



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 22, 2024 – 09:56 PM EDT

PDB ID : 4XLQ
Title : Crystal structure of T.aquaticus transcription initiation complex containing upstream fork (-11 base-paired) promoter
Authors : Bae, B.; Darst, S.A.
Deposited on : 2015-01-13
Resolution : 4.60 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 : 4.02b-467
Xtriage (Phenix) : 1.13
EDS : 2.37.1
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1

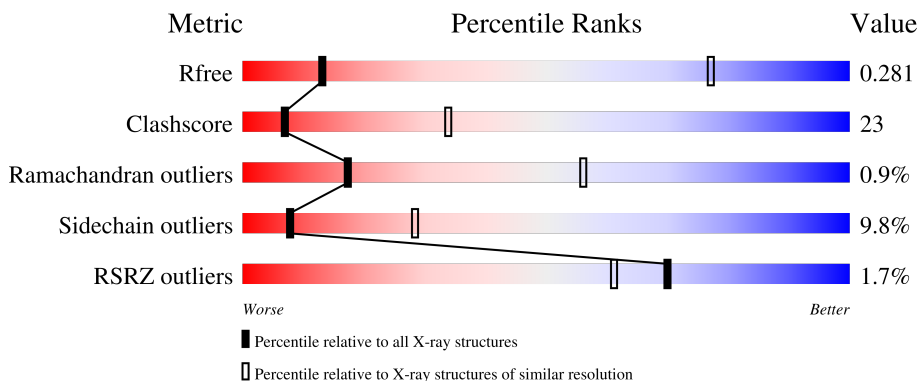
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.60 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1062 (5.40-3.80)
Clashscore	141614	1130 (5.40-3.80)
Ramachandran outliers	138981	1074 (5.40-3.80)
Sidechain outliers	138945	1055 (5.40-3.80)
RSRZ outliers	127900	1113 (5.50-3.70)

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	314	
1	B	314	
1	G	314	
1	H	314	
2	C	1119	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	I	1119	<p>2% 46% 47% 6%</p>
3	D	1524	<p>49% 43% 6%</p>
3	J	1524	<p>46% 39% 5% 10%</p>
4	E	99	<p>2% 59% 34% 6%</p>
4	K	99	<p>3% 65% 28% 6%</p>
5	F	347	<p>56% 42%</p>
5	L	347	<p>2% 54% 43%</p>
6	O	30	<p>13% 17% 83%</p>
6	R	30	<p>13% 87%</p>
7	P	26	<p>19% 8% 88%</p>
7	S	26	<p>12% 88%</p>

2 Entry composition [i](#)

There are 9 unique types of molecules in this entry. The entry contains 56477 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-directed RNA polymerase subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	227	Total	C	N	O	S	0	0	0
			1770	1130	303	334	3			
1	B	227	Total	C	N	O	S	0	0	0
			1770	1130	303	334	3			
1	G	227	Total	C	N	O	S	0	0	0
			1770	1130	303	334	3			
1	H	227	Total	C	N	O	S	0	0	0
			1770	1130	303	334	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	C	1112	Total	C	N	O	S	0	0	0
			8739	5531	1553	1632	23			
2	I	1112	Total	C	N	O	S	0	0	0
			8739	5531	1553	1632	23			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	D	1490	Total	C	N	O	S	0	0	0
			11761	7439	2088	2196	38			
3	J	1367	Total	C	N	O	S	0	0	0
			10779	6810	1923	2010	36			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	E	93	Total	C	N	O	S	0	0	0
			768	490	136	138	4			
4	K	93	Total	C	N	O	S	0	0	0
			768	490	136	138	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	F	345	Total	C	N	O	S	0	0	0
			2787	1758	502	523	4			
5	L	345	Total	C	N	O	S	0	0	0
			2787	1758	502	523	4			

- Molecule 6 is a DNA chain called DNA (30-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	O	30	Total	C	N	O	P	0	0	0
			613	296	109	179	29			
6	R	30	Total	C	N	O	P	0	0	0
			613	296	109	179	29			

- Molecule 7 is a DNA chain called DNA (26-MER).

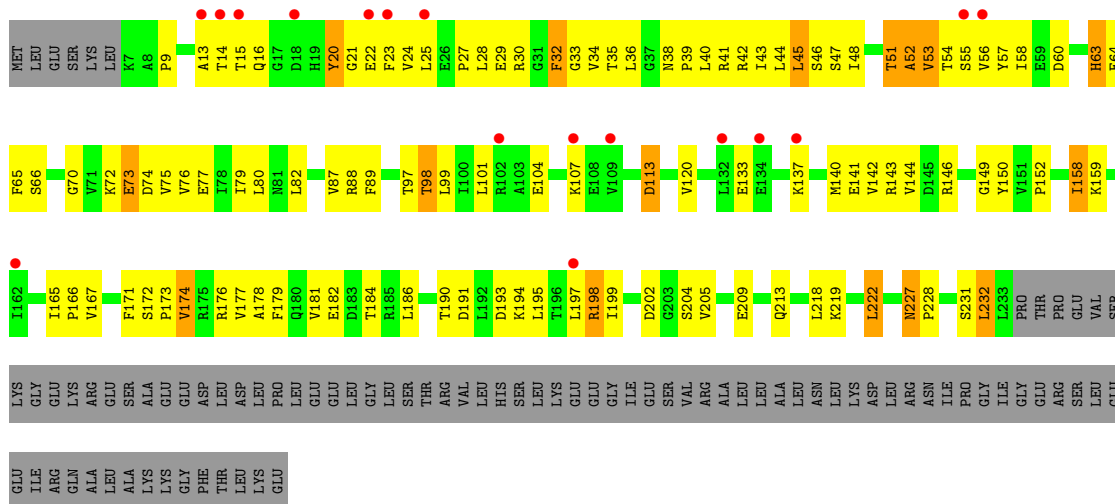
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	P	25	Total	C	N	O	P	0	0	0
			510	245	91	149	25			
7	S	26	Total	C	N	O	P	0	0	0
			527	255	93	154	25			

- Molecule 8 is ZINC ION (three-letter code: ZN) (formula: Zn).

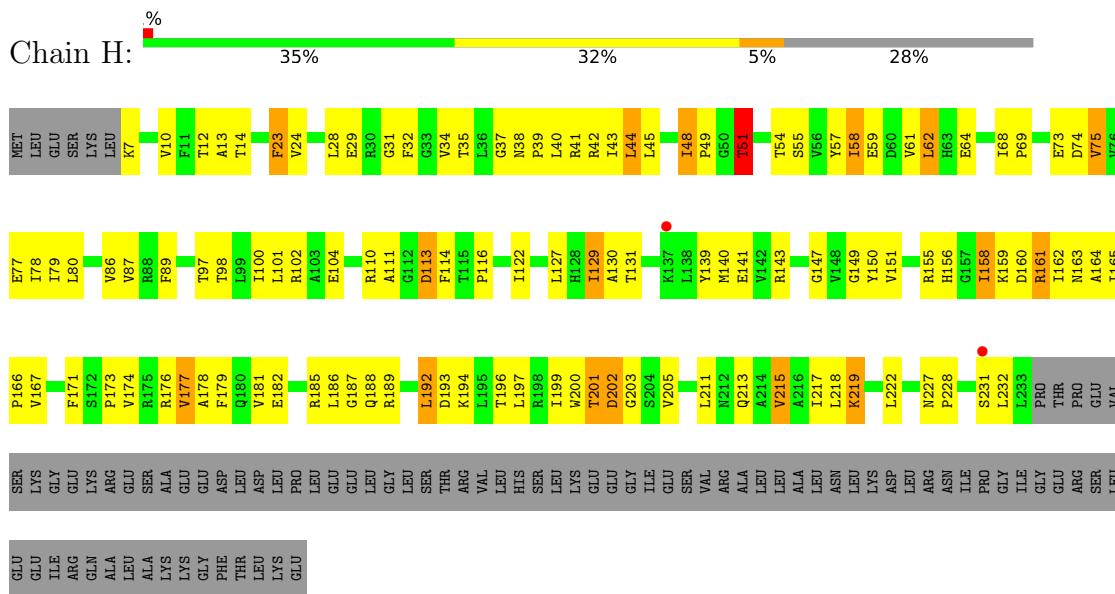
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	D	2	Total	Zn	0	0
			2	2		
8	J	2	Total	Zn	0	0
			2	2		

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

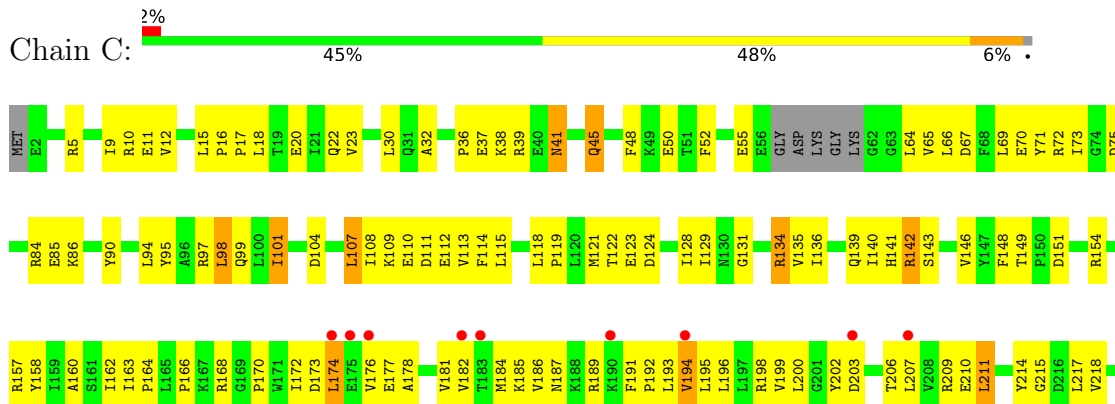
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	D	1	Total	Mg	0	0
			1	1		
9	J	1	Total	Mg	0	0
			1	1		

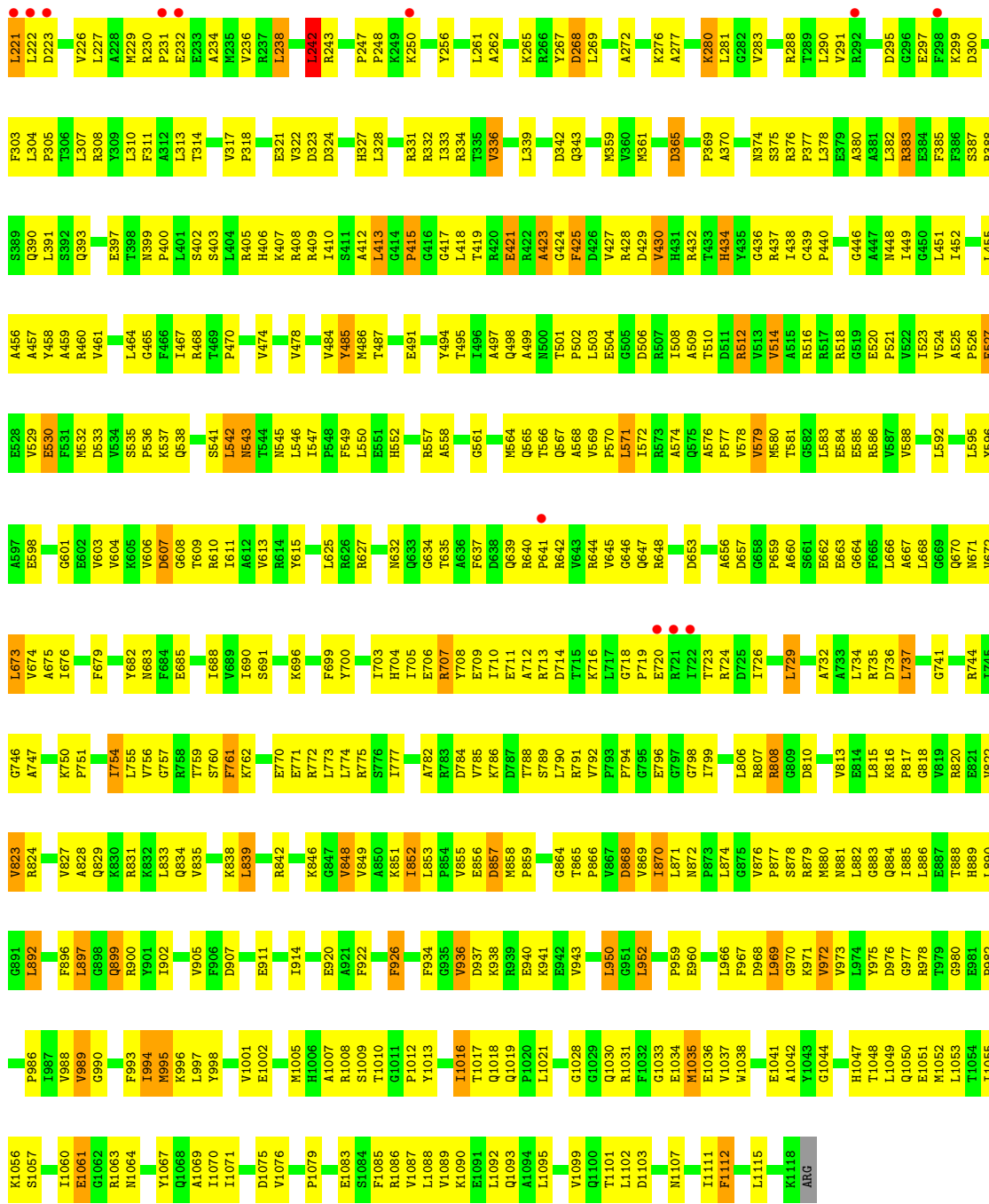


• Molecule 1: DNA-directed RNA polymerase subunit alpha

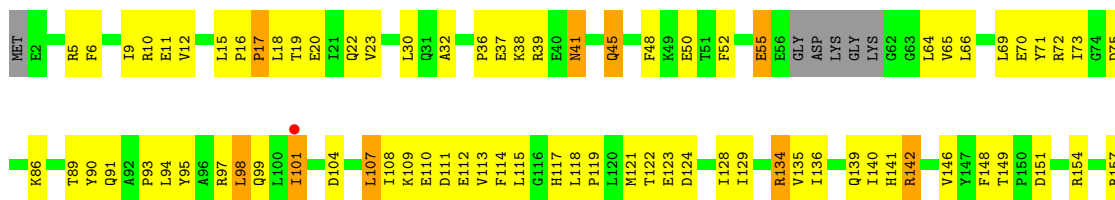


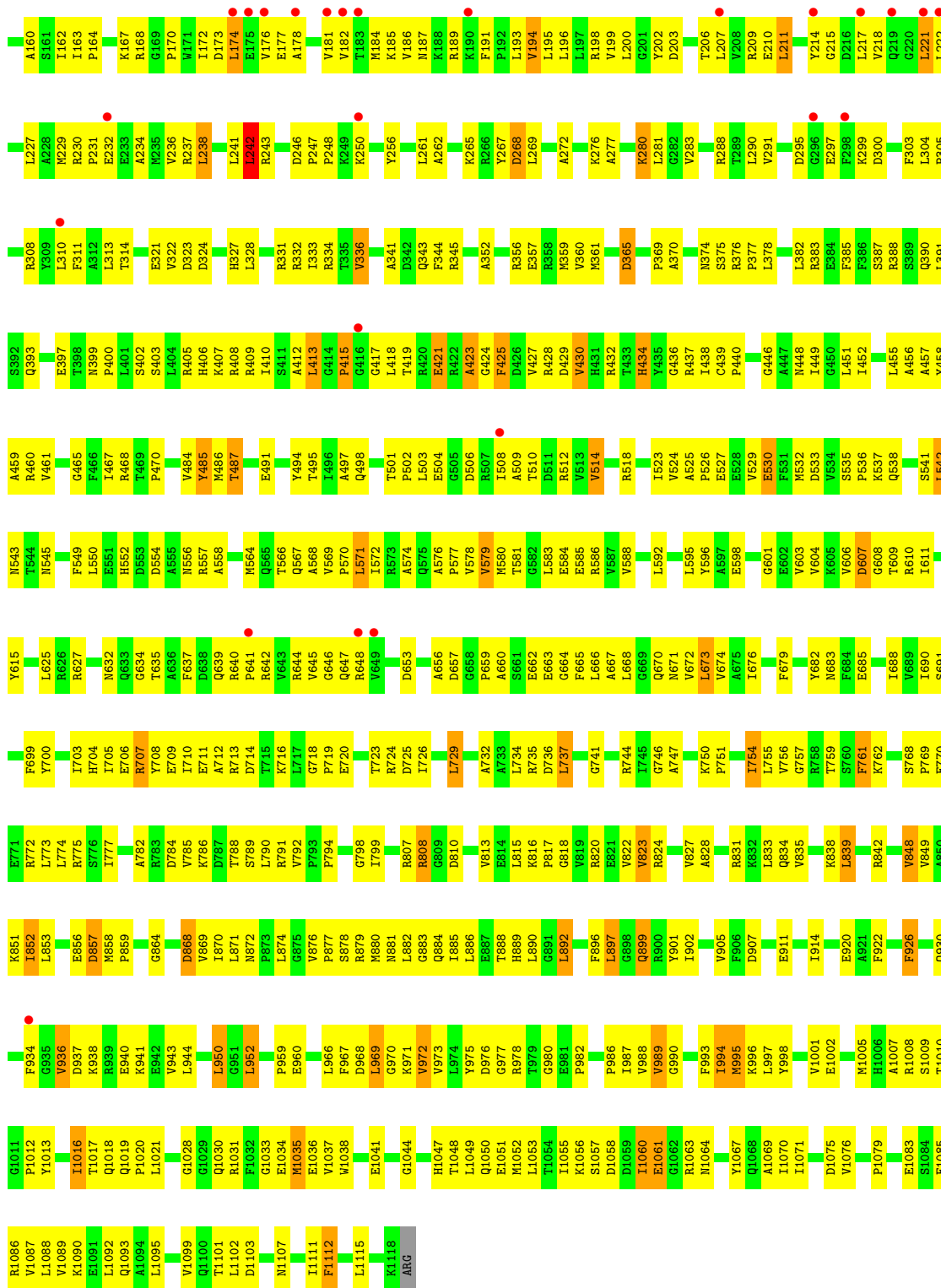
• Molecule 2: DNA-directed RNA polymerase subunit beta



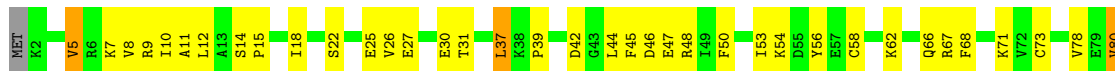


● Molecule 2: DNA-directed RNA polymerase subunit beta

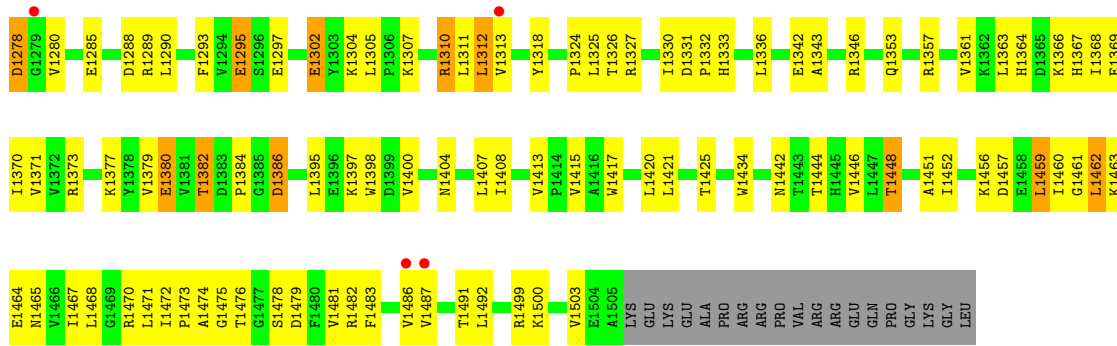




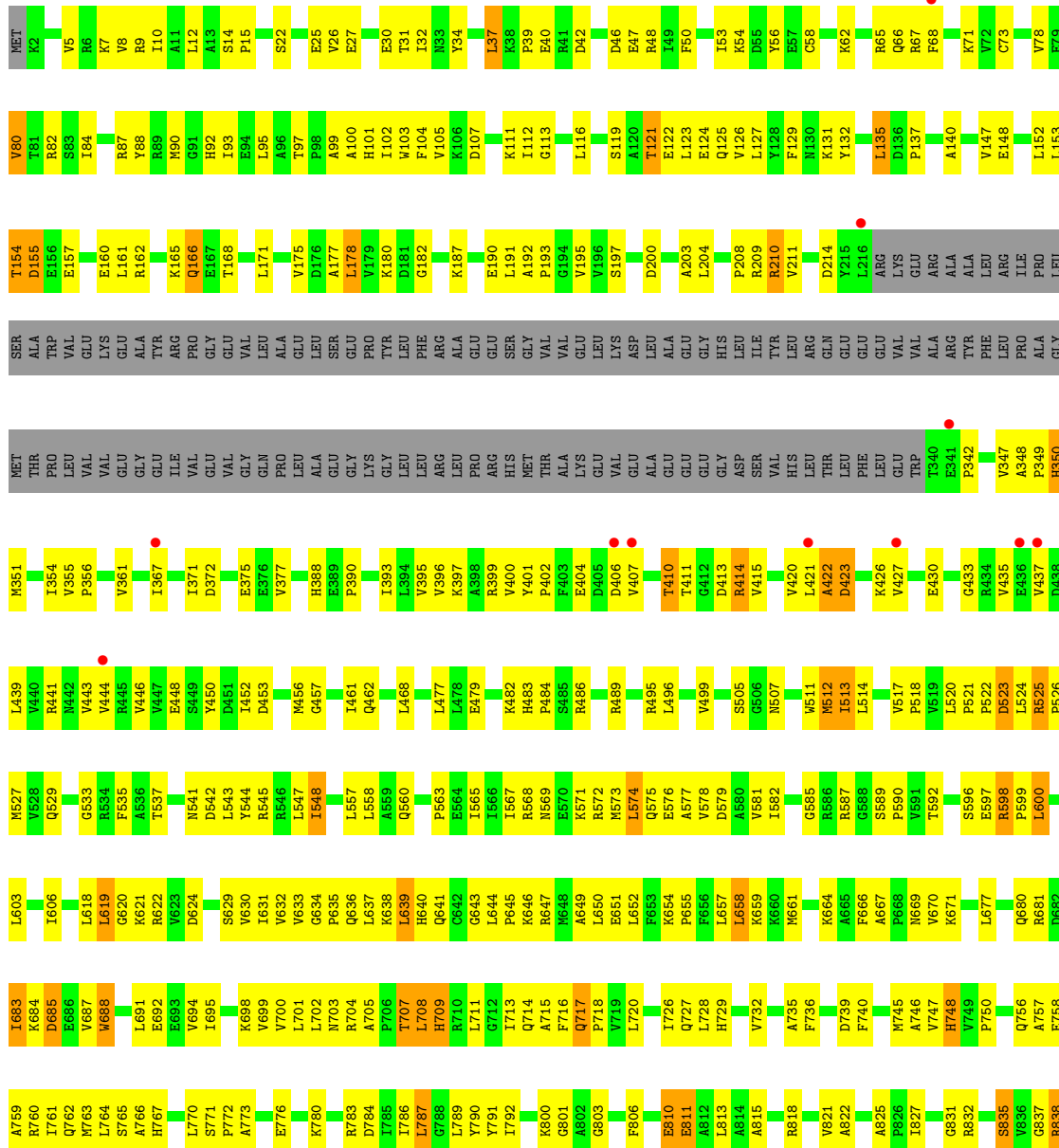
• Molecule 3: DNA-directed RNA polymerase subunit beta'

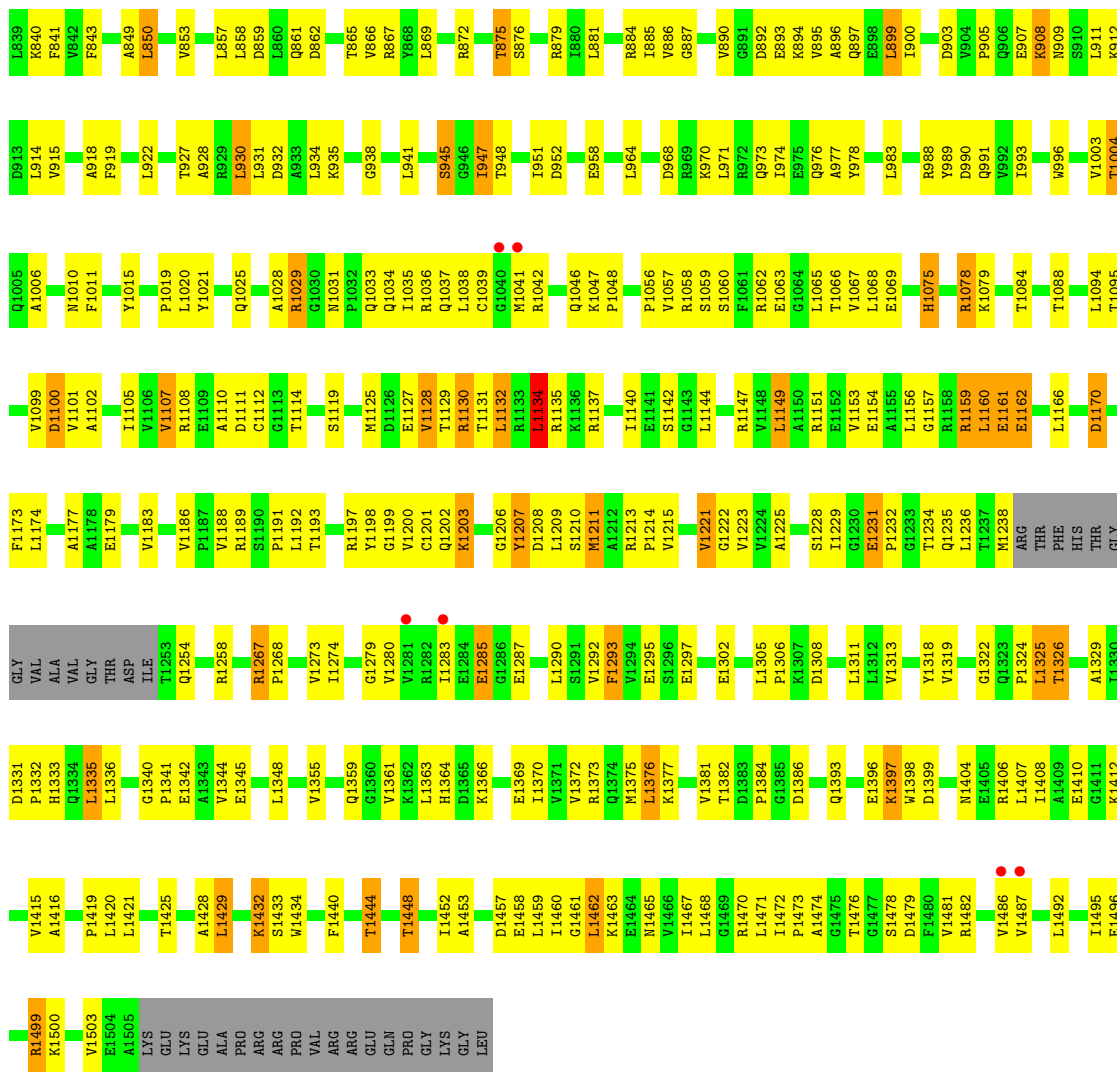


R1213	D1139	V1057	L964	L881	G801	V719	K646	R572	R493	V384	V300	K233	E160	T81
P1214	I1140	R1058	D968	R884	A802	L720	R647	M573	K494	H388	G301	E234	L161	R82
V1215	E1141	S1059	R968	R885	G803	I726	M648	Q574	R495	E389	L304	A235	K165	S83
S1216	S1142	S1060	R969	I885	F806	Q727	A649	E576	F502	P390	A305	Y236	Q166	I84
I1217	G1143	F1061	K970	V886	E651	L728	E651	A577	R508	A391	E306	P238	E167	R87
V1221	L1144	E1063	R972	G887	E810	H729	L652	V578	E509	S892	G309	V241	T168	Y88
G1222	R1147	G1064	Q873	V880	E811	V732	F653	A879	E510	I393	L310	L242	P170	H92
V1223	A1150	L1065	1974	G891	A812	A590	K654	A590	E510	L394	L310	L242	L171	I93
V1224	A1150	T1066	E975	D892	L813	A735	P655	W511	W511	V395	R312	E244	E94	E94
A1225	V1153	L1068	Q976	E893	A814	A735	F656	M512	M512	V396	R312	E244	V175	L95
S1228	L1153	L1068	A977	K894	L657	D739	L657	I513	I513	L245	L313	S246	D176	A96
I1229	L1156	E1069	Y978	V895	M584	F740	K659	L514	L514	R315	R315	E247	A177	T97
E1230	R1159	H1075	L983	A896	R818	M745	R896	A516	A516	V407	H316	E247	L178	A100
G1231	R1159	E898	R988	E898	M661	M745	R896	V517	V517	V407	K317	L250	V179	H101
P1232	L1160	R1078	R988	A822	G888	A746	G888	P518	P518	V409	K150	F251	L179	I102
G1233	E1161	K1079	Y989	I900	S889	V747	S889	V519	V519	V409	A319	R252	D181	W103
T1234	E1162	D990	D990	A825	P590	H748	A667	L520	L520	R414	A324	E253	E184	W104
G1235	G1163	R1087	Q991	F826	V591	P750	P668	P521	P521	L421	K324	E254	K187	V105
L1236	R1164	T1088	Y992	I827	S992	A759	M669	D523	D523	A422	E325	E255	K187	
M1237	Y1165	L1094	1993	G831	T592	Q756	K671	L524	L524	D422	E327	G257	E190	K111
M1238	Y1166	T1095	Y996	R832	G831	A757	K671	R525	R525	A422	V258	V258	L191	G112
ARG	S1167	T1095	Y996	R832	G831	A757	K671	R525	R525	A422	V258	V258	L191	G113
THR	L1168	T1095	Y996	R832	G831	A757	K671	R525	R525	A422	V258	V258	L191	G114
PHE	E1168	L1098	V1003	M909	S835	E758	R681	P526	P526	K426	V331	E260	A192	T114
HIS	D1170	V1099	Q1004	S910	V836	R760	D682	R528	R528	S429	H332	L261	A192	L115
THR	L1170	D1100	T1005	G837	R837	I761	I683	Q529	Q529	G433	L333	K262	P193	L116
GLY	L1174	V1106	A1006	K912	R838	Q762	K684	L603	L603	G433	L333	D263	G194	L116
GLY	L1175	V1106	D913	D913	L839	M763	D685	L603	L603	G433	L333	D263	G194	L116
GLY	L1176	V1107	L914	L914	K840	L764	D686	L607	L607	L439	F336	L264	V196	L118
VAL	K1176	E1108	F1011	V915	F841	S765	E687	L607	L607	L439	F336	L264	V196	L118
ALA	E1179	E1109	Y1015	A918	V842	A766	M688	L607	L607	L439	F336	L264	V196	L118
VAL	A1180	A1110	Y1015	F919	F843	H767	L691	F614	F614	M442	E336	G267	D200	A120
GLY	A1180	D1111	P1019	F919	F843	H767	L691	F614	F614	M442	E336	G267	D200	A120
THR	E1185	C1112	L1020	L922	A849	L770	V694	L619	L619	V443	E341	H268	A203	E122
ASP	E1185	C1112	L1020	L922	A849	L770	V694	L619	L619	V443	E341	H268	A203	E122
ILE	E1185	C1112	L1020	L922	A849	L770	V694	L619	L619	V443	E341	H268	A203	E122
T1253	Y1186	V1120	Q1025	T927	V853	P772	I695	G820	L540	V447	Y345	Q274	P208	Y128
Q1254	P1187	V1120	Q1025	A928	L857	A773	I695	K621	L540	E448	K346	G274	R209	Y128
G1255	V1188	L930	A1028	R929	L857	S774	I695	V623	Y544	S449	V347	E277	R210	Y128
L1256	R1189	L930	A1028	R929	L857	S774	I695	V623	Y544	S449	V347	E277	R210	Y128
P1257	L1192	V1120	R1029	L931	L858	E776	V700	D624	R546	D461	A348	V278	R211	Y128
R1258	T1193	L1122	D932	D932	D859	E776	V700	D624	R546	D461	A348	V278	R211	Y128
V1259	T1193	L1122	D932	D932	D859	E776	V700	D624	R546	D461	A348	V278	R211	Y128
I1260	R1197	F1123	Q1033	A953	Q851	K780	M703	S829	I548	D453	T354	A280	K131	Y132
E1261	Y1197	Q1124	Q1034	K935	D862	R780	R704	V650	N551	A454	T354	A280	K131	Y132
L1262	Y1198	Q1124	Q1034	K935	D862	R780	R704	V650	N551	A454	T354	A280	K131	Y132
F1263	G1199	M1125	I1035	K935	D862	R780	R704	V650	N551	A454	T354	A280	K131	Y132
V1200	G1199	D1126	I1035	K935	D862	R780	R704	V650	N551	A454	T354	A280	K131	Y132
C1201	V1200	E1127	Q1037	G938	V866	I786	T707	G634	L554	I461	I367	P285	K218	
Q1202	V1128	L1038	L1038	L941	R867	L787	L708	P635	K555	L464	V368	A286	F219	A140
K1203	T1129	C1039	C1039	L941	Y866	G788	H709	Q636	K956	L464	V368	A286	F219	A140
C1204	R1130	G1040	G1040	L869	L869	L789	R710	L637	L557	E471	A370	M288	R220	
Y1205	T1131	M1041	S945	G946	L869	Y790	L711	K638	L371	E471	A370	M288	R220	
K1271	L1132	R1042	G946	G946	R872	Y791	G712	L639	P563	E474	D372	V293	R224	L152
L1272	R1133	R1042	G946	G946	R872	Y791	G712	L639	P563	E474	D372	V293	R224	L152
L1273	L1134	Q1046	T948	T948	T875	I793	Q641	H640	I565	R475	E376	G295	P226	L153
I1274	R1135	K1047	S876	S876	S876	Q794	A715	C842	I565	R475	E376	G295	P226	L153
	R1137	P1048	R879	R879	R879	V795	Q716	G843	N569	E474	I377	E296	A229	L154
	S1138	P1056	I880	I880	I880	K800	P718	L644	E570	L477	I378	I297	W250	D155
														E156
														E157



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





• Molecule 4: DNA-directed RNA polymerase subunit omega

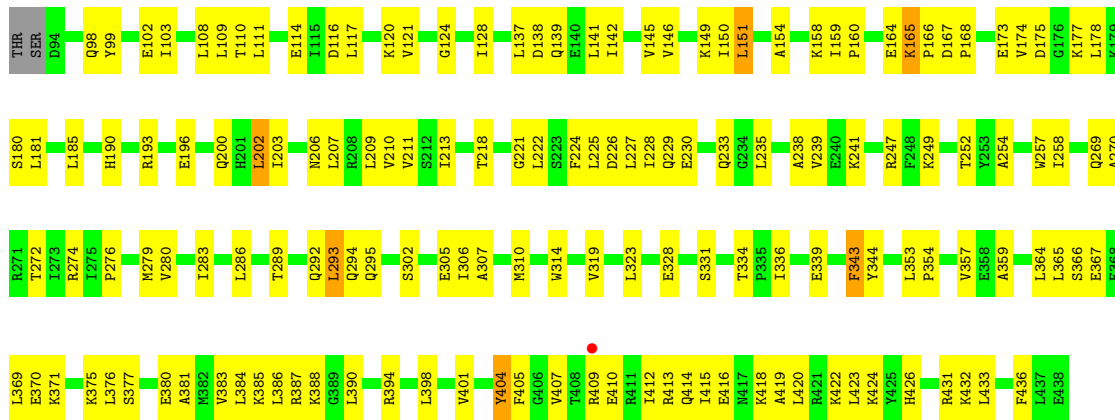


• Molecule 4: DNA-directed RNA polymerase subunit omega



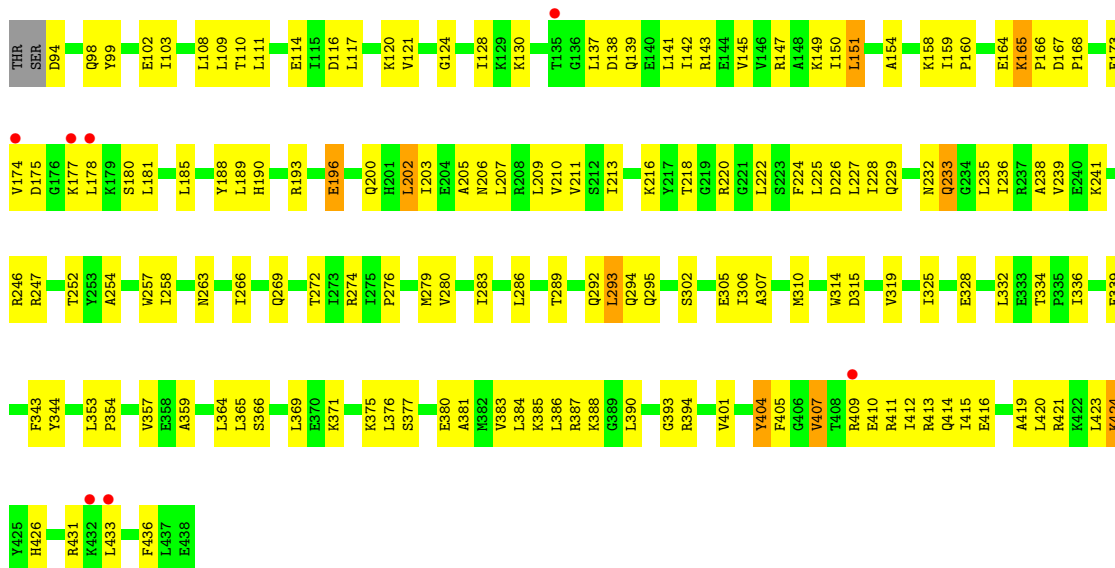
● Molecule 5: RNA polymerase sigma factor SigA

Chain F: 56% 42% ..



● Molecule 5: RNA polymerase sigma factor SigA

Chain L: 54% 43% ..



● Molecule 6: DNA (30-MER)

Chain O: 17% 83% ..



● Molecule 6: DNA (30-MER)

Chain R: 13% 87% ..

C1	T2	T3	G4	A5	C6	A7	A8	A9	A10	G11	T12	G13	T14	T15	A16	A17	A18	T19	T20	G21	T22	G23	C24	T25	A26	T27	A28	C29	T30
----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

- Molecule 7: DNA (26-MER)



DT	A2	G3	C4	A5	C6	A7	A8	T9	T10	T11	A12	A13	C14	A15	C16	T17	T18	T19	T20	G21	T22	C23	A24	A25	G26
----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

- Molecule 7: DNA (26-MER)



T1	A2	G3	C4	A5	C6	A7	A8	T9	T10	T11	A12	A13	C14	A15	C16	T17	T18	T19	T20	G21	T22	C23	A24	A25	G26
----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4 Data and refinement statistics

Property	Value	Source
Space group	P 43 21 2	Depositor
Cell constants a, b, c, α , β , γ	288.23Å 288.23Å 535.25Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.81 – 4.60 49.81 – 4.60	Depositor EDS
% Data completeness (in resolution range)	98.6 (49.81-4.60) 98.6 (49.81-4.60)	Depositor EDS
R_{merge}	0.22	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.21 (at 4.64Å)	Xtrriage
Refinement program	PHENIX (phenix.refine: dev_1839)	Depositor
R, R_{free}	0.245 , 0.281 0.245 , 0.281	Depositor DCC
R_{free} test set	6224 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å ²)	154.6	Xtrriage
Anisotropy	0.027	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 174.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.33$, $\langle L^2 \rangle = 0.17$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.87	EDS
Total number of atoms	56477	wwPDB-VP
Average B, all atoms (Å ²)	175.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.80% 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 i

5.1 Standard geometry i

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.31	0/1804	0.64	1/2455 (0.0%)
1	B	0.30	0/1804	0.61	0/2455
1	G	0.31	0/1804	0.64	1/2455 (0.0%)
1	H	0.30	0/1804	0.61	0/2455
2	C	0.27	0/8905	0.55	2/12040 (0.0%)
2	I	0.27	0/8905	0.55	2/12040 (0.0%)
3	D	0.28	0/11963	0.55	3/16165 (0.0%)
3	J	0.28	0/10959	0.57	1/14802 (0.0%)
4	E	0.25	0/783	0.54	0/1054
4	K	0.25	0/783	0.53	0/1054
5	F	0.27	0/2829	0.55	1/3804 (0.0%)
5	L	0.27	0/2829	0.55	1/3804 (0.0%)
6	O	0.50	0/687	0.92	0/1059
6	R	0.50	0/687	0.91	0/1059
7	P	0.54	0/571	0.93	0/878
7	S	0.54	0/590	0.93	0/908
All	All	0.29	0/57707	0.59	12/78487 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	C	0	3
2	I	0	3
3	D	0	1
3	J	0	1
All	All	0	8

There are no bond length outliers.

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	311	LEU	CA-CB-CG	7.45	132.43	115.30
3	D	1134	LEU	CA-CB-CG	6.98	131.36	115.30
2	I	417	GLY	N-CA-C	6.42	129.14	113.10
2	C	417	GLY	N-CA-C	6.40	129.09	113.10
3	J	1134	LEU	CA-CB-CG	5.63	128.26	115.30
1	A	52	ALA	C-N-CA	5.63	135.77	121.70
1	G	52	ALA	C-N-CA	5.47	135.38	121.70
5	F	151	LEU	CA-CB-CG	5.32	127.53	115.30
3	D	964	LEU	CA-CB-CG	5.31	127.50	115.30
2	I	242	LEU	CA-CB-CG	5.19	127.23	115.30
2	C	242	LEU	CA-CB-CG	5.16	127.17	115.30
5	L	151	LEU	CA-CB-CG	5.08	126.99	115.30

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	C	415	PRO	Peptide
2	C	423	ALA	Peptide
2	C	737	LEU	Peptide
3	D	1208	ASP	Peptide
2	I	415	PRO	Peptide
2	I	423	ALA	Peptide
2	I	737	LEU	Peptide
3	J	1359	GLN	Peptide

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1770	0	1799	89	0
1	B	1770	0	1799	101	0
1	G	1770	0	1799	103	0
1	H	1770	0	1799	95	0
2	C	8739	0	8841	499	0
2	I	8739	0	8841	485	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	D	11761	0	11976	585	0
3	J	10779	0	10993	503	0
4	E	768	0	784	37	0
4	K	768	0	784	29	0
5	F	2787	0	2866	120	0
5	L	2787	0	2866	133	0
6	O	613	0	343	28	0
6	R	613	0	343	26	0
7	P	510	0	284	27	0
7	S	527	0	297	25	0
8	D	2	0	0	0	0
8	J	2	0	0	0	0
9	D	1	0	0	0	0
9	J	1	0	0	0	0
All	All	56477	0	56414	2598	0

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

All (2598) 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:C:707:ARG:HE	2:C:824:ARG:HE	1.17	0.90
6:R:24:DC:H42	7:S:3:DG:H1	1.18	0.90
3:D:105:VAL:HA	3:D:112:ILE:HD11	1.55	0.88
4:E:30:LEU:HD12	4:E:37:ASN:HD21	1.39	0.88
4:K:30:LEU:HD12	4:K:37:ASN:HD21	1.39	0.87
2:I:537:LYS:HZ3	2:I:905:VAL:H	1.19	0.87
1:A:158:ILE:HB	1:A:166:PRO:HG3	1.57	0.86
2:I:707:ARG:HE	2:I:824:ARG:HE	1.17	0.86
2:C:537:LYS:HZ3	2:C:905:VAL:H	1.21	0.86
2:I:557:ARG:HG3	2:I:879:ARG:HB3	1.57	0.86
3:J:105:VAL:HA	3:J:112:ILE:HD11	1.59	0.85
2:C:557:ARG:HG3	2:C:879:ARG:HB3	1.59	0.85
3:D:231:VAL:H	3:D:243:ALA:HA	1.43	0.84
1:H:48:ILE:HA	1:H:213:GLN:HE22	1.44	0.83
1:G:158:ILE:HB	1:G:166:PRO:HG3	1.58	0.83
2:C:313:LEU:HD13	2:C:321:GLU:HA	1.61	0.83
2:I:313:LEU:HD13	2:I:321:GLU:HA	1.61	0.82
2:C:857:ASP:HB3	2:C:978:ARG:HG2	1.62	0.82
1:B:48:ILE:HA	1:B:213:GLN:HE22	1.44	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:750:LYS:HD3	3:D:681:ARG:HG3	1.60	0.82
2:I:857:ASP:HB3	2:I:978:ARG:HG2	1.62	0.82
3:D:835:SER:HB3	3:D:838:ARG:HE	1.44	0.81
2:C:716:LYS:HG3	3:D:37:LEU:HD11	1.62	0.81
2:I:15:LEU:H	2:I:586:ARG:HH22	1.27	0.81
2:C:494:TYR:HB3	2:C:530:GLU:HG3	1.62	0.81
2:I:324:ASP:HB3	2:I:327:HIS:HB2	1.63	0.80
2:I:1033:GLY:HA2	3:J:620:GLY:HA3	1.64	0.80
2:C:15:LEU:H	2:C:586:ARG:HH22	1.29	0.80
2:C:808:ARG:HH11	2:C:815:LEU:H	1.29	0.80
2:C:1033:GLY:HA2	3:D:620:GLY:HA3	1.63	0.80
2:I:716:LYS:HG3	3:J:37:LEU:HD11	1.63	0.80
3:D:792:ILE:HG21	3:D:941:LEU:HD22	1.63	0.80
2:I:808:ARG:HH11	2:I:815:LEU:H	1.30	0.79
3:J:97:THR:HG21	3:J:571:LYS:HG3	1.64	0.79
1:B:151:VAL:HG13	1:B:155:ARG:HB2	1.64	0.79
3:J:1142:SER:O	3:J:1364:HIS:ND1	2.13	0.79
3:D:166:GLN:HB3	3:D:396:VAL:HG13	1.64	0.79
3:D:708:LEU:HD12	3:D:1231:GLU:HG2	1.66	0.78
2:I:1036:GLU:HA	3:J:707:THR:HG21	1.66	0.78
5:L:164:GLU:HG3	5:L:165:LYS:HD2	1.66	0.78
2:C:1008:ARG:HD3	2:C:1028:GLY:HA2	1.66	0.78
3:D:700:VAL:HG22	3:D:718:PRO:HG3	1.65	0.78
1:G:97:THR:HG23	1:G:98:THR:H	1.49	0.77
2:I:494:TYR:HB3	2:I:530:GLU:HG3	1.64	0.77
3:J:700:VAL:HG22	3:J:718:PRO:HG3	1.64	0.77
3:J:1202:GLN:NE2	3:J:1215:VAL:O	2.12	0.77
2:C:324:ASP:HB3	2:C:327:HIS:HB2	1.66	0.77
2:I:595:LEU:HD23	2:I:639:GLN:HE22	1.49	0.77
3:J:47:GLU:HG3	3:J:53:ILE:HG13	1.67	0.77
1:A:27:PRO:HD3	1:A:186:LEU:HD22	1.64	0.77
2:I:129:ILE:HD13	2:I:134:ARG:HB2	1.66	0.77
3:J:208:PRO:HA	3:J:390:PRO:HA	1.67	0.77
3:J:563:PRO:HB3	5:L:200:GLN:HB3	1.66	0.77
3:J:792:ILE:HG21	3:J:941:LEU:HD22	1.65	0.77
1:A:222:LEU:HD13	1:B:218:LEU:HD23	1.66	0.76
7:P:13:DA:H1'	7:P:14:DC:H5'	1.67	0.76
1:H:151:VAL:HG13	1:H:155:ARG:HB2	1.64	0.76
7:P:15:DA:H1'	7:P:16:DC:H5'	1.66	0.76
3:D:270:ILE:HB	3:D:282:TYR:HB2	1.67	0.76
2:C:32:ALA:HA	2:C:73:ILE:HG21	1.67	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:838:LYS:HB3	2:I:997:LEU:HB2	1.68	0.76
2:I:32:ALA:HA	2:I:73:ILE:HG21	1.68	0.76
3:D:47:GLU:HG3	3:D:53:ILE:HG13	1.68	0.76
1:A:97:THR:HG23	1:A:98:THR:H	1.48	0.76
3:D:879:ARG:HH12	3:D:905:PRO:HA	1.50	0.76
2:I:710:ILE:HG21	2:I:756:VAL:HG21	1.66	0.76
2:C:129:ILE:HD13	2:C:134:ARG:HB2	1.68	0.76
5:F:164:GLU:HG3	5:F:165:LYS:HD2	1.66	0.76
1:G:222:LEU:HD13	1:H:218:LEU:HD23	1.65	0.76
3:J:1486:VAL:HG11	4:K:26:ARG:HB2	1.68	0.75
5:L:203:ILE:HG12	5:L:239:VAL:HG21	1.68	0.75
1:A:184:THR:HB	1:A:194:LYS:HB3	1.67	0.75
5:F:203:ILE:HG12	5:F:239:VAL:HG21	1.67	0.75
2:I:750:LYS:HD3	3:J:681:ARG:HG3	1.67	0.75
3:J:1147:ARG:HB3	3:J:1188:VAL:HG11	1.66	0.75
3:D:169:TYR:HE2	3:D:395:VAL:HG12	1.50	0.75
1:G:27:PRO:HD3	1:G:186:LEU:HD22	1.66	0.75
1:G:184:THR:HB	1:G:194:LYS:HB3	1.69	0.75
7:S:12:DA:H1'	7:S:13:DA:H5'	1.68	0.75
2:C:72:ARG:HB3	2:C:95:TYR:HB2	1.69	0.75
1:G:55:SER:HB2	1:G:158:ILE:HG12	1.68	0.74
3:D:1208:ASP:O	3:D:1210:SER:N	2.20	0.74
2:C:595:LEU:HD23	2:C:639:GLN:HE22	1.50	0.74
3:D:73:CYS:HB3	3:D:78:VAL:H	1.51	0.74
3:J:73:CYS:HB3	3:J:78:VAL:H	1.52	0.74
2:C:838:LYS:HB3	2:C:997:LEU:HB2	1.69	0.74
1:A:53:VAL:HG22	1:A:54:THR:H	1.52	0.74
1:A:205:VAL:HG13	1:A:209:GLU:HB2	1.69	0.74
2:C:1036:GLU:HA	3:D:707:THR:HG21	1.70	0.74
2:C:86:LYS:HE2	2:C:813:VAL:HG23	1.70	0.74
3:D:1143:GLY:HA2	3:D:1364:HIS:CE1	2.22	0.74
2:I:370:ALA:HB1	5:L:295:GLN:HE22	1.53	0.74
2:C:419:THR:HG23	2:C:421:GLU:H	1.53	0.74
7:P:2:DA:H1'	7:P:3:DG:H5'	1.70	0.74
2:C:724:ARG:HG3	2:C:737:LEU:HD23	1.70	0.73
3:D:39:PRO:HB3	3:D:46:ASP:HA	1.70	0.73
3:D:1223:VAL:HG21	3:D:1462:LEU:HD21	1.69	0.73
4:E:30:LEU:HD12	4:E:37:ASN:ND2	2.03	0.73
1:G:53:VAL:HG22	1:G:54:THR:H	1.53	0.73
2:I:601:GLY:HA2	2:I:615:TYR:HA	1.70	0.73
3:D:191:LEU:HD11	3:D:197:SER:HB2	1.70	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1486:VAL:HG11	4:E:26:ARG:HB2	1.70	0.73
1:H:57:TYR:CG	1:H:161:ARG:HG2	2.23	0.73
2:I:1064:ASN:HD22	5:L:359:ALA:HB2	1.53	0.73
3:J:165:LYS:H	3:J:397:LYS:HE2	1.52	0.73
2:C:662:GLU:HG2	2:C:663:GLU:HG2	1.69	0.73
2:C:498:GLN:HG3	3:D:1068:LEU:HD11	1.71	0.73
2:C:710:ILE:HG21	2:C:756:VAL:HG21	1.69	0.73
4:E:27:ALA:HA	4:E:30:LEU:HD22	1.71	0.73
2:I:724:ARG:HG3	2:I:737:LEU:HD23	1.71	0.73
2:I:662:GLU:HG2	2:I:663:GLU:HG2	1.71	0.73
3:D:39:PRO:HG2	3:D:47:GLU:HB2	1.71	0.73
2:I:1008:ARG:HD3	2:I:1028:GLY:HA2	1.71	0.73
2:C:541:SER:O	2:C:545:ASN:ND2	2.22	0.72
3:J:1336:LEU:HA	3:J:1344:VAL:HG21	1.71	0.72
3:D:596:SER:OG	3:D:597:GLU:N	2.20	0.72
3:J:680:GLN:HG2	3:J:681:ARG:H	1.54	0.72
3:D:680:GLN:HG2	3:D:681:ARG:H	1.53	0.72
1:A:55:SER:HB2	1:A:158:ILE:HG12	1.70	0.72
1:B:57:TYR:CG	1:B:161:ARG:HG2	2.25	0.72
2:I:541:SER:O	2:I:545:ASN:ND2	2.23	0.72
3:J:39:PRO:HG2	3:J:47:GLU:HB2	1.71	0.72
1:G:205:VAL:HG13	1:G:209:GLU:HB2	1.72	0.72
5:L:376:LEU:HD11	5:L:423:LEU:HD11	1.72	0.72
3:D:242:LEU:H	3:D:312:ARG:HA	1.53	0.72
3:J:39:PRO:HB3	3:J:46:ASP:HA	1.72	0.72
1:B:110:ARG:H	1:B:113:ASP:HB2	1.55	0.72
2:I:146:VAL:HG12	2:I:162:ILE:HG13	1.72	0.72
2:C:146:VAL:HG12	2:C:162:ILE:HG13	1.71	0.71
3:D:97:THR:HG21	3:D:571:LYS:HG3	1.71	0.71
3:J:410:THR:HG23	5:L:189:LEU:HD21	1.72	0.71
3:J:879:ARG:HH12	3:J:905:PRO:HA	1.55	0.71
3:J:1211:MET:HB3	3:J:1213:ARG:HG2	1.71	0.71
2:C:163:ILE:HD12	2:C:164:PRO:HD2	1.71	0.71
2:C:737:LEU:HG	2:C:741:GLY:HA2	1.72	0.71
2:I:1053:LEU:HA	3:J:621:LYS:HE3	1.72	0.71
6:O:7:DA:H61	7:P:20:DT:H3	1.38	0.71
3:D:214:ASP:OD1	3:D:214:ASP:N	2.22	0.71
2:C:1053:LEU:HA	3:D:621:LYS:HE3	1.72	0.71
3:D:226:PRO:HA	3:D:330:SER:HA	1.72	0.71
3:D:1003:VAL:HG21	3:D:1041:MET:HG2	1.72	0.71
2:I:419:THR:HG23	2:I:421:GLU:H	1.55	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:737:LEU:HG	2:I:741:GLY:HA2	1.72	0.71
3:D:618:LEU:HD23	3:D:1467:ILE:HG23	1.71	0.71
2:I:163:ILE:HD12	2:I:164:PRO:HD2	1.71	0.71
4:K:30:LEU:HD12	4:K:37:ASN:ND2	2.03	0.71
5:F:376:LEU:HD11	5:F:423:LEU:HD11	1.71	0.71
4:K:27:ALA:HA	4:K:30:LEU:HD22	1.72	0.70
3:J:367:ILE:HB	3:J:377:VAL:HB	1.73	0.70
2:C:601:GLY:HA2	2:C:615:TYR:HA	1.72	0.70
1:G:219:LYS:HA	1:G:222:LEU:HD23	1.74	0.70
1:B:186:LEU:HB2	1:B:192:LEU:HD11	1.72	0.70
3:J:800:LYS:HB3	3:J:822:ALA:HB2	1.72	0.70
3:J:1003:VAL:HG21	3:J:1041:MET:HG2	1.74	0.70
2:C:576:ALA:HB1	2:C:580:MET:HE3	1.73	0.70
3:J:1267:ARG:HE	3:J:1267:ARG:H	1.39	0.70
3:D:214:ASP:HA	3:D:342:PRO:HA	1.74	0.70
3:D:208:PRO:HA	3:D:390:PRO:HA	1.74	0.70
3:J:361:VAL:HG21	3:J:367:ILE:HD11	1.74	0.70
7:S:15:DA:H1'	7:S:16:DC:H5'	1.73	0.70
3:D:9:ARG:HG3	3:D:1456:LYS:HG2	1.74	0.70
2:I:576:ALA:HB1	2:I:580:MET:HE3	1.72	0.70
3:J:371:ILE:HG21	5:L:247:ARG:HH22	1.53	0.70
2:C:1101:THR:HG23	3:D:8:VAL:HG22	1.74	0.69
3:D:1192:LEU:HA	3:D:1373:ARG:HG3	1.73	0.69
2:I:498:GLN:HG3	3:J:1068:LEU:HD11	1.74	0.69
3:J:191:LEU:HD11	3:J:197:SER:HB2	1.73	0.69
6:O:17:DA:H1'	6:O:18:DA:H5'	1.73	0.69
3:D:800:LYS:HB3	3:D:822:ALA:HB2	1.73	0.69
3:J:1476:THR:HA	4:K:17:TYR:HB3	1.74	0.69
3:D:563:PRO:HB3	5:F:200:GLN:HB3	1.74	0.69
3:D:1272:ALA:HB3	3:D:1330:ILE:HD13	1.75	0.69
3:J:371:ILE:HG23	3:J:372:ASP:H	1.55	0.69
3:J:761:ILE:O	3:J:767:HIS:ND1	2.23	0.69
2:I:72:ARG:HB3	2:I:95:TYR:HB2	1.75	0.69
3:D:236:TYR:HB3	3:D:313:LEU:HD22	1.74	0.69
1:H:110:ARG:H	1:H:113:ASP:HB2	1.58	0.69
2:I:542:LEU:H	2:I:542:LEU:HD12	1.58	0.69
3:J:1105:ILE:HD12	3:J:1373:ARG:HH12	1.58	0.69
3:D:715:ALA:HB3	3:D:764:LEU:HA	1.75	0.69
2:I:468:ARG:HB3	2:I:485:TYR:O	1.93	0.69
2:I:833:LEU:HD11	2:I:839:LEU:HD11	1.75	0.69
3:D:93:ILE:HD13	3:D:548:ILE:HG23	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:18:DA:H1'	6:R:19:DT:H5'	1.74	0.68
2:I:969:LEU:HD23	2:I:971:LYS:HE3	1.74	0.68
6:O:10:DA:H1'	6:O:11:DG:H5'	1.75	0.68
7:P:17:DT:H1'	7:P:18:DT:H5'	1.73	0.68
3:J:560:GLN:O	5:L:147:ARG:NH1	2.26	0.68
3:D:520:LEU:O	3:D:525:ARG:NH2	2.26	0.68
4:K:40:LEU:HD21	4:K:67:GLU:HA	1.75	0.68
3:D:977:ALA:HB2	3:J:831:GLY:H	1.59	0.68
1:B:59:GLU:HG3	1:B:139:TYR:HD2	1.57	0.68
2:C:200:LEU:HG	2:C:300:ASP:HB2	1.76	0.68
2:C:568:ALA:HB1	2:C:995:MET:SD	2.34	0.68
3:D:93:ILE:HB	3:D:517:VAL:HB	1.75	0.68
3:J:699:VAL:HG12	3:J:717:GLN:HG2	1.75	0.68
5:L:222:LEU:HD11	5:L:269:GLN:HG2	1.76	0.68
2:C:242:LEU:HD13	2:C:243:ARG:HB2	1.76	0.68
3:D:1476:THR:HA	4:E:17:TYR:HB3	1.75	0.68
3:J:8:VAL:HG21	3:J:1468:LEU:HD11	1.76	0.68
3:D:371:ILE:HG23	3:D:372:ASP:H	1.59	0.67
2:I:568:ALA:HB1	2:I:995:MET:SD	2.34	0.67
3:D:45:PHE:HA	3:D:522:PRO:HB3	1.76	0.67
2:I:439:CYS:HB2	2:I:541:SER:HB3	1.75	0.67
7:P:25:DA:H1'	7:P:26:DG:H5'	1.76	0.67
2:I:833:LEU:HD12	2:I:996:LYS:HE3	1.74	0.67
2:C:261:LEU:HB3	2:C:291:VAL:HG22	1.77	0.67
3:J:521:PRO:HD2	3:J:524:LEU:HD12	1.76	0.67
3:J:783:ARG:HD3	3:J:1028:ALA:O	1.94	0.67
2:C:230:ARG:HB3	2:C:231:PRO:HD2	1.76	0.67
2:C:542:LEU:H	2:C:542:LEU:HD12	1.59	0.67
2:C:995:MET:HE2	2:C:996:LYS:H	1.60	0.67
1:G:39:PRO:HG2	1:H:39:PRO:HG3	1.76	0.67
2:C:439:CYS:HB2	2:C:541:SER:HB3	1.77	0.67
3:D:1202:GLN:NE2	3:D:1215:VAL:O	2.25	0.67
3:J:1254:GLN:HB3	3:J:1258:ARG:HB2	1.77	0.67
2:I:211:LEU:HD13	2:I:218:VAL:HA	1.76	0.67
7:P:21:DG:H1'	7:P:22:DT:H5'	1.75	0.67
3:D:1382:THR:HG23	3:D:1417:TRP:HA	1.77	0.67
3:J:87:ARG:HG2	3:J:523:ASP:HB3	1.77	0.67
3:J:1384:PRO:HA	3:J:1415:VAL:HG13	1.76	0.67
5:L:164:GLU:O	5:L:166:PRO:HD3	1.95	0.67
2:I:140:ILE:HG22	2:I:412:ALA:HA	1.76	0.67
2:I:229:MET:HB3	2:I:234:ALA:HB2	1.76	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:397:GLU:HB2	2:I:632:ASN:HB2	1.77	0.67
3:J:618:LEU:HD23	3:J:1467:ILE:HG23	1.75	0.67
3:J:1140:ILE:HG23	3:J:1144:LEU:HD23	1.77	0.67
3:J:1273:VAL:HG22	3:J:1326:THR:HG22	1.77	0.67
2:I:207:LEU:HD21	2:I:221:LEU:HB3	1.76	0.66
6:O:9:DA:H1'	6:O:10:DA:H5'	1.77	0.66
2:C:229:MET:HB3	2:C:234:ALA:HB2	1.75	0.66
5:F:164:GLU:O	5:F:166:PRO:HD3	1.95	0.66
3:J:100:ALA:HA	3:J:513:ILE:HA	1.77	0.66
2:C:1042:ALA:HA	3:D:1224:VAL:HG22	1.75	0.66
2:I:200:LEU:HG	2:I:300:ASP:HB2	1.77	0.66
2:I:688:ILE:HB	2:I:849:VAL:HA	1.76	0.66
3:D:783:ARG:HD3	3:D:1028:ALA:O	1.96	0.66
2:I:172:ILE:HA	2:I:186:VAL:HG22	1.77	0.66
3:J:423:ASP:HB3	3:J:426:LYS:HB3	1.76	0.66
2:C:833:LEU:HD12	2:C:996:LYS:HE3	1.75	0.66
3:D:569:ASN:HD22	5:F:229:GLN:HE21	1.44	0.66
4:E:40:LEU:HD21	4:E:67:GLU:HA	1.76	0.66
2:C:64:LEU:HD13	2:C:359:MET:HG2	1.78	0.66
2:C:777:ILE:HA	5:F:420:LEU:HD11	1.77	0.66
2:C:969:LEU:HD23	2:C:971:LYS:HE3	1.76	0.66
2:I:230:ARG:HB3	2:I:231:PRO:HD2	1.76	0.66
2:I:708:TYR:CE1	2:I:827:VAL:HB	2.31	0.66
6:O:12:DT:H1'	6:O:13:DG:H5'	1.78	0.66
2:C:468:ARG:HB3	2:C:485:TYR:O	1.95	0.66
2:C:577:PRO:HA	2:C:671:ASN:HD21	1.61	0.66
3:D:354:ILE:HD11	3:D:369:ALA:HB2	1.77	0.66
2:I:242:LEU:HD13	2:I:243:ARG:HB2	1.76	0.66
2:I:332:ARG:HB2	2:I:465:GLY:HA3	1.77	0.66
2:I:1101:THR:HG23	3:J:8:VAL:HG22	1.78	0.66
2:C:762:LYS:HB3	2:C:786:LYS:HB2	1.78	0.66
2:I:458:TYR:HB3	2:I:470:PRO:HG2	1.77	0.66
2:I:537:LYS:HZ3	2:I:905:VAL:N	1.91	0.66
2:C:101:ILE:HG23	2:C:108:ILE:HA	1.77	0.66
2:I:101:ILE:HG23	2:I:108:ILE:HA	1.79	0.65
6:O:24:DC:H42	7:P:3:DG:H1	1.43	0.65
2:C:211:LEU:HD13	2:C:218:VAL:HA	1.77	0.65
3:D:266:GLU:HG3	3:D:286:ALA:HB2	1.77	0.65
3:D:594:PRO:HB3	5:F:221:GLY:HA2	1.78	0.65
3:J:715:ALA:HB3	3:J:764:LEU:HA	1.78	0.65
3:D:699:VAL:HG12	3:D:717:GLN:HG2	1.76	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:219:LYS:HA	1:A:222:LEU:HD23	1.77	0.65
2:C:140:ILE:HG22	2:C:412:ALA:HA	1.77	0.65
3:J:582:ILE:HD13	3:J:603:LEU:HD12	1.79	0.65
2:I:458:TYR:HD1	2:I:538:GLN:HB3	1.61	0.65
3:J:100:ALA:HB2	3:J:513:ILE:HD13	1.78	0.65
6:R:9:DA:H1'	6:R:10:DA:H5'	1.77	0.65
3:D:224:ARG:NH2	3:D:254:GLU:OE2	2.29	0.65
2:I:710:ILE:HB	2:I:790:LEU:HD22	1.79	0.65
2:C:397:GLU:HB2	2:C:632:ASN:HB2	1.79	0.65
2:C:1102:LEU:HB2	3:D:7:LYS:HB2	1.79	0.65
4:K:67:GLU:HB3	4:K:73:LEU:HD11	1.79	0.65
2:C:458:TYR:HB3	2:C:470:PRO:HG2	1.77	0.65
2:I:995:MET:HE2	2:I:996:LYS:H	1.60	0.65
1:B:24:VAL:HG22	1:B:196:THR:HG23	1.78	0.65
3:D:8:VAL:HG21	3:D:1468:LEU:HD11	1.78	0.65
6:R:10:DA:H1'	6:R:11:DG:H5'	1.78	0.65
3:D:786:ILE:HD13	3:D:908:LYS:HG2	1.78	0.64
5:F:222:LEU:HD11	5:F:269:GLN:HG2	1.79	0.64
3:J:1285:GLU:HB3	3:J:1290:LEU:HA	1.79	0.64
6:R:2:DT:H3	7:S:25:DA:H2	1.42	0.64
2:C:207:LEU:HD21	2:C:221:LEU:HB3	1.77	0.64
3:D:242:LEU:HD23	3:D:285:PRO:HB3	1.79	0.64
3:D:260:GLU:HB3	3:D:271:TYR:HB2	1.79	0.64
4:E:67:GLU:HB3	4:E:73:LEU:HD11	1.79	0.64
2:C:1051:GLU:HG2	2:C:1055:ILE:HD12	1.79	0.64
1:H:59:GLU:HB2	1:H:139:TYR:HB3	1.79	0.64
7:S:13:DA:H1'	7:S:14:DC:H5'	1.78	0.64
2:C:139:GLN:HB2	2:C:391:LEU:HD21	1.79	0.64
3:D:268:HIS:HB2	3:D:284:LEU:HD22	1.78	0.64
2:I:118:LEU:HD12	2:I:119:PRO:HD2	1.78	0.64
2:C:217:LEU:HD13	2:C:311:PHE:HB3	1.80	0.64
2:C:467:ILE:H	2:C:467:ILE:HD12	1.63	0.64
2:I:773:LEU:HB2	5:L:388:LYS:HG3	1.80	0.64
5:L:149:LYS:HD3	5:L:193:ARG:HH22	1.61	0.64
3:D:573:MET:HA	3:D:576:GLU:HG2	1.78	0.64
2:I:64:LEU:HD13	2:I:359:MET:HG2	1.80	0.64
2:C:710:ILE:HB	2:C:790:LEU:HD22	1.80	0.64
3:D:1048:PRO:HD3	3:D:1075:HIS:HB3	1.79	0.64
3:J:67:ARG:HD2	5:L:394:ARG:HB2	1.78	0.64
3:J:786:ILE:HD13	3:J:908:LYS:HG2	1.78	0.64
1:H:186:LEU:HB2	1:H:192:LEU:HD11	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1274:ILE:HG22	3:D:1324:PRO:HA	1.80	0.64
2:I:86:LYS:HE2	2:I:813:VAL:HG23	1.79	0.64
2:I:139:GLN:HB2	2:I:391:LEU:HD21	1.80	0.64
3:J:887:GLY:HA3	3:J:893:GLU:HA	1.79	0.64
2:C:688:ILE:HB	2:C:849:VAL:HA	1.79	0.63
1:H:24:VAL:HG22	1:H:196:THR:HG23	1.79	0.63
2:I:261:LEU:HB3	2:I:291:VAL:HG22	1.80	0.63
2:C:118:LEU:HD12	2:C:119:PRO:HD2	1.79	0.63
2:C:458:TYR:HD1	2:C:538:GLN:HB3	1.62	0.63
5:F:364:LEU:HD12	5:F:436:PHE:HZ	1.63	0.63
2:I:101:ILE:HA	2:I:107:LEU:O	1.98	0.63
2:I:577:PRO:HA	2:I:671:ASN:HD21	1.63	0.63
3:D:618:LEU:HB3	3:D:1467:ILE:HG12	1.79	0.63
3:J:102:ILE:HB	3:J:579:ASP:HB3	1.79	0.63
6:O:18:DA:H1'	6:O:19:DT:H5'	1.78	0.63
2:C:708:TYR:CE1	2:C:827:VAL:HB	2.33	0.63
1:A:39:PRO:HG2	1:B:39:PRO:HG3	1.81	0.63
2:C:1064:ASN:HD22	5:F:359:ALA:HB2	1.64	0.63
3:D:887:GLY:HA3	3:D:893:GLU:HA	1.80	0.63
3:J:65:ARG:NH1	5:L:393:GLY:O	2.32	0.63
2:C:723:THR:O	2:C:757:GLY:HA3	1.99	0.63
2:C:833:LEU:HD11	2:C:839:LEU:HD11	1.79	0.63
2:I:217:LEU:HD13	2:I:311:PHE:HB3	1.81	0.63
6:O:4:DG:H1'	6:O:5:DA:H5'	1.80	0.63
2:C:1034:GLU:HG2	3:D:619:LEU:HB3	1.81	0.63
3:D:1472:ILE:HG12	3:D:1474:ALA:H	1.63	0.63
5:L:383:VAL:HA	5:L:386:LEU:HD12	1.79	0.63
1:B:44:LEU:HD23	1:B:174:VAL:HG21	1.81	0.63
1:B:73:GLU:HB2	1:B:78:ILE:HD11	1.80	0.63
3:D:514:LEU:HD21	3:D:518:PRO:HD3	1.81	0.63
3:D:701:LEU:HD21	3:D:763:MET:HG3	1.79	0.63
3:D:703:ASN:HB2	3:D:713:ILE:HG12	1.80	0.63
3:J:974:ILE:HG12	3:J:991:GLN:HE21	1.63	0.63
2:C:172:ILE:HA	2:C:186:VAL:HG22	1.79	0.62
4:E:79:LEU:HG	4:E:80:VAL:HG13	1.80	0.62
3:D:407:VAL:HG22	3:D:409:VAL:H	1.63	0.62
2:I:467:ILE:H	2:I:467:ILE:HD12	1.63	0.62
3:J:835:SER:HB3	3:J:838:ARG:HE	1.63	0.62
3:D:761:ILE:O	3:D:767:HIS:ND1	2.26	0.62
2:C:773:LEU:HB2	5:F:388:LYS:HG3	1.80	0.62
3:D:367:ILE:HB	3:D:377:VAL:HB	1.80	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:383:VAL:HA	5:F:386:LEU:HD12	1.81	0.62
2:I:607:ASP:O	2:I:609:THR:N	2.33	0.62
2:C:370:ALA:HB1	5:F:295:GLN:HE22	1.64	0.62
3:D:48:ARG:HA	3:D:78:VAL:HG22	1.81	0.62
3:D:1384:PRO:HA	3:D:1415:VAL:HG13	1.82	0.62
3:J:127:LEU:HD23	3:J:461:ILE:HG13	1.81	0.62
3:J:1048:PRO:HD3	3:J:1075:HIS:HB3	1.81	0.62
5:L:364:LEU:HD12	5:L:436:PHE:HZ	1.63	0.62
2:C:537:LYS:HZ3	2:C:905:VAL:N	1.93	0.62
2:I:123:GLU:HG2	2:I:592:LEU:HD13	1.81	0.62
3:J:701:LEU:HD21	3:J:763:MET:HG3	1.80	0.62
3:J:1472:ILE:HG12	3:J:1474:ALA:H	1.65	0.62
5:F:180:SER:O	5:F:181:LEU:HD12	2.00	0.62
2:I:691:SER:HB3	2:I:868:ASP:HA	1.82	0.62
2:I:762:LYS:HB3	2:I:786:LYS:HB2	1.80	0.62
2:I:502:PRO:HG3	2:I:510:THR:HG22	1.82	0.62
2:C:101:ILE:HA	2:C:107:LEU:O	1.99	0.62
3:J:1004:THR:HG23	3:J:1036:ARG:HB2	1.81	0.62
1:B:59:GLU:HB2	1:B:139:TYR:HB3	1.82	0.62
2:C:704:HIS:CD2	2:C:831:ARG:HD2	2.35	0.62
3:D:137:PRO:HA	3:D:452:ILE:HG13	1.82	0.62
1:G:46:SER:HB3	2:I:856:GLU:HG2	1.82	0.62
2:I:839:LEU:HG	2:I:996:LYS:HA	1.81	0.62
2:C:50:GLU:HA	2:C:265:LYS:HD2	1.82	0.61
3:D:1202:GLN:HE21	3:D:1217:ILE:HG12	1.65	0.61
1:H:73:GLU:HB2	1:H:78:ILE:HD11	1.82	0.61
2:C:107:LEU:HD12	2:C:109:LYS:HB2	1.82	0.61
3:D:168:THR:HA	3:D:394:LEU:HB2	1.81	0.61
3:D:974:ILE:HG12	3:D:991:GLN:HE21	1.65	0.61
1:H:44:LEU:HD23	1:H:174:VAL:HG21	1.82	0.61
3:J:772:PRO:HA	3:J:1209:LEU:HB2	1.82	0.61
6:R:10:DA:H2	7:S:17:DT:H3	1.47	0.61
2:C:579:VAL:HG13	2:C:842:ARG:HH22	1.64	0.61
2:C:607:ASP:O	2:C:609:THR:N	2.32	0.61
3:D:245:LEU:HB2	3:D:309:GLY:HA2	1.81	0.61
2:C:174:LEU:HD13	2:C:310:LEU:HD22	1.81	0.61
2:C:1090:LYS:NZ	2:C:1093:GLN:OE1	2.28	0.61
3:D:192:ALA:HB1	3:D:193:PRO:HD2	1.81	0.61
5:F:222:LEU:HB3	5:F:226:ASP:HB2	1.82	0.61
2:I:36:PRO:HA	2:I:39:ARG:HD2	1.83	0.61
2:I:723:THR:O	2:I:757:GLY:HA3	2.00	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:112:ILE:HG23	3:J:512:MET:HG2	1.81	0.61
3:J:1313:VAL:HG21	3:J:1325:LEU:HD12	1.81	0.61
2:C:332:ARG:HB2	2:C:465:GLY:HA3	1.82	0.61
3:D:1143:GLY:HA2	3:D:1364:HIS:HE1	1.65	0.61
2:I:1016:ILE:O	3:J:87:ARG:NH2	2.34	0.61
6:R:11:DG:N2	7:S:16:DC:O2	2.34	0.61
2:C:571:LEU:HB2	2:C:574:ALA:HB2	1.81	0.61
1:G:35:THR:HG21	1:H:43:ILE:HG13	1.81	0.61
2:C:1037:VAL:HG13	2:C:1049:LEU:HD11	1.83	0.61
3:D:1100:ASP:HA	3:D:1463:LYS:HE2	1.82	0.61
1:H:59:GLU:HG3	1:H:139:TYR:HD2	1.66	0.61
2:I:1102:LEU:HB2	3:J:7:LYS:HB2	1.83	0.61
3:J:192:ALA:HB1	3:J:193:PRO:HD2	1.81	0.61
2:C:36:PRO:HB2	2:C:70:GLU:HG2	1.83	0.61
1:G:51:THR:HG23	1:G:146:ARG:HG2	1.83	0.61
1:H:58:ILE:HD13	1:H:61:VAL:HB	1.82	0.61
2:C:191:PHE:HB2	2:C:195:LEU:HD22	1.82	0.61
2:I:262:ALA:HB2	2:I:291:VAL:HG23	1.83	0.61
2:I:1034:GLU:HG2	3:J:619:LEU:HB3	1.82	0.61
2:I:1037:VAL:HG13	2:I:1049:LEU:HD11	1.82	0.61
3:J:557:LEU:HD21	5:L:233:GLN:HG2	1.83	0.61
3:D:1208:ASP:HB2	3:D:1215:VAL:HA	1.81	0.60
2:I:777:ILE:HA	5:L:420:LEU:HD11	1.83	0.60
3:J:703:ASN:HB2	3:J:713:ILE:HG12	1.82	0.60
4:K:79:LEU:HG	4:K:80:VAL:HG13	1.83	0.60
3:D:1111:ASP:OD1	3:D:1203:LYS:NZ	2.35	0.60
2:I:50:GLU:HA	2:I:265:LYS:HD2	1.83	0.60
2:I:107:LEU:HD12	2:I:109:LYS:HB2	1.83	0.60
2:I:36:PRO:HB2	2:I:70:GLU:HG2	1.83	0.60
2:I:1089:VAL:HG21	2:I:1111:ILE:HG21	1.83	0.60
2:C:1018:GLN:HB3	2:C:1063:ARG:NH1	2.15	0.60
3:D:270:ILE:HG12	3:D:284:LEU:HD11	1.82	0.60
2:I:174:LEU:HD13	2:I:310:LEU:HD22	1.82	0.60
3:J:7:LYS:NZ	3:J:1458:GLU:OE1	2.33	0.60
3:J:704:ARG:HB2	3:J:745:MET:HG2	1.83	0.60
5:L:180:SER:O	5:L:181:LEU:HD12	2.00	0.60
2:C:1016:ILE:HG13	2:C:1017:THR:H	1.66	0.60
5:F:149:LYS:HD3	5:F:193:ARG:HH22	1.65	0.60
3:J:407:VAL:HG23	3:J:422:ALA:HB2	1.84	0.60
2:C:668:LEU:H	2:C:993:PHE:HZ	1.50	0.60
3:D:514:LEU:HG	3:D:516:ALA:O	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:876:VAL:HG11	2:I:885:ILE:HD11	1.82	0.60
3:J:822:ALA:HB3	3:J:825:ALA:HB2	1.82	0.60
5:L:222:LEU:HB3	5:L:226:ASP:HB2	1.83	0.60
1:A:46:SER:HB3	2:C:856:GLU:HG2	1.84	0.60
2:C:839:LEU:HG	2:C:996:LYS:HA	1.83	0.60
2:C:876:VAL:HG11	2:C:885:ILE:HD11	1.83	0.60
2:C:1005:MET:HG3	3:D:629:SER:HB2	1.83	0.60
1:G:54:THR:HB	1:G:143:ARG:O	2.02	0.60
1:H:51:THR:HB	1:H:87:VAL:O	2.01	0.60
2:I:118:LEU:HD13	2:I:382:LEU:HD23	1.82	0.60
3:J:1166:LEU:HD23	3:J:1174:LEU:HD11	1.81	0.60
1:B:58:ILE:HD13	1:B:61:VAL:HB	1.81	0.60
2:I:668:LEU:H	2:I:993:PHE:HZ	1.50	0.60
2:I:1005:MET:HG3	3:J:629:SER:HB2	1.82	0.60
2:I:1031:ARG:HG2	2:I:1033:GLY:H	1.67	0.60
3:J:759:ALA:HA	3:J:763:MET:HB3	1.83	0.60
3:D:1313:VAL:HG11	3:D:1325:LEU:HD23	1.83	0.59
1:G:42:ARG:NH1	2:I:978:ARG:HA	2.17	0.59
2:I:571:LEU:HD21	2:I:995:MET:HE1	1.84	0.59
3:J:1105:ILE:HB	3:J:1222:GLY:HA3	1.83	0.59
6:R:24:DC:N4	7:S:3:DG:H1	1.95	0.59
2:I:571:LEU:HG	2:I:700:TYR:HA	1.84	0.59
2:I:1051:GLU:HG2	2:I:1055:ILE:HD12	1.84	0.59
3:J:27:GLU:H	3:J:42:ASP:HB3	1.67	0.59
2:C:774:LEU:HG	5:F:365:LEU:HD21	1.84	0.59
3:D:1189:ARG:HB3	3:D:1204:CYS:HA	1.84	0.59
3:J:101:HIS:NE2	3:J:582:ILE:HG21	2.17	0.59
3:D:919:PHE:HA	3:D:927:THR:HG21	1.85	0.59
3:D:1139:ASP:O	3:D:1142:SER:HB2	2.02	0.59
3:D:1188:VAL:HG12	3:D:1189:ARG:H	1.66	0.59
1:G:13:ALA:HB3	1:H:228:PRO:HB3	1.83	0.59
6:O:19:DT:H1'	6:O:20:DT:H5'	1.83	0.59
3:D:92:HIS:HA	3:D:517:VAL:O	2.02	0.59
3:D:433:GLY:HA2	3:D:449:SER:HB2	1.85	0.59
2:I:571:LEU:HB2	2:I:574:ALA:HB2	1.83	0.59
3:J:210:ARG:HD2	3:J:388:HIS:HB2	1.85	0.59
3:J:708:LEU:HG	3:J:709:HIS:H	1.67	0.59
3:J:978:TYR:HB2	3:J:988:ARG:HD3	1.83	0.59
3:J:1487:VAL:HG21	3:J:1492:LEU:HD23	1.84	0.59
2:C:408:ARG:NH2	2:C:456:ALA:O	2.35	0.59
2:I:408:ARG:NH2	2:I:456:ALA:O	2.36	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:48:ARG:HA	3:J:78:VAL:HG22	1.84	0.59
3:J:714:GLN:HB3	3:J:765:SER:HB3	1.85	0.59
1:B:51:THR:HB	1:B:87:VAL:O	2.02	0.59
3:D:9:ARG:HG2	3:D:10:ILE:H	1.66	0.59
3:D:129:PHE:CE1	3:D:457:GLY:HA3	2.37	0.59
2:C:716:LYS:HD2	3:D:37:LEU:HD21	1.85	0.59
3:D:1364:HIS:NE2	3:D:1366:LYS:HE2	2.17	0.59
1:A:54:THR:HB	1:A:143:ARG:O	2.02	0.59
2:C:911:GLU:OE1	3:D:1062:ARG:NH2	2.34	0.59
3:D:1004:THR:HG23	3:D:1036:ARG:HB2	1.85	0.59
3:D:1379:VAL:HG21	3:D:1400:VAL:HG11	1.85	0.59
5:L:307:ALA:HB1	5:L:314:TRP:HB3	1.85	0.59
3:D:245:LEU:HD12	3:D:311:LEU:HD21	1.84	0.59
3:D:758:GLU:HG2	3:D:1476:THR:HG21	1.85	0.59
3:D:1192:LEU:HD23	3:D:1373:ARG:HB2	1.85	0.59
2:I:798:GLY:HA3	2:I:827:VAL:HG13	1.83	0.59
3:J:698:LYS:HG3	4:K:59:ASN:HD21	1.68	0.59
7:S:18:DT:H1'	7:S:19:DT:H5'	1.85	0.59
2:C:413:LEU:H	2:C:413:LEU:HD12	1.68	0.58
3:D:203:ALA:HA	3:D:395:VAL:HA	1.85	0.58
1:G:53:VAL:HG22	1:G:54:THR:N	2.18	0.58
2:I:704:HIS:CD2	2:I:831:ARG:HD2	2.37	0.58
3:J:125:GLN:HB3	3:J:131:LYS:HB3	1.84	0.58
2:C:15:LEU:HD11	2:C:457:ALA:HB1	1.85	0.58
1:G:101:LEU:HB3	1:G:140:MET:HB3	1.85	0.58
3:J:633:VAL:HG13	3:J:635:PRO:HD3	1.84	0.58
3:J:1280:VAL:O	3:J:1295:GLU:N	2.35	0.58
2:C:497:ALA:HB1	2:C:501:THR:HG21	1.85	0.58
3:D:714:GLN:HB3	3:D:765:SER:HB3	1.86	0.58
3:J:971:LEU:HA	3:J:974:ILE:HD12	1.85	0.58
3:J:1111:ASP:OD1	3:J:1203:LYS:NZ	2.36	0.58
2:C:207:LEU:HD13	2:C:222:LEU:HD23	1.85	0.58
2:C:532:MET:HG2	2:C:533:ASP:H	1.68	0.58
3:D:125:GLN:HB3	3:D:131:LYS:HB3	1.85	0.58
3:D:236:TYR:HB2	3:D:319:ALA:HB3	1.84	0.58
3:D:407:VAL:HG23	3:D:422:ALA:HB2	1.86	0.58
3:D:633:VAL:HG13	3:D:635:PRO:HD3	1.85	0.58
3:D:801:GLY:HA2	3:D:821:VAL:HA	1.86	0.58
3:D:907:GLU:O	3:D:911:LEU:HG	2.04	0.58
3:D:978:TYR:HB2	3:D:988:ARG:HD3	1.85	0.58
2:I:1016:ILE:HG13	2:I:1017:THR:H	1.68	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:177:VAL:HG12	1:B:199:ILE:HG12	1.85	0.58
3:D:262:LYS:HB2	3:D:269:LEU:HB2	1.85	0.58
5:F:380:GLU:HB2	5:F:419:ALA:HB2	1.85	0.58
2:I:236:VAL:HG21	2:I:250:LYS:HG2	1.86	0.58
2:I:911:GLU:OE1	3:J:1062:ARG:NH2	2.36	0.58
2:I:774:LEU:HG	5:L:365:LEU:HD21	1.84	0.58
3:J:461:ILE:HB	3:J:513:ILE:HD11	1.85	0.58
2:C:571:LEU:HD21	2:C:995:MET:HE1	1.84	0.58
2:I:5:ARG:HA	2:I:902:ILE:HB	1.84	0.58
6:R:19:DT:H1'	6:R:20:DT:H5'	1.85	0.58
2:C:611:ILE:HG13	2:C:625:LEU:HD11	1.86	0.58
3:D:772:PRO:HG3	3:D:1210:SER:HB3	1.86	0.58
1:H:57:TYR:CD1	1:H:161:ARG:HG2	2.38	0.58
3:J:671:LYS:HG3	5:L:436:PHE:CE2	2.39	0.58
1:A:42:ARG:NH1	2:C:978:ARG:HA	2.18	0.58
2:C:571:LEU:HG	2:C:700:TYR:HA	1.85	0.58
2:C:1071:ILE:O	3:D:659:LYS:HG2	2.04	0.58
3:J:137:PRO:HA	3:J:452:ILE:HG13	1.85	0.58
3:J:1101:VAL:HB	3:J:1428:ALA:HB2	1.86	0.58
3:D:12:LEU:HD21	3:D:1452:ILE:HD13	1.86	0.58
2:I:579:VAL:HG13	2:I:842:ARG:HH22	1.69	0.58
3:J:520:LEU:O	3:J:525:ARG:NH2	2.37	0.58
6:R:17:DA:H1'	6:R:18:DA:H5'	1.86	0.58
7:S:8:DA:H2''	7:S:9:DT:H5''	1.86	0.58
1:A:51:THR:HG23	1:A:146:ARG:HG2	1.84	0.57
2:C:691:SER:HB3	2:C:868:ASP:HA	1.86	0.57
3:D:803:GLY:HA2	3:D:827:ILE:HG22	1.85	0.57
3:D:822:ALA:HB3	3:D:825:ALA:HB2	1.86	0.57
5:F:203:ILE:HG23	5:F:235:LEU:HD23	1.86	0.57
1:H:177:VAL:HG12	1:H:199:ILE:HG12	1.86	0.57
3:J:9:ARG:HG2	3:J:10:ILE:H	1.68	0.57
3:J:770:LEU:HB2	3:J:1210:SER:HA	1.85	0.57
1:A:23:PHE:HE2	1:A:199:ILE:HD12	1.68	0.57
2:C:236:VAL:HG21	2:C:250:LYS:HG2	1.86	0.57
3:D:25:GLU:HG2	3:D:93:ILE:HA	1.86	0.57
3:D:205:TYR:HD1	3:D:393:ILE:HG12	1.68	0.57
2:I:637:PHE:HA	2:I:659:PRO:HG3	1.86	0.57
5:L:225:LEU:HA	5:L:228:ILE:HD12	1.85	0.57
2:C:1089:VAL:HG21	2:C:1111:ILE:HG21	1.86	0.57
3:D:759:ALA:HA	3:D:763:MET:HB3	1.84	0.57
2:I:191:PHE:HB2	2:I:195:LEU:HD22	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:557:ARG:HB2	2:I:881:ASN:HD21	1.69	0.57
2:I:732:ALA:O	2:I:735:ARG:HG3	2.04	0.57
2:C:502:PRO:HG3	2:C:510:THR:HG22	1.87	0.57
2:C:1031:ARG:HG2	2:C:1033:GLY:H	1.69	0.57
3:D:443:VAL:HG22	3:D:445:ARG:H	1.69	0.57
3:D:1087:ARG:NH2	3:D:1234:THR:O	2.37	0.57
1:H:188:GLN:HA	3:J:688:TRP:HD1	1.69	0.57
3:J:907:GLU:O	3:J:911:LEU:HG	2.05	0.57
3:J:1042:ARG:HB3	3:J:1057:VAL:HG21	1.86	0.57
2:C:162:ILE:HG22	2:C:172:ILE:HD13	1.85	0.57
2:C:975:TYR:HA	2:C:982:PRO:HA	1.87	0.57
2:C:1085:PHE:HA	3:D:618:LEU:HD21	1.87	0.57
3:D:171:LEU:HD21	3:D:393:ILE:HD12	1.87	0.57
2:I:532:MET:HG2	2:I:533:ASP:H	1.69	0.57
3:J:881:LEU:O	3:J:885:ILE:HG13	2.05	0.57
1:A:35:THR:HG21	1:B:43:ILE:HG13	1.85	0.57
1:A:53:VAL:HG22	1:A:54:THR:N	2.18	0.57
3:D:843:PHE:HB2	3:D:866:VAL:HG23	1.86	0.57
2:I:569:VAL:HB	2:I:635:THR:HG21	1.87	0.57
1:A:14:THR:OG1	1:B:231:SER:OG	2.21	0.57
2:C:5:ARG:HA	2:C:902:ILE:HB	1.86	0.57
2:C:1037:VAL:O	2:C:1041:GLU:HG3	2.05	0.57
3:D:1254:GLN:HB3	3:D:1258:ARG:CB	2.34	0.57
1:H:218:LEU:O	1:H:222:LEU:HG	2.05	0.57
2:C:1016:ILE:O	3:D:87:ARG:NH2	2.37	0.57
3:D:244:GLU:O	3:D:310:LEU:N	2.36	0.57
3:D:1042:ARG:HB3	3:D:1057:VAL:HG21	1.86	0.57
3:D:1127:GLU:HG3	3:D:1128:VAL:HG23	1.85	0.57
5:F:225:LEU:HA	5:F:228:ILE:HD12	1.85	0.57
6:O:7:DA:H1'	6:O:8:DA:H5'	1.85	0.57
3:D:669:ASN:ND2	5:F:364:LEU:HD11	2.20	0.57
3:D:704:ARG:HB2	3:D:745:MET:HG2	1.85	0.57
1:H:13:ALA:HB1	1:H:23:PHE:HD1	1.69	0.57
5:F:307:ALA:HB1	5:F:314:TRP:HB3	1.87	0.57
2:I:858:MET:H	2:I:977:GLY:HA3	1.70	0.57
1:B:57:TYR:CD1	1:B:161:ARG:HG2	2.39	0.56
3:D:95:LEU:HG	3:D:574:LEU:HD21	1.86	0.56
5:F:98:GLN:O	5:F:102:GLU:HG3	2.04	0.56
3:J:1100:ASP:HA	3:J:1463:LYS:HE2	1.86	0.56
5:L:150:ILE:HG12	5:L:193:ARG:HH11	1.69	0.56
3:D:56:TYR:HA	3:D:80:VAL:HG23	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:567:GLN:O	2:I:998:TYR:N	2.38	0.56
2:I:1060:ILE:HG13	2:I:1061:GLU:H	1.70	0.56
7:P:8:DA:H2''	7:P:9:DT:H5''	1.87	0.56
2:C:732:ALA:O	2:C:735:ARG:HG3	2.04	0.56
3:D:900:ILE:HG12	3:D:914:LEU:HD21	1.87	0.56
3:D:1176:LYS:HG3	3:J:1130:ARG:HD2	1.87	0.56
1:G:23:PHE:HE2	1:G:199:ILE:HD12	1.69	0.56
2:I:207:LEU:HD13	2:I:222:LEU:HD23	1.87	0.56
2:I:639:GLN:HB3	2:I:656:ALA:HB1	1.88	0.56
2:I:716:LYS:HD2	3:J:37:LEU:HD21	1.87	0.56
3:J:14:SER:HB3	3:J:511:TRP:CE2	2.40	0.56
3:J:758:GLU:HG2	3:J:1476:THR:HG21	1.87	0.56
5:L:203:ILE:HG23	5:L:235:LEU:HD23	1.87	0.56
2:C:262:ALA:HB2	2:C:291:VAL:HG23	1.87	0.56
2:C:1069:ALA:HB3	2:C:1076:VAL:HG12	1.86	0.56
3:D:698:LYS:HG3	4:E:59:ASN:HD21	1.69	0.56
3:D:881:LEU:O	3:D:885:ILE:HG13	2.05	0.56
2:I:162:ILE:HG22	2:I:172:ILE:HD13	1.86	0.56
2:I:497:ALA:HB1	2:I:501:THR:HG21	1.87	0.56
2:I:926:PHE:HE2	2:I:960:GLU:HG3	1.69	0.56
3:J:803:GLY:HA2	3:J:827:ILE:HG22	1.86	0.56
3:J:919:PHE:HA	3:J:927:THR:HG21	1.86	0.56
1:B:218:LEU:O	1:B:222:LEU:HG	2.05	0.56
3:D:96:ALA:HB3	3:D:554:LEU:HD23	1.88	0.56
3:D:191:LEU:HD13	3:D:195:VAL:HG12	1.87	0.56
3:D:770:LEU:HB2	3:D:1210:SER:HA	1.86	0.56
3:D:1209:LEU:HD11	3:D:1364:HIS:CD2	2.40	0.56
2:I:502:PRO:HB2	2:I:509:ALA:HB3	1.86	0.56
2:I:774:LEU:HA	2:I:777:ILE:HD12	1.86	0.56
3:J:56:TYR:HA	3:J:80:VAL:HG23	1.88	0.56
3:J:699:VAL:HA	3:J:718:PRO:HD3	1.87	0.56
6:O:2:DT:H2''	6:O:3:DT:H71	1.86	0.56
3:D:773:ALA:HB2	3:D:1228:SER:HB3	1.86	0.56
3:D:977:ALA:HB2	3:J:831:GLY:N	2.19	0.56
3:D:1487:VAL:HG21	3:D:1492:LEU:HD23	1.87	0.56
3:D:1500:LYS:HA	3:D:1503:VAL:HG22	1.88	0.56
1:G:40:LEU:O	1:G:44:LEU:HB2	2.05	0.56
7:S:17:DT:H1'	7:S:18:DT:H5'	1.87	0.56
1:A:54:THR:HG22	1:A:158:ILE:HD11	1.87	0.56
1:B:188:GLN:HA	3:D:688:TRP:HD1	1.71	0.56
2:C:114:PHE:HB3	5:F:295:GLN:HA	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:423:ASP:HB3	3:D:426:LYS:HB3	1.86	0.56
3:D:684:LYS:HD3	3:D:685:ASP:H	1.71	0.56
4:E:30:LEU:HD23	4:E:63:TRP:HB3	1.88	0.56
2:I:146:VAL:HG21	2:I:281:LEU:HD21	1.88	0.56
2:I:413:LEU:HD12	2:I:413:LEU:H	1.69	0.56
2:I:611:ILE:HG13	2:I:625:LEU:HD11	1.88	0.56
3:J:191:LEU:HD13	3:J:195:VAL:HG12	1.88	0.56
3:J:974:ILE:HG22	3:J:988:ARG:HG3	1.86	0.56
3:J:1088:THR:HA	3:J:1234:THR:HG22	1.87	0.56
3:D:406:ASP:OD1	3:D:407:VAL:N	2.38	0.56
4:K:30:LEU:HD23	4:K:63:TRP:HB3	1.86	0.56
6:R:5:DA:H1'	6:R:6:DC:H5'	1.87	0.56
1:A:40:LEU:O	1:A:44:LEU:HB2	2.06	0.56
2:C:202:TYR:HD1	2:C:206:THR:HG21	1.70	0.56
1:H:197:LEU:HG	1:H:199:ILE:HG13	1.88	0.56
2:I:15:LEU:HD11	2:I:457:ALA:HB1	1.87	0.56
6:O:21:DG:H1'	6:O:22:DT:H5''	1.88	0.56
1:A:13:ALA:HB3	1:B:228:PRO:HB3	1.87	0.56
2:C:567:GLN:O	2:C:998:TYR:N	2.39	0.56
2:C:831:ARG:HD3	2:C:1002:GLU:HG2	1.88	0.56
3:D:585:GLY:HA3	3:D:590:PRO:HG3	1.88	0.56
3:D:699:VAL:HA	3:D:718:PRO:HD3	1.88	0.56
2:I:211:LEU:HB3	2:I:218:VAL:HG13	1.87	0.56
3:J:529:GLN:HA	3:J:535:PHE:HA	1.87	0.56
2:C:36:PRO:HA	2:C:39:ARG:HD2	1.88	0.55
3:D:9:ARG:HG2	3:D:10:ILE:N	2.21	0.55
3:D:671:LYS:HG3	5:F:436:PHE:CE2	2.41	0.55
3:D:784:ASP:HA	3:D:787:LEU:HD23	1.88	0.55
6:O:11:DG:N2	7:P:16:DC:O2	2.39	0.55
1:B:68:ILE:HD12	1:B:69:PRO:HD2	1.88	0.55
2:I:975:TYR:HA	2:I:982:PRO:HA	1.88	0.55
7:S:2:DA:H1'	7:S:3:DG:H5'	1.88	0.55
1:B:197:LEU:HG	1:B:199:ILE:HG13	1.88	0.55
2:C:328:LEU:HD21	2:C:434:HIS:HA	1.89	0.55
2:C:432:ARG:HH12	2:C:518:ARG:HE	1.53	0.55
3:D:326:GLU:HB3	3:D:331:VAL:HG23	1.89	0.55
3:D:708:LEU:HG	3:D:709:HIS:H	1.70	0.55
3:D:947:ILE:HG22	3:D:1019:PRO:HB3	1.88	0.55
3:J:1166:LEU:HD12	3:J:1166:LEU:H	1.70	0.55
2:C:168:ARG:HD3	2:C:268:ASP:HB2	1.88	0.55
3:D:87:ARG:HG2	3:D:523:ASP:HB3	1.86	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:101:HIS:NE2	3:D:582:ILE:HG21	2.20	0.55
3:D:238:PRO:HB3	3:D:315:ARG:HA	1.88	0.55
3:D:683:ILE:HG22	3:D:687:VAL:HG21	1.89	0.55
3:D:699:VAL:HG22	3:D:760:ARG:HG2	1.88	0.55
3:D:1216:SER:HB2	4:E:15:SER:HB2	1.87	0.55
1:B:182:GLU:HG3	1:B:194:LYS:HB3	1.89	0.55
3:D:875:THR:HG21	3:D:879:ARG:HG2	1.89	0.55
3:D:1448:THR:O	3:D:1452:ILE:HG12	2.07	0.55
3:J:780:LYS:HB2	3:J:908:LYS:HZ1	1.72	0.55
1:A:178:ALA:HB3	1:A:198:ARG:HG3	1.89	0.55
1:G:54:THR:HG22	1:G:158:ILE:HD11	1.88	0.55
1:H:68:ILE:HD12	1:H:69:PRO:HD2	1.88	0.55
2:I:852:ILE:HG22	2:I:853:LEU:H	1.71	0.55
2:I:1018:GLN:HB3	2:I:1063:ARG:NH1	2.22	0.55
3:J:1331:ASP:O	3:J:1335:LEU:HD23	2.07	0.55
3:D:27:GLU:H	3:D:42:ASP:HB3	1.72	0.55
3:D:973:GLN:HG3	3:J:831:GLY:HA2	1.89	0.55
3:D:1380:GLU:HB3	3:D:1420:LEU:HD13	1.89	0.55
2:I:448:ASN:HA	2:I:451:LEU:HD22	1.89	0.55
3:J:400:VAL:HB	3:J:443:VAL:HG21	1.88	0.55
3:J:477:LEU:HD21	3:J:495:ARG:HD3	1.87	0.55
3:J:784:ASP:HA	3:J:787:LEU:HD23	1.89	0.55
3:J:843:PHE:HB2	3:J:866:VAL:HG23	1.87	0.55
3:J:911:LEU:O	3:J:915:VAL:HG23	2.05	0.55
2:C:48:PHE:O	2:C:52:PHE:HB2	2.07	0.55
2:C:123:GLU:HG2	2:C:592:LEU:HD13	1.87	0.55
2:C:668:LEU:HB3	2:C:995:MET:CG	2.37	0.55
3:D:260:GLU:HA	3:D:294:GLU:HG3	1.89	0.55
3:D:1386:ASP:OD1	3:D:1386:ASP:N	2.39	0.55
2:I:712:ALA:HB3	2:I:820:ARG:HB2	1.89	0.55
6:R:12:DT:H1'	6:R:13:DG:H5'	1.89	0.55
2:C:1060:ILE:HG13	2:C:1061:GLU:H	1.70	0.55
3:D:238:PRO:HD3	3:D:318:THR:HG22	1.88	0.55
1:G:178:ALA:HB3	1:G:198:ARG:HG3	1.88	0.55
2:I:1037:VAL:O	2:I:1041:GLU:HG3	2.06	0.55
3:J:630:VAL:HG22	3:J:631:ILE:H	1.72	0.55
3:J:1345:GLU:HG2	3:J:1376:LEU:HD21	1.89	0.55
4:K:45:ARG:HD2	4:K:63:TRP:CH2	2.42	0.55
2:C:852:ILE:HG22	2:C:853:LEU:H	1.72	0.55
2:C:858:MET:H	2:C:977:GLY:HA3	1.72	0.55
3:D:31:THR:HG21	5:F:272:THR:HG22	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:162:ILE:HG23	1:H:163:ASN:H	1.71	0.55
2:I:408:ARG:NH1	2:I:455:LEU:O	2.39	0.55
2:I:504:GLU:HG2	2:I:509:ALA:HB2	1.89	0.55
3:J:31:THR:HG21	5:L:272:THR:HG22	1.89	0.55
7:S:5:DA:H1'	7:S:6:DC:H5'	1.89	0.55
1:B:111:ALA:HB2	1:B:127:LEU:HB3	1.87	0.54
3:D:630:VAL:HG22	3:D:631:ILE:H	1.72	0.54
2:I:202:TYR:HD1	2:I:206:THR:HG21	1.72	0.54
3:J:708:LEU:HD12	3:J:1231:GLU:HG2	1.89	0.54
3:J:875:THR:HG21	3:J:879:ARG:HG2	1.89	0.54
3:J:900:ILE:HG12	3:J:914:LEU:HD21	1.89	0.54
6:R:4:DG:H1	7:S:23:DC:H42	1.55	0.54
1:A:101:LEU:HB3	1:A:140:MET:HB3	1.89	0.54
2:C:537:LYS:HD2	2:C:583:LEU:HD21	1.89	0.54
2:C:713:ARG:HD3	3:D:532:GLY:H	1.71	0.54
3:D:371:ILE:HG21	5:F:247:ARG:NH2	2.22	0.54
3:D:1470:ARG:HG2	3:D:1471:LEU:H	1.72	0.54
2:I:1103:ASP:OD1	2:I:1103:ASP:N	2.40	0.54
3:J:371:ILE:HG21	5:L:247:ARG:NH2	2.21	0.54
1:B:162:ILE:HG23	1:B:163:ASN:H	1.71	0.54
2:C:90:TYR:O	2:C:119:PRO:HA	2.08	0.54
2:C:798:GLY:HA2	2:C:829:GLN:HB3	1.89	0.54
3:D:371:ILE:HG21	5:F:247:ARG:HH22	1.72	0.54
3:J:684:LYS:HD3	3:J:685:ASP:H	1.72	0.54
2:C:194:VAL:HG23	2:C:195:LEU:HD12	1.88	0.54
2:I:168:ARG:HD3	2:I:268:ASP:HB2	1.89	0.54
2:I:754:ILE:HA	2:I:791:ARG:HA	1.88	0.54
3:J:119:SER:HB3	3:J:122:GLU:HG2	1.90	0.54
3:J:1208:ASP:HB2	3:J:1215:VAL:HA	1.89	0.54
2:C:712:ALA:HB3	2:C:820:ARG:HB2	1.90	0.54
2:C:1103:ASP:OD1	2:C:1103:ASP:N	2.40	0.54
3:D:241:VAL:HG13	3:D:312:ARG:HG2	1.89	0.54
3:D:569:ASN:HA	3:D:572:ARG:NH2	2.22	0.54
2:I:149:THR:HA	2:I:322:VAL:HG13	1.88	0.54
2:I:215:GLY:O	2:I:218:VAL:HG23	2.08	0.54
2:I:537:LYS:HD2	2:I:583:LEU:HD21	1.89	0.54
3:J:415:VAL:HG21	3:J:446:VAL:HG11	1.89	0.54
5:L:280:VAL:HA	5:L:283:ILE:HD12	1.90	0.54
1:B:13:ALA:HB1	1:B:23:PHE:HD1	1.73	0.54
2:C:141:HIS:NE2	2:C:334:ARG:HD3	2.23	0.54
2:C:215:GLY:O	2:C:218:VAL:HG23	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:754:ILE:HG22	2:C:755:LEU:H	1.72	0.54
3:D:547:LEU:HD13	3:D:578:VAL:HG22	1.88	0.54
1:H:156:HIS:NE2	1:H:167:VAL:O	2.37	0.54
2:I:969:LEU:HG	3:J:952:ASP:HB2	1.90	0.54
3:J:1274:ILE:HG22	3:J:1324:PRO:HA	1.89	0.54
3:J:1377:LYS:O	3:J:1397:LYS:N	2.40	0.54
5:L:353:LEU:HD12	5:L:354:PRO:HD2	1.90	0.54
5:L:380:GLU:O	5:L:384:LEU:HB2	2.08	0.54
1:B:77:GLU:HB2	3:D:872:ARG:HH21	1.72	0.54
2:C:115:LEU:HB3	2:C:378:LEU:HD23	1.90	0.54
2:C:146:VAL:HG21	2:C:281:LEU:HD21	1.89	0.54
2:C:754:ILE:HA	2:C:791:ARG:HA	1.90	0.54
3:D:102:ILE:HD11	3:D:587:ARG:HB2	1.89	0.54
3:D:1273:VAL:HG23	3:D:1325:LEU:HD12	1.90	0.54
3:D:1434:TRP:CD1	3:D:1457:ASP:HB2	2.43	0.54
5:F:154:ALA:O	5:F:158:LYS:HB2	2.07	0.54
5:F:376:LEU:HB2	5:F:381:ALA:HB2	1.89	0.54
1:H:62:LEU:HB3	1:H:163:ASN:ND2	2.23	0.54
2:I:343:GLN:HG3	2:I:385:PHE:HB2	1.89	0.54
3:J:1279:GLY:O	3:J:1319:VAL:HG22	2.08	0.54
3:D:147:VAL:HG21	3:D:153:LEU:HD21	1.89	0.54
3:D:233:LYS:HE3	3:D:234:GLU:H	1.72	0.54
3:D:1144:LEU:HD21	3:D:1186:VAL:HG21	1.89	0.54
2:I:194:VAL:HG23	2:I:195:LEU:HD12	1.90	0.54
2:I:1069:ALA:HB3	2:I:1076:VAL:HG12	1.88	0.54
3:J:423:ASP:HB2	3:J:427:VAL:HG12	1.89	0.54
2:C:206:THR:HG23	2:C:209:ARG:CZ	2.38	0.54
2:C:468:ARG:HD3	2:C:487:THR:HG22	1.90	0.54
2:C:504:GLU:HG2	2:C:509:ALA:HB2	1.90	0.54
3:D:614:PHE:O	3:D:619:LEU:HB2	2.08	0.54
5:F:150:ILE:HG12	5:F:193:ARG:HH11	1.72	0.54
1:H:78:ILE:HD12	1:H:129:ILE:O	2.07	0.54
3:J:647:ARG:HH12	3:J:683:ILE:HD11	1.73	0.54
1:B:176:ARG:HH11	3:D:884:ARG:HH22	1.55	0.54
2:C:971:LYS:HB3	2:C:986:PRO:HB2	1.90	0.54
3:D:911:LEU:O	3:D:915:VAL:HG23	2.07	0.54
1:G:14:THR:OG1	1:H:231:SER:OG	2.23	0.54
1:H:161:ARG:HG3	1:H:162:ILE:N	2.23	0.54
1:H:176:ARG:HH11	3:J:884:ARG:HH22	1.54	0.54
2:I:668:LEU:HB3	2:I:995:MET:CG	2.38	0.54
2:I:1112:PHE:HB3	3:J:88:TYR:CD2	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:413:ARG:HE	7:S:22:DT:H2'	1.72	0.54
2:C:889:HIS:CE1	2:C:970:GLY:HA3	2.43	0.53
3:D:11:ALA:HA	3:D:1451:ALA:HA	1.90	0.53
3:D:154:THR:HG22	3:D:157:GLU:HG2	1.90	0.53
3:J:572:ARG:CZ	5:L:98:GLN:HG2	2.38	0.53
5:L:376:LEU:HB2	5:L:381:ALA:HB2	1.90	0.53
2:C:64:LEU:HD22	2:C:359:MET:SD	2.47	0.53
2:C:114:PHE:HE1	5:F:294:GLN:HE21	1.55	0.53
2:C:146:VAL:HG21	2:C:281:LEU:HD11	1.89	0.53
2:C:668:LEU:HB3	2:C:995:MET:HG3	1.90	0.53
2:C:759:THR:HB	2:C:785:VAL:HG21	1.90	0.53
5:F:210:VAL:HA	5:F:213:ILE:HD12	1.89	0.53
1:G:63:HIS:HA	1:G:165:ILE:HD11	1.88	0.53
2:I:679:PHE:H	2:I:683:ASN:HD21	1.56	0.53
2:I:950:LEU:HD21	2:I:952:LEU:HD22	1.90	0.53
2:I:1071:ILE:O	3:J:659:LYS:HG2	2.08	0.53
3:J:1336:LEU:HD22	3:J:1421:LEU:HB3	1.89	0.53
2:C:926:PHE:HE2	2:C:960:GLU:HG3	1.72	0.53
3:D:750:PRO:HG2	3:D:756:GLN:NE2	2.23	0.53
3:D:1122:LEU:HD23	3:D:1140:ILE:HD13	1.91	0.53
2:I:457:ALA:HB3	2:I:538:GLN:HA	1.89	0.53
2:I:726:ILE:HB	2:I:729:LEU:HB2	1.90	0.53
2:I:889:HIS:CE1	2:I:970:GLY:HA3	2.44	0.53
2:I:971:LYS:HB3	2:I:986:PRO:HB2	1.90	0.53
2:I:1103:ASP:HA	3:J:5:VAL:HA	1.91	0.53
3:J:147:VAL:HG21	3:J:153:LEU:HD21	1.90	0.53
5:L:98:GLN:O	5:L:102:GLU:HG3	2.09	0.53
7:S:7:DA:H1'	7:S:8:DA:H5'	1.90	0.53
1:B:59:GLU:HG3	1:B:139:TYR:CD2	2.42	0.53
3:D:229:ALA:HB1	3:D:245:LEU:H	1.74	0.53
3:D:523:ASP:HA	3:D:526:PRO:HG3	1.90	0.53
3:D:764:LEU:HD23	3:D:767:HIS:CD2	2.44	0.53
5:F:207:LEU:O	5:F:211:VAL:HG23	2.08	0.53
2:I:754:ILE:HG22	2:I:755:LEU:H	1.72	0.53
2:I:759:THR:HB	2:I:785:VAL:HG21	1.91	0.53
2:I:943:VAL:HG21	2:I:973:VAL:HG13	1.90	0.53
2:C:408:ARG:NH1	2:C:455:LEU:O	2.41	0.53
2:C:1086:ARG:HH11	2:C:1086:ARG:HG3	1.74	0.53
5:F:145:VAL:HG21	5:F:174:VAL:HG11	1.91	0.53
1:H:77:GLU:HB2	3:J:872:ARG:HH21	1.74	0.53
2:I:432:ARG:HH12	2:I:518:ARG:HE	1.55	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1086:ARG:HH11	2:I:1086:ARG:HG3	1.73	0.53
3:J:104:PHE:CD2	3:J:512:MET:HG3	2.43	0.53
2:C:584:GLU:H	2:C:584:GLU:CD	2.11	0.53
3:D:119:SER:HB3	3:D:122:GLU:HG2	1.91	0.53
3:D:1114:THR:HG21	3:D:1193:THR:O	2.09	0.53
3:D:1197:ARG:HE	3:D:1398:TRP:HB3	1.72	0.53
3:D:1254:GLN:HB3	3:D:1258:ARG:HB2	1.91	0.53
2:I:48:PHE:O	2:I:52:PHE:HB2	2.09	0.53
3:J:140:ALA:HB1	3:J:161:LEU:HD23	1.91	0.53
3:J:175:VAL:HG13	3:J:193:PRO:HD2	1.91	0.53
3:J:947:ILE:HG22	3:J:1019:PRO:HB3	1.90	0.53
1:A:23:PHE:CE2	1:A:199:ILE:HD12	2.44	0.53
2:C:457:ALA:HB3	2:C:538:GLN:HA	1.90	0.53
3:D:729:HIS:HB3	3:D:732:VAL:HG22	1.91	0.53
4:E:45:ARG:HD2	4:E:63:TRP:CH2	2.43	0.53
2:I:90:TYR:O	2:I:119:PRO:HA	2.07	0.53
2:I:328:LEU:HD21	2:I:434:HIS:HA	1.91	0.53
3:J:99:ALA:HB2	3:J:574:LEU:HD21	1.91	0.53
3:J:166:GLN:HB3	3:J:396:VAL:HG13	1.91	0.53
1:B:78:ILE:HD12	1:B:129:ILE:O	2.09	0.53
2:C:149:THR:HA	2:C:322:VAL:HG13	1.91	0.53
1:G:70:GLY:HA2	1:G:133:GLU:HG2	1.91	0.53
2:I:64:LEU:HD22	2:I:359:MET:SD	2.48	0.53
3:J:750:PRO:HG2	3:J:756:GLN:NE2	2.24	0.53
3:J:764:LEU:HD23	3:J:767:HIS:CD2	2.43	0.53
1:B:62:LEU:HB3	1:B:163:ASN:ND2	2.24	0.53
3:D:1147:ARG:NH2	3:D:1369:GLU:OE1	2.42	0.53
5:F:380:GLU:O	5:F:384:LEU:HB2	2.09	0.53
1:G:16:GLN:HB3	1:G:20:TYR:HB3	1.91	0.53
2:I:584:GLU:H	2:I:584:GLU:CD	2.12	0.53
3:J:131:LYS:HG3	3:J:153:LEU:O	2.09	0.53
3:J:704:ARG:NE	3:J:705:ALA:O	2.42	0.53
2:C:37:GLU:HG2	2:C:38:LYS:N	2.24	0.53
2:C:448:ASN:HA	2:C:451:LEU:HD22	1.90	0.53
3:D:205:TYR:CD1	3:D:390:PRO:HG2	2.44	0.53
3:D:668:PRO:HB2	5:F:432:LYS:HD3	1.91	0.53
3:D:704:ARG:NE	3:D:705:ALA:O	2.42	0.53
3:D:757:ALA:O	3:D:761:ILE:HG13	2.09	0.53
3:D:1366:LYS:O	3:D:1370:ILE:HG13	2.09	0.53
1:G:27:PRO:HB3	1:G:186:LEU:O	2.09	0.53
2:I:577:PRO:HG2	2:I:580:MET:HG2	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:683:ILE:HG22	3:J:687:VAL:HG21	1.91	0.53
5:L:154:ALA:O	5:L:158:LYS:HB2	2.08	0.53
1:A:72:LYS:HG3	2:C:641:PRO:HB2	1.91	0.52
5:F:137:LEU:HD22	5:F:178:LEU:HD11	1.91	0.52
2:I:206:THR:HG23	2:I:209:ARG:CZ	2.39	0.52
3:J:1293:PHE:HA	3:J:1302:GLU:HA	1.89	0.52
5:L:207:LEU:O	5:L:211:VAL:HG23	2.09	0.52
3:D:104:PHE:HB3	3:D:111:LYS:HB2	1.91	0.52
3:D:928:ALA:HA	3:D:931:LEU:HD12	1.92	0.52
1:G:53:VAL:HA	1:G:144:VAL:HG22	1.90	0.52
3:J:1107:VAL:HG13	3:J:1200:VAL:HG23	1.91	0.52
1:B:45:LEU:HD21	1:B:177:VAL:HG22	1.91	0.52
1:B:77:GLU:HB2	3:D:872:ARG:NH2	2.25	0.52
2:C:162:ILE:HB	2:C:172:ILE:HB	1.92	0.52
2:C:304:LEU:HB2	2:C:305:PRO:HD3	1.92	0.52
2:C:851:LYS:HG2	2:C:852:ILE:H	1.75	0.52
3:D:264:LEU:HG	3:D:316:HIS:CE1	2.45	0.52
3:D:780:LYS:HB3	3:D:912:LYS:HZ1	1.74	0.52
3:D:831:GLY:HA3	3:J:977:ALA:HB2	1.91	0.52
3:D:1311:LEU:HD23	3:D:1311:LEU:H	1.75	0.52
3:J:154:THR:HG22	3:J:157:GLU:HG2	1.91	0.52
3:J:801:GLY:HA2	3:J:821:VAL:HA	1.92	0.52
3:J:928:ALA:HA	3:J:931:LEU:HD12	1.92	0.52
3:J:968:ASP:OD1	3:J:1058:ARG:NH2	2.43	0.52
2:C:135:VAL:HG13	2:C:393:GLN:HG3	1.91	0.52
5:F:280:VAL:HA	5:F:283:ILE:HD12	1.91	0.52
2:I:468:ARG:HD3	2:I:487:THR:HG22	1.92	0.52
2:I:708:TYR:HE1	2:I:827:VAL:HB	1.75	0.52
3:J:1156:LEU:HD21	3:J:1177:ALA:HA	1.92	0.52
1:A:16:GLN:HB3	1:A:20:TYR:HB3	1.90	0.52
1:B:161:ARG:HG3	1:B:162:ILE:N	2.24	0.52
2:I:162:ILE:HB	2:I:172:ILE:HB	1.91	0.52
3:J:162:ARG:O	3:J:414:ARG:NH2	2.36	0.52
3:J:657:LEU:HG	3:J:661:MET:SD	2.49	0.52
3:J:1470:ARG:HG2	3:J:1471:LEU:H	1.73	0.52
1:A:56:VAL:HG22	1:A:142:VAL:HG12	1.91	0.52
2:C:290:LEU:HB3	2:C:303:PHE:CE1	2.45	0.52
2:C:502:PRO:HB2	2:C:509:ALA:HB3	1.91	0.52
2:C:798:GLY:HA3	2:C:827:VAL:HG13	1.91	0.52
2:C:1044:GLY:HA3	4:E:17:TYR:CE1	2.45	0.52
3:D:1491:THR:HG22	4:E:92:LEU:HD12	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:304:LEU:HB2	2:I:305:PRO:HD3	1.92	0.52
1:A:27:PRO:HB3	1:A:186:LEU:O	2.09	0.52
3:D:348:ALA:HB1	3:D:349:PRO:HD2	1.92	0.52
3:D:650:LEU:HD11	3:D:688:TRP:CZ3	2.45	0.52
5:F:387:ARG:HD3	5:F:401:VAL:HG21	1.90	0.52
1:G:63:HIS:CE1	1:G:65:PHE:HB2	2.45	0.52
2:I:115:LEU:HB3	2:I:378:LEU:HD23	1.91	0.52
2:I:606:VAL:HG23	2:I:645:VAL:HA	1.91	0.52
2:I:851:LYS:HG2	2:I:852:ILE:H	1.74	0.52
3:J:791:TYR:CZ	3:J:945:SER:HB3	2.45	0.52
3:J:1344:VAL:O	3:J:1348:LEU:HG	2.10	0.52
5:L:383:VAL:HG13	5:L:401:VAL:HG11	1.91	0.52
2:C:577:PRO:HG2	2:C:580:MET:HG2	1.92	0.52
3:D:224:ARG:HB3	3:D:251:PHE:CE2	2.44	0.52
3:D:477:LEU:HD21	3:D:495:ARG:HD3	1.91	0.52
3:D:639:LEU:HD22	3:D:766:ALA:HA	1.92	0.52
2:I:37:GLU:HG2	2:I:38:LYS:N	2.25	0.52
7:P:18:DT:H1'	7:P:19:DT:H5'	1.92	0.52
2:C:588:VAL:HG21	2:C:664:GLY:HA2	1.91	0.52
2:C:674:VAL:O	2:C:989:VAL:HA	2.10	0.52
2:C:848:VAL:CG2	3:D:740:PHE:HB3	2.40	0.52
2:C:940:GLU:HA	2:C:973:VAL:HG11	1.91	0.52
1:H:100:ILE:HD12	1:H:141:GLU:HG2	1.91	0.52
3:J:95:LEU:HG	3:J:574:LEU:HD11	1.91	0.52
3:J:413:ASP:O	3:J:435:VAL:HG12	2.09	0.52
3:J:757:ALA:O	3:J:761:ILE:HG13	2.10	0.52
1:B:156:HIS:NE2	1:B:167:VAL:O	2.38	0.52
2:C:211:LEU:HB3	2:C:218:VAL:HG13	1.91	0.52
2:C:484:VAL:HG12	2:C:486:MET:H	1.75	0.52
2:C:704:HIS:HD2	2:C:831:ARG:HD2	1.74	0.52
2:C:950:LEU:HD21	2:C:952:LEU:HD22	1.92	0.52
2:C:976:ASP:O	2:C:980:GLY:N	2.43	0.52
3:D:299:GLU:CD	3:D:300:VAL:H	2.13	0.52
5:F:383:VAL:HG13	5:F:401:VAL:HG11	1.91	0.52
2:I:135:VAL:HG11	2:I:406:HIS:CE1	2.45	0.52
2:I:146:VAL:HG21	2:I:281:LEU:HD11	1.92	0.52
2:I:195:LEU:HA	2:I:198:ARG:HD3	1.92	0.52
2:I:1083:GLU:OE2	3:J:87:ARG:NH1	2.43	0.52
3:J:542:ASP:OD1	3:J:545:ARG:NH2	2.43	0.52
2:C:756:VAL:O	2:C:789:SER:HB2	2.11	0.51
3:D:140:ALA:HB1	3:D:161:LEU:HD23	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1261:GLU:OE2	3:D:1268:PRO:HA	2.10	0.51
3:D:1273:VAL:HG22	3:D:1326:THR:HG23	1.93	0.51
1:H:111:ALA:HB2	1:H:127:LEU:HB3	1.91	0.51
2:I:177:GLU:HG3	2:I:178:ALA:N	2.25	0.51
2:I:756:VAL:O	2:I:789:SER:HB2	2.09	0.51
2:C:706:GLU:HB3	2:C:708:TYR:CE1	2.44	0.51
3:D:71:LYS:O	3:D:80:VAL:HG12	2.10	0.51
3:D:1225:ALA:O	3:D:1229:ILE:HG13	2.09	0.51
2:I:940:GLU:HA	2:I:973:VAL:HG11	1.92	0.51
3:J:421:LEU:HD13	3:J:444:VAL:HB	1.92	0.51
2:C:969:LEU:HG	3:D:952:ASP:HB2	1.92	0.51
3:D:708:LEU:HD23	3:D:708:LEU:H	1.76	0.51
3:D:894:LYS:HG3	3:D:895:VAL:H	1.75	0.51
3:D:938:GLY:HA2	3:D:941:LEU:HD12	1.91	0.51
5:F:249:LYS:HG2	6:O:29:DC:OP2	2.10	0.51
5:F:353:LEU:HD12	5:F:354:PRO:HD2	1.91	0.51
2:I:135:VAL:HG13	2:I:393:GLN:HG3	1.92	0.51
2:I:136:ILE:HA	2:I:391:LEU:O	2.10	0.51
3:J:938:GLY:HA2	3:J:941:LEU:HD12	1.91	0.51
7:P:5:DA:H1'	7:P:6:DC:H5'	1.92	0.51
2:C:343:GLN:HG3	2:C:385:PHE:HB2	1.92	0.51
2:C:881:ASN:O	2:C:883:GLY:N	2.44	0.51
2:C:1103:ASP:HA	3:D:5:VAL:HA	1.92	0.51
3:D:131:LYS:HG3	3:D:153:LEU:O	2.10	0.51
3:D:572:ARG:CZ	5:F:98:GLN:HG2	2.40	0.51
1:G:87:VAL:HG11	1:G:144:VAL:HG11	1.92	0.51
2:I:770:GLU:HG2	5:L:366:SER:HA	1.92	0.51
2:I:876:VAL:HG13	2:I:884:GLN:HE21	1.76	0.51
3:D:1047:LYS:HG2	3:D:1048:PRO:HD2	1.93	0.51
3:D:1318:TYR:N	3:J:1157:GLY:O	2.43	0.51
2:I:1044:GLY:HA3	4:K:17:TYR:CE1	2.45	0.51
3:J:415:VAL:HG22	3:J:433:GLY:O	2.10	0.51
3:J:1376:LEU:HA	3:J:1420:LEU:O	2.11	0.51
1:A:53:VAL:HA	1:A:144:VAL:HG22	1.92	0.51
2:C:408:ARG:HD3	2:C:542:LEU:HD21	1.92	0.51
3:D:122:GLU:HB2	3:D:152:LEU:HD21	1.93	0.51
2:I:18:LEU:HD22	2:I:18:LEU:H	1.75	0.51
2:I:141:HIS:NE2	2:I:334:ARG:HD3	2.25	0.51
2:I:290:LEU:HB3	2:I:303:PHE:CE1	2.45	0.51
2:I:484:VAL:HG12	2:I:486:MET:H	1.75	0.51
3:J:729:HIS:HB3	3:J:732:VAL:HG22	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:110:THR:HG22	5:L:111:LEU:H	1.75	0.51
5:L:137:LEU:HD22	5:L:178:LEU:HD11	1.93	0.51
1:B:181:VAL:HG12	1:B:195:LEU:HB2	1.93	0.51
2:C:557:ARG:HB2	2:C:881:ASN:HD21	1.74	0.51
2:C:637:PHE:HA	2:C:659:PRO:HG3	1.93	0.51
2:C:943:VAL:HG21	2:C:973:VAL:HG13	1.91	0.51
3:D:264:LEU:HG	3:D:316:HIS:NE2	2.26	0.51
4:E:34:ARG:HH21	4:E:94:PRO:HG2	1.76	0.51
2:I:114:PHE:HE1	5:L:294:GLN:HE21	1.57	0.51
2:I:195:LEU:HD23	2:I:238:LEU:HG	1.91	0.51
2:I:1035:MET:HB2	3:J:707:THR:HB	1.92	0.51
3:J:1110:ALA:O	3:J:1202:GLN:HB2	2.10	0.51
5:L:145:VAL:HG21	5:L:174:VAL:HG11	1.92	0.51
2:C:598:GLU:HG2	2:C:615:TYR:CZ	2.46	0.51
3:D:1170:ASP:O	3:D:1174:LEU:HG	2.11	0.51
3:D:1202:GLN:NE2	3:D:1217:ILE:HG12	2.26	0.51
3:J:773:ALA:HB2	3:J:1228:SER:HB3	1.93	0.51
3:J:1306:PRO:HB2	3:J:1308:ASP:OD1	2.11	0.51
5:L:218:THR:HA	5:L:227:LEU:HD11	1.93	0.51
5:L:380:GLU:HB2	5:L:419:ALA:HB2	1.93	0.51
2:C:9:ILE:HD12	2:C:907:ASP:HB2	1.92	0.51
2:C:195:LEU:HD23	2:C:238:LEU:HG	1.92	0.51
2:C:198:ARG:HH22	2:C:238:LEU:HB2	1.75	0.51
2:C:436:GLY:HA2	2:C:538:GLN:O	2.11	0.51
2:C:606:VAL:HG23	2:C:645:VAL:HA	1.91	0.51
2:C:708:TYR:HE1	2:C:827:VAL:HB	1.75	0.51
3:D:1108:ARG:NH1	3:D:1108:ARG:HB2	2.26	0.51
3:D:1336:LEU:HD22	3:D:1421:LEU:HB3	1.92	0.51
5:F:110:THR:HG22	5:F:111:LEU:H	1.76	0.51
1:H:49:PRO:HA	1:H:147:GLY:O	2.10	0.51
2:I:135:VAL:HG23	2:I:407:LYS:HG2	1.92	0.51
2:I:831:ARG:HD3	2:I:1002:GLU:HG2	1.93	0.51
3:J:437:VAL:HG22	3:J:444:VAL:HG13	1.91	0.51
3:J:780:LYS:HB3	3:J:912:LYS:HZ1	1.76	0.51
3:D:111:LYS:HD2	3:D:1452:ILE:HG13	1.93	0.51
3:D:647:ARG:HH12	3:D:683:ILE:HD11	1.76	0.51
3:D:1095:THR:HG22	3:D:1230:GLY:HA3	1.93	0.51
3:D:1135:ARG:HH21	3:D:1357:ARG:HH12	1.59	0.51
5:F:412:ILE:HD13	5:F:415:ILE:HD12	1.93	0.51
2:I:277:ALA:HA	2:I:280:LYS:HD3	1.93	0.51
3:J:1047:LYS:HG2	3:J:1048:PRO:HD2	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:116:ASP:O	5:L:120:LYS:HG3	2.10	0.51
5:L:252:THR:HA	6:R:29:DC:H5	1.76	0.51
3:D:896:ALA:O	3:D:900:ILE:HG13	2.11	0.50
5:F:116:ASP:O	5:F:120:LYS:HG3	2.11	0.50
5:F:254:ALA:O	5:F:258:ILE:HG12	2.11	0.50
2:I:634:GLY:O	2:I:704:HIS:HA	2.11	0.50
3:J:1170:ASP:OD2	3:J:1170:ASP:N	2.43	0.50
1:A:14:THR:HG23	1:B:231:SER:O	2.11	0.50
1:B:149:GLY:O	1:B:171:PHE:HB2	2.12	0.50
2:C:408:ARG:HG2	2:C:455:LEU:HB3	1.93	0.50
3:D:657:LEU:HG	3:D:661:MET:SD	2.51	0.50
3:D:837:GLY:HA2	3:D:840:LYS:HB3	1.93	0.50
3:D:1020:LEU:HD11	3:D:1035:ILE:HD12	1.94	0.50
5:F:252:THR:OG1	6:O:28:DA:H2'	2.11	0.50
1:G:14:THR:HG23	1:H:231:SER:O	2.11	0.50
1:G:72:LYS:HG3	2:I:641:PRO:HB2	1.92	0.50
2:I:408:ARG:HD3	2:I:542:LEU:HD21	1.94	0.50
2:I:524:VAL:HG22	2:I:525:ALA:H	1.76	0.50
3:J:1344:VAL:HG12	3:J:1348:LEU:HD11	1.93	0.50
1:A:88:ARG:HD2	1:A:204:SER:O	2.11	0.50
2:C:18:LEU:HD22	2:C:18:LEU:H	1.76	0.50
2:C:139:GLN:HB3	2:C:334:ARG:HB2	1.94	0.50
3:D:1253:THR:HG22	3:D:1254:GLN:H	1.76	0.50
3:D:1343:ALA:HA	3:D:1346:ARG:HG3	1.94	0.50
5:F:410:GLU:O	5:F:413:ARG:HB3	2.10	0.50
1:G:20:TYR:HD2	1:G:21:GLY:H	1.59	0.50
1:H:45:LEU:HD21	1:H:177:VAL:HG22	1.94	0.50
2:I:139:GLN:HB3	2:I:334:ARG:HB2	1.93	0.50
2:I:668:LEU:HB3	2:I:995:MET:HG3	1.92	0.50
2:I:683:ASN:HB2	2:I:872:ASN:H	1.77	0.50
3:J:420:VAL:HG22	3:J:421:LEU:O	2.11	0.50
3:J:479:GLU:O	3:J:482:LYS:HG2	2.12	0.50
3:J:1285:GLU:HG2	3:J:1290:LEU:HG	1.93	0.50
4:K:34:ARG:HH21	4:K:94:PRO:HG2	1.75	0.50
5:L:165:LYS:HD2	5:L:165:LYS:H	1.76	0.50
1:B:100:ILE:HD12	1:B:141:GLU:HG2	1.94	0.50
1:G:218:LEU:HD21	1:H:222:LEU:HD22	1.94	0.50
1:H:182:GLU:HG3	1:H:194:LYS:HB3	1.93	0.50
2:I:508:ILE:HD11	2:I:529:VAL:HG11	1.93	0.50
2:I:706:GLU:HB3	2:I:708:TYR:CE1	2.46	0.50
3:J:543:LEU:HG	3:J:600:LEU:HD13	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:989:TYR:O	3:J:993:ILE:HB	2.11	0.50
1:B:89:PHE:HE1	1:B:97:THR:HG22	1.77	0.50
3:D:791:TYR:CZ	3:D:945:SER:HB3	2.47	0.50
2:I:501:THR:HG22	2:I:514:VAL:HG23	1.94	0.50
7:P:3:DG:H1'	7:P:4:DC:H5'	1.92	0.50
2:C:113:VAL:HG12	2:C:370:ALA:HA	1.94	0.50
2:C:403:SER:O	2:C:407:LYS:HE2	2.12	0.50
1:G:23:PHE:CE2	1:G:199:ILE:HD12	2.45	0.50
3:J:644:LEU:HG	3:J:649:ALA:HB2	1.93	0.50
3:J:650:LEU:HD11	3:J:688:TRP:CZ3	2.46	0.50
3:J:654:LYS:O	3:J:658:LEU:HB2	2.11	0.50
3:J:1231:GLU:HB3	3:J:1232:PRO:HD3	1.93	0.50
7:P:8:DA:H1'	7:P:9:DT:H5''	1.93	0.50
2:C:69:LEU:HG	2:C:98:LEU:HA	1.93	0.50
2:C:195:LEU:HA	2:C:198:ARG:HD3	1.93	0.50
2:C:770:GLU:HG2	5:F:366:SER:HA	1.93	0.50
2:C:1112:PHE:HB3	3:D:88:TYR:CD2	2.46	0.50
2:I:408:ARG:HG2	2:I:455:LEU:HB3	1.93	0.50
3:J:1425:THR:HG22	3:J:1429:LEU:HD12	1.94	0.50
5:L:431:ARG:HG2	5:L:431:ARG:O	2.12	0.50
1:B:29:GLU:HB3	1:B:32:PHE:CD1	2.47	0.50
2:C:726:ILE:HB	2:C:729:LEU:HB2	1.92	0.50
3:D:112:ILE:HD12	3:D:113:GLY:N	2.27	0.50
3:D:1473:PRO:O	3:D:1478:SER:HA	2.11	0.50
2:I:173:ASP:O	2:I:184:MET:HG3	2.11	0.50
3:J:631:ILE:HD11	3:J:739:ASP:O	2.12	0.50
1:B:49:PRO:HA	1:B:147:GLY:O	2.12	0.50
2:C:23:VAL:HA	2:C:121:MET:SD	2.52	0.50
2:C:177:GLU:HG3	2:C:178:ALA:N	2.27	0.50
2:C:627:ARG:HD2	2:C:639:GLN:H	1.76	0.50
2:C:736:ASP:HB3	2:C:744:ARG:HG3	1.93	0.50
2:C:885:ILE:HG22	2:C:889:HIS:CD2	2.47	0.50
3:D:527:MET:HG3	3:D:537:THR:HB	1.92	0.50
1:G:56:VAL:HG22	1:G:142:VAL:HG12	1.94	0.50
1:H:149:GLY:O	1:H:171:PHE:HB2	2.11	0.50
2:I:387:SER:HB2	2:I:388:ARG:NH1	2.27	0.50
2:I:704:HIS:HD2	2:I:831:ARG:HD2	1.75	0.50
2:I:881:ASN:O	2:I:883:GLY:N	2.45	0.50
3:J:894:LYS:HG3	3:J:895:VAL:H	1.76	0.50
3:J:896:ALA:O	3:J:900:ILE:HG13	2.12	0.50
1:B:97:THR:OG1	1:B:98:THR:N	2.44	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:448:ASN:O	2:C:451:LEU:HB2	2.12	0.49
2:C:508:ILE:HD11	2:C:529:VAL:HG11	1.94	0.49
3:D:274:GLN:HG3	3:D:279:VAL:HG21	1.94	0.49
3:D:317:MET:SD	3:D:337:LEU:HD22	2.52	0.49
3:D:1150:ALA:HB3	3:D:1187:PRO:HB2	1.93	0.49
1:G:56:VAL:HG21	1:G:82:LEU:HD13	1.94	0.49
1:H:77:GLU:HB2	3:J:872:ARG:NH2	2.26	0.49
2:I:537:LYS:HE3	2:I:583:LEU:HD11	1.94	0.49
2:I:729:LEU:HD12	2:I:734:LEU:HD13	1.94	0.49
2:I:848:VAL:HG11	3:J:630:VAL:HG21	1.94	0.49
2:I:1085:PHE:HA	3:J:618:LEU:HD21	1.94	0.49
3:J:402:PRO:HA	3:J:443:VAL:HA	1.93	0.49
3:J:1225:ALA:O	3:J:1229:ILE:HG13	2.12	0.49
6:R:7:DA:H61	7:S:20:DT:H3	1.60	0.49
2:C:37:GLU:HG2	2:C:38:LYS:H	1.77	0.49
2:C:214:TYR:HB3	2:C:217:LEU:HD12	1.94	0.49
2:C:705:ILE:HG12	2:C:828:ALA:HB2	1.94	0.49
2:C:708:TYR:OH	2:C:796:GLU:OE1	2.24	0.49
3:D:112:ILE:HG23	3:D:512:MET:SD	2.52	0.49
3:D:176:ASP:HA	3:D:389:GLU:HA	1.94	0.49
3:D:815:ALA:HA	3:D:818:ARG:HE	1.77	0.49
3:D:1110:ALA:O	3:D:1202:GLN:HB2	2.12	0.49
3:D:1264:GLU:OE1	3:D:1425:THR:OG1	2.29	0.49
1:H:159:LYS:HA	1:H:164:ALA:HB3	1.94	0.49
2:I:976:ASP:O	2:I:980:GLY:N	2.44	0.49
3:J:129:PHE:CE1	3:J:457:GLY:HA3	2.47	0.49
1:A:63:HIS:HA	1:A:165:ILE:HD11	1.94	0.49
1:A:218:LEU:HD21	1:B:222:LEU:HD22	1.95	0.49
2:C:581:THR:OG1	2:C:584:GLU:OE2	2.30	0.49
2:C:1083:GLU:O	2:C:1087:VAL:HG23	2.11	0.49
3:D:18:ILE:HG12	3:D:518:PRO:HG3	1.94	0.49
5:F:209:LEU:HB2	6:O:30:DT:C2	2.47	0.49
5:F:289:THR:O	5:F:293:LEU:HG	2.12	0.49
2:I:848:VAL:CG2	3:J:740:PHE:HB3	2.41	0.49
3:J:650:LEU:HD21	3:J:683:ILE:HG21	1.94	0.49
3:J:711:LEU:HB3	3:J:735:ALA:HB1	1.94	0.49
2:C:277:ALA:HA	2:C:280:LYS:HD3	1.94	0.49
2:C:390:GLN:HG2	2:C:415:PRO:HD3	1.94	0.49
3:D:111:LYS:O	3:D:115:LEU:HB2	2.12	0.49
3:D:1231:GLU:HB3	3:D:1232:PRO:HD3	1.94	0.49
2:I:1083:GLU:O	2:I:1087:VAL:HG23	2.11	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:639:LEU:HD22	3:J:766:ALA:HA	1.94	0.49
2:C:501:THR:HG22	2:C:514:VAL:HG23	1.94	0.49
2:C:707:ARG:HB2	2:C:707:ARG:HH11	1.78	0.49
2:C:754:ILE:HG12	2:C:791:ARG:HD3	1.94	0.49
3:D:644:LEU:HG	3:D:649:ALA:HB2	1.95	0.49
3:D:849:ALA:O	3:D:853:VAL:HG23	2.13	0.49
4:E:19:LEU:O	4:E:23:VAL:HG23	2.13	0.49
1:G:35:THR:HG23	1:H:42:ARG:HB2	1.94	0.49
2:I:588:VAL:HG21	2:I:664:GLY:HA2	1.93	0.49
3:J:132:TYR:HA	3:J:456:MET:HB3	1.94	0.49
2:C:607:ASP:C	2:C:609:THR:H	2.15	0.49
2:C:1007:ALA:HB1	3:D:652:LEU:HD13	1.94	0.49
3:D:245:LEU:CB	3:D:309:GLY:HA2	2.41	0.49
3:D:638:LYS:HG3	3:D:639:LEU:N	2.27	0.49
3:D:1434:TRP:NE1	3:D:1457:ASP:HB2	2.27	0.49
2:I:64:LEU:HD21	2:I:66:LEU:HB2	1.95	0.49
3:J:214:ASP:HA	3:J:342:PRO:HA	1.94	0.49
3:J:577:ALA:O	3:J:581:VAL:HG23	2.12	0.49
5:L:252:THR:HA	6:R:29:DC:C5	2.48	0.49
2:C:524:VAL:HG22	2:C:525:ALA:H	1.76	0.49
2:C:936:VAL:HB	2:C:941:LYS:HE2	1.95	0.49
3:D:471:GLU:O	3:D:474:GLU:HB3	2.12	0.49
5:F:149:LYS:HB2	5:F:193:ARG:HH12	1.78	0.49
2:I:9:ILE:HD12	2:I:907:ASP:HB2	1.94	0.49
2:I:598:GLU:HG2	2:I:615:TYR:CZ	2.47	0.49
3:J:1361:VAL:HG12	3:J:1363:LEU:H	1.78	0.49
5:L:241:LYS:HE2	6:R:24:DC:H3'	1.95	0.49
5:L:254:ALA:O	5:L:258:ILE:HG12	2.13	0.49
1:A:56:VAL:HG21	1:A:82:LEU:HD13	1.95	0.49
2:C:729:LEU:HD12	2:C:734:LEU:HD13	1.94	0.49
2:C:1067:TYR:O	2:C:1071:ILE:HB	2.12	0.49
3:D:1046:GLN:HE22	3:D:1079:LYS:HE2	1.78	0.49
3:D:1106:VAL:HB	3:D:1108:ARG:HH12	1.78	0.49
2:I:198:ARG:HH22	2:I:238:LEU:HB2	1.77	0.49
2:I:272:ALA:O	2:I:276:LYS:N	2.39	0.49
2:I:436:GLY:HA2	2:I:538:GLN:O	2.12	0.49
2:I:572:ILE:HD11	2:I:703:ILE:HG13	1.93	0.49
2:I:674:VAL:O	2:I:989:VAL:HA	2.12	0.49
2:C:65:VAL:HG12	2:C:101:ILE:HB	1.95	0.49
3:D:989:TYR:O	3:D:993:ILE:HB	2.12	0.49
3:D:1131:THR:HA	3:J:1179:GLU:O	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:103:ILE:HD13	5:F:211:VAL:HG21	1.95	0.49
1:H:151:VAL:HG12	1:H:156:HIS:HD2	1.78	0.49
2:I:193:LEU:HA	2:I:196:LEU:HD13	1.94	0.49
3:J:815:ALA:HA	3:J:818:ARG:HE	1.78	0.49
5:L:210:VAL:HA	5:L:213:ILE:HD12	1.95	0.49
5:L:238:ALA:HB2	5:L:257:TRP:HB2	1.95	0.49
5:L:387:ARG:HD3	5:L:401:VAL:HG21	1.95	0.49
5:L:412:ILE:O	5:L:416:GLU:HG2	2.13	0.49
1:A:87:VAL:HG11	1:A:144:VAL:HG11	1.95	0.49
2:C:874:LEU:O	2:C:877:PRO:HD2	2.13	0.49
3:D:1280:VAL:HG22	3:D:1295:GLU:O	2.12	0.49
3:D:1459:LEU:HD23	3:D:1470:ARG:HE	1.78	0.49
5:F:165:LYS:HD2	5:F:165:LYS:H	1.78	0.49
5:F:292:GLN:O	5:F:295:GLN:HG3	2.13	0.49
5:F:431:ARG:HG2	5:F:431:ARG:O	2.11	0.49
1:H:176:ARG:HG3	3:J:850:LEU:HD22	1.94	0.49
3:J:112:ILE:HD12	3:J:113:GLY:N	2.28	0.49
3:J:644:LEU:HD12	3:J:645:PRO:HD2	1.94	0.49
2:C:952:LEU:HD23	2:C:966:LEU:HD11	1.95	0.48
3:D:112:ILE:HD12	3:D:113:GLY:H	1.78	0.48
3:D:1377:LYS:O	3:D:1397:LYS:N	2.39	0.48
1:G:15:THR:O	1:H:232:LEU:HD23	2.13	0.48
2:I:65:VAL:HG12	2:I:101:ILE:HB	1.95	0.48
2:I:497:ALA:HB3	2:I:532:MET:HG3	1.94	0.48
3:J:638:LYS:HG3	3:J:639:LEU:N	2.28	0.48
3:J:927:THR:HA	3:J:930:LEU:HB3	1.95	0.48
3:J:1197:ARG:HE	3:J:1398:TRP:HB3	1.78	0.48
5:L:124:GLY:O	5:L:128:ILE:HG13	2.13	0.48
5:L:220:ARG:HH22	7:S:1:DT:H3'	1.78	0.48
5:L:336:ILE:HD11	5:L:344:TYR:HA	1.95	0.48
3:D:974:ILE:HG22	3:D:988:ARG:HG3	1.94	0.48
3:D:1107:VAL:HG13	3:D:1200:VAL:HG23	1.95	0.48
3:D:1170:ASP:OD2	3:D:1170:ASP:N	2.43	0.48
5:F:241:LYS:HE2	6:O:24:DC:H3'	1.96	0.48
2:I:22:GLN:HA	2:I:336:VAL:HG21	1.95	0.48
2:I:736:ASP:HB3	2:I:744:ARG:HG3	1.94	0.48
2:I:751:PRO:HB3	2:I:794:PRO:HA	1.94	0.48
3:J:122:GLU:O	3:J:126:VAL:HG23	2.12	0.48
3:J:666:PHE:CE1	3:J:687:VAL:HG12	2.48	0.48
3:J:702:LEU:HD12	3:J:746:ALA:O	2.12	0.48
1:A:63:HIS:HB3	2:C:746:GLY:HA3	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:11:GLU:HG3	2:C:535:SER:HB2	1.95	0.48
2:C:410:ILE:O	2:C:452:ILE:HA	2.13	0.48
5:F:336:ILE:HD11	5:F:344:TYR:HA	1.94	0.48
2:I:713:ARG:NH1	3:J:533:GLY:HA2	2.28	0.48
7:P:8:DA:C2'	7:P:9:DT:H5''	2.44	0.48
1:B:151:VAL:HG12	1:B:156:HIS:HD2	1.79	0.48
3:D:397:LYS:HE2	3:D:448:GLU:HB3	1.94	0.48
3:D:421:LEU:HD11	3:D:429:SER:HB2	1.95	0.48
3:D:806:PHE:CD1	3:D:811:GLU:HB3	2.48	0.48
3:D:968:ASP:OD1	3:D:1058:ARG:NH2	2.46	0.48
2:I:885:ILE:HG22	2:I:889:HIS:CD2	2.49	0.48
2:I:936:VAL:HB	2:I:941:LYS:HE2	1.94	0.48
3:J:15:PRO:HG3	3:J:514:LEU:HD12	1.95	0.48
3:J:71:LYS:O	3:J:80:VAL:HG12	2.13	0.48
6:O:14:DT:H1'	6:O:15:DT:H5'	1.95	0.48
6:R:7:DA:H1'	6:R:8:DA:H5'	1.94	0.48
1:B:176:ARG:HG3	3:D:850:LEU:HD22	1.94	0.48
2:C:135:VAL:HG11	2:C:406:HIS:CE1	2.48	0.48
2:C:816:LYS:HG3	2:C:817:PRO:HD2	1.94	0.48
2:C:1035:MET:HB2	3:D:707:THR:HB	1.94	0.48
3:D:780:LYS:HB2	3:D:908:LYS:HZ1	1.79	0.48
3:D:1021:TYR:CE1	3:D:1025:GLN:HG3	2.49	0.48
1:G:36:LEU:O	1:G:39:PRO:HD2	2.14	0.48
1:H:156:HIS:ND1	1:H:156:HIS:O	2.46	0.48
2:I:11:GLU:HG3	2:I:535:SER:HB2	1.94	0.48
2:I:69:LEU:HG	2:I:98:LEU:HA	1.94	0.48
2:I:572:ILE:HD12	2:I:572:ILE:H	1.77	0.48
2:I:1112:PHE:HB2	2:I:1115:LEU:HB2	1.96	0.48
1:A:30:ARG:HG3	2:C:938:LYS:NZ	2.28	0.48
1:B:179:PHE:HB3	1:B:197:LEU:HD13	1.96	0.48
2:C:679:PHE:H	2:C:683:ASN:HD21	1.60	0.48
3:D:127:LEU:HD23	3:D:461:ILE:HG13	1.95	0.48
3:D:1065:LEU:HB3	3:D:1069:GLU:HB2	1.95	0.48
3:D:1098:LEU:HD11	3:D:1263:PHE:CD2	2.48	0.48
2:I:37:GLU:HG2	2:I:38:LYS:H	1.78	0.48
2:I:772:ARG:HG2	5:L:388:LYS:HD2	1.96	0.48
2:I:816:LYS:HG3	2:I:817:PRO:HD2	1.95	0.48
3:J:25:GLU:HG2	3:J:93:ILE:HA	1.94	0.48
3:J:122:GLU:HB2	3:J:152:LEU:HD21	1.95	0.48
3:J:699:VAL:HG22	3:J:760:ARG:HG2	1.96	0.48
3:J:716:PHE:CZ	3:J:728:LEU:HD11	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:862:ASP:O	3:J:876:SER:HA	2.13	0.48
3:J:1283:ILE:HA	3:J:1292:VAL:HG22	1.96	0.48
1:A:24:VAL:HA	1:A:195:LEU:O	2.14	0.48
1:B:187:GLY:H	4:E:51:LEU:HD11	1.79	0.48
2:C:71:TYR:HD1	2:C:94:LEU:HD11	1.78	0.48
2:C:848:VAL:HG11	3:D:630:VAL:HG21	1.95	0.48
2:C:1055:ILE:HD11	2:C:1079:PRO:HD3	1.95	0.48
3:D:103:TRP:HE3	3:D:1448:THR:HG23	1.77	0.48
3:D:521:PRO:HD2	3:D:524:LEU:HD12	1.95	0.48
2:I:1089:VAL:HG11	2:I:1112:PHE:HE2	1.78	0.48
3:J:1500:LYS:HA	3:J:1503:VAL:HG22	1.95	0.48
5:L:165:LYS:O	5:L:165:LYS:HG2	2.13	0.48
1:A:42:ARG:NH1	2:C:857:ASP:OD1	2.46	0.48
1:A:57:TYR:HB3	1:A:141:GLU:HG3	1.95	0.48
1:A:70:GLY:HA2	1:A:133:GLU:HG2	1.95	0.48
2:C:157:ARG:CZ	2:C:314:THR:HB	2.43	0.48
2:C:578:VAL:HG23	2:C:671:ASN:ND2	2.28	0.48
2:C:1038:TRP:CE2	3:D:1099:VAL:HG11	2.49	0.48
1:G:66:SER:O	1:G:75:VAL:HG23	2.14	0.48
2:I:432:ARG:H	2:I:432:ARG:HG3	1.48	0.48
2:I:448:ASN:O	2:I:451:LEU:HB2	2.14	0.48
3:J:123:LEU:HG	3:J:127:LEU:HD11	1.96	0.48
1:A:63:HIS:CE1	1:A:65:PHE:HB2	2.48	0.48
2:C:135:VAL:HG23	2:C:407:LYS:HG2	1.95	0.48
2:C:660:ALA:O	2:C:667:ALA:N	2.41	0.48
2:I:113:VAL:HG12	2:I:370:ALA:HA	1.96	0.48
2:I:627:ARG:HD2	2:I:639:GLN:H	1.79	0.48
2:I:941:LYS:HZ2	2:I:959:PRO:HG2	1.78	0.48
2:I:1055:ILE:HD11	2:I:1079:PRO:HD3	1.96	0.48
3:J:876:SER:O	3:J:879:ARG:HB3	2.14	0.48
3:J:1127:GLU:HG3	3:J:1128:VAL:HG23	1.96	0.48
3:J:1473:PRO:O	3:J:1478:SER:HA	2.13	0.48
2:C:173:ASP:O	2:C:184:MET:HG3	2.14	0.48
2:C:387:SER:HB2	2:C:388:ARG:NH1	2.29	0.48
2:C:399:ASN:HD21	2:C:566:THR:HA	1.79	0.48
2:C:714:ASP:HA	2:C:719:PRO:HA	1.95	0.48
2:C:886:LEU:HD21	3:D:951:ILE:HD13	1.95	0.48
3:D:862:ASP:O	3:D:876:SER:HA	2.14	0.48
4:E:26:ARG:O	4:E:30:LEU:HD13	2.14	0.48
5:F:165:LYS:O	5:F:165:LYS:HG2	2.14	0.48
1:G:42:ARG:NH1	2:I:857:ASP:OD1	2.47	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:42:ARG:NH2	1:H:31:GLY:O	2.36	0.48
2:I:798:GLY:HA3	2:I:827:VAL:CG1	2.43	0.48
2:I:1047:HIS:HA	2:I:1050:GLN:HG2	1.94	0.48
7:P:10:DT:H1'	7:P:11:DT:H5'	1.96	0.48
1:A:36:LEU:O	1:A:39:PRO:HD2	2.14	0.47
2:C:572:ILE:H	2:C:572:ILE:HD12	1.79	0.47
3:D:46:ASP:O	3:D:50:PHE:HB2	2.14	0.47
3:D:638:LYS:HG2	3:D:640:HIS:CE1	2.49	0.47
3:D:661:MET:HG2	3:D:666:PHE:CZ	2.49	0.47
1:G:88:ARG:HD2	1:G:204:SER:O	2.13	0.47
1:H:64:GLU:HG3	1:H:165:ILE:HG21	1.96	0.47
2:I:886:LEU:HD21	3:J:951:ILE:HD13	1.95	0.47
3:J:760:ARG:HH21	4:K:65:MET:HG3	1.79	0.47
3:J:1335:LEU:HD12	3:J:1344:VAL:HG22	1.96	0.47
5:L:178:LEU:HA	5:L:181:LEU:HD13	1.96	0.47
5:L:412:ILE:HD13	5:L:415:ILE:HD12	1.96	0.47
1:B:64:GLU:HG3	1:B:165:ILE:HG21	1.96	0.47
2:C:209:ARG:HG3	2:C:210:GLU:N	2.29	0.47
2:C:569:VAL:HB	2:C:635:THR:HG21	1.96	0.47
3:D:475:ARG:HA	3:D:478:LEU:HD12	1.96	0.47
2:I:22:GLN:HG3	2:I:407:LYS:HB3	1.96	0.47
2:I:607:ASP:C	2:I:609:THR:H	2.18	0.47
2:I:705:ILE:HG12	2:I:828:ALA:HB2	1.96	0.47
2:I:769:PRO:HG3	3:J:65:ARG:HH12	1.78	0.47
2:I:1047:HIS:HA	2:I:1050:GLN:CG	2.43	0.47
3:J:544:TYR:O	3:J:548:ILE:HG13	2.13	0.47
3:J:560:GLN:HE22	5:L:236:ILE:HD13	1.79	0.47
6:O:28:DA:H1'	6:O:29:DC:H5'	1.96	0.47
1:A:20:TYR:HD2	1:A:21:GLY:H	1.62	0.47
1:A:181:VAL:O	1:A:182:GLU:HG3	2.14	0.47
2:C:876:VAL:HG13	2:C:884:GLN:HE21	1.79	0.47
3:D:644:LEU:HD12	3:D:645:PRO:HD2	1.97	0.47
3:D:650:LEU:HD21	3:D:683:ILE:HG21	1.95	0.47
3:D:1225:ALA:HB1	3:D:1367:HIS:HB3	1.96	0.47
1:G:44:LEU:HD13	1:G:177:VAL:HG21	1.97	0.47
1:G:177:VAL:HG13	1:G:199:ILE:HG12	1.95	0.47
1:G:209:GLU:O	1:G:213:GLN:HG2	2.15	0.47
2:I:157:ARG:CZ	2:I:314:THR:HB	2.44	0.47
2:I:403:SER:O	2:I:407:LYS:HE2	2.13	0.47
2:I:410:ILE:O	2:I:452:ILE:HA	2.14	0.47
2:I:1085:PHE:HE2	3:J:1468:LEU:HD22	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:977:ALA:HB3	3:J:983:LEU:HD12	1.96	0.47
4:K:26:ARG:O	4:K:30:LEU:HD13	2.15	0.47
2:C:374:ASN:OD1	2:C:375:SER:N	2.47	0.47
2:C:700:TYR:HB3	2:C:833:LEU:HD13	1.96	0.47
3:D:250:LEU:HD23	3:D:306:GLU:HG3	1.96	0.47
3:D:517:VAL:O	3:D:519:VAL:HG23	2.15	0.47
3:D:1153:VAL:O	3:D:1159:ARG:HB2	2.14	0.47
3:D:1188:VAL:HG12	3:D:1189:ARG:N	2.30	0.47
1:G:41:ARG:HD3	1:G:45:LEU:HD11	1.96	0.47
2:I:209:ARG:HG3	2:I:210:GLU:N	2.29	0.47
3:J:131:LYS:HE2	3:J:152:LEU:HB3	1.96	0.47
3:J:708:LEU:HD23	3:J:708:LEU:H	1.79	0.47
5:L:117:LEU:O	5:L:121:VAL:HG23	2.15	0.47
2:C:578:VAL:HG13	2:C:900:ARG:HG2	1.97	0.47
3:D:841:PHE:CE2	3:D:858:LEU:HD13	2.50	0.47
3:D:918:ALA:O	3:D:922:LEU:HB2	2.15	0.47
3:D:971:LEU:HA	3:D:974:ILE:HD12	1.95	0.47
3:D:977:ALA:HB3	3:D:983:LEU:HD12	1.97	0.47
3:D:1302:GLU:OE2	3:D:1304:LYS:HE3	2.14	0.47
1:H:150:TYR:HD2	3:J:857:LEU:HD12	1.80	0.47
2:I:45:GLN:HA	2:I:45:GLN:HE21	1.79	0.47
2:I:570:PRO:HD2	2:I:635:THR:HG21	1.97	0.47
2:I:707:ARG:HH11	2:I:707:ARG:HB2	1.79	0.47
3:J:9:ARG:HG2	3:J:10:ILE:N	2.28	0.47
3:J:1114:THR:HG21	3:J:1193:THR:O	2.15	0.47
3:J:1151:ARG:HA	3:J:1162:GLU:HG3	1.96	0.47
3:J:1366:LYS:O	3:J:1370:ILE:HG13	2.14	0.47
3:J:1495:ILE:HD13	4:K:80:VAL:HB	1.95	0.47
5:L:286:LEU:HD23	5:L:310:MET:HG3	1.95	0.47
5:L:383:VAL:HG22	5:L:404:TYR:HE2	1.77	0.47
1:B:156:HIS:O	1:B:156:HIS:ND1	2.48	0.47
2:C:64:LEU:HD21	2:C:66:LEU:HB2	1.95	0.47
2:C:136:ILE:HA	2:C:391:LEU:O	2.14	0.47
2:C:772:ARG:HG2	5:F:388:LYS:HD2	1.96	0.47
3:D:1464:GLU:CD	3:D:1464:GLU:H	2.15	0.47
4:E:45:ARG:HD2	4:E:63:TRP:HH2	1.80	0.47
5:F:238:ALA:HB2	5:F:257:TRP:HB2	1.96	0.47
1:G:57:TYR:HB3	1:G:141:GLU:HG3	1.95	0.47
1:H:54:THR:OG1	1:H:55:SER:N	2.47	0.47
2:I:214:TYR:HB3	2:I:217:LEU:HD12	1.97	0.47
2:I:874:LEU:O	2:I:877:PRO:HD2	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:849:ALA:O	3:J:853:VAL:HG23	2.13	0.47
3:J:1444:THR:O	3:J:1448:THR:OG1	2.33	0.47
2:C:497:ALA:HB3	2:C:532:MET:HG3	1.97	0.47
2:C:888:THR:HG22	2:C:989:VAL:O	2.15	0.47
2:C:1048:THR:O	2:C:1052:MET:HG2	2.15	0.47
3:D:25:GLU:HA	3:D:92:HIS:O	2.14	0.47
3:D:122:GLU:O	3:D:126:VAL:HG23	2.15	0.47
3:D:226:PRO:HD2	3:D:245:LEU:HD21	1.97	0.47
3:D:517:VAL:HG11	3:D:547:LEU:HD21	1.96	0.47
3:D:548:ILE:H	3:D:548:ILE:HG13	1.54	0.47
3:D:557:LEU:HD11	5:F:229:GLN:OE1	2.14	0.47
3:D:635:PRO:O	3:D:935:LYS:HE2	2.15	0.47
3:D:711:LEU:HB3	3:D:735:ALA:HB1	1.95	0.47
3:D:810:GLU:O	3:D:813:LEU:HB3	2.14	0.47
3:D:930:LEU:O	3:D:934:LEU:HD12	2.15	0.47
3:D:1117:TYR:HB2	3:D:1188:VAL:O	2.14	0.47
3:D:1211:MET:HB3	3:D:1213:ARG:HG2	1.96	0.47
5:F:124:GLY:O	5:F:128:ILE:HG13	2.13	0.47
1:G:30:ARG:HG3	2:I:938:LYS:NZ	2.30	0.47
1:H:34:VAL:HG11	2:I:978:ARG:HB3	1.97	0.47
1:H:40:LEU:O	1:H:44:LEU:HB2	2.15	0.47
1:H:187:GLY:H	4:K:51:LEU:HD11	1.79	0.47
2:I:71:TYR:HD1	2:I:94:LEU:HD11	1.79	0.47
2:I:754:ILE:HG12	2:I:791:ARG:HD3	1.95	0.47
2:I:952:LEU:HD23	2:I:966:LEU:HD11	1.96	0.47
2:I:1088:LEU:O	2:I:1092:LEU:HG	2.15	0.47
3:J:46:ASP:O	3:J:50:PHE:HB2	2.13	0.47
3:J:135:LEU:O	3:J:453:ASP:HB3	2.14	0.47
3:J:698:LYS:HG3	4:K:59:ASN:ND2	2.29	0.47
3:J:1102:ALA:HB1	3:J:1222:GLY:C	2.35	0.47
3:J:1459:LEU:HB3	3:J:1465:ASN:ND2	2.30	0.47
6:O:5:DA:H1'	6:O:6:DC:H5'	1.96	0.47
7:S:21:DG:H1'	7:S:22:DT:H5'	1.97	0.47
1:B:159:LYS:HA	1:B:164:ALA:HB3	1.97	0.47
2:C:430:VAL:HG12	2:C:434:HIS:CD2	2.50	0.47
3:D:233:LYS:HB3	3:D:236:TYR:CE1	2.49	0.47
3:D:1135:ARG:NH2	3:D:1357:ARG:HH22	2.13	0.47
2:I:609:THR:O	2:I:625:LEU:HG	2.15	0.47
2:I:952:LEU:HD21	2:I:971:LYS:HZ2	1.80	0.47
3:J:486:ARG:HA	3:J:489:ARG:HG2	1.95	0.47
3:J:1021:TYR:CE1	3:J:1025:GLN:HG3	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:28:DA:H1'	6:R:29:DC:H5'	1.97	0.47
1:A:177:VAL:HG13	1:A:199:ILE:HG12	1.96	0.47
2:C:111:ASP:HB3	2:C:369:PRO:HG2	1.97	0.47
2:C:202:TYR:CD1	2:C:206:THR:HG21	2.50	0.47
2:C:456:ALA:HB1	2:C:538:GLN:O	2.15	0.47
2:C:751:PRO:HB3	2:C:794:PRO:HA	1.96	0.47
2:C:1019:GLN:OE1	2:C:1057:SER:OG	2.32	0.47
3:D:1006:ALA:O	3:D:1010:ASN:HB2	2.15	0.47
3:D:1087:ARG:NH1	3:D:1236:LEU:O	2.48	0.47
1:G:35:THR:CG2	1:H:39:PRO:HA	2.45	0.47
2:I:15:LEU:O	2:I:586:ARG:NH1	2.47	0.47
2:I:299:LYS:HG3	2:I:300:ASP:H	1.80	0.47
2:I:714:ASP:HA	2:I:719:PRO:HA	1.96	0.47
2:I:1007:ALA:HB1	3:J:652:LEU:HD13	1.97	0.47
2:I:1035:MET:HA	2:I:1038:TRP:CE3	2.50	0.47
3:J:918:ALA:O	3:J:922:LEU:HB2	2.14	0.47
3:J:1209:LEU:HD12	3:J:1209:LEU:H	1.80	0.47
3:J:1340:GLY:O	3:J:1344:VAL:HG23	2.15	0.47
3:J:1341:PRO:O	3:J:1344:VAL:HB	2.15	0.47
6:O:7:DA:N6	7:P:20:DT:H3	2.10	0.47
1:B:54:THR:HG22	1:B:143:ARG:O	2.15	0.47
2:C:118:LEU:HD13	2:C:382:LEU:HD23	1.96	0.47
2:C:676:ILE:HA	2:C:871:LEU:O	2.14	0.47
2:C:829:GLN:OE1	2:C:831:ARG:NH2	2.43	0.47
2:C:1047:HIS:HA	2:C:1050:GLN:CG	2.45	0.47
3:D:123:LEU:HG	3:D:127:LEU:HD11	1.96	0.47
3:D:632:VAL:O	3:D:727:GLN:HA	2.15	0.47
3:D:767:HIS:CE1	4:E:6:ILE:HD13	2.50	0.47
3:D:1373:ARG:O	3:D:1377:LYS:HB3	2.14	0.47
3:D:1459:LEU:HB3	3:D:1465:ASN:ND2	2.30	0.47
2:I:72:ARG:O	2:I:94:LEU:HD12	2.15	0.47
2:I:456:ALA:HB1	2:I:538:GLN:O	2.15	0.47
2:I:1038:TRP:CE2	3:J:1099:VAL:HG11	2.50	0.47
2:I:1047:HIS:O	2:I:1051:GLU:HG3	2.15	0.47
2:I:1048:THR:O	2:I:1052:MET:HG2	2.15	0.47
3:J:560:GLN:NE2	5:L:236:ILE:HG21	2.30	0.47
5:L:103:ILE:HD13	5:L:211:VAL:HG21	1.96	0.47
1:A:55:SER:CB	1:A:158:ILE:HG12	2.44	0.46
1:B:44:LEU:HA	1:B:48:ILE:HD13	1.96	0.46
2:C:537:LYS:HE3	2:C:583:LEU:HD11	1.97	0.46
2:C:720:GLU:HB2	2:C:759:THR:O	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1083:GLU:HA	2:C:1086:ARG:HG3	1.97	0.46
3:D:1197:ARG:HG3	3:D:1398:TRP:CG	2.50	0.46
1:G:24:VAL:HA	1:G:195:LEU:O	2.14	0.46
2:I:1083:GLU:HA	2:I:1086:ARG:HG3	1.96	0.46
3:J:514:LEU:HD21	3:J:518:PRO:HD3	1.96	0.46
3:J:930:LEU:O	3:J:934:LEU:HD12	2.15	0.46
3:J:996:TRP:CE2	3:J:1056:PRO:HD3	2.49	0.46
1:A:63:HIS:CD2	1:A:66:SER:HB2	2.50	0.46
2:C:890:LEU:HD21	2:C:914:ILE:HG12	1.97	0.46
2:C:941:LYS:HZ2	2:C:959:PRO:HG2	1.81	0.46
2:C:1102:LEU:HA	2:C:1107:ASN:O	2.15	0.46
3:D:1465:ASN:HA	3:D:1468:LEU:HB2	1.96	0.46
1:H:97:THR:OG1	1:H:98:THR:N	2.46	0.46
2:I:23:VAL:HA	2:I:121:MET:SD	2.54	0.46
3:J:1188:VAL:HG12	3:J:1189:ARG:H	1.80	0.46
4:K:46:PRO:HB2	4:K:57:ASP:HB3	1.98	0.46
7:S:3:DG:H1'	7:S:4:DC:H5'	1.97	0.46
1:A:190:THR:OG1	1:A:191:ASP:N	2.47	0.46
2:C:397:GLU:HG3	2:C:632:ASN:HD22	1.80	0.46
2:C:532:MET:HG2	2:C:533:ASP:N	2.29	0.46
2:C:537:LYS:NZ	2:C:905:VAL:H	2.02	0.46
2:C:880:MET:CE	3:D:1037:GLN:HB2	2.46	0.46
2:C:1047:HIS:HA	2:C:1050:GLN:HG2	1.97	0.46
3:D:698:LYS:HG3	4:E:59:ASN:ND2	2.29	0.46
3:D:876:SER:O	3:D:879:ARG:HB3	2.15	0.46
3:D:1106:VAL:HG21	3:D:1474:ALA:HB2	1.96	0.46
3:D:1331:ASP:HA	3:D:1332:PRO:HD3	1.82	0.46
1:G:35:THR:HG22	1:H:39:PRO:HA	1.97	0.46
1:H:59:GLU:HG3	1:H:139:TYR:CD2	2.47	0.46
2:I:578:VAL:HG23	2:I:671:ASN:ND2	2.29	0.46
2:I:971:LYS:HG2	2:I:988:VAL:HG12	1.98	0.46
3:J:1020:LEU:HD11	3:J:1035:ILE:HD12	1.95	0.46
2:C:886:LEU:HA	2:C:889:HIS:HB2	1.97	0.46
3:D:716:PHE:CZ	3:D:728:LEU:HD11	2.51	0.46
4:E:46:PRO:HB2	4:E:57:ASP:HB3	1.97	0.46
3:J:82:ARG:HB2	3:J:84:ILE:HG22	1.98	0.46
3:J:1364:HIS:NE2	3:J:1366:LYS:HE3	2.31	0.46
7:P:9:DT:H1'	7:P:10:DT:H5'	1.98	0.46
1:B:185:ARG:NH2	1:B:187:GLY:O	2.49	0.46
2:C:446:GLY:O	2:C:449:ILE:HG13	2.16	0.46
3:D:264:LEU:HG	3:D:316:HIS:HE2	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:646:LYS:HA	3:D:720:LEU:HD22	1.96	0.46
3:D:1166:LEU:H	3:D:1166:LEU:HD12	1.80	0.46
5:F:413:ARG:NH1	5:F:414:GLN:HG2	2.31	0.46
3:J:592:THR:HB	3:J:598:ARG:O	2.14	0.46
6:R:14:DT:H1'	6:R:15:DT:H5'	1.97	0.46
1:B:89:PHE:CE1	1:B:97:THR:HG22	2.51	0.46
2:C:151:ASP:HB2	2:C:154:ARG:O	2.14	0.46
2:C:549:PHE:HB3	2:C:552:HIS:HD2	1.80	0.46
2:C:718:GLY:HA2	2:C:719:PRO:HD3	1.78	0.46
2:C:1035:MET:HA	2:C:1038:TRP:CE3	2.50	0.46
3:D:253:ALA:HB2	3:D:304:LEU:HG	1.96	0.46
3:D:493:ARG:HH11	3:D:494:LYS:HE3	1.81	0.46
5:F:235:LEU:O	5:F:239:VAL:HG23	2.16	0.46
5:F:413:ARG:HD2	7:P:22:DT:H72	1.98	0.46
2:I:247:PRO:HA	2:I:248:PRO:HD3	1.84	0.46
2:C:85:GLU:HA	2:C:824:ARG:HH22	1.79	0.46
2:C:423:ALA:O	2:C:428:ARG:HG3	2.16	0.46
2:C:798:GLY:HA3	2:C:827:VAL:CG1	2.45	0.46
2:C:1085:PHE:HE2	3:D:1468:LEU:HD22	1.81	0.46
3:D:927:THR:HA	3:D:930:LEU:HB3	1.97	0.46
3:D:1205:TYR:O	3:D:1366:LYS:HD3	2.16	0.46
5:F:178:LEU:HA	5:F:181:LEU:HD13	1.98	0.46
1:G:29:GLU:O	1:G:32:PHE:HB2	2.15	0.46
1:H:10:VAL:HG12	1:H:12:THR:HG23	1.98	0.46
1:H:54:THR:HG22	1:H:143:ARG:O	2.16	0.46
2:I:1056:LYS:O	3:J:624:ASP:N	2.35	0.46
3:J:87:ARG:HG2	3:J:523:ASP:CB	2.45	0.46
3:J:350:HIS:HB3	5:L:247:ARG:HH12	1.81	0.46
3:J:646:LYS:HA	3:J:720:LEU:HD22	1.98	0.46
3:J:1154:GLU:HG2	3:J:1159:ARG:HB3	1.98	0.46
3:J:1397:LYS:NZ	3:J:1397:LYS:HA	2.30	0.46
2:C:15:LEU:O	2:C:586:ARG:NH1	2.48	0.46
2:C:45:GLN:HA	2:C:45:GLN:HE21	1.80	0.46
2:C:609:THR:O	2:C:625:LEU:HG	2.15	0.46
2:C:897:LEU:HD23	2:C:899:GLN:H	1.80	0.46
3:D:169:TYR:CE2	3:D:395:VAL:HG12	2.40	0.46
3:D:474:GLU:O	3:D:478:LEU:HG	2.16	0.46
5:F:319:VAL:O	5:F:323:LEU:HB2	2.15	0.46
5:F:383:VAL:HG22	5:F:404:TYR:HE2	1.81	0.46
2:I:405:ARG:O	2:I:409:ARG:HG3	2.16	0.46
2:I:436:GLY:O	2:I:459:ALA:HB2	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:532:MET:HG2	2:I:533:ASP:N	2.30	0.46
2:I:660:ALA:O	2:I:667:ALA:N	2.41	0.46
3:J:397:LYS:HE3	3:J:448:GLU:O	2.16	0.46
3:J:527:MET:HG3	3:J:537:THR:HB	1.97	0.46
3:J:1119:SER:HA	3:J:1186:VAL:O	2.16	0.46
5:L:302:SER:O	5:L:306:ILE:HG22	2.16	0.46
5:L:410:GLU:O	5:L:413:ARG:HB3	2.15	0.46
1:A:66:SER:O	1:A:75:VAL:HG23	2.16	0.46
5:F:376:LEU:HG	5:F:423:LEU:HD21	1.98	0.46
3:J:93:ILE:HB	3:J:517:VAL:HB	1.98	0.46
3:J:104:PHE:HB3	3:J:111:LYS:HB2	1.98	0.46
3:J:1095:THR:O	3:J:1099:VAL:HG23	2.16	0.46
3:J:1254:GLN:HB3	3:J:1258:ARG:CB	2.45	0.46
5:L:235:LEU:O	5:L:239:VAL:HG23	2.16	0.46
1:A:29:GLU:O	1:A:32:PHE:HB2	2.16	0.46
1:B:150:TYR:HD2	3:D:857:LEU:HD12	1.80	0.46
2:C:436:GLY:O	2:C:459:ALA:HB2	2.16	0.46
3:D:414:ARG:HA	3:D:414:ARG:HD2	1.68	0.46
3:D:584:ASN:OD1	3:D:591:VAL:HG12	2.16	0.46
3:D:702:LEU:HD12	3:D:746:ALA:O	2.16	0.46
5:F:412:ILE:O	5:F:416:GLU:HG2	2.16	0.46
1:G:63:HIS:HB2	2:I:799:ILE:HD12	1.97	0.46
2:I:744:ARG:NE	2:I:747:ALA:HB2	2.30	0.46
2:I:1067:TYR:CE2	5:L:357:VAL:HA	2.52	0.46
1:A:178:ALA:HB2	2:C:864:GLY:HA3	1.98	0.45
2:C:711:GLU:HA	2:C:822:VAL:HG12	1.98	0.45
2:C:922:PHE:HB2	2:C:967:PHE:CD2	2.52	0.45
2:C:988:VAL:HG22	3:D:948:THR:OG1	2.16	0.45
3:D:175:VAL:HG13	3:D:193:PRO:HD2	1.99	0.45
3:D:892:ASP:HB2	3:D:894:LYS:HG2	1.99	0.45
5:F:202:LEU:HD21	5:F:239:VAL:HG22	1.98	0.45
5:F:218:THR:HA	5:F:227:LEU:HD11	1.98	0.45
1:H:29:GLU:HB3	1:H:32:PHE:CD1	2.51	0.45
2:I:430:VAL:HG12	2:I:434:HIS:CD2	2.51	0.45
2:I:1102:LEU:HA	2:I:1107:ASN:O	2.16	0.45
3:J:483:HIS:CG	3:J:484:PRO:HD2	2.50	0.45
3:J:522:PRO:HA	3:J:525:ARG:NH1	2.31	0.45
3:J:565:ILE:HD12	3:J:565:ILE:H	1.80	0.45
3:J:634:GLY:O	3:J:637:LEU:N	2.30	0.45
1:B:176:ARG:HB3	1:B:200:TRP:CE3	2.51	0.45
2:C:570:PRO:HD2	2:C:635:THR:HG21	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:640:ARG:HG2	2:C:642:ARG:HH12	1.81	0.45
2:C:1009:SER:HB3	3:D:651:GLU:O	2.17	0.45
3:D:102:ILE:HB	3:D:579:ASP:HB3	1.98	0.45
3:D:264:LEU:O	3:D:267:GLY:N	2.47	0.45
3:D:293:VAL:HB	3:D:296:GLU:HB2	1.98	0.45
3:D:990:ASP:O	3:D:993:ILE:HG22	2.17	0.45
3:D:1277:ILE:HG12	3:D:1278:ASP:H	1.81	0.45
1:G:76:VAL:HA	1:G:79:ILE:HD12	1.98	0.45
2:I:122:THR:HG23	2:I:128:ILE:HD11	1.98	0.45
2:I:816:LYS:HA	2:I:817:PRO:HD3	1.83	0.45
2:I:880:MET:CE	3:J:1037:GLN:HB2	2.46	0.45
3:J:112:ILE:HD12	3:J:113:GLY:H	1.79	0.45
3:J:633:VAL:C	3:J:635:PRO:HD3	2.36	0.45
3:J:1293:PHE:HD1	3:J:1293:PHE:H	1.63	0.45
2:C:193:LEU:HA	2:C:196:LEU:HD13	1.97	0.45
2:C:272:ALA:O	2:C:276:LYS:N	2.39	0.45
3:D:44:LEU:HG	3:D:525:ARG:HH12	1.81	0.45
3:D:350:HIS:HB2	3:D:371:ILE:HG22	1.98	0.45
3:D:698:LYS:HB3	3:D:756:GLN:NE2	2.31	0.45
3:D:1135:ARG:HB3	3:D:1139:ASP:HB3	1.98	0.45
5:F:252:THR:HG1	6:O:28:DA:H8	1.64	0.45
5:F:385:LYS:HA	5:F:390:LEU:HD12	1.98	0.45
1:H:179:PHE:HB3	1:H:197:LEU:HD13	1.99	0.45
2:I:374:ASN:OD1	2:I:375:SER:N	2.47	0.45
2:I:456:ALA:HB3	2:I:459:ALA:HB2	1.98	0.45
2:I:640:ARG:HG2	2:I:642:ARG:HH12	1.82	0.45
2:I:726:ILE:HD12	2:I:729:LEU:HG	1.99	0.45
3:J:102:ILE:HD11	3:J:587:ARG:HB2	1.97	0.45
3:J:1046:GLN:HE22	3:J:1079:LYS:HE2	1.81	0.45
3:J:1223:VAL:HG21	3:J:1462:LEU:HD21	1.98	0.45
5:L:292:GLN:O	5:L:295:GLN:HG3	2.17	0.45
5:L:376:LEU:HB3	5:L:380:GLU:HG3	1.98	0.45
5:L:412:ILE:HA	5:L:415:ILE:HD12	1.97	0.45
7:S:4:DC:H2''	7:S:5:DA:C8	2.51	0.45
1:A:44:LEU:HD13	1:A:177:VAL:HG21	1.99	0.45
2:C:16:PRO:HB2	2:C:460:ARG:NH2	2.31	0.45
2:C:99:GLN:HB3	2:C:110:GLU:HG3	1.99	0.45
2:C:185:LYS:HA	2:C:189:ARG:O	2.16	0.45
2:C:242:LEU:HD11	2:C:256:TYR:CE2	2.52	0.45
2:C:1056:LYS:NZ	3:D:748:HIS:HB3	2.32	0.45
3:D:654:LYS:O	3:D:658:LEU:HB2	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:974:ILE:HG12	3:D:991:GLN:HG2	1.97	0.45
3:D:1088:THR:HA	3:D:1234:THR:HG22	1.99	0.45
3:D:1482:ARG:HE	3:D:1483:PHE:HE1	1.65	0.45
1:G:181:VAL:O	1:G:182:GLU:HG3	2.16	0.45
2:I:357:GLU:HG2	5:L:216:LYS:HE2	1.99	0.45
2:I:897:LEU:HD21	2:I:899:GLN:HG2	1.97	0.45
3:J:990:ASP:O	3:J:993:ILE:HG22	2.16	0.45
1:B:41:ARG:HG3	1:B:177:VAL:HG21	1.99	0.45
1:B:211:LEU:O	1:B:215:VAL:HG13	2.15	0.45
2:C:405:ARG:O	2:C:409:ARG:HG3	2.16	0.45
2:C:639:GLN:HB3	2:C:656:ALA:HB1	1.99	0.45
2:C:644:ARG:HD2	2:C:647:GLN:HB3	1.98	0.45
3:D:187:LYS:N	3:D:200:ASP:OD2	2.49	0.45
3:D:1095:THR:O	3:D:1099:VAL:HG23	2.16	0.45
3:D:1221:VAL:HG23	3:D:1222:GLY:H	1.82	0.45
4:E:18:ARG:O	4:E:22:VAL:HG23	2.17	0.45
5:F:141:LEU:O	5:F:145:VAL:HG23	2.17	0.45
1:G:104:GLU:HG3	1:G:137:LYS:HG2	1.97	0.45
1:H:44:LEU:HA	1:H:48:ILE:HD13	1.98	0.45
2:I:242:LEU:HD11	2:I:256:TYR:CE2	2.52	0.45
2:I:897:LEU:HD23	2:I:899:GLN:H	1.80	0.45
2:I:937:ASP:HB3	2:I:940:GLU:HG3	1.97	0.45
3:J:356:PRO:HB3	3:J:441:ARG:HA	1.97	0.45
3:J:684:LYS:O	3:J:687:VAL:HG22	2.17	0.45
3:J:1135:ARG:HB2	3:J:1140:ILE:HD11	1.98	0.45
3:J:1381:VAL:HG21	3:J:1393:GLN:HB3	1.98	0.45
6:R:2:DT:H2''	6:R:3:DT:OP2	2.16	0.45
1:B:23:PHE:HE2	1:B:199:ILE:HB	1.81	0.45
1:B:48:ILE:HG22	1:B:173:PRO:HD2	1.99	0.45
1:B:202:ASP:OD1	1:B:203:GLY:N	2.49	0.45
2:C:774:LEU:HA	2:C:777:ILE:HD12	1.97	0.45
3:D:225:ILE:O	3:D:331:VAL:HG12	2.17	0.45
3:D:522:PRO:HA	3:D:525:ARG:NH1	2.32	0.45
3:D:593:ASN:ND2	5:F:331:SER:OG	2.50	0.45
3:D:638:LYS:HG2	3:D:640:HIS:NE2	2.32	0.45
3:D:1161:GLU:OE2	3:D:1164:ARG:HB2	2.16	0.45
5:F:286:LEU:HD23	5:F:310:MET:HG3	1.98	0.45
1:G:190:THR:OG1	1:G:191:ASP:N	2.48	0.45
2:I:111:ASP:HB3	2:I:369:PRO:HG2	1.98	0.45
2:I:140:ILE:HD12	2:I:332:ARG:O	2.17	0.45
2:I:151:ASP:HB2	2:I:154:ARG:O	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:878:SER:O	3:J:1034:GLN:NE2	2.49	0.45
2:I:890:LEU:HD21	2:I:914:ILE:HG12	1.99	0.45
2:I:1012:PRO:HB2	2:I:1021:LEU:HD11	1.98	0.45
2:I:1044:GLY:HA3	4:K:17:TYR:HE1	1.81	0.45
3:J:638:LYS:HG2	3:J:640:HIS:CE1	2.51	0.45
3:J:1434:TRP:CD1	3:J:1457:ASP:HB2	2.52	0.45
4:K:45:ARG:HD2	4:K:63:TRP:HH2	1.82	0.45
5:L:413:ARG:NH1	5:L:414:GLN:HG2	2.31	0.45
1:A:35:THR:HG23	1:B:42:ARG:HB2	1.99	0.45
1:B:48:ILE:HA	1:B:49:PRO:HD2	1.79	0.45
2:C:291:VAL:HG13	2:C:303:PHE:CE1	2.52	0.45
2:C:440:PRO:O	3:D:1078:ARG:HG3	2.17	0.45
3:D:300:VAL:HG12	3:D:301:GLY:H	1.82	0.45
3:D:525:ARG:HG2	3:D:540:LEU:HD23	1.98	0.45
3:D:815:ALA:HB1	3:D:821:VAL:HG23	1.99	0.45
5:F:302:SER:O	5:F:306:ILE:HG22	2.16	0.45
1:H:211:LEU:O	1:H:215:VAL:HG13	2.16	0.45
2:I:440:PRO:O	3:J:1078:ARG:HG3	2.17	0.45
2:I:1019:GLN:OE1	2:I:1057:SER:OG	2.34	0.45
3:J:65:ARG:HG2	5:L:393:GLY:O	2.16	0.45
3:J:767:HIS:CE1	4:K:6:ILE:HD13	2.52	0.45
7:S:8:DA:C2'	7:S:9:DT:H5''	2.46	0.45
1:B:62:LEU:H	1:B:62:LEU:HD12	1.82	0.45
1:B:81:ASN:OD1	3:D:867:ARG:NH2	2.49	0.45
1:B:87:VAL:HG12	1:B:122:ILE:HG12	1.97	0.45
2:C:199:VAL:HA	2:C:231:PRO:HB3	1.99	0.45
2:C:584:GLU:HB3	2:C:666:LEU:HB3	1.99	0.45
2:C:1067:TYR:CE2	5:F:357:VAL:HA	2.52	0.45
3:D:14:SER:HB3	3:D:511:TRP:CD2	2.51	0.45
3:D:22:SER:HB2	3:D:92:HIS:HB3	1.98	0.45
3:D:684:LYS:O	3:D:687:VAL:HG22	2.17	0.45
1:H:185:ARG:NH2	1:H:187:GLY:O	2.50	0.45
2:I:207:LEU:HD13	2:I:227:LEU:HD11	1.97	0.45
2:I:710:ILE:HD13	2:I:790:LEU:HD13	1.98	0.45
3:J:597:GLU:O	3:J:599:PRO:HD3	2.17	0.45
3:J:618:LEU:HB3	3:J:1467:ILE:HG12	1.98	0.45
2:C:751:PRO:HA	2:C:792:VAL:HG13	1.99	0.45
2:C:937:ASP:HB3	2:C:940:GLU:HG3	1.99	0.45
3:D:129:PHE:CE1	3:D:571:LYS:HG2	2.52	0.45
3:D:565:ILE:H	3:D:565:ILE:HD12	1.81	0.45
3:D:701:LEU:HD21	3:D:763:MET:CG	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:160:GLU:CD	3:J:165:LYS:HD3	2.38	0.45
1:A:209:GLU:O	1:A:213:GLN:HG2	2.17	0.45
2:C:634:GLY:O	2:C:704:HIS:HA	2.17	0.45
2:C:673:LEU:HA	2:C:990:GLY:O	2.16	0.45
2:C:771:GLU:O	2:C:775:ARG:HG3	2.17	0.45
2:C:1088:LEU:O	2:C:1092:LEU:HG	2.17	0.45
3:D:633:VAL:C	3:D:635:PRO:HD3	2.37	0.45
3:D:701:LEU:HD22	3:D:713:ILE:HG22	1.98	0.45
3:D:794:GLN:HG3	3:D:795:VAL:N	2.32	0.45
5:F:159:ILE:N	5:F:160:PRO:HD3	2.32	0.45
1:G:231:SER:H	1:H:14:THR:HG22	1.81	0.45
2:I:429:ASP:OD1	2:I:430:VAL:N	2.43	0.45
2:I:446:GLY:O	2:I:449:ILE:HG13	2.16	0.45
2:I:1058:ASP:N	2:I:1058:ASP:OD1	2.49	0.45
3:J:632:VAL:O	3:J:727:GLN:HA	2.17	0.45
3:J:841:PHE:CE2	3:J:858:LEU:HD13	2.52	0.45
4:K:79:LEU:HD23	4:K:80:VAL:HG22	1.99	0.45
5:L:149:LYS:HB2	5:L:193:ARG:HH12	1.82	0.45
5:L:202:LEU:HD21	5:L:239:VAL:HG22	1.98	0.45
5:L:289:THR:O	5:L:293:LEU:HG	2.17	0.45
7:P:19:DT:H1'	7:P:20:DT:H5'	1.99	0.45
2:C:299:LYS:HG3	2:C:300:ASP:H	1.82	0.44
2:C:807:ARG:HB3	2:C:810:ASP:OD1	2.17	0.44
3:D:259:VAL:HG13	3:D:298:VAL:HG21	2.00	0.44
3:D:1179:GLU:HG2	3:J:1131:THR:HG22	1.99	0.44
3:D:1364:HIS:CD2	3:D:1366:LYS:HE2	2.52	0.44
5:F:181:LEU:HD23	5:F:185:LEU:HD13	1.98	0.44
1:G:28:LEU:HD11	1:G:36:LEU:HD12	1.98	0.44
2:I:549:PHE:HB3	2:I:552:HIS:HD2	1.82	0.44
2:I:682:TYR:HA	3:J:633:VAL:HG11	1.98	0.44
2:I:737:LEU:HD12	2:I:737:LEU:HA	1.61	0.44
2:I:770:GLU:HB3	5:L:369:LEU:HD12	1.99	0.44
2:I:1030:GLN:O	3:J:622:ARG:HA	2.17	0.44
3:J:1006:ALA:O	3:J:1010:ASN:HB2	2.16	0.44
3:J:1479:ASP:HA	3:J:1482:ARG:HG2	1.99	0.44
1:B:10:VAL:HG12	1:B:12:THR:HG23	1.99	0.44
2:C:370:ALA:O	5:F:295:GLN:NE2	2.50	0.44
2:C:432:ARG:HH12	2:C:518:ARG:NE	2.15	0.44
3:D:1144:LEU:HA	3:D:1144:LEU:HD12	1.53	0.44
3:D:1312:LEU:HG	3:D:1325:LEU:O	2.17	0.44
1:G:89:PHE:CE1	1:G:120:VAL:HG12	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:142:ARG:HA	2:I:331:ARG:HA	2.00	0.44
2:I:423:ALA:O	2:I:428:ARG:HG3	2.16	0.44
2:I:564:MET:HG2	2:I:567:GLN:NE2	2.32	0.44
2:I:1009:SER:HB3	3:J:651:GLU:O	2.18	0.44
3:J:806:PHE:CD1	3:J:811:GLU:HB3	2.52	0.44
3:J:810:GLU:O	3:J:813:LEU:HB3	2.17	0.44
3:J:1191:PRO:O	3:J:1373:ARG:HD2	2.17	0.44
3:J:1406:ARG:O	3:J:1410:GLU:HG3	2.16	0.44
4:K:19:LEU:O	4:K:23:VAL:HG23	2.17	0.44
1:A:28:LEU:HD22	1:A:32:PHE:HD2	1.82	0.44
2:C:41:ASN:HA	2:C:45:GLN:HB3	1.99	0.44
2:C:670:GLN:O	2:C:672:VAL:HG23	2.17	0.44
2:C:744:ARG:NE	2:C:747:ALA:HB2	2.33	0.44
2:C:971:LYS:HG2	2:C:988:VAL:HG12	1.99	0.44
2:C:1030:GLN:O	3:D:622:ARG:HA	2.17	0.44
3:D:638:LYS:HG3	3:D:640:HIS:H	1.81	0.44
1:G:73:GLU:HB3	1:G:77:GLU:HG3	1.99	0.44
1:H:87:VAL:HG12	1:H:122:ILE:HG12	1.99	0.44
1:H:176:ARG:NH1	3:J:884:ARG:HH12	2.16	0.44
2:I:16:PRO:HB2	2:I:460:ARG:NH2	2.32	0.44
2:I:69:LEU:C	2:I:70:GLU:HG3	2.37	0.44
2:I:690:ILE:HG13	2:I:852:ILE:HG23	1.99	0.44
5:L:159:ILE:N	5:L:160:PRO:HD3	2.33	0.44
5:L:411:ARG:HD3	6:R:1:DC:C6	2.52	0.44
1:A:22:GLU:HA	1:A:197:LEU:O	2.17	0.44
1:A:79:ILE:HD13	1:A:167:VAL:HG12	2.00	0.44
2:C:333:ILE:HB	2:C:461:VAL:HG11	2.00	0.44
2:C:577:PRO:HB3	2:C:993:PHE:CG	2.52	0.44
3:D:213:VAL:HB	3:D:345:TYR:HE1	1.82	0.44
3:D:631:ILE:HD11	3:D:739:ASP:O	2.18	0.44
3:D:1078:ARG:HB3	3:D:1078:ARG:HH11	1.82	0.44
3:D:1127:GLU:C	3:D:1129:THR:H	2.21	0.44
3:D:1288:ASP:OD2	3:D:1288:ASP:N	2.50	0.44
1:G:63:HIS:CD2	1:G:66:SER:HB2	2.53	0.44
2:I:550:LEU:HD11	2:I:558:ALA:HB1	1.98	0.44
3:J:701:LEU:HD22	3:J:713:ILE:HG22	1.98	0.44
3:J:1293:PHE:CD1	3:J:1293:PHE:N	2.85	0.44
6:O:2:DT:H2 [?]	6:O:3:DT:OP2	2.18	0.44
1:A:231:SER:H	1:B:14:THR:HG22	1.82	0.44
2:C:97:ARG:HB2	2:C:112:GLU:HG3	1.99	0.44
2:C:682:TYR:HA	3:D:633:VAL:HG11	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:634:GLY:O	3:D:637:LEU:N	2.28	0.44
4:E:6:ILE:HG23	4:E:7:ASP:H	1.83	0.44
2:I:194:VAL:O	2:I:198:ARG:HG3	2.17	0.44
2:I:526:PRO:O	2:I:529:VAL:HG12	2.17	0.44
2:I:644:ARG:HD2	2:I:647:GLN:HB3	2.00	0.44
2:I:922:PHE:HB2	2:I:967:PHE:CD2	2.53	0.44
3:J:22:SER:HB2	3:J:92:HIS:HB3	1.97	0.44
3:J:90:MET:HE1	3:J:518:PRO:HB3	1.98	0.44
3:J:661:MET:HG2	3:J:666:PHE:CZ	2.52	0.44
3:J:1078:ARG:HB3	3:J:1078:ARG:HH11	1.83	0.44
3:J:1144:LEU:HD13	3:J:1144:LEU:HA	1.77	0.44
1:A:232:LEU:H	1:A:232:LEU:HD12	1.82	0.44
1:B:23:PHE:HE1	1:B:208:LEU:HD12	1.82	0.44
2:C:22:GLN:HG3	2:C:407:LYS:HB3	1.99	0.44
2:C:878:SER:HB2	3:D:1029:ARG:HG3	1.99	0.44
3:D:155:ASP:OD2	3:D:155:ASP:N	2.49	0.44
1:H:202:ASP:OD1	1:H:203:GLY:N	2.51	0.44
2:I:670:GLN:O	2:I:672:VAL:HG23	2.17	0.44
2:I:761:PHE:HA	2:I:785:VAL:HA	1.99	0.44
2:I:994:ILE:HG22	2:I:995:MET:H	1.82	0.44
2:I:1086:ARG:HG3	2:I:1086:ARG:NH1	2.32	0.44
2:I:1090:LYS:NZ	2:I:1093:GLN:OE1	2.35	0.44
3:J:84:ILE:HD11	3:J:88:TYR:HE1	1.83	0.44
3:J:558:LEU:CD2	3:J:567:ILE:HG23	2.48	0.44
5:L:99:TYR:O	5:L:103:ILE:HG12	2.17	0.44
1:A:58:ILE:HG22	1:A:60:ASP:H	1.81	0.44
1:A:227:ASN:HA	1:A:228:PRO:HD2	1.75	0.44
3:D:117:ASP:HB2	3:D:495:ARG:CZ	2.47	0.44
3:D:638:LYS:HB3	3:D:641:GLN:HE21	1.83	0.44
3:D:1141:GLU:OE1	3:D:1168:LEU:HD11	2.18	0.44
5:F:398:LEU:HB3	7:P:21:DG:OP2	2.18	0.44
1:G:22:GLU:HA	1:G:197:LEU:O	2.18	0.44
1:G:182:GLU:O	1:G:193:ASP:HA	2.18	0.44
1:H:34:VAL:HG22	1:H:181:VAL:HG21	2.00	0.44
1:H:41:ARG:HG3	1:H:177:VAL:HG21	2.00	0.44
2:I:714:ASP:HB2	2:I:818:GLY:O	2.18	0.44
2:I:834:GLN:HG2	2:I:835:VAL:H	1.82	0.44
3:J:496:LEU:HD12	3:J:499:VAL:HB	1.99	0.44
3:J:1202:GLN:O	3:J:1206:GLY:N	2.51	0.44
3:J:1499:ARG:HH21	3:J:1500:LYS:HG3	1.83	0.44
1:A:182:GLU:O	1:A:193:ASP:HA	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:40:LEU:O	1:B:44:LEU:HB2	2.18	0.44
1:B:78:ILE:O	1:B:82:LEU:HG	2.18	0.44
2:C:588:VAL:HG23	2:C:596:TYR:OH	2.17	0.44
2:C:834:GLN:HG2	2:C:835:VAL:H	1.82	0.44
2:C:1112:PHE:HB2	2:C:1115:LEU:HB2	1.99	0.44
3:D:209:ARG:HE	3:D:391:ALA:HB2	1.83	0.44
3:D:1199:GLY:O	3:D:1373:ARG:NH1	2.51	0.44
5:F:173:GLU:O	5:F:177:LYS:HB2	2.18	0.44
2:I:269:LEU:HB2	2:I:288:ARG:O	2.18	0.44
2:I:399:ASN:HD21	2:I:566:THR:HA	1.83	0.44
2:I:1089:VAL:HG13	2:I:1099:VAL:HG11	2.00	0.44
2:I:1115:LEU:HD21	3:J:84:ILE:HG23	2.00	0.44
3:J:523:ASP:HA	3:J:526:PRO:HG3	2.00	0.44
3:J:537:THR:O	5:L:332:LEU:HG	2.18	0.44
3:J:568:ARG:HA	3:J:571:LYS:HE2	1.98	0.44
2:C:5:ARG:HE	2:C:5:ARG:HB2	1.70	0.44
2:C:458:TYR:CD1	2:C:538:GLN:HB3	2.49	0.44
3:D:529:GLN:HA	3:D:535:PHE:HA	1.99	0.44
3:D:1068:LEU:H	3:D:1068:LEU:HD12	1.83	0.44
3:D:1189:ARG:HE	3:D:1203:LYS:HB2	1.82	0.44
3:D:1258:ARG:O	3:D:1258:ARG:HG3	2.18	0.44
3:D:1370:ILE:HG13	3:D:1370:ILE:H	1.66	0.44
2:I:537:LYS:NZ	2:I:905:VAL:H	2.01	0.44
2:I:581:THR:OG1	2:I:584:GLU:OE2	2.36	0.44
2:I:700:TYR:HB3	2:I:833:LEU:HD13	2.00	0.44
2:I:988:VAL:HG22	3:J:948:THR:OG1	2.18	0.44
3:J:439:LEU:HD21	5:L:190:HIS:HB3	2.00	0.44
3:J:1033:GLN:O	3:J:1037:GLN:HG3	2.18	0.44
3:J:1038:LEU:O	3:J:1060:SER:OG	2.22	0.44
1:A:35:THR:CG2	1:B:39:PRO:HA	2.47	0.43
1:A:44:LEU:HD11	1:A:199:ILE:HD13	1.99	0.43
1:A:76:VAL:HA	1:A:79:ILE:HD12	1.99	0.43
2:C:321:GLU:HG2	2:C:322:VAL:H	1.83	0.43
2:C:675:ALA:O	2:C:870:ILE:HA	2.18	0.43
2:C:714:ASP:HB2	2:C:818:GLY:O	2.18	0.43
2:C:775:ARG:CZ	2:C:782:ALA:HB2	2.48	0.43
2:C:1012:PRO:HB2	2:C:1021:LEU:HD11	2.00	0.43
3:D:181:ASP:HB2	3:D:205:TYR:CD2	2.53	0.43
3:D:701:LEU:HD11	3:D:763:MET:HG2	2.00	0.43
3:D:1368:ILE:H	3:D:1368:ILE:HG13	1.67	0.43
1:G:44:LEU:HD11	1:G:199:ILE:HD13	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:332:ARG:HH11	2:I:334:ARG:HD2	1.82	0.43
2:I:376:ARG:HB2	2:I:377:PRO:HD3	2.00	0.43
2:I:588:VAL:HG23	2:I:596:TYR:OH	2.18	0.43
2:I:709:GLU:HA	2:I:823:VAL:O	2.18	0.43
2:I:807:ARG:HB3	2:I:810:ASP:OD1	2.18	0.43
3:J:635:PRO:O	3:J:935:LYS:HE2	2.18	0.43
3:J:638:LYS:HG2	3:J:640:HIS:NE2	2.33	0.43
3:J:792:ILE:HD13	3:J:881:LEU:HD23	1.99	0.43
2:C:140:ILE:HD12	2:C:332:ARG:O	2.17	0.43
2:C:713:ARG:O	2:C:720:GLU:HG2	2.18	0.43
3:D:154:THR:HG23	3:D:156:GLU:H	1.83	0.43
3:D:1033:GLN:O	3:D:1037:GLN:HG3	2.18	0.43
3:D:1180:ALA:O	3:J:1132:LEU:HD12	2.18	0.43
1:G:28:LEU:HD22	1:G:32:PHE:HD2	1.83	0.43
1:G:46:SER:OG	1:G:47:SER:N	2.51	0.43
1:G:178:ALA:HB2	2:I:864:GLY:HA3	2.01	0.43
2:I:269:LEU:H	2:I:288:ARG:HB3	1.82	0.43
3:J:505:SER:HB3	3:J:1453:ALA:HA	1.99	0.43
3:J:560:GLN:HE22	5:L:236:ILE:HG21	1.82	0.43
3:J:637:LEU:HG	3:J:641:GLN:HB3	2.01	0.43
3:J:1200:VAL:HG22	3:J:1221:VAL:HG21	1.99	0.43
5:L:246:ARG:HD3	6:R:26:DA:C6	2.54	0.43
5:L:407:VAL:HG12	6:R:1:DC:H3'	2.00	0.43
1:B:51:THR:HG21	1:B:86:VAL:HG23	2.00	0.43
1:B:107:LYS:O	1:B:132:LEU:HB2	2.17	0.43
2:C:69:LEU:C	2:C:70:GLU:HG3	2.38	0.43
2:C:332:ARG:HH11	2:C:334:ARG:HD2	1.83	0.43
2:C:897:LEU:HD21	2:C:899:GLN:HG2	1.99	0.43
2:C:1047:HIS:O	2:C:1051:GLU:HG3	2.18	0.43
2:C:1050:GLN:HE22	3:D:1470:ARG:C	2.21	0.43
2:C:1089:VAL:HG11	2:C:1112:PHE:HE2	1.82	0.43
3:D:1269:LYS:HG3	3:D:1270:ALA:H	1.82	0.43
5:F:252:THR:HA	6:O:29:DC:H5	1.83	0.43
5:F:377:SER:HB3	5:F:380:GLU:HG2	2.00	0.43
2:I:390:GLN:HG2	2:I:415:PRO:HD3	1.99	0.43
3:J:34:TYR:HB2	5:L:325:ILE:HG23	2.00	0.43
3:J:1333:HIS:O	3:J:1336:LEU:HB3	2.18	0.43
4:K:30:LEU:HA	4:K:37:ASN:HD21	1.83	0.43
5:L:141:LEU:O	5:L:145:VAL:HG23	2.18	0.43
1:A:57:TYR:C	1:A:58:ILE:HD12	2.39	0.43
1:B:55:SER:HB2	1:B:166:PRO:HA	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:65:VAL:CG1	2:C:101:ILE:HB	2.48	0.43
2:C:84:ARG:HA	2:C:131:GLY:HA2	2.00	0.43
2:C:122:THR:HG23	2:C:128:ILE:HD11	1.99	0.43
2:C:994:ILE:HG22	2:C:995:MET:H	1.83	0.43
3:D:67:ARG:HD2	5:F:394:ARG:HB2	1.99	0.43
3:D:589:SER:HA	3:D:590:PRO:HD3	1.86	0.43
3:D:790:TYR:CD1	3:D:907:GLU:HB3	2.54	0.43
3:D:858:LEU:HD12	3:D:859:ASP:H	1.83	0.43
3:D:996:TRP:CE2	3:D:1056:PRO:HD3	2.53	0.43
5:F:276:PRO:HB2	5:F:279:MET:HG2	1.99	0.43
1:H:37:GLY:HA3	1:H:179:PHE:CE1	2.53	0.43
2:I:170:PRO:HD2	2:I:267:TYR:HD1	1.83	0.43
2:I:202:TYR:CD1	2:I:206:THR:HG21	2.53	0.43
2:I:327:HIS:O	2:I:331:ARG:HG3	2.18	0.43
2:I:333:ILE:HB	2:I:461:VAL:HG11	2.00	0.43
2:I:713:ARG:O	2:I:720:GLU:HG2	2.18	0.43
3:J:32:ILE:HA	3:J:40:GLU:HG2	2.00	0.43
3:J:592:THR:OG1	3:J:596:SER:O	2.29	0.43
3:J:892:ASP:HB2	3:J:894:LYS:HG2	2.01	0.43
3:J:1042:ARG:HB3	3:J:1057:VAL:CG2	2.48	0.43
3:J:1065:LEU:HB3	3:J:1069:GLU:HB2	1.99	0.43
3:J:1068:LEU:H	3:J:1068:LEU:HD12	1.83	0.43
3:J:1108:ARG:NH2	3:J:1198:TYR:O	2.50	0.43
5:L:109:LEU:HD22	5:L:205:ALA:HB1	2.00	0.43
5:L:376:LEU:HG	5:L:423:LEU:HD21	1.99	0.43
6:O:5:DA:H2	7:P:22:DT:H3	1.65	0.43
7:S:11:DT:H1'	7:S:12:DA:H5'	2.01	0.43
1:A:42:ARG:NH2	1:B:31:GLY:O	2.41	0.43
1:A:65:PHE:CD2	2:C:799:ILE:HD11	2.54	0.43
1:B:160:ASP:O	1:B:161:ARG:HB2	2.18	0.43
2:C:124:ASP:HB2	2:C:407:LYS:NZ	2.34	0.43
2:C:269:LEU:HB2	2:C:288:ARG:O	2.18	0.43
2:C:495:THR:H	2:C:530:GLU:CG	2.31	0.43
2:C:710:ILE:HD13	2:C:790:LEU:HD13	2.00	0.43
2:C:1018:GLN:HG2	2:C:1083:GLU:HG2	2.00	0.43
3:D:30:GLU:HB3	5:F:274:ARG:HB2	2.00	0.43
3:D:242:LEU:HB3	3:D:311:LEU:O	2.19	0.43
3:D:970:LYS:O	3:D:973:GLN:HB3	2.18	0.43
3:D:1142:SER:HB3	3:D:1353:GLN:NE2	2.33	0.43
4:E:79:LEU:HD23	4:E:80:VAL:HG22	2.00	0.43
1:G:150:TYR:CZ	1:G:152:PRO:HG3	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:232:LEU:H	1:G:232:LEU:HD12	1.83	0.43
1:H:176:ARG:HB3	1:H:200:TRP:CE3	2.53	0.43
1:H:213:GLN:HE21	1:H:217:ILE:HD11	1.83	0.43
2:I:41:ASN:HA	2:I:45:GLN:HB3	2.01	0.43
2:I:1056:LYS:NZ	3:J:748:HIS:HB3	2.34	0.43
3:J:121:THR:O	3:J:124:GLU:HB3	2.18	0.43
3:J:698:LYS:HB3	3:J:756:GLN:NE2	2.34	0.43
2:C:390:GLN:CG	2:C:415:PRO:HD3	2.48	0.43
2:C:1085:PHE:O	2:C:1089:VAL:HG23	2.18	0.43
3:D:132:TYR:HB3	3:D:454:ALA:HB1	1.99	0.43
3:D:1288:ASP:CG	3:D:1289:ARG:H	2.22	0.43
3:D:1361:VAL:HG12	3:D:1363:LEU:H	1.84	0.43
1:G:55:SER:CB	1:G:158:ILE:HG12	2.43	0.43
1:G:64:GLU:HA	1:G:75:VAL:HG11	1.99	0.43
2:I:160:ALA:HB3	2:I:174:LEU:HD11	2.01	0.43
2:I:181:VAL:HG22	2:I:182:VAL:H	1.84	0.43
2:I:321:GLU:HG2	2:I:322:VAL:H	1.84	0.43
2:I:343:GLN:HG3	2:I:385:PHE:CB	2.48	0.43
2:I:577:PRO:HB3	2:I:993:PHE:CG	2.53	0.43
3:J:209:ARG:HA	3:J:347:VAL:HB	1.99	0.43
3:J:354:ILE:HG23	3:J:355:VAL:HG13	2.01	0.43
3:J:1059:SER:HB3	3:J:1063:GLU:HB2	1.99	0.43
3:J:1149:LEU:HG	3:J:1160:LEU:HD12	2.01	0.43
3:J:1336:LEU:HD11	3:J:1419:PRO:HB2	1.99	0.43
3:J:1434:TRP:NE1	3:J:1457:ASP:HB2	2.33	0.43
1:A:28:LEU:HD11	1:A:36:LEU:HD12	2.00	0.43
1:A:89:PHE:CE1	1:A:120:VAL:HG12	2.54	0.43
2:C:424:GLY:O	2:C:425:PHE:HD1	2.00	0.43
2:C:690:ILE:HG13	2:C:852:ILE:HG23	2.00	0.43
3:D:82:ARG:HB2	3:D:84:ILE:HG22	2.01	0.43
3:D:1110:ALA:HB2	3:D:1217:ILE:HD13	2.01	0.43
5:F:117:LEU:O	5:F:121:VAL:HG23	2.18	0.43
1:H:89:PHE:HE1	1:H:97:THR:HG22	1.83	0.43
2:I:676:ILE:O	2:I:987:ILE:HG23	2.18	0.43
2:I:768:SER:O	2:I:772:ARG:N	2.50	0.43
2:I:1067:TYR:O	2:I:1071:ILE:HB	2.19	0.43
3:J:56:TYR:CA	3:J:80:VAL:HG23	2.49	0.43
5:L:181:LEU:HD23	5:L:185:LEU:HD13	1.99	0.43
5:L:263:ASN:HA	5:L:266:ILE:CD1	2.49	0.43
2:C:537:LYS:CE	2:C:583:LEU:HD11	2.49	0.43
3:D:56:TYR:CA	3:D:80:VAL:HG23	2.49	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:23:PHE:HE2	1:H:199:ILE:HB	1.83	0.43
2:I:549:PHE:HB3	2:I:552:HIS:CD2	2.54	0.43
3:J:187:LYS:N	3:J:200:ASP:OD2	2.49	0.43
3:J:406:ASP:CG	3:J:407:VAL:H	2.21	0.43
3:J:569:ASN:ND2	5:L:229:GLN:HE21	2.16	0.43
3:J:585:GLY:CA	3:J:590:PRO:HG3	2.48	0.43
3:J:1170:ASP:O	3:J:1174:LEU:HG	2.18	0.43
4:K:6:ILE:HG23	4:K:7:ASP:H	1.82	0.43
5:L:109:LEU:HD12	5:L:114:GLU:HA	2.01	0.43
5:L:167:ASP:HB2	5:L:168:PRO:HD3	2.01	0.43
5:L:377:SER:HB3	5:L:380:GLU:HG2	2.01	0.43
2:C:64:LEU:HD21	2:C:66:LEU:CB	2.49	0.43
2:C:160:ALA:HB3	2:C:174:LEU:HD11	2.01	0.43
2:C:343:GLN:HG3	2:C:385:PHE:CB	2.49	0.43
2:C:683:ASN:HB2	2:C:872:ASN:H	1.84	0.43
2:C:1086:ARG:HG3	2:C:1086:ARG:NH1	2.33	0.43
3:D:210:ARG:HD2	3:D:388:HIS:HB2	2.00	0.43
3:D:553:ARG:HH11	5:F:230:GLU:HG2	1.83	0.43
3:D:1042:ARG:HB3	3:D:1057:VAL:CG2	2.49	0.43
3:D:1238:MET:C	3:D:1253:THR:HB	2.38	0.43
3:D:1472:ILE:HA	3:D:1473:PRO:HD3	1.76	0.43
1:G:53:VAL:CG2	1:G:54:THR:H	2.28	0.43
1:H:101:LEU:HD22	1:H:102:ARG:H	1.84	0.43
2:I:99:GLN:HB3	2:I:110:GLU:HG3	2.00	0.43
2:I:124:ASP:HA	2:I:592:LEU:HD12	2.01	0.43
2:I:495:THR:H	2:I:530:GLU:CG	2.32	0.43
2:I:536:PRO:HB3	3:J:1067:VAL:HG11	2.01	0.43
2:I:584:GLU:HB3	2:I:666:LEU:HB3	2.00	0.43
3:J:155:ASP:N	3:J:155:ASP:OD2	2.52	0.43
3:J:349:PRO:HB2	5:L:111:LEU:HD23	2.01	0.43
3:J:354:ILE:HG22	3:J:367:ILE:O	2.19	0.43
3:J:1192:LEU:HD23	3:J:1373:ARG:HB2	2.00	0.43
2:C:182:VAL:O	2:C:192:PRO:HA	2.19	0.43
2:C:543:ASN:HA	2:C:546:LEU:HD12	2.01	0.43
2:C:564:MET:SD	2:C:846:LYS:HG2	2.59	0.43
2:C:858:MET:SD	2:C:859:PRO:HD2	2.59	0.43
2:C:892:LEU:HD13	2:C:970:GLY:HA2	2.01	0.43
3:D:84:ILE:HD11	3:D:88:TYR:HE1	1.84	0.43
3:D:218:LYS:HA	3:D:337:LEU:O	2.19	0.43
3:D:245:LEU:HD23	3:D:245:LEU:HA	1.75	0.43
3:D:439:LEU:HD21	5:F:190:HIS:HB3	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:792:ILE:HD13	3:D:881:LEU:HD23	2.00	0.43
3:D:1289:ARG:HD3	3:D:1304:LYS:HD2	2.01	0.43
3:D:1293:PHE:HA	3:D:1302:GLU:HA	2.01	0.43
4:E:26:ARG:NH2	4:E:37:ASN:HD22	2.17	0.43
1:H:160:ASP:O	1:H:161:ARG:HB2	2.19	0.43
1:H:201:THR:HG21	1:H:205:VAL:HG23	2.01	0.43
2:I:185:LYS:HA	2:I:189:ARG:O	2.19	0.43
2:I:679:PHE:CE2	2:I:853:LEU:HD21	2.54	0.43
3:J:791:TYR:CE2	3:J:945:SER:HB3	2.54	0.43
3:J:1149:LEU:HD22	3:J:1166:LEU:HD11	2.00	0.43
5:L:143:ARG:NH1	5:L:196:GLU:OE2	2.52	0.43
7:P:11:DT:H1'	7:P:12:DA:H5'	2.01	0.43
6:R:21:DG:H1'	6:R:22:DT:H5''	2.00	0.43
1:B:34:VAL:HG11	2:C:978:ARG:HB3	2.01	0.42
1:B:159:LYS:HG3	1:B:164:ALA:HB3	2.01	0.42
2:C:181:VAL:HG22	2:C:182:VAL:H	1.83	0.42
2:C:456:ALA:HB3	2:C:459:ALA:HB2	2.01	0.42
3:D:369:ALA:HA	3:D:376:GLU:HG2	2.01	0.42
3:D:397:LYS:O	3:D:447:VAL:HG23	2.19	0.42
3:D:789:LEU:HD13	3:D:934:LEU:HD23	2.01	0.42
5:F:167:ASP:HB2	5:F:168:PRO:HD3	2.01	0.42
1:G:48:ILE:HG22	1:G:173:PRO:HD2	2.00	0.42
1:G:97:THR:HG23	1:G:98:THR:N	2.27	0.42
1:H:62:LEU:H	1:H:62:LEU:HD12	1.83	0.42
2:I:397:GLU:HG3	2:I:632:ASN:HD22	1.84	0.42
2:I:424:GLY:O	2:I:425:PHE:HD1	2.01	0.42
2:I:711:GLU:HA	2:I:822:VAL:HG12	2.01	0.42
2:I:720:GLU:HB2	2:I:759:THR:O	2.19	0.42
2:I:878:SER:HB2	3:J:1029:ARG:HG3	2.00	0.42
3:J:701:LEU:HD11	3:J:763:MET:HG2	2.01	0.42
3:J:837:GLY:HA2	3:J:840:LYS:HB3	2.00	0.42
3:J:1384:PRO:O	3:J:1415:VAL:HG22	2.19	0.42
1:B:23:PHE:CE2	1:B:199:ILE:HB	2.54	0.42
2:C:437:ARG:HD3	2:C:467:ILE:O	2.19	0.42
2:C:547:ILE:HG21	2:C:550:LEU:HD13	2.02	0.42
2:C:607:ASP:HB3	2:C:610:ARG:O	2.19	0.42
2:C:737:LEU:HD12	2:C:737:LEU:HA	1.60	0.42
3:D:576:GLU:HG3	3:D:577:ALA:N	2.35	0.42
3:D:1167:SER:H	3:D:1170:ASP:CG	2.22	0.42
5:F:142:ILE:HA	5:F:145:VAL:HB	2.02	0.42
5:F:302:SER:H	5:F:305:GLU:CG	2.32	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:43:ILE:HG13	1:H:35:THR:HG21	2.01	0.42
1:H:55:SER:HB2	1:H:166:PRO:HA	2.00	0.42
2:I:941:LYS:NZ	2:I:959:PRO:HG2	2.33	0.42
2:I:1019:GLN:HA	2:I:1020:PRO:HD3	1.87	0.42
3:J:30:GLU:HB3	5:L:274:ARG:HB2	2.00	0.42
3:J:1161:GLU:H	3:J:1161:GLU:HG2	1.58	0.42
5:L:209:LEU:HB2	6:R:30:DT:C2	2.54	0.42
1:A:34:VAL:HG22	1:A:181:VAL:HG21	2.02	0.42
1:B:28:LEU:O	1:B:193:ASP:N	2.51	0.42
2:C:67:ASP:O	2:C:98:LEU:HB2	2.19	0.42
2:C:564:MET:HG2	2:C:567:GLN:NE2	2.34	0.42
3:D:14:SER:HB3	3:D:511:TRP:CE2	2.54	0.42
3:D:100:ALA:HA	3:D:513:ILE:HA	2.02	0.42
3:D:313:LEU:HD12	3:D:314:PRO:HD2	2.01	0.42
3:D:698:LYS:HG2	3:D:756:GLN:HG2	2.01	0.42
3:D:1122:LEU:HD12	3:D:1184:ARG:O	2.19	0.42
2:I:328:LEU:HD23	2:I:437:ARG:HD2	2.01	0.42
2:I:458:TYR:CD1	2:I:538:GLN:HB3	2.48	0.42
2:I:537:LYS:CE	2:I:583:LEU:HD11	2.49	0.42
3:J:58:CYS:HB2	3:J:78:VAL:HB	2.01	0.42
3:J:103:TRP:O	3:J:107:ASP:HB2	2.19	0.42
3:J:177:ALA:HB2	3:J:393:ILE:HD11	2.01	0.42
3:J:603:LEU:O	3:J:606:ILE:HG22	2.19	0.42
3:J:853:VAL:HG22	3:J:858:LEU:HD23	2.00	0.42
3:J:1267:ARG:H	3:J:1267:ARG:NE	2.14	0.42
3:J:1481:VAL:HG21	4:K:17:TYR:HB2	2.00	0.42
1:A:173:PRO:HB3	1:A:202:ASP:OD1	2.20	0.42
2:C:639:GLN:HA	2:C:657:ASP:O	2.20	0.42
2:C:726:ILE:HD12	2:C:729:LEU:HG	2.01	0.42
2:C:770:GLU:HB3	5:F:369:LEU:HD12	2.01	0.42
2:C:806:LEU:HB2	2:C:822:VAL:HG22	2.01	0.42
2:C:839:LEU:HA	2:C:995:MET:O	2.19	0.42
3:D:544:TYR:O	3:D:548:ILE:HG13	2.20	0.42
3:D:577:ALA:O	3:D:581:VAL:HG23	2.18	0.42
3:D:643:GLY:O	3:D:726:ILE:HG23	2.19	0.42
3:D:1021:TYR:O	3:D:1025:GLN:HB2	2.19	0.42
3:D:1229:ILE:O	3:D:1232:PRO:HD2	2.19	0.42
3:D:1404:ASN:O	3:D:1408:ILE:HG12	2.20	0.42
3:D:1460:ILE:HG13	3:D:1461:GLY:N	2.33	0.42
5:F:99:TYR:O	5:F:103:ILE:HG12	2.20	0.42
1:G:20:TYR:HD2	1:G:21:GLY:N	2.17	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:28:LEU:HB3	1:H:193:ASP:HB2	2.01	0.42
2:I:751:PRO:HA	2:I:792:VAL:HG13	2.01	0.42
2:I:775:ARG:CZ	2:I:782:ALA:HB2	2.49	0.42
3:J:12:LEU:HD21	3:J:1452:ILE:HD13	2.01	0.42
3:J:677:LEU:HD23	3:J:677:LEU:HA	1.87	0.42
3:J:1229:ILE:O	3:J:1232:PRO:HD2	2.19	0.42
3:J:1311:LEU:HD23	3:J:1311:LEU:H	1.83	0.42
5:L:421:ARG:HA	5:L:424:LYS:HG3	2.02	0.42
1:B:101:LEU:HD22	1:B:102:ARG:H	1.85	0.42
2:C:142:ARG:HA	2:C:331:ARG:HG2	2.01	0.42
2:C:143:SER:H	2:C:331:ARG:HA	1.85	0.42
2:C:194:VAL:O	2:C:198:ARG:HG3	2.19	0.42
2:C:418:LEU:HD21	2:C:427:VAL:HG11	2.01	0.42
2:C:572:ILE:HD11	2:C:703:ILE:HG13	2.00	0.42
2:C:709:GLU:HA	2:C:823:VAL:O	2.19	0.42
3:D:211:VAL:O	3:D:345:TYR:HD1	2.02	0.42
3:D:220:ARG:O	3:D:281:ARG:HD3	2.20	0.42
3:D:471:GLU:O	3:D:475:ARG:HG2	2.19	0.42
3:D:909:ASN:O	3:D:912:LYS:HB3	2.20	0.42
3:D:1047:LYS:CG	3:D:1048:PRO:HD2	2.49	0.42
5:F:109:LEU:HD12	5:F:114:GLU:HA	2.02	0.42
5:F:412:ILE:HA	5:F:415:ILE:HD12	2.00	0.42
2:I:200:LEU:HD12	2:I:200:LEU:HA	1.69	0.42
2:I:390:GLN:CG	2:I:415:PRO:HD3	2.49	0.42
2:I:971:LYS:HA	2:I:988:VAL:HA	2.00	0.42
3:J:1021:TYR:O	3:J:1025:GLN:HB2	2.19	0.42
6:O:3:DT:H6	6:O:3:DT:H2'	1.65	0.42
1:B:37:GLY:HA3	1:B:179:PHE:CE1	2.54	0.42
1:B:115:THR:HA	1:B:116:PRO:HD3	1.85	0.42
2:C:549:PHE:HB3	2:C:552:HIS:CD2	2.53	0.42
2:C:550:LEU:HD11	2:C:558:ALA:HB1	2.00	0.42
2:C:1010:THR:HG23	2:C:1013:TYR:OH	2.20	0.42
3:D:44:LEU:HG	3:D:525:ARG:NH1	2.35	0.42
3:D:160:GLU:CD	3:D:165:LYS:HD3	2.40	0.42
3:D:695:ILE:HG23	3:D:718:PRO:HB2	2.02	0.42
4:E:30:LEU:HA	4:E:37:ASN:HD21	1.85	0.42
5:F:376:LEU:HB3	5:F:380:GLU:HG3	2.01	0.42
1:G:38:ASN:HB2	1:G:179:PHE:CZ	2.54	0.42
1:G:58:ILE:HG22	1:G:60:ASP:H	1.84	0.42
1:H:156:HIS:O	1:H:156:HIS:CG	2.72	0.42
2:I:135:VAL:CG2	2:I:407:LYS:HG2	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:399:ASN:HB2	2:I:400:PRO:HD2	2.00	0.42
2:I:437:ARG:HH22	2:I:491:GLU:CD	2.21	0.42
2:I:470:PRO:HA	2:I:484:VAL:O	2.20	0.42
2:I:888:THR:HG22	2:I:989:VAL:O	2.19	0.42
2:I:892:LEU:HD13	2:I:970:GLY:HA2	2.02	0.42
3:J:95:LEU:HD12	3:J:95:LEU:HA	1.91	0.42
5:L:142:ILE:HA	5:L:145:VAL:HB	2.02	0.42
5:L:385:LYS:HA	5:L:390:LEU:HD12	2.02	0.42
1:B:156:HIS:O	1:B:156:HIS:CG	2.72	0.42
2:C:22:GLN:HA	2:C:336:VAL:HG21	2.01	0.42
2:C:498:GLN:H	2:C:501:THR:HG23	1.85	0.42
2:C:926:PHE:CE2	2:C:960:GLU:HG3	2.55	0.42
2:C:971:LYS:HA	2:C:988:VAL:HA	2.00	0.42
3:D:218:LYS:NZ	3:D:338:GLU:HB3	2.35	0.42
3:D:607:LEU:HB3	3:D:614:PHE:HE2	1.83	0.42
3:D:637:LEU:HG	3:D:641:GLN:HB3	2.01	0.42
3:D:1479:ASP:HA	3:D:1482:ARG:HG2	2.01	0.42
3:D:1481:VAL:HG21	4:E:17:TYR:HB2	2.00	0.42
5:F:375:LYS:HD3	5:F:426:HIS:CG	2.55	0.42
2:I:858:MET:SD	2:I:859:PRO:HD2	2.60	0.42
2:I:889:HIS:HA	2:I:892:LEU:HD12	2.01	0.42
3:J:95:LEU:HD21	3:J:578:VAL:HG21	2.01	0.42
3:J:116:LEU:HD23	3:J:468:LEU:HD22	2.00	0.42
3:J:1188:VAL:HG12	3:J:1189:ARG:N	2.35	0.42
5:L:302:SER:H	5:L:305:GLU:CG	2.33	0.42
2:C:207:LEU:HD13	2:C:227:LEU:HD11	2.00	0.42
2:C:526:PRO:O	2:C:529:VAL:HG12	2.19	0.42
2:C:713:ARG:NH1	3:D:533:GLY:HA2	2.34	0.42
2:C:720:GLU:CD	2:C:760:SER:HB3	2.40	0.42
2:C:816:LYS:HG3	2:C:817:PRO:CD	2.50	0.42
3:D:217:ARG:HG3	3:D:341:GLU:OE1	2.20	0.42
3:D:508:ARG:HB2	3:D:511:TRP:NE1	2.35	0.42
3:D:646:LYS:HE3	3:D:688:TRP:CZ2	2.55	0.42
3:D:1059:SER:HB3	3:D:1063:GLU:HB2	2.00	0.42
3:D:1333:HIS:O	3:D:1336:LEU:HB3	2.19	0.42
1:G:44:LEU:HD11	1:G:199:ILE:CD1	2.49	0.42
1:G:88:ARG:HB2	1:G:204:SER:HA	2.02	0.42
1:G:219:LYS:HE3	1:H:219:LYS:HD3	2.02	0.42
2:I:603:VAL:O	2:I:646:GLY:HA2	2.19	0.42
3:J:100:ALA:N	3:J:575:GLN:HE22	2.17	0.42
3:J:789:LEU:O	3:J:792:ILE:HG13	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1011:PHE:HZ	3:J:1039:CYS:HG	1.64	0.42
5:L:173:GLU:O	5:L:177:LYS:HB2	2.20	0.42
5:L:334:THR:O	5:L:344:TYR:HB2	2.19	0.42
1:A:104:GLU:HG3	1:A:137:LYS:HG2	2.00	0.42
1:B:54:THR:OG1	1:B:55:SER:N	2.50	0.42
1:B:188:GLN:HA	3:D:688:TRP:CD1	2.54	0.42
2:C:269:LEU:H	2:C:288:ARG:HB3	1.84	0.42
2:C:376:ARG:HB2	2:C:377:PRO:HD3	2.01	0.42
2:C:437:ARG:HH22	2:C:491:GLU:CD	2.21	0.42
2:C:499:ALA:N	2:C:533:ASP:HB3	2.35	0.42
2:C:603:VAL:O	2:C:646:GLY:HA2	2.19	0.42
2:C:1056:LYS:O	3:D:624:ASP:N	2.35	0.42
2:C:1102:LEU:HD12	2:C:1107:ASN:N	2.34	0.42
3:D:643:GLY:HA3	3:D:727:GLN:HB2	2.02	0.42
3:D:750:PRO:HG2	3:D:756:GLN:HE22	1.85	0.42
3:D:895:VAL:O	3:D:899:LEU:HG	2.19	0.42
3:D:1254:GLN:HG3	3:D:1258:ARG:HD3	2.01	0.42
3:D:1255:GLY:O	3:D:1259:VAL:HG23	2.20	0.42
4:E:88:GLU:HG2	4:E:91:ARG:NH2	2.35	0.42
1:G:44:LEU:O	1:G:174:VAL:HG11	2.20	0.42
1:G:89:PHE:HE1	1:G:120:VAL:HG12	1.85	0.42
2:I:432:ARG:HH22	2:I:518:ARG:NH2	2.18	0.42
2:I:926:PHE:O	2:I:930:GLN:HG2	2.19	0.42
2:I:1050:GLN:HE22	3:J:1470:ARG:C	2.23	0.42
3:J:178:LEU:HD11	3:J:190:GLU:O	2.20	0.42
5:L:206:ASN:O	5:L:209:LEU:HB3	2.20	0.42
2:C:380:ALA:O	2:C:383:ARG:HG2	2.20	0.42
2:C:399:ASN:HB2	2:C:400:PRO:HD2	2.01	0.42
2:C:525:ALA:HB1	2:C:527:GLU:OE2	2.20	0.42
2:C:679:PHE:CE2	2:C:853:LEU:HD21	2.55	0.42
2:C:761:PHE:HA	2:C:785:VAL:HA	2.01	0.42
3:D:205:TYR:CD1	3:D:393:ILE:HG12	2.53	0.42
5:F:160:PRO:HG2	5:F:164:GLU:HG2	2.01	0.42
1:H:48:ILE:HG22	1:H:173:PRO:HD2	2.02	0.42
2:I:549:PHE:HB3	2:I:886:LEU:HD12	2.01	0.42
2:I:648:ARG:H	2:I:648:ARG:HG2	1.69	0.42
3:J:12:LEU:HD12	3:J:507:ASN:HB3	2.02	0.42
3:J:790:TYR:CD1	3:J:907:GLU:HB3	2.55	0.42
3:J:815:ALA:HB1	3:J:821:VAL:HG23	2.02	0.42
1:A:44:LEU:HD11	1:A:199:ILE:CD1	2.49	0.41
1:B:75:VAL:O	1:B:79:ILE:HG13	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:170:PRO:HD2	2:C:267:TYR:HD1	1.85	0.41
2:C:339:LEU:O	2:C:342:ASP:HB2	2.19	0.41
3:D:15:PRO:HG3	3:D:514:LEU:HD12	2.02	0.41
3:D:646:LYS:HE3	3:D:688:TRP:HZ2	1.84	0.41
3:D:1215:VAL:HG21	3:D:1221:VAL:CG1	2.50	0.41
3:D:1216:SER:HB2	4:E:16:LYS:H	1.85	0.41
5:F:343:PHE:HD2	5:F:343:PHE:HA	1.75	0.41
2:I:98:LEU:HD22	2:I:113:VAL:HG22	2.02	0.41
2:I:950:LEU:HD11	2:I:952:LEU:HD13	2.02	0.41
3:J:521:PRO:HA	3:J:522:PRO:HD3	1.95	0.41
3:J:643:GLY:HA3	3:J:727:GLN:HB2	2.02	0.41
3:J:643:GLY:O	3:J:726:ILE:HG23	2.20	0.41
3:J:771:SER:HA	3:J:772:PRO:HD3	1.93	0.41
3:J:1047:LYS:CG	3:J:1048:PRO:HD2	2.50	0.41
3:J:1206:GLY:HA2	3:J:1215:VAL:HG12	2.02	0.41
3:J:1274:ILE:HD12	3:J:1322:GLY:HA2	2.02	0.41
4:K:10:PHE:CE1	4:K:16:LYS:HG2	2.55	0.41
2:C:72:ARG:O	2:C:94:LEU:HD12	2.20	0.41
2:C:124:ASP:HB2	2:C:407:LYS:HZ2	1.85	0.41
2:C:191:PHE:HA	2:C:192:PRO:HD3	1.89	0.41
2:C:399:ASN:O	2:C:402:SER:HB2	2.20	0.41
2:C:535:SER:O	2:C:538:GLN:HG2	2.20	0.41
2:C:952:LEU:HD21	2:C:971:LYS:HZ2	1.84	0.41
3:D:216:LEU:HB3	3:D:218:LYS:HE2	2.01	0.41
3:D:638:LYS:HB3	3:D:641:GLN:NE2	2.35	0.41
3:D:666:PHE:CE1	3:D:687:VAL:HG12	2.55	0.41
3:D:698:LYS:HG3	4:E:59:ASN:OD1	2.20	0.41
3:D:1307:LYS:HE3	3:D:1307:LYS:HB3	1.76	0.41
3:D:1475:GLY:HA2	4:E:17:TYR:CZ	2.55	0.41
5:F:181:LEU:HB3	5:F:185:LEU:HB2	2.03	0.41
1:G:227:ASN:HA	1:G:228:PRO:HD2	1.75	0.41
2:I:5:ARG:HE	2:I:5:ARG:HB2	1.72	0.41
2:I:291:VAL:HG13	2:I:303:PHE:CE1	2.56	0.41
2:I:838:LYS:HG2	2:I:997:LEU:HD12	2.02	0.41
2:I:1064:ASN:ND2	5:L:359:ALA:HB2	2.27	0.41
3:J:1207:TYR:H	3:J:1214:PRO:HA	1.84	0.41
3:J:1465:ASN:OD1	3:J:1470:ARG:HB3	2.20	0.41
5:L:315:ASP:O	5:L:319:VAL:HG12	2.20	0.41
1:A:53:VAL:CG2	1:A:54:THR:H	2.27	0.41
1:A:99:LEU:HD13	1:A:144:VAL:HG23	2.02	0.41
2:C:530:GLU:H	2:C:530:GLU:HG2	1.60	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:941:LYS:NZ	2:C:959:PRO:HG2	2.35	0.41
3:D:58:CYS:HB2	3:D:78:VAL:HB	2.01	0.41
3:D:502:PHE:CE1	3:D:509:PRO:HB3	2.55	0.41
3:D:869:LEU:HD21	3:D:893:GLU:HG3	2.02	0.41
5:F:146:VAL:HG12	5:F:150:ILE:HG13	2.02	0.41
5:F:398:LEU:HD12	5:F:412:ILE:HB	2.02	0.41
1:H:80:LEU:HD23	3:J:867:ARG:HB2	2.02	0.41
2:I:344:PHE:HA	2:I:382:LEU:HD11	2.01	0.41
2:I:537:LYS:NZ	2:I:905:VAL:HG22	2.35	0.41
2:I:1034:GLU:H	2:I:1034:GLU:HG3	1.69	0.41
2:I:1085:PHE:CE2	3:J:1468:LEU:HD22	2.56	0.41
2:I:1095:LEU:HD11	3:J:603:LEU:HB3	2.02	0.41
3:J:203:ALA:HA	3:J:395:VAL:HA	2.02	0.41
3:J:569:ASN:HD22	5:L:229:GLN:HE21	1.66	0.41
3:J:1105:ILE:HG23	3:J:1199:GLY:HA2	2.02	0.41
3:J:1236:LEU:HD22	3:J:1355:VAL:HG12	2.02	0.41
1:B:49:PRO:HD2	1:B:213:GLN:HE22	1.86	0.41
1:B:176:ARG:NH1	3:D:884:ARG:HH12	2.18	0.41
2:C:1044:GLY:HA3	4:E:17:TYR:HE1	1.84	0.41
3:D:789:LEU:O	3:D:792:ILE:HG13	2.21	0.41
3:D:1147:ARG:HB3	3:D:1188:VAL:CG1	2.51	0.41
4:E:52:GLU:H	4:E:52:GLU:HG3	1.59	0.41
5:F:367:GLU:O	5:F:370:GLU:N	2.51	0.41
1:G:57:TYR:C	1:G:58:ILE:HD12	2.41	0.41
2:I:89:THR:HB	2:I:91:GLN:NE2	2.35	0.41
2:I:198:ARG:HE	2:I:198:ARG:HB2	1.50	0.41
2:I:673:LEU:HA	2:I:990:GLY:O	2.20	0.41
2:I:839:LEU:HA	2:I:995:MET:O	2.20	0.41
3:J:1386:ASP:HB2	3:J:1412:LYS:HB3	2.02	0.41
5:L:94:ASP:O	5:L:98:GLN:HB2	2.21	0.41
1:A:38:ASN:HB2	1:A:179:PHE:CZ	2.56	0.41
2:C:429:ASP:OD1	2:C:430:VAL:N	2.43	0.41
2:C:520:GLU:HA	2:C:521:PRO:HD3	1.92	0.41
2:C:1095:LEU:HD11	3:D:603:LEU:HB3	2.02	0.41
3:D:231:VAL:N	3:D:243:ALA:HA	2.23	0.41
3:D:371:ILE:HG23	3:D:372:ASP:N	2.32	0.41
3:D:886:VAL:O	3:D:890:VAL:HG23	2.20	0.41
3:D:1263:PHE:CE2	3:D:1371:VAL:HG11	2.55	0.41
3:D:1442:ASN:O	3:D:1446:VAL:HG23	2.20	0.41
3:D:1460:ILE:HG13	3:D:1461:GLY:H	1.85	0.41
1:H:51:THR:HG21	1:H:86:VAL:HG23	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:530:GLU:H	2:I:530:GLU:HG2	1.59	0.41
2:I:676:ILE:HA	2:I:871:LEU:O	2.20	0.41
3:J:401:TYR:HE1	3:J:446:VAL:HB	1.85	0.41
3:J:525:ARG:HB2	3:J:541:ASN:OD1	2.20	0.41
5:L:276:PRO:HB2	5:L:279:MET:HG2	2.03	0.41
1:A:74:ASP:O	1:A:77:GLU:HB3	2.20	0.41
1:B:201:THR:HG21	1:B:205:VAL:HG23	2.03	0.41
2:C:215:GLY:O	2:C:217:LEU:N	2.54	0.41
2:C:307:LEU:HD12	2:C:310:LEU:HD23	2.03	0.41
2:C:508:ILE:HG21	2:C:526:PRO:HB3	2.02	0.41
2:C:1070:ILE:H	2:C:1070:ILE:HG13	1.55	0.41
2:C:1090:LYS:HE3	3:D:88:TYR:O	2.19	0.41
3:D:775:GLY:HA2	3:D:1209:LEU:HB3	2.03	0.41
3:D:1310:ARG:HH21	3:D:1327:ARG:NH1	2.18	0.41
1:G:48:ILE:HD13	1:G:48:ILE:HA	1.90	0.41
1:G:63:HIS:HD2	1:G:66:SER:HB2	1.86	0.41
1:G:149:GLY:O	1:G:171:PHE:HB2	2.21	0.41
2:I:64:LEU:HD21	2:I:66:LEU:CB	2.50	0.41
2:I:418:LEU:HD21	2:I:427:VAL:HG11	2.01	0.41
2:I:718:GLY:HA2	2:I:719:PRO:HD3	1.78	0.41
3:J:786:ILE:CD1	3:J:908:LYS:HG2	2.48	0.41
3:J:1031:ASN:O	3:J:1034:GLN:HB3	2.20	0.41
3:J:1382:THR:O	3:J:1416:ALA:HB3	2.20	0.41
4:K:52:GLU:H	4:K:52:GLU:HG3	1.60	0.41
5:L:421:ARG:O	5:L:424:LYS:HB2	2.21	0.41
1:A:65:PHE:CE1	2:C:703:ILE:HD13	2.55	0.41
1:B:32:PHE:O	1:B:36:LEU:HG	2.20	0.41
2:C:98:LEU:HD22	2:C:113:VAL:HG22	2.01	0.41
2:C:557:ARG:CG	2:C:879:ARG:HB3	2.40	0.41
3:D:184:GLU:H	3:D:184:GLU:HG2	1.66	0.41
3:D:354:ILE:HG13	3:D:369:ALA:H	1.85	0.41
3:D:691:LEU:O	3:D:695:ILE:HG13	2.20	0.41
3:D:750:PRO:HB2	3:D:756:GLN:HA	2.03	0.41
3:D:1011:PHE:HZ	3:D:1039:CYS:HG	1.62	0.41
3:D:1117:TYR:HA	3:D:1193:THR:HG21	2.02	0.41
5:F:210:VAL:HG21	5:F:235:LEU:HD22	2.03	0.41
2:I:167:LYS:HE3	2:I:167:LYS:HB3	1.93	0.41
2:I:237:ARG:HH22	2:I:241:LEU:HD21	1.86	0.41
2:I:291:VAL:HB	2:I:299:LYS:O	2.20	0.41
2:I:574:ALA:HA	2:I:670:GLN:CG	2.51	0.41
2:I:744:ARG:NH1	2:I:746:GLY:O	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:952:LEU:HD21	2:I:971:LYS:NZ	2.34	0.41
2:I:995:MET:HE3	2:I:995:MET:HA	2.02	0.41
3:J:67:ARG:HD2	5:L:394:ARG:CB	2.48	0.41
3:J:650:LEU:HD21	3:J:688:TRP:HZ3	1.85	0.41
3:J:669:ASN:HD22	5:L:364:LEU:HD11	1.86	0.41
3:J:970:LYS:O	3:J:973:GLN:HB3	2.21	0.41
3:J:1125:MET:HA	3:J:1132:LEU:HA	2.03	0.41
3:J:1465:ASN:HA	3:J:1468:LEU:HB2	2.02	0.41
5:L:232:ASN:O	5:L:236:ILE:HG13	2.20	0.41
7:P:14:DC:H2''	7:P:15:DA:OP2	2.21	0.41
1:A:149:GLY:O	1:A:171:PHE:HB2	2.21	0.41
2:C:97:ARG:NH2	2:C:112:GLU:HB2	2.36	0.41
2:C:696:LYS:NZ	2:C:855:VAL:HG11	2.36	0.41
2:C:889:HIS:HA	2:C:892:LEU:HD12	2.02	0.41
3:D:121:THR:O	3:D:124:GLU:HB3	2.20	0.41
3:D:213:VAL:HG13	3:D:384:VAL:O	2.21	0.41
3:D:760:ARG:HH21	4:E:65:MET:HG3	1.86	0.41
5:F:207:LEU:HD23	5:F:207:LEU:HA	1.87	0.41
1:G:99:LEU:HD13	1:G:144:VAL:HG23	2.02	0.41
1:H:55:SER:HB2	1:H:158:ILE:HG23	2.03	0.41
2:I:525:ALA:HA	2:I:526:PRO:HD3	1.91	0.41
2:I:585:GLU:O	2:I:588:VAL:HG22	2.20	0.41
3:J:573:MET:HE3	5:L:225:LEU:HB3	2.01	0.41
3:J:589:SER:HA	3:J:590:PRO:HD3	1.95	0.41
3:J:638:LYS:HG3	3:J:640:HIS:H	1.86	0.41
3:J:664:LYS:HE2	3:J:666:PHE:HE2	1.86	0.41
3:J:858:LEU:HD12	3:J:859:ASP:H	1.86	0.41
3:J:1366:LYS:O	3:J:1369:GLU:HB2	2.21	0.41
3:J:1396:GLU:HB3	3:J:1399:ASP:OD1	2.21	0.41
5:L:381:ALA:O	5:L:385:LYS:HG3	2.21	0.41
7:S:14:DC:H2''	7:S:15:DA:OP2	2.20	0.41
1:A:14:THR:O	1:A:14:THR:HG22	2.21	0.41
2:C:45:GLN:HE21	2:C:48:PHE:HD2	1.69	0.41
2:C:229:MET:CB	2:C:234:ALA:HB2	2.46	0.41
2:C:328:LEU:HD23	2:C:437:ARG:HD2	2.03	0.41
2:C:474:VAL:HG23	2:C:478:VAL:O	2.21	0.41
2:C:525:ALA:HA	2:C:526:PRO:HD3	1.92	0.41
2:C:537:LYS:NZ	2:C:905:VAL:HG22	2.36	0.41
2:C:648:ARG:H	2:C:648:ARG:HG2	1.67	0.41
2:C:670:GLN:HE22	2:C:699:PHE:HA	1.85	0.41
2:C:857:ASP:OD1	2:C:857:ASP:N	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1086:ARG:HB3	3:D:88:TYR:HE2	1.85	0.41
2:C:1089:VAL:HG13	2:C:1099:VAL:HG11	2.03	0.41
3:D:229:ALA:HB1	3:D:245:LEU:N	2.36	0.41
3:D:1038:LEU:O	3:D:1060:SER:OG	2.23	0.41
3:D:1271:LYS:HG3	3:D:1331:ASP:HB2	2.03	0.41
4:E:10:PHE:CE1	4:E:16:LYS:HG2	2.56	0.41
5:F:206:ASN:O	5:F:210:VAL:HG23	2.20	0.41
5:F:334:THR:O	5:F:344:TYR:HB2	2.21	0.41
1:G:14:THR:O	1:G:14:THR:HG22	2.21	0.41
1:G:52:ALA:O	1:G:53:VAL:HG12	2.21	0.41
1:G:171:PHE:O	1:G:172:SER:OG	2.37	0.41
1:H:13:ALA:CB	1:H:23:PHE:HD1	2.34	0.41
2:I:55:GLU:HA	2:I:64:LEU:O	2.20	0.41
2:I:93:PRO:HG3	2:I:117:HIS:NE2	2.36	0.41
2:I:97:ARG:NH2	2:I:112:GLU:HB2	2.36	0.41
2:I:215:GLY:O	2:I:217:LEU:N	2.54	0.41
2:I:571:LEU:CD2	2:I:995:MET:HE1	2.51	0.41
2:I:683:ASN:OD1	2:I:872:ASN:HB2	2.21	0.41
2:I:872:ASN:ND2	3:J:784:ASP:OD2	2.54	0.41
2:I:944:LEU:HD13	2:I:959:PRO:HB3	2.02	0.41
2:I:1102:LEU:HD12	2:I:1107:ASN:N	2.35	0.41
3:J:137:PRO:HG3	3:J:148:GLU:HA	2.02	0.41
3:J:182:GLY:H	3:J:204:LEU:HD23	1.86	0.41
3:J:542:ASP:O	3:J:545:ARG:HB3	2.20	0.41
3:J:654:LYS:HB3	3:J:655:PRO:HD3	2.03	0.41
3:J:657:LEU:HD22	3:J:691:LEU:HD13	2.03	0.41
3:J:895:VAL:O	3:J:899:LEU:HG	2.20	0.41
3:J:1084:THR:O	3:J:1088:THR:HG23	2.21	0.41
3:J:1372:VAL:HA	3:J:1375:MET:SD	2.61	0.41
3:J:1429:LEU:HG	3:J:1440:PHE:HD1	1.85	0.41
5:L:160:PRO:HG2	5:L:164:GLU:HG2	2.03	0.41
5:L:181:LEU:HB3	5:L:185:LEU:HB2	2.03	0.41
5:L:375:LYS:HD3	5:L:426:HIS:CG	2.56	0.41
6:O:24:DC:H1'	6:O:25:DT:H5'	2.01	0.41
7:P:16:DC:H2''	7:P:17:DT:OP2	2.21	0.41
1:A:33:GLY:O	1:A:195:LEU:HD21	2.21	0.41
1:A:43:ILE:HG13	1:B:35:THR:HG21	2.02	0.41
1:A:46:SER:OG	1:A:47:SER:N	2.54	0.41
2:C:291:VAL:HB	2:C:299:LYS:O	2.21	0.41
2:C:536:PRO:HB3	3:D:1067:VAL:HG11	2.02	0.41
2:C:603:VAL:HA	2:C:613:VAL:HG12	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:988:VAL:H	3:D:948:THR:HG21	1.85	0.41
3:D:900:ILE:HG12	3:D:914:LEU:CD2	2.51	0.41
5:F:154:ALA:HB1	5:F:158:LYS:HE2	2.02	0.41
1:G:158:ILE:HG22	1:G:159:LYS:N	2.36	0.41
2:I:639:GLN:HA	2:I:657:ASP:O	2.21	0.41
2:I:1085:PHE:O	2:I:1089:VAL:HG23	2.21	0.41
3:J:691:LEU:O	3:J:695:ILE:HG13	2.20	0.41
3:J:886:VAL:O	3:J:890:VAL:HG23	2.21	0.41
3:J:1460:ILE:HG13	3:J:1461:GLY:N	2.36	0.41
6:O:6:DC:H2'	6:O:7:DA:OP2	2.21	0.41
1:A:97:THR:HG23	1:A:98:THR:N	2.27	0.40
1:A:107:LYS:HE2	1:A:113:ASP:OD2	2.21	0.40
1:B:90:LEU:HB2	1:B:119:ASP:HB3	2.03	0.40
2:C:223:ASP:OD1	2:C:226:VAL:HG23	2.21	0.40
2:C:317:VAL:HA	2:C:318:PRO:HD3	1.97	0.40
2:C:512:ARG:H	2:C:512:ARG:HG2	1.54	0.40
2:C:529:VAL:HG13	2:C:529:VAL:O	2.21	0.40
2:C:585:GLU:O	2:C:588:VAL:HG22	2.22	0.40
2:C:865:THR:HA	2:C:866:PRO:HD2	1.94	0.40
2:C:1063:ARG:HH21	5:F:353:LEU:HD23	1.86	0.40
3:D:698:LYS:H	4:E:59:ASN:ND2	2.19	0.40
3:D:786:ILE:CD1	3:D:908:LYS:HG2	2.49	0.40
3:D:1290:LEU:HB2	3:D:1307:LYS:HA	2.03	0.40
5:F:99:TYR:HE2	5:F:211:VAL:HG22	1.86	0.40
1:H:159:LYS:HG3	1:H:164:ALA:HB3	2.03	0.40
1:H:188:GLN:HA	3:J:688:TRP:CD1	2.52	0.40
2:I:6:PHE:HE1	2:I:901:TYR:HB3	1.86	0.40
2:I:124:ASP:HB2	2:I:407:LYS:NZ	2.36	0.40
2:I:352:ALA:O	2:I:356:ARG:HG3	2.20	0.40
2:I:670:GLN:HE22	2:I:699:PHE:HA	1.86	0.40
2:I:1010:THR:HG23	2:I:1013:TYR:OH	2.21	0.40
3:J:547:LEU:HD13	3:J:578:VAL:HG22	2.03	0.40
3:J:698:LYS:HG2	3:J:756:GLN:HG2	2.03	0.40
3:J:974:ILE:HG12	3:J:991:GLN:HG2	2.03	0.40
3:J:1331:ASP:HA	3:J:1332:PRO:HD3	1.83	0.40
5:L:206:ASN:O	5:L:210:VAL:HG23	2.22	0.40
7:P:7:DA:H1'	7:P:8:DA:H5'	2.02	0.40
7:S:19:DT:H1'	7:S:20:DT:H5'	2.02	0.40
1:A:40:LEU:HG	1:A:218:LEU:HD22	2.03	0.40
1:B:17:GLY:HA3	1:B:19:HIS:CE1	2.56	0.40
1:B:79:ILE:HA	1:B:82:LEU:HD12	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:166:PRO:C	2:C:168:ARG:H	2.25	0.40
2:C:247:PRO:HA	2:C:248:PRO:HD3	1.84	0.40
2:C:561:GLY:O	2:C:565:GLN:HG2	2.21	0.40
2:C:577:PRO:HD3	2:C:993:PHE:CZ	2.56	0.40
2:C:1103:ASP:OD1	2:C:1107:ASN:HB2	2.21	0.40
3:D:101:HIS:HE2	3:D:582:ILE:HG21	1.84	0.40
3:D:178:LEU:HD11	3:D:190:GLU:O	2.21	0.40
3:D:285:PRO:HD2	3:D:288:MET:SD	2.61	0.40
3:D:684:LYS:HB3	3:D:686:GLU:HG3	2.04	0.40
3:D:1273:VAL:HG23	3:D:1325:LEU:HB2	2.03	0.40
2:I:246:ASP:HA	2:I:247:PRO:HD3	1.94	0.40
2:I:360:VAL:HG21	5:L:216:LYS:NZ	2.37	0.40
2:I:399:ASN:O	2:I:402:SER:HB2	2.21	0.40
2:I:498:GLN:H	2:I:501:THR:HG23	1.87	0.40
2:I:1070:ILE:H	2:I:1070:ILE:HG13	1.58	0.40
3:J:1129:THR:C	3:J:1131:THR:H	2.25	0.40
3:J:1268:PRO:HB3	3:J:1329:ALA:HB3	2.04	0.40
1:B:182:GLU:CG	1:B:194:LYS:HB3	2.52	0.40
3:D:131:LYS:HE2	3:D:152:LEU:HB3	2.04	0.40
3:D:229:ALA:O	3:D:244:GLU:HB2	2.21	0.40
3:D:256:SER:HB3	3:D:300:VAL:HG23	2.03	0.40
3:D:388:HIS:C	3:D:389:GLU:HG3	2.41	0.40
3:D:545:ARG:NH1	5:F:269:GLN:O	2.54	0.40
3:D:551:ASN:O	3:D:555:LYS:HG3	2.22	0.40
3:D:640:HIS:O	3:D:717:GLN:HB2	2.21	0.40
3:D:1107:VAL:HA	3:D:1200:VAL:O	2.21	0.40
5:F:418:LYS:O	5:F:422:LYS:HB2	2.21	0.40
1:G:34:VAL:HG22	1:G:181:VAL:HG21	2.03	0.40
1:H:23:PHE:CE2	1:H:199:ILE:HB	2.55	0.40
2:I:65:VAL:CG1	2:I:101:ILE:HB	2.50	0.40
2:I:607:ASP:HB3	2:I:610:ARG:O	2.21	0.40
3:J:348:ALA:HB3	3:J:351:MET:HG3	2.03	0.40
3:J:669:ASN:ND2	5:L:364:LEU:HD11	2.36	0.40
3:J:692:GLU:HA	3:J:695:ILE:HD12	2.04	0.40
3:J:704:ARG:HB3	3:J:736:PHE:CD2	2.57	0.40
3:J:869:LEU:HD21	3:J:893:GLU:HG3	2.03	0.40
3:J:1207:TYR:HA	3:J:1213:ARG:O	2.21	0.40
3:J:1396:GLU:OE2	3:J:1432:LYS:HD3	2.21	0.40
2:C:158:TYR:HD1	2:C:314:THR:HA	1.86	0.40
2:C:464:LEU:HD23	2:C:464:LEU:HA	1.95	0.40
3:D:654:LYS:HB3	3:D:655:PRO:HD3	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1125:MET:N	3:D:1132:LEU:HD23	2.36	0.40
1:G:9:PRO:HB2	1:G:25:LEU:HD11	2.03	0.40
1:G:33:GLY:O	1:G:195:LEU:HD21	2.21	0.40
1:G:79:ILE:HD13	1:G:167:VAL:HG12	2.02	0.40
1:G:173:PRO:HB3	1:G:202:ASP:OD1	2.21	0.40
1:G:195:LEU:HD23	1:G:195:LEU:HA	1.88	0.40
1:H:192:LEU:HD23	1:H:192:LEU:N	2.36	0.40
2:I:17:PRO:O	2:I:19:THR:N	2.55	0.40
2:I:199:VAL:HA	2:I:231:PRO:HB3	2.02	0.40
2:I:299:LYS:HG3	2:I:300:ASP:N	2.36	0.40
2:I:341:ALA:O	2:I:345:ARG:HG2	2.21	0.40
2:I:609:THR:O	2:I:625:LEU:N	2.54	0.40
2:I:725:ASP:O	2:I:759:THR:HG21	2.21	0.40
3:J:65:ARG:HA	3:J:65:ARG:HD3	1.93	0.40
3:J:701:LEU:HD21	3:J:763:MET:CG	2.48	0.40
3:J:853:VAL:HA	3:J:858:LEU:HB3	2.04	0.40
3:J:1153:VAL:HB	3:J:1160:LEU:HB3	2.04	0.40
5:L:130:LYS:HG2	5:L:188:TYR:CZ	2.56	0.40
7:P:15:DA:OP2	7:P:15:DA:H2'	2.22	0.40
1:A:35:THR:HG22	1:B:39:PRO:HA	2.02	0.40
1:B:192:LEU:HD23	1:B:192:LEU:N	2.36	0.40
2:C:327:HIS:O	2:C:331:ARG:HG3	2.22	0.40
2:C:627:ARG:HD3	2:C:639:GLN:O	2.21	0.40
2:C:878:SER:O	3:D:1034:GLN:NE2	2.51	0.40
3:D:364:GLY:HA2	3:D:379:ALA:O	2.21	0.40
3:D:553:ARG:HB3	3:D:570:GLU:OE1	2.20	0.40
3:D:598:ARG:HA	3:D:599:PRO:HD3	1.77	0.40
3:D:711:LEU:HD13	3:D:711:LEU:HA	1.95	0.40
3:D:1267:ARG:HA	3:D:1268:PRO:HD3	1.93	0.40
1:G:107:LYS:HE2	1:G:113:ASP:OD2	2.22	0.40
1:H:75:VAL:O	1:H:79:ILE:HG13	2.21	0.40
1:H:129:ILE:HG22	1:H:130:ALA:N	2.37	0.40
2:I:554:ASP:OD2	2:I:556:ASN:HB2	2.22	0.40
2:I:585:GLU:HG2	2:I:665:PHE:CD1	2.56	0.40
3:J:1134:LEU:HD22	3:J:1135:ARG:N	2.37	0.40
3:J:1404:ASN:O	3:J:1408:ILE:HG12	2.21	0.40
5:L:145:VAL:HG21	5:L:174:VAL:CG1	2.52	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	225/314 (72%)	200 (89%)	23 (10%)	2 (1%)	17	56
1	B	225/314 (72%)	200 (89%)	20 (9%)	5 (2%)	6	37
1	G	225/314 (72%)	200 (89%)	23 (10%)	2 (1%)	17	56
1	H	225/314 (72%)	201 (89%)	18 (8%)	6 (3%)	5	34
2	C	1108/1119 (99%)	958 (86%)	139 (12%)	11 (1%)	15	54
2	I	1108/1119 (99%)	956 (86%)	140 (13%)	12 (1%)	14	52
3	D	1486/1524 (98%)	1315 (88%)	162 (11%)	9 (1%)	25	65
3	J	1361/1524 (89%)	1201 (88%)	150 (11%)	10 (1%)	22	62
4	E	91/99 (92%)	75 (82%)	16 (18%)	0	100	100
4	K	91/99 (92%)	75 (82%)	16 (18%)	0	100	100
5	F	343/347 (99%)	299 (87%)	42 (12%)	2 (1%)	25	65
5	L	343/347 (99%)	302 (88%)	40 (12%)	1 (0%)	41	76
All	All	6831/7434 (92%)	5982 (88%)	789 (12%)	60 (1%)	17	56

All (60) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	53	VAL
3	D	1128	VAL
3	D	1209	LEU
1	G	53	VAL
3	J	1128	VAL
2	C	608	GLY
2	C	972	VAL
3	D	666	PHE
2	I	608	GLY
2	I	972	VAL
3	J	1287	GLU
1	B	161	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	C	882	LEU
1	H	161	ARG
2	I	882	LEU
3	J	422	ALA
1	A	98	THR
3	J	1130	ARG
1	B	178	ALA
2	C	295	ASP
2	C	365	ASP
2	C	607	ASP
3	D	1075	HIS
1	G	98	THR
1	H	178	ALA
2	I	295	ASP
2	I	365	ASP
2	I	607	ASP
3	J	1075	HIS
3	J	1207	TYR
1	B	202	ASP
3	D	667	ALA
5	F	270	ALA
1	H	51	THR
1	H	202	ASP
2	C	870	ILE
2	C	1016	ILE
3	D	1221	VAL
2	I	870	ILE
2	I	1016	ILE
3	J	667	ALA
3	J	1221	VAL
2	C	989	VAL
3	D	670	VAL
3	D	947	ILE
5	F	407	VAL
3	J	947	ILE
1	H	116	PRO
2	I	989	VAL
3	J	670	VAL
5	L	407	VAL
1	B	48	ILE
1	B	116	PRO
2	C	17	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	C	852	ILE
3	D	259	VAL
1	H	48	ILE
2	I	17	PRO
2	I	852	ILE
2	I	1060	ILE

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	194/270 (72%)	179 (92%)	15 (8%)	13	39
1	B	194/270 (72%)	172 (89%)	22 (11%)	6	24
1	G	194/270 (72%)	178 (92%)	16 (8%)	11	36
1	H	194/270 (72%)	171 (88%)	23 (12%)	5	22
2	C	931/936 (100%)	840 (90%)	91 (10%)	8	28
2	I	931/936 (100%)	840 (90%)	91 (10%)	8	28
3	D	1252/1281 (98%)	1114 (89%)	138 (11%)	6	25
3	J	1150/1281 (90%)	1028 (89%)	122 (11%)	6	26
4	E	83/88 (94%)	79 (95%)	4 (5%)	25	52
4	K	83/88 (94%)	79 (95%)	4 (5%)	25	52
5	F	296/299 (99%)	276 (93%)	20 (7%)	16	42
5	L	296/299 (99%)	276 (93%)	20 (7%)	16	42
All	All	5798/6288 (92%)	5232 (90%)	566 (10%)	8	28

All (566) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	20	TYR
1	A	32	PHE
1	A	45	LEU
1	A	51	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	63	HIS
1	A	73	GLU
1	A	74	ASP
1	A	113	ASP
1	A	158	ILE
1	A	174	VAL
1	A	176	ARG
1	A	198	ARG
1	A	222	LEU
1	A	227	ASN
1	A	232	LEU
1	B	7	LYS
1	B	23	PHE
1	B	38	ASN
1	B	44	LEU
1	B	51	THR
1	B	58	ILE
1	B	62	LEU
1	B	74	ASP
1	B	75	VAL
1	B	104	GLU
1	B	113	ASP
1	B	114	PHE
1	B	129	ILE
1	B	131	THR
1	B	158	ILE
1	B	177	VAL
1	B	189	ARG
1	B	192	LEU
1	B	201	THR
1	B	215	VAL
1	B	219	LYS
1	B	227	ASN
2	C	10	ARG
2	C	12	VAL
2	C	20	GLU
2	C	30	LEU
2	C	41	ASN
2	C	45	GLN
2	C	55	GLU
2	C	75	ASP
2	C	98	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	C	101	ILE
2	C	104	ASP
2	C	107	LEU
2	C	134	ARG
2	C	142	ARG
2	C	148	PHE
2	C	174	LEU
2	C	176	VAL
2	C	187	ASN
2	C	194	VAL
2	C	203	ASP
2	C	211	LEU
2	C	221	LEU
2	C	232	GLU
2	C	238	LEU
2	C	242	LEU
2	C	268	ASP
2	C	280	LYS
2	C	283	VAL
2	C	297	GLU
2	C	308	ARG
2	C	323	ASP
2	C	336	VAL
2	C	361	MET
2	C	365	ASP
2	C	383	ARG
2	C	413	LEU
2	C	421	GLU
2	C	425	PHE
2	C	430	VAL
2	C	434	HIS
2	C	438	ILE
2	C	485	TYR
2	C	503	LEU
2	C	506	ASP
2	C	512	ARG
2	C	514	VAL
2	C	516	ARG
2	C	523	ILE
2	C	527	GLU
2	C	530	GLU
2	C	542	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	C	543	ASN
2	C	571	LEU
2	C	579	VAL
2	C	604	VAL
2	C	653	ASP
2	C	673	LEU
2	C	685	GLU
2	C	707	ARG
2	C	729	LEU
2	C	754	ILE
2	C	761	PHE
2	C	784	ASP
2	C	788	THR
2	C	808	ARG
2	C	823	VAL
2	C	839	LEU
2	C	848	VAL
2	C	857	ASP
2	C	868	ASP
2	C	869	VAL
2	C	892	LEU
2	C	896	PHE
2	C	897	LEU
2	C	899	GLN
2	C	920	GLU
2	C	926	PHE
2	C	934	PHE
2	C	936	VAL
2	C	950	LEU
2	C	952	LEU
2	C	968	ASP
2	C	969	LEU
2	C	972	VAL
2	C	994	ILE
2	C	995	MET
2	C	1001	VAL
2	C	1035	MET
2	C	1061	GLU
2	C	1075	ASP
2	C	1112	PHE
3	D	5	VAL
3	D	26	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	D	37	LEU
3	D	54	LYS
3	D	62	LYS
3	D	66	GLN
3	D	68	PHE
3	D	80	VAL
3	D	92	HIS
3	D	121	THR
3	D	135	LEU
3	D	152	LEU
3	D	154	THR
3	D	155	ASP
3	D	166	GLN
3	D	168	THR
3	D	171	LEU
3	D	178	LEU
3	D	180	LYS
3	D	214	ASP
3	D	233	LYS
3	D	247	GLU
3	D	251	PHE
3	D	259	VAL
3	D	266	GLU
3	D	277	GLU
3	D	281	ARG
3	D	297	ILE
3	D	306	GLU
3	D	315	ARG
3	D	327	GLU
3	D	332	HIS
3	D	334	THR
3	D	335	LEU
3	D	347	VAL
3	D	350	HIS
3	D	389	GLU
3	D	408	GLU
3	D	414	ARG
3	D	423	ASP
3	D	442	ASN
3	D	450	TYR
3	D	461	ILE
3	D	464	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	D	475	ARG
3	D	525	ARG
3	D	538	SER
3	D	546	ARG
3	D	548	ILE
3	D	576	GLU
3	D	596	SER
3	D	598	ARG
3	D	619	LEU
3	D	636	GLN
3	D	639	LEU
3	D	658	LEU
3	D	683	ILE
3	D	685	ASP
3	D	688	TRP
3	D	694	VAL
3	D	707	THR
3	D	708	LEU
3	D	709	HIS
3	D	717	GLN
3	D	747	VAL
3	D	748	HIS
3	D	762	GLN
3	D	776	GLU
3	D	787	LEU
3	D	810	GLU
3	D	811	GLU
3	D	832	ARG
3	D	835	SER
3	D	838	ARG
3	D	850	LEU
3	D	861	GLN
3	D	865	THR
3	D	875	THR
3	D	897	GLN
3	D	899	LEU
3	D	903	ASP
3	D	908	LYS
3	D	909	ASN
3	D	930	LEU
3	D	932	ASP
3	D	945	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	D	964	LEU
3	D	976	GLN
3	D	1004	THR
3	D	1015	TYR
3	D	1029	ARG
3	D	1066	THR
3	D	1078	ARG
3	D	1094	LEU
3	D	1100	ASP
3	D	1107	VAL
3	D	1108	ARG
3	D	1112	CYS
3	D	1120	VAL
3	D	1123	PHE
3	D	1130	ARG
3	D	1134	LEU
3	D	1137	ARG
3	D	1139	ASP
3	D	1144	LEU
3	D	1156	LEU
3	D	1160	LEU
3	D	1161	GLU
3	D	1162	GLU
3	D	1170	ASP
3	D	1179	GLU
3	D	1201	CYS
3	D	1203	LYS
3	D	1213	ARG
3	D	1231	GLU
3	D	1256	LEU
3	D	1258	ARG
3	D	1267	ARG
3	D	1278	ASP
3	D	1285	GLU
3	D	1295	GLU
3	D	1297	GLU
3	D	1302	GLU
3	D	1305	LEU
3	D	1310	ARG
3	D	1312	LEU
3	D	1342	GLU
3	D	1380	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	D	1382	THR
3	D	1386	ASP
3	D	1395	LEU
3	D	1407	LEU
3	D	1413	VAL
3	D	1444	THR
3	D	1448	THR
3	D	1459	LEU
3	D	1462	LEU
3	D	1499	ARG
4	E	14	ASP
4	E	30	LEU
4	E	39	VAL
4	E	56	ASP
5	F	108	LEU
5	F	138	ASP
5	F	139	GLN
5	F	151	LEU
5	F	165	LYS
5	F	175	ASP
5	F	196	GLU
5	F	202	LEU
5	F	224	PHE
5	F	233	GLN
5	F	293	LEU
5	F	328	GLU
5	F	339	GLU
5	F	343	PHE
5	F	371	LYS
5	F	404	TYR
5	F	405	PHE
5	F	409	ARG
5	F	424	LYS
5	F	433	LEU
1	G	20	TYR
1	G	32	PHE
1	G	45	LEU
1	G	51	THR
1	G	63	HIS
1	G	73	GLU
1	G	74	ASP
1	G	80	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	G	113	ASP
1	G	158	ILE
1	G	174	VAL
1	G	176	ARG
1	G	198	ARG
1	G	222	LEU
1	G	227	ASN
1	G	232	LEU
1	H	7	LYS
1	H	23	PHE
1	H	38	ASN
1	H	44	LEU
1	H	51	THR
1	H	58	ILE
1	H	62	LEU
1	H	74	ASP
1	H	75	VAL
1	H	104	GLU
1	H	113	ASP
1	H	114	PHE
1	H	129	ILE
1	H	131	THR
1	H	140	MET
1	H	158	ILE
1	H	177	VAL
1	H	189	ARG
1	H	192	LEU
1	H	201	THR
1	H	215	VAL
1	H	219	LYS
1	H	227	ASN
2	I	10	ARG
2	I	12	VAL
2	I	20	GLU
2	I	30	LEU
2	I	41	ASN
2	I	45	GLN
2	I	55	GLU
2	I	75	ASP
2	I	98	LEU
2	I	101	ILE
2	I	104	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	I	107	LEU
2	I	134	ARG
2	I	142	ARG
2	I	148	PHE
2	I	174	LEU
2	I	176	VAL
2	I	187	ASN
2	I	194	VAL
2	I	203	ASP
2	I	211	LEU
2	I	221	LEU
2	I	232	GLU
2	I	238	LEU
2	I	242	LEU
2	I	268	ASP
2	I	280	LYS
2	I	283	VAL
2	I	297	GLU
2	I	308	ARG
2	I	323	ASP
2	I	336	VAL
2	I	361	MET
2	I	365	ASP
2	I	383	ARG
2	I	413	LEU
2	I	421	GLU
2	I	425	PHE
2	I	430	VAL
2	I	434	HIS
2	I	438	ILE
2	I	485	TYR
2	I	487	THR
2	I	503	LEU
2	I	506	ASP
2	I	512	ARG
2	I	514	VAL
2	I	523	ILE
2	I	527	GLU
2	I	530	GLU
2	I	542	LEU
2	I	543	ASN
2	I	571	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	I	579	VAL
2	I	604	VAL
2	I	653	ASP
2	I	673	LEU
2	I	685	GLU
2	I	707	ARG
2	I	729	LEU
2	I	754	ILE
2	I	761	PHE
2	I	784	ASP
2	I	788	THR
2	I	808	ARG
2	I	823	VAL
2	I	839	LEU
2	I	848	VAL
2	I	857	ASP
2	I	868	ASP
2	I	869	VAL
2	I	892	LEU
2	I	896	PHE
2	I	897	LEU
2	I	899	GLN
2	I	920	GLU
2	I	926	PHE
2	I	934	PHE
2	I	936	VAL
2	I	950	LEU
2	I	952	LEU
2	I	968	ASP
2	I	969	LEU
2	I	972	VAL
2	I	994	ILE
2	I	995	MET
2	I	1001	VAL
2	I	1035	MET
2	I	1061	GLU
2	I	1075	ASP
2	I	1112	PHE
3	J	26	VAL
3	J	37	LEU
3	J	54	LYS
3	J	62	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	J	66	GLN
3	J	68	PHE
3	J	80	VAL
3	J	121	THR
3	J	135	LEU
3	J	154	THR
3	J	155	ASP
3	J	166	GLN
3	J	168	THR
3	J	171	LEU
3	J	178	LEU
3	J	180	LYS
3	J	210	ARG
3	J	211	VAL
3	J	350	HIS
3	J	375	GLU
3	J	399	ARG
3	J	404	GLU
3	J	410	THR
3	J	411	THR
3	J	414	ARG
3	J	423	ASP
3	J	430	GLU
3	J	450	TYR
3	J	462	GLN
3	J	512	MET
3	J	513	ILE
3	J	523	ASP
3	J	525	ARG
3	J	548	ILE
3	J	574	LEU
3	J	576	GLU
3	J	598	ARG
3	J	600	LEU
3	J	619	LEU
3	J	636	GLN
3	J	639	LEU
3	J	658	LEU
3	J	683	ILE
3	J	685	ASP
3	J	688	TRP
3	J	694	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	J	707	THR
3	J	708	LEU
3	J	709	HIS
3	J	717	GLN
3	J	747	VAL
3	J	748	HIS
3	J	762	GLN
3	J	776	GLU
3	J	787	LEU
3	J	810	GLU
3	J	811	GLU
3	J	832	ARG
3	J	835	SER
3	J	838	ARG
3	J	850	LEU
3	J	861	GLN
3	J	865	THR
3	J	875	THR
3	J	897	GLN
3	J	899	LEU
3	J	903	ASP
3	J	908	LYS
3	J	909	ASN
3	J	930	LEU
3	J	932	ASP
3	J	945	SER
3	J	958	GLU
3	J	964	LEU
3	J	976	GLN
3	J	1004	THR
3	J	1015	TYR
3	J	1029	ARG
3	J	1066	THR
3	J	1078	ARG
3	J	1094	LEU
3	J	1100	ASP
3	J	1107	VAL
3	J	1112	CYS
3	J	1132	LEU
3	J	1134	LEU
3	J	1137	ARG
3	J	1149	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	J	1159	ARG
3	J	1160	LEU
3	J	1161	GLU
3	J	1162	GLU
3	J	1170	ASP
3	J	1173	PHE
3	J	1183	VAL
3	J	1201	CYS
3	J	1203	LYS
3	J	1211	MET
3	J	1231	GLU
3	J	1235	GLN
3	J	1238	MET
3	J	1267	ARG
3	J	1285	GLU
3	J	1293	PHE
3	J	1297	GLU
3	J	1305	LEU
3	J	1318	TYR
3	J	1325	LEU
3	J	1326	THR
3	J	1335	LEU
3	J	1342	GLU
3	J	1376	LEU
3	J	1397	LYS
3	J	1407	LEU
3	J	1429	LEU
3	J	1432	LYS
3	J	1433	SER
3	J	1444	THR
3	J	1448	THR
3	J	1462	LEU
3	J	1496	GLU
3	J	1499	ARG
4	K	14	ASP
4	K	30	LEU
4	K	39	VAL
4	K	56	ASP
5	L	108	LEU
5	L	138	ASP
5	L	139	GLN
5	L	151	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	L	165	LYS
5	L	175	ASP
5	L	196	GLU
5	L	202	LEU
5	L	224	PHE
5	L	233	GLN
5	L	293	LEU
5	L	328	GLU
5	L	339	GLU
5	L	343	PHE
5	L	371	LYS
5	L	404	TYR
5	L	405	PHE
5	L	409	ARG
5	L	424	LYS
5	L	433	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (85) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	63	HIS
1	A	212	ASN
1	B	128	HIS
1	B	163	ASN
1	B	213	GLN
2	C	41	ASN
2	C	45	GLN
2	C	393	GLN
2	C	498	GLN
2	C	538	GLN
2	C	567	GLN
2	C	639	GLN
2	C	671	ASN
2	C	765	GLN
2	C	845	ASN
2	C	881	ASN
2	C	962	GLN
2	C	1050	GLN
2	C	1100	GLN
3	D	130	ASN
3	D	274	GLN
3	D	350	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	D	362	GLN
3	D	549	ASN
3	D	552	ASN
3	D	560	GLN
3	D	569	ASN
3	D	593	ASN
3	D	680	GLN
3	D	703	ASN
3	D	756	GLN
3	D	762	GLN
3	D	768	ASN
3	D	794	GLN
3	D	897	GLN
3	D	991	GLN
3	D	1046	GLN
3	D	1116	ASN
3	D	1235	GLN
3	D	1359	GLN
4	E	37	ASN
4	E	59	ASN
5	F	233	GLN
5	F	294	GLN
5	F	295	GLN
5	F	417	ASN
5	F	426	HIS
1	G	63	HIS
1	G	81	ASN
1	G	212	ASN
1	H	128	HIS
1	H	163	ASN
1	H	213	GLN
2	I	22	GLN
2	I	41	ASN
2	I	45	GLN
2	I	393	GLN
2	I	498	GLN
2	I	538	GLN
2	I	567	GLN
2	I	639	GLN
2	I	671	ASN
2	I	765	GLN
2	I	845	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	I	881	ASN
2	I	962	GLN
2	I	1050	GLN
2	I	1100	GLN
3	J	130	ASN
3	J	549	ASN
3	J	560	GLN
3	J	703	ASN
3	J	756	GLN
3	J	762	GLN
3	J	794	GLN
3	J	897	GLN
3	J	991	GLN
3	J	1046	GLN
4	K	37	ASN
4	K	59	ASN
5	L	229	GLN
5	L	294	GLN
5	L	295	GLN
5	L	417	ASN
5	L	426	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 6 ligands modelled in this entry, 6 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data i

6.1 Protein, DNA and RNA chains i

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	227/314 (72%)	0.08	2 (0%) 84 77	107, 189, 236, 264	0
1	B	227/314 (72%)	-0.23	0 100 100	94, 161, 214, 264	0
1	G	227/314 (72%)	0.39	17 (7%) 14 12	116, 199, 240, 276	0
1	H	227/314 (72%)	-0.13	2 (0%) 84 77	116, 173, 216, 267	0
2	C	1112/1119 (99%)	-0.03	21 (1%) 66 58	90, 179, 243, 314	0
2	I	1112/1119 (99%)	0.01	26 (2%) 60 51	94, 185, 244, 315	0
3	D	1490/1524 (97%)	-0.13	13 (0%) 84 77	64, 149, 204, 259	0
3	J	1367/1524 (89%)	-0.08	17 (1%) 79 70	79, 159, 217, 264	0
4	E	93/99 (93%)	0.06	2 (2%) 62 53	100, 159, 205, 238	0
4	K	93/99 (93%)	0.03	3 (3%) 47 38	112, 168, 216, 253	0
5	F	345/347 (99%)	-0.10	1 (0%) 94 90	115, 185, 255, 300	0
5	L	345/347 (99%)	-0.10	7 (2%) 65 56	121, 188, 252, 300	0
6	O	30/30 (100%)	0.70	4 (13%) 3 4	154, 221, 293, 311	0
6	R	30/30 (100%)	0.21	0 100 100	164, 221, 257, 267	0
7	P	25/26 (96%)	0.83	5 (20%) 1 1	172, 235, 306, 326	0
7	S	26/26 (100%)	0.06	0 100 100	184, 224, 263, 283	0
All	All	6976/7546 (92%)	-0.04	120 (1%) 70 61	64, 171, 235, 326	0

All (120) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	C	176	VAL	5.1
2	I	175	GLU	4.5
2	C	221	LEU	4.4
1	G	13	ALA	4.0
2	C	175	GLU	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	J	406	ASP	3.6
2	I	176	VAL	3.6
7	P	22	DT	3.6
5	L	432	LYS	3.6
2	I	207	LEU	3.5
3	D	666	PHE	3.5
2	I	181	VAL	3.5
2	I	221	LEU	3.5
2	C	190	LYS	3.5
3	J	407	VAL	3.3
2	I	182	VAL	3.2
1	G	14	THR	3.2
2	I	232	GLU	3.2
2	C	174	LEU	3.1
2	C	222	LEU	3.1
3	J	1487	VAL	3.0
3	D	444	VAL	3.0
2	I	217	LEU	3.0
7	P	23	DC	3.0
2	C	207	LEU	3.0
2	I	649	VAL	2.9
1	G	56	VAL	2.9
2	C	194	VAL	2.9
2	C	182	VAL	2.9
2	C	720	GLU	2.9
2	I	222	LEU	2.9
3	D	1486	VAL	2.8
1	G	107	LYS	2.8
2	C	203	ASP	2.8
3	D	256	SER	2.8
2	I	190	LYS	2.8
6	O	3	DT	2.7
2	C	232	GLU	2.7
7	P	26	DG	2.7
3	D	446	VAL	2.6
3	J	421	LEU	2.6
1	G	55	SER	2.6
2	I	183	THR	2.6
3	J	437	VAL	2.6
6	O	2	DT	2.6
6	O	1	DC	2.6
3	D	324	ALA	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	C	231	PRO	2.5
2	I	250	LYS	2.5
4	K	84	ARG	2.5
3	D	1487	VAL	2.5
1	G	22	GLU	2.5
2	I	174	LEU	2.5
3	J	436	GLU	2.4
4	K	74	PHE	2.4
3	D	1279	GLY	2.4
1	G	23	PHE	2.4
2	I	416	GLY	2.4
1	G	132	LEU	2.4
4	E	88	GLU	2.4
7	P	25	DA	2.4
1	G	18	ASP	2.4
1	G	134	GLU	2.4
1	G	25	LEU	2.4
3	D	1238	MET	2.4
1	A	134	GLU	2.3
6	O	5	DA	2.3
3	J	1281	VAL	2.3
5	L	177	LYS	2.3
2	C	292	ARG	2.3
2	C	641	PRO	2.3
5	L	174	VAL	2.3
2	C	183	THR	2.3
2	C	722	ILE	2.3
2	I	296	GLY	2.3
2	I	298	PHE	2.3
3	D	445	ARG	2.3
3	J	367	ILE	2.3
2	I	101	ILE	2.3
3	J	1041	MET	2.3
5	L	135	THR	2.3
1	G	109	VAL	2.2
2	I	219	GLN	2.2
7	P	24	DA	2.2
3	J	1283	ILE	2.2
2	C	250	LYS	2.2
3	J	341	GLU	2.2
1	G	15	THR	2.2
5	F	409	ARG	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	J	1486	VAL	2.2
2	C	298	PHE	2.2
3	J	216	LEU	2.2
1	A	204	SER	2.2
3	D	255	GLU	2.2
3	D	257	GLY	2.2
3	J	444	VAL	2.2
4	K	88	GLU	2.1
2	I	178	ALA	2.1
2	I	934	PHE	2.1
3	J	427	VAL	2.1
2	C	721	ARG	2.1
1	H	137	LYS	2.1
2	C	223	ASP	2.1
1	G	102	ARG	2.1
1	H	231	SER	2.1
5	L	178	LEU	2.1
3	J	1040	GLY	2.1
1	G	137	LYS	2.1
1	G	162	ILE	2.1
3	J	68	PHE	2.1
2	I	214	TYR	2.1
5	L	433	LEU	2.1
2	I	648	ARG	2.1
4	E	74	PHE	2.1
2	I	508	ILE	2.0
1	G	197	LEU	2.0
2	I	641	PRO	2.0
5	L	409	ARG	2.0
2	I	310	LEU	2.0
3	D	1313	VAL	2.0

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides 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(\AA^2)	Q<0.9
9	MG	D	2003	1/1	0.82	0.45	286,286,286,286	0
9	MG	J	2003	1/1	0.84	0.41	331,331,331,331	0
8	ZN	J	2002	1/1	0.93	0.07	147,147,147,147	0
8	ZN	D	2002	1/1	0.96	0.16	182,182,182,182	0
8	ZN	J	2001	1/1	0.97	0.12	166,166,166,166	0
8	ZN	D	2001	1/1	0.99	0.13	107,107,107,107	0

6.5 Other polymers [i](#)

There are no such residues in this entry.