

F box

1 2

Q9UGU0 (1690-1939) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G3QDX4 (1690-1939) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H2QLT9 (1692-1941) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H9FZ14 (1690-1939) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G1S175 (1688-1939) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H0XML0 (1702-1951) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
I3NC70 (1718-1966) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
F7CRS8 (1718-1967) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
E2RT08 (1689-1938) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G1P5A9 (1705-1953) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
E1B8T3 (1699-1947) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G3U8A2 (1705-1954) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G1LSB5 (1679-1927) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
Q9EPQ8 (1718-1962) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G1SYZ5 (1632-1880) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H0VVM3 (1651-1885) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
F6Q9R3 (1692-1946) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G3WLE0 (1668-1874) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H0ZHA4 (1664-1913) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
E1BXI6 (1671-1920) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G1NHL2 (1672-1921) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G1KC34 (1689-1937) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
F7BZK2 (1597-1840) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
I3JNR0 (1311-1549) SG---PVIETNHSGRLLCCLCQKWANYKHLGDLGPFYFAEYAAK--LP
D3ZG21 (1722-1965) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G7PFP9 (1725-1980) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H2P4M2 (1692-1935) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H2ZXL0 (1628-1862) QG---PVIETNHSGRLLCCLCQKWANYKHLGDLGPFYFAEYAAK--LP
G3I0E6 (721-964) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
G5BPR9 (1037-1303) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
Q4SCG6 (1995-2332) VG---PVIETNHSGRLLCCLCQKWANYKHLGDLGPFYFAEYAAK--LP
E7FE16 (2019-2336) PG---PVIETNHSGRLLCCLCQKWANYKHLGDLGPFYFAEYAAK--LP
F1SRF7 (1698-1893) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
H9KVS1 (1635-1821) QG---PVVTESSVMGHLVCCCLCGKWASYRNMGDLFGPFYFQDYAAT--LP
Q7Z5J4 (1672-1906) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
H2QCD6 (1667-1901) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
F7E488 (1674-1909) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
H2NSX0 (1678-1908) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G1RTB7 (1668-1903) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
E1B9X1 (1644-1885) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
D4A4Z4 (1638-1887) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
Q61818 (1640-1889) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G1LF06 (1637-1873) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G3QJR9 (1645-1879) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G3TJ97 (1586-1821) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
H0V1B2 (1316-1545) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
I3N2I1 (1670-1914) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
F7DZK3 (1652-1884) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
E1BXD2 (1385-1610) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G3PEF0 (1592-1819) QG---PLVKRDLIDRCLTCLCGKPANYRDLGDLGPFYFAEYAAK--LP
H3D328 (1531-1756) QG---PVSVEKNQTDSCLTCLCGKPANYRDLGDLGPFYFAEYAAK--LP
E7F726 (1703-1936) QG---PLVNKSLSDRCLTCLCGKPANYRDLGDLGPFYFAEYAAK--LP
C3Z7L5 (1697-1932) IGSABE--THPVTHAKWVCFCKGSPNYKHLGDLGPFYFAEYAAK--LP
E2BIR7 (1229-1457) LS---SRYDAHTPDSTWVCFCKQGPHSVIFGDPSPRPHNLAGPHIASGT
E2B1Q5 (1212-1434) LS---SRYDAHTTDSTWVCFCKQGPHSVIFGDPSPRPHNLAGPHIATGT
F4W5Y0 (1113-1335) LS---SRYDAHTTDSTWVCFCKQGPHSVIFGDPSPRPHNLAGPHIATGT
H9HN29 (1142-1364) LS---SRYDAHTTDSTWVCFCKQGPHSVIFGDPSPRPHNLAGPHIATGT
H9K8F1 (1148-1369) LS---SRYDAHTTDSTWVCFCKQGPHSVIFGDPSPRPHNLAGPHIATGT
G1M273 (1318-1538) VG---AQP-GS-----RS-PANYKDLGDLGPFYFAEYAAK--LP
F6TA33 (1577-1806) LG---PLVCKAVPSGCLVCCCLCRNPANFKDLGDLGPFYFAEYAAK--LP
G3X2Q6 (1102-1337) LG---PVVSKTLTSAACLVCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G5BMW5 (1673-1926) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
F6R4X5 (1594-1827) LG---PVVSKTLTSAACLVCCLQNPANFKDLGDLGPFYFAEYAAK--LP
F7B730 (1669-1926) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
E2RE72 (1543-1784) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
H0Y065 (1671-1929) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
H9G548 (1666-1853) LG---PVVSKTLTNAACLVCCLCRNPANFKDLGDLGPFYFAEYAAK--LP
H3AX41 (1594-1783) LG---PLVLTNLDGCLVCCCLCRNPANFKDLGDLGPFYFAEYAAK--LP
G1NTH3 (1623-1838) LG---PVVSKALSTSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
G3HHP8 (1539-1764) LG---PVVSKALITSCLVCCCLQNPANFKDLGDLGPFYFAEYAAK--LP
Q6AWG9 (967-1203) LS---NRYDADTTDSTWVCFCKRGPVKHLGDLGPFYFAEYAAK--LP
Q16VV4 (907-1120) LS---NRYDADTTDSTWVCFCKRGPVKHLGDLGPFYFAEYAAK--LP
B3NLN9 (1085-1322) LS---NRYDADTTDSTWVCFCKRGPVKHLGDLGPFYFAEYAAK--LP
B0W5K6 (960-1174) LS---TKYDADTTDASWVCFCKTGPHKMLGDLGPFYFAEYAAK--LP
A7UTC0 (931-1162) LS---TKYDADTTDSTWVCFCKTGPHKMLGDLGPFYFAEYAAK--LP

E3XES6 (921-1156) IS---TKYDADTTDISWMCVFCCKMGPCHKFRIGDLFGPYIISTASDEYRAS
B4HNB7 (1026-1264) IS---NRYDADTTDSTWICVFCCKRGPCHKLGLDGLFGPYLVTSDCDEYRAA
B4QBU9 (866-1104) IS---NRYDADTTDSTWICVFCCKRGPCHKLGLDGLFGPYLVTSDCDEYRAA
B4J9G8 (1119-1356) IS---NRYDADTTDSSWICVFCCKCGPHKLGDLFGPYLVSIDCEEYRTA
B4MYL6 (1108-1349) IS---NRYDADTTDSSWICVFCCKRGPCHKLGLDGLFGPYLVSIDCDEYRAA
B3MHU9 (1048-1286) IS---NRYDADTTDSTWICVFCCKRGPCHKLGLDGLFGPYLVTSDCEEYRAA

Q9UGU0 (1690-1939) KNPBPKRA-----
G3QDX4 (1690-1939) KNPBPKRA-----
H2QLT9 (1692-1941) KNPBPKRA-----
H9FZ14 (1690-1939) KNPBPKRA-----
G1S175 (1688-1939) KNPBPKRA-----
H0XML0 (1702-1951) KNPBPKRA-----
I3NC70 (1718-1966) KNPBPKRA-----
F7CRS8 (1718-1967) KNPBPKRA-----
E2RT08 (1689-1938) KNPBPKRA-----
G1P5A9 (1705-1953) KNPBPKRA-----
E1B8T3 (1699-1947) KNPBPKRA-----
G3U8A2 (1705-1954) KNPBPKRA-----
G1LSB5 (1679-1927) KNPBPKRA-----
Q9EPQ8 (1718-1962) KNPBPKRS-----
G1SYZ5 (1632-1880) KNPBPKRA-----
H0VVM3 (1651-1885) KNLBPKRA-----
F6Q9R3 (1692-1946) KNPBPKRA-----
G3WIE0 (1668-1874) KNPBPKRA-----
H0ZHA4 (1664-1913) KNPBPKRA-----
E1BXI6 (1671-1920) KNPBPKRA-----
G1NHL2 (1672-1921) KNPBPKRA-----
G1KC34 (1689-1937) KNPBPKRA-----
F7BZK2 (1597-1840) KNPBPKKS-----
I3JNR0 (1311-1549) KNQPQVRQ-----
D3ZG21 (1722-1965) KNPBPKRS-----
G7PFP9 (1725-1980) KNPBPKRA-----
H2P4M2 (1692-1935) KNPBPKRA-----
H2ZXL0 (1628-1862) KNPBPKKT-----
G3IOE6 (721-964) KNPBPKRS-----
G5BPR9 (1037-1303) KNLBPKRA-----
Q4SCG6 (1995-2332) KNQPQVRQCQATAGTNKTGPNADII SNTLNSVQDTQTQDAYFTQSDYAIG
E7FE16 (2019-2336) KNQPQVRQTL SHFGPAATG---MTSIPTEAIPQDTRLQEPQNVKSSAESD
F1SRF7 (1698-1893) KNPBPKRA-----
H9KVS1 (1635-1821) KNPBPKRA-----
Q7Z5J4 (1672-1906) LKEKVRPEGTC-----
H2QCD6 (1667-1901) LKEKVRPEGTC-----
F7E488 (1674-1909) LKEKVRPEGTC-----
H2NSX0 (1678-1908) LKEKVRPEGTC-----
G1RTB7 (1668-1903) LKEKVRPEGTC-----
E1B9X1 (1644-1885) LKEKVRLEGTC-----
D4A4Z4 (1638-1887) LKEKVRLEGTL-----
Q61818 (1640-1889) LKEKARLEGTL-----
G1LF06 (1637-1873) LKEKVRPEGPC-----
G3QJR9 (1645-1879) LKEKVRPEGTC-----
G3TJ97 (1586-1821) LKEKVRLEGAC-----
H0V1B2 (1316-1545) LKEKVRPEGTC-----
I3N2I1 (1670-1914) LKEKVRPEGTC-----
F7DZK3 (1652-1884) FKEKVRPEGIC-----
E1BXD2 (1385-1610) LKEKARVEGE-----
G3PEF0 (1592-1819) VCPTESIREDS-----
H3D328 (1531-1756) IKHBEHLRNES-----
E7F726 (1703-1936) LTHRSEFRQNS-----
C3Z7L5 (1697-1932) QTKTPPK-----
E2BIR7 (1229-1457) YTVPA-----
E2B1Q5 (1212-1434) YTVPA-----
F4W5Y0 (1113-1335) YTVPA-----
H9HN29 (1142-1364) YTVPA-----
H9K8F1 (1148-1369) YTVPA-----
G1MZ73 (1318-1538) LKEKARAEGE-----
F6TA33 (1577-1806) PKDKFR---I-----
G3X2Q6 (1102-1337) LKEKARAEGPG-----
G5BMW5 (1673-1926) LKEKVRPEGTC-----
F6R4X5 (1594-1827) PKEKARAEGLG-----
F7B730 (1669-1926) LKEKVRPESTC-----
E2RE72 (1543-1784) LKEKVRPEGTC-----
H0Y065 (1671-1929) LKEKVRPEGTC-----
H9G548 (1666-1853) LKEKIKVDGLS-----
H3AX41 (1594-1783) IKERKLLDASK-----

G1NTH3 (1623-1838) LKEKVRLEGTC-----
G3HHP8 (1539-1764) LKEKVRLECAF-----
Q6AWG9 (967-1203) VQTEG-----
Q16VV4 (907-1120) QTDEE-----
B3NLN9 (1085-1322) VQAFG-----
B0W5K6 (960-1174) KTDQD-----
A7UTC0 (931-1162) QVDVD-----
E3XES6 (921-1156) QVDVD-----
B4HNB7 (1026-1264) VQTEG-----
B4QBU9 (866-1104) VQAFG-----
B4J9G8 (1119-1356) VQVPA-----
B4MYL6 (1108-1349) LHSE-----
B3MHU9 (1048-1286) LQAF-----

Q9UGU0 (1690-1939) -----TQMOSKVKVRHKSASNGS-----
G3QDX4 (1690-1939) -----TQMOSKVKVRHKSASNGS-----
H2QLT9 (1692-1941) -----TQMOSKVKVRHKSASNGS-----
H9FZ14 (1690-1939) -----TQMOSKVKVRHKSASNGS-----
G1S175 (1688-1939) -----TQMOSKVKVRHKSASNGS-----
H0XML0 (1702-1951) -----SFMOSKVKVRHKSASNGS-----
I3NC70 (1718-1966) -----TQMOSKVKVRHKSASNGS-----
F7CRS8 (1718-1967) -----MFMOSKVKVRHKSASNGS-----
E2RT08 (1689-1938) -----TQMOSKVKVRHKSASNGS-----
G1P5A9 (1705-1953) -----TQMOSKVKVRHKSASNGS-----
E1B8T3 (1699-1947) -----AFMOSKVKVRHKSASNGS-----
G3UBA2 (1705-1954) -----TQMOSKVKVRHKSASNGS-----
G1LSB5 (1679-1927) -----TQMOSKVKVRHKSASNGS-----
Q9EPQ8 (1718-1962) -----SFMOSKVKVRHKSASNGS-----
G1SYZ5 (1632-1880) -----AFMOSKVKVRHKSASNGS-----
H0VVM3 (1651-1885) -----TQMOSKVKVRHKSASNGS-----
F6Q9R3 (1692-1946) -----TQMOSKVKVRHKSASNGS-----
G3WIE0 (1668-1874) -----TQMOSKVKVRHKSASNGS-----
H0ZHA4 (1664-1913) -----TQMOSKVKVRHKSASNGS-----
E1BXI6 (1671-1920) -----TQMOSKVKVRHKSASNGS-----
G1NHL2 (1672-1921) -----TQMOSKVKVRHKSASNGS-----
G1KC34 (1689-1937) -----TQMOSKVKVRHKSASNGS-----
F7BZK2 (1597-1840) -----SFTPRKVKVRHKSASNGS-----
I3JNR0 (1311-1549) -----SGREEMMTHVADKHSNAASSSSSSSSSS-----
D3ZG21 (1722-1965) -----TQMOSKVKVRHKSASNGS-----
G7PFP9 (1725-1980) -----TQMOSKVKVRHKSASNGS-----
H2P4M2 (1692-1935) -----TQMOSKVKVRHKSASNGS-----
H2ZXL0 (1628-1862) -----TETQGRVKVRHKSASNGS-----
G3IOE6 (721-964) -----TQMOSKVKVRHKSASNGS-----
G5BPR9 (1037-1303) -----TQMOSKVKVRHKSASNGS-----
Q4SCG6 (1995-2332) MDSTSLAAALRPVSTATRETTMTHLAGRFNTASSSSPSSSSSSSHALSK-----
E7FE16 (2019-2336) CTVSQATNTTSPATIIGTVSPMP-LEMPFONAIASSSTARVTTHAWDTAA-----
F1SRF7 (1698-1893) -----TQMOSKVKVRHKSASNGS-----
H9KVS1 (1635-1821) -----TQMOSKVKVRHKSASNGS-----
Q7Z5J4 (1672-1906) -----EASLPLERTLKGPECAAAA-----
H2QCD6 (1667-1901) -----EASLPLERTLKGPECAAAA-----
F7E488 (1674-1909) -----EASLPLERTLKGPECAATT-----
H2NSX0 (1678-1908) -----EAS-LPLE-TLK-PECAAAA-----
G1RTB7 (1668-1903) -----EASLPLERTLKGPDCAAAA-----
E1B9X1 (1644-1885) -----EASLPLERTLKGPECAAAA-----
D4A4Z4 (1638-1887) -----EASLPLERTLKGLECAASTTAATP-----
Q61818 (1640-1889) -----EASLPLERTLKGLECAASTTAAP-----
G1LF06 (1637-1873) -----EASLPLERTLKGLECAATAA-----
G3QJR9 (1645-1879) -----EASLPLERTLKGPECAAAA-----
G3TJ97 (1586-1821) -----EASLPLERTLKGLECAVAAT-----
H0V1B2 (1316-1545) -----EASLPLERTLKGLECA-----
I3N2I1 (1670-1914) -----EASLPLERTLKGLECAAPVAAA-----
F7DZK3 (1652-1884) -----EASLPLERTLKGLECAAAA-----
E1BXD2 (1385-1610) -----EGGAAERPRGAAESSWVAG-----
G3PEF0 (1592-1819) -----QKTNPNNGSSSEPPSSKNEGES-----
H3D328 (1531-1756) -----QKTDGHSNGNDEVPGCCSSEGAE-----
E7F726 (1703-1936) -----NCANETESSIVKNTQSVCEEAI-----
C3Z7L5 (1697-1932) -----QSADLKENKVRKSRSRNPS-----
E2BIR7 (1229-1457) -----GVSGDLFGPYLIGKDRLE-----
E2BLQ5 (1212-1434) -----GVLGDLFGPYLIGK-----
F4W5Y0 (1113-1335) -----GVLSDLFGPYLIGK-----
H9HN29 (1142-1364) -----GVLSDLFGPYLIGK-----
H9K8F1 (1148-1369) -----GVLSDLFGPYLIGK-----
G1MZ73 (1318-1538) -----EGGAAERPRGVAESSWAAG-----
F6TA33 (1577-1806) -----AEAPAEKAAKRVSDSVCTVGS-----
G3X2Q6 (1102-1337) -----EASLPLERTLKGLECAATAA-----

G5BMW5 (1673-1926) -----EAPLPLERTLKGLECV-----
F6R4X5 (1594-1827) -----EDAAAPDRTRLRALESPCPAG-----
F7B730 (1669-1926) -----EETSLPLERTLKGPECAAAA-----
E2RE72 (1543-1784) -----EASPLPLERTLKDLECVAAATG-----
H0Y065 (1671-1929) -----EASLPLERTLKGLECAAAA-----
H9G548 (1666-1853) -----EPPSLSLKLVSTDNNCSG-----
H3AX41 (1594-1783) -----AERLKLPLPSES VATETNDKSLLS-----
G1NTH3 (1623-1838) -----EASLPLERTLKGLECAAAA-----
G3HHP8 (1539-1764) -----EETSLPLERTLKGLECAAS-----
Q6AWG9 (967-1203) -----AQDIDGMFVNKRREDMVKQERNL-----
Q16VV4 (907-1120) -----YFNVKRTRESLQSKLIK-----
B3NLN9 (1085-1322) -----AQDIDGLFVNKRREDMVKQERNL-----
B0W5K6 (960-1174) -----YFSEKRTRESLASKLVQP-----
A7UTC0 (931-1162) -----FFSVRRTREDLESSQAKQR-----
E3XES6 (921-1156) -----YFSVKRSRDSMESTQAKER-----
B4HNB7 (1026-1264) -----AQDIDGLFVNKRREDMVKQERNL-----
B4QBU9 (866-1104) -----AQDIDGLFVNKRREDMVKQERNL-----
B4J9G8 (1119-1356) -----SNDIDGLFVSKRRKADMKLQERNL-----
B4MYL6 (1108-1349) -----VQDIDGLFVSKRRKGMVKAQQRNL-----
B3MHU9 (1048-1286) -----VQDIDGLFVSKRRREDMVKVQERNL-----

Q9UGU0 (1690-1939) -----KTDTEEEEEQQQQKEQ-----
G3QDX4 (1690-1939) -----KTDTEEEEEQQQQKEQ-----
H2QLT9 (1692-1941) -----KTDTEEEEEQQQQKEQ-----
H9FZ14 (1690-1939) -----KTDTEEEEEQQQQKEQ-----
G1S175 (1688-1939) -----KTDTEEEEEQQQQKEQ-----
H0XML0 (1702-1951) -----KTDTEEEEEQQQQKEQ-----
I3NC70 (1718-1966) -----KTDTEEEEEQQQQ-KEQ-----
F7CRS8 (1718-1967) -----KTDTEEEEEQQQQKEQ-----
E2RT08 (1689-1938) -----KTDTEEEEEQQQQKEQ-----
G1P5A9 (1705-1953) -----KTDTEEEEE-QQQQKEQ-----
E1B8T3 (1699-1947) -----KTDTEEEEEQQQQ-KEQ-----
G3U8A2 (1705-1954) -----KTDTEEEERQQQQKEQ-----
G1LSB5 (1679-1927) -----KTDTE-EEDEQQQQKEQ-----
Q9EPQ8 (1718-1962) -----KTDTEEEEEQQQQ-KEQ-----
G1SYZ5 (1632-1880) -----KTDTEEEEEQQQQ-KEQ-----
H0VVM3 (1651-1885) -----KTDTE-----
F6Q9R3 (1692-1946) -----KTDTEEEEEEEEQKEQ-----
G3WIE0 (1668-1874) -----KTDTEEEEEEEEE-----
H0ZHA4 (1664-1913) -----KTDTEEEEEQQQQ-KEQ-----
E1BXI6 (1671-1920) -----KTDTEEEEEQQQQ-KEQ-----
G1NHL2 (1672-1921) -----KTDTEEEEEQQQQ-KEQ-----
G1KC34 (1689-1937) -----KTDTEEEEEQQQ-KEQ-----
F7BZK2 (1597-1840) -----SDSDEEEEEEPQQAREQ-----
I3JNR0 (1311-1549) -----YEAQQRPQH-----
D3ZG21 (1722-1965) -----KTDTEEEEEQQQQKEQ-----
G7PFP9 (1725-1980) -----KTDTEEEEEQQQQKEQ-----
H2P4M2 (1692-1935) -----KTDTEEEEEQQQQKEQ-----
H2ZXL0 (1628-1862) -----KTDSEDEP-----KEQ-----
G3I0E6 (721-964) -----KTDTEEEEEQQQQKEQ-----
G5BPR9 (1037-1303) -----KTDTEEEEEQQ-----KEQ-----
Q4SCG6 (1995-2332) -----PTSLTWDTSLDIHPVPELKKKEADADGEPQWPKQPQLQPPDEAQQRPQH-----
E7FE16 (2019-2336) -----ELESGLGTSNLQETDAEIASKQLQVRESSQQRPQH-----
F1SRF7 (1698-1893) -----KTDTEEEEEQQQQKEQ-----
H9KVS1 (1635-1821) -----KTDTEEEEE-----
Q7Z5J4 (1672-1906) -----TAGKPPRP-----
H2QCD6 (1667-1901) -----TAGKPPRP-----
F7E488 (1674-1909) -----AAGKPPRP-----
H2NSX0 (1678-1908) -----AAGKPPRP-----
G1RTB7 (1668-1903) -----AAGKPPRP-----
E1B9X1 (1644-1885) -----AATTTTGKPPRP-----
D4A4Z4 (1638-1887) -----TTTTTTTTTLGRLSRP-----
Q61818 (1640-1889) -----TTATITPTALGRLSRP-----
G1LF06 (1637-1873) -----P-----GKPPRP-----
G3QJR9 (1645-1879) -----TAGKPPRP-----
G3TJ97 (1586-1821) -----AGKPPRP-----
H0V1B2 (1316-1545) -----GKPPRL-----
I3N2I1 (1670-1914) -----AAAATTTTTTAGKPPRP-----
F7DZK3 (1652-1884) -----AT-----GKPPRP-----
E1BXD2 (1385-1610) -----GRAGRP-----
G3PEF0 (1592-1819) -----STEKEDN-----
H3D328 (1531-1756) -----GGAEKDG-----
E7F726 (1703-1936) -----HQEKANEGH-----
C3Z7L5 (1697-1932) -----EVSGSEPKPGPSGL-----
E2BIR7 (1229-1457) -----DGKERLEDGI-----

E2B1Q5 (1212-1434) -----ERLEDGI
F4W5Y0 (1113-1335) -----ERLEDGI
H9HN29 (1142-1364) -----ERLEDGI
H9K8F1 (1148-1369) -----ERLEDGI
G1M273 (1318-1538) -----GRAGRQ-
F6TA33 (1577-1806) -----GRAPCS D
G3X2Q6 (1102-1337) -----GKPPRP-
G5BMW5 (1673-1926) -----ATPAAAATGSGKPPRL-
F6R4X5 (1594-1827) -----KPPRPD
F7B730 (1669-1926) -----TAGKPPRP-
E2RE72 (1543-1784) -----ATAAGKPPRP-
H0Y065 (1671-1929) -----APGKPSRP-
H9G548 (1666-1853) -----GKSPRL-
H3AX41 (1594-1783) -----IEENQPRL-
G1NTH3 (1623-1838) -----ASKAPRP-
G3HHP8 (1539-1764) -----TTTTTTTTTLGRLSRP-
Q6AWG9 (967-1203) -----PAVPATLANI
Q16VV4 (907-1120) -----KEE
B3NLN9 (1085-1322) -----PAVPATLATI
B0W5K6 (960-1174) -----KVE
A7UTC0 (931-1162) -----RAAEKLKEQQ
E3XES6 (921-1156) -----RMAEQKQQR
B4HNB7 (1026-1264) -----PAVPATLAYI
B4QBU9 (866-1104) -----PAVPATLANI
B4J9G8 (1119-1356) -----PVVPATLANI
B4MYL6 (1108-1349) -----PVVQASLANI
B3MHU9 (1048-1286) -----PVVPATLATI

Q9UGU0 (1690-1939) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
G3QDX4 (1690-1939) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
H2QLT9 (1692-1941) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
H9F214 (1690-1939) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
G1S175 (1688-1939) RSLATHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
H0XML0 (1702-1951) RSLATHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTALD
I3NC70 (1718-1966) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
F7CRS8 (1718-1967) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
E2RT08 (1689-1938) RSLAAHPRFKRRHRSEDCS CGPRSLSRGLPCKKAATEGSS----DKTALD
G1P5A9 (1705-1953) RSLAAHPRFKRRHRSEDCCGPRSLARGLPCKKAATEGSS----EKTVLD
E1B8T3 (1699-1947) RSLAAHPRFKRRHRSEDCAGPRSLSRGLPCKKAATEGSS----EKTVLD
G3U8A2 (1705-1954) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTALD
G1LSB5 (1679-1927) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTALD
Q9EPQ8 (1718-1962) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVSD
G1SYZ5 (1632-1880) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAAAEAGSS----EKTALD
H0VVM3 (1651-1885) --LAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
F6Q9R3 (1692-1946) RSLAAHPRFKRRHRSEDCSCTPRSLSRGIPCKKATIEGGSGSNEKTPSD
G3WIE0 (1668-1874) -----EPQPSD
H0ZHA4 (1664-1913) RSLAAHPRFKRRHRSEDCS CASRSLSRGASCKKATTDGGSGG--EKTPLD
E1BXI6 (1671-1920) RSLAAHPRFKRRHRSEDCS CASRSLSRGASCKKATEGGSGG--EKTPLD
G1NHL2 (1672-1921) RSLAAHPRFKRRHRSEDCS CASRSLSRGASCKKATEGGSGG--EKTPLD
G1KC34 (1689-1937) RSLTAHPRFKRRHRSEDCASRSLSRGAA CKKATTEVGNVG--EKT PSD
F7BZK2 (1597-1840) RSLTAHPRFKRRHRSGDCTSSRLT----VPSHRKTTDPSE----LTPMD
I3JNR0 (1311-1549) RKLTSHPRFKRRHKSS E-----DSPRMV PANSKASLPFQ-----
D3ZG21 (1722-1965) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAAAEAGSS----EKTASD
G7PFP9 (1725-1980) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
H2P4M2 (1692-1935) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
H2ZXL0 (1628-1862) RSLPAHPRFKRRHRSEDLG--SPRSIARGATCRKPPSDTCG----KSPTD
G3IOE6 (721-964) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSC----EKAVLD
G5BPR9 (1037-1303) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTILD
Q4SCG6 (1995-2332) RKLTSHPRFKRRHKSS E-----DCPRMVPSNSKASLPFQ-----
E7FE16 (2019-2336) RKLTSHPRFKRRHKSS E-----DPRTVPINSKASLPFQ-----
F1SRF7 (1698-1893) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKATEGSS----EKTALD
H9KVS1 (1635-1821) RSLAAHPRFKRRHRSEDCCGPRSLSRGLPCKKAATEGSS----EKTVLD
Q7Z5J4 (1672-1906) --DGPADPAKOGPLRTSARCLSRRLQSCYCCDGRDGG E-----EA
H2QC D6 (1667-1901) --DGPADPAKOGPLRTSARCLSRRLQSCYCCDGRDGG E-----EA
F7E488 (1674-1909) --DGPADPAKOGPLRTSARCLSRRLQSCYCCDGRDGG E-----EA
H2NSX0 (1678-1908) --DGPADPAKOGPLRTSARCLSRRLQSCYCCDGRDGG E-----EA
G1RTE7 (1668-1903) --DGSADPAKOGPLRTSARCLSRRLQSCYCCDGRDGG E-----EA
E1B9X1 (1644-1885) --DGPADPAKOGSLRTSARCLSRRLQSCYCCDGRDGGSE-----EA
D4A4Z4 (1638-1887) --DGPADPAKOGSLRTSARCLSRRLQSCYCCDGGQDGG E-----EV
Q61818 (1640-1889) --DGPADPAKOGPLRTSARCLSRRLQSCYCCDGGQDGG E-----EV
G1LFO6 (1637-1873) --EGPADPAKOGSLRTSARCLSRRLQSCYCCDGRDGG E-----EA
G3QJR9 (1645-1879) --DGPADPAKOGPLRTSARCLSRRLQSCYCCDGRDGG E-----EA
G3TJ97 (1586-1821) --DGPADPAKOGSLRTSARCLSRRLQSCYCCDGGQDGG E-----EA
H0V1B2 (1316-1545) --DGPADPAKOGSLRTSARCLSRRLQSCYCCDGRDGG E-----EM
I3N2I1 (1670-1914) --DGPADPAKOGSLRTSARCLSRRLQSCYCCDGRDGG E-----EV

F7DZK3 (1652-1884) --DGPADPAKQGSVVRTSARCLSRRLQSCYCCDGRGDSCE-----EV
E1BXD2 (1385-1610) --EGAAEPGKPSVLRSSPRCVFRRLLQSCYCCDERTEGE-----EA
G3PEF0 (1592-1819) --SETTTOEEGGPRRITLREFRFRMKQLRA--ISAAASS-----
H3D328 (1531-1756) --PETSTQE--GPRRLTLQERLRRMQLOA--GGTRSPS-----
E7F726 (1703-1936) SRRSKRAIRELSRTRPSSRMRFKRLILIQSRLSGASPPA-----
C3Z7L5 (1697-1932) SSPANTPLSKRHRHSQ-----SGGEGRKAHAKGGA-----
E2BIR7 (1229-1457) LSADQEITTEQKKGG---KNKRSIRYAGLADQFSAKMGKK-----K
E2B1Q5 (1212-1434) LSADQEITTEQKKGG---KNKRSIRYAGLADQFSAKMGKK-----K
F4W5Y0 (1113-1335) LSADQEITTEQKKGG---KNKRSIRYAGLADQFSAKMGKK-----K
H9HN29 (1142-1364) LSADQEITTEQKKGG---KNKRSIRYAGLADQFSAKMGKK-----K
H9K8F1 (1148-1369) LSADQEITTEQKKGG---KNKRSIRYAGLADQFTAKMGKK-----K
G1M273 (1318-1538) --EAAAEPSKPGVLRSSPRCVFRRLLQSCYCCDERTEGE-----EA
G6TA33 (1577-1806) --VGELDPSKHNNLRTSARCLSRRLQSCYCCSKTVEIAE-----
G3X2Q6 (1102-1337) --EAPAEAAKPSLRSRSLYRKLQSCYCCDEQRTED-----EA
G5BMW5 (1673-1926) --DAPADPAKQSSLRTSARCLSRRLQSCYCCDGRGDGCD-----EM
F6R4X5 (1594-1827) --VAAADSTKPSALRSSRCLYRKLQSCYCCDEQRTED-----EE
F7B730 (1669-1926) --DGPADPAKQGPLRTSARCLSRRLQSCYCCDGRGDGCE-----EA
E2RE72 (1543-1784) --EGPADPAKQGSRLTSARCLSRRLQSCYCCDARGDGC-----EA
H0Y065 (1671-1929) --DGPADPAKQGSRLTSARCLSRRLQSCYCCDGRGDGCE-----EV
H9G548 (1666-1853) --DTGAESAQSTLRSRSLMFRKLQSCYCCDERTEGEDT-----AA
H3AX41 (1594-1783) --DSTSDITKTSVGRSSRCLCRKQSCYCCDSKSEDTE-----
G1NTH3 (1623-1838) --DGSADPAKQGSRLTSARCLSRRLQSCYCCDGRGDGCE-----EV
G3HHP8 (1539-1764) --DGPADPAKQGSRLTSARCLSRRLQSCYCCDQGDGCE-----EV
Q6AWG9 (967-1203) MQAPKISMHRKRKQ---THDSSISYSDDPNESRSQCSS-----
Q16VV4 (907-1120) PVAGTSNSKSKRKP---TEAANPPAVPSTSVAPPDPA-----
B3NLN9 (1085-1322) MQAPKISMHRKRKQ---THDSSISYSDDPNETRSQCSS-----
B0W5K6 (960-1174) PTAG-SGTSKSKRKS---EPTASTSSAVAAAPPPLTATV-----
A7UTC0 (931-1162) QQGGP---KGGKRKNAAG---AAAAPGAPAGPSSAKAMALK-----
E3XES6 (921-1156) QQAASGSGKGRKRKN---AASATNNAQAPSTSNCPAVLK-----
B4HNB7 (1026-1264) MQAPKISMHRKRKQ---THDSSISYSDDPNESRSQCSS-----
B4QBU9 (866-1104) MQAPKISMHRKRKQ---THDSSISYSDDPNESRSQCSS-----
B4J9G8 (1119-1356) MQAPKITMHRKRKQ---THDSVYSCSDDPNE--SQCSS-----
B4MYL6 (1108-1349) MQAPKISMHRKRKQP---AQDCNNSFSDQFDMQSRCSSS-----M
B3MHU9 (1048-1286) MQAPKISMHRKRKQ---THDSQVYSDDPNESRSQCSS-----

3 4

Q9UGU0 (1690-1939) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G3QDX4 (1690-1939) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H2QLT9 (1692-1941) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H9F214 (1690-1939) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G1S175 (1688-1939) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H0XML0 (1702-1951) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
I3NC70 (1718-1966) TKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
F7CRS8 (1718-1967) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
E2RT08 (1689-1938) SKPSAPTTEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G1P5A9 (1705-1953) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
E1B8T3 (1699-1947) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G3UBA2 (1705-1954) SKPCVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G1LSB5 (1679-1927) PKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
Q9EPQ8 (1718-1962) TKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G1SYZ5 (1632-1880) SKPEVPATSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H0VVM3 (1651-1885) TKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
F6Q9R3 (1692-1946) SKPAGFVSEGGPELEL-HIPELPLDSNELVWHECCVLWANGIYLVCGRL
G3WLE0 (1668-1874) SKPAGFTEGGPELEL-HIPELPLDSNELVWHECCVLWANGIYLVCGRL
H0ZHA4 (1664-1913) SKPSVPTS-EGGTELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
E1BXI6 (1671-1920) SKPSMPTS-EGGTELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G1NHL2 (1672-1921) SKPSMPTS-EGGTELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G1KC34 (1689-1937) SKPSMPTS-EGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
F7BZK2 (1597-1840) S--SGPSTAEAGPEQCV-QIPOLPLDSNERVWHECCVLWANGVYLVCGRL
I3JNR0 (1311-1549) --PPPPALDSLGLAQLAQLKMPMDPEELVWHECCIVWTSGVYLVNGRL
D3ZG21 (1722-1965) TKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G7PFP9 (1725-1980) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H2P4M2 (1692-1935) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H2ZXL0 (1628-1862) SNEQAPPT-EVSSEVGL-QIPELPLDSNERVWHECCILWANGVYLVCGRL
G3I0E6 (721-964) TKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
G5BPR9 (1037-1303) TKPSMPTS-EGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
Q4SCG6 (1995-2332) --PPPPALDSLGLAQLAQLKMPMDPEELVWHECCIVWTSGVYLVNGRL
E7FE16 (2019-2336) --PPPPSLDALGPMALQALQLVPLDPEELVWHECCMVWTSGLIYLVNGRL
F1SRF7 (1698-1893) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
H9KVS1 (1635-1821) SKPSVPTTSEGGPELEL-QIPELPLDSNERVWHECCILWANGIYLVCGRL
Q7Z5J4 (1672-1906) AP-ADKGRKHECSK-EAPAEFGG--EAQERVWHEACAVWTGGVYLVAGKL
H2QCD6 (1667-1901) AP-ADKGRKHECSK-EAPAEFGG--EAQERVWHEACAVWTGGVYLVAGKL
F7E488 (1674-1909) AP-ADKGRKHECSK-EAPAEFGG--EAQERVWHEACAVWTGGVYLVAGKL
H2NSX0 (1678-1908) AP-ADKGRKHECSK-EAPAEFGG--EAQERVWHEACAVWTGGVYLVAGKL
G1RTB7 (1668-1903) AP-ADKGRKHECSK-EAPAEFGG--EAQERVWHEACAVWTGGVYLVAGKL
E1B9X1 (1644-1885) AP-ADKSRKHECSK-EPPAEFGG--DTEQERVWHEACAVWTGGVYLVAGKL

D4A4Z4 (1638-1887) AP-ADKSRKHECSK-EAPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
Q61818 (1640-1889) AQ-ADKSRKHECSK-EAPTEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
G1LF06 (1637-1873) AP-ADKSRKHECSK-EPPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
G3QJR9 (1645-1879) AP-ADKGRKHECSK-EAPAEFGG--EAQEHVVVHEACAVWTSGVYLVAGKL
G3TJ97 (1586-1821) AP-ADKSRKHECSK-EDSAEFGG--GTEHVVVHEACAVWTSGVYLVAGKL
H0V1B2 (1316-1545) AP-VDKSRKHECSK-EAPAEFVG--DTEHVVVHEACAVWTSGVYLVAGKL
I3N2I1 (1670-1914) AA-ADKSRKHECSR-EGPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
F7DZK3 (1652-1884) AP-ADKSRKHECSK-EPPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
E1BXD2 (1385-1610) AE---KPRRHECTKAESPPOEPAQDTEHVVVHEACAVWTSGVYLVAGKL
G3PEF0 (1592-1819) ---DREGGDSMFERLQMEAEA-----KEHWAHENCALWTKGVILVAGRL
H3D328 (1531-1756) ---DPEGKDSMLQRLRVOAEA-----NEHWTTHENCALWTKGILVAGRL
E7F726 (1703-1936) ---GVEGIETSLQRLQMEAE-----KEHWAHENCALWTKGILVADKL
C3Z7L5 (1697-1932) KVAARAKAGKEGGSPPCSLEAVVVPYLDVWTHDQCAVWASGVFIMGRL
E2B1R7 (1229-1457) RNSVESNTN--AMFTGMTLLEG-EEQRWEVWLHEQCAVWAAGVYMAGGRV
E2B1Q5 (1212-1434) RNSIESNTN--TIFTGMTLYEGGEEQRWEVWLHEQCAVWAAGVYMAGGRV
F4W5Y0 (1113-1335) RNSVESNTN--VIFTGMTLHEGGEEQRWEVWLHEQCAVWAAGVYMAGGRV
H9HN29 (1142-1364) RNSVESNTN--VIFTGMTLHEGGEEQRWEVWLHEQCAVWAAGVYMAGGRV
H9K8F1 (1148-1369) RNSIESNTN--AMFTGMTVLEG-EEQRWEVWLHEQCAVWAAGVYMAGGRV
G1MZ73 (1318-1538) AE---KPRRHECTKAESPPOEPAQDTEHVVVHEACAVWTSGVYLVAGKL
F6TA33 (1577-1806) ---TEKPRRQCCKALEPPTI---ELETQEHVVVHEACAVWTSGVYLVAGKL
G3XZQ6 (1102-1337) PA-ADKPRKHECSK-VEAPAEELSGDTEHVVVHEACAVWTSGVYLVAGKL
G5BMW5 (1673-1926) AP-VDKSRKHECSK-EAPSEF--VGDTEHVVVHEACAVWTSGVYLVAGKL
F6R4X5 (1594-1827) AA-ADK-----EHWVHEACAVWTSGVYLVAGKL
F7B730 (1669-1926) AP-ADKGRRHECSK-EAPAEFGG--EAQEHVVVHEACAVWTSGVYLVAGKL
E2RE72 (1543-1784) AP-ADK-----EHWVHEACAVWTSGVYLVAGKL
H0Y065 (1671-1929) AP-ADKSRKHECSK-EAPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
H9G548 (1666-1853) ATASEKPRRHECSKADVP-LEDPAQDTEHVVVHEACAVWTSGVYLVAGKL
H3AX41 (1594-1783) ---PEKSKSQCNQVDSQLGKP-VADSKHEHVEHSCVILWTCGVYLVAGKL
G1NTH3 (1623-1838) APVADKTRKHECSK-EAPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
G3HHP8 (1539-1764) AP-ADKSRKHECSK-EAPAEFGG--DTEHVVVHEACAVWTSGVYLVAGKL
Q6AWG9 (967-1203) VDPLDCSTES-KFVETFRGMGKTSSENGFEVWLHEDCAVWSNDIHLIGAHV
Q16VV4 (907-1120) QFP-----DDIFYGMIKAGDDSYEVWVHEDCLVWAFGVHIIIGTRV
B3NLN9 (1085-1322) VDPLDCSTES-KFVETFRGMGKTSSENGFEVWLHEDCAVWSNDIHLIGAHV
B0W5K6 (960-1174) PPPP-----PDMFYGMVKAGEDSYEVWLHEDCLVWAFGVHIIIGTRI
A7UTC0 (931-1162) QEPDQVVDVDR-SACEIFYGMVKASDNTYEVWVHEDCLVWAFGVYVIGTRI
E3XES6 (921-1156) EEKDDDDQGOSSHTDVIFYGMMKASDNTYEVWVHEDCLVWAFGVYVIGTRV
B4HNB7 (1026-1264) VDPLDCSTES-KFVETFRGMGKTSSENGFEVWLHEDCAVWSNDIHLIGAHV
B4J9U8 (866-1104) VDPLDCSTES-KFVETFRGMGKTSSENGFEVWLHEDCAVWSNDIHLIGAHV
B4J9G8 (1119-1356) QDPLDCSHT-KFVETFRGMSKTSSEHGYEIVWVHEDCAVWANDIQIIGAHV
B4MYL6 (1108-1349) ADPLDYSQEN-KLVETFRGMCKTSEHGYEIVWLHEDCALWVNDIQIIGAHV
B3MHU9 (1048-1286) MDPLDCSHT-KFVETFRGMGKTSSEHGYEIVWLHEDCAVWSNDIHLIGAHV

“PHD”

	5	6	7
Q9UGU0 (1690-1939)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
G3QDX4 (1690-1939)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
H2QLT9 (1692-1941)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
H9FZ14 (1690-1939)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
G1S175 (1688-1939)	YGLQEALETAREMPRSC-----	HCTPAW-----	ATDRDL
H0XML0 (1702-1951)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
I3NC70 (1718-1966)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
F7CRS8 (1718-1967)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
E2RT08 (1689-1938)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
G1P5A9 (1705-1953)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
E1B8T3 (1699-1947)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
G3U8A2 (1705-1954)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
G1LSB5 (1679-1927)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
Q9EPQ8 (1718-1962)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
G1SYZ5 (1632-1880)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
H0VVM3 (1651-1885)	YGLQEALETAREM--KCS-----	HCQEAG-----	ATLGCCY
F6Q9R3 (1692-1946)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
G3WIE0 (1668-1874)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
H0ZHA4 (1664-1913)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
E1BXI6 (1671-1920)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
G1NHL2 (1672-1921)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
G1KC34 (1689-1937)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
F7BZK2 (1597-1840)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
I3JNR0 (1311-1549)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
D3ZG21 (1722-1965)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
G7PFP9 (1725-1980)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
H2P4M2 (1692-1935)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
H2ZXL0 (1628-1862)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
G3IOE6 (721-964)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
G5BPR9 (1037-1303)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
Q4SCG6 (1995-2332)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
E7FE16 (2019-2336)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY
F1SRF7 (1698-1893)	YGLQEALETAREM--KCS-----	HCQEPG-----	ATLGCCY

H9KVS1 (1635-1821) YGLOEALLETAREM-----
Q7Z5J4 (1672-1906) FGLQEQAMKVAVDM--MCS-----SCQEA-----GATIGCC
H2QCD6 (1667-1901) FGLQEQAMKVAVDM--MCS-----SCQEA-----GATIGCC
F7E488 (1674-1909) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
H2NSX0 (1678-1908) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
G1RTB7 (1668-1903) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
E1B9X1 (1644-1885) FGLQEQAMKVALDM--TCS-----SCQEA-----GATIGCC
D4A4Z4 (1638-1887) FGLQEQAMKVAVDM--PCT-----SCHEEG-----ATISCS
Q61818 (1640-1889) FGLQEQAMKVAVDM--PCT-----SCHEEG-----ATISCS
G1LF06 (1637-1873) FGLQEQAMKVAVDM--ACF-----SCQEA-----GATIGCC
G3QJR9 (1645-1879) FGLQEQAMKVAVDM--MCS-----SCHEA-----GATIGCC
G3TJ97 (1586-1821) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
H0V1B2 (1316-1545) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
I3N2I1 (1670-1914) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
F7DZK3 (1652-1884) FGLQEQAMKVAVDM--TCS-----SCQEA-----GATIGCC
E1BXD2 (1385-1610) YGLOEAVKAAADLGKKCS-----SCQEA-----ATT-AG
G3PEF0 (1592-1819) YGLREAVNNSAQT--SCY-----KCOIVG-----ASLNCC
H3D3Z8 (1531-1756) YGLREAVNNSAQT--SCY-----KCOIVG-----ASLNCC
E7F726 (1703-1936) FGLTEAVQKAAHA--KCS-----CQGEF-----ASVCCG
C3Z7L5 (1697-1932) HGLDEAIKEARQH--SCS-----ECETVG-----ATLGGG
E2BIR7 (1229-1457) TGLQEQAVWDAAKS--ICC-----SCGLTG-----ANIGCV
E2B1Q5 (1212-1434) TGLQEQAVWDAAKS--ICD-----SCGLTG-----ANIGCV
F4W5Y0 (1113-1335) TGLQEQAVWDAAKS--VCD-----SCGLTG-----ANIGCV
H9HN29 (1142-1364) TGLQEQAVWDAAKS--VCD-----SCGLTG-----ANIGCV
H9K8F1 (1148-1369) TGLQEQAVWDAAKS--ICD-----SCGLTG-----ANIGCV
G1M273 (1318-1538) YGLOEAVKAAADL--KCS-----SCQEA-----ATVGGC
F6TA33 (1577-1806) YGINSATQMAAAG--LCP-----KCORPG-----ATVGGC
G3X2Q6 (1102-1337) FGLQEQAMKTAADV--RCS-----SCQVVG-----ATLGGC
G5BMW5 (1673-1926) FGLQEQAMKVAVDM--VRG-----QPSGVT-----QLLGLGPS
F6R4X5 (1594-1827) FGLQEQAMKTAADV--VRPSLG--APALAP-----SSLDAV
F7B730 (1669-1926) FGLQEQAMKVAVDM--HGGAV--VLAPGGISLLSLRL--TSLFQGPS
E2RE72 (1543-1784) FGLQEQAMKVAVDM--ESG--MPLMCGGRASVQATDF--VSLFRGPP
H0Y065 (1671-1929) FGLQEQAMKVAIDM--VRGQP--CGVACDSSK--PRLRQKDLLETR-S
H9G548 (1666-1853) YGLOEAIKMAANL--VRP-----VSLN--
H3AX41 (1594-1783) YGLREAVIETAITV-----VSLN--
G1NTH3 (1623-1838) FGLQEQAMKVALDM--TCS-----SCQEA-----GATIGCC
G3HHP8 (1539-1764) FGLQEQAMKVAVDM--PCS-----SCHEAG-----ATISCS
Q6AWG9 (967-1203) NGLDAAVWDSTRY--OCV-----LCQQTG-----ASICCF
Q16VV4 (907-1120) VGLEAAIWNCCRH--QCR-----ICSHHG-----ATVGCCL
B3NLN9 (1085-1322) NGLDAAVWDESTRY--OCV-----LCQQTG-----ASICCF
B0W5K6 (960-1174) VGLEAAIWNCCRH--PCR-----ICGHSF-----AVVSCCL
A7UTC0 (931-1162) VGLEAAIWNCCRH--OCQ-----LCRNYG-----AVLSCLL
E3XES6 (921-1156) IGLEAAIWNCCRH--RCQ-----LCSQYG-----AVVCCCL
B4HNB7 (1026-1264) NGLDAAVWDSTRY--OCV-----LCQQTG-----ASICCF
B4QBU9 (866-1104) NGLDAAVWDSTRY--OCV-----LCQQTG-----ASICCF
B4J9G8 (1119-1356) NGLDAAVWDSTRY--OCV-----HCAQSG-----ANVCCF
B4MYL6 (1108-1349) NGLDAAVWDSTRY--OCV-----HCSQTF-----ANVCCF
B3MHU9 (1048-1286) NGLDAAVWDSTRY--OCV-----LCQQSG-----ANICCF

“PHD”

	8	9	10
Q9UGU0 (1690-1939)	NKG	CSFR	YHYPCAIDA
G3QDX4 (1690-1939)	NKG	CSFR	YHYPCAIDA
H2QLT9 (1692-1941)	NKG	CSFR	YHYPCAIDA
H9FZ14 (1690-1939)	NKG	CSFR	YHYPCAIDA
G1S175 (1688-1939)	NGI	CHFLGLH	CPVEMDA
H0XML0 (1702-1951)	NKG	CSFR	YHYPCAIDA
I3NC70 (1718-1966)	NKG	CSFR	YHYPCAIDA
F7CRS8 (1718-1967)	NKG	CSFR	YHYPCAIDA
E2RT08 (1689-1938)	NKG	CSFR	YHYPCAIDA
G1P5A9 (1705-1953)	NKG	CSFR	YHYPCAIDA
E1B8T3 (1699-1947)	NKG	CSFR	YHYPCAIDA
G3U8A2 (1705-1954)	NKG	CSFR	YHYPCAIDA
G1LSB5 (1679-1927)	NKG	CSFR	YHYPCAIDA
Q9EPQ8 (1718-1962)	NKG	CSFR	YHYPCAIDA
G1SYZ5 (1632-1880)	NKG	CSFR	YHYPCAIDA
H0VVM3 (1651-1885)	NKG	CSFR	YHYPCAIDA
F6Q9R3 (1692-1946)	NKG	CSFR	YHYPCAIDA
G3WLE0 (1668-1874)	NKG	CSFR	YHYPCAIDA
H0ZHA4 (1664-1913)	NKG	CSFR	YHYPCAIDA
E1BXI6 (1671-1920)	NKG	CSFR	YHYPCAIDA
G1NHL2 (1672-1921)	NKG	CSFR	YHYPCAIDA
G1KC34 (1689-1937)	NKG	CSFR	YHYPCAIDA
F7BZK2 (1597-1840)	NKG	CACC	YHYPCAMDS
I3JNR0 (1311-1549)	SKG	CTLR	YHYLCAIEA
D3ZG21 (1722-1965)	NKG	CSFR	YHYPCAIDA
G7PPF9 (1725-1980)	NKG	CSFR	YHYPCAIDA

H2P4M2 (1692-1935) NKG-----CSFR-YHYPCAIIDA-----
 H2ZXL0 (1628-1862) SKG-----CSFR-YHYPCAKEA-----
 G3I0E6 (721-964) NKG-----CSFR-YHYPCAIIDA-----
 G5BPR9 (1037-1303) NKG-----CSFR-YHYPCAIIDAGGQLHQALLLFLDRR
 Q4SCG6 (1995-2332) SKG-----CTLR-YHYLCATEA-----
 E7FE16 (2019-2336) SKG-----CTLR-YHYI CAIDA-----
 F1SRF7 (1698-1893) -----
 H9KVS1 (1635-1821) -----
 Q7Z5J4 (1672-1906) HKG-----CLHT-YHYPCASDAG-----
 H2QCD6 (1667-1901) HKG-----CLHT-YHYPCASDAG-----
 F7E488 (1674-1909) HKG-----CIHT-YHYPCASDAG-----
 H2NSX0 (1678-1908) HKG-----CIHT-YHYPCASDAG-----
 G1RTB7 (1668-1903) HKG-----CIHT-YHYPCASDAG-----
 E1B9X1 (1644-1885) HKG-----CLHT-YHYPCASDAG-----
 D4A4Z4 (1638-1887) YEG-----CTHT-YHYPCANDTG-----
 Q61818 (1640-1889) YKG-----CIHT-YHYPCANDTG-----
 G1LF06 (1637-1873) QKG-----CTHT-YHYPCASDAG-----
 G3QJR9 (1645-1879) HKG-----CLHT-YHYPCASDAG-----
 G3TJ97 (1586-1821) HKG-----CVHT-YHYPCASDAG-----
 H0V1B2 (1316-1545) YKG-----CIHT-YHYPCASDAG-----
 I3N2I1 (1670-1914) YKG-----CVHS-YHYPCASDAG-----
 F7DZK3 (1652-1884) QKG-----CIHT-YHYPCASDAG-----
 E1BXD2 (1385-1610) GRG-----CPHM-LS---PFPTG-----
 G3PEF0 (1592-1819) WRG-----CSHK-YHYVCAKEIG-----
 H3D328 (1531-1756) WRG-----CSHK-YHYVCAKEIG-----
 E7F726 (1703-1936) WKS-----CTQS-YHYI CAKESG-----
 C3Z7L5 (1697-1932) FKG-----CQLK-YHYVCAVDAG-----
 E2BIR7 (1229-1457) KRG-----CKAV-SHYPCALTKG-----
 E2B1Q5 (1212-1434) KRG-----CKAV-THYPCALTKG-----
 F4W5Y0 (1113-1335) KRG-----CKAV-SHYPCALTKG-----
 H9HN29 (1142-1364) KRG-----CKAV-SHYPCALTKG-----
 H9K8F1 (1148-1369) KRG-----CKAV-IHYPCALTKG-----
 G1MZ73 (1318-1538) QKG-----CPHT-YHYCAVDTG-----
 F6TA33 (1577-1806) HKG-----CEQS-YHITCAVEAAG-----
 G3X2Q6 (1102-1337) HKG-----CPQT-YHYCASDTG-----
 G5BMW5 (1673-1926) WSKSFAGKSP--LYF--C---RRVPAARKPG-----
 F6R4X5 (1594-1827) SPGGRWEGAFVLVTGFQ--AAWD-SVLAQASAPG-----
 F7B730 (1669-1926) WPG-----CPLL-AMSTPSSWARVYV-PAAKKPG-----
 E2RE72 (1543-1784) WP-----CPAV-PAASLSDSWAGVPVPAAKKPG-----
 H0Y065 (1671-1929) WRL-----CPSS-AVHLPPLFIRHVPVVRNPG-----
 H9G548 (1666-1853) -----
 H3AX41 (1594-1783) -----C-----
 G1NTH3 (1623-1838) HKG-----CAHT-YHYPCASDAG-----
 G3HHP8 (1539-1764) YKG-----CIHT-YHYPCANDTG-----
 Q6AWG9 (967-1203) QRC-----CKAA-AHVPCARSDN-----
 Q16VV4 (907-1120) QRC-----CSEE-AHVVCARRND-----
 B3NLN9 (1085-1322) QRC-----CKAA-AHVPCARSDN-----
 B0W5K6 (960-1174) RRG-----CNAE-AHVVCARKHD-----
 A7UTC0 (931-1162) HOG-----CHAK-AHFICAHKQH-----
 E3XES6 (921-1156) ROQ-----CTAK-AHFICAHKQN-----
 B4HNB7 (1026-1264) QRC-----CKAA-AHVPCARSDN-----
 B4QBU9 (866-1104) QRC-----CKAA-AHVPCARSDN-----
 B4J9G8 (1119-1356) QRA-----CKAA-AHVPCARVAS-----
 B4MYL6 (1108-1349) QRS-----CKAT-AHVPCARSDN-----
 B3MHU9 (1048-1286) QRC-----CKAP-AHVPCARSDN-----

“PHD”

11 12

Q9UGU0 (1690-1939) -----DCLLHEENFSVRCPKHKPPLPCP
 G3QDX4 (1690-1939) -----DCLLHEENFSVRCPKHKPPLPCP
 H2QLT9 (1692-1941) -----DCLLHEENFSVRCPKHKPPLPCP
 H9FZ14 (1690-1939) -----DCLLHEENFSVRCPKHKPPLPCP
 G1S175 (1688-1939) -----YCLLHEENFSVRCPKHKPPLPCP
 H0XML0 (1702-1951) -----DCLLHEENFSVRCPKHKPPLPCP
 I3NC70 (1718-1966) -----DCLLHEENFSVRCPKHKPPLPCP
 F7CRS8 (1718-1967) -----DCLLHEENFSVRCPKHKPPLPCP
 E2RT08 (1689-1938) -----DCLLHEENFSVRCPKHKPPLPCP
 G1P5A9 (1705-1953) -----DCLLHEENFSVRCPKHKPPLPCP
 E1B8T3 (1699-1947) -----DCLLHEENFSVRCPKHKPPLPCP
 G3U8A2 (1705-1954) -----DCLLHEENFSVRCPKHKPPLPCP
 G1LSB5 (1679-1927) -----DCLLHEENFSVRCPKHKPPLPCP
 Q9EPQ8 (1718-1962) -----DCLLHEENFSVRCPKHK---CP
 G1SYZ5 (1632-1880) -----DCLLHEENFSVRCPKHKPPLPCP
 H0VVM3 (1651-1885) -----DCLLHEENFSVRCPKHKPPLPCP
 F6Q9R3 (1692-1946) -----DCLLHEENFSVRCPKHKPPLPCS
 G3WIE0 (1668-1874) -----DCLLHEENFSVRCPKHKPPLPCS
 H0ZHA4 (1664-1913) -----DCLLHEENFSVRCPKHKPPLPCS

```

E1BXI6 (1671-1920) -----DCLLNNEENFSVRCPKHKPLLECS
G1NHL2 (1672-1921) -----DCLLNNEENFSVRCPKHKPLLECS
G1KC34 (1689-1937) -----DCLLNNEENFSVRCPKHKPLLECS
F7BZK2 (1597-1840) -----ECLLNNEENFSVRCPKHKIPISSS
I3JNR0 (1311-1549) -----DCSLNEDNFSLRCPKHKFVFFPP
D3ZG21 (1722-1965) -----DCLLHEENFSVRCPKHK-----
G7PFP9 (1725-1980) GETVKKNKRDCLLHEENFSVRCPKHK-----
H2P4M2 (1692-1935) -----DCLLHEENFSVRCPKHK-----
H2ZXL0 (1628-1862) -----ECFLSEENFSMRCRKHK-----
G3IOE6 (721-964) -----DCLLHEENFSVRCPKHK-----
G5BPR9 (1037-1303) LPVQRCQSPDCLLHEENFSVRCPKHK-----
Q4SCG6 (1995-2332) -----DCSLNEDNFSLRCPKHK-----
E7FE16 (2019-2336) -----DCSLNEDNFSLRCPKHK-----
F1SRF7 (1698-1893) -----
H9KVS1 (1635-1821) -----
Q7Z5J4 (1672-1906) -----CIFIEENFSLKCPKHKR-LE--
H2QCD6 (1667-1901) -----CIFIEENFSLKCPKHKR-LE--
F7E488 (1674-1909) -----CIFIEENFSLKCPKHKR-LEL-
H2NSX0 (1678-1908) -----CIFIEENFSLKCPKHKR-LEL-
G1RTE7 (1668-1903) -----CIFIEENFSLKCPKHKR-LEL-
E1B9X1 (1644-1885) -----CIFIEENFSLKCPKHKR-LEL-
D4A4Z4 (1638-1887) -----CTFIEENFTLKCPKHKR-LEL-
Q61818 (1640-1889) -----CTFIEENFTLKCPKHKR-LEL-
G1LF06 (1637-1873) -----CILIEENFSLKCPKHKRSLPA-
G3QJR9 (1645-1879) -----CIFIEENFSLKCPKHKR-LE--
G3TJ97 (1586-1821) -----CIFMEENFSLKCPKHKR-LEL-
H0V1B2 (1316-1545) -----CVFIEENFSLKCPKHKR-LEL-
I3N2I1 (1670-1914) -----CVFIEENFSLKCPKHK-----
F7DZK3 (1652-1884) -----CIFIEENFSLKCPKHK-----
E1BXD2 (1385-1610) -----CLITEESFSLRCPKHKVS-PE-
G3PEF0 (1592-1819) -----CTFHEDDFS LKCPKHEQL-E--
H3D328 (1531-1756) -----CTFHEDDFS LKCPKHEVIK---
E7F726 (1703-1936) -----CTFEEETFSLRCPKHHRVSV--
C3Z7L5 (1697-1932) -----CCLISEENFSLMCOYOHKHKTIRF
E2BIR7 (1229-1457) -----WHLD TNQYI PKCNLERVT----
E2B1Q5 (1212-1434) -----WHLD TNQYI PKCNLERVT----
F4W5Y0 (1113-1335) -----WHLD TNQYI PKCNLERVT----
H9HN29 (1142-1364) -----WHLD TNQYI PKCNLERVT----
H9K8F1 (1148-1369) -----WHLD INQYI PKCNLERIT----
G1M273 (1318-1538) -----CLLIEECFSLRCPKHKDI-EL-
F6TA33 (1577-1806) -----CCLISEENFSLRCPKHHRVKIV-
G3X2Q6 (1102-1337) -----CILVEENFSLKCPKHKLI-P--
G5BMW5 (1673-1926) -----PPLGAPTKDASTPTTTTV---EVM
F6R4X5 (1594-1827) -----PPLAAATKDV LKPTTTTV---EVT
F7B730 (1669-1926) -----PPLGAATKDASTPTITRV---EAM
E2RE72 (1543-1784) -----PPSGAATKDAPTPTITRV---EAM
H0Y065 (1671-1929) -----PPSGAATKDVSTLTITRV---EVM
H9G548 (1666-1853) -----
H3AX41 (1594-1783) -----
G1NTH3 (1623-1838) -----
G3HHP8 (1539-1764) -----KS-----
Q6AWG9 (967-1203) -----WSLSEEDRKVYCHLERHE-EGV
Q16VV4 (907-1120) -----WELS-DEFKSHCEKHSKTDSS-
B3NLN9 (1085-1322) -----WSLSEEDRKVYCOLERHQ-PEI
B0W5K6 (960-1174) -----WELS-DEFKAHCKDESEGDS-
A7UTC0 (931-1162) -----WKL T-EDFQSFCDRESGHSGGS
E3XES6 (921-1156) -----WKL T-DEYQAFCEVEAMKEEGS
B4HNB7 (1026-1264) -----WSLSEEDRKVYCOLERHEPDVV
B4QBU9 (866-1104) -----WSLSEEDRKVYCOLERHEPDVV
B4J9G8 (1119-1356) -----WSLSEEDRKVYCOLERAPQKAKE
B4MYL6 (1108-1349) -----WHLNEHERKVECOLERGPSEGS
B3MHU9 (1048-1286) -----WSLSEEDRKVHCOLERSGESGVA

```

Figure S1