S2 Fig.

Labma-CYC-v1 MNQAGESQPDYTASHDGFHYQNLVFPDFLHEGPGILNMMEFQGYSEDLATSPGHSEKKRK

Labma-CYC-v2a MNQAGESQPDYTASHDGFHYQNLVFPDFLHEGPGILNMMEFQGYSEDLATSPGHSEKKRK

Labma-CYC-v2b MNQAGESQPDYTASHDGFHYQNLVFPDFLHEGPGILNMMEFQGYSEDLATSPGHSEKKRK

Labma-CYC-v3 -------------------------------------MMEFQGYSEDLATSPGHSEKKRK

Labma-CYC-v4 -------------------------------------MMEFQGYSEDLATSPGHSEKKRK

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 LPPEEDTHLPEETKQRKILSQDVSPLKEEQKRYVRQNHSEIEKRRRDKMNTYITELSSMI

Labma-CYC-v2a LPPEEDTHLPEETKQRKILSQ------EEQKRYVRQNHSEIEKRRRDKMNTYITELSSMI

Labma-CYC-v2b LPPEEDTHLPEETKQRKILSQ------EEQKRYVRQNHSEIEKRRRDKMNTYITELSSMI

Labma-CYC-v3 LPPEEDTHLPEETKQRKILSQDVSPLKEEQKRYVRQNHSEIEKRRRDKMNTYITELSSMI

Labma-CYC-v4 LPPEEDTHLPEETKQRKILSQ------EEQKRYVRQNHSEIEKRRRDKMNTYITELSSMI

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 PTCVAMQRKMDKLTVLRLAVQHLKSIRGSLDAYSEGNSRPAMLTDSELRQLIVPSADGFI

Labma-CYC-v2a PTCVAMQRKMDKLTVLRLAVQHLKSIRGSLDAYSEGNSRPAMLTDSELRQLIVPSADGFI

Labma-CYC-v2b PTCVAMQRKMDKLTVLRLAVQHLKSIRGSLDAYSEGNSRPAMLTDSELRQLIVPSADGFI

Labma-CYC-v3 PTCVAMQRKMDKLTVLRLAVQHLKSIRGSLDAYSEGNSRPAMLTDSELRQLIVPSADGFI

Labma-CYC-v4 PTCVAMQRKMDKLTVLRLAVQHLKSIRGSLDAYSEGNSRPAMLTDSELRQLIVPSADGFI

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 FVVDSARTRILYVSESVNNILNFSSQDLIGQSLFDILHPKDIDKVKEQLSNSDGPRSRLI

Labma-CYC-v2a FVVDSARTRILYVSESVNNILNFSSQDLIGQSLFDILHPKDIDKVKEQLSNSDGPRSRLI

Labma-CYC-v2b FVVDSARTRILYVSESVNNILNFSSQDLIGQSLFDILHPKDIDKVKEQLSNSDGPRSRLI

Labma-CYC-v3 FVVDSARTRILYVSESVNNILNFSSQDLIGQSLFDILHPKDIDKVKEQLSNSDGPRSRLI

Labma-CYC-v4 FVVDSARTRILYVSESVNNILNFSSQDLIGQSLFDILHPKDIDKVKEQLSNSDGPRSRLI

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 DSKTMLPLKVGEIPQSIGRLQPGARRVFFCRMKCKPTQMIKQEDDIYPILNSNSVQPQEN

Labma-CYC-v2a DSKTMLPLKVGEIPQSIGRLQPGARRVFFCRMKCKPTQMIKQEDDIYPILNSNSVQPQEN

Labma-CYC-v2b DSKTMLPLKVGEIPQSIGRLQPGARRVFFCRMKCKPTQMIKQEDDIYPILNSNSVQPQEN

Labma-CYC-v3 DSKTMLPLKVGEIPQSIGRLQPGARRVFFCRMKCKPTQMIKQEDDIYPILNSNSVQPQEN

Labma-CYC-v4 DSKTMLPLKVGEIPQSIGRLQPGARRVFFCRMKCKPTQMIKQEDDIYPILNSNSVQPQEN

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 NGKKKKCGNSDKKYISIQCTGYLKSWPFTKVGLEGEFPDLDADSDTCMSCLVAVGRVQPS

Labma-CYC-v2a NGKKKKCGNSDKKYISIQCTGYLKSWPFTKVGLEGEFPDLDADSDTCMSCLVAVGRVQPS

Labma-CYC-v2b NGKKKKCGNSDKKYISIQCTGYLKSWPFTKVGLEGEFPDLDADSDTCMSCLVAVGRVQPS

Labma-CYC-v3 NGKKKKCGNSDKKYISIQCTGYLKSWPFTKVGLEGEFPDLDADSDTCMSCLVAVGRVQPS

Labma-CYC-v4 NGKKKKCGNSDKKYISIQCTGYLKSWPFTKVGLEGEFPDLDADSDTCMSCLVAVGRVQPS

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 FQSTIEDCIERGETTSTAVEFFSRHGIDGKFSFVDQRVTLMLGYLPQELVGTSLYEHIQY

Labma-CYC-v2a FQSTIEDCIERGETTSTAVEFFSRHGIDGKFSFVDQRVTLMLGYLPQELVGTSLYEHIQY

Labma-CYC-v2b FQSTIEDCIERGETTSTAVEFFSRHGIDGKFSFVDQRVTLMLGYLPQELVGTSLYEHIQY

Labma-CYC-v3 FQSTIEDCIERGETTSTAVEFFSRHGIDGKFSFVDQRVTLMLGYLPQELVGTSLYEHIQY

Labma-CYC-v4 FQSTIEDCIERGETTSTAVEFFSRHGIDGKFSFVDQRVTLMLGYLPQELVGTSLYEHIQY

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 DDIPLIAECHRKSLRNSDEVNTPIFGFRTKDGNFVKLKSKFKHFRNPWTREIDYIFCKNY

Labma-CYC-v2a DDIPLIAECHRKSLRNSDEVNTPIFGFRTKDGNFVKLKSKFKHFRNPWTREIDYIFCKNY

Labma-CYC-v2b DDIPLIAECHRKSLRNSDEVNTPIFGFRTKDGNFVKLKSKFKHFRNPWTREIDYIFCKNY

Labma-CYC-v3 DDIPLIAECHRKSLRNSDEVNTPIFGFRTKDGNFVKLKSKFKHFRNPWTREIDYIFCKNY

Labma-CYC-v4 DDIPLIAECHRKSLRNSDEVNTPIFGFRTKDGNFVKLKSKFKHFRNPWTREIDYIFCKNY

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 LIFSKEKYSESSNFGSADTADMDFIMANNSGRHNGGTQTGAGNGGNSGVGANNGQIGKDI

Labma-CYC-v2a LIFSKEKYSESSNFGSADTADMDFIMANNSGRHNGGTQTGAGNGGNSGVGANNGQIGKDI

Labma-CYC-v2b LIFSKEKYSESSNFGSADTADMDFIMANNSGRPNGGTQTGAGHGGNSGGGANNGQIGKDI

Labma-CYC-v3 LIFSKEKYSESSNFGSADTADMDFIMANNSGRHNGGTQTGAGNGGNSGVGANNGQIGKDI

Labma-CYC-v4 LIFSKEKYSESSNFGSADTADMDFIMANNSGRHNGGTQTGAGNGGNSGVGANNGQIGKDI

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*\*\*\*\*\*\*\*:\*\*\*\*\* \*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 QQVISSHAEAAKIGRNIADEEIEKWRTDNSASNSPISSLQSGSPSTLQSSTSINPASSAL

Labma-CYC-v2a QQVISSHAEAAKIGRNIADEEIEKWRTDNSASNSPISSLQSGSPSTLQSSTSINPASSAL

Labma-CYC-v2b QQVISSHAEAAKIGRNIADEEIEKWRTDNSASNSPISSLQSGSPSTLQSSTSINPASSAL

Labma-CYC-v3 QQVISSHAEAAKIGRNIADEEIEKWRTDNSASNSPISSLQSGSPSTLQSSTSINPASSAL

Labma-CYC-v4 QQVISSHAEAAKIGRNIADEEIEKWRTDNSASNSPISSLQSGSPSTLQSSTSINPASSAL

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 GGKGEAELIREAMLDVERDRNKLSGVIVSRNSSTSNATLNRLVTNRARIDQIPAAALSAR

Labma-CYC-v2a GGKGEAELIREAMLDVERDRNKLSGVIVSRNSSTSNATLNRLVTNRARIDQIPAAALSAR

Labma-CYC-v2b GGKGEAELIREAMLDVERDRNKLSGVIVSRNSSTSNATLNRLVTNRARIDQIPAAALSAR

Labma-CYC-v3 GGKGEAELIREAMLDVERDRNKLSGVIVSRNSSTSNATLNRLVTNRARIDQIPAAALSAR

Labma-CYC-v4 GGKGEAELIREAMLDVERDRNKLSGVIVSRNSSTSNATLNRLVTNRARIDQIPAAALSAR

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Labma-CYC-v1 TSPPHSTSSSESGNDEAATAVLMSLLEAEGGLGGPFDFGSLPWPLP

Labma-CYC-v2a TSPPHSTSSSESGNDEAATAVLMSLLEAEGGLGGPFDFGSLPWPLP

Labma-CYC-v2b TSPPHSTSSSESGNDEAATAVLMSLLEAEGGLGGPFDFGSLPWPLP

Labma-CYC-v3 TSPPHSTSSSESGNDEAATAVLMSLLEAEGGLGGPFDFGSLPWPLP

Labma-CYC-v4 TSPPHSTSSSESGNDEAATAVLMSLLEAEGGLGGPFDFGSLPWPLP

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*