

10 20 30 40 50 60 70 80 90
RmABC10 MHAFLVLSAGSGLFRQVKN-----RKHVL-----LRFISSKNGGV-----LSNSSAIRRVCPVVK-----
Dp347276 -----MALVSRLLTSPS-----YSRQV-----ILLVRARCSSL-----ASRSLQSPASPGKNG-----
DmCG3156 -----MLLNCRTLTHLCTT-----LRVRKSSQ-----IRLSTSYNHHLGRCLHRTARSLQHSLLPPNRYHSHLHPTLRMPW
Mm_ABC-me MRAPASARALLIPRRGPA-----VRAWAPAV-----SSRIWLASE--W-TPLVRAWTSLIHKPGSGLRFPPAPLSGLPG
HsABC10 MRGPPAWPLRLLEPPSPAEPGRLLPVACVWAAASRVPGSLSPFTGLRPARLWGAGPALLWVGGAARRWRSGCRGGPGASR--GVLGLAR
HsABC8 -----MLVHLFRVGR-----GGPFPGRLL-----PPLRFQTFSAVRYSDGYRSSLRAVAHLRSQWLAHLPRAPLAPR
HsABC7 -----MALLAMHSWR-----WAAAA-----AAFEKRRHSAI-----LIRPLVSVSGSGPQWRPHQLGALG
ScMdl1p -----MIVRMIRLC-----KGPKL-----LRSQFASASAL-----YSTKSLFKPPMYQKAEINLIIPH-----
ScMdl2p -----MLNGRLPLLRGIC-----RNMLSRPRL-----AKLPSIRFRSLVTPSSQLIPLSRLCLRSAPVAGKSLILQSF-----
ScAtm1p -----MLLLPRCPV-----I-----GRIVRSKFRS-----GLIRNHSPVIFTVSKLSTQRPLLFNS-----

RmABC10 -----SLASVVLCR-----ACSNARRVDSSELRR--LLRQARPE-----RF
Dp347276 -----GA--NCSWRFFSSTALLRNSGLKTA-----EKVKPKLKS-EVRR--LIGLAKPE-----KY
DmCG3156 -----WCMRRGFAQSSKWLARNAKANLPTAVGAGIVPA-----PVKMGRSQYGR--LLSLTKSE-----KW
Mm_ABC-me -GVGQWATSSGA--RRCWLAGPRAAHPLFARLQGAATG-----VRDLGNDSQRRPAATGRSEVVK--LLGLVRPE-----RG
HsABC10 -LLGLWARGPGS--CRGAFAGPGAPRLPRARFPGGAAAAGWDEAWRRGPAAPPDGRRLRPAAGLPEAKR--LLGLAYPE-----RR
HsABC8 RLAAAVGFLLTMSVSI SMSAPFFLGRKIIDVI--YTNPTVDYS--DN-----LTRLCLGLSAVFLCGAAANAI RYV-----LMQTSQG
HsABC7 -TARAYQQIPESLKSITWQRLGKGNSSGQFLDAKALQVWPLIEKRTCWHGHAGGGLHTDPKEGLKDVDTKRIKAMLSYVWPKDRPDRA
ScMdl1p -----RKHFLLRSIRLQSDIAQKKSTKPTLKL-----SNANSKSSGFKDIK--LFLVLSKPE-----SK
ScMdl2p -----RCNSKTVPETSLPASPISKGSARSAH-----AKEQSKTDDYKDIIR--LFMALAKRD-----WK
ScAtm1p -AVNLWNQAQKDITHKKSVEQFSSAPKVKTVQVKTSKA-----PTLSELKILKD--LFRYIWPKGNKVKRI

RmABC10 RLGAUALLLVSSVMIAPFCIGKVIDVI--YTSSDNAELR-AN-----LNWICKLLTGUVVIGGLANFGRVY-----LMNSSAQ
Dp347276 RLLGGIGLLFVSSAITMVIPIFAIGKVIDII-----SANQESMVEN-----LTVNSLILVIGIFGAACNFGRTY-----LMSVAGE
DmCG3156 VLTAGIGCLVSSAITMSVPLFLGKVIDIV--FNKSGMDSAAMAK-----LGEYSVLLFGIFVLGGFANFARVH-----LFGNAAL
Mm_ABC-me RLSAAVGLFVAVSSVITMSAPFFLGRIIDVI--YTNPSEGYG--DS-----LTRLCVAVLTCVFLCGAAANGIRVY-----LMQSSGQ
HsABC8 RLAAGVGLFVAVSSVITMSAPFFLGRIIDVI--YTNPSEGYG--DS-----LTRLCVAVLTCVFLCGAAANGIRVY-----LMQSSGQ
HsABC7 VLGAVVVALGAALVNVQIPLLLGQLVEVYKTRDHSVGFMTES-----QNLSTHLLILYGVQGLLTFGYLV-----LLSHVGE
HsABC8 RVAISLGLFGLGAKAMNIVVPMFKYAVDSL--NQMSGMMLNLSDA-----PNTVATMAAVLIGYGVSRAGAAFFNEVRNAVFGKVAQ
ScMdl1p YIGLALLLILISSVSMVAVSVIGKLLDLA--SESDGEDEEGSKSNKLYGFTKKQFF TALGAVFIIGAVANASRII-----ILKVTGE
ScMdl2p LLLTALLLITSCSILRQMSIPKVIIGVLDLTI--KTSAGDVFLLDKI-PIFSLPLYEFLSFFTVALLIGCAANFRFI-----LLRILSE
ScAtm1p RVLIALGLLISAKILNVQVPPFFKQITIDSM-----NIAWDDP-----TVALPAAIGLTILCYGVARFGSVLFGELRNAVFAKVAQ

Tm1

Tm2

RmABC10 RIINSRLKQAHASLMQVEAVFFDRNRTGDLITRLSSDVALVGMSLTQNI SDGLRFAVAVFGVGMMLY-TSPQLSLVGLSVVPPVAIISF
Dp347276 RITQTMRRNVYAAIVKQDVKFFDKNQTGELVNRSLDSTTLVSKCVTANLADGIRSSALVVSASIMMFY-TSPQIALVGLSIVPPVAGLTI
DmCG3156 RIVRSLSRSLYRSMMLQEVGWFDTKGTGELINRLSNDTLMVGTSLSQNVSDGLRSVAMIGVGTGMMIY-TSPQLAAVSALVVPAMAGMAI
Mm_ABC-me SIVNRLRTSLFSSILRQEVAFDDKTRTGTGELINRLSSDVALLGRSVTENLSDGLRAGAQAQSVGVGMFFF-VSPSLATFVLSVVPVIVSLAV
HsABC10 RIVNRLRTSLFSSILRQEVAFDDKTRTGTGELINRLSSDVALLGRSVTENLSDGLRAGAQAQSVGVGMFFF-VSPSLATFVLSVVPVIVSLAV
HsABC8 RMAVDMRRALFSSLLRQDITFFDANKTGQLVSRLLTDDVQEFKSSFKLVISQGLRSCQVAGCLVLSLSM-LSTRLLTLLMVA TPALMGVGT
HsABC7 NSIRR IAKNVFLHLHNLDLGFHLSRQTGALSKAIDRGTRGISFVLSALVFNLLPIMFEVMLVSGVLYYKCGAQFALVTLGTYTAFTV
ScMdl1p RLVARLRTRTMKALDQDATFLDTRNVGDLISRLSSDASIVAKSVTQNVSDGTRAI IQGFVGFMMMSF-LSWKLCVMMILAPPLGAMAL
ScMdl2p RVVARLRTRTMKALDQDATFLDTRNVGDLISRLSSDASIVAKSVTQNVSDGTRAI IQGFVGFMMMSF-LSWKLCVMMILAPPLGAMAL
ScAtm1p NAIRTVSLQTFQHLMLKLDLWHLRSRQTGGLTRAMDRTGKGISQVLTAMVFHIIPISEFISVVCGLTYQFGASFAAITFSTMLLYSIFTI

Tm3

Tm4

RmABC10 AFARRLRQVADVQTRLAES SATEEQLSNIRTVRAFTEKEFEMNRYSVGLTRLLDKVNTETRLRAVFGCTGATGNMIVLAVLYYGGIIL
Dp347276 VYGRFVKKITKQVQDALAQATQVTEERISNIRTVRAFQEKREPERYNEQIDHVLTLGYKEAKARGTFFALTGFAGNAIIISGLYGGGLM
DmCG3156 VYGRYVRRITKVELDKYAEIMKFAEERFNVKTKVTFCREQQEVAAPFDGKLDEALQIGYKTRARAIFFGLTGFCGNFIIISVLYYGGTL
Mm_ABC-me IYGRYLRLKLSKATQDSLAEATQLAEERIGNIRTVRAFQEKEMTEVEKYTRVDQLLQLAQKEALARAGFFGAAGLSGNLIVLSVLYKGGLL
HsABC10 IYGRYLRLKLTKVTDLSAQATQLAEERIGNIRTVRAFQEKEMTEIEKYASKVDHVMQLARKEAFARAGFFGATGLSGNLIVLSVLYKGGLL
HsABC8 LMGSGRLKLSRQCQEIQIARAMGVADALGNVTRVRAFAMEQREERYGALEACRCRAEELGRGIALFQGLSNIAFNCMVLTGTLF IGSSL
HsABC7 AVTRWRTRFR IEMNKADNDAGNAIDSLLNYETVKYFNNEREYEAQR YDGFLLTYETASLKSSTLAMLNFQQAIFSVGLTAIMVLASQ
ScMdl1p IYGRKIRNLSRQLQTSVGLTKVAEEQLNATRTIQAYGGEKNEVRRYAKEVRNVFHIGLKEAVTSGLFFGSGTGLVNTAMLSLLLVGTSM
ScMdl2p VFGKQIRNTSKDLQEQATGQLTRVAAEQLSGFKTVQSFVAGNELSRYNVAIRDIFVQKTAFTAENAKFFTTSLDGLDLSFLTVPVAYGSL
ScAtm1p KTTAWRTHFRDRANKADNKAASVALDSLINF EAVKYFNNEKYLADKYNGLMNYRDSQIKVQSLSLAFNLGQNLIFTTALTAMMYMGCTG

Tm5

RmABC10 MSDGRLTVGSLSSFLLYAAVVGVTIGGLGGFFT EATKALGASKVWEIADRVP TLPNFG-G--LALSNLQGVVEFHNVTFAYSRPEIEV
Dp347276 VADSSLTIVGQLSAFLLYAAVVGISMGGSSSYSEMMLKGLGASTRIWQLIDTRPDIPISG-GPVPAGQFEGRSIRFRDLFSFAYPTRSDVPI
DmCG3156 VLQDSLITIGALTAFMLYAGYVAISMNGLSNFYSLNKGIGASERIEWELDRECSIPIDK-G-VVPLEKPVGEVGFQNVFFTFPTPESAV
Mm_ABC-me MGSAMHTVGE LSSFLMYAFVWGLSIGLSSSFYSELMKGLGAGRLWELLERQPLPFNE-GMVLDEKTFQGALEFRNVHFTYPARPEVS
HsABC10 MGSAMHTVGE LSSFLMYAFVWGISIGLSSSFYSELMKGLGAGRLWELLEREPKLPNE-GVILNEKSFQGALEFRNVHFTYPARPEVPI
HsABC8 VAGQQLTGGDLMSFLVASQTVQRSMANLSVLFQGVVRLSAGARVFEYMALNPCIPLSG-GCCVPKEQLRGSVTFQNVCF SYPCRPFGEV
HsABC7 IVAGTLTVGDLVMVNGLLFQLSPLNFLTGTVYRETRQALIDMNTLFLLLKVDTPQIKDKVMASPLQITPQTATVAFDNVHFY--IEGQKV
ScMdl1p IQSGSMTVGELSSFFMMYAVYTGSSLFLGSLFFYSELMKGLGAGAAARVFE LNDKRLIRPTI-G-KDPVSLAQKPIVFKNVSTYTPTRPKHQI
ScMdl2p VLQSLSIGDLTAFMLYTEYTGNAVFGLSFTFYSEIMQGAASRLFELTDRKPSISPTV-G--HKYKPDGRVIEFKDVSF SYPTPRPSVQI
ScAtm1p VIGGNLTVGDLVLIQLVFLSVPLNFLGSSVYRDLKQSLIDMETLFLKRLKNEVKIKNAE-RPLMLPENVPYDITFENVTFY--HPDRKI

Tm6

