NvHsTRPA ------------------------------------------------------------

MrHsTRPA ----------------MNVLGPTIVTEERPRRYSLTSLRDRRRSFD-ENDCWSAIDGDGD

AmHsTRPA MDDKQIHENSTDIPKASLQLPTITVGNERPRRYSLTSLKDRRLPFENENDCGRAVEGEVE

BtHsTRPA MDDKQMYENSSDIPKINVQRATIKVSEERLRRYSLTSLKDCRLSVD-EKDYWRTIEGDAG

HsHsTRPA ------------------------------------------------------------

CfHsTRPA ------------------------------------------------------------

LhHsTRPA ------------------------------------------------------------

PbHsTRPA ------------------------------------------------------------

SiHsTRPA ------------------------------------------------------------

AeHsTRPA ------------------------------------------------------------

AcHsTRPA ------------------------------------------------------------

NvHsTRPA -------------------------------------MSRSWKLDEVVEEDPSDRVDMSD

MrHsTRPA MHKNMDKASQTKIKRLTSRSRRTRHYSLTRLKNRRPF-CFDDDRDS--SPKTDNTVTDQM

AmHsTRPA AHENVDKTWQMKMKPLANHEKRTRHYSLTRSKNRRSCLYTDEDRNFLTKSVVNETVNDKT

BtHsTRPA AYENVEKTSQSKMKPLANHKKRTRHYSLTRLRNRRSCLNFDDDKNILTKTSVNETAKDKT

HsHsTRPA ----------------------------------------MDERN---LRNANAKV-DLE

CfHsTRPA --------------------------------------MHKNERDS--VEE-AKNTNDLK

LhHsTRPA --------------------------------------MCENEREGKLSEEKKAKIEKLE

PbHsTRPA --------------------------------------MYENDRDS--LEEKSIKSKDLE

SiHsTRPA --------------------------------------MCENDKDS--LGD-SAKVK--E

AeHsTRPA --------------------------------------MYENDRDS--LGE-SAKVKNLE

AcHsTRPA --------------------------------------MYENDRNS--LGE-SIKVKNFE

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NvHsTRPA LNRAPRSPRSECRKPRHYSLGCIYERQRRTSRDLLPGRLASLYKS-RQGMRPSICPDKVV

MrHsTRPA TQTLRLP-VAHEGRTKHC---SMSDLNDR-SNDLLSTRLASTFRSVR--YRQSSNSEKIV

AmHsTRPA TQTLRVP-LSREGRTIHC---SLSNLNDP-SNDLLSTRLTSTFRSVR--YRQSSNSEKIA

BtHsTRPA TQTLRLP-LPGEGKTIHC---SLSNLNDP-SNDLLSTRLAS-FRSVR--NRQSSSSEKIV

HsHsTRPA LDLLKVPIVSERDQHTYC--SGSLN-SRL-KDEPLAVRLASTYRSLRYIYDRGDNPRRVA

CfHsTRPA TNTLRLPIILDEGRQRLY---SSFN-NHR-KDDSLSVRLASTYRSLRCAYSPEDCSQKIT

LhHsTRPA TGILKVPVILDESRHHIY--TRSFINSRH-KDDSLTARLASTYRSLRCTYATEDYPQKIT

PbHsTRPA MTTLRIPPVLND-EQHFCSTSRSFN-SRH-KNDPLSVRLASTYRSLRSAYAAGDYPEKSA

SiHsTRPA INSLKIPTILNDGEQHFY--SRSFN-SRH-KRDPLSIRLASTYRSLRCTYAAKDYPQKIM

AeHsTRPA TNNLETPTILND-EEHFY--SKSFNKSCH-KSDPLSVRLTPTYRSLRYAY-AEDYPQKIV

AcHsTRPA TNSLETLTILND-EEHFY--SKSFN-SHH-KSDPLSVRLAPTYRSLRCAY-AEDYPQKIV

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NvHsTRPA V----TEPQDSAEHVEIDAGAPPPVDDSLFFDRE--FEALKHVKIDGTSLKTAMWAAVNV

MrHsTRPA TNDA-PLITTTNDHVEIDAGTPPPVDESLFYDN---LDVLRQAQINSNDLRSIMWSIVTT

AmHsTRPA IDDI-PPADSSNDHVEIDAGTPPPVDESLFYDN---LDVFRQAQINSNDLRSIMWSIVTT

BtHsTRPA IDDI-PLIETTNDHVEIDAGTPPPVDESLFYDN---LDVFKQAQINSNDLRSIMWSIFTT

HsHsTRPA SGDG-AAAEANAGQLEIDAGEPPPADESLFFDN----GECRHPYVNGARLRSAIWSIVSP

CfHsTRPA IDGVRSASESDSKQIEIDAGVPPPADESLFFDN---LECCKNHYVNGTKLRSAIWSIVDP

LhHsTRPA IGDA-TMLESNNDQIEIDAGEPPPADESFFFDN---LKYCKNHHMNGAKLRYAIWSIVDP

PbHsTRPA INDI-TVPKFDNDGIEIDAGEPPPVDDSLFFDN---LECCKNHYVNGARLRSAIWSIVDS

SiHsTRPA IDDV-TVSKFDNDQIEIDAGEPPPIDDSLFFDN---LECCKNHYVNGAKLRSVLWSIVDS

AeHsTRPA IDDA-TI--FDNDQIEIDAGVPPPVDDSLFFDNLEILECHKNHYVNGAKLRSAIWSIVDT

AcHsTRPA IDDA-TI--FDNDQIEIDAGVPPPADDSLFFDNLEILECYKNHYVNGAKLRSAIWSIVDM

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 **AR1**

NvHsTRPA VEMKDLLEMEKGNIEKGPDGKLLPNA--DQRFKNVMFLWACFRGLAHLLPKLEECGADRD

MrHsTRPA AEMKLLLELEKCNA--------LPEMPPGERIRNIAYLWSCYRGLVHLLPKLEQRGVKCE

AmHsTRPA AEMKILLQLEKCNA--------LPEIPAGERIRNIAYMWCCYRNLAHLLPKLEQSGVKLD

BtHsTRPA AEMKILLELEKCNT--------LPAMPPGERMRNIAYMWSCYRGLVHLLPKLEQSGARHD

HsHsTRPA AETRLLLHMEKCDV--------LPSACKSERLRNVAYIWAAYRGLLQLLPQLEQAGARHD

CfHsTRPA TETRLLFDMEKNRA--------LPDACKSERLRNVAYVWASYRGLLHLLPELENAGAHYD

LhHsTRPA AETKLLLQMEKSSV--------LPNACKDDRLRNVAYIWASYRGLLHLLPELENAGARYD

PbHsTRPA AETRLLLQMEKNRA--------LPRACKSEKLRSVAYIWASYRGLLHLLPELENAGARCD

SiHsTRPA TETRLLLHMEKSRM--------LPNACKSERLRNVAYIWASYRGLLHHLPELENAGAHYN

AeHsTRPA METRLLQYMEKSRT--------LPNACKSENLRNVAYIWASYRGLLHLLPELENAGARYD

AcHsTRPA METRLLQYMEKSRT--------LPNACKSENLRNVAYIWASYRGLLHLLPELEDAGAHYD

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 **AR2 AR3**

NvHsTRPA YVEPCTGMNPILVASLTSSIACLEYLIEKGADVNYANTALFYTPLHFAAFGNSSEAAELL

MrHsTRPA YVEPCTGMNAILAASLSGNVSCIKHLIKKGVDINCRNPINYYTPLHFAVLGNSTDAARVL

AmHsTRPA YVEPSTGMNAILAASLSGSVACIEHLIKRGVDINYRNPINHYTPLHFAILGNSPDTARIL

BtHsTRPA YVEPCTGMNAILAASLSGNVACIEHLIKRGVDINYRNPINHYTPLHFSVLGNSPDVARIL

HsHsTRPA YVESRSGVNALLAASLGDKVACVEYLIKKGADVNYENLINHYTILHVVALGNSWHAAATL

CfHsTRPA YVESRTGMNAILAASLGNRVDCVEYLIKRGADVNYESFITHFTPLHFAALGNNWQVATTL

LhHsTRPA YVEPRTGVNAILAASLGDKVACVEYLISKGADVNYESSITRYRPLHFAALGNSWHAANTL

PbHsTRPA YVEPRTGVNAILAASLGDKLACVEYLIEKGADVNYESSITRYTPLHFAALGNSWHAAATL

SiHsTRPA YVEPRTGVNAILAASLGDKVACVEYLIAKGADVNYESLITRYTPLHFAALGNSWHTAATL

AeHsTRPA YVEPRTGVNAILAASLGDKVACVEYLIAKGANVNYESPIIHYTPLHFAALGNSWHAAATL

AcHsTRPA YVEPRTGVNAILAASLGDKVTCVEYLIAKGANVNYESPIIHYTPLHFAALGNSWHAAATL

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 **AR4**

NvHsTRPA IKHGAKLNSSNC-QD-VEPVLHCAVRARAEKVVKLLLEKAASVAQKNSTGETPLHVACFV

MrHsTRPA LDNGAKPSTYLY-QEVVEPVLHCAIRAGTVEIVKLLLDRGASVVEKNHTGETPLHVACFV

AmHsTRPA LDNGAKPSTYLY-QEVAEPVLHCAIRAGAVEIVKLLLERGASVVEKNHMGETPLHVACFV

BtHsTRPA LDNGAKPSTYLY-QETVEPVLHCAIRAGAVKIVKLLLEQGASVVEKNHMGETPLHVACFI

HsHsTRPA LDYGARLN-YSGQQEMVEPILHSAVRAKAVETVTVLLERGASVVEKNHLGQTPLHVACSV

CfHsTRPA LNNGAKLN-YIC-QEVIEPVLHSAVRAKAVETVRLLLEHGASVVEKNHLGQTPLHVACFV

LhHsTRPA LDNGAKLN-YVC-QEVVEPVLHSAVRAKAVKTVKLILDRGASVVEKNHLGQTPLHVACFV

PbHsTRPA LDHGAKLN-YVC-QGVVEPVLHSAVRAKAVETVRLLLERGASVVEKNHLGQTPLHVACFV

SiHsTRPA LDHGAKLN-YVC-QEVVEPILHSAVRAKAVETVKLLLERGASVVEKNHLGQTPLHVACFV

AeHsTRPA LDHGAKLN-YVC-QEVVEPILHSAIRAKAVETVKLLLERGASVVEKNHLGQTPLHVACFV

AcHsTRPA LDHDAKLN-YVC-QEVVEPILHSAIRAKAVETVKLLLERGASVVEKNHLGQTPLHVACFV

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  **AR5 AR6**

NvHsTRPA QSIGCTELLLCSPGTD--PNAVDQNHRTPLHYAVMNTCSAPELVELLLKHGAAVNVKDKQ

MrHsTRPA QSIECVELLLESPGTN--INAVDRAHRTPLHFAVMTTHSSAKLVELLLKHGALINAADKT

AmHsTRPA QSIKCVELLLDSPGTN--VNAVDRAHRTPLHFAVMTTYSSAKLVELLLKHGALVNAADKT

BtHsTRPA QSIKCVELLLDSPGTN--INAVDRAHRTPLHFAVMTTYSSAKLVELLLKHGALVNAADKT

HsHsTRPA QSMACVELLSAGAAVANIINAVDREYRTPLHFAVMSTDSSVELVQLLLKRGALVNAADKT

CfHsTRPA QSIPCVELLLSSMPTS--VNAVDREHRTPLHFAVMSTDSSIELVQLLLKHGVLVNAADRT

LhHsTRPA QSLPCVELLSAGAS-N--VNDVDRELRTPLHFAVMSTDSSAELVQLLLKRGALVNAADRT

PbHsTRPA QSIPCVELLSASAP-N--VNAVDREHRTPLHFAVMSTASSAELVQLLLKRGALVNAIDRT

SiHsTRPA QSIPCVELLSASAP-N--VNAVDRELRTPLHFAVMSTDSSAELVQLLLKRGALVNAVDRT

AeHsTRPA QSIPCVELLSASAP-N--VNAVDREHRTPLHFAVMSTDSSAELVQLLLKCGALINAADRT

AcHsTRPA QSIPCVELLSASAP-N--VNAVDREHRTPLHFAVMSTDSSVELVQLLLKCSALINAADRT

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 **AR7**

NvHsTRPA ELTPLHIASLNEQSQCVDALIWAGADVSATTKTGLTALNIILRKIPESLQVFRQRLDASI

MrHsTRPA GFTPLHVAALNEQSHCVDVLIWAGADVSATTSAGLSALNIILRKIPDSLQVFRQRLDASI

AmHsTRPA GFTPLHVAALNEQSHCVDVLIWAGADVSATTSAGLSALNIILRKIPDSLQVFRQRLDASI

BtHsTRPA GFTPLHVAALNEQSHCVDVLIWAGADVSATTSAGLSALNIILRKIPESLQVFRQRLDASI

HsHsTRPA GFTPLHIAALNEQSRCVDALIWAGADISATTCTGLSALNVILKKIPESLHVFRQRLDASI

CfHsTRPA GFTPLHIAALNEQSRCVDALIWAGADISATTCTGLSALNVVLKKIPESVHVFRQRLDASI

LhHsTRPA GFTPLHIAALNEQSRCVDALIWAGADISATTCTGLSALNIILKKIPESLHIFRQRLDASI

PbHsTRPA GFTPLHIAALNEQSRCVDALIWAGADISATTCTGLSALNIILKKIPESLHVFRQRLDASI

SiHsTRPA GFTPLHIAALNEQSRCVDALIWAGADISATTRTGLSALNIILKKIPESLHVFRQRLDASI

AeHsTRPA GFTPLHIAALNEQSQCVDALIWAGADISATTCTGLSALNIILKKIPESLHVFRQRLDASI

AcHsTRPA GFTPLHIAALNEQSQCVDVLIWAGADISATTCTGLSALNIILKKIPESLHVFRQRLDASI

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NvHsTRPA RLKRPVPHNREFEMRLHFDLLFPSNNQCETSFINTFVQEHQKDLLSHPLVMAFLHLKWEK

MrHsTRPA TLRRPVPHNREFEMRLHFDLLFPSGNQCETSFINTFVQERCKDLLSHPLVMAFLHLKWEK

AmHsTRPA TLRRPVPHNREFEMRLHFDLLFPSGNQCETSFINTFVQERRKDLLSHPLVMAFLHLKWEK

BtHsTRPA TLRRPVPHNREFEMRLHFDLLFPSGNQCETSFINTFVQERRKDLLSHPLVMAFLHLKWEK

HsHsTRPA RLTRPVSHNREFEMKLHFDILFPSNNQCETSFINTFVQEHRKDLLSHPLVMAFLHLKWEK

CfHsTRPA RLTRPVSHNREFEMRLHFDILFPSNSKCETSFINTFVQEHRKDLLSHPLVMAFLHLKWEK

LhHsTRPA RLTRPVSHNREFEMRLHFDILFPSNNKCETSFINTFVQEHRKDLLSHPLVMAFLHLKWEK

PbHsTRPA GLTRPVPHNREFEMRLHFDILFPSGNRCETSFINCFVREHRKDLLSHPLVMAFLHLKWEK

SiHsTRPA RLTRPVSHNREFEMRLHFDILFPSGNQCETSFINTFVQEHRKDLLSHPLVMAFLHLKWEK

AeHsTRPA RLTRPVSHNREFEMRLHFDILFPSGNQCETSFINTFVQERRKDLLSHPLVMAFLHLKWEK

AcHsTRPA RLTRPVSHNREFEMRLHFDILFPSGNQCETSFINTFVQEHRKDLLSHPLVMAFLHLKWEK

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 **S1**

NvHsTRPA IRKFYLMRIFLYALTVIVMTTYVLTALAYRCYNLS-ESKSSKICNNNRASGFLFRRHVIE

MrHsTRPA IRKFYLLRIMLYAMTVICMTTYVLTALAYKCYNYD-DASSSKICSSKRISGFLFRRPVIE

AmHsTRPA IRKFYLLRILVYAMTVICMTTYVLTALAYKCYNHD-EANSSKICSSKRISGFLFRRPVIE

BtHsTRPA IRKFYLLRILVYAMTVICMTTYVLTALAYKCYNYD-EANSSKICSSKRISGFLFRRPVIE

HsHsTRPA IRKVYLLRIFLYAMTVICMTTYVLTALAYKCYNH--ETNNSKICSGKKIS-FLFRRPVIE

CfHsTRPA IRKLYLLRIFLYAMTVICMTTYVLTALAYKCYNHEVTTDSPKICDSKRAVDFLFRKPFIE

LhHsTRPA IRKLYLLRIFLYALTVICMTTYVLTALAYKCYNNN-ETNSSKICSSKRAADFLFRKPVIE

PbHsTRPA IRKLYLLRILLYTMTVICMTTYVLTALAYKCYNYN-DANSSKICGSKRASAFLFRRPIIE

SiHsTRPA IRKLYLLRILLYAMTVICMTTYVLTALAYKCYNQN-DTNSTRICGSRRVSGFLFRRPIIE

AeHsTRPA IRKLYLLRIFLYSMTVICLTTYVLTALAYKCYNQN-ETNSSKICGSRRPSDFFFRKSIIE

AcHsTRPA IRKLYLLRILLYSMTVICLTTYVLTALAYKCYNQN-EANSSKICGSRRPSDFFFRKSIIE

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 **S2 S3**

NvHsTRPA IEWYVSLILTCVTIPRKIFGFMVYKSARQYFMNIDNVLDAIVIVSVFVTSFIYTGRTYDW

MrHsTRPA IQWYLLFIFTCISIPRKIFGFMVYTSAKQYFSNIDNVLDGVVIISVFVTSFVYTGRTYDW

AmHsTRPA IQWYLLLIFTCISIPRKIFGFMVYTSAKQYFSNIDNVLDGVVIISVFVTSFVYTGRTYDW

BtHsTRPA IQWYLLLIFTCISIPRKIFGFMVYTSAKQYFSNIDNVLDGIVIISVFVTSFVYTGRTYDW

HsHsTRPA IEWYLALALTCITIPRKVIGFMVHKSAIQYFSNIDNVLDGVVIVSIFVTSFIYTGRTYDW

CfHsTRPA IQWYLALVLTCITIPRKIFGFMVYKSALQYFINIDNILDGVVIISVFVTSFIYTGRTYDW

LhHsTRPA IEWYLSLALTCITIPRKIFGFMVYRSMIQYFSNIDNVLDAVMIMSVFVTSFIYTGRTYDW

PbHsTRPA VEWYLALVLTCITIPRKIFGFMVYKSAIQYFSSIDNVLDGVVIVSVFVTSFVYTGRTYDW

SiHsTRPA IEWYLALVLTCITIPRKIFGFMVYKSAIQYFSNIDNVLDGVVIVSVFVTSFVYSGRTYDW

AeHsTRPA IEWYLALVLTCITIPRKIYGFMVYKSALQYFSSIDNVLDGVVIVSVFVTSFVYTGRTYDW

AcHsTRPA IEWYLALVLTCITIPRKIYGFMVYKSALQYFSSIDNVLDGVVIVSVFVTSFVYTGRTYDW

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 **S4 S5**

NvHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

MrHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTVSFCV

AmHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

BtHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

HsHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

CfHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

LhHsTRPA QNYIGAFAILCAWTNLMLMVGQLPAFGTYVAMFTQIQFEFAKLLLAYSGLLIGFTISFCV

PbHsTRPA QNYVGAFAVLCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTVSFCV

SiHsTRPA QNYVGAFAILCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

AeHsTRPA QNYVGAFAVLCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

AcHsTRPA QNYVGAFAVLCAWTNLMLMVGQLPAFGTYVAMFTHIQFEFAKLLLAYSGLLIGFTISFCV

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 **SF**

NvHsTRPA IFVGEPSFGNPFTGLIKVLAMMAGELDFEGLINQ-DDIL---HDGSFVLYHP-LSVCSQI

MrHsTRPA IFVGEPSFGNPFTGLIKVLAMMAGELDFDSLITQIDQGLE--SEGPFVIYHP-LSVCSQI

AmHsTRPA IFVGEPSFGNPFTGLIKVLAMMAGELDFEGLITQIDQGLE--SDGPFVIYHP-LSVCSQI

BtHsTRPA IFVGEPSFGNPFTGLIKVLAMMAGELDFEGLITQIDEGLEGNSEGPFVIYHP-LSVCSQI

HsHsTRPA IFSGEPAFGNPFTGLIKVLAMMAGELDFEGLINQSDEPA----TGSFVIYHP-LSVCSQI

CfHsTRPA IFAGDPAFGNPFTGLIKVLAMMAGELDFEGLINQADSSST--TGGSFIIYHP-LSVCSQI

LhHsTRPA IFAGEPAFGNPFTGLIKVLAMMAGELDFEGLINQTDDGS---TDKSFVIYHP-LSVCSQI

PbHsTRPA IFAGEPAFDNPFTGLIKVLAMMAGELDFEGLINQVDDEP---TGGPFVIYHP-LSVCSQI

SiHsTRPA IFAGEPAFGNPFTGLIKVLAMMAGELDFEGLLNQMDDEP----TGSFVFYHP-L---SQI

AeHsTRPA IFASEPAFGNPFTGLIKVLAMMVGELDFEGFINQMDDKP---MGGSFVIYHPILSVCSQI

AcHsTRPA IFASEPAFGNPFTGLIKVLAMMVGELDFEGFINQMDDKP----GGSFVIYHPILSVCSQI

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 **S6**

NvHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKLILFTEMVLYNGRIPYTF

MrHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKLILFTEMVLHNSSIPYAF

AmHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKLILFTEMVLHNSSIPYAF

BtHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKLILFTEMVLHNSSIPYAF

HsHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKLILFTEMILHNAKIPYAF

CfHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKMILFTEMVLHNTTIPYAF

LhHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRKHAGLTKLVRQTKMILFTEMVLHNTSIPYAF

PbHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKMILFTEMVLHNTTIPYAF

SiHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRKHAGLTKLVRQTKMILFTEMVLHNTTIPYAF

AeHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKMILFTEMVLHNTAIPYAF

AcHsTRPA LFTLFIVFVTVILMNLLVGIAVHDIQGLRNHAGLTKLVRQTKMILFTEMVLHNTAIPYAF

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NvHsTRPA KKWMSDHKIDVDNRKRVLVVKPLNPLEKRLPKDIMKAAYEIAQRNAPLVDEDDVSLDEHV

MrHsTRPA RKWMSDHKINVENRRRVLVVKPLNPLEKRLPKDILKAAYEIAQKNIPFMNDDNISLSDHV

AmHsTRPA RKWMSDHKINVENRRRVLVVKPLNPLEKRLPKDILKAAYEIAQKNIPFMNDENINLSDHV

BtHsTRPA RKWMSDHKINVENRKRVLVVKPLNPLEKRLPKDILKAAYEIAQKNIPFMNDDNINLSDHV

HsHsTRPA RKWMSDHKIDVENRKRVLVVKPLNPLEKRLPKDILKAAYEIAQKNIP-FMNDDVSLSDHV

CfHsTRPA RKWLSDHKIDVENRKHVLVVKPLNPLEKRLPKDIMKAAYEIAQKNIP-LANDDVNLNDHA

LhHsTRPA RKWLSDHKIDVENRKRVLVVKPLNPLEKRLPKDIMKAAYEIAQKNVP-YANDDVHLSDYA

PbHsTRPA RKWMSDHKIDVENRKRVLVVKPLNPLEKRLPKDIMKAAYEIAQKNIP-FVNDDINLNDHA

SiHsTRPA RKWMSDHKINVENRKRVLVVKPLNPLEKRLPKDIMKAAYEIAQKNIPSSANDDINLSDHA

AeHsTRPA RKWMSDHKIDVENRKRVLVVKPLNPLEKRLPKDIMKAAYEIAQKNIPSFMNDDINLSDRA

AcHsTRPA RKWMSDHNIDVENRKQVLVVKPLNPLEKRLPKDIMKAAYEIAQKNIPSFIND-INLNDRA

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NvHsTRPA TWMK-QQSEEGSDYLLHSTIDQLSTQMKSAEDDIKVIKEQLLDTNKMLKNLVARRVQPR-

MrHsTRPA MWMR-QQSEEYSDSSLQLVIENLANKLQSYEDTIKSLKEQLLDTNKTLEGIVKSLTKEKS

AmHsTRPA IKMR-QHSEEYFDSNLQLVIENLANKLQSYEDMIKSLKEQLLDTNKMLESVVKNLAKEKN

BtHsTRPA MRMR-QQSEDCFDSNLQLVIENMANKLQSYEDTIMLLKEQLLDTNKMLESVVKNLTKEKN

HsHsTRPA AWVK-RQNEELSDAAVHMAIERLVTTVKMNEDAVKLLKVELMEMNKMLKTLITTLARGRT

CfHsTRPA AWLKQRQNNEVSDAVLQTTIEKLITAMKVNEDAVKLLRVQLLEMNKMLETIVATLAKEQY

LhHsTRPA TWLKQRRSEEYSDAA-QIAIEKLIAMMKVNEDAIKLLRMQMLEMNKMLENVVTTLEKEEH

PbHsTRPA IWLKQRQNEEFSDIALQMTFEKLIAMMKVNEDAIKLLKIQLLEMNKMLETITITLTKEER

SiHsTRPA VWLK-HRQAEFSDVALQMTFEKLISMMKVNEDAIKLLRVQLLEMNKMLENVVITLAKEEN

AeHsTRPA VWLK-QRHNGFSDGALEMTFEKLIAMMKVNEDAIKLLRIQLLEMNKMLENVATKLTKEEH

AcHsTRPA VWLK-QRHNEFSDVAPEMTFEKLIAMMKVNEDAIKLLRVQLLEMNKMLENIATKLTKEEH

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NvHsTRPA ----

MrHsTRPA N---

AmHsTRPA N---

BtHsTRPA N---

HsHsTRPA SS--

CfHsTRPA PSL-

LhHsTRPA NSL-

PbHsTRPA TSL-

SiHsTRPA TSL-

AeHsTRPA TTSL

AcHsTRPA TASL