



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 31, 2016 – 09:34 PM GMT

PDB ID : 1PJL
Title : Crystal structure of human m-NAD-ME in ternary complex with NAD and Lu3+
Authors : Yang, Z.; Batra, R.; Floyd, D.L.; Hung, H.-C.; Chang, G.-G.; Tong, L.
Deposited on : 2003-06-03
Resolution : 2.90 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
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : **NOT EXECUTED**
EDS : **NOT EXECUTED**
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

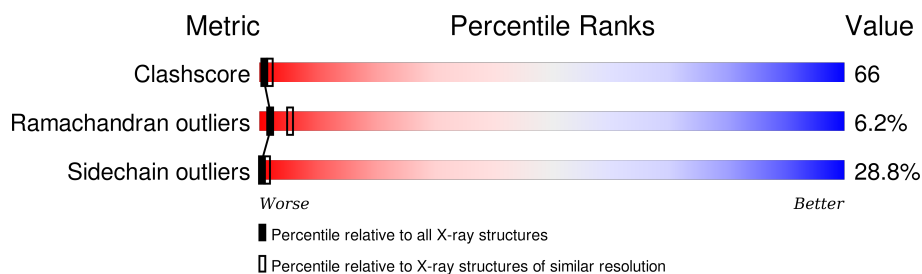
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	102246	1668 (2.90-2.90)
Ramachandran outliers	100387	1630 (2.90-2.90)
Sidechain outliers	100360	1632 (2.90-2.90)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	584	
1	B	584	
1	C	584	
1	D	584	
1	E	584	
1	F	584	
1	G	584	

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Mol	Chain	Length	Quality of chain
1	H	584	<div><div></div><div>23%</div><div>50%</div><div>20%</div><div>• 6%</div></div>

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 35527 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 NAD-dependent malic enzyme, mitochondrial.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	B	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	C	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	D	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	E	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	F	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	G	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			
1	H	551	Total	C	N	O	S	Se	0	0	0
			4344	2781	738	802	9	14			

There are 120 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	29	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	38	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	47	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	75	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	86	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	108	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	177	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	219	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	239	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	325	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	327	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	343	MSE	MET	MODIFIED RESIDUE	UNP P23368

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Chain	Residue	Modelled	Actual	Comment	Reference
A	407	MSE	MET	MODIFIED RESIDUE	UNP P23368
A	539	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1001	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1029	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1038	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1047	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1075	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1086	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1108	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1177	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1219	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1239	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1325	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1327	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1343	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1407	MSE	MET	MODIFIED RESIDUE	UNP P23368
B	1539	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2001	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2029	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2038	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2047	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2075	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2086	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2108	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2177	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2219	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2239	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2325	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2327	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2343	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2407	MSE	MET	MODIFIED RESIDUE	UNP P23368
C	2539	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3001	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3029	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3038	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3047	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3075	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3086	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3108	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3177	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3219	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3239	MSE	MET	MODIFIED RESIDUE	UNP P23368

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Chain	Residue	Modelled	Actual	Comment	Reference
D	3325	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3327	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3343	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3407	MSE	MET	MODIFIED RESIDUE	UNP P23368
D	3539	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4001	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4029	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4038	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4047	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4075	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4086	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4108	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4177	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4219	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4239	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4325	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4327	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4343	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4407	MSE	MET	MODIFIED RESIDUE	UNP P23368
E	4539	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5001	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5029	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5038	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5047	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5075	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5086	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5108	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5177	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5219	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5239	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5325	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5327	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5343	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5407	MSE	MET	MODIFIED RESIDUE	UNP P23368
F	5539	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6001	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6029	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6038	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6047	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6075	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6086	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6108	MSE	MET	MODIFIED RESIDUE	UNP P23368

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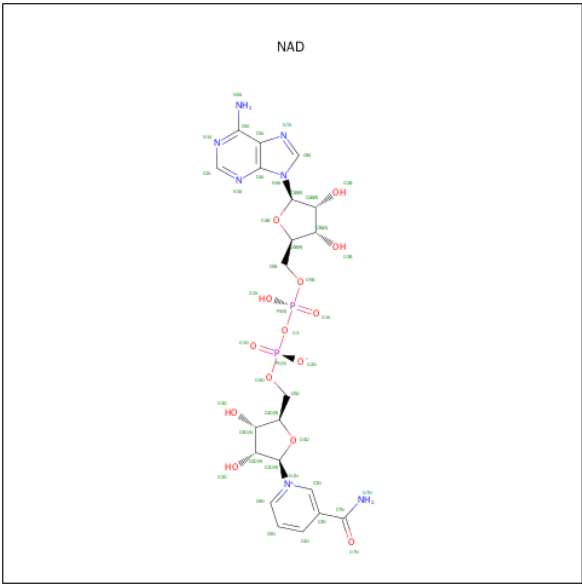
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Chain	Residue	Modelled	Actual	Comment	Reference
G	6177	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6219	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6239	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6325	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6327	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6343	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6407	MSE	MET	MODIFIED RESIDUE	UNP P23368
G	6539	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7001	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7029	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7038	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7047	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7075	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7086	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7108	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7177	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7219	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7239	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7325	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7327	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7343	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7407	MSE	MET	MODIFIED RESIDUE	UNP P23368
H	7539	MSE	MET	MODIFIED RESIDUE	UNP P23368

- Molecule 2 is LUTETIUM (III) ION (three-letter code: LU) (formula: Lu).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	G	1	Total Lu 1 1	0	0
2	D	1	Total Lu 1 1	0	0
2	E	1	Total Lu 1 1	0	0
2	H	1	Total Lu 1 1	0	0
2	B	1	Total Lu 1 1	0	0
2	C	1	Total Lu 1 1	0	0
2	A	1	Total Lu 1 1	0	0
2	F	1	Total Lu 1 1	0	0

- Molecule 3 is NICOTINAMIDE-ADENINE-DINUCLEOTIDE (three-letter code: NAD) (formula: C₂₁H₂₇N₇O₁₄P₂).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	A	1	Total	C	N	O	P	17	0
			44	21	7	14	2		
3	B	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	B	1	Total	C	N	O	P	18	0
			44	21	7	14	2		
3	C	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	C	1	Total	C	N	O	P	18	0
			44	21	7	14	2		
3	D	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	D	1	Total	C	N	O	P	18	0
			44	21	7	14	2		
3	E	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	E	1	Total	C	N	O	P	18	0
			44	21	7	14	2		
3	F	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	F	1	Total	C	N	O	P	18	0
			44	21	7	14	2		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	G	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	G	1	Total	C	N	O	P	18	0
			44	21	7	14	2		
3	H	1	Total	C	N	O	P	0	0
			44	21	7	14	2		
3	H	1	Total	C	N	O	P	18	0
			44	21	7	14	2		

- Molecule 4 is water.

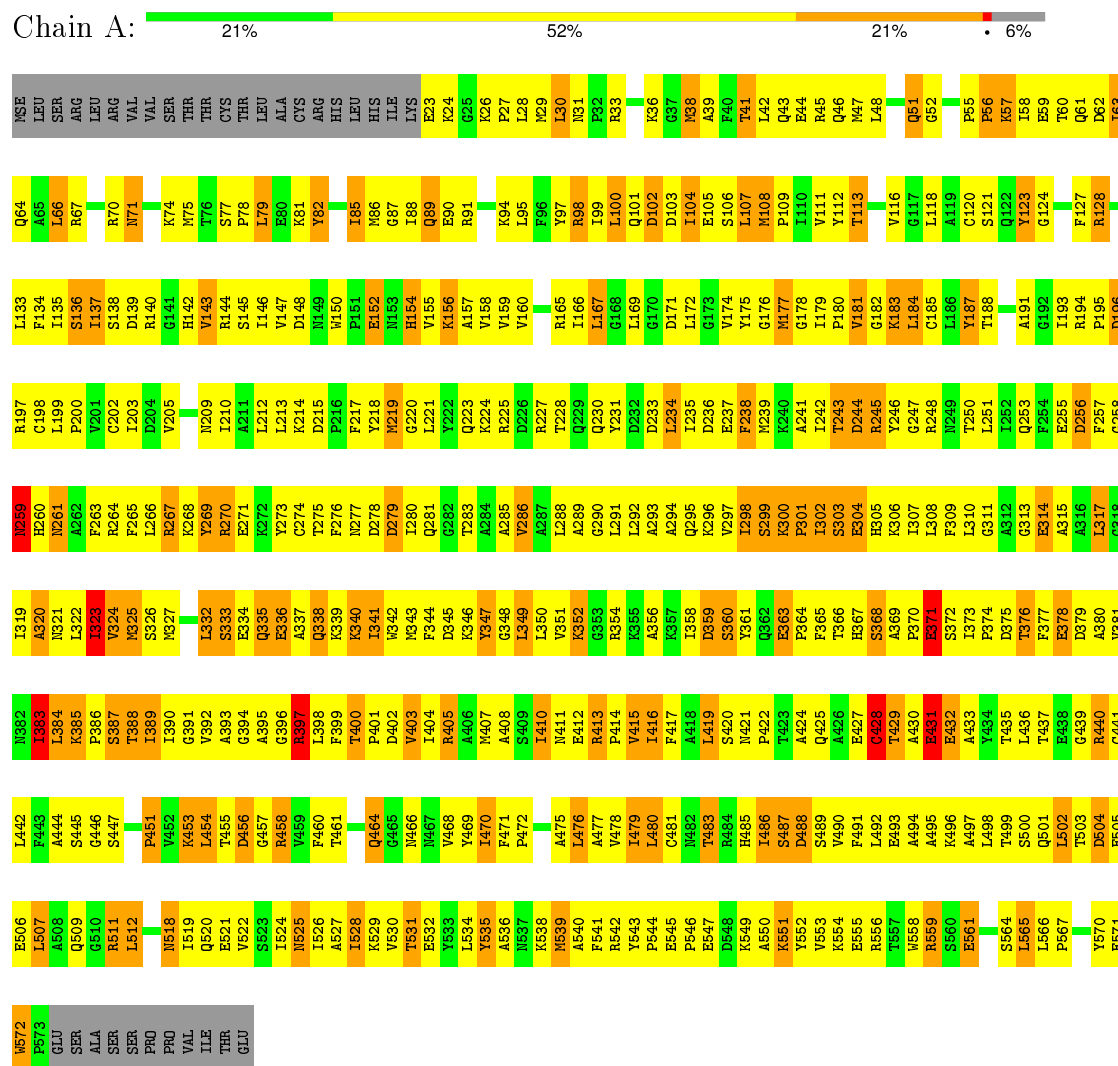
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	9	Total	O	0	0
			9	9		
4	B	6	Total	O	0	0
			6	6		
4	C	11	Total	O	0	0
			11	11		
4	D	6	Total	O	0	0
			6	6		
4	E	6	Total	O	0	0
			6	6		
4	F	10	Total	O	0	0
			10	10		
4	G	5	Total	O	0	0
			5	5		
4	H	10	Total	O	0	0
			10	10		

3 Residue-property plots

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

Note EDS was not executed.

- Molecule 1: NAD-dependent malic enzyme, mitochondrial



MSE	LEU	Q1061	R1129	R1194	F1254	A1315	T1376	L1436	L1502	W1572
LEU	SER	Q1064	P1130	P1195	E1255	A1316	F1377	T1437	T1503	P1573
ARG	ARG	Q1065	L1317	D1196	D1256	G1318	D1378	R1440	D1504	GLU
LEU	ARG	L1066	G1132	R1197	F1257	G1319	E1379	R1441	E1505	SER
ARG	ARG	R1067	L1133	L1198	G1258	L1319	A1380	L1442	E1506	ALA
VAL	VAL	F1068	F1134	L1199	M1259	A1320	V1381	L1443	L1507	SER
VAL	VAL	F1069	I1135	P1200	H1260	N1321	M1382	F1443	A1508	SER
SER	SER	R1070	S1136	V1201	M1261	L1322	M1383	A1444	Q1509	PRO
THR	THR	M1071	I1137	C1202	A1262	I1323	L1384	S1445	G1510	PRO
THR	THR	L1072	S1138	I1203	F1263	V1324	K1385	L1446	R1511	VAL
CYS	CYS	K1073	D1139	D1204	F1264	M1325	P1386	S1447	L1512	ILE
THR	THR	K1074	R1140	G1205	F1265	S1326	S1387	P1448	L1516	THR
LEU	LEU	M1075	V1143	G1206	L1266	M1327	T1388	P1451	A1517	GLU
ALA	ALA	T1076	R1144	T1207	R1267	V1328	I1389	P1452	M1518	
CYS	CYS	S1077	K1268	D1208	K1269	E1329	I1390	K1453	I1519	
ARG	ARG	P1078	M1209	M1209	Y1269	G1391	G1392	L1454	Q1520	
HIS	HIS	L1079	I1146	T1210	E1270	L1332	A1393	T1455	E1521	
LEU	LEU	E1080	V1147	A1211	E1271	S1333	G1394	D1456	V1522	
LEU	LEU	K1081	L1148	L1212	K1272	E1334	G1395	G1457	S1523	
ILE	ILE	Y1082	M1149	L1213	Y1273	Q1335	A1396	R1458	I1524	
LYS	LYS	I1085	M1150	K1214	T1275	A1337	R1397	F1459	M1525	
K1024	K1025	M1086	P1151	P1216	F1276	Q1338	L1398	F1460	I1526	
K1026	K1027	E1090	E1152	F1217	M1277	K1339	F1399	T1461	A1527	
P1027	P1028	E1091	H1153	Y1218	D1278	K1340	T1400	N1466	I1528	
M1029	M1030	K1093	V1155	M1219	D1279	I1341	P1401	N1467	K1529	
M1031	M1032	K1094	K1156	G1220	I1280	M1342	D1402	V1468	V1530	
P1033	P1034	Y1097	L1159	L1221	L1281	M1343	V1403	L1469	T1531	
R1033	R1034	R1098	V1160	Q1223	G1283	F1345	I1404	L1476	E1532	
R1035	R1036	L1100	I1166	K1224	L1283	D1346	R1405	L1477	Y1533	
G1037	G1038	Q1101	L1167	K1225	E1285	K1347	A1406	V1478	I1534	
M1038	M1039	D1102	L1167	R1225	A1285	Y1347	M1407	F1472	Y1535	
F1039	F1040	D1103	G1168	D1226	V1286	G1348	A1408	G1473	A1536	
T1041	T1042	I1104	L1169	D1226	L1287	L1349	S1409	V1474	M1537	
Q1043	Q1044	E1106	G1170	T1227	L1288	L1350	I1410	A1475	K1538	
R1045	R1046	M1108	P1174	Q1229	L1289	V1351	M1411	L1476	M1539	
Q1047	Q1048	P1109	Y1175	Q1230	G1290	K1352	E1412	A1477	A1540	
M1047	M1048	Y1112	G1176	Y1231	L1291	G1353	R1413	V1478	F1541	
L1048	L1049	T1113	L1176	D1232	L1292	K1354	P1414	I1479	R1542	
G1048	G1049	V1116	G1177	D1233	A1294	K1355	V1415	L1481	Y1543	
L1050	L1051	G1117	L1118	L1234	K1295	A1356	I1416	C1481	P1546	
Q1051	Q1052	L1117	L1118	I1235	K1296	I1358	F1417	T1483	E1547	
L1053	L1054	S1121	S1122	I1236	V1297	D1359	L1419	H1485	D1548	
L1055	L1056	G1182	G1183	D1245	L1298	S1360	S1420	H1486	K1549	
P1055	P1056	L1184	L1185	R1245	K1300	Y1361	M1421	I1486	A1550	
P1056	P1057	K1186	K1187	K1246	P1301	E1362	P1422	D1487	K1551	
K1057	K1058	G1123	G1124	G1247	I1302	E1363	T1423	D1488	Y1552	
E1059	E1060	H1125	H1126	L1248	S1303	P1364	A1424	S1489	V1553	
R1128	R1129	L1126	L1127	Q1253	E1304	F1365	Q1425	V1490	K1554	
					E1304	T1366	A1426	F1491	E1555	
					H1305	H1367	E1427	L1492	R1556	
					K1306	S1368	C1428	E1493	T1557	
					I1307	A1369	T1429	A1494	W1558	
					L1310	P1370	E1430	A1495	R1559	
					G1311	E1371	E1431	K1496	S1560	
					G1312	S1372	E1432	T1499	E1561	
					G1313	I1373	A1433	S1500	Y1570	
					E1314	P1374	Y1434	Q1501	E1571	

- Molecule 1: NAD-dependent malic enzyme, mitochondrial

Chain C: 23% 47% 23% 6%

MSE	LEU	P2068	G2132	V2201	L2266
LEU	SER	R2069	L2133	G2205	R2267
ARG	ARG	M2070	S2136	G2206	K2268
LEU	ARG	M2071	T2137	T2207	Y2269
VAL	VAL	L2072	S2138	R2208	R2270
VAL	VAL	M2075	D12139	M2209	E2271
SER	SER	T2076	R2140	L2210	K2272
THR	THR	S2077	S2144	A2211	G2273
THR	THR	L2079	R2145	L2212	C2274
CYS	CYS	E2080	G2146	L2213	F2275
LEU	LEU	K2081	V2147	K2214	N2277
ALA	ALA	Y2082	D12148	F2217	D2278
CYS	CYS	T2085	M12149	Y2218	D2279
ARG	ARG	M2086	W12150	M2219	L2280
HIS	HIS	G2087	P2151	G2220	Q2281
LEU	LEU	T2088	E2152	G2221	G2282
HIS	HIS	Q2089	N2153	Y2222	T2283
ILE	ILE	E2090	R2154	Q2223	A2284
LYS	LYS	M2093	K2156	R2224	A2285
E2023	E2024	E2094	T2160	R2225	V2286
G2025	G2026	L2095	T2161	R2226	L2287
K2026	K2027	P2096	D12162	R2227	A2289
P2027	P2028	T2097	E2163	Q2230	G2290
M2029	M2030	R2098	E2164	D2231	L2291
L2030	L2031	L2099	L2169	D2232	E2292
Q2101	Q2102	L2100	G2170	D2233	A2294
D12102	D12103	Q2101	D12171	D2234	Q2295
T2103	T2104	S2106	G2172	T2243	K2296
S2107	S2108	L2107	D12177	T2244	V2297
M2108	M2109	F2109	G2178	D2245	L2298
V2111	V2112	V2111	P2180	Y2246	S2299
T2113	T2114	T2115	G2182	G2247	Q2300
L2118	L2119	L2120	L2181	R2248	M2301
P2054	P2055	P2056	K2183	N2249	T2302
P2056	P2057	K2057	L2184	T2250	S2303
L2054	L2055	L2056	C2185	L2251	E2304
P2056	P2057	K2057	L2186	T2252	R2305
L2054	L2055	L2056	Y2187	Q2253	K2306
P2056	P2057	K2057	T2188	F2254	T2307
L2054	L2055	L2056	A2189	E2255	L2308
P2056	P2057	K2057	C2190	E2256	F2309
L2054	L2055	L2056	A2191	F2257	L2310
P2056	P2057	K2057	G2192	G2258	G2311
L2054	L2055	L2056	L2193	R2259	A2312
P2056	P2057	K2057	R2194	R2260	G2313
L2054	L2055	L2056	P2195	M2261	E2314
P2056	P2057	K2057	D2196	A2262	A2315
L2054	L2055	L2056	R2197	F2263	A2316
P2056	P2057	K2057	P2200	R2264	L2317
L2054	L2055	L2056		F2265	G2318
P2056	P2057	K2057			L2319
L2054	L2055	L2056			R2320
P2056	P2057	K2057			A2321
L2054	L2055	L2056			M2322
P2056	P2057	K2057			L2323
L2054	L2055	L2056			V2324
P2056	P2057	K2057			M2325

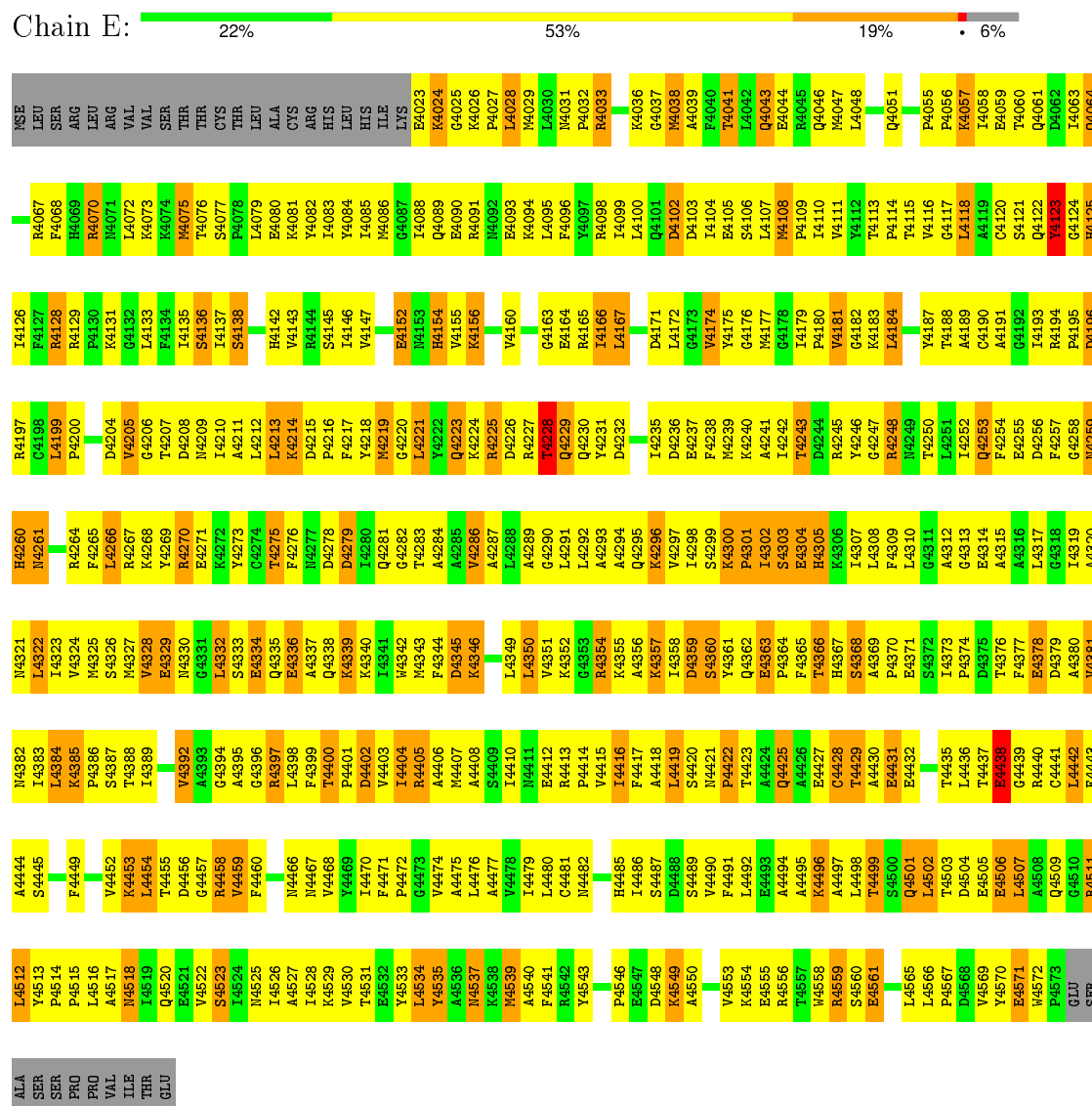
PRO	L2512	S2447	P2386	S2327
PRO	L2516	P2446	S2387	E2328
VAL	L2517	G2450	T2388	E2329
ILE	L2518	P2451	I2389	N2330
THR	L2519	P2452	I2390	N2331
GLU	L2520	K2453	G2391	L2332
	L2521	L2454	V2392	E2333
	L2522	T2455	A2393	E2334
	L2523	D2456	G2394	Q2335
	L2524	G2457	G2395	Q2336
	L2525	R2458	G2396	E2337
	L2526	R2459	R2397	A2338
	L2527	F2460	L2398	Q2339
	L2528	T2461	P2399	K2340
	L2529	G2462	P2401	K2341
	L2530	G2463	D2402	N2342
	L2531	Q2464	V2403	N2343
	L2534	G2465	V2404	F2344
	L2537	N2466	R2405	D2345
	L2538	N2467	A2406	K2346
	L2539	V2468	M2407	Y2347
	L2540	Y2469	A2408	G2348
	L2541	I2470	S2409	L2349
	L2542	P2471	I2410	L2350
	L2543	P2472	N2411	V2351
	L2544	L2476	E2412	K2352
	L2545	A2477	K2353	G2354
	L2546	V2478	P2414	K2355
	L2547	I2479	I2416	K2356
	L2548	L2480	F2417	K2357
	L2549	C2481	A2418	L2358
	L2550	N2482	S2420	D2359
	L2551	T2483	S2421	S2360
	L2552	K2551	N2421	Y2361
	L2553	Y2552	Q2422	Q2362
	L2554	H2485	T2423	E2363
	L2555	I2486	A2424	P2364
	L2556	S2487	Q2425	T2365
	L2557	V2490	A2426	T2366
	L2558	F2491	E2427	H2367
	L2559	L2492	C2428	S2368
	L2560	E2493	T2429	A2369
	L2561	A2494	A2430	P2370
	L2562	A2497	E2431	E2371
	L2563	L2498	E2432	S2372
	L2564	T2499	A2433	L2373
	L2565	S2500	L2436	P2374
	L2566	Q2501	T2437	T2375
	L2567	L2502	E2438	F2377
	L2568	T2503	E2378	E2378
	L2569	D2504	R2440	D2379
	L2570	E2505	L2441	P2379
	L2571	E2506	L2442	A2380
	L2572	L2507	F2443	N2381
	L2573	ALA	S2444	L2382
	L2574	SER	S2445	L2383
	L2575	GLU	G2446	K2385

- Molecule 1: NAD-dependent malic enzyme, mitochondrial

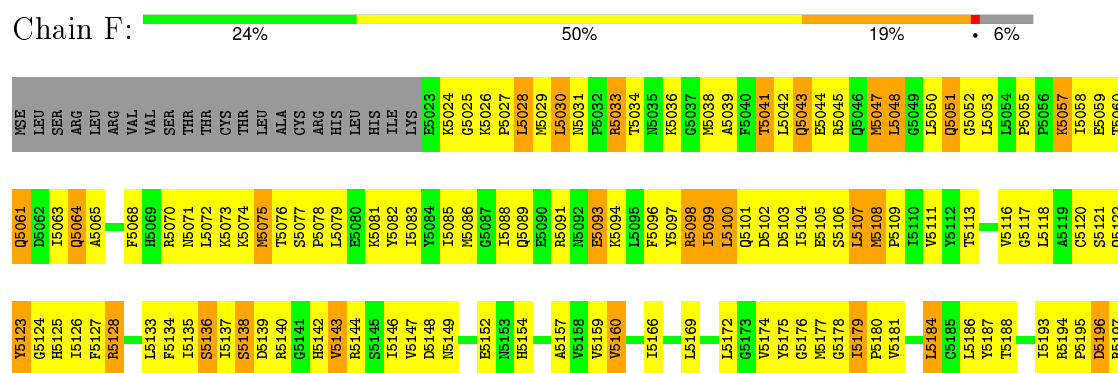
Chain D: 20% 49% 24% 6%

HSE	L3066	R3128	G3190	F3254	A3315	E3378	G3439	T3503	K3572
LEU	R3067	R3129	A3191	E3255	A3316	D3379	R3440	D3504	F3573
SER	L3068	P3130	G3192	D3256	G3317	A3380	A3442	E3505	GLU
ARG	H3069	R3131	T3193	F3257	G3318	V3381	L3442	E3506	SER
LEU	R3070	G3132	R3194	G3258	I3319	N3382	F3443	L3507	ALA
ARG	N3071	L3133	P3195	R3259	A3320	I3383	A3444	A3508	SER
VAL	L3072	F3134	D3196	H3260	N3321	L3384	S3445	Q3509	SER
VAL	K3073	L3135	R3197	N3261	L3322	K3385	G3446	G3510	PRO
SER	K3074	S3136	C3198	A3262	L3323	P3386	S3447	L3511	PRO
THR	N3075	L3137	L3199	F3263	V3324	S3387	F3448	L3512	ILE
THR	T3076	S3138	P3200	R3264	V3324	T3388	F3449	L3513	THR
CYS	S3077	D3139	V3201	F3265	K3327	L3389	L3452	N3518	GLU
CYS	R3078	R3140	C3202	L3266	N3327	T3390	F3453	L3519	
LEU	L3079	G3141	L3203	R3267	N3330	G3391	K3453	Q3520	
ALA	K3080	H3142	D3204	K3268	G3331	V3392	L3454	E3521	
CYS	K3081	V3143	V3205	R3269	L3332	T3400	L3455	V3522	
ARG	Y3082	R3144	G3206	R3270	S3333	G3394	D3456	S3523	
HIS	L3085	S3145	T3207	E3271	G3334	A3395	G3457	L3524	
LEU	R3086	L3146	D3208	K3272	G3335	G3396	R3458	N3525	
HIS	G3087	V3147	H3209	Y3273	E3336	R3397	F3459	I3526	
ILE	R3088	W3150	L3210	C3274	A3337	L3398	F3460	A3527	
LYS	E3023	P3151	A3211	T3275	G3338	F3399	K3464	T3528	
K3024	E3023	R3152	L3212	F3276	G3339	T3400	L3465	K3529	
P3027	L3028	E3090	L3213	N3277	K3340	F3401	G3466	V3530	
N3029	L3030	R3091	K3214	D3278	I3341	D3402	R3467	T3531	
R3033	R3094	R3153	D3215	D3279	K3342	V3403	K3467	E3532	
K3036	R3095	H3154	R3216	K3280	K3343	R3404	V3468	T3533	
G3037	F3096	F3155	F3217	K3281	F3344	R3405	V3469	L3534	
N3038	R3097	K3156	V3218	G3282	G3345	A3406	L3470	V3535	
A3039	L3104	R3098	N3219	K3283	K3346	N3407	F3471	G3536	
F3040	E3105	V3160	G3220	A3284	A3408	A3408	P3472	N3537	
T3041	S3106	T3161	L3221	R3285	L3349	N3411	G3473	K3538	
L3042	L3107	D3162	T3222	V3286	L3350	A3412	V3474	N3539	
Q3043	L3108	G3168	Q3223	K3287	K3351	R3413	A3475	K3540	
E3044	R3109	L3169	K3224	L3288	V3352	R3414	L3476	F3541	
R3045	P3109	G3170	R3225	A3289	G3353	P3414	A3477	R3542	
Q3046	L3110	R3165	R3226	G3290	R3354	V3415	V3478	Y3543	
N3047	L3111	T3172	R3227	L3291	K3355	I3416	I3479	P3544	
L3048	T3112	L3167	T3228	L3292	A3356	F3417	L3480	E3545	
Q3051	T3113	G3168	Q3229	A3293	K3357	A3418	C3481	P3546	
L3054	T3115	L3169	K3230	A3294	L3358	L3419	N3482	E3547	
P3055	G3117	G3170	Q3230	Q3295	D3359	S3420	T3483	D3548	
P3056	L3118	D3171	D3232	K3296	S3360	N3421	R3484	K3549	
R3057	L3119	L3172	D3233	V3297	Y3361	P3422	H3485	A3550	
T3058	G3124	G3173	L3234	L3298	Q3362	T3423	I3486	K3551	
S3059	H3125	V3174	L3234	L3299	E3363	A3424	S3487	Y3552	
T3060	R3126	G3175	L3234	K3300	P3364	Q3425	D3488	V3553	
Q3061	G3124	N3177	K3240	P3301	T3365	A3426	S3489	K3554	
S3062	H3125	G3178	K3240	I3302	T3366	E3427	V3490	E3555	
L3063	R3126	L3179	T3243	S3303	H3367	C3428	F3491	T3557	
Q3065	A3189	P3180	D3244	E3304	S3368	T3429	L3492	K3558	
		R3181	R3245	R3305	A3369	A3430	E3493	W3559	
		A3119	G3182	K3306	P3370	E3431	A3494	R3560	
		S3121	Y3246	L3307	S3371	A3432	A3495	S3560	
		S3122	G3247	L3184	S3372	A3433	K3496	E3561	
		Q3123	R3248	L3185	L3373	A3497	Y3434	Y3562	
		G3124	L3186	L3251	P3374	T3435	L3498	L3566	
		H3125	F3187	L3252	D3375	T3436	T3499	E3571	
		R3126	T3188	Q3253	K3377	E3438			

• Molecule 1: NAD-dependent malic enzyme, mitochondrial



• Molecule 1: NAD-dependent malic enzyme, mitochondrial





4 Data and refinement statistics

Xtriage (Phenix) and EDS were not executed - this section will therefore be incomplete.

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	113.30Å 119.00Å 125.90Å 116.50° 94.80° 102.80°	Depositor
Resolution (Å)	20.00 – 2.90	Depositor
% Data completeness (in resolution range)	(Not available) (20.00-2.90)	Depositor
R_{merge}	0.05	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	X-PLOR	Depositor
R, R_{free}	0.204 , 0.263	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	35527	wwPDB-VP
Average B, all atoms (Å ²)	39.0	wwPDB-VP

5 Model quality

5.1 Standard geometry

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

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	0.46	0/4424	0.67	0/5969
1	B	0.46	0/4424	0.66	0/5969
1	C	0.46	0/4424	0.66	0/5969
1	D	0.49	0/4424	0.69	0/5969
1	E	0.47	0/4424	0.68	1/5969 (0.0%)
1	F	0.47	0/4424	0.66	0/5969
1	G	0.46	0/4424	0.69	0/5969
1	H	0.46	0/4424	0.68	0/5969
All	All	0.47	0/35392	0.67	1/47752 (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
1	A	0	1

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4442	LEU	CA-CB-CG	-5.11	103.55	115.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	187	TYR	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4344	0	4372	604	0
1	B	4344	0	4372	618	0
1	C	4344	0	4372	594	0
1	D	4344	0	4372	650	0
1	E	4344	0	4372	543	0
1	F	4344	0	4372	504	0
1	G	4344	0	4372	654	0
1	H	4344	0	4372	560	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
2	E	1	0	0	0	0
2	F	1	0	0	0	0
2	G	1	0	0	0	0
2	H	1	0	0	0	0
3	A	88	0	52	3	0
3	B	88	0	52	5	0
3	C	88	0	52	2	0
3	D	88	0	52	4	0
3	E	88	0	52	3	0
3	F	88	0	52	3	0
3	G	88	0	52	4	0
3	H	88	0	52	3	0
4	A	9	0	0	3	0
4	B	6	0	0	1	0
4	C	11	0	0	1	0
4	D	6	0	0	6	0
4	E	6	0	0	0	0
4	F	10	0	0	1	0
4	G	5	0	0	3	0
4	H	10	0	0	1	0
All	All	35527	0	35392	4647	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 66.

All (4647) close contacts within the same asymmetric unit are listed below, sorted by their clash

magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3061:GLN:HA	1:D:3064:GLN:HE21	1.04	1.18
1:D:3388:THR:HG23	1:D:3415:VAL:HB	1.27	1.15
1:H:7388:THR:HG23	1:H:7415:VAL:HB	1.27	1.14
1:D:3253:GLN:HE22	1:D:3255:GLU:HG2	1.13	1.13
1:D:3263:PHE:HA	4:D:8022:HOH:O	1.48	1.13
1:H:7210:ILE:HG22	1:H:7214:LYS:HZ1	1.01	1.13
1:A:61:GLN:HA	1:A:64:GLN:HE21	1.15	1.10
1:H:7210:ILE:HG22	1:H:7214:LYS:NZ	1.66	1.10
1:D:3041:THR:HG23	1:D:3044:GLU:HG3	1.33	1.09
1:D:3177:MSE:HE1	1:D:3200:PRO:HB2	1.34	1.09
1:A:243:THR:HB	1:A:248:ARG:HD2	1.17	1.09
1:C:2197:ARG:HG2	1:C:2197:ARG:HH11	1.09	1.08
1:D:3437:THR:HG21	1:D:3441:CYS:HB3	1.35	1.08
1:G:6240:LYS:HG3	1:G:6248:ARG:HH22	1.19	1.07
1:H:7415:VAL:HG13	1:H:7442:LEU:HB2	1.36	1.07
1:D:3144:ARG:NH1	1:D:3244:ASP:HB3	1.69	1.06
1:G:6205:VAL:HG12	1:G:6226:ASP:HB3	1.39	1.05
1:E:4177:MSE:HE1	1:E:4200:PRO:HB2	1.38	1.04
1:F:5177:MSE:HE1	1:F:5200:PRO:HB2	1.40	1.03
1:C:2227:ARG:HG2	1:C:2227:ARG:HH11	1.22	1.03
1:G:6317:LEU:H	1:G:6317:LEU:HD12	1.23	1.03
1:B:1177:MSE:O	1:B:1180:PRO:HD2	1.58	1.03
1:G:6160:VAL:HG12	1:G:6201:VAL:HB	1.42	1.01
1:H:7325:MSE:HE1	1:H:7489:SER:HA	1.41	1.01
1:H:7466:ASN:HB3	1:H:7468:VAL:HG12	1.40	1.01
1:G:6323:ILE:HG22	1:G:6327:MSE:HE2	1.40	1.01
1:C:2128:ARG:HH11	1:C:2128:ARG:HG2	1.23	1.01
1:B:1166:ILE:HD12	1:B:1179:ILE:HG13	1.41	1.01
1:D:3369:ALA:HB1	1:D:3373:ILE:HD11	1.43	1.01
1:H:7408:ALA:HB2	1:H:7437:THR:HG22	1.43	1.00
1:F:5388:THR:HG23	1:F:5415:VAL:HB	1.42	1.00
1:B:1388:THR:HG23	1:B:1415:VAL:HB	1.43	1.00
1:F:5453:LYS:HB2	1:F:5459:VAL:HG13	1.39	1.00
1:C:2104:ILE:HG13	1:C:2108:MSE:HE2	1.43	1.00
1:G:6177:MSE:HE1	1:G:6200:PRO:HB2	1.40	1.00
1:D:3421:ASN:HA	1:D:3422:PRO:O	1.61	1.00
1:G:6243:THR:HB	1:G:6248:ARG:HD2	1.43	0.99
1:H:7177:MSE:HE1	1:H:7200:PRO:HB2	1.44	0.99
1:F:5572:TRP:HB2	1:H:7042:LEU:HD21	1.46	0.98
1:B:1338:GLN:HG3	1:B:1364:PRO:O	1.62	0.98
1:E:4240:LYS:HG3	1:E:4248:ARG:HH22	1.27	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1317:LEU:HD12	1:B:1317:LEU:H	1.28	0.98
1:B:1210:ILE:HA	1:B:1213:LEU:HD12	1.46	0.98
1:D:3065:ALA:HA	1:D:3099:ILE:HD11	1.44	0.97
1:F:5269:TYR:HB3	1:F:5273:TYR:HD1	1.27	0.97
1:G:6327:MSE:HE1	1:G:6341:ILE:HD11	1.41	0.97
1:A:454:LEU:HD13	1:A:458:ARG:NH1	1.79	0.97
1:D:3374:PRO:HD3	1:D:3383:ILE:HD12	1.47	0.96
1:H:7377:PHE:HZ	1:H:7389:ILE:HD11	1.30	0.96
1:C:2306:LYS:HB3	1:C:2386:PRO:HA	1.46	0.96
1:B:1429:THR:HG23	1:B:1432:GLU:HG3	1.48	0.96
1:F:5128:ARG:HH11	1:F:5128:ARG:HG2	1.31	0.96
1:B:1298:ILE:HD11	1:B:1442:LEU:HD11	1.48	0.95
1:F:5109:PRO:HA	1:F:5113:THR:O	1.66	0.95
1:F:5317:LEU:H	1:F:5317:LEU:HD12	1.30	0.95
1:G:6103:ASP:HB3	1:G:6107:LEU:HD23	1.47	0.95
1:B:1227:ARG:HG2	1:B:1227:ARG:HH11	1.32	0.95
1:E:4174:VAL:HG23	1:E:4219:MSE:HE3	1.48	0.95
1:A:298:ILE:HD11	1:A:442:LEU:HD11	1.49	0.95
1:G:6454:LEU:HD12	1:G:6458:ARG:HB3	1.45	0.95
1:G:6144:ARG:NH1	1:G:6244:ASP:HB3	1.82	0.95
1:D:3218:TYR:HE2	4:D:8046:HOH:O	1.49	0.94
1:D:3027:PRO:HA	1:D:3030:LEU:HB2	1.47	0.94
1:C:2317:LEU:H	1:C:2317:LEU:HD12	1.30	0.94
1:E:4360:SER:HA	1:E:4363:GLU:OE1	1.67	0.94
1:A:419:LEU:H	1:A:419:LEU:HD22	1.31	0.94
1:D:3283:THR:O	1:D:3286:VAL:HG23	1.67	0.94
1:B:1306:LYS:HB3	1:B:1386:PRO:HA	1.50	0.94
1:D:3210:ILE:HA	1:D:3213:LEU:HD12	1.49	0.93
1:G:6421:ASN:HA	1:G:6422:PRO:O	1.67	0.93
1:B:1466:ASN:HB3	1:B:1468:VAL:HG12	1.50	0.93
1:E:4453:LYS:HG2	1:E:4459:VAL:HG13	1.50	0.93
1:A:327:MSE:HE3	1:A:337:ALA:HB1	1.49	0.93
1:A:317:LEU:H	1:A:317:LEU:HD12	1.30	0.93
1:B:1402:ASP:HA	1:B:1405:ARG:HD2	1.50	0.92
1:G:6360:SER:HA	1:G:6363:GLU:HG2	1.50	0.92
1:E:4421:ASN:HA	1:E:4422:PRO:O	1.69	0.92
1:F:5453:LYS:HE3	1:F:5457:GLY:HA2	1.52	0.92
1:B:1399:PHE:HA	1:B:1403:VAL:HG11	1.50	0.92
1:A:466:ASN:HB3	1:A:468:VAL:HG12	1.52	0.92
1:E:4407:MSE:HA	1:E:4410:ILE:HD12	1.51	0.92
1:D:3075:MSE:HB3	1:D:3081:LYS:HD3	1.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4454:LEU:HD12	1:E:4458:ARG:O	1.69	0.92
1:G:6038:MSE:HE3	1:G:6055:PRO:HG2	1.52	0.91
1:A:128:ARG:HH11	1:A:128:ARG:HG2	1.36	0.91
1:D:3156:LYS:HB3	1:D:3479:ILE:HD12	1.48	0.91
1:G:6388:THR:HG23	1:G:6415:VAL:HB	1.52	0.91
1:G:6489:SER:HG	1:G:6533:TYR:HH	1.17	0.91
1:H:7177:MSE:CE	1:H:7200:PRO:HB2	2.00	0.91
1:G:6079:LEU:HD13	1:G:6118:LEU:HD22	1.53	0.91
1:F:5559:ARG:HB3	1:F:5561:GLU:HG2	1.52	0.91
1:G:6416:ILE:HD13	1:G:6416:ILE:H	1.33	0.91
1:B:1240:LYS:HG3	1:B:1248:ARG:HH22	1.34	0.91
1:E:4061:GLN:HA	1:E:4064:GLN:HE21	1.35	0.90
1:F:5137:ILE:HA	1:F:5234:LEU:CD2	2.01	0.90
1:F:5179:ILE:HB	1:F:5180:PRO:HD3	1.52	0.90
1:D:3243:THR:HB	1:D:3248:ARG:HD2	1.51	0.90
1:G:6559:ARG:HB3	1:G:6561:GLU:HG2	1.53	0.90
1:E:4026:LYS:HA	1:E:4029:MSE:HE2	1.53	0.90
1:A:527:ALA:O	1:A:531:THR:HG23	1.72	0.90
1:A:402:ASP:HA	1:A:405:ARG:HD2	1.54	0.90
1:C:2210:ILE:HA	1:C:2213:LEU:HD12	1.54	0.90
1:C:2056:PRO:HG2	1:D:3220:GLY:HA2	1.53	0.90
1:G:6354:ARG:HE	1:G:6356:ALA:HB3	1.37	0.90
1:G:6404:ILE:HB	1:G:6436:LEU:HD23	1.54	0.90
1:H:7327:MSE:HE3	1:H:7337:ALA:HB1	1.55	0.89
1:C:2261:ASN:H	1:C:2261:ASN:HD22	1.15	0.89
1:D:3061:GLN:HA	1:D:3064:GLN:NE2	1.87	0.89
1:G:6253:GLN:NE2	1:G:6278:ASP:HB2	1.87	0.89
1:H:7243:THR:HB	1:H:7248:ARG:HD2	1.55	0.89
1:H:7369:ALA:HB1	1:H:7373:ILE:HD11	1.55	0.89
1:A:451:PRO:HA	1:A:460:PHE:O	1.71	0.89
1:E:4350:LEU:HD22	1:E:4354:ARG:NH1	1.87	0.89
1:F:5309:PHE:HB2	1:F:5343:MSE:HG2	1.55	0.89
1:A:401:PRO:HA	1:A:404:ILE:HD12	1.54	0.89
1:B:1261:ASN:H	1:B:1261:ASN:ND2	1.60	0.88
1:D:3402:ASP:HA	1:D:3405:ARG:HD2	1.55	0.88
1:F:5137:ILE:HA	1:F:5234:LEU:HD21	1.55	0.88
1:C:2453:LYS:HA	1:C:2458:ARG:O	1.73	0.88
1:C:2439:GLY:HA3	1:C:2460:PHE:HE2	1.34	0.88
1:G:6043:GLN:HG2	1:G:6566:LEU:HD11	1.56	0.88
1:C:2332:LEU:HD23	1:C:2336:GLU:HG3	1.53	0.88
1:B:1204:ASP:OD1	1:B:1221:LEU:HB2	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:399:PHE:HB2	1:A:427:GLU:O	1.74	0.88
1:D:3319:ILE:HG22	1:D:3323:ILE:HD11	1.54	0.88
1:A:243:THR:HB	1:A:248:ARG:CD	2.02	0.87
1:B:1253:GLN:HG3	1:B:1276:PHE:CZ	2.08	0.87
1:E:4113:THR:HA	1:E:4116:VAL:HG12	1.55	0.87
1:F:5251:LEU:HD12	1:F:5252:ILE:N	1.88	0.87
1:A:559:ARG:HG3	1:A:561:GLU:HG2	1.56	0.87
1:E:4261:ASN:H	1:E:4261:ASN:ND2	1.72	0.87
1:F:5360:SER:HA	1:F:5363:GLU:OE1	1.72	0.87
1:A:61:GLN:HA	1:A:64:GLN:NE2	1.90	0.87
1:C:2197:ARG:HG2	1:C:2197:ARG:NH1	1.85	0.86
1:C:2315:ALA:HB3	1:C:2392:VAL:HG11	1.57	0.86
1:C:2051:GLN:HA	1:C:2051:GLN:HE21	1.40	0.86
1:G:6177:MSE:CE	1:G:6200:PRO:HB2	2.05	0.86
1:G:6123:TYR:HD2	1:G:6219:MSE:HE1	1.37	0.86
1:B:1394:GLY:O	1:B:1425:GLN:HG3	1.74	0.86
1:H:7179:ILE:HB	1:H:7180:PRO:HD3	1.55	0.86
1:E:4072:LEU:HA	1:E:4075:MSE:HE3	1.57	0.86
1:C:2307:ILE:HG13	1:C:2388:THR:HB	1.57	0.86
1:G:6493:GLU:HA	1:G:6496:LYS:HD3	1.57	0.86
1:D:3097:TYR:O	1:D:3101:GLN:HG3	1.76	0.86
1:E:4531:THR:HA	1:E:4534:LEU:HD12	1.56	0.85
1:H:7043:GLN:HG2	1:H:7566:LEU:HD11	1.57	0.85
1:G:6354:ARG:NE	1:G:6356:ALA:HB3	1.91	0.85
1:E:4298:ILE:HD11	1:E:4442:LEU:HD11	1.55	0.85
1:E:4164:GLU:HG3	1:E:4225:ARG:CZ	2.06	0.85
1:G:6478:VAL:HG12	1:G:6479:ILE:HD13	1.57	0.85
1:H:7109:PRO:HA	1:H:7113:THR:O	1.76	0.85
1:A:428:CYS:SG	1:A:429:THR:N	2.50	0.85
1:G:6086:MSE:HE2	1:G:6086:MSE:HA	1.58	0.85
1:C:2219:MSE:HG2	1:D:3038:MSE:HE1	1.58	0.85
1:C:2382:ASN:O	1:C:2385:LYS:HG3	1.77	0.85
1:B:1401:PRO:HA	1:B:1404:ILE:HD12	1.59	0.85
1:A:51:GLN:HE21	1:A:51:GLN:HA	1.40	0.85
1:H:7210:ILE:CG2	1:H:7214:LYS:HZ1	1.89	0.85
1:H:7182:GLY:O	1:H:7185:CYS:HB2	1.76	0.85
1:C:2438:GLU:HB2	1:C:2440:ARG:HG3	1.59	0.85
1:E:4261:ASN:HD22	1:E:4261:ASN:H	1.23	0.85
1:F:5354:ARG:HE	1:F:5356:ALA:HB3	1.42	0.85
1:G:6086:MSE:HA	1:G:6086:MSE:CE	2.07	0.85
1:D:3144:ARG:HH12	1:D:3244:ASP:HB3	1.41	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2128:ARG:HH11	1:C:2128:ARG:CG	1.89	0.84
1:F:5456:ASP:HB2	1:F:5458:ARG:HD3	1.59	0.84
1:B:1351:VAL:HG21	1:B:1369:ALA:HA	1.58	0.84
1:A:103:ASP:HB3	1:A:107:LEU:HD22	1.58	0.84
1:D:3041:THR:HG23	1:D:3044:GLU:CG	2.06	0.84
1:A:454:LEU:H	1:A:454:LEU:HD12	1.39	0.84
1:E:4116:VAL:HG21	1:E:4179:ILE:HD13	1.60	0.84
1:A:408:ALA:HA	1:A:414:PRO:HG3	1.59	0.84
1:H:7266:LEU:O	1:H:7270:ARG:HB3	1.78	0.84
1:A:109:PRO:HA	1:A:113:THR:O	1.77	0.84
1:D:3043:GLN:HG2	1:D:3566:LEU:HD11	1.59	0.84
1:F:5303:SER:HA	1:F:5340:LYS:HZ2	1.42	0.84
1:E:4400:THR:HG23	1:E:4403:VAL:HG23	1.57	0.83
1:B:1503:THR:HG23	1:B:1506:GLU:OE1	1.76	0.83
1:D:3253:GLN:NE2	1:D:3255:GLU:HG2	1.92	0.83
1:C:2351:VAL:HG21	1:C:2370:PRO:HD3	1.60	0.83
1:D:3466:ASN:HB3	1:D:3468:VAL:HG12	1.59	0.83
1:D:3471:PHE:CD2	1:D:3472:PRO:HD3	2.13	0.83
1:B:1335:GLN:NE2	1:B:1339:LYS:HG3	1.94	0.83
1:H:7394:GLY:HA2	1:H:7420:SER:HB3	1.61	0.83
1:C:2207:THR:O	1:C:2224:LYS:HA	1.79	0.83
1:B:1253:GLN:NE2	1:B:1255:GLU:HG2	1.94	0.83
1:F:5322:LEU:HD11	1:F:5492:LEU:HB2	1.61	0.83
1:H:7388:THR:CG2	1:H:7415:VAL:HB	2.08	0.83
1:C:2416:ILE:HD13	1:C:2416:ILE:H	1.43	0.83
1:B:1503:THR:OG1	1:B:1506:GLU:HB2	1.78	0.82
1:A:343:MSE:O	1:A:350:LEU:HB2	1.79	0.82
1:A:276:PHE:HB2	1:A:281:GLN:NE2	1.94	0.82
1:B:1160:VAL:HG13	1:B:1201:VAL:HB	1.60	0.82
1:G:6352:LYS:HG3	1:G:6368:SER:HA	1.60	0.82
1:C:2419:LEU:N	1:C:2419:LEU:HD22	1.94	0.82
1:D:3320:ALA:HA	1:D:3323:ILE:HD12	1.61	0.82
1:F:5487:SER:O	1:F:5490:VAL:HG23	1.78	0.82
1:G:6454:LEU:HD11	1:G:6460:PHE:CE2	2.14	0.82
1:G:6240:LYS:CG	1:G:6248:ARG:HH22	1.91	0.82
1:B:1307:ILE:HG12	1:B:1388:THR:HB	1.62	0.82
1:E:4428:CYS:SG	1:E:4429:THR:N	2.51	0.82
1:F:5253:GLN:HG3	1:F:5276:PHE:CZ	2.14	0.82
1:D:3177:MSE:O	1:D:3180:PRO:HD2	1.78	0.82
1:A:59:GLU:HG2	1:A:63:ILE:HG21	1.61	0.82
1:E:4122:GLN:O	1:E:4125:HIS:HB2	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:518:ASN:O	1:A:522:VAL:HG23	1.80	0.82
1:D:3342:TRP:HZ3	1:D:3351:VAL:HG23	1.42	0.82
1:B:1389:ILE:HG22	1:B:1416:ILE:HA	1.59	0.82
1:E:4359:ASP:OD2	1:E:4362:GLN:HG3	1.80	0.82
1:H:7060:THR:HG23	1:H:7063:ILE:HD11	1.59	0.82
1:D:3257:PHE:HB3	1:D:3262:ALA:HB2	1.60	0.82
1:C:2388:THR:HG23	1:C:2415:VAL:HB	1.61	0.82
1:H:7086:MSE:HA	1:H:7086:MSE:HE2	1.62	0.81
1:C:2413:ARG:HA	1:C:2440:ARG:O	1.81	0.81
1:F:5528:ILE:HD13	1:F:5550:ALA:HA	1.63	0.81
1:G:6267:ARG:HH11	1:G:6267:ARG:HG3	1.46	0.81
1:D:3468:VAL:HA	1:D:3471:PHE:CE2	2.15	0.81
1:D:3526:ILE:O	1:D:3530:VAL:HG23	1.80	0.81
1:F:5416:ILE:HD13	1:F:5442:LEU:O	1.79	0.81
1:D:3518:ASN:HB3	1:D:3521:GLU:OE2	1.80	0.81
1:E:4466:ASN:HB3	1:E:4468:VAL:HG12	1.62	0.81
1:D:3389:ILE:HG22	1:D:3416:ILE:HG22	1.61	0.81
1:H:7415:VAL:HG22	1:H:7442:LEU:HD12	1.62	0.81
1:D:3177:MSE:HE2	1:D:3181:VAL:HG22	1.63	0.81
1:A:419:LEU:N	1:A:419:LEU:HD22	1.96	0.81
1:A:402:ASP:O	1:A:405:ARG:HG2	1.80	0.81
1:F:5194:ARG:HB2	1:F:5197:ARG:HG2	1.62	0.81
1:G:6126:ILE:HG13	4:G:8062:HOH:O	1.80	0.81
1:D:3300:LYS:HZ1	1:D:3305:HIS:HA	1.46	0.81
1:E:4166:ILE:HG21	1:E:4172:LEU:HD12	1.60	0.80
1:E:4308:LEU:HB3	1:E:4389:ILE:CD1	2.11	0.80
1:C:2432:GLU:HA	1:C:2436:LEU:HD13	1.61	0.80
1:C:2109:PRO:HA	1:C:2113:THR:O	1.81	0.80
1:G:6408:ALA:HB2	1:G:6437:THR:HG22	1.63	0.80
1:A:392:VAL:HG23	1:A:419:LEU:HD23	1.62	0.80
1:D:3072:LEU:HD11	1:D:3081:LYS:HB3	1.63	0.80
1:H:7478:VAL:HG13	1:H:7483:THR:HB	1.63	0.80
1:F:5057:LYS:C	1:F:5058:ILE:HD13	2.00	0.80
1:B:1061:GLN:HA	1:B:1064:GLN:HE21	1.47	0.80
1:G:6490:VAL:HG22	1:G:6533:TYR:HE2	1.47	0.80
1:C:2569:VAL:HG12	1:C:2570:TYR:N	1.97	0.80
1:C:2487:SER:O	1:C:2490:VAL:HG23	1.82	0.80
1:D:3378:GLU:HG3	1:D:3379:ASP:N	1.95	0.80
1:G:6024:LYS:HA	1:G:6028:LEU:HD22	1.61	0.80
1:B:1392:VAL:HG23	1:B:1419:LEU:HD23	1.64	0.80
1:B:1502:LEU:HD12	1:B:1506:GLU:HB3	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:378:GLU:HB2	1:A:403:VAL:HG23	1.63	0.80
1:C:2060:THR:O	1:C:2064:GLN:HG3	1.82	0.80
1:C:2038:MSE:CB	1:C:2059:GLU:HG3	2.12	0.80
1:C:2419:LEU:H	1:C:2419:LEU:HD22	1.47	0.80
1:B:1271:GLU:OE2	1:B:1271:GLU:HA	1.82	0.80
1:D:3471:PHE:CG	1:D:3472:PRO:HD3	2.17	0.80
1:G:6369:ALA:HB1	1:G:6373:ILE:HD11	1.62	0.79
1:G:6320:ALA:HB1	1:G:6365:PHE:CE2	2.17	0.79
1:B:1452:VAL:O	1:B:1459:VAL:HA	1.82	0.79
1:C:2123:TYR:HD2	1:C:2219:MSE:HE1	1.47	0.79
1:C:2343:MSE:O	1:C:2350:LEU:HB2	1.82	0.79
1:E:4374:PRO:HG3	1:E:4380:ALA:HA	1.65	0.79
1:F:5354:ARG:HG2	1:F:5358:ILE:HD11	1.64	0.79
1:H:7526:ILE:O	1:H:7530:VAL:HG23	1.82	0.79
1:F:5166:ILE:HD12	1:F:5179:ILE:HG13	1.65	0.79
1:F:5315:ALA:O	1:F:5319:ILE:HD12	1.82	0.79
1:H:7412:GLU:HA	1:H:7440:ARG:NH1	1.98	0.79
1:D:3239:MSE:HE3	1:D:3273:TYR:HD1	1.48	0.79
1:A:128:ARG:HG3	1:B:1091:ARG:NH1	1.98	0.79
1:G:6253:GLN:HG3	1:G:6276:PHE:CZ	2.18	0.79
1:D:3531:THR:HA	1:D:3534:LEU:HD12	1.63	0.79
1:C:2569:VAL:HG12	1:C:2570:TYR:H	1.45	0.79
1:A:512:LEU:HD12	1:A:512:LEU:N	1.98	0.79
1:F:5128:ARG:NH1	1:F:5128:ARG:HG2	1.94	0.79
1:C:2466:ASN:HB3	1:C:2468:VAL:HG12	1.65	0.79
1:C:2227:ARG:CG	1:C:2227:ARG:HH11	1.95	0.79
1:F:5515:PRO:HG2	1:F:5518:ASN:OD1	1.83	0.79
1:F:5401:PRO:HA	1:F:5404:ILE:HD12	1.64	0.78
1:A:243:THR:HG22	1:A:248:ARG:HA	1.64	0.78
1:D:3477:ALA:HB1	1:D:3531:THR:HG22	1.64	0.78
1:C:2041:THR:HG23	1:C:2044:GLU:OE2	1.84	0.78
1:D:3372:SER:HB2	1:D:3383:ILE:HD13	1.64	0.78
1:G:6401:PRO:HA	1:G:6436:LEU:HD21	1.65	0.78
1:H:7327:MSE:HE1	1:H:7337:ALA:O	1.83	0.78
1:D:3468:VAL:HA	1:D:3471:PHE:HE2	1.48	0.78
1:C:2298:ILE:HD11	1:C:2442:LEU:HD11	1.65	0.78
1:H:7310:LEU:O	1:H:7310:LEU:HD12	1.83	0.78
1:F:5120:CYS:O	1:F:5123:TYR:HB2	1.84	0.78
1:A:288:LEU:HA	1:A:291:LEU:HB2	1.63	0.78
1:C:2210:ILE:HG22	1:C:2214:LYS:HD2	1.66	0.78
1:D:3298:ILE:HD11	1:D:3442:LEU:HD11	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1421:ASN:HA	1:B:1422:PRO:O	1.83	0.78
1:F:5323:ILE:HG22	1:F:5327:MSE:HE2	1.64	0.78
1:D:3177:MSE:O	1:D:3181:VAL:HG23	1.84	0.78
1:B:1177:MSE:HE1	1:B:1200:PRO:HB2	1.66	0.78
1:C:2408:ALA:HB2	1:C:2437:THR:HG22	1.64	0.78
1:G:6103:ASP:HB3	1:G:6107:LEU:CD2	2.13	0.78
1:E:4094:LYS:HD3	1:E:4560:SER:O	1.84	0.78
1:H:7498:LEU:O	1:H:7501:GLN:HB2	1.83	0.78
1:B:1166:ILE:HD13	1:B:1256:ASP:HB3	1.64	0.78
1:F:5122:GLN:O	1:F:5126:ILE:HG12	1.84	0.78
1:B:1109:PRO:HA	1:B:1113:THR:O	1.84	0.78
1:G:6268:LYS:HG2	1:G:6269:TYR:CE2	2.19	0.78
1:F:5269:TYR:HB3	1:F:5273:TYR:CD1	2.18	0.78
1:C:2067:ARG:HB2	1:D:3217:PHE:HE1	1.49	0.78
1:B:1283:THR:O	1:B:1286:VAL:HG23	1.84	0.78
1:A:350:LEU:HD22	1:A:354:ARG:NH1	1.99	0.78
1:F:5320:ALA:O	1:F:5323:ILE:HB	1.84	0.78
1:B:1527:ALA:O	1:B:1531:THR:HG23	1.84	0.78
1:C:2038:MSE:HB2	1:C:2059:GLU:HG3	1.64	0.77
1:B:1269:TYR:HB3	1:B:1273:TYR:HD1	1.49	0.77
1:F:5194:ARG:HH21	1:F:5197:ARG:HE	1.29	0.77
1:G:6144:ARG:HH12	1:G:6244:ASP:HB3	1.44	0.77
1:E:4061:GLN:HA	1:E:4064:GLN:NE2	1.98	0.77
1:E:4210:ILE:HG22	1:E:4214:LYS:HD2	1.66	0.77
1:D:3183:LYS:HG2	1:D:3187:TYR:HE1	1.49	0.77
1:H:7325:MSE:HE2	1:H:7492:LEU:HD13	1.66	0.77
1:A:454:LEU:HD13	1:A:458:ARG:HH11	1.46	0.77
1:C:2339:LYS:HA	1:C:2367:HIS:CE1	2.19	0.77
1:B:1302:ILE:HA	1:B:1305:HIS:ND1	2.00	0.77
1:G:6205:VAL:CG1	1:G:6226:ASP:HB3	2.14	0.77
1:G:6351:VAL:HG21	1:G:6369:ALA:HA	1.67	0.77
1:B:1419:LEU:H	1:B:1419:LEU:HD22	1.50	0.77
1:E:4354:ARG:HG3	1:E:4358:ILE:HD11	1.67	0.77
1:E:4024:LYS:HA	1:E:4028:LEU:HD22	1.65	0.77
1:F:5432:GLU:O	1:F:5436:LEU:HB2	1.85	0.77
1:G:6210:ILE:HA	1:G:6213:LEU:HD12	1.64	0.77
1:C:2358:ILE:HG22	1:C:2362:GLN:HB3	1.65	0.77
1:H:7548:ASP:OD2	1:H:7551:LYS:HB2	1.85	0.77
1:E:4177:MSE:HE2	1:E:4181:VAL:HG22	1.67	0.77
1:C:2376:THR:HG22	1:C:2378:GLU:H	1.49	0.77
1:B:1376:THR:HG22	1:B:1379:ASP:H	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1360:SER:O	1:B:1363:GLU:HG2	1.85	0.77
1:C:2030:LEU:HD13	1:D:3030:LEU:O	1.84	0.77
1:H:7325:MSE:HB3	1:H:7492:LEU:HD13	1.64	0.77
1:E:4382:ASN:O	1:E:4385:LYS:HD3	1.85	0.77
1:B:1166:ILE:HD13	1:B:1256:ASP:CB	2.15	0.77
1:C:2416:ILE:HD13	1:C:2442:LEU:O	1.85	0.77
1:D:3072:LEU:HA	1:D:3075:MSE:HE3	1.67	0.76
1:C:2294:ALA:O	1:C:2297:VAL:HG22	1.85	0.76
1:D:3351:VAL:HG21	1:D:3369:ALA:HA	1.66	0.76
1:F:5453:LYS:HA	1:F:5458:ARG:O	1.86	0.76
1:G:6025:GLY:O	1:G:6028:LEU:HB2	1.86	0.76
1:C:2088:ILE:O	1:C:2096:PHE:HB2	1.85	0.76
1:B:1310:LEU:HD21	1:B:1398:LEU:HB2	1.66	0.76
1:D:3243:THR:HB	1:D:3248:ARG:CD	2.15	0.76
1:B:1138:SER:HB3	1:C:2572:TRP:CE2	2.21	0.76
1:D:3205:VAL:O	1:D:3225:ARG:HA	1.85	0.76
1:D:3061:GLN:CA	1:D:3064:GLN:HE21	1.92	0.76
1:D:3378:GLU:HG3	1:D:3379:ASP:H	1.50	0.76
1:H:7343:MSE:HB3	1:H:7350:LEU:HD23	1.66	0.76
1:G:6379:ASP:O	1:G:6383:ILE:HG13	1.86	0.76
1:A:283:THR:O	1:A:286:VAL:HG23	1.86	0.76
1:G:6488:ASP:HA	1:G:6491:PHE:HD1	1.50	0.76
1:E:4225:ARG:HG2	1:E:4225:ARG:HH11	1.51	0.76
1:G:6490:VAL:HG22	1:G:6533:TYR:CE2	2.19	0.76
1:D:3529:LYS:O	1:D:3532:GLU:HG3	1.86	0.76
1:A:210:ILE:HG22	1:A:214:LYS:HD2	1.67	0.76
1:H:7550:ALA:O	1:H:7554:LYS:HG3	1.86	0.76
1:F:5072:LEU:HD11	1:F:5081:LYS:HB3	1.65	0.76
1:A:267:ARG:HH11	1:A:267:ARG:HG3	1.49	0.76
1:F:5354:ARG:NE	1:F:5356:ALA:HB3	2.01	0.76
1:C:2123:TYR:CD2	1:C:2219:MSE:HE1	2.20	0.76
1:C:2061:GLN:HA	1:C:2064:GLN:HE21	1.50	0.76
1:D:3453:LYS:HD3	1:D:3457:GLY:HA2	1.68	0.76
1:H:7378:GLU:HB2	1:H:7403:VAL:HG23	1.68	0.76
1:D:3253:GLN:HE22	1:D:3255:GLU:CG	1.96	0.76
1:G:6124:GLY:O	1:G:6217:PHE:HB3	1.86	0.76
1:C:2453:LYS:HB2	1:C:2459:VAL:HG12	1.66	0.76
1:H:7104:ILE:O	1:H:7108:MSE:HE2	1.86	0.75
1:C:2526:ILE:O	1:C:2530:VAL:HG23	1.85	0.75
1:F:5057:LYS:HE3	1:F:5059:GLU:HG3	1.66	0.75
1:G:6324:VAL:HA	1:G:6327:MSE:HE3	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4349:LEU:HD21	1:E:4351:VAL:HG23	1.69	0.75
1:E:4188:THR:HG21	1:E:4195:PRO:HG3	1.68	0.75
1:D:3100:LEU:HD11	1:D:3111:VAL:HG21	1.66	0.75
1:B:1454:LEU:HD11	1:B:1460:PHE:CE2	2.21	0.75
1:H:7276:PHE:HB2	1:H:7281:GLN:OE1	1.85	0.75
1:H:7416:ILE:HD13	1:H:7416:ILE:H	1.51	0.75
1:B:1243:THR:HA	1:B:1247:GLY:O	1.87	0.75
1:A:261:ASN:HD22	1:A:261:ASN:H	1.30	0.75
1:A:188:THR:HG23	1:A:193:ILE:O	1.86	0.75
1:B:1413:ARG:HH21	1:B:1440:ARG:C	1.90	0.75
1:E:4530:VAL:HG12	1:E:4534:LEU:HD11	1.67	0.75
1:F:5310:LEU:HG	1:F:5393:ALA:HB2	1.66	0.75
1:D:3376:THR:CG2	1:D:3378:GLU:HG2	2.17	0.75
1:F:5302:ILE:O	1:F:5304:GLU:N	2.20	0.75
1:H:7548:ASP:CG	1:H:7551:LYS:HB2	2.06	0.75
1:H:7559:ARG:HG3	1:H:7561:GLU:HG2	1.68	0.75
1:H:7302:ILE:HA	1:H:7305:HIS:CE1	2.21	0.75
1:F:5419:LEU:H	1:F:5419:LEU:HD22	1.52	0.75
1:C:2041:THR:OG1	1:C:2044:GLU:HG3	1.87	0.75
1:D:3482:ASN:HD22	1:D:3482:ASN:N	1.84	0.75
1:G:6219:MSE:HG2	1:H:7038:MSE:HE1	1.68	0.74
1:G:6194:ARG:HB2	1:G:6197:ARG:HG3	1.67	0.74
1:E:4284:ALA:HB1	1:E:4322:LEU:HD13	1.68	0.74
1:B:1511:ARG:HH11	1:B:1511:ARG:CB	2.00	0.74
1:A:526:ILE:O	1:A:530:VAL:HG23	1.87	0.74
1:G:6240:LYS:HG3	1:G:6248:ARG:NH2	2.01	0.74
1:G:6314:GLU:HG3	1:G:6315:ALA:N	1.99	0.74
1:H:7343:MSE:O	1:H:7350:LEU:HB2	1.87	0.74
1:D:3150:TRP:NE1	1:D:3152:GLU:HB2	2.03	0.74
1:F:5378:GLU:O	1:F:5381:VAL:HB	1.86	0.74
1:C:2270:ARG:HG3	1:C:2271:GLU:N	2.02	0.74
1:A:60:THR:O	1:A:64:GLN:HG3	1.88	0.74
1:G:6128:ARG:HH11	1:G:6128:ARG:HG2	1.51	0.74
1:G:6471:PHE:CG	1:G:6472:PRO:HD3	2.22	0.74
1:C:2412:GLU:O	1:C:2413:ARG:HG2	1.86	0.74
1:A:391:GLY:HA3	1:A:427:GLU:HG2	1.70	0.74
1:C:2422:PRO:C	1:C:2424:ALA:H	1.89	0.74
1:F:5160:VAL:HG13	1:F:5201:VAL:HB	1.68	0.74
1:E:4059:GLU:HG2	1:E:4063:ILE:HG21	1.70	0.74
1:D:3437:THR:O	1:D:3440:ARG:HB2	1.87	0.74
1:G:6376:THR:HB	1:G:6379:ASP:OD1	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6413:ARG:HH21	1:G:6440:ARG:C	1.91	0.74
1:G:6466:ASN:HB3	1:G:6468:VAL:HG12	1.69	0.74
1:F:5377:PHE:CZ	1:F:5389:ILE:HD11	2.22	0.74
1:G:6288:LEU:O	1:G:6292:LEU:HG	1.88	0.74
1:D:3150:TRP:CD1	1:D:3152:GLU:HB2	2.22	0.74
1:H:7351:VAL:O	1:H:7354:ARG:HB3	1.88	0.74
1:F:5097:TYR:O	1:F:5101:GLN:HG3	1.87	0.74
1:C:2559:ARG:HG3	1:C:2561:GLU:OE2	1.88	0.74
1:D:3144:ARG:HH11	1:D:3244:ASP:HB3	1.53	0.74
1:G:6164:GLU:HG3	1:G:6225:ARG:NH1	2.03	0.74
1:E:4505:GLU:O	1:E:4509:GLN:HG3	1.87	0.74
1:H:7086:MSE:HE1	1:H:7111:VAL:HG22	1.69	0.73
1:B:1454:LEU:HD11	1:B:1460:PHE:HE2	1.53	0.73
1:A:325:MSE:HE2	1:A:492:LEU:HD13	1.70	0.73
1:E:4416:ILE:HG12	1:E:4443:PHE:HD1	1.51	0.73
1:F:5389:ILE:HG22	1:F:5416:ILE:HA	1.67	0.73
1:F:5437:THR:O	1:F:5440:ARG:HB2	1.87	0.73
1:A:302:ILE:HA	1:A:305:HIS:ND1	2.03	0.73
1:D:3210:ILE:HB	1:D:3214:LYS:HZ2	1.52	0.73
1:A:128:ARG:HH11	1:A:128:ARG:CG	2.00	0.73
1:B:1259:ASN:O	1:B:1262:ALA:N	2.21	0.73
1:G:6480:LEU:CD2	1:G:6556:ARG:HD3	2.18	0.73
1:E:4400:THR:HG23	1:E:4403:VAL:CG2	2.18	0.73
1:F:5392:VAL:O	1:F:5392:VAL:HG12	1.89	0.73
1:D:3297:VAL:HG22	1:D:3298:ILE:HD13	1.70	0.73
1:H:7408:ALA:CB	1:H:7437:THR:HG22	2.18	0.73
1:D:3327:MSE:HE3	1:D:3337:ALA:HB1	1.69	0.73
1:E:4266:LEU:O	1:E:4270:ARG:HB3	1.87	0.73
1:G:6095:LEU:HG	1:G:6099:ILE:HD13	1.70	0.73
1:B:1391:GLY:HA3	1:B:1427:GLU:HG2	1.69	0.73
1:F:5128:ARG:CG	1:F:5128:ARG:HH11	2.00	0.73
1:F:5377:PHE:HZ	1:F:5389:ILE:HD11	1.52	0.73
1:F:5506:GLU:HA	1:F:5509:GLN:HG3	1.69	0.73
1:E:4231:TYR:O	1:E:4235:ILE:HG12	1.89	0.73
1:D:3377:PHE:CZ	1:D:3389:ILE:HD11	2.24	0.73
1:A:128:ARG:HG2	1:A:128:ARG:NH1	1.95	0.73
1:D:3188:THR:HG21	1:D:3195:PRO:HG3	1.70	0.73
1:H:7171:ASP:O	1:H:7172:LEU:HD23	1.89	0.73
1:B:1312:ALA:HB1	1:B:1343:MSE:HE3	1.71	0.73
1:C:2499:THR:C	1:C:2501:GLN:H	1.92	0.73
1:H:7522:VAL:O	1:H:7526:ILE:HG12	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6481:CYS:SG	1:G:6531:THR:HB	2.27	0.73
1:B:1454:LEU:HD12	1:B:1458:ARG:HB2	1.69	0.73
1:E:4283:THR:O	1:E:4286:VAL:HG23	1.88	0.73
1:D:3281:GLN:HB3	1:D:3491:PHE:CE2	2.23	0.73
1:B:1358:ILE:N	1:B:1358:ILE:HD12	2.04	0.73
1:F:5306:LYS:HD2	1:F:5384:LEU:O	1.88	0.73
1:A:512:LEU:HD12	1:A:512:LEU:H	1.52	0.73
1:E:4258:GLY:O	1:E:4260:HIS:N	2.22	0.73
1:E:4206:GLY:CA	1:E:4223:GLN:HE21	2.02	0.73
1:F:5298:ILE:HD11	1:F:5442:LEU:HD11	1.71	0.73
1:E:4315:ALA:HB3	1:E:4392:VAL:HG11	1.71	0.73
1:B:1380:ALA:O	1:B:1384:LEU:HB2	1.89	0.73
1:F:5266:LEU:O	1:F:5270:ARG:HB3	1.88	0.73
1:E:4177:MSE:CE	1:E:4200:PRO:HB2	2.15	0.72
1:A:319:ILE:O	1:A:322:LEU:N	2.21	0.72
1:A:397:ARG:NH2	1:A:429:THR:HG22	2.04	0.72
1:A:253:GLN:NE2	1:A:278:ASP:HB2	2.04	0.72
1:D:3310:LEU:HD21	1:D:3398:LEU:HB3	1.72	0.72
1:G:6300:LYS:HD2	1:G:6304:GLU:CD	2.10	0.72
1:G:6308:LEU:HD12	1:G:6309:PHE:N	2.04	0.72
1:G:6204:ASP:OD1	1:G:6221:LEU:HB2	1.89	0.72
1:H:7049:GLY:O	1:H:7050:LEU:HD23	1.88	0.72
1:D:3387:SER:HA	1:D:3411:ASN:OD1	1.89	0.72
1:D:3261:ASN:ND2	1:D:3261:ASN:H	1.84	0.72
1:H:7099:ILE:HA	1:H:7102:ASP:HB2	1.71	0.72
1:A:453:LYS:HD3	1:A:457:GLY:HA2	1.71	0.72
1:C:2309:PHE:HB2	1:C:2343:MSE:HG3	1.70	0.72
1:A:404:ILE:HD13	1:A:432:GLU:O	1.90	0.72
1:D:3352:LYS:HB2	1:D:3368:SER:HA	1.71	0.72
1:B:1295:GLN:HA	1:B:1298:ILE:HB	1.71	0.72
1:F:5196:ASP:OD1	1:F:5196:ASP:N	2.20	0.72
1:D:3041:THR:CG2	1:D:3044:GLU:HG3	2.18	0.72
1:H:7244:ASP:N	1:H:7248:ARG:NH1	2.37	0.72
1:H:7308:LEU:HD12	1:H:7309:PHE:H	1.54	0.72
1:E:4278:ASP:OD1	1:E:4282:GLY:HA3	1.89	0.72
1:D:3155:VAL:HB	1:D:3246:TYR:CD2	2.23	0.72
1:E:4396:GLY:O	1:E:4427:GLU:HA	1.90	0.72
1:G:6401:PRO:HA	1:G:6404:ILE:HD12	1.71	0.72
1:C:2430:ALA:O	1:C:2433:ALA:HB3	1.88	0.72
1:B:1526:ILE:O	1:B:1530:VAL:HG23	1.88	0.72
1:F:5043:GLN:HG2	1:F:5566:LEU:HD11	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3402:ASP:O	1:D:3405:ARG:HG2	1.88	0.72
1:F:5177:MSE:HE1	1:F:5200:PRO:CB	2.19	0.72
1:B:1177:MSE:HE2	1:B:1181:VAL:HG23	1.72	0.72
1:G:6479:ILE:HG22	1:G:6480:LEU:N	2.04	0.72
1:F:5528:ILE:O	1:F:5532:GLU:HG3	1.89	0.72
1:E:4312:ALA:HB1	1:E:4343:MSE:HE3	1.72	0.72
1:F:5437:THR:HG21	1:F:5441:CYS:HB3	1.70	0.71
1:A:564:SER:C	1:A:565:LEU:HD23	2.10	0.71
1:E:4041:THR:HG23	1:E:4044:GLU:HG3	1.70	0.71
1:B:1281:GLN:HB3	1:B:1491:PHE:CE2	2.25	0.71
1:A:137:ILE:HD11	1:A:230:GLN:HE21	1.55	0.71
1:E:4498:LEU:O	1:E:4501:GLN:HB2	1.91	0.71
1:F:5376:THR:HG22	1:F:5378:GLU:H	1.55	0.71
1:F:5408:ALA:HB2	1:F:5437:THR:HG22	1.71	0.71
1:G:6376:THR:O	1:G:6379:ASP:HB2	1.91	0.71
1:E:4174:VAL:HG21	1:E:4219:MSE:O	1.91	0.71
1:C:2261:ASN:HD22	1:C:2261:ASN:N	1.87	0.71
1:F:5352:LYS:HG2	1:F:5367:HIS:C	2.10	0.71
1:F:5506:GLU:HG2	1:F:5511:ARG:HD2	1.72	0.71
1:F:5527:ALA:O	1:F:5531:THR:HG23	1.90	0.71
1:B:1177:MSE:CE	1:B:1200:PRO:HB2	2.20	0.71
1:A:377:PHE:HZ	1:A:389:ILE:HD11	1.55	0.71
1:G:6454:LEU:HD11	1:G:6460:PHE:HE2	1.53	0.71
1:H:7354:ARG:NE	1:H:7356:ALA:HB3	2.06	0.71
1:C:2155:VAL:O	1:C:2156:LYS:HE2	1.90	0.71
1:H:7381:VAL:HG13	1:H:7407:MSE:HE1	1.73	0.71
1:G:6531:THR:HA	1:G:6534:LEU:HD12	1.73	0.71
1:B:1394:GLY:HA2	1:B:1420:SER:HB3	1.73	0.71
1:A:370:PRO:O	1:A:371:GLU:C	2.27	0.71
1:A:290:GLY:HA2	4:A:8037:HOH:O	1.91	0.71
1:B:1042:LEU:HD21	1:D:3572:TRP:HB2	1.73	0.71
1:D:3229:GLN:HG3	1:D:3233:ASP:OD1	1.90	0.71
1:G:6320:ALA:HA	1:G:6323:ILE:HD12	1.72	0.71
1:C:2370:PRO:HD2	1:C:2373:ILE:HD11	1.73	0.71
1:C:2308:LEU:HB3	1:C:2389:ILE:CD1	2.21	0.71
1:B:1412:GLU:O	1:B:1440:ARG:HD2	1.91	0.71
1:G:6267:ARG:NH1	1:G:6267:ARG:HG3	2.02	0.71
1:C:2128:ARG:NH1	1:C:2128:ARG:HG2	1.96	0.71
1:C:2030:LEU:HB3	1:D:3030:LEU:HD12	1.72	0.71
1:E:4086:MSE:O	1:E:4089:GLN:HB3	1.90	0.71
1:E:4059:GLU:HG2	1:E:4063:ILE:CG2	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6271:GLU:O	1:G:6485:HIS:NE2	2.24	0.71
1:D:3143:VAL:HG11	1:D:3238:PHE:HA	1.72	0.70
1:G:6416:ILE:HD13	1:G:6416:ILE:N	2.05	0.70
1:G:6207:THR:O	1:G:6224:LYS:HA	1.91	0.70
1:F:5397:ARG:HA	1:F:5427:GLU:O	1.91	0.70
1:H:7399:PHE:HB2	1:H:7428:CYS:HB3	1.73	0.70
1:D:3132:GLY:HA3	1:D:3200:PRO:HG2	1.72	0.70
1:C:2377:PHE:HZ	1:C:2389:ILE:CG1	2.04	0.70
1:E:4535:TYR:HE1	1:E:4546:PRO:HD2	1.54	0.70
1:B:1326:SER:O	1:B:1329:GLU:HB3	1.90	0.70
1:H:7162:ASP:O	1:H:7225:ARG:NH2	2.24	0.70
1:G:6308:LEU:HD12	1:G:6309:PHE:H	1.54	0.70
1:B:1207:THR:HG23	1:B:1213:LEU:HD21	1.71	0.70
1:E:4294:ALA:O	1:E:4297:VAL:HG13	1.92	0.70
1:A:51:GLN:NE2	1:A:51:GLN:HA	2.06	0.70
1:G:6413:ARG:HA	1:G:6440:ARG:O	1.91	0.70
1:G:6143:VAL:O	1:G:6147:VAL:HG23	1.91	0.70
1:B:1376:THR:HB	1:B:1379:ASP:CG	2.12	0.70
1:E:4312:ALA:CB	1:E:4343:MSE:HE3	2.21	0.70
1:E:4317:LEU:H	1:E:4317:LEU:HD12	1.55	0.70
1:H:7302:ILE:HA	1:H:7305:HIS:ND1	2.06	0.70
1:D:3310:LEU:HD21	1:D:3398:LEU:CB	2.22	0.70
1:A:44:GLU:O	1:A:48:LEU:HB2	1.92	0.70
1:D:3137:ILE:HD11	1:D:3230:GLN:HB3	1.74	0.70
1:D:3535:TYR:CD2	1:D:3540:ALA:HB3	2.27	0.70
1:D:3268:LYS:O	4:D:8049:HOH:O	2.09	0.70
1:B:1480:LEU:HD23	1:B:1556:ARG:HD3	1.72	0.70
1:G:6182:GLY:HA2	1:G:6185:CYS:SG	2.32	0.70
1:D:3239:MSE:HE3	1:D:3273:TYR:CD1	2.26	0.70
1:G:6122:GLN:O	1:G:6126:ILE:HG12	1.92	0.70
1:B:1382:ASN:O	1:B:1385:LYS:HG3	1.91	0.70
1:G:6395:ALA:HB3	1:G:6398:LEU:HD22	1.74	0.70
1:D:3397:ARG:HA	1:D:3427:GLU:O	1.91	0.70
1:C:2370:PRO:HD2	1:C:2373:ILE:CD1	2.22	0.70
1:B:1414:PRO:HD2	1:B:1441:CYS:HA	1.74	0.70
1:B:1266:LEU:O	1:B:1270:ARG:HB3	1.92	0.70
1:F:5357:LYS:C	1:F:5358:ILE:HD12	2.12	0.70
1:F:5416:ILE:H	1:F:5416:ILE:HD13	1.56	0.70
1:D:3071:ASN:HA	1:D:3074:LYS:HE3	1.74	0.70
1:E:4512:LEU:H	1:E:4512:LEU:HD12	1.57	0.70
1:F:5169:LEU:N	1:F:5169:LEU:HD12	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3108:MSE:HB3	1:D:3109:PRO:HD3	1.74	0.70
1:D:3174:VAL:HG21	1:D:3219:MSE:O	1.92	0.70
1:G:6133:LEU:HD12	1:H:7052:GLY:O	1.91	0.70
1:B:1144:ARG:NH1	1:B:1244:ASP:HB3	2.06	0.70
1:E:4357:LYS:H	1:E:4357:LYS:NZ	1.90	0.70
1:A:295:GLN:HA	1:A:298:ILE:HB	1.74	0.70
1:A:332:LEU:HG	1:A:336:GLU:OE2	1.91	0.70
1:E:4402:ASP:HA	1:E:4405:ARG:HG2	1.74	0.70
1:D:3327:MSE:HE2	1:D:3341:ILE:HD11	1.74	0.70
1:H:7470:ILE:N	1:H:7470:ILE:HD12	2.07	0.70
1:F:5210:ILE:O	1:F:5214:LYS:HG2	1.92	0.70
1:D:3127:PHE:O	1:D:3128:ARG:HD3	1.91	0.70
1:F:5454:LEU:HD13	1:F:5458:ARG:NH1	2.07	0.69
1:F:5333:SER:HB3	1:F:5336:GLU:OE1	1.91	0.69
1:A:112:TYR:CD2	1:A:113:THR:HG23	2.27	0.69
1:C:2376:THR:H	1:C:2379:ASP:HB2	1.56	0.69
1:A:309:PHE:HD1	1:A:390:ILE:HB	1.57	0.69
1:C:2260:HIS:O	1:C:2264:ARG:HG2	1.91	0.69
1:A:293:ALA:HB3	1:A:512:LEU:HB3	1.73	0.69
1:G:6467:ASN:C	1:G:6469:TYR:H	1.94	0.69
1:E:4394:GLY:HA2	1:E:4420:SER:HB3	1.74	0.69
1:D:3374:PRO:CD	1:D:3383:ILE:HD12	2.19	0.69
1:G:6238:PHE:O	1:G:6242:ILE:HG12	1.91	0.69
1:G:6389:ILE:HG22	1:G:6416:ILE:HG22	1.72	0.69
1:E:4338:GLN:NE2	1:E:4364:PRO:HB3	2.07	0.69
1:A:397:ARG:HH11	1:A:397:ARG:HG2	1.58	0.69
1:C:2172:LEU:O	1:C:2175:TYR:HB2	1.92	0.69
1:H:7215:ASP:OD1	1:H:7216:PRO:HD2	1.92	0.69
1:H:7378:GLU:O	1:H:7381:VAL:HB	1.91	0.69
1:F:5396:GLY:O	1:F:5427:GLU:HA	1.91	0.69
1:B:1045:ARG:CZ	1:B:1058:ILE:HD13	2.22	0.69
1:H:7261:ASN:N	1:H:7261:ASN:HD22	1.89	0.69
1:H:7377:PHE:CZ	1:H:7389:ILE:HD11	2.20	0.69
1:E:4240:LYS:HG3	1:E:4248:ARG:NH2	2.02	0.69
1:B:1379:ASP:O	1:B:1383:ILE:HG13	1.93	0.69
1:H:7269:TYR:HB3	1:H:7273:TYR:HD1	1.57	0.69
1:A:488:ASP:HA	1:A:491:PHE:HD1	1.57	0.69
1:B:1476:LEU:O	1:B:1480:LEU:HD12	1.93	0.69
1:H:7422:PRO:O	1:H:7424:ALA:N	2.26	0.69
1:G:6298:ILE:HG22	1:G:6299:SER:N	2.06	0.69
1:A:377:PHE:CZ	1:A:389:ILE:HD11	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1232:ASP:HA	1:B:1235:ILE:HG12	1.74	0.69
1:F:5357:LYS:HD3	1:F:5357:LYS:N	2.06	0.69
1:E:4559:ARG:HG3	1:E:4561:GLU:OE2	1.92	0.69
1:F:5051:GLN:HA	1:F:5051:GLN:HE21	1.57	0.69
1:F:5038:MSE:HE2	1:F:5055:PRO:HG2	1.73	0.69
1:D:3394:GLY:O	1:D:3425:GLN:HG3	1.91	0.69
1:C:2324:VAL:HA	1:C:2327:MSE:HE3	1.74	0.69
1:B:1429:THR:HG23	1:B:1432:GLU:CG	2.21	0.69
1:G:6456:ASP:OD2	1:G:6458:ARG:HD3	1.92	0.69
1:E:4339:LYS:HA	1:E:4367:HIS:NE2	2.07	0.69
1:E:4352:LYS:HG3	1:E:4368:SER:HA	1.74	0.69
1:H:7269:TYR:HA	1:H:7272:LYS:HB2	1.75	0.69
1:D:3518:ASN:O	1:D:3522:VAL:HG23	1.91	0.69
1:F:5194:ARG:CB	1:F:5197:ARG:HG2	2.23	0.69
1:F:5414:PRO:HD2	1:F:5441:CYS:HA	1.74	0.69
1:H:7466:ASN:HB3	1:H:7468:VAL:CG1	2.22	0.69
1:G:6381:VAL:HG13	1:G:6407:MSE:HE1	1.74	0.69
1:F:5194:ARG:HH21	1:F:5197:ARG:NE	1.91	0.69
1:F:5432:GLU:HA	1:F:5436:LEU:HD13	1.75	0.69
1:D:3162:ASP:O	1:D:3225:ARG:NH2	2.26	0.69
1:C:2137:ILE:O	1:C:2140:ARG:HG2	1.92	0.69
1:H:7407:MSE:HG3	1:H:7414:PRO:HB2	1.73	0.69
1:D:3392:VAL:O	1:D:3392:VAL:HG12	1.91	0.69
1:A:389:ILE:HG22	1:A:416:ILE:HA	1.73	0.69
1:F:5412:GLU:OE1	1:F:5412:GLU:HA	1.93	0.69
1:E:4558:TRP:O	1:E:4559:ARG:HD3	1.93	0.69
1:B:1172:LEU:O	1:B:1175:TYR:HB2	1.92	0.69
1:G:6075:MSE:HB3	1:G:6081:LYS:HE2	1.75	0.69
1:H:7470:ILE:N	1:H:7470:ILE:CD1	2.56	0.69
1:B:1351:VAL:O	1:B:1354:ARG:HG2	1.93	0.69
1:D:3133:LEU:HB3	1:D:3201:VAL:HG13	1.76	0.68
1:B:1435:THR:HG22	1:B:1454:LEU:HD23	1.73	0.68
1:G:6169:LEU:N	1:G:6169:LEU:HD12	2.08	0.68
1:B:1350:LEU:O	1:B:1366:THR:HA	1.92	0.68
1:A:342:TRP:CH2	1:A:367:HIS:HB2	2.28	0.68
1:F:5324:VAL:HA	1:F:5327:MSE:HE3	1.76	0.68
1:C:2253:GLN:HG3	1:C:2276:PHE:CZ	2.28	0.68
1:G:6312:ALA:HB1	1:G:6343:MSE:HE3	1.73	0.68
1:C:2376:THR:HG21	1:C:2378:GLU:OE2	1.94	0.68
1:E:4320:ALA:HA	1:E:4323:ILE:HD12	1.75	0.68
1:A:522:VAL:O	1:A:526:ILE:HG13	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6207:THR:HG23	1:G:6213:LEU:HD21	1.74	0.68
1:E:4275:THR:OG1	1:E:4276:PHE:N	2.26	0.68
1:G:6289:ALA:CB	1:G:6498:LEU:HD23	2.23	0.68
1:B:1376:THR:HG22	1:B:1378:GLU:N	2.07	0.68
1:F:5466:ASN:HB3	1:F:5468:VAL:HG12	1.74	0.68
1:G:6166:ILE:HD13	1:G:6256:ASP:CG	2.14	0.68
1:D:3177:MSE:CE	1:D:3200:PRO:HB2	2.17	0.68
1:G:6112:TYR:CD2	1:G:6113:THR:HG23	2.28	0.68
1:C:2306:LYS:HD2	1:C:2385:LYS:O	1.92	0.68
1:A:414:PRO:HD2	1:A:440:ARG:O	1.93	0.68
1:E:4350:LEU:HD13	1:E:4354:ARG:CZ	2.23	0.68
1:B:1261:ASN:HD22	1:B:1261:ASN:H	1.36	0.68
1:C:2276:PHE:HB2	1:C:2281:GLN:OE1	1.93	0.68
1:F:5477:ALA:HB1	1:F:5531:THR:HG22	1.76	0.68
1:C:2086:MSE:HE1	1:C:2111:VAL:HG13	1.76	0.68
1:B:1072:LEU:O	1:B:1075:MSE:HB2	1.94	0.68
1:G:6350:LEU:HD12	1:G:6366:THR:HG23	1.76	0.68
1:E:4075:MSE:HB3	1:E:4081:LYS:HD3	1.74	0.68
1:G:6480:LEU:HD22	1:G:6556:ARG:HD3	1.76	0.68
1:H:7553:VAL:O	1:H:7555:GLU:N	2.26	0.68
1:B:1174:VAL:HG23	1:B:1219:MSE:HE3	1.76	0.68
1:F:5188:THR:HG23	1:F:5193:ILE:O	1.94	0.68
1:E:4109:PRO:HA	1:E:4113:THR:O	1.94	0.68
1:F:5177:MSE:CE	1:F:5200:PRO:HB2	2.22	0.68
1:D:3537:ASN:HD22	1:D:3537:ASN:N	1.91	0.68
1:A:351:VAL:HG11	1:A:369:ALA:HB2	1.75	0.68
1:G:6482:ASN:ND2	1:G:6542:ARG:HB2	2.07	0.68
1:B:1184:LEU:HD23	1:B:1200:PRO:HG3	1.74	0.68
1:B:1137:ILE:HA	1:B:1234:LEU:HD21	1.75	0.68
1:B:1437:THR:O	1:B:1440:ARG:HB2	1.94	0.68
1:A:276:PHE:HB3	1:A:486:ILE:HD12	1.76	0.68
1:D:3166:ILE:HG21	1:D:3172:LEU:HD12	1.76	0.68
1:F:5279:ASP:OD1	1:F:5279:ASP:N	2.23	0.68
1:D:3308:LEU:HD13	1:D:3342:TRP:HB2	1.76	0.68
1:D:3199:LEU:HD12	1:D:3200:PRO:HD2	1.75	0.68
1:G:6397:ARG:O	1:G:6398:LEU:HD12	1.94	0.68
1:G:6456:ASP:OD1	1:G:6458:ARG:HB2	1.93	0.68
1:E:4527:ALA:O	1:E:4531:THR:HG23	1.93	0.68
1:B:1060:THR:O	1:B:1064:GLN:HG3	1.93	0.68
1:G:6400:THR:HG23	1:G:6403:VAL:HG23	1.76	0.68
1:B:1300:LYS:HG2	1:B:1304:GLU:OE1	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4026:LYS:HG3	1:E:4029:MSE:HE3	1.75	0.68
1:A:89:GLN:C	1:A:91:ARG:H	1.96	0.68
1:G:6243:THR:HG22	1:G:6248:ARG:HA	1.75	0.67
1:G:6352:LYS:CG	1:G:6368:SER:HA	2.24	0.67
1:B:1443:PHE:O	1:B:1512:LEU:HD11	1.92	0.67
1:H:7481:CYS:SG	1:H:7534:LEU:HD12	2.33	0.67
1:A:502:LEU:HA	1:A:506:GLU:OE1	1.94	0.67
1:E:4357:LYS:H	1:E:4357:LYS:HZ3	1.42	0.67
1:A:535:TYR:OH	1:A:545:GLU:HA	1.94	0.67
1:B:1310:LEU:HD22	1:B:1399:PHE:CE2	2.30	0.67
1:H:7144:ARG:NH1	1:H:7244:ASP:HB3	2.08	0.67
1:F:5470:ILE:HG22	1:F:5474:VAL:HG21	1.77	0.67
1:D:3194:ARG:HB2	1:D:3197:ARG:CG	2.23	0.67
1:C:2038:MSE:SE	1:C:2055:PRO:HG2	2.44	0.67
1:A:244:ASP:N	1:A:248:ARG:HH11	1.92	0.67
1:G:6302:ILE:HG22	1:G:6340:LYS:NZ	2.09	0.67
1:B:1339:LYS:HA	1:B:1367:HIS:CE1	2.29	0.67
1:B:1506:GLU:O	1:B:1511:ARG:HG2	1.93	0.67
1:E:4384:LEU:O	1:E:4385:LYS:HB2	1.92	0.67
1:F:5339:LYS:HA	1:F:5367:HIS:NE2	2.09	0.67
1:E:4215:ASP:OD1	1:E:4216:PRO:HD2	1.94	0.67
1:H:7083:ILE:HD11	1:H:7126:ILE:CG2	2.24	0.67
1:C:2437:THR:O	1:C:2440:ARG:HB2	1.94	0.67
1:G:6454:LEU:HD12	1:G:6458:ARG:CB	2.23	0.67
1:G:6038:MSE:HE2	1:G:6057:LYS:O	1.94	0.67
1:F:5306:LYS:HB3	1:F:5386:PRO:HA	1.76	0.67
1:C:2480:LEU:HD22	1:C:2556:ARG:HD3	1.76	0.67
1:C:2160:VAL:HG12	1:C:2201:VAL:HB	1.75	0.67
1:C:2188:THR:HG23	1:C:2193:ILE:O	1.93	0.67
1:F:5174:VAL:HG21	1:F:5219:MSE:C	2.15	0.67
1:D:3377:PHE:HZ	1:D:3389:ILE:HD11	1.59	0.67
1:D:3429:THR:HG23	1:D:3432:GLU:OE1	1.93	0.67
1:B:1350:LEU:HD22	1:B:1354:ARG:NH1	2.10	0.67
1:A:336:GLU:O	1:A:340:LYS:HD2	1.95	0.67
1:C:2030:LEU:HB3	1:D:3030:LEU:CD1	2.25	0.67
1:E:4177:MSE:HE3	1:E:4177:MSE:O	1.94	0.67
1:B:1388:THR:HG23	1:B:1415:VAL:CB	2.22	0.67
1:G:6217:PHE:HE1	1:H:7067:ARG:HB2	1.59	0.67
1:B:1302:ILE:HA	1:B:1305:HIS:HD1	1.60	0.67
1:B:1451:PRO:HG3	1:B:1461:THR:OG1	1.95	0.67
1:H:7524:ILE:O	1:H:7527:ALA:HB3	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6269:TYR:HB3	1:G:6273:TYR:HD1	1.60	0.67
1:A:86:MSE:HE2	1:A:86:MSE:HA	1.77	0.67
1:G:6437:THR:HG21	1:G:6441:CYS:HB3	1.75	0.67
1:C:2104:ILE:CG1	1:C:2108:MSE:HE2	2.22	0.67
1:E:4164:GLU:HG3	1:E:4225:ARG:NH1	2.09	0.67
1:H:7394:GLY:O	1:H:7425:GLN:HG3	1.94	0.67
1:F:5526:ILE:O	1:F:5530:VAL:HG23	1.95	0.67
1:G:6504:ASP:HA	1:G:6507:LEU:HD23	1.77	0.67
1:G:6169:LEU:H	1:G:6169:LEU:HD12	1.60	0.67
1:B:1482:ASN:N	1:B:1482:ASN:HD22	1.92	0.67
1:F:5454:LEU:HD13	1:F:5458:ARG:HH11	1.60	0.67
1:E:4392:VAL:HG12	1:E:4392:VAL:O	1.95	0.67
1:G:6255:GLU:O	1:G:6257:PHE:N	2.27	0.67
1:D:3177:MSE:CE	1:D:3181:VAL:HG22	2.24	0.67
1:G:6351:VAL:CG2	1:G:6369:ALA:HA	2.25	0.67
1:B:1179:ILE:HB	1:B:1180:PRO:HD3	1.76	0.67
1:C:2428:CYS:SG	1:C:2429:THR:N	2.68	0.67
1:G:6024:LYS:HA	1:G:6028:LEU:CD2	2.25	0.67
1:F:5479:ILE:HG22	1:F:5480:LEU:N	2.10	0.67
1:H:7229:GLN:O	1:H:7230:GLN:C	2.33	0.67
1:E:4103:ASP:OD2	1:E:4106:SER:HB2	1.93	0.67
1:H:7194:ARG:CB	1:H:7197:ARG:HG3	2.24	0.67
1:H:7437:THR:O	1:H:7440:ARG:HB2	1.95	0.66
1:G:6302:ILE:HA	1:G:6305:HIS:CE1	2.30	0.66
1:G:6177:MSE:O	1:G:6181:VAL:HG23	1.95	0.66
1:C:2307:ILE:HG13	1:C:2388:THR:CB	2.25	0.66
1:C:2407:MSE:HG3	1:C:2411:ASN:ND2	2.10	0.66
1:B:1505:GLU:O	1:B:1508:ALA:HB3	1.95	0.66
1:D:3045:ARG:NH1	1:D:3058:ILE:HD13	2.09	0.66
1:F:5377:PHE:O	1:F:5381:VAL:HG23	1.95	0.66
1:H:7261:ASN:H	1:H:7261:ASN:HD22	1.40	0.66
1:F:5431:GLU:O	1:F:5433:ALA:N	2.29	0.66
1:B:1537:ASN:HD22	1:B:1537:ASN:N	1.93	0.66
1:D:3402:ASP:HA	1:D:3405:ARG:CD	2.25	0.66
1:G:6374:PRO:HG3	1:G:6380:ALA:HA	1.76	0.66
1:B:1505:GLU:CD	1:B:1505:GLU:H	1.99	0.66
1:E:4402:ASP:OD1	1:E:4402:ASP:N	2.28	0.66
1:F:5469:TYR:C	1:F:5470:ILE:HD13	2.16	0.66
1:F:5194:ARG:HB2	1:F:5197:ARG:CG	2.25	0.66
1:G:6320:ALA:HB1	1:G:6365:PHE:CZ	2.29	0.66
1:G:6127:PHE:N	4:G:8062:HOH:O	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:341:ILE:O	1:A:367:HIS:NE2	2.28	0.66
1:C:2179:ILE:HB	1:C:2180:PRO:HD3	1.77	0.66
1:C:2504:ASP:O	1:C:2507:LEU:HB2	1.94	0.66
1:H:7120:CYS:O	1:H:7123:TYR:HB2	1.95	0.66
1:A:300:LYS:HD2	1:A:304:GLU:OE1	1.95	0.66
1:E:4396:GLY:HA2	1:E:4425:GLN:HA	1.76	0.66
1:C:2184:LEU:HD23	1:C:2200:PRO:HB3	1.75	0.66
1:D:3103:ASP:HB3	1:D:3107:LEU:HD22	1.76	0.66
1:B:1324:VAL:O	1:B:1328:VAL:HG23	1.95	0.66
1:B:1480:LEU:CD2	1:B:1556:ARG:HD3	2.25	0.66
1:G:6075:MSE:CG	1:G:6080:GLU:HG2	2.25	0.66
1:G:6041:THR:OG1	1:G:6044:GLU:HG3	1.95	0.66
1:H:7411:ASN:O	1:H:7414:PRO:HD3	1.96	0.66
1:G:6146:ILE:HG23	1:H:7052:GLY:HA3	1.76	0.66
1:B:1466:ASN:O	1:B:1469:TYR:HD1	1.79	0.66
1:F:5358:ILE:HG23	1:F:5362:GLN:HB3	1.78	0.66
1:D:3452:VAL:O	1:D:3459:VAL:HA	1.96	0.66
1:F:5133:LEU:HB2	1:F:5199:LEU:HD11	1.77	0.66
1:G:6245:ARG:HG2	1:G:6246:TYR:CE1	2.30	0.66
1:H:7407:MSE:HG3	1:H:7414:PRO:CB	2.25	0.66
1:A:196:ASP:OD1	1:A:196:ASP:N	2.24	0.66
1:E:4172:LEU:O	1:E:4175:TYR:HB2	1.96	0.66
1:F:5393:ALA:HA	3:F:5601:NAD:O4B	1.95	0.66
1:H:7286:VAL:HG13	1:H:7470:ILE:HD13	1.77	0.66
1:H:7408:ALA:HA	1:H:7414:PRO:HG3	1.77	0.66
1:C:2227:ARG:HG2	1:C:2227:ARG:NH1	2.04	0.66
1:G:6416:ILE:HG12	1:G:6443:PHE:HD1	1.60	0.66
1:B:1227:ARG:CG	1:B:1227:ARG:HH11	2.07	0.66
1:A:401:PRO:HB3	1:A:436:LEU:HD21	1.78	0.66
1:F:5410:ILE:HG22	1:F:5411:ASN:OD1	1.95	0.66
1:H:7196:ASP:N	1:H:7196:ASP:OD1	2.20	0.66
1:A:352:LYS:HB2	1:A:368:SER:HA	1.78	0.66
1:F:5269:TYR:HA	1:F:5272:LYS:HB2	1.78	0.66
1:A:419:LEU:HA	1:A:446:GLY:H	1.58	0.66
1:F:5283:THR:O	1:F:5284:ALA:C	2.35	0.66
1:D:3264:ARG:HG3	1:D:3265:PHE:N	2.11	0.66
1:D:3417:PHE:CD1	1:D:3444:ALA:HB3	2.30	0.66
1:H:7122:GLN:O	1:H:7125:HIS:HB2	1.96	0.66
1:C:2376:THR:HG22	1:C:2378:GLU:N	2.11	0.66
1:E:4206:GLY:HA3	1:E:4223:GLN:HE21	1.61	0.66
1:D:3537:ASN:HB2	1:D:3539:MSE:HG3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5136:SER:OG	1:F:5221:LEU:HD21	1.96	0.66
1:D:3261:ASN:HA	1:D:3264:ARG:NE	2.10	0.65
1:G:6123:TYR:CD2	1:G:6219:MSE:HE1	2.26	0.65
1:B:1402:ASP:HA	1:B:1405:ARG:CD	2.24	0.65
1:F:5351:VAL:HG21	1:F:5369:ALA:HA	1.78	0.65
1:F:5381:VAL:HG13	1:F:5407:MSE:HE1	1.78	0.65
1:D:3520:GLN:C	1:D:3524:ILE:HD12	2.17	0.65
1:E:4266:LEU:HD12	1:E:4266:LEU:O	1.96	0.65
1:E:4204:ASP:OD2	1:E:4221:LEU:HD22	1.96	0.65
1:A:188:THR:HG21	1:A:195:PRO:HG3	1.77	0.65
1:G:6317:LEU:H	1:G:6317:LEU:CD1	2.01	0.65
1:H:7166:ILE:HG13	1:H:7172:LEU:HB2	1.78	0.65
1:D:3210:ILE:HB	1:D:3214:LYS:NZ	2.11	0.65
1:G:6079:LEU:HD11	1:G:6119:ALA:HA	1.79	0.65
1:H:7253:GLN:HG3	1:H:7276:PHE:CE2	2.32	0.65
1:B:1253:GLN:HE22	1:B:1255:GLU:HG2	1.62	0.65
1:B:1349:LEU:CD2	1:B:1351:VAL:HB	2.27	0.65
1:C:2392:VAL:O	1:C:2392:VAL:HG12	1.96	0.65
1:B:1392:VAL:O	1:B:1392:VAL:CG1	2.45	0.65
1:E:4374:PRO:HB3	1:E:4383:ILE:HD12	1.77	0.65
1:E:4261:ASN:HA	1:E:4264:ARG:HG2	1.77	0.65
1:A:253:GLN:HG3	1:A:276:PHE:CZ	2.32	0.65
1:B:1535:TYR:CD2	1:B:1540:ALA:HB3	2.31	0.65
1:D:3378:GLU:HG3	1:D:3379:ASP:OD1	1.97	0.65
1:D:3239:MSE:SE	1:D:3252:ILE:HD12	2.46	0.65
1:H:7085:ILE:HG23	1:H:7086:MSE:HE3	1.78	0.65
1:D:3430:ALA:HB2	1:D:3443:PHE:CE2	2.31	0.65
1:E:4352:LYS:HB2	1:E:4368:SER:HA	1.78	0.65
1:C:2156:LYS:HB3	1:C:2479:ILE:HD13	1.78	0.65
1:G:6358:ILE:HG21	1:G:6366:THR:OG1	1.97	0.65
1:H:7163:GLY:HA2	1:H:7166:ILE:HD11	1.77	0.65
1:E:4437:THR:C	1:E:4439:GLY:H	1.98	0.65
1:C:2432:GLU:CA	1:C:2436:LEU:HD13	2.26	0.65
1:C:2505:GLU:CD	1:C:2505:GLU:H	1.99	0.65
1:G:6031:ASN:HB3	1:G:6034:THR:OG1	1.96	0.65
1:F:5505:GLU:OE2	1:F:5505:GLU:N	2.28	0.65
1:B:1137:ILE:O	1:B:1140:ARG:HG2	1.96	0.65
1:A:323:ILE:HG22	1:A:327:MSE:HE2	1.77	0.65
1:A:408:ALA:HB2	1:A:437:THR:HG22	1.78	0.65
1:E:4295:GLN:HE22	1:E:4305:HIS:HE1	1.45	0.65
1:A:432:GLU:HA	1:A:436:LEU:HD13	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5333:SER:OG	1:F:5336:GLU:HG3	1.97	0.65
1:E:4077:SER:HB3	1:E:4080:GLU:HB2	1.77	0.65
1:H:7041:THR:HG23	1:H:7044:GLU:HG3	1.78	0.65
1:G:6163:GLY:O	1:G:6171:ASP:HA	1.96	0.65
1:D:3113:THR:HA	1:D:3116:VAL:HG12	1.78	0.65
1:B:1408:ALA:HB2	1:B:1437:THR:HG22	1.78	0.65
1:B:1511:ARG:HH11	1:B:1511:ARG:HB3	1.61	0.65
1:A:375:ASP:OD2	1:A:379:ASP:OD2	2.14	0.65
1:E:4352:LYS:HG3	1:E:4368:SER:CA	2.27	0.65
1:B:1240:LYS:HG3	1:B:1248:ARG:NH2	2.08	0.65
1:B:1243:THR:HG22	1:B:1248:ARG:HA	1.77	0.65
1:E:4413:ARG:HA	1:E:4440:ARG:O	1.96	0.65
1:F:5512:LEU:HD12	1:F:5512:LEU:N	2.11	0.65
1:E:4350:LEU:HA	1:E:4354:ARG:HD3	1.78	0.65
1:B:1261:ASN:N	1:B:1261:ASN:ND2	2.36	0.65
1:D:3043:GLN:HG2	1:D:3566:LEU:CD1	2.27	0.65
1:E:4184:LEU:O	1:E:4187:TYR:HB2	1.96	0.65
1:F:5143:VAL:HG11	1:F:5238:PHE:HA	1.78	0.65
1:A:411:ASN:O	1:A:414:PRO:HD3	1.97	0.65
1:F:5559:ARG:HB3	1:F:5561:GLU:CG	2.26	0.65
1:G:6402:ASP:OD1	1:G:6402:ASP:N	2.29	0.65
1:H:7060:THR:OG1	1:H:7063:ILE:HG13	1.97	0.65
1:F:5429:THR:HG23	1:F:5432:GLU:CG	2.27	0.65
1:F:5503:THR:HG23	1:F:5506:GLU:CD	2.18	0.65
1:D:3386:PRO:HB2	1:D:3388:THR:O	1.97	0.65
1:E:4166:ILE:CG2	1:E:4172:LEU:HD12	2.27	0.65
1:B:1339:LYS:HA	1:B:1367:HIS:NE2	2.12	0.65
1:F:5351:VAL:CG2	1:F:5369:ALA:HA	2.27	0.65
1:A:564:SER:O	1:A:565:LEU:HD23	1.97	0.65
1:D:3360:SER:HA	1:D:3363:GLU:OE1	1.96	0.65
1:E:4321:ASN:O	1:E:4324:VAL:HB	1.97	0.65
1:D:3317:LEU:H	1:D:3317:LEU:HD12	1.61	0.65
1:H:7106:SER:O	1:H:7109:PRO:HD2	1.96	0.64
1:D:3261:ASN:HA	1:D:3264:ARG:HG2	1.79	0.64
1:D:3350:LEU:HD22	1:D:3354:ARG:NH1	2.12	0.64
1:F:5350:LEU:O	1:F:5366:THR:HA	1.97	0.64
1:D:3531:THR:O	1:D:3534:LEU:HB2	1.97	0.64
1:F:5503:THR:HG23	1:F:5506:GLU:OE1	1.97	0.64
1:F:5287:ALA:O	1:F:5290:GLY:N	2.29	0.64
1:F:5227:ARG:HH11	1:F:5227:ARG:HG2	1.62	0.64
1:D:3374:PRO:HG3	1:D:3380:ALA:HA	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:471:PHE:CG	1:A:472:PRO:HD3	2.32	0.64
1:E:4416:ILE:HD13	1:E:4442:LEU:O	1.98	0.64
1:B:1487:SER:OG	1:B:1539:MSE:HE1	1.97	0.64
1:H:7150:TRP:CE3	1:H:7151:PRO:HD2	2.33	0.64
1:G:6268:LYS:HG2	1:G:6269:TYR:CD2	2.32	0.64
1:A:264:ARG:HG3	1:A:265:PHE:N	2.12	0.64
1:F:5419:LEU:HA	1:F:5446:GLY:N	2.12	0.64
1:G:6482:ASN:HD22	1:G:6482:ASN:N	1.95	0.64
1:G:6191:ALA:HB1	1:G:6476:LEU:HD22	1.79	0.64
1:G:6327:MSE:CE	1:G:6341:ILE:HD11	2.21	0.64
1:B:1338:GLN:HA	1:B:1341:ILE:HG13	1.79	0.64
1:B:1352:LYS:N	1:B:1367:HIS:O	2.29	0.64
1:A:376:THR:HG22	1:A:378:GLU:N	2.11	0.64
1:E:4303:SER:HA	1:E:4340:LYS:NZ	2.12	0.64
1:H:7559:ARG:HG3	1:H:7561:GLU:CG	2.27	0.64
1:E:4191:ALA:HB2	1:E:4472:PRO:HB2	1.79	0.64
1:C:2315:ALA:HB3	1:C:2392:VAL:CG1	2.27	0.64
1:F:5113:THR:HA	1:F:5116:VAL:HG12	1.79	0.64
1:G:6492:LEU:HD23	1:G:6496:LYS:HD2	1.79	0.64
1:E:4261:ASN:HB3	1:E:4265:PHE:CE1	2.33	0.64
1:C:2300:LYS:HG2	1:C:2304:GLU:OE2	1.98	0.64
1:C:2432:GLU:O	1:C:2436:LEU:HB2	1.97	0.64
1:A:504:ASP:HA	1:A:507:LEU:HD23	1.80	0.64
1:C:2503:THR:OG1	1:C:2505:GLU:HG2	1.97	0.64
1:G:6160:VAL:CG1	1:G:6201:VAL:HB	2.24	0.64
1:G:6126:ILE:O	1:G:6128:ARG:HD2	1.96	0.64
1:H:7110:ILE:HG22	1:H:7111:VAL:N	2.12	0.64
1:B:1335:GLN:HE21	1:B:1335:GLN:C	2.01	0.64
1:H:7184:LEU:HG	1:H:7198:CYS:HB3	1.78	0.64
1:B:1406:ALA:O	1:B:1410:ILE:HG13	1.97	0.64
1:C:2098:ARG:HG3	1:C:2099:ILE:N	2.13	0.64
1:C:2136:SER:OG	1:C:2221:LEU:HD21	1.97	0.64
1:B:1291:LEU:HD23	1:B:1417:PHE:CZ	2.32	0.64
1:C:2569:VAL:CG1	1:C:2570:TYR:H	2.10	0.64
1:E:4535:TYR:CE1	1:E:4546:PRO:HD2	2.32	0.64
1:H:7415:VAL:CG1	1:H:7442:LEU:HB2	2.22	0.64
1:D:3177:MSE:C	1:D:3180:PRO:HD2	2.17	0.64
1:C:2101:GLN:O	1:C:2104:ILE:HG22	1.97	0.64
1:G:6146:ILE:O	1:G:6149:ASN:HB2	1.97	0.64
1:B:1320:ALA:HB1	1:B:1365:PHE:CE2	2.33	0.64
1:C:2308:LEU:HD12	1:C:2309:PHE:H	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1453:LYS:HD3	1:B:1457:GLY:HA2	1.80	0.64
1:H:7270:ARG:HG3	1:H:7271:GLU:N	2.13	0.64
1:F:5359:ASP:O	1:F:5362:GLN:HB2	1.98	0.64
1:C:2067:ARG:HB2	1:D:3217:PHE:CE1	2.31	0.64
1:F:5419:LEU:N	1:F:5419:LEU:HD13	2.11	0.64
1:C:2422:PRO:O	1:C:2424:ALA:N	2.31	0.64
1:F:5028:LEU:HD21	1:F:5048:LEU:HD12	1.79	0.64
1:G:6471:PHE:CD2	1:G:6472:PRO:HD3	2.33	0.64
1:C:2187:TYR:O	1:C:2191:ALA:HB3	1.98	0.64
1:A:42:LEU:O	1:A:46:GLN:HG3	1.98	0.64
1:F:5419:LEU:HA	1:F:5446:GLY:CA	2.27	0.64
1:G:6298:ILE:HD11	1:G:6442:LEU:HD11	1.79	0.64
1:G:6113:THR:HA	1:G:6116:VAL:HG12	1.79	0.64
1:G:6468:VAL:HA	1:G:6471:PHE:CE2	2.33	0.64
1:B:1293:ALA:HB3	1:B:1512:LEU:HB3	1.78	0.64
1:E:4225:ARG:HH11	1:E:4225:ARG:CG	2.11	0.64
1:C:2303:SER:HA	1:C:2340:LYS:NZ	2.13	0.64
1:F:5197:ARG:HH11	1:F:5197:ARG:HG3	1.63	0.64
1:C:2399:PHE:HB2	1:C:2428:CYS:HB3	1.79	0.64
1:G:6210:ILE:HG22	1:G:6214:LYS:HE3	1.78	0.64
1:G:6191:ALA:HB1	1:G:6476:LEU:CD2	2.28	0.64
1:H:7402:ASP:HA	1:H:7405:ARG:HD2	1.79	0.64
1:H:7247:GLY:O	1:H:7250:THR:HB	1.98	0.64
1:F:5079:LEU:HD13	1:F:5118:LEU:HD22	1.79	0.64
1:D:3095:LEU:O	1:D:3098:ARG:N	2.30	0.64
1:E:4522:VAL:O	1:E:4526:ILE:HG13	1.98	0.64
1:F:5419:LEU:HA	1:F:5446:GLY:HA3	1.80	0.64
1:F:5211:ALA:O	1:F:5214:LYS:HG3	1.98	0.64
1:F:5423:THR:HG22	1:F:5423:THR:O	1.96	0.64
1:H:7390:ILE:HG23	1:H:7417:PHE:HB2	1.79	0.63
1:G:6177:MSE:O	1:G:6180:PRO:HD2	1.98	0.63
1:F:5179:ILE:HB	1:F:5180:PRO:CD	2.28	0.63
1:A:432:GLU:O	1:A:436:LEU:HB2	1.98	0.63
1:E:4264:ARG:HG3	1:E:4265:PHE:N	2.11	0.63
1:G:6027:PRO:HA	1:G:6030:LEU:HB2	1.80	0.63
1:D:3482:ASN:H	1:D:3482:ASN:HD22	1.46	0.63
1:D:3194:ARG:CB	1:D:3197:ARG:HG2	2.28	0.63
1:H:7415:VAL:HG13	1:H:7442:LEU:CB	2.19	0.63
1:G:6158:VAL:HA	1:G:6199:LEU:O	1.98	0.63
1:B:1251:LEU:HD12	1:B:1252:ILE:N	2.12	0.63
1:A:255:GLU:O	1:A:257:PHE:HD1	1.82	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3302:ILE:HG22	1:D:3303:SER:N	2.12	0.63
1:C:2354:ARG:NE	1:C:2356:ALA:HB3	2.13	0.63
1:H:7381:VAL:HG13	1:H:7407:MSE:CE	2.27	0.63
1:H:7086:MSE:CA	1:H:7086:MSE:HE2	2.29	0.63
1:B:1338:GLN:HG2	1:B:1339:LYS:N	2.13	0.63
1:B:1453:LYS:HG3	1:B:1459:VAL:HG13	1.80	0.63
1:B:1135:ILE:HG23	1:B:1143:VAL:HG22	1.80	0.63
1:H:7243:THR:C	1:H:7248:ARG:HH11	2.02	0.63
1:H:7278:ASP:C	1:H:7280:ILE:H	2.01	0.63
1:E:4531:THR:CA	1:E:4534:LEU:HD12	2.28	0.63
1:G:6311:GLY:HA3	1:G:6392:VAL:O	1.99	0.63
1:G:6342:TRP:CZ3	1:G:6349:LEU:HD21	2.33	0.63
1:D:3315:ALA:HB3	1:D:3392:VAL:CG1	2.29	0.63
1:B:1258:GLY:O	1:B:1259:ASN:C	2.36	0.63
1:F:5100:LEU:HD11	1:F:5111:VAL:HG21	1.79	0.63
1:E:4293:ALA:O	1:E:4296:LYS:HB3	1.98	0.63
1:D:3400:THR:O	1:D:3404:ILE:HG13	1.99	0.63
1:B:1319:ILE:O	1:B:1323:ILE:HG13	1.99	0.63
1:B:1389:ILE:O	1:B:1390:ILE:HG13	1.98	0.63
1:B:1396:GLY:O	1:B:1427:GLU:HA	1.97	0.63
1:C:2258:GLY:O	1:C:2259:ASN:C	2.36	0.63
1:F:5381:VAL:HG13	1:F:5407:MSE:CE	2.29	0.63
1:E:4535:TYR:HD2	1:E:4540:ALA:HB3	1.61	0.63
1:F:5471:PHE:CG	1:F:5472:PRO:HD3	2.34	0.63
1:C:2398:LEU:HD12	1:C:2398:LEU:N	2.13	0.63
1:H:7416:ILE:N	1:H:7416:ILE:HD13	2.14	0.63
1:E:4177:MSE:O	1:E:4180:PRO:HD2	1.99	0.63
1:B:1408:ALA:O	1:B:1440:ARG:NH2	2.20	0.63
1:E:4350:LEU:HD22	1:E:4354:ARG:HH12	1.59	0.63
1:E:4351:VAL:O	1:E:4354:ARG:HG2	1.98	0.63
1:H:7194:ARG:HB2	1:H:7197:ARG:HG3	1.79	0.63
1:G:6283:THR:O	1:G:6286:VAL:HG23	1.98	0.63
1:A:498:LEU:O	1:A:501:GLN:HB2	1.99	0.63
1:G:6090:GLU:HG3	1:G:6131:LYS:HE2	1.80	0.63
1:F:5261:ASN:ND2	1:F:5261:ASN:H	1.96	0.63
1:G:6429:THR:HG23	1:G:6432:GLU:CD	2.19	0.63
1:A:310:LEU:O	1:A:344:PHE:O	2.17	0.63
1:G:6038:MSE:HE1	1:G:6057:LYS:HB3	1.81	0.63
1:G:6209:ASN:OD1	1:G:6211:ALA:HB3	1.98	0.63
1:A:259:ASN:H	1:A:259:ASN:HD22	1.47	0.63
1:F:5047:MSE:HE3	1:F:5566:LEU:HD22	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4357:LYS:N	1:E:4357:LYS:NZ	2.47	0.63
1:H:7126:ILE:O	1:H:7128:ARG:HD2	1.98	0.63
1:H:7036:LYS:HE3	1:H:7039:ALA:O	1.98	0.63
1:H:7296:LYS:HE2	1:H:7507:LEU:HD21	1.79	0.63
1:A:543:TYR:HB2	1:A:544:PRO:HA	1.79	0.63
1:H:7512:LEU:N	1:H:7512:LEU:HD12	2.14	0.63
1:A:535:TYR:CD1	1:A:549:LYS:HE3	2.33	0.63
1:G:6314:GLU:CG	1:G:6315:ALA:N	2.62	0.63
1:G:6319:ILE:O	1:G:6323:ILE:HG13	1.98	0.63
1:F:5572:TRP:CB	1:H:7042:LEU:HD21	2.23	0.63
1:B:1243:THR:HB	1:B:1248:ARG:HD2	1.79	0.63
1:B:1269:TYR:HB3	1:B:1273:TYR:CD1	2.31	0.63
1:C:2402:ASP:O	1:C:2405:ARG:HG2	1.99	0.63
1:C:2445:SER:O	1:C:2464:GLN:HA	1.98	0.63
1:G:6551:LYS:O	1:G:6555:GLU:HB2	1.99	0.63
1:G:6468:VAL:O	1:G:6519:ILE:HD11	1.98	0.63
1:D:3293:ALA:O	1:D:3296:LYS:HB3	1.99	0.63
1:B:1349:LEU:HD23	1:B:1351:VAL:HB	1.81	0.63
1:G:6537:ASN:HB3	1:G:6539:MSE:SE	2.49	0.63
1:F:5303:SER:HA	1:F:5340:LYS:NZ	2.13	0.63
1:C:2072:LEU:HD11	1:C:2081:LYS:HB3	1.80	0.63
1:F:5041:THR:HG23	1:F:5044:GLU:HB2	1.80	0.63
1:A:550:ALA:O	1:A:554:LYS:HG3	1.99	0.63
1:H:7283:THR:O	1:H:7286:VAL:HG23	1.98	0.62
1:H:7470:ILE:HD11	1:H:7498:LEU:HD22	1.79	0.62
1:H:7325:MSE:HE1	1:H:7489:SER:CA	2.22	0.62
1:F:5572:TRP:HB2	1:H:7042:LEU:CD2	2.27	0.62
1:B:1347:TYR:HB3	1:B:1356:ALA:HB2	1.80	0.62
1:B:1392:VAL:O	1:B:1392:VAL:HG12	1.99	0.62
1:G:6401:PRO:HG2	1:G:6402:ASP:OD1	1.98	0.62
1:F:5521:GLU:HA	1:F:5524:ILE:HD12	1.79	0.62
1:H:7116:VAL:HG13	1:H:7117:GLY:N	2.15	0.62
1:H:7407:MSE:HA	1:H:7410:ILE:HD12	1.79	0.62
1:C:2308:LEU:HD12	1:C:2309:PHE:N	2.14	0.62
1:C:2352:LYS:CG	1:C:2368:SER:HA	2.29	0.62
1:F:5094:LYS:HD3	1:F:5560:SER:O	1.99	0.62
1:H:7396:GLY:O	1:H:7427:GLU:HA	1.99	0.62
1:H:7261:ASN:HB3	1:H:7265:PHE:CE1	2.34	0.62
1:H:7422:PRO:C	1:H:7424:ALA:H	2.01	0.62
1:G:6153:ASN:O	1:G:6246:TYR:HE2	1.83	0.62
1:H:7493:GLU:HA	1:H:7496:LYS:HD2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6300:LYS:HD2	1:G:6304:GLU:HB2	1.80	0.62
1:C:2376:THR:O	1:C:2379:ASP:HB2	1.99	0.62
1:C:2408:ALA:CB	1:C:2437:THR:HG22	2.28	0.62
1:E:4300:LYS:HE2	1:E:4304:GLU:CD	2.20	0.62
1:A:392:VAL:HG12	1:A:392:VAL:O	1.99	0.62
1:B:1116:VAL:HG13	1:B:1117:GLY:N	2.14	0.62
1:C:2531:THR:HA	1:C:2534:LEU:HD12	1.81	0.62
1:B:1238:PHE:CE1	1:B:1242:ILE:HG13	2.34	0.62
1:D:3106:SER:O	1:D:3109:PRO:HD2	1.99	0.62
1:D:3204:ASP:OD1	1:D:3221:LEU:HB2	2.00	0.62
1:F:5456:ASP:CB	1:F:5458:ARG:HD3	2.29	0.62
1:H:7086:MSE:CE	1:H:7086:MSE:CA	2.78	0.62
1:H:7042:LEU:HD12	1:H:7042:LEU:O	2.00	0.62
1:G:6533:TYR:O	1:G:6537:ASN:HB2	2.00	0.62
1:B:1135:ILE:O	1:B:1203:ILE:HG23	2.00	0.62
1:G:6185:CYS:O	1:G:6189:ALA:N	2.30	0.62
1:E:4569:VAL:HG21	1:G:6047:MSE:HE2	1.82	0.62
1:D:3253:GLN:NE2	1:D:3254:PHE:O	2.32	0.62
1:D:3179:ILE:HB	1:D:3180:PRO:HD3	1.81	0.62
1:A:146:ILE:HD12	1:A:146:ILE:N	2.14	0.62
1:G:6492:LEU:O	1:G:6495:ALA:HB3	1.99	0.62
1:H:7271:GLU:O	1:H:7485:HIS:NE2	2.33	0.62
1:B:1113:THR:HA	1:B:1116:VAL:HG12	1.81	0.62
1:G:6210:ILE:CA	1:G:6213:LEU:HD12	2.29	0.62
1:D:3261:ASN:HB3	1:D:3265:PHE:CE1	2.35	0.62
1:G:6140:ARG:NH1	1:G:6230:GLN:HG2	2.14	0.62
1:G:6177:MSE:HE1	1:G:6180:PRO:HB2	1.81	0.62
1:E:4123:TYR:HD2	1:E:4219:MSE:HE1	1.65	0.62
1:D:3289:ALA:O	1:D:3499:THR:OG1	2.17	0.62
1:A:501:GLN:HA	1:A:501:GLN:NE2	2.15	0.62
1:F:5551:LYS:O	1:F:5555:GLU:HB2	1.99	0.62
1:D:3291:LEU:HD23	1:D:3417:PHE:CE2	2.35	0.62
1:D:3320:ALA:CA	1:D:3323:ILE:HD12	2.29	0.62
1:H:7179:ILE:HB	1:H:7180:PRO:CD	2.29	0.62
1:C:2028:LEU:HD21	1:C:2048:LEU:HD12	1.81	0.62
1:A:566:LEU:CD2	1:A:567:PRO:HD2	2.29	0.62
1:A:351:VAL:HG21	1:A:369:ALA:HA	1.82	0.62
1:D:3061:GLN:HG2	1:D:3098:ARG:HD3	1.81	0.62
1:H:7413:ARG:HA	1:H:7440:ARG:O	1.99	0.62
1:D:3174:VAL:HG11	1:D:3220:GLY:HA3	1.80	0.62
1:G:6317:LEU:O	1:G:6320:ALA:HB3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6137:ILE:HG22	1:G:6221:LEU:CD2	2.29	0.62
1:C:2374:PRO:HD3	1:C:2383:ILE:HD12	1.81	0.62
1:E:4174:VAL:CG2	1:E:4219:MSE:HE3	2.26	0.62
1:A:377:PHE:O	1:A:381:VAL:HG23	2.00	0.62
1:C:2303:SER:HA	1:C:2340:LYS:HZ1	1.63	0.62
1:G:6267:ARG:HH11	1:G:6267:ARG:CG	2.12	0.62
1:G:6288:LEU:O	1:G:6288:LEU:HG	1.98	0.62
1:G:6261:ASN:HB3	1:G:6265:PHE:CE1	2.35	0.62
1:D:3184:LEU:HA	1:D:3187:TYR:HB2	1.81	0.62
1:B:1137:ILE:HA	1:B:1234:LEU:CD2	2.29	0.62
1:C:2388:THR:HG23	1:C:2415:VAL:CB	2.30	0.62
1:H:7396:GLY:HA2	1:H:7425:GLN:HA	1.80	0.62
1:E:4099:ILE:O	1:E:4102:ASP:HB2	1.99	0.62
1:H:7511:ARG:HH11	1:H:7511:ARG:CB	2.13	0.62
1:H:7308:LEU:HD12	1:H:7309:PHE:N	2.14	0.61
1:G:6294:ALA:O	1:G:6297:VAL:HG22	1.99	0.61
1:F:5453:LYS:CB	1:F:5459:VAL:HG13	2.24	0.61
1:E:4350:LEU:HD13	1:E:4354:ARG:NE	2.15	0.61
1:C:2261:ASN:H	1:C:2261:ASN:ND2	1.92	0.61
1:C:2259:ASN:O	1:C:2262:ALA:N	2.33	0.61
1:A:255:GLU:O	1:A:257:PHE:N	2.33	0.61
1:C:2432:GLU:O	1:C:2436:LEU:HD13	2.00	0.61
1:F:5506:GLU:HG2	1:F:5511:ARG:CD	2.30	0.61
1:F:5051:GLN:NE2	1:F:5051:GLN:HA	2.15	0.61
1:F:5044:GLU:O	1:F:5048:LEU:HD23	2.00	0.61
1:H:7487:SER:O	1:H:7490:VAL:HG23	2.00	0.61
1:F:5537:ASN:HD22	1:F:5537:ASN:N	1.97	0.61
1:C:2440:ARG:HH11	1:C:2440:ARG:HB3	1.65	0.61
1:E:4416:ILE:HD13	1:E:4416:ILE:H	1.64	0.61
1:B:1027:PRO:HA	1:B:1030:LEU:HB2	1.81	0.61
1:A:157:ALA:O	1:A:198:CYS:HA	1.99	0.61
1:C:2162:ASP:O	1:C:2225:ARG:NH2	2.28	0.61
1:D:3120:CYS:SG	1:D:3179:ILE:HG12	2.40	0.61
1:E:4104:ILE:HG13	1:E:4108:MSE:HE2	1.81	0.61
1:G:6369:ALA:HB1	1:G:6373:ILE:CD1	2.30	0.61
1:F:5451:PRO:HA	1:F:5460:PHE:O	2.01	0.61
1:B:1405:ARG:O	1:B:1408:ALA:HB3	2.00	0.61
1:E:4363:GLU:O	1:E:4366:THR:N	2.27	0.61
1:G:6402:ASP:HA	1:G:6405:ARG:HD2	1.82	0.61
1:H:7184:LEU:HA	1:H:7187:TYR:HB2	1.82	0.61
1:C:2469:TYR:CZ	1:C:2516:LEU:HD13	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1112:TYR:CD2	1:B:1113:THR:HG23	2.36	0.61
1:B:1525:ASN:HD22	1:B:1525:ASN:N	1.98	0.61
1:G:6049:GLY:O	1:G:6050:LEU:HD23	1.99	0.61
1:D:3263:PHE:O	1:D:3266:LEU:HB3	2.01	0.61
1:H:7177:MSE:HE1	1:H:7200:PRO:CB	2.26	0.61
1:B:1333:SER:OG	1:B:1336:GLU:HG3	2.01	0.61
1:A:137:ILE:O	1:A:137:ILE:HG13	2.00	0.61
1:A:148:ASP:HA	1:A:245:ARG:HH11	1.64	0.61
1:F:5253:GLN:HE22	1:F:5255:GLU:HG2	1.64	0.61
1:B:1098:ARG:HG3	1:B:1099:ILE:N	2.14	0.61
1:E:4284:ALA:CB	1:E:4322:LEU:HD13	2.29	0.61
1:H:7415:VAL:HG22	1:H:7442:LEU:CD1	2.30	0.61
1:A:387:SER:O	1:A:415:VAL:HG23	2.00	0.61
1:B:1042:LEU:CD2	1:D:3572:TRP:HB2	2.30	0.61
1:F:5174:VAL:HG22	1:F:5218:TYR:CE2	2.36	0.61
1:D:3313:GLY:O	1:D:3315:ALA:N	2.34	0.61
1:C:2376:THR:CG2	1:C:2378:GLU:HB3	2.30	0.61
1:B:1310:LEU:HD22	1:B:1399:PHE:HE2	1.62	0.61
1:B:1443:PHE:CZ	1:B:1445:SER:HB3	2.36	0.61
1:F:5061:GLN:HG3	1:F:5562:TYR:CE1	2.35	0.61
1:B:1275:THR:O	1:B:1486:ILE:HD12	2.01	0.61
1:D:3194:ARG:HB2	1:D:3197:ARG:HG2	1.83	0.61
1:G:6165:ARG:HB2	1:G:6257:PHE:O	2.00	0.61
1:C:2093:GLU:OE1	1:C:2195:PRO:HB2	2.01	0.61
1:H:7503:THR:O	1:H:7507:LEU:HD22	2.01	0.61
1:E:4370:PRO:HD2	1:E:4373:ILE:HD11	1.82	0.61
1:B:1023:GLU:HA	1:B:1023:GLU:OE1	2.00	0.61
1:D:3183:LYS:HG2	1:D:3187:TYR:CE1	2.34	0.61
1:A:244:ASP:N	1:A:248:ARG:NH1	2.48	0.61
1:E:4174:VAL:HG11	1:E:4220:GLY:HA3	1.83	0.61
1:E:4332:LEU:HD21	1:E:4340:LYS:HD2	1.83	0.61
1:G:6401:PRO:HA	1:G:6436:LEU:CD2	2.31	0.61
1:F:5376:THR:HG22	1:F:5378:GLU:N	2.16	0.61
1:F:5402:ASP:HA	1:F:5405:ARG:HG2	1.83	0.61
1:F:5124:GLY:O	1:F:5217:PHE:HB3	2.00	0.61
1:G:6522:VAL:O	1:G:6526:ILE:HG12	2.01	0.61
1:H:7392:VAL:HG12	1:H:7392:VAL:O	2.01	0.61
1:H:7309:PHE:HB2	1:H:7343:MSE:HG3	1.82	0.61
1:G:6109:PRO:HA	1:G:6113:THR:O	2.01	0.61
1:F:5061:GLN:OE1	1:F:5098:ARG:HD3	2.01	0.61
1:F:5139:ASP:OD2	1:F:5146:ILE:HD11	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4470:ILE:C	1:E:4472:PRO:HD2	2.21	0.61
1:G:6264:ARG:HG3	1:G:6265:PHE:N	2.15	0.61
1:B:1024:LYS:O	1:B:1027:PRO:HD2	2.01	0.61
1:A:94:LYS:HD3	1:A:558:TRP:CZ2	2.35	0.61
1:A:79:LEU:O	1:A:79:LEU:HG	2.01	0.61
1:G:6083:ILE:O	1:G:6083:ILE:HG22	2.01	0.61
1:D:3199:LEU:HD12	1:D:3200:PRO:CD	2.30	0.61
1:B:1334:GLU:O	1:B:1337:ALA:HB3	2.00	0.61
1:C:2352:LYS:HB2	1:C:2368:SER:HA	1.83	0.61
1:A:407:MSE:HG3	1:A:414:PRO:CB	2.31	0.61
1:E:4377:PHE:O	1:E:4381:VAL:HG23	2.01	0.61
1:H:7044:GLU:O	1:H:7048:LEU:HB2	2.01	0.61
1:F:5197:ARG:HG3	1:F:5197:ARG:NH1	2.16	0.61
1:G:6210:ILE:O	1:G:6214:LYS:HD2	2.01	0.61
1:C:2065:ALA:O	1:C:2068:PHE:HB3	2.01	0.61
1:A:43:GLN:HG2	1:A:47:MSE:HE3	1.81	0.61
1:E:4037:GLY:C	1:E:4039:ALA:H	2.04	0.61
1:G:6397:ARG:HA	1:G:6427:GLU:O	2.01	0.60
1:G:6219:MSE:CG	1:H:7038:MSE:HE1	2.31	0.60
1:B:1210:ILE:O	1:B:1213:LEU:N	2.34	0.60
1:E:4300:LYS:HG2	1:E:4304:GLU:OE1	2.01	0.60
1:A:261:ASN:N	1:A:261:ASN:HD22	1.98	0.60
1:E:4512:LEU:HD12	1:E:4512:LEU:N	2.15	0.60
1:G:6245:ARG:O	1:G:6245:ARG:HG3	2.00	0.60
1:A:487:SER:O	1:A:490:VAL:HG23	2.00	0.60
1:E:4571:GLU:HG3	1:E:4571:GLU:O	1.99	0.60
1:B:1354:ARG:HG3	1:B:1358:ILE:HD11	1.82	0.60
1:B:1359:ASP:OD2	1:B:1362:GLN:N	2.34	0.60
1:G:6100:LEU:HD23	1:G:6189:ALA:HB2	1.83	0.60
1:E:4307:ILE:HG13	1:E:4388:THR:HB	1.82	0.60
1:H:7397:ARG:HA	1:H:7427:GLU:O	2.00	0.60
1:D:3188:THR:HG23	1:D:3193:ILE:O	2.00	0.60
1:D:3169:LEU:HD12	1:D:3169:LEU:N	2.16	0.60
1:F:5496:LYS:O	1:F:5500:SER:OG	2.18	0.60
1:H:7108:MSE:HB3	1:H:7109:PRO:HD3	1.82	0.60
1:H:7374:PRO:HG3	1:H:7380:ALA:HA	1.83	0.60
1:A:194:ARG:HB2	1:A:197:ARG:HG3	1.83	0.60
1:D:3419:LEU:O	1:D:3446:GLY:HA3	2.01	0.60
1:D:3345:ASP:HB2	3:D:3601:NAD:O2B	2.01	0.60
1:B:1354:ARG:NH2	1:B:1356:ALA:HB3	2.16	0.60
1:G:6038:MSE:CE	1:G:6055:PRO:HG2	2.27	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1232:ASP:N	1:B:1232:ASP:OD2	2.30	0.60
1:C:2498:LEU:O	1:C:2501:GLN:HB2	2.02	0.60
1:F:5276:PHE:C	1:F:5276:PHE:CD1	2.74	0.60
1:B:1104:ILE:HG13	1:B:1108:MSE:HE2	1.82	0.60
1:F:5543:TYR:HB2	1:F:5544:PRO:HA	1.83	0.60
1:B:1297:VAL:HG23	1:B:1297:VAL:O	2.01	0.60
1:D:3389:ILE:CG2	1:D:3416:ILE:HG22	2.32	0.60
1:H:7412:GLU:HA	1:H:7440:ARG:HH11	1.65	0.60
1:G:6314:GLU:N	1:G:6317:LEU:CD1	2.65	0.60
1:D:3315:ALA:HB3	1:D:3392:VAL:HG11	1.83	0.60
1:B:1223:GLN:HG2	1:B:1224:LYS:N	2.16	0.60
1:B:1310:LEU:HD23	1:B:1427:GLU:HG3	1.84	0.60
1:E:4338:GLN:HE21	1:E:4364:PRO:HB3	1.64	0.60
1:E:4452:VAL:O	1:E:4459:VAL:HA	2.01	0.60
1:C:2546:PRO:HG2	1:C:2549:LYS:HD2	1.83	0.60
1:G:6154:HIS:CE1	1:G:6156:LYS:HE2	2.35	0.60
1:F:5448:PRO:HB3	1:F:5464:GLN:OE1	2.00	0.60
1:A:101:GLN:HB2	1:A:520:GLN:HE22	1.66	0.60
1:H:7468:VAL:O	1:H:7468:VAL:HG22	2.01	0.60
1:F:5456:ASP:OD1	1:F:5456:ASP:N	2.33	0.60
1:C:2351:VAL:HG22	1:C:2367:HIS:O	2.02	0.60
1:A:308:LEU:O	1:A:389:ILE:HD12	2.02	0.60
1:A:323:ILE:HG21	1:A:341:ILE:HD11	1.82	0.60
1:G:6491:PHE:O	1:G:6492:LEU:C	2.40	0.60
1:H:7159:VAL:HG23	1:H:7184:LEU:HD11	1.82	0.60
1:D:3166:ILE:HG22	1:D:3166:ILE:O	2.01	0.60
1:H:7389:ILE:HD12	1:H:7390:ILE:N	2.17	0.60
1:H:7416:ILE:O	1:H:7416:ILE:HG12	2.01	0.60
1:G:6351:VAL:O	1:G:6366:THR:HG22	2.01	0.60
1:A:392:VAL:CG2	1:A:419:LEU:HD23	2.29	0.60
1:E:4453:LYS:CE	1:E:4457:GLY:HA2	2.32	0.60
1:E:4359:ASP:OD2	1:E:4362:GLN:N	2.34	0.60
1:H:7531:THR:OG1	1:H:7532:GLU:N	2.35	0.60
1:F:5412:GLU:O	1:F:5440:ARG:HD2	2.01	0.60
1:E:4370:PRO:HD2	1:E:4373:ILE:CD1	2.31	0.60
1:H:7535:TYR:O	1:H:7538:LYS:N	2.32	0.60
1:G:6243:THR:HA	1:G:6247:GLY:O	2.00	0.60
1:E:4123:TYR:CD2	1:E:4219:MSE:HE1	2.37	0.60
1:E:4432:GLU:O	1:E:4436:LEU:HB2	2.02	0.60
1:D:3243:THR:HA	1:D:3247:GLY:O	2.02	0.60
1:B:1261:ASN:HD22	1:B:1261:ASN:N	1.96	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2399:PHE:HB2	1:C:2427:GLU:O	2.01	0.60
1:D:3453:LYS:HG2	1:D:3459:VAL:HG13	1.84	0.60
1:A:89:GLN:O	1:A:91:ARG:N	2.34	0.60
1:D:3215:ASP:OD1	1:D:3216:PRO:HD2	2.02	0.60
1:H:7158:VAL:HG22	1:H:7199:LEU:HD23	1.82	0.60
1:D:3505:GLU:OE2	1:D:3505:GLU:N	2.29	0.60
1:D:3352:LYS:N	1:D:3367:HIS:O	2.33	0.60
1:D:3276:PHE:HB3	1:D:3486:ILE:HD12	1.83	0.60
1:D:3122:GLN:HA	1:D:3122:GLN:HE21	1.66	0.60
1:E:4120:CYS:SG	1:E:4179:ILE:HG12	2.41	0.60
1:B:1420:SER:HB3	1:B:1425:GLN:HB3	1.82	0.60
1:B:1116:VAL:HG13	1:B:1117:GLY:H	1.67	0.60
1:A:259:ASN:H	1:A:259:ASN:ND2	2.00	0.60
1:H:7302:ILE:O	1:H:7304:GLU:N	2.35	0.60
1:E:4067:ARG:HB2	1:F:5217:PHE:CE1	2.37	0.60
1:G:6075:MSE:HG2	1:G:6080:GLU:HG2	1.82	0.60
1:H:7493:GLU:HA	1:H:7496:LYS:CD	2.31	0.60
1:G:6108:MSE:N	1:G:6109:PRO:HD2	2.17	0.60
1:H:7144:ARG:HH12	1:H:7244:ASP:HB3	1.66	0.60
1:F:5376:THR:HG21	1:F:5378:GLU:OE2	2.02	0.60
1:F:5068:PHE:CZ	1:F:5085:ILE:HD12	2.37	0.60
1:F:5310:LEU:O	1:F:5344:PHE:O	2.20	0.60
1:C:2238:PHE:CE1	1:C:2242:ILE:HG13	2.37	0.60
1:B:1103:ASP:CG	1:B:1106:SER:HG	2.05	0.60
1:B:1164:GLU:HG3	1:B:1225:ARG:CZ	2.32	0.60
1:F:5176:GLY:C	1:F:5178:GLY:H	2.06	0.60
1:H:7286:VAL:HG13	1:H:7470:ILE:CD1	2.32	0.59
1:A:273:TYR:HB3	4:A:8050:HOH:O	2.02	0.59
1:C:2338:GLN:HA	1:C:2341:ILE:HG13	1.84	0.59
1:A:376:THR:CG2	1:A:378:GLU:H	2.14	0.59
1:C:2317:LEU:HD23	1:C:2361:TYR:HB3	1.85	0.59
1:A:277:ASN:O	1:A:281:GLN:HB2	2.02	0.59
1:H:7310:LEU:O	1:H:7344:PHE:O	2.21	0.59
1:F:5411:ASN:HD22	1:F:5414:PRO:HB3	1.66	0.59
1:B:1483:THR:HG21	1:B:1534:LEU:HD22	1.84	0.59
1:A:26:LYS:O	1:A:29:MSE:N	2.34	0.59
1:C:2182:GLY:O	1:C:2185:CYS:HB2	2.02	0.59
1:A:535:TYR:OH	1:A:546:PRO:HD2	2.02	0.59
1:G:6352:LYS:HG3	1:G:6368:SER:CA	2.30	0.59
1:C:2377:PHE:CZ	1:C:2389:ILE:HD11	2.37	0.59
1:G:6103:ASP:O	1:G:6107:LEU:HD23	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:416:ILE:HD13	1:A:416:ILE:H	1.67	0.59
1:E:4384:LEU:O	1:E:4385:LYS:HE2	2.02	0.59
1:H:7266:LEU:HD12	1:H:7266:LEU:O	2.02	0.59
1:C:2303:SER:C	1:C:2340:LYS:HZ3	2.05	0.59
1:H:7060:THR:H	1:H:7063:ILE:CD1	2.15	0.59
1:D:3521:GLU:HA	1:D:3524:ILE:HD12	1.84	0.59
1:D:3295:GLN:NE2	1:D:3305:HIS:HE1	1.99	0.59
1:D:3162:ASP:N	1:D:3162:ASP:OD1	2.35	0.59
1:E:4235:ILE:O	1:E:4239:MSE:HG2	2.03	0.59
1:E:4511:ARG:HB2	1:E:4511:ARG:HH11	1.65	0.59
1:A:86:MSE:O	1:A:89:GLN:HB3	2.01	0.59
1:D:3402:ASP:HA	1:D:3405:ARG:HG2	1.84	0.59
1:H:7416:ILE:HD12	1:H:7441:CYS:HB2	1.85	0.59
1:G:6184:LEU:O	1:G:6187:TYR:HB2	2.01	0.59
1:E:4300:LYS:HZ3	1:E:4305:HIS:HA	1.66	0.59
1:A:71:ASN:HD22	1:A:71:ASN:N	1.98	0.59
1:G:6161:THR:HA	1:G:6257:PHE:CE1	2.37	0.59
1:E:4437:THR:C	1:E:4439:GLY:N	2.56	0.59
1:C:2261:ASN:ND2	1:C:2261:ASN:N	2.49	0.59
1:E:4212:LEU:O	1:E:4214:LYS:N	2.35	0.59
1:F:5238:PHE:HE1	1:F:5242:ILE:HD11	1.67	0.59
1:E:4475:ALA:O	1:E:4479:ILE:HG12	2.02	0.59
1:D:3376:THR:HG21	1:D:3378:GLU:HG2	1.83	0.59
1:A:269:TYR:HB3	1:A:273:TYR:HD1	1.66	0.59
1:B:1320:ALA:HA	1:B:1323:ILE:HD12	1.84	0.59
1:F:5061:GLN:HA	1:F:5064:GLN:HG3	1.83	0.59
1:B:1135:ILE:CG2	1:B:1143:VAL:HG22	2.32	0.59
1:A:477:ALA:CB	1:A:531:THR:HG22	2.32	0.59
1:C:2210:ILE:CA	1:C:2213:LEU:HD12	2.32	0.59
1:H:7026:LYS:N	1:H:7027:PRO:CD	2.65	0.59
1:C:2469:TYR:OH	1:C:2516:LEU:HD13	2.01	0.59
1:G:6498:LEU:O	1:G:6501:GLN:HB2	2.02	0.59
1:H:7345:ASP:CG	1:H:7347:TYR:H	2.06	0.59
1:G:6062:ASP:OD1	1:G:6098:ARG:NH2	2.33	0.59
1:D:3207:THR:O	1:D:3224:LYS:HA	2.03	0.59
1:E:4116:VAL:HG13	1:E:4117:GLY:N	2.18	0.59
1:G:6352:LYS:HG2	1:G:6367:HIS:C	2.22	0.59
1:G:6112:TYR:OH	1:G:6183:LYS:HE2	2.01	0.59
1:G:6045:ARG:NH1	1:G:6058:ILE:HD13	2.17	0.59
1:B:1240:LYS:HA	1:B:1243:THR:OG1	2.02	0.59
1:C:2210:ILE:HG22	1:C:2214:LYS:CD	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3333:SER:HB3	1:D:3336:GLU:OE1	2.02	0.59
1:F:5283:THR:O	1:F:5286:VAL:HG23	2.03	0.59
1:E:4239:MSE:HE3	1:E:4273:TYR:CD1	2.38	0.59
1:F:5454:LEU:HD12	1:F:5454:LEU:H	1.66	0.59
1:G:6174:VAL:HG21	1:G:6219:MSE:C	2.23	0.59
1:A:458:ARG:HB3	1:A:460:PHE:CE1	2.37	0.59
1:A:419:LEU:H	1:A:419:LEU:CD2	2.10	0.59
1:G:6276:PHE:C	1:G:6276:PHE:CD1	2.76	0.59
1:B:1401:PRO:CA	1:B:1404:ILE:HD12	2.32	0.59
1:C:2300:LYS:HG2	1:C:2304:GLU:CD	2.23	0.59
1:C:2416:ILE:HD13	1:C:2416:ILE:N	2.15	0.59
1:F:5253:GLN:HG3	1:F:5276:PHE:CE2	2.38	0.59
1:C:2253:GLN:HG3	1:C:2276:PHE:CE2	2.38	0.59
1:D:3342:TRP:CZ3	1:D:3351:VAL:HG23	2.32	0.59
1:H:7298:ILE:HD11	1:H:7442:LEU:HD21	1.85	0.59
1:D:3165:ARG:HA	1:D:3170:GLY:HA2	1.84	0.59
1:D:3240:LYS:O	1:D:3244:ASP:HB2	2.03	0.59
1:H:7207:THR:HG22	1:H:7213:LEU:HD21	1.83	0.59
1:G:6310:LEU:HD21	1:G:6398:LEU:HB3	1.85	0.59
1:B:1343:MSE:O	1:B:1350:LEU:HB2	2.03	0.59
1:B:1300:LYS:NZ	1:B:1305:HIS:HA	2.18	0.59
1:B:1491:PHE:O	1:B:1494:ALA:HB3	2.02	0.59
1:F:5332:LEU:HD23	1:F:5336:GLU:HB2	1.84	0.59
1:C:2422:PRO:C	1:C:2424:ALA:N	2.56	0.59
1:C:2354:ARG:HE	1:C:2356:ALA:HB3	1.67	0.59
1:B:1046:GLN:HG3	1:B:1051:GLN:HG3	1.85	0.59
1:D:3184:LEU:O	1:D:3187:TYR:HB2	2.02	0.59
1:A:309:PHE:CE1	1:A:390:ILE:HG13	2.38	0.59
1:A:388:THR:HG23	1:A:415:VAL:HB	1.83	0.59
1:E:4301:PRO:HD2	1:E:4304:GLU:OE1	2.03	0.59
1:B:1144:ARG:HH11	1:B:1244:ASP:HB3	1.67	0.59
1:C:2132:GLY:HA3	1:C:2177:MSE:CE	2.33	0.59
1:B:1440:ARG:HB3	1:B:1440:ARG:HH11	1.68	0.59
1:A:308:LEU:HD12	1:A:309:PHE:N	2.17	0.59
1:E:4332:LEU:HD11	1:E:4340:LYS:HZ1	1.67	0.59
1:G:6079:LEU:HD13	1:G:6118:LEU:CD2	2.29	0.59
1:G:6402:ASP:HA	1:G:6405:ARG:HG2	1.85	0.59
1:G:6478:VAL:HG12	1:G:6479:ILE:N	2.17	0.59
1:E:4266:LEU:O	1:E:4270:ARG:CB	2.50	0.59
1:G:6260:HIS:CE1	1:G:6264:ARG:HE	2.20	0.59
1:A:451:PRO:CA	1:A:460:PHE:O	2.49	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2261:ASN:HB3	1:C:2265:PHE:CE1	2.38	0.58
1:D:3343:MSE:O	1:D:3350:LEU:HB2	2.02	0.58
1:C:2499:THR:O	1:C:2501:GLN:N	2.34	0.58
1:C:2238:PHE:CE1	1:C:2242:ILE:CG1	2.86	0.58
1:F:5512:LEU:H	1:F:5512:LEU:HD12	1.67	0.58
1:D:3359:ASP:OD2	1:D:3362:GLN:N	2.36	0.58
1:G:6196:ASP:OD1	1:G:6196:ASP:N	2.34	0.58
1:F:5239:MSE:HE2	1:F:5273:TYR:CD1	2.37	0.58
1:E:4416:ILE:HG12	1:E:4443:PHE:CD1	2.37	0.58
1:C:2106:SER:O	1:C:2109:PRO:HD2	2.03	0.58
1:F:5431:GLU:C	1:F:5433:ALA:H	2.04	0.58
1:H:7104:ILE:HG13	1:H:7108:MSE:CE	2.33	0.58
1:A:243:THR:CG2	1:A:248:ARG:HA	2.31	0.58
1:H:7533:TYR:CD2	1:H:7533:TYR:C	2.76	0.58
1:H:7177:MSE:O	1:H:7181:VAL:HG23	2.04	0.58
1:C:2313:GLY:O	1:C:2315:ALA:N	2.36	0.58
1:B:1419:LEU:N	1:B:1419:LEU:HD22	2.17	0.58
1:A:303:SER:HA	1:A:340:LYS:NZ	2.18	0.58
1:H:7531:THR:O	1:H:7532:GLU:C	2.42	0.58
1:D:3166:ILE:CG2	1:D:3172:LEU:HD12	2.33	0.58
1:H:7194:ARG:HG3	1:H:7197:ARG:NH1	2.17	0.58
1:F:5238:PHE:CE1	1:F:5242:ILE:HD11	2.39	0.58
1:H:7209:ASN:O	1:H:7212:LEU:HB2	2.04	0.58
1:H:7093:GLU:OE1	1:H:7195:PRO:HB2	2.02	0.58
1:B:1402:ASP:O	1:B:1405:ARG:HG2	2.03	0.58
1:E:4456:ASP:OD1	1:E:4458:ARG:HB2	2.04	0.58
1:F:5352:LYS:N	1:F:5367:HIS:O	2.34	0.58
1:F:5261:ASN:HB3	1:F:5265:PHE:CE1	2.38	0.58
1:G:6536:ALA:HA	1:G:6538:LYS:NZ	2.18	0.58
1:D:3280:ILE:CD1	4:D:8022:HOH:O	2.51	0.58
1:B:1370:PRO:HD2	1:B:1373:ILE:HD11	1.85	0.58
1:C:2352:LYS:HG3	1:C:2368:SER:HA	1.85	0.58
1:C:2376:THR:HB	1:C:2379:ASP:H	1.68	0.58
1:B:1416:ILE:O	1:B:1416:ILE:HG12	2.01	0.58
1:A:412:GLU:O	1:A:413:ARG:HG2	2.03	0.58
1:H:7280:ILE:HG22	1:H:7281:GLN:N	2.19	0.58
1:H:7566:LEU:HD22	1:H:7567:PRO:HD2	1.84	0.58
1:G:6086:MSE:CA	1:G:6086:MSE:CE	2.79	0.58
1:E:4505:GLU:H	1:E:4505:GLU:CD	2.06	0.58
1:E:4559:ARG:HB3	1:E:4561:GLU:HG2	1.86	0.58
1:A:194:ARG:O	1:A:197:ARG:HB2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6122:GLN:O	1:G:6125:HIS:HB2	2.04	0.58
1:C:2387:SER:O	1:C:2415:VAL:HG23	2.03	0.58
1:E:4421:ASN:HB3	1:E:4422:PRO:HA	1.85	0.58
1:A:481:CYS:SG	1:A:531:THR:HB	2.44	0.58
1:A:402:ASP:HA	1:A:405:ARG:CD	2.29	0.58
1:C:2453:LYS:HE3	1:C:2457:GLY:HA2	1.83	0.58
1:B:1133:LEU:HD13	1:B:1150:TRP:CE3	2.39	0.58
1:G:6279:ASP:OD1	1:G:6279:ASP:N	2.37	0.58
1:B:1346:LYS:HD2	1:B:1347:TYR:CE2	2.39	0.58
1:G:6038:MSE:O	1:G:6045:ARG:NH2	2.37	0.58
1:H:7359:ASP:OD2	1:H:7362:GLN:N	2.37	0.58
1:B:1483:THR:OG1	1:B:1534:LEU:HD13	2.04	0.58
1:C:2137:ILE:HA	1:C:2234:LEU:CD2	2.34	0.58
1:B:1041:THR:HG23	1:B:1044:GLU:CG	2.34	0.58
1:A:270:ARG:HG2	1:A:271:GLU:HG2	1.86	0.58
1:D:3404:ILE:HD12	1:D:3436:LEU:HD22	1.84	0.58
1:G:6307:ILE:HG22	1:G:6308:LEU:N	2.18	0.58
1:G:6314:GLU:N	1:G:6317:LEU:HD13	2.19	0.58
1:C:2342:TRP:HZ3	1:C:2351:VAL:HG23	1.69	0.58
1:D:3082:TYR:O	1:D:3085:ILE:HG22	2.04	0.58
1:E:4317:LEU:N	1:E:4317:LEU:HD12	2.19	0.58
1:F:5065:ALA:O	1:F:5068:PHE:HB3	2.03	0.58
1:C:2523:SER:HA	1:C:2526:ILE:HD12	1.86	0.58
1:E:4293:ALA:HB3	1:E:4512:LEU:HB3	1.85	0.58
1:D:3094:LYS:HB3	1:D:3562:TYR:CE2	2.39	0.58
1:G:6300:LYS:O	1:G:6302:ILE:N	2.36	0.58
1:G:6352:LYS:HG2	1:G:6367:HIS:O	2.03	0.58
1:B:1137:ILE:HG22	1:B:1221:LEU:HD23	1.86	0.58
1:B:1458:ARG:HB3	1:B:1460:PHE:CZ	2.39	0.58
1:A:288:LEU:HD22	1:A:322:LEU:HD23	1.86	0.58
1:A:309:PHE:HD2	1:A:343:MSE:HG3	1.68	0.58
1:E:4397:ARG:HA	1:E:4427:GLU:O	2.03	0.58
1:E:4526:ILE:O	1:E:4530:VAL:HG23	2.04	0.58
1:C:2044:GLU:O	1:C:2048:LEU:HD23	2.03	0.58
1:B:1525:ASN:HA	1:B:1528:ILE:HG13	1.84	0.58
1:F:5085:ILE:HG23	1:F:5086:MSE:HE2	1.85	0.58
1:C:2270:ARG:HG3	1:C:2271:GLU:H	1.69	0.58
1:E:4315:ALA:CB	1:E:4392:VAL:HG11	2.33	0.58
1:D:3543:TYR:C	1:D:3543:TYR:CD2	2.77	0.58
1:H:7046:GLN:HG3	1:H:7051:GLN:HG3	1.86	0.58
1:A:176:GLY:C	1:A:178:GLY:H	2.06	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2537:ASN:HD22	1:C:2537:ASN:N	2.02	0.58
1:C:2327:MSE:HE1	1:C:2337:ALA:O	2.03	0.58
1:C:2383:ILE:O	1:C:2385:LYS:NZ	2.35	0.58
1:E:4374:PRO:CB	1:E:4383:ILE:HD12	2.34	0.58
1:F:5494:ALA:O	1:F:5497:ALA:HB3	2.04	0.58
1:A:253:GLN:HG3	1:A:276:PHE:CE2	2.39	0.58
1:E:4400:THR:O	1:E:4403:VAL:HB	2.04	0.58
1:H:7300:LYS:O	1:H:7302:ILE:N	2.36	0.58
1:B:1093:GLU:O	1:B:1094:LYS:C	2.41	0.58
1:E:4155:VAL:HB	1:E:4246:TYR:CD2	2.39	0.58
1:D:3351:VAL:HG21	1:D:3370:PRO:HD3	1.85	0.57
1:A:466:ASN:CB	1:A:468:VAL:HG12	2.31	0.57
1:A:528:ILE:O	1:A:532:GLU:HG3	2.04	0.57
1:G:6350:LEU:HD22	1:G:6354:ARG:NH1	2.19	0.57
1:G:6354:ARG:HG3	1:G:6356:ALA:H	1.68	0.57
1:H:7086:MSE:CE	1:H:7086:MSE:HA	2.33	0.57
1:A:298:ILE:HD11	1:A:442:LEU:CD1	2.31	0.57
1:A:315:ALA:O	1:A:319:ILE:HD12	2.04	0.57
1:G:6537:ASN:O	1:G:6539:MSE:HG3	2.04	0.57
1:H:7354:ARG:HG2	1:H:7358:ILE:HD11	1.86	0.57
1:H:7303:SER:O	1:H:7340:LYS:HE3	2.03	0.57
1:G:6289:ALA:O	1:G:6499:THR:OG1	2.21	0.57
1:A:175:TYR:OH	1:A:218:TYR:HA	2.04	0.57
1:E:4289:ALA:HA	1:E:4499:THR:OG1	2.04	0.57
1:E:4133:LEU:HD12	1:F:5052:GLY:O	2.04	0.57
1:D:3106:SER:C	1:D:3109:PRO:HD2	2.24	0.57
1:C:2227:ARG:NH1	1:C:2227:ARG:CG	2.61	0.57
1:C:2411:ASN:HD22	1:C:2414:PRO:HB3	1.69	0.57
1:A:417:PHE:CE2	1:A:444:ALA:HB3	2.39	0.57
1:D:3077:SER:OG	1:D:3080:GLU:HB2	2.04	0.57
1:D:3335:GLN:O	1:D:3339:LYS:HB2	2.03	0.57
1:E:4163:GLY:O	1:E:4171:ASP:HA	2.04	0.57
1:G:6060:THR:H	1:G:6063:ILE:HD12	1.69	0.57
1:A:424:ALA:HB3	1:A:425:GLN:HE21	1.68	0.57
1:G:6205:VAL:HG21	1:G:6231:TYR:HE1	1.69	0.57
1:E:4309:PHE:HB2	1:E:4343:MSE:HG2	1.86	0.57
1:A:397:ARG:N	1:A:397:ARG:HD2	2.19	0.57
1:F:5176:GLY:C	1:F:5178:GLY:N	2.54	0.57
1:B:1041:THR:HG23	1:B:1044:GLU:CD	2.25	0.57
1:D:3553:VAL:O	1:D:3555:GLU:N	2.37	0.57
1:D:3258:GLY:O	1:D:3259:ASN:C	2.42	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:187:TYR:O	1:A:193:ILE:HD12	2.04	0.57
1:A:572:TRP:NE1	1:D:3138:SER:O	2.38	0.57
1:A:144:ARG:HH12	1:A:244:ASP:HB3	1.70	0.57
1:C:2257:PHE:CB	1:C:2262:ALA:HB2	2.34	0.57
1:F:5320:ALA:HB1	1:F:5365:PHE:CZ	2.40	0.57
1:A:165:ARG:CZ	1:A:259:ASN:HD21	2.16	0.57
1:E:4535:TYR:CD2	1:E:4540:ALA:HB3	2.39	0.57
1:E:4502:LEU:HD12	1:E:4507:LEU:HD22	1.86	0.57
1:A:422:PRO:HD2	1:A:425:GLN:HG2	1.85	0.57
1:A:31:ASN:OD1	1:A:33:ARG:N	2.38	0.57
1:D:3381:VAL:HG13	1:D:3407:MSE:HE1	1.85	0.57
1:G:6247:GLY:O	1:G:6250:THR:HB	2.04	0.57
1:A:324:VAL:O	1:A:327:MSE:N	2.34	0.57
1:E:4295:GLN:HE22	1:E:4305:HIS:CE1	2.23	0.57
1:E:4350:LEU:HD13	1:E:4354:ARG:HD3	1.87	0.57
1:F:5166:ILE:HG23	1:F:5179:ILE:HD11	1.86	0.57
1:H:7159:VAL:HA	1:H:7253:GLN:O	2.05	0.57
1:G:6086:MSE:HE1	1:G:6111:VAL:HG22	1.87	0.57
1:C:2416:ILE:HG12	1:C:2443:PHE:HD1	1.67	0.57
1:G:6030:LEU:HD12	1:H:7030:LEU:HB3	1.85	0.57
1:G:6095:LEU:HG	1:G:6099:ILE:CD1	2.33	0.57
1:H:7511:ARG:HB2	1:H:7511:ARG:HH11	1.68	0.57
1:D:3372:SER:HB2	1:D:3383:ILE:CD1	2.34	0.57
1:E:4179:ILE:HB	1:E:4180:PRO:HD3	1.85	0.57
1:G:6204:ASP:OD2	1:G:6221:LEU:N	2.36	0.57
1:H:7123:TYR:HB3	1:H:7175:TYR:CD2	2.38	0.57
1:C:2323:ILE:HG22	1:C:2327:MSE:HE2	1.86	0.57
1:C:2351:VAL:HG13	1:C:2352:LYS:N	2.18	0.57
1:A:416:ILE:CD1	1:A:441:CYS:HB2	2.34	0.57
1:E:4333:SER:H	1:E:4336:GLU:CD	2.07	0.57
1:C:2123:TYR:HD2	1:C:2219:MSE:CE	2.16	0.57
1:C:2300:LYS:HE2	1:C:2304:GLU:HB2	1.86	0.57
1:B:1122:GLN:HE21	1:B:1122:GLN:HA	1.68	0.57
1:G:6249:ASN:OD1	1:G:6249:ASN:C	2.42	0.57
1:D:3400:THR:HG23	1:D:3403:VAL:HG23	1.87	0.57
1:H:7292:LEU:HB3	1:H:7499:THR:HG21	1.86	0.57
1:H:7497:ALA:O	1:H:7501:GLN:HG2	2.04	0.57
1:G:6281:GLN:HG2	1:G:6491:PHE:CE1	2.38	0.57
1:C:2044:GLU:HA	1:C:2048:LEU:HD23	1.85	0.57
1:F:5210:ILE:HG22	1:F:5214:LYS:HE2	1.86	0.57
1:G:6467:ASN:C	1:G:6469:TYR:N	2.58	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2144:ARG:NH1	1:C:2244:ASP:HB3	2.20	0.57
1:C:2130:PRO:C	1:C:2131:LYS:HG2	2.25	0.57
1:D:3437:THR:O	1:D:3438:GLU:HB2	2.05	0.57
1:D:3137:ILE:C	1:D:3139:ASP:H	2.08	0.57
1:G:6466:ASN:CB	1:G:6468:VAL:HG12	2.35	0.57
1:H:7168:GLY:C	1:H:7169:LEU:HD12	2.26	0.57
1:B:1505:GLU:OE2	1:B:1505:GLU:N	2.38	0.57
1:H:7266:LEU:HD21	1:H:7281:GLN:NE2	2.19	0.57
1:C:2286:VAL:HG11	1:C:2466:ASN:O	2.05	0.57
1:C:2402:ASP:HA	1:C:2405:ARG:HG2	1.87	0.57
1:E:4357:LYS:N	1:E:4357:LYS:HZ2	2.03	0.57
1:A:26:LYS:N	1:A:27:PRO:CD	2.68	0.57
1:E:4549:LYS:O	1:E:4553:VAL:HG23	2.05	0.57
1:D:3135:ILE:HD11	1:D:3143:VAL:HG13	1.87	0.57
1:D:3266:LEU:O	1:D:3266:LEU:HD12	2.05	0.57
1:C:2036:LYS:HG2	1:C:2562:TYR:CE2	2.39	0.57
1:G:6162:ASP:O	1:G:6225:ARG:NH2	2.37	0.57
1:G:6166:ILE:HD13	1:G:6256:ASP:CB	2.34	0.57
1:F:5271:GLU:HA	1:F:5271:GLU:OE1	2.04	0.57
1:D:3255:GLU:OE1	1:D:3256:ASP:N	2.35	0.57
1:G:6312:ALA:CB	1:G:6343:MSE:HE3	2.34	0.57
1:F:5454:LEU:HD12	1:F:5458:ARG:O	2.04	0.57
1:F:5308:LEU:HA	1:F:5342:TRP:O	2.05	0.57
1:A:86:MSE:HE2	1:A:86:MSE:CA	2.35	0.57
1:H:7255:GLU:O	1:H:7257:PHE:N	2.38	0.57
1:D:3199:LEU:HD12	1:D:3200:PRO:N	2.19	0.56
1:G:6177:MSE:CE	1:G:6180:PRO:HB2	2.35	0.56
1:D:3396:GLY:O	1:D:3427:GLU:HA	2.05	0.56
1:C:2414:PRO:HD2	1:C:2441:CYS:HA	1.86	0.56
1:F:5559:ARG:HH11	1:F:5559:ARG:CG	2.18	0.56
1:F:5470:ILE:HD11	1:F:5498:LEU:HD22	1.86	0.56
1:F:5435:THR:OG1	1:F:5436:LEU:HD12	2.05	0.56
1:F:5419:LEU:N	1:F:5419:LEU:HD22	2.18	0.56
1:F:5566:LEU:CD2	1:F:5567:PRO:HD2	2.34	0.56
1:D:3163:GLY:O	1:D:3171:ASP:HA	2.05	0.56
1:A:540:ALA:C	1:A:541:PHE:HD2	2.08	0.56
1:E:4126:ILE:O	1:E:4128:ARG:HD2	2.05	0.56
1:H:7259:ASN:O	1:H:7260:HIS:C	2.43	0.56
1:D:3122:GLN:O	1:D:3125:HIS:HB2	2.05	0.56
1:F:5060:THR:OG1	1:F:5063:ILE:HD12	2.05	0.56
1:D:3443:PHE:O	1:D:3512:LEU:HD13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1391:GLY:CA	1:B:1427:GLU:HG2	2.36	0.56
1:A:412:GLU:C	1:A:440:ARG:HH11	2.08	0.56
1:E:4376:THR:O	1:E:4379:ASP:HB2	2.04	0.56
1:G:6491:PHE:O	1:G:6494:ALA:N	2.38	0.56
1:F:5349:LEU:HD21	1:F:5351:VAL:HG23	1.87	0.56
1:B:1253:GLN:HE22	1:B:1255:GLU:CG	2.18	0.56
1:B:1152:GLU:O	1:B:1246:TYR:OH	2.17	0.56
1:H:7554:LYS:HB3	4:H:8039:HOH:O	2.04	0.56
1:D:3100:LEU:C	1:D:3102:ASP:H	2.09	0.56
1:E:4502:LEU:HD21	1:E:4513:TYR:N	2.20	0.56
1:F:5144:ARG:NH1	1:F:5244:ASP:HB3	2.20	0.56
1:C:2099:ILE:HA	1:C:2102:ASP:HB2	1.88	0.56
1:A:176:GLY:C	1:A:178:GLY:N	2.59	0.56
1:D:3079:LEU:HD11	1:D:3119:ALA:HA	1.87	0.56
1:D:3133:LEU:HD23	1:D:3199:LEU:HD21	1.88	0.56
1:G:6302:ILE:HG22	1:G:6340:LYS:HZ1	1.68	0.56
1:G:6320:ALA:O	1:G:6324:VAL:HG23	2.04	0.56
1:H:7319:ILE:O	1:H:7323:ILE:HG13	2.05	0.56
1:B:1388:THR:CG2	1:B:1415:VAL:HB	2.29	0.56
1:C:2101:GLN:HA	1:C:2104:ILE:HB	1.86	0.56
1:G:6474:VAL:O	1:G:6475:ALA:C	2.42	0.56
1:G:6524:ILE:O	1:G:6527:ALA:HB3	2.04	0.56
1:B:1397:ARG:HD3	1:B:1428:CYS:HA	1.86	0.56
1:B:1504:ASP:HA	1:B:1507:LEU:HB2	1.87	0.56
1:B:1374:PRO:HB3	1:B:1383:ILE:HD12	1.87	0.56
1:A:294:ALA:O	1:A:297:VAL:HG13	2.06	0.56
1:F:5283:THR:HG22	1:F:5284:ALA:N	2.20	0.56
1:G:6207:THR:HG23	1:G:6213:LEU:CD2	2.34	0.56
1:E:4474:VAL:HG12	1:E:4475:ALA:N	2.21	0.56
1:D:3094:LYS:HB3	1:D:3562:TYR:HE2	1.69	0.56
1:E:4155:VAL:HB	1:E:4246:TYR:CG	2.39	0.56
1:B:1161:THR:HA	1:B:1257:PHE:CE1	2.40	0.56
1:E:4228:THR:OG1	1:E:4229:GLN:N	2.37	0.56
1:F:5157:ALA:O	1:F:5198:CYS:HA	2.05	0.56
1:C:2540:ALA:C	1:C:2541:PHE:HD2	2.09	0.56
1:A:78:PRO:HA	1:A:81:LYS:HG3	1.87	0.56
1:D:3308:LEU:HB3	1:D:3389:ILE:CD1	2.35	0.56
1:H:7108:MSE:HB3	1:H:7109:PRO:CD	2.35	0.56
1:A:572:TRP:NE1	1:D:3139:ASP:OD1	2.37	0.56
1:A:143:VAL:O	1:A:147:VAL:HG23	2.05	0.56
1:E:4174:VAL:CG1	1:E:4220:GLY:HA3	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4352:LYS:HG3	1:E:4368:SER:N	2.20	0.56
1:D:3332:LEU:HD22	1:D:3337:ALA:HB2	1.88	0.56
1:H:7305:HIS:O	1:H:7340:LYS:HG2	2.05	0.56
1:A:44:GLU:HG3	1:A:566:LEU:HG	1.86	0.56
1:C:2234:LEU:O	1:C:2234:LEU:HD12	2.04	0.56
1:G:6314:GLU:CA	1:G:6317:LEU:HD13	2.36	0.56
1:G:6378:GLU:HA	1:G:6381:VAL:HB	1.87	0.56
1:G:6413:ARG:HB3	1:G:6442:LEU:HD11	1.87	0.56
1:C:2386:PRO:HB2	1:C:2388:THR:O	2.06	0.56
1:A:300:LYS:HD2	1:A:304:GLU:CD	2.26	0.56
1:B:1143:VAL:O	1:B:1147:VAL:HG23	2.04	0.56
1:F:5363:GLU:HA	1:F:5366:THR:OG1	2.05	0.56
1:A:179:ILE:HB	1:A:180:PRO:HD3	1.88	0.56
1:C:2429:THR:HG23	1:C:2432:GLU:CD	2.26	0.56
1:A:91:ARG:HG3	1:B:1129:ARG:NH2	2.20	0.56
1:H:7416:ILE:CD1	1:H:7441:CYS:HB2	2.36	0.56
1:D:3266:LEU:C	1:D:3266:LEU:HD12	2.25	0.56
1:G:6243:THR:CG2	1:G:6248:ARG:HA	2.35	0.56
1:E:4108:MSE:HB3	1:E:4109:PRO:HD3	1.86	0.56
1:F:5388:THR:HG23	1:F:5415:VAL:CB	2.27	0.56
1:C:2341:ILE:HB	1:C:2365:PHE:HD2	1.70	0.56
1:B:1295:GLN:NE2	1:B:1305:HIS:NE2	2.54	0.56
1:E:4300:LYS:NZ	1:E:4305:HIS:HA	2.20	0.56
1:H:7266:LEU:CD2	1:H:7277:ASN:H	2.19	0.56
1:B:1097:TYR:O	1:B:1100:LEU:HB3	2.06	0.56
1:B:1489:SER:HB2	1:B:1533:TYR:OH	2.06	0.56
1:F:5208:ASP:O	1:F:5210:ILE:HD13	2.05	0.56
1:H:7258:GLY:O	1:H:7260:HIS:N	2.39	0.56
1:H:7430:ALA:O	1:H:7433:ALA:HB3	2.05	0.56
1:D:3352:LYS:CB	1:D:3368:SER:HA	2.36	0.56
1:D:3245:ARG:HD3	1:D:3246:TYR:CE1	2.39	0.56
1:A:187:TYR:O	1:A:191:ALA:HB3	2.05	0.56
1:H:7082:TYR:C	1:H:7082:TYR:CD2	2.78	0.56
1:B:1354:ARG:HE	1:B:1358:ILE:HD11	1.71	0.56
1:B:1287:ALA:O	1:B:1290:GLY:N	2.37	0.56
1:B:1451:PRO:HA	1:B:1460:PHE:O	2.05	0.56
1:E:4381:VAL:O	1:E:4386:PRO:HD3	2.06	0.56
1:B:1133:LEU:HB2	1:B:1199:LEU:HD11	1.87	0.56
1:G:6526:ILE:O	1:G:6530:VAL:HG23	2.05	0.56
1:B:1518:ASN:O	1:B:1522:VAL:HG23	2.04	0.56
1:E:4328:VAL:HG12	1:E:4329:GLU:N	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3412:GLU:HA	1:D:3440:ARG:NH1	2.20	0.56
1:A:143:VAL:HB	1:A:237:GLU:HG2	1.87	0.56
1:B:1166:ILE:HG22	1:B:1166:ILE:O	2.05	0.56
1:G:6527:ALA:O	1:G:6531:THR:HG23	2.06	0.56
1:B:1453:LYS:HA	1:B:1458:ARG:O	2.05	0.56
1:A:407:MSE:HG3	1:A:414:PRO:HB3	1.87	0.56
1:D:3156:LYS:HD2	3:D:3602:NAD:O2B	2.06	0.56
1:C:2123:TYR:HB3	1:C:2175:TYR:CD2	2.41	0.56
1:B:1401:PRO:HB3	1:B:1436:LEU:HD21	1.87	0.56
1:H:7302:ILE:O	1:H:7304:GLU:OE2	2.24	0.56
1:G:6166:ILE:HG21	1:G:6172:LEU:HD12	1.87	0.56
1:G:6261:ASN:O	1:G:6264:ARG:HG2	2.06	0.56
1:G:6549:LYS:O	1:G:6552:TYR:HB3	2.04	0.56
1:G:6384:LEU:O	1:G:6385:LYS:HB2	2.06	0.56
1:D:3432:GLU:HG2	4:D:8007:HOH:O	2.06	0.56
1:A:376:THR:HG22	1:A:378:GLU:H	1.68	0.56
1:E:4308:LEU:HB3	1:E:4389:ILE:HD11	1.87	0.56
1:D:3075:MSE:HG3	1:D:3080:GLU:OE1	2.05	0.56
1:H:7313:GLY:O	1:H:7314:GLU:C	2.44	0.56
1:C:2238:PHE:O	1:C:2242:ILE:HG12	2.06	0.56
1:H:7311:GLY:HA3	1:H:7392:VAL:O	2.06	0.56
1:D:3298:ILE:HD11	1:D:3413:ARG:HB3	1.87	0.56
1:D:3150:TRP:HE1	1:D:3152:GLU:HB2	1.71	0.56
1:G:6205:VAL:HG11	1:G:6231:TYR:HD1	1.71	0.56
1:G:6370:PRO:HD2	1:G:6373:ILE:CD1	2.36	0.56
1:B:1413:ARG:HA	1:B:1440:ARG:O	2.06	0.56
1:G:6490:VAL:O	1:G:6493:GLU:HB3	2.05	0.56
1:B:1165:ARG:HD3	1:B:1258:GLY:HA2	1.88	0.56
1:C:2569:VAL:O	1:C:2570:TYR:HB3	2.06	0.56
1:D:3047:MSE:C	1:D:3048:LEU:HD22	2.26	0.56
1:D:3372:SER:O	1:D:3374:PRO:HD3	2.06	0.55
1:G:6234:LEU:O	1:G:6237:GLU:HB3	2.07	0.55
1:B:1351:VAL:CG2	1:B:1369:ALA:HA	2.33	0.55
1:B:1351:VAL:HG11	1:B:1369:ALA:HB2	1.87	0.55
1:A:451:PRO:HG3	1:A:461:THR:OG1	2.06	0.55
1:A:323:ILE:O	1:A:324:VAL:C	2.43	0.55
1:A:399:PHE:HA	1:A:403:VAL:HG11	1.86	0.55
1:E:4363:GLU:CB	1:E:4364:PRO:HD3	2.35	0.55
1:G:6401:PRO:CA	1:G:6436:LEU:HD21	2.35	0.55
1:G:6253:GLN:NE2	1:G:6278:ASP:CB	2.68	0.55
1:A:559:ARG:HG3	1:A:561:GLU:CG	2.31	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4541:PHE:HE1	1:H:7543:TYR:CE2	2.24	0.55
1:D:3416:ILE:O	1:D:3416:ILE:HG12	2.05	0.55
1:A:475:ALA:O	1:A:479:ILE:HG12	2.06	0.55
1:F:5452:VAL:O	1:F:5459:VAL:HA	2.06	0.55
1:B:1235:ILE:N	1:B:1235:ILE:HD13	2.21	0.55
1:B:1239:MSE:O	1:B:1243:THR:OG1	2.24	0.55
1:B:1239:MSE:HE1	1:B:1252:ILE:HD12	1.87	0.55
1:C:2177:MSE:O	1:C:2181:VAL:HG23	2.06	0.55
1:C:2177:MSE:HE1	1:C:2200:PRO:HG2	1.88	0.55
1:F:5351:VAL:HG13	1:F:5352:LYS:N	2.21	0.55
1:F:5286:VAL:HG21	1:F:5467:ASN:OD1	2.06	0.55
1:F:5302:ILE:HA	1:F:5305:HIS:CE1	2.41	0.55
1:F:5487:SER:OG	1:F:5539:MSE:HE1	2.05	0.55
1:H:7518:ASN:O	1:H:7522:VAL:HG23	2.05	0.55
1:C:2153:ASN:O	1:C:2246:TYR:HE2	1.88	0.55
1:A:431:GLU:OE2	1:A:435:THR:HG21	2.07	0.55
1:D:3378:GLU:O	1:D:3381:VAL:HB	2.07	0.55
1:D:3309:PHE:CD1	1:D:3390:ILE:HB	2.42	0.55
1:H:7437:THR:HG21	1:H:7441:CYS:HB3	1.89	0.55
1:G:6407:MSE:HA	1:G:6410:ILE:HD12	1.88	0.55
1:B:1425:GLN:NE2	1:B:1425:GLN:N	2.54	0.55
1:D:3210:ILE:O	1:D:3214:LYS:HD2	2.06	0.55
1:F:5033:ARG:NE	1:F:5093:GLU:OE1	2.39	0.55
1:D:3320:ALA:O	1:D:3324:VAL:HG23	2.07	0.55
1:D:3350:LEU:HD22	1:D:3354:ARG:HH12	1.70	0.55
1:F:5327:MSE:HE2	1:F:5341:ILE:HD11	1.87	0.55
1:H:7397:ARG:HA	1:H:7427:GLU:C	2.27	0.55
1:D:3521:GLU:N	1:D:3524:ILE:HD12	2.21	0.55
1:C:2103:ASP:OD2	1:C:2106:SER:HB2	2.05	0.55
1:G:6026:LYS:HD3	1:H:7151:PRO:HG3	1.87	0.55
1:C:2026:LYS:N	1:C:2027:PRO:CD	2.70	0.55
1:C:2559:ARG:HB3	1:C:2561:GLU:HG2	1.88	0.55
1:F:5566:LEU:HD22	1:F:5567:PRO:HD2	1.87	0.55
1:G:6069:HIS:O	1:G:6073:LYS:HB2	2.06	0.55
1:D:3381:VAL:HG13	1:D:3407:MSE:CE	2.36	0.55
1:D:3116:VAL:HG21	1:D:3179:ILE:HD13	1.87	0.55
1:F:5177:MSE:HE3	1:F:5181:VAL:HG23	1.88	0.55
1:G:6358:ILE:HA	1:G:6362:GLN:OE1	2.05	0.55
1:B:1344:PHE:HD1	1:B:1349:LEU:HB2	1.72	0.55
1:A:454:LEU:HD13	1:A:458:ARG:HB2	1.88	0.55
1:B:1502:LEU:CD1	1:B:1506:GLU:HB3	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7317:LEU:H	1:H:7317:LEU:HD12	1.71	0.55
1:C:2174:VAL:HG23	1:C:2219:MSE:HE3	1.88	0.55
1:C:2358:ILE:HG22	1:C:2362:GLN:CB	2.35	0.55
1:F:5050:LEU:O	1:F:5053:LEU:HB2	2.07	0.55
1:A:27:PRO:HA	1:A:30:LEU:HB2	1.87	0.55
1:D:3543:TYR:HB2	1:D:3544:PRO:HA	1.87	0.55
1:D:3376:THR:HG22	1:D:3378:GLU:H	1.72	0.55
1:G:6352:LYS:N	1:G:6367:HIS:O	2.39	0.55
1:A:376:THR:HG22	1:A:379:ASP:H	1.71	0.55
1:E:4416:ILE:N	1:E:4416:ILE:HD13	2.21	0.55
1:B:1401:PRO:HA	1:B:1436:LEU:CD2	2.36	0.55
1:E:4212:LEU:C	1:E:4214:LYS:H	2.10	0.55
1:H:7421:ASN:HB3	1:H:7422:PRO:HA	1.88	0.55
1:F:5423:THR:CG2	1:F:5423:THR:O	2.54	0.55
1:D:3066:LEU:O	1:D:3067:ARG:C	2.44	0.55
1:H:7099:ILE:CA	1:H:7102:ASP:HB2	2.37	0.55
1:C:2384:LEU:O	1:C:2385:LYS:HE2	2.07	0.55
1:A:301:PRO:O	1:A:303:SER:N	2.40	0.55
1:C:2469:TYR:O	1:C:2470:ILE:HD13	2.07	0.55
1:H:7255:GLU:OE2	1:H:7279:ASP:OD1	2.23	0.55
1:D:3264:ARG:HG3	1:D:3265:PHE:H	1.70	0.55
1:F:5058:ILE:HD13	1:F:5058:ILE:N	2.20	0.55
1:G:6357:LYS:O	1:G:6358:ILE:HG13	2.07	0.55
1:G:6384:LEU:O	1:G:6385:LYS:HE3	2.07	0.55
1:G:6454:LEU:CD1	1:G:6458:ARG:HB3	2.29	0.55
1:E:4295:GLN:NE2	1:E:4305:HIS:HE1	2.05	0.55
1:E:4301:PRO:O	1:E:4303:SER:N	2.39	0.55
1:H:7133:LEU:HD21	1:H:7146:ILE:HG22	1.89	0.55
1:H:7147:VAL:O	1:H:7245:ARG:NH1	2.37	0.55
1:B:1535:TYR:CD1	1:B:1549:LYS:HE3	2.42	0.55
1:E:4315:ALA:O	1:E:4319:ILE:HD12	2.06	0.55
1:E:4535:TYR:CD2	1:E:4540:ALA:CB	2.89	0.55
1:F:5431:GLU:C	1:F:5433:ALA:N	2.60	0.55
1:F:5564:SER:C	1:F:5565:LEU:HD23	2.27	0.55
1:F:5036:LYS:HB3	1:F:5039:ALA:HB3	1.89	0.55
1:F:5071:ASN:O	1:F:5075:MSE:HE3	2.07	0.55
1:D:3408:ALA:HA	1:D:3414:PRO:HG3	1.88	0.55
1:G:6335:GLN:HA	1:G:6338:GLN:OE1	2.07	0.55
1:B:1210:ILE:N	1:B:1210:ILE:HD13	2.21	0.55
1:A:454:LEU:CD1	1:A:458:ARG:HB2	2.37	0.55
1:G:6024:LYS:CA	1:G:6028:LEU:HD22	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:512:LEU:O	4:A:8037:HOH:O	2.18	0.55
1:A:210:ILE:HA	1:A:213:LEU:HB2	1.88	0.55
1:B:1217:PHE:O	1:B:1218:TYR:C	2.45	0.55
1:G:6172:LEU:O	1:G:6175:TYR:HB2	2.07	0.55
1:B:1072:LEU:HD11	1:B:1081:LYS:HB3	1.89	0.55
1:A:172:LEU:O	1:A:175:TYR:HB2	2.07	0.55
1:F:5293:ALA:O	1:F:5297:VAL:HG13	2.07	0.55
1:H:7376:THR:HG22	1:H:7377:PHE:N	2.22	0.55
1:G:6338:GLN:HG2	1:G:6339:LYS:N	2.20	0.55
1:G:6408:ALA:HA	1:G:6414:PRO:HG3	1.89	0.55
1:B:1427:GLU:N	1:B:1427:GLU:OE1	2.40	0.55
1:D:3210:ILE:O	1:D:3214:LYS:HG3	2.06	0.55
1:E:4453:LYS:HD3	1:E:4457:GLY:HA2	1.88	0.55
1:H:7043:GLN:HG3	1:H:7047:MSE:HE3	1.88	0.55
1:C:2089:GLN:HB2	1:C:2096:PHE:CE1	2.42	0.55
1:E:4253:GLN:HG3	1:E:4276:PHE:CZ	2.42	0.55
1:F:5477:ALA:CB	1:F:5531:THR:HG22	2.36	0.55
1:H:7512:LEU:N	1:H:7512:LEU:CD1	2.70	0.55
1:H:7467:ASN:C	1:H:7469:TYR:H	2.10	0.55
1:D:3269:TYR:HB3	1:D:3273:TYR:CD1	2.42	0.55
1:A:476:LEU:O	1:A:476:LEU:HD12	2.07	0.55
1:G:6357:LYS:HD2	1:G:6357:LYS:N	2.22	0.55
1:B:1295:GLN:NE2	1:B:1305:HIS:CE1	2.75	0.55
1:B:1302:ILE:O	1:B:1305:HIS:N	2.40	0.55
1:E:4174:VAL:O	1:E:4174:VAL:HG23	2.06	0.55
1:A:294:ALA:O	1:A:295:GLN:C	2.46	0.55
1:G:6086:MSE:HE2	1:G:6096:PHE:HE1	1.71	0.55
1:F:5300:LYS:HD3	1:F:5304:GLU:OE2	2.07	0.55
1:C:2288:LEU:O	1:C:2289:ALA:C	2.46	0.55
1:B:1196:ASP:OD1	1:B:1196:ASP:N	2.40	0.55
1:E:4468:VAL:HA	1:E:4471:PHE:CE2	2.42	0.55
1:C:2549:LYS:HA	1:C:2552:TYR:HB3	1.89	0.55
1:H:7313:GLY:HA3	3:H:7601:NAD:O5B	2.07	0.55
1:G:6165:ARG:NE	1:G:6259:ASN:HD21	2.05	0.55
1:B:1082:TYR:O	1:B:1085:ILE:HG22	2.07	0.55
1:E:4133:LEU:HB2	1:E:4199:LEU:HD11	1.88	0.55
1:F:5484:ARG:C	1:F:5485:HIS:ND1	2.61	0.55
1:A:134:PHE:O	1:B:1052:GLY:HA2	2.07	0.55
1:D:3064:GLN:O	1:D:3067:ARG:HB3	2.06	0.54
1:A:154:HIS:O	1:A:197:ARG:HA	2.07	0.54
1:G:6470:ILE:HG22	1:G:6474:VAL:HG21	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7086:MSE:HE2	1:H:7096:PHE:HE1	1.72	0.54
1:C:2388:THR:HG23	1:C:2415:VAL:CG2	2.37	0.54
1:B:1394:GLY:HA2	1:B:1420:SER:CB	2.36	0.54
1:D:3208:ASP:OD2	1:D:3227:ARG:NH2	2.40	0.54
1:A:506:GLU:O	1:A:511:ARG:HG3	2.08	0.54
1:F:5264:ARG:HG3	1:F:5265:PHE:N	2.22	0.54
1:H:7376:THR:HB	1:H:7379:ASP:OD1	2.07	0.54
1:B:1376:THR:CG2	1:B:1378:GLU:HB3	2.37	0.54
1:B:1381:VAL:HG13	1:B:1407:MSE:CE	2.37	0.54
1:G:6363:GLU:HB2	1:G:6364:PRO:CD	2.37	0.54
1:C:2045:ARG:CZ	1:C:2058:ILE:HD13	2.37	0.54
1:B:1289:ALA:HA	1:B:1499:THR:OG1	2.06	0.54
1:C:2522:VAL:O	1:C:2526:ILE:HG13	2.08	0.54
1:F:5212:LEU:C	1:F:5214:LYS:H	2.10	0.54
1:D:3381:VAL:O	1:D:3386:PRO:HD3	2.08	0.54
1:H:7309:PHE:HB2	1:H:7343:MSE:CG	2.38	0.54
1:H:7306:LYS:O	1:H:7386:PRO:HA	2.08	0.54
1:G:6374:PRO:HB3	1:G:6383:ILE:HD12	1.88	0.54
1:G:6108:MSE:HE1	1:G:6519:ILE:HG21	1.88	0.54
1:C:2376:THR:HG21	1:C:2378:GLU:HB3	1.88	0.54
1:B:1435:THR:C	1:B:1437:THR:H	2.10	0.54
1:F:5317:LEU:N	1:F:5317:LEU:HD12	2.13	0.54
1:C:2122:GLN:O	1:C:2123:TYR:C	2.45	0.54
1:F:5300:LYS:O	1:F:5302:ILE:N	2.40	0.54
1:C:2471:PHE:CG	1:C:2472:PRO:HD3	2.41	0.54
1:C:2499:THR:C	1:C:2501:GLN:N	2.60	0.54
1:F:5550:ALA:O	1:F:5554:LYS:HB2	2.07	0.54
1:H:7150:TRP:CD2	1:H:7151:PRO:HD2	2.42	0.54
1:C:2096:PHE:CE2	1:C:2100:LEU:HD23	2.43	0.54
1:E:4315:ALA:HB3	1:E:4392:VAL:CG1	2.37	0.54
1:G:6391:GLY:N	1:G:6417:PHE:O	2.37	0.54
1:D:3253:GLN:HG3	1:D:3276:PHE:CZ	2.42	0.54
1:D:3140:ARG:NH1	1:D:3230:GLN:HG2	2.22	0.54
1:H:7322:LEU:HD11	1:H:7492:LEU:HB2	1.90	0.54
1:A:309:PHE:HD2	1:A:343:MSE:CG	2.20	0.54
1:B:1232:ASP:O	1:B:1235:ILE:N	2.40	0.54
1:B:1104:ILE:HG13	1:B:1108:MSE:CE	2.38	0.54
1:A:270:ARG:CG	1:A:271:GLU:HG2	2.37	0.54
1:D:3164:GLU:O	1:D:3171:ASP:N	2.41	0.54
1:B:1156:LYS:HB3	1:B:1479:ILE:HD12	1.89	0.54
1:D:3351:VAL:HG13	1:D:3352:LYS:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3174:VAL:HG13	1:D:3218:TYR:OH	2.06	0.54
1:D:3133:LEU:HB2	1:D:3199:LEU:HD11	1.89	0.54
1:B:1342:TRP:HZ3	1:B:1351:VAL:HG23	1.72	0.54
1:A:301:PRO:O	1:A:302:ILE:C	2.46	0.54
1:A:313:GLY:O	1:A:315:ALA:N	2.41	0.54
1:E:4317:LEU:HD23	1:E:4361:TYR:HB3	1.90	0.54
1:C:2551:LYS:O	1:C:2551:LYS:HG2	2.08	0.54
1:H:7301:PRO:O	1:H:7302:ILE:C	2.46	0.54
1:E:4067:ARG:HB2	1:F:5217:PHE:HE1	1.72	0.54
1:B:1075:MSE:CG	1:B:1080:GLU:HG2	2.37	0.54
1:C:2244:ASP:HA	1:C:2248:ARG:HH12	1.72	0.54
1:D:3445:SER:HG	1:D:3449:PHE:HD1	1.56	0.54
1:D:3177:MSE:O	1:D:3177:MSE:HE3	2.08	0.54
1:G:6313:GLY:O	3:G:6601:NAD:O2N	2.26	0.54
1:G:6376:THR:HG21	1:G:6378:GLU:OE2	2.07	0.54
1:H:7176:GLY:O	1:H:7178:GLY:N	2.41	0.54
1:B:1376:THR:O	1:B:1380:ALA:N	2.39	0.54
1:B:1502:LEU:HD21	1:B:1512:LEU:C	2.28	0.54
1:F:5559:ARG:HH11	1:F:5559:ARG:HG3	1.72	0.54
1:B:1243:THR:CA	1:B:1247:GLY:O	2.56	0.54
1:F:5146:ILE:O	1:F:5149:ASN:HB2	2.08	0.54
1:G:6086:MSE:HE2	1:G:6096:PHE:CE1	2.42	0.54
1:C:2487:SER:O	1:C:2490:VAL:CG2	2.54	0.54
1:C:2044:GLU:CA	1:C:2048:LEU:HD23	2.37	0.54
1:G:6223:GLN:HG2	1:G:6224:LYS:O	2.08	0.54
1:G:6154:HIS:HB3	1:G:6197:ARG:HD3	1.89	0.54
1:D:3285:ALA:HB1	1:D:3495:ALA:HB2	1.89	0.54
1:D:3494:ALA:O	1:D:3497:ALA:HB3	2.07	0.54
1:B:1385:LYS:HB2	1:B:1385:LYS:NZ	2.23	0.54
1:F:5188:THR:HG23	1:F:5195:PRO:HD3	1.90	0.54
1:F:5103:ASP:HB3	1:F:5107:LEU:CD2	2.38	0.54
1:G:6515:PRO:HG2	1:G:6518:ASN:OD1	2.08	0.54
1:C:2169:LEU:N	1:C:2169:LEU:HD12	2.23	0.54
1:H:7439:GLY:HA2	1:H:7460:PHE:HE2	1.72	0.54
1:D:3184:LEU:HG	1:D:3198:CYS:HB3	1.90	0.54
1:G:6179:ILE:HB	1:G:6180:PRO:HD3	1.89	0.54
1:D:3391:GLY:HA3	1:D:3427:GLU:CD	2.28	0.54
1:B:1312:ALA:CB	1:B:1343:MSE:HE3	2.38	0.54
1:A:308:LEU:HD12	1:A:309:PHE:H	1.72	0.54
1:A:416:ILE:HD13	1:A:416:ILE:N	2.23	0.54
1:E:4327:MSE:HE1	1:E:4337:ALA:O	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1281:GLN:HB3	1:B:1491:PHE:CD2	2.43	0.54
1:C:2177:MSE:HE1	1:C:2200:PRO:HB2	1.90	0.54
1:C:2469:TYR:C	1:C:2470:ILE:HD13	2.28	0.54
1:A:210:ILE:O	1:A:213:LEU:HB2	2.08	0.54
1:C:2269:TYR:HB3	1:C:2273:TYR:HD1	1.73	0.54
1:B:1325:MSE:O	1:B:1328:VAL:HB	2.07	0.54
1:D:3351:VAL:CG2	1:D:3369:ALA:HA	2.35	0.54
1:G:6137:ILE:HG22	1:G:6221:LEU:HD23	1.88	0.54
1:B:1302:ILE:HA	1:B:1305:HIS:CE1	2.43	0.54
1:A:339:LYS:HA	1:A:367:HIS:CE1	2.43	0.54
1:G:6404:ILE:HD13	1:G:6436:LEU:HD22	1.90	0.54
1:F:5467:ASN:C	1:F:5469:TYR:N	2.61	0.54
1:D:3043:GLN:CG	1:D:3566:LEU:HD11	2.33	0.54
1:A:41:THR:O	1:A:45:ARG:HG3	2.07	0.54
1:A:194:ARG:CB	1:A:197:ARG:HG3	2.38	0.54
1:B:1184:LEU:HD23	1:B:1200:PRO:CG	2.38	0.54
1:B:1416:ILE:H	1:B:1416:ILE:HD13	1.72	0.54
1:E:4389:ILE:HG22	1:E:4416:ILE:HA	1.89	0.54
1:E:4072:LEU:HD11	1:E:4081:LYS:HB3	1.90	0.54
1:F:5416:ILE:HD11	1:F:5443:PHE:HB2	1.90	0.54
1:C:2546:PRO:HD2	1:C:2549:LYS:HE3	1.90	0.54
1:C:2271:GLU:HA	1:C:2485:HIS:HD2	1.73	0.54
1:C:2133:LEU:HB3	1:C:2201:VAL:HG22	1.90	0.54
1:F:5147:VAL:O	1:F:5245:ARG:NH1	2.40	0.54
1:C:2243:THR:HB	1:C:2248:ARG:CZ	2.38	0.54
1:A:505:GLU:N	1:A:505:GLU:OE2	2.36	0.54
1:G:6232:ASP:OD2	1:G:6232:ASP:N	2.30	0.54
1:H:7104:ILE:O	1:H:7108:MSE:HB2	2.08	0.54
1:H:7308:LEU:O	1:H:7389:ILE:CD1	2.56	0.54
1:D:3275:THR:C	1:D:3486:ILE:HD11	2.28	0.54
1:A:236:ASP:O	1:A:239:MSE:N	2.41	0.54
1:C:2197:ARG:HH11	1:C:2197:ARG:CG	1.98	0.54
1:F:5059:GLU:HG2	1:F:5063:ILE:HG21	1.90	0.54
1:F:5177:MSE:CE	1:F:5181:VAL:HG23	2.38	0.54
1:A:350:LEU:HD22	1:A:354:ARG:HH12	1.72	0.54
1:D:3227:ARG:HH11	1:D:3227:ARG:HG2	1.72	0.54
1:G:6359:ASP:O	1:G:6363:GLU:OE1	2.26	0.54
1:A:534:LEU:HA	1:A:539:MSE:HG3	1.89	0.54
1:C:2179:ILE:HB	1:C:2180:PRO:CD	2.37	0.54
1:F:5253:GLN:NE2	1:F:5255:GLU:HG2	2.23	0.54
1:C:2418:ALA:HB1	1:C:2427:GLU:H	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4206:GLY:N	1:E:4223:GLN:HE21	2.05	0.54
1:D:3553:VAL:C	1:D:3555:GLU:H	2.11	0.54
1:C:2333:SER:O	1:C:2334:GLU:C	2.47	0.54
1:F:5105:GLU:OE1	1:F:5517:ALA:HB2	2.08	0.54
1:E:4046:GLN:HG3	1:E:4051:GLN:HG3	1.90	0.54
1:A:146:ILE:HD12	1:A:146:ILE:H	1.72	0.53
1:D:3421:ASN:HB2	3:D:3601:NAD:O2D	2.06	0.53
1:B:1319:ILE:HG22	1:B:1323:ILE:HD11	1.89	0.53
1:B:1206:GLY:HA3	1:B:1223:GLN:NE2	2.23	0.53
1:B:1298:ILE:HD12	1:B:1413:ARG:HD3	1.90	0.53
1:A:295:GLN:OE1	1:A:305:HIS:NE2	2.39	0.53
1:E:4332:LEU:HD23	1:E:4337:ALA:CA	2.38	0.53
1:A:527:ALA:O	1:A:531:THR:CG2	2.52	0.53
1:F:5349:LEU:HD23	1:F:5351:VAL:HB	1.90	0.53
1:E:4137:ILE:HG13	1:E:4137:ILE:O	2.07	0.53
1:D:3300:LYS:O	1:D:3302:ILE:N	2.41	0.53
1:A:566:LEU:HD23	1:A:567:PRO:HD2	1.89	0.53
1:E:4502:LEU:CD1	1:E:4506:GLU:HB3	2.37	0.53
1:F:5048:LEU:CD2	1:F:5048:LEU:N	2.70	0.53
1:C:2277:ASN:C	1:C:2277:ASN:OD1	2.47	0.53
1:H:7469:TYR:OH	1:H:7516:LEU:HD12	2.07	0.53
1:B:1347:TYR:HB3	1:B:1356:ALA:CB	2.38	0.53
1:E:4327:MSE:O	1:E:4330:ASN:HB2	2.08	0.53
1:D:3337:ALA:C	1:D:3339:LYS:H	2.11	0.53
1:E:4225:ARG:CG	1:E:4225:ARG:NH1	2.69	0.53
1:D:3300:LYS:HB3	1:D:3304:GLU:OE2	2.07	0.53
1:B:1322:LEU:HG	1:B:1492:LEU:HB2	1.90	0.53
1:F:5169:LEU:N	1:F:5169:LEU:CD1	2.71	0.53
1:H:7261:ASN:N	1:H:7261:ASN:ND2	2.56	0.53
1:C:2503:THR:O	1:C:2507:LEU:CD2	2.56	0.53
1:G:6061:GLN:OE1	1:G:6098:ARG:HD3	2.07	0.53
1:B:1101:GLN:HB3	1:B:1520:GLN:HE22	1.73	0.53
1:A:177:MSE:SE	1:A:202:CYS:HB2	2.58	0.53
1:E:4279:ASP:OD1	1:E:4279:ASP:N	2.32	0.53
1:G:6306:LYS:HD2	1:G:6386:PRO:HA	1.91	0.53
1:H:7489:SER:HB2	1:H:7533:TYR:OH	2.07	0.53
1:C:2308:LEU:O	1:C:2389:ILE:HD12	2.08	0.53
1:E:4174:VAL:HG11	1:E:4220:GLY:CA	2.38	0.53
1:A:306:LYS:HB3	1:A:386:PRO:HA	1.89	0.53
1:F:5309:PHE:CD1	1:F:5390:ILE:HB	2.42	0.53
1:A:104:ILE:HG23	1:A:105:GLU:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3527:ALA:O	1:D:3531:THR:HG23	2.09	0.53
1:C:2266:LEU:HD21	1:C:2281:GLN:NE2	2.22	0.53
1:G:6089:GLN:OE1	1:G:6131:LYS:NZ	2.42	0.53
1:C:2420:SER:HB3	1:C:2425:GLN:HB3	1.91	0.53
1:G:6301:PRO:O	1:G:6303:SER:N	2.42	0.53
1:G:6332:LEU:HD23	1:G:6337:ALA:HA	1.90	0.53
1:G:6381:VAL:CG1	1:G:6407:MSE:HE1	2.38	0.53
1:B:1186:LEU:O	1:B:1187:TYR:C	2.47	0.53
1:E:4425:GLN:NE2	1:E:4425:GLN:N	2.56	0.53
1:H:7029:MSE:HE1	1:H:7053:LEU:HD13	1.90	0.53
1:A:255:GLU:O	1:A:256:ASP:C	2.47	0.53
1:F:5303:SER:CA	1:F:5340:LYS:HZ2	2.16	0.53
1:F:5379:ASP:O	1:F:5383:ILE:HG13	2.08	0.53
1:D:3196:ASP:N	1:D:3196:ASP:OD1	2.40	0.53
1:E:4567:PRO:HG3	1:G:6047:MSE:HG3	1.89	0.53
1:E:4128:ARG:HH11	1:E:4128:ARG:HG2	1.74	0.53
1:E:4515:PRO:C	1:E:4517:ALA:H	2.11	0.53
1:D:3280:ILE:HG13	1:D:3314:GLU:OE2	2.08	0.53
1:G:6332:LEU:HD23	1:G:6337:ALA:CA	2.38	0.53
1:G:6420:SER:HB3	1:G:6425:GLN:HB3	1.90	0.53
1:A:267:ARG:HD2	1:A:361:TYR:OH	2.08	0.53
1:H:7553:VAL:C	1:H:7555:GLU:H	2.11	0.53
1:A:66:LEU:HD23	1:B:1217:PHE:CZ	2.43	0.53
1:B:1103:ASP:HB3	1:B:1107:LEU:HD23	1.91	0.53
1:B:1035:ASN:OD1	1:B:1036:LYS:N	2.41	0.53
1:E:4487:SER:O	1:E:4490:VAL:HG23	2.09	0.53
1:D:3352:LYS:CG	1:D:3368:SER:HA	2.39	0.53
1:C:2154:HIS:O	1:C:2197:ARG:HD2	2.08	0.53
1:G:6108:MSE:SE	1:G:6468:VAL:HG21	2.58	0.53
1:B:1420:SER:HB2	1:B:1427:GLU:OE1	2.09	0.53
1:B:1397:ARG:NH1	1:B:1429:THR:HG22	2.24	0.53
1:E:4024:LYS:O	1:E:4027:PRO:HD2	2.08	0.53
1:D:3482:ASN:ND2	1:D:3482:ASN:N	2.56	0.53
1:C:2417:PHE:CD2	1:C:2444:ALA:HB3	2.43	0.53
1:H:7232:ASP:N	1:H:7232:ASP:OD2	2.41	0.53
1:D:3351:VAL:HG11	1:D:3369:ALA:HB2	1.90	0.53
1:D:3239:MSE:SE	1:D:3252:ILE:HG21	2.57	0.53
1:D:3183:LYS:NZ	1:D:3255:GLU:OE2	2.40	0.53
1:B:1416:ILE:HD12	1:B:1441:CYS:HB2	1.91	0.53
1:A:302:ILE:HA	1:A:305:HIS:CE1	2.44	0.53
1:E:4308:LEU:HD12	1:E:4309:PHE:H	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6042:LEU:O	1:G:6045:ARG:HB2	2.08	0.53
1:H:7245:ARG:HD3	1:H:7246:TYR:CE1	2.43	0.53
1:F:5300:LYS:NZ	1:F:5304:GLU:HB2	2.24	0.53
1:B:1283:THR:O	1:B:1284:ALA:C	2.47	0.53
1:G:6207:THR:OG1	1:G:6208:ASP:N	2.41	0.53
1:B:1167:LEU:C	1:B:1169:LEU:H	2.12	0.53
1:D:3060:THR:O	1:D:3064:GLN:HG3	2.09	0.53
1:D:3389:ILE:HG23	1:D:3399:PHE:CE1	2.44	0.53
1:B:1440:ARG:HB3	1:B:1440:ARG:NH1	2.24	0.53
1:A:370:PRO:HG2	1:A:372:SER:O	2.09	0.53
1:E:4363:GLU:HA	1:E:4366:THR:OG1	2.09	0.53
1:E:4437:THR:O	1:E:4439:GLY:N	2.42	0.53
1:B:1262:ALA:O	1:B:1266:LEU:HB2	2.09	0.53
1:H:7244:ASP:N	1:H:7248:ARG:HH11	2.05	0.53
1:C:2439:GLY:CA	1:C:2460:PHE:HE2	2.13	0.53
1:C:2175:TYR:CD2	1:C:2219:MSE:HE2	2.44	0.53
1:H:7553:VAL:C	1:H:7555:GLU:N	2.62	0.53
1:D:3193:ILE:HG22	1:D:3194:ARG:N	2.23	0.53
1:C:2086:MSE:CE	1:C:2111:VAL:HG13	2.39	0.53
1:H:7127:PHE:CD2	1:H:7128:ARG:N	2.77	0.53
1:G:6245:ARG:HG2	1:G:6246:TYR:CD1	2.43	0.53
1:F:5026:LYS:N	1:F:5027:PRO:HD2	2.24	0.53
1:G:6390:ILE:HG23	1:G:6419:LEU:HD21	1.91	0.53
1:B:1470:ILE:C	1:B:1472:PRO:HD2	2.29	0.53
1:E:4218:TYR:O	1:F:5057:LYS:NZ	2.40	0.53
1:C:2381:VAL:HG22	1:C:2407:MSE:HE1	1.90	0.53
1:B:1254:PHE:O	1:B:1255:GLU:HG2	2.08	0.53
1:H:7059:GLU:HA	1:H:7063:ILE:HD12	1.91	0.53
1:D:3295:GLN:HG3	1:D:3295:GLN:O	2.09	0.53
1:D:3301:PRO:O	1:D:3302:ILE:C	2.46	0.53
1:H:7302:ILE:HG22	1:H:7303:SER:N	2.24	0.53
1:F:5418:ALA:O	1:F:5445:SER:HA	2.09	0.53
1:E:4253:GLN:NE2	1:E:4278:ASP:HB2	2.23	0.53
1:A:66:LEU:HD23	1:B:1217:PHE:HZ	1.74	0.53
1:H:7508:ALA:O	1:H:7509:GLN:C	2.48	0.53
1:H:7295:GLN:HA	1:H:7298:ILE:HB	1.89	0.53
1:E:4166:ILE:HA	1:E:4256:ASP:OD1	2.09	0.53
1:G:6297:VAL:CG2	1:G:6298:ILE:N	2.71	0.53
1:B:1159:VAL:HG11	1:B:1180:PRO:HA	1.91	0.53
1:G:6217:PHE:CE1	1:H:7067:ARG:HB2	2.42	0.53
1:B:1288:LEU:CD1	1:B:1323:ILE:HA	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:MSE:HB3	1:A:109:PRO:HD3	1.89	0.53
1:E:4359:ASP:OD2	1:E:4359:ASP:C	2.46	0.53
1:D:3302:ILE:HA	1:D:3305:HIS:ND1	2.24	0.53
1:C:2402:ASP:HA	1:C:2405:ARG:HD2	1.91	0.53
1:C:2528:ILE:O	1:C:2530:VAL:N	2.42	0.53
1:A:261:ASN:HB3	1:A:265:PHE:CE1	2.44	0.53
1:G:6291:LEU:HD23	1:G:6417:PHE:CE2	2.44	0.53
1:D:3454:LEU:HD13	1:D:3458:ARG:NH1	2.24	0.53
1:D:3351:VAL:HA	1:D:3367:HIS:O	2.09	0.52
1:H:7283:THR:HA	1:H:7467:ASN:ND2	2.24	0.52
1:H:7499:THR:C	1:H:7501:GLN:H	2.13	0.52
1:B:1416:ILE:HG12	1:B:1443:PHE:HD1	1.74	0.52
1:A:319:ILE:O	1:A:321:ASN:N	2.43	0.52
1:B:1274:CYS:SG	1:B:1478:VAL:HG11	2.49	0.52
1:C:2453:LYS:CE	1:C:2457:GLY:HA2	2.39	0.52
1:C:2458:ARG:HH11	1:C:2458:ARG:CB	2.22	0.52
1:C:2045:ARG:HA	1:C:2050:LEU:HB2	1.91	0.52
1:G:6227:ARG:HH11	1:G:6227:ARG:CG	2.22	0.52
1:A:42:LEU:HD21	1:C:2572:TRP:HB2	1.91	0.52
1:H:7194:ARG:HB3	1:H:7197:ARG:HG3	1.90	0.52
1:C:2144:ARG:O	1:C:2148:ASP:OD2	2.27	0.52
1:D:3376:THR:HG22	1:D:3378:GLU:HG2	1.88	0.52
1:A:156:LYS:N	1:A:197:ARG:O	2.42	0.52
1:D:3204:ASP:OD1	1:D:3221:LEU:HD22	2.09	0.52
1:E:4108:MSE:HB3	1:E:4109:PRO:CD	2.39	0.52
1:G:6351:VAL:HG11	1:G:6369:ALA:HB2	1.91	0.52
1:A:286:VAL:O	1:A:289:ALA:HB3	2.09	0.52
1:E:4402:ASP:O	1:E:4406:ALA:N	2.33	0.52
1:E:4453:LYS:HE3	1:E:4457:GLY:HA2	1.92	0.52
1:B:1263:PHE:O	1:B:1266:LEU:HB3	2.09	0.52
1:E:4026:LYS:HG3	1:E:4029:MSE:CE	2.39	0.52
1:C:2399:PHE:CG	1:C:2427:GLU:HB3	2.45	0.52
1:F:5531:THR:HA	1:F:5534:LEU:HD12	1.91	0.52
1:G:6390:ILE:HG22	1:G:6392:VAL:HG23	1.91	0.52
1:D:3480:LEU:CD1	1:D:3553:VAL:HG13	2.38	0.52
1:B:1357:LYS:N	1:B:1357:LYS:HD3	2.24	0.52
1:D:3437:THR:HG21	1:D:3441:CYS:CB	2.23	0.52
1:H:7498:LEU:O	1:H:7501:GLN:N	2.43	0.52
1:E:4104:ILE:HG13	1:E:4108:MSE:CE	2.39	0.52
1:G:6320:ALA:O	1:G:6323:ILE:HB	2.09	0.52
1:G:6376:THR:HB	1:G:6379:ASP:CG	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3396:GLY:HA2	1:D:3425:GLN:HA	1.91	0.52
1:B:1363:GLU:HB2	1:B:1364:PRO:HD3	1.91	0.52
1:A:295:GLN:O	1:A:299:SER:N	2.36	0.52
1:F:5137:ILE:HG23	1:F:5138:SER:N	2.23	0.52
1:G:6210:ILE:N	1:G:6213:LEU:HD12	2.23	0.52
1:A:41:THR:HG23	1:A:44:GLU:CD	2.29	0.52
1:F:5480:LEU:HD13	1:F:5553:VAL:HG22	1.92	0.52
1:A:171:ASP:O	1:A:172:LEU:HD23	2.09	0.52
1:H:7258:GLY:O	1:H:7259:ASN:C	2.47	0.52
1:F:5031:ASN:HB3	1:F:5034:THR:OG1	2.09	0.52
1:A:269:TYR:HB3	1:A:273:TYR:CD1	2.44	0.52
1:A:347:TYR:HB2	1:A:354:ARG:NH2	2.25	0.52
1:A:518:ASN:O	1:A:521:GLU:HG2	2.10	0.52
1:A:503:THR:O	1:A:507:LEU:HD22	2.09	0.52
1:B:1552:TYR:CE1	1:B:1556:ARG:NE	2.77	0.52
1:B:1238:PHE:CE1	1:B:1242:ILE:CG1	2.92	0.52
1:A:176:GLY:O	1:A:178:GLY:N	2.42	0.52
1:E:4038:MSE:SE	1:E:4055:PRO:HG2	2.59	0.52
1:H:7112:TYR:CE2	1:H:7113:THR:HG23	2.44	0.52
1:G:6341:ILE:O	1:G:6367:HIS:NE2	2.43	0.52
1:A:325:MSE:HE1	1:A:489:SER:HA	1.91	0.52
1:E:4335:GLN:HE21	1:E:4339:LYS:HG3	1.74	0.52
1:F:5094:LYS:HD2	1:F:5562:TYR:HA	1.90	0.52
1:A:531:THR:HA	1:A:534:LEU:HD12	1.91	0.52
1:C:2186:LEU:O	1:C:2187:TYR:C	2.47	0.52
1:C:2209:ASN:HB3	1:C:2212:LEU:HB2	1.91	0.52
1:C:2302:ILE:HG22	1:C:2303:SER:N	2.23	0.52
1:H:7531:THR:O	1:H:7534:LEU:HB2	2.10	0.52
1:E:4041:THR:HG23	1:E:4044:GLU:CG	2.38	0.52
1:B:1123:TYR:C	1:B:1125:HIS:H	2.13	0.52
1:B:1041:THR:HG23	1:B:1044:GLU:HG3	1.90	0.52
1:G:6505:GLU:O	1:G:6508:ALA:HB3	2.09	0.52
1:D:3108:MSE:N	1:D:3109:PRO:CD	2.72	0.52
1:G:6133:LEU:HD13	1:G:6150:TRP:CE3	2.44	0.52
1:D:3288:LEU:O	1:D:3292:LEU:N	2.42	0.52
1:B:1352:LYS:HB2	1:B:1368:SER:HA	1.91	0.52
1:C:2380:ALA:O	1:C:2381:VAL:C	2.48	0.52
1:B:1298:ILE:HD11	1:B:1442:LEU:CD1	2.33	0.52
1:B:1444:ALA:HB2	1:B:1512:LEU:HD13	1.92	0.52
1:E:4350:LEU:HD13	1:E:4354:ARG:CD	2.39	0.52
1:E:4402:ASP:O	1:E:4406:ALA:CB	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6493:GLU:HA	1:G:6496:LYS:CD	2.34	0.52
1:C:2257:PHE:HB2	1:C:2262:ALA:HB2	1.92	0.52
1:A:428:CYS:HG	1:A:429:THR:H	1.55	0.52
1:C:2175:TYR:HD2	1:C:2219:MSE:HE2	1.74	0.52
1:C:2569:VAL:CG1	1:C:2570:TYR:N	2.65	0.52
1:E:4041:THR:HG23	1:E:4044:GLU:OE1	2.10	0.52
1:B:1447:SER:HB3	1:B:1448:PRO:HD2	1.91	0.52
1:G:6511:ARG:HB2	1:G:6511:ARG:HH11	1.74	0.52
1:D:3261:ASN:HD22	1:D:3261:ASN:H	1.55	0.52
1:C:2374:PRO:CD	1:C:2383:ILE:HD12	2.39	0.52
1:B:1399:PHE:HA	1:B:1403:VAL:CG1	2.32	0.52
1:G:6492:LEU:CD2	1:G:6496:LYS:HD2	2.40	0.52
1:E:4085:ILE:HA	1:E:4088:ILE:HG12	1.92	0.52
1:H:7047:MSE:O	1:H:7048:LEU:HD13	2.10	0.52
1:F:5303:SER:N	1:F:5340:LYS:NZ	2.58	0.52
1:D:3477:ALA:CB	1:D:3531:THR:HG22	2.34	0.52
1:B:1542:ARG:HD2	1:B:1552:TYR:OH	2.09	0.52
1:G:6290:GLY:O	1:G:6293:ALA:HB3	2.09	0.52
1:F:5570:TYR:CE1	1:H:7046:GLN:NE2	2.78	0.52
1:E:4553:VAL:C	1:E:4555:GLU:H	2.13	0.52
1:E:4515:PRO:C	1:E:4517:ALA:N	2.62	0.52
1:H:7130:PRO:C	1:H:7131:LYS:HG2	2.30	0.52
1:C:2196:ASP:OD1	1:C:2196:ASP:N	2.41	0.52
1:B:1029:MSE:SE	1:B:1050:LEU:HD22	2.59	0.52
1:H:7412:GLU:C	1:H:7413:ARG:HG2	2.29	0.52
1:D:3230:GLN:O	1:D:3233:ASP:HB2	2.10	0.52
1:G:6408:ALA:O	1:G:6411:ASN:O	2.28	0.52
1:G:6298:ILE:HD11	1:G:6413:ARG:HB3	1.92	0.52
1:D:3391:GLY:N	1:D:3417:PHE:O	2.42	0.52
1:F:5327:MSE:CE	1:F:5341:ILE:HD11	2.40	0.52
1:F:5300:LYS:O	1:F:5305:HIS:NE2	2.43	0.52
1:D:3300:LYS:HB2	1:D:3305:HIS:HE2	1.75	0.52
1:D:3302:ILE:O	1:D:3304:GLU:N	2.42	0.52
1:B:1531:THR:OG1	1:B:1532:GLU:N	2.41	0.52
1:B:1546:PRO:O	1:B:1549:LYS:NZ	2.43	0.52
1:F:5209:ASN:OD1	1:F:5211:ALA:HB3	2.09	0.52
1:H:7090:GLU:HG2	1:H:7131:LYS:NZ	2.25	0.52
1:E:4271:GLU:O	1:E:4485:HIS:NE2	2.42	0.52
1:H:7156:LYS:HA	1:H:7156:LYS:HE2	1.92	0.52
1:D:3279:ASP:N	1:D:3279:ASP:OD1	2.42	0.52
1:D:3116:VAL:HG13	1:D:3117:GLY:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4113:THR:HB	1:E:4114:PRO:HA	1.90	0.52
1:G:6143:VAL:O	1:G:6146:ILE:HB	2.09	0.52
1:G:6180:PRO:O	1:G:6184:LEU:HD22	2.10	0.52
1:B:1293:ALA:O	1:B:1296:LYS:HB3	2.10	0.52
1:B:1453:LYS:HB2	1:B:1459:VAL:CG1	2.40	0.52
1:D:3243:THR:HG22	1:D:3248:ARG:HA	1.91	0.52
1:H:7351:VAL:HG11	1:H:7369:ALA:HB2	1.92	0.52
1:D:3194:ARG:HB3	1:D:3197:ARG:HG2	1.92	0.52
1:E:4313:GLY:O	1:E:4315:ALA:N	2.42	0.52
1:F:5481:CYS:SG	1:F:5531:THR:HB	2.50	0.52
1:F:5144:ARG:NH1	1:F:5244:ASP:CB	2.73	0.52
1:E:4108:MSE:N	1:E:4109:PRO:HD2	2.25	0.52
1:D:3418:ALA:HB1	1:D:3427:GLU:HB2	1.90	0.52
1:B:1342:TRP:CZ3	1:B:1351:VAL:HG23	2.44	0.52
1:A:412:GLU:HA	1:A:440:ARG:NH1	2.24	0.52
1:A:317:LEU:HD23	1:A:361:TYR:O	2.10	0.52
1:C:2439:GLY:HA3	1:C:2460:PHE:CE2	2.27	0.52
1:E:4252:ILE:O	1:E:4275:THR:HA	2.10	0.52
1:A:57:LYS:HG3	1:B:1218:TYR:O	2.10	0.52
1:F:5142:HIS:O	1:F:5143:VAL:C	2.49	0.52
1:A:123:TYR:O	1:A:175:TYR:CZ	2.62	0.52
1:A:393:ALA:HA	3:A:601:NAD:O4B	2.10	0.52
1:B:1229:GLN:HG3	1:B:1233:ASP:OD2	2.10	0.52
1:A:394:GLY:HA2	1:A:420:SER:HB3	1.91	0.52
1:B:1154:HIS:O	1:B:1197:ARG:HD3	2.09	0.52
1:H:7519:ILE:O	1:H:7519:ILE:HG13	2.07	0.51
1:A:471:PHE:CD1	1:A:472:PRO:HD3	2.45	0.51
1:G:6302:ILE:HD12	1:G:6302:ILE:N	2.25	0.51
1:G:6416:ILE:CD1	1:G:6416:ILE:N	2.73	0.51
1:B:1350:LEU:HD12	1:B:1366:THR:OG1	2.10	0.51
1:E:4344:PHE:HD1	1:E:4349:LEU:HB2	1.75	0.51
1:E:4310:LEU:HD23	1:E:4427:GLU:HG2	1.91	0.51
1:H:7143:VAL:O	1:H:7147:VAL:HG23	2.10	0.51
1:F:5352:LYS:HG2	1:F:5367:HIS:O	2.10	0.51
1:D:3354:ARG:HG3	1:D:3358:ILE:HD11	1.92	0.51
1:H:7551:LYS:O	1:H:7555:GLU:HB2	2.09	0.51
1:D:3453:LYS:CD	1:D:3457:GLY:HA2	2.40	0.51
1:C:2518:ASN:HB3	1:C:2521:GLU:CD	2.31	0.51
1:A:261:ASN:N	1:A:261:ASN:ND2	2.58	0.51
1:A:264:ARG:HG3	1:A:265:PHE:H	1.73	0.51
1:G:6075:MSE:SE	1:G:6081:LYS:HA	2.61	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6166:ILE:HA	1:G:6256:ASP:OD1	2.10	0.51
1:H:7033:ARG:NH2	1:H:7196:ASP:HA	2.25	0.51
1:E:4037:GLY:O	1:E:4039:ALA:N	2.42	0.51
1:G:6535:TYR:OH	1:G:6545:GLU:HA	2.10	0.51
1:E:4418:ALA:O	1:E:4445:SER:HA	2.10	0.51
1:E:4570:TYR:H	1:G:6046:GLN:HE22	1.58	0.51
1:H:7453:LYS:HD3	1:H:7454:LEU:O	2.11	0.51
1:D:3389:ILE:C	1:D:3390:ILE:HG13	2.30	0.51
1:H:7116:VAL:HG13	1:H:7117:GLY:H	1.73	0.51
1:C:2315:ALA:CB	1:C:2392:VAL:HG11	2.33	0.51
1:B:1301:PRO:O	1:B:1302:ILE:C	2.48	0.51
1:B:1454:LEU:HB2	1:B:1456:ASP:OD1	2.11	0.51
1:A:327:MSE:CE	1:A:337:ALA:HB1	2.31	0.51
1:E:4381:VAL:HG13	1:E:4407:MSE:CE	2.41	0.51
1:F:5350:LEU:HD12	1:F:5366:THR:HG23	1.92	0.51
1:E:4518:ASN:O	1:E:4522:VAL:HG23	2.10	0.51
1:A:281:GLN:HE21	1:A:491:PHE:HE1	1.56	0.51
1:F:5392:VAL:O	1:F:5392:VAL:CG1	2.58	0.51
1:D:3494:ALA:O	1:D:3495:ALA:C	2.47	0.51
1:D:3537:ASN:N	1:D:3537:ASN:ND2	2.58	0.51
1:F:5174:VAL:HG21	1:F:5219:MSE:O	2.10	0.51
1:E:4229:GLN:HA	1:E:4229:GLN:OE1	2.10	0.51
1:E:4487:SER:HB2	1:E:4489:SER:OG	2.10	0.51
1:G:6097:TYR:O	1:G:6101:GLN:HG3	2.09	0.51
1:D:3372:SER:O	1:D:3383:ILE:HG21	2.09	0.51
1:D:3308:LEU:HB3	1:D:3389:ILE:HD12	1.92	0.51
1:H:7376:THR:CG2	1:H:7377:PHE:N	2.73	0.51
1:D:3276:PHE:HB3	1:D:3486:ILE:CD1	2.39	0.51
1:G:6429:THR:O	1:G:6430:ALA:C	2.49	0.51
1:E:4123:TYR:HD2	1:E:4219:MSE:CE	2.23	0.51
1:A:378:GLU:O	1:A:381:VAL:HB	2.10	0.51
1:G:6453:LYS:HA	1:G:6458:ARG:O	2.09	0.51
1:E:4338:GLN:O	1:E:4367:HIS:CE1	2.64	0.51
1:G:6359:ASP:C	1:G:6359:ASP:OD2	2.48	0.51
1:H:7351:VAL:CG2	1:H:7369:ALA:HA	2.41	0.51
1:E:4530:VAL:HG12	1:E:4534:LEU:CD1	2.37	0.51
1:H:7024:LYS:O	1:H:7027:PRO:HD2	2.08	0.51
1:B:1482:ASN:N	1:B:1482:ASN:ND2	2.58	0.51
1:F:5176:GLY:O	1:F:5178:GLY:N	2.43	0.51
1:C:2541:PHE:N	1:C:2541:PHE:CD2	2.75	0.51
1:D:3086:MSE:HE2	1:D:3086:MSE:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1351:VAL:HG13	1:B:1352:LYS:N	2.25	0.51
1:C:2419:LEU:CD2	1:C:2419:LEU:H	2.20	0.51
1:A:285:ALA:HA	1:A:322:LEU:CD2	2.40	0.51
1:E:4350:LEU:HD12	1:E:4366:THR:HG23	1.91	0.51
1:H:7243:THR:HB	1:H:7248:ARG:CD	2.32	0.51
1:C:2432:GLU:HA	1:C:2436:LEU:CD1	2.35	0.51
1:A:512:LEU:CD1	1:A:512:LEU:N	2.70	0.51
1:C:2024:LYS:HA	1:C:2028:LEU:HD22	1.92	0.51
1:F:5082:TYR:O	1:F:5085:ILE:HG22	2.10	0.51
1:C:2524:ILE:O	1:C:2528:ILE:HG12	2.11	0.51
1:D:3107:LEU:O	1:D:3111:VAL:HG23	2.11	0.51
1:B:1325:MSE:HE2	1:B:1492:LEU:HD13	1.92	0.51
1:A:499:THR:C	1:A:501:GLN:H	2.14	0.51
1:C:2244:ASP:CA	1:C:2248:ARG:HH12	2.23	0.51
1:B:1471:PHE:CD1	1:B:1472:PRO:HD3	2.46	0.51
1:H:7156:LYS:O	1:H:7251:LEU:HB3	2.10	0.51
1:H:7389:ILE:CG2	1:H:7416:ILE:HG22	2.40	0.51
1:H:7407:MSE:CG	1:H:7414:PRO:HB2	2.38	0.51
1:D:3133:LEU:HD12	1:D:3134:PHE:H	1.75	0.51
1:G:6342:TRP:CD2	1:G:6384:LEU:HD21	2.45	0.51
1:B:1332:LEU:HG	1:B:1336:GLU:OE2	2.10	0.51
1:A:413:ARG:NH2	1:A:440:ARG:C	2.64	0.51
1:G:6453:LYS:HG3	1:G:6459:VAL:HG13	1.93	0.51
1:E:4416:ILE:O	1:E:4417:PHE:HD1	1.93	0.51
1:C:2051:GLN:HA	1:C:2051:GLN:NE2	2.19	0.51
1:E:4359:ASP:OD2	1:E:4361:TYR:N	2.44	0.51
1:F:5408:ALA:CB	1:F:5437:THR:HG22	2.37	0.51
1:E:4128:ARG:HG2	1:E:4128:ARG:NH1	2.26	0.51
1:D:3047:MSE:O	1:D:3048:LEU:HD22	2.10	0.51
1:D:3095:LEU:O	1:D:3096:PHE:C	2.47	0.51
1:H:7407:MSE:HA	1:H:7407:MSE:HE2	1.93	0.51
1:G:6144:ARG:O	1:G:6148:ASP:OD2	2.28	0.51
1:H:7315:ALA:O	1:H:7319:ILE:HG13	2.09	0.51
1:A:407:MSE:HG3	1:A:414:PRO:HB2	1.92	0.51
1:B:1264:ARG:CG	1:B:1265:PHE:N	2.73	0.51
1:H:7531:THR:O	1:H:7534:LEU:N	2.43	0.51
1:C:2518:ASN:HB3	1:C:2521:GLU:OE2	2.11	0.51
1:E:4511:ARG:HH11	1:E:4511:ARG:CB	2.24	0.51
1:G:6467:ASN:O	1:G:6469:TYR:N	2.44	0.51
1:A:120:CYS:O	1:A:175:TYR:HB3	2.11	0.51
1:D:3454:LEU:HD11	1:D:3460:PHE:HE2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2082:TYR:CD2	1:C:2082:TYR:C	2.84	0.51
1:D:3063:ILE:O	1:D:3066:LEU:HB3	2.11	0.51
1:D:3389:ILE:HG23	1:D:3399:PHE:CZ	2.46	0.51
1:D:3187:TYR:O	1:D:3191:ALA:HB3	2.10	0.51
1:D:3135:ILE:O	1:D:3203:ILE:HA	2.10	0.51
1:D:3109:PRO:O	1:D:3114:PRO:HD2	2.11	0.51
1:D:3512:LEU:N	1:D:3512:LEU:HD12	2.26	0.51
1:H:7172:LEU:O	1:H:7175:TYR:HB2	2.11	0.51
1:A:342:TRP:CE2	1:A:367:HIS:HD2	2.29	0.51
1:A:344:PHE:CZ	1:A:348:GLY:HA2	2.46	0.51
1:A:326:SER:HB2	1:A:492:LEU:HD11	1.93	0.51
1:C:2259:ASN:O	1:C:2260:HIS:C	2.49	0.51
1:D:3350:LEU:HD12	1:D:3366:THR:HG23	1.92	0.51
1:D:3528:ILE:O	1:D:3532:GLU:HG2	2.11	0.51
1:H:7522:VAL:O	1:H:7526:ILE:CG1	2.59	0.51
1:F:5418:ALA:C	1:F:5419:LEU:HD13	2.31	0.51
1:H:7127:PHE:C	1:H:7127:PHE:CD2	2.84	0.51
1:F:5099:ILE:O	1:F:5102:ASP:HB2	2.10	0.51
1:G:6092:ASN:ND2	1:G:6562:TYR:OH	2.36	0.51
1:A:570:TYR:CE2	1:D:3142:HIS:CG	2.98	0.51
1:A:399:PHE:CG	1:A:427:GLU:HB3	2.46	0.51
1:B:1232:ASP:CA	1:B:1235:ILE:HG12	2.40	0.51
1:H:7028:LEU:CD2	1:H:7048:LEU:HG	2.41	0.51
1:C:2283:THR:O	1:C:2286:VAL:HG23	2.10	0.51
1:A:39:ALA:HA	1:A:59:GLU:O	2.11	0.51
1:D:3103:ASP:O	1:D:3107:LEU:HB2	2.10	0.51
1:A:67:ARG:HB2	1:B:1217:PHE:CE1	2.46	0.51
1:C:2075:MSE:HB3	1:C:2081:LYS:HG2	1.91	0.51
1:D:3167:LEU:HB2	1:D:3169:LEU:HD13	1.92	0.51
1:C:2512:LEU:HD12	1:C:2512:LEU:N	2.26	0.51
1:C:2057:LYS:CE	1:C:2059:GLU:HG2	2.41	0.51
1:D:3291:LEU:N	1:D:3291:LEU:HD23	2.26	0.51
1:D:3420:SER:OG	1:D:3427:GLU:OE2	2.27	0.51
1:B:1350:LEU:HA	1:B:1354:ARG:HD3	1.93	0.51
1:C:2352:LYS:HG3	1:C:2368:SER:CA	2.41	0.51
1:B:1454:LEU:HD12	1:B:1458:ARG:CB	2.39	0.51
1:E:4389:ILE:HG23	1:E:4399:PHE:CE1	2.46	0.51
1:B:1145:SER:HA	1:B:1148:ASP:OD2	2.11	0.51
1:B:1259:ASN:O	1:B:1260:HIS:C	2.49	0.51
1:C:2180:PRO:HB2	1:C:2200:PRO:HB2	1.93	0.51
1:G:6043:GLN:HG2	1:G:6566:LEU:CD1	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3335:GLN:HE21	1:D:3335:GLN:HA	1.76	0.51
1:F:5324:VAL:HG13	1:F:5337:ALA:CB	2.41	0.51
1:G:6030:LEU:O	1:H:7030:LEU:HD13	2.11	0.51
1:F:5047:MSE:HE3	1:F:5566:LEU:CD2	2.41	0.51
1:A:89:GLN:C	1:A:91:ARG:N	2.64	0.51
1:H:7402:ASP:O	1:H:7405:ARG:HG2	2.10	0.51
1:G:6104:ILE:HG23	1:G:6105:GLU:N	2.26	0.51
1:D:3405:ARG:O	1:D:3408:ALA:HB3	2.11	0.51
1:A:553:VAL:O	1:A:556:ARG:N	2.43	0.51
1:D:3109:PRO:HA	1:D:3113:THR:O	2.11	0.51
1:D:3122:GLN:O	1:D:3123:TYR:O	2.28	0.51
1:G:6124:GLY:N	4:G:8062:HOH:O	2.45	0.51
1:D:3418:ALA:CB	1:D:3427:GLU:HB2	2.40	0.51
1:A:309:PHE:CD1	1:A:390:ILE:HB	2.41	0.51
1:C:2261:ASN:HA	1:C:2264:ARG:HG2	1.93	0.51
1:H:7026:LYS:O	1:H:7029:MSE:N	2.43	0.51
1:C:2300:LYS:HG2	1:C:2304:GLU:OE1	2.10	0.51
1:C:2549:LYS:O	1:C:2552:TYR:HB3	2.10	0.51
1:C:2275:THR:O	1:C:2486:ILE:HG13	2.11	0.51
1:E:4515:PRO:O	1:E:4517:ALA:N	2.44	0.51
1:G:6263:PHE:O	1:G:6266:LEU:HB3	2.11	0.51
1:B:1543:TYR:C	1:B:1543:TYR:CD2	2.84	0.51
1:D:3389:ILE:O	1:D:3390:ILE:HG13	2.12	0.50
1:D:3402:ASP:HA	1:D:3405:ARG:CG	2.40	0.50
1:H:7389:ILE:HD12	1:H:7390:ILE:H	1.75	0.50
1:G:6205:VAL:HG12	1:G:6226:ASP:CB	2.26	0.50
1:G:6183:LYS:O	1:G:6187:TYR:HD1	1.93	0.50
1:E:4352:LYS:CG	1:E:4368:SER:HA	2.39	0.50
1:F:5089:GLN:HB2	1:F:5096:PHE:CE1	2.46	0.50
1:B:1251:LEU:HD12	1:B:1252:ILE:H	1.75	0.50
1:D:3341:ILE:HD12	1:D:3365:PHE:HE2	1.76	0.50
1:F:5358:ILE:HG12	1:F:5366:THR:HG21	1.93	0.50
1:F:5467:ASN:C	1:F:5469:TYR:H	2.14	0.50
1:C:2045:ARG:NH1	1:C:2058:ILE:HD13	2.25	0.50
1:E:4205:VAL:O	1:E:4225:ARG:HA	2.11	0.50
1:G:6270:ARG:NH2	1:G:6486:ILE:O	2.42	0.50
1:C:2124:GLY:O	1:C:2217:PHE:HB3	2.11	0.50
1:C:2298:ILE:CD1	1:C:2442:LEU:HD11	2.38	0.50
1:F:5532:GLU:HG2	1:F:5549:LYS:HG2	1.94	0.50
1:D:3300:LYS:NZ	1:D:3305:HIS:HA	2.24	0.50
1:C:2428:CYS:HG	1:C:2429:THR:N	2.08	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1097:TYR:O	1:B:1098:ARG:C	2.50	0.50
1:G:6024:LYS:O	1:G:6027:PRO:HD2	2.11	0.50
1:F:5402:ASP:CA	1:F:5405:ARG:HG2	2.41	0.50
1:B:1139:ASP:OD1	1:C:2572:TRP:NE1	2.44	0.50
1:G:6153:ASN:O	1:G:6246:TYR:CE2	2.63	0.50
1:A:501:GLN:CA	1:A:501:GLN:HE21	2.24	0.50
1:F:5103:ASP:HB3	1:F:5107:LEU:HD22	1.92	0.50
1:E:4138:SER:O	1:H:7572:TRP:NE1	2.44	0.50
1:D:3549:LYS:HA	1:D:3552:TYR:HB3	1.92	0.50
1:H:7040:PHE:HE2	1:H:7565:LEU:HD12	1.76	0.50
1:E:4476:LEU:HG	1:E:4480:LEU:HD12	1.93	0.50
1:A:195:PRO:C	1:A:197:ARG:H	2.13	0.50
1:C:2038:MSE:HE1	1:D:3219:MSE:HG2	1.94	0.50
1:E:4177:MSE:CE	1:E:4181:VAL:HG22	2.39	0.50
1:G:6332:LEU:HG	1:G:6336:GLU:HG3	1.93	0.50
1:C:2327:MSE:HE2	1:C:2341:ILE:HD11	1.93	0.50
1:A:408:ALA:O	1:A:440:ARG:NH2	2.40	0.50
1:B:1235:ILE:HG13	1:B:1265:PHE:CZ	2.46	0.50
1:F:5172:LEU:O	1:F:5175:TYR:HB2	2.11	0.50
1:C:2545:GLU:HG3	1:C:2546:PRO:HD2	1.92	0.50
1:F:5489:SER:HG	1:F:5533:TYR:HH	1.55	0.50
1:G:6284:ALA:O	1:G:6287:ALA:N	2.44	0.50
1:H:7135:ILE:HB	1:H:7203:ILE:HG12	1.93	0.50
1:A:217:PHE:HZ	1:B:1066:LEU:HG	1.75	0.50
1:H:7308:LEU:O	1:H:7389:ILE:HD12	2.11	0.50
1:A:245:ARG:HG3	1:A:245:ARG:O	2.09	0.50
1:C:2057:LYS:HE3	1:C:2059:GLU:HG2	1.93	0.50
1:A:144:ARG:NH1	1:A:244:ASP:HB3	2.25	0.50
1:G:6137:ILE:HA	1:G:6234:LEU:CD2	2.42	0.50
1:C:2440:ARG:HB3	1:C:2440:ARG:NH1	2.27	0.50
1:A:379:ASP:O	1:A:383:ILE:HG13	2.12	0.50
1:D:3535:TYR:O	1:D:3538:LYS:NZ	2.45	0.50
1:H:7278:ASP:O	1:H:7280:ILE:N	2.44	0.50
1:C:2124:GLY:HA3	1:C:2175:TYR:CE2	2.45	0.50
1:E:4099:ILE:O	1:E:4102:ASP:CB	2.60	0.50
1:H:7551:LYS:HE3	1:H:7555:GLU:OE1	2.12	0.50
1:D:3482:ASN:O	1:D:3541:PHE:HB2	2.11	0.50
1:D:3154:HIS:O	1:D:3197:ARG:HD3	2.11	0.50
1:C:2245:ARG:HG2	1:C:2246:TYR:CE1	2.47	0.50
1:D:3090:GLU:CG	1:D:3131:LYS:HE2	2.41	0.50
1:F:5207:THR:O	1:F:5224:LYS:HA	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:100:LEU:HD11	1:A:111:VAL:HG21	1.92	0.50
1:E:4254:PHE:HD2	1:E:4257:PHE:CE1	2.28	0.50
1:H:7104:ILE:HG13	1:H:7108:MSE:HE1	1.94	0.50
1:G:6298:ILE:CG2	1:G:6300:LYS:HB2	2.41	0.50
1:H:7072:LEU:HD11	1:H:7081:LYS:HB3	1.94	0.50
1:E:4333:SER:O	1:E:4335:GLN:N	2.44	0.50
1:D:3350:LEU:HD21	1:D:3354:ARG:HH22	1.77	0.50
1:C:2295:GLN:HA	1:C:2298:ILE:HB	1.93	0.50
1:F:5381:VAL:O	1:F:5386:PRO:HD3	2.12	0.50
1:H:7481:CYS:HB3	1:H:7483:THR:OG1	2.12	0.50
1:B:1061:GLN:OE1	1:B:1098:ARG:HD3	2.10	0.50
1:F:5401:PRO:O	1:F:5405:ARG:HG2	2.11	0.50
1:B:1108:MSE:HB3	1:B:1109:PRO:HD3	1.93	0.50
1:B:1164:GLU:O	1:B:1171:ASP:N	2.44	0.50
1:E:4154:HIS:HB3	1:E:4197:ARG:CD	2.42	0.50
1:H:7412:GLU:CA	1:H:7440:ARG:NH1	2.74	0.50
1:D:3276:PHE:C	1:D:3276:PHE:CD1	2.85	0.50
1:A:144:ARG:O	1:A:147:VAL:HB	2.11	0.50
1:G:6342:TRP:HZ3	1:G:6349:LEU:HD21	1.74	0.50
1:D:3313:GLY:HA3	3:D:3601:NAD:O5B	2.12	0.50
1:H:7172:LEU:O	1:H:7173:GLY:C	2.50	0.50
1:H:7176:GLY:O	1:H:7177:MSE:C	2.50	0.50
1:B:1342:TRP:CE3	1:B:1349:LEU:HD11	2.46	0.50
1:A:389:ILE:CG2	1:A:416:ILE:HA	2.40	0.50
1:E:4302:ILE:HD13	1:E:4330:ASN:HB3	1.93	0.50
1:E:4351:VAL:HG13	1:E:4352:LYS:N	2.25	0.50
1:F:5166:ILE:HG21	1:F:5172:LEU:HD12	1.94	0.50
1:H:7266:LEU:HD22	1:H:7277:ASN:H	1.77	0.50
1:D:3327:MSE:O	1:D:3332:LEU:HB2	2.12	0.50
1:C:2397:ARG:NH1	1:C:2429:THR:HG22	2.26	0.50
1:C:2153:ASN:O	1:C:2246:TYR:CE2	2.65	0.50
1:G:6155:VAL:HB	1:G:6246:TYR:CD2	2.46	0.50
1:D:3507:LEU:O	1:D:3508:ALA:C	2.50	0.50
1:B:1164:GLU:HG3	1:B:1225:ARG:NE	2.27	0.50
1:F:5184:LEU:HG	1:F:5198:CYS:HB3	1.93	0.50
1:C:2396:GLY:HA2	1:C:2425:GLN:HA	1.94	0.50
1:G:6142:HIS:O	1:G:6145:SER:N	2.44	0.50
1:E:4492:LEU:O	1:E:4496:LYS:HG3	2.11	0.50
1:H:7323:ILE:O	1:H:7325:MSE:N	2.45	0.50
1:B:1317:LEU:CD1	1:B:1317:LEU:H	2.02	0.50
1:B:1221:LEU:HB3	1:B:1223:GLN:OE1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:279:ASP:HB3	1:A:314:GLU:OE1	2.12	0.50
1:A:295:GLN:O	1:A:298:ILE:N	2.45	0.50
1:A:295:GLN:HE22	1:A:305:HIS:CE1	2.28	0.50
1:E:4308:LEU:HD12	1:E:4342:TRP:O	2.12	0.50
1:B:1240:LYS:O	1:B:1241:ALA:C	2.49	0.50
1:F:5251:LEU:HD12	1:F:5252:ILE:H	1.73	0.50
1:F:5470:ILE:CD1	1:F:5498:LEU:HD22	2.42	0.50
1:F:5524:ILE:O	1:F:5528:ILE:HG13	2.11	0.50
1:H:7529:LYS:HD3	1:H:7532:GLU:OE1	2.11	0.50
1:B:1324:VAL:HA	1:B:1327:MSE:HE3	1.93	0.50
1:B:1122:GLN:O	1:B:1126:ILE:HG12	2.11	0.50
1:E:4036:LYS:HB3	1:E:4039:ALA:HB3	1.94	0.50
1:D:3416:ILE:H	1:D:3416:ILE:HD13	1.77	0.50
1:C:2056:PRO:HB2	1:D:3221:LEU:HD13	1.94	0.50
1:G:6204:ASP:CG	1:G:6221:LEU:HB2	2.32	0.50
1:D:3420:SER:HB3	1:D:3425:GLN:HB3	1.94	0.50
1:B:1371:GLU:OE1	1:B:1371:GLU:HA	2.10	0.50
1:B:1408:ALA:O	1:B:1411:ASN:O	2.28	0.50
1:B:1505:GLU:O	1:B:1509:GLN:HG2	2.11	0.50
1:E:4380:ALA:HB1	1:E:4384:LEU:HD23	1.94	0.50
1:E:4453:LYS:CD	1:E:4457:GLY:HA2	2.41	0.50
1:H:7324:VAL:HA	1:H:7327:MSE:HE3	1.93	0.50
1:E:4031:ASN:OD1	1:E:4033:ARG:N	2.44	0.50
1:E:4238:PHE:O	1:E:4239:MSE:C	2.49	0.50
1:E:4043:GLN:HG2	1:E:4566:LEU:HD11	1.93	0.50
1:F:5026:LYS:O	1:F:5029:MSE:N	2.44	0.50
1:A:174:VAL:HG21	1:A:219:MSE:HG2	1.92	0.50
1:A:152:GLU:CA	1:A:152:GLU:OE1	2.59	0.50
1:A:480:LEU:O	1:A:542:ARG:HG3	2.11	0.50
1:D:3079:LEU:HG	1:D:3079:LEU:O	2.11	0.50
1:G:6350:LEU:O	1:G:6366:THR:HA	2.12	0.50
1:C:2327:MSE:HE3	1:C:2337:ALA:HB1	1.94	0.50
1:C:2377:PHE:HZ	1:C:2389:ILE:HG12	1.77	0.50
1:E:4308:LEU:O	1:E:4389:ILE:HD12	2.11	0.50
1:E:4416:ILE:HD12	1:E:4441:CYS:HB2	1.94	0.50
1:G:6401:PRO:CA	1:G:6404:ILE:HD12	2.39	0.50
1:E:4264:ARG:CG	1:E:4265:PHE:N	2.75	0.50
1:F:5324:VAL:HG13	1:F:5337:ALA:HB3	1.94	0.50
1:H:7194:ARG:CZ	1:H:7197:ARG:NH2	2.75	0.50
1:A:184:LEU:HG	1:A:198:CYS:HB3	1.94	0.50
1:A:271:GLU:HA	1:A:485:HIS:CD2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4142:HIS:CD2	1:H:7570:TYR:CE2	3.00	0.50
1:B:1127:PHE:CD2	1:B:1127:PHE:C	2.85	0.50
1:G:6240:LYS:HA	1:G:6243:THR:OG1	2.12	0.50
1:F:5061:GLN:HA	1:F:5064:GLN:HE21	1.76	0.50
1:B:1487:SER:O	1:B:1490:VAL:HG23	2.12	0.50
1:H:7133:LEU:HB3	1:H:7201:VAL:HG22	1.93	0.50
1:C:2456:ASP:OD1	1:C:2458:ARG:HD3	2.12	0.50
1:A:255:GLU:O	1:A:257:PHE:CD1	2.64	0.50
1:F:5306:LYS:NZ	1:F:5306:LYS:HB2	2.27	0.50
1:A:506:GLU:HG2	1:A:511:ARG:HD2	1.93	0.50
1:B:1535:TYR:CE1	1:B:1546:PRO:HD2	2.46	0.50
1:F:5313:GLY:HA3	3:F:5601:NAD:O5B	2.12	0.50
1:B:1530:VAL:O	1:B:1533:TYR:HB3	2.12	0.50
1:G:6258:GLY:O	1:G:6260:HIS:N	2.45	0.50
1:F:5288:LEU:O	1:F:5292:LEU:HG	2.12	0.50
1:E:4143:VAL:HG23	1:E:4237:GLU:OE2	2.11	0.50
1:H:7223:GLN:HG2	1:H:7224:LYS:O	2.11	0.50
1:D:3023:GLU:HG3	1:D:3024:LYS:N	2.27	0.50
1:A:525:ASN:HA	1:A:528:ILE:HD12	1.94	0.49
1:A:572:TRP:CD1	1:D:3138:SER:O	2.64	0.49
1:G:6340:LYS:C	1:G:6341:ILE:HG12	2.31	0.49
1:G:6396:GLY:O	1:G:6427:GLU:HA	2.11	0.49
1:F:5456:ASP:HB2	1:F:5458:ARG:CD	2.38	0.49
1:H:7099:ILE:O	1:H:7102:ASP:N	2.45	0.49
1:H:7172:LEU:O	1:H:7175:TYR:N	2.44	0.49
1:F:5572:TRP:NE1	1:G:6139:ASP:OD1	2.45	0.49
1:B:1417:PHE:HA	1:B:1444:ALA:O	2.12	0.49
1:B:1503:THR:O	1:B:1507:LEU:N	2.44	0.49
1:F:5104:ILE:O	1:F:5108:MSE:HE2	2.12	0.49
1:E:4352:LYS:CB	1:E:4368:SER:HA	2.42	0.49
1:E:4430:ALA:HA	1:E:4443:PHE:CE2	2.47	0.49
1:A:128:ARG:HG3	1:B:1091:ARG:HH12	1.76	0.49
1:G:6487:SER:O	1:G:6489:SER:N	2.45	0.49
1:B:1147:VAL:O	1:B:1245:ARG:NH1	2.45	0.49
1:A:429:THR:OG1	1:A:432:GLU:HG2	2.12	0.49
1:H:7179:ILE:O	1:H:7182:GLY:N	2.44	0.49
1:C:2300:LYS:O	1:C:2305:HIS:NE2	2.45	0.49
1:D:3521:GLU:CA	1:D:3524:ILE:HD12	2.42	0.49
1:F:5194:ARG:NH2	1:F:5197:ARG:HE	2.02	0.49
1:A:502:LEU:HD21	1:A:512:LEU:O	2.12	0.49
1:C:2484:ARG:O	1:C:2485:HIS:ND1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6518:ASN:HB3	1:G:6521:GLU:OE2	2.12	0.49
1:A:124:GLY:O	1:B:1067:ARG:NE	2.44	0.49
1:A:311:GLY:HA2	1:A:345:ASP:HA	1.94	0.49
1:A:155:VAL:HB	1:A:246:TYR:CD2	2.47	0.49
1:A:146:ILE:CD1	1:A:146:ILE:H	2.24	0.49
1:G:6306:LYS:O	1:G:6386:PRO:HB3	2.12	0.49
1:G:6374:PRO:HG3	1:G:6380:ALA:CA	2.41	0.49
1:A:388:THR:CG2	1:A:415:VAL:HB	2.42	0.49
1:G:6452:VAL:O	1:G:6459:VAL:HA	2.13	0.49
1:H:7327:MSE:CE	1:H:7337:ALA:HB1	2.35	0.49
1:H:7396:GLY:HA2	1:H:7425:GLN:CA	2.42	0.49
1:C:2289:ALA:CB	1:C:2498:LEU:HD23	2.42	0.49
1:F:5528:ILE:HG21	1:F:5550:ALA:HA	1.94	0.49
1:B:1104:ILE:O	1:B:1108:MSE:HE2	2.11	0.49
1:B:1532:GLU:HG2	1:B:1549:LYS:HG3	1.94	0.49
1:E:4059:GLU:OE2	1:E:4067:ARG:NH2	2.45	0.49
1:D:3491:PHE:O	1:D:3494:ALA:HB3	2.12	0.49
1:B:1482:ASN:H	1:B:1482:ASN:HD22	1.60	0.49
1:F:5142:HIS:O	1:F:5144:ARG:N	2.45	0.49
1:B:1162:ASP:OD2	1:B:1164:GLU:OE1	2.30	0.49
1:D:3375:ASP:OD2	1:D:3379:ASP:OD2	2.30	0.49
1:E:4243:THR:HB	1:E:4248:ARG:NH1	2.27	0.49
1:A:458:ARG:HH11	1:A:458:ARG:HB2	1.76	0.49
1:B:1298:ILE:CD1	1:B:1442:LEU:HD11	2.32	0.49
1:B:1239:MSE:CE	1:B:1252:ILE:HD12	2.42	0.49
1:B:1258:GLY:O	1:B:1260:HIS:N	2.44	0.49
1:F:5518:ASN:O	1:F:5522:VAL:HG23	2.12	0.49
1:H:7481:CYS:C	1:H:7483:THR:N	2.64	0.49
1:A:67:ARG:O	1:A:71:ASN:ND2	2.44	0.49
1:A:396:GLY:O	1:A:398:LEU:HD13	2.12	0.49
1:D:3487:SER:O	1:D:3490:VAL:HG23	2.12	0.49
1:B:1474:VAL:O	1:B:1475:ALA:C	2.49	0.49
1:G:6242:ILE:C	1:G:6244:ASP:N	2.64	0.49
1:H:7069:HIS:HE1	1:H:7102:ASP:OD2	1.95	0.49
1:B:1358:ILE:N	1:B:1358:ILE:CD1	2.74	0.49
1:C:2352:LYS:CB	1:C:2368:SER:HA	2.43	0.49
1:C:2392:VAL:HG23	1:C:2419:LEU:HD23	1.95	0.49
1:C:2419:LEU:CD2	1:C:2419:LEU:N	2.67	0.49
1:C:2258:GLY:O	1:C:2260:HIS:N	2.46	0.49
1:F:5308:LEU:HD12	1:F:5342:TRP:O	2.11	0.49
1:F:5352:LYS:CG	1:F:5368:SER:HA	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3528:ILE:HG21	1:D:3550:ALA:HA	1.95	0.49
1:F:5419:LEU:HA	1:F:5446:GLY:H	1.76	0.49
1:D:3488:ASP:HA	1:D:3491:PHE:HD1	1.77	0.49
1:E:4253:GLN:NE2	1:E:4255:GLU:HG2	2.26	0.49
1:E:4044:GLU:HG2	1:E:4566:LEU:HG	1.93	0.49
1:E:4504:ASP:O	1:E:4507:LEU:N	2.44	0.49
1:F:5188:THR:CG2	1:F:5195:PRO:HD3	2.42	0.49
1:D:3036:LYS:O	1:D:3039:ALA:HB3	2.13	0.49
1:H:7409:SER:O	1:H:7411:ASN:N	2.46	0.49
1:E:4437:THR:C	1:E:4438:GLU:HG2	2.32	0.49
1:H:7358:ILE:HG22	1:H:7362:GLN:HB3	1.93	0.49
1:F:5251:LEU:C	1:F:5251:LEU:HD12	2.31	0.49
1:F:5303:SER:CA	1:F:5340:LYS:NZ	2.75	0.49
1:C:2467:ASN:C	1:C:2469:TYR:H	2.15	0.49
1:F:5376:THR:O	1:F:5379:ASP:HB2	2.12	0.49
1:A:86:MSE:HE2	1:A:86:MSE:N	2.27	0.49
1:D:3023:GLU:HG3	1:D:3024:LYS:H	1.78	0.49
1:G:6093:GLU:OE1	1:G:6195:PRO:HB2	2.12	0.49
1:D:3108:MSE:N	1:D:3109:PRO:HD2	2.28	0.49
1:G:6389:ILE:CG2	1:G:6416:ILE:HG22	2.40	0.49
1:H:7085:ILE:C	1:H:7087:GLY:H	2.15	0.49
1:C:2382:ASN:O	1:C:2383:ILE:C	2.51	0.49
1:B:1376:THR:HG21	1:B:1378:GLU:HB3	1.94	0.49
1:G:6038:MSE:CE	1:G:6057:LYS:HB3	2.42	0.49
1:E:4028:LEU:HD21	1:E:4048:LEU:HD12	1.93	0.49
1:H:7351:VAL:HG21	1:H:7370:PRO:HD3	1.94	0.49
1:E:4261:ASN:HA	1:E:4264:ARG:NE	2.27	0.49
1:A:104:ILE:O	1:A:108:MSE:HE2	2.13	0.49
1:C:2467:ASN:C	1:C:2469:TYR:N	2.64	0.49
1:B:1152:GLU:HG3	1:B:1196:ASP:O	2.13	0.49
1:D:3494:ALA:O	1:D:3497:ALA:N	2.46	0.49
1:G:6476:LEU:O	1:G:6476:LEU:HD12	2.13	0.49
1:B:1057:LYS:HD2	1:B:1059:GLU:OE2	2.12	0.49
1:G:6549:LYS:HA	1:G:6552:TYR:HB3	1.94	0.49
1:H:7449:PHE:O	1:H:7462:PRO:HG2	2.12	0.49
1:C:2220:GLY:HA2	1:D:3056:PRO:HG2	1.94	0.49
1:H:7412:GLU:CA	1:H:7440:ARG:HH11	2.24	0.49
1:G:6466:ASN:ND2	1:G:6468:VAL:CG1	2.76	0.49
1:D:3288:LEU:HA	1:D:3291:LEU:HG	1.93	0.49
1:A:413:ARG:HH21	1:A:440:ARG:C	2.15	0.49
1:G:6494:ALA:O	1:G:6495:ALA:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1488:ASP:HA	1:B:1491:PHE:HD1	1.77	0.49
1:H:7253:GLN:HG3	1:H:7276:PHE:CZ	2.48	0.49
1:C:2048:LEU:N	1:C:2048:LEU:CD2	2.75	0.49
1:C:2504:ASP:O	1:C:2508:ALA:N	2.41	0.49
1:E:4412:GLU:O	1:E:4440:ARG:HB3	2.12	0.49
1:F:5565:LEU:HD23	1:F:5565:LEU:N	2.27	0.49
1:A:97:TYR:O	1:A:98:ARG:C	2.50	0.49
1:B:1428:CYS:SG	1:B:1429:THR:N	2.85	0.49
1:A:297:VAL:HG22	1:A:298:ILE:HD13	1.93	0.49
1:E:4429:THR:HG23	1:E:4432:GLU:CD	2.33	0.49
1:D:3327:MSE:HE3	1:D:3337:ALA:CB	2.39	0.49
1:F:5359:ASP:HB3	1:F:5362:GLN:OE1	2.12	0.49
1:H:7025:GLY:C	1:H:7027:PRO:HD2	2.33	0.49
1:C:2400:THR:O	1:C:2404:ILE:HG13	2.13	0.49
1:E:4095:LEU:HG	1:E:4099:ILE:HD12	1.95	0.49
1:G:6166:ILE:HG22	1:G:6166:ILE:O	2.12	0.49
1:B:1079:LEU:O	1:B:1082:TYR:HB3	2.12	0.49
1:H:7401:PRO:HA	1:H:7436:LEU:CD2	2.42	0.49
1:D:3206:GLY:HA3	1:D:3223:GLN:HG2	1.94	0.49
1:B:1093:GLU:OE1	1:B:1195:PRO:HB2	2.12	0.49
1:C:2541:PHE:N	1:C:2541:PHE:HD2	2.10	0.49
1:A:136:SER:O	1:A:139:ASP:HB2	2.12	0.49
1:F:5205:VAL:HG11	1:F:5231:TYR:HD1	1.78	0.49
1:A:169:LEU:HD12	1:A:169:LEU:N	2.27	0.49
1:D:3297:VAL:HG22	1:D:3298:ILE:CD1	2.41	0.49
1:D:3349:LEU:HD23	1:D:3351:VAL:HB	1.95	0.49
1:C:2057:LYS:HG3	1:D:3218:TYR:O	2.12	0.49
1:D:3123:TYR:HE1	1:D:3178:GLY:HA3	1.78	0.49
1:G:6351:VAL:HG13	1:G:6352:LYS:N	2.27	0.49
1:C:2384:LEU:O	1:C:2385:LYS:HB2	2.13	0.49
1:B:1376:THR:H	1:B:1379:ASP:HB2	1.78	0.49
1:E:4332:LEU:CG	1:E:4336:GLU:OE2	2.61	0.49
1:E:4435:THR:OG1	1:E:4436:LEU:HD13	2.13	0.49
1:E:4429:THR:HB	1:E:4449:PHE:CE2	2.48	0.49
1:D:3343:MSE:CE	1:D:3365:PHE:HB2	2.43	0.49
1:F:5298:ILE:HG22	4:F:8041:HOH:O	2.12	0.49
1:H:7481:CYS:SG	1:H:7534:LEU:CD1	3.00	0.49
1:F:5429:THR:HG23	1:F:5432:GLU:HG2	1.94	0.49
1:E:4540:ALA:O	1:E:4541:PHE:HD2	1.96	0.49
1:G:6041:THR:CG2	1:G:6044:GLU:HG3	2.43	0.49
1:G:6419:LEU:HD13	1:G:6419:LEU:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:501:GLN:HA	1:A:501:GLN:HE21	1.75	0.49
1:D:3439:GLY:HA3	1:D:3460:PHE:CE2	2.47	0.49
1:F:5399:PHE:HB2	1:F:5428:CYS:HB3	1.95	0.49
1:D:3123:TYR:CD2	1:D:3219:MSE:HE1	2.48	0.49
1:G:6310:LEU:HD21	1:G:6398:LEU:CB	2.42	0.49
1:G:6471:PHE:CD1	1:G:6472:PRO:HD3	2.47	0.49
1:H:7099:ILE:O	1:H:7102:ASP:HB2	2.12	0.49
1:D:3287:ALA:O	1:D:3290:GLY:N	2.45	0.49
1:C:2376:THR:HG22	1:C:2378:GLU:HB3	1.94	0.49
1:D:3319:ILE:O	1:D:3320:ALA:C	2.50	0.49
1:F:5333:SER:HG	1:F:5336:GLU:HG3	1.78	0.49
1:B:1533:TYR:O	1:B:1534:LEU:C	2.51	0.49
1:A:566:LEU:HD22	1:A:567:PRO:HD2	1.93	0.49
1:F:5144:ARG:HH12	1:F:5244:ASP:HB3	1.76	0.49
1:H:7432:GLU:O	1:H:7436:LEU:HB2	2.12	0.49
1:H:7476:LEU:O	1:H:7476:LEU:HD12	2.12	0.49
1:D:3150:TRP:HB3	1:D:3245:ARG:NH1	2.28	0.48
1:D:3275:THR:O	1:D:3486:ILE:HD11	2.13	0.48
1:E:4166:ILE:O	1:E:4167:LEU:C	2.52	0.48
1:G:6413:ARG:NE	1:G:6440:ARG:O	2.45	0.48
1:C:2324:VAL:HA	1:C:2327:MSE:CE	2.42	0.48
1:E:4332:LEU:HD23	1:E:4337:ALA:N	2.27	0.48
1:E:4363:GLU:CB	1:E:4364:PRO:CD	2.90	0.48
1:F:5302:ILE:N	1:F:5302:ILE:HD13	2.28	0.48
1:E:4359:ASP:CG	1:E:4362:GLN:HG3	2.32	0.48
1:F:5374:PRO:HB3	1:F:5383:ILE:CD1	2.43	0.48
1:C:2160:VAL:HG11	1:C:2238:PHE:CZ	2.47	0.48
1:C:2502:LEU:HB3	1:C:2507:LEU:HD21	1.95	0.48
1:H:7401:PRO:HB3	1:H:7436:LEU:HD21	1.95	0.48
1:A:270:ARG:CG	1:A:271:GLU:N	2.77	0.48
1:C:2244:ASP:N	1:C:2248:ARG:NH1	2.60	0.48
1:A:191:ALA:HB3	1:A:193:ILE:HD12	1.94	0.48
1:G:6233:ASP:O	1:G:6237:GLU:N	2.43	0.48
1:D:3479:ILE:O	1:D:3481:CYS:N	2.46	0.48
1:E:4025:GLY:O	1:E:4028:LEU:HB2	2.13	0.48
1:A:397:ARG:HD2	1:A:397:ARG:H	1.78	0.48
1:C:2400:THR:CB	1:C:2401:PRO:HD2	2.43	0.48
1:H:7483:THR:OG1	1:H:7534:LEU:HD13	2.14	0.48
1:C:2551:LYS:HG2	1:C:2555:GLU:CD	2.32	0.48
1:E:4188:THR:HG23	1:E:4193:ILE:O	2.13	0.48
1:E:4266:LEU:HD12	1:E:4266:LEU:C	2.33	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6503:THR:O	1:G:6507:LEU:HD22	2.13	0.48
1:D:3359:ASP:O	1:D:3359:ASP:OD2	2.30	0.48
1:H:7453:LYS:HA	1:H:7458:ARG:O	2.13	0.48
1:E:4287:ALA:O	1:E:4290:GLY:N	2.46	0.48
1:D:3294:ALA:O	1:D:3297:VAL:HG13	2.13	0.48
1:A:245:ARG:HG2	1:A:246:TYR:CE1	2.48	0.48
1:A:191:ALA:HB1	1:A:476:LEU:HD22	1.95	0.48
1:B:1290:GLY:O	1:B:1293:ALA:HB3	2.13	0.48
1:B:1147:VAL:HG21	1:B:1241:ALA:HB1	1.95	0.48
1:H:7556:ARG:HH11	1:H:7556:ARG:HG3	1.78	0.48
1:A:430:ALA:O	1:A:433:ALA:HB3	2.13	0.48
1:C:2425:GLN:O	1:C:2426:ALA:C	2.51	0.48
1:H:7309:PHE:CD2	1:H:7343:MSE:HG3	2.48	0.48
1:A:553:VAL:C	1:A:555:GLU:N	2.64	0.48
1:G:6307:ILE:CG2	1:G:6308:LEU:N	2.75	0.48
1:B:1264:ARG:HG3	1:B:1265:PHE:N	2.29	0.48
1:G:6402:ASP:HA	1:G:6405:ARG:CG	2.43	0.48
1:C:2300:LYS:NZ	1:C:2305:HIS:HA	2.28	0.48
1:B:1099:ILE:O	1:B:1102:ASP:HB2	2.13	0.48
1:G:6208:ASP:CG	1:G:6227:ARG:HH21	2.17	0.48
1:C:2528:ILE:O	1:C:2531:THR:HG23	2.13	0.48
1:A:369:ALA:HB1	1:A:373:ILE:HD11	1.95	0.48
1:A:469:TYR:HB3	1:A:498:LEU:HD22	1.94	0.48
1:D:3505:GLU:O	1:D:3508:ALA:HB3	2.14	0.48
1:B:1431:GLU:C	1:B:1433:ALA:H	2.15	0.48
1:G:6541:PHE:CD2	1:G:6541:PHE:N	2.80	0.48
1:D:3028:LEU:HA	1:D:3028:LEU:HD12	1.66	0.48
1:D:3370:PRO:O	1:D:3371:GLU:C	2.52	0.48
1:D:3261:ASN:O	1:D:3262:ALA:C	2.52	0.48
1:E:4300:LYS:HE2	1:E:4304:GLU:HB2	1.96	0.48
1:E:4320:ALA:HB1	1:E:4365:PHE:CE2	2.48	0.48
1:E:4363:GLU:HB3	1:E:4364:PRO:HD3	1.96	0.48
1:F:5559:ARG:HD3	1:F:5559:ARG:HA	1.49	0.48
1:C:2284:ALA:HA	1:C:2319:ILE:HG12	1.96	0.48
1:D:3300:LYS:HE3	1:D:3305:HIS:HD2	1.78	0.48
1:E:4470:ILE:HD11	1:E:4498:LEU:CD2	2.43	0.48
1:H:7228:THR:OG1	1:H:7230:GLN:HG2	2.13	0.48
1:G:6417:PHE:HB3	1:G:6419:LEU:HD11	1.95	0.48
1:H:7431:GLU:O	1:H:7433:ALA:N	2.45	0.48
1:B:1471:PHE:CG	1:B:1472:PRO:HD3	2.48	0.48
1:B:1043:GLN:HG3	1:B:1047:MSE:HE3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7287:ALA:O	1:H:7291:LEU:HG	2.13	0.48
1:E:4104:ILE:HG23	1:E:4105:GLU:N	2.28	0.48
1:G:6406:ALA:O	1:G:6410:ILE:HG13	2.13	0.48
1:H:7085:ILE:HG23	1:H:7086:MSE:H	1.79	0.48
1:E:4456:ASP:OD2	1:E:4458:ARG:HD3	2.14	0.48
1:C:2454:LEU:HD12	1:C:2458:ARG:HB3	1.94	0.48
1:C:2471:PHE:CE1	1:C:2472:PRO:HG3	2.49	0.48
1:E:4212:LEU:C	1:E:4214:LYS:N	2.66	0.48
1:G:6227:ARG:HH11	1:G:6227:ARG:HG2	1.79	0.48
1:G:6104:ILE:CG2	1:G:6105:GLU:N	2.77	0.48
1:B:1559:ARG:HB3	1:B:1561:GLU:HG2	1.95	0.48
1:E:4152:GLU:HG2	1:E:4196:ASP:O	2.14	0.48
1:A:23:GLU:HA	1:A:23:GLU:OE1	2.13	0.48
1:D:3342:TRP:CH2	1:D:3367:HIS:HB2	2.49	0.48
1:D:3370:PRO:O	1:D:3373:ILE:HD12	2.13	0.48
1:D:3150:TRP:HB3	1:D:3245:ARG:HH12	1.78	0.48
1:D:3261:ASN:CA	1:D:3264:ARG:HG2	2.43	0.48
1:A:155:VAL:HB	1:A:246:TYR:CE2	2.49	0.48
1:G:6350:LEU:CD1	1:G:6366:THR:HG23	2.42	0.48
1:G:6396:GLY:HA2	1:G:6425:GLN:HA	1.96	0.48
1:G:6234:LEU:HD12	1:G:6234:LEU:O	2.13	0.48
1:D:3429:THR:OG1	1:D:3431:GLU:HB3	2.14	0.48
1:A:376:THR:HB	1:A:379:ASP:OD2	2.14	0.48
1:A:437:THR:C	1:A:439:GLY:H	2.16	0.48
1:D:3333:SER:HB3	1:D:3336:GLU:CD	2.34	0.48
1:G:6478:VAL:HG12	1:G:6479:ILE:CD1	2.37	0.48
1:D:3530:VAL:O	1:D:3533:TYR:HB3	2.13	0.48
1:F:5078:PRO:HA	1:F:5081:LYS:HG3	1.96	0.48
1:F:5148:ASP:HA	1:F:5245:ARG:NH1	2.29	0.48
1:G:6392:VAL:O	1:G:6393:ALA:HB2	2.14	0.48
1:G:6033:ARG:HH11	1:G:6033:ARG:HG3	1.79	0.48
1:A:421:ASN:N	3:A:601:NAD:O2D	2.46	0.48
1:B:1036:LYS:O	1:B:1039:ALA:HB3	2.13	0.48
1:H:7505:GLU:O	1:H:7508:ALA:HB3	2.13	0.48
1:B:1194:ARG:CZ	1:B:1194:ARG:HB3	2.42	0.48
1:A:479:ILE:HG22	1:A:480:LEU:N	2.27	0.48
1:A:243:THR:C	1:A:248:ARG:HH11	2.16	0.48
1:G:6238:PHE:CE1	1:G:6242:ILE:HG13	2.49	0.48
1:G:6302:ILE:O	1:G:6303:SER:C	2.52	0.48
1:G:6354:ARG:HE	1:G:6356:ALA:CB	2.18	0.48
1:B:1208:ASP:OD1	1:B:1224:LYS:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:310:LEU:HD22	1:A:399:PHE:CE2	2.48	0.48
1:A:267:ARG:HG3	1:A:267:ARG:NH1	2.24	0.48
1:B:1271:GLU:O	1:B:1485:HIS:NE2	2.46	0.48
1:C:2257:PHE:HB3	1:C:2262:ALA:HB2	1.96	0.48
1:C:2292:LEU:O	1:C:2294:ALA:N	2.47	0.48
1:C:2470:ILE:HD11	1:C:2498:LEU:HD22	1.95	0.48
1:D:3302:ILE:O	1:D:3303:SER:C	2.52	0.48
1:F:5402:ASP:HA	1:F:5405:ARG:CG	2.43	0.48
1:G:6209:ASN:HB3	1:G:6212:LEU:HD12	1.95	0.48
1:C:2524:ILE:O	1:C:2527:ALA:HB3	2.14	0.48
1:D:3491:PHE:O	1:D:3494:ALA:N	2.46	0.48
1:E:4392:VAL:CG2	1:E:4419:LEU:HD23	2.44	0.48
1:E:4281:GLN:HB3	1:E:4491:PHE:CZ	2.49	0.48
1:D:3306:LYS:HD2	1:D:3384:LEU:O	2.14	0.48
1:D:3218:TYR:CE2	4:D:8046:HOH:O	2.36	0.48
1:A:145:SER:OG	1:A:146:ILE:HD12	2.13	0.48
1:G:6342:TRP:CE2	1:G:6384:LEU:HD11	2.48	0.48
1:G:6143:VAL:HG21	1:G:6237:GLU:HG2	1.96	0.48
1:B:1341:ILE:O	1:B:1367:HIS:NE2	2.47	0.48
1:B:1390:ILE:HG23	1:B:1419:LEU:CD2	2.44	0.48
1:B:1453:LYS:CG	1:B:1459:VAL:HG13	2.43	0.48
1:H:7278:ASP:C	1:H:7280:ILE:N	2.66	0.48
1:C:2454:LEU:O	1:C:2456:ASP:N	2.47	0.48
1:H:7060:THR:HG23	1:H:7063:ILE:CD1	2.35	0.48
1:B:1527:ALA:O	1:B:1531:THR:CG2	2.58	0.48
1:E:4043:GLN:HG2	1:E:4566:LEU:CD1	2.44	0.48
1:C:2081:LYS:O	1:C:2085:ILE:HG22	2.14	0.48
1:C:2090:GLU:HG3	1:C:2131:LYS:HD3	1.94	0.48
1:D:3506:GLU:HB3	1:D:3511:ARG:HD2	1.96	0.48
1:D:3374:PRO:HD3	1:D:3383:ILE:HG21	1.95	0.48
1:D:3041:THR:HG23	1:D:3044:GLU:CD	2.34	0.48
1:D:3104:ILE:O	1:D:3108:MSE:HE2	2.13	0.48
1:E:4105:GLU:HA	1:E:4108:MSE:CE	2.44	0.48
1:G:6314:GLU:HG2	3:G:6601:NAD:O1N	2.14	0.48
1:H:7096:PHE:HA	1:H:7099:ILE:HD12	1.95	0.48
1:B:1375:ASP:OD2	1:B:1379:ASP:OD2	2.32	0.48
1:B:1378:GLU:O	1:B:1381:VAL:HB	2.13	0.48
1:B:1392:VAL:HG12	4:B:8059:HOH:O	2.12	0.48
1:A:385:LYS:HG3	1:A:410:ILE:HG21	1.95	0.48
1:E:4332:LEU:CD2	1:E:4337:ALA:HA	2.44	0.48
1:D:3082:TYR:HA	1:D:3110:ILE:CG2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7484:ARG:C	1:H:7485:HIS:ND1	2.67	0.48
1:A:166:ILE:O	1:A:167:LEU:C	2.52	0.48
1:H:7559:ARG:HA	1:H:7559:ARG:HD3	1.60	0.48
1:C:2268:LYS:HE2	1:C:2269:TYR:CZ	2.49	0.48
1:C:2270:ARG:NH2	1:C:2486:ILE:O	2.45	0.48
1:D:3194:ARG:HB2	1:D:3197:ARG:HG3	1.94	0.48
1:E:4206:GLY:HA3	1:E:4223:GLN:NE2	2.27	0.48
1:F:5144:ARG:HH12	1:F:5244:ASP:CB	2.27	0.48
1:G:6283:THR:O	1:G:6284:ALA:C	2.51	0.48
1:B:1038:MSE:HB3	1:B:1057:LYS:O	2.14	0.48
1:E:4398:LEU:HD12	1:E:4398:LEU:N	2.29	0.48
1:A:494:ALA:O	1:A:497:ALA:HB3	2.14	0.48
1:D:3351:VAL:HG22	1:D:3367:HIS:O	2.14	0.47
1:G:6357:LYS:C	1:G:6358:ILE:HG13	2.34	0.47
1:G:6389:ILE:HD12	1:G:6389:ILE:HA	1.68	0.47
1:G:6429:THR:HG23	1:G:6432:GLU:OE1	2.14	0.47
1:B:1177:MSE:HE3	1:B:1177:MSE:O	2.13	0.47
1:B:1177:MSE:CE	1:B:1180:PRO:HB2	2.44	0.47
1:D:3290:GLY:O	1:D:3291:LEU:C	2.51	0.47
1:B:1349:LEU:HG	1:B:1350:LEU:N	2.29	0.47
1:C:2306:LYS:O	1:C:2387:SER:N	2.47	0.47
1:B:1300:LYS:HE2	1:B:1304:GLU:OE2	2.14	0.47
1:B:1300:LYS:HZ1	1:B:1305:HIS:HA	1.78	0.47
1:E:4425:GLN:HE21	1:E:4425:GLN:N	2.13	0.47
1:B:1272:LYS:O	1:B:1273:TYR:CD2	2.67	0.47
1:G:6559:ARG:HD3	1:G:6559:ARG:HA	1.62	0.47
1:H:7043:GLN:HG2	1:H:7566:LEU:CD1	2.39	0.47
1:H:7425:GLN:N	1:H:7425:GLN:NE2	2.62	0.47
1:F:5382:ASN:O	1:F:5385:LYS:HD3	2.14	0.47
1:D:3194:ARG:CZ	1:D:3196:ASP:OD2	2.62	0.47
1:G:6041:THR:HG23	1:G:6044:GLU:CD	2.34	0.47
1:D:3359:ASP:OD2	1:D:3359:ASP:C	2.52	0.47
1:A:445:SER:O	1:A:464:GLN:HA	2.13	0.47
1:D:3414:PRO:HD2	1:D:3440:ARG:O	2.14	0.47
1:H:7417:PHE:HA	1:H:7444:ALA:O	2.14	0.47
1:D:3147:VAL:O	1:D:3245:ARG:NH1	2.47	0.47
1:A:524:ILE:HG22	1:A:525:ASN:N	2.29	0.47
1:G:6317:LEU:N	1:G:6317:LEU:HD12	2.08	0.47
1:G:6431:GLU:O	1:G:6433:ALA:N	2.42	0.47
1:D:3288:LEU:CD2	1:D:3292:LEU:HG	2.44	0.47
1:B:1391:GLY:N	1:B:1417:PHE:O	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5094:LYS:NZ	1:F:5559:ARG:O	2.38	0.47
1:C:2223:GLN:HG2	1:C:2224:LYS:O	2.14	0.47
1:B:1528:ILE:O	1:B:1532:GLU:HG3	2.14	0.47
1:F:5266:LEU:O	1:F:5266:LEU:HD12	2.14	0.47
1:A:266:LEU:O	1:A:270:ARG:HB3	2.15	0.47
1:F:5535:TYR:CD2	1:F:5540:ALA:HB3	2.50	0.47
1:F:5135:ILE:O	1:F:5203:ILE:HA	2.13	0.47
1:F:5542:ARG:C	1:F:5542:ARG:HD3	2.34	0.47
1:H:7399:PHE:HA	1:H:7403:VAL:HG11	1.96	0.47
1:D:3186:LEU:HA	1:D:3189:ALA:HB3	1.96	0.47
1:A:148:ASP:HA	1:A:245:ARG:NH1	2.28	0.47
1:A:143:VAL:O	1:A:146:ILE:HB	2.14	0.47
1:G:6135:ILE:HD13	1:G:6143:VAL:HG13	1.96	0.47
1:H:7123:TYR:O	1:H:7175:TYR:CZ	2.67	0.47
1:B:1505:GLU:CD	1:B:1505:GLU:N	2.66	0.47
1:A:308:LEU:HD13	1:A:342:TRP:HB2	1.96	0.47
1:E:4389:ILE:HA	1:E:4389:ILE:HD12	1.69	0.47
1:E:4291:LEU:HD23	1:E:4417:PHE:CE2	2.50	0.47
1:D:3210:ILE:CB	1:D:3214:LYS:HZ2	2.25	0.47
1:E:4031:ASN:OD1	1:E:4033:ARG:HB2	2.14	0.47
1:G:6528:ILE:HD11	1:G:6554:LYS:HD2	1.94	0.47
1:F:5537:ASN:O	1:F:5538:LYS:C	2.52	0.47
1:D:3142:HIS:O	1:D:3143:VAL:C	2.52	0.47
1:D:3116:VAL:CG2	1:D:3179:ILE:HD13	2.44	0.47
1:G:6306:LYS:O	1:G:6386:PRO:CB	2.63	0.47
1:F:5127:PHE:O	1:F:5128:ARG:HD3	2.13	0.47
1:B:1227:ARG:NH1	1:B:1227:ARG:HG2	2.12	0.47
1:D:3286:VAL:O	1:D:3289:ALA:HB3	2.13	0.47
1:H:7351:VAL:CG1	1:H:7369:ALA:HB2	2.44	0.47
1:C:2454:LEU:HD12	1:C:2458:ARG:CB	2.44	0.47
1:E:4261:ASN:HD22	1:E:4261:ASN:N	2.03	0.47
1:C:2416:ILE:N	1:C:2416:ILE:CD1	2.78	0.47
1:A:261:ASN:HA	1:A:264:ARG:HE	1.79	0.47
1:E:4059:GLU:CD	1:E:4067:ARG:HH22	2.17	0.47
1:D:3281:GLN:HG2	1:D:3491:PHE:CE1	2.50	0.47
1:E:4506:GLU:O	1:E:4511:ARG:HG3	2.14	0.47
1:G:6525:ASN:O	1:G:6526:ILE:C	2.52	0.47
1:D:3094:LYS:HG2	1:D:3562:TYR:HD2	1.79	0.47
1:G:6508:ALA:C	1:G:6510:GLY:H	2.18	0.47
1:H:7297:VAL:HG22	1:H:7298:ILE:HD13	1.96	0.47
1:H:7374:PRO:HB3	1:H:7380:ALA:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7459:VAL:O	1:H:7460:PHE:HD1	1.96	0.47
1:H:7468:VAL:HA	1:H:7471:PHE:CE2	2.49	0.47
1:A:143:VAL:HG11	1:A:238:PHE:HA	1.95	0.47
1:A:239:MSE:HE2	1:A:269:TYR:CD1	2.49	0.47
1:G:6333:SER:OG	1:G:6335:GLN:HB3	2.14	0.47
1:G:6416:ILE:CD1	1:G:6441:CYS:HB2	2.44	0.47
1:G:6122:GLN:HA	1:G:6122:GLN:NE2	2.29	0.47
1:H:7166:ILE:O	1:H:7169:LEU:HB2	2.14	0.47
1:B:1344:PHE:HA	1:B:1349:LEU:HA	1.97	0.47
1:B:1137:ILE:HB	1:B:1205:VAL:HG12	1.95	0.47
1:B:1407:MSE:SE	1:B:1411:ASN:HD21	2.48	0.47
1:D:3068:PHE:CZ	1:D:3085:ILE:HD12	2.49	0.47
1:F:5559:ARG:NH1	1:F:5559:ARG:CG	2.76	0.47
1:D:3243:THR:HB	1:D:3248:ARG:HH11	1.79	0.47
1:E:4075:MSE:HG3	1:E:4080:GLU:CD	2.35	0.47
1:A:52:GLY:O	1:B:1133:LEU:HD12	2.14	0.47
1:D:3304:GLU:H	1:D:3304:GLU:HG3	1.34	0.47
1:C:2429:THR:HA	1:C:2449:PHE:CZ	2.50	0.47
1:H:7527:ALA:O	1:H:7531:THR:HG23	2.14	0.47
1:F:5081:LYS:O	1:F:5082:TYR:C	2.52	0.47
1:H:7136:SER:O	1:H:7139:ASP:HB2	2.13	0.47
1:H:7412:GLU:C	1:H:7440:ARG:HH11	2.17	0.47
1:H:7467:ASN:C	1:H:7469:TYR:N	2.67	0.47
1:D:3255:GLU:O	1:D:3256:ASP:C	2.53	0.47
1:D:3123:TYR:C	1:D:3125:HIS:H	2.18	0.47
1:B:1389:ILE:HG23	1:B:1399:PHE:CE1	2.50	0.47
1:E:4300:LYS:CE	1:E:4304:GLU:HB2	2.44	0.47
1:B:1273:TYR:O	1:B:1485:HIS:HD2	1.98	0.47
1:G:6278:ASP:C	1:G:6280:ILE:H	2.17	0.47
1:C:2328:VAL:HG22	1:C:2332:LEU:O	2.13	0.47
1:D:3046:GLN:HG2	1:D:3051:GLN:HG3	1.97	0.47
1:A:276:PHE:HB2	1:A:281:GLN:HE22	1.74	0.47
1:C:2300:LYS:HZ3	1:C:2305:HIS:HA	1.79	0.47
1:C:2503:THR:HG23	1:C:2506:GLU:OE1	2.14	0.47
1:E:4388:THR:HG23	1:E:4415:VAL:CG1	2.45	0.47
1:B:1050:LEU:O	1:B:1053:LEU:HB2	2.15	0.47
1:D:3088:ILE:HD12	1:D:3091:ARG:NH1	2.30	0.47
1:H:7112:TYR:CD2	1:H:7113:THR:HG23	2.50	0.47
1:H:7390:ILE:HG23	1:H:7417:PHE:CB	2.42	0.47
1:H:7434:TYR:CD2	1:H:7441:CYS:SG	3.08	0.47
1:G:6323:ILE:HG22	1:G:6327:MSE:CE	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6384:LEU:HB3	1:G:6386:PRO:HD3	1.97	0.47
1:G:6416:ILE:HD11	1:G:6441:CYS:SG	2.55	0.47
1:D:3421:ASN:HA	1:D:3422:PRO:C	2.32	0.47
1:C:2341:ILE:O	1:C:2367:HIS:NE2	2.39	0.47
1:B:1302:ILE:O	1:B:1304:GLU:N	2.47	0.47
1:B:1381:VAL:HG13	1:B:1407:MSE:HE2	1.96	0.47
1:B:1411:ASN:O	1:B:1440:ARG:NH1	2.48	0.47
1:A:313:GLY:O	1:A:314:GLU:C	2.53	0.47
1:A:376:THR:CG2	1:A:378:GLU:HB3	2.45	0.47
1:A:381:VAL:HG13	1:A:407:MSE:CE	2.44	0.47
1:E:4379:ASP:O	1:E:4380:ALA:C	2.53	0.47
1:E:4385:LYS:HE2	1:E:4385:LYS:HB2	1.45	0.47
1:D:3284:ALA:O	1:D:3286:VAL:N	2.48	0.47
1:D:3538:LYS:HA	1:D:3538:LYS:HD3	1.41	0.47
1:G:6488:ASP:HA	1:G:6491:PHE:CD1	2.41	0.47
1:G:6492:LEU:O	1:G:6495:ALA:N	2.47	0.47
1:G:6402:ASP:CA	1:G:6405:ARG:HG2	2.44	0.47
1:H:7243:THR:C	1:H:7248:ARG:NH1	2.66	0.47
1:H:7373:ILE:HG22	1:H:7373:ILE:O	2.14	0.47
1:F:5352:LYS:HG2	1:F:5368:SER:N	2.28	0.47
1:D:3333:SER:OG	1:D:3335:GLN:HB3	2.14	0.47
1:D:3343:MSE:HE2	1:D:3365:PHE:HB2	1.96	0.47
1:F:5470:ILE:HG22	1:F:5474:VAL:CG2	2.43	0.47
1:H:7043:GLN:CG	1:H:7566:LEU:HD11	2.39	0.47
1:C:2467:ASN:OD1	3:C:2601:NAD:N7N	2.47	0.47
1:D:3303:SER:O	1:D:3340:LYS:HE2	2.13	0.47
1:C:2028:LEU:CD2	1:C:2048:LEU:HD12	2.45	0.47
1:C:2357:LYS:C	1:C:2358:ILE:HG13	2.35	0.47
1:G:6210:ILE:C	1:G:6214:LYS:HD2	2.34	0.47
1:A:259:ASN:HD22	1:A:259:ASN:N	2.11	0.47
1:C:2559:ARG:CG	1:C:2561:GLU:HG2	2.44	0.47
1:E:4187:TYR:O	1:E:4191:ALA:HB3	2.14	0.47
1:B:1045:ARG:NH2	1:B:1058:ILE:HD13	2.29	0.47
1:G:6498:LEU:HA	1:G:6526:ILE:HD11	1.96	0.47
1:G:6165:ARG:CZ	1:G:6259:ASN:HD21	2.27	0.47
1:C:2075:MSE:HG3	1:C:2080:GLU:OE1	2.15	0.47
1:H:7230:GLN:HG2	1:H:7230:GLN:H	1.55	0.47
1:F:5025:GLY:O	1:F:5050:LEU:HD21	2.15	0.47
1:D:3504:ASP:O	1:D:3507:LEU:HB2	2.14	0.47
1:A:212:LEU:O	1:A:215:ASP:N	2.36	0.47
1:A:152:GLU:N	1:A:152:GLU:OE1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1474:VAL:O	1:B:1477:ALA:N	2.47	0.47
1:B:1561:GLU:H	1:B:1561:GLU:HG2	1.50	0.47
1:C:2150:TRP:NE1	1:C:2152:GLU:HB2	2.30	0.47
1:C:2329:GLU:O	1:C:2329:GLU:HG3	2.13	0.47
1:D:3561:GLU:H	1:D:3561:GLU:HG2	1.38	0.47
1:E:4147:VAL:O	1:E:4245:ARG:NH1	2.48	0.47
1:D:3342:TRP:CE2	1:D:3367:HIS:CD2	3.03	0.47
1:D:3165:ARG:HB2	1:D:3257:PHE:O	2.14	0.47
1:D:3234:LEU:O	1:D:3238:PHE:HB3	2.14	0.47
1:D:3288:LEU:HG	1:D:3292:LEU:HD23	1.96	0.47
1:B:1347:TYR:CD1	1:B:1356:ALA:HB1	2.50	0.47
1:C:2377:PHE:CE1	1:C:2389:ILE:HD11	2.50	0.47
1:C:2386:PRO:HG2	1:C:2407:MSE:SE	2.65	0.47
1:B:1300:LYS:O	1:B:1304:GLU:OE2	2.33	0.47
1:B:1451:PRO:HA	1:B:1461:THR:HA	1.97	0.47
1:H:7243:THR:HG21	1:H:7273:TYR:CD2	2.50	0.47
1:A:397:ARG:HH11	1:A:397:ARG:CG	2.27	0.47
1:B:1253:GLN:HG3	1:B:1276:PHE:CE2	2.49	0.47
1:C:2060:THR:OG1	1:C:2063:ILE:HG13	2.14	0.47
1:B:1108:MSE:HB3	1:B:1109:PRO:CD	2.44	0.47
1:D:3103:ASP:HB3	1:D:3107:LEU:CD2	2.43	0.47
1:B:1123:TYR:CD2	1:B:1219:MSE:HE1	2.50	0.47
1:C:2395:ALA:O	1:C:2398:LEU:HD11	2.15	0.47
1:A:425:GLN:N	1:A:425:GLN:NE2	2.62	0.47
1:G:6535:TYR:CZ	1:G:6545:GLU:HA	2.49	0.47
1:B:1470:ILE:C	1:B:1472:PRO:CD	2.83	0.47
1:A:182:GLY:O	1:A:185:CYS:HB2	2.15	0.47
1:D:3273:TYR:HB2	1:D:3275:THR:HG22	1.96	0.47
1:G:6160:VAL:HG11	1:G:6238:PHE:CZ	2.50	0.47
1:A:389:ILE:CG2	1:A:416:ILE:HG22	2.45	0.47
1:E:4303:SER:HA	1:E:4340:LYS:HZ3	1.80	0.47
1:E:4405:ARG:CG	1:E:4406:ALA:N	2.77	0.47
1:E:4405:ARG:HG3	1:E:4406:ALA:N	2.30	0.47
1:B:1273:TYR:O	1:B:1485:HIS:CD2	2.68	0.47
1:E:4026:LYS:C	1:E:4028:LEU:N	2.68	0.47
1:C:2260:HIS:C	1:C:2260:HIS:ND1	2.67	0.47
1:A:180:PRO:HB2	1:A:200:PRO:HB2	1.97	0.47
1:D:3471:PHE:CG	1:D:3472:PRO:CD	2.95	0.47
1:C:2291:LEU:O	1:C:2294:ALA:HB3	2.15	0.47
1:D:3300:LYS:NZ	1:D:3305:HIS:N	2.63	0.47
1:C:2400:THR:HB	1:C:2401:PRO:HD2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:512:LEU:CD1	1:A:512:LEU:H	2.25	0.47
1:D:3482:ASN:ND2	1:D:3542:ARG:HB2	2.30	0.47
1:B:1075:MSE:HG3	1:B:1080:GLU:CD	2.35	0.47
1:A:349:LEU:HD21	1:A:351:VAL:CG2	2.45	0.47
1:C:2188:THR:HG21	1:C:2195:PRO:HG3	1.96	0.47
1:B:1521:GLU:O	1:B:1522:VAL:C	2.51	0.47
1:C:2310:LEU:HG	1:C:2310:LEU:O	2.14	0.47
1:E:4207:THR:OG1	1:E:4208:ASP:N	2.48	0.47
1:H:7076:THR:HB	1:H:7077:SER:H	1.55	0.47
1:D:3416:ILE:HD13	1:D:3442:LEU:O	2.15	0.47
1:H:7377:PHE:O	1:H:7378:GLU:C	2.53	0.47
1:E:4108:MSE:HE2	1:E:4108:MSE:HB2	1.74	0.47
1:G:6302:ILE:HD12	1:G:6302:ILE:H	1.80	0.47
1:G:6321:ASN:O	1:G:6322:LEU:C	2.52	0.47
1:G:6428:CYS:SG	1:G:6429:THR:N	2.88	0.47
1:G:6128:ARG:HH11	1:G:6128:ARG:CG	2.26	0.47
1:B:1312:ALA:CB	1:B:1362:GLN:HE21	2.27	0.47
1:C:2313:GLY:O	1:C:2316:ALA:N	2.43	0.47
1:C:2317:LEU:H	1:C:2317:LEU:CD1	2.10	0.47
1:E:4077:SER:O	1:E:4080:GLU:HB3	2.15	0.47
1:E:4085:ILE:HG23	1:E:4086:MSE:N	2.30	0.47
1:B:1174:VAL:HG23	1:B:1219:MSE:CE	2.45	0.47
1:B:1552:TYR:CE1	1:B:1556:ARG:CZ	2.98	0.47
1:C:2072:LEU:O	1:C:2075:MSE:HB2	2.14	0.47
1:H:7255:GLU:O	1:H:7256:ASP:C	2.52	0.47
1:G:6541:PHE:HD2	1:G:6541:PHE:N	2.13	0.47
1:E:4196:ASP:N	1:E:4196:ASP:OD1	2.48	0.47
1:E:4208:ASP:OD1	1:E:4224:LYS:HD2	2.15	0.47
1:C:2176:GLY:C	1:C:2178:GLY:N	2.69	0.47
1:H:7289:ALA:HA	1:H:7499:THR:OG1	2.15	0.46
1:A:142:HIS:O	1:A:143:VAL:C	2.53	0.46
1:G:6394:GLY:HA2	1:G:6425:GLN:HG3	1.97	0.46
1:B:1369:ALA:HB1	1:B:1373:ILE:HD11	1.96	0.46
1:B:1210:ILE:O	1:B:1214:LYS:HG3	2.15	0.46
1:F:5108:MSE:N	1:F:5109:PRO:HD2	2.29	0.46
1:A:372:SER:OG	1:A:383:ILE:HD13	2.15	0.46
1:E:4402:ASP:CA	1:E:4405:ARG:HG2	2.42	0.46
1:E:4310:LEU:HG	1:E:4310:LEU:O	2.15	0.46
1:B:1232:ASP:O	1:B:1235:ILE:HG12	2.15	0.46
1:B:1281:GLN:HG2	1:B:1491:PHE:CE1	2.50	0.46
1:E:4060:THR:O	1:E:4064:GLN:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5358:ILE:HG21	1:F:5366:THR:OG1	2.15	0.46
1:F:5378:GLU:HA	1:F:5381:VAL:CG2	2.45	0.46
1:G:6209:ASN:C	1:G:6213:LEU:HD12	2.35	0.46
1:C:2253:GLN:NE2	1:C:2255:GLU:HG2	2.30	0.46
1:E:4501:GLN:HB3	1:E:4514:PRO:HG3	1.97	0.46
1:B:1068:PHE:CZ	1:B:1085:ILE:HD12	2.50	0.46
1:G:6287:ALA:O	1:G:6290:GLY:N	2.44	0.46
1:F:5071:ASN:O	1:F:5075:MSE:CE	2.63	0.46
1:E:4494:ALA:O	1:E:4497:ALA:HB3	2.15	0.46
1:F:5228:THR:OG1	1:F:5229:GLN:N	2.47	0.46
1:D:3402:ASP:CA	1:D:3405:ARG:HG2	2.45	0.46
1:A:245:ARG:HG2	1:A:246:TYR:CD1	2.50	0.46
1:D:3104:ILE:HG23	1:D:3105:GLU:N	2.30	0.46
1:D:3123:TYR:CE1	1:D:3178:GLY:HA3	2.50	0.46
1:G:6338:GLN:HA	1:G:6341:ILE:HG13	1.97	0.46
1:G:6397:ARG:CZ	1:G:6429:THR:HG22	2.45	0.46
1:C:2308:LEU:HB3	1:C:2389:ILE:HD12	1.95	0.46
1:C:2374:PRO:CB	1:C:2379:ASP:HB3	2.46	0.46
1:B:1512:LEU:HD12	1:B:1512:LEU:H	1.81	0.46
1:A:341:ILE:HB	1:A:365:PHE:CD2	2.50	0.46
1:E:4438:GLU:O	1:E:4458:ARG:NH1	2.49	0.46
1:D:3156:LYS:HD3	1:D:3479:ILE:HG23	1.96	0.46
1:F:5308:LEU:HD12	1:F:5309:PHE:H	1.80	0.46
1:A:281:GLN:HG2	1:A:491:PHE:CE1	2.50	0.46
1:B:1155:VAL:HB	1:B:1246:TYR:CD2	2.50	0.46
1:C:2520:GLN:O	1:C:2523:SER:N	2.47	0.46
1:E:4467:ASN:OD1	3:E:4601:NAD:N7N	2.48	0.46
1:B:1556:ARG:HG3	1:B:1556:ARG:HH11	1.79	0.46
1:C:2140:ARG:NH1	1:C:2230:GLN:HG2	2.30	0.46
1:D:3168:GLY:C	1:D:3169:LEU:HD12	2.35	0.46
1:C:2503:THR:O	1:C:2507:LEU:HD23	2.15	0.46
1:A:82:TYR:CD2	1:A:82:TYR:C	2.89	0.46
1:F:5231:TYR:O	1:F:5235:ILE:HG12	2.16	0.46
1:C:2150:TRP:CD1	1:C:2152:GLU:HB2	2.50	0.46
1:C:2278:ASP:O	1:C:2280:ILE:N	2.49	0.46
1:H:7071:ASN:O	1:H:7075:MSE:HE3	2.15	0.46
1:H:7308:LEU:HB3	1:H:7389:ILE:HD13	1.97	0.46
1:H:7306:LYS:NZ	1:H:7384:LEU:O	2.49	0.46
1:A:476:LEU:CD1	1:A:480:LEU:HD11	2.45	0.46
1:C:2197:ARG:NH1	1:C:2197:ARG:CG	2.65	0.46
1:G:6413:ARG:HA	1:G:6413:ARG:HE	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6430:ALA:HA	1:G:6443:PHE:CE2	2.49	0.46
1:D:3424:ALA:C	1:D:3425:GLN:NE2	2.68	0.46
1:D:3432:GLU:O	1:D:3433:ALA:C	2.53	0.46
1:H:7123:TYR:C	1:H:7125:HIS:H	2.19	0.46
1:B:1466:ASN:HB3	1:B:1468:VAL:CG1	2.32	0.46
1:G:6402:ASP:HA	1:G:6405:ARG:CD	2.45	0.46
1:G:6086:MSE:HE3	1:G:6086:MSE:CA	2.46	0.46
1:G:6086:MSE:CE	1:G:6096:PHE:HE1	2.29	0.46
1:B:1400:THR:HB	1:B:1401:PRO:HD2	1.98	0.46
1:A:103:ASP:HB3	1:A:107:LEU:CD2	2.35	0.46
1:D:3548:ASP:OD1	1:D:3550:ALA:HB3	2.15	0.46
1:H:7521:GLU:O	1:H:7522:VAL:C	2.53	0.46
1:C:2183:LYS:NZ	1:C:2255:GLU:OE2	2.29	0.46
1:H:7543:TYR:HB2	1:H:7544:PRO:HA	1.96	0.46
1:A:38:MSE:SE	1:B:1219:MSE:HB3	2.65	0.46
1:A:41:THR:HG23	1:A:44:GLU:OE2	2.15	0.46
1:G:6075:MSE:HG3	1:G:6080:GLU:HG2	1.95	0.46
1:G:6060:THR:O	1:G:6061:GLN:C	2.53	0.46
1:E:4553:VAL:O	1:E:4555:GLU:N	2.48	0.46
1:F:5159:VAL:HG21	1:F:5184:LEU:HD13	1.96	0.46
1:D:3454:LEU:HD12	1:D:3458:ARG:HB2	1.97	0.46
1:E:4492:LEU:O	1:E:4495:ALA:HB3	2.15	0.46
1:G:6188:THR:HG23	1:G:6195:PRO:HD3	1.97	0.46
1:A:139:ASP:O	1:A:140:ARG:C	2.51	0.46
1:G:6298:ILE:O	1:G:6299:SER:HB2	2.14	0.46
1:D:3419:LEU:HA	1:D:3446:GLY:N	2.29	0.46
1:B:1363:GLU:CB	1:B:1364:PRO:HD3	2.46	0.46
1:A:454:LEU:HD12	1:A:458:ARG:O	2.16	0.46
1:B:1376:THR:O	1:B:1379:ASP:HB2	2.16	0.46
1:E:4261:ASN:HA	1:E:4264:ARG:HE	1.80	0.46
1:A:277:ASN:N	1:A:281:GLN:OE1	2.41	0.46
1:A:42:LEU:CD2	1:C:2572:TRP:HB2	2.45	0.46
1:C:2552:TYR:O	1:C:2555:GLU:HB2	2.14	0.46
1:G:6182:GLY:O	1:G:6185:CYS:SG	2.73	0.46
1:B:1171:ASP:OD2	1:B:1225:ARG:NE	2.49	0.46
1:A:271:GLU:O	1:A:485:HIS:NE2	2.48	0.46
1:H:7279:ASP:N	1:H:7279:ASP:OD1	2.46	0.46
1:A:431:GLU:O	1:A:433:ALA:N	2.48	0.46
1:H:7416:ILE:O	1:H:7443:PHE:HA	2.16	0.46
1:G:6349:LEU:CD2	1:G:6351:VAL:HG23	2.46	0.46
1:B:1349:LEU:O	1:B:1354:ARG:HD2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4294:ALA:O	1:E:4295:GLN:C	2.53	0.46
1:E:4344:PHE:CD2	1:E:4344:PHE:O	2.68	0.46
1:D:3075:MSE:CB	1:D:3081:LYS:HD3	2.35	0.46
1:E:4439:GLY:HA3	1:E:4460:PHE:CE2	2.51	0.46
1:C:2484:ARG:C	1:C:2485:HIS:ND1	2.69	0.46
1:E:4043:GLN:HG3	1:E:4047:MSE:HE3	1.97	0.46
1:G:6528:ILE:HD13	1:G:6550:ALA:HA	1.97	0.46
1:A:351:VAL:CG1	1:A:369:ALA:HB2	2.43	0.46
1:H:7230:GLN:O	1:H:7233:ASP:HB2	2.14	0.46
1:H:7503:THR:HG23	1:H:7506:GLU:OE1	2.16	0.46
1:H:7511:ARG:NH1	1:H:7511:ARG:CB	2.78	0.46
1:D:3553:VAL:C	1:D:3555:GLU:N	2.69	0.46
1:C:2481:CYS:SG	1:C:2540:ALA:CB	3.04	0.46
1:C:2417:PHE:CE2	1:C:2444:ALA:HB3	2.50	0.46
1:F:5186:LEU:O	1:F:5187:TYR:C	2.52	0.46
1:E:4079:LEU:O	1:E:4083:ILE:HG13	2.16	0.46
1:H:7445:SER:O	1:H:7464:GLN:HA	2.16	0.46
1:D:3379:ASP:O	1:D:3383:ILE:HG13	2.15	0.46
1:H:7388:THR:HG22	1:H:7389:ILE:N	2.30	0.46
1:D:3135:ILE:CD1	1:D:3143:VAL:HG13	2.46	0.46
1:D:3422:PRO:HD2	1:D:3425:GLN:HG2	1.96	0.46
1:B:1293:ALA:CB	1:B:1512:LEU:HB3	2.46	0.46
1:A:389:ILE:O	1:A:389:ILE:HG23	2.15	0.46
1:A:413:ARG:HH21	1:A:441:CYS:N	2.14	0.46
1:E:4350:LEU:CD1	1:E:4354:ARG:CZ	2.92	0.46
1:C:2161:THR:HG22	1:C:2180:PRO:HG3	1.97	0.46
1:E:4081:LYS:O	1:E:4085:ILE:HG22	2.15	0.46
1:C:2471:PHE:CD2	1:C:2472:PRO:HD3	2.50	0.46
1:D:3529:LYS:O	1:D:3530:VAL:C	2.53	0.46
1:H:7481:CYS:C	1:H:7483:THR:H	2.18	0.46
1:F:5310:LEU:HD21	1:F:5398:LEU:HD22	1.98	0.46
1:F:5511:ARG:HB2	1:F:5511:ARG:HH11	1.80	0.46
1:E:4472:PRO:HG2	1:E:4523:SER:HB3	1.98	0.46
1:C:2156:LYS:O	1:C:2251:LEU:HB3	2.15	0.46
1:G:6528:ILE:HA	1:G:6553:VAL:HG21	1.98	0.46
1:E:4373:ILE:HG22	1:E:4373:ILE:O	2.15	0.46
1:A:177:MSE:O	1:A:181:VAL:HG22	2.16	0.46
1:H:7094:LYS:O	1:H:7097:TYR:N	2.48	0.46
1:B:1279:ASP:O	1:B:1280:ILE:HG13	2.16	0.46
1:F:5508:ALA:C	1:F:5510:GLY:N	2.68	0.46
1:D:3258:GLY:O	1:D:3260:HIS:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6300:LYS:NZ	1:G:6304:GLU:HB2	2.31	0.46
1:G:6314:GLU:CG	1:G:6315:ALA:H	2.29	0.46
1:G:6184:LEU:HG	1:G:6198:CYS:HB3	1.97	0.46
1:G:6477:ALA:O	1:G:6481:CYS:HB2	2.16	0.46
1:C:2323:ILE:O	1:C:2324:VAL:C	2.53	0.46
1:C:2327:MSE:CE	1:C:2341:ILE:HD11	2.45	0.46
1:A:310:LEU:C	1:A:344:PHE:O	2.54	0.46
1:A:389:ILE:HG21	1:A:416:ILE:HG22	1.98	0.46
1:C:2210:ILE:HD11	1:C:2224:LYS:NZ	2.30	0.46
1:C:2191:ALA:O	1:C:2476:LEU:HD22	2.16	0.46
1:B:1133:LEU:HA	1:B:1133:LEU:HD12	1.68	0.46
1:G:6223:GLN:HG2	1:G:6224:LYS:N	2.30	0.46
1:C:2549:LYS:O	1:C:2553:VAL:HG23	2.15	0.46
1:F:5533:TYR:C	1:F:5533:TYR:CD2	2.88	0.46
1:G:6536:ALA:HA	1:G:6538:LYS:HZ3	1.79	0.46
1:A:219:MSE:HB2	1:B:1038:MSE:SE	2.66	0.46
1:B:1471:PHE:CD1	1:B:1472:PRO:CD	2.99	0.46
1:E:4156:LYS:HG3	1:E:4197:ARG:HB3	1.98	0.46
1:H:7140:ARG:HG3	1:H:7140:ARG:O	2.15	0.46
1:D:3376:THR:HG22	1:D:3377:PHE:N	2.29	0.46
1:G:6238:PHE:O	1:G:6239:MSE:C	2.53	0.46
1:E:4104:ILE:HG23	1:E:4105:GLU:H	1.81	0.46
1:E:4177:MSE:O	1:E:4181:VAL:HG23	2.15	0.46
1:A:453:LYS:CD	1:A:457:GLY:HA2	2.43	0.46
1:D:3243:THR:HB	1:D:3248:ARG:NH1	2.31	0.46
1:F:5351:VAL:HG22	1:F:5369:ALA:HA	1.98	0.46
1:C:2300:LYS:HD3	1:C:2305:HIS:CD2	2.51	0.46
1:D:3533:TYR:CD2	1:D:3533:TYR:C	2.89	0.46
1:G:6024:LYS:C	1:G:6028:LEU:HD22	2.36	0.46
1:A:137:ILE:HA	1:A:234:LEU:CD2	2.45	0.46
1:C:2156:LYS:CB	1:C:2479:ILE:HD13	2.44	0.46
1:B:1321:ASN:O	1:B:1324:VAL:N	2.49	0.46
1:G:6282:GLY:O	1:G:6283:THR:C	2.54	0.46
1:C:2232:ASP:O	1:C:2235:ILE:HG12	2.16	0.46
1:C:2069:HIS:C	1:C:2071:ASN:N	2.67	0.46
1:D:3309:PHE:HD1	1:D:3390:ILE:HB	1.79	0.46
1:H:7434:TYR:CG	1:H:7460:PHE:HD2	2.34	0.46
1:H:7498:LEU:O	1:H:7501:GLN:CB	2.57	0.46
1:H:7499:THR:O	1:H:7502:LEU:HB2	2.16	0.46
1:A:238:PHE:O	1:A:242:ILE:HG12	2.16	0.46
1:G:6230:GLN:O	1:G:6233:ASP:HB2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1137:ILE:O	1:B:1137:ILE:HG13	2.15	0.46
1:A:483:THR:HG23	1:A:539:MSE:O	2.16	0.46
1:G:6401:PRO:O	1:G:6405:ARG:HG2	2.16	0.46
1:C:2132:GLY:HA3	1:C:2177:MSE:HE1	1.97	0.46
1:C:2261:ASN:HA	1:C:2264:ARG:NE	2.31	0.46
1:H:7358:ILE:HG21	1:H:7366:THR:OG1	2.16	0.46
1:C:2458:ARG:HH11	1:C:2458:ARG:HB2	1.80	0.46
1:F:5333:SER:HB3	1:F:5336:GLU:CD	2.36	0.46
1:H:7394:GLY:HA2	1:H:7420:SER:CB	2.41	0.46
1:C:2302:ILE:HD12	1:C:2302:ILE:H	1.80	0.46
1:C:2025:GLY:O	1:C:2028:LEU:HB2	2.15	0.46
1:D:3194:ARG:HH21	1:D:3197:ARG:HE	1.64	0.46
1:E:4470:ILE:HD11	1:E:4498:LEU:HD23	1.98	0.46
1:B:1326:SER:O	1:B:1327:MSE:C	2.53	0.46
1:B:1326:SER:O	1:B:1329:GLU:N	2.49	0.46
1:A:45:ARG:NH1	1:A:58:ILE:HD13	2.31	0.46
1:E:4321:ASN:C	1:E:4321:ASN:OD1	2.54	0.46
1:H:7429:THR:HG23	1:H:7432:GLU:CG	2.46	0.46
1:B:1090:GLU:HG2	1:B:1131:LYS:HZ2	1.80	0.46
1:C:2360:SER:HA	1:C:2363:GLU:OE1	2.15	0.46
1:D:3186:LEU:O	1:D:3187:TYR:C	2.54	0.46
1:D:3183:LYS:CD	1:D:3255:GLU:OE2	2.64	0.46
1:C:2039:ALA:HA	1:C:2059:GLU:O	2.16	0.46
1:A:236:ASP:O	1:A:237:GLU:C	2.53	0.46
1:G:6112:TYR:CE2	1:G:6113:THR:HG23	2.51	0.46
1:H:7081:LYS:O	1:H:7085:ILE:HG22	2.16	0.46
1:E:4243:THR:HG22	1:E:4247:GLY:O	2.16	0.46
1:C:2320:ALA:HB1	1:C:2365:PHE:CE2	2.51	0.46
1:D:3082:TYR:HA	1:D:3085:ILE:HG22	1.98	0.46
1:D:3321:ASN:O	1:D:3324:VAL:HB	2.15	0.46
1:E:4093:GLU:O	1:E:4096:PHE:HB3	2.16	0.46
1:A:261:ASN:HA	1:A:264:ARG:HG2	1.98	0.46
1:A:44:GLU:O	1:A:48:LEU:N	2.46	0.46
1:D:3169:LEU:HD22	1:D:3172:LEU:HD11	1.98	0.46
1:H:7083:ILE:HD11	1:H:7126:ILE:HG21	1.96	0.46
1:H:7401:PRO:O	1:H:7405:ARG:HG2	2.16	0.46
1:E:4037:GLY:C	1:E:4039:ALA:N	2.68	0.46
1:B:1164:GLU:HG3	1:B:1171:ASP:OD2	2.16	0.46
1:E:4229:GLN:O	1:E:4232:ASP:N	2.49	0.46
1:A:150:TRP:CE2	1:A:199:LEU:HD13	2.51	0.46
1:B:1307:ILE:HG12	1:B:1388:THR:CB	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:453:LYS:HG2	1:A:458:ARG:N	2.31	0.45
1:B:1390:ILE:HG23	1:B:1419:LEU:HD21	1.97	0.45
1:A:285:ALA:HA	1:A:322:LEU:HD22	1.98	0.45
1:C:2177:MSE:O	1:C:2177:MSE:HG3	2.16	0.45
1:H:7243:THR:HG22	1:H:7248:ARG:HA	1.98	0.45
1:F:5363:GLU:O	1:F:5365:PHE:N	2.50	0.45
1:E:4164:GLU:O	1:E:4171:ASP:N	2.49	0.45
1:A:255:GLU:OE2	1:A:278:ASP:HB3	2.15	0.45
1:B:1108:MSE:N	1:B:1109:PRO:HD2	2.31	0.45
1:A:184:LEU:HG	1:A:198:CYS:CB	2.47	0.45
1:F:5258:GLY:O	1:F:5259:ASN:C	2.54	0.45
1:E:4115:THR:O	1:E:4118:LEU:N	2.49	0.45
1:E:4408:ALA:HA	1:E:4414:PRO:HG3	1.98	0.45
1:D:3184:LEU:O	1:D:3185:CYS:C	2.53	0.45
1:A:99:ILE:O	1:A:102:ASP:HB2	2.16	0.45
1:A:61:GLN:HG2	1:A:98:ARG:HD3	1.97	0.45
1:G:6219:MSE:HE3	1:G:6219:MSE:HB2	1.94	0.45
1:G:6478:VAL:HG21	1:G:6486:ILE:HD13	1.98	0.45
1:D:3527:ALA:O	1:D:3528:ILE:C	2.52	0.45
1:E:4033:ARG:NE	1:E:4093:GLU:OE1	2.49	0.45
1:G:6504:ASP:HA	1:G:6507:LEU:HB2	1.99	0.45
1:F:5240:LYS:HG2	1:F:5244:ASP:CG	2.36	0.45
1:A:85:ILE:C	1:A:87:GLY:N	2.69	0.45
1:B:1431:GLU:C	1:B:1433:ALA:N	2.70	0.45
1:D:3464:GLN:O	1:D:3469:TYR:HE1	2.00	0.45
1:E:4124:GLY:O	1:E:4217:PHE:HB3	2.15	0.45
1:E:4543:TYR:CD2	1:E:4543:TYR:C	2.89	0.45
1:B:1306:LYS:CD	1:B:1384:LEU:O	2.64	0.45
1:B:1420:SER:CB	1:B:1427:GLU:OE1	2.64	0.45
1:B:1454:LEU:O	1:B:1457:GLY:N	2.49	0.45
1:A:324:VAL:O	1:A:325:MSE:C	2.53	0.45
1:E:4332:LEU:HD21	1:E:4340:LYS:NZ	2.31	0.45
1:A:267:ARG:HH11	1:A:267:ARG:CG	2.24	0.45
1:C:2210:ILE:O	1:C:2214:LYS:HG3	2.16	0.45
1:C:2179:ILE:O	1:C:2180:PRO:C	2.55	0.45
1:G:6276:PHE:CD1	1:G:6277:ASN:N	2.85	0.45
1:H:7317:LEU:HD21	1:H:7362:GLN:HG3	1.98	0.45
1:C:2174:VAL:CG2	1:C:2219:MSE:HE3	2.47	0.45
1:C:2520:GLN:HB2	1:C:2521:GLU:H	1.67	0.45
1:A:258:GLY:O	1:A:259:ASN:C	2.55	0.45
1:C:2136:SER:O	1:C:2139:ASP:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5027:PRO:HA	1:F:5030:LEU:HB2	1.98	0.45
1:H:7504:ASP:HA	1:H:7507:LEU:HB2	1.97	0.45
1:G:6033:ARG:NH2	1:G:6196:ASP:HA	2.30	0.45
1:E:4143:VAL:O	1:E:4146:ILE:HB	2.15	0.45
1:C:2240:LYS:HG3	1:C:2248:ARG:HH22	1.80	0.45
1:G:6548:ASP:O	1:G:6552:TYR:HB2	2.16	0.45
1:A:493:GLU:HG3	1:A:494:ALA:N	2.31	0.45
1:H:7339:LYS:HA	1:H:7367:HIS:CE1	2.51	0.45
1:D:3239:MSE:O	1:D:3240:LYS:C	2.54	0.45
1:E:4113:THR:CA	1:E:4116:VAL:HG12	2.38	0.45
1:C:2105:GLU:HA	1:C:2108:MSE:HE3	1.98	0.45
1:G:6113:THR:CA	1:G:6116:VAL:HG12	2.46	0.45
1:G:6174:VAL:HG23	1:G:6174:VAL:O	2.15	0.45
1:H:7089:GLN:HB2	1:H:7096:PHE:CD1	2.51	0.45
1:D:3419:LEU:HA	1:D:3446:GLY:H	1.81	0.45
1:A:319:ILE:O	1:A:320:ALA:C	2.54	0.45
1:E:4332:LEU:CD2	1:E:4340:LYS:HD2	2.46	0.45
1:E:4404:ILE:O	1:E:4407:MSE:N	2.50	0.45
1:E:4416:ILE:C	1:E:4417:PHE:HD1	2.19	0.45
1:G:6363:GLU:HB2	1:G:6364:PRO:HD3	1.97	0.45
1:H:7270:ARG:HA	1:H:7275:THR:HG23	1.98	0.45
1:A:281:GLN:HB3	1:A:491:PHE:CE2	2.52	0.45
1:H:7396:GLY:HA2	1:H:7425:GLN:C	2.37	0.45
1:C:2528:ILE:O	1:C:2531:THR:N	2.49	0.45
1:F:5419:LEU:O	1:F:5420:SER:C	2.54	0.45
1:D:3310:LEU:HD21	1:D:3398:LEU:HB2	1.98	0.45
1:A:469:TYR:HB3	1:A:498:LEU:CD2	2.47	0.45
1:H:7431:GLU:C	1:H:7433:ALA:N	2.67	0.45
1:F:5228:THR:HG1	1:F:5230:GLN:H	1.62	0.45
1:B:1031:ASN:HB3	1:B:1034:THR:OG1	2.17	0.45
1:A:549:LYS:O	1:A:552:TYR:HB3	2.17	0.45
1:D:3108:MSE:CB	1:D:3109:PRO:HD3	2.46	0.45
1:H:7319:ILE:O	1:H:7320:ALA:C	2.55	0.45
1:G:6128:ARG:NH1	1:G:6128:ARG:HG2	2.24	0.45
1:H:7082:TYR:O	1:H:7086:MSE:HB2	2.16	0.45
1:B:1452:VAL:HG12	1:B:1452:VAL:O	2.16	0.45
1:E:4332:LEU:CB	1:E:4336:GLU:OE2	2.65	0.45
1:D:3156:LYS:O	1:D:3251:LEU:HB3	2.17	0.45
1:F:5342:TRP:CE3	1:F:5349:LEU:HD11	2.51	0.45
1:A:166:ILE:HD13	1:A:166:ILE:HA	1.77	0.45
1:A:518:ASN:OD1	1:A:518:ASN:N	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5374:PRO:HB3	1:F:5383:ILE:HD11	1.99	0.45
1:A:502:LEU:HD12	1:A:506:GLU:HB3	1.98	0.45
1:B:1172:LEU:HD23	1:B:1172:LEU:HA	1.68	0.45
1:C:2503:THR:O	1:C:2507:LEU:HD22	2.16	0.45
1:D:3454:LEU:HD11	1:D:3460:PHE:CE2	2.51	0.45
1:E:4395:ALA:HB3	1:E:4398:LEU:HD22	1.99	0.45
1:G:6056:PRO:HB2	1:H:7221:LEU:CD1	2.47	0.45
1:B:1188:THR:HG23	1:B:1193:ILE:O	2.17	0.45
1:E:4325:MSE:HE3	1:E:4325:MSE:HB3	1.92	0.45
1:E:4565:LEU:HA	1:E:4565:LEU:HD23	1.82	0.45
1:E:4482:ASN:HA	1:E:4482:ASN:HD22	1.56	0.45
1:B:1467:ASN:N	1:B:1467:ASN:OD1	2.49	0.45
1:D:3270:ARG:CG	1:D:3271:GLU:N	2.78	0.45
1:C:2038:MSE:C	1:C:2040:PHE:H	2.20	0.45
1:D:3177:MSE:CE	1:D:3180:PRO:HB2	2.46	0.45
1:F:5458:ARG:HH11	1:F:5458:ARG:CB	2.30	0.45
1:D:3431:GLU:O	1:D:3435:THR:HG23	2.17	0.45
1:B:1434:TYR:CZ	1:B:1443:PHE:HB3	2.52	0.45
1:F:5108:MSE:HE2	1:F:5108:MSE:HB2	1.68	0.45
1:A:337:ALA:O	1:A:340:LYS:HB2	2.16	0.45
1:F:5093:GLU:O	1:F:5096:PHE:N	2.50	0.45
1:C:2311:GLY:HA2	1:C:2345:ASP:HA	1.99	0.45
1:C:2528:ILE:HB	1:C:2529:LYS:H	1.63	0.45
1:F:5537:ASN:N	1:F:5537:ASN:ND2	2.64	0.45
1:A:26:LYS:N	1:A:27:PRO:HD2	2.31	0.45
1:A:541:PHE:CD2	1:A:541:PHE:N	2.85	0.45
1:H:7454:LEU:CD1	1:H:7458:ARG:HB2	2.47	0.45
1:D:3487:SER:O	1:D:3490:VAL:HB	2.16	0.45
1:A:135:ILE:O	1:A:203:ILE:HA	2.16	0.45
1:H:7417:PHE:CD2	1:H:7444:ALA:HB3	2.52	0.45
1:D:3264:ARG:CG	1:D:3265:PHE:N	2.80	0.45
1:D:3275:THR:OG1	1:D:3276:PHE:N	2.48	0.45
1:G:6146:ILE:O	1:G:6149:ASN:N	2.36	0.45
1:H:7166:ILE:CD1	1:H:7176:GLY:HA3	2.46	0.45
1:C:2390:ILE:CG2	1:C:2419:LEU:HD21	2.47	0.45
1:B:1376:THR:HG22	1:B:1379:ASP:N	2.26	0.45
1:A:303:SER:HA	1:A:340:LYS:HZ1	1.82	0.45
1:E:4300:LYS:O	1:E:4302:ILE:N	2.50	0.45
1:F:5137:ILE:C	1:F:5139:ASP:H	2.20	0.45
1:C:2328:VAL:C	1:C:2330:ASN:H	2.19	0.45
1:C:2045:ARG:O	1:C:2051:GLN:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4082:TYR:O	1:E:4085:ILE:HG22	2.17	0.45
1:A:504:ASP:O	1:A:507:LEU:HB2	2.17	0.45
1:F:5393:ALA:HB1	3:F:5601:NAD:C4A	2.47	0.45
1:D:3194:ARG:NH2	1:D:3196:ASP:OD2	2.50	0.45
1:C:2085:ILE:HG23	1:C:2086:MSE:N	2.32	0.45
1:G:6419:LEU:HD22	1:G:6419:LEU:H	1.81	0.45
1:D:3150:TRP:CE3	1:D:3151:PRO:HD2	2.50	0.45
1:A:555:GLU:HB3	1:A:556:ARG:NH1	2.31	0.45
1:D:3229:GLN:O	1:D:3230:GLN:C	2.55	0.45
1:A:231:TYR:O	1:A:235:ILE:HG12	2.17	0.45
1:G:6300:LYS:HZ2	1:G:6304:GLU:C	2.20	0.45
1:B:1370:PRO:O	1:B:1371:GLU:C	2.55	0.45
1:C:2412:GLU:C	1:C:2413:ARG:HG2	2.35	0.45
1:A:342:TRP:CZ3	1:A:367:HIS:HB2	2.52	0.45
1:A:419:LEU:HA	1:A:446:GLY:N	2.27	0.45
1:F:5093:GLU:O	1:F:5094:LYS:C	2.55	0.45
1:H:7143:VAL:HG11	1:H:7238:PHE:HA	1.98	0.45
1:F:5338:GLN:HB3	1:F:5338:GLN:HE21	1.54	0.45
1:F:5494:ALA:O	1:F:5498:LEU:N	2.35	0.45
1:H:7026:LYS:HD2	1:H:7029:MSE:CE	2.47	0.45
1:C:2301:PRO:O	1:C:2302:ILE:C	2.54	0.45
1:D:3300:LYS:O	1:D:3305:HIS:CE1	2.69	0.45
1:C:2061:GLN:HA	1:C:2064:GLN:NE2	2.26	0.45
1:H:7552:TYR:HE1	1:H:7556:ARG:CZ	2.30	0.45
1:H:7422:PRO:C	1:H:7424:ALA:N	2.66	0.45
1:G:6173:GLY:HA3	1:G:6218:TYR:OH	2.16	0.45
1:G:6031:ASN:HA	1:G:6032:PRO:HD2	1.72	0.45
1:F:5144:ARG:HH12	1:F:5245:ARG:N	2.15	0.45
1:F:5242:ILE:O	1:F:5243:THR:C	2.55	0.45
1:F:5471:PHE:CD1	1:F:5472:PRO:HD3	2.51	0.45
1:G:6063:ILE:O	1:G:6066:LEU:HB3	2.17	0.45
1:C:2394:GLY:HA2	1:C:2420:SER:OG	2.17	0.45
1:D:3511:ARG:HH11	1:D:3511:ARG:HB2	1.81	0.45
1:B:1570:TYR:N	1:B:1570:TYR:CD2	2.84	0.45
1:D:3377:PHE:HZ	1:D:3389:ILE:CD1	2.26	0.45
1:H:7108:MSE:HE3	1:H:7516:LEU:HD23	1.97	0.45
1:G:6240:LYS:O	1:G:6244:ASP:HB2	2.17	0.45
1:F:5057:LYS:O	1:F:5058:ILE:HD13	2.15	0.45
1:G:6385:LYS:N	1:G:6386:PRO:CD	2.80	0.45
1:H:7326:SER:HA	1:H:7329:GLU:HG2	1.99	0.45
1:B:1359:ASP:OD2	1:B:1362:GLN:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2390:ILE:HG23	1:C:2419:LEU:HD21	1.98	0.45
1:E:4291:LEU:N	1:E:4291:LEU:HD23	2.31	0.45
1:E:4402:ASP:HA	1:E:4405:ARG:CG	2.43	0.45
1:C:2416:ILE:HD11	1:C:2443:PHE:HB2	1.99	0.45
1:F:5255:GLU:O	1:F:5256:ASP:C	2.54	0.45
1:E:4317:LEU:H	1:E:4317:LEU:CD1	2.26	0.45
1:G:6210:ILE:HG22	1:G:6214:LYS:CE	2.43	0.45
1:A:210:ILE:HG22	1:A:214:LYS:CD	2.43	0.45
1:H:7302:ILE:HG22	1:H:7340:LYS:NZ	2.31	0.45
1:B:1085:ILE:O	1:B:1085:ILE:HG13	2.16	0.45
1:H:7035:ASN:OD1	1:H:7036:LYS:N	2.50	0.45
1:C:2164:GLU:HG3	1:C:2225:ARG:CZ	2.46	0.45
1:B:1103:ASP:HB3	1:B:1107:LEU:CD2	2.46	0.45
1:G:6061:GLN:HA	1:G:6064:GLN:HE21	1.82	0.45
1:C:2243:THR:HG22	1:C:2248:ARG:HA	1.99	0.45
1:H:7183:LYS:NZ	1:H:7255:GLU:OE2	2.47	0.45
1:H:7224:LYS:HA	1:H:7224:LYS:HD2	1.77	0.45
1:A:360:SER:HA	1:A:363:GLU:HG3	1.99	0.45
1:H:7333:SER:HB3	1:H:7336:GLU:CD	2.37	0.45
1:H:7335:GLN:O	1:H:7335:GLN:NE2	2.50	0.45
1:D:3414:PRO:O	1:D:3442:LEU:HD12	2.16	0.45
1:H:7109:PRO:O	1:H:7114:PRO:HD2	2.17	0.45
1:H:7389:ILE:O	1:H:7389:ILE:HG23	2.15	0.45
1:G:6300:LYS:C	1:G:6304:GLU:OE1	2.56	0.45
1:H:7085:ILE:HG23	1:H:7086:MSE:N	2.32	0.45
1:B:1370:PRO:HD2	1:B:1373:ILE:CD1	2.47	0.45
1:A:288:LEU:O	1:A:289:ALA:C	2.55	0.45
1:A:417:PHE:CD2	1:A:444:ALA:HB3	2.51	0.45
1:A:291:LEU:HD23	1:A:417:PHE:CZ	2.52	0.45
1:E:4337:ALA:HA	1:E:4340:LYS:HD2	1.99	0.45
1:H:7268:LYS:HG2	1:H:7269:TYR:CZ	2.52	0.45
1:F:5384:LEU:O	1:F:5385:LYS:C	2.55	0.45
1:C:2403:VAL:O	1:C:2404:ILE:C	2.54	0.45
1:A:55:PRO:O	1:A:57:LYS:N	2.50	0.45
1:C:2160:VAL:CG1	1:C:2201:VAL:HB	2.45	0.45
1:C:2481:CYS:SG	1:C:2540:ALA:HB1	2.57	0.45
1:B:1559:ARG:HD3	1:B:1559:ARG:HA	1.40	0.45
1:D:3511:ARG:CB	1:D:3511:ARG:HH11	2.29	0.45
1:C:2146:ILE:O	1:C:2149:ASN:HB2	2.16	0.45
1:H:7414:PRO:HD2	1:H:7440:ARG:O	2.16	0.44
1:H:7412:GLU:O	1:H:7440:ARG:HD2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:154:HIS:HB3	1:A:197:ARG:NE	2.32	0.44
1:G:6416:ILE:HD12	1:G:6441:CYS:HB2	1.98	0.44
1:F:5452:VAL:O	1:F:5460:PHE:N	2.43	0.44
1:H:7132:GLY:HA3	1:H:7177:MSE:CE	2.47	0.44
1:C:2374:PRO:HG3	1:C:2380:ALA:HA	1.99	0.44
1:C:2377:PHE:HZ	1:C:2389:ILE:CD1	2.30	0.44
1:E:4300:LYS:HB3	1:E:4305:HIS:NE2	2.32	0.44
1:E:4402:ASP:HA	1:E:4405:ARG:HD2	1.98	0.44
1:B:1270:ARG:CG	1:B:1271:GLU:N	2.79	0.44
1:B:1274:CYS:O	1:B:1486:ILE:HD11	2.17	0.44
1:H:7239:MSE:HE2	1:H:7269:TYR:CD1	2.52	0.44
1:F:5359:ASP:OD2	1:F:5361:TYR:HB2	2.16	0.44
1:F:5469:TYR:O	1:F:5470:ILE:HD13	2.16	0.44
1:F:5495:ALA:O	1:F:5498:LEU:HB3	2.16	0.44
1:E:4530:VAL:O	1:E:4533:TYR:HB3	2.17	0.44
1:C:2283:THR:O	1:C:2285:ALA:N	2.50	0.44
1:D:3302:ILE:HG22	1:D:3340:LYS:NZ	2.32	0.44
1:B:1108:MSE:HB2	1:B:1108:MSE:HE2	1.69	0.44
1:A:158:VAL:CG1	1:A:159:VAL:N	2.80	0.44
1:A:81:LYS:O	1:A:85:ILE:HG22	2.17	0.44
1:A:363:GLU:HG2	1:A:363:GLU:H	1.51	0.44
1:F:5346:LYS:HE3	1:F:5346:LYS:HB2	1.34	0.44
1:C:2249:ASN:OD1	1:C:2249:ASN:C	2.55	0.44
1:H:7380:ALA:O	1:H:7381:VAL:C	2.54	0.44
1:G:6343:MSE:O	1:G:6350:LEU:HB2	2.17	0.44
1:D:3419:LEU:O	1:D:3420:SER:C	2.54	0.44
1:H:7166:ILE:HD11	1:H:7176:GLY:HA3	1.99	0.44
1:A:332:LEU:CD2	1:A:337:ALA:HA	2.46	0.44
1:A:416:ILE:HD12	1:A:441:CYS:HB2	1.99	0.44
1:A:534:LEU:HD23	1:A:539:MSE:HB2	1.99	0.44
1:F:5315:ALA:C	1:F:5319:ILE:HD12	2.38	0.44
1:E:4075:MSE:HB2	1:E:4075:MSE:HE3	1.76	0.44
1:D:3300:LYS:HZ3	1:D:3304:GLU:HB2	1.82	0.44
1:D:3453:LYS:HA	1:D:3459:VAL:CG1	2.47	0.44
1:C:2520:GLN:O	1:C:2521:GLU:C	2.54	0.44
1:B:1552:TYR:HE1	1:B:1556:ARG:CZ	2.30	0.44
1:F:5148:ASP:HA	1:F:5245:ARG:HH11	1.82	0.44
1:A:431:GLU:C	1:A:433:ALA:N	2.71	0.44
1:C:2478:VAL:HG13	1:C:2483:THR:HB	1.99	0.44
1:D:3054:LEU:O	1:D:3055:PRO:C	2.56	0.44
1:D:3376:THR:O	1:D:3379:ASP:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3306:LYS:HB3	1:D:3386:PRO:HA	1.99	0.44
1:H:7288:LEU:C	1:H:7290:GLY:N	2.70	0.44
1:D:3204:ASP:OD1	1:D:3221:LEU:CD2	2.66	0.44
1:H:7322:LEU:HD11	1:H:7492:LEU:CA	2.48	0.44
1:G:6133:LEU:HD13	1:G:6150:TRP:HE3	1.83	0.44
1:D:3428:CYS:SG	1:D:3429:THR:N	2.91	0.44
1:B:1335:GLN:HG3	1:B:1336:GLU:N	2.31	0.44
1:B:1360:SER:HA	1:B:1363:GLU:OE1	2.18	0.44
1:A:377:PHE:HZ	1:A:389:ILE:CD1	2.26	0.44
1:F:5179:ILE:HG12	1:F:5179:ILE:H	1.57	0.44
1:H:7143:VAL:O	1:H:7146:ILE:HB	2.18	0.44
1:C:2219:MSE:HB2	1:C:2219:MSE:HE3	1.89	0.44
1:D:3533:TYR:O	1:D:3536:ALA:HB3	2.18	0.44
1:F:5376:THR:CG2	1:F:5378:GLU:HB3	2.48	0.44
1:B:1531:THR:O	1:B:1532:GLU:C	2.55	0.44
1:A:38:MSE:O	1:A:58:ILE:HA	2.17	0.44
1:F:5029:MSE:SE	1:F:5050:LEU:HD22	2.68	0.44
1:H:7429:THR:HG23	1:H:7432:GLU:HG3	1.99	0.44
1:H:7419:LEU:HA	1:H:7446:GLY:N	2.32	0.44
1:A:233:ASP:N	1:A:233:ASP:OD1	2.49	0.44
1:A:476:LEU:HD12	1:A:480:LEU:HD11	1.98	0.44
1:A:243:THR:HG21	1:A:273:TYR:HD2	1.82	0.44
1:G:6240:LYS:O	1:G:6241:ALA:C	2.55	0.44
1:G:6466:ASN:CG	1:G:6468:VAL:HG12	2.38	0.44
1:B:1335:GLN:HE22	1:B:1339:LYS:HG3	1.78	0.44
1:B:1346:LYS:HB3	3:B:1601:NAD:C5A	2.48	0.44
1:C:2419:LEU:HA	1:C:2446:GLY:HA3	1.99	0.44
1:F:5104:ILE:HG13	1:F:5108:MSE:CE	2.48	0.44
1:G:6404:ILE:HB	1:G:6436:LEU:CD2	2.36	0.44
1:H:7243:THR:CB	1:H:7248:ARG:NH1	2.81	0.44
1:C:2452:VAL:O	1:C:2460:PHE:N	2.40	0.44
1:F:5283:THR:O	1:F:5285:ALA:N	2.50	0.44
1:E:4086:MSE:CE	1:E:4111:VAL:HG22	2.47	0.44
1:C:2127:PHE:CD1	1:C:2219:MSE:SE	3.21	0.44
1:E:4209:ASN:C	1:E:4209:ASN:OD1	2.55	0.44
1:C:2266:LEU:HD21	1:C:2281:GLN:HE21	1.82	0.44
1:F:5266:LEU:CD2	1:F:5281:GLN:OE1	2.65	0.44
1:E:4553:VAL:C	1:E:4555:GLU:N	2.70	0.44
1:E:4281:GLN:HE21	1:E:4491:PHE:HE1	1.66	0.44
1:B:1250:THR:O	1:B:1250:THR:HG23	2.18	0.44
1:D:3375:ASP:OD2	1:D:3376:THR:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3245:ARG:HG2	1:D:3245:ARG:O	2.18	0.44
1:D:3122:GLN:HA	1:D:3122:GLN:NE2	2.31	0.44
1:F:5055:PRO:O	1:F:5057:LYS:N	2.46	0.44
1:D:3290:GLY:O	1:D:3293:ALA:HB3	2.18	0.44
1:C:2370:PRO:HD2	1:C:2373:ILE:HD12	1.95	0.44
1:E:4358:ILE:HG12	1:E:4366:THR:HG21	2.00	0.44
1:B:1516:LEU:HA	1:B:1516:LEU:HD12	1.81	0.44
1:D:3481:CYS:SG	1:D:3540:ALA:HB1	2.57	0.44
1:D:3243:THR:CB	1:D:3248:ARG:NH1	2.80	0.44
1:C:2454:LEU:HD13	1:C:2458:ARG:NH1	2.31	0.44
1:H:7024:LYS:HD3	1:H:7048:LEU:O	2.17	0.44
1:G:6478:VAL:HG22	1:G:6483:THR:HB	2.00	0.44
1:C:2300:LYS:HA	1:C:2301:PRO:HD2	1.81	0.44
1:C:2295:GLN:HE22	1:C:2305:HIS:CE1	2.35	0.44
1:A:503:THR:H	1:A:506:GLU:HB2	1.82	0.44
1:B:1540:ALA:C	1:B:1541:PHE:HD2	2.20	0.44
1:C:2140:ARG:HE	1:C:2140:ARG:HB2	1.47	0.44
1:B:1537:ASN:N	1:B:1537:ASN:ND2	2.64	0.44
1:F:5029:MSE:HE2	1:F:5029:MSE:HB2	1.90	0.44
1:A:393:ALA:HB1	3:A:601:NAD:C4A	2.48	0.44
1:D:3506:GLU:O	1:D:3511:ARG:HG3	2.17	0.44
1:F:5501:GLN:OE1	1:F:5525:ASN:HB3	2.17	0.44
1:D:3389:ILE:HD12	1:D:3389:ILE:HA	1.76	0.44
1:D:3159:VAL:HA	1:D:3253:GLN:O	2.17	0.44
1:A:471:PHE:CE1	1:A:472:PRO:HG3	2.53	0.44
1:D:3119:ALA:O	1:D:3120:CYS:C	2.55	0.44
1:G:6370:PRO:HD2	1:G:6373:ILE:HD11	2.00	0.44
1:E:4240:LYS:O	1:E:4241:ALA:C	2.55	0.44
1:C:2309:PHE:CE1	1:C:2390:ILE:HB	2.51	0.44
1:C:2392:VAL:CG2	1:C:2419:LEU:HD23	2.48	0.44
1:B:1503:THR:HB	1:B:1505:GLU:OE1	2.18	0.44
1:A:341:ILE:HB	1:A:365:PHE:HD2	1.83	0.44
1:B:1259:ASN:HB2	1:B:1260:HIS:H	1.44	0.44
1:B:1270:ARG:HH21	1:B:1487:SER:HA	1.83	0.44
1:F:5197:ARG:CG	1:F:5197:ARG:HH11	2.30	0.44
1:C:2403:VAL:HG12	1:C:2404:ILE:N	2.32	0.44
1:A:503:THR:HG23	1:A:506:GLU:OE1	2.18	0.44
1:F:5402:ASP:OD1	1:F:5402:ASP:N	2.51	0.44
1:C:2026:LYS:C	1:C:2028:LEU:N	2.71	0.44
1:E:4095:LEU:O	1:E:4096:PHE:C	2.56	0.44
1:F:5418:ALA:O	1:F:5446:GLY:N	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2255:GLU:OE1	1:C:2256:ASP:N	2.49	0.44
1:F:5566:LEU:HA	1:F:5566:LEU:HD23	1.85	0.44
1:G:6525:ASN:HA	1:G:6528:ILE:HG13	2.00	0.44
1:C:2099:ILE:O	1:C:2102:ASP:HB2	2.17	0.44
1:A:431:GLU:C	1:A:433:ALA:H	2.20	0.44
1:D:3506:GLU:CB	1:D:3511:ARG:HD2	2.47	0.44
1:B:1193:ILE:HG22	1:B:1198:CYS:SG	2.58	0.44
1:D:3385:LYS:HB2	1:D:3385:LYS:HE3	1.67	0.44
1:H:7382:ASN:O	1:H:7385:LYS:HE2	2.18	0.44
1:A:147:VAL:HG21	1:A:241:ALA:HB1	1.98	0.44
1:G:6437:THR:O	1:G:6440:ARG:HB2	2.17	0.44
1:F:5453:LYS:HE3	1:F:5457:GLY:CA	2.35	0.44
1:D:3421:ASN:CA	1:D:3422:PRO:O	2.49	0.44
1:B:1207:THR:HG23	1:B:1213:LEU:CD2	2.45	0.44
1:B:1210:ILE:O	1:B:1211:ALA:C	2.56	0.44
1:C:2308:LEU:HD13	1:C:2342:TRP:CB	2.48	0.44
1:B:1389:ILE:HA	1:B:1389:ILE:HD12	1.84	0.44
1:A:295:GLN:NE2	1:A:305:HIS:CE1	2.84	0.44
1:G:6363:GLU:CB	1:G:6364:PRO:CD	2.96	0.44
1:G:6487:SER:O	1:G:6488:ASP:C	2.53	0.44
1:G:6253:GLN:HG3	1:G:6276:PHE:CE1	2.53	0.44
1:B:1401:PRO:CB	1:B:1436:LEU:HD21	2.48	0.44
1:F:5302:ILE:HB	1:F:5303:SER:H	1.47	0.44
1:F:5402:ASP:HA	1:F:5405:ARG:HD2	1.99	0.44
1:A:209:ASN:O	1:A:213:LEU:HG	2.17	0.44
1:A:259:ASN:N	1:A:259:ASN:ND2	2.66	0.44
1:G:6182:GLY:CA	1:G:6185:CYS:SG	3.05	0.44
1:H:7228:THR:OG1	1:H:7230:GLN:CG	2.65	0.44
1:F:5288:LEU:C	1:F:5290:GLY:N	2.70	0.44
1:E:4146:ILE:HG23	1:F:5052:GLY:HA3	2.00	0.44
1:A:82:TYR:HA	1:A:85:ILE:CG2	2.48	0.44
1:E:4496:LYS:H	1:E:4496:LYS:HG3	1.58	0.44
1:D:3277:ASN:OD1	1:D:3278:ASP:N	2.51	0.44
1:D:3400:THR:C	1:D:3402:ASP:N	2.71	0.44
1:H:7288:LEU:O	1:H:7289:ALA:C	2.56	0.44
1:H:7292:LEU:O	1:H:7293:ALA:C	2.56	0.44
1:H:7292:LEU:O	1:H:7294:ALA:N	2.51	0.44
1:D:3143:VAL:O	1:D:3146:ILE:N	2.50	0.44
1:D:3258:GLY:O	1:D:3261:ASN:N	2.51	0.44
1:A:476:LEU:HD12	1:A:476:LEU:C	2.37	0.44
1:A:542:ARG:NE	1:A:552:TYR:OH	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1184:LEU:O	1:B:1187:TYR:HB2	2.17	0.44
1:F:5451:PRO:HG3	1:F:5461:THR:OG1	2.18	0.44
1:H:7072:LEU:HG	1:H:7081:LYS:HD3	2.00	0.44
1:D:3429:THR:C	1:D:3431:GLU:H	2.21	0.44
1:H:7168:GLY:O	1:H:7169:LEU:HD12	2.17	0.44
1:B:1338:GLN:O	1:B:1341:ILE:N	2.43	0.44
1:C:2350:LEU:HD12	1:C:2366:THR:HG23	1.98	0.44
1:B:1381:VAL:HG13	1:B:1407:MSE:HE1	2.00	0.44
1:B:1466:ASN:CB	1:B:1468:VAL:HG12	2.35	0.44
1:F:5284:ALA:HA	1:F:5319:ILE:HG13	2.00	0.44
1:E:4086:MSE:HE3	1:E:4111:VAL:HG22	2.00	0.44
1:D:3038:MSE:HA	1:D:3045:ARG:HH21	1.82	0.44
1:D:3058:ILE:H	1:D:3058:ILE:HG12	1.53	0.44
1:F:5435:THR:OG1	1:F:5436:LEU:N	2.51	0.44
1:F:5100:LEU:HA	1:F:5100:LEU:HD12	1.65	0.44
1:G:6288:LEU:HG	1:G:6292:LEU:HG	2.00	0.44
1:C:2559:ARG:HG3	1:C:2561:GLU:HG2	1.99	0.44
1:H:7421:ASN:HB2	3:H:7601:NAD:O2D	2.18	0.44
1:G:6258:GLY:O	1:G:6261:ASN:N	2.50	0.44
1:C:2068:PHE:CZ	1:C:2072:LEU:HD22	2.53	0.44
1:G:6291:LEU:N	1:G:6291:LEU:HD23	2.33	0.44
1:H:7094:LYS:O	1:H:7095:LEU:C	2.57	0.44
1:A:374:PRO:HG3	1:A:380:ALA:HA	1.99	0.44
1:H:7104:ILE:HG13	1:H:7108:MSE:HE2	1.99	0.44
1:G:6302:ILE:HA	1:G:6305:HIS:ND1	2.31	0.44
1:G:6300:LYS:O	1:G:6305:HIS:NE2	2.50	0.44
1:G:6377:PHE:O	1:G:6380:ALA:N	2.51	0.44
1:B:1397:ARG:HA	1:B:1427:GLU:O	2.18	0.44
1:A:309:PHE:HB2	1:A:343:MSE:HG2	2.00	0.44
1:A:389:ILE:HG22	1:A:415:VAL:O	2.18	0.44
1:E:4332:LEU:HG	1:E:4336:GLU:OE2	2.18	0.44
1:F:5139:ASP:CG	1:F:5146:ILE:HD11	2.37	0.44
1:C:2328:VAL:C	1:C:2330:ASN:N	2.70	0.44
1:F:5356:ALA:C	1:F:5357:LYS:HD3	2.39	0.44
1:A:109:PRO:CA	1:A:113:THR:O	2.59	0.44
1:C:2569:VAL:O	1:C:2570:TYR:CB	2.66	0.44
1:G:6026:LYS:N	1:G:6027:PRO:CD	2.81	0.44
1:A:349:LEU:HD23	1:A:351:VAL:HB	2.00	0.44
1:A:86:MSE:CE	1:A:86:MSE:HA	2.47	0.44
1:D:3223:GLN:CG	1:D:3224:LYS:N	2.80	0.44
1:A:421:ASN:HB3	1:A:422:PRO:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2240:LYS:HA	1:C:2243:THR:OG1	2.18	0.44
1:E:4268:LYS:HE2	1:E:4269:TYR:CE2	2.52	0.44
1:C:2114:PRO:HD2	1:C:2115:THR:H	1.83	0.44
1:H:7309:PHE:HD2	1:H:7343:MSE:HG3	1.82	0.43
1:D:3259:ASN:N	1:D:3259:ASN:ND2	2.66	0.43
1:D:3269:TYR:O	1:D:3270:ARG:C	2.56	0.43
1:A:552:TYR:CE1	1:A:556:ARG:CZ	3.01	0.43
1:D:3108:MSE:HE2	1:D:3108:MSE:HB2	1.68	0.43
1:G:6335:GLN:HG3	1:G:6336:GLU:N	2.32	0.43
1:H:7089:GLN:O	1:H:7091:ARG:N	2.51	0.43
1:B:1336:GLU:O	1:B:1340:LYS:HG3	2.17	0.43
1:B:1338:GLN:HE21	1:B:1338:GLN:HB3	1.63	0.43
1:C:2388:THR:HA	1:C:2415:VAL:HG23	2.00	0.43
1:A:388:THR:HG23	1:A:415:VAL:CB	2.46	0.43
1:E:4381:VAL:HG13	1:E:4407:MSE:HE2	2.00	0.43
1:A:539:MSE:HB3	1:A:539:MSE:HE2	1.84	0.43
1:H:7324:VAL:HA	1:H:7327:MSE:CE	2.48	0.43
1:C:2132:GLY:HA3	1:C:2177:MSE:HE2	1.99	0.43
1:A:166:ILE:HD12	1:A:179:ILE:HG13	2.00	0.43
1:A:166:ILE:O	1:A:167:LEU:O	2.36	0.43
1:B:1524:ILE:O	1:B:1527:ALA:HB3	2.18	0.43
1:C:2155:VAL:HB	1:C:2246:TYR:CD2	2.53	0.43
1:B:1048:LEU:HD22	1:B:1048:LEU:N	2.32	0.43
1:D:3094:LYS:HG2	1:D:3562:TYR:CD2	2.52	0.43
1:A:394:GLY:HA2	1:A:420:SER:CB	2.47	0.43
1:B:1090:GLU:HG2	1:B:1131:LYS:NZ	2.33	0.43
1:B:1054:LEU:O	1:B:1055:PRO:C	2.55	0.43
1:H:7338:GLN:HA	1:H:7341:ILE:HG13	2.00	0.43
1:B:1555:GLU:O	1:B:1557:THR:N	2.50	0.43
1:G:6296:LYS:O	1:G:6296:LYS:HG2	2.17	0.43
1:D:3259:ASN:O	1:D:3260:HIS:C	2.56	0.43
1:A:471:PHE:CD1	1:A:472:PRO:CD	3.01	0.43
1:G:6317:LEU:HA	1:G:6320:ALA:HB3	2.00	0.43
1:F:5458:ARG:HB2	1:F:5458:ARG:HH11	1.81	0.43
1:H:7089:GLN:C	1:H:7091:ARG:H	2.21	0.43
1:A:458:ARG:NH1	1:A:458:ARG:HB2	2.33	0.43
1:A:333:SER:H	1:A:336:GLU:CD	2.22	0.43
1:F:5359:ASP:N	1:F:5362:GLN:OE1	2.51	0.43
1:G:6151:PRO:HG3	1:H:7026:LYS:HD3	2.00	0.43
1:D:3045:ARG:HB3	1:D:3051:GLN:HG2	2.00	0.43
1:F:5303:SER:N	1:F:5340:LYS:HZ1	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7523:SER:HA	1:H:7526:ILE:HG13	1.99	0.43
1:F:5083:ILE:HD11	1:F:5126:ILE:HB	1.99	0.43
1:G:6213:LEU:C	1:G:6214:LYS:HG3	2.36	0.43
1:C:2553:VAL:O	1:C:2555:GLU:N	2.51	0.43
1:A:258:GLY:O	1:A:261:ASN:N	2.51	0.43
1:H:7304:GLU:H	1:H:7304:GLU:CD	2.21	0.43
1:A:67:ARG:HA	1:B:1217:PHE:CE1	2.54	0.43
1:F:5036:LYS:O	1:F:5039:ALA:HB3	2.18	0.43
1:A:505:GLU:O	1:A:509:GLN:HG3	2.18	0.43
1:A:359:ASP:O	1:A:363:GLU:HG2	2.19	0.43
1:C:2543:TYR:CD2	1:C:2543:TYR:C	2.91	0.43
1:H:7079:LEU:HG	1:H:7079:LEU:O	2.17	0.43
1:D:3349:LEU:HD11	1:D:3384:LEU:HD21	2.00	0.43
1:D:3261:ASN:HA	1:D:3264:ARG:CG	2.47	0.43
1:G:6300:LYS:HE3	1:G:6305:HIS:CD2	2.54	0.43
1:G:6108:MSE:N	1:G:6109:PRO:CD	2.80	0.43
1:C:2376:THR:N	1:C:2379:ASP:HB2	2.28	0.43
1:B:1376:THR:CG2	1:B:1379:ASP:H	2.26	0.43
1:A:295:GLN:NE2	1:A:305:HIS:HE1	2.15	0.43
1:A:354:ARG:HE	1:A:356:ALA:HB3	1.83	0.43
1:A:385:LYS:N	1:A:386:PRO:CD	2.81	0.43
1:E:4333:SER:O	1:E:4334:GLU:C	2.56	0.43
1:G:6494:ALA:O	1:G:6497:ALA:HB3	2.19	0.43
1:F:5089:GLN:HB2	1:F:5096:PHE:CD1	2.52	0.43
1:B:1270:ARG:HG3	1:B:1271:GLU:N	2.33	0.43
1:A:477:ALA:HB1	1:A:531:THR:HG22	1.99	0.43
1:H:7269:TYR:HB2	1:H:7275:THR:HG21	2.01	0.43
1:E:4068:PHE:HE2	1:E:4072:LEU:HD22	1.83	0.43
1:F:5303:SER:O	1:F:5340:LYS:HE3	2.18	0.43
1:B:1286:VAL:O	1:B:1289:ALA:HB3	2.17	0.43
1:B:1218:TYR:HB3	1:B:1222:TYR:CZ	2.53	0.43
1:G:6077:SER:O	1:G:6081:LYS:HG3	2.19	0.43
1:F:5221:LEU:HB3	1:F:5223:GLN:NE2	2.33	0.43
1:D:3505:GLU:O	1:D:3509:GLN:HG3	2.18	0.43
1:G:6506:GLU:HG3	1:G:6511:ARG:HD2	2.01	0.43
1:D:3503:THR:OG1	1:D:3506:GLU:HG3	2.18	0.43
1:G:6094:LYS:HD2	1:G:6558:TRP:CZ2	2.53	0.43
1:G:6205:VAL:HG21	1:G:6231:TYR:CE1	2.52	0.43
1:G:6385:LYS:HB2	1:G:6385:LYS:HE3	1.44	0.43
1:G:6413:ARG:NH2	1:G:6440:ARG:C	2.67	0.43
1:A:456:ASP:OD1	1:A:458:ARG:NH1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2184:LEU:O	1:C:2187:TYR:HB2	2.17	0.43
1:B:1541:PHE:CD2	1:B:1541:PHE:N	2.86	0.43
1:H:7556:ARG:NE	3:H:7602:NAD:O2A	2.52	0.43
1:D:3193:ILE:CG2	1:D:3194:ARG:N	2.81	0.43
1:F:5227:ARG:NH1	1:F:5227:ARG:HG2	2.31	0.43
1:G:6535:TYR:CD1	1:G:6549:LYS:HE2	2.54	0.43
1:C:2232:ASP:HA	1:C:2235:ILE:HG12	2.00	0.43
1:E:4537:ASN:HB3	1:E:4539:MSE:CG	2.49	0.43
1:G:6130:PRO:HG2	1:H:7054:LEU:CD2	2.48	0.43
1:H:7066:LEU:HG	1:H:7070:ARG:HD3	1.99	0.43
1:H:7410:ILE:HG13	1:H:7410:ILE:H	1.58	0.43
1:D:3266:LEU:O	1:D:3270:ARG:HB3	2.19	0.43
1:H:7326:SER:HB2	1:H:7492:LEU:HD11	2.00	0.43
1:B:1319:ILE:O	1:B:1320:ALA:C	2.56	0.43
1:B:1346:LYS:HB3	3:B:1601:NAD:C4A	2.49	0.43
1:B:1207:THR:N	1:B:1223:GLN:O	2.45	0.43
1:A:453:LYS:HA	1:A:458:ARG:O	2.17	0.43
1:B:1417:PHE:HZ	1:B:1512:LEU:HD22	1.83	0.43
1:E:4335:GLN:NE2	1:E:4339:LYS:HG3	2.34	0.43
1:E:4351:VAL:HG11	1:E:4369:ALA:HB2	2.01	0.43
1:E:4377:PHE:HZ	1:E:4389:ILE:HD11	1.83	0.43
1:H:7351:VAL:HG21	1:H:7369:ALA:HA	2.00	0.43
1:A:397:ARG:NH2	1:A:429:THR:CG2	2.78	0.43
1:D:3327:MSE:HE3	1:D:3337:ALA:CA	2.49	0.43
1:D:3324:VAL:HG21	1:D:3365:PHE:HZ	1.83	0.43
1:B:1276:PHE:CD1	1:B:1277:ASN:N	2.86	0.43
1:E:4261:ASN:OD1	1:E:4264:ARG:NH2	2.52	0.43
1:F:5521:GLU:CG	1:F:5522:VAL:N	2.81	0.43
1:F:5085:ILE:HG23	1:F:5086:MSE:CE	2.49	0.43
1:E:4235:ILE:H	1:E:4235:ILE:HG12	1.70	0.43
1:G:6258:GLY:O	1:G:6259:ASN:C	2.57	0.43
1:B:1082:TYR:CZ	1:B:1086:MSE:HG3	2.53	0.43
1:A:501:GLN:CA	1:A:501:GLN:NE2	2.79	0.43
1:H:7046:GLN:CG	1:H:7051:GLN:HG3	2.48	0.43
1:D:3136:SER:O	1:D:3139:ASP:HB2	2.18	0.43
1:A:243:THR:O	1:A:247:GLY:N	2.38	0.43
1:G:6302:ILE:HG22	1:G:6340:LYS:HZ3	1.83	0.43
1:G:6300:LYS:HE3	1:G:6305:HIS:HD2	1.84	0.43
1:G:6308:LEU:HD22	1:G:6384:LEU:HD23	2.01	0.43
1:B:1159:VAL:CG1	1:B:1180:PRO:HB3	2.49	0.43
1:G:6137:ILE:HA	1:G:6234:LEU:HD21	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1319:ILE:H	1:B:1319:ILE:HG13	1.56	0.43
1:A:301:PRO:O	1:A:304:GLU:HG3	2.19	0.43
1:A:306:LYS:H	1:A:387:SER:HB3	1.83	0.43
1:A:391:GLY:CA	1:A:427:GLU:HG2	2.45	0.43
1:D:3075:MSE:HB2	1:D:3075:MSE:HE3	1.71	0.43
1:G:6040:PHE:O	1:G:6045:ARG:NE	2.52	0.43
1:E:4048:LEU:HD22	1:E:4048:LEU:N	2.34	0.43
1:H:7277:ASN:OD1	1:H:7277:ASN:C	2.57	0.43
1:H:7276:PHE:CB	1:H:7281:GLN:OE1	2.60	0.43
1:A:397:ARG:NH1	1:A:397:ARG:HG2	2.31	0.43
1:D:3333:SER:HB3	1:D:3336:GLU:HG3	1.99	0.43
1:C:2298:ILE:HG22	1:C:2299:SER:N	2.32	0.43
1:C:2300:LYS:NZ	1:C:2305:HIS:HD2	2.16	0.43
1:B:1104:ILE:O	1:B:1108:MSE:HB2	2.18	0.43
1:G:6208:ASP:OD2	1:G:6227:ARG:NH2	2.43	0.43
1:F:5504:ASP:O	1:F:5507:LEU:HB2	2.18	0.43
1:G:6482:ASN:ND2	1:G:6482:ASN:N	2.63	0.43
1:F:5030:LEU:N	1:F:5030:LEU:HD23	2.34	0.43
1:H:7493:GLU:HA	1:H:7496:LYS:HD3	2.01	0.43
1:E:4155:VAL:HG21	1:E:4246:TYR:CZ	2.53	0.43
1:C:2244:ASP:N	1:C:2248:ARG:HH12	2.15	0.43
1:C:2023:GLU:N	4:C:8045:HOH:O	2.50	0.43
1:E:4023:GLU:OE1	1:E:4023:GLU:HA	2.19	0.43
1:B:1495:ALA:O	1:B:1496:LYS:C	2.55	0.43
1:H:7210:ILE:HD13	1:H:7210:ILE:N	2.33	0.43
1:D:3174:VAL:HG22	1:D:3218:TYR:CE2	2.54	0.43
1:E:4176:GLY:O	1:E:4177:MSE:C	2.56	0.43
1:G:6468:VAL:HG22	1:G:6468:VAL:O	2.18	0.43
1:B:1288:LEU:HD11	1:B:1323:ILE:HA	2.00	0.43
1:C:2309:PHE:CD1	1:C:2390:ILE:HB	2.53	0.43
1:C:2385:LYS:HE2	1:C:2385:LYS:HB2	1.57	0.43
1:B:1454:LEU:HD13	1:B:1458:ARG:NH1	2.34	0.43
1:B:1453:LYS:CB	1:B:1459:VAL:HG13	2.48	0.43
1:A:308:LEU:HB3	1:A:389:ILE:HD13	2.00	0.43
1:A:429:THR:HG23	1:A:432:GLU:CD	2.39	0.43
1:F:5252:ILE:O	1:F:5275:THR:HA	2.19	0.43
1:C:2297:VAL:HG23	1:C:2298:ILE:HD13	1.99	0.43
1:C:2432:GLU:C	1:C:2436:LEU:HD13	2.38	0.43
1:E:4031:ASN:HA	1:E:4032:PRO:HD2	1.75	0.43
1:A:57:LYS:HB2	1:B:1219:MSE:C	2.39	0.43
1:G:6166:ILE:HA	1:G:6256:ASP:CG	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5024:LYS:HA	1:F:5028:LEU:HD22	2.00	0.43
1:H:7255:GLU:O	1:H:7257:PHE:HD1	2.00	0.43
1:E:4548:ASP:OD1	1:E:4550:ALA:HB3	2.19	0.43
1:B:1071:ASN:HA	1:B:1074:LYS:HE3	2.00	0.43
1:D:3416:ILE:HD12	1:D:3441:CYS:HB2	2.00	0.43
1:D:3416:ILE:N	1:D:3416:ILE:HD13	2.34	0.43
1:H:7469:TYR:HA	1:H:7519:ILE:HD11	2.00	0.43
1:B:1184:LEU:HA	1:B:1184:LEU:HD12	1.90	0.43
1:B:1315:ALA:HB1	1:B:1319:ILE:HD11	2.00	0.43
1:C:2370:PRO:O	1:C:2371:GLU:C	2.56	0.43
1:B:1298:ILE:CD1	1:B:1413:ARG:HD3	2.49	0.43
1:A:335:GLN:HE21	1:A:339:LYS:CG	2.31	0.43
1:E:4363:GLU:O	1:E:4365:PHE:N	2.51	0.43
1:B:1239:MSE:HE2	1:B:1273:TYR:CD1	2.54	0.43
1:C:2177:MSE:CE	1:C:2200:PRO:HB2	2.49	0.43
1:C:2260:HIS:CE1	1:C:2264:ARG:NE	2.86	0.43
1:C:2453:LYS:NZ	1:C:2457:GLY:HA2	2.33	0.43
1:H:7026:LYS:HA	1:H:7029:MSE:HE2	2.00	0.43
1:H:7047:MSE:O	1:H:7048:LEU:HD22	2.19	0.43
1:A:59:GLU:HG2	1:A:63:ILE:CG2	2.41	0.43
1:G:6224:LYS:HD2	1:G:6224:LYS:HA	1.73	0.43
1:F:5085:ILE:O	1:F:5088:ILE:HG12	2.19	0.43
1:F:5210:ILE:N	1:F:5210:ILE:HD13	2.34	0.43
1:A:30:LEU:HB3	1:B:1030:LEU:HD13	2.01	0.43
1:C:2090:GLU:CG	1:C:2131:LYS:HD3	2.48	0.43
1:A:529:LYS:HD2	1:A:529:LYS:HA	1.84	0.43
1:D:3369:ALA:HA	1:D:3370:PRO:HD3	1.89	0.43
1:H:7384:LEU:O	1:H:7385:LYS:HB2	2.18	0.43
1:D:3112:TYR:HA	1:D:3116:VAL:HB	2.01	0.43
1:A:146:ILE:CD1	1:A:146:ILE:N	2.78	0.43
1:G:6231:TYR:O	1:G:6235:ILE:HG12	2.18	0.43
1:G:6342:TRP:CE3	1:G:6349:LEU:HD21	2.52	0.43
1:G:6437:THR:C	1:G:6439:GLY:N	2.69	0.43
1:G:6116:VAL:HG13	1:G:6117:GLY:N	2.34	0.43
1:B:1315:ALA:O	1:B:1319:ILE:HG13	2.19	0.43
1:C:2309:PHE:CE1	1:C:2390:ILE:CD1	3.02	0.43
1:E:4344:PHE:HA	1:E:4349:LEU:HA	2.01	0.43
1:D:3289:ALA:CB	1:D:3498:LEU:HD23	2.49	0.43
1:F:5338:GLN:O	1:F:5367:HIS:CE1	2.72	0.43
1:D:3337:ALA:C	1:D:3339:LYS:N	2.71	0.43
1:A:559:ARG:HD3	1:A:559:ARG:HA	1.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2400:THR:OG1	1:C:2402:ASP:HB2	2.19	0.43
1:C:2103:ASP:HB3	1:C:2107:LEU:CD2	2.49	0.43
1:G:6227:ARG:NH1	1:G:6227:ARG:CG	2.82	0.43
1:B:1170:GLY:O	1:B:1171:ASP:C	2.57	0.43
1:B:1164:GLU:OE1	1:B:1225:ARG:NH1	2.52	0.43
1:A:219:MSE:CG	1:A:219:MSE:O	2.65	0.43
1:A:395:ALA:O	1:A:398:LEU:HD11	2.19	0.43
1:B:1194:ARG:HG3	3:B:1602:NAD:C6A	2.48	0.43
1:F:5277:ASN:C	1:F:5277:ASN:OD1	2.57	0.43
1:H:7343:MSE:CB	1:H:7350:LEU:HD23	2.41	0.43
1:A:472:PRO:O	1:A:475:ALA:HB3	2.18	0.43
1:G:6399:PHE:CG	1:G:6427:GLU:HB3	2.54	0.43
1:G:6466:ASN:ND2	1:G:6468:VAL:HG12	2.34	0.43
1:H:7085:ILE:O	1:H:7087:GLY:N	2.52	0.43
1:D:3290:GLY:HA3	1:D:3417:PHE:CE2	2.54	0.43
1:D:3397:ARG:NH2	1:D:3429:THR:HG22	2.34	0.43
1:B:1288:LEU:O	1:B:1292:LEU:HG	2.18	0.43
1:B:1421:ASN:N	3:B:1601:NAD:O2D	2.52	0.43
1:C:2308:LEU:HD13	1:C:2342:TRP:HB3	1.99	0.43
1:C:2383:ILE:HG12	1:C:2383:ILE:H	1.53	0.43
1:C:2414:PRO:HD2	1:C:2441:CYS:CA	2.47	0.43
1:A:407:MSE:HA	1:A:410:ILE:HD12	2.01	0.43
1:A:411:ASN:O	1:A:440:ARG:NH1	2.43	0.43
1:E:4309:PHE:HB2	1:E:4343:MSE:CG	2.49	0.43
1:H:7359:ASP:N	1:H:7362:GLN:OE1	2.50	0.43
1:E:4082:TYR:HD1	1:E:4110:ILE:O	2.02	0.43
1:A:104:ILE:HG23	1:A:105:GLU:H	1.83	0.43
1:C:2283:THR:O	1:C:2284:ALA:C	2.57	0.43
1:B:1150:TRP:CD1	1:B:1152:GLU:HB2	2.54	0.43
1:D:3302:ILE:HD11	1:D:3330:ASN:HD22	1.84	0.43
1:H:7527:ALA:O	1:H:7528:ILE:C	2.57	0.43
1:C:2089:GLN:HB2	1:C:2096:PHE:CD1	2.53	0.43
1:F:5437:THR:O	1:F:5440:ARG:N	2.52	0.43
1:H:7511:ARG:NH1	1:H:7513:TYR:O	2.52	0.43
1:G:6130:PRO:HG2	1:H:7054:LEU:HD23	2.00	0.43
1:F:5278:ASP:C	1:F:5280:ILE:H	2.22	0.43
1:H:7274:CYS:SG	1:H:7486:ILE:HD11	2.59	0.43
1:C:2451:PRO:HA	1:C:2462:PRO:HD3	2.00	0.43
1:G:6068:PHE:CZ	1:G:6072:LEU:HD13	2.54	0.43
1:C:2482:ASN:N	1:C:2482:ASN:ND2	2.67	0.43
1:D:3484:ARG:C	1:D:3485:HIS:ND1	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:156:LYS:HA	1:A:156:LYS:HE2	2.01	0.42
1:G:6321:ASN:O	1:G:6324:VAL:HB	2.19	0.42
1:G:6342:TRP:CZ2	1:G:6384:LEU:HD11	2.54	0.42
1:G:6120:CYS:O	1:G:6123:TYR:HB2	2.18	0.42
1:G:6122:GLN:C	1:G:6126:ILE:HG12	2.38	0.42
1:A:338:GLN:C	1:A:340:LYS:H	2.22	0.42
1:A:400:THR:HG23	1:A:403:VAL:HB	2.00	0.42
1:E:4358:ILE:HG21	1:E:4366:THR:HG21	2.00	0.42
1:E:4378:GLU:O	1:E:4381:VAL:HB	2.18	0.42
1:D:3248:ARG:HD2	1:D:3248:ARG:HA	1.74	0.42
1:F:5332:LEU:HD22	1:F:5337:ALA:HA	2.01	0.42
1:H:7566:LEU:HA	1:H:7566:LEU:HD23	1.79	0.42
1:F:5506:GLU:CG	1:F:5511:ARG:HD2	2.44	0.42
1:G:6271:GLU:HA	1:G:6485:HIS:CD2	2.54	0.42
1:D:3558:TRP:CG	1:D:3559:ARG:N	2.86	0.42
1:A:123:TYR:O	1:A:175:TYR:CE1	2.71	0.42
1:A:174:VAL:HG22	1:A:218:TYR:CE2	2.54	0.42
1:A:396:GLY:N	1:A:425:GLN:O	2.51	0.42
1:C:2240:LYS:O	1:C:2244:ASP:HB2	2.19	0.42
1:A:217:PHE:CZ	1:B:1066:LEU:HG	2.53	0.42
1:C:2176:GLY:O	1:C:2178:GLY:N	2.52	0.42
1:C:2232:ASP:O	1:C:2233:ASP:C	2.58	0.42
1:H:7333:SER:O	1:H:7334:GLU:C	2.57	0.42
1:D:3267:ARG:HH11	1:D:3267:ARG:CG	2.31	0.42
1:H:7288:LEU:O	1:H:7290:GLY:N	2.51	0.42
1:D:3155:VAL:H	1:D:3246:TYR:HD2	1.66	0.42
1:A:551:LYS:O	1:A:555:GLU:HB2	2.19	0.42
1:G:6243:THR:C	1:G:6248:ARG:HH11	2.23	0.42
1:C:2338:GLN:HB3	1:C:2338:GLN:HE21	1.54	0.42
1:E:4389:ILE:HG22	1:E:4416:ILE:HG22	2.01	0.42
1:E:4410:ILE:HG13	1:E:4410:ILE:H	1.55	0.42
1:D:3081:LYS:O	1:D:3085:ILE:HG22	2.19	0.42
1:E:4261:ASN:ND2	1:E:4261:ASN:N	2.50	0.42
1:C:2345:ASP:HB2	3:C:2601:NAD:O2B	2.19	0.42
1:F:5400:THR:CB	1:F:5401:PRO:HD2	2.48	0.42
1:E:4211:ALA:HA	1:E:4214:LYS:HD3	2.01	0.42
1:C:2527:ALA:O	1:C:2528:ILE:C	2.57	0.42
1:F:5310:LEU:HG	1:F:5393:ALA:CB	2.43	0.42
1:G:6255:GLU:HB3	1:G:6256:ASP:H	1.62	0.42
1:A:43:GLN:CG	1:A:47:MSE:HE3	2.49	0.42
1:F:5485:HIS:ND1	1:F:5485:HIS:N	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2023:GLU:OE1	1:C:2023:GLU:HA	2.19	0.42
1:A:251:LEU:HA	1:A:274:CYS:O	2.19	0.42
1:D:3367:HIS:ND1	1:D:3367:HIS:N	2.67	0.42
1:D:3400:THR:HG23	1:D:3403:VAL:CG2	2.48	0.42
1:G:6394:GLY:CA	1:G:6425:GLN:HG3	2.49	0.42
1:C:2126:ILE:O	1:C:2128:ARG:HD3	2.19	0.42
1:G:6122:GLN:O	1:G:6125:HIS:CB	2.68	0.42
1:G:6137:ILE:HG22	1:G:6221:LEU:HD21	2.01	0.42
1:B:1347:TYR:HB2	1:B:1354:ARG:HH22	1.84	0.42
1:E:4304:GLU:H	1:E:4304:GLU:HG3	1.31	0.42
1:E:4401:PRO:O	1:E:4405:ARG:N	2.47	0.42
1:H:7270:ARG:CG	1:H:7271:GLU:N	2.80	0.42
1:H:7359:ASP:C	1:H:7359:ASP:OD2	2.57	0.42
1:D:3324:VAL:HG21	1:D:3365:PHE:CZ	2.55	0.42
1:C:2293:ALA:O	1:C:2297:VAL:HG13	2.19	0.42
1:C:2285:ALA:HB1	1:C:2470:ILE:HG13	2.01	0.42
1:C:2498:LEU:O	1:C:2501:GLN:CB	2.66	0.42
1:H:7534:LEU:HA	1:H:7539:MSE:HG3	2.00	0.42
1:C:2480:LEU:HD21	1:C:2556:ARG:HB3	2.00	0.42
1:E:4293:ALA:O	1:E:4296:LYS:CB	2.67	0.42
1:E:4506:GLU:HG2	1:E:4511:ARG:CD	2.49	0.42
1:F:5026:LYS:C	1:F:5028:LEU:N	2.73	0.42
1:A:499:THR:O	1:A:501:GLN:N	2.51	0.42
1:A:425:GLN:N	1:A:425:GLN:HE21	2.17	0.42
1:H:7202:CYS:SG	1:H:7203:ILE:N	2.92	0.42
1:D:3238:PHE:CD2	1:D:3239:MSE:HG2	2.54	0.42
1:D:3255:GLU:O	1:D:3257:PHE:N	2.53	0.42
1:D:3261:ASN:O	1:D:3264:ARG:HG2	2.19	0.42
1:D:3486:ILE:H	1:D:3486:ILE:HG12	1.44	0.42
1:A:193:ILE:O	1:A:195:PRO:HD3	2.19	0.42
1:D:3137:ILE:O	1:D:3139:ASP:N	2.51	0.42
1:G:6306:LYS:O	1:G:6386:PRO:HA	2.19	0.42
1:G:6177:MSE:O	1:G:6177:MSE:HE3	2.19	0.42
1:A:454:LEU:HD13	1:A:458:ARG:HH12	1.77	0.42
1:D:3208:ASP:O	1:D:3210:ILE:HD13	2.19	0.42
1:E:4310:LEU:HD23	1:E:4427:GLU:CG	2.49	0.42
1:B:1144:ARG:HH12	1:B:1245:ARG:N	2.16	0.42
1:F:5295:GLN:HE22	1:F:5305:HIS:CE1	2.38	0.42
1:F:5487:SER:O	1:F:5490:VAL:CG2	2.61	0.42
1:C:2048:LEU:HD22	1:C:2048:LEU:N	2.33	0.42
1:A:57:LYS:HB2	1:B:1219:MSE:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1085:ILE:HG23	1:B:1086:MSE:CE	2.49	0.42
1:F:5243:THR:HA	1:F:5247:GLY:O	2.19	0.42
1:G:6069:HIS:C	1:G:6071:ASN:H	2.22	0.42
1:C:2425:GLN:O	1:C:2426:ALA:O	2.36	0.42
1:G:6188:THR:HG23	1:G:6193:ILE:O	2.20	0.42
1:C:2232:ASP:O	1:C:2235:ILE:N	2.52	0.42
1:B:1069:HIS:O	1:B:1071:ASN:N	2.53	0.42
1:C:2494:ALA:O	1:C:2497:ALA:HB3	2.18	0.42
1:H:7571:GLU:HG3	1:H:7571:GLU:O	2.20	0.42
1:D:3182:GLY:O	1:D:3185:CYS:HB2	2.20	0.42
1:D:3122:GLN:O	1:D:3123:TYR:C	2.57	0.42
1:C:2154:HIS:HB3	1:C:2197:ARG:HD2	2.02	0.42
1:G:6351:VAL:HA	1:G:6367:HIS:O	2.20	0.42
1:H:7325:MSE:HB3	1:H:7325:MSE:HE2	1.95	0.42
1:B:1137:ILE:N	1:B:1204:ASP:O	2.49	0.42
1:C:2376:THR:O	1:C:2377:PHE:C	2.57	0.42
1:F:5116:VAL:HG13	1:F:5117:GLY:N	2.34	0.42
1:A:298:ILE:HD12	1:A:413:ARG:HD3	2.00	0.42
1:A:324:VAL:HG12	1:A:325:MSE:N	2.33	0.42
1:G:6276:PHE:HD1	1:G:6277:ASN:N	2.17	0.42
1:F:5358:ILE:HD12	1:F:5358:ILE:N	2.34	0.42
1:E:4068:PHE:CD2	1:E:4068:PHE:C	2.92	0.42
1:F:5303:SER:C	1:F:5340:LYS:HE3	2.40	0.42
1:C:2416:ILE:CD1	1:C:2416:ILE:H	2.23	0.42
1:F:5416:ILE:H	1:F:5416:ILE:CD1	2.29	0.42
1:G:6026:LYS:HB3	1:G:6027:PRO:HD3	2.00	0.42
1:G:6210:ILE:HA	1:G:6213:LEU:HB2	2.01	0.42
1:H:7553:VAL:O	1:H:7556:ARG:N	2.47	0.42
1:C:2528:ILE:HD13	1:C:2553:VAL:HB	2.00	0.42
1:G:6194:ARG:HB2	1:G:6197:ARG:CG	2.42	0.42
1:E:4419:LEU:N	1:E:4419:LEU:HD13	2.34	0.42
1:E:4388:THR:HA	1:E:4415:VAL:HB	2.02	0.42
1:D:3507:LEU:HD13	1:D:3507:LEU:HA	1.83	0.42
1:E:4549:LYS:N	1:E:4549:LYS:HD3	2.35	0.42
1:F:5271:GLU:O	1:F:5485:HIS:NE2	2.53	0.42
1:C:2278:ASP:C	1:C:2280:ILE:N	2.73	0.42
1:A:127:PHE:CD2	1:A:127:PHE:C	2.92	0.42
1:D:3415:VAL:HG13	1:D:3442:LEU:HB2	2.02	0.42
1:D:3144:ARG:O	1:D:3147:VAL:HB	2.20	0.42
1:E:4218:TYR:O	1:F:5057:LYS:CE	2.67	0.42
1:G:6300:LYS:CD	1:G:6304:GLU:HB2	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6429:THR:HG23	1:G:6432:GLU:CG	2.50	0.42
1:G:6116:VAL:O	1:G:6120:CYS:N	2.48	0.42
1:G:6123:TYR:C	1:G:6125:HIS:N	2.69	0.42
1:D:3417:PHE:CZ	1:D:3512:LEU:HD22	2.53	0.42
1:B:1359:ASP:OD2	1:B:1362:GLN:CB	2.68	0.42
1:C:2382:ASN:O	1:C:2384:LEU:N	2.53	0.42
1:B:1376:THR:N	1:B:1379:ASP:HB2	2.35	0.42
1:E:4122:GLN:O	1:E:4123:TYR:C	2.58	0.42
1:A:325:MSE:HE2	1:A:492:LEU:CD1	2.46	0.42
1:D:3072:LEU:HG	1:D:3081:LYS:HD2	2.01	0.42
1:D:3082:TYR:HB2	1:D:3110:ILE:HG23	2.00	0.42
1:D:3082:TYR:O	1:D:3085:ILE:CG2	2.66	0.42
1:G:6079:LEU:HD11	1:G:6119:ALA:CA	2.49	0.42
1:G:6402:ASP:O	1:G:6405:ARG:HG2	2.20	0.42
1:A:397:ARG:HH22	1:A:429:THR:HG22	1.80	0.42
1:E:4089:GLN:C	1:E:4091:ARG:H	2.23	0.42
1:E:4359:ASP:HB3	1:E:4362:GLN:OE1	2.20	0.42
1:F:5376:THR:CG2	1:F:5378:GLU:H	2.29	0.42
1:C:2431:GLU:C	1:C:2433:ALA:N	2.72	0.42
1:E:4209:ASN:HB3	1:E:4212:LEU:HD12	2.01	0.42
1:F:5397:ARG:C	1:F:5398:LEU:HD12	2.40	0.42
1:D:3491:PHE:O	1:D:3492:LEU:C	2.57	0.42
1:A:566:LEU:HA	1:A:566:LEU:HD23	1.75	0.42
1:A:270:ARG:HG3	1:A:271:GLU:N	2.34	0.42
1:A:215:ASP:HB3	1:A:218:TYR:HB2	2.01	0.42
1:C:2169:LEU:N	1:C:2169:LEU:CD1	2.82	0.42
1:D:3036:LYS:O	1:D:3037:GLY:C	2.55	0.42
1:C:2094:LYS:HD3	1:C:2558:TRP:HZ2	1.84	0.42
1:H:7386:PRO:HG2	1:H:7407:MSE:SE	2.69	0.42
1:H:7471:PHE:CE1	1:H:7472:PRO:HG3	2.54	0.42
1:A:546:PRO:HG2	1:A:549:LYS:HD2	2.00	0.42
1:D:3119:ALA:O	1:D:3122:GLN:N	2.53	0.42
1:A:244:ASP:OD1	1:A:248:ARG:NH1	2.53	0.42
1:F:5453:LYS:HB2	1:F:5459:VAL:CG1	2.29	0.42
1:B:1422:PRO:HB2	1:B:1423:THR:H	1.72	0.42
1:B:1412:GLU:O	1:B:1440:ARG:NH1	2.49	0.42
1:A:376:THR:CG2	1:A:377:PHE:N	2.82	0.42
1:E:4416:ILE:O	1:E:4416:ILE:HG12	2.20	0.42
1:E:4397:ARG:NH1	1:E:4429:THR:HG22	2.34	0.42
1:F:5467:ASN:O	1:F:5469:TYR:N	2.52	0.42
1:E:4068:PHE:CE1	1:E:4084:TYR:CE2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2218:TYR:CD2	1:C:2219:MSE:N	2.88	0.42
1:C:2470:ILE:C	1:C:2472:PRO:CD	2.88	0.42
1:H:7550:ALA:O	1:H:7554:LYS:CG	2.64	0.42
1:A:57:LYS:HG3	1:B:1219:MSE:HA	2.00	0.42
1:B:1122:GLN:O	1:B:1125:HIS:HB2	2.19	0.42
1:G:6100:LEU:CD2	1:G:6189:ALA:HB2	2.48	0.42
1:C:2072:LEU:HD11	1:C:2081:LYS:CB	2.47	0.42
1:C:2244:ASP:HA	1:C:2248:ARG:NH1	2.34	0.42
1:F:5294:ALA:O	1:F:5297:VAL:HG22	2.19	0.42
1:B:1101:GLN:HG3	1:B:1101:GLN:H	1.54	0.42
1:C:2482:ASN:N	1:C:2482:ASN:HD22	2.17	0.42
1:F:5520:GLN:O	1:F:5523:SER:HB2	2.19	0.42
1:H:7388:THR:OG1	1:H:7415:VAL:CG2	2.68	0.42
1:H:7410:ILE:HB	1:H:7411:ASN:ND2	2.35	0.42
1:D:3144:ARG:HH12	1:D:3244:ASP:C	2.23	0.42
1:D:3174:VAL:CG1	1:D:3220:GLY:HA3	2.49	0.42
1:A:235:ILE:O	1:A:239:MSE:HG2	2.20	0.42
1:B:1335:GLN:HA	1:B:1338:GLN:OE1	2.19	0.42
1:C:2413:ARG:HH21	1:C:2440:ARG:C	2.23	0.42
1:A:307:ILE:HG13	1:A:388:THR:OG1	2.19	0.42
1:A:440:ARG:HB3	1:A:440:ARG:CZ	2.49	0.42
1:B:1243:THR:HB	1:B:1248:ARG:NH1	2.34	0.42
1:H:7359:ASP:O	1:H:7362:GLN:HB2	2.20	0.42
1:C:2332:LEU:HG	1:C:2336:GLU:OE2	2.20	0.42
1:F:5331:GLY:O	1:F:5332:LEU:O	2.37	0.42
1:A:277:ASN:OD1	1:A:280:ILE:HG13	2.19	0.42
1:H:7521:GLU:HG3	1:H:7522:VAL:N	2.35	0.42
1:F:5086:MSE:HE3	1:F:5111:VAL:HG22	2.02	0.42
1:A:258:GLY:O	1:A:260:HIS:N	2.53	0.42
1:C:2266:LEU:HD12	1:C:2270:ARG:HB3	2.02	0.42
1:G:6175:TYR:CE2	1:G:6218:TYR:HD2	2.38	0.42
1:D:3166:ILE:HG21	1:D:3172:LEU:CD1	2.46	0.42
1:D:3480:LEU:HD21	1:D:3556:ARG:CB	2.50	0.42
1:B:1169:LEU:HD12	1:B:1169:LEU:N	2.34	0.42
1:H:7416:ILE:CD1	1:H:7416:ILE:N	2.83	0.42
1:A:247:GLY:O	1:A:250:THR:HG22	2.20	0.42
1:G:6358:ILE:HG12	1:G:6366:THR:HG21	2.01	0.42
1:F:5451:PRO:HA	1:F:5462:PRO:HD2	2.01	0.42
1:G:6146:ILE:O	1:G:6147:VAL:C	2.57	0.42
1:G:6199:LEU:HD12	1:G:6200:PRO:HD2	2.02	0.42
1:H:7132:GLY:HA3	1:H:7177:MSE:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1351:VAL:C	1:B:1366:THR:HG22	2.40	0.42
1:B:1407:MSE:HG3	1:B:1414:PRO:HB3	2.02	0.42
1:A:415:VAL:HG12	1:A:417:PHE:HE1	1.85	0.42
1:E:4431:GLU:O	1:E:4435:THR:HG23	2.19	0.42
1:F:5137:ILE:CG2	1:F:5138:SER:N	2.82	0.42
1:H:7159:VAL:HG21	1:H:7184:LEU:HD13	2.01	0.42
1:D:3321:ASN:O	1:D:3324:VAL:N	2.53	0.42
1:F:5432:GLU:HG2	1:F:5432:GLU:H	1.62	0.42
1:C:2522:VAL:HG12	1:C:2526:ILE:HD11	2.02	0.42
1:E:4253:GLN:HG3	1:E:4276:PHE:CE2	2.54	0.42
1:H:7542:ARG:HD3	1:H:7543:TYR:N	2.33	0.42
1:H:7161:THR:OG1	1:H:7162:ASP:N	2.53	0.42
1:F:5466:ASN:CB	1:F:5468:VAL:HG12	2.46	0.42
1:G:6165:ARG:NE	1:G:6259:ASN:ND2	2.67	0.42
1:B:1164:GLU:CD	1:B:1225:ARG:HD3	2.39	0.42
1:F:5570:TYR:CZ	1:H:7046:GLN:NE2	2.81	0.42
1:A:171:ASP:C	1:A:171:ASP:OD1	2.57	0.42
1:D:3088:ILE:HD13	1:D:3088:ILE:N	2.35	0.42
1:D:3571:GLU:O	1:D:3571:GLU:HG3	2.20	0.42
1:H:7298:ILE:HD11	1:H:7442:LEU:CD2	2.49	0.42
1:G:6238:PHE:HA	1:G:6241:ALA:HB3	2.02	0.42
1:B:1345:ASP:HB2	3:B:1601:NAD:O2B	2.19	0.42
1:B:1302:ILE:O	1:B:1303:SER:C	2.58	0.42
1:B:1453:LYS:HB2	1:B:1459:VAL:HG13	2.00	0.42
1:A:335:GLN:HG3	1:A:336:GLU:N	2.34	0.42
1:A:320:ALA:HB1	1:A:365:PHE:CZ	2.54	0.42
1:A:416:ILE:HG12	1:A:416:ILE:O	2.19	0.42
1:G:6038:MSE:HE2	1:G:6038:MSE:HB3	2.01	0.42
1:H:7242:ILE:HG22	1:H:7243:THR:N	2.35	0.42
1:C:2416:ILE:CD1	1:C:2442:LEU:O	2.63	0.42
1:F:5254:PHE:HD2	1:F:5257:PHE:CE1	2.37	0.42
1:C:2399:PHE:CB	1:C:2428:CYS:HB3	2.48	0.42
1:C:2401:PRO:HA	1:C:2436:LEU:CD2	2.50	0.42
1:F:5401:PRO:O	1:F:5405:ARG:N	2.44	0.42
1:C:2518:ASN:O	1:C:2522:VAL:HG23	2.19	0.42
1:C:2552:TYR:CE1	1:C:2556:ARG:CZ	3.02	0.42
1:C:2269:TYR:O	1:C:2270:ARG:C	2.56	0.42
1:D:3496:LYS:O	1:D:3497:ALA:C	2.57	0.42
1:H:7033:ARG:NH1	1:H:7152:GLU:OE1	2.53	0.42
1:G:6191:ALA:HB1	1:G:6476:LEU:HD23	2.00	0.42
1:C:2398:LEU:N	1:C:2398:LEU:CD1	2.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2129:ARG:NH2	1:D:3129:ARG:NH2	2.67	0.42
1:E:4070:ARG:O	1:E:4073:LYS:HB3	2.19	0.42
1:D:3306:LYS:O	1:D:3386:PRO:HA	2.20	0.41
1:E:4104:ILE:O	1:E:4108:MSE:HE2	2.20	0.41
1:E:4120:CYS:O	1:E:4175:TYR:HB3	2.20	0.41
1:E:4179:ILE:O	1:E:4180:PRO:C	2.58	0.41
1:C:2376:THR:O	1:C:2379:ASP:N	2.53	0.41
1:E:4312:ALA:HB2	1:E:4343:MSE:HE3	1.97	0.41
1:E:4351:VAL:CG1	1:E:4352:LYS:N	2.82	0.41
1:H:7271:GLU:HA	1:H:7485:HIS:HD2	1.85	0.41
1:H:7281:GLN:HB2	1:H:7491:PHE:CE2	2.55	0.41
1:A:183:LYS:NZ	1:A:255:GLU:OE2	2.52	0.41
1:A:275:THR:O	1:A:486:ILE:HG13	2.20	0.41
1:F:5254:PHE:CD2	1:F:5257:PHE:CE1	3.08	0.41
1:A:521:GLU:CG	1:A:522:VAL:N	2.83	0.41
1:B:1321:ASN:O	1:B:1322:LEU:C	2.58	0.41
1:F:5219:MSE:HE3	1:F:5219:MSE:HB2	1.95	0.41
1:B:1162:ASP:OD2	1:B:1225:ARG:NH1	2.53	0.41
1:G:6060:THR:O	1:G:6062:ASP:N	2.53	0.41
1:B:1044:GLU:O	1:B:1048:LEU:HB2	2.20	0.41
1:G:6535:TYR:HA	1:G:6540:ALA:HB3	2.02	0.41
1:B:1194:ARG:HB2	1:B:1197:ARG:HG3	2.02	0.41
1:H:7075:MSE:HG3	1:H:7080:GLU:OE1	2.20	0.41
1:D:3474:VAL:O	1:D:3475:ALA:C	2.58	0.41
1:D:3407:MSE:SE	1:D:3411:ASN:HD21	2.52	0.41
1:H:7116:VAL:CG1	1:H:7117:GLY:N	2.82	0.41
1:H:7374:PRO:HG3	1:H:7380:ALA:CA	2.49	0.41
1:D:3133:LEU:HD23	1:D:3199:LEU:HD11	2.02	0.41
1:E:4116:VAL:CG1	1:E:4117:GLY:N	2.84	0.41
1:G:6300:LYS:HD2	1:G:6304:GLU:CG	2.50	0.41
1:G:6298:ILE:HG22	1:G:6300:LYS:N	2.35	0.41
1:G:6351:VAL:C	1:G:6366:THR:HG22	2.41	0.41
1:G:6377:PHE:CZ	1:G:6389:ILE:HD11	2.56	0.41
1:B:1341:ILE:HD12	1:B:1365:PHE:HE2	1.85	0.41
1:B:1291:LEU:HD23	1:B:1417:PHE:CE2	2.55	0.41
1:E:4334:GLU:O	1:E:4338:GLN:OE1	2.38	0.41
1:E:4336:GLU:O	1:E:4340:LYS:HG3	2.20	0.41
1:E:4453:LYS:HD3	1:E:4457:GLY:CA	2.50	0.41
1:B:1144:ARG:O	1:B:1148:ASP:CG	2.59	0.41
1:F:5309:PHE:HD2	1:F:5343:MSE:HG2	1.86	0.41
1:D:3333:SER:CB	1:D:3336:GLU:HG3	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2175:TYR:CD1	1:C:2212:LEU:HD21	2.55	0.41
1:H:7523:SER:O	1:H:7524:ILE:C	2.59	0.41
1:E:4094:LYS:O	1:E:4095:LEU:C	2.59	0.41
1:B:1289:ALA:O	1:B:1499:THR:OG1	2.37	0.41
1:F:5420:SER:HB2	1:F:5426:ALA:HA	2.02	0.41
1:E:4313:GLY:HA3	3:E:4601:NAD:O5B	2.20	0.41
1:F:5533:TYR:CD2	1:F:5534:LEU:N	2.88	0.41
1:H:7264:ARG:HG3	1:H:7265:PHE:N	2.35	0.41
1:B:1081:LYS:O	1:B:1082:TYR:C	2.58	0.41
1:B:1026:LYS:N	1:B:1027:PRO:CD	2.83	0.41
1:H:7158:VAL:CG2	1:H:7199:LEU:HD23	2.48	0.41
1:G:6511:ARG:NH1	1:G:6513:TYR:O	2.52	0.41
1:C:2344:PHE:CD1	1:C:2349:LEU:HA	2.55	0.41
1:F:5335:GLN:HA	1:F:5335:GLN:NE2	2.35	0.41
1:E:4179:ILE:O	1:E:4182:GLY:N	2.53	0.41
1:F:5177:MSE:HG3	1:F:5177:MSE:O	2.20	0.41
1:G:6434:TYR:O	1:G:6439:GLY:N	2.53	0.41
1:H:7323:ILE:C	1:H:7325:MSE:N	2.71	0.41
1:F:5439:GLY:HA3	1:F:5460:PHE:HE2	1.85	0.41
1:B:1360:SER:HA	1:B:1363:GLU:CD	2.41	0.41
1:C:2381:VAL:HG13	1:C:2407:MSE:CE	2.50	0.41
1:B:1377:PHE:O	1:B:1378:GLU:C	2.57	0.41
1:B:1227:ARG:CG	1:B:1227:ARG:NH1	2.71	0.41
1:E:4302:ILE:HA	1:E:4305:HIS:CE1	2.55	0.41
1:E:4061:GLN:HA	1:E:4064:GLN:HG3	2.02	0.41
1:H:7244:ASP:N	1:H:7248:ARG:HH12	2.14	0.41
1:H:7276:PHE:HD1	1:H:7281:GLN:OE1	2.03	0.41
1:G:6082:TYR:O	1:G:6086:MSE:HB2	2.20	0.41
1:C:2287:ALA:O	1:C:2288:LEU:C	2.58	0.41
1:H:7060:THR:H	1:H:7063:ILE:HD12	1.84	0.41
1:H:7040:PHE:HE2	1:H:7565:LEU:CD1	2.33	0.41
1:A:133:LEU:HB2	1:A:199:LEU:HD11	2.02	0.41
1:H:7108:MSE:HE2	1:H:7108:MSE:HB2	1.77	0.41
1:D:3184:LEU:HA	1:D:3184:LEU:HD12	1.90	0.41
1:A:97:TYR:CE2	1:A:188:THR:HB	2.54	0.41
1:D:3113:THR:HA	1:D:3114:PRO:HA	1.84	0.41
1:D:3120:CYS:O	1:D:3123:TYR:HB2	2.21	0.41
1:E:4218:TYR:O	1:F:5057:LYS:HE2	2.20	0.41
1:G:6374:PRO:CG	1:G:6380:ALA:HB2	2.49	0.41
1:G:6422:PRO:HB2	1:G:6423:THR:H	1.63	0.41
1:G:6396:GLY:HA2	1:G:6425:GLN:C	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6150:TRP:CE2	1:G:6199:LEU:HD13	2.55	0.41
1:B:1333:SER:O	1:B:1334:GLU:C	2.59	0.41
1:A:333:SER:O	1:A:334:GLU:C	2.57	0.41
1:F:5172:LEU:HD23	1:F:5172:LEU:HA	1.79	0.41
1:C:2259:ASN:N	1:C:2259:ASN:ND2	2.68	0.41
1:H:7159:VAL:CG2	1:H:7184:LEU:HD11	2.48	0.41
1:H:7238:PHE:CE1	1:H:7242:ILE:HG13	2.56	0.41
1:F:5336:GLU:HG3	1:F:5336:GLU:H	1.51	0.41
1:B:1401:PRO:HA	1:B:1436:LEU:HD23	2.01	0.41
1:A:112:TYR:OH	1:A:183:LYS:HE3	2.20	0.41
1:G:6028:LEU:HD21	1:G:6048:LEU:HD12	2.01	0.41
1:H:7548:ASP:OD1	1:H:7550:ALA:HB3	2.20	0.41
1:E:4392:VAL:HG13	3:E:4601:NAD:O4D	2.20	0.41
1:G:6182:GLY:O	1:G:6185:CYS:N	2.52	0.41
1:C:2085:ILE:C	1:C:2087:GLY:N	2.71	0.41
1:C:2507:LEU:HD13	1:C:2507:LEU:HA	1.88	0.41
1:A:421:ASN:HA	1:A:422:PRO:O	2.21	0.41
1:C:2417:PHE:CE2	1:C:2444:ALA:CB	3.04	0.41
1:B:1431:GLU:O	1:B:1433:ALA:N	2.53	0.41
1:C:2176:GLY:C	1:C:2178:GLY:H	2.24	0.41
1:C:2205:VAL:HG11	1:C:2231:TYR:CD1	2.55	0.41
1:E:4100:LEU:HD23	1:E:4189:ALA:HB2	2.01	0.41
1:H:7112:TYR:CG	1:H:7113:THR:N	2.85	0.41
1:D:3271:GLU:O	1:D:3485:HIS:NE2	2.53	0.41
1:A:545:GLU:HG3	1:A:549:LYS:HZ1	1.85	0.41
1:A:552:TYR:CE1	1:A:556:ARG:NE	2.89	0.41
1:G:6306:LYS:NZ	1:G:6384:LEU:O	2.52	0.41
1:C:2338:GLN:O	1:C:2367:HIS:CE1	2.74	0.41
1:A:437:THR:HG21	1:A:441:CYS:HB3	2.03	0.41
1:E:4376:THR:O	1:E:4377:PHE:C	2.58	0.41
1:E:4454:LEU:HD11	1:E:4460:PHE:CE2	2.55	0.41
1:D:3243:THR:CB	1:D:3248:ARG:HD2	2.37	0.41
1:H:7327:MSE:HE1	1:H:7337:ALA:C	2.40	0.41
1:G:6253:GLN:HG3	1:G:6276:PHE:CE2	2.55	0.41
1:E:4089:GLN:O	1:E:4091:ARG:N	2.51	0.41
1:B:1133:LEU:HB3	1:B:1201:VAL:HG13	2.02	0.41
1:E:4041:THR:HG23	1:E:4044:GLU:CD	2.41	0.41
1:E:4535:TYR:HA	1:E:4535:TYR:HD2	1.73	0.41
1:F:5240:LYS:O	1:F:5241:ALA:C	2.58	0.41
1:H:7510:GLY:O	1:H:7512:LEU:CD1	2.68	0.41
1:D:3505:GLU:H	1:D:3505:GLU:CD	2.16	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5159:VAL:HG23	1:F:5184:LEU:HD11	2.01	0.41
1:D:3546:PRO:HG3	1:D:3552:TYR:CD1	2.56	0.41
1:D:3506:GLU:HB3	1:D:3511:ARG:CD	2.51	0.41
1:H:7328:VAL:CG2	1:H:7334:GLU:N	2.83	0.41
1:A:519:ILE:HG13	1:A:519:ILE:O	2.20	0.41
1:D:3377:PHE:O	1:D:3381:VAL:HG23	2.21	0.41
1:H:7292:LEU:O	1:H:7295:GLN:N	2.54	0.41
1:H:7298:ILE:HA	1:H:7298:ILE:HD12	1.84	0.41
1:G:6176:GLY:O	1:G:6177:MSE:C	2.58	0.41
1:B:1363:GLU:C	1:B:1365:PHE:H	2.24	0.41
1:B:1265:PHE:HB3	1:B:1269:TYR:HE1	1.86	0.41
1:H:7044:GLU:O	1:H:7048:LEU:HD23	2.20	0.41
1:C:2171:ASP:O	1:C:2172:LEU:HD23	2.20	0.41
1:A:108:MSE:HE2	1:A:108:MSE:HB2	1.84	0.41
1:A:166:ILE:HD13	1:A:256:ASP:CB	2.51	0.41
1:C:2470:ILE:O	1:C:2472:PRO:N	2.53	0.41
1:E:4209:ASN:O	1:E:4213:LEU:HD12	2.21	0.41
1:C:2552:TYR:CD1	1:C:2556:ARG:NH1	2.89	0.41
1:E:4047:MSE:SE	1:E:4566:LEU:HD22	2.71	0.41
1:B:1218:TYR:HB3	1:B:1222:TYR:CE2	2.55	0.41
1:E:4444:ALA:HB2	1:E:4512:LEU:HD13	2.02	0.41
1:F:5041:THR:OG1	1:F:5042:LEU:N	2.54	0.41
1:H:7402:ASP:C	1:H:7405:ARG:HG2	2.40	0.41
1:E:4165:ARG:CD	1:E:4259:ASN:HD21	2.33	0.41
1:H:7037:GLY:O	1:H:7054:LEU:HD13	2.20	0.41
1:B:1069:HIS:C	1:B:1071:ASN:N	2.74	0.41
1:A:535:TYR:O	1:A:538:LYS:HD3	2.20	0.41
1:D:3176:GLY:O	1:D:3177:MSE:C	2.58	0.41
1:A:238:PHE:CD2	1:A:238:PHE:C	2.94	0.41
1:G:6332:LEU:HD23	1:G:6337:ALA:N	2.36	0.41
1:G:6346:LYS:HB3	3:G:6601:NAD:C5A	2.50	0.41
1:C:2313:GLY:O	1:C:2314:GLU:C	2.58	0.41
1:C:2380:ALA:O	1:C:2382:ASN:N	2.53	0.41
1:B:1310:LEU:HD21	1:B:1398:LEU:CB	2.45	0.41
1:A:128:ARG:HG3	1:B:1091:ARG:CZ	2.50	0.41
1:B:1491:PHE:O	1:B:1494:ALA:N	2.51	0.41
1:H:7179:ILE:CB	1:H:7180:PRO:CD	2.97	0.41
1:D:3529:LYS:HA	1:D:3532:GLU:CD	2.40	0.41
1:F:5416:ILE:O	1:F:5416:ILE:HG12	2.21	0.41
1:D:3304:GLU:O	1:D:3305:HIS:C	2.58	0.41
1:G:6210:ILE:O	1:G:6214:LYS:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:5531:THR:O	1:F:5534:LEU:HB2	2.20	0.41
1:A:373:ILE:HD12	1:A:373:ILE:N	2.34	0.41
1:F:5028:LEU:HD13	1:F:5028:LEU:HA	1.98	0.41
1:D:3094:LYS:NZ	1:D:3559:ARG:O	2.50	0.41
1:E:4055:PRO:O	1:E:4057:LYS:N	2.54	0.41
1:H:7090:GLU:HG2	1:H:7131:LYS:HZ3	1.85	0.41
1:F:5278:ASP:O	1:F:5280:ILE:N	2.53	0.41
1:E:4107:LEU:HD13	1:E:4107:LEU:HA	1.78	0.41
1:D:3298:ILE:HD12	1:D:3413:ARG:HD3	2.03	0.41
1:D:3307:ILE:CG2	1:D:3308:LEU:N	2.83	0.41
1:A:99:ILE:C	1:A:102:ASP:HB2	2.41	0.41
1:A:98:ARG:HG3	1:A:99:ILE:N	2.32	0.41
1:D:3116:VAL:HG13	1:D:3117:GLY:H	1.84	0.41
1:D:3137:ILE:C	1:D:3139:ASP:N	2.72	0.41
1:E:4175:TYR:CE2	1:E:4218:TYR:HD2	2.39	0.41
1:G:6382:ASN:O	1:G:6385:LYS:HE2	2.20	0.41
1:G:6384:LEU:HA	1:G:6384:LEU:HD12	1.90	0.41
1:H:7319:ILE:O	1:H:7321:ASN:N	2.54	0.41
1:G:6123:TYR:O	1:G:6125:HIS:N	2.54	0.41
1:G:6471:PHE:CG	1:G:6472:PRO:CD	3.00	0.41
1:A:381:VAL:HG13	1:A:407:MSE:HE1	2.02	0.41
1:E:4336:GLU:HG3	1:E:4336:GLU:H	1.37	0.41
1:E:4303:SER:O	1:E:4340:LYS:HE2	2.20	0.41
1:E:4422:PRO:HB2	1:E:4423:THR:H	1.60	0.41
1:H:7144:ARG:HA	1:H:7144:ARG:HD2	1.86	0.41
1:H:7266:LEU:HD12	1:H:7266:LEU:C	2.40	0.41
1:E:4481:CYS:SG	1:E:4531:THR:HB	2.60	0.41
1:G:6164:GLU:O	1:G:6171:ASP:N	2.54	0.41
1:E:4135:ILE:CD1	1:E:4238:PHE:HD1	2.34	0.41
1:B:1322:LEU:O	1:B:1325:MSE:HB2	2.20	0.41
1:E:4357:LYS:HD3	1:E:4357:LYS:HA	1.78	0.41
1:B:1075:MSE:HG3	1:B:1080:GLU:HG2	2.02	0.41
1:F:5024:LYS:HA	1:F:5028:LEU:CD2	2.51	0.41
1:B:1229:GLN:NE2	1:B:1229:GLN:HA	2.35	0.41
1:C:2310:LEU:C	1:C:2344:PHE:O	2.58	0.41
1:C:2069:HIS:O	1:C:2071:ASN:N	2.54	0.41
1:A:220:GLY:HA2	1:B:1056:PRO:HG2	2.03	0.41
1:A:292:LEU:O	1:A:296:LYS:HB2	2.21	0.41
1:D:3307:ILE:HG22	1:D:3308:LEU:N	2.36	0.41
1:D:3308:LEU:CD1	1:D:3342:TRP:HB2	2.47	0.41
1:H:7113:THR:HA	1:H:7116:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7470:ILE:HG22	1:H:7471:PHE:N	2.35	0.41
1:D:3183:LYS:HD2	1:D:3255:GLU:OE2	2.20	0.41
1:A:536:ALA:O	1:A:538:LYS:HE2	2.20	0.41
1:A:535:TYR:CZ	1:A:545:GLU:HA	2.56	0.41
1:A:243:THR:CB	1:A:248:ARG:HD2	2.12	0.41
1:G:6243:THR:HG22	1:G:6247:GLY:O	2.20	0.41
1:E:4116:VAL:CG2	1:E:4179:ILE:HD13	2.42	0.41
1:G:6421:ASN:C	1:G:6425:GLN:HB2	2.41	0.41
1:G:6332:LEU:CD2	1:G:6337:ALA:HA	2.51	0.41
1:G:6374:PRO:HG3	1:G:6380:ALA:CB	2.51	0.41
1:G:6416:ILE:HG12	1:G:6416:ILE:O	2.20	0.41
1:G:6313:GLY:HA3	3:G:6601:NAD:O5B	2.20	0.41
1:G:6217:PHE:CZ	1:H:7067:ARG:HA	2.56	0.41
1:G:6140:ARG:O	1:G:6140:ARG:HG3	2.21	0.41
1:G:6470:ILE:O	1:G:6471:PHE:C	2.59	0.41
1:H:7176:GLY:C	1:H:7178:GLY:N	2.74	0.41
1:B:1140:ARG:NH1	1:B:1230:GLN:HG2	2.36	0.41
1:C:2388:THR:CG2	1:C:2415:VAL:HB	2.41	0.41
1:B:1298:ILE:HA	1:B:1298:ILE:HD12	1.90	0.41
1:B:1300:LYS:C	1:B:1304:GLU:OE1	2.60	0.41
1:B:1310:LEU:CD2	1:B:1399:PHE:CE2	3.03	0.41
1:B:1420:SER:OG	1:B:1427:GLU:OE1	2.39	0.41
1:A:384:LEU:O	1:A:385:LYS:HB2	2.21	0.41
1:A:298:ILE:CD1	1:A:413:ARG:HD3	2.51	0.41
1:A:325:MSE:HB3	1:A:492:LEU:HD13	2.02	0.41
1:A:492:LEU:O	1:A:495:ALA:HB3	2.21	0.41
1:E:4291:LEU:O	1:E:4294:ALA:HB3	2.21	0.41
1:B:1469:TYR:CZ	1:B:1516:LEU:HD13	2.56	0.41
1:E:4429:THR:HB	1:E:4449:PHE:HE2	1.85	0.41
1:E:4026:LYS:C	1:E:4028:LEU:H	2.23	0.41
1:A:478:VAL:HG13	1:A:483:THR:HB	2.02	0.41
1:C:2161:THR:HA	1:C:2257:PHE:CE1	2.55	0.41
1:H:7276:PHE:CG	1:H:7276:PHE:O	2.74	0.41
1:F:5319:ILE:O	1:F:5320:ALA:C	2.58	0.41
1:C:2174:VAL:HG23	1:C:2174:VAL:O	2.21	0.41
1:B:1400:THR:O	1:B:1404:ILE:HG13	2.20	0.41
1:A:183:LYS:HD3	1:A:183:LYS:HA	1.63	0.41
1:C:2468:VAL:HA	1:C:2471:PHE:CE2	2.56	0.41
1:F:5255:GLU:O	1:F:5257:PHE:CD1	2.74	0.41
1:D:3302:ILE:CD1	1:D:3330:ASN:HD22	2.33	0.41
1:E:4212:LEU:O	1:E:4215:ASP:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:7552:TYR:CE1	1:H:7556:ARG:HD2	2.56	0.41
1:E:4239:MSE:HB3	1:E:4273:TYR:CE1	2.56	0.41
1:D:3154:HIS:O	1:D:3197:ARG:CD	2.69	0.41
1:F:5212:LEU:C	1:F:5214:LYS:N	2.73	0.41
1:H:7261:ASN:HA	1:H:7264:ARG:HG2	2.03	0.41
1:D:3166:ILE:O	1:D:3167:LEU:C	2.59	0.41
1:C:2160:VAL:HG12	1:C:2201:VAL:CB	2.47	0.41
1:F:5206:GLY:CA	1:F:5223:GLN:HE21	2.34	0.41
1:B:1409:SER:OG	1:B:1410:ILE:N	2.54	0.41
1:A:541:PHE:N	1:A:541:PHE:HD2	2.19	0.41
1:B:1066:LEU:HD11	1:B:1070:ARG:HH11	1.86	0.41
1:C:2232:ASP:OD2	1:C:2232:ASP:N	2.37	0.41
1:A:363:GLU:HB2	1:A:364:PRO:HD3	2.03	0.41
1:A:363:GLU:O	1:A:364:PRO:C	2.59	0.41
1:C:2054:LEU:HD23	1:D:3130:PRO:HG2	2.03	0.41
1:H:7031:ASN:HA	1:H:7032:PRO:HD2	1.85	0.41
1:G:6252:ILE:O	1:G:6275:THR:OG1	2.37	0.41
1:F:5260:HIS:C	1:F:5260:HIS:ND1	2.74	0.41
1:H:7174:VAL:HG21	1:H:7219:MSE:HB2	2.03	0.41
1:C:2038:MSE:HB3	1:C:2059:GLU:HG3	2.00	0.41
1:D:3079:LEU:HD11	1:D:3119:ALA:CA	2.49	0.41
1:D:3133:LEU:HD13	1:D:3133:LEU:HA	1.78	0.41
1:G:6235:ILE:HG12	1:G:6235:ILE:H	1.64	0.41
1:E:4166:ILE:HD13	1:E:4166:ILE:HA	1.74	0.41
1:G:6128:ARG:HG3	1:H:7091:ARG:NH1	2.36	0.41
1:G:6474:VAL:O	1:G:6477:ALA:N	2.54	0.41
1:H:7099:ILE:O	1:H:7100:LEU:C	2.60	0.41
1:B:1140:ARG:HB2	1:B:1140:ARG:HE	1.42	0.41
1:C:2308:LEU:HD12	1:C:2342:TRP:O	2.21	0.41
1:E:4380:ALA:O	1:E:4381:VAL:C	2.59	0.41
1:E:4396:GLY:HA2	1:E:4425:GLN:CA	2.48	0.41
1:B:1144:ARG:HH11	1:B:1244:ASP:CB	2.32	0.41
1:B:1490:VAL:O	1:B:1494:ALA:N	2.54	0.41
1:B:1253:GLN:NE2	1:B:1254:PHE:O	2.54	0.41
1:A:105:GLU:HA	1:A:108:MSE:CE	2.51	0.41
1:C:2301:PRO:O	1:C:2304:GLU:OE2	2.39	0.41
1:C:2470:ILE:C	1:C:2472:PRO:HD2	2.41	0.41
1:C:2431:GLU:O	1:C:2432:GLU:C	2.57	0.41
1:C:2404:ILE:HD13	1:C:2433:ALA:HA	2.02	0.41
1:A:503:THR:O	1:A:506:GLU:N	2.54	0.41
1:B:1215:ASP:HB3	1:B:1218:TYR:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:159:VAL:HG21	1:A:184:LEU:HD13	2.03	0.41
1:G:6061:GLN:HA	1:G:6064:GLN:NE2	2.36	0.41
1:H:7255:GLU:O	1:H:7257:PHE:CD1	2.74	0.41
1:C:2079:LEU:O	1:C:2082:TYR:HB3	2.21	0.41
1:E:4165:ARG:HB2	1:E:4257:PHE:O	2.21	0.41
1:G:6543:TYR:HA	1:G:6544:PRO:C	2.41	0.41
1:D:3143:VAL:O	1:D:3144:ARG:C	2.60	0.40
1:D:3146:ILE:O	1:D:3147:VAL:C	2.60	0.40
1:D:3183:LYS:CE	1:D:3255:GLU:OE2	2.70	0.40
1:C:2036:LYS:O	1:C:2039:ALA:HB3	2.22	0.40
1:G:6300:LYS:HD2	1:G:6304:GLU:CB	2.49	0.40
1:G:6374:PRO:CB	1:G:6383:ILE:HD12	2.50	0.40
1:G:6306:LYS:CE	1:G:6384:LEU:O	2.69	0.40
1:B:1210:ILE:CA	1:B:1213:LEU:HD12	2.34	0.40
1:C:2408:ALA:HA	1:C:2414:PRO:HG3	2.03	0.40
1:B:1376:THR:HB	1:B:1379:ASP:CB	2.50	0.40
1:B:1429:THR:HG23	1:B:1432:GLU:CD	2.42	0.40
1:A:291:LEU:HD12	1:A:323:ILE:HD11	2.03	0.40
1:A:389:ILE:O	1:A:389:ILE:CG2	2.69	0.40
1:E:4308:LEU:HD12	1:E:4309:PHE:N	2.34	0.40
1:A:267:ARG:NH1	1:A:267:ARG:CG	2.84	0.40
1:G:6359:ASP:OD2	1:G:6359:ASP:O	2.40	0.40
1:G:6487:SER:OG	1:G:6539:MSE:HE1	2.20	0.40
1:B:1252:ILE:O	1:B:1275:THR:HA	2.21	0.40
1:H:7269:TYR:HB3	1:H:7273:TYR:CD1	2.48	0.40
1:G:6478:VAL:CG1	1:G:6479:ILE:N	2.82	0.40
1:C:2289:ALA:O	1:C:2499:THR:OG1	2.37	0.40
1:C:2402:ASP:CA	1:C:2405:ARG:HG2	2.49	0.40
1:C:2429:THR:HA	1:C:2449:PHE:CE1	2.56	0.40
1:C:2044:GLU:C	1:C:2048:LEU:HD23	2.41	0.40
1:C:2097:TYR:HA	1:C:2100:LEU:HB2	2.02	0.40
1:E:4059:GLU:CG	1:E:4063:ILE:HG21	2.46	0.40
1:E:4266:LEU:HD12	1:E:4270:ARG:HB2	2.03	0.40
1:F:5503:THR:O	1:F:5507:LEU:HD22	2.21	0.40
1:H:7454:LEU:H	1:H:7454:LEU:HD12	1.86	0.40
1:H:7454:LEU:HD12	1:H:7458:ARG:HB2	2.03	0.40
1:E:4346:LYS:O	1:E:4346:LYS:HG2	2.19	0.40
1:A:28:LEU:HA	1:A:28:LEU:HD12	1.88	0.40
1:D:3065:ALA:O	1:D:3066:LEU:C	2.60	0.40
1:D:3376:THR:CG2	1:D:3377:PHE:N	2.84	0.40
1:H:7466:ASN:C	1:H:7468:VAL:H	2.25	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:468:VAL:HA	1:A:471:PHE:CE2	2.56	0.40
1:A:470:ILE:HG22	1:A:471:PHE:N	2.36	0.40
1:G:6240:LYS:O	1:G:6242:ILE:N	2.54	0.40
1:G:6319:ILE:HG22	1:G:6323:ILE:HD11	2.03	0.40
1:E:4242:ILE:HG22	1:E:4243:THR:N	2.36	0.40
1:B:1396:GLY:HA2	1:B:1425:GLN:HA	2.04	0.40
1:A:354:ARG:NE	1:A:356:ALA:HB3	2.37	0.40
1:E:4401:PRO:HA	1:E:4404:ILE:HD12	2.03	0.40
1:G:6079:LEU:HD13	1:G:6118:LEU:HB3	2.03	0.40
1:B:1147:VAL:O	1:B:1149:ASN:N	2.54	0.40
1:C:2210:ILE:O	1:C:2214:LYS:HD2	2.21	0.40
1:A:401:PRO:HB3	1:A:436:LEU:CD2	2.47	0.40
1:D:3333:SER:HB3	1:D:3336:GLU:CG	2.51	0.40
1:F:5284:ALA:CB	1:F:5319:ILE:HA	2.50	0.40
1:B:1066:LEU:O	1:B:1066:LEU:HD12	2.21	0.40
1:F:5520:GLN:O	1:F:5523:SER:N	2.55	0.40
1:G:6447:SER:HB3	1:G:6448:PRO:HD2	2.02	0.40
1:D:3400:THR:OG1	1:D:3402:ASP:HB2	2.21	0.40
1:H:7104:ILE:HG23	1:H:7105:GLU:N	2.36	0.40
1:H:7468:VAL:O	1:H:7468:VAL:CG2	2.67	0.40
1:A:155:VAL:HA	1:A:197:ARG:O	2.21	0.40
1:A:95:LEU:HG	1:A:99:ILE:HD12	2.03	0.40
1:D:3137:ILE:HG22	1:D:3221:LEU:HD23	2.02	0.40
1:E:4166:ILE:O	1:E:4167:LEU:O	2.40	0.40
1:D:3394:GLY:O	1:D:3425:GLN:CG	2.65	0.40
1:B:1292:LEU:HD23	1:B:1292:LEU:HA	1.81	0.40
1:E:4404:ILE:O	1:E:4405:ARG:C	2.59	0.40
1:H:7262:ALA:HB1	1:H:7277:ASN:ND2	2.36	0.40
1:F:5360:SER:OG	1:F:5361:TYR:N	2.54	0.40
1:C:2119:ALA:O	1:C:2123:TYR:N	2.54	0.40
1:C:2289:ALA:O	1:C:2292:LEU:HB2	2.21	0.40
1:D:3477:ALA:HB1	1:D:3531:THR:CG2	2.44	0.40
1:D:3100:LEU:C	1:D:3102:ASP:N	2.73	0.40
1:F:5412:GLU:HA	1:F:5440:ARG:NH1	2.36	0.40
1:E:4356:ALA:HA	1:E:4357:LYS:HZ2	1.86	0.40
1:G:6165:ARG:CZ	1:G:6259:ASN:ND2	2.85	0.40
1:C:2072:LEU:HA	1:C:2072:LEU:HD12	1.82	0.40
1:D:3169:LEU:CD2	1:D:3172:LEU:HD11	2.50	0.40
1:E:4136:SER:HB2	1:E:4221:LEU:HD21	2.02	0.40
1:F:5240:LYS:HG2	1:F:5244:ASP:OD1	2.21	0.40
1:F:5026:LYS:O	1:F:5027:PRO:C	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:6419:LEU:O	1:G:6446:GLY:HA3	2.21	0.40
1:E:4056:PRO:HD3	1:F:5134:PHE:HB3	2.03	0.40
1:D:3370:PRO:O	1:D:3372:SER:N	2.55	0.40
1:D:3404:ILE:HG21	1:D:3436:LEU:CB	2.52	0.40
1:H:7377:PHE:O	1:H:7380:ALA:N	2.54	0.40
1:D:3266:LEU:O	1:D:3270:ARG:CB	2.70	0.40
1:A:532:GLU:HG2	1:A:549:LYS:HG2	2.03	0.40
1:G:6205:VAL:HG11	1:G:6231:TYR:CD1	2.53	0.40
1:G:6308:LEU:HB3	1:G:6389:ILE:CD1	2.51	0.40
1:D:3420:SER:HB3	1:D:3425:GLN:O	2.22	0.40
1:C:2321:ASN:C	1:C:2323:ILE:N	2.73	0.40
1:B:1300:LYS:NZ	1:B:1387:SER:CB	2.84	0.40
1:F:5317:LEU:H	1:F:5317:LEU:CD1	2.05	0.40
1:E:4174:VAL:HG21	1:E:4219:MSE:HB2	2.03	0.40
1:D:3072:LEU:HA	1:D:3075:MSE:CE	2.44	0.40
1:E:4435:THR:C	1:E:4437:THR:H	2.23	0.40
1:B:1243:THR:O	1:B:1247:GLY:O	2.39	0.40
1:D:3243:THR:CB	1:D:3248:ARG:HH11	2.35	0.40
1:E:4068:PHE:CE2	1:E:4072:LEU:HD22	2.56	0.40
1:E:4477:ALA:HB2	1:E:4527:ALA:O	2.22	0.40
1:F:5522:VAL:O	1:F:5526:ILE:HG13	2.21	0.40
1:C:2546:PRO:O	1:C:2549:LYS:HE3	2.20	0.40
1:F:5419:LEU:CA	1:F:5446:GLY:HA3	2.49	0.40
1:F:5266:LEU:C	1:F:5266:LEU:HD12	2.42	0.40
1:H:7400:THR:OG1	1:H:7402:ASP:HB2	2.20	0.40
1:H:7511:ARG:NH1	1:H:7511:ARG:HB3	2.37	0.40
1:F:5568:ASP:OD1	1:F:5570:TYR:HD2	2.05	0.40
1:F:5107:LEU:HD13	1:F:5107:LEU:HA	1.85	0.40
1:E:4281:GLN:HB3	1:E:4491:PHE:CE1	2.57	0.40
1:D:3511:ARG:H	1:D:3511:ARG:HG3	1.53	0.40
1:C:2129:ARG:NH2	1:D:3091:ARG:HG3	2.35	0.40
1:H:7107:LEU:O	1:H:7108:MSE:C	2.60	0.40
1:H:7210:ILE:O	1:H:7213:LEU:N	2.54	0.40
1:D:3112:TYR:CG	1:D:3113:THR:N	2.89	0.40
1:D:3199:LEU:HD12	1:D:3199:LEU:C	2.42	0.40
1:G:6430:ALA:O	1:G:6431:GLU:C	2.60	0.40
1:G:6140:ARG:HB2	1:G:6140:ARG:HE	1.62	0.40
1:D:3288:LEU:HG	1:D:3292:LEU:CD2	2.51	0.40
1:B:1339:LYS:CA	1:B:1367:HIS:NE2	2.81	0.40
1:A:453:LYS:HD3	1:A:454:LEU:O	2.21	0.40
1:B:1453:LYS:HA	1:B:1459:VAL:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:323:ILE:HG22	1:A:324:VAL:N	2.37	0.40
1:E:4336:GLU:HA	1:E:4339:LYS:HB2	2.03	0.40
1:E:4439:GLY:HA3	1:E:4460:PHE:HE2	1.86	0.40
1:H:7159:VAL:CG2	1:H:7184:LEU:CD1	2.99	0.40
1:A:432:GLU:HG2	1:A:432:GLU:H	1.76	0.40
1:E:4530:VAL:O	1:E:4531:THR:C	2.60	0.40
1:E:4137:ILE:HB	1:E:4205:VAL:HG12	2.04	0.40
1:C:2298:ILE:HG22	1:C:2300:LYS:N	2.37	0.40
1:C:2480:LEU:HD21	1:C:2556:ARG:CB	2.52	0.40
1:E:4512:LEU:O	1:E:4513:TYR:CD2	2.74	0.40
1:G:6259:ASN:O	1:G:6260:HIS:C	2.59	0.40
1:B:1030:LEU:HD23	1:B:1030:LEU:HA	1.87	0.40
1:A:81:LYS:O	1:A:82:TYR:C	2.60	0.40
1:D:3506:GLU:HA	1:D:3511:ARG:HD2	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	549/584 (94%)	415 (76%)	99 (18%)	35 (6%)	2	5
1	B	549/584 (94%)	406 (74%)	107 (20%)	36 (7%)	1	4
1	C	549/584 (94%)	407 (74%)	102 (19%)	40 (7%)	1	3
1	D	549/584 (94%)	394 (72%)	119 (22%)	36 (7%)	1	4
1	E	549/584 (94%)	429 (78%)	94 (17%)	26 (5%)	3	11
1	F	549/584 (94%)	437 (80%)	83 (15%)	29 (5%)	2	8
1	G	549/584 (94%)	398 (72%)	111 (20%)	40 (7%)	1	3
1	H	549/584 (94%)	398 (72%)	120 (22%)	31 (6%)	2	7
All	All	4392/4672 (94%)	3284 (75%)	835 (19%)	273 (6%)	2	5

All (273) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	104	ILE
1	A	167	LEU
1	A	256	ASP
1	A	259	ASN
1	A	268	LYS
1	A	301	PRO
1	A	302	ILE
1	A	314	GLU
1	A	324	VAL
1	B	1093	GLU
1	B	1100	LEU
1	B	1127	PHE
1	B	1260	HIS
1	B	1268	LYS
1	B	1302	ILE
1	B	1303	SER
1	B	1451	PRO
1	B	1556	ARG
1	C	2259	ASN
1	C	2301	PRO
1	C	2302	ILE
1	C	2314	GLU
1	C	2423	THR
1	C	2455	THR
1	C	2520	GLN
1	C	2528	ILE
1	C	2570	TYR
1	D	3123	TYR
1	D	3229	GLN
1	D	3256	ASP
1	D	3259	ASN
1	D	3268	LYS
1	D	3284	ALA
1	D	3285	ALA
1	D	3301	PRO
1	D	3302	ILE
1	D	3303	SER
1	D	3314	GLU
1	D	3422	PRO
1	E	4167	LEU
1	E	4259	ASN
1	E	4302	ILE

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Mol	Chain	Res	Type
1	E	4422	PRO
1	F	5242	ILE
1	F	5256	ASP
1	F	5301	PRO
1	F	5302	ILE
1	F	5303	SER
1	F	5332	LEU
1	G	6256	ASP
1	G	6259	ASN
1	G	6301	PRO
1	G	6302	ILE
1	G	6303	SER
1	G	6393	ALA
1	G	6479	ILE
1	G	6562	TYR
1	H	7104	ILE
1	H	7256	ASP
1	H	7259	ASN
1	H	7301	PRO
1	H	7302	ILE
1	H	7303	SER
1	H	7314	GLU
1	H	7410	ILE
1	H	7423	THR
1	A	90	GLU
1	A	228	THR
1	A	244	ASP
1	A	320	ALA
1	A	347	TYR
1	A	371	GLU
1	A	383	ILE
1	A	479	ILE
1	A	500	SER
1	B	1094	LYS
1	B	1301	PRO
1	B	1314	GLU
1	B	1371	GLU
1	C	2293	ALA
1	C	2381	VAL
1	C	2382	ASN
1	C	2383	ILE
1	C	2500	SER

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Mol	Chain	Res	Type
1	C	2529	LYS
1	D	3096	PHE
1	D	3171	ASP
1	D	3305	HIS
1	D	3371	GLU
1	D	3420	SER
1	D	3433	ALA
1	D	3480	LEU
1	D	3554	LYS
1	E	4038	MSE
1	E	4090	GLU
1	E	4123	TYR
1	E	4213	LEU
1	E	4301	PRO
1	E	4305	HIS
1	E	4314	GLU
1	E	4334	GLU
1	E	4345	ASP
1	E	4354	ARG
1	E	4371	GLU
1	E	4404	ILE
1	E	4455	THR
1	F	5259	ASN
1	F	5283	THR
1	F	5314	GLU
1	F	5354	ARG
1	F	5432	GLU
1	F	5451	PRO
1	G	6231	TYR
1	G	6314	GLU
1	G	6363	GLU
1	G	6432	GLU
1	G	6509	GLN
1	H	7086	MSE
1	H	7090	GLU
1	H	7279	ASP
1	H	7409	SER
1	H	7554	LYS
1	A	397	ARG
1	A	432	GLU
1	B	1148	ASP
1	B	1222	TYR

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Mol	Chain	Res	Type
1	B	1228	THR
1	B	1259	ASN
1	B	1280	ILE
1	B	1284	ALA
1	B	1436	LEU
1	B	1554	LYS
1	C	2039	ALA
1	C	2225	ARG
1	C	2256	ASP
1	C	2260	HIS
1	C	2279	ASP
1	C	2292	LEU
1	C	2405	ARG
1	C	2426	ALA
1	C	2498	LEU
1	C	2527	ALA
1	C	2554	LYS
1	C	2562	TYR
1	D	3138	SER
1	D	3143	VAL
1	D	3230	GLN
1	D	3239	MSE
1	D	3552	TYR
1	E	4230	GLN
1	E	4520	GLN
1	E	4554	LYS
1	F	5093	GLU
1	F	5279	ASP
1	F	5423	THR
1	F	5498	LEU
1	F	5520	GLN
1	G	6067	ARG
1	G	6127	PHE
1	G	6213	LEU
1	G	6261	ASN
1	G	6284	ALA
1	G	6370	PRO
1	G	6488	ASP
1	G	6497	ALA
1	G	6520	GLN
1	H	7177	MSE
1	H	7228	THR

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Mol	Chain	Res	Type
1	H	7230	GLN
1	H	7350	LEU
1	H	7532	GLU
1	A	38	MSE
1	A	89	GLN
1	A	177	MSE
1	A	325	MSE
1	A	352	LYS
1	A	428	CYS
1	A	431	GLU
1	B	1070	ARG
1	B	1319	ILE
1	B	1364	PRO
1	B	1472	PRO
1	B	1550	ALA
1	C	2056	PRO
1	C	2284	ALA
1	C	2347	TYR
1	C	2404	ILE
1	D	3404	ILE
1	D	3432	GLU
1	D	3520	GLN
1	E	4332	LEU
1	E	4438	GLU
1	E	4516	LEU
1	F	5143	VAL
1	F	5228	THR
1	F	5280	ILE
1	F	5284	ALA
1	F	5316	ALA
1	F	5431	GLU
1	G	6061	GLN
1	G	6224	LYS
1	G	6241	ALA
1	G	6268	LYS
1	G	6285	ALA
1	G	6422	PRO
1	G	6431	GLU
1	G	6451	PRO
1	G	6468	VAL
1	G	6496	LYS
1	G	6550	ALA

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Mol	Chain	Res	Type
1	H	7432	GLU
1	H	7500	SER
1	A	269	TYR
1	B	1285	ALA
1	B	1299	SER
1	B	1335	GLN
1	B	1337	ALA
1	B	1428	CYS
1	B	1522	VAL
1	C	2076	THR
1	C	2303	SER
1	C	2334	GLU
1	C	2356	ALA
1	C	2552	TYR
1	D	3095	LEU
1	D	3166	ILE
1	E	4228	THR
1	F	5213	LEU
1	F	5243	THR
1	F	5268	LYS
1	F	5436	LEU
1	G	6167	LEU
1	G	6331	GLY
1	H	7231	TYR
1	H	7324	VAL
1	H	7381	VAL
1	A	56	PRO
1	A	279	ASP
1	A	470	ILE
1	A	528	ILE
1	B	1320	ALA
1	B	1479	ILE
1	C	2163	GLY
1	C	2451	PRO
1	C	2471	PHE
1	D	3074	LYS
1	D	3167	LEU
1	D	3205	VAL
1	D	3530	VAL
1	F	5138	SER
1	F	5404	ILE
1	G	6151	PRO

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Mol	Chain	Res	Type
1	G	6153	ASN
1	G	6471	PHE
1	H	7244	ASP
1	H	7280	ILE
1	A	323	ILE
1	E	4392	VAL
1	H	7478	VAL
1	A	451	PRO
1	D	3077	SER
1	H	7173	GLY
1	H	7553	VAL
1	G	6519	ILE
1	H	7522	VAL
1	B	1181	VAL
1	B	1404	ILE
1	D	3479	ILE
1	H	7143	VAL
1	A	143	VAL
1	C	2104	ILE
1	E	4381	VAL
1	G	6181	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	466/483 (96%)	332 (71%)	134 (29%)	0	1
1	B	466/483 (96%)	318 (68%)	148 (32%)	0	1
1	C	466/483 (96%)	327 (70%)	139 (30%)	0	1
1	D	466/483 (96%)	318 (68%)	148 (32%)	0	1
1	E	466/483 (96%)	340 (73%)	126 (27%)	0	2
1	F	466/483 (96%)	341 (73%)	125 (27%)	0	2
1	G	466/483 (96%)	335 (72%)	131 (28%)	0	1
1	H	466/483 (96%)	344 (74%)	122 (26%)	0	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	3728/3864 (96%)	2655 (71%)	1073 (29%)	0 1

All (1073) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	24	LYS
1	A	30	LEU
1	A	36	LYS
1	A	41	THR
1	A	51	GLN
1	A	56	PRO
1	A	57	LYS
1	A	62	ASP
1	A	63	ILE
1	A	66	LEU
1	A	70	ARG
1	A	71	ASN
1	A	74	LYS
1	A	75	MSE
1	A	77	SER
1	A	79	LEU
1	A	82	TYR
1	A	85	ILE
1	A	88	ILE
1	A	98	ARG
1	A	100	LEU
1	A	102	ASP
1	A	106	SER
1	A	107	LEU
1	A	108	MSE
1	A	113	THR
1	A	116	VAL
1	A	118	LEU
1	A	121	SER
1	A	123	TYR
1	A	128	ARG
1	A	136	SER
1	A	137	ILE
1	A	138	SER
1	A	152	GLU
1	A	154	HIS
1	A	156	LYS

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Mol	Chain	Res	Type
1	A	160	VAL
1	A	181	VAL
1	A	183	LYS
1	A	184	LEU
1	A	196	ASP
1	A	205	VAL
1	A	219	MSE
1	A	221	LEU
1	A	223	GLN
1	A	224	LYS
1	A	225	ARG
1	A	227	ARG
1	A	234	LEU
1	A	238	PHE
1	A	243	THR
1	A	245	ARG
1	A	259	ASN
1	A	261	ASN
1	A	263	PHE
1	A	267	ARG
1	A	270	ARG
1	A	286	VAL
1	A	298	ILE
1	A	299	SER
1	A	300	LYS
1	A	303	SER
1	A	304	GLU
1	A	317	LEU
1	A	323	ILE
1	A	332	LEU
1	A	333	SER
1	A	335	GLN
1	A	336	GLU
1	A	338	GLN
1	A	340	LYS
1	A	341	ILE
1	A	346	LYS
1	A	349	LEU
1	A	358	ILE
1	A	359	ASP
1	A	360	SER
1	A	363	GLU

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Mol	Chain	Res	Type
1	A	366	THR
1	A	368	SER
1	A	371	GLU
1	A	376	THR
1	A	378	GLU
1	A	383	ILE
1	A	384	LEU
1	A	385	LYS
1	A	387	SER
1	A	388	THR
1	A	389	ILE
1	A	397	ARG
1	A	400	THR
1	A	403	VAL
1	A	405	ARG
1	A	410	ILE
1	A	413	ARG
1	A	415	VAL
1	A	416	ILE
1	A	419	LEU
1	A	428	CYS
1	A	429	THR
1	A	431	GLU
1	A	440	ARG
1	A	447	SER
1	A	453	LYS
1	A	454	LEU
1	A	455	THR
1	A	456	ASP
1	A	458	ARG
1	A	464	GLN
1	A	476	LEU
1	A	480	LEU
1	A	483	THR
1	A	486	ILE
1	A	487	SER
1	A	488	ASP
1	A	496	LYS
1	A	502	LEU
1	A	504	ASP
1	A	507	LEU
1	A	511	ARG

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Mol	Chain	Res	Type
1	A	512	LEU
1	A	518	ASN
1	A	525	ASN
1	A	531	THR
1	A	535	TYR
1	A	539	MSE
1	A	547	GLU
1	A	551	LYS
1	A	559	ARG
1	A	561	GLU
1	A	565	LEU
1	A	571	GLU
1	A	572	TRP
1	B	1030	LEU
1	B	1033	ARG
1	B	1041	THR
1	B	1045	ARG
1	B	1057	LYS
1	B	1059	GLU
1	B	1070	ARG
1	B	1071	ASN
1	B	1073	LYS
1	B	1075	MSE
1	B	1076	THR
1	B	1077	SER
1	B	1085	ILE
1	B	1098	ARG
1	B	1100	LEU
1	B	1101	GLN
1	B	1102	ASP
1	B	1106	SER
1	B	1107	LEU
1	B	1108	MSE
1	B	1118	LEU
1	B	1121	SER
1	B	1123	TYR
1	B	1125	HIS
1	B	1131	LYS
1	B	1136	SER
1	B	1137	ILE
1	B	1138	SER
1	B	1140	ARG

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Mol	Chain	Res	Type
1	B	1146	ILE
1	B	1152	GLU
1	B	1154	HIS
1	B	1160	VAL
1	B	1171	ASP
1	B	1172	LEU
1	B	1183	LYS
1	B	1184	LEU
1	B	1194	ARG
1	B	1196	ASP
1	B	1205	VAL
1	B	1208	ASP
1	B	1214	LYS
1	B	1219	MSE
1	B	1221	LEU
1	B	1223	GLN
1	B	1226	ASP
1	B	1227	ARG
1	B	1228	THR
1	B	1232	ASP
1	B	1234	LEU
1	B	1237	GLU
1	B	1243	THR
1	B	1259	ASN
1	B	1261	ASN
1	B	1264	ARG
1	B	1266	LEU
1	B	1267	ARG
1	B	1270	ARG
1	B	1271	GLU
1	B	1272	LYS
1	B	1276	PHE
1	B	1278	ASP
1	B	1286	VAL
1	B	1297	VAL
1	B	1298	ILE
1	B	1299	SER
1	B	1303	SER
1	B	1304	GLU
1	B	1306	LYS
1	B	1317	LEU
1	B	1325	MSE

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Mol	Chain	Res	Type
1	B	1326	SER
1	B	1332	LEU
1	B	1333	SER
1	B	1336	GLU
1	B	1338	GLN
1	B	1339	LYS
1	B	1340	LYS
1	B	1343	MSE
1	B	1346	LYS
1	B	1349	LEU
1	B	1351	VAL
1	B	1355	LYS
1	B	1359	ASP
1	B	1360	SER
1	B	1363	GLU
1	B	1368	SER
1	B	1371	GLU
1	B	1373	ILE
1	B	1375	ASP
1	B	1384	LEU
1	B	1385	LYS
1	B	1388	THR
1	B	1397	ARG
1	B	1400	THR
1	B	1405	ARG
1	B	1409	SER
1	B	1411	ASN
1	B	1412	GLU
1	B	1413	ARG
1	B	1415	VAL
1	B	1416	ILE
1	B	1419	LEU
1	B	1423	THR
1	B	1425	GLN
1	B	1427	GLU
1	B	1429	THR
1	B	1440	ARG
1	B	1452	VAL
1	B	1453	LYS
1	B	1454	LEU
1	B	1455	THR
1	B	1456	ASP

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Mol	Chain	Res	Type
1	B	1458	ARG
1	B	1459	VAL
1	B	1467	ASN
1	B	1480	LEU
1	B	1482	ASN
1	B	1487	SER
1	B	1489	SER
1	B	1496	LYS
1	B	1500	SER
1	B	1501	GLN
1	B	1502	LEU
1	B	1504	ASP
1	B	1505	GLU
1	B	1506	GLU
1	B	1507	LEU
1	B	1509	GLN
1	B	1511	ARG
1	B	1512	LEU
1	B	1521	GLU
1	B	1523	SER
1	B	1525	ASN
1	B	1529	LYS
1	B	1531	THR
1	B	1532	GLU
1	B	1535	TYR
1	B	1537	ASN
1	B	1539	MSE
1	B	1543	TYR
1	B	1547	GLU
1	B	1549	LYS
1	B	1551	LYS
1	B	1555	GLU
1	B	1559	ARG
1	B	1561	GLU
1	B	1572	TRP
1	C	2024	LYS
1	C	2028	LEU
1	C	2030	LEU
1	C	2038	MSE
1	C	2041	THR
1	C	2048	LEU
1	C	2051	GLN

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Mol	Chain	Res	Type
1	C	2057	LYS
1	C	2070	ARG
1	C	2071	ASN
1	C	2075	MSE
1	C	2077	SER
1	C	2082	TYR
1	C	2086	MSE
1	C	2088	ILE
1	C	2093	GLU
1	C	2098	ARG
1	C	2100	LEU
1	C	2102	ASP
1	C	2104	ILE
1	C	2107	LEU
1	C	2118	LEU
1	C	2121	SER
1	C	2123	TYR
1	C	2128	ARG
1	C	2129	ARG
1	C	2136	SER
1	C	2138	SER
1	C	2140	ARG
1	C	2154	HIS
1	C	2156	LYS
1	C	2172	LEU
1	C	2175	TYR
1	C	2183	LYS
1	C	2184	LEU
1	C	2190	CYS
1	C	2194	ARG
1	C	2196	ASP
1	C	2197	ARG
1	C	2205	VAL
1	C	2212	LEU
1	C	2214	LYS
1	C	2221	LEU
1	C	2223	GLN
1	C	2224	LYS
1	C	2225	ARG
1	C	2227	ARG
1	C	2232	ASP
1	C	2234	LEU

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Mol	Chain	Res	Type
1	C	2235	ILE
1	C	2238	PHE
1	C	2243	THR
1	C	2250	THR
1	C	2253	GLN
1	C	2255	GLU
1	C	2259	ASN
1	C	2261	ASN
1	C	2267	ARG
1	C	2270	ARG
1	C	2275	THR
1	C	2286	VAL
1	C	2292	LEU
1	C	2298	ILE
1	C	2299	SER
1	C	2303	SER
1	C	2304	GLU
1	C	2306	LYS
1	C	2325	MSE
1	C	2329	GLU
1	C	2332	LEU
1	C	2333	SER
1	C	2338	GLN
1	C	2339	LYS
1	C	2341	ILE
1	C	2343	MSE
1	C	2349	LEU
1	C	2350	LEU
1	C	2351	VAL
1	C	2357	LYS
1	C	2358	ILE
1	C	2359	ASP
1	C	2363	GLU
1	C	2366	THR
1	C	2368	SER
1	C	2372	SER
1	C	2378	GLU
1	C	2379	ASP
1	C	2383	ILE
1	C	2384	LEU
1	C	2385	LYS
1	C	2388	THR

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Mol	Chain	Res	Type
1	C	2397	ARG
1	C	2400	THR
1	C	2405	ARG
1	C	2409	SER
1	C	2415	VAL
1	C	2416	ILE
1	C	2419	LEU
1	C	2425	GLN
1	C	2428	CYS
1	C	2429	THR
1	C	2431	GLU
1	C	2432	GLU
1	C	2447	SER
1	C	2449	PHE
1	C	2453	LYS
1	C	2454	LEU
1	C	2455	THR
1	C	2456	ASP
1	C	2458	ARG
1	C	2464	GLN
1	C	2481	CYS
1	C	2486	ILE
1	C	2492	LEU
1	C	2499	THR
1	C	2502	LEU
1	C	2504	ASP
1	C	2505	GLU
1	C	2506	GLU
1	C	2511	ARG
1	C	2516	LEU
1	C	2518	ASN
1	C	2519	ILE
1	C	2524	ILE
1	C	2529	LYS
1	C	2531	THR
1	C	2537	ASN
1	C	2538	LYS
1	C	2542	ARG
1	C	2543	TYR
1	C	2547	GLU
1	C	2549	LYS
1	C	2551	LYS

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Mol	Chain	Res	Type
1	C	2554	LYS
1	C	2556	ARG
1	C	2559	ARG
1	C	2561	GLU
1	C	2564	SER
1	C	2572	TRP
1	D	3023	GLU
1	D	3030	LEU
1	D	3033	ARG
1	D	3041	THR
1	D	3043	GLN
1	D	3057	LYS
1	D	3058	ILE
1	D	3070	ARG
1	D	3071	ASN
1	D	3072	LEU
1	D	3075	MSE
1	D	3077	SER
1	D	3085	ILE
1	D	3091	ARG
1	D	3098	ARG
1	D	3099	ILE
1	D	3101	GLN
1	D	3102	ASP
1	D	3106	SER
1	D	3107	LEU
1	D	3108	MSE
1	D	3118	LEU
1	D	3121	SER
1	D	3122	GLN
1	D	3123	TYR
1	D	3131	LYS
1	D	3133	LEU
1	D	3136	SER
1	D	3137	ILE
1	D	3140	ARG
1	D	3145	SER
1	D	3152	GLU
1	D	3156	LYS
1	D	3160	VAL
1	D	3162	ASP
1	D	3165	ARG

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Mol	Chain	Res	Type
1	D	3166	ILE
1	D	3181	VAL
1	D	3183	LYS
1	D	3184	LEU
1	D	3194	ARG
1	D	3196	ASP
1	D	3202	CYS
1	D	3204	ASP
1	D	3205	VAL
1	D	3210	ILE
1	D	3212	LEU
1	D	3214	LYS
1	D	3221	LEU
1	D	3223	GLN
1	D	3225	ARG
1	D	3228	THR
1	D	3232	ASP
1	D	3238	PHE
1	D	3243	THR
1	D	3244	ASP
1	D	3248	ARG
1	D	3252	ILE
1	D	3255	GLU
1	D	3257	PHE
1	D	3259	ASN
1	D	3261	ASN
1	D	3266	LEU
1	D	3267	ARG
1	D	3268	LYS
1	D	3270	ARG
1	D	3275	THR
1	D	3276	PHE
1	D	3278	ASP
1	D	3279	ASP
1	D	3286	VAL
1	D	3288	LEU
1	D	3292	LEU
1	D	3298	ILE
1	D	3299	SER
1	D	3300	LYS
1	D	3303	SER
1	D	3304	GLU

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Mol	Chain	Res	Type
1	D	3306	LYS
1	D	3332	LEU
1	D	3333	SER
1	D	3335	GLN
1	D	3336	GLU
1	D	3339	LYS
1	D	3346	LYS
1	D	3349	LEU
1	D	3351	VAL
1	D	3354	ARG
1	D	3355	LYS
1	D	3357	LYS
1	D	3359	ASP
1	D	3360	SER
1	D	3363	GLU
1	D	3367	HIS
1	D	3368	SER
1	D	3371	GLU
1	D	3372	SER
1	D	3375	ASP
1	D	3382	ASN
1	D	3383	ILE
1	D	3384	LEU
1	D	3385	LYS
1	D	3387	SER
1	D	3397	ARG
1	D	3400	THR
1	D	3405	ARG
1	D	3411	ASN
1	D	3413	ARG
1	D	3415	VAL
1	D	3416	ILE
1	D	3419	LEU
1	D	3425	GLN
1	D	3440	ARG
1	D	3447	SER
1	D	3453	LYS
1	D	3455	THR
1	D	3456	ASP
1	D	3458	ARG
1	D	3459	VAL
1	D	3481	CYS

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Mol	Chain	Res	Type
1	D	3482	ASN
1	D	3483	THR
1	D	3486	ILE
1	D	3487	SER
1	D	3492	LEU
1	D	3502	LEU
1	D	3504	ASP
1	D	3507	LEU
1	D	3511	ARG
1	D	3521	GLU
1	D	3525	ASN
1	D	3528	ILE
1	D	3529	LYS
1	D	3532	GLU
1	D	3535	TYR
1	D	3537	ASN
1	D	3538	LYS
1	D	3542	ARG
1	D	3543	TYR
1	D	3547	GLU
1	D	3549	LYS
1	D	3551	LYS
1	D	3556	ARG
1	D	3557	THR
1	D	3559	ARG
1	D	3561	GLU
1	D	3571	GLU
1	D	3572	TRP
1	E	4024	LYS
1	E	4028	LEU
1	E	4033	ARG
1	E	4041	THR
1	E	4043	GLN
1	E	4057	LYS
1	E	4058	ILE
1	E	4064	GLN
1	E	4070	ARG
1	E	4075	MSE
1	E	4076	THR
1	E	4098	ARG
1	E	4102	ASP
1	E	4108	MSE

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Mol	Chain	Res	Type
1	E	4118	LEU
1	E	4121	SER
1	E	4123	TYR
1	E	4125	HIS
1	E	4128	ARG
1	E	4129	ARG
1	E	4131	LYS
1	E	4136	SER
1	E	4138	SER
1	E	4145	SER
1	E	4152	GLU
1	E	4154	HIS
1	E	4156	LYS
1	E	4160	VAL
1	E	4166	ILE
1	E	4174	VAL
1	E	4181	VAL
1	E	4183	LYS
1	E	4184	LEU
1	E	4190	CYS
1	E	4194	ARG
1	E	4196	ASP
1	E	4199	LEU
1	E	4205	VAL
1	E	4214	LYS
1	E	4219	MSE
1	E	4221	LEU
1	E	4223	GLN
1	E	4225	ARG
1	E	4226	ASP
1	E	4227	ARG
1	E	4228	THR
1	E	4229	GLN
1	E	4236	ASP
1	E	4243	THR
1	E	4248	ARG
1	E	4250	THR
1	E	4253	GLN
1	E	4260	HIS
1	E	4261	ASN
1	E	4266	LEU
1	E	4267	ARG

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Mol	Chain	Res	Type
1	E	4270	ARG
1	E	4275	THR
1	E	4279	ASP
1	E	4286	VAL
1	E	4292	LEU
1	E	4296	LYS
1	E	4299	SER
1	E	4300	LYS
1	E	4303	SER
1	E	4304	GLU
1	E	4322	LEU
1	E	4326	SER
1	E	4328	VAL
1	E	4329	GLU
1	E	4336	GLU
1	E	4339	LYS
1	E	4345	ASP
1	E	4346	LYS
1	E	4350	LEU
1	E	4355	LYS
1	E	4357	LYS
1	E	4359	ASP
1	E	4360	SER
1	E	4363	GLU
1	E	4366	THR
1	E	4368	SER
1	E	4378	GLU
1	E	4384	LEU
1	E	4385	LYS
1	E	4387	SER
1	E	4397	ARG
1	E	4400	THR
1	E	4402	ASP
1	E	4405	ARG
1	E	4416	ILE
1	E	4419	LEU
1	E	4425	GLN
1	E	4428	CYS
1	E	4429	THR
1	E	4431	GLU
1	E	4438	GLU
1	E	4453	LYS

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Mol	Chain	Res	Type
1	E	4454	LEU
1	E	4458	ARG
1	E	4459	VAL
1	E	4486	ILE
1	E	4496	LYS
1	E	4499	THR
1	E	4501	GLN
1	E	4502	LEU
1	E	4503	THR
1	E	4506	GLU
1	E	4507	LEU
1	E	4511	ARG
1	E	4512	LEU
1	E	4518	ASN
1	E	4523	SER
1	E	4525	ASN
1	E	4528	ILE
1	E	4529	LYS
1	E	4534	LEU
1	E	4535	TYR
1	E	4537	ASN
1	E	4539	MSE
1	E	4549	LYS
1	E	4556	ARG
1	E	4559	ARG
1	E	4561	GLU
1	E	4571	GLU
1	E	4572	TRP
1	F	5028	LEU
1	F	5030	LEU
1	F	5033	ARG
1	F	5041	THR
1	F	5043	GLN
1	F	5045	ARG
1	F	5047	MSE
1	F	5048	LEU
1	F	5051	GLN
1	F	5057	LYS
1	F	5061	GLN
1	F	5064	GLN
1	F	5070	ARG
1	F	5073	LYS

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Mol	Chain	Res	Type
1	F	5074	LYS
1	F	5075	MSE
1	F	5076	THR
1	F	5077	SER
1	F	5091	ARG
1	F	5098	ARG
1	F	5099	ILE
1	F	5100	LEU
1	F	5106	SER
1	F	5107	LEU
1	F	5108	MSE
1	F	5121	SER
1	F	5123	TYR
1	F	5125	HIS
1	F	5128	ARG
1	F	5136	SER
1	F	5140	ARG
1	F	5152	GLU
1	F	5154	HIS
1	F	5160	VAL
1	F	5179	ILE
1	F	5184	LEU
1	F	5196	ASP
1	F	5203	ILE
1	F	5205	VAL
1	F	5214	LYS
1	F	5219	MSE
1	F	5221	LEU
1	F	5223	GLN
1	F	5224	LYS
1	F	5225	ARG
1	F	5228	THR
1	F	5234	LEU
1	F	5235	ILE
1	F	5248	ARG
1	F	5250	THR
1	F	5251	LEU
1	F	5253	GLN
1	F	5260	HIS
1	F	5261	ASN
1	F	5264	ARG
1	F	5266	LEU

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Mol	Chain	Res	Type
1	F	5267	ARG
1	F	5275	THR
1	F	5276	PHE
1	F	5279	ASP
1	F	5286	VAL
1	F	5291	LEU
1	F	5297	VAL
1	F	5302	ILE
1	F	5304	GLU
1	F	5306	LYS
1	F	5317	LEU
1	F	5329	GLU
1	F	5332	LEU
1	F	5336	GLU
1	F	5338	GLN
1	F	5339	LYS
1	F	5346	LYS
1	F	5349	LEU
1	F	5351	VAL
1	F	5354	ARG
1	F	5355	LYS
1	F	5357	LYS
1	F	5359	ASP
1	F	5366	THR
1	F	5368	SER
1	F	5372	SER
1	F	5376	THR
1	F	5378	GLU
1	F	5383	ILE
1	F	5385	LYS
1	F	5389	ILE
1	F	5397	ARG
1	F	5400	THR
1	F	5402	ASP
1	F	5405	ARG
1	F	5409	SER
1	F	5411	ASN
1	F	5416	ILE
1	F	5419	LEU
1	F	5425	GLN
1	F	5429	THR
1	F	5432	GLU

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Mol	Chain	Res	Type
1	F	5454	LEU
1	F	5456	ASP
1	F	5458	ARG
1	F	5459	VAL
1	F	5479	ILE
1	F	5485	HIS
1	F	5486	ILE
1	F	5487	SER
1	F	5493	GLU
1	F	5496	LYS
1	F	5500	SER
1	F	5502	LEU
1	F	5503	THR
1	F	5504	ASP
1	F	5507	LEU
1	F	5509	GLN
1	F	5511	ARG
1	F	5518	ASN
1	F	5525	ASN
1	F	5533	TYR
1	F	5537	ASN
1	F	5549	LYS
1	F	5551	LYS
1	F	5559	ARG
1	F	5561	GLU
1	F	5565	LEU
1	F	5572	TRP
1	G	6028	LEU
1	G	6029	MSE
1	G	6041	THR
1	G	6043	GLN
1	G	6053	LEU
1	G	6057	LYS
1	G	6071	ASN
1	G	6073	LYS
1	G	6074	LYS
1	G	6075	MSE
1	G	6076	THR
1	G	6077	SER
1	G	6081	LYS
1	G	6086	MSE
1	G	6098	ARG

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Mol	Chain	Res	Type
1	G	6102	ASP
1	G	6104	ILE
1	G	6106	SER
1	G	6108	MSE
1	G	6115	THR
1	G	6123	TYR
1	G	6125	HIS
1	G	6128	ARG
1	G	6131	LYS
1	G	6152	GLU
1	G	6154	HIS
1	G	6156	LYS
1	G	6165	ARG
1	G	6183	LYS
1	G	6184	LEU
1	G	6194	ARG
1	G	6196	ASP
1	G	6205	VAL
1	G	6207	THR
1	G	6210	ILE
1	G	6221	LEU
1	G	6223	GLN
1	G	6224	LYS
1	G	6225	ARG
1	G	6227	ARG
1	G	6232	ASP
1	G	6234	LEU
1	G	6243	THR
1	G	6244	ASP
1	G	6245	ARG
1	G	6250	THR
1	G	6253	GLN
1	G	6264	ARG
1	G	6266	LEU
1	G	6267	ARG
1	G	6268	LYS
1	G	6270	ARG
1	G	6274	CYS
1	G	6276	PHE
1	G	6279	ASP
1	G	6286	VAL
1	G	6291	LEU

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Mol	Chain	Res	Type
1	G	6298	ILE
1	G	6300	LYS
1	G	6304	GLU
1	G	6306	LYS
1	G	6314	GLU
1	G	6317	LEU
1	G	6325	MSE
1	G	6329	GLU
1	G	6332	LEU
1	G	6333	SER
1	G	6334	GLU
1	G	6335	GLN
1	G	6338	GLN
1	G	6341	ILE
1	G	6345	ASP
1	G	6351	VAL
1	G	6355	LYS
1	G	6357	LYS
1	G	6358	ILE
1	G	6363	GLU
1	G	6366	THR
1	G	6371	GLU
1	G	6372	SER
1	G	6378	GLU
1	G	6379	ASP
1	G	6384	LEU
1	G	6385	LYS
1	G	6389	ILE
1	G	6400	THR
1	G	6402	ASP
1	G	6405	ARG
1	G	6412	GLU
1	G	6413	ARG
1	G	6416	ILE
1	G	6419	LEU
1	G	6425	GLN
1	G	6429	THR
1	G	6431	GLU
1	G	6432	GLU
1	G	6438	GLU
1	G	6447	SER
1	G	6454	LEU

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Mol	Chain	Res	Type
1	G	6458	ARG
1	G	6459	VAL
1	G	6467	ASN
1	G	6476	LEU
1	G	6479	ILE
1	G	6482	ASN
1	G	6483	THR
1	G	6486	ILE
1	G	6487	SER
1	G	6489	SER
1	G	6499	THR
1	G	6502	LEU
1	G	6504	ASP
1	G	6505	GLU
1	G	6506	GLU
1	G	6507	LEU
1	G	6509	GLN
1	G	6511	ARG
1	G	6512	LEU
1	G	6518	ASN
1	G	6528	ILE
1	G	6533	TYR
1	G	6535	TYR
1	G	6537	ASN
1	G	6539	MSE
1	G	6549	LYS
1	G	6551	LYS
1	G	6554	LYS
1	G	6559	ARG
1	G	6561	GLU
1	G	6571	GLU
1	G	6572	TRP
1	H	7024	LYS
1	H	7029	MSE
1	H	7030	LEU
1	H	7040	PHE
1	H	7041	THR
1	H	7043	GLN
1	H	7048	LEU
1	H	7057	LYS
1	H	7062	ASP
1	H	7070	ARG

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Mol	Chain	Res	Type
1	H	7075	MSE
1	H	7076	THR
1	H	7082	TYR
1	H	7085	ILE
1	H	7086	MSE
1	H	7098	ARG
1	H	7102	ASP
1	H	7103	ASP
1	H	7108	MSE
1	H	7118	LEU
1	H	7121	SER
1	H	7123	TYR
1	H	7125	HIS
1	H	7128	ARG
1	H	7136	SER
1	H	7145	SER
1	H	7154	HIS
1	H	7160	VAL
1	H	7161	THR
1	H	7175	TYR
1	H	7183	LYS
1	H	7184	LEU
1	H	7185	CYS
1	H	7194	ARG
1	H	7196	ASP
1	H	7199	LEU
1	H	7205	VAL
1	H	7214	LYS
1	H	7223	GLN
1	H	7224	LYS
1	H	7225	ARG
1	H	7228	THR
1	H	7230	GLN
1	H	7232	ASP
1	H	7242	ILE
1	H	7243	THR
1	H	7250	THR
1	H	7253	GLN
1	H	7260	HIS
1	H	7261	ASN
1	H	7264	ARG
1	H	7266	LEU

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Mol	Chain	Res	Type
1	H	7267	ARG
1	H	7270	ARG
1	H	7272	LYS
1	H	7279	ASP
1	H	7283	THR
1	H	7286	VAL
1	H	7292	LEU
1	H	7298	ILE
1	H	7300	LYS
1	H	7304	GLU
1	H	7306	LYS
1	H	7310	LEU
1	H	7319	ILE
1	H	7329	GLU
1	H	7332	LEU
1	H	7333	SER
1	H	7336	GLU
1	H	7341	ILE
1	H	7343	MSE
1	H	7345	ASP
1	H	7346	LYS
1	H	7350	LEU
1	H	7354	ARG
1	H	7359	ASP
1	H	7360	SER
1	H	7368	SER
1	H	7372	SER
1	H	7375	ASP
1	H	7385	LYS
1	H	7389	ILE
1	H	7397	ARG
1	H	7400	THR
1	H	7405	ARG
1	H	7409	SER
1	H	7411	ASN
1	H	7413	ARG
1	H	7415	VAL
1	H	7416	ILE
1	H	7419	LEU
1	H	7425	GLN
1	H	7429	THR
1	H	7431	GLU

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Mol	Chain	Res	Type
1	H	7447	SER
1	H	7453	LYS
1	H	7454	LEU
1	H	7455	THR
1	H	7459	VAL
1	H	7470	ILE
1	H	7479	ILE
1	H	7486	ILE
1	H	7487	SER
1	H	7489	SER
1	H	7492	LEU
1	H	7493	GLU
1	H	7502	LEU
1	H	7507	LEU
1	H	7511	ARG
1	H	7516	LEU
1	H	7518	ASN
1	H	7528	ILE
1	H	7533	TYR
1	H	7539	MSE
1	H	7542	ARG
1	H	7543	TYR
1	H	7549	LYS
1	H	7551	LYS
1	H	7559	ARG
1	H	7561	GLU
1	H	7571	GLU
1	H	7572	TRP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (107) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	51	GLN
1	A	64	GLN
1	A	71	ASN
1	A	154	HIS
1	A	230	GLN
1	A	253	GLN
1	A	259	ASN
1	A	261	ASN
1	A	295	GLN
1	A	335	GLN

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Mol	Chain	Res	Type
1	A	338	GLN
1	A	411	ASN
1	A	425	GLN
1	A	509	GLN
1	A	520	GLN
1	A	525	ASN
1	B	1064	GLN
1	B	1122	GLN
1	B	1154	HIS
1	B	1229	GLN
1	B	1253	GLN
1	B	1259	ASN
1	B	1261	ASN
1	B	1295	GLN
1	B	1335	GLN
1	B	1411	ASN
1	B	1425	GLN
1	B	1482	ASN
1	B	1509	GLN
1	B	1520	GLN
1	B	1525	ASN
1	B	1537	ASN
1	C	2051	GLN
1	C	2064	GLN
1	C	2253	GLN
1	C	2261	ASN
1	C	2305	HIS
1	C	2338	GLN
1	C	2411	ASN
1	C	2482	ASN
1	C	2537	ASN
1	D	3064	GLN
1	D	3071	ASN
1	D	3122	GLN
1	D	3230	GLN
1	D	3253	GLN
1	D	3261	ASN
1	D	3305	HIS
1	D	3330	ASN
1	D	3335	GLN
1	D	3367	HIS
1	D	3411	ASN

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Mol	Chain	Res	Type
1	D	3425	GLN
1	D	3482	ASN
1	D	3509	GLN
1	D	3525	ASN
1	E	4051	GLN
1	E	4064	GLN
1	E	4071	ASN
1	E	4125	HIS
1	E	4154	HIS
1	E	4223	GLN
1	E	4230	GLN
1	E	4261	ASN
1	E	4295	GLN
1	E	4335	GLN
1	E	4425	GLN
1	E	4482	ASN
1	E	4501	GLN
1	E	4509	GLN
1	E	4525	ASN
1	F	5051	GLN
1	F	5064	GLN
1	F	5223	GLN
1	F	5230	GLN
1	F	5261	ASN
1	F	5335	GLN
1	F	5338	GLN
1	F	5411	ASN
1	F	5425	GLN
1	F	5466	ASN
1	F	5509	GLN
1	F	5525	ASN
1	F	5537	ASN
1	G	6046	GLN
1	G	6064	GLN
1	G	6122	GLN
1	G	6154	HIS
1	G	6230	GLN
1	G	6261	ASN
1	G	6305	HIS
1	G	6335	GLN
1	G	6338	GLN
1	G	6382	ASN

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Mol	Chain	Res	Type
1	G	6425	GLN
1	G	6482	ASN
1	G	6501	GLN
1	H	7064	GLN
1	H	7069	HIS
1	H	7229	GLN
1	H	7261	ASN
1	H	7335	GLN
1	H	7338	GLN
1	H	7411	ASN
1	H	7425	GLN
1	H	7482	ASN
1	H	7537	ASN

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 carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 24 ligands modelled in this entry, 8 are monoatomic - leaving 16 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
3	NAD	A	601	-	38,48,48	1.83	9 (23%)	47,73,73	2.07	4 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	NAD	A	602	-	38,48,48	1.88	9 (23%)	47,73,73	1.97	4 (8%)
3	NAD	B	1601	-	38,48,48	1.82	10 (26%)	47,73,73	2.05	4 (8%)
3	NAD	B	1602	-	38,48,48	1.72	8 (21%)	47,73,73	2.02	3 (6%)
3	NAD	C	2601	-	38,48,48	1.67	8 (21%)	47,73,73	2.07	4 (8%)
3	NAD	C	2602	-	38,48,48	1.86	8 (21%)	47,73,73	1.95	4 (8%)
3	NAD	D	3601	-	38,48,48	2.16	10 (26%)	47,73,73	1.96	4 (8%)
3	NAD	D	3602	-	38,48,48	1.73	9 (23%)	47,73,73	1.99	4 (8%)
3	NAD	E	4601	-	38,48,48	1.90	10 (26%)	47,73,73	2.11	4 (8%)
3	NAD	E	4602	-	38,48,48	1.75	9 (23%)	47,73,73	1.95	4 (8%)
3	NAD	F	5601	-	38,48,48	1.72	9 (23%)	47,73,73	2.12	5 (10%)
3	NAD	F	5602	-	38,48,48	1.73	9 (23%)	47,73,73	2.00	4 (8%)
3	NAD	G	6601	-	38,48,48	1.76	9 (23%)	47,73,73	2.07	5 (10%)
3	NAD	G	6602	-	38,48,48	1.76	8 (21%)	47,73,73	1.96	4 (8%)
3	NAD	H	7601	-	38,48,48	2.00	8 (21%)	47,73,73	2.03	5 (10%)
3	NAD	H	7602	-	38,48,48	1.75	8 (21%)	47,73,73	1.98	6 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	NAD	A	601	-	-	0/22/62/62	0/5/5/5
3	NAD	A	602	-	-	0/22/62/62	0/5/5/5
3	NAD	B	1601	-	-	0/22/62/62	0/5/5/5
3	NAD	B	1602	-	-	0/22/62/62	0/5/5/5
3	NAD	C	2601	-	-	0/22/62/62	0/5/5/5
3	NAD	C	2602	-	-	0/22/62/62	0/5/5/5
3	NAD	D	3601	-	-	0/22/62/62	0/5/5/5
3	NAD	D	3602	-	-	0/22/62/62	0/5/5/5
3	NAD	E	4601	-	-	0/22/62/62	0/5/5/5
3	NAD	E	4602	-	-	0/22/62/62	0/5/5/5
3	NAD	F	5601	-	-	0/22/62/62	0/5/5/5
3	NAD	F	5602	-	-	0/22/62/62	0/5/5/5
3	NAD	G	6601	-	-	0/22/62/62	0/5/5/5
3	NAD	G	6602	-	-	0/22/62/62	0/5/5/5
3	NAD	H	7601	-	-	0/22/62/62	0/5/5/5
3	NAD	H	7602	-	-	0/22/62/62	0/5/5/5

All (141) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	2601	NAD	C5A-C4A	-3.36	1.32	1.40
3	F	5601	NAD	C5A-C4A	-3.15	1.33	1.40
3	A	601	NAD	C5A-C4A	-3.15	1.33	1.40
3	B	1602	NAD	C5A-C4A	-3.14	1.33	1.40
3	E	4602	NAD	C5A-C4A	-3.05	1.33	1.40
3	C	2602	NAD	C5A-C4A	-3.01	1.33	1.40
3	H	7601	NAD	C5A-C4A	-3.01	1.33	1.40
3	F	5602	NAD	C5A-C4A	-3.01	1.33	1.40
3	G	6602	NAD	C5A-C4A	-2.97	1.33	1.40
3	E	4601	NAD	C5A-C4A	-2.95	1.33	1.40
3	G	6601	NAD	C5A-C4A	-2.90	1.33	1.40
3	D	3601	NAD	C5A-C4A	-2.87	1.34	1.40
3	H	7602	NAD	C5A-C4A	-2.76	1.34	1.40
3	A	602	NAD	C5A-C4A	-2.66	1.34	1.40
3	D	3602	NAD	C5A-C4A	-2.65	1.34	1.40
3	D	3601	NAD	C5A-N7A	-2.65	1.30	1.39
3	G	6601	NAD	C5A-N7A	-2.65	1.30	1.39
3	E	4602	NAD	C5A-N7A	-2.65	1.30	1.39
3	B	1601	NAD	C5A-C4A	-2.60	1.34	1.40
3	A	602	NAD	C5A-N7A	-2.60	1.30	1.39
3	A	601	NAD	C5A-N7A	-2.57	1.30	1.39
3	C	2601	NAD	C5A-N7A	-2.44	1.31	1.39
3	F	5601	NAD	C5A-N7A	-2.44	1.31	1.39
3	H	7601	NAD	C5A-N7A	-2.41	1.31	1.39
3	C	2602	NAD	C5A-N7A	-2.32	1.31	1.39
3	B	1602	NAD	C5A-N7A	-2.30	1.31	1.39
3	G	6602	NAD	C5A-N7A	-2.30	1.31	1.39
3	H	7602	NAD	C5A-N7A	-2.29	1.31	1.39
3	E	4601	NAD	C5A-N7A	-2.25	1.31	1.39
3	B	1601	NAD	C5A-N7A	-2.23	1.31	1.39
3	D	3602	NAD	C5A-N7A	-2.14	1.32	1.39
3	F	5602	NAD	C5A-N7A	-2.12	1.32	1.39
3	B	1601	NAD	O4D-C4D	2.00	1.49	1.45
3	F	5602	NAD	C2A-N1A	2.02	1.37	1.33
3	E	4602	NAD	C2A-N1A	2.03	1.37	1.33
3	F	5601	NAD	C2A-N1A	2.06	1.37	1.33
3	E	4601	NAD	C5N-C4N	2.07	1.43	1.38
3	H	7601	NAD	C2A-N1A	2.11	1.37	1.33
3	C	2601	NAD	C4N-C3N	2.13	1.42	1.39
3	D	3601	NAD	PN-O5D	2.13	1.68	1.59
3	D	3602	NAD	C2A-N3A	2.14	1.36	1.32
3	A	601	NAD	C2N-C3N	2.15	1.42	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	602	NAD	C4N-C3N	2.16	1.43	1.39
3	B	1602	NAD	C2N-C3N	2.17	1.42	1.39
3	D	3602	NAD	C4N-C3N	2.17	1.43	1.39
3	E	4601	NAD	C2A-N1A	2.18	1.38	1.33
3	H	7602	NAD	C4N-C3N	2.18	1.43	1.39
3	C	2602	NAD	C4N-C3N	2.19	1.43	1.39
3	G	6602	NAD	C4N-C3N	2.20	1.43	1.39
3	F	5602	NAD	C4N-C3N	2.20	1.43	1.39
3	A	601	NAD	C2A-N1A	2.24	1.38	1.33
3	E	4602	NAD	C4N-C3N	2.27	1.43	1.39
3	B	1601	NAD	C4A-N3A	2.29	1.39	1.35
3	D	3602	NAD	C2A-N1A	2.31	1.38	1.33
3	G	6601	NAD	C2A-N1A	2.33	1.38	1.33
3	E	4601	NAD	C4N-C3N	2.34	1.43	1.39
3	B	1601	NAD	C2A-N1A	2.39	1.38	1.33
3	G	6601	NAD	C4N-C3N	2.43	1.43	1.39
3	F	5601	NAD	O4D-C1D	2.47	1.44	1.41
3	F	5602	NAD	C2A-N3A	2.51	1.36	1.32
3	A	602	NAD	C2A-N1A	2.55	1.38	1.33
3	B	1601	NAD	C6N-N1N	2.70	1.42	1.35
3	C	2602	NAD	C2A-N3A	2.72	1.37	1.32
3	B	1602	NAD	C3N-C7N	2.74	1.54	1.50
3	F	5601	NAD	C4N-C3N	2.86	1.44	1.39
3	H	7601	NAD	C6N-N1N	2.89	1.43	1.35
3	D	3601	NAD	C4N-C3N	2.92	1.44	1.39
3	E	4602	NAD	C3N-C7N	2.94	1.55	1.50
3	D	3601	NAD	C2N-C3N	2.95	1.43	1.39
3	F	5601	NAD	C3N-C7N	2.97	1.55	1.50
3	H	7602	NAD	C2A-N3A	2.98	1.37	1.32
3	E	4602	NAD	C2A-N3A	2.98	1.37	1.32
3	A	601	NAD	C2A-N3A	3.00	1.37	1.32
3	E	4601	NAD	C3N-C7N	3.02	1.55	1.50
3	H	7602	NAD	C3N-C7N	3.06	1.55	1.50
3	B	1601	NAD	C3N-C7N	3.08	1.55	1.50
3	D	3602	NAD	C3N-C7N	3.08	1.55	1.50
3	G	6602	NAD	C3N-C7N	3.09	1.55	1.50
3	F	5602	NAD	C3N-C7N	3.13	1.55	1.50
3	A	602	NAD	C3N-C7N	3.14	1.55	1.50
3	G	6601	NAD	C6N-N1N	3.15	1.43	1.35
3	C	2601	NAD	O4B-C1B	3.15	1.45	1.41
3	A	602	NAD	C2A-N3A	3.15	1.37	1.32
3	C	2601	NAD	C3N-C7N	3.17	1.55	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	4601	NAD	C2A-N3A	3.17	1.37	1.32
3	G	6602	NAD	C2A-N3A	3.21	1.37	1.32
3	F	5601	NAD	C2A-N3A	3.21	1.37	1.32
3	C	2601	NAD	C2A-N3A	3.22	1.37	1.32
3	C	2602	NAD	C3N-C7N	3.23	1.55	1.50
3	B	1602	NAD	C2A-N3A	3.25	1.37	1.32
3	E	4601	NAD	C6N-N1N	3.28	1.44	1.35
3	B	1601	NAD	C2A-N3A	3.34	1.38	1.32
3	C	2602	NAD	C6N-N1N	3.39	1.44	1.35
3	F	5601	NAD	C6N-N1N	3.39	1.44	1.35
3	H	7601	NAD	C3N-C7N	3.39	1.55	1.50
3	D	3602	NAD	C6N-N1N	3.43	1.44	1.35
3	B	1602	NAD	C6N-N1N	3.44	1.44	1.35
3	G	6602	NAD	C6N-N1N	3.46	1.44	1.35
3	G	6601	NAD	C2A-N3A	3.47	1.38	1.32
3	F	5602	NAD	C6N-N1N	3.48	1.44	1.35
3	A	602	NAD	C6N-N1N	3.48	1.44	1.35
3	H	7602	NAD	C6N-N1N	3.52	1.44	1.35
3	G	6601	NAD	O4D-C1D	3.53	1.45	1.41
3	C	2601	NAD	C6N-N1N	3.54	1.45	1.35
3	A	601	NAD	C6N-N1N	3.60	1.45	1.35
3	E	4602	NAD	C6N-N1N	3.62	1.45	1.35
3	A	601	NAD	O4B-C1B	3.63	1.45	1.41
3	D	3601	NAD	C6N-N1N	3.64	1.45	1.35
3	D	3601	NAD	C2A-N3A	3.65	1.38	1.32
3	A	601	NAD	C3N-C7N	3.73	1.56	1.50
3	G	6601	NAD	O4B-C1B	3.75	1.45	1.41
3	H	7601	NAD	C2A-N3A	3.75	1.38	1.32
3	B	1602	NAD	O4B-C1B	3.84	1.46	1.41
3	G	6601	NAD	C3N-C7N	4.04	1.56	1.50
3	C	2601	NAD	O4D-C1D	4.23	1.46	1.41
3	E	4602	NAD	O4B-C1B	4.26	1.46	1.41
3	B	1602	NAD	O4D-C1D	4.33	1.46	1.41
3	G	6602	NAD	O4D-C1D	4.37	1.46	1.41
3	H	7602	NAD	O4D-C1D	4.40	1.46	1.41
3	D	3602	NAD	O4B-C1B	4.43	1.46	1.41
3	E	4602	NAD	O4D-C1D	4.46	1.46	1.41
3	F	5602	NAD	O4D-C1D	4.48	1.46	1.41
3	D	3601	NAD	C3N-C7N	4.49	1.57	1.50
3	H	7602	NAD	O4B-C1B	4.49	1.46	1.41
3	H	7601	NAD	O4D-C1D	4.60	1.47	1.41
3	F	5602	NAD	O4B-C1B	4.64	1.47	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	6602	NAD	O4B-C1B	4.65	1.47	1.41
3	A	602	NAD	O4D-C1D	4.67	1.47	1.41
3	B	1601	NAD	O4B-C1B	4.71	1.47	1.41
3	D	3602	NAD	O4D-C1D	4.75	1.47	1.41
3	D	3601	NAD	O4B-C1B	4.79	1.47	1.41
3	E	4601	NAD	O4B-C1B	4.93	1.47	1.41
3	F	5601	NAD	O4B-C1B	4.96	1.47	1.41
3	B	1601	NAD	O4D-C1D	5.07	1.47	1.41
3	C	2602	NAD	O4D-C1D	5.14	1.47	1.41
3	C	2602	NAD	O4B-C1B	5.34	1.48	1.41
3	A	602	NAD	O4B-C1B	5.46	1.48	1.41
3	E	4601	NAD	O4D-C1D	5.63	1.48	1.41
3	A	601	NAD	O4D-C1D	5.72	1.48	1.41
3	D	3601	NAD	O4D-C1D	6.52	1.49	1.41
3	H	7601	NAD	O4B-C1B	6.56	1.49	1.41

All (68) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	5601	NAD	N3A-C2A-N1A	-11.39	120.17	128.89
3	E	4601	NAD	N3A-C2A-N1A	-11.23	120.30	128.89
3	G	6601	NAD	N3A-C2A-N1A	-11.23	120.30	128.89
3	C	2601	NAD	N3A-C2A-N1A	-11.19	120.33	128.89
3	A	601	NAD	N3A-C2A-N1A	-11.13	120.37	128.89
3	B	1601	NAD	N3A-C2A-N1A	-11.08	120.41	128.89
3	F	5602	NAD	N3A-C2A-N1A	-10.79	120.64	128.89
3	B	1602	NAD	N3A-C2A-N1A	-10.78	120.64	128.89
3	H	7601	NAD	N3A-C2A-N1A	-10.77	120.65	128.89
3	C	2602	NAD	N3A-C2A-N1A	-10.62	120.77	128.89
3	E	4602	NAD	N3A-C2A-N1A	-10.60	120.78	128.89
3	A	602	NAD	N3A-C2A-N1A	-10.56	120.81	128.89
3	D	3602	NAD	N3A-C2A-N1A	-10.50	120.86	128.89
3	D	3601	NAD	N3A-C2A-N1A	-10.49	120.86	128.89
3	G	6602	NAD	N3A-C2A-N1A	-10.49	120.86	128.89
3	H	7602	NAD	N3A-C2A-N1A	-10.28	121.02	128.89
3	E	4601	NAD	C4D-O4D-C1D	-3.36	106.03	109.72
3	F	5601	NAD	C3N-C7N-N7N	-2.38	115.21	117.82
3	A	601	NAD	C3N-C7N-N7N	-2.37	115.22	117.82
3	C	2601	NAD	C3N-C7N-N7N	-2.35	115.24	117.82
3	H	7601	NAD	C3N-C7N-N7N	-2.31	115.29	117.82
3	H	7601	NAD	C4D-O4D-C1D	-2.31	107.19	109.72
3	A	602	NAD	C3N-C7N-N7N	-2.24	115.36	117.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	1601	NAD	C3N-C7N-N7N	-2.17	115.44	117.82
3	E	4602	NAD	C3N-C7N-N7N	-2.16	115.45	117.82
3	G	6602	NAD	C3N-C7N-N7N	-2.16	115.45	117.82
3	C	2602	NAD	C3N-C7N-N7N	-2.14	115.47	117.82
3	D	3602	NAD	C3N-C7N-N7N	-2.13	115.48	117.82
3	H	7602	NAD	C3N-C7N-N7N	-2.13	115.49	117.82
3	F	5602	NAD	C3N-C7N-N7N	-2.12	115.50	117.82
3	F	5601	NAD	C4B-O4B-C1B	-2.10	107.41	109.72
3	G	6601	NAD	C4D-O4D-C1D	-2.06	107.45	109.72
3	H	7602	NAD	C2B-C1B-N9A	-2.03	111.19	114.29
3	D	3601	NAD	C2D-C3D-C4D	2.04	106.81	102.61
3	G	6601	NAD	C2B-C3B-C4B	2.09	106.92	102.61
3	H	7602	NAD	O4B-C1B-N9A	2.43	113.18	108.10
3	E	4602	NAD	O4D-C1D-N1N	3.31	111.76	108.13
3	D	3601	NAD	O4D-C1D-N1N	3.36	111.82	108.13
3	H	7602	NAD	O4D-C1D-N1N	3.44	111.91	108.13
3	B	1601	NAD	O4D-C1D-N1N	3.52	112.00	108.13
3	D	3602	NAD	O4D-C1D-N1N	3.53	112.01	108.13
3	C	2602	NAD	O4D-C1D-N1N	3.53	112.01	108.13
3	F	5602	NAD	O4D-C1D-N1N	3.54	112.02	108.13
3	G	6602	NAD	O4D-C1D-N1N	3.60	112.09	108.13
3	A	602	NAD	O4D-C1D-N1N	3.66	112.16	108.13
3	G	6601	NAD	O4D-C1D-N1N	3.92	112.43	108.13
3	F	5601	NAD	O4D-C1D-N1N	3.95	112.48	108.13
3	C	2601	NAD	O4D-C1D-N1N	4.02	112.55	108.13
3	H	7601	NAD	O4D-C1D-N1N	4.03	112.55	108.13
3	A	601	NAD	O4D-C1D-N1N	4.08	112.62	108.13
3	G	6602	NAD	C4A-C5A-N7A	4.48	113.60	109.48
3	B	1602	NAD	O4D-C1D-N1N	4.49	113.06	108.13
3	E	4601	NAD	O4D-C1D-N1N	4.51	113.08	108.13
3	B	1602	NAD	C4A-C5A-N7A	4.56	113.67	109.48
3	C	2602	NAD	C4A-C5A-N7A	4.64	113.75	109.48
3	A	602	NAD	C4A-C5A-N7A	4.67	113.77	109.48
3	F	5602	NAD	C4A-C5A-N7A	4.67	113.78	109.48
3	H	7601	NAD	C4A-C5A-N7A	4.68	113.78	109.48
3	E	4602	NAD	C4A-C5A-N7A	4.68	113.78	109.48
3	D	3602	NAD	C4A-C5A-N7A	4.69	113.79	109.48
3	H	7602	NAD	C4A-C5A-N7A	4.70	113.81	109.48
3	D	3601	NAD	C4A-C5A-N7A	4.75	113.84	109.48
3	C	2601	NAD	C4A-C5A-N7A	4.83	113.92	109.48
3	B	1601	NAD	C4A-C5A-N7A	4.84	113.93	109.48
3	G	6601	NAD	C4A-C5A-N7A	4.89	113.97	109.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	601	NAD	C4A-C5A-N7A	4.89	113.98	109.48
3	E	4601	NAD	C4A-C5A-N7A	4.92	114.00	109.48
3	F	5601	NAD	C4A-C5A-N7A	4.98	114.06	109.48

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

11 monomers are involved in 27 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	601	NAD	3	0
3	B	1601	NAD	4	0
3	B	1602	NAD	1	0
3	C	2601	NAD	2	0
3	D	3601	NAD	3	0
3	D	3602	NAD	1	0
3	E	4601	NAD	3	0
3	F	5601	NAD	3	0
3	G	6601	NAD	4	0
3	H	7601	NAD	2	0
3	H	7602	NAD	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

EDS was not executed - this section will therefore be empty.

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

EDS was not executed - this section will therefore be empty.

6.3 Carbohydrates ⓘ

EDS was not executed - this section will therefore be empty.

6.4 Ligands ⓘ

EDS was not executed - this section will therefore be empty.

6.5 Other polymers ⓘ

EDS was not executed - this section will therefore be empty.