	2.31	0.60
3:P:481:ARG:O	3:P:485:MET:HB2	2.01	0.60
1:A:38:THR:CG2	1:B:42:ALA:HB1	2.31	0.60
2:C:230:PHE:CE1	2:C:292:ILE:HG12	2.36	0.60
2:C:522:SER:O	2:C:525:THR:HG22	2.00	0.60
2:C:642:SER:O	2:C:643:SER:HB3	2.01	0.60
2:C:1309:VAL:O	3:D:383:GLY:HA3	2.00	0.60
3:D:227:PHE:HE1	3:D:234:PRO:HD3	1.66	0.60
3:D:553:THR:HG23	3:D:567:THR:OG1	2.01	0.60
1:G:58:GLU:HB2	1:G:145:LYS:HB3	1.83	0.60
2:I:1261:GLY:HA2	7:5:16:DC:OP2	2.01	0.60
3:J:261:ALA:CB	5:L:519:LEU:HD21	2.31	0.60
3:J:1179:PRO:CD	3:J:1184:ASP:O	2.48	0.60
5:L:560:ARG:HA	5:L:565:ILE:HD12	1.83	0.60
2:O:898:GLU:OE2	5:R:565:ILE:HG23	2.01	0.60
3:P:271:ARG:O	3:P:275:ARG:HG3	2.00	0.60
1:A:35:PHE:HB3	1:A:39:LEU:HD11	1.83	0.60
2:C:709:ALA:O	2:C:712:SER:OG	2.19	0.60
2:C:975:ILE:HG22	2:C:979:LEU:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1012:GLU:HA	2:C:1015:ALA:HB3	1.83	0.60
3:D:501:VAL:HG13	3:D:502:PRO:HD2	1.82	0.60
3:D:614:LEU:O	3:D:618:VAL:HG23	2.02	0.60
3:D:828:GLY:O	3:D:994:SER:O	2.20	0.60
1:G:195:ARG:HH22	4:Q:66:VAL:HG23	1.65	0.60
1:G:232:VAL:HG22	1:H:221:ALA:HB3	1.69	0.60
2:I:1138:VAL:HG13	2:I:1169:VAL:HG11	1.82	0.60
3:J:79:LYS:HD2	5:L:569:THR:HG22	1.83	0.60
3:J:1281:GLU:HB3	3:J:1284:ARG:HG3	1.83	0.60
5:L:166:VAL:HG12	5:L:167:ASP:H	1.65	0.60
2:O:890:LYS:HG2	2:O:891:GLY:N	2.16	0.60
3:P:115:TRP:CZ3	3:P:1329:THR:HA	2.35	0.60
3:P:121:PRO:HG3	6:7:58:DG:OP1	2.01	0.60
3:P:1138:LEU:CB	3:P:1139:PRO:HD3	2.30	0.60
5:R:102:MET:HB3	6:7:42:DG:N2	2.16	0.60
2:C:325:LEU:CD1	2:C:333:ILE:HD11	2.31	0.60
2:C:1232:MET:HE2	2:C:1232:MET:CA	2.19	0.60
3:D:791:ALA:O	7:2:12:DG:H5"	2.02	0.60
4:E:13:ILE:HD12	4:E:19:LEU:HA	1.84	0.60
1:G:41:ASN:HD22	1:H:41:ASN:ND2	1.99	0.60
2:I:178:PRO:HA	2:I:397:LEU:HD21	1.82	0.60
2:I:565:GLU:O	2:I:567:PRO:HD2	2.01	0.60
3:J:115:TRP:O	3:J:119:SER:HB3	2.02	0.60
3:J:151:MET:HB3	3:J:153:ASN:HD22	1.64	0.60
3:J:350:SER:HB3	3:J:469:HIS:CE1	2.36	0.60
3:J:693:VAL:HG21	3:J:743:MET:HE1	1.84	0.60
3:J:823:THR:HB	3:J:824:PRO:CD	2.32	0.60
2:O:9:LYS:HE2	2:O:1171:ARG:HD2	1.84	0.60
2:O:30:ILE:HD12	2:O:30:ILE:H	1.64	0.60
3:P:620:PHE:O	3:P:624:ILE:CG1	2.43	0.60
5:R:322:MET:O	5:R:323:ASN:HB3	2.01	0.60
1:A:12:ARG:O	1:A:28:LEU:HD13	2.02	0.60
1:A:41:ASN:HD22	2:C:1218:GLY:HA3	1.65	0.60
2:C:57:PHE:HB3	2:C:58:PRO:HA	1.84	0.60
2:C:1296:ASP:N	2:C:1296:ASP:OD1	2.34	0.60
1:G:13:LEU:HA	1:G:28:LEU:CD2	2.31	0.60
2:I:10:ARG:HH12	2:I:790:ASP:CG	2.10	0.60
2:I:662:SER:OG	2:I:663:VAL:N	2.28	0.60
3:J:742:GLY:O	3:J:762:ASN:HB3	2.01	0.60
5:L:261:LEU:HD22	5:L:262:VAL:O	2.01	0.60
1:N:158:ARG:HD3	1:N:172:LEU:CD1	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:115:TRP:CZ3	3:P:1332:LEU:HD12	2.36	0.60
1:A:225:ALA:HA	1:A:228:LEU:CD1	2.27	0.60
2:C:10:ARG:CZ	2:C:697:LYS:CD	2.80	0.60
2:C:1275:VAL:O	2:C:1279:GLU:HG3	2.01	0.60
1:H:112:ALA:HB3	1:H:126:PRO:HA	1.83	0.60
2:I:732:ILE:HD11	2:I:769:PRO:CB	2.31	0.60
2:I:1113:LEU:HD21	3:J:641:ILE:HD13	1.81	0.60
3:J:245:LEU:CD1	3:J:249:LEU:HD12	2.32	0.60
3:J:1229:VAL:O	3:J:1233:ILE:HG13	2.02	0.60
3:P:1162:ILE:HG13	3:P:1180:VAL:HG13	1.82	0.60
2:C:230:PHE:CZ	2:C:292:ILE:HG12	2.37	0.60
2:C:452:ARG:O	2:C:453:ILE:HD13	2.01	0.60
2:C:525:THR:CG2	2:C:526:HIS:N	2.64	0.60
2:C:705:GLU:OE1	2:C:705:GLU:N	2.34	0.60
3:D:332:LYS:HZ1	3:D:1327:GLU:HA	1.66	0.60
3:D:555:TYR:CD1	3:D:585:LYS:HB3	2.37	0.60
3:D:1286:LYS:O	3:D:1289:ASN:HB2	2.02	0.60
4:E:6:VAL:HG11	4:E:51:LEU:HD22	1.83	0.60
1:G:228:LEU:HB3	1:H:224:LEU:HD21	1.82	0.60
2:I:495:ALA:HA	2:I:498:ILE:CD1	2.32	0.60
2:I:764:CYS:SG	2:I:764:CYS:O	2.59	0.60
2:I:1081:PRO:CB	2:I:1083:GLU:OE1	2.49	0.60
3:J:467:ALA:C	3:J:468:VAL:CG2	2.74	0.60
3:J:1287:ILE:HD13	3:J:1291:GLU:HG3	1.84	0.60
2:O:30:ILE:CD1	2:O:30:ILE:H	2.14	0.60
2:O:811:ASN:HB2	2:O:1099:ASN:HB2	1.84	0.60
2:O:950:GLU:HA	2:O:953:LEU:HD12	1.82	0.60
2:C:25:PRO:O	2:C:27:LEU:HD23	2.02	0.60
3:D:145:VAL:HA	3:D:158:GLN:O	2.01	0.60
3:D:1027:VAL:CG2	3:D:1124:ILE:HD11	2.32	0.60
5:F:431:ALA:O	5:F:435:ILE:HD12	2.02	0.60
2:I:726:TYR:HB3	2:I:733:VAL:CG2	2.31	0.60
4:K:61:ASN:HA	4:K:64:LEU:HD12	1.83	0.60
2:O:59:ILE:HG23	2:O:476:LYS:CE	2.22	0.60
2:O:1247:SER:OG	2:O:1248:THR:N	2.34	0.60
3:P:796:LEU:O	3:P:800:LEU:HG	2.02	0.60
3:D:382:TYR:HE1	3:D:398:LYS:N	2.00	0.60
3:D:530:PRO:HD2	3:D:531:LYS:HZ1	1.66	0.60
2:I:94:ALA:CB	2:I:129:LEU:HD11	2.31	0.60
2:I:646:SER:O	2:I:650:VAL:HG23	2.02	0.60
2:I:770:CYS:HB3	2:I:791:LEU:HD22	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:24:LEU:HD11	3:J:237:MET:SD	2.42	0.60
3:J:530:PRO:HB2	3:J:581:MET:HG3	1.84	0.60
3:J:645:VAL:CG2	3:J:700:ASN:ND2	2.65	0.60
3:J:1241:TYR:H	3:J:1241:TYR:HD2	1.48	0.60
5:L:309:ASN:OD1	5:L:312:SER:HB3	2.01	0.60
2:O:800:MET:HE2	2:O:1095:ASP:OD2	2.01	0.60
2:O:956:ALA:O	2:O:960:LEU:HG	2.02	0.60
3:P:869:CYS:HA	3:P:872:LEU:CD1	2.28	0.60
3:P:1145:PHE:HB3	3:P:1309:ILE:CD1	2.25	0.60
1:B:43:LEU:C	1:B:47:LEU:HD12	2.27	0.60
1:B:47:LEU:HD13	1:B:183:ILE:HD11	1.77	0.60
2:C:757:THR:HG22	2:C:758:ARG:H	1.67	0.60
3:D:436:ALA:O	3:D:485:MET:SD	2.60	0.60
3:D:527:LEU:HD13	3:D:532:GLU:HB3	1.84	0.60
2:I:1339:LEU:H	2:I:1339:LEU:CD1	2.14	0.60
3:J:766:GLY:C	3:J:767:LEU:HD23	2.26	0.60
2:O:514:PHE:CZ	7:8:18:DT:O2	2.55	0.60
2:O:1289:GLU:OE2	3:P:472:LEU:HB2	2.02	0.60
3:P:502:PRO:HB3	3:P:506:VAL:CG1	2.19	0.60
3:P:620:PHE:CD2	3:P:624:ILE:HD11	2.37	0.60
3:P:708:ASN:ND2	3:P:711:GLY:O	2.35	0.60
5:R:364:ARG:O	5:R:367:ILE:HB	2.02	0.60
2:C:516:ASP:HB3	2:C:522:SER:OG	2.02	0.59
3:D:1319:PHE:CE2	3:D:1342:ASP:HB2	2.37	0.59
1:G:46:ILE:HD12	1:G:224:LEU:HB2	1.84	0.59
2:I:690:VAL:HG12	2:I:691:PRO:HD2	1.84	0.59
2:I:1313:HIS:NE2	3:J:380:PHE:CE1	2.68	0.59
3:J:20:ILE:HD12	3:J:20:ILE:H	1.66	0.59
3:J:262:THR:C	5:L:507:MET:HB2	2.27	0.59
4:K:26:ARG:CZ	4:K:30:MET:HG2	2.32	0.59
3:P:115:TRP:CH2	3:P:1332:LEU:HD12	2.36	0.59
2:C:515:MET:SD	2:C:523:GLU:CG	2.90	0.59
2:C:1315:MET:HB2	3:D:473:THR:HG21	1.82	0.59
3:D:36:GLY:HA3	3:D:61:ILE:HG12	1.84	0.59
3:D:478:LEU:HD11	4:E:24:ALA:HB2	1.84	0.59
2:I:375:PRO:HB3	5:L:87:VAL:HG21	1.84	0.59
2:I:575:LEU:HD11	2:I:579:ALA:CB	2.28	0.59
2:I:804:PHE:O	3:J:638:SER:HB3	2.03	0.59
2:I:1273:MET:CG	7:5:13:DA:C4'	2.80	0.59
2:I:1330:ILE:HG22	2:I:1335:ILE:HB	1.83	0.59
3:J:53:ARG:O	3:J:58:CYS:HB2	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:165:TYR:O	3:J:169:LEU:N	2.33	0.59
3:J:475:GLU:HG3	4:K:24:ALA:CB	2.31	0.59
3:J:475:GLU:HA	3:J:478:LEU:HD12	1.84	0.59
5:L:105:MET:CE	5:L:385:ARG:HG2	2.31	0.59
3:P:661:VAL:CG2	3:P:685:ILE:HG21	2.30	0.59
3:P:885:VAL:HG11	3:P:1255:VAL:HA	1.83	0.59
3:P:1357:ILE:O	3:P:1362:GLY:HA3	2.00	0.59
2:C:1281:TYR:CE1	3:D:431:ARG:HD2	2.38	0.59
3:D:126:LEU:HD23	3:D:216:LYS:HZ2	1.67	0.59
2:I:303:ASP:OD1	2:I:328:SER:HB3	2.02	0.59
2:I:724:VAL:HG23	2:I:775:GLU:O	2.03	0.59
5:L:119:ILE:HD12	5:L:119:ILE:N	2.16	0.59
2:O:478:ARG:HG2	2:O:481:LEU:HD22	1.84	0.59
2:O:964:LEU:CD1	2:O:1021:LEU:HD22	2.32	0.59
1:B:91:ARG:HH12	1:B:210:THR:HG22	1.66	0.59
1:B:130:ILE:HG22	1:B:131:CYS:SG	2.42	0.59
2:C:618:GLN:HA	2:C:654:ASP:OD2	2.03	0.59
3:D:704:GLU:O	3:D:704:GLU:CG	2.50	0.59
4:E:31:GLN:OE1	4:E:46:THR:HG21	2.02	0.59
2:I:240:GLU:HG3	2:I:284:LEU:HD21	1.84	0.59
2:I:542:ARG:CD	6:4:51:DC:OP2	2.50	0.59
3:J:233:LYS:HG3	3:J:234:PRO:HD2	1.82	0.59
2:O:1219:GLU:OE1	3:P:634:ARG:NH1	2.35	0.59
1:A:162:GLU:OE1	1:A:166:ARG:NH1	2.35	0.59
2:C:363:LEU:HD23	2:C:366:ILE:HD12	1.84	0.59
2:C:1293:VAL:HG12	2:C:1300:GLY:C	2.27	0.59
3:D:276:ASN:OD1	3:D:279:LEU:HD23	2.02	0.59
3:D:1319:PHE:CZ	3:D:1342:ASP:HB2	2.38	0.59
2:I:422:LYS:O	2:I:426:ILE:HG13	2.02	0.59
3:J:237:MET:C	3:J:238:ILE:HD13	2.27	0.59
2:O:596:ASP:OD1	2:O:596:ASP:N	2.35	0.59
2:O:1131:MET:HE2	2:O:1141:LEU:HD23	1.84	0.59
3:P:130:MET:HG2	3:P:135:ILE:HG12	1.84	0.59
3:P:1280:VAL:HG12	3:P:1281:GLU:N	2.17	0.59
4:Q:26:ARG:O	4:Q:30:MET:HG3	2.02	0.59
5:R:130:VAL:HG13	5:R:365:MET:HG2	1.83	0.59
3:D:70:CYS:HB3	3:D:92:VAL:HG22	1.84	0.59
7:2:31:DT:H2''	7:2:32:DA:OP2	2.03	0.59
2:I:13:LYS:O	2:I:1182:ILE:HG22	2.01	0.59
2:I:122:VAL:HG13	2:I:490:GLN:HG3	1.84	0.59
2:I:178:PRO:HB3	2:I:395:TYR:CE1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:367:TYR:CD1	2:I:384:LEU:HD22	2.37	0.59
2:I:1294:LYS:HD3	3:J:347:VAL:CG1	2.30	0.59
3:J:673:VAL:HG11	3:J:678:ARG:CG	2.32	0.59
2:O:933:VAL:O	2:O:934:PHE:CD1	2.56	0.59
2:O:1299:ASN:OD1	2:O:1299:ASN:N	2.34	0.59
1:A:97:GLU:HG3	1:A:147:GLN:HG2	1.84	0.59
2:C:176:ILE:O	2:C:176:ILE:HG22	2.03	0.59
2:C:176:ILE:HB	2:C:184:LEU:HB2	1.83	0.59
2:C:335:THR:CG2	2:C:336:LEU:N	2.66	0.59
2:C:500:ALA:O	2:C:504:GLU:HG2	2.02	0.59
2:C:761:GLN:O	2:C:762:ASN:HB2	2.03	0.59
1:H:106:GLY:HA2	1:H:136:GLU:HA	1.85	0.59
2:I:205:PRO:O	2:I:208:ILE:HG22	2.02	0.59
3:J:227:PHE:CD1	3:J:232:ASN:O	2.55	0.59
3:J:572:THR:OG1	3:J:576:ARG:HB2	2.02	0.59
3:J:811:GLU:O	3:J:895:CYS:HA	2.02	0.59
3:J:828:GLY:O	3:J:994:SER:O	2.21	0.59
5:L:276:MET:O	5:L:280:VAL:HG23	2.01	0.59
1:M:179:PRO:HA	1:M:208:ASN:ND2	2.18	0.59
2:O:950:GLU:C	2:O:950:GLU:CD	2.70	0.59
2:O:1261:GLY:CA	7:8:16:DC:P	2.90	0.59
3:P:115:TRP:O	3:P:119:SER:HB3	2.02	0.59
3:P:173:GLY:O	3:P:175:GLU:N	2.36	0.59
1:A:12:ARG:O	1:A:28:LEU:CD1	2.50	0.59
1:B:16:ILE:HA	1:B:26:VAL:HG22	1.85	0.59
3:D:481:ARG:O	3:D:485:MET:HB2	2.02	0.59
3:D:1353:VAL:HG21	3:D:1355:ARG:HD2	1.85	0.59
5:F:454:VAL:O	5:F:457:ILE:HB	2.03	0.59
5:F:520:GLY:HA2	5:F:523:ILE:CD1	2.33	0.59
2:I:268:ARG:HH22	3:J:1048:ARG:HD2	1.65	0.59
2:I:297:VAL:HG22	2:I:315:MET:N	2.17	0.59
2:I:794:LEU:HD21	2:I:796:LEU:HD21	1.83	0.59
2:I:1275:VAL:HG12	2:I:1279:GLU:CD	2.27	0.59
3:J:115:TRP:CE3	3:J:1333:THR:HG23	2.37	0.59
7:5:41:DG:H2"	7:5:42:DG:C8	2.38	0.59
2:O:65:ASN:OD1	2:O:66:SER:N	2.35	0.59
1:A:33:ARG:NH2	1:B:49:SER:HB2	2.17	0.59
1:B:86:LYS:CE	1:B:173:VAL:HG12	2.33	0.59
2:C:292:ILE:HG22	2:C:317:LEU:HD13	1.83	0.59
2:C:672:GLU:H	2:C:672:GLU:CD	2.10	0.59
1:G:35:PHE:HB3	1:G:39:LEU:HD11	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1138:VAL:CG1	2:I:1169:VAL:HG11	2.33	0.59
1:M:67:GLU:O	1:M:78:ILE:HB	2.02	0.59
2:O:209:ILE:CG2	2:O:210:LEU:N	2.65	0.59
2:O:595:THR:CG2	2:O:596:ASP:OD1	2.49	0.59
2:O:1269:ARG:N	7:8:15:DT:OP1	2.35	0.59
5:R:133:SER:HB3	5:R:365:MET:SD	2.42	0.59
5:R:262:VAL:HG13	5:R:263:PRO:HD3	1.83	0.59
5:R:295:CYS:SG	5:R:330:LEU:HD11	2.43	0.59
5:R:460:ILE:O	5:R:463:LEU:HG	2.02	0.59
1:A:234:LEU:HD23	1:B:13:LEU:HD23	1.85	0.59
3:D:736:GLN:O	3:D:740:LEU:CG	2.46	0.59
1:G:153:VAL:HG13	1:G:157:THR:CB	2.32	0.59
2:I:209:ILE:HG23	2:I:210:LEU:H	1.66	0.59
2:I:690:VAL:CG1	2:I:691:PRO:HD2	2.33	0.59
2:I:1270:PHE:CD2	2:I:1274:GLU:HB3	2.38	0.59
3:J:79:LYS:HD2	5:L:569:THR:CG2	2.32	0.59
3:J:115:TRP:HE3	3:J:1333:THR:HG23	1.68	0.59
3:J:268:LEU:HB2	3:J:306:LEU:HD13	1.85	0.59
3:J:342:LEU:HD22	3:J:1352:ILE:CG2	2.33	0.59
3:J:357:VAL:HG22	3:J:461:PHE:CZ	2.37	0.59
3:J:849:LEU:HD22	3:J:856:ILE:C	2.27	0.59
8:6:13:GTP:N2	8:6:14:A:C4	2.71	0.59
2:O:811:ASN:HD22	2:O:1099:ASN:CA	2.14	0.59
3:P:502:PRO:CB	3:P:506:VAL:HG11	2.20	0.59
5:R:548:LEU:HD22	5:R:560:ARG:HE	1.68	0.59
1:A:45:ARG:NH1	2:C:1215:GLY:O	2.34	0.58
1:A:192:VAL:CG2	1:A:198:LEU:HD12	2.14	0.58
2:C:942:ASP:O	2:C:945:ALA:HB3	2.02	0.58
5:F:297:MET:HE3	5:F:326:TRP:CZ3	2.28	0.58
5:F:574:GLU:OE1	5:F:584:ARG:HG2	2.03	0.58
2:I:13:LYS:HB3	2:I:1182:ILE:HG23	1.85	0.58
2:I:163:LYS:CD	2:I:171:LEU:HD12	2.32	0.58
2:I:838:CYS:SG	2:I:886:LYS:HE2	2.41	0.58
1:M:104:LYS:HE3	1:M:114:ASP:OD2	2.02	0.58
2:O:878:THR:HA	2:O:925:SER:HB2	1.84	0.58
2:O:1288:GLN:NE2	2:O:1317:PRO:HG3	2.18	0.58
3:P:601:ILE:HG22	3:P:602:SER:N	2.17	0.58
4:Q:50:ALA:O	4:Q:54:ILE:HD12	2.02	0.58
1:A:32:GLU:HG2	1:A:33:ARG:H	1.67	0.58
5:F:167:ASP:N	5:F:168:PRO:HD3	2.18	0.58
8:3:14:A:O2'	8:3:15:G:H5'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1281:TYR:CE2	3:J:431:ARG:O	2.56	0.58
3:J:378:LYS:N	3:J:379:PRO:HD2	2.18	0.58
1:M:210:THR:HG22	1:M:211:ILE:HD13	1.85	0.58
2:O:897:PRO:C	5:R:565:ILE:HD11	2.28	0.58
2:O:1262:LYS:N	7:8:16:DC:OP1	2.36	0.58
2:O:1322:SER:C	2:O:1325:VAL:HB	2.27	0.58
3:P:1323:ALA:HB2	3:P:1331:VAL:HG11	1.84	0.58
6:7:46:DG:H3'	6:7:47:DC:H5''	1.84	0.58
2:C:901:LEU:O	2:C:905:ILE:HG13	2.03	0.58
3:D:805:GLN:HB2	3:D:1347:LEU:CG	2.33	0.58
3:D:1280:VAL:CG1	3:D:1281:GLU:N	2.65	0.58
3:J:580:TRP:CE3	3:J:583:VAL:HG21	2.38	0.58
2:O:209:ILE:HG23	2:O:210:LEU:H	1.69	0.58
2:O:886:LYS:H	2:O:917:SER:HG	1.48	0.58
2:O:1061:GLN:HB2	2:O:1062:PRO:CD	2.34	0.58
3:P:247:PRO:HA	3:P:250:ARG:CZ	2.33	0.58
3:P:615:LYS:HB2	3:P:616:PRO:HD3	1.85	0.58
5:R:306:PHE:CE2	5:R:310:GLU:HG2	2.38	0.58
1:A:224:LEU:HG	1:A:225:ALA:CA	2.29	0.58
2:C:179:TYR:HB3	2:C:396:ASP:O	2.04	0.58
2:C:807:TRP:HZ3	2:C:1086:PRO:CG	2.15	0.58
2:C:871:VAL:CG2	2:C:883:LEU:O	2.51	0.58
3:D:1101:LEU:CD2	3:D:1122:ALA:CB	2.80	0.58
3:D:1190:ILE:HD13	3:D:1196:LEU:HD21	1.85	0.58
1:H:39:LEU:O	1:H:43:LEU:CD2	2.52	0.58
3:J:955:LYS:HG2	3:J:956:GLY:N	2.18	0.58
5:L:407:GLU:HG2	5:L:442:SER:HB3	1.84	0.58
1:M:47:LEU:O	1:M:51:MET:CB	2.51	0.58
1:M:51:MET:CE	1:M:52:PRO:HD2	2.34	0.58
2:O:1296:ASP:HB3	2:O:1321:GLU:N	2.18	0.58
1:B:13:LEU:HA	1:B:28:LEU:CD2	2.30	0.58
1:B:27:THR:HG22	1:B:202:VAL:HG13	1.86	0.58
2:C:575:LEU:HD11	2:C:579:ALA:CB	2.20	0.58
2:C:971:LEU:CD1	2:C:1014:LEU:HD13	2.33	0.58
3:D:423:LEU:HD12	3:D:437:PHE:CD1	2.39	0.58
3:D:531:LYS:H	3:D:531:LYS:CD	2.00	0.58
6:1:44:DG:H2'	6:1:45:DT:O4'	2.04	0.58
2:I:90:VAL:HG12	2:I:91:THR:N	2.17	0.58
2:I:912:ASP:O	2:I:913:VAL:CG2	2.47	0.58
2:I:1183:ALA:O	2:I:1185:PRO:HD3	2.03	0.58
2:I:1286:THR:HG23	3:J:479:GLU:OE2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:553:THR:HA	3:J:566:LYS:O	2.04	0.58
3:P:351:GLY:O	3:P:468:VAL:HG23	2.03	0.58
3:P:931:THR:O	3:P:935:PHE:CD2	2.56	0.58
1:A:38:THR:HB	1:A:39:LEU:HD21	1.85	0.58
1:A:57:THR:O	1:A:172:LEU:HD12	2.03	0.58
3:D:580:TRP:CZ3	3:D:583:VAL:HG11	2.38	0.58
3:D:706:VAL:HG12	3:D:713:GLU:OE1	2.04	0.58
3:D:725:MET:HE3	3:D:731:ARG:HB3	1.83	0.58
3:D:771:GLN:HA	3:D:774:ILE:HD11	1.84	0.58
3:D:1132:LYS:CG	3:D:1243:LEU:HD21	2.33	0.58
1:H:112:ALA:HB1	1:H:123:ILE:HG21	1.84	0.58
2:I:149:LEU:HA	2:I:453:ILE:HD13	1.86	0.58
2:I:1042:LEU:HD13	2:I:1049:ILE:HD11	1.84	0.58
3:J:349:TYR:O	3:J:470:VAL:HG23	2.04	0.58
3:J:580:TRP:HA	3:J:583:VAL:HG21	1.84	0.58
3:J:673:VAL:HG13	3:J:674:THR:O	2.04	0.58
1:M:179:PRO:CA	1:M:208:ASN:HD21	2.17	0.58
1:M:208:ASN:C	1:M:210:THR:H	2.10	0.58
1:B:15:ASP:O	1:B:26:VAL:HG13	2.03	0.58
1:B:38:THR:C	1:B:39:LEU:HD23	2.26	0.58
1:B:58:GLU:HG2	1:B:172:LEU:HA	1.85	0.58
1:B:61:ILE:CD1	1:B:171:LEU:HD12	2.32	0.58
2:C:279:LYS:NZ	5:L:486:ARG:HH22	2.01	0.58
2:C:540:ARG:NH1	2:C:567:PRO:HB2	2.18	0.58
2:C:674:ASP:O	3:D:772:TYR:OH	2.17	0.58
2:C:804:PHE:O	2:C:805:MET:HB3	2.03	0.58
3:D:260:PHE:O	5:F:505:ILE:HB	2.04	0.58
3:D:1229:VAL:O	3:D:1233:ILE:CG1	2.49	0.58
3:D:1267:VAL:O	3:D:1268:ASN:CB	2.47	0.58
3:D:1318:SER:HA	3:D:1342:ASP:OD2	2.02	0.58
2:I:15:PHE:O	2:I:17:LYS:HD2	2.04	0.58
2:I:186:PHE:CE2	2:I:196:VAL:HG13	2.38	0.58
2:I:801:ARG:HG2	2:I:1229:TYR:CE2	2.39	0.58
3:J:423:LEU:HB3	3:J:466:MET:HE1	1.85	0.58
3:J:615:LYS:N	3:J:616:PRO:CD	2.67	0.58
3:J:825:VAL:HG22	3:J:838:ARG:HH11	1.68	0.58
3:J:1310:THR:O	3:J:1314:LEU:HG	2.03	0.58
5:L:102:MET:HB3	6:4:42:DG:N2	2.18	0.58
5:L:585:GLU:CG	7:5:47:DC:H41	2.17	0.58
1:N:84:ASN:OD1	3:P:551:ARG:NH2	2.33	0.58
2:O:292:ILE:HG21	2:O:322:LEU:HD11	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:15:GLU:O	3:P:15:GLU:HG2	2.03	0.58
5:R:302:PHE:CZ	5:R:306:PHE:HB2	2.38	0.58
2:C:1061:GLN:HB2	2:C:1062:PRO:CD	2.31	0.58
3:D:1291:GLU:O	3:D:1295:ASN:ND2	2.37	0.58
1:G:190:ALA:HB2	1:G:200:LYS:N	2.18	0.58
2:I:859:GLU:HA	2:I:862:LEU:HB2	1.86	0.58
3:J:68:TYR:HA	3:J:92:VAL:HG12	1.86	0.58
3:J:205:LEU:HD21	3:J:214:ARG:CG	2.33	0.58
3:J:795:TYR:O	3:J:799:ARG:HG3	2.03	0.58
3:J:803:VAL:CG2	3:J:1313:SER:OG	2.51	0.58
4:K:61:ASN:HA	4:K:64:LEU:CD1	2.34	0.58
5:L:407:GLU:HG2	5:L:442:SER:CB	2.34	0.58
1:M:61:ILE:HG12	1:M:142:MET:CE	2.33	0.58
1:M:179:PRO:CB	1:M:208:ASN:HD21	2.17	0.58
2:O:525:THR:O	2:O:528:ARG:HG3	2.03	0.58
2:O:1314:GLN:HE21	2:O:1316:GLU:HG3	1.68	0.58
3:P:1145:PHE:HE1	3:P:1256:ILE:HD13	1.65	0.58
3:P:1280:VAL:HG12	3:P:1281:GLU:H	1.68	0.58
2:C:21:VAL:HG21	2:C:592:ARG:NH1	2.19	0.58
2:C:1111:GLN:HG3	2:C:1112:ILE:HD12	1.85	0.58
3:D:1159:ILE:HG22	3:D:1160:SER:H	1.68	0.58
2:I:926:GLY:HA3	2:I:1056:VAL:HG22	1.86	0.58
3:J:275:ARG:NH2	3:J:301:GLU:OE1	2.37	0.58
1:N:19:VAL:HG12	1:N:20:SER:N	2.18	0.58
3:P:429:LEU:HB2	3:P:430:HIS:ND1	2.19	0.58
3:P:762:ASN:ND2	3:P:764:ARG:HB3	2.18	0.58
1:B:15:ASP:HB3	1:B:27:THR:HG1	1.69	0.58
2:C:349:GLU:OE1	2:C:349:GLU:HA	2.03	0.58
2:C:1284:ALA:HB1	3:D:1356:LEU:HD23	1.86	0.58
3:D:1062:LEU:HD22	3:D:1066:GLU:OE2	2.03	0.58
1:H:44:ARG:NH1	3:J:538:ARG:HB3	2.18	0.58
1:H:217:ILE:HD12	1:H:217:ILE:N	2.17	0.58
1:H:223:ILE:O	1:H:227:GLN:HG2	2.03	0.58
2:I:362:ALA:O	2:I:366:ILE:HG13	2.03	0.58
2:I:1286:THR:CG2	3:J:479:GLU:OE2	2.52	0.58
3:J:421:VAL:HG13	3:J:471:PRO:CD	2.33	0.58
2:O:759:SER:HB3	2:O:765:ILE:CG1	2.34	0.58
3:P:53:ARG:O	3:P:58:CYS:HB2	2.04	0.58
3:P:54:ASP:OD1	3:P:60:ARG:NH1	2.37	0.58
3:P:102:MET:HG2	3:P:246:PRO:HD3	1.84	0.58
3:P:682:VAL:HG13	3:P:686:TRP:NE1	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:828:GLY:O	3:P:994:SER:O	2.20	0.58
3:P:846:GLU:N	3:P:860:ARG:HG2	2.18	0.58
3:P:984:LEU:HB3	3:P:993:GLU:HB2	1.86	0.58
5:R:585:GLU:OE2	5:R:588:ARG:HG2	2.02	0.58
3:D:234:PRO:O	3:D:237:MET:HG3	2.02	0.57
1:H:61:ILE:HB	1:H:64:VAL:HB	1.86	0.57
2:I:991:LYS:HD2	2:I:991:LYS:N	2.19	0.57
3:J:113:HIS:CD2	3:J:115:TRP:HB2	2.39	0.57
3:J:146:VAL:HG21	3:J:158:GLN:CB	2.34	0.57
3:J:1133:ASP:OD1	3:J:1134:ILE:N	2.37	0.57
3:J:1320:ILE:HD12	3:J:1344:LEU:CD2	2.33	0.57
5:L:446:GLN:O	5:L:448:ARG:N	2.37	0.57
1:M:48:LEU:CD2	1:M:183:ILE:HG22	2.31	0.57
1:M:74:VAL:CG1	1:M:131:CYS:SG	2.92	0.57
1:N:13:LEU:HD13	1:N:26:VAL:HG13	1.86	0.57
2:O:96:LEU:HD23	2:O:124:MET:HB2	1.86	0.57
2:O:267:ARG:HD3	2:O:268:ARG:H	1.68	0.57
2:O:448:LEU:HD12	2:O:557:ARG:HD2	1.85	0.57
3:P:138:VAL:HG12	3:P:139:LEU:CG	2.32	0.57
3:P:242:LEU:HD12	3:P:243:PRO:CD	2.34	0.57
3:P:773:PHE:HD2	3:P:774:ILE:HG12	1.69	0.57
1:A:174:ASP:CG	2:C:1059:ARG:HH22	2.12	0.57
2:C:1309:VAL:HG13	3:D:383:GLY:N	2.18	0.57
3:D:318:GLY:CA	3:D:322:ARG:HH12	2.10	0.57
3:D:1134:ILE:HG22	3:D:1138:LEU:HG	1.84	0.57
5:F:470:MET:HE1	5:F:482:GLU:OE2	2.04	0.57
7:2:29:DC:H2"	7:2:30:DA:C8	2.39	0.57
2:I:130:MET:SD	2:I:134:GLY:HA2	2.44	0.57
2:I:390:PHE:CD2	2:I:390:PHE:N	2.71	0.57
3:J:797:THR:HG21	3:J:924:GLY:HA3	1.84	0.57
5:L:381:GLU:O	5:L:384:LEU:CG	2.50	0.57
5:R:458:GLU:OE2	7:8:28:DG:C8	2.57	0.57
1:B:102:LEU:HD12	1:B:103:ASN:N	2.19	0.57
3:D:166:LEU:O	3:D:170:GLU:HG3	2.04	0.57
3:D:378:LYS:HB3	3:D:379:PRO:HD3	1.86	0.57
3:D:424:ASN:C	3:D:466:MET:HE3	2.29	0.57
3:D:501:VAL:CG1	3:D:502:PRO:HD2	2.35	0.57
3:D:931:THR:O	3:D:935:PHE:CD2	2.57	0.57
3:D:946:ALA:C	3:D:948:SER:N	2.62	0.57
3:D:1362:GLY:O	3:D:1366:HIS:CB	2.50	0.57
2:I:178:PRO:CB	2:I:395:TYR:CE1	2.88	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:798:GLN:CB	2:I:828:PHE:CZ	2.85	0.57
2:I:813:GLU:O	3:J:461:PHE:HB2	2.04	0.57
3:J:968:ASN:HA	3:J:1117:SER:O	2.04	0.57
1:N:61:ILE:HA	1:N:142:MET:CB	2.32	0.57
2:O:146:VAL:CG1	2:O:529:ARG:O	2.52	0.57
2:O:1244:HIS:N	3:P:372:MET:HE2	2.18	0.57
3:P:248:ASP:O	3:P:251:PRO:HG3	2.04	0.57
3:P:483:LEU:HD11	4:Q:17:PHE:CD1	2.38	0.57
5:R:423:ARG:HB3	5:R:425:TYR:HD2	1.68	0.57
1:B:230:ALA:HB3	1:B:231:PHE:CZ	2.39	0.57
2:C:1116:HIS:HE1	2:C:1226:THR:HG23	1.68	0.57
2:C:1286:THR:O	2:C:1290:MET:HG2	2.04	0.57
3:D:363:LEU:HD21	3:D:487:THR:HA	1.86	0.57
3:D:502:PRO:HG2	3:D:601:ILE:HD13	1.84	0.57
3:D:621:ALA:CA	3:D:624:ILE:HD12	2.32	0.57
3:D:932:MET:SD	8:3:17:C:C2	2.97	0.57
3:D:1109:LEU:HD22	3:D:1113:VAL:HG21	1.87	0.57
3:D:1327:GLU:O	3:D:1331:VAL:HG23	2.05	0.57
5:F:105:MET:HE3	5:F:105:MET:C	2.30	0.57
2:I:674:ASP:O	3:J:772:TYR:OH	2.14	0.57
2:I:1315:MET:HE2	3:J:473:THR:HG21	1.85	0.57
3:J:36:GLY:HA3	3:J:61:ILE:HD13	1.85	0.57
3:J:557:LYS:HA	3:J:562:GLU:O	2.04	0.57
3:J:600:ALA:O	3:J:604:MET:HG3	2.04	0.57
3:J:612:LEU:HD22	3:J:616:PRO:HG2	1.86	0.57
3:J:1272:SER:HB2	3:J:1274:PHE:HE2	1.64	0.57
6:4:55:DC:H2"	6:4:56:DG:C8	2.39	0.57
1:N:65:LEU:O	1:N:171:LEU:HD21	2.04	0.57
1:A:227:GLN:O	1:A:231:PHE:CE1	2.56	0.57
1:B:33:ARG:O	1:B:35:PHE:CD2	2.57	0.57
2:C:92:TYR:CB	2:C:137:VAL:HG21	2.34	0.57
2:C:653:MET:HG2	2:C:654:ASP:N	2.19	0.57
3:D:399:LYS:HE3	5:F:612:ASP:CB	2.34	0.57
1:G:44:ARG:CA	1:G:47:LEU:HD12	2.19	0.57
1:H:162:GLU:O	1:H:162:GLU:CG	2.49	0.57
2:I:558:VAL:HG11	2:I:573:ASN:HB3	1.86	0.57
2:I:705:GLU:N	2:I:705:GLU:OE1	2.36	0.57
2:I:734:ILE:HG21	2:I:751:TYR:HE2	1.68	0.57
3:J:665:GLN:HE21	3:J:682:VAL:HG21	1.69	0.57
5:L:297:MET:HE3	5:L:326:TRP:CZ3	2.39	0.57
3:P:1075:ARG:HG3	3:P:1192:LYS:CB	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:429:THR:HA	6:7:40:DA:N7	2.20	0.57
5:R:573:LEU:HB3	7:8:45:DG:OP2	2.04	0.57
2:C:279:LYS:HZ3	5:L:486:ARG:HH22	1.52	0.57
2:C:796:LEU:HB2	2:C:1233:LEU:HD11	1.85	0.57
3:D:933:ARG:HH11	3:D:937:ILE:HD11	1.70	0.57
4:E:44:ASP:HB3	4:E:48:VAL:HB	1.85	0.57
2:I:517:GLN:H	2:I:761:GLN:HE22	1.52	0.57
2:I:953:LEU:HD22	2:I:957:LYS:HZ1	1.67	0.57
2:I:960:LEU:HB3	2:I:1025:PHE:HE1	1.70	0.57
3:P:416:ILE:CD1	3:P:441:LEU:HG	2.35	0.57
3:P:1259:GLN:NE2	3:P:1259:GLN:HA	2.14	0.57
5:R:386:LEU:HD22	6:7:41:DT:C2	2.39	0.57
5:R:395:THR:HA	5:R:404:LEU:HD13	1.87	0.57
2:C:832:HIS:HB2	2:C:1056:VAL:HB	1.85	0.57
3:D:348:ASP:HB3	3:D:349:TYR:CD2	2.40	0.57
6:1:22:DC:H2''	6:1:23:DA:OP2	2.04	0.57
6:1:45:DT:C2'	6:1:46:DG:O4'	2.51	0.57
3:J:795:TYR:CE2	3:J:799:ARG:NH1	2.73	0.57
1:M:68:TYR:O	2:O:756:TYR:CD2	2.58	0.57
2:O:1304:MET:O	2:O:1308:ILE:HG13	2.05	0.57
4:Q:13:ILE:HD13	4:Q:19:LEU:HA	1.86	0.57
1:A:57:THR:HG22	1:A:58:GLU:HG3	1.86	0.57
2:C:757:THR:CG2	2:C:758:ARG:H	2.16	0.57
2:C:1087:TYR:HD2	2:C:1088:ASP:O	1.88	0.57
2:C:1268:GLN:HE22	3:D:351:GLY:N	2.03	0.57
3:D:1263:LYS:HD3	3:D:1281:GLU:CA	2.29	0.57
5:F:91:ILE:HG23	5:F:94:THR:H	1.69	0.57
1:H:43:LEU:C	1:H:47:LEU:CD1	2.68	0.57
1:H:61:ILE:CD1	1:H:171:LEU:HD12	2.35	0.57
2:I:550:VAL:HG21	3:J:776:THR:HG22	1.87	0.57
1:M:88:LEU:HD21	1:M:112:ALA:HB2	1.86	0.57
2:O:675:ASP:CB	2:O:1107:MET:HE2	2.35	0.57
3:P:74:LYS:HZ3	3:P:87:LYS:HB2	1.69	0.57
3:P:259:ARG:HD3	5:R:502:LYS:HG2	1.86	0.57
3:P:1360:GLY:HA2	4:Q:17:PHE:CE2	2.40	0.57
5:R:237:ALA:O	5:R:238:LYS:HB2	2.05	0.57
5:R:459:THR:O	5:R:463:LEU:HD21	2.05	0.57
2:C:217:THR:O	2:C:220:ILE:HB	2.04	0.57
3:D:1018:ALA:O	3:D:1019:ASN:HB2	2.05	0.57
5:F:235:ILE:O	5:F:239:GLY:O	2.22	0.57
5:F:592:ALA:HA	5:F:595:LEU:HD12	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:223:LEU:HD13	2:I:426:ILE:HG21	1.85	0.57
2:I:732:ILE:CD1	2:I:769:PRO:HB3	2.34	0.57
2:I:1270:PHE:CE2	2:I:1274:GLU:HB3	2.39	0.57
3:J:820:ILE:O	3:J:882:VAL:HG12	2.04	0.57
1:M:226:GLU:O	1:M:229:GLU:HB2	2.05	0.57
2:O:358:ASP:OD1	2:O:358:ASP:N	2.36	0.57
2:O:590:PRO:HB2	2:O:655:VAL:HG21	1.86	0.57
2:O:759:SER:OG	2:O:763:THR:OG1	2.18	0.57
3:P:142:GLU:OE1	5:R:91:ILE:HG21	2.05	0.57
3:P:363:LEU:HD23	3:P:618:VAL:HG13	1.87	0.57
3:P:531:LYS:H	3:P:531:LYS:HD2	1.70	0.57
5:R:387:VAL:CG2	5:R:435:ILE:HD13	2.34	0.57
2:C:32:LEU:O	2:C:36:GLN:HB2	2.04	0.57
2:C:1099:ASN:HD21	2:C:1101:LEU:HB2	1.70	0.57
2:C:1243:MET:HG3	3:D:372:MET:HE2	1.86	0.57
2:C:1288:GLN:OE1	3:D:1356:LEU:HG	2.05	0.57
1:G:192:VAL:HB	1:G:195:ARG:HB2	1.87	0.57
1:H:15:ASP:HB3	1:H:27:THR:OG1	2.04	0.57
2:I:178:PRO:HG3	2:I:395:TYR:HE1	1.69	0.57
3:J:536:LEU:HD21	3:J:541:LEU:CB	2.34	0.57
3:J:931:THR:O	3:J:935:PHE:HD2	1.86	0.57
3:J:1156:LEU:CD2	3:J:1209:VAL:HA	2.22	0.57
3:J:1272:SER:CB	3:J:1274:PHE:CE2	2.86	0.57
2:O:30:ILE:CD1	2:O:30:ILE:N	2.68	0.57
2:O:173:ASN:HA	2:O:186:PHE:O	2.05	0.57
3:P:58:CYS:SG	3:P:60:ARG:N	2.78	0.57
3:P:121:PRO:O	3:P:122:SER:CB	2.43	0.57
3:P:483:LEU:HD11	4:Q:17:PHE:HD1	1.69	0.57
3:P:553:THR:HA	3:P:567:THR:HG23	1.86	0.57
3:P:1169:THR:O	3:P:1172:LYS:HB2	2.05	0.57
1:A:157:THR:HA	1:A:160:HIS:HB2	1.87	0.56
1:B:52:PRO:HA	1:B:150:ARG:HA	1.86	0.56
2:C:654:ASP:HB3	2:C:659:GLN:NE2	2.20	0.56
2:C:1253:LEU:CD1	5:F:525:ASP:HB2	2.34	0.56
3:D:709:ARG:O	3:D:709:ARG:CG	2.47	0.56
3:D:1229:VAL:HG13	3:D:1230:THR:N	2.19	0.56
5:F:429:THR:HA	6:1:40:DA:N7	2.20	0.56
2:I:213:LEU:HD11	2:I:390:PHE:CZ	2.40	0.56
2:I:551:HIS:H	2:I:554:HIS:CE1	2.23	0.56
3:J:151:MET:HB3	3:J:153:ASN:ND2	2.20	0.56
3:J:522:GLY:HA2	3:J:525:MET:SD	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:216:LEU:O	5:L:220:LYS:HG2	2.05	0.56
2:O:539:THR:CG2	2:O:540:ARG:H	2.15	0.56
2:O:757:THR:O	2:O:833:ILE:HD12	2.04	0.56
3:P:1215:GLU:HB3	3:P:1220:ILE:HD11	1.86	0.56
5:R:461:ASN:HA	7:8:26:DT:H72	1.86	0.56
7:8:24:DT:H2''	7:8:25:DA:OP1	2.04	0.56
2:C:264:GLU:CB	2:C:267:ARG:HB3	2.27	0.56
2:C:936:ARG:HG3	2:C:937:ASP:N	2.20	0.56
2:C:1047:LEU:C	2:C:1048:LYS:HG3	2.30	0.56
5:F:290:LEU:O	5:F:294:GLN:HB3	2.05	0.56
5:F:389:SER:O	5:F:393:LYS:HG2	2.06	0.56
2:I:851:THR:HG22	2:I:852:ALA:N	2.20	0.56
2:I:1256:GLN:HE21	3:J:99:ARG:NH2	2.03	0.56
2:I:1269:ARG:CZ	7:5:14:DC:OP1	2.54	0.56
3:J:354:VAL:O	3:J:447:ILE:HD12	2.05	0.56
3:J:1198:VAL:HG22	3:J:1210:ILE:CG2	2.34	0.56
6:4:54:DA:C2'	6:4:55:DC:OP2	2.51	0.56
2:O:936:ARG:HG2	2:O:937:ASP:H	1.69	0.56
2:O:1073:LYS:CD	3:P:462:ASP:HB2	2.35	0.56
2:C:409:LEU:O	2:C:410:LEU:HB2	2.05	0.56
3:D:44:ILE:C	3:D:44:ILE:CD1	2.75	0.56
3:D:378:LYS:HB3	3:D:379:PRO:CD	2.35	0.56
3:D:395:LYS:HA	3:D:398:LYS:HE3	1.88	0.56
3:D:1079:LYS:HE3	3:D:1087:ASP:OD1	2.05	0.56
5:F:547:VAL:HG11	5:F:598:LEU:HD22	1.87	0.56
1:G:182:ARG:HD2	2:I:1092:THR:HG23	1.87	0.56
2:I:268:ARG:NH1	3:J:1042:ASP:OD2	2.39	0.56
2:I:523:GLU:O	2:I:527:LYS:HG3	2.05	0.56
2:I:599:VAL:HG21	2:I:623:LEU:HD21	1.85	0.56
2:I:695:ALA:HB1	2:I:795:ALA:CB	2.36	0.56
2:I:843:THR:CB	2:I:845:LEU:HG	2.35	0.56
2:I:895:LEU:HB3	2:I:899:GLU:OE1	2.06	0.56
3:J:421:VAL:HG11	3:J:469:HIS:O	1.94	0.56
3:J:429:LEU:HB2	3:J:430:HIS:ND1	2.20	0.56
3:J:645:VAL:HG23	3:J:700:ASN:ND2	2.20	0.56
3:J:823:THR:HB	3:J:824:PRO:HD2	1.87	0.56
3:J:826:ILE:HG23	3:J:830:ASP:C	2.30	0.56
3:J:1138:LEU:HB2	3:J:1139:PRO:HD3	1.81	0.56
5:L:166:VAL:CG1	5:L:212:ILE:HG13	2.35	0.56
5:L:471:LEU:HG	5:L:476:ARG:O	2.06	0.56
1:M:75:GLN:O	2:O:729:ALA:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:12:ARG:CZ	2:O:1181:PRO:HB2	2.35	0.56
2:O:21:VAL:HG11	2:O:592:ARG:HD3	1.87	0.56
2:O:123:TYR:HE2	5:R:471:LEU:HD21	1.71	0.56
2:O:1030:GLU:OE2	2:O:1034:ARG:NE	2.35	0.56
2:O:1285:TYR:CD2	3:P:1361:THR:HG21	2.40	0.56
3:P:322:ARG:HG3	3:P:322:ARG:HH11	1.69	0.56
3:P:366:CYS:SG	3:P:437:PHE:HB2	2.46	0.56
3:P:978:ARG:CG	3:P:1212:ASP:HB3	2.35	0.56
3:P:1067:ARG:HD3	3:P:1071:GLY:O	2.05	0.56
4:Q:2:ALA:N	4:Q:51:LEU:HD22	2.19	0.56
2:C:798:GLN:HE22	2:C:827:ARG:HG2	1.70	0.56
3:D:227:PHE:HZ	3:D:234:PRO:HA	1.70	0.56
3:D:1256:ILE:HB	3:D:1260:MET:CE	2.34	0.56
5:F:407:GLU:HG2	5:F:442:SER:HB3	1.88	0.56
1:H:140:ILE:HG23	1:H:142:MET:HE1	1.87	0.56
2:I:542:ARG:NH2	6:4:50:DT:H72	2.20	0.56
2:I:782:VAL:HG11	2:I:792:GLY:HA2	1.87	0.56
2:I:1296:ASP:OD2	2:I:1320:PRO:HB3	2.05	0.56
5:L:305:LEU:HD22	5:L:315:TRP:HB2	1.88	0.56
6:4:51:DC:C3'	6:4:52:DT:H5'	2.35	0.56
2:O:558:VAL:O	2:O:558:VAL:HG12	2.04	0.56
3:P:27:PRO:HA	3:P:30:ILE:HD12	1.87	0.56
3:P:221:ILE:HA	3:P:224:LEU:HD12	1.86	0.56
3:P:515:ARG:HH21	3:P:717:VAL:HG23	1.71	0.56
5:R:235:ILE:HD11	5:R:249:ILE:HD11	1.87	0.56
1:A:232:VAL:HG22	1:B:221:ALA:CB	2.35	0.56
1:B:13:LEU:HD21	1:B:16:ILE:HD11	1.86	0.56
2:C:14:ASP:HB3	2:C:1157:GLN:HB2	1.86	0.56
2:C:1049:ILE:HG22	2:C:1050:VAL:N	2.21	0.56
3:D:242:LEU:HD12	3:D:243:PRO:O	2.05	0.56
3:D:725:MET:CE	3:D:731:ARG:HB3	2.36	0.56
5:F:450:ILE:HD12	5:F:452:ILE:HD11	1.87	0.56
6:1:17:DA:H2''	6:1:18:DC:OP2	2.06	0.56
6:1:54:DA:H2''	6:1:55:DC:H5'	1.87	0.56
2:I:1289:GLU:HG2	2:I:1315:MET:HE1	1.87	0.56
3:J:736:GLN:HE21	3:J:736:GLN:HA	1.70	0.56
3:J:1151:LYS:O	3:J:1153:PRO:HD3	2.06	0.56
5:L:235:ILE:O	5:L:239:GLY:O	2.23	0.56
1:N:81:ILE:HD13	1:N:131:CYS:SG	2.46	0.56
1:N:190:ALA:HB2	1:N:200:LYS:HG3	1.86	0.56
2:O:42:ASP:OD1	2:O:43:PRO:HD2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:212:ALA:HB1	2:O:363:LEU:CD2	2.35	0.56
3:P:1250:ASP:N	3:P:1250:ASP:OD1	2.38	0.56
2:C:670:PHE:CD2	2:C:1113:LEU:CB	2.82	0.56
3:D:256:ASP:OD1	3:D:256:ASP:N	2.36	0.56
3:D:418:GLU:O	3:D:420:PRO:HD3	2.04	0.56
5:F:586:ARG:NH1	6:1:13:DC:OP2	2.39	0.56
2:I:699:LEU:HD11	2:I:799:ASN:CG	2.30	0.56
2:I:807:TRP:CD1	2:I:817:LEU:HD11	2.41	0.56
2:I:1004:ASP:OD2	2:I:1008:GLN:CG	2.53	0.56
2:I:1227:VAL:HG12	2:I:1228:GLY:H	1.69	0.56
3:J:352:ARG:HD2	7:5:15:DT:H4'	1.88	0.56
2:O:743:PRO:HA	2:O:974:ARG:HH12	1.70	0.56
3:P:657:ALA:O	3:P:661:VAL:HG23	2.05	0.56
3:P:1320:ILE:HD11	3:P:1342:ASP:HB3	1.88	0.56
7:8:4:DC:H2''	7:8:5:DC:H5'	1.87	0.56
1:B:54:CYS:O	1:B:55:ALA:CB	2.54	0.56
2:C:559:CYS:HB2	2:C:662:SER:N	2.20	0.56
2:C:622:ASN:HB3	2:C:630:VAL:CG2	2.33	0.56
3:D:364:HIS:HB3	3:D:487:THR:HG21	1.86	0.56
3:D:378:LYS:O	3:D:381:ILE:HB	2.05	0.56
3:D:1109:LEU:HD13	3:D:1113:VAL:HG11	1.86	0.56
5:F:333:VAL:HG13	5:F:337:VAL:HG23	1.87	0.56
2:I:296:VAL:CG1	2:I:297:VAL:N	2.68	0.56
2:I:1326:LEU:O	2:I:1330:ILE:HG13	2.05	0.56
5:L:505:ILE:HD12	7:5:22:DA:N6	2.21	0.56
1:N:99:ILE:O	1:N:99:ILE:HG22	2.04	0.56
2:O:1326:LEU:C	2:O:1330:ILE:HD12	2.27	0.56
2:O:1332:SER:O	3:P:243:PRO:HG2	2.06	0.56
3:P:337:ARG:HD2	3:P:341:ASN:HD22	1.71	0.56
3:P:923:ILE:HD11	3:P:1252:HIS:HB3	1.87	0.56
1:B:47:LEU:HD22	1:B:205:MET:HE1	1.88	0.56
2:C:153:PRO:HB2	2:C:401:GLY:HA2	1.86	0.56
2:C:519:ASN:ND2	2:C:521:LEU:HB3	2.21	0.56
2:C:992:LEU:HB3	2:C:993:PRO:CD	2.34	0.56
3:D:421:VAL:HG23	3:D:439:PRO:HG2	1.85	0.56
2:I:15:PHE:O	2:I:17:LYS:CD	2.54	0.56
2:I:146:VAL:HB	2:I:511:LEU:HD22	1.88	0.56
2:I:1234:LYS:C	2:I:1235:LEU:HD23	2.31	0.56
2:I:1288:GLN:O	2:I:1292:THR:CG2	2.48	0.56
2:I:1302:THR:HA	5:L:531:PRO:HB3	1.88	0.56
3:J:132:LEU:O	3:J:136:GLU:HG3	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:943:ARG:O	3:J:944:ALA:HB3	2.06	0.56
5:L:495:ARG:HA	5:L:498:LEU:HD12	1.88	0.56
1:M:11:PRO:HB2	1:N:231:PHE:CZ	2.36	0.56
2:O:900:LYS:HD2	5:R:563:PHE:CE1	2.40	0.56
2:O:949:GLU:HG2	2:O:1036:ILE:HG22	1.87	0.56
3:P:233:LYS:HG3	3:P:234:PRO:HD2	1.88	0.56
3:P:261:ALA:HA	5:R:505:ILE:O	2.06	0.56
3:P:555:TYR:HB2	3:P:586:GLY:HA2	1.86	0.56
3:P:879:ALA:C	3:P:880:VAL:HG22	2.31	0.56
3:P:1165:PHE:CZ	3:P:1196:LEU:CD1	2.85	0.56
1:B:53:GLY:O	1:B:177:TYR:HD1	1.88	0.56
1:B:142:MET:HE3	1:B:142:MET:H	1.68	0.56
2:C:61:SER:HB2	2:C:479:LEU:HD22	1.88	0.56
2:C:1324:ASN:O	2:C:1328:LYS:HG2	2.05	0.56
3:D:128:LEU:HD22	3:D:188:LEU:HD21	1.88	0.56
3:D:364:HIS:CD2	4:E:4:VAL:HG13	2.41	0.56
3:D:799:ARG:HB3	3:D:1309:ILE:CG2	2.35	0.56
3:D:1362:GLY:O	3:D:1366:HIS:N	2.38	0.56
2:I:1112:ILE:HG22	3:J:641:ILE:HG13	1.88	0.56
2:I:1187:PHE:CE1	3:J:769:VAL:HA	2.41	0.56
3:J:872:LEU:C	3:J:872:LEU:HD23	2.29	0.56
1:N:219:ARG:O	1:N:223:ILE:HG13	2.05	0.56
2:O:289:VAL:HG12	2:O:319:LEU:HD22	1.86	0.56
2:O:1314:GLN:HA	4:Q:28:ARG:HH22	1.65	0.56
3:P:227:PHE:CE1	3:P:232:ASN:O	2.59	0.56
1:A:8:PHE:HZ	1:B:52:PRO:HG3	1.71	0.56
1:A:109:PRO:HB3	1:A:132:HIS:HD2	1.67	0.56
2:C:886:LYS:HD2	2:C:916:SER:HB2	1.86	0.56
2:C:1296:ASP:HB2	2:C:1321:GLU:H	1.70	0.56
3:D:115:TRP:O	3:D:119:SER:HB3	2.06	0.56
3:D:643:ASP:O	3:D:722:ILE:CD1	2.53	0.56
4:E:59:ILE:HD12	4:E:64:LEU:HD21	1.86	0.56
2:I:213:LEU:O	2:I:214:ASN:HB3	2.06	0.56
3:J:1165:PHE:HE1	3:J:1199:PHE:O	1.89	0.56
2:O:539:THR:H	2:O:542:ARG:HB3	1.70	0.56
2:O:666:SER:OG	2:O:704:MET:HE2	2.05	0.56
2:O:1070:HIS:NE2	2:O:1114:GLU:OE1	2.38	0.56
2:O:1333:LEU:CB	2:O:1335:ILE:HD12	2.34	0.56
3:P:816:THR:CG2	3:P:818:GLU:H	2.19	0.56
2:C:92:TYR:HB3	2:C:137:VAL:HB	1.88	0.55
3:D:263:SER:HA	5:F:507:MET:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:378:LYS:HZ3	5:F:532:LEU:HD11	1.69	0.55
2:I:15:PHE:HB3	2:I:17:LYS:HZ2	1.67	0.55
2:I:353:VAL:O	2:I:355:PRO:HD3	2.05	0.55
2:I:671:LEU:HD23	2:I:1186:VAL:HG13	1.85	0.55
2:I:828:PHE:O	2:I:1234:LYS:NZ	2.39	0.55
2:I:1326:LEU:CD1	2:I:1330:ILE:HD11	2.36	0.55
3:J:154:LEU:HD22	3:J:158:GLN:HG2	1.88	0.55
3:J:835:LEU:CD1	3:J:839:VAL:HG21	2.35	0.55
3:J:885:VAL:HG12	3:J:886:VAL:CA	2.35	0.55
5:L:450:ILE:HG13	5:L:450:ILE:O	2.05	0.55
5:L:584:ARG:O	5:L:587:ILE:HG12	2.05	0.55
2:O:202:ARG:H	2:O:369:MET:HE1	1.70	0.55
2:O:818:VAL:HG11	2:O:1076:ILE:HG23	1.89	0.55
2:O:944:ARG:O	2:O:947:GLU:HG2	2.07	0.55
2:O:1066:MET:HE1	2:O:1232:MET:HB3	1.87	0.55
3:P:430:HIS:ND1	3:P:430:HIS:N	2.54	0.55
3:P:682:VAL:HG13	3:P:686:TRP:HE1	1.71	0.55
3:P:1320:ILE:HD12	3:P:1342:ASP:CG	2.31	0.55
5:R:574:GLU:OE2	5:R:584:ARG:HD2	2.06	0.55
1:A:38:THR:HB	1:A:39:LEU:CD2	2.36	0.55
1:A:39:LEU:C	1:A:43:LEU:HD12	2.31	0.55
1:B:28:LEU:HD13	1:B:29:GLU:N	2.21	0.55
2:C:17:LYS:HZ2	2:C:1190:ALA:HA	1.70	0.55
2:C:335:THR:HG22	2:C:336:LEU:N	2.21	0.55
2:C:816:ILE:CG2	2:C:818:VAL:HG12	2.36	0.55
2:I:38:PHE:CE1	2:I:461:GLU:CA	2.81	0.55
2:I:753:LEU:HB3	2:I:755:LYS:HE2	1.88	0.55
2:I:1272:GLU:HB3	2:I:1276:TRP:CZ2	2.41	0.55
2:I:1272:GLU:HB3	2:I:1276:TRP:CH2	2.41	0.55
3:J:115:TRP:HZ3	3:J:1332:LEU:HB2	1.71	0.55
3:J:370:LYS:HA	3:J:441:LEU:HD22	1.88	0.55
3:J:536:LEU:CD2	3:J:541:LEU:CB	2.80	0.55
3:J:835:LEU:HD12	3:J:839:VAL:HG21	1.87	0.55
1:M:185:TYR:CD2	1:M:185:TYR:O	2.59	0.55
2:O:349:GLU:O	2:O:353:VAL:HG23	2.06	0.55
2:O:715:THR:HG22	2:O:786:GLY:H	1.70	0.55
3:P:245:LEU:HG	3:P:246:PRO:O	2.06	0.55
3:P:288:PRO:HG2	5:R:380:VAL:HG11	1.87	0.55
3:P:530:PRO:HB2	3:P:581:MET:CG	2.36	0.55
3:P:1056:LEU:HD13	3:P:1109:LEU:CD2	2.36	0.55
2:C:1225:VAL:CG1	2:C:1226:THR:N	2.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:891:ASP:N	3:D:891:ASP:OD1	2.38	0.55
2:I:868:SER:HB2	2:I:870:ILE:HG12	1.86	0.55
2:I:1104:PRO:CG	3:J:725:MET:HE1	2.37	0.55
2:I:1274:GLU:OE1	2:I:1274:GLU:N	2.39	0.55
2:I:1289:GLU:OE2	3:J:473:THR:N	2.40	0.55
3:J:234:PRO:O	3:J:237:MET:CG	2.54	0.55
3:J:555:TYR:HA	3:J:564:VAL:O	2.06	0.55
3:J:1044:GLN:HA	3:J:1068:THR:OG1	2.06	0.55
3:J:1165:PHE:HZ	3:J:1196:LEU:CD1	2.19	0.55
3:P:268:LEU:HD13	3:P:306:LEU:HA	1.88	0.55
7:8:48:DA:H2''	7:8:49:DA:H5''	1.88	0.55
1:B:79:LEU:HA	1:B:82:LEU:HD12	1.87	0.55
2:C:521:LEU:HD22	2:C:686:GLN:HB3	1.81	0.55
2:C:557:ARG:HH22	2:C:608:ALA:HA	1.71	0.55
3:D:1167:LYS:NZ	3:D:1187:GLU:OE2	2.25	0.55
6:1:42:DG:OP1	6:1:43:DT:OP1	2.24	0.55
1:H:102:LEU:CB	1:H:115:ILE:HD13	2.36	0.55
2:I:528:ARG:NH2	2:I:575:LEU:HD23	2.21	0.55
3:J:70:CYS:HB3	3:J:92:VAL:CG2	2.32	0.55
3:J:205:LEU:HD21	3:J:214:ARG:HG3	1.88	0.55
1:N:13:LEU:CD1	1:N:26:VAL:HG13	2.36	0.55
3:P:955:LYS:CG	3:P:956:GLY:N	2.69	0.55
2:C:543:ALA:HB3	2:C:548:ARG:HH21	1.71	0.55
2:C:1281:TYR:OH	3:D:432:LEU:HD23	2.05	0.55
3:D:334:LYS:NZ	7:2:13:DA:P	2.80	0.55
1:H:39:LEU:O	1:H:43:LEU:CD1	2.54	0.55
2:I:689:ALA:HB1	2:I:1233:LEU:HD22	1.88	0.55
2:I:1008:GLN:OE1	2:I:1011:LEU:HD23	2.07	0.55
2:I:1098:LEU:HD23	2:I:1099:ASN:H	1.71	0.55
7:5:25:DA:H1'	7:5:26:DT:H5''	1.89	0.55
2:O:122:VAL:HG21	2:O:493:ILE:HD12	1.88	0.55
3:P:249:LEU:C	3:P:251:PRO:HD3	2.32	0.55
3:P:1231:ARG:O	3:P:1234:VAL:HB	2.07	0.55
1:A:44:ARG:HG3	1:A:183:ILE:HG23	1.88	0.55
1:A:51:MET:CE	1:A:211:ILE:HG13	2.37	0.55
2:C:402:ARG:HG2	2:C:416:GLY:N	2.21	0.55
5:F:565:ILE:O	5:F:567:MET:HG2	2.07	0.55
7:2:35:DT:H2''	7:2:36:DG:OP2	2.07	0.55
6:4:49:DG:H5'	6:4:50:DT:OP2	2.07	0.55
2:O:943:LYS:HG3	2:O:944:ARG:N	2.21	0.55
3:P:261:ALA:O	5:R:507:MET:CE	2.50	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:544:LEU:CD2	3:P:578:ILE:CD1	2.85	0.55
3:P:1155:ILE:HG22	3:P:1156:LEU:N	2.22	0.55
6:7:54:DA:H2''	6:7:55:DC:C5'	2.37	0.55
2:C:209:ILE:CG2	2:C:210:LEU:N	2.67	0.55
2:C:551:HIS:CB	2:C:554:HIS:CE1	2.90	0.55
2:C:617:ALA:CB	2:C:636:CYS:SG	2.95	0.55
3:D:276:ASN:O	3:D:279:LEU:HB3	2.07	0.55
3:D:799:ARG:HB3	3:D:1309:ILE:HG21	1.88	0.55
5:F:400:GLN:HG2	5:F:401:PHE:N	2.22	0.55
6:1:47:DC:C5'	6:1:47:DC:H6	2.19	0.55
1:G:195:ARG:NH2	4:Q:66:VAL:HG23	2.22	0.55
2:I:208:ILE:HG12	2:I:362:ALA:HB1	1.88	0.55
2:I:226:GLU:OE2	2:I:343:HIS:CD2	2.59	0.55
2:I:228:VAL:HG21	2:I:337:PHE:HD1	1.72	0.55
2:I:886:LYS:HD2	2:I:916:SER:CB	2.34	0.55
2:I:1315:MET:HG3	2:I:1317:PRO:HD3	1.88	0.55
3:J:70:CYS:HB2	3:J:90:VAL:HG11	1.86	0.55
3:J:421:VAL:CG1	3:J:470:VAL:HA	2.34	0.55
3:J:730:ALA:O	3:J:731:ARG:HB2	2.07	0.55
3:J:1023:HIS:O	3:J:1024:THR:CB	2.54	0.55
3:P:809:VAL:HB	3:P:912:GLY:H	1.70	0.55
3:P:1240:VAL:O	3:P:1243:LEU:HB3	2.06	0.55
1:A:92:VAL:HG11	1:A:95:LYS:O	2.07	0.55
2:C:1246:ARG:HH21	2:C:1249:GLY:H	1.54	0.55
3:D:234:PRO:O	3:D:237:MET:CG	2.54	0.55
3:D:378:LYS:HG2	3:D:382:TYR:HE2	1.71	0.55
3:D:583:VAL:O	3:D:583:VAL:CG1	2.44	0.55
3:D:1101:LEU:HD21	3:D:1122:ALA:HB3	1.89	0.55
5:F:437:GLN:HG2	6:1:35:DC:N4	2.21	0.55
5:F:580:PHE:O	5:F:581:ASP:CB	2.55	0.55
2:I:708:VAL:HG11	2:I:794:LEU:HD22	1.89	0.55
3:J:139:LEU:HD23	3:J:181:GLY:C	2.32	0.55
3:J:496:GLY:CA	3:J:903:LEU:HD22	2.20	0.55
3:J:649:LYS:O	3:J:653:ILE:HG13	2.07	0.55
3:J:843:VAL:HG21	3:J:897:HIS:C	2.26	0.55
5:L:391:ALA:O	5:L:395:THR:HG23	2.06	0.55
5:L:580:PHE:O	5:L:581:ASP:HB2	2.05	0.55
2:O:1324:ASN:O	2:O:1327:LEU:HB2	2.06	0.55
5:R:167:ASP:N	5:R:168:PRO:HD3	2.22	0.55
1:A:51:MET:HE2	1:A:211:ILE:HG13	1.88	0.55
1:A:208:ASN:ND2	1:A:208:ASN:H	2.04	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:720:ARG:HD2	2:C:736:VAL:HG21	1.89	0.55
2:C:805:MET:HB2	2:C:806:PRO:HD2	1.89	0.55
3:D:245:LEU:HD21	3:D:249:LEU:HB2	1.89	0.55
3:D:475:GLU:H	3:D:475:GLU:CD	2.08	0.55
5:F:110:LEU:HD23	6:1:41:DT:C2	2.41	0.55
5:F:449:THR:HG1	5:F:504:PRO:HG3	1.71	0.55
1:G:232:VAL:HG11	1:H:218:ARG:O	2.07	0.55
2:I:878:THR:CG2	2:I:879:GLY:N	2.68	0.55
3:J:1265:THR:OG1	3:J:1305:ASP:OD1	2.24	0.55
2:O:666:SER:CB	2:O:704:MET:HE2	2.37	0.55
2:O:746:ALA:HB2	2:O:971:LEU:HD13	1.89	0.55
2:O:896:THR:HG23	2:O:898:GLU:HB2	1.88	0.55
3:P:403:ARG:O	3:P:404:GLU:CB	2.55	0.55
3:P:803:VAL:CG2	3:P:1309:ILE:HG23	2.36	0.55
2:C:267:ARG:HD3	2:C:268:ARG:N	2.22	0.55
2:C:1170:MET:O	2:C:1173:ALA:HB3	2.07	0.55
2:C:1283:ALA:HB1	3:D:479:GLU:CD	2.31	0.55
3:D:142:GLU:OE1	5:F:100:MET:HE1	2.06	0.55
3:D:707:ILE:O	3:D:713:GLU:HG2	2.07	0.55
3:D:739:GLN:O	3:D:763:PHE:HD2	1.90	0.55
3:D:759:ILE:HD13	3:D:767:LEU:HD13	1.87	0.55
2:I:765:ILE:HG22	2:I:765:ILE:O	2.06	0.55
2:I:1340:GLU:HB2	3:J:19:ALA:O	2.06	0.55
3:J:944:ALA:O	3:J:946:ALA:N	2.39	0.55
1:N:90:VAL:HG11	1:N:146:VAL:HG11	1.89	0.55
2:O:184:LEU:HD11	2:O:389:PHE:CE2	2.41	0.55
2:O:698:PRO:HG3	2:O:1231:TYR:CZ	2.42	0.55
2:O:761:GLN:O	2:O:762:ASN:HB2	2.07	0.55
2:O:1230:MET:HG2	2:O:1231:TYR:N	2.20	0.55
3:P:825:VAL:HG22	3:P:838:ARG:HH11	1.72	0.55
5:R:136:GLU:OE2	5:R:249:ILE:HG23	2.07	0.55
5:R:345:GLN:O	5:R:348:GLU:HB2	2.06	0.55
2:C:1272:GLU:OE1	3:D:798:ARG:HD2	2.07	0.54
3:D:622:ASP:CA	3:D:625:MET:HE2	2.37	0.54
5:F:492:ASP:OD1	5:F:492:ASP:N	2.40	0.54
7:2:23:DT:C3'	7:2:24:DT:H5''	2.29	0.54
1:G:11:PRO:HB3	1:G:31:LEU:CD2	2.37	0.54
3:J:598:LYS:CA	3:J:601:ILE:HD12	2.26	0.54
3:J:643:ASP:OD2	3:J:721:SER:OG	2.25	0.54
3:J:680:ASN:OD1	3:J:1023:HIS:NE2	2.40	0.54
3:J:1154:ALA:HA	3:J:1211:SER:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1284:ALA:O	3:P:1356:LEU:CD2	2.55	0.54
3:P:67:ASP:OD1	3:P:95:THR:N	2.28	0.54
3:P:253:VAL:CB	3:P:254:PRO:HD3	2.37	0.54
1:B:59:VAL:HG22	1:B:144:ILE:HG23	1.88	0.54
5:F:503:GLU:CB	5:F:504:PRO:HD2	2.37	0.54
3:J:1059:LEU:HB2	3:J:1107:VAL:HB	1.87	0.54
5:L:132:CYS:O	5:L:136:GLU:HG2	2.07	0.54
1:M:179:PRO:HA	1:M:208:ASN:HD21	1.72	0.54
2:O:7:GLU:HG2	2:O:706:ARG:NH1	2.23	0.54
2:O:13:LYS:HB2	2:O:1149:TYR:HE1	1.70	0.54
2:O:220:ILE:HA	2:O:223:LEU:HD12	1.88	0.54
3:P:141:PHE:CE2	3:P:181:GLY:HA3	2.42	0.54
3:P:823:THR:C	3:P:835:LEU:HD13	2.32	0.54
3:P:1216:ALA:O	3:P:1220:ILE:HG13	2.07	0.54
5:R:84:LEU:HG	5:R:107:THR:CG2	2.37	0.54
5:R:423:ARG:HB3	5:R:425:TYR:CD2	2.42	0.54
1:A:227:GLN:NE2	1:B:9:LEU:O	2.38	0.54
2:C:229:ILE:HG12	2:C:334:GLU:HG2	1.89	0.54
3:D:318:GLY:CA	3:D:324:LEU:HD21	2.35	0.54
3:D:569:LEU:HD13	3:D:569:LEU:N	2.22	0.54
3:D:643:ASP:OD2	3:D:721:SER:OG	2.24	0.54
3:D:1061:VAL:O	3:D:1104:LYS:HA	2.08	0.54
2:I:58:PRO:HB3	2:I:69:GLN:HA	1.89	0.54
2:I:228:VAL:HG21	2:I:337:PHE:CD1	2.42	0.54
2:I:316:GLU:CG	2:I:352:ARG:HH22	2.20	0.54
7:5:50:DG:H2"	7:5:51:DT:OP2	2.06	0.54
1:N:104:LYS:HG3	1:N:105:SER:N	2.23	0.54
2:O:112:GLY:C	2:O:114:VAL:H	2.15	0.54
2:O:551:HIS:H	2:O:554:HIS:CE1	2.25	0.54
2:O:1308:ILE:HG21	3:P:379:PRO:HB2	1.89	0.54
3:P:259:ARG:CD	5:R:502:LYS:HG2	2.37	0.54
5:R:456:MET:O	5:R:459:THR:OG1	2.25	0.54
5:R:583:THR:CG2	5:R:586:ARG:CB	2.80	0.54
5:R:583:THR:HG21	5:R:586:ARG:CB	2.37	0.54
2:C:364:VAL:HG12	2:C:365:GLU:N	2.23	0.54
2:C:596:ASP:N	2:C:596:ASP:OD1	2.36	0.54
2:C:1269:ARG:NH1	3:D:340:GLN:HG3	2.21	0.54
2:C:1296:ASP:O	2:C:1321:GLU:CG	2.53	0.54
3:D:517:CYS:HB2	3:D:719:PHE:CZ	2.30	0.54
1:H:85:LEU:HD21	1:H:130:ILE:HG21	1.84	0.54
2:I:217:THR:CA	2:I:220:ILE:HD12	2.27	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1073:LYS:CD	3:J:462:ASP:HB2	2.38	0.54
2:O:61:SER:OG	2:O:479:LEU:HB3	2.08	0.54
3:P:322:ARG:NE	5:R:510:PRO:HD3	2.10	0.54
4:Q:10:VAL:HG22	4:Q:19:LEU:CD2	2.38	0.54
6:7:42:DG:OP1	6:7:43:DT:OP1	2.24	0.54
1:A:85:LEU:CD2	1:A:130:ILE:HG23	2.37	0.54
2:C:1320:PRO:O	2:C:1323:PHE:HB3	2.07	0.54
3:D:452:LEU:HB3	3:D:500:ILE:CG2	2.38	0.54
3:D:475:GLU:N	3:D:475:GLU:CD	2.66	0.54
3:D:475:GLU:HA	3:D:478:LEU:HD12	1.89	0.54
3:D:863:LEU:HD13	3:D:908:ILE:HG12	1.89	0.54
2:I:542:ARG:HH12	6:4:50:DT:H71	1.73	0.54
3:J:373:ALA:HA	3:J:376:LEU:CG	2.36	0.54
5:L:555:GLU:OE2	5:L:590:ILE:HG23	2.08	0.54
5:L:585:GLU:HG3	7:5:47:DC:C4	2.42	0.54
6:4:53:DG:H2"	6:4:54:DA:C8	2.42	0.54
1:N:61:ILE:HD12	1:N:64:VAL:HG12	1.88	0.54
2:O:15:PHE:CE2	2:O:1182:ILE:CD1	2.79	0.54
2:O:96:LEU:HB2	2:O:127:ILE:HD11	1.88	0.54
2:O:1107:MET:HE1	3:P:744:ARG:NH1	2.21	0.54
3:P:259:ARG:NH1	5:R:502:LYS:HG2	2.21	0.54
3:P:394:ILE:CD1	5:R:539:SER:HB2	2.38	0.54
3:P:806:ASP:O	3:P:808:VAL:CG2	2.55	0.54
5:R:458:GLU:O	5:R:462:LYS:HG3	2.08	0.54
5:R:476:ARG:HG3	5:R:477:GLU:N	2.21	0.54
1:A:81:ILE:HG22	1:A:85:LEU:HD11	1.88	0.54
1:B:124:VAL:HG21	1:B:210:THR:HG23	1.88	0.54
2:C:301:TYR:HB2	2:C:311:CYS:SG	2.47	0.54
2:C:741:MET:SD	2:C:747:GLY:CA	2.94	0.54
3:D:205:LEU:HD22	3:D:214:ARG:HG3	1.88	0.54
3:D:349:TYR:CD2	3:D:472:LEU:HD11	2.43	0.54
3:D:394:ILE:O	3:D:398:LYS:HG3	2.07	0.54
3:D:1253:ILE:HA	3:D:1256:ILE:HD11	1.90	0.54
3:J:253:VAL:HB	3:J:254:PRO:CD	2.37	0.54
5:L:84:LEU:HG	5:L:107:THR:CG2	2.38	0.54
2:O:149:LEU:HD11	2:O:451:ARG:HB3	1.90	0.54
2:O:667:LEU:HD22	2:O:705:GLU:OE2	2.08	0.54
2:C:189:ASP:CG	2:C:190:PRO:HD2	2.32	0.54
2:C:1103:VAL:HG22	2:C:1111:GLN:NE2	2.23	0.54
2:C:1106:ARG:O	2:C:1107:MET:HB2	2.07	0.54
2:C:1185:PRO:HB2	2:C:1188:ASP:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:350:SER:HB3	3:D:469:HIS:NE2	2.22	0.54
1:G:85:LEU:HD21	1:G:130:ILE:HG23	1.88	0.54
3:J:219:LYS:HG2	3:J:222:LYS:CE	2.38	0.54
1:M:15:ASP:HB3	1:M:27:THR:OG1	2.08	0.54
3:P:139:LEU:CD2	3:P:182:ALA:HA	2.35	0.54
3:P:1319:PHE:CZ	3:P:1342:ASP:HB2	2.42	0.54
4:Q:18:ASP:O	4:Q:22:VAL:HG23	2.07	0.54
5:R:139:GLU:O	5:R:143:TYR:HD1	1.89	0.54
1:A:67:GLU:O	1:A:78:ILE:HD12	2.06	0.54
2:C:403:MET:CE	2:C:586:PHE:HE2	2.21	0.54
3:D:614:LEU:HD23	4:E:7:GLN:HB2	1.88	0.54
3:D:807:LEU:HD13	3:D:1259:GLN:NE2	2.23	0.54
3:D:933:ARG:HH11	3:D:937:ILE:CD1	2.20	0.54
5:F:399:LEU:HD13	5:F:403:ASP:CB	2.36	0.54
3:J:467:ALA:C	3:J:468:VAL:HG22	2.33	0.54
3:J:531:LYS:H	3:J:531:LYS:HD2	1.72	0.54
3:J:955:LYS:HG2	3:J:956:GLY:H	1.71	0.54
6:4:42:DG:OP1	6:4:43:DT:OP1	2.26	0.54
2:O:478:ARG:HH11	2:O:492:MET:HA	1.72	0.54
2:O:1161:LEU:O	2:O:1163:THR:N	2.41	0.54
2:O:1235:LEU:N	2:O:1235:LEU:HD23	2.23	0.54
3:P:378:LYS:HA	3:P:381:ILE:HD12	1.90	0.54
3:P:839:VAL:O	3:P:839:VAL:HG12	2.08	0.54
5:R:295:CYS:SG	5:R:330:LEU:CD1	2.95	0.54
1:A:48:LEU:HD21	1:A:180:VAL:O	2.08	0.54
1:A:224:LEU:HD12	1:A:228:LEU:HD11	1.77	0.54
1:B:201:LEU:CG	1:B:203:ILE:HD11	2.35	0.54
3:D:111:THR:HG23	3:D:300:GLN:HG3	1.90	0.54
3:D:518:VAL:O	3:D:520:ALA:N	2.41	0.54
3:D:835:LEU:HD11	3:D:839:VAL:HG21	1.90	0.54
7:2:27:DA:H2''	7:2:28:DG:C5'	2.37	0.54
2:I:82:VAL:CG2	2:I:83:GLN:N	2.70	0.54
2:I:808:ASN:HA	3:J:629:PHE:HB3	1.89	0.54
2:I:1005:GLU:CG	2:I:1006:GLU:H	2.18	0.54
3:J:625:MET:HG2	3:J:629:PHE:HE2	1.71	0.54
3:J:814:CYS:HG	3:J:816:THR:HG1	1.56	0.54
1:N:193:GLU:O	1:N:194:GLN:HB2	2.07	0.54
2:O:232:ILE:O	2:O:331:LYS:HD3	2.08	0.54
2:O:505:PHE:O	2:O:509:SER:HB3	2.08	0.54
2:O:800:MET:HB2	2:O:1096:ILE:HD12	1.90	0.54
2:O:1064:ASP:OD1	2:O:1239:VAL:HG12	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:622:ASP:O	3:P:625:MET:HE2	2.08	0.54
3:P:652:GLU:O	3:P:656:GLU:HG3	2.07	0.54
3:P:1256:ILE:O	3:P:1260:MET:HG3	2.07	0.54
3:P:1364:ALA:HA	3:P:1367:GLN:HE21	1.73	0.54
4:Q:54:ILE:HG13	4:Q:59:ILE:HB	1.89	0.54
6:7:49:DG:H3'	6:7:50:DT:H5''	1.88	0.54
2:C:12:ARG:HG3	2:C:1181:PRO:C	2.32	0.54
3:D:262:THR:O	5:F:507:MET:N	2.37	0.54
6:1:50:DT:O3'	6:1:51:DC:O4'	2.26	0.54
7:2:25:DA:H1'	7:2:26:DT:H5''	1.89	0.54
2:I:189:ASP:CG	2:I:190:PRO:HD2	2.33	0.54
2:I:202:ARG:HB2	2:I:369:MET:HE1	1.90	0.54
2:I:521:LEU:O	2:I:521:LEU:HD12	2.08	0.54
2:I:699:LEU:N	2:I:699:LEU:HD23	2.22	0.54
2:I:1008:GLN:O	2:I:1008:GLN:HG3	2.05	0.54
3:J:205:LEU:CD2	3:J:214:ARG:HG3	2.38	0.54
3:J:501:VAL:HG13	3:J:502:PRO:CD	2.37	0.54
5:L:443:ILE:CG2	5:L:444:ALA:N	2.70	0.54
5:L:460:ILE:O	5:L:463:LEU:HB2	2.08	0.54
5:L:474:MET:HE3	5:L:476:ARG:HB3	1.90	0.54
3:P:262:THR:HG1	3:P:266:ASN:ND2	2.06	0.54
3:P:297:ARG:CD	5:R:100:MET:SD	2.92	0.54
3:P:1133:ASP:H	3:P:1244:GLN:NE2	2.06	0.54
5:R:235:ILE:O	5:R:239:GLY:O	2.25	0.54
5:R:381:GLU:HA	5:R:384:LEU:HD21	1.90	0.54
6:7:27:DC:H2''	6:7:28:DA:OP2	2.08	0.54
6:7:54:DA:H1'	6:7:55:DC:C5'	2.38	0.54
1:A:41:ASN:HD22	2:C:1218:GLY:CA	2.19	0.53
1:B:141:SER:C	1:B:142:MET:HE3	2.31	0.53
2:C:1210:ILE:HG22	2:C:1212:LEU:CD2	2.36	0.53
3:D:875:ASN:O	3:D:876:SER:HB2	2.08	0.53
3:D:930:LEU:HB2	3:D:1134:ILE:CD1	2.28	0.53
3:D:1256:ILE:C	3:D:1260:MET:CE	2.81	0.53
5:F:456:MET:O	5:F:460:ILE:HG13	2.07	0.53
1:H:129:VAL:C	1:H:130:ILE:HG13	2.32	0.53
2:I:335:THR:CG2	2:I:336:LEU:N	2.70	0.53
2:I:459:MET:HE1	2:I:535:PRO:CG	2.38	0.53
2:I:593:LYS:NZ	2:I:595:THR:HG1	2.00	0.53
2:I:788:SER:OG	2:I:796:LEU:HA	2.08	0.53
2:I:871:VAL:HG23	2:I:883:LEU:C	2.32	0.53
3:J:510:LEU:O	3:J:514:THR:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:635:SER:OG	3:J:636:GLY:N	2.41	0.53
3:J:809:VAL:CG2	3:J:909:ILE:HD13	2.34	0.53
1:N:61:ILE:HG23	1:N:142:MET:HE2	1.91	0.53
2:O:1324:ASN:O	2:O:1328:LYS:HG2	2.08	0.53
3:P:306:LEU:O	3:P:326:SER:HB2	2.08	0.53
3:P:879:ALA:C	3:P:880:VAL:CG2	2.81	0.53
5:R:411:GLY:CA	5:R:438:ALA:HB2	2.38	0.53
2:C:1253:LEU:HB2	5:F:523:ILE:HB	1.90	0.53
7:2:23:DT:H3'	7:2:24:DT:C5'	2.29	0.53
2:I:558:VAL:HG13	2:I:559:CYS:N	2.22	0.53
2:I:1004:ASP:OD1	2:I:1008:GLN:HB2	2.08	0.53
2:I:1276:TRP:NE1	3:J:1348:LYS:NZ	2.37	0.53
3:J:34:SER:OG	3:J:104:HIS:ND1	2.02	0.53
3:J:185:ILE:O	3:J:189:LEU:CD1	2.56	0.53
3:J:612:LEU:HD13	3:J:616:PRO:HB3	1.91	0.53
7:5:19:DA:H2'	7:5:20:DG:O4'	2.08	0.53
1:N:92:VAL:HG13	1:N:121:VAL:HG22	1.89	0.53
3:P:107:LEU:HG	3:P:240:THR:O	2.08	0.53
3:P:517:CYS:HB3	3:P:545:HIS:CB	2.38	0.53
3:P:968:ASN:CB	3:P:1117:SER:O	2.56	0.53
4:Q:59:ILE:HD12	4:Q:64:LEU:HD21	1.91	0.53
1:A:67:GLU:O	1:A:78:ILE:HB	2.08	0.53
1:A:187:VAL:HG13	1:A:199:ASP:OD2	2.07	0.53
2:C:251:ALA:HB2	2:C:263:VAL:HG11	1.90	0.53
5:F:595:LEU:O	5:F:599:ARG:HG3	2.08	0.53
2:I:36:GLN:HA	2:I:39:ILE:HD12	1.89	0.53
2:I:1077:SER:HA	3:J:356:THR:CG2	2.38	0.53
2:I:1327:LEU:CA	2:I:1330:ILE:HD12	2.37	0.53
3:J:115:TRP:CZ3	3:J:1329:THR:O	2.61	0.53
3:J:573:THR:OG1	3:J:575:GLY:N	2.41	0.53
3:J:871:LEU:O	3:J:875:ASN:ND2	2.42	0.53
6:4:50:DT:O3'	6:4:51:DC:O4'	2.27	0.53
1:M:35:PHE:O	1:M:39:LEU:HG	2.08	0.53
2:O:764:CYS:O	2:O:764:CYS:SG	2.65	0.53
2:O:1314:GLN:NE2	2:O:1316:GLU:HG3	2.23	0.53
3:P:366:CYS:SG	3:P:439:PRO:HA	2.48	0.53
3:P:1176:VAL:HG22	3:P:1187:GLU:HG2	1.89	0.53
2:C:807:TRP:CG	2:C:817:LEU:HD11	2.43	0.53
3:D:126:LEU:CD2	3:D:216:LYS:HZ2	2.20	0.53
3:D:490:ILE:HA	3:D:500:ILE:HD12	1.88	0.53
3:D:1133:ASP:OD1	3:D:1134:ILE:N	2.33	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:117:ILE:HG23	5:F:421:TYR:CB	2.34	0.53
1:G:185:TYR:CD2	1:G:185:TYR:O	2.62	0.53
2:I:557:ARG:HB3	2:I:587:LEU:HD12	1.89	0.53
3:J:146:VAL:CG2	3:J:158:GLN:HB2	2.39	0.53
3:J:219:LYS:HG2	3:J:222:LYS:HD2	1.90	0.53
3:J:255:LEU:HD13	3:J:256:ASP:N	2.24	0.53
3:J:306:LEU:O	3:J:326:SER:HB2	2.07	0.53
3:J:607:THR:O	3:J:611:ILE:HG13	2.08	0.53
1:N:77:ASP:O	1:N:81:ILE:HG13	2.08	0.53
2:O:819:SER:HA	2:O:1085:MET:SD	2.49	0.53
3:P:273:ILE:HG22	3:P:277:ASN:HD21	1.73	0.53
3:P:1046:ILE:HD12	3:P:1059:LEU:HD22	1.91	0.53
5:R:462:LYS:HB3	5:R:487:MET:HE1	1.90	0.53
2:C:1253:LEU:HD13	5:F:523:ILE:HG22	1.90	0.53
1:G:47:LEU:HD12	1:G:183:ILE:CD1	2.33	0.53
2:I:734:ILE:HG23	2:I:749:ASP:CB	2.38	0.53
2:I:845:LEU:N	2:I:845:LEU:HD23	2.24	0.53
2:I:1325:VAL:HG12	2:I:1329:GLU:CD	2.34	0.53
3:P:318:GLY:N	3:P:322:ARG:O	2.35	0.53
3:P:1257:VAL:HA	3:P:1260:MET:HE2	1.91	0.53
3:P:1311:LYS:HZ1	6:7:56:DG:H5''	1.71	0.53
4:Q:78:ALA:O	4:Q:81:GLN:HG2	2.08	0.53
6:7:42:DG:H3'	6:7:42:DG:P	2.48	0.53
1:A:44:ARG:HH12	2:C:1093:PRO:HG3	1.73	0.53
3:D:423:LEU:HD12	3:D:437:PHE:CE1	2.44	0.53
3:D:546:ALA:O	3:D:548:VAL:HG23	2.09	0.53
3:D:641:ILE:O	3:D:644:MET:SD	2.67	0.53
5:F:540:LEU:O	5:F:544:THR:HG23	2.09	0.53
5:F:604:SER:O	5:F:608:ARG:N	2.41	0.53
2:I:716:ALA:HB3	2:I:784:ALA:HB3	1.91	0.53
2:I:755:LYS:NZ	2:I:769:PRO:HD3	2.23	0.53
2:I:870:ILE:HG13	2:I:944:ARG:CG	2.20	0.53
3:J:492:SER:HA	3:J:499:ILE:CD1	2.32	0.53
3:J:521:LYS:HB3	3:J:542:ALA:HA	1.90	0.53
3:J:755:ILE:HG21	3:J:774:ILE:HD13	1.90	0.53
1:M:11:PRO:CB	1:N:231:PHE:HZ	2.19	0.53
1:M:88:LEU:HD21	1:M:112:ALA:CB	2.39	0.53
1:N:64:VAL:CG2	1:N:71:LYS:HD2	2.38	0.53
2:O:34:SER:O	2:O:457:GLY:HA3	2.08	0.53
2:O:211:ARG:O	2:O:359:ARG:HA	2.08	0.53
2:O:557:ARG:HD3	2:O:587:LEU:CB	2.37	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:601:ILE:O	3:P:605:LEU:HG	2.09	0.53
3:P:902:ASP:HB2	3:P:909:ILE:HD12	1.90	0.53
2:C:280:ASP:O	2:C:281:ASP:HB2	2.08	0.53
3:D:478:LEU:HB3	4:E:20:VAL:HG13	1.91	0.53
3:D:1257:VAL:CA	3:D:1260:MET:HE3	2.34	0.53
3:D:1274:PHE:O	3:D:1275:LEU:CB	2.47	0.53
5:F:396:ASN:O	5:F:397:ARG:C	2.50	0.53
5:F:598:LEU:O	5:F:604:SER:OG	2.21	0.53
2:I:22:LEU:HG	2:I:23:ASP:N	2.22	0.53
2:I:906:PHE:CE1	5:L:607:LEU:HB3	2.44	0.53
2:I:1184:THR:OG1	2:I:1190:ALA:N	2.41	0.53
2:I:1326:LEU:O	2:I:1330:ILE:CD1	2.57	0.53
3:J:521:LYS:CB	3:J:542:ALA:HA	2.38	0.53
3:J:1280:VAL:HG12	3:J:1281:GLU:N	2.23	0.53
5:L:429:THR:OG1	6:4:39:DA:H8	1.92	0.53
5:L:437:GLN:CG	6:4:35:DC:N4	2.69	0.53
1:M:230:ALA:HB1	1:N:11:PRO:O	2.08	0.53
2:O:539:THR:CG2	2:O:540:ARG:N	2.70	0.53
3:P:622:ASP:HA	3:P:625:MET:HE2	1.90	0.53
3:P:742:GLY:O	3:P:762:ASN:HB3	2.08	0.53
5:R:260:ARG:HH12	5:R:422:ARG:NH2	2.07	0.53
1:B:32:GLU:HA	1:B:198:LEU:HD12	1.90	0.53
1:B:133:LEU:HD22	1:B:138:ALA:HB3	1.85	0.53
2:C:34:SER:OG	2:C:456:VAL:N	2.39	0.53
3:D:614:LEU:C	3:D:614:LEU:HD12	2.33	0.53
3:D:822:MET:HE2	3:D:839:VAL:HG22	1.89	0.53
3:D:842:ARG:HH12	3:D:1254:GLU:CD	2.14	0.53
3:D:901:ARG:CD	3:D:903:LEU:HD23	2.38	0.53
1:G:232:VAL:CG1	1:H:218:ARG:O	2.56	0.53
2:I:230:PHE:CD1	2:I:292:ILE:HD11	2.43	0.53
2:I:551:HIS:ND1	2:I:553:THR:OG1	2.37	0.53
2:I:1247:SER:O	3:J:348:ASP:HB3	2.07	0.53
3:J:214:ARG:NH2	3:J:215:LYS:HG2	2.23	0.53
3:J:1158:GLU:HA	3:J:1223:LEU:CD1	2.39	0.53
7:5:12:DG:N2	7:5:13:DA:C4	2.77	0.53
2:O:146:VAL:HG13	2:O:529:ARG:O	2.08	0.53
2:O:890:LYS:HZ1	2:O:893:THR:CG2	2.20	0.53
2:O:1053:TYR:CD2	2:O:1053:TYR:N	2.76	0.53
2:O:1297:ASP:CG	2:O:1300:GLY:H	2.17	0.53
3:P:262:THR:O	5:R:507:MET:CB	2.44	0.53
3:P:367:GLY:HA3	3:P:448:GLN:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:368:LEU:HD12	3:P:369:PRO:HD2	1.91	0.53
3:P:1036:ARG:HD2	3:P:1081:VAL:HG11	1.91	0.53
3:P:1154:ALA:CA	3:P:1211:SER:HB2	2.38	0.53
5:R:91:ILE:O	5:R:91:ILE:HG22	2.08	0.53
5:R:411:GLY:HA3	5:R:438:ALA:HB2	1.89	0.53
1:B:82:LEU:HD22	1:B:173:VAL:CG1	2.37	0.53
2:C:211:ARG:HH22	2:C:217:THR:HG1	1.55	0.53
2:C:539:THR:CG2	2:C:540:ARG:N	2.71	0.53
2:C:1122:LYS:HG3	2:C:1229:TYR:CE1	2.43	0.53
3:D:295:GLU:OE1	3:D:295:GLU:HA	2.09	0.53
3:D:610:ARG:HH12	3:D:840:LEU:HD21	1.74	0.53
3:D:653:ILE:CD1	3:D:693:VAL:HG22	2.39	0.53
5:F:355:ILE:H	5:F:355:ILE:HD12	1.74	0.53
1:G:42:ALA:HA	1:H:38:THR:CG2	2.39	0.53
1:G:67:GLU:C	1:G:78:ILE:HD12	2.34	0.53
2:I:1291:LEU:HD23	3:J:345:LYS:HE3	1.90	0.53
3:J:209:ASN:HB2	3:J:214:ARG:HD3	1.90	0.53
3:J:261:ALA:HB1	5:L:519:LEU:HD21	1.90	0.53
3:J:372:MET:C	3:J:376:LEU:HG	2.29	0.53
3:J:572:THR:OG1	3:J:573:THR:N	2.41	0.53
3:J:601:ILE:O	3:J:605:LEU:HD12	2.08	0.53
3:J:1176:VAL:HG13	3:J:1187:GLU:HG2	1.91	0.53
2:O:1268:GLN:CG	3:P:352:ARG:HD2	2.39	0.53
3:P:19:ALA:O	3:P:20:ILE:HG13	2.08	0.53
3:P:1364:ALA:O	3:P:1367:GLN:HG2	2.08	0.53
5:R:450:ILE:CD1	5:R:504:PRO:HD3	2.39	0.53
6:7:19:DA:C2	7:8:45:DG:C2	2.97	0.53
1:A:19:VAL:CG1	1:A:20:SER:N	2.71	0.53
1:B:202:VAL:C	1:B:203:ILE:HG12	2.33	0.53
2:C:153:PRO:HB2	2:C:401:GLY:CA	2.38	0.53
2:C:676:ALA:HA	2:C:679:ALA:HB3	1.89	0.53
2:C:1166:ASP:O	2:C:1169:VAL:HB	2.09	0.53
3:D:135:ILE:O	3:D:139:LEU:HG	2.09	0.53
5:F:480:PRO:HG2	5:F:495:ARG:HH21	1.73	0.53
2:I:107:ARG:NH2	2:I:484:LEU:HD11	2.24	0.53
2:I:1172:LEU:O	2:I:1176:LEU:HG	2.09	0.53
3:J:589:TYR:O	3:J:592:VAL:HG13	2.09	0.53
3:J:880:VAL:HG12	3:J:881:LYS:N	2.23	0.53
5:L:130:VAL:CG2	5:L:368:GLY:HA3	2.39	0.53
5:L:166:VAL:HG12	5:L:167:ASP:N	2.24	0.53
1:M:232:VAL:CG2	1:N:221:ALA:CB	2.85	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:232:VAL:HG22	1:N:221:ALA:HB3	1.91	0.53
2:O:160:ASP:HB3	2:O:163:LYS:HB2	1.90	0.53
2:O:811:ASN:ND2	2:O:1099:ASN:HA	2.23	0.53
2:O:948:ILE:O	2:O:951:MET:HB2	2.09	0.53
3:P:28:ASP:HA	3:P:31:ARG:HD2	1.91	0.53
3:P:342:LEU:HD22	3:P:1352:ILE:O	2.09	0.53
3:P:515:ARG:HH21	3:P:717:VAL:CG2	2.22	0.53
4:Q:54:ILE:HG12	4:Q:59:ILE:CG2	2.39	0.53
5:R:310:GLU:CB	5:R:355:ILE:HD13	2.36	0.53
6:7:53:DG:C4	6:7:54:DA:C6	2.97	0.53
1:B:193:GLU:O	1:B:194:GLN:HB2	2.08	0.52
2:C:94:ALA:HB2	2:C:129:LEU:CD1	2.40	0.52
2:C:670:PHE:CE2	2:C:1113:LEU:HB2	2.44	0.52
3:D:544:LEU:HD22	3:D:578:ILE:HD12	1.91	0.52
3:D:1179:PRO:CD	3:D:1184:ASP:O	2.54	0.52
1:G:232:VAL:CG1	1:H:221:ALA:HB3	2.39	0.52
2:I:15:PHE:CD2	2:I:1190:ALA:HB2	2.44	0.52
2:I:689:ALA:CB	2:I:1233:LEU:CD1	2.72	0.52
2:I:808:ASN:N	2:I:808:ASN:HD22	2.07	0.52
3:J:70:CYS:CB	3:J:90:VAL:HG11	2.39	0.52
3:J:442:ILE:HG13	3:J:443:GLU:O	2.08	0.52
4:K:59:ILE:HG23	4:K:64:LEU:HD21	1.89	0.52
6:4:44:DG:C2'	6:4:45:DT:O4'	2.57	0.52
6:4:48:DA:OP1	6:4:48:DA:H4'	2.09	0.52
1:M:112:ALA:O	1:M:115:ILE:HD13	2.01	0.52
2:O:292:ILE:HB	2:O:322:LEU:HD11	1.91	0.52
2:O:453:ILE:HG13	2:O:587:LEU:HD21	1.91	0.52
2:O:566:GLY:O	2:O:569:ILE:HG22	2.08	0.52
2:O:736:VAL:O	2:O:741:MET:HE2	2.09	0.52
2:O:1246:ARG:NH2	2:O:1258:PRO:HB3	2.24	0.52
2:O:1268:GLN:HG2	3:P:352:ARG:HD2	1.91	0.52
3:P:251:PRO:O	5:R:507:MET:CE	2.42	0.52
3:P:511:TYR:HD1	3:P:596:LEU:O	1.91	0.52
6:7:49:DG:H5'	6:7:50:DT:OP2	2.09	0.52
2:C:155:VAL:HG22	2:C:405:PHE:CD2	2.45	0.52
2:C:550:VAL:CG2	3:D:780:ARG:HD2	2.40	0.52
2:C:672:GLU:CG	2:C:1187:PHE:HA	2.39	0.52
2:C:1180:MET:CG	2:C:1181:PRO:HD2	2.35	0.52
3:D:364:HIS:CD2	3:D:364:HIS:H	2.26	0.52
3:D:497:GLU:CB	3:D:498:PRO:HD2	2.33	0.52
1:H:28:LEU:C	1:H:28:LEU:CD1	2.82	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:65:ASN:HA	2:I:105:TYR:HB2	1.91	0.52
2:I:558:VAL:HG13	2:I:559:CYS:O	2.09	0.52
3:J:621:ALA:HA	3:J:624:ILE:CD1	2.39	0.52
2:O:205:PRO:O	2:O:208:ILE:HG22	2.10	0.52
2:O:524:ILE:O	2:O:528:ARG:HG2	2.08	0.52
2:O:1288:GLN:HB2	3:P:1356:LEU:HD23	1.89	0.52
3:P:211:GLU:O	3:P:215:LYS:HG3	2.09	0.52
3:P:1155:ILE:CG2	3:P:1156:LEU:H	2.23	0.52
1:A:159:ILE:HA	1:A:162:GLU:HB2	1.91	0.52
1:A:227:GLN:O	1:A:231:PHE:CE2	2.62	0.52
2:C:390:PHE:CD2	2:C:390:PHE:N	2.78	0.52
3:D:141:PHE:HA	3:D:180:MET:HG2	1.92	0.52
3:D:782:GLY:O	3:D:785:ASP:HB2	2.09	0.52
3:D:923:ILE:O	3:D:926:PRO:HD2	2.10	0.52
5:F:426:LYS:HB3	6:1:39:DA:OP2	2.09	0.52
5:F:456:MET:O	5:F:459:THR:OG1	2.24	0.52
1:H:59:VAL:CG2	1:H:144:ILE:HG23	2.39	0.52
3:J:34:SER:CB	3:J:104:HIS:HB3	2.39	0.52
3:J:367:GLY:O	3:J:447:ILE:HG22	2.09	0.52
3:J:909:ILE:CG1	3:J:910:ASN:N	2.68	0.52
3:J:930:LEU:CB	3:J:1134:ILE:HD11	2.39	0.52
3:J:1200:GLU:CG	3:J:1201:GLY:H	2.19	0.52
1:N:189:ALA:HA	1:N:199:ASP:CB	2.40	0.52
2:O:212:ALA:HB1	2:O:363:LEU:HD23	1.91	0.52
2:O:812:PHE:O	2:O:1099:ASN:ND2	2.42	0.52
2:O:898:GLU:OE1	2:O:898:GLU:N	2.41	0.52
3:P:366:CYS:SG	3:P:437:PHE:CB	2.98	0.52
5:R:311:THR:HG22	5:R:345:GLN:HE21	1.74	0.52
2:C:616:ILE:HG23	2:C:653:MET:CA	2.39	0.52
2:C:626:GLU:O	2:C:626:GLU:HG3	2.08	0.52
3:D:791:ALA:HA	7:2:12:DG:H5'	1.92	0.52
1:G:45:ARG:HH12	2:I:1216:ARG:HA	1.74	0.52
1:H:68:TYR:CE1	1:H:79:LEU:CD2	2.93	0.52
2:I:1184:THR:O	2:I:1184:THR:CG2	2.58	0.52
2:I:1257:GLN:CB	2:I:1258:PRO:HD2	2.37	0.52
3:J:70:CYS:CB	3:J:90:VAL:HG12	2.39	0.52
3:J:268:LEU:HB3	3:J:306:LEU:HD13	1.89	0.52
3:J:270:ARG:HA	3:J:273:ILE:HD12	1.90	0.52
3:J:645:VAL:HG23	3:J:645:VAL:O	2.09	0.52
3:J:826:ILE:HG22	3:J:826:ILE:O	2.09	0.52
3:J:975:ILE:HD12	3:J:997:VAL:HG11	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:216:LEU:CG	5:L:220:LYS:HE2	2.33	0.52
2:O:344:GLY:HA3	2:O:346:TYR:CZ	2.44	0.52
2:O:347:ILE:HD11	2:O:433:ILE:HD11	1.90	0.52
2:O:595:THR:HG22	2:O:596:ASP:OD1	2.10	0.52
2:O:595:THR:HG23	2:O:596:ASP:OD1	2.08	0.52
2:O:801:ARG:O	2:O:1094:VAL:HG12	2.10	0.52
3:P:26:SER:HB3	3:P:29:MET:HB2	1.91	0.52
3:P:47:ARG:NH1	5:R:496:LYS:HD3	2.25	0.52
3:P:978:ARG:HH12	3:P:1025:MET:HE3	1.73	0.52
5:R:459:THR:O	5:R:463:LEU:CD2	2.57	0.52
1:A:13:LEU:HD11	1:A:16:ILE:HG12	1.90	0.52
2:C:672:GLU:HG2	2:C:1187:PHE:HA	1.91	0.52
2:C:857:VAL:HG11	2:C:861:ALA:HB3	1.91	0.52
2:C:1064:ASP:OD1	2:C:1239:VAL:HG12	2.10	0.52
3:D:363:LEU:HD12	3:D:363:LEU:C	2.33	0.52
3:D:399:LYS:HE3	5:F:612:ASP:CG	2.35	0.52
1:G:125:LYS:HG2	1:G:127:GLN:HG3	1.91	0.52
1:H:59:VAL:HG22	1:H:144:ILE:HG12	1.91	0.52
1:H:83:LEU:HD13	1:H:86:LYS:HD2	1.92	0.52
1:H:186:ASN:O	1:H:201:LEU:CD1	2.57	0.52
2:I:227:LYS:HZ3	2:I:298:ALA:HB1	1.73	0.52
2:I:1112:ILE:HG22	3:J:641:ILE:CG1	2.39	0.52
2:I:1283:ALA:HB1	3:J:479:GLU:OE2	2.09	0.52
3:J:58:CYS:SG	3:J:60:ARG:HB3	2.50	0.52
1:N:57:THR:HG23	1:N:158:ARG:CZ	2.39	0.52
2:O:1324:ASN:OD1	2:O:1327:LEU:HD12	2.09	0.52
3:P:30:ILE:HA	3:P:33:TRP:CE3	2.45	0.52
3:P:262:THR:C	5:R:507:MET:SD	2.92	0.52
3:P:363:LEU:HA	3:P:450:HIS:CE1	2.45	0.52
3:P:796:LEU:HG	3:P:800:LEU:HD11	1.91	0.52
2:C:283:LYS:C	2:C:284:LEU:HG	2.35	0.52
6:1:48:DA:OP1	6:1:48:DA:H4'	2.10	0.52
1:G:179:PRO:O	1:G:208:ASN:ND2	2.43	0.52
2:I:15:PHE:O	2:I:17:LYS:CE	2.58	0.52
2:I:90:VAL:CG1	2:I:91:THR:N	2.72	0.52
2:I:1165:SER:H	2:I:1168:GLU:CD	2.17	0.52
3:J:796:LEU:O	3:J:800:LEU:HG	2.10	0.52
3:P:273:ILE:HG22	3:P:277:ASN:ND2	2.24	0.52
3:P:653:ILE:HD13	3:P:693:VAL:HG22	1.90	0.52
3:P:826:ILE:HG23	3:P:831:VAL:CG2	2.37	0.52
5:R:423:ARG:HD3	6:7:37:DA:C2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:224:LEU:O	1:G:224:LEU:HD12	2.10	0.52
2:I:763:THR:O	2:I:833:ILE:HD12	2.09	0.52
3:J:405:GLU:O	3:J:408:VAL:HB	2.08	0.52
3:J:478:LEU:HD11	4:K:24:ALA:HA	1.92	0.52
3:J:530:PRO:HD2	3:J:531:LYS:HD2	1.92	0.52
3:J:1090:ILE:HG23	3:J:1091:PRO:HD2	1.90	0.52
5:L:483:LEU:HD23	5:L:494:ILE:HG21	1.91	0.52
6:4:49:DG:C8	6:4:49:DG:H3'	2.44	0.52
1:N:193:GLU:O	1:N:194:GLN:CB	2.57	0.52
2:O:1223:ARG:HD3	3:P:637:ALA:HA	1.90	0.52
3:P:97:VAL:HG11	3:P:101:ARG:NE	2.24	0.52
3:P:1253:ILE:HA	3:P:1256:ILE:HD12	1.91	0.52
1:A:32:GLU:HG2	1:A:33:ARG:N	2.25	0.52
1:A:208:ASN:N	1:A:208:ASN:ND2	2.58	0.52
1:B:38:THR:HB	1:B:39:LEU:HD21	1.86	0.52
1:B:230:ALA:HB3	1:B:231:PHE:CE2	2.45	0.52
2:C:94:ALA:HB2	2:C:129:LEU:HD11	1.92	0.52
2:I:1019:ASP:O	2:I:1022:LYS:HB3	2.10	0.52
3:J:1224:ARG:HB3	3:J:1228:ALA:HB3	1.91	0.52
5:L:453:PRO:O	5:L:456:MET:HB3	2.10	0.52
2:O:13:LYS:HB3	2:O:1182:ILE:HG12	1.91	0.52
2:O:595:THR:HG22	2:O:596:ASP:CG	2.35	0.52
2:O:976:ARG:O	2:O:980:VAL:HG23	2.10	0.52
3:P:111:THR:HG23	3:P:112:ALA:H	1.73	0.52
3:P:635:SER:OG	3:P:636:GLY:N	2.42	0.52
3:P:836:ARG:HD2	3:P:873:GLU:CD	2.35	0.52
3:P:1046:ILE:HD12	3:P:1059:LEU:HD13	1.92	0.52
2:C:432:LEU:C	2:C:432:LEU:HD12	2.34	0.52
2:C:850:ILE:HD11	2:C:1048:LYS:CD	2.40	0.52
2:C:915:ASP:C	2:C:915:ASP:OD1	2.53	0.52
3:D:322:ARG:HB2	3:D:323:PRO:HD2	1.91	0.52
3:D:702:GLN:HG3	3:D:723:TYR:CZ	2.45	0.52
3:D:885:VAL:HG13	3:D:894:VAL:HG11	1.91	0.52
4:E:10:VAL:HG22	4:E:19:LEU:HD22	1.92	0.52
4:E:82:ALA:O	4:E:86:ILE:HG13	2.09	0.52
5:F:488:LEU:HG	5:F:488:LEU:O	2.10	0.52
6:1:53:DG:C4	6:1:54:DA:C6	2.98	0.52
2:I:753:LEU:HD11	2:I:769:PRO:HG3	1.90	0.52
2:I:805:MET:O	2:I:811:ASN:ND2	2.43	0.52
2:I:964:LEU:HD13	2:I:1025:PHE:HB2	1.91	0.52
2:I:1147:ARG:NH2	2:I:1201:LEU:HD21	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1315:MET:HE2	3:J:473:THR:CG2	2.40	0.52
3:J:116:PHE:CE1	3:J:1333:THR:HG22	2.44	0.52
3:J:379:PRO:HG2	3:J:380:PHE:N	2.24	0.52
3:J:1326:GLN:NE2	7:5:10:DC:H4'	2.25	0.52
2:O:202:ARG:H	2:O:369:MET:CE	2.22	0.52
3:P:22:ILE:CD1	3:P:1319:PHE:CE1	2.76	0.52
3:P:433:GLY:O	3:P:457:TYR:HE1	1.92	0.52
3:P:826:ILE:HG12	3:P:831:VAL:HG22	1.92	0.52
1:A:105:SER:HA	1:A:139:SER:HB2	1.91	0.52
2:C:448:LEU:HD12	2:C:553:THR:O	2.10	0.52
2:C:1176:LEU:N	2:C:1176:LEU:HD23	2.24	0.52
3:D:113:HIS:HB3	3:D:116:PHE:CD2	2.45	0.52
3:D:363:LEU:CD2	3:D:487:THR:HG22	2.40	0.52
3:D:546:ALA:O	3:D:548:VAL:CG2	2.58	0.52
1:G:125:LYS:HG2	1:G:127:GLN:CG	2.40	0.52
2:I:194:LEU:HD12	2:I:195:PHE:N	2.25	0.52
2:I:653:MET:HG2	2:I:654:ASP:N	2.25	0.52
2:I:699:LEU:HG	2:I:799:ASN:OD1	2.09	0.52
2:I:893:THR:HG22	2:I:895:LEU:HG	1.92	0.52
2:I:898:GLU:CB	5:L:540:LEU:HD21	2.40	0.52
2:I:1276:TRP:HB3	3:J:921:GLN:NE2	2.25	0.52
3:J:34:SER:HG	3:J:104:HIS:CG	2.16	0.52
3:J:385:LEU:HD22	3:J:400:MET:HE1	1.92	0.52
3:J:803:VAL:CG1	3:J:1259:GLN:HB3	2.39	0.52
3:J:1226:VAL:O	3:J:1229:VAL:HG12	2.10	0.52
3:J:1248:ILE:HG22	3:J:1249:ASN:O	2.10	0.52
7:5:31:DT:H2''	7:5:32:DA:OP2	2.10	0.52
7:5:45:DG:C2	7:5:46:DT:C2	2.98	0.52
2:O:800:MET:CB	2:O:1096:ILE:HD12	2.40	0.52
3:P:264:ASP:OD2	5:R:508:GLU:HG3	2.10	0.52
4:Q:50:ALA:HA	4:Q:53:GLU:OE1	2.10	0.52
5:R:302:PHE:HE1	5:R:315:TRP:CZ3	2.28	0.52
1:B:104:LYS:HE3	1:B:114:ASP:CG	2.35	0.51
1:B:167:PRO:HD2	1:B:170:ARG:HB2	1.93	0.51
2:C:106:GLU:HG2	2:C:115:LYS:HD2	1.92	0.51
2:C:153:PRO:HA	2:C:177:ILE:O	2.10	0.51
2:C:839:VAL:HG23	2:C:886:LYS:NZ	2.24	0.51
2:C:1124:ILE:O	2:C:1128:ILE:HD12	2.10	0.51
2:C:1141:LEU:O	2:C:1145:ILE:CD1	2.58	0.51
3:D:1251:LYS:O	3:D:1255:VAL:HG23	2.10	0.51
3:D:1357:ILE:HG23	3:D:1358:PRO:HD2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:591:ILE:HG22	3:J:592:VAL:N	2.25	0.51
5:L:139:GLU:O	5:L:143:TYR:HD1	1.92	0.51
1:M:179:PRO:CA	1:M:208:ASN:ND2	2.73	0.51
2:O:698:PRO:HG3	2:O:1231:TYR:CE2	2.45	0.51
2:O:718:ALA:HB2	2:O:783:LEU:HD21	1.90	0.51
2:O:1296:ASP:CG	3:P:345:LYS:HZ3	2.17	0.51
1:B:88:LEU:HD22	1:B:128:HIS:HD2	1.71	0.51
1:B:166:ARG:CZ	1:B:166:ARG:HB2	2.38	0.51
2:C:149:LEU:HD13	2:C:453:ILE:CD1	2.40	0.51
2:C:1161:LEU:HD12	2:C:1161:LEU:C	2.35	0.51
3:D:965:SER:O	3:D:966:VAL:HB	2.10	0.51
5:F:573:LEU:N	7:2:45:DG:OP2	2.43	0.51
1:H:217:ILE:H	1:H:217:ILE:CD1	2.21	0.51
2:I:804:PHE:O	3:J:638:SER:CB	2.58	0.51
3:J:156:ARG:HH22	3:J:192:MET:HA	1.74	0.51
3:J:759:ILE:HG23	3:J:771:GLN:CD	2.35	0.51
2:O:303:ASP:HB2	2:O:310:ILE:HG13	1.91	0.51
2:O:1120:ALA:HB2	2:O:1199:LEU:HD23	1.91	0.51
3:P:185:ILE:HG23	3:P:189:LEU:HD11	1.92	0.51
3:P:736:GLN:O	3:P:740:LEU:HG	2.09	0.51
3:P:773:PHE:C	3:P:773:PHE:CD2	2.88	0.51
3:P:1162:ILE:CG1	3:P:1180:VAL:CG1	2.84	0.51
5:R:130:VAL:HG13	5:R:365:MET:CG	2.40	0.51
5:R:260:ARG:HH12	5:R:422:ARG:HH22	1.57	0.51
1:B:111:THR:OG1	1:B:126:PRO:O	2.28	0.51
1:B:142:MET:HG2	1:B:143:ARG:N	2.26	0.51
2:C:452:ARG:NH1	2:C:454:ARG:CG	2.73	0.51
2:C:1010:GLN:HA	2:C:1013:GLN:HG3	1.92	0.51
3:D:458:ASN:ND2	8:3:17:C:O2'	2.42	0.51
5:F:105:MET:SD	5:F:385:ARG:HG2	2.50	0.51
5:F:395:THR:HA	5:F:404:LEU:HD13	1.92	0.51
2:I:280:ASP:O	2:I:281:ASP:HB2	2.09	0.51
2:I:1116:HIS:CD2	3:J:641:ILE:HG13	2.45	0.51
3:J:382:TYR:HB3	3:J:394:ILE:HG23	1.90	0.51
3:J:553:THR:CG2	3:J:566:LYS:C	2.80	0.51
3:J:864:LEU:HD22	3:J:869:CYS:SG	2.50	0.51
1:N:32:GLU:HG2	1:N:33:ARG:H	1.76	0.51
2:O:67:GLU:CD	2:O:105:TYR:OH	2.52	0.51
2:O:655:VAL:HB	2:O:659:GLN:OE1	2.11	0.51
2:O:871:VAL:HG11	2:O:928:VAL:HG21	1.91	0.51
3:P:332:LYS:C	3:P:333:GLY:O	2.53	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:844:THR:HG23	3:P:862:THR:O	2.10	0.51
3:P:1227:HIS:O	3:P:1231:ARG:HB2	2.10	0.51
3:P:1297:LYS:HD3	3:P:1297:LYS:N	2.24	0.51
5:R:470:MET:HE1	5:R:483:LEU:HA	1.93	0.51
6:7:55:DC:H2"	6:7:56:DG:C8	2.45	0.51
2:C:757:THR:CG2	2:C:758:ARG:N	2.73	0.51
3:D:298:MET:CE	5:F:402:LEU:HB2	2.32	0.51
3:D:551:ARG:O	3:D:552:ILE:HD13	2.11	0.51
3:D:807:LEU:HD11	3:D:1259:GLN:HE21	1.75	0.51
5:F:506:SER:CB	5:F:509:THR:OG1	2.54	0.51
1:G:66:HIS:CE1	1:G:69:SER:HB3	2.45	0.51
1:G:208:ASN:O	1:G:210:THR:N	2.36	0.51
2:I:796:LEU:HB3	2:I:1233:LEU:HD11	1.93	0.51
2:I:1330:ILE:O	2:I:1333:LEU:HB2	2.09	0.51
3:J:373:ALA:CA	3:J:376:LEU:CD1	2.74	0.51
3:J:583:VAL:O	3:J:583:VAL:HG12	2.11	0.51
3:J:872:LEU:HD23	3:J:872:LEU:O	2.10	0.51
3:J:1145:PHE:HZ	3:J:1253:ILE:HG23	1.76	0.51
3:J:1249:ASN:HB3	3:J:1251:LYS:HG2	1.91	0.51
3:J:1253:ILE:O	3:J:1257:VAL:HG23	2.10	0.51
4:K:30:MET:HE1	4:K:37:PRO:HB3	1.91	0.51
5:L:113:ARG:HA	5:L:426:LYS:HZ1	1.75	0.51
2:O:1307:ASN:HB3	2:O:1312:ASN:CB	2.40	0.51
2:O:1326:LEU:CD1	2:O:1330:ILE:HD11	2.40	0.51
3:P:280:LYS:HA	3:P:283:LEU:HD12	1.93	0.51
3:P:517:CYS:CB	3:P:545:HIS:HB2	2.40	0.51
3:P:786:THR:CG2	3:P:787:ALA:N	2.73	0.51
3:P:931:THR:O	3:P:935:PHE:HD2	1.93	0.51
3:D:138:VAL:HG11	3:D:185:ILE:HD11	1.90	0.51
3:D:363:LEU:O	3:D:363:LEU:CD1	2.53	0.51
5:F:299:LYS:O	5:F:302:PHE:HB3	2.11	0.51
6:1:34:DG:N2	7:2:29:DC:O2	2.43	0.51
2:I:82:VAL:HG23	2:I:83:GLN:N	2.25	0.51
2:I:589:THR:CG2	2:I:590:PRO:HD2	2.40	0.51
2:I:695:ALA:HB1	2:I:795:ALA:HB3	1.93	0.51
2:I:794:LEU:HG	2:I:796:LEU:HG	1.91	0.51
2:I:1293:VAL:O	2:I:1301:ARG:HB3	2.10	0.51
3:J:899:TYR:CG	3:J:915:ILE:HD13	2.45	0.51
1:M:9:LEU:CD2	1:M:198:LEU:HD21	2.18	0.51
2:O:359:ARG:HE	2:O:363:LEU:HD11	1.74	0.51
2:O:616:ILE:HG12	2:O:652:TYR:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:678:ARG:HG3	2:O:1106:ARG:O	2.10	0.51
2:O:1108:ASN:OD1	2:O:1108:ASN:N	2.44	0.51
3:P:955:LYS:HG2	3:P:956:GLY:N	2.25	0.51
5:R:344:LEU:O	5:R:347:ILE:HB	2.11	0.51
5:R:376:LYS:O	5:R:380:VAL:HG23	2.09	0.51
5:R:426:LYS:HG2	6:7:39:DA:H3'	1.93	0.51
1:A:58:GLU:HG2	1:A:172:LEU:CD1	2.40	0.51
1:A:77:ASP:OD2	2:C:756:TYR:OH	2.22	0.51
1:A:88:LEU:HD21	1:A:112:ALA:HB2	1.92	0.51
1:B:44:ARG:HA	1:B:183:ILE:HD11	1.90	0.51
1:B:82:LEU:HB3	1:B:83:LEU:HD22	1.93	0.51
1:H:192:VAL:HG12	1:H:198:LEU:HD22	1.86	0.51
2:I:183:TRP:HE3	2:I:199:ASP:OD1	1.94	0.51
2:I:1119:MET:HE1	2:I:1208:GLY:O	2.10	0.51
3:J:33:TRP:CE3	3:J:102:MET:HE1	2.46	0.51
3:J:522:GLY:HA3	3:J:525:MET:SD	2.50	0.51
3:J:724:MET:O	3:J:728:SER:OG	2.26	0.51
3:J:826:ILE:HG12	3:J:831:VAL:HA	1.93	0.51
5:L:102:MET:HB3	6:4:42:DG:C2	2.45	0.51
5:L:476:ARG:HG3	5:L:477:GLU:N	2.25	0.51
1:N:39:LEU:O	1:N:43:LEU:HD12	2.10	0.51
2:O:112:GLY:C	2:O:114:VAL:N	2.69	0.51
2:O:468:LEU:O	2:O:471:VAL:HB	2.10	0.51
2:O:482:GLY:HA3	2:O:487:LEU:HD12	1.92	0.51
2:O:598:VAL:HG13	2:O:627:GLY:HA2	1.93	0.51
2:O:755:LYS:HD3	2:O:767:GLN:O	2.11	0.51
2:O:758:ARG:HD2	2:O:835:GLU:HB2	1.91	0.51
2:O:812:PHE:CE2	2:O:813:GLU:HG3	2.45	0.51
2:O:1212:LEU:HD11	2:O:1225:VAL:HB	1.93	0.51
2:O:1309:VAL:HA	3:P:383:GLY:HA3	1.93	0.51
3:P:36:GLY:HA3	3:P:61:ILE:HG12	1.92	0.51
3:P:139:LEU:CG	3:P:185:ILE:HD12	2.40	0.51
3:P:262:THR:N	5:R:507:MET:HE3	2.24	0.51
3:P:341:ASN:O	3:P:345:LYS:HE2	2.09	0.51
3:P:527:LEU:HD22	3:P:532:GLU:CD	2.36	0.51
2:C:202:ARG:HB2	2:C:369:MET:HE1	1.91	0.51
2:C:303:ASP:HB2	2:C:310:ILE:HG13	1.92	0.51
2:C:1305:TYR:O	2:C:1309:VAL:HG23	2.11	0.51
3:D:703:THR:HG21	3:D:715:LYS:HE3	1.93	0.51
1:G:228:LEU:HA	1:G:231:PHE:HE2	1.67	0.51
2:I:794:LEU:HD12	2:I:795:ALA:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:808:ASN:CA	3:J:629:PHE:HB3	2.41	0.51
2:I:976:ARG:O	2:I:980:VAL:HB	2.10	0.51
2:I:1120:ALA:O	2:I:1124:ILE:HG13	2.11	0.51
3:J:121:PRO:O	3:J:122:SER:CB	2.58	0.51
3:J:358:GLY:HA3	3:J:361:LEU:HD12	1.91	0.51
3:J:749:LYS:CB	3:J:750:PRO:CD	2.64	0.51
4:K:52:ARG:O	4:K:55:GLU:HB3	2.10	0.51
5:L:123:ILE:HG21	5:L:376:LYS:HE3	1.93	0.51
2:O:90:VAL:HG12	2:O:91:THR:H	1.75	0.51
3:P:549:LYS:HB3	3:P:569:LEU:HD22	1.93	0.51
3:P:1251:LYS:O	3:P:1254:GLU:HB2	2.11	0.51
5:R:452:ILE:HG22	5:R:457:ILE:HG12	1.93	0.51
1:A:51:MET:SD	1:A:52:PRO:HD2	2.50	0.51
1:B:83:LEU:HD13	1:B:86:LYS:CE	2.41	0.51
2:C:7:GLU:O	2:C:11:ILE:HG12	2.11	0.51
2:C:92:TYR:CB	2:C:137:VAL:HB	2.41	0.51
2:C:295:LYS:HB2	2:C:317:LEU:HD12	1.93	0.51
2:C:631:GLU:O	2:C:634:VAL:HG22	2.10	0.51
2:C:1141:LEU:C	2:C:1145:ILE:HD12	2.36	0.51
3:D:1179:PRO:HB2	3:D:1182:GLY:O	2.10	0.51
3:D:1253:ILE:HA	3:D:1256:ILE:CD1	2.40	0.51
3:D:1270:GLY:H	3:D:1274:PHE:HD2	1.59	0.51
6:1:48:DA:C2'	6:1:49:DG:C8	2.94	0.51
1:H:185:TYR:HB2	1:H:201:LEU:HD11	1.91	0.51
2:I:13:LYS:NZ	2:I:1148:ALA:O	2.39	0.51
2:I:459:MET:HE1	2:I:535:PRO:HG2	1.93	0.51
2:I:524:ILE:O	2:I:528:ARG:HG2	2.11	0.51
2:I:1302:THR:HG23	2:I:1303:LYS:N	2.26	0.51
3:J:485:MET:HG3	3:J:487:THR:H	1.75	0.51
3:J:838:ARG:NE	3:J:1250:ASP:OD2	2.42	0.51
1:M:11:PRO:HG2	1:N:231:PHE:CE2	2.45	0.51
1:M:47:LEU:CA	1:M:51:MET:HG2	2.39	0.51
1:M:51:MET:HE3	1:M:52:PRO:HD2	1.92	0.51
1:M:184:ALA:HB2	2:O:1091:GLY:CA	2.40	0.51
2:O:123:TYR:CZ	2:O:125:GLY:HA2	2.45	0.51
2:O:758:ARG:HB2	2:O:833:ILE:HG21	1.92	0.51
2:O:810:TYR:HE2	2:O:1078:LYS:HD2	1.75	0.51
3:P:139:LEU:HD11	3:P:185:ILE:HD13	1.85	0.51
5:R:218:ARG:NH1	5:R:218:ARG:HB2	2.26	0.51
5:R:363:ARG:O	5:R:367:ILE:HG13	2.11	0.51
1:B:60:GLU:C	1:B:61:ILE:HD12	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:292:ILE:CG2	2:C:317:LEU:HD13	2.40	0.51
2:C:796:LEU:HB3	2:C:1233:LEU:HD11	1.93	0.51
3:D:442:ILE:CD1	3:D:443:GLU:O	2.59	0.51
3:D:508:LEU:HD12	3:D:508:LEU:O	2.11	0.51
3:D:530:PRO:O	3:D:533:ALA:HB3	2.09	0.51
3:D:638:SER:C	3:D:639:VAL:CG2	2.83	0.51
1:H:68:TYR:CE1	1:H:79:LEU:HD22	2.46	0.51
2:I:96:LEU:HD22	2:I:127:ILE:HD11	1.92	0.51
2:I:316:GLU:HG2	2:I:352:ARG:HH22	1.76	0.51
2:I:898:GLU:HB3	5:L:540:LEU:HD21	1.93	0.51
2:I:1117:LEU:HD11	2:I:1182:ILE:CD1	2.40	0.51
2:I:1132:LEU:HD13	2:I:1174:GLU:HG2	1.93	0.51
3:J:343:LEU:HD21	3:J:1348:LYS:HD3	1.93	0.51
3:J:1306:LEU:HD12	3:J:1307:LEU:N	2.26	0.51
1:N:167:PRO:HG2	1:N:170:ARG:HH11	1.75	0.51
2:O:392:GLU:HG2	2:O:419:ILE:HD13	1.93	0.51
2:O:678:ARG:HG3	2:O:1108:ASN:ND2	2.26	0.51
2:O:678:ARG:CG	2:O:1106:ARG:O	2.59	0.51
3:P:38:VAL:HG11	3:P:56:LEU:CD2	2.41	0.51
3:P:525:MET:O	3:P:548:VAL:HG13	2.11	0.51
3:P:843:VAL:CG2	3:P:897:HIS:O	2.59	0.51
5:R:330:LEU:O	5:R:330:LEU:HD23	2.10	0.51
2:C:155:VAL:HG23	2:C:405:PHE:HA	1.93	0.51
2:C:225:PHE:HE2	2:C:347:ILE:HB	1.76	0.51
3:D:264:ASP:O	3:D:268:LEU:HG	2.11	0.51
3:D:614:LEU:O	3:D:614:LEU:HD12	2.10	0.51
3:D:690:ASN:C	3:D:690:ASN:ND2	2.68	0.51
2:I:844:LYS:NZ	3:J:47:ARG:HD3	2.25	0.51
3:J:132:LEU:HA	3:J:135:ILE:HD12	1.93	0.51
3:J:275:ARG:CZ	3:J:301:GLU:OE1	2.59	0.51
3:J:826:ILE:HG12	3:J:831:VAL:HG13	1.93	0.51
5:L:132:CYS:SG	5:L:257:LYS:CE	2.97	0.51
5:L:170:ALA:HA	5:L:259:PHE:HD1	1.75	0.51
1:N:189:ALA:HA	1:N:199:ASP:HB2	1.92	0.51
2:O:946:LEU:HD13	2:O:946:LEU:O	2.11	0.51
3:P:68:TYR:CD1	3:P:93:THR:HA	2.46	0.51
5:R:323:ASN:CG	5:R:324:LYS:N	2.59	0.51
1:A:11:PRO:HD3	1:B:227:GLN:OE1	2.11	0.50
1:B:39:LEU:N	1:B:39:LEU:CD2	2.44	0.50
3:D:45:ASN:HB3	3:D:48:THR:O	2.10	0.50
3:D:58:CYS:SG	3:D:60:ARG:HB3	2.51	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:514:THR:CG2	3:D:596:LEU:HG	2.29	0.50
3:D:641:ILE:HA	3:D:644:MET:SD	2.50	0.50
3:D:814:CYS:HB3	3:D:890:THR:OG1	2.12	0.50
5:F:100:MET:HE2	5:F:103:ARG:NH2	2.19	0.50
5:F:315:TRP:HZ2	5:F:341:LEU:HD11	1.75	0.50
5:F:575:GLU:HA	5:F:578:LYS:CD	2.41	0.50
6:1:53:DG:C5	6:1:54:DA:N6	2.79	0.50
2:I:148:GLN:HB3	2:I:454:ARG:HB2	1.93	0.50
2:I:296:VAL:HG22	2:I:316:GLU:HA	1.92	0.50
2:I:1109:ILE:HG23	2:I:1112:ILE:HD12	1.93	0.50
2:I:1166:ASP:O	2:I:1169:VAL:HB	2.11	0.50
3:J:549:LYS:HE2	3:J:571:ASP:OD2	2.11	0.50
3:J:1036:ARG:CZ	3:J:1081:VAL:HG11	2.41	0.50
4:K:26:ARG:HH22	4:K:35:LYS:HB2	1.75	0.50
5:L:295:CYS:O	5:L:296:LYS:CE	2.50	0.50
1:M:11:PRO:O	1:N:231:PHE:CZ	2.64	0.50
2:O:533:LEU:HD23	2:O:538:LEU:O	2.11	0.50
2:O:1289:GLU:HA	2:O:1293:VAL:HG22	1.93	0.50
3:P:252:LEU:HD12	3:P:261:ALA:O	2.12	0.50
3:P:490:ILE:H	3:P:490:ILE:CD1	2.17	0.50
3:P:1268:ASN:O	3:P:1300:ALA:CB	2.58	0.50
2:C:1287:LEU:HG	2:C:1288:GLN:N	2.19	0.50
3:D:41:PRO:HB2	3:D:270:ARG:HG2	1.93	0.50
3:D:1173:ARG:HB2	3:D:1190:ILE:HB	1.93	0.50
2:I:481:LEU:HG	2:I:482:GLY:N	2.27	0.50
2:I:1302:THR:HA	5:L:531:PRO:HG3	1.92	0.50
3:J:368:LEU:HD12	3:J:369:PRO:HD2	1.93	0.50
3:J:370:LYS:HG3	3:J:443:GLU:HA	1.93	0.50
3:J:395:LYS:O	3:J:398:LYS:HB2	2.10	0.50
3:J:1173:ARG:C	3:J:1190:ILE:HD12	2.35	0.50
3:J:1356:LEU:C	3:J:1357:ILE:HD12	2.35	0.50
1:M:81:ILE:HD13	1:M:131:CYS:HB2	1.93	0.50
1:M:162:GLU:O	1:M:162:GLU:HG2	2.11	0.50
2:O:1283:ALA:HB1	3:P:479:GLU:CD	2.36	0.50
2:O:1298:VAL:HG12	2:O:1299:ASN:N	2.26	0.50
3:P:58:CYS:HG	3:P:60:ARG:HB3	1.74	0.50
3:P:68:TYR:C	3:P:92:VAL:HG13	2.36	0.50
6:7:50:DT:O3'	6:7:51:DC:O4'	2.29	0.50
1:A:234:LEU:CD2	1:B:12:ARG:HH12	2.21	0.50
2:C:12:ARG:HG3	2:C:1181:PRO:O	2.11	0.50
2:C:296:VAL:HG13	2:C:315:MET:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:866:ASP:OD1	2:C:867:GLU:HG3	2.11	0.50
3:D:250:ARG:HB2	3:D:266:ASN:OD1	2.12	0.50
3:D:347:VAL:HG11	3:D:469:HIS:CE1	2.47	0.50
3:D:496:GLY:HA2	3:D:903:LEU:HD22	1.91	0.50
3:D:1078:LEU:HD13	3:D:1121:LEU:HD22	1.93	0.50
3:D:1233:ILE:O	3:D:1237:VAL:CG2	2.53	0.50
5:F:266:PHE:O	5:F:270:VAL:HG23	2.12	0.50
3:J:68:TYR:CD2	3:J:78:LEU:HD22	2.47	0.50
3:J:519:ASN:OD1	3:J:520:ALA:N	2.40	0.50
3:J:885:VAL:O	3:J:1258:ARG:HD2	2.11	0.50
3:J:975:ILE:CD1	3:J:980:THR:HG21	2.39	0.50
5:L:598:LEU:O	5:L:604:SER:OG	2.30	0.50
2:O:886:LYS:HD2	2:O:916:SER:CB	2.41	0.50
2:O:898:GLU:CD	5:R:565:ILE:CG2	2.85	0.50
3:P:968:ASN:HA	3:P:1117:SER:O	2.11	0.50
5:R:460:ILE:HA	5:R:463:LEU:CD1	2.42	0.50
1:B:9:LEU:HD12	1:B:10:LYS:N	2.26	0.50
1:B:61:ILE:HG23	1:B:142:MET:HB3	1.93	0.50
2:C:188:PHE:CE2	2:C:432:LEU:CD1	2.89	0.50
2:C:1010:GLN:O	2:C:1013:GLN:HB2	2.11	0.50
3:D:830:ASP:OD1	3:D:831:VAL:N	2.44	0.50
3:D:1256:ILE:HG22	3:D:1260:MET:HE2	1.93	0.50
5:F:518:HIS:O	5:F:520:GLY:N	2.44	0.50
1:H:174:ASP:OD1	1:H:174:ASP:N	2.40	0.50
2:I:1064:ASP:OD1	2:I:1239:VAL:N	2.40	0.50
2:I:1312:ASN:ND2	4:K:32:VAL:HG21	2.26	0.50
2:I:1323:PHE:HE1	2:I:1327:LEU:HD21	1.76	0.50
1:N:31:LEU:HD13	1:N:39:LEU:HD12	1.90	0.50
2:O:9:LYS:HE2	2:O:1171:ARG:CD	2.41	0.50
3:P:275:ARG:NH1	3:P:298:MET:O	2.44	0.50
3:P:604:MET:HE2	3:P:605:LEU:CD2	2.41	0.50
1:A:58:GLU:HG2	1:A:172:LEU:HD13	1.93	0.50
1:B:67:GLU:CA	1:B:78:ILE:HG21	2.40	0.50
1:B:155:ALA:HB1	1:B:172:LEU:HD21	1.92	0.50
2:C:92:TYR:H	2:C:137:VAL:HB	1.77	0.50
2:C:106:GLU:OE2	2:C:115:LYS:HD2	2.12	0.50
2:C:403:MET:CE	2:C:407:ARG:HH22	2.22	0.50
2:C:559:CYS:HB2	2:C:662:SER:HB3	1.90	0.50
2:C:1042:LEU:HD13	2:C:1049:ILE:CD1	2.42	0.50
3:D:422:LEU:HD23	3:D:436:ALA:HA	1.94	0.50
3:D:1353:VAL:CG2	3:D:1355:ARG:HG3	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:511:ILE:HD11	5:F:519:LEU:HD13	1.87	0.50
1:H:40:GLY:HA2	1:H:43:LEU:CD1	2.42	0.50
2:I:309:LEU:HD13	2:I:312:ALA:HB2	1.94	0.50
2:I:1269:ARG:NH2	7:5:14:DC:OP1	2.44	0.50
3:J:43:THR:OG1	3:J:44:ILE:N	2.45	0.50
3:J:371:LYS:O	3:J:374:LEU:HB3	2.12	0.50
3:J:421:VAL:HG13	3:J:471:PRO:HD2	1.93	0.50
3:J:490:ILE:HA	3:J:500:ILE:HD12	1.92	0.50
5:L:476:ARG:HG3	5:L:477:GLU:H	1.77	0.50
2:O:99:LYS:HG3	2:O:121:GLU:HG3	1.94	0.50
2:O:693:LEU:CB	2:O:831:ILE:HD11	2.36	0.50
2:O:1031:ALA:O	2:O:1035:LYS:HG3	2.11	0.50
3:P:147:ILE:HD11	3:P:179:LYS:HD2	1.94	0.50
3:P:154:LEU:HD13	3:P:158:GLN:HG2	1.93	0.50
3:P:548:VAL:CG1	3:P:549:LYS:N	2.74	0.50
3:P:864:LEU:HD22	3:P:868:TRP:HB2	1.93	0.50
5:R:146:GLU:OE2	5:R:150:ARG:NH2	2.44	0.50
2:C:85:CYS:SG	2:C:90:VAL:HB	2.52	0.50
2:C:809:GLY:HA3	3:D:629:PHE:CD1	2.46	0.50
2:C:1108:ASN:OD1	2:C:1108:ASN:N	2.45	0.50
3:D:140:TYR:O	3:D:141:PHE:HB2	2.12	0.50
1:G:145:LYS:HZ1	1:G:170:ARG:HH21	1.60	0.50
1:H:70:THR:HG23	1:H:70:THR:O	2.11	0.50
2:I:240:GLU:HG3	2:I:284:LEU:HD23	1.93	0.50
2:I:1044:PRO:HB3	5:L:498:LEU:HD22	1.94	0.50
3:J:424:ASN:O	3:J:466:MET:HE3	2.10	0.50
3:J:966:VAL:HG21	3:J:1030:GLU:HA	1.93	0.50
4:K:26:ARG:O	4:K:30:MET:HG3	2.12	0.50
2:O:209:ILE:CG2	2:O:210:LEU:H	2.25	0.50
2:O:213:LEU:O	2:O:214:ASN:CB	2.60	0.50
2:O:435:ILE:HA	2:O:440:GLY:H	1.77	0.50
2:O:706:ARG:O	2:O:710:VAL:HG23	2.12	0.50
2:O:738:GLU:HA	2:O:741:MET:HE3	1.94	0.50
2:O:1108:ASN:C	2:O:1109:ILE:HD13	2.36	0.50
3:P:1328:THR:O	3:P:1332:LEU:CD2	2.59	0.50
5:R:440:THR:C	5:R:443:ILE:HG22	2.36	0.50
5:R:587:ILE:CD1	5:R:587:ILE:H	2.14	0.50
2:C:459:MET:HB3	2:C:505:PHE:HZ	1.76	0.50
2:C:726:TYR:HB3	2:C:733:VAL:CG2	2.39	0.50
3:D:43:THR:OG1	3:D:44:ILE:HG13	2.12	0.50
3:D:812:ASP:N	3:D:812:ASP:OD1	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1175:LEU:HD22	3:D:1190:ILE:HD11	1.93	0.50
6:1:55:DC:H2"	6:1:56:DG:C8	2.47	0.50
1:H:92:VAL:HG22	1:H:121:VAL:HG13	1.94	0.50
3:J:357:VAL:HG22	3:J:461:PHE:CE2	2.46	0.50
5:L:544:THR:O	5:L:548:LEU:HG	2.11	0.50
1:M:44:ARG:HA	1:M:183:ILE:HD13	1.94	0.50
2:O:1103:VAL:HB	2:O:1104:PRO:HD3	1.93	0.50
3:P:38:VAL:HG11	3:P:56:LEU:HD23	1.92	0.50
3:P:646:ILE:HG13	3:P:764:ARG:NH1	2.26	0.50
5:R:426:LYS:HG3	5:R:427:PHE:N	2.27	0.50
1:A:38:THR:CG2	1:B:42:ALA:CB	2.90	0.50
1:A:45:ARG:HD2	1:B:38:THR:HA	1.94	0.50
2:C:160:ASP:CG	2:C:163:LYS:CD	2.80	0.50
3:D:355:ILE:O	3:D:355:ILE:HG13	2.10	0.50
3:D:720:ASN:O	3:D:724:MET:CG	2.58	0.50
1:G:58:GLU:HB2	1:G:145:LYS:HB2	1.91	0.50
2:I:192:ASP:CG	2:I:436:ARG:HH21	2.18	0.50
2:I:429:MET:O	2:I:433:ILE:HG13	2.12	0.50
2:O:390:PHE:N	2:O:390:PHE:CD2	2.80	0.50
2:O:520:PRO:HB2	2:O:794:LEU:HD11	1.94	0.50
2:O:575:LEU:CD1	2:O:579:ALA:HB3	2.39	0.50
2:O:671:LEU:HB2	2:O:1186:VAL:HG13	1.93	0.50
2:O:1109:ILE:HA	2:O:1112:ILE:CD1	2.41	0.50
2:O:1269:ARG:HH12	3:P:340:GLN:HG3	1.76	0.50
3:P:423:LEU:HG	3:P:437:PHE:CD1	2.47	0.50
3:P:610:ARG:NH2	3:P:901:ARG:NH1	2.60	0.50
5:R:386:LEU:CD1	6:7:41:DT:O4'	2.59	0.50
2:C:112:GLY:C	2:C:114:VAL:N	2.69	0.50
2:C:164:THR:O	2:C:165:HIS:CB	2.56	0.50
2:C:715:THR:HG22	2:C:785:ASP:HA	1.93	0.50
5:F:323:ASN:O	5:F:324:LYS:HB2	2.10	0.50
5:F:564:GLY:C	5:F:567:MET:O	2.54	0.50
6:1:30:DG:H2"	6:1:31:DT:OP2	2.11	0.50
3:J:373:ALA:O	3:J:376:LEU:HB2	2.12	0.50
3:J:849:LEU:HD12	3:J:851:PRO:HD3	1.94	0.50
3:J:1038:THR:O	3:J:1040:MET:HG3	2.11	0.50
3:J:1287:ILE:CG2	3:J:1288:ALA:N	2.75	0.50
3:J:1318:SER:HA	3:J:1342:ASP:OD2	2.11	0.50
2:O:346:TYR:O	2:O:350:THR:OG1	2.26	0.50
2:O:668:ILE:HG21	2:O:671:LEU:HD13	1.94	0.50
2:O:806:PRO:HG2	3:P:632:ALA:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1253:LEU:O	2:O:1253:LEU:HG	2.10	0.50
2:O:1269:ARG:HA	3:P:346:ARG:HA	1.94	0.50
3:P:44:ILE:HD11	5:R:450:ILE:HG22	1.92	0.50
3:P:113:HIS:NE2	3:P:115:TRP:HB2	2.27	0.50
3:P:251:PRO:C	5:R:507:MET:HE1	2.32	0.50
3:P:1263:LYS:HD3	3:P:1281:GLU:HA	1.93	0.50
5:R:563:PHE:HB3	5:R:565:ILE:CD1	2.42	0.50
1:A:86:LYS:HE2	1:A:173:VAL:HG13	1.93	0.49
1:A:182:ARG:HD3	2:C:1092:THR:CG2	2.36	0.49
1:B:81:ILE:HG23	1:B:130:ILE:O	2.12	0.49
2:C:230:PHE:HD2	2:C:335:THR:HB	1.76	0.49
2:C:403:MET:HE1	2:C:586:PHE:HE2	1.76	0.49
2:C:936:ARG:CZ	2:C:1046:VAL:O	2.59	0.49
3:D:146:VAL:CB	3:D:158:GLN:HB3	2.40	0.49
3:D:255:LEU:HD12	3:D:259:ARG:HB2	1.94	0.49
3:D:382:TYR:HD1	3:D:397:ALA:HB3	1.76	0.49
3:D:714:GLU:O	3:D:715:LYS:CB	2.58	0.49
3:D:744:ARG:HB3	3:D:759:ILE:CG2	2.42	0.49
3:D:822:MET:HE3	3:D:838:ARG:HE	1.76	0.49
3:D:1177:ILE:HG13	3:D:1186:TYR:O	2.12	0.49
5:F:395:THR:CG2	5:F:404:LEU:HD13	2.41	0.49
1:G:47:LEU:CD1	1:G:183:ILE:HD13	2.37	0.49
1:G:118:ASP:HB3	1:G:121:VAL:CG2	2.42	0.49
1:G:208:ASN:HD22	1:G:208:ASN:N	2.07	0.49
2:I:49:LEU:HD13	2:I:73:TYR:CE1	2.47	0.49
2:I:85:CYS:HB3	2:I:137:VAL:HG11	1.93	0.49
2:I:298:ALA:HB2	2:I:336:LEU:HD21	1.93	0.49
2:I:816:ILE:HD11	2:I:1074:GLY:HA3	1.94	0.49
2:I:1061:GLN:NE2	2:I:1240:ASP:OD1	2.45	0.49
3:J:118:LYS:HE3	3:J:312:ARG:HA	1.94	0.49
3:J:497:GLU:CB	3:J:498:PRO:HD2	2.40	0.49
3:J:706:VAL:O	3:J:706:VAL:HG12	2.11	0.49
3:J:1146:GLU:OE2	3:J:1309:ILE:HB	2.12	0.49
6:4:33:DT:H2"	6:4:34:DG:OP2	2.12	0.49
1:N:101:THR:HG22	1:N:143:ARG:CG	2.16	0.49
2:O:618:GLN:HE21	2:O:635:THR:HG21	1.75	0.49
3:P:812:ASP:O	3:P:897:HIS:ND1	2.37	0.49
3:P:1021:ASP:OD1	3:P:1022:PRO:HD2	2.12	0.49
5:R:260:ARG:NH1	5:R:422:ARG:HH22	2.10	0.49
1:A:13:LEU:N	1:B:231:PHE:HE1	2.10	0.49
1:A:29:GLU:HB2	1:A:30:PRO:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1134:GLN:HB3	2:C:1136:GLN:HE21	1.76	0.49
2:C:1212:LEU:O	2:C:1221:PHE:CD2	2.65	0.49
3:D:643:ASP:C	3:D:722:ILE:HD11	2.37	0.49
3:D:696:ALA:O	3:D:700:ASN:HB2	2.12	0.49
3:D:1027:VAL:HG21	3:D:1124:ILE:HD11	1.93	0.49
3:J:193:ASP:OD2	3:J:196:GLN:HG3	2.12	0.49
3:J:501:VAL:CG1	3:J:502:PRO:CD	2.91	0.49
3:J:502:PRO:CG	3:J:601:ILE:CG2	2.81	0.49
3:J:839:VAL:CG1	3:J:864:LEU:CD1	2.70	0.49
3:J:972:LYS:HD3	3:J:1002:VAL:CG1	2.43	0.49
5:L:474:MET:HE2	5:L:477:GLU:O	2.11	0.49
1:N:111:THR:OG1	1:N:126:PRO:O	2.29	0.49
1:N:190:ALA:N	1:N:199:ASP:HA	2.13	0.49
2:O:1182:ILE:CG2	2:O:1183:ALA:N	2.75	0.49
2:O:1286:THR:OG1	3:P:479:GLU:OE2	2.21	0.49
3:P:48:THR:C	3:P:50:LYS:H	2.20	0.49
3:P:555:TYR:CD2	3:P:563:LEU:HB3	2.46	0.49
3:P:911:LYS:HG3	3:P:911:LYS:O	2.12	0.49
3:P:1035:VAL:CG1	3:P:1078:LEU:HD22	2.42	0.49
5:R:133:SER:CB	5:R:365:MET:SD	2.99	0.49
6:7:48:DA:H4'	6:7:48:DA:OP1	2.11	0.49
2:C:496:LYS:HE3	5:F:468:ARG:HG2	1.93	0.49
3:D:888:CYS:HB3	3:D:894:VAL:HG12	1.94	0.49
5:F:310:GLU:CD	5:F:355:ILE:HG21	2.37	0.49
5:F:520:GLY:O	5:F:523:ILE:HG13	2.12	0.49
1:G:51:MET:CE	1:G:52:PRO:HD2	2.41	0.49
2:I:186:PHE:CE1	2:I:196:VAL:HG22	2.47	0.49
2:I:557:ARG:NH2	2:I:611:GLU:OE1	2.45	0.49
2:I:1092:THR:HG22	2:I:1093:PRO:HD2	1.94	0.49
2:I:1223:ARG:HB2	2:I:1224:PRO:CD	2.43	0.49
3:J:139:LEU:CD2	3:J:182:ALA:HA	2.42	0.49
3:J:885:VAL:HG12	3:J:886:VAL:HG22	1.94	0.49
3:J:1145:PHE:HE1	3:J:1256:ILE:HD12	1.77	0.49
3:J:1360:GLY:HA2	4:K:17:PHE:CE2	2.48	0.49
3:J:1364:ALA:O	3:J:1367:GLN:HG2	2.12	0.49
5:L:137:TYR:CE2	5:L:139:GLU:HB2	2.46	0.49
6:4:30:DG:C2	7:5:34:DG:N2	2.80	0.49
1:N:31:LEU:CD1	1:N:39:LEU:CD1	2.77	0.49
2:O:213:LEU:HD11	2:O:422:LYS:HB2	1.94	0.49
2:O:496:LYS:CB	2:O:497:PRO:CD	2.83	0.49
2:O:550:VAL:HG21	3:P:776:THR:HG22	1.86	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1261:GLY:HA2	7:8:16:DC:P	2.50	0.49
2:O:1304:MET:CE	2:O:1308:ILE:HD11	2.36	0.49
3:P:322:ARG:HH11	3:P:322:ARG:CG	2.25	0.49
3:P:803:VAL:HG22	3:P:1313:SER:OG	2.12	0.49
5:R:279:ARG:O	5:R:283:GLN:HG2	2.12	0.49
5:R:476:ARG:CG	5:R:477:GLU:H	2.24	0.49
1:A:179:PRO:CA	1:A:208:ASN:ND2	2.71	0.49
2:C:130:MET:HE3	2:C:131:THR:O	2.12	0.49
2:C:241:LEU:HD22	2:C:285:ILE:CD1	2.43	0.49
2:C:653:MET:HE3	2:C:654:ASP:O	2.12	0.49
2:C:1146:GLN:HB2	2:C:1161:LEU:HD23	1.94	0.49
3:D:553:THR:HA	3:D:567:THR:HA	1.94	0.49
1:H:28:LEU:HD12	1:H:31:LEU:HD21	1.94	0.49
2:I:978:VAL:HG13	2:I:1007:LYS:HD2	1.93	0.49
2:I:1058:ARG:HH11	2:I:1238:LEU:HD12	1.76	0.49
3:J:214:ARG:NH2	3:J:215:LYS:HE2	2.27	0.49
3:J:544:LEU:HA	3:J:574:VAL:HB	1.94	0.49
5:L:583:THR:CG2	5:L:586:ARG:CB	2.89	0.49
6:4:48:DA:H2''	6:4:49:DG:C5'	2.34	0.49
2:O:184:LEU:HD11	2:O:389:PHE:CZ	2.46	0.49
3:P:176:PHE:C	3:P:176:PHE:CD2	2.90	0.49
3:P:245:LEU:HD11	3:P:249:LEU:HD12	1.94	0.49
3:P:909:ILE:HG13	3:P:910:ASN:H	1.78	0.49
3:P:1349:GLU:O	3:P:1353:VAL:HG13	2.13	0.49
5:R:134:VAL:HG22	5:R:273:MET:HE1	1.93	0.49
1:B:41:ASN:ND2	2:C:1217:THR:O	2.45	0.49
2:C:903:ARG:NH2	2:C:909:LYS:CG	2.69	0.49
2:C:1286:THR:O	2:C:1289:GLU:HB2	2.13	0.49
3:D:252:LEU:HD12	3:D:253:VAL:N	2.26	0.49
3:D:452:LEU:HB3	3:D:500:ILE:HG22	1.94	0.49
1:G:224:LEU:HD12	1:G:224:LEU:C	2.36	0.49
2:I:530:ILE:HD12	2:I:530:ILE:N	2.27	0.49
3:J:576:ARG:HB3	3:J:592:VAL:HG23	1.94	0.49
5:L:559:LEU:HD11	5:L:594:ALA:HB1	1.94	0.49
6:4:47:DC:C5'	6:4:47:DC:H6	2.25	0.49
1:M:31:LEU:CD1	1:M:201:LEU:HB2	2.42	0.49
2:O:514:PHE:CE2	7:8:18:DT:O2	2.65	0.49
2:O:1184:THR:O	2:O:1184:THR:CG2	2.61	0.49
3:P:245:LEU:HD11	3:P:249:LEU:HB2	1.93	0.49
3:P:899:TYR:CE1	3:P:915:ILE:HG21	2.48	0.49
3:P:1018:ALA:O	3:P:1019:ASN:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1263:LYS:O	3:P:1305:ASP:HB2	2.13	0.49
5:R:129:GLN:O	5:R:132:CYS:HB2	2.13	0.49
2:C:13:LYS:CE	2:C:1149:TYR:O	2.53	0.49
2:C:255:ILE:HD12	2:C:263:VAL:HB	1.95	0.49
2:C:363:LEU:HD23	2:C:366:ILE:CD1	2.42	0.49
2:C:854:ILE:HD11	2:C:917:SER:OG	2.11	0.49
2:C:1032:LYS:O	2:C:1036:ILE:HG13	2.12	0.49
2:C:1094:VAL:HG12	2:C:1095:ASP:N	2.26	0.49
2:C:1129:ASN:O	2:C:1133:LYS:HG3	2.12	0.49
2:C:1247:SER:OG	2:C:1248:THR:N	2.44	0.49
3:D:255:LEU:HD22	3:D:256:ASP:N	2.28	0.49
3:D:492:SER:HG	3:D:495:ASN:CG	2.10	0.49
3:D:592:VAL:O	3:D:592:VAL:HG22	2.13	0.49
2:I:68:LEU:HD22	2:I:492:MET:CE	2.41	0.49
2:I:528:ARG:O	2:I:530:ILE:HD11	2.13	0.49
6:4:17:DA:C5	6:4:18:DC:C4	3.00	0.49
2:O:85:CYS:HB3	2:O:137:VAL:HG11	1.94	0.49
2:O:213:LEU:HD21	2:O:422:LYS:HB3	1.95	0.49
2:O:598:VAL:HG13	2:O:627:GLY:C	2.38	0.49
3:P:935:PHE:CE1	3:P:1133:ASP:OD2	2.66	0.49
1:B:158:ARG:NH2	1:B:175:ALA:CB	2.75	0.49
2:C:741:MET:CE	2:C:747:GLY:HA3	2.42	0.49
2:C:809:GLY:N	3:D:629:PHE:CD1	2.81	0.49
3:D:271:ARG:HH12	3:D:316:ILE:HG21	1.77	0.49
3:D:515:ARG:HH21	3:D:717:VAL:CB	2.17	0.49
3:D:1133:ASP:CG	3:D:1134:ILE:H	2.20	0.49
7:2:25:DA:C2	7:2:26:DT:C4	3.00	0.49
1:H:111:THR:OG1	1:H:126:PRO:O	2.30	0.49
2:I:688:GLN:NE2	8:6:14:A:O3'	2.46	0.49
2:I:1165:SER:O	2:I:1169:VAL:HG23	2.13	0.49
2:I:1281:TYR:CD1	3:J:431:ARG:HD2	2.48	0.49
2:I:1302:THR:CG2	2:I:1303:LYS:N	2.75	0.49
3:J:355:ILE:HG23	3:J:464:ASP:O	2.11	0.49
3:J:740:LEU:HD23	3:J:763:PHE:CD2	2.47	0.49
1:M:13:LEU:HA	1:M:28:LEU:CD2	2.42	0.49
2:O:292:ILE:CB	2:O:322:LEU:HD11	2.43	0.49
2:O:464:PHE:HE1	2:O:498:ILE:HG22	1.78	0.49
2:O:551:HIS:CE1	2:O:553:THR:HG1	2.28	0.49
2:O:661:VAL:HG12	2:O:665:ALA:CB	2.42	0.49
2:O:797:GLY:HA3	2:O:1233:LEU:CD2	2.43	0.49
2:O:890:LYS:HG2	2:O:891:GLY:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:320:ASN:N	3:P:320:ASN:OD1	2.45	0.49
5:R:144:LEU:HD13	5:R:165:PHE:HE2	1.77	0.49
5:R:262:VAL:HG12	5:R:263:PRO:HD2	1.93	0.49
1:A:28:LEU:HD11	1:B:231:PHE:CZ	2.48	0.49
1:A:81:ILE:O	1:A:85:LEU:CG	2.54	0.49
2:C:160:ASP:HB3	2:C:163:LYS:CG	2.42	0.49
2:C:810:TYR:CZ	3:D:359:PRO:HG3	2.48	0.49
2:C:1077:SER:HB3	3:D:356:THR:CG2	2.43	0.49
2:C:1253:LEU:HD22	5:F:523:ILE:HG21	1.95	0.49
3:D:530:PRO:HD2	3:D:531:LYS:HZ2	1.78	0.49
3:D:638:SER:OG	3:D:639:VAL:N	2.44	0.49
5:F:148:TYR:OH	5:F:218:ARG:NH1	2.45	0.49
2:I:87:ILE:HG22	2:I:934:PHE:HZ	1.76	0.49
2:I:700:VAL:HG13	2:I:1117:LEU:CD2	2.33	0.49
2:I:960:LEU:HB3	2:I:1025:PHE:CE1	2.48	0.49
2:I:1257:GLN:HB3	2:I:1258:PRO:CD	2.42	0.49
3:J:959:LYS:HD3	3:J:985:ILE:HG13	1.95	0.49
3:J:1319:PHE:CD2	3:J:1340:LYS:HB3	2.48	0.49
1:M:69:SER:O	1:M:78:ILE:CG1	2.58	0.49
1:M:100:LEU:HD21	1:M:118:ASP:HB2	1.94	0.49
2:O:801:ARG:CZ	2:O:801:ARG:HB3	2.39	0.49
3:P:362:ARG:HA	3:P:622:ASP:OD2	2.13	0.49
3:P:371:LYS:O	3:P:374:LEU:HB3	2.12	0.49
5:R:466:ILE:CG2	5:R:470:MET:SD	2.96	0.49
1:A:38:THR:OG1	1:B:45:ARG:HD3	2.12	0.49
1:A:79:LEU:O	1:A:82:LEU:HB2	2.13	0.49
1:B:82:LEU:HB3	1:B:83:LEU:CD2	2.42	0.49
1:B:85:LEU:N	1:B:85:LEU:HD23	2.26	0.49
1:B:102:LEU:HB3	1:B:142:MET:SD	2.52	0.49
2:C:670:PHE:CE2	2:C:1113:LEU:CB	2.96	0.49
2:C:1186:VAL:HG12	2:C:1187:PHE:CD2	2.48	0.49
3:D:138:VAL:HG12	3:D:139:LEU:N	2.28	0.49
5:F:219:GLU:HG3	5:F:220:LYS:HD2	1.94	0.49
5:F:392:LYS:HD3	6:1:44:DG:O4'	2.13	0.49
5:F:574:GLU:OE2	5:F:584:ARG:HD2	2.13	0.49
2:I:118:LYS:CD	2:I:488:MET:HE3	2.36	0.49
2:I:433:ILE:O	2:I:437:ASN:ND2	2.45	0.49
2:I:636:CYS:HB2	2:I:645:PHE:HD2	1.77	0.49
5:L:170:ALA:HB1	5:L:259:PHE:HE1	1.78	0.49
2:O:363:LEU:HA	2:O:366:ILE:HD12	1.95	0.49
2:O:448:LEU:HG	2:O:553:THR:HB	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:634:VAL:HG12	2:O:635:THR:N	2.27	0.49
2:O:1161:LEU:HD12	2:O:1164:PHE:CD2	2.47	0.49
3:P:110:PRO:HB3	3:P:240:THR:HG22	1.95	0.49
3:P:425:ARG:HG2	3:P:426:ALA:O	2.13	0.49
3:P:544:LEU:HD23	3:P:578:ILE:CD1	2.42	0.49
3:P:613:GLY:O	3:P:617:THR:HG23	2.12	0.49
2:C:186:PHE:CE2	2:C:196:VAL:HG13	2.48	0.49
2:C:246:LEU:HD23	2:C:249:GLU:OE1	2.13	0.49
2:C:521:LEU:HD23	2:C:686:GLN:O	2.13	0.49
2:C:1077:SER:HB3	3:D:356:THR:HG22	1.94	0.49
2:C:1108:ASN:C	2:C:1109:ILE:HD13	2.38	0.49
3:D:182:ALA:HB1	3:D:238:ILE:HD11	1.93	0.49
3:D:425:ARG:HH22	8:3:16:U:C2'	2.23	0.49
5:F:554:ARG:HG3	5:F:555:GLU:H	1.78	0.49
5:F:554:ARG:O	5:F:558:VAL:HG23	2.13	0.49
2:I:817:LEU:HB2	2:I:1097:VAL:HB	1.94	0.49
3:J:382:TYR:HD1	3:J:397:ALA:HB1	1.78	0.49
3:J:680:ASN:OD1	3:J:1023:HIS:CE1	2.66	0.49
1:N:67:GLU:O	1:N:78:ILE:HB	2.13	0.49
2:O:618:GLN:HE21	2:O:635:THR:CG2	2.26	0.49
2:O:1073:LYS:HE3	3:P:462:ASP:CG	2.37	0.49
3:P:151:MET:HA	3:P:151:MET:HE3	1.93	0.49
3:P:1286:LYS:HB2	3:P:1286:LYS:HE2	1.56	0.49
5:R:450:ILE:HD13	5:R:504:PRO:HD3	1.95	0.49
6:7:53:DG:H1'	6:7:54:DA:C5	2.48	0.49
1:A:79:LEU:O	1:A:83:LEU:HD23	2.12	0.48
2:C:432:LEU:HD12	2:C:432:LEU:O	2.11	0.48
2:C:949:GLU:O	2:C:953:LEU:HG	2.13	0.48
2:C:1061:GLN:CB	2:C:1062:PRO:HD2	2.35	0.48
3:D:227:PHE:CE1	3:D:234:PRO:HD3	2.48	0.48
3:D:808:VAL:HG12	3:D:809:VAL:N	2.26	0.48
3:D:1061:VAL:O	3:D:1104:LYS:CA	2.61	0.48
5:F:491:GLU:HA	5:F:494:ILE:CD1	2.41	0.48
5:F:584:ARG:CZ	5:F:584:ARG:HB2	2.41	0.48
6:1:49:DG:H3'	6:1:50:DT:H5''	1.94	0.48
1:G:30:PRO:HB2	1:G:198:LEU:HD22	1.94	0.48
1:G:48:LEU:HD23	1:G:180:VAL:HB	1.89	0.48
1:H:106:GLY:HA2	1:H:136:GLU:O	2.13	0.48
2:I:335:THR:HG22	2:I:336:LEU:N	2.28	0.48
2:I:839:VAL:HG22	2:I:1049:ILE:HG23	1.95	0.48
2:I:1255:THR:O	2:I:1256:GLN:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1269:ALA:HB2	3:J:1275:LEU:HD13	1.94	0.48
1:M:208:ASN:HD22	1:M:208:ASN:N	2.10	0.48
1:N:82:LEU:HD22	1:N:173:VAL:HG22	1.95	0.48
2:O:272:ARG:HB3	2:O:272:ARG:CZ	2.43	0.48
2:O:544:GLY:O	2:O:548:ARG:HG3	2.13	0.48
2:O:828:PHE:O	2:O:1234:LYS:NZ	2.46	0.48
2:O:1267:GLY:HA3	3:P:347:VAL:O	2.13	0.48
3:P:22:ILE:HD12	3:P:1335:ALA:HB1	1.95	0.48
3:P:141:PHE:CZ	3:P:181:GLY:HA3	2.48	0.48
3:P:615:LYS:H	3:P:615:LYS:HD2	1.78	0.48
3:P:954:ASN:O	3:P:984:LEU:HD21	2.12	0.48
7:8:42:DG:H2''	7:8:43:DA:OP2	2.13	0.48
2:C:1109:ILE:HD13	2:C:1109:ILE:N	2.27	0.48
3:D:65:VAL:HG22	3:D:98:ARG:CZ	2.42	0.48
1:G:145:LYS:NZ	1:G:170:ARG:HH21	2.11	0.48
1:H:83:LEU:O	3:J:528:THR:CG2	2.61	0.48
2:I:30:ILE:H	2:I:30:ILE:HG13	1.44	0.48
2:I:170:VAL:C	2:I:171:LEU:HD23	2.38	0.48
2:I:178:PRO:HG3	2:I:395:TYR:CE1	2.47	0.48
2:I:205:PRO:HB2	2:I:207:THR:HG22	1.95	0.48
2:I:369:MET:HG3	2:I:370:MET:N	2.27	0.48
2:I:806:PRO:HB2	3:J:632:ALA:HB1	1.94	0.48
2:I:1338:GLU:O	3:J:20:ILE:HG23	2.13	0.48
3:J:245:LEU:HD12	3:J:246:PRO:HD2	1.95	0.48
3:J:425:ARG:HD2	3:J:457:TYR:HB3	1.96	0.48
5:L:95:THR:O	5:L:97:PRO:HD3	2.13	0.48
2:O:189:ASP:CG	2:O:190:PRO:HD2	2.38	0.48
2:O:690:VAL:CG1	2:O:691:PRO:HD2	2.43	0.48
2:O:1243:MET:CG	3:P:372:MET:CE	2.71	0.48
2:O:1246:ARG:CZ	2:O:1258:PRO:HB3	2.43	0.48
3:P:116:PHE:HB3	3:P:124:ILE:HG13	1.96	0.48
3:P:262:THR:CA	5:R:507:MET:SD	3.01	0.48
3:P:930:LEU:CB	3:P:1134:ILE:HD11	2.39	0.48
4:Q:69:ARG:O	4:Q:73:GLN:HG3	2.12	0.48
5:R:493:LYS:O	5:R:497:VAL:HG23	2.13	0.48
1:A:230:ALA:HB3	1:A:231:PHE:CE1	2.48	0.48
1:B:92:VAL:HG12	1:B:93:GLN:N	2.28	0.48
2:C:10:ARG:NH1	2:C:697:LYS:CB	2.73	0.48
2:C:179:TYR:CE2	2:C:462:ASN:OD1	2.67	0.48
2:C:672:GLU:HB2	2:C:673:HIS:CD2	2.48	0.48
2:C:718:ALA:HB2	2:C:783:LEU:HD21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:725:GLN:HB3	2:C:733:VAL:HG23	1.94	0.48
2:C:1305:TYR:CD2	3:D:379:PRO:HB3	2.48	0.48
3:D:1229:VAL:O	3:D:1233:ILE:CD1	2.61	0.48
5:F:451:ARG:NH1	6:1:32:DA:P	2.81	0.48
1:H:39:LEU:C	1:H:43:LEU:CD1	2.86	0.48
2:I:78:PRO:CB	2:I:93:SER:O	2.58	0.48
2:I:558:VAL:CG1	2:I:559:CYS:O	2.62	0.48
2:I:720:ARG:HB3	2:I:740:GLU:HG2	1.96	0.48
2:I:1184:THR:OG1	2:I:1189:GLY:CA	2.61	0.48
2:I:1323:PHE:O	2:I:1327:LEU:HG	2.13	0.48
3:J:146:VAL:CG2	3:J:158:GLN:CB	2.91	0.48
3:J:421:VAL:CG1	3:J:422:LEU:H	2.11	0.48
3:J:825:VAL:CG1	3:J:1242:ARG:HH12	2.26	0.48
3:J:899:TYR:CE1	3:J:915:ILE:CG2	2.94	0.48
1:M:184:ALA:CB	2:O:1091:GLY:HA3	2.42	0.48
1:N:64:VAL:HG12	1:N:64:VAL:O	2.13	0.48
2:O:1095:ASP:C	2:O:1096:ILE:HG13	2.38	0.48
2:O:1315:MET:HB2	3:P:473:THR:HG21	1.95	0.48
3:P:394:ILE:H	3:P:394:ILE:HG13	1.37	0.48
3:P:741:ALA:HA	3:P:762:ASN:HD22	1.78	0.48
3:P:1306:LEU:HD12	3:P:1307:LEU:N	2.28	0.48
3:P:1346:GLY:H	3:P:1349:GLU:CD	2.22	0.48
4:Q:10:VAL:HG11	4:Q:16:ARG:HG2	1.94	0.48
5:R:306:PHE:CZ	5:R:310:GLU:HG2	2.48	0.48
6:7:47:DC:H3'	6:7:48:DA:H5''	1.95	0.48
1:A:31:LEU:HA	1:A:31:LEU:HD23	1.43	0.48
1:B:67:GLU:HG3	1:B:68:TYR:CZ	2.48	0.48
1:B:213:PRO:O	1:B:216:ALA:HB3	2.14	0.48
2:C:551:HIS:N	2:C:554:HIS:CE1	2.76	0.48
2:C:669:PRO:HD3	2:C:1069:ARG:HD2	1.94	0.48
3:D:635:SER:OG	3:D:636:GLY:N	2.46	0.48
3:D:922:SER:O	3:D:926:PRO:CD	2.57	0.48
3:D:1284:ARG:HA	3:D:1287:ILE:CD1	2.42	0.48
5:F:310:GLU:OE1	5:F:355:ILE:HB	2.13	0.48
5:F:423:ARG:NH1	6:1:37:DA:C5	2.81	0.48
5:F:584:ARG:H	5:F:584:ARG:NH1	2.10	0.48
6:1:48:DA:H2''	6:1:49:DG:C8	2.49	0.48
2:I:237:LEU:CD1	2:I:292:ILE:HD12	2.42	0.48
2:I:694:ARG:O	2:I:798:GLN:NE2	2.47	0.48
2:I:700:VAL:HG21	2:I:1114:GLU:HG3	1.96	0.48
3:J:501:VAL:CG1	3:J:502:PRO:HD2	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:589:TYR:C	3:J:591:ILE:N	2.71	0.48
3:J:806:ASP:O	3:J:808:VAL:HG23	2.13	0.48
2:O:400:VAL:HG21	2:O:452:ARG:NH2	2.28	0.48
2:O:788:SER:OG	2:O:795:ALA:O	2.28	0.48
2:O:886:LYS:HD2	2:O:916:SER:HB2	1.95	0.48
2:O:1073:LYS:HD2	3:P:462:ASP:HB2	1.95	0.48
2:O:1280:ALA:HB3	3:P:431:ARG:HB3	1.96	0.48
3:P:65:VAL:HG22	3:P:98:ARG:NH1	2.28	0.48
3:P:299:LEU:O	3:P:303:VAL:HG23	2.14	0.48
3:P:544:LEU:HA	3:P:574:VAL:HB	1.94	0.48
3:P:646:ILE:HG13	3:P:764:ARG:HH11	1.79	0.48
3:P:1075:ARG:CG	3:P:1192:LYS:HB3	2.42	0.48
5:R:310:GLU:HB3	5:R:355:ILE:CD1	2.41	0.48
5:R:470:MET:HE2	5:R:478:PRO:CB	2.42	0.48
2:C:616:ILE:CD1	2:C:652:TYR:HB2	2.43	0.48
2:C:850:ILE:HD12	2:C:942:ASP:OD2	2.12	0.48
2:C:1077:SER:HB3	3:D:357:VAL:HG23	1.95	0.48
3:D:478:LEU:HD21	4:E:23:ALA:HB3	1.96	0.48
3:D:849:LEU:HD21	3:D:857:LEU:HD23	1.95	0.48
5:F:429:THR:OG1	6:1:39:DA:H8	1.97	0.48
7:2:25:DA:H2''	7:2:26:DT:H5''	1.94	0.48
1:G:17:GLU:OE2	1:G:19:VAL:HG22	2.13	0.48
1:G:118:ASP:HB3	1:G:121:VAL:HG23	1.94	0.48
2:I:178:PRO:HG3	2:I:182:SER:O	2.13	0.48
2:I:951:MET:HE3	2:I:951:MET:HB3	1.68	0.48
2:I:1281:TYR:CE2	3:J:431:ARG:HB2	2.48	0.48
3:J:58:CYS:SG	3:J:60:ARG:N	2.86	0.48
3:J:598:LYS:O	3:J:601:ILE:HB	2.11	0.48
3:J:803:VAL:HG12	3:J:1259:GLN:HB3	1.95	0.48
3:J:1263:LYS:HE3	3:J:1315:ALA:HB1	1.95	0.48
4:K:76:GLU:O	4:K:80:LEU:HG	2.13	0.48
5:L:130:VAL:HG23	5:L:368:GLY:HA3	1.93	0.48
5:L:488:LEU:HG	5:L:488:LEU:O	2.13	0.48
1:M:13:LEU:HB2	1:M:28:LEU:HD21	1.94	0.48
1:M:208:ASN:HD22	1:M:208:ASN:H	1.60	0.48
2:O:729:ALA:O	2:O:730:SER:HB3	2.13	0.48
3:P:796:LEU:HA	3:P:799:ARG:HE	1.78	0.48
5:R:95:THR:O	5:R:97:PRO:HD3	2.13	0.48
1:A:234:LEU:HD22	1:B:12:ARG:NH1	2.22	0.48
1:B:219:ARG:O	1:B:223:ILE:HG13	2.14	0.48
3:D:496:GLY:CA	3:D:903:LEU:HD22	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:839:VAL:O	3:D:842:ARG:HG3	2.14	0.48
1:H:44:ARG:HH12	3:J:538:ARG:HB3	1.76	0.48
2:I:313:ALA:O	2:I:314:ASN:HB3	2.13	0.48
2:I:384:LEU:HG	2:I:388:LEU:HD11	1.96	0.48
2:I:688:GLN:NE2	8:6:14:A:O2'	2.46	0.48
2:I:782:VAL:HG21	2:I:792:GLY:HA2	1.95	0.48
3:J:261:ALA:HB2	5:L:519:LEU:HD21	1.96	0.48
3:J:1173:ARG:HB2	3:J:1190:ILE:CB	2.43	0.48
5:L:555:GLU:OE1	5:L:597:LYS:NZ	2.40	0.48
5:L:565:ILE:O	5:L:566:ASP:CB	2.62	0.48
2:O:189:ASP:OD1	2:O:190:PRO:HD2	2.13	0.48
2:O:1324:ASN:HA	2:O:1327:LEU:HD12	1.95	0.48
3:P:421:VAL:HG12	3:P:422:LEU:N	2.29	0.48
3:P:1163:VAL:CG1	3:P:1175:LEU:CD2	2.86	0.48
5:R:377:LYS:O	5:R:381:GLU:HG3	2.13	0.48
5:R:521:ASP:N	5:R:521:ASP:OD1	2.47	0.48
1:A:15:ASP:O	1:A:26:VAL:HG13	2.13	0.48
1:A:70:THR:HG23	1:A:70:THR:O	2.14	0.48
1:B:31:LEU:O	1:B:198:LEU:HB3	2.14	0.48
2:C:92:TYR:CB	2:C:137:VAL:CG2	2.92	0.48
2:C:176:ILE:N	2:C:176:ILE:HD12	2.28	0.48
2:C:529:ARG:C	2:C:530:ILE:HG13	2.39	0.48
2:C:1210:ILE:HG23	2:C:1211:ARG:N	2.28	0.48
2:C:1264:GLN:O	2:C:1265:PHE:HB3	2.13	0.48
3:D:139:LEU:CD2	3:D:185:ILE:HD11	2.34	0.48
3:D:1062:LEU:HD13	3:D:1066:GLU:OE1	2.14	0.48
3:D:1163:VAL:HG22	3:D:1177:ILE:HA	1.95	0.48
3:D:1350:ASN:O	3:D:1353:VAL:HG22	2.13	0.48
4:E:5:THR:HG22	4:E:7:GLN:H	1.79	0.48
5:F:585:GLU:HG2	7:2:46:DT:H73	1.96	0.48
1:G:110:VAL:HG12	1:G:130:ILE:HD12	1.95	0.48
2:I:255:ILE:HG22	2:I:255:ILE:O	2.13	0.48
2:I:296:VAL:CG1	2:I:297:VAL:H	2.26	0.48
3:J:510:LEU:N	3:J:510:LEU:HD23	2.28	0.48
3:J:1306:LEU:HD12	3:J:1307:LEU:H	1.77	0.48
1:M:15:ASP:CB	1:M:27:THR:OG1	2.61	0.48
1:M:47:LEU:CD2	1:M:220:ALA:CB	2.91	0.48
1:N:188:GLU:O	1:N:200:LYS:HB2	2.13	0.48
2:O:1073:LYS:HG3	3:P:462:ASP:CB	2.44	0.48
2:O:1289:GLU:HA	2:O:1293:VAL:CG2	2.44	0.48
3:P:197:GLU:O	3:P:201:LEU:HG	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:807:LEU:HD11	3:P:1258:ARG:HD3	1.95	0.48
3:P:1263:LYS:HB2	3:P:1307:LEU:HD11	1.95	0.48
3:P:1347:LEU:O	3:P:1351:VAL:HG23	2.13	0.48
5:R:586:ARG:HE	5:R:590:ILE:HD11	1.78	0.48
1:A:47:LEU:O	1:A:51:MET:HB2	2.12	0.48
1:A:100:LEU:CD1	1:A:115:ILE:HG22	2.38	0.48
1:B:70:THR:HG23	1:B:70:THR:O	2.14	0.48
1:B:224:LEU:O	1:B:228:LEU:HG	2.14	0.48
2:C:197:ARG:HB3	2:C:200:ARG:HA	1.96	0.48
3:D:334:LYS:HA	3:D:339:ARG:HD2	1.96	0.48
3:D:1163:VAL:HG12	3:D:1164:SER:N	2.27	0.48
5:F:309:ASN:O	5:F:311:THR:N	2.45	0.48
6:1:47:DC:C6	6:1:47:DC:H5''	2.48	0.48
2:I:160:ASP:HB3	2:I:163:LYS:HG3	1.96	0.48
2:I:566:GLY:HA2	3:J:787:ALA:HB2	1.95	0.48
2:I:599:VAL:HG23	2:I:627:GLY:O	2.14	0.48
2:I:807:TRP:HA	3:J:633:ALA:HB2	1.95	0.48
2:I:1030:GLU:O	2:I:1034:ARG:HG3	2.14	0.48
2:I:1132:LEU:HD11	2:I:1177:ARG:HB2	1.95	0.48
2:I:1283:ALA:HB1	3:J:479:GLU:CD	2.38	0.48
2:I:1290:MET:HA	2:I:1294:LYS:HB2	1.96	0.48
2:I:1294:LYS:HB3	3:J:347:VAL:CG1	2.43	0.48
2:I:1315:MET:HE2	2:I:1315:MET:CA	2.30	0.48
3:J:596:LEU:HD22	3:J:600:ALA:CB	2.41	0.48
3:J:712:GLN:CD	3:J:712:GLN:N	2.72	0.48
5:L:318:ALA:O	5:L:321:ALA:HB3	2.13	0.48
5:L:493:LYS:HZ2	5:L:496:LYS:CD	2.27	0.48
3:P:312:ARG:O	3:P:312:ARG:HG2	2.14	0.48
3:P:1081:VAL:HB	3:P:1085:GLY:O	2.14	0.48
3:P:1243:LEU:HD22	3:P:1244:GLN:HE21	1.76	0.48
3:P:1344:LEU:CA	3:P:1349:GLU:OE1	2.48	0.48
1:A:41:ASN:HD21	2:C:1218:GLY:HA2	1.79	0.48
1:A:118:ASP:OD1	1:A:119:GLY:N	2.46	0.48
1:B:158:ARG:NH2	1:B:175:ALA:HB2	2.28	0.48
3:D:572:THR:HG1	3:D:576:ARG:HB2	1.78	0.48
3:D:1154:ALA:HA	3:D:1211:SER:OG	2.14	0.48
3:D:1216:ALA:O	3:D:1220:ILE:HG13	2.14	0.48
2:I:521:LEU:CD2	2:I:687:ARG:HG2	2.41	0.48
2:I:1253:LEU:HD12	2:I:1253:LEU:O	2.14	0.48
2:I:1270:PHE:HA	2:I:1274:GLU:HG2	1.94	0.48
2:I:1304:MET:C	2:I:1304:MET:HE3	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:230:SER:HB2	3:J:1339:GLY:HA3	1.96	0.48
3:J:955:LYS:HE2	3:J:1010:GLN:OE1	2.14	0.48
5:L:458:GLU:OE2	7:5:28:DG:C8	2.64	0.48
5:L:507:MET:O	5:L:519:LEU:HB2	2.08	0.48
1:N:214:GLU:HB3	1:N:218:ARG:HH22	1.78	0.48
2:O:242:VAL:HG13	2:O:243:PRO:HD2	1.94	0.48
2:O:881:ASP:O	2:O:920:VAL:HG23	2.14	0.48
2:O:1202:GLY:O	2:O:1203:ASP:HB2	2.14	0.48
2:O:1255:THR:HG22	2:O:1257:GLN:HG3	1.96	0.48
3:P:72:CYS:SG	3:P:74:LYS:HB2	2.54	0.48
3:P:603:LYS:O	3:P:607:THR:OG1	2.32	0.48
3:P:1306:LEU:O	3:P:1306:LEU:HG	2.08	0.48
4:Q:79:GLU:O	4:Q:79:GLU:HG2	2.12	0.48
5:R:385:ARG:C	5:R:388:ILE:HG22	2.39	0.48
5:R:514:ASP:OD2	5:R:516:ASP:HB2	2.13	0.48
5:R:529:GLU:OE2	5:R:534:SER:HA	2.14	0.48
6:7:46:DG:C3'	6:7:47:DC:H5''	2.44	0.48
1:A:41:ASN:HD21	2:C:1218:GLY:CA	2.23	0.48
1:B:88:LEU:HD12	1:B:89:ALA:H	1.77	0.48
2:C:295:LYS:C	2:C:317:LEU:HD12	2.39	0.48
2:C:1103:VAL:N	2:C:1104:PRO:CD	2.77	0.48
3:D:749:LYS:HG2	3:D:755:ILE:CG1	2.40	0.48
3:D:839:VAL:O	3:D:839:VAL:CG1	2.62	0.48
3:D:960:LEU:HD23	3:D:982:LEU:HD12	1.96	0.48
5:F:575:GLU:HA	5:F:578:LYS:CE	2.44	0.48
1:H:32:GLU:O	1:H:35:PHE:HB2	2.14	0.48
2:I:1326:LEU:HG	2:I:1330:ILE:HD11	1.96	0.48
3:J:68:TYR:C	3:J:92:VAL:CG1	2.87	0.48
7:5:6:DG:OP2	7:5:6:DG:C8	2.59	0.48
2:O:606:LEU:HD22	2:O:610:GLU:HB3	1.96	0.48
3:P:139:LEU:CD2	3:P:185:ILE:HD12	2.44	0.48
3:P:201:LEU:HB3	3:P:221:ILE:HD11	1.96	0.48
3:P:1031:VAL:HG13	3:P:1091:PRO:HD3	1.94	0.48
5:R:563:PHE:HB3	5:R:565:ILE:HD12	1.95	0.48
1:A:86:LYS:HG2	1:A:173:VAL:HG11	1.94	0.47
2:C:136:PHE:CE2	2:C:145:ILE:HD11	2.49	0.47
2:C:409:LEU:CD1	2:C:427:ASP:CB	2.91	0.47
2:C:530:ILE:HD11	2:C:575:LEU:N	2.29	0.47
2:C:1007:LYS:HD3	2:C:1007:LYS:N	2.29	0.47
3:D:43:THR:OG1	3:D:44:ILE:N	2.47	0.47
5:F:520:GLY:CA	5:F:523:ILE:HD11	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2:24:DT:H2"	7:2:25:DA:OP1	2.14	0.47
1:G:71:LYS:NZ	1:G:139:SER:O	2.39	0.47
2:I:104:ILE:HD12	2:I:116:ASP:HB2	1.96	0.47
2:I:240:GLU:CG	2:I:284:LEU:CD2	2.92	0.47
2:I:528:ARG:O	2:I:530:ILE:CD1	2.61	0.47
2:I:993:PRO:HB2	2:I:996:ARG:HB2	1.96	0.47
2:I:1155:VAL:O	2:I:1155:VAL:CG1	2.61	0.47
3:J:246:PRO:HB2	3:J:249:LEU:HG	1.95	0.47
3:J:331:ILE:HG22	3:J:338:PHE:HE2	1.78	0.47
3:J:722:ILE:O	3:J:725:MET:HB2	2.14	0.47
3:J:1200:GLU:HG2	3:J:1201:GLY:N	2.26	0.47
3:J:1240:VAL:HB	3:J:1241:TYR:CD2	2.49	0.47
3:J:1348:LYS:O	3:J:1351:VAL:HB	2.14	0.47
4:K:58:LEU:HD23	4:K:58:LEU:N	2.29	0.47
1:M:31:LEU:HD12	1:M:201:LEU:HB2	1.95	0.47
2:O:92:TYR:HB2	2:O:137:VAL:HB	1.96	0.47
2:O:462:ASN:O	2:O:465:ARG:HB2	2.13	0.47
2:O:524:ILE:HD11	2:O:712:SER:CB	2.41	0.47
2:O:1286:THR:HG23	3:P:479:GLU:OE2	2.14	0.47
3:P:394:ILE:HD11	5:R:539:SER:HB2	1.95	0.47
3:P:1364:ALA:HA	3:P:1367:GLN:HG2	1.96	0.47
1:B:158:ARG:HH21	1:B:175:ALA:HB2	1.78	0.47
2:C:160:ASP:OD1	2:C:163:LYS:HD3	2.13	0.47
2:C:665:ALA:HA	2:C:668:ILE:HD11	1.96	0.47
3:D:113:HIS:CB	3:D:239:LEU:HD11	2.43	0.47
3:D:385:LEU:HD23	3:D:390:LEU:HB2	1.96	0.47
3:D:773:PHE:CD2	3:D:773:PHE:O	2.66	0.47
3:D:1159:ILE:HG22	3:D:1160:SER:N	2.28	0.47
5:F:496:LYS:O	5:F:500:ILE:HG13	2.14	0.47
2:I:82:VAL:O	2:I:86:GLN:HG3	2.15	0.47
2:I:761:GLN:O	2:I:762:ASN:HB2	2.14	0.47
2:I:806:PRO:CA	2:I:811:ASN:HD21	2.25	0.47
2:I:846:GLY:CA	2:I:889:PRO:HG2	2.37	0.47
3:J:115:TRP:CZ3	3:J:1332:LEU:HB2	2.50	0.47
3:J:421:VAL:HG13	3:J:471:PRO:HD3	1.96	0.47
3:J:943:ARG:O	3:J:944:ALA:CB	2.62	0.47
3:J:1177:ILE:HG13	3:J:1186:TYR:O	2.13	0.47
3:J:1251:LYS:HB3	3:J:1251:LYS:HE2	1.72	0.47
5:L:129:GLN:OE1	5:L:367:ILE:CG2	2.63	0.47
5:L:595:LEU:O	5:L:599:ARG:HG3	2.14	0.47
1:M:190:ALA:HB2	1:M:199:ASP:C	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:592:ARG:NH2	2:O:600:THR:O	2.42	0.47
2:O:671:LEU:HD12	2:O:671:LEU:HA	1.54	0.47
2:O:702:THR:C	2:O:704:MET:H	2.22	0.47
2:O:761:GLN:O	2:O:762:ASN:CB	2.62	0.47
2:O:1063:GLY:HA2	2:O:1075:VAL:CG1	2.44	0.47
3:P:795:TYR:CD1	7:8:11:DA:C5'	2.97	0.47
5:R:401:PHE:O	5:R:405:ILE:HG12	2.12	0.47
6:7:47:DC:H2'	6:7:48:DA:C4	2.49	0.47
2:C:1010:GLN:HA	2:C:1013:GLN:CG	2.43	0.47
3:D:117:LEU:HD23	3:D:118:LYS:HE2	1.95	0.47
3:D:421:VAL:CG1	3:D:469:HIS:O	2.62	0.47
3:D:703:THR:CB	3:D:716:GLN:O	2.59	0.47
4:E:22:VAL:CG1	4:E:64:LEU:HD12	2.44	0.47
6:1:47:DC:H3'	6:1:48:DA:H5''	1.95	0.47
1:G:29:GLU:OE1	1:G:200:LYS:HB3	2.14	0.47
1:H:193:GLU:O	1:H:194:GLN:HB2	2.14	0.47
2:I:15:PHE:CE2	2:I:1182:ILE:HG21	2.49	0.47
2:I:364:VAL:HG22	2:I:376:PRO:CB	2.44	0.47
2:I:364:VAL:HG22	2:I:376:PRO:HB2	1.95	0.47
2:I:714:VAL:CG1	2:I:786:GLY:HA3	2.42	0.47
2:I:809:GLY:HA3	3:J:629:PHE:CD1	2.48	0.47
2:I:953:LEU:CD2	2:I:957:LYS:HZ1	2.25	0.47
2:I:960:LEU:HD21	2:I:1028:LYS:HG2	1.95	0.47
3:J:139:LEU:HD11	3:J:185:ILE:HG13	1.96	0.47
3:J:145:VAL:HG22	3:J:146:VAL:N	2.29	0.47
3:J:331:ILE:HG22	3:J:338:PHE:CE2	2.49	0.47
3:J:399:LYS:HZ3	5:L:611:LEU:HD23	1.78	0.47
3:J:786:THR:CG2	3:J:787:ALA:N	2.77	0.47
3:J:1282:TYR:O	3:J:1285:VAL:HG13	2.14	0.47
5:L:402:LEU:O	5:L:406:GLN:HG2	2.14	0.47
2:O:5:TYR:CE2	2:O:776:PRO:HB2	2.49	0.47
2:O:1165:SER:O	2:O:1169:VAL:HG23	2.13	0.47
2:O:1243:MET:HG2	3:P:372:MET:HE2	1.92	0.47
3:P:22:ILE:CD1	3:P:1319:PHE:CD1	2.83	0.47
3:P:527:LEU:HB2	3:P:550:VAL:HG13	1.96	0.47
3:P:615:LYS:NZ	4:Q:5:THR:O	2.38	0.47
5:R:452:ILE:CG2	5:R:456:MET:HB3	2.44	0.47
5:R:460:ILE:HA	5:R:463:LEU:HD11	1.96	0.47
7:8:37:DA:H2''	7:8:38:DG:C8	2.49	0.47
1:A:26:VAL:O	1:A:203:ILE:HD12	2.13	0.47
1:A:85:LEU:HD21	1:A:130:ILE:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:228:LEU:HA	1:A:231:PHE:HE2	1.74	0.47
2:C:30:ILE:H	2:C:30:ILE:HG13	1.14	0.47
2:C:122:VAL:HG12	2:C:123:TYR:N	2.28	0.47
2:C:263:VAL:CG1	2:C:269:ILE:CD1	2.89	0.47
2:C:358:ASP:OD1	2:C:358:ASP:N	2.43	0.47
2:C:612:GLY:O	2:C:639:LYS:HG3	2.15	0.47
2:C:726:TYR:CB	2:C:733:VAL:HG22	2.40	0.47
2:C:824:GLN:NE2	2:C:1082:ILE:HD11	2.28	0.47
2:C:1192:GLU:HA	2:C:1195:ILE:HD12	1.96	0.47
3:D:412:LEU:HG	3:D:416:ILE:HD11	1.97	0.47
3:D:744:ARG:H	3:D:759:ILE:CG2	2.27	0.47
8:3:13:GTP:N2	8:3:14:A:C4	2.82	0.47
2:I:431:LYS:O	2:I:435:ILE:HG13	2.15	0.47
2:I:1005:GLU:HB3	2:I:1007:LYS:HG2	1.95	0.47
2:I:1111:GLN:O	2:I:1115:THR:OG1	2.32	0.47
3:J:612:LEU:O	3:J:612:LEU:HD23	2.15	0.47
5:L:487:MET:O	5:L:488:LEU:HB3	2.15	0.47
1:N:39:LEU:N	1:N:39:LEU:HD23	2.28	0.47
2:O:681:MET:O	2:O:685:MET:HG2	2.13	0.47
3:P:749:LYS:CB	3:P:750:PRO:CD	2.64	0.47
1:A:12:ARG:O	1:A:28:LEU:CD2	2.62	0.47
1:A:104:LYS:HG2	1:A:114:ASP:OD2	2.14	0.47
2:C:149:LEU:HD13	2:C:453:ILE:HD11	1.96	0.47
2:C:168:GLY:O	3:D:1065:ALA:HB2	2.14	0.47
2:C:267:ARG:HD3	2:C:268:ARG:H	1.79	0.47
2:C:633:LEU:HB3	2:C:644:LEU:HD22	1.95	0.47
2:C:692:THR:OG1	2:C:693:LEU:N	2.45	0.47
2:C:1077:SER:CB	3:D:356:THR:CG2	2.92	0.47
2:C:1186:VAL:O	2:C:1187:PHE:HB2	2.14	0.47
2:C:1223:ARG:HG3	3:D:635:SER:O	2.15	0.47
2:C:1326:LEU:CD2	3:D:342:LEU:HD11	2.44	0.47
3:D:491:LEU:HD22	3:D:496:GLY:O	2.14	0.47
3:D:601:ILE:O	3:D:605:LEU:HG	2.14	0.47
3:D:807:LEU:CD1	3:D:1259:GLN:NE2	2.77	0.47
5:F:411:GLY:HA3	5:F:435:ILE:HA	1.96	0.47
2:I:181:GLY:HA3	2:I:395:TYR:CD1	2.49	0.47
2:I:280:ASP:HB3	2:I:282:VAL:HG23	1.95	0.47
2:I:296:VAL:HG13	2:I:315:MET:O	2.14	0.47
2:I:1223:ARG:HD2	3:J:637:ALA:HA	1.95	0.47
2:I:1243:MET:SD	3:J:445:LYS:HD3	2.55	0.47
3:J:645:VAL:HG21	3:J:700:ASN:ND2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:47:DC:C6	6:4:47:DC:H5''	2.49	0.47
2:O:831:ILE:H	2:O:831:ILE:HG13	1.52	0.47
3:P:247:PRO:HG3	3:P:250:ARG:NH2	2.29	0.47
3:P:398:LYS:NZ	5:R:532:LEU:HD21	2.27	0.47
3:P:1101:LEU:HD22	3:P:1122:ALA:CB	2.44	0.47
1:B:192:VAL:O	1:B:193:GLU:C	2.57	0.47
2:C:995:ASP:C	2:C:997:TRP:H	2.22	0.47
2:C:1056:VAL:HG12	2:C:1058:ARG:HG3	1.95	0.47
2:C:1284:ALA:CB	3:D:1356:LEU:HD22	2.44	0.47
3:D:638:SER:C	3:D:639:VAL:HG22	2.39	0.47
3:D:645:VAL:HG22	3:D:701:LEU:HD13	1.97	0.47
3:D:683:ILE:HG22	3:D:684:ASP:N	2.29	0.47
3:D:950:ILE:HB	3:D:1018:ALA:HB3	1.95	0.47
5:F:333:VAL:O	5:F:337:VAL:HG23	2.15	0.47
5:F:408:GLY:O	5:F:435:ILE:HG23	2.14	0.47
2:I:71:VAL:CG2	2:I:101:ARG:HG3	2.45	0.47
2:I:181:GLY:HA3	2:I:395:TYR:HD1	1.80	0.47
2:I:211:ARG:NH1	2:I:357:ASN:O	2.46	0.47
2:I:221:LEU:HD23	2:I:221:LEU:HA	1.60	0.47
2:I:367:TYR:HD1	2:I:384:LEU:HD22	1.78	0.47
3:J:39:LYS:HZ1	3:J:280:LYS:CD	2.27	0.47
3:J:194:LEU:H	3:J:194:LEU:HG	1.17	0.47
3:J:268:LEU:HA	3:J:268:LEU:HD23	1.54	0.47
3:J:723:TYR:CE1	3:J:727:ASP:HB2	2.49	0.47
6:4:45:DT:H2'	6:4:46:DG:O4'	2.14	0.47
2:O:82:VAL:HG23	2:O:83:GLN:H	1.78	0.47
2:O:183:TRP:C	2:O:184:LEU:HG	2.40	0.47
2:O:217:THR:CA	2:O:220:ILE:HD12	2.36	0.47
2:O:808:ASN:HD22	2:O:808:ASN:N	2.12	0.47
2:O:1079:ILE:H	2:O:1079:ILE:HG13	1.41	0.47
2:O:1124:ILE:HD11	2:O:1198:LEU:HD13	1.96	0.47
3:P:553:THR:CA	3:P:567:THR:HG23	2.44	0.47
3:P:601:ILE:O	3:P:605:LEU:CG	2.63	0.47
3:P:985:ILE:HG23	3:P:990:ARG:O	2.15	0.47
5:R:266:PHE:O	5:R:270:VAL:HG23	2.14	0.47
5:R:391:ALA:O	5:R:395:THR:HG23	2.15	0.47
1:A:100:LEU:CD1	1:A:115:ILE:CG2	2.91	0.47
1:B:53:GLY:O	1:B:177:TYR:CD1	2.67	0.47
1:B:85:LEU:HD22	1:B:130:ILE:HG23	1.87	0.47
1:B:185:TYR:CD2	1:B:185:TYR:O	2.67	0.47
2:C:91:THR:HG23	2:C:138:ILE:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:149:LEU:HB2	2:C:453:ILE:HD12	1.97	0.47
2:C:495:ALA:HA	2:C:498:ILE:CD1	2.45	0.47
2:C:672:GLU:HG3	2:C:1187:PHE:CD1	2.50	0.47
2:C:1068:GLY:CA	2:C:1232:MET:HE1	2.44	0.47
2:C:1315:MET:HE3	3:D:473:THR:HG21	1.96	0.47
2:C:1315:MET:HG2	2:C:1317:PRO:HD3	1.97	0.47
3:D:160:LEU:HD22	3:D:164:GLN:HB3	1.96	0.47
3:D:246:PRO:HB2	3:D:249:LEU:HG	1.97	0.47
3:D:246:PRO:HA	3:D:247:PRO:HD3	1.81	0.47
3:D:449:LEU:HD12	3:D:450:HIS:N	2.28	0.47
3:D:624:ILE:HG13	3:D:624:ILE:H	1.35	0.47
3:D:678:ARG:O	3:D:682:VAL:HG23	2.15	0.47
3:D:740:LEU:HA	3:D:763:PHE:HB2	1.95	0.47
3:D:961:SER:O	3:D:962:ASN:HB2	2.13	0.47
3:D:1131:THR:O	3:D:1132:LYS:HB2	2.15	0.47
3:D:1134:ILE:CG2	3:D:1138:LEU:HG	2.45	0.47
5:F:119:ILE:HD13	5:F:378:GLU:HB3	1.95	0.47
5:F:386:LEU:CD1	6:1:41:DT:O4'	2.63	0.47
6:1:49:DG:H5''	6:1:49:DG:H8	1.80	0.47
1:G:26:VAL:HG21	1:G:217:ILE:HD11	1.97	0.47
1:G:158:ARG:HD2	1:G:172:LEU:HD11	1.96	0.47
2:I:177:ILE:HG23	2:I:183:TRP:HE1	1.80	0.47
2:I:303:ASP:OD1	2:I:328:SER:CB	2.63	0.47
2:I:622:ASN:ND2	2:I:630:VAL:HG21	2.30	0.47
2:I:736:VAL:O	2:I:741:MET:CE	2.61	0.47
2:I:851:THR:HG22	2:I:852:ALA:H	1.80	0.47
3:J:141:PHE:HA	3:J:180:MET:HG2	1.96	0.47
3:J:531:LYS:H	3:J:531:LYS:CD	2.28	0.47
3:J:825:VAL:HG11	3:J:1242:ARG:HH12	1.79	0.47
3:J:1261:LEU:HB3	3:J:1304:ARG:HD3	1.96	0.47
4:K:47:THR:O	4:K:50:ALA:HB3	2.15	0.47
5:L:469:GLN:O	5:L:472:GLN:HG2	2.15	0.47
1:M:45:ARG:NH2	1:N:37:HIS:HB2	2.29	0.47
1:M:47:LEU:C	1:M:51:MET:HG2	2.40	0.47
1:M:102:LEU:HD13	1:M:115:ILE:HA	1.95	0.47
2:O:340:ASP:O	2:O:342:ASP:N	2.47	0.47
2:O:400:VAL:HG21	2:O:452:ARG:CZ	2.44	0.47
2:O:1285:TYR:HD1	2:O:1315:MET:HE1	1.79	0.47
2:O:1333:LEU:HB2	2:O:1335:ILE:CD1	2.38	0.47
3:P:314:ARG:CZ	5:R:96:ASP:OD1	2.62	0.47
3:P:350:SER:C	3:P:376:LEU:HD21	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:430:HIS:CD2	3:P:432:LEU:HB2	2.50	0.47
3:P:609:TYR:CE2	3:P:614:LEU:HD13	2.49	0.47
3:P:1261:LEU:HD23	3:P:1261:LEU:HA	1.53	0.47
6:7:36:DT:H2''	6:7:37:DA:C5'	2.44	0.47
2:C:551:HIS:HB3	2:C:554:HIS:CE1	2.50	0.47
2:C:761:GLN:O	2:C:762:ASN:CB	2.60	0.47
2:C:866:ASP:CG	2:C:867:GLU:H	2.23	0.47
3:D:512:TYR:CE1	3:D:545:HIS:HE1	2.32	0.47
3:D:536:LEU:HD13	3:D:542:ALA:CB	2.37	0.47
6:1:19:DA:N3	7:2:45:DG:N2	2.61	0.47
1:G:86:LYS:HE2	1:G:174:ASP:HB2	1.95	0.47
1:H:30:PRO:HG3	1:H:192:VAL:HG21	1.97	0.47
2:I:317:LEU:HD22	2:I:322:LEU:HD21	1.96	0.47
2:I:598:VAL:HG13	2:I:627:GLY:HA2	1.97	0.47
2:I:798:GLN:HB2	2:I:828:PHE:CE2	2.47	0.47
2:I:1246:ARG:HD2	2:I:1265:PHE:O	2.15	0.47
3:J:587:LEU:CD2	3:J:611:ILE:HD12	2.45	0.47
5:L:571:TYR:HB2	5:L:576:VAL:CG2	2.45	0.47
2:O:733:VAL:HG12	2:O:750:ILE:HA	1.97	0.47
2:O:810:TYR:CE2	2:O:1078:LYS:HD2	2.50	0.47
3:P:1137:GLY:O	3:P:1141:VAL:HG23	2.15	0.47
3:P:1224:ARG:HB3	3:P:1228:ALA:HB3	1.97	0.47
5:R:460:ILE:C	5:R:463:LEU:HG	2.40	0.47
1:B:155:ALA:CB	1:B:172:LEU:HD21	2.44	0.47
3:D:366:CYS:SG	3:D:437:PHE:CB	3.03	0.47
3:D:603:LYS:O	3:D:607:THR:OG1	2.31	0.47
3:D:609:TYR:HA	3:D:617:THR:HG21	1.96	0.47
3:D:673:VAL:CG1	3:D:678:ARG:HB2	2.45	0.47
3:D:943:ARG:CG	3:D:944:ALA:N	2.64	0.47
2:I:295:LYS:O	2:I:317:LEU:HB2	2.14	0.47
2:I:542:ARG:NH2	6:4:50:DT:C7	2.78	0.47
2:I:634:VAL:HG12	2:I:635:THR:H	1.79	0.47
2:I:770:CYS:HB3	2:I:791:LEU:HD23	1.94	0.47
2:I:830:THR:HG23	2:I:1234:LYS:HZ3	1.80	0.47
2:I:839:VAL:HG13	2:I:1046:VAL:HG13	1.95	0.47
3:J:613:GLY:O	3:J:616:PRO:HD2	2.15	0.47
3:J:882:VAL:HG22	3:J:883:ARG:O	2.14	0.47
5:L:455:HIS:CD2	6:4:31:DT:H72	2.50	0.47
5:L:508:GLU:O	5:L:518:HIS:HB3	2.15	0.47
2:O:170:VAL:HG12	2:O:172:TYR:CE2	2.50	0.47
2:O:293:ALA:HB2	2:O:319:LEU:CD2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:689:ALA:CB	2:O:1233:LEU:HD13	2.43	0.47
2:O:839:VAL:HG12	2:O:1046:VAL:HG13	1.96	0.47
2:O:898:GLU:CD	5:R:565:ILE:HG23	2.40	0.47
3:P:43:THR:OG1	3:P:44:ILE:N	2.46	0.47
3:P:139:LEU:HD23	3:P:181:GLY:O	2.15	0.47
3:P:300:GLN:O	3:P:303:VAL:HB	2.15	0.47
3:P:478:LEU:HD23	3:P:478:LEU:HA	1.59	0.47
3:P:723:TYR:CZ	3:P:727:ASP:HB2	2.49	0.47
3:P:789:LYS:HE3	3:P:1135:THR:HA	1.97	0.47
3:P:1156:LEU:HD23	3:P:1209:VAL:HA	1.96	0.47
3:P:1280:VAL:HG12	3:P:1284:ARG:HB2	1.96	0.47
2:C:200:ARG:HD2	6:1:50:DT:O2	2.14	0.47
2:C:592:ARG:HG3	2:C:653:MET:HE2	1.97	0.47
2:C:851:THR:HG22	2:C:852:ALA:N	2.29	0.47
3:D:115:TRP:CH2	3:D:1329:THR:HA	2.49	0.47
3:D:335:GLN:OE1	5:F:518:HIS:NE2	2.47	0.47
3:D:1180:VAL:HG23	3:D:1181:ASP:N	2.30	0.47
3:D:1224:ARG:HD3	3:D:1228:ALA:CB	2.45	0.47
6:1:58:DG:C6	6:1:59:DG:C6	3.03	0.47
2:I:794:LEU:HD12	2:I:795:ALA:H	1.79	0.47
2:I:1116:HIS:CD2	3:J:641:ILE:CG1	2.98	0.47
3:J:109:SER:CB	3:J:296:LYS:CE	2.87	0.47
3:J:275:ARG:HD3	3:J:298:MET:C	2.39	0.47
3:J:275:ARG:HD3	3:J:298:MET:HB3	1.97	0.47
3:J:530:PRO:CD	3:J:531:LYS:HD2	2.45	0.47
3:J:639:VAL:O	3:J:639:VAL:HG12	2.14	0.47
3:J:673:VAL:HG11	3:J:678:ARG:HD3	1.96	0.47
3:J:723:TYR:CD1	3:J:723:TYR:C	2.87	0.47
3:J:759:ILE:HD13	3:J:771:GLN:HB3	1.97	0.47
6:4:47:DC:C5'	6:4:47:DC:C6	2.98	0.47
2:O:297:VAL:HG21	2:O:311:CYS:HB2	1.96	0.47
2:O:488:MET:CB	2:O:489:PRO:HD2	2.37	0.47
3:P:201:LEU:HD12	3:P:221:ILE:HG12	1.97	0.47
3:P:350:SER:O	3:P:376:LEU:HD21	2.15	0.47
3:P:498:PRO:HD3	3:P:606:ASN:ND2	2.29	0.47
3:P:898:CYS:HG	9:P:1502:ZN:ZN	1.25	0.47
5:R:387:VAL:CG1	5:R:388:ILE:N	2.73	0.47
1:A:208:ASN:O	1:A:210:THR:N	2.48	0.46
1:A:213:PRO:O	1:A:217:ILE:CD1	2.58	0.46
1:B:123:ILE:H	1:B:123:ILE:HG13	1.35	0.46
2:C:933:VAL:CG1	2:C:934:PHE:N	2.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:117:LEU:HD21	3:D:139:LEU:CD1	2.45	0.46
3:D:434:ILE:HG22	3:D:484:MET:HE1	1.95	0.46
3:D:518:VAL:HG12	3:D:519:ASN:CG	2.39	0.46
3:D:615:LYS:N	3:D:616:PRO:CD	2.78	0.46
5:F:91:ILE:CG2	5:F:94:THR:H	2.28	0.46
2:I:183:TRP:C	2:I:184:LEU:HG	2.40	0.46
2:I:202:ARG:HH22	7:5:6:DG:C5'	2.28	0.46
3:J:70:CYS:HA	3:J:90:VAL:HG11	1.96	0.46
3:J:261:ALA:HB1	5:L:519:LEU:CD2	2.44	0.46
7:5:34:DG:H2''	7:5:35:DT:OP2	2.15	0.46
1:N:68:TYR:CE1	1:N:79:LEU:HD21	2.49	0.46
2:O:888:THR:O	2:O:913:VAL:HG13	2.15	0.46
3:P:165:TYR:HD2	3:P:166:LEU:HG	1.80	0.46
5:R:216:LEU:O	5:R:220:LYS:HG2	2.16	0.46
2:C:149:LEU:HD21	2:C:451:ARG:CZ	2.45	0.46
2:C:279:LYS:HE3	5:L:473:GLU:OE2	2.15	0.46
2:C:409:LEU:HD11	2:C:427:ASP:HB3	1.94	0.46
2:C:431:LYS:O	2:C:434:ASP:HB2	2.14	0.46
2:C:667:LEU:HD22	2:C:705:GLU:OE2	2.15	0.46
2:C:1202:GLY:C	2:C:1204:LEU:HG	2.40	0.46
3:D:30:ILE:CD1	3:D:243:PRO:HD3	2.44	0.46
3:D:146:VAL:HG21	3:D:158:GLN:CB	2.34	0.46
3:D:188:LEU:HD12	3:D:188:LEU:O	2.16	0.46
3:D:601:ILE:HG22	3:D:602:SER:N	2.30	0.46
3:D:885:VAL:HG11	3:D:1255:VAL:HA	1.97	0.46
3:D:1256:ILE:HB	3:D:1260:MET:HE1	1.96	0.46
5:F:341:LEU:HD22	5:F:345:GLN:OE1	2.16	0.46
1:G:102:LEU:HD11	1:G:114:ASP:HB3	1.97	0.46
2:I:139:ASN:OD1	2:I:139:ASN:N	2.47	0.46
2:I:759:SER:OG	2:I:763:THR:N	2.47	0.46
2:I:1161:LEU:O	2:I:1163:THR:N	2.49	0.46
2:I:1225:VAL:HG13	3:J:638:SER:HB3	1.97	0.46
3:J:747:MET:HE2	3:J:774:ILE:HG22	1.95	0.46
3:J:820:ILE:HD12	3:J:884:SER:HB3	1.97	0.46
5:L:84:LEU:HG	5:L:107:THR:HG22	1.98	0.46
1:N:37:HIS:CD2	1:N:187:VAL:HG11	2.51	0.46
2:O:104:ILE:O	2:O:115:LYS:HB3	2.15	0.46
3:P:139:LEU:HA	3:P:181:GLY:HA2	1.97	0.46
3:P:277:ASN:O	3:P:281:ARG:HG3	2.16	0.46
3:P:930:LEU:CB	3:P:1134:ILE:CD1	2.93	0.46
3:P:1253:ILE:O	3:P:1256:ILE:HD12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:310:GLU:CB	5:R:355:ILE:CD1	2.93	0.46
5:R:476:ARG:CG	5:R:477:GLU:N	2.77	0.46
5:R:490:PRO:HB2	5:R:492:ASP:OD2	2.14	0.46
7:8:23:DT:C3'	7:8:24:DT:H5''	2.41	0.46
3:D:126:LEU:CD2	3:D:216:LYS:NZ	2.78	0.46
5:F:333:VAL:HG22	5:F:336:GLU:HB2	1.98	0.46
5:F:390:ILE:HD11	5:F:432:THR:HA	1.98	0.46
2:I:1085:MET:HE2	2:I:1085:MET:HB3	1.58	0.46
2:I:1278:LEU:CB	2:I:1287:LEU:HD22	2.44	0.46
3:J:246:PRO:HA	3:J:247:PRO:HD3	1.84	0.46
1:M:100:LEU:HD23	1:M:100:LEU:HA	1.77	0.46
1:N:32:GLU:HG2	1:N:33:ARG:N	2.31	0.46
2:O:1335:ILE:HG22	3:P:22:ILE:HG22	1.98	0.46
3:P:541:LEU:O	3:P:542:ALA:HB2	2.14	0.46
3:P:1087:ASP:HB3	3:P:1096:PRO:HB3	1.97	0.46
1:B:68:TYR:HA	1:B:79:LEU:HD21	1.96	0.46
1:B:142:MET:HB3	1:B:142:MET:HE2	1.83	0.46
2:C:540:ARG:NH1	2:C:567:PRO:CB	2.78	0.46
2:C:790:ASP:O	2:C:792:GLY:N	2.48	0.46
3:D:114:ILE:HG13	3:D:118:LYS:HG2	1.97	0.46
3:D:1253:ILE:O	3:D:1257:VAL:HG23	2.15	0.46
4:E:18:ASP:O	4:E:22:VAL:HG23	2.15	0.46
1:H:68:TYR:CD2	1:H:68:TYR:N	2.83	0.46
2:I:184:LEU:CD2	2:I:389:PHE:CE2	2.85	0.46
2:I:375:PRO:HB3	5:L:87:VAL:CG2	2.45	0.46
3:J:131:PRO:O	3:J:135:ILE:CG1	2.62	0.46
3:J:839:VAL:HG12	3:J:839:VAL:O	2.14	0.46
3:J:899:TYR:CD1	3:J:915:ILE:HD13	2.50	0.46
6:4:49:DG:C8	6:4:49:DG:C3'	2.97	0.46
2:O:1073:LYS:HG3	3:P:462:ASP:HB3	1.97	0.46
2:O:1151:LEU:HD11	2:O:1197:GLU:CD	2.40	0.46
3:P:245:LEU:HD23	3:P:250:ARG:HG2	1.98	0.46
3:P:950:ILE:HB	3:P:1018:ALA:CB	2.43	0.46
3:P:1252:HIS:HA	3:P:1255:VAL:HG23	1.97	0.46
4:Q:54:ILE:HG12	4:Q:59:ILE:CB	2.44	0.46
2:C:34:SER:OG	2:C:455:SER:HB2	2.15	0.46
3:D:95:THR:O	3:D:95:THR:HG22	2.15	0.46
3:D:127:LEU:HD23	3:D:223:LEU:HD13	1.98	0.46
3:D:492:SER:CB	3:D:495:ASN:OD1	2.63	0.46
3:D:1180:VAL:CG2	3:D:1181:ASP:N	2.78	0.46
5:F:453:PRO:O	5:F:457:ILE:HG12	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:555:GLU:O	5:F:559:LEU:HG	2.15	0.46
6:1:17:DA:H1'	6:1:18:DC:O4'	2.14	0.46
7:2:12:DG:O3'	7:2:13:DA:P	2.74	0.46
2:I:253:PHE:O	2:I:255:ILE:HD12	2.15	0.46
2:I:806:PRO:HA	2:I:811:ASN:ND2	2.29	0.46
2:I:1073:LYS:NZ	8:6:16:U:OP1	2.40	0.46
2:I:1246:ARG:CD	2:I:1265:PHE:O	2.63	0.46
2:I:1257:GLN:HG2	2:I:1295:SER:HB3	1.97	0.46
2:I:1258:PRO:HG2	3:J:346:ARG:C	2.41	0.46
3:J:265:LEU:HD21	3:J:326:SER:HA	1.96	0.46
3:J:379:PRO:CG	3:J:380:PHE:H	2.26	0.46
3:J:645:VAL:HG22	3:J:701:LEU:HD13	1.96	0.46
3:J:863:LEU:HD22	3:J:908:ILE:HG13	1.97	0.46
5:L:279:ARG:O	5:L:283:GLN:HG2	2.15	0.46
2:O:592:ARG:CB	2:O:653:MET:HE2	2.43	0.46
2:O:663:VAL:HG12	2:O:664:GLY:N	2.30	0.46
2:O:708:VAL:CG1	2:O:794:LEU:HD22	2.45	0.46
2:O:1111:GLN:O	2:O:1115:THR:OG1	2.32	0.46
2:O:1192:GLU:OE2	3:P:764:ARG:NH2	2.39	0.46
2:O:1285:TYR:CD2	3:P:1361:THR:CG2	2.98	0.46
3:P:111:THR:HG21	3:P:303:VAL:HG21	1.98	0.46
5:R:166:VAL:HG12	5:R:168:PRO:CD	2.38	0.46
1:A:221:ALA:C	1:A:224:LEU:HD23	2.39	0.46
1:B:140:ILE:HD12	1:B:141:SER:H	1.80	0.46
2:C:182:SER:HB2	2:C:199:ASP:CG	2.41	0.46
2:C:642:SER:O	2:C:643:SER:CB	2.63	0.46
3:D:136:GLU:OE1	5:F:93:ARG:HB2	2.15	0.46
3:D:1062:LEU:HD13	3:D:1066:GLU:HB3	1.98	0.46
3:D:1351:VAL:HG12	3:D:1352:ILE:N	2.28	0.46
5:F:364:ARG:O	5:F:367:ILE:HB	2.15	0.46
7:2:26:DT:H3'	7:2:27:DA:C5'	2.46	0.46
1:G:52:PRO:O	1:G:179:PRO:HG3	2.15	0.46
1:G:208:ASN:H	1:G:208:ASN:ND2	2.12	0.46
2:I:22:LEU:HG	2:I:23:ASP:H	1.80	0.46
2:I:173:ASN:HB3	2:I:187:GLU:HB3	1.98	0.46
2:I:890:LYS:HG3	2:I:914:LYS:HG3	1.97	0.46
3:J:154:LEU:CD2	3:J:158:GLN:HG2	2.46	0.46
3:J:915:ILE:HG22	3:J:915:ILE:O	2.15	0.46
3:J:1229:VAL:HG13	3:J:1230:THR:N	2.31	0.46
2:O:498:ILE:H	2:O:498:ILE:HG13	1.53	0.46
3:P:351:GLY:C	3:P:468:VAL:HG23	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:427:PRO:HG2	3:P:429:LEU:HD21	1.98	0.46
3:P:759:ILE:HG12	3:P:771:GLN:CG	2.46	0.46
5:R:556:ALA:O	5:R:560:ARG:HG3	2.15	0.46
1:A:107:ILE:H	1:A:107:ILE:HG13	1.59	0.46
1:A:150:ARG:HD2	1:B:6:THR:HA	1.98	0.46
1:B:224:LEU:C	1:B:224:LEU:HD12	2.41	0.46
2:C:448:LEU:HB2	2:C:553:THR:HB	1.97	0.46
2:C:557:ARG:NH2	2:C:608:ALA:HA	2.31	0.46
2:C:1334:GLY:O	2:C:1335:ILE:HG12	2.15	0.46
3:D:544:LEU:CD2	3:D:578:ILE:CD1	2.85	0.46
3:D:1029:THR:HG22	3:D:1099:TYR:CD1	2.51	0.46
3:D:1224:ARG:CD	3:D:1228:ALA:CB	2.90	0.46
5:F:547:VAL:CG1	5:F:598:LEU:CD2	2.94	0.46
6:1:34:DG:N2	7:2:30:DA:C2	2.84	0.46
2:I:149:LEU:HA	2:I:453:ILE:CD1	2.44	0.46
3:J:20:ILE:HD11	3:J:1344:LEU:HD21	1.98	0.46
3:J:367:GLY:HA3	3:J:448:GLN:HB2	1.97	0.46
3:J:381:ILE:HD11	3:J:412:LEU:HD13	1.98	0.46
3:J:1223:LEU:HD23	3:J:1223:LEU:HA	1.77	0.46
2:O:185:ASP:C	2:O:186:PHE:HD2	2.23	0.46
2:O:191:LYS:O	2:O:192:ASP:HB2	2.16	0.46
2:O:333:ILE:CG2	2:O:334:GLU:H	2.28	0.46
2:O:1066:MET:HE3	2:O:1233:LEU:O	2.15	0.46
3:P:517:CYS:CB	3:P:545:HIS:CB	2.93	0.46
3:P:646:ILE:HG13	3:P:646:ILE:H	1.56	0.46
3:P:1282:TYR:C	3:P:1285:VAL:HG12	2.40	0.46
3:P:1355:ARG:HD3	3:P:1369:ARG:HH12	1.80	0.46
5:R:144:LEU:HD13	5:R:165:PHE:CE2	2.51	0.46
5:R:390:ILE:CD1	5:R:432:THR:HA	2.46	0.46
6:7:45:DT:H3'	6:7:46:DG:O4'	2.16	0.46
2:C:3:TYR:HD1	2:C:7:GLU:OE1	1.99	0.46
2:C:972:PHE:HE2	2:C:994:ARG:O	1.99	0.46
3:D:497:GLU:HB3	3:D:498:PRO:CD	2.42	0.46
3:D:575:GLY:HA2	3:D:578:ILE:HD12	1.98	0.46
3:D:697:MET:HB3	3:D:697:MET:HE2	1.45	0.46
4:E:84:THR:O	4:E:88:GLU:HG3	2.15	0.46
1:H:208:ASN:O	1:H:210:THR:N	2.47	0.46
2:I:12:ARG:HA	2:I:1181:PRO:O	2.15	0.46
2:I:149:LEU:HD11	2:I:451:ARG:CZ	2.45	0.46
2:I:496:LYS:NZ	7:5:24:DT:H5'	2.30	0.46
2:I:565:GLU:O	2:I:567:PRO:CD	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1066:MET:HB3	2:I:1066:MET:HE2	1.50	0.46
3:J:664:ILE:HD12	3:J:685:ILE:CD1	2.46	0.46
1:N:83:LEU:HD13	1:N:86:LYS:HE3	1.98	0.46
3:P:816:THR:HG23	3:P:818:GLU:H	1.80	0.46
3:P:1343:GLU:O	3:P:1344:LEU:CB	2.62	0.46
4:Q:78:ALA:O	4:Q:81:GLN:CG	2.64	0.46
5:R:461:ASN:N	5:R:461:ASN:OD1	2.46	0.46
5:R:537:THR:O	5:R:540:LEU:HB3	2.15	0.46
6:7:12:DA:H2''	6:7:13:DC:O5'	2.15	0.46
1:A:41:ASN:ND2	2:C:1218:GLY:HA2	2.29	0.46
2:C:73:TYR:HB3	2:C:98:VAL:HG22	1.98	0.46
2:C:112:GLY:O	2:C:114:VAL:N	2.48	0.46
2:C:539:THR:CG2	2:C:540:ARG:H	2.26	0.46
3:D:64:PRO:HG3	3:D:91:GLU:O	2.16	0.46
3:D:733:SER:H	3:D:736:GLN:HG3	1.81	0.46
3:D:749:LYS:O	3:D:750:PRO:C	2.59	0.46
3:D:903:LEU:HD23	3:D:903:LEU:HA	1.75	0.46
2:I:1252:SER:HB2	2:I:1259:LEU:CD2	2.43	0.46
4:K:26:ARG:NH2	4:K:30:MET:HG2	2.31	0.46
1:N:185:TYR:CD2	1:N:185:TYR:O	2.69	0.46
2:O:678:ARG:HB3	2:O:1108:ASN:HD22	1.80	0.46
3:P:102:MET:CG	3:P:246:PRO:HD3	2.46	0.46
3:P:998:PRO:HG2	3:P:1020:TRP:CE2	2.50	0.46
3:P:1158:GLU:HA	3:P:1223:LEU:HD13	1.98	0.46
5:R:97:PRO:HA	5:R:100:MET:HG3	1.98	0.46
1:A:108:GLY:O	1:A:133:LEU:HB2	2.15	0.46
2:C:447:HIS:CD2	2:C:449:GLY:H	2.24	0.46
2:C:1042:LEU:HD13	2:C:1049:ILE:HD12	1.98	0.46
2:C:1077:SER:CB	3:D:356:THR:HG22	2.46	0.46
3:D:117:LEU:HD13	3:D:124:ILE:HD12	1.97	0.46
3:D:363:LEU:HG	3:D:487:THR:HG22	1.98	0.46
3:D:421:VAL:HG12	3:D:422:LEU:H	1.81	0.46
3:D:501:VAL:CG1	3:D:502:PRO:CD	2.94	0.46
2:I:14:ASP:OD2	2:I:1156:ARG:CZ	2.63	0.46
2:I:419:ILE:H	2:I:419:ILE:HG12	1.56	0.46
2:I:599:VAL:CG2	2:I:623:LEU:HD21	2.46	0.46
2:I:1247:SER:OG	2:I:1248:THR:N	2.47	0.46
2:I:1269:ARG:HG3	3:J:345:LYS:C	2.41	0.46
3:J:301:GLU:HB2	3:J:312:ARG:NH2	2.30	0.46
3:J:519:ASN:HB3	3:J:523:GLU:CG	2.45	0.46
3:J:734:ALA:O	3:J:737:ILE:HB	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:909:ILE:HG12	3:J:910:ASN:O	2.16	0.46
5:L:461:ASN:HA	7:5:26:DT:C7	2.35	0.46
1:M:232:VAL:HG13	1:N:218:ARG:HG3	1.93	0.46
2:O:88:ARG:HB3	2:O:90:VAL:HG23	1.97	0.46
2:O:91:THR:CG2	2:O:138:ILE:HA	2.43	0.46
2:O:120:GLN:HG2	2:O:489:PRO:HG2	1.98	0.46
2:O:260:LYS:NZ	2:O:262:TYR:OH	2.49	0.46
2:O:550:VAL:HG21	3:P:776:THR:HG21	1.89	0.46
2:O:719:LYS:CD	2:O:751:TYR:HE1	2.29	0.46
2:O:913:VAL:CG1	2:O:914:LYS:N	2.79	0.46
2:O:1073:LYS:HE3	3:P:462:ASP:HB2	1.98	0.46
3:P:476:ALA:HA	3:P:479:GLU:HG2	1.98	0.46
3:P:555:TYR:CB	3:P:586:GLY:HA2	2.46	0.46
3:P:803:VAL:HG12	3:P:1259:GLN:CB	2.46	0.46
3:P:1176:VAL:HG22	3:P:1187:GLU:CD	2.41	0.46
1:B:33:ARG:N	1:B:198:LEU:HD12	2.29	0.45
1:B:79:LEU:H	1:B:79:LEU:HG	1.43	0.45
2:C:196:VAL:HG12	2:C:198:ILE:HG13	1.96	0.45
2:C:201:ARG:HE	2:C:370:MET:HE1	1.81	0.45
2:C:251:ALA:HB2	2:C:263:VAL:CG1	2.46	0.45
2:C:678:ARG:HH12	2:C:1106:ARG:HD2	1.77	0.45
2:C:788:SER:OG	2:C:796:LEU:HA	2.16	0.45
2:C:845:LEU:O	2:C:889:PRO:HB2	2.15	0.45
3:D:150:GLY:HA3	3:D:175:GLU:HB3	1.98	0.45
3:D:620:PHE:C	3:D:624:ILE:HD11	2.41	0.45
3:D:673:VAL:HG13	3:D:678:ARG:HB2	1.97	0.45
5:F:261:LEU:HD23	5:F:261:LEU:HA	1.76	0.45
5:F:354:THR:O	5:F:358:VAL:HG23	2.16	0.45
7:2:12:DG:O3'	7:2:13:DA:H5'	2.16	0.45
1:G:225:ALA:O	1:G:228:LEU:HB2	2.16	0.45
2:I:213:LEU:HD23	2:I:213:LEU:HA	1.79	0.45
2:I:448:LEU:CD2	2:I:553:THR:OG1	2.64	0.45
2:I:559:CYS:CB	2:I:662:SER:HB3	2.36	0.45
2:I:1294:LYS:HE2	3:J:349:TYR:HB2	1.97	0.45
2:I:1301:ARG:HG2	2:I:1302:THR:N	2.31	0.45
3:J:227:PHE:CE1	3:J:232:ASN:C	2.92	0.45
3:J:629:PHE:O	3:J:632:ALA:HB3	2.15	0.45
3:J:923:ILE:CD1	3:J:1253:ILE:HG12	2.46	0.45
4:K:79:GLU:HG2	4:K:83:VAL:CG2	2.44	0.45
1:M:210:THR:HG22	1:M:211:ILE:CD1	2.46	0.45
2:O:247:ARG:CG	2:O:274:ILE:HD13	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:726:TYR:HE2	2:O:728:ASP:HB2	1.81	0.45
2:O:928:VAL:HG22	2:O:1054:LEU:CD2	2.46	0.45
2:O:1120:ALA:HB2	2:O:1199:LEU:CD2	2.46	0.45
3:P:113:HIS:CA	3:P:239:LEU:HD11	2.46	0.45
3:P:259:ARG:NH1	5:R:502:LYS:CD	2.79	0.45
3:P:698:MET:O	3:P:702:GLN:CB	2.64	0.45
3:P:1040:MET:CE	3:P:1046:ILE:HG21	2.39	0.45
5:R:423:ARG:NH1	6:7:37:DA:C4	2.83	0.45
1:B:61:ILE:CG2	1:B:140:ILE:HD11	2.46	0.45
1:B:67:GLU:O	1:B:78:ILE:HB	2.16	0.45
2:C:13:LYS:O	2:C:1183:ALA:N	2.40	0.45
2:C:46:GLN:HG3	2:C:46:GLN:O	2.16	0.45
2:C:446:ASP:OD1	2:C:446:ASP:N	2.49	0.45
2:C:1227:VAL:CG1	2:C:1228:GLY:N	2.75	0.45
2:C:1321:GLU:O	2:C:1325:VAL:HG23	2.16	0.45
3:D:483:LEU:HD21	4:E:16:ARG:HB3	1.96	0.45
3:D:782:GLY:O	3:D:935:PHE:HB3	2.17	0.45
5:F:547:VAL:HG11	5:F:598:LEU:CD2	2.45	0.45
6:1:54:DA:H1'	6:1:55:DC:H5'	1.98	0.45
1:H:195:ARG:HD3	1:H:195:ARG:HA	1.46	0.45
2:I:542:ARG:CZ	6:4:50:DT:C7	2.94	0.45
2:I:693:LEU:HD12	2:I:693:LEU:O	2.16	0.45
2:I:996:ARG:C	2:I:997:TRP:HD1	2.24	0.45
2:I:1081:PRO:HB3	2:I:1083:GLU:OE1	2.16	0.45
3:J:115:TRP:CH2	3:J:1329:THR:CA	2.81	0.45
3:J:609:TYR:HA	3:J:617:THR:HG21	1.98	0.45
3:J:1148:ARG:HG2	6:4:56:DG:OP1	2.16	0.45
5:L:333:VAL:HG13	5:L:337:VAL:HG23	1.99	0.45
5:L:489:MET:HB2	5:L:494:ILE:CD1	2.46	0.45
1:N:104:LYS:HG3	1:N:105:SER:H	1.80	0.45
2:O:672:GLU:OE2	2:O:673:HIS:NE2	2.50	0.45
2:O:896:THR:HG23	2:O:899:GLU:N	2.29	0.45
2:O:1330:ILE:HG22	2:O:1335:ILE:HB	1.98	0.45
3:P:245:LEU:HD21	3:P:249:LEU:HB2	1.98	0.45
3:P:322:ARG:CB	3:P:323:PRO:CD	2.86	0.45
5:R:429:THR:OG1	6:7:39:DA:H8	1.84	0.45
5:R:511:ILE:CG1	5:R:517:SER:HB2	2.46	0.45
1:A:45:ARG:HA	2:C:1083:GLU:HG2	1.98	0.45
1:A:179:PRO:HA	1:A:208:ASN:ND2	2.30	0.45
2:C:188:PHE:CE2	2:C:436:ARG:HB2	2.52	0.45
2:C:459:MET:HB3	2:C:505:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:725:GLN:HB2	2:C:735:LYS:HG3	1.98	0.45
2:C:896:THR:HG22	2:C:899:GLU:OE1	2.17	0.45
3:D:147:ILE:HG13	3:D:178:ALA:HA	1.96	0.45
3:D:744:ARG:H	3:D:759:ILE:HG22	1.81	0.45
3:D:1256:ILE:CB	3:D:1260:MET:HE2	2.47	0.45
3:D:1365:TYR:O	3:D:1368:ASP:HB2	2.17	0.45
5:F:390:ILE:CD1	5:F:432:THR:HA	2.47	0.45
2:I:618:GLN:HE21	3:J:769:VAL:HB	1.81	0.45
2:I:873:ILE:HD11	2:I:944:ARG:HH12	1.81	0.45
3:J:68:TYR:CD2	3:J:78:LEU:CD2	2.99	0.45
3:J:369:PRO:HB2	3:J:372:MET:HE3	1.98	0.45
4:K:46:THR:OG1	4:K:47:THR:N	2.48	0.45
5:L:552:THR:O	5:L:555:GLU:N	2.49	0.45
6:4:30:DG:C2	7:5:34:DG:C2	3.04	0.45
1:M:54:CYS:O	1:M:55:ALA:HB2	2.15	0.45
1:M:185:TYR:CD2	1:M:185:TYR:C	2.95	0.45
1:N:64:VAL:HG21	1:N:71:LYS:HD2	1.98	0.45
1:N:68:TYR:CD1	1:N:79:LEU:HD21	2.51	0.45
2:O:203:LYS:O	2:O:204:LEU:HD23	2.16	0.45
2:O:417:SER:HB2	2:O:419:ILE:HG12	1.99	0.45
2:O:834:GLN:HG3	2:O:835:GLU:N	2.32	0.45
3:P:923:ILE:HD11	3:P:1252:HIS:CB	2.46	0.45
3:P:1286:LYS:O	3:P:1290:ARG:HG3	2.15	0.45
1:B:61:ILE:CD1	1:B:171:LEU:HD13	2.46	0.45
2:C:34:SER:HG	2:C:457:GLY:H	1.61	0.45
2:C:83:GLN:O	2:C:86:GLN:HB2	2.16	0.45
2:C:448:LEU:HA	2:C:448:LEU:HD23	1.45	0.45
2:C:808:ASN:HA	3:D:629:PHE:HB3	1.98	0.45
3:D:205:LEU:HA	3:D:205:LEU:HD23	1.50	0.45
3:D:793:SER:O	3:D:796:LEU:HB3	2.16	0.45
3:D:1046:ILE:HG22	3:D:1061:VAL:HA	1.98	0.45
5:F:91:ILE:CD1	5:F:103:ARG:NH1	2.61	0.45
1:G:47:LEU:HD12	1:G:183:ILE:HD13	1.96	0.45
3:J:27:PRO:O	3:J:31:ARG:HG3	2.17	0.45
3:J:115:TRP:HE3	3:J:1333:THR:CG2	2.29	0.45
3:J:289:ASP:O	3:J:293:ARG:HG3	2.17	0.45
3:J:354:VAL:HG12	3:J:355:ILE:N	2.30	0.45
3:J:625:MET:HE2	3:J:625:MET:HB3	1.69	0.45
3:J:978:ARG:HH21	3:J:1195:GLN:CD	2.25	0.45
3:J:1173:ARG:O	3:J:1190:ILE:HB	2.17	0.45
3:J:1255:VAL:HG12	3:J:1256:ILE:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:366:SER:HA	5:L:369:GLU:CD	2.41	0.45
1:N:142:MET:HE2	1:N:142:MET:HB3	1.41	0.45
2:O:213:LEU:HD22	2:O:422:LYS:HD2	1.98	0.45
2:O:734:ILE:CG2	2:O:751:TYR:HE2	2.29	0.45
2:O:933:VAL:C	2:O:934:PHE:CD1	2.95	0.45
2:O:1109:ILE:HA	2:O:1112:ILE:HD12	1.97	0.45
2:O:1278:LEU:HD11	2:O:1286:THR:HB	1.97	0.45
2:O:1292:THR:CG2	2:O:1293:VAL:H	2.23	0.45
3:P:154:LEU:HD23	3:P:154:LEU:HA	1.74	0.45
3:P:548:VAL:HG12	3:P:549:LYS:N	2.31	0.45
3:P:934:THR:O	3:P:934:THR:HG22	2.15	0.45
3:P:1317:GLU:O	3:P:1318:SER:CB	2.63	0.45
5:R:410:ILE:O	5:R:413:MET:HB2	2.15	0.45
1:A:11:PRO:HB3	1:A:30:PRO:O	2.16	0.45
2:C:145:ILE:H	2:C:145:ILE:HG13	1.48	0.45
2:C:211:ARG:HH11	2:C:211:ARG:CG	2.28	0.45
2:C:575:LEU:CD1	2:C:579:ALA:HB3	2.24	0.45
2:C:718:ALA:HB2	2:C:783:LEU:HD11	1.99	0.45
2:C:897:PRO:HB3	5:F:563:PHE:O	2.16	0.45
2:C:1274:GLU:HA	3:D:428:THR:HG21	1.98	0.45
3:D:471:PRO:CB	3:D:476:ALA:HB1	2.47	0.45
3:D:572:THR:OG1	3:D:573:THR:N	2.48	0.45
3:D:697:MET:O	3:D:701:LEU:HB2	2.17	0.45
3:D:814:CYS:SG	3:D:816:THR:OG1	2.75	0.45
3:D:835:LEU:HD12	3:D:839:VAL:HG23	1.98	0.45
3:D:1132:LYS:HB3	3:D:1133:ASP:H	1.55	0.45
6:1:25:DC:H2'	6:1:26:DT:H72	1.99	0.45
2:I:61:SER:HB3	2:I:66:SER:O	2.17	0.45
2:I:429:MET:HE2	2:I:429:MET:HB3	1.82	0.45
2:I:505:PHE:O	2:I:509:SER:HB3	2.17	0.45
2:I:1002:LEU:HB3	2:I:1003:THR:H	1.54	0.45
3:J:128:LEU:HD11	3:J:189:LEU:CD2	2.41	0.45
3:J:730:ALA:O	3:J:731:ARG:CB	2.62	0.45
3:J:797:THR:HG23	3:J:924:GLY:CA	2.42	0.45
3:J:909:ILE:CD1	3:J:913:GLU:HB3	2.42	0.45
1:M:107:ILE:HG13	1:M:136:GLU:HB3	1.99	0.45
2:O:839:VAL:HG13	2:O:1049:ILE:HG23	1.98	0.45
2:O:1333:LEU:CB	2:O:1335:ILE:CD1	2.94	0.45
3:P:34:SER:CB	3:P:104:HIS:HB3	2.47	0.45
3:P:135:ILE:H	3:P:135:ILE:HG13	1.20	0.45
3:P:1103:GLY:O	3:P:1104:LYS:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:386:LEU:HD13	6:7:41:DT:N1	2.31	0.45
1:A:140:ILE:CG1	1:A:141:SER:N	2.78	0.45
2:C:263:VAL:HG13	2:C:269:ILE:CD1	2.47	0.45
2:C:593:LYS:HA	2:C:652:TYR:CE1	2.52	0.45
2:C:772:SER:OG	2:C:773:LEU:N	2.49	0.45
2:C:1111:GLN:O	2:C:1115:THR:OG1	2.33	0.45
3:D:1005:LYS:HD2	3:D:1011:VAL:HG12	1.99	0.45
4:E:30:MET:HE1	4:E:46:THR:HA	1.98	0.45
5:F:604:SER:HB3	5:F:607:LEU:HB2	1.99	0.45
2:I:310:ILE:HD13	2:I:324:LYS:HB3	1.98	0.45
2:I:883:LEU:CD2	2:I:920:VAL:HG22	2.36	0.45
3:J:470:VAL:HB	3:J:472:LEU:HD21	1.99	0.45
3:J:706:VAL:HA	3:J:714:GLU:O	2.16	0.45
3:J:880:VAL:CG1	3:J:881:LYS:N	2.80	0.45
1:N:208:ASN:O	1:N:210:THR:N	2.40	0.45
3:P:27:PRO:O	3:P:31:ARG:HG3	2.17	0.45
3:P:322:ARG:NE	5:R:510:PRO:CD	2.71	0.45
3:P:435:GLN:HB2	3:P:457:TYR:OH	2.17	0.45
3:P:1169:THR:O	3:P:1170:LYS:HB2	2.17	0.45
1:A:110:VAL:HG13	1:A:114:ASP:HB2	1.99	0.45
1:B:175:ALA:HB1	1:B:177:TYR:CE2	2.52	0.45
1:B:190:ALA:H	1:B:199:ASP:HA	1.81	0.45
2:C:873:ILE:H	2:C:873:ILE:HG13	1.37	0.45
2:C:980:VAL:O	2:C:980:VAL:CG1	2.63	0.45
3:D:109:SER:HB2	3:D:296:LYS:HE2	1.99	0.45
3:D:347:VAL:CG1	3:D:469:HIS:HE1	2.28	0.45
6:1:47:DC:H6	6:1:47:DC:H5''	1.81	0.45
1:G:41:ASN:ND2	2:I:1217:THR:C	2.75	0.45
1:G:120:ASP:OD1	1:G:120:ASP:N	2.48	0.45
2:I:96:LEU:CB	2:I:127:ILE:HD11	2.36	0.45
2:I:351:LEU:O	2:I:354:ASP:HB3	2.17	0.45
2:I:766:ASN:ND2	2:I:766:ASN:C	2.74	0.45
3:J:78:LEU:N	3:J:78:LEU:HD23	2.31	0.45
3:J:245:LEU:HG	3:J:246:PRO:N	2.31	0.45
3:J:515:ARG:HH21	3:J:717:VAL:HB	1.82	0.45
3:J:883:ARG:NE	3:J:898:CYS:SG	2.89	0.45
5:L:385:ARG:HA	5:L:388:ILE:HG23	1.97	0.45
6:4:25:DC:C2'	6:4:26:DT:H72	2.46	0.45
1:N:40:GLY:HA2	1:N:43:LEU:HD12	1.99	0.45
2:O:589:THR:HG22	2:O:590:PRO:CD	2.46	0.45
2:O:1294:LYS:HB3	3:P:347:VAL:CG1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:82:GLY:HA2	3:P:91:GLU:OE2	2.16	0.45
3:P:398:LYS:HE3	5:R:532:LEU:HD21	1.84	0.45
3:P:419:HIS:CE1	3:P:477:GLN:CD	2.95	0.45
3:P:840:LEU:CD1	3:P:869:CYS:SG	2.91	0.45
3:P:1217:PRO:HA	3:P:1220:ILE:HD12	1.99	0.45
6:7:53:DG:C5	6:7:54:DA:N6	2.85	0.45
1:A:93:GLN:HB2	1:A:120:ASP:HB2	1.98	0.45
1:B:228:LEU:HA	1:B:228:LEU:HD23	1.45	0.45
2:C:489:PRO:HA	2:C:492:MET:SD	2.57	0.45
2:C:1338:GLU:O	3:D:20:ILE:HG23	2.17	0.45
3:D:227:PHE:HE1	3:D:234:PRO:CD	2.29	0.45
3:D:544:LEU:HA	3:D:574:VAL:CB	2.42	0.45
3:D:647:PRO:HD3	3:D:697:MET:HG3	1.97	0.45
3:D:1250:ASP:OD1	3:D:1250:ASP:N	2.49	0.45
5:F:561:MET:HE2	5:F:567:MET:HE2	1.97	0.45
1:G:149:GLY:HA3	1:G:177:TYR:CZ	2.51	0.45
2:I:1138:VAL:HA	2:I:1141:LEU:HD12	1.98	0.45
2:I:1287:LEU:HD12	2:I:1287:LEU:O	2.17	0.45
3:J:541:LEU:HA	3:J:541:LEU:HD23	1.64	0.45
3:J:708:ASN:HA	3:J:712:GLN:O	2.17	0.45
3:J:886:VAL:HA	3:J:1258:ARG:HG3	1.98	0.45
3:J:1270:GLY:HA2	3:J:1298:VAL:O	2.17	0.45
5:L:592:ALA:O	5:L:595:LEU:HB2	2.17	0.45
1:M:47:LEU:CD2	1:M:220:ALA:HB2	2.47	0.45
2:O:208:ILE:HG12	2:O:362:ALA:HB1	1.99	0.45
2:O:245:ARG:HD3	2:O:337:PHE:CE1	2.51	0.45
2:O:736:VAL:HG12	2:O:737:ASN:O	2.16	0.45
2:O:1061:GLN:CB	2:O:1062:PRO:HD2	2.47	0.45
2:O:1294:LYS:HB3	3:P:347:VAL:HG13	1.99	0.45
2:O:1326:LEU:HG	2:O:1330:ILE:HD11	1.98	0.45
3:P:689:ALA:O	3:P:693:VAL:HG23	2.17	0.45
5:R:407:GLU:CG	5:R:442:SER:HB3	2.36	0.45
5:R:502:LYS:HE2	5:R:505:ILE:HD11	1.98	0.45
5:R:511:ILE:HD11	5:R:517:SER:HB2	1.99	0.45
1:A:51:MET:HB3	1:A:179:PRO:HD2	1.99	0.45
1:B:167:PRO:HD2	1:B:170:ARG:CB	2.47	0.45
2:C:73:TYR:HB2	2:C:96:LEU:HD11	1.99	0.45
2:C:88:ARG:NH2	2:C:1035:LYS:O	2.47	0.45
2:C:181:GLY:HA3	2:C:395:TYR:CD1	2.52	0.45
2:C:533:LEU:HD23	2:C:538:LEU:O	2.17	0.45
3:D:79:LYS:HB2	5:F:569:THR:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:216:LYS:HE2	3:D:219:LYS:HB2	1.99	0.45
3:D:297:ARG:NH1	5:F:100:MET:HB2	2.32	0.45
3:D:366:CYS:SG	3:D:437:PHE:HB2	2.57	0.45
3:D:425:ARG:HG2	3:D:426:ALA:N	2.32	0.45
3:D:536:LEU:CD1	3:D:542:ALA:HB2	2.38	0.45
3:D:706:VAL:HG11	3:D:713:GLU:OE1	2.17	0.45
3:D:1229:VAL:CG1	3:D:1230:THR:N	2.79	0.45
5:F:305:LEU:HA	5:F:305:LEU:HD23	1.78	0.45
7:2:25:DA:C2'	7:2:26:DT:H5''	2.47	0.45
1:H:223:ILE:HG22	1:H:227:GLN:HE21	1.82	0.45
2:I:149:LEU:HB2	2:I:453:ILE:HD11	1.98	0.45
2:I:269:ILE:HD13	2:I:269:ILE:HA	1.67	0.45
2:I:748:ILE:HD12	2:I:967:LEU:HA	1.98	0.45
2:I:850:ILE:H	2:I:850:ILE:HG13	1.64	0.45
2:I:1064:ASP:O	2:I:1076:ILE:HD12	2.17	0.45
2:I:1298:VAL:HG22	2:I:1301:ARG:NH2	2.32	0.45
3:J:120:LEU:HD23	3:J:121:PRO:HA	1.99	0.45
3:J:622:ASP:O	3:J:625:MET:HB3	2.16	0.45
4:K:31:GLN:OE1	4:K:46:THR:HG21	2.17	0.45
2:O:1155:VAL:HG22	2:O:1157:GLN:H	1.82	0.45
3:P:185:ILE:HG23	3:P:189:LEU:CD1	2.47	0.45
5:R:137:TYR:CE2	5:R:139:GLU:HB2	2.52	0.45
5:R:421:TYR:CD2	5:R:421:TYR:C	2.95	0.45
5:R:443:ILE:HG23	5:R:444:ALA:N	2.32	0.45
2:C:575:LEU:HD12	2:C:576:SER:N	2.32	0.45
3:D:109:SER:HB3	3:D:299:LEU:HD22	1.98	0.45
3:D:260:PHE:O	5:F:505:ILE:N	2.47	0.45
3:D:492:SER:HB2	3:D:499:ILE:HD12	1.99	0.45
3:D:579:LEU:HD21	3:D:627:THR:HG21	1.98	0.45
3:D:773:PHE:CD2	3:D:773:PHE:C	2.95	0.45
5:F:401:PHE:HB2	5:F:402:LEU:HD23	1.99	0.45
5:F:489:MET:HB3	5:F:490:PRO:CD	2.47	0.45
5:F:503:GLU:HB3	5:F:504:PRO:HD2	1.98	0.45
1:G:30:PRO:C	1:G:31:LEU:HG	2.41	0.45
2:I:149:LEU:HG	2:I:149:LEU:O	2.17	0.45
2:I:753:LEU:CB	2:I:755:LYS:HE2	2.48	0.45
2:I:836:LEU:HD23	2:I:836:LEU:HA	1.75	0.45
2:I:842:ASP:N	2:I:842:ASP:OD1	2.50	0.45
2:I:874:GLY:CA	2:I:928:VAL:HB	2.46	0.45
2:I:1270:PHE:CZ	2:I:1274:GLU:HB3	2.52	0.45
3:J:498:PRO:HB2	3:J:501:VAL:CG2	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:502:PRO:HB2	3:J:601:ILE:HD13	1.98	0.45
3:J:814:CYS:SG	3:J:895:CYS:HB3	2.57	0.45
1:M:190:ALA:CB	1:M:199:ASP:HA	2.47	0.45
2:O:203:LYS:HE3	7:8:6:DG:OP1	2.17	0.45
2:O:617:ALA:HA	2:O:636:CYS:SG	2.57	0.45
2:O:653:MET:HG2	2:O:654:ASP:N	2.31	0.45
2:O:808:ASN:HA	3:P:629:PHE:HB3	1.98	0.45
2:O:1109:ILE:O	2:O:1113:LEU:HD12	2.17	0.45
3:P:421:VAL:HG13	3:P:470:VAL:HA	1.98	0.45
3:P:429:LEU:HB3	3:P:925:GLU:HG2	1.99	0.45
5:R:145:LEU:HD13	5:R:225:ARG:CZ	2.47	0.45
5:R:291:CYS:O	5:R:295:CYS:HB2	2.16	0.45
1:B:44:ARG:NH1	3:D:538:ARG:HD3	2.30	0.44
1:B:86:LYS:HB3	1:B:176:CYS:HG	1.82	0.44
2:C:156:PHE:CE2	2:C:177:ILE:HD12	2.52	0.44
2:C:176:ILE:N	2:C:176:ILE:CD1	2.79	0.44
2:C:878:THR:HG23	2:C:925:SER:CB	2.44	0.44
2:C:971:LEU:O	2:C:975:ILE:HG13	2.17	0.44
3:D:43:THR:C	3:D:44:ILE:HG23	2.41	0.44
3:D:378:LYS:HG2	3:D:382:TYR:CE2	2.50	0.44
3:D:547:ARG:C	3:D:548:VAL:CG2	2.90	0.44
3:D:785:ASP:HB3	3:D:935:PHE:CZ	2.51	0.44
3:D:1366:HIS:O	3:D:1370:MET:HG3	2.17	0.44
2:I:200:ARG:HD2	6:4:50:DT:O2	2.18	0.44
2:I:209:ILE:CG2	2:I:210:LEU:N	2.79	0.44
2:I:240:GLU:CG	2:I:284:LEU:HD21	2.45	0.44
2:I:576:SER:HA	2:I:662:SER:HA	1.99	0.44
2:I:675:ASP:OD2	2:I:677:ASN:ND2	2.50	0.44
2:I:808:ASN:ND2	3:J:633:ALA:HB3	2.32	0.44
2:I:1223:ARG:HB2	2:I:1224:PRO:HD2	1.99	0.44
2:I:1233:LEU:HA	2:I:1233:LEU:HD23	1.61	0.44
3:J:334:LYS:O	3:J:339:ARG:HB2	2.18	0.44
3:J:518:VAL:O	3:J:520:ALA:N	2.50	0.44
1:M:41:ASN:ND2	2:O:1218:GLY:HA3	2.27	0.44
2:O:289:VAL:HG12	2:O:289:VAL:O	2.17	0.44
2:O:719:LYS:HD3	2:O:751:TYR:HE1	1.82	0.44
3:P:609:TYR:CD2	3:P:614:LEU:HD13	2.53	0.44
3:P:864:LEU:HA	3:P:864:LEU:HD23	1.50	0.44
5:R:355:ILE:H	5:R:355:ILE:HG13	1.46	0.44
5:R:411:GLY:HA3	5:R:438:ALA:CB	2.47	0.44
5:R:540:LEU:O	5:R:544:THR:HG23	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:150:ARG:NH1	1:B:7:GLU:O	2.50	0.44
1:B:144:ILE:HD12	1:B:144:ILE:H	1.82	0.44
2:C:1087:TYR:CD2	2:C:1087:TYR:C	2.95	0.44
2:C:1293:VAL:HG12	2:C:1300:GLY:O	2.17	0.44
3:D:50:LYS:HD3	3:D:71:LEU:HD21	1.95	0.44
3:D:427:PRO:HG2	3:D:429:LEU:HD21	2.00	0.44
3:D:653:ILE:HG13	3:D:653:ILE:H	1.57	0.44
3:D:836:ARG:HD2	3:D:869:CYS:HB3	1.99	0.44
3:D:1022:PRO:O	3:D:1024:THR:N	2.43	0.44
1:H:62:ASP:OD1	1:H:141:SER:HB3	2.17	0.44
1:H:68:TYR:CB	3:P:857:LEU:CD1	2.82	0.44
2:I:267:ARG:HG3	2:I:268:ARG:N	2.32	0.44
2:I:759:SER:CB	2:I:763:THR:HG1	2.23	0.44
2:I:983:GLY:HA3	2:I:1002:LEU:HD22	1.99	0.44
2:I:1326:LEU:HG	2:I:1327:LEU:N	2.27	0.44
3:J:115:TRP:CH2	3:J:1332:LEU:HD12	2.48	0.44
3:J:355:ILE:O	3:J:355:ILE:HG13	2.17	0.44
3:J:579:LEU:HA	3:J:579:LEU:HD23	1.46	0.44
3:J:582:ILE:CG2	3:J:620:PHE:HE1	2.22	0.44
3:J:703:THR:HG21	3:J:715:LYS:NZ	2.33	0.44
3:J:886:VAL:HG22	3:J:1258:ARG:HB2	1.98	0.44
3:J:1090:ILE:CG2	3:J:1091:PRO:HD2	2.47	0.44
3:J:1194:ARG:HH11	3:J:1211:SER:HB3	1.82	0.44
1:M:10:LYS:HA	1:M:11:PRO:HD3	1.88	0.44
1:M:11:PRO:HG2	1:N:231:PHE:HE2	1.82	0.44
1:N:57:THR:HG22	1:N:58:GLU:HG3	1.98	0.44
2:O:387:ASN:HA	2:O:391:SER:HB2	1.99	0.44
2:O:405:PHE:CD1	2:O:405:PHE:C	2.96	0.44
2:O:1238:LEU:HD23	2:O:1238:LEU:HA	1.78	0.44
3:P:147:ILE:HD11	3:P:179:LYS:CD	2.46	0.44
3:P:495:ASN:C	3:P:903:LEU:HD13	2.42	0.44
3:P:496:GLY:N	3:P:903:LEU:HD13	2.32	0.44
3:P:1256:ILE:H	3:P:1256:ILE:HG13	1.39	0.44
2:C:550:VAL:HG23	3:D:780:ARG:HD2	1.98	0.44
2:C:616:ILE:CD1	2:C:652:TYR:CB	2.96	0.44
2:C:753:LEU:HD12	2:C:769:PRO:HG3	1.99	0.44
2:C:1272:GLU:HB3	2:C:1276:TRP:CZ2	2.53	0.44
3:D:84:ILE:O	3:D:84:ILE:HG22	2.17	0.44
5:F:386:LEU:HD13	6:1:41:DT:O4'	2.18	0.44
6:1:58:DG:H2''	6:1:59:DG:OP2	2.17	0.44
2:I:804:PHE:O	2:I:805:MET:HB3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1270:PHE:CG	2:I:1274:GLU:HB3	2.52	0.44
3:J:521:LYS:HB2	3:J:543:SER:H	1.83	0.44
3:J:622:ASP:HA	3:J:625:MET:HE2	1.99	0.44
1:N:26:VAL:HG12	1:N:28:LEU:HD23	1.99	0.44
1:N:201:LEU:HG	1:N:203:ILE:HG13	2.00	0.44
2:O:82:VAL:CG2	2:O:83:GLN:N	2.80	0.44
2:O:583:GLU:CD	2:O:583:GLU:H	2.24	0.44
3:P:373:ALA:CB	3:P:441:LEU:HD21	2.48	0.44
4:Q:12:LYS:HD2	4:Q:12:LYS:HA	1.33	0.44
5:R:290:LEU:O	5:R:294:GLN:HB3	2.17	0.44
5:R:440:THR:O	5:R:443:ILE:CG2	2.59	0.44
5:R:554:ARG:H	5:R:554:ARG:HG2	1.30	0.44
2:C:74:ARG:O	2:C:96:LEU:HD12	2.17	0.44
2:C:275:ARG:HG3	2:C:275:ARG:HH11	1.83	0.44
2:C:347:ILE:O	2:C:350:THR:HB	2.18	0.44
2:C:374:GLU:HG3	2:C:375:PRO:HD2	2.00	0.44
2:C:422:LYS:HA	2:C:425:ILE:HD12	1.99	0.44
3:D:255:LEU:HD22	3:D:257:GLY:H	1.81	0.44
3:D:321:LYS:HB2	3:D:321:LYS:HE3	1.79	0.44
3:D:493:PRO:CA	3:D:904:ALA:HB2	2.46	0.44
3:D:835:LEU:HD11	3:D:839:VAL:CG2	2.47	0.44
3:D:1219:ASP:OD1	3:D:1219:ASP:N	2.50	0.44
5:F:402:LEU:HD23	5:F:402:LEU:N	2.31	0.44
2:I:46:GLN:H	2:I:46:GLN:HG2	1.58	0.44
2:I:246:LEU:O	2:I:247:ARG:C	2.60	0.44
2:I:257:ALA:HB3	2:I:262:TYR:CE2	2.53	0.44
3:J:504:GLN:HB3	3:J:505:ASP:OD1	2.17	0.44
3:J:927:GLY:O	3:J:931:THR:HG23	2.18	0.44
3:J:1167:LYS:H	3:J:1167:LYS:CD	2.18	0.44
3:J:1296:GLY:O	3:J:1297:LYS:O	2.36	0.44
2:O:842:ASP:HB3	2:O:847:PRO:HA	2.00	0.44
3:P:604:MET:HE2	3:P:604:MET:HB2	1.55	0.44
3:P:731:ARG:HA	3:P:731:ARG:HD3	1.72	0.44
3:P:809:VAL:HB	3:P:911:LYS:HA	1.99	0.44
3:P:1229:VAL:HG13	3:P:1230:THR:N	2.32	0.44
2:C:130:MET:HB2	2:C:136:PHE:CZ	2.52	0.44
2:C:748:ILE:CD1	2:C:970:GLY:HA3	2.43	0.44
2:C:1304:MET:HE3	2:C:1308:ILE:HD11	1.99	0.44
3:D:809:VAL:CG2	3:D:915:ILE:HD11	2.47	0.44
3:D:933:ARG:HG3	3:D:937:ILE:HD12	2.00	0.44
3:D:1044:GLN:OE1	3:D:1071:GLY:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1102:PRO:HG2	3:D:1124:ILE:HD13	2.00	0.44
5:F:561:MET:HE3	5:F:567:MET:SD	2.57	0.44
5:F:575:GLU:HG2	5:F:578:LYS:CE	2.34	0.44
5:F:583:THR:HG21	5:F:586:ARG:HB2	1.98	0.44
1:G:8:PHE:CE1	1:H:223:ILE:HG12	2.52	0.44
1:G:48:LEU:HD23	1:G:48:LEU:HA	1.68	0.44
1:H:205:MET:HE2	1:H:206:GLU:C	2.42	0.44
2:I:130:MET:HB2	2:I:136:PHE:CE1	2.52	0.44
2:I:560:PRO:HB2	3:J:776:THR:HG21	1.99	0.44
2:I:896:THR:HG22	2:I:899:GLU:CD	2.43	0.44
3:J:384:LYS:NZ	4:K:45:LYS:HE3	2.33	0.44
3:J:490:ILE:HD11	3:J:614:LEU:HD11	1.99	0.44
7:5:21:DG:H2'	7:5:22:DA:O4'	2.17	0.44
7:5:27:DA:H2''	7:5:28:DG:H5'	1.98	0.44
1:M:112:ALA:C	1:M:115:ILE:HD12	2.27	0.44
1:M:134:THR:HB	2:O:726:TYR:CE1	2.52	0.44
3:P:233:LYS:HG2	3:P:234:PRO:HD2	1.99	0.44
5:R:379:MET:HG2	5:R:416:VAL:HG13	1.99	0.44
2:C:57:PHE:CB	2:C:58:PRO:HA	2.43	0.44
2:C:190:PRO:HB2	2:C:191:LYS:HD2	1.98	0.44
2:C:850:ILE:HD11	2:C:1048:LYS:HD3	1.99	0.44
3:D:34:SER:CB	3:D:104:HIS:HB3	2.48	0.44
3:D:210:SER:HB3	3:D:213:LYS:HD2	1.99	0.44
5:F:289:LYS:O	5:F:293:GLU:HB3	2.17	0.44
5:F:489:MET:CB	5:F:490:PRO:HD2	2.47	0.44
6:1:54:DA:C6	6:1:55:DC:C4	3.06	0.44
2:I:119:GLU:O	2:I:120:GLN:HB3	2.16	0.44
2:I:811:ASN:OD1	2:I:811:ASN:N	2.48	0.44
2:I:895:LEU:HD22	2:I:899:GLU:OE1	2.17	0.44
3:J:318:GLY:HA2	3:J:324:LEU:CD2	2.38	0.44
3:J:382:TYR:HD1	3:J:397:ALA:CB	2.30	0.44
3:J:433:GLY:O	3:J:457:TYR:CE1	2.70	0.44
5:L:552:THR:O	5:L:555:GLU:HB2	2.18	0.44
5:L:583:THR:O	5:L:587:ILE:CD1	2.64	0.44
1:M:11:PRO:C	1:N:231:PHE:CZ	2.95	0.44
1:M:26:VAL:HG21	1:M:217:ILE:HD11	2.00	0.44
1:N:14:VAL:HG21	1:N:29:GLU:OE2	2.17	0.44
2:O:194:LEU:HG	2:O:206:ALA:HB2	2.00	0.44
2:O:758:ARG:HB2	2:O:833:ILE:HG22	1.99	0.44
2:O:1287:LEU:HD12	2:O:1287:LEU:HA	1.71	0.44
3:P:513:MET:HB2	3:P:579:LEU:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:ARG:CD	1:B:38:THR:CB	2.91	0.44
2:C:1112:ILE:HG23	2:C:1116:HIS:NE2	2.33	0.44
2:C:1292:THR:HG23	2:C:1293:VAL:H	1.82	0.44
3:D:40:LYS:HZ3	3:D:53:ARG:HE	1.65	0.44
3:D:80:HIS:CD2	3:D:83:VAL:HG21	2.53	0.44
3:D:154:LEU:HD22	3:D:158:GLN:CD	2.43	0.44
3:D:382:TYR:HD1	3:D:397:ALA:CB	2.30	0.44
3:D:609:TYR:HA	3:D:617:THR:CG2	2.47	0.44
3:D:720:ASN:HD22	3:D:722:ILE:HG13	1.83	0.44
3:D:1314:LEU:N	3:D:1314:LEU:HD23	2.33	0.44
5:F:453:PRO:HG2	6:I:31:DT:OP1	2.16	0.44
1:H:81:ILE:HG23	1:H:130:ILE:HG22	2.00	0.44
1:H:203:ILE:HD12	1:H:203:ILE:H	1.82	0.44
3:J:209:ASN:OD1	3:J:209:ASN:N	2.51	0.44
3:J:307:LEU:HD23	3:J:327:LEU:CD1	2.46	0.44
5:L:123:ILE:O	5:L:127:ILE:HG13	2.17	0.44
5:L:284:GLU:HG3	5:L:344:LEU:HD11	2.00	0.44
5:L:476:ARG:CG	5:L:477:GLU:H	2.29	0.44
1:N:115:ILE:HD13	1:N:115:ILE:HA	1.88	0.44
3:P:530:PRO:HB2	3:P:581:MET:HG3	1.99	0.44
3:P:610:ARG:NH1	3:P:901:ARG:HH12	2.15	0.44
3:P:865:HIS:HB3	3:P:868:TRP:HD1	1.83	0.44
5:R:400:GLN:OE1	5:R:402:LEU:HD12	2.17	0.44
1:A:16:ILE:HA	1:A:26:VAL:CG2	2.33	0.44
2:C:452:ARG:HH12	2:C:454:ARG:CG	2.29	0.44
2:C:540:ARG:CZ	2:C:567:PRO:HB2	2.48	0.44
2:C:557:ARG:HD3	2:C:587:LEU:CB	2.45	0.44
2:C:807:TRP:HZ3	2:C:1086:PRO:CD	2.31	0.44
3:D:380:PHE:HB3	3:D:415:VAL:HG11	1.99	0.44
3:D:412:LEU:O	3:D:416:ILE:HG13	2.18	0.44
3:D:421:VAL:HG13	3:D:469:HIS:O	2.17	0.44
5:F:160:ASP:HB3	5:F:161:LEU:H	1.62	0.44
5:F:391:ALA:O	5:F:395:THR:HG23	2.18	0.44
5:F:600:HIS:HA	5:F:601:PRO:HD3	1.85	0.44
1:H:67:GLU:C	1:H:78:ILE:HD12	2.43	0.44
2:I:842:ASP:HB3	2:I:847:PRO:HA	1.99	0.44
3:J:612:LEU:HD22	3:J:616:PRO:CG	2.47	0.44
3:J:702:GLN:HG3	3:J:723:TYR:CZ	2.53	0.44
3:J:747:MET:HE1	3:J:759:ILE:HD12	1.98	0.44
3:J:984:LEU:O	3:J:992:LYS:HB3	2.17	0.44
5:L:349:GLU:N	5:L:349:GLU:OE1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:468:ARG:NH1	7:5:25:DA:C8	2.86	0.44
2:O:550:VAL:HG21	3:P:776:THR:HG23	1.94	0.44
2:O:594:VAL:HG13	2:O:598:VAL:O	2.18	0.44
3:P:176:PHE:CD2	3:P:176:PHE:O	2.71	0.44
3:P:550:VAL:HG12	3:P:552:ILE:HD11	1.99	0.44
3:P:614:LEU:O	3:P:618:VAL:HG23	2.18	0.44
3:P:1163:VAL:O	3:P:1201:GLY:HA2	2.18	0.44
3:P:1314:LEU:HG	3:P:1314:LEU:H	1.57	0.44
1:B:56:VAL:HG13	1:B:144:ILE:CG2	2.48	0.44
1:B:194:GLN:NE2	3:D:406:ALA:HB1	2.33	0.44
2:C:9:LYS:O	2:C:1172:LEU:HD13	2.18	0.44
2:C:155:VAL:CG2	2:C:405:PHE:CD2	3.01	0.44
2:C:237:LEU:HD12	2:C:288:PRO:O	2.18	0.44
2:C:665:ALA:HA	2:C:668:ILE:CD1	2.48	0.44
2:C:805:MET:O	2:C:811:ASN:ND2	2.46	0.44
2:C:1312:ASN:OD1	2:C:1314:GLN:HB2	2.18	0.44
3:D:192:MET:HE3	3:D:192:MET:HB2	1.83	0.44
3:D:201:LEU:HB2	3:D:221:ILE:HD11	1.98	0.44
3:D:364:HIS:HB3	3:D:487:THR:HG23	1.99	0.44
3:D:514:THR:O	3:D:576:ARG:NE	2.51	0.44
3:D:1233:ILE:HG13	3:D:1233:ILE:H	1.43	0.44
3:D:1296:GLY:O	3:D:1297:LYS:O	2.36	0.44
5:F:272:SER:O	5:F:276:MET:HG2	2.18	0.44
5:F:395:THR:HA	5:F:404:LEU:CD1	2.47	0.44
5:F:488:LEU:O	5:F:489:MET:HG3	2.18	0.44
1:G:232:VAL:HG13	1:H:218:ARG:CA	2.43	0.44
2:I:80:PHE:O	2:I:92:TYR:CE1	2.67	0.44
2:I:253:PHE:CD1	2:I:288:PRO:HD2	2.53	0.44
2:I:453:ILE:HD13	2:I:453:ILE:HA	1.77	0.44
2:I:1106:ARG:O	2:I:1107:MET:HB2	2.18	0.44
2:I:1227:VAL:HG12	2:I:1228:GLY:N	2.32	0.44
3:J:1257:VAL:N	3:J:1260:MET:HE2	2.28	0.44
6:4:50:DT:H6	6:4:50:DT:C5'	2.31	0.44
1:N:47:LEU:O	1:N:51:MET:HG2	2.17	0.44
2:O:22:LEU:HD13	2:O:603:ILE:HD13	1.99	0.44
2:O:639:LYS:HG2	2:O:639:LYS:O	2.18	0.44
3:P:139:LEU:HD21	3:P:185:ILE:HB	2.00	0.44
5:R:115:GLY:O	5:R:118:ASP:HB2	2.18	0.44
1:A:13:LEU:CA	1:A:28:LEU:CD2	2.73	0.43
2:C:13:LYS:HB3	2:C:1182:ILE:HG23	1.99	0.43
2:C:448:LEU:HB3	2:C:608:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:139:LEU:HD23	3:D:185:ILE:CD1	2.22	0.43
3:D:335:GLN:OE1	5:F:518:HIS:CD2	2.71	0.43
3:D:475:GLU:O	3:D:478:LEU:HB2	2.18	0.43
3:D:725:MET:HE1	3:D:732:GLY:H	1.74	0.43
3:D:740:LEU:N	3:D:740:LEU:HD23	2.32	0.43
3:D:759:ILE:CD1	3:D:767:LEU:CD1	2.91	0.43
3:D:1080:ILE:HB	3:D:1097:ALA:HB3	1.99	0.43
5:F:511:ILE:CD1	5:F:519:LEU:CD1	2.76	0.43
6:1:56:DG:C2	7:2:8:DG:N2	2.86	0.43
2:I:243:PRO:HG2	2:I:278:GLU:HA	2.00	0.43
2:I:448:LEU:CG	2:I:553:THR:OG1	2.63	0.43
2:I:528:ARG:CZ	2:I:575:LEU:HD23	2.48	0.43
2:I:1315:MET:CE	3:J:473:THR:CG2	2.95	0.43
3:J:536:LEU:HA	3:J:536:LEU:HD23	1.29	0.43
3:J:825:VAL:CG2	3:J:838:ARG:HH11	2.30	0.43
3:J:1240:VAL:O	3:J:1244:GLN:HG2	2.18	0.43
6:4:45:DT:C2'	6:4:46:DG:O4'	2.66	0.43
2:O:277:LEU:O	2:O:277:LEU:HG	2.17	0.43
2:O:592:ARG:HG3	2:O:653:MET:CE	2.48	0.43
2:O:898:GLU:OE2	5:R:565:ILE:CG2	2.67	0.43
3:P:572:THR:OG1	3:P:576:ARG:HB2	2.18	0.43
3:P:816:THR:HG22	3:P:818:GLU:N	2.33	0.43
3:P:891:ASP:OD1	3:P:891:ASP:N	2.50	0.43
3:P:894:VAL:HG23	3:P:895:CYS:N	2.31	0.43
5:R:137:TYR:CD1	5:R:138:PRO:HD2	2.53	0.43
5:R:160:ASP:HB3	5:R:161:LEU:H	1.64	0.43
5:R:306:PHE:HD1	5:R:315:TRP:CZ2	2.36	0.43
2:C:577:VAL:HG12	2:C:578:TYR:N	2.33	0.43
2:C:906:PHE:HE2	5:F:608:ARG:NH1	2.10	0.43
2:C:951:MET:O	2:C:955:GLN:HG2	2.18	0.43
2:C:1005:GLU:HB3	2:C:1007:LYS:HE2	2.00	0.43
3:D:252:LEU:HD12	3:D:252:LEU:C	2.42	0.43
3:D:757:THR:HA	3:D:758:PRO:HD3	1.75	0.43
3:D:1165:PHE:HB3	3:D:1166:GLY:H	1.47	0.43
2:I:59:ILE:HG22	2:I:476:LYS:CE	2.49	0.43
2:I:68:LEU:HD12	2:I:68:LEU:HA	1.70	0.43
2:I:228:VAL:CG1	2:I:239:MET:CE	2.81	0.43
2:I:319:LEU:H	2:I:319:LEU:HG	1.57	0.43
2:I:808:ASN:N	2:I:808:ASN:ND2	2.65	0.43
2:I:1152:GLY:HA3	2:I:1155:VAL:HB	1.99	0.43
2:I:1286:THR:O	2:I:1289:GLU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1321:GLU:O	2:I:1325:VAL:HG23	2.18	0.43
3:J:33:TRP:HB3	3:J:102:MET:SD	2.58	0.43
3:J:279:LEU:HD12	3:J:283:LEU:HD21	1.99	0.43
3:J:288:PRO:HD2	3:J:291:ILE:HD12	2.00	0.43
3:J:601:ILE:CG2	3:J:605:LEU:HD11	2.47	0.43
3:J:814:CYS:HB2	3:J:889:ASP:HB3	2.00	0.43
3:J:848:VAL:HG22	3:J:880:VAL:HG13	1.97	0.43
3:J:1357:ILE:HA	3:J:1358:PRO:HD3	1.78	0.43
1:M:46:ILE:HG13	1:N:35:PHE:HE1	1.83	0.43
1:M:77:ASP:OD1	2:O:729:ALA:HB1	2.18	0.43
3:P:24:LEU:N	3:P:24:LEU:HD23	2.33	0.43
3:P:140:TYR:O	5:R:100:MET:HE1	2.19	0.43
5:R:248:GLU:O	5:R:251:LYS:HB3	2.18	0.43
7:8:25:DA:C2'	7:8:26:DT:OP2	2.55	0.43
1:A:48:LEU:HD23	1:A:180:VAL:HB	1.99	0.43
2:C:130:MET:HG2	2:C:131:THR:N	2.33	0.43
2:C:403:MET:HE1	2:C:586:PHE:CE2	2.53	0.43
2:C:837:ALA:O	2:C:918:LEU:CD1	2.66	0.43
3:D:422:LEU:HD12	3:D:471:PRO:HD3	2.01	0.43
3:D:622:ASP:O	3:D:625:MET:HE2	2.18	0.43
3:D:835:LEU:CD1	3:D:839:VAL:CG2	2.96	0.43
3:D:1323:ALA:HB2	3:D:1331:VAL:HG11	2.00	0.43
5:F:381:GLU:HA	5:F:384:LEU:HG	2.00	0.43
5:F:396:ASN:C	5:F:398:GLY:N	2.71	0.43
1:H:172:LEU:HG	1:H:173:VAL:N	2.33	0.43
2:I:496:LYS:NZ	5:L:468:ARG:NH2	2.66	0.43
2:I:520:PRO:C	2:I:524:ILE:HD12	2.44	0.43
3:J:214:ARG:HG2	3:J:214:ARG:HH11	1.83	0.43
3:J:501:VAL:HG22	3:J:605:LEU:HD13	1.99	0.43
3:J:673:VAL:HG11	3:J:678:ARG:CD	2.48	0.43
3:J:923:ILE:O	3:J:926:PRO:HD2	2.18	0.43
3:J:1189:MET:C	3:J:1190:ILE:HG13	2.42	0.43
4:K:36:ASP:OD1	4:K:36:ASP:N	2.51	0.43
4:K:79:GLU:O	4:K:83:VAL:HG23	2.18	0.43
5:L:434:TRP:CD2	6:4:36:DT:C7	3.02	0.43
5:L:489:MET:HB2	5:L:494:ILE:HD13	1.99	0.43
1:N:190:ALA:O	1:N:191:ARG:C	2.60	0.43
2:O:333:ILE:CG2	2:O:334:GLU:N	2.80	0.43
2:O:402:ARG:CD	2:O:416:GLY:HA3	2.48	0.43
2:O:911:SER:O	2:O:913:VAL:N	2.49	0.43
2:O:921:PRO:HB2	2:O:924:VAL:HB	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:985:GLU:CG	2:O:988:LYS:HD2	2.48	0.43
2:O:1284:ALA:HB3	3:P:1361:THR:HB	2.00	0.43
3:P:147:ILE:HD12	3:P:177:ASP:HB3	2.00	0.43
3:P:169:LEU:O	3:P:170:GLU:C	2.60	0.43
3:P:185:ILE:O	3:P:189:LEU:HD12	2.18	0.43
3:P:239:LEU:HG	3:P:239:LEU:H	1.46	0.43
3:P:435:GLN:HE21	3:P:489:ASN:HD22	1.65	0.43
3:P:682:VAL:CG1	3:P:686:TRP:HE1	2.31	0.43
3:P:925:GLU:N	3:P:926:PRO:CD	2.81	0.43
3:P:968:ASN:CA	3:P:1117:SER:O	2.66	0.43
5:R:423:ARG:HD3	6:7:37:DA:N1	2.33	0.43
6:7:53:DG:C4	6:7:54:DA:N6	2.86	0.43
1:A:58:GLU:O	1:A:59:VAL:HG23	2.18	0.43
1:A:187:VAL:CG1	1:A:199:ASP:OD2	2.65	0.43
2:C:285:ILE:CG2	2:C:286:GLU:H	2.20	0.43
2:C:542:ARG:CZ	6:1:50:DT:C7	2.89	0.43
2:C:1322:SER:O	2:C:1325:VAL:HB	2.18	0.43
3:D:367:GLY:HA3	3:D:448:GLN:HB2	1.99	0.43
3:D:370:LYS:HG3	3:D:443:GLU:HA	1.99	0.43
3:D:736:GLN:H	3:D:736:GLN:HG2	1.36	0.43
3:D:746:LEU:C	3:D:747:MET:HG3	2.43	0.43
3:D:807:LEU:HD13	3:D:1259:GLN:HE21	1.78	0.43
3:D:889:ASP:OD2	3:D:1290:ARG:NH2	2.43	0.43
2:I:301:TYR:HD2	2:I:330:HIS:CD2	2.36	0.43
2:I:316:GLU:HG3	2:I:352:ARG:NH2	2.33	0.43
2:I:797:GLY:O	2:I:798:GLN:HG3	2.19	0.43
2:I:809:GLY:CA	3:J:629:PHE:CD1	3.01	0.43
2:I:1281:TYR:HA	3:J:431:ARG:HH11	1.83	0.43
3:J:64:PRO:O	3:J:95:THR:HG23	2.18	0.43
3:J:146:VAL:HG12	3:J:155:GLU:O	2.16	0.43
3:J:364:HIS:CD2	4:K:4:VAL:HG13	2.54	0.43
3:J:479:GLU:O	3:J:484:MET:HG3	2.18	0.43
3:J:1193:TRP:CD1	3:J:1193:TRP:H	2.36	0.43
5:L:297:MET:HE3	5:L:326:TRP:CH2	2.54	0.43
2:O:529:ARG:NH2	8:9:14:A:OP1	2.51	0.43
2:O:1134:GLN:O	2:O:1136:GLN:HG3	2.19	0.43
3:P:598:LYS:O	3:P:601:ILE:HB	2.17	0.43
3:P:621:ALA:O	3:P:624:ILE:HB	2.18	0.43
3:P:700:ASN:O	3:P:704:GLU:CB	2.60	0.43
3:P:930:LEU:HB2	3:P:1134:ILE:CD1	2.43	0.43
3:P:968:ASN:HB2	3:P:1117:SER:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1025:MET:O	3:P:1025:MET:HG2	2.17	0.43
1:A:41:ASN:ND2	2:C:1218:GLY:N	2.66	0.43
1:A:134:THR:OG1	1:A:135:ASP:N	2.50	0.43
1:B:56:VAL:CG1	1:B:144:ILE:CG2	2.96	0.43
2:C:1151:LEU:HD21	2:C:1197:GLU:HB3	1.99	0.43
2:C:1186:VAL:HG12	2:C:1187:PHE:CE2	2.53	0.43
3:D:194:LEU:HD13	3:D:228:VAL:HG23	2.00	0.43
3:D:288:PRO:O	3:D:292:VAL:HG23	2.18	0.43
3:D:332:LYS:O	3:D:333:GLY:C	2.61	0.43
3:D:823:THR:HB	3:D:824:PRO:CD	2.48	0.43
5:F:105:MET:HE1	6:1:42:DG:C8	2.54	0.43
1:H:43:LEU:HG	1:H:43:LEU:H	1.33	0.43
2:I:3:TYR:O	2:I:8:LYS:CE	2.62	0.43
2:I:589:THR:HG23	2:I:590:PRO:HD2	2.01	0.43
3:J:601:ILE:HG22	3:J:605:LEU:HD12	2.00	0.43
3:J:814:CYS:SG	3:J:888:CYS:SG	3.17	0.43
3:J:1041:ILE:HG22	3:J:1042:ASP:N	2.34	0.43
3:J:1165:PHE:CE2	3:J:1173:ARG:NH2	2.87	0.43
1:M:83:LEU:CD1	2:O:694:ARG:HH11	2.31	0.43
1:M:118:ASP:O	1:M:119:GLY:C	2.62	0.43
2:O:31:GLN:OE1	2:O:456:VAL:CG2	2.66	0.43
2:O:701:GLY:N	2:O:1182:ILE:O	2.50	0.43
3:P:127:LEU:HD23	3:P:127:LEU:HA	1.86	0.43
3:P:816:THR:HG22	3:P:818:GLU:H	1.83	0.43
5:R:168:PRO:CD	5:R:212:ILE:HD12	2.48	0.43
1:A:174:ASP:OD2	2:C:1059:ARG:NH2	2.52	0.43
1:B:56:VAL:HG13	1:B:144:ILE:HG22	2.01	0.43
2:C:90:VAL:HG12	2:C:91:THR:N	2.34	0.43
1:G:234:LEU:O	1:G:235:ARG:CB	2.65	0.43
1:H:52:PRO:HA	1:H:150:ARG:HB2	2.00	0.43
1:H:168:ILE:HG22	1:H:169:GLY:N	2.34	0.43
2:I:17:LYS:HD2	2:I:17:LYS:N	2.34	0.43
2:I:251:ALA:HB3	2:I:266:GLY:N	2.32	0.43
2:I:568:ASN:HA	2:I:571:LEU:HD12	2.01	0.43
2:I:979:LEU:HD23	2:I:979:LEU:HA	1.75	0.43
2:I:1161:LEU:O	2:I:1164:PHE:CD2	2.65	0.43
3:J:29:MET:O	3:J:32:SER:HB3	2.19	0.43
3:J:160:LEU:HD23	3:J:160:LEU:HA	1.84	0.43
3:J:245:LEU:CG	3:J:249:LEU:HD12	2.47	0.43
3:J:275:ARG:NH1	3:J:302:ALA:HB2	2.33	0.43
3:J:422:LEU:HD21	3:J:484:MET:HE2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:467:ALA:O	3:J:468:VAL:HG22	2.18	0.43
5:L:231:THR:O	5:L:231:THR:HG22	2.18	0.43
5:L:235:ILE:CG2	5:L:240:ARG:HA	2.45	0.43
1:M:127:GLN:H	1:M:127:GLN:HG2	1.51	0.43
2:O:122:VAL:HG11	2:O:493:ILE:HB	2.01	0.43
2:O:734:ILE:HG21	2:O:751:TYR:HE2	1.84	0.43
2:O:1166:ASP:O	2:O:1169:VAL:HB	2.18	0.43
3:P:131:PRO:O	3:P:135:ILE:HG13	2.19	0.43
3:P:350:SER:HB3	3:P:469:HIS:CE1	2.53	0.43
3:P:504:GLN:HB3	3:P:505:ASP:H	1.66	0.43
3:P:824:PRO:HG3	3:P:835:LEU:HB2	2.01	0.43
1:A:125:LYS:HE3	1:A:125:LYS:HB2	1.83	0.43
1:B:169:GLY:O	1:B:171:LEU:HG	2.19	0.43
2:C:153:PRO:HD2	2:C:400:VAL:CG1	2.49	0.43
2:C:333:ILE:CG2	2:C:334:GLU:N	2.81	0.43
2:C:837:ALA:O	2:C:918:LEU:HD13	2.18	0.43
2:C:1049:ILE:CG2	2:C:1050:VAL:N	2.82	0.43
3:D:352:ARG:O	3:D:353:SER:HB2	2.17	0.43
3:D:791:ALA:HA	7:2:12:DG:C5'	2.48	0.43
5:F:116:GLU:H	5:F:116:GLU:HG3	1.48	0.43
5:F:262:VAL:HA	5:F:263:PRO:HD3	1.89	0.43
5:F:269:LEU:HD23	5:F:269:LEU:HA	1.71	0.43
5:F:315:TRP:CZ2	5:F:341:LEU:HD11	2.53	0.43
5:F:324:LYS:C	5:F:326:TRP:H	2.23	0.43
5:F:324:LYS:C	5:F:326:TRP:N	2.75	0.43
2:I:279:LYS:HB3	2:I:279:LYS:NZ	2.33	0.43
2:I:402:ARG:O	2:I:405:PHE:HB3	2.18	0.43
2:I:937:ASP:CG	2:I:1039:GLY:HA3	2.44	0.43
2:I:1242:LYS:CE	3:J:465:GLN:NE2	2.81	0.43
2:I:1244:HIS:CE1	2:I:1245:ALA:O	2.72	0.43
3:J:135:ILE:O	3:J:138:VAL:HB	2.19	0.43
3:J:330:MET:CE	3:J:337:ARG:HH22	2.31	0.43
3:J:428:THR:O	3:J:428:THR:HG22	2.19	0.43
3:J:601:ILE:HG22	3:J:605:LEU:CD1	2.49	0.43
3:J:923:ILE:HD11	3:J:1253:ILE:HG12	2.00	0.43
3:J:1196:LEU:H	3:J:1196:LEU:HG	1.57	0.43
3:J:1233:ILE:HG13	3:J:1233:ILE:H	1.58	0.43
3:J:1357:ILE:O	3:J:1362:GLY:HA3	2.19	0.43
5:L:129:GLN:OE1	5:L:367:ILE:HG22	2.19	0.43
5:L:401:PHE:O	5:L:405:ILE:CG1	2.59	0.43
5:L:571:TYR:HB2	5:L:576:VAL:HG22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:45:ARG:NH2	2:O:1084:ASP:OD1	2.48	0.43
2:O:550:VAL:HG23	3:P:780:ARG:NE	2.33	0.43
2:O:915:ASP:C	2:O:915:ASP:OD1	2.61	0.43
2:O:1061:GLN:CB	2:O:1062:PRO:CD	2.95	0.43
3:P:653:ILE:HG21	3:P:693:VAL:CG2	2.49	0.43
5:R:102:MET:HB3	6:7:42:DG:H21	1.83	0.43
5:R:518:HIS:C	5:R:520:GLY:N	2.74	0.43
1:A:41:ASN:O	1:A:45:ARG:HG3	2.19	0.43
1:B:39:LEU:CD2	1:B:39:LEU:H	2.24	0.43
2:C:668:ILE:HA	2:C:669:PRO:HD3	1.81	0.43
2:C:807:TRP:CZ3	2:C:1086:PRO:CD	3.00	0.43
2:C:1015:ALA:O	2:C:1018:TYR:HB3	2.19	0.43
2:C:1264:GLN:O	2:C:1265:PHE:CB	2.67	0.43
3:D:238:ILE:C	3:D:239:LEU:HD23	2.43	0.43
3:D:771:GLN:O	3:D:774:ILE:CG1	2.64	0.43
3:D:1018:ALA:O	3:D:1019:ASN:CB	2.66	0.43
3:D:1167:LYS:HB2	3:D:1174:ARG:HD2	2.00	0.43
3:D:1173:ARG:HE	3:D:1173:ARG:HB3	1.55	0.43
3:D:1346:GLY:H	3:D:1349:GLU:CD	2.27	0.43
5:F:385:ARG:C	5:F:388:ILE:HG22	2.43	0.43
5:F:533:ASP:O	5:F:536:THR:HB	2.19	0.43
6:1:47:DC:C5'	6:1:47:DC:C6	3.01	0.43
1:H:29:GLU:OE1	1:H:200:LYS:HE2	2.19	0.43
1:H:133:LEU:HD23	1:H:133:LEU:HA	1.67	0.43
2:I:295:LYS:HA	2:I:295:LYS:HD3	1.87	0.43
3:J:219:LYS:HG2	3:J:222:LYS:HZ2	1.84	0.43
3:J:295:GLU:OE1	3:J:295:GLU:HA	2.18	0.43
3:J:362:ARG:NH2	3:J:619:ILE:HD11	2.34	0.43
3:J:917:VAL:O	3:J:921:GLN:HG3	2.18	0.43
3:J:1261:LEU:HD23	3:J:1306:LEU:HD13	2.01	0.43
5:L:119:ILE:N	5:L:119:ILE:CD1	2.82	0.43
5:L:213:ASP:HA	5:L:214:PRO:HD3	1.91	0.43
5:L:583:THR:HG23	6:4:14:DT:H73	2.00	0.43
7:5:5:DC:H2''	7:5:6:DG:OP2	2.19	0.43
7:5:19:DA:H3'	7:5:20:DG:H5''	1.99	0.43
1:M:134:THR:HB	2:O:726:TYR:HE1	1.84	0.43
1:N:25:LYS:HE2	1:N:204:GLU:HG2	2.00	0.43
1:N:129:VAL:HG11	1:N:132:HIS:CE1	2.53	0.43
2:O:186:PHE:N	2:O:186:PHE:CD2	2.87	0.43
2:O:693:LEU:CA	2:O:831:ILE:HD11	2.49	0.43
3:P:139:LEU:HD22	3:P:182:ALA:CA	2.40	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:435:GLN:NE2	3:P:486:SER:HA	2.33	0.43
3:P:610:ARG:NH2	3:P:901:ARG:HH11	2.16	0.43
3:P:1181:ASP:CG	3:P:1182:GLY:N	2.76	0.43
3:P:1209:VAL:HG12	3:P:1211:SER:O	2.18	0.43
3:P:1366:HIS:O	3:P:1370:MET:HG3	2.19	0.43
1:B:174:ASP:OD1	1:B:174:ASP:N	2.52	0.43
2:C:436:ARG:O	2:C:436:ARG:HD2	2.19	0.43
2:C:519:ASN:OD1	2:C:519:ASN:N	2.51	0.43
2:C:1225:VAL:CG2	3:D:636:GLY:O	2.67	0.43
3:D:15:GLU:HG2	3:D:15:GLU:O	2.17	0.43
3:D:111:THR:OG1	3:D:299:LEU:CD2	2.67	0.43
3:D:824:PRO:HD3	3:D:878:ASP:O	2.19	0.43
3:D:1256:ILE:HB	3:D:1260:MET:HE2	2.00	0.43
5:F:113:ARG:HB2	5:F:114:GLU:H	1.58	0.43
5:F:502:LYS:HE3	5:F:503:GLU:O	2.19	0.43
5:F:560:ARG:HA	5:F:565:ILE:HB	2.00	0.43
6:1:44:DG:C2'	6:1:45:DT:O4'	2.66	0.43
6:1:54:DA:C2'	6:1:55:DC:H5'	2.47	0.43
1:G:112:ALA:CB	1:G:126:PRO:HA	2.34	0.43
2:I:94:ALA:HB2	2:I:129:LEU:CD1	2.45	0.43
2:I:170:VAL:HG22	3:J:1065:ALA:HB1	2.01	0.43
2:I:285:ILE:CG2	2:I:286:GLU:N	2.81	0.43
2:I:558:VAL:HG22	2:I:574:SER:C	2.43	0.43
2:I:753:LEU:CD1	2:I:769:PRO:HG3	2.48	0.43
2:I:887:VAL:O	2:I:887:VAL:HG23	2.18	0.43
2:I:931:VAL:HG13	2:I:1052:VAL:HG22	2.00	0.43
3:J:44:ILE:HD12	3:J:49:PHE:CA	2.49	0.43
3:J:214:ARG:HH22	3:J:215:LYS:HE2	1.84	0.43
3:J:849:LEU:HD21	3:J:857:LEU:HD23	1.96	0.43
3:J:1231:ARG:HA	3:J:1234:VAL:HG21	2.01	0.43
5:L:119:ILE:HB	5:L:379:MET:CE	2.48	0.43
2:O:556:GLY:HA2	2:O:659:GLN:O	2.19	0.43
2:O:593:LYS:HB3	2:O:600:THR:OG1	2.18	0.43
2:O:656:SER:O	2:O:659:GLN:HG2	2.19	0.43
2:O:807:TRP:HB3	2:O:817:LEU:HD11	2.00	0.43
2:O:844:LYS:O	2:O:844:LYS:HG2	2.19	0.43
2:O:1099:ASN:HD21	3:P:504:GLN:HE21	1.66	0.43
3:P:28:ASP:O	3:P:31:ARG:HB2	2.19	0.43
3:P:109:SER:OG	3:P:296:LYS:HD3	2.19	0.43
3:P:263:SER:N	5:R:507:MET:SD	2.92	0.43
3:P:1138:LEU:CB	3:P:1139:PRO:CD	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1165:PHE:CZ	3:P:1196:LEU:HD12	2.34	0.43
3:P:1280:VAL:CG1	3:P:1281:GLU:N	2.82	0.43
3:P:1296:GLY:O	3:P:1297:LYS:O	2.37	0.43
1:A:48:LEU:CD2	1:A:180:VAL:HB	2.49	0.43
2:C:6:THR:HG21	2:C:782:VAL:HG23	2.00	0.43
2:C:73:TYR:CB	2:C:98:VAL:HG22	2.49	0.43
2:C:559:CYS:CB	2:C:662:SER:H	2.31	0.43
2:C:560:PRO:HB2	3:D:776:THR:HG21	2.01	0.43
2:C:870:ILE:HG21	2:C:944:ARG:CZ	2.48	0.43
3:D:102:MET:HE2	3:D:102:MET:HB3	1.70	0.43
3:D:245:LEU:CD1	3:D:249:LEU:HD12	2.49	0.43
3:D:368:LEU:HG	3:D:373:ALA:HB2	2.01	0.43
3:D:733:SER:O	3:D:736:GLN:HG2	2.19	0.43
3:D:1163:VAL:CG1	3:D:1164:SER:N	2.81	0.43
1:H:95:LYS:N	1:H:95:LYS:HD2	2.33	0.43
2:I:693:LEU:HD12	2:I:693:LEU:C	2.44	0.43
2:I:757:THR:CG2	2:I:758:ARG:H	2.31	0.43
2:I:850:ILE:CG2	2:I:885:GLY:O	2.61	0.43
2:I:1270:PHE:N	3:J:345:LYS:O	2.52	0.43
3:J:113:HIS:NE2	3:J:115:TRP:HB2	2.33	0.43
5:L:284:GLU:O	5:L:287:ILE:HB	2.19	0.43
7:5:50:DG:C2'	7:5:51:DT:OP2	2.66	0.43
3:P:70:CYS:HB2	3:P:90:VAL:HB	2.01	0.43
3:P:580:TRP:CH2	3:P:587:LEU:O	2.72	0.43
3:P:605:LEU:HG	3:P:605:LEU:H	1.42	0.43
3:P:1284:ARG:HH11	3:P:1287:ILE:HD12	1.84	0.43
5:R:457:ILE:HD13	5:R:460:ILE:HD12	2.00	0.43
6:7:37:DA:OP2	6:7:37:DA:H2'	2.19	0.43
1:A:42:ALA:O	1:A:46:ILE:HD12	2.19	0.42
1:B:61:ILE:HG22	1:B:140:ILE:HD11	2.01	0.42
2:C:27:LEU:HG	2:C:711:ASP:OD2	2.19	0.42
2:C:39:ILE:O	2:C:39:ILE:HG22	2.19	0.42
2:C:632:ASP:OD1	2:C:647:ARG:NH2	2.52	0.42
2:C:850:ILE:HD11	2:C:1048:LYS:HD2	2.01	0.42
2:C:1161:LEU:HD12	2:C:1161:LEU:O	2.19	0.42
3:D:291:ILE:CG2	5:F:409:ASN:HD22	2.32	0.42
3:D:390:LEU:HD12	3:D:411:ILE:HD11	2.00	0.42
3:D:423:LEU:HD23	3:D:423:LEU:HA	1.46	0.42
3:D:569:LEU:H	3:D:569:LEU:HD22	1.83	0.42
4:E:31:GLN:HB3	4:E:32:VAL:HG23	2.01	0.42
2:I:539:THR:HG22	2:I:540:ARG:N	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:675:ASP:HB2	2:I:1107:MET:HE2	2.01	0.42
2:I:831:ILE:H	2:I:831:ILE:HG13	1.61	0.42
2:I:1116:HIS:NE2	3:J:641:ILE:HG13	2.34	0.42
3:J:421:VAL:CG1	3:J:422:LEU:N	2.75	0.42
3:J:423:LEU:HB3	3:J:466:MET:CE	2.47	0.42
5:L:261:LEU:HD23	5:L:262:VAL:N	2.34	0.42
5:L:349:GLU:OE1	5:L:349:GLU:CA	2.67	0.42
2:O:34:SER:HA	2:O:37:LYS:CD	2.36	0.42
2:O:90:VAL:HG12	2:O:91:THR:N	2.34	0.42
2:O:690:VAL:HG13	2:O:691:PRO:HD2	2.00	0.42
2:O:895:LEU:HD13	2:O:899:GLU:HB3	2.01	0.42
3:P:146:VAL:HA	3:P:178:ALA:HB2	2.01	0.42
3:P:311:ARG:NH2	3:P:1329:THR:HG21	2.34	0.42
3:P:450:HIS:CD2	3:P:451:PRO:HD2	2.54	0.42
1:A:104:LYS:HA	1:A:104:LYS:HD2	1.84	0.42
1:A:131:CYS:SG	1:A:132:HIS:N	2.92	0.42
1:A:158:ARG:HB3	1:A:172:LEU:HD21	2.00	0.42
1:B:61:ILE:HD11	1:B:171:LEU:CD1	2.47	0.42
2:C:130:MET:HB3	2:C:130:MET:HE2	1.52	0.42
2:C:519:ASN:OD1	2:C:522:SER:CB	2.67	0.42
2:C:782:VAL:HG21	2:C:792:GLY:HA2	2.01	0.42
3:D:57:PHE:HZ	3:D:250:ARG:O	2.02	0.42
3:D:186:GLN:HB2	3:D:238:ILE:HG13	2.01	0.42
3:D:227:PHE:CE1	3:D:232:ASN:O	2.72	0.42
3:D:620:PHE:O	3:D:624:ILE:HD11	2.17	0.42
3:D:725:MET:HE2	3:D:725:MET:HB3	1.78	0.42
5:F:115:GLY:O	5:F:118:ASP:HB2	2.19	0.42
5:F:272:SER:O	5:F:276:MET:CG	2.68	0.42
5:F:449:THR:OG1	5:F:504:PRO:CG	2.50	0.42
5:F:502:LYS:HA	5:F:502:LYS:HD2	1.75	0.42
1:H:15:ASP:HB3	1:H:27:THR:CG2	2.49	0.42
2:I:421:SER:O	2:I:425:ILE:HG13	2.20	0.42
2:I:1252:SER:HA	2:I:1259:LEU:CD2	2.40	0.42
3:J:151:MET:CB	3:J:153:ASN:HD22	2.28	0.42
3:J:255:LEU:CD2	3:J:256:ASP:H	2.17	0.42
3:J:399:LYS:HZ1	5:L:611:LEU:HD23	1.82	0.42
3:J:664:ILE:CD1	3:J:685:ILE:HD11	2.49	0.42
4:K:30:MET:HB3	4:K:30:MET:HE2	1.70	0.42
5:L:419:PHE:CD2	5:L:419:PHE:C	2.96	0.42
2:O:58:PRO:HB3	2:O:69:GLN:HG2	2.01	0.42
2:O:68:LEU:HD12	2:O:101:ARG:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:104:ILE:HG22	2:O:105:TYR:O	2.19	0.42
2:O:136:PHE:HB3	2:O:138:ILE:CD1	2.19	0.42
2:O:242:VAL:CG1	2:O:243:PRO:HD2	2.50	0.42
2:O:419:ILE:HG12	2:O:419:ILE:H	1.59	0.42
2:O:606:LEU:HD22	2:O:610:GLU:CB	2.48	0.42
2:O:719:LYS:HD3	2:O:751:TYR:CE1	2.54	0.42
2:O:797:GLY:CA	2:O:1233:LEU:HD21	2.49	0.42
2:O:1088:ASP:OD1	2:O:1088:ASP:N	2.50	0.42
3:P:74:LYS:CD	3:P:85:CYS:SG	2.86	0.42
3:P:114:ILE:HG23	3:P:115:TRP:N	2.35	0.42
3:P:338:PHE:CE1	3:P:1324:SER:HA	2.53	0.42
3:P:368:LEU:HA	3:P:447:ILE:HG23	2.00	0.42
3:P:1312:ALA:O	3:P:1316:THR:HG23	2.19	0.42
4:Q:48:VAL:C	4:Q:51:LEU:HB2	2.44	0.42
7:8:27:DA:H1'	7:8:28:DG:H5'	2.01	0.42
1:A:198:LEU:HD23	1:A:198:LEU:HA	1.54	0.42
2:C:175:ARG:C	2:C:176:ILE:HD12	2.44	0.42
2:C:1340:GLU:O	3:D:17:PHE:HA	2.19	0.42
3:D:466:MET:HE2	3:D:466:MET:HB3	1.90	0.42
3:D:512:TYR:CZ	3:D:635:SER:HB2	2.54	0.42
3:D:823:THR:HB	3:D:824:PRO:HD2	2.02	0.42
5:F:292:VAL:HG21	5:F:299:LYS:HE2	2.01	0.42
5:F:399:LEU:HB3	5:F:400:GLN:H	1.62	0.42
2:I:105:TYR:HE1	2:I:113:THR:HB	1.84	0.42
2:I:230:PHE:CD1	2:I:292:ILE:CD1	3.03	0.42
2:I:897:PRO:HB3	5:L:563:PHE:O	2.20	0.42
3:J:120:LEU:HA	3:J:121:PRO:HA	1.76	0.42
5:L:559:LEU:HD11	5:L:594:ALA:CB	2.49	0.42
5:L:573:LEU:HG	5:L:574:GLU:N	2.32	0.42
6:4:47:DC:C6	6:4:47:DC:C3'	3.03	0.42
1:M:232:VAL:HG21	1:N:221:ALA:HB3	1.98	0.42
2:O:415:GLU:HG2	2:O:416:GLY:N	2.34	0.42
3:P:146:VAL:CG2	3:P:158:GLN:HB3	2.49	0.42
3:P:330:MET:CE	3:P:337:ARG:NH2	2.82	0.42
3:P:1075:ARG:HB2	3:P:1192:LYS:HD3	2.01	0.42
4:Q:59:ILE:HD13	4:Q:59:ILE:HA	1.90	0.42
5:R:96:ASP:OD1	5:R:98:VAL:HG23	2.19	0.42
5:R:386:LEU:HD13	6:7:41:DT:C1'	2.49	0.42
2:C:946:LEU:O	2:C:946:LEU:HG	2.09	0.42
2:C:1056:VAL:HG11	2:C:1058:ARG:NE	2.34	0.42
2:C:1066:MET:HE2	2:C:1066:MET:HB3	1.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1285:TYR:CE1	3:D:475:GLU:HG2	2.55	0.42
3:D:250:ARG:HH11	3:D:250:ARG:HG3	1.84	0.42
3:D:347:VAL:CG1	3:D:469:HIS:CE1	3.02	0.42
3:D:643:ASP:O	3:D:720:ASN:ND2	2.46	0.42
3:D:739:GLN:HG2	3:D:744:ARG:HG3	2.01	0.42
3:D:749:LYS:HE2	3:D:755:ILE:HG23	2.01	0.42
3:D:814:CYS:SG	3:D:888:CYS:SG	3.16	0.42
3:D:1347:LEU:N	3:D:1347:LEU:HD23	2.33	0.42
5:F:383:ASN:CG	5:F:427:PHE:CE1	2.97	0.42
1:G:35:PHE:HB3	1:G:39:LEU:HD12	1.97	0.42
1:G:153:VAL:CG1	1:G:157:THR:HB	2.42	0.42
1:G:158:ARG:HB3	1:G:172:LEU:HD21	2.00	0.42
1:G:167:PRO:HG3	1:G:170:ARG:HH11	1.85	0.42
1:H:11:PRO:HB2	1:H:28:LEU:HD11	2.02	0.42
1:H:78:ILE:HA	1:H:81:ILE:HD12	2.00	0.42
2:I:292:ILE:O	2:I:292:ILE:HG22	2.18	0.42
2:I:420:LEU:HD23	2:I:420:LEU:HA	1.89	0.42
2:I:757:THR:HG22	2:I:758:ARG:N	2.29	0.42
2:I:1134:GLN:O	2:I:1134:GLN:HG2	2.19	0.42
3:J:736:GLN:CA	3:J:736:GLN:NE2	2.81	0.42
3:J:839:VAL:CG1	3:J:839:VAL:O	2.66	0.42
3:J:1240:VAL:HB	3:J:1241:TYR:HD2	1.83	0.42
5:L:401:PHE:CZ	6:4:45:DT:H1'	2.53	0.42
1:M:82:LEU:HD23	1:M:85:LEU:HD11	2.00	0.42
2:O:129:LEU:O	2:O:136:PHE:CD1	2.72	0.42
2:O:179:TYR:OH	2:O:462:ASN:ND2	2.43	0.42
2:O:272:ARG:CB	2:O:272:ARG:NH1	2.81	0.42
2:O:335:THR:HG22	2:O:336:LEU:N	2.35	0.42
2:O:344:GLY:O	2:O:346:TYR:CD2	2.72	0.42
2:O:482:GLY:HA3	2:O:487:LEU:CD1	2.48	0.42
2:O:700:VAL:HG13	2:O:1117:LEU:HD23	2.00	0.42
2:O:759:SER:HB3	2:O:765:ILE:HG13	2.00	0.42
2:O:1124:ILE:HD11	2:O:1198:LEU:CD1	2.49	0.42
2:O:1212:LEU:HB2	2:O:1221:PHE:HD2	1.83	0.42
2:O:1247:SER:O	3:P:348:ASP:HB3	2.19	0.42
3:P:347:VAL:HG12	3:P:348:ASP:N	2.33	0.42
3:P:450:HIS:HA	3:P:451:PRO:HD3	1.89	0.42
3:P:698:MET:O	3:P:702:GLN:HB2	2.20	0.42
3:P:1132:LYS:HB3	3:P:1243:LEU:HD21	2.00	0.42
3:P:1145:PHE:HE1	3:P:1256:ILE:CD1	2.31	0.42
3:P:1176:VAL:HG22	3:P:1187:GLU:CG	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1367:GLN:HA	3:P:1370:MET:HG3	2.00	0.42
4:Q:43:ASN:O	4:Q:43:ASN:CG	2.61	0.42
5:R:385:ARG:O	5:R:388:ILE:HG23	2.19	0.42
1:A:183:ILE:HG23	1:A:183:ILE:O	2.20	0.42
1:B:100:LEU:HD11	1:B:121:VAL:HG11	2.00	0.42
2:C:138:ILE:HD13	2:C:138:ILE:N	2.32	0.42
2:C:149:LEU:HD11	2:C:451:ARG:CG	2.50	0.42
2:C:180:ARG:O	2:C:395:TYR:HA	2.19	0.42
2:C:209:ILE:CG2	2:C:210:LEU:H	2.26	0.42
2:C:550:VAL:HG22	3:D:780:ARG:HD2	2.01	0.42
2:C:805:MET:HB2	2:C:805:MET:HE3	1.63	0.42
2:C:906:PHE:CZ	5:F:608:ARG:NH2	2.87	0.42
2:C:992:LEU:CB	2:C:993:PRO:CD	2.98	0.42
2:C:997:TRP:C	2:C:1000:LEU:HB2	2.45	0.42
2:C:1183:ALA:O	2:C:1185:PRO:HD3	2.18	0.42
2:C:1225:VAL:HG12	2:C:1226:THR:N	2.34	0.42
2:C:1288:GLN:NE2	3:D:1354:GLY:O	2.53	0.42
3:D:135:ILE:O	3:D:138:VAL:HB	2.19	0.42
5:F:227:GLN:HA	5:F:230:VAL:HG12	2.00	0.42
1:G:9:LEU:HD21	1:G:198:LEU:HD21	2.00	0.42
2:I:13:LYS:HD2	2:I:1149:TYR:HA	2.00	0.42
2:I:511:LEU:HD23	2:I:511:LEU:HA	1.55	0.42
2:I:516:ASP:HB3	2:I:522:SER:OG	2.19	0.42
2:I:764:CYS:HB2	2:I:831:ILE:HB	1.98	0.42
2:I:1066:MET:CE	2:I:1232:MET:HB3	2.40	0.42
2:I:1315:MET:HA	2:I:1315:MET:CE	2.37	0.42
3:J:39:LYS:NZ	3:J:280:LYS:NZ	2.67	0.42
3:J:261:ALA:C	5:L:507:MET:HE3	2.45	0.42
3:J:363:LEU:HB2	3:J:622:ASP:OD1	2.19	0.42
6:4:53:DG:H2"	6:4:54:DA:N7	2.35	0.42
2:O:177:ILE:HG23	2:O:183:TRP:HE1	1.84	0.42
2:O:313:ALA:O	2:O:314:ASN:CB	2.68	0.42
2:O:667:LEU:HA	2:O:667:LEU:HD23	1.57	0.42
3:P:322:ARG:HE	5:R:510:PRO:CG	2.32	0.42
3:P:419:HIS:O	3:P:439:PRO:HD2	2.19	0.42
3:P:433:GLY:O	3:P:457:TYR:CE1	2.72	0.42
3:P:872:LEU:HG	3:P:872:LEU:H	1.50	0.42
1:A:218:ARG:HD3	1:B:233:ASP:O	2.19	0.42
2:C:397:LEU:HD11	2:C:420:LEU:CD2	2.50	0.42
2:C:630:VAL:HG12	2:C:631:GLU:N	2.33	0.42
2:C:1278:LEU:HD11	2:C:1286:THR:HB	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:513:MET:CE	3:D:579:LEU:HG	2.49	0.42
3:D:609:TYR:CD1	3:D:609:TYR:O	2.72	0.42
3:D:843:VAL:HG12	3:D:883:ARG:CB	2.49	0.42
3:D:1177:ILE:O	3:D:1179:PRO:HD3	2.19	0.42
5:F:404:LEU:CD2	5:F:439:ILE:HG12	2.43	0.42
1:G:66:HIS:CD2	1:G:69:SER:HB3	2.53	0.42
1:G:232:VAL:CG1	1:H:218:ARG:CA	2.86	0.42
1:H:85:LEU:HA	1:H:88:LEU:HD22	2.00	0.42
1:H:192:VAL:O	1:H:193:GLU:C	2.62	0.42
2:I:173:ASN:HB3	2:I:187:GLU:CB	2.49	0.42
2:I:470:ARG:HD3	2:I:470:ARG:HA	1.78	0.42
2:I:1225:VAL:CG1	2:I:1226:THR:N	2.83	0.42
2:I:1276:TRP:HA	2:I:1279:GLU:OE1	2.20	0.42
3:J:44:ILE:HD12	3:J:49:PHE:HA	2.01	0.42
3:J:143:SER:HB2	3:J:160:LEU:O	2.19	0.42
3:J:1282:TYR:CZ	3:J:1304:ARG:NE	2.87	0.42
5:L:434:TRP:CZ3	6:4:35:DC:C5	3.08	0.42
5:L:443:ILE:HG23	5:L:444:ALA:N	2.34	0.42
6:4:54:DA:C6	6:4:55:DC:C4	3.08	0.42
1:N:61:ILE:CD1	1:N:64:VAL:HG11	2.49	0.42
2:O:184:LEU:HA	2:O:184:LEU:HD23	1.76	0.42
2:O:228:VAL:HG21	2:O:337:PHE:HD1	1.84	0.42
2:O:524:ILE:HD11	2:O:712:SER:CA	2.50	0.42
2:O:695:ALA:HB1	2:O:795:ALA:HB3	2.01	0.42
2:O:976:ARG:O	2:O:980:VAL:CG2	2.67	0.42
2:O:1103:VAL:HB	2:O:1104:PRO:CD	2.49	0.42
2:O:1122:LYS:HG3	2:O:1229:TYR:CE2	2.55	0.42
3:P:275:ARG:HD2	3:P:302:ALA:HB2	2.02	0.42
3:P:519:ASN:HB3	3:P:523:GLU:CD	2.45	0.42
3:P:800:LEU:HG	3:P:800:LEU:H	1.60	0.42
3:P:1075:ARG:CD	3:P:1192:LYS:HB3	2.50	0.42
3:P:1137:GLY:O	3:P:1140:ARG:HB3	2.20	0.42
3:P:1280:VAL:CG1	3:P:1281:GLU:H	2.31	0.42
1:B:28:LEU:HD22	1:B:28:LEU:HA	1.64	0.42
2:C:718:ALA:HA	2:C:783:LEU:HD11	2.01	0.42
2:C:718:ALA:CA	2:C:783:LEU:HD11	2.49	0.42
2:C:720:ARG:HB3	2:C:736:VAL:HG13	2.01	0.42
2:C:897:PRO:CA	2:C:900:LYS:HD3	2.31	0.42
2:C:1156:ARG:HG2	2:C:1157:GLN:N	2.34	0.42
2:C:1276:TRP:CD1	2:C:1276:TRP:N	2.85	0.42
3:D:536:LEU:HD22	3:D:542:ALA:CB	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:736:GLN:HE21	3:D:736:GLN:HB3	1.62	0.42
3:D:1028:ILE:HG23	3:D:1118:GLY:HA2	2.01	0.42
3:D:1123:ARG:C	3:D:1125:PRO:HD3	2.44	0.42
3:D:1266:ILE:CD1	3:D:1274:PHE:CD1	3.01	0.42
7:2:46:DT:H1'	7:2:47:DC:H5'	2.01	0.42
1:G:178:SER:HA	1:G:179:PRO:HD3	1.87	0.42
2:I:146:VAL:HG12	2:I:147:SER:O	2.19	0.42
2:I:883:LEU:H	2:I:883:LEU:HG	1.64	0.42
2:I:1225:VAL:HG12	2:I:1226:THR:N	2.35	0.42
2:I:1244:HIS:CG	2:I:1245:ALA:N	2.87	0.42
2:I:1299:ASN:C	2:I:1302:THR:HG22	2.44	0.42
3:J:282:LEU:HD22	3:J:287:ALA:HB3	1.90	0.42
3:J:288:PRO:HG2	5:L:380:VAL:HG11	2.01	0.42
3:J:379:PRO:CG	3:J:380:PHE:N	2.81	0.42
3:J:851:PRO:HA	3:J:855:ASP:HA	2.01	0.42
4:K:51:LEU:HD23	4:K:51:LEU:HA	1.76	0.42
2:O:183:TRP:CE3	6:7:49:DG:O6	2.73	0.42
2:O:379:GLU:OE1	2:O:379:GLU:HA	2.20	0.42
2:O:1053:TYR:N	2:O:1053:TYR:HD2	2.18	0.42
2:O:1284:ALA:C	3:P:1356:LEU:HD21	2.44	0.42
3:P:134:ASP:OD2	3:P:159:ILE:HD11	2.20	0.42
3:P:167:ASP:O	3:P:171:GLU:HG3	2.20	0.42
3:P:369:PRO:HB2	3:P:372:MET:HB2	2.01	0.42
3:P:1021:ASP:HA	3:P:1022:PRO:HD3	1.75	0.42
3:P:1154:ALA:HA	3:P:1211:SER:HB2	2.00	0.42
2:C:160:ASP:C	2:C:163:LYS:HB2	2.44	0.42
2:C:727:VAL:CG2	2:C:773:LEU:HD13	2.46	0.42
2:C:736:VAL:HB	2:C:741:MET:HE2	2.01	0.42
2:C:809:GLY:HA2	3:D:629:PHE:CE1	2.53	0.42
2:C:839:VAL:HG23	2:C:886:LYS:HZ3	1.85	0.42
2:C:1238:LEU:HD23	2:C:1238:LEU:HA	1.93	0.42
2:C:1334:GLY:C	2:C:1335:ILE:HG12	2.44	0.42
3:D:115:TRP:HZ3	3:D:1332:LEU:HB2	1.85	0.42
3:D:239:LEU:H	3:D:239:LEU:HG	1.47	0.42
3:D:263:SER:HA	5:F:507:MET:CB	2.49	0.42
3:D:478:LEU:HD11	4:E:24:ALA:CB	2.50	0.42
3:D:496:GLY:HA2	3:D:903:LEU:HB3	2.01	0.42
3:D:579:LEU:HD23	3:D:579:LEU:HA	1.89	0.42
3:D:1040:MET:HE3	3:D:1061:VAL:CG2	2.47	0.42
3:D:1053:LEU:HB3	3:D:1054:THR:H	1.66	0.42
5:F:333:VAL:HG13	5:F:333:VAL:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:478:PRO:HB2	5:F:483:LEU:HD13	2.01	0.42
1:G:125:LYS:HE2	1:G:127:GLN:CG	2.44	0.42
2:I:196:VAL:HG23	2:I:206:ALA:HA	2.00	0.42
2:I:237:LEU:CG	2:I:289:VAL:HG22	2.41	0.42
2:I:448:LEU:CG	2:I:553:THR:HB	2.48	0.42
2:I:471:VAL:HG12	2:I:472:GLU:N	2.35	0.42
2:I:525:THR:HA	2:I:528:ARG:CG	2.50	0.42
2:I:550:VAL:O	3:J:777:HIS:CE1	2.72	0.42
2:I:808:ASN:OD1	2:I:1216:ARG:NH2	2.53	0.42
2:I:988:LYS:O	2:I:992:LEU:HB2	2.19	0.42
3:J:68:TYR:HA	3:J:92:VAL:CG1	2.49	0.42
3:J:155:GLU:HB2	3:J:156:ARG:H	1.60	0.42
3:J:422:LEU:HD11	3:J:484:MET:HE1	2.02	0.42
3:J:575:GLY:HA2	3:J:578:ILE:CD1	2.36	0.42
3:J:930:LEU:HB3	3:J:1134:ILE:HD11	1.92	0.42
3:J:930:LEU:HB2	3:J:1134:ILE:CD1	2.47	0.42
3:J:1145:PHE:CZ	3:J:1253:ILE:HG23	2.53	0.42
3:J:1146:GLU:OE2	3:J:1310:THR:HG23	2.19	0.42
5:L:137:TYR:CE1	5:L:353:LEU:HD12	2.55	0.42
6:4:19:DA:C2	7:5:45:DG:C2	3.07	0.42
6:4:54:DA:C1'	6:4:55:DC:H5'	2.44	0.42
7:5:23:DT:H3'	7:5:24:DT:C5'	2.46	0.42
1:M:66:HIS:HE1	2:O:929:ILE:CG1	2.33	0.42
2:O:748:ILE:HD11	2:O:970:GLY:HA3	2.02	0.42
2:O:801:ARG:HG2	2:O:1229:TYR:CE1	2.55	0.42
2:O:985:GLU:HB3	2:O:988:LYS:HD2	2.02	0.42
3:P:76:LYS:H	3:P:76:LYS:HG2	1.62	0.42
3:P:722:ILE:O	3:P:725:MET:HB2	2.19	0.42
3:P:1040:MET:HE2	3:P:1046:ILE:HD13	2.00	0.42
3:P:1250:ASP:O	3:P:1254:GLU:HG3	2.19	0.42
3:P:1347:LEU:CD2	3:P:1357:ILE:HG22	2.50	0.42
4:Q:26:ARG:HA	4:Q:26:ARG:HD2	1.96	0.42
5:R:348:GLU:CD	5:R:355:ILE:HG12	2.45	0.42
2:C:373:GLY:HA2	5:F:91:ILE:CG1	2.47	0.42
2:C:528:ARG:HD2	2:C:663:VAL:CG2	2.50	0.42
2:C:654:ASP:N	2:C:654:ASP:OD1	2.50	0.42
2:C:906:PHE:CE2	5:F:608:ARG:NH1	2.86	0.42
2:C:992:LEU:HB3	2:C:993:PRO:HD2	2.01	0.42
2:C:1047:LEU:HB3	2:C:1048:LYS:HG3	2.02	0.42
3:D:30:ILE:HA	3:D:33:TRP:CE3	2.55	0.42
3:D:720:ASN:ND2	3:D:722:ILE:HG13	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1194:ARG:HH11	3:D:1211:SER:HB3	1.84	0.42
5:F:470:MET:HE2	5:F:474:MET:HG2	2.02	0.42
1:G:190:ALA:HB2	1:G:199:ASP:C	2.45	0.42
1:G:195:ARG:HH22	4:Q:66:VAL:CG2	2.30	0.42
2:I:196:VAL:HG12	2:I:197:ARG:N	2.34	0.42
2:I:801:ARG:HG2	2:I:1229:TYR:CZ	2.54	0.42
2:I:996:ARG:O	2:I:997:TRP:HD1	2.03	0.42
2:I:1281:TYR:HE2	3:J:431:ARG:O	2.01	0.42
3:J:189:LEU:HG	3:J:189:LEU:H	1.71	0.42
3:J:304:ASP:HB2	3:J:312:ARG:HD2	2.02	0.42
3:J:497:GLU:HB3	3:J:498:PRO:CD	2.42	0.42
3:J:960:LEU:HD13	3:J:963:VAL:HG11	2.01	0.42
3:J:1064:SER:HA	3:J:1067:ARG:HB2	2.02	0.42
1:M:62:ASP:OD1	1:M:62:ASP:N	2.53	0.42
2:O:524:ILE:HD12	2:O:708:VAL:HG13	2.01	0.42
3:P:491:LEU:HD22	3:P:496:GLY:O	2.19	0.42
2:C:89:GLY:HA2	2:C:140:GLY:HA3	2.02	0.42
3:D:75:TYR:HB2	3:D:92:VAL:HG21	2.01	0.42
3:D:338:PHE:HA	3:D:342:LEU:HB2	2.02	0.42
3:D:425:ARG:HG2	3:D:426:ALA:O	2.20	0.42
3:D:609:TYR:OH	3:D:906:GLY:HA3	2.20	0.42
3:D:869:CYS:CA	3:D:872:LEU:CD1	2.87	0.42
5:F:139:GLU:O	5:F:143:TYR:HD1	2.01	0.42
5:F:484:ALA:HA	5:F:494:ILE:HD11	2.01	0.42
5:F:519:LEU:CD1	5:F:522:PHE:HB3	2.49	0.42
1:G:190:ALA:CB	1:G:199:ASP:HA	2.50	0.42
2:I:91:THR:CG2	2:I:138:ILE:CD1	2.98	0.42
2:I:251:ALA:CB	2:I:266:GLY:H	2.30	0.42
3:J:697:MET:O	3:J:701:LEU:HB2	2.20	0.42
3:J:748:ALA:HB2	3:J:941:ALA:CB	2.50	0.42
3:J:1342:ASP:OD1	3:J:1344:LEU:HD23	2.20	0.42
5:L:457:ILE:O	5:L:461:ASN:OD1	2.38	0.42
3:P:97:VAL:CG1	3:P:101:ARG:CD	2.97	0.42
3:P:209:ASN:HD22	3:P:214:ARG:HD3	1.85	0.42
3:P:288:PRO:HG2	5:R:380:VAL:CG1	2.49	0.42
3:P:366:CYS:SG	3:P:437:PHE:HB3	2.60	0.42
3:P:417:ARG:HG2	3:P:418:GLU:HG2	2.02	0.42
3:P:553:THR:CG2	3:P:565:ALA:HB1	2.50	0.42
1:A:149:GLY:HA3	1:A:177:TYR:CE2	2.55	0.41
1:A:186:ASN:O	1:A:202:VAL:HB	2.20	0.41
2:C:92:TYR:HB3	2:C:137:VAL:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:368:ARG:NE	5:F:90:GLU:HG2	2.35	0.41
3:D:375:GLU:OE1	3:D:375:GLU:HA	2.20	0.41
3:D:478:LEU:HD11	4:E:24:ALA:CA	2.49	0.41
3:D:601:ILE:O	3:D:604:MET:HB2	2.20	0.41
3:D:747:MET:CE	3:D:774:ILE:CG2	2.87	0.41
3:D:809:VAL:CG1	3:D:911:LYS:HA	2.50	0.41
3:D:1282:TYR:O	3:D:1285:VAL:CG1	2.53	0.41
4:E:6:VAL:CG1	4:E:51:LEU:HD22	2.50	0.41
1:H:52:PRO:HA	1:H:150:ARG:CB	2.49	0.41
1:H:201:LEU:HD12	1:H:201:LEU:HA	1.73	0.41
2:I:357:ASN:HB3	2:I:358:ASP:H	1.65	0.41
2:I:673:HIS:C	3:J:763:PHE:HD1	2.27	0.41
2:I:1114:GLU:CD	2:I:1230:MET:HG3	2.45	0.41
3:J:72:CYS:HB3	3:J:88:CYS:HB3	2.02	0.41
3:J:151:MET:C	3:J:153:ASN:N	2.77	0.41
3:J:169:LEU:CG	3:J:170:GLU:N	2.66	0.41
3:J:464:ASP:OD1	3:J:464:ASP:N	2.53	0.41
5:L:273:MET:HE3	5:L:273:MET:HB2	1.92	0.41
5:L:456:MET:HG3	5:L:460:ILE:HD11	2.02	0.41
2:O:130:MET:HE2	2:O:130:MET:HB3	1.87	0.41
2:O:346:TYR:HB2	2:O:347:ILE:HD13	2.02	0.41
2:O:563:THR:H	2:O:680:LEU:HD11	1.85	0.41
2:O:704:MET:HE3	2:O:704:MET:HB3	1.88	0.41
3:P:109:SER:CB	3:P:296:LYS:CE	2.79	0.41
3:P:245:LEU:HD23	3:P:250:ARG:CG	2.50	0.41
3:P:265:LEU:H	3:P:265:LEU:HG	1.36	0.41
3:P:330:MET:HE2	3:P:337:ARG:NH2	2.35	0.41
3:P:922:SER:O	3:P:926:PRO:HD3	2.19	0.41
3:P:1145:PHE:CE1	3:P:1256:ILE:CD1	2.96	0.41
3:P:1297:LYS:HD3	3:P:1297:LYS:H	1.83	0.41
1:A:157:THR:O	1:A:160:HIS:CB	2.62	0.41
1:B:65:LEU:HA	1:B:169:GLY:HA3	2.01	0.41
2:C:559:CYS:HB2	2:C:662:SER:CB	2.50	0.41
2:C:592:ARG:HG3	2:C:653:MET:CE	2.49	0.41
2:C:700:VAL:HG12	2:C:1117:LEU:HD23	2.01	0.41
2:C:857:VAL:HG13	2:C:858:GLY:N	2.35	0.41
2:C:1199:LEU:HD23	2:C:1204:LEU:HB2	2.01	0.41
2:C:1225:VAL:HG22	3:D:638:SER:HB3	2.02	0.41
3:D:154:LEU:HD23	3:D:154:LEU:HA	1.85	0.41
3:D:338:PHE:CD1	3:D:1324:SER:HA	2.55	0.41
3:D:421:VAL:HG12	3:D:422:LEU:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1155:ILE:N	3:D:1211:SER:OG	2.51	0.41
3:D:1248:ILE:HG22	3:D:1249:ASN:N	2.34	0.41
5:F:505:ILE:HG22	5:F:506:SER:N	2.35	0.41
1:H:95:LYS:HD2	1:H:95:LYS:H	1.84	0.41
2:I:697:LYS:HA	2:I:698:PRO:HD3	1.89	0.41
2:I:871:VAL:HG12	2:I:872:TYR:O	2.19	0.41
2:I:887:VAL:O	2:I:887:VAL:CG2	2.68	0.41
2:I:1073:LYS:HE3	3:J:462:ASP:OD2	2.20	0.41
3:J:26:SER:HB3	3:J:29:MET:HB2	2.02	0.41
3:J:603:LYS:O	3:J:607:THR:OG1	2.31	0.41
3:J:849:LEU:HA	3:J:856:ILE:O	2.20	0.41
3:J:1280:VAL:HG13	3:J:1281:GLU:H	1.86	0.41
5:L:434:TRP:CE2	6:4:36:DT:C7	3.03	0.41
6:4:49:DG:H3'	6:4:50:DT:H5''	2.02	0.41
7:5:46:DT:H1'	7:5:47:DC:H5'	2.01	0.41
1:M:45:ARG:HD3	1:N:38:THR:CG2	2.41	0.41
1:N:190:ALA:HB2	1:N:200:LYS:HG2	1.98	0.41
2:O:221:LEU:HD23	2:O:221:LEU:HA	1.68	0.41
2:O:232:ILE:HD13	2:O:326:SER:HB3	2.02	0.41
2:O:373:GLY:O	5:R:87:VAL:CG1	2.68	0.41
2:O:392:GLU:HG2	2:O:419:ILE:CG2	2.47	0.41
2:O:1073:LYS:HE3	3:P:462:ASP:CB	2.50	0.41
3:P:496:GLY:CA	3:P:903:LEU:HD22	2.48	0.41
3:P:580:TRP:O	3:P:580:TRP:CG	2.72	0.41
5:R:450:ILE:H	5:R:450:ILE:HG12	1.35	0.41
1:B:162:GLU:HG2	1:B:164:ASP:HB3	2.02	0.41
2:C:896:THR:OG1	2:C:897:PRO:HD2	2.20	0.41
3:D:536:LEU:HD22	3:D:541:LEU:C	2.46	0.41
3:D:796:LEU:HA	3:D:799:ARG:HE	1.86	0.41
3:D:1148:ARG:O	3:D:1149:ARG:C	2.63	0.41
5:F:231:THR:O	5:F:231:THR:HG22	2.19	0.41
5:F:583:THR:HG21	5:F:586:ARG:CB	2.50	0.41
7:2:40:DT:H2''	7:2:41:DG:C8	2.55	0.41
1:G:43:LEU:O	1:G:47:LEU:CG	2.43	0.41
1:G:57:THR:HG22	1:G:58:GLU:HG3	2.01	0.41
2:I:16:GLY:O	2:I:1156:ARG:NH2	2.53	0.41
2:I:129:LEU:HA	2:I:129:LEU:HD23	1.69	0.41
2:I:183:TRP:CE3	2:I:199:ASP:OD1	2.73	0.41
2:I:297:VAL:HG23	2:I:297:VAL:O	2.19	0.41
2:I:525:THR:CG2	2:I:687:ARG:HD2	2.48	0.41
2:I:1220:GLN:HG2	2:I:1221:PHE:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:219:LYS:HG2	3:J:222:LYS:CD	2.50	0.41
3:J:819:GLY:O	3:J:881:LYS:HE3	2.20	0.41
3:J:1021:ASP:HA	3:J:1022:PRO:HD3	1.93	0.41
5:L:116:GLU:HA	5:L:379:MET:HE1	2.02	0.41
5:L:388:ILE:HG12	5:L:389:SER:N	2.35	0.41
1:M:154:PRO:HG2	1:M:157:THR:OG1	2.19	0.41
2:O:8:LYS:HG2	2:O:1164:PHE:CE1	2.55	0.41
2:O:99:LYS:CG	2:O:121:GLU:HG3	2.51	0.41
2:O:212:ALA:HB1	2:O:363:LEU:HD21	2.01	0.41
2:O:402:ARG:HG2	2:O:416:GLY:HA3	2.02	0.41
2:O:420:LEU:HD23	2:O:420:LEU:HA	1.69	0.41
2:O:1117:LEU:CD1	2:O:1195:ILE:HG12	2.47	0.41
3:P:33:TRP:O	3:P:35:PHE:CE2	2.74	0.41
3:P:735:ALA:O	3:P:738:ARG:HB2	2.20	0.41
5:R:100:MET:O	5:R:104:GLU:HG3	2.20	0.41
5:R:129:GLN:HE21	5:R:129:GLN:HB3	1.64	0.41
5:R:457:ILE:O	5:R:461:ASN:OD1	2.38	0.41
7:8:18:DT:H6	7:8:18:DT:H2'	1.62	0.41
1:A:9:LEU:HD13	1:A:9:LEU:N	2.35	0.41
1:B:152:TYR:CD1	1:B:176:CYS:HA	2.55	0.41
2:C:122:VAL:HG21	2:C:493:ILE:HD12	2.02	0.41
2:C:802:VAL:HG12	2:C:803:ALA:N	2.34	0.41
3:D:24:LEU:HD12	3:D:232:ASN:CB	2.48	0.41
3:D:123:ARG:HA	3:D:123:ARG:HD3	1.72	0.41
3:D:296:LYS:O	3:D:299:LEU:HB3	2.21	0.41
3:D:1292:LEU:O	3:D:1296:GLY:N	2.54	0.41
3:D:1347:LEU:O	3:D:1351:VAL:HG23	2.20	0.41
4:E:30:MET:HE1	4:E:49:ILE:HB	2.02	0.41
5:F:91:ILE:O	5:F:91:ILE:HG22	2.20	0.41
5:F:547:VAL:CG1	5:F:598:LEU:HD22	2.51	0.41
1:H:64:VAL:O	1:H:64:VAL:HG12	2.20	0.41
2:I:558:VAL:CG1	2:I:573:ASN:HB3	2.50	0.41
2:I:726:TYR:HB3	2:I:733:VAL:HG23	2.02	0.41
2:I:871:VAL:HG21	2:I:883:LEU:HA	1.99	0.41
2:I:1155:VAL:O	2:I:1155:VAL:HG12	2.20	0.41
2:I:1246:ARG:NH2	2:I:1249:GLY:C	2.79	0.41
3:J:424:ASN:HA	3:J:434:ILE:HG12	2.01	0.41
4:K:26:ARG:HA	4:K:26:ARG:HD2	1.85	0.41
4:K:36:ASP:HA	4:K:37:PRO:HD2	1.98	0.41
4:K:64:LEU:HG	4:K:64:LEU:H	1.51	0.41
5:L:464:ASN:HB2	7:5:26:DT:C7	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:44:ARG:NH2	2:O:1082:ILE:O	2.54	0.41
1:N:155:ALA:H	1:N:174:ASP:CG	2.25	0.41
2:O:389:PHE:HB2	2:O:390:PHE:CE2	2.56	0.41
2:O:901:LEU:HD13	5:R:563:PHE:CE1	2.54	0.41
2:O:928:VAL:O	2:O:928:VAL:HG12	2.21	0.41
3:P:28:ASP:HA	3:P:31:ARG:CD	2.49	0.41
3:P:337:ARG:HA	3:P:341:ASN:ND2	2.35	0.41
3:P:354:VAL:HG12	3:P:355:ILE:N	2.35	0.41
3:P:398:LYS:NZ	5:R:532:LEU:CD2	2.84	0.41
3:P:423:LEU:HD12	3:P:437:PHE:CE1	2.54	0.41
3:P:429:LEU:HB3	3:P:925:GLU:CG	2.50	0.41
3:P:515:ARG:HH21	3:P:717:VAL:HB	1.86	0.41
3:P:547:ARG:O	3:P:548:VAL:HG23	2.20	0.41
3:P:615:LYS:HE3	4:Q:8:ASP:OD1	2.21	0.41
3:P:1101:LEU:HD22	3:P:1122:ALA:HB2	2.02	0.41
5:R:116:GLU:H	5:R:116:GLU:HG3	1.57	0.41
5:R:449:THR:OG1	5:R:504:PRO:CG	2.68	0.41
1:A:12:ARG:O	1:A:28:LEU:HD22	2.20	0.41
1:A:232:VAL:CG2	1:B:221:ALA:CB	2.99	0.41
2:C:75:LEU:HD23	2:C:75:LEU:HA	1.87	0.41
2:C:131:THR:HG23	2:C:135:THR:O	2.20	0.41
2:C:517:GLN:OE1	2:C:760:ASN:ND2	2.54	0.41
3:D:421:VAL:HG21	3:D:439:PRO:HG2	1.99	0.41
5:F:223:GLU:O	5:F:227:GLN:HG2	2.21	0.41
5:F:567:MET:HE3	5:F:567:MET:HB3	1.86	0.41
1:G:201:LEU:HD12	1:G:202:VAL:H	1.85	0.41
2:I:71:VAL:HG23	2:I:99:LYS:O	2.21	0.41
2:I:128:PRO:O	2:I:129:LEU:HD23	2.20	0.41
2:I:681:MET:HE2	2:I:681:MET:HB3	1.73	0.41
3:J:34:SER:HB2	3:J:104:HIS:HB3	2.01	0.41
3:J:227:PHE:CE2	3:J:237:MET:HE2	2.56	0.41
3:J:252:LEU:HD12	3:J:262:THR:HB	2.03	0.41
3:J:253:VAL:CB	3:J:254:PRO:CD	2.97	0.41
3:J:886:VAL:HG13	3:J:1258:ARG:HA	2.01	0.41
2:O:9:LYS:NZ	2:O:1171:ARG:HD3	2.35	0.41
2:O:594:VAL:HG22	2:O:599:VAL:HG13	2.03	0.41
2:O:678:ARG:NH1	2:O:1106:ARG:HD2	2.36	0.41
2:O:726:TYR:CE2	2:O:728:ASP:HB2	2.55	0.41
3:P:116:PHE:O	3:P:124:ILE:HG13	2.21	0.41
3:P:162:GLU:O	3:P:166:LEU:HD12	2.21	0.41
3:P:550:VAL:CG1	3:P:552:ILE:HD11	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:572:THR:OG1	3:P:573:THR:N	2.53	0.41
3:P:915:ILE:O	3:P:918:ILE:HB	2.19	0.41
5:R:503:GLU:HG2	5:R:504:PRO:HD2	2.03	0.41
1:A:28:LEU:HD22	1:A:28:LEU:HA	1.56	0.41
1:A:102:LEU:HD12	1:A:103:ASN:N	2.36	0.41
2:C:211:ARG:NH2	2:C:217:THR:OG1	2.40	0.41
3:D:412:LEU:HG	3:D:416:ILE:CD1	2.51	0.41
3:D:773:PHE:O	3:D:773:PHE:HD2	2.03	0.41
3:D:1135:THR:O	3:D:1139:PRO:CD	2.66	0.41
3:D:1175:LEU:HD12	3:D:1175:LEU:HA	1.54	0.41
3:D:1320:ILE:H	3:D:1320:ILE:HG13	1.51	0.41
5:F:540:LEU:HD12	5:F:540:LEU:HA	1.69	0.41
5:F:540:LEU:HD13	5:F:610:PHE:CZ	2.55	0.41
1:G:47:LEU:O	1:G:180:VAL:HG21	2.21	0.41
2:I:91:THR:CG2	2:I:138:ILE:HD12	2.50	0.41
2:I:311:CYS:SG	2:I:325:LEU:HD21	2.61	0.41
2:I:389:PHE:HB2	2:I:390:PHE:CE2	2.55	0.41
3:J:53:ARG:H	3:J:53:ARG:HG3	1.74	0.41
3:J:135:ILE:HG13	3:J:135:ILE:H	1.32	0.41
3:J:536:LEU:HD22	3:J:536:LEU:O	2.20	0.41
3:J:707:ILE:HG23	3:P:1293:GLU:CD	2.46	0.41
3:J:743:MET:HE3	3:J:743:MET:HB3	1.62	0.41
3:J:1114:GLN:HE21	3:J:1114:GLN:HB3	1.72	0.41
3:J:1163:VAL:HG12	3:J:1175:LEU:HG	2.03	0.41
5:L:324:LYS:HA	5:L:325:PRO:HD2	1.84	0.41
5:L:385:ARG:CA	5:L:388:ILE:HG23	2.50	0.41
5:L:530:LEU:HD22	5:L:531:PRO:HD2	2.01	0.41
8:6:14:A:O2'	8:6:15:G:H5'	2.21	0.41
2:O:1030:GLU:O	2:O:1034:ARG:HG3	2.21	0.41
2:O:1109:ILE:CG2	2:O:1112:ILE:HD12	2.46	0.41
3:P:19:ALA:C	3:P:20:ILE:HG13	2.46	0.41
3:P:342:LEU:HD13	3:P:1352:ILE:HG23	2.03	0.41
3:P:497:GLU:CB	3:P:498:PRO:HD2	2.50	0.41
3:P:611:ILE:HG22	3:P:612:LEU:HD23	2.02	0.41
3:P:622:ASP:CA	3:P:625:MET:HE2	2.50	0.41
3:P:708:ASN:C	3:P:710:ASP:H	2.25	0.41
3:P:864:LEU:HD13	3:P:872:LEU:CD1	2.51	0.41
5:R:407:GLU:CG	5:R:442:SER:CB	2.95	0.41
6:7:13:DC:H2''	6:7:14:DT:OP2	2.20	0.41
7:8:26:DT:H2''	7:8:27:DA:OP1	2.21	0.41
2:C:523:GLU:O	2:C:527:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:765:ILE:O	2:C:765:ILE:HG22	2.20	0.41
2:C:801:ARG:O	2:C:1094:VAL:HG12	2.21	0.41
2:C:850:ILE:H	2:C:850:ILE:HG13	1.50	0.41
2:C:871:VAL:HG12	2:C:872:TYR:O	2.21	0.41
2:C:1005:GLU:HB3	2:C:1006:GLU:H	1.61	0.41
2:C:1161:LEU:CD1	2:C:1164:PHE:HB2	2.48	0.41
3:D:108:ALA:CB	3:D:279:LEU:HD21	2.40	0.41
3:D:868:TRP:C	3:D:872:LEU:CD1	2.94	0.41
3:D:1090:ILE:HG22	3:D:1091:PRO:HD2	2.01	0.41
5:F:457:ILE:O	5:F:461:ASN:OD1	2.39	0.41
1:G:41:ASN:O	1:G:45:ARG:HG3	2.21	0.41
1:H:25:LYS:HE2	1:H:204:GLU:OE2	2.21	0.41
1:H:61:ILE:N	1:H:61:ILE:CD1	2.79	0.41
2:I:12:ARG:HE	2:I:793:GLU:CD	2.28	0.41
2:I:180:ARG:O	2:I:395:TYR:HA	2.20	0.41
3:J:334:LYS:HG3	3:J:339:ARG:HD2	2.03	0.41
3:J:1282:TYR:CE1	3:J:1304:ARG:NH2	2.88	0.41
3:J:1320:ILE:HD12	3:J:1344:LEU:HD22	2.03	0.41
5:L:434:TRP:CZ3	6:4:35:DC:H5	2.38	0.41
2:O:178:PRO:HA	2:O:397:LEU:CD2	2.45	0.41
2:O:797:GLY:N	2:O:1233:LEU:HD21	2.35	0.41
2:O:900:LYS:CD	5:R:563:PHE:CE1	3.04	0.41
3:P:358:GLY:HA3	3:P:361:LEU:HD12	2.03	0.41
5:R:402:LEU:H	5:R:402:LEU:HG	1.72	0.41
1:A:102:LEU:HD13	1:A:115:ILE:HA	2.02	0.41
1:B:35:PHE:O	1:B:39:LEU:CD2	2.67	0.41
1:B:77:ASP:HB3	1:B:79:LEU:HD12	2.01	0.41
2:C:521:LEU:HD21	2:C:686:GLN:C	2.46	0.41
2:C:543:ALA:HB1	2:C:548:ARG:HE	1.85	0.41
2:C:772:SER:O	2:C:775:GLU:HG3	2.21	0.41
2:C:796:LEU:C	2:C:1233:LEU:HD21	2.45	0.41
2:C:1246:ARG:NH2	2:C:1251:TYR:CE1	2.88	0.41
3:D:114:ILE:HG13	3:D:118:LYS:CG	2.51	0.41
3:D:263:SER:HB2	5:F:507:MET:SD	2.61	0.41
3:D:552:ILE:HD13	3:D:552:ILE:HA	1.57	0.41
3:D:759:ILE:HD13	3:D:767:LEU:CD1	2.51	0.41
5:F:167:ASP:N	5:F:168:PRO:CD	2.83	0.41
5:F:167:ASP:HB2	5:F:262:VAL:CG2	2.51	0.41
5:F:470:MET:SD	5:F:486:ARG:HD2	2.60	0.41
7:2:33:DC:C2'	7:2:34:DG:OP2	2.62	0.41
1:G:30:PRO:O	1:G:31:LEU:HD23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:194:LEU:HD12	2:I:194:LEU:C	2.44	0.41
2:I:285:ILE:HG22	2:I:286:GLU:N	2.36	0.41
2:I:668:ILE:HA	2:I:669:PRO:HD3	1.71	0.41
2:I:1088:ASP:OD1	2:I:1088:ASP:N	2.51	0.41
3:J:130:MET:HE3	3:J:135:ILE:HG12	2.03	0.41
3:J:367:GLY:O	3:J:447:ILE:CG2	2.69	0.41
5:L:170:ALA:HA	5:L:259:PHE:CD1	2.54	0.41
5:L:587:ILE:HG12	5:L:587:ILE:H	1.61	0.41
1:M:131:CYS:SG	1:M:132:HIS:N	2.94	0.41
1:M:227:GLN:OE1	1:N:11:PRO:HD3	2.21	0.41
2:O:16:GLY:O	2:O:1156:ARG:HB3	2.21	0.41
2:O:896:THR:HG22	2:O:899:GLU:CD	2.39	0.41
2:O:1333:LEU:CD2	3:P:327:LEU:HD13	2.51	0.41
3:P:381:ILE:O	3:P:385:LEU:HG	2.19	0.41
3:P:528:THR:O	3:P:528:THR:OG1	2.30	0.41
3:P:1257:VAL:HA	3:P:1260:MET:HG3	2.02	0.41
4:Q:81:GLN:HG2	4:Q:81:GLN:H	1.62	0.41
1:A:100:LEU:HD23	1:A:100:LEU:HA	1.67	0.41
2:C:194:LEU:HD13	2:C:432:LEU:HD21	2.03	0.41
2:C:197:ARG:HA	2:C:202:ARG:O	2.20	0.41
2:C:551:HIS:HA	2:C:552:PRO:HD3	1.93	0.41
2:C:557:ARG:NH2	2:C:607:SER:C	2.78	0.41
2:C:575:LEU:HD12	2:C:576:SER:H	1.86	0.41
2:C:884:VAL:HG11	2:C:1050:VAL:HG21	2.02	0.41
2:C:1094:VAL:HG12	2:C:1095:ASP:H	1.86	0.41
2:C:1139:ALA:O	2:C:1142:ARG:HB3	2.21	0.41
2:C:1333:LEU:HD23	2:C:1333:LEU:HA	1.47	0.41
3:D:159:ILE:H	3:D:159:ILE:HG13	1.51	0.41
3:D:508:LEU:HD12	3:D:508:LEU:C	2.45	0.41
3:D:835:LEU:CD1	3:D:839:VAL:HG23	2.51	0.41
4:E:21:LEU:HD23	4:E:21:LEU:O	2.20	0.41
5:F:110:LEU:CD2	6:1:41:DT:C2	3.04	0.41
5:F:451:ARG:NH1	6:1:32:DA:OP1	2.43	0.41
5:F:514:ASP:C	5:F:516:ASP:N	2.79	0.41
5:F:575:GLU:HA	5:F:578:LYS:HE2	2.03	0.41
7:2:5:DC:OP2	7:2:5:DC:H2'	2.21	0.41
1:G:47:LEU:HG	1:G:47:LEU:H	1.73	0.41
1:G:56:VAL:HG13	1:G:144:ILE:CG2	2.51	0.41
1:G:167:PRO:CG	1:G:170:ARG:HD2	2.37	0.41
1:H:41:ASN:ND2	2:I:1217:THR:O	2.53	0.41
1:H:178:SER:HB2	3:J:535:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:160:ASP:HB3	2:I:163:LYS:CG	2.51	0.41
2:I:269:ILE:HD12	2:I:273:HIS:CG	2.56	0.41
2:I:506:PHE:O	2:I:512:SER:HB2	2.21	0.41
2:I:607:SER:HG	2:I:610:GLU:CD	2.29	0.41
2:I:615:VAL:CG2	2:I:638:SER:HB2	2.46	0.41
2:I:824:GLN:HE22	2:I:1082:ILE:HD11	1.86	0.41
2:I:997:TRP:O	2:I:1000:LEU:CB	2.68	0.41
2:I:1101:LEU:HD11	3:J:508:LEU:HD23	2.02	0.41
2:I:1273:MET:HA	2:I:1276:TRP:CE3	2.56	0.41
2:I:1323:PHE:CD1	2:I:1323:PHE:C	2.98	0.41
3:J:102:MET:HE2	3:J:102:MET:HB2	1.76	0.41
3:J:160:LEU:HD22	3:J:164:GLN:CB	2.50	0.41
3:J:245:LEU:HG	3:J:249:LEU:HD12	2.02	0.41
3:J:521:LYS:HB2	3:J:542:ALA:HA	2.03	0.41
3:J:709:ARG:O	3:J:709:ARG:CG	2.66	0.41
3:J:749:LYS:HG3	3:J:755:ILE:HG12	2.03	0.41
3:J:786:THR:HG22	3:J:787:ALA:N	2.35	0.41
3:J:791:ALA:HA	7:5:12:DG:H8	1.85	0.41
3:J:848:VAL:HG11	3:J:880:VAL:CG2	2.36	0.41
3:J:879:ALA:O	3:J:880:VAL:CG2	2.69	0.41
3:J:894:VAL:HG21	3:J:915:ILE:HD12	2.03	0.41
3:J:953:LYS:HD2	3:J:993:GLU:OE2	2.20	0.41
3:J:963:VAL:HB	3:J:980:THR:HG23	2.02	0.41
3:J:1348:LYS:C	3:J:1352:ILE:CD1	2.83	0.41
5:L:241:SER:HB3	5:L:249:ILE:HD12	2.03	0.41
6:4:47:DC:C3'	6:4:48:DA:C5'	2.96	0.41
1:M:36:GLY:O	1:M:201:LEU:HD13	2.21	0.41
1:M:57:THR:CG2	1:M:158:ARG:CZ	2.98	0.41
2:O:46:GLN:H	2:O:46:GLN:HG2	1.62	0.41
2:O:228:VAL:CG2	2:O:337:PHE:HD1	2.34	0.41
2:O:589:THR:CG2	2:O:590:PRO:CD	2.91	0.41
2:O:611:GLU:CD	2:O:637:ARG:HH22	2.29	0.41
2:O:800:MET:CE	2:O:1095:ASP:OD2	2.68	0.41
2:O:1101:LEU:HD23	2:O:1101:LEU:HA	1.87	0.41
2:O:1284:ALA:O	3:P:1356:LEU:HD21	2.21	0.41
3:P:279:LEU:O	3:P:283:LEU:HG	2.21	0.41
3:P:536:LEU:HD13	3:P:542:ALA:CB	2.51	0.41
3:P:653:ILE:HG21	3:P:693:VAL:HG22	2.02	0.41
3:P:661:VAL:HG21	3:P:686:TRP:CH2	2.56	0.41
3:P:721:SER:O	3:P:725:MET:HG3	2.21	0.41
3:P:1153:PRO:HB3	3:P:1216:ALA:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1156:LEU:CD2	3:P:1209:VAL:HA	2.50	0.41
3:P:1320:ILE:H	3:P:1320:ILE:HG13	1.67	0.41
3:P:1332:LEU:N	3:P:1332:LEU:CD2	2.64	0.41
3:P:1347:LEU:HD22	3:P:1357:ILE:HG22	2.03	0.41
5:R:387:VAL:HG11	5:R:409:ASN:OD1	2.21	0.41
5:R:573:LEU:O	5:R:573:LEU:HD12	2.21	0.41
1:A:90:VAL:HG11	1:A:146:VAL:HG11	2.03	0.41
1:B:39:LEU:HD23	1:B:39:LEU:H	1.73	0.41
1:B:182:ARG:HB3	1:B:206:GLU:HB3	2.02	0.41
2:C:49:LEU:HD13	2:C:73:TYR:CZ	2.56	0.41
2:C:184:LEU:HA	2:C:184:LEU:HD23	1.85	0.41
2:C:389:PHE:HB3	2:C:420:LEU:CD1	2.48	0.41
2:C:565:GLU:HB3	3:D:783:LEU:HD21	2.03	0.41
2:C:1273:MET:HE3	7:2:13:DA:C5'	2.19	0.41
3:D:430:HIS:HA	3:D:921:GLN:HB3	2.03	0.41
3:D:925:GLU:N	3:D:926:PRO:CD	2.85	0.41
3:D:1259:GLN:OE1	3:D:1262:ARG:HD2	2.21	0.41
3:D:1349:GLU:H	3:D:1349:GLU:HG3	1.54	0.41
2:I:657:THR:HG21	2:I:1188:ASP:HB2	2.02	0.41
2:I:901:LEU:O	2:I:905:ILE:HG13	2.20	0.41
2:I:950:GLU:HA	2:I:953:LEU:HD12	2.03	0.41
2:I:1242:LYS:NZ	3:J:465:GLN:NE2	2.68	0.41
2:I:1294:LYS:NZ	3:J:349:TYR:HB2	2.36	0.41
3:J:386:GLU:OE1	3:J:394:ILE:HG12	2.21	0.41
3:J:490:ILE:HA	3:J:500:ILE:CD1	2.51	0.41
3:J:1233:ILE:HG22	3:J:1237:VAL:CG2	2.46	0.41
3:J:1285:VAL:HG13	3:J:1286:LYS:N	2.36	0.41
3:J:1352:ILE:HD12	3:J:1352:ILE:H	1.85	0.41
5:L:540:LEU:HD12	5:L:544:THR:HG23	2.03	0.41
1:N:32:GLU:HB3	1:N:35:PHE:CD2	2.56	0.41
1:N:47:LEU:HD22	1:N:180:VAL:HG21	2.03	0.41
2:O:39:ILE:O	2:O:39:ILE:HG22	2.21	0.41
2:O:135:THR:HG21	2:O:515:MET:SD	2.61	0.41
2:O:672:GLU:HG2	2:O:1187:PHE:CA	2.42	0.41
2:O:1198:LEU:HD12	2:O:1198:LEU:C	2.42	0.41
2:O:1252:SER:HB2	2:O:1259:LEU:HD23	2.03	0.41
3:P:45:ASN:HB3	3:P:48:THR:O	2.21	0.41
3:P:555:TYR:HB2	3:P:586:GLY:CA	2.50	0.41
3:P:835:LEU:HD21	3:P:880:VAL:HG23	2.02	0.41
1:B:64:VAL:O	1:B:64:VAL:HG12	2.20	0.40
1:B:144:ILE:N	1:B:144:ILE:CD1	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:201:LEU:HG	1:B:203:ILE:CD1	2.41	0.40
2:C:12:ARG:CZ	2:C:1181:PRO:HB2	2.50	0.40
2:C:211:ARG:HG2	2:C:211:ARG:NH1	2.33	0.40
2:C:565:GLU:H	2:C:565:GLU:HG2	1.57	0.40
2:C:838:CYS:HB3	2:C:1050:VAL:HB	2.02	0.40
2:C:936:ARG:HG3	2:C:937:ASP:H	1.85	0.40
2:C:1060:ILE:H	2:C:1060:ILE:HG22	1.50	0.40
3:D:227:PHE:CZ	3:D:234:PRO:HA	2.52	0.40
3:D:568:SER:C	3:D:569:LEU:HD13	2.46	0.40
3:D:1159:ILE:HA	3:D:1206:ARG:HG2	2.03	0.40
3:D:1357:ILE:HG22	3:D:1359:ALA:N	2.36	0.40
4:E:60:ASN:HB3	4:E:63:ILE:HG13	2.02	0.40
5:F:117:ILE:CG2	5:F:421:TYR:HB2	2.39	0.40
6:1:48:DA:H2'	6:1:49:DG:C8	2.55	0.40
1:G:179:PRO:HD2	1:G:180:VAL:HG23	2.02	0.40
2:I:1256:GLN:HE21	3:J:99:ARG:HH22	1.68	0.40
3:J:185:ILE:HA	3:J:185:ILE:HD13	1.83	0.40
3:J:363:LEU:O	3:J:363:LEU:HD12	2.21	0.40
3:J:433:GLY:O	3:J:457:TYR:HE1	2.04	0.40
3:J:791:ALA:HA	7:5:12:DG:C8	2.56	0.40
4:K:39:VAL:HA	4:K:40:PRO:HD3	1.92	0.40
5:L:437:GLN:HG2	6:4:35:DC:C4	2.55	0.40
5:L:583:THR:HG21	5:L:586:ARG:HB2	2.03	0.40
1:M:192:VAL:HG12	1:M:193:GLU:N	2.37	0.40
1:N:56:VAL:HG21	1:N:85:LEU:HB3	2.03	0.40
2:O:642:SER:O	2:O:643:SER:HB3	2.21	0.40
2:O:690:VAL:CG1	2:O:691:PRO:CD	2.99	0.40
2:O:692:THR:HG21	2:O:798:GLN:OE1	2.20	0.40
2:O:868:SER:HB2	2:O:870:ILE:CG1	2.50	0.40
2:O:1036:ILE:H	2:O:1036:ILE:HG13	1.62	0.40
2:O:1106:ARG:O	2:O:1107:MET:HB2	2.21	0.40
2:O:1264:GLN:O	2:O:1265:PHE:CB	2.69	0.40
2:O:1280:ALA:CB	3:P:431:ARG:HB3	2.51	0.40
3:P:1075:ARG:CB	3:P:1192:LYS:HD3	2.51	0.40
3:P:1229:VAL:O	3:P:1233:ILE:HG13	2.21	0.40
3:P:1343:GLU:O	3:P:1344:LEU:HB2	2.21	0.40
5:R:96:ASP:HB3	5:R:99:ARG:HG2	2.03	0.40
5:R:306:PHE:CD1	5:R:315:TRP:CZ2	3.09	0.40
5:R:322:MET:O	5:R:323:ASN:CB	2.67	0.40
7:8:21:DG:H2'	7:8:22:DA:C8	2.56	0.40
1:A:58:GLU:OE1	1:A:145:LYS:NZ	2.45	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:538:LEU:HD12	2:C:547:VAL:HG11	2.03	0.40
2:C:609:ILE:H	2:C:609:ILE:HG13	1.31	0.40
2:C:702:THR:C	2:C:704:MET:H	2.29	0.40
2:C:1268:GLN:HE22	3:D:351:GLY:HA2	1.85	0.40
2:C:1309:VAL:HG22	3:D:379:PRO:O	2.21	0.40
3:D:117:LEU:O	3:D:122:SER:HB2	2.21	0.40
3:D:269:TYR:O	3:D:272:VAL:HB	2.21	0.40
5:F:110:LEU:H	5:F:110:LEU:CD1	2.20	0.40
2:I:35:PHE:CE2	2:I:39:ILE:HD11	2.55	0.40
2:I:816:ILE:HD12	2:I:1074:GLY:HA3	1.99	0.40
2:I:1270:PHE:CE2	2:I:1274:GLU:C	2.99	0.40
3:J:161:THR:OG1	3:J:164:GLN:NE2	2.54	0.40
3:J:219:LYS:HA	3:J:222:LYS:HG3	2.03	0.40
3:J:613:GLY:C	3:J:616:PRO:HD2	2.46	0.40
3:J:624:ILE:O	3:J:627:THR:HB	2.21	0.40
1:N:217:ILE:HG22	1:N:218:ARG:N	2.34	0.40
2:O:7:GLU:HG2	2:O:706:ARG:HH12	1.86	0.40
2:O:211:ARG:NH2	2:O:351:LEU:CD2	2.85	0.40
2:O:519:ASN:OD1	2:O:522:SER:HB2	2.21	0.40
2:O:671:LEU:CB	2:O:1186:VAL:HG13	2.50	0.40
3:P:416:ILE:O	3:P:416:ILE:CG2	2.65	0.40
3:P:1347:LEU:HD22	3:P:1357:ILE:CG2	2.52	0.40
5:R:365:MET:HE2	5:R:365:MET:HB2	1.74	0.40
1:B:183:ILE:O	1:B:183:ILE:HG23	2.20	0.40
2:C:388:LEU:HB3	2:C:389:PHE:CD1	2.56	0.40
2:C:1289:GLU:CD	3:D:472:LEU:H	2.29	0.40
3:D:111:THR:CG2	3:D:112:ALA:N	2.84	0.40
3:D:512:TYR:CE1	3:D:545:HIS:CE1	3.09	0.40
3:D:647:PRO:HG3	3:D:697:MET:HA	2.02	0.40
3:D:715:LYS:C	3:D:715:LYS:HD3	2.46	0.40
3:D:795:TYR:CD1	7:2:11:DA:C5'	3.03	0.40
3:D:808:VAL:HG22	3:D:914:ALA:HA	2.04	0.40
3:D:901:ARG:HD3	3:D:903:LEU:HD23	2.04	0.40
1:H:35:PHE:HB3	1:H:39:LEU:HD11	2.04	0.40
2:I:56:VAL:HG21	2:I:468:LEU:HB3	2.03	0.40
2:I:213:LEU:HD11	2:I:390:PHE:CE1	2.57	0.40
2:I:448:LEU:CG	2:I:553:THR:CB	2.98	0.40
2:I:524:ILE:HD11	2:I:712:SER:CB	2.30	0.40
2:I:1304:MET:HE2	2:I:1304:MET:HB3	1.46	0.40
3:J:70:CYS:CA	3:J:90:VAL:HG11	2.51	0.40
3:J:757:THR:HA	3:J:758:PRO:HD3	1.82	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:958:ILE:HG23	3:J:982:LEU:CD1	2.51	0.40
3:J:1141:VAL:HG21	3:J:1240:VAL:HG11	2.03	0.40
1:M:158:ARG:HE	1:M:172:LEU:HD11	1.87	0.40
1:N:58:GLU:OE1	1:N:170:ARG:HG2	2.21	0.40
2:O:232:ILE:HG22	2:O:331:LYS:HE3	2.04	0.40
2:O:369:MET:HE3	2:O:369:MET:HB2	1.60	0.40
2:O:725:GLN:HB2	2:O:735:LYS:HG3	2.03	0.40
2:O:1016:GLU:O	2:O:1019:ASP:HB2	2.22	0.40
3:P:574:VAL:O	3:P:578:ILE:HG13	2.21	0.40
3:P:909:ILE:CG1	3:P:910:ASN:N	2.83	0.40
3:P:1311:LYS:HE2	6:7:56:DG:H4'	2.03	0.40
5:R:423:ARG:NH1	5:R:425:TYR:CD2	2.89	0.40
5:R:449:THR:OG1	5:R:504:PRO:HG3	2.20	0.40
7:8:16:DC:O2	8:9:14:A:C2	2.75	0.40
1:A:75:GLN:HG3	1:A:132:HIS:HB2	2.04	0.40
1:B:83:LEU:HD22	1:B:86:LYS:HE3	2.02	0.40
2:C:152:SER:HA	2:C:153:PRO:HD3	1.96	0.40
2:C:414:ILE:HG13	2:C:415:GLU:N	2.37	0.40
2:C:857:VAL:CG1	2:C:858:GLY:N	2.84	0.40
2:C:864:LYS:C	2:C:865:LEU:HD23	2.45	0.40
2:C:878:THR:HA	2:C:925:SER:HB2	2.03	0.40
2:C:988:LYS:NZ	2:C:988:LYS:CB	2.56	0.40
3:D:126:LEU:HD22	3:D:216:LYS:NZ	2.36	0.40
5:F:245:ALA:O	5:F:249:ILE:HG13	2.22	0.40
5:F:289:LYS:HG3	5:F:293:GLU:OE1	2.21	0.40
5:F:376:LYS:O	5:F:380:VAL:HG23	2.22	0.40
5:F:528:LEU:HD23	5:F:528:LEU:HA	1.74	0.40
1:G:112:ALA:HB3	1:G:126:PRO:C	2.45	0.40
1:H:67:GLU:OE1	1:H:171:LEU:HB3	2.21	0.40
1:H:73:GLY:HA3	1:H:138:ALA:HB2	2.02	0.40
2:I:103:VAL:HG22	2:I:117:ILE:HG23	2.04	0.40
2:I:289:VAL:HG12	2:I:289:VAL:O	2.21	0.40
2:I:470:ARG:NH1	2:I:473:ARG:NH2	2.69	0.40
2:I:950:GLU:HG3	2:I:953:LEU:HD12	2.03	0.40
2:I:1132:LEU:CD1	2:I:1177:ARG:HB2	2.51	0.40
2:I:1150:ASP:OD2	2:I:1158:LYS:HG3	2.21	0.40
2:I:1280:ALA:CB	3:J:431:ARG:CB	2.80	0.40
2:I:1326:LEU:O	2:I:1330:ILE:CG1	2.69	0.40
3:J:104:HIS:C	3:J:105:ILE:HG13	2.46	0.40
3:J:127:LEU:HD23	3:J:127:LEU:HA	1.90	0.40
3:J:227:PHE:HE2	3:J:237:MET:CE	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:282:LEU:HA	3:J:282:LEU:HD23	1.70	0.40
3:J:386:GLU:OE1	3:J:394:ILE:CG1	2.69	0.40
3:J:425:ARG:HB2	3:J:457:TYR:CD1	2.57	0.40
3:J:812:ASP:OD1	3:J:812:ASP:N	2.54	0.40
3:J:1163:VAL:CG1	3:J:1175:LEU:HG	2.51	0.40
5:L:290:LEU:HD23	5:L:290:LEU:HA	1.94	0.40
5:L:386:LEU:HD13	6:4:41:DT:O4'	2.22	0.40
5:L:454:VAL:H	5:L:454:VAL:HG23	1.55	0.40
2:O:204:LEU:HD11	2:O:369:MET:SD	2.62	0.40
2:O:295:LYS:HD3	2:O:295:LYS:HA	1.87	0.40
2:O:810:TYR:CB	2:O:817:LEU:HD21	2.51	0.40
2:O:894:GLN:H	2:O:894:GLN:HG2	1.72	0.40
2:O:1235:LEU:N	2:O:1235:LEU:CD2	2.79	0.40
3:P:394:ILE:HD12	5:R:539:SER:CB	2.51	0.40
3:P:644:MET:O	3:P:764:ARG:NH1	2.54	0.40
3:P:759:ILE:HG12	3:P:771:GLN:HG2	2.02	0.40
3:P:795:TYR:CD1	7:8:11:DA:H5'	2.55	0.40
4:Q:63:ILE:O	4:Q:67:ARG:HB2	2.22	0.40
5:R:99:ARG:HH12	6:7:44:DG:H21	1.69	0.40
5:R:423:ARG:NH1	6:7:37:DA:N3	2.69	0.40
5:R:423:ARG:HD2	6:7:37:DA:C6	2.57	0.40
5:R:454:VAL:HG21	6:7:32:DA:N7	2.37	0.40
1:B:46:ILE:H	1:B:46:ILE:HG13	1.71	0.40
2:C:902:LEU:HD12	2:C:902:LEU:HA	2.00	0.40
2:C:1227:VAL:CG1	2:C:1228:GLY:H	2.30	0.40
3:D:423:LEU:CD2	3:D:468:VAL:HG13	2.52	0.40
3:D:1151:LYS:HD2	3:D:1151:LYS:H	1.85	0.40
3:D:1261:LEU:HD23	3:D:1261:LEU:HA	1.86	0.40
1:G:33:ARG:H	1:G:33:ARG:HG3	1.63	0.40
1:G:108:GLY:O	1:G:133:LEU:HD12	2.22	0.40
2:I:351:LEU:HD23	2:I:351:LEU:HA	1.89	0.40
2:I:932:GLN:HE21	2:I:1053:TYR:HE2	1.68	0.40
2:I:948:ILE:O	2:I:951:MET:HB2	2.22	0.40
2:I:979:LEU:HD21	2:I:1011:LEU:HD13	2.03	0.40
2:I:1184:THR:OG1	2:I:1189:GLY:HA3	2.21	0.40
3:J:126:LEU:HA	3:J:126:LEU:HD23	1.57	0.40
3:J:984:LEU:HD23	3:J:992:LYS:HD3	2.03	0.40
3:J:1146:GLU:OE2	3:J:1309:ILE:CG2	2.70	0.40
5:L:151:VAL:HG13	5:L:152:GLU:N	2.37	0.40
5:L:341:LEU:HD23	5:L:341:LEU:O	2.21	0.40
5:L:583:THR:HG22	5:L:586:ARG:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:6:13:GTP:N2	8:6:14:A:N3	2.70	0.40
2:O:113:THR:O	2:O:113:THR:OG1	2.36	0.40
2:O:202:ARG:N	2:O:369:MET:HE1	2.36	0.40
2:O:666:SER:HB2	2:O:704:MET:HE2	2.03	0.40
3:P:169:LEU:C	3:P:171:GLU:N	2.77	0.40
3:P:536:LEU:HB3	3:P:542:ALA:HB3	2.02	0.40
3:P:708:ASN:O	3:P:710:ASP:N	2.47	0.40
3:P:923:ILE:C	3:P:926:PRO:HD2	2.47	0.40
5:R:454:VAL:HG11	6:7:33:DT:O4	2.20	0.40
5:R:494:ILE:O	5:R:498:LEU:HG	2.21	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)
7:2:3:DG:O5'	7:2:51:DT:O3'[2_657]	1.64	0.56
3:D:1174:ARG:NH2	6:1:17:DA:OP1[2_657]	2.10	0.10
6:7:12:DA:O5'	6:7:60:DC:O3'[2_546]	2.13	0.07

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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%)	213 (93%)	11 (5%)	4 (2%)	6	33
1	B	226/242 (93%)	204 (90%)	14 (6%)	8 (4%)	3	20
1	G	228/242 (94%)	211 (92%)	14 (6%)	3 (1%)	9	41
1	H	226/242 (93%)	205 (91%)	17 (8%)	4 (2%)	6	33
1	M	228/242 (94%)	215 (94%)	12 (5%)	1 (0%)	30	67
1	N	226/242 (93%)	208 (92%)	12 (5%)	6 (3%)	4	25
2	C	1339/1342 (100%)	1220 (91%)	97 (7%)	22 (2%)	7	37

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	I	1339/1342 (100%)	1226 (92%)	88 (7%)	25 (2%)	6	31
2	O	1339/1342 (100%)	1235 (92%)	82 (6%)	22 (2%)	7	37
3	D	1360/1407 (97%)	1212 (89%)	120 (9%)	28 (2%)	5	29
3	J	1360/1407 (97%)	1212 (89%)	113 (8%)	35 (3%)	4	25
3	P	1360/1407 (97%)	1214 (89%)	111 (8%)	35 (3%)	4	25
4	E	88/90 (98%)	84 (96%)	4 (4%)	0	100	100
4	K	88/90 (98%)	84 (96%)	4 (4%)	0	100	100
4	Q	88/90 (98%)	84 (96%)	4 (4%)	0	100	100
5	F	493/628 (78%)	449 (91%)	30 (6%)	14 (3%)	4	24
5	L	493/628 (78%)	444 (90%)	30 (6%)	19 (4%)	2	18
5	R	493/628 (78%)	447 (91%)	30 (6%)	16 (3%)	3	21
All	All	11202/11853 (94%)	10167 (91%)	793 (7%)	242 (2%)	5	28

All (242) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	210	THR
1	B	209	GLY
2	C	165	HIS
2	C	808	ASN
2	C	812	PHE
2	C	1162	SER
3	D	53	ARG
3	D	321	LYS
3	D	519	ASN
3	D	749	LYS
3	D	769	VAL
3	D	947	GLU
3	D	965	SER
3	D	1097	ALA
3	D	1268	ASN
3	D	1274	PHE
3	D	1275	LEU
3	D	1297	LYS
3	D	1309	ILE
5	F	243	ALA
5	F	296	LYS
5	F	310	GLU

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Mol	Chain	Res	Type
5	F	325	PRO
5	F	397	ARG
5	F	515	GLU
5	F	553	ALA
5	F	581	ASP
1	H	117	HIS
2	I	247	ARG
2	I	341	LEU
2	I	791	LEU
2	I	808	ASN
2	I	812	PHE
2	I	1162	SER
3	J	53	ARG
3	J	321	LYS
3	J	519	ASN
3	J	704	GLU
3	J	943	ARG
3	J	944	ALA
3	J	945	ALA
3	J	1024	THR
3	J	1133	ASP
3	J	1268	ASN
3	J	1275	LEU
3	J	1297	LYS
3	J	1309	ILE
5	L	243	ALA
5	L	296	LYS
5	L	310	GLU
5	L	325	PRO
5	L	447	ALA
5	L	515	GLU
5	L	519	LEU
5	L	553	ALA
5	L	581	ASP
2	O	107	ARG
2	O	111	GLU
2	O	113	THR
2	O	341	LEU
2	O	481	LEU
2	O	791	LEU
2	O	808	ASN
2	O	812	PHE

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Mol	Chain	Res	Type
2	O	1135	GLN
2	O	1162	SER
3	P	53	ARG
3	P	404	GLU
3	P	519	ASN
3	P	1019	ASN
3	P	1024	THR
3	P	1097	ALA
3	P	1268	ASN
3	P	1275	LEU
3	P	1297	LYS
3	P	1318	SER
5	R	243	ALA
5	R	519	LEU
5	R	581	ASP
1	A	93	GLN
1	A	209	GLY
1	B	55	ALA
1	B	118	ASP
1	B	119	GLY
2	C	113	THR
2	C	643	SER
2	C	730	SER
2	C	791	LEU
2	C	1135	GLN
3	D	590	SER
3	D	715	LYS
3	D	876	SER
3	D	966	VAL
3	D	1019	ASN
3	D	1023	HIS
3	D	1024	THR
5	F	166	VAL
1	H	118	ASP
1	H	119	GLY
1	H	209	GLY
2	I	314	ASN
2	I	625	GLU
2	I	730	SER
3	J	174	ASP
3	J	523	GLU
3	J	590	SER

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Mol	Chain	Res	Type
3	J	731	ARG
3	J	1201	GLY
3	J	1234	VAL
3	J	1318	SER
5	L	93	ARG
5	L	155	GLU
5	L	166	VAL
5	L	400	GLN
1	M	209	GLY
1	N	118	ASP
1	N	119	GLY
2	O	247	ARG
2	O	314	ASN
2	O	730	SER
3	P	174	ASP
3	P	321	LYS
3	P	333	GLY
3	P	590	SER
3	P	704	GLU
3	P	827	GLU
3	P	846	GLU
3	P	855	ASP
3	P	1200	GLU
3	P	1201	GLY
3	P	1317	GLU
3	P	1344	LEU
1	B	164	ASP
1	B	194	GLN
2	C	200	ARG
2	C	247	ARG
2	C	341	LEU
2	C	669	PRO
2	C	912	ASP
3	D	122	SER
3	D	174	ASP
5	F	447	ALA
1	G	210	THR
2	I	113	THR
2	I	165	HIS
2	I	410	LEU
2	I	986	ALA
3	J	749	LYS

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Mol	Chain	Res	Type
3	J	769	VAL
3	J	855	ASP
3	J	1097	ALA
3	J	1200	GLU
5	L	113	ARG
5	L	583	THR
1	N	194	GLN
2	O	165	HIS
2	O	281	ASP
2	O	986	ALA
2	O	1187	PHE
3	P	122	SER
3	P	876	SER
5	R	113	ARG
5	R	154	GLU
5	R	166	VAL
5	R	323	ASN
5	R	395	THR
5	R	553	ALA
1	B	193	GLU
2	C	26	TYR
2	C	281	ASP
2	C	288	PRO
2	C	314	ASN
3	D	520	ALA
3	D	855	ASP
3	D	948	SER
5	F	91	ILE
2	I	163	LYS
2	I	167	SER
2	I	913	VAL
3	J	122	SER
3	J	1104	LYS
3	J	1114	GLN
3	J	1325	PHE
5	L	107	THR
5	L	476	ARG
2	O	163	LYS
2	O	787	PRO
2	O	922	ASN
2	O	1203	ASP
3	P	49	PHE

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Mol	Chain	Res	Type
3	P	542	ALA
3	P	709	ARG
3	P	749	LYS
5	R	238	LYS
5	R	330	LEU
5	R	447	ALA
5	R	478	PRO
2	C	258	ASN
2	C	910	ALA
3	D	846	GLU
5	F	155	GLU
5	F	519	LEU
5	F	582	VAL
2	I	40	GLU
2	I	45	GLY
2	I	258	ASN
3	J	750	PRO
3	J	876	SER
3	J	1185	PRO
5	L	446	GLN
1	N	117	HIS
1	N	191	ARG
1	N	209	GLY
3	P	750	PRO
5	R	310	GLU
1	G	195	ARG
1	G	209	GLY
2	I	16	GLY
2	I	398	SER
3	J	353	SER
3	J	462	ASP
3	P	769	VAL
3	P	948	SER
3	P	1108	GLN
3	P	1114	GLN
5	R	91	ILE
2	C	110	PRO
3	D	758	PRO
2	O	43	PRO
5	R	582	VAL
2	C	984	VAL
3	P	828	GLY

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Mol	Chain	Res	Type
3	D	586	GLY
2	I	162	GLY
2	I	787	PRO
1	A	19	VAL
2	I	110	PRO
2	I	563	THR
3	J	583	VAL
5	L	582	VAL
3	P	378	LYS
1	B	30	PRO

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%)	165 (83%)	33 (17%)	2	11
1	B	196/208 (94%)	153 (78%)	43 (22%)	1	6
1	G	198/208 (95%)	173 (87%)	25 (13%)	4	16
1	H	196/208 (94%)	163 (83%)	33 (17%)	2	11
1	M	198/208 (95%)	175 (88%)	23 (12%)	5	18
1	N	196/208 (94%)	173 (88%)	23 (12%)	5	18
2	C	1156/1157 (100%)	1006 (87%)	150 (13%)	4	16
2	I	1156/1157 (100%)	1004 (87%)	152 (13%)	4	16
2	O	1156/1157 (100%)	1015 (88%)	141 (12%)	5	17
3	D	1135/1168 (97%)	981 (86%)	154 (14%)	3	14
3	J	1135/1168 (97%)	969 (85%)	166 (15%)	3	13
3	P	1135/1168 (97%)	991 (87%)	144 (13%)	4	16
4	E	74/74 (100%)	69 (93%)	5 (7%)	14	36
4	K	74/74 (100%)	62 (84%)	12 (16%)	2	11
4	Q	74/74 (100%)	63 (85%)	11 (15%)	3	13
5	F	439/554 (79%)	386 (88%)	53 (12%)	5	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	L	439/554 (79%)	381 (87%)	58 (13%)	4	15
5	R	439/554 (79%)	374 (85%)	65 (15%)	3	13
All	All	9594/10107 (95%)	8303 (86%)	1291 (14%)	4	15

All (1291) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	7	GLU
1	A	9	LEU
1	A	13	LEU
1	A	28	LEU
1	A	39	LEU
1	A	41	ASN
1	A	67	GLU
1	A	78	ILE
1	A	83	LEU
1	A	88	LEU
1	A	98	VAL
1	A	99	ILE
1	A	100	LEU
1	A	102	LEU
1	A	103	ASN
1	A	107	ILE
1	A	111	THR
1	A	140	ILE
1	A	157	THR
1	A	168	ILE
1	A	170	ARG
1	A	180	VAL
1	A	181	GLU
1	A	191	ARG
1	A	197	ASP
1	A	205	MET
1	A	208	ASN
1	A	223	ILE
1	A	224	LEU
1	A	229	GLU
1	A	231	PHE
1	A	233	ASP
1	A	234	LEU
1	B	12	ARG

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Mol	Chain	Res	Type
1	B	13	LEU
1	B	16	ILE
1	B	19	VAL
1	B	28	LEU
1	B	39	LEU
1	B	47	LEU
1	B	51	MET
1	B	56	VAL
1	B	61	ILE
1	B	67	GLU
1	B	79	LEU
1	B	83	LEU
1	B	88	LEU
1	B	91	ARG
1	B	100	LEU
1	B	103	ASN
1	B	110	VAL
1	B	111	THR
1	B	123	ILE
1	B	125	LYS
1	B	131	CYS
1	B	142	MET
1	B	143	ARG
1	B	144	ILE
1	B	157	THR
1	B	163	GLU
1	B	170	ARG
1	B	172	LEU
1	B	173	VAL
1	B	174	ASP
1	B	176	CYS
1	B	180	VAL
1	B	183	ILE
1	B	187	VAL
1	B	196	THR
1	B	198	LEU
1	B	203	ILE
1	B	205	MET
1	B	207	THR
1	B	212	ASP
1	B	215	GLU
1	B	217	ILE

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Mol	Chain	Res	Type
2	C	2	VAL
2	C	23	ASP
2	C	30	ILE
2	C	32	LEU
2	C	91	THR
2	C	93	SER
2	C	127	ILE
2	C	135	THR
2	C	141	THR
2	C	145	ILE
2	C	146	VAL
2	C	147	SER
2	C	155	VAL
2	C	158	ASP
2	C	167	SER
2	C	209	ILE
2	C	216	THR
2	C	228	VAL
2	C	229	ILE
2	C	230	PHE
2	C	234	ASP
2	C	252	SER
2	C	254	ASP
2	C	260	LYS
2	C	261	VAL
2	C	270	THR
2	C	272	ARG
2	C	274	ILE
2	C	277	LEU
2	C	280	ASP
2	C	284	LEU
2	C	289	VAL
2	C	297	VAL
2	C	306	THR
2	C	318	SER
2	C	319	LEU
2	C	320	ASP
2	C	333	ILE
2	C	341	LEU
2	C	358	ASP
2	C	364	VAL
2	C	369	MET

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Mol	Chain	Res	Type
2	C	377	THR
2	C	382	GLU
2	C	383	SER
2	C	386	GLU
2	C	390	PHE
2	C	394	ARG
2	C	408	SER
2	C	413	GLU
2	C	433	ILE
2	C	435	ILE
2	C	442	VAL
2	C	443	ASP
2	C	453	ILE
2	C	468	LEU
2	C	472	GLU
2	C	475	VAL
2	C	479	LEU
2	C	480	SER
2	C	484	LEU
2	C	521	LEU
2	C	530	ILE
2	C	538	LEU
2	C	561	ILE
2	C	565	GLU
2	C	576	SER
2	C	583	GLU
2	C	596	ASP
2	C	607	SER
2	C	609	ILE
2	C	633	LEU
2	C	634	VAL
2	C	641	GLU
2	C	643	SER
2	C	660	VAL
2	C	662	SER
2	C	663	VAL
2	C	668	ILE
2	C	692	THR
2	C	700	VAL
2	C	739	ASP
2	C	750	ILE
2	C	764	CYS

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Mol	Chain	Res	Type
2	C	771	VAL
2	C	773	LEU
2	C	777	VAL
2	C	782	VAL
2	C	791	LEU
2	C	799	ASN
2	C	815	SER
2	C	816	ILE
2	C	818	VAL
2	C	821	ARG
2	C	822	VAL
2	C	831	ILE
2	C	839	VAL
2	C	850	ILE
2	C	857	VAL
2	C	867	GLU
2	C	873	ILE
2	C	887	VAL
2	C	908	GLU
2	C	927	THR
2	C	929	ILE
2	C	935	THR
2	C	939	VAL
2	C	941	LYS
2	C	948	ILE
2	C	959	ASP
2	C	980	VAL
2	C	988	LYS
2	C	1003	THR
2	C	1007	LYS
2	C	1052	VAL
2	C	1054	LEU
2	C	1056	VAL
2	C	1057	LYS
2	C	1060	ILE
2	C	1077	SER
2	C	1079	ILE
2	C	1082	ILE
2	C	1088	ASP
2	C	1092	THR
2	C	1098	LEU
2	C	1109	ILE

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Mol	Chain	Res	Type
2	C	1115	THR
2	C	1124	ILE
2	C	1158	LYS
2	C	1167	GLU
2	C	1182	ILE
2	C	1186	VAL
2	C	1201	LEU
2	C	1203	ASP
2	C	1210	ILE
2	C	1212	LEU
2	C	1223	ARG
2	C	1250	SER
2	C	1253	LEU
2	C	1254	VAL
2	C	1255	THR
2	C	1286	THR
2	C	1287	LEU
2	C	1293	VAL
2	C	1296	ASP
2	C	1302	THR
2	C	1335	ILE
2	C	1337	ILE
2	C	1339	LEU
2	C	1340	GLU
3	D	20	ILE
3	D	22	ILE
3	D	29	MET
3	D	56	LEU
3	D	58	CYS
3	D	71	LEU
3	D	78	LEU
3	D	83	VAL
3	D	86	GLU
3	D	93	THR
3	D	102	MET
3	D	120	LEU
3	D	135	ILE
3	D	138	VAL
3	D	159	ILE
3	D	190	LYS
3	D	192	MET
3	D	194	LEU

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Mol	Chain	Res	Type
3	D	205	LEU
3	D	212	THR
3	D	216	LYS
3	D	237	MET
3	D	238	ILE
3	D	239	LEU
3	D	242	LEU
3	D	255	LEU
3	D	256	ASP
3	D	279	LEU
3	D	283	LEU
3	D	285	LEU
3	D	299	LEU
3	D	303	VAL
3	D	314	ARG
3	D	319	SER
3	D	320	ASN
3	D	321	LYS
3	D	322	ARG
3	D	327	LEU
3	D	350	SER
3	D	353	SER
3	D	357	VAL
3	D	385	LEU
3	D	394	ILE
3	D	407	VAL
3	D	442	ILE
3	D	443	GLU
3	D	447	ILE
3	D	453	VAL
3	D	462	ASP
3	D	468	VAL
3	D	478	LEU
3	D	484	MET
3	D	492	SER
3	D	495	ASN
3	D	499	ILE
3	D	503	SER
3	D	504	GLN
3	D	519	ASN
3	D	521	LYS
3	D	526	VAL

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Mol	Chain	Res	Type
3	D	536	LEU
3	D	541	LEU
3	D	548	VAL
3	D	552	ILE
3	D	567	THR
3	D	569	LEU
3	D	571	ASP
3	D	574	VAL
3	D	581	MET
3	D	583	VAL
3	D	587	LEU
3	D	599	LYS
3	D	601	ILE
3	D	607	THR
3	D	609	TYR
3	D	619	ILE
3	D	624	ILE
3	D	634	ARG
3	D	638	SER
3	D	639	VAL
3	D	644	MET
3	D	653	ILE
3	D	658	GLU
3	D	674	THR
3	D	683	ILE
3	D	701	LEU
3	D	705	THR
3	D	707	ILE
3	D	716	GLN
3	D	717	VAL
3	D	720	ASN
3	D	722	ILE
3	D	725	MET
3	D	736	GLN
3	D	747	MET
3	D	753	SER
3	D	755	ILE
3	D	759	ILE
3	D	770	LEU
3	D	786	THR
3	D	802	ASP
3	D	805	GLN

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Mol	Chain	Res	Type
3	D	812	ASP
3	D	816	THR
3	D	825	VAL
3	D	843	VAL
3	D	847	ASP
3	D	862	THR
3	D	880	VAL
3	D	882	VAL
3	D	891	ASP
3	D	918	ILE
3	D	922	SER
3	D	928	THR
3	D	934	THR
3	D	936	HIS
3	D	954	ASN
3	D	973	LEU
3	D	974	VAL
3	D	985	ILE
3	D	1024	THR
3	D	1025	MET
3	D	1031	VAL
3	D	1090	ILE
3	D	1095	MET
3	D	1116	SER
3	D	1131	THR
3	D	1134	ILE
3	D	1138	LEU
3	D	1140	ARG
3	D	1141	VAL
3	D	1144	LEU
3	D	1151	LYS
3	D	1152	GLU
3	D	1155	ILE
3	D	1159	ILE
3	D	1167	LYS
3	D	1173	ARG
3	D	1175	LEU
3	D	1184	ASP
3	D	1208	ASP
3	D	1211	SER
3	D	1226	VAL
3	D	1230	THR

Continued on next page...

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Mol	Chain	Res	Type
3	D	1233	ILE
3	D	1235	ASN
3	D	1240	VAL
3	D	1243	LEU
3	D	1250	ASP
3	D	1256	ILE
3	D	1265	THR
3	D	1307	LEU
3	D	1320	ILE
3	D	1347	LEU
4	E	4	VAL
4	E	6	VAL
4	E	22	VAL
4	E	25	ARG
4	E	36	ASP
5	F	91	ILE
5	F	95	THR
5	F	100	MET
5	F	102	MET
5	F	105	MET
5	F	110	LEU
5	F	117	ILE
5	F	152	GLU
5	F	162	ILE
5	F	213	ASP
5	F	218	ARG
5	F	230	VAL
5	F	258	GLN
5	F	297	MET
5	F	306	PHE
5	F	330	LEU
5	F	334	SER
5	F	341	LEU
5	F	345	GLN
5	F	349	GLU
5	F	353	LEU
5	F	354	THR
5	F	388	ILE
5	F	390	ILE
5	F	399	LEU
5	F	402	LEU
5	F	404	LEU

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Mol	Chain	Res	Type
5	F	423	ARG
5	F	439	ILE
5	F	450	ILE
5	F	451	ARG
5	F	454	VAL
5	F	459	THR
5	F	466	ILE
5	F	471	LEU
5	F	472	GLN
5	F	487	MET
5	F	491	GLU
5	F	492	ASP
5	F	494	ILE
5	F	514	ASP
5	F	515	GLU
5	F	523	ILE
5	F	526	THR
5	F	530	LEU
5	F	532	LEU
5	F	540	LEU
5	F	552	THR
5	F	554	ARG
5	F	561	MET
5	F	568	ASN
5	F	584	ARG
5	F	602	SER
1	G	16	ILE
1	G	28	LEU
1	G	69	SER
1	G	77	ASP
1	G	78	ILE
1	G	79	LEU
1	G	81	ILE
1	G	98	VAL
1	G	99	ILE
1	G	121	VAL
1	G	129	VAL
1	G	136	GLU
1	G	140	ILE
1	G	144	ILE
1	G	159	ILE
1	G	173	VAL

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Mol	Chain	Res	Type
1	G	176	CYS
1	G	180	VAL
1	G	192	VAL
1	G	199	ASP
1	G	208	ASN
1	G	223	ILE
1	G	224	LEU
1	G	232	VAL
1	G	233	ASP
1	H	12	ARG
1	H	16	ILE
1	H	19	VAL
1	H	39	LEU
1	H	43	LEU
1	H	56	VAL
1	H	61	ILE
1	H	62	ASP
1	H	67	GLU
1	H	78	ILE
1	H	79	LEU
1	H	88	LEU
1	H	111	THR
1	H	123	ILE
1	H	129	VAL
1	H	131	CYS
1	H	136	GLU
1	H	140	ILE
1	H	142	MET
1	H	146	VAL
1	H	157	THR
1	H	162	GLU
1	H	170	ARG
1	H	172	LEU
1	H	174	ASP
1	H	195	ARG
1	H	196	THR
1	H	199	ASP
1	H	203	ILE
1	H	205	MET
1	H	211	ILE
1	H	212	ASP
1	H	224	LEU

Continued on next page...

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Mol	Chain	Res	Type
2	I	23	ASP
2	I	24	VAL
2	I	46	GLN
2	I	59	ILE
2	I	60	GLN
2	I	70	TYR
2	I	71	VAL
2	I	72	SER
2	I	75	LEU
2	I	79	VAL
2	I	82	VAL
2	I	91	THR
2	I	147	SER
2	I	149	LEU
2	I	155	VAL
2	I	158	ASP
2	I	170	VAL
2	I	184	LEU
2	I	198	ILE
2	I	208	ILE
2	I	218	GLU
2	I	239	MET
2	I	247	ARG
2	I	261	VAL
2	I	269	ILE
2	I	279	LYS
2	I	280	ASP
2	I	306	THR
2	I	318	SER
2	I	319	LEU
2	I	350	THR
2	I	360	LEU
2	I	363	LEU
2	I	369	MET
2	I	383	SER
2	I	390	PHE
2	I	392	GLU
2	I	404	LYS
2	I	419	ILE
2	I	422	LYS
2	I	435	ILE
2	I	442	VAL

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Mol	Chain	Res	Type
2	I	443	ASP
2	I	444	ASP
2	I	446	ASP
2	I	448	LEU
2	I	470	ARG
2	I	471	VAL
2	I	472	GLU
2	I	473	ARG
2	I	477	GLU
2	I	480	SER
2	I	498	ILE
2	I	510	GLN
2	I	516	ASP
2	I	533	LEU
2	I	538	LEU
2	I	541	GLU
2	I	558	VAL
2	I	561	ILE
2	I	572	ILE
2	I	604	HIS
2	I	616	ILE
2	I	623	LEU
2	I	630	VAL
2	I	632	ASP
2	I	633	LEU
2	I	634	VAL
2	I	635	THR
2	I	662	SER
2	I	663	VAL
2	I	692	THR
2	I	693	LEU
2	I	696	ASP
2	I	699	LEU
2	I	714	VAL
2	I	734	ILE
2	I	740	GLU
2	I	750	ILE
2	I	764	CYS
2	I	765	ILE
2	I	766	ASN
2	I	770	CYS
2	I	772	SER

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Mol	Chain	Res	Type
2	I	777	VAL
2	I	799	ASN
2	I	800	MET
2	I	802	VAL
2	I	808	ASN
2	I	815	SER
2	I	822	VAL
2	I	823	VAL
2	I	831	ILE
2	I	833	ILE
2	I	836	LEU
2	I	845	LEU
2	I	849	GLU
2	I	850	ILE
2	I	859	GLU
2	I	872	TYR
2	I	873	ILE
2	I	893	THR
2	I	900	LYS
2	I	901	LEU
2	I	935	THR
2	I	939	VAL
2	I	940	GLU
2	I	946	LEU
2	I	950	GLU
2	I	951	MET
2	I	964	LEU
2	I	994	ARG
2	I	1002	LEU
2	I	1003	THR
2	I	1013	GLN
2	I	1019	ASP
2	I	1036	ILE
2	I	1049	ILE
2	I	1054	LEU
2	I	1060	ILE
2	I	1066	MET
2	I	1075	VAL
2	I	1079	ILE
2	I	1082	ILE
2	I	1085	MET
2	I	1088	ASP

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Mol	Chain	Res	Type
2	I	1092	THR
2	I	1094	VAL
2	I	1098	LEU
2	I	1099	ASN
2	I	1108	ASN
2	I	1115	THR
2	I	1128	ILE
2	I	1155	VAL
2	I	1177	ARG
2	I	1180	MET
2	I	1182	ILE
2	I	1192	GLU
2	I	1227	VAL
2	I	1250	SER
2	I	1254	VAL
2	I	1262	LYS
2	I	1286	THR
2	I	1287	LEU
2	I	1292	THR
2	I	1296	ASP
2	I	1304	MET
2	I	1326	LEU
2	I	1333	LEU
2	I	1337	ILE
2	I	1339	LEU
2	I	1341	ASP
3	J	20	ILE
3	J	29	MET
3	J	32	SER
3	J	78	LEU
3	J	84	ILE
3	J	87	LYS
3	J	93	THR
3	J	96	LYS
3	J	97	VAL
3	J	102	MET
3	J	107	LEU
3	J	114	ILE
3	J	115	TRP
3	J	120	LEU
3	J	133	ARG
3	J	135	ILE

Continued on next page...

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Mol	Chain	Res	Type
3	J	155	GLU
3	J	158	GLN
3	J	169	LEU
3	J	174	ASP
3	J	194	LEU
3	J	205	LEU
3	J	208	THR
3	J	209	ASN
3	J	212	THR
3	J	216	LYS
3	J	225	GLU
3	J	238	ILE
3	J	244	VAL
3	J	253	VAL
3	J	255	LEU
3	J	264	ASP
3	J	279	LEU
3	J	290	ILE
3	J	294	ASN
3	J	331	ILE
3	J	343	LEU
3	J	346	ARG
3	J	347	VAL
3	J	352	ARG
3	J	357	VAL
3	J	371	LYS
3	J	372	MET
3	J	374	LEU
3	J	381	ILE
3	J	394	ILE
3	J	407	VAL
3	J	411	ILE
3	J	414	GLU
3	J	442	ILE
3	J	447	ILE
3	J	468	VAL
3	J	483	LEU
3	J	490	ILE
3	J	492	SER
3	J	495	ASN
3	J	504	GLN
3	J	505	ASP

Continued on next page...

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Mol	Chain	Res	Type
3	J	506	VAL
3	J	508	LEU
3	J	536	LEU
3	J	560	ASN
3	J	563	LEU
3	J	567	THR
3	J	569	LEU
3	J	573	THR
3	J	574	VAL
3	J	592	VAL
3	J	612	LEU
3	J	614	LEU
3	J	619	ILE
3	J	624	ILE
3	J	641	ILE
3	J	642	ASP
3	J	658	GLU
3	J	672	LEU
3	J	673	VAL
3	J	701	LEU
3	J	705	THR
3	J	706	VAL
3	J	720	ASN
3	J	721	SER
3	J	722	ILE
3	J	731	ARG
3	J	736	GLN
3	J	743	MET
3	J	751	ASP
3	J	753	SER
3	J	757	THR
3	J	767	LEU
3	J	774	ILE
3	J	786	THR
3	J	790	THR
3	J	796	LEU
3	J	797	THR
3	J	805	GLN
3	J	806	ASP
3	J	807	LEU
3	J	816	THR
3	J	822	MET

Continued on next page...

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Mol	Chain	Res	Type
3	J	825	VAL
3	J	835	LEU
3	J	844	THR
3	J	848	VAL
3	J	849	LEU
3	J	855	ASP
3	J	862	THR
3	J	864	LEU
3	J	872	LEU
3	J	877	VAL
3	J	885	VAL
3	J	891	ASP
3	J	895	CYS
3	J	909	ILE
3	J	922	SER
3	J	928	THR
3	J	934	THR
3	J	937	ILE
3	J	965	SER
3	J	1063	ASP
3	J	1066	GLU
3	J	1089	LEU
3	J	1095	MET
3	J	1107	VAL
3	J	1114	GLN
3	J	1116	SER
3	J	1131	THR
3	J	1138	LEU
3	J	1141	VAL
3	J	1155	ILE
3	J	1167	LYS
3	J	1175	LEU
3	J	1177	ILE
3	J	1178	THR
3	J	1180	VAL
3	J	1184	ASP
3	J	1189	MET
3	J	1196	LEU
3	J	1209	VAL
3	J	1212	ASP
3	J	1218	HIS
3	J	1221	LEU

Continued on next page...

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Mol	Chain	Res	Type
3	J	1230	THR
3	J	1233	ILE
3	J	1250	ASP
3	J	1251	LYS
3	J	1253	ILE
3	J	1256	ILE
3	J	1265	THR
3	J	1267	VAL
3	J	1268	ASN
3	J	1287	ILE
3	J	1289	ASN
3	J	1298	VAL
3	J	1301	THR
3	J	1303	SER
3	J	1307	LEU
3	J	1328	THR
3	J	1340	LYS
3	J	1343	GLU
3	J	1347	LEU
3	J	1349	GLU
3	J	1353	VAL
3	J	1356	LEU
3	J	1357	ILE
3	J	1366	HIS
4	K	4	VAL
4	K	6	VAL
4	K	13	ILE
4	K	19	LEU
4	K	25	ARG
4	K	29	GLN
4	K	36	ASP
4	K	45	LYS
4	K	47	THR
4	K	58	LEU
4	K	59	ILE
4	K	72	GLN
5	L	91	ILE
5	L	93	ARG
5	L	102	MET
5	L	105	MET
5	L	114	GLU
5	L	142	THR

Continued on next page...

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Mol	Chain	Res	Type
5	L	144	LEU
5	L	161	LEU
5	L	219	GLU
5	L	229	VAL
5	L	230	VAL
5	L	232	ARG
5	L	241	SER
5	L	253	SER
5	L	261	LEU
5	L	264	LYS
5	L	286	LEU
5	L	288	MET
5	L	294	GLN
5	L	300	LYS
5	L	329	LYS
5	L	330	LEU
5	L	334	SER
5	L	335	GLU
5	L	349	GLU
5	L	353	LEU
5	L	354	THR
5	L	359	LYS
5	L	367	ILE
5	L	374	ARG
5	L	386	LEU
5	L	388	ILE
5	L	393	LYS
5	L	399	LEU
5	L	402	LEU
5	L	423	ARG
5	L	451	ARG
5	L	454	VAL
5	L	459	THR
5	L	461	ASN
5	L	468	ARG
5	L	471	LEU
5	L	474	MET
5	L	479	THR
5	L	487	MET
5	L	491	GLU
5	L	492	ASP
5	L	511	ILE

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Mol	Chain	Res	Type
5	L	521	ASP
5	L	530	LEU
5	L	538	GLU
5	L	541	ARG
5	L	565	ILE
5	L	573	LEU
5	L	579	GLN
5	L	587	ILE
5	L	602	SER
5	L	613	ASP
1	M	16	ILE
1	M	17	GLU
1	M	28	LEU
1	M	57	THR
1	M	61	ILE
1	M	67	GLU
1	M	81	ILE
1	M	90	VAL
1	M	92	VAL
1	M	127	GLN
1	M	140	ILE
1	M	144	ILE
1	M	146	VAL
1	M	156	SER
1	M	160	HIS
1	M	171	LEU
1	M	183	ILE
1	M	187	VAL
1	M	191	ARG
1	M	208	ASN
1	M	211	ILE
1	M	228	LEU
1	M	234	LEU
1	N	12	ARG
1	N	16	ILE
1	N	19	VAL
1	N	28	LEU
1	N	41	ASN
1	N	61	ILE
1	N	74	VAL
1	N	99	ILE
1	N	111	THR

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Mol	Chain	Res	Type
1	N	115	ILE
1	N	118	ASP
1	N	123	ILE
1	N	131	CYS
1	N	134	THR
1	N	142	MET
1	N	144	ILE
1	N	163	GLU
1	N	170	ARG
1	N	173	VAL
1	N	183	ILE
1	N	192	VAL
1	N	196	THR
1	N	217	ILE
2	O	6	THR
2	O	21	VAL
2	O	24	VAL
2	O	30	ILE
2	O	41	GLN
2	O	60	GLN
2	O	71	VAL
2	O	75	LEU
2	O	79	VAL
2	O	91	THR
2	O	113	THR
2	O	141	THR
2	O	144	VAL
2	O	155	VAL
2	O	158	ASP
2	O	164	THR
2	O	167	SER
2	O	182	SER
2	O	208	ILE
2	O	209	ILE
2	O	216	THR
2	O	217	THR
2	O	228	VAL
2	O	240	GLU
2	O	252	SER
2	O	279	LYS
2	O	297	VAL
2	O	304	GLU

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Mol	Chain	Res	Type
2	O	306	THR
2	O	310	ILE
2	O	318	SER
2	O	340	ASP
2	O	343	HIS
2	O	347	ILE
2	O	353	VAL
2	O	358	ASP
2	O	360	LEU
2	O	364	VAL
2	O	383	SER
2	O	391	SER
2	O	407	ARG
2	O	408	SER
2	O	419	ILE
2	O	432	LEU
2	O	433	ILE
2	O	448	LEU
2	O	468	LEU
2	O	472	GLU
2	O	480	SER
2	O	481	LEU
2	O	486	THR
2	O	498	ILE
2	O	530	ILE
2	O	541	GLU
2	O	546	GLU
2	O	558	VAL
2	O	565	GLU
2	O	583	GLU
2	O	596	ASP
2	O	603	ILE
2	O	607	SER
2	O	635	THR
2	O	641	GLU
2	O	661	VAL
2	O	663	VAL
2	O	672	GLU
2	O	692	THR
2	O	700	VAL
2	O	711	ASP
2	O	732	ILE

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Mol	Chain	Res	Type
2	O	750	ILE
2	O	752	ASN
2	O	757	THR
2	O	764	CYS
2	O	766	ASN
2	O	772	SER
2	O	773	LEU
2	O	791	LEU
2	O	799	ASN
2	O	800	MET
2	O	808	ASN
2	O	815	SER
2	O	817	LEU
2	O	818	VAL
2	O	821	ARG
2	O	831	ILE
2	O	836	LEU
2	O	839	VAL
2	O	843	THR
2	O	851	THR
2	O	857	VAL
2	O	859	GLU
2	O	871	VAL
2	O	873	ILE
2	O	892	GLU
2	O	893	THR
2	O	901	LEU
2	O	916	SER
2	O	925	SER
2	O	929	ILE
2	O	935	THR
2	O	946	LEU
2	O	948	ILE
2	O	959	ASP
2	O	966	ILE
2	O	992	LEU
2	O	1000	LEU
2	O	1012	GLU
2	O	1014	LEU
2	O	1024	GLU
2	O	1036	ILE
2	O	1049	ILE

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Mol	Chain	Res	Type
2	O	1053	TYR
2	O	1066	MET
2	O	1079	ILE
2	O	1088	ASP
2	O	1092	THR
2	O	1098	LEU
2	O	1108	ASN
2	O	1109	ILE
2	O	1115	THR
2	O	1182	ILE
2	O	1204	LEU
2	O	1210	ILE
2	O	1223	ARG
2	O	1227	VAL
2	O	1235	LEU
2	O	1240	ASP
2	O	1250	SER
2	O	1254	VAL
2	O	1255	THR
2	O	1286	THR
2	O	1299	ASN
2	O	1302	THR
2	O	1304	MET
2	O	1319	MET
2	O	1325	VAL
2	O	1335	ILE
2	O	1337	ILE
2	O	1339	LEU
2	O	1341	ASP
3	P	22	ILE
3	P	28	ASP
3	P	29	MET
3	P	58	CYS
3	P	65	VAL
3	P	66	LYS
3	P	70	CYS
3	P	78	LEU
3	P	90	VAL
3	P	93	THR
3	P	107	LEU
3	P	135	ILE
3	P	138	VAL

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Mol	Chain	Res	Type
3	P	145	VAL
3	P	148	GLU
3	P	154	LEU
3	P	156	ARG
3	P	159	ILE
3	P	167	ASP
3	P	169	LEU
3	P	185	ILE
3	P	188	LEU
3	P	194	LEU
3	P	208	THR
3	P	225	GLU
3	P	239	LEU
3	P	242	LEU
3	P	244	VAL
3	P	255	LEU
3	P	256	ASP
3	P	259	ARG
3	P	265	LEU
3	P	319	SER
3	P	320	ASN
3	P	322	ARG
3	P	331	ILE
3	P	341	ASN
3	P	343	LEU
3	P	347	VAL
3	P	350	SER
3	P	353	SER
3	P	363	LEU
3	P	374	LEU
3	P	387	LEU
3	P	394	ILE
3	P	402	GLU
3	P	411	ILE
3	P	416	ILE
3	P	423	LEU
3	P	429	LEU
3	P	442	ILE
3	P	447	ILE
3	P	462	ASP
3	P	468	VAL
3	P	490	ILE

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Mol	Chain	Res	Type
3	P	492	SER
3	P	495	ASN
3	P	500	ILE
3	P	526	VAL
3	P	550	VAL
3	P	560	ASN
3	P	573	THR
3	P	590	SER
3	P	592	VAL
3	P	601	ILE
3	P	604	MET
3	P	605	LEU
3	P	607	THR
3	P	614	LEU
3	P	622	ASP
3	P	641	ILE
3	P	646	ILE
3	P	654	ILE
3	P	664	ILE
3	P	672	LEU
3	P	683	ILE
3	P	698	MET
3	P	703	THR
3	P	704	GLU
3	P	715	LYS
3	P	731	ARG
3	P	736	GLN
3	P	743	MET
3	P	751	ASP
3	P	753	SER
3	P	755	ILE
3	P	770	LEU
3	P	774	ILE
3	P	781	LYS
3	P	783	LEU
3	P	786	THR
3	P	790	THR
3	P	796	LEU
3	P	805	GLN
3	P	807	LEU
3	P	808	VAL
3	P	822	MET

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Mol	Chain	Res	Type
3	P	825	VAL
3	P	837	ASP
3	P	844	THR
3	P	850	LYS
3	P	862	THR
3	P	863	LEU
3	P	872	LEU
3	P	880	VAL
3	P	882	VAL
3	P	891	ASP
3	P	894	VAL
3	P	915	ILE
3	P	918	ILE
3	P	931	THR
3	P	949	SER
3	P	958	ILE
3	P	1031	VAL
3	P	1032	SER
3	P	1052	GLU
3	P	1088	VAL
3	P	1131	THR
3	P	1138	LEU
3	P	1155	ILE
3	P	1159	ILE
3	P	1162	ILE
3	P	1177	ILE
3	P	1181	ASP
3	P	1184	ASP
3	P	1189	MET
3	P	1196	LEU
3	P	1212	ASP
3	P	1230	THR
3	P	1240	VAL
3	P	1243	LEU
3	P	1250	ASP
3	P	1256	ILE
3	P	1265	THR
3	P	1266	ILE
3	P	1276	GLU
3	P	1301	THR
3	P	1306	LEU
3	P	1307	LEU

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Mol	Chain	Res	Type
3	P	1332	LEU
3	P	1353	VAL
3	P	1356	LEU
3	P	1357	ILE
3	P	1366	HIS
4	Q	4	VAL
4	Q	6	VAL
4	Q	12	LYS
4	Q	13	ILE
4	Q	19	LEU
4	Q	21	LEU
4	Q	28	ARG
4	Q	38	LEU
4	Q	49	ILE
4	Q	62	GLN
4	Q	81	GLN
5	R	86	SER
5	R	91	ILE
5	R	102	MET
5	R	105	MET
5	R	109	GLU
5	R	110	LEU
5	R	111	LEU
5	R	116	GLU
5	R	129	GLN
5	R	132	CYS
5	R	152	GLU
5	R	223	GLU
5	R	230	VAL
5	R	240	ARG
5	R	241	SER
5	R	249	ILE
5	R	250	LEU
5	R	253	SER
5	R	294	GLN
5	R	295	CYS
5	R	296	LYS
5	R	300	LYS
5	R	304	THR
5	R	311	THR
5	R	327	SER
5	R	333	VAL

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Mol	Chain	Res	Type
5	R	334	SER
5	R	349	GLU
5	R	353	LEU
5	R	355	ILE
5	R	358	VAL
5	R	365	MET
5	R	374	ARG
5	R	386	LEU
5	R	387	VAL
5	R	388	ILE
5	R	399	LEU
5	R	404	LEU
5	R	405	ILE
5	R	418	LYS
5	R	436	ARG
5	R	441	ARG
5	R	450	ILE
5	R	451	ARG
5	R	454	VAL
5	R	456	MET
5	R	461	ASN
5	R	463	LEU
5	R	474	MET
5	R	491	GLU
5	R	492	ASP
5	R	493	LYS
5	R	494	ILE
5	R	517	SER
5	R	519	LEU
5	R	540	LEU
5	R	548	LEU
5	R	554	ARG
5	R	573	LEU
5	R	583	THR
5	R	587	ILE
5	R	588	ARG
5	R	602	SER
5	R	606	VAL
5	R	611	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (182) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	41	ASN
1	A	66	HIS
1	A	103	ASN
1	A	117	HIS
1	A	128	HIS
1	A	132	HIS
1	A	208	ASN
1	B	41	ASN
1	B	132	HIS
1	B	194	GLN
1	B	208	ASN
2	C	46	GLN
2	C	148	GLN
2	C	258	ASN
2	C	447	HIS
2	C	490	GLN
2	C	554	HIS
2	C	659	GLN
2	C	677	ASN
2	C	760	ASN
2	C	798	GLN
2	C	799	ASN
2	C	808	ASN
2	C	824	GLN
2	C	1008	GLN
2	C	1023	HIS
2	C	1116	HIS
2	C	1136	GLN
2	C	1220	GLN
2	C	1256	GLN
2	C	1268	GLN
2	C	1313	HIS
2	C	1336	ASN
3	D	274	ASN
3	D	340	GLN
3	D	341	ASN
3	D	364	HIS
3	D	419	HIS
3	D	450	HIS
3	D	458	ASN
3	D	488	ASN
3	D	489	ASN
3	D	545	HIS

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Mol	Chain	Res	Type
3	D	680	ASN
3	D	690	ASN
3	D	708	ASN
3	D	736	GLN
3	D	739	GLN
3	D	771	GLN
3	D	954	ASN
3	D	1019	ASN
3	D	1098	GLN
3	D	1114	GLN
3	D	1295	ASN
3	D	1366	HIS
4	E	43	ASN
5	F	271	ASN
5	F	331	HIS
5	F	362	ASN
5	F	409	ASN
5	F	472	GLN
5	F	545	HIS
5	F	589	GLN
1	G	75	GLN
1	G	208	ASN
1	H	18	GLN
1	H	37	HIS
1	H	41	ASN
1	H	103	ASN
2	I	46	GLN
2	I	120	GLN
2	I	150	HIS
2	I	343	HIS
2	I	437	ASN
2	I	604	HIS
2	I	618	GLN
2	I	628	HIS
2	I	658	GLN
2	I	677	ASN
2	I	686	GLN
2	I	688	GLN
2	I	760	ASN
2	I	766	ASN
2	I	798	GLN
2	I	824	GLN

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Mol	Chain	Res	Type
2	I	1061	GLN
2	I	1111	GLN
2	I	1116	HIS
2	I	1136	GLN
2	I	1220	GLN
2	I	1307	ASN
3	J	153	ASN
3	J	164	GLN
3	J	186	GLN
3	J	232	ASN
3	J	309	ASN
3	J	341	ASN
3	J	364	HIS
3	J	419	HIS
3	J	448	GLN
3	J	458	ASN
3	J	465	GLN
3	J	545	HIS
3	J	665	GLN
3	J	690	ASN
3	J	700	ASN
3	J	708	ASN
3	J	716	GLN
3	J	736	GLN
3	J	777	HIS
3	J	921	GLN
3	J	1098	GLN
3	J	1114	GLN
3	J	1197	ASN
3	J	1227	HIS
3	J	1252	HIS
3	J	1289	ASN
3	J	1326	GLN
4	K	7	GLN
4	K	43	ASN
5	L	128	ASN
5	L	169	ASN
5	L	227	GLN
5	L	294	GLN
5	L	406	GLN
5	L	464	ASN
5	L	545	HIS

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Mol	Chain	Res	Type
1	M	23	HIS
1	M	41	ASN
1	M	66	HIS
1	M	208	ASN
1	N	18	GLN
1	N	128	HIS
1	N	132	HIS
2	O	69	GLN
2	O	150	HIS
2	O	437	ASN
2	O	573	ASN
2	O	618	GLN
2	O	620	ASN
2	O	762	ASN
2	O	767	GLN
2	O	832	HIS
2	O	1268	GLN
2	O	1288	GLN
2	O	1314	GLN
3	P	274	ASN
3	P	277	ASN
3	P	294	ASN
3	P	341	ASN
3	P	364	HIS
3	P	419	HIS
3	P	424	ASN
3	P	435	GLN
3	P	450	HIS
3	P	458	ASN
3	P	465	GLN
3	P	488	ASN
3	P	489	ASN
3	P	504	GLN
3	P	545	HIS
3	P	606	ASN
3	P	680	ASN
3	P	690	ASN
3	P	708	ASN
3	P	736	GLN
3	P	739	GLN
3	P	875	ASN
3	P	936	HIS

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Mol	Chain	Res	Type
3	P	1098	GLN
3	P	1235	ASN
3	P	1244	GLN
3	P	1367	GLN
4	Q	43	ASN
4	Q	60	ASN
4	Q	70	GLN
5	R	129	GLN
5	R	246	GLN
5	R	345	GLN
5	R	455	HIS
5	R	472	GLN
5	R	518	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
8	3	4/5 (80%)	0	1 (25%)
8	6	4/5 (80%)	0	1 (25%)
8	9	3/5 (60%)	0	0
All	All	11/15 (73%)	0	2 (18%)

There are no RNA backbone outliers to report.

All (2) RNA pucker outliers are listed below:

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

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides 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	4	2
6	1	1
7	2	1
7	5	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	46:DG	O3'	47:DC	P	5.33
1	1	46:DG	O3'	47:DC	P	4.95
1	2	12:DG	O3'	13:DA	P	2.74
1	5	11:DA	O3'	12:DG	P	2.33
1	4	51:DC	O3'	52:DT	P	2.09

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	230/242 (95%)	-0.78	0 100 100	134, 152, 183, 205	0
1	B	228/242 (94%)	-0.76	2 (0%) 81 69	136, 167, 199, 236	0
1	G	230/242 (95%)	-0.74	1 (0%) 88 78	139, 162, 198, 240	0
1	H	228/242 (94%)	-0.67	0 100 100	141, 176, 208, 242	0
1	M	230/242 (95%)	-0.73	0 100 100	159, 179, 209, 245	0
1	N	228/242 (94%)	-0.67	1 (0%) 88 78	169, 201, 249, 272	0
2	C	1341/1342 (99%)	-0.74	8 (0%) 85 75	107, 166, 250, 351	0
2	I	1341/1342 (99%)	-0.79	1 (0%) 92 87	98, 172, 227, 283	0
2	O	1341/1342 (99%)	-0.84	2 (0%) 92 87	113, 174, 222, 263	0
3	D	1362/1407 (96%)	-0.76	5 (0%) 88 78	112, 184, 269, 324	0
3	J	1362/1407 (96%)	-0.73	3 (0%) 91 84	100, 172, 322, 386	0
3	P	1362/1407 (96%)	-0.79	0 100 100	117, 182, 291, 333	0
4	E	90/90 (100%)	-0.79	0 100 100	136, 169, 350, 413	0
4	K	90/90 (100%)	-0.72	0 100 100	112, 152, 324, 363	0
4	Q	90/90 (100%)	-0.86	0 100 100	128, 171, 328, 364	0
5	F	497/628 (79%)	-0.76	0 100 100	154, 271, 387, 434	0
5	L	497/628 (79%)	-0.68	0 100 100	138, 281, 365, 402	0
5	R	497/628 (79%)	-0.76	0 100 100	146, 261, 390, 426	0
6	1	49/49 (100%)	-0.51	0 100 100	205, 265, 288, 289	0
6	4	49/49 (100%)	-0.58	0 100 100	181, 228, 278, 302	0
6	7	49/49 (100%)	-0.49	0 100 100	184, 228, 266, 277	0
7	2	49/49 (100%)	-0.44	0 100 100	192, 268, 291, 312	0
7	5	49/49 (100%)	-0.45	0 100 100	163, 232, 279, 326	0
7	8	49/49 (100%)	-0.51	0 100 100	166, 227, 262, 322	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
8	3	4/5 (80%)	-1.14	0 100 100	230, 234, 236, 245	0
8	6	4/5 (80%)	-1.16	0 100 100	220, 221, 224, 239	0
8	9	4/5 (80%)	-0.95	0 100 100	215, 221, 224, 236	0
All	All	11550/12162 (94%)	-0.76	23 (0%) 91 84	98, 182, 331, 434	0

All (23) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	J	449	LEU	4.0
3	D	772	TYR	4.0
2	C	1278	LEU	4.0
2	C	506	PHE	3.7
2	C	1279	GLU	3.5
3	D	1145	PHE	3.2
2	I	587	LEU	2.9
1	B	90	VAL	2.6
1	G	140	ILE	2.5
2	C	198	ILE	2.4
3	J	1145	PHE	2.4
3	D	1332	LEU	2.4
3	J	292	VAL	2.3
2	C	505	PHE	2.3
2	C	209	ILE	2.3
3	D	527	LEU	2.3
3	D	773	PHE	2.2
1	B	43	LEU	2.2
1	N	228	LEU	2.2
2	O	127	ILE	2.1
2	C	471	VAL	2.1
2	O	198	ILE	2.1
2	C	714	VAL	2.1

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 oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
10	MG	P	1503	1/1	0.96	0.08	170,170,170,170	0
9	ZN	J	1501	1/1	0.99	0.02	211,211,211,211	0
9	ZN	P	1501	1/1	0.99	0.02	206,206,206,206	0
9	ZN	D	1501	1/1	0.99	0.02	220,220,220,220	0
9	ZN	D	1502	1/1	1.00	0.03	181,181,181,181	0
9	ZN	P	1502	1/1	1.00	0.02	158,158,158,158	0
10	MG	D	1503	1/1	1.00	0.01	141,141,141,141	0
10	MG	J	1503	1/1	1.00	0.02	145,145,145,145	0
9	ZN	J	1502	1/1	1.00	0.04	144,144,144,144	0

6.5 Other polymers [i](#)

There are no such residues in this entry.