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Apl_TMEM169      1  -----
Dme_TMEM169      1  -----MVGKGSSGL-----
Ana_TMEM169      1  MRSPTHADRPKTISKEPLLDPQHRCISITSGNAGLKGKVAEKRSNPIMVGLTADDMVLRTA
Sko_TMEM169      1  -----
Ovu_TMEM169      1  -----
Lia_TMEM169      1  -----
Lip_TMEM169      1  -----
Brf_TMEM169      1  -----
Pma_TMEM169      1  -----
Dre_TMEM169      1  -----
Hsa_TMEM169      1  -----
Cam_TMEM169      1  -----
Rty_TMEM169      1  -----
consensus        1

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Apl_TMEM169      1  -----
Dme_TMEM169     10  -----GGDTSTGSKERPVIIPPRKRQOTKSEAKKQNYVDHIVSVQQNRPKLSPSNPGL
Ana_TMEM169     61  QHQQPSPiRQCQPvQSEFPVFIppKKRQAGKK-ANHSNHIDHIVNVQGRKEWDLTPE-R
Sko_TMEM169      1  -----MPANM-----
Ovu_TMEM169      1  -----
Lia_TMEM169      1  -----M-----
Lip_TMEM169      1  -----MMDTRERPvFRPPKKRGRPSL-----
Brf_TMEM169      1  -----M-----
Pma_TMEM169      1  -----MLERRWHPSAQEEEEENHTAEM-----
Dre_TMEM169      1  -----M-----
Hsa_TMEM169      1  -----M-----
Cam_TMEM169      1  -----M-----
Rty_TMEM169      1  -----M-----
consensus        61  m

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Apl_TMEM169      1  -----MPK-----
Dme_TMEM169     63  EEELRKSCLIKNKQPLPQLPGELGVPSAHDTLASTHSASSTQHSQKSARSNSNLNELQN
Ana_TMEM169    119  -EDCRKTKRW--NSEELIEIK-----ASAKNAAPNHTNGTNEDEDDLNELQQ
Sko_TMEM169      6  -----PKAH-----
Ovu_TMEM169      1  -----
Lia_TMEM169      2  -----PQ-----
Lip_TMEM169     22  -----PRSE-----S---NCTQ
Brf_TMEM169      2  -----PKAT-----
Pma_TMEM169     22  -----AGRAE-----QGESERPA
Dre_TMEM169      2  -----VNMS-----EGPSGDIG
Hsa_TMEM169      2  -----E-EP-----TAVEGQVQ
Cam_TMEM169      2  -----P-QS-----S-ASPEPA
Rty_TMEM169      2  -----P-QN-----N-ISGEQT
consensus        121  p

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Apl_TMEM169      4  -----TPFRKHVKF
Dme_TMEM169    123  FESISQGTK--STSQRHESSTVTPSSCCYSESSLDAKLSKSQDCLSNRS--SSK---KR
Ana_TMEM169    163  FHPLKD-----SSTVTPSS--ISESSLDRKSSKSAELLTGGSGKRSK---KR
Sko_TMEM169     10  -----EKT--RHMDD-----QDKNLKKEQ-----ENISNEERSQKLEPVEETD
Ovu_TMEM169      1  -----M-----A-----SDYPECS-----
Lia_TMEM169      4  LDHAHNGIE-----O-----SSSQETS-----T
Lip_TMEM169     31  TVVPVSPVRSRS-FQN--VNKEANSCILGEVDFNP-----QGCVDNFKKSkrNVHVESL
Brf_TMEM169      6  -----QKT---RHADR---SPTTESESLSGTSSFSVSHPKNKSVESLEMKQERIPRPTNF
Pma_TMEM169     35  LAKQHQPKEKRRAAHKSEVSSRDVPSGTDGESAE-----STSSTAekRRRKRREPRPESV
Dre_TMEM169     14  GVELDGGIETET-----PMNTLHRsADG-----EGTSTRRKKKKK---KKE
Hsa_TMEM169     13  LPSPHQGSLL--R-----KAVAAALALDG-----ESTMGHRKKKKRkESRPESI
Cam_TMEM169     12  SHRR-----A-----GQPAVNLDQPG-----EAIMERKKKKRkEPRPESI
Rty_TMEM169     12  AHGTHQSLPHKA-----VPVTGIFeKEG-----EATMERKKKKKkEPRPESI
consensus        181  g rk rr k

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Apl_TM169 13 VSIIDNG----ANGPEN-----AVRDGQVS-----AQSQR-----TESPIG
 Dme_TM169 175 VNI^RTS^DLP^GQ^GR^NR^SSP-EIANYEDLESGETSVLNNYD--OSL-----ERGYQ--ARK
 Ana_TM169 205 VNI^RT^DL--DEIDHRRSPS-AICNYEDLESGETSVLNAELDDQ^QSL----DRYNTNRSYG
 Sko_TM169 46 VHLL-----Q^QG--TREKLNDCCHDDERH-MTRS^RD-----TLN^TT^TTS
 Ovu_TM169 10 --KATELEEIQEKEWI^LP-----ESSPED^Q-----L-----QDN
 Lia_TM169 22 SLHQAAIETLDQDHHHD^S----GTEP^QSD-----IDESVSVREKLT
 Lip_TM169 82 TSLKEHSVTVGETPQI^ADS---GYTEIDLSNDRV-----SLKAHSH--SISSRG
 Brf_TM169 55 HNC^LHEG^REMGAQAGSS^TLP--TISGVLN^LNEHPIMPANH-S^QT^LR^LT^NQ^SPV^TDLN^QI
 Pma_TM169 90 IIF^RT^EE^KENG^DENV^QE^S---GRAE^VEDV---CLE^SA---GET^RH^FP^PALV^PGP^AWD
 Dre_TM169 52 I^IY^RS^DLE^DE^DAGE^NT^SA-----D^VDGA-----CSS^PF^DEEEE^EI
 Hsa_TM169 53 I^IY^RS^DNE^KT^DE^EP^GE^SE^GD^QP^KEE^GD^F-----LDY^PV^DDD^MW^NL
 Cam_TM169 47 I^IY^RS^ESE^KVE^ED^QGD^PD^STAK-STE^ERT^NF-----LT^PP--EGAW^NI
 Rty_TM169 54 I^IY^RT^GG^EK^ME^ED^QR^DP^DT^TAK-NTE^ERT^NF-----LC^PPS^VE^GG^WSV
 consensus 241 v rtd s dve
 consensus 1

Apl_TM169 45 GGPSS^FO^TE^EI^TE^IR^VE^DE^DG^VS^QPH^RF^HP^DH^AR^EH^CS^EC^HM^LG^KP^HK-----
 Dme_TM169 225 EGGGN^YL^TM^TG^T-IK^RG^RK^KG--Q^SV^DL^QI^NI^SR^EL^L---E^QL^NA^HA^MA^SD^TQ-----
 Ana_TM169 258 SSADN^YL^TM^TG^T-IK^RG^RK^KG--Q^SI^DV^QL^NI^SR^EL^L---E^HI^SK^QA^LA^AH^DE-----
 Sko_TM169 81 SIG^SK^IT^LT^GT-IR^RG^KN^ST--D^NN^II^QV^TL^SE^EQ^L---E^LM^K-----
 Ovu_TM169 38 GGD^QH^FV^TL^TG^T-V^AR^GY^QA^G--Q^VV^DV^QL^QI^SR^DE^L---R^KL^TL^ER^GT^KE^EK-----
 Lia_TM169 60 PPSEQ^KV^TV^TG^T-IK^RG^PK^AG--Q^SV^EV^EL^RL^SK^DE^L---Q^KL^GH^E---D^EE-----
 Lip_TM169 126 SDS^DG^YV^TM^TG^T-IK^RG^KK^KG--Q^TM^DM^KV^HM^SR^EL^L---D^EL^ES^SI^IS^HQ-----
 Brf_TM169 112 HSN^YR^TV^TL^TG^T-I^TR^GK^KR^G--Q^MV^DI^QL^DL^TD^KE^I---A^EL^ST^IS^EE^KE^EE-----
 Pma_TM169 139 RAD^GH^YV^TL^TG^T-I^TR^GK^KK^G--Q^LV^DI^HL^SL^TE^KE^L---L^EL^GC^GP^PA^PV^TG^SG^GS^GT
 Dre_TM169 87 PPDS^RF^VT^LT^GT-I^TR^GK^RK^G--Q^MV^DI^YM^TL^TD^KE^L---R^DM^AR^SK^ER^LD^AE-----
 Hsa_TM169 96 PLDS^RY^VT^LT^GT-I^TR^GK^KK^G--Q^MV^DI^HV^TL^TE^KE^L---Q^EL^TK^PK^ES^RE^T-----
 Cam_TM169 87 PADS^RY^VT^LT^GT-I^TR^GK^KK^G--Q^MV^DI^HV^TL^TE^KE^L---Q^EL^AK^SK^EP^PR^SK-----
 Rty_TM169 96 PTDS^RY^VT^LT^GT-I^TR^GK^KK^G--Q^MV^DI^HV^TL^TE^KE^L---Q^EL^AK^SK^EP^LO^PE-----
 consensus 301 kyvTltgT i rgkkg qvvd i lsee el k
 consensus 61 m

Apl_TM169 93 -----HQRVTATDQDDDEDG^CI-YSP^QQ^GPH^II^LT^FL^CI^PFV^FA^TA^LV^VN^TY^LG^IL^TW
 Dme_TM169 272 -----KGNL^CCT-CSC^GT^GL^HI^LL^IS^LF^CL^PFV^TV^VS^AV^YS^FY^IG^TL^TW
 Ana_TM169 305 -----SYRA^QGC-CTM^RT^GV^HI^LL^LS^LL^CL^PFV^TL^TG^VY^SF^YM^GT^VW
 Sko_TM169 119 -----DNHA^QND^CV-WG^VD^RG^LH^VL^LF^SL^IC^IP^FS^FI^AS^FV^FA^GY^QG^TL^TW
 Ovu_TM169 85 -----LKYK^SSP^CS-WG^LH^SG^LH^IV^FL^SI^IC^IP^IA^WL^VS^LG^YS^FY^IG^CN^TW
 Lia_TM169 103 -----SVYGP^GE^CT^LC^GL^KK^GI^HV^FL^FT^VI^VT^PF^AF^FG^SL^GL^SF^YL^GA^QT^W
 Lip_TM169 171 -----KPEE^EDD^CF-FG^AK^GPH^VF^LS^LL^LA^PV^VF^CM^SA^AY^SF^YI^GT^MW
 Brf_TM169 159 -----ENTPK^DDCI-WG^IN^KG^IH^IF^IW^SV^LC^FP^VV^FV^IA^FF^YY^GT^IW
 Pma_TM169 193 NAP^TT^TPA^QTH^GV^ER^NR^CH^SR^CR-CG^LN^HG^PH^AS^LW^SL^LC^LP^FA^FV^AS^LV^VA^FY^GT^IW
 Dre_TM169 134 -----CDGV-AEAK^QK^PCA-LG^LS^QPH^VL^LW^SL^SC^SP^FI^FV^LS^FI^TS^FY^GT^LW
 Hsa_TM169 143 -----T-----PEGR^MAC^Q-MG^AD^RG^PH^VV^LW^TL^IC^LP^VV^FI^LS^FV^VS^FY^GT^IW
 Cam_TM169 134 -----E-----ESER^KP^CD-VG^PRR^GPH^VV^LW^SL^LC^AP^VI^FV^LS^FV^MS^FY^GT^IW
 Rty_TM169 143 -----E-----KG^TK^KA^CD-VG^LY^RG^PH^VV^IW^SL^LC^AP^VV^FV^LS^FV^MS^FY^GT^IW
 consensus 361 c gm rGpHvilfsllciPfvfvvs vvsfy GtltW
 consensus 121 p

Apl_TM169 147 YNIF^LY^YY^DD^RG^WI^HR^IV^VC^PV^LL^LC^PPV^IL^VT^AL^VV^SL^YS^SV^RQ^LS^WY^LS^SW^RT^SV^TD
 Dme_TM169 316 YNMF^NY^YC^EE^RT^YL^HK^IL^VT^PL^LF^VI^YP^LA^IV^LCT^FG^LG^IY^SG^LR^QL^SL^OY^SS^WV^ND^IT^D
 Ana_TM169 349 YNMF^TY^FN^EE^RS^YF^HK^LL^MS^PL^LI^LA^YP^LG^IV^LCT^IG^LG^LY^AG^FR^QL^SF^HF^RS^WL^NE^VS^D
 Sko_TM169 164 YSIF^LY^YY^DE^KT^IL^HK^IF^IC^PV^LL^IL^FF^PPV^IV^VL^TL^GI^SL^YA^MV^IQ^VS^WF^FS^SW^RR^DF^FD
 Ovu_TM169 130 YN^IY^LY^FS^EE^KT^IW^HK^IS^IC^PV^LL^IL^TF^PF^TV^GL^SS^LI^IS^LY^AP^II^QI^SW^NF^YK^WL^OE^FO^D
 Lia_TM169 149 YNIF^TY^FS^EE^RT^IW^HK^VL^CP^LL^IL^TF^PL^TV^GL^SA^LG^IA^LY^AA^LI^QI^SW^WF^KS^WL^KE^MR^D
 Lip_TM169 216 YN^IL^VL^FT^EK^KT^AW^HK^IF^VS^PL^LI^IF^YP^FL^IM^MP^TI^GL^GL^YA^SV^IQ^LS^WQ^YD^LW^KQ^EV^LD
 Brf_TM169 204 YNIF^LH^YN^EE^RT^FL^HK^VS^IC^PL^LI^LF^YP^IL^IV^VV^SL^SL^GG^YS^AC^VQ^LS^WY^CD^SW^RE^DV^GD
 Pma_TM169 252 YN^VF^LV^YN^EE^RS^FL^HK^IT^LC^PL^LL^LL^YP^LL^IA^VT^SL^SL^AY^AA^VA^VQ^LS^WS^FT^AW^WG^AV^SD
 Dre_TM169 183 YN^VF^LV^YN^EE^RS^FL^HK^IT^LC^PL^LL^LL^YP^LL^IM^AL^CV^CM^GV^YA^AV^SQ^LS^WV^FE^GW^WL^AV^RD
 Hsa_TM169 188 YNIF^LV^YN^EE^RT^FW^HK^IS^YC^PC^LV^LF^YP^VL^IM^AM^AS^SL^GL^YA^AV^VQ^LS^WS^WE^AW^WQ^AA^RD
 Cam_TM169 179 YNIF^LV^YN^EE^RT^FW^HK^VT^VC^PL^LI^LL^YP^VL^IV^AT^SA^SL^GL^YT^MV^TQ^VS^WS^LG^EW^WQ^AV^RD
 Rty_TM169 188 YNIF^LV^YN^EE^RS^FW^HK^IT^IC^PF^LI^IF^YP^LL^IV^AM^SV^SL^AV^YT^TV^TQ^IS^WS^FE^GW^WQ^AV^RD
 consensus 421 Ynifl yneertwWhkiscvPlLil yPliliv tl lglYagv QlSw f W ndv D
 consensus 181 g rk rr k

Apl_TM169 207 LEKGFYAWLCHOLGLPNCSPIYEVITLDDYEEDSFGRITTSCTH----ASSG----WKKSK
 Dme_TM169 376 IEKGFYGWLCGFLRMPDCSPYEVVILTDICVAPQDPORLH-----
 Ana_TM169 409 IEKGFYGWLCGFLHLSDCSPYEVVILTEICSTNPAGGGAIEGTGSTAHTPTVDGRRLHGDST
 Sko_TM169 224 FEKGFYGWLCGKLNLEDCAYDVVEVSAEVTMDASDNENDFQ-TLEASHNVNSQLFSNKN
 Ovu_TM169 190 YEKGFYGWFCNWIGLHQCCEPYEVVILDCPESIRETKLPSS-----
 Lia_TM169 209 LEKGFYGWFCAKVDLMECSPIYEVVLLDDIPAITSE-LPGTSV-----
 Lip_TM169 276 WEKGFYGWLCSSLNIEDCSPIYEVVILTEIQGADSAKQKKAVV-ADTAL-----
 Brf_TM169 264 FEKGFYGWMCSKLRLLDCSPYDVVELTTEGETLAQQDPASP-PPHSESTV-----
 Pma_TM169 312 PEKGFYGWLCGHLGLECAPYSIVELIESGAAPSGHGGGGGD-DSDVDSGAVRRPFAQGI
 Dre_TM169 243 LEKGFYCGWMCCKLGLLEDCAPYNVVELLDSDTLSGTLQGKRLE-DVEQTSNL-----
 Hsa_TM169 248 MEKGFYCGWLCCKLGLLEDCSPYSIVELLESDNISSTLSNKPDI-QEVETSTV-----
 Cam_TM169 239 LEKGFYCGWLCCKLGLLEDCSPYSIVELLESDNVSGSLSGKGGP-SLDQTSAV-----
 Rty_TM169 248 LEKGFYCGWLCCKLGLLEDCSPYSIVELLESDNVSGSLSSKAAP-AGEQTSAV-----
 consensus 481 lEKGFyGwlc klgledCspYevvel d e m s s v
 consensus 1

Apl_TM169 258 ALT-----TEIRVEDEDGVSOPHRFHPDHAREHCSECHMLGKPHK-----
 Dme_TM169 416 -INKPRQELSMT-IKRGKKG--QSVDLQINISREEL---EQLNAHAMASDTQ-----
 Ana_TM169 469 QINSSTEELSVT-IKRGKKG--QSIDVOLNISREEL---EHISKQALAAHDE-----
 Sko_TM169 283 VIEVKKTSET-T-IRRGKNST--DNNIIQVTLSEEQL---ELMK-----
 Ovu_TM169 -----T-VARGYQAG--QVVDVQLQISRDEL---RKLTLERGTKEEK-----
 Lia_TM169 -----T-IKRGPKAG--QSVVELRRLSKDEL---QKLGHE---DEE-----
 Lip_TM169 -----T-IKRGKKG--QTMDMKVHMSREEL---DELESSIISHQ-----
 Brf_TM169 -----T-ITRGKKG--QMVDIQLDLTDKEI---AELSTISEEKEEE-----
 Pma_TM169 371 QMSSV-----T-ITRGKKG--QLVDIHLSTLTKEL---LELGCQPPQAPVTGSGGSGT
 Dre_TM169 -----T-ITRGKKG--QMVDIYMTLTDKEL---RDMARSKERLDAE-----
 Hsa_TM169 -----T-ITRGKKG--QMVDIHVTLTKEL---QELTKPKESRET-----
 Cam_TM169 -----T-ITRGKKG--QMVDIHVTLTKEL---QELAKCKEPPRSK-----
 Rty_TM169 -----T-ITRGKKG--QMVDIHVTLTKEL---QELAKSKEPLOPE-----
 consensus 541 T i rgkkkg qvvd i lsee l el k
 consensus 61 m

Apl_TM169 93 -----HQRVTATDQDDDEDGCI-YSPQGGPHIILTLFLCIPFVFATALVVNTYLGILTW
 Dme_TM169 272 -----KGNLCT-CSCGTGLHILLISLFLCIPFVTVVSAVYSFYIGTLTW
 Ana_TM169 305 -----SYRAKQGC-CTMRTGVHILLLSLLCLPFVTLTGVSFYMGTVTW
 Sko_TM169 119 -----DNHAQNDGV-WGVDRGLHVLLFLSLICIPFSFIASFVAFYQGTLTW
 Ovu_TM169 85 -----LKYKSSPCS-WGLHSGLHIVFLSIICIPIAWLVSGLYSFYIGCNTW
 Lia_TM169 103 -----SVYGPGECTLCGLKKGIIHVFLFTVIVTPFAFFGSLGLSFYLGQOTW
 Lip_TM169 171 -----KPEEEDCF-FGAKGPHVFLSLLLPVVFVCMASAFVYIGTMTW
 Brf_TM169 159 -----ENTPKDDCI-WGINKGIHIFIVSVLCPVVFVIAFFVAFYGTITW
 Pma_TM169 193 NAPTTTPAQTHGVERNRRHSR-CR-CGLNHGPHASLWLLCLPFVAFVSLVAFYGTITW
 Dre_TM169 134 -----CDGV-AEAKQKPCA-LGLSQGPHVLLWLSLCSPIFVLSFITSFYGTITW
 Hsa_TM169 143 -----T-----PEGRMACQ-MGADRGPVVLWTLICLPVVFILSFVVSFYGTITW
 Cam_TM169 134 -----E-----ESERKPCD-VGPRRGPHVVLWLLCAPVIFVLSFVMSFYGTIAW
 Rty_TM169 143 -----E-----KGTKACD-VGLYRGPHVVIWLLCAPVVFVLSFVMSFYGTITW
 consensus 361 c gm rGpHvilfsllciPfvfvvs vvsfy GtlTW
 consensus 121 p

Apl_TM169 147 YNIFLYYYDDRGWIHRIIVCPVLILLCPVILVTALVVSLSVSRQLSWYLSSWRTSVTD
 Dme_TM169 316 YNMFNYICEERTYLHKILVTPLLFVIYPLAIVLCTFGLGIYSGRLQLSLOYSSWVNDITD
 Ana_TM169 349 YNMFYFNEERSYFHKLLMSPLLILAYPLGIVLCTIGLGLYAGFRQLSFHFRSRLNEVSD
 Sko_TM169 164 YSIFLYYYDEKTIHKKIFICPVLILFFPPVIVVLTGLISLYAMVIQVSWFFSSWRRDFD
 Ovu_TM169 130 YNIYLYFSEEKTIWHKISICPVLILTFPFTVGLSSLIISLYAPIIQISWNFYKWLQEFQD
 Lia_TM169 149 YNIFLYFSEERTIWHKVFLCPLLILTFPLTVGLSALGIALYAALIQISWVFKSWLKEMRD
 Lip_TM169 216 YNILLVLFTEKKTAWHKIFVSPLLIIFYPFLIMMPTIGLGLYASVIQLSWQYDLWKQEVLD
 Brf_TM169 204 YNIFLHYNEERTFLHKVSIKPLLILFYPLIIVVVSLSLGGYSACVQLSWYCDSWREDVGD
 Pma_TM169 252 YNVFLVYNEERTFHKITLCPLLMLLYPLLIIVATSLSLAAYAAVAQLSWSFTAAYWGAVSD
 Dre_TM169 183 YNVFLVYNEERSFLHKITLCPLLMLLYPLIIVATSLSLAAYAAVAQLSWSFTAAYWGAVSD
 Hsa_TM169 188 YNIFLVYNEERTFHKISYCPCLVLFYPLIIVATSLSLAAYAAVAQLSWSWEAWWQAVRD
 Cam_TM169 179 YNIFLVYNEERTFHKVTVCPLLIILYPLIIVATSLSLAAYAAVAQLSWSLGEWWQAVRD
 Rty_TM169 188 YNIFLVYNEERSFHKITICPFLIIFYPPLIIVAMSVSLAVYTTVTQISWSFGEWWQAVRD
 consensus 421 Ynifl yneertwHkiscvPlLil yPlilv tl lglYagv QlSw f W ndv D
 consensus 181 g rk rr k