

GGA 1 ~~~~MSVLYCFFAFLILSLSPFFVYAINHAQ...KSLRRRKFSVSTLL..E.DCK
GGB 1 ~~~~MRRRRAVTLTVAVLLGAAMLLRRHG...GSGAGLGGSAESMAL..ERACG
XTA 1 ~~~~MIYPKQLFFIFLALGVVILNLSLSQ.....SQIKKALVFSQQLSL..LEEACQ
XTB 1 ~~~~MPSWVRFIFPVPVLSVTVLTYNNLSLKL...AGLHRYNTTEEKIQ..FAETCE
MMsC 1 ~~~~MSLRLGKVFAVSALSVVIFVVFYHSQSLP...NLVQQLNSSSER..T.SVTICD
RNC 1 ~~~~MNL.CMKFFAFTALSVVIFVVFYHSQSLP...NLVQRFNSSSER..T.SVIA CD
PTC 1 ~~~~MNFWRVYCFFAFTLLSVVIFVVFYSSQSLSP...KSMKELNSSSERY.F.RKTACN
HSC 1 ~~~~MNFWRVYCFFAFTLLSVVIFVVFYSSQSLSP...KSMKELNSSSERY.F.RKTACN
MMaC 1 ~~~~MNFWRVYCFFAFTLLSVVIFVVFYSSQSLSP...KSMKELNSSSERY.F.RKTACN
CFC 1 ~~~~MNFWRCCFFAFTALLSAILLMLVYHSQHLPL...RSLGKPSGPGPRH.V.RLRACE
MDB 1 ~~~~MNFGRYYRFVTPLLSLVLFVFLYNHHTYDS...KSYHRFNVSNERYS.L.LYESCN
MMsA 1 ~~~~MGSWKYSLFSLSLIAALMLFMYDRKLWKN...YHFPRA.VSNISV.L.A.EVCL
RNA 1 ~~~~MGSWKYSLFSLSLIAALTFMFISSNKLWEN...NHFPRAP.NSSV.L.A.EVCF
PTA 1 ~~~~MGSWKHCLFSVSLISALIFVFNTELWEN...KRELRAALSNASL.L.A.EACH
HSA 1 ~~~~MGSWKHCLFSASLISALIFVFNTELWEN...KRELRAALSNASL.L.A.EACH
MMaA 1 ~~~~MGSWKHCLFSVSLISALIFVFNTELWEN...KRELRAALSNASL.L.A.EACH
CFA 1 ~~~~MMSVSKHYLFTVSLITAVLVFVFNHKLWEE...KHELRAASNASV.L.T.EVCQ
PTB 1 ~~~~MPLSMRYLFIILSVSVVIFVVFVFNFGGD...PSFQRLNISDPML.L.T.QVCT
HSB 1 ~~~~MPLSMRYLFIILSVSVVIFVVFVFNFGGD...PSFQRLNISDPML.L.T.QVCT
MMaB 1 ~~~~MPLSMRYLFIILSVSVVIFVVFVFNFGGD...PSFQRLNISDPML.L.T.QVCT
MMsB 1 ~~~~MPSVRYFFIIVSVTVIVFVIVLVLSFGGD...QSYQKLNISDSVM.L.A.QVCS
RNB 1 ~~~~MPPSMRHFFIIVSVTVIVFVIVLVLSFGGD...QSYQKLNISDSAM.L.A.QVCT
CFB 1 ~~~~MPSSTRYLFIASVSCVVFVIVCYMLGPGGE...QSFQKLNHSEALM.L.T.QVCT
MDA 1 ~~~~MPSMLRYLFIIVFIVVFVIVVYMFNIYS...QSLPRLNITNTLV.L.A.KVCN
DR 1 MVQLENTKCSFLFCIGICTLICSALYLKAKVASDPLPINDLTTLSFTPPPPCPPSNTCD

Transmembrane segment

GGA 50 ALTEKIVSFLKE...NALKITSFG.KFNCTEYITONHYITRVLSAEEAAFPLAYIITMHK
GGB 48 MLIACQAPTLRD...GGLRPAPR.DSSCKYVSHSRVITRVLSAEEAAFPLAYIITMHK
XTA 48 ALAKIKVFLWPN...HLPKTYSH.SSNCKDFILKNNYITLPLSEEEAAFPLAYIITVHK
XTB 51 SFINCKQKSFWE...STLTLTAFE.KSSCPEYVRONHFTMSPLSDEEAAFPLAYIITVHK
MMsC 49 YGLQNHFTFTTG...DTSHPLE.RLSCPOYRTO SHYITSPLEEEAAFPLAYIMVIHK
RNC 49 YGLQNHFTVFPVPG...ITSPHLE.KLSCSOYQILSHYITSPLEEEADFPLAYIMVIHK
PTC 51 HALEKMPVFLWE...NILPSPLR.SVPCDYLTONHYITSPLEEEAAFPLAYIMVIHK
HSC 51 HALEKMPVFLWE...NILPSPLR.SVPCDYLTONHYITSPLEEEAAFPLAYIMVIHK
MMaC 51 HALEKMPVFLWE...NILPSPLR.SVPCDYLTONHYITSPLEEEAAFPLAYIMVIHK
CFC 51 VALEKAAFTWA...NTLPSVPG.SVPCDYLTOSHYITSPLEEEAAFPLAYIMVIHK
MDB 51 AVEGRPVFLWE...KVLVPSFG.RVSCBOYLQSHYITAPLSKEEAFPLAYIMVVIHK
MMsA 49 QMFSESFYAD...SARKITLLE.NFTCPEYKIONHYITETLSEEEAFPLAFITTIHK
RNA 49 QMFSESFYAVD...STRKITLLE.KFTCSEYRVONHYITETLSEEEAFPLAFITTIHK
PTA 51 QIFEKGVFPTE...NALKITLD.EATCYEYVMSHYITETLSEEEAFPLAYIMVIHK
HSA 51 QIFEKGVFPTE...NALKITLD.EATCYEYVMSHYITETLSEEEAFPLAYIMVIHK
MMaA 51 QIFEKGVFPTE...NALKITLD.EATCYEYVMSHYITETLSEEEAFPLAYIMVIHK
CFA 51 QIFKGRVFPTE...NALKITLS.DSTCYEYMAQSHYITOTLSEEEAFPLAYIMVIHK
PTB 50 SFINGKTRFLWK...NKLMIH.E.KSSCKEYLTOSHYITAPLSKEEADFPLAYIMVIHK
HSB 50 SFINGKTRFLWK...NKLMIH.E.KSSCKEYLTOSHYITAPLSKEEADFPLAYIMVIHK
MMaB 50 SFINGKTRFLWK...NKLMIH.E.KSSCKEYLTOSHYITAPLSKEEADFPLAYIMVIHK
MMsB 50 SFIDKSRFLWR...NKLMIH.E.KPSCTEYVTO SHYITAPLSOEEVDFPLAYIMVIHK
RNB 50 SFTNGKNSFLWR...NKLMIH.E.KPSCTEYVTO SHYITAPLSOEEVDFPLAYIMVIHK
CFB 50 SFIKGRVFPWR...NKLMIH.Q.RTSCRDYLTOSHYITAPLSKEEADFPLAYIMVIHK
MDA 50 SFIKGRVFPLE...NTLTVS.G.K.SCKEYLTOSHYITAPLSKEEADFPLAYIMVIHK
DR 61 ILPPATPGFKWQRKDCEKISYHIQPDNTCDLLSOLHFITAPLSKEEEDVPLAFIITTIHK

GGA 105 EFETFERLFRAIYMPQNVYCHVDCKAPAALKQAVRRLVDCFPNAFLASRTERVVYGGVS
GGB 103 EFETFERLFRAIYMPQNVYCHVDCKAPAALKQAVRRLVDCFPNAFLASRTERVVYGGVS
XTA 103 EFETFERLFRAIYMPQNIYCVHVDEKASADFMQAVDSLVCQFPNIFLASKMEPVVYGGIS
XTB 106 EFETFERLFRAIYMPQNIYCVHVDEKASADFMQAVDSLVCQFPNIFLASKMEPVVYGGIS
MMsC 104 DFDTFERLFRAIYMPQNVYCVHVDKATDTFKEAVRQLLSCFPNAFLASKVEQVYGGFS
RNC 104 DFDTFERLFRAIYMPQNVYCVHVDKAAETFKEAVRHLLSCFPNAFLASRMERVVYGGFS
PTC 106 DFDTFERLFRAIYMPQNVYCVHVDEKAPAEYKESVRQLLSCFQNAFLASKTESVYAGIS
HSC 106 DFDTFERLFRAIYMPQNVYCVHVDEKAPAEYKESVRQLLSCFQNAFLASKTESVYAGIS
MMaC 106 DFDTFERLFRAIYMPQNAIYCVHVDEKAPAEFKESVRQLLSCFQNAFLASKTESVYAGIS
CFC 106 NFETFERLFRAIYMPQNVYCVHVDEKAAAFKESVRQLLSCFPNAFLASRMERVVYGGIS
MDB 106 DFDTFERLFRAIYMPQNVYCHMDEKATTEFKDAVEWLVSFCFNSVFLASKMEPVVYGGIS
MMsA 104 DYDTFERLFRAIYMPQNVYCVHVDKATDTFKEAVRQLLSCFPNAFLASRMERVVYGGFS
RNA 104 DYDTFERLFRAIYMPQNVYCVHVDKAAETFKEAVRQLLSCFPNAFLASRMERVVYGGFS
PTA 106 DFGTFERLFRAIYMPQNVYCVHLDKATDAFKGAVKQLLSCFPNAFLASKKESVYGGIS
HSA 106 DFGTFERLFRAIYMPQNVYCVHLDKATDAFKGAVKQLLSCFPNAFLASKKESVYGGIS
MMaA 106 DFGTFERLFRAIYMPQNVYCVHLDKATDAFKGAVKQLLSCFPNAFLASKKESVYGGIS
CFA 106 DFDTFERLFRAIYMPQNVYCVHVDEKATDTFKNAVKQLLSCFPNAFLASKMEPVVYGGIS
PTB 104 HFDTFARLFRAIYMPQNIYCVHVDEKATTEFKDAVEQLLSCFPNAFLASKMEPVVYGGIS
HSB 104 HFDTFARLFRAIYMPQNIYCVHVDEKATTEFKDAVEQLLSCFPNAFLASKMEPVVYGGIS
MMaB 104 HFDTFARLFRAIYMPQNIYCHVDEKATTEFKDAVEQLLSCFPNAFLASKMEPVVYGGIS
MMsB 104 NFDTFARLFRAIYMPQNIYCVHVDEKATTEFKDAVEQLVSCFPNAFLASKMEPVVYGGIS
RNB 104 NFDTFARLFRAIYMPQNVYCVHVDEKATTEFKDAVEQLVSCFPNAFLASKTEPVVYGGIS
CFB 104 HFDTFARLFRAIYMPQNVYCVHVDEKATTEFKDAVEQLLSCFPNAFLASRMERVVYGGIS
MDA 103 DFGTFERLFRAIYMPQNVYCVHVDEKATTEFKDAVGRVLSFCFPNAFLASKMEPVVYGGIS
DR 121 ELATFVRLFRAIYMPQNVYCHVDKASEYKESVVRNLSRQFPNVFLSSVNVKVIYAGFS

GGA 165 RLRADLHCMRDLLASAVPWYLLNACGQDFPLKTNWEIQHLKA..YRGNITPGVLP
GGB 163 RLRADLHCMRDLLASAVPWYLLNACGQDFPLKTNWEIQRLKA..YRGNITPGVLP
XTA 163 RLQADLNCMKDLLASDVQWKYVINLCCGQDFPLKTNREIHHIKS..FKGKNITPGVLP
XTB 166 RLQADLNCMKDLLASDVQWKYVINLCCGQDFPLKTNKEIHHIKS..FKGKNITPGVLP
MmSC 164 RLQADLNCMKDLVASKVPWKYVINLTCGQDFPLKTNKEILNHLKR..FKGKNITPGVLP
RNC 164 RLQADLNCMRDLVASKVPWKYVINLTCGQDFPLKTNKEIVQYLKG..FKGKNITPGVLP
PTC 166 RLQADLNCMKDLVSEVPWKYVINLTCGQDFPLKTNREIVQHLKG..FKGKNITPGVLP
HSC 166 RLQADLNCMKDLVASEVPWKYVINLTCGQDFPLKTNREIVQHLKG..FKGKNITPGVLP
MmAC 166 RLQADLNCMKDLVASEVPWKYVINLTCGQDFPLKTNREIVQHLKG..FKGKNITPGVLP
CFC 166 RLQADLNCMKDLAASQVPWKYAINLTCGQDFPLKTNKEIVRHLKG..FKGKNITPGVLP
MDB 166 RLQADLNCMKDLVASQIQWKYLINTCGQDFPLKTNKEIQHLKG..FKGKNITPGVLP
MmSA 164 RLQADLNCMKDLVASKIPWKYVINLTCGQDFPLKTNKEIVQYLKR..FKGKNITPGVLP
RNA 164 RLQADLNCMRDLVASKVPWKYVINLTCGQDFPLKTNREIQYLKG..FKGKNITPGVLP
PTA 166 RLQADLNCMLDLVASEVPWKYVINLTCGQDFPLKTNREIVQYLKG..FKGKNITPGVLP
HSA 166 RLQADLNCMLDLVASEVPWKYVINLTCGQDFPLKTNREIVQYLKG..FKGKNITPGVLP
MmAA 166 RLQADLNCMLDLVASEVPWKYVINLTCGQDFPLKTNREIVQYLKR..FKGKNITPGVLP
CFA 166 RLQADLNCMKDLGASEVPWKYAINLTCGQDFPLKTNKEIVRYLKG..FKGKNITPGVLP
PTB 164 RLQADLNCIRDLSAFEVSWKYVINLTCGQDFPLKTNKEIVQYLKG..FKGKNITPGVLP
HSB 164 RLQADLNCIRDLSAFEVSWKYVINLTCGQDFPLKTNKEIVQYLKG..FKGKNITPGVLP
MmAB 164 RLQADLNCIKDLSAFEVSWKYVINLTCGQDFPLKTNKEIVQYLKG..FKGKNITPGVLP
MmSB 164 RLQADLNCIKDLSTSEVPWKYAINLTCGQDFPLKTNKEIVQYLKG..FKGKNITPGVLP
RNB 164 RLQADLNCIRDLSTSEVPWKYAINLTCGQDFPLKTNKEIVQYLKG..FKGKNITPGVLP
CFB 164 RLQADLNCIKDLAASQVPWKYAINLTCGQDFPLKTNKEIVRYLKG..YRGNITPGVLP
MDA 163 RLQADLNCMKDLVASQIQWKYLINTCGQDFPLKTNKEIQHLKG..FKGKNITPGVLP
DR 181 RLQADLNCMKDLVSEPIQWKYVINLTCGQDFPIQTNLELVRYMQTPEWKRDNMTPGILKQDP

GGA 223 HVTARTKYVHREQLYSLFSFMLPMFVHKAPPPHNLTYFGSAYLAVTRPFAEFVLQDPRA
GGB 221 HVTMTRFMHELEQGGSNVSELVTPQVHKAPPPHNLTYFGSAYLAVTRPFAEFVLQDPRA
XTA 221 HAIPTRTKYVHRE..DIVNSRVVTRVRLKPPPPHNTIYFGSAYVALTREFTRFLEEDQRA
XTB 224 HAIPTRTKYVHRE..DIVNSRVVTRVRLKPPPPHNTIYFGSAYVALTREFTRFLEEDQRA
MmSC 222 YIVVTRTKYVHQERKKGIDGYFMHKTINILKTPPPHNTIYFGTAYVALTRDFVNFILNDERA
RNC 222 HVIPTRTKYVHREKRCRGGFVKNINILKTPPPHNTIYFGTAYVALTRDFVNFILNDKRA
PTC 224 HAIKRTKYVHQEHTDKGGFVKNINILKTPPPHNTIYFGTAYVALTRDFVDFVLRDQRA
HSC 224 HAIKRTKYVHQEHTDKGGFVKNINILKTPPPHNTIYFGTAYVALTRDFVDFVLRDQRA
MmAC 224 HAIKRTKYVHQEHTDKGGFVKNINILKTPPPHNTIYFGTAYVALTRDFVNFVLDKKA
CFC 224 HAVKRTKYVHREHICGDGSEVKNINVLKTPPPHNTIYFGTAYVALTRDFVDFVLDKKA
MDB 224 HAIERTKYVHREHISQKASYMEKTKILKSPPPHNTIYFGSAYVALTREFVNFVQDHRRA
MmSA 222 HAVGRTKYVHQELLDHKNPVYHNTARLKAAPPPHNTIYFGTAYVALTRDFANFVLQDQRA
RNA 222 HAVGRTKYVHQELLDLKNPVYHNTARLKAAPPPHNTIYFGTAYVALTRDFANFVLQDQRA
PTA 224 HAVGRTKYVHQELLDHKNSYVILKTKLTPPPHNTIYFGTAYVALTRDFANFVLQDQRA
HSA 224 HAVGRTKYVHQELLDHKNSYVILKTKLTPPPHNTIYFGTAYVALTRDFANFVLQDQRA
MmAA 224 HAVGRTKYVHQELLDHKNSYVILKTKLTPPPHNTIYFGTAYVALTRDFANFVLQDQRA
CFA 224 HAIERTKYVHRELLSKKNSYMLKTKLTPPPHNTIYFGTAYVALTRDFANFVLQDQRA
PTB 222 HAIERTKYVHQEHLGKELSYVIRTAALKPPPPHNTIYFGSAYVALSREFANFVLHDPRA
HSB 222 HAIERTKYVHQEHLGKELSYVIRTAALKPPPPHNTIYFGSAYVALSREFANFVLHDPRA
MmAB 222 HAIERTKYVHQEHLGKELSYVIRTAALKPPPPHNTIYFGSAYVALSREFANFVLHDPRA
MmSB 222 HAIERTKYVHQEHLGKELSYVIRTAALKPPPPHNTIYFGSAYVALSREFANFVLHDPRA
RNB 222 HAIERTKYVHQEHLGKELSYVIRTAALKPPPPHNTIYFGSAYVALSREFANFVLHDPRA
CFB 222 HAIERTKYVHQEHLGKELSYVIRTAALKPPPPHNTIYFGSAYVALSREFANFVLHDPRA
MDA 221 HAIERTKYVHQEHLGLEASVYVINTQALKSPPPHNTIYFGSAYVALTREFANFVLQDQRA
DR 241 SMRYRTAF...QYVEVKNTHVAQGRKKGPPPHNTIYFGTAYVALTRPFAEFVLQDPRA

GGA 283 IDLLAWSKDTYSPDEHFVWTLNRI
GGB 281 IDLLAWSKDTYSPDEHFVWTLNRI
XTA 279 TNLLEWSKDTYSPDEHYWVTLNRI
XTB 282 TNLLEWSKDTYSPDEHYWVTLNRI
MmSC 282 LALLEWSKDTYSPDEHFVWTLNRI
RNC 282 IDLLEWSKDTYSPDEHFVWTLNRI
PTC 284 IDLLAWSKDTYSPDEHFVWTLNRVS
HSC 284 IDLLEWSKDTYSPDEHFVWTLNRVS
MmAC 284 IDLLEWSKDTYSPDEHFVWTLNRVS
CFC 284 IDLLEWSKDTYSPDEHFVWTLNRI
MDB 284 IDLLEWSKDTYSPDEHFVWTLNRIT
MmSA 282 VDLLEWSKDTYSPDEHFVWTLNRI
RNA 282 LDLEWSKDTYSPDEHFVWTLNRI
PTA 284 LDLLEWSKDTYSPDEHFVWTLNRI
HSA 284 LDLLEWSKDTYSPDEHFVWTLNRI
MmAA 284 LDLLEWSKDTYSPDEHFVWTLNRI
CFA 284 LDLLEWSKDTYSPDEHFVWTLNRI
PTB 282 VDLLEWSKDTYSPDEHFVWTLNRI
HSB 282 VDLLEWSKDTYSPDEHFVWTLNRI
MmAB 282 VALLEWSKDTYSPDEHFVWTLNRI
MmSB 282 VDLLEWSKDTYSPDEHFVWTLNRI
RNB 282 VDLLEWSKDTYSPDEHFVWTLNRI
CFB 282 VDLLEWSKDTYSPDEHFVWTLNRI
MDA 281 IDLLEWSKDTYSPDEHFVWTLNRI
DR 298 KDLLEWSKDTYSPDEHYWVTLNRI