

MrTPS1 -----MG-KEEKVIRIVHFSPSVWADQFHIFRDEQAEQANVEQVVNE 42
MrTPS2 -----MSLQEN-VIRPTANFPSPVWGDQFLTY-DEREDQAGLEKVVED 41
MrTPS3 -----MAAIQANVTGTIPANANTITSSFPVRLANFPSPVWGDRLFSFLDKSELERHAIAMEK 59
MrTPS4 MAITHYQMASFOSSFHFCMLRKTLRQKSSLHFAKRC EATNKFQTHGSAVIYQKTLWTHDLIDG-LTDFLINRKEKVNE 79
MrTPS5 -----MASRENEIIRKANFHPSPVWGDQFLVY-EEPEDQVEVEKMMVEG 42

MrTPS1 MRKDVVRKDTMSSLDVQAEHTNLLKLLDAIQRLGIAYHFEETIEQALKHIYDITYG-----DDWKGSRSPSLWF 108
MrTPS2 LKDKVIRQETILGTLDVPSQHTDLLRLLDISIQRIGIAYHFEETIDRTLHHFYDAYG-----DNWIGGATSVWF 107
MrTPS3 PKEDLRLKLVDPDTMSNEK---LGLIYSVHRLGLTYMFKEIESQLDKLFKEFSLQD-----CEEVDLYTISINF 126
MrTPS4 LEVNVARMFMDYENGDISNLELLELLDNIIRLGLGHRFTNMKRVLDKIATVNENSLGLKEEEEEEEEEEDNLHALLSLKF 159
MrTPS5 LKEEVKKEITVVALDNPSKHTDLLVLLINEVQRLGIAYHFEETIERALKHIYDITYG-----DHWKGSAPLWF 108

MrTPS1 RILRQQGYVYVSCDILKNYKEED-GSFKESTANNVEGLELELYEATYLGVCQEDILDDALVFTRTCLEKIAKDLVHSNPTLS 187
MrTPS2 RIMRQGHGFFVSSDVFKSYKDKN-GAFKEPLKNDIAGLLELYEATYLRVPGEVILDDALAFTKARLDEISNDPLWRNSIVS 186
MrTPS3 QVFRHGLKPLSDVFNKFKDASSCTFRSITRDVKGMLGYESAQLRTRKEKVLDEASVFIEGKLKSVV---STLEGNLA 203
MrTPS4 RILRQSGYRVSQDFQRKFKESR-----GGTGTGLKELLSTIYEASYSLSLECEPDLHEAKLFATEKLLKLTG---HENEAMK 231
MrTPS5 RLLRKQGYVYVSCDIFNQYKDNT-GSFKESTNDNVHGMLELYEAYAMRVHDEVILDDAPVFTKTHLAKMLKDSLGYNPTLS 187

RXR

MrTPS1 THIQEALKQPLHKRLTRLEALCYTPMEYQLASHNESLLKLAKLEDENLLQSLHRKELSEVSRWWKGLDVPNNLPYARDRMV 267
MrTPS2 TQIIIEALEQPVQKRLRHRHEALRYITFYQQQASCNDSLLKLAKLGENLLQSLHKKELSCVYKWWKGFVDPTNLPYARNRMV 266
MrTPS3 QQVQKSLRRPFHQGMPMIEARLYFSNYEEECSSHDSLFKLAKLHFKEYLELQCKEELRIVTKWWKDMRFQETTPYIRDRNP 283
MrTPS4 DHVNHLGKPLRYRMLRLFAARWYTDAYGKRKDANKQLLELAILDENIVQSAHKRDLQVMSKWEKTLGVRLKDFIRDRML 311
MrTPS5 KYIQDSLRLPRTKRRLPRVDALHYIPFYEQQVSHNKSLLKLSKLGENLLQSMHKKELSELFKWWKHFDVEKNIPYMRNRNFV 267

DDxxD

MrTPS1 ECFYFWALGVVFEPKYSRRARIFLAKVISLATVLDITYDAYGIYEELKITEBAIQGWSITCMHTPEYMKLIYEGVLINIKYE 347
MrTPS2 ECFYFWSLSVFFEPKYSERMFIAKVFAVEITLDDTYDAFGTYEELIEITAAVHRSSVTCLDALPKNYKLIYRIILSLYED 346
MrTPS3 EITLWLTLGLYFEPKYSRLARIATKTLFLVLVDIDTYDAYATIEIRLLTDAINKWDISAMEQPEYIRPFYKILLDEYAE 363
MrTPS4 ECFYFWSVGMVFEPQYTCRVELTKIATLITIDITYDYVGLSNELEKVEITHAVKRWIDINAVENMPPEYLQLGFLALYNTINE 391
MrTPS5 ENYFWALGAYFEPQYSRRARIFLTKVFAFATMLDDITYDAYGVYKLEIETQCAVERWSLTCLDALPEYMKLIYKELLIDYEE 347

MrTPS1 MEEIIGSEGAHHLSYAKESMKEFIRSYMMEAKWANEGLVPTAEIHMMAVAFVSSGYSMLATTCFVGMCDIVTDEAFENSL 427
MrTPS2 MEKILTKMGKAHHLNYIRNAMEYIGCYLKEAKWANEETPTMEEHKEVTTVSSGYKFSLMASFAAMGDAITDETFKWAL 426
MrTPS3 IENIMAREGRANTVIASKEAFQDIARGYLEAEWNTNNGVASFPEYMKNGLITSAYNVISKSALVGMGEIVSEDALANYE 443
MrTPS4 MGYETLSAQGINIIPNLARVWGELEAFLVEAEWTHNNKMPFTFKDYLDNAWRVSGMVLLTHGYFLMNQDVKDDAIBSLE 471
MrTPS5 MDDTMAKEGAPYHVKYAKEAMKEFISYMTIARWKHEGLVPTTEIHKAVAFISSGYKMLTIASFVGMCDIASEDSFKWAL 427

NDxxTxxxE

DDxxSxxxxE

MrTPS1 TKPPIIKASCAIARLMDDIHSQKDEKERI--HVASSVESYMKQYDVT-BEHVHKVFHQKIEDAWKIDITRESLVCK--DIP 502
MrTPS2 SHPLAKACCVLCVRVMDIVTHKEBQERK--HVASGICQYMKFEIVT-BQHVVYDVFNKAVEADAWVEMNEESLKCK--DVK 501
MrTPS3 TMKLTQACSELISRLQDDVMTYQEBERG--QSAITGVDAFIKTYGVS-BKKAIDELKMIENAWKIDINEGCLKPR--QVS 518
MrTPS4 NFHDLFKWSMLFRLYNDLAAALDAIDDKD--KSPNAISCYMYEHSVS-BEVAERHVKTLLIDKAWMMKMIARIAACS-EHMT 547
MrTPS5 SNPPLIKASCSICRMMDDVVGHKDEKERVGGHVASSVDSYMKQHNVT-BDHVYDLFNTLVEDAWKDLNRESLVCK--EIP 504

MrTPS1 MPLMMRVINLARVMVLYTHKDGFINVGEELQDHIKSLLVHPIPI---- 547
MrTPS2 MPVIMRVINLARAMDVLYKKNQHYTHVGPELINHITKSLVDPIMA---- 546
MrTPS3 MDLLAPILNLARMIVVYRYDDGFIFFPGKTLKEYINLLFVGSLLPM---- 563
MrTPS4 DPLIDMAINLARVSSCMYQYGDGIKDPEARTKDRVMSIILKPFDTSEIP 596
MrTPS5 MVLKMLRLINLTCFIITLYKYEDTFINVGPELIDCKSHLVHAMSIV---- 549