Full wwPDB EM Validation Report (i)

Nov 27, 2022 – 04:50 PM EST

PDB ID	:	6XR4
EMDB ID	:	EMD-20825
Title	:	Integrative in situ structure of Parkinsons disease-linked human LRRK2
Authors	:	Villa, E.; Lasker, K.; Audagnotto, M.
Deposited on	:	2020-07-10
Resolution	:	14.00 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

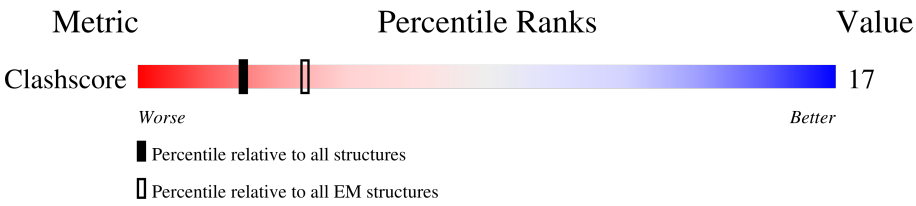
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 14.00 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1-A	2527	10% 41% 59%
1	1-B	2527	14% 41% 59%
1	10-A	2527	40% • 59%
1	10-B	2527	40% • 59%
1	11-A	2527	41% 59%
1	11-B	2527	41% 59%
1	12-A	2527	40% • 59%
1	12-B	2527	40% • 59%
1	13-A	2527	40% • 59%
1	13-B	2527	40% • 59%

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Mol	Chain	Length	Quality of chain
1	14-A	2527	39% · 59%
1	14-B	2527	39% · 59%
1	15-A	2527	40% · 59%
1	15-B	2527	40% · 59%
1	16-A	2527	39% · 59%
1	16-B	2527	39% · 59%
1	17-A	2527	41% 59%
1	17-B	2527	41% 59%
1	18-A	2527	40% · 59%
1	18-B	2527	40% · 59%
1	19-A	2527	40% · 59%
1	19-B	2527	40% · 59%
1	2-A	2527	41% 59%
1	2-B	2527	41% 59%
1	20-A	2527	40% · 59%
1	20-B	2527	40% · 59%
1	21-A	2527	40% · 59%
1	21-B	2527	40% · 59%
1	22-A	2527	40% · 59%
1	22-B	2527	40% · 59%
1	23-A	2527	41% 59%
1	23-B	2527	41% 59%
1	24-A	2527	39% · 59%
1	24-B	2527	39% · 59%
1	25-A	2527	39% · 59%

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Mol	Chain	Length	Quality of chain
1	25-B	2527	39% · 59%
1	26-A	2527	41% · 59%
1	26-B	2527	41% · 59%
1	27-A	2527	40% · 59%
1	27-B	2527	40% · 59%
1	28-A	2527	40% · 59%
1	28-B	2527	40% · 59%
1	29-A	2527	40% · 59%
1	29-B	2527	40% · 59%
1	3-A	2527	41% 59%
1	3-B	2527	41% 59%
1	30-A	2527	40% · 59%
1	30-B	2527	40% · 59%
1	31-A	2527	41% 59%
1	31-B	2527	41% 59%
1	32-A	2527	40% · 59%
1	32-B	2527	40% · 59%
1	33-A	2527	40% · 59%
1	33-B	2527	40% · 59%
1	34-A	2527	40% · 59%
1	34-B	2527	40% · 59%
1	35-A	2527	40% · 59%
1	35-B	2527	40% · 59%
1	36-A	2527	40% · 59%
1	36-B	2527	40% · 59%

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Mol	Chain	Length	Quality of chain
1	37-A	2527	41% • 59%
1	37-B	2527	40% • 59%
1	38-A	2527	39% • 59%
1	38-B	2527	39% • 59%
1	39-A	2527	40% • 59%
1	39-B	2527	40% • 59%
1	4-A	2527	40% • 59%
1	4-B	2527	41% 59%
1	40-A	2527	40% • 59%
1	40-B	2527	40% • 59%
1	41-A	2527	39% • 59%
1	41-B	2527	38% • 59%
1	42-A	2527	40% • 59%
1	42-B	2527	40% • 59%
1	43-A	2527	40% • 59%
1	43-B	2527	40% • 59%
1	44-A	2527	41% 59%
1	44-B	2527	41% 59%
1	45-A	2527	40% • 59%
1	45-B	2527	40% • 59%
1	46-A	2527	39% • 59%
1	46-B	2527	40% • 59%
1	47-A	2527	40% • 59%
1	47-B	2527	40% • 59%
1	48-A	2527	40% • 59%

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Mol	Chain	Length	Quality of chain
1	48-B	2527	40% • 59%
1	49-A	2527	40% • 59%
1	49-B	2527	40% • 59%
1	5-A	2527	40% • 59%
1	5-B	2527	40% • 59%
1	50-A	2527	39% • 59%
1	50-B	2527	39% • 59%
1	51-A	2527	39% • 59%
1	51-B	2527	39% • 59%
1	52-A	2527	39% • 59%
1	52-B	2527	39% • 59%
1	53-A	2527	39% • 59%
1	53-B	2527	39% • 59%
1	6-A	2527	41% 59%
1	6-B	2527	41% 59%
1	7-A	2527	39% • 59%
1	7-B	2527	39% • 59%
1	8-A	2527	40% • 59%
1	8-B	2527	40% • 59%
1	9-A	2527	41% 59%
1	9-B	2527	40% • 59%

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 110240 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Leucine-rich repeat serine/threonine-protein kinase 2.

Mol	Chain	Residues	Atoms		AltConf	Trace
			Total	C		
1	1-A	1040	1040	1040	0	1040
1	2-A	1040	1040	1040	0	1040
1	3-A	1040	1040	1040	0	1040
1	4-A	1040	1040	1040	0	1040
1	5-A	1040	1040	1040	0	1040
1	6-A	1040	1040	1040	0	1040
1	7-A	1040	1040	1040	0	1040
1	8-A	1040	1040	1040	0	1040
1	9-A	1040	1040	1040	0	1040
1	10-A	1040	1040	1040	0	1040
1	11-A	1040	1040	1040	0	1040
1	12-A	1040	1040	1040	0	1040
1	13-A	1040	1040	1040	0	1040
1	14-A	1040	1040	1040	0	1040
1	15-A	1040	1040	1040	0	1040
1	16-A	1040	1040	1040	0	1040
1	17-A	1040	1040	1040	0	1040

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Mol	Chain	Residues	Atoms		AltConf	Trace
			Total	C		
1	18-A	1040	1040	1040	0	1040
1	19-A	1040	1040	1040	0	1040
1	20-A	1040	1040	1040	0	1040
1	21-A	1040	1040	1040	0	1040
1	22-A	1040	1040	1040	0	1040
1	23-A	1040	1040	1040	0	1040
1	24-A	1040	1040	1040	0	1040
1	25-A	1040	1040	1040	0	1040
1	26-A	1040	1040	1040	0	1040
1	27-A	1040	1040	1040	0	1040
1	28-A	1040	1040	1040	0	1040
1	29-A	1040	1040	1040	0	1040
1	30-A	1040	1040	1040	0	1040
1	31-A	1040	1040	1040	0	1040
1	32-A	1040	1040	1040	0	1040
1	33-A	1040	1040	1040	0	1040
1	34-A	1040	1040	1040	0	1040
1	35-A	1040	1040	1040	0	1040
1	36-A	1040	1040	1040	0	1040
1	37-A	1040	1040	1040	0	1040
1	38-A	1040	1040	1040	0	1040

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Mol	Chain	Residues	Atoms		AltConf	Trace
			Total	C		
1	39-A	1040	1040	1040	0	1040
			Total	C		
1	40-A	1040	1040	1040	0	1040
			Total	C		
1	41-A	1040	1040	1040	0	1040
			Total	C		
1	42-A	1040	1040	1040	0	1040
			Total	C		
1	43-A	1040	1040	1040	0	1040
			Total	C		
1	44-A	1040	1040	1040	0	1040
			Total	C		
1	45-A	1040	1040	1040	0	1040
			Total	C		
1	46-A	1040	1040	1040	0	1040
			Total	C		
1	47-A	1040	1040	1040	0	1040
			Total	C		
1	48-A	1040	1040	1040	0	1040
			Total	C		
1	49-A	1040	1040	1040	0	1040
			Total	C		
1	50-A	1040	1040	1040	0	1040
			Total	C		
1	51-A	1040	1040	1040	0	1040
			Total	C		
1	52-A	1040	1040	1040	0	1040
			Total	C		
1	53-A	1040	1040	1040	0	1040
			Total	C		
1	1-B	1040	1040	1040	0	1040
			Total	C		
1	2-B	1040	1040	1040	0	1040
			Total	C		
1	3-B	1040	1040	1040	0	1040
			Total	C		
1	4-B	1040	1040	1040	0	1040
			Total	C		
1	5-B	1040	1040	1040	0	1040
			Total	C		
1	6-B	1040	1040	1040	0	1040

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Mol	Chain	Residues	Atoms		AltConf	Trace
			Total	C		
1	7-B	1040	1040	1040	0	1040
			Total	C		
1	8-B	1040	1040	1040	0	1040
			Total	C		
1	9-B	1040	1040	1040	0	1040
			Total	C		
1	10-B	1040	1040	1040	0	1040
			Total	C		
1	11-B	1040	1040	1040	0	1040
			Total	C		
1	12-B	1040	1040	1040	0	1040
			Total	C		
1	13-B	1040	1040	1040	0	1040
			Total	C		
1	14-B	1040	1040	1040	0	1040
			Total	C		
1	15-B	1040	1040	1040	0	1040
			Total	C		
1	16-B	1040	1040	1040	0	1040
			Total	C		
1	17-B	1040	1040	1040	0	1040
			Total	C		
1	18-B	1040	1040	1040	0	1040
			Total	C		
1	19-B	1040	1040	1040	0	1040
			Total	C		
1	20-B	1040	1040	1040	0	1040
			Total	C		
1	21-B	1040	1040	1040	0	1040
			Total	C		
1	22-B	1040	1040	1040	0	1040
			Total	C		
1	23-B	1040	1040	1040	0	1040
			Total	C		
1	24-B	1040	1040	1040	0	1040
			Total	C		
1	25-B	1040	1040	1040	0	1040
			Total	C		
1	26-B	1040	1040	1040	0	1040
			Total	C		
1	27-B	1040	1040	1040	0	1040

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Mol	Chain	Residues	Atoms		AltConf	Trace
			Total	C		
1	28-B	1040	1040	1040	0	1040
1	29-B	1040	1040	1040	0	1040
1	30-B	1040	1040	1040	0	1040
1	31-B	1040	1040	1040	0	1040
1	32-B	1040	1040	1040	0	1040
1	33-B	1040	1040	1040	0	1040
1	34-B	1040	1040	1040	0	1040
1	35-B	1040	1040	1040	0	1040
1	36-B	1040	1040	1040	0	1040
1	37-B	1040	1040	1040	0	1040
1	38-B	1040	1040	1040	0	1040
1	39-B	1040	1040	1040	0	1040
1	40-B	1040	1040	1040	0	1040
1	41-B	1040	1040	1040	0	1040
1	42-B	1040	1040	1040	0	1040
1	43-B	1040	1040	1040	0	1040
1	44-B	1040	1040	1040	0	1040
1	45-B	1040	1040	1040	0	1040
1	46-B	1040	1040	1040	0	1040
1	47-B	1040	1040	1040	0	1040
1	48-B	1040	1040	1040	0	1040

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Mol	Chain	Residues	Atoms		AltConf	Trace
			Total	C		
1	49-B	1040	1040	1040	0	1040
			Total	C		
1	50-B	1040	1040	1040	0	1040
			Total	C		
1	51-B	1040	1040	1040	0	1040
			Total	C		
1	52-B	1040	1040	1040	0	1040
			Total	C		
1	53-B	1040	1040	1040	0	1040

There are 2 discrepancies between the modelled and reference sequences:

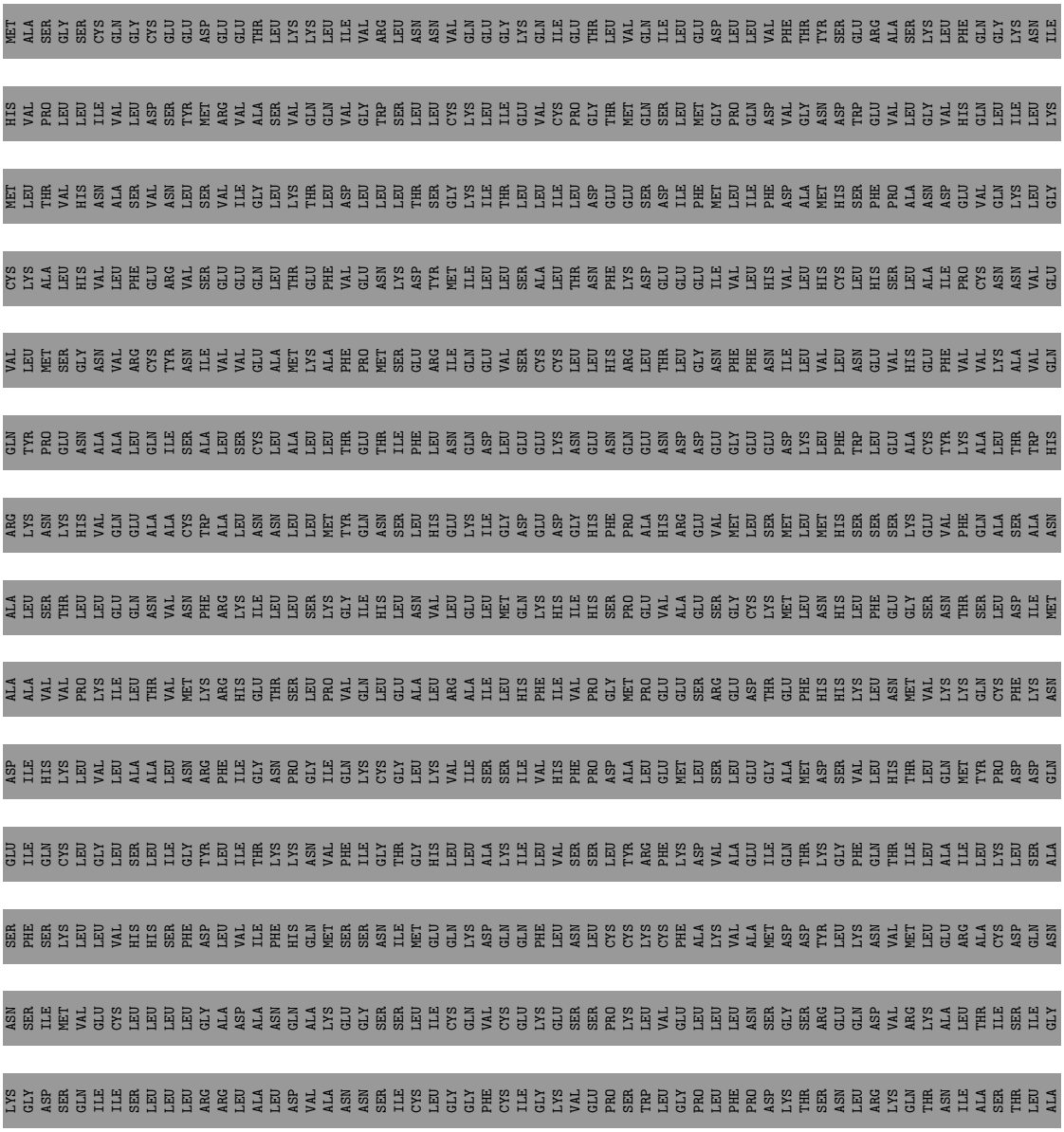
Chain	Residue	Modelled	Actual	Comment	Reference
A	2020	THR	ILE	variant	UNP Q5S007
B	2020	THR	ILE	variant	UNP Q5S007

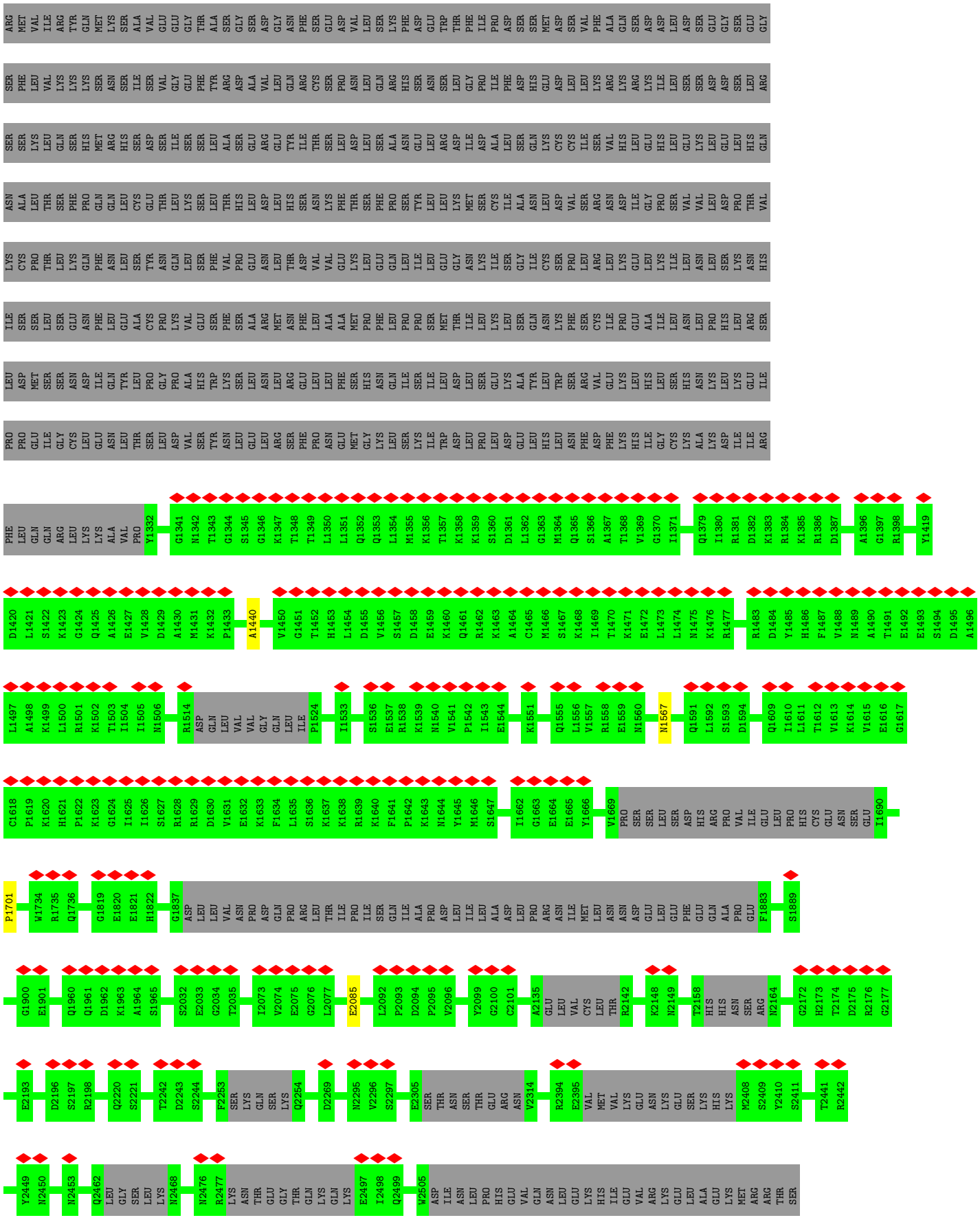
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 1-A:



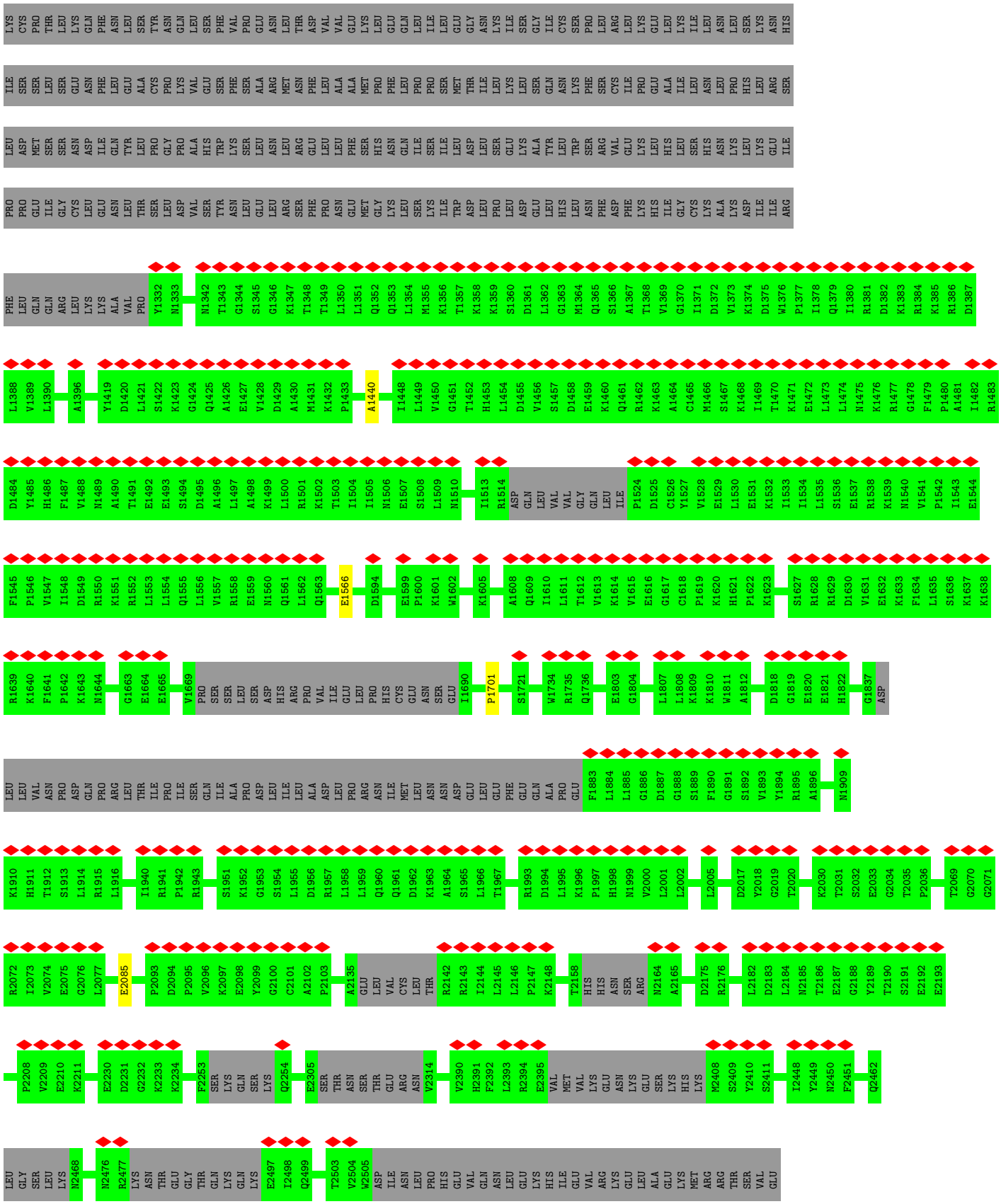

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS HIS ILE LEU SER SER ASP ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU GLU LYS LEU GLU LEU
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ASN LEU ASP VAL SER ARG ASN ASP ILE ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE CYS SER PRO LEU ARG LEU LYS LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER LYS LEU LEU ASN LEU SER LYS LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO LEU SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS PRO ARG CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU ARG SER PHE PRO ASN GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS LEU SER GLY ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU LEU PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 G1341 N1342 T1343 G1344 S1345 G1346 K1347 T1348 T1349 L1350 L1351 Q1352 Q1353 L1354 M1355 K1356 T1357 K1358 K1359 S1360 D1361 L1362 G1363 M1364 Q1365 S1366 A1367 T1368 V1369 G1370 I1371 Q1379 I1380 R1381 D1382 K1383 R1384 K1385 R1386 D1387 A1396 G1397 R1398 Y1419
D1420 L1421 S1422 K1423 G1424 Q1425 A1426 E1427 V1428 D1429 A1430 M1431 K1432 P1433 A1440 V1450 G1451 T1452 H1453 L1454 D1455 V1456 S1457 D1458 E1459 K1460 Q1461 R1462 K1463 A1464 C1465 M1466 S1467 K1468 I1469 T1470 K1471 E1472 L1473 L1474 N1475 K1476 R1477 R1483 D1484 Y1485 H1486 F1487 V1488 N1489 A1490 T1491 E1492 E1493 S1494 D1495 A1496
L1497 A1498 K1499 L1500 R1501 K1502 T1503 I1504 I1505 N1506 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 I1533 S1536 E1537 R1538 K1539 N1540 V1541 P1542 I1543 E1544 K1551 Q1555 L1556 V1557 R1558 E1559 N1560 N1567 Q1591 L1592 S1593 D1594 Q1609 I1610 L1611 T1612 V1613 K1614 V1615 E1616 G1617
C1618 P1619 K1620 H1621 P1622 K1623 G1624 I1625 I1626 S1627 R1628 R1629 D1630 V1631 E1632 K1633 F1634 L1635 S1636 K1637 K1638 R1639 K1640 F1641 P1642 K1643 N1644 Y1645 M1646 S1647 I1662 G1663 E1664 E1665 Y1666 V1669 PRO SER SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690
P1701 W1734 R1735 Q1736 G1819 E1820 E1821 H1822 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883 S1889
G1900 E1901 Q1960 Q1961 D1962 K1963 A1964 S1965 S2032 E2033 G2034 T2035 I2073 V2074 E2075 G2076 L2077 E2085 L2092 P2093 D2094 P2095 V2096 Y2099 G2100 C2101 A2135 GLU LEU VAL CYS LEU THR R2142 K2148 N2149 T2158 HIS HIS ASN SER ARG W2164 G2172 H2173 T2174 D2175 R2176 G2177
E2193 D2196 S2197 R2198 Q2220 S2221 T2242 D2243 S2244 F2253 SER LYS GLN SER LYS Q2254 D2269 N2295 V2296 S2297 E2305 SER THR ASN SER THR GLU ARG ASN V2314 R2394 E2395 VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408 S2409 Y2410 S2411 T2441 R2442
Y2449 N2450 N2453 Q2462 LEU GLY SER LEU LYS N2468 N2476 R2477 LYS ASN THR GLU GLY THR GLN LYS GLN LYS E2497 I2498 Q2499 W2505 ASP ILE ASN LEU PRO HIS GLU VAL GLN ASN LEU GLU LYS HIS ILE GLU VAL ARG LYS GLU LEU ALA GLU LYS MET ARG ARG THR SER

VAL
GLU

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 1-B:

MET HIS MET CYS VAL GLN ASN VAL GLN GLN GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE
ALA VAL LEU LEU ASP SER LEU CYS GLU ILE GLU VAL ASP VAL GLY ASN ASP TRP GLU VAL LEU LEU ILE LEU LYS
SER PRO LEU ILE ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS
LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU LEU GLY
LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU
LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN
TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU GLU ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS
LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN
LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET
LEU LEU THR VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN
ILE HIS LYS LEU VAL PRO ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU MET LEU SER LEU GLU GLU GLY ALA MET ASP SER VAL LYS LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN
ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS GLU LEU LEU ALA ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS ARG PHE LEU
PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN SER LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU ASN ASP
ILE LEU LEU LEU LEU GLY ALA ASN ALA LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER LEU PRO LYS LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY
ARG ALA ARG ARG LEU ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU GLY LYS GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ASN LYS GLN THR ASN ILE LEU SER THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER SER LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL CYS SER PRO ASN SER LEU LEU GLN ARG HIS SER ASN LEU SER LYS ARG HIS SER ILE ASP GLU LEU ARG ASP HIS GLU ASP ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG
SER SER LYS LEU GLN ILE ARG HIS SER ASP SER LEU ALA ILE SER SER LEU ASP LEU LEU SER ALA ASN GLU ILE SER ARG LEU GLU GLU ARG GLU TYR ILE THR SER SER LEU ILE THR ALA LEU ALA SER GLU GLN LYS CYS CYS ILE ILE SER VAL HIS LEU GLU HIS LEU LEU GLU GLU LYS LEU GLU GLU
ASN ALA LEU THR SER PHE PRO GLN GLN GLN LEU CYS GLU THR LYS LYS THR SER LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS LYS ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO ASP LEU VAL PRO THR VAL



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 2-A: 41% 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

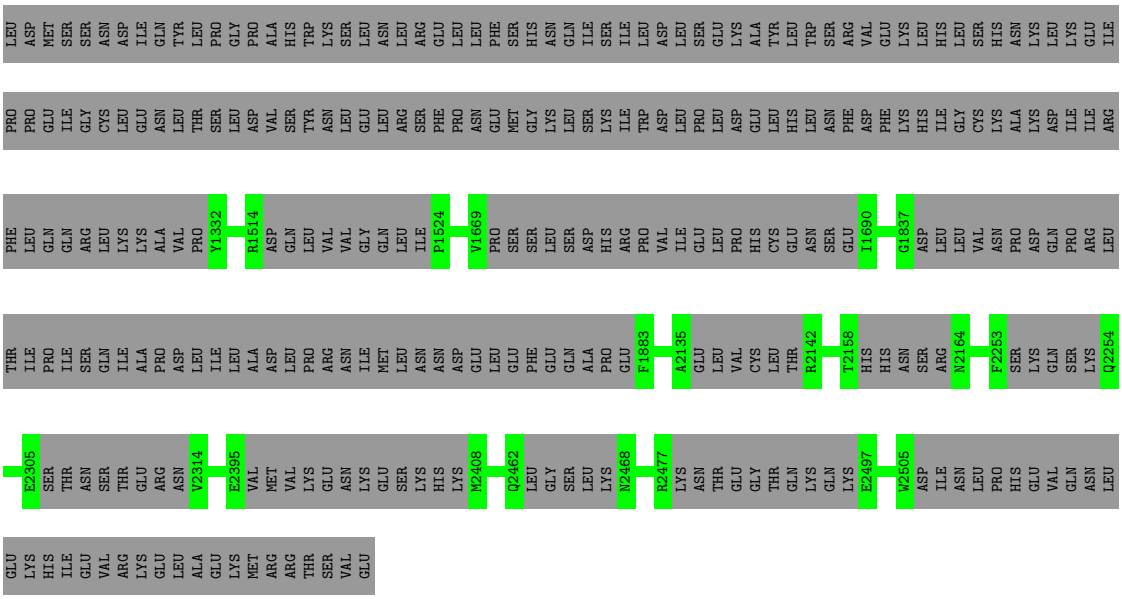
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL

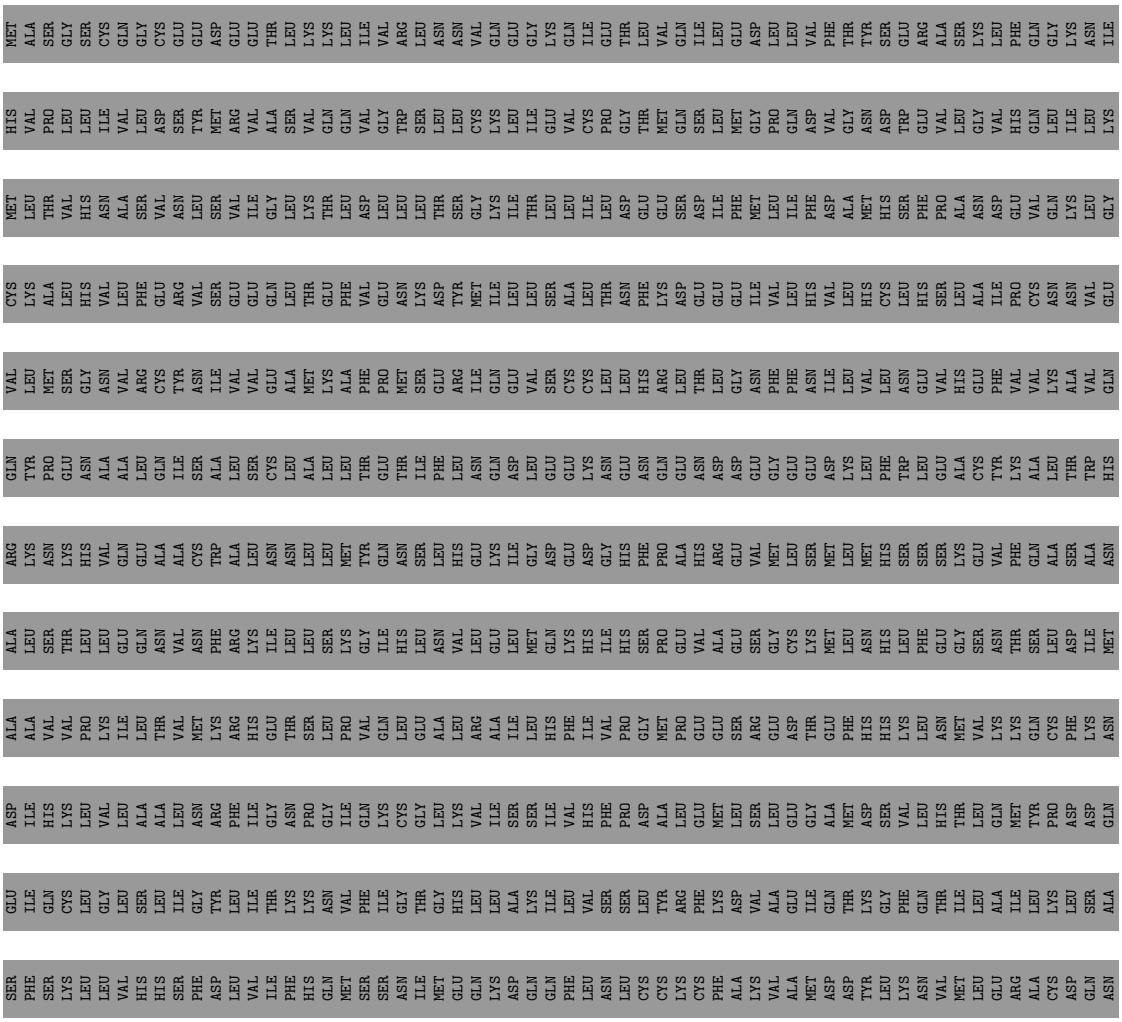
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS

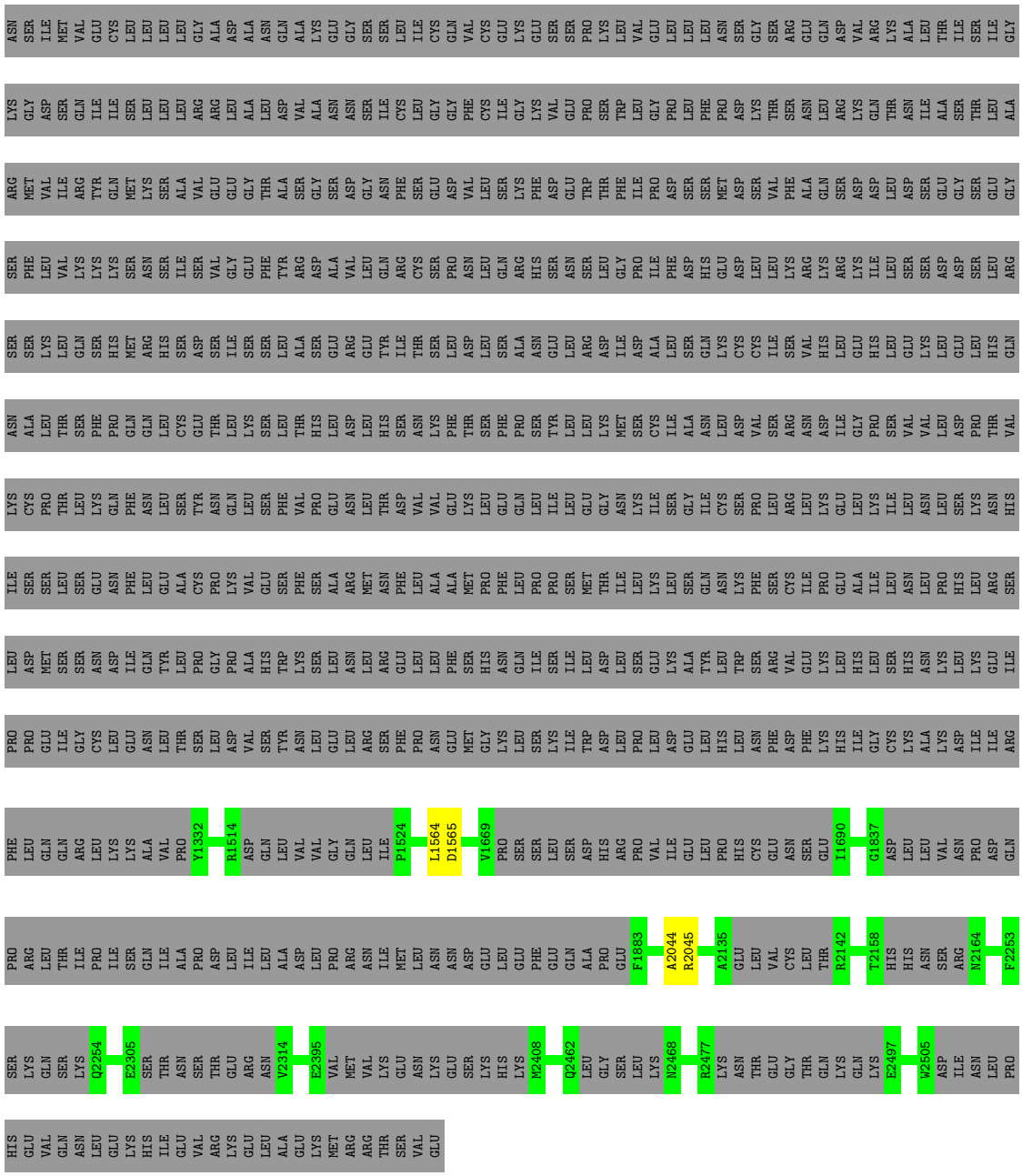
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

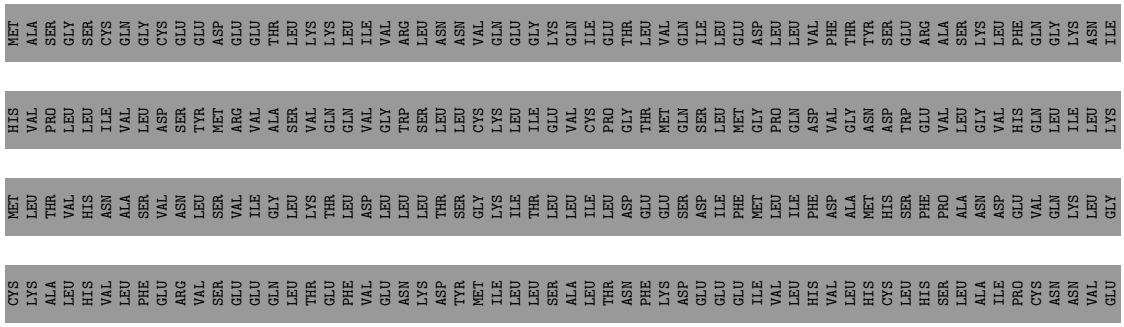
Chain 2-B: 41% 59%





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 3-A: 41% 59%



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P1524
Q1563
L1564
D1565
E1566
N1567
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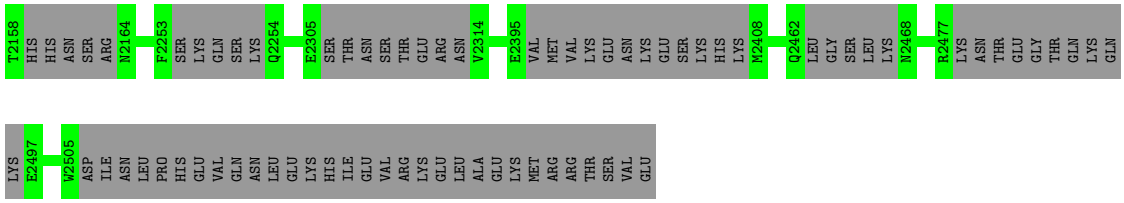
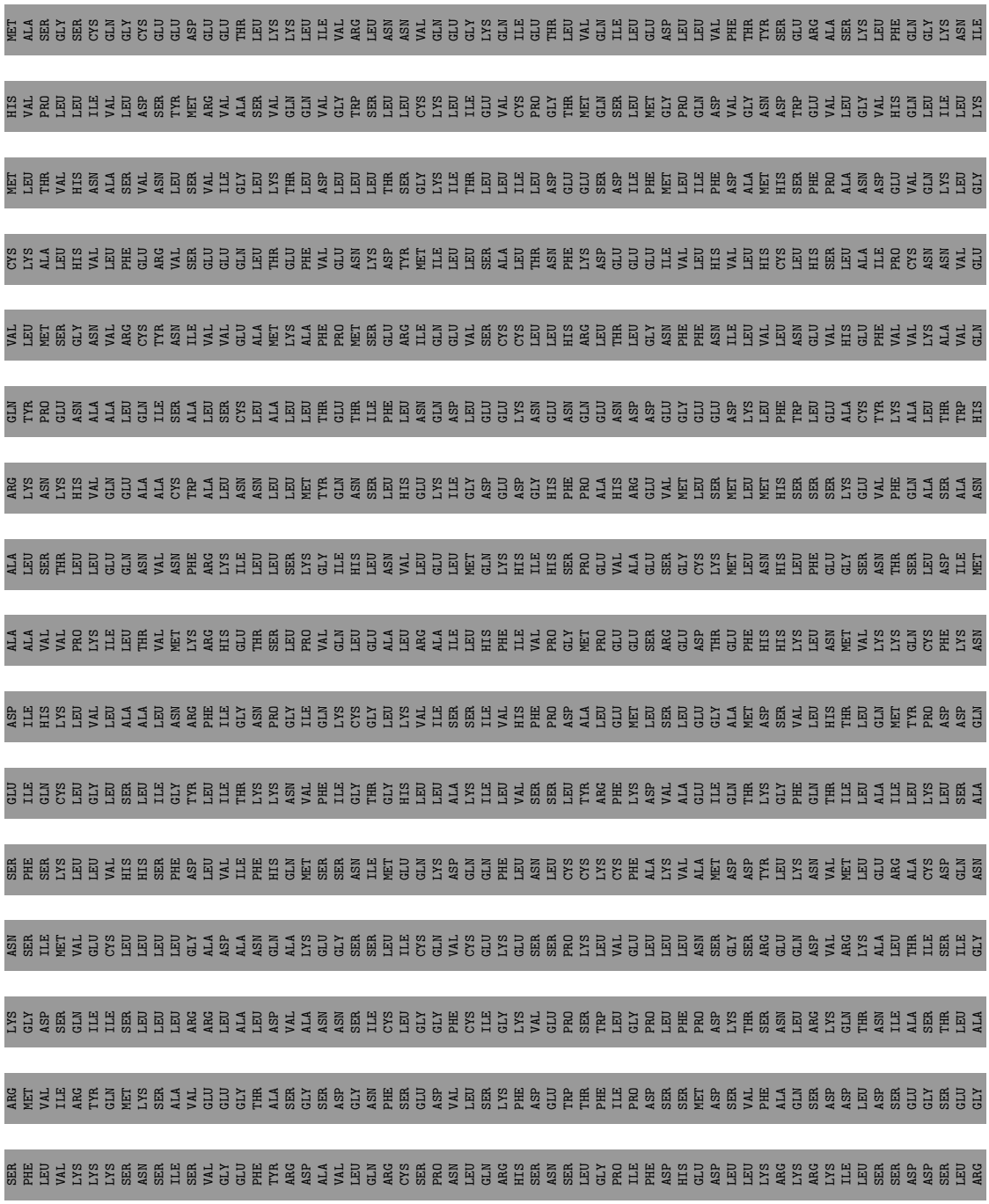
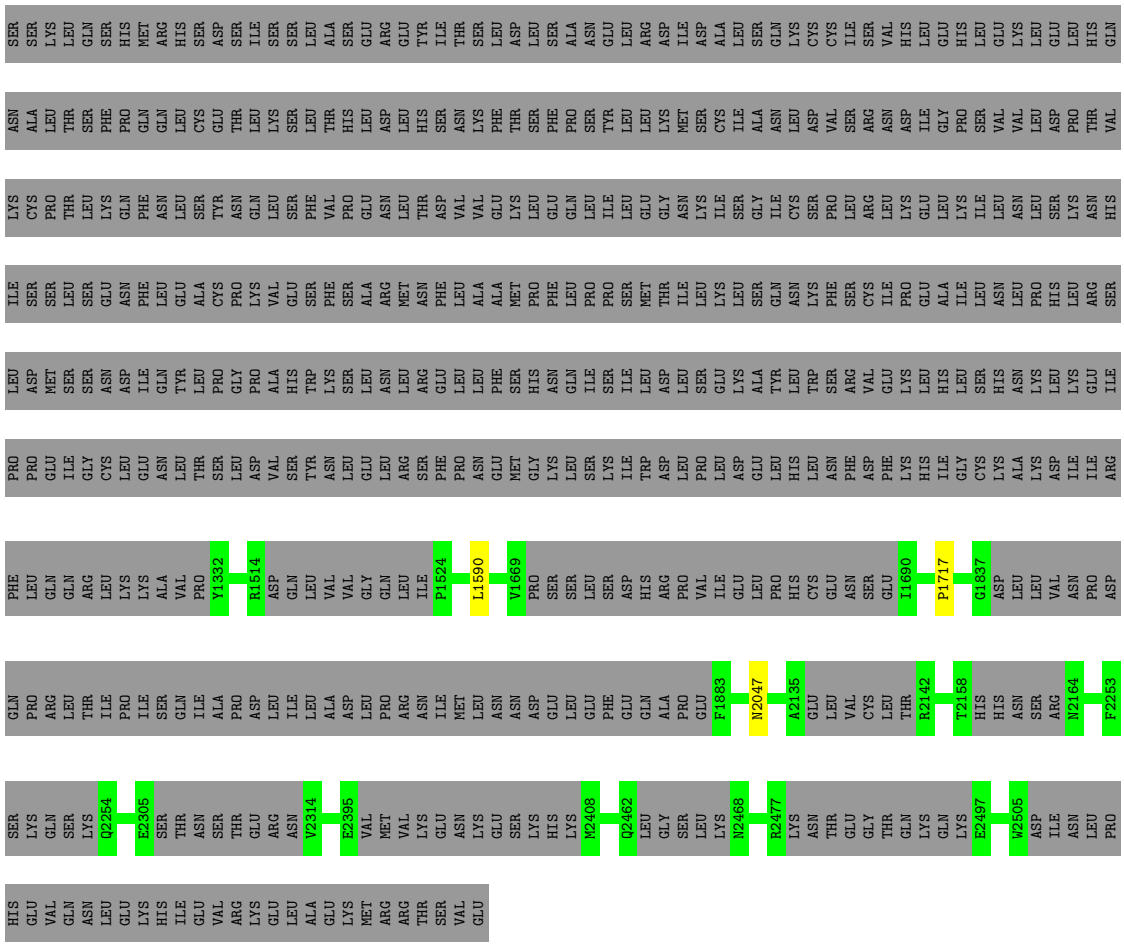


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

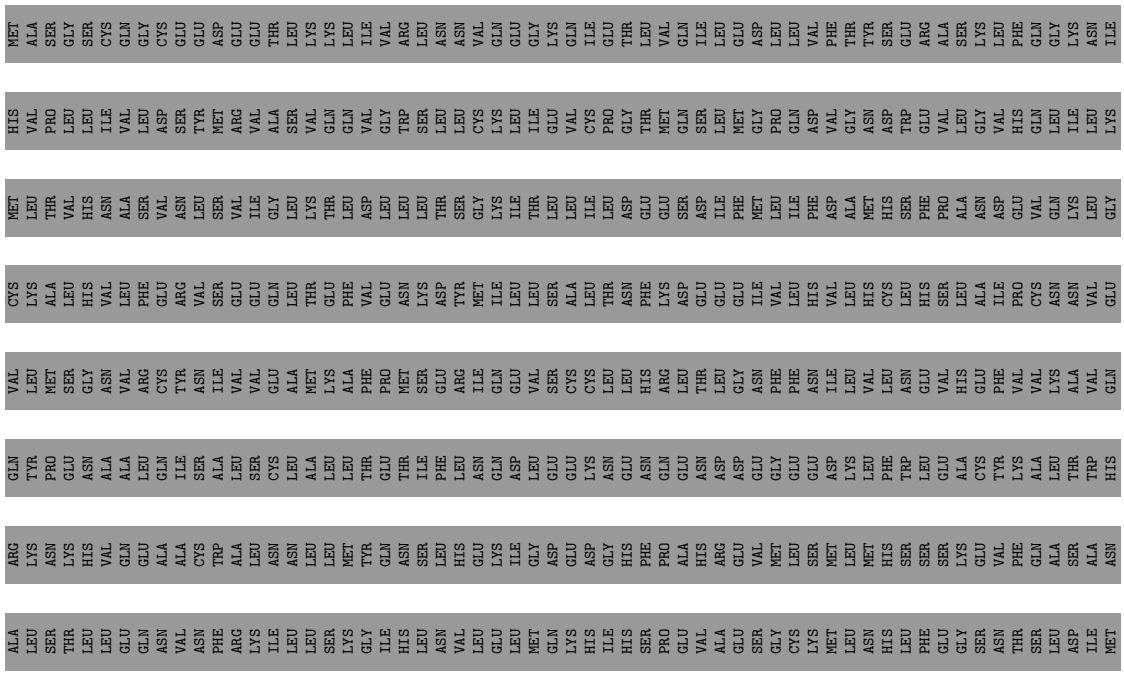
Chain 3-B:

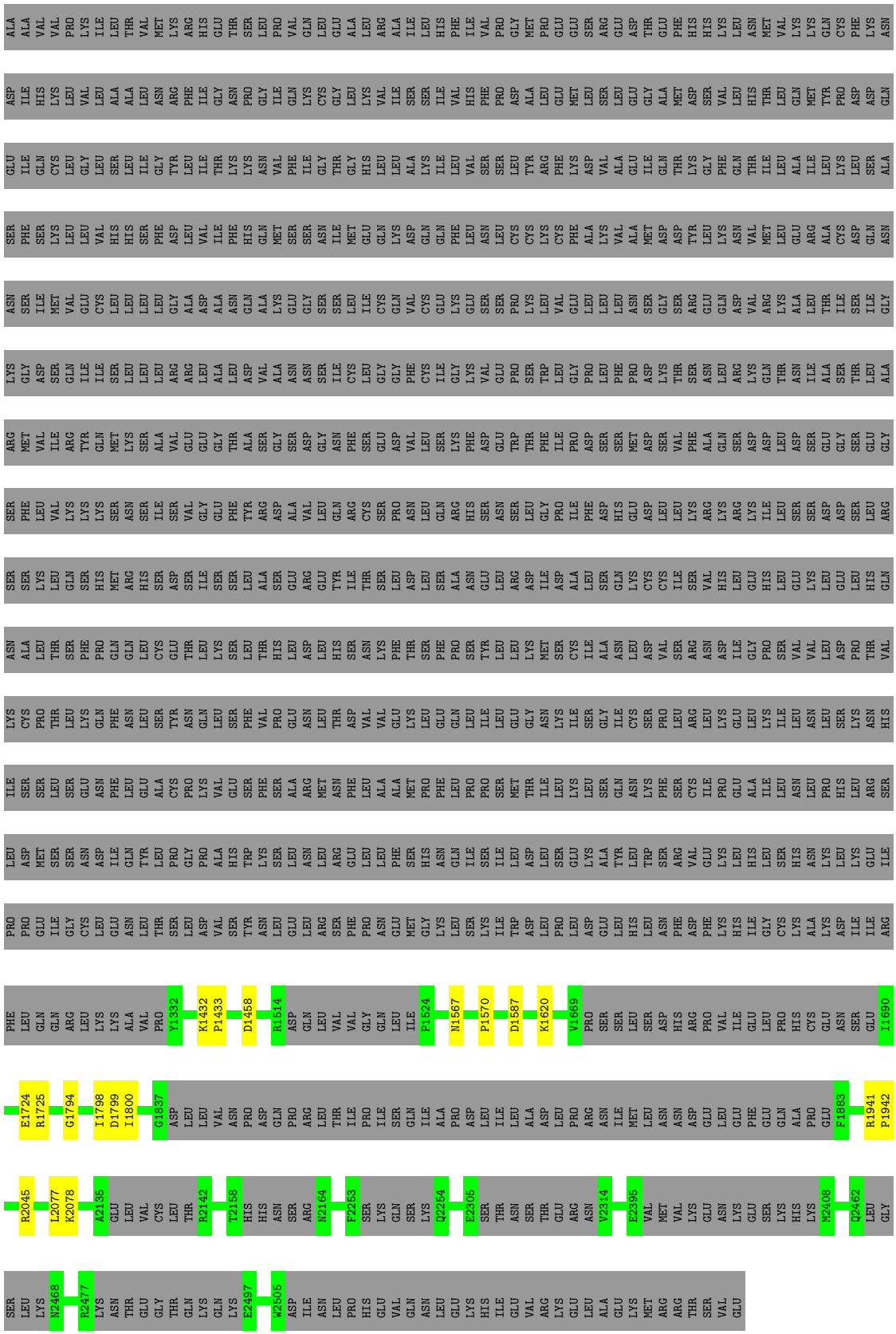




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 4-A:





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 4-B: 41% 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

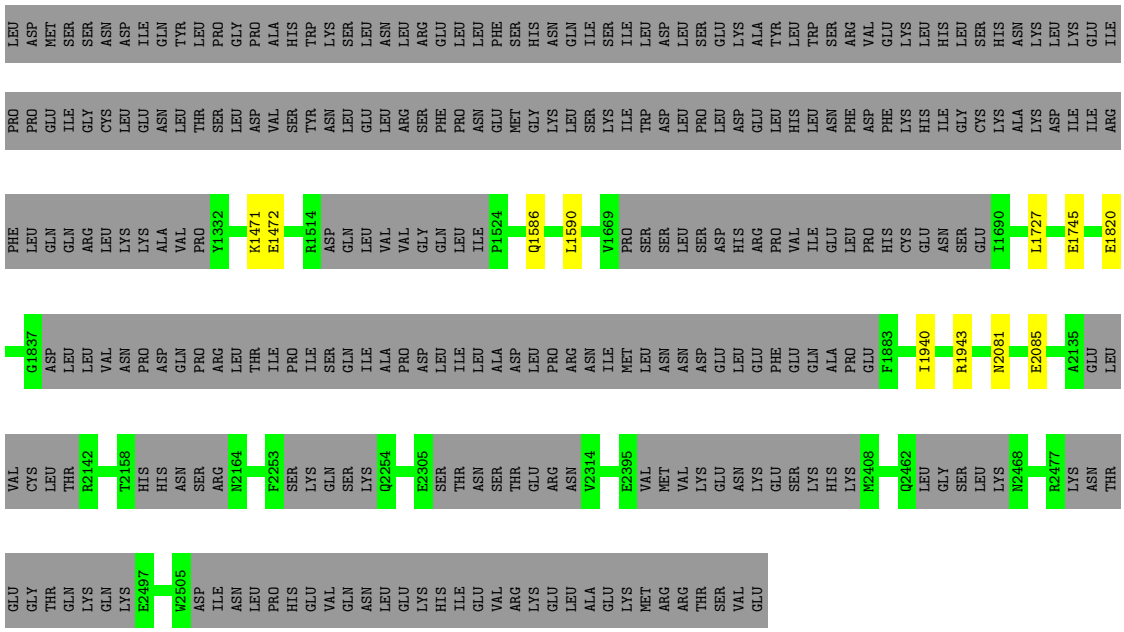
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL

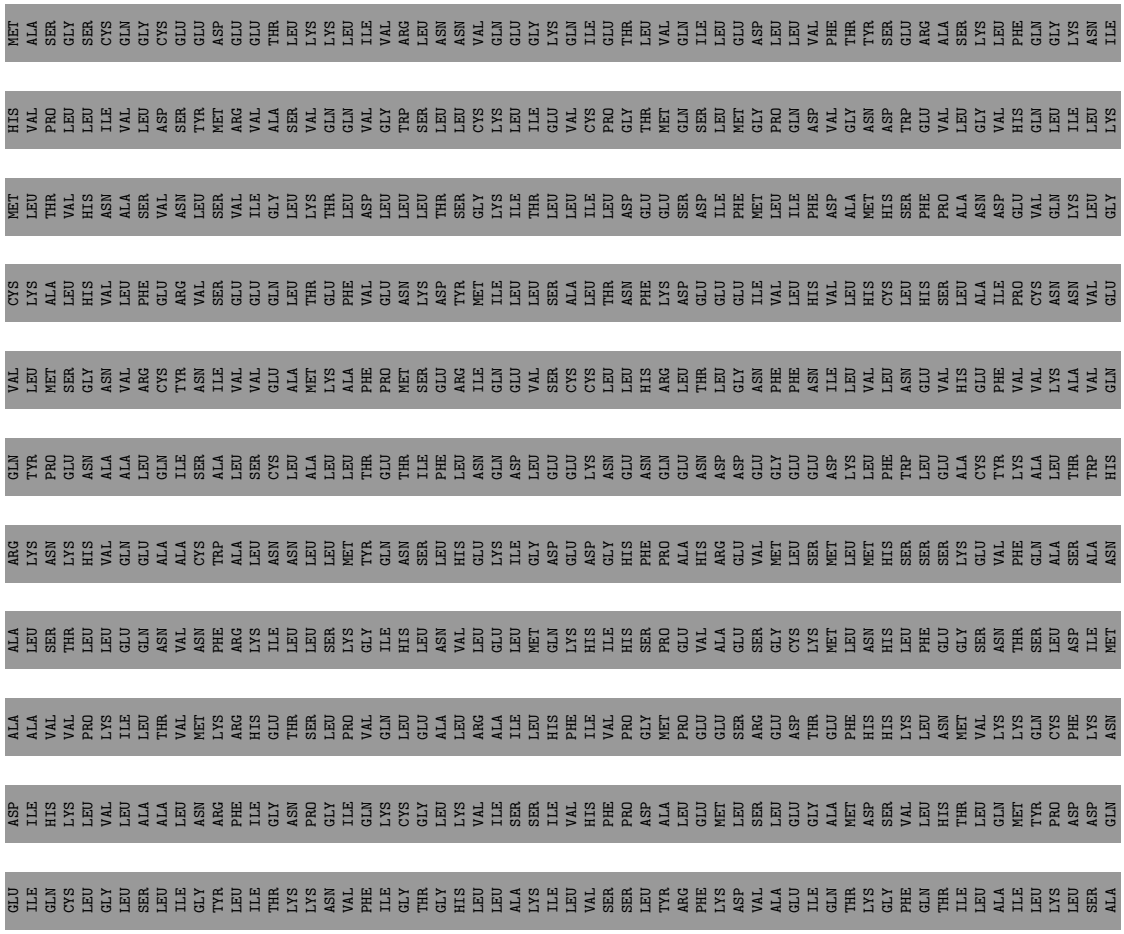
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS

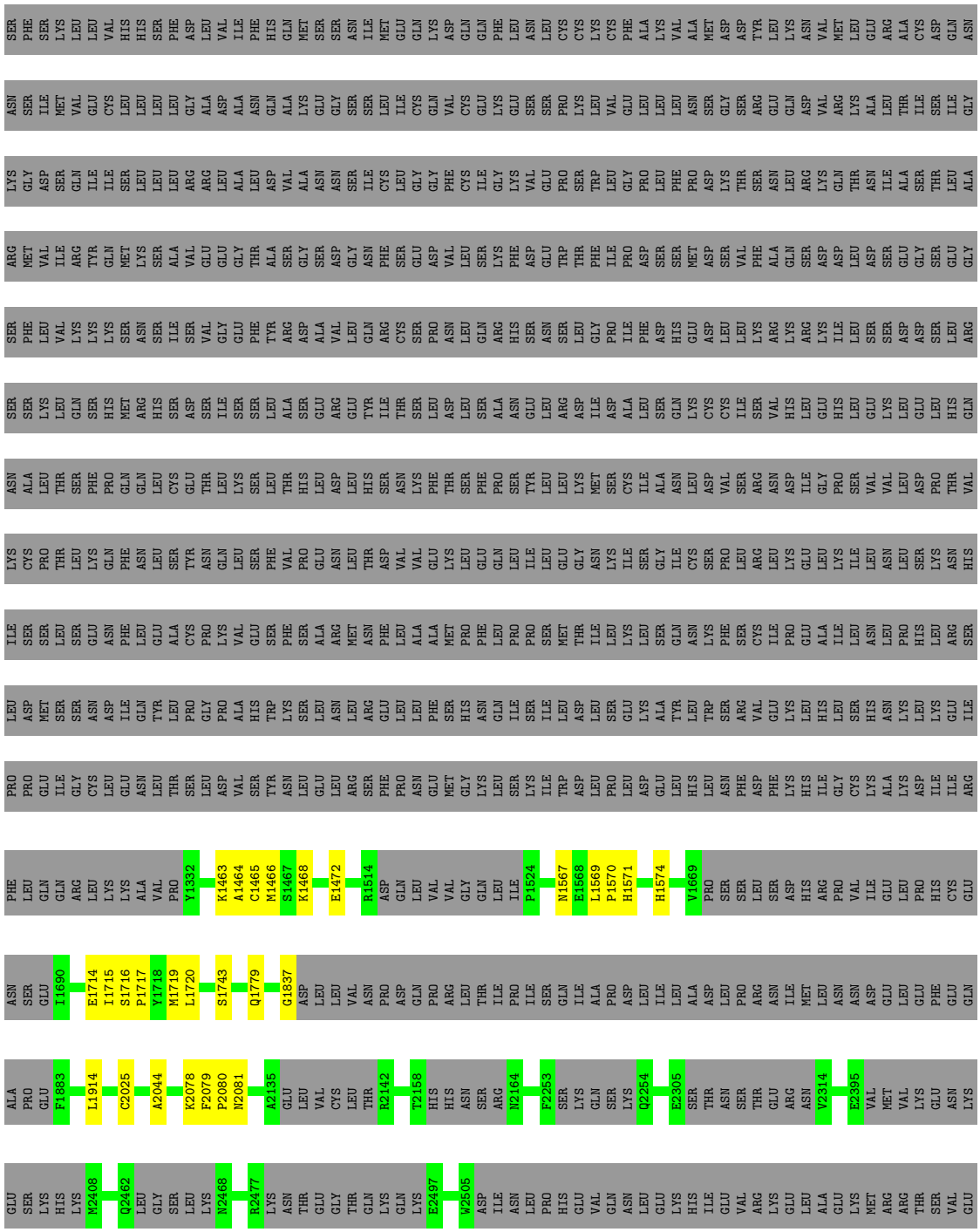
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 5-A: 40% • 59%





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 5-B: 40% • 59%

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

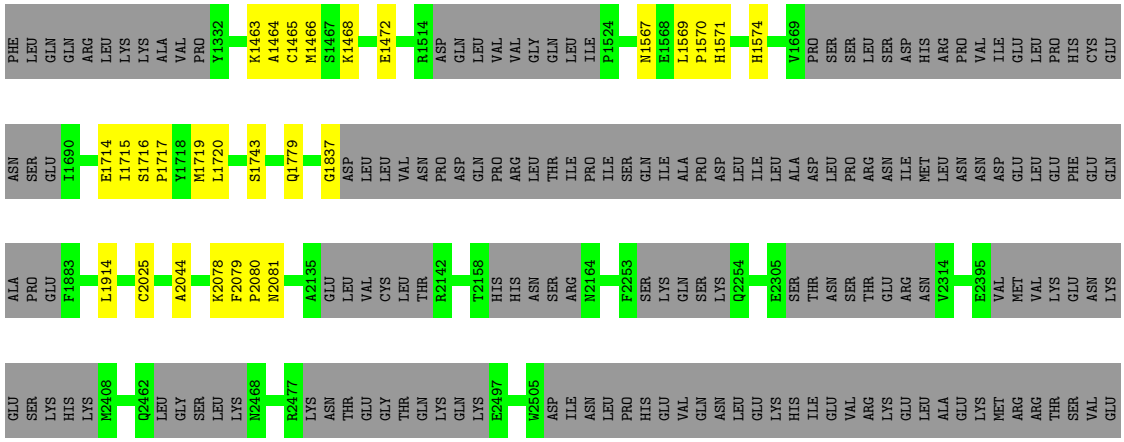
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL

LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS

ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER

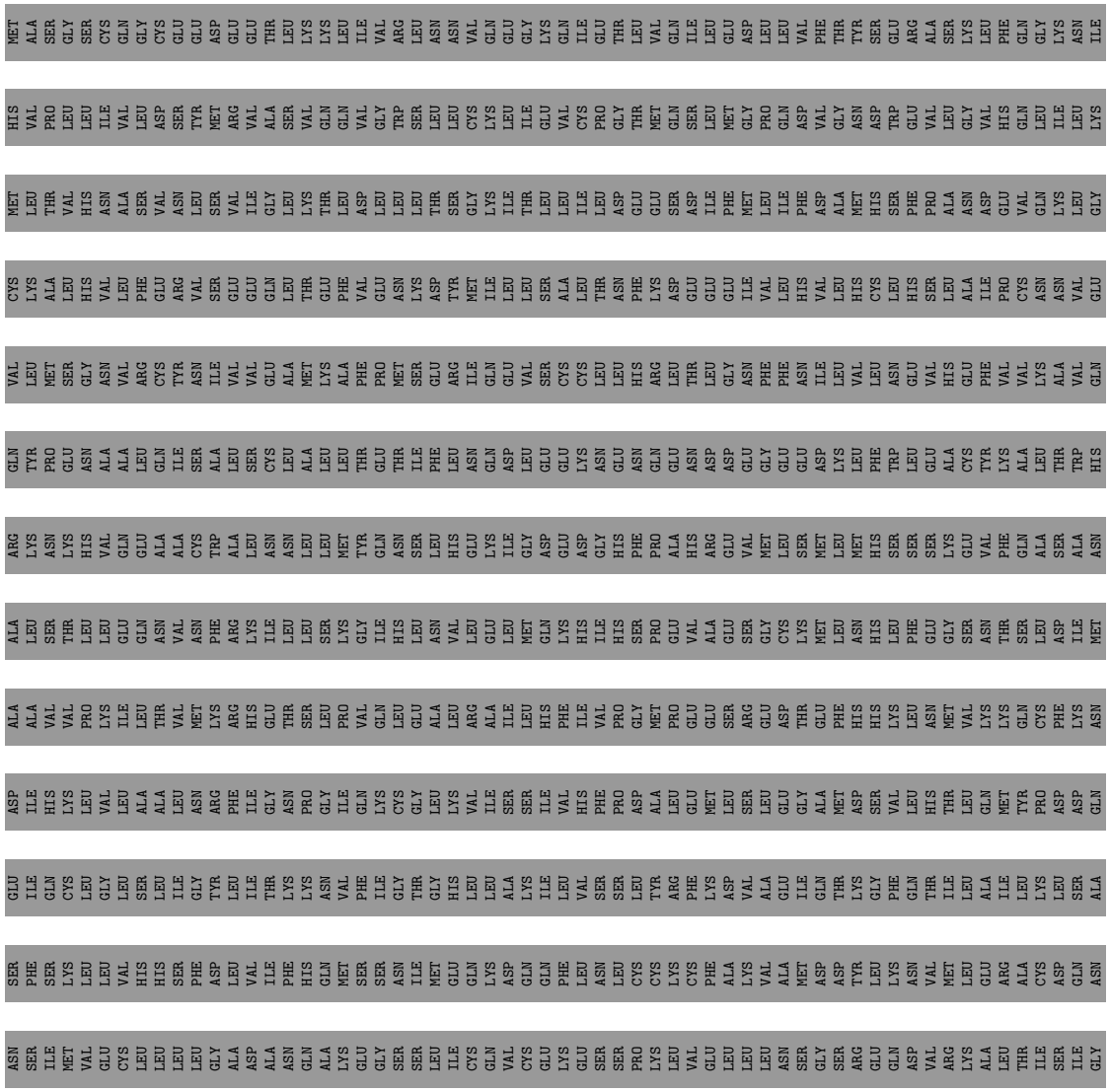
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE

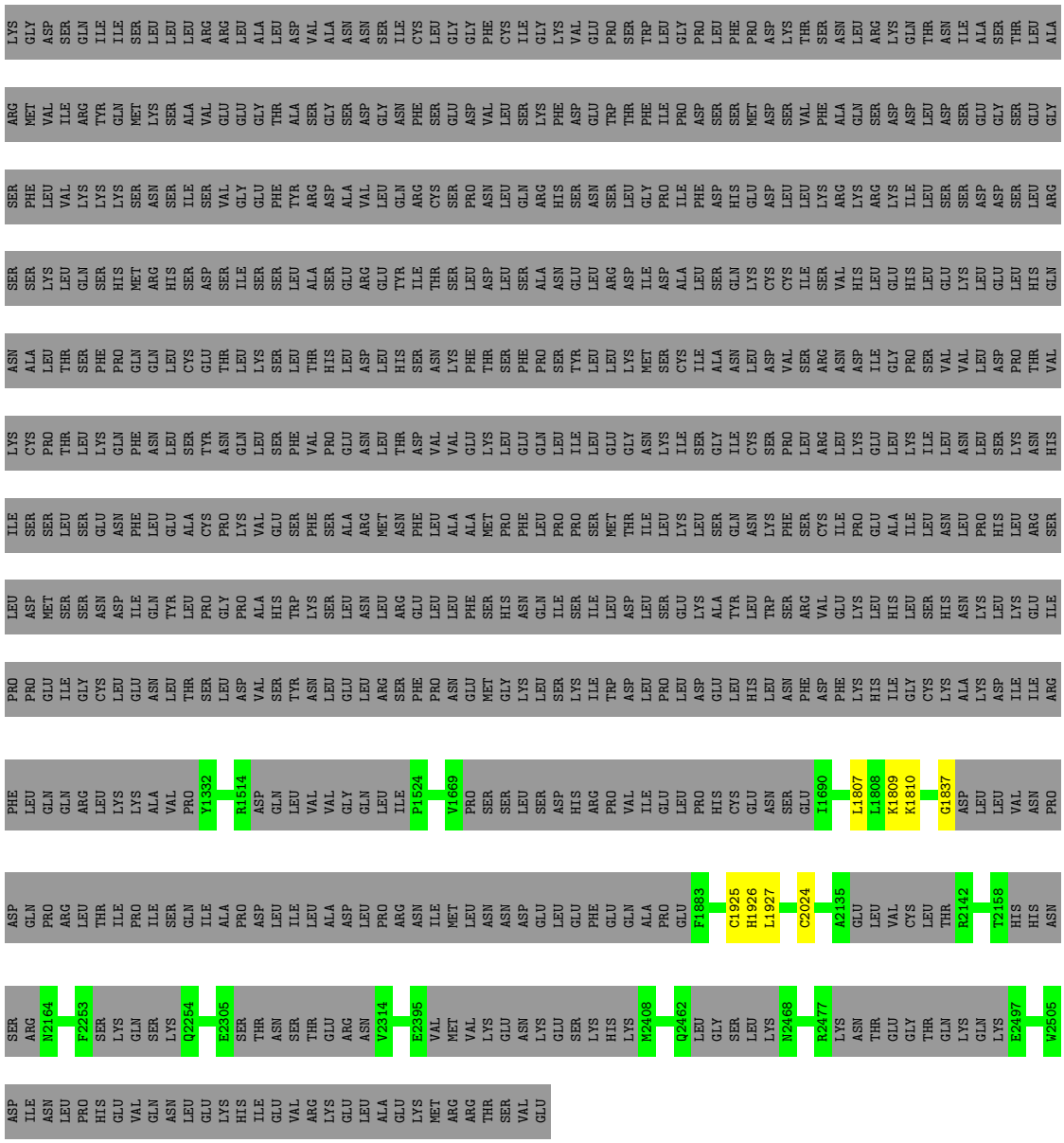
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 6-A: 41% 59%

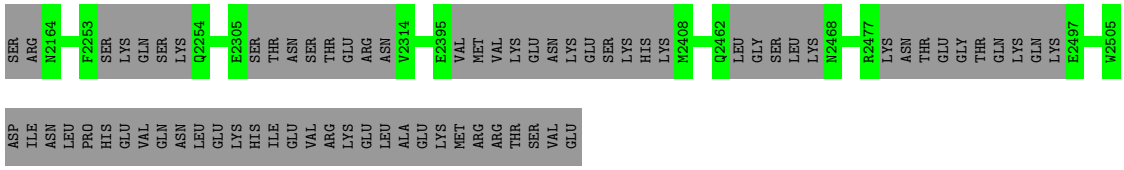




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

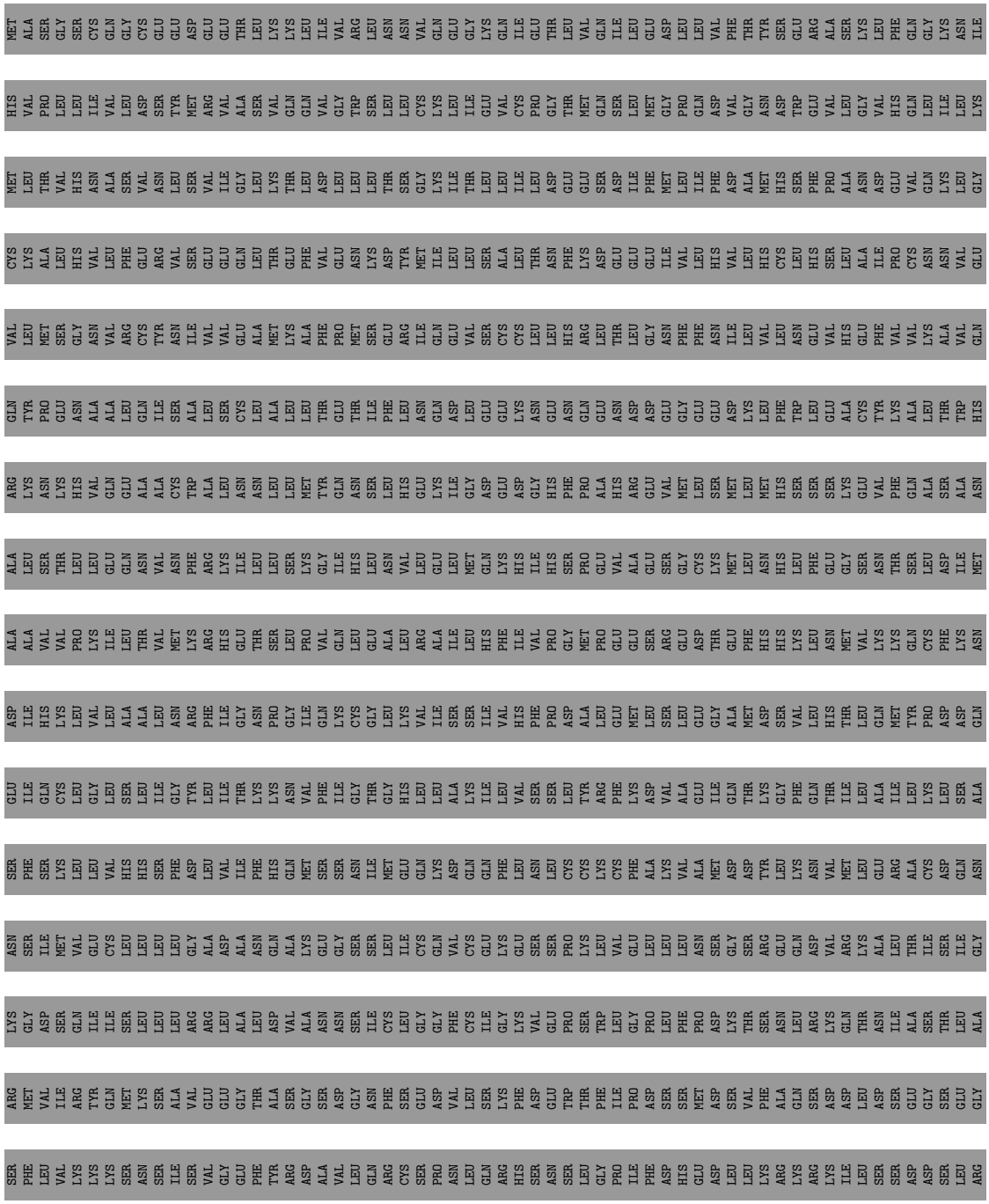
Chain 6-B:

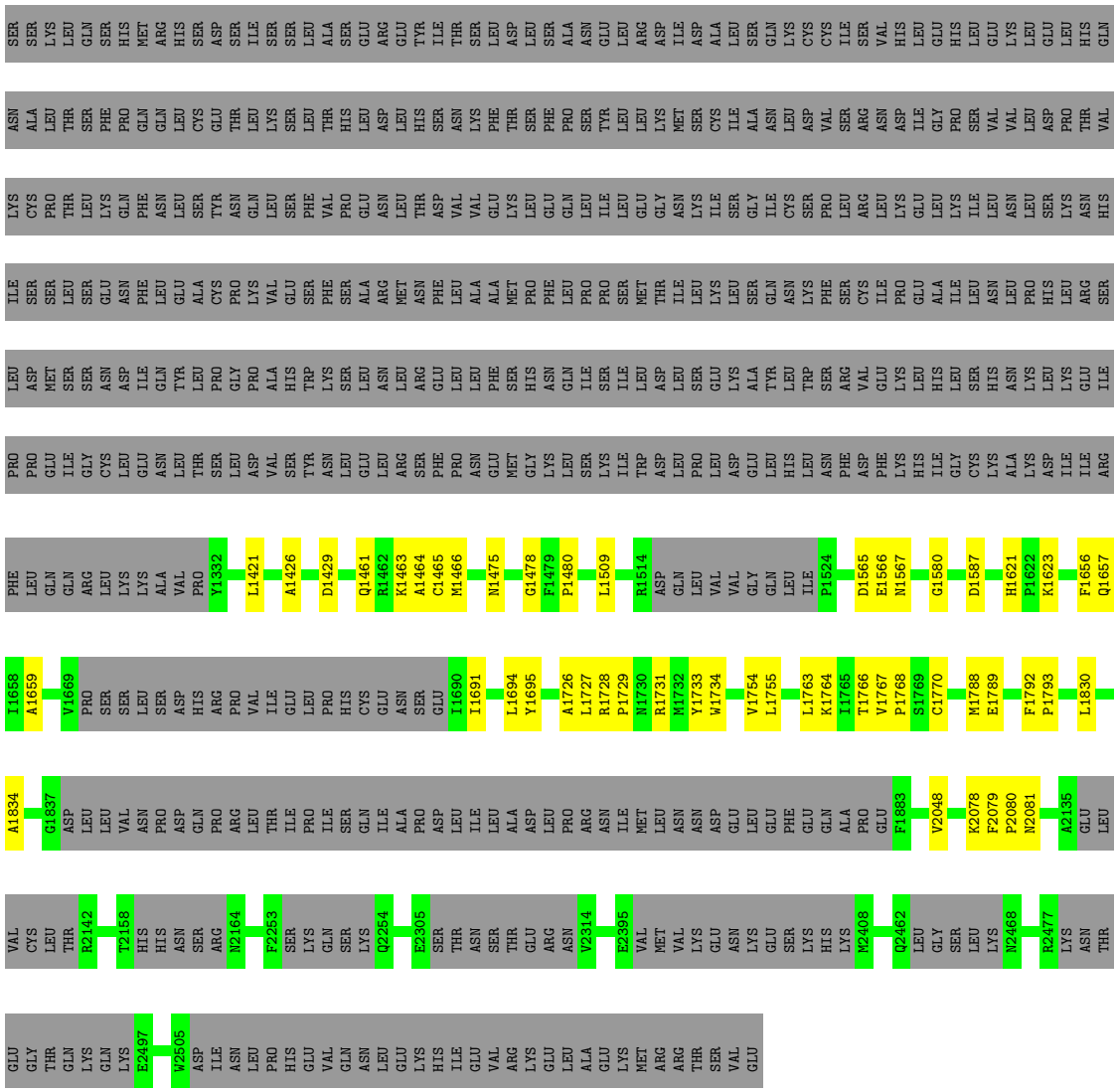
GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LYS LEU GLU GLU LYS ASN GLU GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN SER ASN ALA
ALA LEU SER THR LEU GLU GLN GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS GLU LEU ASN VAL LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU
ALA ALA VAL VAL PRO LYS ILE LEU GLU ALA LEU ARG ALA ILE LEU HIS ILE HIS ARG GLU THR SER LEU PRO VAL GLN LEU GLU GLU ALA LEU ARG ALA ILE LEU HIS VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER LEU VAL LEU LEU GLN MET TYR PRO ASP ASP GLN
GLU ILE GLN CYS LEU GLY LEU LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL HIS ILE VAL SER SER LEU TYR ARG PHE LYS ASP LEU ASP LYS LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU HIS HIS SER PHE ASP LEU VAL PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU LEU CYS CYS LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU ARG LYS ASP ASN GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN GLN ASP VAL ARG LYS ALA ALA LEU THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ILE ALA SER THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN ASN LEU GLN ARG HIS SER ASN SER LEU ILE PRO PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ILE LEU SER ASP SER SER LEU LEU ARG
SER SER LYS LEU GLN SER HIS HIS SER ASP SER ILE SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ALA SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU GLU LEU HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LYS LEU HIS MET ARG HIS SER ASP SER LEU ALA SER GLU ASP LEU THR SER ASN LYS PHE THR SER PHE PRO ALA ASN GLU LEU ASP SER ILE ILE ALA ASN LEU ASP VAL SER ASN ASP ASP ASP ASP ASP ALA VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS GLU GLN GLN LEU ILE ILE CYS SER PRO LEU ARG LEU LYS ILE LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER LYS ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ASN ARG VAL ILE PRO LYS GLU ILE ILE ASN LEU ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU HIS ILE LEU SER GLU LYS ILE ALA TYR LEU TRP SER VAL GLU LYS LEU LEU GLN ILE ILE LEU ILE ILE LEU ILE ILE LEU ASN LYS LEU LYS GLU ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU ARG SER PHE PRO ASN GLU HIS ILE LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY LYS ASP LYS ILE ILE ARG
PHE LEU GLN GLN ARG LEU THR ILE LYS ALA VAL PRO Y1332 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690 Q1779 G1837 ASP LEU LEU VAL ASN PRO
ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP PRO ARG ASN ILE MET LEU ASN ASP GLU LEU PHE GLN GLN ALA PRO GLU F1883 S1913 K2078 N2081 A2135 GLU LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

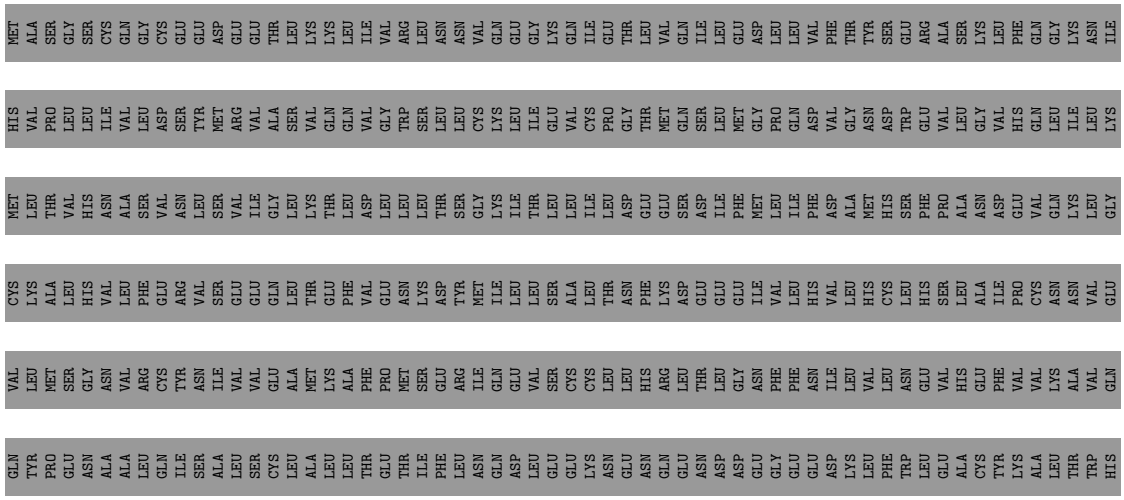
Chain 7-A:

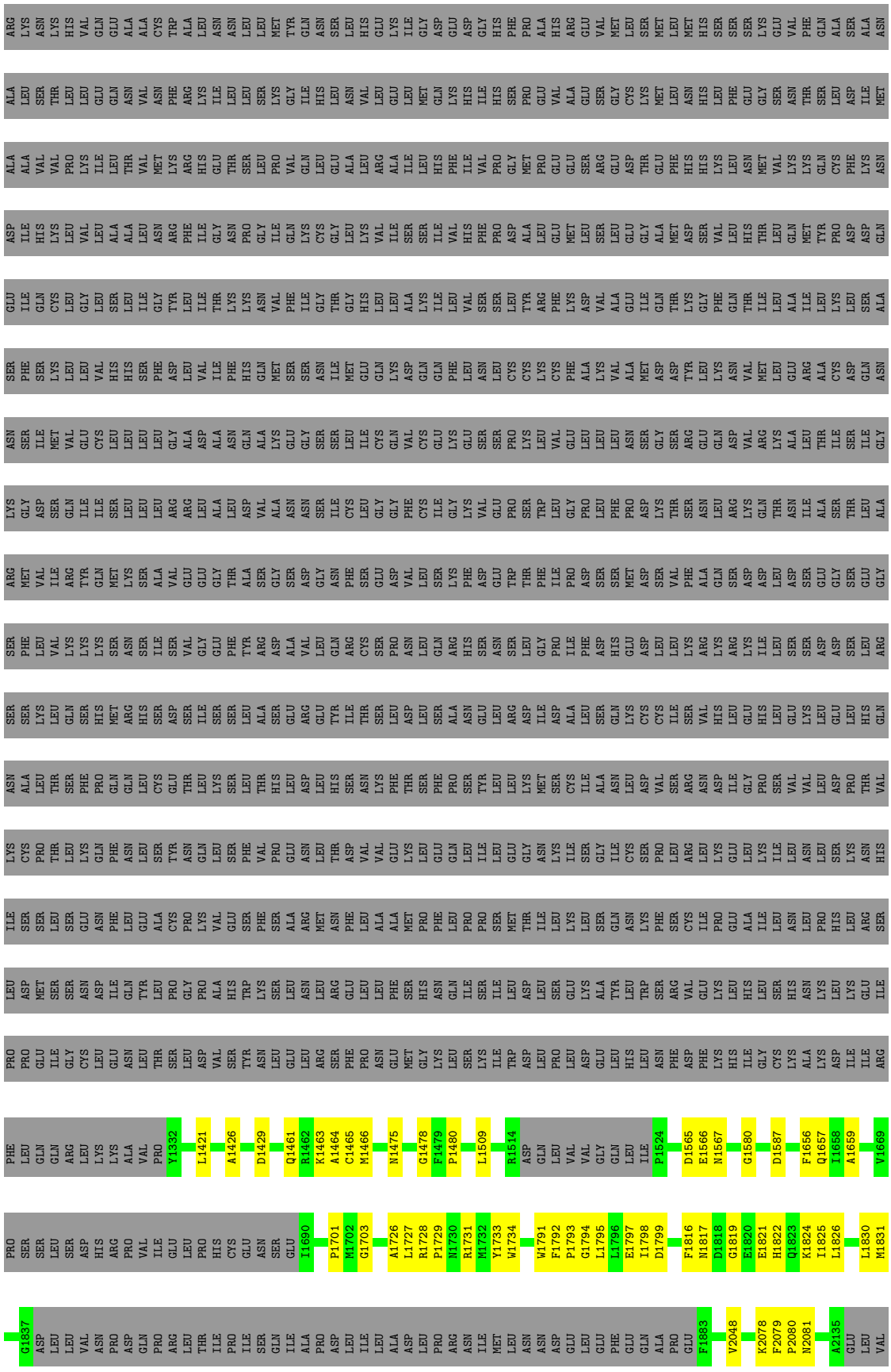




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 7-B: 39% • 59%

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Y1332
L1421
A1426
D1429
Q1461
R1462
K1463
A1464
C1465
M1466
N1475
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F1479
P1480
L1509
R1514
P1524
D1565
E1566
N1567
G1580
D1587
F1656
Q1657
I1658
A1659
V1669
I1690
P1701
M1702
G1703
A1726
L1727
R1728
P1729
N1730
R1731
M1732
Y1733
W1734
W1791
F1792
P1793
G1794
L1795
L1796
E1797
I1798
D1799
F1816
N1817
D1818
G1819
E1820
E1821
H1822
Q1823
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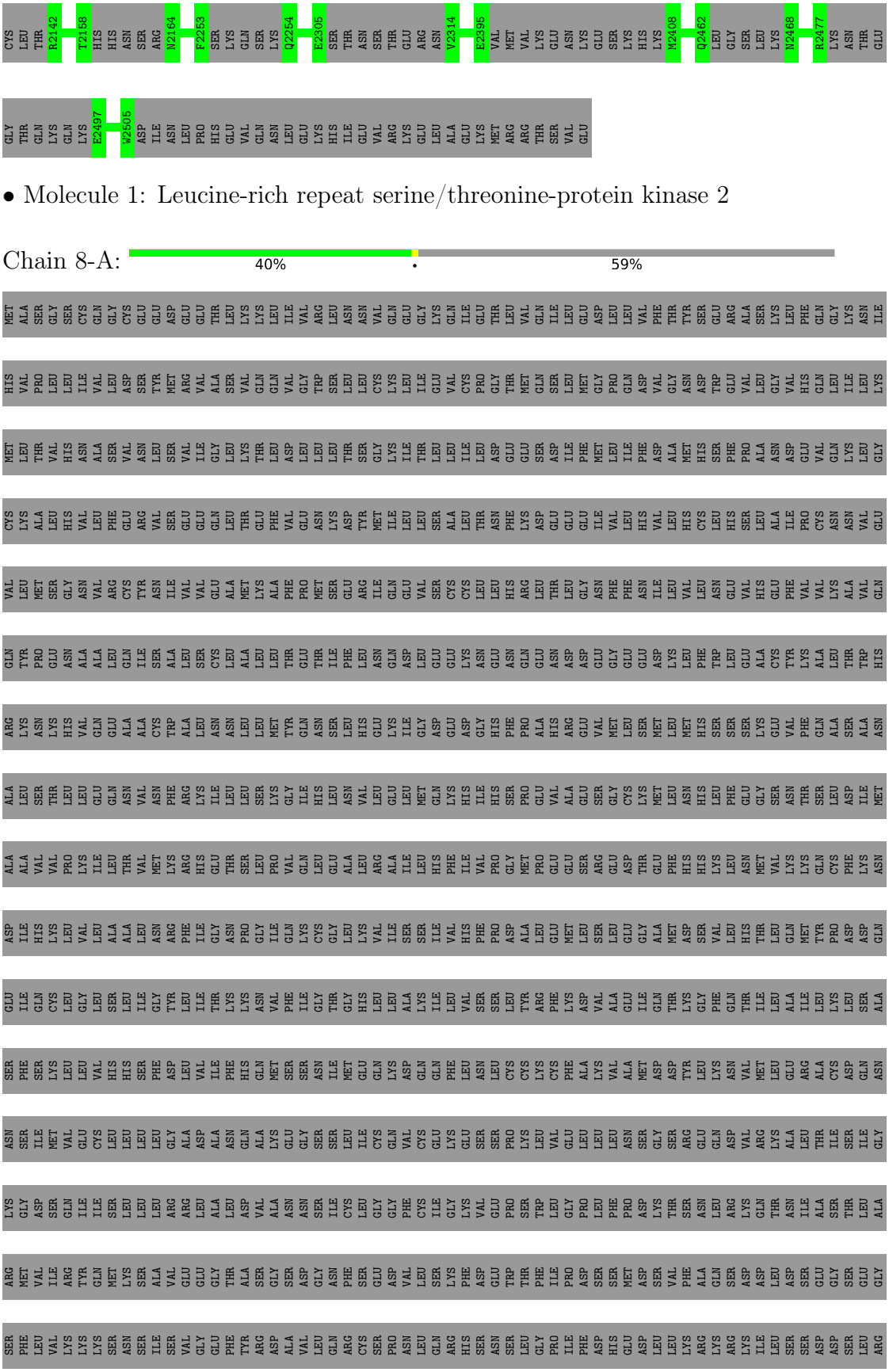
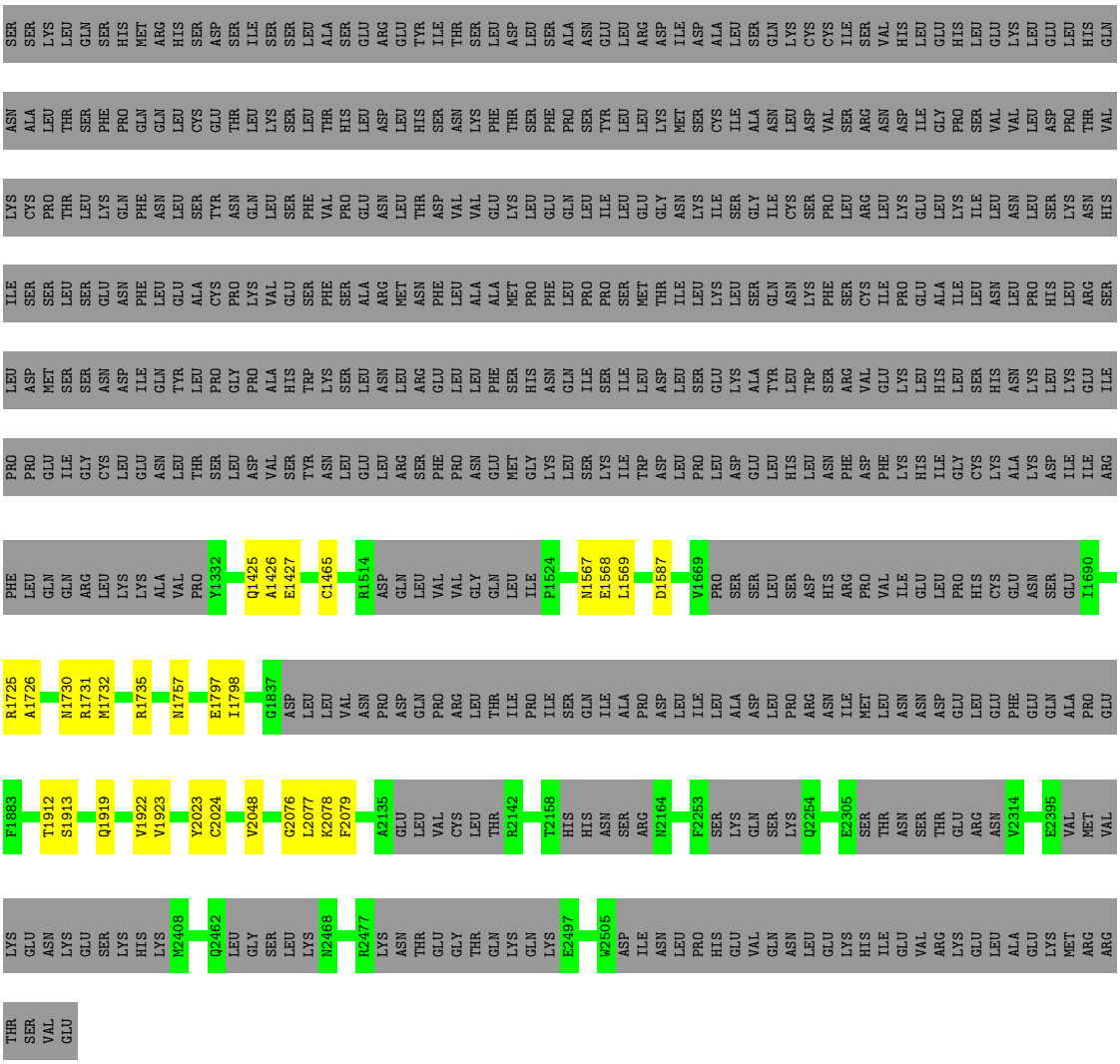


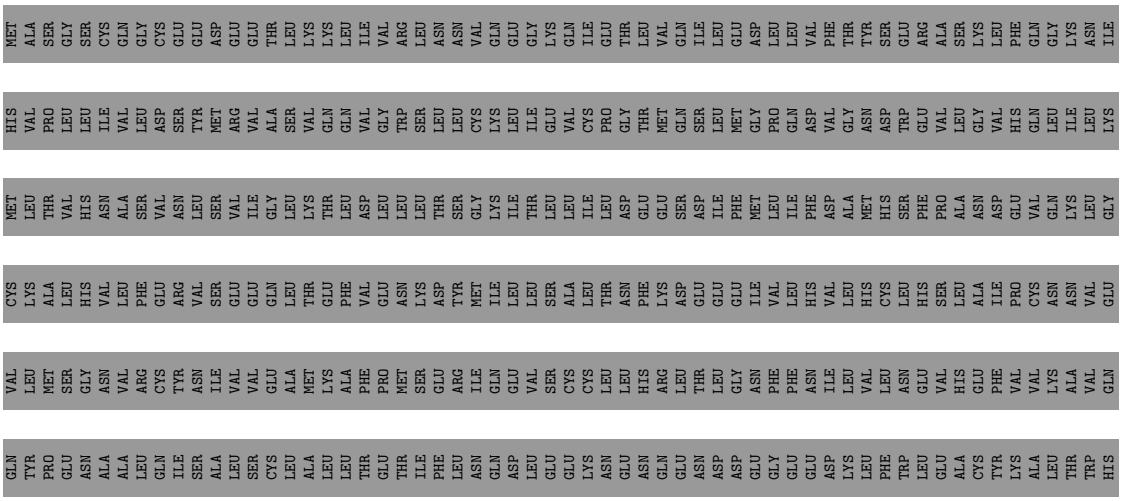
• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 8-A: 40% • 59%

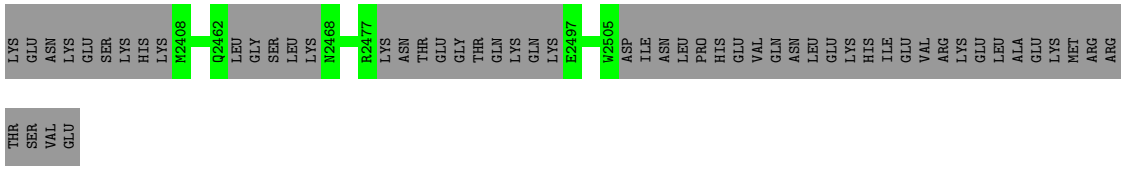


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 8-B: 40% • 59%

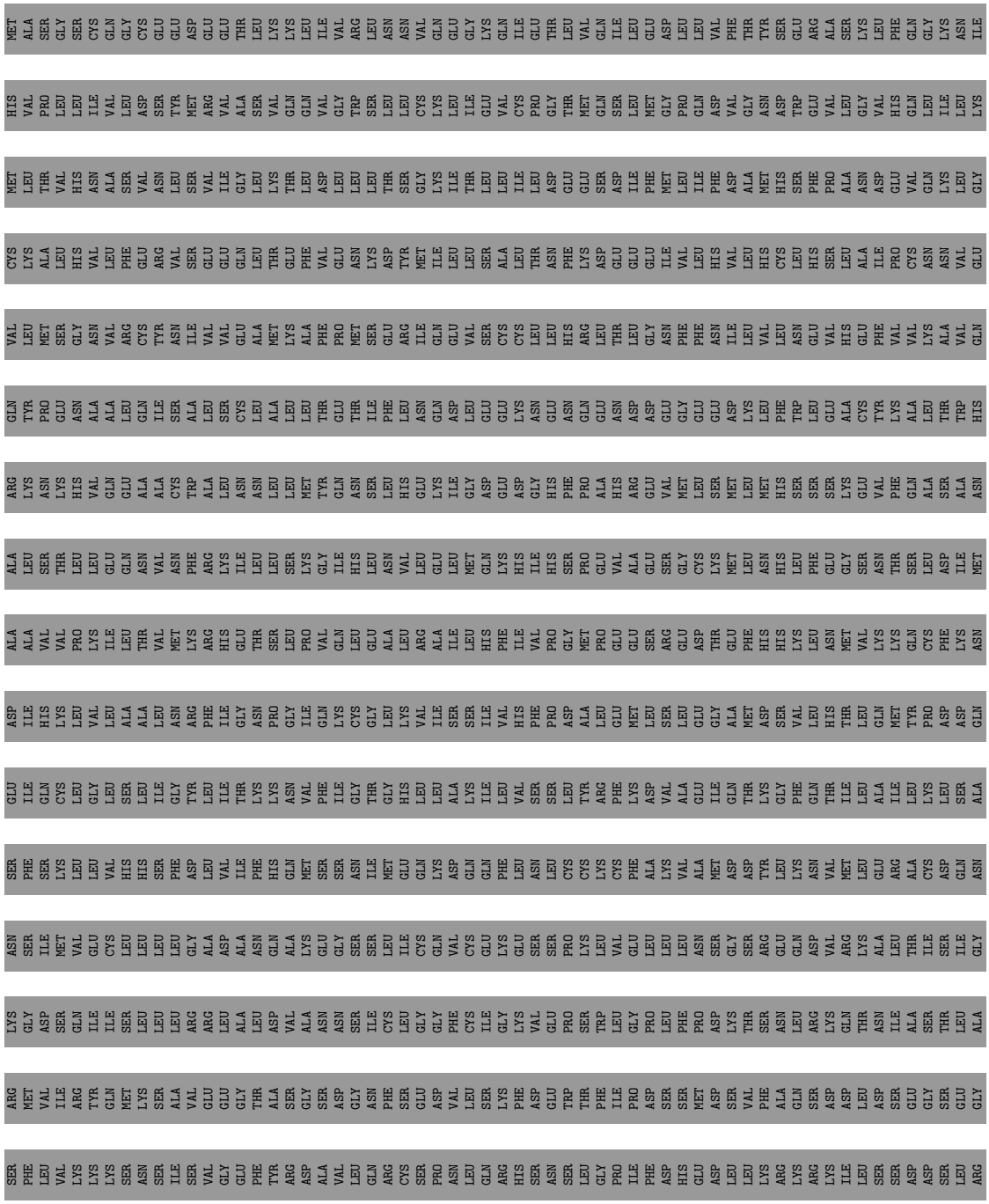


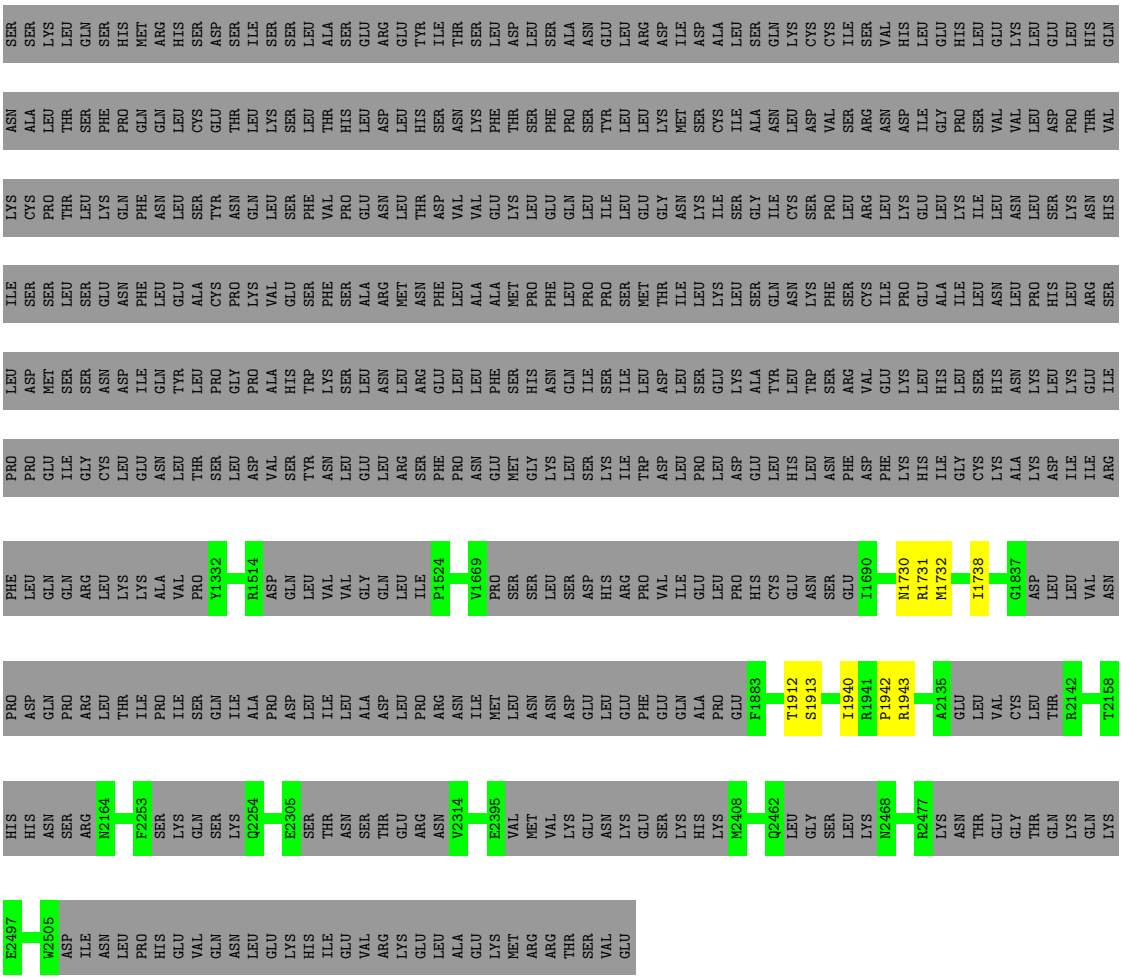
F1883	R1725	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG
	A1726	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS
T1912		GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN
S1913	N1730	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS
	R1731	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS
Q1919	M1732	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL
		LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN
V1922	R1735	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU
V1923		ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA
	N1757	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA
Y2023		PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS
C2024	E1797	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP
	I1798		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA
V2048		Q1425	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU
	G1837	A1426	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN
G2076	ASP	E1427	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN
L2077	LEU		TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU
K2078	LEU	C1465	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU
F2079	VAL		LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET
	ASN	R1514	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR
A2135	PRO	ASP	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN
GLU	ASP	GLN	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN
LEU	GLN	LEU	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER
VAL	PRO	VAL	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU
CYS	ARG	VAL	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS
LEU	LEU	GLY	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU
THR	THR	GLN	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS
R2142	ILE	LEU	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE
	PRO	ILE	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY
T2158	ILE	P1524	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP
HIS	SER		LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU
HIS	GLN	N1567	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP
ASN	ILE	E1568	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY
SER	ALA	L1569	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS
ARG	PRO		TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE
N2164	ASP	D1587	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO
	LEU		LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA
F2253	ILE	V1669	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS
SER	LEU	PRO	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG
LYS	ALA	SER	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU
GLN	ASP	SER	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL
SER	LEU	LEU	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET
LYS	PRO	SER	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU
Q2254	ARG	ASP	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER
	ASN	HIS	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET
E2305	ILE	ARG	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU
SER	MET	PRO	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET
THR	LEU	VAL	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS
ASN	ASN	ILE	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER
SER	ASN	GLU	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER
THR	ASP	LEU	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER
GLU	GLU	PRO	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS
ARG	LEU	HIS	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU
ASN	GLU	CYS	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL
V2314	PHE	GLU	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE
	GLU	ASN	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN
E2395	GLN	SER	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA
VAL	ALA	GLU	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER
MET	PRO	I1690	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA
VAL	GLU		ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 9-A: 41% 59%





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 9-B:

VAL	PRO	SER	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA
LYS	GLU	GLU	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU
GLU	F1883	I1690	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER
ASN			GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR
LYS	K1910	R1728	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU
GLU		P1729	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU
SER	S1913		LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU
LYS		Y1733	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN
HIS	G1939	W1734	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN
LYS	I1940		VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL
M2408	R1941	S1752	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN
	P1942		Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE
Q2462		I1798		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG
LEU	V2043		G1478	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS
GLY	A2044	E1820		VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE
SER			R1514	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU
LEU	N2047	G1837	ASP	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU
LYS		ASP	GLN	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER
N2468	N2081	LEU	LEU	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS
	E2082	LEU	VAL	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY
R2477		VAL	VAL	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE
LYS	A2135	ASN	GLY	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS
ASN	GLU	PRO	GLN	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU
THR	LEU	ASP	LEU	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN
GLU	VAL	GLN	ILE	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL
GLY	CYS	PRO	P1524	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU
THR	LEU	ARG		GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU
GLN	THR	LEU	K1551	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU
LYS	R2142	THR		GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET
GLN		ILE	Q1591	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN
LYS	T2158	PRO	L1592	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS
E2497	HIS	ILE	S1593	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS
	HIS	SER		LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE
W2505	ASN	GLN	Q1648	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS
ASP	SER	ILE		TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER
ILE	ARG	ALA	F1656	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO
ASN	N2164	PRO		LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU
LEU		ASP	G1663	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL
PRO	F2253	LEU		LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA
HIS	SER	ILE	Y1666	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU
GLU	LYS	LEU		GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER
VAL	GLN	ALA	V1669	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY
GLN	SER	ASP	PRO	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS
ASN	LYS	LEU	SER	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS
LEU	Q2254	PRO	SER	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET
GLU		ARG	LEU	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU
LYS	E2305	ASN	SER	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN
HIS	SER	ILE	ASP	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS
ILE	THR	MET	HIS	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU
GLU	ASN	LEU	ARG	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE
VAL	SER	ASN	PRO	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU
ARG	THR	ASN	VAL	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY
LYS	GLU	ASP	ILE	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER
GLU	ARG	GLU	GLU	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN
LEU	ASN	LEU	LEU	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR
ALA	V2314	GLU	PRO	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER
GLU		PHE	HIS	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU
LYS	E2395	GLU	CYS	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP
MET	VAL	GLN	GLU	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE
ARG	MET	ALA	ASN	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET

ARG THR SER VAL GLU

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 10-A: 40% • 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

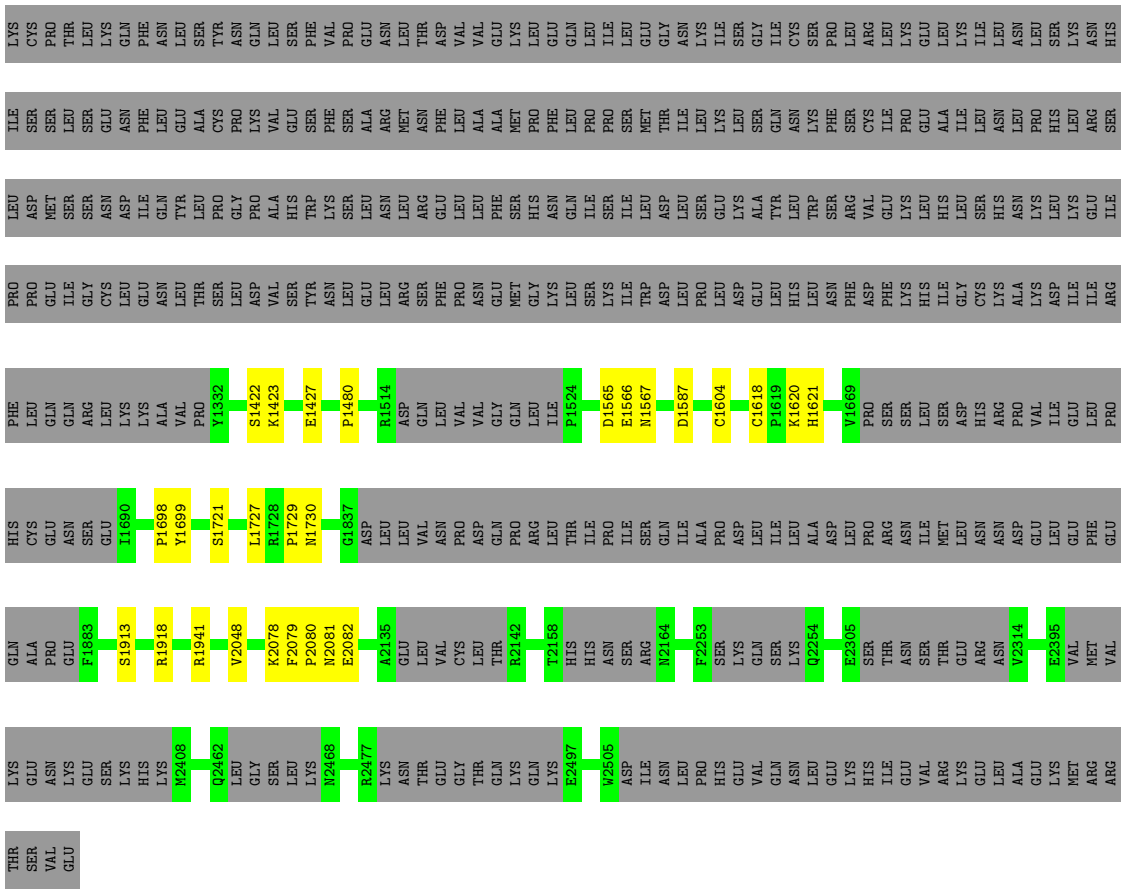
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

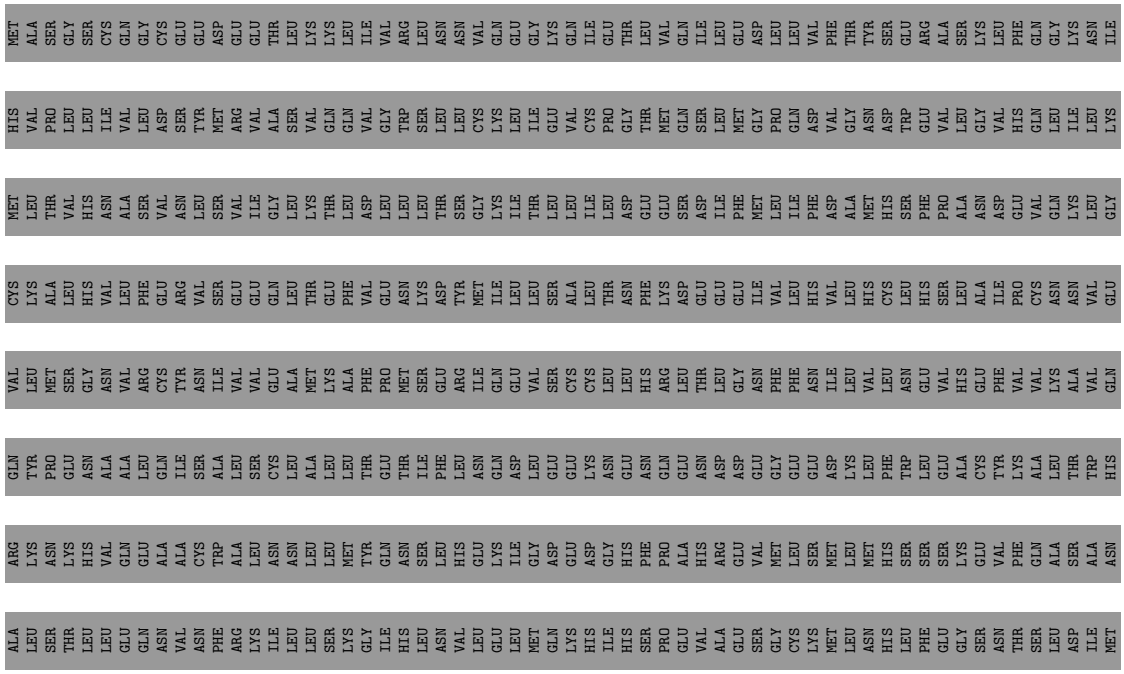
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 10-B: 40% • 59%



THR	LYS	GLN	GLU	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA
SER	GLU	ALA	I1690	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA
VAL	ASN	PRO		GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL
GLU	LYS	GLU	P1698	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL
	GLU	F1883	Y1699	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO
	SER			LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS
	LYS	S1913	S1721	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE
	HIS			LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU
	LYS	R1918	L1727	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR
	M2408		R1728	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL
		R1941	P1729	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET
	Q2462		N1730	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS
	LEU	V2048			LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG
	GLY		G1804	S1422	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS
	SER	K2078		K1423	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU
	LEU	F2079	L1807		SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR
	LYS	P2080	L1808	E1427	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER
	N2468	N2081			ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU
		E2082	G1837	P1480	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO
	R2477		ASP		GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL
	LYS	A2135	LEU	R1514	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN
	ASN	GLU	LEU	ASP	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU
	THR	LEU	VAL	GLN	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU
	GLU	VAL	ASN	LEU	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA
	GLY	CYS	PRO	VAL	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU
	THR	LEU	ASP	VAL	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG
	GLN	THR	GLN	GLY	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA
	LYS	R2142	PRO	GLN	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE
	GLN		ARG	LEU	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU
	LYS	T2158	LEU	ILE	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS
	E2497	HIS	THR	P1524	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE
		HIS	ILE		SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE
	W2505	ASN	PRO	D1565	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL
	ASP	SER	ILE	E1566	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO
	ILE	ARG	SER	N1567	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY
	ASN	N2164	GLN		ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET
	LEU		ILE	D1587	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO
	PRO	F2253	ALA		PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU
	HIS	SER	PRO	C1604	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU
	GLU	LYS	ASP		ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER
	VAL	GLN	LEU	V1669	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG
	GLN	SER	ILE	PRO	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU
	ASN	LYS	LEU	SER	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP
	LEU	Q2254	ALA	SER	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR
	GLU		ASP	LEU	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU
	LYS	E2305	LEU	SER	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE
	HIS	SER	PRO	ASP	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS
	ILE	THR	ARG	HIS	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS
	GLU	ASN	ASN	ARG	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS
	VAL	SER	ILE	PRO	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU
	ARG	THR	MET	VAL	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN
	LYS	GLU	LEU	ILE	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET
	GLU	ARG	ASN	GLU	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL
	LEU	ASN	ASN	LEU	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS
	ALA	V2314	ASP	PRO	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS
	GLU		GLU	HIS	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN
	LYS	E2395	LEU	CYS	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS
	MET	VAL	GLU	GLU	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE
	ARG	MET	PHE	ASN	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS
	ARG	VAL	GLU	SER	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 11-A: 41% 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN ILE LEU LEU

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN LEU HIS GLU GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU TRP GLU LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL LEU ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS LYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU GLN ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS GLN THR ILE LEU ILE SER GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU LYS ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

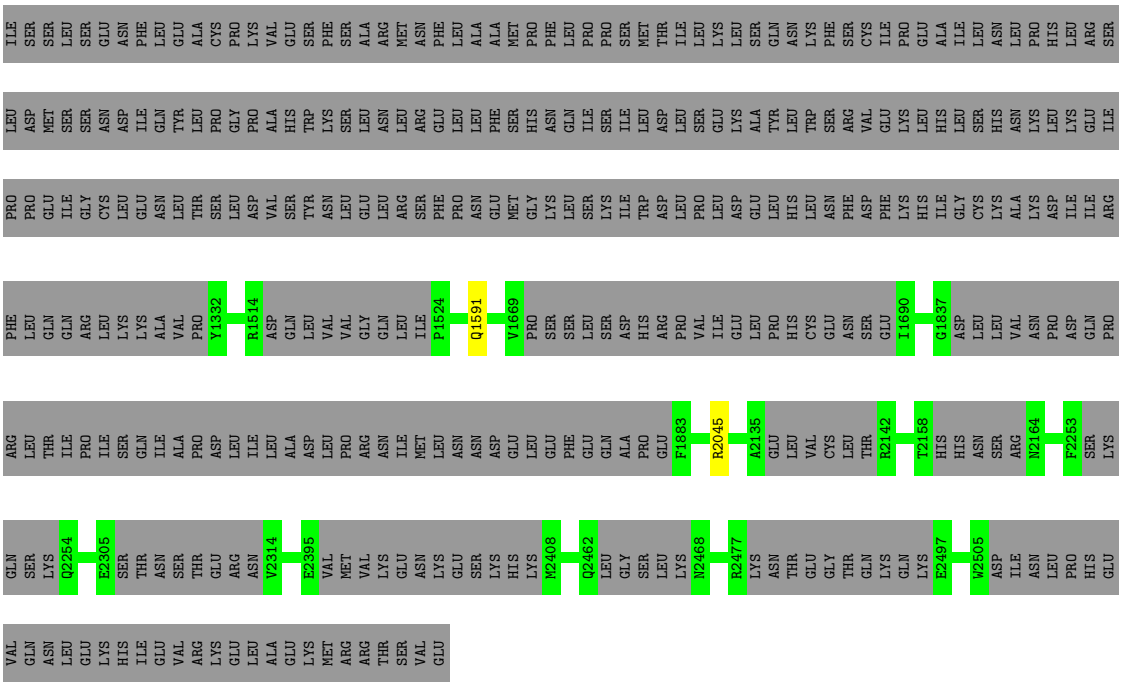
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP LEU LEU SER SER MET ASP SER VAL PHE ARG GLU GLN ASP VAL ARG LYS ASP ASP LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN LEU GLY PHE ASP LEU LEU LYS ARG LYS ILE LEU SER ASP SER LEU ARG

SER SER LYS LEU GLN HIS MET ARG HIS SER ILE SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA GLN LYS CYS CYS ILE SER VAL HIS LEU GLU GLU HIS LEU LYS ASP ILE GLY

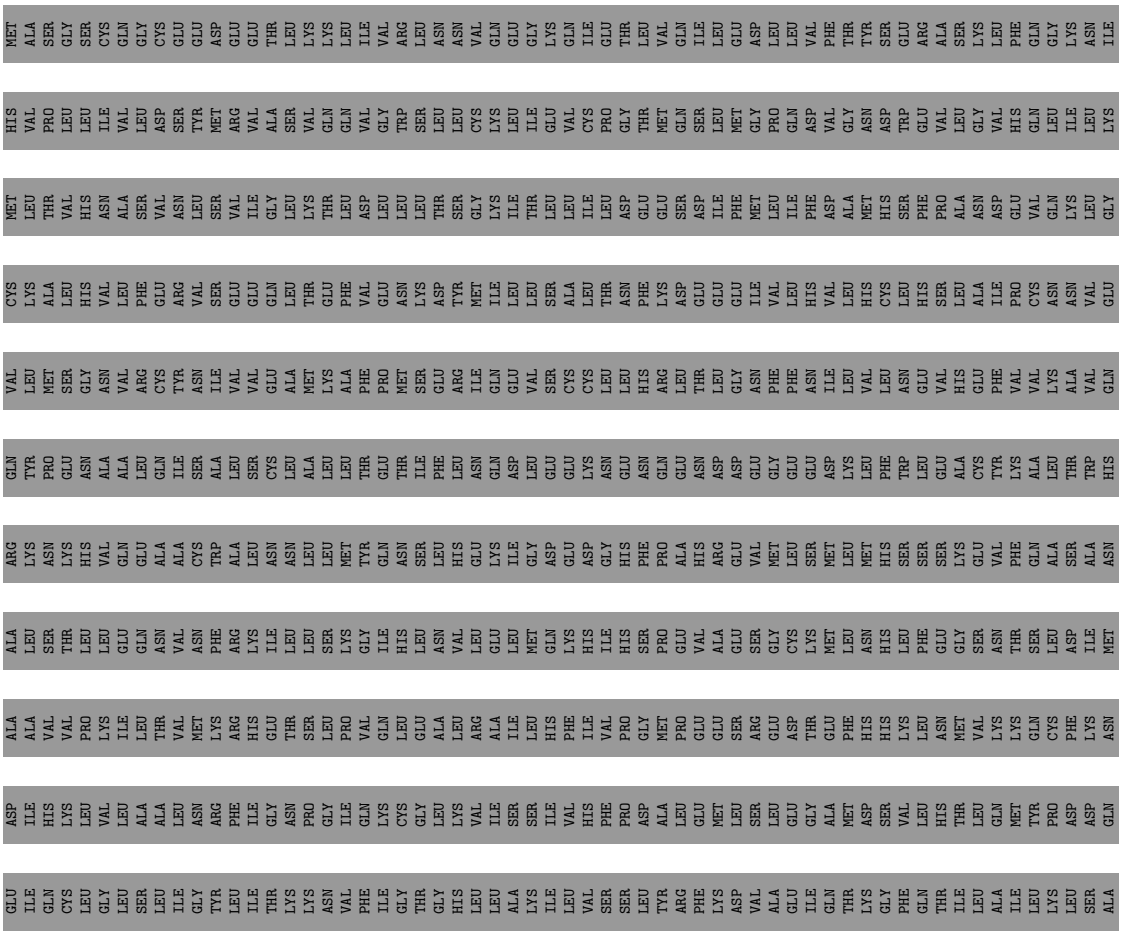
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR ASP LEU SER ALA ILE LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ASP PRO VAL PHE LEU LEU ILE LEU ASN ASP ILE GLY PRO SER VAL

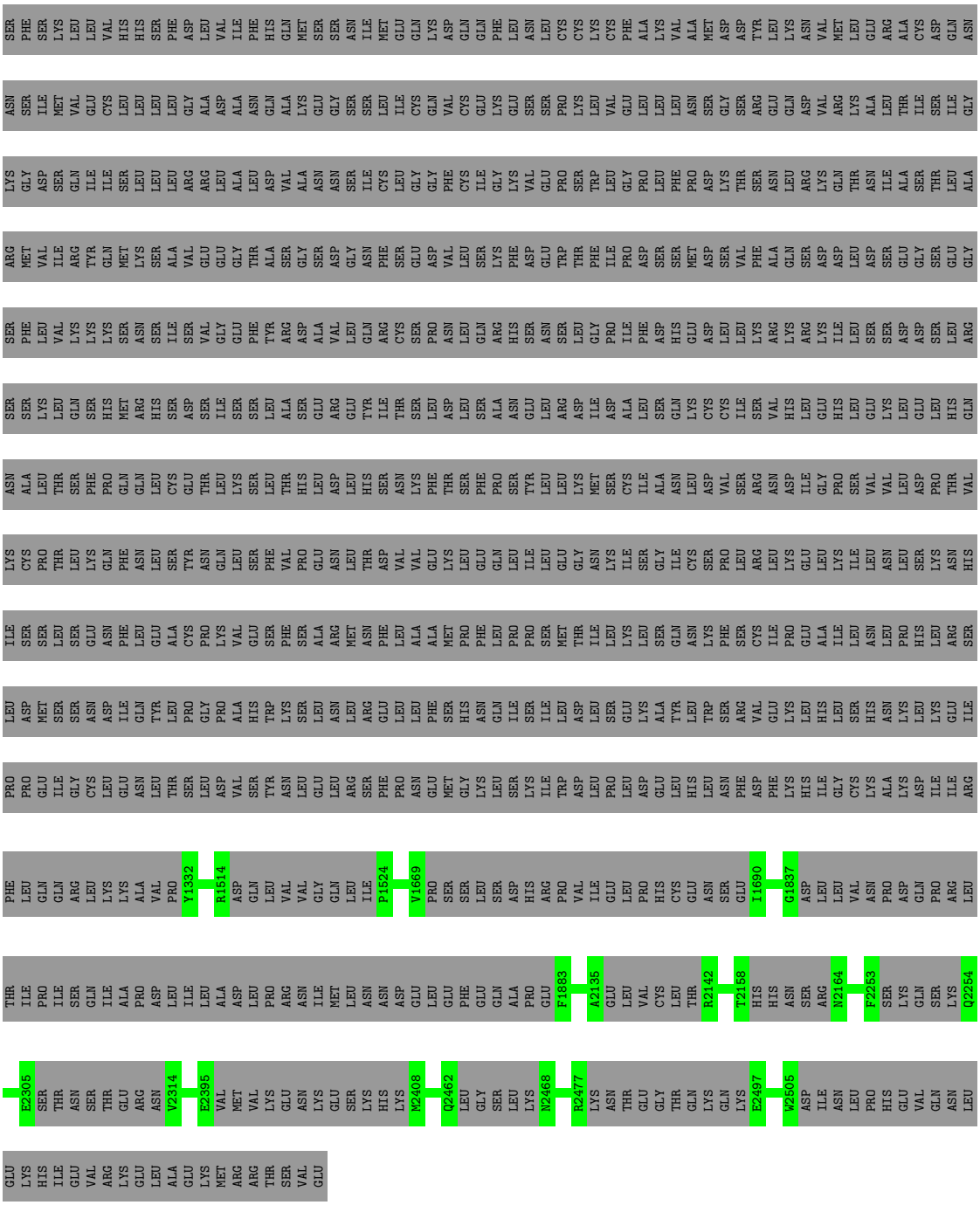
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

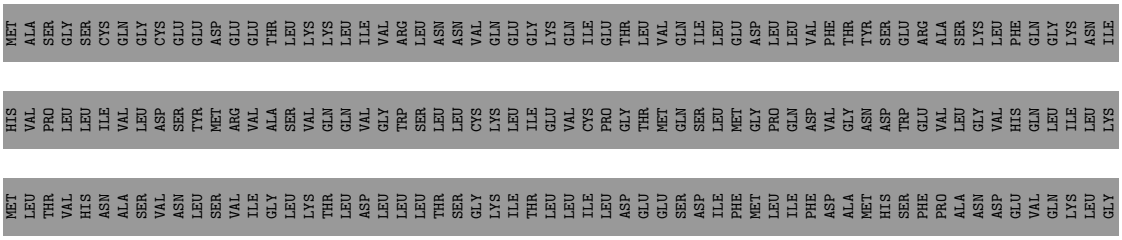
Chain 11-B: 41% 59%



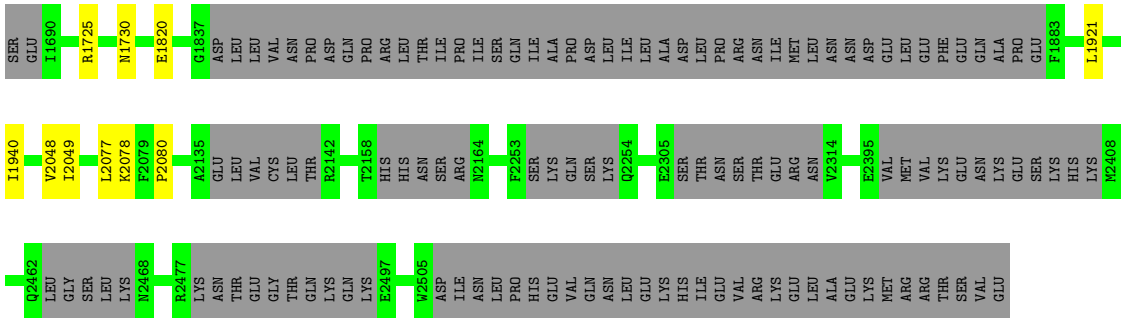


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 12-A: 40% • 59%

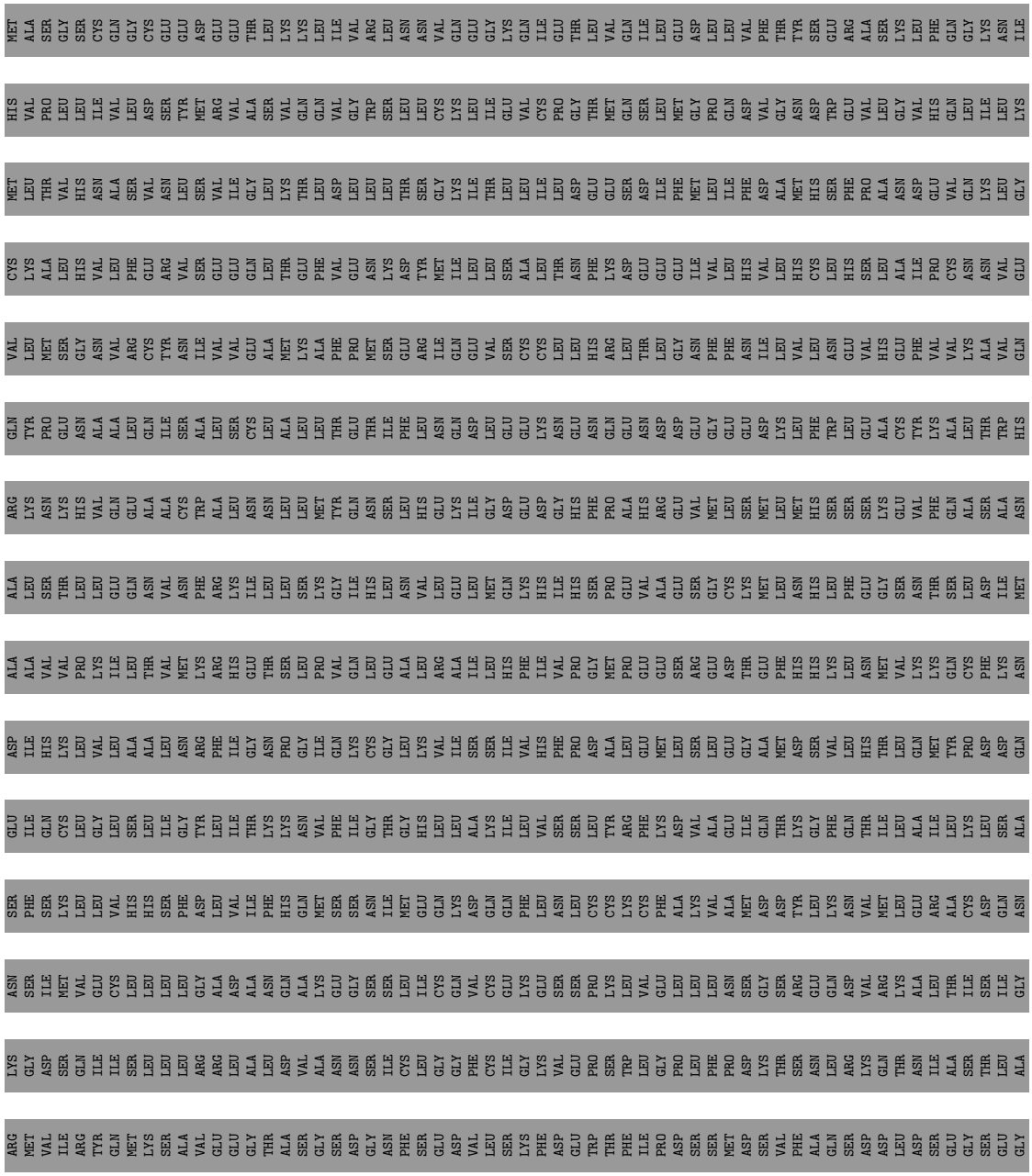


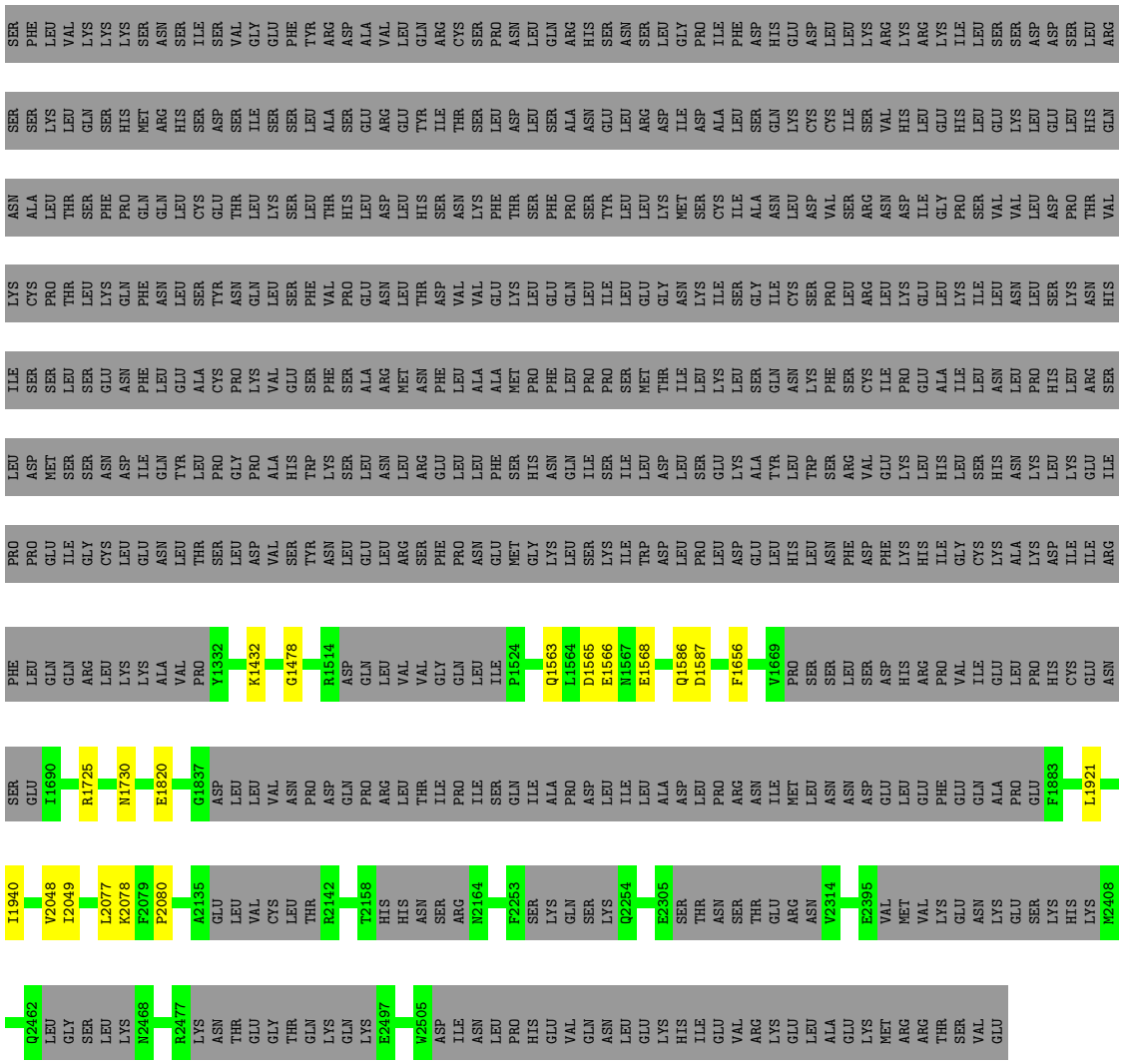
PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG	GLN	VAL	CYS
LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR	LEU	LYS
GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO	MET	ALA
GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU	SER	LEU
ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN	GLY	HIS
LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA	ASN	VAL
LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA	VAL	LEU
LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU	ARG	PHE
ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN	CYS	GLU
VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE	TYR	ARG
PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER	ASN	VAL
Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA	ILE	SER
	LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU	VAL	GLU
K1432	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER	VAL	GLU
	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS	GLU	GLN
G1478	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU	ALA	LEU
	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA	MET	THR
R1514	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU	LYS	GLU
ASP	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU	ALA	PHE
GLN	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR	PHE	VAL
LEU	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU	PRO	GLU
VAL	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR	MET	ASN
VAL	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE	SER	LYS
GLY	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE	GLU	ASP
GLN	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU	ARG	TYR
LEU	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN	ILE	MET
ILE	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN	GLN	ILE
P1524	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP	GLU	LEU
	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU	VAL	LEU
Q1563	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU	SER	SER
L1564	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU	CYS	ALA
D1565	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS	CYS	LEU
E1566	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN	LEU	THR
N1567	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU	LEU	ASN
E1568	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN	HIS	PHE
	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN	ARG	LYS
Q1586	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU	LEU	ASP
D1587	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN	THR	GLU
	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP	LEU	GLU
F1656	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP	GLY	GLU
	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU	ASN	ILE
V1669	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY	PHE	VAL
PRO	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU	PHE	LEU
SER	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU	ASN	HIS
SER	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP	ILE	VAL
LEU	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS	LEU	LEU
SER	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU	VAL	HIS
ASP	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE	LEU	CYS
HIS	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP	ASN	LEU
ARG	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU	GLU	HIS
PRO	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU	VAL	SER
VAL	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA	HIS	LEU
ILE	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS	GLU	ALA
GLU	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR	PHE	ILE
LEU	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS	VAL	PRO
PRO	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA	VAL	CYS
HIS	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU	LYS	ASN
CYS	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR	ALA	ASN
GLU	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP	VAL	VAL
ASN	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN	HIS	GLN	GLU



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

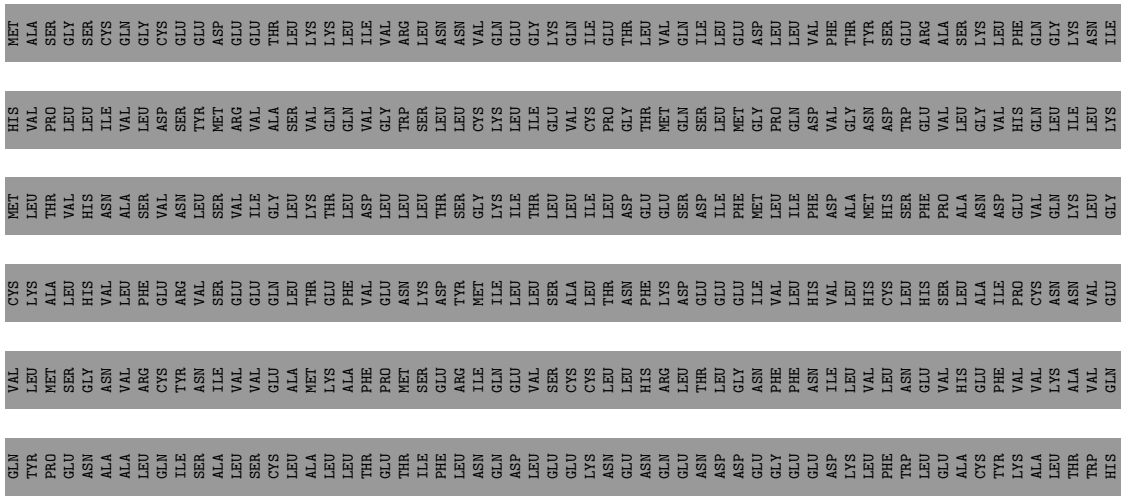
Chain 12-B:





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 13-A:



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PHE	CYS	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS
GLU	GLU	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN
GLN	ASN	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS
ALA	SER	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS
PRO	GLU	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL
GLU	I1690	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN
F1883		LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU
	P1717	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA
R1915		VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA
	R1723	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS
L1921		Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP
	L1727		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA
A2044	R1728	T1343	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU
	P1729	G1344	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN
L2077	N1730		SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN
K2078	R1731	T1348	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU
F2079	M1732		ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU
P2080		A1367	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET
	I1765	T1368	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR
N2118			LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN
	G1837	I1371	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN
A2135	ASP		SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER
GLU	LEU	R1514	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU
LEU	LEU	ASP	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS
VAL	VAL	GLN	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU
CYS	ASN	LEU	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS
LEU	PRO	VAL	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE
THR	ASP	VAL	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY
R2142	GLN	GLY	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP
	PRO	GLN	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU
T2158	ARG	LEU	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP
HIS	LEU	ILE	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY
HIS	THR	P1524	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS
ASN	ILE		TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE
SER	PRO	D1565	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO
ARG	ILE	E1566	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA
N2164	SER	N1567	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS
	GLN	E1568	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG
F2253	ILE	L1569	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU
SER	ALA	P1570	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL
LYS	PRO		LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET
GLN	ASP	L1590	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU
SER	LEU	Q1591	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER
LYS	ILE		ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET
Q2254	LEU	V1669	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU
	ALA	PRO	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET
E2305	ASP	SER	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS
SER	LEU	SER	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER
THR	PRO	LEU	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER
ASN	ARG	SER	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER
SER	ASN	ASP	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS
THR	ILE	HIS	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU
GLU	MET	ARG	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL
ARG	LEU	PRO	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE
ASN	ASN	VAL	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN
V2314	ASN	ILE	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA
	ASP	GLU	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER
E2395	GLU	LEU	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA
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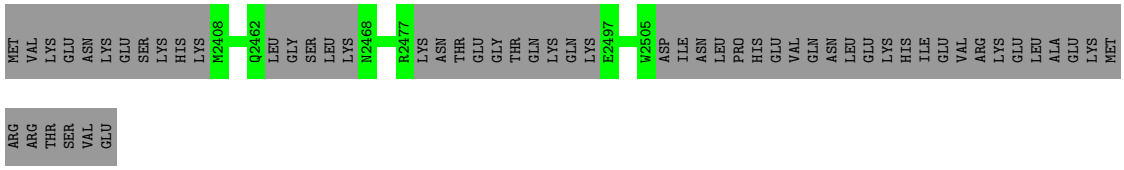
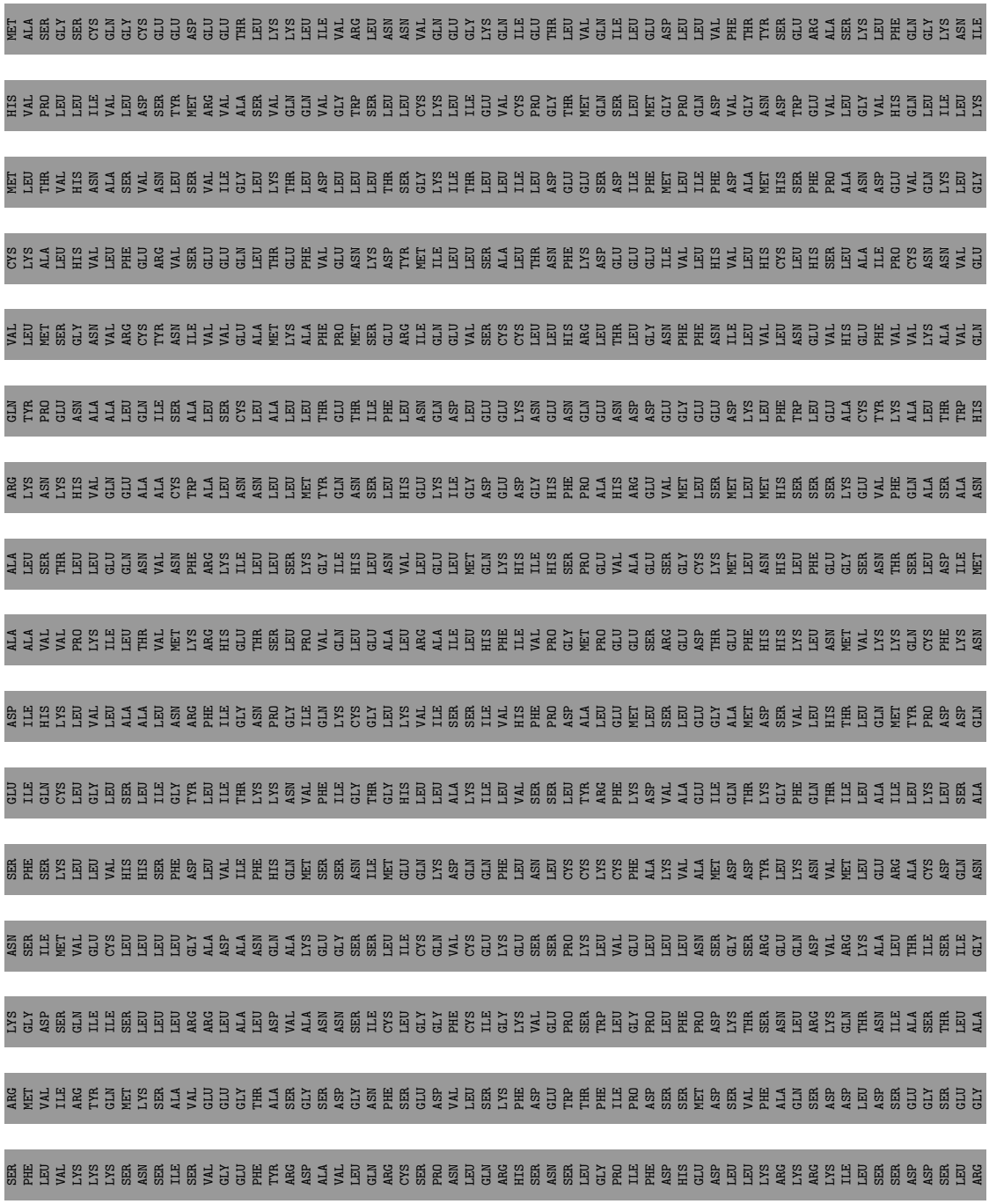
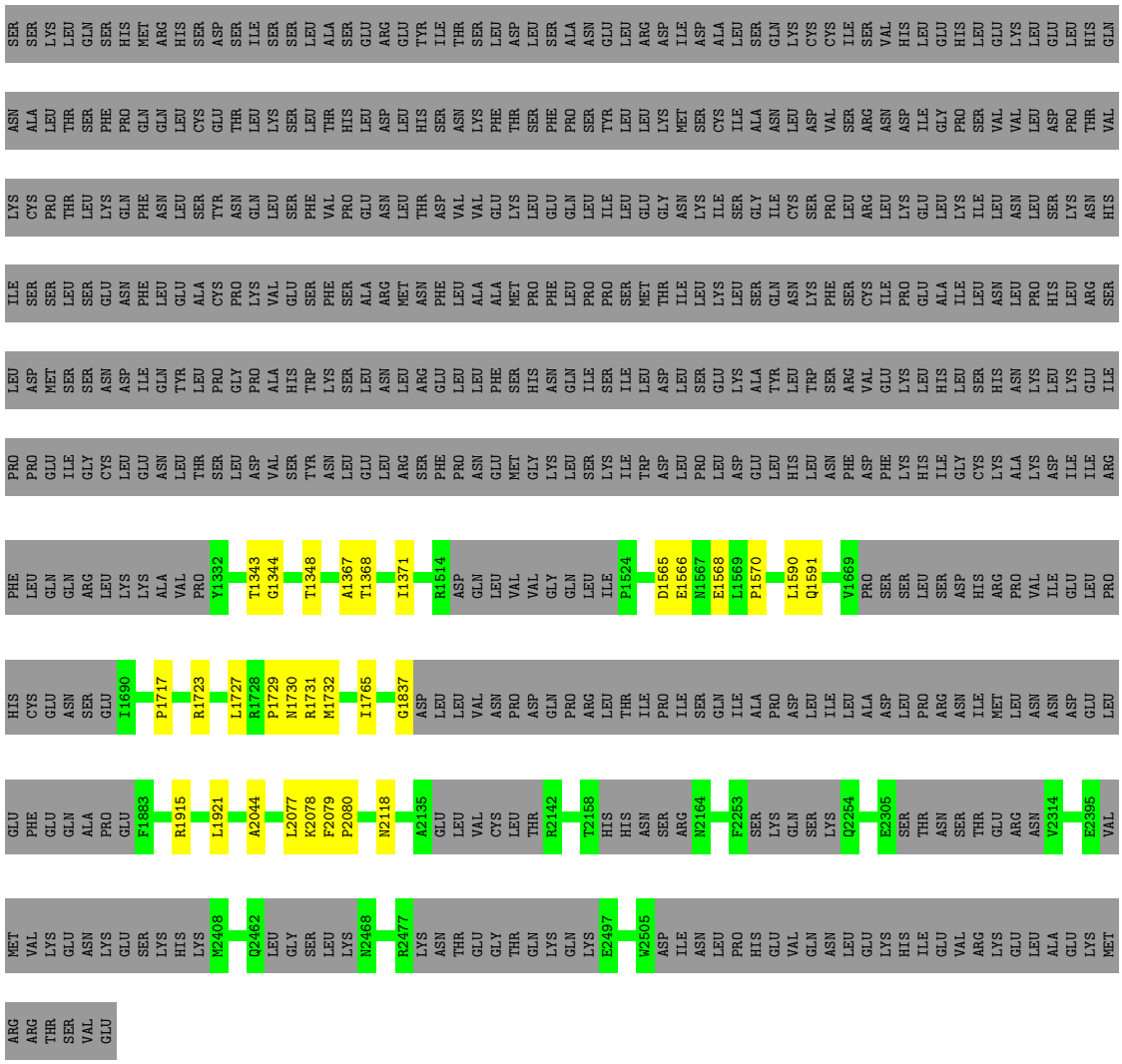


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

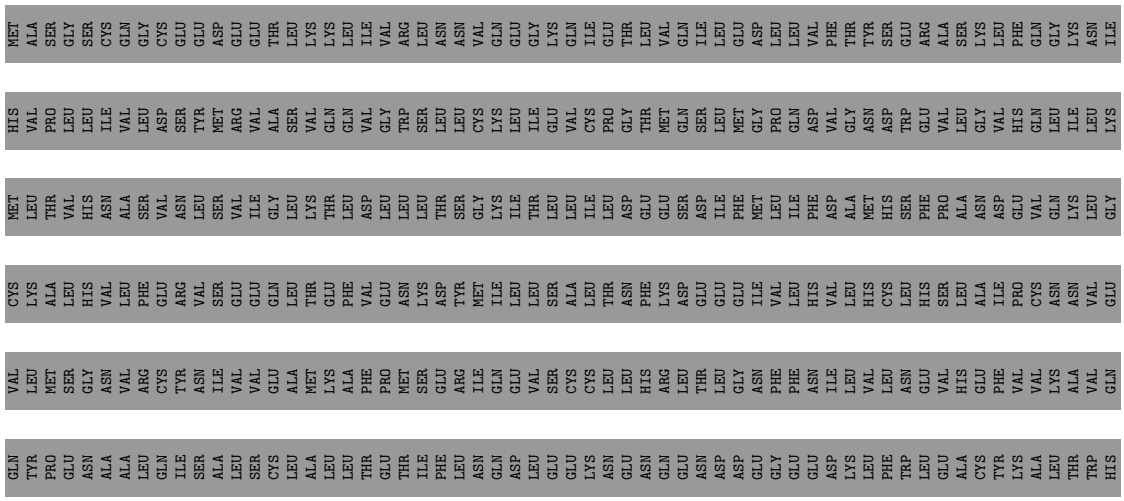
Chain 13-B: 40% • 59%





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 14-A: 39% • 59%



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ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS GLU LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER ASN ASP
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU LEU ARG GLU GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU LEU GLN THR ASP GLN
GLU ILE GLN CYS LEU GLY LEU LEU SER LEU ILE GLY TYR LEU ILE ILE THR LYS LYS ASN VAL PHE ILE GLY GLY THR HIS GLY HIS LEU LEU VAL SER SER LYS ILE LEU HIS VAL SER LYS ALA TYR ARG PHE LYS ASP ALA ALA ILE LEU LYS LEU ALA ALA LYS ILE LEU GLU ILE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS SER LYS VAL LEU ASN VAL MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN VAL MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU CYS LYS LYS ASP GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLU GLY SER SER ILE LEU ILE CYS GLN VAL CYS GLU LYS GLU SER LEU LEU LEU ASN GLY SER ARG GLU GLN ASP VAL ARG LYS THR ILE ILE GLY
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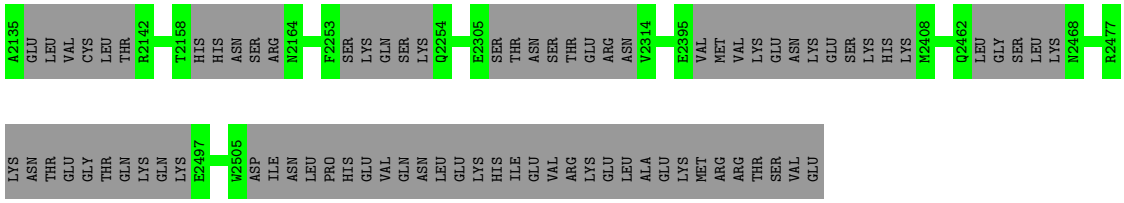
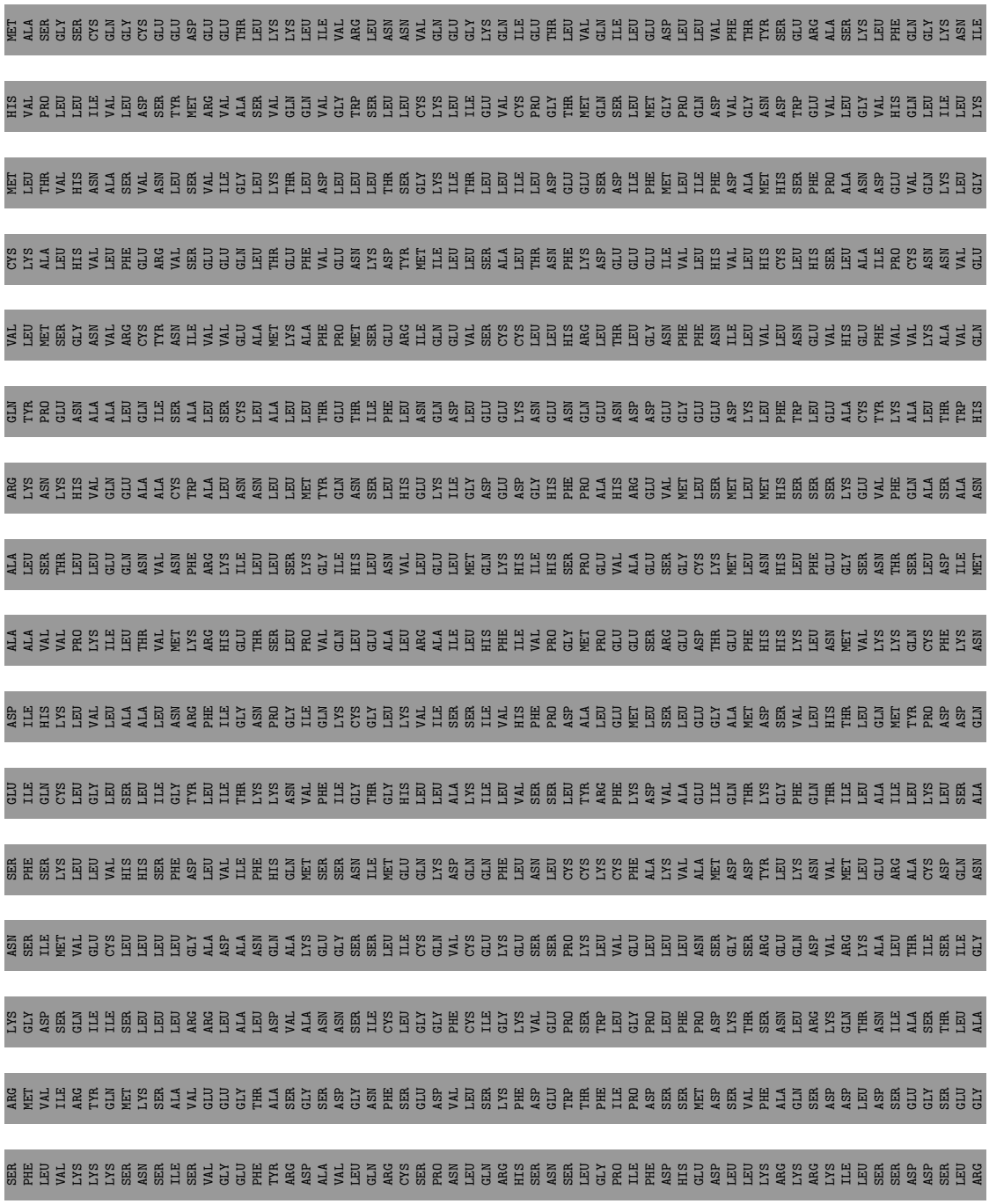
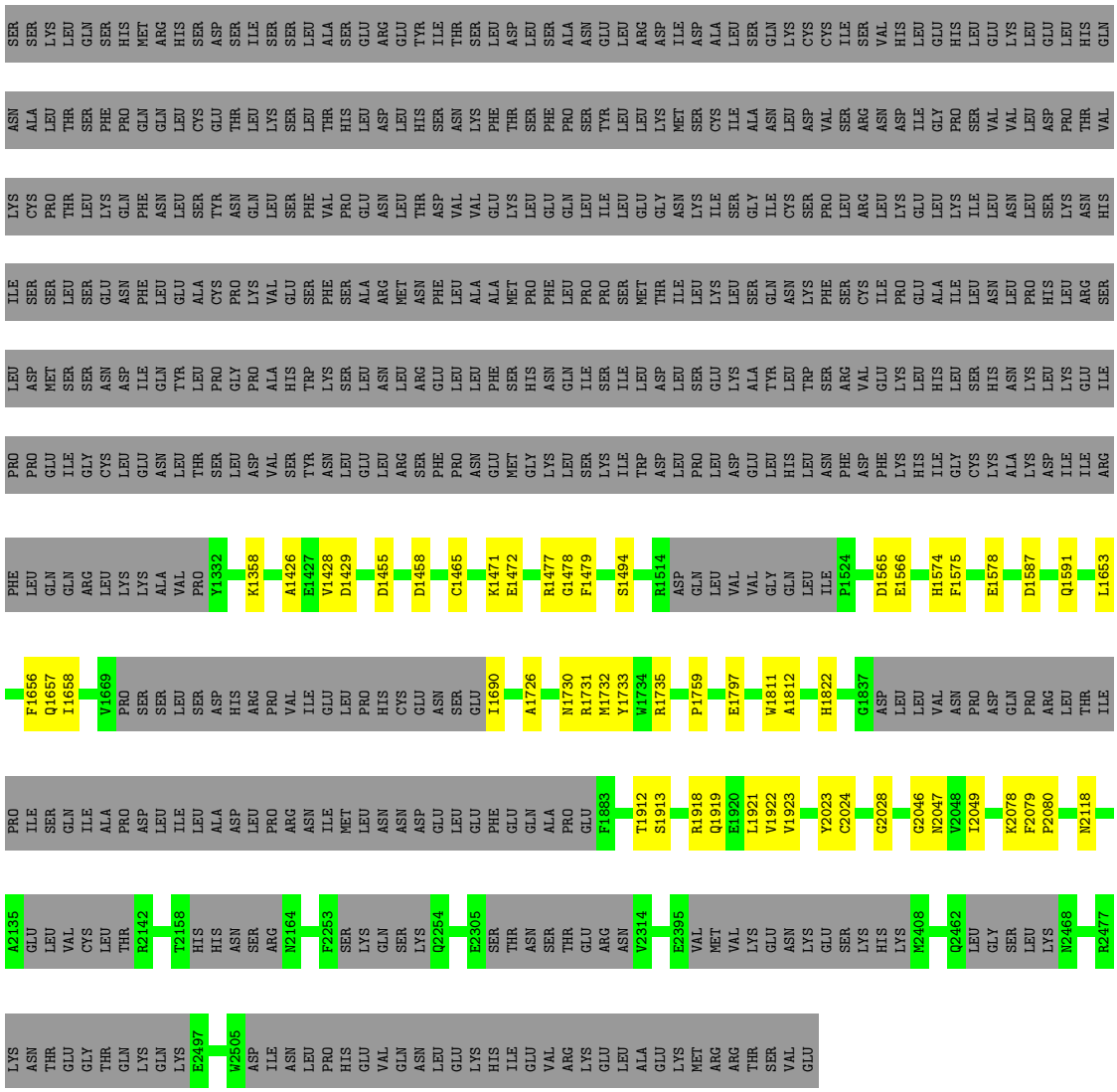
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER LEU LEU SER LYS ASP SER VAL PHE ALA GLN SER ASP SER GLU GLY GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN LEU LEU GLY PRO ILE PHE ASP HIS GLU GLU ASP LEU VAL VAL LYS LYS ARG LYS ILE LEU LEU SER ASP ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER LEU LEU ALA ASN GLN ARG CYS SER LEU ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE ILE SER VAL HIS LEU LEU GLU LEU LYS LYS ARG LYS LEU LEU LYS HIS HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS SER ASN LYS PHE THR SER PHE PRO SER GLU ALA ASN GLU ASP LEU ASN LYS VAL PHE ARG ASN GLU LEU LEU LEU LYS ILE ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG LEU ASP ILE CYS SER PRO LEU ARG LEU LYS ILE LEU ILE ASP PRO THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU LEU CYS GLU THR LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN GLU LYS LYS GLU GLU GLN GLN LEU ILE LEU LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LEU ASN LEU ASN LEU SER LYS HIS
ILE SER SER LEU SER GLU ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO PRO LYS VAL GLU SER PHE VAL ALA ARG MET ASN PHE LEU ALA ALA MET PRO GLY LYS LEU LYS ILE ILE CYS PHE SER GLN ASN LYS PHE SER CYS ILE LEU SER GLN LYS CYS CYS ILE SER ARG ASN ILE PRO GLU ILE ALA LEU LYS LEU LEU ASN LEU ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU LEU ASN LEU ARG GLU LEU LEU ARG GLU GLY PRO LYS ILE LEU ASP LEU SER GLU GLU GLY ASN LYS ILE LEU LYS LEU SER GLY ILE CYS SER PRO LEU ARG LEU GLU LYS LYS LEU ASN LEU LEU SER LYS LYS ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU SER VAL SER TYR ASN LEU GLU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU LEU GLN LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS LEU LYS LYS ALA LYS ASP ILE ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 K1358 A1426 E1427 V1428 D1429 D1455 D1458 C1465 K1471 E1472 R1477 G1478 F1479 S1494 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 H1574 F1575 E1578 D1587 Q1591 K1623
G1624 L1653 F1656 Q1657 I1658 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690 A1726 N1730 R1731 M1732 Y1733 W1734 R1735 P1759 E1797 H1822 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE
PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883 T1912 S1913 R1918 Q1919 E1920 L1921 V1922 V1923 Y2023 C2024 G2028 G2046 N2047 V2048 I2049 K2078 F2079 P2080 N2118



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

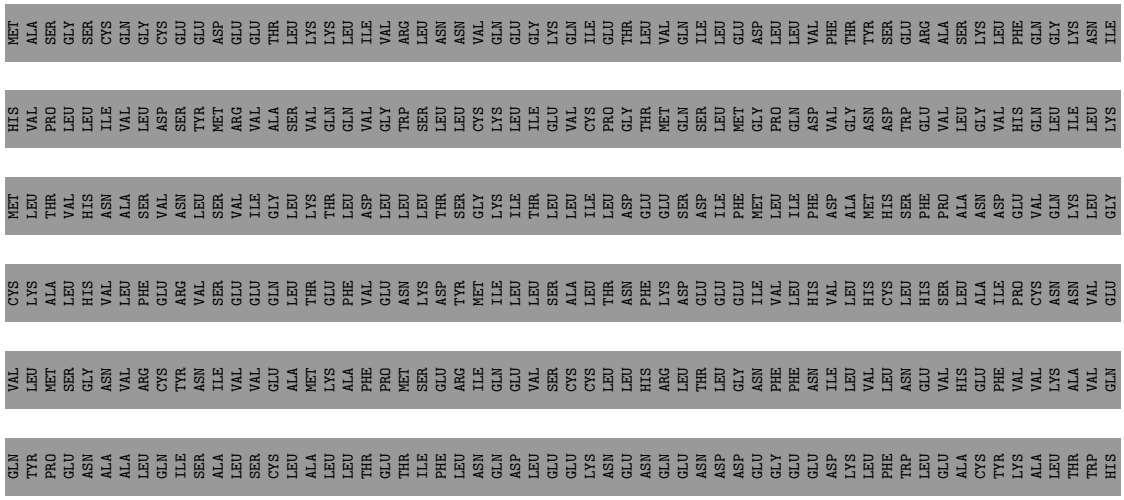
Chain 14-B:

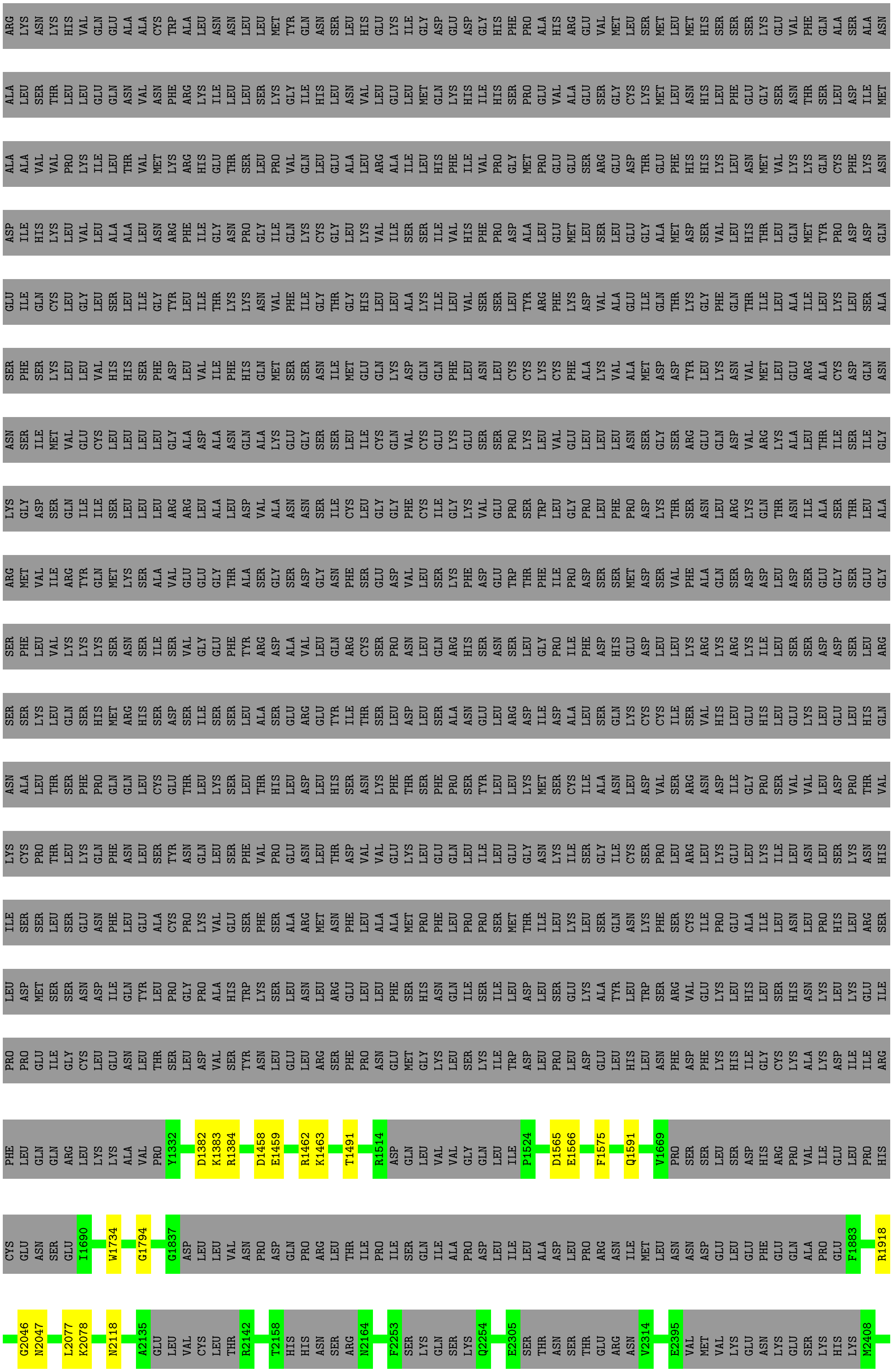




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 15-A: 40% 59%

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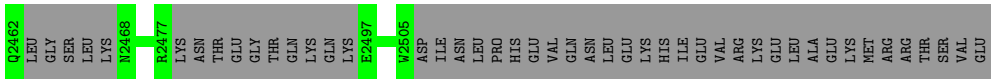
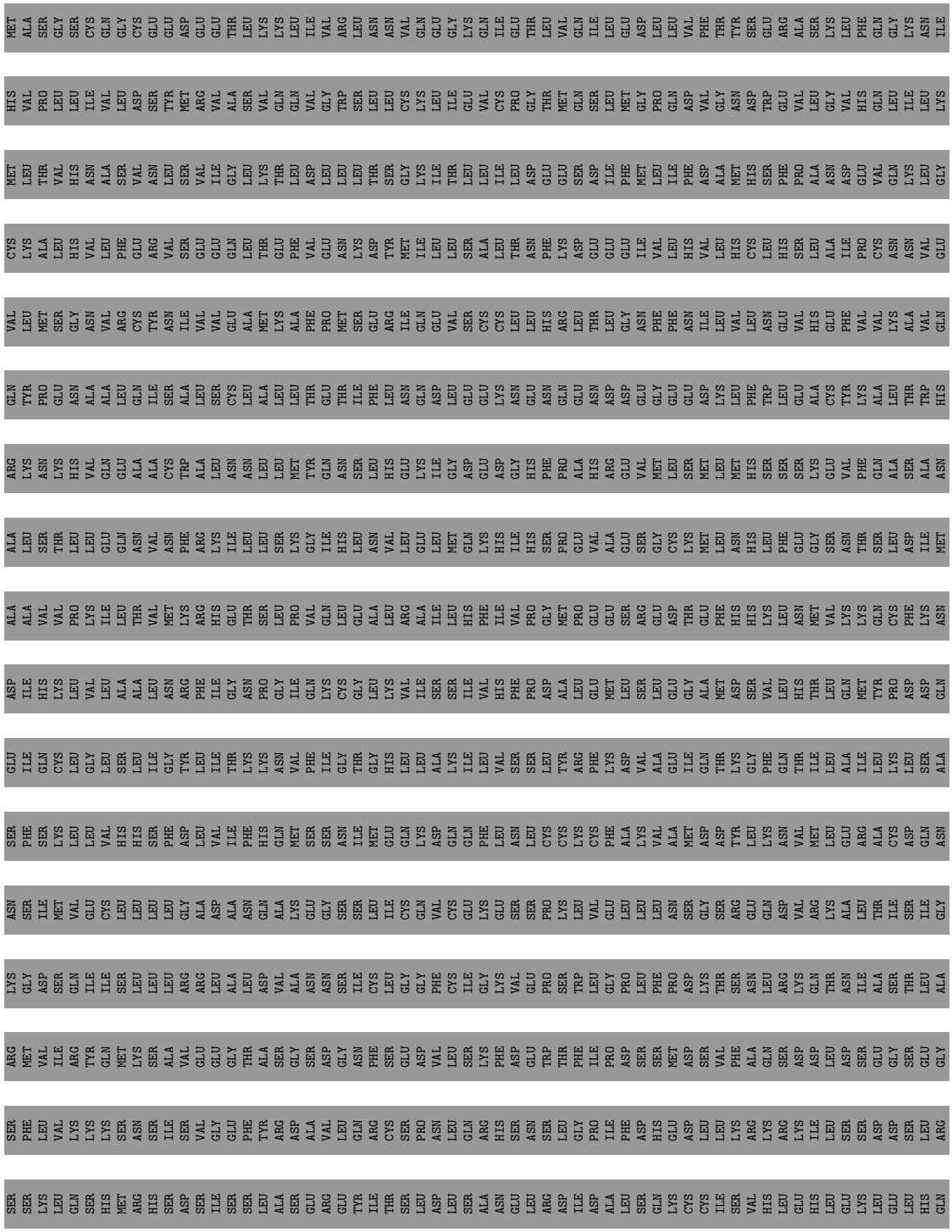
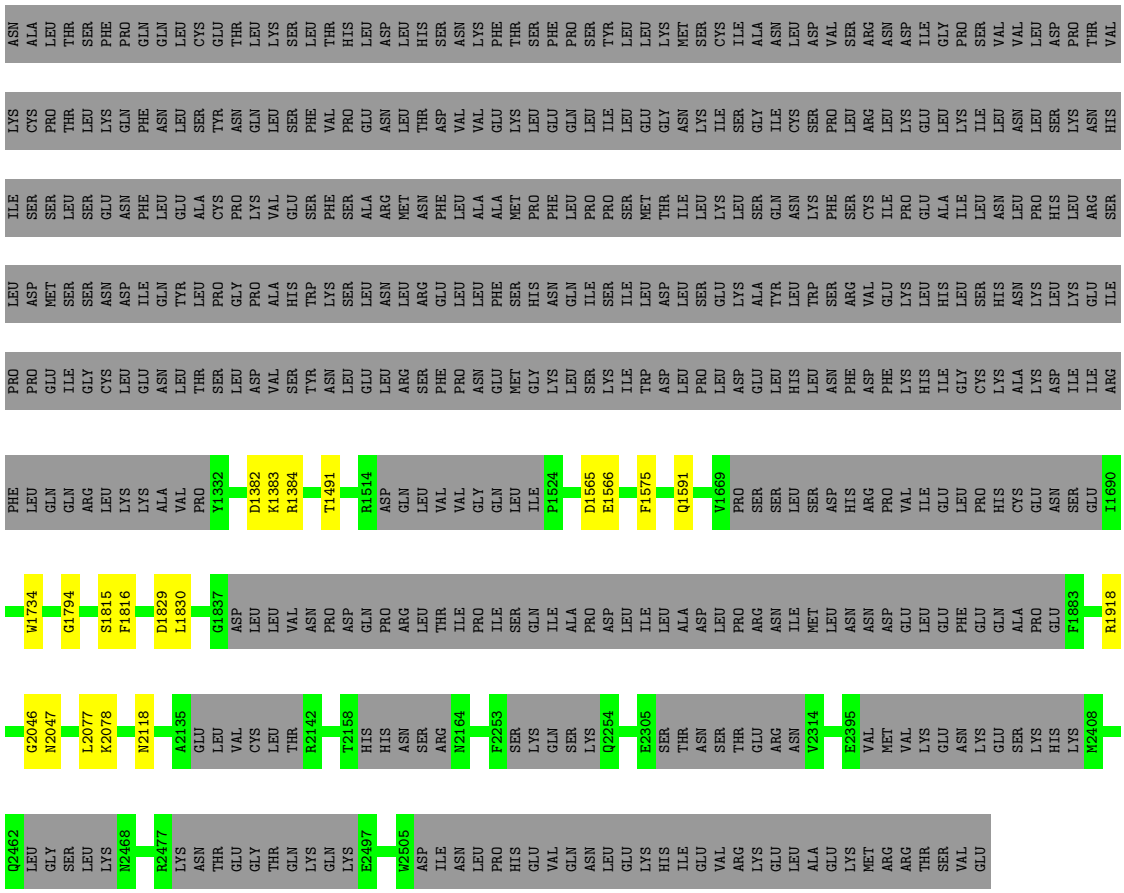
ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 D1382 K1383 R1384 D1458 E1459 R1462 K1463 T1491 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 F1575 Q1591 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS
CYS GLU ASN SER GLU I1690 W1734 G1794 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883 R1918
G2046 N2047 L2077 K2078 N2118 A2135 GLU LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS Q2254 E2305 SER THR ASN SER THR GLU ARG ASN V2314 E2395 VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

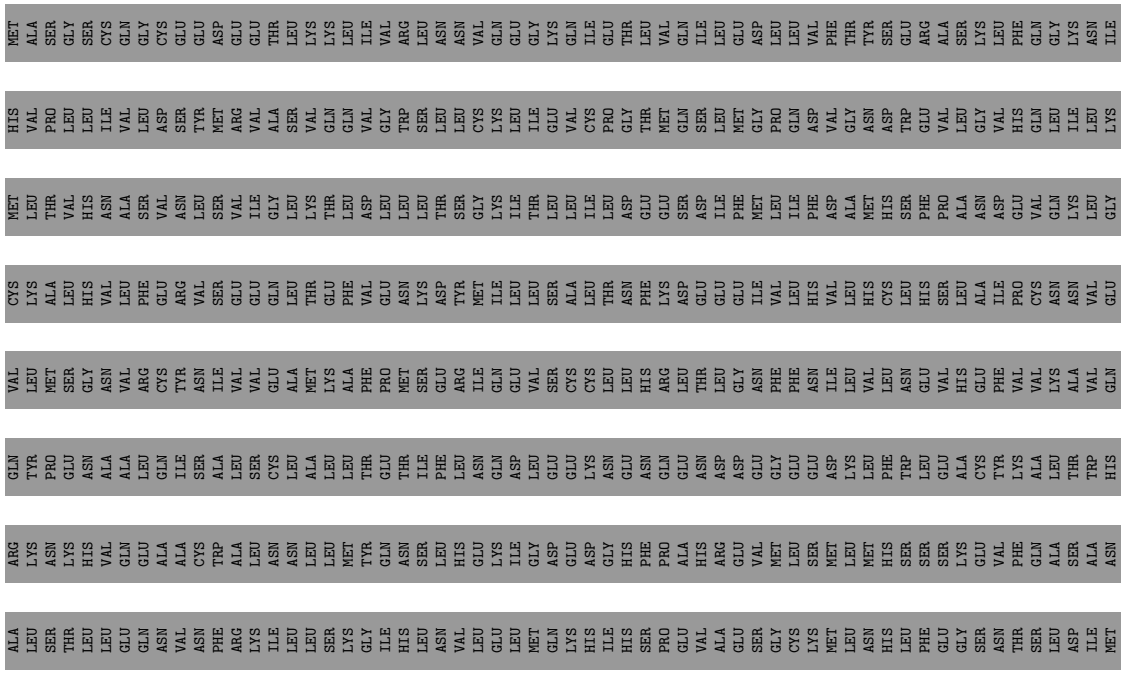
Chain 15-B:





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 16-A:



ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR THR SER LEU PRO VAL GLN LEU LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN PRO ASP GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR HIS GLU LEU LEU ALA ILE GLN THR LYS ILE LEU VAL SER SER ILE LEU ALA ILE LEU GLN THR ILE LEU ALA LYS ASP VAL ALA GLU ILE GLN ASP ASP ASP TYR LEU LYS ASN VAL MET ILE LEU LEU GLN ASN
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU LEU ALA ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS ASN GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU LEU LEU LEU ASN SER GLY SER GLU GLN ALA VAL LYS ALA ALA LYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU LEU GLY GLY PHE CYS ILE GLY LYS VAL LEU PRO SER TRP LEU GLY PRO LEU LEU PHE PRO ASP LYS THR SER ARG GLU GLN ASP VAL GLN THR THR ILE SER LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SERR LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER LEU VAL SER SER MET ASP SER VAL PHE ARG ALA GLN SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER LEU LEU LEU LYS ARG LYS LYS ILE LEU ASP ASP HIS GLU ASP ASP ASP LYS ILE LEU LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS HIS SER ASP SER ILE SER SER LEU ALA ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU LEU GLN HIS
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO VAL LYS LYS LEU LEU VAL LEU ASP VAL ASP ASP LYS THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LYS GLU GLN LEU LEU GLU GLU GLY ILE GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU LEU ARG LYS LYS LEU ASN LEU SER LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER LEU LYS LEU LEU LYS LEU SER SER GLN ASN LYS PHE SER CYS ARG VAL LEU ASN LEU ARG ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR GLU LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU LEU PHE SER HIS ASN GLN LEU LEU ILE SER ILE ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LYS LEU HIS HIS LYS ILE
PRO PRO GLU ILE GLY CYS LEU LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS HIS LEU ASN LEU ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 S1366 A1367 T1368 V1369 G1370 F1395 A1396 G1397 R1398 E1399 E1400 T1404 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 Y1527 E1531 D1565 E1566 N1567 E1568 L1569 P1570 H1571 A1572 F1575 L1576 N1577 E1578 S1579 G1580
L1590 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690 A1726 N1730 R1731 M1732 Y1733 W1734 R1735 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ILE ALA PRO ASP LEU LEU ILE ALA
ASP LEU PRO ARG ASN ILE MET LEU ASN ASP GLU PHE PRO GLU F1883 T1912 S1913 R1918 Q1919 E1920 L1921 V1922 V1923 Y2023 C2024 I2029 A2044 R2045 G2046 N2047 V2048 L2077 K2078 F2079 P2080 N2081 N2118 A2135 GLU LEU VAL CYS LEU THR R2142
T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS Q2254 E2305 SER THR ASN SER THR GLU ARG ASN V2314 E2395 VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408 Q2462 LEU GLY SER LEU LYS N2468 R2477 LYS ASN THR GLU GLY THR GLN LYS GLN
LYS E2497 W2505 ASP ILE ASN LEU PRO HIS GLU VAL GLN ASN LEU GLU LYS HIS ILE GLU VAL ARG LYS GLU LEU ALA GLU LYS MET ARG ARG THR SER VAL GLU

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 16-B: 39% • 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU THR SER GLY LYS ILE THR LEU LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU GLU ASP ASP GLU GLY GLU GLU ASP LYS LEU TWR THR HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU LEU ALA LYS ILE LEU VAL SER SER LEU LYS ARG PHE LYS ASP VAL ALA LYS GLY ILE ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS LYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG GLN MET SER ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS GLN THR ASP ALA LEU LYS

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ALA LYS THR ASN ILE ALA SER THR LEU ALA

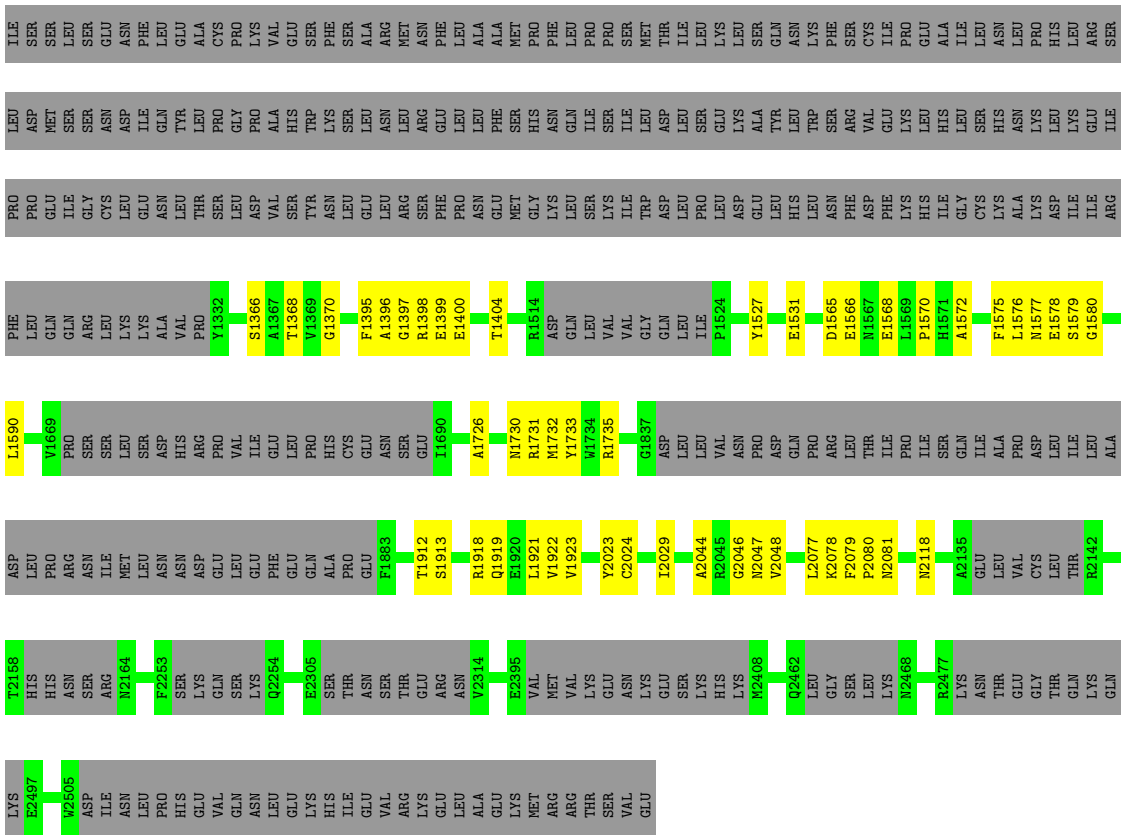
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE GLU GLU GLN ASP ASP SER SER SER MET ASP SER VAL PHE ARG GLU GLN ASP VAL ARG GLN THR ASP GLU GLU GLY

SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLU GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN LEU GLY PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER ASP ASP LEU ASP SER GLU ASP SER LEU ARG

SER SER LYS LEU GLN HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA GLN LYS CYS CYS ILE SER VAL HIS LEU GLU GLU HIS LEU LYS SER SER ASP SER GLU LYS

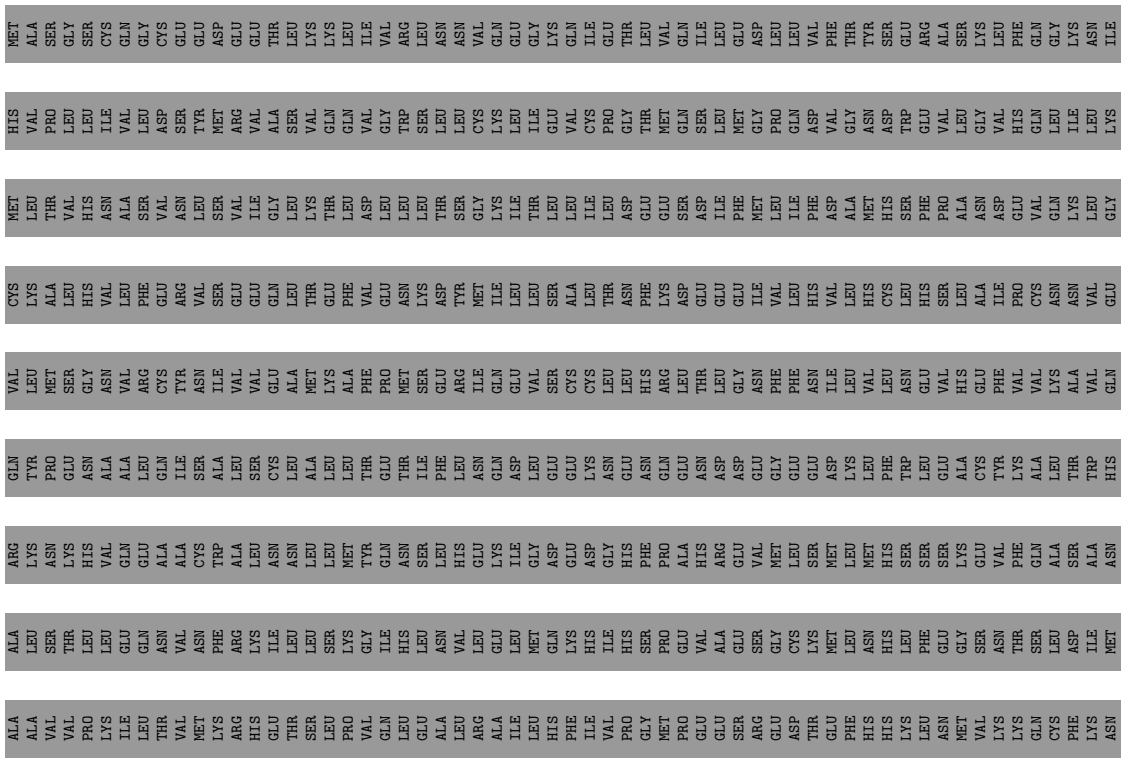
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL LEU ASP ILE LEU VAL VAL LEU ASP THR ASN ILE ALA SER THR VAL

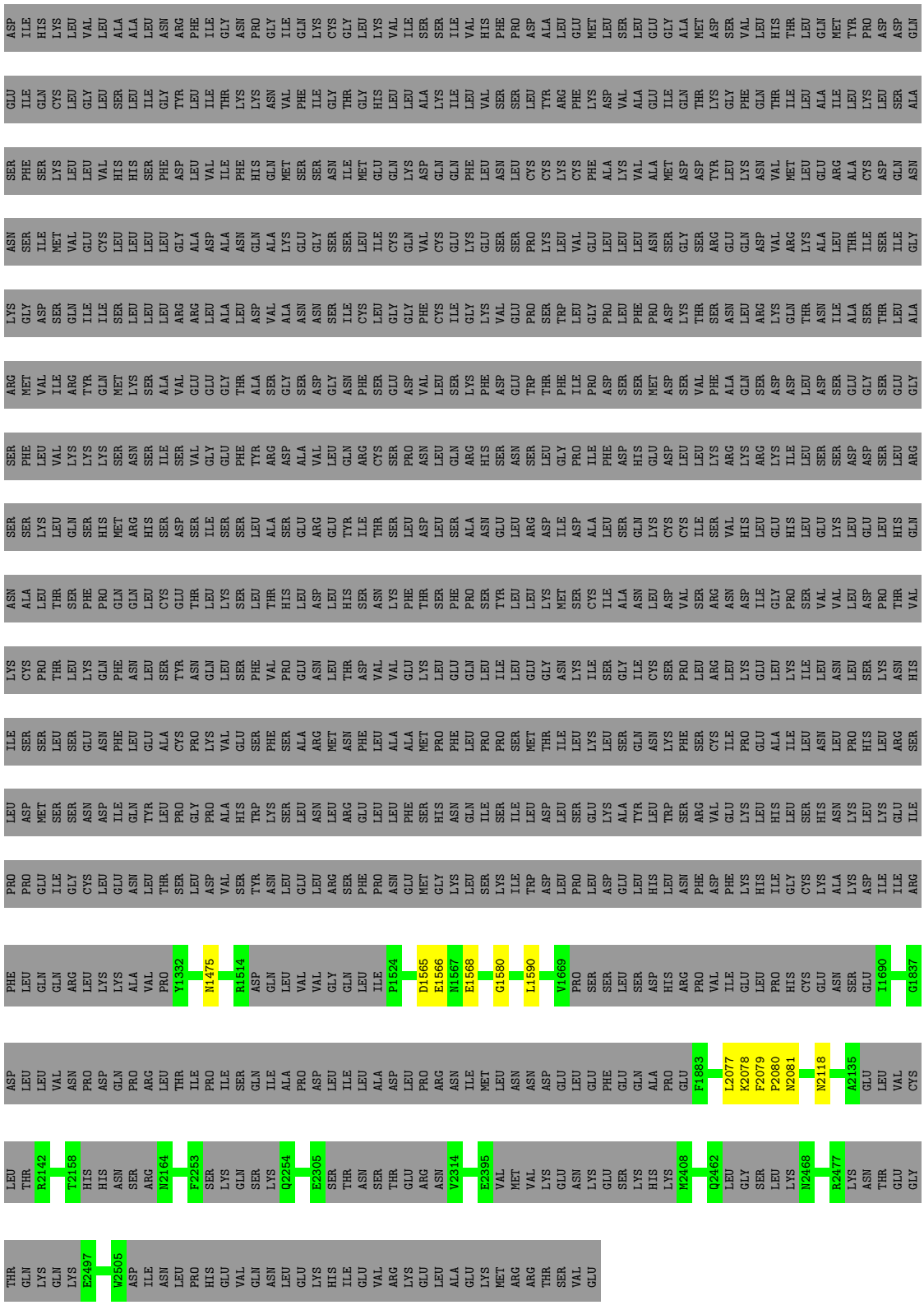
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLN GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 17-A:





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 17-B: 41% 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

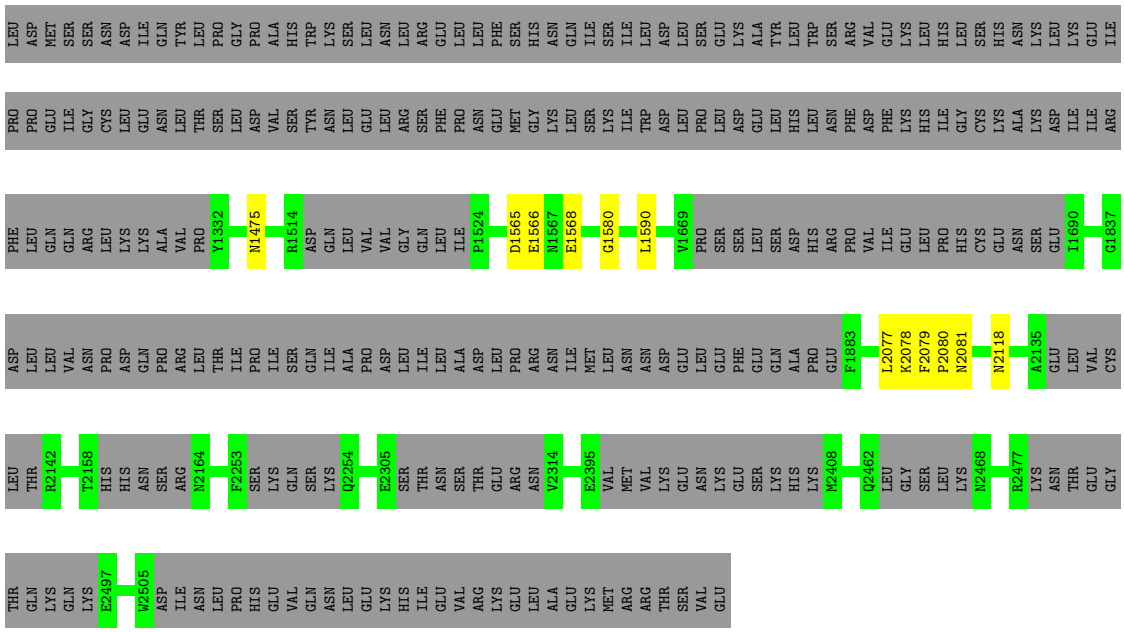
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL

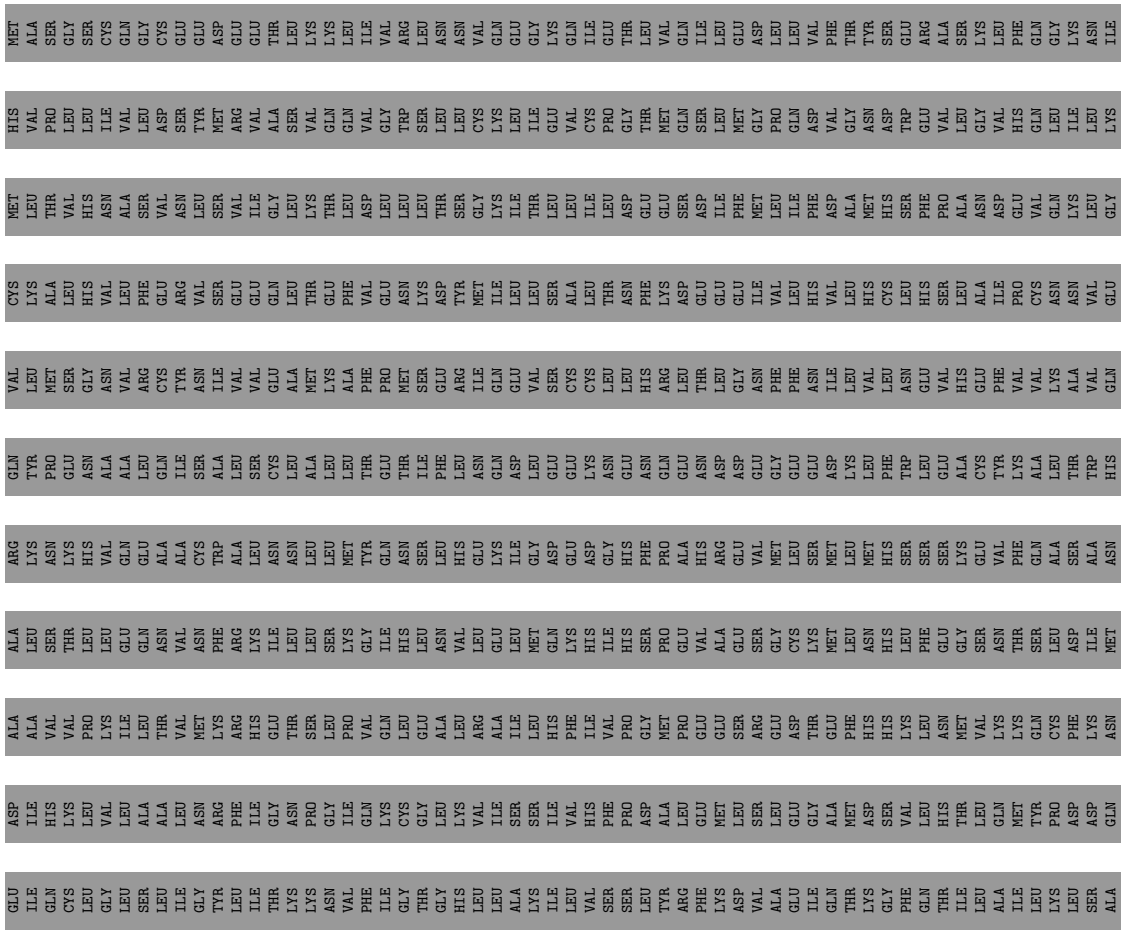
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS

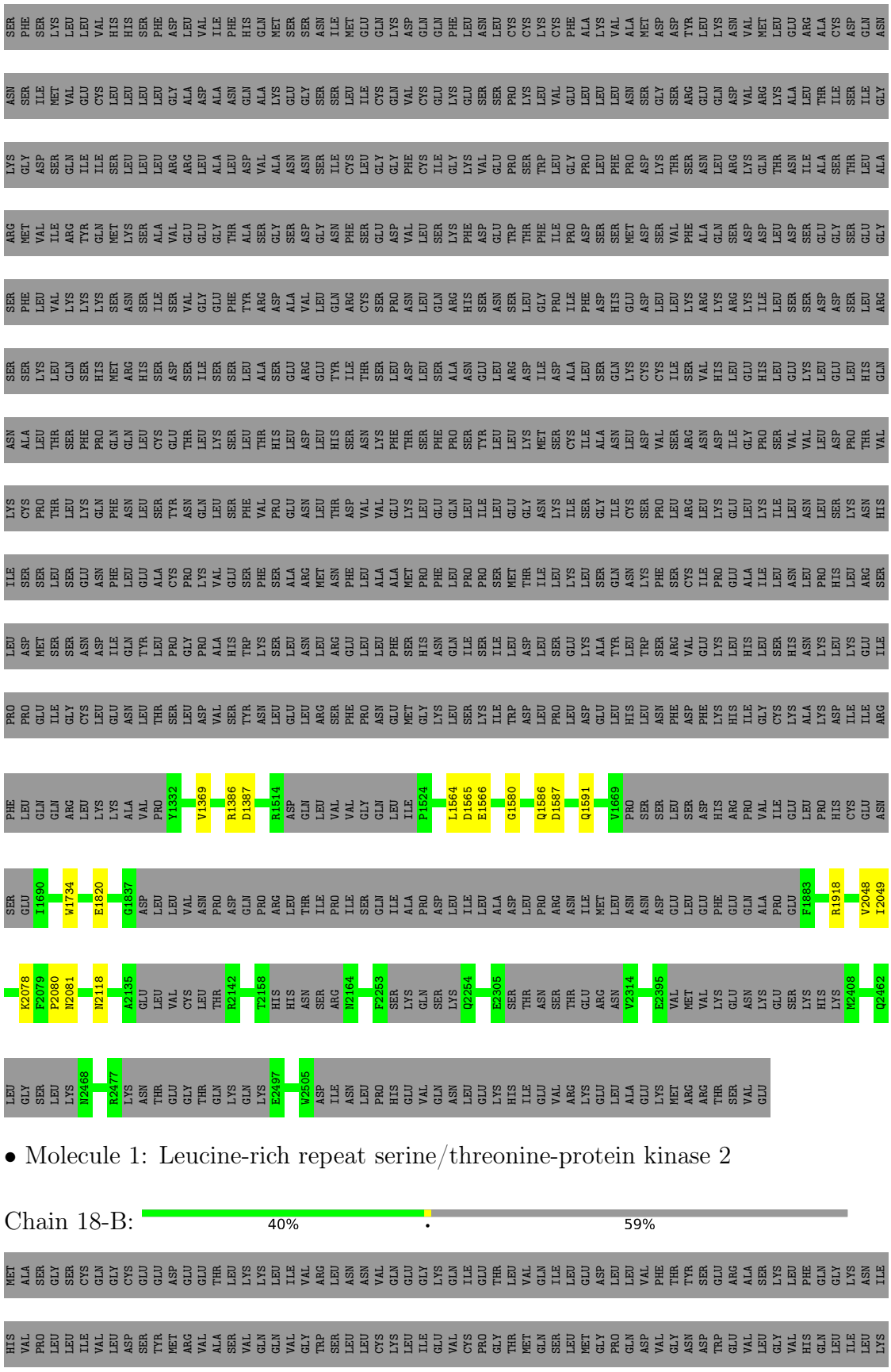
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

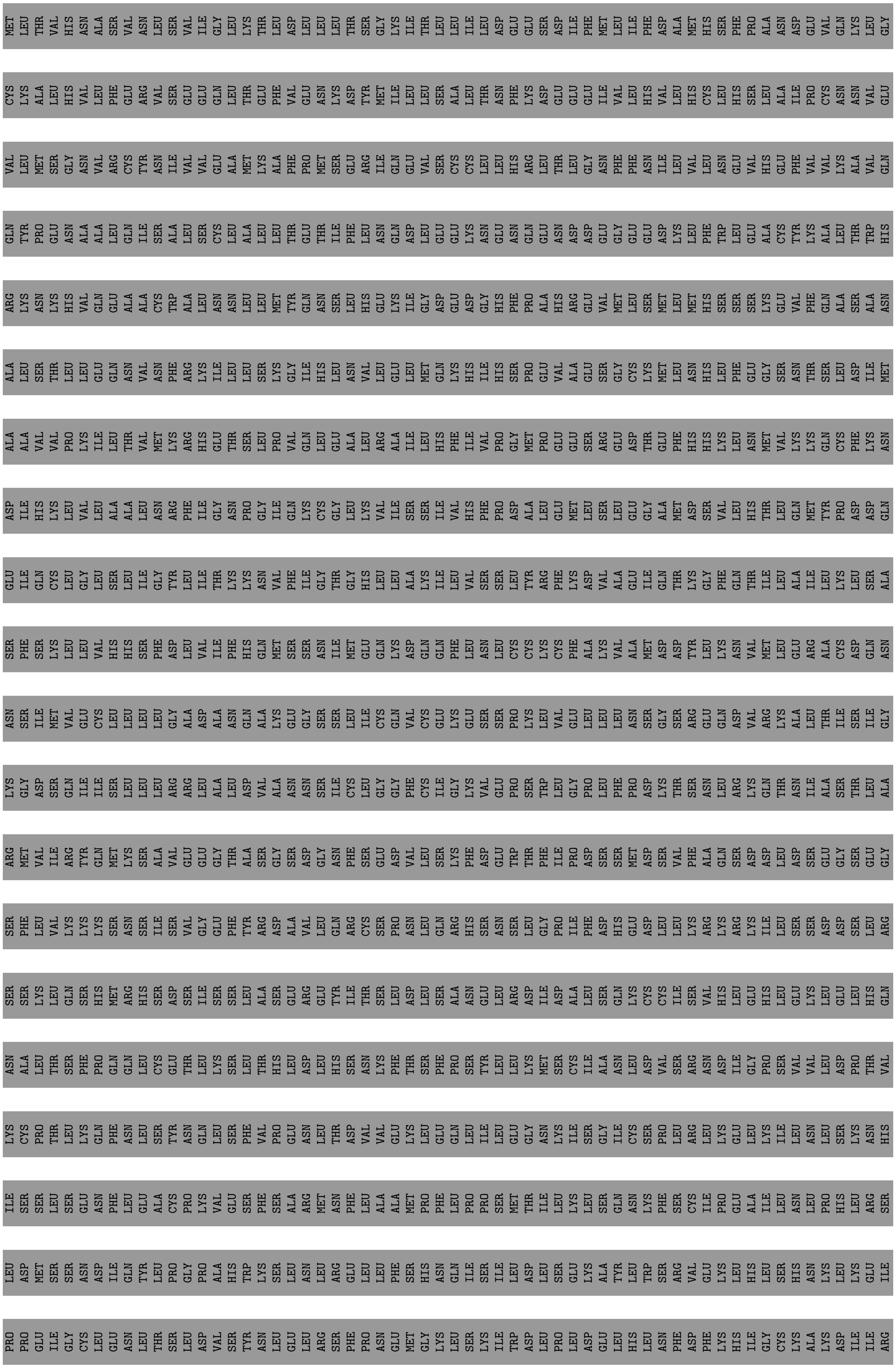
Chain 18-A: 40% • 59%

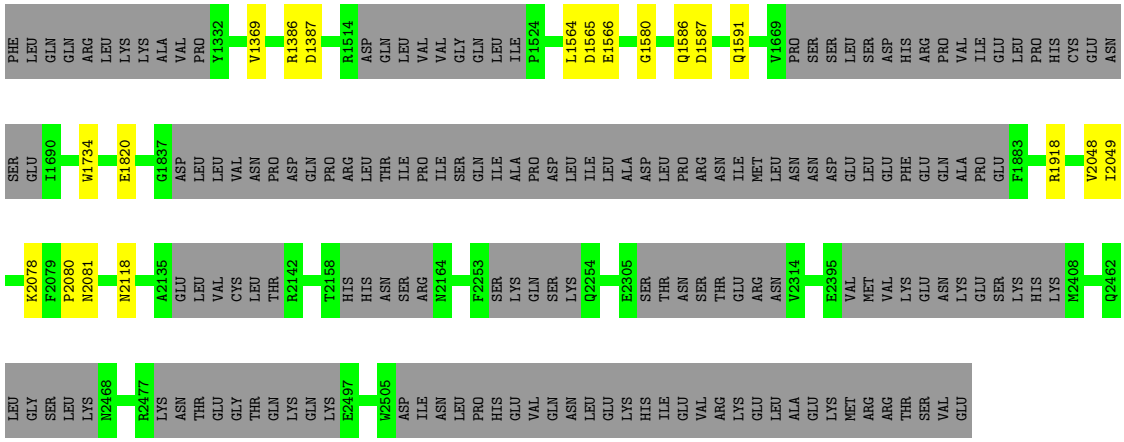




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

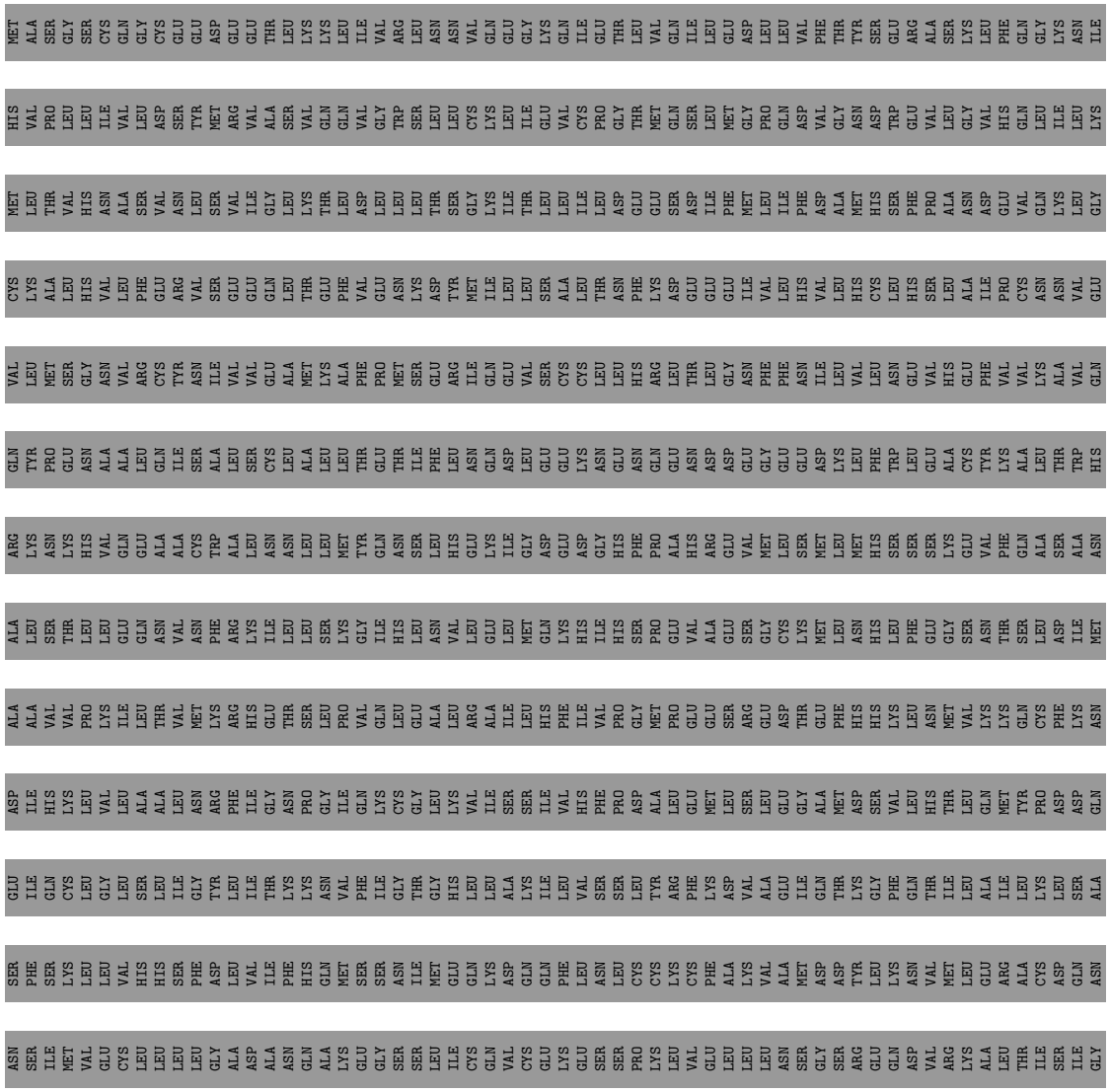
Chain 18-B: 40% • 59%

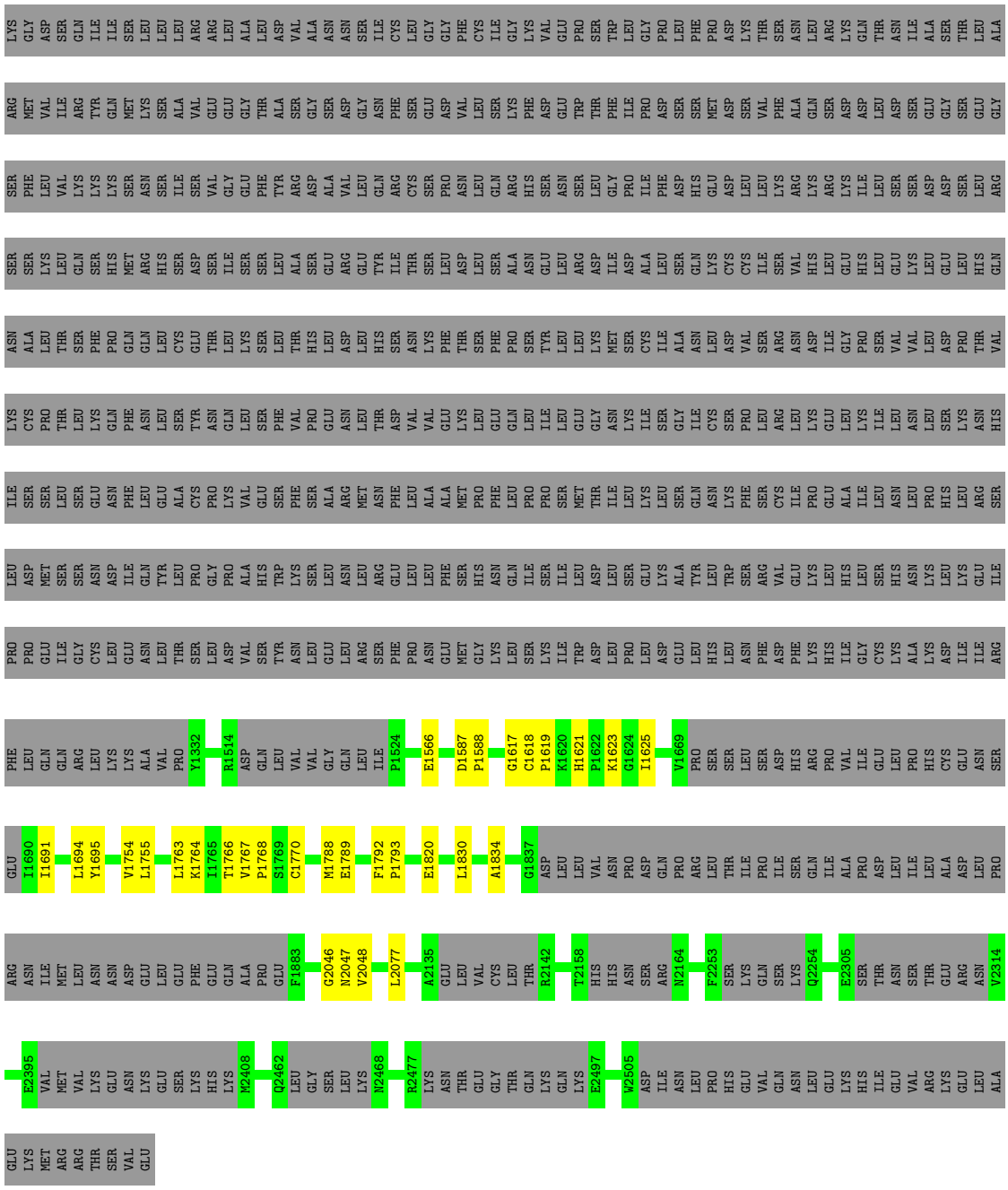

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY
CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU
VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN
GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN
ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 19-A: 40% • 59%





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 19-B:

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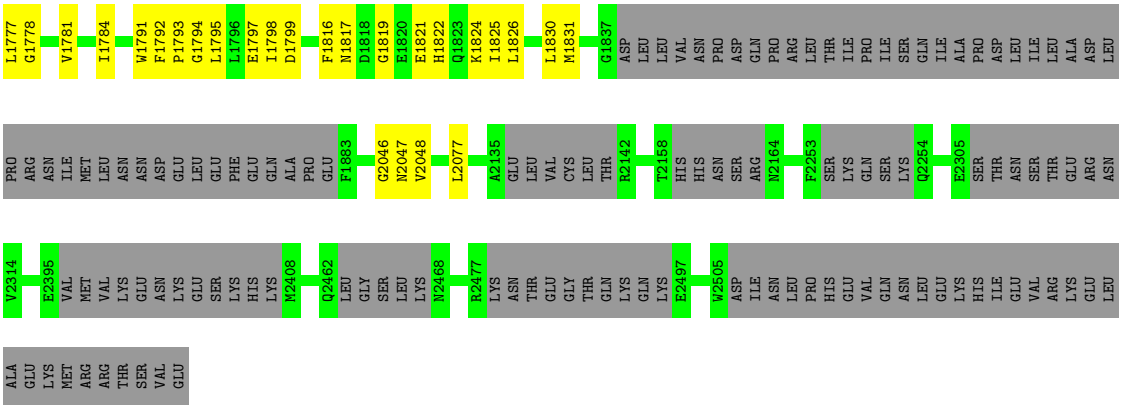
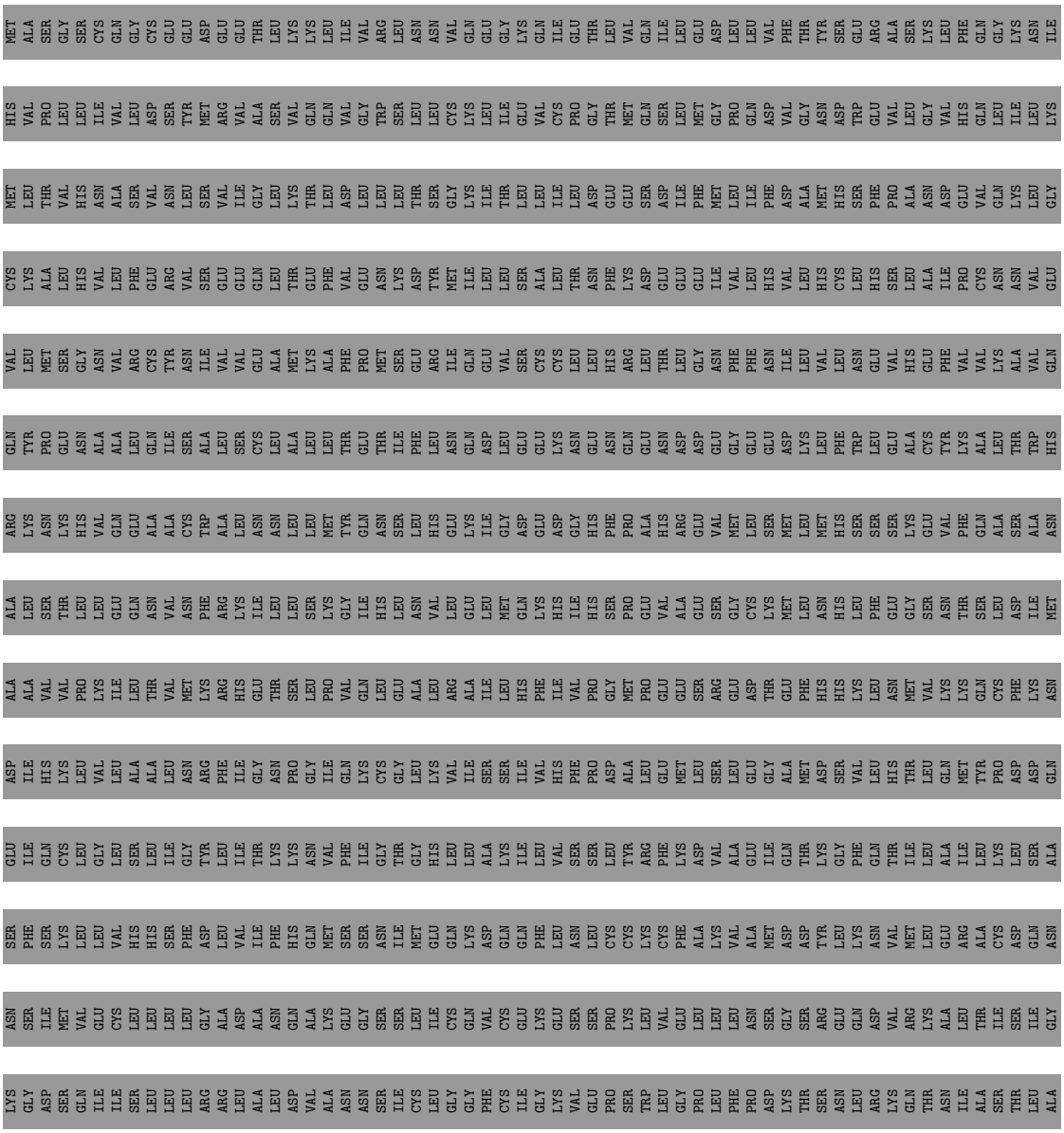
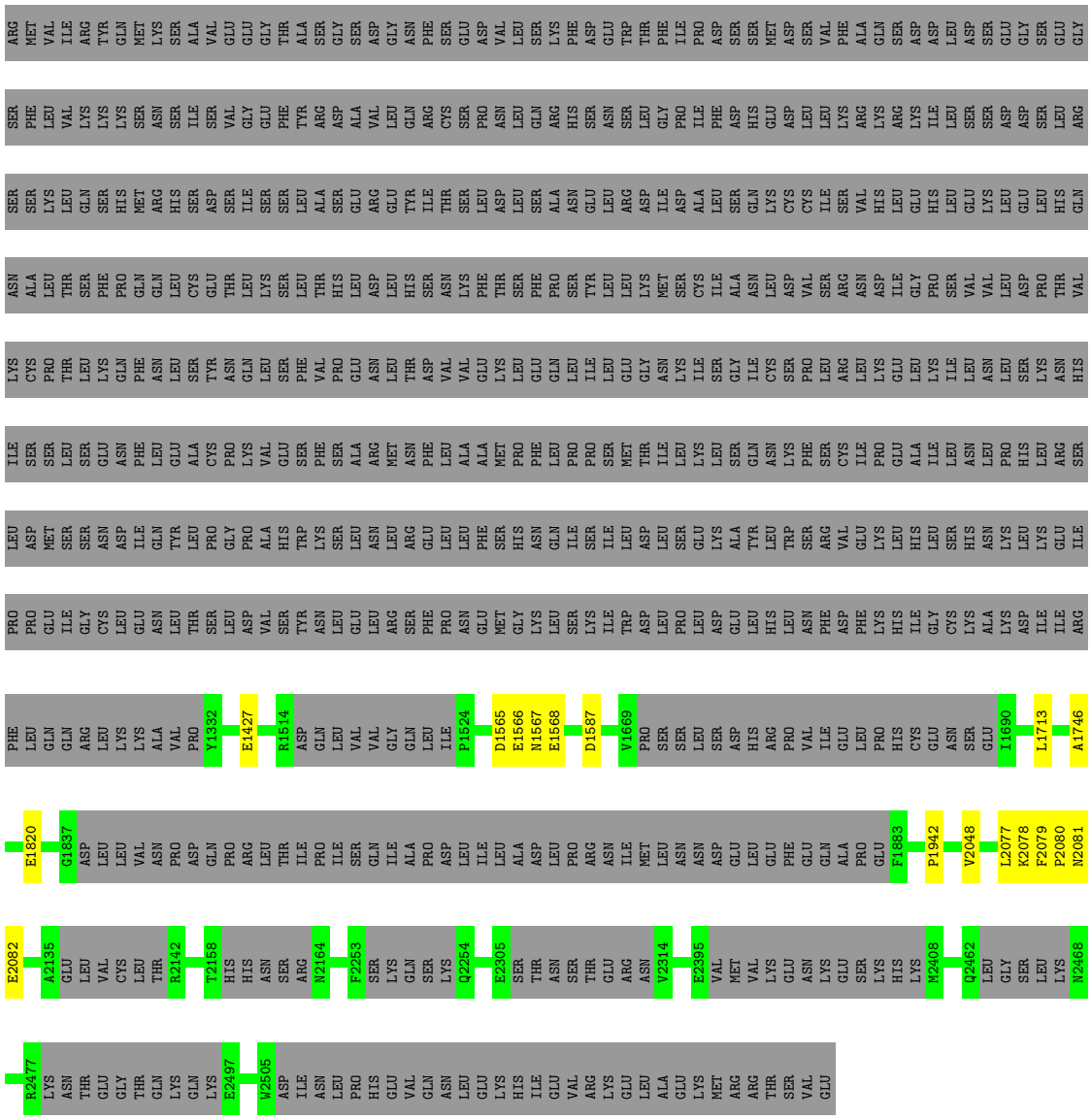
P1524
E1566
D1587
P1588
V1669
I1690
F1700
P1701
F1704
I1765



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

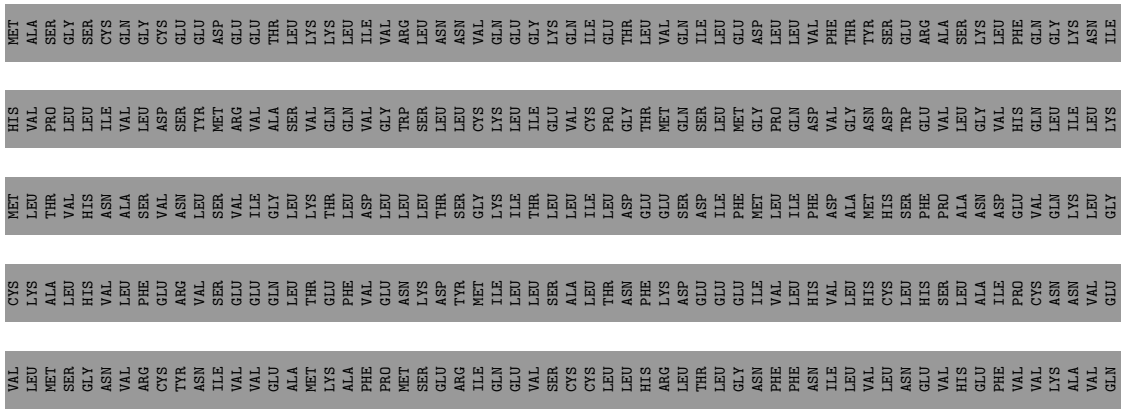
Chain 20-A: 40% 59%

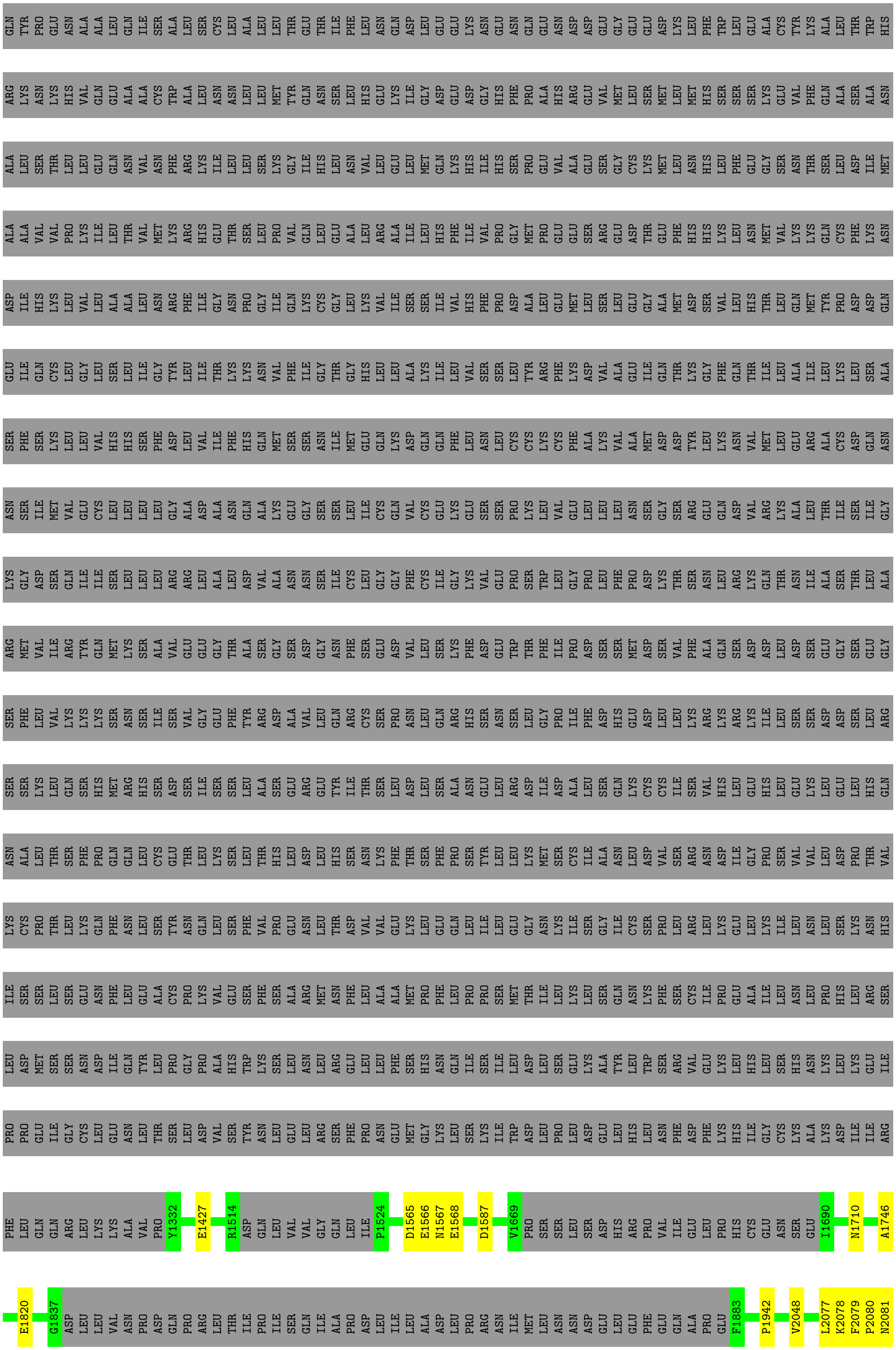




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 20-B:




Y1332
E1427
R1514
P1524
D1565
E1566
N1567
E1568
D1587
V1669
I1690
N1710
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E1820
G1837
F1883
P1942
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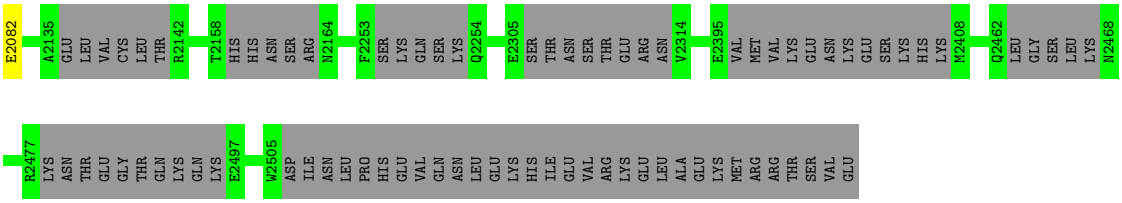
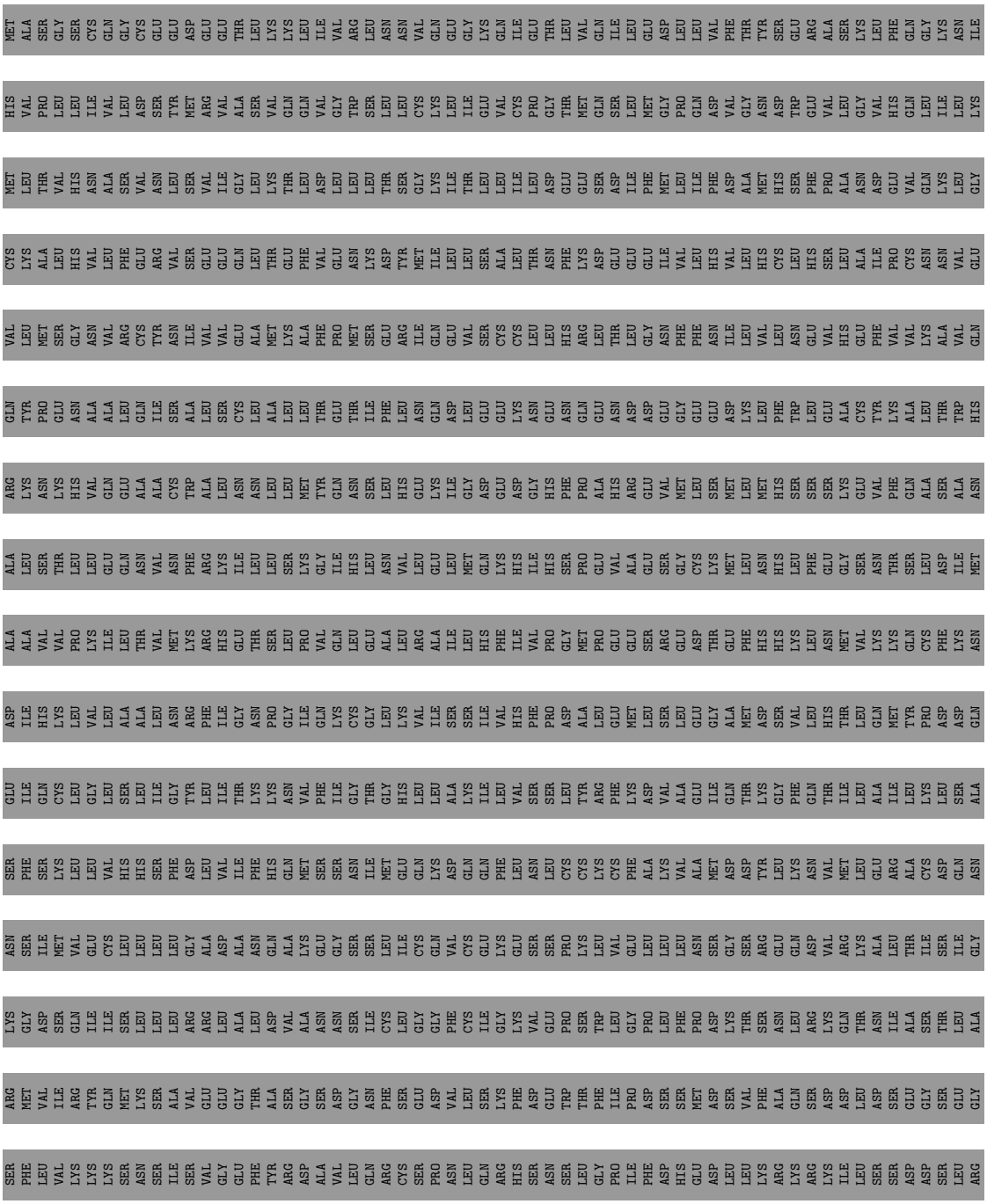
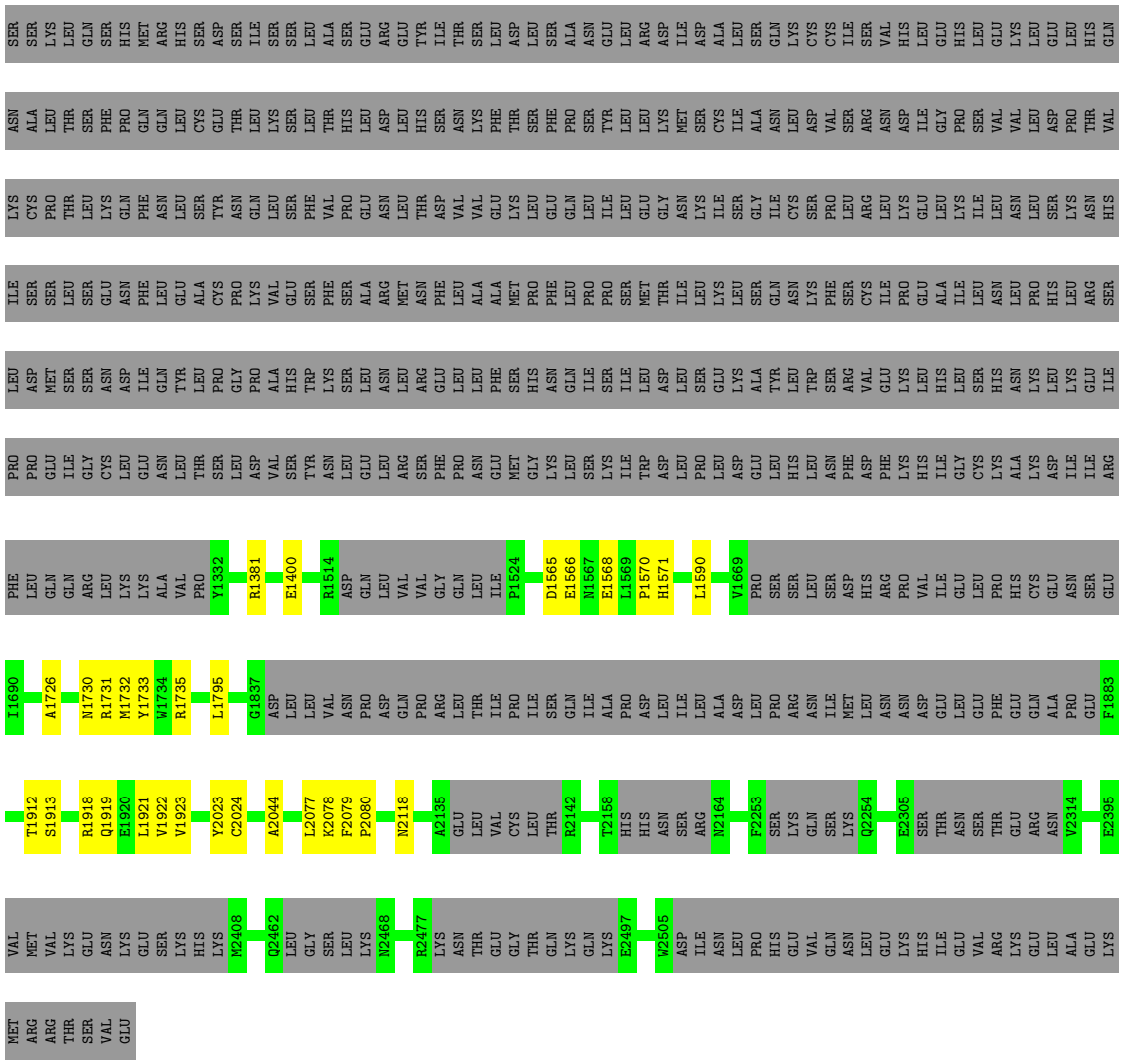
P2080
N2081



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

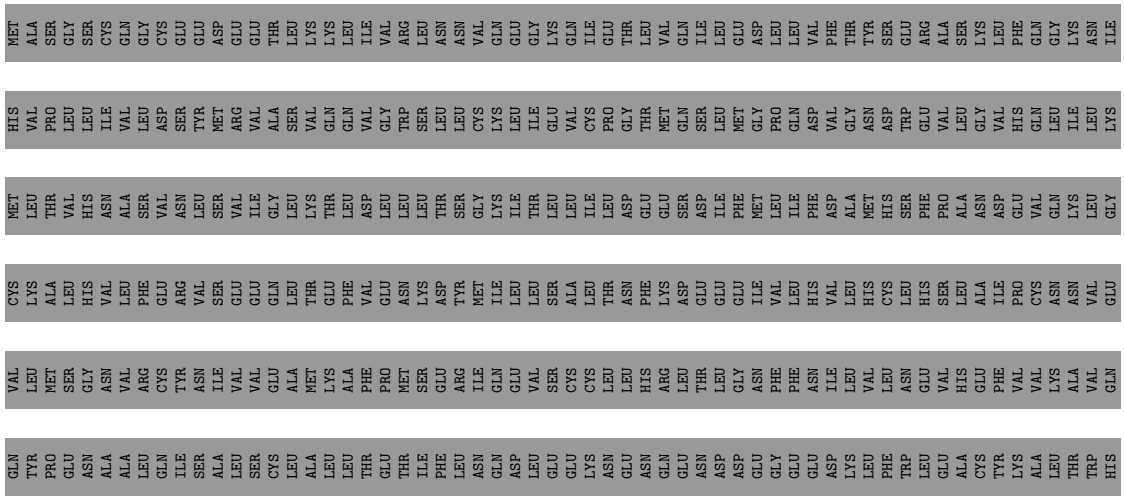
Chain 21-A: 40% • 59%





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 21-B:



ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL

LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS

ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER

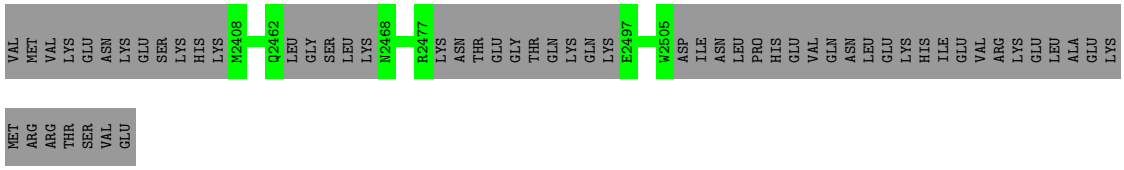
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE

PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG

PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 R1381 E1400 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 N1567 E1568 L1569 P1570 H1571 L1590 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU

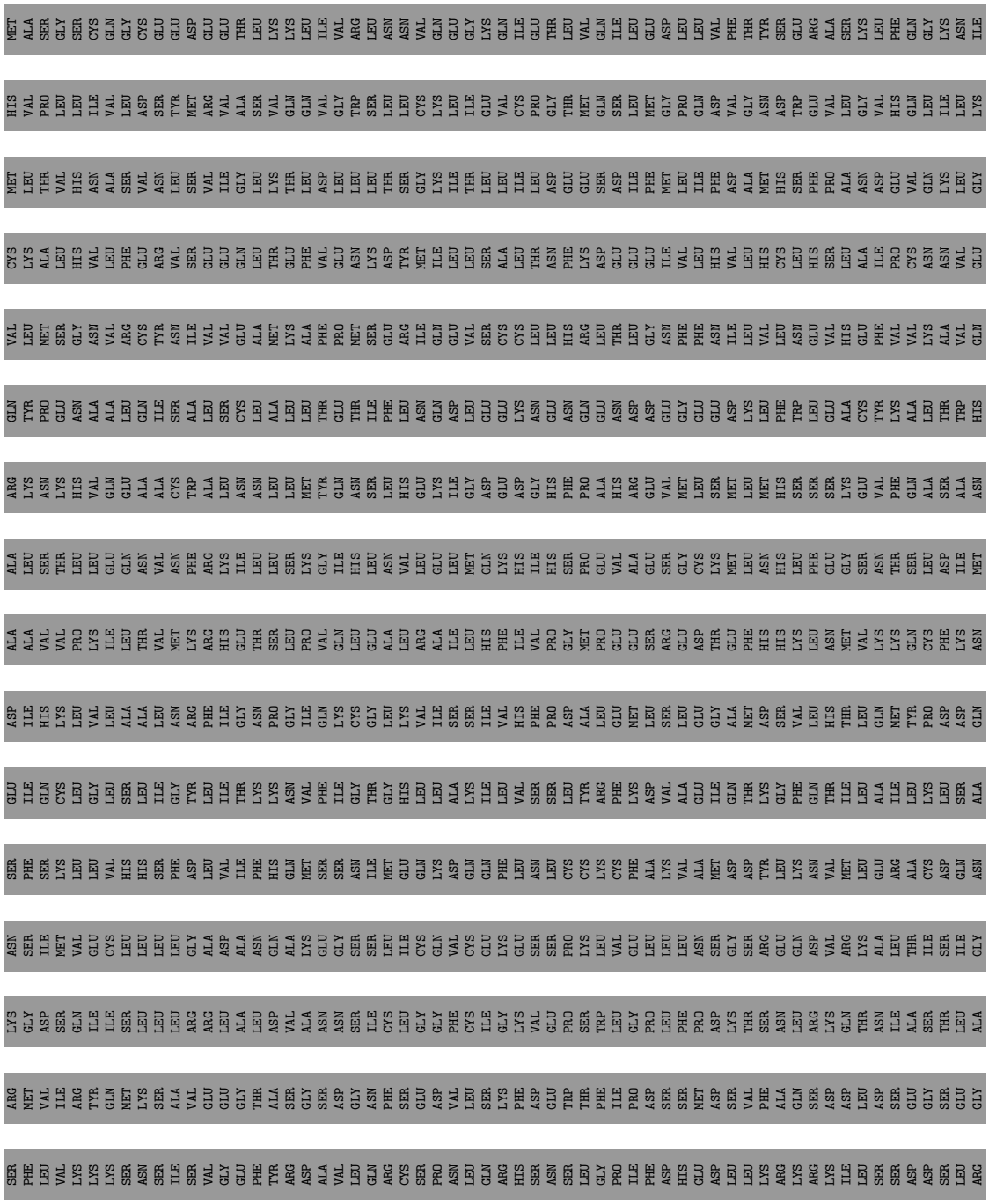
I1690 A1726 N1730 R1731 M1732 Y1733 W1734 R1735 L1795 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883

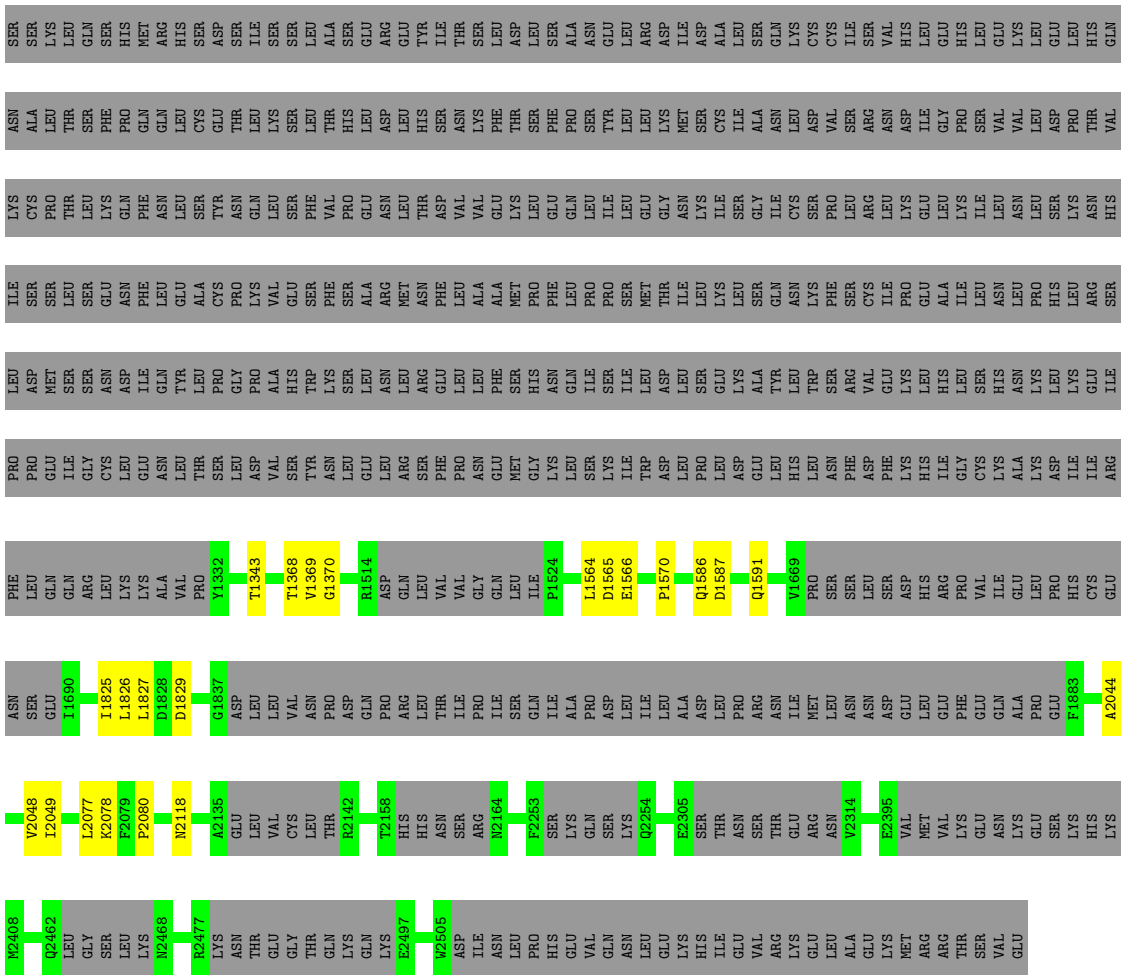
T1912 S1913 R1918 Q1919 E1920 L1921 V1922 V1923 Y2023 C2024 A2044 L2077 K2078 F2079 P2080 N2118 A2135 GLU LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS Q2254 E2305 SER THR ASN SER THR GLU ARG ASN V2314 E2395



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

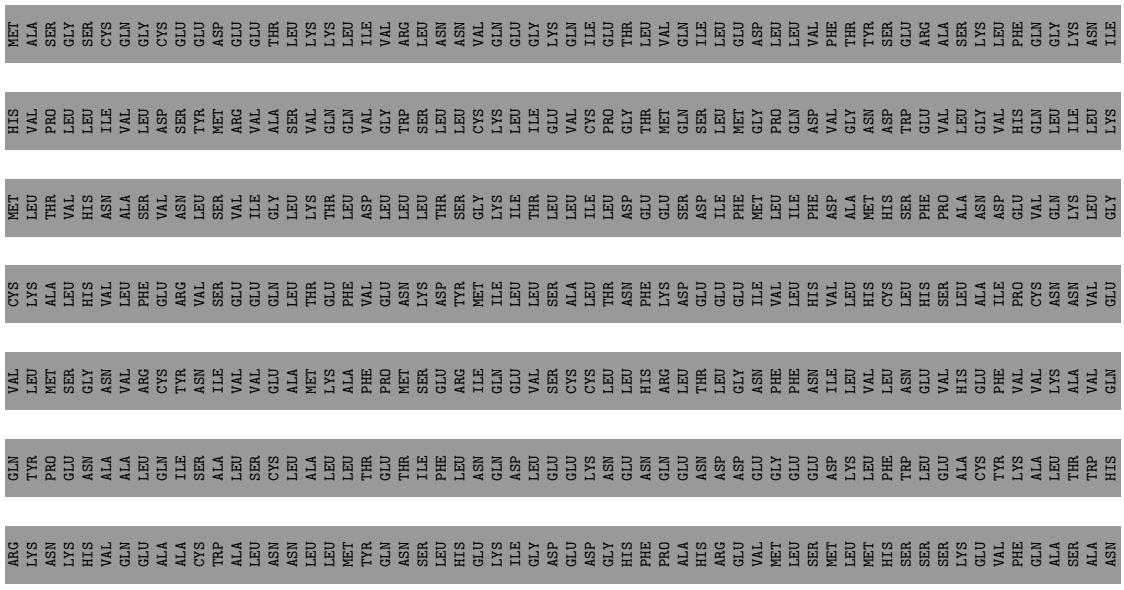
Chain 22-A: 40% • 59%

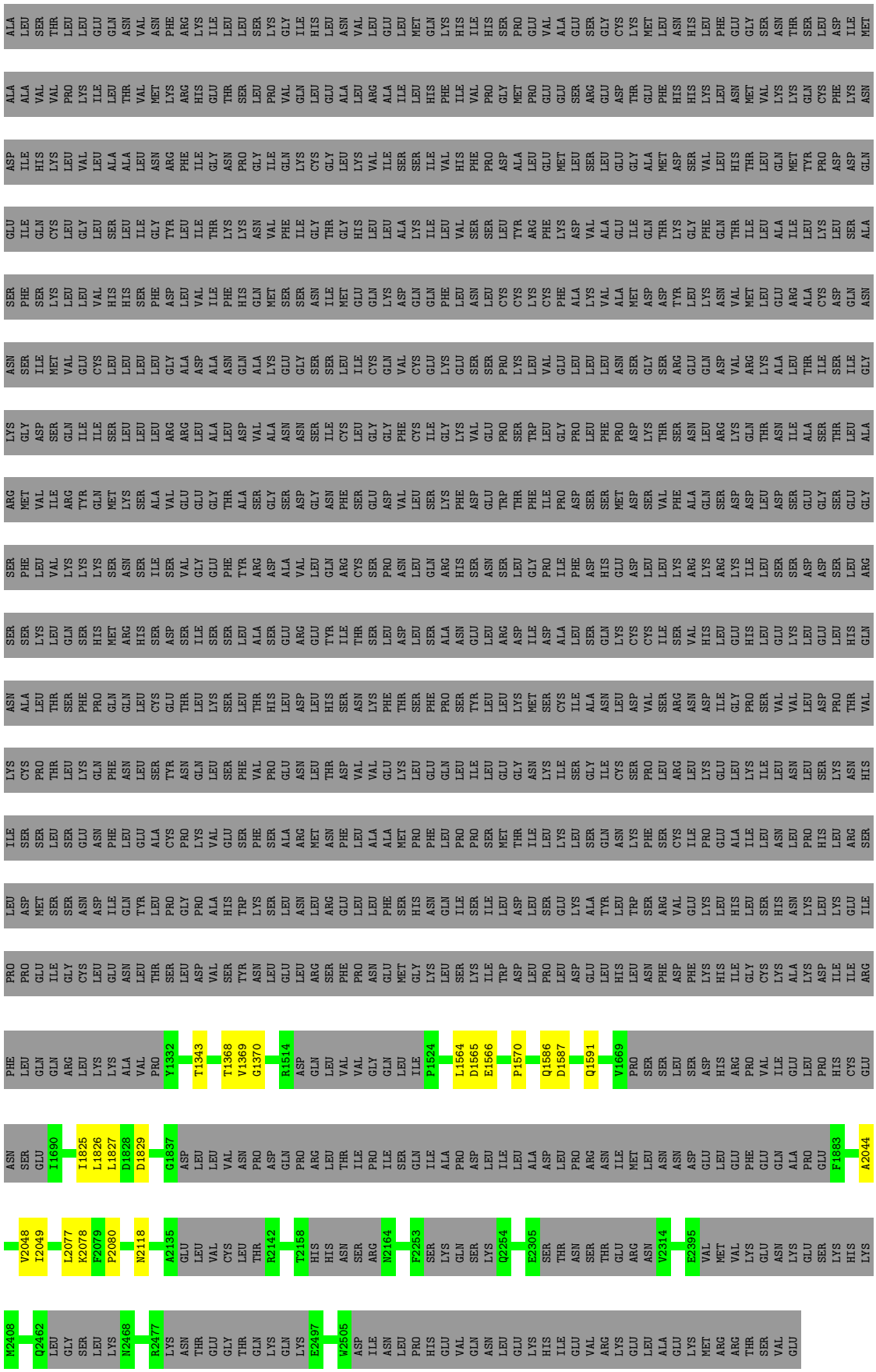




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 22-B:

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Q2462
L2077
K2078
F2079
P2080
N2118
N2468
R2477
W2505
V2048
I2049
A2135
R2142
T2158
E2497
I1690
I1825
L1826
L1827
D1828
D1829
G1837
Y1332
T1343
T1368
V1369
G1370
R1514
P1524
L1564
D1565
E1566
P1570
Q1586
D1587
Q1591
V1669
F1863
A2044
V2314
E2395

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 23-A: 41% 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN ILE LEU LEU

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN LEU HIS GLU GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU LEU GLU GLU LYS ASN GLU THR ASP ASP GLU GLY GLU GLU ASP LYS LEU VAL MET ALA ALA GLU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA ALA LYS ILE LEU VAL SER SER LEU LEU TYR ARG PHE LYS ASP VAL ALA ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS LYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS GLN THR ILE LEU ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU LEU GLY PRO LEU LEU PHE PRO ASP LYS THR SER ASN LEU LYS ARG LYS GLN THR ASN ILE SER THR LEU ALA

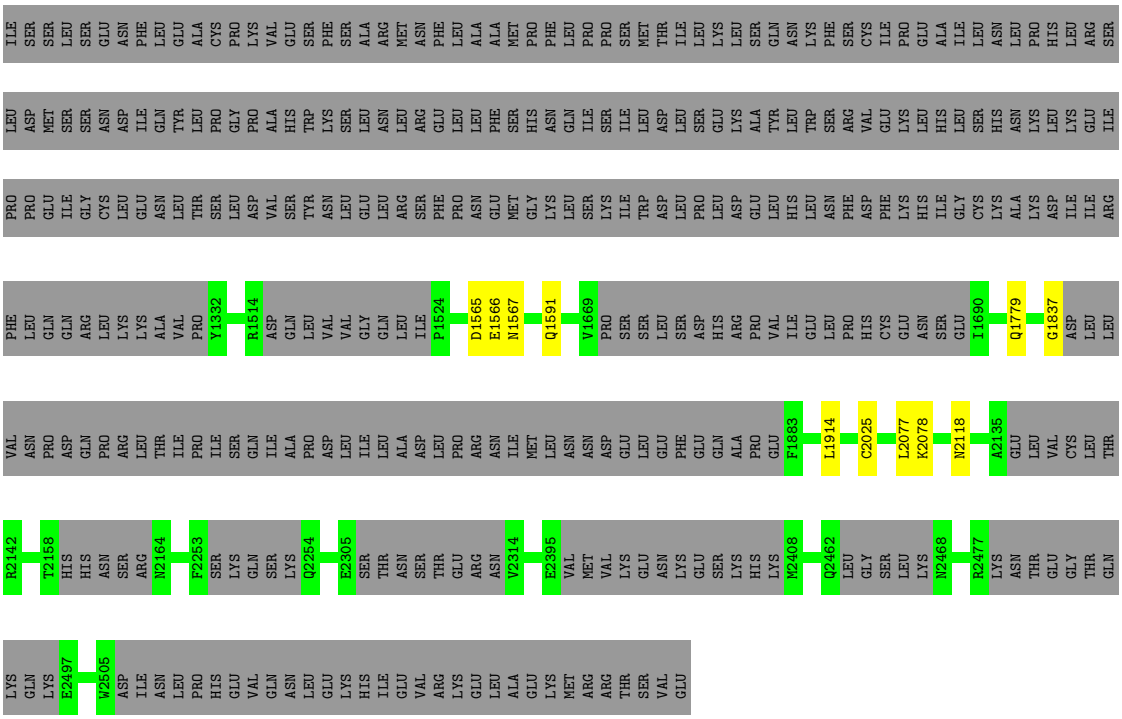
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN ASP SER ASP ASP SER GLU GLY

SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLU GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER ASP SER LEU ARG

SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ALA GLN LYS CYS CYS ILE SER VAL HIS LEU GLU GLU HIS LEU GLU LYS ASP

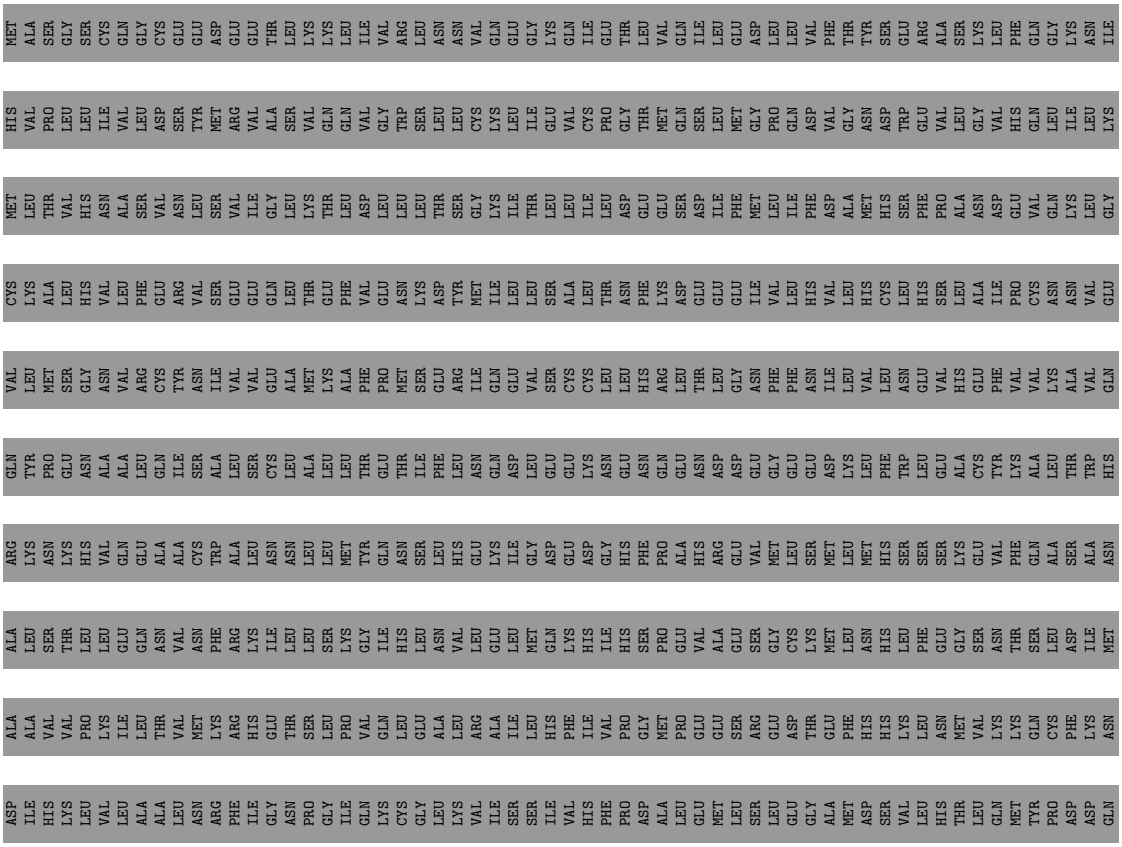
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR ILE LYS SER LEU THR HIS LEU ASP HIS SER ASN LYS PHE THR SER PHE PRO SER TYR ASP LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO ILE LEU LEU ARG LEU LYS LEU ASP PRO THR VAL

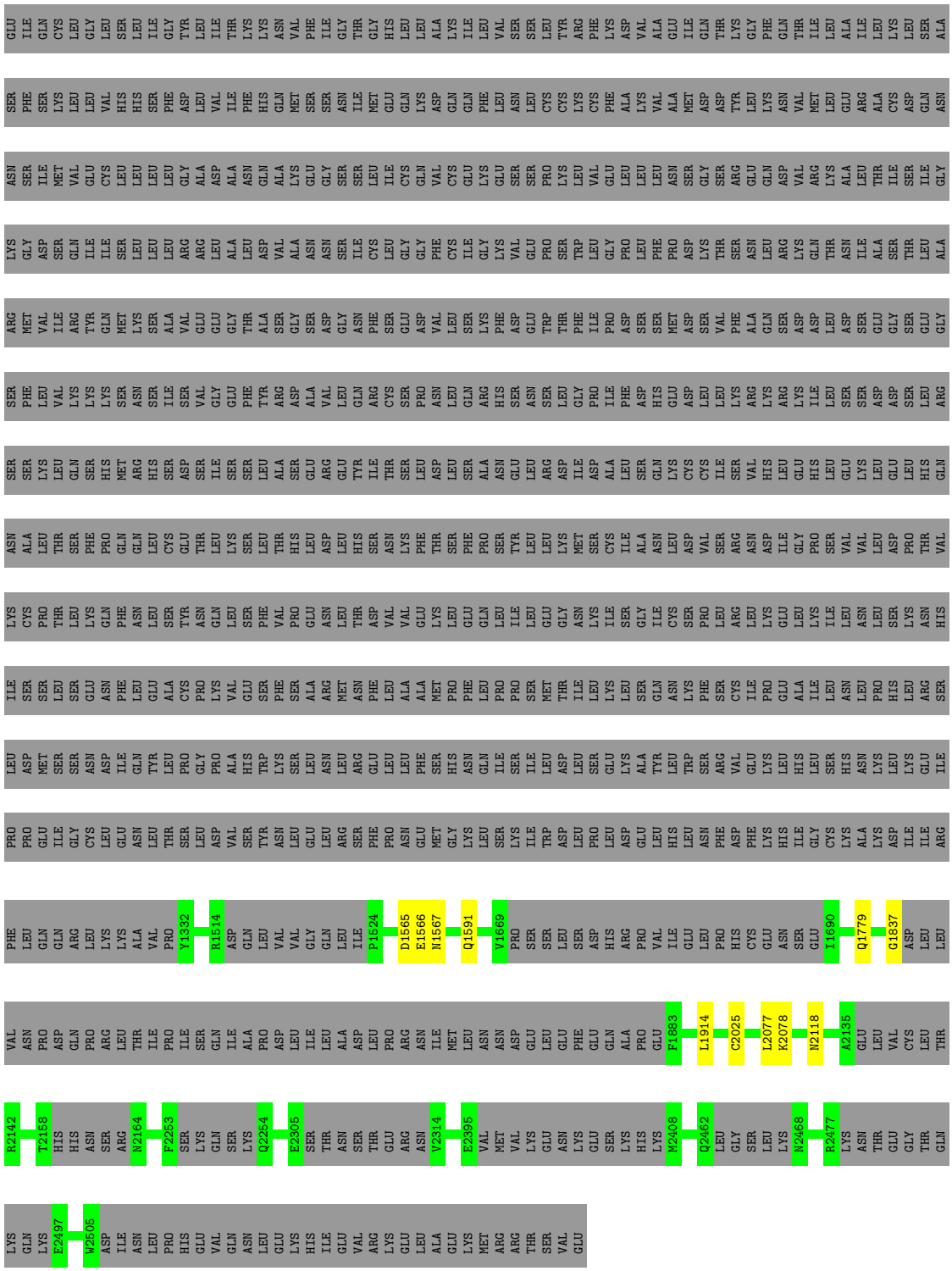
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 23-B:





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 24-A:

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL SER SER LEU TYR ARG PHE LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA CYS ASP GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

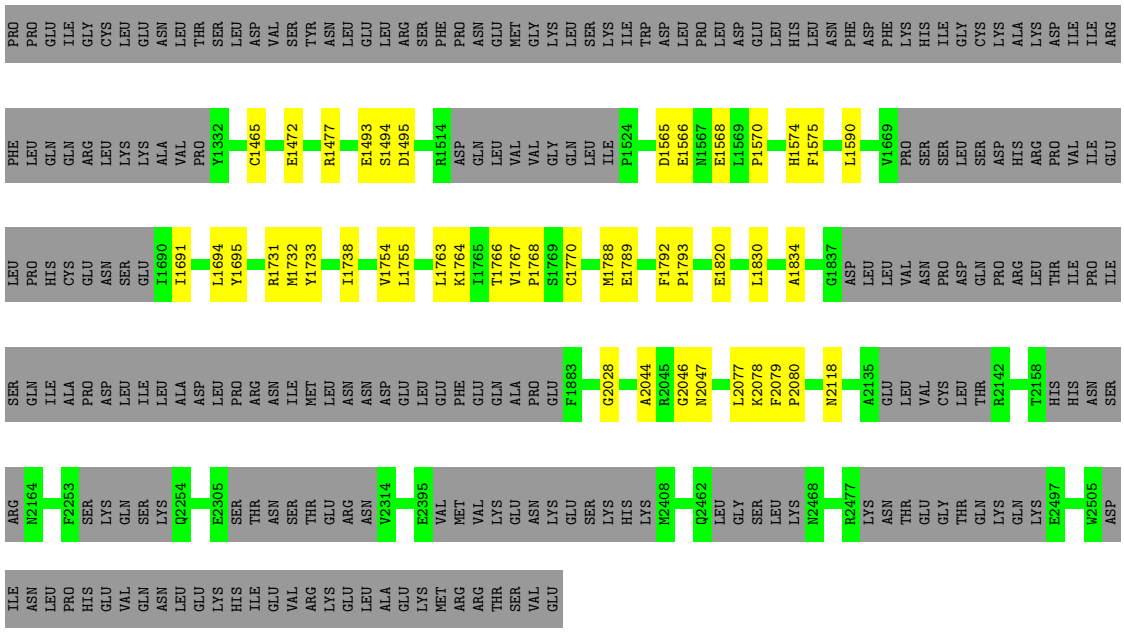
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU GLU LYS LEU GLU LEU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP PRO THR VAL

LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG LEU LYS GLU LEU LYS ILE LEU ASN LEU SER LYS ASN HIS

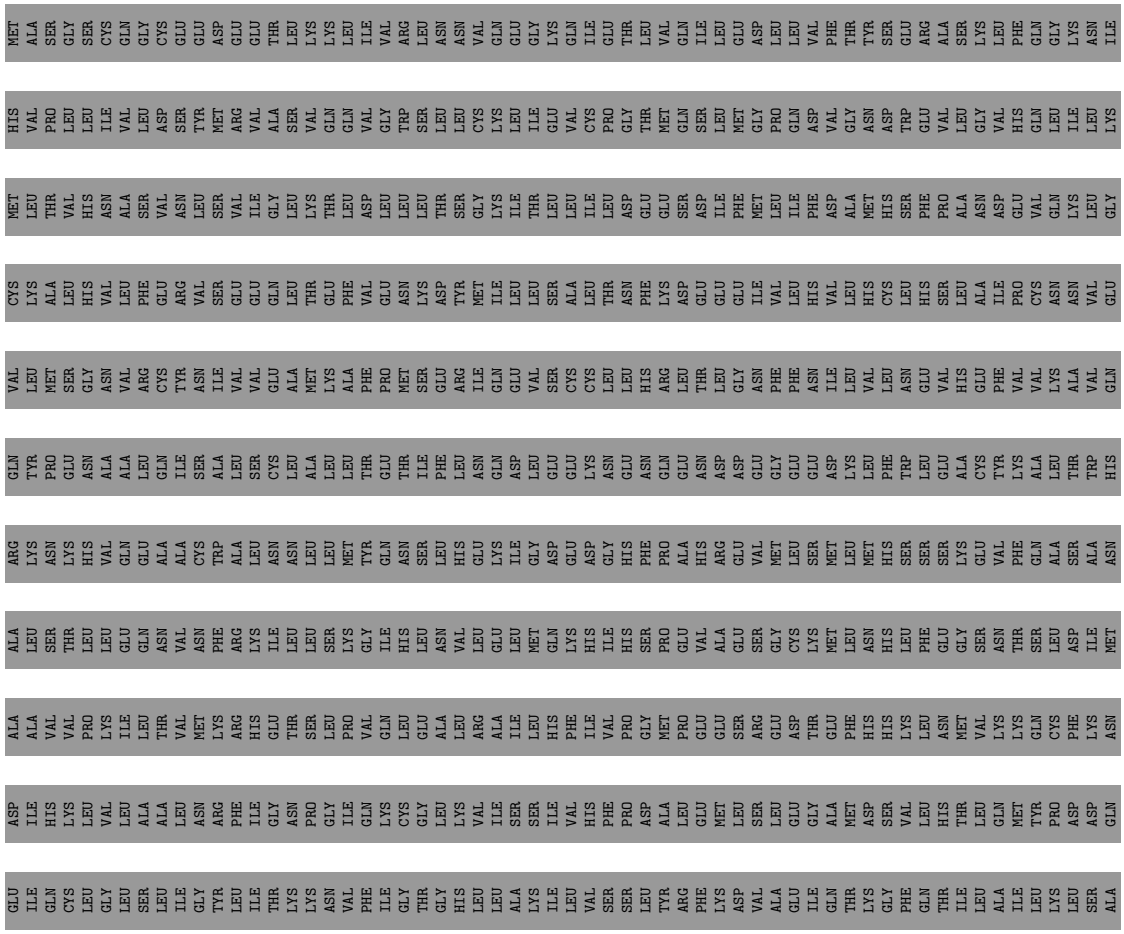
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE PRO GLU ALA ILE LEU ASN LEU PRO HIS LEU ARG SER

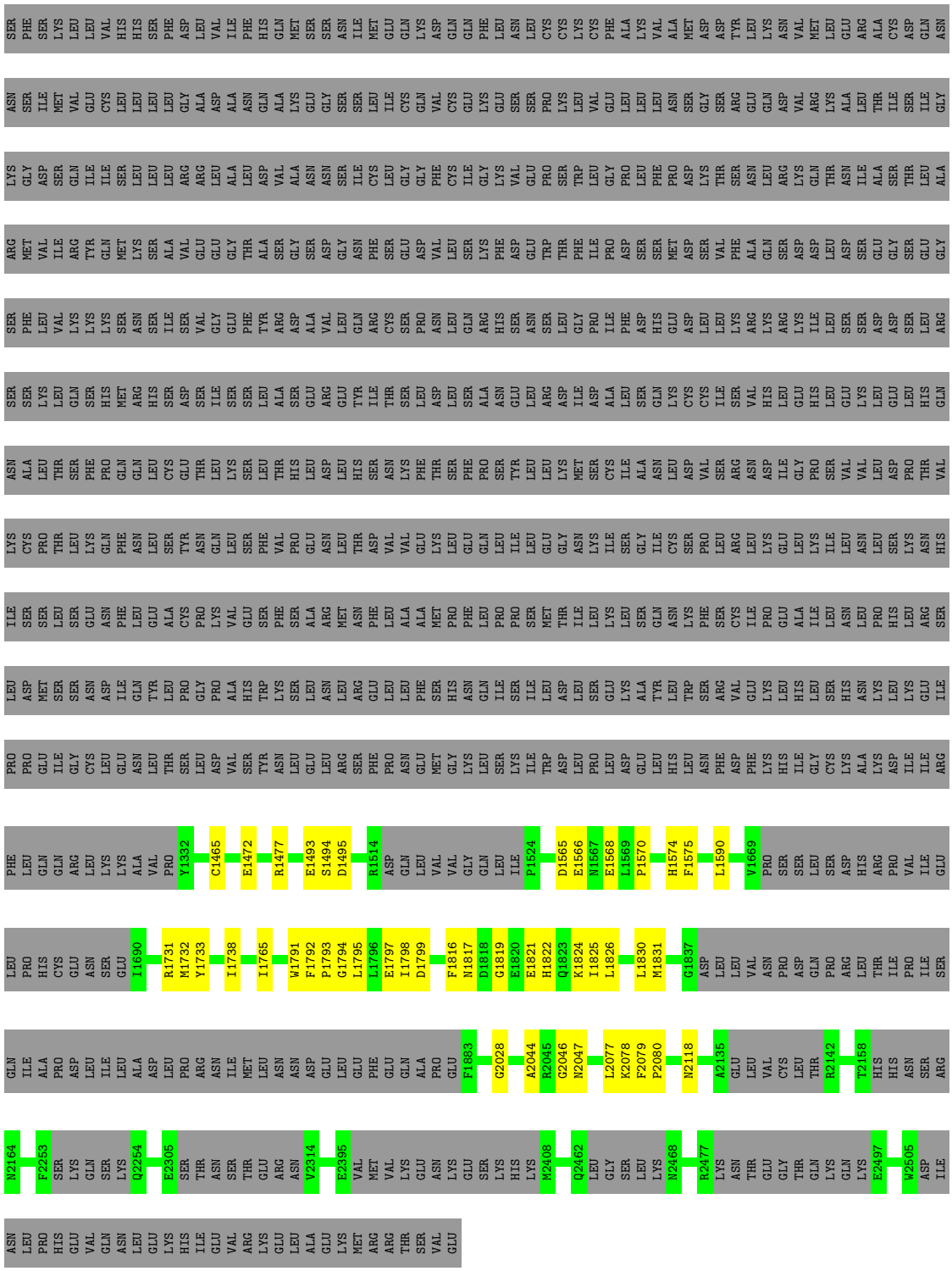
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 24-B: 39% • 59%

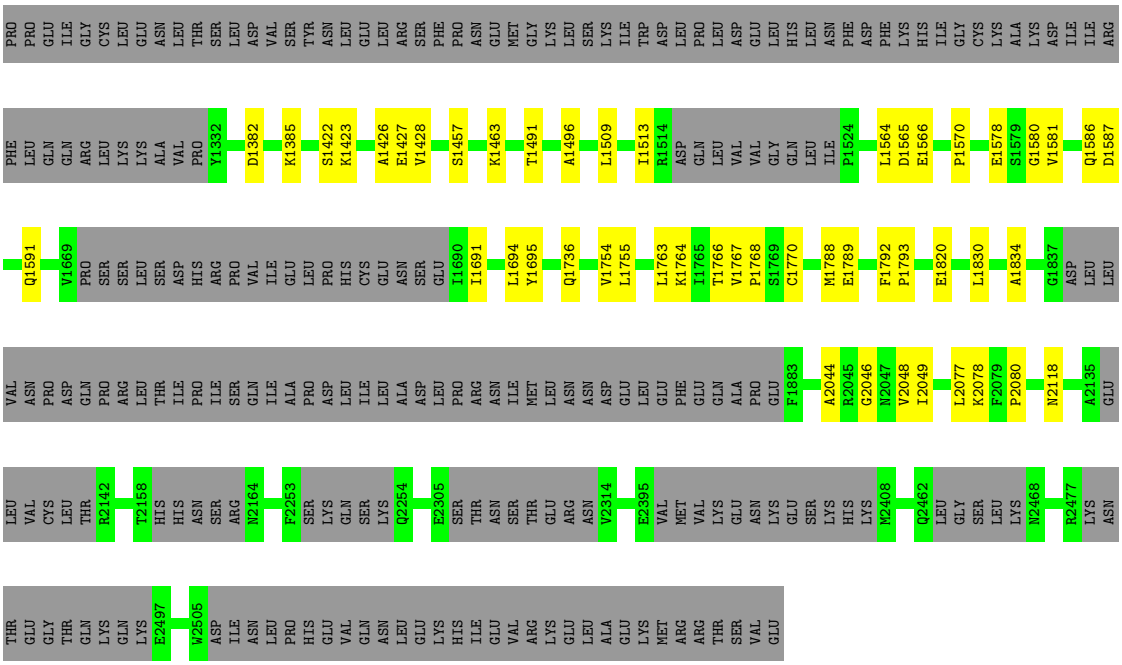




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

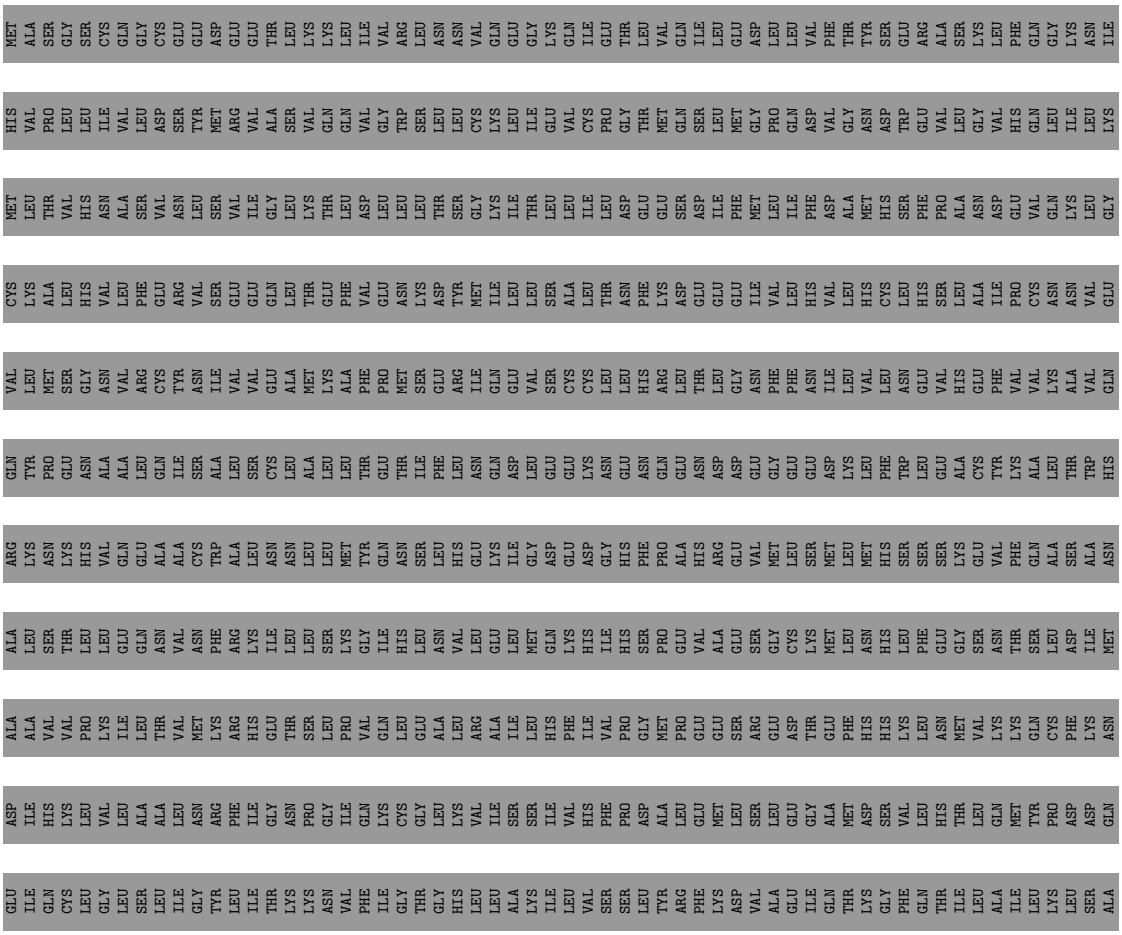
Chain 25-A: 39% • 59%

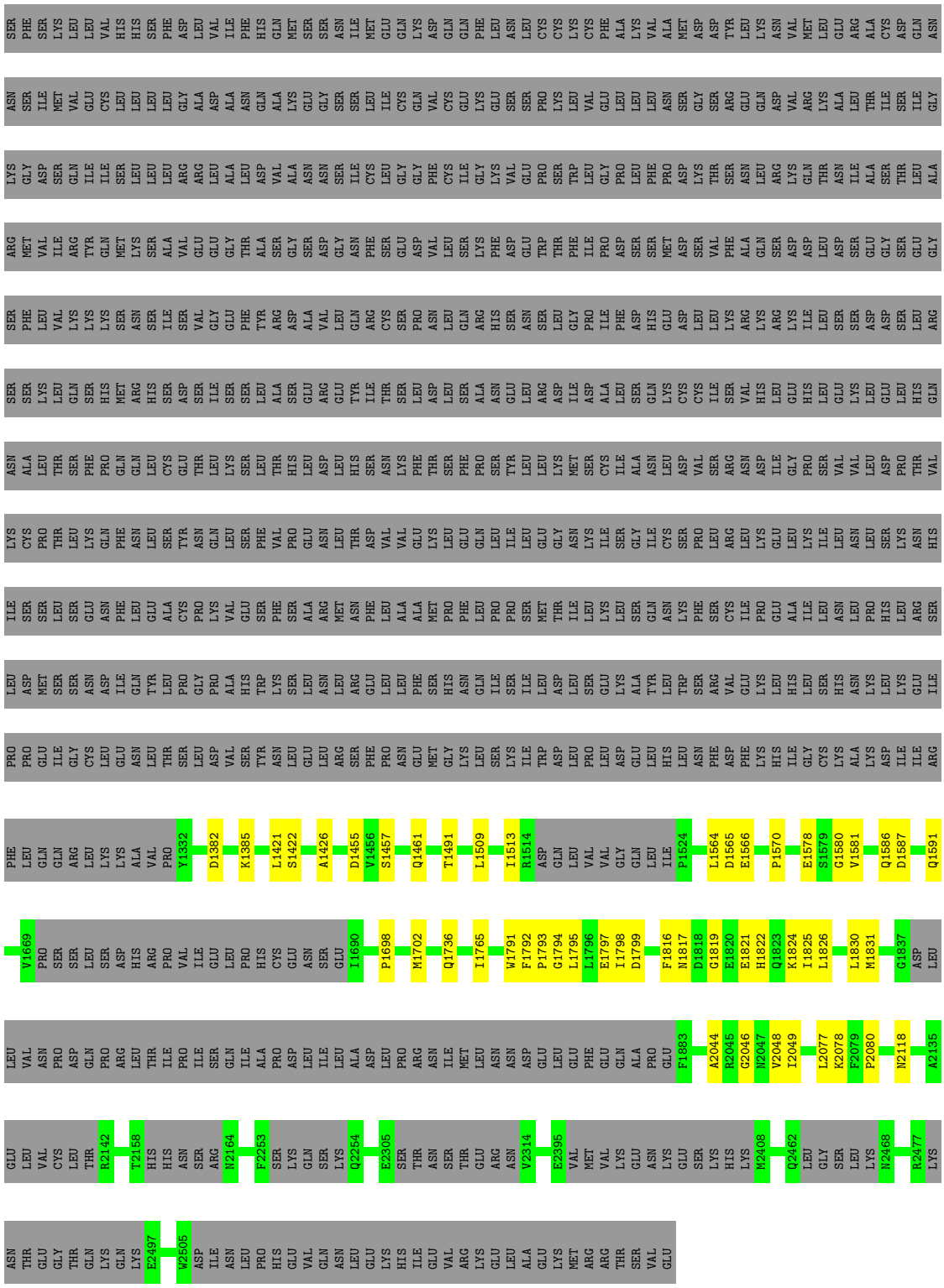
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 25-B:

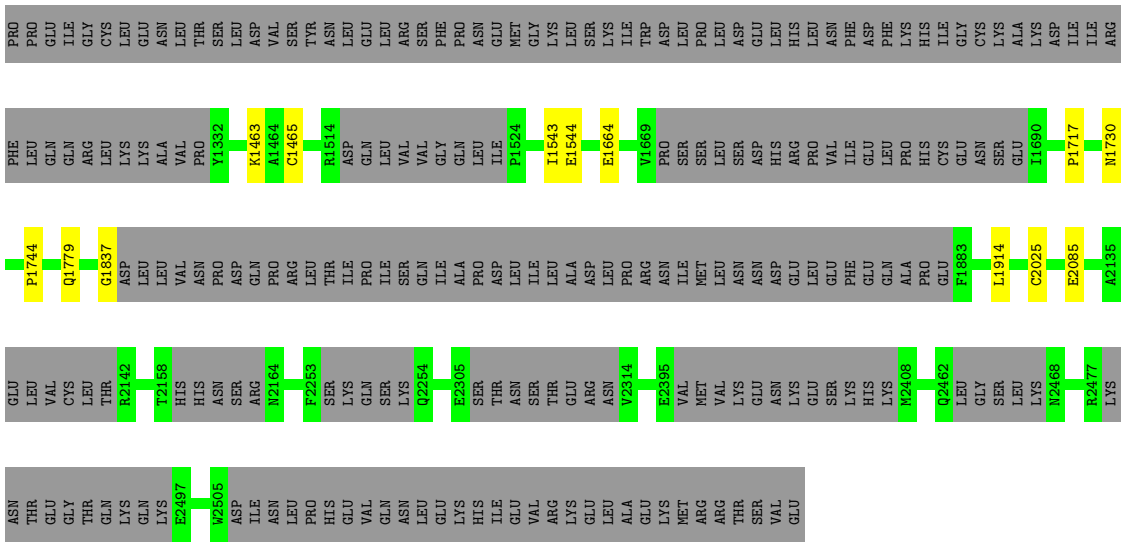




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

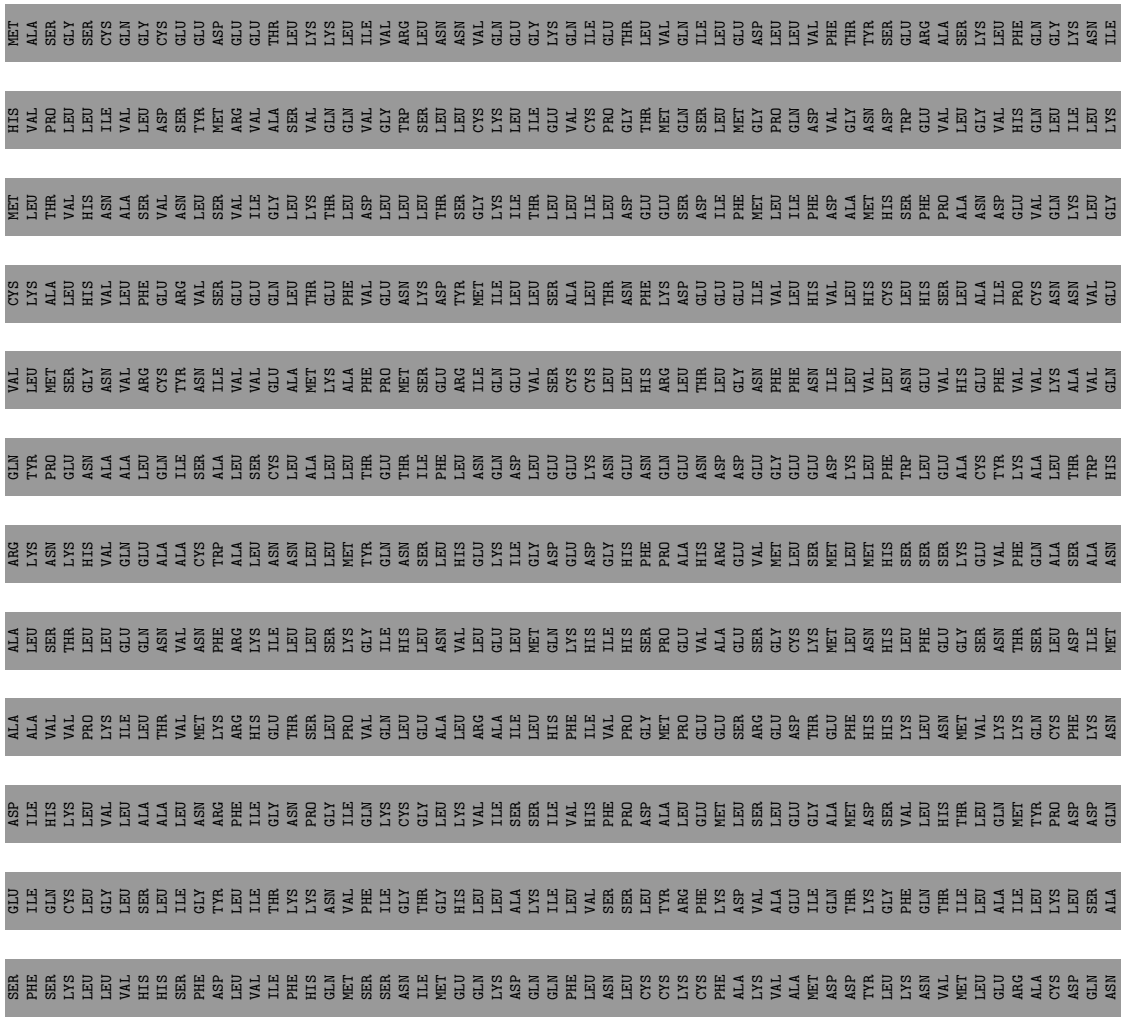
Chain 26-A:

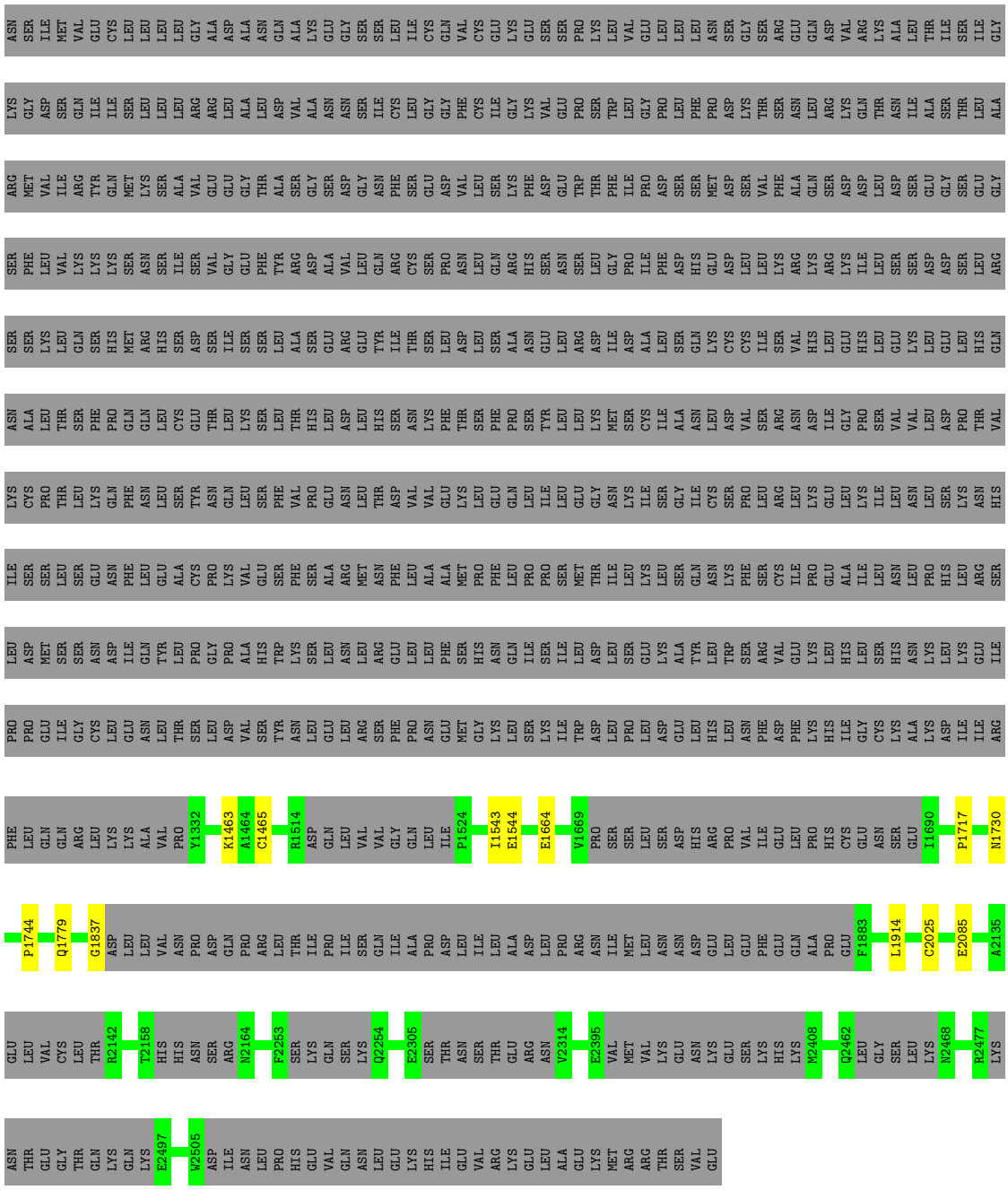
HIS VAL PRO LEU LEU ILE VAL LEU ASP SER SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLN LEU ILE LEU LYS
MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL LEU GLY
CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU
VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN ASN VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN
GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LYS LEU GLU GLU LYS ASN GLN GLU ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU ALA LEU THR TYR LYS ALA LEU THR LYS
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU GLY ILE ILE GLY ASP GLU LYS GLY GLU ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN
ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LYS LEU CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER SER ASN THR SER LEU ASP ILE MET
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL LEU ILE SER SER ILE VAL HIS PHE PRO ASP MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS LEU THR LEU GLN GLN ASP
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU LEU ALA ALA LYS ILE LEU VAL SER SER LEU LYS ASP VAL ALA GLU ILE GLN THR LYS GLY PHE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU CYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU CYS LYS LYS PHE GLN GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER LYS LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS GLN THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ASN ASP LYS THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL CYS LYS SER GLU ASP ASP GLU SER SER MET ASP SER VAL PHE ALA GLN SER ASP SER GLU GLY
SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLU GLU PHE TYR ARG ASP ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN GLU GLU ILE PHE ASP HIS GLU LYS LYS ILE LEU LYS ASP ASP LEU LEU ILE SER GLU GLU
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS ILE SER VAL HIS LEU GLU GLU HIS LEU HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR ASN HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO LEU VAL LEU ASP ILE PRO SER VAL VAL LEU ASN LEU ASP
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR LYS GLU LYS LEU GLU GLN LEU ILE LYS ASN LYS ILE SER GLY ILE CYS SER PRO LEU ARG ARG LEU LYS GLU LEU LYS ILE LEU LEU ASN LEU SER LYS ASN HIS
ILE SER SER LEU SER GLU ASN ASP PHE LEU ALA ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER SER CYS ILE LEU ASN PRO ILE LEU LEU ASN LEU PRO HIS LEU ARG SER
LEU ASP MET SER LEU ASN LEU ARG GLU LEU LEU ILE GLN LEU LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU LEU ILE LEU SER LYS GLU ILE



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

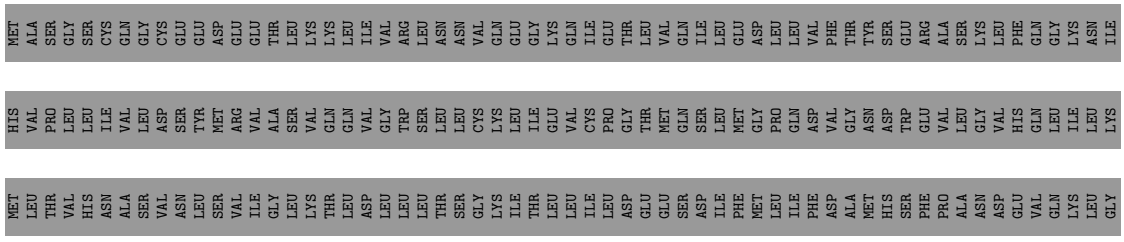
Chain 26-B: 41% • 59%



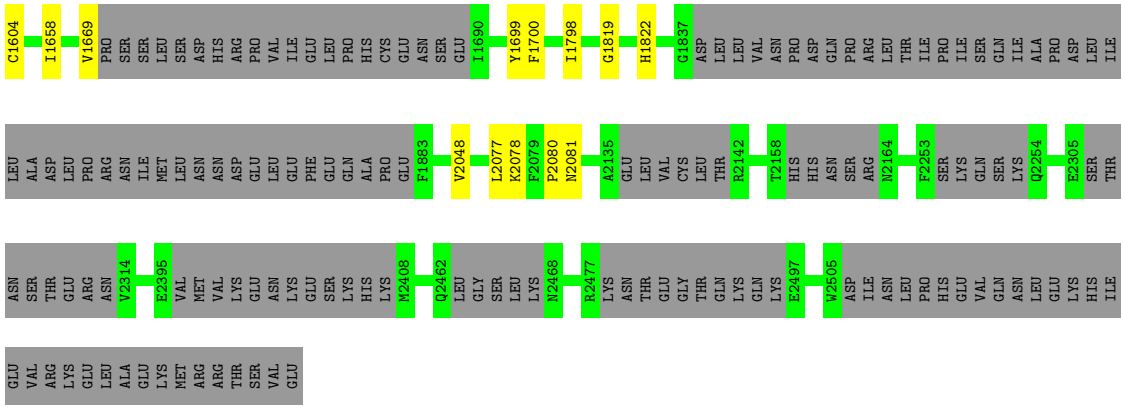


- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 27-A:

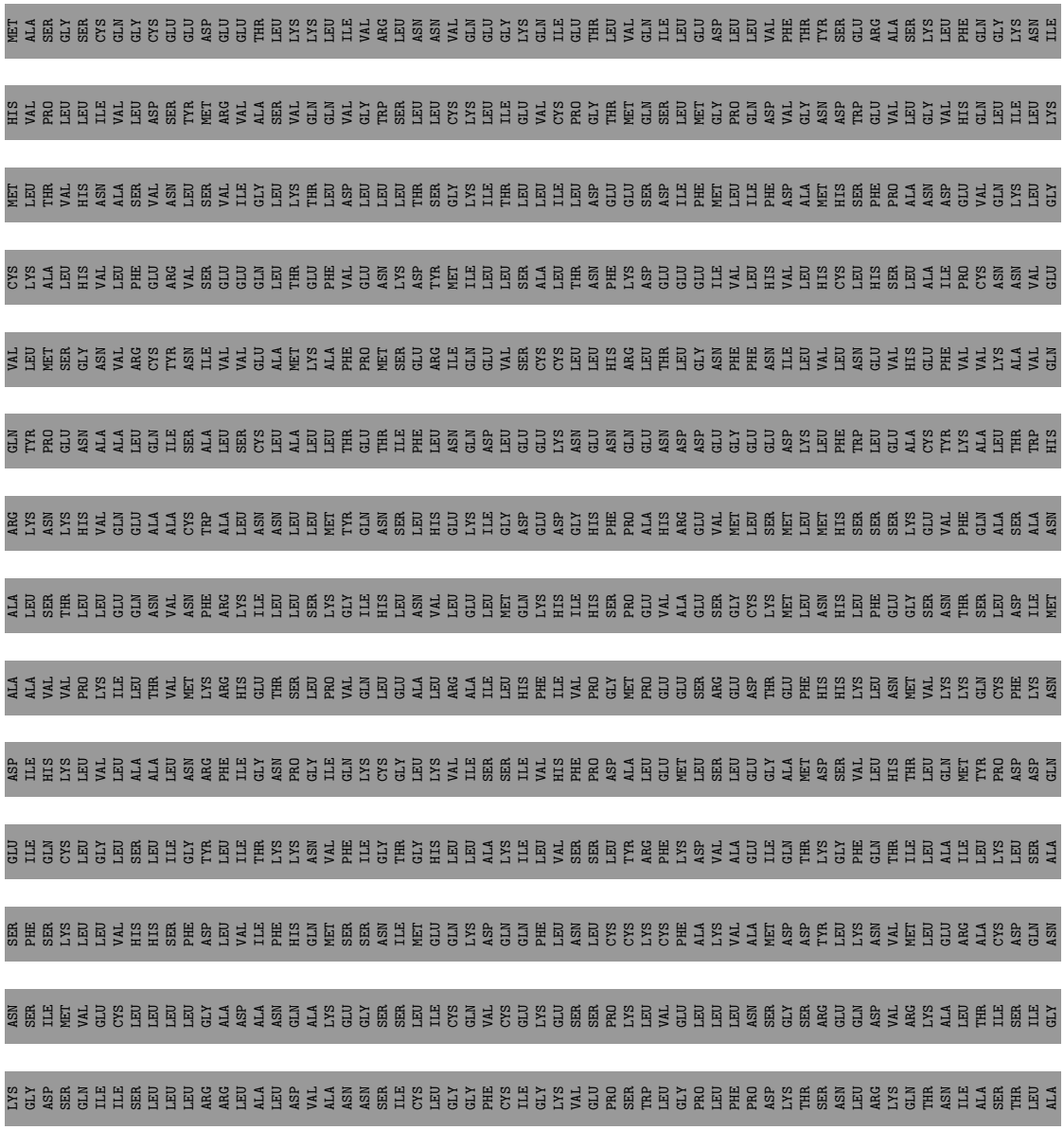


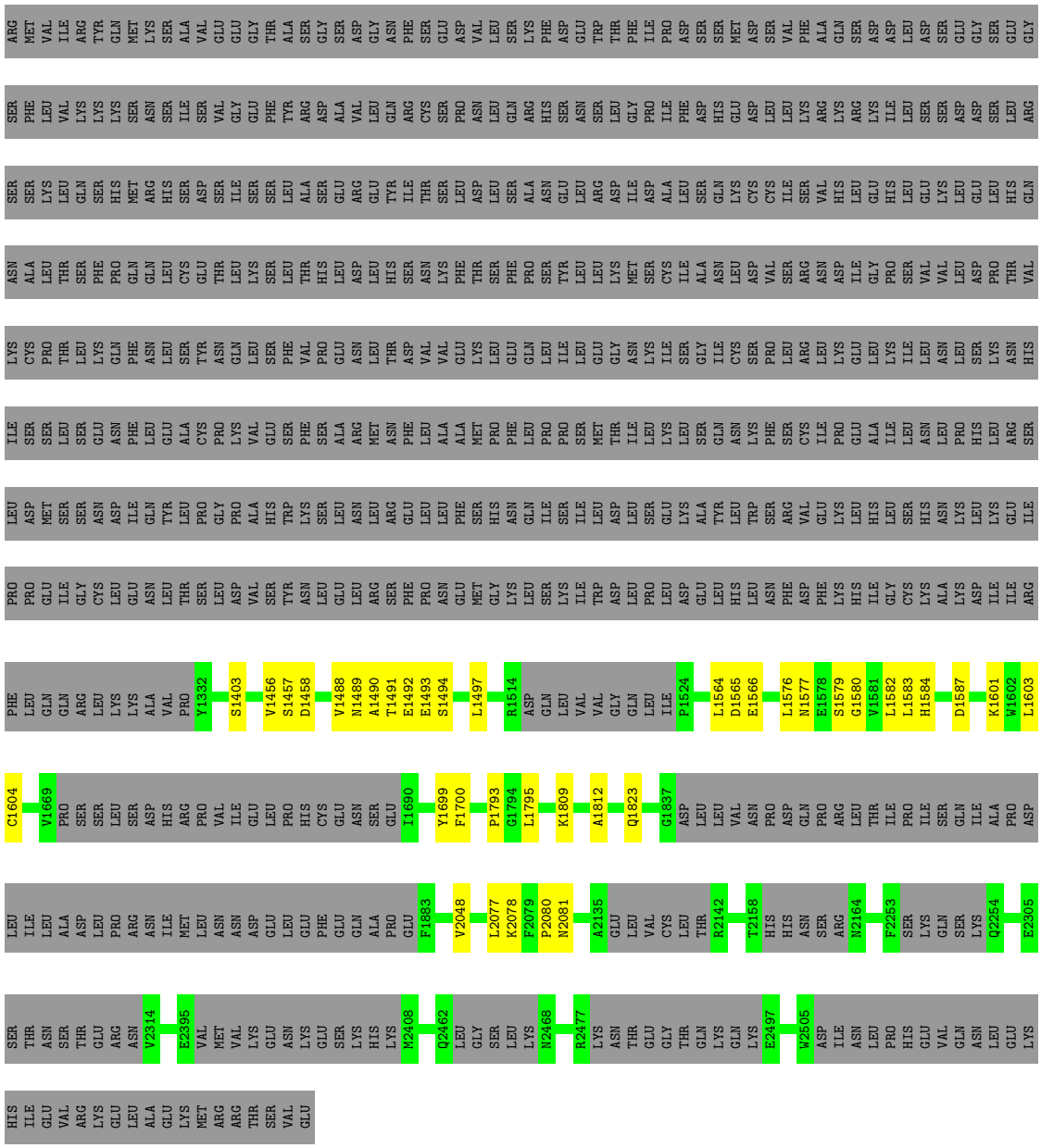
PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG	GLN	VAL	CYS
LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR	LEU	LYS
GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO	MET	ALA
GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU	SER	LEU
ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN	GLY	HIS
LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA	ASN	VAL
LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA	VAL	LEU
LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU	ARG	PHE
ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN	CYS	GLU
VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE	TYR	ARG
PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER	ASN	VAL
Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA	ILE	SER
	LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU	VAL	GLU
S1403	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER	VAL	GLU
	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS	GLU	GLN
V1456	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU	ALA	LEU
S1457	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA	MET	THR
D1458	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU	LYS	GLU
	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU	ALA	PHE
V1488	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR	PHE	VAL
N1489	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU	PRO	GLU
A1490	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR	MET	ASN
T1491	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE	SER	LYS
E1492	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE	GLU	ASP
E1493	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU	ARG	TYR
S1494	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN	ILE	MET
	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN	GLN	ILE
L1497	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP	GLU	LEU
	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU	VAL	LEU
R1514	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU	SER	SER
ASP	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU	CYS	ALA
GLN	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS	CYS	LEU
LEU	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN	LEU	THR
VAL	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU	LEU	ASN
VAL	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN	HIS	PHE
GLY	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN	ARG	LYS
GLN	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU	LEU	ASP
LEU	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN	THR	GLU
ILE	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP	LEU	GLU
P1524	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP	GLY	GLU
	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU	ASN	ILE
L1564	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY	PHE	VAL
D1565	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU	PHE	LEU
E1566	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU	ASN	HIS
	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP	ILE	VAL
L1576	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS	LEU	LEU
N1577	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU	VAL	HIS
E1578	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE	LEU	CYS
S1579	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP	ASN	LEU
G1580	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU	GLU	HIS
V1581	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU	VAL	SER
L1582	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA	HIS	LEU
L1583	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS	GLU	ALA
H1584	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR	PHE	ILE
	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS	VAL	PRO
D1587	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA	VAL	CYS
	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU	LYS	ASN
K1601	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR	ALA	ASN
W1602	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP	VAL	VAL
L1603	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN	HIS	GLN	GLU



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

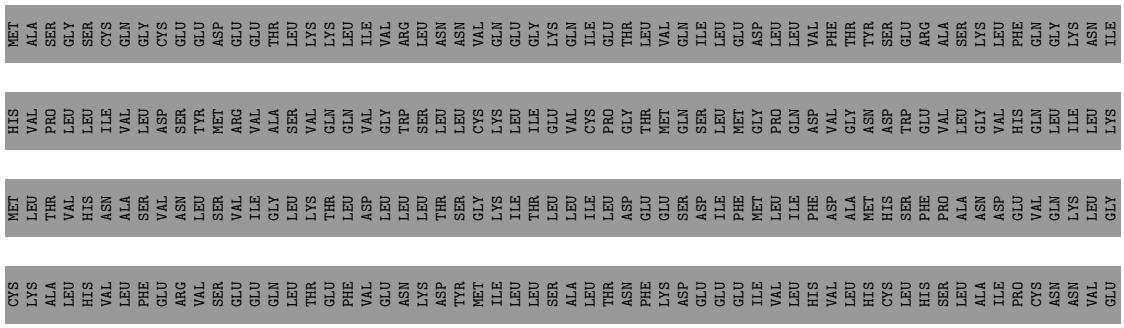
Chain 27-B:





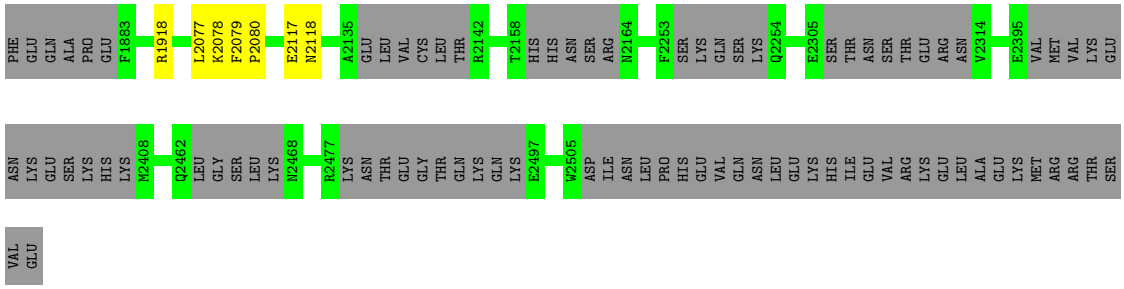
• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 28-A: 40% 59%



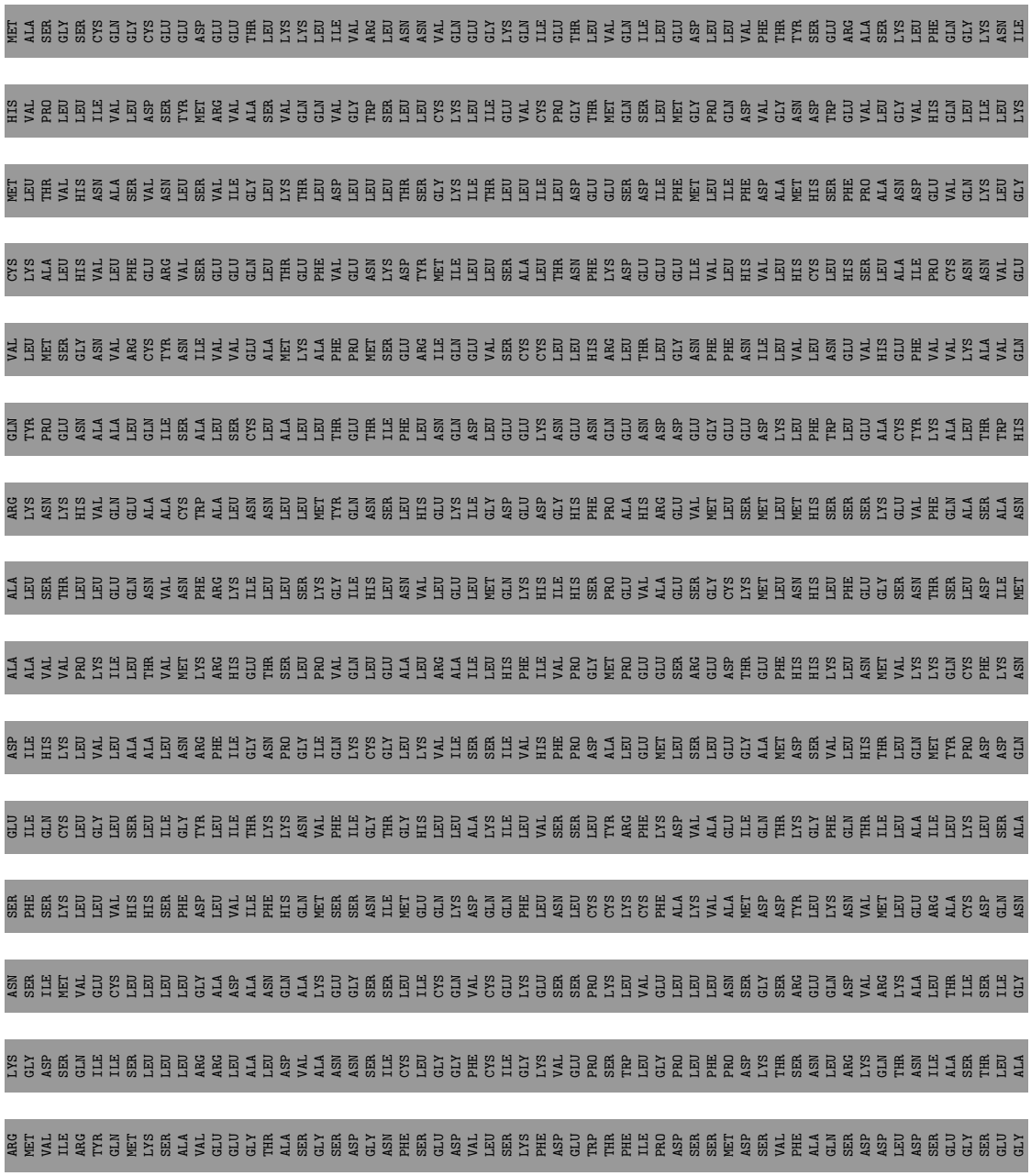
SER	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG	GLN	VAL
ASP	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR	LEU
HIS	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO	MET
ARG	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU	SER
PRO	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN	GLY
VAL	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA	ASN
ILE	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA	VAL
GLU	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU	ARG
LEU	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN	CYS
PRO	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE	TYR
HIS	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER	ASN
CYS	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA	ILE
GLU		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU	VAL
ASN	Q1353	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER	VAL
SER		VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS	GLU
GLU	D1455	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU	ALA
I1690		TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA	MET
	N1489	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU	LYS
W1734	A1490	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU	ALA
	T1491	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR	PHE
G1837	E1492	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU	PRO
ASP	E1493	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR	MET
LEU	S1494	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE	SER
LEU		PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE	GLU
VAL	R1514	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU	ARG
ASN	ASP	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN	ILE
PRO	GLN	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN	GLN
ASP	LEU	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP	GLU
GLN	VAL	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU	VAL
PRO	VAL	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU	SER
ARG	GLY	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU	CYS
LEU	GLN	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS	CYS
THR	LEU	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN	LEU
ILE	ILE	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU	LEU
PRO	P1524	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN	HIS
ILE		ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN	ARG
SER	D1565	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU	LEU
GLN	E1566	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN	THR
ILE	N1567	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP	LEU
ALA	E1568	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP	GLY
PRO		GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU	ASN
ASP	L1576	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY	PHE
LEU	N1577	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU	PHE
ILE	E1578	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU	ASN
LEU	S1579	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP	ILE
ALA	G1580	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS	LEU
ASP	V1581	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU	VAL
LEU	L1582	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE	LEU
PRO	L1583	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP	ASN
ARG		HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU	GLU
ASN	L1590	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU	VAL
ILE	Q1591	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA	HIS
MET		CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS	GLU
LEU	P1600	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR	PHE
ASN		ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS	VAL
ASN	V1669	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA	VAL
ASP	PRO	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU	LYS
GLU	SER	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR	ALA
LEU	SER	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP	VAL
GLU	LEU	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN	HIS	GLN

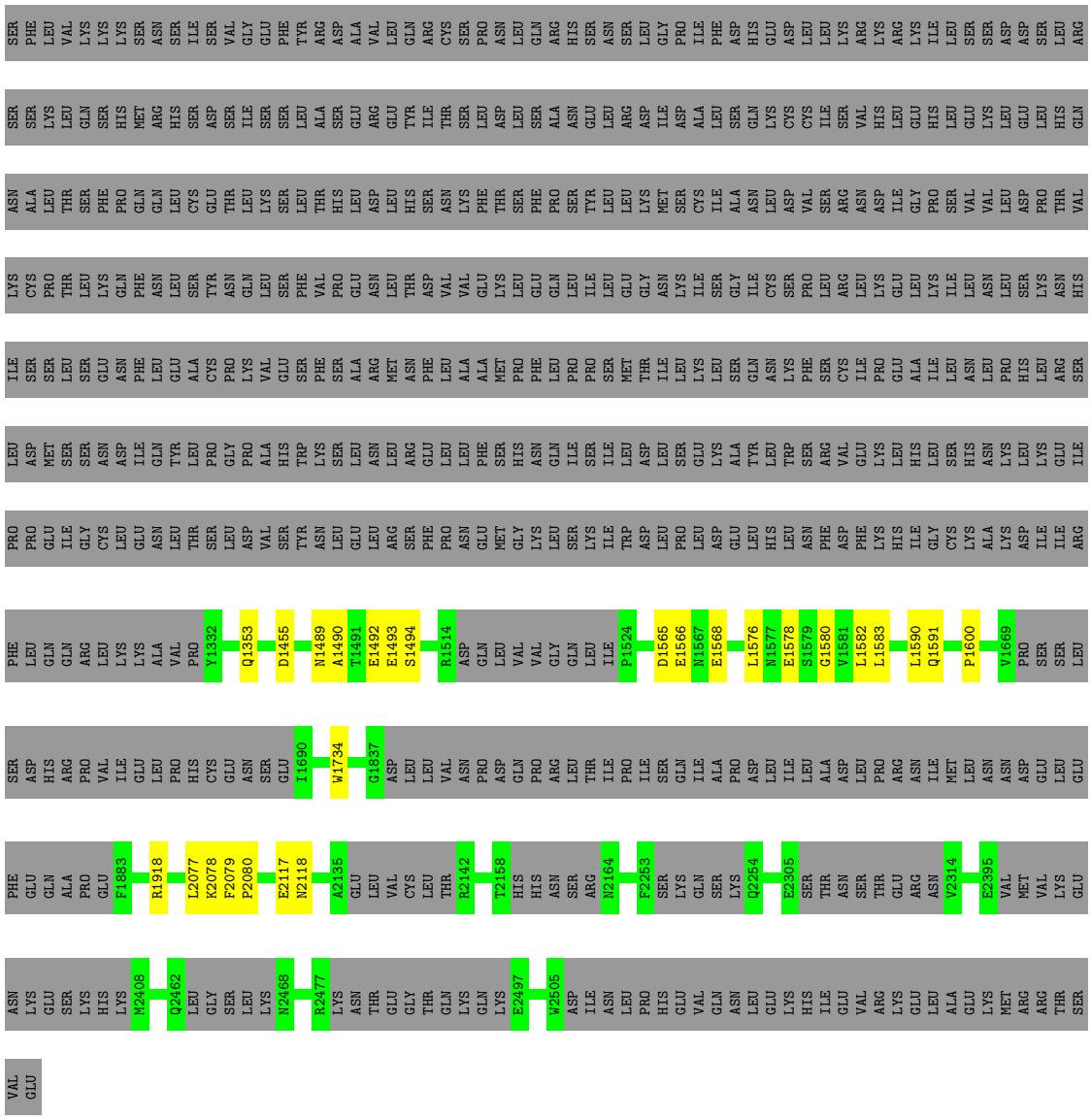
WORLDWIDE PDB PROTEIN DATA BANK



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

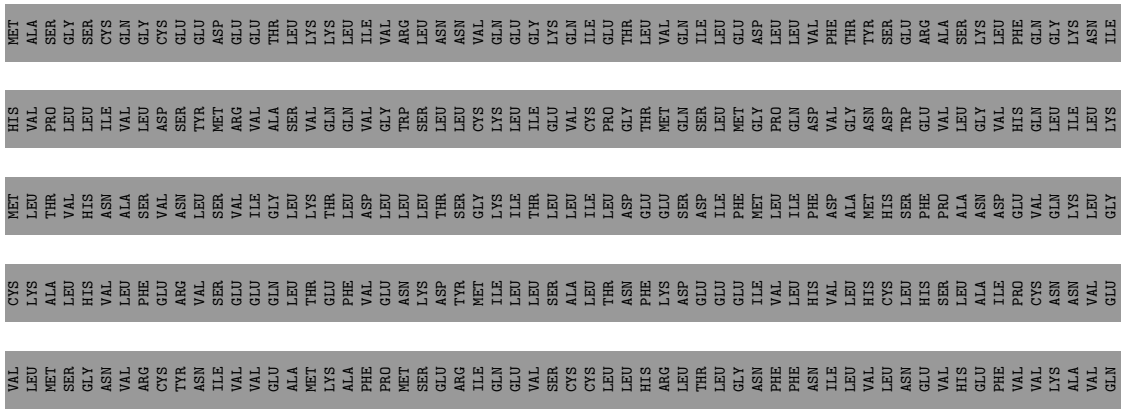
Chain 28-B: 40% 59%





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 29-A:



GLU	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG	GLN
ASN	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR
SER	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO
GLU	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU
I1690	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN
	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA
R1725	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA
A1726	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU
	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN
N1730	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE
R1731	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER
M1732	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA
		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU
R1735	A1498	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER
		VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS
G1837	R1514	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU
ASP	ASP	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA
LEU	GLN	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU
LEU	LEU	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU
VAL	VAL	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR
ASN	VAL	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU
PRO	GLY	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR
ASP	GLN	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE
GLN	LEU	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE
PRO	ILE	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU
ARG	P1524	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN
LEU		GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN
THR	E1566	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP
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PRO	E1578	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU
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SER	D1587	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS
GLN	P1588	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN
ILE		ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU
ALA	E1616	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN
PRO	G1617	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN
ASP	C1618	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU
LEU	P1619	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN
ILE	K1620	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP
LEU	H1621	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP
ALA	P1622	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU
ASP	K1623	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY
LEU		HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU
PRO	V1669	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU
ARG	PRO	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP
ASN	SER	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS
ILE	SER	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU
MET	LEU	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE
LEU	SER	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP
ASN	ASP	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU
ASN	HIS	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU
ASP	ARG	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA
GLU	PRO	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS
LEU	VAL	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR
GLU	ILE	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS
PHE	GLU	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA
GLU	LEU	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU
GLN	PRO	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR
ALA	HIS	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP
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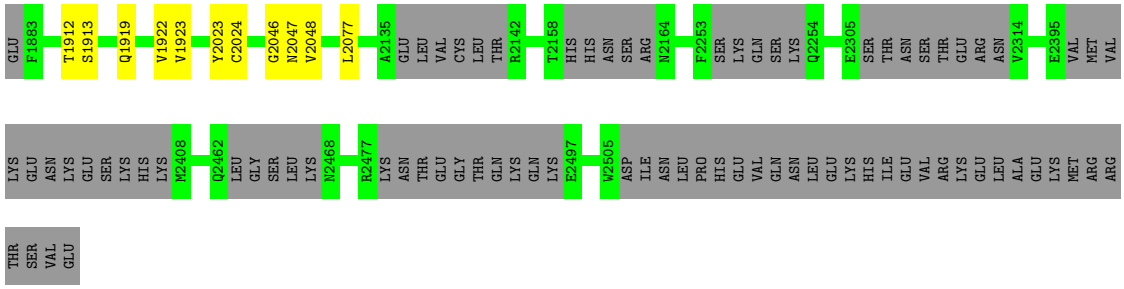
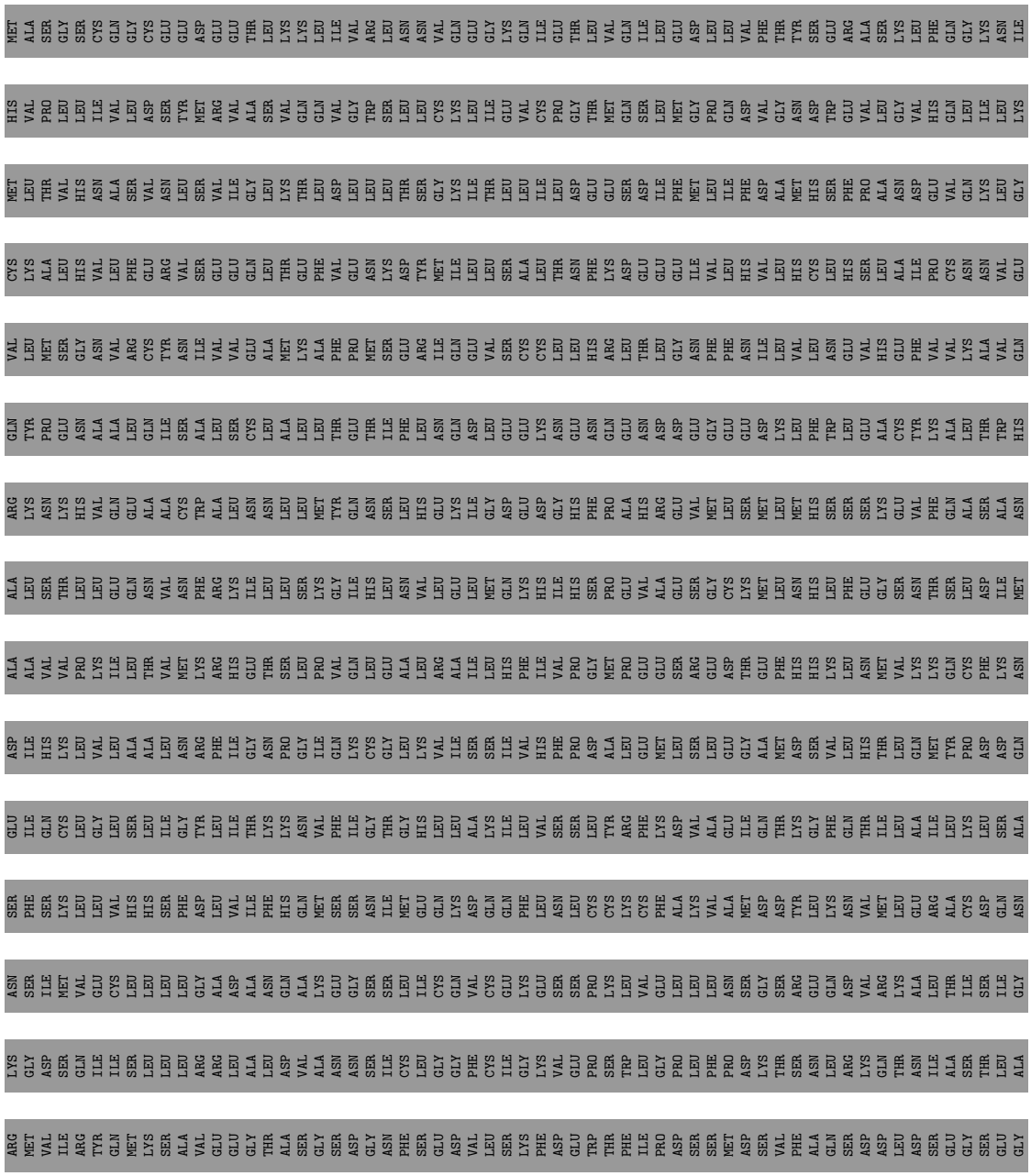
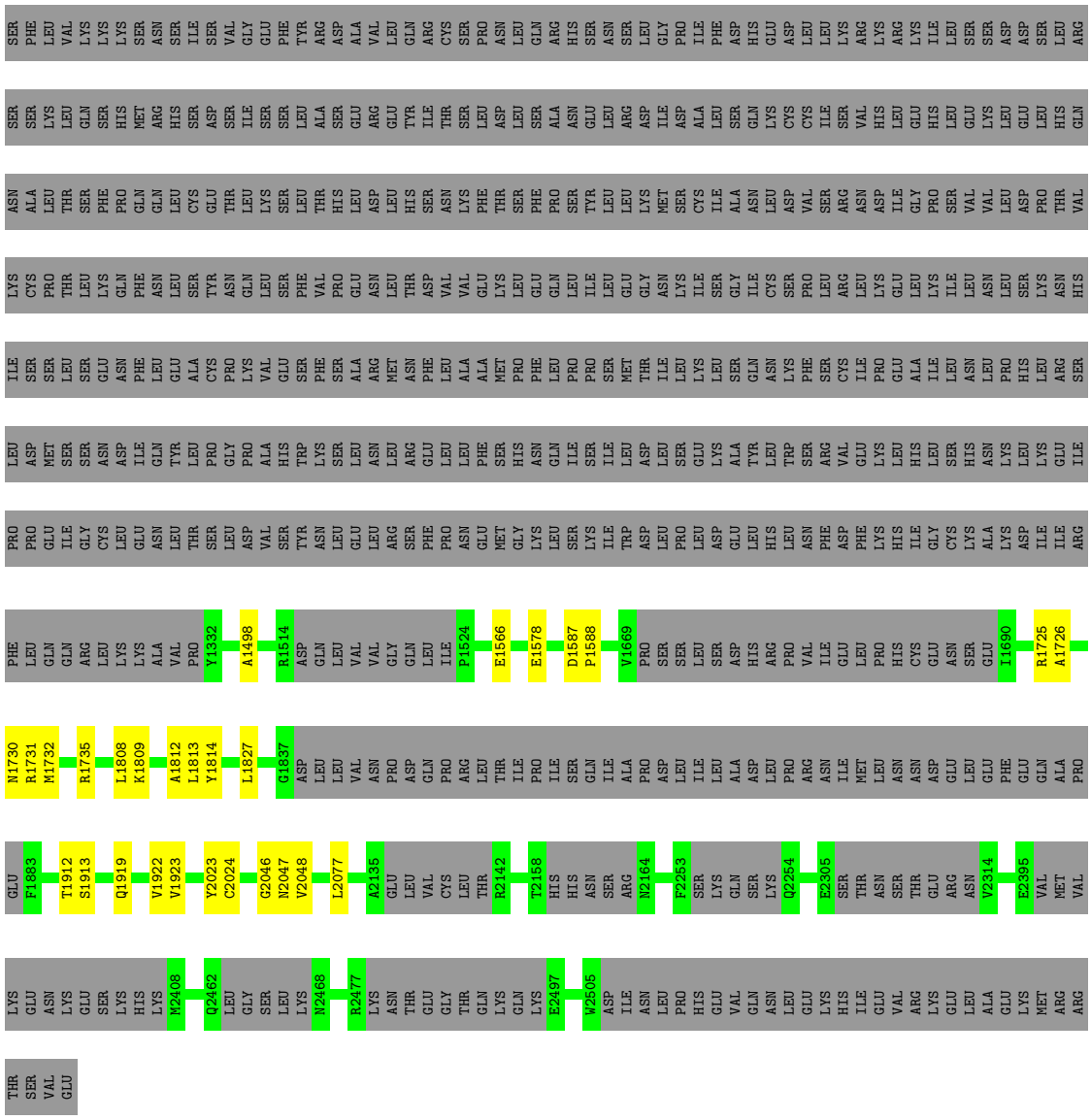


- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

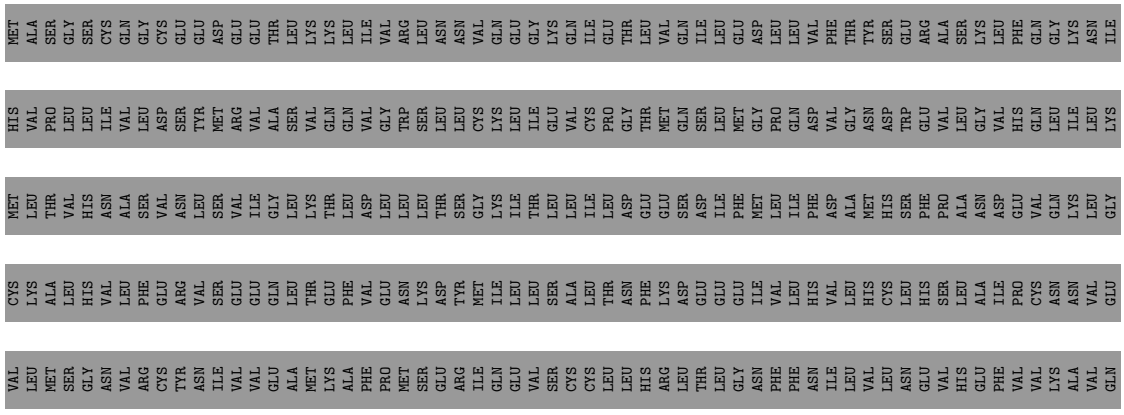
Chain 29-B: 40% 59%





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 30-A:



GLU	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG	GLN
ASN	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR
SER	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO
GLU	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU
I1690	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN
	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA
P1717	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA
Y1718	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU
M1719	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN
	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE
P1729	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER
N1730	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA
R1731		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU
M1732	S1457	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER
	D1458	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS
W1742	E1459	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU
	K1460	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA
I1765	Q1461	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU
	R1462	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU
G1837	K1463	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR
ASP	A1464	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU
LEU	C1465	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR
LEU	M1466	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE
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ASN	R1514	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU
PRO	ASP	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN
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GLN	LEU	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP
PRO	VAL	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU
ARG	VAL	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU
LEU	GLY	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU
THR	GLN	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS
ILE	LEU	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN
PRO	ILE	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU
ILE	P1524	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN
SER		ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN
GLN	D1565	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU
ILE	E1566	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN
ALA		LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP
PRO	D1587	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP
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LEU	Q1591	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY
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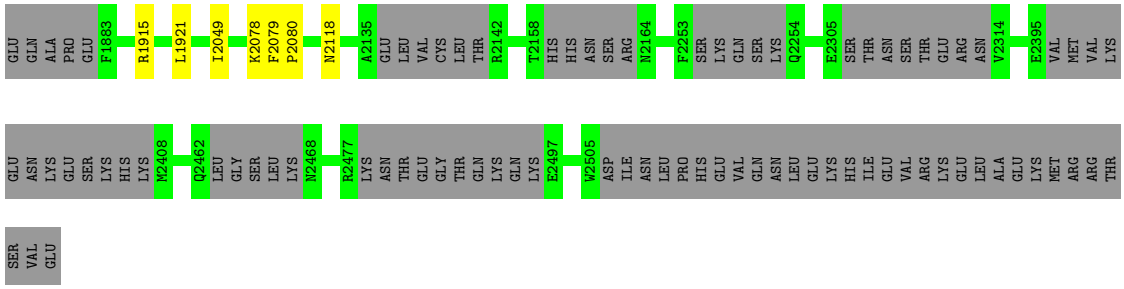
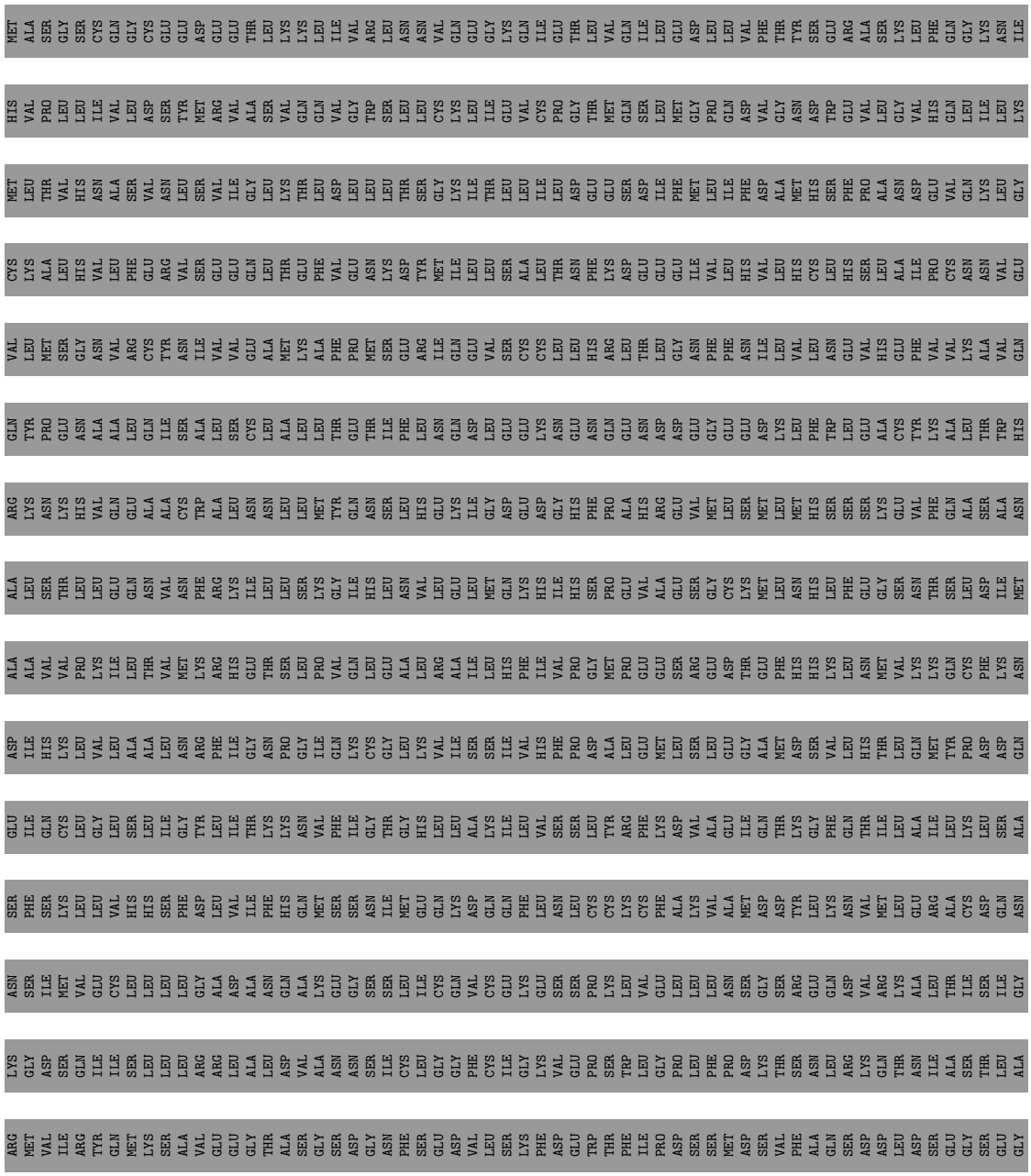
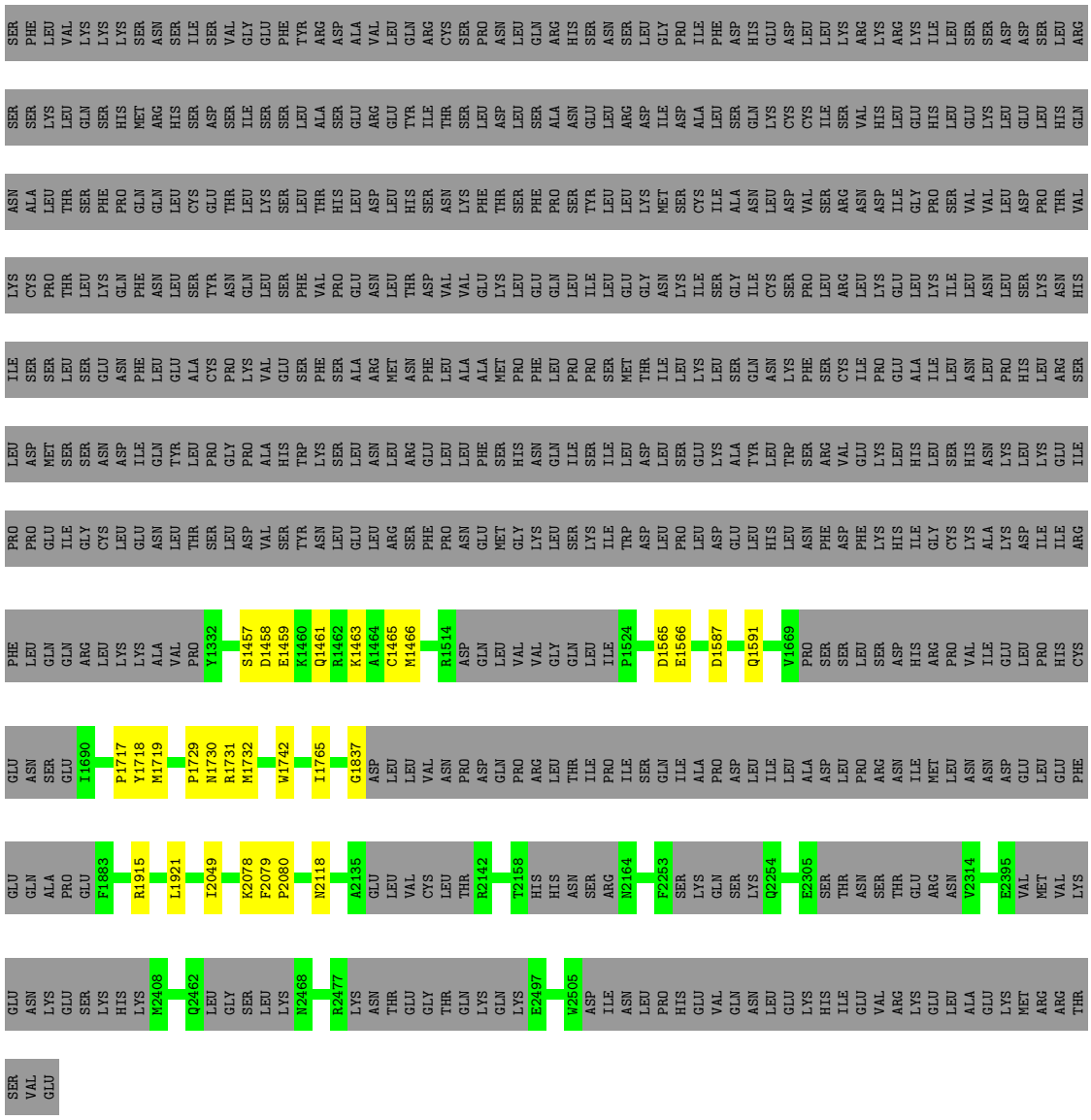
LEU	V1669	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU
ALA	PRO	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP
ASP	SER	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS
LEU	SER	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU
PRO	LEU	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE
ARG	SER	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP
ASN	ASP	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU
ILE	HIS	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU
MET	ARG	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA
LEU	PRO	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS
ASN	VAL	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR
ASN	ILE	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS
ASP	GLU	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA
GLU	LEU	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU
LEU	PRO	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR
GLU	HIS	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP
PHE	CYS	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN	HIS



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

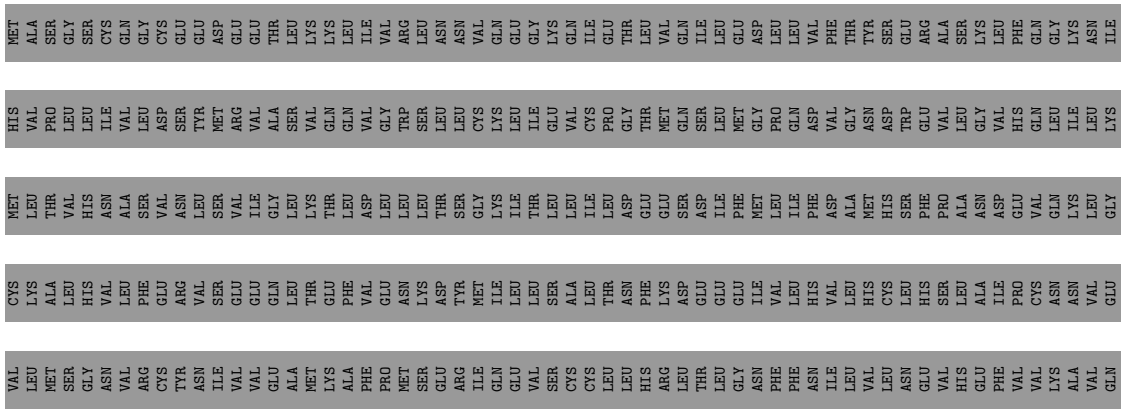
Chain 30-B: 40% 59%



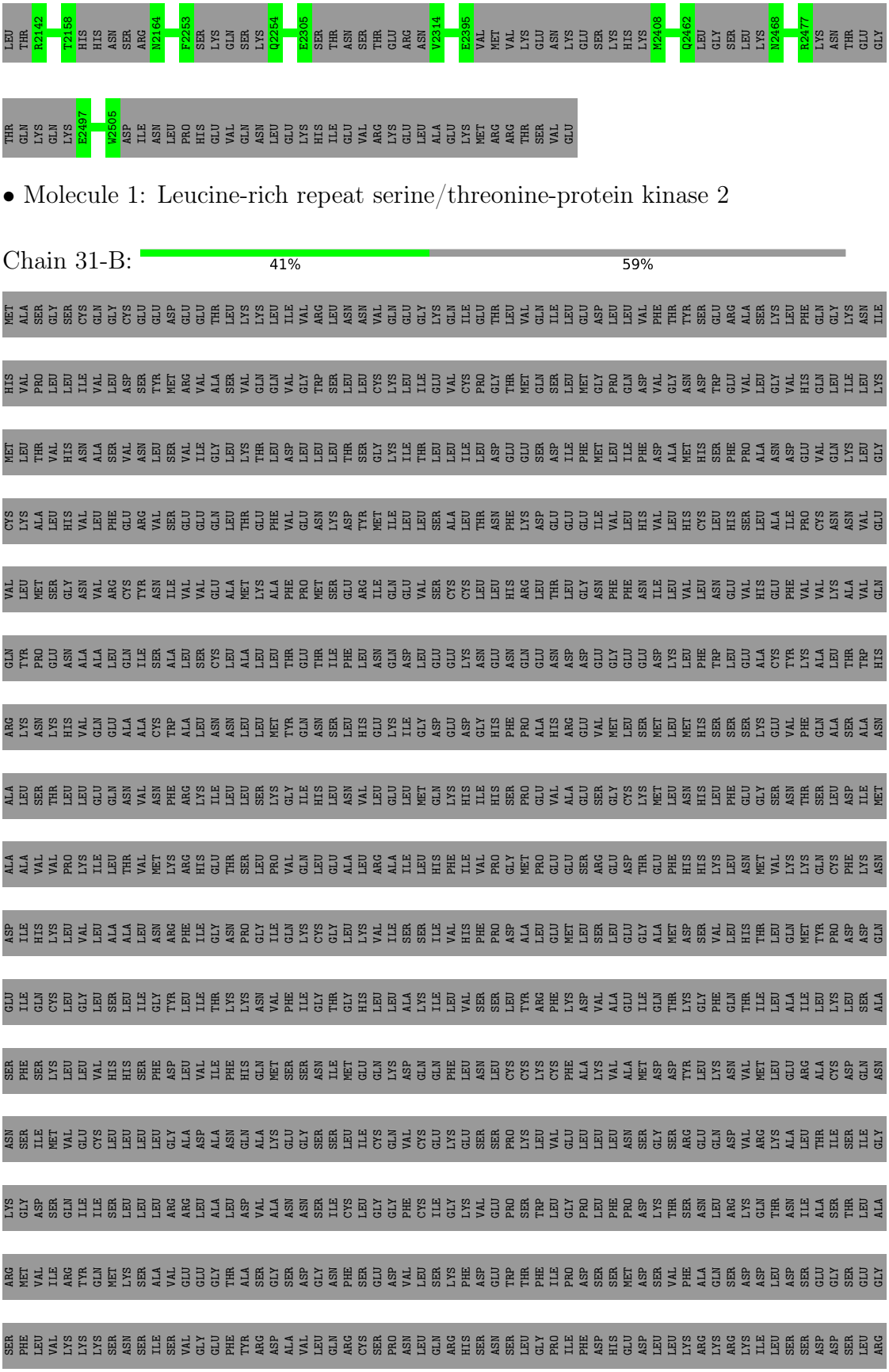


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 31-A: 41% 59%

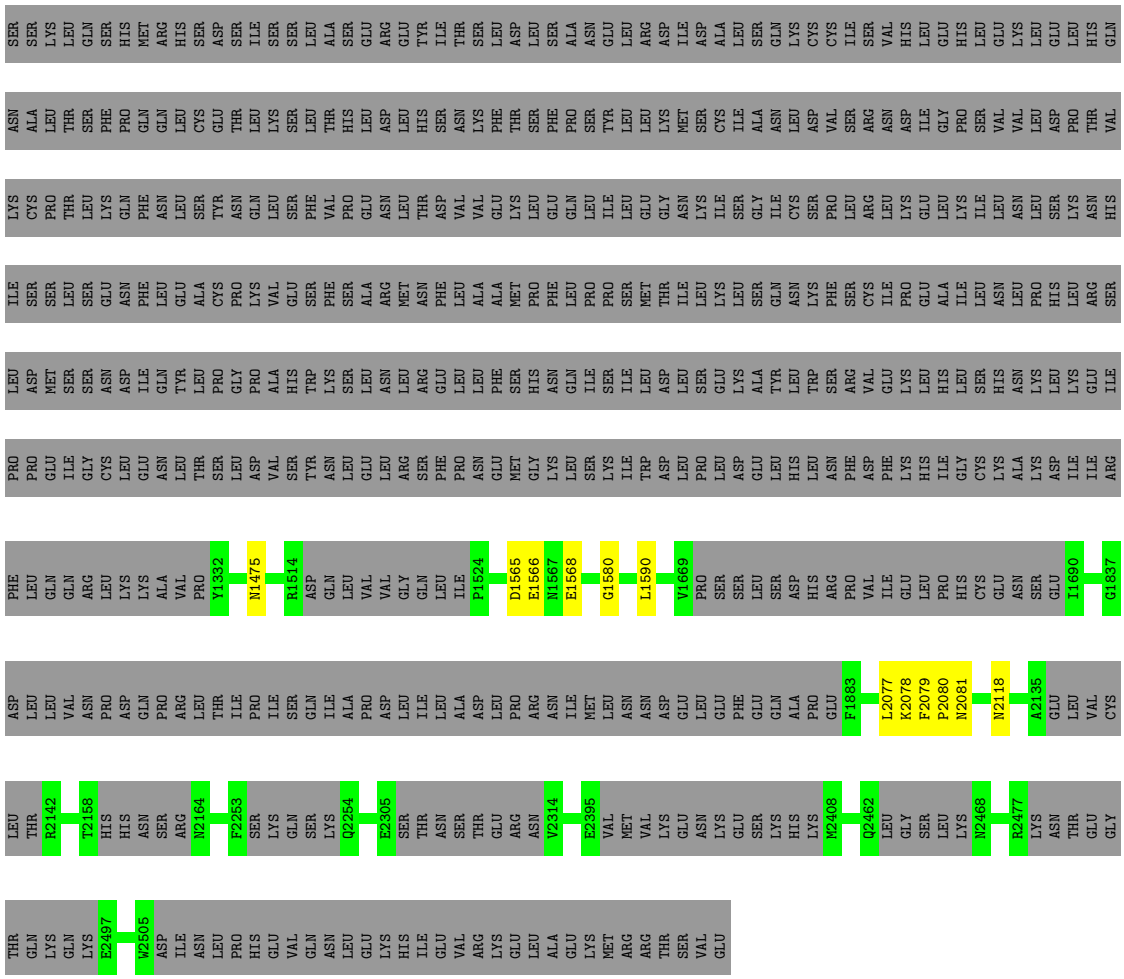


GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LYS LEU PHE TRP LEU GLU LYS ASN GLU HIS ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN GLU ALA ASN
ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS ILE LEU ASN VAL LEU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ILE MET
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER LEU HIS LEU LYS LEU ASN MET VAL LYS LYS MET PRO GLU GLU ASP GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY GLY THR LEU LEU LEU ALA LYS ILE LEU ALA LEU GLN LYS LEU ILE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU LEU HIS HIS SER PHE ASP LEU VAL PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN LEU LEU CYS CYS PHE ALA ALA MET MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU ARG CYS ASP GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN GLN ASP VAL ARG LYS LYS ALA LEU THR ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN THR SER THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU GLY GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU LEU SER LYS HIS SER ASN SER LEU LEU PRO ILE PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS LYS ILE LEU LEU ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS HIS MET ARG HIS SER ASP SER ILE SER ALA SER GLU ARG TYR ILE THR SER LEU ASP LEU SER ALA ALA ASN GLU ASN LYS CYS CYS ILE SER VAL HIS LEU GLU GLU HIS HIS LEU LEU SER GLN LYS CYS ILE SER LEU LEU HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR THR SER THR LEU TYR ASN LYS PHE THR SER PHE PRO SER ASN LYS VAL VAL ASP LEU HIS SER ASN LEU ARG ARG ASP ASP ILE ASP ALA LEU SER ASN LEU ASP VAL SER ARG ASN LEU ASP ILE SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ASP ASP GLY GLU VAL ALA LEU ASP ASP HIS
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU LYS SER GLU GLU GLN GLU LYS ILE CYS SER PRO LEU ARG LEU LYS GLU GLU VAL PHE LYS GLU LEU ASN LEU LEU LEU LYS ILE LEU LYS LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE VAL SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS VAL ARG ASN ASP ILE ILE GLY ASN PRO SER ILE ILE ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO LYS ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU ALA ALA PHE SER HIS ASN GLN ILE LEU ILE SER LEU ASP LEU LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER GLU LYS ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 N1475 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 N1567 E1568 G1580 L1590 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690 G1837
ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883 L2077 K2078 F2079 P2080 N2081 N2118 A2135 GLU LEU VAL CYS



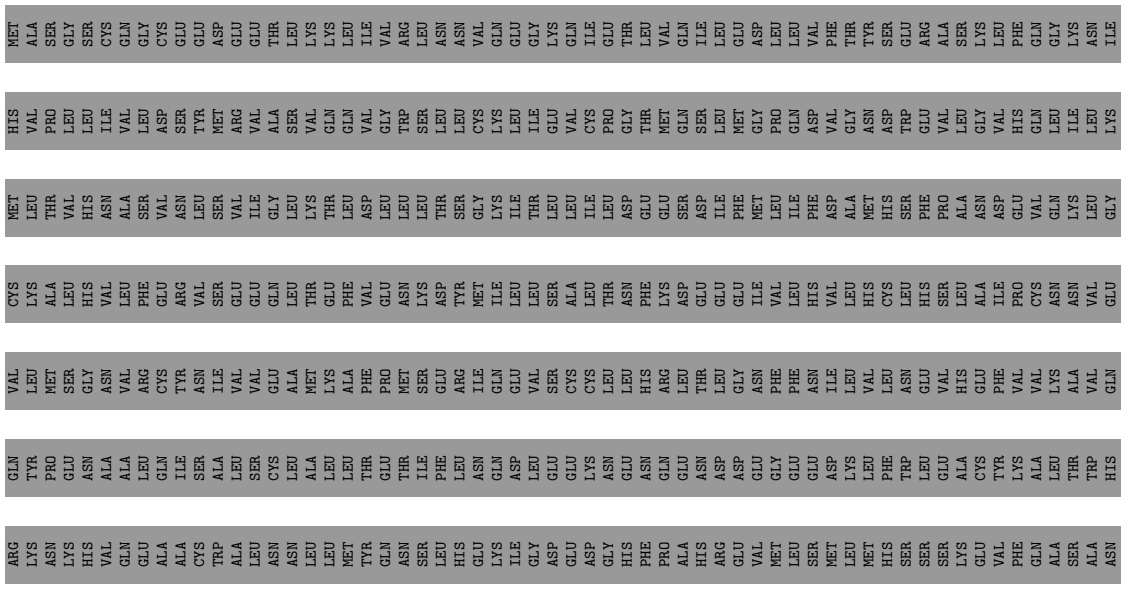
• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 31-B: 41% 59%



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 32-A: 40% 59%



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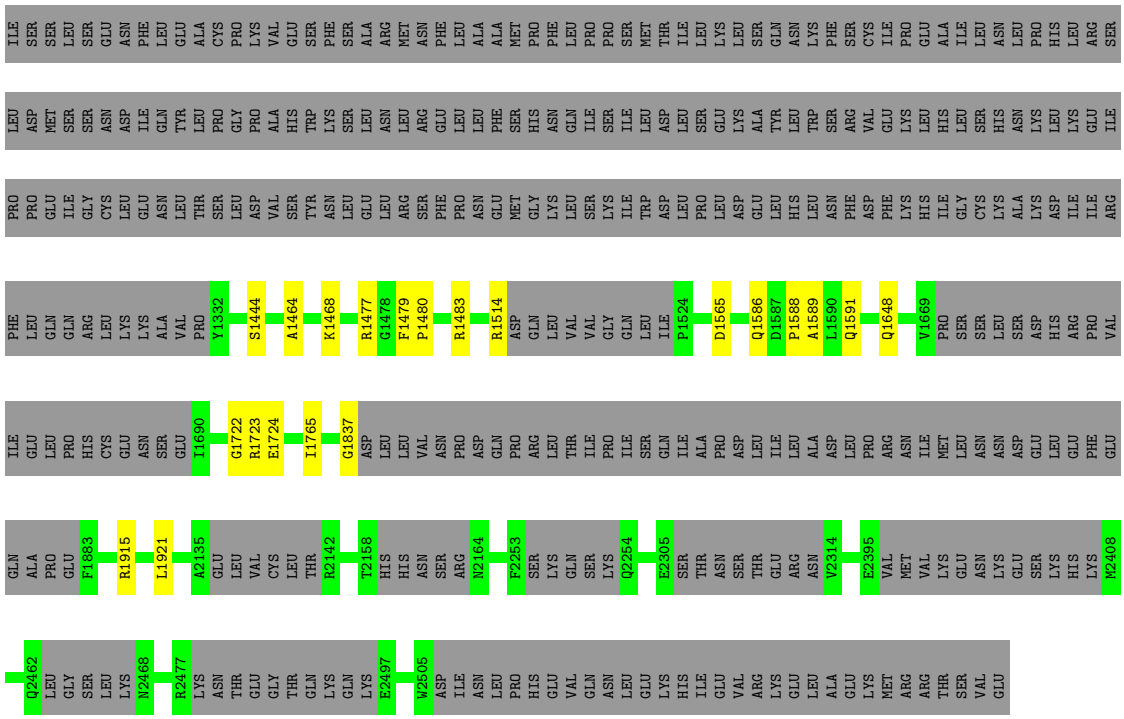
N2468
R2477
E2497
W2505
F1883
R1915
L1921
A2135
T2158
N2164
F2253
Q2254
E2305
E2395
M2408
I1690
G1722
R1723
E1724
I1765
G1837
Y1332
S1444
A1464
K1468
R1477
G1478
F1479
P1480
R1483
R1514
P1524
D1565
Q1586
D1587
P1588
A1589
L1590
Q1591
Q1648
V1669

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

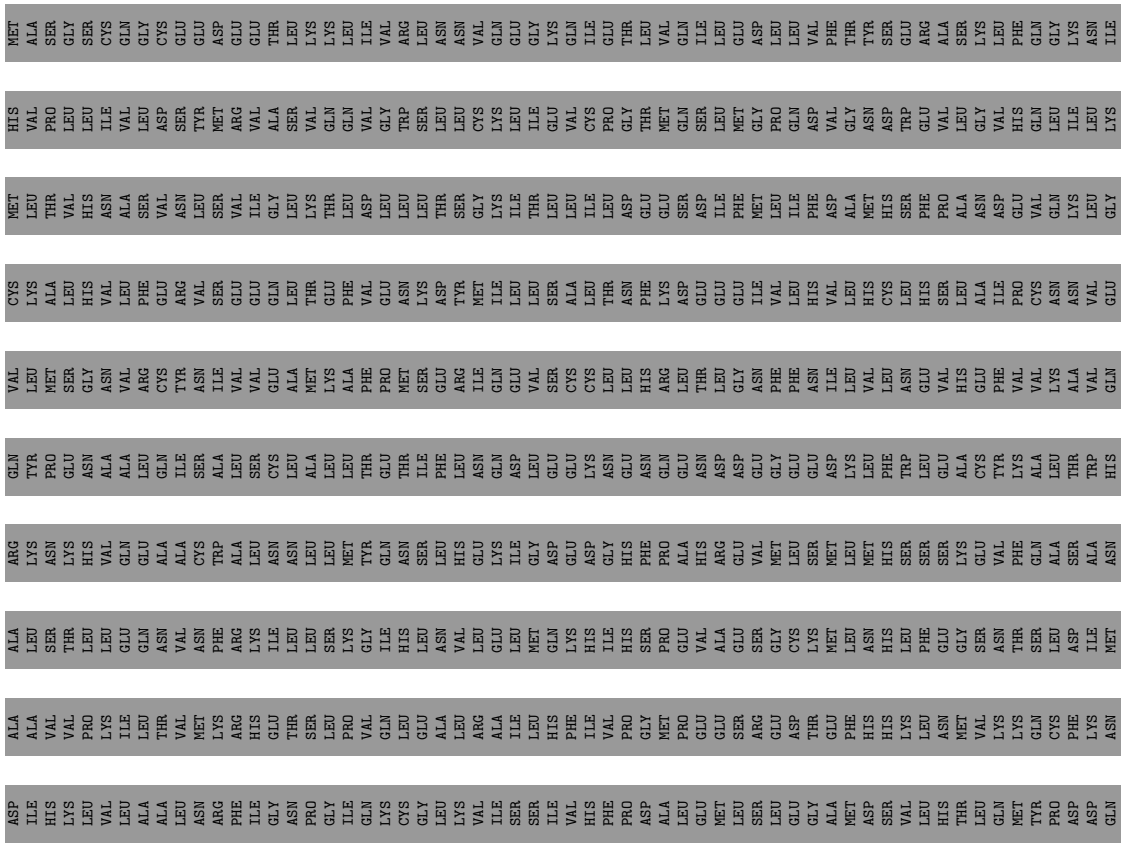
Chain 32-B: 40% • 59%

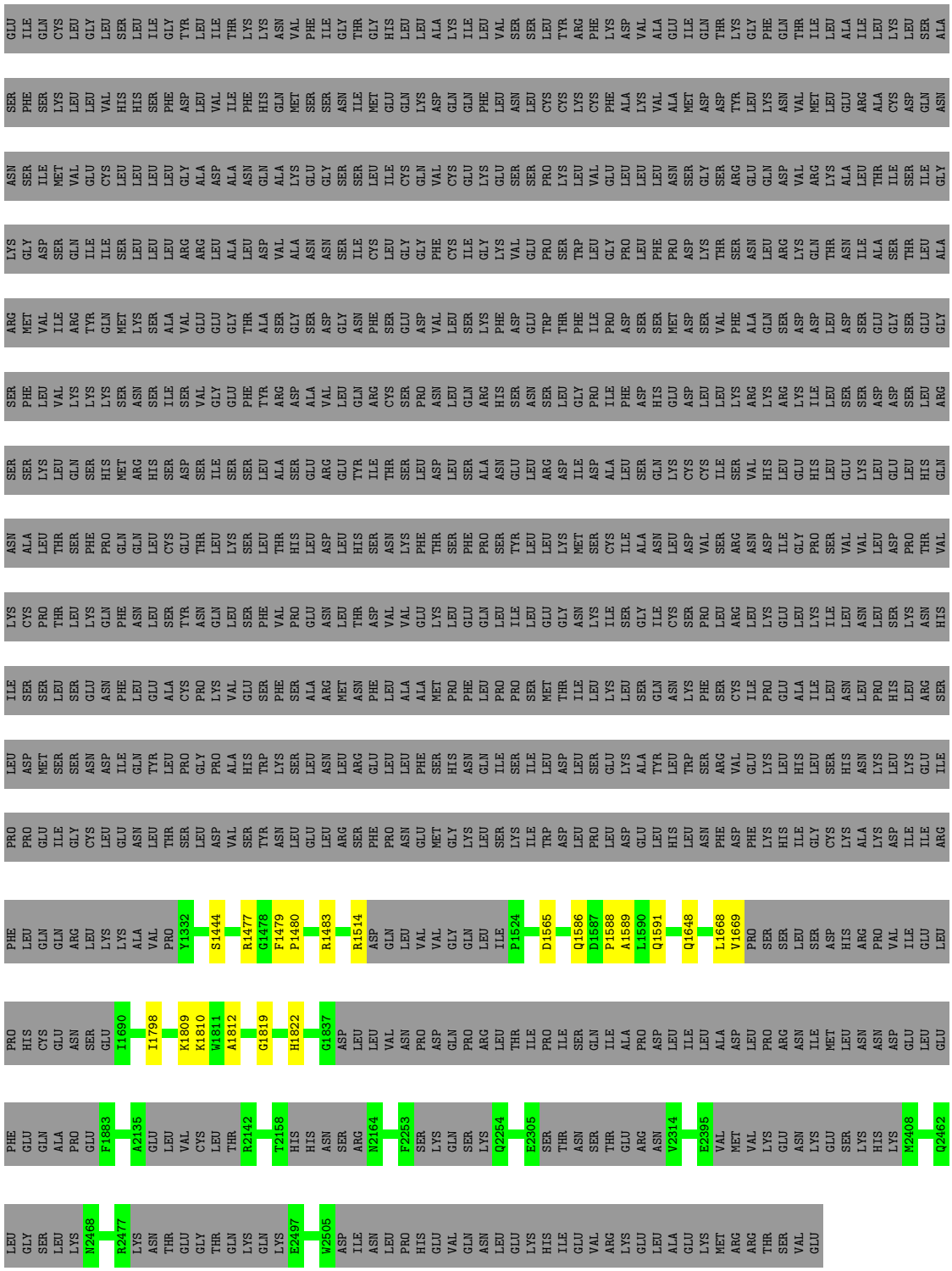
| | | |



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 33-A: 40% • 59%

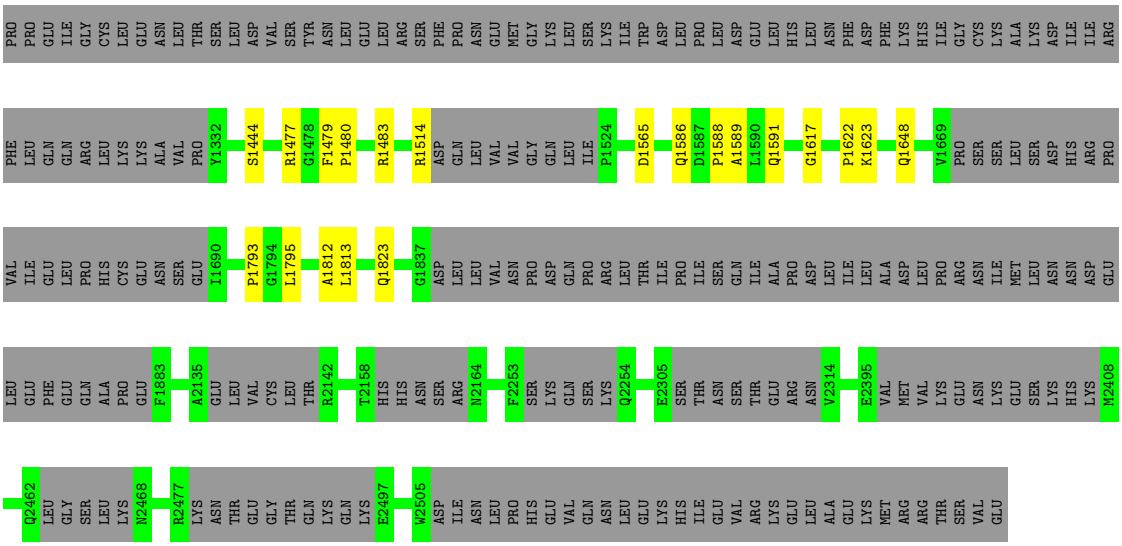




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

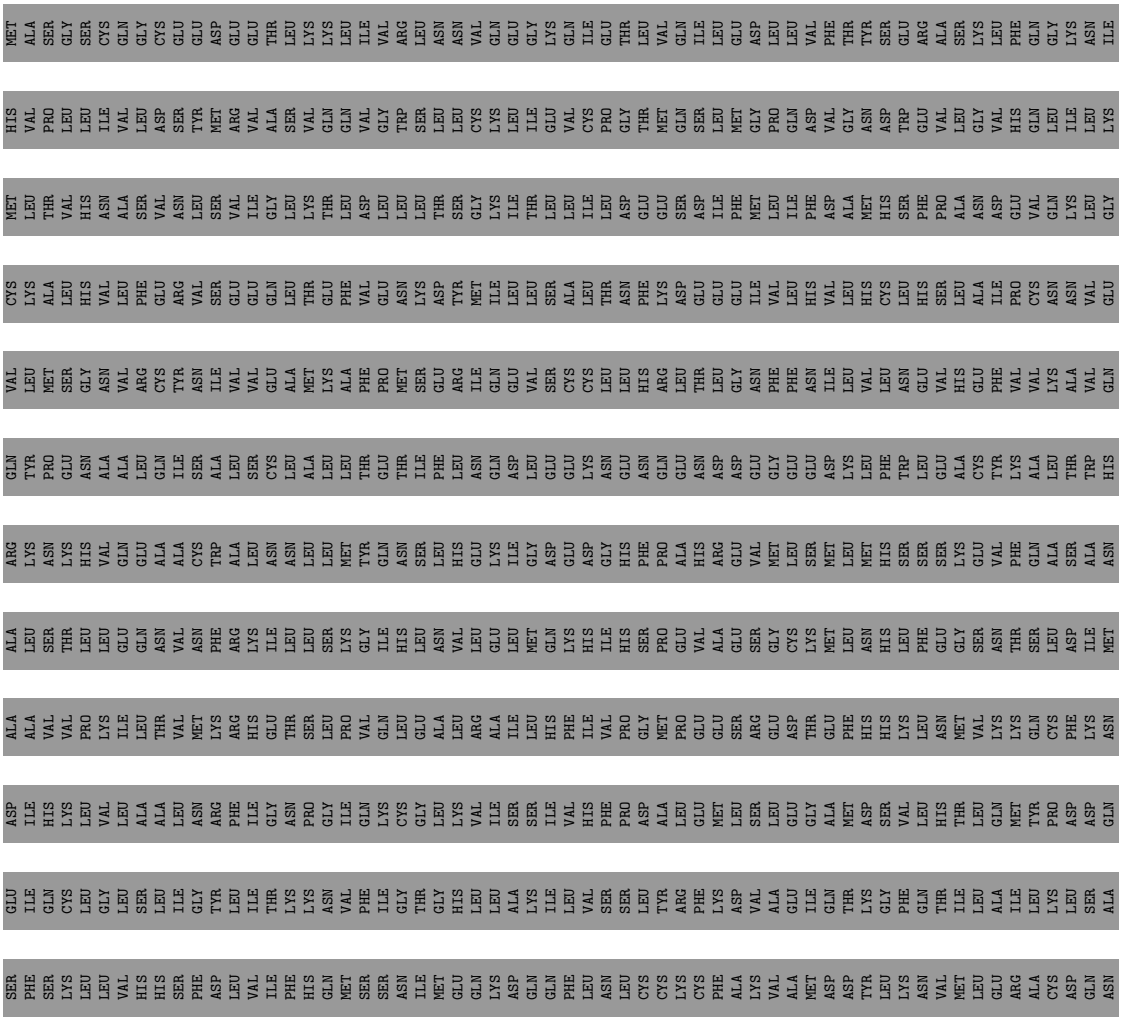
Chain 33-B: 40% 59%

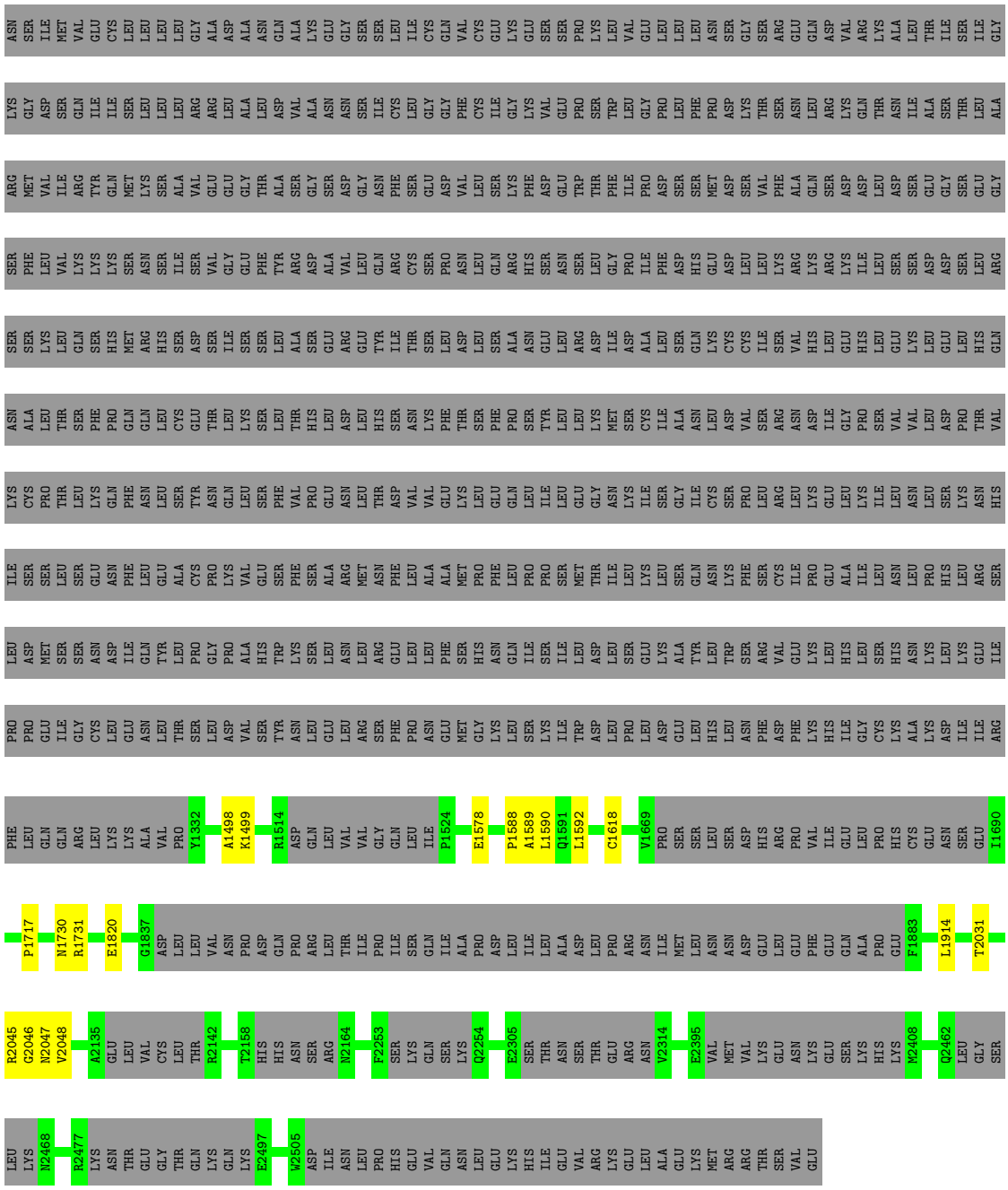
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

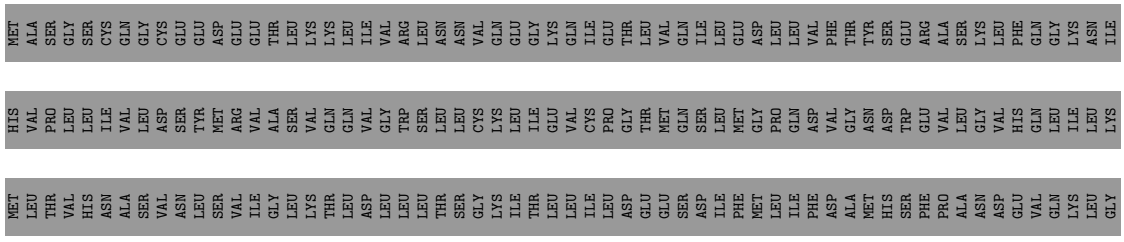
Chain 34-A: 40% 59%





- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 34-B:



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LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR	LEU	LYS
GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO	MET	ALA
GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU	SER	LEU
ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN	GLY	HIS
LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA	ASN	VAL
LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA	VAL	LEU
LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU	ARG	PHE
ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN	CYS	GLU
VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE	TYR	ARG
PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER	ASN	VAL
Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA	ILE	SER
	LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU	VAL	GLU
A1498	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER	VAL	GLU
K1499	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS	GLU	GLN
	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU	ALA	LEU
R1514	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA	MET	THR
ASP	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU	LYS	GLU
GLN	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU	ALA	PHE
LEU	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR	PHE	VAL
VAL	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU	PRO	GLU
VAL	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR	MET	ASN
GLY	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE	SER	LYS
GLN	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE	GLU	ASP
LEU	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU	ARG	TYR
ILE	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN	ILE	MET
P1524	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN	GLN	ILE
	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP	GLU	LEU
E1578	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU	VAL	LEU
	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU	SER	SER
P1588	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU	CYS	ALA
A1589	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS	CYS	LEU
L1590	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN	LEU	THR
Q1591	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU	LEU	ASN
L1592	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN	HIS	PHE
	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN	ARG	LYS
C1618	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU	LEU	ASP
P1619	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN	THR	GLU
K1620	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP	LEU	GLU
H1621	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP	GLY	GLU
	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU	ASN	ILE
V1669	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY	PHE	VAL
PRO	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU	PHE	LEU
SER	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU	ASN	HIS
SER	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP	ILE	VAL
LEU	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS	LEU	LEU
SER	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU	VAL	HIS
ASP	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE	LEU	CYS
HIS	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP	ASN	LEU
ARG	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU	GLU	HIS
PRO	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU	VAL	SER
VAL	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA	HIS	LEU
ILE	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS	GLU	ALA
GLU	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR	PHE	ILE
LEU	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS	VAL	PRO
PRO	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA	VAL	CYS
HIS	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU	LYS	ASN
CYS	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR	ALA	ASN
GLU	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP	VAL	VAL
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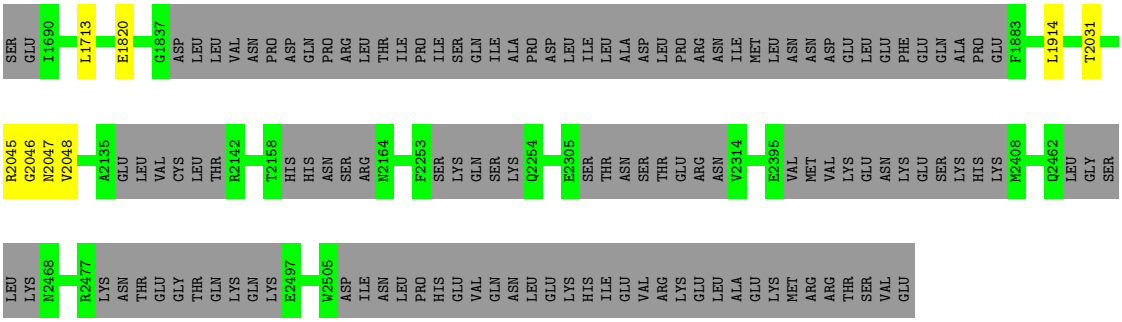
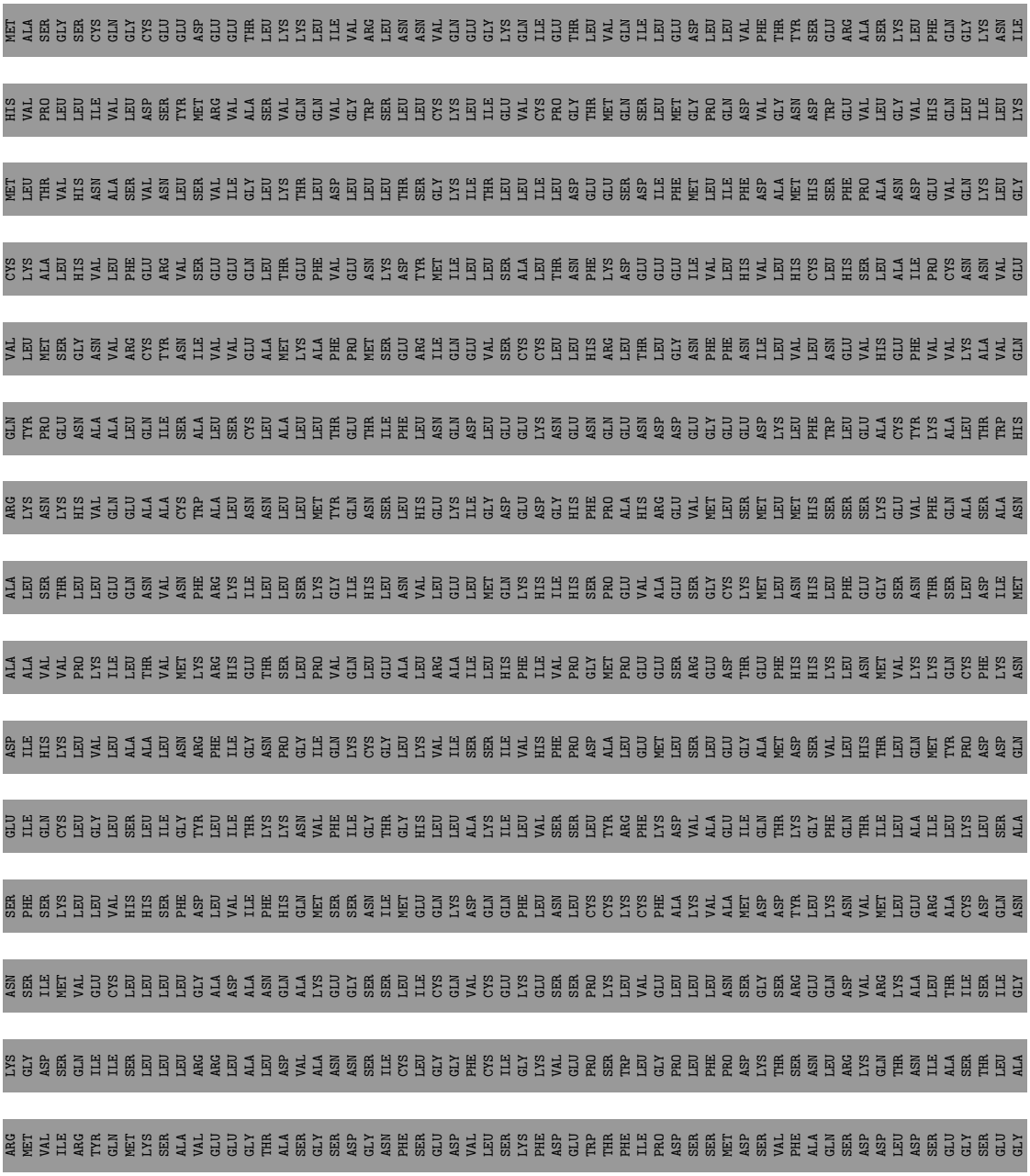
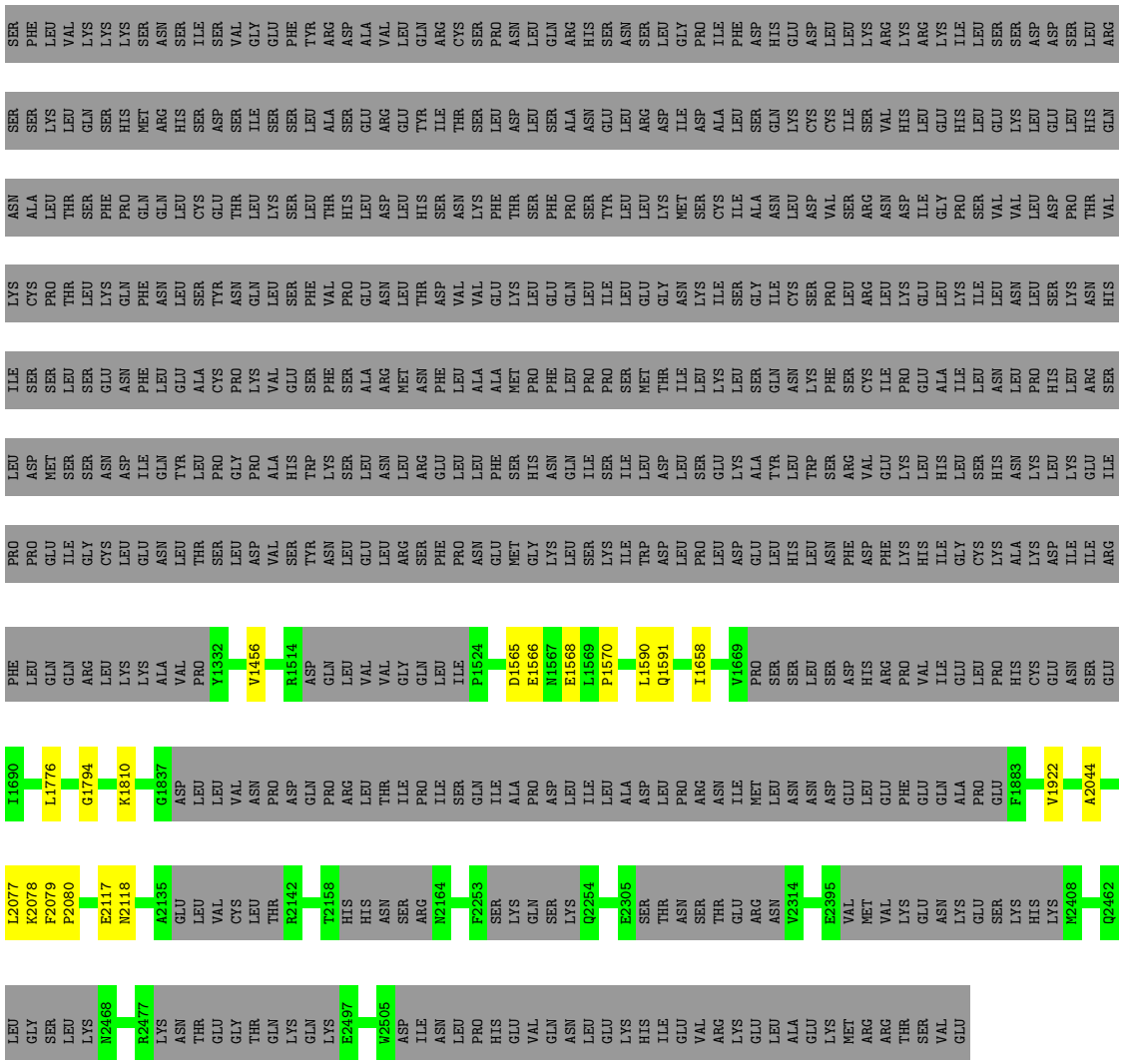


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

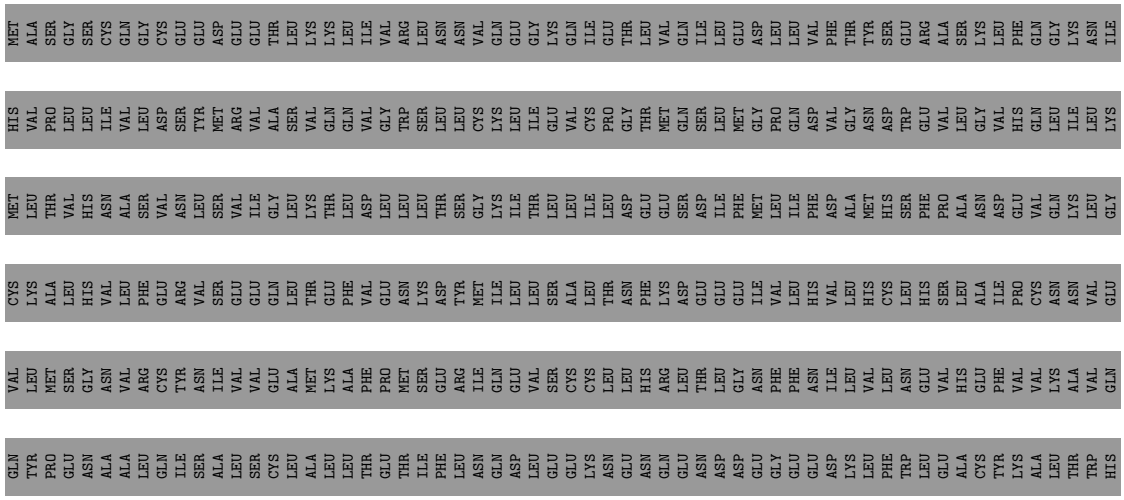
Chain 35-A: 40% • 59%



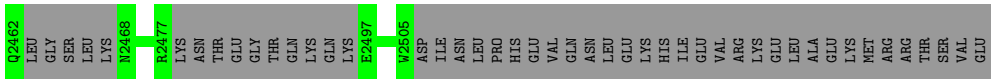


- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 35-B:

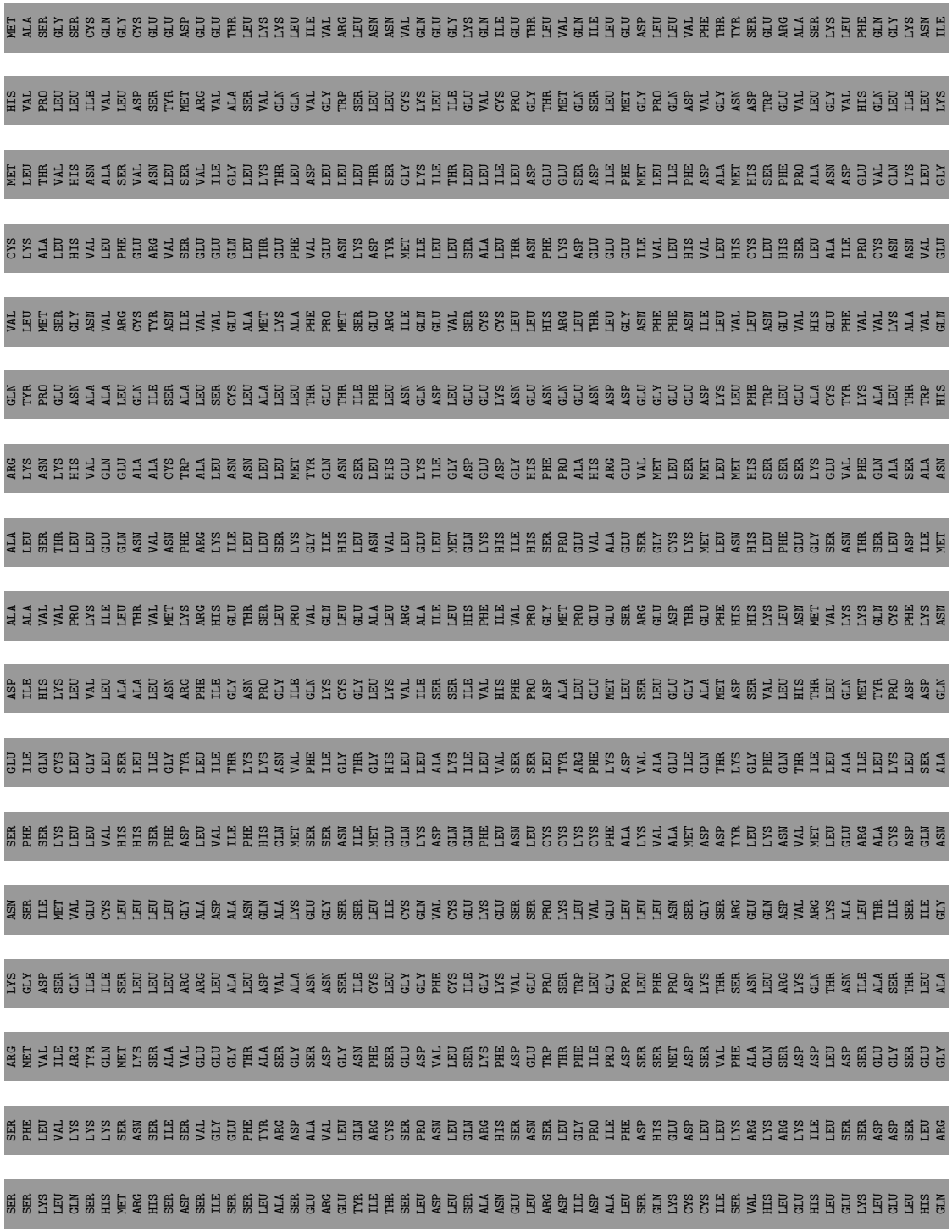


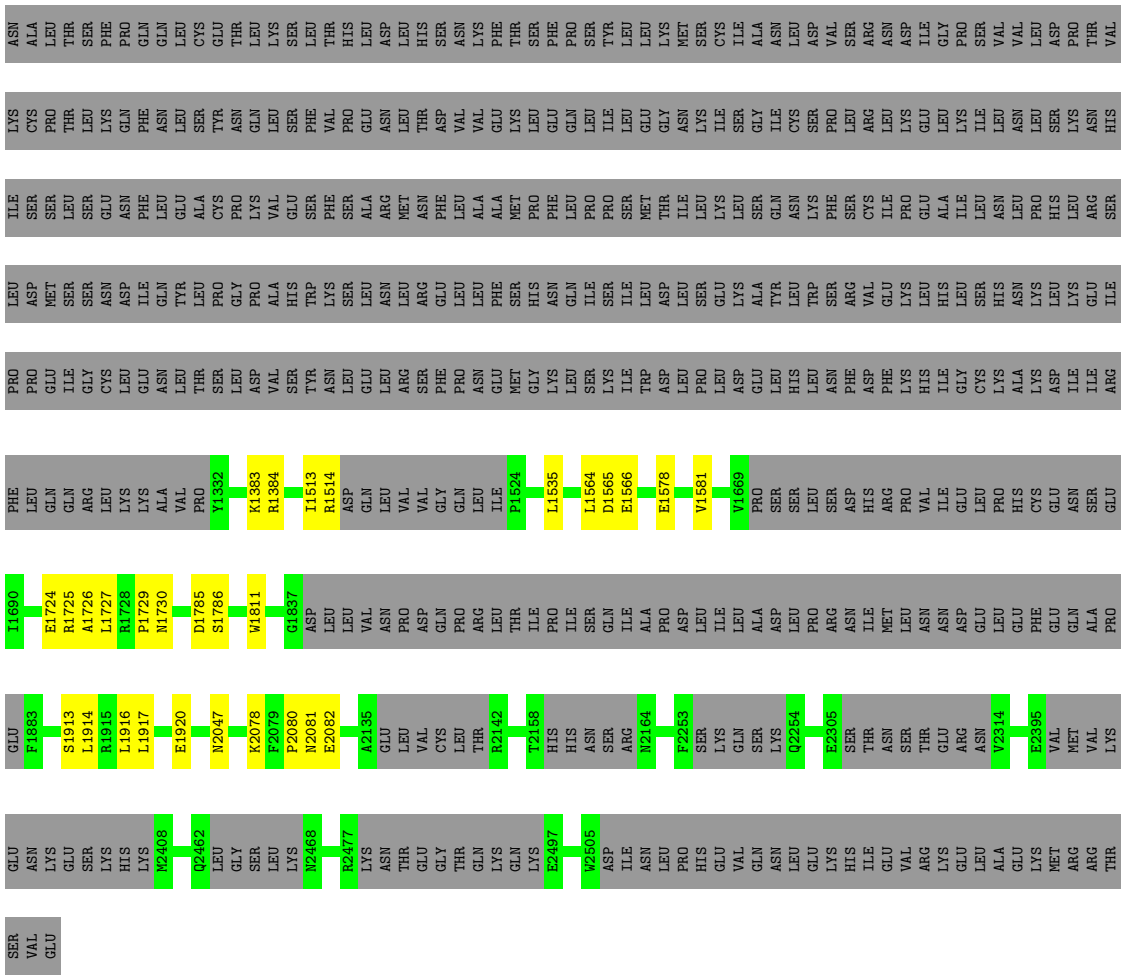
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN
ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS SER LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU ALA LEU GLN ASP GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU LEU GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY GLY THR LEU GLU ALA LYS ILE LEU HIS LEU LEU ALA ILE SER ILE GLN THR LYS GLY PHE LEU GLN THR ILE LEU ALA ILE LEU LYS LEU GLU SER
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN VAL MET ASP ASP TYR LEU LYS ASN VAL MET LEU GLN GLN ASP VAL ARG LYS CYS PHE ALA LYS VAL ALA MET ASP ASP GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER ILE LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER GLN LEU LEU VAL GLU LEU LEU ASN SER GLY SER ARG GLU GLN GLN ILE GLU ILE GLN THR ARG LEU ILE SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU ILE CYS GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ARG LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU SER SER GLU GLY
SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP VAL ALA LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP HIS GLU ASP LEU LYS ARG LYS ILE LEU ASP LEU SER SER ASP ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU SER LEU ALA SER GLN LYS CYS CYS ILE ILE SER ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE LYS
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS HIS SER ASN LYS PHE THR SER PHE PRO GLU LEU SER ALA ASN LEU ASP VAL SER ARG GLU GLN LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS GLN THR ASN ILE ALA SER THR THR LEU ALA
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU VAL PRO GLN LEU ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LYS SER GLY ILE CYS SER PRO LEU ARG LEU LYS LYS LYS ILE LEU LYS ILE LEU LYS ILE LEU ASN LEU ASP PRO THR VAL
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE VAL PRO GLU ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER MET THR ILE LEU LYS LEU SER GLN ASN LYS PHE SER ARG CYS ILE PRO GLU ALA LEU ILE ALA ARG SER
LEU ASP MET SER SER ASN TYR ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU ALA TYR LEU TRP SER GLU LYS ALA TYR LEU ILE CYS SER PRO LEU ARG LEU LYS LYS LEU ILE LYS LEU ILE LYS LEU ILE LYS ILE LEU ASN LEU ILE GLU
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU GLU LEU HIS LEU ASN PHE ASP ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS ALA VAL PRO Y1332 R1514 ASP GLN LEU VAL GLY GLN LEU ILE P1524 D1565 E1566 N1567 E1568 L1569 P1570 L1590 Q1591 I1658 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690
L1776 L1795 L1796 K1810 Q1823 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883 V1922 A2044
L2077 K2078 F2079 P2080 E2117 N2118 A2135 GLU LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS Q2254 E2305 SER THR ASN SER THR GLU ARG ASN V2314 E2395 VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

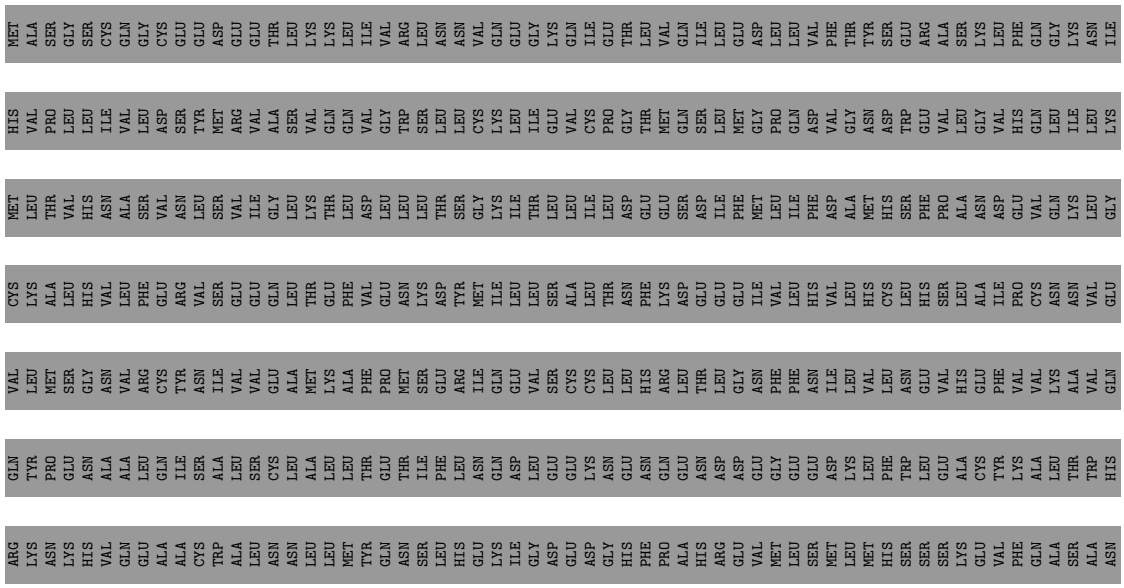
Chain 36-A:





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 36-B: 40% • 59%



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GLU	GLU		LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU
ASN	F1883	E1724	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER
LYS		R1725	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR
GLU	S1913	A1726	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU
SER	L1914	L1727	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU
LYS	R1915	R1728	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU
HIS	L1916	P1729	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN
LYS	L1917	N1730	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN
M2408			VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL
	E1920	I1775	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN
Q2462			Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE
LEU	N2047	K1810		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG
GLY		W1811	K1383	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS
SER	K2078	A1812	R1384	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE
LEU	F2079			SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU
LYS	P2080	G1837	I1513	TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU
N2468	N2081	ASP	R1514	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER
	E2082	LEU	ASP	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS
R2477		LEU	GLN	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY
LYS	A2135	VAL	LEU	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE
ASN	GLU	ASN	VAL	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS
THR	LEU	PRO	VAL	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU
GLU	VAL	ASP	GLY	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN
GLY	CYS	GLN	GLN	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL
THR	LEU	PRO	LEU	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU
GLN	THR	ARG	ILE	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU
LYS	R2142	LEU	P1524	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU
GLN		THR		GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET
LYS	T2158	ILE	L1535	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN
E2497	HIS	PRO		LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS
	HIS	ILE	L1564	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS
W2505	ASN	SER	D1565	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE
ASP	SER	GLN	E1566	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS
ILE	ARG	ILE		TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER
ASN	N2164	ALA	E1578	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO
LEU		PRO		LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU
PRO	F2253	ASP	V1581	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL
HIS	SER	LEU		LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA
GLU	LYS	ILE	V1669	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU
VAL	GLN	LEU	PRO	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER
GLN	SER	ALA	SER	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY
ASN	LYS	ASP	SER	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS
LEU	Q2254	LEU	LEU	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS
GLU		PRO	PRO	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET
LYS	E2305	ARG	ASP	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU
HIS	SER	ASN	HIS	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN
ILE	THR	ILE	ARG	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS
GLU	ASN	MET	PRO	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU
VAL	SER	LEU	VAL	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE
ARG	THR	ASN	ILE	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU
LYS	GLU	ASN	GLU	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY
GLU	ARG	ASP	LEU	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER
LEU	ASN	GLU	PRO	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN
ALA	V2314	LEU	HIS	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR
GLU		GLU	CYS	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER
LYS	E2395	PHE	GLU	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU
MET	VAL	GLU	ASN	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP
ARG	MET	GLN	SER	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE
ARG	VAL	ALA	GLU	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET

THR
SER
VAL
GLU

- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 37-A: 41% • 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER SER TYR MET ARG VAL ALA ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU HIS VAL GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU GLU ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR THR SER LEU PRO VAL GLN LEU GLU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP MET LEU SER LEU GLU GLU ASP VAL LEU THR GLU MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS GLU LEU ALA ALA LYS ILE LEU VAL SER SER LEU ILE GLN THR THR LYS GLY PHE GLN THR LEU LYS ASN VAL ALA GLU ILE GLN THR ILE LEU LEU ALA ILE LEU LYS LEU SER ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN GLN PHE LEU ASN LEU CYS CYS LYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU GLN ASN

ASN SER ILE MET VAL GLU CYS LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER CYS LYS LEU GLU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

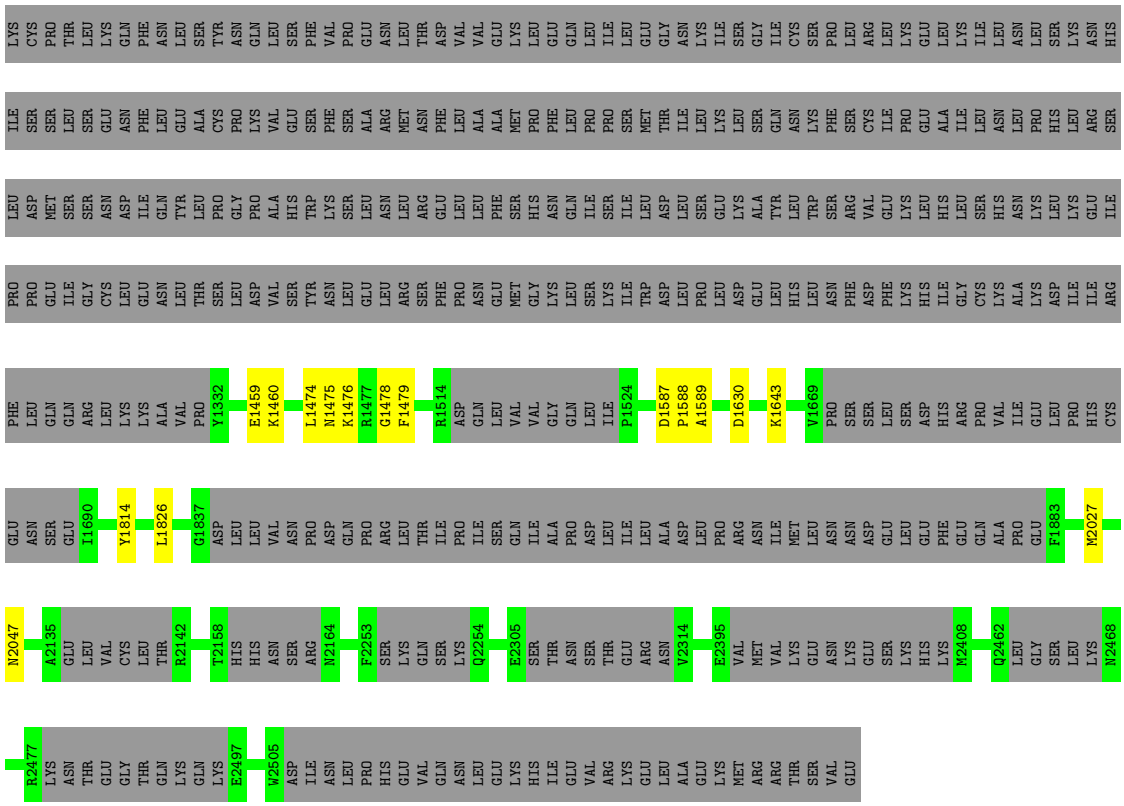
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA ALA LEU ASP VAL ALA ASN ASN SER SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU GLN THR ILE LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PHE ASP HIS GLU ASP LEU LEU LYS ARG LYS ARG LYS ILE LEU SER LYS LEU ARG

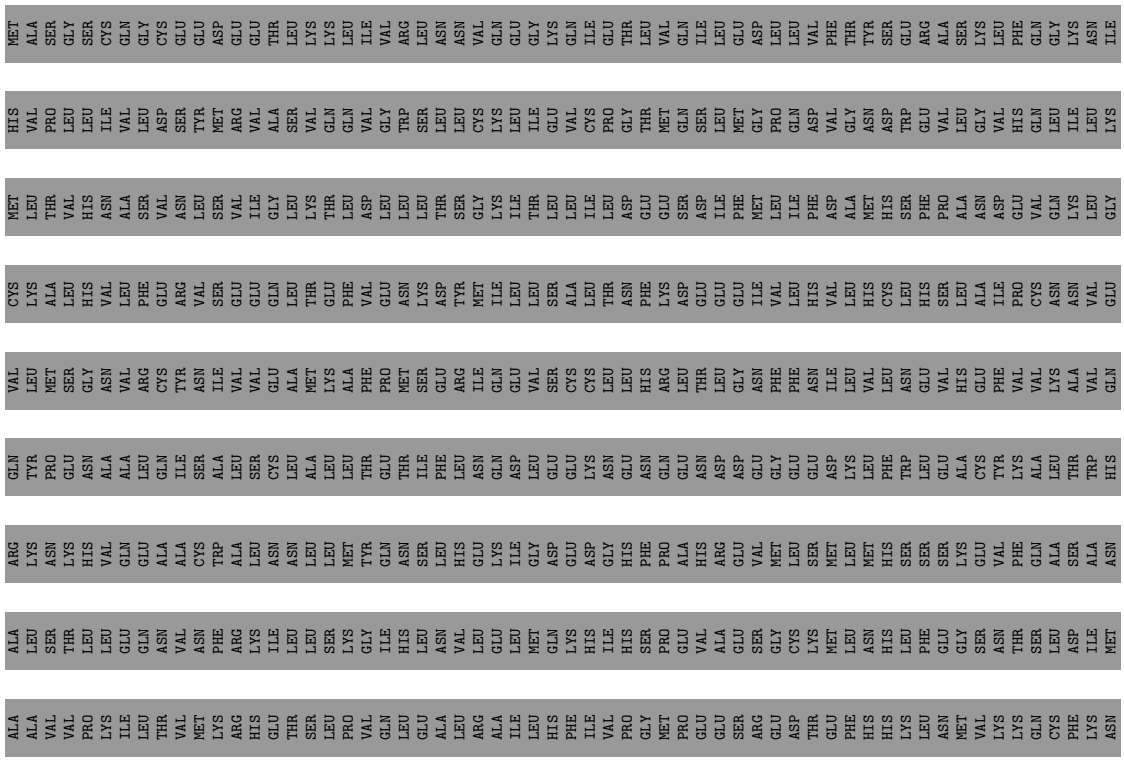
SER SER LYS LEU GLN SER HIS MET ARG HIS SER SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP ILE SER ASN ALA ASP ILE ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS GLU GLU LYS LEU LEU GLU GLU GLU LEU HIS GLN

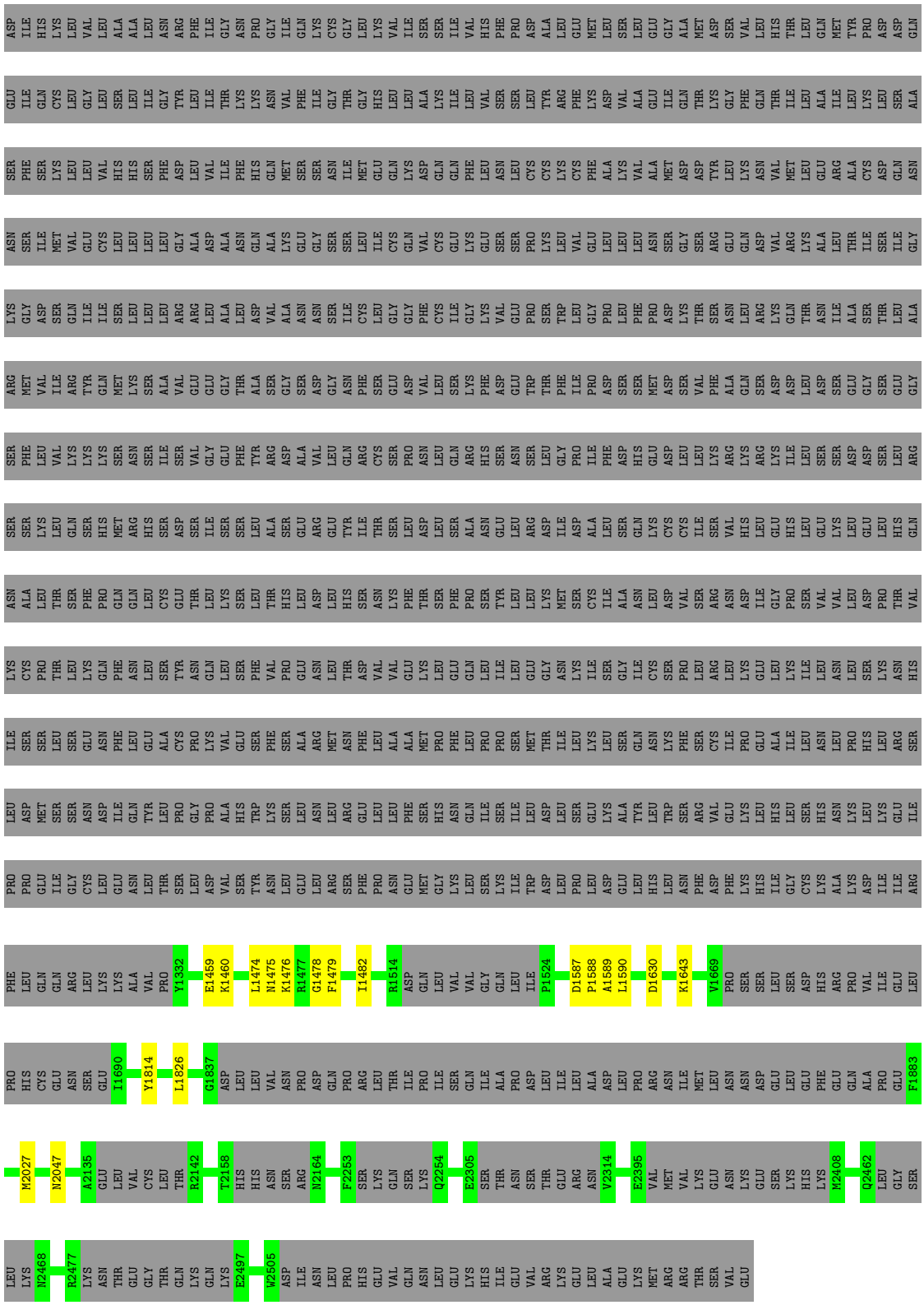
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU SER ALA ASN GLU LEU ARG LYS ILE GLY PRO SER LEU VAL VAL LEU ASP VAL SER ARG ASN ASP ILE GLY PRO LEU VAL THR ILE ALA ASN LEU ASP VAL SER PHE ASP ILE LYS ARG LYS ILE LEU ARG



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 37-B:

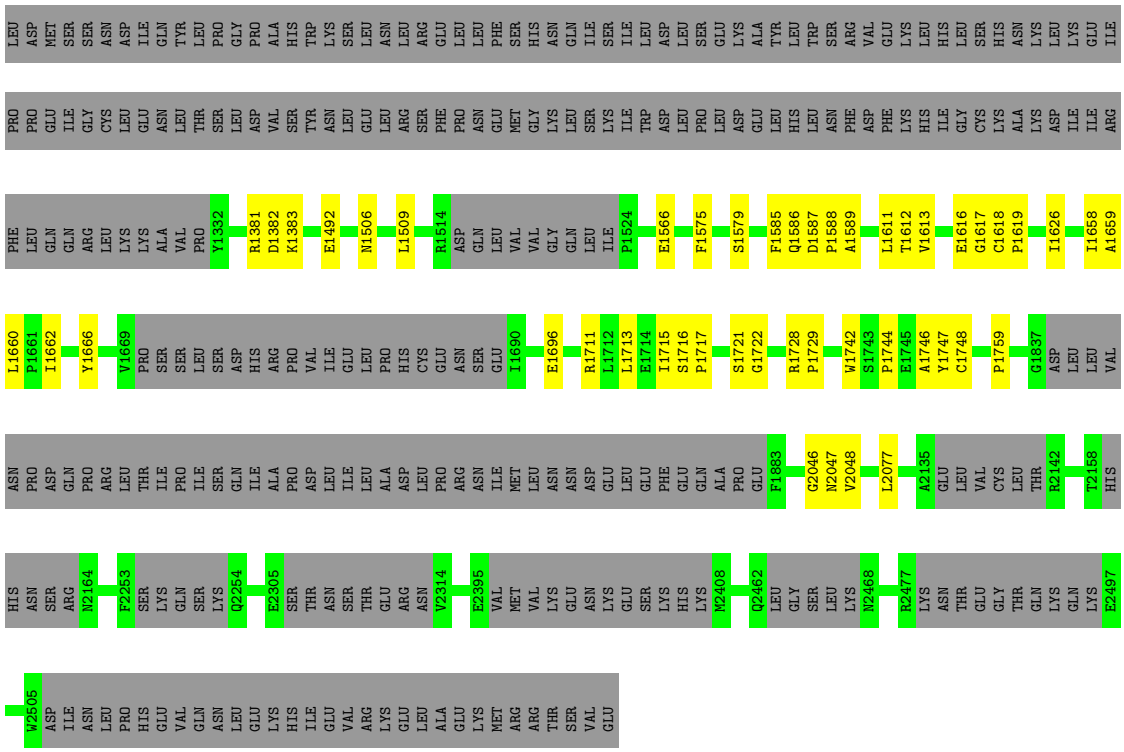




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

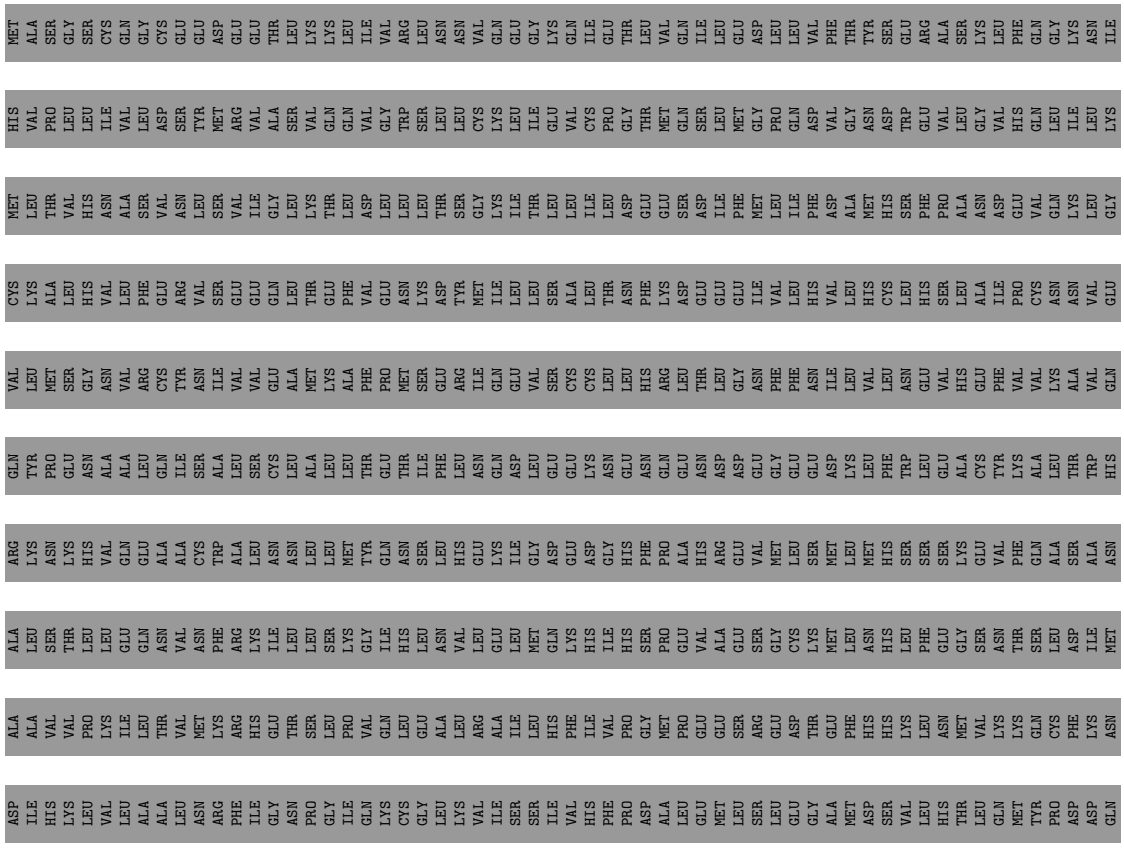
Chain 38-A: 39% • 59%

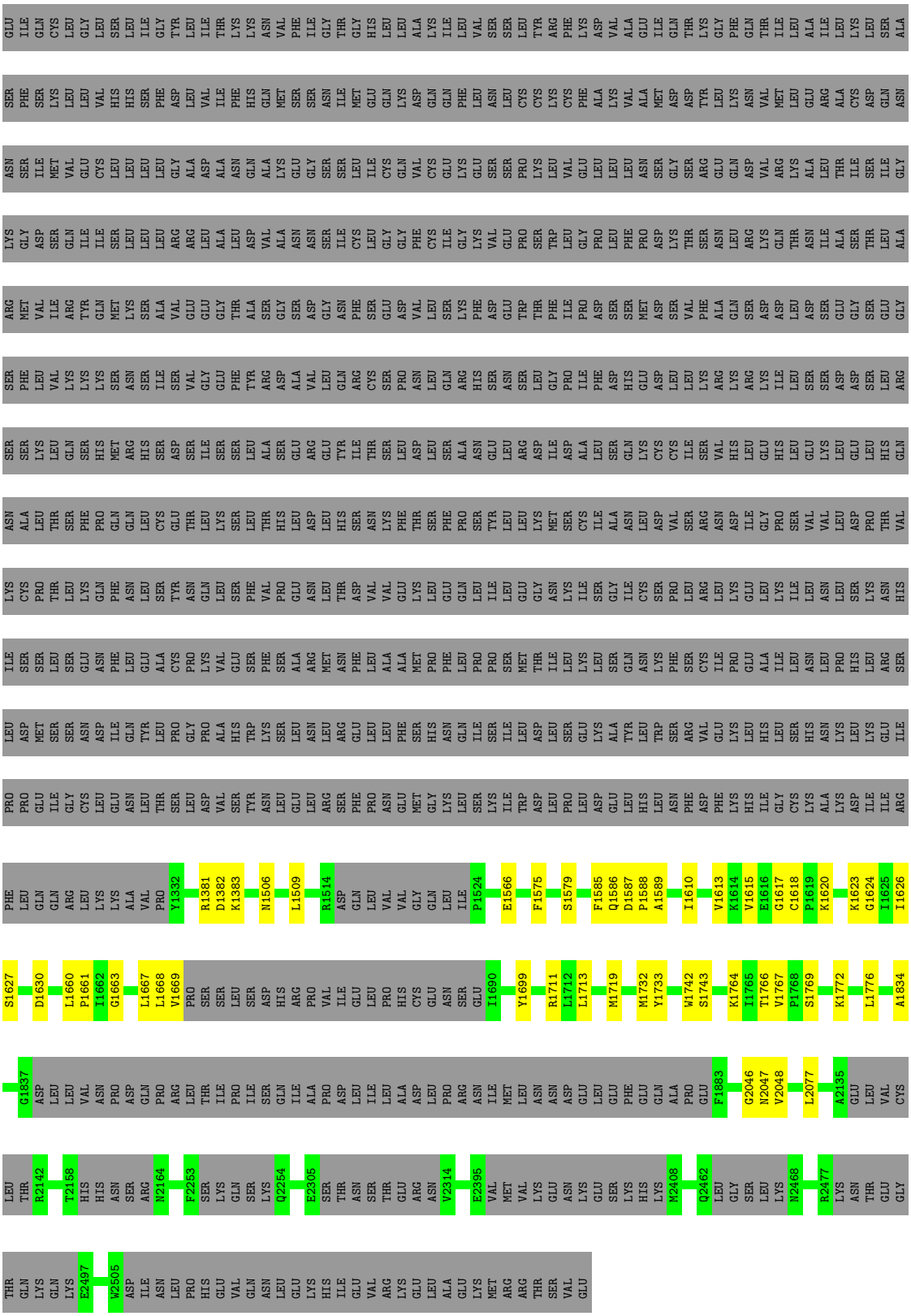
| | | |



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 38-B:

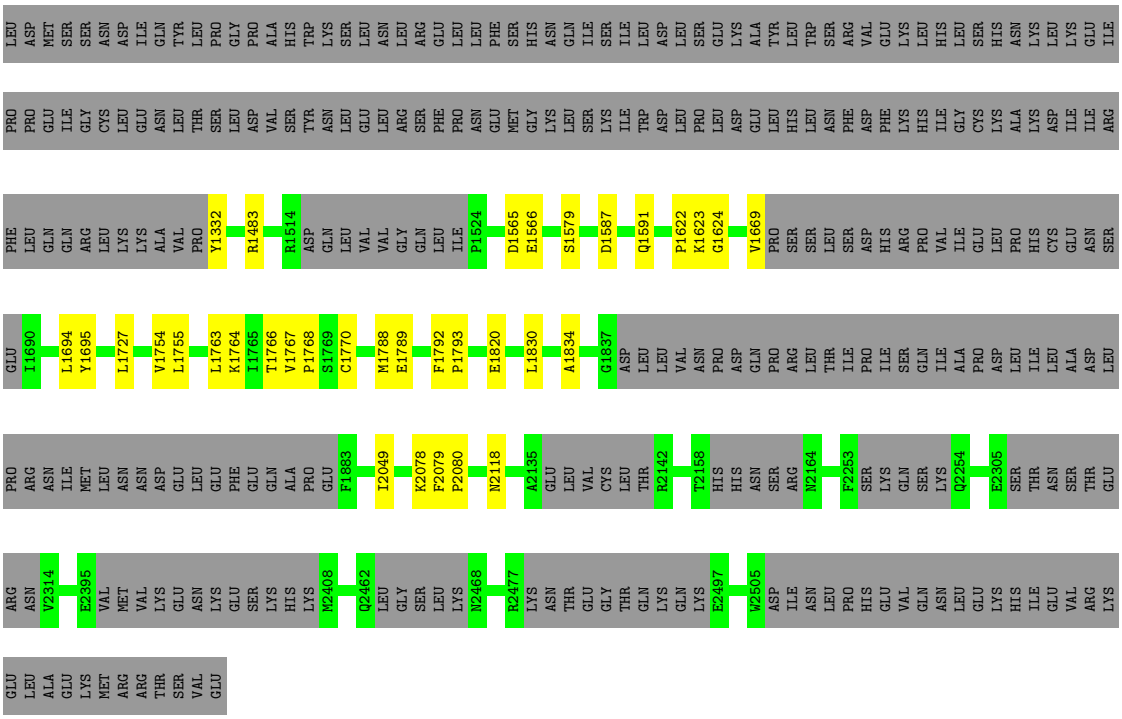




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

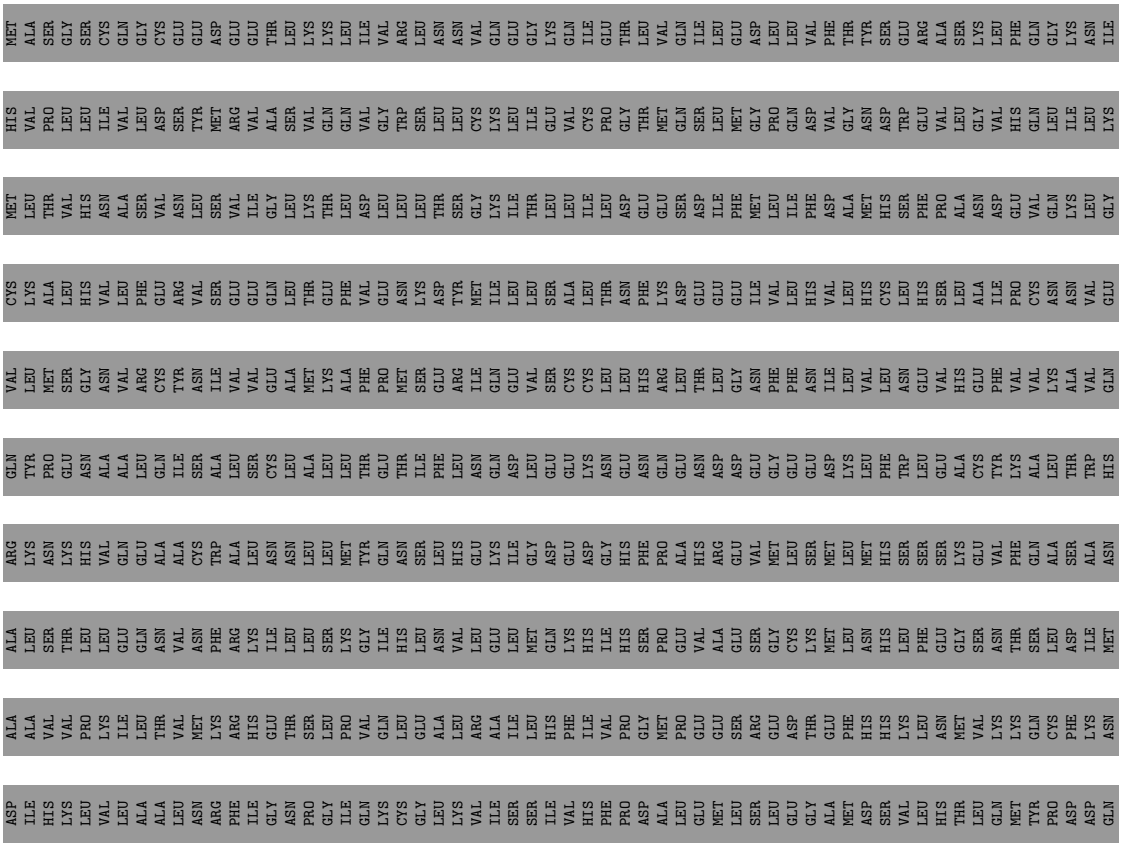
Chain 39-A: 40% • 59%

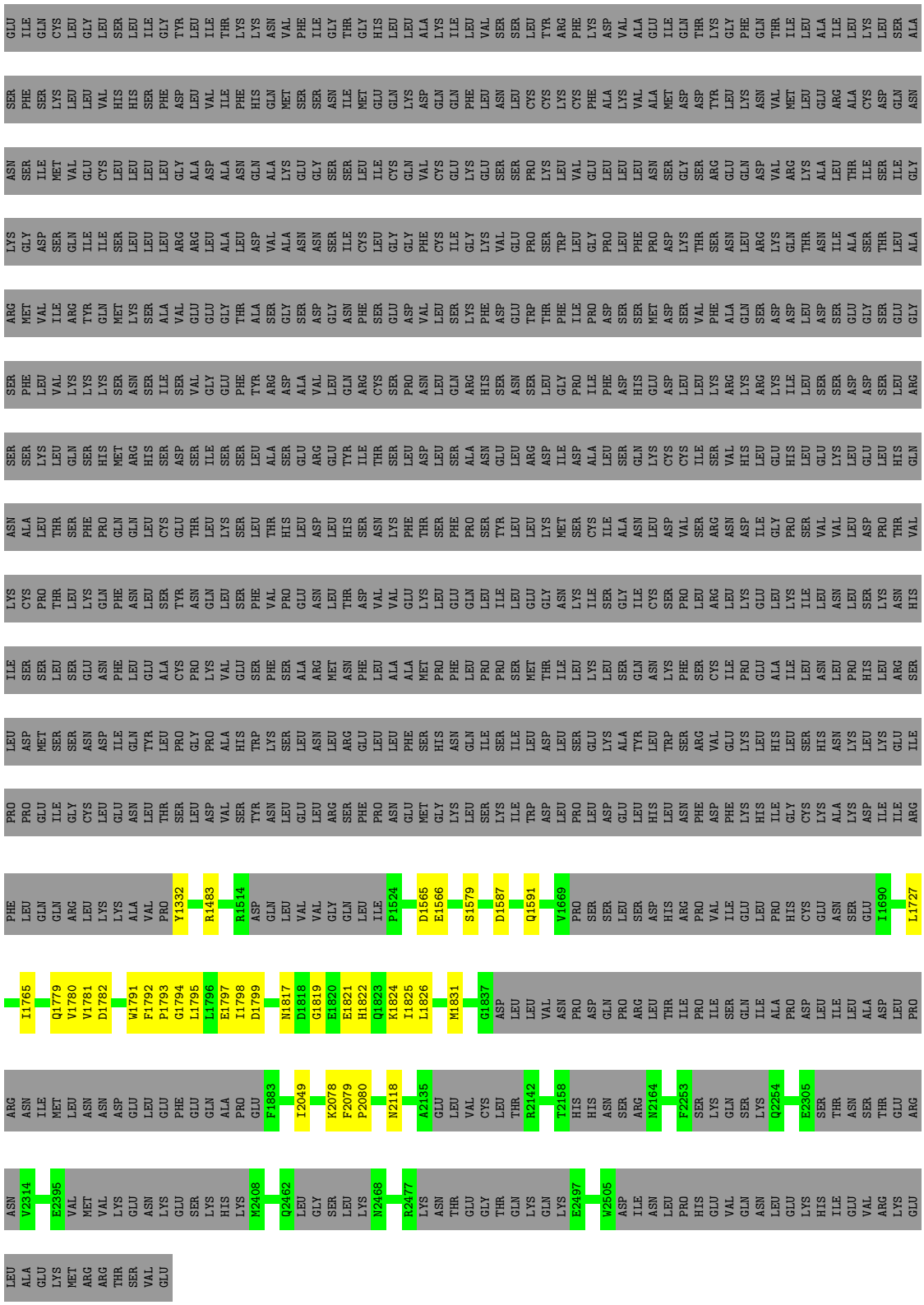
| | | |



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 39-B: 40% • 59%

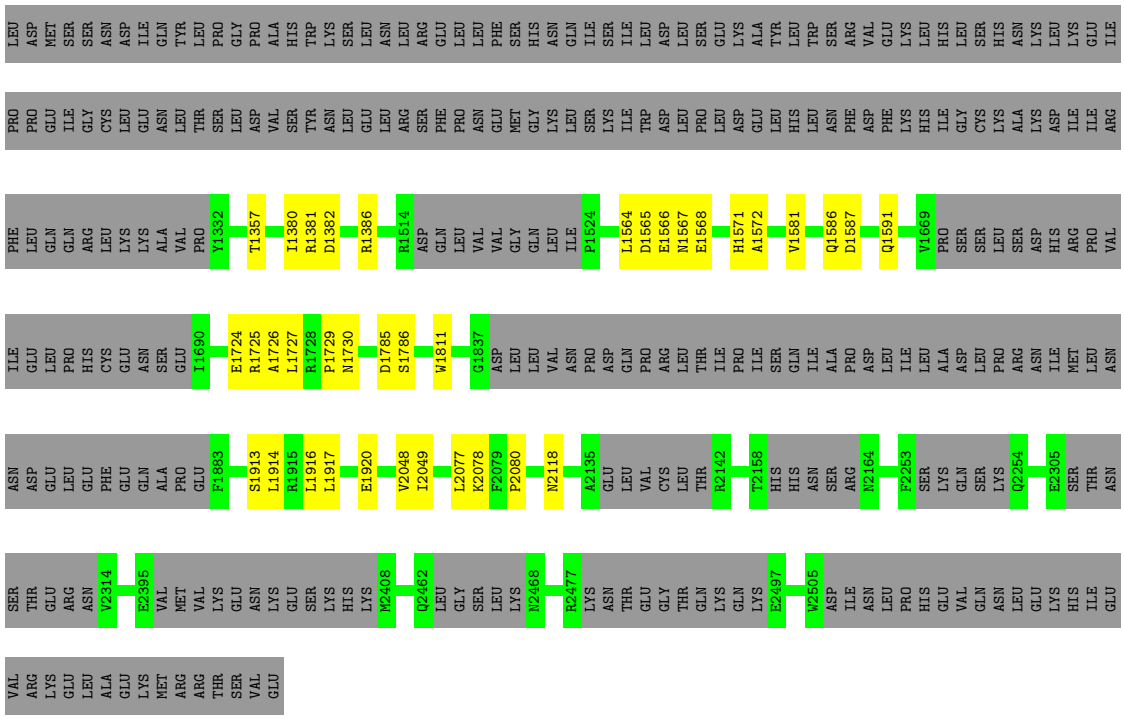




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

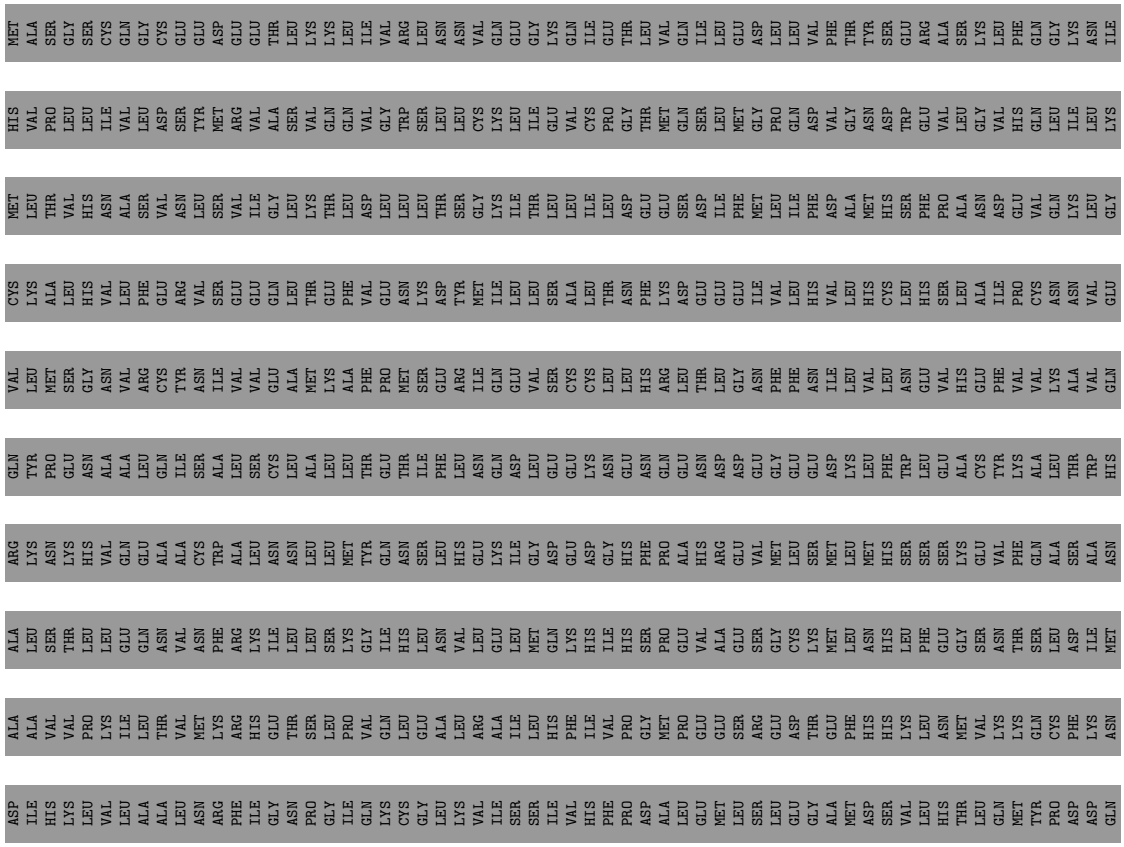
Chain 40-A: 40% • 59%

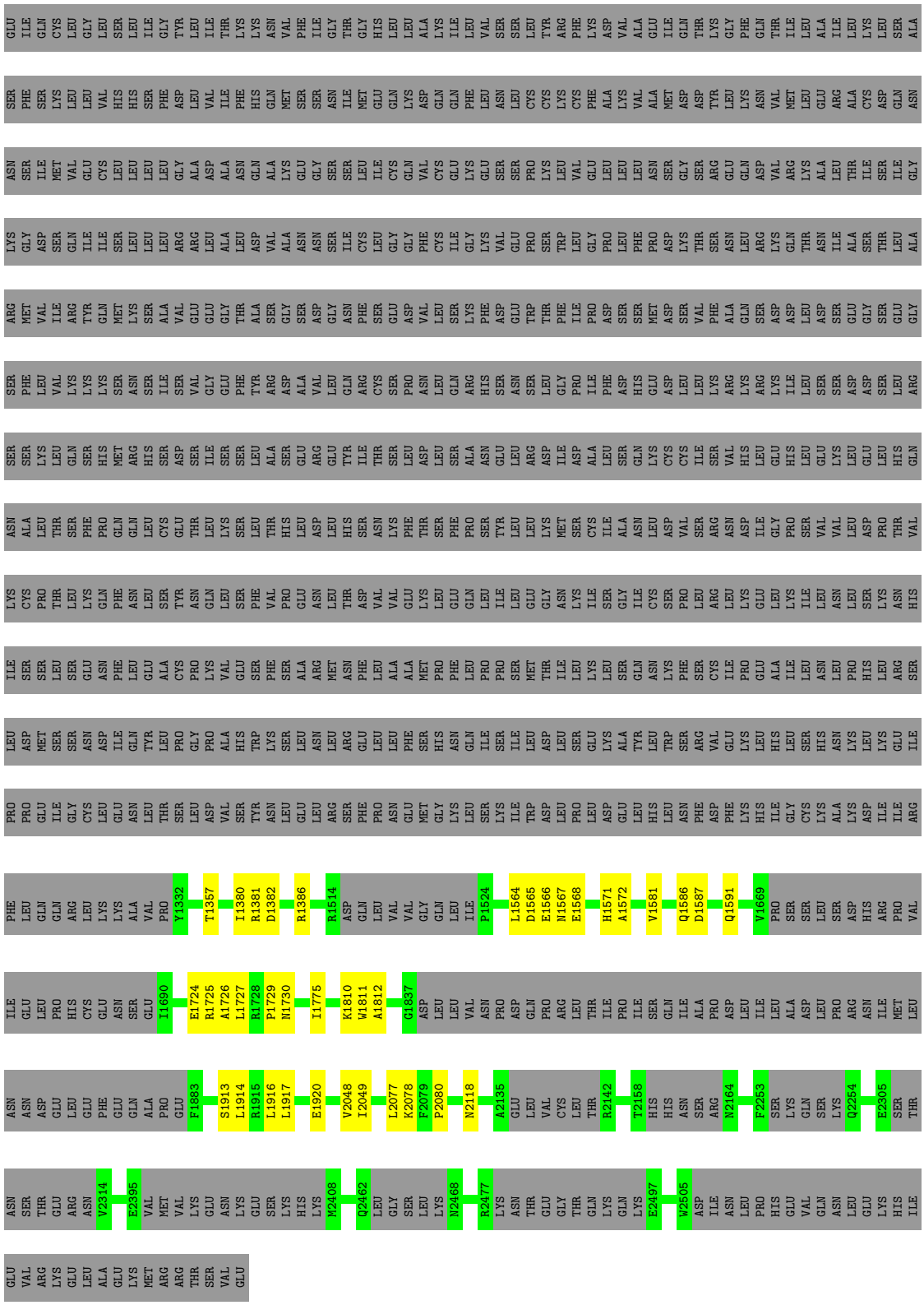
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 40-B: 40% • 59%

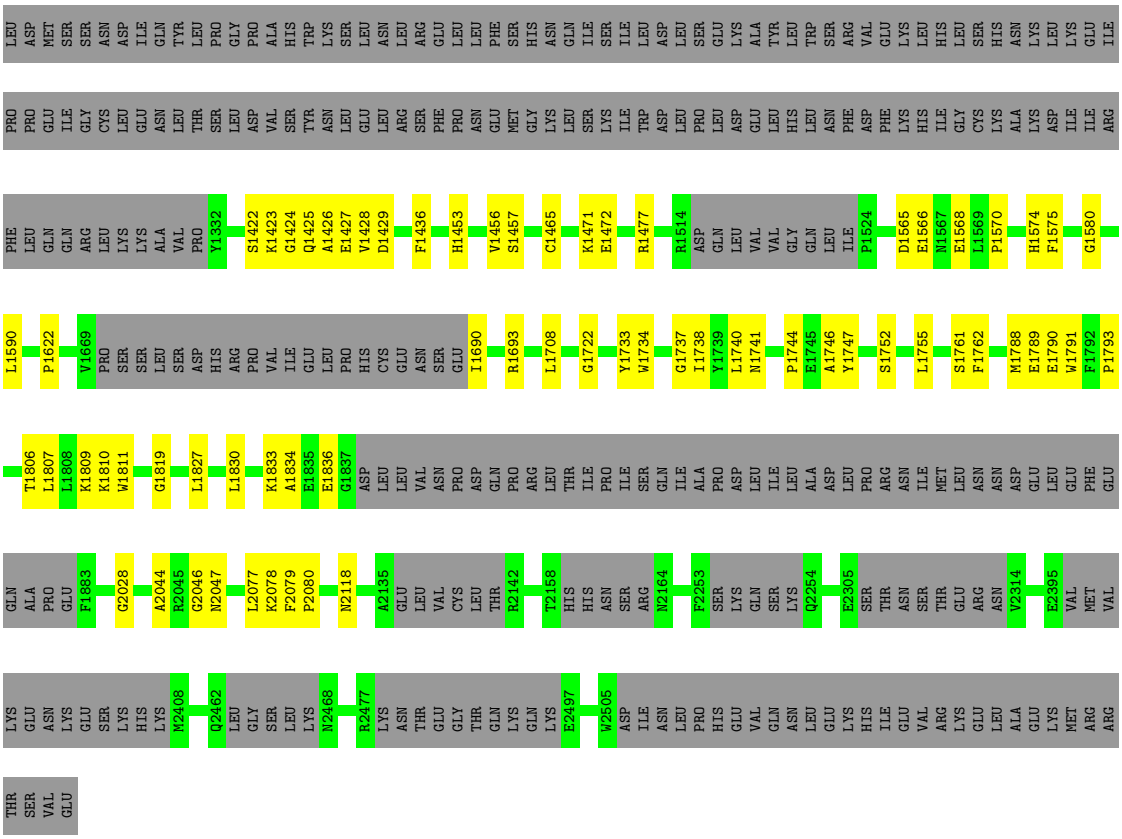




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

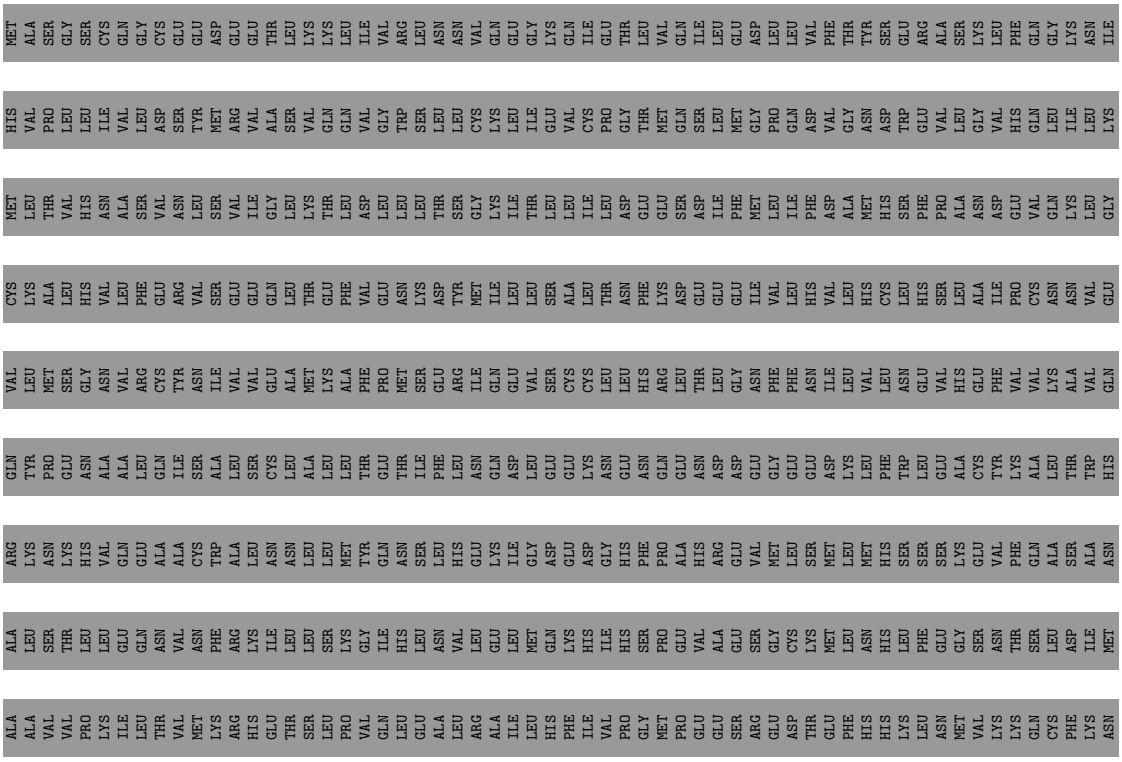
Chain 41-A: 39% • 59%

| | | |



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 41-B:

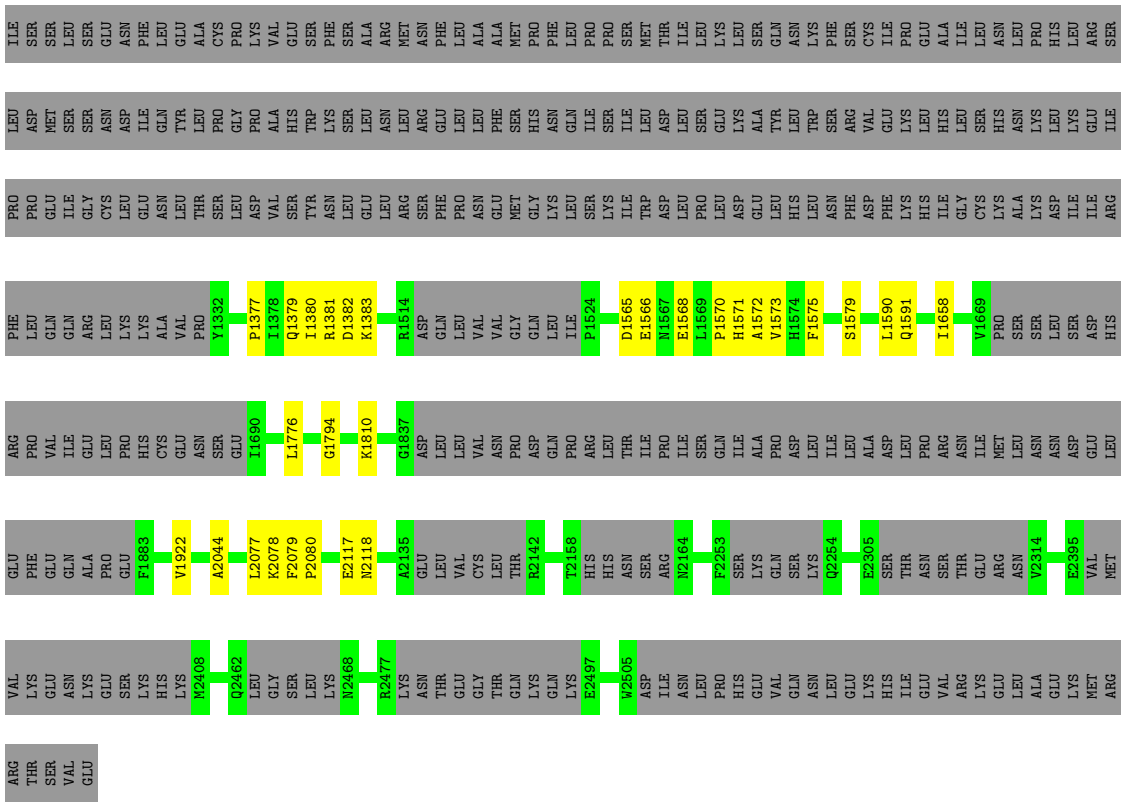

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU GLU SER ARG GLU ASP THR GLU PHE HIS GLN LYS ILE MET
ALA LEU SER THR LEU LEU GLU GLN ASN VAL PHE ARG LYS ILE LEU LEU MET GLN LYS HIS ILE HIS SER PRO GLY MET LYS VAL ALA LEU LEU SER LYS GLY ILE HIS SER LEU LEU LEU SER LYS GLU VAL GLU ASN ASN LEU GLU ASP GLU GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER LEU ASN ASN LEU LEU THR SER GLN
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ARG ASN
GLN TYR PRO GLU ASN ALA ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE SER PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU GLN GLU ASN ASP GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA LEU LEU THR ASP LYS LEU HIS
VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU LEU VAL LEU ASN GLU VAL HIS HIS GLU PHE VAL VAL LYS ALA VAL GLN
CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU
MET LEU THR VAL HIS ASN ALA ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY
HIS VAL PRO LEU LEU ILE VAL LEU ASP SER TYR MET ARG VAL ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU GLY VAL HIS GLN LEU ILE LEU LYS
ALA LEU SER THR LEU LEU GLU GLN LEU SER LYS ILE LEU LYS GLU LYS ALA GLU GLU ASP GLU GLU ASP THR LEU LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE
LYS LEU LEU ALA LEU LEU LEU

MET ARG ARG THR SER VAL GLU
VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408 Q2462 LEU GLY SER LEU LYS N2468 R2477 LYS ASN THR GLU GLY THR GLN LYS GLN LYS E2497 W2505 ASP ILE ASN LEU PRO HIS GLU VAL GLN ASN LEU GLU LYS HIS ILE GLU VAL ARG LYS GLU LEU ALA GLU LYS
GLU PHE GLU GLN ALA PRO GLU F1883 G2028 A2044 R2045 G2046 N2047 L2077 K2078 F2079 P2080 N2118 A2135 GLU LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS Q2254 E2305 SER THR ASN SER THR GLU ARG ASN ASN V2314 ASP GLU LEU E2395
V1754 T1766 E1789 E1790 W1791 C1801 T1806 L1807 L1808 K1809 K1810 W1811 G1819 E1836 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ILE ALA PRO ASP LEU ILE ALA ASP ASP ASN ASN ASP GLU GLU LEU
V1669 PRO SER SER LEU SER HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER I1690 I1691 I1692 R1693 P1701 M1702 G1703 F1704 W1705 S1706 R1707 L1708 I1709 S1716 P1717 Y1718 M1719 G1722 R1725 A1726 L1727 R1728 P1729 N1730 R1735 L1740 S1743 A1746 Y1747 C1748
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 S1422 K1423 G1424 Q1425 A1426 E1427 V1428 D1429 F1436 H1453 C1465 K1471 E1472 R1477 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 N1567 E1568 L1569 P1570 H1574 F1575 G1580 L1590 P1622
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER TYR ASN PHE ARG ARG LEU GLU PHE SER PRO ASN GLU MET GLY LYS LEU ASN ILE ILE LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN LYS ASP ILE ILE ARG
LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU ARG GLU LEU LEU PHE SER HIS ILE GLU LEU GLU LEU ILE SER GLU LYS LEU SER GLU LYS GLU ILE
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO LYS ILE SER MET THR ILE LEU LYS LEU SER GLN LYS PHE SER CYS LYS ILE ARG SER
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE CYS SER PRO LEU ARG LEU LYS GLU LEU ASN LYS ILE GLY LYS ASN ILE SER LYS ASN HIS
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER TYR LEU LEU LEU SER ALA ASN LEU ASP VAL SER ARG ASP ASN LEU ASP ILE ILE ALA LEU ASN LEU ASP ILE ILE PRO PRO LEU VAL VAL LEU ASP PRO THR VAL
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ILE SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU LEU SER ALA ASN GLU ILE ASP ALA LEU SER GLN LYS CYS CYS ILE ILE SER VAL LEU GLN LEU SER GLN ARG LYS LYS ILE LEU LEU LEU
SER PHE LEU VAL LYS LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA ALA VAL LEU GLN ARG CYS SER PRO ASN LEU LEU GLN ARG HIS SER ILE GLY PRO ILE PHE ASP SER LEU LEU LEU SER LEU SER SER ASP ASP SER LEU ARG
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA ALA SER GLY SER ASN ASP GLY GLY ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER SER GLU GLY SER GLU GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG LEU ALA LEU ASP VAL ALA ASN ASN SER SER ILE CYS LEU GLU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU GLY SER ILE ALA
ASN SER ILE MET VAL GLU CYS LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS ASN GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER GLU PRO LYS LEU VAL GLU LEU LEU LEU ASN SER ARG GLU GLN ASP ARG LYS ARG LYS ALA LEU THR ILE SER GLN GLY
SER PHE SER LYS SER HIS HIS SER ASN ILE SER LYS LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU ARG GLU ARG ARG LYS ALA ILE LEU LYS ASP ASN GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU LEU LEU ILE ILE GLY TYR LEU ILE LEU VAL PHE ILE GLY TYR LYS ASN VAL PHE LYS ASP VAL ALA GLU ILE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
ASP ILE HIS LYS LEU VAL ALA ALA LEU LEU ASN ARG PHE ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP GLN

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

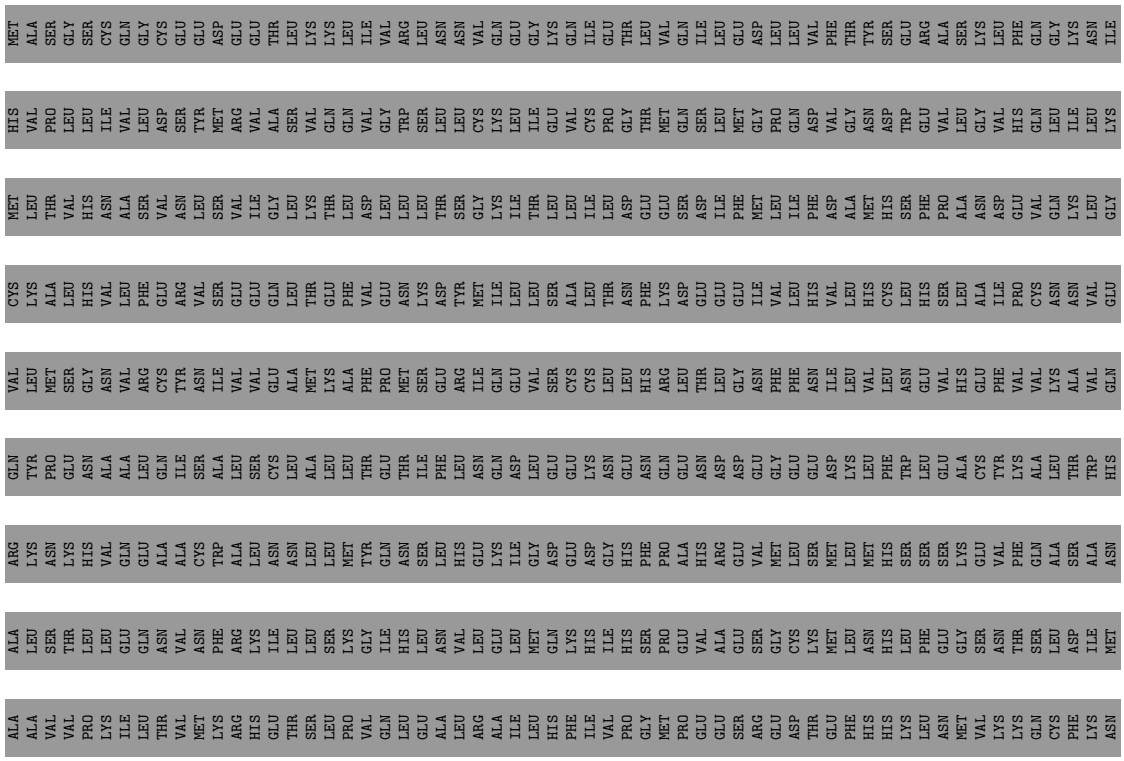
Chain 42-A: 40% • 59%

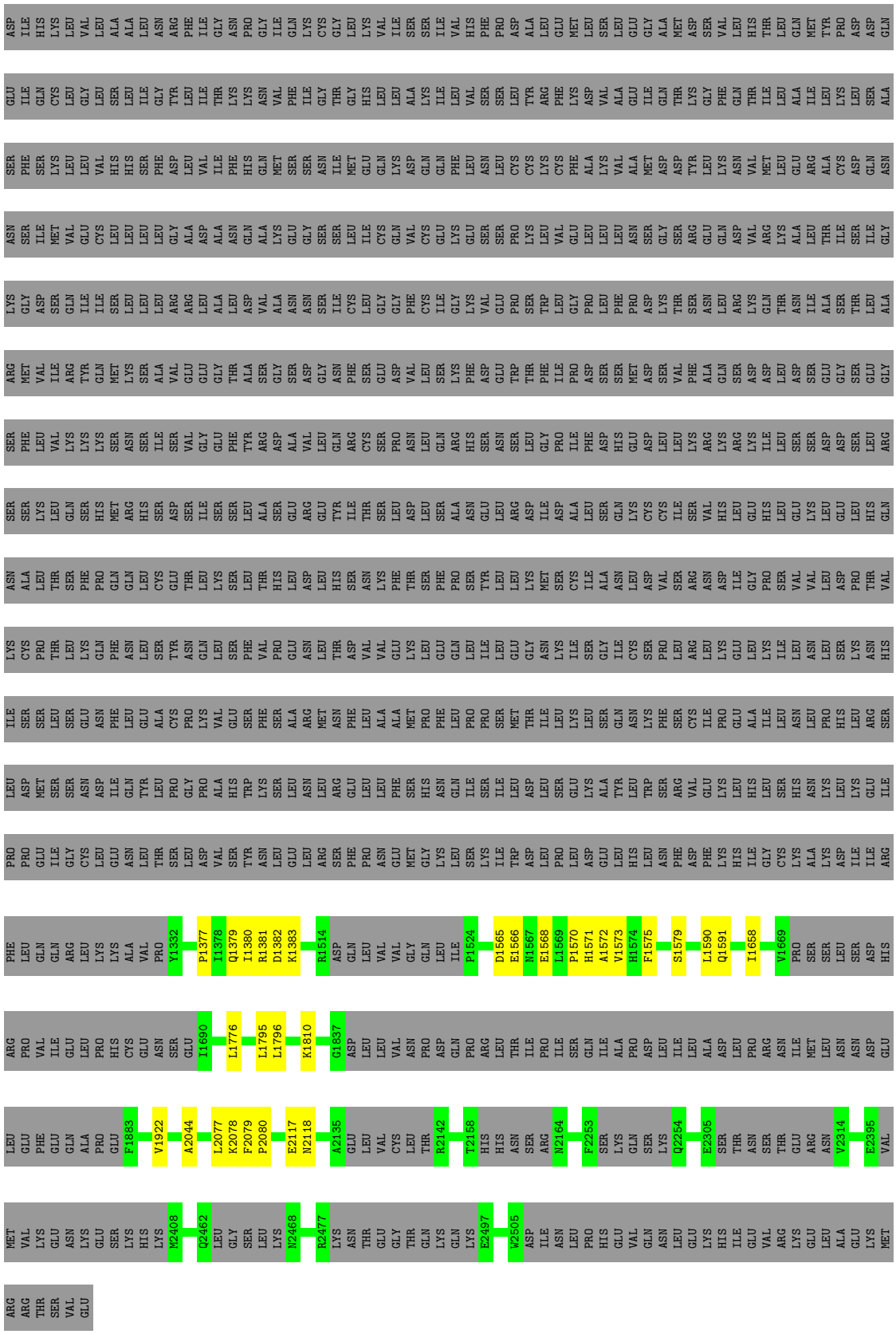
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 42-B: 40% • 59%

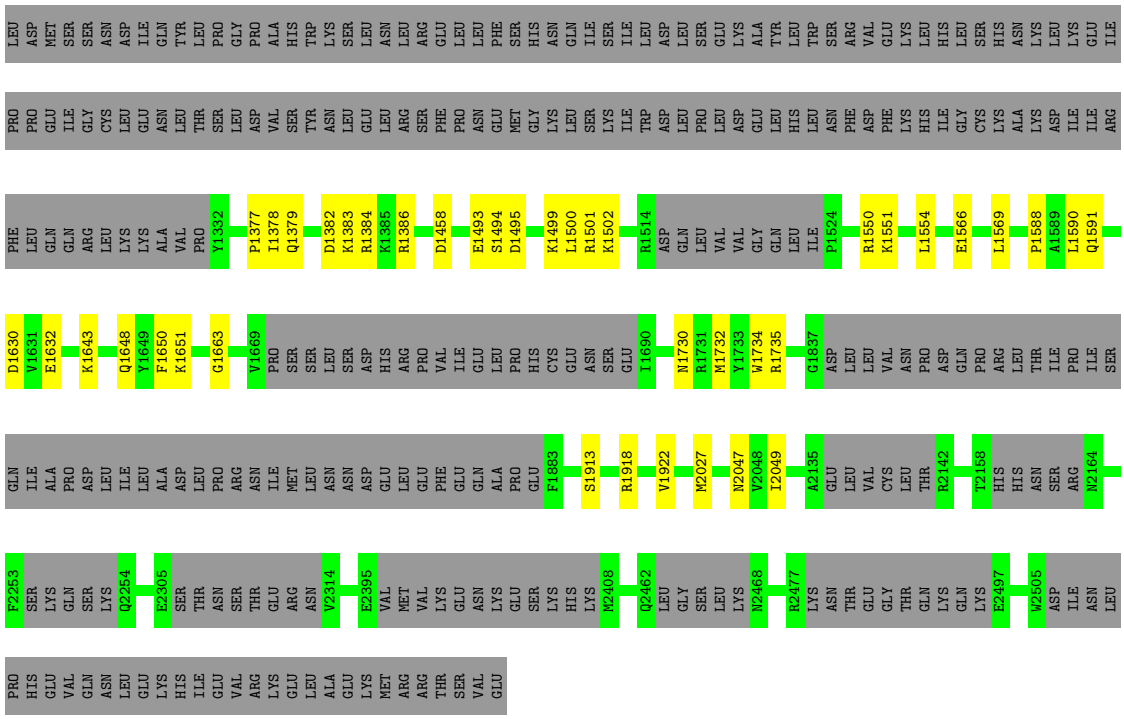




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

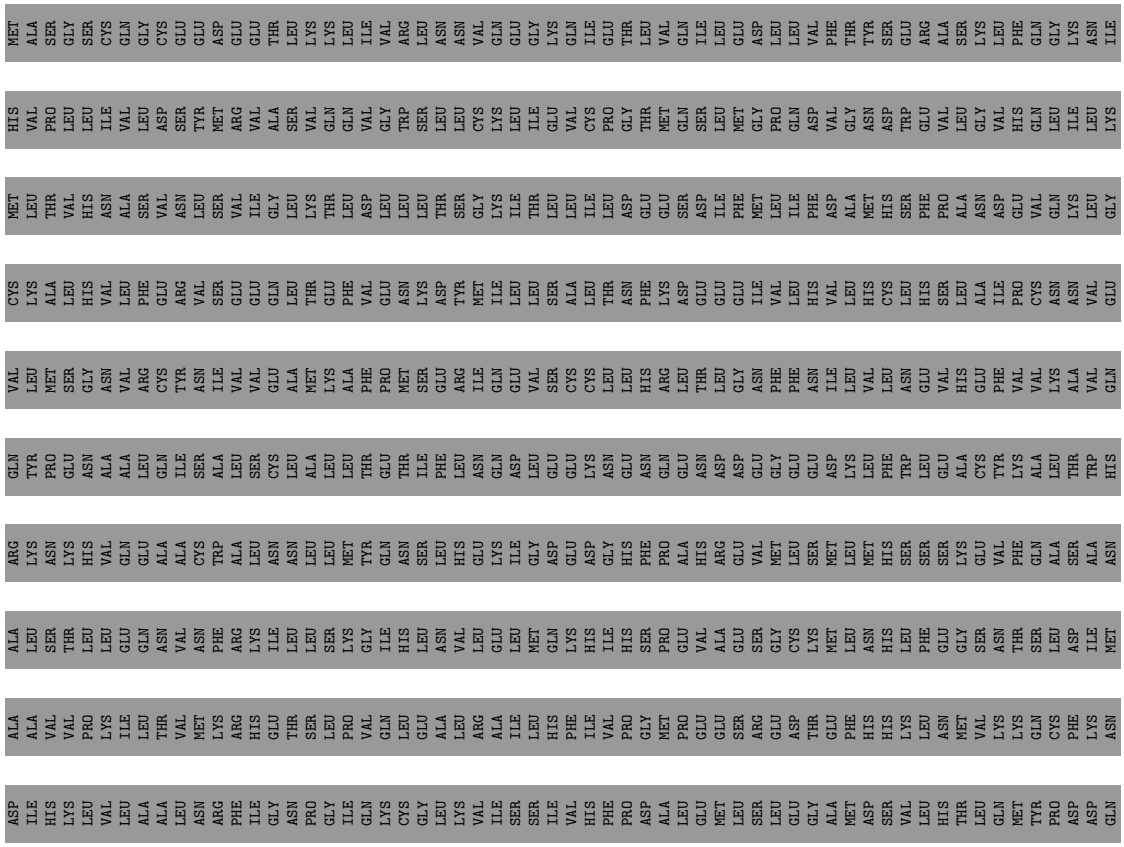
Chain 43-A: 40% 59%

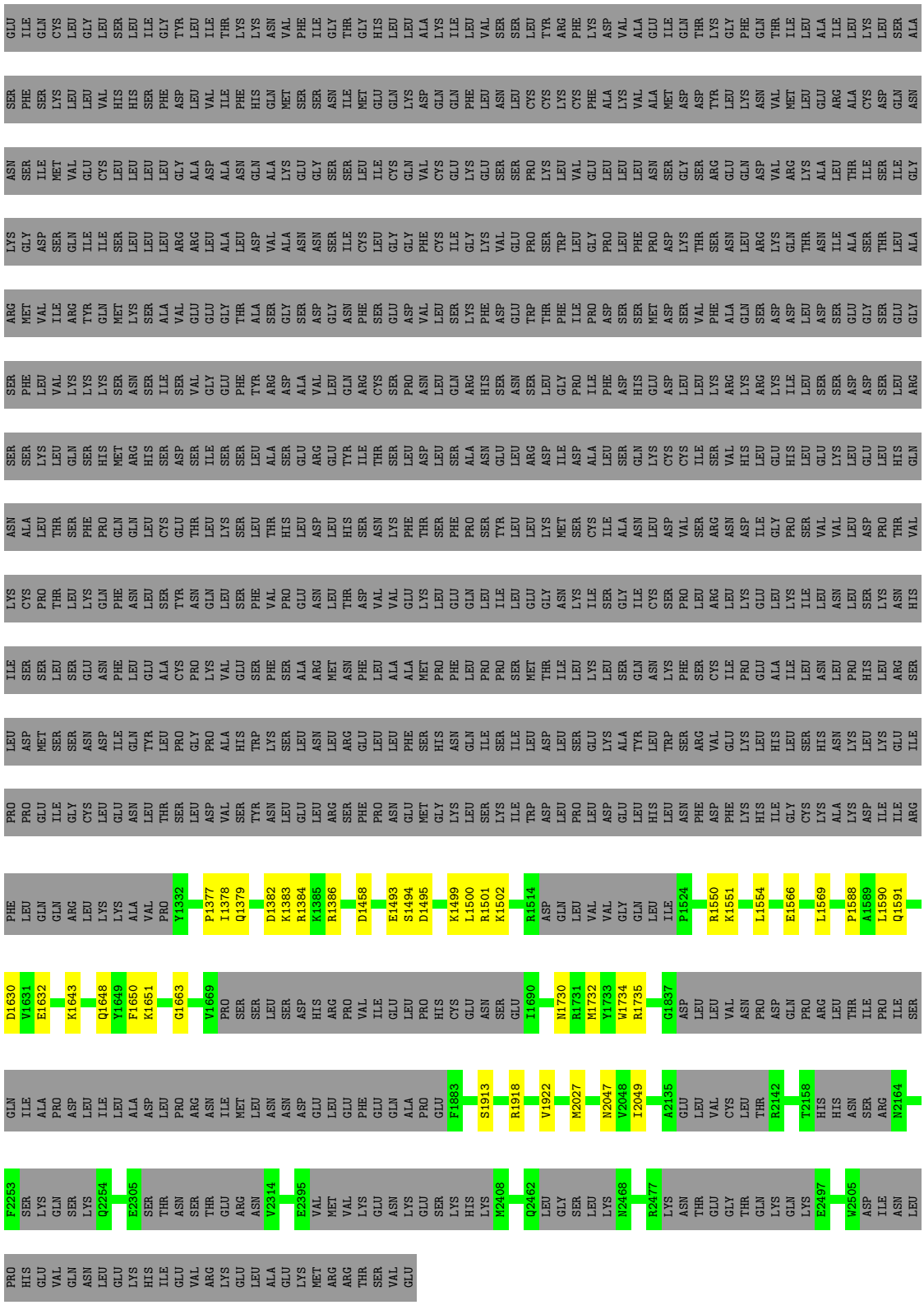
| | | |



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 43-B: 40% • 59%

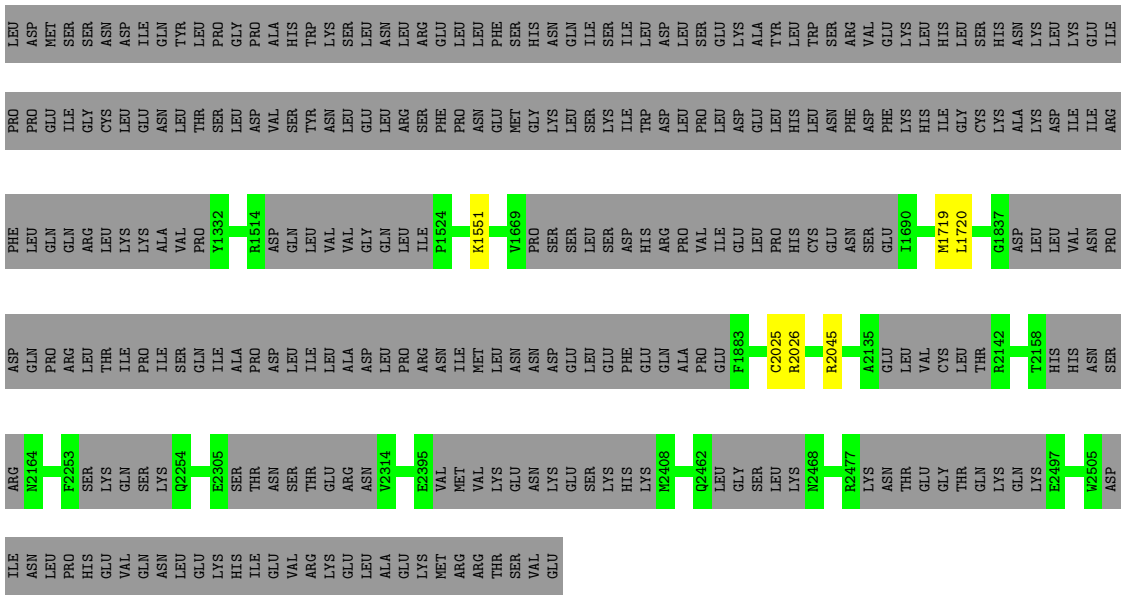




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

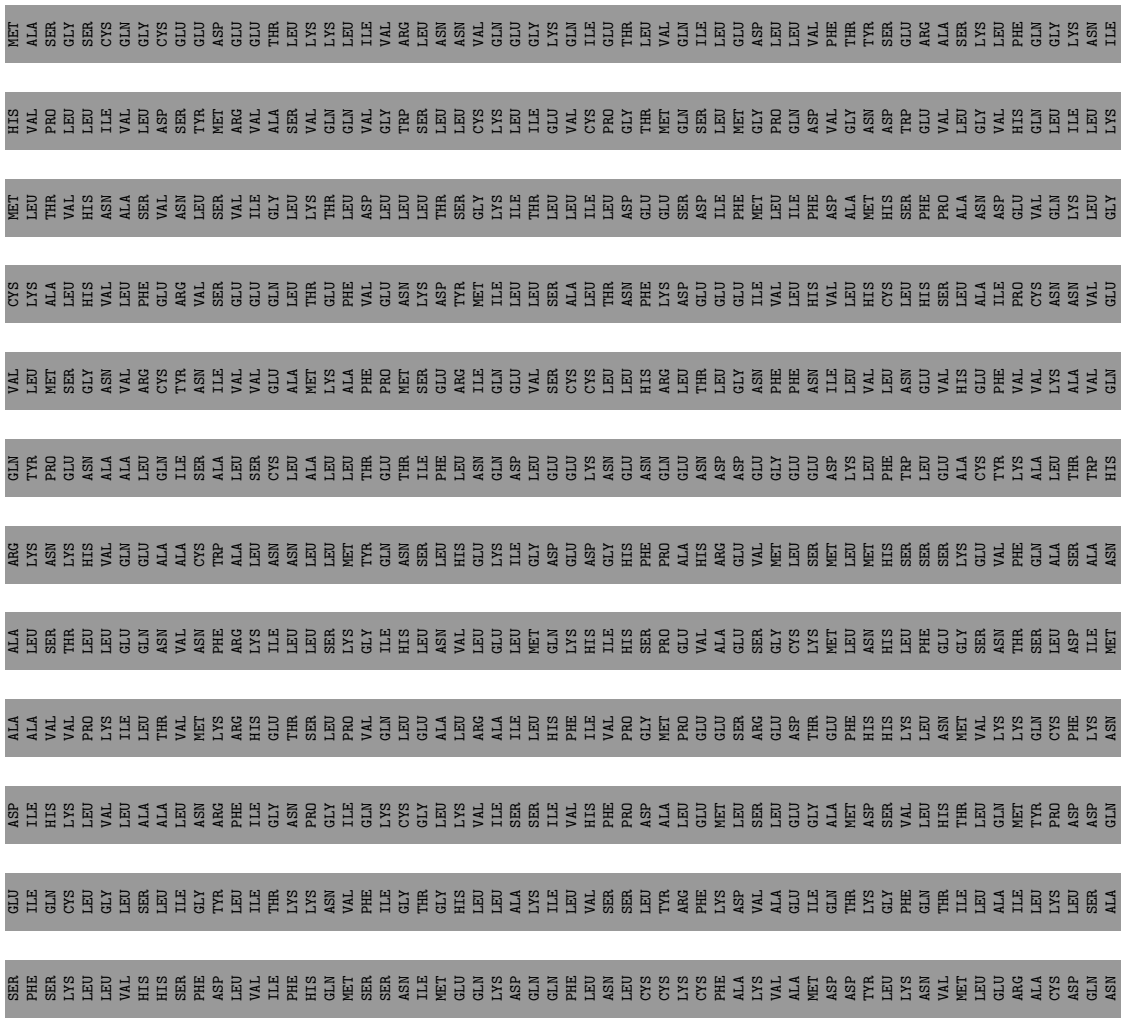
Chain 44-A: 41% 59%

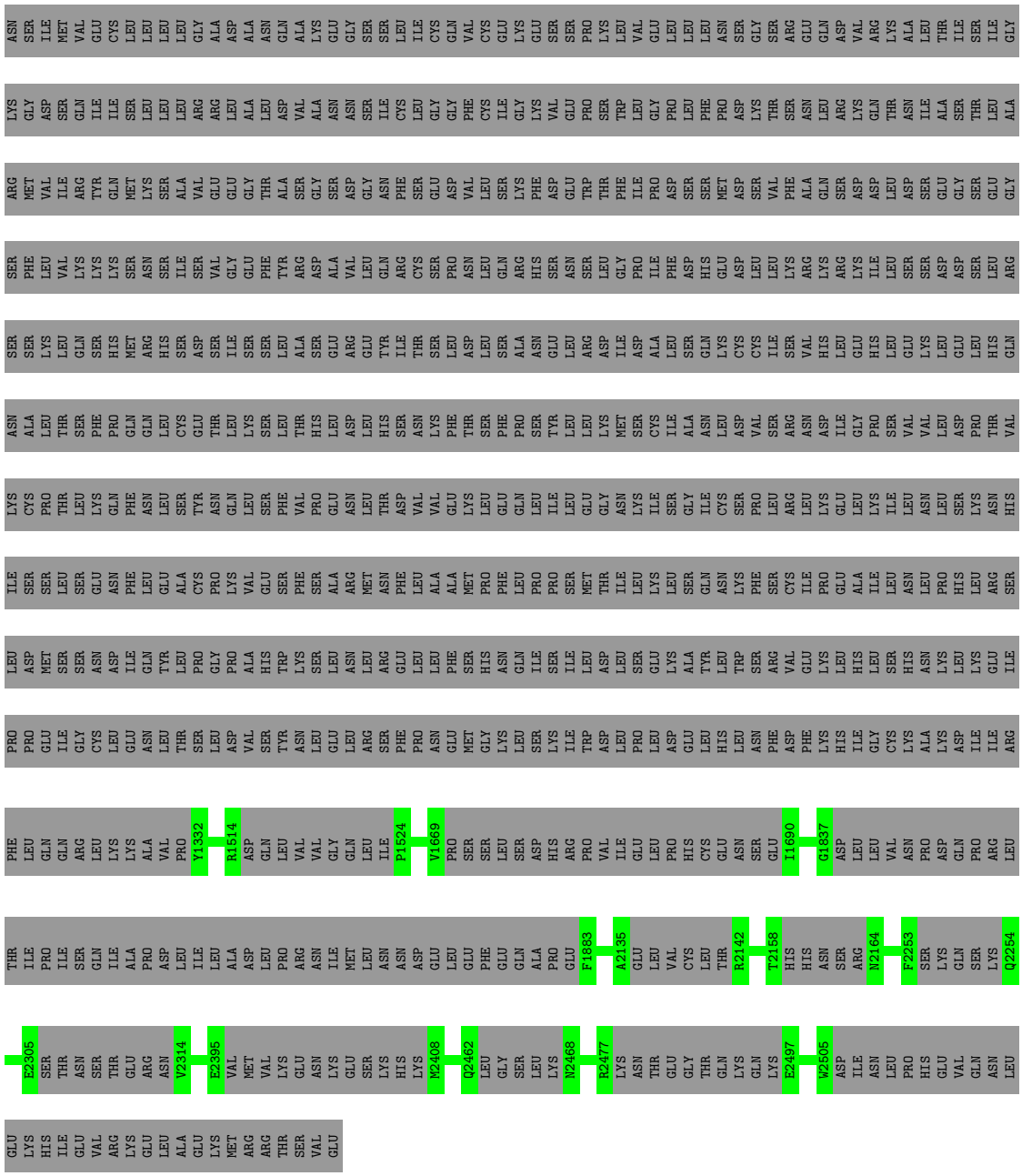
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

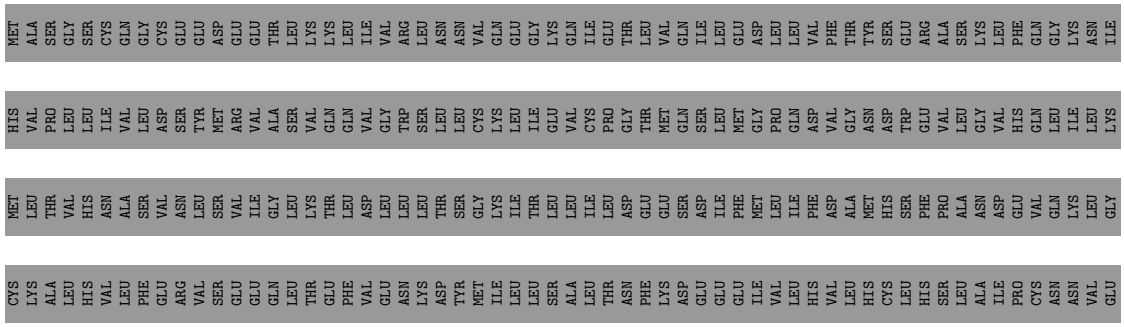
Chain 44-B:





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 45-A: 40% 59%



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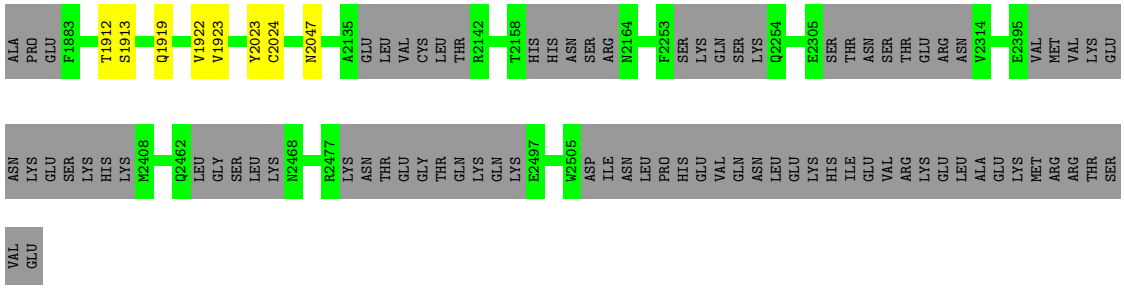
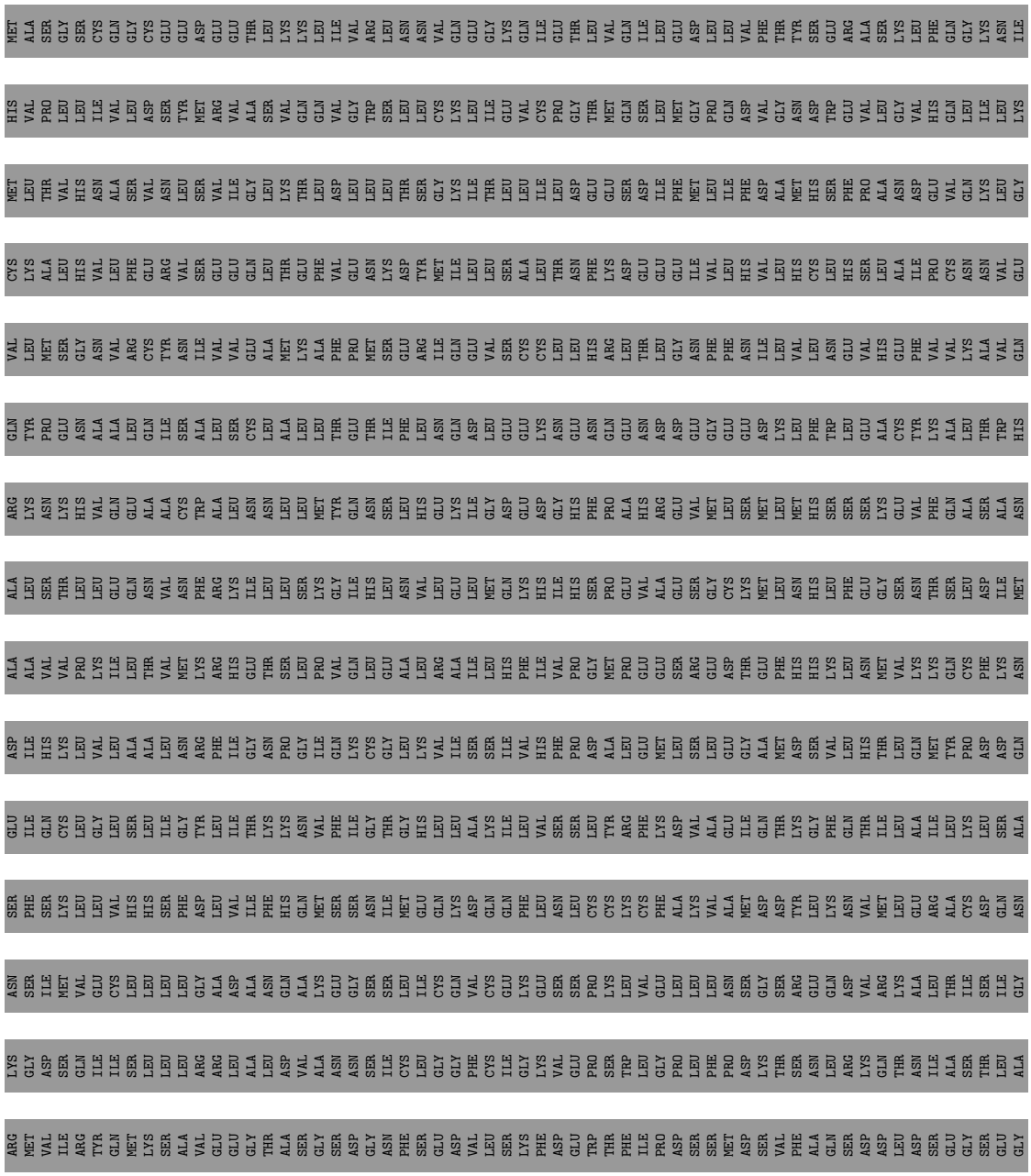
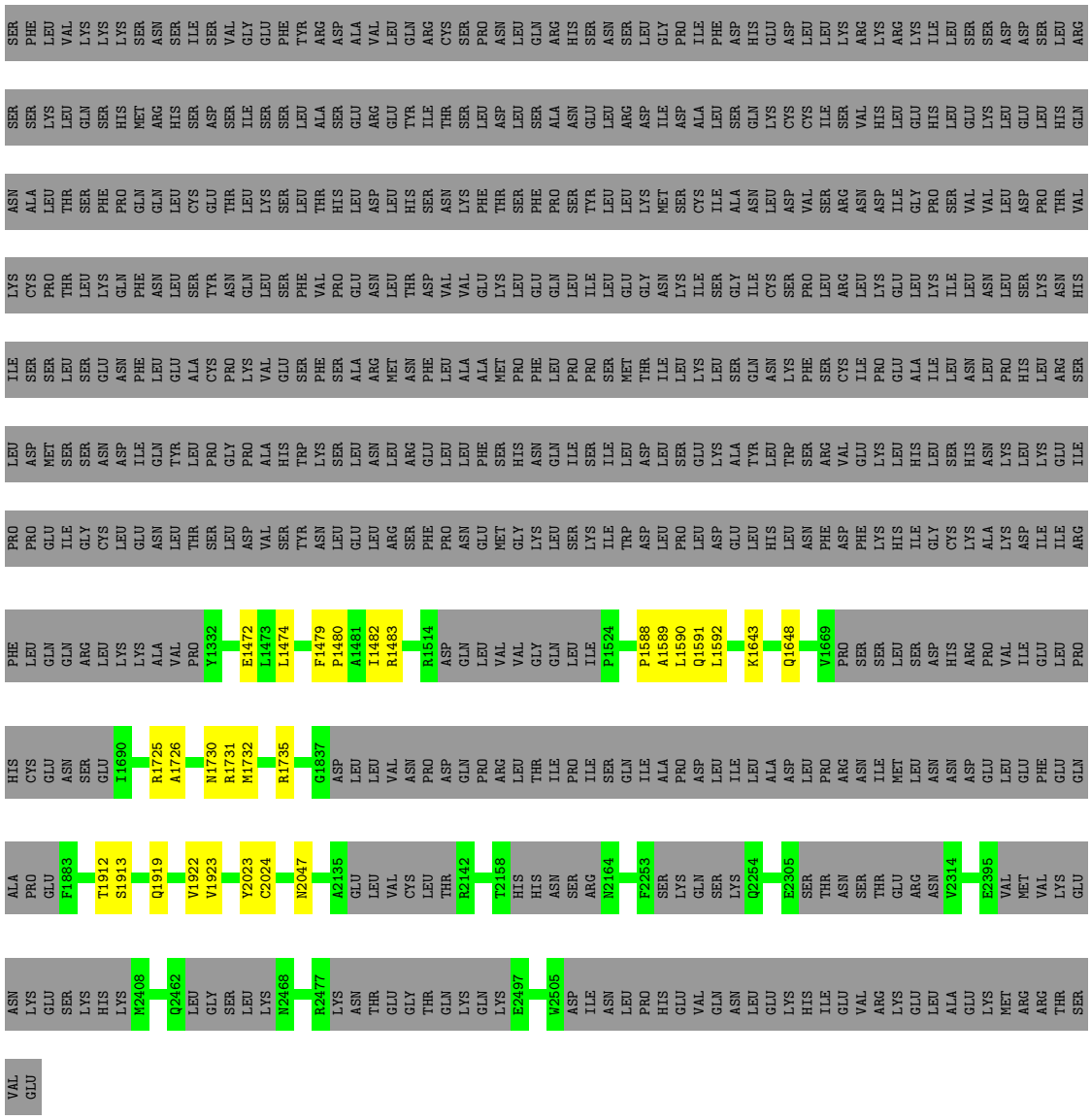
CYS	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR	LEU
GLU	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO	MET
ASN	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU	SER
SER	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN	GLY
GLU	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA	ASN
I1690	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA	VAL
	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU	ARG
R1725	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN	CYS
A1726	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE	TYR
	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER	ASN
N1730	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA	ILE
R1731		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU	VAL
M1732	E1472	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER	VAL
	L1473	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS	GLU
R1735	L1474	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU	ALA
		TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA	MET
G1837	F1479	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU	LYS
ASP	P1480	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU	ALA
LEU	A1481	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR	PHE
LEU	I1482	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU	PRO
VAL	R1483	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR	MET
ASN		SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE	SER
PRO	R1514	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE	GLU
ASP	ASP	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU	ARG
GLN	GLN	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN	ILE
PRO	LEU	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN	GLN
ARG	VAL	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP	GLU
LEU	VAL	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU	VAL
THR	GLY	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU	SER
ILE	GLN	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU	CYS
PRO	LEU	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS	CYS
ILE	ILE	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN	LEU
SER	P1524	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU	LEU
GLN		TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN	HIS
ILE	P1588	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN	ARG
ALA	A1589	LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU	LEU
PRO	L1590	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN	THR
ASP	Q1591	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP	LEU
LEU	L1592	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP	GLY
ILE		GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU	ASN
LEU	K1643	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY	PHE
ALA		HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU	PHE
ASP	Q1648	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU	ASN
LEU		ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP	ILE
PRO	V1669	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS	LEU
ARG	PRO	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU	VAL
ASN	SER	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE	LEU
ILE	SER	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP	ASN
MET	LEU	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU	GLU
LEU	SER	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU	VAL
ASN	ASP	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA	HIS
ASN	HIS	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS	GLU
ASP	ARG	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR	PHE
GLU	PRO	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS	VAL
LEU	VAL	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA	VAL
GLU	ILE	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU	LYS
PHE	GLU	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR	ALA
GLU	LEU	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP	VAL
GLN	PRO	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN	HIS	GLN



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 45-B: 40% 59%

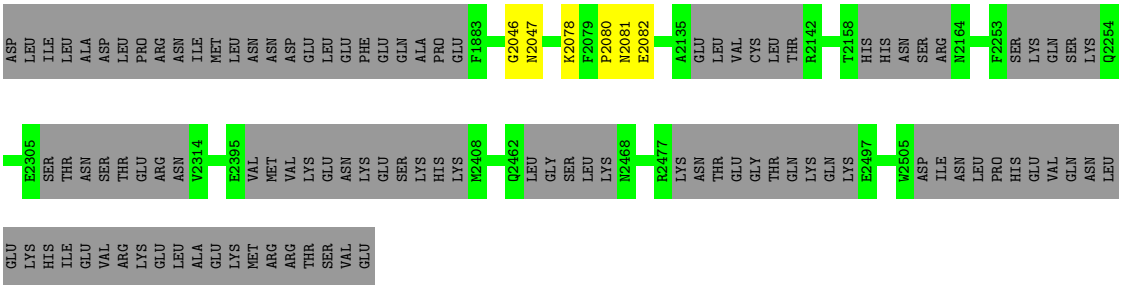




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

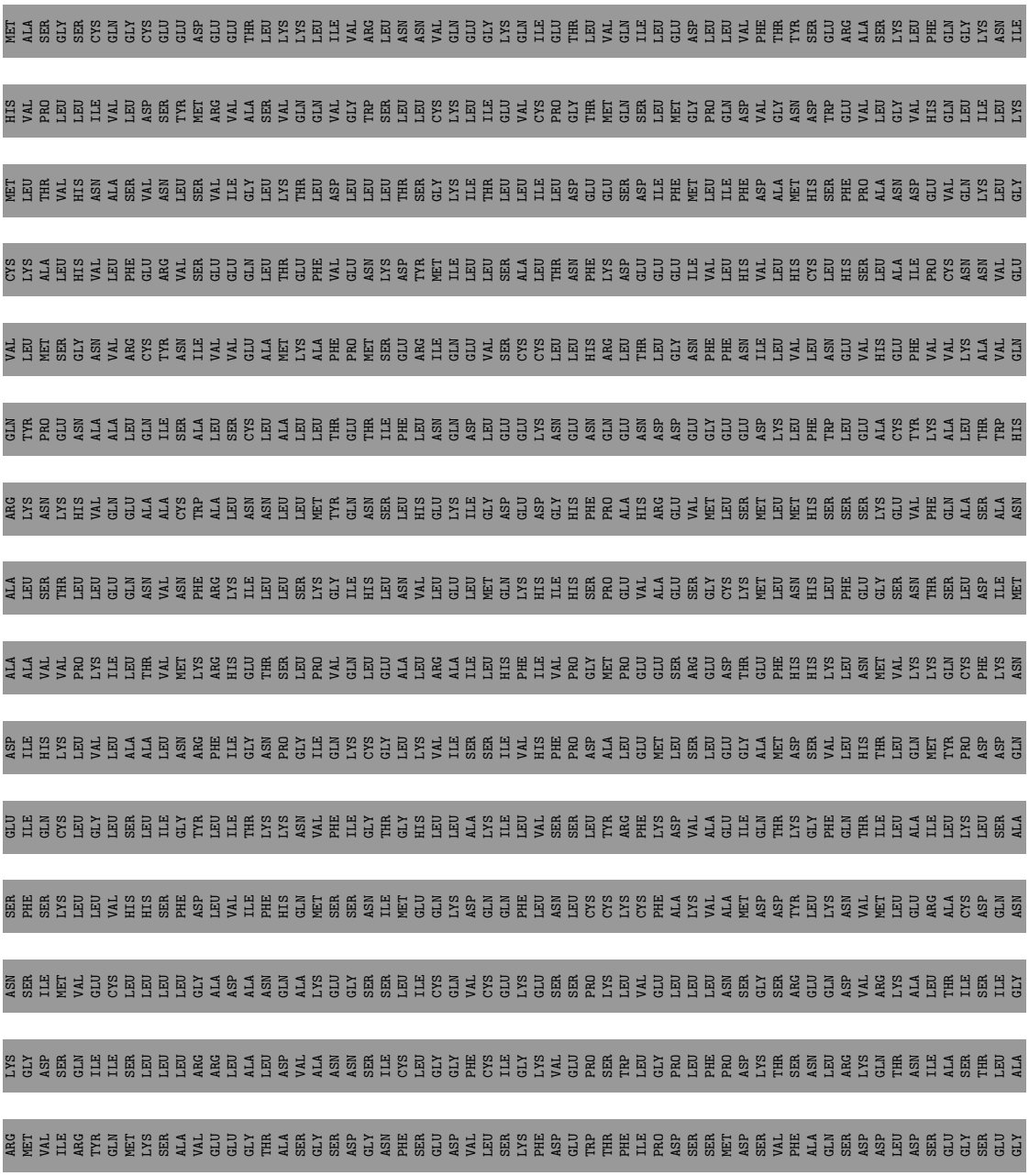
Chain 46-A: 39% • 59%

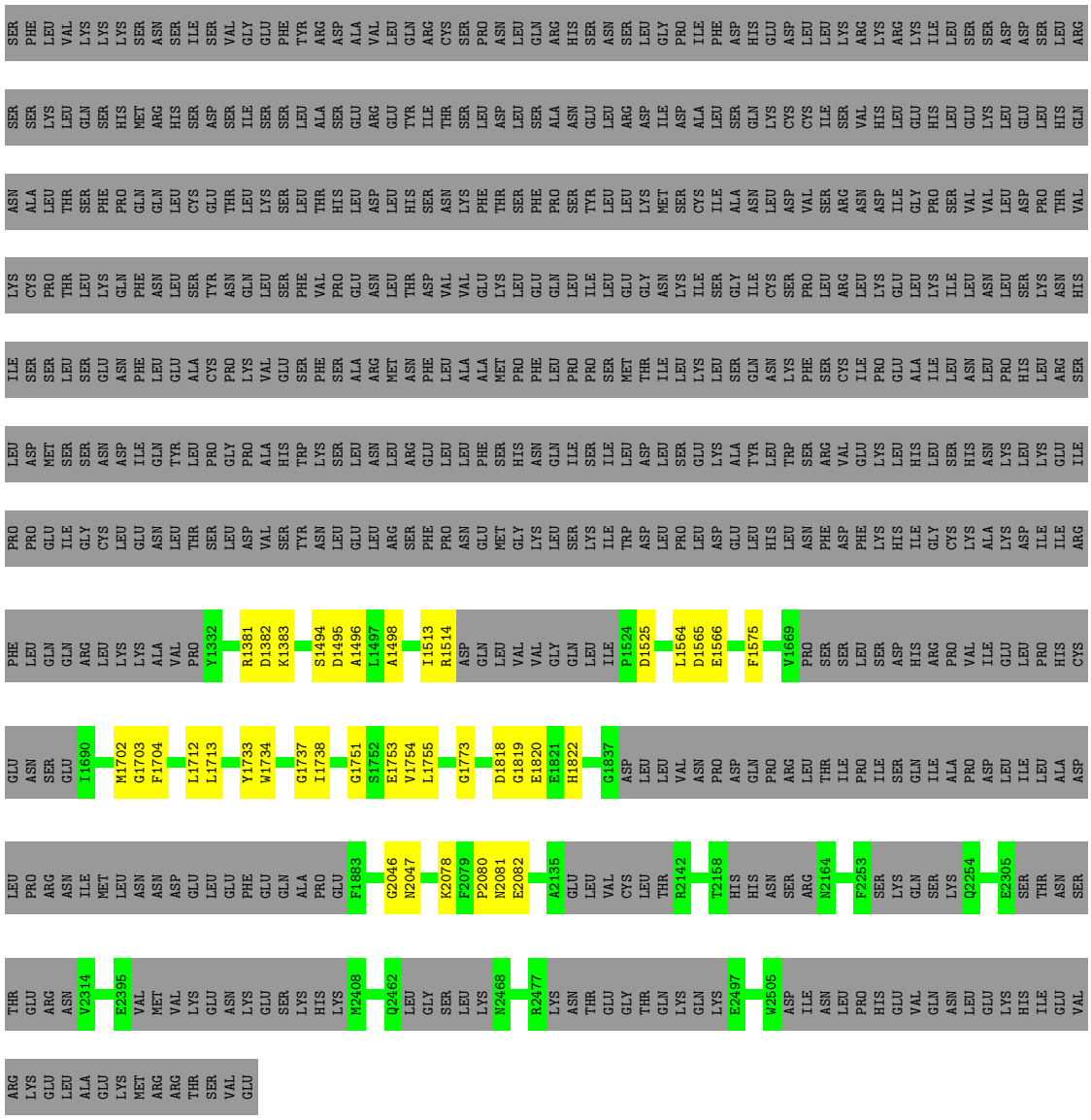
GLU	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA	ARG	GLN
ASN	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU	LYS	TYR
SER	GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER	ASN	PRO
GLU	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR	LYS	GLU
I1690	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU	HIS	ASN
	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU	VAL	ALA
L1694	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU	GLN	ALA
Y1695	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN	GLU	LEU
E1696	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN	ALA	GLN
M1697	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL	ALA	ILE
P1698	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN	CYS	SER
Y1699	Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE	TRP	ALA
F1700		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG	ALA	LEU
P1701	R1381	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS	LEU	SER
	D1382	VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE	ASN	CYS
S1706	K1383	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU	ASN	LEU
R1707		TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU	LEU	ALA
L1708	S1494	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER	LEU	LEU
	D1495	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS	MET	LEU
R1711	A1496	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY	TYR	THR
	L1497	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE	GLN	GLU
R1735	A1498	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS	ASN	THR
Q1736		SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU	SER	ILE
	I1513	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN	LEU	PHE
E1753	R1514	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL	HIS	LEU
V1754	ASP	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU	GLU	ASN
L1755	GLN	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU	LYS	GLN
	LEU	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU	ILE	ASP
I1775	VAL	GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET	GLY	LEU
L1776	VAL	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN	ASP	GLU
L1777	GLY	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS	GLU	GLU
G1778	GLN	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS	ASP	LYS
	LEU	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE	GLY	ASN
D1818	ILE	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS	HIS	GLU
G1819	P1524	TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER	PHE	ASN
E1820	D1525	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO	PRO	GLN
E1821		LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU	ALA	GLU
H1822	L1564	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL	HIS	ASN
	D1565	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA	ARG	ASP
G1837	E1566	ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU	GLU	ASP
ASP		GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER	VAL	GLU
LEU	F1575	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY	MET	GLY
LEU		HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS	LEU	GLU
VAL	V1669	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS	SER	GLU
ASN	PRO	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET	MET	ASP
PRO	SER	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU	LEU	LYS
ASP	SER	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN	MET	LEU
GLN	LEU	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS	HIS	PHE
PRO	SER	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU	SER	TRP
ARG	ASP	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE	SER	LEU
LEU	HIS	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU	SER	GLU
THR	ARG	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY	LYS	ALA
ILE	PRO	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER	GLU	CYS
PRO	VAL	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN	VAL	TYR
ILE	ILE	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR	PHE	LYS
SER	GLU	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER	GLN	ALA
GLN	LEU	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU	ALA	LEU
ILE	PRO	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP	SER	THR
ALA	HIS	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE	ALA	TRP
PRO	CYS	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET	ASN	HIS



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

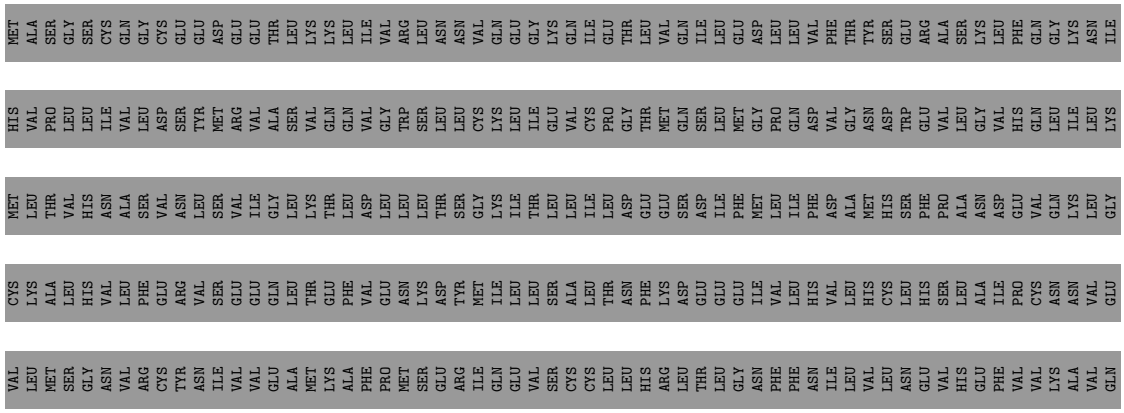
Chain 46-B:



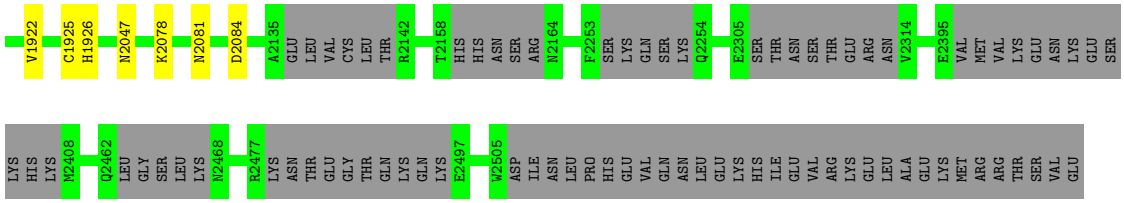


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 47-A: 40% 59%

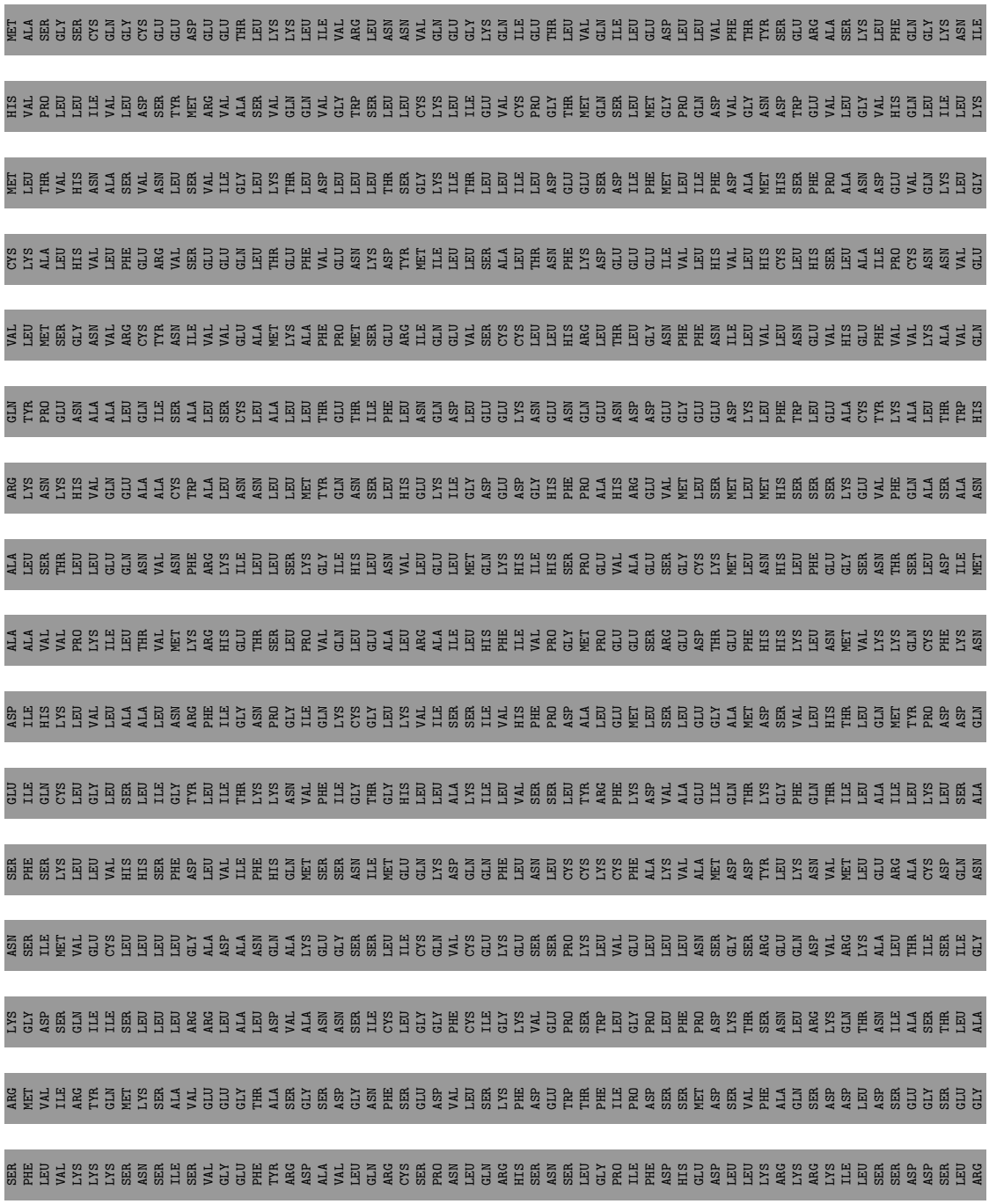


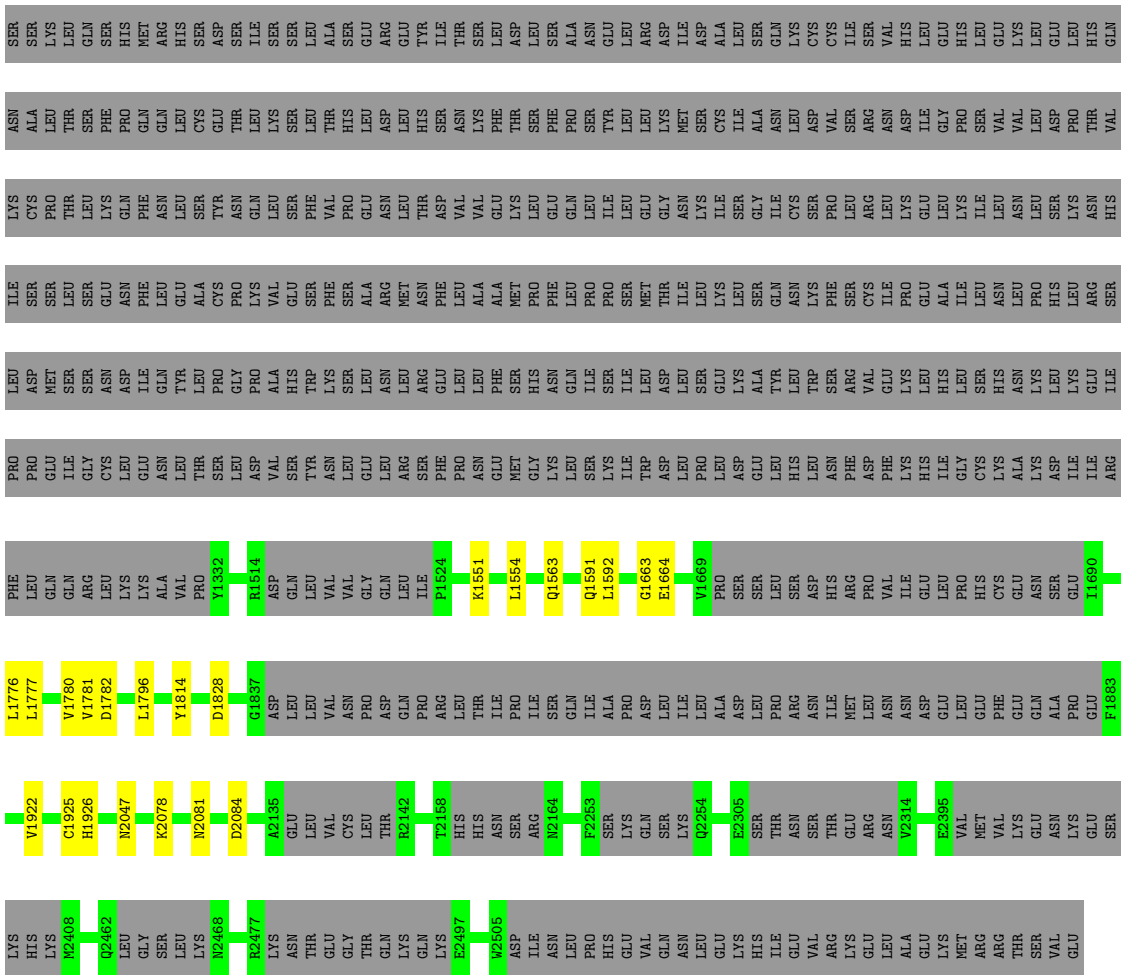
GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LYS LEU PHE TRP LEU GLU LYS ASN GLN GLU ASN ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS
ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE ASN PRO VAL ALA
ALA LEU SER THR LEU LEU GLU GLN ASN VAL LEU ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS GLU GLU LEU ASN VAL LEU LEU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU
ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE ILE LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASP ARG PHE HIS ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU GLY ALA MET ASP SER ILE ILE GLN LYS ASP GLN ASN
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU ALA LYS ILE LEU VAL HIS PHE LYS ASP VAL ALA LEU GLU ILE GLN THR ILE LEU ALA ILE LEU LYS LEU SER ALA
SER PHE SER LYS LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU LYS ASP SER ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN GLY SER ARG GLU GLN GLN ILE GLY ILE
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU LEU ARG ARG LEU ALA ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ILE ALA THR ILE
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN SER ASP ASP LEU SER GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS SER ASN SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN SER LEU GLY PRO ILE PHE ASP LYS LYS ILE LEU LEU SER LEU SER ASP SER SER LEU LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU ILE THR SER LEU ASP LEU SER ALA LYS CYS CYS ILE ILE SER GLN LYS CYS ILE SER VAL HIS LEU GLU GLU HIS HIS LEU SER GLN LYS
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU HIS THR SER ASN LYS PHE THR SER PHE PRO SER ASN LEU ASP VAL SER ARG ASN ASP LYS ILE LEU ASP ILE ILE ASP ALA LEU SER ALA ASN LEU ASP VAL SER ARG LEU LYS LYS MET SER CYS ILE ALA ASN LEU ASP PRO PRO LEU PRO THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU ASP VAL GLU LYS SER PHE GLU GLN LEU ILE LEU GLU GLU LYS ASN LYS ILE SER ALA LEU ARG LYS ILE LYS LEU LYS ILE LEU LYS ILE LYS ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE PRO LEU PRO ILE SER LEU LYS PHE SER CYS ILE LEU ILE LEU ILE LEU LEU LEU LEU LEU



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

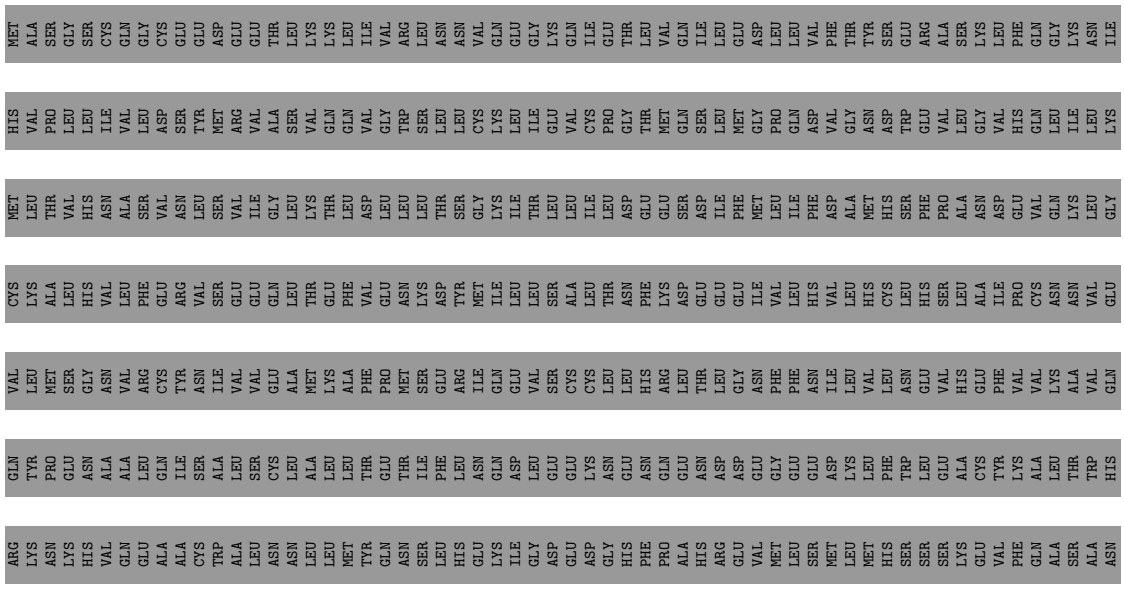
Chain 47-B:





• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 48-A: 40% • 59%



GLU	ASP	GLU	PHE	PRO	LEU	ILE	LYS	ASN	SER	SER	ARG	LYS	ASN	SER	GLU	ASP	ALA	ALA
ARG	LEU	I1690	LEU	PRO	ASP	SER	CYS	ALA	SER	PHE	MET	GLY	SER	PHE	ILE	ILE	ALA	LEU
ASN	PRO		GLN	GLU	MET	SER	PRO	LEU	LYS	LEU	VAL	ASP	ILE	SER	GLN	HIS	VAL	SER
V2314	ARG	L1694	GLN	ILE	SER	LEU	THR	THR	LEU	VAL	ILE	SER	MET	LYS	CYS	LYS	VAL	THR
	ASN	Y1695	ARG	GLY	SER	SER	LEU	SER	GLN	LYS	ARG	GLN	VAL	LEU	LEU	LEU	PRO	LEU
E2395	ILE	E1696	LEU	CYS	ASN	GLU	LYS	PHE	SER	LYS	TYR	ILE	GLU	LEU	GLY	VAL	LYS	LEU
VAL	MET	M1697	LYS	LEU	ASP	ASN	GLN	PRO	HIS	LYS	GLN	ILE	CYS	VAL	LEU	LEU	ILE	GLU
MET	LEU	P1698	LYS	GLU	ILE	PHE	PHE	GLN	MET	SER	MET	SER	LEU	HIS	SER	ALA	LEU	GLN
VAL	ASN	Y1699	ALA	ASN	GLN	LEU	ASN	GLN	ARG	ASN	LYS	LEU	LEU	HIS	LEU	ALA	THR	ASN
LYS	ASN	F1700	VAL	LEU	TYR	GLU	LEU	LEU	HIS	SER	SER	LEU	LEU	SER	ILE	LEU	VAL	VAL
GLU	ASP	P1701	PRO	THR	LEU	ALA	SER	CYS	SER	ILE	ALA	LEU	LEU	PHE	GLY	ASN	MET	ASN
ASN	GLU		Y1332	SER	PRO	CYS	TYR	GLU	ASP	SER	VAL	ARG	GLY	ASP	TYR	ARG	LYS	PHE
LYS	LEU	S1706		LEU	GLY	PRO	ASN	THR	SER	VAL	GLU	ARG	ALA	LEU	LEU	PHE	ARG	ARG
GLU	GLU	R1707	K1476	ASP	PRO	LYS	GLN	LEU	ILE	GLY	GLU	LEU	ASP	VAL	ILE	ILE	HIS	LYS
SER	PHE	L1708		VAL	ALA	VAL	LEU	LYS	SER	GLU	GLY	ALA	ALA	ILE	THR	GLY	GLU	ILE
LYS	GLU		L1509	SER	HIS	GLU	SER	SER	SER	PHE	THR	LEU	ASN	PHE	LYS	ASN	THR	LEU
HIS	GLN	R1711		TYR	TRP	SER	PHE	LEU	LEU	TYR	ALA	ASP	GLN	HIS	LYS	PRO	SER	LEU
LYS	ALA		R1514	ASN	LYS	PHE	VAL	THR	ALA	ARG	SER	VAL	ALA	GLN	ASN	GLY	LEU	SER
M2408	PRO	R1735	ASP	LEU	SER	SER	PRO	HIS	SER	ASP	GLY	ALA	LYS	MET	VAL	ILE	PRO	LYS
	GLU	Q1736	GLN	GLU	LEU	ALA	GLU	LEU	GLU	ALA	SER	ASN	GLU	SER	PHE	GLN	VAL	GLY
Q2462	F1883		LEU	LEU	ASN	ARG	ASN	ASP	ARG	VAL	ASP	ASN	GLY	SER	ILE	LYS	GLN	ILE
LEU		E1753	VAL	ARG	LEU	MET	LEU	LEU	GLU	LEU	GLY	SER	SER	ASN	GLY	CYS	LEU	HIS
GLY	A2044	V1754	VAL	SER	ARG	ASN	THR	HIS	TYR	GLN	ASN	ILE	SER	ILE	THR	GLY	GLU	LEU
SER		L1755	GLY	PHE	GLU	PHE	ASP	SER	ILE	ARG	PHE	CYS	LEU	MET	GLY	LEU	ALA	ASN
LEU	K2078		GLN	PRO	LEU	LEU	VAL	ASN	THR	CYS	SER	LEU	ILE	GLU	HIS	LYS	LEU	VAL
LYS	F2079	I1775	LEU	ASN	LEU	ALA	VAL	LYS	SER	SER	GLU	GLY	CYS	GLN	LEU	VAL	ARG	LEU
N2468	P2080	L1776	ILE	GLU	PHE	ALA	GLU	PHE	LEU	PRO	ASP	GLY	GLN	LYS	LEU	ILE	ALA	GLU
	N2081	L1777	P1524	MET	SER	MET	LYS	THR	ASP	ASN	VAL	PHE	VAL	ASP	ALA	SER	ILE	LEU
R2477		G1778		GLY	HIS	PRO	LEU	SER	LEU	LEU	LEU	CYS	CYS	GLN	LYS	SER	LEU	MET
LYS	A2135		N1567	LYS	ASN	PHE	GLU	PHE	SER	GLN	SER	ILE	GLU	GLN	ILE	ILE	HIS	GLN
ASN	GLU	A1812	E1568	LEU	GLN	LEU	GLN	PRO	ALA	ARG	LYS	GLY	LYS	PHE	LEU	VAL	PHE	LYS
THR	LEU		L1569	SER	ILE	PRO	LEU	SER	ASN	HIS	PHE	LYS	GLU	LEU	VAL	HIS	ILE	HIS
GLU	VAL	E1821	P1570	LYS	SER	PRO	ILE	TYR	GLU	SER	ASP	VAL	SER	ASN	SER	PHE	VAL	ILE
GLY	CYS		H1571	ILE	ILE	SER	LEU	LEU	LEU	ASN	GLU	GLU	SER	LEU	SER	PRO	PRO	HIS
THR	LEU	G1837		TRP	LEU	MET	GLU	LEU	ARG	SER	TRP	PRO	PRO	CYS	LEU	ASP	GLY	SER
GLN	THR	ASP	H1574	ASP	ASP	THR	GLY	LYS	ASP	LEU	THR	SER	LYS	CYS	TYR	ALA	MET	PRO
LYS	R2142	LEU		LEU	LEU	ILE	ASN	MET	ILE	GLY	PHE	TRP	LEU	LYS	ARG	LEU	PRO	GLU
GLN		LEU	E1599	PRO	SER	LEU	LYS	SER	ASP	PRO	ILE	LEU	VAL	CYS	PHE	GLU	GLU	VAL
LYS	T2158	VAL	P1600	LEU	GLU	LYS	ILE	CYS	ALA	ILE	PRO	GLY	GLU	PHE	LYS	MET	GLU	ALA
E2497	HIS	ASN		ASP	LYS	LEU	SER	ILE	LEU	PHE	ASP	PRO	LEU	ALA	ASP	LEU	SER	GLU
	HIS	PRO	V1669	GLU	ALA	SER	GLY	ALA	SER	ASP	SER	LEU	LEU	LYS	VAL	SER	ARG	SER
W2505	ASN	ASP	PRO	LEU	TYR	GLN	ILE	ASN	GLN	HIS	SER	PHE	LEU	VAL	ALA	LEU	GLU	GLY
ASP	SER	GLN	SER	HIS	LEU	ASN	CYS	LEU	LYS	GLU	MET	PRO	ASN	ALA	GLU	GLU	ASP	CYS
ILE	ARG	PRO	SER	LEU	TRP	LYS	SER	ASP	CYS	ASP	ASP	ASP	SER	MET	ILE	GLY	THR	LYS
ASN	N2164	ARG	LEU	ASN	SER	PHE	PRO	VAL	CYS	LEU	SER	LYS	GLY	ASP	GLN	ALA	GLU	MET
LEU		LEU	SER	PHE	ARG	SER	LEU	SER	ILE	LEU	VAL	THR	SER	ASP	THR	MET	PHE	LEU
PRO	F2253	THR	ASP	ASP	VAL	CYS	ARG	ARG	SER	LYS	PHE	SER	ARG	TYR	LYS	ASP	HIS	ASN
HIS	SER	ILE	HIS	PHE	GLU	ILE	LEU	ASN	VAL	ARG	ALA	ASN	GLU	LEU	GLY	SER	HIS	HIS
GLU	LYS	PRO	ARG	LYS	LYS	PRO	LYS	ASP	HIS	LYS	GLN	LEU	GLN	LYS	PHE	VAL	LYS	LEU
VAL	GLN	ILE	PRO	HIS	LEU	GLU	GLU	ILE	LEU	ARG	SER	ARG	ASP	ASN	GLN	LEU	LEU	PHE
GLN	SER	SER	VAL	ILE	HIS	ALA	LEU	GLY	GLU	LYS	ASP	LYS	VAL	VAL	THR	HIS	ASN	GLU
ASN	LYS	GLN	ILE	GLY	LEU	ILE	LYS	PRO	HIS	ILE	ASP	GLN	ARG	MET	ILE	THR	MET	GLY
LEU	Q2254	ILE	GLU	CYS	SER	LEU	ILE	SER	LEU	LEU	LEU	THR	LYS	LEU	LEU	LEU	VAL	SER
GLU		ALA	LEU	LYS	HIS	ASN	LEU	VAL	GLU	SER	ASP	ASN	ALA	GLU	ALA	GLN	LYS	ASN
LYS	E2305	PRO	PRO	ALA	ASN	LEU	ASN	VAL	LYS	SER	SER	ILE	LEU	ARG	ILE	MET	LYS	THR
HIS	SER	ASP	HIS	LYS	LYS	PRO	LEU	LEU	LEU	ASP	GLU	ALA	THR	ALA	LEU	TYR	GLN	SER
ILE	THR	LEU	CYS	ASP	LEU	HIS	SER	ASP	GLU	ASP	GLY	SER	ILE	CYS	LYS	PRO	CYS	LEU
GLU	ASN	ILE	GLU	ILE	LYS	LEU	LYS	PRO	LEU	SER	SER	THR	SER	ASP	LEU	ASP	PHE	ASP
VAL	SER	LEU	ASN	ILE	GLU	ARG	ASN	THR	HIS	LEU	GLU	LEU	ILE	GLN	SER	ASP	LYS	ILE
ARG	THR	ALA	SER	ARG	ILE	SER	HIS	VAL	GLN	ARG	GLY	ALA	GLY	ASN	ALA	GLN	ASN	MET

LYS GLU LEU ALA GLU LYS MET ARG ARG THR SER VAL GLU

- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 48-B: 40% • 59%

MET ALA SER GLY SER CYS GLN GLY CYS GLU GLU ASP GLU GLU THR LEU LYS LYS LEU ILE VAL ARG LEU ASN ASN VAL GLN GLU GLU GLY LYS GLN ILE GLU THR LEU VAL GLN ILE LEU GLU ASP LEU LEU VAL PHE THR TYR SER GLU ARG ALA SER LYS LEU PHE GLN GLY LYS ASN ILE

HIS VAL PRO LEU LEU ILE VAL LEU ASP SER SER TYR MET ARG VAL ALA ALA SER VAL GLN GLN VAL GLY TRP SER LEU LEU CYS LYS LEU ILE GLU VAL CYS PRO GLY THR MET GLN SER LEU MET GLY PRO GLN ASP VAL GLY ASN ASP TRP GLU VAL LEU LEU LEU LYS

MET LEU THR VAL HIS ASN ALA SER VAL ASN LEU SER VAL ILE GLY LEU LYS THR LEU ASP LEU LEU LEU THR SER GLY LYS ILE THR LEU LEU ILE LEU ASP GLU GLU SER ASP ILE PHE MET LEU ILE PHE ASP ALA MET HIS SER PHE PRO ALA ASN ASP GLU VAL GLN LYS LEU GLY

CYS LYS ALA LEU HIS VAL LEU PHE GLU ARG VAL SER GLU GLU GLN LEU THR GLU PHE VAL GLU ASN LYS ASP TYR MET ILE LEU LEU SER ALA LEU THR ASN PHE LYS ASP GLU GLU GLU ILE VAL LEU HIS VAL LEU HIS CYS LEU HIS SER LEU ALA ILE PRO CYS ASN ASN VAL GLU

VAL LEU MET SER GLY ASN VAL ARG CYS TYR ASN ILE VAL VAL GLU ALA MET LYS ALA PHE PRO MET SER GLU ARG ILE GLN GLU VAL SER CYS CYS LEU LEU HIS ARG LEU THR LEU GLY ASN PHE PHE ASN ILE LEU VAL LEU ASN GLU VAL HIS GLU PHE VAL VAL LYS ALA VAL GLN

GLN TYR PRO GLU ASN ALA ALA LEU GLN ILE SER ALA LEU SER CYS LEU ALA LEU LEU THR GLU THR ILE PHE LEU ASN GLN ASP LEU GLU GLU LYS ASN GLU ASN GLN GLU ASP ASP GLU GLY GLU GLU ASP LYS LEU PHE TRP LEU GLU ALA CYS TYR LYS ALA LEU THR TRP HIS

ARG LYS ASN LYS HIS VAL GLN GLU ALA ALA CYS TRP ALA LEU ASN ASN LEU LEU MET TYR GLN ASN SER LEU HIS GLU LYS ILE GLY ASP GLU ASP GLY HIS PHE PRO ALA HIS ARG GLU VAL MET LEU SER MET LEU MET HIS SER SER SER LYS GLU VAL PHE GLN ALA SER ALA ASN

ALA LEU SER THR LEU LEU GLU GLN ASN VAL ASN PHE ARG LYS ILE LEU LEU SER LYS GLY ILE HIS LEU ASN VAL LEU GLU LEU MET GLN LYS HIS ILE HIS SER PRO GLU VAL ALA GLU SER GLY CYS LYS MET LEU ASN HIS LEU PHE GLU GLY SER ASN THR SER LEU ASP ILE MET

ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN

ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA MET LEU SER LEU GLU GLU GLY ALA MET ASP SER VAL LEU HIS THR LEU GLN MET TYR PRO ASP ASP GLN

GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR GLY HIS LEU LEU LEU ALA LYS ILE LEU VAL SER SER LEU ILE GLN THR THR LYS GLY PHE GLN THR LEU LYS LEU ALA ILE LEU LYS LEU ALA

SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN SER ILE MET GLU GLN GLN PHE LEU ASN LEU CYS CYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU GLU GLU ASN

ASN SER ILE MET VAL GLU CYS LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER LEU ILE CYS GLN VAL CYS GLU LYS GLU SER SER PRO LYS LEU VAL GLU LEU LEU LEU ASN SER GLY SER ARG GLU GLN ASP VAL ARG LYS ALA LEU THR ILE SER ILE GLY

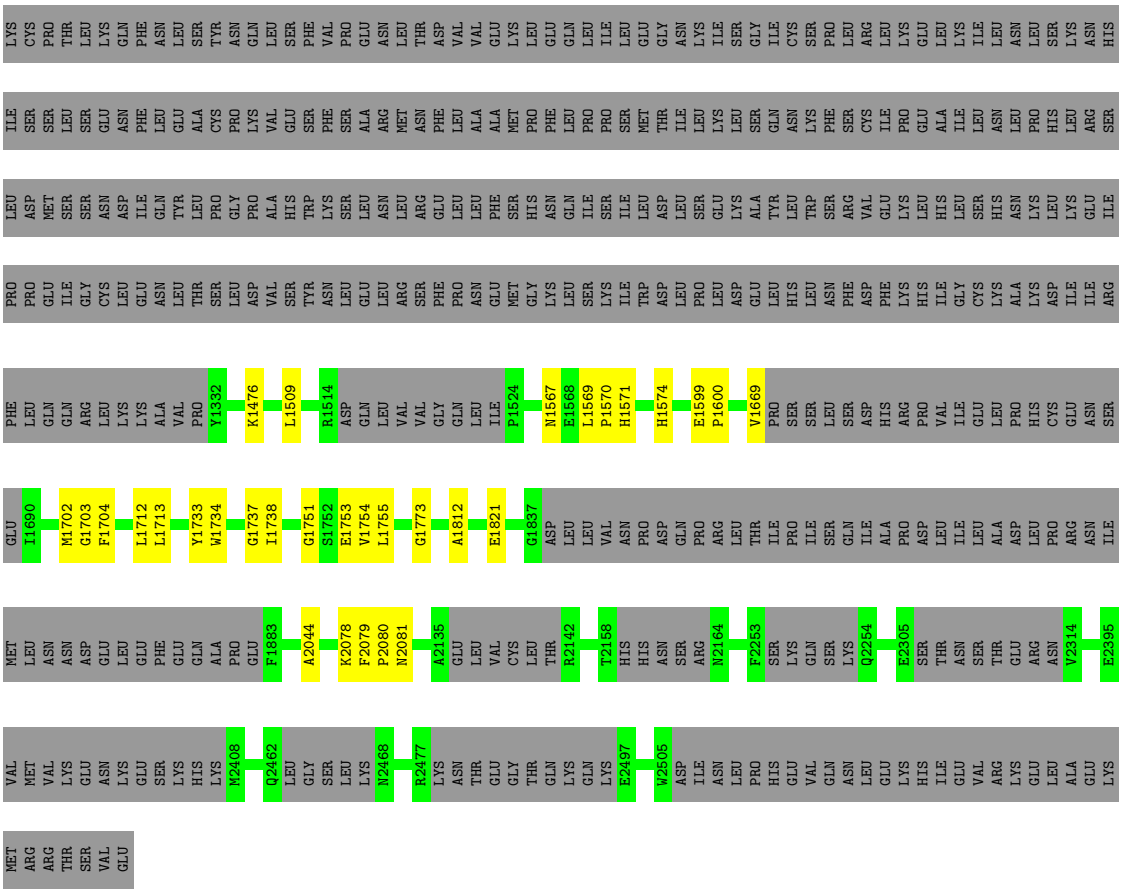
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU ARG ARG LEU ALA ALA LEU ASP VAL ALA ASN ASN SER SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU PHE PRO ASP LYS THR SER ASN LEU ARG LYS GLN THR ASN ILE ALA SER THR LEU ALA

ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER SER MET ASP SER VAL PHE ALA GLN LEU ARG LYS GLN THR ASP LEU ASP SER GLU GLY SER GLU GLY

SER PHE LEU VAL LYS LYS SER ASN SER ILE ASP ASN ARG CYS SER PRO ASN SER LEU LEU GLN ARG HIS SER ASN LEU SER LEU GLY ASP ASN GLN LYS CYS CYS ILE LEU LEU LYS ARG LYS ARG LYS ILE LEU SER SER ASP ASP SER LEU ARG

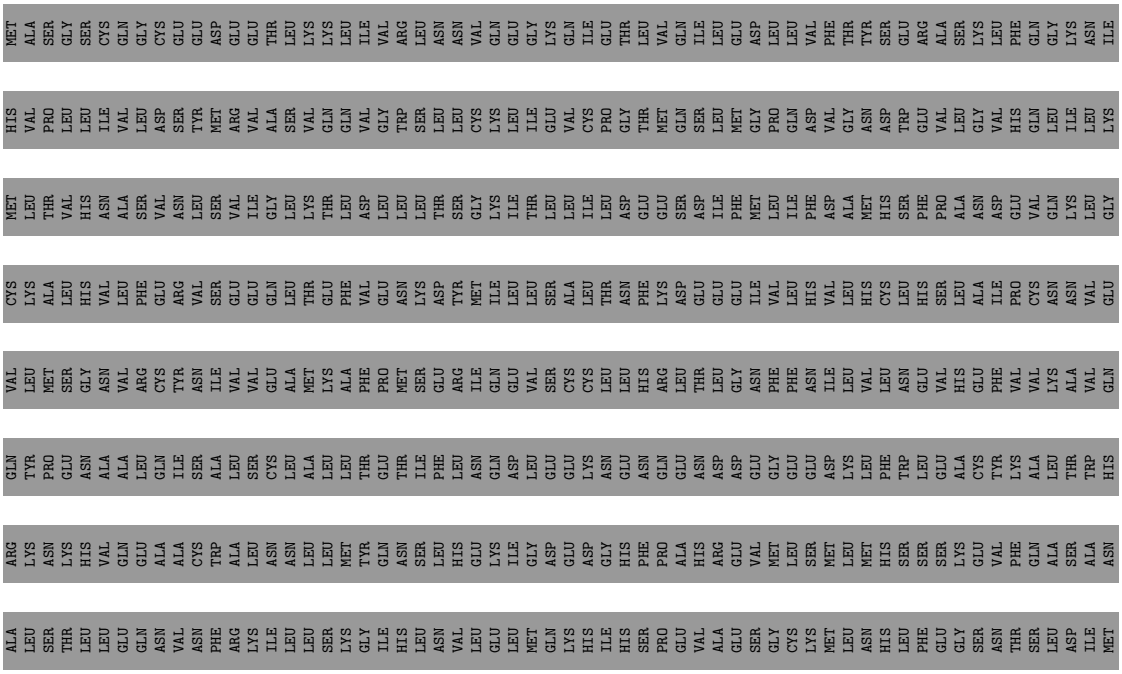
SER SER LYS LEU GLN SER HIS MET ARG HIS SER SER ASP SER ILE SER SER LEU ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP SER SER ALA ASN GLU LEU ARG ASP ILE ASP ALA LEU SER GLN LYS CYS CYS ILE SER VAL HIS LEU LEU SER GLU GLU LYS LEU LEU GLU GLU HIS GLN

ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS PHE THR SER PHE PRO SER TYR LEU LEU LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL VAL LEU ASP ILE PRO THR VAL



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 49-A: 40% • 59%



ALA ALA VAL VAL PRO LYS ILE LEU THR VAL MET LYS ARG HIS GLU THR SER LEU PRO VAL GLN LEU GLU ALA LEU ARG ALA ILE LEU HIS PHE ILE VAL PRO GLY MET PRO GLU GLU SER ARG GLU ASP THR GLU PHE HIS HIS LYS LEU ASN MET VAL LYS LYS GLN CYS PHE LYS ASN
ASP ILE HIS LYS LEU VAL LEU ALA ALA LEU ASN ARG PHE ILE GLY ASN PRO GLY ILE GLN LYS CYS GLY LEU LYS VAL ILE SER SER ILE VAL HIS PHE PRO ASP ALA LEU GLU MET LEU SER LEU GLU VAL LEU HIS THR LEU GLN LEU LYS GLN
GLU ILE GLN CYS LEU GLY LEU SER LEU ILE GLY TYR LEU ILE THR LYS LYS ASN VAL PHE ILE GLY THR HIS GLU LEU ALA ILE LEU LEU ALA LYS ILE LEU VAL SER SER LEU GLY PHE GLN THR ILE LEU GLU LYS LEU ILE GLN THR LYS LYS ALA
SER PHE SER LYS LEU LEU VAL HIS HIS SER PHE ASP LEU VAL ILE PHE HIS GLN MET SER SER ASN ILE MET GLU GLN LYS ASP GLN GLN PHE LEU ASN VAL MET LEU GLU LYS ASP ASP TYR LEU LYS ASN VAL MET LEU GLU ARG ALA ASP GLN ASN
ASN SER ILE MET VAL GLU CYS LEU LEU LEU LEU GLY ALA ASP ALA ASN GLN ALA LYS GLU GLY SER SER ILE LEU ILE CYS GLN VAL CYS GLU LYS GLU LEU LEU LEU ASN SER GLY SER ILE LEU LYS LYS CYS PHE ALA LYS VAL ALA MET ASP ASP TYR LEU LYS ASN VAL MET LEU LEU ARG LYS ALA LEU THR ILE ILE SER SER ILE GLY
LYS GLY ASP SER GLN ILE ILE SER LEU LEU LEU LEU ARG ARG LEU ALA LEU ASP VAL ALA ASN ASN SER ILE CYS LEU GLY GLY PHE CYS ILE GLY LYS VAL GLU PRO SER TRP LEU GLY PRO LEU LEU PHE PRO ASP LYS THR SER ARG GLU GLN ASP VAL LYS GLN LYS LYS ILE SER THR LEU ALA
ARG MET VAL ILE ARG TYR GLN MET LYS SER ALA VAL GLU GLU GLY THR ALA SER GLY SER ASP GLY ASN PHE SER GLU ASP VAL LEU SER LYS PHE ASP GLU TRP THR PHE ILE PRO ASP SER LEU LYS GLU GLU GLY SER GLU GLY
SER PHE LEU VAL LYS LYS LYS SER ILE SER VAL GLY GLU PHE TYR ARG ASP ALA VAL LEU GLN ARG CYS SER PRO ASN LEU GLN ARG HIS SER ASN LEU LEU LYS ARG LYS ILE LEU LEU LEU SER LYS ARG ASP ASP SER LEU ARG
SER SER LYS LEU GLN SER HIS MET ARG HIS SER ASP SER ILE SER SER LEU ALA ALA SER GLU ARG GLU TYR ILE THR SER LEU ASP LEU LEU SER ALA ASN GLU ARG HIS SER LEU ASP ILE ASN LYS CYS CYS ILE SER VAL HIS LEU GLU HIS LEU LEU GLU LYS LYS LEU GLU HIS GLN
ASN ALA LEU THR SER PHE PRO GLN GLN LEU CYS GLU THR LEU LYS SER LEU THR HIS LEU ASP LEU HIS SER ASN LYS PHE THR SER PHE PRO SER GLN LYS LYS MET SER CYS ILE ALA ASN LEU ASP VAL SER ARG ASN ASP ILE GLY PRO SER VAL LEU LYS MET SER ASP PRO THR VAL
LYS CYS PRO THR LEU LYS GLN PHE ASN LEU SER TYR ASN GLN LEU SER PHE VAL PRO GLU ASN LEU THR ASP VAL VAL GLU LYS LEU GLU GLN LEU ILE LEU GLU GLY ILE CYS SER PRO LEU LEU ARG LEU LYS GLU LEU LYS ILE SER GLY ILE CYS SER LEU LEU ARG ASN HIS
ILE SER SER LEU SER GLU ASN PHE LEU GLU ALA CYS PRO LYS VAL GLU SER PHE SER ALA ARG MET ASN PHE LEU ALA ALA MET PRO PHE LEU PRO PRO SER ILE LEU LYS LEU SER GLN ASN LYS PHE SER CYS ILE LEU ILE LEU ARG SER
LEU ASP MET SER SER ASN ASP ILE GLN TYR GLU LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU LYS SER SER GLU ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU LYS GLU LEU HIS SER LEU SER SER LYS LYS
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU THR ASP LYS LYS LEU SER ILE THR ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ILE LYS ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 Q1353 A1367 T1368 V1369 G1370 D1455 N1489 A1490 T1491 E1492 E1493 S1494 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 D1565 E1566 N1567 E1568 L1569 P1570 L1576 N1577 E1578 S1579 G1580 V1581 L1582 L1583 L1590 Q1591
P1600 I1658 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690 K1764 L1776 G1794 K1810 K1832 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU
ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU LEU ASN ASN ASP GLU ASN SER LYS HIS LYS LYS F1883 V1922 A2044 L2077 K2078 F2079 P2080 E2117 N2118 A2135 GLU LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS
Q2254 E2305 SER THR ASN SER THR GLU ARG ASN V2314 E2395 VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408 Q2462 LEU GLY SER LEU LYS N2468 R2477 LYS ASN THR GLU GLY THR GLN LYS GLN LYS E2497 W2505 ASP ILE ASN LEU PRO HIS GLU VAL GLN ASN
LEU GLU LYS HIS ILE GLU VAL ARG LYS GLU GLU LEU ALA GLU LYS MET ARG ARG THR SER VAL GLU

• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 49-B: 40% • 59%

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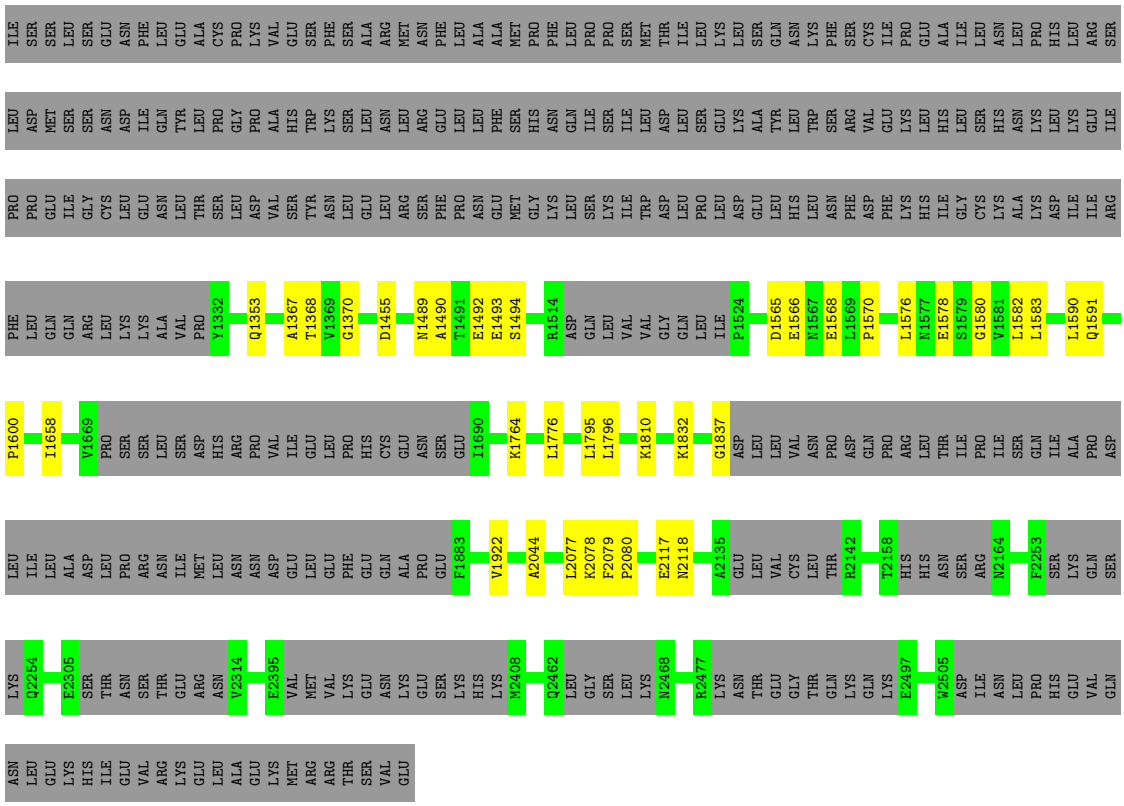
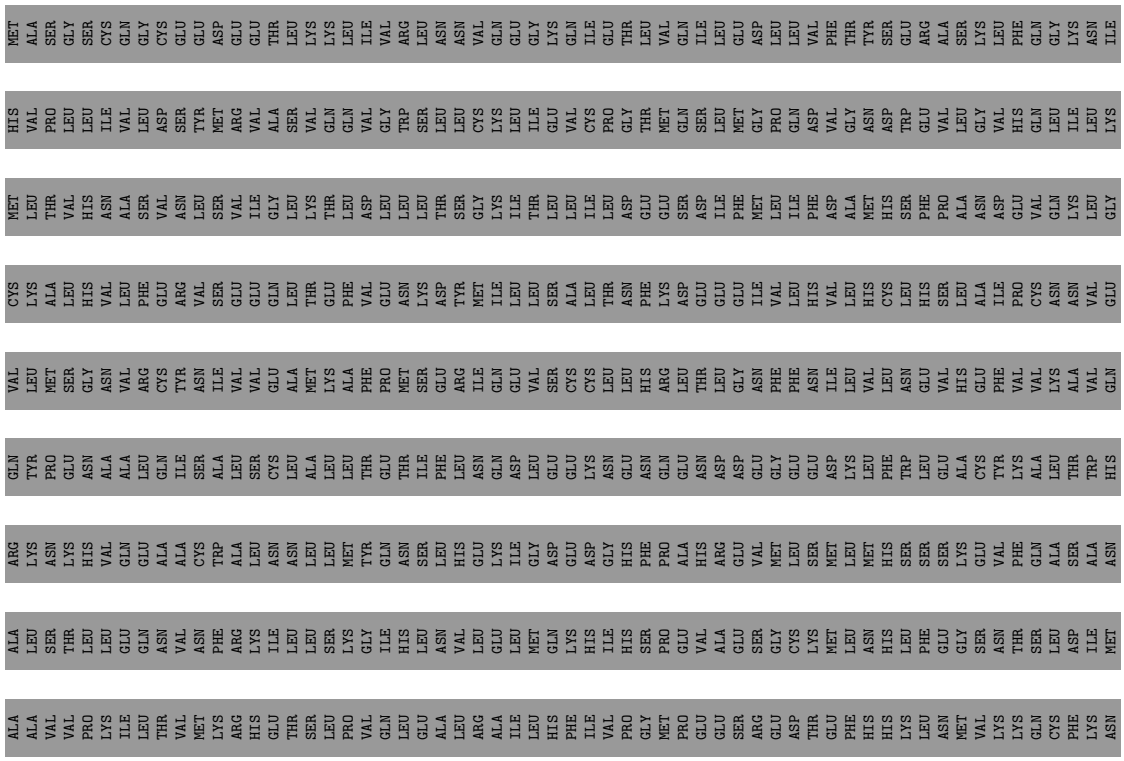
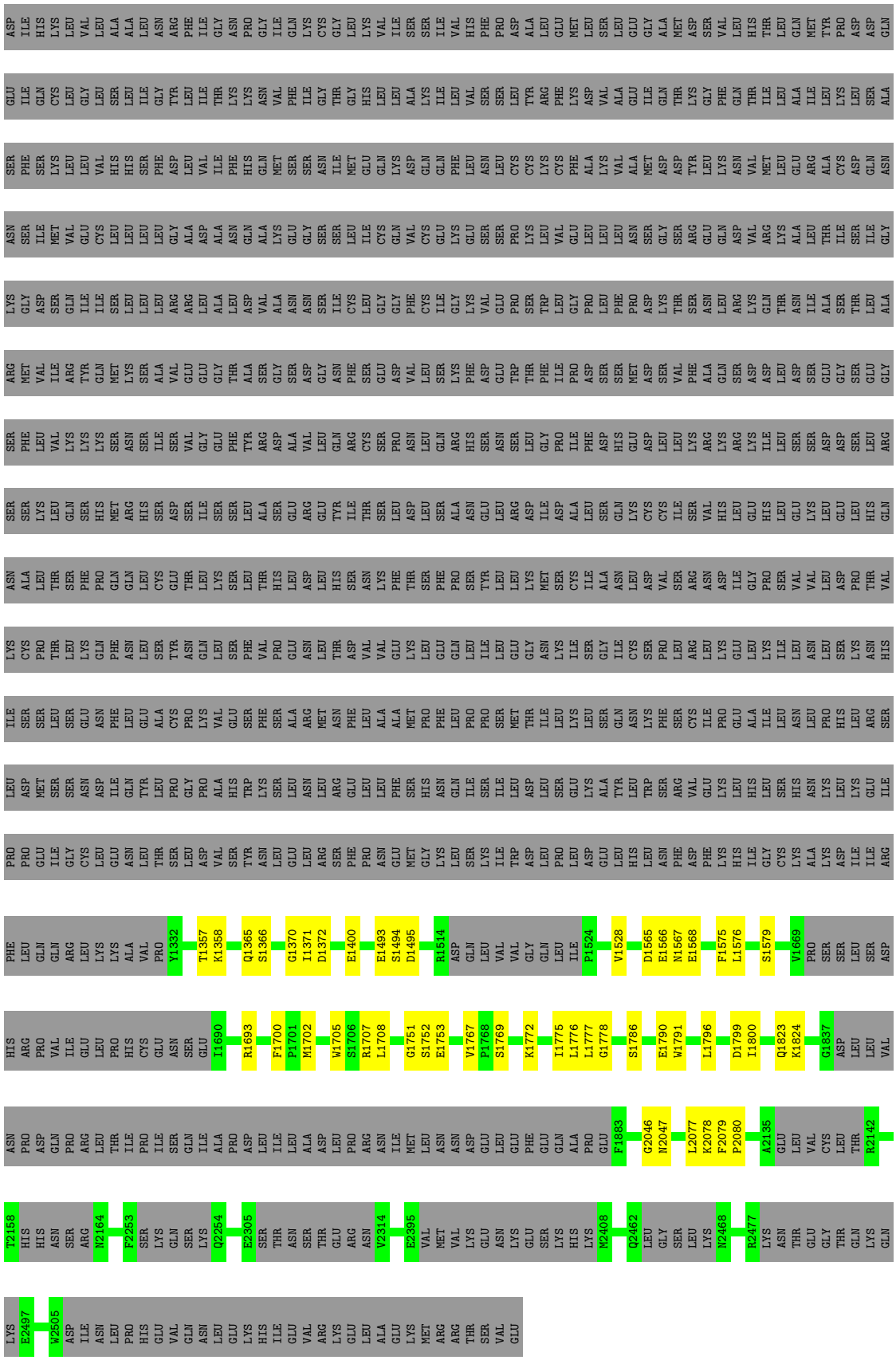


• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 50-A: 39% • 59%

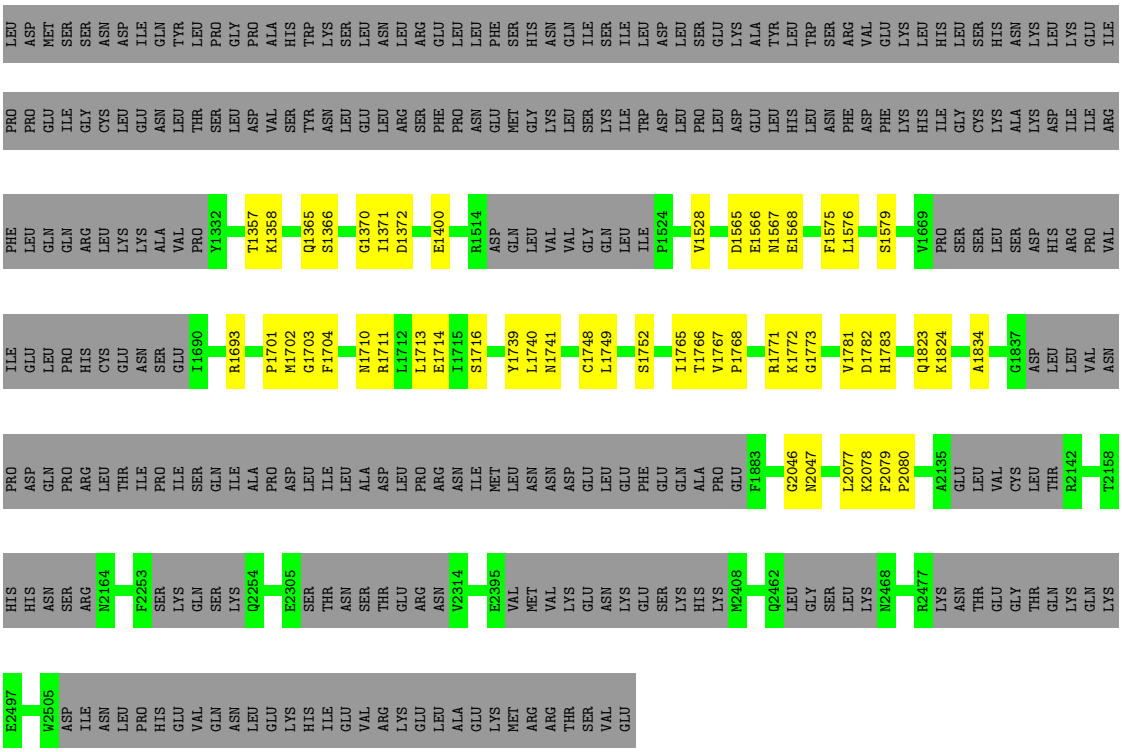




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

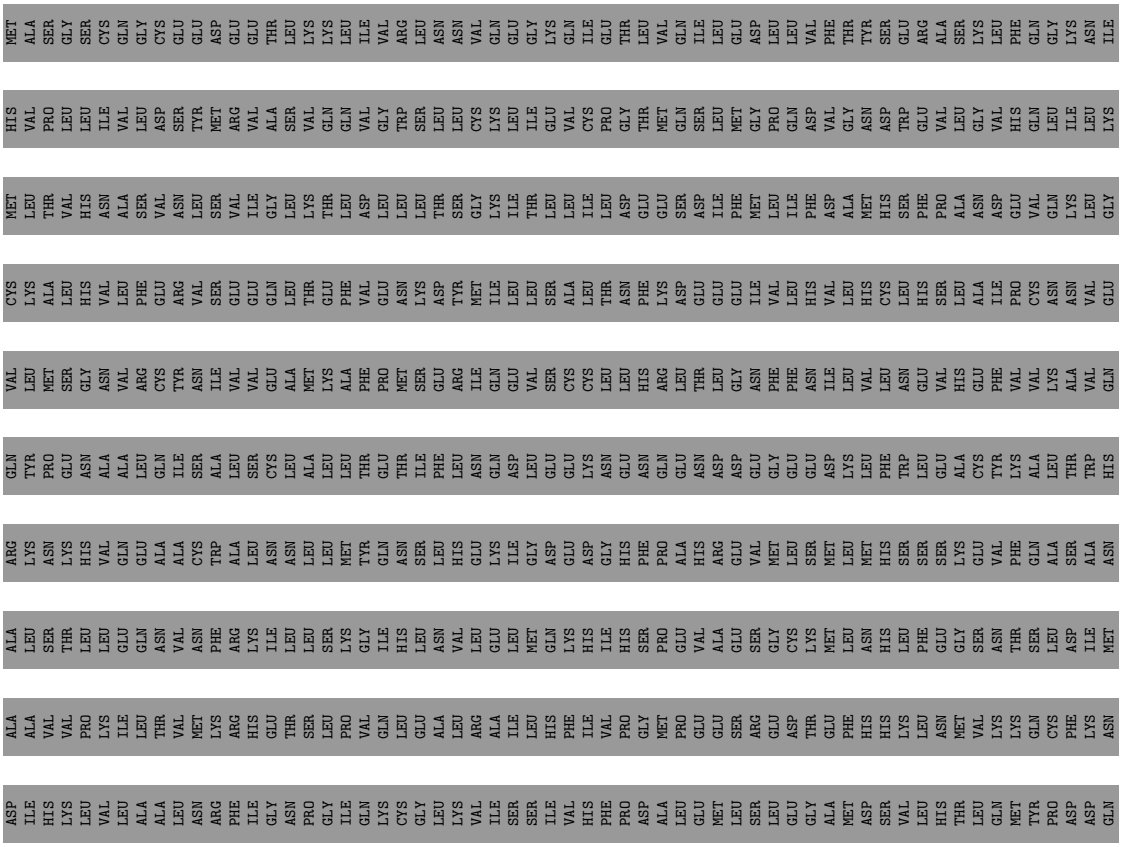
Chain 50-B: 39% 59%

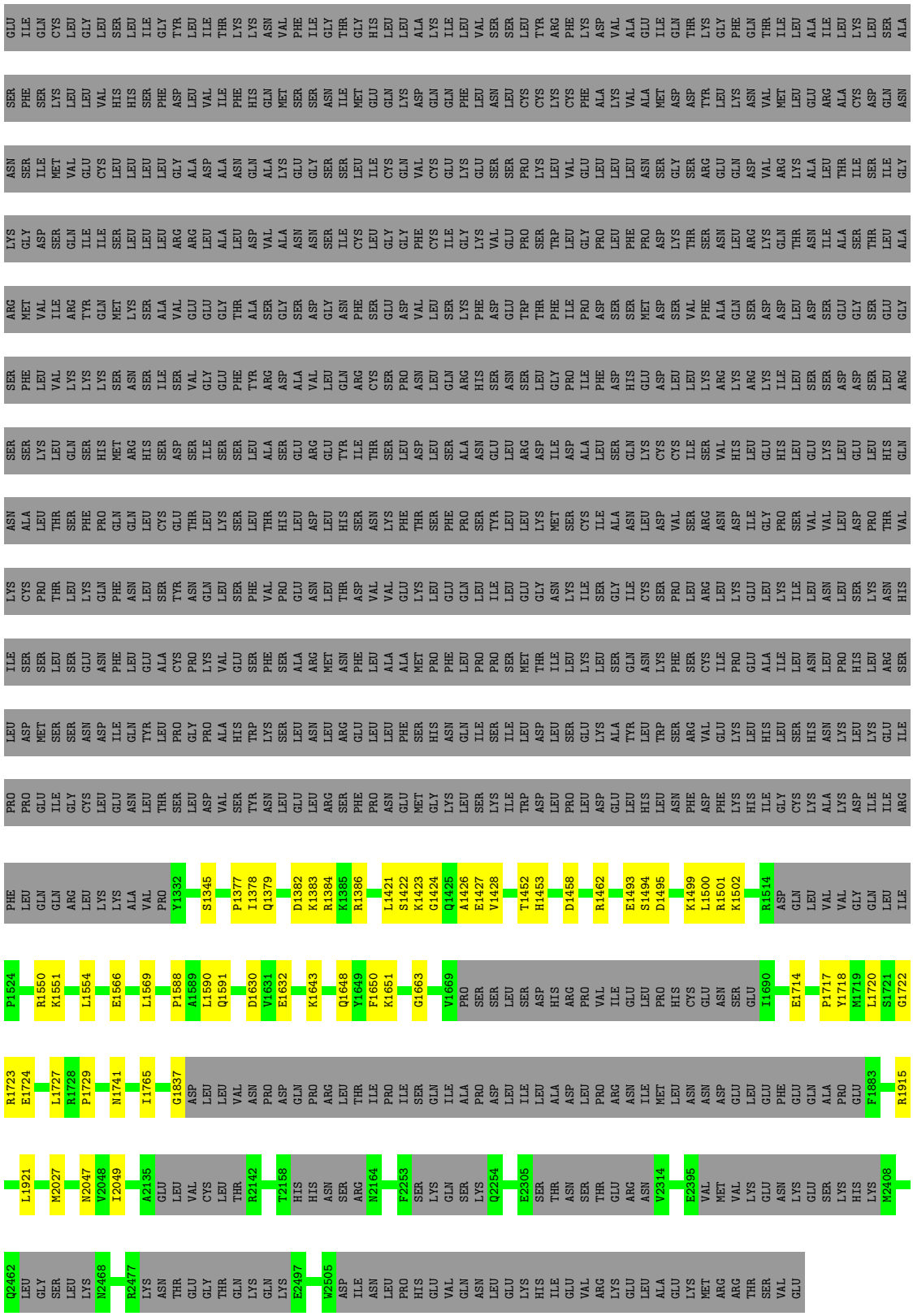
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 51-A: 39% 59%

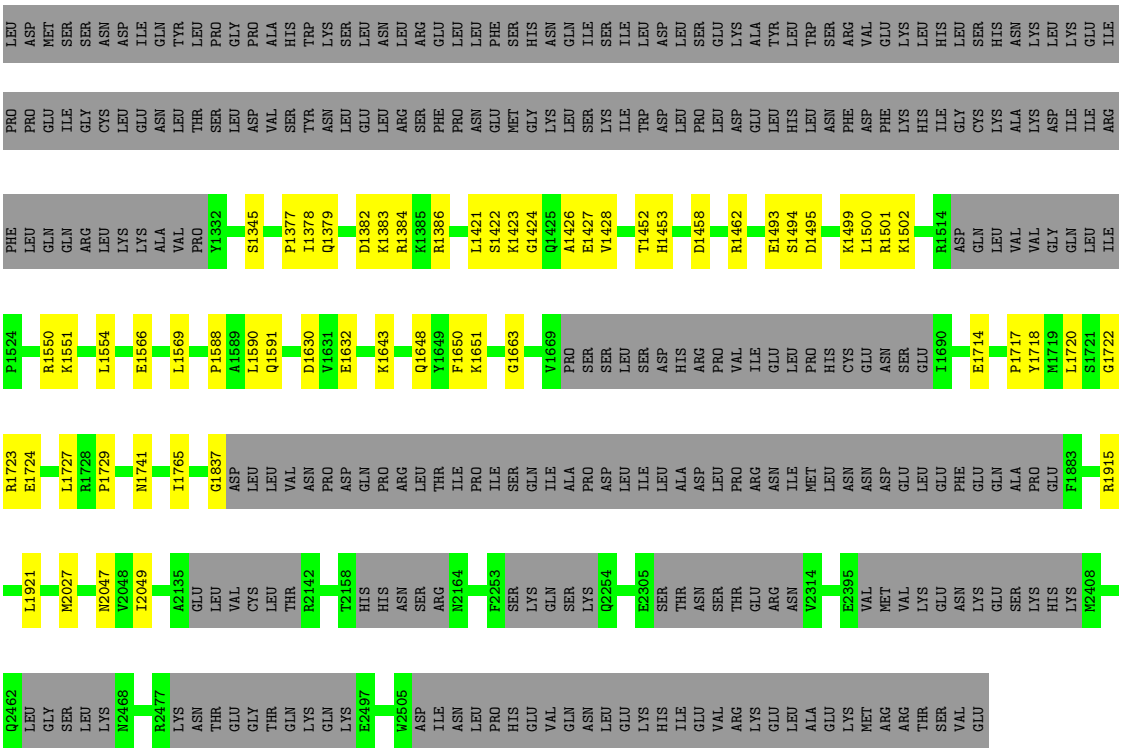




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

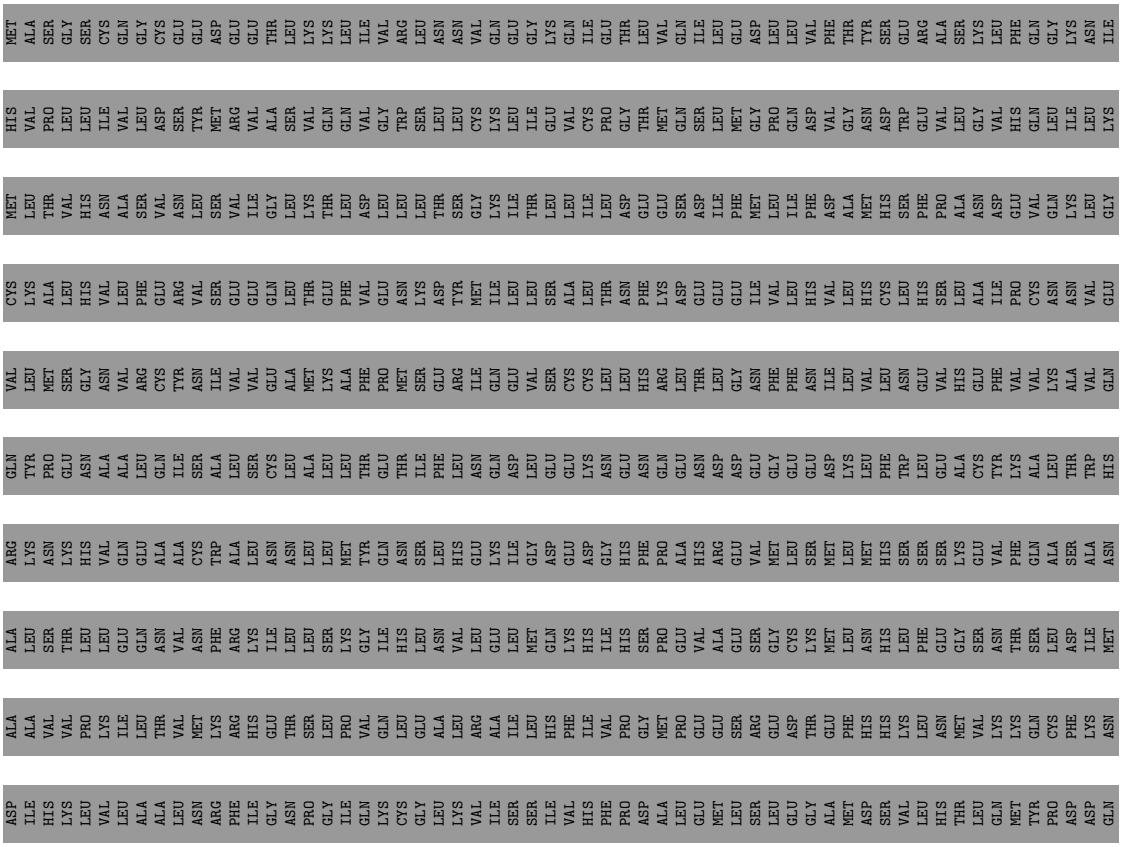
Chain 51-B: 39% • 59%

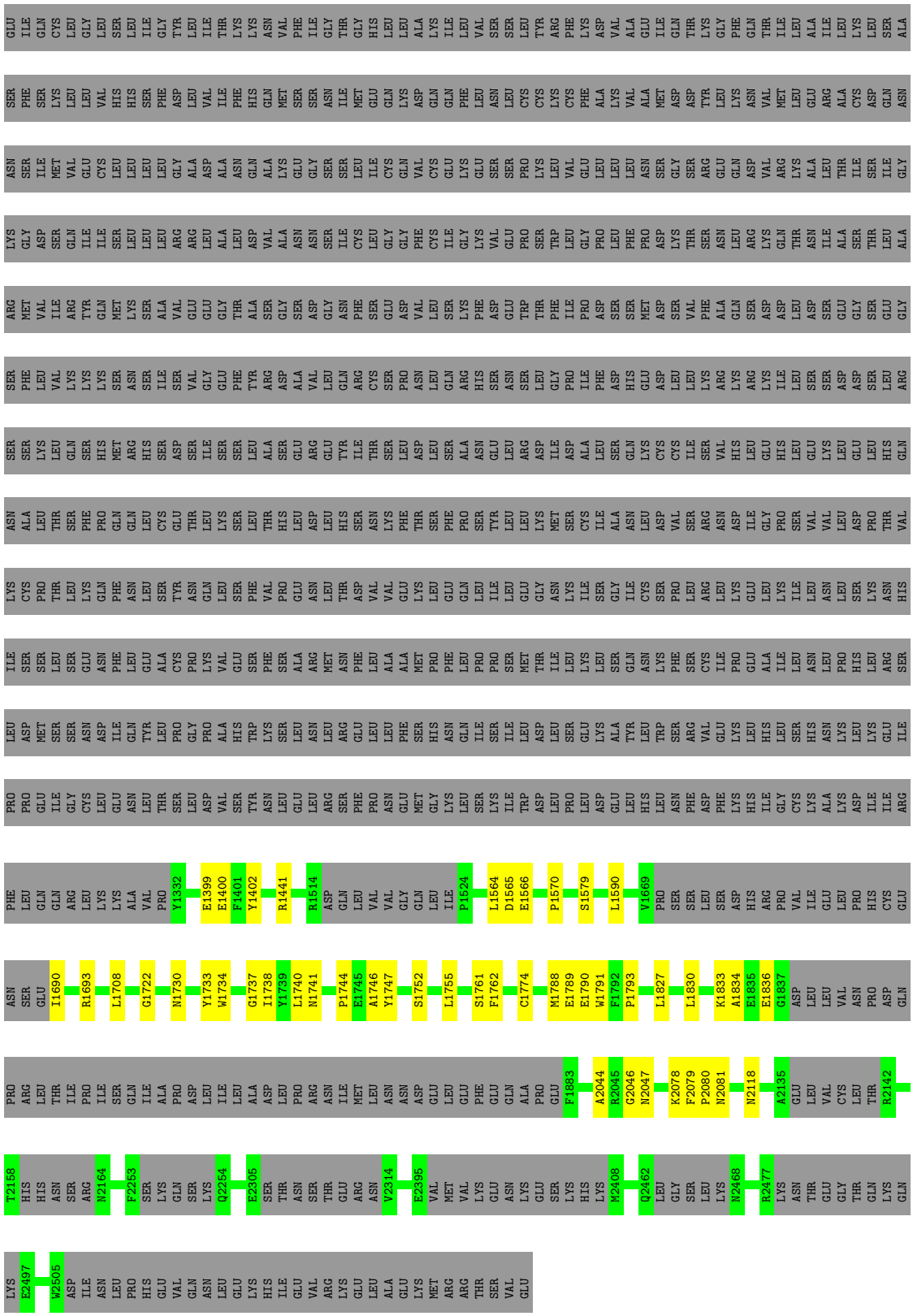
| | | |



• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 52-A: 39% • 59%

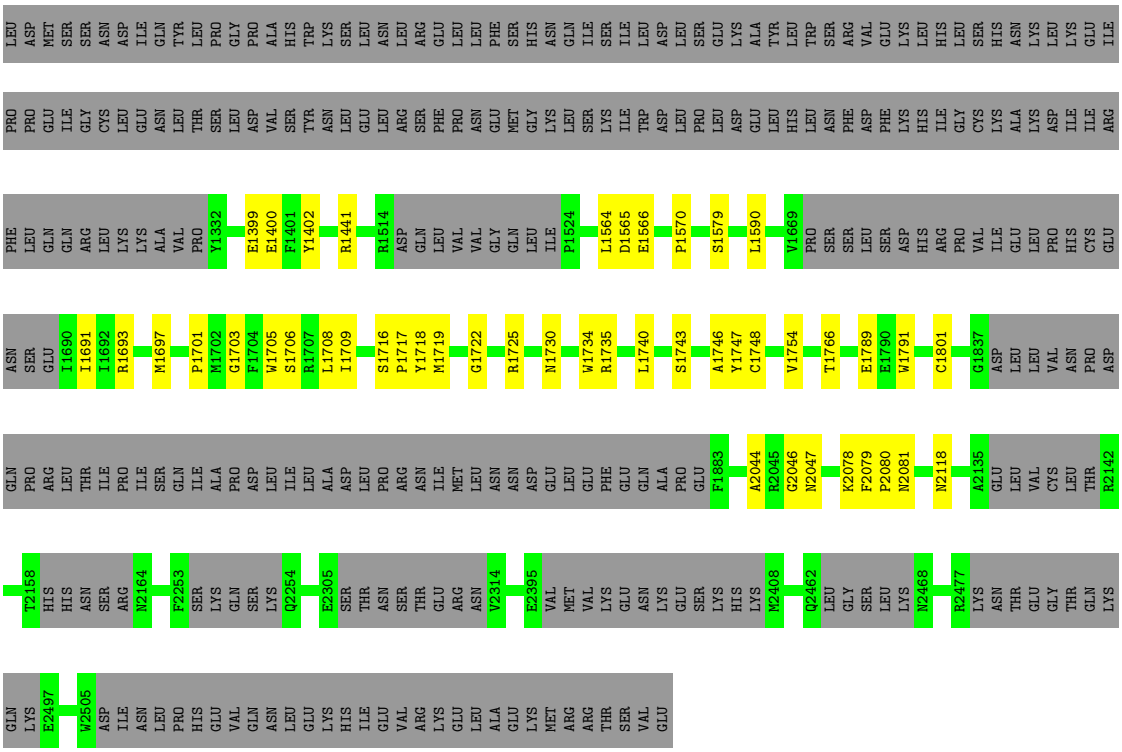




• Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

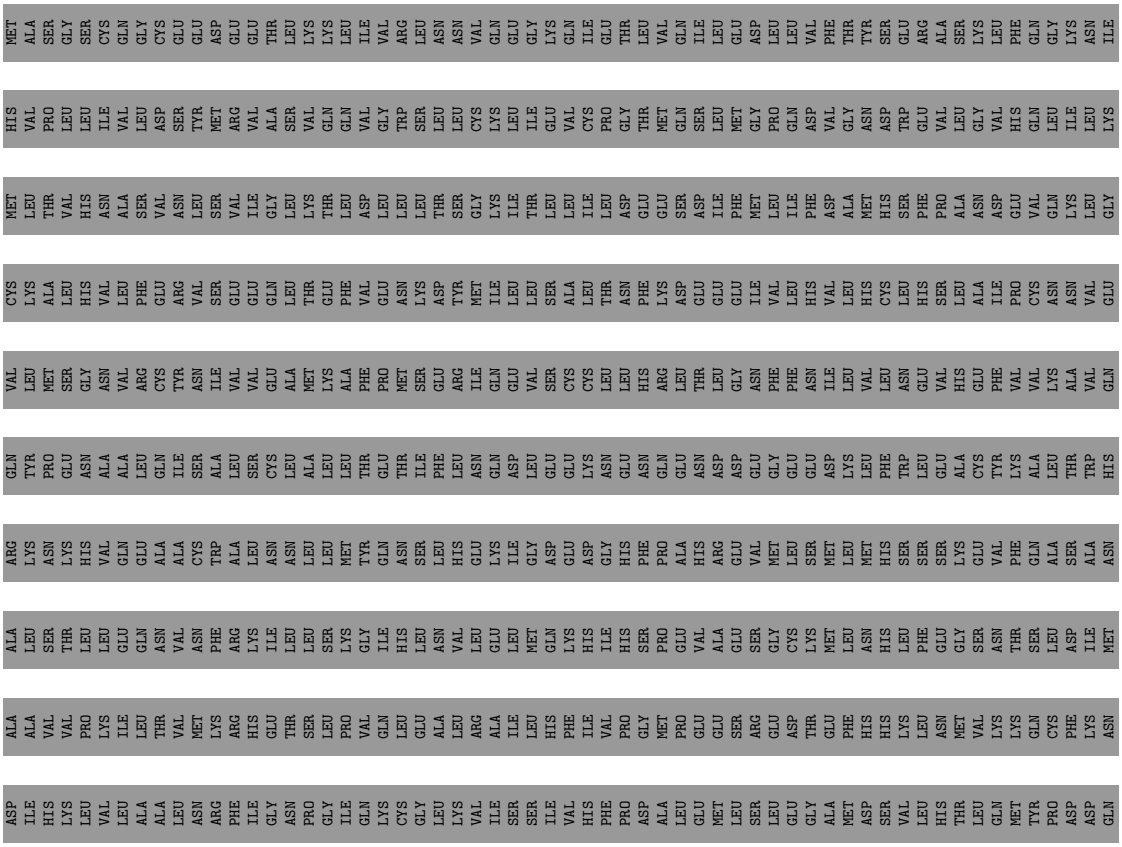
Chain 52-B: 39% • 59%

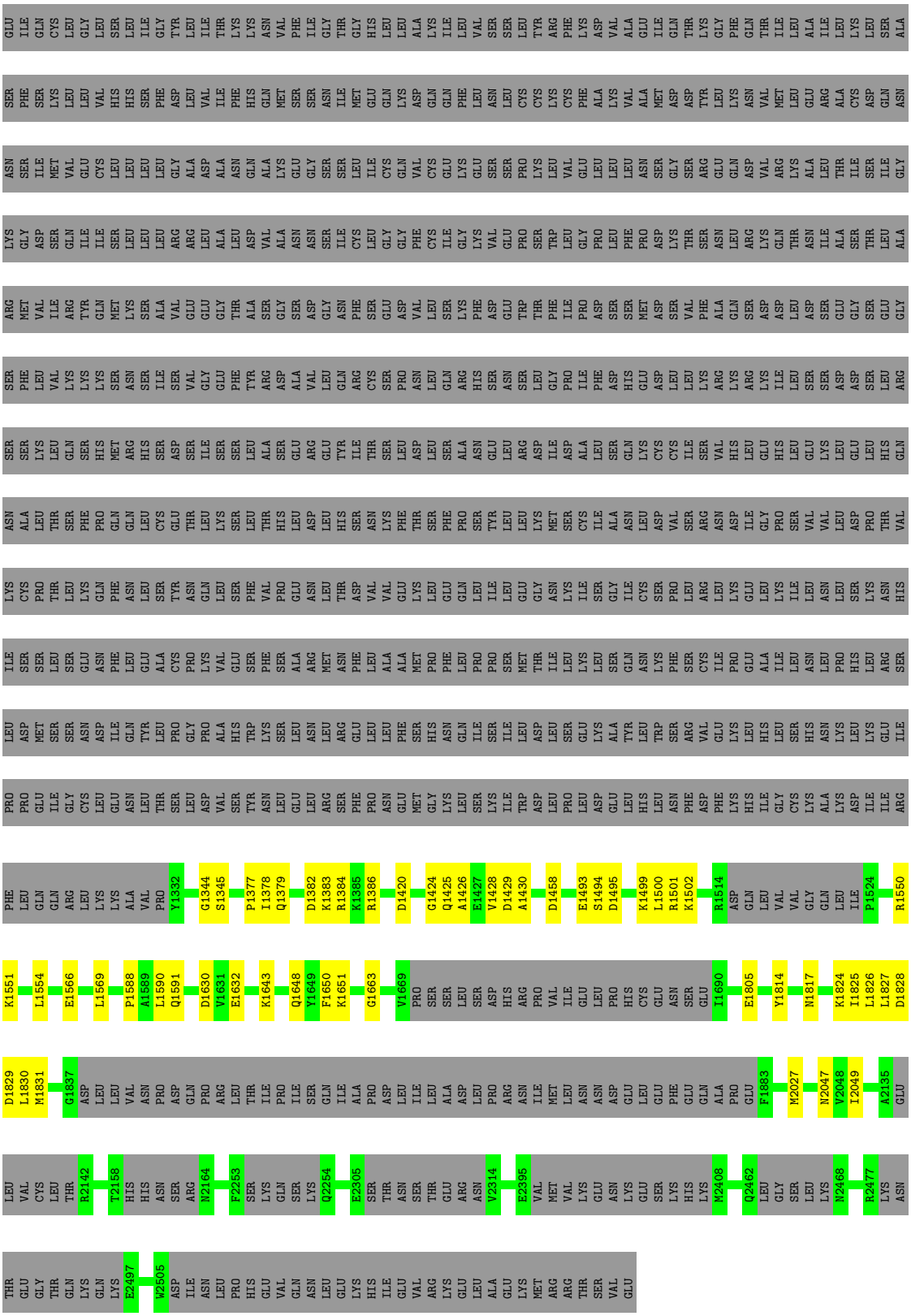
| | | |



- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 53-A: 39% • 59%

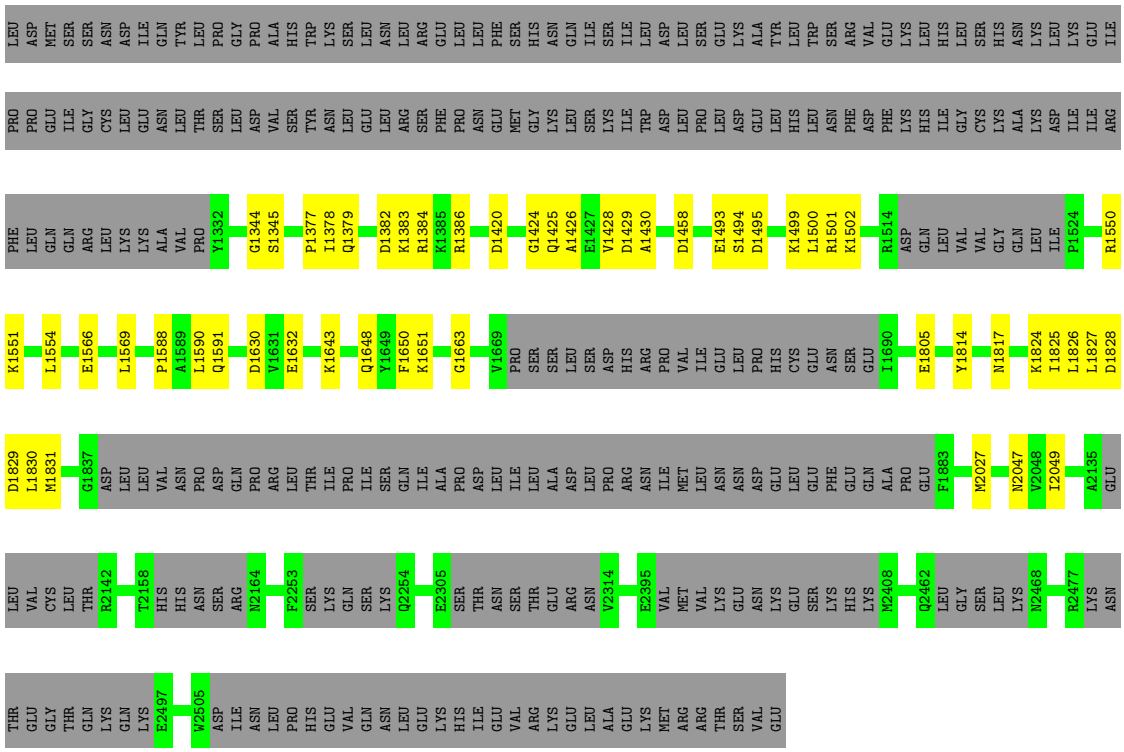




- Molecule 1: Leucine-rich repeat serine/threonine-protein kinase 2

Chain 53-B: 39% • 59%

| | | |


LEU ASP MET SER SER ASN ASP ILE GLN TYR LEU PRO GLY PRO ALA HIS TRP LYS SER LEU ASN LEU ARG GLU LEU LEU PHE SER HIS ASN GLN ILE SER ILE LEU ASP LEU SER GLU LYS ALA TYR LEU TRP SER ARG VAL GLU LYS LEU HIS LEU SER HIS ASN LYS LEU LYS GLU ILE
PRO PRO GLU ILE GLY CYS LEU GLU ASN LEU THR SER LEU ASP VAL SER TYR ASN LEU GLU LEU ARG SER PHE PRO ASN GLU MET GLY LYS LEU SER LYS ILE TRP ASP LEU PRO LEU ASP GLU LEU HIS LEU ASN PHE ASP PHE LYS HIS ILE GLY CYS LYS ALA LYS ASP ILE ILE ARG
PHE LEU GLN GLN ARG LEU LYS LYS ALA VAL PRO Y1332 G1344 S1345 P1377 I1378 Q1379 D1382 K1383 R1384 K1385 R1386 D1420 G1424 Q1425 A1426 E1427 V1428 D1429 A1430 D1458 E1493 S1494 D1495 K1499 L1500 R1501 K1502 R1514 ASP GLN LEU VAL VAL GLY GLN LEU ILE P1524 R1550
K1551 L1554 E1566 L1569 P1588 A1589 L1590 Q1591 D1630 Y1631 E1632 K1643 Q1648 Y1649 F1650 K1651 G1663 V1669 PRO SER SER LEU SER ASP HIS ARG PRO VAL ILE GLU LEU PRO HIS CYS GLU ASN SER GLU I1690 E1805 Y1814 N1817 K1824 I1825 L1826 L1827 D1828
D1829 L1830 M1831 G1837 ASP LEU LEU VAL ASN PRO ASP GLN PRO ARG LEU THR ILE PRO ILE SER GLN ILE ALA PRO ASP LEU ILE LEU ALA ASP LEU PRO ARG ASN ILE MET LEU ASN ASN ASP GLU LEU GLU PHE GLU GLN ALA PRO GLU F1883 M2027 N2047 V2048 I2049 A2135 GLU
LEU VAL CYS LEU THR R2142 T2158 HIS HIS ASN SER ARG N2164 F2253 SER LYS GLN SER LYS Q2254 E2305 SER THR ASN SER THR GLU ARG ASN V2314 E2395 VAL MET VAL LYS GLU ASN LYS GLU SER LYS HIS LYS M2408 Q2462 LEU GLY SER LEU LYS N2468 R2477 LYS ASN
THR GLU GLY THR GLN LYS GLN LYS E2497 W2505 ASP ILE ASN LEU PRO HIS GLU VAL GLN ASN LEU GLU LYS HIS ILE GLU VAL ARG LYS GLU LEU ALA GLU LYS MET ARG ARG THR SER VAL GLU

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	4307	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	2	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.209	Depositor
Minimum map value	-0.128	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.031	Depositor
Recommended contour level	0.05	Depositor
Map size (Å)	281.6, 281.6, 281.6	wwPDB
Map dimensions	128, 128, 128	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.2, 2.2, 2.2	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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).

There are no protein, RNA or DNA chains available to summarize Z scores of covalent bonds and angles.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1-A	1040	0	0	2	0
1	1-B	1040	0	0	2	0
1	2-A	1040	0	0	0	0
1	2-B	1040	0	0	2	0
1	3-A	1040	0	0	7	0
1	3-B	1040	0	0	2	0
1	4-A	1040	0	0	12	0
1	4-B	1040	0	0	7	0
1	5-A	1040	0	0	17	0
1	5-B	1040	0	0	16	0
1	6-A	1040	0	0	4	0
1	6-B	1040	0	0	4	0
1	7-A	1040	0	0	42	0
1	7-B	1040	0	0	42	0
1	8-A	1040	0	0	19	0
1	8-B	1040	0	0	19	0
1	9-A	1040	0	0	6	0
1	9-B	1040	0	0	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	10-A	1040	0	0	20	0
1	10-B	1040	0	0	20	0
1	11-A	1040	0	0	1	0
1	11-B	1040	0	0	0	0
1	12-A	1040	0	0	11	0
1	12-B	1040	0	0	11	0
1	13-A	1040	0	0	18	0
1	13-B	1040	0	0	18	0
1	14-A	1040	0	0	32	0
1	14-B	1040	0	0	32	0
1	15-A	1040	0	0	14	0
1	15-B	1040	0	0	14	0
1	16-A	1040	0	0	31	0
1	16-B	1040	0	0	31	0
1	17-A	1040	0	0	7	0
1	17-B	1040	0	0	7	0
1	18-A	1040	0	0	11	0
1	18-B	1040	0	0	11	0
1	19-A	1040	0	0	34	0
1	19-B	1040	0	0	34	0
1	20-A	1040	0	0	10	0
1	20-B	1040	0	0	10	0
1	21-A	1040	0	0	18	0
1	21-B	1040	0	0	18	0
1	22-A	1040	0	0	13	0
1	22-B	1040	0	0	13	0
1	23-A	1040	0	0	7	0
1	23-B	1040	0	0	7	0
1	24-A	1040	0	0	39	0
1	24-B	1040	0	0	39	0
1	25-A	1040	0	0	42	0
1	25-B	1040	0	0	42	0
1	26-A	1040	0	0	7	0
1	26-B	1040	0	0	7	0
1	27-A	1040	0	0	26	0
1	27-B	1040	0	0	26	0
1	28-A	1040	0	0	16	0
1	28-B	1040	0	0	16	0
1	29-A	1040	0	0	22	0
1	29-B	1040	0	0	22	0
1	30-A	1040	0	0	17	0
1	30-B	1040	0	0	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	31-A	1040	0	0	7	0
1	31-B	1040	0	0	7	0
1	32-A	1040	0	0	12	0
1	32-B	1040	0	0	12	0
1	33-A	1040	0	0	17	0
1	33-B	1040	0	0	17	0
1	34-A	1040	0	0	15	0
1	34-B	1040	0	0	15	0
1	35-A	1040	0	0	13	0
1	35-B	1040	0	0	14	0
1	36-A	1040	0	0	23	0
1	36-B	1040	0	0	23	0
1	37-A	1040	0	0	10	0
1	37-B	1040	0	0	11	0
1	38-A	1040	0	0	49	0
1	38-B	1040	0	0	49	0
1	39-A	1040	0	0	31	0
1	39-B	1040	0	0	31	0
1	40-A	1040	0	0	26	0
1	40-B	1040	0	0	26	0
1	41-A	1040	0	0	62	0
1	41-B	1040	0	0	62	0
1	42-A	1040	0	0	20	0
1	42-B	1040	0	0	21	0
1	43-A	1040	0	0	24	0
1	43-B	1040	0	0	24	0
1	44-A	1040	0	0	4	0
1	44-B	1040	0	0	0	0
1	45-A	1040	0	0	17	0
1	45-B	1040	0	0	17	0
1	46-A	1040	0	0	38	0
1	46-B	1040	0	0	38	0
1	47-A	1040	0	0	13	0
1	47-B	1040	0	0	13	0
1	48-A	1040	0	0	34	0
1	48-B	1040	0	0	34	0
1	49-A	1040	0	0	23	0
1	49-B	1040	0	0	24	0
1	50-A	1040	0	0	50	0
1	50-B	1040	0	0	50	0
1	51-A	1040	0	0	36	0
1	51-B	1040	0	0	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	52-A	1040	0	0	46	0
1	52-B	1040	0	0	46	0
1	53-A	1040	0	0	34	0
1	53-B	1040	0	0	34	0
All	All	110240	0	0	1840	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 17.

All (1840) 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:A:1591:GLN:CA	1:A:2118:ASN:CA	1.75	1.65
1:A:1428:VAL:CA	1:A:1811:TRP:CA	1.75	1.64
1:A:1458:ASP:CA	1:A:1601:LYS:CA	1.77	1.63
1:B:1426:ALA:CA	1:B:1807:LEU:CA	1.76	1.63
1:A:1740:LEU:CA	1:B:1754:VAL:CA	1.76	1.62
1:A:1426:ALA:CA	1:A:1807:LEU:CA	1.76	1.62
1:B:1493:GLU:CA	1:B:1582:LEU:CA	1.76	1.62
1:A:1746:ALA:CA	1:B:1615:VAL:CA	1.75	1.62
1:B:1733:TYR:CA	1:B:1918:ARG:CA	1.78	1.61
1:A:1618:CYS:CA	1:B:1778:GLY:CA	1.74	1.61
1:A:1432:LYS:CA	1:A:1820:GLU:CA	1.80	1.60
1:A:1457:SER:CA	1:A:1604:CYS:CA	1.79	1.60
1:A:1713:LEU:CA	1:B:1661:PRO:CA	1.74	1.60
1:A:1591:GLN:CA	1:A:2118:ASN:CA	1.80	1.60
1:A:1792:PHE:CA	1:B:1831:MET:CA	1.78	1.60
1:B:1493:GLU:CA	1:B:1582:LEU:CA	1.77	1.60
1:A:1751:GLY:CA	1:B:1773:GLY:CA	1.79	1.60
1:A:1492:GLU:CA	1:B:1732:MET:CA	1.77	1.59
1:A:1591:GLN:CA	1:A:2118:ASN:CA	1.81	1.59
1:A:1799:ASP:CA	1:B:1701:PRO:CA	1.79	1.59
1:A:1792:PHE:CA	1:B:1831:MET:CA	1.79	1.59
1:A:1792:PHE:CA	1:B:1831:MET:CA	1.76	1.59
1:A:1345:SER:CA	1:A:1824:LYS:CA	1.78	1.59
1:B:1345:SER:CA	1:B:1824:LYS:CA	1.78	1.59
1:B:1566:GLU:CA	1:B:2081:ASN:CA	1.76	1.59
1:A:1792:PHE:CA	1:B:1831:MET:CA	1.80	1.58
1:A:1493:GLU:CA	1:A:1582:LEU:CA	1.77	1.58
1:A:1591:GLN:CA	1:A:2118:ASN:CA	1.81	1.58
1:B:1343:THR:CA	1:B:1731:ARG:CA	1.79	1.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1721:SER:CA	1:B:1610:ILE:CA	1.77	1.58
1:B:1428:VAL:CA	1:B:1811:TRP:CA	1.76	1.58
1:B:1424:GLY:CA	1:B:1718:TYR:CA	1.79	1.58
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.75	1.58
1:A:1790:GLU:CA	1:B:1718:TYR:CA	1.75	1.57
1:A:1422:SER:CA	1:B:1457:SER:CA	1.82	1.57
1:A:1820:GLU:CA	1:A:1914:LEU:CA	1.78	1.57
1:A:1471:LYS:CA	1:A:2046:GLY:CA	1.83	1.57
1:B:1820:GLU:CA	1:B:1914:LEU:CA	1.78	1.57
1:A:1493:GLU:CA	1:A:1582:LEU:CA	1.76	1.57
1:A:1785:ASP:CA	1:B:1811:TRP:CA	1.83	1.56
1:B:1368:THR:CA	1:B:1531:GLU:CA	1.77	1.56
1:B:1396:ALA:CA	1:B:1576:LEU:CA	1.82	1.56
1:A:1785:ASP:CA	1:B:1811:TRP:CA	1.83	1.56
1:A:1792:PHE:CA	1:B:1831:MET:CA	1.83	1.56
1:B:1734:TRP:CA	1:B:1910:LYS:CA	1.77	1.56
1:A:1713:LEU:CA	1:B:1710:ASN:CA	1.76	1.56
1:A:1566:GLU:CA	1:A:2080:PRO:CA	1.83	1.56
1:A:1382:ASP:CA	1:A:1571:HIS:CA	1.82	1.56
1:A:1424:GLY:CA	1:A:1718:TYR:CA	1.79	1.56
1:B:1457:SER:CA	1:B:1604:CYS:CA	1.79	1.55
1:A:1774:CYS:CA	1:B:1734:TRP:CA	1.84	1.55
1:B:1425:GLN:CA	1:B:1810:LYS:CA	1.83	1.55
1:A:1343:THR:CA	1:A:1731:ARG:CA	1.79	1.55
1:B:1432:LYS:CA	1:B:1820:GLU:CA	1.80	1.55
1:B:1570:PRO:CA	1:B:2081:ASN:CA	1.79	1.55
1:A:1731:ARG:CA	1:A:1922:VAL:CA	1.83	1.55
1:A:1733:TYR:CA	1:A:1918:ARG:CA	1.78	1.55
1:B:1382:ASP:CA	1:B:1571:HIS:CA	1.82	1.55
1:A:1570:PRO:CA	1:A:2081:ASN:CA	1.79	1.54
1:B:1731:ARG:CA	1:B:1922:VAL:CA	1.83	1.54
1:B:1488:VAL:CA	1:B:1580:GLY:CA	1.84	1.54
1:B:1471:LYS:CA	1:B:2046:GLY:CA	1.83	1.54
1:B:1592:LEU:CA	1:B:2044:ALA:CA	1.81	1.54
1:A:1368:THR:CA	1:A:1531:GLU:CA	1.77	1.54
1:A:1382:ASP:CA	1:A:2046:GLY:CA	1.83	1.54
1:B:1458:ASP:CA	1:B:1601:LYS:CA	1.77	1.54
1:A:1747:TYR:CA	1:B:1693:ARG:CA	1.83	1.54
1:A:1488:VAL:CA	1:A:1580:GLY:CA	1.84	1.53
1:A:1740:LEU:CA	1:B:1754:VAL:CA	1.86	1.53
1:A:1830:LEU:CA	1:B:1746:ALA:CA	1.83	1.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1621:HIS:CA	1:B:1703:GLY:CA	1.84	1.53
1:A:1830:LEU:CA	1:B:1746:ALA:CA	1.87	1.53
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.80	1.53
1:B:1372:ASP:CA	1:B:1579:SER:CA	1.85	1.53
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.81	1.53
1:A:1705:TRP:CA	1:B:1768:PRO:CA	1.85	1.53
1:A:1466:MET:CA	1:A:1717:PRO:CA	1.87	1.53
1:B:1478:GLY:CA	1:B:1587:ASP:CA	1.82	1.53
1:A:1570:PRO:CA	1:A:2081:ASN:CA	1.82	1.53
1:B:1382:ASP:CA	1:B:2046:GLY:CA	1.84	1.52
1:A:1478:GLY:CA	1:A:1587:ASP:CA	1.82	1.52
1:A:1372:ASP:CA	1:A:1579:SER:CA	1.85	1.52
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.81	1.52
1:A:1425:GLN:CA	1:A:1810:LYS:CA	1.83	1.52
1:A:1396:ALA:CA	1:A:1576:LEU:CA	1.82	1.52
1:B:1570:PRO:CA	1:B:2081:ASN:CA	1.82	1.52
1:B:1466:MET:CA	1:B:1717:PRO:CA	1.86	1.51
1:B:1480:PRO:CA	1:B:1588:PRO:CA	1.87	1.51
1:B:1731:ARG:CA	1:B:1922:VAL:CA	1.88	1.51
1:B:1566:GLU:CA	1:B:2080:PRO:CA	1.83	1.51
1:A:1812:ALA:CA	1:B:1622:PRO:CA	1.87	1.51
1:A:1719:MET:CA	1:A:2025:CYS:CA	1.87	1.51
1:A:1731:ARG:CA	1:A:1922:VAL:CA	1.88	1.51
1:A:1834:ALA:CA	1:B:1748:CYS:CA	1.87	1.51
1:B:1398:ARG:CA	1:B:1577:ASN:CA	1.88	1.51
1:A:1733:TYR:CA	1:A:1918:ARG:CA	1.89	1.51
1:B:1426:ALA:CA	1:B:1830:LEU:CA	1.85	1.51
1:A:1790:GLU:CA	1:B:1703:GLY:CA	1.86	1.50
1:A:1426:ALA:CA	1:A:1830:LEU:CA	1.85	1.50
1:B:1423:LYS:CA	1:B:1806:THR:CA	1.89	1.50
1:A:1747:TYR:CA	1:B:1693:ARG:CA	1.89	1.50
1:A:1755:LEU:CA	1:B:1798:ILE:CA	1.90	1.49
1:A:1591:GLN:CA	1:A:2118:ASN:CA	1.89	1.49
1:A:1727:LEU:CA	1:A:1914:LEU:CA	1.90	1.49
1:B:1475:ASN:CA	1:B:1657:GLN:CA	1.90	1.49
1:A:1457:SER:CA	1:B:1727:LEU:CA	1.86	1.49
1:A:1480:PRO:CA	1:A:1588:PRO:CA	1.87	1.49
1:B:1733:TYR:CA	1:B:1918:ARG:CA	1.89	1.49
1:B:1569:LEU:CA	1:B:2078:LYS:CA	1.91	1.49
1:A:1623:LYS:CA	1:B:1814:TYR:CA	1.87	1.49
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.89	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1589:ALA:CA	1:A:2045:ARG:CA	1.90	1.48
1:A:1475:ASN:CA	1:A:1657:GLN:CA	1.90	1.48
1:B:1587:ASP:CA	1:B:2046:GLY:CA	1.91	1.48
1:B:1456:VAL:CA	1:B:1603:LEU:CA	1.88	1.48
1:A:1569:LEU:CA	1:A:2078:LYS:CA	1.91	1.48
1:A:1625:ILE:CA	1:B:1784:ILE:CA	1.92	1.48
1:A:1398:ARG:CA	1:A:1577:ASN:CA	1.88	1.48
1:B:1565:ASP:CA	1:B:2078:LYS:CA	1.92	1.48
1:A:1426:ALA:CA	1:A:1798:ILE:CA	1.90	1.48
1:B:1426:ALA:CA	1:B:1798:ILE:CA	1.90	1.48
1:A:1730:ASN:CA	1:A:1913:SER:CA	1.92	1.48
1:A:1490:ALA:CA	1:A:1580:GLY:CA	1.92	1.47
1:A:1778:GLY:CA	1:B:1749:LEU:CA	1.87	1.47
1:A:1456:VAL:CA	1:A:1603:LEU:CA	1.88	1.47
1:A:1752:SER:CA	1:B:1772:LYS:CA	1.91	1.47
1:A:1742:TRP:CA	1:B:1627:SER:CA	1.93	1.47
1:B:1666:TYR:CA	1:B:1820:GLU:CA	1.92	1.46
1:A:1491:THR:CA	1:A:1584:HIS:CA	1.91	1.46
1:B:1727:LEU:CA	1:B:1914:LEU:CA	1.90	1.46
1:A:1423:LYS:CA	1:A:1806:THR:CA	1.89	1.46
1:B:1383:LYS:CA	1:B:2046:GLY:CA	1.93	1.46
1:A:1587:ASP:CA	1:A:2046:GLY:CA	1.91	1.46
1:A:1383:LYS:CA	1:A:2046:GLY:CA	1.93	1.45
1:B:1730:ASN:CA	1:B:1913:SER:CA	1.92	1.45
1:B:1589:ALA:CA	1:B:2045:ARG:CA	1.91	1.45
1:A:1587:ASP:CA	1:A:2046:GLY:CA	1.93	1.45
1:B:1587:ASP:CA	1:B:2046:GLY:CA	1.93	1.45
1:A:1591:GLN:CA	1:A:2118:ASN:CA	1.93	1.45
1:A:1490:ALA:CA	1:A:1580:GLY:CA	1.95	1.45
1:A:1587:ASP:CA	1:A:2046:GLY:CA	1.93	1.45
1:B:1491:THR:CA	1:B:1584:HIS:CA	1.92	1.44
1:A:1565:ASP:CA	1:A:2078:LYS:CA	1.92	1.44
1:A:1732:MET:CA	1:A:1912:THR:CA	1.93	1.44
1:A:1735:ARG:CA	1:A:1913:SER:CA	1.96	1.44
1:B:1421:LEU:CA	1:B:1731:ARG:CA	1.95	1.44
1:A:1731:ARG:CA	1:A:1922:VAL:CA	1.94	1.44
1:B:1587:ASP:CA	1:B:2046:GLY:CA	1.93	1.44
1:A:1566:GLU:CA	1:A:2080:PRO:CA	1.96	1.44
1:A:1384:ARG:CA	1:A:1566:GLU:CA	1.95	1.44
1:A:1463:LYS:CA	1:A:1714:GLU:CA	1.96	1.44
1:B:1648:GLN:CA	1:B:2047:ASN:CA	1.95	1.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1472:GLU:CA	1:B:2047:ASN:CA	1.94	1.44
1:B:1490:ALA:CA	1:B:1580:GLY:CA	1.92	1.44
1:A:1727:LEU:CA	1:A:1914:LEU:CA	1.96	1.44
1:A:1775:ILE:CA	1:B:1734:TRP:CA	1.92	1.43
1:A:1591:GLN:CA	1:A:2047:ASN:CA	1.95	1.43
1:A:1384:ARG:CA	1:A:1566:GLU:CA	1.95	1.43
1:A:1384:ARG:CA	1:A:1566:GLU:CA	1.96	1.43
1:B:1725:ARG:CA	1:B:1921:LEU:CA	1.96	1.43
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.93	1.43
1:A:1694:LEU:CA	1:B:1702:MET:CA	1.96	1.43
1:A:1786:SER:CA	1:B:1752:SER:CA	1.95	1.43
1:B:1471:LYS:CA	1:B:2046:GLY:CA	1.97	1.42
1:A:1755:LEU:CA	1:B:1798:ILE:CA	1.97	1.42
1:A:1472:GLU:CA	1:A:2047:ASN:CA	1.94	1.42
1:B:1565:ASP:CA	1:B:2078:LYS:CA	1.97	1.42
1:B:1837:GLY:CA	1:B:2025:CYS:CA	1.97	1.42
1:A:1421:LEU:CA	1:A:1731:ARG:CA	1.95	1.42
1:A:1471:LYS:CA	1:A:2046:GLY:CA	1.97	1.42
1:A:1566:GLU:CA	1:A:2079:PHE:CA	1.97	1.42
1:B:1565:ASP:CA	1:B:2078:LYS:CA	1.97	1.42
1:B:1384:ARG:CA	1:B:1566:GLU:CA	1.95	1.42
1:B:1731:ARG:CA	1:B:1922:VAL:CA	1.94	1.42
1:B:1381:ARG:CA	1:B:1572:ALA:CA	1.97	1.42
1:B:1472:GLU:CA	1:B:2046:GLY:CA	1.98	1.42
1:B:1490:ALA:CA	1:B:1580:GLY:CA	1.95	1.42
1:A:1494:SER:CA	1:B:1783:HIS:CA	1.95	1.42
1:A:1472:GLU:CA	1:A:2046:GLY:CA	1.98	1.42
1:A:1591:GLN:CA	1:A:2118:ASN:CA	1.98	1.42
1:B:1384:ARG:CA	1:B:1566:GLU:CA	1.95	1.42
1:A:1735:ARG:CA	1:A:1913:SER:CA	1.98	1.41
1:A:1725:ARG:CA	1:A:1921:LEU:CA	1.96	1.41
1:B:1566:GLU:CA	1:B:2080:PRO:CA	1.96	1.41
1:B:1566:GLU:CA	1:B:2079:PHE:CA	1.97	1.41
1:A:1755:LEU:CA	1:B:1798:ILE:CA	1.98	1.41
1:B:1463:LYS:CA	1:B:1714:GLU:CA	1.96	1.41
1:B:1735:ARG:CA	1:B:1913:SER:CA	1.96	1.41
1:B:1591:GLN:CA	1:B:2047:ASN:CA	1.95	1.41
1:A:1424:GLY:CA	1:A:1827:LEU:CA	1.97	1.41
1:B:1382:ASP:CA	1:B:2046:GLY:CA	1.99	1.41
1:B:1384:ARG:CA	1:B:1566:GLU:CA	1.96	1.41
1:A:1776:LEU:CA	1:B:1733:TYR:CA	1.97	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1424:GLY:CA	1:B:1827:LEU:CA	1.98	1.41
1:B:1478:GLY:CA	1:B:1575:PHE:CA	1.98	1.41
1:A:1565:ASP:CA	1:A:2078:LYS:CA	1.97	1.41
1:A:1565:ASP:CA	1:A:2078:LYS:CA	1.97	1.41
1:A:1834:ALA:CA	1:B:1748:CYS:CA	1.96	1.41
1:A:1775:ILE:CA	1:B:1734:TRP:CA	1.96	1.41
1:A:1837:GLY:CA	1:A:2025:CYS:CA	1.97	1.40
1:B:1727:LEU:CA	1:B:1914:LEU:CA	1.96	1.40
1:A:1755:LEU:CA	1:B:1703:GLY:CA	1.97	1.40
1:B:1591:GLN:CA	1:B:2118:ASN:CA	1.98	1.40
1:A:1456:VAL:CA	1:B:1728:ARG:CA	2.00	1.40
1:B:1735:ARG:CA	1:B:1913:SER:CA	1.98	1.40
1:A:1478:GLY:CA	1:A:1575:PHE:CA	1.98	1.40
1:A:1381:ARG:CA	1:A:1572:ALA:CA	1.97	1.40
1:A:1735:ARG:CA	1:A:1913:SER:CA	2.00	1.40
1:B:1837:GLY:CA	1:B:2025:CYS:CA	2.00	1.39
1:B:1733:TYR:CA	1:B:1918:ARG:CA	2.00	1.39
1:A:1664:GLU:CA	1:A:1744:PRO:CA	2.00	1.39
1:A:1776:LEU:CA	1:B:1733:TYR:CA	1.98	1.39
1:A:1755:LEU:CA	1:B:1798:ILE:CA	2.01	1.39
1:A:1694:LEU:CA	1:B:1702:MET:CA	1.99	1.39
1:A:1623:LYS:CA	1:B:1811:TRP:CA	1.99	1.38
1:A:1733:TYR:CA	1:A:1918:ARG:CA	2.00	1.38
1:B:1491:THR:CA	1:B:1583:LEU:CA	2.01	1.38
1:A:1730:ASN:CA	1:B:1620:LYS:CA	2.00	1.38
1:A:1837:GLY:CA	1:A:2025:CYS:CA	2.00	1.38
1:B:1731:ARG:CA	1:B:1922:VAL:CA	2.00	1.38
1:B:1735:ARG:CA	1:B:1913:SER:CA	2.00	1.38
1:A:1690:ILE:CA	1:B:1766:THR:CA	2.00	1.38
1:A:1382:ASP:CA	1:A:2046:GLY:CA	1.99	1.38
1:B:1472:GLU:CA	1:B:2047:ASN:CA	2.01	1.38
1:A:1746:ALA:CA	1:B:1693:ARG:CA	2.01	1.37
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.02	1.37
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.02	1.37
1:A:1472:GLU:CA	1:A:2047:ASN:CA	2.01	1.37
1:A:1690:ILE:CA	1:B:1766:THR:CA	2.03	1.37
1:A:1833:LYS:CA	1:B:1747:TYR:CA	2.00	1.37
1:A:1755:LEU:CA	1:B:1703:GLY:CA	2.01	1.37
1:B:1731:ARG:CA	1:B:1922:VAL:CA	2.03	1.37
1:B:1465:CYS:CA	1:B:1731:ARG:CA	2.03	1.37
1:B:1466:MET:CA	1:B:1728:ARG:CA	2.03	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.04	1.36
1:B:1837:GLY:CA	1:B:2025:CYS:CA	2.02	1.36
1:B:1588:PRO:CA	1:B:2047:ASN:CA	2.03	1.36
1:A:1726:ALA:CA	1:A:2023:TYR:CA	2.03	1.36
1:A:1837:GLY:CA	1:A:2025:CYS:CA	2.02	1.36
1:A:1731:ARG:CA	1:A:1922:VAL:CA	2.00	1.36
1:A:1377:PRO:CA	1:A:1579:SER:CA	2.03	1.36
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.03	1.36
1:A:1491:THR:CA	1:A:1583:LEU:CA	2.01	1.36
1:A:1789:GLU:CA	1:B:1717:PRO:CA	2.03	1.36
1:A:1800:ILE:CA	1:A:1941:ARG:CA	2.03	1.35
1:B:1664:GLU:CA	1:B:1744:PRO:CA	2.00	1.35
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.04	1.35
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.02	1.35
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.04	1.35
1:B:1731:ARG:CA	1:B:1922:VAL:CA	2.05	1.35
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.02	1.35
1:A:1465:CYS:CA	1:A:1731:ARG:CA	2.03	1.35
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.05	1.35
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.04	1.35
1:A:1767:VAL:CA	1:B:1710:ASN:CA	2.04	1.35
1:A:1425:GLN:CA	1:A:1828:ASP:CA	2.03	1.35
1:B:1383:LYS:CA	1:B:2047:ASN:CA	2.05	1.35
1:B:1726:ALA:CA	1:B:2023:TYR:CA	2.04	1.35
1:B:1726:ALA:CA	1:B:2023:TYR:CA	2.05	1.35
1:A:1763:LEU:CA	1:B:1817:ASN:CA	2.04	1.35
1:B:1377:PRO:CA	1:B:1579:SER:CA	2.03	1.35
1:A:1767:VAL:CA	1:B:1711:ARG:CA	2.05	1.35
1:A:1746:ALA:CA	1:B:1693:ARG:CA	2.05	1.35
1:A:1466:MET:CA	1:A:1728:ARG:CA	2.03	1.34
1:A:1479:PHE:CA	1:A:1578:GLU:CA	2.04	1.34
1:A:1567:ASN:CA	1:A:2080:PRO:CA	2.04	1.34
1:A:1726:ALA:CA	1:A:2023:TYR:CA	2.04	1.34
1:B:1726:ALA:CA	1:B:2023:TYR:CA	2.03	1.34
1:B:1725:ARG:CA	1:B:1916:LEU:CA	2.05	1.34
1:B:1383:LYS:CA	1:B:1569:LEU:CA	2.06	1.34
1:A:1779:GLN:CA	1:A:1914:LEU:CA	2.04	1.34
1:A:1779:GLN:CA	1:A:1914:LEU:CA	2.05	1.34
1:B:1383:LYS:CA	1:B:1569:LEU:CA	2.06	1.34
1:A:1731:ARG:CA	1:A:1922:VAL:CA	2.03	1.34
1:B:1479:PHE:CA	1:B:1578:GLU:CA	2.03	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1779:GLN:CA	1:A:1914:LEU:CA	2.05	1.34
1:A:1588:PRO:CA	1:A:2047:ASN:CA	2.03	1.34
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.04	1.34
1:B:1383:LYS:CA	1:B:1569:LEU:CA	2.06	1.34
1:B:1779:GLN:CA	1:B:1914:LEU:CA	2.05	1.34
1:B:1779:GLN:CA	1:B:1914:LEU:CA	2.05	1.34
1:A:1697:MET:CA	1:B:1753:GLU:CA	2.06	1.34
1:B:1726:ALA:CA	1:B:2023:TYR:CA	2.06	1.33
1:A:1383:LYS:CA	1:A:2047:ASN:CA	2.05	1.33
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.05	1.33
1:A:1725:ARG:CA	1:A:1916:LEU:CA	2.05	1.33
1:A:1424:GLY:CA	1:A:1809:LYS:CA	2.05	1.33
1:A:1567:ASN:CA	1:A:2080:PRO:CA	2.07	1.33
1:B:1567:ASN:CA	1:B:2080:PRO:CA	2.06	1.33
1:B:1424:GLY:CA	1:B:1809:LYS:CA	2.05	1.33
1:B:1779:GLN:CA	1:B:1914:LEU:CA	2.04	1.33
1:A:1567:ASN:CA	1:A:2080:PRO:CA	2.07	1.33
1:B:1567:ASN:CA	1:B:2080:PRO:CA	2.07	1.33
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.05	1.33
1:A:1453:HIS:CA	1:A:1724:GLU:CA	2.07	1.33
1:A:1426:ALA:CA	1:A:1831:MET:CA	2.07	1.33
1:B:1425:GLN:CA	1:B:1828:ASP:CA	2.04	1.33
1:B:1567:ASN:CA	1:B:2080:PRO:CA	2.03	1.33
1:A:1726:ALA:CA	1:A:2023:TYR:CA	2.05	1.33
1:A:1658:ILE:CA	1:A:1810:LYS:CA	2.07	1.33
1:A:1658:ILE:CA	1:A:1810:LYS:CA	2.07	1.33
1:A:1463:LYS:CA	1:A:1726:ALA:CA	2.07	1.32
1:A:1658:ILE:CA	1:A:1810:LYS:CA	2.07	1.32
1:B:1426:ALA:CA	1:B:1831:MET:CA	2.07	1.32
1:B:1658:ILE:CA	1:B:1810:LYS:CA	2.07	1.32
1:A:1755:LEU:CA	1:B:1798:ILE:CA	2.07	1.32
1:B:1658:ILE:CA	1:B:1810:LYS:CA	2.07	1.32
1:B:1658:ILE:CA	1:B:1810:LYS:CA	2.07	1.32
1:A:1788:MET:CA	1:B:1794:GLY:CA	2.04	1.32
1:A:1735:ARG:CA	1:A:1913:SER:CA	2.08	1.32
1:A:1395:PHE:CA	1:A:1575:PHE:CA	2.08	1.32
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.05	1.32
1:B:1726:ALA:CA	1:B:2023:TYR:CA	2.07	1.32
1:A:1722:GLY:CA	1:B:1801:CYS:CA	2.07	1.32
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.07	1.32
1:A:1383:LYS:CA	1:A:1569:LEU:CA	2.06	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1463:LYS:CA	1:B:1726:ALA:CA	2.07	1.32
1:A:1731:ARG:CA	1:A:1922:VAL:CA	2.05	1.32
1:A:1383:LYS:CA	1:A:1569:LEU:CA	2.06	1.32
1:A:1726:ALA:CA	1:A:2023:TYR:CA	2.06	1.31
1:B:1395:PHE:CA	1:B:1575:PHE:CA	2.08	1.31
1:B:1588:PRO:CA	1:B:2047:ASN:CA	2.07	1.31
1:A:1383:LYS:CA	1:A:1569:LEU:CA	2.06	1.31
1:A:1726:ALA:CA	1:A:2023:TYR:CA	2.07	1.31
1:B:1726:ALA:CA	1:B:2024:CYS:CA	2.08	1.31
1:A:1763:LEU:CA	1:B:1817:ASN:CA	2.08	1.31
1:A:1766:THR:CA	1:B:1819:GLY:CA	2.09	1.31
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.07	1.31
1:B:1343:THR:CA	1:B:1730:ASN:CA	2.08	1.31
1:A:1697:MET:CA	1:B:1753:GLU:CA	2.08	1.31
1:B:1459:GLU:CA	1:B:1814:TYR:CA	2.09	1.30
1:A:1725:ARG:CA	1:A:1917:LEU:CA	2.09	1.30
1:B:1453:HIS:CA	1:B:1724:GLU:CA	2.07	1.30
1:A:1837:GLY:CA	1:A:2024:CYS:CA	2.09	1.30
1:A:1722:GLY:CA	1:B:1801:CYS:CA	2.09	1.30
1:B:1502:LYS:CA	1:B:1590:LEU:CA	2.08	1.30
1:A:1472:GLU:CA	1:A:2047:ASN:CA	2.09	1.30
1:B:1735:ARG:CA	1:B:1913:SER:CA	2.08	1.30
1:A:1588:PRO:CA	1:A:2047:ASN:CA	2.08	1.30
1:B:1472:GLU:CA	1:B:2046:GLY:CA	2.09	1.30
1:A:1726:ALA:CA	1:A:2024:CYS:CA	2.08	1.30
1:A:1343:THR:CA	1:A:1730:ASN:CA	2.08	1.30
1:A:1459:GLU:CA	1:A:1814:TYR:CA	2.09	1.30
1:A:1502:LYS:CA	1:A:1590:LEU:CA	2.09	1.30
1:A:1726:ALA:CA	1:A:2023:TYR:CA	2.07	1.30
1:B:1502:LYS:CA	1:B:1590:LEU:CA	2.09	1.30
1:B:1551:LYS:CA	1:B:2082:GLU:CA	2.08	1.30
1:A:1475:ASN:CA	1:A:1580:GLY:CA	2.10	1.29
1:A:1621:HIS:CA	1:B:1704:PHE:CA	2.09	1.29
1:A:1502:LYS:CA	1:A:1590:LEU:CA	2.09	1.29
1:B:1502:LYS:CA	1:B:1590:LEU:CA	2.09	1.29
1:A:1763:LEU:CA	1:B:1817:ASN:CA	2.10	1.29
1:A:1472:GLU:CA	1:A:2046:GLY:CA	2.09	1.29
1:B:1726:ALA:CA	1:B:2023:TYR:CA	2.07	1.29
1:A:1494:SER:CA	1:A:1733:TYR:CA	2.10	1.29
1:A:1502:LYS:CA	1:A:1590:LEU:CA	2.09	1.29
1:B:1726:ALA:CA	1:B:2024:CYS:CA	2.11	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.11	1.28
1:A:1457:SER:CA	1:A:1719:MET:CA	2.09	1.28
1:B:1725:ARG:CA	1:B:1917:LEU:CA	2.09	1.28
1:A:1833:LYS:CA	1:B:1747:TYR:CA	2.10	1.28
1:A:1763:LEU:CA	1:B:1817:ASN:CA	2.11	1.28
1:B:1472:GLU:CA	1:B:2047:ASN:CA	2.09	1.28
1:A:1788:MET:CA	1:B:1794:GLY:CA	2.10	1.28
1:B:1475:ASN:CA	1:B:1580:GLY:CA	2.10	1.28
1:A:1617:GLY:CA	1:B:1813:LEU:CA	2.11	1.28
1:B:1427:GLU:CA	1:B:1798:ILE:CA	2.11	1.27
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.10	1.27
1:B:1732:MET:CA	1:B:1918:ARG:CA	2.11	1.27
1:A:1788:MET:CA	1:B:1794:GLY:CA	2.11	1.27
1:A:1747:TYR:CA	1:B:1617:GLY:CA	2.11	1.27
1:A:1587:ASP:CA	1:A:2045:ARG:CA	2.11	1.27
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.10	1.27
1:A:1732:MET:CA	1:A:1918:ARG:CA	2.11	1.27
1:A:1726:ALA:CA	1:A:2024:CYS:CA	2.11	1.27
1:B:1457:SER:CA	1:B:1719:MET:CA	2.09	1.27
1:A:1427:GLU:CA	1:A:1798:ILE:CA	2.11	1.27
1:A:1742:TRP:CA	1:B:1626:ILE:CA	2.13	1.27
1:A:1441:ARG:CA	1:A:1579:SER:CA	2.13	1.27
1:B:1367:ALA:CA	1:B:1729:PRO:CA	2.13	1.26
1:B:1494:SER:CA	1:B:1733:TYR:CA	2.10	1.26
1:A:1498:ALA:CA	1:A:1578:GLU:CA	2.11	1.26
1:B:1441:ARG:CA	1:B:1579:SER:CA	2.12	1.26
1:A:1367:ALA:CA	1:A:1729:PRO:CA	2.13	1.26
1:B:1465:CYS:CA	1:B:1728:ARG:CA	2.14	1.26
1:A:1766:THR:CA	1:B:1819:GLY:CA	2.14	1.26
1:A:1458:ASP:CA	1:A:1719:MET:CA	2.14	1.26
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.11	1.26
1:B:1498:ALA:CA	1:B:1578:GLU:CA	2.11	1.26
1:A:1719:MET:CA	1:A:2026:ARG:CA	2.13	1.26
1:A:1788:MET:CA	1:B:1794:GLY:CA	2.13	1.25
1:A:1622:PRO:CA	1:B:1814:TYR:CA	2.14	1.25
1:B:1725:ARG:CA	1:B:1916:LEU:CA	2.14	1.25
1:A:1379:GLN:CA	1:A:1550:ARG:CA	2.14	1.25
1:A:1725:ARG:CA	1:A:1916:LEU:CA	2.14	1.25
1:A:1732:MET:CA	1:A:1919:GLN:CA	2.14	1.25
1:A:1379:GLN:CA	1:A:1550:ARG:CA	2.15	1.25
1:A:1465:CYS:CA	1:A:1728:ARG:CA	2.14	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1726:ALA:CA	1:B:2024:CYS:CA	2.15	1.25
1:A:1762:PHE:CA	1:B:1691:ILE:CA	2.12	1.25
1:B:1732:MET:CA	1:B:1919:GLN:CA	2.14	1.25
1:A:1789:GLU:CA	1:B:1717:PRO:CA	2.15	1.24
1:A:1423:LYS:CA	1:A:1718:TYR:CA	2.15	1.24
1:A:1514:ARG:CA	1:A:1535:LEU:CA	2.15	1.24
1:A:1379:GLN:CA	1:A:1550:ARG:CA	2.16	1.24
1:B:1643:LYS:CA	1:B:2047:ASN:CA	2.14	1.24
1:B:1663:GLY:CA	1:B:1798:ILE:CA	2.14	1.24
1:A:1766:THR:CA	1:B:1819:GLY:CA	2.16	1.24
1:B:1458:ASP:CA	1:B:1719:MET:CA	2.14	1.24
1:A:1725:ARG:CA	1:A:1917:LEU:CA	2.16	1.24
1:A:1735:ARG:CA	1:A:1913:SER:CA	2.16	1.23
1:B:1455:ASP:CA	1:B:1600:PRO:CA	2.15	1.23
1:A:1643:LYS:CA	1:A:2047:ASN:CA	2.14	1.23
1:A:1763:LEU:CA	1:B:1817:ASN:CA	2.15	1.23
1:B:1732:MET:CA	1:B:1919:GLN:CA	2.16	1.23
1:A:1732:MET:CA	1:A:1919:GLN:CA	2.16	1.23
1:B:1455:ASP:CA	1:B:1600:PRO:CA	2.15	1.23
1:B:1514:ARG:CA	1:B:1535:LEU:CA	2.15	1.23
1:B:1423:LYS:CA	1:B:1718:TYR:CA	2.15	1.23
1:A:1766:THR:CA	1:B:1819:GLY:CA	2.17	1.23
1:B:1735:ARG:CA	1:B:1913:SER:CA	2.16	1.22
1:A:1726:ALA:CA	1:A:2024:CYS:CA	2.15	1.22
1:A:1612:THR:CA	1:B:1743:SER:CA	2.17	1.22
1:B:1643:LYS:CA	1:B:2047:ASN:CA	2.16	1.22
1:A:1793:PRO:CA	1:B:1831:MET:CA	2.16	1.22
1:B:1725:ARG:CA	1:B:1917:LEU:CA	2.16	1.22
1:B:1379:GLN:CA	1:B:1550:ARG:CA	2.15	1.22
1:A:1455:ASP:CA	1:A:1600:PRO:CA	2.15	1.22
1:B:1379:GLN:CA	1:B:1550:ARG:CA	2.15	1.22
1:B:1729:PRO:CA	1:B:1940:ILE:CA	2.18	1.22
1:A:1643:LYS:CA	1:A:2047:ASN:CA	2.16	1.22
1:A:1455:ASP:CA	1:A:1600:PRO:CA	2.15	1.22
1:A:1809:LYS:CA	1:A:1926:HIS:CA	2.16	1.22
1:B:1382:ASP:CA	1:B:2047:ASN:CA	2.18	1.22
1:A:1762:PHE:CA	1:B:1691:ILE:CA	2.16	1.22
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.18	1.21
1:B:1379:GLN:CA	1:B:1550:ARG:CA	2.16	1.21
1:A:1513:ILE:CA	1:A:1581:VAL:CA	2.18	1.21
1:A:1788:MET:CA	1:B:1794:GLY:CA	2.18	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1588:PRO:CA	1:B:2047:ASN:CA	2.18	1.21
1:B:1732:MET:CA	1:B:1919:GLN:CA	2.19	1.21
1:B:1475:ASN:CA	1:B:1588:PRO:CA	2.17	1.21
1:B:1381:ARG:CA	1:B:1573:VAL:CA	2.19	1.21
1:A:1475:ASN:CA	1:A:1588:PRO:CA	2.17	1.21
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.18	1.21
1:A:1381:ARG:CA	1:A:1573:VAL:CA	2.19	1.21
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.18	1.21
1:A:1563:GLN:CA	1:A:2081:ASN:CA	2.20	1.20
1:B:1513:ILE:CA	1:B:1581:VAL:CA	2.19	1.20
1:A:1788:MET:CA	1:B:1717:PRO:CA	2.20	1.20
1:A:1669:VAL:CA	1:B:1812:ALA:CA	2.19	1.20
1:A:1382:ASP:CA	1:A:2047:ASN:CA	2.18	1.20
1:A:1793:PRO:CA	1:B:1831:MET:CA	2.18	1.20
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.18	1.20
1:A:1732:MET:CA	1:A:1919:GLN:CA	2.19	1.20
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.20	1.20
1:A:1793:PRO:CA	1:B:1831:MET:CA	2.18	1.19
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.20	1.19
1:B:1497:LEU:CA	1:B:1579:SER:CA	2.20	1.19
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.20	1.19
1:A:1382:ASP:CA	1:A:2047:ASN:CA	2.20	1.19
1:A:1734:TRP:CA	1:B:1703:GLY:CA	2.19	1.19
1:A:1588:PRO:CA	1:A:2047:ASN:CA	2.18	1.19
1:A:1827:LEU:CA	1:B:1722:GLY:CA	2.21	1.19
1:A:1793:PRO:CA	1:B:1831:MET:CA	2.19	1.19
1:A:1496:ALA:CA	1:B:1698:PRO:CA	2.21	1.18
1:B:1382:ASP:CA	1:B:2047:ASN:CA	2.20	1.18
1:A:1727:LEU:CA	1:A:1918:ARG:CA	2.21	1.18
1:A:1791:TRP:CA	1:B:1719:MET:CA	2.22	1.18
1:A:1477:ARG:CA	1:A:1574:HIS:CA	2.22	1.18
1:A:1463:LYS:CA	1:B:1702:MET:CA	2.22	1.18
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.20	1.18
1:B:1727:LEU:CA	1:B:1918:ARG:CA	2.21	1.18
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.22	1.18
1:B:1463:LYS:CA	1:B:1730:ASN:CA	2.22	1.18
1:A:1729:PRO:CA	1:A:1913:SER:CA	2.22	1.17
1:A:1497:LEU:CA	1:A:1579:SER:CA	2.20	1.17
1:A:1463:LYS:CA	1:A:1730:ASN:CA	2.22	1.17
1:A:1766:THR:CA	1:B:1819:GLY:CA	2.22	1.17
1:A:1568:GLU:CA	1:A:2076:GLY:CA	2.23	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1735:ARG:CA	1:A:1913:SER:CA	2.22	1.17
1:B:1477:ARG:CA	1:B:1574:HIS:CA	2.22	1.17
1:A:1793:PRO:CA	1:B:1831:MET:CA	2.20	1.17
1:A:1769:SER:CA	1:B:1714:GLU:CA	2.21	1.17
1:B:1479:PHE:CA	1:B:1588:PRO:CA	2.23	1.17
1:A:1827:LEU:CA	1:B:1722:GLY:CA	2.23	1.17
1:B:1729:PRO:CA	1:B:1913:SER:CA	2.22	1.16
1:A:1624:GLY:CA	1:B:1811:TRP:CA	2.22	1.16
1:B:1735:ARG:CA	1:B:1913:SER:CA	2.22	1.16
1:B:1568:GLU:CA	1:B:2076:GLY:CA	2.23	1.16
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.22	1.16
1:B:1464:ALA:CA	1:B:1722:GLY:CA	2.24	1.16
1:A:1479:PHE:CA	1:A:1588:PRO:CA	2.23	1.16
1:B:1472:GLU:CA	1:B:2046:GLY:CA	2.24	1.16
1:A:1380:ILE:CA	1:A:1572:ALA:CA	2.24	1.16
1:B:1380:ILE:CA	1:B:1572:ALA:CA	2.24	1.15
1:B:1765:ILE:CA	1:B:1915:ARG:CA	2.24	1.15
1:A:1501:ARG:CA	1:A:1590:LEU:CA	2.23	1.15
1:B:1501:ARG:CA	1:B:1590:LEU:CA	2.23	1.15
1:A:1720:LEU:CA	1:A:2025:CYS:CA	2.23	1.15
1:A:1482:ILE:CA	1:A:1590:LEU:CA	2.24	1.15
1:A:1455:ASP:CA	1:A:1690:ILE:CA	2.25	1.15
1:A:1464:ALA:CA	1:A:1722:GLY:CA	2.24	1.15
1:A:1472:GLU:CA	1:A:2046:GLY:CA	2.24	1.15
1:A:1501:ARG:CA	1:A:1590:LEU:CA	2.24	1.14
1:B:1482:ILE:CA	1:B:1590:LEU:CA	2.24	1.14
1:A:1501:ARG:CA	1:A:1590:LEU:CA	2.24	1.14
1:B:1501:ARG:CA	1:B:1590:LEU:CA	2.24	1.14
1:A:1458:ASP:CA	1:A:1794:GLY:CA	2.24	1.14
1:B:1385:LYS:CA	1:B:1578:GLU:CA	2.26	1.14
1:B:1501:ARG:CA	1:B:1590:LEU:CA	2.24	1.14
1:A:1668:LEU:CA	1:B:1813:LEU:CA	2.24	1.14
1:A:1730:ASN:CA	1:B:1619:PRO:CA	2.25	1.14
1:A:1794:GLY:CA	1:B:1795:LEU:CA	2.26	1.14
1:A:1765:ILE:CA	1:A:1915:ARG:CA	2.25	1.14
1:B:1820:GLU:CA	1:B:1943:ARG:CA	2.26	1.14
1:B:1765:ILE:CA	1:B:1915:ARG:CA	2.26	1.14
1:B:1726:ALA:CA	1:B:2024:CYS:CA	2.25	1.14
1:B:1490:ALA:CA	1:B:1577:ASN:CA	2.26	1.14
1:A:1461:GLN:CA	1:A:1717:PRO:CA	2.26	1.14
1:A:1794:GLY:CA	1:B:1795:LEU:CA	2.26	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1794:GLY:CA	1:B:1795:LEU:CA	2.26	1.14
1:A:1566:GLU:CA	1:A:2078:LYS:CA	2.25	1.14
1:B:1455:ASP:CA	1:B:1690:ILE:CA	2.24	1.13
1:A:1726:ALA:CA	1:A:2024:CYS:CA	2.25	1.13
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.27	1.13
1:B:1358:LYS:CA	1:B:1824:LYS:CA	2.25	1.13
1:B:1728:ARG:CA	1:B:1940:ILE:CA	2.27	1.13
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.27	1.13
1:A:1490:ALA:CA	1:A:1577:ASN:CA	2.26	1.13
1:B:1386:ARG:CA	1:B:1554:LEU:CA	2.27	1.13
1:B:1386:ARG:CA	1:B:1554:LEU:CA	2.27	1.13
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.26	1.13
1:A:1588:PRO:CA	1:A:2048:VAL:CA	2.27	1.13
1:A:1358:LYS:CA	1:A:1824:LYS:CA	2.25	1.13
1:B:1564:LEU:CA	1:B:2044:ALA:CA	2.26	1.13
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.27	1.12
1:A:1385:LYS:CA	1:A:1578:GLU:CA	2.26	1.12
1:A:1386:ARG:CA	1:A:1554:LEU:CA	2.26	1.13
1:B:1461:GLN:CA	1:B:1717:PRO:CA	2.26	1.12
1:B:1588:PRO:CA	1:B:2047:ASN:CA	2.28	1.12
1:B:1592:LEU:CA	1:B:2047:ASN:CA	2.27	1.12
1:B:1566:GLU:CA	1:B:2078:LYS:CA	2.25	1.12
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.26	1.12
1:A:1464:ALA:CA	1:A:1714:GLU:CA	2.27	1.12
1:B:1464:ALA:CA	1:B:1714:GLU:CA	2.27	1.12
1:B:1732:MET:CA	1:B:1919:GLN:CA	2.27	1.12
1:A:1588:PRO:CA	1:A:2047:ASN:CA	2.27	1.12
1:A:1386:ARG:CA	1:A:1554:LEU:CA	2.27	1.12
1:A:1788:MET:CA	1:B:1717:PRO:CA	2.27	1.12
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.27	1.12
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.26	1.12
1:A:1660:LEU:CA	1:B:1711:ARG:CA	2.26	1.12
1:B:1386:ARG:CA	1:B:1554:LEU:CA	2.28	1.12
1:A:1618:CYS:CA	1:B:1807:LEU:CA	2.26	1.12
1:A:1765:ILE:CA	1:A:1915:ARG:CA	2.26	1.12
1:A:1732:MET:CA	1:A:1919:GLN:CA	2.26	1.12
1:B:1588:PRO:CA	1:B:2048:VAL:CA	2.26	1.12
1:A:1592:LEU:CA	1:A:2047:ASN:CA	2.28	1.12
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.27	1.12
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.27	1.12
1:A:1564:LEU:CA	1:A:2079:PHE:CA	2.28	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1386:ARG:CA	1:A:1554:LEU:CA	2.27	1.11
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.27	1.11
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.29	1.11
1:A:1588:PRO:CA	1:A:2048:VAL:CA	2.29	1.11
1:A:1567:ASN:CA	1:A:2044:ALA:CA	2.29	1.10
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.29	1.10
1:B:1500:LEU:CA	1:B:1591:GLN:CA	2.29	1.10
1:B:1500:LEU:CA	1:B:1591:GLN:CA	2.29	1.10
1:A:1748:CYS:CA	1:B:1617:GLY:CA	2.27	1.10
1:B:1588:PRO:CA	1:B:2048:VAL:CA	2.29	1.10
1:A:1734:TRP:CA	1:B:1703:GLY:CA	2.28	1.10
1:A:1731:ARG:CA	1:B:1621:HIS:CA	2.29	1.10
1:B:1500:LEU:CA	1:B:1591:GLN:CA	2.29	1.10
1:B:1765:ILE:CA	1:B:1915:ARG:CA	2.30	1.10
1:A:1786:SER:CA	1:B:1810:LYS:CA	2.30	1.10
1:A:1500:LEU:CA	1:A:1591:GLN:CA	2.29	1.10
1:A:1500:LEU:CA	1:A:1591:GLN:CA	2.29	1.10
1:A:1752:SER:CA	1:B:1709:ILE:CA	2.28	1.10
1:A:1791:TRP:CA	1:B:1719:MET:CA	2.30	1.09
1:B:1494:SER:CA	1:B:1820:GLU:CA	2.30	1.09
1:A:1809:LYS:CA	1:B:1623:LYS:CA	2.31	1.09
1:A:1786:SER:CA	1:B:1810:LYS:CA	2.30	1.09
1:A:1701:PRO:CA	1:B:1751:GLY:CA	2.30	1.09
1:A:1500:LEU:CA	1:A:1591:GLN:CA	2.29	1.09
1:A:1799:ASP:CA	1:A:1942:PRO:CA	2.30	1.09
1:B:1475:ASN:CA	1:B:1580:GLY:CA	2.31	1.09
1:B:1513:ILE:CA	1:B:1581:VAL:CA	2.30	1.09
1:A:1777:LEU:CA	1:B:1733:TYR:CA	2.30	1.09
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.30	1.09
1:A:1344:GLY:CA	1:A:1732:MET:CA	2.31	1.08
1:A:1494:SER:CA	1:A:1820:GLU:CA	2.30	1.08
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.32	1.08
1:A:1513:ILE:CA	1:A:1581:VAL:CA	2.30	1.08
1:A:1730:ASN:CA	1:A:1943:ARG:CA	2.31	1.08
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.30	1.08
1:A:1475:ASN:CA	1:A:1580:GLY:CA	2.31	1.08
1:A:1383:LYS:CA	1:A:1586:GLN:CA	2.32	1.08
1:A:1707:ARG:CA	1:B:1766:THR:CA	2.32	1.08
1:A:1368:THR:CA	1:A:1729:PRO:CA	2.30	1.08
1:B:1368:THR:CA	1:B:1729:PRO:CA	2.30	1.08
1:A:1462:ARG:CA	1:B:1815:SER:CA	2.32	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1752:SER:CA	1:B:1709:ILE:CA	2.32	1.08
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.32	1.07
1:A:1403:SER:CA	1:A:1700:PHE:CA	2.32	1.07
1:A:1765:ILE:CA	1:A:1915:ARG:CA	2.30	1.07
1:B:1383:LYS:CA	1:B:1585:PHE:CA	2.32	1.07
1:A:1790:GLU:CA	1:B:1719:MET:CA	2.30	1.07
1:B:1403:SER:CA	1:B:1700:PHE:CA	2.32	1.07
1:A:1444:SER:CA	1:A:1586:GLN:CA	2.32	1.07
1:B:1367:ALA:CA	1:B:1837:GLY:CA	2.32	1.07
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.33	1.07
1:A:1432:LYS:CA	1:A:1724:GLU:CA	2.33	1.07
1:A:1731:ARG:CA	1:A:1942:PRO:CA	2.32	1.07
1:B:1344:GLY:CA	1:B:1732:MET:CA	2.31	1.07
1:B:1383:LYS:CA	1:B:1586:GLN:CA	2.32	1.07
1:A:1383:LYS:CA	1:A:1585:PHE:CA	2.32	1.06
1:A:1708:LEU:CA	1:B:1735:ARG:CA	2.33	1.06
1:A:1571:HIS:CA	1:A:2080:PRO:CA	2.34	1.06
1:B:1730:ASN:CA	1:B:1923:VAL:CA	2.33	1.06
1:A:1463:LYS:CA	1:B:1816:PHE:CA	2.32	1.06
1:B:1730:ASN:CA	1:B:1923:VAL:CA	2.33	1.06
1:A:1777:LEU:CA	1:B:1733:TYR:CA	2.32	1.06
1:A:1367:ALA:CA	1:A:1837:GLY:CA	2.33	1.06
1:A:1730:ASN:CA	1:A:1923:VAL:CA	2.33	1.06
1:B:1479:PHE:CA	1:B:1588:PRO:CA	2.33	1.06
1:B:1765:ILE:CA	1:B:1915:ARG:CA	2.34	1.06
1:B:1444:SER:CA	1:B:1586:GLN:CA	2.32	1.06
1:B:1571:HIS:CA	1:B:2080:PRO:CA	2.34	1.06
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.33	1.06
1:A:1693:ARG:CA	1:B:1740:LEU:CA	2.34	1.06
1:A:1444:SER:CA	1:A:1586:GLN:CA	2.34	1.05
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.34	1.05
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.34	1.05
1:A:1571:HIS:CA	1:A:2080:PRO:CA	2.35	1.05
1:A:1479:PHE:CA	1:A:1588:PRO:CA	2.33	1.05
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.33	1.05
1:A:1708:LEU:CA	1:B:1713:LEU:CA	2.34	1.05
1:A:1730:ASN:CA	1:A:1923:VAL:CA	2.33	1.05
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.35	1.05
1:B:1571:HIS:CA	1:B:2080:PRO:CA	2.35	1.05
1:B:1643:LYS:CA	1:B:2047:ASN:CA	2.34	1.05
1:B:1400:GLU:CA	1:B:2046:GLY:CA	2.35	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.35	1.05
1:A:1708:LEU:CA	1:B:1713:LEU:CA	2.35	1.05
1:A:1730:ASN:CA	1:A:1923:VAL:CA	2.35	1.04
1:B:1369:VAL:CA	1:B:1826:LEU:CA	2.35	1.04
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.33	1.04
1:A:1701:PRO:CA	1:B:1751:GLY:CA	2.34	1.04
1:A:1643:LYS:CA	1:A:2047:ASN:CA	2.34	1.04
1:B:1444:SER:CA	1:B:1586:GLN:CA	2.34	1.04
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.34	1.04
1:B:1479:PHE:CA	1:B:1588:PRO:CA	2.35	1.04
1:A:1755:LEU:CA	1:B:1799:ASP:CA	2.35	1.04
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.36	1.04
1:A:1588:PRO:CA	1:A:2048:VAL:CA	2.36	1.04
1:A:1765:ILE:CA	1:A:1915:ARG:CA	2.34	1.04
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.36	1.04
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.34	1.04
1:A:1402:TYR:CA	1:A:2047:ASN:CA	2.36	1.04
1:A:1744:PRO:CA	1:B:1791:TRP:CA	2.35	1.04
1:B:1588:PRO:CA	1:B:2048:VAL:CA	2.36	1.04
1:A:1477:ARG:CA	1:A:1648:GLN:CA	2.36	1.04
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.34	1.04
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.36	1.04
1:A:1400:GLU:CA	1:A:2046:GLY:CA	2.35	1.04
1:B:1402:TYR:CA	1:B:2047:ASN:CA	2.36	1.04
1:A:1477:ARG:CA	1:A:1648:GLN:CA	2.36	1.03
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.36	1.03
1:A:1369:VAL:CA	1:A:1826:LEU:CA	2.35	1.03
1:A:1479:PHE:CA	1:A:1588:PRO:CA	2.35	1.03
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.35	1.03
1:B:1471:LYS:CA	1:B:1727:LEU:CA	2.35	1.03
1:B:1477:ARG:CA	1:B:1648:GLN:CA	2.36	1.03
1:B:1477:ARG:CA	1:B:1648:GLN:CA	2.36	1.03
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.37	1.03
1:A:1616:GLU:CA	1:B:1766:THR:CA	2.35	1.03
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.37	1.03
1:B:1377:PRO:CA	1:B:1551:LYS:CA	2.35	1.03
1:B:1730:ASN:CA	1:B:1923:VAL:CA	2.35	1.03
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.37	1.03
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.37	1.03
1:B:1377:PRO:CA	1:B:1551:LYS:CA	2.35	1.03
1:A:1377:PRO:CA	1:A:1551:LYS:CA	2.35	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1732:MET:CA	1:B:1919:GLN:CA	2.36	1.03
1:B:1429:ASP:CA	1:B:1811:TRP:CA	2.37	1.03
1:A:1377:PRO:CA	1:A:1551:LYS:CA	2.36	1.03
1:A:1377:PRO:CA	1:A:1551:LYS:CA	2.36	1.03
1:A:1429:ASP:CA	1:A:1811:TRP:CA	2.37	1.02
1:B:1377:PRO:CA	1:B:1551:LYS:CA	2.36	1.02
1:A:1737:GLY:CA	1:B:1706:SER:CA	2.36	1.02
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.37	1.02
1:A:1732:MET:CA	1:A:1919:GLN:CA	2.36	1.02
1:A:1830:LEU:CA	1:B:1826:LEU:CA	2.38	1.02
1:A:1622:PRO:CA	1:B:1780:VAL:CA	2.37	1.02
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.37	1.02
1:A:1822:HIS:CA	1:B:1793:PRO:CA	2.38	1.02
1:B:1368:THR:CA	1:B:1832:LYS:CA	2.37	1.02
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.38	1.02
1:A:1357:THR:CA	1:A:1823:GLN:CA	2.37	1.02
1:A:1368:THR:CA	1:A:1832:LYS:CA	2.37	1.01
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.37	1.01
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.39	1.01
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.38	1.01
1:A:1456:VAL:CA	1:A:1604:CYS:CA	2.38	1.01
1:A:1382:ASP:CA	1:A:1570:PRO:CA	2.39	1.01
1:B:1357:THR:CA	1:B:1823:GLN:CA	2.37	1.01
1:A:1623:LYS:CA	1:B:1701:PRO:CA	2.37	1.01
1:B:1726:ALA:CA	1:B:2024:CYS:CA	2.38	1.01
1:A:1822:HIS:CA	1:B:1793:PRO:CA	2.39	1.01
1:B:1456:VAL:CA	1:B:1604:CYS:CA	2.38	1.01
1:A:1730:ASN:CA	1:A:1923:VAL:CA	2.39	1.01
1:A:1744:PRO:CA	1:B:1791:TRP:CA	2.37	1.01
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.39	1.01
1:B:1358:LYS:CA	1:B:1822:HIS:CA	2.39	1.01
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.38	1.01
1:B:1382:ASP:CA	1:B:1570:PRO:CA	2.39	1.01
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.39	1.00
1:B:1730:ASN:CA	1:B:1923:VAL:CA	2.38	1.00
1:A:1737:GLY:CA	1:B:1706:SER:CA	2.39	1.00
1:A:1440:ALA:CA	1:A:1701:PRO:CA	2.39	1.00
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.39	1.00
1:A:1726:ALA:CA	1:A:2024:CYS:CA	2.38	1.00
1:A:1358:LYS:CA	1:A:1822:HIS:CA	2.39	1.00
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.40	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.38	1.00
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.38	1.00
1:A:1753:GLU:CA	1:B:1771:ARG:CA	2.38	1.00
1:B:1368:THR:CA	1:B:1717:PRO:CA	2.40	1.00
1:A:1368:THR:CA	1:A:1717:PRO:CA	2.40	1.00
1:A:1759:PRO:CA	1:B:1620:LYS:CA	2.40	1.00
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.39	1.00
1:A:1830:LEU:CA	1:B:1826:LEU:CA	2.40	1.00
1:A:1563:GLN:CA	1:A:2078:LYS:CA	2.40	0.99
1:A:1563:GLN:CA	1:A:2082:GLU:CA	2.40	0.99
1:B:1730:ASN:CA	1:B:1923:VAL:CA	2.40	0.99
1:A:1616:GLU:CA	1:B:1813:LEU:CA	2.40	0.99
1:A:1624:GLY:CA	1:B:1781:VAL:CA	2.39	0.99
1:B:1563:GLN:CA	1:B:2078:LYS:CA	2.40	0.99
1:A:1730:ASN:CA	1:A:1923:VAL:CA	2.40	0.99
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.40	0.99
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.41	0.99
1:A:1830:LEU:CA	1:B:1826:LEU:CA	2.41	0.99
1:A:1456:VAL:CA	1:B:1727:LEU:CA	2.41	0.99
1:B:1669:VAL:CA	1:B:1812:ALA:CA	2.40	0.99
1:A:1708:LEU:CA	1:B:1735:ARG:CA	2.39	0.99
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.39	0.99
1:A:1695:TYR:CA	1:B:1702:MET:CA	2.40	0.99
1:A:1735:ARG:CA	1:A:1912:THR:CA	2.41	0.99
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.41	0.99
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.40	0.99
1:A:1619:PRO:CA	1:B:1764:LYS:CA	2.40	0.99
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.41	0.99
1:A:1755:LEU:CA	1:B:1799:ASP:CA	2.41	0.99
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.40	0.99
1:B:1551:LYS:CA	1:B:2081:ASN:CA	2.41	0.98
1:B:1588:PRO:CA	1:B:2046:GLY:CA	2.40	0.98
1:A:1371:ILE:CA	1:A:1576:LEU:CA	2.41	0.98
1:A:1588:PRO:CA	1:A:2046:GLY:CA	2.40	0.98
1:A:1466:MET:CA	1:A:1731:ARG:CA	2.41	0.98
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.41	0.98
1:B:1730:ASN:CA	1:B:1923:VAL:CA	2.41	0.98
1:B:1371:ILE:CA	1:B:1576:LEU:CA	2.42	0.98
1:A:1669:VAL:CA	1:A:1812:ALA:CA	2.40	0.98
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.40	0.98
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.41	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1735:ARG:CA	1:B:1912:THR:CA	2.41	0.98
1:B:1422:SER:CA	1:B:1729:PRO:CA	2.41	0.98
1:A:1830:LEU:CA	1:B:1826:LEU:CA	2.42	0.98
1:A:1422:SER:CA	1:A:1729:PRO:CA	2.41	0.98
1:A:1693:ARG:CA	1:B:1740:LEU:CA	2.41	0.98
1:A:1730:ASN:CA	1:A:1923:VAL:CA	2.42	0.98
1:A:1702:MET:CA	1:B:1834:ALA:CA	2.42	0.98
1:B:1466:MET:CA	1:B:1731:ARG:CA	2.41	0.97
1:A:1790:GLU:CA	1:B:1719:MET:CA	2.41	0.97
1:A:1776:LEU:CA	1:A:1922:VAL:CA	2.42	0.97
1:A:1794:GLY:CA	1:B:1796:LEU:CA	2.42	0.97
1:B:1776:LEU:CA	1:B:1922:VAL:CA	2.42	0.97
1:A:1591:GLN:CA	1:A:2045:ARG:CA	2.43	0.96
1:A:1400:GLU:CA	1:A:2047:ASN:CA	2.43	0.96
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.43	0.96
1:A:1422:SER:CA	1:A:1699:TYR:CA	2.44	0.96
1:A:1755:LEU:CA	1:B:1799:ASP:CA	2.43	0.96
1:A:1724:GLU:CA	1:A:1917:LEU:CA	2.43	0.96
1:A:1741:ASN:CA	1:B:1754:VAL:CA	2.43	0.96
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.43	0.96
1:A:1378:ILE:CA	1:A:1550:ARG:CA	2.43	0.96
1:A:1794:GLY:CA	1:B:1796:LEU:CA	2.43	0.96
1:A:1378:ILE:CA	1:A:1550:ARG:CA	2.43	0.96
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.43	0.96
1:B:1428:VAL:CA	1:B:1658:ILE:CA	2.44	0.96
1:B:1400:GLU:CA	1:B:2047:ASN:CA	2.43	0.96
1:B:1724:GLU:CA	1:B:1917:LEU:CA	2.43	0.96
1:A:1378:ILE:CA	1:A:1550:ARG:CA	2.43	0.96
1:A:1669:VAL:CA	1:B:1809:LYS:CA	2.44	0.96
1:B:1378:ILE:CA	1:B:1550:ARG:CA	2.42	0.96
1:B:1554:LEU:CA	1:B:2081:ASN:CA	2.44	0.96
1:B:1378:ILE:CA	1:B:1550:ARG:CA	2.43	0.96
1:A:1618:CYS:CA	1:B:1809:LYS:CA	2.43	0.96
1:A:1612:THR:CA	1:B:1742:TRP:CA	2.44	0.96
1:A:1741:ASN:CA	1:B:1754:VAL:CA	2.44	0.96
1:B:1378:ILE:CA	1:B:1550:ARG:CA	2.43	0.96
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.44	0.96
1:B:1370:GLY:CA	1:B:1825:ILE:CA	2.44	0.96
1:A:1567:ASN:CA	1:A:2085:GLU:CA	2.44	0.96
1:B:1422:SER:CA	1:B:1699:TYR:CA	2.44	0.96
1:B:1400:GLU:CA	1:B:1795:LEU:CA	2.44	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1794:GLY:CA	1:B:1796:LEU:CA	2.43	0.95
1:A:1755:LEU:CA	1:B:1799:ASP:CA	2.44	0.95
1:B:1498:ALA:CA	1:B:1578:GLU:CA	2.45	0.95
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.43	0.95
1:A:1370:GLY:CA	1:A:1825:ILE:CA	2.44	0.95
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.44	0.95
1:A:1724:GLU:CA	1:A:1917:LEU:CA	2.44	0.95
1:A:1554:LEU:CA	1:A:2081:ASN:CA	2.44	0.95
1:A:1365:GLN:CA	1:A:2047:ASN:CA	2.43	0.95
1:A:1735:ARG:CA	1:A:1912:THR:CA	2.45	0.95
1:A:1498:ALA:CA	1:A:1578:GLU:CA	2.45	0.95
1:A:1830:LEU:CA	1:B:1826:LEU:CA	2.45	0.95
1:A:1428:VAL:CA	1:A:1658:ILE:CA	2.44	0.95
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.44	0.95
1:B:1730:ASN:CA	1:B:1913:SER:CA	2.45	0.95
1:B:1381:ARG:CA	1:B:1571:HIS:CA	2.45	0.95
1:A:1465:CYS:CA	1:A:1730:ASN:CA	2.45	0.95
1:A:1381:ARG:CA	1:A:1571:HIS:CA	2.44	0.95
1:B:1724:GLU:CA	1:B:1917:LEU:CA	2.44	0.94
1:B:1735:ARG:CA	1:B:1913:SER:CA	2.45	0.94
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.44	0.94
1:A:1400:GLU:CA	1:A:1795:LEU:CA	2.44	0.94
1:A:1695:TYR:CA	1:B:1702:MET:CA	2.45	0.94
1:B:1365:GLN:CA	1:B:2047:ASN:CA	2.44	0.94
1:A:1730:ASN:CA	1:A:1913:SER:CA	2.45	0.94
1:A:1735:ARG:CA	1:A:1913:SER:CA	2.45	0.94
1:B:1429:ASP:CA	1:B:1734:TRP:CA	2.46	0.94
1:A:1493:GLU:CA	1:B:1782:ASP:CA	2.45	0.94
1:B:1509:LEU:CA	1:B:1580:GLY:CA	2.46	0.94
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.46	0.94
1:B:1735:ARG:CA	1:B:1912:THR:CA	2.45	0.94
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.46	0.94
1:B:1382:ASP:CA	1:B:1589:ALA:CA	2.45	0.94
1:A:1509:LEU:CA	1:A:1580:GLY:CA	2.46	0.93
1:A:1475:ASN:CA	1:A:1589:ALA:CA	2.46	0.93
1:B:1475:ASN:CA	1:B:1589:ALA:CA	2.46	0.93
1:B:1733:TYR:CA	1:B:1942:PRO:CA	2.46	0.93
1:B:1732:MET:CA	1:B:1919:GLN:CA	2.47	0.93
1:A:1477:ARG:CA	1:A:1574:HIS:CA	2.46	0.93
1:B:1465:CYS:CA	1:B:1730:ASN:CA	2.45	0.93
1:A:1693:ARG:CA	1:B:1704:PHE:CA	2.47	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1370:GLY:CA	1:B:1575:PHE:CA	0.93	0.93
1:A:1429:ASP:CA	1:A:1734:TRP:CA	2.46	0.93
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.46	0.93
1:A:1711:ARG:CA	1:B:1663:GLY:CA	2.46	0.93
1:A:1370:GLY:CA	1:A:1575:PHE:CA	0.93	0.93
1:A:1369:VAL:CA	1:A:1827:LEU:CA	2.47	0.93
1:A:1382:ASP:CA	1:A:1589:ALA:CA	2.45	0.93
1:B:1477:ARG:CA	1:B:1574:HIS:CA	2.46	0.93
1:A:1624:GLY:CA	1:B:1812:ALA:CA	2.46	0.93
1:A:1368:THR:CA	1:A:1829:ASP:CA	2.47	0.93
1:A:1492:GLU:CA	1:A:1582:LEU:CA	2.47	0.93
1:A:1699:TYR:CA	1:B:1755:LEU:CA	2.46	0.93
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.46	0.93
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.46	0.92
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.48	0.92
1:A:1821:GLU:CA	1:B:1796:LEU:CA	2.47	0.92
1:A:1788:MET:CA	1:B:1730:ASN:CA	2.47	0.92
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.48	0.92
1:B:1492:GLU:CA	1:B:1582:LEU:CA	2.47	0.92
1:B:1569:LEU:CA	1:B:2077:LEU:CA	2.48	0.92
1:A:1732:MET:CA	1:A:1919:GLN:CA	2.47	0.92
1:B:1369:VAL:CA	1:B:1827:LEU:CA	2.47	0.92
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.48	0.92
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.46	0.92
1:A:1465:CYS:CA	1:A:1732:MET:CA	2.47	0.92
1:B:1465:CYS:CA	1:B:1732:MET:CA	2.47	0.92
1:B:1590:LEU:CA	1:B:2085:GLU:CA	2.46	0.92
1:A:1789:GLU:CA	1:B:1793:PRO:CA	2.47	0.92
1:A:1464:ALA:CA	1:A:1727:LEU:CA	2.48	0.92
1:A:1569:LEU:CA	1:A:2077:LEU:CA	2.48	0.92
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.48	0.92
1:B:1779:GLN:CA	1:B:1913:SER:CA	2.48	0.92
1:A:1468:LYS:CA	1:A:1724:GLU:CA	2.48	0.92
1:B:1565:ASP:CA	1:B:2045:ARG:CA	2.48	0.91
1:B:1477:ARG:CA	1:B:1574:HIS:CA	2.47	0.91
1:A:1477:ARG:CA	1:A:1574:HIS:CA	2.47	0.91
1:B:1464:ALA:CA	1:B:1727:LEU:CA	2.48	0.91
1:B:1371:ILE:CA	1:B:1723:ARG:CA	2.49	0.91
1:B:1368:THR:CA	1:B:1829:ASP:CA	2.47	0.91
1:B:1468:LYS:CA	1:B:1724:GLU:CA	2.49	0.91
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.49	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1483:ARG:CA	1:B:1591:GLN:CA	2.49	0.91
1:A:1465:CYS:CA	1:A:1716:SER:CA	2.49	0.90
1:A:1590:LEU:CA	1:A:2031:THR:CA	2.48	0.90
1:A:1699:TYR:CA	1:B:1755:LEU:CA	2.47	0.90
1:A:1492:GLU:CA	1:A:1582:LEU:CA	2.49	0.90
1:A:1733:TYR:CA	1:B:1701:PRO:CA	2.50	0.90
1:A:1744:PRO:CA	1:B:1630:ASP:CA	2.49	0.90
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.50	0.90
1:A:1566:GLU:CA	1:A:2078:LYS:CA	2.50	0.90
1:A:1424:GLY:CA	1:A:1826:LEU:CA	2.49	0.90
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.49	0.90
1:B:1590:LEU:CA	1:B:2031:THR:CA	2.48	0.90
1:B:1492:GLU:CA	1:B:1582:LEU:CA	2.49	0.90
1:B:1424:GLY:CA	1:B:1826:LEU:CA	2.49	0.90
1:A:1621:HIS:CA	1:B:1827:LEU:CA	2.49	0.90
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.50	0.90
1:A:1483:ARG:CA	1:A:1591:GLN:CA	2.49	0.90
1:B:1465:CYS:CA	1:B:1716:SER:CA	2.49	0.89
1:A:1371:ILE:CA	1:A:1723:ARG:CA	2.49	0.89
1:B:1483:ARG:CA	1:B:1591:GLN:CA	2.50	0.89
1:A:1755:LEU:CA	1:B:1799:ASP:CA	2.50	0.89
1:A:1729:PRO:CA	1:B:1624:GLY:CA	2.49	0.89
1:A:1754:VAL:CA	1:B:1704:PHE:CA	0.89	0.89
1:A:1662:ILE:CA	1:B:1776:LEU:CA	2.51	0.89
1:A:1426:ALA:CA	1:A:1717:PRO:CA	2.50	0.89
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.51	0.89
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.50	0.89
1:B:1726:ALA:CA	1:B:2024:CYS:CA	2.51	0.89
1:B:1568:GLU:CA	1:B:2077:LEU:CA	0.89	0.89
1:A:1722:GLY:CA	1:B:1789:GLU:CA	2.51	0.89
1:B:1426:ALA:CA	1:B:1717:PRO:CA	2.50	0.89
1:B:1566:GLU:CA	1:B:2078:LYS:CA	2.50	0.89
1:A:1380:ILE:CA	1:A:1572:ALA:CA	2.51	0.89
1:A:1699:TYR:CA	1:B:1754:VAL:CA	2.51	0.89
1:A:1568:GLU:CA	1:A:2077:LEU:CA	0.89	0.89
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.51	0.88
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.51	0.88
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.51	0.88
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.51	0.88
1:A:1483:ARG:CA	1:A:1591:GLN:CA	2.50	0.88
1:B:1480:PRO:CA	1:B:1589:ALA:CA	2.52	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.51	0.88
1:B:1380:ILE:CA	1:B:1572:ALA:CA	2.51	0.88
1:B:1384:ARG:CA	1:B:1575:PHE:CA	2.52	0.88
1:B:1729:PRO:CA	1:B:1913:SER:CA	2.52	0.88
1:A:1722:GLY:CA	1:B:1789:GLU:CA	2.52	0.88
1:A:1480:PRO:CA	1:A:1589:ALA:CA	2.52	0.88
1:A:1726:ALA:CA	1:A:2024:CYS:CA	2.51	0.88
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.51	0.88
1:B:1498:ALA:CA	1:B:1822:HIS:CA	0.87	0.88
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.52	0.88
1:A:1729:PRO:CA	1:A:1913:SER:CA	2.52	0.87
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.51	0.87
1:A:1498:ALA:CA	1:A:1822:HIS:CA	0.88	0.87
1:B:1735:ARG:CA	1:B:1912:THR:CA	2.52	0.87
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.51	0.87
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.52	0.87
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.51	0.87
1:A:1384:ARG:CA	1:A:1575:PHE:CA	2.52	0.87
1:B:1724:GLU:CA	1:B:1920:GLU:CA	2.53	0.87
1:A:1696:GLU:CA	1:B:1699:TYR:CA	2.52	0.87
1:B:1730:ASN:CA	1:B:1913:SER:CA	2.53	0.87
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.53	0.87
1:B:1643:LYS:CA	1:B:2047:ASN:CA	2.52	0.87
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.52	0.87
1:A:1426:ALA:CA	1:B:1422:SER:CA	0.87	0.87
1:A:1730:ASN:CA	1:A:1913:SER:CA	2.53	0.87
1:A:1643:LYS:CA	1:A:2047:ASN:CA	2.52	0.87
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.52	0.87
1:A:1729:PRO:CA	1:A:1913:SER:CA	2.53	0.86
1:B:1357:THR:CA	1:B:1581:VAL:CA	2.53	0.86
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.52	0.86
1:B:1493:GLU:CA	1:B:1650:PHE:CA	2.53	0.86
1:A:1789:GLU:CA	1:B:1793:PRO:CA	2.52	0.86
1:A:1724:GLU:CA	1:A:1920:GLU:CA	2.53	0.86
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.53	0.86
1:A:1836:GLU:CA	1:B:1725:ARG:CA	2.51	0.86
1:A:1566:GLU:CA	1:A:2078:LYS:CA	2.54	0.86
1:A:1796:LEU:CA	1:B:1781:VAL:CA	2.53	0.86
1:A:1357:THR:CA	1:A:1581:VAL:CA	2.53	0.86
1:A:1493:GLU:CA	1:A:1650:PHE:CA	2.53	0.86
1:A:1754:VAL:CA	1:B:1704:PHE:CA	0.86	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1493:GLU:CA	1:B:1650:PHE:CA	2.53	0.86
1:A:1427:GLU:CA	1:A:1807:LEU:CA	2.53	0.86
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.53	0.86
1:A:1735:ARG:CA	1:A:1912:THR:CA	2.52	0.86
1:A:1619:PRO:CA	1:B:1808:LEU:CA	2.53	0.86
1:B:1586:GLN:CA	1:B:2048:VAL:CA	2.54	0.86
1:A:1565:ASP:CA	1:A:2077:LEU:CA	0.86	0.86
1:A:1618:CYS:CA	1:B:1808:LEU:CA	2.53	0.86
1:A:1586:GLN:CA	1:A:2048:VAL:CA	2.54	0.86
1:B:1427:GLU:CA	1:B:1807:LEU:CA	2.54	0.86
1:A:1493:GLU:CA	1:A:1650:PHE:CA	2.54	0.86
1:B:1565:ASP:CA	1:B:2077:LEU:CA	0.86	0.86
1:B:1493:GLU:CA	1:B:1650:PHE:CA	2.54	0.86
1:B:1477:ARG:CA	1:B:1575:PHE:CA	2.54	0.85
1:A:1789:GLU:CA	1:B:1793:PRO:CA	2.53	0.85
1:A:1769:SER:CA	1:B:1713:LEU:CA	2.54	0.85
1:A:1493:GLU:CA	1:A:1650:PHE:CA	2.54	0.85
1:B:1729:PRO:CA	1:B:1913:SER:CA	2.53	0.85
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.54	0.85
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.55	0.85
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.54	0.85
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.53	0.85
1:A:1477:ARG:CA	1:A:1575:PHE:CA	2.54	0.85
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.55	0.85
1:B:1777:LEU:CA	1:B:1922:VAL:CA	2.55	0.85
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.55	0.85
1:A:1386:ARG:CA	1:A:1571:HIS:CA	2.55	0.85
1:A:1775:ILE:CA	1:B:1740:LEU:CA	2.55	0.85
1:A:1836:GLU:CA	1:B:1725:ARG:CA	2.55	0.85
1:B:1386:ARG:CA	1:B:1571:HIS:CA	2.55	0.85
1:A:1458:ASP:CA	1:A:1663:GLY:CA	2.56	0.84
1:B:1566:GLU:CA	1:B:2078:LYS:CA	2.54	0.84
1:A:1777:LEU:CA	1:A:1922:VAL:CA	2.55	0.84
1:B:1491:THR:CA	1:B:1736:GLN:CA	2.56	0.84
1:A:1617:GLY:CA	1:B:1766:THR:CA	2.55	0.84
1:A:1716:SER:CA	1:B:1668:LEU:CA	0.84	0.84
1:B:1458:ASP:CA	1:B:1663:GLY:CA	2.56	0.84
1:A:1458:ASP:CA	1:A:1663:GLY:CA	2.56	0.84
1:B:1458:ASP:CA	1:B:1663:GLY:CA	2.56	0.84
1:A:1699:TYR:CA	1:B:1754:VAL:CA	2.56	0.84
1:A:1767:VAL:CA	1:B:1821:GLU:CA	2.56	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1724:GLU:CA	1:B:1920:GLU:CA	2.56	0.83
1:A:1789:GLU:CA	1:B:1793:PRO:CA	2.55	0.83
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.55	0.83
1:A:1458:ASP:CA	1:A:1663:GLY:CA	2.56	0.83
1:A:1694:LEU:CA	1:B:1791:TRP:CA	2.56	0.83
1:A:1724:GLU:CA	1:A:1920:GLU:CA	2.56	0.83
1:B:1569:LEU:CA	1:B:2081:ASN:CA	2.56	0.83
1:B:1458:ASP:CA	1:B:1663:GLY:CA	2.56	0.83
1:A:1731:ARG:CA	1:B:1717:PRO:CA	0.83	0.83
1:A:1715:ILE:CA	1:B:1667:LEU:CA	0.83	0.83
1:B:1477:ARG:CA	1:B:1575:PHE:CA	2.57	0.83
1:A:1772:LYS:CA	1:B:1716:SER:CA	2.56	0.83
1:A:1491:THR:CA	1:A:1736:GLN:CA	2.56	0.83
1:B:1569:LEU:CA	1:B:2081:ASN:CA	2.56	0.83
1:A:1569:LEU:CA	1:A:2081:ASN:CA	2.56	0.83
1:A:1664:GLU:CA	1:A:1814:TYR:CA	2.57	0.83
1:A:1477:ARG:CA	1:A:1575:PHE:CA	2.56	0.82
1:A:1733:TYR:CA	1:B:1701:PRO:CA	2.57	0.82
1:B:1664:GLU:CA	1:B:1814:TYR:CA	2.57	0.82
1:A:1569:LEU:CA	1:A:2081:ASN:CA	2.57	0.82
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.58	0.82
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.58	0.82
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.58	0.82
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.58	0.82
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.58	0.82
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.58	0.82
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.58	0.82
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.58	0.82
1:A:1693:ARG:CA	1:B:1716:SER:CA	2.58	0.81
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.58	0.81
1:B:1565:ASP:CA	1:B:2077:LEU:CA	0.81	0.81
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.58	0.81
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.59	0.81
1:A:1565:ASP:CA	1:A:2077:LEU:CA	0.81	0.81
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.58	0.81
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.59	0.81
1:A:1761:SER:CA	1:B:1691:ILE:CA	2.58	0.81
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.58	0.80
1:B:1574:HIS:CA	1:B:2044:ALA:CA	2.59	0.80
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.60	0.80
1:A:1693:ARG:CA	1:B:1716:SER:CA	2.59	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1586:GLN:CA	1:B:2048:VAL:CA	2.60	0.80
1:A:1423:LYS:CA	1:B:1461:GLN:CA	2.59	0.80
1:A:1482:ILE:CA	1:A:1591:GLN:CA	2.60	0.80
1:B:1482:ILE:CA	1:B:1591:GLN:CA	2.60	0.80
1:B:1752:SER:CA	1:B:1913:SER:CA	0.80	0.80
1:B:1735:ARG:CA	1:B:1912:THR:CA	2.59	0.80
1:B:1495:ASP:CA	1:B:1651:LYS:CA	2.60	0.80
1:A:1736:GLN:CA	1:B:1773:GLY:CA	2.60	0.80
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.59	0.80
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.59	0.80
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.60	0.80
1:B:1586:GLN:CA	1:B:2048:VAL:CA	2.60	0.80
1:A:1788:MET:CA	1:B:1730:ASN:CA	2.60	0.80
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.59	0.80
1:B:1495:ASP:CA	1:B:1651:LYS:CA	2.60	0.80
1:A:1618:CYS:CA	1:B:1777:LEU:CA	2.60	0.80
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.60	0.80
1:A:1381:ARG:CA	1:A:2047:ASN:CA	2.60	0.80
1:A:1586:GLN:CA	1:A:2048:VAL:CA	2.60	0.79
1:B:1381:ARG:CA	1:B:1571:HIS:CA	2.60	0.79
1:B:1381:ARG:CA	1:B:2047:ASN:CA	2.60	0.79
1:A:1574:HIS:CA	1:A:2044:ALA:CA	2.59	0.79
1:A:1586:GLN:CA	1:A:2048:VAL:CA	2.60	0.79
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.60	0.79
1:A:1799:ASP:CA	1:A:1941:ARG:CA	2.60	0.79
1:A:1403:SER:CA	1:A:1699:TYR:CA	2.60	0.79
1:B:1425:GLN:CA	1:B:1829:ASP:CA	2.61	0.79
1:A:1735:ARG:CA	1:A:1912:THR:CA	2.59	0.79
1:A:1767:VAL:CA	1:B:1821:GLU:CA	2.61	0.79
1:A:1812:ALA:CA	1:B:1617:GLY:CA	2.61	0.79
1:A:1789:GLU:CA	1:B:1793:PRO:CA	2.59	0.79
1:B:1495:ASP:CA	1:B:1651:LYS:CA	2.61	0.79
1:A:1798:ILE:CA	1:A:1942:PRO:CA	2.61	0.79
1:A:1495:ASP:CA	1:A:1651:LYS:CA	2.60	0.79
1:A:1569:LEU:CA	1:A:2078:LYS:CA	2.61	0.79
1:B:1403:SER:CA	1:B:1699:TYR:CA	2.60	0.79
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.60	0.79
1:A:1476:LYS:CA	1:A:1599:GLU:CA	2.61	0.78
1:A:1569:LEU:CA	1:A:2078:LYS:CA	2.61	0.78
1:B:1569:LEU:CA	1:B:2078:LYS:CA	2.61	0.78
1:A:1381:ARG:CA	1:A:1571:HIS:CA	2.60	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1495:ASP:CA	1:A:1651:LYS:CA	2.61	0.78
1:A:1767:VAL:CA	1:B:1821:GLU:CA	2.62	0.78
1:A:1428:VAL:CA	1:A:1714:GLU:CA	2.62	0.78
1:B:1426:ALA:CA	1:B:1797:GLU:CA	2.61	0.78
1:B:1592:LEU:CA	1:B:2043:VAL:CA	2.62	0.78
1:A:1426:ALA:CA	1:A:1797:GLU:CA	2.61	0.78
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.62	0.78
1:A:1717:PRO:CA	1:B:1619:PRO:CA	2.62	0.78
1:B:1569:LEU:CA	1:B:2078:LYS:CA	2.61	0.78
1:B:1476:LYS:CA	1:B:1599:GLU:CA	2.62	0.78
1:A:1425:GLN:CA	1:A:1829:ASP:CA	2.61	0.78
1:A:1433:PRO:CA	1:A:1724:GLU:CA	2.61	0.77
1:B:1494:SER:CA	1:B:1732:MET:CA	2.62	0.77
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.62	0.77
1:B:1472:GLU:CA	1:B:1727:LEU:CA	2.62	0.77
1:A:1495:ASP:CA	1:A:1651:LYS:CA	2.61	0.77
1:A:1494:SER:CA	1:A:1732:MET:CA	2.62	0.77
1:A:1735:ARG:CA	1:A:1912:THR:CA	2.62	0.77
1:B:1735:ARG:CA	1:B:1912:THR:CA	2.62	0.77
1:B:1428:VAL:CA	1:B:1714:GLU:CA	2.62	0.77
1:A:1452:THR:CA	1:A:1724:GLU:CA	2.63	0.77
1:A:1465:CYS:CA	1:A:2028:GLY:CA	2.62	0.77
1:B:1574:HIS:CA	1:B:2044:ALA:CA	2.63	0.77
1:B:1565:ASP:CA	1:B:2077:LEU:CA	0.77	0.77
1:B:1465:CYS:CA	1:B:2028:GLY:CA	2.62	0.77
1:B:1384:ARG:CA	1:B:1578:GLU:CA	0.77	0.77
1:B:1496:ALA:CA	1:B:1819:GLY:CA	2.63	0.77
1:A:1694:LEU:CA	1:B:1791:TRP:CA	2.63	0.76
1:A:1427:GLU:CA	1:A:1746:ALA:CA	2.63	0.76
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.63	0.76
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.63	0.76
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.63	0.76
1:A:1565:ASP:CA	1:A:2077:LEU:CA	0.77	0.76
1:A:1384:ARG:CA	1:A:1578:GLU:CA	0.76	0.76
1:A:1551:LYS:CA	1:A:2045:ARG:CA	2.62	0.76
1:A:1736:GLN:CA	1:B:1773:GLY:CA	2.64	0.76
1:A:1428:VAL:CA	1:B:1426:ALA:CA	0.77	0.76
1:B:1427:GLU:CA	1:B:1746:ALA:CA	2.63	0.76
1:A:1767:VAL:CA	1:B:1821:GLU:CA	2.64	0.76
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.63	0.76
1:B:1452:THR:CA	1:B:1724:GLU:CA	2.63	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.63	0.76
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.63	0.76
1:B:1460:LYS:CA	1:B:1826:LEU:CA	2.64	0.76
1:A:1778:GLY:CA	1:B:1737:GLY:CA	2.63	0.76
1:A:1574:HIS:CA	1:A:2044:ALA:CA	2.63	0.75
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.64	0.75
1:A:1543:ILE:CA	1:A:2085:GLU:CA	2.64	0.75
1:B:1730:ASN:CA	1:B:1922:VAL:CA	0.76	0.75
1:B:1544:GLU:CA	1:B:2085:GLU:CA	2.65	0.75
1:A:1730:ASN:CA	1:A:1922:VAL:CA	0.76	0.75
1:A:1496:ALA:CA	1:A:1819:GLY:CA	2.63	0.75
1:A:1735:ARG:CA	1:A:1912:THR:CA	2.64	0.75
1:A:1544:GLU:CA	1:A:2085:GLU:CA	2.65	0.75
1:A:1730:ASN:CA	1:A:1940:ILE:CA	2.65	0.75
1:B:1348:THR:CA	1:B:1727:LEU:CA	2.65	0.75
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.65	0.75
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.65	0.75
1:A:1460:LYS:CA	1:A:1826:LEU:CA	2.64	0.75
1:A:1695:TYR:CA	1:B:1795:LEU:CA	2.64	0.74
1:A:1747:TYR:CA	1:B:1618:CYS:CA	2.64	0.74
1:A:1348:THR:CA	1:A:1727:LEU:CA	2.65	0.74
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.66	0.74
1:B:1543:ILE:CA	1:B:2085:GLU:CA	2.64	0.74
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.65	0.74
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.66	0.74
1:B:1586:GLN:CA	1:B:2048:VAL:CA	2.66	0.74
1:B:1735:ARG:CA	1:B:1912:THR:CA	2.64	0.74
1:A:1705:TRP:CA	1:B:1767:VAL:CA	2.66	0.74
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.65	0.74
1:A:1586:GLN:CA	1:A:2048:VAL:CA	2.66	0.74
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.64	0.74
1:A:1423:LYS:CA	1:A:1699:TYR:CA	2.65	0.74
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.66	0.74
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.66	0.74
1:B:1566:GLU:CA	1:B:2082:GLU:CA	2.66	0.74
1:B:1468:LYS:CA	1:B:1719:MET:CA	0.74	0.74
1:A:1694:LEU:CA	1:B:1791:TRP:CA	2.66	0.74
1:A:1381:ARG:CA	1:A:2047:ASN:CA	2.66	0.74
1:A:1770:CYS:CA	1:B:1821:GLU:CA	2.66	0.74
1:B:1472:GLU:CA	1:B:1743:SER:CA	2.66	0.73
1:B:1423:LYS:CA	1:B:1699:TYR:CA	2.65	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1468:LYS:CA	1:A:1719:MET:CA	0.74	0.73
1:B:1593:SER:CA	1:B:2044:ALA:CA	2.67	0.73
1:A:1777:LEU:CA	1:B:1749:LEU:CA	2.66	0.73
1:B:1514:ARG:CA	1:B:1525:ASP:CA	2.66	0.73
1:B:1344:GLY:CA	1:B:1817:ASN:CA	2.67	0.73
1:A:1495:ASP:CA	1:A:1731:ARG:CA	0.73	0.73
1:B:1381:ARG:CA	1:B:2047:ASN:CA	2.66	0.73
1:B:1382:ASP:CA	1:B:1568:GLU:CA	2.67	0.73
1:A:1427:GLU:CA	1:B:1421:LEU:CA	2.67	0.73
1:A:1494:SER:CA	1:A:1576:LEU:CA	2.67	0.73
1:B:1495:ASP:CA	1:B:1731:ARG:CA	0.73	0.73
1:A:1493:GLU:CA	1:A:1582:LEU:CA	2.67	0.73
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.66	0.73
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.66	0.73
1:A:1514:ARG:CA	1:A:1525:ASP:CA	2.66	0.73
1:A:1382:ASP:CA	1:A:1568:GLU:CA	2.67	0.73
1:A:1566:GLU:CA	1:A:2082:GLU:CA	2.66	0.73
1:B:1458:ASP:CA	1:B:1742:TRP:CA	2.67	0.72
1:A:1778:GLY:CA	1:B:1737:GLY:CA	2.67	0.72
1:A:1344:GLY:CA	1:A:1817:ASN:CA	2.67	0.72
1:B:1721:SER:CA	1:B:1941:ARG:CA	2.67	0.72
1:A:1694:LEU:CA	1:B:1791:TRP:CA	2.67	0.72
1:A:1590:LEU:CA	1:A:2118:ASN:CA	2.67	0.72
1:B:1590:LEU:CA	1:B:2118:ASN:CA	2.68	0.72
1:B:1494:SER:CA	1:B:1576:LEU:CA	2.67	0.72
1:B:1400:GLU:CA	1:B:1528:VAL:CA	2.67	0.72
1:A:1563:GLN:CA	1:A:2078:LYS:CA	2.68	0.72
1:A:1459:GLU:CA	1:B:1829:ASP:CA	2.68	0.72
1:B:1493:GLU:CA	1:B:1582:LEU:CA	2.66	0.72
1:A:1494:SER:CA	1:A:1576:LEU:CA	2.68	0.72
1:A:1458:ASP:CA	1:A:1742:TRP:CA	2.67	0.72
1:A:1472:GLU:CA	1:A:1743:SER:CA	2.66	0.72
1:A:1695:TYR:CA	1:B:1795:LEU:CA	2.67	0.72
1:A:1400:GLU:CA	1:A:1528:VAL:CA	2.67	0.72
1:A:1495:ASP:CA	1:B:1783:HIS:CA	2.68	0.72
1:B:1563:GLN:CA	1:B:2078:LYS:CA	2.68	0.71
1:A:1767:VAL:CA	1:B:1821:GLU:CA	2.68	0.71
1:A:1721:SER:CA	1:A:1941:ARG:CA	2.67	0.71
1:A:1752:SER:CA	1:B:1708:LEU:CA	2.67	0.71
1:A:1463:LYS:CA	1:A:1717:PRO:CA	2.69	0.71
1:A:1810:LYS:CA	1:B:1623:LYS:CA	2.68	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1492:GLU:CA	1:B:1733:TYR:CA	2.68	0.71
1:A:1776:LEU:CA	1:A:1922:VAL:CA	2.69	0.71
1:A:1432:LYS:CA	1:A:1725:ARG:CA	2.69	0.71
1:B:1494:SER:CA	1:B:1576:LEU:CA	2.68	0.71
1:B:1566:GLU:CA	1:B:2077:LEU:CA	0.71	0.71
1:B:1632:GLU:CA	1:B:2049:ILE:CA	2.69	0.71
1:A:1695:TYR:CA	1:B:1795:LEU:CA	2.68	0.71
1:A:1456:VAL:CA	1:B:1823:GLN:CA	2.69	0.71
1:A:1776:LEU:CA	1:A:1922:VAL:CA	2.69	0.71
1:A:1566:GLU:CA	1:A:2077:LEU:CA	0.71	0.71
1:B:1776:LEU:CA	1:B:1922:VAL:CA	2.69	0.71
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.69	0.70
1:B:1463:LYS:CA	1:B:1717:PRO:CA	2.68	0.70
1:A:1428:VAL:CA	1:A:1805:GLU:CA	2.69	0.70
1:A:1776:LEU:CA	1:A:1922:VAL:CA	2.69	0.70
1:B:1776:LEU:CA	1:B:1922:VAL:CA	2.69	0.70
1:B:1344:GLY:CA	1:B:1824:LYS:CA	2.69	0.70
1:A:1770:CYS:CA	1:B:1821:GLU:CA	2.69	0.70
1:A:1632:GLU:CA	1:A:2049:ILE:CA	2.69	0.70
1:A:1587:ASP:CA	1:A:2048:VAL:CA	0.70	0.70
1:A:1731:ARG:CA	1:A:1921:LEU:CA	2.70	0.70
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.70	0.70
1:B:1587:ASP:CA	1:B:2048:VAL:CA	0.71	0.70
1:B:1776:LEU:CA	1:B:1922:VAL:CA	2.69	0.70
1:A:1785:ASP:CA	1:B:1810:LYS:CA	2.69	0.70
1:A:1777:LEU:CA	1:B:1738:ILE:CA	2.69	0.70
1:A:1429:ASP:CA	1:A:1828:ASP:CA	2.70	0.70
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.70	0.70
1:B:1428:VAL:CA	1:B:1805:GLU:CA	2.69	0.70
1:A:1695:TYR:CA	1:B:1795:LEU:CA	2.70	0.70
1:A:1624:GLY:CA	1:B:1782:ASP:CA	2.70	0.70
1:A:1777:LEU:CA	1:B:1738:ILE:CA	2.70	0.70
1:B:1476:LYS:CA	1:B:1600:PRO:CA	2.69	0.70
1:A:1752:SER:CA	1:B:1708:LEU:CA	2.70	0.70
1:A:1476:LYS:CA	1:A:1600:PRO:CA	2.69	0.70
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.69	0.69
1:A:1730:ASN:CA	1:A:1942:PRO:CA	2.70	0.69
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.70	0.69
1:A:1785:ASP:CA	1:B:1810:LYS:CA	2.69	0.69
1:B:1632:GLU:CA	1:B:2049:ILE:CA	2.70	0.69
1:A:1453:HIS:CA	1:A:1836:GLU:CA	2.70	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1630:ASP:CA	1:A:2027:MET:CA	2.71	0.69
1:B:1382:ASP:CA	1:B:1569:LEU:CA	2.70	0.69
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.71	0.69
1:A:1770:CYS:CA	1:B:1821:GLU:CA	2.70	0.69
1:B:1463:LYS:CA	1:B:1729:PRO:CA	2.70	0.69
1:B:1429:ASP:CA	1:B:1828:ASP:CA	2.70	0.69
1:B:1480:PRO:CA	1:B:1657:GLN:CA	2.71	0.69
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.70	0.69
1:A:1382:ASP:CA	1:A:1569:LEU:CA	2.70	0.69
1:A:1618:CYS:CA	1:B:1713:LEU:CA	2.71	0.69
1:A:1761:SER:CA	1:B:1691:ILE:CA	2.70	0.69
1:B:1453:HIS:CA	1:B:1836:GLU:CA	2.70	0.69
1:A:1344:GLY:CA	1:A:1824:LYS:CA	2.69	0.69
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.70	0.69
1:A:1463:LYS:CA	1:A:1729:PRO:CA	2.70	0.69
1:A:1726:ALA:CA	1:A:1914:LEU:CA	2.70	0.69
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.71	0.69
1:A:1632:GLU:CA	1:A:2049:ILE:CA	2.70	0.69
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.70	0.68
1:B:1731:ARG:CA	1:B:1921:LEU:CA	2.70	0.68
1:B:1726:ALA:CA	1:B:1914:LEU:CA	2.70	0.68
1:A:1834:ALA:CA	1:B:1825:ILE:CA	2.70	0.68
1:B:1591:GLN:CA	1:B:2043:VAL:CA	2.71	0.68
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.72	0.68
1:A:1717:PRO:CA	1:B:1669:VAL:CA	0.69	0.68
1:A:1770:CYS:CA	1:B:1821:GLU:CA	2.71	0.68
1:A:1726:ALA:CA	1:A:1914:LEU:CA	2.71	0.68
1:B:1566:GLU:CA	1:B:2082:GLU:CA	2.71	0.68
1:B:1382:ASP:CA	1:B:1569:LEU:CA	2.71	0.68
1:B:1382:ASP:CA	1:B:1569:LEU:CA	2.71	0.68
1:B:1630:ASP:CA	1:B:2027:MET:CA	2.71	0.68
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.70	0.68
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.71	0.68
1:A:1566:GLU:CA	1:A:2082:GLU:CA	2.72	0.68
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.72	0.68
1:A:1382:ASP:CA	1:A:1569:LEU:CA	2.71	0.68
1:A:1382:ASP:CA	1:A:1569:LEU:CA	2.71	0.68
1:A:1480:PRO:CA	1:A:1657:GLN:CA	2.71	0.68
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.71	0.68
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.72	0.68
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.71	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1726:ALA:CA	1:B:1914:LEU:CA	2.72	0.67
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.72	0.67
1:B:1382:ASP:CA	1:B:1588:PRO:CA	2.72	0.67
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.72	0.67
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.72	0.67
1:A:1474:LEU:CA	1:A:1592:LEU:CA	2.71	0.67
1:B:1472:GLU:CA	1:B:1648:GLN:CA	2.72	0.67
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.72	0.67
1:A:1630:ASP:CA	1:A:2027:MET:CA	2.73	0.67
1:B:1366:SER:CA	1:B:1527:TYR:CA	2.73	0.67
1:A:1472:GLU:CA	1:A:1648:GLN:CA	2.72	0.67
1:B:1474:LEU:CA	1:B:1592:LEU:CA	2.72	0.67
1:A:1382:ASP:CA	1:A:1588:PRO:CA	2.72	0.67
1:B:1387:ASP:CA	1:B:1580:GLY:CA	2.72	0.67
1:A:1623:LYS:CA	1:B:1700:PHE:CA	2.73	0.67
1:A:1695:TYR:CA	1:B:1795:LEU:CA	2.73	0.67
1:A:1383:LYS:CA	1:A:1575:PHE:CA	0.67	0.67
1:B:1383:LYS:CA	1:B:1575:PHE:CA	0.67	0.67
1:B:1465:CYS:CA	1:B:1757:ASN:CA	2.73	0.66
1:A:1366:SER:CA	1:A:1527:TYR:CA	2.73	0.66
1:A:1465:CYS:CA	1:A:1757:ASN:CA	2.73	0.66
1:A:1382:ASP:CA	1:A:1567:ASN:CA	2.74	0.66
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.74	0.66
1:A:1452:THR:CA	1:A:1723:ARG:CA	2.74	0.66
1:A:1387:ASP:CA	1:A:1580:GLY:CA	2.72	0.66
1:A:1429:ASP:CA	1:A:1656:PHE:CA	2.73	0.66
1:B:1630:ASP:CA	1:B:2027:MET:CA	2.73	0.66
1:B:1452:THR:CA	1:B:1723:ARG:CA	2.74	0.66
1:B:1429:ASP:CA	1:B:1656:PHE:CA	2.74	0.66
1:A:1566:GLU:CA	1:A:2077:LEU:CA	0.66	0.66
1:B:1566:GLU:CA	1:B:2077:LEU:CA	0.66	0.66
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.73	0.65
1:A:1626:ILE:CA	1:B:1769:SER:CA	2.74	0.65
1:B:1382:ASP:CA	1:B:1567:ASN:CA	2.73	0.65
1:A:1659:ALA:CA	1:B:1711:ARG:CA	2.75	0.65
1:B:1591:GLN:CA	1:B:2118:ASN:CA	2.74	0.65
1:A:1493:GLU:CA	1:A:1738:ILE:CA	2.74	0.65
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.75	0.65
1:A:1694:LEU:CA	1:B:1791:TRP:CA	2.74	0.65
1:B:1493:GLU:CA	1:B:1738:ILE:CA	2.74	0.65
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.75	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1591:GLN:CA	1:A:2118:ASN:CA	2.74	0.65
1:A:1617:GLY:CA	1:B:1812:ALA:CA	2.75	0.65
1:A:1738:ILE:CA	1:A:1913:SER:CA	2.74	0.65
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.75	0.65
1:A:1770:CYS:CA	1:B:1821:GLU:CA	2.74	0.65
1:A:1366:SER:CA	1:A:2047:ASN:CA	2.75	0.65
1:A:1353:GLN:CA	1:A:1578:GLU:CA	2.75	0.64
1:A:1694:LEU:CA	1:B:1792:PHE:CA	2.76	0.64
1:A:1399:GLU:CA	1:A:2046:GLY:CA	2.75	0.64
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.75	0.64
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.75	0.64
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.75	0.64
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.75	0.64
1:A:1458:ASP:CA	1:B:1830:LEU:CA	2.76	0.64
1:A:1694:LEU:CA	1:B:1792:PHE:CA	2.76	0.64
1:B:1399:GLU:CA	1:B:2046:GLY:CA	2.75	0.64
1:B:1353:GLN:CA	1:B:1578:GLU:CA	2.75	0.64
1:A:1807:LEU:CA	1:A:1925:CYS:CA	2.75	0.64
1:A:1587:ASP:CA	1:A:2048:VAL:CA	0.64	0.64
1:B:1397:GLY:CA	1:B:1580:GLY:CA	2.76	0.64
1:A:1700:PHE:CA	1:B:1754:VAL:CA	2.75	0.64
1:B:1381:ARG:CA	1:B:1572:ALA:CA	2.76	0.64
1:A:1700:PHE:CA	1:B:1754:VAL:CA	2.75	0.64
1:A:1700:PHE:CA	1:B:1693:ARG:CA	0.64	0.64
1:B:1366:SER:CA	1:B:2047:ASN:CA	2.75	0.64
1:A:1480:PRO:CA	1:A:1656:PHE:CA	2.76	0.64
1:A:1694:LEU:CA	1:B:1792:PHE:CA	2.76	0.64
1:A:1668:LEU:CA	1:B:1812:ALA:CA	2.76	0.64
1:B:1587:ASP:CA	1:B:2048:VAL:CA	0.64	0.63
1:B:1567:ASN:CA	1:B:2079:PHE:CA	2.77	0.63
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.76	0.63
1:A:1586:GLN:CA	1:A:2048:VAL:CA	2.76	0.63
1:A:1694:LEU:CA	1:B:1792:PHE:CA	2.76	0.63
1:B:1586:GLN:CA	1:B:2048:VAL:CA	2.76	0.63
1:A:1734:TRP:CA	1:A:1918:ARG:CA	2.77	0.63
1:B:1734:TRP:CA	1:B:1918:ARG:CA	2.77	0.63
1:A:1834:ALA:CA	1:B:1825:ILE:CA	2.76	0.63
1:B:1465:CYS:CA	1:B:2028:GLY:CA	2.76	0.63
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.75	0.63
1:A:1694:LEU:CA	1:B:1792:PHE:CA	2.77	0.63
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.76	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1658:ILE:CA	1:B:1812:ALA:CA	2.75	0.63
1:A:1381:ARG:CA	1:A:1572:ALA:CA	2.76	0.63
1:B:1397:GLY:CA	1:B:1579:SER:CA	2.77	0.62
1:B:1480:PRO:CA	1:B:1656:PHE:CA	2.76	0.62
1:A:1619:PRO:CA	1:B:1834:ALA:CA	2.77	0.62
1:A:1493:GLU:CA	1:A:1733:TYR:CA	2.78	0.62
1:A:1353:GLN:CA	1:A:1578:GLU:CA	2.78	0.62
1:A:1465:CYS:CA	1:A:2028:GLY:CA	2.76	0.62
1:A:1397:GLY:CA	1:A:1579:SER:CA	2.77	0.62
1:A:1462:ARG:CA	1:A:1727:LEU:CA	2.77	0.62
1:A:1567:ASN:CA	1:A:2079:PHE:CA	2.77	0.62
1:B:1462:ARG:CA	1:B:1727:LEU:CA	2.77	0.62
1:A:1397:GLY:CA	1:A:1580:GLY:CA	2.76	0.62
1:B:1400:GLU:CA	1:B:2046:GLY:CA	2.77	0.62
1:A:1400:GLU:CA	1:A:2046:GLY:CA	2.77	0.62
1:A:1617:GLY:CA	1:B:1781:VAL:CA	2.77	0.62
1:B:1353:GLN:CA	1:B:1578:GLU:CA	2.77	0.62
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.78	0.62
1:A:1778:GLY:CA	1:B:1738:ILE:CA	2.78	0.61
1:A:1570:PRO:CA	1:A:2077:LEU:CA	2.78	0.61
1:B:1491:THR:CA	1:B:1794:GLY:CA	2.78	0.61
1:B:1493:GLU:CA	1:B:1733:TYR:CA	2.78	0.61
1:A:1494:SER:CA	1:A:1797:GLU:CA	2.79	0.61
1:A:1459:GLU:CA	1:A:1718:TYR:CA	2.79	0.61
1:A:1722:GLY:CA	1:B:1613:VAL:CA	0.61	0.61
1:B:1459:GLU:CA	1:B:1718:TYR:CA	2.79	0.61
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.79	0.61
1:B:1663:GLY:CA	1:B:1828:ASP:CA	2.78	0.61
1:A:1491:THR:CA	1:A:1794:GLY:CA	2.78	0.61
1:A:1623:LYS:CA	1:B:1779:GLN:CA	2.78	0.61
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.78	0.61
1:B:1494:SER:CA	1:B:1797:GLU:CA	2.79	0.61
1:A:1834:ALA:CA	1:B:1825:ILE:CA	2.78	0.61
1:A:1706:SER:CA	1:B:1712:LEU:CA	2.79	0.61
1:B:1358:LYS:CA	1:B:1823:GLN:CA	2.79	0.61
1:A:1663:GLY:CA	1:A:1828:ASP:CA	2.79	0.60
1:A:1711:ARG:CA	1:B:1713:LEU:CA	2.79	0.60
1:A:1620:LYS:CA	1:B:1745:GLU:CA	2.78	0.60
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.79	0.60
1:A:1706:SER:CA	1:B:1712:LEU:CA	2.79	0.60
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.79	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1775:ILE:CA	1:B:1739:TYR:CA	2.79	0.60
1:A:1358:LYS:CA	1:A:1823:GLN:CA	2.79	0.60
1:B:1567:ASN:CA	1:B:2079:PHE:CA	2.79	0.60
1:A:1778:GLY:CA	1:B:1738:ILE:CA	2.80	0.60
1:A:1492:GLU:CA	1:A:1583:LEU:CA	2.80	0.60
1:A:1567:ASN:CA	1:A:2079:PHE:CA	2.79	0.60
1:A:1613:VAL:CA	1:B:1743:SER:CA	2.79	0.60
1:A:1423:LYS:CA	1:A:1741:ASN:CA	2.80	0.60
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.79	0.60
1:A:1834:ALA:CA	1:B:1825:ILE:CA	2.80	0.59
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.81	0.59
1:A:1738:ILE:CA	1:B:1705:TRP:CA	2.81	0.59
1:B:1492:GLU:CA	1:B:1583:LEU:CA	2.80	0.59
1:B:1423:LYS:CA	1:B:1741:ASN:CA	2.80	0.59
1:A:1492:GLU:CA	1:A:1583:LEU:CA	2.80	0.59
1:B:1383:LYS:CA	1:B:2047:ASN:CA	2.81	0.59
1:B:1379:GLN:CA	1:B:1575:PHE:CA	2.81	0.59
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.81	0.59
1:A:1751:GLY:CA	1:B:1772:LYS:CA	2.81	0.59
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.80	0.59
1:A:1776:LEU:CA	1:B:1741:ASN:CA	2.81	0.59
1:B:1492:GLU:CA	1:B:1583:LEU:CA	2.80	0.59
1:B:1728:ARG:CA	1:B:1939:GLY:CA	2.81	0.58
1:B:1565:ASP:CA	1:B:2079:PHE:CA	2.80	0.58
1:A:1513:ILE:CA	1:A:1525:ASP:CA	2.81	0.58
1:A:1711:ARG:CA	1:B:1713:LEU:CA	2.80	0.58
1:A:1458:ASP:CA	1:A:1759:PRO:CA	2.81	0.58
1:A:1379:GLN:CA	1:A:1575:PHE:CA	2.81	0.58
1:A:1800:ILE:CA	1:B:1702:MET:CA	2.81	0.58
1:B:1458:ASP:CA	1:B:1759:PRO:CA	2.81	0.58
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.81	0.58
1:A:1383:LYS:CA	1:A:2047:ASN:CA	2.81	0.58
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.81	0.58
1:A:1565:ASP:CA	1:A:2079:PHE:CA	2.80	0.58
1:B:1513:ILE:CA	1:B:1525:ASP:CA	2.81	0.58
1:A:1622:PRO:CA	1:B:1813:LEU:CA	2.82	0.58
1:A:1819:GLY:CA	1:B:1795:LEU:CA	2.81	0.58
1:A:1793:PRO:CA	1:B:1743:SER:CA	2.82	0.58
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.82	0.58
1:A:1480:PRO:CA	1:A:1589:ALA:CA	2.82	0.58
1:A:1735:ARG:CA	1:B:1773:GLY:CA	2.81	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1492:GLU:CA	1:A:1583:LEU:CA	2.82	0.57
1:A:1819:GLY:CA	1:B:1795:LEU:CA	2.82	0.57
1:A:1731:ARG:CA	1:A:1921:LEU:CA	2.83	0.57
1:B:1480:PRO:CA	1:B:1589:ALA:CA	2.82	0.57
1:A:1707:ARG:CA	1:B:1712:LEU:CA	2.82	0.57
1:A:1708:LEU:CA	1:B:1766:THR:CA	2.82	0.57
1:A:1480:PRO:CA	1:A:1604:CYS:CA	2.82	0.57
1:B:1480:PRO:CA	1:B:1604:CYS:CA	2.82	0.57
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.81	0.57
1:B:1332:TYR:CA	1:B:1727:LEU:CA	2.82	0.57
1:A:1754:VAL:CA	1:B:1797:GLU:CA	0.57	0.57
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.82	0.57
1:A:1738:ILE:CA	1:B:1705:TRP:CA	2.83	0.57
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.82	0.57
1:A:1332:TYR:CA	1:A:1727:LEU:CA	2.82	0.57
1:B:1731:ARG:CA	1:B:1921:LEU:CA	2.83	0.57
1:A:1494:SER:CA	1:A:1576:LEU:CA	0.57	0.57
1:B:1492:GLU:CA	1:B:1583:LEU:CA	2.82	0.57
1:B:1494:SER:CA	1:B:1576:LEU:CA	0.57	0.57
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.82	0.56
1:A:1370:GLY:CA	1:A:1572:ALA:CA	2.83	0.56
1:A:1495:ASP:CA	1:A:1818:ASP:CA	2.83	0.56
1:A:1566:GLU:CA	1:A:2077:LEU:CA	0.56	0.56
1:B:1566:GLU:CA	1:B:2077:LEU:CA	0.56	0.56
1:B:1370:GLY:CA	1:B:1572:ALA:CA	2.83	0.56
1:A:1622:PRO:CA	1:A:1819:GLY:CA	2.83	0.56
1:B:1622:PRO:CA	1:B:1819:GLY:CA	2.83	0.56
1:B:1478:GLY:CA	1:B:1659:ALA:CA	2.83	0.56
1:A:1483:ARG:CA	1:A:1591:GLN:CA	2.84	0.56
1:B:1566:GLU:CA	1:B:2082:GLU:CA	2.84	0.56
1:A:1480:PRO:CA	1:A:1589:ALA:CA	2.84	0.56
1:B:1483:ARG:CA	1:B:1591:GLN:CA	2.84	0.56
1:B:1495:ASP:CA	1:B:1818:ASP:CA	2.83	0.56
1:A:1478:GLY:CA	1:A:1659:ALA:CA	2.83	0.56
1:A:1566:GLU:CA	1:A:2082:GLU:CA	2.84	0.56
1:B:1480:PRO:CA	1:B:1589:ALA:CA	2.84	0.56
1:A:1792:PHE:CA	1:B:1830:LEU:CA	2.84	0.56
1:B:1780:VAL:CA	1:B:1925:CYS:CA	0.56	0.56
1:B:1590:LEU:CA	1:B:2047:ASN:CA	2.83	0.55
1:A:1780:VAL:CA	1:A:1925:CYS:CA	0.56	0.55
1:A:1754:VAL:CA	1:B:1797:GLU:CA	0.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1776:LEU:CA	1:B:1748:CYS:CA	2.84	0.55
1:A:1427:GLU:CA	1:A:1698:PRO:CA	2.85	0.55
1:A:1754:VAL:CA	1:B:1797:GLU:CA	0.55	0.55
1:B:1489:ASN:CA	1:B:1580:GLY:CA	2.84	0.55
1:A:1619:PRO:CA	1:B:1777:LEU:CA	2.85	0.55
1:B:1509:LEU:CA	1:B:1580:GLY:CA	2.85	0.55
1:A:1489:ASN:CA	1:A:1580:GLY:CA	2.85	0.55
1:A:1735:ARG:CA	1:B:1773:GLY:CA	2.84	0.55
1:A:1754:VAL:CA	1:B:1797:GLU:CA	0.55	0.55
1:A:1457:SER:CA	1:B:1455:ASP:CA	2.83	0.55
1:B:1427:GLU:CA	1:B:1698:PRO:CA	2.84	0.55
1:A:1820:GLU:CA	1:A:1942:PRO:CA	2.84	0.55
1:A:1754:VAL:CA	1:B:1797:GLU:CA	0.55	0.55
1:B:1566:GLU:CA	1:B:2085:GLU:CA	2.85	0.55
1:A:1587:ASP:CA	1:A:2048:VAL:CA	2.84	0.55
1:B:1587:ASP:CA	1:B:2048:VAL:CA	2.84	0.55
1:B:1474:LEU:CA	1:B:1588:PRO:CA	2.85	0.55
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.85	0.55
1:A:1397:GLY:CA	1:A:1577:ASN:CA	2.85	0.54
1:B:1820:GLU:CA	1:B:1942:PRO:CA	2.84	0.54
1:A:1474:LEU:CA	1:A:1588:PRO:CA	2.85	0.54
1:B:1464:ALA:CA	1:B:1715:ILE:CA	2.85	0.54
1:A:1509:LEU:CA	1:A:1580:GLY:CA	2.85	0.54
1:A:1713:LEU:CA	1:B:1660:LEU:CA	2.85	0.54
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.86	0.54
1:A:1707:ARG:CA	1:B:1765:ILE:CA	2.85	0.54
1:B:1567:ASN:CA	1:B:2079:PHE:CA	2.86	0.54
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.86	0.54
1:B:1476:LYS:CA	1:B:1588:PRO:CA	2.86	0.54
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.86	0.54
1:A:1464:ALA:CA	1:A:1715:ILE:CA	2.85	0.54
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.86	0.54
1:A:1567:ASN:CA	1:A:2078:LYS:CA	2.86	0.53
1:A:1810:LYS:CA	1:A:1927:LEU:CA	2.86	0.53
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.86	0.53
1:B:1509:LEU:CA	1:B:1575:PHE:CA	2.87	0.53
1:B:1565:ASP:CA	1:B:2081:ASN:CA	2.87	0.53
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.86	0.53
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.86	0.53
1:A:1567:ASN:CA	1:A:2079:PHE:CA	2.86	0.53
1:B:1587:ASP:CA	1:B:2049:ILE:CA	2.87	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1514:ARG:CA	1:A:1565:ASP:CA	2.86	0.53
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.85	0.53
1:A:1834:ALA:CA	1:B:1825:ILE:CA	2.86	0.53
1:B:1397:GLY:CA	1:B:1577:ASN:CA	2.85	0.53
1:A:1587:ASP:CA	1:A:2049:ILE:CA	2.87	0.53
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.87	0.53
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.86	0.53
1:B:1514:ARG:CA	1:B:1565:ASP:CA	2.86	0.53
1:A:1476:LYS:CA	1:A:1588:PRO:CA	2.86	0.53
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.86	0.53
1:B:1514:ARG:CA	1:B:1565:ASP:CA	2.86	0.53
1:B:1567:ASN:CA	1:B:2079:PHE:CA	2.87	0.53
1:B:1632:GLU:CA	1:B:2049:ILE:CA	2.87	0.53
1:B:1837:GLY:CA	1:B:1921:LEU:CA	2.87	0.53
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.86	0.53
1:A:1514:ARG:CA	1:A:1565:ASP:CA	2.86	0.53
1:A:1790:GLU:CA	1:B:1702:MET:CA	2.86	0.53
1:A:1632:GLU:CA	1:A:2049:ILE:CA	2.87	0.53
1:A:1506:ASN:CA	1:A:1579:SER:CA	2.87	0.52
1:A:1422:SER:CA	1:A:1806:THR:CA	2.87	0.52
1:B:1734:TRP:CA	1:B:1918:ARG:CA	2.88	0.52
1:B:1734:TRP:CA	1:B:1918:ARG:CA	2.88	0.52
1:B:1422:SER:CA	1:B:1806:THR:CA	2.87	0.52
1:A:1567:ASN:CA	1:A:2079:PHE:CA	2.87	0.52
1:B:1382:ASP:CA	1:B:2046:GLY:CA	2.88	0.52
1:B:1506:ASN:CA	1:B:1579:SER:CA	2.87	0.52
1:A:1509:LEU:CA	1:A:1575:PHE:CA	2.87	0.52
1:A:1707:ARG:CA	1:B:1712:LEU:CA	2.88	0.52
1:A:1837:GLY:CA	1:A:1921:LEU:CA	2.87	0.52
1:B:1427:GLU:CA	1:B:1714:GLU:CA	2.88	0.52
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.86	0.52
1:A:1725:ARG:CA	1:A:2024:CYS:CA	2.88	0.52
1:B:1725:ARG:CA	1:B:2024:CYS:CA	2.88	0.52
1:A:1370:GLY:CA	1:A:1764:LYS:CA	2.88	0.52
1:B:1400:GLU:CA	1:B:2048:VAL:CA	2.88	0.52
1:B:1551:LYS:CA	1:B:2084:ASP:CA	2.88	0.52
1:A:1427:GLU:CA	1:A:1714:GLU:CA	2.88	0.52
1:A:1566:GLU:CA	1:A:2081:ASN:CA	2.88	0.52
1:B:1837:GLY:CA	1:B:1921:LEU:CA	2.89	0.51
1:A:1734:TRP:CA	1:A:1918:ARG:CA	2.88	0.51
1:A:1734:TRP:CA	1:A:1918:ARG:CA	2.88	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1669:VAL:CA	1:B:1782:ASP:CA	2.87	0.51
1:A:1764:LYS:CA	1:B:1824:LYS:CA	2.88	0.51
1:A:1369:VAL:CA	1:A:1820:GLU:CA	2.88	0.51
1:A:1383:LYS:CA	1:A:1571:HIS:CA	2.88	0.51
1:B:1369:VAL:CA	1:B:1820:GLU:CA	2.88	0.51
1:B:1566:GLU:CA	1:B:2081:ASN:CA	2.88	0.51
1:A:1551:LYS:CA	1:A:2084:ASP:CA	2.88	0.51
1:B:1423:LYS:CA	1:B:1698:PRO:CA	2.88	0.51
1:A:1400:GLU:CA	1:A:2048:VAL:CA	2.88	0.51
1:A:1798:ILE:CA	1:B:1823:GLN:CA	2.89	0.51
1:A:1382:ASP:CA	1:A:2046:GLY:CA	2.88	0.51
1:B:1345:SER:CA	1:B:1825:ILE:CA	2.89	0.51
1:B:1399:GLU:CA	1:B:1578:GLU:CA	2.89	0.51
1:B:1420:ASP:CA	1:B:1825:ILE:CA	2.89	0.51
1:B:1426:ALA:CA	1:B:1733:TYR:CA	2.89	0.51
1:A:1399:GLU:CA	1:A:1578:GLU:CA	2.88	0.51
1:A:1426:ALA:CA	1:A:1733:TYR:CA	2.88	0.51
1:B:1370:GLY:CA	1:B:1764:LYS:CA	2.88	0.51
1:A:1620:LYS:CA	1:B:1804:GLY:CA	2.89	0.51
1:B:1465:CYS:CA	1:B:2028:GLY:CA	2.89	0.51
1:B:1383:LYS:CA	1:B:1571:HIS:CA	2.88	0.51
1:A:1465:CYS:CA	1:A:2028:GLY:CA	2.89	0.50
1:A:1768:PRO:CA	1:B:1822:HIS:CA	2.88	0.50
1:A:1423:LYS:CA	1:A:1698:PRO:CA	2.88	0.50
1:A:1837:GLY:CA	1:A:1921:LEU:CA	2.89	0.50
1:A:1776:LEU:CA	1:B:1740:LEU:CA	2.90	0.50
1:A:1420:ASP:CA	1:A:1825:ILE:CA	2.89	0.50
1:B:1425:GLN:CA	1:B:1797:GLU:CA	2.90	0.50
1:B:1464:ALA:CA	1:B:1723:ARG:CA	2.89	0.50
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.90	0.50
1:B:1370:GLY:CA	1:B:1826:LEU:CA	2.90	0.50
1:A:1345:SER:CA	1:A:1825:ILE:CA	2.89	0.50
1:A:1725:ARG:CA	1:A:2024:CYS:CA	2.90	0.50
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.90	0.50
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.90	0.50
1:A:1630:ASP:CA	1:A:2027:MET:CA	2.90	0.50
1:A:1425:GLN:CA	1:A:1797:GLU:CA	2.90	0.50
1:B:1725:ARG:CA	1:B:2024:CYS:CA	2.90	0.50
1:B:1478:GLY:CA	1:B:1656:PHE:CA	2.90	0.50
1:A:1370:GLY:CA	1:A:1826:LEU:CA	2.90	0.50
1:A:1798:ILE:CA	1:B:1823:GLN:CA	2.90	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1464:ALA:CA	1:A:1723:ARG:CA	2.89	0.50
1:A:1781:VAL:CA	1:A:1926:HIS:CA	2.90	0.49
1:B:1386:ARG:CA	1:B:1580:GLY:CA	2.91	0.49
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.90	0.49
1:A:1386:ARG:CA	1:A:1580:GLY:CA	2.91	0.49
1:A:1768:PRO:CA	1:B:1822:HIS:CA	2.90	0.49
1:B:1384:ARG:CA	1:B:2047:ASN:CA	2.91	0.49
1:A:1568:GLU:CA	1:A:2077:LEU:CA	0.49	0.49
1:B:1568:GLU:CA	1:B:2077:LEU:CA	0.49	0.49
1:B:1590:LEU:CA	1:B:2117:GLU:CA	2.91	0.48
1:B:1630:ASP:CA	1:B:2027:MET:CA	2.90	0.48
1:A:1590:LEU:CA	1:A:2117:GLU:CA	2.91	0.48
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.91	0.48
1:A:1792:PHE:CA	1:B:1830:LEU:CA	2.91	0.48
1:A:1768:PRO:CA	1:B:1822:HIS:CA	2.91	0.48
1:A:1384:ARG:CA	1:A:2047:ASN:CA	2.91	0.48
1:B:1494:SER:CA	1:B:1648:GLN:CA	2.92	0.48
1:A:1564:LEU:CA	1:A:2078:LYS:CA	2.91	0.48
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.92	0.48
1:B:1734:TRP:CA	1:B:1913:SER:CA	2.91	0.48
1:B:1566:GLU:CA	1:B:2080:PRO:CA	2.92	0.48
1:B:1494:SER:CA	1:B:1651:LYS:CA	2.92	0.48
1:A:1811:TRP:CA	1:B:1775:ILE:CA	2.92	0.48
1:B:1494:SER:CA	1:B:1648:GLN:CA	2.92	0.48
1:B:1564:LEU:CA	1:B:2078:LYS:CA	2.91	0.48
1:B:1494:SER:CA	1:B:1651:LYS:CA	2.92	0.48
1:B:1781:VAL:CA	1:B:1926:HIS:CA	2.90	0.48
1:B:1494:SER:CA	1:B:1651:LYS:CA	2.92	0.48
1:A:1426:ALA:CA	1:A:1657:GLN:CA	2.92	0.48
1:A:1768:PRO:CA	1:B:1822:HIS:CA	2.92	0.48
1:A:1764:LYS:CA	1:B:1824:LYS:CA	2.92	0.48
1:B:1837:GLY:CA	1:B:1921:LEU:CA	2.92	0.48
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.91	0.48
1:A:1811:TRP:CA	1:B:1775:ILE:CA	2.92	0.48
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.92	0.47
1:A:1725:ARG:CA	1:A:2024:CYS:CA	2.92	0.47
1:B:1725:ARG:CA	1:B:2024:CYS:CA	2.92	0.47
1:A:1630:ASP:CA	1:A:2027:MET:CA	2.92	0.47
1:A:1501:ARG:CA	1:A:1591:GLN:CA	2.92	0.47
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.92	0.47
1:A:1791:TRP:CA	1:B:1701:PRO:CA	2.92	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1630:ASP:CA	1:B:2027:MET:CA	2.92	0.47
1:A:1494:SER:CA	1:A:1648:GLN:CA	2.92	0.47
1:A:1501:ARG:CA	1:A:1591:GLN:CA	2.93	0.47
1:B:1494:SER:CA	1:B:1648:GLN:CA	2.93	0.47
1:A:1489:ASN:CA	1:A:1580:GLY:CA	2.93	0.47
1:A:1728:ARG:CA	1:B:1623:LYS:CA	2.93	0.47
1:A:1494:SER:CA	1:A:1651:LYS:CA	2.92	0.47
1:A:1792:PHE:CA	1:B:1830:LEU:CA	2.93	0.47
1:A:1734:TRP:CA	1:A:1913:SER:CA	2.92	0.47
1:A:1494:SER:CA	1:A:1648:GLN:CA	2.92	0.47
1:A:1501:ARG:CA	1:A:1591:GLN:CA	2.93	0.47
1:A:1820:GLU:CA	1:B:1765:ILE:CA	2.92	0.47
1:A:1494:SER:CA	1:A:1651:LYS:CA	2.92	0.47
1:A:1494:SER:CA	1:A:1651:LYS:CA	2.92	0.47
1:B:1565:ASP:CA	1:B:2078:LYS:CA	2.93	0.47
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.92	0.47
1:B:1501:ARG:CA	1:B:1591:GLN:CA	2.92	0.47
1:A:1618:CYS:CA	1:B:1767:VAL:CA	2.92	0.47
1:B:1501:ARG:CA	1:B:1591:GLN:CA	2.93	0.47
1:A:1789:GLU:CA	1:B:1718:TYR:CA	2.93	0.47
1:A:1478:GLY:CA	1:A:1656:PHE:CA	2.93	0.47
1:A:1837:GLY:CA	1:A:1921:LEU:CA	2.92	0.47
1:A:1345:SER:CA	1:A:1720:LEU:CA	2.93	0.47
1:A:1566:GLU:CA	1:A:2080:PRO:CA	2.92	0.46
1:A:1489:ASN:CA	1:A:1580:GLY:CA	2.94	0.46
1:B:1567:ASN:CA	1:B:2080:PRO:CA	2.94	0.46
1:B:1501:ARG:CA	1:B:1591:GLN:CA	2.93	0.46
1:B:1426:ALA:CA	1:B:1657:GLN:CA	2.92	0.46
1:B:1492:GLU:CA	1:B:1582:LEU:CA	2.94	0.46
1:A:1567:ASN:CA	1:A:2080:PRO:CA	2.94	0.46
1:A:1494:SER:CA	1:A:1648:GLN:CA	2.93	0.46
1:A:1565:ASP:CA	1:A:2078:LYS:CA	2.93	0.46
1:B:1478:GLY:CA	1:B:1656:PHE:CA	2.93	0.46
1:A:1764:LYS:CA	1:B:1824:LYS:CA	2.93	0.46
1:B:1489:ASN:CA	1:B:1580:GLY:CA	2.93	0.46
1:A:1592:LEU:CA	1:A:2048:VAL:CA	2.94	0.46
1:B:1345:SER:CA	1:B:1720:LEU:CA	2.93	0.46
1:A:1565:ASP:CA	1:A:2080:PRO:CA	0.46	0.46
1:A:1768:PRO:CA	1:B:1822:HIS:CA	2.94	0.46
1:A:1483:ARG:CA	1:A:1579:SER:CA	2.94	0.46
1:A:1793:PRO:CA	1:B:1743:SER:CA	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1592:LEU:CA	1:B:2048:VAL:CA	2.93	0.46
1:A:1570:PRO:CA	1:A:2044:ALA:CA	2.94	0.46
1:A:1492:GLU:CA	1:A:1582:LEU:CA	2.94	0.46
1:A:1753:GLU:CA	1:B:1704:PHE:CA	2.94	0.46
1:A:1766:THR:CA	1:B:1822:HIS:CA	2.94	0.45
1:B:1570:PRO:CA	1:B:2044:ALA:CA	2.94	0.45
1:A:1658:ILE:CA	1:B:1713:LEU:CA	2.94	0.45
1:B:1483:ARG:CA	1:B:1579:SER:CA	2.94	0.45
1:A:1764:LYS:CA	1:B:1824:LYS:CA	2.94	0.45
1:A:1708:LEU:CA	1:B:1712:LEU:CA	2.94	0.45
1:B:1489:ASN:CA	1:B:1580:GLY:CA	2.94	0.45
1:A:1717:PRO:CA	1:B:1618:CYS:CA	2.94	0.45
1:A:1366:SER:CA	1:A:2046:GLY:CA	2.95	0.45
1:A:1789:GLU:CA	1:B:1718:TYR:CA	2.94	0.45
1:B:1499:LYS:CA	1:B:1588:PRO:CA	2.95	0.45
1:A:1499:LYS:CA	1:A:1588:PRO:CA	2.95	0.45
1:B:1345:SER:CA	1:B:1722:GLY:CA	2.95	0.45
1:B:1366:SER:CA	1:B:2046:GLY:CA	2.95	0.45
1:B:1499:LYS:CA	1:B:1588:PRO:CA	2.95	0.45
1:B:1837:GLY:CA	1:B:1921:LEU:CA	2.96	0.44
1:B:1589:ALA:CA	1:B:2046:GLY:CA	2.95	0.44
1:A:1345:SER:CA	1:A:1722:GLY:CA	2.95	0.44
1:A:1589:ALA:CA	1:A:2046:GLY:CA	2.95	0.44
1:A:1499:LYS:CA	1:A:1588:PRO:CA	2.95	0.44
1:A:1792:PHE:CA	1:B:1830:LEU:CA	2.96	0.44
1:B:1382:ASP:CA	1:B:2046:GLY:CA	2.96	0.44
1:A:1820:GLU:CA	1:B:1765:ILE:CA	2.95	0.44
1:B:1587:ASP:CA	1:B:2048:VAL:CA	2.96	0.44
1:B:1480:PRO:CA	1:B:1588:PRO:CA	2.96	0.44
1:A:1782:ASP:CA	1:A:1926:HIS:CA	2.96	0.44
1:A:1567:ASN:CA	1:A:2077:LEU:CA	2.96	0.44
1:A:1666:TYR:CA	1:B:1772:LYS:CA	2.96	0.44
1:A:1708:LEU:CA	1:B:1712:LEU:CA	2.95	0.44
1:B:1782:ASP:CA	1:B:1926:HIS:CA	2.96	0.44
1:B:1586:GLN:CA	1:B:2081:ASN:CA	2.96	0.44
1:B:1429:ASP:CA	1:B:1653:LEU:CA	2.96	0.44
1:B:1480:PRO:CA	1:B:1588:PRO:CA	2.96	0.44
1:B:1731:ARG:CA	1:B:1921:LEU:CA	2.96	0.44
1:B:1499:LYS:CA	1:B:1588:PRO:CA	2.96	0.44
1:A:1480:PRO:CA	1:A:1588:PRO:CA	2.96	0.43
1:A:1837:GLY:CA	1:A:1921:LEU:CA	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1382:ASP:CA	1:A:2046:GLY:CA	2.96	0.43
1:A:1570:PRO:CA	1:A:2080:PRO:CA	2.96	0.43
1:A:1429:ASP:CA	1:A:1653:LEU:CA	2.96	0.43
1:A:1587:ASP:CA	1:A:2048:VAL:CA	2.96	0.43
1:A:1499:LYS:CA	1:A:1588:PRO:CA	2.96	0.43
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.97	0.43
1:A:1480:PRO:CA	1:A:1588:PRO:CA	2.96	0.43
1:A:1509:LEU:CA	1:A:1821:GLU:CA	2.97	0.43
1:A:1753:GLU:CA	1:B:1704:PHE:CA	2.96	0.43
1:B:1820:GLU:CA	1:B:1940:ILE:CA	2.97	0.43
1:B:1566:GLU:CA	1:B:2082:GLU:CA	2.97	0.43
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.96	0.43
1:A:1731:ARG:CA	1:A:1921:LEU:CA	2.96	0.43
1:A:1566:GLU:CA	1:A:2082:GLU:CA	2.97	0.43
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.97	0.43
1:A:1820:GLU:CA	1:B:1765:ILE:CA	2.96	0.43
1:B:1566:GLU:CA	1:B:2079:PHE:CA	2.97	0.43
1:B:1567:ASN:CA	1:B:2077:LEU:CA	2.96	0.43
1:A:1730:ASN:CA	1:B:1697:MET:CA	2.97	0.43
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.97	0.43
1:A:1766:THR:CA	1:B:1822:HIS:CA	2.97	0.43
1:B:1570:PRO:CA	1:B:2080:PRO:CA	2.96	0.42
1:A:1755:LEU:CA	1:B:1709:ILE:CA	2.97	0.42
1:A:1564:LEU:CA	1:A:2082:GLU:CA	2.97	0.42
1:A:1730:ASN:CA	1:A:1940:ILE:CA	2.97	0.42
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.97	0.42
1:B:1730:ASN:CA	1:B:1940:ILE:CA	2.97	0.42
1:A:1623:LYS:CA	1:B:1701:PRO:CA	2.98	0.42
1:B:1461:GLN:CA	1:B:1729:PRO:CA	2.97	0.42
1:A:1820:GLU:CA	1:B:1765:ILE:CA	2.97	0.42
1:A:1785:ASP:CA	1:B:1812:ALA:CA	2.97	0.42
1:A:1568:GLU:CA	1:A:2077:LEU:CA	2.97	0.42
1:A:1343:THR:CA	1:A:1829:ASP:CA	2.97	0.42
1:B:1343:THR:CA	1:B:1829:ASP:CA	2.97	0.42
1:B:1509:LEU:CA	1:B:1821:GLU:CA	2.97	0.42
1:A:1766:THR:CA	1:B:1822:HIS:CA	2.97	0.42
1:A:1457:SER:CA	1:B:1726:ALA:CA	2.98	0.42
1:A:1421:LEU:CA	1:A:1729:PRO:CA	2.97	0.42
1:A:1566:GLU:CA	1:A:2079:PHE:CA	2.97	0.42
1:B:1587:ASP:CA	1:B:2048:VAL:CA	0.42	0.42
1:A:1499:LYS:CA	1:A:1578:GLU:CA	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1590:LEU:CA	1:B:2117:GLU:CA	2.98	0.42
1:A:1587:ASP:CA	1:A:2048:VAL:CA	0.42	0.42
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.98	0.42
1:A:1691:ILE:CA	1:B:1816:PHE:CA	2.97	0.42
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.97	0.42
1:A:1785:ASP:CA	1:B:1812:ALA:CA	2.98	0.42
1:B:1590:LEU:CA	1:B:2117:GLU:CA	2.98	0.42
1:B:1590:LEU:CA	1:B:2117:GLU:CA	2.98	0.41
1:A:1764:LYS:CA	1:B:1824:LYS:CA	2.98	0.41
1:A:1398:ARG:CA	1:A:1578:GLU:CA	2.98	0.41
1:B:1421:LEU:CA	1:B:1729:PRO:CA	2.98	0.41
1:A:1691:ILE:CA	1:B:1816:PHE:CA	2.98	0.41
1:B:1440:ALA:CA	1:B:1701:PRO:CA	2.99	0.41
1:B:1398:ARG:CA	1:B:1578:GLU:CA	2.98	0.41
1:A:1691:ILE:CA	1:B:1816:PHE:CA	2.98	0.41
1:A:1590:LEU:CA	1:A:2117:GLU:CA	2.98	0.41
1:A:1436:PHE:CA	1:A:1580:GLY:CA	2.99	0.41
1:B:1568:GLU:CA	1:B:2077:LEU:CA	2.98	0.41
1:A:1590:LEU:CA	1:A:2117:GLU:CA	2.98	0.41
1:A:1461:GLN:CA	1:A:1729:PRO:CA	2.98	0.41
1:A:1621:HIS:CA	1:B:1804:GLY:CA	2.99	0.41
1:A:1766:THR:CA	1:B:1822:HIS:CA	2.98	0.41
1:B:1643:LYS:CA	1:B:2047:ASN:CA	2.98	0.41
1:A:1611:LEU:CA	1:B:1719:MET:CA	2.99	0.41
1:A:1472:GLU:CA	1:A:1720:LEU:CA	2.99	0.41
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.98	0.41
1:A:1643:LYS:CA	1:A:2047:ASN:CA	2.98	0.41
1:A:1570:PRO:CA	1:A:2080:PRO:CA	2.99	0.41
1:A:1565:ASP:CA	1:A:2077:LEU:CA	2.98	0.41
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.99	0.41
1:A:1404:THR:CA	1:A:2029:ILE:CA	2.99	0.41
1:A:1691:ILE:CA	1:B:1816:PHE:CA	2.98	0.41
1:A:1429:ASP:CA	1:A:1810:LYS:CA	2.99	0.41
1:B:1436:PHE:CA	1:B:1580:GLY:CA	2.99	0.41
1:A:1590:LEU:CA	1:A:2117:GLU:CA	2.98	0.41
1:B:1430:ALA:CA	1:B:1814:TYR:CA	2.99	0.41
1:B:1499:LYS:CA	1:B:1578:GLU:CA	2.98	0.41
1:B:1482:ILE:CA	1:B:1590:LEU:CA	2.99	0.41
1:B:1404:THR:CA	1:B:2029:ILE:CA	2.99	0.40
1:A:1479:PHE:CA	1:A:1587:ASP:CA	2.99	0.40
1:B:1429:ASP:CA	1:B:1810:LYS:CA	2.99	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.99	0.40
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.99	0.40
1:B:1472:GLU:CA	1:B:1720:LEU:CA	2.99	0.40
1:B:1565:ASP:CA	1:B:2077:LEU:CA	2.99	0.40
1:B:1479:PHE:CA	1:B:1587:ASP:CA	3.00	0.40
1:A:1430:ALA:CA	1:A:1814:TYR:CA	2.99	0.40
1:A:1755:LEU:CA	1:B:1709:ILE:CA	2.99	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

There are no protein backbone outliers to report in this entry.

5.3.2 Protein sidechains (i)

There are no protein residues with a non-rotameric sidechain to report in this entry.

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

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.

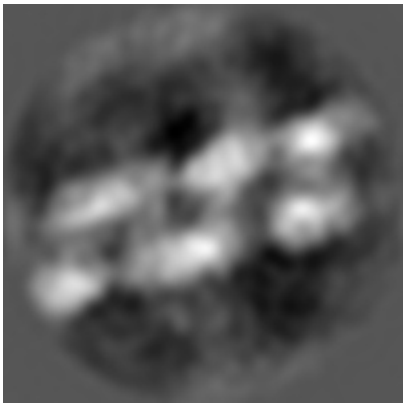
6 Map visualisation (i)

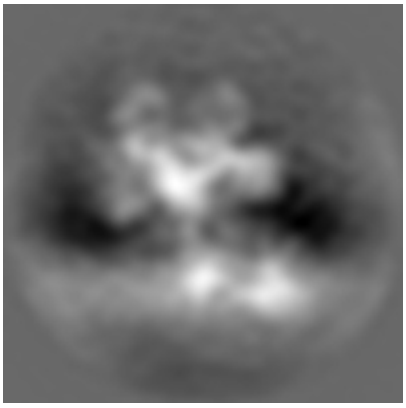
This section contains visualisations of the EMDB entry EMD-20825. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

6.1.1 Primary map


X

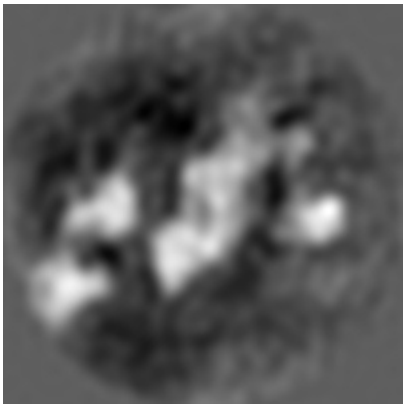

Y

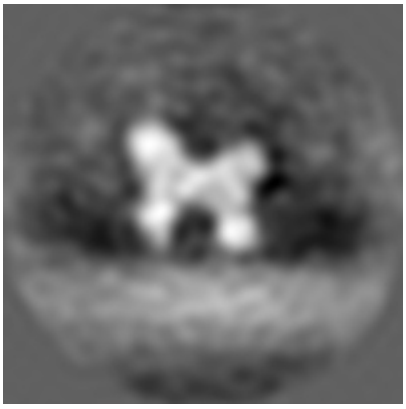
Z

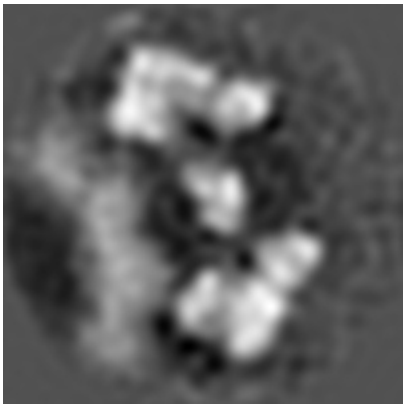
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

6.2.1 Primary map


X Index: 64

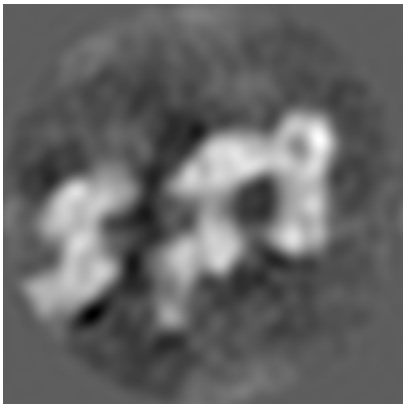

Y Index: 64


Z Index: 64

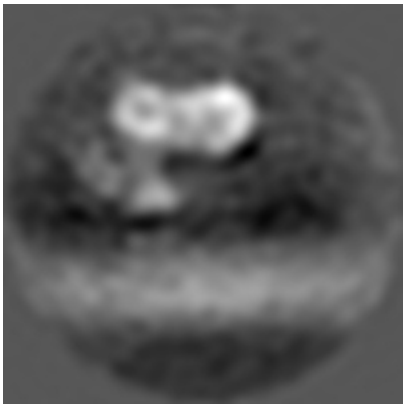
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

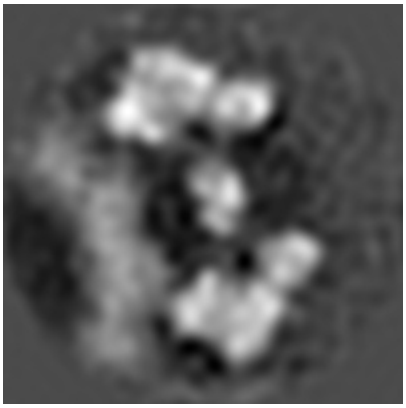
6.3.1 Primary map



X Index: 76



Y Index: 49

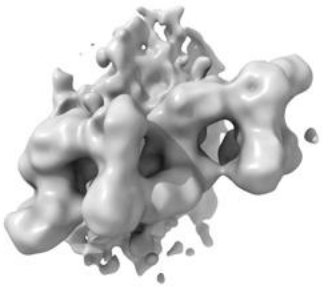


Z Index: 62

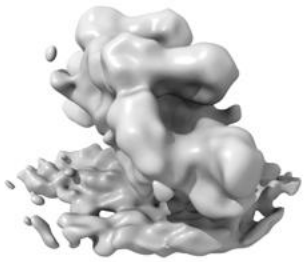
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

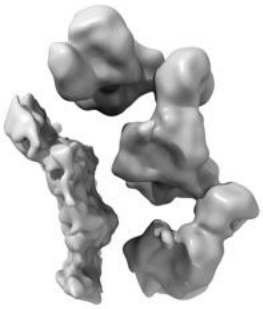
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.05. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

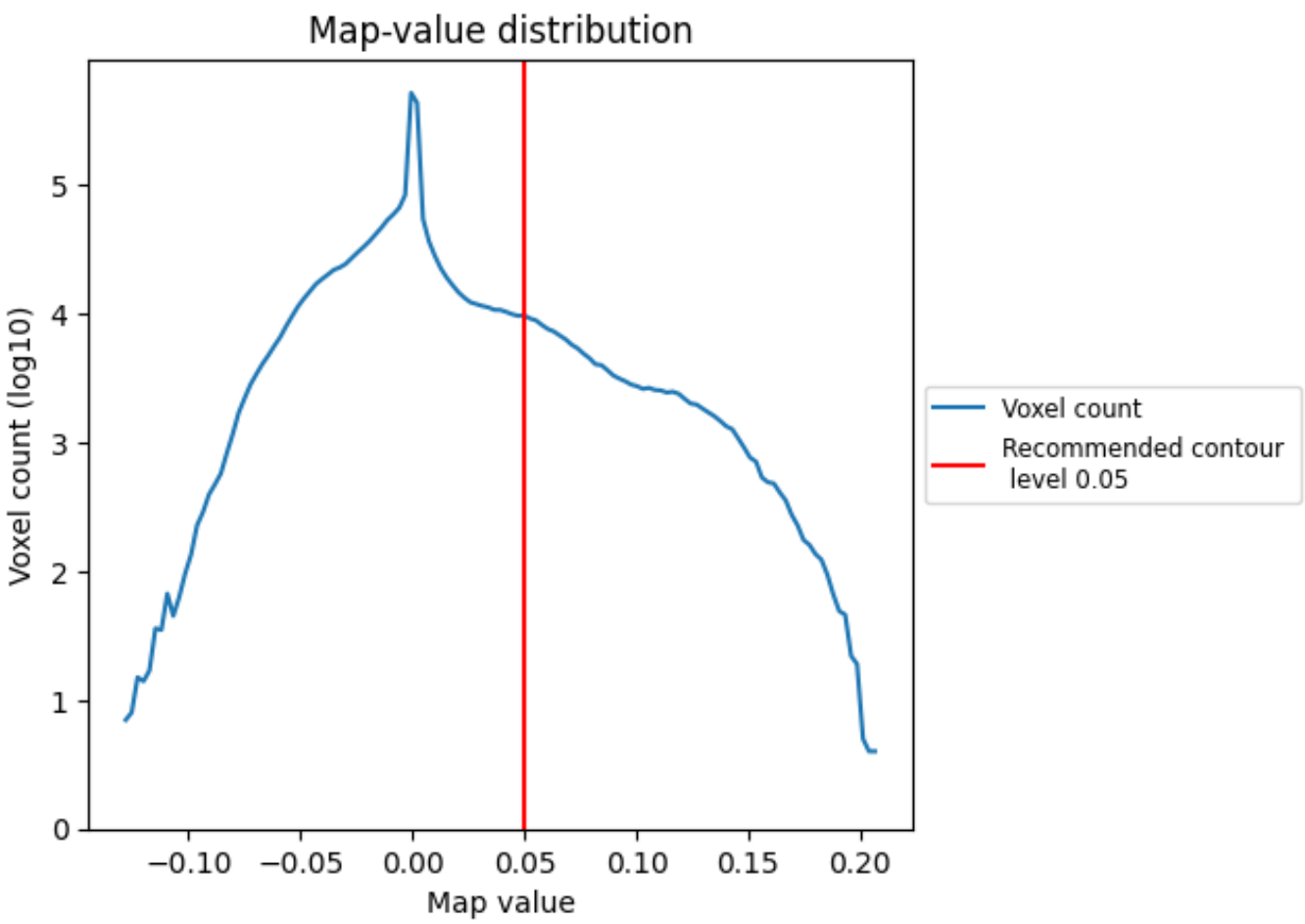
6.5 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis (i)

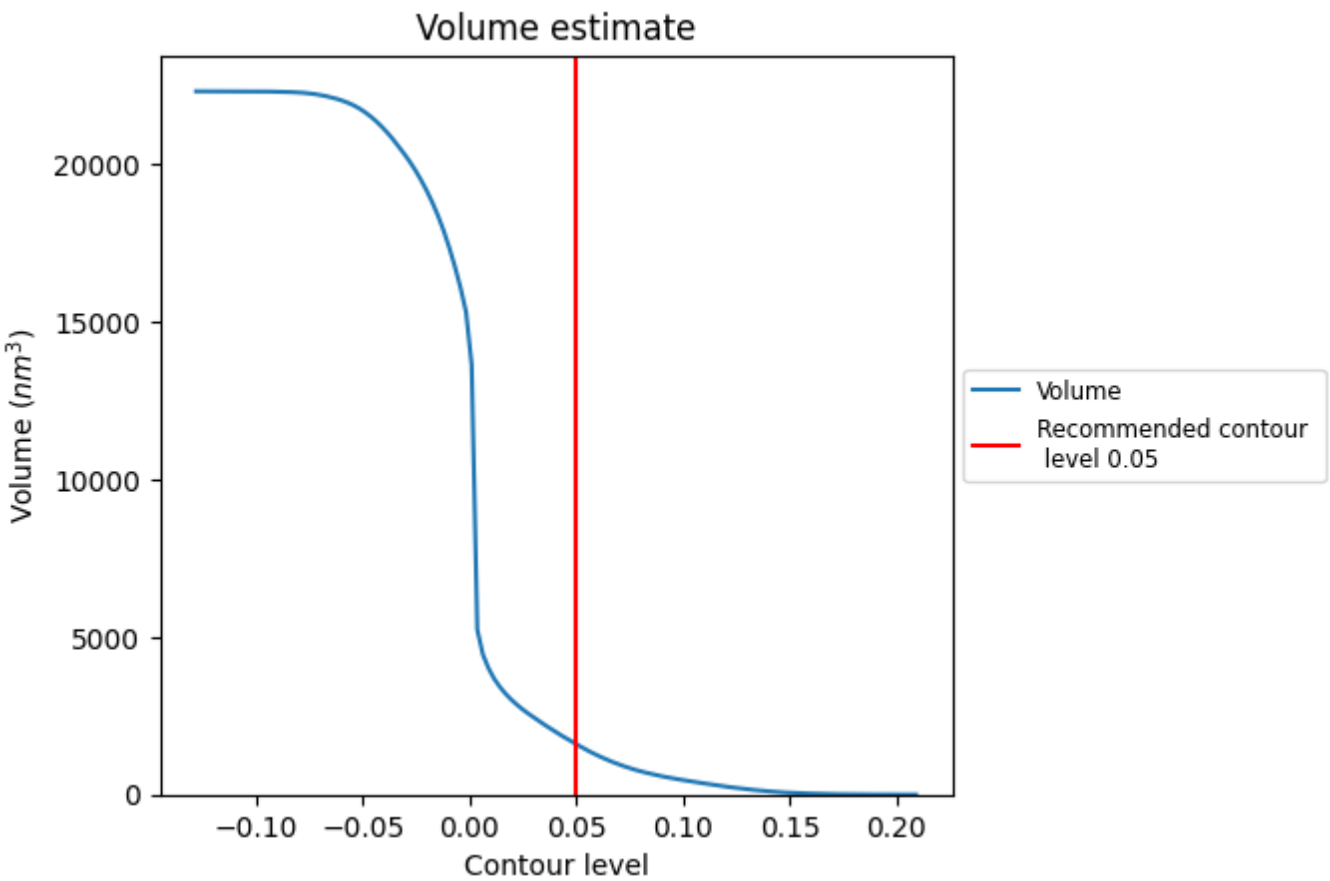
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

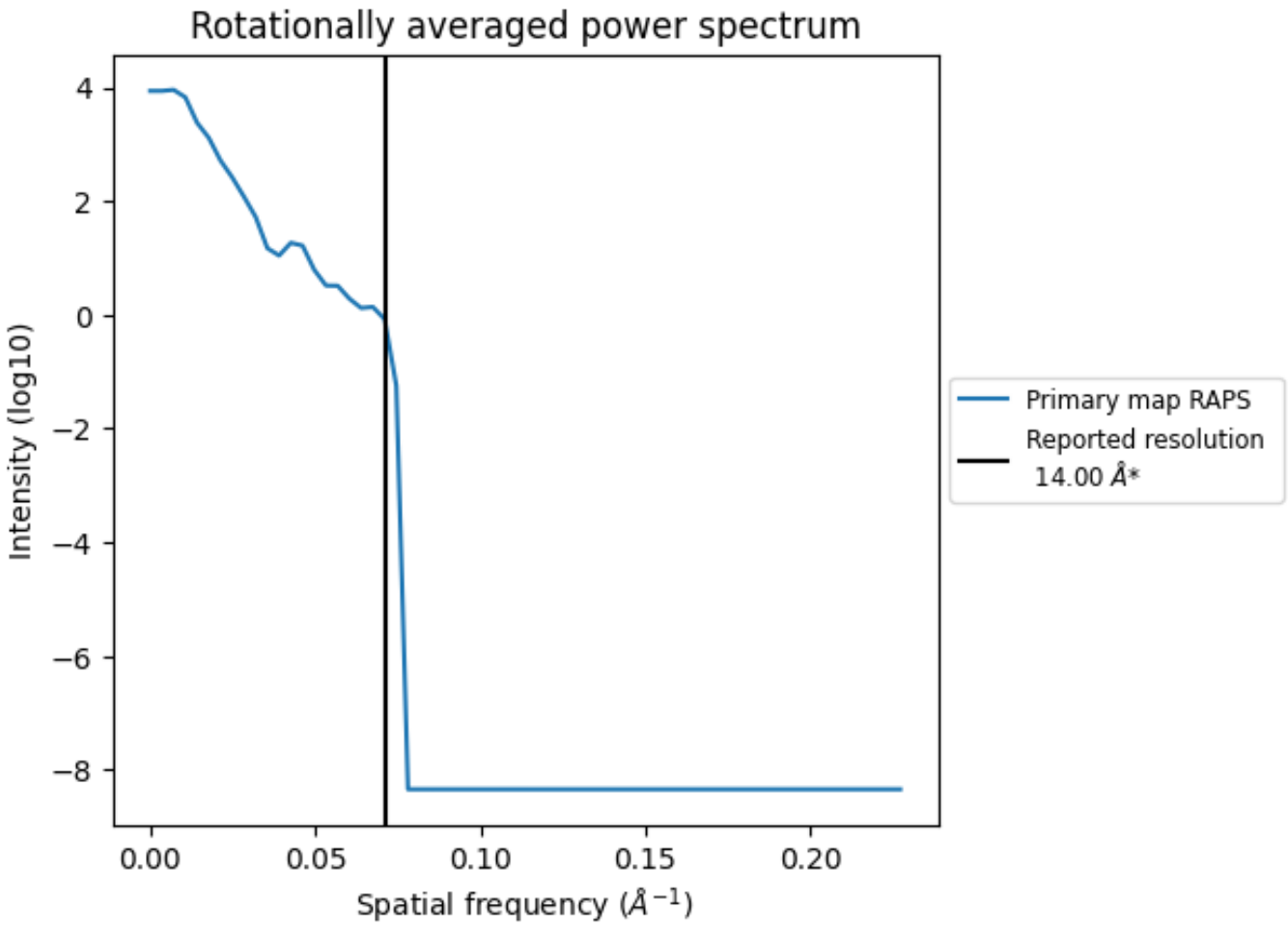
7.2 Volume estimate (i)



The volume at the recommended contour level is 1604 nm^3; this corresponds to an approximate mass of 1449 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.071 Å^{-1}

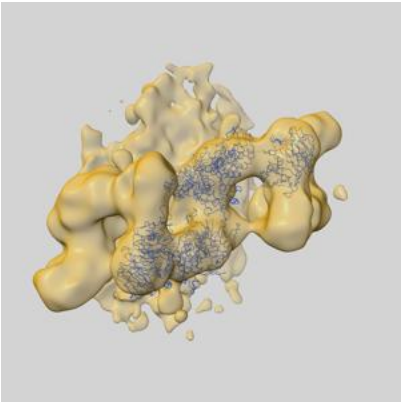
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

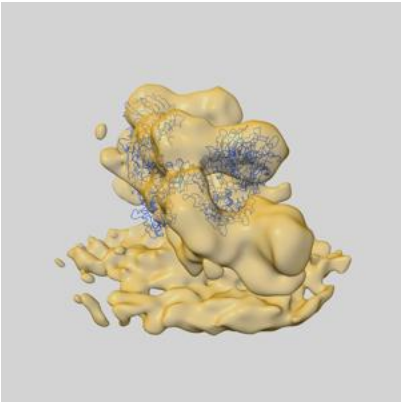
9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-20825 and PDB model 6XR4. Per-residue inclusion information can be found in section 3 on page 13.

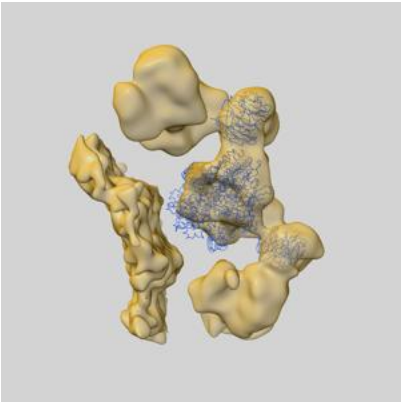
9.1 Map-model overlay (i)



X



Y



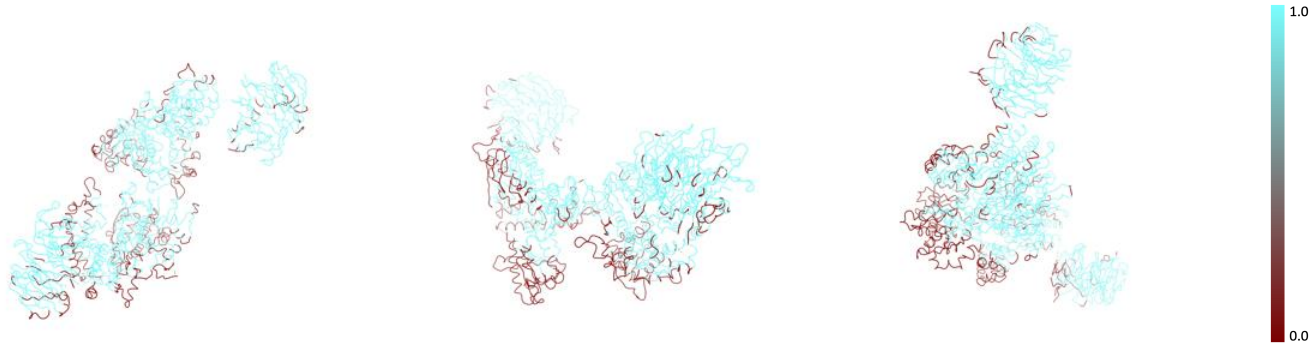
Z

The images above show the 3D surface view of the map at the recommended contour level 0.05 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model (i)

This section was not generated.

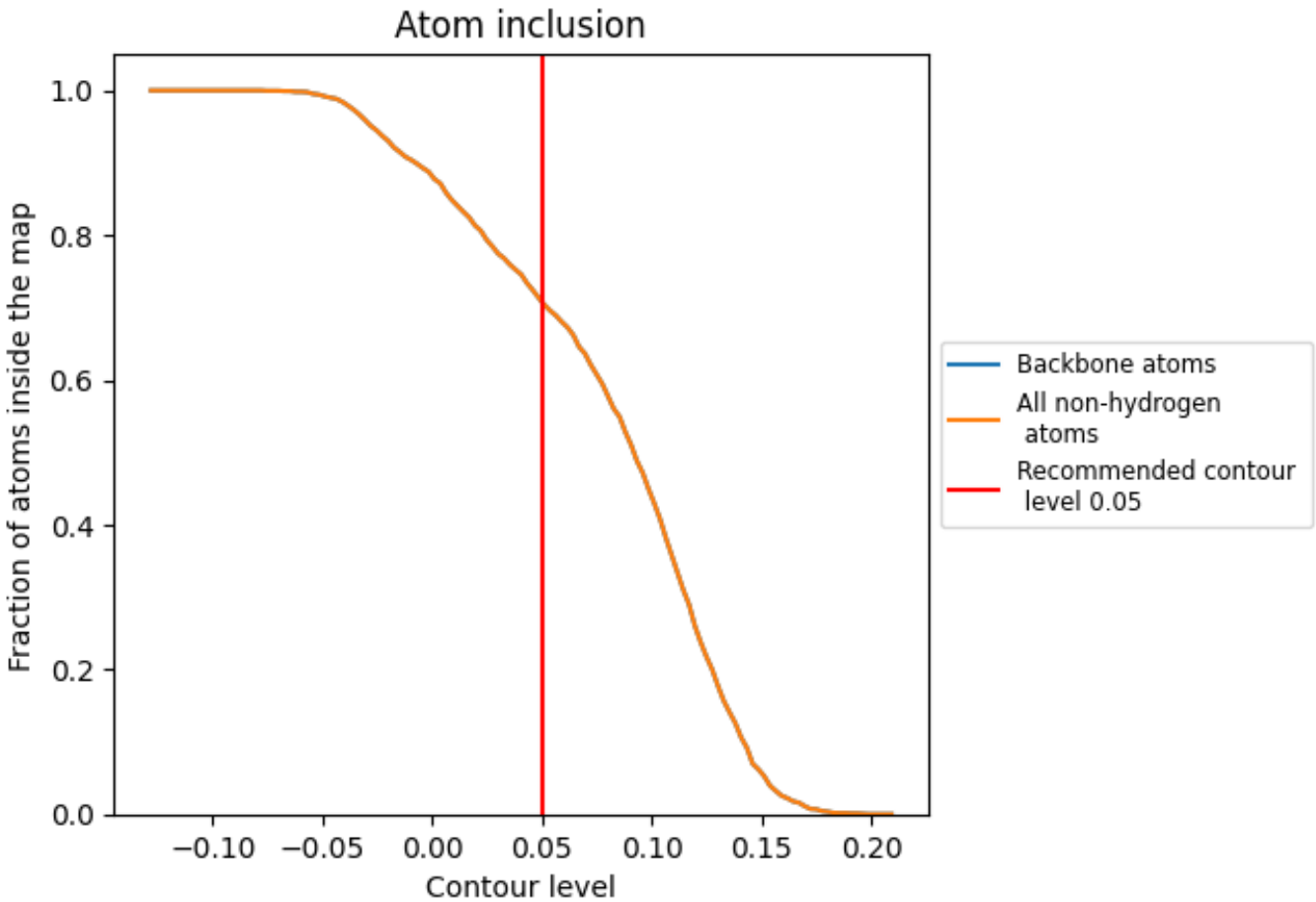
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.05).

9.4 Atom inclusion (i)



At the recommended contour level, 71% of all backbone atoms, 71% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (0.05) and Q-score for the entire model and for each chain.

Chain	Atom inclusion
All	0.7077
A	0.7673
B	0.6481