

TadhaerensSyt7	-----MNALSVIIISGSCSAVMLILLVSCTWCFKRRKS-----N
NvectensisSyt7	-----MVVLMVASGEVRHQN -----GEITWVIPAIASLVSLSMFIILCSWCRKCWKTSKAQETEIGTETFDSSSE--SLASTPKQKYQSL-YTG-----K
CapitellaSyt7	-----
HrobustaSyt7a	-----XSGKGHNYPGASQPGSSSTSALWKAAM-MNSSFPLLKTQSLDIE----PYATKKPPPFKNEMD
HrobustaSyt7b	-----XT
HrobustaSyt7c	-----
HrobustaSyt7d	-----
HrobustaSyt7e	-----
HrobustaSyt7f	-----
LgiganteaSyt7	-----MEDTQIALVAICSLGAVMGLVMGSVVCWCFCGKKKNEDDSEEEALARKIKGGSSLDEESNDPRLKFDNTSGRGPSPAITRKTIK KFERPER
CsavignyiSyt7	-----XDDECEPQGDVVVKMETTQSNDSFLKKISSWFQPT-----PE----ESPSSRGRY
CintestinalisSyt7	-----MGRIIMNHLFPHTQI RDDDLPETSVVASAAIFCLSLCLVISCCLYCLKVRTGTRR KSEDHISARDLRMDTTKEDSSLKKISSWFQPAE---QDSVERKYSGTSSRY
SpurpuratusSyt7	-----MYVPEGGRVEGGEQEV IHQVVTLTSTASLVVLVLATFFCGMCYCFGGSKPDYDDDEGTTGFRNSDQ--EQKWPILNRSASLGERG-----A
BfloridaeSyt7	-----XKLISCLPHSALLPLVVAASVVTMVMTLALCSLCQWCYRR-----D
DpulexSyt7	-----
ApisumSyt7	-----MNNKSPANSIFDGFKNNAMSKLGVTKLLSQS FSPNFGGSSSKPGHAASADDVS
TcastaneumSyt7	MVHLGPGGQYVAEGGNAPPSNPE--DVVVEYTKKI LMMQKRDIVLTAVFSSLAALILLAGIGAACYFFHKRRRRKDDDDDESDPDANCSRIEAGHEKKSRLNGFLSLKTPLISTKTLC AQIET
NvitripennisiSyt7	MVHMGLVGGYFSELDPNYDGPRAADPAVQARKI LGMERRDVILTAVFGTIGALGVILGVGLAAWLYLRARRSKQRDADLE--DRREGSDSASHQPVKKNGFLNLKTPLISTKALG-----T
AmelliferaSyt7	-----MWAAVTRSLEILVAFFEYYSRTT GSPANK----PASSASGSGTGGTSGTSVGANNLTSGIATGSSSGSGGA
DmelanogasterSyt7var1	-----MASIVLIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDIVDSGNPPTKPQ-VPVAHA-----I
DmelanogasterSyt7var2	-----
DsimulansSyt7	-----MASIVLIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDIVDSGNPPTKPQ-VPVTHA-----I
DsechelliaSyt7	-----MASIVLIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDIVDSGNPPTKPQ-VPVTNA-----I
DirectaSyt7	-----MASIVLIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDIADSGNPPTKPQ-VPVTA-----I
DyakubaSyt7	-----MASIVLIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAHDIVDSGNPPTKPQ-VPVTA-----I
DananassaeSyt7	-----MASVILIACLAAILGLII IASLFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDITDTGNPPIKPQ-IPMTFA-----S
DpseudoobscuraSyt7	-----
DpersimilisSyt7	-----MASIILIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDI-DSGNPPSKPQ-VPVAQA-----I
DwillistoniSyt7	-----MASLILIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDITESGNPPSKPPVPVAQA-----I
DvirilisSyt7	-----MASIILIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDIVDSGNPPSKPQ-VPVAPA-----I
DmojavensisSyt7	-----MASIILIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RAAQDILESGNPPSKPQ-VPVAQA-----I
DgrimshawiSyt7	-----MASIILIACLAAILGLII TIALFLAGGYLWWRHKRSQLQFIEPNE-DEESSYSYL RATQDIVDSGNPPNKPQ-VPVAQA-----I
Celeganssnt_6	-----MVVHEITVPVEFLYV
Chrennerisnt_6	-----MVVSQITVPVEFVYV
Chriggsaesnt_6	-----MVTQITVPVEFVYV
Cremaneisnt_6	-----MVTQITVPVEFVYV
Cjaponicasnt_6	-----MVTQITVPPIEFVYV

TadhaerensSyt7	SSRGSSRQNF TTNFMNKVKYQKIHNTT-----NSSNNTQLSSQSVK ALGYAKLGSDSQ-----APT VTKVTEEEPEEQ T LSEDLGS IQ FSLSYDY SKMT L IVKIMRAF NLPAK
NvectensisSyt7	KPVGSTYDPIYSHRSGYDSPDYMRST-----LKFNR P-PSQEF EFQT PQLNISKVEV-----PPAPPPPPDA-SLKE---QLGK IF FSLTY YSSDSV LTLKVLKAQGLPAK
CapitellaSyt7	-----MYIYTLLVAF FVL TFLIF QQGSDG AASVNS SFFHK ILD TNQAGGA-----ASDDL PNNF DEPDY FVGGEKL GK LQFNLSYDFQ ET LTLR IRAVD LPAK
HrobustaSyt7a	SSASSYL PV TSHSECL QQQDST DEN-----SQQRKSA ADS MLSLGLTGDENALSNF-----QPI SPSSG AINE---KLGS IQFSLHY NHLQST LTLR IKASD LPAK
HrobustaSyt7b	HRPSL PQTAC SAPNTTT STPTAKY QQYHSS TPSSS ITPLSSH HHL TRHSP SLSSS ASCAP N DNP D-----DDPLMT SSTND DVPDENNDK LGV LHF SVAYSSK DSTLTLK ILRAND LPAK
HrobustaSyt7c	-----XNTSLAR PITTR FLRRP ISNQLTTPALPVTTTMAVG HNDQSNST-----PDQPPPS LTST NPK---ERLGS LQFSLKY DHQQSV LTLR IKAVE LAAK
HrobustaSyt7d	-----XSSEPNSCCTSPFKQQQ QANQ TLLNDALTTT-----AIDLMP PIFFDEPDYSCGQKLGR IQF SVSYDFD ASTLTVKI KAED LAAK
HrobustaSyt7e	-----XSRISISLVD MYIDN-SEPTENVGQ IHFSLEYDFQNT LILKIMQ GKDLPPM
HrobustaSyt7f	-----XVAVLYDSREM VLTLKIIQASE LPAK
LgiganteaSyt7	KMVTEQVQPNATNQTALNQQLGLQKESYNTMGMT RLGLSLSSQSR SASEEEESSSVWKNVKS IATLL-----MDEPPPEPTTGPIVDGVDFKL GKI QFGLSYDFQSLT LSLRILRATG LPAK
CsavignyiSyt7	ASTQYDKPPVGNLTISLVQPPQTY-----NSSNNRRTSGVDNHRPTLTSSSYVPD-----GFKLPFELSFDTGDETQQKYL GKLEYSTVYRFNENTL FVKVIK AIDLPAK
CintestinalisSyt7	GSTQYDKPPMGNMKIN FVQPGCDD-----VGASNAE-----RPKLTSSSYVPE-----GFKLPFELSFDTGEEPQGYL GKLEFSTVYQFNES LLVKVLK AIDLPAK
SpurpuratusSyt7	KNGGRNQSPV FVHQSS LRSERLKP NVG-----VEHIQPDPSKLAQSQLGNNGQA EAI-----G AQGLDDSMQFGE---ELGKI QFSLMYD FDPDQTLVLRIVKANH LPAK
BfloridaeSyt7	SYMELERDDETT EKGGA FPPSN IY- IK-----NSTMVAE FEVLIRSL LSACPLQSHDD-----EGSDSN---EEAVSEP--GANLGR IQFSMSY NFD TMTLV LH IKRAVE LPAK
DpulexSyt7	-----XNRSISLVD MYIDN-SEPTENVGQ IHFSLEYDFQNT LILKIMQ GKDLPPM
ApisumSyt7	AGASSHHHGGSSSATSATEHLLH-----KDIAA VAQGGWN VTKSLMNVKAEED TH-----DRCQSLIELNKEPPAVPSEKVQGINF GLE YDYQQT LILRI IAAKD LPAK
TcastaneumSyt7	TGSPQAKSPAGSSAGALPS-----EARTPTA-PANKALQNVKGDHPS L-MAFLQ---NRSISLVD MYIDN-SEPSENVGQ IHFSLEYDFQNT LILRI IQGKD LPAK
NvitripennisiSyt7	TGSPGSKSPAGVSGGPASATGSSGTSAGNASGA AVGPGGEPR TPTAGPQNKLQNVKGEHPS EPQAFSRENK NRSISLVD MYIDN-AEPTENVGQ IHFSLEYDFQST LILRI IQGKD LPAK
AmelliferaSyt7	TVSGIGTVNAGSSGINIGANVGTGNVASGTV-----ESRTSTIGVQNKQLQNVKGEHPS L-KAFLQ---NRSMSLVD MYIDN-SEPSENVGQ IHFSLEYDFQNT LILRI IQGKD LPAK
DmelanogasterSyt7var1	TTPLQNNINRKLNGFLSLRTP LIG-----GSGASQTKPQ I SSVGNPGDGTTKDSA -----NKSISMTD MYLDS-TDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DmelanogasterSyt7var2	-----MTD MYLDS-TDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DsimulansSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----GSGASQTKPQ I SSLGNPGDGTTKDSA -----NKSISMTD MYLDS-TDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DsechelliaSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----GSGASQTKPQ I SSLGNPGDGTTKDSA -----NKSISMTD MYSDS-TDPSENVGQ IHFFLEYDFQNT LILKVLQGKE LPAK
DirectaSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----VSGASQTKPQSVSSLANPGDGTTKDSA -----NKSISMTD MYLDS-TDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DyakubaSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----VSGASQTKPQSVSSVANSGDGTTKDSA -----NKSISMTD MYLDS-TDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DananassaeSyt7	TNQLQNNINKKLNGFLSLRTP LIG-----STAQPSKPLNM SHAGNLS DSTTKDAT-----NKSISMTD MYLDS-TDSSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DpseudoobscuraSyt7	-----XNKSISMTD MYLDS-TDSSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DpersimilisSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----GSAPAQAKAQNA ST-GNTNDGTSKDSA -----NKSISMTD MYLDS-TDSSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DwillistoniSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----RS-AAQSKTPNTSTSGNASDGGAKDAA -----NKSISMTD MYLDG-ADSNENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DvirilisSyt7	TNP QNNINRKLNGFLNLRTPL IG-----GTLPTPTKKSNTSTGAGANDGTSKD TA -----NKSISMTD MYLD--TDSSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DmojavensisSyt7	TNPLQNNINRKLNGFLNLRTPL IG-----SGTAATPAKSNSTSTGATANDGTSKDGA -----NKSISMTD MYLDS-TDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
DgrimshawiSyt7	TTPLQNNINRKLNGFLSLRTP LIG-----GSTSTPIKPS SAAAGVGANDGTSKDSA -----NKSISMTD MYLDS-NDPSENVGQ IHFSLEYDFQNT LILKVLQGKE LPAK
Celeganssnt_6	VGAAMLSAFVVVGAAY YKMRKPVDIDELDCEQTARLFRPEVLAP TLTVDMESR KKVQPSL KARLSQS-----INPWKTS I DQLRPEVVS EYFRGRIN F SVAFEKECSTLHVH LMEAVD LPVK
Chrennerisnt_6	VGAAMLSAFVVVGAAY YKMRKPVDIDELDCEQTARLFRPEVLAP TLTVDTESR KVQPSF KARLSQS-----INPWKTS I DQLRPEVVS EYRGRIN F SVAFEKECSTLHVH LMEAVD LPVK
Chriggsaesnt_6	VGAAMLSAFVVVGAAY YKMRKPVDIDELDCEQTARLFRPEVLAP TLTVDTESR KVQPSL KARLSQS-----INPWKTS I DQLRPEVVS EYRGRIN F SVAFEKECSTLHVH LMEAVD LPVK
Cremaneisnt_6	VGAAILSAFVVVGAAY YKMRKPVDIDELDCEQTARLFRPEVLPP TLQVDTESR KVQPSL KARLSQS-----INPWKTS I DQLRPEVVS EYRGRIN F SVAFEKECSTLHVH LMEAVD LPVK
Cjaponicasnt_6	VGGAMMSAFVVVGAAY YKMRKPVDIDELDCEQTARLFRPEVLAP TLTVDIESR KIQPSL KTRLSQS-----I-PWKTS I DQLRPEVVS EYFRGRIN F SVAYEKECSTLHVH LMEAVD LPVK

↓ ↓ 300 ↓ ↓ ↓ ↓

TadhaerensSyt7 DLGGTSDPFVKTMLLPDKKKHKLTKVKRKNLNPVWGETFAFEGFPANQLQSRILHLQVLDDYDRFSRNDPIGEVNLDMGEIEGLGDEVNFKRDLQPCNSRSGKGLDLLLLSLCYHPTTGDLTIV
NvectensisSyt7 DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPHNKLMGKTLVMQVLDDYDRFSRNDPIGEVEIPLNIDLGPVTLTFTKDLLPCKKDRVPLGDLVLSLMYQPTNNRIIVV
CapitellaSyt7 DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPAYSKLMNRTLYMQVLDDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPSDGRITIV
HrobustaSyt7a DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYHKLMMNRTLYLQVMDYDRFSRNDPIGEVCLPLNDIDLNSNQAIRWDLQPCKGHTSKLGEFLFIGLCYQPTHGQITVF
HrobustaSyt7b DMSGTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYTKLVNRTLYLQVLDYDRFSRNDPIGELCIPLADLDLSKQVTFSRSLQPCKSSVSKLGELQVSLNYESVGVISVG
HrobustaSyt7c DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYHKLMSRTLYMQVLDDYDRFSRNDPIGEVCLPLNLDLGSKEQTMWMTLQPCCKSHMSKLGELLVTLCYQPTAETVTVG
HrobustaSyt7d DLSGTSDPFVKIMLLPDKKHMTMTNKKRKNLNPVWNEVFTFEGFPYHKLVAATRTLYLQVLDYDRFSRNDPIGEVCLPLNDLDLGTGQTLWRTLRPCKGAASKLGMLLVTLCYQPASETITIT
HrobustaSyt7e DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYHKLMMNRTLYLQVLDYDRFSRNDPIGEVCLPLSDFDLSSGQTVWKNLQPCCKSHMSKLGELIYVGLCYHPSNGQLTVS
HrobustaSyt7f DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYTKLVNRTLYLQVLDYDRFSRNDPIGEVCLPLCELQQLSTTGQIMWKTLEPCKGHQSKLGELLVSLNYPKPSHGVTIVG
LgiganteaSyt7 DVTGTSDPFVKIVLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYHKLLEKTLTYLQVLDYDRFSRNDPIGETYVPLNEIDLQSQSPFWKYLQPCKDSRSKLGELLLSLCYQPNIGRLSVI
CsavignyiSyt7 DLSGTSDPFVKICLLPDKKKHKLTKIRHKTLPVWNETLTFEGGLPHEKIKQVRLHLQVMDYDRFSRNDPIGETYVPLHTINLGEEMIQYVNLAPCKGSNKRGEELLSLCYQPLEGILDVE
CintestinalisSyt7 DLSGTSDPFVKICLLPDKKKHKLTKIRHKTLPVWNETLTFEGGLPHEKIKQVRLHLQVMDYDRFSRNDPIGETYVPLHTINLGEEMIQYVNLAPCKGSNKRGEELLSLCYQPLEGILDVE
SpurpuratusSyt7 DFGSTSDPFVKIMLLPDKKKHKLTKVKRKNLNPVWNEVFTFEGFPYHKLQVRLHLQVMDYDRFSRNDPIGEINLPLAEIDLTHEKLYWRSLTSPSKSSKLGSLLSISLCYAPTAGRITIT
BfloridaeSyt7 DFGSTSDPFVKICLLPDKKKHKLTKIRHKTLPVWNETLTFEGGLPHEKIKQVRLHLQVMDYDRFSRNDPIGETYVPLHTINLGEEMIQYVNLAPCKGSNKRGEELLSLCYQPLEGILDVE
DpulexSyt7 DMGGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPSDGRITIV
ApisumSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFTMQKLHNRTLHLHVFDYDRFSRNDPIGETYVPLNEIDLQSQSPFWKYLQPCKDSRSKLGELLLSLCYQPNIGRLSVI
TcastaneumSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
NvitripennisSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
AmelliferaSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DmelanogasterSyt7var1 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DmelanogasterSyt7var2 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DsimulansSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DsechelliaSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DerectaSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DyakubaSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DananassaeSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DpseudobscuraSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DpersimilisSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DwillistonisSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DvirilisSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DmojavensisSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
DgrimshawisSyt7 DLSGTSDPFVVRVTLPLDKKHRLTKIKRRTLPVWNETLTFEGFPYTKLVNRTLYLQVMDYDRFSRNDPIGEVCLPLSDIDLDAQSQTMWRSLSLSPCKGHASKLGELLLSICYQPTAETVTVG
Celeganssnt_6 DFTGSSDPYVRAFLQDPGQSERSKVHRRNLNPTFNETLTFRGHSMKKLHDMTLVLQVMDYDRFSRNDPIGEILLPLKHVKFESSPVYWKHLQRPPTVSKDACGEIMISLCYLPNSGKITVS
Cbrannerisnt_6 DFTGSSDPYVRAFLQDPGQSERSKVHRRNLNPTFNETLTFRGHSMKKLHDMTLVLQVMDYDRFSRNDPIGEILLPLKHVKFESSPVYWKHLQRPPTVSKDACGEIMISLCYLPNSGKITVS
Cbriggsaesnt_6 DFTGSSDPYVRAFLQDPGQSERSKVHRRNLNPTFNETLTFRGHSMKKLHDMTLVLQVMDYDRFSRNDPIGEILLPLKHVKFESSPVYWKHLQRPPTVSKDACGEIMISLCYLPNSGKITVS
Cremaneisnt_6 DFTGSSDPYVRAFLQDPGQSERSKVHRRNLNPTFNETLTFRGHSMKKLHDMTLVLQVMDYDRFSRNDPIGEILLPLKHVKFESSPVYWKHLQRPPTVSKDACGEIMISLCYLPNSGKITVS
Cjaponicasnt_6 DFTGSSDPYVRAFLQDPGQSERSKVHRRNLNPTFNETLTFRGHSMKKLHDMTLVLQVMDYDRFSRNDPIGEILLPLKHVKFESSPVYWKHLQRPPTVSKDACGEIMISLCYLPNSGKITVS

↓ ↓ 400 ↓ ↓ ↓ ↓

TadhaerensSyt7 VMRCRNLKIMDISGSTDPYVKLSLMYGDKRLKKKTTVKRRSLNPVFNESFMFNIPFERL--RDISLIHVMDDYDKLSANDCLGHISLG--TRATGYELKHWEMLASPRRPVAKWHMIHT--
NvectensisSyt7 VMKANLLKAMDITGSSDPYVKMYIMHKDRRLDKKTTIKRRTRDPVWNESEFIFDVPLDKI--RDLTFVFNVMDDYDRITQNELIGQVILG--YRTTGSSLRHWTEMMNNPRKPVAAQWHRLQDAL
CapitellaSyt7 IIKARELLKAKDINGLSDPYVKVWMCHEGKKVEKKKTTIKEKNLNPVFNESFIFNVPYENI--RKTTLAISVMDDYDRIGRNLIGQVILG--SKSGPMEVKHWNEMFQAKSRQPVAAQWHILKDFS
HrobustaSyt7a VNSARQLKAKDINGLSDPYVKIWLTHDGKRVKKKTTVIEKCLNPTFNESFVFDPVYEKI--RQTSLVVSVMDYDRMGRNEIGQVVLG--SKSGPMEVKHWNEMFQAKSRQPVVQWHILKDFG
HrobustaSyt7b IVKARNLLKAMDINGSSDPYVKVWMLHDGKKVEKKKTEKEDLNPTFNESFVFDPVYERI--RQTSLVVSVMDYDRMGRNEIGQVILG--SKSGPMEVKHWNEMFQAKSRQPVVQWHILKDFS
HrobustaSyt7c IVQARNLLIAKDINGLSDPYVKIWLMDRGKKIEKKKTVIEKCLNPTFNESFVFDPVYEKI--RQTLAISVMDDYDRMGRNEIGQVILG--SKSGPMEVKHWNEMFQAKSRQPVVQWHILKDFG
HrobustaSyt7d INKAKDLKAKDINGSSDPYVKVWMLHDGKKIEKKKTEVHEKNLNPQFNDFNFTVPYDKI--RQSSLVVSVMDYDRMGRNEIGQVVLG--SKSGPMEVKHWNEMFQAKSRQNVQWHVLLKDFG
HrobustaSyt7e IKKARDLKAKDINGLSDPYVKIWLMDGKKSEKKKTRTEKESLNPQFNDFNFTVPYDKI--RQSSLVVSVMDYDRMGRNEIGQVVLG--SKSGPMEVKHWNEMFQAKSRQNVQWHVLLKDFG
HrobustaSyt7f ILQARNLLKAKDINGQSDPYVKIWLMDGKKIEKKKTVIEKCLNPTFNESFVFDPVYEKI--RQTLAISVMDDYDRMGRNEIGQVVLG--SKSGPMEVKHWNEMFQAKSRQNVQWHVLLKDFS
LgiganteaSyt7 VMKAKELKAKDITGTSDPYVKIWLSPGNTRVEKKKTTIKRRTLPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
CsavignyiSyt7 ILKGKLLKAMDINGSSDPYVKIWLSPGNTRVEKKKTTIKRRTLPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
CintestinalisSyt7 IIKGRNMLKAMDINGSSDPYVKIWLSPGNTRVEKKKTTIKRRTLPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
SpurpuratusSyt7 VLKQCQLAAKIDITGSSDPYVKIWLSPGNTRVEKKKTTIKRRTLPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
BfloridaeSyt7 VMKARHLKAMDITGTSDPYVKIWLSPGNTRVEKKKTTIKRRTLPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DpulexSyt7 ALKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
ApisumSyt7 IIEARNLLKAMDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
TcastaneumSyt7 LLKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
NvitripennisSyt7 VLKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
AmelliferaSyt7 LLKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DmelanogasterSyt7var1 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DmelanogasterSyt7var2 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DsimulansSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DsechelliaSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DerectaSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DyakubaSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DananassaeSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DpseudobscuraSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DpersimilisSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DwillistonisSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DvirilisSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DmojavensisSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
DgrimshawisSyt7 LIKARNLLKAKDINGKSDPYVKVWLYFGDKRVEKKKTPVYKCTLEPVFNESFIFDIPWEKL--REASLEVTVMDFDKVGRLNIGKILG--GRSGPMEVTRHWNMDVQKPRQPVAAQWHLLKD--
Celeganssnt_6 IIKARDLHAKDRTRHYDTPYVKMMVQQGNKLEKKKTSVKPHTSPIFNESAFAFSPVKNVLLAEVNLVLTAMEYDVIGSNEEIGHVIVGGLGSEHQ---RHWSECINHPPEQPVAMWHKLCPKW
Cbrannerisnt_6 IIKARDLHAKDRTRHYDTPYVKMMVQQGNKLEKKKTSVKPHTSPIFNESAFAFSPVKNVLLAEVNLVLTAMEYDVIGSNEEIGHVIVGGLGSEHQ---RHWSECINHPPEQPVAMWHKLCPKW
Cbriggsaesnt_6 IIKARDLHAKDRTRHYDTPYVKMMVQQGNKLEKKKTSVKPHTSPIFNESAFAFSPVKNVLLAEVNLVLTAMEYDVIGSNEEIGHVIVGGLGSEHQ---RHWSECINHPPEQPVAMWHKLCPKW
Cremaneisnt_6 IIKARDLHAKDRTRHYDTPYVKMMVQQGNKLEKKKTSVKPHTSPIFNESAFAFSPVKNVLLAEVNLVLTAMEYDVIGSNEEIGHVIVGGLGSEHQ---RHWSECINHPPEQPVAMWHKLCPKW
Cjaponicasnt_6 VIKARDLHAKDRTRHYDTPYVKMMVQQGNKLEKKKTSVKPHTSPIFNESAFAFSPVKTVLLSEVNLVLTAMEYDVIGSNEEIGHVIVGGLGSEHQ---RHWSECINHPPEQPVAMWHKLCPKW